Appendix Q

November 2018 and 2019 Water Discharge Report

TANTARA CORPORATION
EDWOSB | SDB / WBE / DBE-Certified

September 23, 2019

Mr. Richard Rink, P.E.
Environmental Engineer 2
NYS DEC – Division of Water, Region 9
270 Michigan Avenue
Buffalo, NY 14203-2915

Re: Discharge Water Report
Silo Water Treatment and Discharge
Closure of Underground Nike Missile Silos
Defense Battery BU-34/35
Town of Aurora, New York

Dear Mr. Rink:

As required by your September 12, 2018 and May 1, 2019 approval letters (see Attachment 1) allowing for the onsite treatment and discharge of water pumped from six former Nike missile silos at the above referenced property, this Discharge Water Report summarizes the treatment and discharge operations performed and presents monitoring data and visual observations. The September 12, 2018 letter approved silo water discharge and treatment activities that were conducted from November 5 through 8, 2018 and from April 17, 2019 through May 8, 2019. The May 1, 2019 letter approved silo water discharge and treatment activities that were conducted from May 9 through June 12, 2019. This letter is organized into the discharges authorized by these two approval letters.

Discharge Authorized by September 12, 2018 Letter

From November 5 through 8, 2018, a total of 154,001 gallons of water was pumped from Silo 3 and treated using the temporary onsite water treatment system. Prior to the November 2018 pumping, Silo 3 was used as a holding tank during excavation dewatering activities for any stormwater that had collected within intact Silos 1, 3 and 4 and for dewatering and stormwater management at the open excavation at Silo 6. This water management scheme varies slightly from the one described in the September 12, 2018 letter. This variance was communicated to you in an October 25, 2018 email to you from Mr. Mark Lovejoy (see Attachment 1). Water pumped from the Silo 6 excavation was pre-treated using bag filters to remove sediment and oily sheens prior to discharging to Silo 3. The discharge flow rate of the treated water was reduced to 100 gpm to minimize the transfer of sediment. Due to the low volume of water generation, one water sample was collected during this four-day period. The water sample was collected and measured in the field for dissolved oxygen (DO), pH and temperature using a YSI 556 multiparameter meter and at SGS Accutest's Dayton, New Jersey laboratory for analysis of total suspended solids (TSS), chemical oxygen demand (COD), oil and grease, iron, aluminum, barium, cadmium, lead and total benzene, toluene, ethylbenzene and xylenes (Total BTEX). Table 1 summarizes the results. Attachment 2 provides copies of the sampling logs prepared for each sampling event and include the results for the parameters measured in the field as well as the flow rate at the time of sampling. Attachment 3 provides copies of the laboratory analytical reports.

As indicated, the aluminum result (0.636 mg/L) exceeded the criteria for discharge specified in your authorization letter (0.3 mg/L). TANTARA notified you in a November 16, 2018 email of this exceedance (see Attachment 1). At the time, it was believed that this result was associated with contamination from aluminum fittings in the discharge hoses. However, as discussed below, it appears most likely that the higher concentration of aluminum observed was due to suspended solids in the water that bound to background aluminum in site soil, and thus, resulted in an increase of aluminum in the discharge. As discussed below, once the flow rate was decreased and smaller size micron bag filters were placed on the system to maximize sediment removal in the weir tank, the aluminum levels in the discharge were reduced.

From April 17 through May 8, 2019, a total of 1,075,000 gallons of water was pumped from the Silos 2, 3 and 5 and treated using the temporary onsite water treatment system as specified in the September 12, 2018 letter. The water from one silo was pumped and treated before moving to the next silo in the following order: Silos 5, 3 and 2. As specified in your September 12, 2018 letter, TANTARA sampled the treated water three separate times per silo: upper 1/3 of the silo, halfway point, and the bottom 1/3 of the silo with the exception of Silo 3 where only two water samples were collected. Water samples were collected and measured in the field for DO, pH and temperature using a YSI 556 multiparameter meter and at SGS Accutest's Dayton, New Jersey laboratory for analysis of TSS, COD, oil and grease, iron, aluminum, barium, cadmium, lead and Total BTEX. Table 1 summarizes the results. Attachment 2 provides copies of the sampling logs prepared for each sampling event and include the results for the parameters measured in the field as well as the flow rate at the time of sampling. Attachment 3 provides copies of the laboratory analytical reports.

Discharge Authorized by May 1, 2019 Letter

From May 9 through June 12, 2019, a total of 1,089,500 gallons of water was pumped from Silos 1, 4, and 6 and treated for sediment removal using a weir tank and bag filters. The water from one silo was pumped and treated before moving to the next silo in the following order: Silos 6, 4 and 1. Two water samples were collected from each silo and measured in the field for DO, pH and temperature using a YSI 556 multiparameter meter and at SGS Accutest's Dayton, New Jersey laboratory for analysis of TSS and COD. Table 1 summarizes the results. Attachment 2 provides copies of the sampling logs prepared for each sampling event and include the results for the parameters measured in the field as well as the flow rate at the time of sampling. Attachment 3 provides copies of the laboratory analytical reports.

The discharge monitoring results indicate that the measured parameter levels met the criteria specified in your September 12, 2018 and May 1, 2019 letters, except for aluminum sampled on November 8, 2018, April 17, 18, 24 and 25, and May 1 and 6, 2019. The aluminum concentrations on those days ranged from 0.475 mg/L to 1.28 mg/L, which exceeded the maximum concentration of 0.3 mg/L. It was determined that these elevated results were due to elevated levels of aluminum present in suspended solids in the effluent. It should be noted that these elevated levels of suspended solids were below the discharge criteria for suspended solids specified in the permit. To reduce the levels of aluminum, smaller size micron bag filters were used, and the pumping flow rate was decreased. As a result, the May 8, 2019 aluminum concentration was below the discharge criteria. TANTARA notified you of the aluminum issue and our efforts to bring the discharge in compliance with the discharge criteria in two emails dated May 8,

2019 and May 16, 2019 (see Attachment 1). In addition, there was one pH exceedance on May 21, 2019. The pH measurement was 9.76, which exceeds the upper level of 9.0.

At least once a day during silo water treatment as required by the September 12, 2018 and May 1, 2019 letters, TANTARA visually inspected the discharge to Cazenovia Creek. Visual inspections included monitoring for the presence of turbidity; suspended, colloidal and settleable solids; oil and floating substances; and fish impairment. Attachment 4 provides photographs of the discharge to Cazenovia Creek.

Upon completion of silo water treatment, the water treatment system was removed from the site. The existing waste profile from the Spring 2018 work was used to dispose of the spent media (granular activated carbon and organoclay). The spent media was disposed of at American Recyclers Company, Tonawanda, NY (Attachment 5).

Please let me know if you would like additional information.

Sincerely,

TANTARA Corporation

Mark A. Lovejoy, P.E., LSP, CHMM
Project Manager

cc: Gregory Goepfert, P.E., PMP – USACE

Attachments: Attachment 1 – Correspondence
Attachment 2 – Sample Log Sheets
Attachment 3 – Analytical Reports for Discharge Sampling
Attachment 4 – Photographs
Attachment 5 – Waste Manifest – GAC and Organoclay

TABLE 1

Summary of Silo Water Treatment Discharge Monitoring
Defense Battery BU-34/35
Town of Aurora, NY

Parameter	Units	Silo1-1	Silo1-2	Silo2-1	Silo2-2	Silo2-3	Silo3-1	Silo3-2	Silo4-1	Silo4-2	Silo5-1	Silo5-2	Silo5-3	Silo6-1	Silo6-1	Silo6-2	Max. Concs.
Sample Date:		6/6/19	6/6/19	5/6/19	5/6/19	5/8/19	4/25/19	5/1/2019*	5/23/19	6/6/19	4/17/19	4/18/19	4/24/19	11/8/18	5/21/19	5/23/19	
Flow	gpm	130	130	190	190	140	160	190	100	130	100	160	160	100	120	100	N.A.
Totalizer at Sampling	gals	NR	NR	NR	NR	NR	17,737,400	NR	18,898,100	NR	NR	NR	17,737,000	5,965,390	18,769,400	18,848,400	
Beginning Totalizer for Silo	gals	NR	NR	NR	NR	NR	17,737,000	NR	18,892,400	NR	NR	NR	17,430,600	5,842,650	18,761,600	18,761,600	
Gallons Treated at Sampling	gals	118,300	136,000	176,300	276,300	385,700	400	228,300	5,700	321,900	16,300	30,000	306,400	122,740	7,800	86,800	
Duration	hours	15.2	17.4	15.5	24.2	45.9	0.04	20.0	1.0	41.3	2.7	3.1	31.9	20.5	1.1	14.5	N.A.
Suspended Solids	mg/L	28.2	29	21.6	13.4	4.7	48.8	10.5	16.8	34.3	6.2	9.9	8.9	17.0	19.2	17.2	60
COD	mg/L	11 U	11 U	98.6	120	N.C.	11 U	11 U	11 U	11 U	11 U	11 U	11 U	28.2	11 U	74.1	N.A.
Oil and Grease	mg/L	--	--	1.2 U	1.6 B	1.3 U	1.2 U	1.2 U	--	--	3.2 U	3.2 U	1.2 U	7.1	--	--	15
Iron	mg/L	--	--	0.613	0.704	0.292	1.62	0.838	--	--	0.552	0.683	0.573	0.990	--	--	3
Aluminum	mg/L	--	--	**0.687**	**0.835**	0.126	**1.28**	**0.944**	--	--	**0.691**	**0.854**	**0.475**	**0.636**	**--**	--	0.3
Arsenic	mg/L	--	--	0.0026	0.001	0.002	0.0016	0.001	--	--	0.0015	0.0014	0.0012	0.0042	--	--	0.15
Barium	mg/L	--	--	0.0383	0.0445	0.0241	0.0274	0.0197	--	--	0.0085	0.0105	0.0168	0.017	--	--	3.0
Cadmium	mg/L	--	--	0.00017 U	0.00017 U	0.00017 U	0.00017 U	0.00017 U	--	--	0.00017 U	0.00017 U	0.00017 U	0.00034 B	--	--	0.015
Lead	mg/L	--	--	0.0085	0.0034	.00084 B	0.0056	0.0021	--	--	0.0022	0.0027	0.0025	0.0049	--	--	0.15
BTX (total)	mg/L	--	--	ND(0.00215)	ND(0.00215)	ND(0.00215)	ND(0.00215)	ND(0.00215)	--	--	ND(0.00215)	ND(0.00215)	ND(0.00215)	ND(0.00215)	--	--	0.1
Dissolved Oxygen	mg/L	7.5	8.0	5.53	5.7	6.8	--	5.5	8.03	6.7	6.8	5.3	15.52	5.61	7.48	7.86	5.0 min.
pH	I.U.	7.8	7.9	7.7	7.6	8.32	--	7.9	8.51	8.2	7.87	8.2	8.10	7.43	**9.76**	8.73	6.0-9.0
Temperature	°C	16.9	17.2	7.6	7.65	7.3	--	7.45	21.30	15.4	9.2	9.18	12.19	8.4	21.40	20.20	N.A.

Notes:

1. gpm = gallons per minute
2. N.A. = record value only
3. mg/L = milligrams per liter
4. I.U. = international units
5. °C = degrees Centigrade
6. Results shaded exceeded maximum allowable concentration
7. U = Indicates a result < MDL
8. B = Indicates a result >= MDL but < RL
9. NR = not recorded
10. -- = Sample not required
11. NC = Sample not collected

* Laboratory report JC87363 also contains samples Silo2 (water) and Silo5 (soil) that are not part of the silo water treatment and discharge program. Therefore, those results are not included within this table.

ATTACHMENT 1
CORRESPONDENCE

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Water, Region 9
270 Michigan Avenue, Buffalo, NY 14203-2915
P: (716) 851-7070 I F: (716) 851-7009
www.dec.ny.gov

September 12, 2018

Gregory J. Goepfert, P.E.
Project Manager
U.S. Army Corps of Engineers
New York District
26 Federal Plaza, Room 1811
New York, New York 10278

Dear Mr. Goepfert:

Silo Water Treatment & Discharge
Scope of Work Plan
Closure of Underground Nike Missile Silo 6
Defense Battery BU 34/35
East Aurora, New York

This letter is pursuant to your letter of September 5, 2018 and the previous submittal of August 27, 2018 from the Tantara Engineering Company and the United Rentals Fluid Solutions Company [URFS Co.], formerly the Baker Corp. The proposed process flow and scope of work outlines the treatment and discharge of missile silo water from Silo 6 to a tributary of Cazenovia Creek along Willardshire Road near Davis Road in the Town of Aurora, Erie County.

There are six (6) Nike Missile Silos at the above location. The ground and surface water in five (5) of the silos was recently pumped out, treated and discharged in a similar fashion to that proposed for Silo 6. The silos are 60' x 60' x 16' deep and each contain approximately 250,000 - 300,000 gals of ground and surface water. The water contained in Silo 6 needs to be removed [and treated] to perform an interior inspection, cleaning and proper decommissioning.

It is our understanding that Silo 6 has been filled with some construction/demolition debris and equipment. The water in this silo is also thought to contain more sediment than the previous silos. The treated flow rate for Silo 6 will be reduced to 100 gpm from 300 gpm and, if needed, a biodegradable polymer will be available to aid in settling and TSS removal. The proposed process flow and scope of work from the URFS Co. [8/24/18] as submitted by Tantara Engineering Corp. on 8/27/18 describes the proposed process to treat the water on site before discharging to a well-defined tributary of Cazenovia Creek in the Town of Aurora. Cazenovia Creek flows to the Town of Orchard Park then on toward the City of Buffalo.

The proposed process flow and scope of work of August 24, 2018 shows the following treatment units to be brought to the silo site. The treatment system will be provided by the United Rentals Fluid Solutions Company [formerly the Barker Corporation].

- One- 4" Hydraulic Submersible Pump with Poser Unit,
- Two-21,000 Gallon Fixed Axle Frac Tanks,
- One-Sound Attenuated Diesel Transfer Pump,
- One-6" 5-Plex Bag Filter Housing,
- Two-3" Duplex Bag Filter Skids,
- Two-KW -2,000 HPV Specialty Media Vessels,
- 4" Lay-flat hose used from Hydraulic Pumps to Frac Tanks and from end of treatment system to discharge point,
- 4" Rigid Hose for rest of treatment system,
- All fittings to be steel or aluminum,
- The Flowmeter to be mechanical propeller style with totalizer,
- Optional semi-passive Bio-Polymer System,
- Constructed hay bale energy dissipation discharge structure.

The discharge shall be approximately 100 gpm from the energy dissipation structure located near the Cazenovia Creek Tributary.

The procedures outlined above, in the Tantara Engineering correspondence of 8/27/18 and the 8/24/18 proposed process flow and scope of work from the URFS Co. regarding treatment and discharge of the ground and surface water contained in missile Silo 6 in the Town of Aurora are acceptable to this office.

Please notify the NYSDEC Division of Water (716/851-7070) 48 hours in advance of discharging.

A Discharge Water Report as discussed in this letter must be submitted to this Office within 30 days of test completion.

The following are the minimum conditions that the U.S.A.C.O.E (Tantara Co./URFS Co.) must meet to release the treated missile silo waters described above.

1. The treated discharge from the silos shall not be directly to any watercourse, but shall be to an upland location sufficiently distant from any stream to prevent the entry of silt and suspended solids.

2. On-site treatment of the silo waters must be provided exactly as described in your previous correspondences. The discharge must occur in such a manner so as to prevent erosion of the bed or banks of the receiving streams. The entry of silt, suspended solids or contaminants is prohibited.

3. The discharge of the silo waters shall be made at a rate and in a manner such that no downstream flooding shall occur. We recommend that the lowest feasible discharge rate occur. This will reduce the likelihood of downstream flooding or erosion. Energy dissipating devices such as that previously provided shall be used.

4. A positive means of controlling and metering the rate of treated silo water discharge and, if necessary, terminating the discharge shall be provided.

5. If deemed necessary at any time, the discharge of the waters shall be terminated upon direction of the Department.

6. The Department's Division of Water shall be notified, by telephone (716/851-7070), of exact date and time at which the discharge of the treated silo waters will begin. This notification shall be made at least 48 hours prior to the commencement of the discharge.

7. The area used for on-site treatment and routing of flows to the creek shall be restored to its original condition. Residuals generated during treatment and discharge must be disposed of in accordance with Department requirements.

8. The water discharged to the streams shall be monitored as follows. To prevent water quality problems, the settled and filtered silo waters shall be at or below the following concentrations. Exceeding these levels could result in legal action by this office.

Parameter	Sample Type & Frequency	Max Concentrations
Flow (gpm)	Monitor and Report	N.A.
Duration (hours)	Monitor and Report	N.A.
Suspended Solids	Grab, 3 per tank*	60 mg/l
Chemical Oxygen Demand	Grab, 3 per tank*	N.A.
Oil and Grease	Grab, 3 per tank*	15 mg/l
Iron	Grab, 3 per tank*	3 mg/l
Aluminum	Grab, 3 per tank*	0.3 mg/l
Arsenic	Grab, 3 per tank*	0.15 mg/l
Barium	Grab, 3 per tank*	3.0 mg/l
Cadmium	Grab, 3 per tank*	0.015 mg/l
Lead	Grab, 3 per tank*	0.15 mg/l
BTX (total)	Grab, 3 per tank*	0.1 mg/l
Dissolved Oxygen	Grab, 3 per tank*	Minimum of 5.0 mg/l
pH	Grab, 3 per tank*	6.0 – 9.0
Temperature	Grab, 3 per tank*	N.A.

*The first grab shall be taken through the upper 1/3 of each silo. The second grab shall be taken at approximately the ½ point in the silo. The third grab shall be taken through the bottom 1/3 of each silo.

9. Pumping from the silos shall not begin from the bottom of the tanks in the event that there are solids at the tank bottom. Rather, it is recommended that the pump be set at 1/3, then 2/3's, the depth from the surface. During dewatering of the bottom third of each tank, the pump should be lowered periodically from the 2/3's level to determine if there are solids at the bottom.

If so, the water should be pumped and treated only to that interface. If the solids are in a slurry or sludge form, this material cannot be pumped and treated, but must be trucked off site and disposed of per Department requirements.

10. Periodically during the duration of the water discharge, the receiving water body shall be visually monitored (and reported) for turbidity; suspended, colloidal and settleable solids; oil and floating substances; and fish impairment. Should any of the preceding parameters be greater than ambient, the discharge shall be terminated and this Department's Division of Water notified.

11. The discharge of the treated silo waters shall occur only during daylight hours.

12. A report summarizing the treatment and discharge operations, including a compilation of all monitoring data and visual observations, shall be submitted to this Department's Division of Water within thirty (30) days after completion of discharge.

13. All owners of property to which treated silo waters will be discharged shall be notified prior to the start of the discharge.

14. Please have a copy of this letter, the September 5, 2018 letter from the Department of the Army, the August 27, 2018 correspondence from the Tantara Corp, along with the process flow and scope of work plan from the URFS Company [8/24/18] available at the dewatering site.

If you have any questions regarding this letter, please call me at 716/851-7070.

Sincerely,

Richard A. Rink

Richard A. Rink, P.E.
Environmental Engineer 2

RAR/slr

ecc: Mr. Jeffrey Konsella, NYSDEC, Regional Water Engineer
Lt. Bob O'Connor, acting Captain, NYSDEC, Law Enforcement
Mr. David Denk, NYSDEC, Environmental Permits
Mr. Michael Todd, NYSDEC, Fisheries
Mr. Jaspal Walia, NYSDEC, Remediation

cc: Town of Aurora
Erie County Health Department

Jennifer Parshall

From: Mark Lovejoy
Sent: Thursday, October 25, 2018 3:26 PM
To: 'Rink, Richard (DEC)'
Cc: Goepfert, Gregory J NAN02 (Gregory.J.Goepfert@usace.army.mil); Reddy, Penelope W CIV (US) (PENELOPE.W.REDDY@usace.army.mil); Robert Foley
Subject: RE: USACOE BU 34/35 East Aurora Site Missile Silo 6

Richard,

We expect to begin treatment of the water covered by your approval letter dated 9/12/18.

We have made a change on how we have managed the water we've collected as a result of dewatering during excavating soil from Silo 6. We have temporarily staged water pumped from Silo 6 in to a clean and empty Silo 3 (the silo immediately to the north of Silo 6). We've have also pumped rain water that had collected in the other cleaned silos into Silo 3. It is the water currently contained within Silo 3 that we wish to treat and discharge as outlined in your approval letter. The total volume of water to be treated is now about 200,000 gals. No change to the treatment and discharge system is proposed.

United Rentals (formerly Baker Corps) is scheduled to mobilize their system to the site on Monday and Tuesday.

Please let me know if you have an questions on this and when you plan to visit us at the site so that I can alert the property owner. I will keep you informed if this schedule should change.

Thank you,
Mark

From: Rink, Richard (DEC) <richard.rink@dec.ny.gov>
Sent: Wednesday, September 12, 2018 12:12 PM
To: Goepfert, Gregory J NAN02 (Gregory.J.Goepfert@usace.army.mil) <Gregory.J.Goepfert@usace.army.mil>
Cc: Mark Lovejoy <mlovejoy@tantaracorp.com>
Subject: USACOE BU 34/35 East Aurora Site Missile Silo 6

Please see the attached letter.

Jennifer Parshall

From: Mark Lovejoy
Sent: Friday, November 16, 2018 2:18 PM
To: 'Rink, Richard (DEC)'
Cc: 'Detine, Molly M (DEC)'; Goepfert, Gregory J NAN02 (Gregory.J.Goepfert@usace.army.mil); Reddy, Penelope W CIV (US) (PENELOPE.W.REDDY@usace.army.mil); Robert Foley; Christopher Pereira
Subject: Buffalo Nike - Status of Silo Water Treatment and Discharge
Attachments: JC77588.pdf; Table 1 - Summary of Sample Results.pdf

Mr. Rink,

Attached are the results of the one sample we collected from the discharge from the treatment system. Unfortunately, the aluminum result (0.636 mg/L) exceeded the criteria specified in your approval letter (0.3 mg/L). I'm certain this is from the treatment system's aluminum fittings because we almost had an exceedance from the first few samples we collected the first time we did the sampling for the previous treatment system (see the attached table and note the Al results for Silo 2).

We terminated water treatment and discharge a week ago on 11/8/18 due to the drop in temperature and removed the treatment system from the site earlier this week. We were able to pump and treat 154,001.40 gallons of water before terminating the system. We would like to return the system to the site in April when we return to complete the silo closure activities and use the system to finish treating the remaining water contained within Silos 2 and 3. Prior to starting the system, we will sample the water in these silos for aluminum to confirm our theory the source is the treatment system.

Thank you,

Mark A. Lovejoy, PE, LSP, CHMM
Project Manager
TANTARA Corporation
2013-14 DoD *Nunn-Perry Award Recipient*
SBA Region 1 - 2013-14 Small Business Prime Contractor of the Year
2014 ICIC / Fortune Magazine *Inner City 100* | 2014 Boston Business Journal's *Pacesetters Select 70*
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NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Water, Region 9
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www.dec.ny.gov

May 1, 2019

Mr. Gregory J. Goepfert, P.E.
Project Manager
U.S. Army Corps of Engineers
New York District
26 Federal Plaza, Room 1811
New York, New York 10278

Dear Mr. Goepfert:

Silo Water Management Plan 2019
Closure of Underground Nike Missile Silos
Defense Battery BV-34/35
Town of Aurora, New York

This letter is pursuant to the April 11, 2019 and March 14, 2019 letters from Mark Lovejoy, P.E. of the Tantara Corporation regarding continuing the dewatering of the missile silo's at the Town of Aurora Site, Erie County.

The proposals outline two (2) courses of action. One for the three missile Silos (1, 4, 6) that have been already dewatered, cleaned out and pressure washed but have refilled with ground and surface water over the winter. The other proposal is for the three Silos (2,3,5) that have not had all the equipment removed and need to be dewatered, cleaned out and pressure washed before complete demolition and backfilling can take place. Each Silo contains roughly 250,000 gallons of water that will require on-site treatment before discharging to a well-defined tributary of Cazenovia Creek in the Town of Aurora.

The proposal for dewatering and treating the water in Silos 1, 4,6 is satisfactory and consists of pumping at a flow rate not to exceed 200 gpm to a 18,000 gallon weir tank for settling solids. From the weir tank the water will be pumped through a series of bag filters for further reducing solids and then discharged into an onsite straw bale/geotextile energy dissipation structure. Two (2) effluent grab samples will be required from each tank, at 1/3 and 2/3 the tank volume. The following parameters shall be tested and reported for each tank: Flow (gpm); Duration (hours); TSS (mg/l); COD (mg/l); D.O. (mg/l); pH and temperature.

Periodically during the duration of the discharge, the receiving waterbody shall be visually monitored (and reported) for turbidity, suspended, colloidal and settleable solids. Should any of the preceding parameters be greater than ambient, the discharge shall be terminated and this Department's Division of Water notified. Discharge shall only be during daylight hours.

The proposal for dewatering and treating the water in Silos 2,3,5 is the same as that outlined in the submittals for this project on September 5, 2018 and August 27, 2018 from the Tantara Engineering Company and the United Rentals Fluid Solution (URFS) Company. The proposal for dewatering, treatment, discharge and sampling was and is acceptable to this office and is covered in detail in our September 12, 2018 response letter (enclosed). All criteria and conditions of this letter remain in effect for dewatering Silos 2,3 and 5.

A report summarizing the treatment and discharge operations, including a compilation of all monitoring data and visual observations for Silos 1,4,6 and Silos 2,3,5 shall be submitted to the Department's Division of Water within (30) days after completion of all dewatering operations.

Please have a copy of this letter, the September 12, 2018 letter from this office and the process flow and scope of work plan from the URFS Company (August 27, 2018) available at the dewatering site.

If you have any questions regarding this letter, please call our office at (716) 851-7070.

Very truly yours,

Richard A Rink

Richard A. Rink, P.E.
Environmental Engineer 2

RAR/tl

ec: Mr. Jeffrey Konsella, NYSDEC, Regional Water Engineer
Lt. Robert O'Connor, NYSDEC, Law Enforcement
Mr. David Denk, NYSDEC, Division of Environmental Permits
Mr. Michael Todd, NYSDEC, Fisheries
Mr. Jaspal Walia, NYSDEC, Remediation

cc: Town of Aurora
Erie County Health Department

Jennifer Parshall

From: Rink, Richard (DEC) <richard.rink@dec.ny.gov>
Sent: Wednesday, May 8, 2019 3:14 PM
To: Mark Lovejoy; Gregory.J.Goepfert@usace.army.mil
Cc: Detine, Molly M (DEC)
Subject: FW: Buffalo Nike Silo Water Treatment
Attachments: JC87121.pdf

Thank you for the update.

From: Mark Lovejoy <mlovejoy@tantaracorp.com>
Sent: Wednesday, May 08, 2019 2:20 PM
To: Rink, Richard (DEC) <richard.rink@dec.ny.gov>
Cc: Detine, Molly M (DEC) <Molly.Detine@dec.ny.gov>; 'Penny Reddy' <Penelope.w.reddy@usace.army.mil>; >; Jim Vinson <jvinson@tantaracorp.com>; Christopher Pereira <cpereira@tantaracorp.com>; Jennifer Parshall <jparshall@tantaracorp.com>
Subject: Buffalo Nike Silo Water Treatment

ATTENTION: This email came from an external source. Do not open attachments or click on links from unknown senders or unexpected emails.

Mr. Rink,

Here are the results from the last Silo 5 sample and the first Silo 3 sample. As you can see, the Al concentration continues to exceed the discharge criteria. The TSS values are also still elevated (but below discharge criteria) supporting the assumption that the Al is associated with the suspended solids. These samples were collected after installing the 1-micron bag filters. I've discussed this with Rain for Rent and the next course of action is to reduce the flow to below 100 gpm. The thinking is that the higher flow rate is exceeding their design capacity and pushing more sediment through the filters than intended. I know you also suggested this as a possible solution during our previous conversation. We are now running the system below 100 gpm and will be collecting a sample sometime today to see if this has an effect.

We expect to complete dewatering Silos 2, 3 and 5 today or tomorrow. On Monday, we will clean out the media vessels and Rain for Rent will remove those components of the treatment system at some point thereafter. From this point on, we will only need the weir tank and bag filters for dewatering Silos 1, 4 and 6. Water from these silos will be pumped, treated, and discharged pursuant to the requirements in your May 1, 2019 letter. We expect to continue using a pumping rate of less than 100 gpm.

If you have any questions or would like additional information, please do not hesitate to contact me.

Thank you,

Mark A. Lovejoy, PE, LSP, CHMM
Project Manager
TANTARA Corporation
2013-14 DoD *Nunn-Perry Award Recipient*
SBA Region 1 - 2013-14 Small Business Prime Contractor of the Year
2014 ICIC / Fortune Magazine *Inner City 100* | 2014 Boston Business Journal's *Pacesetters Select 70*
54 Mason Street | Worcester, MA 01610

P: 508.752.5599 | F: 508.752.1005 | C: 339.234.3142
https://protect2.fireeye.com/url?k=b6b1fc6e-ea97c450-b6b3055b-000babda0031-46e41465591f7769&u=http://www.tantaracorp.com/
MLovejoy@TantaraCorp.com

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Jennifer Parshall

From: Mark Lovejoy
Sent: Thursday, May 16, 2019 2:16 PM
To: 'Rink, Richard (DEC)'
Cc: Detine, Molly M (DEC); Reddy, Penelope W CIV (US) (PENELOPE.W.REDDY@usace.army.mil); Goepfert, Gregory J NAN02; Salvatore, Joseph A CIV CENAN CENAD (US); Pagoada, Jeremy F CIV USARMY CENAN (USA); Christopher Pereira; Jim Vinson; Jennifer Parshall
Subject: Buffalo Nike Silo Water Treatment Update
Attachments: JC87833.pdf

Mr. Rink,

Attached are the results of the recent sampling of discharge from the treated water pumped from the Silo 2. This sample was collected after throttling the flow rate down to 100 gpm. As you can see, this seems to have been effective in reducing the concentration of TSS and aluminum to below the discharge standard. Given these results, we will continue to pump water from the silos at a maximum flow rate of 100 gpm.

If you have any questions or would like additional information, please do not hesitate to contact me.

Thank you,

Mark A. Lovejoy, PE, LSP, CHMM
Project Manager
TANTARA Corporation
2013-14 DoD *Nunn-Perry Award Recipient*
SBA Region 1 - 2013-14 Small Business Prime Contractor of the Year
2014 ICIC / Fortune Magazine *Inner City 100* | 2014 Boston Business Journal's *Pacesetters Select 70*
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ATTACHMENT 2
SAMPLE LOG SHEETS

SAMPLE LOG SHEET
SILO WATER TREATMENT DISCHARGE
Buffalo Nike Silo Closure, East Aurora, NY

Date: 11/28/18

Silo # 6

Time: 8:15

Treated Vol. of Water from This Silo: ~~140,285~~ 122,740 gals

Date of Last Calibration: 11/5/18

Appearance: (Clear) Cloudy _____

Odor?: Yes (No) _____

			Acceptable Limits
Temperature:	8.4	~~%~~ °C	NA
pH:	7.43		6.0 - 9.0
Dissolved Oxygen:	5.61	~~%~~ mg/L	5 mg/L or Greater

Notes: Totalizer Start: 139110.7 (Barrels per minute)
Totalizer Finish: 142033.1
42gal = 1 Barrel

SAMPLE LOG SHEET
SILO WATER TREATMENT DISCHARGE
Buffalo Nike Silo Closure, East Aurora, NY

Date: 4/17/19 Silo # 5

Time: 1400 Treated Vol. Of Water from this Silo: 16,300 gals

Date of Last Calibration: 4/17/19

Water Apperance : (Clear) Cloudy _____

Odor? Yes (No) _____

Sample Collected: (Yes) No

If yes, sample ID# SILO5-1

		Acceptable Limits
Temperature	9.2 C	NA
pH:	7.87	6.0 - 9.0
Dissolved Oxygen	6.8 mg/L	5 mg/L or greater

Totalizer Start: _____

Totalizer Finish: _____

Notes: _____

SAMPLE LOG SHEET
SILO WATER TREATMENT DISCHARGE
Buffalo Nike Silo Closure, East Aurora, NY

Date: 4/18/19 Silo # 5

Time: 1030 Treated Vol. Of Water from this Silo: 30,000 gals

Date of Last Calibration: 4/17/19

Water Apperance : (Clear) Cloudy _____

Odor? Yes (No) _____

Sample Collected: (Yes) No

If yes, sample ID# SILO5-2

		Acceptable Limits
Temperature	9.18 C	NA
pH:	8.2	6.0 - 9.0
Dissolved Oxygen	5.3 mg/L	5 mg/L or greater

Totalizer Start: _____

Totalizer Finish: _____

Notes: _____

SAMPLE LOG SHEET
SILO WATER TREATMENT DISCHARGE
Buffalo Nike Silo Closure, East Aurora, NY

Date: 5/1/19 Silo # 3

Time: 10:45 Treated Vol. Of Water from this Silo: 228,300 gals

Date of Last Calibration: 4/17/19

Water Apperance : (Clear) Cloudy

Odor? Yes (No)

Sample Collected: (Yes) No

If yes, sample ID# Silo 3-2

		Acceptable Limits
Temperature	7.45 C	NA
pH:	7.9	6.0 - 9.0
Dissolved Oxygen	5.5 mg/L	5 mg/L or greater

Totalizer Start:

Totalizer Finish:

Notes:

SAMPLE LOG SHEET
SILO WATER TREATMENT DISCHARGE
Buffalo Nike Silo Closure, East Aurora, NY

Date: 4/24/19 **Silo #** 5

Time: 16:00 **Treated Vol. Of Water from this Silo:** 344,700 gals

Date of Last Calibration: 4/24/19

Water Apperance : (Clear) Cloudy Clear

Odor? Yes (No) No

Sample Collected: Yes No

If yes, sample ID# [redacted] Silo5-3

		Acceptable Limits
Temperature	12.19 C	NA
pH:	8.1	6.0 - 9.0
Dissolved Oxygen	15.52 mg/L	5 mg/L or greater

Totalizer Start: 1714 30600

Totalizer Finish: 1737600

Notes:

SAMPLE LOG SHEET
SILO WATER TREATMENT DISCHARGE
Buffalo Nike Silo Closure, East Aurora, NY

Date: 4/25/19 **Silo #** 3

Time: 11:15 **Treated Vol. Of Water from this Silo:** _____ gals

Date of Last Calibration: _____

Water Apperance :	**Clear**	**Cloudy**	_____
Odor?	**Yes**	**No**	_____
Sample Collected:	**Yes**	**No**	

If yes, sample ID# _____

		Acceptable Limits
Temperature	_____ **C**	**NA**
pH:	_____	**6.0 - 9.0**
Dissolved Oxygen	_____ **mg/L**	**5 mg/L or greater**

Totalizer Start: 17737060

Totalizer Finish: 17737400

Notes: Meter Broken New one Coming

SAMPLE LOG SHEET
SILO WATER TREATMENT DISCHARGE
Buffalo Nike Silo Closure, East Aurora, NY

Date: 5/6/19 Silo # 2

Time: 0945 Treated Vol. Of Water from this Silo: 176,300 gals

Date of Last Calibration: 4/17/19

Water Apperance : Clear (Cloudy) _____

Odor? Yes (No) _____

Sample Collected: (Yes) No

If yes, sample ID# Silo 2-1

			Acceptable Limits
Temperature	7.6	C	NA
pH:	7.7		6.0 - 9.0
Dissolved Oxygen	5.53	mg/L	5 mg/L or greater

Totalizer Start: _____

Totalizer Finish: _____

Notes: _____

SAMPLE LOG SHEET
SILO WATER TREATMENT DISCHARGE
Buffalo Nike Silo Closure, East Aurora, NY

Date: 5/6/19 Silo # 2

Time: 1530 Treated Vol. Of Water from this Silo: 276,300 gals

Date of Last Calibration: 4/17/19

Water Apperance : ~~Clear~~ Cloudy _____

Odor? Yes ~~No~~ _____

Sample Collected: (Yes) No

If yes, sample ID# Silo 2-2

			Acceptable Limits
Temperature	7.65	C	NA
pH:	7.6		6.0 - 9.0
Dissolved Oxygen	5.7	mg/L	5 mg/L or greater

Totalizer Start: _____

Totalizer Finish: _____

Notes: _____

SAMPLE LOG SHEET
SILO WATER TREATMENT DISCHARGE
Buffalo Nike Silo Closure, East Aurora, NY

Date: 5/8/19 Silo # 2

Time: 0745 Treated Vol. Of Water from this Silo: 385,700 gals

Date of Last Calibration: 4/17/19

Water Apperance : Clear (Cloudy) _____

Odor? Yes (No) _____

Sample Collected: (Yes) No

If yes, sample ID# SILO 2-3

		Acceptable Limits
Temperature	7.3 C	NA
pH:	8.32	6.0 - 9.0
Dissolved Oxygen	6.8 mg/L	5 mg/L or greater

Totalizer Start: _____

Totalizer Finish: _____

Notes: _____

JC88797

SAMPLE LOG SHEET
SILO WATER TREATMENT DISCHARGE
Buffalo Nike Silo Closure, East Aurora, NY

Date: 5/24/19 **Silo #** 6-1

Time: 7:00 **Treated Vol. Of Water from this Silo:** 7,800 **gals**

Date of Last Calibration: 5/21/19

Water Apperance : (Clear) **Cloudy** _____

Odor? Yes (No) _____

Sample Collected: (Yes) No

If yes, sample ID# Silo 6-1

			Acceptable Limits
Temperature	21.4	C	NA
pH:	9.76		6.0 - 9.0
Dissolved Oxygen	7.98	mg/L	5 mg/L or greater

Totalizer Start: 18761600

Totalizer Finish: 18769400

Notes: _____

JC88797

SAMPLE LOG SHEET
SILO WATER TREATMENT DISCHARGE
Buffalo Nike Silo Closure, East Aurora, NY

Date: 5/23/19 Silo # 6-S2

Time: 07:45 Treated Vol. Of Water from this Silo: 33,200 gals

Date of Last Calibration: 5/23/19

Water Apperance : (Clear) Cloudy

Odor? Yes (No)

Sample Collected: (Yes) No

If yes, sample ID# 6-2

		Acceptable Limits
Temperature	20.2 C	NA
pH:	8.73	6.0 - 9.0
Dissolved Oxygen	7.86 mg/L	5 mg/L or greater

Totalizer Start: 1886900

Totalizer Finish: 1889900

Notes:

E88797

SAMPLE LOG SHEET
SILO WATER TREATMENT DISCHARGE
Buffalo Nike Silo Closure, East Aurora, NY

Date: 5/23/19 Silo # 4-1

Time: 14:00 Treated Vol. Of Water from this Silo: 27,500 gals

Date of Last Calibration: 5/23/19

Water Apperance : (Clear) Cloudy

Odor? Yes (No)

Sample Collected: (Yes) No

If yes, sample ID# Silo4-1

		Acceptable Limits
Temperature	21.3 C	NA
pH:	8.51	6.0 - 9.0
Dissolved Oxygen	9.03 mg/L	5 mg/L or greater

Totalizer Start: 1889860

Totalizer Finish: 1892460

Notes:

SAMPLE LOG SHEET
SILO WATER TREATMENT DISCHARGE
Buffalo Nike Silo Closure, East Aurora, NY

Date: 5/31/19 Silo # 4

Time: 0700 Treated Vol. Of Water from this Silo: 321,900 gals

Date of Last Calibration: 4/17/19

Water Apperance : (Clear) Cloudy

Odor? Yes (No)

Sample Collected: (Yes) No

If yes, sample ID# Silo 4-2

		Acceptable Limits
Temperature	15.4 C	NA
pH:	8.2	6.0 - 9.0
Dissolved Oxygen	6.7 mg/L	5 mg/L or greater

Totalizer Start:

Totalizer Finish:

Notes:

SAMPLE LOG SHEET
SILO WATER TREATMENT DISCHARGE
Buffalo Nike Silo Closure, East Aurora, NY

Date: 6/6/19 Silo # Silo 1-1

Time: 08:15 Treated Vol. Of Water from this Silo: 118,300 gals

Date of Last Calibration: 6/6/19

Water Apperance : (Clear) Cloudy _____

Odor? Yes (No) _____

Sample Collected: (Yes) No

If yes, sample ID# 1-1

		Acceptable Limits
Temperature	16.9 C	NA
pH:	7.8	6.0 - 9.0
Dissolved Oxygen	7.5 mg/L	5 mg/L or greater

Totalizer Start: _____

Totalizer Finish: _____

Notes: _____

SAMPLE LOG SHEET
SILO WATER TREATMENT DISCHARGE
Buffalo Nike Silo Closure, East Aurora, NY

Date: 6/6/19 Silo # S.16 T-2

Time: 13:20 Treated Vol. Of Water from this Silo: 136,000 gals

Date of Last Calibration: 6/6/19

Water Apperance : (Clear) Cloudy _____

Odor? Yes (No) _____

Sample Collected: (Yes) No

If yes, sample ID# T-2

		Acceptable Limits
Temperature	19.2 C	NA
pH:	7.9	6.0 - 9.0
Dissolved Oxygen	8.0 mg/L	5 mg/L or greater

Totalizer Start: _____

Totalizer Finish: _____

Notes: _____

ATTACHMENT 3

ANALYTICAL REPORTS FOR DISCHARGE SAMPLING

The results set forth herein are provided by SGS North America Inc.

e-Hardcopy 2.0
Automated Report

Technical Report for

Tantara Corporation

USACE Buffalo Nike Missle UST, East Aurora, NY

16-299

SGS Job Number: JC77588

Sampling Date: 11/08/18

Report to:

Tantara Corporation
54 Mason Street
Worcester, MA 01610
MLovejoy@TantaraCorp.com

ATTN: Mark Lovejoy

Total number of pages in report: 324

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Brian McGuire
General Manager

Client Service contact: Tammy McCloskey 732-329-0200

Certifications: NJ(12129), NY(10983), CA, CT, FL, IL, IN, KS, KY, LA, MA, MD, ME, MN, NC, OH VAP (CL0056), AK (UST-103), AZ (AZ0786), PA, RI, SC, TX, UT, VA, WV, DoD ELAP (ANAB L2248)

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Please share your ideas about
how we can serve you better at:
EHS.US.CustomerCare@sgs.com

June 3, 2019

Mr. Mark Lovejoy
Tantara Corporation
54 Mason Street
Worcester, MA 01610

Re: SGS North America – Dayton, NJ Jobs # JC77588 – Reissues

Dear Mr. Lovejoy,

The final reports for SGS jobs number JC77588 has been edited to reflect corrections to the results. These edits have been incorporated into the revised report which is attached.

Specifically, the sample's ID has been revised to "SILO6-1" to reflect matching chain of custody. Arsenic and Barium have been retrieved for sample JC77588-1A per Ms. Jennifer Parshall's request on 5/30/219. The attached revised report incorporates these revisions.

SGS apologizes for this occurrence and for any inconvenience this situation may have caused. Please contact me if I can be of further assistance in this matter.

Sincerely,

Report Department

SGS North America Inc.

CONTINUOUS SERVICE IMPROVEMENT!

Our goal is to continuously improve our service to you. Please share your ideas about how we can serve you better at EHS.US.CustomerCare@sgs.com. Your feedback is appreciated!

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SGS North America Inc.

Sample Summary

Tantara Corporation

Job No: JC77588

USACE Buffalo Nike Missle UST, East Aurora, NY
Project No: 16-299

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
JC77588-1	11/08/18	08:30	MH	11/09/18	AQ	Water	SILO6-1
JC77588-1A	11/08/18	08:30	MH	11/09/18	AQ	Water	SILO6-1
JC77588-1AR	11/08/18	08:30	MH	11/09/18	AQ	Water	SILO6-1

CASE NARRATIVE / CONFORMANCE SUMMARY

Client: Tantara Corporation **Job No** JC77588

Site: USACE Buffalo Nike Missle UST, East Aurora, NY **Report Date** 6/3/2019 4:10:24 PM

On 11/09/2018, 1 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were received at SGS North America Inc. at a maximum corrected temperature of 0.8 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. Job Number of JC77588 was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Compounds qualified as out of range in the continuing calibration summary report are acceptable as per method requirements when there is a high bias but the sample result is non-detect.

MS Volatiles By Method SW846 8260C

Matrix: AQ **Batch ID:** V3B6682

- All samples were analyzed within the recommended method holding time.
- Sample(s) JC77581-2MS, JC77581-2MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

Metals Analysis By Method SW846 6020B

Matrix: AQ **Batch ID:** MP10376

- All samples were digested within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC77511-1MS, JC77511-1MSD, JC77511-1SDL were used as the QC samples for metals.
- RPD(s) for Serial Dilution for Aluminum, Arsenic, Cadmium, Lead are outside control limits. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

General Chemistry By Method EPA 1664A

Matrix: AQ **Batch ID:** GP17248

- All samples were prepared within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC76945-1DUP, JC76945-1MS were used as the QC samples for HEM Oil and Grease.

General Chemistry By Method SM2540 D-11

Matrix: AQ **Batch ID:** GN88143

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC77582-2DUP were used as the QC samples for Solids, Total Suspended.

General Chemistry By Method SM5220 C-11,HACH8000

Matrix: AQ **Batch ID:** GP17252

- All samples were prepared within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC76980-2DUP, JC76980-2MS were used as the QC samples for Chemical Oxygen Demand.

SGS North America Inc. certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting the Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

SGS North America Inc. is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. Data release is authorized by SGS North America Inc indicated via signature on the report cover

Summary of Hits

Job Number: JC77588
Account: Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY
Collected: 11/08/18

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
JC77588-1	**SILO6-1**					
Chemical Oxygen Demand		28.2	20	11	mg/l	SM5220 C-11,HACH8000
HEM Oil and Grease		7.1	5.0	3.2	mg/l	EPA 1664A
Solids, Total Suspended		17.0	4.0	1.5	mg/l	SM2540 D-11
JC77588-1A	**SILO6-1**					
Aluminum		636	50	32	ug/l	SW846 6020B
Arsenic		4.2	1.0	0.94	ug/l	SW846 6020B
Barium		17.0	2.0	0.73	ug/l	SW846 6020B
Cadmium		0.34 B	1.0	0.17	ug/l	SW846 6020B
Iron		990	50	19	ug/l	SW846 6020B
Lead		4.9	1.0	0.52	ug/l	SW846 6020B

Sample Results

Report of Analysis

SGS North America Inc.

Report of Analysis

Client Sample ID:	SILO6-1		
Lab Sample ID:	JC77588-1	**Date Sampled:**	11/08/18
Matrix:	AQ - Water	**Date Received:**	11/09/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	USACE Buffalo Nike Missle UST, East Aurora, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3B150123.D	1	11/10/18 18:13	PR	n/a	n/a	V3B6682
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.50	0.43	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	89%		80-120%
17060-07-0	1,2-Dichloroethane-D4	100%		81-124%
2037-26-5	Toluene-D8	96%		80-120%
460-00-4	4-Bromofluorobenzene	94%		80-120%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SILO6-1		
Lab Sample ID:	JC77588-1	**Date Sampled:**	11/08/18
Matrix:	AQ - Water	**Date Received:**	11/09/18
		Percent Solids:	n/a
Project:	USACE Buffalo Nike Missle UST, East Aurora, NY		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Chemical Oxygen Demand	28.2	20	11	mg/l	1	11/13/18 12:17	MP	SM5220 C-11,HACH8000
HEM Oil and Grease	7.1	5.0	3.2	mg/l	1	11/12/18 12:20	TM	EPA 1664A
Solids, Total Suspended	17.0	4.0	1.5	mg/l	1	11/09/18 15:21	RC	SM2540 D-11

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID: SILO6-1
Lab Sample ID: JC77588-1A
Matrix: AQ - Water
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Date Sampled: 11/08/18
Date Received: 11/09/18
Percent Solids: n/a

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Aluminum	636	50	32	ug/l	2	11/10/18	11/12/18	ZC	SW846 6020B [1]	SW846 3010A [2]
Arsenic	4.2	1.0	0.94	ug/l	2	11/10/18	11/12/18	ZC	SW846 6020B [1]	SW846 3010A [2]
Barium	17.0	2.0	0.73	ug/l	2	11/10/18	11/12/18	ZC	SW846 6020B [1]	SW846 3010A [2]
Cadmium	0.34 B	1.0	0.17	ug/l	2	11/10/18	11/12/18	ZC	SW846 6020B [1]	SW846 3010A [2]
Iron	990	50	19	ug/l	2	11/10/18	11/12/18	ZC	SW846 6020B [1]	SW846 3010A [2]
Lead	4.9	1.0	0.52	ug/l	2	11/10/18	11/12/18	ZC	SW846 6020B [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA45644
(2) Prep QC Batch: MP10376

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- Sample Tracking Chronicle
- Internal Chain of Custody

CHAIN OF CUSTODY

SGS North America Inc. - Dayton
2235 Route 130, Dayton, NJ 08810
TEL. 732-329-0200 FAX 732-329-3499
www.sgs.com/ehsusa

PAGE 1 OF 1

FED-EX Tracking #:
Bottle Order Control #: TM-11618-5
SGS Quote #:
SGS Job #: JC77588

Client / Reporting Information

Company Name: Tantara Corporation
Street Address: 54 Major Street
City: Worcester State: MA Zip: 01610
Project Contact: Mark Lovejoy E-mail: Mlovejoy@tantaracorp.com
Phone #: 339-234-3142 Fax #:
Sampler(s) Name(s): Matt Herbert Phone #:

Project Information

Project Name: Buffalo NIKE
Street:
City: E. Aurora State: NY
Project #:
Client Purchase Order #: 16-299
Project Manager: Mark Lovejoy

Billing Information (if different from Report to)

Company Name: Same
Street Address:
City: State: Zip:
Attention:

Requested Analysis (see TEST CODE sheet)

Lab Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	Number of preserved bottles: HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MECH	ENCORE	TSS	COD	Oil/Grease	Fe, Al, Cd, Pb	Betx	LAB USE ONLY
1	SL06-1		11/8/18	0830	MH	W	9	5		1	1	2				✓	✓	✓	✓	✓	L29 A29 643 V866 24Hr

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL- Sludge; SED-Sediment; OI - Oil; LIQ - Other Liquid; AIR - Air; SOL - Other Solid; WP - Wipe; FB-Field Blank; EB-Equipment Blank; RB- Rinse Blank; TB-Trip Blank

Turnaround Time (Business days)

Approved by (SGS Project Manager)/Date:

- [ ] Std. 10 Business Days
- [ ] 5 Day RUSH
- [ ] 3 Day RUSH
- [ ] 2 Day RUSH
- [x] 1 Day RUSH
- [ ] other

Emergency & Rush T/A data available via LabLink

Data Deliverable Information

- [ ] Commercial "A" (Level 1)
- [ ] Commercial "B" (Level 2)
- [ ] FULLT1 (Level 3+4)
- [ ] NJ Reduced
- [ ] Commercial "C"
- [ ] NJ Data of Known Quality Protocol Reporting
- [ ] NYASP Category A
- [ ] NYASP Category B
- [ ] State Forms
- [ ] EDD Format
- [ ] Other

Commercial "A" = Results Only; Commercial "B" = Results + QC Summary
NJ Reduced = Results + QC Summary + Partial Raw data

Comments / Special Instructions

INITIAL ASESSMENT 3B D
LEVEL VERIFICATION
Sample inventory is verified upon receipt in the Laboratory

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1 Matt Herbert	11/8/18 1600	1 FX	2 FX	11/9/18 9:30	2
3		3	4		4
5		5	Custody Seal #	☐ Intact ☐ Not Intact	Preserved where applicable ☐ On Ice ☐ Cooler Temp. 1.4c

Form:SM088-03C (revised 2/12/18)

http://www.sgs.com/en/terms-and-conditions.

SGS Sample Receipt Summary

Job Number: JC77588 **Client:** TANTARA CORPORATION **Project:** USACE BUFFALO NIKE MISSLE UST, EAST AU

Date / Time Received: 11/9/2018 9:30:00 AM **Delivery Method:** **Airbill #'s:**

Cooler Temps (Raw Measured) °C: Cooler 1: (1.4);

Cooler Temps (Corrected) °C: Cooler 1: (0.8);

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	☑		☐	3. COC Present:	☑		☐
2. Custody Seals Intact:	☑		☐	4. Smpl Dates/Time OK	☑		☐

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Cooler temp verification:	IR Gun		
3. Cooler media:	Ice (Bag)		
4. No. Coolers:	1		

Quality Control Preservation	Y	or	N	N/A
1. Trip Blank present / cooler:	☐		☑	☐
2. Trip Blank listed on COC:	☐		☑	☐
3. Samples preserved properly:	☑		☐	
4. VOCs headspace free:	☑		☐	☐

Sample Integrity - Documentation	Y	or	N
1. Sample labels present on bottles:	☑		☐
2. Container labeling complete:	☑		☐
3. Sample container label / COC agree:	☑		☐

Sample Integrity - Condition	Y	or	N
1. Sample recvd within HT:	☑		☐
2. All containers accounted for:	☑		☐
3. Condition of sample:	Intact		

Sample Integrity - Instructions	Y	or	N	N/A
1. Analysis requested is clear:	☑		☐	
2. Bottles received for unspecified tests	☐		☑	
3. Sufficient volume recvd for analysis:	☑		☐	
4. Compositing instructions clear:	☐		☐	☑
5. Filtering instructions clear:	☐		☐	☑

Test Strip Lot #s: pH 1-12: 216017 pH 12+: 208717 Other: (Specify)

Comments

SM089-03
Rev. Date 12/7/17

Job Change Order: JC77588

Requested Date:	11/9/2018	**Received Date:**	11/9/2018
Account Name:	Tantara Corporation	**Due Date:**	11/12/2018
Project Description:	USACE Buffalo Nike Missle UST, East Aurora, NY	**Deliverable:**	FULT1
C/O Initiated By:	TAMMY **PM:** TM	**TAT (Days):**	7

==========

Sample #: JC77588-1

Dept:

TAT: 7

SK06-1

Change:
moe ALMS, CDMS, FEMS, METDIG, PBMS to an "A" sample with 1 week t/a, due 11/16/18

==========

Above Changes Per: Wendy Zhou (Metals Manager) **Date/Time:** 11/9/2018 3:49:29 PM

To Client: This Change Order is confirmation of the revisions, previously discussed with the Client Service Representative.

Job Change Order: JC77588

Requested Date: 5/30/2019 **Received Date:** 11/9/2018
Account Name: Tantara Corporation **Due Date:** 11/12/2018
Project Description: USACE Buffalo Nike Missle UST, East Aurora, NY **Deliverable:** FULT1
C/O Initiated By: TAMMY **PM:** TM **TAT (Days):** 14

==========

Sample #: JC77588-all **Change:**
revise sample ID to SILO6-1
Dept:
TAT: 14

==========

Sample #: JC77588-1A **Change:**
relog/retrieve for ASMS and BAMS
Dept:
TAT: 14

SK06-1

==========

Above Changes Per: Jennifer Parshall **Date/Time:** 5/30/2019 12:01:18 PM

To Client: This Change Order is confirmation of the revisions, previously discussed with the Client Service Representative.

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Internal Sample Tracking Chronicle

Tantara Corporation

Job No: JC77588

USACE Buffalo Nike Missle UST, East Aurora, NY
Project No: 16-299

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JC77588-1 SILO6-1	Collected: 08-NOV-18 08:30 By: MH		Received: 09-NOV-18 By: DG			
JC77588-1	SM2540 D-11	09-NOV-18 15:21	RC			TSS
JC77588-1	SW846 8260C	10-NOV-18 18:13	PR			V8260BTX
JC77588-1	EPA 1664A	12-NOV-18 12:20	TM	12-NOV-18	TM	OG1664
JC77588-1	SM5220 C-11,HACH8000	09-NOV-18 12:17	MP	12-NOV-18	MP	COD
JC77588-1A SILO6-1	Collected: 08-NOV-18 08:30 By: MH		Received: 09-NOV-18 By: DG			
JC77588-1A	SW846 6020B	12-NOV-18 16:45	ZC	10-NOV-18	BP	ALMS,CDMS,FEMS,PBMS

SGS Internal Chain of Custody

Job Number: JC77588
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY
Received: 11/09/18

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC77588-1.1	Secured Storage	Sahara Feliciano	11/09/18 14:18	Retrieve from Storage
JC77588-1.1	Sahara Feliciano	Secured Staging Area	11/09/18 14:18	Return to Storage
JC77588-1.1	Secured Staging Area	Tharun Murali	11/12/18 12:14	Retrieve from Storage
JC77588-1.1	Tharun Murali		11/12/18 12:14	Depleted
JC77588-1.3	Secured Storage	Matthew Robbins	11/09/18 17:53	Retrieve from Storage
JC77588-1.3	Matthew Robbins	Secured Staging Area	11/09/18 17:53	Return to Storage
JC77588-1.3	Secured Staging Area	Bhooma Patel	11/10/18 07:04	Retrieve from Storage
JC77588-1.3	Bhooma Patel	Secured Storage	11/10/18 09:09	Return to Storage
JC77588-1.3	Secured Storage	Dwayne Johnson	11/12/18 08:49	Retrieve from Storage
JC77588-1.3	Dwayne Johnson	Secured Staging Area	11/12/18 08:49	Return to Storage
JC77588-1.3	Secured Staging Area	Radhika Mistry	11/12/18 14:18	Retrieve from Storage
JC77588-1.3	Radhika Mistry	Secured Storage	11/12/18 14:19	Return to Storage
JC77588-1.3	Dave Hunkele		12/14/18 05:04	Disposed
JC77588-1.3.1	Bhooma Patel	Metals Digestion	11/10/18 09:08	Digestate from JC77588-1.3
JC77588-1.3.1	Metals Digestion	Bhooma Patel	11/10/18 09:09	Digestate from JC77588-1.3
JC77588-1.3.1	Bhooma Patel	Metals Digestate Storage	11/10/18 09:09	Return to Storage
JC77588-1.3.1	Metals Digestate Storage		01/17/19 09:00	Disposed
JC77588-1.4	Secured Storage	Benjamin Gaines	11/12/18 15:20	Retrieve from Storage
JC77588-1.4	Benjamin Gaines	Secured Staging Area	11/12/18 15:20	Return to Storage
JC77588-1.4	Secured Staging Area	Mahendra Patel	11/12/18 15:45	Retrieve from Storage
JC77588-1.4	Mahendra Patel	Secured Storage	11/12/18 17:33	Return to Storage
JC77588-1.4	Dave Hunkele		12/14/18 05:04	Disposed
JC77588-1.6	Secured Storage	Dave Hunkele	11/09/18 11:01	Retrieve from Storage
JC77588-1.6	Dave Hunkele	Secured Staging Area	11/09/18 11:01	Return to Storage
JC77588-1.6	Secured Staging Area	Ruchitaben Chauhan	11/09/18 11:14	Retrieve from Storage
JC77588-1.6	Ruchitaben Chauhan		11/09/18 16:35	Depleted
JC77588-1.8	Secured Storage	Payal Rana	11/10/18 14:34	Retrieve from Storage
JC77588-1.8	Payal Rana	GCMS3B	11/10/18 14:34	Load on Instrument
JC77588-1.8	GCMS3B	Robert Szot	11/12/18 08:57	Unload from Instrument
JC77588-1.8	Robert Szot	Secured Storage	11/12/18 08:57	Return to Storage
JC77588-1.8	Dave Hunkele		12/14/18 05:04	Disposed

MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Instrument Performance Checks (BFB)
- Internal Standard Area Summaries
- Surrogate Recovery Summaries
- Initial and Continuing Calibration Summaries

Method Blank Summary

Job Number: JC77588
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V3B6682-MB	3B150115.D	1	11/10/18	PR	n/a	n/a	V3B6682

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC77588-1

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.50	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	88%	80-120%
17060-07-0	1,2-Dichloroethane-D4	99%	81-124%
2037-26-5	Toluene-D8	96%	80-120%
460-00-4	4-Bromofluorobenzene	91%	80-120%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

Blank Spike/Blank Spike Duplicate Summary

Job Number: JC77588
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V3B6682-BS	3B150112.D	1	11/10/18	PR	n/a	n/a	V3B6682
V3B6682-BSD	3B150113.D	1	11/10/18	PR	n/a	n/a	V3B6682

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC77588-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	50	49.0	98	45.9	92	7	80-120/20
100-41-4	Ethylbenzene	50	49.1	98	45.3	91	8	80-120/20
108-88-3	Toluene	50	49.8	100	46.5	93	7	80-120/20
1330-20-7	Xylene (total)	150	151	101	139	93	8	80-120/20

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	88%	89%	80-120%
17060-07-0	1,2-Dichloroethane-D4	96%	98%	81-124%
2037-26-5	Toluene-D8	98%	97%	80-120%
460-00-4	4-Bromofluorobenzene	96%	96%	80-120%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC77588
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC77581-2MS	3B150118.D	5	11/10/18	PR	n/a	n/a	V3B6682
JC77581-2MSD	3B150119.D	5	11/10/18	PR	n/a	n/a	V3B6682
JC77581-2 [a]	3B150116.D	5	11/10/18	PR	n/a	n/a	V3B6682
JC77581-2	3B150117.D	50	11/10/18	PR	n/a	n/a	V3B6682

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC77588-1

CAS No.	Compound	JC77581-2 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND		250	236	94	250	235	94	0	54-136/10
100-41-4	Ethylbenzene	ND		250	232	93	250	233	93	0	51-140/20
108-88-3	Toluene	ND		250	240	96	250	239	96	0	60-135/10
1330-20-7	Xylene (total)	ND		750	711	95	750	708	94	0	56-139/20

CAS No.	Surrogate Recoveries	MS	MSD	JC77581-2	JC77581-2	Limits
1868-53-7	Dibromofluoromethane	89%	88%	88%	89%	80-120%
17060-07-0	1,2-Dichloroethane-D4	97%	95%	100%	101%	81-124%
2037-26-5	Toluene-D8	98%	99%	98%	95%	80-120%
460-00-4	4-Bromofluorobenzene	96%	95%	89%	87%	80-120%

(a) Diluted due to high concentration of target compound.

* = Outside of Control Limits.

Instrument Performance Check (BFB)

Job Number: JC77588
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample: V3B6662-BFB
Lab File ID: 3B149696.D
Instrument ID: GCMS3B
Injection Date: 10/24/18
Injection Time: 17:28

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	12939	18.6		Pass
75	30.0 - 60.0% of mass 95	35520	51.0		Pass
95	Base peak, 100% relative abundance	69603	100.0		Pass
96	5.0 - 9.0% of mass 95	4306	6.19		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 150.0% of mass 95	64243	92.3		Pass
175	5.0 - 9.0% of mass 174	4915	7.06	(7.65) [a]	Pass
176	95.0 - 101.0% of mass 174	64264	92.3	(100.0) [a]	Pass
177	5.0 - 9.0% of mass 176	4143	5.95	(6.45) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V3B6662-IC6662	3B149697.D	10/24/18	18:06	00:38	Initial cal 2
V3B6662-IC6662	3B149698.D	10/24/18	18:35	01:07	Initial cal 0.2
V3B6662-IC6662	3B149699.D	10/24/18	19:03	01:35	Initial cal 0.5
V3B6662-IC6662	3B149700.D	10/24/18	19:31	02:03	Initial cal 1
V3B6662-IC6662	3B149701.D	10/24/18	20:00	02:32	Initial cal 4
V3B6662-IC6662	3B149702.D	10/24/18	20:28	03:00	Initial cal 8
V3B6662-IC6662	3B149703.D	10/24/18	20:57	03:29	Initial cal 20
V3B6662-ICC6662	3B149704.D	10/24/18	21:25	03:57	Initial cal 50
V3B6662-IC6662	3B149705.D	10/24/18	21:54	04:26	Initial cal 100
V3B6662-IC6662	3B149706.D	10/24/18	22:23	04:55	Initial cal 200
V3B6662-ICV6662	3B149709.D	10/24/18	23:49	06:21	Initial cal verification 50
V3B6662-ICV6662	3B149710.D	10/25/18	00:17	06:49	Initial cal verification 50

Instrument Performance Check (BFB)

Job Number: JC77588
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample:	V3B6682-BFB	**Injection Date:**	11/10/18
Lab File ID:	3B150111.D	**Injection Time:**	12:21
Instrument ID:	GCMS3B		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	8566	18.6		Pass
75	30.0 - 60.0% of mass 95	22576	49.1		Pass
95	Base peak, 100% relative abundance	45971	100.0		Pass
96	5.0 - 9.0% of mass 95	2891	6.29		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 150.0% of mass 95	46731	101.7		Pass
175	5.0 - 9.0% of mass 174	3858	8.39	(8.26) [a]	Pass
176	95.0 - 101.0% of mass 174	46456	101.1	(99.4) [a]	Pass
177	5.0 - 9.0% of mass 176	3226	7.02	(6.94) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V3B6682-CC6662	3B150111.D	11/10/18	12:21	00:00	Continuing cal 20
V3B6682-BS	3B150112.D	11/10/18	13:00	00:39	Blank Spike
V3B6682-BSD	3B150113.D	11/10/18	13:29	01:08	Blank Spike Duplicate
V3B6682-MB	3B150115.D	11/10/18	14:26	02:05	Method Blank
JC77581-2	3B150116.D	11/10/18	14:54	02:33	(used for QC only; not part of job JC77588)
JC77581-2	3B150117.D	11/10/18	15:23	03:02	(used for QC only; not part of job JC77588)
JC77581-2MS	3B150118.D	11/10/18	15:51	03:30	Matrix Spike
JC77581-2MSD	3B150119.D	11/10/18	16:20	03:59	Matrix Spike Duplicate
ZZZZZZ	3B150121.D	11/10/18	17:16	04:55	(unrelated sample)
ZZZZZZ	3B150122.D	11/10/18	17:45	05:24	(unrelated sample)
JC77588-1	3B150123.D	11/10/18	18:13	05:52	SILO6-1
ZZZZZZ	3B150124.D	11/10/18	18:42	06:21	(unrelated sample)
ZZZZZZ	3B150125.D	11/10/18	19:10	06:49	(unrelated sample)
ZZZZZZ	3B150126.D	11/10/18	19:39	07:18	(unrelated sample)
ZZZZZZ	3B150127.D	11/10/18	20:07	07:46	(unrelated sample)
ZZZZZZ	3B150128.D	11/10/18	20:35	08:14	(unrelated sample)
ZZZZZZ	3B150130.D	11/10/18	21:32	09:11	(unrelated sample)
ZZZZZZ	3B150132.D	11/10/18	22:29	10:08	(unrelated sample)

Internal Standard Area Summary

Job Number: JC77588
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Check Std:	V3B6682-CC6662	**Injection Date:**	11/10/18
Lab File ID:	3B150111.D	**Injection Time:**	12:21
Instrument ID:	GCMS3B	**Method:**	SW846 8260C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	143968	8.12	145270	10.62	163938	11.60	156536	14.93	118110	17.42
Upper Limit [a]	287936	8.62	290540	11.12	327876	12.10	313072	15.43	236220	17.92
Lower Limit [b]	71984	7.62	72635	10.12	81969	11.10	78268	14.43	59055	16.92

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
V3B6682-BS	150687	8.13	142885	10.62	163414	11.60	157483	14.93	111885	17.42
V3B6682-BSD	152170	8.12	149347	10.62	173940	11.60	167936	14.93	121915	17.42
V3B6682-MB	149127	8.11	154647	10.62	173008	11.60	169156	14.93	127535	17.42
JC77581-2	144709	8.12	149035	10.62	171423	11.60	162970	14.93	123954	17.42
JC77581-2	148369	8.12	148095	10.62	166240	11.60	159943	14.93	126425	17.42
JC77581-2MS	140990	8.12	147240	10.62	170083	11.60	161422	14.93	114216	17.42
JC77581-2MSD	157967	8.12	155241	10.62	177998	11.60	169930	14.93	121764	17.42
ZZZZZZ	157326	8.12	155552	10.62	174345	11.60	168095	14.93	131401	17.42
ZZZZZZ	147636	8.11	151334	10.62	170716	11.60	167653	14.93	129130	17.42
JC77588-1	148848	8.11	145880	10.62	164134	11.60	158781	14.93	118253	17.42
ZZZZZZ	153439	8.11	145298	10.62	164169	11.60	156360	14.93	122372	17.42
ZZZZZZ	150877	8.12	145333	10.62	161190	11.60	156758	14.93	120910	17.42
ZZZZZZ	143271	8.11	139023	10.62	157706	11.60	153392	14.93	119372	17.42
ZZZZZZ	140959	8.12	139210	10.62	157159	11.60	154415	14.93	112848	17.42
ZZZZZZ	147248	8.11	140352	10.62	157753	11.60	150803	14.93	116866	17.42
ZZZZZZ	148664	8.12	139762	10.62	155475	11.60	148613	14.93	116969	17.42
ZZZZZZ	128154	8.11	134981	10.62	153242	11.60	150593	14.93	113474	17.42

IS 1 = Tert Butyl Alcohol-D9
IS 2 = Pentafluorobenzene
IS 3 = 1,4-Difluorobenzene
IS 4 = Chlorobenzene-D5
IS 5 = 1,4-Dichlorobenzene-d4

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Surrogate Recovery Summary

Job Number: JC77588
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Method: SW846 8260C **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4
JC77588-1	3B150123.D	89	100	96	94
JC77581-2MS	3B150118.D	89	97	98	96
JC77581-2MSD	3B150119.D	88	95	99	95
V3B6682-BS	3B150112.D	88	96	98	96
V3B6682-BSD	3B150113.D	89	98	97	96
V3B6682-MB	3B150115.D	88	99	96	91

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	80-120%
S2 = 1,2-Dichloroethane-D4	81-124%
S3 = Toluene-D8	80-120%
S4 = 4-Bromofluorobenzene	80-120%

Initial Calibration Summary

Job Number: JC77588
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample: V3B6662-ICC6662
Lab FileID: 3B149704.D

Response Factor Report MS3B

Method : C:\MSDCHEM\1\METHODS\M3B6662.M (RTE Integrator)
Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
Last Update : Thu Oct 25 15:03:59 2018
Response via : Initial Calibration

Calibration Files
1 =3b149700.D 4 =3b149701.D 100 =3b149705.D 50 =3b149704.D
20 =3b149703.D 200 =3b149706.D 8 =3b149702.D 0.5 =3b149699.D
2 =3b149697.D 0.2 =3b149698.D = =

Compound	1	4	100	50	20	200	8	0.5	2	0.2	Avg	%RSD
1) I tert butyl alcohol-d9	----------ISTD----------											
2) ethanol											0.000	-1.00
3) tertiary butyl alcohol	1.021	1.074	1.075	1.042	1.053	1.010		0.975			1.036	3.52
4) 1,4-dioxane	0.072	0.078	0.077	0.073	0.078	0.072		0.072			0.075	3.99
5) I pentafluorobenzene	----------ISTD----------											
6) chlorodifluoromethane	1.111	1.023	1.108	1.180	1.075	1.080	1.024	0.919	1.116		1.071	6.96
7) dichlorodifluoromethane	1.089	1.245	1.358	1.270	1.246	1.187		1.047			1.206	8.93
8) chloromethane	0.891	0.952	1.082	1.147	1.076	1.084	1.028	0.887	1.070		1.024	9.03
9) vinyl chloride	0.793	0.928	1.061	1.132	1.050	1.070	1.014		0.923		0.996	10.89
10) 1,3-butadiene	0.681	0.623	0.657	0.707	0.639	0.672	0.604		0.627		0.651	5.28
11) bromomethane	0.623	0.678	0.662	0.737	0.692	0.654	0.679	0.705	0.706		0.682	4.86
12) chloroethane	0.383	0.419	0.421	0.475	0.436	0.427	0.432		0.382		0.422	7.12
13) trichlorofluoromethane	1.030	1.185	1.276	1.424	1.305	1.291	1.267		1.137		1.239	9.67
14) vinyl bromide	0.506	0.557	0.588	0.662	0.603	0.617	0.570		0.524		0.578	8.73
15) ethyl ether	0.191	0.184	0.198	0.209	0.204	0.195	0.178		0.196		0.194	5.14
16) 2-chloropropane	0.910	0.752	0.798	0.872	0.824	0.834	0.776		0.869		0.829	6.42
17) acrolein	0.080	0.087	0.097	0.087	0.090	0.079					0.087	7.62
18) freon 113	0.511	0.484	0.530	0.577	0.524	0.540	0.502		0.527		0.524	5.30
19) 1,1-dichloroethene	0.451	0.395	0.454	0.489	0.431	0.488	0.426	0.434	0.434		0.445	6.74
20) acetone	0.040	0.040	0.046	0.047	0.045	0.045	0.043		0.041		0.043	6.55
21) acetonitrile	0.075	0.083	0.087	0.082	0.081	0.078		0.094			0.083	7.45
22) iodomethane	0.945	0.805	0.905	0.975	0.862	0.970	0.814	0.820	0.815		0.879	8.06
23) carbon disulfide												

	1.506	1.409	1.571	1.708	1.512	1.696	1.454	1.556	1.499	1.243	1.515	8.91
24)	methylene chloride											
	0.463	0.432	0.471	0.505	0.448	0.503	0.428	0.469	0.394		0.457	7.85
25)	methyl acetate											
		0.356	0.370	0.376	0.350	0.346	0.328		0.397		0.361	6.24
26)	methyl tert butyl ether											
	1.844	1.626	1.756	1.894	1.709	1.777	1.655		1.691		1.744	5.28
27)	trans-1,2-dichloroethene											
	0.431	0.429	0.399	0.428	0.402	0.401	0.399	0.392	0.378		0.407	4.62
28)	hexane											
	0.305	0.292	0.294	0.315	0.295	0.297	0.309		0.317		0.303	3.22
29)	di-isopropyl ether											
	1.613	1.358	1.481	1.539	1.431	1.483	1.384	1.391	1.456	1.172	1.431	8.30
30)	2-butanone											
	0.056	0.053	0.061	0.063	0.055	0.062	0.053		0.057		0.058	6.97
31)	1,1-dichloroethane											
	0.796	0.696	0.709	0.746	0.707	0.701	0.708	0.651	0.688	0.533	0.694	9.79
32)	chloroprene											
	0.630	0.562	0.623	0.643	0.606	0.615	0.585	0.637	0.616		0.613	4.17
33)	acrylonitrile											
		0.158	0.182	0.189	0.177	0.179	0.164		0.174		0.175	6.03
34)	vinyl acetate											
		0.063	0.073	0.074	0.068	0.072	0.064				0.069	6.54
35)	ethyl tert-butyl ether											
	1.728	1.538	1.759	1.851	1.664	1.807	1.572	1.526	1.524	1.302	1.627	10.22
36)	ethyl acetate											
		0.065	0.069	0.073	0.076	0.070	0.074				0.071	5.48
37)	2,2-dichloropropane											
	0.992	0.890	0.943	1.019	0.942	0.952	0.910	0.905	1.027		0.953	5.19
38)	cis-1,2-dichloroethene											
	0.548	0.455	0.461	0.475	0.439	0.454	0.441	0.507	0.466		0.472	7.46
39)	propionitrile											
	0.080	0.070	0.077	0.078	0.073	0.075	0.073	0.074	0.083		0.076	5.27
40)	methyl acrylate											
		0.063	0.073	0.075	0.073	0.073	0.068				0.071	6.27
41)	methacrylonitrile											
	0.190	0.168	0.187	0.191	0.189	0.185	0.171		0.201		0.185	5.87
42)	bromochloromethane											
	0.250	0.228	0.248	0.248	0.238	0.245	0.236	0.210	0.262		0.241	6.20
43)	tetrahydrofuran											
		0.135	0.150	0.161	0.147	0.152	0.139		0.159		0.149	6.45
44)	chloroform											
	0.845	0.735	0.790	0.811	0.738	0.766	0.733	0.877	0.800	0.795	0.789	6.09
45)	tert-Butyl Formate											
	0.521	0.473	0.509	0.525	0.466	0.527	0.440		0.471		0.491	6.73
46)	dibromofluoromethane (s)											
	0.438	0.440	0.446	0.444	0.437	0.448	0.430	0.441	0.434	0.437	0.439	1.24
47)	1,1,1-trichloroethane											
	0.976	0.934	1.007	1.073	0.974	1.033	0.929	0.956	1.015	0.856	0.975	6.30
48)	cyclohexane											
	0.623	0.743	0.792	0.875	0.815	0.850	0.794		0.694		0.773	10.74
49)	isobutyl alcohol											
		0.033	0.035	0.036	0.034	0.037	0.033		0.035		0.035	4.41
50)	1,1-dichloropropene											
	0.538	0.509	0.549	0.561	0.539	0.546	0.512	0.519	0.571		0.538	4.02
51)	carbon tetrachloride											
	0.879	0.818	0.893	0.948	0.881	0.911	0.835	0.753	0.882	0.681	0.848	9.38
52)	tert-amyl alcohol											
		0.052	0.062	0.062	0.060	0.064	0.053		0.059		0.059	7.77
53)	isopropyl acetate											

Initial Calibration Summary

Job Number: JC77588 **Sample:** V3B6662-ICC6662
Account: TCMAW Tantara Corporation **Lab FileID:** 3B149704.D
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

	0.104	0.111	0.114	0.106	0.111	0.092		0.102		0.106	6.98
54) I 1,4-difluorobenzene	----------	ISTD	----------								
55) 1,2-dichloroethane-d4 (s)											
	0.423	0.418	0.401	0.403	0.415	0.390	0.417	0.418	0.414	0.418	0.412	2.53
56) n-butyl alcohol											
	0.016	0.015	0.017	0.017	0.016	0.018	0.016		0.016		0.016	5.86
57) 2,2,4-trimethylpentane											
	1.308	1.224	1.564	1.643	1.440	1.641	1.295		1.317		1.429	11.71
58) benzene											
	1.354	1.123	1.158	1.190	1.157	1.152	1.102	1.240	1.185	0.877	1.154	10.42
59) tert-amyl methyl ether											
	1.410	1.216	1.337	1.413	1.322	1.364	1.270	1.186	1.314	1.245	1.308	5.94
60) heptane											
	0.237	0.244	0.233	0.253	0.231	0.231	0.233		0.260		0.240	4.55
61) 1,2-dichloroethane											
	0.595	0.484	0.470	0.492	0.482	0.455	0.465		0.528		0.496	9.16
62) ethyl acrylate											
	0.445	0.413	0.444	0.468	0.447	0.423	0.429		0.434		0.438	3.90
63) trichloroethene											
	0.332	0.295	0.320	0.338	0.313	0.313	0.304	0.290	0.319		0.314	5.02
64) 2-chloroethyl vinyl ether											
	0.211	0.186	0.207	0.213	0.206	0.197	0.189	0.203	0.202		0.202	4.64
65) methyl methacrylate											
		0.089	0.097	0.101	0.101	0.096	0.093		0.091		0.095	4.99
66) methylcyclohexane											
	0.765	0.729	0.747	0.772	0.706	0.759	0.701	0.739	0.732		0.739	3.33
67) 1,2-dichloropropane											
	0.297	0.305	0.297	0.304	0.288	0.287	0.282	0.290	0.340		0.299	5.74
68) dibromomethane											
	0.216	0.191	0.216	0.225	0.214	0.207	0.200	0.170	0.224		0.207	8.59
69) bromodichloromethane											
	0.472	0.429	0.471	0.479	0.455	0.463	0.419	0.415	0.468	0.400	0.447	6.40
70) 2-nitropropane											
		0.147	0.153	0.162	0.142	0.146	0.141				0.148	5.29
71) epichlorohydrin											
	0.041	0.043	0.043	0.044	0.042	0.042	0.040		0.046		0.043	4.80
72) cis-1,3-dichloropropene											
	0.499	0.460	0.524	0.534	0.499	0.509	0.476	0.494	0.500	0.421	0.492	6.64
73) 4-methyl-2-pentanone											
	0.175	0.166	0.171	0.174	0.170	0.165	0.162	0.155	0.174		0.168	4.00
74) isoamyl alcohol											
	0.017	0.016	0.019	0.019	0.018	0.019	0.016		0.017		0.018	7.12
75) I chlorobenzene-d5	----------	ISTD	----------								
76) toluene-d8 (s)											
	1.218	1.223	1.218	1.228	1.242	1.194	1.219	1.253	1.256	1.221	1.227	1.52
77) toluene											
	0.817	0.772	0.777	0.810	0.751	0.765	0.760	0.824	0.773	0.640	0.769	6.73
78) ethyl methacrylate											
	0.496	0.455	0.449	0.469	0.460	0.437	0.439	0.472	0.479		0.462	4.16
79) trans-1,3-dichloropropene											
	0.502	0.483	0.495	0.518	0.492	0.475	0.480	0.560	0.524		0.503	5.34
80) 1,1,2-trichloroethane											
	0.255	0.233	0.247	0.253	0.243	0.234	0.236	0.205	0.260		0.241	6.82
81) tetrachloroethene											
	0.334	0.296	0.322	0.332	0.307	0.308	0.307	0.291	0.372		0.319	7.81
82) 2-hexanone											
	0.174	0.156	0.161	0.166	0.160	0.152	0.156	0.172	0.177		0.164	5.50
83) 1,3-dichloropropane											

	0.547	0.468	0.459	0.487	0.462	0.442	0.458	0.498	0.514	0.387	0.472	9.13
84)	butyl acetate											
	0.301	0.250	0.246	0.264	0.254	0.241	0.246	0.225	0.281		0.256	8.90
85)	dibromochloromethane											
	0.419	0.364	0.411	0.415	0.386	0.397	0.370	0.354	0.383	0.300	0.380	9.41
86)	1,2-dibromoethane											
	0.394	0.346	0.359	0.374	0.349	0.349	0.322	0.288	0.338		0.346	8.73
87)	n-butyl ether											
	1.702	1.377	1.451	1.494	1.427	1.434	1.393	1.596	1.469	1.304	1.465	7.73
88)	chlorobenzene											
	1.000	0.900	0.925	0.949	0.887	0.918	0.868	0.860	0.968	0.806	0.908	6.25
89)	1,1,1,2-tetrachloroethane											
	0.473	0.438	0.472	0.471	0.455	0.464	0.437	0.435	0.519		0.463	5.67
90)	ethylbenzene											
	1.654	1.549	1.592	1.637	1.567	1.569	1.521	1.686	1.729	1.409	1.591	5.73
91)	m,p-xylene											
	0.646	0.591	0.626	0.645	0.600	0.621	0.584	0.596	0.643	0.588	0.614	4.06
92)	o-xylene											
	1.533	1.368	1.482	1.521	1.419	1.476	1.373	1.377	1.545	1.150	1.425	8.28
93)	styrene											
	1.124	0.998	1.031	1.065	1.013	1.021	0.970	1.023	1.084	1.001	1.033	4.43
94)	butyl acrylate											
	0.896	0.767	0.716	0.761	0.723	0.694	0.715	0.750	0.821	0.863	0.771	8.80
95)	n-amyl acetate											
	0.361	0.297	0.278	0.288	0.289	0.272	0.287		0.307		0.297	9.37
96)	isopropylbenzene											
	2.053	1.866	2.038	2.092	1.919	2.035	1.863	1.809	2.004	1.488	1.917	9.31
97)	bromoform											
	0.348	0.304	0.325	0.330	0.308	0.320	0.279	0.317	0.335		0.319	6.28
98)	cis-1,4-dichloro-2-butene											
		0.206	0.217	0.235	0.213	0.212	0.217		0.235		0.219	5.15
99)	I 1,4-dichlorobenzene-d ----------ISTD----------											
100)	4-bromofluorobenzene (s)											
	0.701	0.704	0.758	0.759	0.743	0.743	0.717	0.699	0.708	0.697	0.723	3.47
101)	1,1,2,2-tetrachloroethane											
	0.821	0.737	0.850	0.857	0.785	0.796	0.735	0.653	0.780		0.779	8.22
102)	trans-1,4-dichloro-2-butene											
		0.201	0.217	0.229	0.202	0.196	0.206		0.186		0.205	6.94
103)	1,2,3-trichloropropane											
	0.263	0.208	0.252	0.256	0.237	0.236	0.230		0.266		0.243	8.00
104)	bromobenzene											
	0.692	0.598	0.742	0.756	0.700	0.708	0.678	0.636	0.717	0.574	0.680	8.79
105)	n-propylbenzene											
	3.342	2.817	3.272	3.313	3.015	3.118	2.899	2.873	3.122	2.596	3.037	7.97
106)	2-chlorotoluene											
	0.727	0.624	0.745	0.771	0.692	0.732	0.649		0.673		0.702	7.22
107)	4-chlorotoluene											
	1.920	1.627	1.839	1.874	1.732	1.794	1.677	1.898	1.815	1.396	1.757	9.01
108)	1,3,5-trimethylbenzene											
	2.487	2.341	2.860	2.873	2.517	2.792	2.416	2.375	2.328	2.159	2.515	9.79
109)	tert-butylbenzene											
	2.039	1.891	2.607	2.597	2.262	2.580	2.089		1.992		2.257	13.21
110)	1,2,4-trimethylbenzene											
	2.620	2.330	2.801	2.818	2.550	2.769	2.408		2.461		2.595	7.26
111)	sec-butylbenzene											
	3.332	2.968	3.893	3.896	3.435	3.843	3.182		3.243		3.474	10.36
112)	p-isopropyltoluene											
	2.910	2.779	3.391	3.416	3.039	3.376	2.878		2.903		3.087	8.57
113)	1,3-dichlorobenzene											

Initial Calibration Summary

Job Number: JC77588 **Sample:** V3B6662-ICC6662
Account: TCMAW Tantara Corporation **Lab FileID:** 3B149704.D
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

```
       1.692 1.446 1.447 1.512 1.416 1.400 1.422 1.575 1.517 1.392  1.482    6.36
114)  1,4-dichlorobenzene
       1.601 1.420 1.462 1.515 1.404 1.434 1.418 1.547 1.498 1.304  1.460    5.75
115)  1,2-dichlorobenzene
       1.796 1.591 1.656 1.709 1.599 1.611 1.576 1.692 1.625 1.470  1.633    5.39
116)  benzyl chloride
       2.058 1.727 1.908 2.017 1.886 1.837 1.859 2.116 1.992 1.819  1.922    6.29
117)  n-butylbenzene
       1.559 1.384 1.541 1.576 1.459 1.548 1.421 1.411 1.595        1.499    5.37
118)  hexachloroethane
             0.453 0.673 0.657 0.539 0.687 0.482       0.467        0.565   18.35
119)  1,2-dibromo-3-chloropropane
       0.355 0.322 0.386 0.393 0.357 0.363 0.340       0.376        0.361    6.47
120)  1,3,5-trichlorobenzene
       2.091 1.834 1.936 1.999 1.846 1.907 1.791 1.897 1.980 1.841  1.912    4.78
121)  2-ethylhexyl acrylate
                   1.301 1.275 1.103 1.278 0.935                    1.178   13.35
122)  1,2,4-trichlorobenzene
       2.236 1.831 2.038 2.150 1.969 1.920 1.851 1.766 2.089 2.010  1.986    7.48
123)  hexachlorobutadiene
       1.053 0.879 0.992 1.025 0.927 0.969 0.867 0.870 0.973        0.951    7.23
124)  naphthalene
       5.252 4.694 5.509 5.697 5.268 5.125 4.905 4.863 5.451 5.068  5.183    6.07
125)  1,2,3-trichlorobenzene
       1.973 1.858 2.172 2.224 2.038 1.986 1.925 1.844 2.109 2.005  2.014    6.25
126)  2-methylnaphthalene
             2.289 3.903 3.857 3.231 3.606 2.722       2.766        3.196   19.53
127)  bis(chloromethyl)ether
                                                                     0.000   -1.00
128)  ethylenimine
                                                                     0.000   -1.00
 ----------------------------------------------------------------------------
 (#) = Out of Range  ###  Number of calibration levels exceeded format  ###

           M3B6662.M         Thu Oct 25 15:05:34 2018   M3B
```

Initial Calibration Verification

Job Number: JC77588
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample: V3B6662-ICV6662
Lab FileID: 3B149709.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\V3B6662\3b149709.D Vial: 14
Acq On : 24 Oct 2018 11:49 pm Operator: payalr
Sample : ICV6662-50 Inst : MS3B
Misc : MS29454,V3B6662,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M3B6662.M (RTE Integrator)
Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
Last Update : Thu Oct 25 15:03:59 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	tert butyl alcohol-d9	1.000	1.000	0.0	118	0.00	8.12
2		ethanol		----------NA----------				
3		tertiary butyl alcohol	1.036	1.086	-4.8	119	0.00	8.27
4		1,4-dioxane	0.075	0.072	4.0	109	0.00	12.28
5	I	pentafluorobenzene	1.000	1.000	0.0	117	0.00	10.63
6		chlorodifluoromethane	1.071	1.136	-6.1	113	0.00	4.25
7		dichlorodifluoromethane	1.206	1.205	0.1	104	0.00	4.23
8		chloromethane	1.024	1.225	-19.6	125	0.00	4.66
9		vinyl chloride	0.996	1.105	-10.9	114	0.00	4.94
10		1,3-butadiene	0.651	0.775	-19.0	128	0.00	4.97
11		bromomethane	0.682	0.761	-11.6	121	0.00	5.64
12		chloroethane	0.422	0.439	-4.0	108	0.00	5.84
13		trichlorofluoromethane	1.239	1.322	-6.7	109	0.00	6.39
14		vinyl bromide	0.578	0.652	-12.8	115	0.00	6.24
15		ethyl ether	0.194	0.213	-9.8	119	0.00	6.84
16		2-chloropropane	0.829	0.787	5.1	105	0.01	7.09
17		acrolein	0.087	0.105	-20.7	127	0.00	7.11
18		freon 113	0.524	0.640	-22.1	130	0.00	7.33
19		1,1-dichloroethene	0.445	0.452	-1.6	108	0.01	7.32
20		acetone	0.043	0.048	-11.6	121	0.00	7.35
21		acetonitrile		----------NA----------				
22		iodomethane	0.879	1.061	-20.7	127	0.00	7.60
23		carbon disulfide	1.515	1.861	-22.8	127	0.00	7.75
24		methylene chloride	0.457	0.485	-6.1	112	0.00	8.15
25		methyl acetate	0.361	0.344	4.7	107	0.00	7.88
26		methyl tert butyl ether	1.744	1.862	-6.8	115	0.00	8.56
27		trans-1,2-dichloroethene	0.407	0.397	2.5	108	0.00	8.58
28		hexane	0.303	0.254	16.2	94	0.00	8.98
29		di-isopropyl ether	1.431	1.446	-1.0	110	0.00	9.24
30		2-butanone	0.058	0.064	-10.3	117	0.00	9.97
31		1,1-dichloroethane	0.694	0.727	-4.8	114	0.00	9.24
32		chloroprene	0.613	0.642	-4.7	117	0.00	9.35
33		acrylonitrile	0.175	0.209	-19.4	129	0.00	8.50
34		vinyl acetate	0.069	0.064	7.2	101	0.00	9.18
35		ethyl tert-butyl ether	1.627	1.772	-8.9	112	0.00	9.75
36		ethyl acetate	0.071	0.072	-1.4	114	0.00	9.99
37		2,2-dichloropropane	0.953	0.933	2.1	107	0.00	10.06
38		cis-1,2-dichloroethene	0.472	0.472	0.0	116	0.00	10.03
39		propionitrile	0.076	0.076	0.0	113	0.00	10.07
40		methyl acrylate	0.071	0.073	-2.8	113	0.00	10.07
41		methacrylonitrile	0.185	0.191	-3.2	117	0.00	10.27

Initial Calibration Verification

Job Number: JC77588
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample: V3B6662-ICV6662
Lab FileID: 3B149709.D

42		bromochloromethane	0.241	0.250	-3.7	118	0.00	10.35
43		tetrahydrofuran	0.149	0.164	-10.1	119	0.00	10.37
44		chloroform	0.789	0.777	1.5	112	0.00	10.45
45		tert-Butyl Formate	0.491	0.380	22.6	85	0.00	10.49
46	S	dibromofluoromethane (s)	0.439	0.442	-0.7	116	0.00	10.65
47		1,1,1-trichloroethane	0.975	0.970	0.5	106	0.00	10.71
48		cyclohexane	0.773	0.896	-15.9	120	0.00	10.82
49		isobutyl alcohol	0.035	0.036	-2.9	115	0.00	10.90
50		1,1-dichloropropene	0.538	0.557	-3.5	116	0.00	10.89
51		carbon tetrachloride	0.848	0.871	-2.7	107	0.00	10.91
52		tert-amyl alcohol	0.059	0.062	-5.1	116	0.00	11.06
53		isopropyl acetate	0.106	0.109	-2.8	111	0.00	11.08
54	I	1,4-difluorobenzene	1.000	1.000	0.0	120	0.00	11.60
55	S	1,2-dichloroethane-d4 (s)	0.412	0.389	5.6	116	0.00	11.10
56		n-butyl alcohol	0.016	0.016	0.0	113	0.00	11.68
57		2,2,4-trimethylpentane	1.429	1.471	-2.9	107	0.00	11.26
58		benzene	1.154	1.150	0.3	116	0.00	11.16
59		tert-amyl methyl ether	1.308	1.262	3.5	107	0.00	11.25
60		heptane	0.240	0.256	-6.7	122	0.00	11.42
61		1,2-dichloroethane	0.496	0.454	8.5	110	0.00	11.19
62		ethyl acrylate	0.438	0.444	-1.4	114	0.00	11.92
63		trichloroethene	0.314	0.316	-0.6	112	0.00	11.92
64		2-chloroethyl vinyl ether	0.202	0.189	6.4	106	0.00	12.77
65		methyl methacrylate	0.095	0.098	-3.2	116	0.00	12.20
66		methylcyclohexane	0.739	0.682	7.7	106	0.00	12.22
67		1,2-dichloropropane	0.299	0.286	4.3	113	0.00	12.23
68		dibromomethane	0.207	0.213	-2.9	114	0.00	12.34
69		bromodichloromethane	0.447	0.442	1.1	111	0.00	12.51
70		2-nitropropane	0.148	0.146	1.4	108	0.00	12.74
71		epichlorohydrin	0.043	0.042	2.3	115	0.00	12.86
72		cis-1,3-dichloropropene	0.492	0.510	-3.7	114	0.00	12.99
73		4-methyl-2-pentanone	0.168	0.170	-1.2	117	0.00	13.11
74		isoamyl alcohol	0.018	0.018	0.0	115	0.00	13.12
75	I	chlorobenzene-d5	1.000	1.000	0.0	119	0.00	14.94
76	S	toluene-d8 (s)	1.227	1.213	1.1	118	0.00	13.32
77		toluene	0.769	0.780	-1.4	115	0.00	13.40
78		ethyl methacrylate	0.462	0.442	4.3	112	0.00	13.59
79		trans-1,3-dichloropropene	0.503	0.473	6.0	109	0.00	13.60
80		1,1,2-trichloroethane	0.241	0.244	-1.2	115	0.00	13.84
81		tetrachloroethene		----------NA----------				
82		2-hexanone	0.164	0.157	4.3	113	0.00	14.02
83		1,3-dichloropropane	0.472	0.471	0.2	115	0.00	14.03
84		butyl acetate	0.256	0.257	-0.4	116	0.00	14.10
85		dibromochloromethane	0.380	0.402	-5.8	115	0.00	14.29
86		1,2-dibromoethane	0.346	0.358	-3.5	114	0.00	14.46
87		n-butyl ether	1.465	1.401	4.4	112	0.00	14.92
88		chlorobenzene	0.908	0.911	-0.3	114	0.00	14.97
89		1,1,1,2-tetrachloroethane	0.463	0.464	-0.2	118	0.00	15.05
90		ethylbenzene	1.591	1.602	-0.7	117	0.00	15.04
91		m,p-xylene	0.614	0.630	-2.6	116	0.00	15.17
92		o-xylene	1.425	1.458	-2.3	114	0.00	15.60
93		styrene	1.033	1.021	1.2	114	0.00	15.61
94		butyl acrylate	0.771	0.727	5.7	114	0.00	15.41
95		n-amyl acetate	0.297	0.265	10.8	110	0.00	15.64
96		isopropylbenzene	1.917	1.991	-3.9	113	0.00	15.97
97		bromoform	0.319	0.336	-5.3	121	0.00	15.86
98		cis-1,4-dichloro-2-butene	0.219	0.199	9.1	101	0.00	16.02

Initial Calibration Verification

Job Number: JC77588 **Sample:** V3B6662-ICV6662
Account: TCMAW Tantara Corporation **Lab FileID:** 3B149709.D
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

99	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	118	0.00	17.43
100	S	4-bromofluorobenzene (s)	0.723	0.752	-4.0	117	0.00	16.19
101		1,1,2,2-tetrachloroethane	0.779	0.808	-3.7	111	0.00	16.28
102		trans-1,4-dichloro-2-bute	0.205	0.235	-14.6	121	0.00	16.31
103		1,2,3-trichloropropane	0.243	0.251	-3.3	115	0.00	16.38
104		bromobenzene	0.680	0.727	-6.9	113	0.00	16.39
105		n-propylbenzene	3.037	3.197	-5.3	113	0.00	16.42
106		2-chlorotoluene	0.702	0.723	-3.0	110	0.00	16.56
107		4-chlorotoluene	1.757	1.862	-6.0	117	0.00	16.68
108		1,3,5-trimethylbenzene	2.515	2.714	-7.9	111	0.00	16.58
109		tert-butylbenzene	2.257	2.501	-10.8	113	0.00	16.95
110		1,2,4-trimethylbenzene	2.595	2.737	-5.5	114	0.00	17.00
111		sec-butylbenzene	3.474	3.753	-8.0	113	0.00	17.17
112		p-isopropyltoluene	3.087	3.309	-7.2	114	0.00	17.31
113		1,3-dichlorobenzene	1.482	1.452	2.0	113	0.00	17.35
114		1,4-dichlorobenzene	1.460	1.467	-0.5	114	0.00	17.45
115		1,2-dichlorobenzene	1.633	1.647	-0.9	113	0.00	17.84
116		benzyl chloride	1.922	1.480	23.0	86	0.00	17.55
117		n-butylbenzene	1.499	1.540	-2.7	115	0.00	17.73
118		hexachloroethane	0.565	0.641	-13.5	115	0.00	18.14
119		1,2-dibromo-3-chloropropa	0.361	0.368	-1.9	110	0.00	18.62
120		1,3,5-trichlorobenzene	1.912	1.909	0.2	112	0.00	18.79
121		2-ethylhexyl acrylate	1.178	1.300	-10.4	120	0.00	19.40
122		1,2,4-trichlorobenzene	1.986	2.019	-1.7	110	0.00	19.42
123		hexachlorobutadiene	0.951	0.920	3.3	106	0.00	19.53
124		naphthalene	5.183	5.447	-5.1	112	0.00	19.71
125		1,2,3-trichlorobenzene	2.014	2.064	-2.5	109	0.00	19.93
126		2-methylnaphthalene	3.196	3.532	-10.5	108	0.00	20.89
127		bis(chloromethyl)ether		----------NA----------				
128		ethylenimine		----------NA----------				

(#) = Out of Range SPCC's out = 0 CCC's out = 0
3b149704.D M3B6662.M Thu Oct 25 15:05:49 2018 M3B

Initial Calibration Verification

Job Number: JC77588
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample: V3B6662-ICV6662
Lab FileID: 3B149710.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\V3B6662\3b149710.D Vial: 15
Acq On : 25 Oct 2018 12:17 am Operator: payalr
Sample : ICV6662-50 Inst : MS3B
Misc : MS29454,V3B6662,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M3B6662.M (RTE Integrator)
Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
Last Update : Thu Oct 25 12:07:40 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	tert butyl alcohol-d9	1.000	1.000	0.0	120	0.00	8.13
2		ethanol		----------NA----------				
3		tertiary butyl alcohol		----------NA----------				
4		1,4-dioxane		----------NA----------				
5	I	pentafluorobenzene	1.000	1.000	0.0	122	0.00	10.62
6		chlorodifluoromethane		----------NA----------				
7		dichlorodifluoromethane		----------NA----------				
8		chloromethane		----------NA----------				
9		vinyl chloride		----------NA----------				
10		1,3-butadiene		----------NA----------				
11		bromomethane		----------NA----------				
12		chloroethane		----------NA----------				
13		trichlorofluoromethane		----------NA----------				
14		vinyl bromide		----------NA----------				
15		ethyl ether		----------NA----------				
16		2-chloropropane		----------NA----------				
17		acrolein		----------NA----------				
18		freon 113		----------NA----------				
19		1,1-dichloroethene		----------NA----------				
20		acetone		----------NA----------				
21		acetonitrile	0.083	0.084	-1.2	118	0.00	7.84
22		iodomethane		----------NA----------				
23		carbon disulfide		----------NA----------				
24		methylene chloride		----------NA----------				
25		methyl acetate		----------NA----------				
26		methyl tert butyl ether		----------NA----------				
27		trans-1,2-dichloroethene		----------NA----------				
28		hexane		----------NA----------				
29		di-isopropyl ether		----------NA----------				
30		2-butanone		----------NA----------				
31		1,1-dichloroethane		----------NA----------				
32		chloroprene		----------NA----------				
33		acrylonitrile		----------NA----------				
34		vinyl acetate		----------NA----------				
35		ethyl tert-butyl ether		----------NA----------				
36		ethyl acetate		----------NA----------				
37		2,2-dichloropropane		----------NA----------				
38		cis-1,2-dichloroethene		----------NA----------				
39		propionitrile		----------NA----------				
40		methyl acrylate		----------NA----------				
41		methacrylonitrile		----------NA----------				

Initial Calibration Verification

Job Number: JC77588
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample: V3B6662-ICV6662
Lab FileID: 3B149710.D

42		bromochloromethane		----------NA----------					
43		tetrahydrofuran		----------NA----------					
44		chloroform		----------NA----------					
45		tert-Butyl Formate		----------NA----------					
46	S	dibromofluoromethane (s)	0.439	0.438	0.2	120	0.00	10.65	
47		1,1,1-trichloroethane		----------NA----------					
48		cyclohexane		----------NA----------					
49		isobutyl alcohol		----------NA----------					
50		1,1-dichloropropene		----------NA----------					
51		carbon tetrachloride		----------NA----------					
52		tert-amyl alcohol		----------NA----------					
53		isopropyl acetate		----------NA----------					
54	I	1,4-difluorobenzene	1.000	1.000	0.0	122	0.00	11.60	
55	S	1,2-dichloroethane-d4 (s)	0.412	0.398	3.4	121	0.00	11.10	
56		n-butyl alcohol		----------NA----------					
57		2,2,4-trimethylpentane		----------NA----------					
58		benzene		----------NA----------					
59		tert-amyl methyl ether		----------NA----------					
60		heptane		----------NA----------					
61		1,2-dichloroethane		----------NA----------					
62		ethyl acrylate		----------NA----------					
63		trichloroethene		----------NA----------					
64		2-chloroethyl vinyl ether		----------NA----------					
65		methyl methacrylate		----------NA----------					
66		methylcyclohexane		----------NA----------					
67		1,2-dichloropropane		----------NA----------					
68		dibromomethane		----------NA----------					
69		bromodichloromethane		----------NA----------					
70		2-nitropropane		----------NA----------					
71		epichlorohydrin		----------NA----------					
72		cis-1,3-dichloropropene		----------NA----------					
73		4-methyl-2-pentanone		----------NA----------					
74		isoamyl alcohol		----------NA----------					
75	I	chlorobenzene-d5	1.000	1.000	0.0	116	0.00	14.94	
76	S	toluene-d8 (s)	1.227	1.249	-1.8	118	0.00	13.31	
77		toluene		----------NA----------					
78		ethyl methacrylate		----------NA----------					
79		trans-1,3-dichloropropene		----------NA----------					
80		1,1,2-trichloroethane		----------NA----------					
81		tetrachloroethene	0.319	0.314	1.6	109	0.00	13.98	
82		2-hexanone		----------NA----------					
83		1,3-dichloropropane		----------NA----------					
84		butyl acetate		----------NA----------					
85		dibromochloromethane		----------NA----------					
86		1,2-dibromoethane		----------NA----------					
87		n-butyl ether		----------NA----------					
88		chlorobenzene		----------NA----------					
89		1,1,1,2-tetrachloroethane		----------NA----------					
90		ethylbenzene		----------NA----------					
91		m,p-xylene		----------NA----------					
92		o-xylene		----------NA----------					
93		styrene		----------NA----------					
94		butyl acrylate		----------NA----------					
95		n-amyl acetate		----------NA----------					
96		isopropylbenzene		----------NA----------					
97		bromoform		----------NA----------					
98		cis-1,4-dichloro-2-butene		----------NA----------					

Initial Calibration Verification

Job Number: JC77588 **Sample:** V3B6662-ICV6662
Account: TCMAW Tantara Corporation **Lab FileID:** 3B149710.D
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

99	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	129	0.00	17.43	
100	S	4-bromofluorobenzene (s)	0.723	0.701	3.0	120	0.00	16.19	
101		1,1,2,2-tetrachloroethane		----------NA----------					
102		trans-1,4-dichloro-2-bute		----------NA----------					
103		1,2,3-trichloropropane		----------NA----------					
104		bromobenzene		----------NA----------					
105		n-propylbenzene		----------NA----------					
106		2-chlorotoluene		----------NA----------					
107		4-chlorotoluene		----------NA----------					
108		1,3,5-trimethylbenzene		----------NA----------					
109		tert-butylbenzene		----------NA----------					
110		1,2,4-trimethylbenzene		----------NA----------					
111		sec-butylbenzene		----------NA----------					
112		p-isopropyltoluene		----------NA----------					
113		1,3-dichlorobenzene		----------NA----------					
114		1,4-dichlorobenzene		----------NA----------					
115		1,2-dichlorobenzene		----------NA----------					
116		benzyl chloride		----------NA----------					
117		n-butylbenzene		----------NA----------					
118		hexachloroethane		----------NA----------					
119		1,2-dibromo-3-chloropropa		----------NA----------					
120		1,3,5-trichlorobenzene		----------NA----------					
121		2-ethylhexyl acrylate		----------NA----------					
122		1,2,4-trichlorobenzene		----------NA----------					
123		hexachlorobutadiene		----------NA----------					
124		naphthalene		----------NA----------					
125		1,2,3-trichlorobenzene		----------NA----------					
126		2-methylnaphthalene		----------NA----------					
127		bis(chloromethyl)ether		----------NA----------					
128		ethylenimine		----------NA----------					

(#) = Out of Range SPCC's out = 0 CCC's out = 0
3b149704.D M3B6662.M Thu Oct 25 12:10:02 2018 M3B

Continuing Calibration Summary

Job Number: JC77588 **Sample:** V3B6682-CC6662
Account: TCMAW Tantara Corporation **Lab FileID:** 3B150111.D
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\lo...18\v3b6682\3b150111.d Vial: 2
Acq On : 10 Nov 2018 12:21 pm Operator: payalr
Sample : CC6662-20 Inst : MS3B
Misc : MS30566,V3B6682,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M3B6662.M (RTE Integrator)
Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
Last Update : Thu Oct 25 15:03:59 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	tert butyl alcohol-d9	1.000	1.000	0.0	69	0.00	8.12
2		ethanol		----------NA----------				
3		tertiary butyl alcohol	1.036	1.147	-10.7	76	0.00	8.26
4		1,4-dioxane	0.075	0.080	-6.7	75	0.00	12.28
5	I	pentafluorobenzene	1.000	1.000	0.0	76	0.00	10.62
6		chlorodifluoromethane	1.071	1.001	6.5	71	0.00	4.25
7		dichlorodifluoromethane	1.206	1.273	-5.6	76	-0.02	4.22
8		chloromethane	1.024	1.203	-17.5	85	0.00	4.67
9		vinyl chloride	0.996	1.115	-11.9	80	0.00	4.94
10		1,3-butadiene	0.651	0.812	-24.7#	96	0.00	4.97
11		bromomethane	0.682	0.762	-11.7	84	0.00	5.65
12		chloroethane	0.422	0.481	-14.0	84	0.01	5.86
13		trichlorofluoromethane	1.239	1.273	-2.7	74	0.00	6.39
14		vinyl bromide	0.578	0.635	-9.9	80	0.01	6.25
15		ethyl ether	0.194	0.186	4.1	69	0.00	6.84
16		2-chloropropane	0.829	0.772	6.9	71	0.00	7.08
17		acrolein	0.087	0.076	12.6	66	0.01	7.12
18		freon 113	0.524	0.507	3.2	73	0.01	7.35
19		1,1-dichloroethene	0.445	0.419	5.8	74	0.00	7.31
20		acetone	0.043	0.044	-2.3	74	0.00	7.34
21		acetonitrile	0.083	0.083	0.0	77	0.00	7.85
22		iodomethane	0.879	0.850	3.3	75	0.00	7.61
23		carbon disulfide	1.515	1.419	6.3	71	0.00	7.75
24		methylene chloride	0.457	0.448	2.0	76	0.00	8.15
25		methyl acetate	0.361	0.344	4.7	74	-0.01	7.87
26		methyl tert butyl ether	1.744	1.694	2.9	75	0.00	8.57
27		trans-1,2-dichloroethene	0.407	0.378	7.1	71	0.00	8.58
28		hexane	0.303	0.239	21.1#	61	0.00	8.98
29		di-isopropyl ether	1.431	1.337	6.6	71	0.00	9.23
30		2-butanone	0.058	0.056	3.4	77	-0.01	9.96
31		1,1-dichloroethane	0.694	0.662	4.6	71	0.00	9.24
32		chloroprene	0.613	0.526	14.2	66	0.00	9.35
33		acrylonitrile	0.175	0.179	-2.3	77	0.00	8.49
34		vinyl acetate	0.069	0.063	8.7	70	0.00	9.19
35		ethyl tert-butyl ether	1.627	1.567	3.7	71	0.00	9.75
36		ethyl acetate	0.071	0.068	4.2	68	0.00	9.99
37		2,2-dichloropropane	0.953	0.887	6.9	71	0.00	10.06
38		cis-1,2-dichloroethene	0.472	0.399	15.5	69	0.00	10.03
39		propionitrile	0.076	0.073	3.9	76	0.00	10.07
40		methyl acrylate	0.071	0.067	5.6	69	0.00	10.07
41		methacrylonitrile	0.185	0.166	10.3	67	0.00	10.27

Continuing Calibration Summary

Job Number: JC77588 **Sample:** V3B6682-CC6662
Account: TCMAW Tantara Corporation **Lab FileID:** 3B150111.D
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

42		bromochloromethane	0.241	0.224	7.1	71	0.00	10.35
43		tetrahydrofuran	0.149	0.137	8.1	71	0.00	10.36
44		chloroform	0.789	0.697	11.7	72	0.00	10.45
45		tert-Butyl Formate	0.491	0.449	8.6	73	0.00	10.49
46	S	dibromofluoromethane (s)	0.439	0.393	10.5	68	0.00	10.65
47		1,1,1-trichloroethane	0.975	0.905	7.2	70	0.00	10.71
48		cyclohexane	0.773	0.701	9.3	65	0.00	10.82
49		isobutyl alcohol	0.035	0.032	8.6	71	0.00	10.90
50		1,1-dichloropropene	0.538	0.465	13.6	65	0.00	10.89
51		carbon tetrachloride	0.848	0.795	6.2	68	0.00	10.91
52		tert-amyl alcohol	0.059	0.054	8.5	68	-0.01	11.06
53		isopropyl acetate	0.106	0.099	6.6	71	0.00	11.08
54	I	1,4-difluorobenzene	1.000	1.000	0.0	68	0.00	11.60
55	S	1,2-dichloroethane-d4 (s)	0.412	0.418	-1.5	69	0.00	11.09
56		n-butyl alcohol	0.016	0.018	-12.5	75	0.00	11.67
57		2,2,4-trimethylpentane	1.429	1.419	0.7	67	0.00	11.25
58		benzene	1.154	1.166	-1.0	68	0.00	11.15
59		tert-amyl methyl ether	1.308	1.381	-5.6	71	0.00	11.25
60		heptane	0.240	0.211	12.1	62	0.00	11.42
61		1,2-dichloroethane	0.496	0.496	0.0	70	0.00	11.19
62		ethyl acrylate	0.438	0.446	-1.8	68	0.00	11.92
63		trichloroethene	0.314	0.318	-1.3	69	0.00	11.91
64		2-chloroethyl vinyl ether	0.202	0.217	-7.4	71	0.00	12.76
65		methyl methacrylate	0.095	0.100	-5.3	68	0.00	12.20
66		methylcyclohexane	0.739	0.688	6.9	66	0.00	12.22
67		1,2-dichloropropane	0.299	0.302	-1.0	71	0.00	12.22
68		dibromomethane	0.207	0.224	-8.2	71	0.00	12.34
69		bromodichloromethane	0.447	0.474	-6.0	71	0.00	12.51
70		2-nitropropane	0.148	0.167	-12.8	80	0.00	12.74
71		epichlorohydrin	0.043	0.043	0.0	69	0.00	12.86
72		cis-1,3-dichloropropene	0.492	0.517	-5.1	70	0.00	12.99
73		4-methyl-2-pentanone	0.168	0.169	-0.6	68	0.00	13.11
74		isoamyl alcohol	0.018	0.020	-11.1	74	0.00	13.12
75	I	chlorobenzene-d5	1.000	1.000	0.0	67	0.00	14.93
76	S	toluene-d8 (s)	1.227	1.210	1.4	65	0.00	13.31
77		toluene	0.769	0.762	0.9	68	-0.01	13.38
78		ethyl methacrylate	0.462	0.443	4.1	64	0.00	13.59
79		trans-1,3-dichloropropene	0.503	0.506	-0.6	69	0.00	13.60
80		1,1,2-trichloroethane	0.241	0.265	-10.0	73	0.00	13.83
81		tetrachloroethene	0.319	0.326	-2.2	71	0.00	13.98
82		2-hexanone	0.164	0.167	-1.8	70	0.00	14.01
83		1,3-dichloropropane	0.472	0.486	-3.0	70	0.00	14.03
84		butyl acetate	0.256	0.269	-5.1	71	0.00	14.10
85		dibromochloromethane	0.380	0.411	-8.2	71	0.00	14.29
86		1,2-dibromoethane	0.346	0.382	-10.4	73	0.00	14.46
87		n-butyl ether	1.465	1.351	7.8	63	0.00	14.92
88		chlorobenzene	0.908	0.946	-4.2	71	0.00	14.97
89		1,1,1,2-tetrachloroethane	0.463	0.476	-2.8	70	0.00	15.04
90		ethylbenzene	1.591	1.556	2.2	66	0.00	15.03
91		m,p-xylene	0.614	0.623	-1.5	69	0.00	15.16
92		o-xylene	1.425	1.397	2.0	66	0.00	15.60
93		styrene	1.033	1.034	-0.1	68	0.00	15.61
94		butyl acrylate	0.771	0.756	1.9	70	0.00	15.41
95		n-amyl acetate	0.297	0.330	-11.1	76	0.00	15.64
96		isopropylbenzene	1.917	1.878	2.0	65	0.00	15.97
97		bromoform	0.319	0.359	-12.5	78	0.00	15.86
98		cis-1,4-dichloro-2-butene	0.219	0.123	43.8#	39#	0.00	16.02

Continuing Calibration Summary

Job Number: JC77588 **Sample:** V3B6682-CC6662
Account: TCMAW Tantara Corporation **Lab FileID:** 3B150111.D
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

99	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	75	0.00	17.42
100	S	4-bromofluorobenzene (s)	0.723	0.666	7.9	67	0.00	16.19
101		1,1,2,2-tetrachloroethane	0.779	0.757	2.8	72	0.00	16.28
102		trans-1,4-dichloro-2-bute	0.205	0.121	41.0#	45#	0.00	16.31
103		1,2,3-trichloropropane	0.243	0.222	8.6	70	0.00	16.37
104		bromobenzene	0.680	0.679	0.1	73	0.00	16.39
105		n-propylbenzene	3.037	2.755	9.3	68	0.00	16.41
106		2-chlorotoluene	0.702	0.634	9.7	69	0.00	16.56
107		4-chlorotoluene	1.757	1.627	7.4	70	0.00	16.68
108		1,3,5-trimethylbenzene	2.515	2.264	10.0	67	0.00	16.58
109		tert-butylbenzene	2.257	2.019	10.5	67	0.00	16.94
110		1,2,4-trimethylbenzene	2.595	2.344	9.7	69	0.00	16.99
111		sec-butylbenzene	3.474	3.067	11.7	67	0.00	17.17
112		p-isopropyltoluene	3.087	2.758	10.7	68	0.00	17.30
113		1,3-dichlorobenzene	1.482	1.424	3.9	75	0.00	17.35
114		1,4-dichlorobenzene	1.460	1.450	0.7	77	0.00	17.45
115		1,2-dichlorobenzene	1.633	1.630	0.2	76	0.00	17.84
116		benzyl chloride	1.922	1.942	-1.0	77	0.00	17.55
117		n-butylbenzene	1.499	1.336	10.9	69	0.00	17.73
118		hexachloroethane	0.565	0.550	2.7	76	0.00	18.13
119		1,2-dibromo-3-chloropropa	0.361	0.382	-5.8	80	0.00	18.62
120		1,3,5-trichlorobenzene	1.912	1.908	0.2	77	0.00	18.79
121		2-ethylhexyl acrylate	1.178	0.869	26.2#	59	0.00	19.40
122		1,2,4-trichlorobenzene	1.986	2.089	-5.2	79	0.00	19.42
123		hexachlorobutadiene	0.951	0.975	-2.5	79	0.00	19.52
124		naphthalene	5.183	5.315	-2.5	75	0.00	19.71
125		1,2,3-trichlorobenzene	2.014	2.190	-8.7	80	0.00	19.93
126		2-methylnaphthalene	3.196	3.035	5.0	70	0.00	20.89
127		bis(chloromethyl)ether		----------NA----------				
128		ethylenimine		----------NA----------				

(#) = Out of Range SPCC's out = 0 CCC's out = 0
3b149703.D M3B6662.M Mon Nov 12 09:18:25 2018

MS Volatiles

Raw Data

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\november\11-12-18\v3b6682\
Data File : 3b150123.d
Acq On : 10 Nov 2018 6:13 pm
Operator : payalr
Sample : JC77588-1 Inst : MS3B
Misc : MS30646,V3B6682,5,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3B6662.M
Quant Results File: M3B6662.RES
Quant Time: Nov 12 09:40:34 2018
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Thu Oct 25 15:03:59 2018
Response via : Initial Calibration

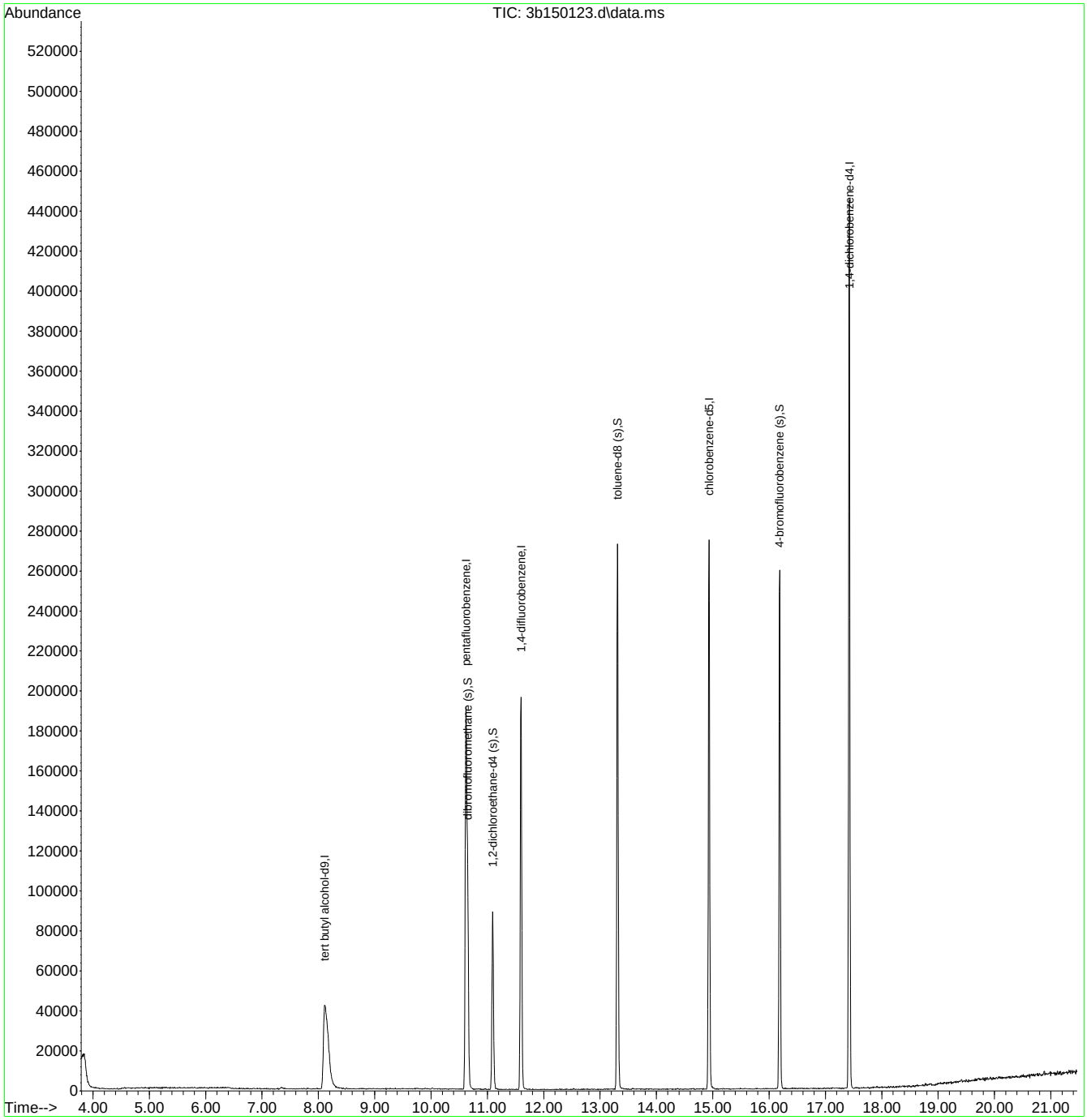
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	8.108	65	148848	500.00	ug/L	-0.02
5) pentafluorobenzene	10.618	168	145880	50.00	ug/L	-0.01
54) 1,4-difluorobenzene	11.596	114	164134	50.00	ug/L	0.00
75) chlorobenzene-d5	14.933	117	158781	50.00	ug/L	0.00
99) 1,4-dichlorobenzene-d4	17.423	152	118253	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.649	113	56861	44.36	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 88.72%			
55) 1,2-dichloroethane-d4 (s)	11.094	65	67690	50.09	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 100.18%			
76) toluene-d8 (s)	13.306	98	187479	48.11	ug/L	-0.01
Spiked Amount 50.000	Range 80 - 120		Recovery = 96.22%			
100) 4-bromofluorobenzene (s)	16.183	95	80152	46.88	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 93.76%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\november\11-12-18\v3b6682\
Data File : 3b150123.d
Acq On : 10 Nov 2018 6:13 pm
Operator : payalr
Sample : JC77588-1 Inst : MS3B
Misc : MS30646,V3B6682,5,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3B6662.M
Quant Results File: M3B6662.RES
Quant Time: Nov 12 09:40:34 2018
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Thu Oct 25 15:03:59 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\november\11-12-18\v3b6682\
Data File : 3b150115.d
Acq On : 10 Nov 2018 2:26 pm
Operator : payalr
Sample : MB Inst : MS3B
Misc : MS30637,V3B6682,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3B6662.M
Quant Results File: M3B6662.RES
Quant Time: Nov 12 09:24:13 2018
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Thu Oct 25 15:03:59 2018
Response via : Initial Calibration

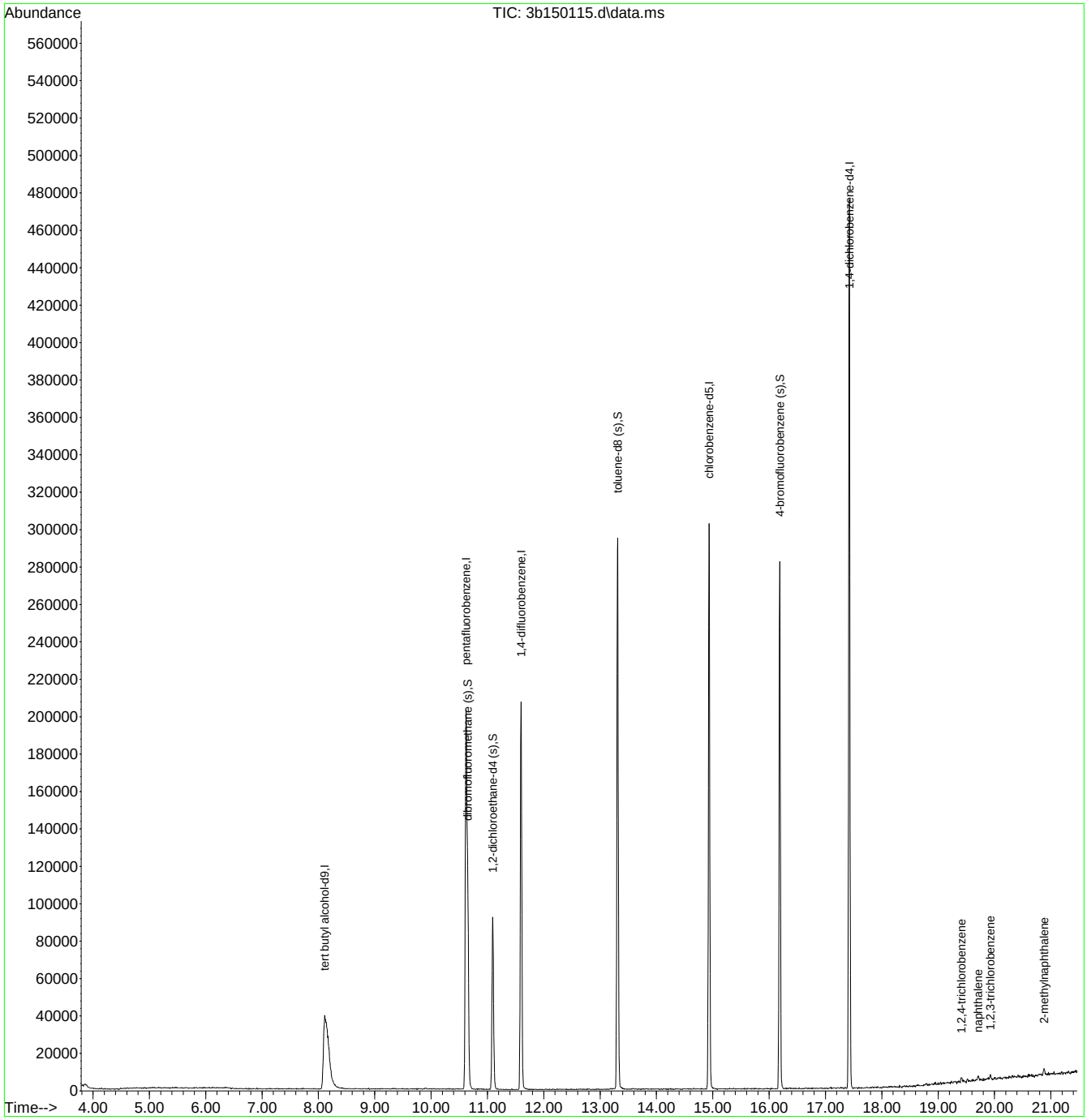
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	8.113	65	149127	500.00	ug/L	-0.02
5) pentafluorobenzene	10.623	168	154647	50.00	ug/L	0.00
54) 1,4-difluorobenzene	11.596	114	173008	50.00	ug/L	0.00
75) chlorobenzene-d5	14.933	117	169156	50.00	ug/L	0.00
99) 1,4-dichlorobenzene-d4	17.422	152	127535	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.649	113	59687	43.92	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 87.84%			
55) 1,2-dichloroethane-d4 (s)	11.094	65	70698	49.63	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 99.26%			
76) toluene-d8 (s)	13.311	98	200246	48.23	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 96.46%			
100) 4-bromofluorobenzene (s)	16.188	95	84125	45.63	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 91.26%			
Target Compounds						Qvalue
122) 1,2,4-trichlorobenzene	19.415	180	1044	0.21	ug/L	79
124) naphthalene	19.708	128	2653	0.20	ug/L	79
125) 1,2,3-trichlorobenzene	19.928	180	1198	0.23	ug/L	87
126) 2-methylnaphthalene	20.880	142	2105	0.26	ug/L	96

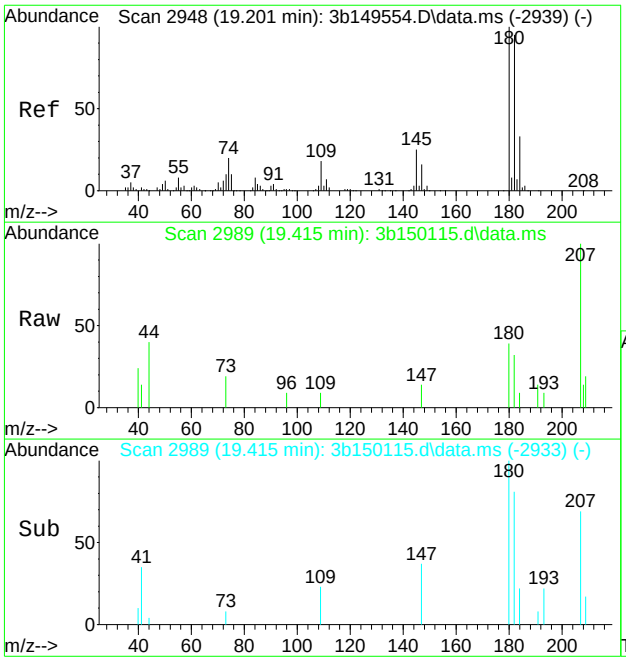
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\november\11-12-18\v3b6682\
Data File : 3b150115.d
Acq On : 10 Nov 2018 2:26 pm
Operator : payalr
Sample : MB Inst : MS3B
Misc : MS30637,V3B6682,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3B6662.M
Quant Results File: M3B6662.RES
Quant Time: Nov 12 09:24:13 2018
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Thu Oct 25 15:03:59 2018
Response via : Initial Calibration

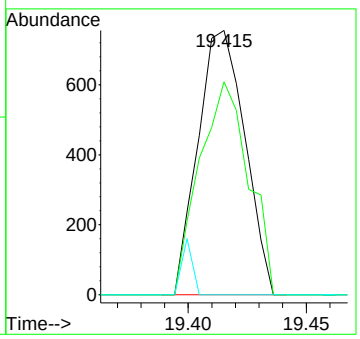


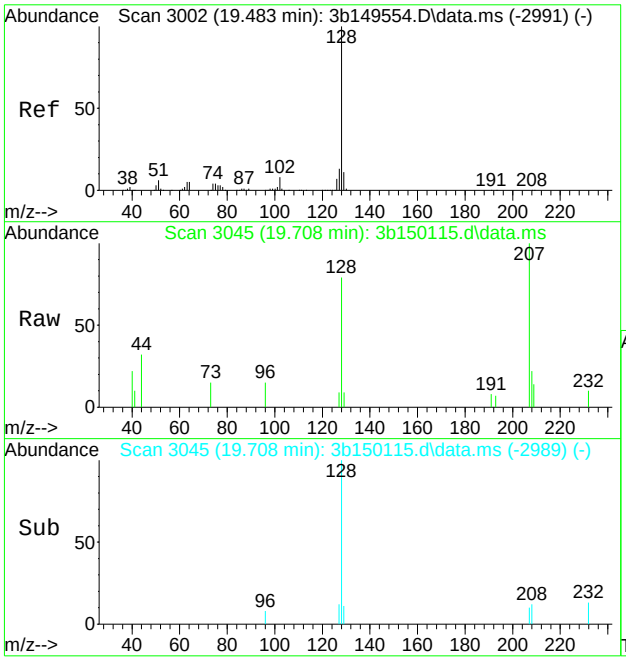


#122
1,2,4-trichlorobenzene
Concen: 0.21 ug/L
RT: 19.415 min Scan# 2989
Delta R.T. -0.005 min
Lab File: 3b150115.d
Acq: 10 Nov 2018 2:26 pm

Tgt Ion:180 Resp: 1044

Ion	Ratio	Lower	Upper
180	100		
182	80.6	65.2	125.2
74	0.0	0.0	53.1

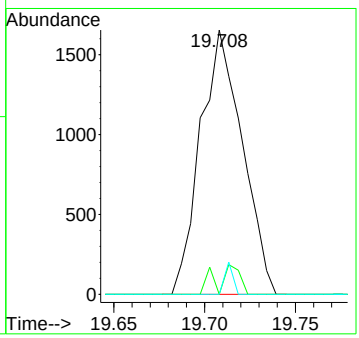


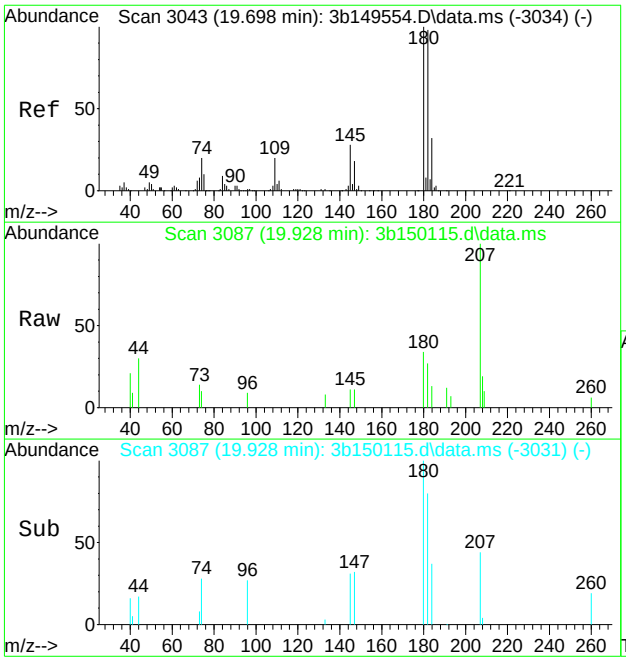


#124
naphthalene
Concen: 0.20 ug/L
RT: 19.708 min Scan# 3045
Delta R.T. -0.005 min
Lab File: 3b150115.d
Acq: 10 Nov 2018 2:26 pm

Tgt Ion:128 Resp: 2653

Ion	Ratio	Lower	Upper
128	100		
102	0.0	0.0	38.5
51	0.0	0.0	36.0

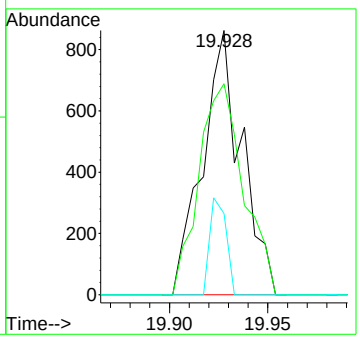


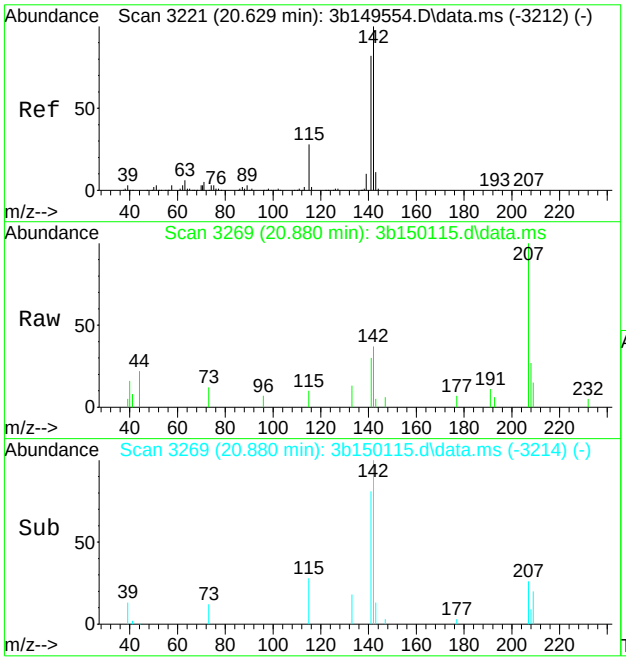


#125
1,2,3-trichlorobenzene
Concen: 0.23 ug/L
RT: 19.928 min Scan# 3087
Delta R.T. -0.005 min
Lab File: 3b150115.d
Acq: 10 Nov 2018 2:26 pm

Tgt Ion:180 Resp: 1198

Ion	Ratio	Lower	Upper
180	100		
182	79.8	65.6	125.6
145	30.7	0.0	59.8

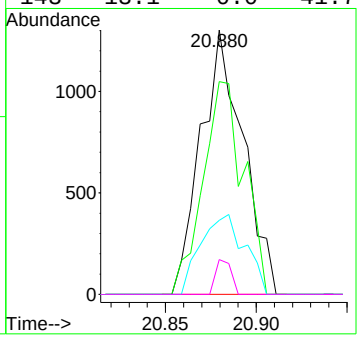




#126
2-methylnaphthalene
Concen: 0.26 ug/L
RT: 20.880 min Scan# 3269
Delta R.T. -0.011 min
Lab File: 3b150115.d
Acq: 10 Nov 2018 2:26 pm

Tgt Ion:142 Resp: 2105

Ion	Ratio	Lower	Upper
142	100		
141	80.5	63.6	103.6
115	28.0	1.9	61.9
143	13.1	0.0	41.7



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\november\11-12-18\v3b6682\
Data File : 3b150112.d
Acq On : 10 Nov 2018 1:00 pm
Operator : payalr
Sample : BS Inst : MS3B
Misc : MS30643,V3B6682,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3B6662.M
Quant Results File: M3B6662.RES
Quant Time: Nov 12 09:20:50 2018
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Thu Oct 25 15:03:59 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	8.128	65	150687	500.00	ug/L	0.00
5) pentafluorobenzene	10.623	168	142885	50.00	ug/L	0.00
54) 1,4-difluorobenzene	11.596	114	163414	50.00	ug/L	0.00
75) chlorobenzene-d5	14.933	117	157483	50.00	ug/L	0.00
99) 1,4-dichlorobenzene-d4	17.423	152	111885	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.649	113	55328	44.07	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 88.14%			
55) 1,2-dichloroethane-d4 (s)	11.094	65	64494	47.94	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 95.88%			
76) toluene-d8 (s)	13.312	98	189308	48.98	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.96%			
100) 4-bromofluorobenzene (s)	16.188	95	77493	47.91	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 95.82%			
Target Compounds						Qvalue
3) tertiary butyl alcohol	8.254	59	81340	260.58	ug/L	97
4) 1,4-dioxane	12.271	88	30829	1371.59	ug/L	95
6) chlorodifluoromethane	4.253	51	152028	49.68	ug/L	97
7) dichlorodifluoromethane	4.227	85	203150	58.94	ug/L	96
8) chloromethane	4.666	50	183582	62.73	ug/L	97
9) vinyl chloride	4.933	62	171941	60.38	ug/L	100
10) 1,3-butadiene	4.969	54	94346	50.70	ug/L	99
11) bromomethane	5.649	94	110128	56.52	ug/L	95
12) chloroethane	5.848	64	70124	58.17	ug/L	98
13) trichlorofluoromethane	6.387	101	191631	54.11	ug/L	97
14) vinyl bromide	6.240	106	92965	56.25	ug/L	95
15) ethyl ether	6.837	74	26363	47.49	ug/L	97
16) 2-chloropropane	7.077	43	104288	44.01	ug/L	98
17) acrolein	7.103	56	11104	44.81	ug/L	94
18) freon 113	7.339	151	74650	49.81	ug/L	96
19) 1,1-dichloroethene	7.302	96	57627	45.35	ug/L	90
20) acetone	7.344	58	25193	203.70	ug/L	90
21) acetonitrile	7.836	41	118400	499.05	ug/L	97
22) iodomethane	7.595	142	117855	46.92	ug/L	93
23) carbon disulfide	7.736	76	200416	46.28	ug/L	97
24) methylene chloride	8.144	84	61716	47.27	ug/L	95
25) methyl acetate	7.872	43	48562	47.12	ug/L	96
26) methyl tert butyl ether	8.563	73	232887	46.73	ug/L	98
27) trans-1,2-dichloroethene	8.578	96	52188	44.91	ug/L	94
28) hexane	8.976	56	35679	41.21	ug/L	96
29) di-isopropyl ether	9.232	45	188337	46.07	ug/L	99
30) 2-butanone	9.964	72	32076	195.00	ug/L #	77
31) 1,1-dichloroethane	9.237	63	89779	45.29	ug/L	97
32) chloroprene	9.342	53	75019	42.83	ug/L	98
33) acrylonitrile	8.500	53	24608	49.24	ug/L	97
34) vinyl acetate	9.180	86	9280	47.02	ug/L	97
35) ethyl tert-butyl ether	9.745	59	220886	47.51	ug/L	99
36) ethyl acetate	9.985	45	9051	44.47	ug/L #	87
37) 2,2-dichloropropane	10.058	77	127163	46.68	ug/L	97
38) cis-1,2-dichloroethene	10.027	96	57661	42.76	ug/L	94
39) propionitrile	10.064	54	99866	460.84	ug/L	94
40) methyl acrylate	10.074	85	9430	46.42	ug/L #	83
41) methacrylonitrile	10.268	67	22917	43.35	ug/L	94
42) bromochloromethane	10.346	128	31224	45.40	ug/L	89

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\november\11-12-18\v3b6682\
Data File : 3b150112.d
Acq On : 10 Nov 2018 1:00 pm
Operator : payalr
Sample : BS Inst : MS3B
Misc : MS30643,V3B6682,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3B6662.M
Quant Results File: M3B6662.RES
Quant Time: Nov 12 09:20:50 2018
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Thu Oct 25 15:03:59 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
43) tetrahydrofuran	10.356	42	19665	46.18	ug/L		92
44) chloroform	10.445	83	95301	42.27	ug/L		96
45) tert-Butyl Formate	10.487	59	64326	45.82	ug/L		96
47) 1,1,1-trichloroethane	10.712	97	128442	46.08	ug/L		97
48) cyclohexane	10.812	84	107111	48.47	ug/L		96
49) isobutyl alcohol	10.890	43	46641	469.53	ug/L		91
50) 1,1-dichloropropene	10.885	75	66319	43.13	ug/L		98
51) carbon tetrachloride	10.906	117	114628	47.30	ug/L		98
52) tert-amyl alcohol	11.057	73	39299	234.26	ug/L		91
53) isopropyl acetate	11.083	87	13824	45.74	ug/L	#	81
56) n-butyl alcohol	11.675	56	148227	2767.44	ug/L		98
57) 2,2,4-trimethylpentane	11.251	57	255828	54.78	ug/L		99
58) benzene	11.146	78	184781	49.01	ug/L		97
59) tert-amyl methyl ether	11.246	73	221150	51.74	ug/L		98
60) heptane	11.418	57	36759	46.79	ug/L		97
61) 1,2-dichloroethane	11.188	62	77078	47.50	ug/L		97
62) ethyl acrylate	11.915	55	75060	52.45	ug/L		99
63) trichloroethene	11.915	95	51093	49.85	ug/L		93
64) 2-chloroethyl vinyl ether	12.762	63	178560	271.01	ug/L		99
65) methyl methacrylate	12.192	100	15951	51.15	ug/L	#	79
66) methylcyclohexane	12.213	83	119835	49.63	ug/L		95
67) 1,2-dichloropropane	12.229	63	48064	49.21	ug/L		96
68) dibromomethane	12.339	93	34913	51.62	ug/L		96
69) bromodichloromethane	12.506	83	75429	51.61	ug/L		100
70) 2-nitropropane	12.736	41	26161	53.91	ug/L		100
71) epichlorohydrin	12.857	57	35878	257.43	ug/L		96
72) cis-1,3-dichloropropene	12.987	75	82053	51.06	ug/L		98
73) 4-methyl-2-pentanone	13.108	58	109200	199.08	ug/L		94
74) isoamyl alcohol	13.118	70	64461	1104.32	ug/L		97
77) toluene	13.390	92	120493	49.75	ug/L		99
78) ethyl methacrylate	13.589	69	70745	48.64	ug/L		99
79) trans-1,3-dichloropropene	13.599	75	78628	49.61	ug/L		98
80) 1,1,2-trichloroethane	13.835	83	40143	52.92	ug/L		98
81) tetrachloroethene	13.976	164	51675	51.46	ug/L		99
82) 2-hexanone	14.012	58	104716	202.85	ug/L		99
83) 1,3-dichloropropane	14.028	76	74558	50.12	ug/L		97
84) butyl acetate	14.091	56	40273	49.88	ug/L		99
85) dibromochloromethane	14.290	129	64453	53.84	ug/L		99
86) 1,2-dibromoethane	14.452	107	57915	53.09	ug/L		95
87) n-butyl ether	14.917	57	213991	46.38	ug/L		100
88) chlorobenzene	14.970	112	144093	50.37	ug/L		97
89) 1,1,1,2-tetrachloroethane	15.043	131	74425	51.07	ug/L		97
90) ethylbenzene	15.032	91	245943	49.07	ug/L		99
91) m,p-xylene	15.163	106	195677	101.19	ug/L		95
92) o-xylene	15.592	91	222958	49.69	ug/L		100
93) styrene	15.608	104	162692	50.00	ug/L		99
94) butyl acrylate	15.414	55	115692	47.66	ug/L		96
95) n-amyl acetate	15.634	70	46026	49.16	ug/L		90
96) isopropylbenzene	15.969	105	309084	51.20	ug/L		99
97) bromoform	15.859	173	55755	55.57	ug/L		97
98) cis-1,4-dichloro-2-butene	16.016	88	31537	45.67	ug/L		97
101) 1,1,2,2-tetrachloroethane	16.277	83	89402	51.27	ug/L		96
102) trans-1,4-dichloro-2-b...	16.314	53	21487	46.76	ug/L		91
103) 1,2,3-trichloropropane	16.371	110	26265	48.21	ug/L		91
104) bromobenzene	16.387	156	78351	51.48	ug/L		91
105) n-propylbenzene	16.413	91	323327	47.58	ug/L		99
106) 2-chlorotoluene	16.560	126	74728	47.59	ug/L		92

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\november\11-12-18\v3b6682\
Data File : 3b150112.d
Acq On : 10 Nov 2018 1:00 pm
Operator : payalr
Sample : BS Inst : MS3B
Misc : MS30643,V3B6682,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3B6662.M
Quant Results File: M3B6662.RES
Quant Time: Nov 12 09:20:50 2018
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Thu Oct 25 15:03:59 2018
Response via : Initial Calibration

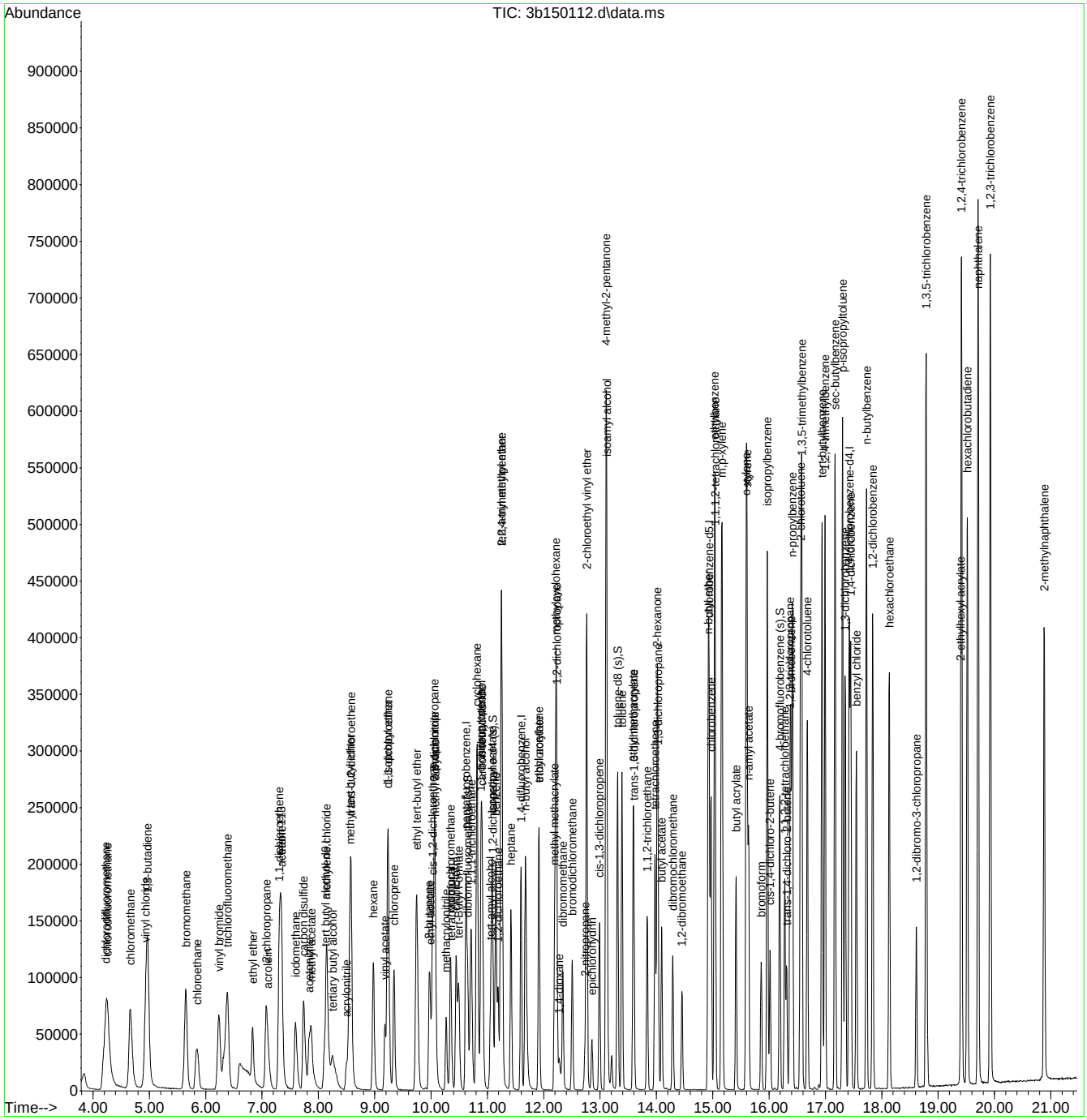
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
107) 4-chlorotoluene	16.680	91	187684	47.73	ug/L	99
108) 1,3,5-trimethylbenzene	16.580	105	272310	48.39	ug/L	97
109) tert-butylbenzene	16.941	119	255939	50.67	ug/L	97
110) 1,2,4-trimethylbenzene	16.994	105	273351	47.08	ug/L	98
111) sec-butylbenzene	17.171	105	384383	49.45	ug/L	99
112) p-isopropyltoluene	17.302	119	334646	48.45	ug/L	99
113) 1,3-dichlorobenzene	17.349	146	159082	47.97	ug/L	99
114) 1,4-dichlorobenzene	17.449	146	159341	48.76	ug/L	96
115) 1,2-dichlorobenzene	17.836	146	179456	49.12	ug/L	98
116) benzyl chloride	17.548	91	207918	48.35	ug/L	99
117) n-butylbenzene	17.731	92	157324	46.89	ug/L	98
118) hexachloroethane	18.134	201	74986	59.28	ug/L	97
119) 1,2-dibromo-3-chloropr...	18.615	157	43560	53.85	ug/L	95
120) 1,3,5-trichlorobenzene	18.788	180	215770	50.43	ug/L	98
121) 2-ethylhexyl acrylate	19.400	70	23555	8.93	ug/L	90
122) 1,2,4-trichlorobenzene	19.415	180	239372	53.86	ug/L	98
123) hexachlorobutadiene	19.520	225	116733	54.87	ug/L	97
124) naphthalene	19.708	128	638650	55.06	ug/L	99
125) 1,2,3-trichlorobenzene	19.928	180	265872	59.00	ug/L	98
126) 2-methylnaphthalene	20.885	142	219803	30.73	ug/L	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\november\11-12-18\v3b6682\
Data File : 3b150112.d
Acq On : 10 Nov 2018 1:00 pm
Operator : payalr
Sample : BS Inst : MS3B
Misc : MS30643,V3B6682,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3B6662.M
Quant Results File: M3B6662.RES
Quant Time: Nov 12 09:20:50 2018
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Thu Oct 25 15:03:59 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\november\11-12-18\v3b6682\
Data File : 3b150113.d
Acq On : 10 Nov 2018 1:29 pm
Operator : payalr
Sample : BSD Inst : MS3B
Misc : MS30643,V3B6682,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3B6662.M
Quant Results File: M3B6662.RES
Quant Time: Nov 12 09:22:18 2018
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Thu Oct 25 15:03:59 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	8.123	65	152170	500.00	ug/L		0.00
5) pentafluorobenzene	10.623	168	149347	50.00	ug/L		0.00
54) 1,4-difluorobenzene	11.596	114	173940	50.00	ug/L		0.00
75) chlorobenzene-d5	14.933	117	167936	50.00	ug/L		0.00
99) 1,4-dichlorobenzene-d4	17.423	152	121915	50.00	ug/L		0.00
System Monitoring Compounds							
46) dibromofluoromethane (s)	10.649	113	58489	44.57	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 89.14%				
55) 1,2-dichloroethane-d4 (s)	11.094	65	69834	48.77	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 97.54%				
76) toluene-d8 (s)	13.312	98	199890	48.49	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 96.98%				
100) 4-bromofluorobenzene (s)	16.188	95	84388	47.88	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 95.76%				
Target Compounds							Qvalue
3) tertiary butyl alcohol	8.249	59	81583	258.81	ug/L		97
4) 1,4-dioxane	12.276	88	31151	1372.41	ug/L		95
6) chlorodifluoromethane	4.253	51	149266	46.67	ug/L		99
7) dichlorodifluoromethane	4.237	85	196204	54.47	ug/L		97
8) chloromethane	4.661	50	184659	60.37	ug/L		99
9) vinyl chloride	4.933	62	170558	57.30	ug/L		99
10) 1,3-butadiene	4.964	54	102195	52.54	ug/L		99
11) bromomethane	5.649	94	109148	53.59	ug/L		97
12) chloroethane	5.853	64	68368	54.26	ug/L		97
13) trichlorofluoromethane	6.387	101	182905	49.41	ug/L		100
14) vinyl bromide	6.240	106	89008	51.53	ug/L		97
15) ethyl ether	6.831	74	26356	45.43	ug/L		97
16) 2-chloropropane	7.077	43	102169	41.25	ug/L		98
17) acrolein	7.109	56	11404	44.03	ug/L		95
18) freon 113	7.339	151	71773	45.82	ug/L		95
19) 1,1-dichloroethene	7.307	96	57755	43.48	ug/L		94
20) acetone	7.349	58	25172	194.73	ug/L	#	80
21) acetonitrile	7.841	41	118215	476.71	ug/L		99
22) iodomethane	7.600	142	118711	45.21	ug/L		95
23) carbon disulfide	7.741	76	197945	43.73	ug/L		99
24) methylene chloride	8.149	84	62536	45.82	ug/L		98
25) methyl acetate	7.872	43	49333	45.80	ug/L		97
26) methyl tert butyl ether	8.557	73	239345	45.94	ug/L		99
27) trans-1,2-dichloroethene	8.578	96	51301	42.24	ug/L		96
28) hexane	8.976	56	34167	37.75	ug/L		96
29) di-isopropyl ether	9.232	45	188818	44.19	ug/L		99
30) 2-butanone	9.964	72	32692	190.15	ug/L	#	76
31) 1,1-dichloroethane	9.237	63	89783	43.33	ug/L		97
32) chloroprene	9.342	53	73898	40.36	ug/L		99
33) acrylonitrile	8.495	53	25271	48.38	ug/L		96
34) vinyl acetate	9.180	86	9386	45.50	ug/L	#	89
35) ethyl tert-butyl ether	9.745	59	227847	46.88	ug/L		98
36) ethyl acetate	9.990	45	9725	45.71	ug/L	#	60
37) 2,2-dichloropropane	10.064	77	119680	42.03	ug/L		93
38) cis-1,2-dichloroethene	10.027	96	57541	40.82	ug/L		100
39) propionitrile	10.064	54	103253	455.85	ug/L		95
40) methyl acrylate	10.069	85	10349	48.74	ug/L	#	88
41) methacrylonitrile	10.268	67	25006	45.25	ug/L		95
42) bromochloromethane	10.346	128	31906	44.38	ug/L		92

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\november\11-12-18\v3b6682\
Data File : 3b150113.d
Acq On : 10 Nov 2018 1:29 pm
Operator : payalr
Sample : BSD Inst : MS3B
Misc : MS30643,V3B6682,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3B6662.M
Quant Results File: M3B6662.RES
Quant Time: Nov 12 09:22:18 2018
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Thu Oct 25 15:03:59 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
43) tetrahydrofuran	10.362	42	20487	46.02	ug/L		97
44) chloroform	10.445	83	95472	40.52	ug/L		99
45) tert-Butyl Formate	10.487	59	64440	43.91	ug/L		95
47) 1,1,1-trichloroethane	10.707	97	123341	42.34	ug/L		98
48) cyclohexane	10.817	84	103234	44.69	ug/L		95
49) isobutyl alcohol	10.890	43	46264	445.58	ug/L		97
50) 1,1-dichloropropene	10.885	75	66109	41.13	ug/L		98
51) carbon tetrachloride	10.911	117	109705	43.31	ug/L		98
52) tert-amyl alcohol	11.057	73	39920	227.66	ug/L		93
53) isopropyl acetate	11.084	87	14512	45.94	ug/L	#	93
56) n-butyl alcohol	11.675	56	149431	2621.09	ug/L		99
57) 2,2,4-trimethylpentane	11.251	57	246876	49.66	ug/L		97
58) benzene	11.152	78	184078	45.86	ug/L		98
59) tert-amyl methyl ether	11.246	73	230488	50.66	ug/L		99
60) heptane	11.418	57	36092	43.16	ug/L		96
61) 1,2-dichloroethane	11.193	62	77261	44.74	ug/L		98
62) ethyl acrylate	11.915	55	75091	49.30	ug/L		98
63) trichloroethene	11.915	95	51050	46.80	ug/L		95
64) 2-chloroethyl vinyl ether	12.762	63	183449	261.58	ug/L		98
65) methyl methacrylate	12.192	100	16414	49.45	ug/L	#	87
66) methylcyclohexane	12.219	83	115643	44.99	ug/L		99
67) 1,2-dichloropropane	12.229	63	48156	46.32	ug/L		94
68) dibromomethane	12.334	93	35698	49.59	ug/L		95
69) bromodichloromethane	12.506	83	76025	48.87	ug/L		98
70) 2-nitropropane	12.736	41	27384	53.01	ug/L		92
71) epichlorohydrin	12.857	57	36038	242.93	ug/L		93
72) cis-1,3-dichloropropene	12.987	75	83421	48.77	ug/L		99
73) 4-methyl-2-pentanone	13.108	58	110523	189.30	ug/L		96
74) isoamyl alcohol	13.118	70	64965	1045.60	ug/L		97
77) toluene	13.390	92	119965	46.45	ug/L		93
78) ethyl methacrylate	13.589	69	72238	46.58	ug/L		100
79) trans-1,3-dichloropropene	13.599	75	80781	47.80	ug/L		99
80) 1,1,2-trichloroethane	13.835	83	41637	51.47	ug/L		97
81) tetrachloroethene	13.976	164	50142	46.82	ug/L		98
82) 2-hexanone	14.012	58	107261	194.84	ug/L		96
83) 1,3-dichloropropane	14.028	76	75912	47.85	ug/L		96
84) butyl acetate	14.091	56	41937	48.71	ug/L		94
85) dibromochloromethane	14.290	129	65541	51.34	ug/L		99
86) 1,2-dibromoethane	14.452	107	60224	51.77	ug/L		95
87) n-butyl ether	14.917	57	217756	44.26	ug/L		100
88) chlorobenzene	14.970	112	144362	47.32	ug/L		98
89) 1,1,1,2-tetrachloroethane	15.043	131	73700	47.43	ug/L		98
90) ethylbenzene	15.032	91	241928	45.26	ug/L		99
91) m,p-xylene	15.163	106	191496	92.86	ug/L		98
92) o-xylene	15.592	91	220258	46.03	ug/L		97
93) styrene	15.608	104	165115	47.59	ug/L		96
94) butyl acrylate	15.414	55	121940	47.11	ug/L		99
95) n-amyl acetate	15.639	70	49383	49.46	ug/L		95
96) isopropylbenzene	15.969	105	302712	47.02	ug/L		99
97) bromoform	15.859	173	57566	53.81	ug/L		99
98) cis-1,4-dichloro-2-butene	16.016	88	30361	41.23	ug/L		93
101) 1,1,2,2-tetrachloroethane	16.277	83	91795	48.31	ug/L		100
102) trans-1,4-dichloro-2-b...	16.309	53	21140	42.22	ug/L		96
103) 1,2,3-trichloropropane	16.366	110	27022	45.52	ug/L		96
104) bromobenzene	16.387	156	81447	49.11	ug/L		88
105) n-propylbenzene	16.413	91	322596	43.57	ug/L		99
106) 2-chlorotoluene	16.560	126	74969	43.82	ug/L		96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\november\11-12-18\v3b6682\
Data File : 3b150113.d
Acq On : 10 Nov 2018 1:29 pm
Operator : payalr
Sample : BSD Inst : MS3B
Misc : MS30643,V3B6682,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3B6662.M
Quant Results File: M3B6662.RES
Quant Time: Nov 12 09:22:18 2018
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Thu Oct 25 15:03:59 2018
Response via : Initial Calibration

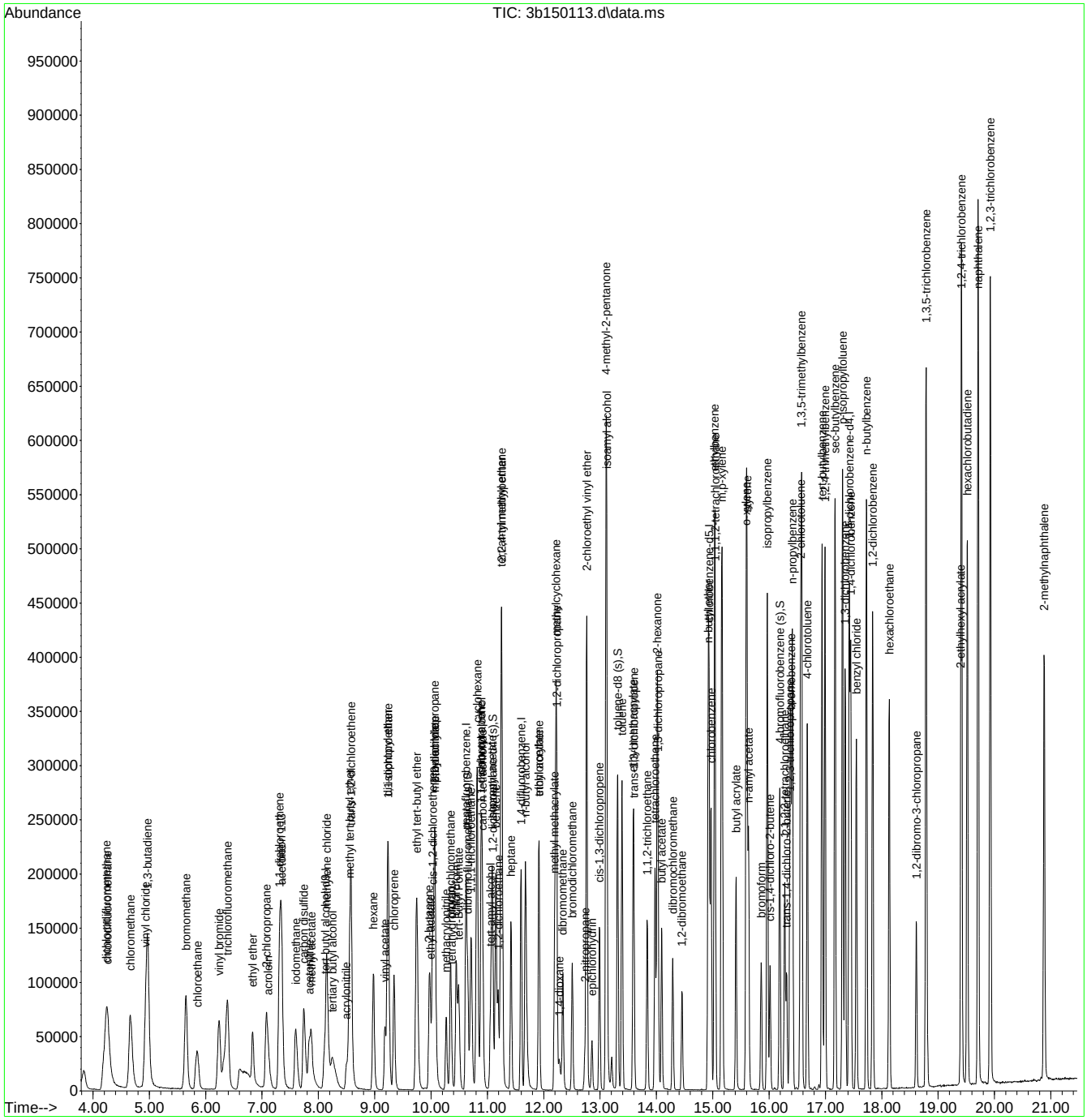
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
107) 4-chlorotoluene	16.680	91	191227	44.63	ug/L	93
108) 1,3,5-trimethylbenzene	16.575	105	270958	44.19	ug/L	98
109) tert-butylbenzene	16.941	119	251853	45.76	ug/L	98
110) 1,2,4-trimethylbenzene	16.994	105	272236	43.03	ug/L	98
111) sec-butylbenzene	17.172	105	374541	44.22	ug/L	98
112) p-isopropyltoluene	17.302	119	331719	44.08	ug/L	98
113) 1,3-dichlorobenzene	17.349	146	163846	45.35	ug/L	98
114) 1,4-dichlorobenzene	17.449	146	167647	47.08	ug/L	98
115) 1,2-dichlorobenzene	17.836	146	185544	46.61	ug/L	97
116) benzyl chloride	17.548	91	220665	47.09	ug/L	99
117) n-butylbenzene	17.726	92	160210	43.82	ug/L	96
118) hexachloroethane	18.134	201	71935	52.19	ug/L	96
119) 1,2-dibromo-3-chloropr...	18.615	157	46307	52.54	ug/L	96
120) 1,3,5-trichlorobenzene	18.788	180	227745	48.85	ug/L	99
121) 2-ethylhexyl acrylate	19.400	70	24310	8.46	ug/L	90
122) 1,2,4-trichlorobenzene	19.415	180	246024	50.81	ug/L	98
123) hexachlorobutadiene	19.520	225	118288	51.03	ug/L	96
124) naphthalene	19.708	128	660345	52.25	ug/L	99
125) 1,2,3-trichlorobenzene	19.928	180	270223	55.04	ug/L	97
126) 2-methylnaphthalene	20.880	142	217176	27.87	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\november\11-12-18\v3b6682\
Data File : 3b150113.d
Acq On : 10 Nov 2018 1:29 pm
Operator : payalr
Sample : BSD Inst : MS3B
Misc : MS30643,V3B6682,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3B6662.M
Quant Results File: M3B6662.RES
Quant Time: Nov 12 09:22:18 2018
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Thu Oct 25 15:03:59 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\november\11-12-18\v3b6682\
Data File : 3b150118.d
Acq On : 10 Nov 2018 3:51 pm
Operator : payalr
Sample : JC77581-2MS Inst : MS3B
Misc : MS30643,V3B6682,5,,,,5
ALS Vial : 9 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3B6662.M
Quant Results File: M3B6662.RES
Quant Time: Nov 12 09:34:34 2018
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Thu Oct 25 15:03:59 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	8.123	65	140990	500.00	ug/L		0.00
5) pentafluorobenzene	10.623	168	147240	50.00	ug/L		0.00
54) 1,4-difluorobenzene	11.596	114	170083	50.00	ug/L		0.00
75) chlorobenzene-d5	14.933	117	161422	50.00	ug/L		0.00
99) 1,4-dichlorobenzene-d4	17.422	152	114216	50.00	ug/L		0.00
System Monitoring Compounds							
46) dibromofluoromethane (s)	10.649	113	57397	44.36	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 88.72%				
55) 1,2-dichloroethane-d4 (s)	11.094	65	67694	48.34	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 96.68%				
76) toluene-d8 (s)	13.311	98	194535	49.10	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.20%				
100) 4-bromofluorobenzene (s)	16.188	95	78905	47.78	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 95.56%				
Target Compounds							Qvalue
3) tertiary butyl alcohol	8.254	59	81152	277.86	ug/L		98
4) 1,4-dioxane	12.276	88	27629	1313.77	ug/L		88
6) chlorodifluoromethane	4.247	51	136671	43.34	ug/L		98
7) dichlorodifluoromethane	4.216	85	167356	47.12	ug/L		97
8) chloromethane	4.661	50	153489	50.89	ug/L		98
9) vinyl chloride	4.933	62	147436	50.24	ug/L		99
10) 1,3-butadiene	4.964	54	90480	47.19	ug/L		96
11) bromomethane	5.649	94	102006	50.80	ug/L		98
12) chloroethane	5.843	64	62975	50.70	ug/L		98
13) trichlorofluoromethane	6.387	101	170881	46.82	ug/L		93
14) vinyl bromide	6.240	106	84134	49.40	ug/L		98
15) ethyl ether	6.836	74	24977	43.67	ug/L		96
16) 2-chloropropane	7.072	43	101998	41.77	ug/L		98
17) acrolein	7.103	56	11011	43.12	ug/L		97
18) freon 113	7.328	151	71836	46.52	ug/L		95
19) 1,1-dichloroethene	7.312	96	56858	43.42	ug/L		92
20) acetone	7.344	58	22475	176.35	ug/L	#	77
21) acetonitrile	7.841	41	107783	440.86	ug/L		96
22) iodomethane	7.595	142	115636	44.67	ug/L		93
23) carbon disulfide	7.736	76	192986	43.24	ug/L		98
24) methylene chloride	8.144	84	58957	43.82	ug/L		96
25) methyl acetate	7.872	43	45751	43.08	ug/L		96
26) methyl tert butyl ether	8.557	73	229558	44.70	ug/L		99
27) trans-1,2-dichloroethene	8.578	96	53017	44.27	ug/L		97
28) hexane	8.976	56	34390	38.54	ug/L		98
29) di-isopropyl ether	9.232	45	182342	43.28	ug/L		99
30) 2-butanone	9.964	72	30971	182.72	ug/L	#	76
31) 1,1-dichloroethane	9.237	63	86435	42.31	ug/L		97
32) chloroprene	9.342	53	70621	39.12	ug/L		97
33) acrylonitrile	8.505	53	23785	46.19	ug/L		91
34) vinyl acetate	9.180	86	10111	49.71	ug/L	#	93
35) ethyl tert-butyl ether	9.744	59	218900	45.69	ug/L		99
36) ethyl acetate	9.985	45	8861	42.24	ug/L	#	86
37) 2,2-dichloropropane	10.058	77	121201	43.17	ug/L		93
38) cis-1,2-dichloroethene	10.027	96	60925	43.84	ug/L		96
39) propionitrile	10.063	54	96900	433.92	ug/L		94
40) methyl acrylate	10.069	85	9404	44.92	ug/L	#	83
41) methacrylonitrile	10.267	67	23200	42.58	ug/L		95
42) bromochloromethane	10.346	128	31336	44.21	ug/L		96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\november\11-12-18\v3b6682\
Data File : 3b150118.d
Acq On : 10 Nov 2018 3:51 pm
Operator : payalr
Sample : JC77581-2MS Inst : MS3B
Misc : MS30643,V3B6682,5,,,,5
ALS Vial : 9 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3B6662.M
Quant Results File: M3B6662.RES
Quant Time: Nov 12 09:34:34 2018
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Thu Oct 25 15:03:59 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
43) tetrahydrofuran	10.356	42	19753	45.01	ug/L		97
44) chloroform	10.445	83	97849	42.12	ug/L		97
45) tert-Butyl Formate	10.487	59	33984	23.49	ug/L		93
47) 1,1,1-trichloroethane	10.712	97	124506	43.35	ug/L		99
48) cyclohexane	10.817	84	94770	41.61	ug/L		92
49) isobutyl alcohol	10.895	43	43437	424.34	ug/L		94
50) 1,1-dichloropropene	10.890	75	65068	41.07	ug/L		99
51) carbon tetrachloride	10.906	117	118488	47.44	ug/L		97
52) tert-amyl alcohol	11.057	73	37858	218.99	ug/L		95
53) isopropyl acetate	11.083	87	14249	45.75	ug/L	#	82
56) n-butyl alcohol	11.674	56	142006	2547.33	ug/L		97
57) 2,2,4-trimethylpentane	11.251	57	244326	50.27	ug/L		98
58) benzene	11.146	78	185468	47.26	ug/L		99
59) tert-amyl methyl ether	11.245	73	222581	50.03	ug/L		98
60) heptane	11.418	57	35298	43.17	ug/L		99
61) 1,2-dichloroethane	11.188	62	79268	46.94	ug/L		96
62) ethyl acrylate	11.915	55	72819	48.89	ug/L		72
63) trichloroethene	11.915	95	363806	341.06	ug/L		90
65) methyl methacrylate	12.192	100	15850	48.83	ug/L		95
66) methylcyclohexane	12.218	83	112940	44.94	ug/L		97
67) 1,2-dichloropropane	12.229	63	47147	46.37	ug/L		99
68) dibromomethane	12.339	93	34887	49.56	ug/L		97
69) bromodichloromethane	12.506	83	76079	50.01	ug/L		95
70) 2-nitropropane	12.736	41	18070	35.78	ug/L		95
71) epichlorohydrin	12.856	57	30992	213.65	ug/L		91
72) cis-1,3-dichloropropene	12.987	75	83361	49.84	ug/L		98
73) 4-methyl-2-pentanone	13.107	58	109426	191.67	ug/L		92
74) isoamyl alcohol	13.118	70	63127	1039.06	ug/L		97
77) toluene	13.390	92	118993	47.94	ug/L		99
78) ethyl methacrylate	13.583	69	69680	46.74	ug/L		97
79) trans-1,3-dichloropropene	13.599	75	79702	49.06	ug/L		98
80) 1,1,2-trichloroethane	13.834	83	40048	51.51	ug/L		97
81) tetrachloroethene	13.976	164	54960	53.39	ug/L		98
82) 2-hexanone	14.012	58	103149	194.94	ug/L		98
83) 1,3-dichloropropane	14.028	76	74281	48.71	ug/L		97
84) butyl acetate	14.091	56	39537	47.77	ug/L		95
85) dibromochloromethane	14.289	129	63615	51.85	ug/L		97
86) 1,2-dibromoethane	14.452	107	58446	52.27	ug/L		99
87) n-butyl ether	14.917	57	212307	44.89	ug/L		100
88) chlorobenzene	14.969	112	143428	48.92	ug/L		98
89) 1,1,1,2-tetrachloroethane	15.043	131	75372	50.46	ug/L		96
90) ethylbenzene	15.032	91	238829	46.49	ug/L		97
91) m,p-xylene	15.158	106	188502	95.10	ug/L		97
92) o-xylene	15.597	91	216728	47.12	ug/L		96
93) styrene	15.608	104	159287	47.76	ug/L		100
94) butyl acrylate	15.414	55	115088	46.26	ug/L		98
95) n-amyl acetate	15.634	70	46964	48.94	ug/L		95
96) isopropylbenzene	15.968	105	298040	48.17	ug/L		97
97) bromoform	15.859	173	56088	54.54	ug/L		97
98) cis-1,4-dichloro-2-butene	16.015	88	29671	41.92	ug/L		99
101) 1,1,2,2-tetrachloroethane	16.277	83	90100	50.61	ug/L		98
102) trans-1,4-dichloro-2-b...	16.308	53	20505	43.71	ug/L		93
103) 1,2,3-trichloropropane	16.366	110	26179	47.07	ug/L		95
104) bromobenzene	16.387	156	78199	50.33	ug/L		89
105) n-propylbenzene	16.413	91	314346	45.31	ug/L		98
106) 2-chlorotoluene	16.559	126	74255	46.32	ug/L		98
107) 4-chlorotoluene	16.680	91	184517	45.97	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\november\11-12-18\v3b6682\
Data File : 3b150118.d
Acq On : 10 Nov 2018 3:51 pm
Operator : payalr
Sample : JC77581-2MS Inst : MS3B
Misc : MS30643,V3B6682,5,,,,5
ALS Vial : 9 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3B6662.M
Quant Results File: M3B6662.RES
Quant Time: Nov 12 09:34:34 2018
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Thu Oct 25 15:03:59 2018
Response via : Initial Calibration

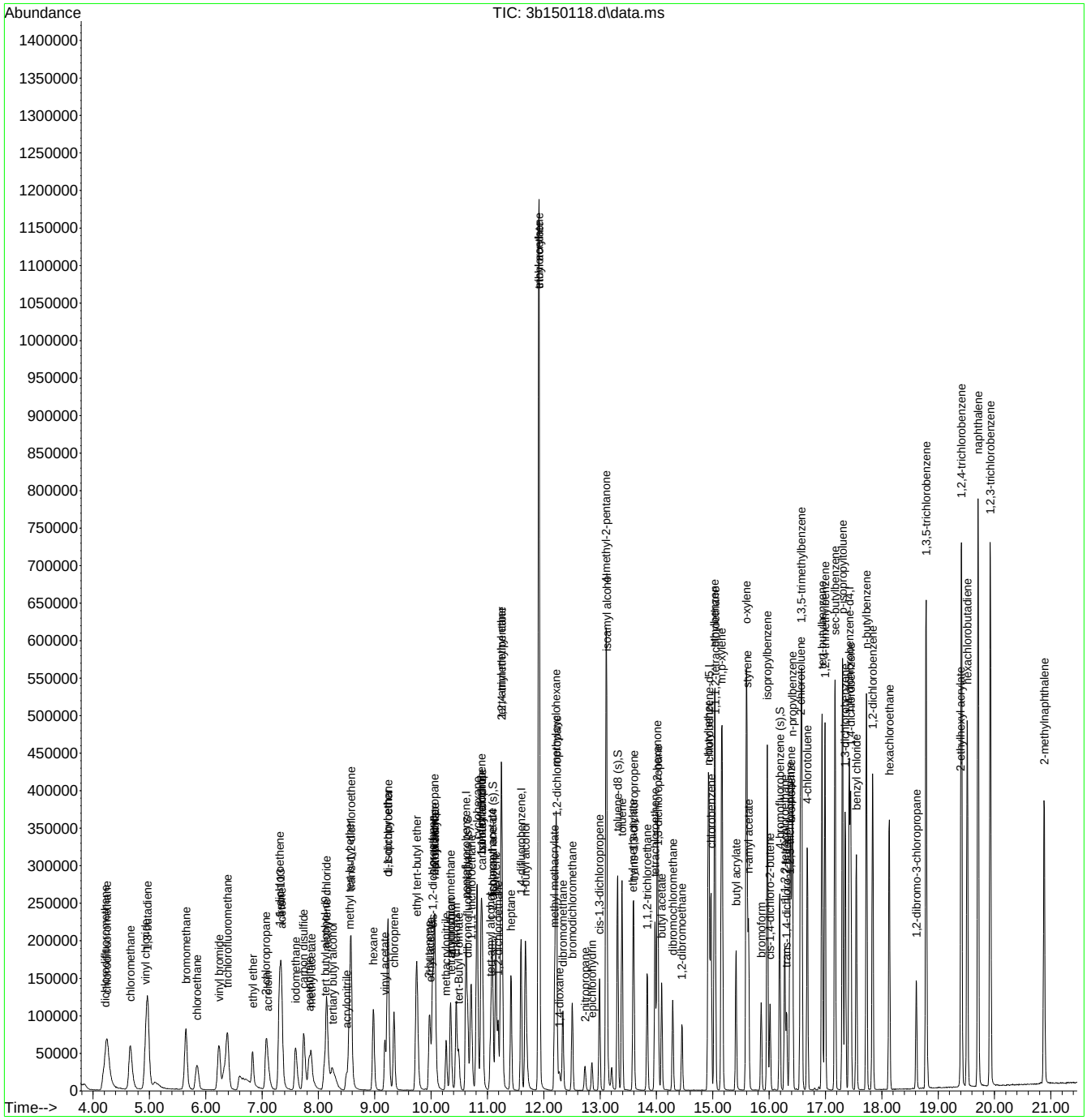
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
108) 1,3,5-trimethylbenzene	16.575	105	271221	47.22 ug/L	98
109) tert-butylbenzene	16.941	119	250385	48.56 ug/L	98
110) 1,2,4-trimethylbenzene	16.994	105	268002	45.22 ug/L	99
111) sec-butylbenzene	17.171	105	375550	47.32 ug/L	98
112) p-isopropyltoluene	17.302	119	325955	46.23 ug/L	99
113) 1,3-dichlorobenzene	17.349	146	158181	46.73 ug/L	99
114) 1,4-dichlorobenzene	17.449	146	160612	48.15 ug/L	98
115) 1,2-dichlorobenzene	17.836	146	181014	48.54 ug/L	99
116) benzyl chloride	17.548	91	215302	49.04 ug/L	98
117) n-butylbenzene	17.726	92	152913	44.65 ug/L	99
118) hexachloroethane	18.134	201	71441	55.33 ug/L	95
119) 1,2-dibromo-3-chloropr...	18.615	157	42892	51.94 ug/L	97
120) 1,3,5-trichlorobenzene	18.788	180	220938	50.58 ug/L	97
121) 2-ethylhexyl acrylate	19.399	70	23525	8.74 ug/L	97
122) 1,2,4-trichlorobenzene	19.415	180	242581	53.47 ug/L	98
123) hexachlorobutadiene	19.520	225	112400	51.76 ug/L	98
124) naphthalene	19.708	128	635535	53.68 ug/L	100
125) 1,2,3-trichlorobenzene	19.928	180	260275	56.58 ug/L	98
126) 2-methylnaphthalene	20.885	142	204301	27.98 ug/L	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\november\11-12-18\v3b6682\
Data File : 3b150118.d
Acq On : 10 Nov 2018 3:51 pm
Operator : payalr
Sample : JC77581-2MS Inst : MS3B
Misc : MS30643,V3B6682,5,,,,5
ALS Vial : 9 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3B6662.M
Quant Results File: M3B6662.RES
Quant Time: Nov 12 09:34:34 2018
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Thu Oct 25 15:03:59 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\november\11-12-18\v3b6682\
Data File : 3b150119.d
Acq On : 10 Nov 2018 4:20 pm
Operator : payalr
Sample : JC77581-2MSD Inst : MS3B
Misc : MS30643,V3B6682,5,,,,5
ALS Vial : 10 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3B6662.M
Quant Results File: M3B6662.RES
Quant Time: Nov 12 09:35:42 2018
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Thu Oct 25 15:03:59 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	8.118	65	157967	500.00	ug/L		-0.01
5) pentafluorobenzene	10.623	168	155241	50.00	ug/L		0.00
54) 1,4-difluorobenzene	11.596	114	177998	50.00	ug/L		0.00
75) chlorobenzene-d5	14.933	117	169930	50.00	ug/L		0.00
99) 1,4-dichlorobenzene-d4	17.422	152	121764	50.00	ug/L		0.00
System Monitoring Compounds							
46) dibromofluoromethane (s)	10.649	113	59998	43.98	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 87.96%				
55) 1,2-dichloroethane-d4 (s)	11.094	65	69436	47.38	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 94.76%				
76) toluene-d8 (s)	13.312	98	205447	49.26	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.52%				
100) 4-bromofluorobenzene (s)	16.188	95	83370	47.36	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 94.72%				
Target Compounds							Qvalue
3) tertiary butyl alcohol	8.249	59	91062	278.28	ug/L		96
4) 1,4-dioxane	12.271	88	33117	1405.49	ug/L		97
6) chlorodifluoromethane	4.253	51	155577	46.80	ug/L		98
7) dichlorodifluoromethane	4.221	85	182388	48.71	ug/L		98
8) chloromethane	4.661	50	184019	57.87	ug/L		99
9) vinyl chloride	4.933	62	166629	53.86	ug/L		97
10) 1,3-butadiene	4.969	54	101078	50.00	ug/L		98
11) bromomethane	5.654	94	108235	51.13	ug/L		99
12) chloroethane	5.848	64	67416	51.47	ug/L		97
13) trichlorofluoromethane	6.381	101	176972	45.99	ug/L		97
14) vinyl bromide	6.235	106	87634	48.80	ug/L		99
15) ethyl ether	6.831	74	25649	42.53	ug/L		85
16) 2-chloropropane	7.077	43	104773	40.70	ug/L		97
17) acrolein	7.108	56	11931	44.32	ug/L		98
18) freon 113	7.333	151	73332	45.04	ug/L		96
19) 1,1-dichloroethene	7.307	96	60776	44.02	ug/L		94
20) acetone	7.344	58	24841	184.87	ug/L		87
21) acetonitrile	7.841	41	118006	457.80	ug/L		96
22) iodomethane	7.595	142	124011	45.44	ug/L		95
23) carbon disulfide	7.741	76	204644	43.49	ug/L		99
24) methylene chloride	8.149	84	63825	44.99	ug/L		97
25) methyl acetate	7.872	43	48092	42.95	ug/L		97
26) methyl tert butyl ether	8.557	73	240671	44.44	ug/L		98
27) trans-1,2-dichloroethene	8.578	96	55547	44.00	ug/L		99
28) hexane	8.976	56	35465	37.70	ug/L		97
29) di-isopropyl ether	9.232	45	190927	42.98	ug/L		98
30) 2-butanone	9.969	72	32302	180.75	ug/L		93
31) 1,1-dichloroethane	9.237	63	91445	42.46	ug/L		97
32) chloroprene	9.342	53	75649	39.75	ug/L		96
33) acrylonitrile	8.494	53	25400	46.78	ug/L		98
34) vinyl acetate	9.185	86	10995	51.27	ug/L		99
35) ethyl tert-butyl ether	9.744	59	232682	46.06	ug/L		99
36) ethyl acetate	9.985	45	9578	43.31	ug/L	#	92
37) 2,2-dichloropropane	10.064	77	125628	42.44	ug/L		99
38) cis-1,2-dichloroethene	10.027	96	65290	44.56	ug/L		98
39) propionitrile	10.064	54	104142	442.32	ug/L		94
40) methyl acrylate	10.074	85	10388	47.06	ug/L		95
41) methacrylonitrile	10.268	67	25327	44.09	ug/L		93
42) bromochloromethane	10.346	128	32975	44.13	ug/L		94

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\november\11-12-18\v3b6682\
Data File : 3b150119.d
Acq On : 10 Nov 2018 4:20 pm
Operator : payalr
Sample : JC77581-2MSD Inst : MS3B
Misc : MS30643,V3B6682,5,,,,5
ALS Vial : 10 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3B6662.M
Quant Results File: M3B6662.RES
Quant Time: Nov 12 09:35:42 2018
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Thu Oct 25 15:03:59 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
43) tetrahydrofuran	10.356	42	20465	44.23	ug/L	91
44) chloroform	10.445	83	101497	41.44	ug/L	98
45) tert-Butyl Formate	10.487	59	33610	22.03	ug/L	99
47) 1,1,1-trichloroethane	10.712	97	129199	42.66	ug/L	98
48) cyclohexane	10.811	84	97898	40.77	ug/L	94
49) isobutyl alcohol	10.890	43	49539	459.01	ug/L	94
50) 1,1-dichloropropene	10.885	75	67765	40.56	ug/L	98
51) carbon tetrachloride	10.906	117	123061	46.73	ug/L	99
52) tert-amyl alcohol	11.057	73	41548	227.95	ug/L	91
53) isopropyl acetate	11.078	87	14666	44.66	ug/L	95
56) n-butyl alcohol	11.674	56	161283	2764.48	ug/L	98
57) 2,2,4-trimethylpentane	11.251	57	247397	48.63	ug/L	97
58) benzene	11.151	78	193200	47.04	ug/L	98
59) tert-amyl methyl ether	11.246	73	234333	50.33	ug/L	98
60) heptane	11.418	57	35884	41.93	ug/L	97
61) 1,2-dichloroethane	11.193	62	81350	46.03	ug/L	99
62) ethyl acrylate	11.915	55	74515	47.80	ug/L	75
63) trichloroethene	11.915	95	379551	339.99	ug/L	89
65) methyl methacrylate	12.192	100	16947	49.89	ug/L	90
66) methylcyclohexane	12.218	83	117658	44.73	ug/L	98
67) 1,2-dichloropropane	12.224	63	49675	46.69	ug/L	97
68) dibromomethane	12.339	93	36541	49.60	ug/L	94
69) bromodichloromethane	12.506	83	78661	49.41	ug/L	96
70) 2-nitropropane	12.736	41	18889	35.73	ug/L	95
71) epichlorohydrin	12.856	57	34080	224.49	ug/L	95
72) cis-1,3-dichloropropene	12.987	75	86383	49.35	ug/L	97
73) 4-methyl-2-pentanone	13.108	58	115698	193.65	ug/L	96
74) isoamyl alcohol	13.118	70	70461	1108.20	ug/L	97
77) toluene	13.390	92	124691	47.72	ug/L	97
78) ethyl methacrylate	13.589	69	74923	47.74	ug/L	98
79) trans-1,3-dichloropropene	13.599	75	84764	49.56	ug/L	97
80) 1,1,2-trichloroethane	13.835	83	42887	52.39	ug/L	97
81) tetrachloroethene	13.976	164	56402	52.05	ug/L	98
82) 2-hexanone	14.012	58	108664	195.08	ug/L	99
83) 1,3-dichloropropane	14.028	76	78782	49.08	ug/L	99
84) butyl acetate	14.091	56	42732	49.05	ug/L	97
85) dibromochloromethane	14.290	129	67765	52.46	ug/L	99
86) 1,2-dibromoethane	14.452	107	61213	52.00	ug/L	98
87) n-butyl ether	14.917	57	221858	44.57	ug/L	98
88) chlorobenzene	14.969	112	149509	48.44	ug/L	98
89) 1,1,1,2-tetrachloroethane	15.043	131	77670	49.39	ug/L	95
90) ethylbenzene	15.032	91	252282	46.65	ug/L	99
91) m,p-xylene	15.163	106	197246	94.53	ug/L	99
92) o-xylene	15.592	91	227462	46.98	ug/L	96
93) styrene	15.608	104	165346	47.10	ug/L	99
94) butyl acrylate	15.414	55	121992	46.58	ug/L	99
95) n-amyl acetate	15.634	70	49748	49.24	ug/L	93
96) isopropylbenzene	15.968	105	312269	47.94	ug/L	99
97) bromoform	15.859	173	58077	53.65	ug/L	98
98) cis-1,4-dichloro-2-butene	16.016	88	32459	43.56	ug/L	94
101) 1,1,2,2-tetrachloroethane	16.277	83	94495	49.79	ug/L	97
102) trans-1,4-dichloro-2-b...	16.308	53	21993	43.97	ug/L	92
103) 1,2,3-trichloropropane	16.371	110	27807	46.90	ug/L	96
104) bromobenzene	16.382	156	81396	49.14	ug/L	98
105) n-propylbenzene	16.413	91	327613	44.30	ug/L	100
106) 2-chlorotoluene	16.554	126	75361	44.10	ug/L	94
107) 4-chlorotoluene	16.675	91	196287	45.87	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\november\11-12-18\v3b6682\
Data File : 3b150119.d
Acq On : 10 Nov 2018 4:20 pm
Operator : payalr
Sample : JC77581-2MSD Inst : MS3B
Misc : MS30643,V3B6682,5,,,,5
ALS Vial : 10 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3B6662.M
Quant Results File: M3B6662.RES
Quant Time: Nov 12 09:35:42 2018
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Thu Oct 25 15:03:59 2018
Response via : Initial Calibration

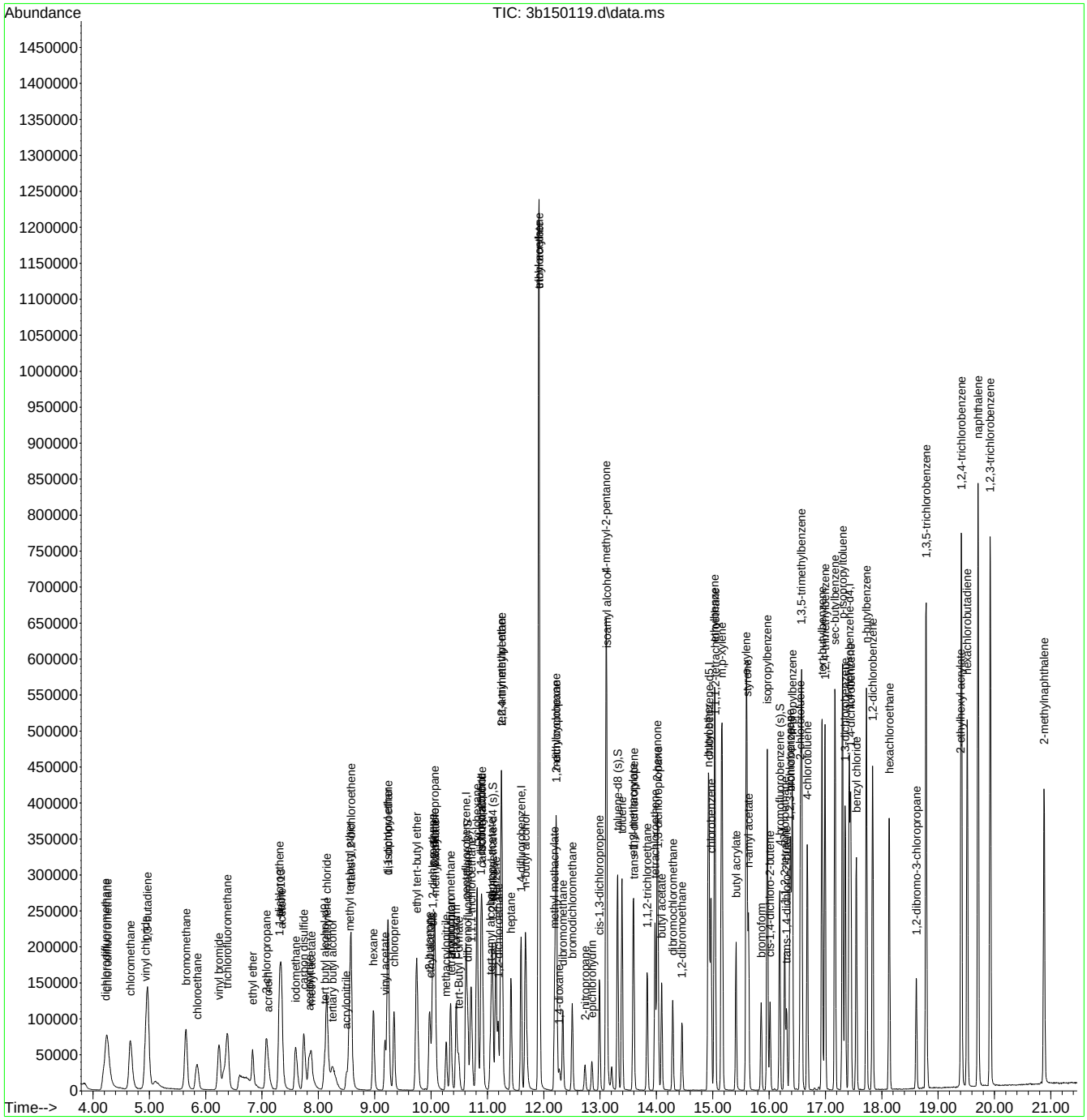
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
108) 1,3,5-trimethylbenzene	16.575	105	278676	45.51	ug/L	100
109) tert-butylbenzene	16.941	119	263261	47.90	ug/L	97
110) 1,2,4-trimethylbenzene	16.994	105	277822	43.97	ug/L	99
111) sec-butylbenzene	17.166	105	388733	45.95	ug/L	99
112) p-isopropyltoluene	17.302	119	342355	45.54	ug/L	99
113) 1,3-dichlorobenzene	17.349	146	167648	46.46	ug/L	99
114) 1,4-dichlorobenzene	17.449	146	171441	48.21	ug/L	98
115) 1,2-dichlorobenzene	17.836	146	190120	47.82	ug/L	100
116) benzyl chloride	17.548	91	224336	47.93	ug/L	99
117) n-butylbenzene	17.726	92	161022	44.10	ug/L	95
118) hexachloroethane	18.134	201	75424	54.79	ug/L	97
119) 1,2-dibromo-3-chloropr...	18.615	157	47349	53.79	ug/L	93
120) 1,3,5-trichlorobenzene	18.788	180	228880	49.15	ug/L	98
121) 2-ethylhexyl acrylate	19.400	70	24921	8.68	ug/L	90
122) 1,2,4-trichlorobenzene	19.415	180	255604	52.85	ug/L	99
123) hexachlorobutadiene	19.515	225	119377	51.56	ug/L	97
124) naphthalene	19.708	128	678021	53.71	ug/L	99
125) 1,2,3-trichlorobenzene	19.923	180	274063	55.89	ug/L	98
126) 2-methylnaphthalene	20.880	142	224158	28.80	ug/L	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\november\11-12-18\v3b6682\
Data File : 3b150119.d
Acq On : 10 Nov 2018 4:20 pm
Operator : payalr
Sample : JC77581-2MSD Inst : MS3B
Misc : MS30643,V3B6682,5,,,,5
ALS Vial : 10 Sample Multiplier: 1

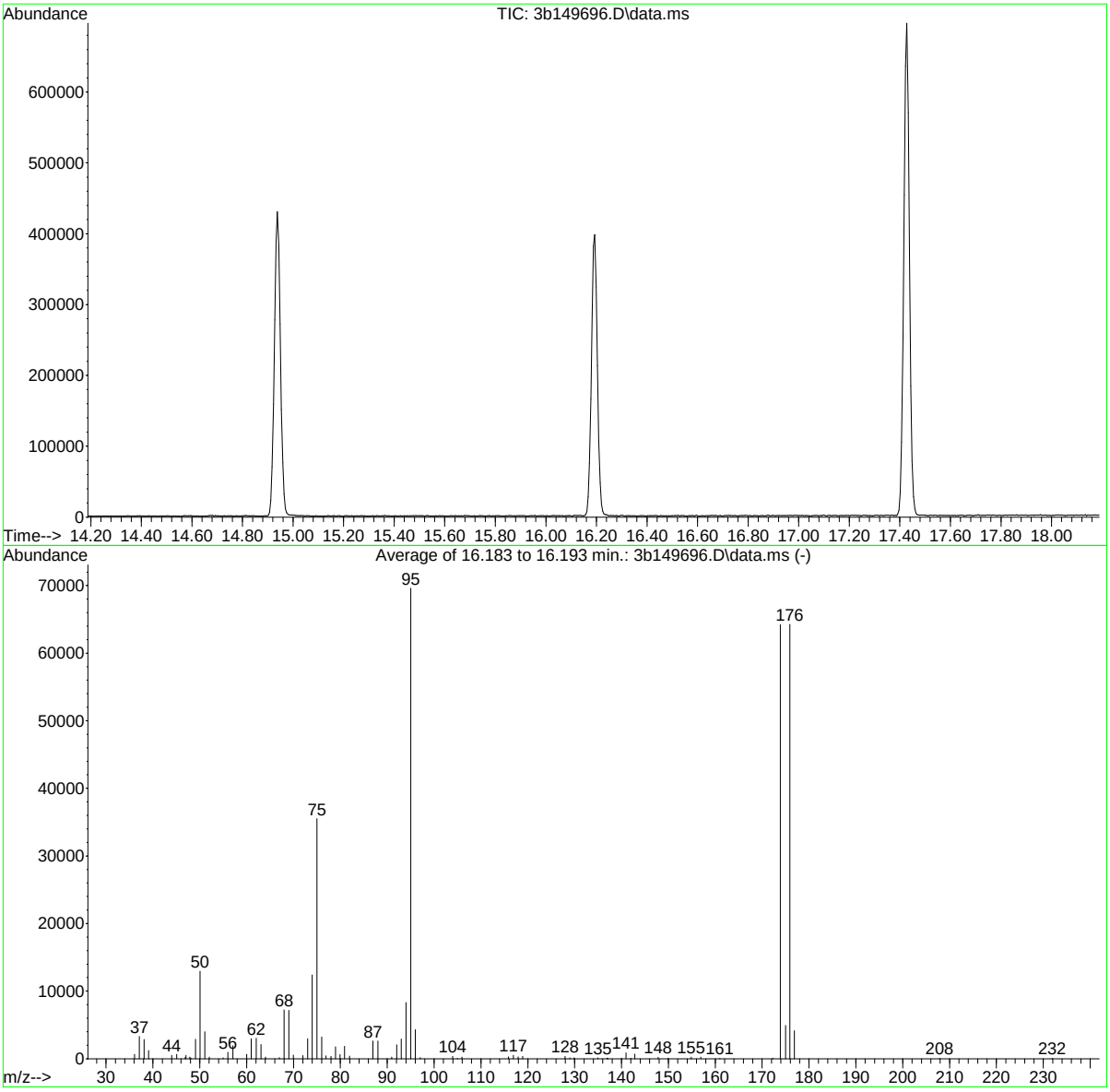
Quant Method : C:\MSDCHEM\1\METHODS\M3B6662.M
Quant Results File: M3B6662.RES
Quant Time: Nov 12 09:35:42 2018
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Thu Oct 25 15:03:59 2018
Response via : Initial Calibration



SW-846 Method 8260

Data File : C:\msdchem\1\data\V3B6662\3b149696.D Vial: 1
Acq On : 24 Oct 2018 5:28 pm Operator: payalr
Sample : BFB Inst : MS3B
Misc : MS29454,V3B6662,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M3B6662.M (RTE Integrator)
Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um



AutoFind: Scans 2371, 2372, 2373; Background Corrected with Scan 2363

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.6	12939	PASS
75	95	30	60	51.0	35520	PASS
95	95	100	100	100.0	69603	PASS
96	95	5	9	6.2	4306	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	150	92.3	64243	PASS
175	174	5	9	7.7	4915	PASS
176	174	95	101	100.0	64264	PASS
177	176	5	9	6.4	4143	PASS

3b149696.D M3B6662.M Thu Oct 25 12:13:58 2018 M3B

Average of 16.183 to 16.193 min.: 3b149696.D\data.ms
BFB
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.10	670	50.05	12939	66.95	157	78.95	1761
37.10	3279	51.05	4005	68.00	7228	79.95	618
38.10	2830	52.05	256	69.00	7154	80.90	1824
39.10	1220	55.00	125	69.95	529	81.95	378
44.00	523	56.00	950	72.00	456	86.95	2629
45.05	639	57.05	1916	73.00	2965	88.00	2611
46.90	202	60.00	661	74.00	12389	90.95	255
47.05	491	61.00	2943	75.00	35520	92.05	2066
47.85	253	62.05	3047	76.00	3214	93.00	2911
48.10	148	63.05	2116	76.95	441	94.00	8286
49.10	2884	64.05	240	78.00	352	95.00	69603

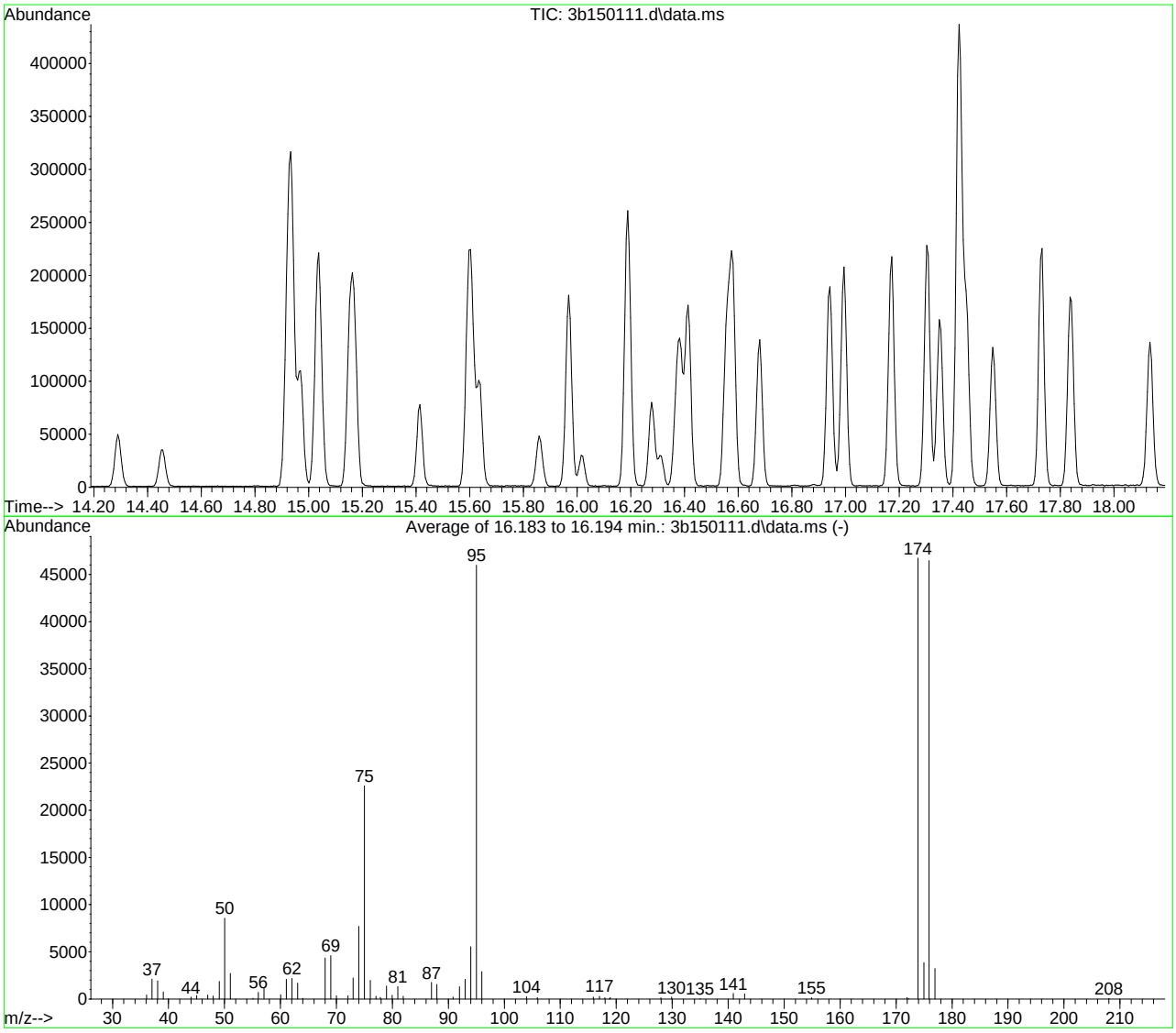
Average of 16.183 to 16.193 min.: 3b149696.D\data.ms
BFB
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
96.00	4306	129.85	116	156.90	232		
97.05	163	134.95	129	161.00	56		
103.95	348	136.90	87	172.30	84		
105.00	59	137.10	51	173.90	64243		
105.95	244	140.00	51	175.00	4915		
115.85	284	140.95	893	175.90	64264		
116.90	518	142.00	53	176.90	4143		
117.95	293	142.85	691	207.90	51		
118.90	351	147.80	214	231.90	52		
127.95	371	149.90	56				
128.95	145	154.90	234				

SW-846 Method 8260

Data File : C:\msdchem\1\data\lo...18\v3b6682\3b150111.d Vial: 2
Acq On : 10 Nov 2018 12:21 pm Operator: payalr
Sample : BFB Inst : MS3B
Misc : MS30566,V3B6682,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M3B6662.M (RTE Integrator)
Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um



AutoFind: Scans 2371, 2372, 2373; Background Corrected with Scan 2363

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.6	8566	PASS
75	95	30	60	49.1	22576	PASS
95	95	100	100	100.0	45971	PASS
96	95	5	9	6.3	2891	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	150	101.7	46731	PASS
175	174	5	9	8.3	3858	PASS
176	174	95	101	99.4	46456	PASS
177	176	5	9	6.9	3226	PASS

3b150111.d M3B6662.M Mon Nov 12 09:15:53 2018

Average of 16.183 to 16.194 min.: 3b150111.d\data.ms
BFB
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.10	423	51.05	2722	70.00	345	81.95	278
37.05	2111	55.10	72	72.05	343	87.00	1763
38.05	1926	56.05	695	73.00	2212	87.95	1529
39.05	740	57.05	1126	74.00	7692	90.85	192
40.00	14	60.05	454	75.00	22576	92.00	1284
44.00	202	61.05	2078	76.05	1965	93.00	2075
45.05	363	62.05	2162	77.05	291	94.00	5540
47.00	414	63.05	1679	77.85	168	95.00	45971
47.95	306	64.00	67	78.95	1374	96.00	2891
49.05	1867	68.00	4355	79.95	386	103.95	230
50.05	8566	69.00	4595	80.95	1329	105.90	140

Average of 16.183 to 16.194 min.: 3b150111.d\data.ms
BFB
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
115.90	208	171.95	158				
117.00	300	172.20	61				
117.95	116	173.90	46731				
118.80	82	174.95	3858				
118.95	163	175.90	46456				
127.95	133	176.95	3226				
129.90	198	208.00	54				
135.00	52						
140.90	591						
142.95	528						
154.90	110						

Manual Integrations APPROVED (compounds with "m" flag)
Kanya Veerawat 10/25/18 16:08

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V3B6662\
Data File : 3b149697.D
Acq On : 24 Oct 2018 6:06 pm
Operator : payalr
Sample : IC6662-2
Misc : MS29454,V3B6662,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Oct 25 11:49:58 2018
Quant Method : C:\MSDCHEM\1\METHODS\M3B6662.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Thu Oct 25 07:59:42 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	8.134	65	226852	500.00	ug/L		0.00
5) pentafluorobenzene	10.623	168	202277	50.00	ug/L		0.00
54) 1,4-difluorobenzene	11.601	114	254456	50.00	ug/L		0.00
75) chlorobenzene-d5	14.938	117	231436	50.00	ug/L		0.00
99) 1,4-dichlorobenzene-d4	17.428	152	167327	50.00	ug/L		0.00
System Monitoring Compounds							
46) dibromofluoromethane (s)	10.655	113	87884	48.97	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.94%				
55) 1,2-dichloroethane-d4 (s)	11.099	65	105377	51.47	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 102.94%				
76) toluene-d8 (s)	13.312	98	290615	51.12	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.24%				
100) 4-bromofluorobenzene (s)	16.194	95	118522	46.72	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 93.44%				
Target Compounds							Qvalue
3) tertiary butyl alcohol	8.270	59	4423	9.03	ug/L		76
4) 1,4-dioxane	12.292	88	1630	46.35	ug/L		83
6) chlorodifluoromethane	4.237	51	9030	1.89	ug/L		94
7) dichlorodifluoromethane	4.211	85	8474m	1.54	ug/L		
8) chloromethane	4.650	50	8658	1.85	ug/L		98
9) vinyl chloride	4.933	62	7469	1.63	ug/L		93
10) 1,3-butadiene	4.964	54	5072	1.77	ug/L		91
11) bromomethane	5.655	94	5710	1.92	ug/L		91
12) chloroethane	5.843	64	3088	1.61	ug/L		84
13) trichlorofluoromethane	6.382	101	9197	1.60	ug/L		90
14) vinyl bromide	6.240	106	4238	1.58	ug/L	#	82
15) ethyl ether	6.831	74	1583	1.87	ug/L	#	74
16) 2-chloropropane	7.088	43	7032	1.99	ug/L		96
18) freon 113	7.333	151	4263	1.82	ug/L		88
19) 1,1-dichloroethene	7.307	96	3510	1.77	ug/L	#	82
20) acetone	7.354	58	1320	7.01	ug/L	#	81
21) acetonitrile	7.857	41	7643	21.82	ug/L		89
22) iodomethane	7.595	142	6595	1.67	ug/L		92
23) carbon disulfide	7.741	76	12126	1.75	ug/L		96
24) methylene chloride	8.160	84	3191	1.56	ug/L		90
25) methyl acetate	7.877	43	3213	2.11	ug/L		88
26) methyl tert butyl ether	8.573	73	13685	1.79	ug/L		95
27) trans-1,2-dichloroethene	8.589	96	3055	1.76	ug/L		93
28) hexane	8.981	56	2563	2.01	ug/L		95
29) di-isopropyl ether	9.232	45	11781	1.89	ug/L		94
30) 2-butanone	9.970	72	1858	7.24	ug/L	#	57
31) 1,1-dichloroethane	9.237	63	5568	1.84	ug/L		85
32) chloroprene	9.347	53	4987	1.92	ug/L		98
33) acrylonitrile	8.489	53	1411	1.82	ug/L	#	76
35) ethyl tert-butyl ether	9.739	59	12330	1.65	ug/L		93
37) 2,2-dichloropropane	10.064	77	8307	2.02	ug/L		96
38) cis-1,2-dichloroethene	10.032	96	3774	1.96	ug/L		87
39) propionitrile	10.064	54	6694	21.21	ug/L		80
41) methacrylonitrile	10.262	67	1624	2.11	ug/L	#	61
42) bromochloromethane	10.346	128	2119	2.11	ug/L		86
43) tetrahydrofuran	10.367	42	1284	2.00	ug/L		88
44) chloroform	10.445	83	6474	1.97	ug/L		94
45) tert-Butyl Formate	10.493	59	3808	1.79	ug/L		83
47) 1,1,1-trichloroethane	10.712	97	8209	1.90	ug/L		93
48) cyclohexane	10.817	84	5617	1.59	ug/L		95
49) isobutyl alcohol	10.906	43	2870	19.91	ug/L		89
50) 1,1-dichloropropene	10.895	75	4624	2.04	ug/L		82
51) carbon tetrachloride	10.911	117	7136	1.86	ug/L		99
52) tert-amyl alcohol	11.063	73	2387	9.47	ug/L		94
53) isopropyl acetate	11.084	87	823	1.78	ug/L	#	18

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V3B6662\
Data File : 3b149697.D
Acq On : 24 Oct 2018 6:06 pm
Operator : payalr
Sample : IC6662-2
Misc : MS29454,V3B6662,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Oct 25 11:49:58 2018
Quant Method : C:\MSDCHEM\1\METHODS\M3B6662.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Thu Oct 25 07:59:42 2018
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
56)	n-butyl alcohol	11.685	56	7982	90.32	ug/L		92
57)	2,2,4-trimethylpentane	11.251	57	13403	1.60	ug/L		93
58)	benzene	11.152	78	12066	1.99	ug/L		90
59)	tert-amyl methyl ether	11.246	73	13373	1.86	ug/L		95
60)	heptane	11.429	57	2650	2.09	ug/L	#	70
61)	1,2-dichloroethane	11.199	62	5377	2.15	ug/L		90
62)	ethyl acrylate	11.920	55	4419	1.85	ug/L		89
63)	trichloroethene	11.910	95	3244	1.89	ug/L		85
64)	2-chloroethyl vinyl ether	12.762	63	10270	9.48	ug/L		90
65)	methyl methacrylate	12.198	100	929	1.80	ug/L	#	87
66)	methylcyclohexane	12.213	83	7449	1.90	ug/L		97
67)	1,2-dichloropropane	12.229	63	3457	2.24	ug/L		95
68)	dibromomethane	12.339	93	2280	1.99	ug/L		86
69)	bromodichloromethane	12.506	83	4766	1.95	ug/L		96
71)	epichlorohydrin	12.857	57	2359	10.55	ug/L		94
72)	cis-1,3-dichloropropene	12.987	75	5085	1.87	ug/L		92
73)	4-methyl-2-pentanone	13.118	58	7077	8.00	ug/L		94
74)	isoamyl alcohol	13.113	70	3561	36.73	ug/L	#	84
77)	toluene	13.395	92	7156	1.91	ug/L		99
78)	ethyl methacrylate	13.589	69	4432	2.04	ug/L		97
79)	trans-1,3-dichloropropene	13.605	75	4848	2.02	ug/L		97
80)	1,1,2-trichloroethane	13.835	83	2411	2.06	ug/L	#	75
81)	tetrachloroethene	13.976	164	3446	2.24	ug/L	#	78
82)	2-hexanone	14.018	58	6560	8.52	ug/L		88
83)	1,3-dichloropropane	14.028	76	4757	2.11	ug/L		78
84)	butyl acetate	14.101	56	2602	2.13	ug/L		91
85)	dibromochloromethane	14.295	129	3550	1.85	ug/L		92
86)	1,2-dibromoethane	14.457	107	3127	1.80	ug/L		75
87)	n-butyl ether	14.923	57	13600	1.97	ug/L		91
88)	chlorobenzene	14.970	112	8962	2.04	ug/L		98
89)	1,1,1,2-tetrachloroethane	15.043	131	4803	2.20	ug/L		92
90)	ethylbenzene	15.032	91	16007	2.11	ug/L		95
91)	m,p-xylene	15.163	106	11896	3.98	ug/L		97
92)	o-xylene	15.602	91	14307	2.03	ug/L		97
93)	styrene	15.613	104	10039	2.04	ug/L		93
94)	butyl acrylate	15.414	55	7601	2.16	ug/L		95
95)	n-amyl acetate	15.644	70	2843	2.14	ug/L	#	82
96)	isopropylbenzene	15.974	105	18551	1.92	ug/L		94
97)	bromoform	15.864	173	3103	2.03	ug/L		89
98)	cis-1,4-dichloro-2-butene	16.016	88	2175	2.00	ug/L		89
101)	1,1,2,2-tetrachloroethane	16.282	83	5223	1.82	ug/L		97
102)	trans-1,4-dichloro-2-b...	16.314	53	1244	1.62	ug/L		80
103)	1,2,3-trichloropropane	16.377	110	1781	2.08	ug/L		91
104)	bromobenzene	16.387	156	4798	1.90	ug/L	#	82
105)	n-propylbenzene	16.418	91	20898	1.89	ug/L		98
106)	2-chlorotoluene	16.560	126	4505	1.76	ug/L		97
107)	4-chlorotoluene	16.685	91	12148	1.94	ug/L		93
108)	1,3,5-trimethylbenzene	16.581	105	15580	1.62	ug/L		95
109)	tert-butylbenzene	16.941	119	13330	1.53	ug/L		98
110)	1,2,4-trimethylbenzene	16.999	105	16470	1.75	ug/L		90
111)	sec-butylbenzene	17.172	105	21703	1.66	ug/L		96
112)	p-isopropyltoluene	17.308	119	19433	1.70	ug/L		98
113)	1,3-dichlorobenzene	17.360	146	10151	2.01	ug/L		95
114)	1,4-dichlorobenzene	17.449	146	10029	1.98	ug/L		96
115)	1,2-dichlorobenzene	17.841	146	10876	1.90	ug/L		95
116)	benzyl Chloride	17.553	91	13335	1.98	ug/L		91
117)	n-butylbenzene	17.731	92	10677	2.02	ug/L		97
118)	hexachloroethane	18.139	201	3127	1.42	ug/L		90
119)	1,2-dibromo-3-chloropr...	18.620	157	2515	1.91	ug/L		86
120)	1,3,5-trichlorobenzene	18.793	180	13251	1.98	ug/L		95
122)	1,2,4-trichlorobenzene	19.421	180	13982	1.94	ug/L		97
123)	hexachlorobutadiene	19.525	225	6515	1.90	ug/L		90
124)	naphthalene	19.713	128	36485	1.91	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V3B6662\
Data File : 3b149697.D
Acq On : 24 Oct 2018 6:06 pm
Operator : payalr
Sample : IC6662-2
Misc : MS29454,V3B6662,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Oct 25 11:49:58 2018
Quant Method : C:\MSDCHEM\1\METHODS\M3B6662.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Thu Oct 25 07:59:42 2018
Response via : Initial Calibration

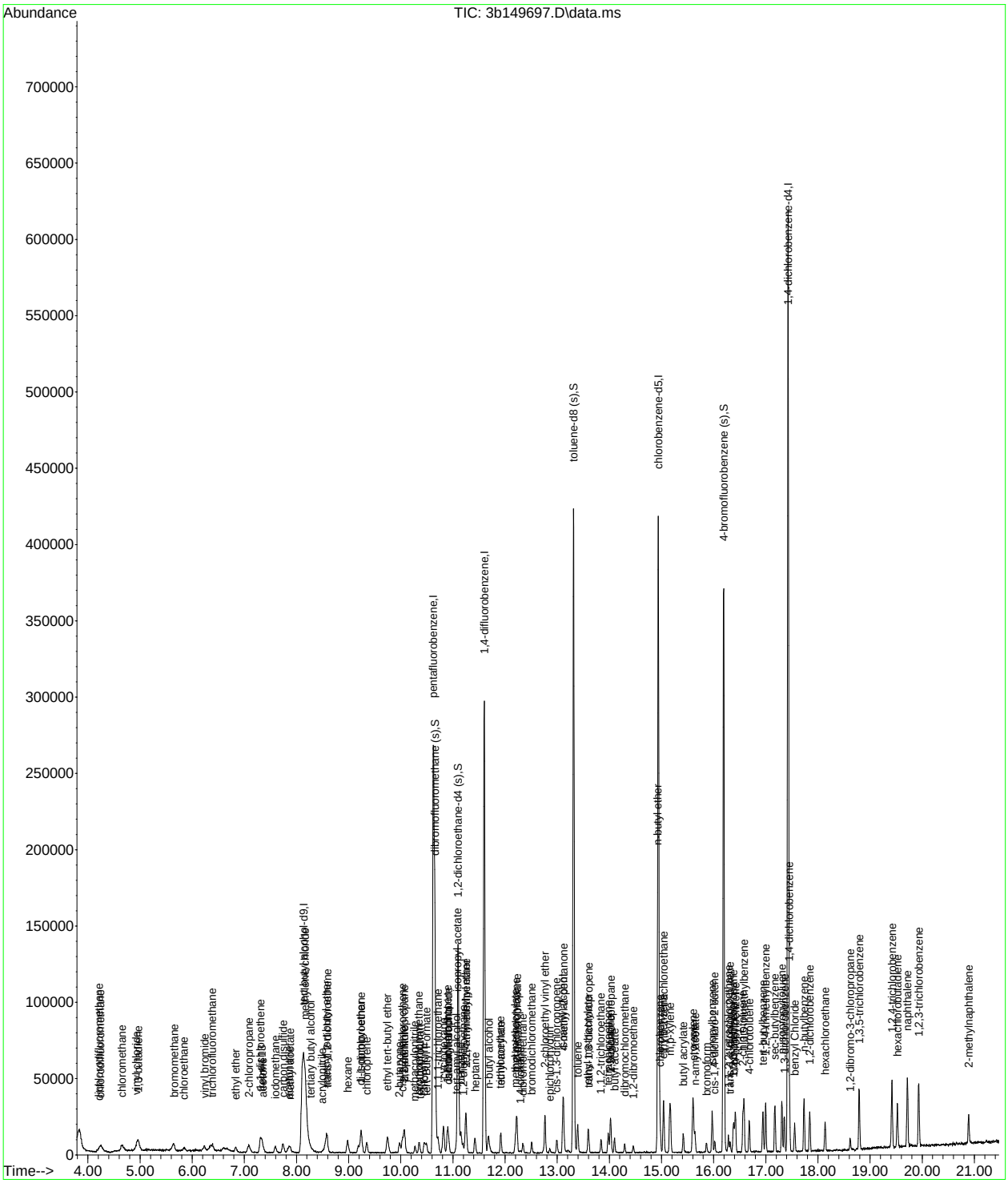
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
125) 1,2,3-trichlorobenzene	19.933	180	14118	1.90	ug/L	95
126) 2-methylnaphthalene	20.890	142	9256	0.72	ug/L	91

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V3B6662\
Data File : 3b149697.D
Acq On : 24 Oct 2018 6:06 pm
Operator : payalr
Sample : IC6662-2
Misc : MS29454,V3B6662,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Oct 25 11:49:58 2018
Quant Method : C:\MSDCHEM\1\METHODS\M3B6662.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Thu Oct 25 07:59:42 2018
Response via : Initial Calibration



Manual Integration Approval Summary

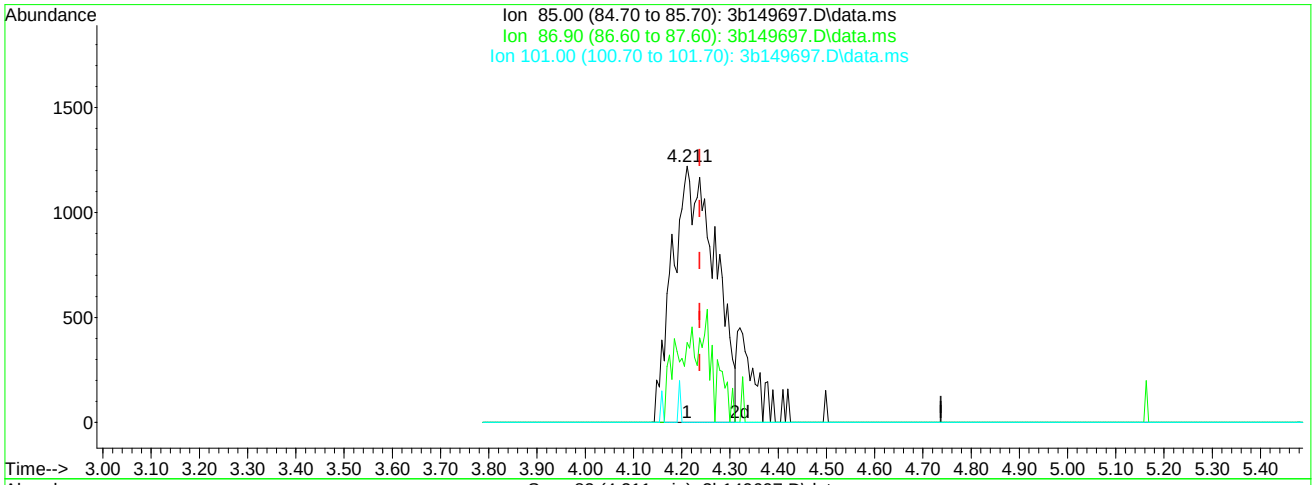
Sample Number:	V3B6662-IC6662	**Method:**	SW846 8260C
Lab FileID:	3B149697.D	**Analyst approved:**	10/25/18 12:16 Robert Szot
Injection Time:	10/24/18 18:06	**Supervisor approved:**	10/25/18 16:08 Kanya Veerawat

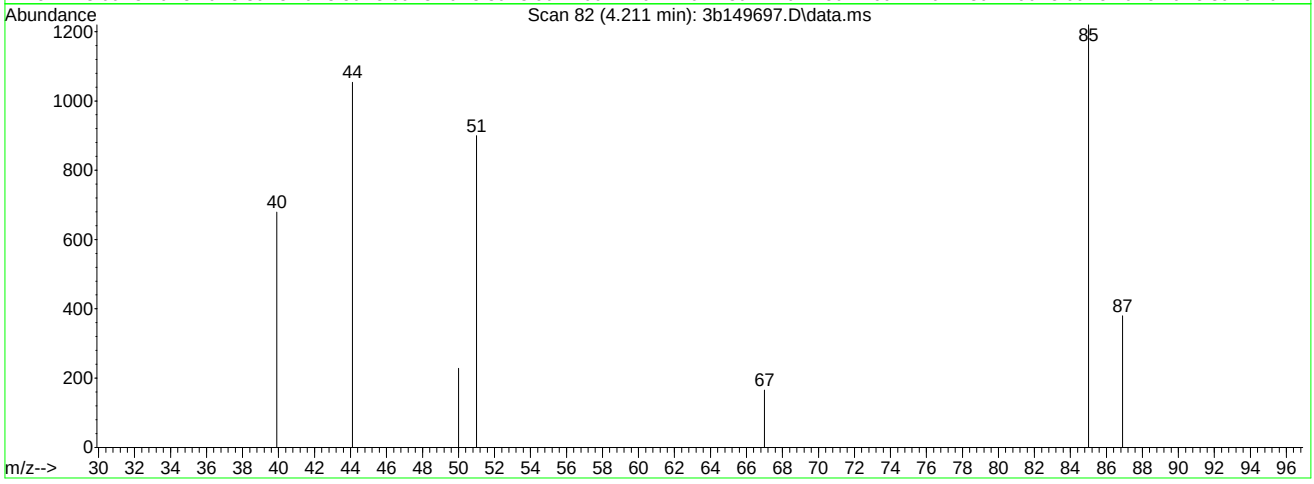
Parameter	CAS	Sig#	R.T. (min.)	Reason
Dichlorodifluoromethane	75-71-8		4.21	Poor instrument integration

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\V3B6662\
Data File : 3b149697.D
Acq On : 24 Oct 2018 6:06 pm
Operator : payalr
Sample : IC6662-2
Misc : MS29454,V3B6662,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Oct 25 08:00:01 2018
Quant Method : C:\MSDCHEM\1\METHODS\M3B6662.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Thu Oct 25 07:59:42 2018
Response via : Initial Calibration





TIC: 3b149697.D\data.ms

(7) dichlorodifluoromethane

4.211min (-0.026) 1.37ug/L

response 7533

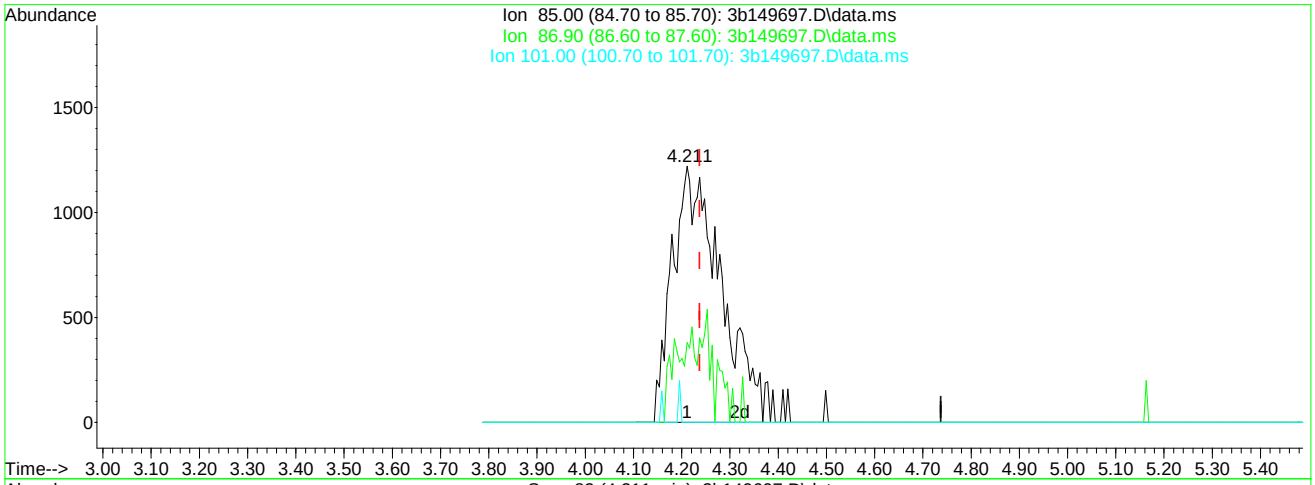
Ion	Exp%	Act%
85.00	100	100
86.90	30.50	31.15
101.00	9.60	0.00
0.00	0.00	0.00

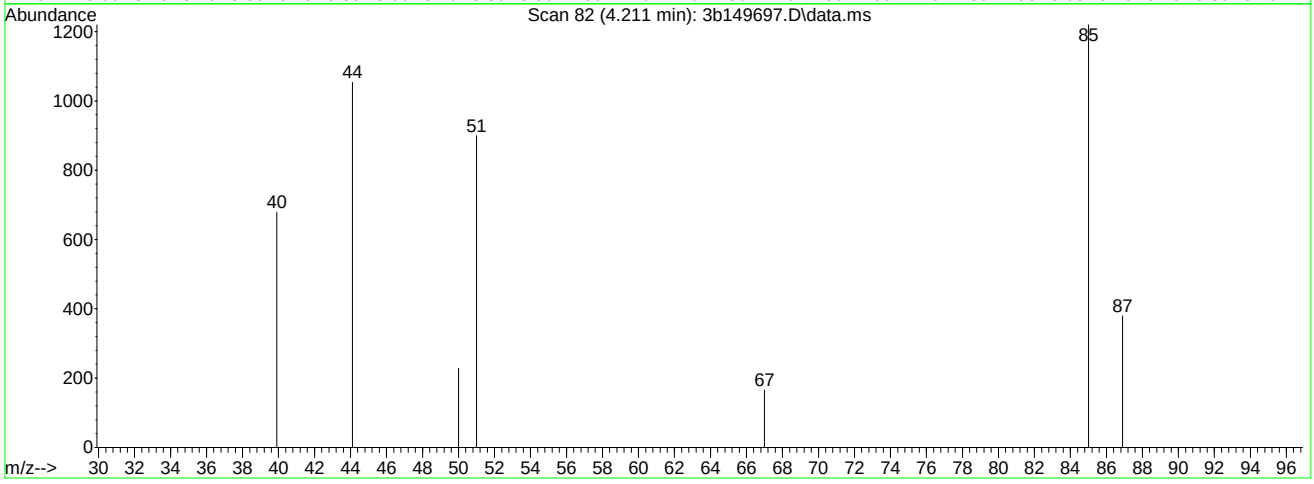
3B149697.D edits: dichlorodifluoromethane

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\V3B6662\
Data File : 3b149697.D
Acq On : 24 Oct 2018 6:06 pm
Operator : payalr
Sample : IC6662-2
Misc : MS29454,V3B6662,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Oct 25 08:00:01 2018
Quant Method : C:\MSDCHEM\1\METHODS\M3B6662.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Thu Oct 25 07:59:42 2018
Response via : Initial Calibration





TIC: 3b149697.D\data.ms

(7) dichlorodifluoromethane

4.211min (-0.026) 1.54ug/L m

response 8474

Ion	Exp%	Act%
85.00	100	100
86.90	30.50	31.15
101.00	9.60	0.00
0.00	0.00	0.00

Manual Integrations APPROVED (compounds with "m" flag)
Kanya Veerawat 10/25/18 16:08

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V3B6662\
Data File : 3b149698.D
Acq On : 24 Oct 2018 6:35 pm
Operator : payalr
Sample : IC6662-0.2
Misc : MS29454,V3B6662,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 25 11:56:15 2018
Quant Method : C:\MSDCHEM\1\METHODS\M3B6662.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Thu Oct 25 07:59:42 2018
Response via : Initial Calibration

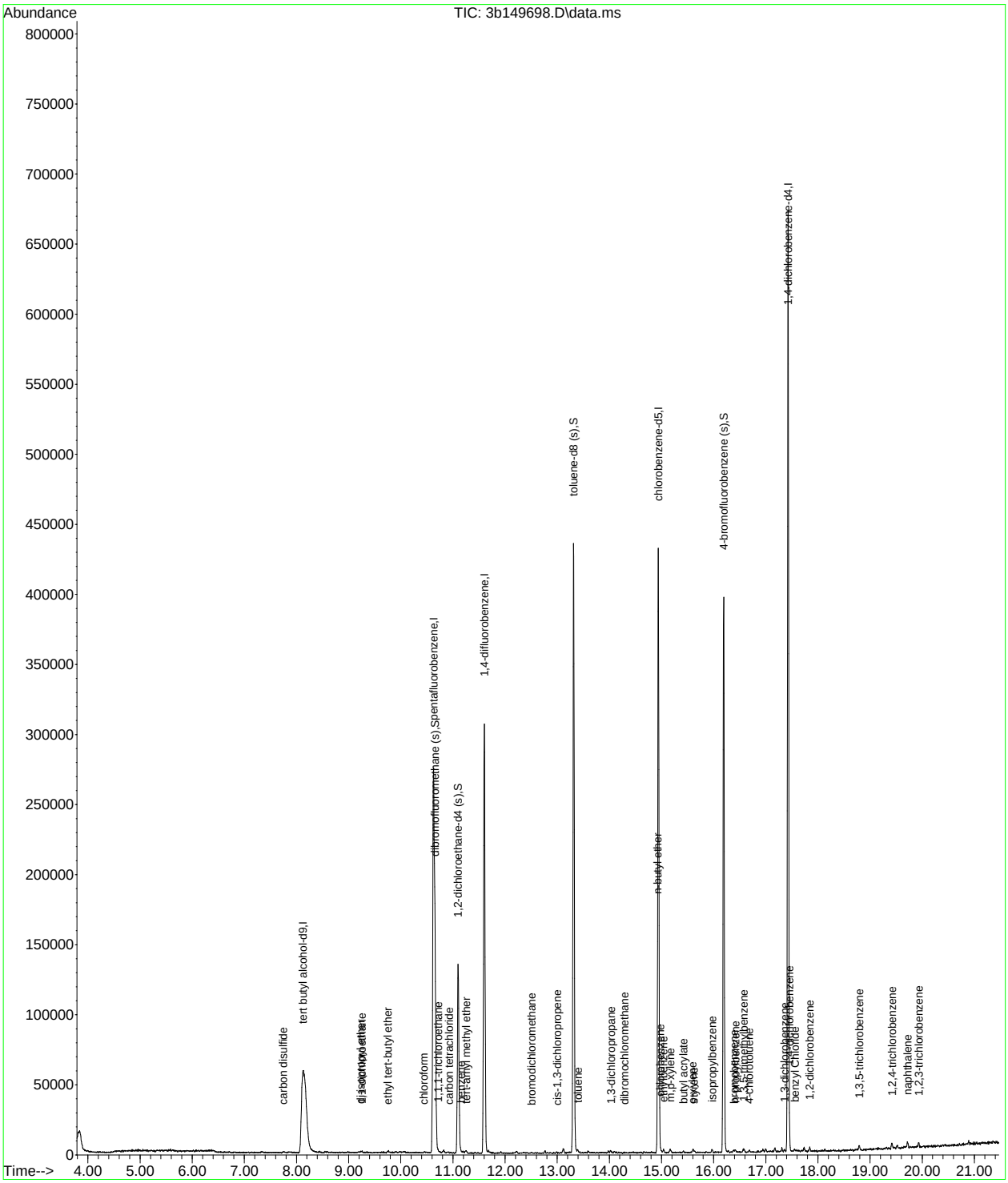
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	8.123	65	223319	500.00	ug/L		0.00
5) pentafluorobenzene	10.628	168	204346	50.00	ug/L		0.00
54) 1,4-difluorobenzene	11.601	114	260082	50.00	ug/L		0.00
75) chlorobenzene-d5	14.938	117	243968	50.00	ug/L		0.00
99) 1,4-dichlorobenzene-d4	17.428	152	180635	50.00	ug/L		0.00
System Monitoring Compounds							
46) dibromofluoromethane (s)	10.655	113	89252	49.23	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.46%				
55) 1,2-dichloroethane-d4 (s)	11.099	65	108623	51.91	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 103.82%				
76) toluene-d8 (s)	13.311	98	297974	49.72	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.44%				
100) 4-bromofluorobenzene (s)	16.193	95	125813	45.94	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 91.88%				
Target Compounds							Qvalue
23) carbon disulfide	7.741	76	1016	0.15	ug/L		78
29) di-isopropyl ether	9.232	45	958	0.15	ug/L	#	58
31) 1,1-dichloroethane	9.253	63	436	0.14	ug/L	#	55
35) ethyl tert-butyl ether	9.750	59	1064	0.14	ug/L	#	70
44) chloroform	10.440	83	650	0.20	ug/L		82
47) 1,1,1-trichloroethane	10.717	97	700	0.16	ug/L		81
51) carbon tetrachloride	10.926	117	557	0.14	ug/L	#	12
58) benzene	11.157	78	912	0.15	ug/L		63
59) tert-amyl methyl ether	11.256	73	1295	0.18	ug/L		71
69) bromodichloromethane	12.511	83	416	0.17	ug/L	#	25
72) cis-1,3-dichloropropene	12.998	75	438	0.16	ug/L	#	33
77) toluene	13.400	92	625	0.16	ug/L	#	73
83) 1,3-dichloropropane	14.033	76	378	0.16	ug/L	#	78
85) dibromochloromethane	14.290	129	293	0.14	ug/L	#	17
87) n-butyl ether	14.922	57	1273	0.17	ug/L	#	1
88) chlorobenzene	14.975	112	787	0.17	ug/L		93
90) ethylbenzene	15.037	91	1375	0.17	ug/L		88
91) m,p-xylene	15.168	106	1148	0.36	ug/L		99
92) o-xylene	15.592	91	1122	0.15	ug/L		85
93) styrene	15.618	104	977	0.19	ug/L		99
94) butyl acrylate	15.419	55	842	0.23	ug/L		89
96) isopropylbenzene	15.974	105	1452	0.14	ug/L		95
104) bromobenzene	16.392	156	415	0.15	ug/L	#	5
105) n-propylbenzene	16.418	91	1876	0.16	ug/L		89
107) 4-chlorotoluene	16.680	91	1009	0.15	ug/L		90
108) 1,3,5-trimethylbenzene	16.575	105	1560	0.15	ug/L		76
113) 1,3-dichlorobenzene	17.360	146	1006	0.18	ug/L		77
114) 1,4-dichlorobenzene	17.454	146	942m	0.17	ug/L		
115) 1,2-dichlorobenzene	17.841	146	1062	0.17	ug/L		89
116) benzyl Chloride	17.558	91	1314	0.18	ug/L		54
120) 1,3,5-trichlorobenzene	18.793	180	1330	0.18	ug/L		80
122) 1,2,4-trichlorobenzene	19.420	180	1452	0.19	ug/L		96
124) naphthalene	19.719	128	3662	0.18	ug/L		87
125) 1,2,3-trichlorobenzene	19.933	180	1449	0.18	ug/L		78

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V3B6662\
Data File : 3b149698.D
Acq On : 24 Oct 2018 6:35 pm
Operator : payalr
Sample : IC6662-0.2
Misc : MS29454,V3B6662,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 25 11:56:15 2018
Quant Method : C:\MSDCHEM\1\METHODS\M3B6662.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Thu Oct 25 07:59:42 2018
Response via : Initial Calibration



Manual Integration Approval Summary

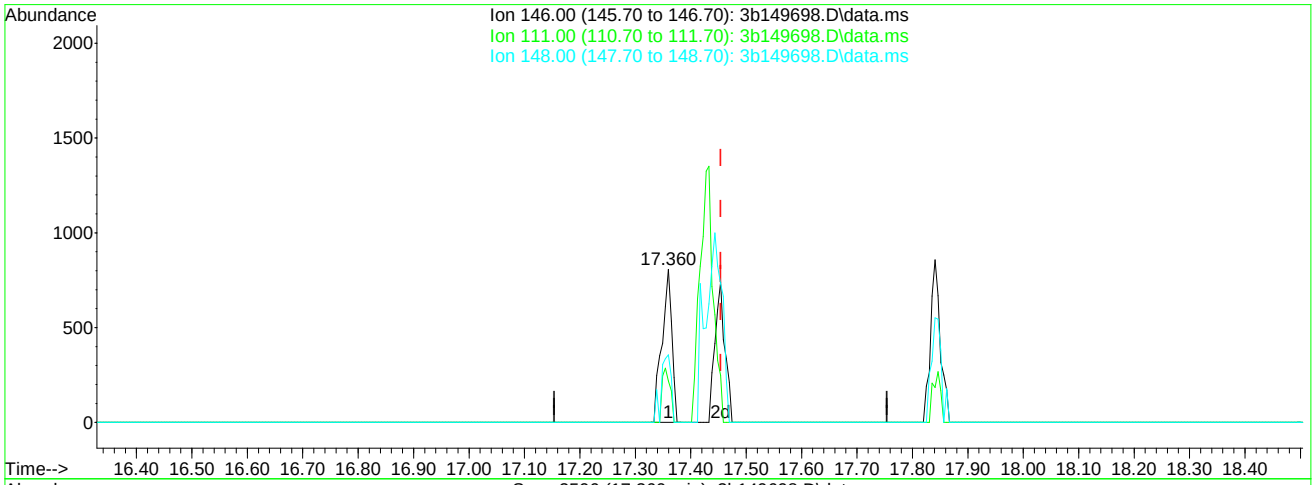
Sample Number:	V3B6662-IC6662	**Method:**	SW846 8260C
Lab FileID:	3B149698.D	**Analyst approved:**	10/25/18 12:16 Robert Szot
Injection Time:	10/24/18 18:35	**Supervisor approved:**	10/25/18 16:08 Kanya Veerawat

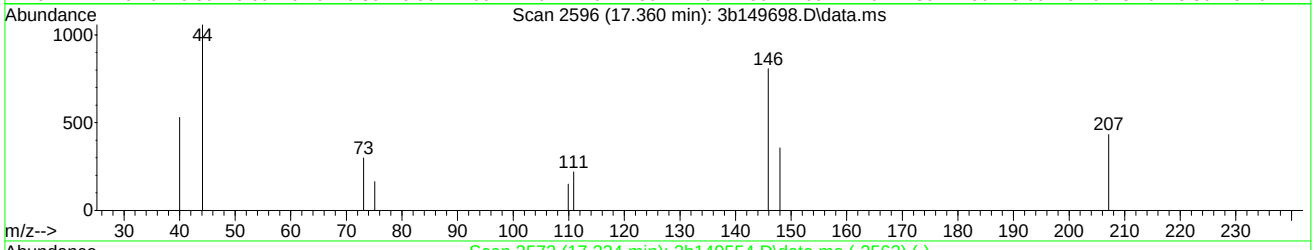
Parameter	CAS	Sig#	R.T. (min.)	Reason
1,4-Dichlorobenzene	106-46-7		17.45	Missed peak

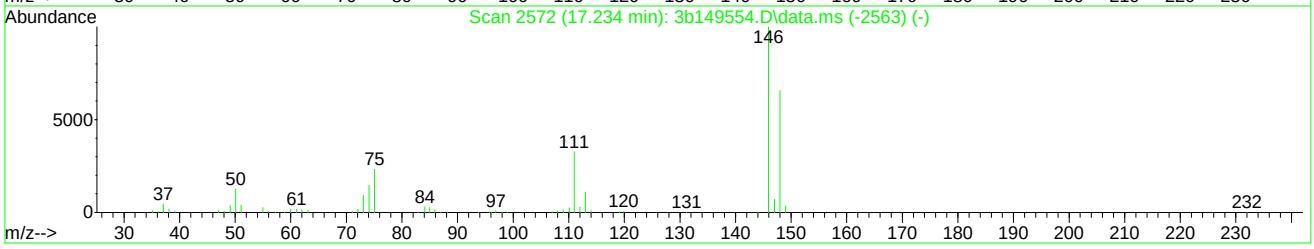
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\V3B6662\
Data File : 3b149698.D
Acq On : 24 Oct 2018 6:35 pm
Operator : payalr
Sample : IC6662-0.2
Misc : MS29454,V3B6662,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 25 08:00:03 2018
Quant Method : C:\MSDCHEM\1\METHODS\M3B6662.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Thu Oct 25 07:59:42 2018
Response via : Initial Calibration







TIC: 3b149698.D\data.ms

(114) 1,4-dichlorobenzene

17.360min (-0.094) 0.18ug/L

response 1006

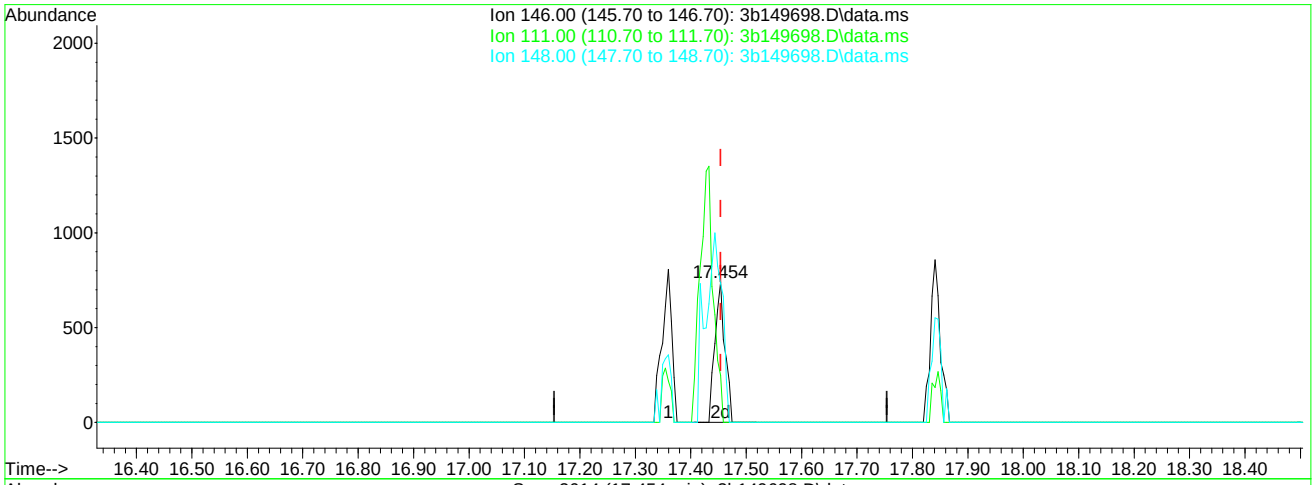
Ion	Exp%	Act%
146.00	100	100
111.00	36.00	27.14
148.00	61.80	44.11
0.00	0.00	0.00

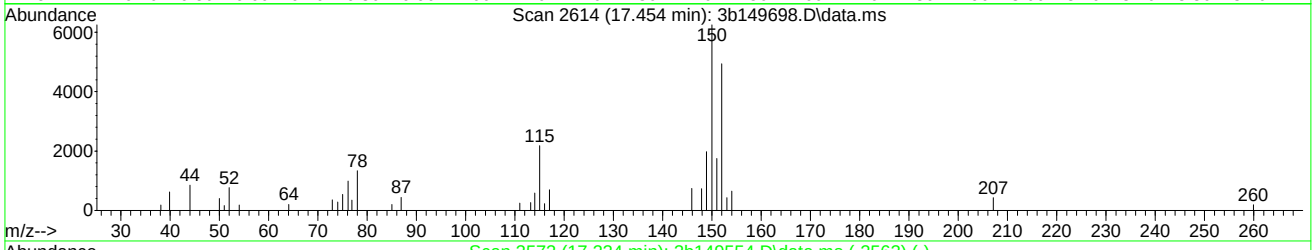
3B149698.D edits: 1,4-dichlorobenzene

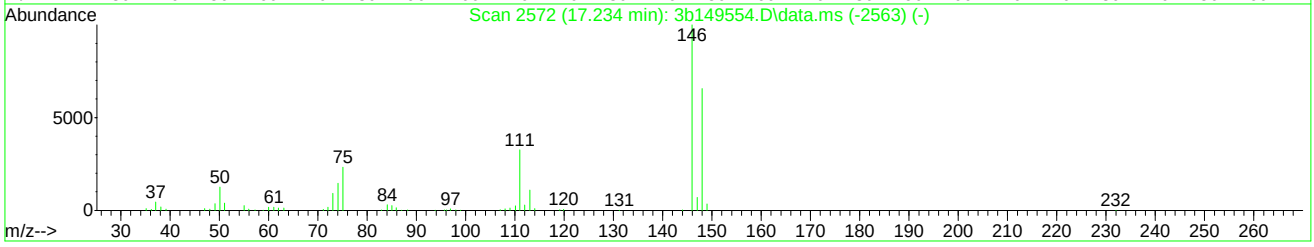
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\V3B6662\
Data File : 3b149698.D
Acq On : 24 Oct 2018 6:35 pm
Operator : payalr
Sample : IC6662-0.2
Misc : MS29454,V3B6662,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 25 08:00:03 2018
Quant Method : C:\MSDCHEM\1\METHODS\M3B6662.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Thu Oct 25 07:59:42 2018
Response via : Initial Calibration







TIC: 3b149698.D\data.ms

(114) 1,4-dichlorobenzene

17.454min (-0.000) 0.17ug/L m

response 942

Ion	Exp%	Act%
146.00	100	100
111.00	36.00	33.33
148.00	61.80	98.52#
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V3B6662\
Data File : 3b149699.D
Acq On : 24 Oct 2018 7:03 pm
Operator : payalr
Sample : IC6662-0.5
Misc : MS29454,V3B6662,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 25 11:58:31 2018
Quant Method : C:\MSDCHEM\1\METHODS\M3B6662.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Thu Oct 25 07:59:42 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	8.128	65	225277	500.00	ug/L		0.00
5) pentafluorobenzene	10.628	168	204392	50.00	ug/L		0.00
54) 1,4-difluorobenzene	11.601	114	258111	50.00	ug/L		0.00
75) chlorobenzene-d5	14.938	117	234714	50.00	ug/L		0.00
99) 1,4-dichlorobenzene-d4	17.428	152	175732	50.00	ug/L		0.00
System Monitoring Compounds							
46) dibromofluoromethane (s)	10.655	113	90136	49.71	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.42%				
55) 1,2-dichloroethane-d4 (s)	11.099	65	107816	51.92	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 103.84%				
76) toluene-d8 (s)	13.312	98	294190	51.03	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.06%				
100) 4-bromofluorobenzene (s)	16.193	95	122830	46.10	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 92.20%				
Target Compounds							Qvalue
6) chlorodifluoromethane	4.274	51	1879	0.39	ug/L		66
8) chloromethane	4.682	50	1813	0.38	ug/L		77
11) bromomethane	5.655	94	1441	0.48	ug/L		87
19) 1,1-dichloroethene	7.307	96	888	0.44	ug/L	#	44
22) iodomethane	7.605	142	1676	0.42	ug/L		86
23) carbon disulfide	7.747	76	3181	0.46	ug/L		87
24) methylene chloride	8.149	84	958	0.46	ug/L		90
27) trans-1,2-dichloroethene	8.583	96	801	0.46	ug/L	#	46
29) di-isopropyl ether	9.237	45	2843	0.45	ug/L		79
31) 1,1-dichloroethane	9.242	63	1331	0.44	ug/L		76
32) chloroprene	9.352	53	1301	0.50	ug/L		89
35) ethyl tert-butyl ether	9.750	59	3120	0.41	ug/L		82
37) 2,2-dichloropropane	10.074	77	1850	0.44	ug/L		79
38) cis-1,2-dichloroethene	10.037	96	1037	0.53	ug/L		71
39) propionitrile	10.064	54	1517	4.76	ug/L	#	55
42) bromochloromethane	10.367	128	430	0.42	ug/L	#	13
44) chloroform	10.451	83	1792	0.54	ug/L		91
47) 1,1,1-trichloroethane	10.723	97	1953	0.45	ug/L		94
50) 1,1-dichloropropene	10.890	75	1060	0.46	ug/L		82
51) carbon tetrachloride	10.916	117	1540	0.40	ug/L	#	83
58) benzene	11.152	78	3200	0.52	ug/L		90
59) tert-amyl methyl ether	11.251	73	3062	0.42	ug/L		87
63) trichloroethene	11.915	95	748	0.43	ug/L		83
64) 2-chloroethyl vinyl ether	12.768	63	2619	2.38	ug/L		87
66) methylcyclohexane	12.224	83	1908	0.48	ug/L		85
67) 1,2-dichloropropane	12.239	63	749	0.48	ug/L		94
68) dibromomethane	12.339	93	438	0.38	ug/L		96
69) bromodichloromethane	12.511	83	1071	0.43	ug/L	#	63
72) cis-1,3-dichloropropene	12.993	75	1276	0.46	ug/L		90
73) 4-methyl-2-pentanone	13.113	58	1596	1.78	ug/L	#	75
77) toluene	13.395	92	1935	0.51	ug/L		92
78) ethyl methacrylate	13.589	69	1108	0.50	ug/L		87
79) trans-1,3-dichloropropene	13.599	75	1314	0.54	ug/L		85
80) 1,1,2-trichloroethane	13.845	83	482	0.41	ug/L	#	84
81) tetrachloroethene	13.981	164	682	0.44	ug/L	#	74
82) 2-hexanone	14.023	58	1617	2.07	ug/L		91
83) 1,3-dichloropropane	14.028	76	1170	0.51	ug/L		90
84) butyl acetate	14.096	56	527	0.43	ug/L	#	83
85) dibromochloromethane	14.284	129	831	0.43	ug/L	#	60
86) 1,2-dibromoethane	14.457	107	675	0.38	ug/L		93
87) n-butyl ether	14.923	57	3745	0.53	ug/L	#	59
88) chlorobenzene	14.975	112	2019	0.45	ug/L		96
89) 1,1,1,2-tetrachloroethane	15.048	131	1021	0.46	ug/L		85
90) ethylbenzene	15.038	91	3957	0.51	ug/L		100
91) m,p-xylene	15.158	106	2798	0.92	ug/L		95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V3B6662\
Data File : 3b149699.D
Acq On : 24 Oct 2018 7:03 pm
Operator : payalr
Sample : IC6662-0.5
Misc : MS29454,V3B6662,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 25 11:58:31 2018
Quant Method : C:\MSDCHEM\1\METHODS\M3B6662.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Thu Oct 25 07:59:42 2018
Response via : Initial Calibration

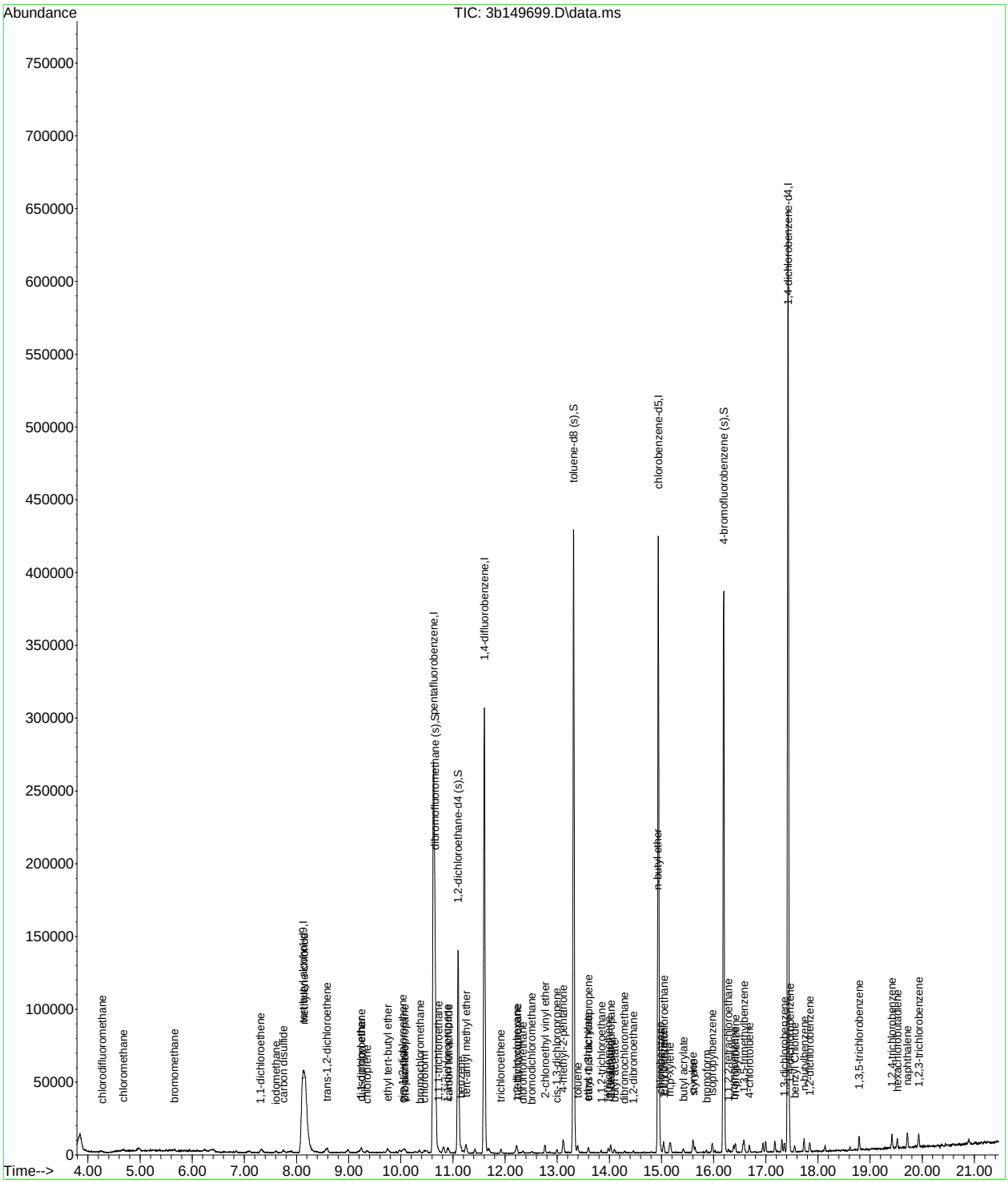
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
92)	o-xylene	15.597	91	3233	0.45	ug/L		80
93)	styrene	15.613	104	2401	0.48	ug/L		98
94)	butyl acrylate	15.419	55	1760	0.49	ug/L		86
96)	isopropylbenzene	15.974	105	4247	0.43	ug/L		88
97)	bromoform	15.864	173	744	0.48	ug/L		85
101)	1,1,2,2-tetrachloroethane	16.277	83	1147	0.38	ug/L		90
104)	bromobenzene	16.392	156	1117	0.42	ug/L	#	80
105)	n-propylbenzene	16.418	91	5049	0.43	ug/L		98
107)	4-chlorotoluene	16.685	91	3335	0.51	ug/L		87
108)	1,3,5-trimethylbenzene	16.581	105	4174	0.41	ug/L		98
113)	1,3-dichlorobenzene	17.355	146	2768	0.52	ug/L		85
114)	1,4-dichlorobenzene	17.459	146	2718	0.51	ug/L		91
115)	1,2-dichlorobenzene	17.841	146	2973	0.50	ug/L		97
116)	benzyl Chloride	17.553	91	3718	0.52	ug/L		98
117)	n-butylbenzene	17.736	92	2479	0.45	ug/L		97
120)	1,3,5-trichlorobenzene	18.788	180	3333	0.47	ug/L		95
122)	1,2,4-trichlorobenzene	19.415	180	3103	0.41	ug/L		83
123)	hexachlorobutadiene	19.525	225	1528	0.42	ug/L		88
124)	naphthalene	19.713	128	8546	0.43	ug/L		90
125)	1,2,3-trichlorobenzene	19.933	180	3241	0.41	ug/L		94

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V3B6662\
Data File : 3b149699.D
Acq On : 24 Oct 2018 7:03 pm
Operator : payalr
Sample : IC6662-0.5
Misc : MS29454,V3B6662,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 25 11:58:31 2018
Quant Method : C:\MSDCHEM\1\METHODS\M3B6662.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Thu Oct 25 07:59:42 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V3B6662\
Data File : 3b149700.D
Acq On : 24 Oct 2018 7:31 pm
Operator : payalr
Sample : IC6662-1
Misc : MS29454,V3B6662,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 25 12:01:04 2018
Quant Method : C:\MSDCHEM\1\METHODS\M3B6662.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Thu Oct 25 08:06:33 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	8.144	65	217000	500.00	ug/L		0.02
5) pentafluorobenzene	10.628	168	205219	50.00	ug/L		0.00
54) 1,4-difluorobenzene	11.601	114	253144	50.00	ug/L		0.00
75) chlorobenzene-d5	14.938	117	238391	50.00	ug/L		0.00
99) 1,4-dichlorobenzene-d4	17.428	152	173315	50.00	ug/L		0.00
System Monitoring Compounds							
46) dibromofluoromethane (s)	10.655	113	89927	49.87	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.74%				
55) 1,2-dichloroethane-d4 (s)	11.099	65	107130	51.44	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 102.88%				
76) toluene-d8 (s)	13.317	98	290289	49.61	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.22%				
100) 4-bromofluorobenzene (s)	16.193	95	121548	48.53	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.06%				
Target Compounds							Qvalue
6) chlorodifluoromethane	4.258	51	4562	1.04	ug/L		66
8) chloromethane	4.666	50	3658	0.87	ug/L		77
9) vinyl chloride	4.938	62	3255	0.80	ug/L		93
10) 1,3-butadiene	4.969	54	2797	1.05	ug/L		88
11) bromomethane	5.660	94	2559	0.91	ug/L		73
12) chloroethane	5.858	64	1572	0.93	ug/L		95
13) trichlorofluoromethane	6.376	101	4227	0.83	ug/L		87
14) vinyl bromide	6.245	106	2078	0.88	ug/L	#	72
15) ethyl ether	6.842	74	782	0.98	ug/L	#	56
16) 2-chloropropane	7.098	43	3734	1.10	ug/L		96
18) freon 113	7.339	151	2097	1.04	ug/L	#	69
19) 1,1-dichloroethene	7.312	96	1850	1.01	ug/L	#	74
20) acetone	7.333	58	651	3.66	ug/L	#	1
22) iodomethane	7.595	142	3878	1.15	ug/L		87
23) carbon disulfide	7.741	76	6180	0.99	ug/L		97
24) methylene chloride	8.155	84	1899	1.07	ug/L		80
26) methyl tert butyl ether	8.573	73	7568	1.19	ug/L		95
27) trans-1,2-dichloroethene	8.594	96	1771	1.12	ug/L	#	80
28) hexane	8.997	56	1253	1.02	ug/L	#	45
29) di-isopropyl ether	9.242	45	6621	1.13	ug/L		80
30) 2-butanone	9.969	72	924	3.98	ug/L	#	21
31) 1,1-dichloroethane	9.242	63	3269	1.15	ug/L		93
32) chloroprene	9.347	53	2584	1.09	ug/L		92
35) ethyl tert-butyl ether	9.745	59	7094	1.06	ug/L		85
37) 2,2-dichloropropane	10.069	77	4073	1.08	ug/L		96
38) cis-1,2-dichloroethene	10.037	96	2251	1.19	ug/L		86
39) propionitrile	10.069	54	3289	11.15	ug/L		81
41) methacrylonitrile	10.278	67	778	1.02	ug/L	#	76
42) bromochloromethane	10.356	128	1026	1.04	ug/L	#	69
44) chloroform	10.451	83	3468	1.07	ug/L		94
45) tert-Butyl Formate	10.492	59	2137	1.14	ug/L		87
47) 1,1,1-trichloroethane	10.712	97	4006	1.00	ug/L		91
48) cyclohexane	10.817	84	2559	0.84	ug/L		98
50) 1,1-dichloropropene	10.895	75	2209	1.06	ug/L		96
51) carbon tetrachloride	10.916	117	3608	1.04	ug/L	#	76
56) n-butyl alcohol	11.685	56	4038	49.91	ug/L		78
57) 2,2,4-trimethylpentane	11.251	57	6624	0.96	ug/L		98
58) benzene	11.162	78	6853	1.17	ug/L		93
59) tert-amyl methyl ether	11.251	73	7138	1.08	ug/L		90
60) heptane	11.423	57	1202	0.78	ug/L		82
61) 1,2-dichloroethane	11.193	62	3011	1.10	ug/L		88
62) ethyl acrylate	11.920	55	2254	1.05	ug/L		83
63) trichloroethene	11.920	95	1679	1.11	ug/L		93
64) 2-chloroethyl vinyl ether	12.762	63	5351	5.31	ug/L		93
66) methylcyclohexane	12.224	83	3873	1.06	ug/L		94

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V3B6662\
Data File : 3b149700.D
Acq On : 24 Oct 2018 7:31 pm
Operator : payalr
Sample : IC6662-1
Misc : MS29454,V3B6662,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 25 12:01:04 2018
Quant Method : C:\MSDCHEM\1\METHODS\M3B6662.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Thu Oct 25 08:06:33 2018
Response via : Initial Calibration

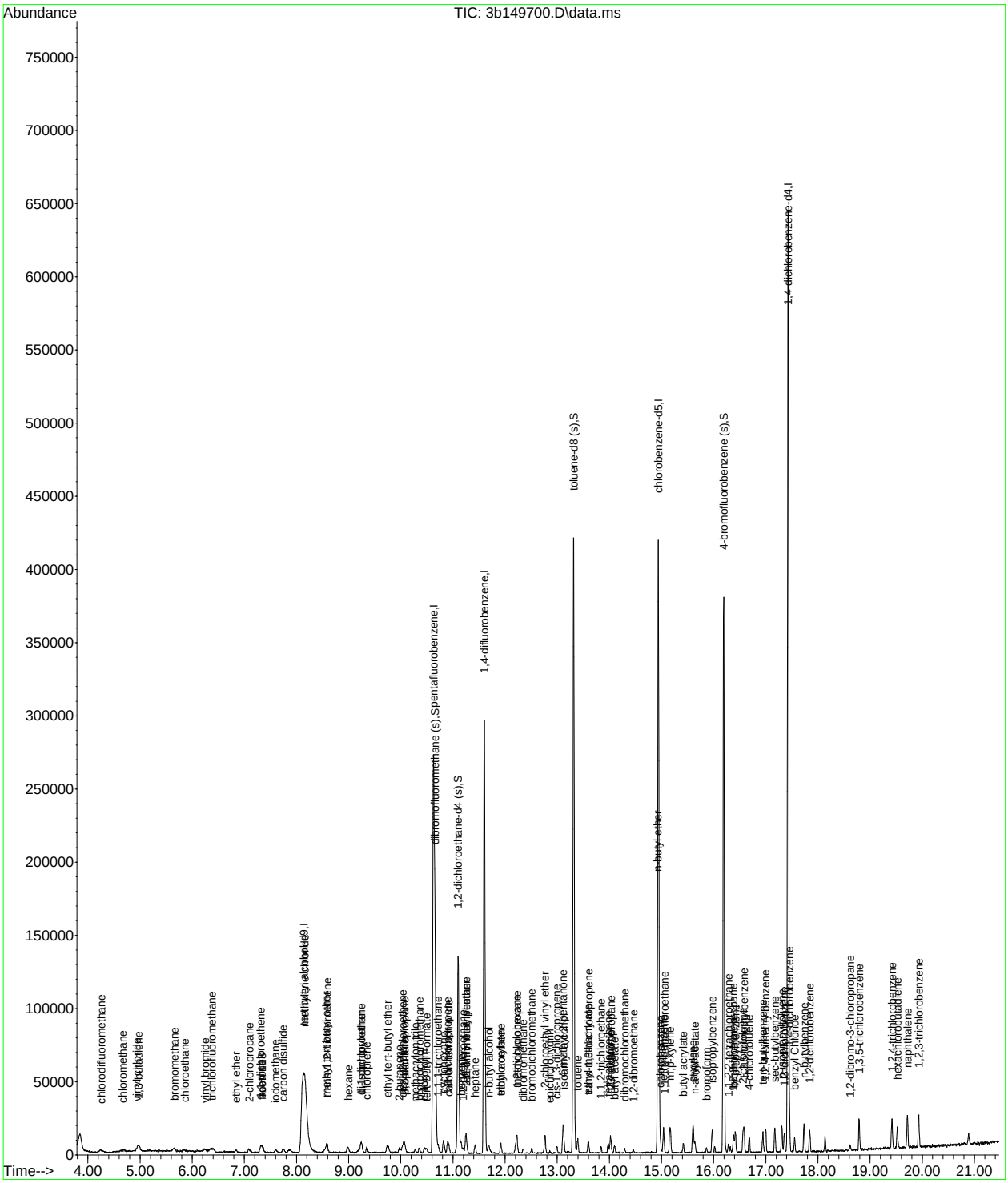
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
67)	1,2-dichloropropane	12.229	63	1506	1.00	ug/L		86
68)	dibromomethane	12.344	93	1096	1.05	ug/L		96
69)	bromodichloromethane	12.511	83	2392	1.06	ug/L		90
71)	epichlorohydrin	12.857	57	1026	4.28	ug/L		72
72)	cis-1,3-dichloropropene	12.993	75	2524	1.01	ug/L		93
73)	4-methyl-2-pentanone	13.113	58	3540	4.23	ug/L	#	64
74)	isoamyl alcohol	13.128	70	1698	20.45	ug/L	#	77
77)	toluene	13.395	92	3896	1.06	ug/L		93
78)	ethyl methacrylate	13.594	69	2364	1.09	ug/L		89
79)	trans-1,3-dichloropropene	13.604	75	2394	1.05	ug/L		84
80)	1,1,2-trichloroethane	13.840	83	1218	1.06	ug/L		91
81)	tetrachloroethene	13.981	164	1591	1.07	ug/L		89
82)	2-hexanone	14.023	58	3327	4.38	ug/L		96
83)	1,3-dichloropropane	14.033	76	2606	1.16	ug/L		92
84)	butyl acetate	14.101	56	1435	1.15	ug/L	#	59
85)	dibromochloromethane	14.295	129	1999	1.10	ug/L		86
86)	1,2-dibromoethane	14.462	107	1877	1.17	ug/L		83
87)	n-butyl ether	14.922	57	8117	1.16	ug/L		88
88)	chlorobenzene	14.975	112	4770	1.10	ug/L		93
89)	1,1,1,2-tetrachloroethane	15.053	131	2257	1.05	ug/L	#	72
90)	ethylbenzene	15.038	91	7885	1.04	ug/L		96
91)	m,p-xylene	15.163	106	6160	2.10	ug/L		88
92)	o-xylene	15.597	91	7307	1.08	ug/L		86
93)	styrene	15.613	104	5359	1.09	ug/L		86
94)	butyl acrylate	15.414	55	4271	1.16	ug/L		90
95)	n-amyl acetate	15.639	70	1720	1.26	ug/L	#	73
96)	isopropylbenzene	15.974	105	9788	1.07	ug/L		97
97)	bromoform	15.864	173	1661	1.12	ug/L		98
101)	1,1,2,2-tetrachloroethane	16.282	83	2846	1.07	ug/L		72
103)	1,2,3-trichloropropane	16.376	110	912	1.12	ug/L		86
104)	bromobenzene	16.387	156	2400	1.02	ug/L	#	79
105)	n-propylbenzene	16.418	91	11585	1.10	ug/L		92
106)	2-chlorotoluene	16.565	126	2521	1.12	ug/L		96
107)	4-chlorotoluene	16.680	91	6657	1.09	ug/L		94
108)	1,3,5-trimethylbenzene	16.580	105	8619	0.99	ug/L		98
109)	tert-butylbenzene	16.947	119	7067	0.98	ug/L		93
110)	1,2,4-trimethylbenzene	16.994	105	9081	1.05	ug/L		89
111)	sec-butylbenzene	17.177	105	11548	1.01	ug/L		93
112)	p-isopropyltoluene	17.307	119	10088	0.99	ug/L		93
113)	1,3-dichlorobenzene	17.355	146	5865	1.14	ug/L		99
114)	1,4-dichlorobenzene	17.454	146	5549	1.09	ug/L		90
115)	1,2-dichlorobenzene	17.841	146	6227	1.10	ug/L		92
116)	benzyl Chloride	17.553	91	7134	1.07	ug/L		94
117)	n-butylbenzene	17.736	92	5404	1.07	ug/L		93
119)	1,2-dibromo-3-chloropr...	18.620	157	1229	1.02	ug/L		90
120)	1,3,5-trichlorobenzene	18.793	180	7249	1.09	ug/L		92
122)	1,2,4-trichlorobenzene	19.420	180	7749	1.13	ug/L		86
123)	hexachlorobutadiene	19.525	225	3650	1.13	ug/L		93
124)	naphthalene	19.719	128	18206	1.01	ug/L		95
125)	1,2,3-trichlorobenzene	19.933	180	6840	0.98	ug/L		93

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V3B6662\
Data File : 3b149700.D
Acq On : 24 Oct 2018 7:31 pm
Operator : payalr
Sample : IC6662-1
Misc : MS29454,V3B6662,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 25 12:01:04 2018
Quant Method : C:\MSDCHEM\1\METHODS\M3B6662.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Thu Oct 25 08:06:33 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V3B6662\
Data File : 3b149701.D
Acq On : 24 Oct 2018 8:00 pm
Operator : payalr
Sample : IC6662-4
Misc : MS29454,V3B6662,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Oct 25 15:01:15 2018
Quant Method : C:\MSDCHEM\1\METHODS\M3B6662.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Thu Oct 25 12:07:40 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	8.128	65	211900	500.00	ug/L		0.00
5) pentafluorobenzene	10.629	168	202309	50.00	ug/L		0.00
54) 1,4-difluorobenzene	11.601	114	251472	50.00	ug/L		0.00
75) chlorobenzene-d5	14.938	117	238849	50.00	ug/L		0.00
99) 1,4-dichlorobenzene-d4	17.428	152	171357	50.00	ug/L		0.00
System Monitoring Compounds							
46) dibromofluoromethane (s)	10.655	113	88932	50.03	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.06%				
55) 1,2-dichloroethane-d4 (s)	11.099	65	105219	50.83	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 101.66%				
76) toluene-d8 (s)	13.312	98	292034	49.81	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.62%				
100) 4-bromofluorobenzene (s)	16.193	95	120637	48.70	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.40%				
Target Compounds							Qvalue
3) tertiary butyl alcohol	8.264	59	8656	19.72	ug/L		89
4) 1,4-dioxane	12.276	88	3041	96.16	ug/L		92
6) chlorodifluoromethane	4.258	51	16560	3.82	ug/L		98
7) dichlorodifluoromethane	4.206	85	17624	3.61	ug/L		97
8) chloromethane	4.661	50	15409	3.71	ug/L		89
9) vinyl chloride	4.938	62	15025	3.73	ug/L		91
10) 1,3-butadiene	4.969	54	10076	3.82	ug/L		85
11) bromomethane	5.649	94	10978	3.98	ug/L		96
12) chloroethane	5.843	64	6777	3.97	ug/L		90
13) trichlorofluoromethane	6.382	101	19175	3.82	ug/L		97
14) vinyl bromide	6.230	106	9020	3.85	ug/L		91
15) ethyl ether	6.837	74	2986	3.80	ug/L	#	76
16) 2-chloropropane	7.082	43	12166	3.63	ug/L		93
17) acrolein	7.119	56	1290	3.68	ug/L		88
18) freon 113	7.333	151	7834	3.69	ug/L		91
19) 1,1-dichloroethene	7.313	96	6393	3.56	ug/L		93
20) acetone	7.354	58	2575	14.71	ug/L	#	76
21) acetonitrile	7.862	41	12219	36.39	ug/L		92
22) iodomethane	7.600	142	13029	3.66	ug/L		99
23) carbon disulfide	7.752	76	22810	3.72	ug/L		93
24) methylene chloride	8.155	84	6991	3.78	ug/L		95
25) methyl acetate	7.883	43	5769	3.97	ug/L		94
26) methyl tert butyl ether	8.557	73	26319	3.73	ug/L		99
27) trans-1,2-dichloroethene	8.594	96	6951	4.23	ug/L		83
28) hexane	8.981	56	4730	3.86	ug/L		84
29) di-isopropyl ether	9.237	45	21971	3.80	ug/L		99
30) 2-butanone	9.964	72	3428	14.72	ug/L	#	43
31) 1,1-dichloroethane	9.242	63	11270	4.02	ug/L		94
32) chloroprene	9.347	53	9102	3.67	ug/L		94
33) acrylonitrile	8.510	53	2563	3.62	ug/L		82
34) vinyl acetate	9.190	86	1021	3.65	ug/L	#	2
35) ethyl tert-butyl ether	9.750	59	24888	3.78	ug/L		98
36) ethyl acetate	9.996	45	1054	3.66	ug/L	#	31
37) 2,2-dichloropropane	10.064	77	14404	3.73	ug/L		96
38) cis-1,2-dichloroethene	10.032	96	7368	3.86	ug/L		85
39) propionitrile	10.079	54	11302	36.85	ug/L		95
40) methyl acrylate	10.074	85	1025	3.56	ug/L	#	71
41) methacrylonitrile	10.278	67	2713	3.62	ug/L		96
42) bromochloromethane	10.357	128	3684	3.78	ug/L		81
43) tetrahydrofuran	10.367	42	2184	3.63	ug/L		74
44) chloroform	10.451	83	11889	3.72	ug/L		95
45) tert-Butyl Formate	10.498	59	7657	3.85	ug/L		83
47) 1,1,1-trichloroethane	10.712	97	15115	3.83	ug/L		95
48) cyclohexane	10.817	84	12029	3.84	ug/L		99
49) isobutyl alcohol	10.895	43	5353	38.06	ug/L		89

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V3B6662\
Data File : 3b149701.D
Acq On : 24 Oct 2018 8:00 pm
Operator : payalr
Sample : IC6662-4
Misc : MS29454,V3B6662,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Oct 25 15:01:15 2018
Quant Method : C:\MSDCHEM\1\METHODS\M3B6662.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Thu Oct 25 12:07:40 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
50) 1,1-dichloropropene	10.895	75	8236	3.79	ug/L		99
51) carbon tetrachloride	10.916	117	13236	3.86	ug/L		95
52) tert-amyl alcohol	11.063	73	4200	17.74	ug/L	#	81
53) isopropyl acetate	11.084	87	1689	3.95	ug/L	#	60
56) n-butyl alcohol	11.690	56	15272	185.31	ug/L		83
57) 2,2,4-trimethylpentane	11.251	57	24619	3.43	ug/L		97
58) benzene	11.152	78	22599	3.89	ug/L		99
59) tert-amyl methyl ether	11.246	73	24471	3.72	ug/L		92
60) heptane	11.418	57	4905	4.06	ug/L		92
61) 1,2-dichloroethane	11.188	62	9741	3.90	ug/L		93
62) ethyl acrylate	11.915	55	8308	3.77	ug/L		98
63) trichloroethene	11.920	95	5932	3.76	ug/L		92
64) 2-chloroethyl vinyl ether	12.768	63	18730	18.50	ug/L		96
65) methyl methacrylate	12.203	100	1787	3.72	ug/L	#	89
66) methylcyclohexane	12.224	83	14670	3.95	ug/L		92
67) 1,2-dichloropropane	12.234	63	6144	4.09	ug/L		80
68) dibromomethane	12.344	93	3841	3.69	ug/L		88
69) bromodichloromethane	12.511	83	8627	3.84	ug/L		88
70) 2-nitropropane	12.757	41	2964	4.13	ug/L		97
71) epichlorohydrin	12.862	57	4285	19.99	ug/L		85
72) cis-1,3-dichloropropene	12.993	75	9259	3.74	ug/L		93
73) 4-methyl-2-pentanone	13.113	58	13384	15.86	ug/L	#	80
74) isoamyl alcohol	13.123	70	6541	72.82	ug/L		87
77) toluene	13.390	92	14742	4.01	ug/L	#	85
78) ethyl methacrylate	13.594	69	8699	3.95	ug/L		94
79) trans-1,3-dichloropropene	13.605	75	9221	3.84	ug/L		93
80) 1,1,2-trichloroethane	13.840	83	4455	3.87	ug/L	#	84
81) tetrachloroethene	13.981	164	5661	3.72	ug/L		88
82) 2-hexanone	14.018	58	11910	15.21	ug/L		89
83) 1,3-dichloropropane	14.039	76	8949	3.97	ug/L		84
84) butyl acetate	14.096	56	4772	3.90	ug/L		88
85) dibromochloromethane	14.295	129	6952	3.83	ug/L		96
86) 1,2-dibromoethane	14.457	107	6606	3.99	ug/L		94
87) n-butyl ether	14.923	57	26312	3.76	ug/L		93
88) chlorobenzene	14.975	112	17196	3.96	ug/L		93
89) 1,1,1,2-tetrachloroethane	15.043	131	8375	3.79	ug/L		97
90) ethylbenzene	15.038	91	29596	3.89	ug/L		99
91) m,p-xylene	15.168	106	22586	7.70	ug/L		89
92) o-xylene	15.597	91	26146	3.84	ug/L		99
93) styrene	15.613	104	19066	3.86	ug/L		98
94) butyl acrylate	15.419	55	14663	3.98	ug/L		98
95) n-amyl acetate	15.644	70	5684	4.00	ug/L		97
96) isopropylbenzene	15.974	105	35663	3.90	ug/L		98
97) bromoform	15.864	173	5812	3.82	ug/L		93
98) cis-1,4-dichloro-2-butene	16.021	88	3927	3.75	ug/L	#	80
101) 1,1,2,2-tetrachloroethane	16.282	83	10105	3.78	ug/L		96
102) trans-1,4-dichloro-2-b...	16.314	53	2749	3.91	ug/L		95
103) 1,2,3-trichloropropane	16.377	110	2854	3.42	ug/L		93
104) bromobenzene	16.392	156	8203	3.52	ug/L		94
105) n-propylbenzene	16.418	91	38623	3.71	ug/L		99
106) 2-chlorotoluene	16.565	126	8560	3.57	ug/L		94
107) 4-chlorotoluene	16.680	91	22302	3.70	ug/L		89
108) 1,3,5-trimethylbenzene	16.581	105	32089	3.72	ug/L		95
109) tert-butylbenzene	16.941	119	25929	3.35	ug/L		99
110) 1,2,4-trimethylbenzene	16.994	105	31944	3.59	ug/L		97
111) sec-butylbenzene	17.172	105	40692	3.42	ug/L		97
112) p-isopropyltoluene	17.308	119	38096	3.60	ug/L		98
113) 1,3-dichlorobenzene	17.355	146	19821	3.90	ug/L		97
114) 1,4-dichlorobenzene	17.454	146	19472	3.89	ug/L		90
115) 1,2-dichlorobenzene	17.841	146	21812	3.90	ug/L		99
116) benzyl chloride	17.548	91	23671	3.59	ug/L		97
117) n-butylbenzene	17.731	92	18966	3.69	ug/L		96
118) hexachloroethane	18.134	201	6211	3.21	ug/L		93

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V3B6662\
Data File : 3b149701.D
Acq On : 24 Oct 2018 8:00 pm
Operator : payalr
Sample : IC6662-4
Misc : MS29454,V3B6662,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Oct 25 15:01:15 2018
Quant Method : C:\MSDCHEM\1\METHODS\M3B6662.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Thu Oct 25 12:07:40 2018
Response via : Initial Calibration

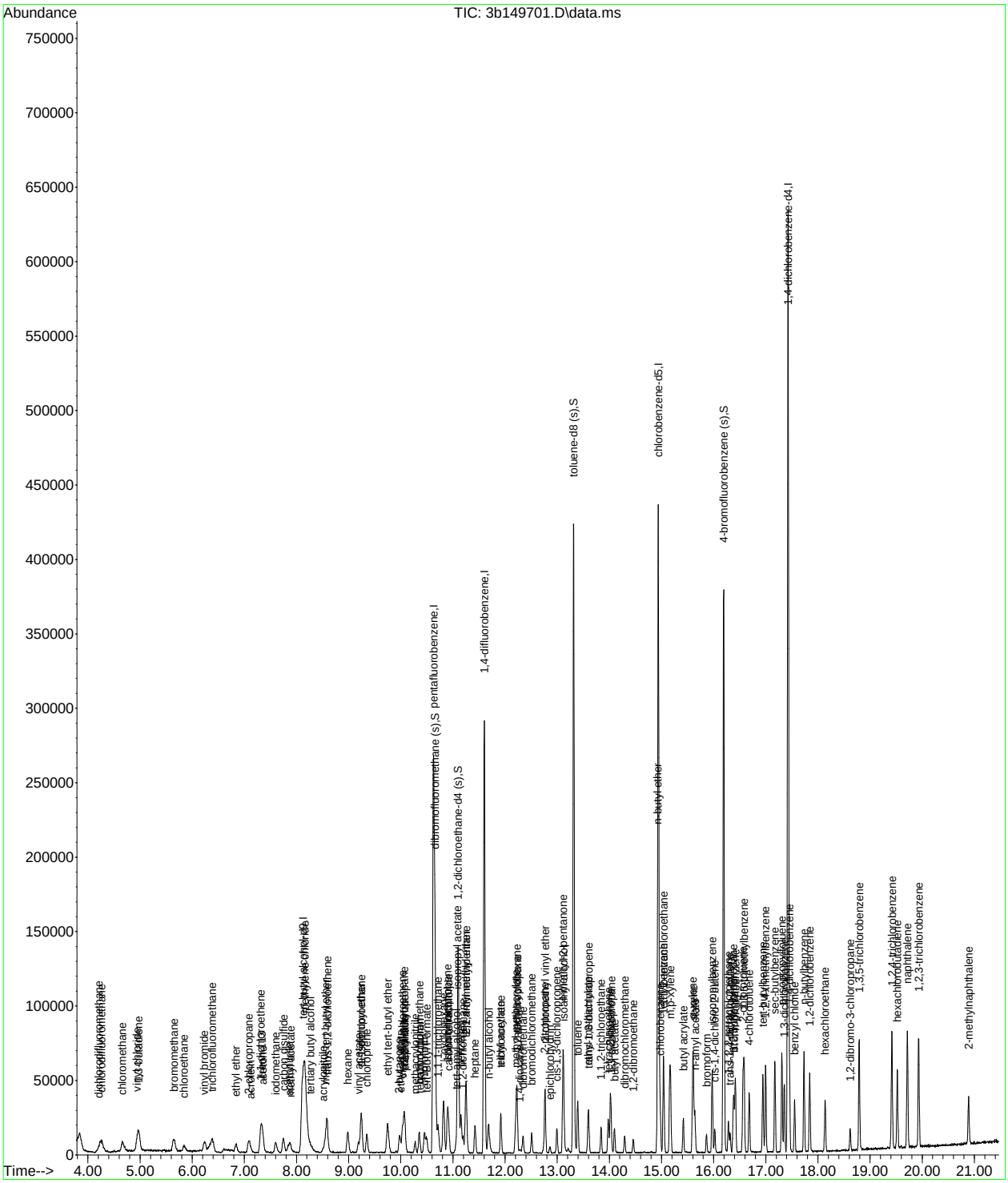
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
119) 1,2-dibromo-3-chloropr...	18.620	157	4421	3.57	ug/L	83
120) 1,3,5-trichlorobenzene	18.793	180	25144	3.84	ug/L	90
122) 1,2,4-trichlorobenzene	19.421	180	25096	3.69	ug/L	95
123) hexachlorobutadiene	19.520	225	12055	3.70	ug/L	89
124) naphthalene	19.713	128	64343	3.62	ug/L	97
125) 1,2,3-trichlorobenzene	19.933	180	25472	3.69	ug/L	98
126) 2-methylnaphthalene	20.890	142	15691	1.43	ug/L	95

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V3B6662\
Data File : 3b149701.D
Acq On : 24 Oct 2018 8:00 pm
Operator : payalr
Sample : IC6662-4
Misc : MS29454,V3B6662,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Oct 25 15:01:15 2018
Quant Method : C:\MSDCHEM\1\METHODS\M3B6662.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Thu Oct 25 12:07:40 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V3B6662\
Data File : 3b149702.D
Acq On : 24 Oct 2018 8:28 pm
Operator : payalr
Sample : IC6662-8
Misc : MS29454,V3B6662,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Oct 25 15:01:33 2018
Quant Method : C:\MSDCHEM\1\METHODS\M3B6662.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Thu Oct 25 12:07:40 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	8.134	65	211476	500.00	ug/L		0.00
5) pentafluorobenzene	10.628	168	193725	50.00	ug/L		0.00
54) 1,4-difluorobenzene	11.601	114	247324	50.00	ug/L		0.00
75) chlorobenzene-d5	14.938	117	234992	50.00	ug/L		0.00
99) 1,4-dichlorobenzene-d4	17.428	152	162284	50.00	ug/L		0.00
System Monitoring Compounds							
46) dibromofluoromethane (s)	10.655	113	83238	48.90	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.80%				
55) 1,2-dichloroethane-d4 (s)	11.099	65	103139	50.66	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 101.32%				
76) toluene-d8 (s)	13.312	98	286497	49.67	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.34%				
100) 4-bromofluorobenzene (s)	16.193	95	116368	49.60	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.20%				
Target Compounds							Qvalue
3) tertiary butyl alcohol	8.243	59	17080	38.98	ug/L		91
4) 1,4-dioxane	12.276	88	6130	194.23	ug/L		86
6) chlorodifluoromethane	4.258	51	31733	7.65	ug/L		98
7) dichlorodifluoromethane	4.221	85	36805	7.88	ug/L		87
8) chloromethane	4.666	50	31877	8.02	ug/L		97
9) vinyl chloride	4.938	62	31443	8.14	ug/L		97
10) 1,3-butadiene	4.969	54	18729	7.42	ug/L		93
11) bromomethane	5.654	94	21038	7.96	ug/L		97
12) chloroethane	5.848	64	13394	8.20	ug/L		88
13) trichlorofluoromethane	6.382	101	39287	8.18	ug/L		95
14) vinyl bromide	6.235	106	17656	7.88	ug/L		94
15) ethyl ether	6.837	74	5513	7.33	ug/L		89
16) 2-chloropropane	7.082	43	24041	7.48	ug/L		95
17) acrolein	7.109	56	2457	7.31	ug/L		77
18) freon 113	7.333	151	15559	7.66	ug/L		93
19) 1,1-dichloroethene	7.318	96	13209	7.67	ug/L		92
20) acetone	7.354	58	5390	32.14	ug/L		86
21) acetonitrile	7.846	41	24223	75.34	ug/L		92
22) iodomethane	7.600	142	25229	7.41	ug/L		96
23) carbon disulfide	7.747	76	45075	7.68	ug/L		99
24) methylene chloride	8.155	84	13252	7.49	ug/L		91
25) methyl acetate	7.877	43	10180	7.32	ug/L		93
26) methyl tert butyl ether	8.563	73	51307	7.59	ug/L		98
27) trans-1,2-dichloroethene	8.589	96	12364	7.85	ug/L		96
28) hexane	8.986	56	9575	8.16	ug/L		93
29) di-isopropyl ether	9.237	45	42900	7.74	ug/L		97
30) 2-butanone	9.975	72	6568	29.45	ug/L	#	89
31) 1,1-dichloroethane	9.242	63	21957	8.17	ug/L		92
32) chloroprene	9.352	53	18131	7.64	ug/L		98
33) acrylonitrile	8.505	53	5091	7.51	ug/L		89
34) vinyl acetate	9.190	86	1998	7.47	ug/L	#	67
35) ethyl tert-butyl ether	9.750	59	48736	7.73	ug/L		94
36) ethyl acetate	9.990	45	2300	8.34	ug/L	#	33
37) 2,2-dichloropropane	10.069	77	28201	7.64	ug/L		96
38) cis-1,2-dichloroethene	10.032	96	13676	7.48	ug/L		95
39) propionitrile	10.069	54	22606	76.96	ug/L		93
40) methyl acrylate	10.079	85	2117	7.69	ug/L	#	87
41) methacrylonitrile	10.273	67	5294	7.39	ug/L		92
42) bromochloromethane	10.356	128	7325	7.86	ug/L		85
43) tetrahydrofuran	10.367	42	4309	7.48	ug/L		94
44) chloroform	10.451	83	22711	7.43	ug/L		97
45) tert-Butyl Formate	10.492	59	13631	7.16	ug/L		95
47) 1,1,1-trichloroethane	10.717	97	28798	7.62	ug/L		94
48) cyclohexane	10.817	84	24608	8.21	ug/L		93
49) isobutyl alcohol	10.900	43	10099	74.98	ug/L		93

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V3B6662\
Data File : 3b149702.D
Acq On : 24 Oct 2018 8:28 pm
Operator : payalr
Sample : IC6662-8
Misc : MS29454,V3B6662,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Oct 25 15:01:33 2018
Quant Method : C:\MSDCHEM\1\METHODS\M3B6662.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Thu Oct 25 12:07:40 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
50) 1,1-dichloropropene	10.890	75	15855	7.61	ug/L		92
51) carbon tetrachloride	10.911	117	25872	7.87	ug/L		91
52) tert-amyl alcohol	11.068	73	8206	36.20	ug/L		98
53) isopropyl acetate	11.083	87	2856	6.97	ug/L	#	91
56) n-butyl alcohol	11.685	56	30684	378.55	ug/L		92
57) 2,2,4-trimethylpentane	11.256	57	51248	7.25	ug/L		98
58) benzene	11.151	78	43593	7.64	ug/L		98
59) tert-amyl methyl ether	11.246	73	50260	7.77	ug/L		97
60) heptane	11.418	57	9236	7.78	ug/L		89
61) 1,2-dichloroethane	11.193	62	18403	7.49	ug/L		97
62) ethyl acrylate	11.920	55	16966	7.84	ug/L		96
63) trichloroethene	11.920	95	12028	7.75	ug/L		98
64) 2-chloroethyl vinyl ether	12.768	63	37396	37.56	ug/L		98
65) methyl methacrylate	12.198	100	3664	7.76	ug/L	#	84
66) methylcyclohexane	12.224	83	27747	7.59	ug/L		97
67) 1,2-dichloropropane	12.234	63	11160	7.56	ug/L		94
68) dibromomethane	12.339	93	7896	7.71	ug/L	#	82
69) bromodichloromethane	12.511	83	16598	7.50	ug/L		95
70) 2-nitropropane	12.747	41	5588	7.91	ug/L		92
71) epichlorohydrin	12.862	57	7913	37.54	ug/L		95
72) cis-1,3-dichloropropene	12.998	75	18851	7.75	ug/L		98
73) 4-methyl-2-pentanone	13.113	58	25574	30.81	ug/L		88
74) isoamyl alcohol	13.118	70	13028	147.48	ug/L	#	78
77) toluene	13.395	92	28566	7.90	ug/L		99
78) ethyl methacrylate	13.589	69	16496	7.61	ug/L		90
79) trans-1,3-dichloropropene	13.599	75	18048	7.63	ug/L		84
80) 1,1,2-trichloroethane	13.845	83	8887	7.85	ug/L		92
81) tetrachloroethene	13.981	164	11555	7.71	ug/L		94
82) 2-hexanone	14.018	58	23525	30.54	ug/L		96
83) 1,3-dichloropropane	14.033	76	17231	7.76	ug/L		95
84) butyl acetate	14.101	56	9238	7.67	ug/L		97
85) dibromochloromethane	14.295	129	13903	7.78	ug/L		98
86) 1,2-dibromoethane	14.457	107	12105	7.44	ug/L		92
87) n-butyl ether	14.922	57	52373	7.61	ug/L		97
88) chlorobenzene	14.975	112	32623	7.64	ug/L		94
89) 1,1,1,2-tetrachloroethane	15.048	131	16433	7.56	ug/L		89
90) ethylbenzene	15.038	91	57203	7.65	ug/L		98
91) m,p-xylene	15.168	106	43917	15.22	ug/L		95
92) o-xylene	15.597	91	51634	7.71	ug/L		95
93) styrene	15.613	104	36467	7.51	ug/L		99
94) butyl acrylate	15.414	55	26897	7.43	ug/L		98
95) n-amyl acetate	15.639	70	10788	7.72	ug/L		87
96) isopropylbenzene	15.974	105	70035	7.77	ug/L		98
97) bromoform	15.864	173	10495	7.01	ug/L		98
98) cis-1,4-dichloro-2-butene	16.021	88	8176	7.93	ug/L		93
101) 1,1,2,2-tetrachloroethane	16.282	83	19081	7.54	ug/L		100
102) trans-1,4-dichloro-2-b...	16.314	53	5360	8.04	ug/L		90
103) 1,2,3-trichloropropane	16.376	110	5979	7.57	ug/L		92
104) bromobenzene	16.392	156	17604	7.97	ug/L		84
105) n-propylbenzene	16.418	91	75279	7.64	ug/L		100
106) 2-chlorotoluene	16.560	126	16841	7.41	ug/L		92
107) 4-chlorotoluene	16.680	91	43539	7.63	ug/L		98
108) 1,3,5-trimethylbenzene	16.580	105	62742	7.69	ug/L		99
109) tert-butylbenzene	16.941	119	54231	7.40	ug/L		97
110) 1,2,4-trimethylbenzene	16.999	105	62516	7.42	ug/L		99
111) sec-butylbenzene	17.171	105	82616	7.33	ug/L		99
112) p-isopropyltoluene	17.307	119	74726	7.46	ug/L		100
113) 1,3-dichlorobenzene	17.355	146	36933	7.68	ug/L		97
114) 1,4-dichlorobenzene	17.454	146	36823	7.77	ug/L		96
115) 1,2-dichlorobenzene	17.841	146	40932	7.72	ug/L		98
116) benzyl chloride	17.553	91	48277	7.74	ug/L		96
117) n-butylbenzene	17.731	92	36899	7.58	ug/L		99
118) hexachloroethane	18.139	201	12508	6.82	ug/L		96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V3B6662\
Data File : 3b149702.D
Acq On : 24 Oct 2018 8:28 pm
Operator : payalr
Sample : IC6662-8
Misc : MS29454,V3B6662,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Oct 25 15:01:33 2018
Quant Method : C:\MSDCHEM\1\METHODS\M3B6662.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Thu Oct 25 12:07:40 2018
Response via : Initial Calibration

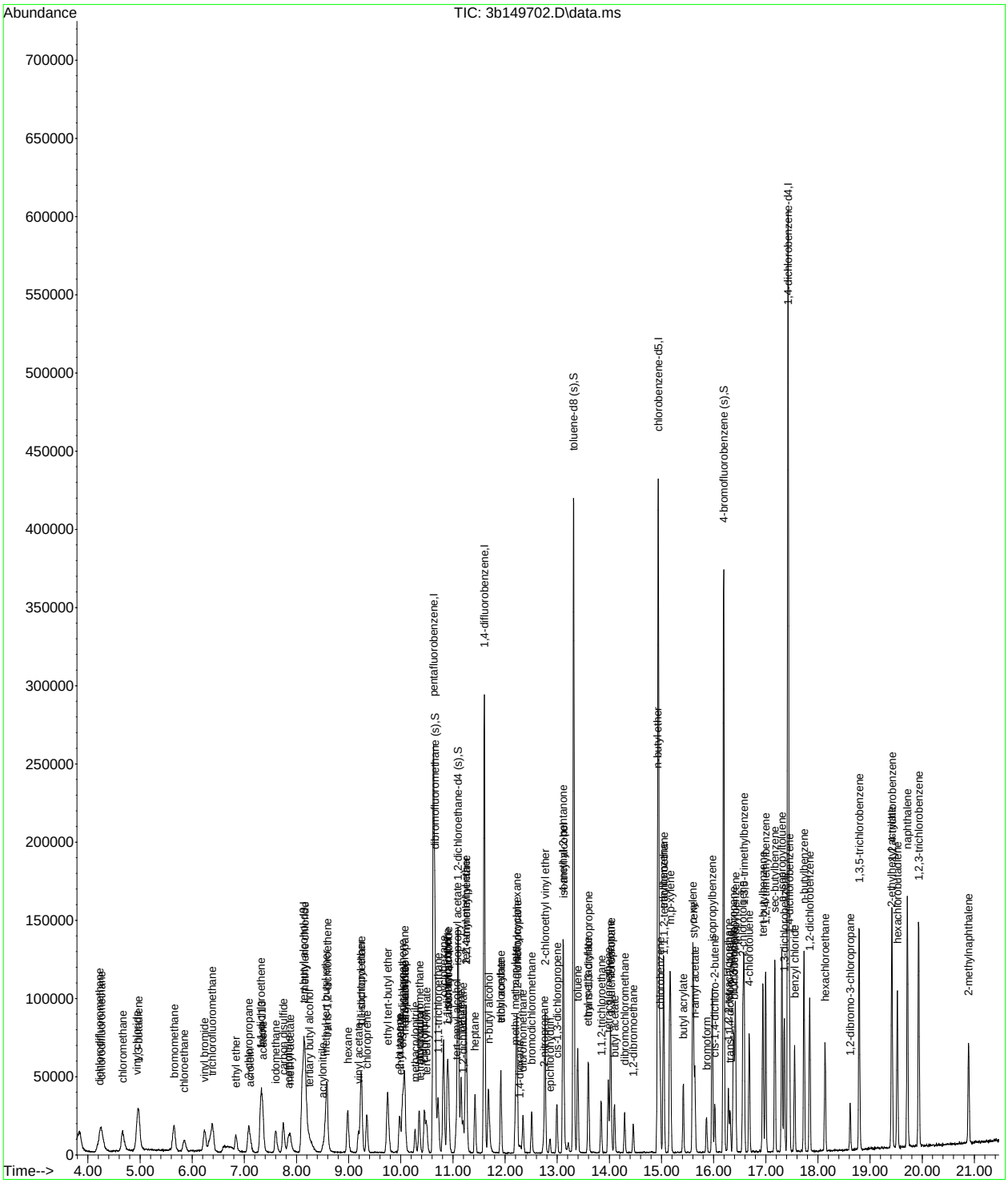
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
119) 1,2-dibromo-3-chloropr...	18.620	157	8839	7.53	ug/L	90
120) 1,3,5-trichlorobenzene	18.793	180	46497	7.49	ug/L	98
121) 2-ethylhexyl acrylate	19.410	70	4857	1.27	ug/L	94
122) 1,2,4-trichlorobenzene	19.420	180	48075	7.46	ug/L	98
123) hexachlorobutadiene	19.525	225	22519	7.30	ug/L	94
124) naphthalene	19.713	128	127373	7.57	ug/L	100
125) 1,2,3-trichlorobenzene	19.933	180	49996	7.65	ug/L	98
126) 2-methylnaphthalene	20.885	142	35341	3.41	ug/L	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V3B6662\
Data File : 3b149702.D
Acq On : 24 Oct 2018 8:28 pm
Operator : payalr
Sample : IC6662-8
Misc : MS29454,V3B6662,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Oct 25 15:01:33 2018
Quant Method : C:\MSDCHEM\1\METHODS\M3B6662.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Thu Oct 25 12:07:40 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V3B6662\
Data File : 3b149703.D
Acq On : 24 Oct 2018 8:57 pm
Operator : payalr
Sample : IC6662-20
Misc : MS29454,V3B6662,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Oct 25 15:02:18 2018
Quant Method : C:\MSDCHEM\1\METHODS\M3B6662.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Thu Oct 25 15:01:26 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	8.123	65	209376	500.00	ug/L	0.00
5) pentafluorobenzene	10.629	168	191607	50.00	ug/L	0.00
54) 1,4-difluorobenzene	11.601	114	241247	50.00	ug/L	0.00
75) chlorobenzene-d5	14.938	117	234214	50.00	ug/L	0.00
99) 1,4-dichlorobenzene-d4	17.428	152	157859	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.655	113	83657	49.69	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.38%			
55) 1,2-dichloroethane-d4 (s)	11.099	65	100079	50.40	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 100.80%			
76) toluene-d8 (s)	13.312	98	290896	50.60	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.20%			
100) 4-bromofluorobenzene (s)	16.194	95	117221	51.37	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.74%			
Target Compounds						Qvalue
3) tertiary butyl alcohol	8.254	59	43653	100.63	ug/L	97
4) 1,4-dioxane	12.281	88	15244	487.85	ug/L	92
6) chlorodifluoromethane	4.248	51	82393	20.08	ug/L	98
7) dichlorodifluoromethane	4.227	85	97311	21.06	ug/L	98
8) chloromethane	4.666	50	82470	20.99	ug/L	99
9) vinyl chloride	4.933	62	80511	21.08	ug/L	97
10) 1,3-butadiene	4.964	54	48951	19.62	ug/L	96
11) bromomethane	5.644	94	53002	20.28	ug/L	97
12) chloroethane	5.848	64	33448	20.70	ug/L	97
13) trichlorofluoromethane	6.382	101	100003	21.06	ug/L	98
14) vinyl bromide	6.240	106	46178	20.84	ug/L	94
15) ethyl ether	6.837	74	15639	21.01	ug/L	90
16) 2-chloropropane	7.082	43	63128	19.87	ug/L	96
17) acrolein	7.109	56	6680	20.10	ug/L	95
18) freon 113	7.328	151	40165	19.99	ug/L	91
19) 1,1-dichloroethene	7.313	96	33018	19.39	ug/L	94
20) acetone	7.349	58	13866	83.61	ug/L	99
21) acetonitrile	7.846	41	62869	197.69	ug/L	90
22) iodomethane	7.600	142	66062	19.61	ug/L	97
23) carbon disulfide	7.741	76	115906	19.96	ug/L	99
24) methylene chloride	8.155	84	34299	19.60	ug/L	98
25) methyl acetate	7.877	43	26846	19.50	ug/L	98
26) methyl tert butyl ether	8.563	73	131012	19.60	ug/L	99
27) trans-1,2-dichloroethene	8.584	96	30782	19.76	ug/L	97
28) hexane	8.981	56	22640	19.50	ug/L	92
29) di-isopropyl ether	9.237	45	109669	20.00	ug/L	97
30) 2-butanone	9.975	72	16849	76.39	ug/L #	86
31) 1,1-dichloroethane	9.242	63	54206	20.39	ug/L	99
32) chloroprene	9.347	53	46458	19.78	ug/L	97
33) acrylonitrile	8.505	53	13559	20.23	ug/L	95
34) vinyl acetate	9.185	86	5233	19.77	ug/L	97
35) ethyl tert-butyl ether	9.745	59	127501	20.45	ug/L	95
36) ethyl acetate	9.996	45	5795	21.25	ug/L #	48
37) 2,2-dichloropropane	10.064	77	72204	19.76	ug/L	98
38) cis-1,2-dichloroethene	10.032	96	33618	18.60	ug/L	89
39) propionitrile	10.074	54	55958	192.62	ug/L	97
40) methyl acrylate	10.069	85	5593	20.53	ug/L	99
41) methacrylonitrile	10.273	67	14508	20.46	ug/L	92
42) bromochloromethane	10.351	128	18264	19.80	ug/L	97
43) tetrahydrofuran	10.362	42	11244	19.74	ug/L	96
44) chloroform	10.451	83	56561	18.71	ug/L	97
45) tert-Butyl Formate	10.493	59	35682	18.95	ug/L	97
47) 1,1,1-trichloroethane	10.712	97	74636	19.98	ug/L	98
48) cyclohexane	10.822	84	62461	21.08	ug/L	99
49) isobutyl alcohol	10.900	43	26225	196.87	ug/L	95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V3B6662\
Data File : 3b149703.D
Acq On : 24 Oct 2018 8:57 pm
Operator : payalr
Sample : IC6662-20
Misc : MS29454,V3B6662,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Oct 25 15:02:18 2018
Quant Method : C:\MSDCHEM\1\METHODS\M3B6662.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Thu Oct 25 15:01:26 2018
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
50)	1,1-dichloropropene	10.890	75	41276	20.04	ug/L		97
51)	carbon tetrachloride	10.911	117	67490	20.77	ug/L		98
52)	tert-amyl alcohol	11.063	73	22876	102.03	ug/L		90
53)	isopropyl acetate	11.084	87	8151	20.11	ug/L	#	77
56)	n-butyl alcohol	11.680	56	79095	1000.39	ug/L		96
57)	2,2,4-trimethylpentane	11.251	57	138928	20.16	ug/L		96
58)	benzene	11.152	78	111638	20.06	ug/L		98
59)	tert-amyl methyl ether	11.246	73	127591	20.22	ug/L		98
60)	heptane	11.424	57	22324	19.27	ug/L		98
61)	1,2-dichloroethane	11.193	62	46526	19.42	ug/L		99
62)	ethyl acrylate	11.920	55	43100	20.41	ug/L		97
63)	trichloroethene	11.915	95	30230	19.98	ug/L		99
64)	2-chloroethyl vinyl ether	12.762	63	99493	102.45	ug/L		100
65)	methyl methacrylate	12.198	100	9722	21.12	ug/L		94
66)	methylcyclohexane	12.219	83	68149	19.12	ug/L		96
67)	1,2-dichloropropane	12.229	63	27772	19.28	ug/L		99
68)	dibromomethane	12.339	93	20652	20.68	ug/L		93
69)	bromodichloromethane	12.511	83	43936	20.36	ug/L		97
70)	2-nitropropane	12.747	41	13658	19.76	ug/L		94
71)	epichlorohydrin	12.862	57	20384	99.14	ug/L		97
72)	cis-1,3-dichloropropene	12.993	75	48170	20.30	ug/L		95
73)	4-methyl-2-pentanone	13.113	58	65690	81.14	ug/L		90
74)	isoamyl alcohol	13.123	70	35480	411.75	ug/L		96
77)	toluene	13.390	92	70332	19.53	ug/L		94
78)	ethyl methacrylate	13.594	69	43069	19.92	ug/L		99
79)	trans-1,3-dichloropropene	13.605	75	46132	19.57	ug/L		97
80)	1,1,2-trichloroethane	13.840	83	22757	20.17	ug/L		96
81)	tetrachloroethene	13.981	164	28752	19.25	ug/L		95
82)	2-hexanone	14.018	58	59957	78.10	ug/L		99
83)	1,3-dichloropropane	14.033	76	43303	19.57	ug/L		97
84)	butyl acetate	14.096	56	23819	19.84	ug/L		90
85)	dibromochloromethane	14.295	129	36183	20.32	ug/L		99
86)	1,2-dibromoethane	14.457	107	32705	20.16	ug/L		92
87)	n-butyl ether	14.923	57	133707	19.49	ug/L		98
88)	chlorobenzene	14.975	112	83138	19.54	ug/L		96
89)	1,1,1,2-tetrachloroethane	15.048	131	42602	19.66	ug/L		95
90)	ethylbenzene	15.038	91	146832	19.70	ug/L		100
91)	m,p-xylene	15.168	106	112485	39.11	ug/L		96
92)	o-xylene	15.597	91	132953	19.92	ug/L		95
93)	styrene	15.613	104	94907	19.61	ug/L		99
94)	butyl acrylate	15.414	55	67733	18.76	ug/L		94
95)	n-amyl acetate	15.639	70	27051	19.43	ug/L		90
96)	isopropylbenzene	15.974	105	179738	20.02	ug/L		95
97)	bromoform	15.864	173	28886	19.36	ug/L		96
98)	cis-1,4-dichloro-2-butene	16.021	88	19971	19.45	ug/L		89
101)	1,1,2,2-tetrachloroethane	16.282	83	49590	20.16	ug/L		98
102)	trans-1,4-dichloro-2-b...	16.314	53	12734	19.64	ug/L		92
103)	1,2,3-trichloropropane	16.371	110	14937	19.43	ug/L		97
104)	bromobenzene	16.387	156	44207	20.59	ug/L		95
105)	n-propylbenzene	16.418	91	190401	19.86	ug/L		99
106)	2-chlorotoluene	16.565	126	43726	19.77	ug/L		94
107)	4-chlorotoluene	16.685	91	109343	19.71	ug/L		97
108)	1,3,5-trimethylbenzene	16.581	105	158929	20.02	ug/L		99
109)	tert-butylbenzene	16.941	119	142842	20.05	ug/L		97
110)	1,2,4-trimethylbenzene	16.999	105	161002	19.65	ug/L		98
111)	sec-butylbenzene	17.172	105	216889	19.77	ug/L		100
112)	p-isopropyltoluene	17.308	119	191898	19.69	ug/L		99
113)	1,3-dichlorobenzene	17.355	146	89409	19.11	ug/L		98
114)	1,4-dichlorobenzene	17.454	146	88678	19.23	ug/L		96
115)	1,2-dichlorobenzene	17.841	146	100982	19.59	ug/L		98
116)	benzyl chloride	17.553	91	119077	19.62	ug/L		98
117)	n-butylbenzene	17.731	92	92114	19.46	ug/L		96
118)	hexachloroethane	18.139	201	34008	19.06	ug/L		95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V3B6662\
Data File : 3b149703.D
Acq On : 24 Oct 2018 8:57 pm
Operator : payalr
Sample : IC6662-20
Misc : MS29454,V3B6662,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Oct 25 15:02:18 2018
Quant Method : C:\MSDCHEM\1\METHODS\M3B6662.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Thu Oct 25 15:01:26 2018
Response via : Initial Calibration

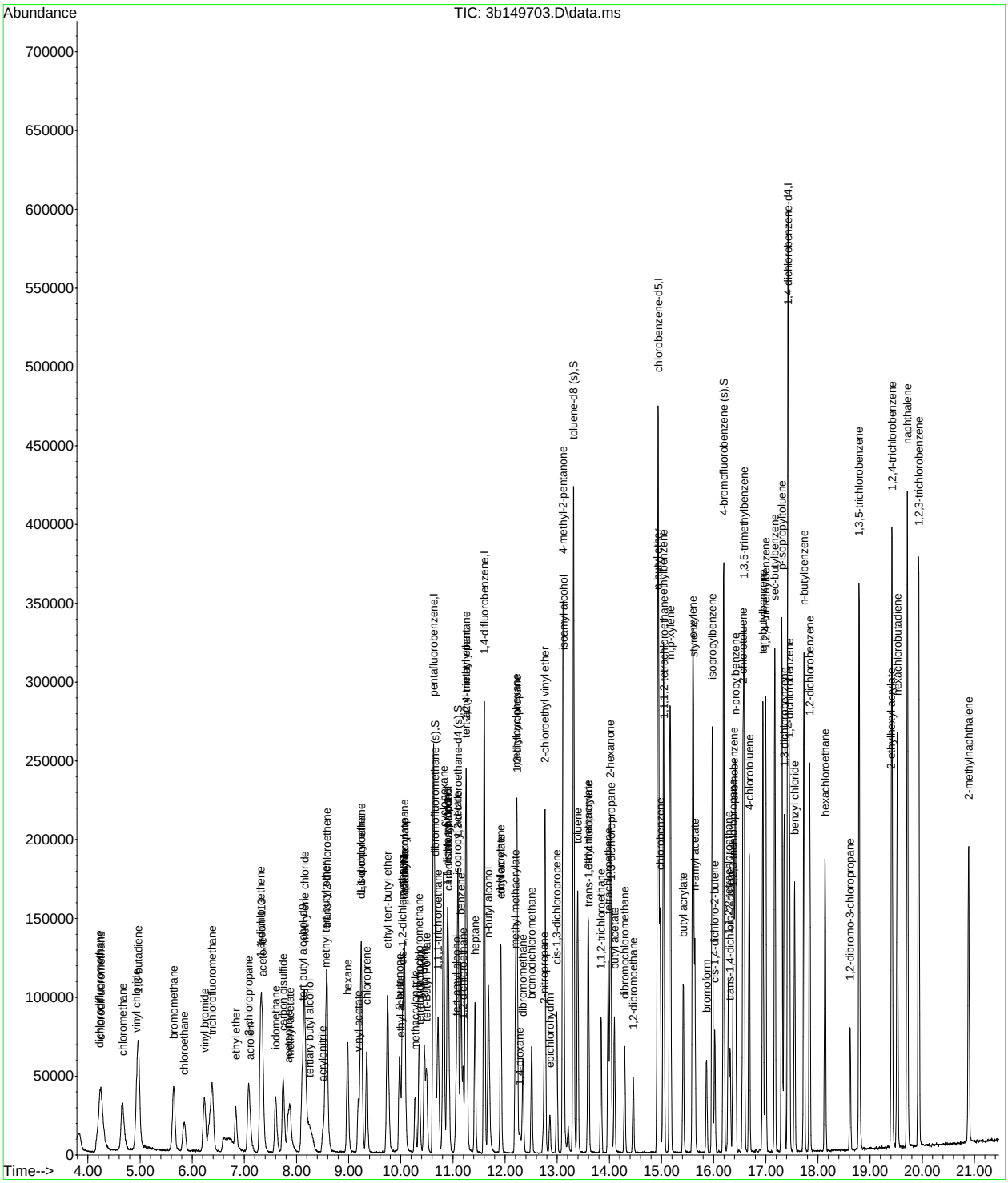
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
119) 1,2-dibromo-3-chloropr...	18.615	157	22539	19.75	ug/L	88
120) 1,3,5-trichlorobenzene	18.788	180	116589	19.31	ug/L	96
121) 2-ethylhexyl acrylate	19.405	70	13935	3.75	ug/L	84
122) 1,2,4-trichlorobenzene	19.421	180	124328	19.83	ug/L	98
123) hexachlorobutadiene	19.525	225	58553	19.51	ug/L	95
124) naphthalene	19.713	128	332641	20.33	ug/L	99
125) 1,2,3-trichlorobenzene	19.933	180	128706	20.24	ug/L	97
126) 2-methylnaphthalene	20.890	142	102016	10.11	ug/L	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V3B6662\
Data File : 3b149703.D
Acq On : 24 Oct 2018 8:57 pm
Operator : payalr
Sample : IC6662-20
Misc : MS29454,V3B6662,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Oct 25 15:02:18 2018
Quant Method : C:\MSDCHEM\1\METHODS\M3B6662.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Thu Oct 25 15:01:26 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V3B6662\
Data File : 3b149704.D
Acq On : 24 Oct 2018 9:25 pm
Operator : payalr
Sample : ICC6662-50
Misc : MS29454,V3B6662,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Oct 25 15:02:31 2018
Quant Method : C:\MSDCHEM\1\METHODS\M3B6662.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Thu Oct 25 15:01:26 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	8.128	65	215926	500.00	ug/L	0.00
5) pentafluorobenzene	10.628	168	188151	50.00	ug/L	0.00
54) 1,4-difluorobenzene	11.601	114	246385	50.00	ug/L	0.00
75) chlorobenzene-d5	14.938	117	240126	50.00	ug/L	0.00
99) 1,4-dichlorobenzene-d4	17.428	152	155384	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.655	113	83459	50.48	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.96%			
55) 1,2-dichloroethane-d4 (s)	11.099	65	99293	48.96	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 97.92%			
76) toluene-d8 (s)	13.317	98	294918	50.04	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.08%			
100) 4-bromofluorobenzene (s)	16.188	95	117890	52.48	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 104.96%			
Target Compounds						Qvalue
3) tertiary butyl alcohol	8.264	59	116094	259.51	ug/L	100
4) 1,4-dioxane	12.281	88	41695	1293.88	ug/L	100
6) chlorodifluoromethane	4.253	51	221957	55.09	ug/L	100
7) dichlorodifluoromethane	4.237	85	255550	56.31	ug/L	100
8) chloromethane	4.666	50	215781	55.93	ug/L	100
9) vinyl chloride	4.933	62	212902	56.78	ug/L	100
10) 1,3-butadiene	4.969	54	133074	54.31	ug/L	100
11) bromomethane	5.649	94	138673	54.05	ug/L	100
12) chloroethane	5.848	64	89387	56.33	ug/L	100
13) trichlorofluoromethane	6.387	101	267919	57.45	ug/L	100
14) vinyl bromide	6.240	106	124523	57.22	ug/L	100
15) ethyl ether	6.837	74	39268	53.72	ug/L	100
16) 2-chloropropane	7.077	43	164083	52.58	ug/L	100
17) acrolein	7.109	56	18226	55.86	ug/L	100
18) freon 113	7.339	151	108639	55.05	ug/L	100
19) 1,1-dichloroethene	7.307	96	92023	55.02	ug/L	100
20) acetone	7.344	58	35051	215.23	ug/L	100
21) acetonitrile	7.846	41	163357	523.11	ug/L	100
22) iodomethane	7.600	142	183403	55.46	ug/L	100
23) carbon disulfide	7.747	76	321391	56.36	ug/L	100
24) methylene chloride	8.155	84	95016	55.28	ug/L	100
25) methyl acetate	7.883	43	70722	52.33	ug/L	100
26) methyl tert butyl ether	8.568	73	356334	54.29	ug/L	100
27) trans-1,2-dichloroethene	8.583	96	80534	52.65	ug/L	100
28) hexane	8.976	56	59236	51.95	ug/L	100
29) di-isopropyl ether	9.237	45	289491	53.77	ug/L	100
30) 2-butanone	9.975	72	47766	220.53	ug/L	100
31) 1,1-dichloroethane	9.242	63	140397	53.79	ug/L	100
32) chloroprene	9.347	53	120932	52.44	ug/L	100
33) acrylonitrile	8.500	53	35628	54.14	ug/L	100
34) vinyl acetate	9.185	86	13865	53.35	ug/L	100
35) ethyl tert-butyl ether	9.750	59	348192	56.87	ug/L	100
36) ethyl acetate	9.990	45	13813	51.58	ug/L	100
37) 2,2-dichloropropane	10.064	77	191642	53.42	ug/L	100
38) cis-1,2-dichloroethene	10.027	96	89416	50.38	ug/L	100
39) propionitrile	10.074	54	147103	515.67	ug/L	100
40) methyl acrylate	10.074	85	14168	52.96	ug/L	100
41) methacrylonitrile	10.273	67	35880	51.54	ug/L	100
42) bromochloromethane	10.346	128	46625	51.48	ug/L	100
43) tetrahydrofuran	10.367	42	30288	54.14	ug/L	100
44) chloroform	10.451	83	152629	51.42	ug/L	100
45) tert-Butyl Formate	10.493	59	98711	53.39	ug/L	100
47) 1,1,1-trichloroethane	10.712	97	201958	55.04	ug/L	100
48) cyclohexane	10.817	84	164653	56.58	ug/L	100
49) isobutyl alcohol	10.900	43	67767	518.07	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V3B6662\
Data File : 3b149704.D
Acq On : 24 Oct 2018 9:25 pm
Operator : payalr
Sample : ICC6662-50
Misc : MS29454,V3B6662,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Oct 25 15:02:31 2018
Quant Method : C:\MSDCHEM\1\METHODS\M3B6662.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Thu Oct 25 15:01:26 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
50) 1,1-dichloropropene	10.890	75	105527	52.18	ug/L	100
51) carbon tetrachloride	10.911	117	178343	55.88	ug/L	100
52) tert-amyl alcohol	11.068	73	58641	266.35	ug/L	100
53) isopropyl acetate	11.089	87	21503	54.03	ug/L	100
56) n-butyl alcohol	11.680	56	213294	2641.47	ug/L	100
57) 2,2,4-trimethylpentane	11.256	57	404736	57.49	ug/L	100
58) benzene	11.157	78	293130	51.56	ug/L	100
59) tert-amyl methyl ether	11.251	73	348107	54.02	ug/L	100
60) heptane	11.423	57	62227	52.60	ug/L	99
61) 1,2-dichloroethane	11.193	62	121329	49.60	ug/L	100
62) ethyl acrylate	11.920	55	115427	53.51	ug/L	100
63) trichloroethene	11.915	95	83229	53.86	ug/L	100
64) 2-chloroethyl vinyl ether	12.768	63	262157	264.32	ug/L	100
65) methyl methacrylate	12.198	100	24982	53.13	ug/L	100
66) methylcyclohexane	12.224	83	190139	52.23	ug/L	100
67) 1,2-dichloropropane	12.229	63	74785	50.83	ug/L	100
68) dibromomethane	12.344	93	55349	54.28	ug/L	100
69) bromodichloromethane	12.511	83	118110	53.60	ug/L	100
70) 2-nitropropane	12.742	41	39904	56.52	ug/L	100
71) epichlorohydrin	12.862	57	54447	259.30	ug/L	99
72) cis-1,3-dichloropropene	12.993	75	131654	54.33	ug/L	100
73) 4-methyl-2-pentanone	13.113	58	171263	207.13	ug/L	100
74) isoamyl alcohol	13.123	70	93880	1066.76	ug/L	100
77) toluene	13.395	92	194500	52.67	ug/L	100
78) ethyl methacrylate	13.594	69	112658	50.83	ug/L	100
79) trans-1,3-dichloropropene	13.605	75	124363	51.46	ug/L	100
80) 1,1,2-trichloroethane	13.840	83	60644	52.43	ug/L	100
81) tetrachloroethene	13.981	164	79778	52.10	ug/L	100
82) 2-hexanone	14.018	58	159704	202.92	ug/L	100
83) 1,3-dichloropropane	14.033	76	116930	51.55	ug/L	100
84) butyl acetate	14.096	56	63304	51.42	ug/L	100
85) dibromochloromethane	14.295	129	99718	54.63	ug/L	100
86) 1,2-dibromoethane	14.457	107	89893	54.04	ug/L	100
87) n-butyl ether	14.923	57	358660	50.99	ug/L	100
88) chlorobenzene	14.975	112	227990	52.27	ug/L	100
89) 1,1,1,2-tetrachloroethane	15.043	131	113007	50.86	ug/L	100
90) ethylbenzene	15.038	91	393133	51.44	ug/L	100
91) m,p-xylene	15.168	106	309923	105.11	ug/L	100
92) o-xylene	15.597	91	365253	53.39	ug/L	100
93) styrene	15.613	104	255757	51.55	ug/L	100
94) butyl acrylate	15.419	55	182740	49.38	ug/L	100
95) n-amyl acetate	15.639	70	69080	48.39	ug/L	100
96) isopropylbenzene	15.974	105	502249	54.56	ug/L	100
97) bromoform	15.864	173	79185	51.76	ug/L	100
98) cis-1,4-dichloro-2-butene	16.021	88	56312	53.48	ug/L	100
101) 1,1,2,2-tetrachloroethane	16.282	83	133168	54.99	ug/L	100
102) trans-1,4-dichloro-2-b...	16.314	53	35644	55.85	ug/L	100
103) 1,2,3-trichloropropane	16.377	110	39760	52.55	ug/L	100
104) bromobenzene	16.387	156	117530	55.60	ug/L	100
105) n-propylbenzene	16.418	91	514859	54.57	ug/L	100
106) 2-chlorotoluene	16.560	126	119842	55.05	ug/L	100
107) 4-chlorotoluene	16.680	91	291232	53.33	ug/L	100
108) 1,3,5-trimethylbenzene	16.581	105	446362	57.12	ug/L	100
109) tert-butylbenzene	16.941	119	403564	57.53	ug/L	100
110) 1,2,4-trimethylbenzene	16.999	105	437800	54.30	ug/L	100
111) sec-butylbenzene	17.172	105	605379	56.07	ug/L	100
112) p-isopropyltoluene	17.308	119	530839	55.34	ug/L	100
113) 1,3-dichlorobenzene	17.355	146	234870	51.00	ug/L	100
114) 1,4-dichlorobenzene	17.454	146	235452	51.88	ug/L	100
115) 1,2-dichlorobenzene	17.841	146	265484	52.33	ug/L	100
116) benzyl chloride	17.553	91	313450	52.48	ug/L	100
117) n-butylbenzene	17.731	92	244905	52.56	ug/L	100
118) hexachloroethane	18.139	201	102023	58.08	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V3B6662\
Data File : 3b149704.D
Acq On : 24 Oct 2018 9:25 pm
Operator : payalr
Sample : ICC6662-50
Misc : MS29454,V3B6662,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Oct 25 15:02:31 2018
Quant Method : C:\MSDCHEM\1\METHODS\M3B6662.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Thu Oct 25 15:01:26 2018
Response via : Initial Calibration

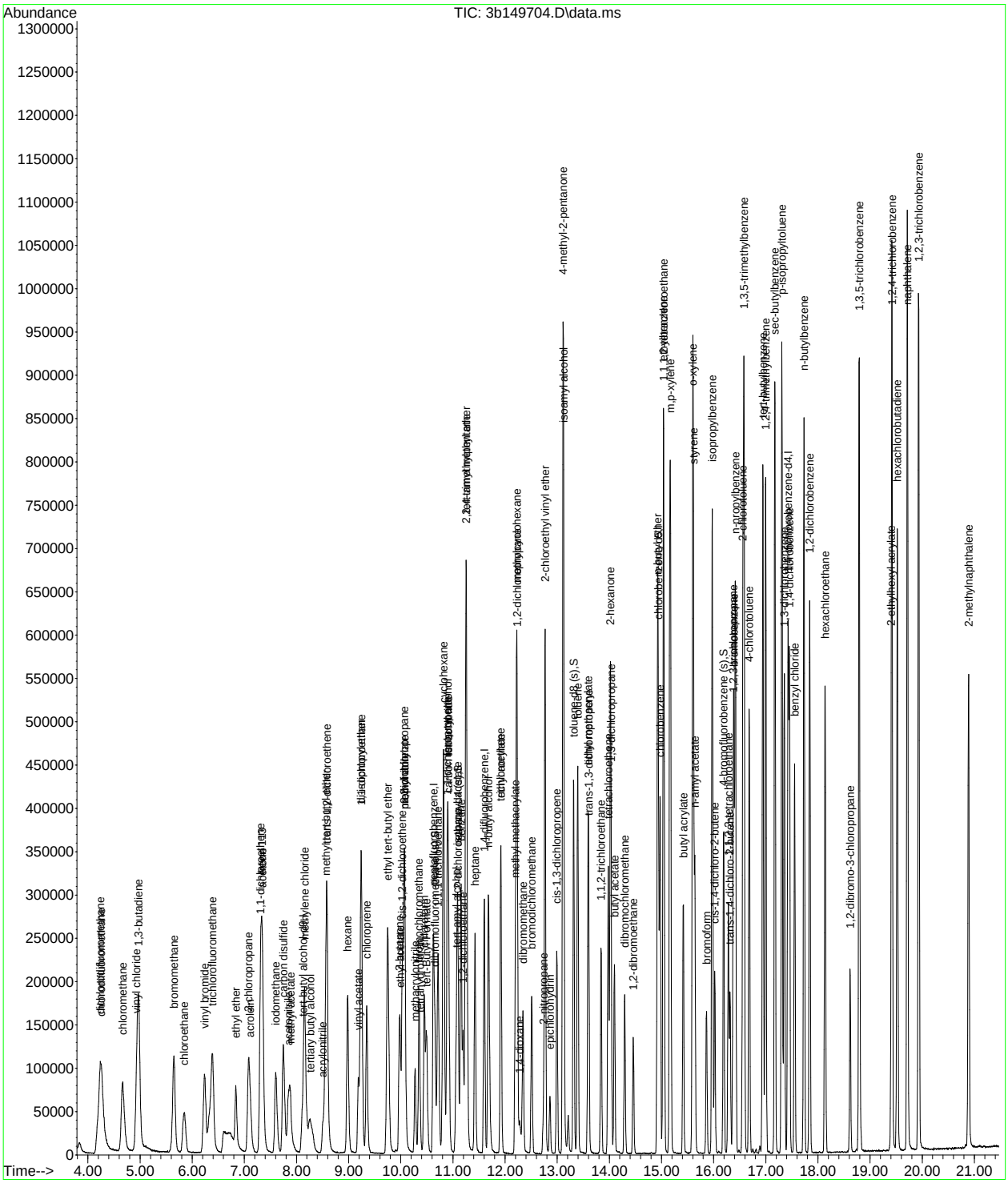
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
119) 1,2-dibromo-3-chloropr...	18.620	157	61100	54.39	ug/L	100
120) 1,3,5-trichlorobenzene	18.793	180	310594	52.27	ug/L	100
121) 2-ethylhexyl acrylate	19.405	70	39610	10.82	ug/L	100
122) 1,2,4-trichlorobenzene	19.421	180	334089	54.14	ug/L	100
123) hexachlorobutadiene	19.520	225	159312	53.92	ug/L	100
124) naphthalene	19.713	128	885242	54.96	ug/L	100
125) 1,2,3-trichlorobenzene	19.933	180	345640	55.23	ug/L	100
126) 2-methylnaphthalene	20.890	142	299692	30.19	ug/L	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V3B6662\
Data File : 3b149704.D
Acq On : 24 Oct 2018 9:25 pm
Operator : payalr
Sample : ICC6662-50
Misc : MS29454,V3B6662,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Oct 25 15:02:31 2018
Quant Method : C:\MSDCHEM\1\METHODS\M3B6662.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Thu Oct 25 15:01:26 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V3B6662\
Data File : 3b149705.D
Acq On : 24 Oct 2018 9:54 pm
Operator : payalr
Sample : IC6662-100
Misc : MS29454,V3B6662,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Oct 25 15:02:37 2018
Quant Method : C:\MSDCHEM\1\METHODS\M3B6662.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Thu Oct 25 15:01:26 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	8.128	65	229399	500.00	ug/L		0.00
5) pentafluorobenzene	10.628	168	202966	50.00	ug/L		0.00
54) 1,4-difluorobenzene	11.601	114	265059	50.00	ug/L		0.00
75) chlorobenzene-d5	14.938	117	260234	50.00	ug/L		0.00
99) 1,4-dichlorobenzene-d4	17.428	152	164628	50.00	ug/L		0.00
System Monitoring Compounds							
46) dibromofluoromethane (s)	10.655	113	90494	50.74	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.48%				
55) 1,2-dichloroethane-d4 (s)	11.099	65	106284	48.71	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 97.42%				
76) toluene-d8 (s)	13.317	98	317060	49.64	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.28%				
100) 4-bromofluorobenzene (s)	16.193	95	124850	52.46	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 104.92%				
Target Compounds							Qvalue
3) tertiary butyl alcohol	8.270	59	246349	518.33	ug/L		96
4) 1,4-dioxane	12.281	88	89313	2608.78	ug/L		96
6) chlorodifluoromethane	4.253	51	449689	103.46	ug/L		98
7) dichlorodifluoromethane	4.237	85	505242	103.20	ug/L		100
8) chloromethane	4.666	50	439172	105.53	ug/L		96
9) vinyl chloride	4.933	62	430686	106.48	ug/L		99
10) 1,3-butadiene	4.969	54	266537	100.84	ug/L		98
11) bromomethane	5.644	94	268897	97.15	ug/L		99
12) chloroethane	5.848	64	170824	99.79	ug/L		98
13) trichlorofluoromethane	6.381	101	517873	102.94	ug/L		98
14) vinyl bromide	6.230	106	238765	101.70	ug/L		96
15) ethyl ether	6.842	74	80220	101.74	ug/L		97
16) 2-chloropropane	7.082	43	323986	96.25	ug/L		97
17) acrolein	7.108	56	35502	100.86	ug/L		97
18) freon 113	7.333	151	215273	101.12	ug/L		99
19) 1,1-dichloroethene	7.312	96	184441	102.23	ug/L		96
20) acetone	7.349	58	74940	426.58	ug/L		96
21) acetonitrile	7.851	41	336554	999.07	ug/L		99
22) iodomethane	7.600	142	367553	103.02	ug/L		97
23) carbon disulfide	7.747	76	637595	103.65	ug/L		98
24) methylene chloride	8.154	84	191379	103.22	ug/L		97
25) methyl acetate	7.877	43	150355	103.13	ug/L		100
26) methyl tert butyl ether	8.573	73	712690	100.67	ug/L		98
27) trans-1,2-dichloroethene	8.583	96	162168	98.28	ug/L		97
28) hexane	8.981	56	119182	96.90	ug/L		97
29) di-isopropyl ether	9.237	45	601162	103.51	ug/L		98
30) 2-butanone	9.975	72	98845	423.04	ug/L		94
31) 1,1-dichloroethane	9.242	63	287710	102.19	ug/L		97
32) chloroprene	9.347	53	252961	101.68	ug/L		98
33) acrylonitrile	8.505	53	73881	104.08	ug/L		98
34) vinyl acetate	9.185	86	29541	105.37	ug/L	#	91
35) ethyl tert-butyl ether	9.750	59	713953	108.10	ug/L		98
36) ethyl acetate	9.990	45	28106	97.28	ug/L	#	77
37) 2,2-dichloropropane	10.063	77	382847	98.93	ug/L		98
38) cis-1,2-dichloroethene	10.032	96	186995	97.67	ug/L		96
39) propionitrile	10.069	54	310664	1009.53	ug/L		94
40) methyl acrylate	10.074	85	29697	102.91	ug/L		96
41) methacrylonitrile	10.273	67	75798	100.93	ug/L		96
42) bromochloromethane	10.351	128	100815	103.19	ug/L		95
43) tetrahydrofuran	10.362	42	61043	101.15	ug/L		95
44) chloroform	10.451	83	320607	100.12	ug/L		99
45) tert-Butyl Formate	10.492	59	206523	103.55	ug/L		96
47) 1,1,1-trichloroethane	10.717	97	408947	103.32	ug/L		97
48) cyclohexane	10.817	84	321548	102.43	ug/L		97
49) isobutyl alcohol	10.900	43	143017	1013.55	ug/L		90

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V3B6662\
Data File : 3b149705.D
Acq On : 24 Oct 2018 9:54 pm
Operator : payalr
Sample : IC6662-100
Misc : MS29454,V3B6662,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Oct 25 15:02:37 2018
Quant Method : C:\MSDCHEM\1\METHODS\M3B6662.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Thu Oct 25 15:01:26 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
50) 1,1-dichloropropene	10.890	75	222807	102.13	ug/L	98
51) carbon tetrachloride	10.916	117	362339	105.25	ug/L	97
52) tert-amyl alcohol	11.068	73	124886	525.83	ug/L	98
53) isopropyl acetate	11.089	87	45019	104.86	ug/L	94
56) n-butyl alcohol	11.685	56	460816	5304.76	ug/L	96
57) 2,2,4-trimethylpentane	11.256	57	829259	109.50	ug/L	100
58) benzene	11.157	78	613889	100.38	ug/L	100
59) tert-amyl methyl ether	11.251	73	708963	102.26	ug/L	99
60) heptane	11.423	57	123374	96.94	ug/L	97
61) 1,2-dichloroethane	11.193	62	249167	94.68	ug/L	99
62) ethyl acrylate	11.920	55	235194	101.35	ug/L	98
63) trichloroethene	11.915	95	169407	101.91	ug/L	93
64) 2-chloroethyl vinyl ether	12.768	63	549789	515.27	ug/L	98
65) methyl methacrylate	12.197	100	51498	101.80	ug/L	95
66) methylcyclohexane	12.224	83	395793	101.07	ug/L	97
67) 1,2-dichloropropane	12.234	63	157391	99.43	ug/L	96
68) dibromomethane	12.344	93	114573	104.44	ug/L	93
69) bromodichloromethane	12.511	83	249522	105.26	ug/L	98
70) 2-nitropropane	12.741	41	81008	106.66	ug/L	99
71) epichlorohydrin	12.862	57	115251	510.20	ug/L	97
72) cis-1,3-dichloropropene	12.992	75	277990	106.64	ug/L	99
73) 4-methyl-2-pentanone	13.113	58	362071	407.05	ug/L	94
74) isoamyl alcohol	13.123	70	204926	2164.52	ug/L	98
77) toluene	13.395	92	404575	101.10	ug/L	99
78) ethyl methacrylate	13.594	69	233766	97.33	ug/L	99
79) trans-1,3-dichloropropene	13.604	75	257627	98.37	ug/L	99
80) 1,1,2-trichloroethane	13.840	83	128577	102.57	ug/L	98
81) tetrachloroethene	13.981	164	167583	100.99	ug/L	98
82) 2-hexanone	14.018	58	334740	392.45	ug/L	98
83) 1,3-dichloropropane	14.033	76	238689	97.10	ug/L	99
84) butyl acetate	14.096	56	128016	95.95	ug/L	96
85) dibromochloromethane	14.295	129	213920	108.15	ug/L	99
86) 1,2-dibromoethane	14.457	107	186643	103.53	ug/L	96
87) n-butyl ether	14.922	57	755349	99.08	ug/L	99
88) chlorobenzene	14.975	112	481455	101.85	ug/L	100
89) 1,1,1,2-tetrachloroethane	15.043	131	245868	102.10	ug/L	96
90) ethylbenzene	15.037	91	828841	100.07	ug/L	99
91) m,p-xylene	15.163	106	651153	203.77	ug/L	100
92) o-xylene	15.597	91	771402	104.05	ug/L	96
93) styrene	15.613	104	536697	99.82	ug/L	100
94) butyl acrylate	15.419	55	372775	92.94	ug/L	99
95) n-amyl acetate	15.639	70	144649	93.49	ug/L	95
96) isopropylbenzene	15.974	105	1060910	106.35	ug/L	98
97) bromoform	15.864	173	169024	101.95	ug/L	99
98) cis-1,4-dichloro-2-butene	16.021	88	113010	99.04	ug/L	97
101) 1,1,2,2-tetrachloroethane	16.282	83	279786	109.04	ug/L	99
102) trans-1,4-dichloro-2-b...	16.314	53	71547	105.81	ug/L	93
103) 1,2,3-trichloropropane	16.376	110	83061	103.61	ug/L	94
104) bromobenzene	16.392	156	244224	109.05	ug/L	89
105) n-propylbenzene	16.418	91	1077251	107.76	ug/L	99
106) 2-chlorotoluene	16.559	126	245190	106.31	ug/L	99
107) 4-chlorotoluene	16.685	91	605481	104.65	ug/L	98
108) 1,3,5-trimethylbenzene	16.580	105	941593	113.72	ug/L	99
109) tert-butylbenzene	16.947	119	858402	115.51	ug/L	100
110) 1,2,4-trimethylbenzene	16.999	105	922395	107.97	ug/L	100
111) sec-butylbenzene	17.171	105	1281807	112.06	ug/L	100
112) p-isopropyltoluene	17.307	119	1116533	109.86	ug/L	100
113) 1,3-dichlorobenzene	17.354	146	476392	97.64	ug/L	99
114) 1,4-dichlorobenzene	17.454	146	481506	100.14	ug/L	98
115) 1,2-dichlorobenzene	17.841	146	545153	101.42	ug/L	99
116) benzyl chloride	17.553	91	628277	99.29	ug/L	100
117) n-butylbenzene	17.731	92	507543	102.81	ug/L	97
118) hexachloroethane	18.139	201	221589	119.06	ug/L	97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V3B6662\
Data File : 3b149705.D
Acq On : 24 Oct 2018 9:54 pm
Operator : payalr
Sample : IC6662-100
Misc : MS29454,V3B6662,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Oct 25 15:02:37 2018
Quant Method : C:\MSDCHEM\1\METHODS\M3B6662.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Thu Oct 25 15:01:26 2018
Response via : Initial Calibration

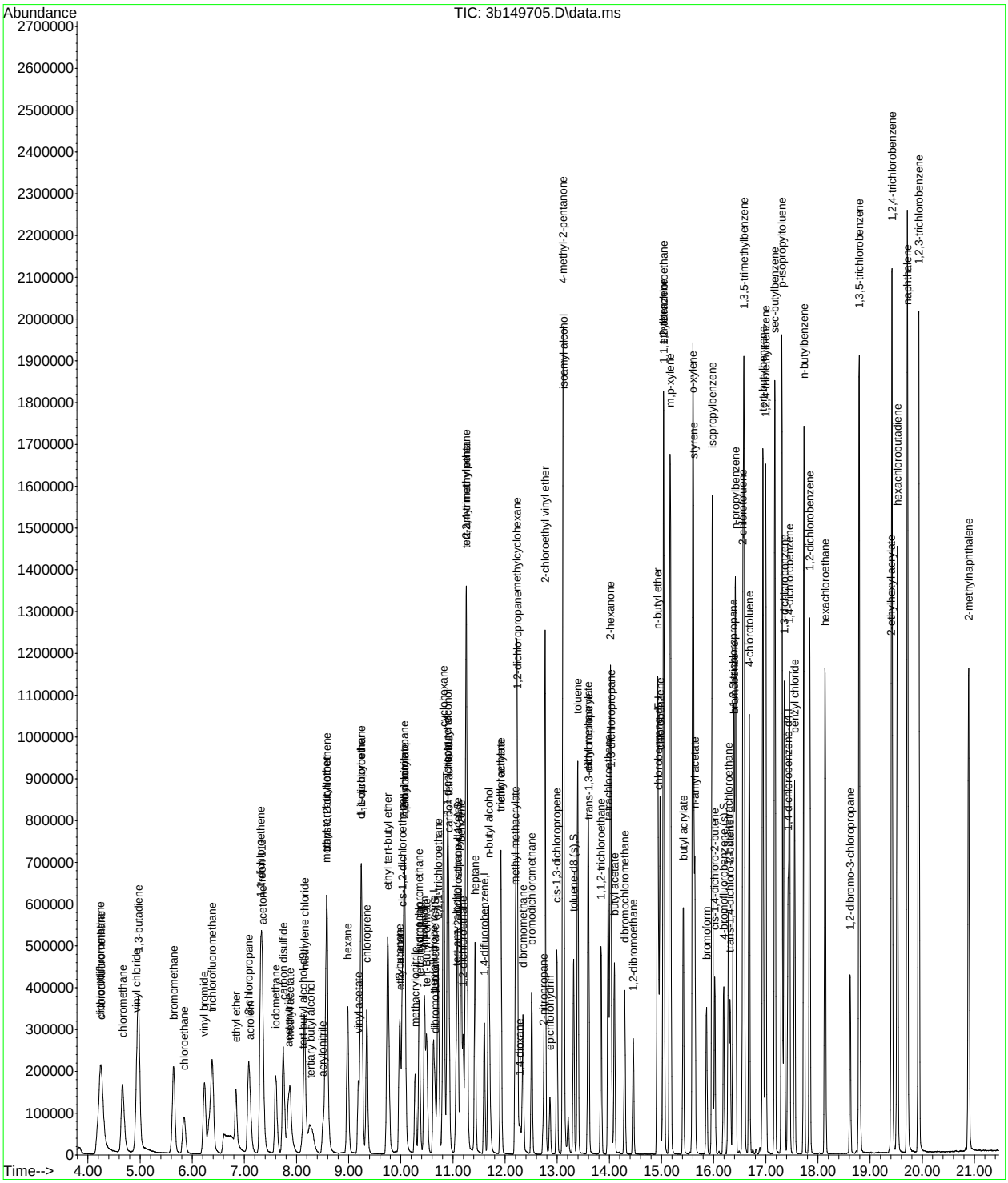
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
119) 1,2-dibromo-3-chloropr...	18.620	157	126994	106.70	ug/L	97
120) 1,3,5-trichlorobenzene	18.793	180	637511	101.25	ug/L	99
121) 2-ethylhexyl acrylate	19.405	70	85697	22.09	ug/L	97
122) 1,2,4-trichlorobenzene	19.420	180	671184	102.65	ug/L	99
123) hexachlorobutadiene	19.525	225	326690	104.36	ug/L	98
124) naphthalene	19.713	128	1813728	106.28	ug/L	100
125) 1,2,3-trichlorobenzene	19.933	180	715200	107.87	ug/L	99
126) 2-methylnaphthalene	20.890	142	642468	61.08	ug/L	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V3B6662\
Data File : 3b149705.D
Acq On : 24 Oct 2018 9:54 pm
Operator : payalr
Sample : IC6662-100
Misc : MS29454,V3B6662,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Oct 25 15:02:37 2018
Quant Method : C:\MSDCHEM\1\METHODS\M3B6662.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Thu Oct 25 15:01:26 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V3B6662\
Data File : 3b149706.D
Acq On : 24 Oct 2018 10:23 pm
Operator : payalr
Sample : IC6662-200
Misc : MS29454,V3B6662,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Oct 25 15:03:00 2018
Quant Method : C:\MSDCHEM\1\METHODS\M3B6662.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Thu Oct 25 15:01:26 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	8.144	65	257657	500.00	ug/L		0.02
5) pentafluorobenzene	10.629	168	217677	50.00	ug/L		0.00
54) 1,4-difluorobenzene	11.601	114	293444	50.00	ug/L		0.00
75) chlorobenzene-d5	14.938	117	294249	50.00	ug/L		0.00
99) 1,4-dichlorobenzene-d4	17.428	152	194526	50.00	ug/L		0.00
System Monitoring Compounds							
46) dibromofluoromethane (s)	10.655	113	97482	50.96	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.92%				
55) 1,2-dichloroethane-d4 (s)	11.099	65	114307	47.32	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 94.64%				
76) toluene-d8 (s)	13.317	98	351263	48.64	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.28%				
100) 4-bromofluorobenzene (s)	16.188	95	144515	51.39	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.78%				
Target Compounds							Qvalue
3) tertiary butyl alcohol	8.280	59	542639	1016.52	ug/L		98
4) 1,4-dioxane	12.287	88	201175	5231.73	ug/L		98
6) chlorodifluoromethane	4.253	51	940655	201.79	ug/L		100
7) dichlorodifluoromethane	4.232	85	1084927	206.63	ug/L		94
8) chloromethane	4.671	50	943508	211.39	ug/L		97
9) vinyl chloride	4.943	62	931402	214.70	ug/L		98
10) 1,3-butadiene	4.975	54	584693	206.25	ug/L		96
11) bromomethane	5.644	94	569853	191.97	ug/L		98
12) chloroethane	5.843	64	371597	202.41	ug/L		99
13) trichlorofluoromethane	6.387	101	1124292	208.38	ug/L		98
14) vinyl bromide	6.235	106	537338	213.42	ug/L		99
15) ethyl ether	6.842	74	169804	200.80	ug/L		92
16) 2-chloropropane	7.082	43	725934	201.09	ug/L		97
17) acrolein	7.114	56	78208	207.17	ug/L		95
18) freon 113	7.333	151	470073	205.89	ug/L		99
19) 1,1-dichloroethene	7.318	96	424620	219.45	ug/L		94
20) acetone	7.354	58	155264	824.07	ug/L		96
21) acetonitrile	7.851	41	707730	1958.93	ug/L		99
22) iodomethane	7.605	142	844988	220.84	ug/L		97
23) carbon disulfide	7.752	76	1476773	223.85	ug/L		98
24) methylene chloride	8.155	84	437808	220.17	ug/L		97
25) methyl acetate	7.883	43	301040	192.52	ug/L		98
26) methyl tert butyl ether	8.573	73	1547194	203.77	ug/L		100
27) trans-1,2-dichloroethene	8.584	96	349350	197.42	ug/L		99
28) hexane	8.981	56	258571	196.02	ug/L		94
29) di-isopropyl ether	9.243	45	1290863	207.25	ug/L		99
30) 2-butanone	9.980	72	214407	855.61	ug/L		96
31) 1,1-dichloroethane	9.243	63	610069	202.04	ug/L		98
32) chloroprene	9.347	53	535252	200.61	ug/L		97
33) acrylonitrile	8.505	53	155694	204.51	ug/L		96
34) vinyl acetate	9.185	86	62791	208.83	ug/L	#	82
35) ethyl tert-butyl ether	9.750	59	1573433	222.13	ug/L		98
36) ethyl acetate	9.990	45	60762	196.10	ug/L	#	52
37) 2,2-dichloropropane	10.069	77	828941	199.73	ug/L		98
38) cis-1,2-dichloroethene	10.032	96	395400	192.56	ug/L		95
39) propionitrile	10.074	54	652274	1976.38	ug/L		97
40) methyl acrylate	10.079	85	63981	206.73	ug/L		94
41) methacrylonitrile	10.278	67	160743	199.58	ug/L		93
42) bromochloromethane	10.351	128	213719	203.97	ug/L		97
43) tetrahydrofuran	10.367	42	132765	205.12	ug/L		99
44) chloroform	10.451	83	666580	194.10	ug/L		99
45) tert-Butyl Formate	10.498	59	459100	214.64	ug/L		96
47) 1,1,1-trichloroethane	10.717	97	899761	211.97	ug/L		97
48) cyclohexane	10.822	84	739854	219.75	ug/L		97
49) isobutyl alcohol	10.906	43	319831	2113.43	ug/L		96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V3B6662\
Data File : 3b149706.D
Acq On : 24 Oct 2018 10:23 pm
Operator : payalr
Sample : IC6662-200
Misc : MS29454,V3B6662,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Oct 25 15:03:00 2018
Quant Method : C:\MSDCHEM\1\METHODS\M3B6662.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Thu Oct 25 15:01:26 2018
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
50)	1,1-dichloropropene	10.895	75	475099	203.06	ug/L	98
51)	carbon tetrachloride	10.916	117	793609	214.94	ug/L	99
52)	tert-amyl alcohol	11.073	73	276546	1085.70	ug/L	95
53)	isopropyl acetate	11.089	87	96304	209.15	ug/L	95
56)	n-butyl alcohol	11.685	56	1038003	10793.31	ug/L	96
57)	2,2,4-trimethylpentane	11.261	57	1925824	229.69	ug/L	99
58)	benzene	11.157	78	1352163	199.71	ug/L	99
59)	tert-amyl methyl ether	11.256	73	1601604	208.67	ug/L	99
60)	heptane	11.424	57	271560	192.74	ug/L	97
61)	1,2-dichloroethane	11.199	62	533822	183.21	ug/L	98
62)	ethyl acrylate	11.920	55	496483	193.26	ug/L	99
63)	trichloroethene	11.915	95	366985	199.41	ug/L	93
64)	2-chloroethyl vinyl ether	12.768	63	1153688	976.66	ug/L	98
65)	methyl methacrylate	12.198	100	112662	201.17	ug/L	91
66)	methylcyclohexane	12.224	83	890378	205.37	ug/L	98
67)	1,2-dichloropropane	12.234	63	336775	192.18	ug/L	98
68)	dibromomethane	12.344	93	242905	200.01	ug/L	98
69)	bromodichloromethane	12.511	83	543159	206.96	ug/L	99
70)	2-nitropropane	12.742	41	171419	203.87	ug/L	97
71)	epichlorohydrin	12.862	57	245020	979.75	ug/L	96
72)	cis-1,3-dichloropropene	12.993	75	597824	207.15	ug/L	97
73)	4-methyl-2-pentanone	13.113	58	773160	785.13	ug/L	91
74)	isoamyl alcohol	13.123	70	449256	4286.24	ug/L	97
77)	toluene	13.395	92	900072	198.91	ug/L	99
78)	ethyl methacrylate	13.589	69	514624	189.50	ug/L	99
79)	trans-1,3-dichloropropene	13.605	75	559407	188.90	ug/L	98
80)	1,1,2-trichloroethane	13.840	83	275815	194.60	ug/L	98
81)	tetrachloroethene	13.981	164	362938	193.43	ug/L	98
82)	2-hexanone	14.018	58	715448	741.83	ug/L	98
83)	1,3-dichloropropane	14.033	76	520808	187.37	ug/L	97
84)	butyl acetate	14.096	56	284074	188.30	ug/L	94
85)	dibromochloromethane	14.295	129	467725	209.12	ug/L	99
86)	1,2-dibromoethane	14.457	107	410287	201.28	ug/L	98
87)	n-butyl ether	14.923	57	1688256	195.86	ug/L	100
88)	chlorobenzene	14.975	112	1079923	202.05	ug/L	98
89)	1,1,1,2-tetrachloroethane	15.048	131	545847	200.47	ug/L	98
90)	ethylbenzene	15.038	91	1846518	197.17	ug/L	100
91)	m,p-xylene	15.168	106	1461256	404.42	ug/L	98
92)	o-xylene	15.597	91	1737796	207.30	ug/L	97
93)	styrene	15.613	104	1201217	197.59	ug/L	100
94)	butyl acrylate	15.414	55	817190	180.20	ug/L	98
95)	n-amyl acetate	15.639	70	319592	182.69	ug/L	98
96)	isopropylbenzene	15.974	105	2394860	212.32	ug/L	98
97)	bromoform	15.864	173	376871	201.04	ug/L	98
98)	cis-1,4-dichloro-2-butene	16.021	88	249500	193.37	ug/L	96
101)	1,1,2,2-tetrachloroethane	16.282	83	618985	204.17	ug/L	98
102)	trans-1,4-dichloro-2-b...	16.314	53	152839	191.29	ug/L	95
103)	1,2,3-trichloropropane	16.377	110	183263	193.46	ug/L	96
104)	bromobenzene	16.387	156	551054	208.23	ug/L	98
105)	n-propylbenzene	16.418	91	2425864	205.36	ug/L	100
106)	2-chlorotoluene	16.560	126	569439	208.96	ug/L	99
107)	4-chlorotoluene	16.680	91	1396115	204.21	ug/L	99
108)	1,3,5-trimethylbenzene	16.581	105	2172244	222.03	ug/L	100
109)	tert-butylbenzene	16.947	119	2007243	228.58	ug/L	99
110)	1,2,4-trimethylbenzene	16.999	105	2154692	213.46	ug/L	99
111)	sec-butylbenzene	17.177	105	2990630	221.27	ug/L	99
112)	p-isopropyltoluene	17.308	119	2626945	218.76	ug/L	100
113)	1,3-dichlorobenzene	17.355	146	1089431	188.96	ug/L	99
114)	1,4-dichlorobenzene	17.454	146	1115471	196.33	ug/L	99
115)	1,2-dichlorobenzene	17.841	146	1253674	197.39	ug/L	100
116)	benzyl chloride	17.553	91	1429000	191.12	ug/L	99
117)	n-butylbenzene	17.731	92	1204889	206.55	ug/L	97
118)	hexachloroethane	18.139	201	534244	242.94	ug/L	97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V3B6662\
Data File : 3b149706.D
Acq On : 24 Oct 2018 10:23 pm
Operator : payalr
Sample : IC6662-200
Misc : MS29454,V3B6662,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Oct 25 15:03:00 2018
Quant Method : C:\MSDCHEM\1\METHODS\M3B6662.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Thu Oct 25 15:01:26 2018
Response via : Initial Calibration

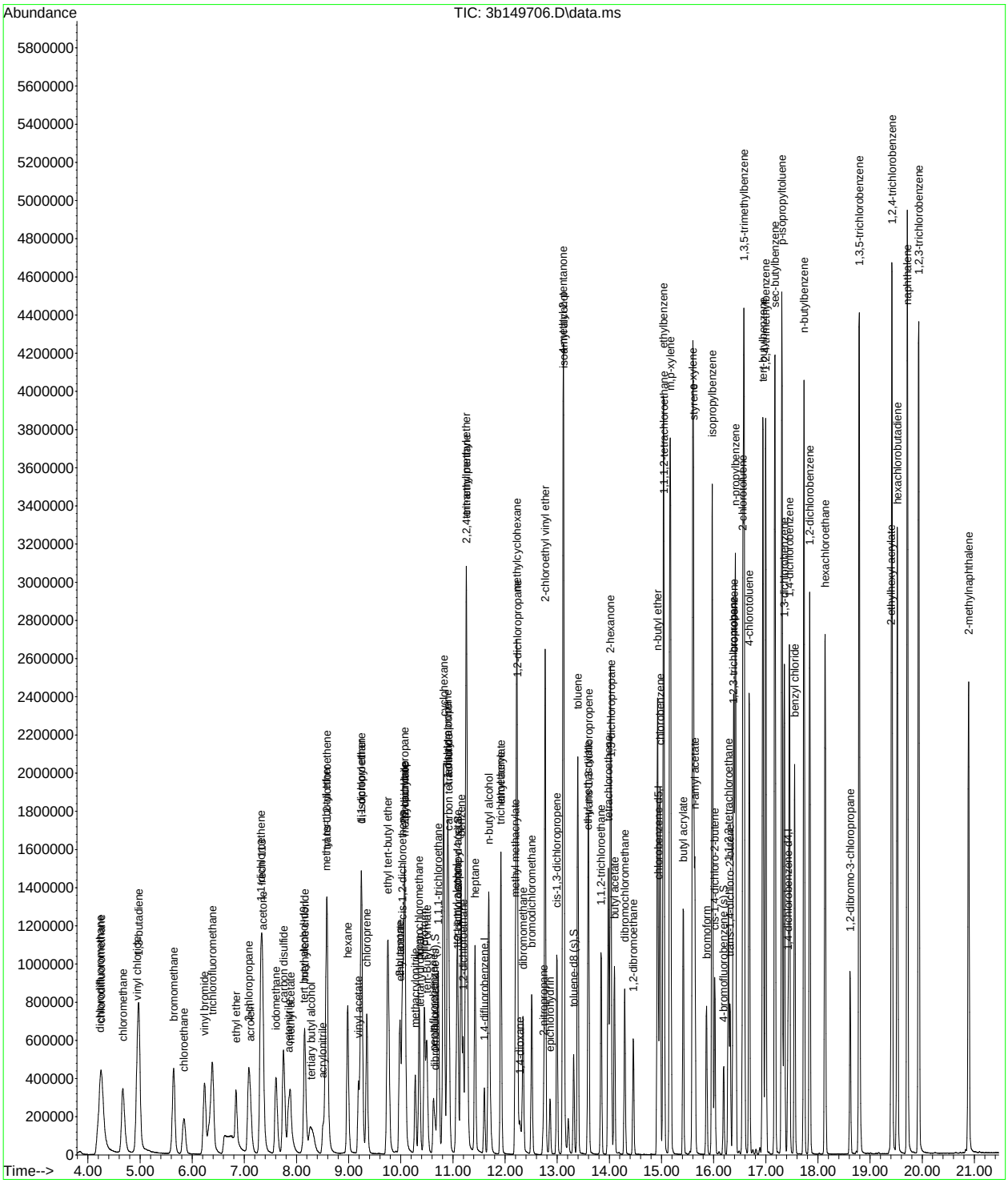
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
119) 1,2-dibromo-3-chloropr...	18.620	157	282224	200.68	ug/L	98
120) 1,3,5-trichlorobenzene	18.793	180	1484153	199.49	ug/L	99
121) 2-ethylhexyl acrylate	19.405	70	198813	43.36	ug/L	98
122) 1,2,4-trichlorobenzene	19.421	180	1494289	193.41	ug/L	99
123) hexachlorobutadiene	19.525	225	754095	203.88	ug/L	98
124) naphthalene	19.713	128	3987817	197.75	ug/L	99
125) 1,2,3-trichlorobenzene	19.933	180	1545170	197.23	ug/L	99
126) 2-methylnaphthalene	20.890	142	1403095	112.89	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V3B6662\
Data File : 3b149706.D
Acq On : 24 Oct 2018 10:23 pm
Operator : payalr
Sample : IC6662-200
Misc : MS29454,V3B6662,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Oct 25 15:03:00 2018
Quant Method : C:\MSDCHEM\1\METHODS\M3B6662.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Thu Oct 25 15:01:26 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V3B6662\
Data File : 3b149709.D
Acq On : 24 Oct 2018 11:49 pm
Operator : payalr
Sample : ICV6662-50
Misc : MS29454,V3B6662,5,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Oct 25 15:05:10 2018
Quant Method : C:\MSDCHEM\1\METHODS\M3B6662.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Thu Oct 25 15:03:59 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	8.123	65	254970	500.00	ug/L		0.00
5) pentafluorobenzene	10.628	168	220017	50.00	ug/L		0.00
54) 1,4-difluorobenzene	11.601	114	295410	50.00	ug/L		0.00
75) chlorobenzene-d5	14.938	117	286307	50.00	ug/L		0.00
99) 1,4-dichlorobenzene-d4	17.428	152	182619	50.00	ug/L		0.00
System Monitoring Compounds							
46) dibromofluoromethane (s)	10.655	113	97226	50.29	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.58%				
55) 1,2-dichloroethane-d4 (s)	11.099	65	114921	47.25	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 94.50%				
76) toluene-d8 (s)	13.317	98	347309	49.42	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.84%				
100) 4-bromofluorobenzene (s)	16.188	95	137371	52.03	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 104.06%				
Target Compounds							Qvalue
3) tertiary butyl alcohol	8.270	59	138456	262.14	ug/L		98
4) 1,4-dioxane	12.281	88	45652	1200.36	ug/L		95
6) chlorodifluoromethane	4.253	51	250023	53.07	ug/L		97
7) dichlorodifluoromethane	4.232	85	265135	49.96	ug/L		92
8) chloromethane	4.661	50	269592	59.82	ug/L		98
9) vinyl chloride	4.938	62	243161	55.46	ug/L		99
10) 1,3-butadiene	4.975	54	170511	59.51	ug/L		98
11) bromomethane	5.644	94	167464	55.81	ug/L		99
12) chloroethane	5.843	64	96666	52.08	ug/L		96
13) trichlorofluoromethane	6.387	101	290923	53.35	ug/L		99
14) vinyl bromide	6.235	106	143372	56.34	ug/L		98
15) ethyl ether	6.837	74	46851	54.81	ug/L		98
16) 2-chloropropane	7.088	43	173082	47.43	ug/L		97
17) acrolein	7.109	56	23193	60.78	ug/L		92
18) freon 113	7.333	151	140803	61.02	ug/L		97
19) 1,1-dichloroethene	7.318	96	99515	50.86	ug/L		93
20) acetone	7.349	58	42301	222.13	ug/L		99
22) iodomethane	7.600	142	233431	60.35	ug/L		97
23) carbon disulfide	7.747	76	409519	61.41	ug/L		98
24) methylene chloride	8.155	84	106634	53.04	ug/L		98
25) methyl acetate	7.877	43	75662	47.68	ug/L		98
26) methyl tert butyl ether	8.563	73	819141	106.74	ug/L		99
27) trans-1,2-dichloroethene	8.583	96	87355	48.82	ug/L		97
28) hexane	8.981	56	55831	41.87	ug/L		96
29) di-isopropyl ether	9.237	45	318218	50.55	ug/L		98
30) 2-butanone	9.969	72	56042	221.26	ug/L	#	81
31) 1,1-dichloroethane	9.242	63	160045	52.43	ug/L		98
32) chloroprene	9.347	53	141239	52.37	ug/L		96
33) acrylonitrile	8.505	53	45898	59.65	ug/L		99
34) vinyl acetate	9.185	86	14052	46.24	ug/L	#	94
35) ethyl tert-butyl ether	9.750	59	389822	54.45	ug/L		98
36) ethyl acetate	9.990	45	15750	50.25	ug/L	#	80
37) 2,2-dichloropropane	10.064	77	205371	48.96	ug/L		98
38) cis-1,2-dichloroethene	10.032	96	103757	49.96	ug/L		97
39) propionitrile	10.069	54	166768	499.77	ug/L		92
40) methyl acrylate	10.074	85	16039	51.27	ug/L		94
41) methacrylonitrile	10.273	67	42083	51.69	ug/L		94
42) bromochloromethane	10.351	128	55039	51.97	ug/L		96
43) tetrahydrofuran	10.367	42	36166	55.15	ug/L		94
44) chloroform	10.451	83	170889	49.23	ug/L		100
45) tert-Butyl Formate	10.492	59	83702	38.72	ug/L		94
47) 1,1,1-trichloroethane	10.712	97	213474	49.74	ug/L		98
48) cyclohexane	10.817	84	197189	57.95	ug/L		99
49) isobutyl alcohol	10.900	43	78125	510.76	ug/L		98
50) 1,1-dichloropropene	10.890	75	122603	51.78	ug/L		97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V3B6662\
Data File : 3b149709.D
Acq On : 24 Oct 2018 11:49 pm
Operator : payalr
Sample : ICV6662-50
Misc : MS29454,V3B6662,5,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Oct 25 15:05:10 2018
Quant Method : C:\MSDCHEM\1\METHODS\M3B6662.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Thu Oct 25 15:03:59 2018
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
51)	carbon tetrachloride	10.911	117	191535	51.32	ug/L		99
52)	tert-amyl alcohol	11.063	73	68244	264.18	ug/L		92
53)	isopropyl acetate	11.084	87	23905	51.36	ug/L		95
56)	n-butyl alcohol	11.680	56	241530	2494.51	ug/L		97
57)	2,2,4-trimethylpentane	11.256	57	434648	51.48	ug/L		98
58)	benzene	11.157	78	339810	49.85	ug/L		99
59)	tert-amyl methyl ether	11.251	73	372823	48.25	ug/L		99
60)	heptane	11.423	57	75685	53.29	ug/L		95
61)	1,2-dichloroethane	11.193	62	134020	45.69	ug/L		98
62)	ethyl acrylate	11.920	55	131130	50.69	ug/L		99
63)	trichloroethene	11.915	95	93415	50.42	ug/L		98
64)	2-chloroethyl vinyl ether	12.768	63	278722	234.01	ug/L		98
65)	methyl methacrylate	12.198	100	28887	51.24	ug/L	#	83
66)	methylcyclohexane	12.224	83	201378	46.13	ug/L		99
67)	1,2-dichloropropane	12.229	63	84631	47.93	ug/L		96
68)	dibromomethane	12.339	93	62868	51.42	ug/L		90
69)	bromodichloromethane	12.511	83	130642	49.45	ug/L		99
70)	2-nitropropane	12.741	41	43050	49.07	ug/L		97
71)	epichlorohydrin	12.862	57	62501	248.07	ug/L		95
72)	cis-1,3-dichloropropene	12.993	75	150640	51.85	ug/L		97
73)	4-methyl-2-pentanone	13.113	58	200313	202.01	ug/L		92
74)	isoamyl alcohol	13.118	70	108043	1023.90	ug/L	#	89
77)	toluene	13.395	92	223413	50.74	ug/L		97
78)	ethyl methacrylate	13.589	69	126541	47.86	ug/L		100
79)	trans-1,3-dichloropropene	13.604	75	135406	46.99	ug/L		99
80)	1,1,2-trichloroethane	13.840	83	69967	50.73	ug/L		98
82)	2-hexanone	14.018	58	180177	191.98	ug/L		96
83)	1,3-dichloropropane	14.033	76	134878	49.87	ug/L		96
84)	butyl acetate	14.096	56	73715	50.22	ug/L		90
85)	dibromochloromethane	14.295	129	114984	52.84	ug/L		99
86)	1,2-dibromoethane	14.457	107	102403	51.63	ug/L		99
87)	n-butyl ether	14.922	57	401112	47.82	ug/L		99
88)	chlorobenzene	14.975	112	260770	50.14	ug/L		98
89)	1,1,1,2-tetrachloroethane	15.048	131	132936	50.18	ug/L		98
90)	ethylbenzene	15.038	91	458536	50.32	ug/L		100
91)	m,p-xylene	15.168	106	360694	102.60	ug/L		96
92)	o-xylene	15.597	91	417424	51.17	ug/L		99
93)	styrene	15.613	104	292442	49.44	ug/L		98
94)	butyl acrylate	15.414	55	208204	47.18	ug/L		97
95)	n-amyl acetate	15.639	70	75898	44.59	ug/L		97
96)	isopropylbenzene	15.974	105	570020	51.94	ug/L		99
97)	bromoform	15.864	173	96194	52.74	ug/L		97
98)	cis-1,4-dichloro-2-butene	16.021	88	56947	45.36	ug/L		98
101)	1,1,2,2-tetrachloroethane	16.282	83	147524	51.83	ug/L		96
102)	trans-1,4-dichloro-2-b...	16.314	53	42952	57.26	ug/L		89
103)	1,2,3-trichloropropane	16.377	110	45838	51.54	ug/L		90
104)	bromobenzene	16.387	156	132715	53.42	ug/L		98
105)	n-propylbenzene	16.418	91	583843	52.64	ug/L		99
106)	2-chlorotoluene	16.560	126	132115	51.55	ug/L		97
107)	4-chlorotoluene	16.680	91	340019	52.98	ug/L		99
108)	1,3,5-trimethylbenzene	16.580	105	495667	53.97	ug/L		100
109)	tert-butylbenzene	16.947	119	456700	55.40	ug/L		98
110)	1,2,4-trimethylbenzene	16.999	105	499890	52.75	ug/L		99
111)	sec-butylbenzene	17.171	105	685292	54.01	ug/L		100
112)	p-isopropyltoluene	17.307	119	604235	53.60	ug/L		99
113)	1,3-dichlorobenzene	17.355	146	265236	49.01	ug/L		97
114)	1,4-dichlorobenzene	17.454	146	267905	50.23	ug/L		97
115)	1,2-dichlorobenzene	17.841	146	300737	50.44	ug/L		98
116)	benzyl chloride	17.553	91	270298	38.51	ug/L		98
117)	n-butylbenzene	17.731	92	281199	51.35	ug/L		95
118)	hexachloroethane	18.139	201	116975	56.66	ug/L		97
119)	1,2-dibromo-3-chloropr...	18.615	157	67279	50.96	ug/L		94
120)	1,3,5-trichlorobenzene	18.793	180	348652	49.92	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V3B6662\
Data File : 3b149709.D
Acq On : 24 Oct 2018 11:49 pm
Operator : payalr
Sample : ICV6662-50
Misc : MS29454,V3B6662,5,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Oct 25 15:05:10 2018
Quant Method : C:\MSDCHEM\1\METHODS\M3B6662.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Thu Oct 25 15:03:59 2018
Response via : Initial Calibration

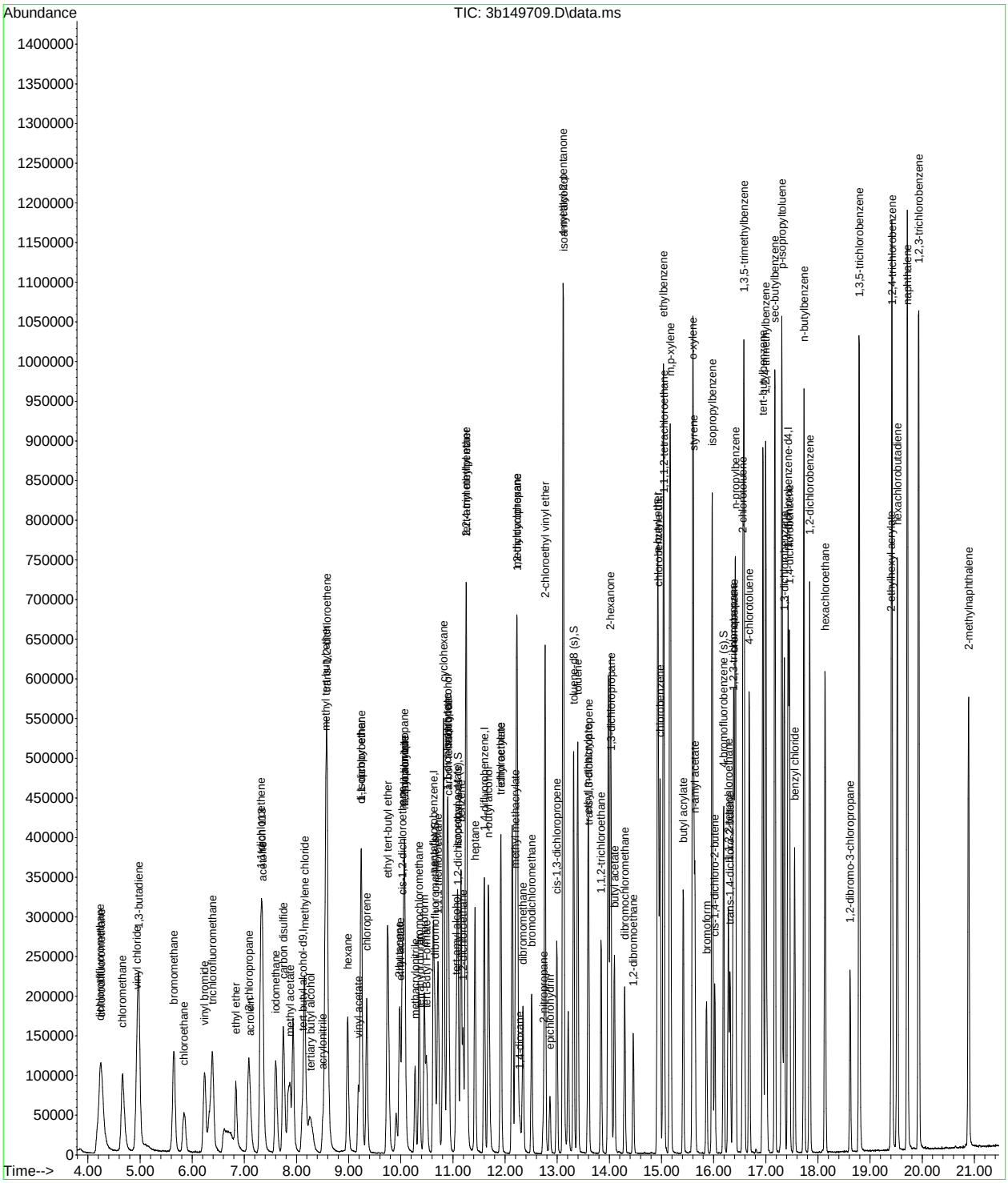
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
121) 2-ethylhexyl acrylate	19.405	70	47470	11.03 ug/L	97
122) 1,2,4-trichlorobenzene	19.421	180	368706	50.83 ug/L	99
123) hexachlorobutadiene	19.525	225	168091	48.41 ug/L	99
124) naphthalene	19.713	128	994739	52.54 ug/L	100
125) 1,2,3-trichlorobenzene	19.933	180	377003	51.26 ug/L	98
126) 2-methylnaphthalene	20.890	142	322550	27.63 ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V3B6662\
Data File : 3b149709.D
Acq On : 24 Oct 2018 11:49 pm
Operator : payalr
Sample : ICV6662-50
Misc : MS29454,V3B6662,5,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Oct 25 15:05:10 2018
Quant Method : C:\MSDCHEM\1\METHODS\M3B6662.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Thu Oct 25 15:03:59 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V3B6662\
Data File : 3b149710.D
Acq On : 25 Oct 2018 12:17 am
Operator : payalr
Sample : ICV6662-50
Misc : MS29454,V3B6662,5,,,,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Oct 25 12:08:49 2018
Quant Method : C:\MSDCHEM\1\METHODS\M3B6662.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Thu Oct 25 12:07:40 2018
Response via : Initial Calibration

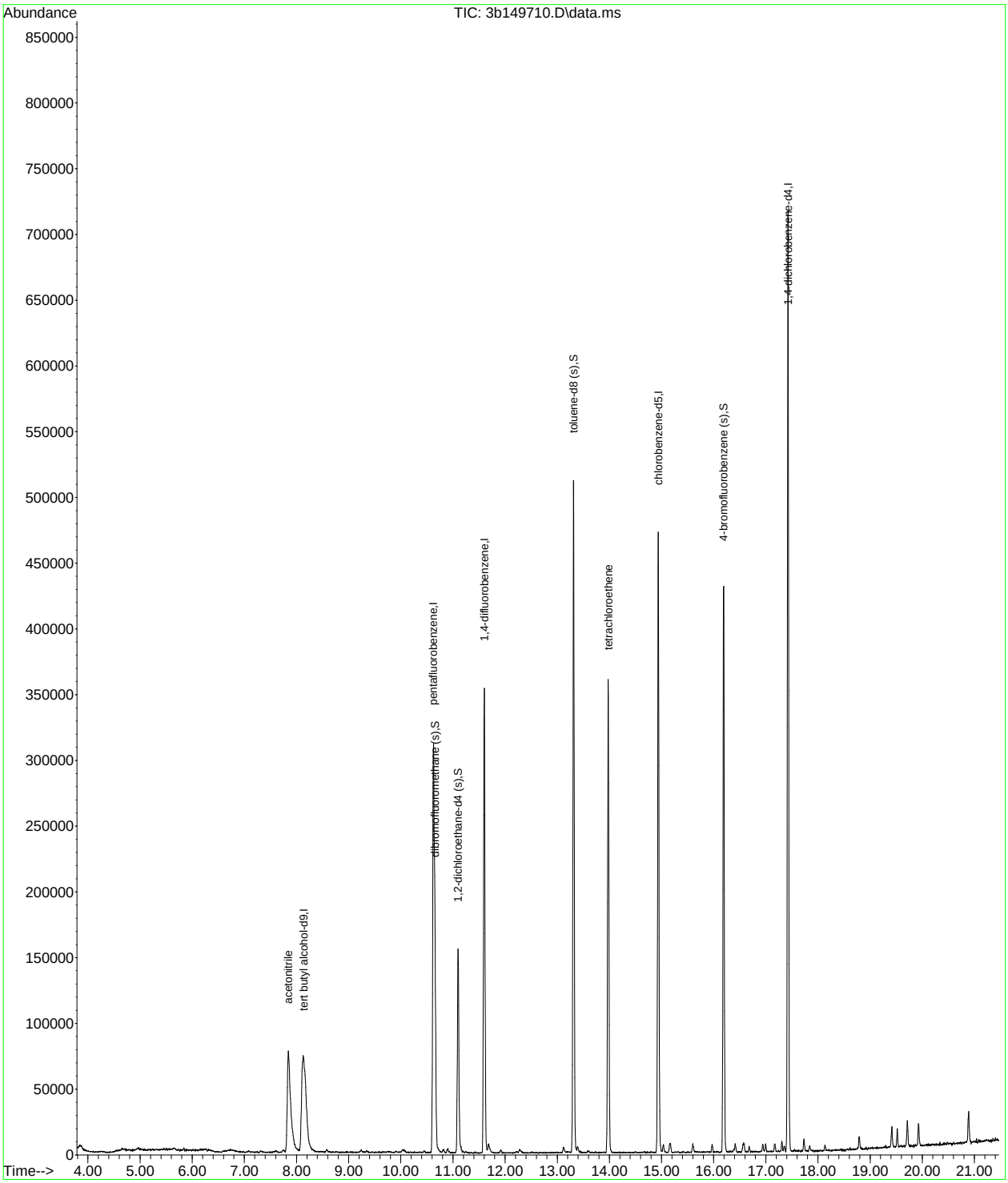
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	8.133	65	258436	500.00	ug/L	0.00
5) pentafluorobenzene	10.623	168	229077	50.00	ug/L	0.00
54) 1,4-difluorobenzene	11.601	114	300768	50.00	ug/L	0.00
75) chlorobenzene-d5	14.938	117	277924	50.00	ug/L	0.00
99) 1,4-dichlorobenzene-d4	17.428	152	201218	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.654	113	100225	49.79	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.58%			
55) 1,2-dichloroethane-d4 (s)	11.099	65	119701	48.35	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 96.70%			
76) toluene-d8 (s)	13.311	98	347081	50.88	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.76%			
100) 4-bromofluorobenzene (s)	16.188	95	141136	48.52	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.04%			
Target Compounds						Qvalue
21) acetonitrile	7.841	41	192537	506.40	ug/L	99
81) tetrachloroethene	13.981	164	87243	49.23	ug/L	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V3B6662\
Data File : 3b149710.D
Acq On : 25 Oct 2018 12:17 am
Operator : payalr
Sample : ICV6662-50
Misc : MS29454,V3B6662,5,,,,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Oct 25 12:08:49 2018
Quant Method : C:\MSDCHEM\1\METHODS\M3B6662.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Thu Oct 25 12:07:40 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\november\11-12-18\v3b6682\
Data File : 3b150111.d
Acq On : 10 Nov 2018 12:21 pm
Operator : payalr
Sample : CC6662-20 Inst : MS3B
Misc : MS30566,V3B6682,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3B6662.M
Quant Results File: M3B6662.RES
Quant Time: Nov 12 09:13:28 2018
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Thu Oct 25 15:03:59 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	8.118	65	143968	500.00	ug/L	0.00
5) pentafluorobenzene	10.623	168	145270	50.00	ug/L	0.00
54) 1,4-difluorobenzene	11.601	114	163938	50.00	ug/L	0.00
75) chlorobenzene-d5	14.933	117	156536	50.00	ug/L	0.00
99) 1,4-dichlorobenzene-d4	17.423	152	118110	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.655	113	57160	44.78	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 89.56%			
55) 1,2-dichloroethane-d4 (s)	11.094	65	68593	50.82	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 101.64%			
76) toluene-d8 (s)	13.312	98	189384	49.29	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.58%			
100) 4-bromofluorobenzene (s)	16.188	95	78608	46.03	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 92.06%			
Target Compounds						Qvalue
3) tertiary butyl alcohol	8.259	59	33027	110.74	ug/L	93
4) 1,4-dioxane	12.276	88	11477	534.45	ug/L	93
6) chlorodifluoromethane	4.253	51	58165	18.70	ug/L	98
7) dichlorodifluoromethane	4.221	85	73996	21.12	ug/L	96
8) chloromethane	4.671	50	69908	23.49	ug/L	97
9) vinyl chloride	4.938	62	64768	22.37	ug/L	96
10) 1,3-butadiene	4.969	54	47173	24.93	ug/L	96
11) bromomethane	5.655	94	44267	22.35	ug/L	95
12) chloroethane	5.859	64	27951	22.81	ug/L	95
13) trichlorofluoromethane	6.392	101	73986	20.55	ug/L	98
14) vinyl bromide	6.251	106	36882	21.95	ug/L	94
15) ethyl ether	6.837	74	10822	19.18	ug/L	98
16) 2-chloropropane	7.082	43	44833	18.61	ug/L	94
17) acrolein	7.119	56	4394	17.44	ug/L	80
18) freon 113	7.349	151	29453	19.33	ug/L	94
19) 1,1-dichloroethene	7.313	96	24364	18.86	ug/L	94
20) acetone	7.344	58	10322	82.09	ug/L	95
21) acetonitrile	7.846	41	48449	200.86	ug/L	97
22) iodomethane	7.605	142	49383	19.34	ug/L	93
23) carbon disulfide	7.747	76	82472	18.73	ug/L	97
24) methylene chloride	8.149	84	26034	19.61	ug/L	95
25) methyl acetate	7.872	43	19998	19.09	ug/L	95
26) methyl tert butyl ether	8.568	73	98407	19.42	ug/L	99
27) trans-1,2-dichloroethene	8.584	96	21954	18.58	ug/L	96
28) hexane	8.981	56	13870	15.76	ug/L	95
29) di-isopropyl ether	9.232	45	77669	18.69	ug/L	97
30) 2-butanone	9.964	72	12919	77.25	ug/L #	71
31) 1,1-dichloroethane	9.243	63	38452	19.08	ug/L	98
32) chloroprene	9.347	53	30570	17.17	ug/L	95
33) acrylonitrile	8.495	53	10400	20.47	ug/L	92
34) vinyl acetate	9.185	86	3638	18.13	ug/L #	74
35) ethyl tert-butyl ether	9.750	59	91057	19.26	ug/L	99
36) ethyl acetate	9.985	45	3963	19.15	ug/L	94
37) 2,2-dichloropropane	10.064	77	51566	18.62	ug/L	96
38) cis-1,2-dichloroethene	10.027	96	23200	16.92	ug/L	97
39) propionitrile	10.069	54	42276	191.88	ug/L	97
40) methyl acrylate	10.069	85	3874	18.76	ug/L #	67
41) methacrylonitrile	10.273	67	9663	17.98	ug/L	90
42) bromochloromethane	10.346	128	13029	18.63	ug/L	91

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\november\11-12-18\v3b6682\
Data File : 3b150111.d
Acq On : 10 Nov 2018 12:21 pm
Operator : payalr
Sample : CC6662-20 Inst : MS3B
Misc : MS30566,V3B6682,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3B6662.M
Quant Results File: M3B6662.RES
Quant Time: Nov 12 09:13:28 2018
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Thu Oct 25 15:03:59 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
43) tetrahydrofuran	10.362	42	7932	18.32	ug/L		96
44) chloroform	10.445	83	40490	17.67	ug/L		93
45) tert-Butyl Formate	10.493	59	26079	18.27	ug/L		92
47) 1,1,1-trichloroethane	10.707	97	52572	18.55	ug/L		97
48) cyclohexane	10.817	84	40741	18.13	ug/L		91
49) isobutyl alcohol	10.895	43	18737	185.53	ug/L		92
50) 1,1-dichloropropene	10.890	75	27017	17.28	ug/L		99
51) carbon tetrachloride	10.911	117	46186	18.74	ug/L		100
52) tert-amyl alcohol	11.057	73	15585	91.37	ug/L		91
53) isopropyl acetate	11.084	87	5755	18.73	ug/L	#	81
56) n-butyl alcohol	11.675	56	59151	1100.84	ug/L		97
57) 2,2,4-trimethylpentane	11.251	57	93055	19.86	ug/L		98
58) benzene	11.152	78	76451	20.21	ug/L		95
59) tert-amyl methyl ether	11.246	73	90566	21.12	ug/L		98
60) heptane	11.424	57	13868	17.60	ug/L		96
61) 1,2-dichloroethane	11.193	62	32516	19.98	ug/L		99
62) ethyl acrylate	11.915	55	29260	20.38	ug/L		99
63) trichloroethene	11.910	95	20825	20.25	ug/L		96
64) 2-chloroethyl vinyl ether	12.762	63	71114	107.59	ug/L		96
65) methyl methacrylate	12.198	100	6568	20.99	ug/L	#	81
66) methylcyclohexane	12.219	83	45142	18.63	ug/L		98
67) 1,2-dichloropropane	12.224	63	19832	20.24	ug/L		95
68) dibromomethane	12.339	93	14663	21.61	ug/L		92
69) bromodichloromethane	12.506	83	31074	21.19	ug/L		94
70) 2-nitropropane	12.736	41	10952	22.50	ug/L		95
71) epichlorohydrin	12.857	57	14104	100.87	ug/L		93
72) cis-1,3-dichloropropene	12.993	75	33926	21.04	ug/L		96
73) 4-methyl-2-pentanone	13.108	58	44354	80.60	ug/L		96
74) isoamyl alcohol	13.118	70	26333	449.68	ug/L		98
77) toluene	13.385	92	47681	19.81	ug/L		99
78) ethyl methacrylate	13.589	69	27749	19.19	ug/L		95
79) trans-1,3-dichloropropene	13.599	75	31654	20.09	ug/L		93
80) 1,1,2-trichloroethane	13.835	83	16588	22.00	ug/L		95
81) tetrachloroethene	13.976	164	20420	20.46	ug/L		96
82) 2-hexanone	14.012	58	41827	81.51	ug/L		99
83) 1,3-dichloropropane	14.028	76	30413	20.57	ug/L		98
84) butyl acetate	14.096	56	16812	20.95	ug/L		94
85) dibromochloromethane	14.290	129	25740	21.63	ug/L		93
86) 1,2-dibromoethane	14.457	107	23949	22.09	ug/L		98
87) n-butyl ether	14.917	57	84608	18.45	ug/L		98
88) chlorobenzene	14.970	112	59229	20.83	ug/L		97
89) 1,1,1,2-tetrachloroethane	15.043	131	29833	20.60	ug/L		96
90) ethylbenzene	15.032	91	97446	19.56	ug/L		100
91) m,p-xylene	15.163	106	78041	40.60	ug/L		95
92) o-xylene	15.597	91	87452	19.61	ug/L		99
93) styrene	15.608	104	64760	20.02	ug/L		98
94) butyl acrylate	15.414	55	47325	19.61	ug/L		100
95) n-amyl acetate	15.639	70	20652	22.19	ug/L		98
96) isopropylbenzene	15.969	105	117608	19.60	ug/L		97
97) bromoform	15.859	173	22503	22.56	ug/L		94
98) cis-1,4-dichloro-2-butene	16.016	88	7710	11.23	ug/L		94
101) 1,1,2,2-tetrachloroethane	16.277	83	35781	19.44	ug/L		93
102) trans-1,4-dichloro-2-b...	16.314	53	5740	11.83	ug/L		97
103) 1,2,3-trichloropropane	16.371	110	10480	18.22	ug/L		96
104) bromobenzene	16.387	156	32078	19.96	ug/L		92
105) n-propylbenzene	16.413	91	130135	18.14	ug/L		98
106) 2-chlorotoluene	16.560	126	29975	18.08	ug/L		92

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\november\11-12-18\v3b6682\
Data File : 3b150111.d
Acq On : 10 Nov 2018 12:21 pm
Operator : payalr
Sample : CC6662-20 Inst : MS3B
Misc : MS30566,V3B6682,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3B6662.M
Quant Results File: M3B6662.RES
Quant Time: Nov 12 09:13:28 2018
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Thu Oct 25 15:03:59 2018
Response via : Initial Calibration

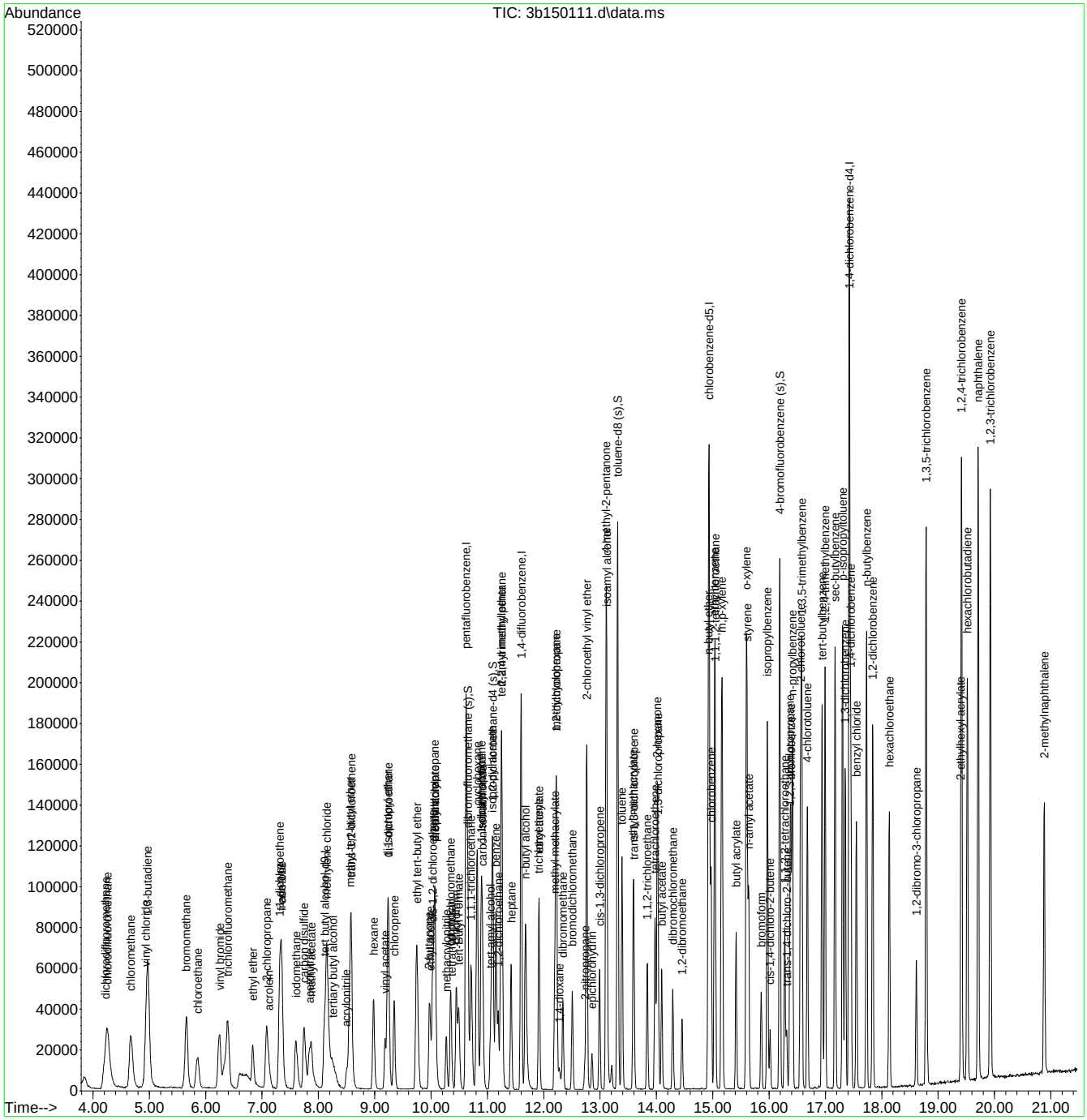
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
107) 4-chlorotoluene	16.680	91	76844	18.51	ug/L	97
108) 1,3,5-trimethylbenzene	16.581	105	106969	18.01	ug/L	99
109) tert-butylbenzene	16.941	119	95394	17.89	ug/L	99
110) 1,2,4-trimethylbenzene	16.994	105	110739	18.07	ug/L	96
111) sec-butylbenzene	17.172	105	144905	17.66	ug/L	99
112) p-isopropyltoluene	17.302	119	130294	17.87	ug/L	99
113) 1,3-dichlorobenzene	17.349	146	67266	19.22	ug/L	100
114) 1,4-dichlorobenzene	17.449	146	68512	19.86	ug/L	97
115) 1,2-dichlorobenzene	17.836	146	77006	19.97	ug/L	98
116) benzyl chloride	17.548	91	91751	20.21	ug/L	96
117) n-butylbenzene	17.731	92	63139	17.83	ug/L	99
118) hexachloroethane	18.134	201	25981	19.46	ug/L	95
119) 1,2-dibromo-3-chloropr...	18.615	157	18046	21.13	ug/L	97
120) 1,3,5-trichlorobenzene	18.788	180	90131	19.95	ug/L	99
121) 2-ethylhexyl acrylate	19.400	70	8214	2.95	ug/L	90
122) 1,2,4-trichlorobenzene	19.415	180	98684	21.04	ug/L	99
123) hexachlorobutadiene	19.520	225	46069	20.51	ug/L	96
124) naphthalene	19.708	128	251122	20.51	ug/L	100
125) 1,2,3-trichlorobenzene	19.928	180	103474	21.75	ug/L	97
126) 2-methylnaphthalene	20.885	142	71703	9.50	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\november\11-12-18\v3b6682\
Data File : 3b150111.d
Acq On : 10 Nov 2018 12:21 pm
Operator : payalr
Sample : CC6662-20 Inst : MS3B
Misc : MS30566,V3B6682,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3B6662.M
Quant Results File: M3B6662.RES
Quant Time: Nov 12 09:13:28 2018
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Thu Oct 25 15:03:59 2018
Response via : Initial Calibration



GCMS Volatile Run Log

Standard / Reagents	Lot #				Column	Rxi-624(60mx0.25mmx1.4um)
Standards	ABK V018-2629-93.8	EC V018-2629-101.5	Acrolein V018-2629-82.5		Method	V8260C
Standard Concentration	100-10,000 PPM	100 PPM	100 PPM		Init Calib Date	10/24/18
Standards	EXT. ABK V018-2629-102.1	EXT. EC V018-2629-91.4	EXT. Acrolein V018-2629	EXT. PA V018-2629-6		
Standard Concentration	100-10,000 PPM	100 PPM	100 PPM	100-1000 PPM		
Internal Surrogate	V018-2629-68				Analysis Date	10/24/2018
Internal Surrogate Concentration	250/2500 PPM				Sequence loaded by	Payal Rana
					Data processed by	Robert Szot
Intial made by	Prashant Shukla				Batch ID	V3B6662
					Matrix	AQ
Initial Calibration Method	M3B6662				Approved By:	KANYAV
pH Paper Lot#	204518				Approved Date:	10/25/2018 3:42:14 PM

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	CL	pH	ALS #	Status	Comments
3B	149696	BFB		NA			5			1	ok	5:28PM
3B	149697	IC6662-2		NA		8260 initial cal.	5			2	ok	10uL ABK,EC,Acrolein/500mL DI H2O
3B	149698	IC6662-0.2		NA		8260 initial cal.	5			3	ok	1uL ABK,EC,Acrolein/500mL DI H2O
3B	149699	IC6662-0.5		NA		8260 initial cal.	5			4	ok	2.5uL ABK,EC,Acrolein/500mL DI H2O
3B	149700	IC6662-1		NA		8260 initial cal.	5			5	ok	5uL ABK,EC,Acrolein/500mL DI H2O
3B	149701	IC6662-4		NA		8260 initial cal.	5			6	ok	8uL ABK,EC,Acrolein/200mL DI H2O
3B	149702	IC6662-8		NA		8260 initial cal.	5			7	ok	16uL ABK,EC,Acrolein/200mL DI H2O
3B	149703	IC6662-20		NA		8260 initial cal.	5			8	ok	20uL ABK,EC,Acrolein/100mL DI H2O
3B	149704	ICC6662-50		NA		8260 initial cal.	5			9	ok	50uL ABK,EC,Acrolein/100mL DI H2O
3B	149705	IC6662-100		NA		8260 initial cal.	5			10	ok	100uL ABK,EC,Acrolein/100mL DI H2O
3B	149706	IC6662-200		NA		8260 initial cal.	5			11	ok	200uL ABK,EC,Acrolein/100mL DI H2O

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	CL	pH	ALS #	Status	Comments
3B	149707	IB		NA			5			12	ok	
3B	149708	IB		NA			5			13	ok	
3B	149709	ICV6662-50		NA		8260 initial cal.	5			14	ok	50uL EX.(ABK,EC,Acrolein)/100mL DI H2O
3B	149710	ICV6662-50		NA		8260 initial cal.	5			15	ok	50uL EX.(PA)/100mL DI H2O
3B	149711	IB		NA			5			16	ok	

GCMS Volatile Run Log

Standard / Reagents	Lot #				Column	Rxi-624(60mx0.25mmx1.4um)
Standards	ABK V018-2629-93.48	EC V018-2629-124.5	Acrolein V018-2629-108.11		Method	V8260C
Standard Concentration	100-10,000 PPM	100 PPM	100 PPM		Init Calib Date	10/24/18
Internal Surrogate	V018-2629-89				Analysis Date	11/10/2018
Internal Surrogate Concentration	250/2500 PPM				Sequence loaded by	Payal Rana
Dilutions & MS/MSD made by	Payal Rana				Data processed by	lotusa
					Batch ID	V3B6682
Rough Review	Robert Szot 11/12/18				Matrix	AQ
Initial Calibration Method	M3B6662				Approved By:	JESSICA
pH Paper Lot#	204518				Approved Date:	11/14/2018 12:21:14 PM

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	CL	pH	ALS #	Status	Comments
3B	150110	IB		NA			5			1	OK	
3B	150111	BFB/CC6662-20		NA			5			2	OK/OK	12:21PM 20uL ABK,EC,ACROLEIN/100mL DI H2O
3B	150112	BS		NA			5			3	OK	50uL ABK,EC,ACROLEIN/100mL DI H2O
3B	150113	BSD		NA			5			4	OK	50uL ABK,EC,ACROLEIN/100mL DI H2O
3B	150114	IB		NA			5			5	OK	
3B	150115	MB		NA			5			6	OK	
3B	150116	JC77581-2	1	5X	MS30643	V8260MCP	10/50		1	7	OK	MAMCP
3B	150117	JC77581-2	1	50X	MS30643	V8260MCP	1/50		1	8	OK	MAMCP
3B	150118	JC77581-2MS	1	5X	MS30643	V8260MCP	10/50		1	9	OK	50uL ABK,EC,ACROLEIN, 20 mL sample /100mL DI H2O
3B	150119	JC77581-2MSD	1	5X	MS30643	V8260MCP	10/50		1	10	OK	50uL ABK,EC,ACROLEIN, 20 mL sample /100mL DI H2O
3B	150120	IB		NA			5			11	OK	

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	CL	pH	ALS #	Status	Comments
3B	150121	JC77581-3	2	NA	MS30643	V8260MCP	5		1	12	OK	MAMCP
3B	150122	JC77581-1	1	NA	MS30643	V8260MCP	5		1	13	OK	MAMCP
3B	150123	JC77588-1	8	NA	MS30646	V8260BTX	5		1	14	OK	
3B	150124	JC77578-1	1	NA	MS30643	V8260MA8010L	5		1	15	OK	MAMCP
3B	150125	JC77578-2	4	NA	MS30643	V8260MA8010L	5		1	16	OK	MAMCP
3B	150126	JC77579-2	1	NA	MS30643	V8260MA8010L	5		1	17	OK	MAMCP
3B	150127	JC77579-1	1	NA	MS30643	V8260MA8010L	5		1	18	OK	MAMCP
3B	150128	JC77579-3	1	NA	MS30643	V8260MA8010L	5		1	19	OK	MAMCP
3B	150129	JC77579-3	1	10X	MS30643	V8260MA8010L	5/50		1	20	not used	MAMCP DL not necessary
3B	150130	JC77580-1	3	NA	MS30643	V8260MA8010L	5		1	21	OK	MAMCP
3B	150131	JC77580-2	2	5X	MS30643	V8260MA8010L	10/50		1	22	RR	MAMCP RR 1x
3B	150132	JC77549-1	2	NA	MS30637	V8260TCL20+	5		1	23	OK	10:29 PM

Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Instrument Runlogs
- Initial and Continuing Calibration Blanks
- Initial and Continuing Calibration Checks
- High and Low Check Standards
- Interfering Element Check Standards
- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries
- IDL and Linear Range Summaries

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC77588
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XB111218M1L.CSV Date Analyzed: 11/12/18 Methods: EPA 200.8, SW846 6020B
Analyst: ZC Run ID: MA45644
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Dilution Factor	PS Recov	Comments
11:08	MA45644-STD1	1		STDA
11:13	MA45644-STD2	1		STDA
11:18	MA45644-STD3	1		STDA
11:23	MA45644-STD4	1		STDB
11:28	MA45644-STD5	1		STDC
11:33	MA45644-STD6	1		STDD
11:38	MA45644-STD7	1		STDE
11:43	MA45644-STD8	1		STDF
11:48	MA45644-STD9	1		STDG
11:53	MA45644-STD10	1		STDH
11:58	MA45644-STD11	1		STDI
12:03	MA45644-STD12	1		STDJ
12:08	MA45644-STD13	1		STDA
12:13	MA45644-STD14	1		STDF
12:21	MA45644-ICVA1	1		
12:26	MA45644-ICV1	1		See rerun
12:31	MA45644-ICB1	1		
12:41	ZZZZZZ	1		
12:46	MA45644-ICV2	1		
12:51	MA45644-CCVA1	1		
12:56	MA45644-CCB1	1		
13:01	MA45644-CRI1	1		
13:06	MA45644-ICSA1	1		
13:11	MA45644-ICSAB1	1		
13:16	ZZZZZZ	1		
13:21	MA45644-CCVA2	1		
13:26	MA45644-CCB2	1		
13:31	ZZZZZZ	5		
13:36	ZZZZZZ	5		
13:41	ZZZZZZ	5		
13:46	MP10186A-S3	5		
13:51	MP10186A-S4	5		
13:56	ZZZZZZ	20		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC77588
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XB111218M1L.CSV Date Analyzed: 11/12/18 Methods: EPA 200.8, SW846 6020B
Analyst: ZC Run ID: MA45644
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Dilution Factor	PS Recov	Comments
14:01	ZZZZZZ	100		
14:06	ZZZZZZ	20		
14:11	MA45644-CCVA3	1		
14:16	MA45644-CCB3	1		
14:21	ZZZZZZ	20		
14:26	ZZZZZZ	100		
14:41	MP10165-MB1	2		
14:46	MP10165-SD1	10		
14:51	MP10165-B1	2		
14:56	MP10165-S1	2		
15:01	MP10165-S2	2		
15:06	JC76707-1R	2		(sample used for QC only; not part of login JC77588)
15:11	MA45644-CCVA4	1		
15:19	MA45644-CCB4	1		
15:29	MP10376-MB1	2		
15:34	MP10376-B1	2		
15:39	MP10376-S1	2		
15:44	MP10376-S2	2		
15:49	JC77511-1	2		(sample used for QC only; not part of login JC77588)
15:55	MP10376-SD1	10		
16:00	ZZZZZZ	2		
16:05	ZZZZZZ	2		
16:10	ZZZZZZ	2		
16:15	MA45644-CCVA5	1		
16:20	MA45644-CCB5	1		
16:25	ZZZZZZ	2		
16:30	ZZZZZZ	2		
16:35	ZZZZZZ	2		
16:40	ZZZZZZ	2		
16:45	JC77588-1A	2		
---------->	Last reportable sample/prep for job JC77588			
16:50	MP10385A-MB1	2		
16:56	MP10385A-B2	2		
17:01	MP10385A-S3	2		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC77588
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XB111218M1L.CSV Date Analyzed: 11/12/18 Methods: EPA 200.8, SW846 6020B
Analyst: ZC Run ID: MA45644
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Dilution Factor	PS Recov	Comments
17:06	MP10385A-S4	2		
17:11	MA45644-CCVA6	1		
17:16	MA45644-CCB6	1		
---------->	Last reportable CCB for job JC77588			
17:21	ZZZZZZ	2		
17:26	JC76358-25	2		(sample used for QC only; not part of login JC77588)
17:31	MP10385A-SD1	10		
17:36	ZZZZZZ	2		
17:41	ZZZZZZ	1		
17:47	ZZZZZZ	2		
17:52	ZZZZZZ	2		
17:57	ZZZZZZ	2		
18:02	ZZZZZZ	2		
18:07	MA45644-CCVA7	1		
18:12	MA45644-CCB7	1		
18:17	ZZZZZZ	2		
18:22	ZZZZZZ	2		
18:27	ZZZZZZ	2		
18:32	ZZZZZZ	2		
18:37	ZZZZZZ	1		
18:42	MP10365-MB1	1		
18:47	MP10365-B1	1		
18:52	MP10365-S1	1		
18:57	MP10365-S2	1		
19:02	MA45644-CCVA8	1		
19:07	MA45644-CCB8	1		
19:12	JC77502-35	1		(sample used for QC only; not part of login JC77588)
19:17	ZZZZZZ	1		
19:22	ZZZZZZ	1		
19:27	ZZZZZZ	1		
19:32	ZZZZZZ	1		
19:37	MA45644-CCVA9	1		
19:42	MA45644-CCB9	1		
19:47	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC77588
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XB111218M1L.CSV Date Analyzed: 11/12/18 Methods: EPA 200.8, SW846 6020B
Analyst: ZC Run ID: MA45644
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Dilution Factor	PS Recov	Comments
19:52	ZZZZZZ	1		
19:57	ZZZZZZ	1		

Refer to raw data for calibration curve and standards.

REPORTED ELEMENTS SUMMARY

Login Number: JC77588
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XB111218M1L.CSV Date Analyzed: 11/12/18 Methods: EPA 200.8, SW846 6020B
Analyst: ZC Run ID: MA45644
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Element: Dilution	Al	As	Ba	Cd	Fe	Pb	
12:21	MA45644-ICVA1	1	X	X	X	X	X	X	
12:26	MA45644-ICV1	1	See rerun						
12:31	MA45644-ICB1	1	X	X	X	X	X	X	
12:41	ZZZZZZ	1							
12:46	MA45644-ICV2	1	X						
12:51	MA45644-CCVA1	1	X	X	X	X	X	X	
12:56	MA45644-CCB1	1	X	X	X	X	X	X	
13:01	MA45644-CRI1	1	X	X	X	X	X	X	
13:06	MA45644-ICSA1	1	X	X	X	X	X	X	
13:11	MA45644-ICSAB1	1	X	X	X	X	X	X	
13:16	ZZZZZZ	1							
13:21	MA45644-CCVA2	1	X	X	X	X	X	X	
13:26	MA45644-CCB2	1	X	X	X	X	X	X	
13:31	ZZZZZZ	5							
13:36	ZZZZZZ	5							
13:41	ZZZZZZ	5							
13:46	MP10186A-S3	5							
13:51	MP10186A-S4	5							
13:56	ZZZZZZ	20							
14:01	ZZZZZZ	100							
14:06	ZZZZZZ	20							
14:11	MA45644-CCVA3	1	X	X	X	X	X	X	
14:16	MA45644-CCB3	1	X	X	X	X	X	X	
14:21	ZZZZZZ	20							
14:26	ZZZZZZ	100							
14:41	MP10165-MB1	2							
14:46	MP10165-SD1	10							
14:51	MP10165-B1	2							
14:56	MP10165-S1	2							
15:01	MP10165-S2	2							
15:06	JC76707-1R	2							(a)
15:11	MA45644-CCVA4	1	X	X	X	X	X	X	
15:19	MA45644-CCB4	1	X	X	X	X	X	X	
		Element:	Al	As	Ba	Cd	Fe	Pb	

REPORTED ELEMENTS SUMMARY

Login Number: JC77588
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XB111218M1L.CSV Date Analyzed: 11/12/18 Methods: EPA 200.8, SW846 6020B
Analyst: ZC Run ID: MA45644
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Element: Dilution	Al	As	Ba	Cd	Fe	Pb	
15:29	MP10376-MB1	2	X	X	X	X	X	X	
15:34	MP10376-B1	2	X	X	X	X	X	X	
15:39	MP10376-S1	2	X	X	X	X	X	X	
15:44	MP10376-S2	2	X	X	X	X	X	X	
15:49	JC77511-1	2					X		(a)
15:55	MP10376-SD1	10	X	X	X	X	X	X	
16:00	ZZZZZZ	2							
16:05	ZZZZZZ	2							
16:10	ZZZZZZ	2							
16:15	MA45644-CCVA5	1	X	X	X	X	X	X	
16:20	MA45644-CCB5	1	X	X	X	X	X	X	
16:25	ZZZZZZ	2							
16:30	ZZZZZZ	2							
16:35	ZZZZZZ	2							
16:40	ZZZZZZ	2							
16:45	JC77588-1A	2	X	X	X	X	X	X	
16:50	MP10385A-MB1	2		X					
16:56	MP10385A-B2	2		X					
17:01	MP10385A-S3	2		X					
17:06	MP10385A-S4	2		X					
17:11	MA45644-CCVA6	1	X	X	X	X	X	X	
17:16	MA45644-CCB6	1	X	X	X	X	X	X	
17:21	ZZZZZZ	2							
17:26	JC76358-25	2		X					(a)
17:31	MP10385A-SD1	10		X					
17:36	ZZZZZZ	2							
17:41	ZZZZZZ	1							
17:47	ZZZZZZ	2							
17:52	ZZZZZZ	2							
17:57	ZZZZZZ	2							
18:02	ZZZZZZ	2							
18:07	MA45644-CCVA7	1	X	X	X	X	X	X	
18:12	MA45644-CCB7	1	X	X	X	X	X	X	
		Element:	Al	As	Ba	Cd	Fe	Pb	

REPORTED ELEMENTS SUMMARY

Login Number: JC77588
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XB111218M1L.CSV Date Analyzed: 11/12/18 Methods: EPA 200.8, SW846 6020B
Analyst: ZC Run ID: MA45644
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Element: Dilution	Al	As	Ba	Cd	Fe	Pb
18:17	ZZZZZZ	2						
18:22	ZZZZZZ	2						
18:27	ZZZZZZ	2						
18:32	ZZZZZZ	2						
18:37	ZZZZZZ	1						
18:42	MP10365-MB1	1						X
18:47	MP10365-B1	1						X
18:52	MP10365-S1	1						X
18:57	MP10365-S2	1						X
19:02	MA45644-CCVA8	1	X	X	X	X	X	X
19:07	MA45644-CCB8	1	X	X	X	X	X	X
19:12	JC77502-35	1						X (a)
19:17	ZZZZZZ	1						
19:22	ZZZZZZ	1						
19:27	ZZZZZZ	1						
19:32	ZZZZZZ	1						
19:37	MA45644-CCVA9	1	X	X	X	X	X	X
19:42	MA45644-CCB9	1	X	X	X	X	X	X
19:47	ZZZZZZ	1						
19:52	ZZZZZZ	1						
19:57	ZZZZZZ	1						

(a) Sample used for QC only; not part of login JC77588.

Element:	Al	As	Ba	Cd	Fe	Pb

INTERNAL STANDARD SUMMARY

Login Number: JC77588
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XB111218M1L.CSV Date Analyzed: 11/12/18 Methods: EPA 200.8, SW846 6020B
Analyst: ZC Run ID: MA45644
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8
11:08	MA45644-STD1	100	100	100	100	100	100	100	100
11:13	MA45644-STD2	100	100	100	100	100	100	100	100
11:18	MA45644-STD3	100	100	100	100	100	100	100	100
11:23	MA45644-STD4	99.16	99.154	100.535	100.549	99.588	99.973	100.466	98.79
11:28	MA45644-STD5	99.5	99.434	98.81	99.853	100.344	99.213	100.653	98.407
11:33	MA45644-STD6	98.785	99.255	99.68	100.234	99.035	98.764	99.919	97.941
11:38	MA45644-STD7	99.258	97.839	97.732	99.72	99.046	98.014	98.73	98.407
11:43	MA45644-STD8	97.94	97.812	91.472	97.172	96.516	92.744	96.042	97.434
11:48	MA45644-STD9	96.85	96.597	96.402	96.521	98.083	96.07	93.924	94.514
11:53	MA45644-STD10	98.064	96.554	95.73	98.15	98.533	96.662	95.118	95.497
11:58	MA45644-STD11	97.052	96.097	97.109	95.614	95.461	94.986	92.882	92.72
12:03	MA45644-STD12	95.605	95.84	95.776	96.388	95.563	95.217	94.276	92.05
12:08	MA45644-STD13	100	100	100	100	100	100	100	100
12:13	MA45644-STD14	99.546	100.205	99.788	100.869	98.825	97.175	100.735	101.695
12:21	MA45644-ICVA1	98.332	97.96	95.97	97.337	98.369	95.102	95.3	95.411
12:26	MA45644-ICV1	No results reported for the elements associated with this internal standard.							
12:31	MA45644-ICB1	99.974	100.083	99.359	97.836	101.088	99.029	96.288	99.715
12:41	ZZZZZZ	No results reported for the elements associated with this internal standard.							
12:46	MA45644-ICV2	99.008	101.022	99.854	100.491	99.014	97.653	99.803	100.237
12:51	MA45644-CCVA1	97.811	98.924	96.254	98.609	97.381	95.771	97.183	95.757
12:56	MA45644-CCB1	98.532	100.055	98.491	100.156	98.939	97.704	99.396	99.48
13:01	MA45644-CRI1	98.122	99.509	99.409	99.723	98.912	97.891	98.976	98.702
13:06	MA45644-ICSA1	85.039	87.997	88.965	92.245	84.835	85.794	88.596	80.685
13:11	MA45644-ICSAB1	80.189	84.873	86.299	91.895	83.294	84.349	89.494	78.787
13:16	ZZZZZZ	No results reported for the elements associated with this internal standard.							
13:21	MA45644-CCVA2	86.46	90.096	89.434	96.753	93.111	91.375	93.443	91.911
13:26	MA45644-CCB2	89.569	93.692	92.254	96.791	94.822	94.307	95.151	96.688
13:31	ZZZZZZ	89.574	94.977	91.672	98.038	96.222	93.253	99.563	96.181
13:36	ZZZZZZ	91.285	96.267	92.793	101.423	97.116	92.368	100.03	95.888
13:41	ZZZZZZ	96.032	102.276	94.791	101.229	101.669	95.687	97.546	103.069
13:46	MP10186A-S3	90.179	94.982	91.246	98.094	95.481	93.125	100.4	93.981
13:51	MP10186A-S4	89.989	95.843	91.914	97.601	97.088	93.822	103.727	94.313
13:56	ZZZZZZ	92.977	98.422	95.255	101.413	98.411	95.396	98.757	96.745

INTERNAL STANDARD SUMMARY

Login Number: JC77588
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XB111218M1L.CSV Date Analyzed: 11/12/18 Methods: EPA 200.8, SW846 6020B
Analyst: ZC Run ID: MA45644
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8
14:01	ZZZZZZ	91.44	97.858	95.301	102.155	97.545	95.572	99.503	96.81
14:06	ZZZZZZ	93.034	99.565	95.863	101.564	99.873	96.526	99.733	97.892
14:11	MA45644-CCVA3	94.332	99.667	96.775	102.44	99.602	94.909	98.504	96.118
14:16	MA45644-CCB3	95.375	100.318	97.299	103.891	99.176	98.161	100.544	98.676
14:21	ZZZZZZ	93.815	99.442	96.344	103.117	99.476	96.53	100.938	97.79
14:26	ZZZZZZ	94.758	100.572	97.383	103.076	99.095	97.678	100.801	97.155
14:41	MP10165-MB1	92.567	98.051	92.587	99.753	100.331	96.035	130.632 !	96.678
14:46	MP10165-SD1	98.697	103.1	100.068	105.517	102.002	100.488	100.785	100.352
14:51	MP10165-B1	94.266	99.183	96.435	102.33	99.865	98.228	126.248	96.587
14:56	MP10165-S1	92.066	98.37	93.092	99.982	99.314	96.508	131.762 !	94.042
15:01	MP10165-S2	92.904	98.467	90.612	101.276	101.305	95.246	137.577 !	95.063
15:06	JC76707-1R	92.497	96.989	91.785	102.173	99.767	95.643	132.726 !	94.449
15:11	MA45644-CCVA4	95.809	102.077	100.153	105.959	99.893	98.674	100.822	96.379
15:19	MA45644-CCB4	98.474	102.92	100.933	105.842	101.104	100.489	101.29	99.885
15:29	MP10376-MB1	94.396	100.127	95.471	101.691	100.687	96.89	127.836	97.097
15:34	MP10376-B1	93.301	99.386	96.203	104.562	99.29	98.379	145.036	!a94.16
15:39	MP10376-S1	90.992	97.16	93.248	103.344	98.313	95.095	130.496	!a91.069
15:44	MP10376-S2	90.548	96.507	92.853	100.839	97.464	94.275	134.749	!a90.308
15:49	JC77511-1	90.384	96.547	91.875	101.133	97.655	94.716	133.897	!a92.038
15:55	MP10376-SD1	97.885	103.087	101.025	108.255	101.758	100.957	104.239	99.21
16:00	ZZZZZZ	87.919	94.256	89.147	96.986	93.547	91.156	128.506	86.238
16:05	ZZZZZZ	89.55	94.337	90.392	97.977	96.488	93.232	130.076	!a91.505
16:10	ZZZZZZ	86.277	93.43	89.278	96.376	94.009	91.772	125.259	85.997
16:15	MA45644-CCVA5	96.466	101.672	98.57	106.212	99.486	97.768	101.485	95.202
16:20	MA45644-CCB5	96.144	99.787	97.632	101.839	98.684	96.801	97.421	97.403
16:25	ZZZZZZ	88.986	94.338	89.218	96.417	95.348	90.447	115.917	89.289
16:30	ZZZZZZ	86.006	91.889	87.818	96.954	92.845	88.797	133.474	!a85.805
16:35	ZZZZZZ	88.342	93.253	88.126	95.532	94.955	91.025	121.032	90.803
16:40	ZZZZZZ	83.974	91.42	87.687	95.033	91.784	88.238	120.907	84.788
16:45	JC77588-1A	87.121	93.389	88.65	98.263	94.476	91.409	145.333	!a88.011
16:50	MP10385A-MB1	90.473	95.302	89.841	98.317	96.609	92.818	136.794	!a94.112
16:56	MP10385A-B2	87.966	92.946	88.377	98.424	94.29	90.537	120.161	90.377
17:01	MP10385A-S3	84.024	90.285	85.335	95.535	90.905	88.382	125.005	84.385

INTERNAL STANDARD SUMMARY

Login Number: JC77588
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XB111218M1L.CSV Date Analyzed: 11/12/18 Methods: EPA 200.8, SW846 6020B
Analyst: ZC Run ID: MA45644
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8
17:06	MP10385A-S4	82.353	88.654	84.26	94.55	90.285	87.207	118.977	84.512
17:11	MA45644-CCVA6	88.943	93.273	89.549	99.647	93.436	89.522	96.389	90.648
17:16	MA45644-CCB6	91.715	93.156	89.919	98.838	92.953	92.226	94.943	93.766
17:21	ZZZZZZ	87.046	89.685	85.819	94.833	92.532	89.105	125.673	91.312
17:26	JC76358-25	83.324	88.168	82.638	94.143	90.902	85.901	118.256	84.235
17:31	MP10385A-SD1	89.832	92.401	89.392	98.042	93.065	89.896	95.477	91.271
17:36	ZZZZZZ	82.046	86.981	80.812	91.788	88.538	84.075	118.153	82.958
17:41	ZZZZZZ	No results reported for the elements associated with this internal standard.							
17:47	ZZZZZZ	85.883	88.46	83.749	93.267	91.16	87.479	123.438	88.768
17:52	ZZZZZZ	78.574	84.544	78.926	90.293	85.648	82.419	112.223	79.755
17:57	ZZZZZZ	75.694	81.105	77.962	87.269	81.381	77.757	111.636	75.545
18:02	ZZZZZZ	79.163	82.183	77.285	88.579	84.876	81.399	131.828 !a	82.766
18:07	MA45644-CCVA7	84.189	85.797	82.884	92.39	86.912	83.309	90.433	85.934
18:12	MA45644-CCB7	85.283	86.15	83.693	92.745	87.133	86.166	89.44	88.25
18:17	ZZZZZZ	83.474	84.827	79.969	88.155	88.36	83.49	113.334	87.678
18:22	ZZZZZZ	79.971	82.433	78.061	86.897	84.288	80.544	122.831	81.694
18:27	ZZZZZZ	79.023	82.509	77.271	87.369	85.035	81.708	115.739	81.393
18:32	ZZZZZZ	79.347	81.716	76.516	86.81	84.561	80.672	106.046	81.865
18:37	ZZZZZZ	No results reported for the elements associated with this internal standard.							
18:42	MP10365-MB1	88.181	87.956	83.328	91.33	87.421	84.256	87.986	88.258
18:47	MP10365-B1	86.977	87.004	83.02	89.371	86.334	84.381	86.436	87.474
18:52	MP10365-S1	84.341	85.437	81.196	87.469	84.989	83.106	85.988	84.256
18:57	MP10365-S2	84.861	85.026	82.107	88.717	85.613	84.09	88.325	85.39
19:02	MA45644-CCVA8	83.907	83.435	80.711	89.393	84.302	81.497	85.835	83.11
19:07	MA45644-CCB8	84.268	84.72	81.412	90.025	84.375	82.662	87	86.085
19:12	JC77502-35	85.424	85.687	80.711	89.215	85.475	80.802	86.011	84.969
19:17	ZZZZZZ	84.814	85.377	80.119	88.258	85.166	82.505	85.668	84.094
19:22	ZZZZZZ	84.864	85.558	81.683	88.769	85.39	82.344	87.212	85.117
19:27	ZZZZZZ	85.22	85.391	82.238	88.031	85.051	82.763	84.123	84.447
19:32	ZZZZZZ	85.352	84.852	81.281	88.211	85.124	82.689	84.313	83.934
19:37	MA45644-CCVA9	83.689	83.635	81.669	89.838	83.565	81.191	85.92	82.406
19:42	MA45644-CCB9	85.683	84.17	83.019	89.356	84.974	82.598	86.606	85.388
19:47	ZZZZZZ	No results reported for the elements associated with this internal standard.							

INTERNAL STANDARD SUMMARY

Login Number: JC77588
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XB111218M1L.CSV Date Analyzed: 11/12/18 Methods: EPA 200.8, SW846 6020B
Analyst: ZC Run ID: MA45644
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8
19:52	ZZZZZZ	No results reported for the elements associated with this internal standard.							
19:57	ZZZZZZ	No results reported for the elements associated with this internal standard.							

! = Outside limits.

LEGEND:

Istd#	Parameter	Limits
Istd#1	Lithium	60-125 %
Istd#2	Scandium (45-1)	60-125 %
Istd#3	Scandium (45-2)	60-125 %
Istd#4	Scandium (45-3)	60-125 %
Istd#5	Germanium (74-1)	60-125 %
Istd#6	Germanium (74-2)	60-125 %
Istd#7	Germanium (74-3)	60-125 %
Istd#8	Rhodium (103-1)	60-125 %

(a) No samples reported for the elements associated with this internal standard.

INTERNAL STANDARD SUMMARY

Login Number: JC77588
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XB111218M1L.CSV Date Analyzed: 11/12/18 Methods: EPA 200.8, SW846 6020B
Analyst: ZC Run ID: MA45644
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16
11:08	MA45644-STD1	100	100	100	100	100	100	100	100
11:13	MA45644-STD2	100	100	100	100	100	100	100	100
11:18	MA45644-STD3	100	100	100	100	100	100	100	100
11:23	MA45644-STD4	100.204	99.975	98.587	100.044	98.156	99.088	99.477	97.707
11:28	MA45644-STD5	99.785	98.714	98.65	99.149	98.235	99.154	99.91	98.72
11:33	MA45644-STD6	99.813	98.619	98.277	98.852	99.122	99.178	99.432	101.026
11:38	MA45644-STD7	98.89	98.243	97.855	97.754	98.993	98.192	98.992	101.21
11:43	MA45644-STD8	92.631	95.513	96.322	91.552	96.933	91.946	96.942	97.714
11:48	MA45644-STD9	96.07	95.332	95.541	95.301	96.753	95.897	96.087	97.485
11:53	MA45644-STD10	95.449	94.715	96.011	95.327	97.925	95.746	95.979	96.683
11:58	MA45644-STD11	93.794	91.416	93.621	94.054	96.224	95.342	93.981	94.341
12:03	MA45644-STD12	92.155	91.685	92.315	92.588	95.675	95.344	94.893	93.479
12:08	MA45644-STD13	100	100	100	100	100	100	100	100
12:13	MA45644-STD14	97.587	99.989	99.861	96.734	97.2	97.753	100.312	98.638
12:21	MA45644-ICVA1	93.628	95.314	96.522	94.026	98.19	97.259	97.832	97.019
12:26	MA45644-ICV1	No results reported for the elements associated with this internal standard.							
12:31	MA45644-ICB1	98.592	97.312	100.632	98.647	99.424	99.587	97.495	101.721
12:41	ZZZZZZ	No results reported for the elements associated with this internal standard.							
12:46	MA45644-ICV2	98.046	99.127	98.678	98.036	98.803	98.563	98.622	98.293
12:51	MA45644-CCVA1	92.942	95.215	96.199	93.639	96.518	96.113	97.401	100.536
12:56	MA45644-CCB1	97.628	99.368	99.469	98.266	97.961	98.241	98.608	104.026
13:01	MA45644-CRI1	98.066	98.723	100.108	97.566	97.607	99.002	98.133	98.022
13:06	MA45644-ICSA1	79.998	83.386	84.898	83.387	88.742	88.106	91.285	87.002
13:11	MA45644-ICSAB1	79.358	84.016	83.702	82.816	88.696	87.224	91.935	86.872
13:16	ZZZZZZ	No results reported for the elements associated with this internal standard.							
13:21	MA45644-CCVA2	90.986	95.312	94.868	90.909	96.895	95.409	98.209	95.121
13:26	MA45644-CCB2	94.887	97.787	98.068	94.61	97.774	96.745	98.462	103.434
13:31	ZZZZZZ	94.997	97.994	98.691	93.102	98.607	95.624	97.911	97.714
13:36	ZZZZZZ	93.472	99.57	97.109	92.739	97.775	95.173	100.196	99.17
13:41	ZZZZZZ	95.869	99.514	103.955	94.608	104.304	96.816	99.275	110.369
13:46	MP10186A-S3	92.457	96.44	96.624	90.746	98.201	94.482	97.279	101.388
13:51	MP10186A-S4	93.165	96.425	97.165	90.927	97.734	95.027	97.089	97.865
13:56	ZZZZZZ	95.527	97.814	98.729	94.093	98.23	95.253	99.159	102.741

INTERNAL STANDARD SUMMARY

Login Number: JC77588
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XB111218M1L.CSV Date Analyzed: 11/12/18 Methods: EPA 200.8, SW846 6020B
Analyst: ZC Run ID: MA45644
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16
14:01	ZZZZZZ	95.118	100.199	99.189	94.853	96.293	95.175	99.864	97.794
14:06	ZZZZZZ	96.13	97.843	99.184	94.541	97.459	95.393	98.419	98.659
14:11	MA45644-CCVA3	93.496	96.741	98.009	92.01	97.098	94.668	98.165	104.798
14:16	MA45644-CCB3	97.961	100.494	99.061	96.416	98.386	96.064	98.681	105.626
14:21	ZZZZZZ	96.101	100.02	99.018	95.216	97.608	95.292	99.365	105.194
14:26	ZZZZZZ	95.588	99.106	97.876	95.337	97.295	95.595	98.696	105.869
14:41	MP10165-MB1	93.987	97.07	97.538	89.734	98.262	93.272	95.631	103.769
14:46	MP10165-SD1	98.684	100.998	101.559	97.219	99.216	96.469	99.135	107.726
14:51	MP10165-B1	94.298	97.025	97.53	91.805	97.367	94.867	96.913	107.057
14:56	MP10165-S1	91.619	95.27	95.043	89.311	96.429	92.676	96.198	102.591
15:01	MP10165-S2	90.607	95.383	97.699	87.527	96.74	91.76	96.133	107.134
15:06	JC76707-1R	92.313	98.571	96.609	89.795	96.096	92.006	97.349	105.281
15:11	MA45644-CCVA4	95.053	98.295	97.234	94.017	95.826	94.743	99.277	105.925
15:19	MA45644-CCB4	99.666	100.714	100.3	97.373	96.435	95.713	97.628	102.221
15:29	MP10376-MB1	94.854	95.7	97.524	91.738	97.124	93.232	94.558	106.865
15:34	MP10376-B1	93.728	97.586	96.329	90.327	95.586	92.958	96.685	106.753
15:39	MP10376-S1	88.948	94.862	93.681	87.513	95.366	90.546	96.676	101.798
15:44	MP10376-S2	88.501	93.429	93.348	87.204	94.075	90.348	95.168	104.811
15:49	JC77511-1	89.967	95.772	94.861	88.721	94.75	91.364	95.715	105.918
15:55	MP10376-SD1	96.476	102.764	99.528	96.45	97.066	94.502	99.528	107.632
16:00	ZZZZZZ	84.006	89.009	90.101	83.81	91.046	87.643	92.953	99.014
16:05	ZZZZZZ	89.103	93.098	93.327	86.604	94.772	89.604	94.427	100.81
16:10	ZZZZZZ	84.857	89.774	89.908	84.024	90.844	87.575	92.732	94.986
16:15	MA45644-CCVA5	93.573	99.234	96.428	93.05	94.644	93.46	98.129	107.39
16:20	MA45644-CCB5	96.332	97.689	98.027	94.479	94.983	93.17	95.475	106.676
16:25	ZZZZZZ	87.407	91.393	93.004	86.182	93.651	88.885	94.229	105.798
16:30	ZZZZZZ	83.797	89.697	89.966	83.621	91.602	88.375	93.436	104
16:35	ZZZZZZ	88.02	91.123	93.199	86.004	93.291	89.586	93.291	96.976
16:40	ZZZZZZ	83.536	88.089	88.714	82.803	90.256	86.875	91.991	98.273
16:45	JC77588-1A	85.944	92.129	92.038	85.375	93.796	89.412	95.03	106.267
16:50	MP10385A-MB1	91.73	95.372	96.02	88.866	95.411	91.302	94.966	109.02
16:56	MP10385A-B2	88.289	93.43	92.915	86.131	92.362	88.783	94.992	101.165
17:01	MP10385A-S3	82.568	88.377	88.952	81.822	91.578	87.35	93.293	99.699

INTERNAL STANDARD SUMMARY

Login Number: JC77588
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XB111218M1L.CSV Date Analyzed: 11/12/18 Methods: EPA 200.8, SW846 6020B
Analyst: ZC Run ID: MA45644
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16
17:06	MP10385A-S4	82.116	88.909	88.819	82.197	92.599	87.407	93.755	106.649
17:11	MA45644-CCVA6	88.062	94.813	92.877	88.255	93.697	90.321	96.483	108.039
17:16	MA45644-CCB6	91.787	96.397	94.904	90.343	94.096	90.922	95.044	107.173
17:21	ZZZZZZ	88.387	93.699	93.524	85.166	93.107	88.655	93.517	109.491
17:26	JC76358-25	81.592	89.183	88.806	81.646	90.753	86.598	93.275	105.358
17:31	MP10385A-SD1	88.98	95.038	94.017	89.339	93.341	90.851	96.411	107.758
17:36	ZZZZZZ	80.825	88.049	88.206	80.227	90.906	86.072	92.275	106.457
17:41	ZZZZZZ	No results reported for the elements associated with this internal standard.							
17:47	ZZZZZZ	86.922	92.329	91.546	83.896	92.696	87.836	93.032	107.002
17:52	ZZZZZZ	78.03	84.919	84.903	77.52	88.348	83.53	89.976	92.831
17:57	ZZZZZZ	73.553	79.953	81.814	75.165	86.304	81.693	87.236	90.224
18:02	ZZZZZZ	79.565	85.434	86.929	78.703	89.773	84.022	90.085	105.027
18:07	MA45644-CCVA7	82.508	89.625	88.234	82.105	89.889	85.669	92.171	99.605
18:12	MA45644-CCB7	86.61	91.714	91.343	85.051	90.281	87.609	91.659	94.315
18:17	ZZZZZZ	83.652	87.857	88.996	80.553	90.704	85.668	89.885	106.475
18:22	ZZZZZZ	78.541	83.426	85.831	77.529	89.428	83.628	87.859	93.487
18:27	ZZZZZZ	79.003	84.413	85.603	77.619	90.008	83.478	88.484	94.688
18:32	ZZZZZZ	79.23	84.11	85.625	77.092	89.177	82.995	87.567	99.763
18:37	ZZZZZZ	No results reported for the elements associated with this internal standard.							
18:42	MP10365-MB1	85.594	88.173	90.605	84.1	90.42	86.261	89.52	106.142
18:47	MP10365-B1	84.353	87.077	89.377	82.785	88.946	85.525	88.771	106.737
18:52	MP10365-S1	81.962	85.944	87.204	81.117	87.512	84.277	88.338	97.536
18:57	MP10365-S2	82.699	87.119	86.931	82.936	88.206	84.964	90.1	98.111
19:02	MA45644-CCVA8	81.076	86.027	85.915	80.235	88.134	84.227	88.694	93.245
19:07	MA45644-CCB8	83.437	87.419	87.1	81.826	87.861	84.855	88.635	105.413
19:12	JC77502-35	81.326	85.36	87.839	80.591	88.557	83.95	88.232	99.69
19:17	ZZZZZZ	80.82	85.342	87.481	80.443	87.957	83.677	87.616	92.895
19:22	ZZZZZZ	82.235	86.938	87.106	81.573	88.351	84.324	89.111	105.407
19:27	ZZZZZZ	81.874	84.46	88.203	81.928	88.67	84.233	88.281	99.165
19:32	ZZZZZZ	81.892	85.018	87.235	81.711	86.748	85.148	87.835	98.644
19:37	MA45644-CCVA9	80.75	86.3	84.892	80.896	86.439	83.95	88.454	90.756
19:42	MA45644-CCB9	84.103	88.215	87.99	83.11	87.95	85.318	88.361	99.707
19:47	ZZZZZZ	No results reported for the elements associated with this internal standard.							

INTERNAL STANDARD SUMMARY

Login Number: JC77588
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XB111218M1L.CSV Date Analyzed: 11/12/18 Methods: EPA 200.8, SW846 6020B
Analyst: ZC Run ID: MA45644
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16
19:52	ZZZZZZ	No results reported for the elements associated with this internal standard.							
19:57	ZZZZZZ	No results reported for the elements associated with this internal standard.							

! = Outside limits.

LEGEND:

Istd#	Parameter	Limits
Istd#9	Rhodium (103-2)	60-125 %
Istd#10	Rhodium (103-3)	60-125 %
Istd#11	Indium (115-1)	60-125 %
Istd#12	Indium (115-2)	60-125 %
Istd#13	Terbium (159-1)	60-125 %
Istd#14	Terbium (159-2)	60-125 %
Istd#15	Terbium (159-3)	60-125 %
Istd#16	Holmium (165-1)	60-125 %

INTERNAL STANDARD SUMMARY

Login Number: JC77588
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XB111218M1L.CSV Date Analyzed: 11/12/18 Methods: EPA 200.8, SW846 6020B
Analyst: ZC Run ID: MA45644
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Istd#17	Istd#18	Istd#19
11:08	MA45644-STD1	100	100	100
11:13	MA45644-STD2	100	100	100
11:18	MA45644-STD3	100	100	100
11:23	MA45644-STD4	99.364	99.442	99.069
11:28	MA45644-STD5	98.76	98.571	98.424
11:33	MA45644-STD6	99.428	98.864	98.31
11:38	MA45644-STD7	97.95	99.047	97.639
11:43	MA45644-STD8	91.736	97.538	92.489
11:48	MA45644-STD9	95.933	95.618	95.419
11:53	MA45644-STD10	95.807	96.554	94.911
11:58	MA45644-STD11	95.353	93.464	93.402
12:03	MA45644-STD12	94.979	92.064	91.105
12:08	MA45644-STD13	100	100	100
12:13	MA45644-STD14	97.701	100.319	97.939
12:21	MA45644-ICVA1	97.32	95.981	93.32
12:26	MA45644-ICV1	No results reported for the elements associated with this internal standard.		
12:31	MA45644-ICB1	98.795	99.753	98.967
12:41	ZZZZZZ	No results reported for the elements associated with this internal standard.		
12:46	MA45644-ICV2	98.284	101.164	98.138
12:51	MA45644-CCVA1	96.205	95.584	93.152
12:56	MA45644-CCB1	98.06	99.462	98.063
13:01	MA45644-CRI1	97.333	98.987	97.089
13:06	MA45644-ICSA1	87.562	81.946	79.391
13:11	MA45644-ICSAB1	87.547	81.764	79.641
13:16	ZZZZZZ	No results reported for the elements associated with this internal standard.		
13:21	MA45644-CCVA2	95.352	94.72	92.794
13:26	MA45644-CCB2	97.17	100.216	97.086
13:31	ZZZZZZ	96.147	98.968	95.734
13:36	ZZZZZZ	95.391	97.328	93.682
13:41	ZZZZZZ	96.984	105.056	96.987
13:46	MP10186A-S3	94.833	96.661	93.05
13:51	MP10186A-S4	94.815	95.537	92.935
13:56	ZZZZZZ	95.415	98.992	94.418

INTERNAL STANDARD SUMMARY

Login Number: JC77588
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XB111218M1L.CSV Date Analyzed: 11/12/18 Methods: EPA 200.8, SW846 6020B
Analyst: ZC Run ID: MA45644
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Istd#17	Istd#18	Istd#19
14:01	ZZZZZZ	95.096	98.437	94.158
14:06	ZZZZZZ	95.418	98.718	94.81
14:11	MA45644-CCVA3	94.297	95.021	91.121
14:16	MA45644-CCB3	96.661	97.635	95.49
14:21	ZZZZZZ	95.905	97.817	94.554
14:26	ZZZZZZ	95.564	97.235	93.803
14:41	MP10165-MB1	93.322	99.001	91.529
14:46	MP10165-SD1	96.124	98.801	95.487
14:51	MP10165-B1	94.643	93.691	90.231
14:56	MP10165-S1	92.613	93.306	87.516
15:01	MP10165-S2	92.12	93.894	86.995
15:06	JC76707-1R	92.458	94.896	89.599
15:11	MA45644-CCVA4	95.193	94.065	90.544
15:19	MA45644-CCB4	95.94	97.451	93.826
15:29	MP10376-MB1	93.4	95.669	90.785
15:34	MP10376-B1	93.458	92.098	88.605
15:39	MP10376-S1	91.91	89.702	84.406
15:44	MP10376-S2	91.501	89.021	83.899
15:49	JC77511-1	92.131	91.605	86.235
15:55	MP10376-SD1	95.313	95.948	92.812
16:00	ZZZZZZ	88.724	85.141	80.302
16:05	ZZZZZZ	90.393	91.758	86.033
16:10	ZZZZZZ	88.057	85.581	80.896
16:15	MA45644-CCVA5	93.533	92.007	88.601
16:20	MA45644-CCB5	93.791	94.238	91.561
16:25	ZZZZZZ	89.732	88.419	84.998
16:30	ZZZZZZ	89.381	85.656	79.995
16:35	ZZZZZZ	90.327	91.08	85.766
16:40	ZZZZZZ	87.665	85.098	80.498
16:45	JC77588-1A	89.484	89.434	84.413
16:50	MP10385A-MB1	91.721	94.771	88.71
16:56	MP10385A-B2	89.808	91.094	85.204
17:01	MP10385A-S3	88.339	85.468	79.82

INTERNAL STANDARD SUMMARY

Login Number: JC77588
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XB111218M1L.CSV Date Analyzed: 11/12/18 Methods: EPA 200.8, SW846 6020B
Analyst: ZC Run ID: MA45644
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Istd#17	Istd#18	Istd#19
17:06	MP10385A-S4	88.835	85.618	80.537
17:11	MA45644-CCVA6	90.817	92.102	86.581
17:16	MA45644-CCB6	92.382	94.409	90.227
17:21	ZZZZZZ	89.472	93.475	87.132
17:26	JC76358-25	87.873	86.038	80.62
17:31	MP10385A-SD1	91.526	92.468	88.656
17:36	ZZZZZZ	86.754	87.169	80.407
17:41	ZZZZZZ	No results reported for the elements associated with this internal standard.		
17:47	ZZZZZZ	88.036	92.402	85.299
17:52	ZZZZZZ	84.464	83.325	76.596
17:57	ZZZZZZ	82.349	78.261	72.565
18:02	ZZZZZZ	84.844	87.413	79.774
18:07	MA45644-CCVA7	87.097	89.448	83.702
18:12	MA45644-CCB7	88.146	92.04	87.246
18:17	ZZZZZZ	86.759	92.053	84.433
18:22	ZZZZZZ	84.652	86.717	79.179
18:27	ZZZZZZ	84.005	85.714	79.651
18:32	ZZZZZZ	84.198	85.288	78.713
18:37	ZZZZZZ	No results reported for the elements associated with this internal standard.		
18:42	MP10365-MB1	86.676	92.151	86.242
18:47	MP10365-B1	85.795	90.6	85.418
18:52	MP10365-S1	84.873	88.604	83.138
18:57	MP10365-S2	85.991	88.095	83.63
19:02	MA45644-CCVA8	85.27	85.575	81.423
19:07	MA45644-CCB8	85.172	88.707	83.888
19:12	JC77502-35	84.055	88.858	82.474
19:17	ZZZZZZ	84.117	88.732	81.741
19:22	ZZZZZZ	85.323	88.179	82.741
19:27	ZZZZZZ	84.864	88.946	82.946
19:32	ZZZZZZ	85.737	87.544	82.307
19:37	MA45644-CCVA9	84.625	85.53	81.09
19:42	MA45644-CCB9	85.605	88.517	83.661
19:47	ZZZZZZ	No results reported for the elements associated with this internal standard.		

INTERNAL STANDARD SUMMARY

Login Number: JC77588
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XB111218M1L.CSV Date Analyzed: 11/12/18 Methods: EPA 200.8, SW846 6020B
Analyst: ZC Run ID: MA45644
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Istd#17	Istd#18	Istd#19
19:52	ZZZZZZ	No results reported for the elements associated with this internal standard.		
19:57	ZZZZZZ	No results reported for the elements associated with this internal standard.		

! = Outside limits.

LEGEND:

Istd#	Parameter	Limits
Istd#17	Holmium (165-2)	60-125 %
Istd#18	Bismuth (209-1)	60-125 %
Istd#19	Bismuth (209-2)	60-125 %

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC77588
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XB111218M1L.CSV Date Analyzed: 11/12/18 Methods: EPA 200.8, SW846 6020B
QC Limits: result < 1/2 RL Run ID: MA45644 Units: ug/l

Time: / Sample ID:				12:31 ICB1		12:56 CCB1		13:26 CCB2	
Metal	RL	IDL	LOD	raw	final	raw	final	raw	final
Aluminum	25	.51	20	-0.277	<25	-0.155	<25	0.902	<25
Antimony	2.0	.013	1.5						
Arsenic	0.50	.008	1.0	-0.0138	<1.5	-0.00149	<1.5	-0.00519	<1.5
Barium	1.0	.006	0.50	0.000922	<1.0	0.0133	<1.0	0.0105	<1.0
Beryllium	0.50	.002	0.25						
Boron	25	.71	20						
Cadmium	0.50	.004	2.0	0.00408	<3.0	0.00693	<3.0	0.00428	<3.0
Calcium	250	.82	50						
Chromium	1.0	.011	3.0						
Cobalt	0.50	.003	0.25						
Copper	2.0	.012	4.0						
Iron	25	.38	13	-0.450	<25	-0.173	<25	0.761	<25
Lead	0.50	.003	1.0	0.000462	<1.5	0.00588	<1.5	0.00358	<1.5
Magnesium	250	.41	130						
Manganese	1.0	.005	1.0						
Molybdenum	1.0	.023	0.50						
Nickel	1.0	.007	3.0						
Potassium	250	1.1	50						
Selenium	0.50	.062	0.50						
Silver	0.50	.002	0.50						
Sodium	250	.85	100						
Strontium	5.0	.01	5.0						
Thallium	0.50	.006	0.50						
Tin	5.0	.025	2.5						
Titanium	1.0	.042	1.0						
Vanadium	1.0	.018	1.0						
Zinc	5.0	.058	7.5						

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC77588
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XB111218M1L.CSV Date Analyzed: 11/12/18 Methods: EPA 200.8, SW846 6020B
QC Limits: result < 1/2 RL Run ID: MA45644 Units: ug/l

Time: / Sample ID:				14:16 CCB3		15:19 CCB4		16:20 CCB5	
Metal	RL	IDL	LOD	raw	final	raw	final	raw	final
Aluminum	25	.51	20	-0.134	<25	-0.321	<25	-0.0957	<25
Antimony	2.0	.013	1.5						
Arsenic	0.50	.008	1.0	0.000614	<0.50	-0.00389	<0.50	-0.00421	<0.50
Barium	1.0	.006	0.50	0.00378	<1.0	0.00303	<1.0	0.0214	<1.0
Beryllium	0.50	.002	0.25						
Boron	25	.71	20						
Cadmium	0.50	.004	2.0	0.00284	<0.50	0.00140	<0.50	0.00147	<0.50
Calcium	250	.82	50						
Chromium	1.0	.011	3.0						
Cobalt	0.50	.003	0.25						
Copper	2.0	.012	4.0						
Iron	25	.38	13	-0.110	<25	-0.384	<25	-0.181	<25
Lead	0.50	.003	1.0	0.00218	<0.50	0.00176	<0.50	0.00464	<0.50
Magnesium	250	.41	130						
Manganese	1.0	.005	1.0						
Molybdenum	1.0	.023	0.50						
Nickel	1.0	.007	3.0						
Potassium	250	1.1	50						
Selenium	0.50	.062	0.50						
Silver	0.50	.002	0.50						
Sodium	250	.85	100						
Strontium	5.0	.01	5.0						
Thallium	0.50	.006	0.50						
Tin	5.0	.025	2.5						
Titanium	1.0	.042	1.0						
Vanadium	1.0	.018	1.0						
Zinc	5.0	.058	7.5						

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC77588
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XB111218M1L.CSV Date Analyzed: 11/12/18 Methods: EPA 200.8, SW846 6020B
QC Limits: result < 1/2 RL Run ID: MA45644 Units: ug/l

Time:				17:16	
Sample ID:				CCB6	
Metal	RL	IDL	LOD	raw	final
Aluminum	25	.51	20	-0.232	<25
Antimony	2.0	.013	1.5		
Arsenic	0.50	.008	1.0	-0.000488	<0.50
Barium	1.0	.006	0.50	0.00700	<1.0
Beryllium	0.50	.002	0.25		
Boron	25	.71	20		
Cadmium	0.50	.004	2.0	0.00762	<0.50
Calcium	250	.82	50		
Chromium	1.0	.011	3.0		
Cobalt	0.50	.003	0.25		
Copper	2.0	.012	4.0		
Iron	25	.38	13	-0.189	<25
Lead	0.50	.003	1.0	0.00625	<0.50
Magnesium	250	.41	130		
Manganese	1.0	.005	1.0		
Molybdenum	1.0	.023	0.50		
Nickel	1.0	.007	3.0		
Potassium	250	1.1	50		
Selenium	0.50	.062	0.50		
Silver	0.50	.002	0.50		
Sodium	250	.85	100		
Strontium	5.0	.01	5.0		
Thallium	0.50	.006	0.50		
Tin	5.0	.025	2.5		
Titanium	1.0	.042	1.0		
Vanadium	1.0	.018	1.0		
Zinc	5.0	.058	7.5		

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC77588
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XB111218M1L.CSV Date Analyzed: 11/12/18 Methods: EPA 200.8, SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA45644 Units: ug/l

Time:		12:21			12:46			12:51	
Sample ID:	ICVA	ICVA1		ICV	ICV2		CCVA	CCVA1	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	5500	5470	99.5	60	63.5	105.8	5000	4920	98.4
Antimony									
Arsenic	60	62.0	103.3				50	48.4	96.8
Barium	60	60.6	101.0				50	49.3	98.6
Beryllium									
Boron									
Cadmium	60	60.8	101.3				50	48.9	97.8
Calcium									
Chromium									
Cobalt									
Copper									
Iron	5500	5570	101.3				5000	5070	101.4
Lead	60	62.1	103.5				50	49.5	99.0
Magnesium									
Manganese	anr								
Molybdenum									
Nickel									
Potassium									
Selenium									
Silver									
Sodium	anr								
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium									
Zinc									

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC77588
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XB111218M1L.CSV Date Analyzed: 11/12/18 Methods: EPA 200.8, SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA45644 Units: ug/l

Time:		13:21			14:11			15:11	
Sample ID:	CCVA	CCVA2		CCVA	CCVA3		CCVA	CCVA4	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	5000	4760	95.2	5000	4740	94.8	5000	4760	95.2
Antimony									
Arsenic	50	49.3	98.6	50	48.5	97.0	50	48.5	97.0
Barium	50	47.9	95.8	50	49.5	99.0	50	49.1	98.2
Beryllium									
Boron									
Cadmium	50	48.9	97.8	50	49.3	98.6	50	48.6	97.2
Calcium									
Chromium									
Cobalt									
Copper									
Iron	5000	5120	102.4	5000	5070	101.4	5000	5110	102.2
Lead	50	50.0	100.0	50	49.4	98.8	50	49.1	98.2
Magnesium									
Manganese	anr								
Molybdenum									
Nickel									
Potassium									
Selenium									
Silver									
Sodium	anr								
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium									
Zinc									

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC77588
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XB111218M1L.CSV Date Analyzed: 11/12/18 Methods: EPA 200.8, SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA45644 Units: ug/l

Time:		16:15			17:11	
Sample ID:	CCVA	CCVA5		CCVA	CCVA6	
Metal	True	Results	% Rec	True	Results	% Rec
Aluminum	5000	4790	95.8	5000	4780	95.6
Antimony						
Arsenic	50	47.9	95.8	50	49.4	98.8
Barium	50	48.9	97.8	50	50.1	100.2
Beryllium						
Boron						
Cadmium	50	48.7	97.4	50	50.1	100.2
Calcium						
Chromium						
Cobalt						
Copper						
Iron	5000	5160	103.2	5000	5320	106.4
Lead	50	49.2	98.4	50	49.3	98.6
Magnesium						
Manganese	anr					
Molybdenum						
Nickel						
Potassium						
Selenium						
Silver						
Sodium	anr					
Strontium						
Thallium	anr					
Tin						
Titanium						
Vanadium						
Zinc						

(*) Outside of QC limits
(anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC77588
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XB111218M1L.CSV Date Analyzed: 11/12/18 Methods: EPA 200.8, SW846 6020B
QC Limits: 80 to 120 % Recovery Run ID: MA45644 Units: ug/l

Time:			13:01	
Sample ID:	CRI	CRIA	CRI1	
Metal	True	True	Results	% Rec
Aluminum	25	25	25.4	101.6
Antimony	2.0	0.25		
Arsenic	0.50	0.50	0.476	95.2
Barium	1.0	0.50	1.00	100.0
Beryllium	0.50	0.25		
Boron	25	2.5		
Cadmium	0.50	0.25	0.490	98.0
Calcium	250	125		
Chromium	1.0	2.0		
Cobalt	0.50	0.25		
Copper	2.0	2.0		
Iron	25	25	24.6	98.4
Lead	0.50	0.25	0.491	98.2
Magnesium	250	125		
Manganese	1.0	0.25	anr	
Molybdenum	1.0	0.50		
Nickel	1.0	2.0		
Potassium	250	125		
Selenium	0.50	0.50		
Silver	0.50	1.0		
Sodium	250	125	anr	
Strontium	5.0	0.50		
Thallium	0.50	0.25	anr	
Tin	5.0	0.50		
Titanium	1.0	0.50		
Vanadium	1.0	2.0		
Zinc	5.0	2.0		

(*) Outside of QC limits
(anr) Analyte not requested

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: JC77588
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XB111218M1L.CSV Date Analyzed: 11/12/18 Methods: EPA 200.8, SW846 6020B
QC Limits: 80 to 120 % Recovery Run ID: MA45644 Units: ug/l

Time:			13:06		13:11	
Sample ID:	ICSA	ICSAB	ICSA1		ICSAB1	
Metal	True	True	Results	% Rec	Results	% Rec
Aluminum	100000	100000	95900	95.9	97600	97.6
Antimony			0.0718		0.104	
Arsenic		20	0.0881		22.5	112.5
Barium			0.164		0.158	
Beryllium			0.00527		0.00555	
Boron		50	6.90		53.3	106.6
Cadmium		20	0.322		21.8	109.0
Calcium	100000	100000	99100	99.1	101000	101.0
Chromium		20	0.244		23.3	116.5
Cobalt		20	0.0953		22.6	113.0
Copper		20	0.314		21.2	106.0
Iron	100000	100000	93600	93.6	97800	97.8
Lead			0.0945		0.183	
Magnesium	100000	100000	92300	92.3	93800	93.8
Manganese		20	0.314		23.9	119.5
Molybdenum	2000	2000	2200	110.0	2260	113.0
Nickel		20	0.709		22.2	111.0
Potassium	100000	100000	99200	99.2	101000	101.0
Selenium		20	0.0457		19.6	98.0
Silver		20	0.0290		21.3	106.5
Sodium	100000	100000	95200	95.2	96300	96.3
Strontium	2000	2000	2140	107.0	2170	108.5
Thallium			0.0152		0.0127	
Tin	2000	2000	1920	96.0	1950	97.5
Titanium	2000	2000	1840	92.0	1910	95.5
Vanadium		20	0.0355		21.0	105.0
Zinc		20	0.769		21.2	106.0

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: JC77588
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

QC Batch ID: MP10376
Matrix Type: AQUEOUS

Methods: SW846 6020B
Units: ug/l

Prep Date: 11/10/18

Metal	RL	IDL	MDL	MB raw	final
Aluminum	50	1	32	3.5	<50
Antimony	4.0	.026	1.7		
Arsenic	1.0	.016	.94	0.076	<1.0
Barium	2.0	.012	.73	0.019	<2.0
Beryllium	1.0	.004	.15		
Boron	50	1.4	14		
Cadmium	1.0	.008	.17	0.0032	<1.0
Calcium	500	1.6	64		
Chromium	2.0	.022	.62		
Cobalt	1.0	.006	.17		
Copper	4.0	.024	1.9		
Iron	50	.76	19	1.6	<50
Lead	1.0	.006	.52	0.036	<1.0
Magnesium	500	.81	46		
Manganese	2.0	.01	.63		
Molybdenum	2.0	.046	.45		
Nickel	2.0	.014	.95		
Potassium	500	2.3	68		
Selenium	1.0	.12	.55		
Silver	1.0	.004	.16		
Sodium	500	1.7	140		
Strontium	10	.02	2.4		
Thallium	1.0	.012	.17		
Tin	10	.05	2.6		
Titanium	2.0	.084	1.6		
Vanadium	2.0	.036	1.8		
Zinc	10	.12	5.4		

Associated samples MP10376: JC77588-1A

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC77588
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

QC Batch ID: MP10376
Matrix Type: AQUEOUS

Methods: SW846 6020B
Units: ug/l

Prep Date: 11/10/18

Metal	JC77511-1 Original	MS	Spikelot MP6020AQ3%	Rec	QC Limits
Aluminum	30.6	3590	4000	89.0	75-125
Antimony					
Arsenic	0.22	74.7	80	93.1	75-125
Barium	36.3	114	80	97.1	75-125
Beryllium					
Boron					
Cadmium	0.060	76.8	80	95.9	75-125
Calcium					
Chromium					
Cobalt					
Copper					
Iron	34.5	3570	4000	88.4	75-125
Lead	0.26	81.1	80	101.1	75-125
Magnesium					
Manganese					
Molybdenum					
Nickel					
Potassium					
Selenium					
Silver					
Sodium					
Strontium					
Thallium					
Tin					
Titanium					
Vanadium					
Zinc					

Associated samples MP10376: JC77588-1A

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC77588
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

QC Batch ID: MP10376
Matrix Type: AQUEOUS

Methods: SW846 6020B
Units: ug/l

Prep Date: 11/10/18

Metal	JC77511-1 Original	MSD	Spikelot MP6020AQ3%	Rec	MSD RPD	QC Limit
Aluminum	30.6	3820	4000	94.7	6.2	20
Antimony						
Arsenic	0.22	74.2	80	92.5	0.7	20
Barium	36.3	117	80	100.9	2.6	20
Beryllium						
Boron						
Cadmium	0.060	78.2	80	97.7	1.8	20
Calcium						
Chromium						
Cobalt						
Copper						
Iron	34.5	4130	4000	102.4	14.5	20
Lead	0.26	82.7	80	103.1	2.0	20
Magnesium						
Manganese						
Molybdenum						
Nickel						
Potassium						
Selenium						
Silver						
Sodium						
Strontium						
Thallium						
Tin						
Titanium						
Vanadium						
Zinc						

Associated samples MP10376: JC77588-1A

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: JC77588
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

QC Batch ID: MP10376
Matrix Type: AQUEOUS

Methods: SW846 6020B
Units: ug/l

Prep Date: 11/10/18

Metal	BSP Result	Spikelot MP6020AQ3%	Rec	QC Limits
Aluminum	3870	4000	96.8	80-120
Antimony				
Arsenic	74.3	80	92.9	80-120
Barium	79.1	80	98.9	80-120
Beryllium				
Boron				
Cadmium	78.2	80	97.8	80-120
Calcium				
Chromium				
Cobalt				
Copper				
Iron	4210	4000	105.3	80-120
Lead	81.5	80	101.9	80-120
Magnesium				
Manganese				
Molybdenum				
Nickel				
Potassium				
Selenium				
Silver				
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Vanadium				
Zinc				

Associated samples MP10376: JC77588-1A

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: JC77588
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

QC Batch ID: MP10376
Matrix Type: AQUEOUS

Methods: SW846 6020B
Units: ug/l

Prep Date: 11/10/18

Metal	JC77511-1 Original	SDL 2:10	%DIF	QC Limits
Aluminum	30.6	35.4	16.0 (a)	0-10
Antimony				
Arsenic	0.224	0.117	47.9 (a)	0-10
Barium	36.3	36.9	1.7	0-10
Beryllium				
Boron				
Cadmium	0.0601	0.181	201.9(a)	0-10
Calcium				
Chromium				
Cobalt				
Copper				
Iron	34.5	35.6	3.0	0-10
Lead	0.257	0.388	51.0 (a)	0-10
Magnesium				
Manganese				
Molybdenum				
Nickel				
Potassium				
Selenium				
Silver				
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Vanadium				
Zinc				

Associated samples MP10376: JC77588-1A

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested
(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

Instrument Detection Limits

Job Number: JC77588
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Instrument ID: AGICPMS2 **Effective Date:** 06/06/18

Analyte	IDL ug/l
Aluminum	.287
Aluminum	.511
Antimony	.013
Arsenic	.901
Arsenic	.008
Barium	.006
Beryllium	.002
Boron	.708
Cadmium	.012
Cadmium	.004
Calcium	.822
Chromium	.059
Chromium	.011
Cobalt	.005
Cobalt	.003
Copper	.141
Copper	.012
Iron	2.742
Iron	.378
Lead	.003
Magnesium	.108
Magnesium	.407
Manganese	.024
Manganese	.005
Molybdenum	.023
Nickel	.171
Nickel	.007
Potassium	2.294
Potassium	1.13
Selenium	1.012
Selenium	.062
Silver	.002
Sodium	.658
Sodium	.851
Strontium	.01
Thallium	.006
Tin	.035
Tin	.025
Titanium	.026
Titanium	.042
Vanadium	.192
Vanadium	.018
Zinc	.111
Zinc	.058

Instrument Detection Limits

Job Number: JC77588
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Instrument ID: AGICPMS2	**Effective Date:** 06/06/18

Analyte	**IDL ug/l**

The above applies to the following instrument runs:
MA45644

Instrument Linear Ranges

Job Number: JC77588
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Instrument ID: AGICPMS2 **Effective Date:** 09/10/18

Analyte	Linear Range ug/l
Aluminum	10000
Aluminum	10000
Antimony	100
Arsenic	100
Arsenic	100
Barium	100
Beryllium	100
Boron	200
Cadmium	100
Cadmium	100
Calcium	10000
Chromium	100
Chromium	100
Cobalt	100
Cobalt	100
Copper	100
Copper	100
Iron	10000
Iron	10000
Lithium	100
Lead	100
Magnesium	10000
Magnesium	10000
Manganese	100
Manganese	100
Molybdenum	100
Nickel	100
Nickel	100
Potassium	10000
Potassium	10000
Selenium	400
Selenium	400
Silver	100
Sodium	10000
Sodium	10000
Strontium	100
Thallium	100
Tin	100
Tin	100
Titanium	100
Titanium	100
Tungsten	100
Uranium	100
Vanadium	100
Vanadium	100
Zinc	100

Instrument Linear Ranges

Job Number: JC77588
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Instrument ID: AGICPMS2 **Effective Date:** 09/10/18

Analyte	Linear Range ug/l
Zinc	100

The above applies to the following instrument runs:
MA45644

Metals Analysis

Raw Data

Quantitation Report

File Name	001CALB.d
File Path	C:\Agilent\ICPMH\1\DATA\.b111218m1.b
Method File	
Method Path	
Acq Time	11/12/2018 11:08
Sample Name	STDA 4
Sample Type	CalBlk
Comment	0
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	11/13/2018 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.001	ug/l	31.20	30.67	1.645E-05	Pulse	0.25	3
B			1	-0.944	ug/l	-4.93	4,527.51	2.429E-03	Pulse	0.15	3
Ca			1	2.459	ug/l	21.54	29,923.05	1.066E-02	Pulse	0.10	3
Sr			1	0.002	ug/l	88.51	410.02	1.550E-04	Pulse	0.10	3
Mo			1	0.003	ug/l	121.25	30.00	1.133E-05	Pulse	0.10	3
Ag			1	-0.003	ug/l	-13.36	6.67	2.518E-06	Pulse	0.10	3
Sn			1	-0.002	ug/l	-240.41	270.01	1.021E-04	Pulse	0.10	3
Sb			1	-0.022	ug/l	-7.33	53.33	1.742E-05	Pulse	0.10	3
Ba			1	0.005	ug/l	157.33	40.00	1.322E-05	Pulse	0.10	3
Tl			1	-0.002	ug/l	-22.03	23.33	1.436E-05	Pulse	0.10	3
Pb			1	-0.002	ug/l	-165.31	23.33	1.449E-05	Pulse	0.10	3
Pb			1	0.004	ug/l	3.35	40.00	2.458E-05	Pulse	0.10	3
Pb			1	0.001	ug/l	234.42	180.01	1.110E-04	Pulse	0.10	3
Na			2	-0.769	ug/l	-44.40	4,382.44	3.951E-02	Pulse	0.30	3
Mg			2	-0.482	ug/l	-1.84	22.22	2.002E-04	Pulse	0.30	3
Al			2	-0.499	ug/l	-14.35	17.78	1.609E-04	Pulse	0.30	3
K			2	-0.068	ug/l	-966.80	6,916.24	6.239E-02	Pulse	0.30	3
Ca			2	-1.700	ug/l	-51.00	160.00	1.444E-03	Pulse	0.30	3
Ti			2	0.010	ug/l	173.21	1.11	1.006E-05	Pulse	0.30	3
V			2	0.015	ug/l	37.80	436.68	3.938E-03	Pulse	0.30	3
Cr			2	0.003	ug/l	485.70	327.79	2.953E-03	Pulse	0.30	3
Mn			2	-0.001	ug/l	-205.36	8.89	7.997E-05	Pulse	0.30	3
Fe			2	-0.593	ug/l	-3.05	1,145.62	1.033E-02	Pulse	0.30	3
Co			2	-0.002	ug/l	-42.03	26.67	2.402E-04	Pulse	0.30	3
Ni			2	0.001	ug/l	425.34	22.22	2.009E-04	Pulse	0.30	3
Cu			2	0.029	ug/l	24.58	327.79	2.955E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	0.007	ug/l	222.27	58.89	5.310E-04	Pulse	0.30	3
As			2	-0.009	ug/l	-34.57	4.67	4.213E-05	Pulse	1.00	3
Cd			2	0.000	ug/l	-6655.77	1.82	4.215E-06	Pulse	0.30	3
Sn			2	0.000	ug/l	3014.45	61.11	1.433E-04	Pulse	0.30	3
Se			3	0.928	ug/l	48.27	66.00	1.234E-03	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,863,979.27	0.35	100.0	Pulse	0.10	3
1	Sc		2,807,440.27	0.61	100.0	Pulse	0.10	3
1	Ge		612,957.88	0.60	100.0	Pulse	0.10	3
1	Rh		2,643,386.21	1.46	100.0	Pulse	0.10	3
1	In		2,642,472.19	0.72	100.0	Pulse	0.10	3
1	Tb		3,056,226.31	1.90	100.0	Pulse	0.10	3
1	Ho		5,964,817.83	1.63	100.0	Analog	0.10	3
1	Bi		1,627,896.90	1.80	100.0	Pulse	0.10	3
2	Sc		110,869.59	0.97	100.0	Pulse	0.30	3
2	Ge		77,894.71	1.44	100.0	Pulse	0.30	3
2	Rh		1,230,031.86	1.55	100.0	Pulse	0.30	3
2	In		426,767.42	1.23	100.0	Pulse	0.30	3
2	Tb		1,266,886.48	1.72	100.0	Pulse	0.30	3
2	Ho		2,432,922.47	1.18	100.0	Pulse	0.30	3
2	Bi		698,451.08	0.35	100.0	Pulse	0.30	3
3	Sc		61,649.23	1.31	100.0	Pulse	0.30	3
3	Ge		53,571.22	1.05	100.0	Pulse	0.30	3
3	Rh		517,298.05	0.05	100.0	Pulse	0.30	3
3	Tb		781,790.85	0.32	100.0	Pulse	0.30	3

Quantitation Report

File Name	002CALB.d
File Path	C:\Agilent\ICPMH\1\DATA\.b111218m1.b
Method File	
Method Path	
Acq Time	11/12/2018 11:13
Sample Name	STDA 4
Sample Type	CalBlk
Comment	0
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	11/13/2018 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.002	ug/l	19.62	34.67	1.885E-05	Pulse	0.25	3
B			1	-0.971	ug/l	-4.80	4,327.44	2.353E-03	Pulse	0.15	3
Ca			1	1.953	ug/l	78.05	29,375.50	1.051E-02	Pulse	0.10	3
Sr			1	0.000	ug/l	174.48	373.35	1.410E-04	Pulse	0.10	3
Mo			1	-0.001	ug/l	-83.31	6.67	2.537E-06	Pulse	0.10	3
Ag			1	-0.002	ug/l	-110.36	26.67	1.017E-05	Pulse	0.10	3
Sn			1	-0.002	ug/l	-164.72	263.35	1.011E-04	Pulse	0.10	3
Sb			1	-0.022	ug/l	-5.10	50.00	1.633E-05	Pulse	0.10	3
Ba			1	0.000	ug/l	-16.43	20.00	6.528E-06	Pulse	0.10	3
Tl			1	-0.002	ug/l	-25.19	10.00	6.281E-06	Pulse	0.10	3
Pb			1	0.001	ug/l	8.68	40.00	2.497E-05	Pulse	0.10	3
Pb			1	0.000	ug/l	618.48	20.00	1.247E-05	Pulse	0.10	3
Pb			1	-0.001	ug/l	-107.54	126.67	7.917E-05	Pulse	0.10	3
Na			2	-0.873	ug/l	-12.90	4,256.26	3.872E-02	Pulse	0.30	3
Mg			2	-0.503	ug/l	-0.05	13.33	1.213E-04	Pulse	0.30	3
Al			2	-0.522	ug/l	-18.09	14.45	1.314E-04	Pulse	0.30	3
K			2	-0.219	ug/l	-134.15	6,813.95	6.199E-02	Pulse	0.30	3
Ca			2	-1.459	ug/l	-177.96	162.23	1.478E-03	Pulse	0.30	3
Ti			2	0.010	ug/l	173.21	1.11	1.002E-05	Pulse	0.30	3
V			2	0.016	ug/l	109.73	434.46	3.950E-03	Pulse	0.30	3
Cr			2	0.007	ug/l	97.78	344.45	3.134E-03	Pulse	0.30	3
Mn			2	0.003	ug/l	198.94	16.67	1.521E-04	Pulse	0.30	3
Fe			2	-0.594	ug/l	-0.28	1,128.95	1.027E-02	Pulse	0.30	3
Co			2	0.000	ug/l	-793.13	38.89	3.548E-04	Pulse	0.30	3
Ni			2	0.000	ug/l	-5205.35	20.00	1.818E-04	Pulse	0.30	3
Cu			2	0.015	ug/l	53.74	258.90	2.355E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	0.012	ug/l	255.39	61.11	5.563E-04	Pulse	0.30	3
As			2	-0.002	ug/l	-451.48	7.33	6.680E-05	Pulse	1.00	3
Cd			2	0.000	ug/l	-7131.01	1.83	4.223E-06	Pulse	0.30	3
Sn			2	0.000	ug/l	3130.64	61.11	1.432E-04	Pulse	0.30	3
Se			3	0.036	ug/l	253.41	26.73	5.090E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,839,619.95	1.10	100.0	Pulse	0.10	3
1	Sc		2,794,835.17	0.93	100.0	Pulse	0.10	3
1	Ge		606,505.93	0.52	100.0	Pulse	0.10	3
1	Rh		2,649,091.68	1.51	100.0	Pulse	0.10	3
1	In		2,605,711.61	1.01	100.0	Pulse	0.10	3
1	Tb		3,063,873.60	0.71	100.0	Pulse	0.10	3
1	Ho		5,988,384.91	0.62	100.0	Analog	0.10	3
1	Bi		1,601,855.03	0.92	100.0	Pulse	0.10	3
2	Sc		109,921.59	0.83	100.0	Pulse	0.30	3
2	Ge		76,956.23	1.75	100.0	Pulse	0.30	3
2	Rh		1,222,261.38	0.95	100.0	Pulse	0.30	3
2	In		426,904.50	1.23	100.0	Pulse	0.30	3
2	Tb		1,269,133.35	1.53	100.0	Pulse	0.30	3
2	Ho		2,418,356.09	1.57	100.0	Pulse	0.30	3
2	Bi		696,192.32	0.40	100.0	Pulse	0.30	3
3	Sc		60,450.52	1.11	100.0	Pulse	0.30	3
3	Ge		52,431.32	1.93	100.0	Pulse	0.30	3
3	Rh		512,502.74	0.72	100.0	Pulse	0.30	3
3	Tb		768,926.60	0.47	100.0	Pulse	0.30	3

Quantitation Report

File Name	003CALB.d
File Path	C:\Agilent\ICPMH\1\DATA\.b111218m1.b
Method File	
Method Path	
Acq Time	11/12/2018 11:18
Sample Name	STDA 4
Sample Type	CalBlk
Comment	0
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	11/13/2018 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.000	ug/l	-646.13	21.33	1.161E-05	Pulse	0.25	3
B			1	-0.943	ug/l	-0.63	4,478.61	2.432E-03	Pulse	0.15	3
Ca			1	1.864	ug/l	35.92	29,535.69	1.049E-02	Pulse	0.10	3
Sr			1	0.000	ug/l	-6809.55	366.68	1.370E-04	Pulse	0.10	3
Mo			1	-0.001	ug/l	-80.14	6.67	2.487E-06	Pulse	0.10	3
Ag			1	-0.003	ug/l	-24.92	10.00	3.756E-06	Pulse	0.10	3
Sn			1	-0.009	ug/l	-115.82	210.01	7.918E-05	Pulse	0.10	3
Sb			1	-0.022	ug/l	-8.86	50.00	1.639E-05	Pulse	0.10	3
Ba			1	-0.001	ug/l	-138.88	16.67	5.449E-06	Pulse	0.10	3
Tl			1	-0.002	ug/l	-0.46	20.00	1.245E-05	Pulse	0.10	3
Pb			1	0.000	ug/l	1767.97	36.67	2.286E-05	Pulse	0.10	3
Pb			1	0.003	ug/l	84.65	36.67	2.286E-05	Pulse	0.10	3
Pb			1	0.001	ug/l	173.51	166.67	1.038E-04	Pulse	0.10	3
Na			2	-1.009	ug/l	-25.32	4,222.91	3.769E-02	Pulse	0.30	3
Mg			2	-0.501	ug/l	-1.01	14.44	1.291E-04	Pulse	0.30	3
Al			2	-0.469	ug/l	-12.69	22.22	1.991E-04	Pulse	0.30	3
K			2	0.123	ug/l	353.92	7,042.97	6.289E-02	Pulse	0.30	3
Ca			2	-4.139	ug/l	-17.79	123.34	1.102E-03	Pulse	0.30	3
Ti			2	0.000	ug/l	---	0.00	0.000E+00	Pulse	0.30	3
V			2	0.008	ug/l	298.43	412.23	3.685E-03	Pulse	0.30	3
Cr			2	0.004	ug/l	195.87	334.46	2.986E-03	Pulse	0.30	3
Mn			2	0.000	ug/l	1897.16	11.11	9.969E-05	Pulse	0.30	3
Fe			2	-0.607	ug/l	-3.93	1,106.73	9.884E-03	Pulse	0.30	3
Co			2	0.000	ug/l	-8534.90	42.22	3.766E-04	Pulse	0.30	3
Ni			2	-0.003	ug/l	-82.24	15.55	1.391E-04	Pulse	0.30	3
Cu			2	0.001	ug/l	414.49	195.56	1.745E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	-0.004	ug/l	-236.40	52.22	4.667E-04	Pulse	0.30	3
As			2	-0.002	ug/l	-380.21	7.33	6.569E-05	Pulse	1.00	3
Cd			2	-0.001	ug/l	-0.31	0.00	-7.664E-09	Pulse	0.30	3
Sn			2	-0.003	ug/l	-250.37	55.56	1.295E-04	Pulse	0.30	3
Se			3	0.605	ug/l	30.19	51.07	9.711E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,841,199.54	1.27	100.0	Pulse	0.10	3
1	Sc		2,816,415.27	0.42	100.0	Pulse	0.10	3
1	Ge		607,947.35	0.20	100.0	Pulse	0.10	3
1	Rh		2,674,515.28	0.42	100.0	Pulse	0.10	3
1	In		2,653,577.04	0.64	100.0	Pulse	0.10	3
1	Tb		3,058,618.81	1.16	100.0	Pulse	0.10	3
1	Ho		5,958,305.33	1.44	100.0	Analog	0.10	3
1	Bi		1,606,358.99	0.69	100.0	Pulse	0.10	3
2	Sc		111,992.39	1.33	100.0	Pulse	0.30	3
2	Ge		77,586.50	1.35	100.0	Pulse	0.30	3
2	Rh		1,232,922.17	1.30	100.0	Pulse	0.30	3
2	In		429,039.35	1.20	100.0	Pulse	0.30	3
2	Tb		1,274,146.65	1.53	100.0	Pulse	0.30	3
2	Ho		2,443,770.39	2.17	100.0	Pulse	0.30	3
2	Bi		702,217.96	1.69	100.0	Pulse	0.30	3
3	Sc		61,392.38	1.67	100.0	Pulse	0.30	3
3	Ge		52,609.75	0.49	100.0	Pulse	0.30	3
3	Rh		516,607.58	0.58	100.0	Pulse	0.30	3
3	Tb		781,332.85	0.32	100.0	Pulse	0.30	3

Quantitation Report

File Name	004CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\.b111218m1.b
Method File	
Method Path	
Acq Time	11/12/2018 11:23
Sample Name	STDB
Sample Type	CalStd
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	11/13/2018 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.482	ug/l	5.46	2,936.35	1.609E-03	Pulse	0.25	3
B			1	23.943	ug/l	1.93	133,789.24	7.329E-02	Pulse	0.15	3
Ca			1	255.200	ug/l	0.34	233,364.35	8.357E-02	Pulse	0.10	3
Sr			1	5.152	ug/l	0.89	156,415.66	5.920E-02	Pulse	0.10	3
Mo			1	1.046	ug/l	3.98	6,371.78	2.412E-03	Pulse	0.10	3
Ag			1	0.542	ug/l	1.80	7,409.05	2.832E-03	Pulse	0.10	3
Sn			1	5.028	ug/l	0.95	41,606.13	1.591E-02	Pulse	0.10	3
Sb			1	2.066	ug/l	1.93	18,974.21	6.321E-03	Pulse	0.10	3
Ba			1	1.001	ug/l	7.17	3,724.00	1.241E-03	Pulse	0.10	3
Tl			1	0.510	ug/l	3.60	9,200.40	5.762E-03	Pulse	0.10	3
Pb			1	0.506	ug/l	3.64	3,183.86	1.992E-03	Pulse	0.10	3
Pb			1	0.529	ug/l	2.72	2,917.12	1.827E-03	Pulse	0.10	3
Pb			1	0.524	ug/l	3.24	13,189.93	8.254E-03	Pulse	0.10	3
Na			2	252.918	ug/l	0.20	220,977.28	1.963E+00	Pulse	0.30	3
Mg			2	253.843	ug/l	1.00	105,443.27	9.365E-01	Pulse	0.30	3
Al			2	24.599	ug/l	2.65	3,681.63	3.271E-02	Pulse	0.30	3
K			2	255.467	ug/l	1.16	82,826.77	7.357E-01	Pulse	0.30	3
Ca			2	269.341	ug/l	2.95	4,437.44	3.942E-02	Pulse	0.30	3
Ti			2	1.177	ug/l	24.31	138.89	1.237E-03	Pulse	0.30	3
V			2	0.968	ug/l	2.06	3,966.18	3.523E-02	Pulse	0.30	3
Cr			2	0.987	ug/l	2.74	4,771.98	4.239E-02	Pulse	0.30	3
Mn			2	1.052	ug/l	0.83	2,452.48	2.178E-02	Pulse	0.30	3
Fe			2	24.508	ug/l	1.47	91,197.12	8.101E-01	Pulse	0.30	3
Co			2	0.517	ug/l	2.42	3,596.07	3.194E-02	Pulse	0.30	3
Ni			2	0.989	ug/l	10.03	1,819.03	1.614E-02	Pulse	0.30	3
Cu			2	2.012	ug/l	2.58	9,872.52	8.766E-02	Pulse	0.30	3
Zn			2	5.016	ug/l	3.56	3,366.01	2.990E-02	Pulse	0.30	3
As			2	0.510	ug/l	13.12	196.67	1.745E-03	Pulse	1.00	3
Cd			2	0.492	ug/l	16.48	677.28	1.580E-03	Pulse	0.30	3
Sn			2	5.120	ug/l	0.78	9,042.07	2.106E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	0.678	ug/l	19.97	54.53	1.031E-03	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,825,728.10	1.17	99.2	Pulse	0.10	3
1	Sc		2,792,584.65	0.64	99.2	Pulse	0.10	3
1	Ge		605,440.46	0.96	99.6	Pulse	0.10	3
1	Rh		2,642,164.44	0.66	98.8	Pulse	0.10	3
1	In		2,616,078.05	1.13	98.6	Pulse	0.10	3
1	Tb		3,002,227.56	1.19	98.2	Pulse	0.10	3
1	Ho		5,821,685.95	5.18	97.7	Mix	0.10	3
1	Bi		1,597,392.06	1.89	99.4	Pulse	0.10	3
2	Sc		112,591.64	1.57	100.5	Pulse	0.30	3
2	Ge		77,565.27	2.05	100.0	Pulse	0.30	3
2	Rh		1,235,438.81	0.93	100.2	Pulse	0.30	3
2	In		429,229.61	1.39	100.0	Pulse	0.30	3
2	Tb		1,262,525.30	1.33	99.1	Pulse	0.30	3
2	Ho		2,428,229.63	1.66	99.4	Pulse	0.30	3
2	Bi		695,683.78	1.31	99.1	Pulse	0.30	3
3	Sc		61,729.45	1.52	100.5	Pulse	0.30	3
3	Ge		52,854.95	1.44	100.5	Pulse	0.30	3
3	Rh		516,480.52	0.26	100.0	Pulse	0.30	3
3	Tb		777,248.32	0.38	99.5	Pulse	0.30	3

Quantitation Report

File Name	005CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\.b111218m1.b
Method File	
Method Path	
Acq Time	11/12/2018 11:28
Sample Name	STDC
Sample Type	CalStd
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	11/13/2018 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	5.020	ug/l	3.33	30,475.50	1.664E-02	Pulse	0.25	3
B			1	4.168	ug/l	2.78	31,116.99	1.699E-02	Pulse	0.15	3
Ca			1	9.296	ug/l	9.62	35,375.90	1.263E-02	Pulse	0.10	3
Sr			1	5.260	ug/l	0.65	159,053.50	6.044E-02	Pulse	0.10	3
Mo			1	5.148	ug/l	1.02	31,170.29	1.184E-02	Pulse	0.10	3
Ag			1	5.062	ug/l	0.36	68,774.77	2.627E-02	Pulse	0.10	3
Sn			1	5.002	ug/l	3.76	41,429.12	1.582E-02	Pulse	0.10	3
Sb			1	5.128	ug/l	2.03	46,773.49	1.557E-02	Pulse	0.10	3
Ba			1	5.008	ug/l	3.16	18,580.52	6.184E-03	Pulse	0.10	3
Tl			1	5.157	ug/l	1.76	91,783.70	5.797E-02	Pulse	0.10	3
Pb			1	5.216	ug/l	4.19	32,182.00	2.032E-02	Pulse	0.10	3
Pb			1	5.112	ug/l	2.21	27,798.17	1.755E-02	Pulse	0.10	3
Pb			1	5.169	ug/l	0.78	127,485.77	8.051E-02	Pulse	0.10	3
Na			2	4.692	ug/l	5.52	8,950.70	8.091E-02	Pulse	0.30	3
Mg			2	4.544	ug/l	6.39	2,071.29	1.870E-02	Pulse	0.30	3
Al			2	4.556	ug/l	8.50	743.36	6.716E-03	Pulse	0.30	3
K			2	4.528	ug/l	11.85	8,241.39	7.450E-02	Pulse	0.30	3
Ca			2	31.714	ug/l	20.89	676.69	6.125E-03	Pulse	0.30	3
Ti			2	5.111	ug/l	10.09	594.47	5.370E-03	Pulse	0.30	3
V			2	5.133	ug/l	0.65	19,046.57	1.721E-01	Pulse	0.30	3
Cr			2	5.172	ug/l	0.32	23,256.36	2.102E-01	Pulse	0.30	3
Mn			2	5.100	ug/l	1.97	11,648.35	1.052E-01	Pulse	0.30	3
Fe			2	4.545	ug/l	2.06	19,254.68	1.740E-01	Pulse	0.30	3
Co			2	5.161	ug/l	1.09	34,893.07	3.153E-01	Pulse	0.30	3
Ni			2	5.131	ug/l	1.98	9,180.92	8.299E-02	Pulse	0.30	3
Cu			2	5.229	ug/l	1.60	24,908.19	2.251E-01	Pulse	0.30	3
Zn			2	5.208	ug/l	4.96	3,431.58	3.103E-02	Pulse	0.30	3
As			2	5.204	ug/l	4.91	1,896.47	1.715E-02	Pulse	1.00	3
Cd			2	5.141	ug/l	2.72	7,010.25	1.648E-02	Pulse	0.30	3
Sn			2	5.158	ug/l	1.05	9,026.48	2.122E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	5.255	ug/l	6.42	251.60	4.751E-03	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,831,999.42	0.53	99.5	Pulse	0.10	3
1	Sc		2,800,465.17	0.99	99.4	Pulse	0.10	3
1	Ge		610,041.20	1.27	100.3	Pulse	0.10	3
1	Rh		2,631,897.10	1.68	98.4	Pulse	0.10	3
1	In		2,617,763.40	1.26	98.7	Pulse	0.10	3
1	Tb		3,004,633.60	0.26	98.2	Pulse	0.10	3
1	Ho		5,882,065.75	2.96	98.7	Mix	0.10	3
1	Bi		1,583,398.73	1.32	98.6	Pulse	0.10	3
2	Sc		110,659.57	2.18	98.8	Pulse	0.30	3
2	Ge		76,976.28	0.92	99.2	Pulse	0.30	3
2	Rh		1,230,266.86	1.33	99.8	Pulse	0.30	3
2	In		425,390.08	1.23	99.1	Pulse	0.30	3
2	Tb		1,263,369.53	1.00	99.2	Pulse	0.30	3
2	Ho		2,413,462.40	1.97	98.8	Pulse	0.30	3
2	Bi		691,152.42	2.02	98.4	Pulse	0.30	3
3	Sc		61,302.11	1.37	99.9	Pulse	0.30	3
3	Ge		52,953.10	0.29	100.7	Pulse	0.30	3
3	Rh		509,964.65	0.92	98.7	Pulse	0.30	3
3	Tb		780,630.04	0.27	99.9	Pulse	0.30	3

Quantitation Report

File Name	006CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\.b111218m1.b
Method File	
Method Path	
Acq Time	11/12/2018 11:33
Sample Name	STDD
Sample Type	CalStd
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	11/13/2018 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	24.521	ug/l	1.31	147,701.06	8.121E-02	Pulse	0.25	3
B			1	23.598	ug/l	1.88	131,495.22	7.231E-02	Pulse	0.15	3
Ca			1	41.224	ug/l	2.24	61,057.86	2.184E-02	Pulse	0.10	3
Sr			1	25.342	ug/l	1.88	761,336.71	2.906E-01	Pulse	0.10	3
Mo			1	24.911	ug/l	1.51	150,081.45	5.729E-02	Pulse	0.10	3
Ag			1	24.101	ug/l	1.05	325,999.00	1.250E-01	Pulse	0.10	3
Sn			1	24.750	ug/l	0.47	203,075.57	7.787E-02	Pulse	0.10	3
Sb			1	24.519	ug/l	1.21	224,687.25	7.412E-02	Pulse	0.10	3
Ba			1	24.139	ug/l	0.29	90,287.05	2.978E-02	Pulse	0.10	3
Tl			1	25.037	ug/l	1.75	446,824.01	2.813E-01	Pulse	0.10	3
Pb			1	24.931	ug/l	0.36	154,100.57	9.704E-02	Pulse	0.10	3
Pb			1	25.091	ug/l	1.70	136,772.91	8.612E-02	Pulse	0.10	3
Pb			1	25.085	ug/l	1.06	619,943.57	3.904E-01	Pulse	0.10	3
Na			2	24.328	ug/l	0.98	25,647.86	2.298E-01	Pulse	0.30	3
Mg			2	24.487	ug/l	3.30	10,281.65	9.212E-02	Pulse	0.30	3
Al			2	23.980	ug/l	0.91	3,561.61	3.190E-02	Pulse	0.30	3
K			2	24.020	ug/l	0.99	14,049.41	1.259E-01	Pulse	0.30	3
Ca			2	156.806	ug/l	3.83	2,640.29	2.365E-02	Pulse	0.30	3
Ti			2	26.355	ug/l	2.75	3,090.38	2.769E-02	Pulse	0.30	3
V			2	24.748	ug/l	0.52	91,169.23	8.167E-01	Pulse	0.30	3
Cr			2	24.915	ug/l	0.58	111,822.18	1.002E+00	Pulse	0.30	3
Mn			2	24.912	ug/l	0.55	57,345.06	5.137E-01	Pulse	0.30	3
Fe			2	24.275	ug/l	1.36	89,605.90	8.026E-01	Pulse	0.30	3
Co			2	24.936	ug/l	0.90	169,892.98	1.522E+00	Pulse	0.30	3
Ni			2	25.027	ug/l	0.72	45,110.23	4.041E-01	Pulse	0.30	3
Cu			2	24.886	ug/l	1.17	118,877.89	1.065E+00	Pulse	0.30	3
Zn			2	25.104	ug/l	1.56	16,486.68	1.477E-01	Pulse	0.30	3
As			2	24.663	ug/l	1.83	9,041.99	8.098E-02	Pulse	1.00	3
Cd			2	24.655	ug/l	0.22	33,500.72	7.899E-02	Pulse	0.30	3
Sn			2	24.880	ug/l	1.53	43,192.18	1.018E-01	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	24.200	ug/l	10.84	1,059.84	2.015E-02	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,818,835.56	1.16	98.8	Pulse	0.10	3
1	Sc		2,795,431.11	0.47	99.3	Pulse	0.10	3
1	Ge		602,078.93	1.10	99.0	Pulse	0.10	3
1	Rh		2,619,449.91	0.70	97.9	Pulse	0.10	3
1	In		2,607,861.69	1.55	98.3	Pulse	0.10	3
1	Tb		3,031,752.87	1.59	99.1	Pulse	0.10	3
1	Ho		6,019,448.45	1.27	101.0	Analog	0.10	3
1	Bi		1,588,111.43	1.43	98.9	Pulse	0.10	3
2	Sc		111,634.03	1.27	99.7	Pulse	0.30	3
2	Ge		76,627.57	1.82	98.8	Pulse	0.30	3
2	Rh		1,230,616.86	2.31	99.8	Pulse	0.30	3
2	In		424,112.56	2.43	98.9	Pulse	0.30	3
2	Tb		1,263,674.05	1.68	99.2	Pulse	0.30	3
2	Ho		2,429,798.79	2.05	99.4	Pulse	0.30	3
2	Bi		690,348.24	1.41	98.3	Pulse	0.30	3
3	Sc		61,536.32	1.77	100.2	Pulse	0.30	3
3	Ge		52,567.17	1.22	99.9	Pulse	0.30	3
3	Rh		509,472.60	0.21	98.6	Pulse	0.30	3
3	Tb		776,891.86	0.25	99.4	Pulse	0.30	3

Quantitation Report

File Name	007CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\.b111218m1.b
Method File	
Method Path	
Acq Time	11/12/2018 11:38
Sample Name	STDE
Sample Type	CalStd
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	11/13/2018 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	48.855	ug/l	0.61	295,680.56	1.618E-01	Pulse	0.25	3
B			1	46.824	ug/l	0.63	252,995.29	1.384E-01	Pulse	0.15	3
Ca			1	71.983	ug/l	2.71	84,620.29	3.071E-02	Pulse	0.10	3
Sr			1	50.171	ug/l	0.34	1,513,989.82	5.753E-01	Pulse	0.10	3
Mo			1	49.795	ug/l	1.01	301,390.57	1.145E-01	Pulse	0.10	3
Ag			1	48.672	ug/l	0.59	655,518.55	2.525E-01	Pulse	0.10	3
Sn			1	50.027	ug/l	0.54	408,443.78	1.573E-01	Pulse	0.10	3
Sb			1	48.872	ug/l	2.09	447,076.82	1.477E-01	Pulse	0.10	3
Ba			1	49.328	ug/l	1.60	184,231.05	6.085E-02	Pulse	0.10	3
Tl			1	49.031	ug/l	0.66	876,508.21	5.509E-01	Pulse	0.10	3
Pb			1	48.594	ug/l	0.59	300,876.33	1.891E-01	Pulse	0.10	3
Pb			1	49.081	ug/l	1.87	268,066.03	1.684E-01	Pulse	0.10	3
Pb			1	49.063	ug/l	0.20	1,214,682.56	7.634E-01	Pulse	0.10	3
Na			2	50.619	ug/l	0.58	46,964.41	4.291E-01	Pulse	0.30	3
Mg			2	51.910	ug/l	1.20	21,131.54	1.931E-01	Pulse	0.30	3
Al			2	49.895	ug/l	2.25	7,168.57	6.551E-02	Pulse	0.30	3
K			2	51.538	ug/l	1.31	21,709.18	1.984E-01	Pulse	0.30	3
Ca			2	299.916	ug/l	1.40	4,783.10	4.370E-02	Pulse	0.30	3
Ti			2	51.748	ug/l	0.93	5,950.23	5.437E-02	Pulse	0.30	3
V			2	49.362	ug/l	0.68	177,911.71	1.626E+00	Pulse	0.30	3
Cr			2	49.589	ug/l	1.29	217,882.98	1.991E+00	Pulse	0.30	3
Mn			2	49.764	ug/l	0.77	112,292.18	1.026E+00	Pulse	0.30	3
Fe			2	50.420	ug/l	0.60	179,013.92	1.636E+00	Pulse	0.30	3
Co			2	50.474	ug/l	0.89	337,109.37	3.080E+00	Pulse	0.30	3
Ni			2	50.353	ug/l	1.62	88,953.59	8.128E-01	Pulse	0.30	3
Cu			2	50.143	ug/l	0.14	234,666.37	2.144E+00	Pulse	0.30	3
Zn			2	50.251	ug/l	1.07	32,304.64	2.952E-01	Pulse	0.30	3
As			2	50.605	ug/l	0.71	18,180.71	1.661E-01	Pulse	1.00	3
Cd			2	49.609	ug/l	0.64	66,659.97	1.589E-01	Pulse	0.30	3
Sn			2	49.975	ug/l	1.59	85,715.48	2.044E-01	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	48.469	ug/l	8.77	2,071.83	3.988E-02	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,827,532.51	0.36	99.3	Pulse	0.10	3
1	Sc		2,755,546.00	1.40	97.8	Pulse	0.10	3
1	Ge		602,148.22	0.62	99.0	Pulse	0.10	3
1	Rh		2,631,900.90	1.47	98.4	Pulse	0.10	3
1	In		2,596,664.93	1.21	97.9	Pulse	0.10	3
1	Tb		3,027,831.00	0.38	99.0	Pulse	0.10	3
1	Ho		6,030,423.66	2.06	101.2	Analog	0.10	3
1	Bi		1,591,046.02	1.74	99.0	Pulse	0.10	3
2	Sc		109,452.33	1.45	97.7	Pulse	0.30	3
2	Ge		76,045.43	2.18	98.0	Pulse	0.30	3
2	Rh		1,219,240.85	0.59	98.9	Pulse	0.30	3
2	In		419,401.35	0.75	97.8	Pulse	0.30	3
2	Tb		1,251,109.95	1.45	98.2	Pulse	0.30	3
2	Ho		2,393,684.84	1.11	98.0	Pulse	0.30	3
2	Bi		685,638.46	0.49	97.6	Pulse	0.30	3
3	Sc		61,220.68	1.35	99.7	Pulse	0.30	3
3	Ge		51,941.66	0.54	98.7	Pulse	0.30	3
3	Rh		507,532.10	0.80	98.2	Pulse	0.30	3
3	Tb		773,456.88	0.90	99.0	Pulse	0.30	3

Quantitation Report

File Name	008CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\.b111218m1.b
Method File	
Method Path	
Acq Time	11/12/2018 11:43
Sample Name	STDF
Sample Type	CalStd
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	11/13/2018 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	98.918	ug/l	2.36	590,574.94	3.276E-01	Pulse	0.25	3
B			1	96.563	ug/l	1.96	504,946.94	2.801E-01	Pulse	0.15	3
Ca			1	142.576	ug/l	0.72	140,705.84	5.108E-02	Pulse	0.10	3
Sr			1	99.751	ug/l	1.67	2,980,209.44	1.144E+00	Pulse	0.10	3
Mo			1	99.171	ug/l	1.47	594,357.95	2.281E-01	Pulse	0.10	3
Ag			1	100.064	ug/l	2.99	1,326,170.40	5.190E-01	Pulse	0.10	3
Sn			1	99.345	ug/l	0.79	798,082.31	3.122E-01	Pulse	0.10	3
Sb			1	99.182	ug/l	2.68	887,898.14	2.996E-01	Pulse	0.10	3
Ba			1	99.241	ug/l	0.70	362,936.92	1.224E-01	Pulse	0.10	3
Tl			1	100.270	ug/l	1.42	1,765,242.79	1.127E+00	Pulse	0.10	3
Pb			1	99.048	ug/l	1.97	603,910.33	3.855E-01	Pulse	0.10	3
Pb			1	99.637	ug/l	1.30	535,757.22	3.419E-01	Pulse	0.10	3
Pb			1	99.661	ug/l	0.96	2,429,592.69	1.551E+00	Pulse	0.10	3
Na			2	107.551	ug/l	10.37	87,701.24	8.606E-01	Pulse	0.30	3
Mg			2	109.794	ug/l	11.00	41,365.01	4.062E-01	Pulse	0.30	3
Al			2	107.663	ug/l	6.10	14,338.53	1.404E-01	Pulse	0.30	3
K			2	109.252	ug/l	11.37	35,716.74	3.504E-01	Pulse	0.30	3
Ca			2	675.702	ug/l	11.08	9,812.48	9.635E-02	Pulse	0.30	3
Ti			2	109.790	ug/l	13.57	11,731.74	1.153E-01	Pulse	0.30	3
V			2	107.878	ug/l	10.03	361,552.42	3.549E+00	Pulse	0.30	3
Cr			2	108.221	ug/l	10.27	442,302.21	4.342E+00	Pulse	0.30	3
Mn			2	108.358	ug/l	10.73	227,533.08	2.234E+00	Pulse	0.30	3
Fe			2	106.409	ug/l	9.93	348,448.95	3.419E+00	Pulse	0.30	3
Co			2	108.861	ug/l	9.71	676,945.79	6.643E+00	Pulse	0.30	3
Ni			2	108.348	ug/l	9.35	178,246.26	1.749E+00	Pulse	0.30	3
Cu			2	108.158	ug/l	9.56	471,114.53	4.623E+00	Pulse	0.30	3
Zn			2	108.287	ug/l	8.33	64,808.59	6.355E-01	Pulse	0.30	3
As			2	107.310	ug/l	9.22	35,893.14	3.521E-01	Pulse	1.00	3
Cd			2	106.991	ug/l	7.69	134,191.66	3.428E-01	Pulse	0.30	3
Sn			2	107.500	ug/l	9.14	171,933.52	4.395E-01	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	99.424	ug/l	9.93	4,108.49	8.129E-02	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,803,272.44	1.60	97.9	Pulse	0.10	3
1	Sc		2,754,802.04	1.34	97.8	Pulse	0.10	3
1	Ge		586,768.88	1.67	96.5	Pulse	0.10	3
1	Rh		2,605,875.90	1.04	97.4	Pulse	0.10	3
1	In		2,555,971.09	1.40	96.3	Pulse	0.10	3
1	Tb		2,964,825.16	2.70	96.9	Pulse	0.10	3
1	Ho		5,822,082.00	2.58	97.7	Mix	0.10	3
1	Bi		1,566,807.68	1.20	97.5	Pulse	0.10	3
2	Sc		102,441.13	8.08	91.5	Pulse	0.30	3
2	Ge		71,956.72	4.95	92.7	Pulse	0.30	3
2	Rh		1,142,065.96	7.29	92.6	Pulse	0.30	3
2	In		392,796.07	6.49	91.6	Pulse	0.30	3
2	Tb		1,171,526.31	7.96	91.9	Pulse	0.30	3
2	Ho		2,241,821.02	7.42	91.7	Pulse	0.30	3
2	Bi		649,474.30	5.95	92.5	Pulse	0.30	3
3	Sc		59,656.10	1.32	97.2	Pulse	0.30	3
3	Ge		50,527.36	1.10	96.0	Pulse	0.30	3
3	Rh		493,428.24	0.50	95.5	Pulse	0.30	3
3	Tb		757,437.14	0.27	96.9	Pulse	0.30	3

Quantitation Report

File Name	009CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\.b111218m1.b
Method File	
Method Path	
Acq Time	11/12/2018 11:48
Sample Name	STDG
Sample Type	CalStd
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	11/13/2018 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.007	ug/l	47.48	65.33	3.671E-05	Pulse	0.25	3
B			1	201.133	ug/l	1.90	1,030,299.19	5.778E-01	Pulse	0.15	3
Ca			1	494.208	ug/l	1.36	414,901.27	1.525E-01	Pulse	0.10	3
Sr			1	0.021	ug/l	9.24	953.40	3.771E-04	Pulse	0.10	3
Mo			1	0.050	ug/l	37.84	303.35	1.199E-04	Pulse	0.10	3
Ag			1	0.008	ug/l	9.29	153.34	6.046E-05	Pulse	0.10	3
Sn			1	0.147	ug/l	9.09	1,446.79	5.704E-04	Pulse	0.10	3
Sb			1	0.378	ug/l	1.03	3,617.31	1.222E-03	Pulse	0.10	3
Ba			1	0.018	ug/l	71.06	86.67	2.927E-05	Pulse	0.10	3
Tl			1	0.014	ug/l	22.49	296.68	1.928E-04	Pulse	0.10	3
Pb			1	0.012	ug/l	32.17	103.34	6.742E-05	Pulse	0.10	3
Pb			1	0.015	ug/l	39.03	96.67	6.319E-05	Pulse	0.10	3
Pb			1	0.013	ug/l	12.29	450.02	2.933E-04	Pulse	0.10	3
Na			2	500.029	ug/l	1.20	414,146.84	3.836E+00	Pulse	0.30	3
Mg			2	503.363	ug/l	0.73	200,290.82	1.855E+00	Pulse	0.30	3
Al			2	499.642	ug/l	0.98	70,037.48	6.487E-01	Pulse	0.30	3
K			2	502.866	ug/l	0.40	149,798.20	1.387E+00	Pulse	0.30	3
Ca			2	507.206	ug/l	1.32	7,853.42	7.274E-02	Pulse	0.30	3
Ti			2	0.000	ug/l	---	0.00		Pulse	0.30	3
V			2	0.007	ug/l	172.88	394.46	3.655E-03	Pulse	0.30	3
Cr			2	0.008	ug/l	45.39	341.12	3.159E-03	Pulse	0.30	3
Mn			2	0.025	ug/l	20.82	66.67	6.171E-04	Pulse	0.30	3
Fe			2	493.512	ug/l	0.87	1,700,765.24	1.575E+01	Pulse	0.30	3
Co			2	0.031	ug/l	18.10	242.23	2.243E-03	Pulse	0.30	3
Ni			2	0.041	ug/l	21.36	91.11	8.442E-04	Pulse	0.30	3
Cu			2	0.053	ug/l	6.59	427.79	3.962E-03	Pulse	0.30	3
Zn			2	0.247	ug/l	21.57	208.89	1.936E-03	Pulse	0.30	3
As			2	-0.002	ug/l	-301.95	7.00	6.486E-05	Pulse	1.00	3
Cd			2	0.007	ug/l	121.71	10.86	2.660E-05	Pulse	0.30	3
Sn			2	0.152	ug/l	14.57	311.12	7.616E-04	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	195.786	ug/l	8.33	7,893.35	1.596E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,783,193.02	1.04	96.8	Pulse	0.10	3
1	Sc		2,720,571.52	0.67	96.6	Pulse	0.10	3
1	Ge		596,290.73	0.49	98.1	Pulse	0.10	3
1	Rh		2,527,792.83	1.29	94.5	Pulse	0.10	3
1	In		2,535,243.35	1.53	95.5	Pulse	0.10	3
1	Tb		2,959,298.81	1.23	96.8	Pulse	0.10	3
1	Ho		5,808,458.04	3.98	97.5	Mix	0.10	3
1	Bi		1,535,963.42	1.85	95.6	Pulse	0.10	3
2	Sc		107,963.24	0.53	96.4	Pulse	0.30	3
2	Ge		74,537.35	2.15	96.1	Pulse	0.30	3
2	Rh		1,184,468.77	0.77	96.1	Pulse	0.30	3
2	In		408,878.54	1.29	95.3	Pulse	0.30	3
2	Tb		1,221,866.48	0.73	95.9	Pulse	0.30	3
2	Ho		2,344,379.70	1.02	95.9	Pulse	0.30	3
2	Bi		670,051.21	1.80	95.4	Pulse	0.30	3
3	Sc		59,256.74	0.80	96.5	Pulse	0.30	3
3	Ge		49,413.40	1.75	93.9	Pulse	0.30	3
3	Rh		492,491.59	0.25	95.3	Pulse	0.30	3
3	Tb		750,759.10	1.49	96.1	Pulse	0.30	3

Quantitation Report

File Name	010CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\.b111218m1.b
Method File	
Method Path	
Acq Time	11/12/2018 11:53
Sample Name	STDH
Sample Type	CalStd
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	11/13/2018 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.003	ug/l	73.70	42.67	2.362E-05	Pulse	0.25	3
B			1	2.410	ug/l	5.81	21,630.25	1.198E-02	Pulse	0.15	3
Ca			1	988.928	ug/l	0.65	802,811.05	2.952E-01	Pulse	0.10	3
Sr			1	0.021	ug/l	6.39	956.74	3.744E-04	Pulse	0.10	3
Mo			1	0.022	ug/l	21.68	140.01	5.469E-05	Pulse	0.10	3
Ag			1	0.003	ug/l	79.50	86.67	3.403E-05	Pulse	0.10	3
Sn			1	0.139	ug/l	7.84	1,386.80	5.444E-04	Pulse	0.10	3
Sb			1	0.115	ug/l	16.42	1,283.46	4.287E-04	Pulse	0.10	3
Ba			1	0.015	ug/l	74.84	76.67	2.571E-05	Pulse	0.10	3
Tl			1	0.003	ug/l	26.84	106.67	6.881E-05	Pulse	0.10	3
Pb			1	0.005	ug/l	41.09	63.33	4.086E-05	Pulse	0.10	3
Pb			1	0.011	ug/l	50.85	76.67	4.931E-05	Pulse	0.10	3
Pb			1	0.007	ug/l	54.23	313.35	2.017E-04	Pulse	0.10	3
Na			2	1016.760	ug/l	1.12	831,192.42	7.753E+00	Pulse	0.30	3
Mg			2	1027.731	ug/l	0.91	405,858.45	3.786E+00	Pulse	0.30	3
Al			2	1021.015	ug/l	1.20	142,026.99	1.325E+00	Pulse	0.30	3
K			2	1011.236	ug/l	0.39	292,352.18	2.727E+00	Pulse	0.30	3
Ca			2	1004.535	ug/l	2.69	15,267.43	1.424E-01	Pulse	0.30	3
Ti			2	0.020	ug/l	86.61	2.22	2.071E-05	Pulse	0.30	3
V			2	0.010	ug/l	99.94	404.46	3.774E-03	Pulse	0.30	3
Cr			2	0.002	ug/l	412.13	313.34	2.923E-03	Pulse	0.30	3
Mn			2	0.021	ug/l	10.44	57.78	5.388E-04	Pulse	0.30	3
Fe			2	995.672	ug/l	1.29	3,404,099.59	3.175E+01	Pulse	0.30	3
Co			2	0.046	ug/l	12.45	343.34	3.203E-03	Pulse	0.30	3
Ni			2	0.039	ug/l	26.60	86.67	8.075E-04	Pulse	0.30	3
Cu			2	0.046	ug/l	23.64	394.45	3.679E-03	Pulse	0.30	3
Zn			2	0.511	ug/l	8.33	373.35	3.483E-03	Pulse	0.30	3
As			2	-0.001	ug/l	-607.79	7.33	6.836E-05	Pulse	1.00	3
Cd			2	0.004	ug/l	115.80	7.26	1.768E-05	Pulse	0.30	3
Sn			2	0.136	ug/l	46.59	285.56	6.963E-04	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	392.620	ug/l	9.15	15,998.22	3.196E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,805,545.63	0.53	98.1	Pulse	0.10	3
1	Sc		2,719,364.13	1.46	96.6	Pulse	0.10	3
1	Ge		599,031.46	1.48	98.5	Pulse	0.10	3
1	Rh		2,554,082.67	1.87	95.5	Pulse	0.10	3
1	In		2,547,727.06	0.53	96.0	Pulse	0.10	3
1	Tb		2,995,147.77	1.24	97.9	Pulse	0.10	3
1	Ho		5,760,665.95	4.10	96.7	Mix	0.10	3
1	Bi		1,551,003.99	1.12	96.6	Pulse	0.10	3
2	Sc		107,210.87	0.84	95.7	Pulse	0.30	3
2	Ge		74,996.39	2.15	96.7	Pulse	0.30	3
2	Rh		1,176,817.14	0.91	95.4	Pulse	0.30	3
2	In		408,988.96	1.50	95.3	Pulse	0.30	3
2	Tb		1,219,946.23	1.23	95.7	Pulse	0.30	3
2	Ho		2,341,312.27	1.14	95.8	Pulse	0.30	3
2	Bi		666,482.68	0.90	94.9	Pulse	0.30	3
3	Sc		60,256.47	1.67	98.1	Pulse	0.30	3
3	Ge		50,041.19	0.52	95.1	Pulse	0.30	3
3	Rh		489,303.35	0.45	94.7	Pulse	0.30	3
3	Tb		749,918.39	0.45	96.0	Pulse	0.30	3

Quantitation Report

File Name	011CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\.b111218m1.b
Method File	
Method Path	
Acq Time	11/12/2018 11:58
Sample Name	STDI
Sample Type	CalStd
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	11/13/2018 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.000	ug/l	196.24	24.00	1.342E-05	Pulse	0.25	3
B			1	0.801	ug/l	13.30	13,215.38	7.397E-03	Pulse	0.15	3
Ca			1	4795.333	ug/l	0.44	3,770,805.15	1.393E+00	Pulse	0.10	3
Sr			1	0.051	ug/l	6.04	1,793.53	7.232E-04	Pulse	0.10	3
Mo			1	0.018	ug/l	27.99	113.34	4.565E-05	Pulse	0.10	3
Ag			1	-0.001	ug/l	-11.94	40.00	1.611E-05	Pulse	0.10	3
Sn			1	0.043	ug/l	22.99	606.71	2.438E-04	Pulse	0.10	3
Sb			1	0.062	ug/l	26.37	796.73	2.708E-04	Pulse	0.10	3
Ba			1	0.013	ug/l	96.30	66.67	2.262E-05	Pulse	0.10	3
Tl			1	0.002	ug/l	111.37	80.00	5.337E-05	Pulse	0.10	3
Pb			1	0.011	ug/l	97.54	96.67	6.424E-05	Pulse	0.10	3
Pb			1	0.012	ug/l	30.22	80.00	5.350E-05	Pulse	0.10	3
Pb			1	0.008	ug/l	28.46	336.68	2.243E-04	Pulse	0.10	3
Na			2	4917.413	ug/l	0.47	4,059,023.03	3.732E+01	Pulse	0.30	3
Mg			2	4940.956	ug/l	0.69	1,978,491.94	1.819E+01	Pulse	0.30	3
Al			2	4930.148	ug/l	0.84	695,383.97	6.394E+00	Pulse	0.30	3
K			2	4922.717	ug/l	0.39	1,417,371.96	1.303E+01	Pulse	0.30	3
Ca			2	4946.889	ug/l	0.21	75,558.73	6.948E-01	Pulse	0.30	3
Ti			2	0.000	ug/l	---	0.00		Pulse	0.30	3
V			2	0.012	ug/l	128.03	414.46	3.813E-03	Pulse	0.30	3
Cr			2	0.036	ug/l	27.60	466.68	4.289E-03	Pulse	0.30	3
Mn			2	0.081	ug/l	13.67	191.12	1.756E-03	Pulse	0.30	3
Fe			2	4981.809	ug/l	1.30	17,265,219.87	1.588E+02	Analog	0.30	3
Co			2	0.235	ug/l	2.91	1,602.33	1.473E-02	Pulse	0.30	3
Ni			2	0.170	ug/l	16.06	318.90	2.933E-03	Pulse	0.30	3
Cu			2	0.044	ug/l	7.66	387.80	3.567E-03	Pulse	0.30	3
Zn			2	0.396	ug/l	9.41	305.56	2.809E-03	Pulse	0.30	3
As			2	0.014	ug/l	61.12	13.00	1.197E-04	Pulse	1.00	3
Cd			2	0.000	ug/l	8910.33	1.79	4.413E-06	Pulse	0.30	3
Sn			2	0.038	ug/l	15.73	120.00	2.975E-04	Pulse	0.30	3
Se			3	-0.034	ug/l	-292.04	22.07	4.517E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,786,919.09	0.94	97.1	Pulse	0.10	3
1	Sc		2,706,494.13	0.98	96.1	Pulse	0.10	3
1	Ge		580,350.99	1.95	95.5	Pulse	0.10	3

Quantitation Report

1	Rh		2,479,817.83	1.43	92.7	Pulse	0.10	3
1	In		2,484,317.44	2.03	93.6	Pulse	0.10	3
1	Tb		2,943,120.06	0.46	96.2	Pulse	0.10	3
1	Ho		5,621,095.96	2.41	94.3	Mix	0.10	3
1	Bi		1,501,360.97	2.52	93.5	Pulse	0.10	3
2	Sc		108,754.51	0.80	97.1	Pulse	0.30	3
2	Ge		73,696.32	1.51	95.0	Pulse	0.30	3
2	Rh		1,156,403.88	0.90	93.8	Pulse	0.30	3
2	In		403,528.42	0.83	94.1	Pulse	0.30	3
2	Tb		1,214,798.39	1.42	95.3	Pulse	0.30	3
2	Ho		2,330,207.96	1.72	95.4	Pulse	0.30	3
2	Bi		655,882.67	1.50	93.4	Pulse	0.30	3
3	Sc		58,699.67	0.80	95.6	Pulse	0.30	3
3	Ge		48,864.78	0.29	92.9	Pulse	0.30	3
3	Rh		472,262.05	0.30	91.4	Pulse	0.30	3
3	Tb		734,308.30	0.57	94.0	Pulse	0.30	3

Quantitation Report

File Name	012CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\.b111218m1.b
Method File	
Method Path	
Acq Time	11/12/2018 12:03
Sample Name	STDJ
Sample Type	CalStd
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	11/13/2018 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.004	ug/l	27.60	42.67	2.422E-05	Pulse	0.25	3
B			1	0.424	ug/l	10.74	11,133.54	6.325E-03	Pulse	0.15	3
Ca			1	10229.594	ug/l	0.30	7,992,005.09	2.961E+00	Analog	0.10	3
Sr			1	0.096	ug/l	12.08	3,047.13	1.238E-03	Pulse	0.10	3
Mo			1	0.023	ug/l	42.07	143.34	5.820E-05	Pulse	0.10	3
Ag			1	-0.001	ug/l	-46.54	33.33	1.362E-05	Pulse	0.10	3
Sn			1	0.183	ug/l	5.27	1,673.51	6.834E-04	Pulse	0.10	3
Sb			1	0.068	ug/l	14.49	840.06	2.868E-04	Pulse	0.10	3
Ba			1	0.017	ug/l	33.34	80.00	2.733E-05	Pulse	0.10	3
Tl			1	0.004	ug/l	34.44	116.67	7.881E-05	Pulse	0.10	3
Pb			1	0.014	ug/l	51.66	113.34	7.681E-05	Pulse	0.10	3
Pb			1	0.021	ug/l	29.70	123.34	8.355E-05	Pulse	0.10	3
Pb			1	0.015	ug/l	4.96	493.36	3.337E-04	Pulse	0.10	3
Na			2	10065.097	ug/l	2.31	8,186,749.95	7.635E+01	Analog	0.30	3
Mg			2	9653.335	ug/l	1.05	3,811,748.74	3.554E+01	Pulse	0.30	3
Al			2	9945.340	ug/l	0.61	1,383,307.93	1.290E+01	Pulse	0.30	3
K			2	9952.778	ug/l	0.46	2,819,423.64	2.629E+01	Pulse	0.30	3
Ca			2	10025.057	ug/l	1.37	150,811.09	1.406E+00	Pulse	0.30	3
Ti			2	0.040	ug/l	114.37	4.44	4.177E-05	Pulse	0.30	3
V			2	-0.009	ug/l	-218.07	334.45	3.125E-03	Pulse	0.30	3
Cr			2	0.076	ug/l	7.84	630.02	5.874E-03	Pulse	0.30	3
Mn			2	0.139	ug/l	19.55	317.79	2.969E-03	Pulse	0.30	3
Fe			2	10030.618	ug/l	0.54	34,280,603.08	3.196E+02	Analog	0.30	3
Co			2	0.463	ug/l	0.58	3,070.38	2.862E-02	Pulse	0.30	3
Ni			2	0.382	ug/l	5.85	681.14	6.353E-03	Pulse	0.30	3
Cu			2	0.334	ug/l	113.04	1,702.58	1.599E-02	Pulse	0.30	3
Zn			2	0.926	ug/l	2.60	634.47	5.917E-03	Pulse	0.30	3
As			2	0.041	ug/l	39.01	22.33	2.084E-04	Pulse	1.00	3
Cd			2	0.006	ug/l	87.06	9.10	2.298E-05	Pulse	0.30	3
Sn			2	0.185	ug/l	5.32	356.68	8.980E-04	Pulse	0.30	3
Se			3	1.210	ug/l	35.99	72.60	1.463E-03	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,760,285.19	0.82	95.6	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,699,266.10	0.94	95.8	Pulse	0.10	3
1	Ge		580,974.10	1.52	95.6	Pulse	0.10	3
1	Rh		2,461,895.90	0.16	92.1	Pulse	0.10	3
1	In		2,449,644.19	1.09	92.3	Pulse	0.10	3
1	Tb		2,926,326.21	1.47	95.7	Pulse	0.10	3
1	Ho		5,569,772.63	4.37	93.5	Mix	0.10	3
1	Bi		1,478,884.56	1.27	92.1	Pulse	0.10	3
2	Sc		107,261.37	1.71	95.8	Pulse	0.30	3
2	Ge		73,875.20	2.32	95.2	Pulse	0.30	3
2	Rh		1,136,193.98	1.22	92.2	Pulse	0.30	3
2	In		397,236.98	1.45	92.6	Pulse	0.30	3
2	Tb		1,214,816.97	1.08	95.3	Pulse	0.30	3
2	Ho		2,321,062.82	1.72	95.0	Pulse	0.30	3
2	Bi		639,758.74	0.79	91.1	Pulse	0.30	3
3	Sc		59,175.16	0.59	96.4	Pulse	0.30	3
3	Ge		49,598.47	0.50	94.3	Pulse	0.30	3
3	Rh		473,650.78	0.50	91.7	Pulse	0.30	3
3	Tb		741,428.11	0.23	94.9	Pulse	0.30	3

Quantitation Report

File Name	013SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\.b111218m1.b
Method File	
Method Path	
Acq Time	11/12/2018 12:08
Sample Name	STDA
Sample Type	CalBlk
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	11/13/2018 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.000	ug/l	1697.78	22.67	1.265E-05	Pulse	0.25	3
B			1	0.000	ug/l	---	9,154.31	5.117E-03	Pulse	0.15	3
Ca			1	0.842	ug/l	77.03	27,798.84	1.019E-02	Pulse	0.10	3
Sr			1	0.000	ug/l	---	353.35	1.374E-04	Pulse	0.10	3
Mo			1	0.000	ug/l	---	13.33	5.174E-06	Pulse	0.10	3
Ag			1	-0.001	ug/l	-141.30	36.67	1.453E-05	Pulse	0.10	3
Sn			1	0.000	ug/l	4119.78	273.35	1.084E-04	Pulse	0.10	3
Sb			1	-0.001	ug/l	-1361.22	236.68	8.018E-05	Pulse	0.10	3
Ba			1	0.000	ug/l	---	20.00	6.808E-06	Pulse	0.10	3
Tl			1	0.000	ug/l	-288.44	46.67	3.012E-05	Pulse	0.10	3
Pb			1	0.000	ug/l	-1002.80	33.33	2.156E-05	Pulse	0.10	3
Pb			1	0.000	ug/l	-496.73	16.67	1.074E-05	Pulse	0.10	3
Pb			1	0.000	ug/l	-113.66	136.67	8.827E-05	Pulse	0.10	3
Na			2	-0.102	ug/l	-130.04	4,889.79	4.457E-02	Pulse	0.30	3
Mg			2	-0.005	ug/l	-1375.00	214.45	1.956E-03	Pulse	0.30	3
Al			2	-0.014	ug/l	-680.01	86.67	7.893E-04	Pulse	0.30	3
K			2	-0.165	ug/l	-155.48	6,816.18	6.213E-02	Pulse	0.30	3
Ca			2	-0.878	ug/l	-254.67	171.11	1.559E-03	Pulse	0.30	3
Ti			2	0.000	ug/l	---	0.00		Pulse	0.30	3
V			2	-0.004	ug/l	-365.14	361.12	3.289E-03	Pulse	0.30	3
Cr			2	-0.001	ug/l	-675.85	307.79	2.804E-03	Pulse	0.30	3
Mn			2	0.000	ug/l	-1406.47	10.00	9.074E-05	Pulse	0.30	3
Fe			2	0.040	ug/l	166.19	3,346.02	3.050E-02	Pulse	0.30	3
Co			2	0.000	ug/l	-513.17	38.89	3.551E-04	Pulse	0.30	3
Ni			2	-0.001	ug/l	-1114.55	18.89	1.718E-04	Pulse	0.30	3
Cu			2	0.000	ug/l	-3786.86	186.67	1.701E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	0.000	ug/l	-4118.77	53.33	4.855E-04	Pulse	0.30	3
As			2	0.000	ug/l	-6269.51	8.00	7.287E-05	Pulse	1.00	3
Cd			2	0.000	ug/l	---	1.82	4.325E-06	Pulse	0.30	3
Sn			2	-0.012	ug/l	-66.15	40.00	9.518E-05	Pulse	0.30	3
Se			3	-0.115	ug/l	-86.15	19.67	3.860E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,788,912.01	0.63	100.0	Pulse	0.10	3
1	Sc		2,727,227.98	0.51	100.0	Pulse	0.10	3
1	Ge		589,346.42	1.10	100.0	Pulse	0.10	3
1	Rh		2,567,120.12	1.35	100.0	Pulse	0.10	3
1	In		2,524,913.49	0.80	100.0	Pulse	0.10	3
1	Tb		2,952,295.58	0.90	100.0	Pulse	0.10	3
1	Ho		5,662,310.54	4.57	100.0	Mix	0.10	3
1	Bi		1,547,942.16	1.04	100.0	Pulse	0.10	3
2	Sc		109,713.83	0.90	100.0	Pulse	0.30	3
2	Ge		76,489.00	1.35	100.0	Pulse	0.30	3
2	Rh		1,216,403.74	1.47	100.0	Pulse	0.30	3
2	In		419,991.40	1.29	100.0	Pulse	0.30	3
2	Tb		1,233,604.40	1.68	100.0	Pulse	0.30	3
2	Ho		2,368,992.06	1.33	100.0	Pulse	0.30	3
2	Bi		684,114.78	1.91	100.0	Pulse	0.30	3
3	Sc		60,005.23	1.06	100.0	Pulse	0.30	3
3	Ge		50,988.11	1.08	100.0	Pulse	0.30	3
3	Rh		493,238.04	0.62	100.0	Pulse	0.30	3
3	Tb		750,058.82	0.69	100.0	Pulse	0.30	3

Quantitation Report

File Name	014CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\.b111218m1.b
Method File	
Method Path	
Acq Time	11/12/2018 12:13
Sample Name	STDF
Sample Type	CalStd
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	11/13/2018 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	100.258	ug/l	0.18	591,245.81	3.320E-01	Pulse	0.25	3
B			1	99.977	ug/l	1.07	516,034.06	2.898E-01	Pulse	0.15	3
Ca			1	143.413	ug/l	0.67	140,239.20	5.132E-02	Pulse	0.10	3
Sr			1	99.821	ug/l	1.79	2,987,131.73	1.144E+00	Pulse	0.10	3
Mo			1	100.117	ug/l	1.16	601,001.57	2.303E-01	Pulse	0.10	3
Ag			1	99.420	ug/l	2.92	1,299,867.92	5.157E-01	Pulse	0.10	3
Sn			1	102.087	ug/l	0.71	808,973.51	3.209E-01	Pulse	0.10	3
Sb			1	101.478	ug/l	0.83	879,561.45	3.065E-01	Pulse	0.10	3
Ba			1	100.551	ug/l	1.10	355,924.68	1.240E-01	Pulse	0.10	3
Tl			1	100.796	ug/l	2.08	1,758,198.10	1.133E+00	Pulse	0.10	3
Pb			1	101.320	ug/l	3.10	612,049.01	3.943E-01	Pulse	0.10	3
Pb			1	100.714	ug/l	1.87	536,671.33	3.456E-01	Pulse	0.10	3
Pb			1	100.689	ug/l	1.28	2,432,576.66	1.567E+00	Pulse	0.10	3
Na			2	99.794	ug/l	1.24	87,777.12	8.018E-01	Pulse	0.30	3
Mg			2	100.550	ug/l	0.31	40,743.12	3.722E-01	Pulse	0.30	3
Al			2	101.165	ug/l	0.68	14,449.77	1.320E-01	Pulse	0.30	3
K			2	100.234	ug/l	0.57	35,763.59	3.267E-01	Pulse	0.30	3
Ca			2	617.662	ug/l	1.53	9,657.91	8.822E-02	Pulse	0.30	3
Ti			2	98.780	ug/l	1.46	11,363.66	1.038E-01	Pulse	0.30	3
V			2	100.230	ug/l	0.38	360,989.82	3.297E+00	Pulse	0.30	3
Cr			2	100.349	ug/l	0.37	440,750.23	4.026E+00	Pulse	0.30	3
Mn			2	100.179	ug/l	1.34	226,102.57	2.065E+00	Pulse	0.30	3
Fe			2	98.715	ug/l	0.22	347,522.74	3.174E+00	Pulse	0.30	3
Co			2	99.426	ug/l	0.71	664,223.52	6.067E+00	Pulse	0.30	3
Ni			2	99.847	ug/l	0.37	176,444.21	1.612E+00	Pulse	0.30	3
Cu			2	99.455	ug/l	0.19	465,377.24	4.251E+00	Pulse	0.30	3
Zn			2	99.527	ug/l	0.87	63,945.68	5.841E-01	Pulse	0.30	3
As			2	98.242	ug/l	0.94	35,291.54	3.224E-01	Pulse	1.00	3
Cd			2	100.274	ug/l	0.43	130,517.26	3.213E-01	Pulse	0.30	3
Sn			2	100.036	ug/l	0.89	166,146.84	4.090E-01	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	97.551	ug/l	8.62	4,097.35	7.977E-02	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,780,787.20	0.49	99.5	Pulse	0.10	3
1	Sc		2,732,827.67	1.75	100.2	Pulse	0.10	3
1	Ge		582,419.30	1.61	98.8	Pulse	0.10	3
1	Rh		2,610,639.34	2.28	101.7	Pulse	0.10	3
1	In		2,521,416.20	2.13	99.9	Pulse	0.10	3
1	Tb		2,869,642.66	1.54	97.2	Pulse	0.10	3
1	Ho		5,585,185.96	4.24	98.6	Mix	0.10	3
1	Bi		1,552,881.75	2.37	100.3	Pulse	0.10	3
2	Sc		109,481.00	1.54	99.8	Pulse	0.30	3
2	Ge		74,328.49	1.87	97.2	Pulse	0.30	3
2	Rh		1,187,054.43	1.52	97.6	Pulse	0.30	3
2	In		406,273.88	1.35	96.7	Pulse	0.30	3
2	Tb		1,205,887.07	1.02	97.8	Pulse	0.30	3
2	Ho		2,314,524.28	0.79	97.7	Pulse	0.30	3
2	Bi		670,017.61	0.66	97.9	Pulse	0.30	3
3	Sc		60,526.45	0.80	100.9	Pulse	0.30	3
3	Ge		51,362.74	0.19	100.7	Pulse	0.30	3
3	Rh		493,182.74	0.09	100.0	Pulse	0.30	3
3	Tb		752,399.33	0.45	100.3	Pulse	0.30	3

Quantitation Report

File Name	015_ICV.d
File Path	C:\Agilent\ICPMH\1\DATA\.b111218m1.b
Method File	
Method Path	
Acq Time	11/12/2018 12:21
Sample Name	ICVA 5
Sample Type	ICV
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	11/13/2018 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	60.170	ug/l	2.01	350,425.93	1.993E-01	Pulse	0.25	3
B			1	118.449	ug/l	3.21	602,023.99	3.424E-01	Pulse	0.15	3
Ca			1	5233.596	ug/l	0.64	4,059,712.02	1.520E+00	Pulse	0.10	3
Sr			1	63.210	ug/l	0.35	1,775,117.21	7.247E-01	Pulse	0.10	3
Mo			1	60.739	ug/l	0.79	342,157.42	1.397E-01	Pulse	0.10	3
Ag			1	59.729	ug/l	1.22	754,902.07	3.098E-01	Pulse	0.10	3
Sn			1	59.985	ug/l	2.37	459,622.56	1.886E-01	Pulse	0.10	3
Sb			1	62.369	ug/l	2.32	545,929.56	1.884E-01	Pulse	0.10	3
Ba			1	60.552	ug/l	2.25	216,443.92	7.469E-02	Pulse	0.10	3
Tl			1	64.336	ug/l	1.64	1,073,918.50	7.229E-01	Pulse	0.10	3
Pb			1	63.559	ug/l	0.63	367,495.85	2.474E-01	Pulse	0.10	3
Pb			1	60.561	ug/l	1.60	308,835.06	2.078E-01	Pulse	0.10	3
Pb			1	62.081	ug/l	0.97	1,435,261.84	9.660E-01	Pulse	0.10	3
Na			2	5371.768	ug/l	1.77	4,291,081.08	4.077E+01	Pulse	0.30	3
Mg			2	5412.967	ug/l	1.91	2,097,828.74	1.993E+01	Pulse	0.30	3
Al			2	5472.960	ug/l	1.61	747,141.59	7.098E+00	Pulse	0.30	3
K			2	5423.203	ug/l	1.77	1,510,633.45	1.435E+01	Pulse	0.30	3
Ca			2	5750.744	ug/l	1.90	84,982.54	8.074E-01	Pulse	0.30	3
Ti			2	59.037	ug/l	4.05	6,528.27	6.203E-02	Pulse	0.30	3
V			2	62.387	ug/l	2.39	216,147.00	2.054E+00	Pulse	0.30	3
Cr			2	61.992	ug/l	1.95	261,909.70	2.488E+00	Pulse	0.30	3
Mn			2	61.870	ug/l	1.76	134,268.87	1.276E+00	Pulse	0.30	3
Fe			2	5574.955	ug/l	0.92	18,702,127.03	1.777E+02	Analog	0.30	3
Co			2	61.689	ug/l	0.93	396,313.88	3.765E+00	Pulse	0.30	3
Ni			2	60.927	ug/l	1.36	103,531.54	9.835E-01	Pulse	0.30	3
Cu			2	60.531	ug/l	1.04	272,430.94	2.588E+00	Pulse	0.30	3
Zn			2	59.476	ug/l	1.51	36,764.67	3.493E-01	Pulse	0.30	3
As			2	62.029	ug/l	2.24	21,427.04	2.036E-01	Pulse	1.00	3
Cd			2	60.761	ug/l	1.58	76,877.75	1.947E-01	Pulse	0.30	3
Sn			2	60.323	ug/l	1.31	97,406.76	2.467E-01	Pulse	0.30	3
Se			3	260.570	ug/l	6.95	10,322.43	2.123E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,759,068.23	1.95	98.3	Pulse	0.10	3
1	Sc		2,671,579.86	1.12	98.0	Pulse	0.10	3
1	Ge		579,735.66	0.71	98.4	Pulse	0.10	3

Quantitation Report

1	Rh		2,449,317.00	0.81	95.4	Pulse	0.10	3
1	In		2,437,104.04	1.93	96.5	Pulse	0.10	3
1	Tb		2,898,846.52	3.26	98.2	Pulse	0.10	3
1	Ho		5,493,523.25	6.43	97.0	Mix	0.10	3
1	Bi		1,485,737.43	1.42	96.0	Pulse	0.10	3
2	Sc		105,291.85	2.61	96.0	Pulse	0.30	3
2	Ge		72,742.19	0.62	95.1	Pulse	0.30	3
2	Rh		1,138,891.90	1.41	93.6	Pulse	0.30	3
2	In		394,902.53	1.00	94.0	Pulse	0.30	3
2	Tb		1,199,795.02	1.19	97.3	Pulse	0.30	3
2	Ho		2,305,505.53	2.13	97.3	Pulse	0.30	3
2	Bi		638,417.77	1.77	93.3	Pulse	0.30	3
3	Sc		58,407.54	1.99	97.3	Pulse	0.30	3
3	Ge		48,591.60	1.83	95.3	Pulse	0.30	3
3	Rh		470,125.15	0.55	95.3	Pulse	0.30	3
3	Tb		733,799.59	1.04	97.8	Pulse	0.30	3

Quantitation Report

File Name	016_ICV.d
File Path	C:\Agilent\ICPMH\1\DATA\.b111218m1.b
Method File	
Method Path	
Acq Time	11/12/2018 12:26
Sample Name	ICV
Sample Type	ICV
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	11/13/2018 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.008	ug/l	56.42	69.33	3.939E-05	Pulse	0.25	3
B			1	1.602	ug/l	6.83	17,055.12	9.679E-03	Pulse	0.15	3
Ca			1	4.284	ug/l	41.80	30,340.69	1.119E-02	Pulse	0.10	3
Sr			1	0.011	ug/l	11.78	673.38	2.646E-04	Pulse	0.10	3
Mo			1	0.029	ug/l	27.45	183.34	7.197E-05	Pulse	0.10	3
Ag			1	0.002	ug/l	97.27	73.33	2.923E-05	Pulse	0.10	3
Sn			1	0.391	ug/l	9.37	3,353.92	1.336E-03	Pulse	0.10	3
Sb			1	0.044	ug/l	27.68	636.71	2.152E-04	Pulse	0.10	3
Ba			1	0.018	ug/l	8.60	86.67	2.931E-05	Pulse	0.10	3
Tl			1	0.015	ug/l	18.42	313.35	2.018E-04	Pulse	0.10	3
Pb			1	0.017	ug/l	46.38	136.68	8.806E-05	Pulse	0.10	3
Pb			1	0.014	ug/l	87.38	93.34	5.973E-05	Pulse	0.10	3
Pb			1	0.010	ug/l	16.25	396.69	2.553E-04	Pulse	0.10	3
Na			2	0.569	ug/l	47.83	5,313.28	4.966E-02	Pulse	0.30	3
Mg			2	-0.071	ug/l	-80.19	183.34	1.714E-03	Pulse	0.30	3
Al			2	66.634	ug/l	3.48	9,330.97	8.721E-02	Pulse	0.30	3
K			2	0.630	ug/l	91.52	6,872.88	6.422E-02	Pulse	0.30	3
Ca			2	2.379	ug/l	63.77	215.56	2.015E-03	Pulse	0.30	3
Ti			2	0.040	ug/l	44.16	4.44	4.161E-05	Pulse	0.30	3
V			2	-0.003	ug/l	-258.87	355.56	3.321E-03	Pulse	0.30	3
Cr			2	0.008	ug/l	105.36	340.01	3.176E-03	Pulse	0.30	3
Mn			2	0.013	ug/l	34.39	38.89	3.629E-04	Pulse	0.30	3
Fe			2	1.699	ug/l	3.24	8,919.64	8.335E-02	Pulse	0.30	3
Co			2	0.001	ug/l	127.95	44.44	4.153E-04	Pulse	0.30	3
Ni			2	0.023	ug/l	35.46	58.89	5.511E-04	Pulse	0.30	3
Cu			2	0.033	ug/l	22.97	333.34	3.114E-03	Pulse	0.30	3
Zn			2	0.164	ug/l	23.25	155.56	1.452E-03	Pulse	0.30	3
As			2	-0.008	ug/l	-72.11	5.00	4.680E-05	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	0.007	ug/l	0.86	10.91	2.685E-05	Pulse	0.30	3
Sn			2	0.377	ug/l	4.09	684.47	1.685E-03	Pulse	0.30	3
Se			3	0.763	ug/l	26.41	54.20	1.100E-03	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,762,253.23	0.50	98.5	Pulse	0.10	3
1	Sc		2,712,429.13	0.80	99.5	Pulse	0.10	3
1	Ge		578,128.01	0.45	98.1	Pulse	0.10	3
1	Rh		2,545,387.10	1.41	99.2	Pulse	0.10	3
1	In		2,510,161.81	0.48	99.4	Pulse	0.10	3
1	Tb		2,956,738.18	0.83	100.2	Pulse	0.10	3
1	Ho		5,736,510.75	4.76	101.3	Mix	0.10	3
1	Bi		1,554,868.99	1.47	100.4	Pulse	0.10	3
2	Sc		107,010.67	0.90	97.5	Pulse	0.30	3
2	Ge		73,947.49	1.12	96.7	Pulse	0.30	3
2	Rh		1,185,024.71	0.78	97.4	Pulse	0.30	3
2	In		406,314.13	0.83	96.7	Pulse	0.30	3
2	Tb		1,209,419.92	1.59	98.0	Pulse	0.30	3
2	Ho		2,311,476.30	1.06	97.6	Pulse	0.30	3
2	Bi		670,911.83	1.07	98.1	Pulse	0.30	3
3	Sc		58,566.91	0.40	97.6	Pulse	0.30	3
3	Ge		49,329.85	1.16	96.7	Pulse	0.30	3
3	Rh		479,415.66	0.70	97.2	Pulse	0.30	3
3	Tb		731,338.53	1.15	97.5	Pulse	0.30	3

Quantitation Report

File Name	017_ICB.d
File Path	C:\Agilent\ICPMH\1\DATA\.b111218m1.b
Method File	
Method Path	
Acq Time	11/12/2018 12:31
Sample Name	ICB
Sample Type	ICB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	11/13/2018 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.002	ug/l	112.14	34.67	1.939E-05	Pulse	0.25	3
B			1	0.592	ug/l	6.06	12,169.95	6.804E-03	Pulse	0.15	3
Ca			1	0.455	ug/l	402.49	27,504.65	1.008E-02	Pulse	0.10	3
Sr			1	0.001	ug/l	73.78	390.02	1.522E-04	Pulse	0.10	3
Mo			1	0.010	ug/l	36.52	70.00	2.742E-05	Pulse	0.10	3
Ag			1	0.001	ug/l	293.52	66.67	2.615E-05	Pulse	0.10	3
Sn			1	0.007	ug/l	31.08	330.02	1.299E-04	Pulse	0.10	3
Sb			1	0.011	ug/l	38.79	343.35	1.171E-04	Pulse	0.10	3
Ba			1	0.001	ug/l	345.25	23.33	7.945E-06	Pulse	0.10	3
Tl			1	0.001	ug/l	50.08	70.00	4.539E-05	Pulse	0.10	3
Pb			1	-0.002	ug/l	-182.69	23.33	1.504E-05	Pulse	0.10	3
Pb			1	0.005	ug/l	191.92	43.33	2.820E-05	Pulse	0.10	3
Pb			1	0.000	ug/l	735.34	156.67	1.016E-04	Pulse	0.10	3
Na			2	-0.876	ug/l	-7.48	4,218.47	3.870E-02	Pulse	0.30	3
Mg			2	-0.354	ug/l	-7.90	73.34	6.725E-04	Pulse	0.30	3
Al			2	-0.277	ug/l	-5.50	48.89	4.486E-04	Pulse	0.30	3
K			2	-0.157	ug/l	-131.93	6,775.05	6.215E-02	Pulse	0.30	3
Ca			2	-1.461	ug/l	-78.12	161.11	1.477E-03	Pulse	0.30	3
Ti			2	0.010	ug/l	173.21	1.11	1.027E-05	Pulse	0.30	3
V			2	-0.009	ug/l	-89.81	341.12	3.128E-03	Pulse	0.30	3
Cr			2	0.003	ug/l	335.57	322.23	2.958E-03	Pulse	0.30	3
Mn			2	0.003	ug/l	71.78	17.78	1.633E-04	Pulse	0.30	3
Fe			2	-0.450	ug/l	-1.52	1,621.22	1.487E-02	Pulse	0.30	3
Co			2	0.001	ug/l	121.83	46.67	4.281E-04	Pulse	0.30	3
Ni			2	-0.001	ug/l	-646.84	18.89	1.730E-04	Pulse	0.30	3
Cu			2	0.008	ug/l	56.27	224.45	2.059E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	-0.016	ug/l	-151.25	43.33	3.970E-04	Pulse	0.30	3
As			2	-0.014	ug/l	-35.62	3.00	2.760E-05	Pulse	1.00	3
Cd			2	0.004	ug/l	151.78	7.28	1.738E-05	Pulse	0.30	3
Sn			2	-0.001	ug/l	-1537.71	56.67	1.375E-04	Pulse	0.30	3
Se			3	0.247	ug/l	158.40	33.40	6.801E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,788,447.72	1.06	100.0	Pulse	0.10	3
1	Sc		2,729,480.38	1.33	100.1	Pulse	0.10	3
1	Ge		595,759.89	0.11	101.1	Pulse	0.10	3
1	Rh		2,559,812.25	1.63	99.7	Pulse	0.10	3
1	In		2,540,873.90	0.81	100.6	Pulse	0.10	3
1	Tb		2,935,277.25	2.30	99.4	Pulse	0.10	3
1	Ho		5,759,750.96	3.96	101.7	Mix	0.10	3
1	Bi		1,544,115.96	2.41	99.8	Pulse	0.10	3
2	Sc		109,010.11	0.76	99.4	Pulse	0.30	3
2	Ge		75,746.11	0.42	99.0	Pulse	0.30	3
2	Rh		1,199,277.66	1.33	98.6	Pulse	0.30	3
2	In		414,307.16	1.84	98.6	Pulse	0.30	3
2	Tb		1,228,506.51	1.17	99.6	Pulse	0.30	3
2	Ho		2,340,434.35	1.09	98.8	Pulse	0.30	3
2	Bi		677,049.04	1.70	99.0	Pulse	0.30	3
3	Sc		58,706.52	0.06	97.8	Pulse	0.30	3
3	Ge		49,095.59	0.11	96.3	Pulse	0.30	3
3	Rh		479,981.11	1.83	97.3	Pulse	0.30	3
3	Tb		731,268.93	0.91	97.5	Pulse	0.30	3

Quantitation Report

File Name	018_ICV.d
File Path	C:\Agilent\ICPMH\1\DATA\.b111218m1.b
Method File	
Method Path	
Acq Time	11/12/2018 12:41
Sample Name	sampleconf
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	11/13/2018 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.000	ug/l	891.47	24.00	1.317E-05	Pulse	0.25	3
B			1	0.058	ug/l	110.42	9,590.11	5.283E-03	Pulse	0.15	3
Ca			1	3.266	ug/l	16.37	30,083.53	1.089E-02	Pulse	0.10	3
Sr			1	0.004	ug/l	32.04	480.03	1.849E-04	Pulse	0.10	3
Mo			1	0.003	ug/l	160.10	30.00	1.155E-05	Pulse	0.10	3
Ag			1	0.003	ug/l	96.28	90.00	3.486E-05	Pulse	0.10	3
Sn			1	0.123	ug/l	5.49	1,276.78	4.951E-04	Pulse	0.10	3
Sb			1	0.039	ug/l	14.53	603.38	1.999E-04	Pulse	0.10	3
Ba			1	-0.002	ug/l	-311.06	13.33	4.373E-06	Pulse	0.10	3
Tl			1	0.006	ug/l	52.88	163.34	1.032E-04	Pulse	0.10	3
Pb			1	0.003	ug/l	86.72	53.33	3.380E-05	Pulse	0.10	3
Pb			1	0.002	ug/l	244.29	26.67	1.682E-05	Pulse	0.10	3
Pb			1	0.001	ug/l	202.23	173.34	1.096E-04	Pulse	0.10	3
Na			2	0.008	ug/l	6889.44	4,656.38	4.540E-02	Pulse	0.30	3
Mg			2	-0.356	ug/l	-9.99	67.78	6.635E-04	Pulse	0.30	3
Al			2	70.261	ug/l	8.17	9,428.83	9.192E-02	Pulse	0.30	3
K			2	0.933	ug/l	101.30	6,681.67	6.502E-02	Pulse	0.30	3
Ca			2	1.908	ug/l	58.27	200.00	1.949E-03	Pulse	0.30	3
Ti			2	0.030	ug/l	97.12	3.33	3.128E-05	Pulse	0.30	3
V			2	0.017	ug/l	111.87	406.68	3.976E-03	Pulse	0.30	3
Cr			2	0.001	ug/l	223.97	295.56	2.875E-03	Pulse	0.30	3
Mn			2	0.016	ug/l	84.15	44.44	4.219E-04	Pulse	0.30	3
Fe			2	1.665	ug/l	26.16	8,496.11	8.225E-02	Pulse	0.30	3
Co			2	0.001	ug/l	166.61	43.33	4.235E-04	Pulse	0.30	3
Ni			2	0.004	ug/l	130.31	25.56	2.491E-04	Pulse	0.30	3
Cu			2	0.007	ug/l	65.58	206.67	2.006E-03	Pulse	0.30	3
Zn			2	0.027	ug/l	97.86	66.67	6.492E-04	Pulse	0.30	3
As			2	-0.003	ug/l	-494.99	6.33	6.333E-05	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	0.000	ug/l	6087.47	1.82	4.453E-06	Pulse	0.30	3
Sn			2	0.142	ug/l	14.76	282.23	7.212E-04	Pulse	0.30	3
Se			3	0.504	ug/l	27.14	44.47	8.893E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,815,623.38	0.98	101.5	Pulse	0.10	3
1	Sc		2,761,919.96	0.65	101.3	Pulse	0.10	3
1	Ge		598,642.72	1.25	101.6	Pulse	0.10	3
1	Rh		2,595,270.12	1.04	101.1	Pulse	0.10	3
1	In		2,578,670.36	0.87	102.1	Pulse	0.10	3
1	Tb		3,018,406.52	0.88	102.2	Pulse	0.10	3
1	Ho		5,793,715.54	4.37	102.3	Mix	0.10	3
1	Bi		1,580,286.43	0.79	102.1	Pulse	0.10	3
2	Sc		102,911.70	5.99	93.8	Pulse	0.30	3
2	Ge		71,439.06	3.00	93.4	Pulse	0.30	3
2	Rh		1,135,337.21	4.78	93.3	Pulse	0.30	3
2	In		391,477.87	4.23	93.2	Pulse	0.30	3
2	Tb		1,163,601.58	4.50	94.3	Pulse	0.30	3
2	Ho		2,202,048.59	4.65	93.0	Pulse	0.30	3
2	Bi		640,063.81	3.48	93.6	Pulse	0.30	3
3	Sc		59,579.17	0.77	99.3	Pulse	0.30	3
3	Ge		50,049.05	1.46	98.2	Pulse	0.30	3
3	Rh		488,955.22	0.77	99.1	Pulse	0.30	3
3	Tb		738,901.11	0.66	98.5	Pulse	0.30	3

Quantitation Report

File Name	019_ICV.d
File Path	C:\Agilent\ICPMH\1\DATA\.b111218m1.b
Method File	
Method Path	
Acq Time	11/12/2018 12:46
Sample Name	ICV
Sample Type	ICV
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	11/13/2018 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.000	ug/l	558.02	24.00	1.352E-05	Pulse	0.25	3
B			1	0.008	ug/l	1292.51	9,100.95	5.139E-03	Pulse	0.15	3
Ca			1	2.102	ug/l	17.62	29,081.18	1.056E-02	Pulse	0.10	3
Sr			1	0.001	ug/l	91.12	390.02	1.516E-04	Pulse	0.10	3
Mo			1	0.004	ug/l	138.14	36.67	1.419E-05	Pulse	0.10	3
Ag			1	0.008	ug/l	39.45	146.68	5.878E-05	Pulse	0.10	3
Sn			1	0.143	ug/l	15.74	1,383.47	5.560E-04	Pulse	0.10	3
Sb			1	0.040	ug/l	24.00	593.37	2.034E-04	Pulse	0.10	3
Ba			1	-0.004	ug/l	-43.77	6.67	2.285E-06	Pulse	0.10	3
Tl			1	0.004	ug/l	58.77	113.34	7.233E-05	Pulse	0.10	3
Pb			1	0.002	ug/l	174.52	50.00	3.183E-05	Pulse	0.10	3
Pb			1	0.007	ug/l	34.96	53.33	3.416E-05	Pulse	0.10	3
Pb			1	0.001	ug/l	58.46	170.00	1.087E-04	Pulse	0.10	3
Na			2	-0.410	ug/l	-25.38	4,627.48	4.223E-02	Pulse	0.30	3
Mg			2	-0.401	ug/l	-4.68	54.45	4.975E-04	Pulse	0.30	3
Al			2	63.505	ug/l	0.98	9,109.70	8.316E-02	Pulse	0.30	3
K			2	-0.147	ug/l	-717.27	6,813.98	6.218E-02	Pulse	0.30	3
Ca			2	1.243	ug/l	33.61	203.34	1.856E-03	Pulse	0.30	3
Ti			2	0.000	ug/l	---	0.00	0.000E+00	Pulse	0.30	3
V			2	0.011	ug/l	184.95	415.57	3.799E-03	Pulse	0.30	3
Cr			2	-0.002	ug/l	-367.38	302.23	2.760E-03	Pulse	0.30	3
Mn			2	0.005	ug/l	17.74	21.11	1.927E-04	Pulse	0.30	3
Fe			2	-0.114	ug/l	-7.48	2,802.54	2.558E-02	Pulse	0.30	3
Co			2	-0.001	ug/l	-409.40	36.67	3.343E-04	Pulse	0.30	3
Ni			2	0.004	ug/l	203.85	27.78	2.541E-04	Pulse	0.30	3
Cu			2	0.005	ug/l	164.59	208.89	1.905E-03	Pulse	0.30	3
Zn			2	0.015	ug/l	132.29	63.33	5.779E-04	Pulse	0.30	3
As			2	-0.003	ug/l	-102.90	7.00	6.393E-05	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	-0.001	ug/l	-0.55	-0.01	-2.414E-08	Pulse	0.30	3
Sn			2	0.142	ug/l	2.08	297.78	7.232E-04	Pulse	0.30	3
Se			3	-0.084	ug/l	-147.62	20.93	4.117E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,771,166.65	1.03	99.0	Pulse	0.10	3
1	Sc		2,755,086.63	0.92	101.0	Pulse	0.10	3
1	Ge		583,533.71	0.58	99.0	Pulse	0.10	3
1	Rh		2,573,205.90	0.89	100.2	Pulse	0.10	3
1	In		2,491,539.09	1.51	98.7	Pulse	0.10	3
1	Tb		2,916,947.87	0.50	98.8	Pulse	0.10	3
1	Ho		5,565,660.75	6.43	98.3	Mix	0.10	3
1	Bi		1,565,966.38	1.90	101.2	Pulse	0.10	3
2	Sc		109,553.32	1.33	99.9	Pulse	0.30	3
2	Ge		74,693.80	1.43	97.7	Pulse	0.30	3
2	Rh		1,192,634.61	1.12	98.0	Pulse	0.30	3
2	In		411,744.05	0.94	98.0	Pulse	0.30	3
2	Tb		1,215,881.24	1.12	98.6	Pulse	0.30	3
2	Ho		2,328,335.67	1.16	98.3	Pulse	0.30	3
2	Bi		671,379.96	0.73	98.1	Pulse	0.30	3
3	Sc		60,299.95	0.34	100.5	Pulse	0.30	3
3	Ge		50,887.58	0.52	99.8	Pulse	0.30	3
3	Rh		488,933.35	0.50	99.1	Pulse	0.30	3
3	Tb		739,725.21	0.30	98.6	Pulse	0.30	3

Quantitation Report

File Name	020_CCV.d
File Path	C:\Agilent\ICPMH\1\DATA\.b111218m1.b
Method File	
Method Path	
Acq Time	11/12/2018 12:51
Sample Name	CCVA
Sample Type	CCV
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	11/13/2018 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	49.986	ug/l	1.03	289,661.82	1.655E-01	Pulse	0.25	3
B			1	99.409	ug/l	0.93	504,204.93	2.882E-01	Pulse	0.15	3
Ca			1	4781.344	ug/l	0.14	3,747,866.40	1.389E+00	Pulse	0.10	3
Sr			1	52.113	ug/l	1.14	1,468,658.73	5.975E-01	Pulse	0.10	3
Mo			1	50.777	ug/l	0.86	287,071.87	1.168E-01	Pulse	0.10	3
Ag			1	47.104	ug/l	0.53	593,444.58	2.443E-01	Pulse	0.10	3
Sn			1	49.344	ug/l	0.53	376,840.37	1.551E-01	Pulse	0.10	3
Sb			1	49.664	ug/l	0.51	427,549.60	1.500E-01	Pulse	0.10	3
Ba			1	49.251	ug/l	1.24	173,132.77	6.075E-02	Pulse	0.10	3
Tl			1	50.002	ug/l	1.52	831,356.29	5.618E-01	Pulse	0.10	3
Pb			1	49.583	ug/l	1.51	285,524.52	1.930E-01	Pulse	0.10	3
Pb			1	49.447	ug/l	0.73	251,093.60	1.697E-01	Pulse	0.10	3
Pb			1	49.489	ug/l	0.11	1,139,379.41	7.701E-01	Pulse	0.10	3
Na			2	4892.161	ug/l	0.25	3,921,133.59	3.713E+01	Pulse	0.30	3
Mg			2	4919.211	ug/l	0.37	1,912,681.17	1.811E+01	Pulse	0.30	3
Al			2	4918.535	ug/l	1.00	673,617.96	6.379E+00	Pulse	0.30	3
K			2	4934.543	ug/l	0.36	1,379,579.28	1.306E+01	Pulse	0.30	3
Ca			2	5183.171	ug/l	0.44	76,864.94	7.279E-01	Pulse	0.30	3
Ti			2	50.400	ug/l	1.81	5,591.20	5.295E-02	Pulse	0.30	3
V			2	49.964	ug/l	1.14	173,748.82	1.645E+00	Pulse	0.30	3
Cr			2	49.441	ug/l	0.27	209,620.11	1.985E+00	Pulse	0.30	3
Mn			2	49.849	ug/l	0.38	108,532.62	1.028E+00	Pulse	0.30	3
Fe			2	5068.126	ug/l	1.73	17,053,360.99	1.615E+02	Analog	0.30	3
Co			2	49.210	ug/l	0.65	317,150.55	3.003E+00	Pulse	0.30	3
Ni			2	48.842	ug/l	0.44	83,260.41	7.884E-01	Pulse	0.30	3
Cu			2	48.435	ug/l	0.83	218,716.87	2.071E+00	Pulse	0.30	3
Zn			2	48.637	ug/l	1.19	30,172.12	2.857E-01	Pulse	0.30	3
As			2	48.448	ug/l	0.88	16,793.63	1.590E-01	Pulse	1.00	3
Cd			2	48.935	ug/l	1.70	61,647.07	1.568E-01	Pulse	0.30	3
Sn			2	49.332	ug/l	0.30	79,342.93	2.017E-01	Pulse	0.30	3
Se			3	205.511	ug/l	2.03	8,301.57	1.675E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,749,754.86	0.48	97.8	Pulse	0.10	3
1	Sc		2,697,874.55	1.12	98.9	Pulse	0.10	3
1	Ge		573,913.17	1.99	97.4	Pulse	0.10	3

Quantitation Report

1	Rh		2,458,206.79	1.51	95.8	Pulse	0.10	3
1	In		2,428,943.43	0.51	96.2	Pulse	0.10	3
1	Tb		2,849,484.75	1.19	96.5	Pulse	0.10	3
1	Ho		5,692,653.04	4.99	100.5	Mix	0.10	3
1	Bi		1,479,582.74	0.96	95.6	Pulse	0.10	3
2	Sc		105,603.46	1.02	96.3	Pulse	0.30	3
2	Ge		73,253.91	1.29	95.8	Pulse	0.30	3
2	Rh		1,130,549.33	1.46	92.9	Pulse	0.30	3
2	In		393,275.40	1.45	93.6	Pulse	0.30	3
2	Tb		1,185,658.56	1.66	96.1	Pulse	0.30	3
2	Ho		2,279,097.69	1.64	96.2	Pulse	0.30	3
2	Bi		637,268.81	1.41	93.2	Pulse	0.30	3
3	Sc		59,170.66	1.44	98.6	Pulse	0.30	3
3	Ge		49,551.70	1.12	97.2	Pulse	0.30	3
3	Rh		469,636.35	0.13	95.2	Pulse	0.30	3
3	Tb		730,564.03	0.27	97.4	Pulse	0.30	3

Quantitation Report

File Name	021_CCB.d
File Path	C:\Agilent\ICPMH\1\DATA\.b111218m1.b
Method File	
Method Path	
Acq Time	11/12/2018 12:56
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	11/13/2018 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.003	ug/l	89.51	40.00	2.277E-05	Pulse	0.25	3
B			1	1.051	ug/l	6.15	14,294.13	8.109E-03	Pulse	0.15	3
Ca			1	-0.630	ug/l	-131.95	26,659.68	9.768E-03	Pulse	0.10	3
Sr			1	0.006	ug/l	45.67	530.03	2.075E-04	Pulse	0.10	3
Mo			1	0.019	ug/l	23.12	126.67	4.967E-05	Pulse	0.10	3
Ag			1	0.003	ug/l	30.30	86.67	3.452E-05	Pulse	0.10	3
Sn			1	0.033	ug/l	30.76	533.37	2.124E-04	Pulse	0.10	3
Sb			1	0.158	ug/l	0.55	1,616.83	5.591E-04	Pulse	0.10	3
Ba			1	0.013	ug/l	108.73	66.67	2.315E-05	Pulse	0.10	3
Tl			1	0.006	ug/l	20.20	146.68	9.522E-05	Pulse	0.10	3
Pb			1	0.005	ug/l	115.54	66.67	4.314E-05	Pulse	0.10	3
Pb			1	0.012	ug/l	30.58	80.00	5.185E-05	Pulse	0.10	3
Pb			1	0.006	ug/l	61.43	286.68	1.858E-04	Pulse	0.10	3
Na			2	-0.579	ug/l	-39.12	4,425.20	4.095E-02	Pulse	0.30	3
Mg			2	-0.184	ug/l	-23.32	140.00	1.295E-03	Pulse	0.30	3
Al			2	-0.155	ug/l	-104.21	65.55	6.067E-04	Pulse	0.30	3
K			2	0.263	ug/l	243.74	6,835.10	6.326E-02	Pulse	0.30	3
Ca			2	0.042	ug/l	7880.06	182.22	1.688E-03	Pulse	0.30	3
Ti			2	0.010	ug/l	173.21	1.11	1.034E-05	Pulse	0.30	3
V			2	0.003	ug/l	18.95	383.34	3.548E-03	Pulse	0.30	3
Cr			2	0.005	ug/l	157.83	328.90	3.045E-03	Pulse	0.30	3
Mn			2	0.002	ug/l	98.68	15.56	1.440E-04	Pulse	0.30	3
Fe			2	-0.173	ug/l	-38.78	2,559.17	2.369E-02	Pulse	0.30	3
Co			2	0.000	ug/l	489.90	43.33	4.013E-04	Pulse	0.30	3
Ni			2	-0.002	ug/l	-162.37	15.55	1.437E-04	Pulse	0.30	3
Cu			2	0.002	ug/l	259.09	195.56	1.809E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	-0.008	ug/l	-108.54	47.78	4.423E-04	Pulse	0.30	3
As			2	-0.001	ug/l	-1304.85	7.33	6.813E-05	Pulse	1.00	3
Cd			2	0.007	ug/l	60.24	10.94	2.651E-05	Pulse	0.30	3
Sn			2	0.030	ug/l	56.33	110.00	2.665E-04	Pulse	0.30	3
Se			3	-0.037	ug/l	-179.47	22.80	4.497E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,762,658.94	1.18	98.5	Pulse	0.10	3
1	Sc		2,728,717.46	1.26	100.1	Pulse	0.10	3
1	Ge		583,095.53	0.60	98.9	Pulse	0.10	3
1	Rh		2,553,763.50	1.33	99.5	Pulse	0.10	3
1	In		2,511,505.82	0.63	99.5	Pulse	0.10	3
1	Tb		2,892,095.90	1.70	98.0	Pulse	0.10	3
1	Ho		5,890,297.62	1.38	104.0	Analog	0.10	3
1	Bi		1,539,612.69	1.35	99.5	Pulse	0.10	3
2	Sc		108,058.52	0.62	98.5	Pulse	0.30	3
2	Ge		74,733.07	0.72	97.7	Pulse	0.30	3
2	Rh		1,187,555.13	1.44	97.6	Pulse	0.30	3
2	In		412,707.66	0.32	98.3	Pulse	0.30	3
2	Tb		1,211,910.99	0.41	98.2	Pulse	0.30	3
2	Ho		2,323,044.08	0.60	98.1	Pulse	0.30	3
2	Bi		670,861.12	1.09	98.1	Pulse	0.30	3
3	Sc		60,099.03	0.89	100.2	Pulse	0.30	3
3	Ge		50,680.14	1.81	99.4	Pulse	0.30	3
3	Rh		490,118.52	0.28	99.4	Pulse	0.30	3
3	Tb		739,617.00	0.68	98.6	Pulse	0.30	3

Quantitation Report

File Name	022LCCV.d
File Path	C:\Agilent\ICPMH\1\DATA\.b111218m1.b
Method File	
Method Path	
Acq Time	11/12/2018 13:01
Sample Name	CRI
Sample Type	LLCCV
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	11/13/2018 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.486	ug/l	1.16	2,844.33	1.620E-03	Pulse	0.25	3
B			1	25.168	ug/l	2.22	134,747.01	7.678E-02	Pulse	0.15	3
Ca			1	246.817	ug/l	0.53	220,218.64	8.115E-02	Pulse	0.10	3
Sr			1	5.053	ug/l	1.83	147,097.92	5.807E-02	Pulse	0.10	3
Mo			1	0.984	ug/l	3.85	5,751.49	2.269E-03	Pulse	0.10	3
Ag			1	0.529	ug/l	5.91	6,975.41	2.761E-03	Pulse	0.10	3
Sn			1	4.943	ug/l	3.26	39,520.02	1.564E-02	Pulse	0.10	3
Sb			1	2.078	ug/l	2.69	18,313.20	6.357E-03	Pulse	0.10	3
Ba			1	1.003	ug/l	3.24	3,587.28	1.245E-03	Pulse	0.10	3
Tl			1	0.513	ug/l	6.12	8,870.12	5.792E-03	Pulse	0.10	3
Pb			1	0.496	ug/l	2.93	2,990.48	1.952E-03	Pulse	0.10	3
Pb			1	0.479	ug/l	1.10	2,533.69	1.654E-03	Pulse	0.10	3
Pb			1	0.491	ug/l	2.57	11,856.00	7.738E-03	Pulse	0.10	3
Na			2	251.731	ug/l	0.38	213,078.71	1.954E+00	Pulse	0.30	3
Mg			2	252.729	ug/l	0.69	101,698.79	9.324E-01	Pulse	0.30	3
Al			2	25.388	ug/l	4.31	3,679.42	3.373E-02	Pulse	0.30	3
K			2	251.637	ug/l	0.55	79,133.47	7.256E-01	Pulse	0.30	3
Ca			2	279.344	ug/l	1.83	4,451.87	4.082E-02	Pulse	0.30	3
Ti			2	0.980	ug/l	22.62	112.22	1.029E-03	Pulse	0.30	3
V			2	1.011	ug/l	4.10	3,998.40	3.667E-02	Pulse	0.30	3
Cr			2	1.020	ug/l	1.37	4,769.76	4.374E-02	Pulse	0.30	3
Mn			2	0.973	ug/l	6.38	2,197.98	2.015E-02	Pulse	0.30	3
Fe			2	24.644	ug/l	0.41	88,818.30	8.144E-01	Pulse	0.30	3
Co			2	0.489	ug/l	3.09	3,294.88	3.020E-02	Pulse	0.30	3
Ni			2	0.996	ug/l	4.64	1,772.36	1.626E-02	Pulse	0.30	3
Cu			2	2.038	ug/l	1.49	9,683.50	8.879E-02	Pulse	0.30	3
Zn			2	4.918	ug/l	1.56	3,198.19	2.933E-02	Pulse	0.30	3
As			2	0.476	ug/l	1.91	178.33	1.635E-03	Pulse	1.00	3
Cd			2	0.490	ug/l	12.05	644.55	1.575E-03	Pulse	0.30	3
Sn			2	5.099	ug/l	3.41	8,593.98	2.098E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	1.085	ug/l	10.08	68.73	1.361E-03	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,755,318.48	1.29	98.1	Pulse	0.10	3
1	Sc		2,713,834.65	0.76	99.5	Pulse	0.10	3
1	Ge		582,936.66	2.60	98.9	Pulse	0.10	3
1	Rh		2,533,794.18	1.63	98.7	Pulse	0.10	3
1	In		2,527,649.97	1.65	100.1	Pulse	0.10	3
1	Tb		2,881,632.77	1.96	97.6	Pulse	0.10	3
1	Ho		5,550,322.42	5.45	98.0	Mix	0.10	3
1	Bi		1,532,257.94	1.83	99.0	Pulse	0.10	3
2	Sc		109,065.36	1.25	99.4	Pulse	0.30	3
2	Ge		74,876.07	1.38	97.9	Pulse	0.30	3
2	Rh		1,192,876.79	1.15	98.1	Pulse	0.30	3
2	In		409,768.85	1.46	97.6	Pulse	0.30	3
2	Tb		1,221,294.85	1.48	99.0	Pulse	0.30	3
2	Ho		2,305,804.77	1.22	97.3	Pulse	0.30	3
2	Bi		664,197.51	2.44	97.1	Pulse	0.30	3
3	Sc		59,839.00	1.09	99.7	Pulse	0.30	3
3	Ge		50,466.24	1.56	99.0	Pulse	0.30	3
3	Rh		486,938.58	1.20	98.7	Pulse	0.30	3
3	Tb		736,054.41	1.04	98.1	Pulse	0.30	3

Quantitation Report

File Name 023ICSA.d
File Path C:\Agilent\ICPMH\1\DATA\.b111218m1.b
Method File
Method Path
Acq Time 11/12/2018 13:06
Sample Name ICSA
Sample Type ICSA
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name Metals
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 11/13/2018 7:20
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.005	ug/l	22.25	45.33	2.979E-05	Pulse	0.25	3
B			1	6.896	ug/l	1.34	37,654.94	2.475E-02	Pulse	0.15	3
Ca			1	99072.182	ug/l	0.87	68,604,940.64	2.859E+01	Analog	0.10	3
Sr			1	2137.461	ug/l	1.06	50,747,805.91	2.450E+01	Analog	0.10	3
Mo			1	2203.840	ug/l	1.17	10,497,114.63	5.068E+00	Analog	0.10	3
Ag			1	0.029	ug/l	5.52	363.35	1.695E-04	Pulse	0.10	3
Sn			1	2036.372	ug/l	1.43	13,714,527.71	6.398E+00	Analog	0.10	3
Sb			1	0.072	ug/l	10.88	783.39	2.994E-04	Pulse	0.10	3
Ba			1	0.164	ug/l	11.07	546.70	2.090E-04	Pulse	0.10	3
Tl			1	0.015	ug/l	21.82	256.68	2.021E-04	Pulse	0.10	3
Pb			1	0.094	ug/l	8.09	493.37	3.890E-04	Pulse	0.10	3
Pb			1	0.099	ug/l	23.55	446.69	3.518E-04	Pulse	0.10	3
Pb			1	0.095	ug/l	9.47	1,986.82	1.565E-03	Pulse	0.10	3
Na			2	95194.272	ug/l	1.42	70,445,870.54	7.217E+02	Analog	0.30	3
Mg			2	92309.555	ug/l	1.32	33,169,683.13	3.398E+02	Analog	0.30	3
Al			2	95884.391	ug/l	0.84	12,136,639.79	1.243E+02	Analog	0.30	3
K			2	99235.905	ug/l	1.20	25,526,576.21	2.615E+02	Analog	0.30	3
Ca			2	102052.544	ug/l	0.69	1,395,760.99	1.430E+01	Pulse	0.30	3
Ti			2	1836.334	ug/l	0.76	188,320.10	1.929E+00	Pulse	0.30	3
V			2	0.036	ug/l	17.14	448.90	4.600E-03	Pulse	0.30	3
Cr			2	0.244	ug/l	3.00	1,231.18	1.261E-02	Pulse	0.30	3
Mn			2	0.314	ug/l	5.75	641.13	6.571E-03	Pulse	0.30	3
Fe			2	93639.732	ug/l	1.29	291,211,046.21	2.983E+03	Analog	0.30	3
Co			2	0.095	ug/l	11.79	604.47	6.192E-03	Pulse	0.30	3
Ni			2	0.709	ug/l	5.97	1,134.50	1.162E-02	Pulse	0.30	3
Cu			2	0.314	ug/l	1.26	1,476.77	1.513E-02	Pulse	0.30	3
Zn			2	0.769	ug/l	6.04	487.79	4.998E-03	Pulse	0.30	3
As			2	0.088	ug/l	29.37	35.33	3.620E-04	Pulse	1.00	3
Cd			2	0.322	ug/l	89.11	358.79	1.034E-03	Pulse	0.30	3
Sn			2	1919.819	ug/l	0.74	2,747,798.15	7.846E+00	Pulse	0.30	3
Se			3	0.046	ug/l	377.04	23.33	5.168E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,521,265.01	0.53	85.0	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,399,867.20	1.24	88.0	Pulse	0.10	3
1	Ge		499,972.47	1.15	84.8	Pulse	0.10	3
1	Rh		2,071,272.99	1.33	80.7	Pulse	0.10	3
1	In		2,143,590.43	0.85	84.9	Pulse	0.10	3
1	Tb		2,619,935.48	2.52	88.7	Pulse	0.10	3
1	Ho		4,926,312.22	1.96	87.0	Pulse	0.10	3
1	Bi		1,268,475.32	1.73	81.9	Pulse	0.10	3
2	Sc		97,606.69	0.89	89.0	Pulse	0.30	3
2	Ge		65,623.22	1.87	85.8	Pulse	0.30	3
2	Rh		973,093.57	1.60	80.0	Pulse	0.30	3
2	In		350,218.32	2.10	83.4	Pulse	0.30	3
2	Tb		1,086,885.06	1.58	88.1	Pulse	0.30	3
2	Ho		2,074,332.07	1.24	87.6	Pulse	0.30	3
2	Bi		543,122.46	1.58	79.4	Pulse	0.30	3
3	Sc		55,351.75	1.57	92.2	Pulse	0.30	3
3	Ge		45,173.26	1.49	88.6	Pulse	0.30	3
3	Rh		411,291.41	0.18	83.4	Pulse	0.30	3
3	Tb		684,694.44	0.47	91.3	Pulse	0.30	3

Quantitation Report

File Name 024ICSB.d
File Path C:\Agilent\ICPMH\1\DATA\.b111218m1.b
Method File
Method Path
Acq Time 11/12/2018 13:11
Sample Name ICSAB
Sample Type ICSB
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name Metals
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 11/13/2018 7:20
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.006	ug/l	85.26	44.00	3.070E-05	Pulse	0.25	3
B			1	53.340	ug/l	2.25	225,182.16	1.570E-01	Pulse	0.15	3
Ca			1	100503.929	ug/l	0.53	67,128,109.00	2.900E+01	Analog	0.10	3
Sr			1	2169.307	ug/l	1.20	50,294,249.25	2.487E+01	Analog	0.10	3
Mo			1	2264.624	ug/l	1.72	10,532,752.97	5.208E+00	Analog	0.10	3
Ag			1	21.281	ug/l	1.75	233,254.58	1.104E-01	Pulse	0.10	3
Sn			1	2096.785	ug/l	1.91	13,920,426.46	6.588E+00	Analog	0.10	3
Sb			1	0.104	ug/l	14.29	1,036.80	3.963E-04	Pulse	0.10	3
Ba			1	0.158	ug/l	12.28	526.70	2.013E-04	Pulse	0.10	3
Tl			1	0.013	ug/l	9.91	220.01	1.737E-04	Pulse	0.10	3
Pb			1	0.170	ug/l	4.27	866.74	6.846E-04	Pulse	0.10	3
Pb			1	0.214	ug/l	14.44	943.41	7.456E-04	Pulse	0.10	3
Pb			1	0.183	ug/l	3.55	3,720.36	2.939E-03	Pulse	0.10	3
Na			2	96251.721	ug/l	0.89	69,090,841.70	7.297E+02	Analog	0.30	3
Mg			2	93840.009	ug/l	0.64	32,711,585.37	3.455E+02	Analog	0.30	3
Al			2	97624.113	ug/l	0.70	11,986,466.47	1.266E+02	Analog	0.30	3
K			2	101372.302	ug/l	0.79	25,294,979.00	2.672E+02	Analog	0.30	3
Ca			2	104945.447	ug/l	0.79	1,392,305.95	1.470E+01	Pulse	0.30	3
Ti			2	1910.270	ug/l	0.60	190,024.20	2.007E+00	Pulse	0.30	3
V			2	20.972	ug/l	0.73	65,576.13	6.926E-01	Pulse	0.30	3
Cr			2	23.295	ug/l	0.43	88,694.66	9.368E-01	Pulse	0.30	3
Mn			2	23.881	ug/l	1.71	46,626.04	4.924E-01	Pulse	0.30	3
Fe			2	97765.188	ug/l	0.98	294,929,837.17	3.115E+03	Analog	0.30	3
Co			2	22.563	ug/l	0.44	130,395.59	1.377E+00	Pulse	0.30	3
Ni			2	22.244	ug/l	1.00	34,007.46	3.592E-01	Pulse	0.30	3
Cu			2	21.175	ug/l	0.80	85,816.20	9.064E-01	Pulse	0.30	3
Zn			2	21.186	ug/l	0.81	11,808.52	1.247E-01	Pulse	0.30	3
As			2	22.467	ug/l	1.14	6,985.46	7.378E-02	Pulse	1.00	3
Cd			2	21.821	ug/l	1.90	24,313.74	6.991E-02	Pulse	0.30	3
Sn			2	1947.036	ug/l	0.67	2,767,685.24	7.957E+00	Pulse	0.30	3
Se			3	19.643	ug/l	4.10	750.62	1.645E-02	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,434,508.28	0.64	80.2	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,314,692.51	1.17	84.9	Pulse	0.10	3
1	Ge		490,890.19	1.40	83.3	Pulse	0.10	3
1	Rh		2,022,562.11	0.89	78.8	Pulse	0.10	3
1	In		2,113,407.28	1.83	83.7	Pulse	0.10	3
1	Tb		2,618,560.95	1.26	88.7	Pulse	0.10	3
1	Ho		4,918,958.26	0.71	86.9	Pulse	0.10	3
1	Bi		1,265,658.11	1.17	81.8	Pulse	0.10	3
2	Sc		94,682.30	0.65	86.3	Pulse	0.30	3
2	Ge		64,517.91	0.69	84.3	Pulse	0.30	3
2	Rh		965,308.50	1.17	79.4	Pulse	0.30	3
2	In		347,820.05	1.21	82.8	Pulse	0.30	3
2	Tb		1,076,003.57	1.64	87.2	Pulse	0.30	3
2	Ho		2,073,976.10	1.34	87.5	Pulse	0.30	3
2	Bi		544,834.51	0.96	79.6	Pulse	0.30	3
3	Sc		55,142.00	0.86	91.9	Pulse	0.30	3
3	Ge		45,631.52	0.95	89.5	Pulse	0.30	3
3	Rh		414,400.59	0.25	84.0	Pulse	0.30	3
3	Tb		689,566.12	0.19	91.9	Pulse	0.30	3

Quantitation Report

File Name 025SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\.b111218m1.b
Method File
Method Path
Acq Time 11/12/2018 13:16
Sample Name rinseconf
Sample Type Sample
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name Metals
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 11/13/2018 7:20
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	-0.001	ug/l	-66.91	12.00	8.104E-06	Pulse	0.25	3
B			1	0.337	ug/l	21.38	9,027.53	6.076E-03	Pulse	0.15	3
Ca			1	4.174	ug/l	24.07	26,546.18	1.115E-02	Pulse	0.10	3
Sr			1	0.161	ug/l	1.70	4,704.33	1.978E-03	Pulse	0.10	3
Mo			1	0.405	ug/l	7.82	2,230.29	9.370E-04	Pulse	0.10	3
Ag			1	0.000	ug/l	524.34	50.00	2.084E-05	Pulse	0.10	3
Sn			1	0.209	ug/l	11.85	1,823.53	7.633E-04	Pulse	0.10	3
Sb			1	-0.009	ug/l	-25.91	156.68	5.530E-05	Pulse	0.10	3
Ba			1	-0.002	ug/l	-189.09	13.33	4.667E-06	Pulse	0.10	3
Tl			1	0.000	ug/l	283.65	53.33	3.452E-05	Pulse	0.10	3
Pb			1	0.003	ug/l	170.60	50.00	3.251E-05	Pulse	0.10	3
Pb			1	0.004	ug/l	158.81	36.67	2.350E-05	Pulse	0.10	3
Pb			1	0.001	ug/l	81.72	180.01	1.171E-04	Pulse	0.10	3
Na			2	7.939	ug/l	8.15	9,996.99	1.055E-01	Pulse	0.30	3
Mg			2	4.760	ug/l	11.95	1,847.93	1.950E-02	Pulse	0.30	3
Al			2	4.583	ug/l	18.19	640.02	6.750E-03	Pulse	0.30	3
K			2	4.168	ug/l	26.05	6,966.27	7.355E-02	Pulse	0.30	3
Ca			2	1.730	ug/l	4.48	182.22	1.924E-03	Pulse	0.30	3
Ti			2	0.168	ug/l	21.20	16.67	1.764E-04	Pulse	0.30	3
V			2	-0.012	ug/l	-102.92	286.67	3.032E-03	Pulse	0.30	3
Cr			2	-0.002	ug/l	-301.66	260.01	2.743E-03	Pulse	0.30	3
Mn			2	0.006	ug/l	109.05	20.00	2.098E-04	Pulse	0.30	3
Fe			2	5.427	ug/l	10.06	19,152.58	2.021E-01	Pulse	0.30	3
Co			2	0.000	ug/l	-1683.66	35.55	3.757E-04	Pulse	0.30	3
Ni			2	-0.005	ug/l	-82.28	10.00	1.062E-04	Pulse	0.30	3
Cu			2	0.067	ug/l	20.64	432.23	4.572E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	-0.003	ug/l	-531.82	44.44	4.687E-04	Pulse	0.30	3
As			2	-0.008	ug/l	-166.82	4.33	4.607E-05	Pulse	1.00	3
Cd			2	0.002	ug/l	4.91	4.60	1.199E-05	Pulse	0.30	3
Sn			2	0.130	ug/l	10.02	258.90	6.741E-04	Pulse	0.30	3
Se			3	0.252	ug/l	173.92	32.93	6.844E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,486,341.33	1.63	83.1	Pulse	0.10	3
1	Sc		2,380,157.26	1.06	87.3	Pulse	0.10	3
1	Ge		530,781.09	0.63	90.1	Pulse	0.10	3
1	Rh		2,378,662.20	2.27	92.7	Pulse	0.10	3
1	In		2,384,048.89	3.24	94.4	Pulse	0.10	3
1	Tb		2,841,370.27	3.63	96.2	Pulse	0.10	3
1	Ho		5,439,404.92	4.65	96.1	Mix	0.10	3
1	Bi		1,539,440.81	2.55	99.5	Pulse	0.10	3
2	Sc		94,685.81	1.95	86.3	Pulse	0.30	3
2	Ge		68,596.60	1.83	89.7	Pulse	0.30	3
2	Rh		1,117,165.55	0.58	91.8	Pulse	0.30	3
2	In		383,945.79	0.67	91.4	Pulse	0.30	3
2	Tb		1,168,033.74	1.00	94.7	Pulse	0.30	3
2	Ho		2,252,223.31	0.69	95.1	Pulse	0.30	3
2	Bi		653,918.76	0.76	95.6	Pulse	0.30	3
3	Sc		56,694.93	1.49	94.5	Pulse	0.30	3
3	Ge		48,100.96	0.99	94.3	Pulse	0.30	3
3	Rh		481,623.16	0.62	97.6	Pulse	0.30	3
3	Tb		741,054.75	0.18	98.8	Pulse	0.30	3

Quantitation Report

File Name	026_CCV.d
File Path	C:\Agilent\ICPMH\1\DATA\.b111218m1.b
Method File	
Method Path	
Acq Time	11/12/2018 13:21
Sample Name	CCVA
Sample Type	CCV
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	11/13/2018 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	49.012	ug/l	1.78	251,025.40	1.623E-01	Pulse	0.25	3
B			1	94.477	ug/l	2.20	423,910.33	2.741E-01	Pulse	0.15	3
Ca			1	4783.799	ug/l	0.92	3,415,217.45	1.390E+00	Pulse	0.10	3
Sr			1	51.745	ug/l	0.67	1,399,841.65	5.933E-01	Pulse	0.10	3
Mo			1	50.439	ug/l	1.69	273,679.27	1.160E-01	Pulse	0.10	3
Ag			1	46.496	ug/l	1.02	577,678.14	2.412E-01	Pulse	0.10	3
Sn			1	48.967	ug/l	0.16	368,787.68	1.540E-01	Pulse	0.10	3
Sb			1	48.430	ug/l	0.45	418,556.11	1.463E-01	Pulse	0.10	3
Ba			1	47.937	ug/l	0.35	169,156.96	5.913E-02	Pulse	0.10	3
Tl			1	50.910	ug/l	1.42	838,603.50	5.720E-01	Pulse	0.10	3
Pb			1	50.411	ug/l	1.07	287,629.50	1.962E-01	Pulse	0.10	3
Pb			1	50.084	ug/l	0.76	252,005.30	1.719E-01	Pulse	0.10	3
Pb			1	49.963	ug/l	0.43	1,139,812.03	7.774E-01	Pulse	0.10	3
Na			2	4736.716	ug/l	0.99	3,527,481.80	3.595E+01	Pulse	0.30	3
Mg			2	4765.585	ug/l	1.16	1,721,560.10	1.755E+01	Pulse	0.30	3
Al			2	4764.231	ug/l	0.68	606,251.35	6.179E+00	Pulse	0.30	3
K			2	4826.045	ug/l	0.73	1,253,791.37	1.278E+01	Pulse	0.30	3
Ca			2	5067.341	ug/l	0.61	69,824.94	7.116E-01	Pulse	0.30	3
Ti			2	50.098	ug/l	3.21	5,163.24	5.263E-02	Pulse	0.30	3
V			2	49.881	ug/l	0.33	161,173.75	1.643E+00	Pulse	0.30	3
Cr			2	49.572	ug/l	0.47	195,280.80	1.990E+00	Pulse	0.30	3
Mn			2	49.586	ug/l	0.36	100,313.64	1.022E+00	Pulse	0.30	3
Fe			2	5124.963	ug/l	0.79	16,023,618.25	1.633E+02	Analog	0.30	3
Co			2	49.268	ug/l	0.47	295,005.93	3.007E+00	Pulse	0.30	3
Ni			2	49.103	ug/l	1.09	77,768.72	7.926E-01	Pulse	0.30	3
Cu			2	49.045	ug/l	0.78	205,759.31	2.097E+00	Pulse	0.30	3
Zn			2	48.723	ug/l	1.23	28,082.11	2.862E-01	Pulse	0.30	3
As			2	49.334	ug/l	1.23	15,887.21	1.619E-01	Pulse	1.00	3
Cd			2	48.942	ug/l	0.43	59,867.90	1.568E-01	Pulse	0.30	3
Sn			2	49.562	ug/l	0.59	77,383.39	2.027E-01	Pulse	0.30	3
Se			3	200.185	ug/l	7.50	7,774.40	1.632E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,546,694.54	1.12	86.5	Pulse	0.10	3
1	Sc		2,457,111.94	0.79	90.1	Pulse	0.10	3
1	Ge		548,748.62	1.44	93.1	Pulse	0.10	3

Quantitation Report

1	Rh		2,359,468.66	0.94	91.9	Pulse	0.10	3
1	In		2,395,336.18	0.68	94.9	Pulse	0.10	3
1	Tb		2,860,623.71	1.41	96.9	Pulse	0.10	3
1	Ho		5,386,056.80	1.52	95.1	Pulse	0.10	3
1	Bi		1,466,216.07	2.40	94.7	Pulse	0.10	3
2	Sc		98,121.14	1.21	89.4	Pulse	0.30	3
2	Ge		69,891.77	0.76	91.4	Pulse	0.30	3
2	Rh		1,106,754.89	1.18	91.0	Pulse	0.30	3
2	In		381,810.97	0.97	90.9	Pulse	0.30	3
2	Tb		1,176,972.56	1.00	95.4	Pulse	0.30	3
2	Ho		2,258,880.33	1.10	95.4	Pulse	0.30	3
2	Bi		634,815.22	1.12	92.8	Pulse	0.30	3
3	Sc		58,057.05	1.02	96.8	Pulse	0.30	3
3	Ge		47,645.04	0.61	93.4	Pulse	0.30	3
3	Rh		470,113.35	0.65	95.3	Pulse	0.30	3
3	Tb		736,627.28	0.57	98.2	Pulse	0.30	3

Quantitation Report

File Name	027_CCB.d
File Path	C:\Agilent\ICPMH\1\DATA\.b111218m1.b
Method File	
Method Path	
Acq Time	11/12/2018 13:26
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	11/13/2018 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.002	ug/l	64.79	32.00	1.996E-05	Pulse	0.25	3
B			1	0.879	ug/l	3.61	12,207.77	7.619E-03	Pulse	0.15	3
Ca			1	-1.118	ug/l	-57.39	24,595.81	9.627E-03	Pulse	0.10	3
Sr			1	0.025	ug/l	11.30	1,053.42	4.245E-04	Pulse	0.10	3
Mo			1	0.067	ug/l	25.06	396.69	1.600E-04	Pulse	0.10	3
Ag			1	-0.001	ug/l	-58.23	36.67	1.481E-05	Pulse	0.10	3
Sn			1	0.034	ug/l	20.51	530.03	2.141E-04	Pulse	0.10	3
Sb			1	0.136	ug/l	15.22	1,416.80	4.917E-04	Pulse	0.10	3
Ba			1	0.010	ug/l	44.54	56.67	1.973E-05	Pulse	0.10	3
Tl			1	0.005	ug/l	41.09	140.01	9.069E-05	Pulse	0.10	3
Pb			1	0.003	ug/l	173.25	50.00	3.218E-05	Pulse	0.10	3
Pb			1	0.004	ug/l	120.08	40.00	2.573E-05	Pulse	0.10	3
Pb			1	0.004	ug/l	82.20	233.34	1.502E-04	Pulse	0.10	3
Na			2	2.532	ug/l	14.94	6,528.24	6.453E-02	Pulse	0.30	3
Mg			2	0.855	ug/l	16.10	518.91	5.123E-03	Pulse	0.30	3
Al			2	0.902	ug/l	10.79	200.00	1.977E-03	Pulse	0.30	3
K			2	0.907	ug/l	97.95	6,577.18	6.495E-02	Pulse	0.30	3
Ca			2	-0.075	ug/l	-2115.83	168.89	1.672E-03	Pulse	0.30	3
Ti			2	0.010	ug/l	173.21	1.11	1.074E-05	Pulse	0.30	3
V			2	-0.009	ug/l	-85.23	317.79	3.143E-03	Pulse	0.30	3
Cr			2	-0.003	ug/l	-33.43	276.67	2.733E-03	Pulse	0.30	3
Mn			2	0.006	ug/l	21.36	23.33	2.302E-04	Pulse	0.30	3
Fe			2	0.761	ug/l	4.70	5,410.00	5.346E-02	Pulse	0.30	3
Co			2	0.004	ug/l	95.68	64.44	6.360E-04	Pulse	0.30	3
Ni			2	0.000	ug/l	532.60	18.89	1.869E-04	Pulse	0.30	3
Cu			2	0.041	ug/l	41.82	351.12	3.473E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	0.220	ug/l	11.29	180.00	1.779E-03	Pulse	0.30	3
As			2	-0.005	ug/l	-33.00	5.67	5.599E-05	Pulse	1.00	3
Cd			2	0.004	ug/l	59.03	7.15	1.803E-05	Pulse	0.30	3
Sn			2	0.046	ug/l	20.04	131.11	3.299E-04	Pulse	0.30	3
Se			3	0.436	ug/l	77.49	40.47	8.339E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,602,313.53	0.45	89.6	Pulse	0.10	3
1	Sc		2,555,185.48	1.24	93.7	Pulse	0.10	3
1	Ge		558,831.38	0.43	94.8	Pulse	0.10	3
1	Rh		2,482,098.14	0.63	96.7	Pulse	0.10	3
1	In		2,476,126.55	0.57	98.1	Pulse	0.10	3
1	Tb		2,886,581.10	2.61	97.8	Pulse	0.10	3
1	Ho		5,856,754.70	0.62	103.4	Analog	0.10	3
1	Bi		1,551,288.52	2.71	100.2	Pulse	0.10	3
2	Sc		101,215.52	1.93	92.3	Pulse	0.30	3
2	Ge		72,134.45	1.05	94.3	Pulse	0.30	3
2	Rh		1,154,205.86	0.93	94.9	Pulse	0.30	3
2	In		397,355.08	1.97	94.6	Pulse	0.30	3
2	Tb		1,193,452.90	1.42	96.7	Pulse	0.30	3
2	Ho		2,301,950.19	1.41	97.2	Pulse	0.30	3
2	Bi		664,177.32	2.39	97.1	Pulse	0.30	3
3	Sc		58,079.45	0.73	96.8	Pulse	0.30	3
3	Ge		48,515.93	0.21	95.2	Pulse	0.30	3
3	Rh		482,323.42	0.40	97.8	Pulse	0.30	3
3	Tb		738,521.31	0.12	98.5	Pulse	0.30	3

Quantitation Report

File Name	028SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\.b111218m1.b
Method File	
Method Path	
Acq Time	11/12/2018 13:31
Sample Name	MDL-SOILMB1CONF
Sample Type	Sample
Comment	
Prep Dilution	5.000
Auto Dilution	N/A
Total Dilution	5.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	11/13/2018 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.007	ug/l	122.94	26.67	1.667E-05	Pulse	0.25	3
B			1	3.537	ug/l	14.63	11,424.85	7.132E-03	Pulse	0.15	3
Ca			1	149.475	ug/l	3.21	48,107.53	1.857E-02	Pulse	0.10	3
Sr			1	0.862	ug/l	4.04	5,217.87	2.113E-03	Pulse	0.10	3
Mo			1	0.493	ug/l	15.55	573.37	2.320E-04	Pulse	0.10	3
Ag			1	0.027	ug/l	32.75	116.67	4.681E-05	Pulse	0.10	3
Sn			1	16.160	ug/l	2.88	25,564.67	1.026E-02	Pulse	0.10	3
Sb			1	0.397	ug/l	14.42	936.74	3.220E-04	Pulse	0.10	3
Ba			1	0.451	ug/l	16.67	343.35	1.181E-04	Pulse	0.10	3
Tl			1	0.015	ug/l	30.32	100.00	6.518E-05	Pulse	0.10	3
Pb			1	0.128	ug/l	17.04	186.68	1.217E-04	Pulse	0.10	3
Pb			1	0.180	ug/l	4.98	206.68	1.350E-04	Pulse	0.10	3
Pb			1	0.133	ug/l	3.44	780.04	5.092E-04	Pulse	0.10	3
Na			2	273.184	ug/l	1.19	46,211.91	4.595E-01	Pulse	0.30	3
Mg			2	32.321	ug/l	6.59	2,592.50	2.577E-02	Pulse	0.30	3
Al			2	12.935	ug/l	10.29	418.90	4.163E-03	Pulse	0.30	3
K			2	254.430	ug/l	2.02	19,774.15	1.966E-01	Pulse	0.30	3
Ca			2	160.614	ug/l	15.90	621.13	6.183E-03	Pulse	0.30	3
Ti			2	0.526	ug/l	63.03	11.11	1.106E-04	Pulse	0.30	3
V			2	0.551	ug/l	22.62	708.92	7.057E-03	Pulse	0.30	3
Cr			2	0.911	ug/l	6.83	1,020.05	1.014E-02	Pulse	0.30	3
Mn			2	0.371	ug/l	18.52	163.34	1.627E-03	Pulse	0.30	3
Fe			2	34.601	ug/l	0.56	25,114.03	2.497E-01	Pulse	0.30	3
Co			2	0.022	ug/l	91.50	64.45	6.433E-04	Pulse	0.30	3
Ni			2	0.419	ug/l	6.79	154.45	1.535E-03	Pulse	0.30	3
Cu			2	2.908	ug/l	7.09	2,670.29	2.655E-02	Pulse	0.30	3
Zn			2	6.255	ug/l	11.77	787.81	7.824E-03	Pulse	0.30	3
As			2	0.076	ug/l	26.44	12.33	1.228E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	0.051	ug/l	67.37	14.39	3.706E-05	Pulse	0.30	3
Sn			2	15.620	ug/l	1.14	5,047.72	1.291E-02	Pulse	0.30	3
Se			3	4.478	ug/l	47.98	61.40	1.208E-03	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,602,392.22	0.92	89.6	Pulse	0.10	3
1	Sc		2,590,239.91	0.52	95.0	Pulse	0.10	3
1	Ge		567,081.07	0.86	96.2	Pulse	0.10	3
1	Rh		2,469,078.30	1.09	96.2	Pulse	0.10	3
1	In		2,491,869.62	1.72	98.7	Pulse	0.10	3
1	Tb		2,911,181.21	1.91	98.6	Pulse	0.10	3
1	Ho		5,532,851.17	5.20	97.7	Mix	0.10	3
1	Bi		1,531,961.07	2.14	99.0	Pulse	0.10	3
2	Sc		100,576.47	1.59	91.7	Pulse	0.30	3
2	Ge		71,328.22	1.62	93.3	Pulse	0.30	3
2	Rh		1,155,543.22	1.70	95.0	Pulse	0.30	3
2	In		391,020.31	1.82	93.1	Pulse	0.30	3
2	Tb		1,179,627.63	1.34	95.6	Pulse	0.30	3
2	Ho		2,277,726.23	1.33	96.1	Pulse	0.30	3
2	Bi		654,928.31	1.75	95.7	Pulse	0.30	3
3	Sc		58,828.03	1.37	98.0	Pulse	0.30	3
3	Ge		50,765.11	0.92	99.6	Pulse	0.30	3
3	Rh		483,345.81	0.19	98.0	Pulse	0.30	3
3	Tb		734,386.90	0.38	97.9	Pulse	0.30	3

Quantitation Report

File Name	029SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\.b111218m1.b
Method File	
Method Path	
Acq Time	11/12/2018 13:36
Sample Name	MDL-SOILB1CONF
Sample Type	Sample
Comment	
Prep Dilution	5.000
Auto Dilution	N/A
Total Dilution	5.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	11/13/2018 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	196.458	ug/l	0.12	212,493.79	1.301E-01	Pulse	0.25	3
B			1	190.380	ug/l	0.39	185,393.03	1.135E-01	Pulse	0.15	3
Ca			1	9669.435	ug/l	0.61	1,490,759.82	5.678E-01	Pulse	0.10	3
Sr			1	203.649	ug/l	1.68	1,149,421.78	4.670E-01	Pulse	0.10	3
Mo			1	197.497	ug/l	1.41	223,646.03	9.085E-02	Pulse	0.10	3
Ag			1	92.459	ug/l	1.71	235,194.66	9.593E-02	Pulse	0.10	3
Sn			1	208.231	ug/l	0.54	321,099.12	1.310E-01	Pulse	0.10	3
Sb			1	199.490	ug/l	1.14	348,010.28	1.206E-01	Pulse	0.10	3
Ba			1	192.388	ug/l	2.22	137,017.41	4.747E-02	Pulse	0.10	3
Tl			1	198.211	ug/l	1.41	671,010.67	4.454E-01	Pulse	0.10	3
Pb			1	197.024	ug/l	1.16	231,029.21	1.534E-01	Pulse	0.10	3
Pb			1	195.453	ug/l	0.60	202,132.51	1.342E-01	Pulse	0.10	3
Pb			1	197.727	ug/l	0.44	927,078.10	6.154E-01	Pulse	0.10	3
Na			2	9850.620	ug/l	0.85	1,525,103.48	1.498E+01	Pulse	0.30	3
Mg			2	9632.766	ug/l	0.32	722,286.22	7.095E+00	Pulse	0.30	3
Al			2	9432.166	ug/l	0.39	249,121.91	2.447E+00	Pulse	0.30	3
K			2	9764.703	ug/l	0.51	530,223.31	5.208E+00	Pulse	0.30	3
Ca			2	10987.432	ug/l	1.44	31,516.79	3.096E-01	Pulse	0.30	3
Ti			2	196.112	ug/l	1.72	4,195.13	4.121E-02	Pulse	0.30	3
V			2	198.092	ug/l	0.52	132,897.04	1.305E+00	Pulse	0.30	3
Cr			2	198.723	ug/l	0.20	162,507.95	1.596E+00	Pulse	0.30	3
Mn			2	199.984	ug/l	1.28	83,959.60	8.247E-01	Pulse	0.30	3
Fe			2	9328.553	ug/l	1.05	6,054,866.43	5.947E+01	Pulse	0.30	3
Co			2	199.668	ug/l	0.62	248,113.44	2.437E+00	Pulse	0.30	3
Ni			2	197.324	ug/l	1.10	64,861.66	6.371E-01	Pulse	0.30	3
Cu			2	199.189	ug/l	1.18	173,447.39	1.704E+00	Pulse	0.30	3
Zn			2	204.607	ug/l	0.80	24,479.71	2.405E-01	Pulse	0.30	3
As			2	195.745	ug/l	1.08	13,083.58	1.285E-01	Pulse	1.00	3
Cd			2	196.915	ug/l	1.37	49,139.84	1.262E-01	Pulse	0.30	3
Sn			2	209.646	ug/l	0.90	66,792.35	1.715E-01	Pulse	0.30	3
Se			3	540.347	ug/l	0.51	4,504.47	8.832E-02	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,633,009.79	0.77	91.3	Pulse	0.10	3
1	Sc		2,625,425.27	0.27	96.3	Pulse	0.10	3
1	Ge		572,347.63	1.13	97.1	Pulse	0.10	3

Quantitation Report

1	Rh		2,461,558.92	1.91	95.9	Pulse	0.10	3
1	In		2,451,916.32	0.49	97.1	Pulse	0.10	3
1	Tb		2,886,595.79	0.27	97.8	Pulse	0.10	3
1	Ho		5,615,331.79	6.25	99.2	Mix	0.10	3
1	Bi		1,506,584.92	1.28	97.3	Pulse	0.10	3
2	Sc		101,806.30	0.67	92.8	Pulse	0.30	3
2	Ge		70,651.16	2.20	92.4	Pulse	0.30	3
2	Rh		1,136,996.03	0.62	93.5	Pulse	0.30	3
2	In		389,494.35	1.34	92.7	Pulse	0.30	3
2	Tb		1,174,064.08	0.73	95.2	Pulse	0.30	3
2	Ho		2,259,809.21	1.64	95.4	Pulse	0.30	3
2	Bi		640,890.79	1.72	93.7	Pulse	0.30	3
3	Sc		60,858.98	1.65	101.4	Pulse	0.30	3
3	Ge		51,003.62	0.73	100.0	Pulse	0.30	3
3	Rh		491,118.05	0.51	99.6	Pulse	0.30	3
3	Tb		751,528.56	1.18	100.2	Pulse	0.30	3

Quantitation Report

File Name	030SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\.b111218m1.b
Method File	
Method Path	
Acq Time	11/12/2018 13:41
Sample Name	MDL-LOQ-SOILCONF
Sample Type	Sample
Comment	
Prep Dilution	5.000
Auto Dilution	N/A
Total Dilution	5.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	11/13/2018 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.028	ug/l	22.18	53.33	3.112E-05	Pulse	0.25	3
B			1	1.768	ug/l	30.18	10,508.59	6.124E-03	Pulse	0.15	3
Ca			1	2.886	ug/l	240.83	28,192.75	1.012E-02	Pulse	0.10	3
Sr			1	0.123	ug/l	17.01	1,106.75	4.187E-04	Pulse	0.10	3
Mo			1	0.221	ug/l	29.30	280.02	1.066E-04	Pulse	0.10	3
Ag			1	0.000	ug/l	31399.62	50.00	1.887E-05	Pulse	0.10	3
Sn			1	0.469	ug/l	18.69	1,053.44	4.022E-04	Pulse	0.10	3
Sb			1	0.036	ug/l	74.86	320.02	1.041E-04	Pulse	0.10	3
Ba			1	0.077	ug/l	41.12	80.00	2.584E-05	Pulse	0.10	3
Tl			1	0.050	ug/l	13.89	233.34	1.437E-04	Pulse	0.10	3
Pb			1	0.048	ug/l	83.39	96.67	5.932E-05	Pulse	0.10	3
Pb			1	0.064	ug/l	29.51	90.00	5.543E-05	Pulse	0.10	3
Pb			1	0.039	ug/l	17.40	350.01	2.154E-04	Pulse	0.10	3
Na			2	11.805	ug/l	4.23	6,576.03	6.324E-02	Pulse	0.30	3
Mg			2	3.430	ug/l	8.83	467.79	4.500E-03	Pulse	0.30	3
Al			2	6.279	ug/l	15.66	253.34	2.436E-03	Pulse	0.30	3
K			2	6.558	ug/l	77.61	6,863.99	6.602E-02	Pulse	0.30	3
Ca			2	15.094	ug/l	29.11	218.89	2.105E-03	Pulse	0.30	3
Ti			2	0.152	ug/l	99.17	3.33	3.195E-05	Pulse	0.30	3
V			2	0.134	ug/l	107.88	447.79	4.314E-03	Pulse	0.30	3
Cr			2	0.491	ug/l	103.71	707.40	6.773E-03	Pulse	0.30	3
Mn			2	0.106	ug/l	10.05	55.56	5.339E-04	Pulse	0.30	3
Fe			2	58.710	ug/l	3.48	41,932.36	4.033E-01	Pulse	0.30	3
Co			2	0.021	ug/l	95.06	65.55	6.323E-04	Pulse	0.30	3
Ni			2	0.155	ug/l	38.44	71.11	6.830E-04	Pulse	0.30	3
Cu			2	0.367	ug/l	5.71	503.35	4.840E-03	Pulse	0.30	3
Zn			2	1.980	ug/l	0.48	292.23	2.810E-03	Pulse	0.30	3
As			2	0.055	ug/l	91.79	11.33	1.089E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	0.021	ug/l	57.86	7.18	1.806E-05	Pulse	0.30	3
Sn			2	0.541	ug/l	13.35	232.23	5.847E-04	Pulse	0.30	3
Se			3	1.471	ug/l	123.07	35.80	7.188E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,717,924.78	4.24	96.0	Pulse	0.10	3
1	Sc		2,789,304.23	3.62	102.3	Pulse	0.10	3
1	Ge		599,181.44	3.36	101.7	Pulse	0.10	3
1	Rh		2,645,900.64	3.98	103.1	Pulse	0.10	3
1	In		2,624,765.72	3.90	104.0	Pulse	0.10	3
1	Tb		3,079,357.87	2.65	104.3	Pulse	0.10	3
1	Ho		6,249,416.57	3.73	110.4	Analog	0.10	3
1	Bi		1,626,206.07	2.06	105.1	Pulse	0.10	3
2	Sc		103,998.30	1.35	94.8	Pulse	0.30	3
2	Ge		73,190.09	0.87	95.7	Pulse	0.30	3
2	Rh		1,166,150.47	1.14	95.9	Pulse	0.30	3
2	In		397,344.84	0.59	94.6	Pulse	0.30	3
2	Tb		1,194,327.90	0.58	96.8	Pulse	0.30	3
2	Ho		2,297,533.38	0.85	97.0	Pulse	0.30	3
2	Bi		663,503.74	0.43	97.0	Pulse	0.30	3
3	Sc		60,742.98	0.03	101.2	Pulse	0.30	3
3	Ge		49,736.82	1.10	97.5	Pulse	0.30	3
3	Rh		490,842.17	0.82	99.5	Pulse	0.30	3
3	Tb		744,619.35	1.42	99.3	Pulse	0.30	3

Quantitation Report

File Name	031SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\.b111218m1.b
Method File	
Method Path	
Acq Time	11/12/2018 13:46
Sample Name	mp10186a-s3 5
Sample Type	Sample
Comment	
Prep Dilution	5.000
Auto Dilution	N/A
Total Dilution	5.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	11/13/2018 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	80.685	ug/l	1.12	86,221.20	5.345E-02	Pulse	0.25	3
B			1	93.428	ug/l	2.01	94,081.66	5.832E-02	Pulse	0.15	3
Ca			1	14640.618	ug/l	1.02	2,213,539.97	8.546E-01	Pulse	0.10	3
Sr			1	149.367	ug/l	1.25	826,468.24	3.426E-01	Pulse	0.10	3
Mo			1	84.533	ug/l	1.03	93,812.63	3.889E-02	Pulse	0.10	3
Ag			1	78.098	ug/l	1.50	197,669.19	8.103E-02	Pulse	0.10	3
Sn			1	82.131	ug/l	1.90	126,163.74	5.172E-02	Pulse	0.10	3
Sb			1	82.609	ug/l	0.58	144,874.73	4.997E-02	Pulse	0.10	3
Ba			1	108.219	ug/l	1.00	77,405.44	2.670E-02	Pulse	0.10	3
Tl			1	82.256	ug/l	1.26	276,570.35	1.849E-01	Pulse	0.10	3
Pb			1	81.342	ug/l	1.21	94,739.69	6.333E-02	Pulse	0.10	3
Pb			1	81.930	ug/l	1.68	84,138.20	5.625E-02	Pulse	0.10	3
Pb			1	82.086	ug/l	1.81	382,233.37	2.555E-01	Pulse	0.10	3
Na			2	7511.768	ug/l	0.33	1,144,669.88	1.143E+01	Pulse	0.30	3
Mg			2	9969.579	ug/l	0.67	735,057.94	7.343E+00	Pulse	0.30	3
Al			2	3936.181	ug/l	1.23	102,274.46	1.022E+00	Pulse	0.30	3
K			2	5716.226	ug/l	0.78	307,803.61	3.075E+00	Pulse	0.30	3
Ca			2	15532.917	ug/l	1.63	43,737.42	4.369E-01	Pulse	0.30	3
Ti			2	78.784	ug/l	5.30	1,657.90	1.655E-02	Pulse	0.30	3
V			2	83.014	ug/l	0.86	54,963.88	5.490E-01	Pulse	0.30	3
Cr			2	84.373	ug/l	0.40	68,012.40	6.794E-01	Pulse	0.30	3
Mn			2	212.068	ug/l	1.02	87,546.98	8.745E-01	Pulse	0.30	3
Fe			2	4262.296	ug/l	0.60	2,721,874.54	2.719E+01	Pulse	0.30	3
Co			2	83.162	ug/l	0.85	101,642.93	1.015E+00	Pulse	0.30	3
Ni			2	82.618	ug/l	0.81	26,715.90	2.669E-01	Pulse	0.30	3
Cu			2	83.305	ug/l	1.14	71,436.41	7.135E-01	Pulse	0.30	3
Zn			2	80.681	ug/l	3.24	9,521.16	9.511E-02	Pulse	0.30	3
As			2	82.000	ug/l	0.59	5,393.74	5.388E-02	Pulse	1.00	3
Cd			2	80.467	ug/l	1.24	19,651.82	5.156E-02	Pulse	0.30	3
Sn			2	83.076	ug/l	0.23	25,933.18	6.804E-02	Pulse	0.30	3
Se			3	358.721	ug/l	5.64	3,009.93	5.879E-02	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,613,222.81	1.04	90.2	Pulse	0.10	3
1	Sc		2,590,384.44	1.61	95.0	Pulse	0.10	3
1	Ge		562,714.72	0.57	95.5	Pulse	0.10	3

Quantitation Report

1	Rh		2,412,594.44	0.82	94.0	Pulse	0.10	3
1	In		2,439,684.97	0.78	96.6	Pulse	0.10	3
1	Tb		2,899,176.93	1.93	98.2	Pulse	0.10	3
1	Ho		5,740,920.54	5.24	101.4	Mix	0.10	3
1	Bi		1,496,256.90	2.06	96.7	Pulse	0.10	3
2	Sc		100,109.64	1.07	91.2	Pulse	0.30	3
2	Ge		71,230.02	1.68	93.1	Pulse	0.30	3
2	Rh		1,124,650.54	1.69	92.5	Pulse	0.30	3
2	In		381,123.41	1.45	90.7	Pulse	0.30	3
2	Tb		1,165,535.93	1.04	94.5	Pulse	0.30	3
2	Ho		2,246,596.93	1.02	94.8	Pulse	0.30	3
2	Bi		636,569.45	0.89	93.1	Pulse	0.30	3
3	Sc		58,861.51	0.30	98.1	Pulse	0.30	3
3	Ge		51,192.11	0.30	100.4	Pulse	0.30	3
3	Rh		475,679.08	0.34	96.4	Pulse	0.30	3
3	Tb		729,646.86	0.52	97.3	Pulse	0.30	3

Quantitation Report

File Name	032SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\.b111218m1.b
Method File	
Method Path	
Acq Time	11/12/2018 13:51
Sample Name	mp10186a-s4
Sample Type	Sample
Comment	
Prep Dilution	5.000
Auto Dilution	N/A
Total Dilution	5.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	11/13/2018 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	82.806	ug/l	0.30	88,305.97	5.485E-02	Pulse	0.25	3
B			1	96.045	ug/l	1.30	96,280.44	5.981E-02	Pulse	0.15	3
Ca			1	14923.288	ug/l	0.73	2,276,487.36	8.709E-01	Pulse	0.10	3
Sr			1	152.909	ug/l	0.85	849,068.63	3.507E-01	Pulse	0.10	3
Mo			1	83.780	ug/l	0.25	93,308.87	3.854E-02	Pulse	0.10	3
Ag			1	78.113	ug/l	0.94	198,805.59	8.104E-02	Pulse	0.10	3
Sn			1	83.600	ug/l	1.02	129,134.63	5.264E-02	Pulse	0.10	3
Sb			1	84.045	ug/l	1.78	146,673.01	5.084E-02	Pulse	0.10	3
Ba			1	110.867	ug/l	2.40	78,917.97	2.736E-02	Pulse	0.10	3
Tl			1	85.412	ug/l	1.88	283,835.65	1.920E-01	Pulse	0.10	3
Pb			1	84.584	ug/l	2.02	97,362.54	6.585E-02	Pulse	0.10	3
Pb			1	84.526	ug/l	2.06	85,792.25	5.803E-02	Pulse	0.10	3
Pb			1	84.025	ug/l	1.37	386,737.78	2.616E-01	Pulse	0.10	3
Na			2	7661.078	ug/l	1.52	1,175,639.40	1.166E+01	Pulse	0.30	3
Mg			2	10178.495	ug/l	1.22	755,846.48	7.497E+00	Pulse	0.30	3
Al			2	4026.174	ug/l	1.32	105,367.70	1.045E+00	Pulse	0.30	3
K			2	5852.825	ug/l	1.11	317,281.79	3.147E+00	Pulse	0.30	3
Ca			2	15787.251	ug/l	1.55	44,770.59	4.441E-01	Pulse	0.30	3
Ti			2	85.171	ug/l	0.72	1,804.58	1.790E-02	Pulse	0.30	3
V			2	84.541	ug/l	0.97	56,375.11	5.591E-01	Pulse	0.30	3
Cr			2	85.172	ug/l	0.52	69,152.42	6.858E-01	Pulse	0.30	3
Mn			2	213.560	ug/l	0.52	88,805.98	8.806E-01	Pulse	0.30	3
Fe			2	4321.241	ug/l	1.23	2,779,235.03	2.756E+01	Pulse	0.30	3
Co			2	85.158	ug/l	1.94	104,810.51	1.040E+00	Pulse	0.30	3
Ni			2	85.241	ug/l	3.92	27,751.37	2.753E-01	Pulse	0.30	3
Cu			2	86.298	ug/l	2.00	74,513.55	7.391E-01	Pulse	0.30	3
Zn			2	82.394	ug/l	2.85	9,791.36	9.712E-02	Pulse	0.30	3
As			2	80.591	ug/l	1.24	5,340.72	5.295E-02	Pulse	1.00	3
Cd			2	83.951	ug/l	1.82	20,544.97	5.380E-02	Pulse	0.30	3
Sn			2	85.749	ug/l	1.28	26,821.53	7.023E-02	Pulse	0.30	3
Se			3	339.335	ug/l	7.52	2,942.92	5.564E-02	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,609,826.70	0.68	90.0	Pulse	0.10	3
1	Sc		2,613,853.04	1.15	95.8	Pulse	0.10	3
1	Ge		572,183.66	0.76	97.1	Pulse	0.10	3

Quantitation Report

1	Rh		2,421,130.33	1.44	94.3	Pulse	0.10	3
1	In		2,453,340.86	2.03	97.2	Pulse	0.10	3
1	Tb		2,885,383.71	1.20	97.7	Pulse	0.10	3
1	Ho		5,541,445.75	6.76	97.9	Mix	0.10	3
1	Bi		1,478,852.17	1.79	95.5	Pulse	0.10	3
2	Sc		100,842.89	2.02	91.9	Pulse	0.30	3
2	Ge		71,763.71	1.56	93.8	Pulse	0.30	3
2	Rh		1,133,262.00	0.91	93.2	Pulse	0.30	3
2	In		381,885.96	1.30	90.9	Pulse	0.30	3
2	Tb		1,172,258.32	1.64	95.0	Pulse	0.30	3
2	Ho		2,246,161.92	2.04	94.8	Pulse	0.30	3
2	Bi		635,783.27	1.45	92.9	Pulse	0.30	3
3	Sc		58,565.82	0.62	97.6	Pulse	0.30	3
3	Ge		52,888.48	0.10	103.7	Pulse	0.30	3
3	Rh		475,602.39	0.29	96.4	Pulse	0.30	3
3	Tb		728,225.09	0.62	97.1	Pulse	0.30	3

Quantitation Report

File Name	033SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\.b111218m1.b
Method File	
Method Path	
Acq Time	11/12/2018 13:56
Sample Name	jc77361-4
Sample Type	Sample
Comment	
Prep Dilution	20.000
Auto Dilution	N/A
Total Dilution	20.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	11/13/2018 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.085	ug/l	18.28	44.00	2.640E-05	Pulse	0.25	3
B			1	76.831	ug/l	16.47	26,525.22	1.606E-02	Pulse	0.15	3
Ca			1	15361.229	ug/l	17.78	611,274.90	2.315E-01	Pulse	0.10	3
Sr			1	70.081	ug/l	14.79	98,732.82	4.031E-02	Pulse	0.10	3
Mo			1	3.251	ug/l	25.16	920.07	3.790E-04	Pulse	0.10	3
Ag			1	0.039	ug/l	108.97	70.00	2.898E-05	Pulse	0.10	3
Sn			1	1.416	ug/l	6.77	823.40	3.301E-04	Pulse	0.10	3
Sb			1	3.264	ug/l	10.74	1,653.50	5.752E-04	Pulse	0.10	3
Ba			1	114.108	ug/l	18.03	20,072.65	7.044E-03	Pulse	0.10	3
Tl			1	0.123	ug/l	15.37	153.34	1.006E-04	Pulse	0.10	3
Pb			1	6.585	ug/l	14.61	1,976.90	1.304E-03	Pulse	0.10	3
Pb			1	6.300	ug/l	16.92	1,653.51	1.093E-03	Pulse	0.10	3
Pb			1	6.568	ug/l	11.36	7,907.96	5.204E-03	Pulse	0.10	3
Na			2	99619.297	ug/l	0.75	3,950,679.15	3.780E+01	Pulse	0.30	3
Mg			2	2643.003	ug/l	1.26	51,047.42	4.885E-01	Pulse	0.30	3
Al			2	1426.387	ug/l	2.28	9,747.93	9.329E-02	Pulse	0.30	3
K			2	2072.114	ug/l	1.34	35,063.92	3.355E-01	Pulse	0.30	3
Ca			2	15934.428	ug/l	4.06	11,838.46	1.133E-01	Pulse	0.30	3
Ti			2	52.466	ug/l	19.68	287.78	2.756E-03	Pulse	0.30	3
V			2	7.099	ug/l	12.91	1,577.89	1.510E-02	Pulse	0.30	3
Cr			2	6.820	ug/l	6.01	1,725.69	1.651E-02	Pulse	0.30	3
Mn			2	2817.968	ug/l	0.51	303,571.38	2.905E+00	Pulse	0.30	3
Fe			2	2492.182	ug/l	0.94	417,982.10	3.999E+00	Pulse	0.30	3
Co			2	0.988	ug/l	6.40	354.46	3.393E-03	Pulse	0.30	3
Ni			2	8.983	ug/l	4.92	776.70	7.431E-03	Pulse	0.30	3
Cu			2	32.455	ug/l	2.62	7,423.19	7.103E-02	Pulse	0.30	3
Zn			2	127.846	ug/l	4.72	3,967.29	3.797E-02	Pulse	0.30	3
As			2	2.764	ug/l	6.55	55.00	5.265E-04	Pulse	1.00	3
Cd			2	0.140	ug/l	63.37	10.53	2.674E-05	Pulse	0.30	3
Sn			2	1.312	ug/l	35.40	162.23	4.104E-04	Pulse	0.30	3
Se			3	14.354	ug/l	8.20	53.53	1.063E-03	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,663,272.44	8.96	93.0	Pulse	0.10	3
1	Sc		2,684,189.07	14.39	98.4	Pulse	0.10	3
1	Ge		579,984.50	10.47	98.4	Pulse	0.10	3

Quantitation Report

1	Rh		2,483,570.54	13.91	96.7	Pulse	0.10	3
1	In		2,492,832.07	13.06	98.7	Pulse	0.10	3
1	Tb		2,900,030.16	14.48	98.2	Pulse	0.10	3
1	Ho		5,817,512.93	18.11	102.7	Mix	0.10	3
1	Bi		1,532,341.49	11.17	99.0	Pulse	0.10	3
2	Sc		104,507.38	1.09	95.3	Pulse	0.30	3
2	Ge		72,967.78	2.15	95.4	Pulse	0.30	3
2	Rh		1,161,994.50	1.12	95.5	Pulse	0.30	3
2	In		395,184.24	0.87	94.1	Pulse	0.30	3
2	Tb		1,175,044.50	1.57	95.3	Pulse	0.30	3
2	Ho		2,260,383.38	1.23	95.4	Pulse	0.30	3
2	Bi		645,927.04	0.85	94.4	Pulse	0.30	3
3	Sc		60,853.32	0.92	101.4	Pulse	0.30	3
3	Ge		50,354.49	0.69	98.8	Pulse	0.30	3
3	Rh		482,458.07	0.23	97.8	Pulse	0.30	3
3	Tb		743,751.54	0.73	99.2	Pulse	0.30	3

Quantitation Report

File Name	034SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\.b111218m1.b
Method File	
Method Path	
Acq Time	11/12/2018 14:01
Sample Name	jc77361-5
Sample Type	Sample
Comment	
Prep Dilution	100.000
Auto Dilution	N/A
Total Dilution	100.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	11/13/2018 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	-0.027	ug/l	-632.37	18.67	1.143E-05	Pulse	0.25	3
B			1	54.210	ug/l	3.38	10,895.57	6.661E-03	Pulse	0.15	3
Ca			1	243838.200	ug/l	0.94	1,903,523.77	7.133E-01	Pulse	0.10	3
Sr			1	423.566	ug/l	1.58	121,012.08	4.869E-02	Pulse	0.10	3
Mo			1	1.994	ug/l	14.84	126.67	5.103E-05	Pulse	0.10	3
Ag			1	-0.210	ug/l	-62.95	20.00	7.929E-06	Pulse	0.10	3
Sn			1	2.585	ug/l	28.92	473.36	1.888E-04	Pulse	0.10	3
Sb			1	1.923	ug/l	21.23	400.03	1.405E-04	Pulse	0.10	3
Ba			1	957.257	ug/l	1.80	33,580.83	1.181E-02	Pulse	0.10	3
Tl			1	0.500	ug/l	8.29	133.34	8.755E-05	Pulse	0.10	3
Pb			1	0.658	ug/l	78.84	73.34	4.792E-05	Pulse	0.10	3
Pb			1	0.940	ug/l	31.07	66.67	4.374E-05	Pulse	0.10	3
Pb			1	0.629	ug/l	47.63	293.34	1.922E-04	Pulse	0.10	3
Na			2	500372.750	ug/l	0.32	3,970,710.67	3.798E+01	Pulse	0.30	3
Mg			2	44310.038	ug/l	0.40	170,774.88	1.633E+00	Pulse	0.30	3
Al			2	76.866	ug/l	38.48	188.89	1.805E-03	Pulse	0.30	3
K			2	1617.526	ug/l	1.50	10,997.74	1.052E-01	Pulse	0.30	3
Ca			2	251207.808	ug/l	2.65	36,979.06	3.536E-01	Pulse	0.30	3
Ti			2	6.090	ug/l	173.21	6.67	6.399E-05	Pulse	0.30	3
V			2	2.653	ug/l	18.09	450.01	4.304E-03	Pulse	0.30	3
Cr			2	1.302	ug/l	65.08	351.12	3.360E-03	Pulse	0.30	3
Mn			2	222.968	ug/l	2.70	4,816.45	4.606E-02	Pulse	0.30	3
Fe			2	69.193	ug/l	7.64	5,359.99	5.126E-02	Pulse	0.30	3
Co			2	0.391	ug/l	22.04	64.44	6.166E-04	Pulse	0.30	3
Ni			2	4.994	ug/l	15.00	103.33	9.888E-04	Pulse	0.30	3
Cu			2	16.340	ug/l	8.27	907.82	8.683E-03	Pulse	0.30	3
Zn			2	45.862	ug/l	3.42	332.23	3.177E-03	Pulse	0.30	3
As			2	0.397	ug/l	192.97	9.00	8.603E-05	Pulse	1.00	3
Cd			2	0.003	ug/l	7856.74	1.76	4.427E-06	Pulse	0.30	3
Sn			2	2.998	ug/l	11.52	105.56	2.649E-04	Pulse	0.30	3
Se			3	-12.414	ug/l	-58.89	19.20	3.787E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,635,778.42	1.01	91.4	Pulse	0.10	3
1	Sc		2,668,816.21	2.15	97.9	Pulse	0.10	3
1	Ge		574,875.79	1.61	97.5	Pulse	0.10	3

Quantitation Report

1	Rh		2,485,227.46	1.34	96.8	Pulse	0.10	3
1	In		2,504,439.52	1.24	99.2	Pulse	0.10	3
1	Tb		2,842,847.04	3.17	96.3	Pulse	0.10	3
1	Ho		5,537,422.00	6.63	97.8	Mix	0.10	3
1	Bi		1,523,745.91	1.57	98.4	Pulse	0.10	3
2	Sc		104,557.94	0.75	95.3	Pulse	0.30	3
2	Ge		73,101.87	1.80	95.6	Pulse	0.30	3
2	Rh		1,157,013.36	1.43	95.1	Pulse	0.30	3
2	In		398,376.22	1.47	94.9	Pulse	0.30	3
2	Tb		1,174,088.11	2.00	95.2	Pulse	0.30	3
2	Ho		2,252,809.98	1.29	95.1	Pulse	0.30	3
2	Bi		644,150.03	0.66	94.2	Pulse	0.30	3
3	Sc		61,298.48	1.08	102.2	Pulse	0.30	3
3	Ge		50,734.88	0.93	99.5	Pulse	0.30	3
3	Rh		494,221.54	0.58	100.2	Pulse	0.30	3
3	Tb		749,040.79	1.12	99.9	Pulse	0.30	3

Quantitation Report

File Name	035SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\.b111218m1.b
Method File	
Method Path	
Acq Time	11/12/2018 14:06
Sample Name	jc77361-6
Sample Type	Sample
Comment	
Prep Dilution	20.000
Auto Dilution	N/A
Total Dilution	20.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	11/13/2018 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.008	ug/l	279.60	22.67	1.359E-05	Pulse	0.25	3
B			1	19.094	ug/l	10.61	13,037.39	7.836E-03	Pulse	0.15	3
Ca			1	7912.902	ug/l	1.21	336,907.97	1.241E-01	Pulse	0.10	3
Sr			1	35.658	ug/l	1.14	51,703.40	2.058E-02	Pulse	0.10	3
Mo			1	1.427	ug/l	29.99	426.69	1.693E-04	Pulse	0.10	3
Ag			1	0.071	ug/l	43.46	93.34	3.723E-05	Pulse	0.10	3
Sn			1	0.874	ug/l	29.86	613.37	2.449E-04	Pulse	0.10	3
Sb			1	0.407	ug/l	16.64	413.36	1.439E-04	Pulse	0.10	3
Ba			1	135.132	ug/l	3.37	23,986.08	8.341E-03	Pulse	0.10	3
Tl			1	0.134	ug/l	19.62	163.34	1.067E-04	Pulse	0.10	3
Pb			1	0.558	ug/l	11.95	200.01	1.309E-04	Pulse	0.10	3
Pb			1	0.683	ug/l	47.45	196.68	1.287E-04	Pulse	0.10	3
Pb			1	0.565	ug/l	14.98	816.71	5.343E-04	Pulse	0.10	3
Na			2	80752.280	ug/l	0.60	3,223,758.55	3.065E+01	Pulse	0.30	3
Mg			2	1532.519	ug/l	0.42	29,877.25	2.841E-01	Pulse	0.30	3
Al			2	168.131	ug/l	14.40	1,232.29	1.171E-02	Pulse	0.30	3
K			2	1187.384	ug/l	2.91	23,033.48	2.190E-01	Pulse	0.30	3
Ca			2	8079.526	ug/l	3.30	6,131.42	5.828E-02	Pulse	0.30	3
Ti			2	4.605	ug/l	47.83	25.56	2.419E-04	Pulse	0.30	3
V			2	1.286	ug/l	21.79	583.35	5.546E-03	Pulse	0.30	3
Cr			2	0.707	ug/l	28.99	447.79	4.256E-03	Pulse	0.30	3
Mn			2	130.425	ug/l	1.40	14,151.77	1.345E-01	Pulse	0.30	3
Fe			2	574.796	ug/l	1.22	99,388.03	9.449E-01	Pulse	0.30	3
Co			2	0.087	ug/l	11.31	67.78	6.442E-04	Pulse	0.30	3
Ni			2	0.967	ug/l	25.05	101.11	9.629E-04	Pulse	0.30	3
Cu			2	5.135	ug/l	3.46	1,332.30	1.267E-02	Pulse	0.30	3
Zn			2	26.752	ug/l	12.80	875.60	8.332E-03	Pulse	0.30	3
As			2	0.386	ug/l	24.95	14.33	1.364E-04	Pulse	1.00	3
Cd			2	0.027	ug/l	182.72	3.47	8.684E-06	Pulse	0.30	3
Sn			2	1.114	ug/l	22.40	146.67	3.700E-04	Pulse	0.30	3
Se			3	19.270	ug/l	37.05	64.27	1.263E-03	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,664,290.28	1.19	93.0	Pulse	0.10	3
1	Sc		2,715,355.69	0.63	99.6	Pulse	0.10	3
1	Ge		588,597.27	1.54	99.9	Pulse	0.10	3

Quantitation Report

1	Rh		2,513,018.04	1.60	97.9	Pulse	0.10	3
1	In		2,504,303.90	1.47	99.2	Pulse	0.10	3
1	Tb		2,877,271.94	3.34	97.5	Pulse	0.10	3
1	Ho		5,586,399.71	7.71	98.7	Mix	0.10	3
1	Bi		1,528,096.85	2.29	98.7	Pulse	0.10	3
2	Sc		105,175.35	1.48	95.9	Pulse	0.30	3
2	Ge		73,831.45	2.28	96.5	Pulse	0.30	3
2	Rh		1,169,323.01	1.71	96.1	Pulse	0.30	3
2	In		397,066.05	1.93	94.5	Pulse	0.30	3
2	Tb		1,176,769.43	1.34	95.4	Pulse	0.30	3
2	Ho		2,260,449.15	1.50	95.4	Pulse	0.30	3
2	Bi		648,611.96	1.76	94.8	Pulse	0.30	3
3	Sc		60,943.83	0.43	101.6	Pulse	0.30	3
3	Ge		50,851.97	0.56	99.7	Pulse	0.30	3
3	Rh		482,598.52	0.45	97.8	Pulse	0.30	3
3	Tb		738,197.37	0.45	98.4	Pulse	0.30	3

Quantitation Report

File Name	036_CCV.d
File Path	C:\Agilent\ICPMH\1\DATA\.b111218m1.b
Method File	
Method Path	
Acq Time	11/12/2018 14:11
Sample Name	CCVA
Sample Type	CCV
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	11/13/2018 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	50.144	ug/l	0.29	280,229.39	1.661E-01	Pulse	0.25	3
B			1	96.848	ug/l	0.78	473,965.71	2.809E-01	Pulse	0.15	3
Ca			1	4759.998	ug/l	0.42	3,759,344.00	1.383E+00	Pulse	0.10	3
Sr			1	52.084	ug/l	1.03	1,473,570.34	5.972E-01	Pulse	0.10	3
Mo			1	50.057	ug/l	1.44	284,075.24	1.151E-01	Pulse	0.10	3
Ag			1	46.499	ug/l	1.65	596,737.58	2.412E-01	Pulse	0.10	3
Sn			1	48.851	ug/l	1.23	380,035.75	1.536E-01	Pulse	0.10	3
Sb			1	49.368	ug/l	1.50	427,516.97	1.492E-01	Pulse	0.10	3
Ba			1	49.540	ug/l	1.66	175,151.81	6.111E-02	Pulse	0.10	3
Tl			1	49.609	ug/l	0.21	819,878.17	5.574E-01	Pulse	0.10	3
Pb			1	49.235	ug/l	0.49	281,830.58	1.916E-01	Pulse	0.10	3
Pb			1	49.144	ug/l	1.17	248,067.69	1.687E-01	Pulse	0.10	3
Pb			1	49.403	ug/l	0.57	1,130,724.07	7.687E-01	Pulse	0.10	3
Na			2	4859.212	ug/l	0.43	3,915,690.95	3.688E+01	Pulse	0.30	3
Mg			2	4836.542	ug/l	0.38	1,890,713.82	1.781E+01	Pulse	0.30	3
Al			2	4743.964	ug/l	0.58	653,239.64	6.152E+00	Pulse	0.30	3
K			2	4878.650	ug/l	1.15	1,371,237.31	1.292E+01	Pulse	0.30	3
Ca			2	5108.783	ug/l	1.98	76,159.95	7.174E-01	Pulse	0.30	3
Ti			2	49.362	ug/l	2.15	5,505.61	5.186E-02	Pulse	0.30	3
V			2	49.772	ug/l	0.26	174,019.19	1.639E+00	Pulse	0.30	3
Cr			2	49.016	ug/l	1.48	208,950.45	1.968E+00	Pulse	0.30	3
Mn			2	48.488	ug/l	1.39	106,132.85	9.997E-01	Pulse	0.30	3
Fe			2	5065.430	ug/l	0.36	17,138,625.99	1.614E+02	Analog	0.30	3
Co			2	48.714	ug/l	0.81	315,627.97	2.973E+00	Pulse	0.30	3
Ni			2	48.721	ug/l	0.67	83,497.60	7.865E-01	Pulse	0.30	3
Cu			2	48.086	ug/l	0.27	218,314.97	2.056E+00	Pulse	0.30	3
Zn			2	48.170	ug/l	1.93	30,050.70	2.830E-01	Pulse	0.30	3
As			2	48.507	ug/l	0.61	16,903.08	1.592E-01	Pulse	1.00	3
Cd			2	49.279	ug/l	1.94	60,994.72	1.579E-01	Pulse	0.30	3
Sn			2	49.115	ug/l	0.68	77,612.74	2.009E-01	Pulse	0.30	3
Se			3	200.151	ug/l	4.61	8,198.39	1.632E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,687,509.45	0.28	94.3	Pulse	0.10	3
1	Sc		2,718,150.69	0.21	99.7	Pulse	0.10	3
1	Ge		587,002.95	1.02	99.6	Pulse	0.10	3

Quantitation Report

1	Rh		2,467,473.30	0.25	96.1	Pulse	0.10	3
1	In		2,474,649.72	1.99	98.0	Pulse	0.10	3
1	Tb		2,866,621.73	1.45	97.1	Pulse	0.10	3
1	Ho		5,933,966.99	1.15	104.8	Analog	0.10	3
1	Bi		1,470,870.14	1.80	95.0	Pulse	0.10	3
2	Sc		106,176.08	1.94	96.8	Pulse	0.30	3
2	Ge		72,594.87	1.76	94.9	Pulse	0.30	3
2	Rh		1,137,291.45	1.63	93.5	Pulse	0.30	3
2	In		386,435.21	2.55	92.0	Pulse	0.30	3
2	Tb		1,167,824.19	1.70	94.7	Pulse	0.30	3
2	Ho		2,233,899.22	1.17	94.3	Pulse	0.30	3
2	Bi		623,371.57	0.82	91.1	Pulse	0.30	3
3	Sc		61,469.57	0.93	102.4	Pulse	0.30	3
3	Ge		50,225.18	1.41	98.5	Pulse	0.30	3
3	Rh		477,162.98	0.20	96.7	Pulse	0.30	3
3	Tb		736,295.77	0.86	98.2	Pulse	0.30	3

Quantitation Report

File Name	037_CCB.d
File Path	C:\Agilent\ICPMH\1\DATA\.b111218m1.b
Method File	
Method Path	
Acq Time	11/12/2018 14:16
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	11/13/2018 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.001	ug/l	106.76	26.67	1.562E-05	Pulse	0.25	3
B			1	0.860	ug/l	12.47	12,906.19	7.565E-03	Pulse	0.15	3
Ca			1	0.647	ug/l	103.54	27,731.91	1.014E-02	Pulse	0.10	3
Sr			1	0.007	ug/l	12.37	540.03	2.132E-04	Pulse	0.10	3
Mo			1	0.018	ug/l	31.75	116.67	4.613E-05	Pulse	0.10	3
Ag			1	0.005	ug/l	44.09	113.34	4.520E-05	Pulse	0.10	3
Sn			1	0.018	ug/l	19.86	413.36	1.652E-04	Pulse	0.10	3
Sb			1	0.147	ug/l	9.65	1,530.15	5.272E-04	Pulse	0.10	3
Ba			1	0.004	ug/l	42.18	33.33	1.148E-05	Pulse	0.10	3
Tl			1	0.004	ug/l	39.15	120.00	7.926E-05	Pulse	0.10	3
Pb			1	0.005	ug/l	102.19	60.00	3.990E-05	Pulse	0.10	3
Pb			1	0.006	ug/l	54.57	46.67	3.102E-05	Pulse	0.10	3
Pb			1	0.002	ug/l	105.15	193.34	1.284E-04	Pulse	0.10	3
Na			2	0.676	ug/l	21.59	5,387.74	5.046E-02	Pulse	0.30	3
Mg			2	-0.138	ug/l	-14.05	156.67	1.467E-03	Pulse	0.30	3
Al			2	-0.134	ug/l	-49.86	67.78	6.346E-04	Pulse	0.30	3
K			2	-0.074	ug/l	-1512.81	6,658.34	6.237E-02	Pulse	0.30	3
Ca			2	-2.565	ug/l	-53.20	141.12	1.323E-03	Pulse	0.30	3
Ti			2	0.010	ug/l	173.21	1.11	1.024E-05	Pulse	0.30	3
V			2	-0.005	ug/l	-272.11	350.01	3.281E-03	Pulse	0.30	3
Cr			2	-0.004	ug/l	-196.37	284.45	2.662E-03	Pulse	0.30	3
Mn			2	0.007	ug/l	138.86	25.56	2.377E-04	Pulse	0.30	3
Fe			2	-0.110	ug/l	-22.51	2,743.64	2.570E-02	Pulse	0.30	3
Co			2	0.001	ug/l	416.15	46.67	4.351E-04	Pulse	0.30	3
Ni			2	0.000	ug/l	2044.20	20.00	1.874E-04	Pulse	0.30	3
Cu			2	0.012	ug/l	32.74	237.78	2.229E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	0.087	ug/l	22.83	106.67	9.996E-04	Pulse	0.30	3
As			2	0.001	ug/l	832.36	8.00	7.502E-05	Pulse	1.00	3
Cd			2	0.003	ug/l	150.68	5.43	1.344E-05	Pulse	0.30	3
Sn			2	0.022	ug/l	42.55	94.45	2.329E-04	Pulse	0.30	3
Se			3	1.015	ug/l	42.32	67.00	1.305E-03	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,706,174.38	0.96	95.4	Pulse	0.10	3
1	Sc		2,735,889.75	0.11	100.3	Pulse	0.10	3
1	Ge		584,488.81	1.65	99.2	Pulse	0.10	3
1	Rh		2,533,143.66	0.93	98.7	Pulse	0.10	3
1	In		2,501,203.18	1.56	99.1	Pulse	0.10	3
1	Tb		2,904,631.00	1.57	98.4	Pulse	0.10	3
1	Ho		5,980,889.70	0.75	105.6	Analog	0.10	3
1	Bi		1,511,328.88	1.99	97.6	Pulse	0.10	3
2	Sc		106,750.81	1.33	97.3	Pulse	0.30	3
2	Ge		75,082.42	1.65	98.2	Pulse	0.30	3
2	Rh		1,191,605.16	1.09	98.0	Pulse	0.30	3
2	In		404,940.15	1.53	96.4	Pulse	0.30	3
2	Tb		1,185,055.47	1.49	96.1	Pulse	0.30	3
2	Ho		2,289,887.06	1.39	96.7	Pulse	0.30	3
2	Bi		653,262.11	0.90	95.5	Pulse	0.30	3
3	Sc		62,340.01	0.12	103.9	Pulse	0.30	3
3	Ge		51,265.73	1.12	100.5	Pulse	0.30	3
3	Rh		495,676.18	0.65	100.5	Pulse	0.30	3
3	Tb		740,165.90	0.56	98.7	Pulse	0.30	3

Quantitation Report

File Name	038SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\.b111218m1.b
Method File	
Method Path	
Acq Time	11/12/2018 14:21
Sample Name	jc77361-8
Sample Type	Sample
Comment	
Prep Dilution	20.000
Auto Dilution	N/A
Total Dilution	20.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	11/13/2018 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	-0.017	ug/l	-81.74	16.00	9.519E-06	Pulse	0.25	3
B			1	69.914	ug/l	3.78	25,289.64	1.507E-02	Pulse	0.15	3
Ca			1	21861.472	ug/l	0.14	882,113.66	3.253E-01	Pulse	0.10	3
Sr			1	104.652	ug/l	0.36	150,923.78	6.012E-02	Pulse	0.10	3
Mo			1	0.646	ug/l	28.51	200.01	7.949E-05	Pulse	0.10	3
Ag			1	0.051	ug/l	53.88	80.00	3.202E-05	Pulse	0.10	3
Sn			1	1.303	ug/l	32.99	780.05	3.122E-04	Pulse	0.10	3
Sb			1	1.163	ug/l	5.97	743.38	2.580E-04	Pulse	0.10	3
Ba			1	131.213	ug/l	1.83	23,338.31	8.099E-03	Pulse	0.10	3
Tl			1	0.086	ug/l	70.23	120.00	7.939E-05	Pulse	0.10	3
Pb			1	0.180	ug/l	13.08	86.67	5.728E-05	Pulse	0.10	3
Pb			1	0.215	ug/l	8.50	73.33	4.840E-05	Pulse	0.10	3
Pb			1	0.187	ug/l	6.87	363.34	2.400E-04	Pulse	0.10	3
Na			2	85143.170	ug/l	1.40	3,415,238.27	3.232E+01	Pulse	0.30	3
Mg			2	4502.594	ug/l	1.71	87,796.20	8.308E-01	Pulse	0.30	3
Al			2	44.913	ug/l	26.35	392.24	3.720E-03	Pulse	0.30	3
K			2	6647.089	ug/l	1.61	99,152.77	9.382E-01	Pulse	0.30	3
Ca			2	22703.671	ug/l	0.39	16,988.24	1.607E-01	Pulse	0.30	3
Ti			2	1.205	ug/l	50.14	6.67	6.329E-05	Pulse	0.30	3
V			2	1.387	ug/l	48.37	602.24	5.711E-03	Pulse	0.30	3
Cr			2	1.412	ug/l	24.74	600.02	5.668E-03	Pulse	0.30	3
Mn			2	3.396	ug/l	5.29	380.01	3.597E-03	Pulse	0.30	3
Fe			2	22.662	ug/l	4.59	6,902.92	6.531E-02	Pulse	0.30	3
Co			2	0.086	ug/l	16.41	67.78	6.411E-04	Pulse	0.30	3
Ni			2	1.920	ug/l	10.09	183.34	1.732E-03	Pulse	0.30	3
Cu			2	1.716	ug/l	9.94	566.68	5.367E-03	Pulse	0.30	3
Zn			2	5.544	ug/l	3.16	223.34	2.114E-03	Pulse	0.30	3
As			2	0.249	ug/l	53.35	12.00	1.139E-04	Pulse	1.00	3
Cd			2	0.057	ug/l	0.93	5.39	1.348E-05	Pulse	0.30	3
Sn			2	1.453	ug/l	14.74	175.56	4.392E-04	Pulse	0.30	3
Se			3	16.002	ug/l	16.10	58.20	1.130E-03	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,678,260.53	0.95	93.8	Pulse	0.10	3
1	Sc		2,712,007.88	0.80	99.4	Pulse	0.10	3
1	Ge		586,255.71	1.38	99.5	Pulse	0.10	3

Quantitation Report

1	Rh		2,510,397.05	1.33	97.8	Pulse	0.10	3
1	In		2,500,120.48	0.88	99.0	Pulse	0.10	3
1	Tb		2,881,670.17	0.23	97.6	Pulse	0.10	3
1	Ho		5,956,398.04	1.65	105.2	Analog	0.10	3
1	Bi		1,514,154.40	1.48	97.8	Pulse	0.10	3
2	Sc		105,703.16	2.51	96.3	Pulse	0.30	3
2	Ge		73,834.47	1.00	96.5	Pulse	0.30	3
2	Rh		1,168,975.54	1.21	96.1	Pulse	0.30	3
2	In		399,900.33	0.73	95.2	Pulse	0.30	3
2	Tb		1,175,522.28	1.55	95.3	Pulse	0.30	3
2	Ho		2,271,981.51	1.31	95.9	Pulse	0.30	3
2	Bi		646,859.73	0.74	94.6	Pulse	0.30	3
3	Sc		61,875.68	1.38	103.1	Pulse	0.30	3
3	Ge		51,466.38	1.27	100.9	Pulse	0.30	3
3	Rh		493,336.87	0.56	100.0	Pulse	0.30	3
3	Tb		745,298.31	0.87	99.4	Pulse	0.30	3

Quantitation Report

File Name	039SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\.b111218m1.b
Method File	
Method Path	
Acq Time	11/12/2018 14:26
Sample Name	jc77361-10
Sample Type	Sample
Comment	
Prep Dilution	100.000
Auto Dilution	N/A
Total Dilution	100.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	11/13/2018 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	-0.134	ug/l	-111.32	13.33	7.888E-06	Pulse	0.25	3
B			1	531.642	ug/l	2.46	34,331.03	2.025E-02	Pulse	0.15	3
Ca			1	224178.288	ug/l	1.24	1,800,944.82	6.566E-01	Pulse	0.10	3
Sr			1	609.186	ug/l	0.95	174,510.06	6.997E-02	Pulse	0.10	3
Mo			1	5.470	ug/l	4.34	326.68	1.310E-04	Pulse	0.10	3
Ag			1	0.027	ug/l	501.85	50.00	2.025E-05	Pulse	0.10	3
Sn			1	6.441	ug/l	16.41	766.72	3.100E-04	Pulse	0.10	3
Sb			1	4.185	ug/l	9.36	600.04	2.088E-04	Pulse	0.10	3
Ba			1	559.828	ug/l	0.83	19,852.31	6.912E-03	Pulse	0.10	3
Tl			1	0.136	ug/l	90.39	70.00	4.660E-05	Pulse	0.10	3
Pb			1	2.433	ug/l	62.22	176.67	1.170E-04	Pulse	0.10	3
Pb			1	3.290	ug/l	42.72	186.67	1.244E-04	Pulse	0.10	3
Pb			1	2.552	ug/l	13.98	740.04	4.915E-04	Pulse	0.10	3
Na			2	854656.523	ug/l	0.33	6,926,997.92	6.483E+01	Pulse	0.30	3
Mg			2	14286.271	ug/l	0.66	56,405.49	5.279E-01	Pulse	0.30	3
Al			2	414.283	ug/l	10.84	660.02	6.180E-03	Pulse	0.30	3
K			2	3396.556	ug/l	7.58	16,249.26	1.521E-01	Pulse	0.30	3
Ca			2	231095.104	ug/l	0.37	34,772.32	3.255E-01	Pulse	0.30	3
Ti			2	3.951	ug/l	42.71	4.44	4.152E-05	Pulse	0.30	3
V			2	8.801	ug/l	15.78	675.58	6.325E-03	Pulse	0.30	3
Cr			2	14.867	ug/l	8.43	940.04	8.798E-03	Pulse	0.30	3
Mn			2	1271.211	ug/l	0.51	28,010.63	2.622E-01	Pulse	0.30	3
Fe			2	92.920	ug/l	5.57	6,284.85	5.882E-02	Pulse	0.30	3
Co			2	0.418	ug/l	79.60	67.78	6.336E-04	Pulse	0.30	3
Ni			2	2.801	ug/l	28.76	67.78	6.348E-04	Pulse	0.30	3
Cu			2	9.504	ug/l	6.63	615.58	5.763E-03	Pulse	0.30	3
Zn			2	50.726	ug/l	14.62	370.01	3.463E-03	Pulse	0.30	3
As			2	3.292	ug/l	13.98	19.33	1.810E-04	Pulse	1.00	3
Cd			2	0.140	ug/l	180.84	3.50	8.819E-06	Pulse	0.30	3
Sn			2	7.051	ug/l	17.60	172.23	4.305E-04	Pulse	0.30	3
Se			3	16.297	ug/l	155.89	31.60	6.121E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,695,140.36	0.96	94.8	Pulse	0.10	3
1	Sc		2,742,818.08	0.62	100.6	Pulse	0.10	3
1	Ge		584,011.45	0.60	99.1	Pulse	0.10	3

Quantitation Report

1	Rh		2,494,090.74	0.64	97.2	Pulse	0.10	3
1	In		2,471,271.72	1.58	97.9	Pulse	0.10	3
1	Tb		2,872,444.64	1.52	97.3	Pulse	0.10	3
1	Ho		5,994,644.50	1.47	105.9	Analog	0.10	3
1	Bi		1,505,135.81	1.18	97.2	Pulse	0.10	3
2	Sc		106,842.94	0.68	97.4	Pulse	0.30	3
2	Ge		74,712.82	1.29	97.7	Pulse	0.30	3
2	Rh		1,162,738.95	0.81	95.6	Pulse	0.30	3
2	In		400,406.14	1.63	95.3	Pulse	0.30	3
2	Tb		1,179,260.51	1.33	95.6	Pulse	0.30	3
2	Ho		2,263,893.94	0.97	95.6	Pulse	0.30	3
2	Bi		641,718.36	0.82	93.8	Pulse	0.30	3
3	Sc		61,850.99	2.24	103.1	Pulse	0.30	3
3	Ge		51,396.31	2.08	100.8	Pulse	0.30	3
3	Rh		488,827.15	0.84	99.1	Pulse	0.30	3
3	Tb		740,274.68	0.40	98.7	Pulse	0.30	3

Quantitation Report

File Name	040SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\.b111218m1.b
Method File	
Method Path	
Acq Time	11/12/2018 14:41
Sample Name	mp10165-mb1 3
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	11/13/2018 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.015	ug/l	40.11	62.67	3.793E-05	Pulse	0.25	3
B			1	1.066	ug/l	13.27	10,984.51	6.635E-03	Pulse	0.15	3
Ca			1	236.830	ug/l	2.37	117,950.67	4.411E-02	Pulse	0.10	3
Sr			1	1.373	ug/l	1.97	19,868.53	8.007E-03	Pulse	0.10	3
Mo			1	0.048	ug/l	1.36	150.01	6.045E-05	Pulse	0.10	3
Ag			1	0.000	ug/l	7213.86	46.67	1.890E-05	Pulse	0.10	3
Sn			1	0.448	ug/l	8.49	2,000.22	8.121E-04	Pulse	0.10	3
Sb			1	0.115	ug/l	43.91	740.09	2.554E-04	Pulse	0.10	3
Ba			1	0.755	ug/l	9.43	1,370.14	4.721E-04	Pulse	0.10	3
Tl			1	0.003	ug/l	59.91	73.33	4.784E-05	Pulse	0.10	3
Pb			1	0.185	ug/l	18.60	586.70	3.819E-04	Pulse	0.10	3
Pb			1	0.182	ug/l	3.39	496.70	3.240E-04	Pulse	0.10	3
Pb			1	0.183	ug/l	7.99	2,330.18	1.519E-03	Pulse	0.10	3
Na			2	246.067	ug/l	1.62	99,327.19	9.780E-01	Pulse	0.30	3
Mg			2	57.354	ug/l	0.46	10,924.33	1.075E-01	Pulse	0.30	3
Al			2	27.402	ug/l	4.94	1,885.71	1.857E-02	Pulse	0.30	3
K			2	1181.904	ug/l	2.10	164,483.39	1.620E+00	Pulse	0.30	3
Ca			2	234.023	ug/l	2.92	1,835.70	1.808E-02	Pulse	0.30	3
Ti			2	0.604	ug/l	4.42	32.22	3.171E-04	Pulse	0.30	3
V			2	0.528	ug/l	5.61	1,228.96	1.210E-02	Pulse	0.30	3
Cr			2	0.351	ug/l	5.54	1,003.38	9.881E-03	Pulse	0.30	3
Mn			2	1.742	ug/l	2.05	1,833.47	1.805E-02	Pulse	0.30	3
Fe			2	47.051	ug/l	1.94	79,092.83	7.787E-01	Pulse	0.30	3
Co			2	0.041	ug/l	9.37	166.67	1.642E-03	Pulse	0.30	3
Ni			2	0.190	ug/l	17.99	174.45	1.715E-03	Pulse	0.30	3
Cu			2	3.565	ug/l	1.63	7,909.03	7.786E-02	Pulse	0.30	3
Zn			2	3.928	ug/l	7.50	1,220.07	1.200E-02	Pulse	0.30	3
As			2	0.252	ug/l	20.32	49.33	4.867E-04	Pulse	1.00	3
Cd			2	-0.003	ug/l	-0.31	-0.07	-1.768E-07	Pulse	0.30	3
Sn			2	0.486	ug/l	16.31	427.79	1.136E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	0.237	ug/l	286.94	37.93	5.758E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,655,948.91	1.24	92.6	Pulse	0.10	3
1	Sc		2,674,070.48	0.19	98.1	Pulse	0.10	3
1	Ge		591,297.53	0.79	100.3	Pulse	0.10	3
1	Rh		2,481,837.93	1.25	96.7	Pulse	0.10	3
1	In		2,462,760.00	1.87	97.5	Pulse	0.10	3
1	Tb		2,900,973.39	0.70	98.3	Pulse	0.10	3
1	Ho		5,875,735.12	6.24	103.8	Mix	0.10	3
1	Bi		1,532,485.44	2.21	99.0	Pulse	0.10	3
2	Sc		101,580.28	1.96	92.6	Pulse	0.30	3
2	Ge		73,455.93	1.84	96.0	Pulse	0.30	3
2	Rh		1,143,263.74	1.41	94.0	Pulse	0.30	3
2	In		376,874.94	0.95	89.7	Pulse	0.30	3
2	Tb		1,150,608.91	1.29	93.3	Pulse	0.30	3
2	Ho		2,210,802.06	1.91	93.3	Pulse	0.30	3
2	Bi		626,165.67	0.85	91.5	Pulse	0.30	3
3	Sc		59,856.89	0.35	99.8	Pulse	0.30	3
3	Ge		66,606.89	3.51	130.6	Pulse	0.30	3
3	Rh		478,785.38	1.07	97.1	Pulse	0.30	3
3	Tb		717,292.05	0.50	95.6	Pulse	0.30	3

Quantitation Report

File Name	041SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\.b111218m1.b
Method File	
Method Path	
Acq Time	11/12/2018 14:46
Sample Name	mp10165-sd1
Sample Type	Sample
Comment	
Prep Dilution	10.000
Auto Dilution	N/A
Total Dilution	10.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	11/13/2018 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.004	ug/l	176.89	24.00	1.359E-05	Pulse	0.25	3
B			1	41.356	ug/l	3.96	29,825.31	1.689E-02	Pulse	0.15	3
Ca			1	3340.318	ug/l	1.74	298,867.34	1.063E-01	Pulse	0.10	3
Sr			1	15.254	ug/l	4.15	45,384.07	1.762E-02	Pulse	0.10	3
Mo			1	1.344	ug/l	13.73	810.06	3.143E-04	Pulse	0.10	3
Ag			1	0.024	ug/l	34.70	80.00	3.123E-05	Pulse	0.10	3
Sn			1	0.895	ug/l	10.77	996.76	3.887E-04	Pulse	0.10	3
Sb			1	0.522	ug/l	0.84	703.39	2.401E-04	Pulse	0.10	3
Ba			1	9.294	ug/l	3.08	3,377.25	1.153E-03	Pulse	0.10	3
Tl			1	0.057	ug/l	49.00	146.68	9.571E-05	Pulse	0.10	3
Pb			1	2.026	ug/l	16.63	1,240.11	8.107E-04	Pulse	0.10	3
Pb			1	2.083	ug/l	7.50	1,110.10	7.263E-04	Pulse	0.10	3
Pb			1	2.066	ug/l	6.44	5,063.94	3.310E-03	Pulse	0.10	3
Na			2	6804.547	ug/l	0.95	571,244.65	5.204E+00	Pulse	0.30	3
Mg			2	395.871	ug/l	2.37	16,213.85	1.477E-01	Pulse	0.30	3
Al			2	78.180	ug/l	4.95	1,201.18	1.095E-02	Pulse	0.30	3
K			2	855.811	ug/l	1.35	31,621.35	2.880E-01	Pulse	0.30	3
Ca			2	3517.132	ug/l	2.15	5,594.52	5.096E-02	Pulse	0.30	3
Ti			2	1.350	ug/l	44.82	15.55	1.419E-04	Pulse	0.30	3
V			2	1.473	ug/l	18.48	907.82	8.272E-03	Pulse	0.30	3
Cr			2	0.996	ug/l	1.29	750.03	6.832E-03	Pulse	0.30	3
Mn			2	14.290	ug/l	4.07	3,243.75	2.956E-02	Pulse	0.30	3
Fe			2	122.616	ug/l	1.45	46,091.02	4.199E-01	Pulse	0.30	3
Co			2	1.011	ug/l	7.63	718.92	6.549E-03	Pulse	0.30	3
Ni			2	1.988	ug/l	2.89	372.23	3.391E-03	Pulse	0.30	3
Cu			2	9.438	ug/l	4.43	4,613.05	4.203E-02	Pulse	0.30	3
Zn			2	20.030	ug/l	10.34	1,342.31	1.223E-02	Pulse	0.30	3
As			2	1.066	ug/l	19.19	46.33	4.227E-04	Pulse	1.00	3
Cd			2	0.011	ug/l	216.37	3.25	7.951E-06	Pulse	0.30	3
Sn			2	1.069	ug/l	12.61	236.67	5.793E-04	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	17.951	ug/l	35.22	99.53	1.939E-03	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,765,599.66	0.26	98.7	Pulse	0.10	3
1	Sc		2,811,763.71	1.36	103.1	Pulse	0.10	3
1	Ge		601,143.72	1.19	102.0	Pulse	0.10	3
1	Rh		2,576,145.48	1.28	100.4	Pulse	0.10	3
1	In		2,564,278.08	1.29	101.6	Pulse	0.10	3
1	Tb		2,929,162.56	1.28	99.2	Pulse	0.10	3
1	Ho		6,099,778.24	1.77	107.7	Analog	0.10	3
1	Bi		1,529,379.66	1.30	98.8	Pulse	0.10	3
2	Sc		109,788.28	1.60	100.1	Pulse	0.30	3
2	Ge		76,862.23	2.77	100.5	Pulse	0.30	3
2	Rh		1,200,400.79	1.85	98.7	Pulse	0.30	3
2	In		408,312.70	1.64	97.2	Pulse	0.30	3
2	Tb		1,190,048.18	1.73	96.5	Pulse	0.30	3
2	Ho		2,277,180.54	0.94	96.1	Pulse	0.30	3
2	Bi		653,237.47	1.12	95.5	Pulse	0.30	3
3	Sc		63,315.44	1.15	105.5	Pulse	0.30	3
3	Ge		51,388.47	0.60	100.8	Pulse	0.30	3
3	Rh		498,162.00	0.25	101.0	Pulse	0.30	3
3	Tb		743,569.90	0.89	99.1	Pulse	0.30	3

Quantitation Report

File Name	042SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\.b111218m1.b
Method File	
Method Path	
Acq Time	11/12/2018 14:51
Sample Name	mp10165-b1
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	11/13/2018 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	77.234	ug/l	0.27	215,665.19	1.279E-01	Pulse	0.25	3
B			1	81.323	ug/l	0.75	203,854.48	1.209E-01	Pulse	0.15	3
Ca			1	4030.346	ug/l	0.88	1,599,328.78	5.913E-01	Pulse	0.10	3
Sr			1	82.134	ug/l	1.98	1,167,453.32	4.709E-01	Pulse	0.10	3
Mo			1	78.939	ug/l	1.30	225,063.07	9.078E-02	Pulse	0.10	3
Ag			1	73.681	ug/l	1.45	470,550.76	1.911E-01	Pulse	0.10	3
Sn			1	77.872	ug/l	1.23	301,509.79	1.224E-01	Pulse	0.10	3
Sb			1	79.816	ug/l	1.05	346,623.39	1.206E-01	Pulse	0.10	3
Ba			1	78.383	ug/l	1.33	138,961.08	4.835E-02	Pulse	0.10	3
Tl			1	79.036	ug/l	0.97	643,987.45	4.440E-01	Pulse	0.10	3
Pb			1	78.689	ug/l	0.83	222,079.67	1.531E-01	Pulse	0.10	3
Pb			1	79.110	ug/l	0.64	196,878.89	1.358E-01	Pulse	0.10	3
Pb			1	79.023	ug/l	0.69	891,700.94	6.148E-01	Pulse	0.10	3
Na			2	4101.901	ug/l	0.58	1,649,752.02	1.559E+01	Pulse	0.30	3
Mg			2	3853.157	ug/l	0.96	750,630.44	7.095E+00	Pulse	0.30	3
Al			2	3694.943	ug/l	0.82	253,558.38	2.396E+00	Pulse	0.30	3
K			2	4934.959	ug/l	1.09	694,480.25	6.564E+00	Pulse	0.30	3
Ca			2	4381.845	ug/l	0.80	32,656.08	3.086E-01	Pulse	0.30	3
Ti			2	75.934	ug/l	3.66	4,219.58	3.989E-02	Pulse	0.30	3
V			2	77.783	ug/l	0.91	135,590.15	1.281E+00	Pulse	0.30	3
Cr			2	77.546	ug/l	1.01	164,768.01	1.557E+00	Pulse	0.30	3
Mn			2	78.381	ug/l	0.77	85,493.09	8.080E-01	Pulse	0.30	3
Fe			2	3789.949	ug/l	5.47	6,392,475.44	6.040E+01	Mix	0.30	3
Co			2	78.078	ug/l	0.76	252,075.00	2.382E+00	Pulse	0.30	3
Ni			2	76.618	ug/l	0.32	65,434.27	6.184E-01	Pulse	0.30	3
Cu			2	79.010	ug/l	1.12	178,751.37	1.690E+00	Pulse	0.30	3
Zn			2	70.287	ug/l	1.06	21,856.38	2.066E-01	Pulse	0.30	3
As			2	71.735	ug/l	0.49	12,457.68	1.177E-01	Pulse	1.00	3
Cd			2	74.025	ug/l	0.43	45,722.21	1.186E-01	Pulse	0.30	3
Sn			2	78.461	ug/l	0.78	61,869.96	1.605E-01	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	259.961	ug/l	4.38	6,834.30	1.061E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,686,330.70	0.82	94.3	Pulse	0.10	3
1	Sc		2,704,958.81	0.51	99.2	Pulse	0.10	3
1	Ge		588,553.42	1.43	99.9	Pulse	0.10	3
1	Rh		2,479,511.63	0.99	96.6	Pulse	0.10	3
1	In		2,462,544.60	0.53	97.5	Pulse	0.10	3
1	Tb		2,874,553.50	1.22	97.4	Pulse	0.10	3
1	Ho		6,061,918.45	0.64	107.1	Analog	0.10	3
1	Bi		1,450,279.98	0.85	93.7	Pulse	0.10	3
2	Sc		105,802.50	0.89	96.4	Pulse	0.30	3
2	Ge		75,133.98	0.69	98.2	Pulse	0.30	3
2	Rh		1,147,048.25	1.10	94.3	Pulse	0.30	3
2	In		385,574.53	0.82	91.8	Pulse	0.30	3
2	Tb		1,170,277.59	1.29	94.9	Pulse	0.30	3
2	Ho		2,242,095.19	1.06	94.6	Pulse	0.30	3
2	Bi		617,282.67	0.56	90.2	Pulse	0.30	3
3	Sc		61,403.49	0.67	102.3	Pulse	0.30	3
3	Ge		64,371.68	2.11	126.2	Pulse	0.30	3
3	Rh		478,563.07	0.51	97.0	Pulse	0.30	3
3	Tb		726,904.95	0.34	96.9	Pulse	0.30	3

Quantitation Report

File Name	043SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\.b111218m1.b
Method File	
Method Path	
Acq Time	11/12/2018 14:56
Sample Name	mp10165-s1
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	11/13/2018 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	80.276	ug/l	2.43	218,843.44	1.329E-01	Pulse	0.25	3
B			1	134.888	ug/l	2.84	324,535.49	1.971E-01	Pulse	0.15	3
Ca			1	7146.735	ug/l	0.22	2,792,121.83	1.041E+00	Pulse	0.10	3
Sr			1	99.483	ug/l	2.73	1,376,852.11	5.703E-01	Pulse	0.10	3
Mo			1	83.213	ug/l	2.04	231,008.48	9.569E-02	Pulse	0.10	3
Ag			1	75.848	ug/l	4.54	471,601.57	1.967E-01	Pulse	0.10	3
Sn			1	81.867	ug/l	2.76	308,696.48	1.287E-01	Pulse	0.10	3
Sb			1	82.269	ug/l	2.65	353,649.24	1.243E-01	Pulse	0.10	3
Ba			1	88.733	ug/l	1.74	155,804.89	5.473E-02	Pulse	0.10	3
Tl			1	80.847	ug/l	2.32	656,084.63	4.542E-01	Pulse	0.10	3
Pb			1	83.460	ug/l	2.11	234,570.10	1.624E-01	Pulse	0.10	3
Pb			1	83.360	ug/l	1.77	206,579.05	1.430E-01	Pulse	0.10	3
Pb			1	83.354	ug/l	0.74	936,641.37	6.485E-01	Pulse	0.10	3
Na			2	10722.283	ug/l	0.84	4,155,249.56	4.069E+01	Pulse	0.30	3
Mg			2	4399.719	ug/l	1.21	827,360.18	8.101E+00	Pulse	0.30	3
Al			2	3932.390	ug/l	1.29	260,491.02	2.550E+00	Pulse	0.30	3
K			2	4744.896	ug/l	1.16	644,813.29	6.313E+00	Pulse	0.30	3
Ca			2	7700.271	ug/l	1.46	55,262.40	5.411E-01	Pulse	0.30	3
Ti			2	80.682	ug/l	2.89	4,328.51	4.238E-02	Pulse	0.30	3
V			2	83.081	ug/l	1.84	139,783.52	1.369E+00	Pulse	0.30	3
Cr			2	82.326	ug/l	1.30	168,843.70	1.653E+00	Pulse	0.30	3
Mn			2	94.140	ug/l	1.50	99,113.82	9.705E-01	Pulse	0.30	3
Fe			2	4308.085	ug/l	1.00	7,012,203.75	6.866E+01	Analog	0.30	3
Co			2	82.003	ug/l	1.60	255,539.70	2.502E+00	Pulse	0.30	3
Ni			2	81.333	ug/l	1.68	67,044.16	6.565E-01	Pulse	0.30	3
Cu			2	86.304	ug/l	1.58	188,454.61	1.845E+00	Pulse	0.30	3
Zn			2	80.572	ug/l	1.82	24,175.80	2.367E-01	Pulse	0.30	3
As			2	74.659	ug/l	1.62	12,517.07	1.225E-01	Pulse	1.00	3
Cd			2	77.456	ug/l	0.92	46,541.84	1.241E-01	Pulse	0.30	3
Sn			2	81.264	ug/l	1.10	62,344.23	1.662E-01	Pulse	0.30	3
Se			3	249.369	ug/l	3.94	6,846.78	1.018E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,646,982.13	2.77	92.1	Pulse	0.10	3
1	Sc		2,682,775.69	1.00	98.4	Pulse	0.10	3
1	Ge		585,303.48	1.04	99.3	Pulse	0.10	3

Quantitation Report

1	Rh		2,414,161.58	0.26	94.0	Pulse	0.10	3
1	In		2,399,760.75	3.50	95.0	Pulse	0.10	3
1	Tb		2,846,879.75	3.16	96.4	Pulse	0.10	3
1	Ho		5,809,024.18	8.79	102.6	Mix	0.10	3
1	Bi		1,444,328.99	1.40	93.3	Pulse	0.10	3
2	Sc		102,134.28	1.07	93.1	Pulse	0.30	3
2	Ge		73,817.98	1.04	96.5	Pulse	0.30	3
2	Rh		1,114,457.70	1.00	91.6	Pulse	0.30	3
2	In		375,098.69	1.71	89.3	Pulse	0.30	3
2	Tb		1,143,258.56	0.95	92.7	Pulse	0.30	3
2	Ho		2,193,989.43	0.22	92.6	Pulse	0.30	3
2	Bi		598,711.68	0.20	87.5	Pulse	0.30	3
3	Sc		59,994.29	0.51	100.0	Pulse	0.30	3
3	Ge		67,182.94	3.46	131.8	Pulse	0.30	3
3	Rh		469,909.29	0.52	95.3	Pulse	0.30	3
3	Tb		721,543.98	0.47	96.2	Pulse	0.30	3

Quantitation Report

File Name	044SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\.b111218m1.b
Method File	
Method Path	
Acq Time	11/12/2018 15:01
Sample Name	mp10165-s2
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	11/13/2018 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	78.958	ug/l	1.21	217,303.48	1.307E-01	Pulse	0.25	3
B			1	133.414	ug/l	1.11	324,166.56	1.950E-01	Pulse	0.15	3
Ca			1	7166.470	ug/l	0.45	2,802,581.52	1.044E+00	Pulse	0.10	3
Sr			1	100.394	ug/l	0.81	1,404,566.18	5.756E-01	Pulse	0.10	3
Mo			1	82.367	ug/l	0.12	231,147.12	9.472E-02	Pulse	0.10	3
Ag			1	74.465	ug/l	2.28	476,351.91	1.931E-01	Pulse	0.10	3
Sn			1	79.419	ug/l	1.47	308,059.71	1.249E-01	Pulse	0.10	3
Sb			1	82.517	ug/l	1.98	355,985.62	1.247E-01	Pulse	0.10	3
Ba			1	88.849	ug/l	0.71	156,502.51	5.480E-02	Pulse	0.10	3
Tl			1	79.326	ug/l	1.38	647,740.11	4.457E-01	Pulse	0.10	3
Pb			1	82.024	ug/l	0.56	231,974.53	1.596E-01	Pulse	0.10	3
Pb			1	82.200	ug/l	0.63	205,010.13	1.411E-01	Pulse	0.10	3
Pb			1	82.555	ug/l	0.96	933,469.73	6.423E-01	Pulse	0.10	3
Na			2	11025.734	ug/l	0.78	4,159,035.81	4.184E+01	Pulse	0.30	3
Mg			2	4480.012	ug/l	1.73	820,001.57	8.249E+00	Pulse	0.30	3
Al			2	4033.258	ug/l	2.48	260,036.32	2.616E+00	Pulse	0.30	3
K			2	4883.447	ug/l	2.46	645,736.75	6.496E+00	Pulse	0.30	3
Ca			2	7853.699	ug/l	1.59	54,858.61	5.518E-01	Pulse	0.30	3
Ti			2	82.163	ug/l	4.24	4,290.71	4.316E-02	Pulse	0.30	3
V			2	84.389	ug/l	2.58	138,178.59	1.390E+00	Pulse	0.30	3
Cr			2	84.156	ug/l	1.84	167,980.30	1.690E+00	Pulse	0.30	3
Mn			2	96.375	ug/l	2.10	98,761.81	9.935E-01	Pulse	0.30	3
Fe			2	4296.754	ug/l	7.88	6,805,830.29	6.848E+01	Mix	0.30	3
Co			2	84.476	ug/l	1.77	256,245.55	2.578E+00	Pulse	0.30	3
Ni			2	83.978	ug/l	1.41	67,383.52	6.778E-01	Pulse	0.30	3
Cu			2	89.282	ug/l	0.59	189,773.72	1.909E+00	Pulse	0.30	3
Zn			2	82.387	ug/l	0.99	24,062.30	2.420E-01	Pulse	0.30	3
As			2	76.115	ug/l	1.48	12,419.31	1.249E-01	Pulse	1.00	3
Cd			2	78.907	ug/l	2.66	46,460.74	1.264E-01	Pulse	0.30	3
Sn			2	82.384	ug/l	3.12	61,925.68	1.685E-01	Pulse	0.30	3
Se			3	242.228	ug/l	2.53	6,943.96	9.892E-02	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,661,965.48	0.65	92.9	Pulse	0.10	3
1	Sc		2,685,429.65	1.09	98.5	Pulse	0.10	3
1	Ge		597,040.11	0.51	101.3	Pulse	0.10	3

Quantitation Report

1	Rh		2,440,392.41	0.70	95.1	Pulse	0.10	3
1	In		2,466,810.18	0.69	97.7	Pulse	0.10	3
1	Tb		2,856,054.43	1.50	96.7	Pulse	0.10	3
1	Ho		6,066,260.53	0.79	107.1	Analog	0.10	3
1	Bi		1,453,424.51	1.27	93.9	Pulse	0.10	3
2	Sc		99,413.79	0.50	90.6	Pulse	0.30	3
2	Ge		72,852.73	0.92	95.2	Pulse	0.30	3
2	Rh		1,102,151.80	0.22	90.6	Pulse	0.30	3
2	In		367,607.47	0.65	87.5	Pulse	0.30	3
2	Tb		1,131,952.38	0.50	91.8	Pulse	0.30	3
2	Ho		2,182,326.93	0.66	92.1	Pulse	0.30	3
2	Bi		595,146.18	1.12	87.0	Pulse	0.30	3
3	Sc		60,770.81	0.86	101.3	Pulse	0.30	3
3	Ge		70,147.88	4.57	137.6	Pulse	0.30	3
3	Rh		470,465.97	0.23	95.4	Pulse	0.30	3
3	Tb		721,050.87	0.42	96.1	Pulse	0.30	3

Quantitation Report

File Name	045SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\.b111218m1.b
Method File	
Method Path	
Acq Time	11/12/2018 15:06
Sample Name	jc76707-1r
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	11/13/2018 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.014	ug/l	37.67	60.00	3.632E-05	Pulse	0.25	3
B			1	50.407	ug/l	1.13	127,201.25	7.688E-02	Pulse	0.15	3
Ca			1	3292.844	ug/l	0.14	1,282,584.41	4.849E-01	Pulse	0.10	3
Sr			1	15.651	ug/l	1.38	217,832.26	8.985E-02	Pulse	0.10	3
Mo			1	0.682	ug/l	3.63	1,913.54	7.891E-04	Pulse	0.10	3
Ag			1	0.021	ug/l	40.50	180.01	7.371E-05	Pulse	0.10	3
Sn			1	0.389	ug/l	11.44	1,753.58	7.182E-04	Pulse	0.10	3
Sb			1	0.591	ug/l	1.33	2,763.72	9.741E-04	Pulse	0.10	3
Ba			1	9.347	ug/l	2.51	16,367.52	5.771E-03	Pulse	0.10	3
Tl			1	0.023	ug/l	17.39	240.01	1.633E-04	Pulse	0.10	3
Pb			1	1.867	ug/l	3.28	5,368.02	3.654E-03	Pulse	0.10	3
Pb			1	1.730	ug/l	7.85	4,377.59	2.979E-03	Pulse	0.10	3
Pb			1	1.822	ug/l	2.34	20,957.67	1.427E-02	Pulse	0.10	3
Na			2	6851.716	ug/l	0.84	2,619,549.20	2.602E+01	Pulse	0.30	3
Mg			2	386.042	ug/l	1.62	71,748.70	7.126E-01	Pulse	0.30	3
Al			2	78.430	ug/l	4.94	5,202.21	5.166E-02	Pulse	0.30	3
K			2	826.709	ug/l	0.71	115,970.70	1.152E+00	Pulse	0.30	3
Ca			2	3356.265	ug/l	0.62	23,846.06	2.368E-01	Pulse	0.30	3
Ti			2	1.623	ug/l	32.75	85.56	8.526E-04	Pulse	0.30	3
V			2	1.644	ug/l	3.51	3,065.93	3.045E-02	Pulse	0.30	3
Cr			2	1.479	ug/l	1.60	3,271.54	3.249E-02	Pulse	0.30	3
Mn			2	14.363	ug/l	1.08	14,920.37	1.481E-01	Pulse	0.30	3
Fe			2	120.911	ug/l	0.23	196,900.69	1.955E+00	Pulse	0.30	3
Co			2	1.029	ug/l	4.59	3,197.07	3.176E-02	Pulse	0.30	3
Ni			2	1.568	ug/l	4.57	1,293.41	1.284E-02	Pulse	0.30	3
Cu			2	7.482	ug/l	1.06	16,266.38	1.615E-01	Pulse	0.30	3
Zn			2	11.135	ug/l	1.26	3,337.11	3.314E-02	Pulse	0.30	3
As			2	0.624	ug/l	4.03	110.33	1.096E-03	Pulse	1.00	3
Cd			2	0.063	ug/l	9.11	39.41	1.045E-04	Pulse	0.30	3
Sn			2	0.387	ug/l	3.19	352.23	9.339E-04	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	-0.374	ug/l	-19.39	22.20	3.278E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,654,687.03	0.99	92.5	Pulse	0.10	3
1	Sc		2,645,118.71	0.18	97.0	Pulse	0.10	3
1	Ge		587,974.38	0.61	99.8	Pulse	0.10	3
1	Rh		2,424,617.99	1.69	94.4	Pulse	0.10	3
1	In		2,439,290.14	1.68	96.6	Pulse	0.10	3
1	Tb		2,837,033.50	1.91	96.1	Pulse	0.10	3
1	Ho		5,961,313.87	0.21	105.3	Analog	0.10	3
1	Bi		1,468,933.10	0.97	94.9	Pulse	0.10	3
2	Sc		100,700.94	1.67	91.8	Pulse	0.30	3
2	Ge		73,156.63	2.16	95.6	Pulse	0.30	3
2	Rh		1,122,893.85	1.28	92.3	Pulse	0.30	3
2	In		377,133.37	1.79	89.8	Pulse	0.30	3
2	Tb		1,134,986.17	1.22	92.0	Pulse	0.30	3
2	Ho		2,190,326.65	1.34	92.5	Pulse	0.30	3
2	Bi		612,957.49	1.22	89.6	Pulse	0.30	3
3	Sc		61,308.95	1.32	102.2	Pulse	0.30	3
3	Ge		67,674.26	4.03	132.7	Pulse	0.30	3
3	Rh		486,188.89	1.27	98.6	Pulse	0.30	3
3	Tb		730,172.13	0.34	97.3	Pulse	0.30	3

Quantitation Report

File Name	046_CCV.d
File Path	C:\Agilent\ICPMH\1\DATA\.b111218m1.b
Method File	
Method Path	
Acq Time	11/12/2018 15:11
Sample Name	CCVA
Sample Type	CCV
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	11/13/2018 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	50.473	ug/l	0.67	286,486.42	1.672E-01	Pulse	0.25	3
B			1	99.498	ug/l	1.24	494,311.04	2.884E-01	Pulse	0.15	3
Ca			1	4728.697	ug/l	0.10	3,825,071.61	1.374E+00	Pulse	0.10	3
Sr			1	51.832	ug/l	0.39	1,470,391.54	5.943E-01	Pulse	0.10	3
Mo			1	50.582	ug/l	0.53	287,821.21	1.163E-01	Pulse	0.10	3
Ag			1	46.629	ug/l	0.84	593,748.98	2.419E-01	Pulse	0.10	3
Sn			1	48.800	ug/l	1.07	376,696.49	1.534E-01	Pulse	0.10	3
Sb			1	49.944	ug/l	0.76	426,878.55	1.509E-01	Pulse	0.10	3
Ba			1	49.119	ug/l	1.20	171,412.37	6.059E-02	Pulse	0.10	3
Tl			1	49.244	ug/l	1.92	805,767.88	5.533E-01	Pulse	0.10	3
Pb			1	49.242	ug/l	0.13	279,037.87	1.916E-01	Pulse	0.10	3
Pb			1	48.761	ug/l	1.06	243,698.14	1.674E-01	Pulse	0.10	3
Pb			1	49.094	ug/l	0.24	1,112,329.79	7.639E-01	Pulse	0.10	3
Na			2	4913.426	ug/l	0.48	4,097,577.89	3.729E+01	Pulse	0.30	3
Mg			2	4884.815	ug/l	0.60	1,976,198.05	1.799E+01	Pulse	0.30	3
Al			2	4756.603	ug/l	1.23	677,827.65	6.169E+00	Pulse	0.30	3
K			2	4870.026	ug/l	0.90	1,416,772.48	1.289E+01	Pulse	0.30	3
Ca			2	5078.822	ug/l	1.17	78,374.55	7.132E-01	Pulse	0.30	3
Ti			2	49.018	ug/l	2.51	5,660.12	5.150E-02	Pulse	0.30	3
V			2	49.302	ug/l	0.65	178,398.70	1.624E+00	Pulse	0.30	3
Cr			2	48.877	ug/l	0.49	215,636.28	1.962E+00	Pulse	0.30	3
Mn			2	48.612	ug/l	1.37	110,137.53	1.002E+00	Pulse	0.30	3
Fe			2	5113.260	ug/l	1.39	17,906,412.62	1.629E+02	Analog	0.30	3
Co			2	48.479	ug/l	0.67	325,071.08	2.958E+00	Pulse	0.30	3
Ni			2	47.891	ug/l	1.08	84,955.32	7.731E-01	Pulse	0.30	3
Cu			2	47.626	ug/l	0.65	223,783.23	2.036E+00	Pulse	0.30	3
Zn			2	47.465	ug/l	0.37	30,638.61	2.788E-01	Pulse	0.30	3
As			2	48.485	ug/l	1.70	17,483.47	1.591E-01	Pulse	1.00	3
Cd			2	48.630	ug/l	1.59	61,516.99	1.558E-01	Pulse	0.30	3
Sn			2	49.018	ug/l	0.05	79,153.89	2.005E-01	Pulse	0.30	3
Se			3	200.497	ug/l	5.72	8,404.24	1.634E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,713,946.57	0.36	95.8	Pulse	0.10	3
1	Sc		2,783,860.58	1.62	102.1	Pulse	0.10	3
1	Ge		588,717.67	1.63	99.9	Pulse	0.10	3

Quantitation Report

1	Rh		2,474,174.18	0.33	96.4	Pulse	0.10	3
1	In		2,455,072.50	0.72	97.2	Pulse	0.10	3
1	Tb		2,829,075.79	1.05	95.8	Pulse	0.10	3
1	Ho		5,997,795.12	0.90	105.9	Analog	0.10	3
1	Bi		1,456,065.71	1.38	94.1	Pulse	0.10	3
2	Sc		109,881.29	1.42	100.2	Pulse	0.30	3
2	Ge		75,474.73	0.61	98.7	Pulse	0.30	3
2	Rh		1,156,222.84	1.81	95.1	Pulse	0.30	3
2	In		394,862.43	1.72	94.0	Pulse	0.30	3
2	Tb		1,168,753.74	0.88	94.7	Pulse	0.30	3
2	Ho		2,255,124.08	1.37	95.2	Pulse	0.30	3
2	Bi		619,425.44	1.20	90.5	Pulse	0.30	3
3	Sc		63,581.02	1.25	106.0	Pulse	0.30	3
3	Ge		51,407.15	0.83	100.8	Pulse	0.30	3
3	Rh		484,826.68	0.48	98.3	Pulse	0.30	3
3	Tb		744,638.96	0.69	99.3	Pulse	0.30	3

Quantitation Report

File Name	047_CCB.d
File Path	C:\Agilent\ICPMH\1\DATA\.b111218m1.b
Method File	
Method Path	
Acq Time	11/12/2018 15:19
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	11/13/2018 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.001	ug/l	187.75	28.00	1.583E-05	Pulse	0.25	3
B			1	0.577	ug/l	15.32	11,903.10	6.760E-03	Pulse	0.15	3
Ca			1	0.463	ug/l	101.83	28,302.96	1.008E-02	Pulse	0.10	3
Sr			1	0.006	ug/l	57.98	533.37	2.081E-04	Pulse	0.10	3
Mo			1	0.011	ug/l	47.95	76.67	3.005E-05	Pulse	0.10	3
Ag			1	0.001	ug/l	237.62	56.67	2.244E-05	Pulse	0.10	3
Sn			1	0.013	ug/l	100.96	376.73	1.491E-04	Pulse	0.10	3
Sb			1	0.036	ug/l	18.86	543.37	1.908E-04	Pulse	0.10	3
Ba			1	0.003	ug/l	94.83	30.00	1.055E-05	Pulse	0.10	3
Tl			1	0.003	ug/l	34.05	93.34	6.190E-05	Pulse	0.10	3
Pb			1	0.004	ug/l	38.62	60.00	3.979E-05	Pulse	0.10	3
Pb			1	0.004	ug/l	158.05	36.67	2.442E-05	Pulse	0.10	3
Pb			1	0.002	ug/l	161.30	183.34	1.218E-04	Pulse	0.10	3
Na			2	0.786	ug/l	22.47	5,680.10	5.130E-02	Pulse	0.30	3
Mg			2	-0.261	ug/l	-15.35	112.22	1.014E-03	Pulse	0.30	3
Al			2	-0.321	ug/l	-14.61	43.33	3.914E-04	Pulse	0.30	3
K			2	-0.497	ug/l	-83.56	6,783.95	6.126E-02	Pulse	0.30	3
Ca			2	1.456	ug/l	28.64	208.89	1.886E-03	Pulse	0.30	3
Ti			2	0.019	ug/l	173.21	2.22	2.022E-05	Pulse	0.30	3
V			2	0.000	ug/l	-3427.23	378.90	3.421E-03	Pulse	0.30	3
Cr			2	0.001	ug/l	1206.12	317.79	2.872E-03	Pulse	0.30	3
Mn			2	0.004	ug/l	93.01	18.89	1.703E-04	Pulse	0.30	3
Fe			2	-0.384	ug/l	-5.03	1,877.93	1.696E-02	Pulse	0.30	3
Co			2	0.000	ug/l	3770.51	42.22	3.821E-04	Pulse	0.30	3
Ni			2	-0.003	ug/l	-85.03	15.55	1.406E-04	Pulse	0.30	3
Cu			2	0.014	ug/l	59.49	254.45	2.300E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	0.112	ug/l	22.97	126.67	1.143E-03	Pulse	0.30	3
As			2	-0.004	ug/l	-430.51	6.67	6.025E-05	Pulse	1.00	3
Cd			2	0.001	ug/l	171.45	3.64	8.818E-06	Pulse	0.30	3
Sn			2	0.012	ug/l	89.22	77.78	1.898E-04	Pulse	0.30	3
Se			3	0.873	ug/l	66.90	61.33	1.189E-03	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,761,611.79	1.61	98.5	Pulse	0.10	3
1	Sc		2,806,873.50	0.36	102.9	Pulse	0.10	3
1	Ge		595,853.40	0.84	101.1	Pulse	0.10	3
1	Rh		2,564,179.60	2.61	99.9	Pulse	0.10	3
1	In		2,532,491.17	1.97	100.3	Pulse	0.10	3
1	Tb		2,847,036.52	0.52	96.4	Pulse	0.10	3
1	Ho		5,788,066.58	7.48	102.2	Mix	0.10	3
1	Bi		1,508,492.58	0.93	97.5	Pulse	0.10	3
2	Sc		110,737.86	1.26	100.9	Pulse	0.30	3
2	Ge		76,863.34	1.34	100.5	Pulse	0.30	3
2	Rh		1,212,342.14	0.89	99.7	Pulse	0.30	3
2	In		408,960.23	1.79	97.4	Pulse	0.30	3
2	Tb		1,180,715.06	0.53	95.7	Pulse	0.30	3
2	Ho		2,272,803.52	1.00	95.9	Pulse	0.30	3
2	Bi		641,878.12	0.69	93.8	Pulse	0.30	3
3	Sc		63,510.77	0.52	105.8	Pulse	0.30	3
3	Ge		51,646.02	0.74	101.3	Pulse	0.30	3
3	Rh		496,759.72	0.38	100.7	Pulse	0.30	3
3	Tb		732,270.08	0.89	97.6	Pulse	0.30	3

Quantitation Report

File Name 048SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\.b111218m1.b
Method File
Method Path
Acq Time 11/12/2018 15:29
Sample Name mp10376-mb1
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name Metals
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 11/13/2018 7:20
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.005	ug/l	26.05	36.00	2.132E-05	Pulse	0.25	3
B			1	1.043	ug/l	10.62	11,146.86	6.602E-03	Pulse	0.15	3
Ca			1	12.508	ug/l	19.10	32,094.57	1.175E-02	Pulse	0.10	3
Sr			1	0.054	ug/l	11.34	1,106.76	4.444E-04	Pulse	0.10	3
Mo			1	0.065	ug/l	30.90	200.01	8.043E-05	Pulse	0.10	3
Ag			1	0.029	ug/l	13.31	233.35	9.476E-05	Pulse	0.10	3
Sn			1	0.296	ug/l	11.40	1,410.14	5.729E-04	Pulse	0.10	3
Sb			1	0.119	ug/l	16.91	753.38	2.628E-04	Pulse	0.10	3
Ba			1	0.019	ug/l	62.07	53.33	1.861E-05	Pulse	0.10	3
Tl			1	0.048	ug/l	8.73	443.36	2.995E-04	Pulse	0.10	3
Pb			1	0.033	ug/l	39.09	126.67	8.576E-05	Pulse	0.10	3
Pb			1	0.025	ug/l	73.96	80.00	5.429E-05	Pulse	0.10	3
Pb			1	0.036	ug/l	28.41	553.36	3.743E-04	Pulse	0.10	3
Na			2	8.920	ug/l	7.25	8,288.09	7.915E-02	Pulse	0.30	3
Mg			2	1.000	ug/l	42.02	398.90	3.814E-03	Pulse	0.30	3
Al			2	3.503	ug/l	16.04	322.23	3.079E-03	Pulse	0.30	3
K			2	2.192	ug/l	80.49	6,853.98	6.545E-02	Pulse	0.30	3
Ca			2	8.561	ug/l	39.85	238.89	2.282E-03	Pulse	0.30	3
Ti			2	0.183	ug/l	89.07	10.00	9.615E-05	Pulse	0.30	3
V			2	0.495	ug/l	15.48	1,210.63	1.157E-02	Pulse	0.30	3
Cr			2	0.266	ug/l	7.19	855.59	8.172E-03	Pulse	0.30	3
Mn			2	0.050	ug/l	4.26	64.44	6.154E-04	Pulse	0.30	3
Fe			2	1.649	ug/l	6.07	5,811.29	5.548E-02	Pulse	0.30	3
Co			2	0.010	ug/l	23.17	72.22	6.894E-04	Pulse	0.30	3
Ni			2	0.048	ug/l	30.36	60.00	5.734E-04	Pulse	0.30	3
Cu			2	0.159	ug/l	8.96	534.46	5.100E-03	Pulse	0.30	3
Zn			2	1.089	ug/l	4.12	385.57	3.682E-03	Pulse	0.30	3
As			2	0.076	ug/l	32.25	20.67	1.973E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	0.003	ug/l	329.95	3.57	9.390E-06	Pulse	0.30	3
Sn			2	0.262	ug/l	13.81	261.12	6.780E-04	Pulse	0.30	3
Se			3	1.324	ug/l	31.01	66.33	1.018E-03	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,688,665.92	1.09	94.4	Pulse	0.10	3
1	Sc		2,730,692.67	0.43	100.1	Pulse	0.10	3
1	Ge		593,396.66	0.62	100.7	Pulse	0.10	3
1	Rh		2,492,597.62	1.56	97.1	Pulse	0.10	3
1	In		2,462,394.94	0.69	97.5	Pulse	0.10	3
1	Tb		2,867,401.73	1.16	97.1	Pulse	0.10	3
1	Ho		6,051,017.82	0.42	106.9	Analog	0.10	3
1	Bi		1,480,901.85	1.36	95.7	Pulse	0.10	3
2	Sc		104,744.52	1.42	95.5	Pulse	0.30	3
2	Ge		74,110.49	2.19	96.9	Pulse	0.30	3
2	Rh		1,153,808.74	0.60	94.9	Pulse	0.30	3
2	In		385,291.42	1.20	91.7	Pulse	0.30	3
2	Tb		1,150,120.13	1.64	93.2	Pulse	0.30	3
2	Ho		2,212,639.43	1.23	93.4	Pulse	0.30	3
2	Bi		621,074.39	1.37	90.8	Pulse	0.30	3
3	Sc		61,019.69	1.69	101.7	Pulse	0.30	3
3	Ge		65,181.09	1.84	127.8	Pulse	0.30	3
3	Rh		472,026.75	1.41	95.7	Pulse	0.30	3
3	Tb		709,238.45	0.52	94.6	Pulse	0.30	3

Quantitation Report

File Name	049SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\.b111218m1.b
Method File	
Method Path	
Acq Time	11/12/2018 15:34
Sample Name	mp10376-b1
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	11/13/2018 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	81.432	ug/l	1.08	225,040.74	1.348E-01	Pulse	0.25	3
B			1	85.428	ug/l	3.97	211,443.45	1.267E-01	Pulse	0.15	3
Ca			1	3978.726	ug/l	0.69	1,582,334.04	5.838E-01	Pulse	0.10	3
Sr			1	85.680	ug/l	1.07	1,187,403.40	4.912E-01	Pulse	0.10	3
Mo			1	82.275	ug/l	0.84	228,692.93	9.461E-02	Pulse	0.10	3
Ag			1	76.026	ug/l	0.53	479,550.00	1.972E-01	Pulse	0.10	3
Sn			1	79.236	ug/l	0.20	303,027.06	1.246E-01	Pulse	0.10	3
Sb			1	81.484	ug/l	1.07	347,367.42	1.231E-01	Pulse	0.10	3
Ba			1	79.142	ug/l	1.75	137,724.54	4.881E-02	Pulse	0.10	3
Tl			1	81.114	ug/l	0.99	649,688.78	4.557E-01	Pulse	0.10	3
Pb			1	81.220	ug/l	1.00	225,304.80	1.580E-01	Pulse	0.10	3
Pb			1	81.073	ug/l	1.55	198,320.28	1.391E-01	Pulse	0.10	3
Pb			1	81.491	ug/l	1.10	903,820.04	6.340E-01	Pulse	0.10	3
Na			2	4122.313	ug/l	1.03	1,653,791.67	1.567E+01	Pulse	0.30	3
Mg			2	4060.686	ug/l	1.27	789,080.49	7.477E+00	Pulse	0.30	3
Al			2	3874.351	ug/l	0.61	265,216.29	2.513E+00	Pulse	0.30	3
K			2	3980.358	ug/l	1.21	559,989.91	5.306E+00	Pulse	0.30	3
Ca			2	4419.393	ug/l	0.28	32,853.21	3.113E-01	Pulse	0.30	3
Ti			2	78.788	ug/l	2.35	4,368.52	4.139E-02	Pulse	0.30	3
V			2	81.495	ug/l	0.19	141,691.76	1.342E+00	Pulse	0.30	3
Cr			2	81.044	ug/l	0.83	171,768.30	1.627E+00	Pulse	0.30	3
Mn			2	79.865	ug/l	1.20	86,897.23	8.233E-01	Pulse	0.30	3
Fe			2	4214.517	ug/l	0.82	7,088,845.83	6.717E+01	Analog	0.30	3
Co			2	80.664	ug/l	1.31	259,757.58	2.461E+00	Pulse	0.30	3
Ni			2	80.273	ug/l	0.66	68,385.02	6.479E-01	Pulse	0.30	3
Cu			2	79.636	ug/l	1.01	179,745.34	1.703E+00	Pulse	0.30	3
Zn			2	71.407	ug/l	0.84	22,147.93	2.099E-01	Pulse	0.30	3
As			2	74.275	ug/l	1.22	12,868.39	1.219E-01	Pulse	1.00	3
Cd			2	78.176	ug/l	0.55	47,507.28	1.252E-01	Pulse	0.30	3
Sn			2	80.780	ug/l	0.54	62,670.54	1.652E-01	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	235.991	ug/l	2.38	7,129.65	9.639E-02	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,669,081.61	1.65	93.3	Pulse	0.10	3
1	Sc		2,710,496.42	1.25	99.4	Pulse	0.10	3
1	Ge		585,160.68	1.35	99.3	Pulse	0.10	3
1	Rh		2,417,210.69	0.68	94.2	Pulse	0.10	3
1	In		2,432,231.48	0.96	96.3	Pulse	0.10	3
1	Tb		2,821,994.75	1.85	95.6	Pulse	0.10	3
1	Ho		6,044,700.33	1.56	106.8	Analog	0.10	3
1	Bi		1,425,620.45	1.14	92.1	Pulse	0.10	3
2	Sc		105,547.52	1.49	96.2	Pulse	0.30	3
2	Ge		75,248.85	0.24	98.4	Pulse	0.30	3
2	Rh		1,140,116.14	0.85	93.7	Pulse	0.30	3
2	In		379,364.67	0.89	90.3	Pulse	0.30	3
2	Tb		1,146,728.60	0.97	93.0	Pulse	0.30	3
2	Ho		2,214,004.42	1.18	93.5	Pulse	0.30	3
2	Bi		606,157.23	0.95	88.6	Pulse	0.30	3
3	Sc		62,742.69	2.04	104.6	Pulse	0.30	3
3	Ge		73,951.19	3.69	145.0	Pulse	0.30	3
3	Rh		481,329.90	0.05	97.6	Pulse	0.30	3
3	Tb		725,195.30	0.34	96.7	Pulse	0.30	3

Quantitation Report

File Name 050SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\.b111218m1.b
Method File
Method Path
Acq Time 11/12/2018 15:39
Sample Name mp10376-s1
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name Metals
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 11/13/2018 7:20
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	81.335	ug/l	0.49	219,228.96	1.347E-01	Pulse	0.25	3
B			1	118.788	ug/l	0.45	283,598.75	1.742E-01	Pulse	0.15	3
Ca			1	22437.558	ug/l	0.99	8,601,007.79	3.246E+00	Analog	0.10	3
Sr			1	193.420	ug/l	0.45	2,592,185.95	1.109E+00	Pulse	0.10	3
Mo			1	85.583	ug/l	0.34	230,090.00	9.842E-02	Pulse	0.10	3
Ag			1	74.911	ug/l	1.11	459,496.46	1.943E-01	Pulse	0.10	3
Sn			1	79.876	ug/l	1.46	297,029.01	1.256E-01	Pulse	0.10	3
Sb			1	80.890	ug/l	0.43	344,082.45	1.222E-01	Pulse	0.10	3
Ba			1	114.486	ug/l	0.51	198,799.61	7.061E-02	Pulse	0.10	3
Tl			1	81.631	ug/l	1.09	636,764.62	4.586E-01	Pulse	0.10	3
Pb			1	80.958	ug/l	1.57	218,768.30	1.575E-01	Pulse	0.10	3
Pb			1	79.950	ug/l	1.38	190,497.16	1.372E-01	Pulse	0.10	3
Pb			1	81.064	ug/l	0.45	875,763.98	6.307E-01	Pulse	0.10	3
Na			2	53026.517	ug/l	1.51	20,563,663.07	2.010E+02	Analog	0.30	3
Mg			2	7318.183	ug/l	0.52	1,378,373.59	1.347E+01	Pulse	0.30	3
Al			2	3593.666	ug/l	0.17	238,453.65	2.331E+00	Pulse	0.30	3
K			2	6751.771	ug/l	0.35	916,332.88	8.957E+00	Pulse	0.30	3
Ca			2	21161.373	ug/l	0.74	151,818.01	1.484E+00	Pulse	0.30	3
Ti			2	77.473	ug/l	1.94	4,162.88	4.070E-02	Pulse	0.30	3
V			2	80.911	ug/l	1.32	136,348.33	1.333E+00	Pulse	0.30	3
Cr			2	80.342	ug/l	0.40	165,048.34	1.613E+00	Pulse	0.30	3
Mn			2	79.584	ug/l	0.60	83,938.34	8.204E-01	Pulse	0.30	3
Fe			2	3571.855	ug/l	0.60	5,824,328.24	5.693E+01	Pulse	0.30	3
Co			2	79.530	ug/l	0.34	248,279.69	2.427E+00	Pulse	0.30	3
Ni			2	78.051	ug/l	0.20	64,454.16	6.300E-01	Pulse	0.30	3
Cu			2	77.952	ug/l	0.40	170,533.13	1.667E+00	Pulse	0.30	3
Zn			2	71.859	ug/l	0.41	21,604.86	2.112E-01	Pulse	0.30	3
As			2	74.663	ug/l	1.66	12,539.08	1.225E-01	Pulse	1.00	3
Cd			2	76.814	ug/l	0.36	45,225.53	1.230E-01	Pulse	0.30	3
Sn			2	81.183	ug/l	1.48	61,029.54	1.660E-01	Pulse	0.30	3
Se			3	253.823	ug/l	6.89	6,893.00	1.036E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,627,770.66	0.67	91.0	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,649,783.71	1.22	97.2	Pulse	0.10	3
1	Ge		579,401.45	1.51	98.3	Pulse	0.10	3
1	Rh		2,337,856.43	1.29	91.1	Pulse	0.10	3
1	In		2,365,357.36	1.35	93.7	Pulse	0.10	3
1	Tb		2,815,491.42	1.34	95.4	Pulse	0.10	3
1	Ho		5,764,102.00	8.21	101.8	Mix	0.10	3
1	Bi		1,388,529.04	0.91	89.7	Pulse	0.10	3
2	Sc		102,305.65	1.50	93.2	Pulse	0.30	3
2	Ge		72,737.55	1.61	95.1	Pulse	0.30	3
2	Rh		1,081,966.93	1.35	88.9	Pulse	0.30	3
2	In		367,548.58	1.95	87.5	Pulse	0.30	3
2	Tb		1,116,974.09	0.73	90.5	Pulse	0.30	3
2	Ho		2,177,331.37	0.89	91.9	Pulse	0.30	3
2	Bi		577,431.76	1.07	84.4	Pulse	0.30	3
3	Sc		62,011.74	0.26	103.3	Pulse	0.30	3
3	Ge		66,537.64	0.88	130.5	Pulse	0.30	3
3	Rh		467,893.73	0.37	94.9	Pulse	0.30	3
3	Tb		725,128.53	1.20	96.7	Pulse	0.30	3

Quantitation Report

File Name	051SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\.b111218m1.b
Method File	
Method Path	
Acq Time	11/12/2018 15:44
Sample Name	mp10376-s2
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	11/13/2018 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	81.969	ug/l	0.98	219,861.81	1.357E-01	Pulse	0.25	3
B			1	121.252	ug/l	0.81	287,899.96	1.777E-01	Pulse	0.15	3
Ca			1	23288.484	ug/l	1.77	8,866,652.78	3.369E+00	Analog	0.10	3
Sr			1	195.260	ug/l	0.62	2,594,733.19	1.119E+00	Pulse	0.10	3
Mo			1	85.763	ug/l	1.23	228,612.19	9.862E-02	Pulse	0.10	3
Ag			1	75.661	ug/l	0.71	462,494.68	1.962E-01	Pulse	0.10	3
Sn			1	81.416	ug/l	0.14	301,714.93	1.280E-01	Pulse	0.10	3
Sb			1	81.887	ug/l	0.95	343,587.64	1.237E-01	Pulse	0.10	3
Ba			1	117.315	ug/l	1.31	200,943.41	7.236E-02	Pulse	0.10	3
Tl			1	83.231	ug/l	1.15	644,319.90	4.676E-01	Pulse	0.10	3
Pb			1	83.017	ug/l	1.15	222,590.15	1.615E-01	Pulse	0.10	3
Pb			1	82.160	ug/l	2.03	194,303.77	1.410E-01	Pulse	0.10	3
Pb			1	82.747	ug/l	0.85	887,170.22	6.438E-01	Pulse	0.10	3
Na			2	54331.717	ug/l	3.01	20,975,985.28	2.060E+02	Analog	0.30	3
Mg			2	7586.717	ug/l	1.06	1,422,709.98	1.397E+01	Pulse	0.30	3
Al			2	3815.388	ug/l	1.17	252,077.78	2.475E+00	Pulse	0.30	3
K			2	7032.323	ug/l	0.21	950,163.61	9.327E+00	Pulse	0.30	3
Ca			2	21873.179	ug/l	1.33	156,271.23	1.534E+00	Pulse	0.30	3
Ti			2	83.392	ug/l	2.46	4,464.13	4.381E-02	Pulse	0.30	3
V			2	82.189	ug/l	0.70	137,912.04	1.354E+00	Pulse	0.30	3
Cr			2	81.445	ug/l	0.79	166,590.50	1.635E+00	Pulse	0.30	3
Mn			2	81.380	ug/l	1.03	85,457.39	8.389E-01	Pulse	0.30	3
Fe			2	4130.218	ug/l	6.73	6,709,415.29	6.582E+01	Mix	0.30	3
Co			2	80.713	ug/l	0.62	250,882.40	2.463E+00	Pulse	0.30	3
Ni			2	78.727	ug/l	0.89	64,731.03	6.355E-01	Pulse	0.30	3
Cu			2	79.476	ug/l	1.29	173,103.65	1.699E+00	Pulse	0.30	3
Zn			2	72.555	ug/l	0.68	21,720.55	2.132E-01	Pulse	0.30	3
As			2	74.225	ug/l	0.61	12,411.30	1.218E-01	Pulse	1.00	3
Cd			2	78.225	ug/l	0.87	45,889.80	1.253E-01	Pulse	0.30	3
Sn			2	81.097	ug/l	0.95	60,742.45	1.658E-01	Pulse	0.30	3
Se			3	245.562	ug/l	5.69	6,889.60	1.003E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,619,825.83	0.33	90.5	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,631,956.42	0.36	96.5	Pulse	0.10	3
1	Ge		574,401.71	1.40	97.5	Pulse	0.10	3
1	Rh		2,318,322.10	1.74	90.3	Pulse	0.10	3
1	In		2,356,954.46	0.57	93.3	Pulse	0.10	3
1	Tb		2,777,376.94	1.05	94.1	Pulse	0.10	3
1	Ho		5,934,743.24	0.50	104.8	Analog	0.10	3
1	Bi		1,377,990.86	1.90	89.0	Pulse	0.10	3
2	Sc		101,872.81	1.91	92.9	Pulse	0.30	3
2	Ge		72,110.06	2.02	94.3	Pulse	0.30	3
2	Rh		1,076,531.73	1.19	88.5	Pulse	0.30	3
2	In		366,249.97	1.91	87.2	Pulse	0.30	3
2	Tb		1,114,540.86	1.46	90.3	Pulse	0.30	3
2	Ho		2,167,644.43	1.55	91.5	Pulse	0.30	3
2	Bi		573,968.54	0.98	83.9	Pulse	0.30	3
3	Sc		60,508.57	1.60	100.8	Pulse	0.30	3
3	Ge		68,705.97	0.54	134.7	Pulse	0.30	3
3	Rh		460,829.34	0.18	93.4	Pulse	0.30	3
3	Tb		713,817.51	1.10	95.2	Pulse	0.30	3

Quantitation Report

File Name	052SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\.b111218m1.b
Method File	
Method Path	
Acq Time	11/12/2018 15:49
Sample Name	jc77511-1
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	11/13/2018 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.025	ug/l	20.33	88.00	5.439E-05	Pulse	0.25	3
B			1	35.316	ug/l	1.27	89,566.22	5.539E-02	Pulse	0.15	3
Ca			1	16562.553	ug/l	0.49	6,316,190.12	2.399E+00	Pulse	0.10	3
Sr			1	106.387	ug/l	0.59	1,441,108.16	6.099E-01	Pulse	0.10	3
Mo			1	0.911	ug/l	1.78	2,486.99	1.053E-03	Pulse	0.10	3
Ag			1	0.024	ug/l	8.80	196.68	8.215E-05	Pulse	0.10	3
Sn			1	0.420	ug/l	7.27	1,836.87	7.668E-04	Pulse	0.10	3
Sb			1	0.202	ug/l	15.42	1,083.42	3.874E-04	Pulse	0.10	3
Ba			1	36.303	ug/l	1.17	62,650.37	2.240E-02	Pulse	0.10	3
Tl			1	0.191	ug/l	11.44	1,566.82	1.105E-03	Pulse	0.10	3
Pb			1	0.276	ug/l	3.85	793.39	5.595E-04	Pulse	0.10	3
Pb			1	0.236	ug/l	7.41	590.04	4.160E-04	Pulse	0.10	3
Pb			1	0.257	ug/l	8.18	2,970.24	2.094E-03	Pulse	0.10	3
Na			2	50336.245	ug/l	1.01	19,236,895.90	1.908E+02	Analog	0.30	3
Mg			2	3778.718	ug/l	0.99	701,335.51	6.958E+00	Pulse	0.30	3
Al			2	30.567	ug/l	9.87	2,077.97	2.063E-02	Pulse	0.30	3
K			2	3147.110	ug/l	1.60	424,210.18	4.208E+00	Pulse	0.30	3
Ca			2	17489.624	ug/l	0.10	123,666.98	1.227E+00	Pulse	0.30	3
Ti			2	0.775	ug/l	39.47	41.11	4.073E-04	Pulse	0.30	3
V			2	0.964	ug/l	1.98	1,943.50	1.928E-02	Pulse	0.30	3
Cr			2	0.407	ug/l	10.75	1,107.84	1.099E-02	Pulse	0.30	3
Mn			2	1.597	ug/l	8.48	1,669.01	1.656E-02	Pulse	0.30	3
Fe			2	34.512	ug/l	1.00	58,359.19	5.790E-01	Pulse	0.30	3
Co			2	0.237	ug/l	8.56	766.70	7.610E-03	Pulse	0.30	3
Ni			2	0.382	ug/l	5.40	328.90	3.262E-03	Pulse	0.30	3
Cu			2	1.280	ug/l	1.88	2,928.13	2.905E-02	Pulse	0.30	3
Zn			2	5.240	ug/l	3.76	1,597.89	1.585E-02	Pulse	0.30	3
As			2	0.224	ug/l	13.62	44.33	4.398E-04	Pulse	1.00	3
Cd			2	0.060	ug/l	68.27	37.29	1.006E-04	Pulse	0.30	3
Sn			2	0.389	ug/l	18.50	350.01	9.379E-04	Pulse	0.30	3
Se			3	1.323	ug/l	81.05	68.87	1.017E-03	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,616,898.86	0.66	90.4	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,633,063.40	0.25	96.5	Pulse	0.10	3
1	Ge		575,527.78	1.41	97.7	Pulse	0.10	3
1	Rh		2,362,717.72	1.25	92.0	Pulse	0.10	3
1	In		2,395,167.28	1.65	94.9	Pulse	0.10	3
1	Tb		2,797,298.71	1.32	94.7	Pulse	0.10	3
1	Ho		5,997,396.37	0.57	105.9	Analog	0.10	3
1	Bi		1,417,992.74	0.55	91.6	Pulse	0.10	3
2	Sc		100,799.32	0.90	91.9	Pulse	0.30	3
2	Ge		72,447.19	0.58	94.7	Pulse	0.30	3
2	Rh		1,094,366.83	1.61	90.0	Pulse	0.30	3
2	In		372,621.11	1.56	88.7	Pulse	0.30	3
2	Tb		1,127,064.26	0.83	91.4	Pulse	0.30	3
2	Ho		2,182,567.28	1.15	92.1	Pulse	0.30	3
2	Bi		589,944.39	1.44	86.2	Pulse	0.30	3
3	Sc		60,684.84	0.58	101.1	Pulse	0.30	3
3	Ge		68,271.61	3.41	133.9	Pulse	0.30	3
3	Rh		472,384.29	1.50	95.8	Pulse	0.30	3
3	Tb		717,920.80	1.13	95.7	Pulse	0.30	3

Quantitation Report

File Name	053SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\.b111218m1.b
Method File	
Method Path	
Acq Time	11/12/2018 15:55
Sample Name	mp10376-sd1
Sample Type	Sample
Comment	
Prep Dilution	10.000
Auto Dilution	N/A
Total Dilution	10.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	11/13/2018 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.064	ug/l	12.46	58.67	3.350E-05	Pulse	0.25	3
B			1	32.717	ug/l	3.62	25,271.80	1.443E-02	Pulse	0.15	3
Ca			1	16821.505	ug/l	0.80	1,392,254.61	4.952E-01	Pulse	0.10	3
Sr			1	105.529	ug/l	0.61	308,449.96	1.211E-01	Pulse	0.10	3
Mo			1	1.059	ug/l	12.29	633.37	2.487E-04	Pulse	0.10	3
Ag			1	0.043	ug/l	37.75	103.34	4.114E-05	Pulse	0.10	3
Sn			1	0.274	ug/l	50.43	486.73	1.938E-04	Pulse	0.10	3
Sb			1	0.112	ug/l	35.24	333.35	1.162E-04	Pulse	0.10	3
Ba			1	36.930	ug/l	4.16	13,073.68	4.562E-03	Pulse	0.10	3
Tl			1	2.060	ug/l	1.45	3,483.94	2.346E-03	Pulse	0.10	3
Pb			1	0.429	ug/l	23.48	280.02	1.891E-04	Pulse	0.10	3
Pb			1	0.417	ug/l	35.69	230.01	1.544E-04	Pulse	0.10	3
Pb			1	0.388	ug/l	6.46	1,036.73	6.985E-04	Pulse	0.10	3
Na			2	46419.864	ug/l	0.84	3,905,059.57	3.523E+01	Pulse	0.30	3
Mg			2	3882.174	ug/l	1.04	158,619.89	1.431E+00	Pulse	0.30	3
Al			2	35.449	ug/l	3.99	598.91	5.405E-03	Pulse	0.30	3
K			2	3193.068	ug/l	0.62	100,177.92	9.039E-01	Pulse	0.30	3
Ca			2	17452.812	ug/l	0.59	27,287.92	2.462E-01	Pulse	0.30	3
Ti			2	0.864	ug/l	67.64	10.00	9.074E-05	Pulse	0.30	3
V			2	0.533	ug/l	18.83	574.46	5.183E-03	Pulse	0.30	3
Cr			2	0.150	ug/l	45.83	381.12	3.439E-03	Pulse	0.30	3
Mn			2	1.596	ug/l	6.05	375.56	3.387E-03	Pulse	0.30	3
Fe			2	35.553	ug/l	0.46	15,792.50	1.425E-01	Pulse	0.30	3
Co			2	0.237	ug/l	11.24	202.22	1.826E-03	Pulse	0.30	3
Ni			2	0.464	ug/l	3.32	103.34	9.323E-04	Pulse	0.30	3
Cu			2	2.106	ug/l	5.11	1,185.62	1.070E-02	Pulse	0.30	3
Zn			2	8.076	ug/l	9.09	578.91	5.224E-03	Pulse	0.30	3
As			2	0.117	ug/l	71.07	12.33	1.112E-04	Pulse	1.00	3
Cd			2	0.181	ug/l	34.38	25.35	6.243E-05	Pulse	0.30	3
Sn			2	0.276	ug/l	32.13	103.34	2.551E-04	Pulse	0.30	3
Se			3	0.931	ug/l	143.69	29.53	5.554E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,751,083.63	0.34	97.9	Pulse	0.10	3
1	Sc		2,811,415.38	1.15	103.1	Pulse	0.10	3
1	Ge		599,704.87	1.55	101.8	Pulse	0.10	3

Quantitation Report

1	Rh		2,546,830.27	0.85	99.2	Pulse	0.10	3
1	In		2,513,002.87	1.27	99.5	Pulse	0.10	3
1	Tb		2,865,672.67	2.29	97.1	Pulse	0.10	3
1	Ho		6,094,440.33	1.85	107.6	Analog	0.10	3
1	Bi		1,485,223.83	2.31	95.9	Pulse	0.10	3
2	Sc		110,837.89	1.27	101.0	Pulse	0.30	3
2	Ge		77,221.12	2.42	101.0	Pulse	0.30	3
2	Rh		1,173,543.29	1.56	96.5	Pulse	0.30	3
2	In		405,082.22	1.22	96.5	Pulse	0.30	3
2	Tb		1,165,775.72	1.49	94.5	Pulse	0.30	3
2	Ho		2,257,947.34	1.57	95.3	Pulse	0.30	3
2	Bi		634,941.69	1.39	92.8	Pulse	0.30	3
3	Sc		64,958.41	0.46	108.3	Pulse	0.30	3
3	Ge		53,149.72	1.58	104.2	Pulse	0.30	3
3	Rh		506,873.26	1.34	102.8	Pulse	0.30	3
3	Tb		746,521.85	0.13	99.5	Pulse	0.30	3

Quantitation Report

File Name 054SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\.b111218m1.b
Method File
Method Path
Acq Time 11/12/2018 16:00
Sample Name jc77511-2
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name Metals
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 11/13/2018 7:20
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.014	ug/l	50.34	54.67	3.473E-05	Pulse	0.25	3
B			1	70.307	ug/l	0.95	165,473.54	1.052E-01	Pulse	0.15	3
Ca			1	40634.930	ug/l	1.03	15,091,216.86	5.871E+00	Analog	0.10	3
Sr			1	172.521	ug/l	1.29	2,189,386.69	9.890E-01	Pulse	0.10	3
Mo			1	6.343	ug/l	3.00	16,160.37	7.299E-03	Pulse	0.10	3
Ag			1	0.020	ug/l	20.54	163.34	7.179E-05	Pulse	0.10	3
Sn			1	0.491	ug/l	2.92	2,000.23	8.791E-04	Pulse	0.10	3
Sb			1	0.399	ug/l	17.36	1,840.19	6.844E-04	Pulse	0.10	3
Ba			1	43.449	ug/l	0.76	72,045.57	2.680E-02	Pulse	0.10	3
Tl			1	0.120	ug/l	13.32	926.74	7.038E-04	Pulse	0.10	3
Pb			1	0.951	ug/l	5.69	2,467.00	1.873E-03	Pulse	0.10	3
Pb			1	0.910	ug/l	4.40	2,073.59	1.573E-03	Pulse	0.10	3
Pb			1	0.927	ug/l	2.14	9,625.17	7.305E-03	Pulse	0.10	3
Na			2	227449.717	ug/l	0.22	84,322,376.65	8.622E+02	Analog	0.30	3
Mg			2	3381.476	ug/l	0.82	608,951.42	6.227E+00	Pulse	0.30	3
Al			2	118.641	ug/l	2.12	7,601.02	7.773E-02	Pulse	0.30	3
K			2	5761.728	ug/l	0.13	748,513.18	7.653E+00	Pulse	0.30	3
Ca			2	37949.236	ug/l	0.71	260,192.81	2.660E+00	Pulse	0.30	3
Ti			2	6.417	ug/l	13.70	330.01	3.371E-03	Pulse	0.30	3
V			2	2.554	ug/l	2.26	4,439.65	4.540E-02	Pulse	0.30	3
Cr			2	0.818	ug/l	3.32	1,881.26	1.924E-02	Pulse	0.30	3
Mn			2	57.439	ug/l	1.25	57,912.85	5.922E-01	Pulse	0.30	3
Fe			2	932.571	ug/l	0.21	1,455,888.24	1.489E+01	Pulse	0.30	3
Co			2	0.403	ug/l	2.60	1,240.08	1.268E-02	Pulse	0.30	3
Ni			2	0.621	ug/l	4.79	507.79	5.190E-03	Pulse	0.30	3
Cu			2	6.184	ug/l	1.51	13,087.50	1.338E-01	Pulse	0.30	3
Zn			2	12.360	ug/l	2.62	3,591.62	3.673E-02	Pulse	0.30	3
As			2	2.585	ug/l	4.24	422.01	4.313E-03	Pulse	1.00	3
Cd			2	0.068	ug/l	20.70	40.05	1.137E-04	Pulse	0.30	3
Sn			2	0.504	ug/l	7.38	412.23	1.171E-03	Pulse	0.30	3
Se			3	1.122	ug/l	34.84	61.00	9.355E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,572,786.34	0.87	87.9	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,570,588.76	0.40	94.3	Pulse	0.10	3
1	Ge		551,313.78	0.33	93.5	Pulse	0.10	3
1	Rh		2,213,832.36	0.54	86.2	Pulse	0.10	3
1	In		2,274,970.63	1.09	90.1	Pulse	0.10	3
1	Tb		2,687,956.52	0.84	91.0	Pulse	0.10	3
1	Ho		5,606,467.31	6.88	99.0	Mix	0.10	3
1	Bi		1,317,932.40	1.57	85.1	Pulse	0.10	3
2	Sc		97,806.87	1.53	89.1	Pulse	0.30	3
2	Ge		69,724.42	1.66	91.2	Pulse	0.30	3
2	Rh		1,021,852.81	1.93	84.0	Pulse	0.30	3
2	In		351,994.32	0.85	83.8	Pulse	0.30	3
2	Tb		1,081,165.41	1.85	87.6	Pulse	0.30	3
2	Ho		2,101,859.36	1.80	88.7	Pulse	0.30	3
2	Bi		549,360.67	1.12	80.3	Pulse	0.30	3
3	Sc		58,196.61	0.11	97.0	Pulse	0.30	3
3	Ge		65,522.82	4.54	128.5	Pulse	0.30	3
3	Rh		439,026.14	0.59	89.0	Pulse	0.30	3
3	Tb		697,203.48	0.35	93.0	Pulse	0.30	3

Quantitation Report

File Name 055SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\.b111218m1.b
Method File
Method Path
Acq Time 11/12/2018 16:05
Sample Name jc77511-6
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name Metals
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 11/13/2018 7:20
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.012	ug/l	30.99	52.00	3.241E-05	Pulse	0.25	3
B			1	12.892	ug/l	3.10	37,592.43	2.347E-02	Pulse	0.15	3
Ca			1	3830.457	ug/l	0.45	1,447,010.97	5.624E-01	Pulse	0.10	3
Sr			1	18.206	ug/l	1.96	245,437.95	1.045E-01	Pulse	0.10	3
Mo			1	9.771	ug/l	2.13	26,406.62	1.124E-02	Pulse	0.10	3
Ag			1	0.005	ug/l	58.76	73.33	3.123E-05	Pulse	0.10	3
Sn			1	0.424	ug/l	6.87	1,823.52	7.738E-04	Pulse	0.10	3
Sb			1	0.345	ug/l	6.93	1,686.85	6.032E-04	Pulse	0.10	3
Ba			1	18.298	ug/l	1.13	31,588.88	1.129E-02	Pulse	0.10	3
Tl			1	0.017	ug/l	24.60	176.68	1.244E-04	Pulse	0.10	3
Pb			1	0.552	ug/l	9.63	1,556.82	1.096E-03	Pulse	0.10	3
Pb			1	0.557	ug/l	12.55	1,373.47	9.672E-04	Pulse	0.10	3
Pb			1	0.546	ug/l	3.85	6,164.17	4.340E-03	Pulse	0.10	3
Na			2	33782.920	ug/l	1.97	12,701,101.99	1.281E+02	Analog	0.30	3
Mg			2	358.290	ug/l	1.97	65,594.92	6.615E-01	Pulse	0.30	3
Al			2	273.022	ug/l	0.98	17,635.64	1.778E-01	Pulse	0.30	3
K			2	1641.004	ug/l	1.62	220,568.31	2.224E+00	Pulse	0.30	3
Ca			2	3818.526	ug/l	2.42	26,687.88	2.692E-01	Pulse	0.30	3
Ti			2	10.071	ug/l	4.00	524.46	5.290E-03	Pulse	0.30	3
V			2	1.649	ug/l	3.29	3,028.15	3.053E-02	Pulse	0.30	3
Cr			2	11.085	ug/l	3.69	22,311.46	2.250E-01	Pulse	0.30	3
Mn			2	28.304	ug/l	2.11	28,935.96	2.918E-01	Pulse	0.30	3
Fe			2	771.804	ug/l	1.47	1,222,091.17	1.232E+01	Pulse	0.30	3
Co			2	1.311	ug/l	1.77	4,006.18	4.039E-02	Pulse	0.30	3
Ni			2	7.421	ug/l	1.39	5,956.90	6.006E-02	Pulse	0.30	3
Cu			2	1.961	ug/l	3.83	4,321.84	4.359E-02	Pulse	0.30	3
Zn			2	35.649	ug/l	3.18	10,415.15	1.050E-01	Pulse	0.30	3
As			2	4.087	ug/l	9.62	671.35	6.777E-03	Pulse	1.00	3
Cd			2	0.027	ug/l	38.82	17.35	4.764E-05	Pulse	0.30	3
Sn			2	0.418	ug/l	11.34	362.23	9.955E-04	Pulse	0.30	3
Se			3	0.034	ug/l	1277.28	32.47	4.934E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,601,963.98	1.45	89.5	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,572,797.36	0.74	94.3	Pulse	0.10	3
1	Ge		568,651.15	0.57	96.5	Pulse	0.10	3
1	Rh		2,349,032.26	0.68	91.5	Pulse	0.10	3
1	In		2,356,418.99	2.49	93.3	Pulse	0.10	3
1	Tb		2,797,934.85	1.56	94.8	Pulse	0.10	3
1	Ho		5,708,164.81	8.44	100.8	Mix	0.10	3
1	Bi		1,420,363.47	0.56	91.8	Pulse	0.10	3
2	Sc		99,172.34	1.80	90.4	Pulse	0.30	3
2	Ge		71,312.31	0.54	93.2	Pulse	0.30	3
2	Rh		1,083,853.08	0.81	89.1	Pulse	0.30	3
2	In		363,731.39	1.53	86.6	Pulse	0.30	3
2	Tb		1,105,358.95	1.42	89.6	Pulse	0.30	3
2	Ho		2,141,414.08	1.61	90.4	Pulse	0.30	3
2	Bi		588,562.76	1.75	86.0	Pulse	0.30	3
3	Sc		58,791.14	1.25	98.0	Pulse	0.30	3
3	Ge		66,323.40	3.35	130.1	Pulse	0.30	3
3	Rh		459,196.56	0.88	93.1	Pulse	0.30	3
3	Tb		708,256.59	0.61	94.4	Pulse	0.30	3

Quantitation Report

File Name 056SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\.b111218m1.b
Method File
Method Path
Acq Time 11/12/2018 16:10
Sample Name jc77511-7
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name Metals
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 11/13/2018 7:20
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.002	ug/l	158.38	24.00	1.553E-05	Pulse	0.25	3
B			1	60.269	ug/l	2.18	140,305.75	9.092E-02	Pulse	0.15	3
Ca			1	9908.350	ug/l	0.39	3,666,728.80	1.439E+00	Pulse	0.10	3
Sr			1	60.072	ug/l	0.67	760,436.29	3.444E-01	Pulse	0.10	3
Mo			1	15.432	ug/l	0.58	39,188.22	1.775E-02	Pulse	0.10	3
Ag			1	0.007	ug/l	51.26	86.67	3.812E-05	Pulse	0.10	3
Sn			1	0.604	ug/l	10.75	2,396.98	1.056E-03	Pulse	0.10	3
Sb			1	1.112	ug/l	5.68	4,721.04	1.761E-03	Pulse	0.10	3
Ba			1	59.284	ug/l	2.09	98,065.69	3.657E-02	Pulse	0.10	3
Tl			1	0.315	ug/l	5.13	2,386.99	1.801E-03	Pulse	0.10	3
Pb			1	1.360	ug/l	6.21	3,537.30	2.668E-03	Pulse	0.10	3
Pb			1	1.233	ug/l	4.98	2,820.42	2.128E-03	Pulse	0.10	3
Pb			1	1.295	ug/l	1.55	13,476.64	1.017E-02	Pulse	0.10	3
Na			2	187261.855	ug/l	0.72	69,522,428.35	7.098E+02	Analog	0.30	3
Mg			2	788.067	ug/l	1.36	142,268.32	1.453E+00	Pulse	0.30	3
Al			2	9.789	ug/l	6.26	701.14	7.155E-03	Pulse	0.30	3
K			2	4038.811	ug/l	1.52	527,203.50	5.383E+00	Pulse	0.30	3
Ca			2	10325.876	ug/l	0.97	71,010.85	7.250E-01	Pulse	0.30	3
Ti			2	0.259	ug/l	24.75	13.33	1.360E-04	Pulse	0.30	3
V			2	1.231	ug/l	0.86	2,318.00	2.367E-02	Pulse	0.30	3
Cr			2	0.577	ug/l	9.12	1,408.98	1.439E-02	Pulse	0.30	3
Mn			2	72.079	ug/l	1.54	72,776.72	7.431E-01	Pulse	0.30	3
Fe			2	212.034	ug/l	0.92	333,689.19	3.407E+00	Pulse	0.30	3
Co			2	1.062	ug/l	2.40	3,209.31	3.277E-02	Pulse	0.30	3
Ni			2	1.279	ug/l	7.15	1,028.94	1.050E-02	Pulse	0.30	3
Cu			2	10.759	ug/l	0.17	22,678.83	2.315E-01	Pulse	0.30	3
Zn			2	5.543	ug/l	3.64	1,639.01	1.674E-02	Pulse	0.30	3
As			2	0.874	ug/l	6.28	147.67	1.507E-03	Pulse	1.00	3
Cd			2	0.394	ug/l	16.02	223.90	6.349E-04	Pulse	0.30	3
Sn			2	0.780	ug/l	11.52	613.36	1.736E-03	Pulse	0.30	3
Se			3	2.712	ug/l	15.17	100.80	1.582E-03	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,543,422.88	1.04	86.3	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,548,035.74	0.77	93.4	Pulse	0.10	3
1	Ge		554,038.08	1.84	94.0	Pulse	0.10	3
1	Rh		2,207,655.96	0.75	86.0	Pulse	0.10	3
1	In		2,270,095.97	2.15	89.9	Pulse	0.10	3
1	Tb		2,681,994.34	0.90	90.8	Pulse	0.10	3
1	Ho		5,378,385.54	8.78	95.0	Mix	0.10	3
1	Bi		1,324,742.09	2.12	85.6	Pulse	0.10	3
2	Sc		97,950.10	1.62	89.3	Pulse	0.30	3
2	Ge		70,195.61	1.68	91.8	Pulse	0.30	3
2	Rh		1,032,203.50	1.19	84.9	Pulse	0.30	3
2	In		352,892.07	1.58	84.0	Pulse	0.30	3
2	Tb		1,080,328.85	1.59	87.6	Pulse	0.30	3
2	Ho		2,086,054.78	1.57	88.1	Pulse	0.30	3
2	Bi		553,423.95	1.72	80.9	Pulse	0.30	3
3	Sc		57,830.59	1.34	96.4	Pulse	0.30	3
3	Ge		63,867.14	3.86	125.3	Pulse	0.30	3
3	Rh		442,798.92	0.59	89.8	Pulse	0.30	3
3	Tb		695,543.25	0.96	92.7	Pulse	0.30	3

Quantitation Report

File Name	057_CCV.d
File Path	C:\Agilent\ICPMH\1\DATA\.b111218m1.b
Method File	
Method Path	
Acq Time	11/12/2018 16:15
Sample Name	CCVA
Sample Type	CCV
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	11/13/2018 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	49.716	ug/l	0.44	284,124.94	1.646E-01	Pulse	0.25	3
B			1	96.181	ug/l	1.68	481,440.22	2.790E-01	Pulse	0.15	3
Ca			1	4698.307	ug/l	0.62	3,785,630.57	1.365E+00	Pulse	0.10	3
Sr			1	51.918	ug/l	0.91	1,454,775.66	5.953E-01	Pulse	0.10	3
Mo			1	50.334	ug/l	0.31	282,912.45	1.158E-01	Pulse	0.10	3
Ag			1	46.533	ug/l	0.66	587,648.22	2.414E-01	Pulse	0.10	3
Sn			1	48.439	ug/l	0.65	370,815.63	1.523E-01	Pulse	0.10	3
Sb			1	49.505	ug/l	0.34	417,924.15	1.496E-01	Pulse	0.10	3
Ba			1	48.937	ug/l	1.13	168,677.51	6.037E-02	Pulse	0.10	3
Tl			1	49.595	ug/l	1.67	793,480.79	5.573E-01	Pulse	0.10	3
Pb			1	49.259	ug/l	1.45	272,991.67	1.917E-01	Pulse	0.10	3
Pb			1	48.866	ug/l	1.04	238,818.98	1.677E-01	Pulse	0.10	3
Pb			1	49.192	ug/l	1.09	1,089,986.26	7.654E-01	Pulse	0.10	3
Na			2	4906.377	ug/l	0.14	4,027,141.23	3.724E+01	Pulse	0.30	3
Mg			2	4899.352	ug/l	0.51	1,950,780.89	1.804E+01	Pulse	0.30	3
Al			2	4791.542	ug/l	0.79	672,012.71	6.214E+00	Pulse	0.30	3
K			2	4888.696	ug/l	0.93	1,399,699.08	1.294E+01	Pulse	0.30	3
Ca			2	5075.542	ug/l	1.09	77,080.43	7.128E-01	Pulse	0.30	3
Ti			2	49.483	ug/l	3.66	5,623.43	5.199E-02	Pulse	0.30	3
V			2	49.531	ug/l	0.09	176,396.30	1.631E+00	Pulse	0.30	3
Cr			2	48.780	ug/l	0.23	211,803.27	1.958E+00	Pulse	0.30	3
Mn			2	48.657	ug/l	0.63	108,489.84	1.003E+00	Pulse	0.30	3
Fe			2	5163.997	ug/l	0.26	17,795,647.07	1.646E+02	Analog	0.30	3
Co			2	47.995	ug/l	0.54	316,760.60	2.929E+00	Pulse	0.30	3
Ni			2	47.537	ug/l	1.08	82,990.19	7.674E-01	Pulse	0.30	3
Cu			2	47.334	ug/l	0.95	218,892.99	2.024E+00	Pulse	0.30	3
Zn			2	47.227	ug/l	0.55	30,002.79	2.774E-01	Pulse	0.30	3
As			2	47.854	ug/l	0.25	16,986.52	1.571E-01	Pulse	1.00	3
Cd			2	48.710	ug/l	1.14	60,987.71	1.561E-01	Pulse	0.30	3
Sn			2	49.559	ug/l	0.52	79,206.57	2.027E-01	Pulse	0.30	3
Se			3	202.318	ug/l	5.24	8,534.46	1.649E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,725,698.79	0.58	96.5	Pulse	0.10	3
1	Sc		2,772,818.71	0.23	101.7	Pulse	0.10	3
1	Ge		586,318.38	0.40	99.5	Pulse	0.10	3

Quantitation Report

1	Rh		2,443,946.06	0.94	95.2	Pulse	0.10	3
1	In		2,434,732.00	0.17	96.4	Pulse	0.10	3
1	Tb		2,794,165.79	0.55	94.6	Pulse	0.10	3
1	Ho		6,080,757.20	0.14	107.4	Analog	0.10	3
1	Bi		1,424,208.62	2.33	92.0	Pulse	0.10	3
2	Sc		108,144.87	1.03	98.6	Pulse	0.30	3
2	Ge		74,782.09	0.99	97.8	Pulse	0.30	3
2	Rh		1,138,221.17	0.40	93.6	Pulse	0.30	3
2	In		390,801.85	0.88	93.0	Pulse	0.30	3
2	Tb		1,152,923.98	0.47	93.5	Pulse	0.30	3
2	Ho		2,215,786.58	1.29	93.5	Pulse	0.30	3
2	Bi		606,133.17	1.47	88.6	Pulse	0.30	3
3	Sc		63,732.68	0.91	106.2	Pulse	0.30	3
3	Ge		51,745.21	0.16	101.5	Pulse	0.30	3
3	Rh		489,460.59	0.42	99.2	Pulse	0.30	3
3	Tb		736,028.15	1.09	98.1	Pulse	0.30	3

Quantitation Report

File Name	058_CCB.d
File Path	C:\Agilent\ICPMH\1\DATA\.b111218m1.b
Method File	
Method Path	
Acq Time	11/12/2018 16:20
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	11/13/2018 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.002	ug/l	99.55	30.67	1.787E-05	Pulse	0.25	3
B			1	1.261	ug/l	6.68	14,981.64	8.709E-03	Pulse	0.15	3
Ca			1	1.856	ug/l	40.89	28,530.14	1.049E-02	Pulse	0.10	3
Sr			1	0.007	ug/l	41.22	556.70	2.228E-04	Pulse	0.10	3
Mo			1	0.030	ug/l	18.97	186.68	7.470E-05	Pulse	0.10	3
Ag			1	0.004	ug/l	55.35	103.34	4.186E-05	Pulse	0.10	3
Sn			1	0.013	ug/l	103.08	366.69	1.483E-04	Pulse	0.10	3
Sb			1	0.151	ug/l	6.72	1,510.15	5.388E-04	Pulse	0.10	3
Ba			1	0.021	ug/l	52.88	93.34	3.318E-05	Pulse	0.10	3
Tl			1	0.004	ug/l	22.25	116.67	8.003E-05	Pulse	0.10	3
Pb			1	0.005	ug/l	33.36	60.00	4.107E-05	Pulse	0.10	3
Pb			1	0.008	ug/l	86.98	56.67	3.860E-05	Pulse	0.10	3
Pb			1	0.005	ug/l	30.08	243.34	1.666E-04	Pulse	0.10	3
Na			2	6.766	ug/l	2.84	10,351.66	9.663E-02	Pulse	0.30	3
Mg			2	-0.119	ug/l	-50.21	164.45	1.537E-03	Pulse	0.30	3
Al			2	-0.096	ug/l	-173.26	73.33	6.838E-04	Pulse	0.30	3
K			2	0.194	ug/l	102.46	6,756.16	6.308E-02	Pulse	0.30	3
Ca			2	-1.493	ug/l	-126.76	157.78	1.473E-03	Pulse	0.30	3
Ti			2	0.020	ug/l	86.62	2.22	2.067E-05	Pulse	0.30	3
V			2	-0.001	ug/l	-1470.98	362.23	3.385E-03	Pulse	0.30	3
Cr			2	0.009	ug/l	82.17	344.45	3.214E-03	Pulse	0.30	3
Mn			2	0.004	ug/l	69.15	20.00	1.867E-04	Pulse	0.30	3
Fe			2	-0.181	ug/l	-8.41	2,510.26	2.344E-02	Pulse	0.30	3
Co			2	-0.001	ug/l	-85.00	34.44	3.216E-04	Pulse	0.30	3
Ni			2	-0.002	ug/l	-99.76	15.55	1.454E-04	Pulse	0.30	3
Cu			2	0.012	ug/l	20.42	238.89	2.231E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	0.112	ug/l	21.22	122.22	1.142E-03	Pulse	0.30	3
As			2	-0.004	ug/l	-158.61	6.33	5.920E-05	Pulse	1.00	3
Cd			2	0.001	ug/l	340.11	3.58	9.036E-06	Pulse	0.30	3
Sn			2	0.019	ug/l	26.69	87.78	2.212E-04	Pulse	0.30	3
Se			3	1.036	ug/l	44.34	65.53	1.322E-03	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,719,936.55	1.21	96.1	Pulse	0.10	3
1	Sc		2,721,421.62	1.26	99.8	Pulse	0.10	3
1	Ge		581,587.92	0.29	98.7	Pulse	0.10	3
1	Rh		2,500,450.69	0.58	97.4	Pulse	0.10	3
1	In		2,475,099.03	1.86	98.0	Pulse	0.10	3
1	Tb		2,804,166.94	1.20	95.0	Pulse	0.10	3
1	Ho		6,040,318.87	1.14	106.7	Analog	0.10	3
1	Bi		1,458,748.26	1.68	94.2	Pulse	0.10	3
2	Sc		107,115.76	1.24	97.6	Pulse	0.30	3
2	Ge		74,042.48	1.17	96.8	Pulse	0.30	3
2	Rh		1,171,784.29	1.31	96.3	Pulse	0.30	3
2	In		396,803.78	0.54	94.5	Pulse	0.30	3
2	Tb		1,149,354.92	0.96	93.2	Pulse	0.30	3
2	Ho		2,221,909.01	0.94	93.8	Pulse	0.30	3
2	Bi		626,385.72	0.55	91.6	Pulse	0.30	3
3	Sc		61,108.85	1.10	101.8	Pulse	0.30	3
3	Ge		49,673.20	0.91	97.4	Pulse	0.30	3
3	Rh		481,836.85	0.35	97.7	Pulse	0.30	3
3	Tb		716,115.70	0.92	95.5	Pulse	0.30	3

Quantitation Report

File Name	059SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\.b111218m1.b
Method File	
Method Path	
Acq Time	11/12/2018 16:25
Sample Name	jc77511-1f
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	11/13/2018 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.015	ug/l	20.41	60.00	3.771E-05	Pulse	0.25	3
B			1	34.812	ug/l	1.77	87,034.70	5.468E-02	Pulse	0.15	3
Ca			1	16293.450	ug/l	0.70	6,071,885.95	2.360E+00	Pulse	0.10	3
Sr			1	107.215	ug/l	1.46	1,408,791.33	6.147E-01	Pulse	0.10	3
Mo			1	0.923	ug/l	3.97	2,443.67	1.066E-03	Pulse	0.10	3
Ag			1	0.011	ug/l	65.22	113.34	4.823E-05	Pulse	0.10	3
Sn			1	0.429	ug/l	4.94	1,833.53	7.808E-04	Pulse	0.10	3
Sb			1	0.387	ug/l	10.87	1,843.53	6.672E-04	Pulse	0.10	3
Ba			1	34.874	ug/l	1.96	59,472.52	2.151E-02	Pulse	0.10	3
Tl			1	0.168	ug/l	4.72	1,336.79	9.768E-04	Pulse	0.10	3
Pb			1	0.171	ug/l	13.18	486.70	3.555E-04	Pulse	0.10	3
Pb			1	0.171	ug/l	11.59	416.69	3.044E-04	Pulse	0.10	3
Pb			1	0.155	ug/l	10.21	1,780.12	1.300E-03	Pulse	0.10	3
Na			2	50152.605	ug/l	0.39	18,611,141.48	1.901E+02	Analog	0.30	3
Mg			2	3745.239	ug/l	0.35	675,009.28	6.896E+00	Pulse	0.30	3
Al			2	6.075	ug/l	10.98	464.46	4.747E-03	Pulse	0.30	3
K			2	3120.117	ug/l	1.75	408,478.39	4.173E+00	Pulse	0.30	3
Ca			2	17241.319	ug/l	1.89	118,391.08	1.209E+00	Pulse	0.30	3
Ti			2	0.130	ug/l	50.88	6.67	6.835E-05	Pulse	0.30	3
V			2	0.850	ug/l	13.76	1,702.35	1.740E-02	Pulse	0.30	3
Cr			2	0.331	ug/l	8.49	926.71	9.471E-03	Pulse	0.30	3
Mn			2	1.038	ug/l	7.33	1,056.72	1.079E-02	Pulse	0.30	3
Fe			2	9.921	ug/l	1.14	18,327.83	1.873E-01	Pulse	0.30	3
Co			2	0.235	ug/l	8.37	737.81	7.538E-03	Pulse	0.30	3
Ni			2	0.370	ug/l	11.30	310.01	3.167E-03	Pulse	0.30	3
Cu			2	1.179	ug/l	4.40	2,630.28	2.688E-02	Pulse	0.30	3
Zn			2	3.119	ug/l	10.92	942.27	9.633E-03	Pulse	0.30	3
As			2	0.196	ug/l	32.04	38.67	3.950E-04	Pulse	1.00	3
Cd			2	0.055	ug/l	69.05	33.68	9.295E-05	Pulse	0.30	3
Sn			2	0.456	ug/l	14.18	388.90	1.075E-03	Pulse	0.30	3
Se			3	1.520	ug/l	20.19	64.80	1.097E-03	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,591,883.07	0.41	89.0	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,572,805.85	0.34	94.3	Pulse	0.10	3
1	Ge		561,927.48	1.38	95.3	Pulse	0.10	3
1	Rh		2,292,148.04	1.20	89.3	Pulse	0.10	3
1	In		2,348,281.19	1.16	93.0	Pulse	0.10	3
1	Tb		2,764,848.08	1.29	93.7	Pulse	0.10	3
1	Ho		5,990,592.20	1.31	105.8	Analog	0.10	3
1	Bi		1,368,681.70	0.30	88.4	Pulse	0.10	3
2	Sc		97,884.10	1.03	89.2	Pulse	0.30	3
2	Ge		69,181.73	1.17	90.4	Pulse	0.30	3
2	Rh		1,063,216.56	0.99	87.4	Pulse	0.30	3
2	In		361,956.54	0.43	86.2	Pulse	0.30	3
2	Tb		1,096,493.91	1.74	88.9	Pulse	0.30	3
2	Ho		2,125,751.16	1.36	89.7	Pulse	0.30	3
2	Bi		581,482.22	0.21	85.0	Pulse	0.30	3
3	Sc		57,855.12	1.11	96.4	Pulse	0.30	3
3	Ge		59,103.89	1.15	115.9	Pulse	0.30	3
3	Rh		450,785.35	0.95	91.4	Pulse	0.30	3
3	Tb		706,776.55	0.75	94.2	Pulse	0.30	3

Quantitation Report

File Name	060SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\.b111218m1.b
Method File	
Method Path	
Acq Time	11/12/2018 16:30
Sample Name	jc77511-2f
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	11/13/2018 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.004	ug/l	98.89	29.33	1.911E-05	Pulse	0.25	3
B			1	70.519	ug/l	1.46	162,324.65	1.055E-01	Pulse	0.15	3
Ca			1	40386.629	ug/l	2.59	14,616,780.61	5.835E+00	Analog	0.10	3
Sr			1	170.472	ug/l	1.98	2,152,227.00	9.772E-01	Pulse	0.10	3
Mo			1	6.155	ug/l	2.29	15,602.94	7.083E-03	Pulse	0.10	3
Ag			1	0.008	ug/l	21.42	90.00	3.963E-05	Pulse	0.10	3
Sn			1	0.368	ug/l	10.28	1,556.82	6.855E-04	Pulse	0.10	3
Sb			1	0.382	ug/l	4.61	1,783.53	6.591E-04	Pulse	0.10	3
Ba			1	42.155	ug/l	2.98	70,282.12	2.600E-02	Pulse	0.10	3
Tl			1	0.099	ug/l	22.03	780.06	5.867E-04	Pulse	0.10	3
Pb			1	0.470	ug/l	7.59	1,240.11	9.359E-04	Pulse	0.10	3
Pb			1	0.451	ug/l	10.32	1,040.09	7.848E-04	Pulse	0.10	3
Pb			1	0.443	ug/l	1.77	4,693.88	3.541E-03	Pulse	0.10	3
Na			2	233239.252	ug/l	0.85	85,182,378.84	8.841E+02	Analog	0.30	3
Mg			2	3379.494	ug/l	0.73	599,594.68	6.223E+00	Pulse	0.30	3
Al			2	18.444	ug/l	5.15	1,230.07	1.277E-02	Pulse	0.30	3
K			2	5747.927	ug/l	0.76	735,588.32	7.635E+00	Pulse	0.30	3
Ca			2	37938.711	ug/l	0.36	256,227.19	2.659E+00	Pulse	0.30	3
Ti			2	0.791	ug/l	15.36	40.00	4.156E-04	Pulse	0.30	3
V			2	1.574	ug/l	3.44	2,822.55	2.929E-02	Pulse	0.30	3
Cr			2	0.648	ug/l	0.70	1,524.55	1.582E-02	Pulse	0.30	3
Mn			2	57.529	ug/l	1.41	57,148.63	5.931E-01	Pulse	0.30	3
Fe			2	640.859	ug/l	0.77	986,491.87	1.024E+01	Pulse	0.30	3
Co			2	0.422	ug/l	4.77	1,276.74	1.326E-02	Pulse	0.30	3
Ni			2	0.552	ug/l	9.49	446.68	4.633E-03	Pulse	0.30	3
Cu			2	3.450	ug/l	1.50	7,263.10	7.539E-02	Pulse	0.30	3
Zn			2	5.884	ug/l	3.51	1,709.02	1.774E-02	Pulse	0.30	3
As			2	2.202	ug/l	6.41	355.01	3.685E-03	Pulse	1.00	3
Cd			2	0.034	ug/l	60.91	20.33	5.822E-05	Pulse	0.30	3
Sn			2	0.374	ug/l	11.70	318.90	9.072E-04	Pulse	0.30	3
Se			3	0.884	ug/l	101.94	57.07	8.390E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,538,570.08	1.28	86.0	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,506,027.77	2.44	91.9	Pulse	0.10	3
1	Ge		547,175.85	2.22	92.8	Pulse	0.10	3
1	Rh		2,202,713.46	1.97	85.8	Pulse	0.10	3
1	In		2,271,560.46	2.13	90.0	Pulse	0.10	3
1	Tb		2,704,369.02	3.26	91.6	Pulse	0.10	3
1	Ho		5,888,824.91	2.93	104.0	Analog	0.10	3
1	Bi		1,325,900.16	2.76	85.7	Pulse	0.10	3
2	Sc		96,348.79	1.03	87.8	Pulse	0.30	3
2	Ge		67,919.60	0.43	88.8	Pulse	0.30	3
2	Rh		1,019,312.74	0.58	83.8	Pulse	0.30	3
2	In		351,199.28	1.49	83.6	Pulse	0.30	3
2	Tb		1,090,194.95	0.39	88.4	Pulse	0.30	3
2	Ho		2,117,425.05	0.32	89.4	Pulse	0.30	3
2	Bi		547,257.43	0.66	80.0	Pulse	0.30	3
3	Sc		58,177.67	2.09	97.0	Pulse	0.30	3
3	Ge		68,056.00	1.27	133.5	Pulse	0.30	3
3	Rh		442,419.41	0.30	89.7	Pulse	0.30	3
3	Tb		700,823.48	0.18	93.4	Pulse	0.30	3

Quantitation Report

File Name	061SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\.b111218m1.b
Method File	
Method Path	
Acq Time	11/12/2018 16:35
Sample Name	jc77511-6f
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	11/13/2018 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.005	ug/l	94.79	32.00	2.023E-05	Pulse	0.25	3
B			1	15.150	ug/l	3.26	42,169.53	2.669E-02	Pulse	0.15	3
Ca			1	3919.643	ug/l	0.07	1,463,096.23	5.753E-01	Pulse	0.10	3
Sr			1	19.134	ug/l	1.53	255,936.87	1.098E-01	Pulse	0.10	3
Mo			1	10.228	ug/l	1.34	27,425.38	1.177E-02	Pulse	0.10	3
Ag			1	0.008	ug/l	88.50	90.00	3.834E-05	Pulse	0.10	3
Sn			1	0.532	ug/l	12.50	2,220.27	9.434E-04	Pulse	0.10	3
Sb			1	0.410	ug/l	2.13	1,933.55	7.018E-04	Pulse	0.10	3
Ba			1	17.864	ug/l	1.35	30,359.58	1.102E-02	Pulse	0.10	3
Tl			1	0.010	ug/l	65.73	120.01	8.525E-05	Pulse	0.10	3
Pb			1	0.233	ug/l	10.55	670.05	4.759E-04	Pulse	0.10	3
Pb			1	0.204	ug/l	6.07	510.03	3.619E-04	Pulse	0.10	3
Pb			1	0.224	ug/l	2.78	2,586.88	1.836E-03	Pulse	0.10	3
Na			2	41154.522	ug/l	1.00	15,086,356.07	1.560E+02	Analog	0.30	3
Mg			2	339.678	ug/l	1.97	60,645.04	6.272E-01	Pulse	0.30	3
Al			2	111.114	ug/l	2.61	7,042.97	7.285E-02	Pulse	0.30	3
K			2	1755.875	ug/l	1.42	229,691.08	2.376E+00	Pulse	0.30	3
Ca			2	4055.975	ug/l	2.62	27,632.99	2.858E-01	Pulse	0.30	3
Ti			2	2.954	ug/l	18.31	150.00	1.552E-03	Pulse	0.30	3
V			2	1.113	ug/l	4.67	2,100.19	2.172E-02	Pulse	0.30	3
Cr			2	0.608	ug/l	7.55	1,452.32	1.502E-02	Pulse	0.30	3
Mn			2	30.302	ug/l	0.93	30,208.59	3.124E-01	Pulse	0.30	3
Fe			2	254.051	ug/l	1.65	394,109.33	4.076E+00	Pulse	0.30	3
Co			2	0.971	ug/l	0.27	2,901.45	3.001E-02	Pulse	0.30	3
Ni			2	0.909	ug/l	2.87	726.70	7.516E-03	Pulse	0.30	3
Cu			2	0.742	ug/l	2.22	1,696.79	1.755E-02	Pulse	0.30	3
Zn			2	23.972	ug/l	4.16	6,841.78	7.077E-02	Pulse	0.30	3
As			2	4.322	ug/l	4.39	692.69	7.163E-03	Pulse	1.00	3
Cd			2	0.032	ug/l	30.07	20.31	5.630E-05	Pulse	0.30	3
Sn			2	0.607	ug/l	12.22	498.90	1.382E-03	Pulse	0.30	3
Se			3	0.763	ug/l	2.23	48.73	7.897E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,580,356.37	0.68	88.3	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,543,228.35	0.95	93.3	Pulse	0.10	3
1	Ge		559,612.35	1.27	95.0	Pulse	0.10	3
1	Rh		2,331,034.39	1.08	90.8	Pulse	0.10	3
1	In		2,353,185.12	0.89	93.2	Pulse	0.10	3
1	Tb		2,754,227.67	2.28	93.3	Pulse	0.10	3
1	Ho		5,491,082.11	9.82	97.0	Mix	0.10	3
1	Bi		1,409,869.56	2.17	91.1	Pulse	0.10	3
2	Sc		96,686.11	0.55	88.1	Pulse	0.30	3
2	Ge		69,624.05	1.21	91.0	Pulse	0.30	3
2	Rh		1,070,682.25	1.54	88.0	Pulse	0.30	3
2	In		361,207.49	2.11	86.0	Pulse	0.30	3
2	Tb		1,105,142.53	1.35	89.6	Pulse	0.30	3
2	Ho		2,139,828.60	1.42	90.3	Pulse	0.30	3
2	Bi		586,735.81	0.60	85.8	Pulse	0.30	3
3	Sc		57,324.18	0.53	95.5	Pulse	0.30	3
3	Ge		61,711.74	1.16	121.0	Pulse	0.30	3
3	Rh		449,451.70	0.68	91.1	Pulse	0.30	3
3	Tb		699,734.17	0.61	93.3	Pulse	0.30	3

Quantitation Report

File Name 062SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\.b111218m1.b
Method File
Method Path
Acq Time 11/12/2018 16:40
Sample Name jc77511-7f
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name Metals
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 11/13/2018 7:20
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.001	ug/l	729.02	20.00	1.327E-05	Pulse	0.25	3
B			1	61.088	ug/l	1.65	138,318.09	9.208E-02	Pulse	0.15	3
Ca			1	9770.840	ug/l	0.72	3,538,336.20	1.419E+00	Pulse	0.10	3
Sr			1	59.401	ug/l	1.54	741,356.55	3.406E-01	Pulse	0.10	3
Mo			1	15.180	ug/l	1.15	38,004.59	1.746E-02	Pulse	0.10	3
Ag			1	0.004	ug/l	44.00	66.67	2.973E-05	Pulse	0.10	3
Sn			1	0.337	ug/l	9.24	1,426.81	6.372E-04	Pulse	0.10	3
Sb			1	1.053	ug/l	1.73	4,457.58	1.673E-03	Pulse	0.10	3
Ba			1	58.428	ug/l	0.86	96,033.80	3.604E-02	Pulse	0.10	3
Tl			1	0.334	ug/l	7.81	2,513.68	1.908E-03	Pulse	0.10	3
Pb			1	1.344	ug/l	6.92	3,473.98	2.637E-03	Pulse	0.10	3
Pb			1	1.187	ug/l	2.73	2,697.07	2.047E-03	Pulse	0.10	3
Pb			1	1.278	ug/l	3.26	13,223.34	1.004E-02	Pulse	0.10	3
Na			2	182829.259	ug/l	0.42	66,672,904.02	6.930E+02	Analog	0.30	3
Mg			2	777.597	ug/l	1.38	137,890.00	1.433E+00	Pulse	0.30	3
Al			2	5.278	ug/l	14.59	406.68	4.230E-03	Pulse	0.30	3
K			2	3929.143	ug/l	1.12	503,997.90	5.239E+00	Pulse	0.30	3
Ca			2	10151.337	ug/l	1.74	68,572.11	7.128E-01	Pulse	0.30	3
Ti			2	0.308	ug/l	33.28	15.56	1.619E-04	Pulse	0.30	3
V			2	1.218	ug/l	3.27	2,254.66	2.344E-02	Pulse	0.30	3
Cr			2	0.535	ug/l	9.89	1,305.63	1.357E-02	Pulse	0.30	3
Mn			2	73.797	ug/l	1.51	73,187.74	7.608E-01	Pulse	0.30	3
Fe			2	102.904	ug/l	0.80	160,512.54	1.668E+00	Pulse	0.30	3
Co			2	1.050	ug/l	1.71	3,117.07	3.240E-02	Pulse	0.30	3
Ni			2	1.309	ug/l	9.74	1,033.38	1.075E-02	Pulse	0.30	3
Cu			2	7.342	ug/l	1.60	15,253.02	1.586E-01	Pulse	0.30	3
Zn			2	2.768	ug/l	1.96	827.81	8.605E-03	Pulse	0.30	3
As			2	0.737	ug/l	12.96	123.33	1.282E-03	Pulse	1.00	3
Cd			2	0.338	ug/l	27.19	189.40	5.453E-04	Pulse	0.30	3
Sn			2	0.328	ug/l	11.56	282.23	8.116E-04	Pulse	0.30	3
Se			3	1.458	ug/l	27.65	66.00	1.072E-03	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,502,216.42	0.97	84.0	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,493,225.59	0.70	91.4	Pulse	0.10	3
1	Ge		540,927.56	1.06	91.8	Pulse	0.10	3
1	Rh		2,176,598.20	0.45	84.8	Pulse	0.10	3
1	In		2,239,942.87	1.15	88.7	Pulse	0.10	3
1	Tb		2,664,612.88	0.95	90.3	Pulse	0.10	3
1	Ho		5,564,510.64	8.07	98.3	Mix	0.10	3
1	Bi		1,317,272.84	0.41	85.1	Pulse	0.10	3
2	Sc		96,205.02	0.77	87.7	Pulse	0.30	3
2	Ge		67,492.17	0.31	88.2	Pulse	0.30	3
2	Rh		1,016,130.10	0.95	83.5	Pulse	0.30	3
2	In		347,766.47	1.00	82.8	Pulse	0.30	3
2	Tb		1,071,688.81	1.62	86.9	Pulse	0.30	3
2	Ho		2,076,770.33	1.17	87.7	Pulse	0.30	3
2	Bi		550,701.66	0.46	80.5	Pulse	0.30	3
3	Sc		57,025.07	0.71	95.0	Pulse	0.30	3
3	Ge		61,648.20	2.13	120.9	Pulse	0.30	3
3	Rh		434,486.01	0.35	88.1	Pulse	0.30	3
3	Tb		689,984.73	0.28	92.0	Pulse	0.30	3

Quantitation Report

File Name	063SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\.b111218m1.b
Method File	
Method Path	
Acq Time	11/12/2018 16:45
Sample Name	jc77588-1a
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	11/13/2018 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.043	ug/l	50.35	130.67	8.380E-05	Pulse	0.25	3
B			1	190.907	ug/l	1.81	431,510.70	2.769E-01	Pulse	0.15	3
Ca			1	95220.675	ug/l	0.35	35,005,111.15	1.374E+01	Analog	0.10	3
Sr			1	257.543	ug/l	0.57	3,335,411.10	1.476E+00	Pulse	0.10	3
Mo			1	25.037	ug/l	1.51	65,061.30	2.879E-02	Pulse	0.10	3
Ag			1	0.062	ug/l	7.78	416.69	1.794E-04	Pulse	0.10	3
Sn			1	0.328	ug/l	11.92	1,450.14	6.236E-04	Pulse	0.10	3
Sb			1	1.443	ug/l	3.14	6,261.74	2.261E-03	Pulse	0.10	3
Ba			1	16.993	ug/l	1.62	29,036.38	1.049E-02	Pulse	0.10	3
Tl			1	0.060	ug/l	11.39	513.37	3.708E-04	Pulse	0.10	3
Pb			1	4.900	ug/l	1.49	13,230.86	9.557E-03	Pulse	0.10	3
Pb			1	5.032	ug/l	4.67	11,972.77	8.646E-03	Pulse	0.10	3
Pb			1	4.920	ug/l	2.16	53,125.46	3.837E-02	Pulse	0.10	3
Na			2	16989.203	ug/l	0.41	6,267,643.78	6.444E+01	Pulse	0.30	3
Mg			2	3694.412	ug/l	0.33	661,605.88	6.803E+00	Pulse	0.30	3
Al			2	636.074	ug/l	3.43	40,191.25	4.132E-01	Pulse	0.30	3
K			2	9468.600	ug/l	0.25	1,219,305.37	1.254E+01	Pulse	0.30	3
Ca			2	88128.675	ug/l	0.45	600,628.26	6.175E+00	Pulse	0.30	3
Ti			2	8.002	ug/l	3.80	408.90	4.203E-03	Pulse	0.30	3
V			2	6.140	ug/l	2.33	10,147.15	1.043E-01	Pulse	0.30	3
Cr			2	1.493	ug/l	0.34	3,185.97	3.276E-02	Pulse	0.30	3
Mn			2	124.266	ug/l	0.42	124,591.77	1.281E+00	Pulse	0.30	3
Fe			2	989.989	ug/l	0.41	1,536,660.46	1.580E+01	Pulse	0.30	3
Co			2	0.875	ug/l	3.57	2,632.52	2.707E-02	Pulse	0.30	3
Ni			2	4.811	ug/l	3.87	3,795.01	3.900E-02	Pulse	0.30	3
Cu			2	4.654	ug/l	1.74	9,832.48	1.011E-01	Pulse	0.30	3
Zn			2	21.685	ug/l	4.22	6,231.48	6.407E-02	Pulse	0.30	3
As			2	4.180	ug/l	1.64	674.02	6.929E-03	Pulse	1.00	3
Cd			2	0.340	ug/l	18.14	197.05	5.485E-04	Pulse	0.30	3
Sn			2	0.306	ug/l	11.56	275.56	7.679E-04	Pulse	0.30	3
Se			3	1.806	ug/l	10.81	89.87	1.214E-03	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,558,515.90	1.13	87.1	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,546,943.35	0.18	93.4	Pulse	0.10	3
1	Ge		556,788.28	0.87	94.5	Pulse	0.10	3
1	Rh		2,259,349.97	0.65	88.0	Pulse	0.10	3
1	In		2,323,890.13	0.98	92.0	Pulse	0.10	3
1	Tb		2,769,137.46	0.78	93.8	Pulse	0.10	3
1	Ho		6,017,163.45	1.06	106.3	Analog	0.10	3
1	Bi		1,384,382.06	0.85	89.4	Pulse	0.10	3
2	Sc		97,261.20	1.58	88.6	Pulse	0.30	3
2	Ge		69,917.59	1.20	91.4	Pulse	0.30	3
2	Rh		1,045,430.65	0.57	85.9	Pulse	0.30	3
2	In		358,566.46	2.01	85.4	Pulse	0.30	3
2	Tb		1,102,995.09	0.71	89.4	Pulse	0.30	3
2	Ho		2,119,872.97	0.86	89.5	Pulse	0.30	3
2	Bi		577,480.22	0.50	84.4	Pulse	0.30	3
3	Sc		58,963.06	0.48	98.3	Pulse	0.30	3
3	Ge		74,102.66	1.86	145.3	Pulse	0.30	3
3	Rh		454,417.10	0.65	92.1	Pulse	0.30	3
3	Tb		712,778.81	0.58	95.0	Pulse	0.30	3

Quantitation Report

File Name	064SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\.b111218m1.b
Method File	
Method Path	
Acq Time	11/12/2018 16:50
Sample Name	mp10385a-mb1 4
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	11/13/2018 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.000	ug/l	-32282.13	20.00	1.230E-05	Pulse	0.25	3
B			1	2.554	ug/l	14.24	14,171.88	8.754E-03	Pulse	0.15	3
Ca			1	85.601	ug/l	3.20	57,944.64	2.230E-02	Pulse	0.10	3
Sr			1	0.336	ug/l	5.37	4,984.43	2.064E-03	Pulse	0.10	3
Mo			1	0.022	ug/l	49.30	73.33	3.028E-05	Pulse	0.10	3
Ag			1	0.000	ug/l	-482.06	43.33	1.786E-05	Pulse	0.10	3
Sn			1	0.231	ug/l	13.64	1,140.16	4.702E-04	Pulse	0.10	3
Sb			1	0.054	ug/l	20.58	460.03	1.634E-04	Pulse	0.10	3
Ba			1	0.099	ug/l	41.45	190.01	6.758E-05	Pulse	0.10	3
Tl			1	0.004	ug/l	39.96	76.67	5.232E-05	Pulse	0.10	3
Pb			1	0.039	ug/l	11.71	143.34	9.762E-05	Pulse	0.10	3
Pb			1	0.051	ug/l	27.15	146.67	9.972E-05	Pulse	0.10	3
Pb			1	0.044	ug/l	13.97	646.70	4.405E-04	Pulse	0.10	3
Na			2	28.219	ug/l	1.69	15,010.31	1.523E-01	Pulse	0.30	3
Mg			2	2.788	ug/l	17.98	701.14	7.107E-03	Pulse	0.30	3
Al			2	6.903	ug/l	10.31	521.13	5.283E-03	Pulse	0.30	3
K			2	5.899	ug/l	34.55	6,930.68	7.034E-02	Pulse	0.30	3
Ca			2	99.339	ug/l	9.73	852.26	8.641E-03	Pulse	0.30	3
Ti			2	0.172	ug/l	44.44	8.89	9.048E-05	Pulse	0.30	3
V			2	0.468	ug/l	21.12	1,094.50	1.112E-02	Pulse	0.30	3
Cr			2	0.247	ug/l	7.64	768.92	7.798E-03	Pulse	0.30	3
Mn			2	0.047	ug/l	15.64	57.78	5.855E-04	Pulse	0.30	3
Fe			2	1.329	ug/l	8.65	4,966.52	5.038E-02	Pulse	0.30	3
Co			2	0.005	ug/l	17.81	53.33	5.409E-04	Pulse	0.30	3
Ni			2	0.046	ug/l	24.19	54.44	5.529E-04	Pulse	0.30	3
Cu			2	0.276	ug/l	3.05	748.92	7.597E-03	Pulse	0.30	3
Zn			2	2.635	ug/l	6.83	810.03	8.213E-03	Pulse	0.30	3
As			2	0.040	ug/l	98.79	13.67	1.388E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	-0.003	ug/l	-0.71	-0.07	-1.788E-07	Pulse	0.30	3
Sn			2	0.281	ug/l	13.64	267.78	7.165E-04	Pulse	0.30	3
Se			3	-0.256	ug/l	-89.07	26.13	3.756E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,618,478.31	1.07	90.5	Pulse	0.10	3
1	Sc		2,599,112.98	0.86	95.3	Pulse	0.10	3
1	Ge		569,360.59	1.00	96.6	Pulse	0.10	3
1	Rh		2,415,965.43	1.01	94.1	Pulse	0.10	3
1	In		2,424,431.31	0.61	96.0	Pulse	0.10	3
1	Tb		2,816,801.42	1.19	95.4	Pulse	0.10	3
1	Ho		6,173,056.58	0.89	109.0	Analog	0.10	3
1	Bi		1,466,992.84	1.66	94.8	Pulse	0.10	3
2	Sc		98,567.71	1.44	89.8	Pulse	0.30	3
2	Ge		70,995.46	1.11	92.8	Pulse	0.30	3
2	Rh		1,115,811.90	0.61	91.7	Pulse	0.30	3
2	In		373,230.09	2.32	88.9	Pulse	0.30	3
2	Tb		1,126,304.71	1.93	91.3	Pulse	0.30	3
2	Ho		2,172,856.10	1.91	91.7	Pulse	0.30	3
2	Bi		606,877.39	1.23	88.7	Pulse	0.30	3
3	Sc		58,995.53	2.05	98.3	Pulse	0.30	3
3	Ge		69,748.90	1.83	136.8	Pulse	0.30	3
3	Rh		470,413.26	1.08	95.4	Pulse	0.30	3
3	Tb		712,301.79	0.90	95.0	Pulse	0.30	3

Quantitation Report

File Name	065SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\.b111218m1.b
Method File	
Method Path	
Acq Time	11/12/2018 16:56
Sample Name	mp10385a-b2
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	11/13/2018 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	83.196	ug/l	0.75	216,782.27	1.378E-01	Pulse	0.25	3
B			1	87.434	ug/l	0.87	203,922.52	1.296E-01	Pulse	0.15	3
Ca			1	4105.933	ug/l	0.74	1,526,400.45	6.022E-01	Pulse	0.10	3
Sr			1	87.987	ug/l	1.11	1,170,384.31	5.044E-01	Pulse	0.10	3
Mo			1	84.723	ug/l	0.78	226,022.39	9.743E-02	Pulse	0.10	3
Ag			1	77.939	ug/l	0.81	474,185.08	2.021E-01	Pulse	0.10	3
Sn			1	82.252	ug/l	0.46	303,394.92	1.293E-01	Pulse	0.10	3
Sb			1	83.917	ug/l	1.11	345,665.40	1.268E-01	Pulse	0.10	3
Ba			1	82.225	ug/l	1.17	138,272.35	5.072E-02	Pulse	0.10	3
Tl			1	83.493	ug/l	2.31	661,474.01	4.691E-01	Pulse	0.10	3
Pb			1	84.143	ug/l	1.57	230,896.37	1.637E-01	Pulse	0.10	3
Pb			1	83.421	ug/l	1.43	201,870.29	1.432E-01	Pulse	0.10	3
Pb			1	84.031	ug/l	0.99	921,923.86	6.538E-01	Pulse	0.10	3
Na			2	4218.001	ug/l	1.84	1,554,332.89	1.603E+01	Pulse	0.30	3
Mg			2	4162.047	ug/l	2.25	742,900.22	7.663E+00	Pulse	0.30	3
Al			2	3966.255	ug/l	1.87	249,382.77	2.572E+00	Pulse	0.30	3
K			2	4059.145	ug/l	1.45	524,494.53	5.410E+00	Pulse	0.30	3
Ca			2	4485.176	ug/l	1.39	30,624.93	3.159E-01	Pulse	0.30	3
Ti			2	83.804	ug/l	7.92	4,268.50	4.402E-02	Pulse	0.30	3
V			2	83.859	ug/l	1.99	133,915.04	1.381E+00	Pulse	0.30	3
Cr			2	84.546	ug/l	1.56	164,579.70	1.698E+00	Pulse	0.30	3
Mn			2	82.935	ug/l	1.73	82,887.56	8.550E-01	Pulse	0.30	3
Fe			2	4112.617	ug/l	8.28	6,355,352.25	6.554E+01	Mix	0.30	3
Co			2	83.732	ug/l	1.65	247,695.57	2.555E+00	Pulse	0.30	3
Ni			2	83.751	ug/l	2.16	65,533.67	6.760E-01	Pulse	0.30	3
Cu			2	82.767	ug/l	1.33	171,580.36	1.770E+00	Pulse	0.30	3
Zn			2	73.845	ug/l	3.20	21,035.12	2.170E-01	Pulse	0.30	3
As			2	76.522	ug/l	2.34	12,175.41	1.256E-01	Pulse	1.00	3
Cd			2	79.819	ug/l	2.00	46,250.47	1.279E-01	Pulse	0.30	3
Sn			2	83.387	ug/l	0.83	61,687.79	1.705E-01	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	281.238	ug/l	3.37	7,034.94	1.148E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,573,629.28	1.04	88.0	Pulse	0.10	3
1	Sc		2,534,860.95	0.11	92.9	Pulse	0.10	3
1	Ge		555,696.42	0.85	94.3	Pulse	0.10	3
1	Rh		2,320,080.12	1.72	90.4	Pulse	0.10	3
1	In		2,346,016.20	1.58	92.9	Pulse	0.10	3
1	Tb		2,726,807.56	1.85	92.4	Pulse	0.10	3
1	Ho		5,728,296.79	9.53	101.2	Mix	0.10	3
1	Bi		1,410,078.42	0.77	91.1	Pulse	0.10	3
2	Sc		96,961.53	1.43	88.4	Pulse	0.30	3
2	Ge		69,250.86	1.44	90.5	Pulse	0.30	3
2	Rh		1,073,952.49	0.94	88.3	Pulse	0.30	3
2	In		361,743.28	1.23	86.1	Pulse	0.30	3
2	Tb		1,095,228.05	1.56	88.8	Pulse	0.30	3
2	Ho		2,127,546.86	1.06	89.8	Pulse	0.30	3
2	Bi		582,895.70	0.80	85.2	Pulse	0.30	3
3	Sc		59,059.33	1.14	98.4	Pulse	0.30	3
3	Ge		61,267.62	2.07	120.2	Pulse	0.30	3
3	Rh		460,830.85	0.82	93.4	Pulse	0.30	3
3	Tb		712,493.22	0.45	95.0	Pulse	0.30	3

Quantitation Report

File Name 066SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\.b111218m1.b
Method File
Method Path
Acq Time 11/12/2018 17:01
Sample Name mp10385a-s3
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name Metals
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 11/13/2018 7:20
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	82.347	ug/l	0.64	204,956.86	1.364E-01	Pulse	0.25	3
B			1	1113.558	ug/l	0.79	2,390,535.53	1.590E+00	Pulse	0.15	3
Ca			1	75926.768	ug/l	1.30	26,986,188.77	1.096E+01	Analog	0.10	3
Sr			1	942.326	ug/l	0.49	11,700,364.41	5.401E+00	Analog	0.10	3
Mo			1	95.240	ug/l	1.05	237,250.00	1.095E-01	Pulse	0.10	3
Ag			1	74.265	ug/l	0.44	432,568.38	1.926E-01	Pulse	0.10	3
Sn			1	83.416	ug/l	0.18	294,561.31	1.312E-01	Pulse	0.10	3
Sb			1	81.738	ug/l	0.83	333,857.63	1.235E-01	Pulse	0.10	3
Ba			1	105.984	ug/l	0.45	176,728.71	6.537E-02	Pulse	0.10	3
Tl			1	84.337	ug/l	1.25	626,882.81	4.738E-01	Pulse	0.10	3
Pb			1	84.476	ug/l	1.21	217,484.01	1.644E-01	Pulse	0.10	3
Pb			1	83.927	ug/l	0.49	190,535.12	1.440E-01	Pulse	0.10	3
Pb			1	84.253	ug/l	0.93	867,236.60	6.555E-01	Pulse	0.10	3
Na			2	71204.434	ug/l	1.55	25,272,650.66	2.699E+02	Analog	0.30	3
Mg			2	21758.553	ug/l	0.27	3,750,168.46	4.005E+01	Pulse	0.30	3
Al			2	4034.510	ug/l	0.26	244,985.18	2.617E+00	Pulse	0.30	3
K			2	5811.130	ug/l	0.24	722,578.32	7.718E+00	Pulse	0.30	3
Ca			2	72206.987	ug/l	0.80	473,719.64	5.060E+00	Pulse	0.30	3
Ti			2	91.228	ug/l	2.18	4,487.45	4.792E-02	Pulse	0.30	3
V			2	90.072	ug/l	1.43	138,881.60	1.483E+00	Pulse	0.30	3
Cr			2	82.847	ug/l	0.98	155,738.84	1.664E+00	Pulse	0.30	3
Mn			2	302.289	ug/l	0.90	291,719.89	3.116E+00	Pulse	0.30	3
Fe			2	4796.075	ug/l	0.97	7,155,306.10	7.643E+01	Analog	0.30	3
Co			2	81.086	ug/l	0.70	231,641.02	2.474E+00	Pulse	0.30	3
Ni			2	80.162	ug/l	0.74	60,581.08	6.470E-01	Pulse	0.30	3
Cu			2	80.321	ug/l	0.36	160,806.16	1.718E+00	Pulse	0.30	3
Zn			2	74.690	ug/l	1.32	20,549.92	2.195E-01	Pulse	0.30	3
As			2	86.813	ug/l	0.56	13,339.17	1.425E-01	Pulse	1.00	3
Cd			2	78.959	ug/l	0.47	43,467.73	1.265E-01	Pulse	0.30	3
Sn			2	84.776	ug/l	0.28	59,577.17	1.734E-01	Pulse	0.30	3
Se			3	253.176	ug/l	3.59	6,589.38	1.034E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,503,117.02	0.37	84.0	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,462,264.70	1.41	90.3	Pulse	0.10	3
1	Ge		535,748.21	1.23	90.9	Pulse	0.10	3
1	Rh		2,166,259.24	0.32	84.4	Pulse	0.10	3
1	In		2,245,967.25	1.20	89.0	Pulse	0.10	3
1	Tb		2,703,641.63	1.43	91.6	Pulse	0.10	3
1	Ho		5,645,250.96	8.09	99.7	Mix	0.10	3
1	Bi		1,322,994.04	1.11	85.5	Pulse	0.10	3
2	Sc		93,624.28	1.24	85.3	Pulse	0.30	3
2	Ge		67,602.66	1.09	88.4	Pulse	0.30	3
2	Rh		1,004,360.10	0.99	82.6	Pulse	0.30	3
2	In		343,647.00	1.10	81.8	Pulse	0.30	3
2	Tb		1,077,558.08	1.81	87.4	Pulse	0.30	3
2	Ho		2,092,743.53	0.82	88.3	Pulse	0.30	3
2	Bi		546,060.88	0.61	79.8	Pulse	0.30	3
3	Sc		57,326.27	0.38	95.5	Pulse	0.30	3
3	Ge		63,737.64	1.98	125.0	Pulse	0.30	3
3	Rh		435,910.33	0.72	88.4	Pulse	0.30	3
3	Tb		699,755.20	0.67	93.3	Pulse	0.30	3

Quantitation Report

File Name	067SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\.b111218m1.b
Method File	
Method Path	
Acq Time	11/12/2018 17:06
Sample Name	mp10385a-s4
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	11/13/2018 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	81.367	ug/l	0.49	198,490.02	1.347E-01	Pulse	0.25	3
B			1	1117.907	ug/l	1.19	2,352,043.38	1.597E+00	Pulse	0.15	3
Ca			1	76158.560	ug/l	0.95	26,580,771.27	1.099E+01	Analog	0.10	3
Sr			1	946.175	ug/l	1.79	11,763,625.66	5.423E+00	Analog	0.10	3
Mo			1	94.289	ug/l	0.37	235,230.82	1.084E-01	Pulse	0.10	3
Ag			1	76.246	ug/l	1.33	443,460.41	1.977E-01	Pulse	0.10	3
Sn			1	82.204	ug/l	0.34	289,847.57	1.292E-01	Pulse	0.10	3
Sb			1	80.906	ug/l	1.38	334,123.67	1.222E-01	Pulse	0.10	3
Ba			1	109.965	ug/l	0.68	185,405.28	6.782E-02	Pulse	0.10	3
Tl			1	84.337	ug/l	1.53	627,963.52	4.738E-01	Pulse	0.10	3
Pb			1	84.470	ug/l	1.39	217,839.91	1.644E-01	Pulse	0.10	3
Pb			1	84.353	ug/l	1.75	191,838.65	1.448E-01	Pulse	0.10	3
Pb			1	84.601	ug/l	1.40	872,331.00	6.582E-01	Pulse	0.10	3
Na			2	72233.218	ug/l	1.55	25,312,548.44	2.738E+02	Analog	0.30	3
Mg			2	21795.074	ug/l	0.60	3,708,837.21	4.012E+01	Pulse	0.30	3
Al			2	4019.573	ug/l	1.06	240,984.10	2.607E+00	Pulse	0.30	3
K			2	5745.268	ug/l	0.49	705,442.69	7.631E+00	Pulse	0.30	3
Ca			2	72040.884	ug/l	0.67	466,713.96	5.048E+00	Pulse	0.30	3
Ti			2	86.418	ug/l	3.14	4,196.24	4.540E-02	Pulse	0.30	3
V			2	88.813	ug/l	0.52	135,212.55	1.463E+00	Pulse	0.30	3
Cr			2	82.844	ug/l	0.49	153,782.53	1.663E+00	Pulse	0.30	3
Mn			2	302.681	ug/l	0.10	288,433.39	3.120E+00	Pulse	0.30	3
Fe			2	4587.973	ug/l	7.74	6,762,695.70	7.312E+01	Mix	0.30	3
Co			2	80.948	ug/l	0.29	228,342.95	2.470E+00	Pulse	0.30	3
Ni			2	80.047	ug/l	0.37	59,730.86	6.461E-01	Pulse	0.30	3
Cu			2	79.881	ug/l	0.61	157,900.35	1.708E+00	Pulse	0.30	3
Zn			2	74.211	ug/l	1.58	20,160.44	2.181E-01	Pulse	0.30	3
As			2	86.260	ug/l	1.00	13,088.61	1.416E-01	Pulse	1.00	3
Cd			2	79.262	ug/l	0.67	43,834.31	1.270E-01	Pulse	0.30	3
Sn			2	83.934	ug/l	1.04	59,249.10	1.716E-01	Pulse	0.30	3
Se			3	264.727	ug/l	2.07	6,556.57	1.081E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,473,217.06	0.53	82.4	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,417,799.91	1.10	88.7	Pulse	0.10	3
1	Ge		532,090.01	0.85	90.3	Pulse	0.10	3
1	Rh		2,169,523.46	1.76	84.5	Pulse	0.10	3
1	In		2,242,599.31	1.25	88.8	Pulse	0.10	3
1	Tb		2,733,804.34	1.80	92.6	Pulse	0.10	3
1	Ho		6,038,793.45	0.61	106.6	Analog	0.10	3
1	Bi		1,325,318.37	0.31	85.6	Pulse	0.10	3
2	Sc		92,445.13	1.60	84.3	Pulse	0.30	3
2	Ge		66,704.00	2.49	87.2	Pulse	0.30	3
2	Rh		998,867.29	1.24	82.1	Pulse	0.30	3
2	In		345,218.45	1.96	82.2	Pulse	0.30	3
2	Tb		1,078,254.96	1.20	87.4	Pulse	0.30	3
2	Ho		2,104,483.18	1.43	88.8	Pulse	0.30	3
2	Bi		550,963.90	2.28	80.5	Pulse	0.30	3
3	Sc		56,734.97	0.68	94.6	Pulse	0.30	3
3	Ge		60,663.91	2.49	119.0	Pulse	0.30	3
3	Rh		438,533.90	0.89	88.9	Pulse	0.30	3
3	Tb		703,213.91	0.42	93.8	Pulse	0.30	3

Quantitation Report

File Name	068_CCV.d
File Path	C:\Agilent\ICPMH\1\DATA\.b111218m1.b
Method File	
Method Path	
Acq Time	11/12/2018 17:11
Sample Name	CCVA
Sample Type	CCV
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	11/13/2018 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	49.558	ug/l	0.91	261,122.64	1.641E-01	Pulse	0.25	3
B			1	104.433	ug/l	0.11	481,253.18	3.025E-01	Pulse	0.15	3
Ca			1	4764.500	ug/l	0.50	3,521,455.47	1.384E+00	Pulse	0.10	3
Sr			1	52.669	ug/l	1.54	1,405,270.66	6.039E-01	Pulse	0.10	3
Mo			1	51.097	ug/l	0.81	273,469.25	1.175E-01	Pulse	0.10	3
Ag			1	46.546	ug/l	0.89	566,101.45	2.414E-01	Pulse	0.10	3
Sn			1	49.577	ug/l	0.81	365,513.16	1.559E-01	Pulse	0.10	3
Sb			1	50.241	ug/l	0.39	419,883.90	1.518E-01	Pulse	0.10	3
Ba			1	50.053	ug/l	0.80	170,798.43	6.174E-02	Pulse	0.10	3
Tl			1	49.232	ug/l	1.56	788,486.97	5.532E-01	Pulse	0.10	3
Pb			1	49.135	ug/l	1.95	272,550.68	1.912E-01	Pulse	0.10	3
Pb			1	49.143	ug/l	1.01	240,426.84	1.687E-01	Pulse	0.10	3
Pb			1	49.298	ug/l	1.38	1,093,379.96	7.671E-01	Pulse	0.10	3
Na			2	4939.461	ug/l	0.65	3,683,271.66	3.749E+01	Pulse	0.30	3
Mg			2	4926.217	ug/l	0.84	1,782,052.85	1.814E+01	Pulse	0.30	3
Al			2	4775.688	ug/l	0.96	608,541.68	6.194E+00	Pulse	0.30	3
K			2	4838.909	ug/l	0.92	1,258,780.33	1.281E+01	Pulse	0.30	3
Ca			2	5081.700	ug/l	0.65	70,116.60	7.136E-01	Pulse	0.30	3
Ti			2	50.360	ug/l	4.94	5,198.81	5.291E-02	Pulse	0.30	3
V			2	50.290	ug/l	1.03	162,703.91	1.656E+00	Pulse	0.30	3
Cr			2	49.860	ug/l	1.44	196,679.72	2.002E+00	Pulse	0.30	3
Mn			2	49.571	ug/l	2.16	100,419.84	1.022E+00	Pulse	0.30	3
Fe			2	5316.636	ug/l	1.04	16,645,046.01	1.694E+02	Analog	0.30	3
Co			2	49.261	ug/l	0.48	295,360.47	3.006E+00	Pulse	0.30	3
Ni			2	48.494	ug/l	0.37	76,909.50	7.828E-01	Pulse	0.30	3
Cu			2	48.414	ug/l	0.49	203,386.87	2.070E+00	Pulse	0.30	3
Zn			2	49.115	ug/l	1.80	28,347.04	2.885E-01	Pulse	0.30	3
As			2	49.400	ug/l	0.56	15,930.25	1.621E-01	Pulse	1.00	3
Cd			2	50.110	ug/l	0.55	59,509.26	1.605E-01	Pulse	0.30	3
Sn			2	50.009	ug/l	1.25	75,787.86	2.045E-01	Pulse	0.30	3
Se			3	203.939	ug/l	5.78	8,168.63	1.662E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,591,106.61	0.72	88.9	Pulse	0.10	3
1	Sc		2,543,777.82	0.55	93.3	Pulse	0.10	3
1	Ge		550,663.43	0.91	93.4	Pulse	0.10	3

Quantitation Report

1	Rh		2,327,045.33	0.60	90.6	Pulse	0.10	3
1	In		2,345,071.32	1.63	92.9	Pulse	0.10	3
1	Tb		2,766,223.19	0.66	93.7	Pulse	0.10	3
1	Ho		6,117,500.12	1.29	108.0	Analog	0.10	3
1	Bi		1,425,693.00	2.50	92.1	Pulse	0.10	3
2	Sc		98,247.70	1.04	89.5	Pulse	0.30	3
2	Ge		68,474.80	2.18	89.5	Pulse	0.30	3
2	Rh		1,071,190.82	1.05	88.1	Pulse	0.30	3
2	In		370,661.62	2.62	88.3	Pulse	0.30	3
2	Tb		1,114,209.89	1.42	90.3	Pulse	0.30	3
2	Ho		2,151,447.07	1.21	90.8	Pulse	0.30	3
2	Bi		592,310.19	1.53	86.6	Pulse	0.30	3
3	Sc		59,793.19	0.57	99.6	Pulse	0.30	3
3	Ge		49,146.96	0.60	96.4	Pulse	0.30	3
3	Rh		467,652.93	0.06	94.8	Pulse	0.30	3
3	Tb		723,677.18	0.76	96.5	Pulse	0.30	3

Quantitation Report

File Name	069_CCB.d
File Path	C:\Agilent\ICPMH\1\DATA\.b111218m1.b
Method File	
Method Path	
Acq Time	11/12/2018 17:16
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	11/13/2018 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.004	ug/l	81.21	40.00	2.440E-05	Pulse	0.25	3
B			1	5.396	ug/l	4.52	33,606.88	2.048E-02	Pulse	0.15	3
Ca			1	-5.088	ug/l	-15.69	21,550.99	8.482E-03	Pulse	0.10	3
Sr			1	0.013	ug/l	23.17	676.71	2.811E-04	Pulse	0.10	3
Mo			1	0.026	ug/l	28.90	156.68	6.517E-05	Pulse	0.10	3
Ag			1	0.004	ug/l	31.86	96.67	4.040E-05	Pulse	0.10	3
Sn			1	0.017	ug/l	55.95	386.69	1.615E-04	Pulse	0.10	3
Sb			1	0.107	ug/l	9.06	1,126.76	4.058E-04	Pulse	0.10	3
Ba			1	0.007	ug/l	169.04	43.33	1.545E-05	Pulse	0.10	3
Tl			1	0.010	ug/l	14.20	206.68	1.413E-04	Pulse	0.10	3
Pb			1	0.008	ug/l	34.04	76.67	5.243E-05	Pulse	0.10	3
Pb			1	0.009	ug/l	13.35	63.33	4.336E-05	Pulse	0.10	3
Pb			1	0.006	ug/l	9.81	280.01	1.917E-04	Pulse	0.10	3
Na			2	6.139	ug/l	3.84	9,065.21	9.188E-02	Pulse	0.30	3
Mg			2	0.038	ug/l	333.11	208.90	2.114E-03	Pulse	0.30	3
Al			2	-0.232	ug/l	-22.46	50.00	5.068E-04	Pulse	0.30	3
K			2	0.469	ug/l	181.04	6,295.94	6.380E-02	Pulse	0.30	3
Ca			2	-0.426	ug/l	-259.92	160.00	1.622E-03	Pulse	0.30	3
Ti			2	0.021	ug/l	173.21	2.22	2.221E-05	Pulse	0.30	3
V			2	-0.008	ug/l	-105.08	313.34	3.178E-03	Pulse	0.30	3
Cr			2	0.000	ug/l	8664.16	280.01	2.840E-03	Pulse	0.30	3
Mn			2	0.008	ug/l	82.20	25.55	2.580E-04	Pulse	0.30	3
Fe			2	-0.189	ug/l	-14.83	2,289.12	2.320E-02	Pulse	0.30	3
Co			2	0.002	ug/l	160.77	47.78	4.840E-04	Pulse	0.30	3
Ni			2	-0.003	ug/l	-71.20	13.33	1.351E-04	Pulse	0.30	3
Cu			2	0.007	ug/l	100.61	195.56	1.980E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	0.093	ug/l	32.08	102.22	1.035E-03	Pulse	0.30	3
As			2	0.000	ug/l	-3379.99	7.00	7.140E-05	Pulse	1.00	3
Cd			2	0.008	ug/l	1.92	10.91	2.875E-05	Pulse	0.30	3
Sn			2	0.019	ug/l	69.65	83.33	2.198E-04	Pulse	0.30	3
Se			3	0.870	ug/l	31.11	57.60	1.187E-03	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,640,704.54	0.42	91.7	Pulse	0.10	3
1	Sc		2,540,586.68	0.42	93.2	Pulse	0.10	3
1	Ge		547,814.33	0.64	93.0	Pulse	0.10	3
1	Rh		2,407,098.25	0.88	93.8	Pulse	0.10	3
1	In		2,396,250.45	1.42	94.9	Pulse	0.10	3
1	Tb		2,777,985.38	1.75	94.1	Pulse	0.10	3
1	Ho		6,068,472.41	0.75	107.2	Analog	0.10	3
1	Bi		1,461,394.40	1.76	94.4	Pulse	0.10	3
2	Sc		98,653.98	1.30	89.9	Pulse	0.30	3
2	Ge		70,542.99	1.32	92.2	Pulse	0.30	3
2	Rh		1,116,506.14	2.05	91.8	Pulse	0.30	3
2	In		379,432.76	1.61	90.3	Pulse	0.30	3
2	Tb		1,121,616.66	1.86	90.9	Pulse	0.30	3
2	Ho		2,188,522.13	1.62	92.4	Pulse	0.30	3
2	Bi		617,254.66	1.45	90.2	Pulse	0.30	3
3	Sc		59,307.86	0.89	98.8	Pulse	0.30	3
3	Ge		48,409.82	1.91	94.9	Pulse	0.30	3
3	Rh		475,468.66	0.65	96.4	Pulse	0.30	3
3	Tb		712,888.86	1.04	95.0	Pulse	0.30	3

Quantitation Report

File Name	070SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\.b111218m1.b
Method File	
Method Path	
Acq Time	11/12/2018 17:21
Sample Name	jc76358-24
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	11/13/2018 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

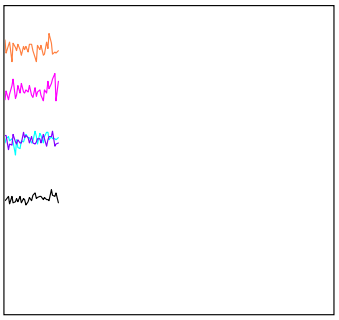
Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.220	ug/l	10.32	585.35	3.758E-04	Pulse	0.25	3
B			1	10.173	ug/l	3.17	30,517.74	1.960E-02	Pulse	0.15	3
Ca			1	142.722	ug/l	1.41	74,684.62	3.054E-02	Pulse	0.10	3
Sr			1	6.258	ug/l	2.38	84,403.75	3.601E-02	Pulse	0.10	3
Mo			1	0.059	ug/l	25.58	170.01	7.257E-05	Pulse	0.10	3
Ag			1	0.026	ug/l	10.77	203.34	8.615E-05	Pulse	0.10	3
Sn			1	0.279	ug/l	14.32	1,290.11	5.461E-04	Pulse	0.10	3
Sb			1	0.157	ug/l	21.48	876.74	3.193E-04	Pulse	0.10	3
Ba			1	2.327	ug/l	10.46	3,957.44	1.442E-03	Pulse	0.10	3
Tl			1	0.134	ug/l	12.97	1,136.76	7.866E-04	Pulse	0.10	3
Pb			1	0.207	ug/l	10.84	616.71	4.256E-04	Pulse	0.10	3
Pb			1	0.185	ug/l	35.70	473.36	3.287E-04	Pulse	0.10	3
Pb			1	0.195	ug/l	10.45	2,330.18	1.613E-03	Pulse	0.10	3
Na			2	130.015	ug/l	1.82	50,662.83	5.381E-01	Pulse	0.30	3
Mg			2	14.957	ug/l	1.68	2,778.09	2.951E-02	Pulse	0.30	3
Al			2	6.695	ug/l	10.49	484.46	5.149E-03	Pulse	0.30	3
K			2	35.354	ug/l	7.43	10,273.87	1.091E-01	Pulse	0.30	3
Ca			2	181.835	ug/l	8.61	1,356.75	1.442E-02	Pulse	0.30	3
Ti			2	0.609	ug/l	59.80	30.00	3.201E-04	Pulse	0.30	3
V			2	0.549	ug/l	8.41	1,172.28	1.246E-02	Pulse	0.30	3
Cr			2	0.528	ug/l	7.38	1,263.41	1.342E-02	Pulse	0.30	3
Mn			2	0.708	ug/l	10.47	696.70	7.395E-03	Pulse	0.30	3
Fe			2	17.202	ug/l	2.53	28,546.24	3.032E-01	Pulse	0.30	3
Co			2	0.340	ug/l	2.54	1,013.39	1.076E-02	Pulse	0.30	3
Ni			2	2.210	ug/l	2.52	1,696.80	1.802E-02	Pulse	0.30	3
Cu			2	0.833	ug/l	7.66	1,835.70	1.949E-02	Pulse	0.30	3
Zn			2	2.997	ug/l	3.86	873.37	9.275E-03	Pulse	0.30	3
As			2	0.031	ug/l	46.21	11.67	1.241E-04	Pulse	1.00	3

Current Signal

[1]



Mass	Range	Count	Avg. Count	RSD [%]
7	5000	2857	2831.2	2.86
59	5000	2773	2821.6	2.54
89	5000	4276	4306.9	2.30
140	5000	3784	3631.7	3.09
205	5000	1794	1871.1	3.01
156/140	2	0.898 %	1.061 %	15.95
70/140	10	6.290 %	6.648 %	8.44
9	20	6	6.9	35.38
11	1000	464	483.4	5.58
88	50	17	16.4	21.88
95	20	12	6.5	42.03
107	20	0	0.8	113.34
121	50	5	9.3	39.19
137	20	2	3.3	68.01
208	50	7	11.4	39.55
Integration Time [sec]		0.10		

Plasma Parameters

RF Power	1500	W	Nebulizer Pump	0.10	rps
RF Matching	1.75	V	S/C Temp	2	℃
Smpl Depth	7.8	mm	Gas Switch	Dilution Gas	
Carrier Gas	0.55	L/min	Makeup/Dilution Gas	0.55	L/min
Option Gas	0.0	%			

Lenses Parameters

Extract 1	0.0	V	Cell Entrance	-38	V
Extract 2	-175.0	V	Cell Exit	-60	V
Omega Bias	-95	V	Deflect	14.6	V
Omega Lens	8.6	V	Plate Bias	-50	V

Cell Parameters

Use Gas	false		OctP Bias	-8.0	V
He Flow	0.0	mL/min	OctP RF	200	V
H2 Flow	0.0	mL/min	Energy Discrimination	5.0	V
3rd Gas Flow	0	%			

Meters

IF/BK Press	2.65E+2	Pa	Water Temp	23.0	℃
Water RF/WC/IF	1.27	L/min	Carrier Gas(BP)	1.40E+2	kPa
Carrier Gas	0.55	L/min			

US EPA Tune Check Sample Report

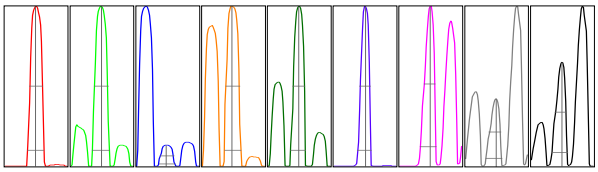
Batch Folder C:\Agilent\ICPMH\1\DATA\.b111218m1.b
Report Comment
Instrument Name G3281A JP12412081

[1]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
9	82432	0.36	5.00	
24	300853	0.43	5.00	
25	39455	0.51	5.00	
26	45642	0.59	5.00	
59	328833	0.37	5.00	
115	328735	0.44	5.00	
206	69125	1.04	5.00	
207	62969	1.12	5.00	
208	147191	1.06	5.00	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	82393	82590	82671	81929	82580
24	300263	302181	298925	301328	301566
25	39732	39582	39230	39317	39412
26	45508	46005	45317	45812	45566
59	330798	328648	328998	328054	327667
115	329826	326956	328764	327664	330463
206	70362	69056	68985	68633	68588
207	64095	63099	62796	62623	62235
208	149480	146532	146378	148016	145549

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width-X% (Flag)
9	13507	9.00	8.9 - 9.1		0.753	0.900	
24	48653	24.00	23.9 - 24.1		0.782	0.900	
25	6371	24.95	24.9 - 25.1		0.764	0.900	
26	7271	25.95	25.9 - 26.1		0.771	0.900	
59	59874	59.00	58.9 - 59.1		0.703	0.900	
115	69990	115.05	114.9 - 115.1		0.651	0.900	
206	13127	206.00	205.9 - 206.1		0.733	0.900	
207	11924	207.00	206.9 - 207.1		0.740	0.900	
208	28252	208.00	207.9 - 208.1		0.731	0.900	

X% = 10 **Integration Time [sec] =** 0.1 **Acquisition Time [sec] =** 235 **Y Axis =** Linear

Tune Parameters

Plasma Paramters

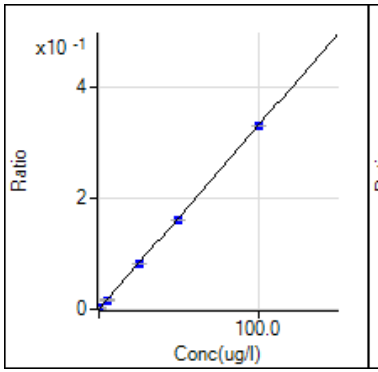
ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
RF Power	1500	W	Carrier Gas	0.55	L/min			
RF Matching	1.75	V	Option Gas	0.0	%			
Smpl Depth	7.8	mm	Nebulizer Pump	0.10	rps			
S/C Temp	2	℃						

Lenses Parameters

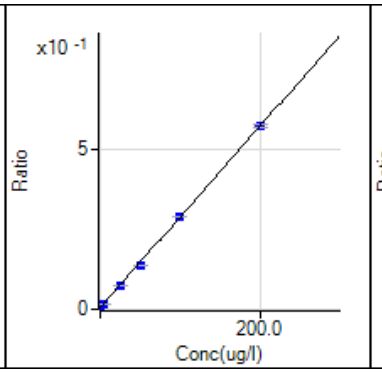
ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	8.6	V			
Extract 2	-175.0	V	Cell Entrance	-38	V			
Omega Bias	-95	V	Cell Exit	-60	V			
Deflect	14.6	V						

Cell Parameters

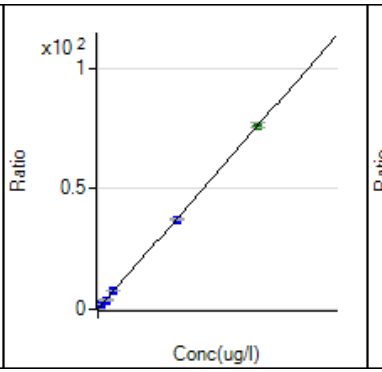
ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Use Gas	false		3rd Gas Flow	0	%			
He Flow	0.0	mL/min	OctP Bias	-8.0	V			
H2 Flow	0.0	mL/min	OctP RF	200	V			
Energy Discrimination	5.0	V						



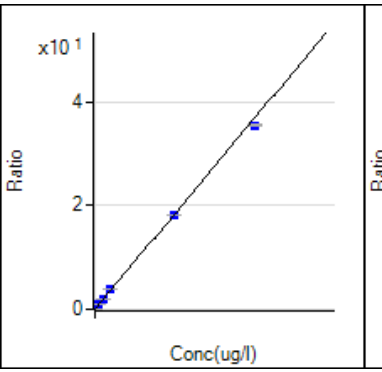
9 Be [1] / ISTD: 6 Li
y = 3.311E-3 x + 1.232E-5
R 0.9999
DL 0.005063
BEC 0.003722



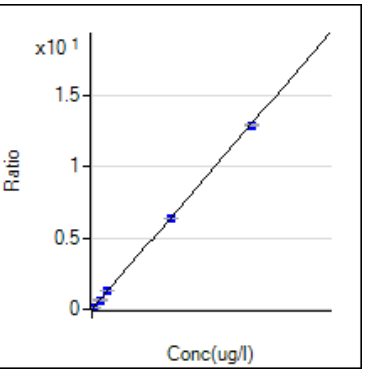
11 B [1] / ISTD: 6 Li
y = 2.847E-3 x + 5.117E-3
R 0.9999
DL 0.0387
BEC 1.797



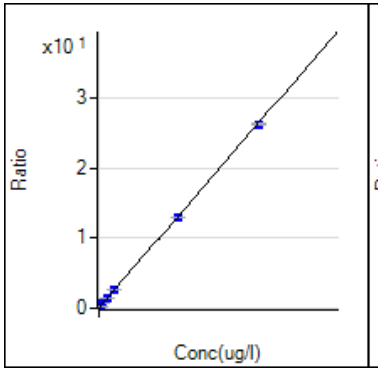
23 Na [2] / ISTD: 45 Sc
y = 7.581E-3 x + 4.534E-2
R 0.9999
DL 0.3992
BEC 5.981



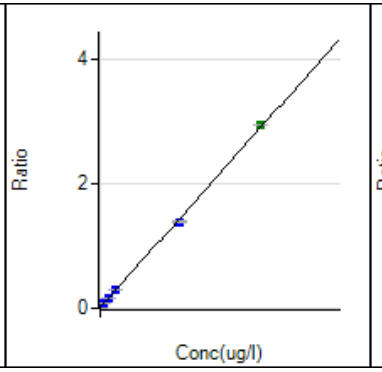
24 Mg [2] / ISTD: 45 Sc
y = 3.682E-3 x + 1.974E-3
R 0.9999
DL 0.2016
BEC 0.5362



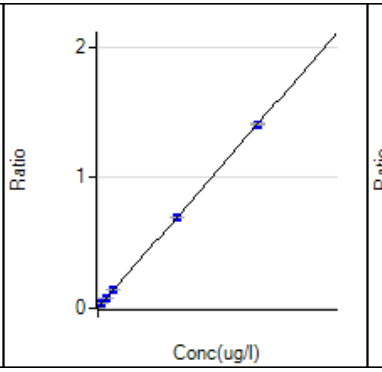
27 Al [2] / ISTD: 45 Sc
y = 1.297E-3 x + 8.079E-4
R 1.0000
DL 0.2921
BEC 0.623



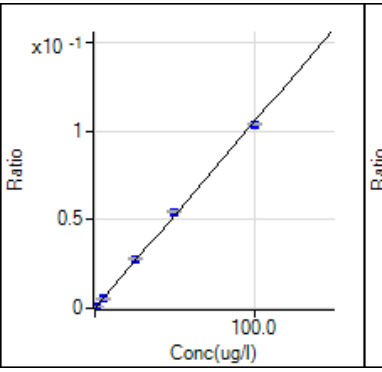
39 K [2] / ISTD: 45 Sc
y = 2.635E-3 x + 6.257E-2
R 1.0000
DL 0.7689
BEC 23.75



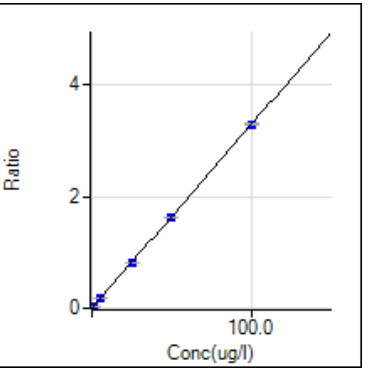
44 Ca [1] / ISTD: 45 Sc
y = 2.885E-4 x + 9.950E-3
R 0.9995
DL 1.946
BEC 34.49



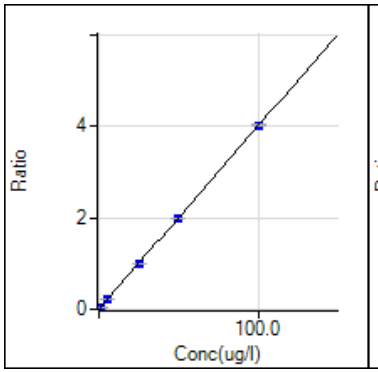
44 Ca [2] / ISTD: 45 Sc
y = 1.401E-4 x + 1.682E-3
R 1.0000
DL 6.706
BEC 12.01



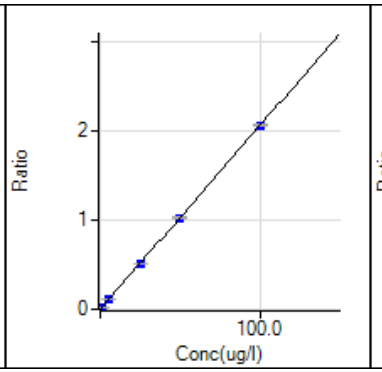
47 Ti [2] / ISTD: 45 Sc
y = 1.051E-3 x
R 0.9997
DL 0
BEC 0



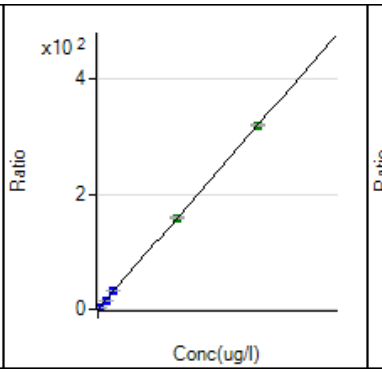
51 V [2] / ISTD: 45 Sc
y = 3.286E-2 x + 3.433E-3
R 1.0000
DL 0.04801
BEC 0.1045



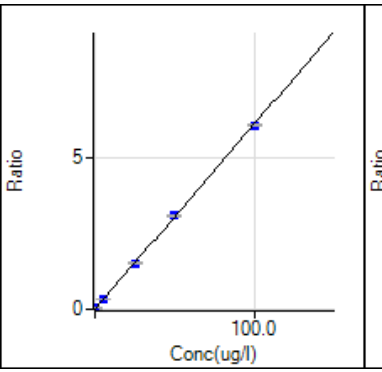
52 Cr [2] / ISTD: 45 Sc
y = 4.009E-2 x + 2.838E-3
R 1.0000
DL 0.01691
BEC 0.07078



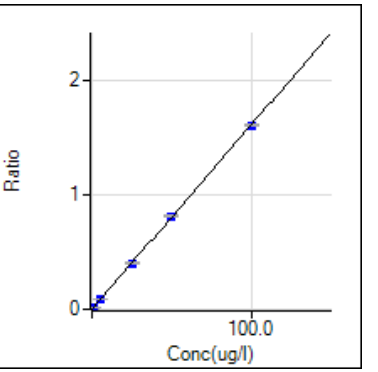
55 Mn [2] / ISTD: 45 Sc
y = 2.062E-2 x + 9.639E-5
R 1.0000
DL 0.01157
BEC 0.004676



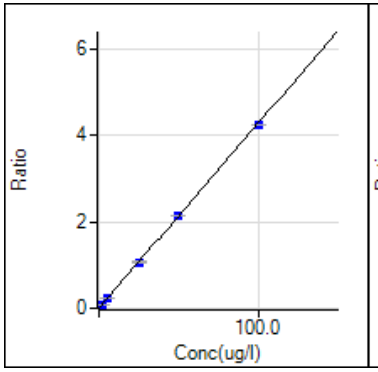
56 Fe [2] / ISTD: 45 Sc
y = 3.186E-2 x + 2.921E-2
R 1.0000
DL 0.2009
BEC 0.9169



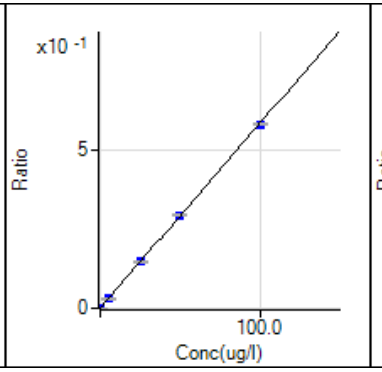
59 Co [2] / ISTD: 45 Sc
y = 6.102E-2 x + 3.783E-4
R 1.0000
DL 0.005836
BEC 0.006199



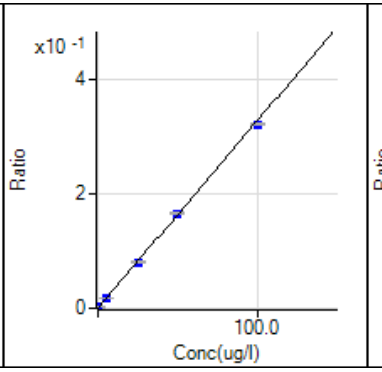
60 Ni [2] / ISTD: 45 Sc
y = 1.614E-2 x + 1.827E-4
R 1.0000
DL 0.02272
BEC 0.01132



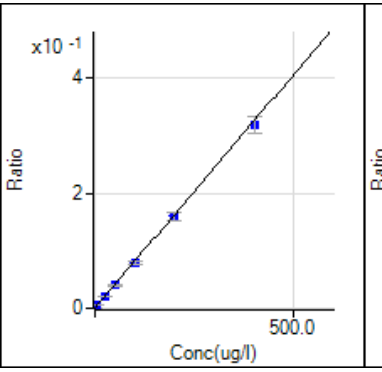
63 Cu [2] / ISTD: 45 Sc
y = 4.272E-2 x + 1.702E-3
R 1.0000
DL 0.001618
BEC 0.03984



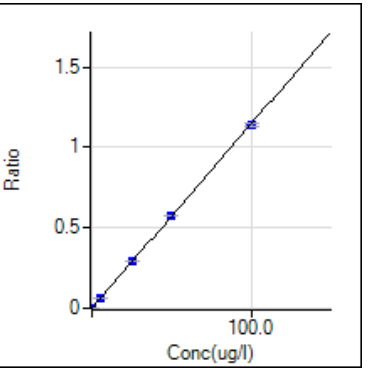
66 Zn [2] / ISTD: 45 Sc
y = 5.864E-3 x + 4.880E-4
R 1.0000
DL 0.05197
BEC 0.08322



75 As [2] / ISTD: 45 Sc
y = 3.281E-3 x + 7.300E-5
R 0.9999
DL 0.007754
BEC 0.02225

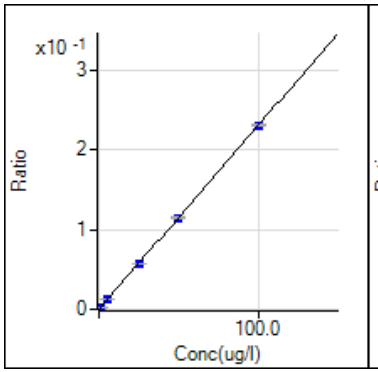


78 Se [3] / ISTD: 74 Ge
y = 8.128E-4 x + 4.796E-4
R 1.0000
DL 0.2976
BEC 0.5901

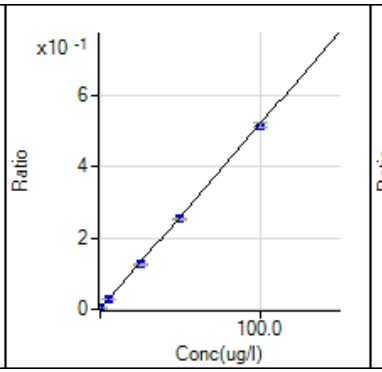


88 Sr [1] / ISTD: 103 Rh
y = 1.146E-2 x + 1.374E-4
R 1.0000
DL 0.009226
BEC 0.01198

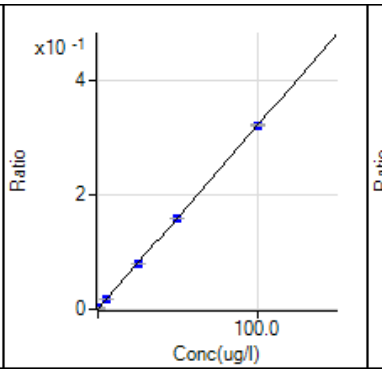
Calibration for C:\Agilent\ICPMH\1\DATA\.b111218m1.b\097_CCV.d



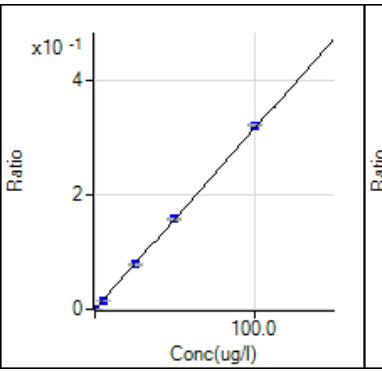
95 Mo [1] / ISTD: 103 Rh
y = 2.300E-3 x + 5.174E-6
R 1.0000
DL 0.002821
BEC 0.00225



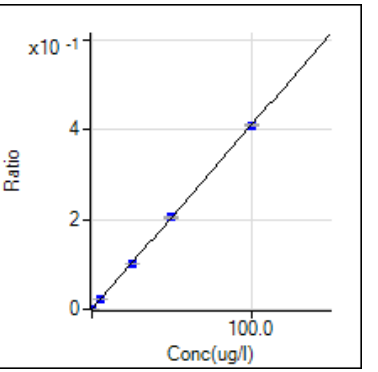
107 Ag [1] / ISTD: 115 In
y = 5.186E-3 x + 1.884E-5
R 0.9999
DL 0.003523
BEC 0.003632



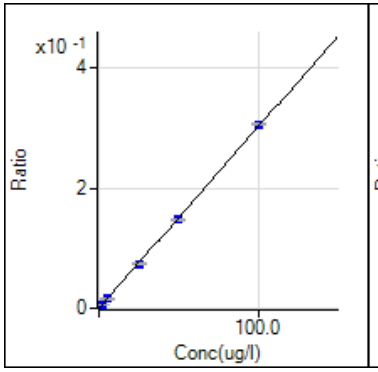
111 Cd [2] / ISTD: 115 In
y = 3.204E-3 x + 4.325E-6
R 1.0000
DL 0.007016
BEC 0.00135



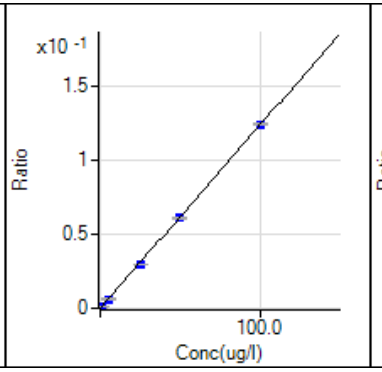
118 Sn [1] / ISTD: 115 In
y = 3.142E-3 x + 1.076E-4
R 0.9999
DL 0.0308
BEC 0.03425



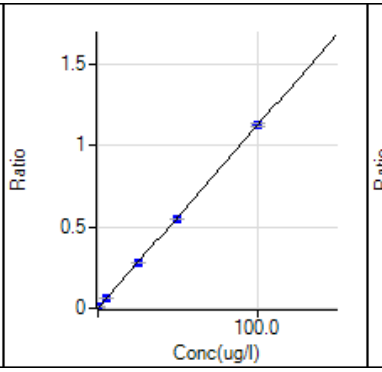
118 Sn [2] / ISTD: 115 In
y = 4.087E-3 x + 1.424E-4
R 1.0000
DL 0.02291
BEC 0.03483



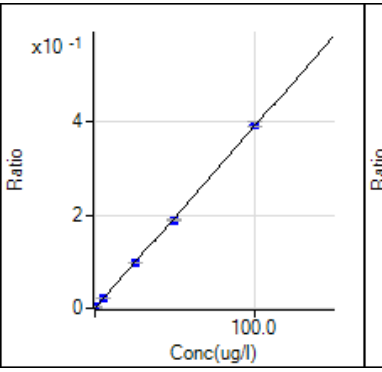
121 Sb [1] / ISTD: 159 Tb
y = 3.020E-3 x + 8.244E-5
R 0.9998
DL 0.03064
BEC 0.0273



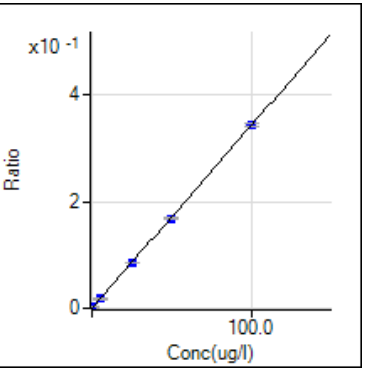
137 Ba [1] / ISTD: 159 Tb
y = 1.233E-3 x + 6.808E-6
R 0.9999
DL 0.01434
BEC 0.005519



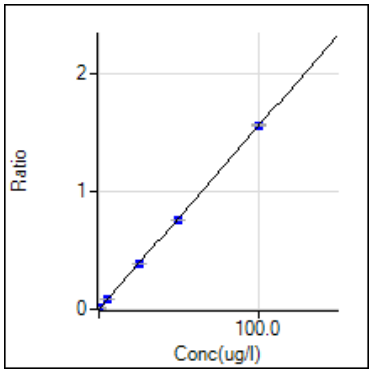
205 Tl [1] / ISTD: 209 Bi
y = 1.124E-2 x + 3.132E-5
R 0.9999
DL 0.0009181
BEC 0.002787



206 Pb [1] / ISTD: 209 Bi
y = 3.891E-3 x + 2.232E-5
R 0.9998
DL 0.005826
BEC 0.005735



207 Pb [1] / ISTD: 209 Bi
y = 3.432E-3 x + 1.147E-5
R 0.9999
DL 0.003182
BEC 0.003344



208 Pb [1] / ISTD: 209 Bi

y = 1.556E-2 x + 9.443E-5

R	0.9999
DL	0.00135
BEC	0.00607

SGS North America Inc.

Accutest Aqueous Metals Digestion Form

Batch Information

Batch ID	Start Date	Start Time	End Date	End time	QC Samp 1	QC Samp 2
MP10376	11/10/2018	8:05	11/10/2018	13:30	JC77511-1	

Temperature

		Block ID1	Therm. ID#	Temperature	Correction	Corrected Temp
1	Start	8	4156517	96	-2	94
1	End	8	4156517	97	-2	95
2	Start					
2	End					

Methods and Equipment

	Dig. Method	Heating Method		Auto Pipette #	Digestion Tube Lot #	
	SW846 3010A	Digestion Block		M-74	1807160	

Sample ID	Bottle Number	Pres (Y/N)	Initial Sample Volume	Final Volume in ML	Reagent Groups Added	Spike Groups Added	Comments
MP10376-MB1	N/A	N	50	50	AB		
MP10376-B1	N/A	N	50	50	AB	ABCDE	
MP10376-S1	3	Y	50	50	AB	ABCDE	
MP10376-S2	3	Y	50	50	AB	ABCDE	
MP10376-SD1	3	Y	50	50	AB		
JC77511-1	3	Y	50	50	AB		
JC77511-1F	4	Y	50	50	AB		
JC77511-2	3	Y	50	50	AB		
JC77511-2F	4	Y	50	50	AB		
JC77511-6	3	Y	50	50	AB		
JC77511-6F	4	Y	50	50	AB		
JC77511-7	3	Y	50	50	AB		
JC77511-7F	4	Y	50	50	AB		
JC77588-1A	3	Y	50	50	AB		

Reagents Groups

Group	Description	MLs Used
A	CONC HNO3	3
B	1:1 HCL	5
C		
D		
E		
F		
G		
H		

Spike Groups

Group	Description	MLs Used
A	ACCUTEST 13B REV-1	0.2
B	ACCUTEST 14B REV-1	0.2
C	AG 20PPM	0.2
D	MINERALS 1000PPM	0.2
E	SE 20PPM	0.8
F	MINERALS 1000PPM	0.2
G		
H		

Comments:

Analyst BHOOMAP **Approved by** GULCAGT **Approved on** 11/12/2018

Note: Reagent traceability for batch Start Date can be seen on the reagent traceability page for this batch.
Serial Dilution samples shown for QC purposes only.
Acceptable Temperature range is 90-95 degrees C unless otherwise noted

SGS

Metals Digestion Reagents Information Log

Digestion Batch ID: MP 10376 **Date:** 11\10\18

Matrix: ALL

Standard/Reagent Type	Exp. Date	Standard/Reagent ID
Spiking Solution - (ACCUTEST -13A Rev1)	4/30/2019	MP-015-1104
Spiking Solution - (ACCUTEST -14A Rev1)	4/30/2019	MP-015-1105
Spiking Solution - 5000 mg/l Minerals	10/8/2019	N2-MEB671162 MFG: INO. VENT.
Spiking Solution - Sulfur 1000ppm	4/11/2021	LOT: 041118 MFG: ABS. GRADE
Spiking Solution - Si 1000ppm	10/31/2019	K2-SI668066 MFG: INO. VENT
Spiking Solution - Bi 1000ppm	12/1/2018	M2-B1658289 MFG: INO. VENT
Spiking Solution - Se 20ppm	4/29/2019	MA-015-1103
Spiking Solution - Li 1000ppm	11/14/2018	M2-LI657553 MFG: INO. VENT
Spiking Solution- Ag 20 ppm	4/19/2019	MP-015-1102
Spiking Solution - (ACCUTEST -13B Rev1)	3/26/2019	MP-015-1092
Spiking Solution - (ACCUTEST -14B Rev1)	3/26/2019	MP-015-1093
Spiking Solution -1000ppm Minerals	3/12/2019	MA-18-339-86
Spiking Solution- P		
Nitric Acid	11/8/2020	LOT: 202943 MFG: J.T. BAKER
Nitric Acid (1:1)	5/7/2019	MP-018-42-98 1:1 HNO3
Hydrochloric Acid	11/8/2020	LOT: 201226 MFG: J.T. BAKER
Hydrochloric Acid (1:1)	4/30/2019	MP-018-42-95 1:1 HCL
Hydrogen Peroxide	11/2/2020	LOT: 182019 MFG: FISHER
Soil Lab Control/Soil LC	3/21/2020	LOT: D094-540 MFG: ERA
Teflon Chips(For Soil MB and Blank Spike)	N/A	LOT: 23656541 MFG: CHEMWARE
Digestion Tubes	N/A	LOT: 1807160 MFG: ENV. EXPRESS
pH Paper	3/1/2020	LOT: 206717 MFG: HYDRION
Filter paper Q8	N/A	LOT: 9802858 MFG: FISHER
Filter paper 0.45µm	N/A	LOT: F7NA69768 MFG: FISHER

Spike witnessed By: _____

Validated By: _____

Validated On: _____

AA014-06 (Metals Digest Stds)-DAYT-MET-0039-06-FORM-Metals Digestion Reagants Info Log.xls
1/17/18

General Chemistry

QC Data Summaries

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: JC77588
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Chemical Oxygen Demand	GP17252/GN88273	20	0.0	mg/l				
Chemical Oxygen Demand	GP17252/GN88273	20	0.0	mg/l	50	51.3	102.6	90-110%
HEM Oil and Grease	GP17248/GN88228	5.0	0.0	mg/l	40.235	34.3	85.2	78-114%
Solids, Total Suspended	GN88143	4.0	0.0	mg/l				

Associated Samples:
Batch GN88143: JC77588-1
Batch GP17248: JC77588-1
Batch GP17252: JC77588-1
(*) Outside of QC limits

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: JC77588
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Chemical Oxygen Demand	GP17252/GN88273	JC76980-2	mg/l	30.8	30.8	0.0	0-25%
HEM Oil and Grease	GP17248/GN88228	JC76945-1	mg/l	79.3	70.7	11.5	0-18%
Solids, Total Suspended	GN88143	JC77582-2	mg/l	0.0	0.0	0.0	0-17%

Associated Samples:
Batch GN88143: JC77588-1
Batch GP17248: JC77588-1
Batch GP17252: JC77588-1
(*) Outside of QC limits

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: JC77588
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Chemical Oxygen Demand	GP17252/GN88273	JC76980-2	mg/l	30.8	50	74.4	87.2	55-133%
HEM Oil and Grease	GP17248/GN88228	JC76945-1	mg/l	79.3	40.235	112	81.3	78-114%

Associated Samples:
Batch GP17248: JC77588-1
Batch GP17252: JC77588-1
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits

General Chemistry

Raw Data

Test: **Total Suspended Solids**
Method: **SM2540 D-11**

Product: **TSS**
Units: mg/l
RL: 4.0

GN Batch ID: GN88143
Analyst: RC
Date: 11/9/2018
Balance ID: B53

QC Summary

Filtration Date: 11/9/18 OVEN ID: INC-21 Filtration Time: 15:21

MB ID:	GN88143-MB1	Result:	<rdl	RDL: 4	< RDL yes
Dup ID:	GN88143-D1	Samp Resu	0	Dup Result: 0	% RPD: 0
Dup ID:	GN88143-D2	Samp Mass	0	Dup Mass: 0	% RPD: 0

Acceptable Temp. Range = 103 to 105 deg. C.

Date:	11/9-10/2018	11/10/2018		
Time (Start/Finish):	16:45/08:40	8:53/10:34		
UnCorr Temp (Start/Finish):	104/104	104/104		
Corr Temp (Start/Finish):	104/104	104/104		

Therm ID: 5624416
Corr Factor: 0
FILTER LOT#

Bot #	Dish #	Sample ID	Filter Size*	Volume Filtered (ml)	Filter Tare Weight in g*	Weight after drying at 104 deg. C in g	Redry #1 Weight in g (a)	Redry ?	Redry # 2 Weight in g (a)	Redry ?	Redry # 3 Weight in g (a)	Constant Weight in g (a)	TSS in mg/l (Calculated)	Final TSS in mg/l**	Mass %RPD	Mass %RPD > 5%
	R1	GN88143-MB1	42	1000.0	0.0940	0.0940	0.0940	NO				0.0940		0.00		1000
	R2	GN88143-D1	42	550.0	0.0949	0.0948	0.0949	NO				0.0949		0.00	#DIV/0!	550
6	R3	JC77582-2	42	550.0	0.0966	0.0966	0.0966	NO				0.0966		0.00		550
	R4	GN88143-D2	42	550.0	0.0950	0.0950	0.0950	NO				0.0950		0.00	#DIV/0!	550
5	R5	JC77469-1	42	550.0	0.0950	0.0950	0.0950	NO				0.0950		0.00		550
5	R6	JC77582-1	42	1000.0	0.0966	0.0973	0.0973	NO				0.0973		0.70		1000
6	R7	JC77469-2	42	1000.0	0.0957	0.0957	0.0957	NO				0.0957		0.00		1000
5	R8	JC77469-3	42	1000.0	0.0960	0.0977	0.0977	NO				0.0977		1.70		1000
6	R9	JC77469-4	42	1000.0	0.0944	0.0962	0.0962	NO				0.0962		1.80		1000
5	R10	JC77469-5	42	1000.0	0.0952	0.0966	0.0966	NO				0.0966		1.40		1000
6	R11	JC77469-6	42	1000.0	0.0949	0.0949	0.0949	NO				0.0949		0.00		1000
5	R12	JC77469-8	42	1000.0	0.0960	0.0961	0.0961	NO				0.0961		0.10		1000
4	R13	JC77465-1	42	300.0	0.0953	0.1060	0.1060	NO				0.1060		35.67		300
3	R14	JC77540-2	42	500.0	0.0963	0.1012	0.1012	NO				0.1012		9.80		500
4	R15	JC77542-1	42	1000.0	0.0960	0.1022	0.1022	NO				0.1022		6.20		1000
5	R16	JC77480-1	42	10.0	0.0950	0.1108	0.1108	NO				0.1108		1580.00		10
4	R17	JC77479-2	42	130.0	0.0952	0.1314	0.1313	NO				0.1313		277.69		130
6	R18	JC77588-1	42	1000.0	0.0956	0.1126	0.1126	NO				0.1126		17.00		1000
3	R19	JC77488-1	42	1000.0	0.0959	0.0987	0.0987	NO				0.0987		2.80		1000
3	R20	JC77488-2	42	1000.0	0.0946	0.1006	0.1006	NO				0.1006		6.00		1000
1	R21	JC77488-3	42	600.0	0.0959	0.1015	0.1015	NO				0.1015		9.33		600
1	R22	JC77488-5	42	20.0	0.0957	0.1435	0.1434	NO				0.1434		2385.00		20
1	R23	JC77488-6	42	1000.0	0.0949	0.1178	0.1176	NO				0.1176		22.70		1000

(a) Redries when result is <DL after the initial weighing. Note: Constant weight is a change of <4% of the sample mass or 0.0005 g, whichever is
*Filters are dried and dessicated for a minimum of 12 hours ensure constant tare weight.
**Final TSS, mg/L = [(constant weight - filter tare mass, g) × 1000] ÷ (initial volume, mL ÷ 1000)
Comments:

DAYT-WET-0196-10-FORM-TSS
REV DATE 10/17/18

TSS Worksheet

SGS ACCUTEST

Acceptable Temp. Range = 103 to 105 deg. C.

** Note - Filters are dried for a minimum of 1.5 h and dessicated for a minimum of 12 h. Constant mass is determined prior to filtering.

Date:	11/8-9/18	11/9/2018				
Time (Start/Finish):	16:40/08:15	12:10/15:02				
Uncorr Temp Deg C (Start/Finish):	104/104	104/104				
Corr Temp Deg C (Start/Finish):	104/104	104/104				

Dish #	Filter size	Initial weight after drying** (mg)	Redry 1 Constant Weight in g (a)	Redry ?	Redry 2 Constant Weight in g (a)	Redry ?	Redry 3 Constant Weight in g (a)	Constant Weight	
R1	42.00000	**0.0940**	**0.0940**	NO		***FALSE***		0.0940	X
R2	42.00000	**0.0949**	**0.0949**	NO		***FALSE***		0.0949	
R3	42.00000	**0.0969**	**0.0966**	NO		***FALSE***		0.0966	
R4	42.00000	**0.0950**	**0.0950**	NO		***FALSE***		0.0950	
R5	42.00000	**0.0951**	**0.0950**	NO		***FALSE***		0.0950	
R6	42.00000	**0.0966**	**0.0966**	NO		***FALSE***		0.0966	
R7	42.00000	**0.0958**	**0.0957**	NO		***FALSE***		0.0957	
R8	42.00000	**0.0963**	**0.0960**	NO		***FALSE***		0.0960	
R9	42.00000	**0.0941**	**0.0944**	NO		***FALSE***		0.0944	
R10	42.00000	**0.0952**	**0.0952**	NO		***FALSE***		0.0952	
R11	42.00000	**0.0949**	**0.0949**	NO		***FALSE***		0.0949	
R12	42.00000	**0.0960**	**0.0960**	NO		***FALSE***		0.0960	
R13	42.00000	**0.0954**	**0.0953**	NO		***FALSE***		0.0953	
R14	42.00000	**0.0963**	**0.0963**	NO		***FALSE***		0.0963	
R15	42.00000	**0.0958**	**0.0960**	NO		***FALSE***		0.0960	
R16	42.00000	**0.0952**	**0.0950**	NO		***FALSE***		0.0950	
R17	42.00000	**0.0952**	**0.0952**	NO		***FALSE***		0.0952	
R18	42.00000	**0.0956**	**0.0956**	NO		***FALSE***		0.0956	
R19	42.00000	**0.0959**	**0.0959**	NO		***FALSE***		0.0959	
R20	42.00000	**0.0947**	**0.0946**	NO		***FALSE***		0.0946	
R21	42.00000	**0.0959**	**0.0959**	NO		***FALSE***		0.0959	
R22	42.00000	**0.0957**	**0.0957**	NO		***FALSE***		0.0957	
R23	42.00000	**0.0949**	**0.0949**	NO		***FALSE***		0.0949	
				FALSE		FALSE			
				FALSE		FALSE			
				FALSE		FALSE			
				FALSE		FALSE			
				FALSE		FALSE			
				FALSE		FALSE			
				FALSE		FALSE			
				FALSE		FALSE			
				FALSE		FALSE			

JJY

SGS

GN88143
TSS SAMPLE DESCRIPTION SHEET

F. Lot# 111301

SGS Sample ID	Appearance (clarity, color, etc.)	Filter size used	Non-standard volumes. Comment with reason as shown below.	Limited Volume
JC77582-2	Clear	42	550	✓ QC1
JC77469-1	11		550	✓ QC2
JC77582-1	Clear		1000	
JC77469-2	Clear		1000	
JC77469-3	Pale		1000	
JC77469-4	Pale		1000	
JC77469-5	Clear		1000	
JC77469-6	Clear		1000	
JC77469-8	Clear		1000	
JC77465-1	Cloudy Pale yellow		300a	
JC77540-2	foamy cloudy Pale yellow		500a	
JC77542-1	Cloudy & Pale		1000	
JC77480-1	Slight thick dark Brown		10ma	
JC77479-2	grey & Black Particles		130a	
JC77588-1	Cloudy Pale		1000	
JC77488-1	Pale & Particles		1000	
JC77488-2	Dark yellow		1000	
JC77488-3	dark Brownish yellow		60a	
JC77488-5	Slight thick Marron Particles		20ma	
JC77488-6	With Black Particles	↓	1000	

Reason (a). Sample contains heavy particulates and it can be assessed by appearance that it will clog the filter at higher volumes.
Reason (b). Initial analysis of the sample at a higher volume produced clogging. Rerunning at reduced volume.

Form: GN215-02
Rev. Date: 3/2/18

SGS

TEST: HEM Oil and Grease		OG1664		GN Group:	GN88228
Method: EPA 1664A		Reporting Date:	11/12/2018	GP Group:	GP17248
Date Extracted:	11/12/2018	Final Date Weighed:	11/12/2018	Analyst:	TM
Balance # Used:	B16	(Refer to balance log for balance calibration)		Units:	mg/L

QC Summary — Units: mg/l

Dup Sample ID:	JC76945-1	Samp Res:	79.3	Dup Result:	70.7	% RPD:	11.47		
MS Sample ID:	JC76945-1	Samp Res:	79.3	Spike:	40.235	MS Res:	32.7	% Rec.	81.27%
Method Blank Date:	11/12/2018	Result:	<5	RL:	5			<RL:	yes
Blank Spike Date:	11/12/2018	Result:	34.3	Spk Amt.	40.235			% Rec.	85.25
External:	NA	Control Limit:	NA	Result:	NA			% Rec.	NA

Speed Vap Temperature During Evaporation: 40 deg. C

Speed Vap ID: Speed Vap III

See attached Reagent Log for Reagent info

(c) refer to Determination of Constant weights page for balance check weight results.

Flask #	Sample ID	Sample pH	Sample Volume (ml)	Total Weight (g)	Tare Weight (g)	Sample Weight (g)	Calc Result	Final Result	RL	Analysis Time
	0.002 g check (c)	na	na	0.0020	0.0020	na	na	na	na	8:45
	1.000 g check (c)	na	na	1.0000	1.0000	na	na	na	na	
	5.000 g check (c)	na	na	5.0005	5.0002	na	na	na	na	
	100 g check (c)	na	na	100.0168	100.0165	na	na	na	na	
MB	GP17248-MB1	<2	1000	2.4942	2.4935	0.0007	0.700	<5	5.00	8:45
BSP	GP17248-B1	<2	1000	2.5071	2.4728	0.0343	34.300	34.300	5.00	
MS	GP17248-S1	<2	1000	2.5995	2.4875	0.1120	112.000	112.000	5.00	
DUP	GP17248-D1	<2	1000	2.5654	2.4947	0.0707	70.700	70.700	5.00	
1	JC77588-1	<2	1000	2.4924	2.4853	0.0071	7.100	7.100	5.00	
2	JC76945-1	<2	1000	2.5652	2.4859	0.0793	79.300	79.300	5.00	12:20
	0.002g check(a)	na	na	0.0020	0.0020	na	na	na	na	

11/12/18

DETERMINATION OF CONSTANT WEIGHT

Test: HEM Oil and Grease
Method: EPA 1664A
Test Code: OG1664 10A

GN Group: GN88228
GP Group: GP17248
Analyst: TM
Units: mg/l

Balance ID#: B-16
Thermometer ID#:
Thermometer correction factor:

Definition of Constant Weight: Weight loss is less than 0.5 mg (0.0005 g).

Date:		11/12/2018	11/12/2018					
Start Time, End Time, Temp (Corrected, Uncorrected)	NA	10:00-10:30	11:05-11:35					
Sample ID	Flask #	Initial Weight (g)	Second Weight (g)	Re-Weigh ?	Third Weight (g)	Re-Weigh ?	Fourth Weight (g)	Description
0.002 g check (a)		0.0020	0.0020	N				
1.000 g check (b)		1.0002	1.0000	N				
5.000 g check (c)		5.0002	5.0004					
100 g check (c)		100.0167	100.0170	N				
GP17248-MB1	MB	2.4942	2.4942	N				
GP17248-B1	BS	2.5071	2.5071	N				
GP17248-S1	MS	2.5995	2.5995	N				
GP17248-D1	DUP	2.5654	2.5654	N				
JC77588-1	1	2.4924	2.4924	N				
JC76945-1	2	2.5652	2.5652	N				
0.002g check(a)		0.0020	0.0020	N				
1.000g check(b)		1.0000	1.0000	N				
5.000 g check (c)		5.0003	5.0002	N				

Note: Samples must be dried at 70 +/- 2 deg. For a minimum of 30 minutes for each drying cycle.

SGS

GP17248- OG1664

TRAY A

SAMPLE DESCRIPTION SHEET

	Accutest Sample ID	Bottle #	Volume (mL)	Appearance (clarity, color, etc.)	Odor
MB	GP17248-MB1	NA	1000	CLEAR	NONE
BSP	GP17248-B1	NA	1000	CLEAR	NONE
MS	GP17248-S1	2	1000	CLEAR	NONE
DUP	GP17248-D1	3	1000	CLEAR	NONE
1	JC77588-1	1	1000	CLEAR	NONE
2	JC76945-1	1	1000	CLEAR	NONE
				B1/S1= 5.0ml of 8.047 mg/L HEM SPIKE	
				HEX= 4.004mg/L	
				GNE10-56215-OG1664	
				XP:11/18/2018	

Form: GN-110
Rev. Date:11/12/2018

SGS

Reagent Information Log - OG1664 Water by EPA 1664A

Reagent	Expiration Date	Reagent # or Manufacturer/Lot
Hexane	12/12/2022	FISHER Lot #173528
HEM Spike	11/18/2018	GNE1056215-OG1664
Methanol	4/4/2021	FISHER LOT #180813
Disk Filter	NA	LABORATORYSALES&SER.#103522
1:1 HCL	2/19/2019	GNE8-55642-PHC/OG1664
Sodium Sulfate	11/18/2018	GNE10-56217-PHC/OG1664
Filter 47mm	NA	LABORATORYSALES&SER.#150125
Pre-Filter 47mm	NA	LABORATORYSALES&SER.#141347
Filter 90/100mm	NA	LABORATORYSALES&SER.#140294
Pre-Filter 90/100mm	NA	LABORATORYSALES&SER.#141272
pH paper	6/1/2019	HYDRON LOT#215316
HEM Spike (ICV)	NA	NA

B1/S1= 5.0ml of 8.047 mg/L HEM SPIKE
HEX= 4.004 mg/L

Form: GN-087 1-44
Rev. Date: 11/4/08

SGS ACCUTEST

Test: Chemical Oxygen Demand (Low Level)
Product: COD AQ Methods: Hach 8000/SM5220 B or C-11
Method: Hach 8000 + (see above) ◉ Units: mg/l
Hach 8000 /SM5220M ○ mg/kg

Analyst: MRP
GN Batch ID: GN88273
GP Batch ID: GP17252
Date: 11/13/2018

Ave ml of FAS for Blank (A) = 3.70 Molarity of FAS: 0.0128

COD = { (A-B) x M x 8000 } / (sample amount in ml or g)

QC Summary:

Method Blank ID:	GP17252-MB1	Date:	11/13/2018	Result:	0.0	DL:	20	<DL	Y
Spike Blank ID (± 10%):	BSLCONF	Date:	11/13/2018	Result:	20.5	Spike:	20	% Rec:	
Standard Check Low (±30%):		Date:	11/13/2018	Result:		Spike:	50	% Rec:	
Standard Check Mid (±10%):	GP17252-B2	Date:	11/13/2018	Result:	51.3	Spike:	50	% Rec:	
Duplicate ID:	GP17252-S1	Samp Result:		Dup Result:		% RPD:			
MS ID:	GP17252-D1	Samp Result:	30.77	MS Result:	74.4	Spike:	50	% Rec:	87.3
External:		Result:		Known:		% Rec:			

Bottle #	Sample ID	Sample Volume (ml)	Dilution	Initial ml of FAS (C)	Final ml of FAS (D)	Total Vol FAS used in ml (D - C) = B	Blank FAS - Total FAS (A - B)	Calculated Result	Final Result	Detection Limit
MB1	GP17252-MB1	2.0000	1	0.00	3.70	3.70	0.00	0.0	0.00	20
MB2	GP17252-MB2	2.0000	1	0.00	3.70	3.70	0.00	0.0	0.00	20
BSP	BSLCONF	2.0000	1	0.00	3.30	3.30	0.40	20.5	20.51	20
BSP	GP17252-B2	2.0000	1	0.00	2.70	2.70	1.00	51.3	51.28	20
	GP17252-S1	2.0000	1	0.00	2.25	2.25	1.45	74.4	74.36	20
	GP17252-D1	2.0000	1	0.00	3.10	3.10	0.60	30.8	30.77	20
	JC76980-2	2.0000	1	0.00	3.10	3.10	0.60	30.8	30.77	20
	JC77111-1	2.0000	1	0.00	3.25	3.25	0.45	23.1	23.08	20
	JC77111-2	2.0000	1	0.00	3.20	3.20	0.50	25.6	25.64	20
	JC77111-3	2.0000	1	0.00	3.55	3.55	0.15	7.7	7.69	20
	JC77111-4	2.0000	1	0.00	3.00	3.00	0.70	35.9	35.90	20
	JC77111-5	2.0000	1	0.00	2.85	2.85	0.85	43.6	43.59	20
	JC77111-6	2.0000	1	0.00	3.10	3.10	0.60	30.8	30.77	20
	JC77111-7	2.0000	1	0.00	3.15	3.15	0.55	28.2	28.20	20
	JC77111-8	2.0000	1	0.00	3.40	3.40	0.30	15.4	15.38	20
	JC77189-1	2.0000	1	0.00	3.50	3.50	0.20	10.3	10.26	20
	JC77190-1	2.0000	1	0.00	3.60	3.60	0.10	5.1	5.13	20
	JC77191-1	2.0000	1	0.00	3.45	3.45	0.25	12.8	12.82	20
	JC77209-1	2.0000	1	0.00	3.55	3.55	0.15	7.7	7.69	20
	JC77211-1conf	2.0000	1	0.00	over					20
	JC77482-1	2.0000	1	0.00	3.50	3.50	0.20	10.3	10.26	20
	JC77482-2	2.0000	1	0.00	3.70	3.70	0.00	0.0	0.00	20
	JC77438-4	2.0000	1	0.00	3.20	3.20	0.50	25.6	25.64	20
	JC77211-1	2.0000	5	0.00	1.50	1.50	2.20	564.1	564.08	100
	JC77588-1	2.0000	1	0.00	3.15	3.15	0.55	28.2	28.20	20

Comments:

11/12/16

Validated By: C.M Alaimo Validated Date: 8/28/2012
Analyst: Date: QC Reviewer: Date:

GN88273

Reagent Information Log - COD LOW (20 ppm)

Reagent	Reagent # or Manufacturer/Lot
Digestion Solution Tubes Low	GREEN WOOD #171121Axp11/2021
Ferroin Indicator Solution Low	GNE5-54847-COD Exp# 11/31/2018
Potassium Hydrogen Phthalate (KHP) Source	GNE10-56070-COD XP4/2/19
Standard Ferrous Ammonium Sulfate (FAS) Titrant 0.0124N/0.125N	GNE10-56259-COD XP4/23/19
H_2SO_4, Conc.	FISHER# 178261 XP:07/20/2023
Standard Potassium Dichromate Solution 0.025N/0.25N	GNE6-55030-COD XP12/20/18
Potassium Hydrogen Phthalate ext source	GNE10-56071-COD XP4/2/19

Form: GN087-COD-01 Low 20 ppm
Rev Date:3/28/17

GENERAL CHEMISTRY STANDARD PREPARATION LOG FOR FE2

Product: COD
GN or GP Number: GN88273

Description	standard	concentration	Stock vol used	Autopipet ID	al	Diluent	Volume	of	(a)	Analyst	Date
1000 ppm(STD)	GNE10-56070-COD	10,000 MG/L	10ML	A		DI water	100 ml	1000.00	1/2/2019	mrp	11/12/2018
1000PPM[EXT}	GNE10-56071-COD	10,000MG/L	10ML	A		DI water	100ml	1000	1/2/2019	mrp	11/12/2018
100ppm9STD)	GNE10-56073-COD	1000mg/l	10ML	A		DI water	100ML	100	1/2/2019	mrp	11/12/2018
100PPM[EXT}	GNE10-56074-COD	1000mg/l	10ML	A		DI water	100ml	100	1/2/2019	mrp	11/12/2018
Standard Description	used to prepare	Stock	Stock volume	Autopipet ID	al	Diluent	Volume	of Standard	(a)		
20	100PPM	20.00	10.00	A		DI water	50 ml	20.00	11/19/2018	mrp	11/12/2018
100	1000PPM	100.00	10.00	A		DI water	100ML	100.00	12/12/2018	mrp	11/12/2018
150	1000PPM	150.00	7.5 ml	A		DI water	50 ml	150.00	11/19/2018	mrp	11/12/2018
500	1000PPM	500.00	25 ml	A		DI water	50 ml	500.00	12/12/2018	mrp	11/12/2018
10	100PPM	10.00	1.00	A		DI water	10 ml	10.00		mrp	11/12/2018
[EXT]50	100PPM	50.00	25.00	A		DI water	50 ml	50.00	11/19/2018	mrp	11/12/2018
[EXT]750	1000PPM	750.00	37.50	A		DI water	50 ml	750.00	11/19/2018	mrp	11/12/2018

Form GN121-02 FE2
Rev. Date: 11/14/11

SGS GN88273

Test: Chemical Oxygen Demand Digestion Log
Product: COD GPBatch ID: GP17252
Method: SM5220 C-11, Hach 8000
SM5220 C-11 Mod, Hach 8000 Mod
Analyst: MRP Date: 11/12/2018
Hach Low Level (20 to 150 mg/l) Lot #:171121A_11/21
Hach High Level (50 to 1500 mg/l)
Balance ID: NA Pipet ID: #35

Standardization of FAS with Potassium Dichromate
Potassium Dichromate reagent number: see attached
Potassium Dichromate normality (N 0.025 N)

mL of FAS for Standardization Blank 1: 3.90
ml of FAS for Standardization Blank 2: 3.96

Molarity of FAS = (N x vol. of dichromate digestion solution)/(ml of FAS for Standardization Blank)
Average molarity (Blank 1 and Blank 2) = 0.0128

Digestion START Time: 10:;00 Digestion Temperature (deg. C): 150 C
Digestion ENDTime: 12:00 Digestion Block ID: COD-3

Sample ID	Digestion Tube #	Initial Wt. (g) or Vol. (ml)	Final Vol. (ml)	Comments	GP #
GP17252-MB1	MB1	2 ML	2 ML		BO NO
GP17252-MB2	MB2	2 ML	2 ML		
GP17252-B1	1	2 ML	2 ML	2 ML OF 20 PPM	
GP17252-B2	2	2 ML	2 ML	2ML OF 50 PPM	
GP17252-S1	3	2 ML	2 ML	1ML OF 100 PPM	1
GP17252-D1	4	2 ML	2 ML		1
JC76980-2	5	2 ML	2 ML	QC SAMPLE	1
JC77111-1	6	2 ML	2 ML		1
JC77111-2	7	2 ML	2 ML		1
JC77111-3	8	2 ML	2 ML		1
JC77111-4	9	2 ML	2 ML		1
JC77111-5	10	2 ML	2 ML		1
JC77111-6	11	2 ML	2 ML		1
JC77111-7	12	2 ML	2 ML		1
JC77111-8	13	2 ML	2 ML		1
JC77189-1	14	2 ML	2 ML		13
JC77190-1	15	2 ML	2 ML		12
JC77191-1	16	2 ML	2 ML		7
JC77209-1	17	2 ML	2 ML		5
JC77211-1	18	2 ML	2 ML		6
JC77482-1	19	2 ML	2 ML		4
JC77482-2	20	2 ML	2 ML		4
~~JC77482-4~~ 435-4	21	2 ML	2 ML		3
JC77211-1	22	2ml	2ml	1ml Sample + 4ml DI	6
JC77588-1	23	2ml	2ml		4
JC77435-4					

Form: GN018-04
Revised: 06/15/17

The results set forth herein are provided by SGS North America Inc.

e-Hardcopy 2.0
Automated Report

Technical Report for

Tantara Corporation

USACE Buffalo Nike Missle UST, East Aurora, NY

19-382

SGS Job Number: JC86676

Sampling Dates: 04/17/19 - 04/18/19

Report to:

Tantara Corporation
54 Mason Street
Worcester, MA 01610
MLovejoy@TantaraCorp.com

ATTN: Mark Lovejoy

Total number of pages in report: **456**

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Brian McGuire
General Manager

Client Service contact: Tammy McCloskey 732-329-0200

Certifications: NJ(12129), NY(10983), CA, CT, FL, IL, IN, KS, KY, LA, MA, MD, ME, MN, NC, OH VAP (CL0056), AK (UST-103), AZ (AZ0786), PA, RI, SC, TX, UT, VA, WV, DoD ELAP (ANAB L2248)

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Test results relate only to samples analyzed.

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how we can serve you better at:
EHS.US.CustomerCare@sgs.com

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SGS North America Inc.

Sample Summary

Tantara Corporation

Job No: JC86676

USACE Buffalo Nike Missle UST, East Aurora, NY
Project No: 19-382

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
JC86676-1	04/17/19	14:00	ML	04/19/19	AQ	Water	SILO5-1
JC86676-2	04/18/19	08:30	ML	04/19/19	AQ	Water	SILO5-2

CASE NARRATIVE / CONFORMANCE SUMMARY

Client:	Tantara Corporation	**Job No**	JC86676
Site:	USACE Buffalo Nike Missle UST, East Aurora, NY	**Report Date**	4/25/2019 9:52:25 AM

On 04/19/2019, 2 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were received at SGS North America Inc. at a maximum corrected temperature of 2.3 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. Job Number of JC86676 was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Compounds qualified as out of range in the continuing calibration summary report are acceptable as per method requirements when there is a high bias but the sample result is non-detect.

MS Volatiles By Method SW846 8260C

Matrix: AQ **Batch ID:** V4B3809

- All samples were analyzed within the recommended method holding time.
- Sample(s) JC86676-1MS, JC86676-2DUP were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

Metals Analysis By Method SW846 6020B

Matrix: AQ **Batch ID:** MP14424

- All samples were digested within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC86645-3MS, JC86645-3MSD, JC86645-3SDL were used as the QC samples for metals.

General Chemistry By Method EPA 1664A

Matrix: AQ **Batch ID:** GP20823

- All samples were prepared within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC86676-1DUP, JC86828-1MS were used as the QC samples for HEM Oil and Grease.

General Chemistry By Method SM2540 D-11

Matrix: AQ **Batch ID:** GN94378

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC86676-1DUP were used as the QC samples for Solids, Total Suspended.

General Chemistry By Method SM5220 C-11,HACH8000

Matrix: AQ **Batch ID:** GP20799

- All samples were prepared within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC86398-1DUP, JC86398-1MS were used as the QC samples for Chemical Oxygen Demand.

SGS North America Inc. certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting the Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

SGS North America Inc. is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. Data release is authorized by SGS North America Inc indicated via signature on the report cover

Summary of Hits

Job Number: JC86676
Account: Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY
Collected: 04/17/19 thru 04/18/19

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
JC86676-1	**SILO5-1**					
Aluminum		691	50	32	ug/l	SW846 6020B
Arsenic		1.5	1.0	0.94	ug/l	SW846 6020B
Barium		8.5	2.0	0.73	ug/l	SW846 6020B
Iron		552	50	19	ug/l	SW846 6020B
Lead		2.2	1.0	0.52	ug/l	SW846 6020B
Solids, Total Suspended		6.2	4.0	1.5	mg/l	SM2540 D-11
JC86676-2	**SILO5-2**					
Aluminum		854	50	32	ug/l	SW846 6020B
Arsenic		1.4	1.0	0.94	ug/l	SW846 6020B
Barium		10.5	2.0	0.73	ug/l	SW846 6020B
Iron		683	50	19	ug/l	SW846 6020B
Lead		2.7	1.0	0.52	ug/l	SW846 6020B
Solids, Total Suspended		9.9	4.0	1.5	mg/l	SM2540 D-11

Sample Results

Report of Analysis

SGS North America Inc.

Report of Analysis

Client Sample ID:	SILO5-1		
Lab Sample ID:	JC86676-1	**Date Sampled:**	04/17/19
Matrix:	AQ - Water	**Date Received:**	04/19/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	USACE Buffalo Nike Missle UST, East Aurora, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4B90070.D	1	04/22/19 14:29	MD	n/a	n/a	V4B3809
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.50	0.43	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		80-120%
17060-07-0	1,2-Dichloroethane-D4	103%		81-124%
2037-26-5	Toluene-D8	98%		80-120%
460-00-4	4-Bromofluorobenzene	99%		80-120%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SILO5-1
Lab Sample ID: JC86676-1
Matrix: AQ - Water
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Date Sampled: 04/17/19
Date Received: 04/19/19
Percent Solids: n/a

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Aluminum	691	50	32	ug/l	2	04/22/19	04/22/19	SN	SW846 6020B [1]	SW846 3010A [2]
Arsenic	1.5	1.0	0.94	ug/l	2	04/22/19	04/22/19	SN	SW846 6020B [1]	SW846 3010A [2]
Barium	8.5	2.0	0.73	ug/l	2	04/22/19	04/22/19	SN	SW846 6020B [1]	SW846 3010A [2]
Cadmium	0.17 U	1.0	0.17	ug/l	2	04/22/19	04/22/19	SN	SW846 6020B [1]	SW846 3010A [2]
Iron	552	50	19	ug/l	2	04/22/19	04/22/19	SN	SW846 6020B [1]	SW846 3010A [2]
Lead	2.2	1.0	0.52	ug/l	2	04/22/19	04/22/19	SN	SW846 6020B [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA46558
(2) Prep QC Batch: MP14424

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	SILO5-1		
Lab Sample ID:	JC86676-1	**Date Sampled:**	04/17/19
Matrix:	AQ - Water	**Date Received:**	04/19/19
		Percent Solids:	n/a
Project:	USACE Buffalo Nike Missle UST, East Aurora, NY		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Chemical Oxygen Demand	11 U	20	11	mg/l	1	04/23/19 17:21	MP	SM5220 C-11,HACH8000
HEM Oil and Grease	3.2 U	5.0	3.2	mg/l	1	04/24/19 17:00	TM	EPA 1664A
Solids, Total Suspended	6.2	4.0	1.5	mg/l	1	04/22/19 13:01	RC	SM2540 D-11

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

SGS North America Inc.

Report of Analysis

Client Sample ID:	SILO5-2		
Lab Sample ID:	JC86676-2	**Date Sampled:**	04/18/19
Matrix:	AQ - Water	**Date Received:**	04/19/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	USACE Buffalo Nike Missle UST, East Aurora, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4B90071.D	1	04/22/19 14:57	MD	n/a	n/a	V4B3809
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.50	0.43	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		80-120%
17060-07-0	1,2-Dichloroethane-D4	105%		81-124%
2037-26-5	Toluene-D8	99%		80-120%
460-00-4	4-Bromofluorobenzene	98%		80-120%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SILO5-2
Lab Sample ID: JC86676-2
Matrix: AQ - Water
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Date Sampled: 04/18/19
Date Received: 04/19/19
Percent Solids: n/a

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Aluminum	854	50	32	ug/l	2	04/22/19	04/22/19	SN	SW846 6020B [1]	SW846 3010A [2]
Arsenic	1.4	1.0	0.94	ug/l	2	04/22/19	04/22/19	SN	SW846 6020B [1]	SW846 3010A [2]
Barium	10.5	2.0	0.73	ug/l	2	04/22/19	04/22/19	SN	SW846 6020B [1]	SW846 3010A [2]
Cadmium	0.17 U	1.0	0.17	ug/l	2	04/22/19	04/22/19	SN	SW846 6020B [1]	SW846 3010A [2]
Iron	683	50	19	ug/l	2	04/22/19	04/22/19	SN	SW846 6020B [1]	SW846 3010A [2]
Lead	2.7	1.0	0.52	ug/l	2	04/22/19	04/22/19	SN	SW846 6020B [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA46558
(2) Prep QC Batch: MP14424

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	SILO5-2		
Lab Sample ID:	JC86676-2	**Date Sampled:**	04/18/19
Matrix:	AQ - Water	**Date Received:**	04/19/19
		Percent Solids:	n/a
Project:	USACE Buffalo Nike Missle UST, East Aurora, NY		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Chemical Oxygen Demand	11 U	20	11	mg/l	1	04/23/19 17:21	MP	SM5220 C-11,HACH8000
HEM Oil and Grease	3.2 U	5.0	3.2	mg/l	1	04/24/19 17:00	TM	EPA 1664A
Solids, Total Suspended	9.9	4.0	1.5	mg/l	1	04/22/19 13:01	RC	SM2540 D-11

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- Sample Tracking Chronicle
- Internal Chain of Custody

CHAIN OF CUSTODY

SGS North America Inc. - Dayton
2235 Route 130, Dayton, NJ 08810
TEL. 732-329-0200 FAX: 732-329-3499/3480
www.sgs.com/ehsusa

Page __ of __

FED-EX Tracking # 463600631111 | Bottle Order Control # | SGS Quote # | SGS Job # JC86676

Client / Reporting Information

Company Name: TANTARA Corp.
Street Address: 54 Mason St.
City / State / Zip: Worcester, MA 01610
Project Contact / E-mail: MLovejoy@tantaracorp.com
Phone #: 508-752-5599
Sampler(s) Name(s) / Phone #:

Project Information

Project Name: Buffalo Nike
Street:
City / State: E. Aurora, NY
Project #:
Client Purchase Order #: 19-382
Project Manager:

Billing Information (if different from Report to)

Company Name: same
Street Address:
City / State / Zip:
Attention:

Requested Analysis

SGS Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Grab (G) Comp (C)	Matrix	# of bottles	HCl	NaOH	HNO_3	H_2SO_4	NONE	DI Water	MEOH	ENCORE	BETX 8260	As, Fe, Al, Ba, Cd, Pb	Oil and Grease	COD	TSS
1	SIL05-1		4/17/19	1400			W	9	✓		✓		✓				✓	✓	✓	✓	✓
2	SIL05-2		4/18/19	0930			W	9	✓		✓		✓				✓	✓	✓	✓	✓

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL - Sludge; SED-Sediment; OI - Oil; LIQ - Other Liquid; AIR - Air; SOL - Other Solid; WP - Wipe; FB - Field Blank; EB-Equipment Blank; RB - Rinse Blank; TB - Trip Blank

LAB USE ONLY

L39
C28
A22
V933

Turn Around Time (Business Days)

Approved By (SGS PM): / Date:

- [ ] 10 Business Days
- [x] 5 Business Days
- [ ] 3 Business Days*
- [ ] 2 Business Days*
- [ ] 1 Business Day*
- [ ] Other

All data available via Labilink

* Approval needed for 1-3 Business Day TAT

Deliverable

- [ ] Commercial "A" (Level 1)
- [ ] Commercial "B" (Level 2)
- [ ] NJ Reduced (Level 3)
- [ ] Full Tier I (Level 4)
- [ ] Commercial "C"
- [ ] NJ DKQP
- [ ] NYASP Category A
- [ ] NYASP Category B
- [ ] MA MCP Criteria_____
- [ ] CT RCP Criteria_____
- [ ] State Forms
- [ ] EDD Format _____
- [x] DOD-QSM5

Commercial "A" = Results only; Commercial "B" = Results + QC Summary
Commercial "C" = Results + QC Summary + Partial Raw data

Comments / Special Instructions

INITIAL ASESSMENT 3APDS

LABEL VERIFICATION_____

http://www.sgs.com/en/terms-and-conditions

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by:	Date / Time:	Received By:	Relinquished By:	Date / Time:	Received By:
1	4/18/19 0930	1 Fed Ex	2 Fed Ex	4/19/19 9:20	2
3		3	4		4
5		5	Custody Seal #	Intact / Not intact	Preserved where applicable / Absent / Therm. ID: / On Ice / Cooler Temp. °C: 3.3C-P

EHSA-QAC-0023-02-FORM-Dayton - Standard COC.xlsx

SGS Sample Receipt Summary

Job Number: JC86676 **Client:** _____ **Project:** _____

Date / Time Received: 4/19/2019 9:20:00 AM **Delivery Method:** _____ **Airbill #'s:** _____

Cooler Temps (Raw Measured) °C: Cooler 1: (3.3);

Cooler Temps (Corrected) °C: Cooler 1: (2.3);

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	☑		☐	3. COC Present:	☑		☐
2. Custody Seals Intact:	☑		☐	4. Smpl Dates/Time OK	☑		☐

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Cooler temp verification:	IR Gun		
3. Cooler media:	Ice (Bag)		
4. No. Coolers:	1		

Quality Control Preservation	Y	or	N	N/A
1. Trip Blank present / cooler:	☐		☑	☐
2. Trip Blank listed on COC:	☐		☑	☐
3. Samples preserved properly:	☑		☐	
4. VOCs headspace free:	☑		☐	☐

Sample Integrity - Documentation	Y	or	N
1. Sample labels present on bottles:	☑		☐
2. Container labeling complete:	☑		☐
3. Sample container label / COC agree:	☑		☐

Sample Integrity - Condition	Y	or	N
1. Sample recvd within HT:	☑		☐
2. All containers accounted for:	☑		☐
3. Condition of sample:	Intact		

Sample Integrity - Instructions	Y	or	N	N/A
1. Analysis requested is clear:	☑		☐	
2. Bottles received for unspecified tests	☐		☑	
3. Sufficient volume recvd for analysis:	☑		☐	
4. Compositing instructions clear:	☐		☐	☑
5. Filtering instructions clear:	☐		☐	☑

Test Strip Lot #s: pH 1-12: 206717 pH 12+: 208717 Other: (Specify) _____ _____

Comments

SM089-03
Rev. Date 12/7/17

Internal Sample Tracking Chronicle

Tantara Corporation

Job No: JC86676

USACE Buffalo Nike Missle UST, East Aurora, NY
Project No: 19-382

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JC86676-1 SILO5-1	Collected: 17-APR-19 14:00 By: ML		Received: 19-APR-19 By: DG			
JC86676-1	SM2540 D-11	22-APR-19 13:01	RC			TSS
JC86676-1	SW846 8260C	22-APR-19 14:29	MD			V8260BTX
JC86676-1	SW846 6020B	22-APR-19 20:17	SN	22-APR-19	TG	ALMS,ASMS,BAMS,CDMS,FEMS,PBMS
JC86676-1	SM5220 C-11,HACH8000	23-APR-19 17:21	MP	23-APR-19	MP	COD
JC86676-1	EPA 1664A	24-APR-19 17:00	TM	24-APR-19	TM	OG1664
JC86676-2 SILO5-2	Collected: 18-APR-19 08:30 By: ML		Received: 19-APR-19 By: DG			
JC86676-2	SM2540 D-11	22-APR-19 13:01	RC			TSS
JC86676-2	SW846 8260C	22-APR-19 14:57	MD			V8260BTX
JC86676-2	SW846 6020B	22-APR-19 20:22	SN	22-APR-19	TG	ALMS,ASMS,BAMS,CDMS,FEMS,PBMS
JC86676-2	SM5220 C-11,HACH8000	23-APR-19 17:21	MP	23-APR-19	MP	COD
JC86676-2	EPA 1664A	24-APR-19 17:00	TM	24-APR-19	TM	OG1664

SGS Internal Chain of Custody

Job Number: JC86676
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY
Received: 04/19/19

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC86676-1.1	Secured Storage	Tharun Murali	04/24/19 17:18	Retrieve from Storage
JC86676-1.1	Tharun Murali		04/24/19 17:19	Depleted
JC86676-1.2	Secured Storage	Tharun Murali	04/24/19 17:18	Retrieve from Storage
JC86676-1.2	Tharun Murali		04/24/19 17:19	Depleted
JC86676-1.3	Secured Storage	Todd Shoemaker	04/22/19 09:32	Retrieve from Storage
JC86676-1.3	Todd Shoemaker	Secured Staging Area	04/22/19 09:32	Return to Storage
JC86676-1.3	Secured Staging Area	Ruchitaben Chauhan	04/22/19 14:53	Retrieve from Storage
JC86676-1.3	Ruchitaben Chauhan		04/22/19 17:00	Depleted
JC86676-1.5	Secured Storage	Todd Shoemaker	04/22/19 09:02	Retrieve from Storage
JC86676-1.5	Todd Shoemaker	Secured Staging Area	04/22/19 09:02	Return to Storage
JC86676-1.5	Secured Staging Area	Taylor Gorman	04/22/19 09:06	Retrieve from Storage
JC86676-1.5	Taylor Gorman	Secured Storage	04/22/19 14:50	Return to Storage
JC86676-1.5.1	Taylor Gorman	Metals Digestion	04/22/19 13:06	Digestate from JC86676-1.5
JC86676-1.5.1	Taylor Gorman	Metals Digestate Storage	04/22/19 13:06	Return to Storage
JC86676-1.5.1	Metals Digestion	Taylor Gorman	04/22/19 13:06	Digestate from JC86676-1.5
JC86676-1.6	Secured Storage	Matthew Robbins	04/22/19 19:33	Retrieve from Storage
JC86676-1.6	Matthew Robbins	Secured Staging Area	04/22/19 19:33	Return to Storage
JC86676-1.6	Secured Staging Area	Mahendra Patel	04/23/19 08:12	Retrieve from Storage
JC86676-1.6	Mahendra Patel	Secured Storage	04/23/19 20:17	Return to Storage
JC86676-1.7	Secured Storage	Chelsea San Filippo	04/22/19 16:09	Retrieve from Storage
JC86676-1.7	Chelsea San Filippo	GCMS4B	04/22/19 16:09	Load on Instrument
JC86676-1.7	GCMS4B	Chelsea San Filippo	04/23/19 10:35	Unload from Instrument
JC86676-1.7	Chelsea San Filippo	Secured Storage	04/23/19 10:35	Return to Storage
JC86676-1.8	Secured Storage	Chelsea San Filippo	04/22/19 12:15	Retrieve from Storage
JC86676-1.8	Chelsea San Filippo	GCMS4B	04/22/19 12:15	Load on Instrument
JC86676-1.8	GCMS4B	Chelsea San Filippo	04/23/19 10:35	Unload from Instrument
JC86676-1.8	Chelsea San Filippo	Secured Storage	04/23/19 10:35	Return to Storage
JC86676-2.2	Secured Storage	Tharun Murali	04/24/19 17:18	Retrieve from Storage
JC86676-2.2	Tharun Murali		04/24/19 17:19	Depleted
JC86676-2.4	Secured Storage	Todd Shoemaker	04/22/19 09:32	Retrieve from Storage
JC86676-2.4	Todd Shoemaker	Secured Staging Area	04/22/19 09:32	Return to Storage
JC86676-2.4	Secured Staging Area	Ruchitaben Chauhan	04/22/19 14:53	Retrieve from Storage
JC86676-2.4	Ruchitaben Chauhan		04/22/19 17:00	Depleted
JC86676-2.5	Secured Storage	Todd Shoemaker	04/22/19 09:02	Retrieve from Storage

SGS Internal Chain of Custody

Job Number: JC86676
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY
Received: 04/19/19

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC86676-2.5	Todd Shoemaker	Secured Staging Area	04/22/19 09:02	Return to Storage
JC86676-2.5	Secured Staging Area	Taylor Gorman	04/22/19 09:06	Retrieve from Storage
JC86676-2.5	Taylor Gorman	Secured Storage	04/22/19 14:50	Return to Storage
JC86676-2.5.1	Taylor Gorman	Metals Digestion	04/22/19 13:06	Digestate from JC86676-2.5
JC86676-2.5.1	Taylor Gorman	Metals Digestate Storage	04/22/19 13:06	Return to Storage
JC86676-2.5.1	Metals Digestion	Taylor Gorman	04/22/19 13:06	Digestate from JC86676-2.5
JC86676-2.6	Secured Storage	Matthew Robbins	04/22/19 19:33	Retrieve from Storage
JC86676-2.6	Matthew Robbins	Secured Staging Area	04/22/19 19:33	Return to Storage
JC86676-2.6	Secured Staging Area	Mahendra Patel	04/23/19 08:12	Retrieve from Storage
JC86676-2.6	Mahendra Patel	Secured Storage	04/23/19 20:17	Return to Storage
JC86676-2.7	Secured Storage	Chelsea San Filippo	04/22/19 16:09	Retrieve from Storage
JC86676-2.7	Chelsea San Filippo	GCMS4B	04/22/19 16:09	Load on Instrument
JC86676-2.7	GCMS4B	Chelsea San Filippo	04/23/19 10:35	Unload from Instrument
JC86676-2.7	Chelsea San Filippo	Secured Storage	04/23/19 10:35	Return to Storage
JC86676-2.8	Secured Storage	Chelsea San Filippo	04/22/19 12:15	Retrieve from Storage
JC86676-2.8	Chelsea San Filippo	GCMS4B	04/22/19 12:15	Load on Instrument
JC86676-2.8	GCMS4B	Chelsea San Filippo	04/23/19 10:35	Unload from Instrument
JC86676-2.8	Chelsea San Filippo	Secured Storage	04/23/19 10:35	Return to Storage

MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Instrument Performance Checks (BFB)
- Internal Standard Area Summaries
- Surrogate Recovery Summaries
- Initial and Continuing Calibration Summaries

Method Blank Summary

Job Number: JC86676
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V4B3809-MB	4B90058.D	1	04/22/19	MD	n/a	n/a	V4B3809

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC86676-1, JC86676-2

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.50	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	101%	80-120%
17060-07-0	1,2-Dichloroethane-D4	103%	81-124%
2037-26-5	Toluene-D8	98%	80-120%
460-00-4	4-Bromofluorobenzene	98%	80-120%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	system artifact	3.58	5.2	ug/l	J
	Total TIC, Volatile		0	ug/l	

Blank Spike Summary

Job Number: JC86676
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V4B3809-BS	4B90056.D	1	04/22/19	MD	n/a	n/a	V4B3809

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC86676-1, JC86676-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	50	49.3	99	80-120
100-41-4	Ethylbenzene	50	49.8	100	80-120
108-88-3	Toluene	50	50.1	100	80-120
1330-20-7	Xylene (total)	150	151	101	80-120

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	101%	80-120%
17060-07-0	1,2-Dichloroethane-D4	100%	81-124%
2037-26-5	Toluene-D8	98%	80-120%
460-00-4	4-Bromofluorobenzene	97%	80-120%

* = Outside of Control Limits.

Matrix Spike Summary

Job Number: JC86676
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC86676-1MS	4B90073.D	1	04/22/19	MD	n/a	n/a	V4B3809
JC86676-1	4B90070.D	1	04/22/19	MD	n/a	n/a	V4B3809

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC86676-1, JC86676-2

CAS No.	Compound	JC86676-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Limits
71-43-2	Benzene	ND		50	43.2	86	54-136
100-41-4	Ethylbenzene	ND		50	43.8	88	51-140
108-88-3	Toluene	ND		50	43.3	87	60-135
1330-20-7	Xylene (total)	ND		150	132	88	56-139

CAS No.	Surrogate Recoveries	MS	JC86676-1	Limits
1868-53-7	Dibromofluoromethane	100%	102%	80-120%
17060-07-0	1,2-Dichloroethane-D4	98%	103%	81-124%
2037-26-5	Toluene-D8	98%	98%	80-120%
460-00-4	4-Bromofluorobenzene	97%	99%	80-120%

* = Outside of Control Limits.

Duplicate Summary

Job Number: JC86676
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC86676-2DUP	4B90075.D	1	04/22/19	MD	n/a	n/a	V4B3809
JC86676-2	4B90071.D	1	04/22/19	MD	n/a	n/a	V4B3809

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC86676-1, JC86676-2

CAS No.	Compound	JC86676-2 ug/l	Q	DUP ug/l	Q	RPD	Limits
71-43-2	Benzene	ND		ND		nc	20
100-41-4	Ethylbenzene	ND		ND		nc	20
108-88-3	Toluene	ND		ND		nc	20
1330-20-7	Xylene (total)	ND		ND		nc	20

CAS No.	Surrogate Recoveries	DUP	JC86676-2	Limits
1868-53-7	Dibromofluoromethane	101%	103%	80-120%
17060-07-0	1,2-Dichloroethane-D4	103%	105%	81-124%
2037-26-5	Toluene-D8	98%	99%	80-120%
460-00-4	4-Bromofluorobenzene	99%	98%	80-120%

* = Outside of Control Limits.

Instrument Performance Check (BFB)

Job Number: JC86676
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample: V4B3793-BFB
Lab File ID: 4B89751.D
Instrument ID: GCMS4B
Injection Date: 04/06/19
Injection Time: 17:47

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	16461	16.6		Pass
75	30.0 - 60.0% of mass 95	43936	44.2		Pass
95	Base peak, 100% relative abundance	99336	100.0		Pass
96	5.0 - 9.0% of mass 95	6566	6.61		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 150.0% of mass 95	91778	92.4		Pass
175	5.0 - 9.0% of mass 174	7111	7.16	(7.75) [a]	Pass
176	95.0 - 101.0% of mass 174	88976	89.6	(96.9) [a]	Pass
177	5.0 - 9.0% of mass 176	6193	6.23	(6.96) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V4B3793-IC3793	4B89752.D	04/06/19	18:21	00:34	Initial cal 0.2
V4B3793-IC3793	4B89753.D	04/06/19	18:50	01:03	Initial cal 0.5
V4B3793-IC3793	4B89754.D	04/06/19	19:17	01:30	Initial cal 1
V4B3793-IC3793	4B89755.D	04/06/19	19:45	01:58	Initial cal 2
V4B3793-IC3793	4B89756.D	04/06/19	20:13	02:26	Initial cal 4
V4B3793-IC3793	4B89757.D	04/06/19	20:41	02:54	Initial cal 8
V4B3793-IC3793	4B89758.D	04/06/19	21:09	03:22	Initial cal 20
V4B3793-ICC3793	4B89759.D	04/06/19	21:37	03:50	Initial cal 50
V4B3793-IC3793	4B89760.D	04/06/19	22:05	04:18	Initial cal 100
V4B3793-IC3793	4B89761.D	04/06/19	22:33	04:46	Initial cal 200
V4B3793-ICV3793	4B89764.D	04/06/19	23:57	06:10	Initial cal verification 50

Instrument Performance Check (BFB)

Job Number: JC86676
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample:	V4B3809-BFB	**Injection Date:**	04/22/19
Lab File ID:	4B90055.D	**Injection Time:**	07:02
Instrument ID:	GCMS4B		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	18600	17.2		Pass
75	30.0 - 60.0% of mass 95	48877	45.2		Pass
95	Base peak, 100% relative abundance	108107	100.0		Pass
96	5.0 - 9.0% of mass 95	7240	6.70		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 150.0% of mass 95	103963	96.2		Pass
175	5.0 - 9.0% of mass 174	8028	7.43	(7.72) [a]	Pass
176	95.0 - 101.0% of mass 174	100216	92.7	(96.4) [a]	Pass
177	5.0 - 9.0% of mass 176	6679	6.18	(6.66) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V4B3809-CC3793	4B90055.D	04/22/19	07:02	00:00	Continuing cal 20
V4B3809-BS	4B90056.D	04/22/19	07:30	00:28	Blank Spike
V4B3809-MB	4B90058.D	04/22/19	08:30	01:28	Method Blank
ZZZZZZ	4B90059.D	04/22/19	09:15	02:13	(unrelated sample)
ZZZZZZ	4B90060.D	04/22/19	09:43	02:41	(unrelated sample)
ZZZZZZ	4B90061.D	04/22/19	10:11	03:09	(unrelated sample)
ZZZZZZ	4B90062.D	04/22/19	10:39	03:37	(unrelated sample)
ZZZZZZ	4B90063.D	04/22/19	11:07	04:05	(unrelated sample)
ZZZZZZ	4B90064.D	04/22/19	11:35	04:33	(unrelated sample)
ZZZZZZ	4B90065.D	04/22/19	12:03	05:01	(unrelated sample)
ZZZZZZ	4B90066.D	04/22/19	12:37	05:35	(unrelated sample)
ZZZZZZ	4B90067.D	04/22/19	13:05	06:03	(unrelated sample)
ZZZZZZ	4B90068.D	04/22/19	13:33	06:31	(unrelated sample)
ZZZZZZ	4B90069.D	04/22/19	14:01	06:59	(unrelated sample)
JC86676-1	4B90070.D	04/22/19	14:29	07:27	SILO5-1
JC86676-2	4B90071.D	04/22/19	14:57	07:55	SILO5-2
ZZZZZZ	4B90072.D	04/22/19	15:25	08:23	(unrelated sample)
JC86676-1MS	4B90073.D	04/22/19	16:01	08:59	Matrix Spike
ZZZZZZ	4B90074.D	04/22/19	16:29	09:27	(unrelated sample)
JC86676-2DUP	4B90075.D	04/22/19	16:57	09:55	Duplicate
ZZZZZZ	4B90076.D	04/22/19	17:25	10:23	(unrelated sample)
ZZZZZZ	4B90077.D	04/22/19	17:53	10:51	(unrelated sample)
ZZZZZZ	4B90078.D	04/22/19	18:21	11:19	(unrelated sample)

Internal Standard Area Summary

Job Number: JC86676
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Check Std:	V4B3809-CC3793	**Injection Date:**	04/22/19
Lab File ID:	4B90055.D	**Injection Time:**	07:02
Instrument ID:	GCMS4B	**Method:**	SW846 8260C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	154900	6.75	310327	8.76	415840	9.63	380890	12.81	232863	15.38
Upper Limit [a]	309800	7.25	620654	9.26	831680	10.13	761780	13.31	465726	15.88
Lower Limit [b]	77450	6.25	155164	8.26	207920	9.13	190445	12.31	116432	14.88

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
V4B3809-BS	133879	6.74	300429	8.76	405437	9.63	373280	12.81	222251	15.38
V4B3809-MB	159109	6.74	305329	8.76	407371	9.63	374841	12.81	227593	15.38
ZZZZZZ	161315	6.75	292437	8.76	390704	9.63	359919	12.81	221944	15.38
ZZZZZZ	156116	6.75	298714	8.76	397987	9.63	367389	12.81	224274	15.38
ZZZZZZ	165002	6.75	300650	8.76	404354	9.63	370786	12.81	224570	15.38
ZZZZZZ	161633	6.75	293380	8.76	396175	9.63	364916	12.81	222322	15.38
ZZZZZZ	164682	6.74	297771	8.76	401678	9.63	365427	12.81	219930	15.38
ZZZZZZ	165631	6.74	297730	8.76	398800	9.63	369981	12.81	223664	15.38
ZZZZZZ	163208	6.75	291755	8.76	393011	9.63	370870	12.81	224051	15.38
ZZZZZZ	200393	6.75	263505	8.76	359813	9.63	335369	12.81	207610	15.38
ZZZZZZ	151847	6.74	295098	8.76	397791	9.63	362591	12.81	218240	15.38
ZZZZZZ	157028	6.74	298149	8.76	400570	9.63	362223	12.81	216277	15.38
ZZZZZZ	151836	6.74	297492	8.76	399520	9.63	367639	12.81	221559	15.38
JC86676-1	154627	6.73	291163	8.76	393410	9.63	362306	12.81	220293	15.38
JC86676-2	155358	6.74	298787	8.76	403463	9.63	364426	12.81	220710	15.38
ZZZZZZ	158661	6.74	299323	8.76	395515	9.63	369276	12.81	217662	15.38
JC86676-1MS	137529	6.75	286334	8.76	381913	9.63	354979	12.81	208246	15.38
ZZZZZZ	160598	6.75	315231	8.76	425922	9.63	384279	12.81	233709	15.38
JC86676-2DUP	149606	6.75	306314	8.76	409831	9.63	377109	12.81	227352	15.38
ZZZZZZ	153619	6.75	308369	8.76	412759	9.63	378317	12.81	229449	15.38
ZZZZZZ	147568	6.74	295957	8.76	397179	9.63	372444	12.81	227930	15.38
ZZZZZZ	160517	6.75	289167	8.76	394323	9.63	366019	12.81	224797	15.38

IS 1 = Tert Butyl Alcohol-D9
IS 2 = Pentafluorobenzene
IS 3 = 1,4-Difluorobenzene
IS 4 = Chlorobenzene-D5
IS 5 = 1,4-Dichlorobenzene-d4

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Surrogate Recovery Summary

Job Number: JC86676
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Method: SW846 8260C **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4
JC86676-1	4B90070.D	102	103	98	99
JC86676-2	4B90071.D	103	105	99	98
JC86676-1MS	4B90073.D	100	98	98	97
JC86676-2DUP	4B90075.D	101	103	98	99
V4B3809-BS	4B90056.D	101	100	98	97
V4B3809-MB	4B90058.D	101	103	98	98

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	80-120%
S2 = 1,2-Dichloroethane-D4	81-124%
S3 = Toluene-D8	80-120%
S4 = 4-Bromofluorobenzene	80-120%

Initial Calibration Summary

Job Number: JC86676
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample: V4B3793-ICC3793
Lab FileID: 4B89759.D

Response Factor Report MS4B

Method : C:\MSDCHEM\1\METHODS\M4B3793.M (RTE Integrator)
Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
Last Update : Mon Apr 08 11:56:42 2019
Response via : Initial Calibration

Calibration Files
1 =4B89754.D 4 =4B89756.D 100 =4B89760.D 50 =4B89759.D
20 =4B89758.D 200 =4B89761.D 8 =4B89757.D 0.5 =4B89753.D
2 =4B89755.D 0.2 =4B89752.D = =

Compound	1	4	100	50	20	200	8	0.5	2	0.2	Avg	%RSD
1) I tert butyl alcohol-d9	ISTD											
2) ethanol											0.000	-1.00
3) tertiary butyl alcohol	0.121	0.145	0.147	0.140	0.139	0.143	0.146		0.152		0.141	6.51
4) 1,4-dioxane		0.010	0.012	0.011	0.010	0.012	0.010		0.009		0.011	9.88
5) I pentafluorobenzene	ISTD											
6) chlorodifluoromethane	0.988	1.042	1.033	0.987	0.985	0.996	1.027		1.158		1.027	5.63
7) dichlorodifluoromethane	0.894	0.813	1.124	1.061	1.063	1.072	1.002		0.994		1.003	10.30
8) chloromethane	1.209	0.949	1.184	1.114	1.126	1.115	1.160	1.322	1.191		1.152	8.64
9) vinyl chloride	0.983	0.808	1.100	1.036	1.038	1.013	1.034	0.948	1.022		0.998	8.27
10) 1,3-butadiene	0.757	0.776	0.762	0.733	0.738	0.709	0.766		0.813		0.757	4.15
11) bromomethane		0.580	0.698	0.680	0.689	0.604	0.703		0.744		0.671	8.64
12) chloroethane	0.587	0.425	0.514	0.501	0.519	0.451	0.530		0.551		0.510	10.18
13) trichlorofluoromethane	0.914	0.779	1.064	0.996	1.024	0.979	0.982		0.992		0.966	8.97
14) vinyl bromide	0.547	0.425	0.569	0.531	0.541	0.520	0.538	0.512	0.526		0.523	7.69
15) ethyl ether	0.279	0.303	0.307	0.296	0.300	0.288	0.309		0.333		0.302	5.34
16) 2-chloropropane	1.327	1.183	1.059	1.024	1.043	0.983	1.073		1.320		1.127	11.92
17) acrolein		0.113	0.118	0.113	0.118	0.110	0.116				0.115	2.71
18) freon 113	0.521	0.542	0.563	0.535	0.543	0.541	0.535		0.599		0.547	4.33
19) 1,1-dichloroethene	1.009	1.043	1.026	0.982	1.005	0.964	1.033	1.085	1.125		1.030	4.84
20) acetone	0.044	0.050	0.054	0.053	0.051	0.049	0.053		0.055		0.051	6.63
21) acetonitrile		0.090	0.082	0.081	0.081	0.076	0.090				0.083	6.62
22) iodomethane	1.029	1.098	1.111	1.061	1.065	1.072	1.093	1.141	1.206	0.959	1.084	6.05
23) carbon disulfide												

2.085 2.175 2.130 2.034 2.065 2.039 2.142 2.259 2.386 2.658 2.197 8.86

24) methylene chloride
0.710 0.723 0.705 0.679 0.689 0.673 0.705 0.786 0.796 0.718 6.14

25) methyl acetate
0.464 0.432 0.441 0.420 0.408 0.474 0.440 5.81

26) methyl tert butyl ether
1.651 1.683 1.581 1.556 1.567 1.473 1.673 1.858 1.829 1.652 7.68

27) trans-1,2-dichloroethene
0.862 0.926 0.886 0.844 0.868 0.836 0.885 0.914 0.982 0.843 0.885 5.13

28) hexane
0.460 0.490 0.466 0.441 0.460 0.446 0.456 0.517 0.509 0.472 5.82

29) di-isopropyl ether
2.165 2.218 2.070 2.050 2.084 1.935 2.179 2.493 2.427 2.376 2.200 8.20

30) 2-butanone
0.054 0.063 0.060 0.059 0.061 0.060 0.062 0.060 4.71

31) 1,1-dichloroethane
1.066 1.118 1.075 1.037 1.069 1.013 1.095 1.136 1.199 1.081 1.089 4.83

32) chloroprene
0.781 0.856 0.852 0.808 0.826 0.807 0.852 0.887 0.931 0.789 0.839 5.53

33) acrylonitrile
0.223 0.233 0.223 0.224 0.218 0.233 0.239 0.228 3.25

34) vinyl acetate
0.080 0.097 0.090 0.089 0.095 0.087 0.081 0.088 7.43

35) ethyl tert-butyl ether
1.841 1.961 1.852 1.826 1.839 1.730 1.971 2.199 2.166 1.955 1.934 7.78

36) ethyl acetate
0.076 0.082 0.078 0.081 0.078 0.083 0.087 0.081 4.82

37) 2,2-dichloropropane
0.890 0.861 0.797 0.774 0.787 0.757 0.843 0.956 0.980 0.886 0.853 8.91

38) cis-1,2-dichloroethene
0.679 0.677 0.658 0.632 0.631 0.627 0.653 0.691 0.725 0.626 0.660 5.00

39) propionitrile
0.081 0.091 0.087 0.084 0.087 0.081 0.091 0.081 0.100 0.087 7.05

40) methyl acrylate
0.070 0.082 0.077 0.079 0.080 0.074 0.065 0.075 8.01

41) methacrylonitrile
0.179 0.202 0.222 0.212 0.214 0.218 0.212 0.220 0.210 6.69

42) bromochloromethane
0.289 0.318 0.323 0.308 0.313 0.313 0.324 0.311 0.345 0.316 4.70

43) tetrahydrofuran
0.073 0.077 0.074 0.072 0.073 0.073 0.085 0.075 5.91

44) chloroform
1.056 1.044 1.009 0.965 0.985 0.967 1.006 1.157 1.152 1.038 7.02

45) tert-butyl formate
0.398 0.465 0.459 0.449 0.438 0.436 0.465 0.450 0.505 0.452 6.36

46) dibromofluoromethane (s)
0.453 0.450 0.452 0.454 0.450 0.453 0.455 0.450 0.454 0.451 0.452 0.44

47) 1,1,1-trichloroethane
0.866 0.930 0.936 0.883 0.887 0.915 0.921 0.951 1.008 0.893 0.919 4.46

48) cyclohexane
0.972 0.755 0.986 0.919 1.068 0.924 0.930 0.954 0.950 0.855 0.931 8.87

49) isobutyl alcohol
0.000 -1.00

50) 1,1-dichloropropene
0.730 0.757 0.747 0.698 0.724 0.720 0.729 0.790 0.801 0.662 0.736 5.56

51) carbon tetrachloride
0.725 0.781 0.804 0.751 0.751 0.783 0.768 0.756 0.858 0.706 0.768 5.52

52) tert-amyl alcohol
0.041 0.040 0.036 0.036 0.037 0.035 0.040 0.042 0.038 7.05

53) isopropyl acetate

```
            0.098 0.113 0.104 0.105 0.110 0.101       0.100        0.104    5.21

54) I   1,4-difluorobenzene   ----------------ISTD---------------------
55)  1,2-dichloroethane-d4 (s)
      0.331 0.332 0.316 0.322 0.332 0.316 0.335 0.336 0.340 0.337  0.330    2.61
56)  n-butyl alcohol
      0.009 0.011 0.009 0.010 0.010 0.009 0.011 0.011 0.012        0.010   10.45
57)  2,2,4-trimethylpentane
      1.762 1.830 1.750 1.688 1.779 1.623 1.734 1.883 1.930 1.737  1.772    5.08
58)  benzene
      1.654 1.718 1.653 1.583 1.639 1.587 1.660 1.854 1.867 1.763  1.698    5.96
59)  tert-amyl methyl ether
      1.400 1.429 1.276 1.290 1.316 1.154 1.422 1.561 1.611 1.457  1.392    9.85
60)  heptane
      0.293 0.328 0.319 0.301 0.315 0.302 0.301 0.336 0.344 0.240  0.308    9.46
61)  1,2-dichloroethane
      0.534 0.520 0.480 0.463 0.482 0.456 0.491       0.582        0.501    8.38
62)  ethyl acrylate
      0.414 0.440 0.456 0.436 0.445 0.437 0.453 0.429 0.488        0.444    4.63
63)  trichloroethene
      0.392 0.411 0.415 0.390 0.399 0.400 0.400 0.454 0.436 0.367  0.406    6.02
64)  2-chloroethyl vinyl ether
      0.211 0.225 0.236 0.228 0.227 0.222 0.231       0.245        0.228    4.34
65)  methyl methacrylate
            0.084 0.097 0.095 0.091 0.096 0.087       0.082        0.090    6.71
66)  methylcyclohexane
      0.830 0.887 0.845 0.818 0.850 0.797 0.853 0.954 0.941 0.815  0.859    6.15
67)  1,2-dichloropropane
      0.409 0.445 0.425 0.408 0.414 0.403 0.433 0.467 0.465 0.357  0.423    7.68
68)  dibromomethane
      0.243 0.246 0.249 0.238 0.241 0.238 0.248 0.229 0.275        0.245    5.21
69)  bromodichloromethane
      0.494 0.507 0.539 0.505 0.508 0.526 0.511 0.534 0.548 0.473  0.515    4.40
70)  2-nitropropane     *This compound fails Initial Calibration criteria*
                  0.082 0.071 0.066 0.115 0.066                    0.080   25.57
            ----- Linear regression -----  Coefficient =  0.9663
              Response Ratio = -0.01159 + 0.10440 *A

71)  epichlorohydrin
      0.033 0.041 0.040 0.039 0.040 0.038 0.040       0.043        0.039    7.93
72)  cis-1,3-dichloropropene
      0.572 0.604 0.633 0.597 0.606 0.610 0.604 0.638 0.661 0.534  0.606    5.81
73)  4-methyl-2-pentanone
      0.158 0.165 0.158 0.156 0.161 0.146 0.168 0.169 0.181        0.163    5.91
74)  isoamyl alcohol
      0.011 0.014 0.012 0.013 0.014 0.011 0.014       0.014        0.013   10.10

75) I   chlorobenzene-d5      ----------------ISTD---------------------
76)  toluene-d8 (s)
      1.275 1.254 1.259 1.242 1.267 1.270 1.255 1.248 1.262 1.251  1.258    0.82
77)  toluene
      0.971 1.050 1.075 0.995 1.035 1.040 1.030 1.082 1.136 1.008  1.042    4.54
78)  ethyl methacrylate
      0.468 0.508 0.528 0.504 0.511 0.503 0.515 0.475 0.552        0.507    4.98
79)  trans-1,3-dichloropropene
      0.555 0.574 0.589 0.554 0.567 0.565 0.566 0.539 0.625 0.509  0.564    5.35
80)  1,1,2-trichloroethane
      0.314 0.315 0.327 0.306 0.316 0.317 0.313 0.297 0.357 0.282  0.314    6.19
81)  tetrachloroethene
      0.384 0.397 0.402 0.371 0.382 0.387 0.383 0.439 0.408 0.352  0.391    6.00
```

82) 2-hexanone
0.161 0.174 0.160 0.157 0.165 0.146 0.169 0.152 0.196 0.164 8.72
83) 1,3-dichloropropane
0.571 0.587 0.586 0.558 0.570 0.561 0.583 0.622 0.658 0.544 0.584 5.74
84) butyl acetate
0.268 0.295 0.275 0.271 0.287 0.262 0.303 0.277 0.338 0.286 8.20
85) dibromochloromethane
0.392 0.408 0.453 0.416 0.412 0.446 0.403 0.399 0.438 0.344 0.411 7.61
86) 1,2-dibromoethane
0.477 0.469 0.517 0.484 0.491 0.499 0.492 0.512 0.520 0.460 0.492 4.09
87) n-butyl ether
1.906 1.964 1.853 1.783 1.843 1.758 1.905 2.049 2.128 1.868 1.906 6.03
88) chlorobenzene
1.160 1.161 1.184 1.108 1.141 1.141 1.150 1.237 1.255 1.143 1.168 3.90
89) 1,1,1,2-tetrachloroethane
0.435 0.465 0.492 0.461 0.462 0.477 0.461 0.528 0.515 0.383 0.468 8.71
90) ethylbenzene
1.945 2.089 2.037 1.928 1.997 1.937 2.010 2.239 2.231 2.044 2.046 5.48
91) m,p-xylene
0.759 0.784 0.779 0.740 0.762 0.740 0.769 0.821 0.837 0.777 4.31
92) o-xylene
1.677 1.756 1.725 1.646 1.697 1.649 1.719 1.865 1.899 1.705 1.734 4.92
93) styrene
1.199 1.284 1.309 1.243 1.272 1.244 1.273 1.301 1.350 1.175 1.265 4.11
94) butyl acrylate
0.902 0.957 0.899 0.877 0.914 0.855 0.946 0.990 1.013 0.814 0.917 6.66
95) isopropylbenzene
2.086 2.206 2.239 2.100 2.161 2.162 2.180 2.356 2.428 2.047 2.197 5.41
96) bromoform
0.269 0.286 0.333 0.301 0.288 0.331 0.289 0.254 0.315 0.296 8.99
97) cis-1,4-dichloro-2-butene
0.137 0.151 0.165 0.154 0.155 0.163 0.157 0.132 0.164 0.153 7.72

98) I 1,4-dichlorobenzene-d ----------ISTD----------
99) 4-bromofluorobenzene (s)
0.819 0.822 0.827 0.822 0.822 0.817 0.823 0.832 0.817 0.830 0.823 0.64
100) 1,1,2,2-tetrachloroethane
0.895 0.972 0.995 0.932 0.927 0.939 0.944 0.967 1.037 0.955 0.956 4.12
101) trans-1,4-dichloro-2-butene
0.179 0.199 0.208 0.195 0.192 0.200 0.192 0.153 0.205 0.192 8.80
102) 1,2,3-trichloropropane
0.205 0.239 0.240 0.226 0.230 0.224 0.228 0.206 0.245 0.227 6.20
103) bromobenzene
0.900 0.963 1.013 0.935 0.932 0.974 0.933 0.983 1.016 0.792 0.944 6.89
104) n-propylbenzene
3.870 4.102 4.294 4.016 4.057 4.061 4.041 4.351 4.344 3.945 4.108 4.06
105) 2-chlorotoluene
0.823 0.877 0.920 0.856 0.859 0.879 0.854 0.891 0.926 0.728 0.861 6.53
106) 4-chlorotoluene
2.338 2.445 2.477 2.317 2.358 2.367 2.369 2.535 2.572 2.329 2.411 3.76
107) 1,3,5-trimethylbenzene
2.869 3.115 3.301 3.040 3.072 3.125 3.046 3.156 3.294 2.863 3.088 4.79
108) tert-butylbenzene
2.433 2.580 2.933 2.638 2.642 2.846 2.527 2.626 2.710 2.462 2.640 5.98
109) 1,2,4-trimethylbenzene
2.886 3.136 3.267 3.040 3.054 3.115 3.058 3.155 3.343 2.894 3.095 4.66
110) sec-butylbenzene
3.695 3.970 4.381 4.012 4.019 4.168 3.951 4.059 4.214 3.674 4.014 5.41
111) p-isopropyltoluene
3.153 3.441 3.706 3.413 3.385 3.525 3.377 3.504 3.587 3.076 3.417 5.52

Initial Calibration Summary

Job Number: JC86676 **Sample:** V4B3793-ICC3793
Account: TCMAW Tantara Corporation **Lab FileID:** 4B89759.D
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

```
112)  1,3-dichlorobenzene
       1.697 1.838 1.881 1.743 1.770 1.808 1.792 1.833 1.955 1.764  1.808    4.07
113)  1,4-dichlorobenzene
       1.747 1.832 1.905 1.774 1.781 1.847 1.773 1.929 1.945 1.626  1.816    5.33
114)  1,2-dichlorobenzene
       1.754 1.873 1.951 1.814 1.814 1.877 1.838 1.921 2.026 1.831  1.870    4.21
115)  benzyl chloride
       1.569 1.648 1.785 1.669 1.639 1.735 1.629 1.765 1.769 1.609  1.682    4.52
116)  n-butylbenzene
       1.531 1.689 1.798 1.643 1.656 1.732 1.628 1.641 1.693 1.489  1.650    5.45
117)  hexachloroethane
             0.505 0.744 0.626 0.583 0.764 0.529       0.536        0.612   17.08
118)  1,2-dibromo-3-chloropropane
       0.191 0.226 0.264 0.250 0.235 0.261 0.234       0.231        0.237    9.84
119)  1,3,5-trichlorobenzene
       1.550 1.672 1.909 1.745 1.708 1.893 1.685 1.623 1.770 1.722  1.728    6.40
120)  1,2,4-trichlorobenzene
       1.328 1.466 1.716 1.569 1.524 1.687 1.474 1.390 1.483 1.540  1.518    7.90
121)  2-ethylhexyl acrylate
                  0.893 0.689 0.530 0.965 0.456                    0.707   31.27
             ----- Linear regression -----  Coefficient =  0.9908
               Response Ratio = -0.02347 + 0.95312 *A

122)  hexachlorobutadiene
       0.742 0.823 0.938 0.838 0.840 0.900 0.818 0.812 0.931        0.849    7.45
123)  naphthalene
       2.706 3.042 3.496 3.262 3.137 3.362 3.054 2.811 3.110 3.137  3.112    7.55
124)  1,2,3-trichlorobenzene
       1.196 1.337 1.575 1.449 1.363 1.519 1.364 1.277 1.376 1.409  1.387    7.95
125)  2-methylnaphthalene
                  1.799 1.560 1.326 1.783 1.198                    1.533   17.54
126)  Bis(chloromethyl)ether
                                                                   0.000   -1.00
127)  Ethylenimine
                                                                   0.000   -1.00
 ------------------------------------------------------------------------------
 (#) = Out of Range  ###  Number of calibration levels exceeded format  ###

           M4B3793.M         Mon Apr 08 14:37:51 2019   GCMS4B
```

Initial Calibration Verification

Job Number: JC86676
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample: V4B3793-ICV3793
Lab FileID: 4B89764.D

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\V4B3793\4B89764.D Vial: 14
Acq On : 6 Apr 2019 11:57 pm Operator: CHELSEAS
Sample : ICV3793-50 Inst : MS4B
Misc : MS33655,V4B3793,5,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\M4B3793.M (RTE Integrator)
Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
Last Update : Tue Apr 09 08:39:45 2019
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	tert butyl alcohol-d9	1.000	1.000	0.0	103	0.01	6.76
2		ethanol		----------NA----------				
3		tertiary butyl alcohol	1.414	1.389	1.8	102	0.01	6.86
4		1,4-dioxane	0.106	0.114	-7.5	106	0.00	10.24
5	I	pentafluorobenzene	1.000	1.000	0.0	101	0.00	8.76
6		chlorodifluoromethane	1.027	1.031	-0.4	106	0.00	3.91
7		dichlorodifluoromethane	1.003	1.109	-10.6	106	0.00	3.88
8		chloromethane	1.152	1.134	1.6	103	0.00	4.24
9		vinyl chloride	0.998	1.020	-2.2	100	0.00	4.45
10		1,3-butadiene	0.757	0.848	-12.0	117	0.00	4.47
11		bromomethane	0.671	0.692	-3.1	103	0.00	4.99
12		chloroethane	0.510	0.508	0.4	103	0.01	5.13
13		trichlorofluoromethane	0.966	1.012	-4.8	103	0.00	5.53
14		vinyl bromide	0.523	0.552	-5.5	105	0.00	5.43
15		ethyl ether	0.302	0.298	1.3	102	0.00	5.82
16		2-chloropropane	1.127	1.098	2.6	108	0.00	6.02
17		acrolein	0.115	0.120	-4.3	107	0.00	6.03
18		freon 113	0.547	0.615	-12.4	116	0.00	6.21
19		1,1-dichloroethene	1.030	0.942	8.5	97	0.01	6.22
20		acetone	0.051	0.052	-2.0	100	-0.01	6.18
21		acetonitrile	0.083	0.062	25.3	77	0.00	6.55
22		iodomethane	1.084	1.224	-12.9	117	0.01	6.45
23		carbon disulfide	2.197	2.629	-19.7	131	0.00	6.59
24		methylene chloride	0.718	0.677	5.7	101	0.00	6.81
25		methyl acetate	0.440	0.419	4.8	96	0.00	6.58
26		methyl tert butyl ether	1.652	1.525	6.1	99	0.00	7.11
27		trans-1,2-dichloroethene	0.885	0.842	4.9	101	0.00	7.15
28		hexane	0.472	0.449	4.9	103	0.00	7.45
29		di-isopropyl ether	2.200	1.972	10.4	97	0.00	7.63
30		2-butanone	0.060	0.059	1.7	100	0.00	8.21
31		1,1-dichloroethane	1.089	1.054	3.2	103	0.00	7.65
32		chloroprene	0.839	0.839	0.0	105	0.00	7.74
33		acrylonitrile	0.228	0.245	-7.5	111	0.00	7.05
34		vinyl acetate	0.088	0.085	3.4	95	0.00	7.58
35		ethyl tert-butyl ether	1.934	1.750	9.5	97	0.00	8.05
36		ethyl acetate	0.081	0.076	6.2	99	0.00	8.22
37		2,2-dichloropropane	0.853	0.744	12.8	97	0.00	8.33
38		cis-1,2-dichloroethene	0.660	0.623	5.6	100	0.00	8.29
39		propionitrile	0.087	0.087	0.0	104	0.00	8.29
40		methyl acrylate	0.075	0.077	-2.7	101	0.00	8.30
41		methacrylonitrile	0.210	0.210	0.0	100	0.00	8.46

Initial Calibration Verification

Job Number: JC86676
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample: V4B3793-ICV3793
Lab FileID: 4B89764.D

42		bromochloromethane	0.316	0.312	1.3	102	0.00	8.56
43		tetrahydrofuran	0.075	0.074	1.3	102	0.00	8.58
44		chloroform	1.038	0.976	6.0	102	0.00	8.63
45		tert-butyl formate	0.452	0.402	11.1	90	0.00	8.66
46	S	dibromofluoromethane (s)	0.452	0.451	0.2	101	0.00	8.80
47		1,1,1-trichloroethane	0.919	0.877	4.6	100	0.00	8.88
48		cyclohexane	0.931	1.092	-17.3	120	0.00	8.99
49		isobutyl alcohol		----------NA----------				
50		1,1-dichloropropene	0.736	0.714	3.0	103	0.00	9.03
51		carbon tetrachloride	0.768	0.769	-0.1	104	0.00	9.07
52		tert-amyl alcohol	0.038	0.039	-2.6	108	0.00	9.13
53		isopropyl acetate	0.104	0.099	4.8	97	0.00	9.14
54	I	1,4-difluorobenzene	1.000	1.000	0.0	101	0.00	9.63
55	S	1,2-dichloroethane-d4 (s)	0.330	0.320	3.0	101	0.00	9.20
56		n-butyl alcohol	0.010	0.010	0.0	104	0.00	9.66
57		2,2,4-trimethylpentane	1.772	1.681	5.1	101	0.00	9.34
58		benzene	1.698	1.600	5.8	102	0.00	9.26
59		tert-amyl methyl ether	1.392	1.227	11.9	96	0.00	9.32
60		heptane	0.308	0.346	-12.3	116	0.00	9.48
61		1,2-dichloroethane	0.501	0.458	8.6	100	0.00	9.27
62		ethyl acrylate	0.444	0.439	1.1	102	0.00	9.89
63		trichloroethene	0.406	0.404	0.5	105	0.00	9.93
64		2-chloroethyl vinyl ether	0.228	0.236	-3.5	105	0.00	10.68
65		methyl methacrylate	0.090	0.094	-4.4	101	0.00	10.15
66		methylcyclohexane	0.859	0.828	3.6	102	0.00	10.22
67		1,2-dichloropropane	0.423	0.408	3.5	101	0.00	10.21
68		dibromomethane	0.245	0.235	4.1	100	0.00	10.31
69		bromodichloromethane	0.515	0.502	2.5	101	0.00	10.46
		----------	True	Calc.	% Drift	----------		
70		2-nitropropane	50.000	43.949	12.1	114	0.00	10.65
		----------	AvgRF	CCRF	% Dev	----------		
71		epichlorohydrin	0.039	0.039	0.0	102	0.00	10.77
72		cis-1,3-dichloropropene	0.606	0.594	2.0	101	0.00	10.91
73		4-methyl-2-pentanone	0.163	0.155	4.9	101	0.00	11.00
74		isoamyl alcohol	0.013	0.013	0.0	104	0.00	10.99
75	I	chlorobenzene-d5	1.000	1.000	0.0	101	0.00	12.81
76	S	toluene-d8 (s)	1.258	1.251	0.6	101	0.00	11.22
77		toluene	1.042	1.012	2.9	102	0.00	11.29
78		ethyl methacrylate	0.507	0.509	-0.4	102	0.00	11.46
79		trans-1,3-dichloropropene	0.564	0.566	-0.4	103	0.00	11.48
80		1,1,2-trichloroethane	0.314	0.306	2.5	101	0.00	11.71
81		tetrachloroethene	0.391	0.387	1.0	105	0.00	11.87
82		2-hexanone	0.164	0.154	6.1	98	0.00	11.87
83		1,3-dichloropropane	0.584	0.563	3.6	101	0.00	11.90
84		butyl acetate	0.286	0.268	6.3	99	0.00	11.95
85		dibromochloromethane	0.411	0.432	-5.1	104	0.00	12.17
86		1,2-dibromoethane	0.492	0.489	0.6	102	0.00	12.33
87		n-butyl ether	1.906	1.873	1.7	106	0.00	12.79
88		chlorobenzene	1.168	1.137	2.7	103	0.00	12.85
89		1,1,1,2-tetrachloroethane	0.468	0.468	0.0	102	0.00	12.92
90		ethylbenzene	2.046	1.948	4.8	102	0.00	12.91
91		m,p-xylene	0.777	0.748	3.7	102	0.00	13.04
92		o-xylene	1.734	1.635	5.7	100	0.00	13.47
93		styrene	1.265	1.257	0.6	102	0.00	13.49
94		butyl acrylate	0.917	0.853	7.0	98	0.00	13.28
95		isopropylbenzene	2.197	2.116	3.7	101	0.00	13.86

Initial Calibration Verification

Job Number: JC86676 **Sample:** V4B3793-ICV3793
Account: TCMAW Tantara Corporation **Lab FileID:** 4B89764.D
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

96		bromoform	0.296	0.323	-9.1	108	0.00	13.74
97		cis-1,4-dichloro-2-butene	0.153	0.153	0.0	100	0.00	13.89
98	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	100	0.00	15.38
99	S	4-bromofluorobenzene (s)	0.823	0.824	-0.1	100	0.00	14.08
100		1,1,2,2-tetrachloroethane	0.956	0.923	3.5	99	0.00	14.17
101		trans-1,4-dichloro-2-bute	0.192	0.214	-11.5	109	0.00	14.20
102		1,2,3-trichloropropane	0.227	0.220	3.1	97	0.00	14.26
103		bromobenzene	0.944	0.951	-0.7	102	0.00	14.29
104		n-propylbenzene	4.108	4.091	0.4	102	0.00	14.32
105		2-chlorotoluene	0.861	0.851	1.2	99	0.00	14.46
106		4-chlorotoluene	2.411	2.383	1.2	103	0.00	14.59
107		1,3,5-trimethylbenzene	3.088	3.079	0.3	101	0.00	14.49
108		tert-butylbenzene	2.640	2.708	-2.6	103	0.00	14.87
109		1,2,4-trimethylbenzene	3.095	3.133	-1.2	103	0.00	14.92
110		sec-butylbenzene	4.014	4.066	-1.3	101	0.00	15.11
111		p-isopropyltoluene	3.417	3.463	-1.3	101	0.00	15.26
112		1,3-dichlorobenzene	1.808	1.793	0.8	103	0.00	15.30
113		1,4-dichlorobenzene	1.816	1.816	0.0	102	0.00	15.41
114		1,2-dichlorobenzene	1.870	1.845	1.3	102	0.00	15.82
115		benzyl chloride	1.682	2.008	-19.4	120	0.00	15.51
116		n-butylbenzene	1.650	1.656	-0.4	101	0.00	15.71
117		hexachloroethane	0.612	0.674	-10.1	108	0.00	16.15
118		1,2-dibromo-3-chloropropa	0.237	0.238	-0.4	95	0.00	16.66
119		1,3,5-trichlorobenzene	1.728	1.761	-1.9	101	0.00	16.87
120		1,2,4-trichlorobenzene	1.518	1.553	-2.3	99	0.00	17.55
			True	Calc.	% Drift			
121		2-ethylhexyl acrylate	10.000	9.619	3.8	116	0.00	17.55
			AvgRF	CCRF	% Dev			
122		hexachlorobutadiene	0.849	0.813	4.2	97	0.00	17.67
123		naphthalene	3.112	3.256	-4.6	100	0.00	17.86
124		1,2,3-trichlorobenzene	1.387	1.449	-4.5	100	0.00	18.09
125		2-methylnaphthalene	1.533	1.603	-4.6	103	0.00	19.14
126		Bis(chloromethyl)ether		----------NA----------				
127		Ethylenimine		----------NA----------				

(#) = Out of Range SPCC's out = 0 CCC's out = 0
4B89759.D M4B3793.M Tue Apr 09 08:40:52 2019 GCMS4B

Continuing Calibration Summary

Job Number: JC86676
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY
Sample: V4B3809-CC3793
Lab FileID: 4B90055.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\kenrickb\v4b3809\4b90055.d Vial: 3
Acq On : 22 Apr 2019 7:02 am Operator: mariceld
Sample : CC3793-20 Inst : MS4B
Misc : MS34115,V4B3809,5,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\M4B3793.M (RTE Integrator)
Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
Last Update : Tue Apr 09 08:39:45 2019
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	tert butyl alcohol-d9	1.000	1.000	0.0	96	0.00	6.75
2		ethanol		----------NA----------				
3		tertiary butyl alcohol	1.414	1.368	3.3	95	-0.01	6.84
4		1,4-dioxane	0.106	0.103	2.8	96	0.00	10.25
5	I	pentafluorobenzene	1.000	1.000	0.0	108	0.00	8.76
6		chlorodifluoromethane	1.027	0.966	5.9	106	0.00	3.91
7		dichlorodifluoromethane	1.003	1.072	-6.9	109	0.00	3.88
8		chloromethane	1.152	1.172	-1.7	113	0.01	4.25
9		vinyl chloride	0.998	1.085	-8.7	113	0.00	4.45
10		1,3-butadiene	0.757	0.704	7.0	103	0.02	4.48
11		bromomethane	0.671	0.769	-14.6	121	0.00	4.99
12		chloroethane	0.510	0.531	-4.1	111	0.01	5.13
13		trichlorofluoromethane	0.966	1.006	-4.1	106	0.00	5.53
14		vinyl bromide	0.523	0.508	2.9	102	0.00	5.43
15		ethyl ether	0.302	0.318	-5.3	115	0.00	5.82
16		2-chloropropane	1.127	1.155	-2.5	120	0.00	6.02
17		acrolein	0.115	0.102	11.3	94	0.00	6.02
18		freon 113	0.547	0.538	1.6	107	0.02	6.22
19		1,1-dichloroethene	1.030	1.042	-1.2	112	0.01	6.22
20		acetone	0.051	0.054	-5.9	116	0.00	6.20
21		acetonitrile	0.083	0.084	-1.2	113	0.01	6.56
22		iodomethane	1.084	1.092	-0.7	111	0.01	6.45
23		carbon disulfide	2.197	2.133	2.9	112	0.00	6.59
24		methylene chloride	0.718	0.728	-1.4	115	0.00	6.82
25		methyl acetate	0.440	0.471	-7.0	122	0.00	6.58
26		methyl tert butyl ether	1.652	1.632	1.2	113	0.00	7.11
27		trans-1,2-dichloroethene	0.885	0.927	-4.7	116	0.00	7.15
28		hexane	0.472	0.460	2.5	108	0.00	7.45
29		di-isopropyl ether	2.200	2.266	-3.0	118	0.00	7.63
30		2-butanone	0.060	0.060	0.0	109	0.00	8.21
31		1,1-dichloroethane	1.089	1.133	-4.0	115	0.00	7.65
32		chloroprene	0.839	0.856	-2.0	112	0.00	7.75
33		acrylonitrile	0.228	0.237	-3.9	115	0.00	7.05
34		vinyl acetate	0.088	0.095	-8.0	116	0.00	7.58
35		ethyl tert-butyl ether	1.934	1.948	-0.7	115	0.00	8.04
36		ethyl acetate	0.081	0.093	-14.8	125	0.00	8.22
37		2,2-dichloropropane	0.853	0.847	0.7	117	0.00	8.33
38		cis-1,2-dichloroethene	0.660	0.672	-1.8	115	0.00	8.29
39		propionitrile	0.087	0.089	-2.3	111	0.00	8.29
40		methyl acrylate	0.075	0.074	1.3	102	0.00	8.31
41		methacrylonitrile	0.210	0.220	-4.8	112	0.00	8.46

Continuing Calibration Summary

Job Number: JC86676 **Sample:** V4B3809-CC3793
Account: TCMAW Tantara Corporation **Lab FileID:** 4B90055.D
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

42		bromochloromethane	0.316	0.327	-3.5	113	0.00	8.56
43		tetrahydrofuran	0.075	0.074	1.3	110	0.00	8.58
44		chloroform	1.038	1.045	-0.7	115	0.00	8.63
45		tert-butyl formate	0.452	0.463	-2.4	115	0.00	8.66
46	S	dibromofluoromethane (s)	0.452	0.464	-2.7	112	0.00	8.80
47		1,1,1-trichloroethane	0.919	0.912	0.8	111	0.00	8.88
48		cyclohexane	0.931	0.939	-0.9	95	0.00	8.99
49		isobutyl alcohol		----------NA----------				
50		1,1-dichloropropene	0.736	0.741	-0.7	111	0.00	9.03
51		carbon tetrachloride	0.768	0.787	-2.5	114	0.00	9.07
52		tert-amyl alcohol	0.038	0.030	21.1#	89	0.00	9.13
53		isopropyl acetate	0.104	0.108	-3.8	111	0.00	9.14
54	I	1,4-difluorobenzene	1.000	1.000	0.0	110	0.00	9.63
55	S	1,2-dichloroethane-d4 (s)	0.330	0.338	-2.4	112	0.00	9.20
56		n-butyl alcohol	0.010	0.009	10.0	91	0.00	9.65
57		2,2,4-trimethylpentane	1.772	1.752	1.1	108	0.00	9.34
58		benzene	1.698	1.682	0.9	113	0.00	9.26
59		tert-amyl methyl ether	1.392	1.353	2.8	113	0.00	9.32
60		heptane	0.308	0.303	1.6	106	0.00	9.48
61		1,2-dichloroethane	0.501	0.518	-3.4	118	0.00	9.28
62		ethyl acrylate	0.444	0.450	-1.4	111	0.00	9.90
63		trichloroethene	0.406	0.417	-2.7	115	0.00	9.93
64		2-chloroethyl vinyl ether	0.228	0.235	-3.1	114	0.00	10.68
65		methyl methacrylate	0.090	0.090	0.0	109	0.00	10.15
66		methylcyclohexane	0.859	0.790	8.0	102	0.00	10.23
67		1,2-dichloropropane	0.423	0.434	-2.6	115	0.00	10.21
68		dibromomethane	0.245	0.255	-4.1	117	0.00	10.32
69		bromodichloromethane	0.515	0.545	-5.8	118	0.00	10.46
		----------	True	Calc.	% Drift	----------		
70		2-nitropropane	20.000	29.849	-49.2#	211	0.00	10.65
		----------	AvgRF	CCRF	% Dev	----------		
71		epichlorohydrin	0.039	0.040	-2.6	109	0.00	10.77
72		cis-1,3-dichloropropene	0.606	0.633	-4.5	115	0.00	10.91
73		4-methyl-2-pentanone	0.163	0.163	0.0	112	0.00	11.00
74		isoamyl alcohol	0.013	0.011	15.4	90	0.00	10.99
75	I	chlorobenzene-d5	1.000	1.000	0.0	113	0.00	12.81
76	S	toluene-d8 (s)	1.258	1.234	1.9	111	0.00	11.22
77		toluene	1.042	1.027	1.4	113	0.00	11.29
78		ethyl methacrylate	0.507	0.506	0.2	112	0.00	11.46
79		trans-1,3-dichloropropene	0.564	0.595	-5.5	119	0.00	11.48
80		1,1,2-trichloroethane	0.314	0.320	-1.9	115	0.00	11.71
81		tetrachloroethene	0.391	0.374	4.3	111	0.00	11.87
82		2-hexanone	0.164	0.162	1.2	112	0.00	11.87
83		1,3-dichloropropane	0.584	0.582	0.3	116	0.00	11.90
84		butyl acetate	0.286	0.292	-2.1	115	0.00	11.96
85		dibromochloromethane	0.411	0.441	-7.3	121	0.00	12.17
86		1,2-dibromoethane	0.492	0.502	-2.0	116	0.00	12.33
87		n-butyl ether	1.906	1.876	1.6	115	0.00	12.79
88		chlorobenzene	1.168	1.158	0.9	115	0.00	12.84
89		1,1,1,2-tetrachloroethane	0.468	0.479	-2.4	118	0.00	12.91
90		ethylbenzene	2.046	1.999	2.3	114	0.00	12.91
91		m,p-xylene	0.777	0.763	1.8	114	0.00	13.04
92		o-xylene	1.734	1.688	2.7	113	0.00	13.47
93		styrene	1.265	1.275	-0.8	114	0.00	13.49
94		butyl acrylate	0.917	0.904	1.4	112	0.00	13.28
95		isopropylbenzene	2.197	2.124	3.3	112	0.00	13.86

Continuing Calibration Summary

Job Number: JC86676 **Sample:** V4B3809-CC3793
Account: TCMAW Tantara Corporation **Lab FileID:** 4B90055.D
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

96		bromoform	0.296	0.323	-9.1	127	0.00	13.74
97		cis-1,4-dichloro-2-butene	0.153	0.171	-11.8	125	0.00	13.89
98	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	116	0.00	15.38
99	S	4-bromofluorobenzene (s)	0.823	0.794	3.5	112	0.00	14.08
100		1,1,2,2-tetrachloroethane	0.956	0.940	1.7	117	0.00	14.17
101		trans-1,4-dichloro-2-bute	0.192	0.209	-8.9	125	0.00	14.20
102		1,2,3-trichloropropane	0.227	0.225	0.9	113	0.00	14.26
103		bromobenzene	0.944	0.926	1.9	115	0.00	14.29
104		n-propylbenzene	4.108	4.003	2.6	114	0.00	14.32
105		2-chlorotoluene	0.861	0.860	0.1	116	0.00	14.46
106		4-chlorotoluene	2.411	2.353	2.4	115	0.00	14.59
107		1,3,5-trimethylbenzene	3.088	2.989	3.2	112	0.00	14.49
108		tert-butylbenzene	2.640	2.490	5.7	109	0.00	14.87
109		1,2,4-trimethylbenzene	3.095	3.031	2.1	115	0.00	14.92
110		sec-butylbenzene	4.014	3.845	4.2	111	0.00	15.11
111		p-isopropyltoluene	3.417	3.316	3.0	113	0.00	15.26
112		1,3-dichlorobenzene	1.808	1.776	1.8	116	0.00	15.30
113		1,4-dichlorobenzene	1.816	1.791	1.4	116	0.00	15.41
114		1,2-dichlorobenzene	1.870	1.804	3.5	115	0.00	15.82
115		benzyl chloride	1.682	1.780	-5.8	125	0.00	15.50
116		n-butylbenzene	1.650	1.627	1.4	114	0.00	15.71
117		hexachloroethane	0.612	0.607	0.8	120	0.00	16.15
118		1,2-dibromo-3-chloropropa	0.237	0.223	5.9	110	0.00	16.67
119		1,3,5-trichlorobenzene	1.728	1.656	4.2	112	0.00	16.87
120		1,2,4-trichlorobenzene	1.518	1.447	4.7	110	0.00	17.55
		----------	True	Calc.	% Drift	----------		
121		2-ethylhexyl acrylate	4.000	2.805	29.9#	82	0.00	17.55
		----------	AvgRF	CCRF	% Dev	----------		
122		hexachlorobutadiene	0.849	0.789	7.1	109	0.00	17.67
123		naphthalene	3.112	2.856	8.2	105	0.00	17.86
124		1,2,3-trichlorobenzene	1.387	1.315	5.2	112	0.00	18.09
125		2-methylnaphthalene	1.533	1.066	30.5#	93	0.00	19.14
126		Bis(chloromethyl)ether		----------NA----------				
127		Ethylenimine		----------NA----------				

(#) = Out of Range SPCC's out = 0 CCC's out = 0
4B89758.D M4B3793.M Tue Apr 23 10:45:21 2019

MS Volatiles

Raw Data

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\v4b3809\
Data File : 4b90070.d
Acq On : 22 Apr 2019 2:29 pm
Operator : CHELSEAS
Sample : jc86676-1 Inst : MS4B
Misc : MS34149,V4B3809,5,,,,1
ALS Vial : 18 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4B3793.M
Quant Results File: M4B3793.RES
Quant Time: Apr 23 09:47:31 2019
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Mon Apr 15 07:19:51 2019
Response via : Initial Calibration

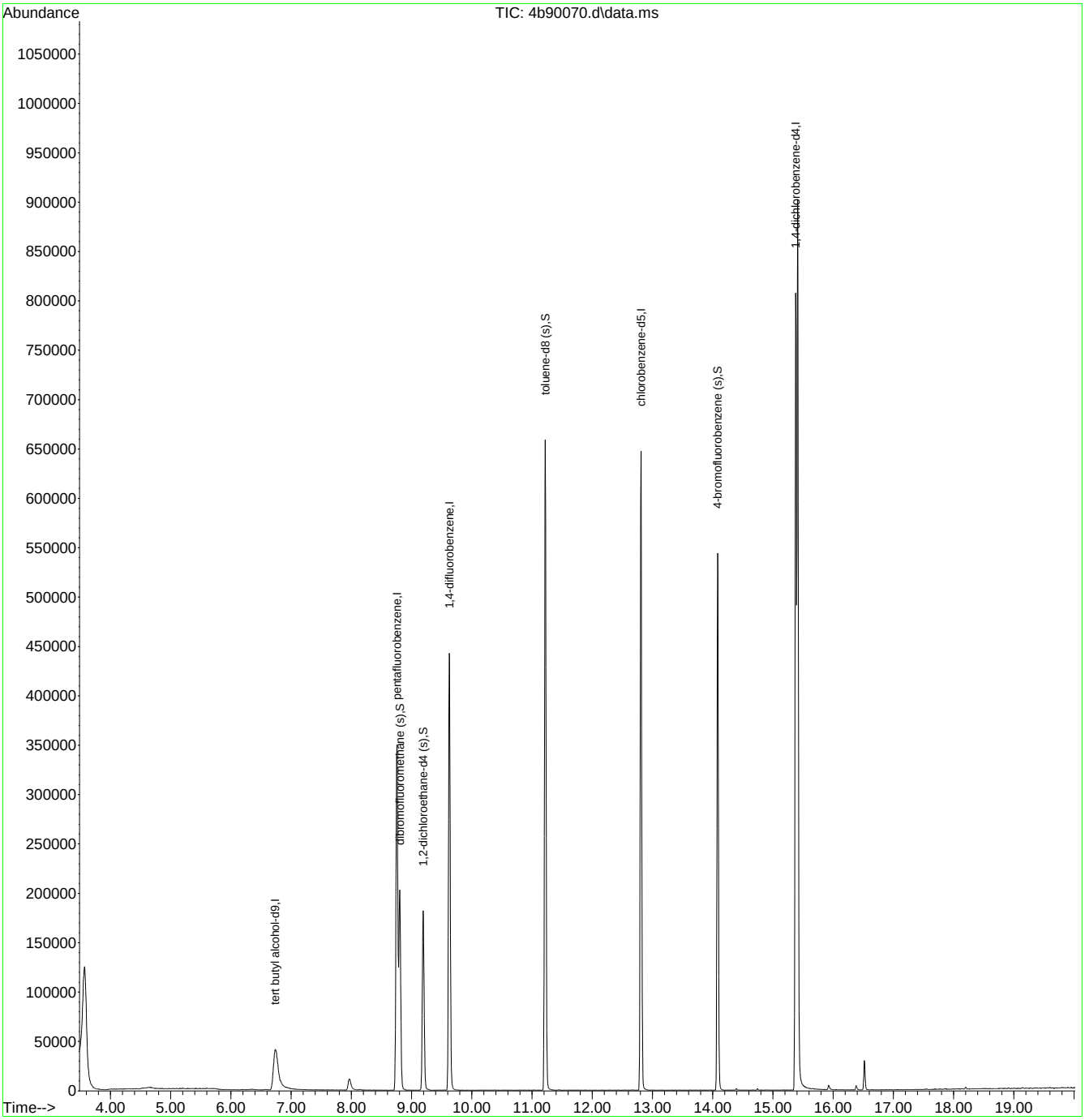
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	6.733	65	154627	500.00	ug/L	-0.02
5) pentafluorobenzene	8.757	168	291163	50.00	ug/L	0.00
54) 1,4-difluorobenzene	9.625	114	393410	50.00	ug/L	0.00
75) chlorobenzene-d5	12.811	117	362306	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	15.379	152	220293	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	8.804	113	134231	50.98	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.96%			
55) 1,2-dichloroethane-d4 (s)	9.191	65	133817	51.58	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 103.16%			
76) toluene-d8 (s)	11.221	98	446848	49.01	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.02%			
99) 4-bromofluorobenzene (s)	14.081	95	178852	49.32	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.64%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\v4b3809\
Data File : 4b90070.d
Acq On : 22 Apr 2019 2:29 pm
Operator : CHELSEAS
Sample : jc86676-1 Inst : MS4B
Misc : MS34149,V4B3809,5,,,,1
ALS Vial : 18 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4B3793.M
Quant Results File: M4B3793.RES
Quant Time: Apr 23 09:47:31 2019
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Mon Apr 15 07:19:51 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\v4b3809\
Data File : 4b90071.d
Acq On : 22 Apr 2019 2:57 pm
Operator : CHELSEAS
Sample : jc86676-2 Inst : MS4B
Misc : MS34149,V4B3809,5,,,,1
ALS Vial : 19 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4B3793.M
Quant Results File: M4B3793.RES
Quant Time: Apr 23 09:48:01 2019
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Mon Apr 15 07:19:51 2019
Response via : Initial Calibration

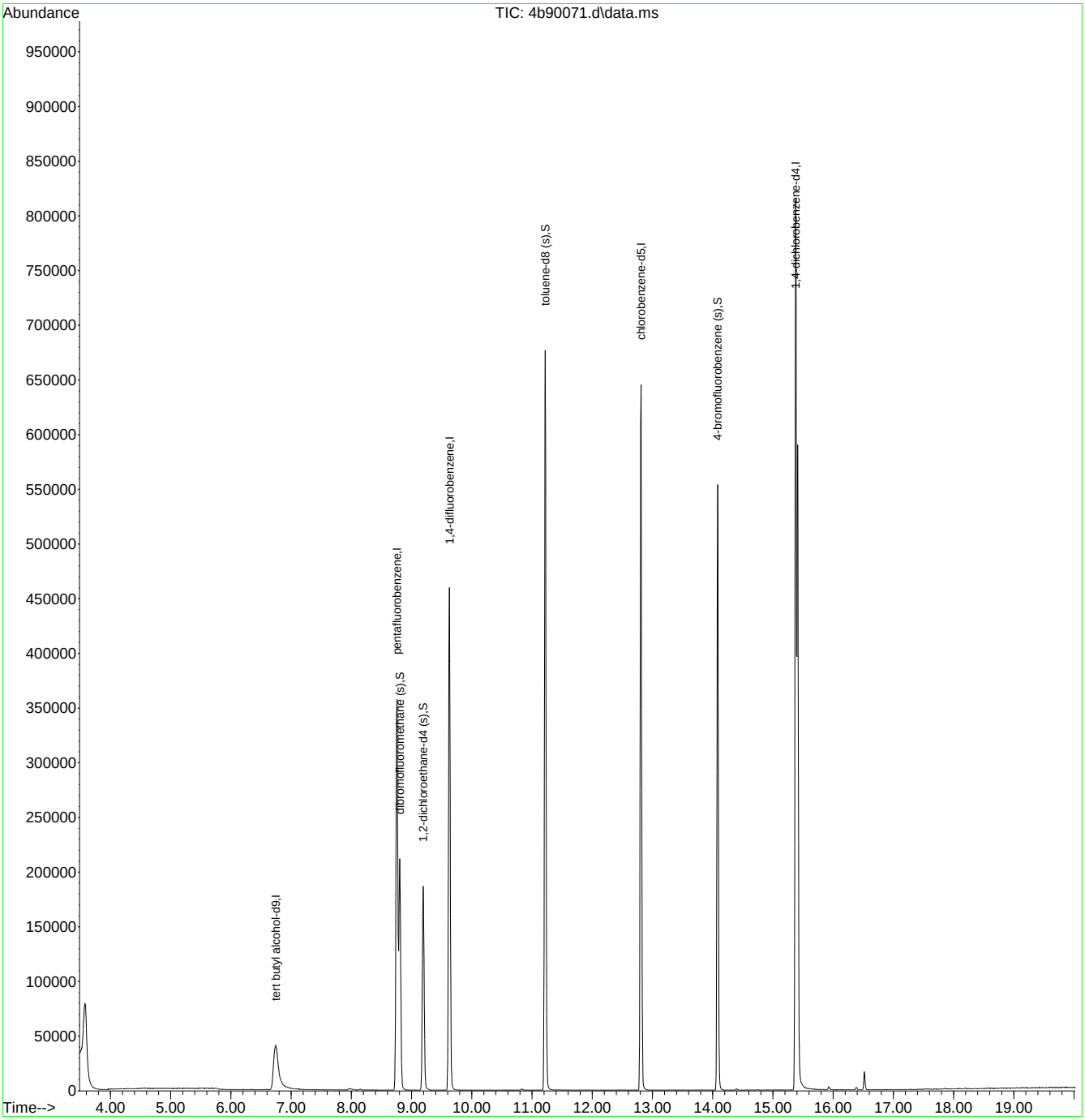
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	6.744	65	155358	500.00	ug/L	0.00
5) pentafluorobenzene	8.757	168	298787	50.00	ug/L	0.00
54) 1,4-difluorobenzene	9.631	114	403463	50.00	ug/L	0.00
75) chlorobenzene-d5	12.811	117	364426	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	15.379	152	220710	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	8.804	113	138548	51.28	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.56%			
55) 1,2-dichloroethane-d4 (s)	9.191	65	139554	52.46	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 104.92%			
76) toluene-d8 (s)	11.221	98	454702	49.58	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.16%			
99) 4-bromofluorobenzene (s)	14.082	95	178850	49.22	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.44%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\v4b3809\
Data File : 4b90071.d
Acq On : 22 Apr 2019 2:57 pm
Operator : CHELSEAS
Sample : jc86676-2 Inst : MS4B
Misc : MS34149,V4B3809,5,,,,1
ALS Vial : 19 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4B3793.M
Quant Results File: M4B3793.RES
Quant Time: Apr 23 09:48:01 2019
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Mon Apr 15 07:19:51 2019
Response via : Initial Calibration



Quantitation Report (QT/LSC Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\v4b3809\
Data File : 4b90058.d
Acq On : 22 Apr 2019 8:30 am
Operator : mariceld
Sample : mb Inst : MS4B
Misc : MS34141,V4B3809,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4B3793.M
Quant Results File: M4B3793.RES
Quant Time: Apr 23 10:35:22 2019
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Mon Apr 15 07:19:51 2019
Response via : Initial Calibration

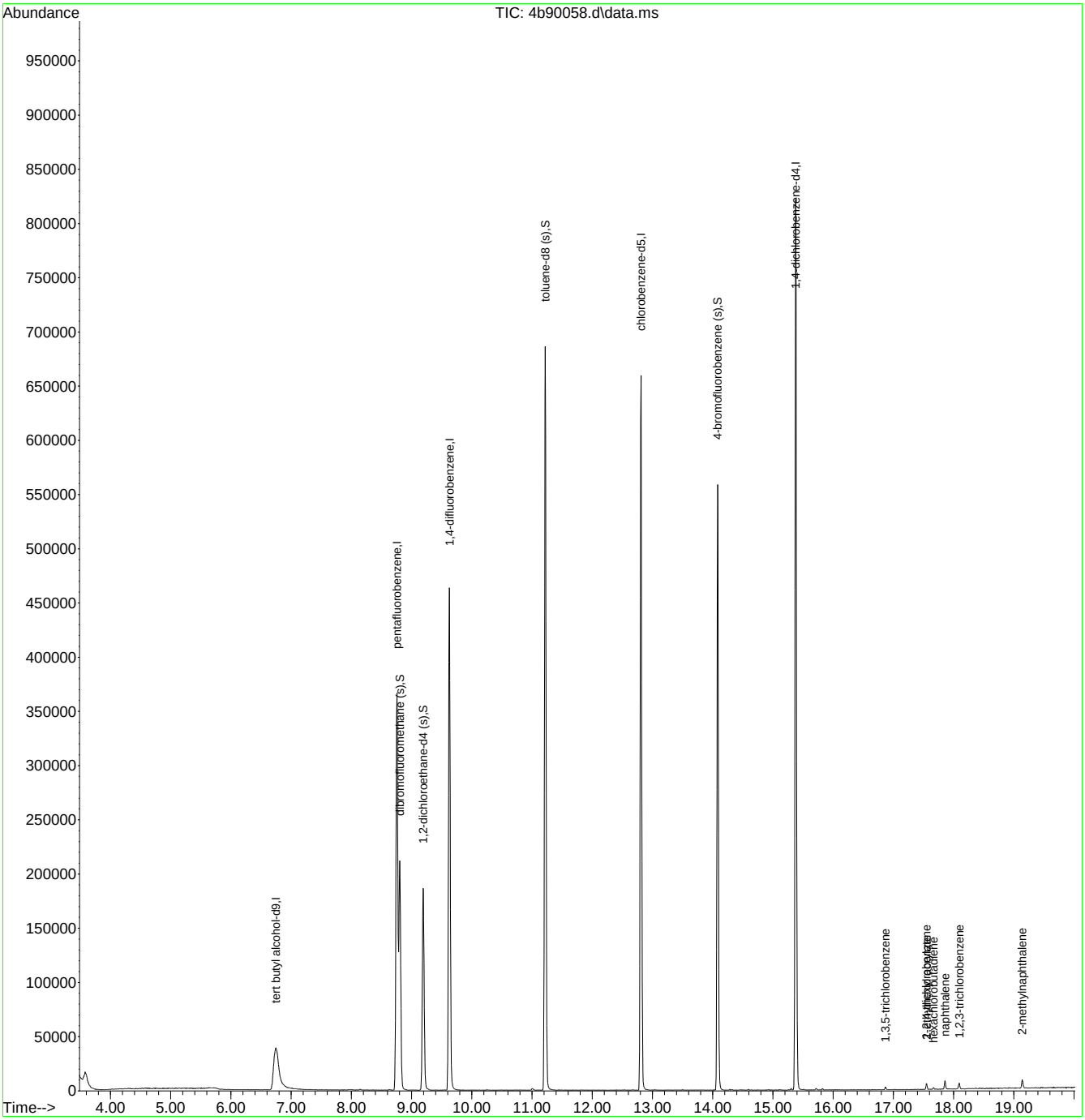
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	6.744	65	159109	500.00	ug/L	0.00
5) pentafluorobenzene	8.757	168	305329	50.00	ug/L	0.00
54) 1,4-difluorobenzene	9.631	114	407371	50.00	ug/L	0.00
75) chlorobenzene-d5	12.811	117	374841	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	15.379	152	227593	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	8.804	113	139670	50.59	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.18%			
55) 1,2-dichloroethane-d4 (s)	9.191	65	138876	51.70	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 103.40%			
76) toluene-d8 (s)	11.221	98	464118	49.20	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.40%			
99) 4-bromofluorobenzene (s)	14.082	95	183524	48.98	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.96%			
Target Compounds						Qvalue
119) 1,3,5-trichlorobenzene	16.869	180	1047	0.13	ug/L	92
120) 1,2,4-trichlorobenzene	17.549	180	1751	0.25	ug/L	94
121) 2-ethylhexyl acrylate	17.554	70	298	1.30	ug/L #	66
122) hexachlorobutadiene	17.664	225	571	0.15	ug/L	90
123) naphthalene	17.858	128	6474	0.46	ug/L	97
124) 1,2,3-trichlorobenzene	18.093	180	2390	0.38	ug/L	93
125) 2-methylnaphthalene	19.139	142	4832	0.69	ug/L	90

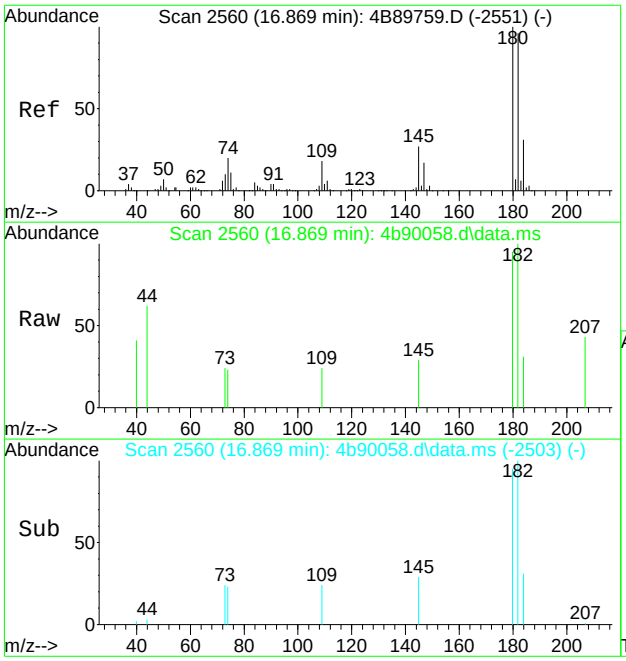
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT/LSC Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\v4b3809\
Data File : 4b90058.d
Acq On : 22 Apr 2019 8:30 am
Operator : mariceld
Sample : mb Inst : MS4B
Misc : MS34141,V4B3809,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4B3793.M
Quant Results File: M4B3793.RES
Quant Time: Apr 23 10:35:22 2019
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Mon Apr 15 07:19:51 2019
Response via : Initial Calibration

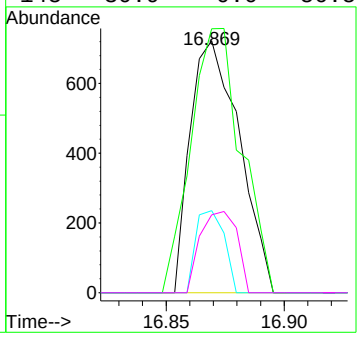


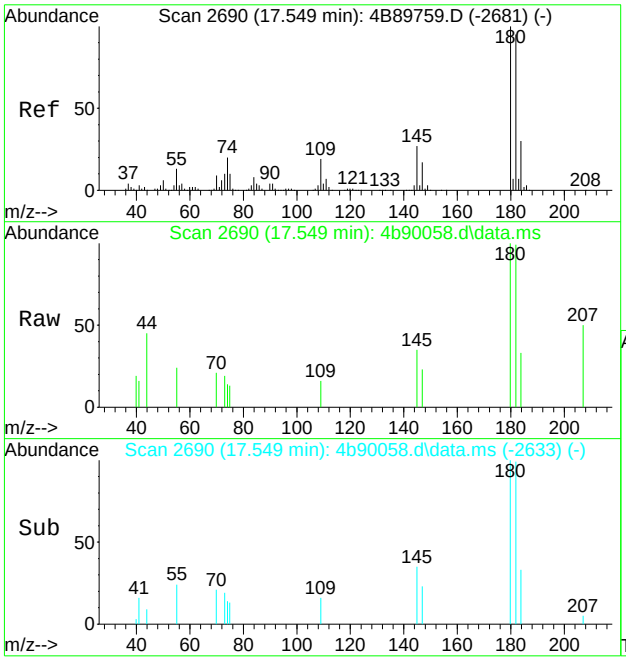


#119
1,3,5-trichlorobenzene
Concen: 0.13 ug/L
RT: 16.869 min Scan# 2560
Delta R.T. -0.000 min
Lab File: 4b90058.d
Acq: 22 Apr 2019 8:30 am

Tgt Ion:180 Resp: 1047

Ion	Ratio	Lower	Upper
180	100		
182	104.8	65.8	125.8
184	32.5	0.9	60.9
145	30.9	0.0	56.5

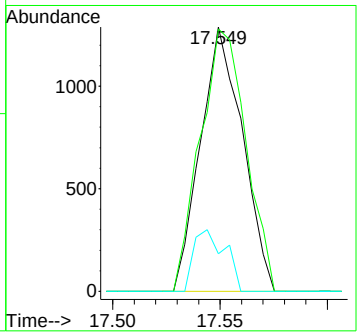


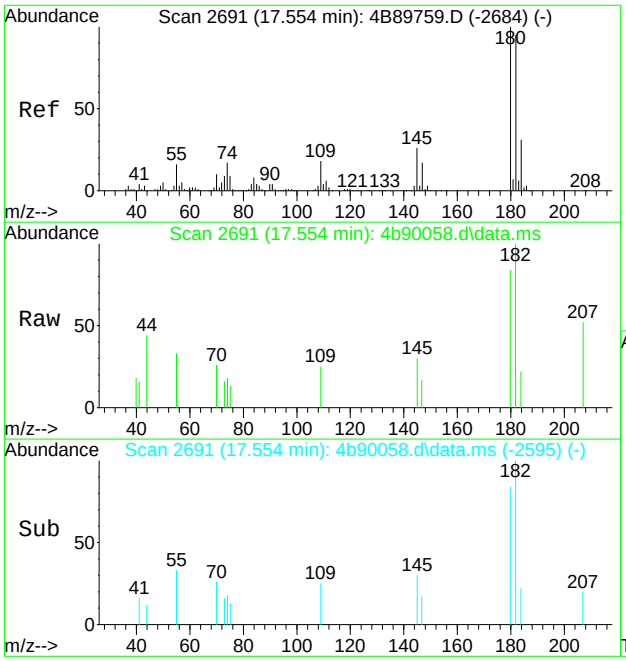


#120
1,2,4-trichlorobenzene
Concen: 0.25 ug/L
RT: 17.549 min Scan# 2690
Delta R.T. -0.000 min
Lab File: 4b90058.d
Acq: 22 Apr 2019 8:30 am

Tgt Ion:180 Resp: 1751

Ion	Ratio	Lower	Upper
180	100		
182	99.2	65.0	125.0
74	14.2	0.0	49.6

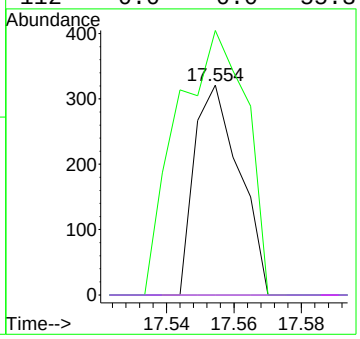


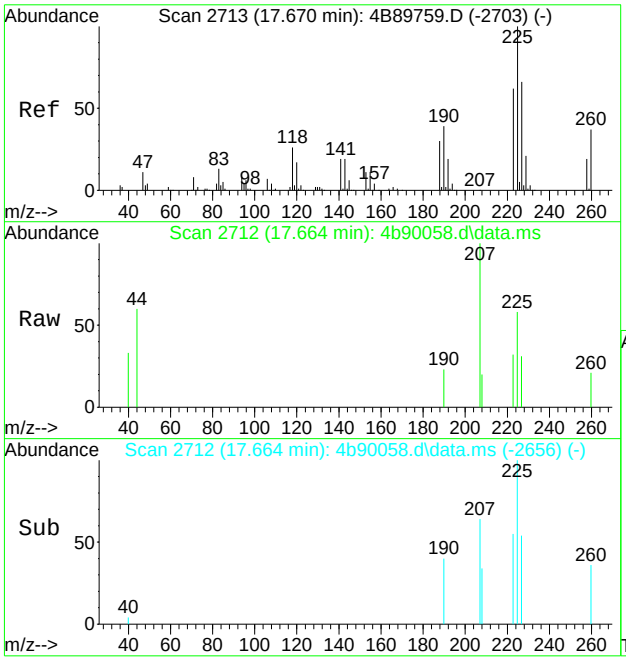


#121
2-ethylhexyl acrylate
Concen: 1.30 ug/L
RT: 17.554 min Scan# 2691
Delta R.T. 0.000 min
Lab File: 4b90058.d
Acq: 22 Apr 2019 8:30 am

Tgt Ion: 70 Resp: 298

Ion	Ratio	Lower	Upper
70	100		
55	194.0	130.0	190.0#
83	0.0	5.8	65.8#
112	0.0	0.0	55.3

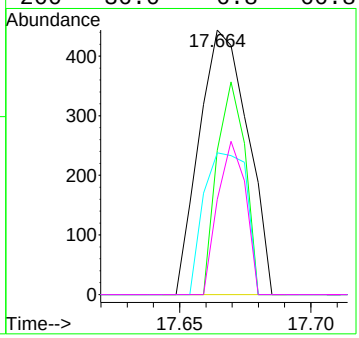


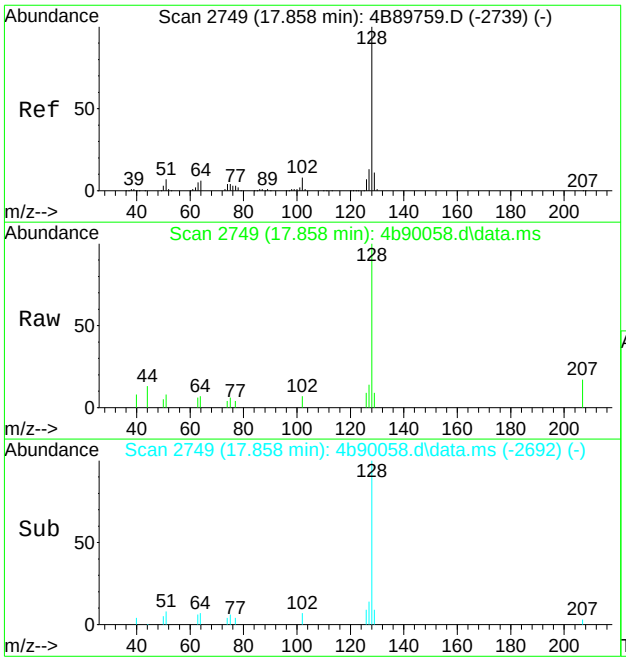


#122
hexachlorobutadiene
Concen: 0.15 ug/L
RT: 17.664 min Scan# 2712
Delta R.T. -0.005 min
Lab File: 4b90058.d
Acq: 22 Apr 2019 8:30 am

Tgt Ion:225 Resp: 571

Ion	Ratio	Lower	Upper
225	100		
223	54.5	32.4	92.4
227	53.6	36.1	96.1
260	36.0	6.8	66.8

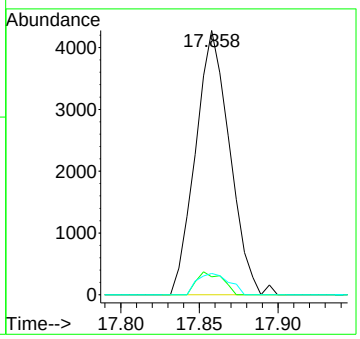


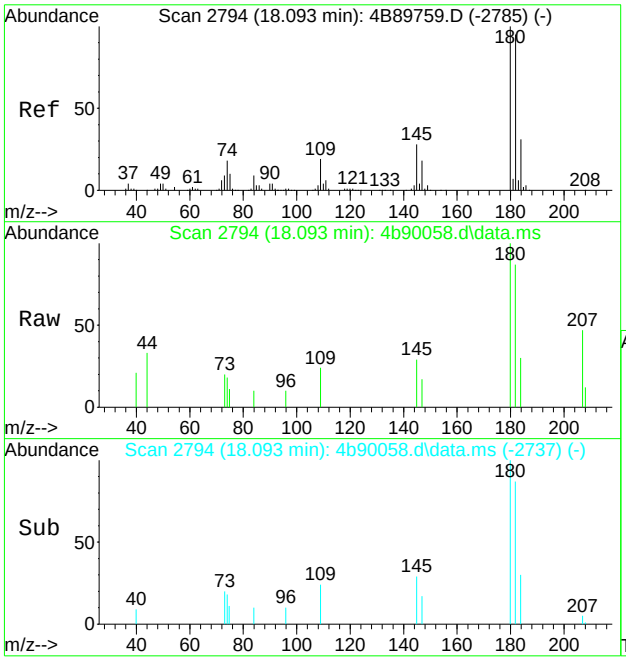


#123
naphthalene
Concen: 0.46 ug/L
RT: 17.858 min Scan# 2749
Delta R.T. -0.000 min
Lab File: 4b90058.d
Acq: 22 Apr 2019 8:30 am

Tgt Ion:128 Resp: 6474

Ion	Ratio	Lower	Upper
128	100		
102	6.8	0.0	37.6
51	8.0	0.0	37.0

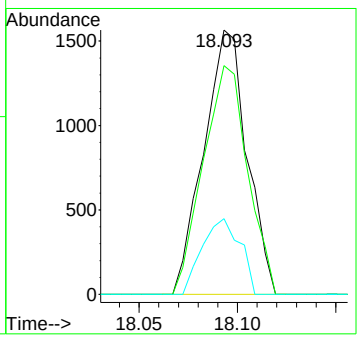


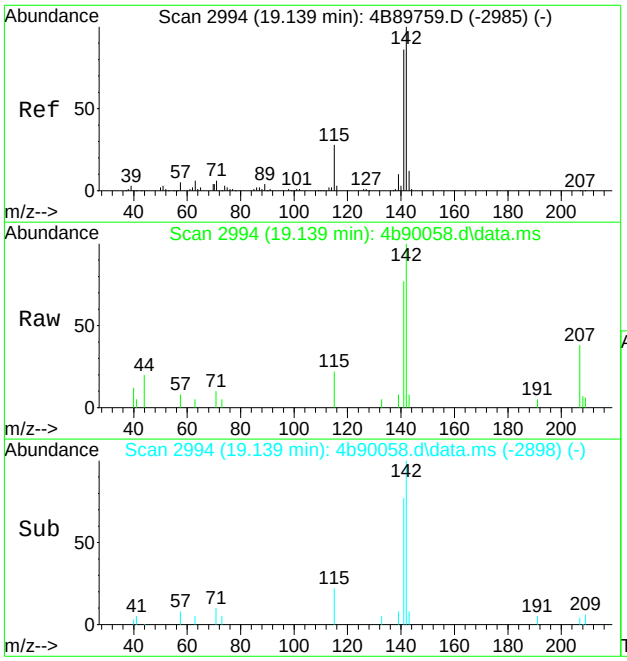


#124
1,2,3-trichlorobenzene
Concen: 0.38 ug/L
RT: 18.093 min Scan# 2794
Delta R.T. -0.000 min
Lab File: 4b90058.d
Acq: 22 Apr 2019 8:30 am

Tgt Ion:180 Resp: 2390

Ion	Ratio	Lower	Upper
180	100		
182	86.5	65.4	125.4
145	28.7	0.0	57.8

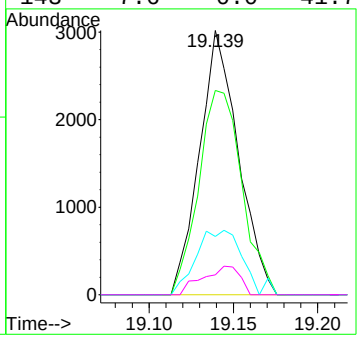




#125
2-methylnaphthalene
Concen: 0.69 ug/L
RT: 19.139 min Scan# 2994
Delta R.T. 0.000 min
Lab File: 4b90058.d
Acq: 22 Apr 2019 8:30 am

Tgt Ion:142 Resp: 4832

Ion	Ratio	Lower	Upper
142	100		
141	77.3	65.8	105.8
115	22.1	0.0	58.1
143	7.6	0.0	41.7



7.2.1

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\v4b3809\
Data File : 4b90056.d
Acq On : 22 Apr 2019 7:30 am
Operator : mariceld
Sample : bs Inst : MS4B
Misc : MS34115,V4B3809,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4B3793.M
Quant Results File: M4B3793.RES
Quant Time: Apr 23 10:34:51 2019
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Mon Apr 15 07:19:51 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	6.743	65	133879	500.00	ug/L		0.00
5) pentafluorobenzene	8.757	168	300429	50.00	ug/L		0.00
54) 1,4-difluorobenzene	9.631	114	405437	50.00	ug/L		0.00
75) chlorobenzene-d5	12.811	117	373280	50.00	ug/L		0.00
98) 1,4-dichlorobenzene-d4	15.379	152	222251	50.00	ug/L		0.00
System Monitoring Compounds							
46) dibromofluoromethane (s)	8.804	113	136972	50.42	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.84%				
55) 1,2-dichloroethane-d4 (s)	9.196	65	133481	49.93	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 99.86%				
76) toluene-d8 (s)	11.221	98	462436	49.22	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.44%				
99) 4-bromofluorobenzene (s)	14.081	95	178290	48.73	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.46%				
Target Compounds							Qvalue
3) tertiary butyl alcohol	6.843	59	92057	243.17	ug/L		100
4) 1,4-dioxane	10.248	88	37179	1315.13	ug/L		95
6) chlorodifluoromethane	3.909	51	294782	47.77	ug/L		98
7) dichlorodifluoromethane	3.888	85	354118	58.76	ug/L		99
8) chloromethane	4.243	50	429003	61.96	ug/L		98
9) vinyl chloride	4.453	62	341146	56.90	ug/L		99
10) 1,3-butadiene	4.474	54	209531	46.08	ug/L	#	83
11) bromomethane	4.986	94	232984	57.77	ug/L		99
12) chloroethane	5.127	64	162088	52.93	ug/L		98
13) trichlorofluoromethane	5.530	101	315275	54.30	ug/L		99
14) vinyl bromide	5.425	106	159970	50.90	ug/L		96
15) ethyl ether	5.818	74	90988	50.18	ug/L		97
16) 2-chloropropane	6.022	43	331063	48.91	ug/L		98
17) acrolein	6.016	56	29784	43.28	ug/L		95
18) freon 113	6.210	151	159625	48.54	ug/L		97
19) 1,1-dichloroethene	6.210	61	312261	50.45	ug/L		96
20) acetone	6.189	58	60025	195.34	ug/L		95
21) acetonitrile	6.545	41	228040	456.08	ug/L		100
22) iodomethane	6.445	142	326077	50.08	ug/L		98
23) carbon disulfide	6.592	76	633130	47.96	ug/L		99
24) methylene chloride	6.811	84	213571	49.48	ug/L		98
25) methyl acetate	6.581	43	125413	47.45	ug/L		100
26) methyl tert butyl ether	7.115	73	472500	47.59	ug/L		98
27) trans-1,2-dichloroethene	7.151	61	275913	51.91	ug/L		98
28) hexane	7.450	56	142168	50.17	ug/L		99
29) di-isopropyl ether	7.633	45	663684	50.21	ug/L		98
30) 2-butanone	8.213	72	68648	191.12	ug/L		94
31) 1,1-dichloroethane	7.654	63	334001	51.05	ug/L		99
32) chloroprene	7.742	53	260374	51.65	ug/L		99
33) acrylonitrile	7.047	53	66422	48.57	ug/L		99
34) vinyl acetate	7.580	86	27159	51.08	ug/L		98
35) ethyl tert-butyl ether	8.041	59	571269	49.16	ug/L		99
36) ethyl acetate	8.224	45	25460	52.53	ug/L	#	92
37) 2,2-dichloropropane	8.328	77	258667	50.46	ug/L		98
38) cis-1,2-dichloroethene	8.292	96	199699	50.37	ug/L		97
39) propionitrile	8.286	54	239770	458.45	ug/L		86
40) methyl acrylate	8.302	85	22693	50.17	ug/L		97
41) methacrylonitrile	8.459	67	63033	49.99	ug/L		98
42) bromochloromethane	8.558	128	96614	50.88	ug/L		95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\v4b3809\
Data File : 4b90056.d
Acq On : 22 Apr 2019 7:30 am
Operator : mariceld
Sample : bs Inst : MS4B
Misc : MS34115,V4B3809,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4B3793.M
Quant Results File: M4B3793.RES
Quant Time: Apr 23 10:34:51 2019
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Mon Apr 15 07:19:51 2019
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
43)	tetrahydrofuran	8.574	72	20579	45.64	ug/L		97
44)	chloroform	8.632	83	309509	49.64	ug/L		99
45)	tert-butyl formate	8.663	59	135996	50.11	ug/L		98
47)	1,1,1-trichloroethane	8.883	97	282484	51.15	ug/L		98
48)	cyclohexane	8.992	84	294429	52.62	ug/L		98
50)	1,1-dichloropropene	9.029	75	226105	51.14	ug/L		100
51)	carbon tetrachloride	9.066	117	246086	53.30	ug/L		99
52)	tert-amyl alcohol	9.123	73	41468	179.69	ug/L		93
53)	isopropyl acetate	9.144	87	31057	49.51	ug/L	#	87
56)	n-butyl alcohol	9.651	41	155364	1891.99	ug/L		97
57)	2,2,4-trimethylpentane	9.338	57	722202	50.27	ug/L		99
58)	benzene	9.259	78	679251	49.33	ug/L		99
59)	tert-amyl methyl ether	9.322	73	531831	47.13	ug/L		98
60)	heptane	9.479	57	133658	53.49	ug/L		98
61)	1,2-dichloroethane	9.275	62	200688	49.39	ug/L		99
62)	ethyl acrylate	9.892	55	178978	49.69	ug/L		99
63)	trichloroethene	9.929	95	168223	51.05	ug/L		99
64)	2-chloroethyl vinyl ether	10.677	63	471938	255.28	ug/L		98
65)	methyl methacrylate	10.148	100	35912	49.12	ug/L		95
66)	methylcyclohexane	10.227	83	338617	48.61	ug/L		99
67)	1,2-dichloropropane	10.206	63	177733	51.88	ug/L		99
68)	dibromomethane	10.310	93	101178	50.89	ug/L		96
69)	bromodichloromethane	10.457	83	222044	53.22	ug/L		99
70)	2-nitropropane	10.640	41	48977	63.40	ug/L		96
71)	epichlorohydrin	10.766	57	74332	233.36	ug/L		96
72)	cis-1,3-dichloropropene	10.907	75	261853	53.30	ug/L		99
73)	4-methyl-2-pentanone	10.996	58	252327	191.48	ug/L		95
74)	isoamyl alcohol	10.990	70	81881	789.61	ug/L	#	89
77)	toluene	11.294	92	390112	50.14	ug/L		100
78)	ethyl methacrylate	11.461	69	187567	49.55	ug/L		98
79)	trans-1,3-dichloropropene	11.477	75	221104	52.50	ug/L		99
80)	1,1,2-trichloroethane	11.712	83	118847	50.63	ug/L		99
81)	tetrachloroethene	11.874	164	146068	50.09	ug/L		99
82)	2-hexanone	11.869	58	224725	183.05	ug/L		98
83)	1,3-dichloropropane	11.900	76	217616	49.90	ug/L		99
84)	butyl acetate	11.953	56	102507	47.98	ug/L		96
85)	dibromochloromethane	12.162	129	166965	54.40	ug/L		99
86)	1,2-dibromoethane	12.335	107	187037	50.91	ug/L		96
87)	n-butyl ether	12.790	57	709493	49.87	ug/L		99
88)	chlorobenzene	12.842	112	433884	49.76	ug/L		99
89)	1,1,1,2-tetrachloroethane	12.915	131	180283	51.62	ug/L		95
90)	ethylbenzene	12.905	91	760678	49.81	ug/L		100
91)	m,p-xylene	13.041	106	583783	100.69	ug/L		99
92)	o-xylene	13.475	91	645732	49.89	ug/L		100
93)	styrene	13.490	104	490704	51.95	ug/L		100
94)	butyl acrylate	13.281	55	331796	48.48	ug/L		100
95)	isopropylbenzene	13.857	105	819238	49.96	ug/L		100
96)	bromoform	13.742	173	120942	54.72	ug/L		96
97)	cis-1,4-dichloro-2-butene	13.893	88	62556	54.73	ug/L		97
100)	1,1,2,2-tetrachloroethane	14.165	83	207168	48.73	ug/L		96
101)	trans-1,4-dichloro-2-b...	14.197	53	44452	52.19	ug/L		100
102)	1,2,3-trichloropropane	14.259	110	49769	49.31	ug/L		96
103)	bromobenzene	14.285	156	216477	51.58	ug/L		99
104)	n-propylbenzene	14.317	91	936386	51.28	ug/L		100
105)	2-chlorotoluene	14.463	126	200697	52.42	ug/L		99
106)	4-chlorotoluene	14.589	91	540125	50.40	ug/L		99
107)	1,3,5-trimethylbenzene	14.489	105	699653	50.97	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\v4b3809\
Data File : 4b90056.d
Acq On : 22 Apr 2019 7:30 am
Operator : mariceld
Sample : bs Inst : MS4B
Misc : MS34115,V4B3809,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4B3793.M
Quant Results File: M4B3793.RES
Quant Time: Apr 23 10:34:51 2019
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Mon Apr 15 07:19:51 2019
Response via : Initial Calibration

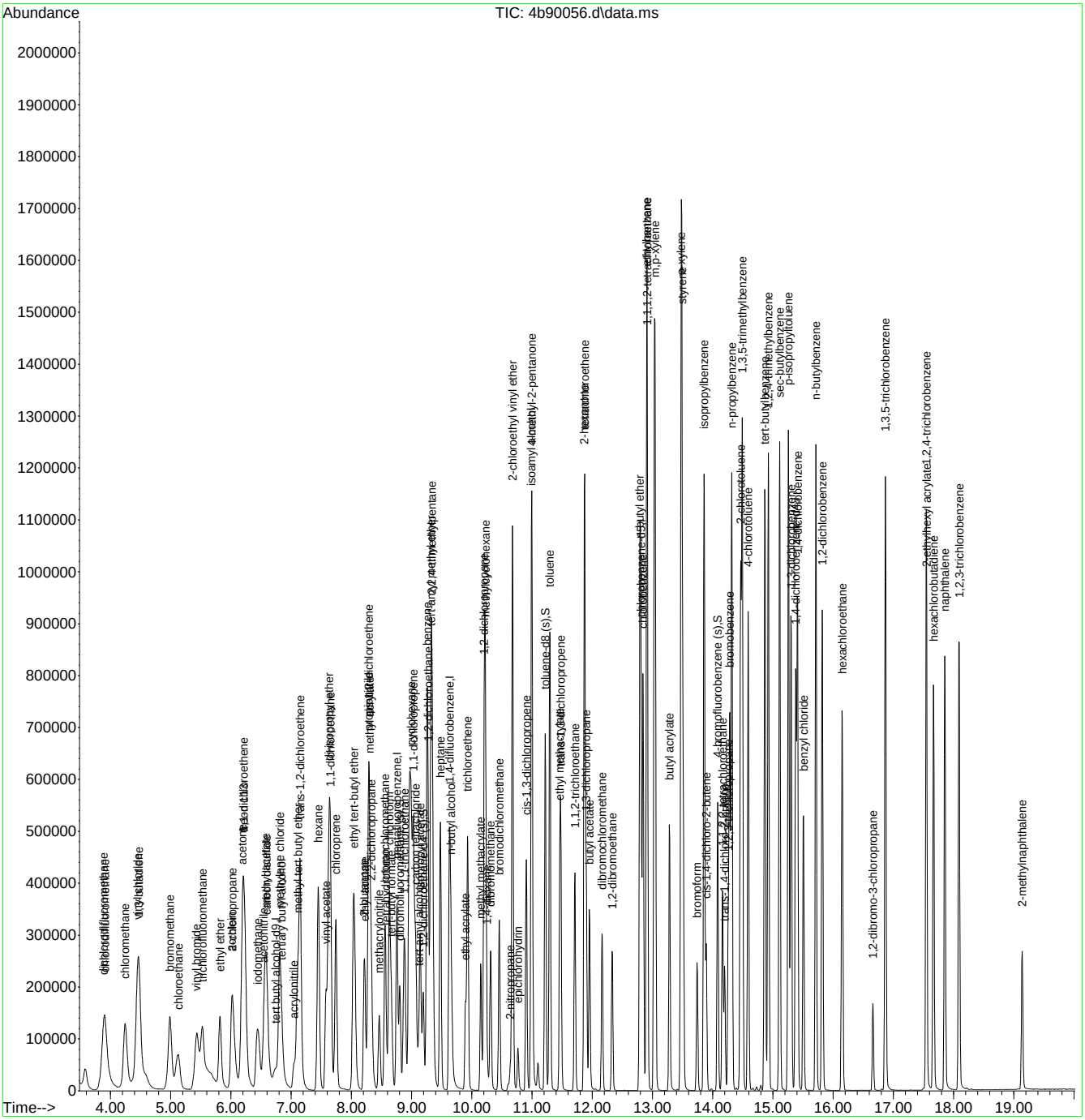
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
108) tert-butylbenzene	14.866	119	602785	51.38	ug/L	99
109) 1,2,4-trimethylbenzene	14.924	105	703101	51.11	ug/L	100
110) sec-butylbenzene	15.112	105	924754	51.82	ug/L	100
111) p-isopropyltoluene	15.258	119	783041	51.56	ug/L	100
112) 1,3-dichlorobenzene	15.305	146	409042	50.90	ug/L	97
113) 1,4-dichlorobenzene	15.410	146	410110	50.81	ug/L	99
114) 1,2-dichlorobenzene	15.818	146	419260	50.44	ug/L	99
115) benzyl chloride	15.509	91	401482	53.71	ug/L	99
116) n-butylbenzene	15.713	92	386856	52.75	ug/L	98
117) hexachloroethane	16.153	201	150886	55.43	ug/L	96
118) 1,2-dibromo-3-chloropr...	16.660	157	51142	48.63	ug/L	96
119) 1,3,5-trichlorobenzene	16.869	180	401177	52.24	ug/L	100
120) 1,2,4-trichlorobenzene	17.549	180	355099	52.64	ug/L	99
121) 2-ethylhexyl acrylate	17.554	70	25415	7.23	ug/L	95
122) hexachlorobutadiene	17.669	225	190572	50.49	ug/L	99
123) naphthalene	17.852	128	685056	49.53	ug/L	99
124) 1,2,3-trichlorobenzene	18.093	180	317140	51.46	ug/L	99
125) 2-methylnaphthalene	19.139	142	153501	22.52	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\v4b3809\
Data File : 4b90056.d
Acq On : 22 Apr 2019 7:30 am
Operator : mariceld
Sample : bs Inst : MS4B
Misc : MS34115,V4B3809,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4B3793.M
Quant Results File: M4B3793.RES
Quant Time: Apr 23 10:34:51 2019
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Mon Apr 15 07:19:51 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\v4b3809\
Data File : 4b90073.d
Acq On : 22 Apr 2019 4:01 pm
Operator : CHELSEAS
Sample : jc86676-1ms Inst : MS4B
Misc : MS34149,V4B3809,5,,,,1
ALS Vial : 21 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4B3793.M
Quant Results File: M4B3793.RES
Quant Time: Apr 23 10:05:59 2019
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Mon Apr 15 07:19:51 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	6.749	65	137529	500.00	ug/L		0.00
5) pentafluorobenzene	8.757	168	286334	50.00	ug/L		0.00
54) 1,4-difluorobenzene	9.631	114	381913	50.00	ug/L		0.00
75) chlorobenzene-d5	12.811	117	354979	50.00	ug/L		0.00
98) 1,4-dichlorobenzene-d4	15.379	152	208246	50.00	ug/L		0.00
System Monitoring Compounds							
46) dibromofluoromethane (s)	8.804	113	129741	50.11	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.22%				
55) 1,2-dichloroethane-d4 (s)	9.191	65	123333	48.97	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 97.94%				
76) toluene-d8 (s)	11.221	98	439323	49.17	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.34%				
99) 4-bromofluorobenzene (s)	14.082	95	166439	48.55	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.10%				
Target Compounds							Qvalue
3) tertiary butyl alcohol	6.848	59	82575	212.33	ug/L		98
4) 1,4-dioxane	10.243	88	32369	1114.60	ug/L		91
6) chlorodifluoromethane	3.903	51	266315	45.29	ug/L		99
7) dichlorodifluoromethane	3.888	85	335567	58.42	ug/L		99
8) chloromethane	4.243	50	318090	48.20	ug/L		99
9) vinyl chloride	4.442	62	314684	55.07	ug/L		99
10) 1,3-butadiene	4.474	54	214319	49.46	ug/L		98
11) bromomethane	4.986	94	207902	54.09	ug/L		99
12) chloroethane	5.117	64	148587	50.91	ug/L		98
13) trichlorofluoromethane	5.525	101	304233	54.97	ug/L		99
14) vinyl bromide	5.425	106	147028	49.08	ug/L		97
15) ethyl ether	5.818	74	73518	42.54	ug/L		98
16) 2-chloropropane	6.022	43	290574	45.04	ug/L		99
17) acrolein	6.022	56	22824	34.80	ug/L		99
18) freon 113	6.215	151	149461	47.68	ug/L		98
19) 1,1-dichloroethene	6.215	61	277445	47.03	ug/L		95
20) acetone	6.189	58	47756	163.06	ug/L	#	82
21) acetonitrile	6.545	41	196682	412.73	ug/L		99
22) iodomethane	6.440	142	281641	45.39	ug/L		97
23) carbon disulfide	6.581	76	538949	42.83	ug/L		100
24) methylene chloride	6.811	84	177482	43.14	ug/L		98
25) methyl acetate	6.576	43	96252	38.21	ug/L		99
26) methyl tert butyl ether	7.110	73	396043	41.85	ug/L		99
27) trans-1,2-dichloroethene	7.151	61	230994	45.60	ug/L		99
28) hexane	7.450	56	127131	47.07	ug/L		99
29) di-isopropyl ether	7.633	45	555270	44.08	ug/L		98
30) 2-butanone	8.213	72	52398	153.06	ug/L		99
31) 1,1-dichloroethane	7.654	63	278447	44.65	ug/L		99
32) chloroprene	7.742	53	220355	45.86	ug/L		99
33) acrylonitrile	7.042	53	51319	39.37	ug/L		94
34) vinyl acetate	7.575	86	21244	41.93	ug/L	#	90
35) ethyl tert-butyl ether	8.041	59	480753	43.41	ug/L		99
36) ethyl acetate	8.224	45	17580	38.06	ug/L		96
37) 2,2-dichloropropane	8.328	77	235154	48.13	ug/L		98
38) cis-1,2-dichloroethene	8.292	96	166597	44.09	ug/L		97
39) propionitrile	8.281	54	189663	380.50	ug/L		96
40) methyl acrylate	8.302	85	16407	38.06	ug/L	#	89
41) methacrylonitrile	8.459	67	46781	38.92	ug/L		98
42) bromochloromethate	8.558	128	78025	43.11	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\v4b3809\
Data File : 4b90073.d
Acq On : 22 Apr 2019 4:01 pm
Operator : CHELSEAS
Sample : jc86676-1ms Inst : MS4B
Misc : MS34149,V4B3809,5,,,,1
ALS Vial : 21 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4B3793.M
Quant Results File: M4B3793.RES
Quant Time: Apr 23 10:05:59 2019
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Mon Apr 15 07:19:51 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
43) tetrahydrofuran	8.574	72	15941	37.09	ug/L		98
44) chloroform	8.632	83	257362	43.30	ug/L		98
45) tert-butyl formate	8.663	59	103294	39.93	ug/L		96
47) 1,1,1-trichloroethane	8.883	97	248921	47.30	ug/L		98
48) cyclohexane	8.992	84	274537	51.48	ug/L		98
50) 1,1-dichloropropene	9.029	75	191846	45.53	ug/L		98
51) carbon tetrachloride	9.066	117	214076	48.65	ug/L		99
52) tert-amyl alcohol	9.128	73	36785	167.24	ug/L		98
53) isopropyl acetate	9.144	87	24054	40.23	ug/L	#	86
56) n-butyl alcohol	9.652	41	128622	1662.81	ug/L		97
57) 2,2,4-trimethylpentane	9.338	57	668144	49.38	ug/L		100
58) benzene	9.259	78	560118	43.19	ug/L		99
59) tert-amyl methyl ether	9.322	73	441649	41.55	ug/L		98
60) heptane	9.479	57	120743	51.30	ug/L		98
61) 1,2-dichloroethane	9.275	62	157693	41.20	ug/L		99
62) ethyl acrylate	9.897	55	132873	39.17	ug/L		99
63) trichloroethene	9.929	95	138234	44.53	ug/L		100
64) 2-chloroethyl vinyl ether	10.677	63	125825	72.25	ug/L		99
65) methyl methacrylate	10.148	100	27603	40.08	ug/L		99
66) methylcyclohexane	10.227	83	310810	47.37	ug/L		98
67) 1,2-dichloropropane	10.206	63	144634	44.82	ug/L		99
68) dibromomethane	10.311	93	78153	41.73	ug/L		99
69) bromodichloromethane	10.457	83	174051	44.28	ug/L		100
70) 2-nitropropane	10.645	41	28240	40.96	ug/L		93
71) epichlorohydrin	10.766	57	56007	186.66	ug/L		97
72) cis-1,3-dichloropropene	10.907	75	203773	44.04	ug/L		98
73) 4-methyl-2-pentanone	10.996	58	198699	160.07	ug/L		98
74) isoamyl alcohol	10.990	70	69255	708.98	ug/L		94
77) toluene	11.299	92	320460	43.31	ug/L		100
78) ethyl methacrylate	11.461	69	144473	40.14	ug/L		98
79) trans-1,3-dichloropropene	11.482	75	167558	41.84	ug/L		98
80) 1,1,2-trichloroethane	11.712	83	92523	41.44	ug/L		98
81) tetrachloroethene	11.874	164	123644	44.59	ug/L		100
82) 2-hexanone	11.874	58	175123	150.00	ug/L		99
83) 1,3-dichloropropane	11.900	76	170135	41.02	ug/L		99
84) butyl acetate	11.958	56	80788	39.76	ug/L		99
85) dibromochloromethane	12.167	129	125476	42.99	ug/L		100
86) 1,2-dibromoethane	12.335	107	146812	42.02	ug/L		98
87) n-butyl ether	12.795	57	593282	43.85	ug/L		99
88) chlorobenzene	12.847	112	354176	42.71	ug/L		99
89) 1,1,1,2-tetrachloroethane	12.915	131	149234	44.93	ug/L		97
90) ethylbenzene	12.910	91	636128	43.80	ug/L		100
91) m,p-xylene	13.041	106	485903	88.13	ug/L		99
92) o-xylene	13.475	91	534356	43.41	ug/L		100
93) styrene	13.491	104	387261	43.12	ug/L		98
94) butyl acrylate	13.287	55	265022	40.72	ug/L		99
95) isopropylbenzene	13.862	105	694598	44.54	ug/L		99
96) bromoform	13.747	173	84926	40.41	ug/L		99
97) cis-1,4-dichloro-2-butene	13.893	88	39495	36.33	ug/L		99
100) 1,1,2,2-tetrachloroethane	14.165	83	160003	40.17	ug/L		99
101) trans-1,4-dichloro-2-b...	14.202	53	30501	38.22	ug/L		97
102) 1,2,3-trichloropropane	14.265	110	38711	40.93	ug/L		99
103) bromobenzene	14.286	156	172753	43.93	ug/L		98
104) n-propylbenzene	14.317	91	783231	45.77	ug/L		100
105) 2-chlorotoluene	14.469	126	164771	45.93	ug/L		96
106) 4-chlorotoluene	14.589	91	435680	43.39	ug/L		100
107) 1,3,5-trimethylbenzene	14.495	105	580518	45.14	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\v4b3809\
Data File : 4b90073.d
Acq On : 22 Apr 2019 4:01 pm
Operator : CHELSEAS
Sample : jc86676-1ms Inst : MS4B
Misc : MS34149,V4B3809,5,,,,1
ALS Vial : 21 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4B3793.M
Quant Results File: M4B3793.RES
Quant Time: Apr 23 10:05:59 2019
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Mon Apr 15 07:19:51 2019
Response via : Initial Calibration

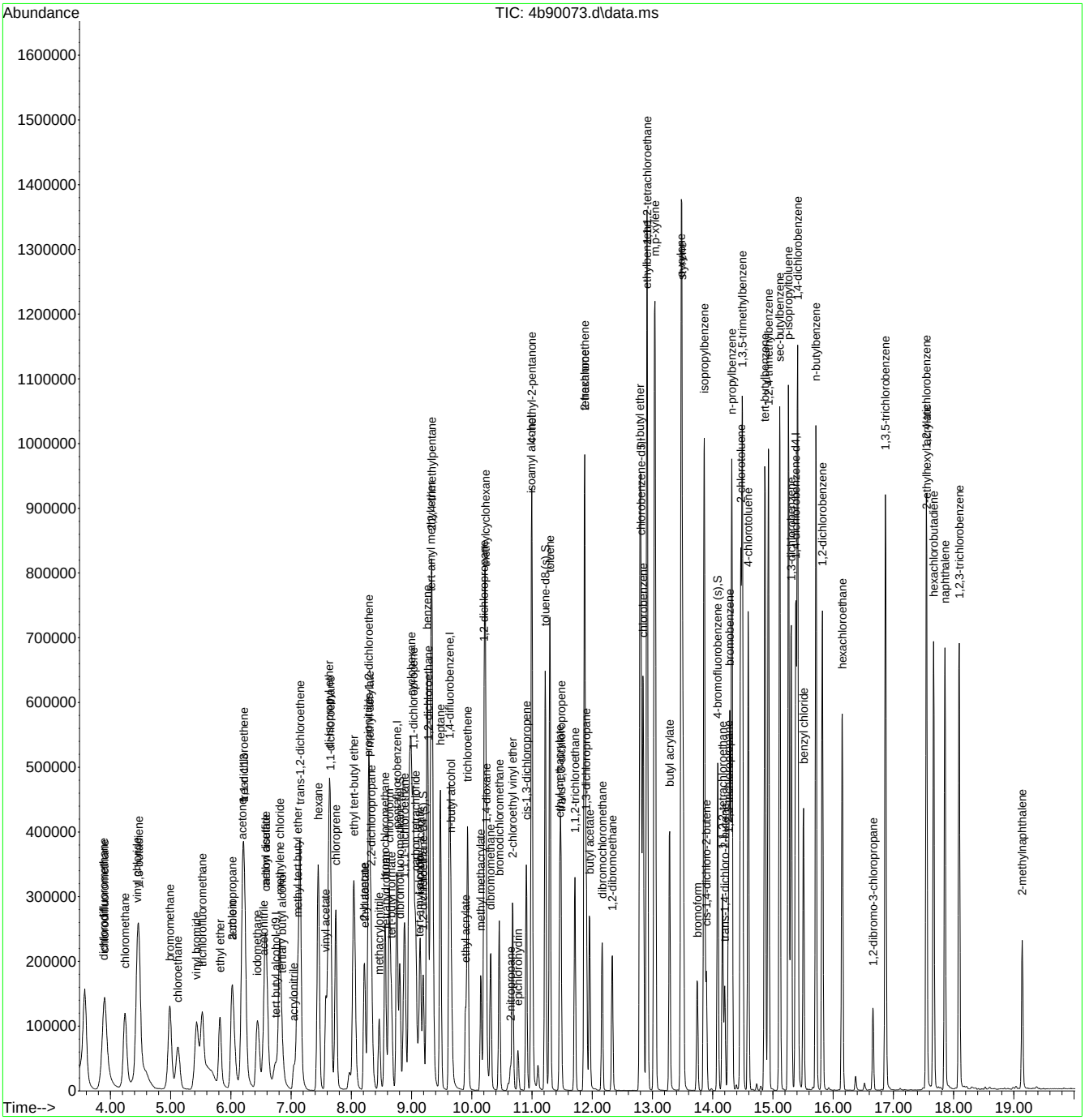
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
108) tert-butylbenzene	14.866	119	503034	45.76	ug/L	99
109) 1,2,4-trimethylbenzene	14.929	105	579602	44.97	ug/L	98
110) sec-butylbenzene	15.112	105	780469	46.68	ug/L	99
111) p-isopropyltoluene	15.258	119	659056	46.31	ug/L	100
112) 1,3-dichlorobenzene	15.305	146	323576	42.97	ug/L	99
113) 1,4-dichlorobenzene	15.410	146	327968	43.36	ug/L	99
114) 1,2-dichlorobenzene	15.823	146	328236	42.15	ug/L	98
115) benzyl chloride	15.509	91	315098	44.99	ug/L	100
116) n-butylbenzene	15.713	92	322534	46.93	ug/L	99
117) hexachloroethane	16.153	201	117652	46.13	ug/L	98
118) 1,2-dibromo-3-chloropr...	16.665	157	39293	39.88	ug/L	99
119) 1,3,5-trichlorobenzene	16.869	180	319614	44.42	ug/L	99
120) 1,2,4-trichlorobenzene	17.549	180	279625	44.24	ug/L	99
121) 2-ethylhexyl acrylate	17.554	70	29705	8.71	ug/L	97
122) hexachlorobutadiene	17.669	225	166541	47.09	ug/L	99
123) naphthalene	17.858	128	554703	42.80	ug/L	99
124) 1,2,3-trichlorobenzene	18.093	180	251862	43.61	ug/L	100
125) 2-methylnaphthalene	19.139	142	127415	19.95	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\v4b3809\
Data File : 4b90073.d
Acq On : 22 Apr 2019 4:01 pm
Operator : CHELSEAS
Sample : jc86676-1ms Inst : MS4B
Misc : MS34149,V4B3809,5,,,,1
ALS Vial : 21 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4B3793.M
Quant Results File: M4B3793.RES
Quant Time: Apr 23 10:05:59 2019
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Mon Apr 15 07:19:51 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\v4b3809\
Data File : 4b90075.d
Acq On : 22 Apr 2019 4:57 pm
Operator : CHELSEAS
Sample : jc86676-2dup Inst : MS4B
Misc : MS34149,V4B3809,5,,,,1
ALS Vial : 23 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4B3793.M
Quant Results File: M4B3793.RES
Quant Time: Apr 23 10:11:43 2019
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Mon Apr 15 07:19:51 2019
Response via : Initial Calibration

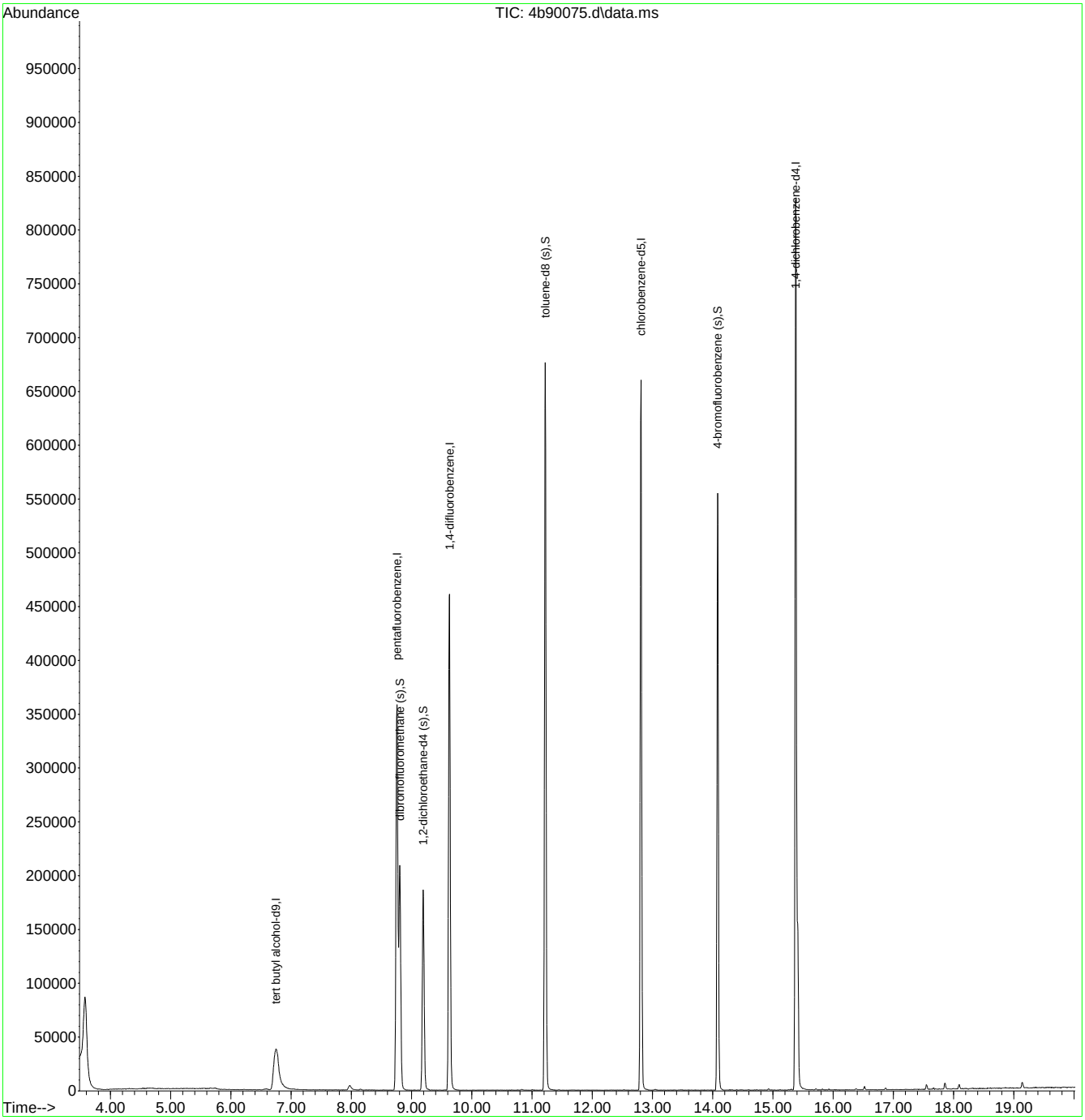
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	6.749	65	149606	500.00	ug/L	0.00
5) pentafluorobenzene	8.757	168	306314	50.00	ug/L	0.00
54) 1,4-difluorobenzene	9.630	114	409831	50.00	ug/L	0.00
75) chlorobenzene-d5	12.810	117	377109	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	15.378	152	227352	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	8.804	113	139877	50.50	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.00%			
55) 1,2-dichloroethane-d4 (s)	9.191	65	139623	51.67	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 103.34%			
76) toluene-d8 (s)	11.220	98	466292	49.13	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.26%			
99) 4-bromofluorobenzene (s)	14.081	95	184679	49.34	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.68%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\v4b3809\
Data File : 4b90075.d
Acq On : 22 Apr 2019 4:57 pm
Operator : CHELSEAS
Sample : jc86676-2dup Inst : MS4B
Misc : MS34149,V4B3809,5,,,,1
ALS Vial : 23 Sample Multiplier: 1

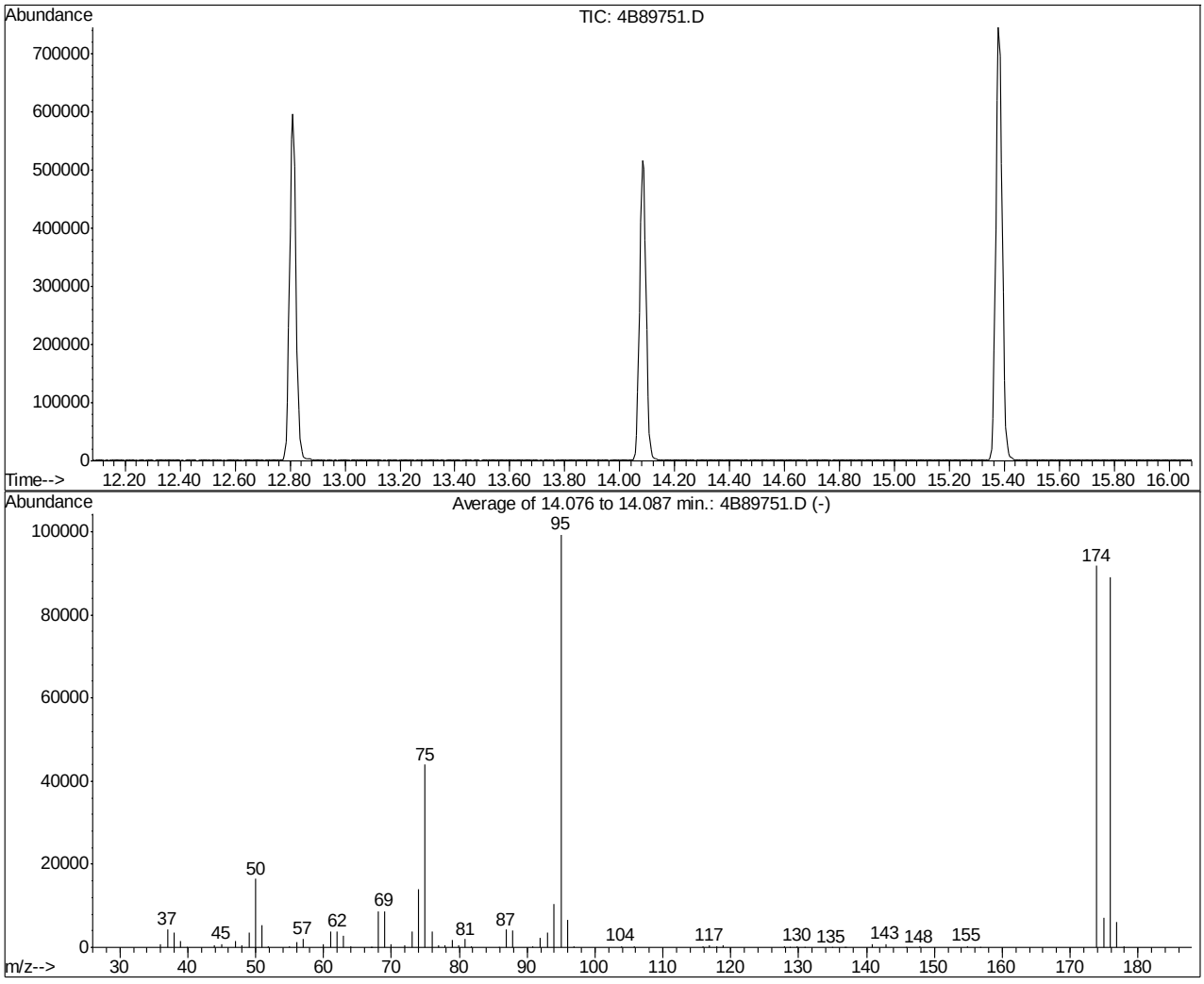
Quant Method : C:\MSDCHEM\1\METHODS\M4B3793.M
Quant Results File: M4B3793.RES
Quant Time: Apr 23 10:11:43 2019
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Mon Apr 15 07:19:51 2019
Response via : Initial Calibration



SW-846 Method 8260

Data File : C:\MSDChem\1\DATA\V4B3793\4B89751.D Vial: 1
Acq On : 6 Apr 2019 5:47 pm Operator: CHELSEAS
Sample : BFB Inst : MS4B
Misc : MS33655,V4B3793,5,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\M4B3793.M (RTE Integrator)
Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um



AutoFind: Scans 2026, 2027, 2028; Background Corrected with Scan 2018

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	16.6	16461	PASS
75	95	30	60	44.2	43936	PASS
95	95	100	100	100.0	99336	PASS
96	95	5	9	6.6	6566	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	150	92.4	91778	PASS
175	174	5	9	7.7	7111	PASS
176	174	95	101	96.9	88976	PASS
177	176	5	9	7.0	6193	PASS

4B89751.D M4B3793.M Mon Apr 08 14:27:47 2019 GCMS4B

Average of 14.076 to 14.087 min.: 4B89751.D
BFB
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	853	51.00	5395	67.10	106	78.90	1758
37.00	4340	51.90	246	68.00	8658	79.90	542
38.00	3692	54.95	225	69.00	8660	80.90	1920
39.00	1569	56.00	1185	69.95	655	81.85	387
39.90	14	56.95	2128	71.95	482	85.90	55
43.95	450	59.95	843	73.00	3741	86.90	4322
44.95	822	61.00	3845	74.00	13995	87.90	4127
47.00	1413	62.00	3854	75.00	43936	90.85	304
47.95	569	63.00	2747	76.00	3844	91.95	2402
49.00	3518	64.00	301	76.95	552	92.95	3547
50.00	16461	66.90	91	77.95	468	94.00	10368

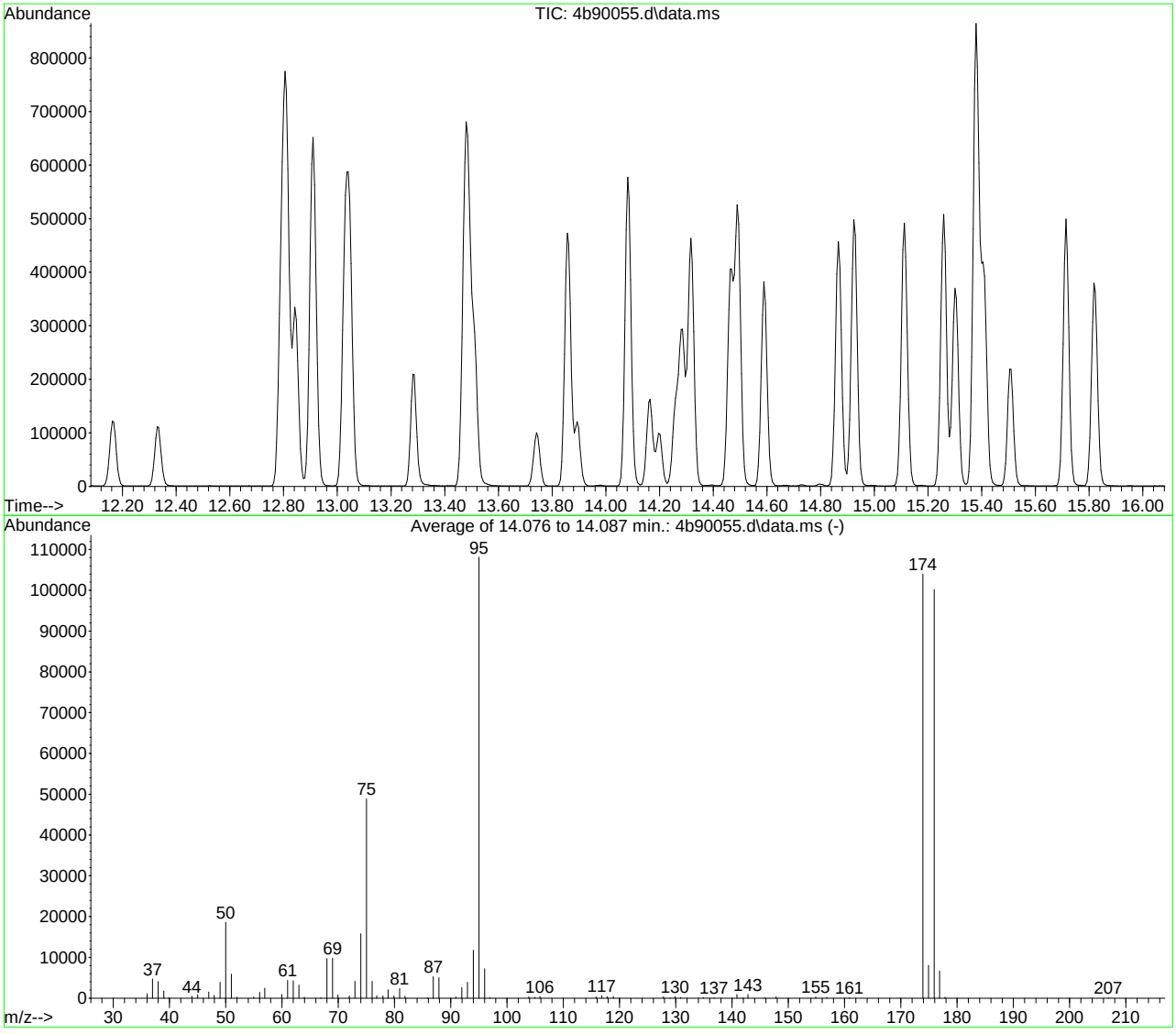
Average of 14.076 to 14.087 min.: 4B89751.D
BFB
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
95.00	99336	129.85	330	173.90	91778		
96.00	6566	130.80	54	174.90	7111		
96.90	256	134.85	119	175.90	88976		
103.85	382	136.80	61	176.90	6193		
105.85	304	137.00	55	177.90	172		
115.85	252	140.85	729				
116.85	509	142.85	780				
117.90	277	145.80	57				
118.85	393	147.85	195				
127.85	328	154.85	257				
128.75	113	156.80	65				

SW-846 Method 8260

Data File : C:\msdchem\1\data\kenrickb\v4b3809\4b90055.d Vial: 3
Acq On : 22 Apr 2019 7:02 am Operator: mariceld
Sample : BFB Inst : MS4B
Misc : MS34115,V4B3809,5,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\M4B3793.M (RTE Integrator)
Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um



AutoFind: Scans 2026, 2027, 2028; Background Corrected with Scan 2018

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.2	18600	PASS
75	95	30	60	45.2	48877	PASS
95	95	100	100	100.0	108107	PASS
96	95	5	9	6.7	7240	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	150	96.2	103963	PASS
175	174	5	9	7.7	8028	PASS
176	174	95	101	96.4	100216	PASS
177	176	5	9	6.7	6679	PASS

4b90055.d M4B3793.M Tue Apr 23 10:41:44 2019

Average of 14.076 to 14.087 min.: 4b90055.d\data.ms
BFB
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	1031	51.00	5910	68.00	9696	79.90	615
37.00	4702	52.00	253	69.00	9772	80.90	2360
38.00	4042	54.95	298	69.95	760	81.85	503
39.00	1704	56.00	1429	71.95	513	85.85	112
39.90	112	56.95	2417	72.95	4151	86.90	5247
43.95	502	59.95	898	74.00	15766	87.90	5022
45.00	832	61.00	4333	75.00	48877	90.90	265
47.00	1482	62.00	4247	76.00	4133	91.95	2539
47.95	661	63.00	3194	76.85	630	92.95	3900
49.00	3877	63.95	244	77.95	547	94.00	11758
50.00	18600	66.90	90	78.85	2069	95.00	108107

Average of 14.076 to 14.087 min.: 4b90055.d\data.ms
BFB
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
96.00	7240	129.85	379	160.85	111		
96.95	170	130.85	180	173.90	103963		
103.85	373	134.85	130	174.90	8028		
104.90	203	136.80	52	175.90	100216		
105.85	396	140.85	914	176.90	6679		
115.85	301	141.90	64	177.85	192		
116.85	583	142.80	925	206.90	53		
117.80	344	145.80	63				
118.90	441	147.80	262				
127.80	330	154.85	281				
129.00	64	156.85	197				

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3793\
Data File : 4B89752.D
Acq On : 6 Apr 2019 6:21 pm
Operator : CHELSEAS
Sample : IC3793-0.2
Misc : MS33655,V4B3793,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 08 14:30:39 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4B3793.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Mon Apr 08 11:07:07 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	6.75	65	166369	500.00	ug/L	0.00
5) pentafluorobenzene	8.76	168	273237	50.00	ug/L	0.00
54) 1,4-difluorobenzene	9.63	114	358437	50.00	ug/L	0.00
75) chlorobenzene-d5	12.81	117	321412	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	15.38	152	196898	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	8.80	113	123229	49.72	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.44%			
55) 1,2-dichloroethane-d4 (s)	9.19	65	120667	52.31	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 104.62%			
76) toluene-d8 (s)	11.22	98	402238	50.39	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.78%			
99) 4-bromofluorobenzene (s)	14.08	95	163405	50.50	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.00%			
Target Compounds						Qvalue
22) iodomethane	6.45	142	1048	0.18	ug/L #	50
23) carbon disulfide	6.58	76	2905	0.26	ug/L	77
27) trans-1,2-dichloroethene	7.15	61	921	0.20	ug/L #	80
29) di-isopropyl ether	7.63	45	2597	0.23	ug/L	91
31) 1,1-dichloroethane	7.65	63	1182	0.21	ug/L	88
32) chloroprene	7.75	53	862	0.20	ug/L	68
35) ethyl tert-butyl ether	8.04	59	2137	0.21	ug/L	90
37) 2,2-dichloropropane	8.32	77	968	0.23	ug/L	76
38) cis-1,2-dichloroethene	8.29	96	684	0.20	ug/L	96
47) 1,1,1-trichloroethane	8.88	97	976	0.20	ug/L	83
48) cyclohexane	8.99	84	934	0.19	ug/L #	68
50) 1,1-dichloropropene	9.02	75	723	0.19	ug/L #	63
51) carbon tetrachloride	9.07	117	772	0.19	ug/L	79
57) 2,2,4-trimethylpentane	9.34	57	2490	0.21	ug/L	86
58) benzene	9.26	78	2528	0.22	ug/L	76
59) tert-amyl methyl ether	9.32	73	2089	0.23	ug/L	94
60) heptane	9.48	57	344	0.16	ug/L #	64
63) trichloroethene	9.94	95	526	0.19	ug/L	90
66) methylcyclohexane	10.23	83	1169	0.20	ug/L	86
67) 1,2-dichloropropane	10.21	63	512	0.18	ug/L #	47
69) bromodichloromethane	10.46	83	678	0.19	ug/L	94
72) cis-1,3-dichloropropene	10.91	75	766	0.18	ug/L	66
77) toluene	11.29	92	1296	0.20	ug/L	96
79) trans-1,3-dichloropropene	11.48	75	655	0.18	ug/L	83
80) 1,1,2-trichloroethane	11.72	83	363	0.18	ug/L #	80
81) tetrachloroethene	11.87	164	452	0.19	ug/L	91
83) 1,3-dichloropropane	11.90	76	699	0.19	ug/L #	63
85) dibromochloromethane	12.17	129	442	0.17	ug/L	74
86) 1,2-dibromoethane	12.33	107	592	0.19	ug/L	89
87) n-butyl ether	12.79	57	2401	0.21	ug/L #	18
88) chlorobenzene	12.85	112	1469	0.21	ug/L	95
89) 1,1,1,2-tetrachloroethane	12.92	131	492	0.17	ug/L	91
90) ethylbenzene	12.91	91	2628	0.21	ug/L	88

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3793\
Data File : 4B89752.D
Acq On : 6 Apr 2019 6:21 pm
Operator : CHELSEAS
Sample : IC3793-0.2
Misc : MS33655,V4B3793,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 08 14:30:39 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4B3793.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Mon Apr 08 11:07:07 2019
Response via : Initial Calibration

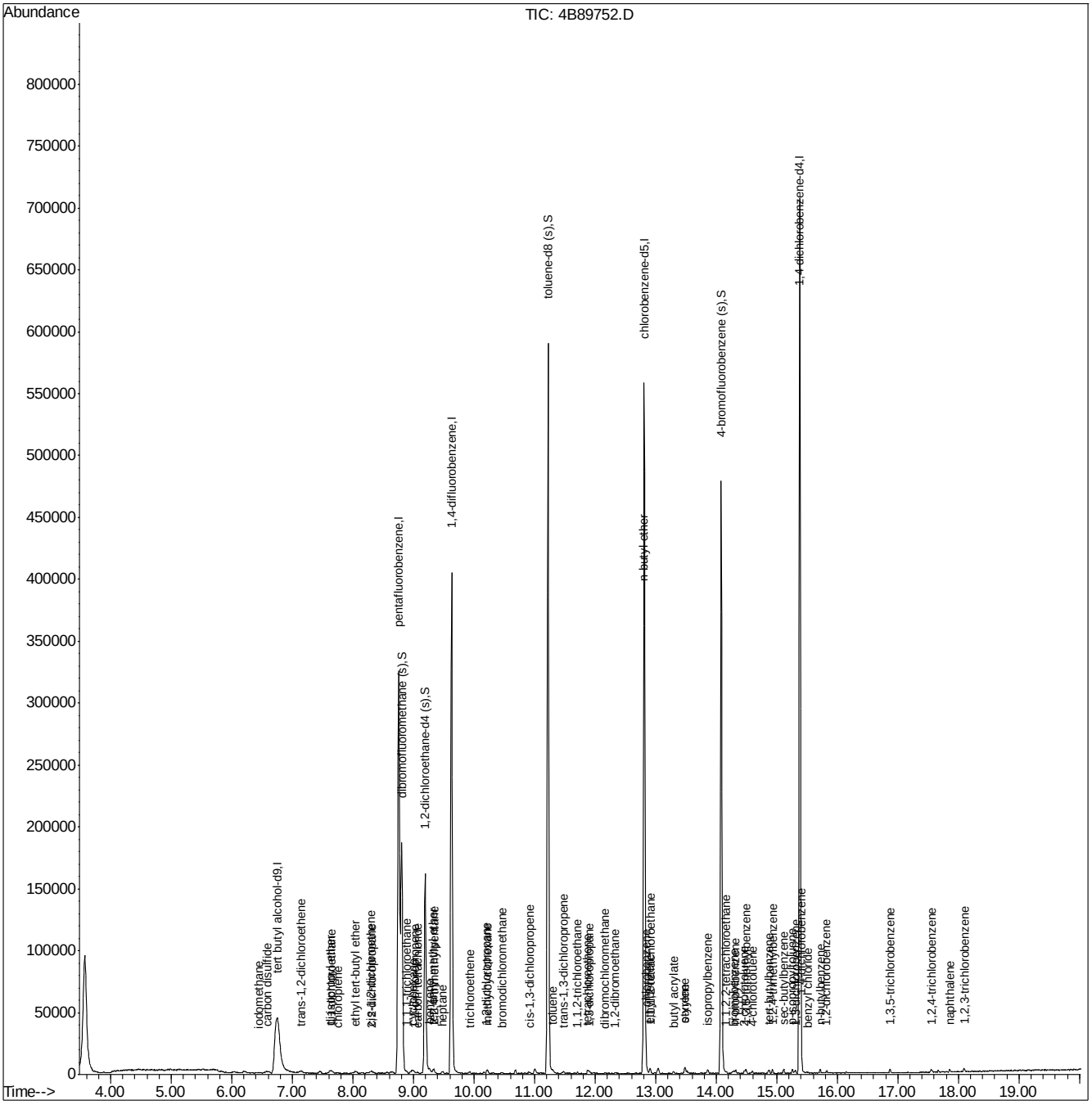
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
92) o-xylene	13.47	91	2192	0.21	ug/L	83
93) styrene	13.49	104	1511	0.19	ug/L	79
94) butyl acrylate	13.29	55	1047	0.19	ug/L	92
95) isopropylbenzene	13.86	105	2632	0.19	ug/L	91
100) 1,1,2,2-tetrachloroethane	14.17	83	752	0.20	ug/L	94
103) bromobenzene	14.29	156	624	0.17	ug/L	90
104) n-propylbenzene	14.32	91	3107	0.20	ug/L	95
105) 2-chlorotoluene	14.47	126	573	0.17	ug/L	92
106) 4-chlorotoluene	14.59	91	1834	0.20	ug/L	88
107) 1,3,5-trimethylbenzene	14.49	105	2255	0.19	ug/L	98
108) tert-butylbenzene	14.87	119	1939	0.19	ug/L	93
109) 1,2,4-trimethylbenzene	14.93	105	2279	0.19	ug/L	95
110) sec-butylbenzene	15.12	105	2894	0.18	ug/L	90
111) p-isopropyltoluene	15.26	119	2423	0.18	ug/L	97
112) 1,3-dichlorobenzene	15.31	146	1389	0.20	ug/L	97
113) 1,4-dichlorobenzene	15.42	146	1281	0.18	ug/L	84
114) 1,2-dichlorobenzene	15.82	146	1442	0.20	ug/L	87
115) benzyl chloride	15.51	91	1267	0.19	ug/L	55
116) n-butylbenzene	15.72	92	1173	0.18	ug/L	97
119) 1,3,5-trichlorobenzene	16.87	180	1356	0.20	ug/L	97
120) 1,2,4-trichlorobenzene	17.55	180	1213	0.20	ug/L	87
123) naphthalene	17.86	128	2471	0.19	ug/L	79
124) 1,2,3-trichlorobenzene	18.09	180	1110	0.19	ug/L	92

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3793\
Data File : 4B89752.D
Acq On : 6 Apr 2019 6:21 pm
Operator : CHELSEAS
Sample : IC3793-0.2
Misc : MS33655,V4B3793,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 08 14:30:39 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4B3793.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Mon Apr 08 11:07:07 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3793\
Data File : 4B89753.D
Acq On : 6 Apr 2019 6:50 pm
Operator : CHELSEAS
Sample : IC3793-0.5
Misc : MS33655,V4B3793,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 08 14:33:06 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4B3793.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Mon Apr 08 11:07:07 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) tert butyl alcohol-d9	6.75	65	162567	500.00	ug/L		0.00
5) pentafluorobenzene	8.76	168	282570	50.00	ug/L		0.00
54) 1,4-difluorobenzene	9.63	114	367999	50.00	ug/L		0.00
75) chlorobenzene-d5	12.81	117	333266	50.00	ug/L		0.00
98) 1,4-dichlorobenzene-d4	15.38	152	205128	50.00	ug/L		0.00
System Monitoring Compounds							
46) dibromofluoromethane (s)	8.80	113	127046	49.56	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.12%				
55) 1,2-dichloroethane-d4 (s)	9.19	65	123727	52.24	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 104.48%				
76) toluene-d8 (s)	11.22	98	415934	50.25	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.50%				
99) 4-bromofluorobenzene (s)	14.08	95	170705	50.64	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.28%				
Target Compounds							Qvalue
8) chloromethane	4.23	50	3736	0.59	ug/L		82
9) vinyl chloride	4.44	62	2678	0.46	ug/L		75
14) vinyl bromide	5.41	106	1447	0.48	ug/L	#	75
19) 1,1-dichloroethene	6.20	61	3066	0.55	ug/L		86
22) iodomethane	6.45	142	3223	0.54	ug/L		88
23) carbon disulfide	6.60	76	6382	0.56	ug/L		77
24) methylene chloride	6.81	84	2221	0.58	ug/L		96
26) methyl tert butyl ether	7.12	73	5251	0.60	ug/L		88
27) trans-1,2-dichloroethene	7.15	61	2582	0.54	ug/L		90
28) hexane	7.45	56	1462	0.59	ug/L		82
29) di-isopropyl ether	7.63	45	7044	0.61	ug/L		97
31) 1,1-dichloroethane	7.65	63	3211	0.55	ug/L		92
32) chloroprene	7.74	53	2506	0.55	ug/L		89
35) ethyl tert-butyl ether	8.05	59	6213	0.60	ug/L		95
37) 2,2-dichloropropane	8.32	77	2700	0.62	ug/L		91
38) cis-1,2-dichloroethene	8.30	96	1952	0.55	ug/L		90
39) propionitrile	8.30	54	2283	4.78	ug/L		96
42) bromochloromethane	8.55	128	880	0.51	ug/L		85
44) chloroform	8.63	83	3268	0.60	ug/L		96
45) tert-butyl formate	8.66	59	1272	0.50	ug/L		77
47) 1,1,1-trichloroethane	8.87	97	2688	0.54	ug/L		94
48) cyclohexane	9.00	84	2695	0.52	ug/L	#	73
50) 1,1-dichloropropene	9.03	75	2231	0.57	ug/L		88
51) carbon tetrachloride	9.07	117	2137	0.50	ug/L		97
56) n-butyl alcohol	9.67	41	1967	27.64	ug/L		78
57) 2,2,4-trimethylpentane	9.33	57	6930	0.56	ug/L		93
58) benzene	9.26	78	6823	0.59	ug/L		89
59) tert-amyl methyl ether	9.32	73	5746	0.61	ug/L		89
60) heptane	9.47	57	1236	0.56	ug/L		93
62) ethyl acrylate	9.91	55	1578	0.49	ug/L		81
63) trichloroethene	9.93	95	1669	0.58	ug/L		94
66) methylcyclohexane	10.22	83	3510	0.58	ug/L		92
67) 1,2-dichloropropane	10.21	63	1719	0.57	ug/L		94

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3793\
Data File : 4B89753.D
Acq On : 6 Apr 2019 6:50 pm
Operator : CHELSEAS
Sample : IC3793-0.5
Misc : MS33655,V4B3793,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 08 14:33:06 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4B3793.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Mon Apr 08 11:07:07 2019
Response via : Initial Calibration

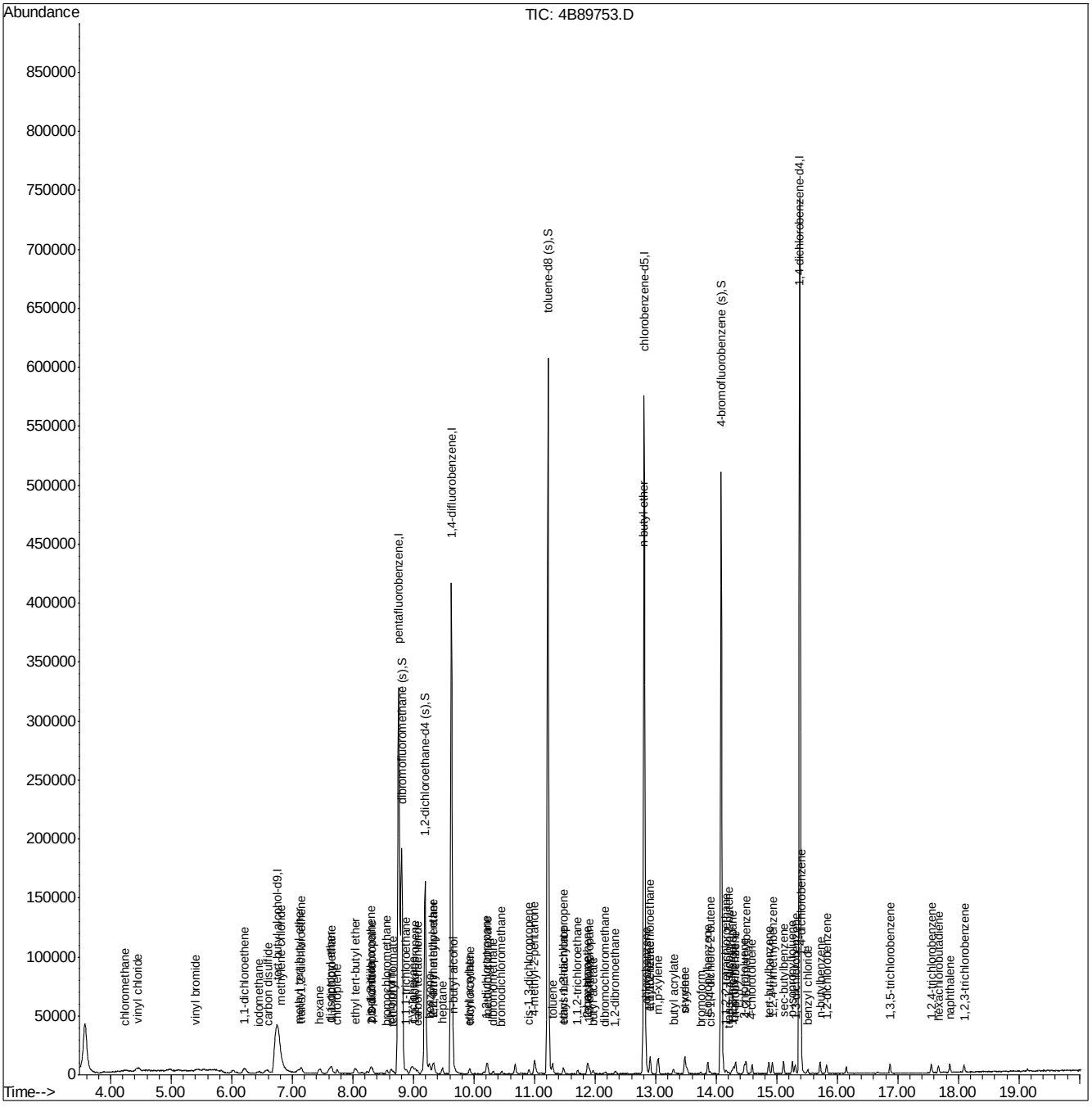
Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
68) dibromomethane	10.31	93	844	0.48 ug/L		95
69) bromodichloromethane	10.45	83	1966	0.53 ug/L		97
72) cis-1,3-dichloropropene	10.91	75	2347	0.53 ug/L		93
73) 4-methyl-2-pentanone	11.00	58	2483	2.16 ug/L		99
77) toluene	11.29	92	3606	0.54 ug/L		90
78) ethyl methacrylate	11.47	69	1583	0.47 ug/L		94
79) trans-1,3-dichloropropene	11.48	75	1795	0.49 ug/L		82
80) 1,1,2-trichloroethane	11.71	83	989	0.49 ug/L	#	86
81) tetrachloroethene	11.87	164	1464	0.59 ug/L		96
82) 2-hexanone	11.87	58	2031	1.94 ug/L		93
83) 1,3-dichloropropane	11.90	76	2073	0.56 ug/L		81
84) butyl acetate	11.96	56	924	0.51 ug/L	#	77
85) dibromochloromethane	12.16	129	1331	0.48 ug/L		93
86) 1,2-dibromoethane	12.33	107	1706	0.53 ug/L		89
87) n-butyl ether	12.79	57	6830	0.57 ug/L		71
88) chlorobenzene	12.85	112	4122	0.56 ug/L		97
89) 1,1,1,2-tetrachloroethane	12.92	131	1760	0.57 ug/L		97
90) ethylbenzene	12.91	91	7463	0.58 ug/L		97
91) m,p-xylene	13.04	106	5473	1.11 ug/L		93
92) o-xylene	13.48	91	6216	0.57 ug/L		95
93) styrene	13.49	104	4337	0.52 ug/L		88
94) butyl acrylate	13.29	55	3299	0.56 ug/L		95
95) isopropylbenzene	13.86	105	7852	0.56 ug/L		93
96) bromoform	13.74	173	846	0.42 ug/L		84
97) cis-1,4-dichloro-2-butene	13.90	88	439	0.43 ug/L		87
100) 1,1,2,2-tetrachloroethane	14.17	83	1983	0.52 ug/L		80
101) trans-1,4-dichloro-2-buten	14.21	53	313	0.39 ug/L	#	73
102) 1,2,3-trichloropropane	14.26	110	423	0.46 ug/L	#	45
103) bromobenzene	14.29	156	2016	0.53 ug/L		93
104) n-propylbenzene	14.32	91	8926	0.54 ug/L		97
105) 2-chlorotoluene	14.46	126	1828	0.52 ug/L		94
106) 4-chlorotoluene	14.59	91	5199	0.55 ug/L		98
107) 1,3,5-trimethylbenzene	14.49	105	6473	0.52 ug/L		97
108) tert-butylbenzene	14.87	119	5387	0.50 ug/L		97
109) 1,2,4-trimethylbenzene	14.93	105	6472	0.52 ug/L		96
110) sec-butylbenzene	15.11	105	8327	0.51 ug/L		98
111) p-isopropyltoluene	15.26	119	7187	0.51 ug/L		97
112) 1,3-dichlorobenzene	15.31	146	3760	0.53 ug/L		99
113) 1,4-dichlorobenzene	15.41	146	3957	0.54 ug/L		99
114) 1,2-dichlorobenzene	15.82	146	3941	0.53 ug/L		94
115) benzyl chloride	15.50	91	3620	0.53 ug/L		87
116) n-butylbenzene	15.72	92	3366	0.50 ug/L		93
119) 1,3,5-trichlorobenzene	16.87	180	3329	0.47 ug/L		90
120) 1,2,4-trichlorobenzene	17.55	180	2852	0.44 ug/L		98
122) hexachlorobutadiene	17.67	225	1665	0.48 ug/L		84
123) naphthalene	17.86	128	5766	0.43 ug/L		96
124) 1,2,3-trichlorobenzene	18.09	180	2620	0.44 ug/L		94

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3793\
Data File : 4B89753.D
Acq On : 6 Apr 2019 6:50 pm
Operator : CHELSEAS
Sample : IC3793-0.5
Misc : MS33655,V4B3793,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 08 14:33:06 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4B3793.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Mon Apr 08 11:07:07 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3793\
Data File : 4B89754.D
Acq On : 6 Apr 2019 7:17 pm
Operator : CHELSEAS
Sample : IC3793-1
Misc : MS33655,V4B3793,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 08 14:34:32 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4B3793.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Mon Apr 08 11:07:07 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	6.75	65	169431	500.00	ug/L	0.00
5) pentafluorobenzene	8.76	168	286713	50.00	ug/L	0.00
54) 1,4-difluorobenzene	9.63	114	377562	50.00	ug/L	0.00
75) chlorobenzene-d5	12.81	117	334230	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	15.38	152	206481	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	8.80	113	130001	49.98	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.96%			
55) 1,2-dichloroethane-d4 (s)	9.19	65	125047	51.46	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 102.92%			
76) toluene-d8 (s)	11.22	98	426086	51.33	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.66%			
99) 4-bromofluorobenzene (s)	14.08	95	169189	49.86	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.72%			
Target Compounds						Qvalue
3) tertiary butyl alcohol	6.86	59	2049	4.19	ug/L	77
6) chlorodifluoromethane	3.90	51	5663	1.00	ug/L	94
7) dichlorodifluoromethane	3.88	85	5127	0.84	ug/L	94
8) chloromethane	4.24	50	6934	1.09	ug/L	91
9) vinyl chloride	4.44	62	5637	0.95	ug/L	84
10) 1,3-butadiene	4.46	54	4339	1.03	ug/L	91
12) chloroethane	5.13	64	3364	1.18	ug/L	91
13) trichlorofluoromethane	5.52	101	5239	0.92	ug/L	94
14) vinyl bromide	5.43	106	3134	1.03	ug/L	91
15) ethyl ether	5.82	74	1601	0.94	ug/L #	75
16) 2-chloropropane	6.03	43	7607	1.29	ug/L	96
18) freon 113	6.22	151	2987	0.97	ug/L	84
19) 1,1-dichloroethene	6.21	61	5785	1.03	ug/L	91
20) acetone	6.19	58	1014	3.35	ug/L #	35
22) iodomethane	6.45	142	5902	0.97	ug/L	98
23) carbon disulfide	6.58	76	11958	1.03	ug/L	98
24) methylene chloride	6.82	84	4069	1.05	ug/L	95
26) methyl tert butyl ether	7.11	73	9470	1.06	ug/L	97
27) trans-1,2-dichloroethene	7.15	61	4945	1.02	ug/L	94
28) hexane	7.45	56	2636	1.04	ug/L	86
29) di-isopropyl ether	7.62	45	12414	1.06	ug/L	94
31) 1,1-dichloroethane	7.65	63	6113	1.03	ug/L	93
32) chloroprene	7.74	53	4481	0.97	ug/L	93
35) ethyl tert-butyl ether	8.04	59	10556	1.01	ug/L	96
37) 2,2-dichloropropane	8.32	77	5105	1.15	ug/L	97
38) cis-1,2-dichloroethene	8.29	96	3891	1.07	ug/L	99
39) propionitrile	8.29	54	4654	9.61	ug/L	86
41) methacrylonitrile	8.47	67	1024	0.84	ug/L #	77
42) bromochloromethane	8.56	128	1660	0.94	ug/L	85
44) chloroform	8.63	83	6053	1.09	ug/L	98
45) tert-butyl formate	8.66	59	2281	0.89	ug/L	91
47) 1,1,1-trichloroethane	8.88	97	4967	0.98	ug/L	97
48) cyclohexane	8.99	84	5571	1.06	ug/L	91

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3793\
Data File : 4B89754.D
Acq On : 6 Apr 2019 7:17 pm
Operator : CHELSEAS
Sample : IC3793-1
Misc : MS33655,V4B3793,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 08 14:34:32 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4B3793.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Mon Apr 08 11:07:07 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
50) 1,1-dichloropropene	9.03	75	4188	1.05 ug/L		93
51) carbon tetrachloride	9.06	117	4158	0.97 ug/L		92
52) tert-amyl alcohol	9.13	73	1177	5.76 ug/L	#	67
56) n-butyl alcohol	9.67	41	3277	44.88 ug/L	#	74
57) 2,2,4-trimethylpentane	9.34	57	13308	1.04 ug/L		93
58) benzene	9.26	78	12490	1.04 ug/L		94
59) tert-amyl methyl ether	9.32	73	10570	1.08 ug/L		97
60) heptane	9.48	57	2216	0.97 ug/L		91
61) 1,2-dichloroethane	9.28	62	4034	1.15 ug/L		98
62) ethyl acrylate	9.91	55	3129	0.95 ug/L		81
63) trichloroethene	9.93	95	2961	1.01 ug/L		96
64) 2-chloroethyl vinyl ether	10.68	63	7966	4.63 ug/L		94
66) methylcyclohexane	10.22	83	6271	1.02 ug/L		97
67) 1,2-dichloropropane	10.21	63	3085	1.00 ug/L		97
68) dibromomethane	10.31	93	1832	1.02 ug/L		93
69) bromodichloromethane	10.46	83	3732	0.98 ug/L		92
71) epichlorohydrin	10.77	57	1232	4.19 ug/L		91
72) cis-1,3-dichloropropene	10.91	75	4320	0.96 ug/L		93
73) 4-methyl-2-pentanone	11.00	58	4777	4.05 ug/L		92
74) isoamyl alcohol	11.00	70	1732	17.78 ug/L	#	73
77) toluene	11.29	92	6493	0.98 ug/L		94
78) ethyl methacrylate	11.47	69	3130	0.93 ug/L		93
79) trans-1,3-dichloropropene	11.48	75	3710	1.00 ug/L		94
80) 1,1,2-trichloroethane	11.71	83	2102	1.03 ug/L		92
81) tetrachloroethene	11.87	164	2566	1.03 ug/L		85
82) 2-hexanone	11.88	58	4307	4.10 ug/L		99
83) 1,3-dichloropropane	11.90	76	3818	1.02 ug/L		98
84) butyl acetate	11.96	56	1793	0.99 ug/L		98
85) dibromochloromethane	12.17	129	2619	0.94 ug/L		91
86) 1,2-dibromoethane	12.33	107	3190	0.99 ug/L		98
87) n-butyl ether	12.79	57	12743	1.07 ug/L		81
88) chlorobenzene	12.84	112	7754	1.05 ug/L		95
89) 1,1,1,2-tetrachloroethane	12.91	131	2906	0.94 ug/L		96
90) ethylbenzene	12.91	91	13001	1.01 ug/L		97
91) m,p-xylene	13.04	106	10142	2.05 ug/L		97
92) o-xylene	13.47	91	11213	1.02 ug/L		99
93) styrene	13.49	104	8015	0.96 ug/L		94
94) butyl acrylate	13.29	55	6029	1.03 ug/L		96
95) isopropylbenzene	13.86	105	13945	0.99 ug/L		96
96) bromoform	13.74	173	1798	0.89 ug/L		93
97) cis-1,4-dichloro-2-butene	13.89	88	914	0.89 ug/L		96
100) 1,1,2,2-tetrachloroethane	14.17	83	3698	0.96 ug/L		97
101) trans-1,4-dichloro-2-buten	14.20	53	741	0.92 ug/L		86
102) 1,2,3-trichloropropane	14.26	110	847	0.91 ug/L	#	73
103) bromobenzene	14.29	156	3715	0.96 ug/L		95
104) n-propylbenzene	14.32	91	15982	0.96 ug/L		98
105) 2-chlorotoluene	14.46	126	3400	0.96 ug/L		95
106) 4-chlorotoluene	14.59	91	9657	1.01 ug/L		95
107) 1,3,5-trimethylbenzene	14.49	105	11848	0.94 ug/L		93
108) tert-butylbenzene	14.87	119	10049	0.92 ug/L		95

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3793\
Data File : 4B89754.D
Acq On : 6 Apr 2019 7:17 pm
Operator : CHELSEAS
Sample : IC3793-1
Misc : MS33655,V4B3793,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 08 14:34:32 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4B3793.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Mon Apr 08 11:07:07 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
109) 1,2,4-trimethylbenzene	14.93	105	11918	0.95	ug/L	93
110) sec-butylbenzene	15.11	105	15258	0.92	ug/L	98
111) p-isopropyltoluene	15.26	119	13022	0.92	ug/L	99
112) 1,3-dichlorobenzene	15.31	146	7009	0.97	ug/L	97
113) 1,4-dichlorobenzene	15.41	146	7214	0.98	ug/L	96
114) 1,2-dichlorobenzene	15.82	146	7245	0.97	ug/L	91
115) benzyl chloride	15.51	91	6479	0.94	ug/L	99
116) n-butylbenzene	15.71	92	6321	0.93	ug/L	95
118) 1,2-dibromo-3-chloropropan	16.66	157	788	0.76	ug/L	91
119) 1,3,5-trichlorobenzene	16.87	180	6400	0.89	ug/L	95
120) 1,2,4-trichlorobenzene	17.55	180	5485	0.85	ug/L	95
122) hexachlorobutadiene	17.67	225	3063	0.89	ug/L	93
123) naphthalene	17.86	128	11175	0.83	ug/L	98
124) 1,2,3-trichlorobenzene	18.09	180	4937	0.82	ug/L	92

(#) = qualifier out of range (m) = manual integration (+) = signals summed

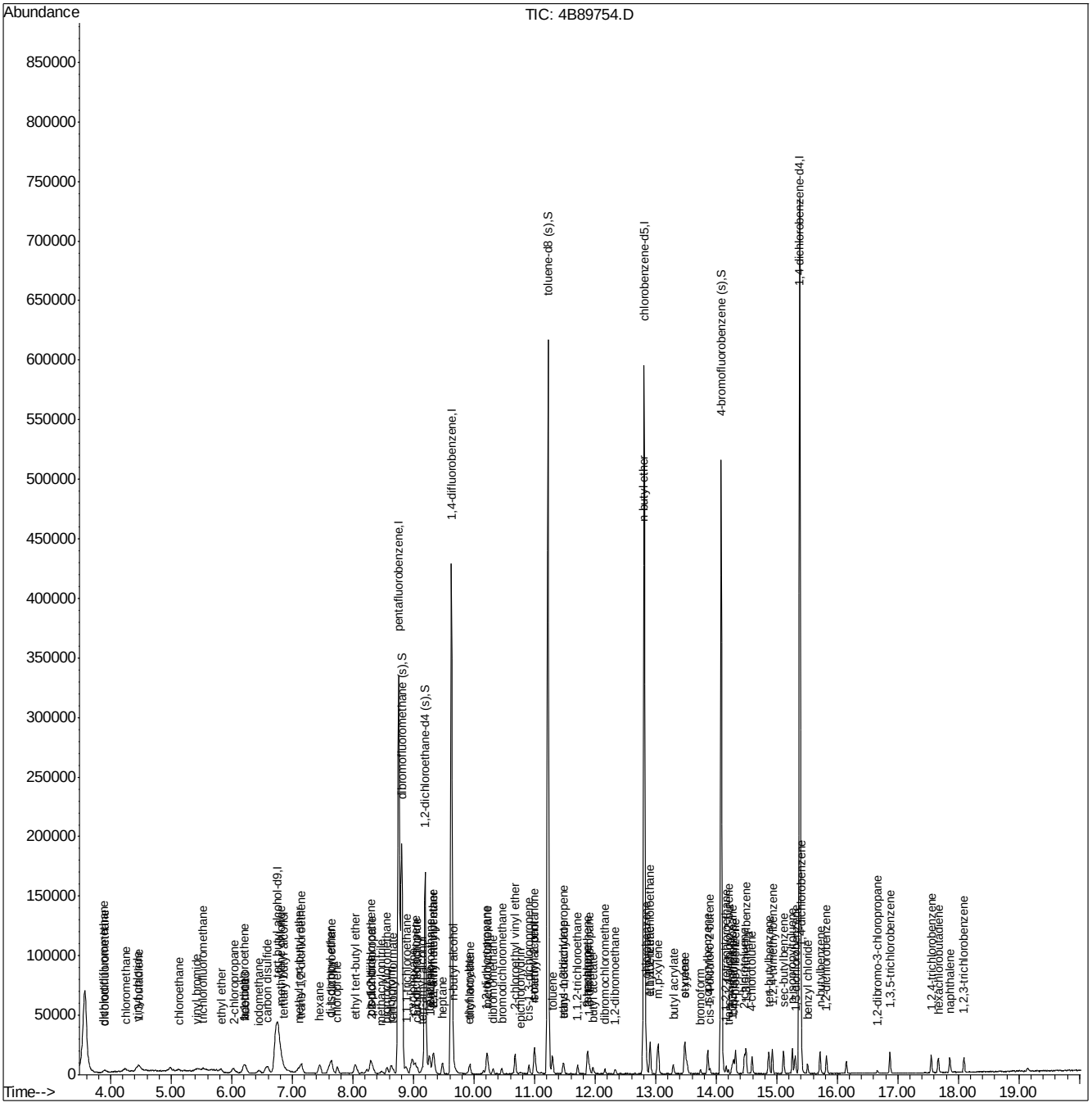
7.7.3

7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3793\
Data File : 4B89754.D
Acq On : 6 Apr 2019 7:17 pm
Operator : CHELSEAS
Sample : IC3793-1
Misc : MS33655,V4B3793,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 08 14:34:32 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4B3793.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Mon Apr 08 11:07:07 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3793\
Data File : 4B89755.D
Acq On : 6 Apr 2019 7:45 pm
Operator : CHELSEAS
Sample : IC3793-2
Misc : MS33655,V4B3793,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 08 14:35:28 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4B3793.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Mon Apr 08 11:26:23 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	6.75	65	167565	500.00	ug/L	0.00
5) pentafluorobenzene	8.76	168	277642	50.00	ug/L	0.00
54) 1,4-difluorobenzene	9.63	114	363763	50.00	ug/L	0.00
75) chlorobenzene-d5	12.81	117	328216	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	15.38	152	204195	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	8.80	113	126142	50.08	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.16%			
55) 1,2-dichloroethane-d4 (s)	9.19	65	123715	52.85	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 105.70%			
76) toluene-d8 (s)	11.22	98	414245	50.82	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.64%			
99) 4-bromofluorobenzene (s)	14.08	95	166777	49.70	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.40%			
Target Compounds						Qvalue
3) tertiary butyl alcohol	6.86	59	5080	10.49	ug/L	77
4) 1,4-dioxane	10.25	88	1548	41.42	ug/L	96
6) chlorodifluoromethane	3.90	51	12863	2.35	ug/L	92
7) dichlorodifluoromethane	3.90	85	11042	1.87	ug/L	83
8) chloromethane	4.24	50	13223	2.14	ug/L	94
9) vinyl chloride	4.45	62	11346	1.97	ug/L	93
10) 1,3-butadiene	4.46	54	9029	2.22	ug/L	97
11) bromomethane	4.98	94	8262	2.19	ug/L	91
12) chloroethane	5.11	64	6119	2.21	ug/L	89
13) trichlorofluoromethane	5.52	101	11020	1.99	ug/L	97
14) vinyl bromide	5.42	106	5843	1.98	ug/L	89
15) ethyl ether	5.82	74	3702	2.25	ug/L	89
16) 2-chloropropane	6.03	43	14665	2.58	ug/L	98
18) freon 113	6.22	151	6647	2.24	ug/L	93
19) 1,1-dichloroethene	6.20	61	12493	2.29	ug/L	97
20) acetone	6.20	58	2438	8.32	ug/L #	71
22) iodomethane	6.44	142	13389	2.27	ug/L	95
23) carbon disulfide	6.57	76	26493	2.35	ug/L	98
24) methylene chloride	6.80	84	8840	2.35	ug/L	98
26) methyl tert butyl ether	7.12	73	20317	2.35	ug/L	95
27) trans-1,2-dichloroethene	7.15	61	10903	2.33	ug/L	97
28) hexane	7.44	56	5655	2.31	ug/L	90
29) di-isopropyl ether	7.63	45	26950	2.37	ug/L	94
30) 2-butanone	8.22	72	2732	8.20	ug/L #	90
31) 1,1-dichloroethane	7.65	63	13313	2.31	ug/L	97
32) chloroprene	7.74	53	10340	2.30	ug/L	99
33) acrylonitrile	7.05	53	2653	2.14	ug/L	87
34) vinyl acetate	7.59	86	902	1.80	ug/L #	82
35) ethyl tert-butyl ether	8.04	59	24050	2.37	ug/L	98
36) ethyl acetate	8.23	45	971	2.24	ug/L #	26
37) 2,2-dichloropropane	8.32	77	10882	2.53	ug/L	92
38) cis-1,2-dichloroethene	8.29	96	8051	2.29	ug/L	99
39) propionitrile	8.29	54	11087	23.65	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3793\
Data File : 4B89755.D
Acq On : 6 Apr 2019 7:45 pm
Operator : CHELSEAS
Sample : IC3793-2
Misc : MS33655,V4B3793,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 08 14:35:28 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4B3793.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Mon Apr 08 11:26:23 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
40) methyl acrylate	8.31	85	726	1.69 ug/L #	18
41) methacrylonitrile	8.47	67	2446	2.08 ug/L	85
42) bromochloromethane	8.56	128	3833	2.24 ug/L	93
43) tetrahydrofuran	8.58	72	939	2.30 ug/L #	42
44) chloroform	8.63	83	12793	2.39 ug/L	97
45) tert-butyl formate	8.66	59	5609	2.25 ug/L	94
47) 1,1,1-trichloroethane	8.88	97	11191	2.28 ug/L	95
48) cyclohexane	8.99	84	10550	2.07 ug/L	95
50) 1,1-dichloropropene	9.03	75	8893	2.29 ug/L	97
51) carbon tetrachloride	9.06	117	9534	2.29 ug/L	94
52) tert-amyl alcohol	9.13	73	2351	11.88 ug/L #	83
53) isopropyl acetate	9.14	87	1110	1.93 ug/L #	41
56) n-butyl alcohol	9.66	41	8474	120.45 ug/L	94
57) 2,2,4-trimethylpentane	9.34	57	28076	2.29 ug/L	99
58) benzene	9.26	78	27172	2.36 ug/L	97
59) tert-amyl methyl ether	9.32	73	23436	2.50 ug/L	95
60) heptane	9.47	57	5007	2.28 ug/L	97
61) 1,2-dichloroethane	9.28	62	8469	2.51 ug/L	92
62) ethyl acrylate	9.90	55	7097	2.24 ug/L	92
63) trichloroethene	9.93	95	6350	2.24 ug/L	92
64) 2-chloroethyl vinyl ether	10.68	63	17805	10.74 ug/L	100
65) methyl methacrylate	10.15	100	1187	1.73 ug/L #	69
66) methylcyclohexane	10.22	83	13688	2.30 ug/L	94
67) 1,2-dichloropropane	10.21	63	6759	2.28 ug/L	96
68) dibromomethane	10.32	93	4006	2.31 ug/L	95
69) bromodichloromethane	10.46	83	7975	2.17 ug/L	95
71) epichlorohydrin	10.77	57	3161	11.17 ug/L	97
72) cis-1,3-dichloropropene	10.91	75	9618	2.21 ug/L	98
73) 4-methyl-2-pentanone	11.00	58	10507	9.24 ug/L	93
74) isoamyl alcohol	11.00	70	4052	43.18 ug/L	91
77) toluene	11.29	92	14911	2.28 ug/L	96
78) ethyl methacrylate	11.47	69	7246	2.19 ug/L	96
79) trans-1,3-dichloropropene	11.48	75	8199	2.26 ug/L	87
80) 1,1,2-trichloroethane	11.71	83	4689	2.34 ug/L	96
81) tetrachloroethene	11.87	164	5360	2.20 ug/L	96
82) 2-hexanone	11.87	58	10269	9.95 ug/L	96
83) 1,3-dichloropropane	11.91	76	8640	2.36 ug/L	87
84) butyl acetate	11.96	56	4438	2.49 ug/L	98
85) dibromochloromethane	12.16	129	5747	2.10 ug/L	98
86) 1,2-dibromoethane	12.33	107	6822	2.15 ug/L	98
87) n-butyl ether	12.79	57	27944	2.38 ug/L	97
88) chlorobenzene	12.84	112	16477	2.26 ug/L	97
89) 1,1,1,2-tetrachloroethane	12.92	131	6755	2.23 ug/L	97
90) ethylbenzene	12.91	91	29285	2.31 ug/L	97
91) m,p-xylene	13.04	106	21970	4.53 ug/L	98
92) o-xylene	13.47	91	24928	2.31 ug/L	99
93) styrene	13.49	104	17721	2.17 ug/L	97
94) butyl acrylate	13.29	55	13305	2.31 ug/L	96
95) isopropylbenzene	13.86	105	31875	2.31 ug/L	96
96) bromoform	13.75	173	4129	2.09 ug/L	96

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3793\
Data File : 4B89755.D
Acq On : 6 Apr 2019 7:45 pm
Operator : CHELSEAS
Sample : IC3793-2
Misc : MS33655,V4B3793,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 08 14:35:28 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4B3793.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Mon Apr 08 11:26:23 2019
Response via : Initial Calibration

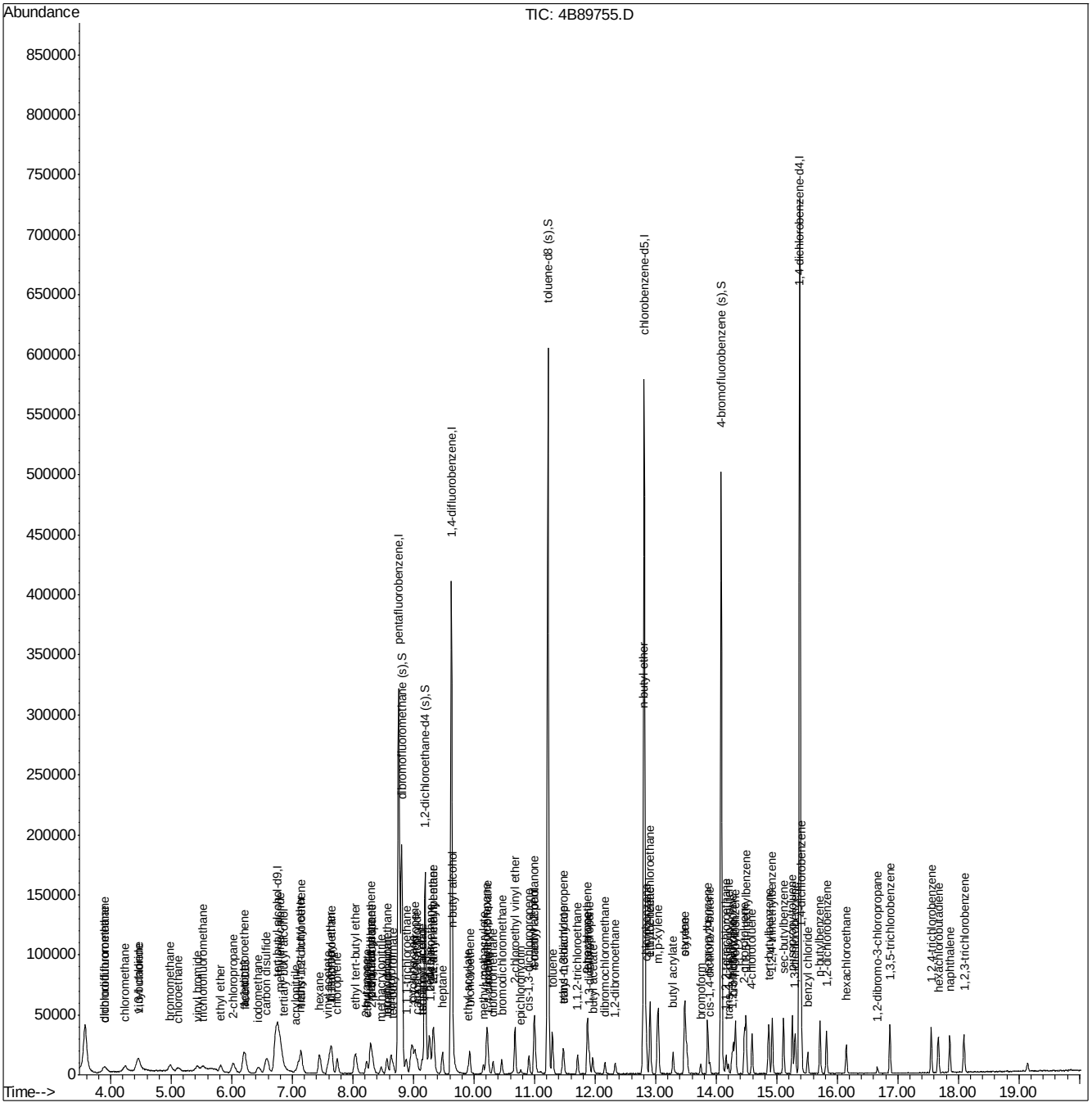
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
97) cis-1,4-dichloro-2-butene	13.89	88	2157	2.13	ug/L	97
100) 1,1,2,2-tetrachloroethane	14.17	83	8471	2.23	ug/L	97
101) trans-1,4-dichloro-2-buten	14.20	53	1676	2.10	ug/L	89
102) 1,2,3-trichloropropane	14.26	110	2005	2.17	ug/L	90
103) bromobenzene	14.29	156	8302	2.17	ug/L	97
104) n-propylbenzene	14.32	91	35483	2.16	ug/L	98
105) 2-chlorotoluene	14.47	126	7561	2.16	ug/L	90
106) 4-chlorotoluene	14.59	91	21005	2.22	ug/L	99
107) 1,3,5-trimethylbenzene	14.49	105	26901	2.17	ug/L	99
108) tert-butylbenzene	14.87	119	22131	2.05	ug/L	98
109) 1,2,4-trimethylbenzene	14.92	105	27307	2.20	ug/L	99
110) sec-butylbenzene	15.11	105	34420	2.10	ug/L	99
111) p-isopropyltoluene	15.26	119	29294	2.10	ug/L	99
112) 1,3-dichlorobenzene	15.31	146	15970	2.24	ug/L	93
113) 1,4-dichlorobenzene	15.41	146	15889	2.19	ug/L	99
114) 1,2-dichlorobenzene	15.82	146	16546	2.23	ug/L	99
115) benzyl chloride	15.51	91	14445	2.12	ug/L	98
116) n-butylbenzene	15.71	92	13829	2.06	ug/L	98
117) hexachloroethane	16.15	201	4382	1.71	ug/L	90
118) 1,2-dibromo-3-chloropropan	16.66	157	1889	1.85	ug/L	79
119) 1,3,5-trichlorobenzene	16.87	180	14457	2.03	ug/L	97
120) 1,2,4-trichlorobenzene	17.55	180	12109	1.89	ug/L	93
122) hexachlorobutadiene	17.67	225	7608	2.22	ug/L	93
123) naphthalene	17.86	128	25405	1.91	ug/L	99
124) 1,2,3-trichlorobenzene	18.09	180	11242	1.90	ug/L	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3793\
Data File : 4B89755.D
Acq On : 6 Apr 2019 7:45 pm
Operator : CHELSEAS
Sample : IC3793-2
Misc : MS33655,V4B3793,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 08 14:35:28 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4B3793.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Mon Apr 08 11:26:23 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3793\
Data File : 4B89756.D
Acq On : 6 Apr 2019 8:13 pm
Operator : CHELSEAS
Sample : IC3793-4
Misc : MS33655,V4B3793,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 08 14:36:07 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4B3793.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Mon Apr 08 11:35:26 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) tert butyl alcohol-d9	6.75	65	161750	500.00	ug/L		0.00
5) pentafluorobenzene	8.76	168	282478	50.00	ug/L		0.00
54) 1,4-difluorobenzene	9.63	114	369759	50.00	ug/L		0.00
75) chlorobenzene-d5	12.81	117	333267	50.00	ug/L		0.00
98) 1,4-dichlorobenzene-d4	15.38	152	203628	50.00	ug/L		0.00
System Monitoring Compounds							
46) dibromofluoromethane (s)	8.80	113	126991	49.56	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.12%				
55) 1,2-dichloroethane-d4 (s)	9.20	65	122920	51.66	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 103.32%				
76) toluene-d8 (s)	11.22	98	418067	50.51	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.02%				
99) 4-bromofluorobenzene (s)	14.08	95	167342	50.01	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.02%				
Target Compounds							Qvalue
3) tertiary butyl alcohol	6.85	59	9371	20.05	ug/L		87
4) 1,4-dioxane	10.25	88	3128	86.70	ug/L		92
6) chlorodifluoromethane	3.91	51	23553	4.23	ug/L		97
7) dichlorodifluoromethane	3.89	85	18363	3.06	ug/L		95
8) chloromethane	4.23	50	21457	3.41	ug/L		99
9) vinyl chloride	4.45	62	18250	3.12	ug/L		98
10) 1,3-butadiene	4.47	54	17547	4.24	ug/L		97
11) bromomethane	4.98	94	13114	3.41	ug/L		94
12) chloroethane	5.12	64	9604	3.41	ug/L		97
13) trichlorofluoromethane	5.51	101	17612	3.13	ug/L		95
14) vinyl bromide	5.42	106	9607	3.20	ug/L		94
15) ethyl ether	5.82	74	6840	4.09	ug/L		96
16) 2-chloropropane	6.02	43	26729	4.61	ug/L		97
17) acrolein	6.03	56	2563	4.01	ug/L		94
18) freon 113	6.22	151	12249	4.05	ug/L		95
19) 1,1-dichloroethene	6.20	61	23562	4.25	ug/L		92
20) acetone	6.20	58	4552	15.27	ug/L	#	70
21) acetonitrile	6.55	41	20301	44.48	ug/L		93
22) iodomethane	6.45	142	24824	4.14	ug/L		97
23) carbon disulfide	6.59	76	49158	4.28	ug/L		99
24) methylene chloride	6.81	84	16347	4.26	ug/L		92
25) methyl acetate	6.58	43	10496	4.22	ug/L		99
26) methyl tert butyl ether	7.12	73	38025	4.33	ug/L		97
27) trans-1,2-dichloroethene	7.15	61	20934	4.39	ug/L		97
28) hexane	7.45	56	11073	4.45	ug/L		88
29) di-isopropyl ether	7.63	45	50131	4.33	ug/L		97
30) 2-butanone	8.22	72	4885	14.42	ug/L		91
31) 1,1-dichloroethane	7.65	63	25266	4.31	ug/L		97
32) chloroprene	7.74	53	19352	4.24	ug/L		98
33) acrylonitrile	7.06	53	5047	4.01	ug/L		95
34) vinyl acetate	7.59	86	1799	3.52	ug/L	#	86
35) ethyl tert-butyl ether	8.04	59	44309	4.29	ug/L		98
36) ethyl acetate	8.22	45	1718	3.90	ug/L	#	70

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3793\
Data File : 4B89756.D
Acq On : 6 Apr 2019 8:13 pm
Operator : CHELSEAS
Sample : IC3793-4
Misc : MS33655,V4B3793,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 08 14:36:07 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4B3793.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Mon Apr 08 11:35:26 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) 2,2-dichloropropane	8.33	77	19467	4.45	ug/L		93
38) cis-1,2-dichloroethene	8.29	96	15307	4.29	ug/L		90
39) propionitrile	8.28	54	20485	42.95	ug/L		83
40) methyl acrylate	8.31	85	1573	3.61	ug/L	#	57
41) methacrylonitrile	8.46	67	4572	3.81	ug/L		93
42) bromochloromethane	8.56	128	7182	4.13	ug/L		99
43) tetrahydrofuran	8.58	72	1639	3.94	ug/L	#	76
44) chloroform	8.63	83	23601	4.33	ug/L		99
45) tert-butyl formate	8.66	59	10497	4.13	ug/L		95
47) 1,1,1-trichloroethane	8.88	97	21012	4.21	ug/L		98
48) cyclohexane	8.99	84	17053	3.28	ug/L		98
50) 1,1-dichloropropene	9.03	75	17103	4.33	ug/L		98
51) carbon tetrachloride	9.06	117	17638	4.16	ug/L		98
52) tert-amyl alcohol	9.13	73	4488	22.29	ug/L	#	81
53) isopropyl acetate	9.15	87	2220	3.79	ug/L	#	75
56) n-butyl alcohol	9.66	41	16296	227.87	ug/L		95
57) 2,2,4-trimethylpentane	9.34	57	54126	4.33	ug/L		99
58) benzene	9.26	78	50831	4.34	ug/L		99
59) tert-amyl methyl ether	9.32	73	42270	4.43	ug/L		99
60) heptane	9.48	57	9717	4.36	ug/L		94
61) 1,2-dichloroethane	9.27	62	15374	4.49	ug/L		95
62) ethyl acrylate	9.90	55	13023	4.04	ug/L		98
63) trichloroethene	9.93	95	12148	4.21	ug/L		99
64) 2-chloroethyl vinyl ether	10.68	63	33327	19.78	ug/L		98
65) methyl methacrylate	10.15	100	2495	3.57	ug/L		98
66) methylcyclohexane	10.22	83	26244	4.34	ug/L		96
67) 1,2-dichloropropane	10.21	63	13159	4.36	ug/L		97
68) dibromomethane	10.31	93	7271	4.13	ug/L		92
69) bromodichloromethane	10.46	83	15009	4.02	ug/L		96
71) epichlorohydrin	10.77	57	6007	20.88	ug/L		93
72) cis-1,3-dichloropropene	10.91	75	17865	4.05	ug/L		97
73) 4-methyl-2-pentanone	11.00	58	19565	16.92	ug/L		96
74) isoamyl alcohol	10.99	70	8301	87.02	ug/L		96
77) toluene	11.30	92	27992	4.22	ug/L		98
78) ethyl methacrylate	11.47	69	13537	4.03	ug/L		98
79) trans-1,3-dichloropropene	11.48	75	15301	4.15	ug/L		99
80) 1,1,2-trichloroethane	11.71	83	8395	4.12	ug/L		97
81) tetrachloroethene	11.87	164	10582	4.28	ug/L		92
82) 2-hexanone	11.87	58	18546	17.70	ug/L		98
83) 1,3-dichloropropane	11.90	76	15652	4.21	ug/L		94
84) butyl acetate	11.96	56	7857	4.34	ug/L		97
85) dibromochloromethane	12.16	129	10883	3.92	ug/L		94
86) 1,2-dibromoethane	12.33	107	12502	3.88	ug/L		96
87) n-butyl ether	12.79	57	52373	4.40	ug/L		97
88) chlorobenzene	12.85	112	30965	4.19	ug/L		94
89) 1,1,1,2-tetrachloroethane	12.92	131	12403	4.03	ug/L		97
90) ethylbenzene	12.91	91	55688	4.33	ug/L		98
91) m,p-xylene	13.04	106	41793	8.48	ug/L		94
92) o-xylene	13.47	91	46823	4.27	ug/L		100
93) styrene	13.49	104	34228	4.13	ug/L		94

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3793\
Data File : 4B89756.D
Acq On : 6 Apr 2019 8:13 pm
Operator : CHELSEAS
Sample : IC3793-4
Misc : MS33655,V4B3793,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 08 14:36:07 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4B3793.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Mon Apr 08 11:35:26 2019
Response via : Initial Calibration

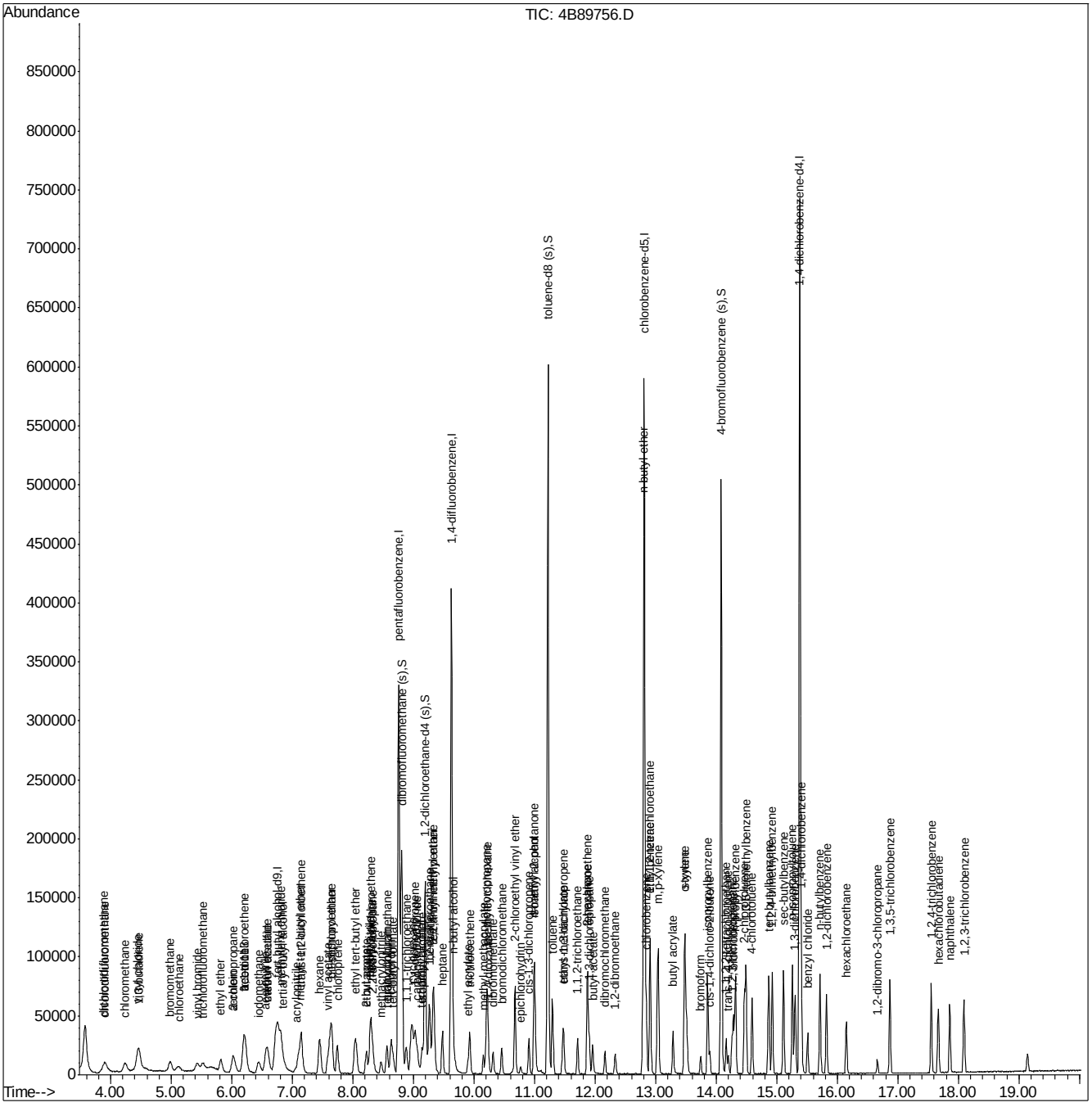
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
94) butyl acrylate	13.29	55	25510	4.36 ug/L	99
95) isopropylbenzene	13.86	105	58816	4.20 ug/L	99
96) bromoform	13.74	173	7620	3.80 ug/L	95
97) cis-1,4-dichloro-2-butene	13.89	88	4031	3.93 ug/L	96
100) 1,1,2,2-tetrachloroethane	14.17	83	15832	4.17 ug/L	98
101) trans-1,4-dichloro-2-buten	14.20	53	3235	4.07 ug/L	91
102) 1,2,3-trichloropropane	14.26	110	3898	4.24 ug/L	96
103) bromobenzene	14.29	156	15680	4.12 ug/L	100
104) n-propylbenzene	14.32	91	66829	4.09 ug/L	100
105) 2-chlorotoluene	14.46	126	14293	4.10 ug/L	98
106) 4-chlorotoluene	14.59	91	39835	4.22 ug/L	97
107) 1,3,5-trimethylbenzene	14.49	105	50741	4.10 ug/L	98
108) tert-butylbenzene	14.87	119	42027	3.91 ug/L	98
109) 1,2,4-trimethylbenzene	14.92	105	51079	4.13 ug/L	99
110) sec-butylbenzene	15.11	105	64671	3.96 ug/L	98
111) p-isopropyltoluene	15.26	119	56060	4.03 ug/L	97
112) 1,3-dichlorobenzene	15.31	146	29942	4.22 ug/L	98
113) 1,4-dichlorobenzene	15.41	146	29841	4.13 ug/L	98
114) 1,2-dichlorobenzene	15.82	146	30506	4.13 ug/L	99
115) benzyl chloride	15.51	91	26839	3.95 ug/L	99
116) n-butylbenzene	15.71	92	27509	4.11 ug/L	94
117) hexachloroethane	16.15	201	8223	3.23 ug/L	90
118) 1,2-dibromo-3-chloropropan	16.67	157	3674	3.61 ug/L	99
119) 1,3,5-trichlorobenzene	16.87	180	27234	3.83 ug/L	96
120) 1,2,4-trichlorobenzene	17.55	180	23879	3.74 ug/L	96
122) hexachlorobutadiene	17.67	225	13410	3.93 ug/L	97
123) naphthalene	17.86	128	49562	3.73 ug/L	99
124) 1,2,3-trichlorobenzene	18.09	180	21780	3.69 ug/L	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3793\
Data File : 4B89756.D
Acq On : 6 Apr 2019 8:13 pm
Operator : CHELSEAS
Sample : IC3793-4
Misc : MS33655,V4B3793,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 08 14:36:07 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4B3793.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Mon Apr 08 11:35:26 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3793\
Data File : 4B89757.D
Acq On : 6 Apr 2019 8:41 pm
Operator : CHELSEAS
Sample : IC3793-8
Misc : MS33655,V4B3793,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 08 11:36:15 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4B3793.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Mon Apr 08 11:35:26 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) tert butyl alcohol-d9	6.76	65	163373	500.00	ug/L		0.01
5) pentafluorobenzene	8.76	168	274393	50.00	ug/L		0.00
54) 1,4-difluorobenzene	9.63	114	361773	50.00	ug/L		0.00
75) chlorobenzene-d5	12.81	117	327378	50.00	ug/L		0.00
98) 1,4-dichlorobenzene-d4	15.38	152	200226	50.00	ug/L		0.00
System Monitoring Compounds							
46) dibromofluoromethane (s)	8.80	113	124785	50.13	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.26%				
55) 1,2-dichloroethane-d4 (s)	9.19	65	121062	52.00	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 104.00%				
76) toluene-d8 (s)	11.22	98	410996	50.55	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.10%				
99) 4-bromofluorobenzene (s)	14.08	95	164775	50.07	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.14%				
Target Compounds							Qvalue
3) tertiary butyl alcohol	6.85	59	19049	40.36	ug/L		97
4) 1,4-dioxane	10.25	88	6485	177.97	ug/L		95
6) chlorodifluoromethane	3.91	51	45098	8.34	ug/L		99
7) dichlorodifluoromethane	3.88	85	43993	7.55	ug/L		99
8) chloromethane	4.24	50	50934	8.33	ug/L		97
9) vinyl chloride	4.44	62	45392	7.98	ug/L		99
10) 1,3-butadiene	4.47	54	33641	8.36	ug/L		96
11) bromomethane	4.98	94	30882	8.27	ug/L		99
12) chloroethane	5.12	64	23273	8.50	ug/L		97
13) trichlorofluoromethane	5.52	101	43120	7.89	ug/L		99
14) vinyl bromide	5.43	106	23602	8.10	ug/L		99
15) ethyl ether	5.82	74	13548	8.34	ug/L		91
16) 2-chloropropane	6.02	43	47123	8.37	ug/L		96
17) acrolein	6.03	56	5091	8.21	ug/L		92
18) freon 113	6.21	151	23507	8.00	ug/L		94
19) 1,1-dichloroethene	6.20	61	45333	8.41	ug/L		95
20) acetone	6.18	58	9330	32.21	ug/L	#	82
21) acetonitrile	6.57	41	39435	88.94	ug/L		96
22) iodomethane	6.45	142	47992	8.25	ug/L		97
23) carbon disulfide	6.58	76	94021	8.42	ug/L		99
24) methylene chloride	6.81	84	30959	8.31	ug/L		98
25) methyl acetate	6.58	43	20823	8.61	ug/L		96
26) methyl tert butyl ether	7.11	73	73451	8.60	ug/L		99
27) trans-1,2-dichloroethene	7.15	61	38835	8.38	ug/L		99
28) hexane	7.45	56	20003	8.27	ug/L		95
29) di-isopropyl ether	7.63	45	95682	8.50	ug/L		98
30) 2-butanone	8.21	72	10463	31.79	ug/L	#	88
31) 1,1-dichloroethane	7.65	63	48067	8.45	ug/L		97
32) chloroprene	7.74	53	37427	8.44	ug/L		98
33) acrylonitrile	7.05	53	10249	8.38	ug/L		98
34) vinyl acetate	7.58	86	3821	7.69	ug/L	#	85
35) ethyl tert-butyl ether	8.04	59	86511	8.63	ug/L		98
36) ethyl acetate	8.22	45	3648	8.53	ug/L	#	81

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3793\
Data File : 4B89757.D
Acq On : 6 Apr 2019 8:41 pm
Operator : CHELSEAS
Sample : IC3793-8
Misc : MS33655,V4B3793,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 08 11:36:15 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4B3793.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Mon Apr 08 11:35:26 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
37) 2,2-dichloropropane	8.32	77	37023	8.71 ug/L	99
38) cis-1,2-dichloroethene	8.29	96	28685	8.27 ug/L	97
39) propionitrile	8.29	54	39745	85.78 ug/L	98
40) methyl acrylate	8.30	85	3236	7.64 ug/L	99
41) methacrylonitrile	8.46	67	9301	7.99 ug/L	95
42) bromochloromethane	8.56	128	14206	8.41 ug/L	97
43) tetrahydrofuran	8.58	72	3183	7.87 ug/L	99
44) chloroform	8.63	83	44164	8.34 ug/L	98
45) tert-butyl formate	8.66	59	20421	8.28 ug/L	92
47) 1,1,1-trichloroethane	8.88	97	40456	8.35 ug/L	97
48) cyclohexane	8.99	84	40840	8.10 ug/L	93
50) 1,1-dichloropropene	9.03	75	32003	8.35 ug/L	97
51) carbon tetrachloride	9.07	117	33727	8.18 ug/L	97
52) tert-amyl alcohol	9.13	73	8797	44.98 ug/L	92
53) isopropyl acetate	9.14	87	4430	7.78 ug/L	97
56) n-butyl alcohol	9.66	41	31396	448.71 ug/L	96
57) 2,2,4-trimethylpentane	9.34	57	100357	8.21 ug/L	98
58) benzene	9.26	78	96095	8.39 ug/L	99
59) tert-amyl methyl ether	9.32	73	82285	8.81 ug/L	99
60) heptane	9.48	57	17450	8.00 ug/L	97
61) 1,2-dichloroethane	9.27	62	28448	8.49 ug/L	98
62) ethyl acrylate	9.90	55	26210	8.32 ug/L	100
63) trichloroethene	9.93	95	23156	8.21 ug/L	97
64) 2-chloroethyl vinyl ether	10.68	63	66784	40.50 ug/L	99
65) methyl methacrylate	10.15	100	5032	7.36 ug/L	92
66) methylcyclohexane	10.23	83	49368	8.34 ug/L	99
67) 1,2-dichloropropane	10.21	63	25048	8.49 ug/L	98
68) dibromomethane	10.32	93	14331	8.32 ug/L	91
69) bromodichloromethane	10.46	83	29558	8.09 ug/L	97
70) 2-nitropropane	10.64	41	3847	7.49 ug/L	89
71) epichlorohydrin	10.77	57	11690	41.53 ug/L	95
72) cis-1,3-dichloropropene	10.91	75	34941	8.09 ug/L	96
73) 4-methyl-2-pentanone	11.00	58	38905	34.38 ug/L	100
74) isoamyl alcohol	10.99	70	16116	172.68 ug/L	96
77) toluene	11.30	92	53938	8.28 ug/L	99
78) ethyl methacrylate	11.46	69	26981	8.18 ug/L	98
79) trans-1,3-dichloropropene	11.48	75	29623	8.17 ug/L	97
80) 1,1,2-trichloroethane	11.71	83	16411	8.20 ug/L	97
81) tetrachloroethene	11.87	164	20063	8.26 ug/L	99
82) 2-hexanone	11.87	58	35495	34.48 ug/L	99
83) 1,3-dichloropropane	11.90	76	30563	8.36 ug/L	93
84) butyl acetate	11.96	56	15877	8.94 ug/L	92
85) dibromochloromethane	12.16	129	21121	7.75 ug/L	99
86) 1,2-dibromoethane	12.33	107	25786	8.14 ug/L	97
87) n-butyl ether	12.79	57	99805	8.53 ug/L	99
88) chlorobenzene	12.84	112	60260	8.30 ug/L	95
89) 1,1,1,2-tetrachloroethane	12.92	131	24164	8.00 ug/L	97
90) ethylbenzene	12.91	91	105268	8.34 ug/L	100
91) m,p-xylene	13.04	106	80513	16.63 ug/L	99
92) o-xylene	13.47	91	90025	8.36 ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3793\
Data File : 4B89757.D
Acq On : 6 Apr 2019 8:41 pm
Operator : CHELSEAS
Sample : IC3793-8
Misc : MS33655,V4B3793,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 08 11:36:15 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4B3793.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Mon Apr 08 11:35:26 2019
Response via : Initial Calibration

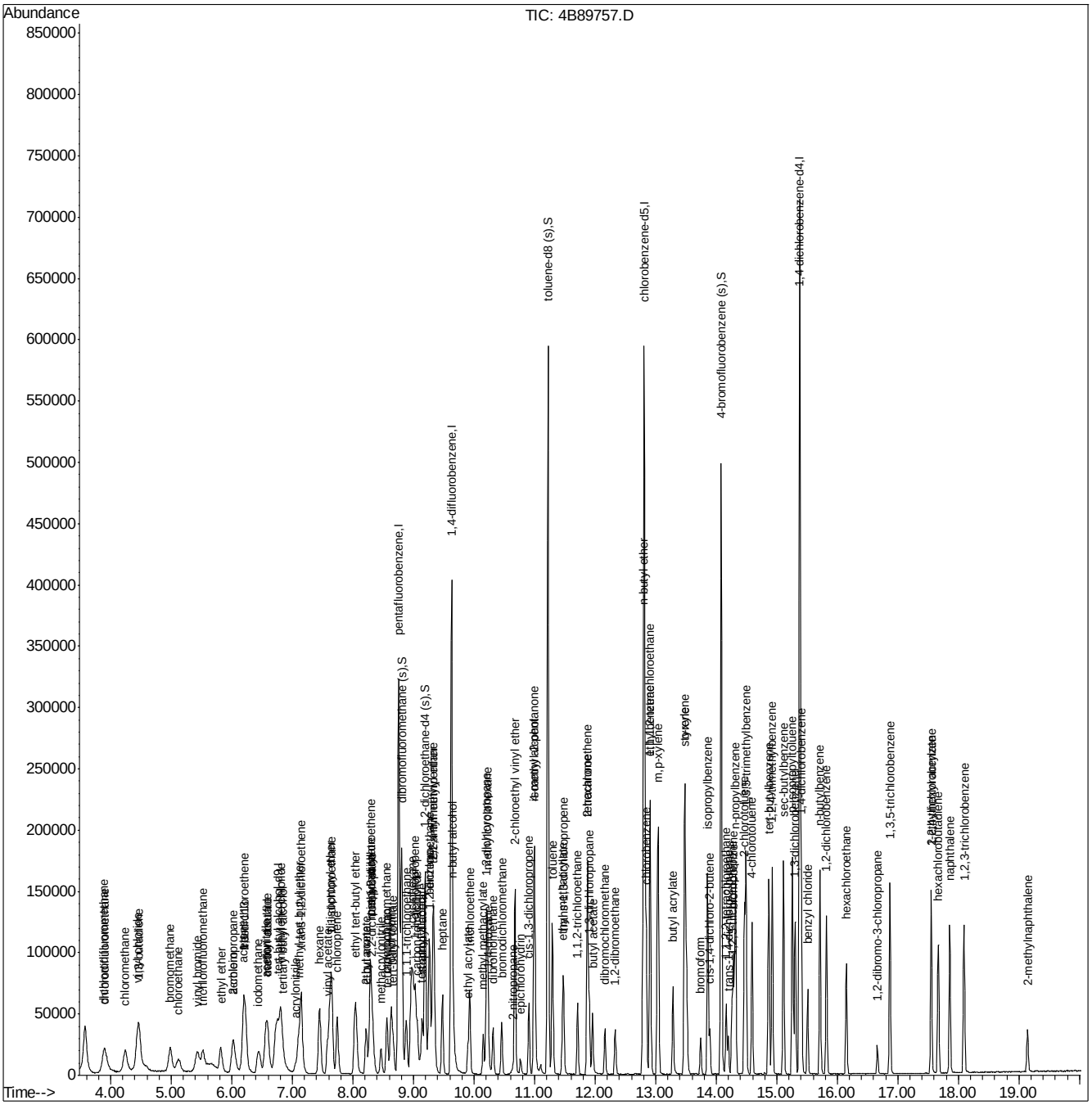
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
93) styrene	13.49	104	66705	8.20	ug/L	99
94) butyl acrylate	13.29	55	49567	8.63	ug/L	97
95) isopropylbenzene	13.86	105	114201	8.30	ug/L	98
96) bromoform	13.74	173	15114	7.67	ug/L	99
97) cis-1,4-dichloro-2-butene	13.90	88	8217	8.15	ug/L	94
100) 1,1,2,2-tetrachloroethane	14.17	83	30250	8.11	ug/L	99
101) trans-1,4-dichloro-2-buten	14.20	53	6163	7.89	ug/L	89
102) 1,2,3-trichloropropane	14.26	110	7294	8.06	ug/L	97
103) bromobenzene	14.29	156	29898	7.98	ug/L	95
104) n-propylbenzene	14.32	91	129447	8.05	ug/L	98
105) 2-chlorotoluene	14.47	126	27364	7.98	ug/L	93
106) 4-chlorotoluene	14.59	91	75903	8.18	ug/L	100
107) 1,3,5-trimethylbenzene	14.49	105	97598	8.02	ug/L	98
108) tert-butylbenzene	14.87	119	80943	7.66	ug/L	96
109) 1,2,4-trimethylbenzene	14.92	105	97956	8.05	ug/L	99
110) sec-butylbenzene	15.11	105	126564	7.88	ug/L	99
111) p-isopropyltoluene	15.26	119	108176	7.91	ug/L	99
112) 1,3-dichlorobenzene	15.31	146	57412	8.23	ug/L	99
113) 1,4-dichlorobenzene	15.41	146	56791	7.99	ug/L	100
114) 1,2-dichlorobenzene	15.82	146	58880	8.11	ug/L	98
115) benzyl chloride	15.51	91	52197	7.81	ug/L	99
116) n-butylbenzene	15.71	92	52159	7.93	ug/L	99
117) hexachloroethane	16.15	201	16951	6.76	ug/L	94
118) 1,2-dibromo-3-chloropropan	16.67	157	7508	7.50	ug/L	96
119) 1,3,5-trichlorobenzene	16.87	180	53992	7.73	ug/L	99
120) 1,2,4-trichlorobenzene	17.55	180	47222	7.52	ug/L	99
121) 2-ethylhexyl acrylate	17.55	70	2923	1.06	ug/L	94
122) hexachlorobutadiene	17.67	225	26217	7.81	ug/L	97
123) naphthalene	17.86	128	97831	7.49	ug/L	100
124) 1,2,3-trichlorobenzene	18.09	180	43707	7.53	ug/L	98
125) 2-methylnaphthalene	19.14	142	19191	3.07	ug/L	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3793\
Data File : 4B89757.D
Acq On : 6 Apr 2019 8:41 pm
Operator : CHELSEAS
Sample : IC3793-8
Misc : MS33655,V4B3793,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 08 11:36:15 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4B3793.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Mon Apr 08 11:35:26 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3793\
Data File : 4B89758.D
Acq On : 6 Apr 2019 9:09 pm
Operator : CHELSEAS
Sample : IC3793-20
Misc : MS33655,V4B3793,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Apr 08 11:36:24 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4B3793.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Mon Apr 08 11:35:26 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	6.75	65	161319	500.00	ug/L	0.00
5) pentafluorobenzene	8.76	168	286411	50.00	ug/L	0.00
54) 1,4-difluorobenzene	9.63	114	378214	50.00	ug/L	0.00
75) chlorobenzene-d5	12.81	117	335641	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	15.38	152	201471	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	8.80	113	128884	49.61	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.22%			
55) 1,2-dichloroethane-d4 (s)	9.19	65	125433	51.53	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 103.06%			
76) toluene-d8 (s)	11.22	98	425324	51.02	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.04%			
99) 4-bromofluorobenzene (s)	14.08	95	165697	50.04	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.08%			
Target Compounds						Qvalue
3) tertiary butyl alcohol	6.86	59	44741	96.00	ug/L	98
4) 1,4-dioxane	10.24	88	16602	461.41	ug/L	97
6) chlorodifluoromethane	3.90	51	112797	19.98	ug/L	99
7) dichlorodifluoromethane	3.89	85	121752	20.01	ug/L	99
8) chloromethane	4.24	50	129006	20.22	ug/L	99
9) vinyl chloride	4.45	62	118869	20.03	ug/L	100
10) 1,3-butadiene	4.47	54	84531	20.13	ug/L	98
11) bromomethane	4.99	94	78912	20.25	ug/L	98
12) chloroethane	5.13	64	59474	20.80	ug/L	98
13) trichlorofluoromethane	5.53	101	117362	20.57	ug/L	99
14) vinyl bromide	5.43	106	61947	20.37	ug/L	97
15) ethyl ether	5.82	74	34357	20.27	ug/L	92
16) 2-chloropropane	6.02	43	119443	20.34	ug/L	98
17) acrolein	6.03	56	13479	20.82	ug/L	98
18) freon 113	6.21	151	62198	20.28	ug/L	98
19) 1,1-dichloroethene	6.22	61	115138	20.46	ug/L	97
20) acetone	6.19	58	23166	76.62	ug/L	99
21) acetonitrile	6.55	41	92519	199.91	ug/L	97
22) iodomethane	6.46	142	122065	20.09	ug/L	98
23) carbon disulfide	6.60	76	236569	20.31	ug/L	99
24) methylene chloride	6.81	84	78899	20.30	ug/L	96
25) methyl acetate	6.58	43	48077	19.05	ug/L	99
26) methyl tert butyl ether	7.11	73	179557	20.15	ug/L	98
27) trans-1,2-dichloroethene	7.15	61	99479	20.57	ug/L	99
28) hexane	7.45	56	52725	20.88	ug/L	99
29) di-isopropyl ether	7.63	45	238780	20.33	ug/L	99
30) 2-butanone	8.21	72	27157	79.05	ug/L	99
31) 1,1-dichloroethane	7.65	63	122419	20.62	ug/L	99
32) chloroprene	7.74	53	94584	20.43	ug/L	98
33) acrylonitrile	7.05	53	25630	20.08	ug/L	98
34) vinyl acetate	7.57	86	10150	19.58	ug/L	98
35) ethyl tert-butyl ether	8.04	59	210696	20.14	ug/L	98
36) ethyl acetate	8.22	45	9275	20.78	ug/L #	92

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3793\
Data File : 4B89758.D
Acq On : 6 Apr 2019 9:09 pm
Operator : CHELSEAS
Sample : IC3793-20
Misc : MS33655,V4B3793,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Apr 08 11:36:24 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4B3793.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Mon Apr 08 11:35:26 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) 2,2-dichloropropane	8.32	77	90200	20.33	ug/L		99
38) cis-1,2-dichloroethene	8.29	96	72238	19.96	ug/L		98
39) propionitrile	8.29	54	99987	206.75	ug/L		94
40) methyl acrylate	8.30	85	9039	20.44	ug/L	#	86
41) methacrylonitrile	8.46	67	24500	20.16	ug/L		98
42) bromochloromethane	8.56	128	35814	20.31	ug/L		96
43) tetrahydrofuran	8.58	72	8276	19.61	ug/L		94
44) chloroform	8.63	83	112812	20.40	ug/L		99
45) tert-butyl formate	8.66	59	50130	19.47	ug/L		97
47) 1,1,1-trichloroethane	8.88	97	101665	20.10	ug/L		98
48) cyclohexane	8.99	84	122305	23.23	ug/L		98
50) 1,1-dichloropropene	9.03	75	83001	20.75	ug/L		97
51) carbon tetrachloride	9.07	117	86039	20.00	ug/L		99
52) tert-amyl alcohol	9.13	73	20959	102.67	ug/L		93
53) isopropyl acetate	9.14	87	12002	20.19	ug/L		96
56) n-butyl alcohol	9.66	41	79400	1085.45	ug/L		95
57) 2,2,4-trimethylpentane	9.34	57	269172	21.08	ug/L		99
58) benzene	9.26	78	247976	20.71	ug/L		97
59) tert-amyl methyl ether	9.32	73	199077	20.40	ug/L		99
60) heptane	9.48	57	47695	20.92	ug/L		99
61) 1,2-dichloroethane	9.27	62	72900	20.80	ug/L		99
62) ethyl acrylate	9.90	55	67321	20.43	ug/L		99
63) trichloroethene	9.93	95	60412	20.48	ug/L		99
64) 2-chloroethyl vinyl ether	10.68	63	171474	99.47	ug/L		99
65) methyl methacrylate	10.15	100	13727	19.20	ug/L		96
66) methylcyclohexane	10.23	83	128665	20.80	ug/L		100
67) 1,2-dichloropropane	10.21	63	62639	20.30	ug/L		99
68) dibromomethane	10.32	93	36392	20.21	ug/L		96
69) bromodichloromethane	10.46	83	76801	20.10	ug/L		99
70) 2-nitropropane	10.65	41	9997	18.61	ug/L		100
71) epichlorohydrin	10.77	57	30288	102.92	ug/L		97
72) cis-1,3-dichloropropene	10.91	75	91627	20.29	ug/L		99
73) 4-methyl-2-pentanone	11.00	58	97293	82.25	ug/L		98
74) isoamyl alcohol	10.99	70	40865	418.83	ug/L		97
77) toluene	11.29	92	138913	20.80	ug/L		99
78) ethyl methacrylate	11.46	69	68574	20.28	ug/L		99
79) trans-1,3-dichloropropene	11.48	75	76159	20.49	ug/L		98
80) 1,1,2-trichloroethane	11.71	83	42462	20.70	ug/L		97
81) tetrachloroethene	11.87	164	51321	20.61	ug/L		99
82) 2-hexanone	11.87	58	88417	83.78	ug/L		97
83) 1,3-dichloropropane	11.90	76	76522	20.42	ug/L		95
84) butyl acetate	11.96	56	38492	21.14	ug/L		98
85) dibromochloromethane	12.17	129	55271	19.78	ug/L		99
86) 1,2-dibromoethane	12.33	107	65891	20.28	ug/L		97
87) n-butyl ether	12.79	57	247421	20.64	ug/L		100
88) chlorobenzene	12.85	112	153198	20.59	ug/L		99
89) 1,1,1,2-tetrachloroethane	12.92	131	61999	20.03	ug/L		99
90) ethylbenzene	12.91	91	268069	20.71	ug/L		100
91) m,p-xylene	13.04	106	204705	41.23	ug/L		99
92) o-xylene	13.47	91	227821	20.62	ug/L		100

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3793\
Data File : 4B89758.D
Acq On : 6 Apr 2019 9:09 pm
Operator : CHELSEAS
Sample : IC3793-20
Misc : MS33655,V4B3793,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Apr 08 11:36:24 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4B3793.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Mon Apr 08 11:35:26 2019
Response via : Initial Calibration

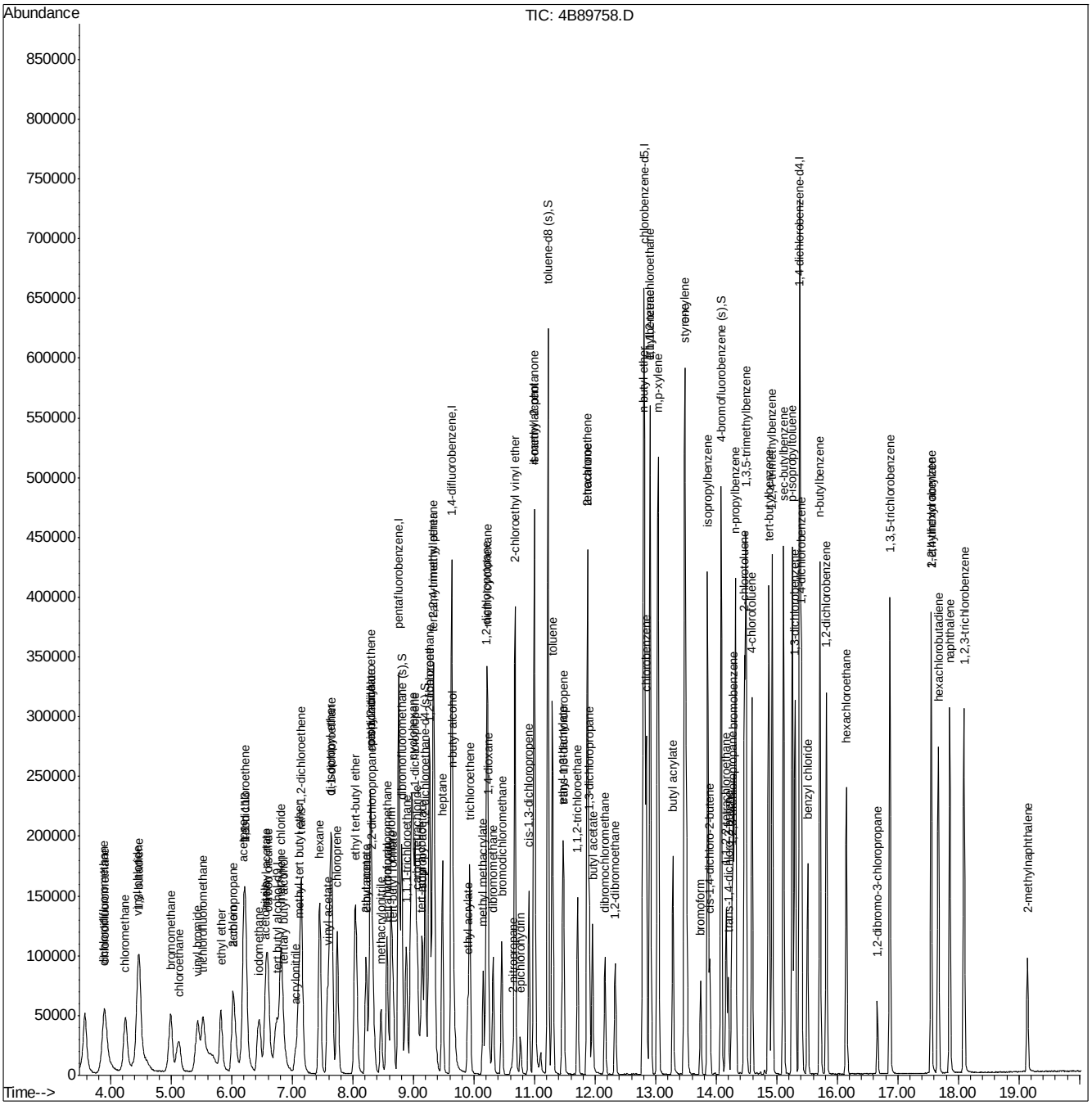
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
93) styrene	13.49	104	170837	20.48	ug/L	100
94) butyl acrylate	13.29	55	122737	20.85	ug/L	99
95) isopropylbenzene	13.86	105	290152	20.58	ug/L	99
96) bromoform	13.74	173	38673	19.14	ug/L	98
97) cis-1,4-dichloro-2-butene	13.90	88	20811	20.14	ug/L	96
100) 1,1,2,2-tetrachloroethane	14.17	83	74731	19.90	ug/L	100
101) trans-1,4-dichloro-2-buten	14.20	53	15506	19.72	ug/L	93
102) 1,2,3-trichloropropane	14.26	110	18544	20.36	ug/L	98
103) bromobenzene	14.29	156	75122	19.93	ug/L	99
104) n-propylbenzene	14.32	91	326963	20.20	ug/L	99
105) 2-chlorotoluene	14.46	126	69189	20.06	ug/L	97
106) 4-chlorotoluene	14.59	91	190038	20.36	ug/L	98
107) 1,3,5-trimethylbenzene	14.49	105	247604	20.21	ug/L	100
108) tert-butylbenzene	14.87	119	212887	20.03	ug/L	99
109) 1,2,4-trimethylbenzene	14.92	105	246137	20.09	ug/L	100
110) sec-butylbenzene	15.11	105	323878	20.04	ug/L	100
111) p-isopropyltoluene	15.26	119	272767	19.83	ug/L	100
112) 1,3-dichlorobenzene	15.31	146	142664	20.32	ug/L	99
113) 1,4-dichlorobenzene	15.41	146	143543	20.08	ug/L	100
114) 1,2-dichlorobenzene	15.82	146	146152	19.99	ug/L	99
115) benzyl chloride	15.51	91	132122	19.65	ug/L	100
116) n-butylbenzene	15.71	92	133442	20.16	ug/L	99
117) hexachloroethane	16.15	201	46949	18.62	ug/L	97
118) 1,2-dibromo-3-chloropropan	16.67	157	18964	18.82	ug/L	98
119) 1,3,5-trichlorobenzene	16.87	180	137636	19.58	ug/L	100
120) 1,2,4-trichlorobenzene	17.55	180	122792	19.43	ug/L	98
121) 2-ethylhexyl acrylate	17.55	70	8549	3.08	ug/L	96
122) hexachlorobutadiene	17.67	225	67681	20.05	ug/L	98
123) naphthalene	17.86	128	252833	19.23	ug/L	99
124) 1,2,3-trichlorobenzene	18.09	180	109830	18.81	ug/L	100
125) 2-methylnaphthalene	19.14	142	53432	8.50	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3793\
Data File : 4B89758.D
Acq On : 6 Apr 2019 9:09 pm
Operator : CHELSEAS
Sample : IC3793-20
Misc : MS33655,V4B3793,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Apr 08 11:36:24 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4B3793.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Mon Apr 08 11:35:26 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3793\
Data File : 4B89759.D
Acq On : 6 Apr 2019 9:37 pm
Operator : CHELSEAS
Sample : ICC3793-50
Misc : MS33655,V4B3793,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Apr 08 11:36:33 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4B3793.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Mon Apr 08 11:35:26 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	6.75	65	148583	500.00	ug/L	0.00
5) pentafluorobenzene	8.76	168	271758	50.00	ug/L	0.00
54) 1,4-difluorobenzene	9.63	114	363211	50.00	ug/L	0.00
75) chlorobenzene-d5	12.81	117	328528	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	15.38	152	193379	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	8.80	113	123262	50.00	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.00%			
55) 1,2-dichloroethane-d4 (s)	9.19	65	116870	50.00	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 100.00%			
76) toluene-d8 (s)	11.22	98	407954	50.00	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.00%			
99) 4-bromofluorobenzene (s)	14.08	95	158903	50.00	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.00%			
Target Compounds						Qvalue
3) tertiary butyl alcohol	6.85	59	103869	241.98	ug/L	100
4) 1,4-dioxane	10.25	88	41425	1250.00	ug/L	100
6) chlorodifluoromethane	3.90	51	268262	50.07	ug/L	100
7) dichlorodifluoromethane	3.89	85	288382	49.96	ug/L	100
8) chloromethane	4.24	50	302629	50.00	ug/L	100
9) vinyl chloride	4.45	62	281555	50.00	ug/L	100
10) 1,3-butadiene	4.47	54	199232	50.00	ug/L	100
11) bromomethane	4.99	94	184907	50.00	ug/L	100
12) chloroethane	5.12	64	136050	50.15	ug/L	100
13) trichlorofluoromethane	5.52	101	270618	50.00	ug/L	100
14) vinyl bromide	5.43	106	144306	50.00	ug/L	100
15) ethyl ether	5.82	74	80414	50.00	ug/L	100
16) 2-chloropropane	6.03	43	278147	49.91	ug/L	100
17) acrolein	6.02	56	30712	50.00	ug/L	100
18) freon 113	6.20	151	145491	50.00	ug/L	100
19) 1,1-dichloroethene	6.21	61	266935	50.00	ug/L	100
20) acetone	6.19	58	57376	200.00	ug/L	100
21) acetonitrile	6.55	41	219561	500.00	ug/L	100
22) iodomethane	6.44	142	288237	50.00	ug/L	100
23) carbon disulfide	6.59	76	552660	50.00	ug/L	100
24) methylene chloride	6.81	84	184392	50.00	ug/L	100
25) methyl acetate	6.58	43	119752	50.00	ug/L	100
26) methyl tert butyl ether	7.11	73	422814	50.01	ug/L	100
27) trans-1,2-dichloroethene	7.15	61	229430	50.00	ug/L	100
28) hexane	7.45	56	119777	50.00	ug/L	100
29) di-isopropyl ether	7.63	45	557130	50.00	ug/L	100
30) 2-butanone	8.21	72	65195	200.00	ug/L	100
31) 1,1-dichloroethane	7.65	63	281703	50.00	ug/L	100
32) chloroprene	7.74	53	219680	50.00	ug/L	100
33) acrylonitrile	7.05	53	60563	50.00	ug/L	100
34) vinyl acetate	7.58	86	24592	50.00	ug/L	100
35) ethyl tert-butyl ether	8.04	59	496353	50.00	ug/L	100
36) ethyl acetate	8.22	45	21177	50.00	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3793\
Data File : 4B89759.D
Acq On : 6 Apr 2019 9:37 pm
Operator : CHELSEAS
Sample : ICC3793-50
Misc : MS33655,V4B3793,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Apr 08 11:36:33 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4B3793.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Mon Apr 08 11:35:26 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
37) 2,2-dichloropropane	8.32	77	210447	50.00	ug/L	100
38) cis-1,2-dichloroethene	8.29	96	171720	50.00	ug/L	100
39) propionitrile	8.28	54	229436	500.00	ug/L	100
40) methyl acrylate	8.30	85	20979	50.00	ug/L	100
41) methacrylonitrile	8.46	67	57669	50.00	ug/L	100
42) bromochloromethane	8.56	128	83677	50.00	ug/L	100
43) tetrahydrofuran	8.57	72	20020	50.00	ug/L	100
44) chloroform	8.63	83	262326	50.00	ug/L	100
45) tert-butyl formate	8.66	59	122135	50.00	ug/L	100
47) 1,1,1-trichloroethane	8.88	97	239969	50.00	ug/L	100
48) cyclohexane	8.99	84	249805	50.00	ug/L	100
50) 1,1-dichloropropene	9.03	75	189798	50.00	ug/L	100
51) carbon tetrachloride	9.07	117	204111	50.00	ug/L	100
52) tert-amyl alcohol	9.13	73	48998	252.95	ug/L	100
53) isopropyl acetate	9.14	87	28202	50.00	ug/L	100
56) n-butyl alcohol	9.65	41	175620	2500.00	ug/L	100
57) 2,2,4-trimethylpentane	9.34	57	613261	50.00	ug/L	100
58) benzene	9.26	78	574972	50.00	ug/L	100
59) tert-amyl methyl ether	9.32	73	468590	50.00	ug/L	100
60) heptane	9.48	57	109480	50.00	ug/L	100
61) 1,2-dichloroethane	9.28	62	168297	50.00	ug/L	100
62) ethyl acrylate	9.89	55	158210	50.00	ug/L	100
63) trichloroethene	9.93	95	141652	50.00	ug/L	100
64) 2-chloroethyl vinyl ether	10.68	63	413862	250.00	ug/L	100
65) methyl methacrylate	10.15	100	34328	50.00	ug/L	100
66) methylcyclohexane	10.22	83	296984	50.00	ug/L	100
67) 1,2-dichloropropane	10.21	63	148174	50.00	ug/L	100
68) dibromomethane	10.31	93	86443	50.00	ug/L	100
69) bromodichloromethane	10.46	83	183508	50.00	ug/L	100
70) 2-nitropropane	10.65	41	25787	50.00	ug/L	100
71) epichlorohydrin	10.77	57	70650	250.00	ug/L	100
72) cis-1,3-dichloropropene	10.91	75	216834	50.00	ug/L	100
73) 4-methyl-2-pentanone	11.00	58	227195	200.00	ug/L	100
74) isoamyl alcohol	10.99	70	93700	1000.00	ug/L	100
77) toluene	11.29	92	326805	50.00	ug/L	100
78) ethyl methacrylate	11.46	69	165495	50.00	ug/L	100
79) trans-1,3-dichloropropene	11.48	75	181942	50.00	ug/L	100
80) 1,1,2-trichloroethane	11.71	83	100371	50.00	ug/L	100
81) tetrachloroethene	11.87	164	121886	50.00	ug/L	100
82) 2-hexanone	11.87	58	206596	200.00	ug/L	100
83) 1,3-dichloropropane	11.90	76	183414	50.00	ug/L	100
84) butyl acetate	11.95	56	89130	50.00	ug/L	100
85) dibromochloromethane	12.16	129	136788	50.00	ug/L	100
86) 1,2-dibromoethane	12.33	107	159019	50.00	ug/L	100
87) n-butyl ether	12.79	57	585737	49.91	ug/L	100
88) chlorobenzene	12.84	112	364090	50.00	ug/L	100
89) 1,1,1,2-tetrachloroethane	12.92	131	151523	50.00	ug/L	100
90) ethylbenzene	12.90	91	633452	50.00	ug/L	100
91) m,p-xylene	13.04	106	485917	100.00	ug/L	100
92) o-xylene	13.47	91	540634	50.00	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3793\
Data File : 4B89759.D
Acq On : 6 Apr 2019 9:37 pm
Operator : CHELSEAS
Sample : ICC3793-50
Misc : MS33655,V4B3793,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Apr 08 11:36:33 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4B3793.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Mon Apr 08 11:35:26 2019
Response via : Initial Calibration

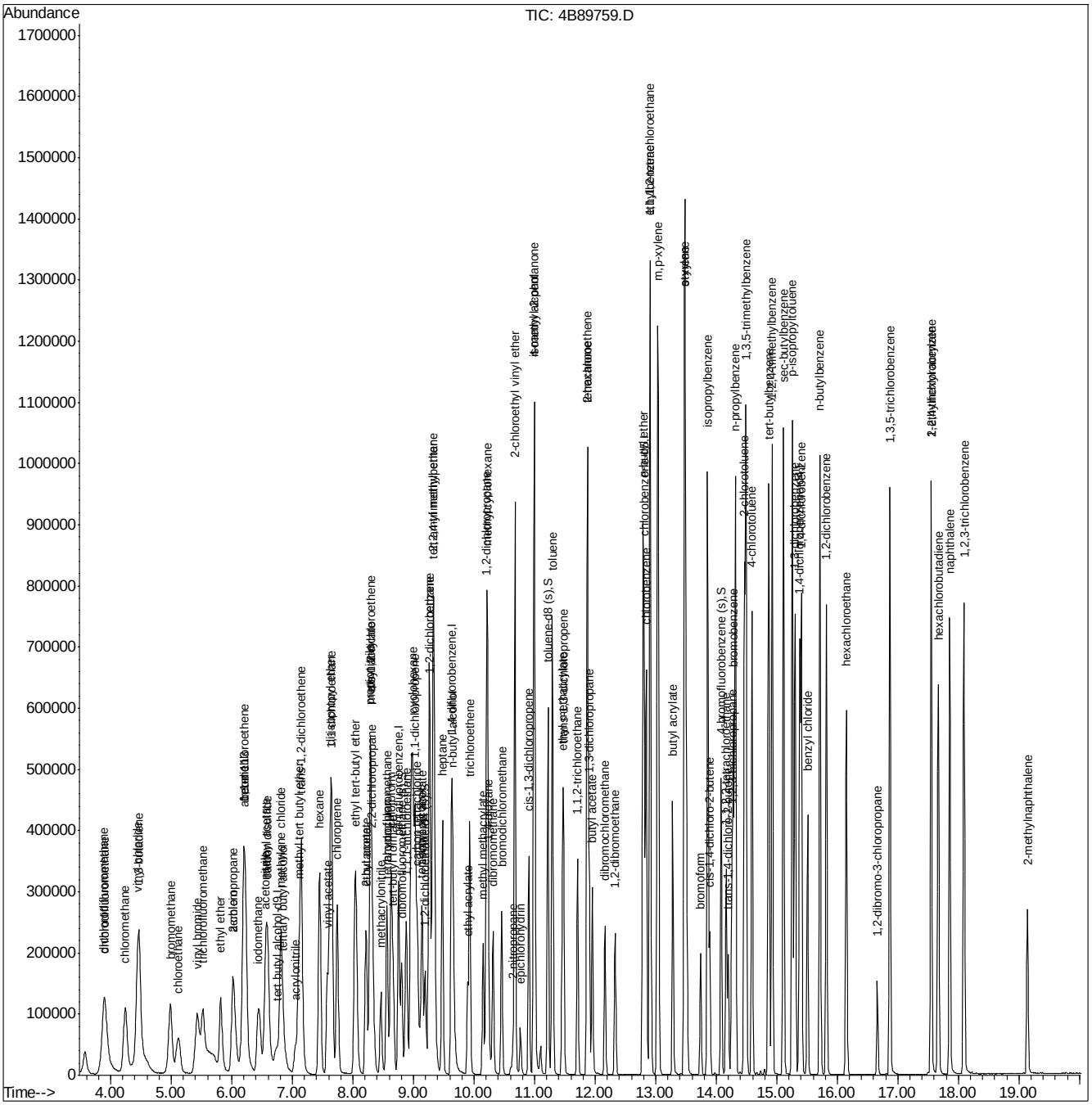
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
93) styrene	13.49	104	408309	50.00	ug/L	100
94) butyl acrylate	13.28	55	288154	50.00	ug/L	100
95) isopropylbenzene	13.86	105	689959	50.00	ug/L	100
96) bromoform	13.74	173	98901	50.00	ug/L	100
97) cis-1,4-dichloro-2-butene	13.89	88	50569	50.00	ug/L	100
100) 1,1,2,2-tetrachloroethane	14.17	83	180212	50.00	ug/L	100
101) trans-1,4-dichloro-2-buten	14.20	53	37741	50.00	ug/L	100
102) 1,2,3-trichloropropane	14.26	110	43703	50.00	ug/L	100
103) bromobenzene	14.29	156	180879	50.00	ug/L	100
104) n-propylbenzene	14.32	91	776704	50.00	ug/L	100
105) 2-chlorotoluene	14.46	126	165568	50.00	ug/L	100
106) 4-chlorotoluene	14.59	91	448023	50.00	ug/L	100
107) 1,3,5-trimethylbenzene	14.49	105	587898	50.00	ug/L	100
108) tert-butylbenzene	14.87	119	510039	50.00	ug/L	100
109) 1,2,4-trimethylbenzene	14.92	105	587922	50.00	ug/L	100
110) sec-butylbenzene	15.11	105	775747	50.00	ug/L	100
111) p-isopropyltoluene	15.26	119	660029	50.00	ug/L	100
112) 1,3-dichlorobenzene	15.30	146	337014	50.00	ug/L	100
113) 1,4-dichlorobenzene	15.41	146	343047	50.00	ug/L	100
114) 1,2-dichlorobenzene	15.82	146	350800	50.00	ug/L	100
115) benzyl chloride	15.51	91	322714	50.00	ug/L	100
116) n-butylbenzene	15.71	92	317699	50.00	ug/L	100
117) hexachloroethane	16.15	201	121014	50.00	ug/L	100
118) 1,2-dibromo-3-chloropropan	16.66	157	48365	50.00	ug/L	100
119) 1,3,5-trichlorobenzene	16.87	180	337381	50.00	ug/L	100
120) 1,2,4-trichlorobenzene	17.55	180	303363	50.00	ug/L	100
121) 2-ethylhexyl acrylate	17.55	70	26651	10.00	ug/L	100
122) hexachlorobutadiene	17.67	225	162035	50.00	ug/L	100
123) naphthalene	17.86	128	630857	50.00	ug/L	100
124) 1,2,3-trichlorobenzene	18.09	180	280262	50.00	ug/L	100
125) 2-methylnaphthalene	19.14	142	150804	25.00	ug/L	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3793\
Data File : 4B89759.D
Acq On : 6 Apr 2019 9:37 pm
Operator : CHELSEAS
Sample : ICC3793-50
Misc : MS33655,V4B3793,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Apr 08 11:36:33 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4B3793.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Mon Apr 08 11:35:26 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3793\
Data File : 4B89760.D
Acq On : 6 Apr 2019 10:05 pm
Operator : CHELSEAS
Sample : IC3793-100
Misc : MS33655,V4B3793,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Apr 08 11:36:43 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4B3793.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Mon Apr 08 11:35:26 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	6.76	65	143196	500.00	ug/L	0.01
5) pentafluorobenzene	8.76	168	272038	50.00	ug/L	0.00
54) 1,4-difluorobenzene	9.63	114	370455	50.00	ug/L	0.00
75) chlorobenzene-d5	12.81	117	330545	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	15.38	152	190585	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	8.80	113	122991	49.84	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.68%			
55) 1,2-dichloroethane-d4 (s)	9.20	65	117147	49.14	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 98.28%			
76) toluene-d8 (s)	11.22	98	416028	50.68	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.36%			
99) 4-bromofluorobenzene (s)	14.08	95	157703	50.35	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.70%			
Target Compounds						Qvalue
3) tertiary butyl alcohol	6.86	59	210109	507.89	ug/L	99
4) 1,4-dioxane	10.25	88	84671	2651.07	ug/L	98
6) chlorodifluoromethane	3.91	51	561965	104.78	ug/L	100
7) dichlorodifluoromethane	3.89	85	611813	105.87	ug/L	100
8) chloromethane	4.24	50	644441	106.36	ug/L	99
9) vinyl chloride	4.45	62	598589	106.19	ug/L	99
10) 1,3-butadiene	4.47	54	414400	103.89	ug/L	98
11) bromomethane	4.99	94	379519	102.52	ug/L	99
12) chloroethane	5.12	64	279641	102.97	ug/L	99
13) trichlorofluoromethane	5.52	101	578865	106.84	ug/L	100
14) vinyl bromide	5.43	106	309435	107.10	ug/L	97
15) ethyl ether	5.82	74	167036	103.75	ug/L	97
16) 2-chloropropane	6.02	43	576399	103.33	ug/L	99
17) acrolein	6.02	56	63947	104.00	ug/L	97
18) freon 113	6.21	151	306091	105.08	ug/L	99
19) 1,1-dichloroethene	6.21	61	558198	104.45	ug/L	97
20) acetone	6.19	58	117279	408.39	ug/L	90
21) acetonitrile	6.55	41	445980	1014.57	ug/L	99
22) iodomethane	6.45	142	604495	104.75	ug/L	99
23) carbon disulfide	6.59	76	1158892	104.74	ug/L	99
24) methylene chloride	6.81	84	383714	103.94	ug/L	99
25) methyl acetate	6.58	43	235190	98.10	ug/L	99
26) methyl tert butyl ether	7.11	73	860070	101.63	ug/L	99
27) trans-1,2-dichloroethene	7.15	61	482006	104.94	ug/L	98
28) hexane	7.45	56	253575	105.74	ug/L	99
29) di-isopropyl ether	7.63	45	1126253	100.97	ug/L	98
30) 2-butanone	8.22	72	136599	418.62	ug/L	96
31) 1,1-dichloroethane	7.65	63	584941	103.72	ug/L	99
32) chloroprene	7.74	53	463388	105.36	ug/L	99
33) acrylonitrile	7.05	53	126587	104.40	ug/L	99
34) vinyl acetate	7.58	86	52901	107.45	ug/L	99
35) ethyl tert-butyl ether	8.05	59	1007412	101.38	ug/L	99
36) ethyl acetate	8.22	45	44357	104.62	ug/L #	88

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3793\
Data File : 4B89760.D
Acq On : 6 Apr 2019 10:05 pm
Operator : CHELSEAS
Sample : IC3793-100
Misc : MS33655,V4B3793,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Apr 08 11:36:43 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4B3793.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Mon Apr 08 11:35:26 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
37) 2,2-dichloropropane	8.33	77	433590	102.91 ug/L	97
38) cis-1,2-dichloroethene	8.29	96	357956	104.12 ug/L	99
39) propionitrile	8.29	54	475016	1034.12 ug/L	89
40) methyl acrylate	8.30	85	44516	105.99 ug/L	97
41) methacrylonitrile	8.46	67	120775	104.61 ug/L	98
42) bromochloromethane	8.56	128	175781	104.93 ug/L	100
43) tetrahydrofuran	8.58	72	41633	103.87 ug/L	92
44) chloroform	8.63	83	549026	104.54 ug/L	99
45) tert-butyl formate	8.66	59	249797	102.16 ug/L	98
47) 1,1,1-trichloroethane	8.88	97	509215	105.99 ug/L	100
48) cyclohexane	8.99	84	536720	107.32 ug/L	98
50) 1,1-dichloropropene	9.03	75	406352	106.94 ug/L	98
51) carbon tetrachloride	9.07	117	437332	107.02 ug/L	98
52) tert-amyl alcohol	9.13	73	99184	511.51 ug/L	98
53) isopropyl acetate	9.15	87	61438	108.81 ug/L	94
56) n-butyl alcohol	9.65	41	347721	4853.11 ug/L	98
57) 2,2,4-trimethylpentane	9.34	57	1296492	103.64 ug/L	98
58) benzene	9.26	78	1224902	104.44 ug/L	99
59) tert-amyl methyl ether	9.32	73	945133	98.88 ug/L	99
60) heptane	9.48	57	236702	105.99 ug/L	98
61) 1,2-dichloroethane	9.28	62	355893	103.67 ug/L	97
62) ethyl acrylate	9.90	55	337841	104.68 ug/L	100
63) trichloroethene	9.93	95	307832	106.53 ug/L	100
64) 2-chloroethyl vinyl ether	10.68	63	873383	517.26 ug/L	99
65) methyl methacrylate	10.15	100	72165	103.06 ug/L	99
66) methylcyclohexane	10.23	83	625751	103.29 ug/L	99
67) 1,2-dichloropropane	10.21	63	314773	104.14 ug/L	100
68) dibromomethane	10.32	93	184623	104.70 ug/L	96
69) bromodichloromethane	10.46	83	399675	106.77 ug/L	99
70) 2-nitropropane	10.65	41	60699	115.39 ug/L	93
71) epichlorohydrin	10.77	57	149079	517.21 ug/L	98
72) cis-1,3-dichloropropene	10.91	75	469025	106.04 ug/L	100
73) 4-methyl-2-pentanone	11.00	58	469308	405.05 ug/L	97
74) isoamyl alcohol	10.99	70	176173	1843.42 ug/L	98
77) toluene	11.30	92	710482	108.04 ug/L	99
78) ethyl methacrylate	11.46	69	349188	104.85 ug/L	98
79) trans-1,3-dichloropropene	11.48	75	389151	106.29 ug/L	95
80) 1,1,2-trichloroethane	11.71	83	216155	107.02 ug/L	99
81) tetrachloroethene	11.87	164	265958	108.44 ug/L	99
82) 2-hexanone	11.87	58	421966	406.00 ug/L	99
83) 1,3-dichloropropane	11.90	76	387568	105.01 ug/L	100
84) butyl acetate	11.95	56	181515	101.20 ug/L	100
85) dibromochloromethane	12.17	129	299178	108.69 ug/L	99
86) 1,2-dibromoethane	12.33	107	341760	106.80 ug/L	98
87) n-butyl ether	12.79	57	1224724	103.73 ug/L	100
88) chlorobenzene	12.85	112	782618	106.82 ug/L	99
89) 1,1,1,2-tetrachloroethane	12.92	131	325148	106.64 ug/L	98
90) ethylbenzene	12.91	91	1346333	105.62 ug/L	99
91) m,p-xylene	13.04	106	1029525	210.58 ug/L	100
92) o-xylene	13.47	91	1140361	104.82 ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3793\
Data File : 4B89760.D
Acq On : 6 Apr 2019 10:05 pm
Operator : CHELSEAS
Sample : IC3793-100
Misc : MS33655,V4B3793,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Apr 08 11:36:43 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4B3793.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Mon Apr 08 11:35:26 2019
Response via : Initial Calibration

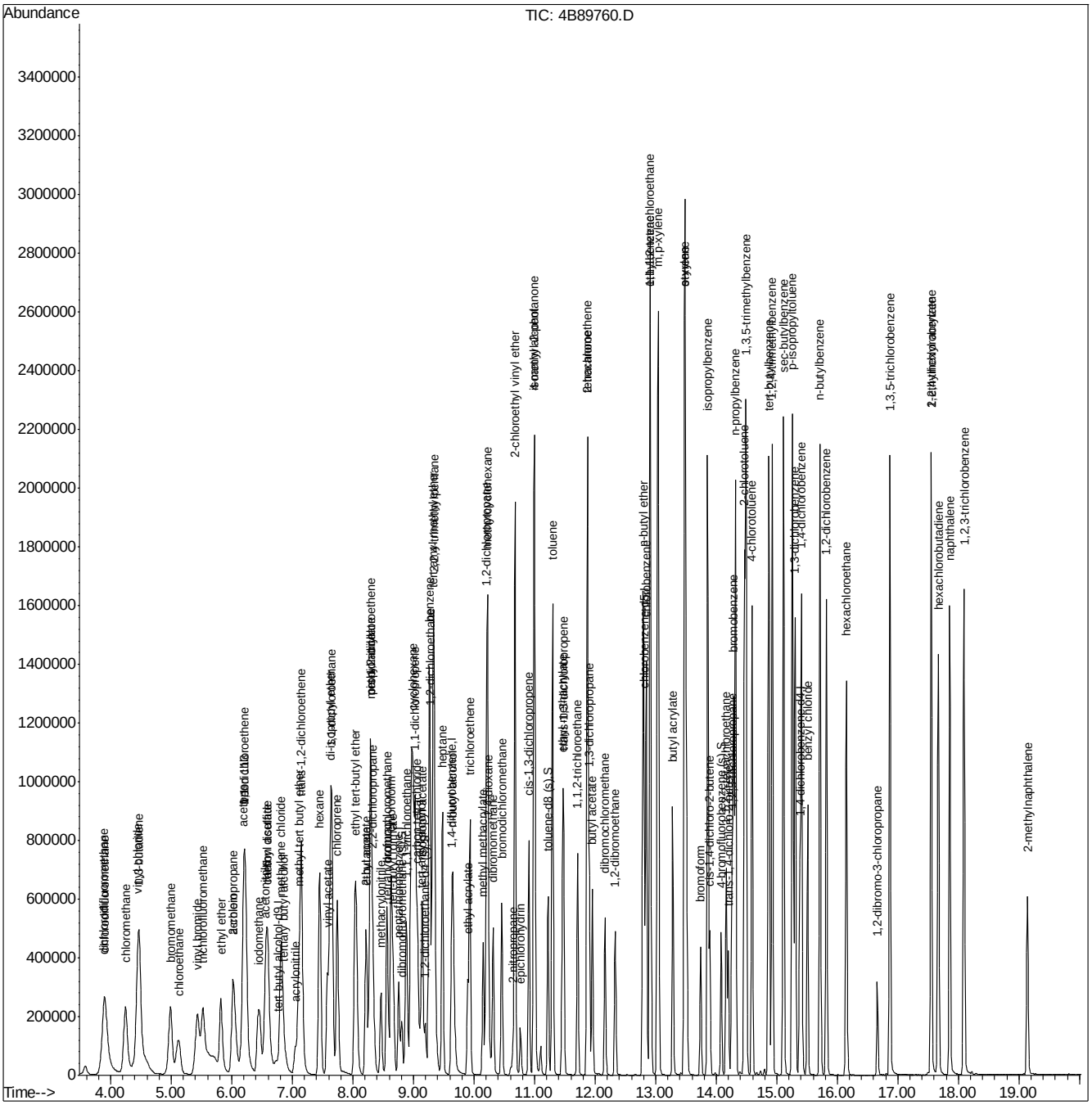
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
93) styrene	13.49	104	865593	105.35 ug/L	100
94) butyl acrylate	13.28	55	594276	102.49 ug/L	100
95) isopropylbenzene	13.86	105	1480005	106.60 ug/L	99
96) bromoform	13.74	173	220073	110.58 ug/L	99
97) cis-1,4-dichloro-2-butene	13.89	88	109274	107.39 ug/L	99
100) 1,1,2,2-tetrachloroethane	14.17	83	379384	106.80 ug/L	98
101) trans-1,4-dichloro-2-buten	14.20	53	79451	106.80 ug/L	93
102) 1,2,3-trichloropropane	14.26	110	91392	106.09 ug/L	97
103) bromobenzene	14.29	156	386300	108.35 ug/L	99
104) n-propylbenzene	14.32	91	1636908	106.92 ug/L	100
105) 2-chlorotoluene	14.47	126	350729	107.47 ug/L	96
106) 4-chlorotoluene	14.59	91	944286	106.93 ug/L	100
107) 1,3,5-trimethylbenzene	14.49	105	1258184	108.58 ug/L	98
108) tert-butylbenzene	14.87	119	1117861	111.19 ug/L	99
109) 1,2,4-trimethylbenzene	14.92	105	1245332	107.46 ug/L	100
110) sec-butylbenzene	15.11	105	1670013	109.22 ug/L	99
111) p-isopropyltoluene	15.26	119	1412662	108.58 ug/L	100
112) 1,3-dichlorobenzene	15.31	146	716816	107.91 ug/L	99
113) 1,4-dichlorobenzene	15.41	146	726313	107.41 ug/L	100
114) 1,2-dichlorobenzene	15.82	146	743741	107.56 ug/L	98
115) benzyl chloride	15.51	91	680500	106.98 ug/L	100
116) n-butylbenzene	15.71	92	685519	109.47 ug/L	99
117) hexachloroethane	16.15	201	283597	118.89 ug/L	98
118) 1,2-dibromo-3-chloropropan	16.66	157	100808	105.74 ug/L	97
119) 1,3,5-trichlorobenzene	16.87	180	727539	109.40 ug/L	99
120) 1,2,4-trichlorobenzene	17.55	180	654128	109.39 ug/L	99
121) 2-ethylhexyl acrylate	17.55	70	68080	25.92 ug/L	97
122) hexachlorobutadiene	17.67	225	357370	111.89 ug/L	99
123) naphthalene	17.86	128	1332415	107.15 ug/L	99
124) 1,2,3-trichlorobenzene	18.09	180	600158	108.64 ug/L	100
125) 2-methylnaphthalene	19.14	142	342955	57.69 ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3793\
Data File : 4B89760.D
Acq On : 6 Apr 2019 10:05 pm
Operator : CHELSEAS
Sample : IC3793-100
Misc : MS33655,V4B3793,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Apr 08 11:36:43 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4B3793.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Mon Apr 08 11:35:26 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3793\
Data File : 4B89761.D
Acq On : 6 Apr 2019 10:33 pm
Operator : CHELSEAS
Sample : IC3793-200
Misc : MS33655,V4B3793,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Apr 08 11:36:57 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4B3793.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Mon Apr 08 11:35:26 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) tert butyl alcohol-d9	6.76	65	134884	500.00	ug/L		0.01
5) pentafluorobenzene	8.76	168	265489	50.00	ug/L		0.00
54) 1,4-difluorobenzene	9.63	114	368802	50.00	ug/L		0.00
75) chlorobenzene-d5	12.81	117	327463	50.00	ug/L		0.00
98) 1,4-dichlorobenzene-d4	15.38	152	193300	50.00	ug/L		0.00
System Monitoring Compounds							
46) dibromofluoromethane (s)	8.80	113	120284	49.94	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.88%				
55) 1,2-dichloroethane-d4 (s)	9.20	65	116583	49.12	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 98.24%				
76) toluene-d8 (s)	11.22	98	415849	51.13	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.26%				
99) 4-bromofluorobenzene (s)	14.08	95	157850	49.69	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.38%				
Target Compounds							Qvalue
3) tertiary butyl alcohol	6.86	59	385188	988.48	ug/L		100
4) 1,4-dioxane	10.25	88	159250	5293.41	ug/L		96
6) chlorodifluoromethane	3.90	51	1057189	201.98	ug/L		100
7) dichlorodifluoromethane	3.89	85	1138656	201.90	ug/L		99
8) chloromethane	4.24	50	1183877	200.22	ug/L		99
9) vinyl chloride	4.45	62	1075608	195.52	ug/L		99
10) 1,3-butadiene	4.47	54	752471	193.30	ug/L		98
11) bromomethane	4.98	94	641660	177.61	ug/L		100
12) chloroethane	5.12	64	479074	180.76	ug/L		98
13) trichlorofluoromethane	5.52	101	1040007	196.69	ug/L		100
14) vinyl bromide	5.42	106	551880	195.73	ug/L		97
15) ethyl ether	5.82	74	305414	194.39	ug/L		98
16) 2-chloropropane	6.02	43	1044333	191.83	ug/L		98
17) acrolein	6.02	56	116462	194.08	ug/L		96
18) freon 113	6.22	151	574454	202.08	ug/L		98
19) 1,1-dichloroethene	6.22	61	1024137	196.36	ug/L		99
20) acetone	6.18	58	209569	747.76	ug/L		89
21) acetonitrile	6.54	41	808188	1883.92	ug/L		99
22) iodomethane	6.45	142	1138605	202.18	ug/L		100
23) carbon disulfide	6.59	76	2165621	200.55	ug/L		99
24) methylene chloride	6.81	84	714952	198.45	ug/L		100
25) methyl acetate	6.58	43	433461	185.26	ug/L		98
26) methyl tert butyl ether	7.11	73	1564642	189.44	ug/L		99
27) trans-1,2-dichloroethene	7.15	61	888131	198.12	ug/L		97
28) hexane	7.45	56	473415	202.29	ug/L		98
29) di-isopropyl ether	7.63	45	2055393	188.82	ug/L		98
30) 2-butanone	8.22	72	260492	817.99	ug/L		95
31) 1,1-dichloroethane	7.65	63	1075964	195.48	ug/L		100
32) chloroprene	7.74	53	857385	199.75	ug/L		98
33) acrylonitrile	7.04	53	231870	195.95	ug/L		99
34) vinyl acetate	7.58	86	101099	210.41	ug/L	#	91
35) ethyl tert-butyl ether	8.05	59	1837269	189.45	ug/L		99
36) ethyl acetate	8.22	45	82474	199.32	ug/L	#	83

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3793\
Data File : 4B89761.D
Acq On : 6 Apr 2019 10:33 pm
Operator : CHELSEAS
Sample : IC3793-200
Misc : MS33655,V4B3793,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Apr 08 11:36:57 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4B3793.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Mon Apr 08 11:35:26 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) 2,2-dichloropropane	8.33	77	803978	195.53	ug/L		97
38) cis-1,2-dichloroethene	8.29	96	665612	198.38	ug/L		97
39) propionitrile	8.29	54	864499	1928.45	ug/L		88
40) methyl acrylate	8.30	85	85355	208.23	ug/L	#	94
41) methacrylonitrile	8.46	67	231393	205.36	ug/L		96
42) bromochloromethane	8.56	128	332793	203.55	ug/L		98
43) tetrahydrofuran	8.58	72	77859	199.04	ug/L		98
44) chloroform	8.63	83	1026412	200.26	ug/L		99
45) tert-butyl formate	8.66	59	463342	194.16	ug/L		98
47) 1,1,1-trichloroethane	8.88	97	971265	207.15	ug/L		99
48) cyclohexane	8.99	84	981658	201.12	ug/L		100
50) 1,1-dichloropropene	9.03	75	764699	206.21	ug/L		99
51) carbon tetrachloride	9.07	117	831665	208.54	ug/L		100
52) tert-amyl alcohol	9.13	73	185685	981.24	ug/L		94
53) isopropyl acetate	9.15	87	117064	212.45	ug/L		94
56) n-butyl alcohol	9.66	41	642150	9002.61	ug/L		99
57) 2,2,4-trimethylpentane	9.34	57	2394280	192.25	ug/L		100
58) benzene	9.26	78	2341061	200.49	ug/L		99
59) tert-amyl methyl ether	9.33	73	1702936	178.95	ug/L		99
60) heptane	9.48	57	445776	200.50	ug/L		99
61) 1,2-dichloroethane	9.28	62	672550	196.78	ug/L		97
62) ethyl acrylate	9.90	55	644549	200.61	ug/L		100
63) trichloroethene	9.93	95	589691	204.99	ug/L		96
64) 2-chloroethyl vinyl ether	10.68	63	1635747	973.12	ug/L		99
65) methyl methacrylate	10.15	100	141082	202.38	ug/L		96
66) methylcyclohexane	10.23	83	1175330	194.88	ug/L		97
67) 1,2-dichloropropane	10.21	63	595245	197.82	ug/L		99
68) dibromomethane	10.32	93	351698	200.34	ug/L		96
69) bromodichloromethane	10.46	83	775507	208.10	ug/L		100
70) 2-nitropropane	10.65	41	169439	323.56	ug/L		95
71) epichlorohydrin	10.77	57	280190	976.44	ug/L		96
72) cis-1,3-dichloropropene	10.91	75	899618	204.30	ug/L		100
73) 4-methyl-2-pentanone	11.00	58	863601	748.70	ug/L		92
74) isoamyl alcohol	10.99	70	314809	3308.82	ug/L		96
77) toluene	11.30	92	1362173	209.09	ug/L		99
78) ethyl methacrylate	11.46	69	658208	199.51	ug/L		97
79) trans-1,3-dichloropropene	11.48	75	739589	203.91	ug/L		99
80) 1,1,2-trichloroethane	11.71	83	415022	207.42	ug/L		99
81) tetrachloroethene	11.87	164	507374	208.81	ug/L		99
82) 2-hexanone	11.87	58	766519	744.46	ug/L		97
83) 1,3-dichloropropane	11.90	76	735357	201.12	ug/L		100
84) butyl acetate	11.95	56	342823	192.94	ug/L		98
85) dibromochloromethane	12.17	129	584783	214.45	ug/L		99
86) 1,2-dibromoethane	12.33	107	653547	206.16	ug/L		98
87) n-butyl ether	12.79	57	2302627	196.86	ug/L		99
88) chlorobenzene	12.85	112	1494544	205.91	ug/L		100
89) 1,1,1,2-tetrachloroethane	12.92	131	624462	206.73	ug/L		98
90) ethylbenzene	12.91	91	2536552	200.87	ug/L		100
91) m,p-xylene	13.04	106	1939010	400.34	ug/L		99
92) o-xylene	13.47	91	2160022	200.42	ug/L		100

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3793\
Data File : 4B89761.D
Acq On : 6 Apr 2019 10:33 pm
Operator : CHELSEAS
Sample : IC3793-200
Misc : MS33655,V4B3793,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Apr 08 11:36:57 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4B3793.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Mon Apr 08 11:35:26 2019
Response via : Initial Calibration

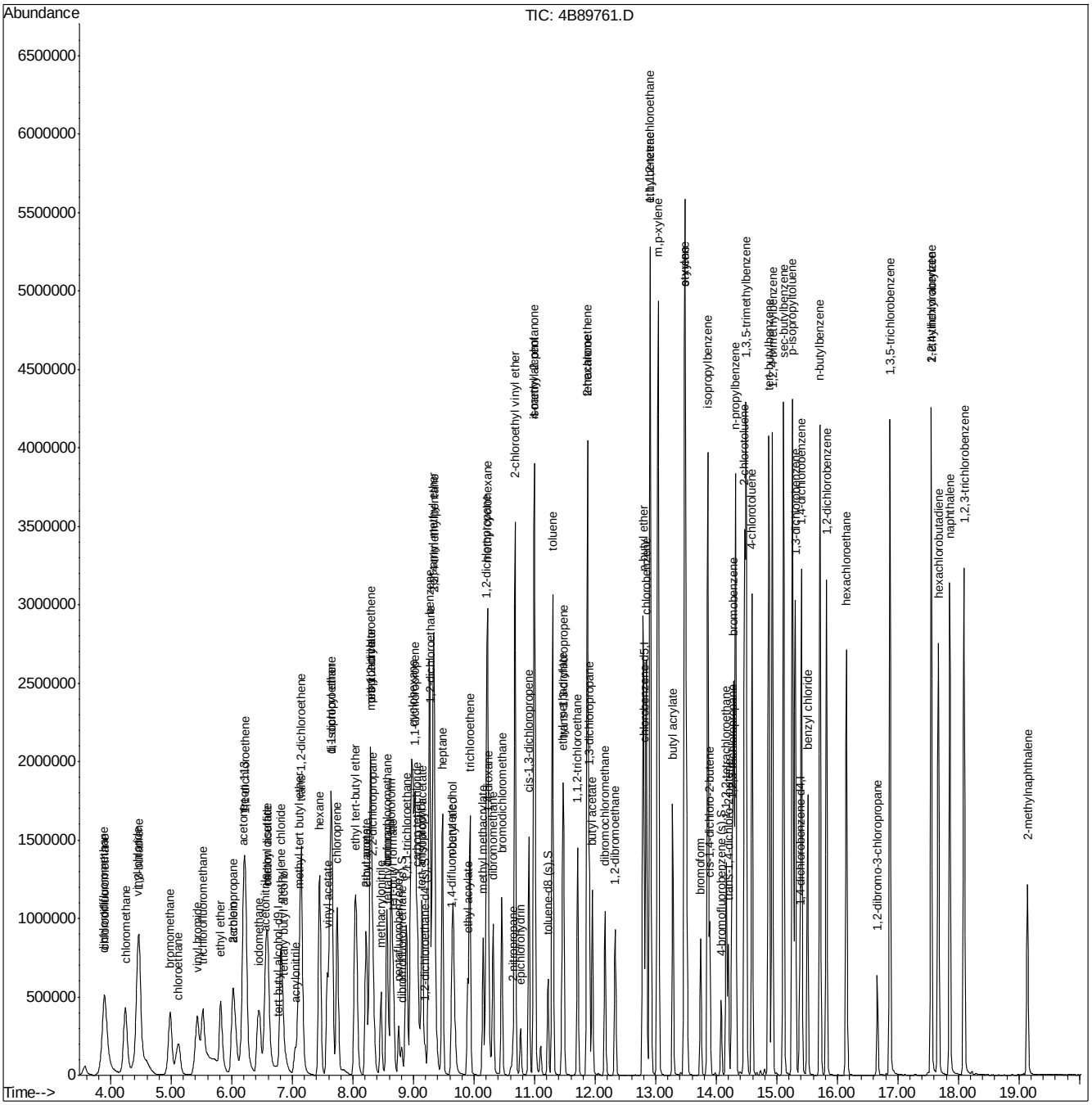
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
93) styrene	13.49	104	1629251	200.16 ug/L	98
94) butyl acrylate	13.28	55	1120136	195.00 ug/L	99
95) isopropylbenzene	13.86	105	2832119	205.91 ug/L	99
96) bromoform	13.74	173	433148	219.69 ug/L	98
97) cis-1,4-dichloro-2-butene	13.89	88	213370	211.66 ug/L	98
100) 1,1,2,2-tetrachloroethane	14.17	83	725959	201.50 ug/L	98
101) trans-1,4-dichloro-2-buten	14.20	53	154847	205.23 ug/L	96
102) 1,2,3-trichloropropane	14.26	110	173264	198.31 ug/L	93
103) bromobenzene	14.29	156	752743	208.16 ug/L	100
104) n-propylbenzene	14.32	91	3139722	202.20 ug/L	100
105) 2-chlorotoluene	14.47	126	679602	205.32 ug/L	94
106) 4-chlorotoluene	14.59	91	1830522	204.37 ug/L	100
107) 1,3,5-trimethylbenzene	14.49	105	2416196	205.58 ug/L	99
108) tert-butylbenzene	14.87	119	2200556	215.81 ug/L	99
109) 1,2,4-trimethylbenzene	14.93	105	2408677	204.93 ug/L	99
110) sec-butylbenzene	15.11	105	3222949	207.82 ug/L	99
111) p-isopropyltoluene	15.26	119	2725648	206.56 ug/L	99
112) 1,3-dichlorobenzene	15.31	146	1397788	207.46 ug/L	99
113) 1,4-dichlorobenzene	15.41	146	1428012	208.22 ug/L	100
114) 1,2-dichlorobenzene	15.82	146	1451096	206.91 ug/L	99
115) benzyl chloride	15.51	91	1341480	207.93 ug/L	98
116) n-butylbenzene	15.71	92	1338901	210.80 ug/L	99
117) hexachloroethane	16.15	201	590756	244.19 ug/L	96
118) 1,2-dibromo-3-chloropropan	16.66	157	201574	208.47 ug/L	98
119) 1,3,5-trichlorobenzene	16.87	180	1463465	216.97 ug/L	99
120) 1,2,4-trichlorobenzene	17.55	180	1304683	215.12 ug/L	99
121) 2-ethylhexyl acrylate	17.55	70	149169	55.99 ug/L	94
122) hexachlorobutadiene	17.67	225	695978	214.85 ug/L	99
123) naphthalene	17.86	128	2599172	206.09 ug/L	100
124) 1,2,3-trichlorobenzene	18.09	180	1174299	209.59 ug/L	99
125) 2-methylnaphthalene	19.14	142	689239	114.31 ug/L	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3793\
Data File : 4B89761.D
Acq On : 6 Apr 2019 10:33 pm
Operator : CHELSEAS
Sample : IC3793-200
Misc : MS33655,V4B3793,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Apr 08 11:36:57 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4B3793.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Mon Apr 08 11:35:26 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3793\
Data File : 4B89764.D
Acq On : 6 Apr 2019 11:57 pm
Operator : CHELSEAS
Sample : ICV3793-50
Misc : MS33655,V4B3793,5,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Apr 09 08:40:37 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4B3793.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Tue Apr 09 08:39:45 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	6.76	65	153329	500.00	ug/L	0.01
5) pentafluorobenzene	8.76	168	274849	50.00	ug/L	0.00
54) 1,4-difluorobenzene	9.63	114	367799	50.00	ug/L	0.00
75) chlorobenzene-d5	12.81	117	330488	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	15.38	152	193382	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	8.80	113	123997	49.89	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.78%			
55) 1,2-dichloroethane-d4 (s)	9.20	65	117834	48.59	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 97.18%			
76) toluene-d8 (s)	11.22	98	413328	49.69	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.38%			
99) 4-bromofluorobenzene (s)	14.08	95	159353	50.06	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.12%			
Target Compounds						Qvalue
3) tertiary butyl alcohol	6.86	59	106463	245.55	ug/L	97
4) 1,4-dioxane	10.24	88	43818	1353.36	ug/L	95
6) chlorodifluoromethane	3.91	51	283397	50.20	ug/L	100
7) dichlorodifluoromethane	3.88	85	304698	55.27	ug/L	99
8) chloromethane	4.24	50	311578	49.19	ug/L	98
9) vinyl chloride	4.45	62	280327	51.11	ug/L	99
10) 1,3-butadiene	4.47	54	233122	56.04	ug/L	98
11) bromomethane	4.99	94	190177	51.54	ug/L	98
12) chloroethane	5.13	64	139667	49.85	ug/L	98
13) trichlorofluoromethane	5.53	101	278206	52.37	ug/L	98
14) vinyl bromide	5.43	106	151710	52.76	ug/L	97
15) ethyl ether	5.82	74	81975	49.42	ug/L	98
16) 2-chloropropane	6.02	43	301689	48.72	ug/L	99
17) acrolein	6.03	56	32873	52.21	ug/L	99
18) freon 113	6.21	151	168930	56.15	ug/L	99
19) 1,1-dichloroethene	6.22	61	259022	45.74	ug/L	96
20) acetone	6.18	58	57602	204.90	ug/L	94
21) acetonitrile	6.55	41	169467	370.48	ug/L	99
22) iodomethane	6.45	142	336339	56.47	ug/L	100
23) carbon disulfide	6.59	76	722445	59.81	ug/L	99
24) methylene chloride	6.81	84	186204	47.15	ug/L	100
25) methyl acetate	6.58	43	115035	47.57	ug/L	99
26) methyl tert butyl ether	7.11	73	838256	92.28	ug/L	98
27) trans-1,2-dichloroethene	7.15	61	231323	47.57	ug/L	98
28) hexane	7.45	56	123418	47.60	ug/L	98
29) di-isopropyl ether	7.63	45	541928	44.82	ug/L	98
30) 2-butanone	8.21	72	65344	198.86	ug/L	94
31) 1,1-dichloroethane	7.65	63	289652	48.39	ug/L	99
32) chloroprene	7.74	53	230505	49.98	ug/L	98
33) acrylonitrile	7.05	53	67430	53.89	ug/L	97
34) vinyl acetate	7.58	86	23254	47.81	ug/L	98
35) ethyl tert-butyl ether	8.05	59	481008	45.25	ug/L	98
36) ethyl acetate	8.22	45	20926	47.20	ug/L #	74

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3793\
Data File : 4B89764.D
Acq On : 6 Apr 2019 11:57 pm
Operator : CHELSEAS
Sample : ICV3793-50
Misc : MS33655,V4B3793,5,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Apr 09 08:40:37 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4B3793.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Tue Apr 09 08:39:45 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) 2,2-dichloropropane	8.33	77	204419	43.59	ug/L		89
38) cis-1,2-dichloroethene	8.29	96	171270	47.22	ug/L		100
39) propionitrile	8.29	54	239521	500.60	ug/L		90
40) methyl acrylate	8.30	85	21290	51.45	ug/L		97
41) methacrylonitrile	8.46	67	57724	50.04	ug/L		97
42) bromochloromethane	8.56	128	85753	49.36	ug/L		98
43) tetrahydrofuran	8.58	72	20334	49.29	ug/L		97
44) chloroform	8.63	83	268252	47.02	ug/L		99
45) tert-butyl formate	8.66	59	110360	44.45	ug/L		99
47) 1,1,1-trichloroethane	8.88	97	240987	47.70	ug/L		99
48) cyclohexane	8.99	84	300168	58.64	ug/L		97
50) 1,1-dichloropropene	9.03	75	196314	48.54	ug/L		99
51) carbon tetrachloride	9.07	117	211278	50.02	ug/L		99
52) tert-amyl alcohol	9.13	73	53091	251.46	ug/L		97
53) isopropyl acetate	9.14	87	27272	47.52	ug/L		95
56) n-butyl alcohol	9.66	41	182061	2443.98	ug/L		96
57) 2,2,4-trimethylpentane	9.34	57	618226	47.44	ug/L		98
58) benzene	9.26	78	588614	47.13	ug/L		99
59) tert-amyl methyl ether	9.32	73	451227	44.08	ug/L		99
60) heptane	9.48	57	127212	56.12	ug/L		98
61) 1,2-dichloroethane	9.27	62	168406	45.69	ug/L		99
62) ethyl acrylate	9.89	55	161335	49.38	ug/L		100
63) trichloroethene	9.93	95	148579	49.70	ug/L		100
64) 2-chloroethyl vinyl ether	10.68	63	433829	258.68	ug/L		99
65) methyl methacrylate	10.15	100	34639	52.23	ug/L	#	80
66) methylcyclohexane	10.22	83	304396	48.17	ug/L		100
67) 1,2-dichloropropane	10.21	63	150205	48.33	ug/L		100
68) dibromomethane	10.31	93	86315	47.85	ug/L		98
69) bromodichloromethane	10.46	83	184622	48.78	ug/L		98
70) 2-nitropropane	10.65	41	29490	43.95	ug/L		98
71) epichlorohydrin	10.77	57	72178	249.79	ug/L		97
72) cis-1,3-dichloropropene	10.91	75	218337	48.99	ug/L		98
73) 4-methyl-2-pentanone	11.00	58	228727	191.33	ug/L		97
74) isoamyl alcohol	10.99	70	97463	1036.05	ug/L		94
77) toluene	11.29	92	334457	48.56	ug/L		100
78) ethyl methacrylate	11.46	69	168134	50.17	ug/L		99
79) trans-1,3-dichloropropene	11.48	75	187103	50.18	ug/L		98
80) 1,1,2-trichloroethane	11.71	83	101015	48.60	ug/L		99
81) tetrachloroethene	11.87	164	127971	49.57	ug/L		99
82) 2-hexanone	11.87	58	203025	186.78	ug/L		99
83) 1,3-dichloropropane	11.90	76	185967	48.16	ug/L		99
84) butyl acetate	11.95	56	88587	46.83	ug/L		99
85) dibromochloromethane	12.17	129	142864	52.57	ug/L		99
86) 1,2-dibromoethane	12.33	107	161656	49.70	ug/L		96
87) n-butyl ether	12.79	57	619150	49.15	ug/L		100
88) chlorobenzene	12.85	112	375783	48.67	ug/L		98
89) 1,1,1,2-tetrachloroethane	12.92	131	154515	49.97	ug/L		96
90) ethylbenzene	12.91	91	643892	47.62	ug/L		100
91) m,p-xylene	13.04	106	494157	96.27	ug/L		99
92) o-xylene	13.47	91	540458	47.16	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3793\
Data File : 4B89764.D
Acq On : 6 Apr 2019 11:57 pm
Operator : CHELSEAS
Sample : ICV3793-50
Misc : MS33655,V4B3793,5,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Apr 09 08:40:37 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4B3793.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Tue Apr 09 08:39:45 2019
Response via : Initial Calibration

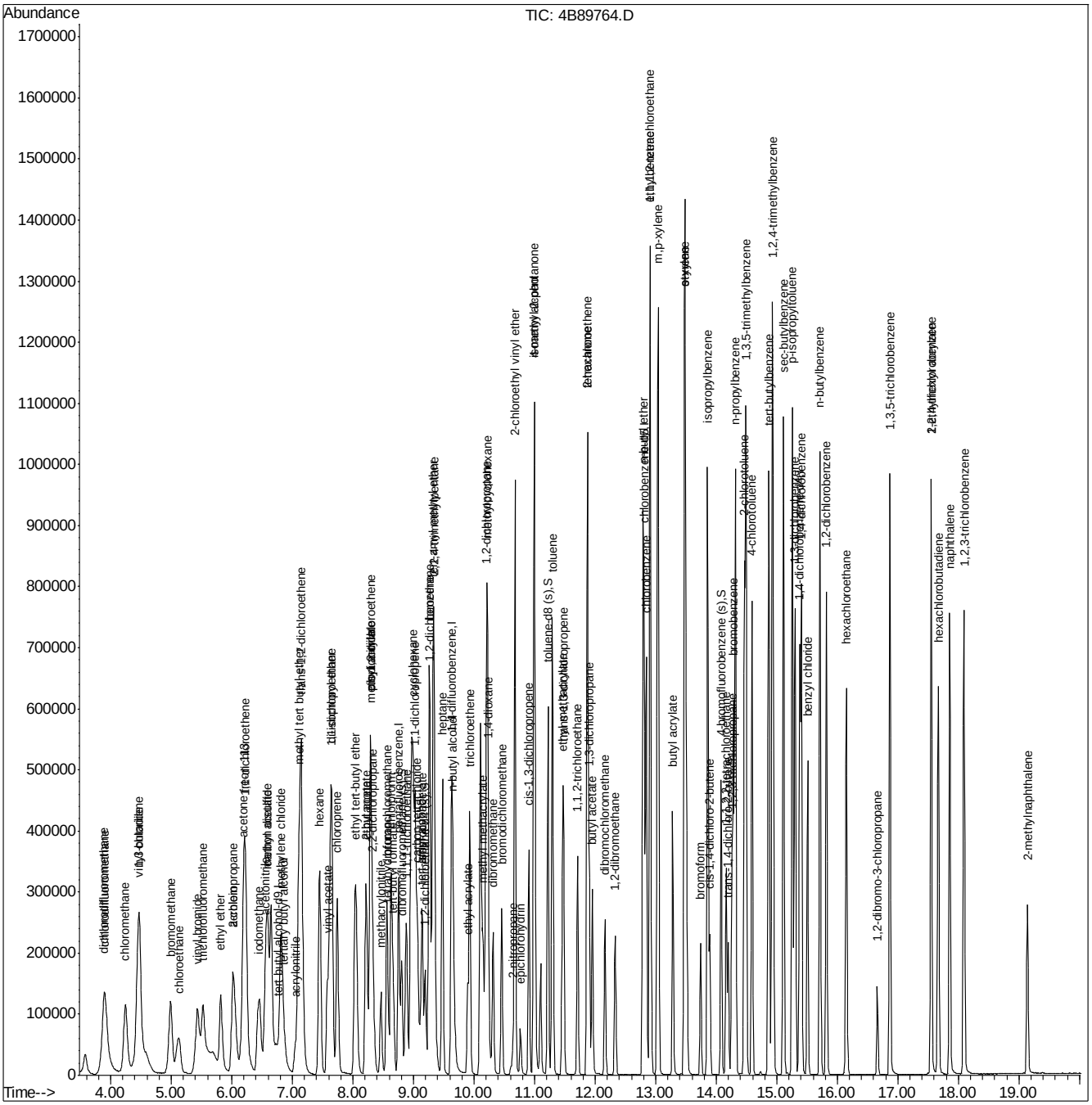
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
93) styrene	13.49	104	415569	49.70	ug/L	100
94) butyl acrylate	13.28	55	282018	46.54	ug/L	100
95) isopropylbenzene	13.86	105	699316	48.17	ug/L	100
96) bromoform	13.74	173	106600	54.48	ug/L	98
97) cis-1,4-dichloro-2-butene	13.89	88	50722	50.12	ug/L	96
100) 1,1,2,2-tetrachloroethane	14.17	83	178459	48.25	ug/L	97
101) trans-1,4-dichloro-2-buten	14.20	53	41313	55.75	ug/L	98
102) 1,2,3-trichloropropane	14.26	110	42489	48.38	ug/L	94
103) bromobenzene	14.29	156	183910	50.36	ug/L	99
104) n-propylbenzene	14.32	91	791172	49.79	ug/L	99
105) 2-chlorotoluene	14.46	126	164637	49.42	ug/L	99
106) 4-chlorotoluene	14.59	91	460880	49.43	ug/L	100
107) 1,3,5-trimethylbenzene	14.49	105	595509	49.86	ug/L	98
108) tert-butylbenzene	14.87	119	523727	51.30	ug/L	99
109) 1,2,4-trimethylbenzene	14.92	105	605946	50.62	ug/L	100
110) sec-butylbenzene	15.11	105	786377	50.65	ug/L	99
111) p-isopropyltoluene	15.26	119	669622	50.67	ug/L	100
112) 1,3-dichlorobenzene	15.30	146	346791	49.59	ug/L	99
113) 1,4-dichlorobenzene	15.41	146	351200	50.00	ug/L	99
114) 1,2-dichlorobenzene	15.82	146	356837	49.34	ug/L	99
115) benzyl chloride	15.51	91	388331	59.71	ug/L	99
116) n-butylbenzene	15.71	92	320289	50.19	ug/L	99
117) hexachloroethane	16.15	201	130408	55.06	ug/L	98
118) 1,2-dibromo-3-chloropropan	16.66	157	46019	50.30	ug/L	96
119) 1,3,5-trichlorobenzene	16.87	180	340519	50.96	ug/L	99
120) 1,2,4-trichlorobenzene	17.55	180	300343	51.17	ug/L	99
121) 2-ethylhexyl acrylate	17.55	70	30920	9.62	ug/L	97
122) hexachlorobutadiene	17.67	225	157286	47.89	ug/L	99
123) naphthalene	17.86	128	629564	52.31	ug/L	100
124) 1,2,3-trichlorobenzene	18.09	180	280238	52.26	ug/L	99
125) 2-methylnaphthalene	19.14	142	154963	26.13	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3793\
Data File : 4B89764.D
Acq On : 6 Apr 2019 11:57 pm
Operator : CHELSEAS
Sample : ICV3793-50
Misc : MS33655,V4B3793,5,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Apr 09 08:40:37 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4B3793.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Tue Apr 09 08:39:45 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\v4b3809\
Data File : 4b90055.d
Acq On : 22 Apr 2019 7:02 am
Operator : mariceld
Sample : CC3793-20 Inst : MS4B
Misc : MS34115,V4B3809,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4B3793.M
Quant Results File: M4B3793.RES
Quant Time: Apr 23 10:33:59 2019
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Mon Apr 15 07:19:51 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	6.749	65	154900	500.00	ug/L		0.00
5) pentafluorobenzene	8.757	168	310327	50.00	ug/L		0.00
54) 1,4-difluorobenzene	9.631	114	415840	50.00	ug/L		0.00
75) chlorobenzene-d5	12.811	117	380890	50.00	ug/L		0.00
98) 1,4-dichlorobenzene-d4	15.379	152	232863	50.00	ug/L		0.00
System Monitoring Compounds							
46) dibromofluoromethane (s)	8.804	113	143903	51.28	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.56%				
55) 1,2-dichloroethane-d4 (s)	9.196	65	140621	51.28	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 102.56%				
76) toluene-d8 (s)	11.221	98	470074	49.04	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.08%				
99) 4-bromofluorobenzene (s)	14.082	95	184901	48.23	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 96.46%				
Target Compounds							Qvalue
3) tertiary butyl alcohol	6.843	59	42369	96.73	ug/L		96
4) 1,4-dioxane	10.248	88	15884	485.61	ug/L		97
6) chlorodifluoromethane	3.909	51	119888	18.81	ug/L		99
7) dichlorodifluoromethane	3.883	85	133039	21.37	ug/L		100
8) chloromethane	4.249	50	145507	20.35	ug/L		98
9) vinyl chloride	4.447	62	134640	21.74	ug/L		98
10) 1,3-butadiene	4.484	54	87397	18.61	ug/L	#	82
11) bromomethane	4.991	94	95489	22.92	ug/L		97
12) chloroethane	5.127	64	65940	20.84	ug/L		99
13) trichlorofluoromethane	5.530	101	124910	20.83	ug/L		99
14) vinyl bromide	5.431	106	63047	19.42	ug/L		97
15) ethyl ether	5.818	74	39530	21.11	ug/L		97
16) 2-chloropropane	6.022	43	143375	20.51	ug/L		96
17) acrolein	6.022	56	12677	17.83	ug/L		95
18) freon 113	6.220	151	66818	19.67	ug/L		98
19) 1,1-dichloroethene	6.220	61	129306	20.22	ug/L		96
20) acetone	6.200	58	26986	85.02	ug/L		88
21) acetonitrile	6.560	41	104099	201.56	ug/L		96
22) iodomethane	6.451	142	135538	20.15	ug/L		98
23) carbon disulfide	6.592	76	264825	19.42	ug/L		98
24) methylene chloride	6.817	84	90385	20.27	ug/L		99
25) methyl acetate	6.581	43	58465	21.41	ug/L		97
26) methyl tert butyl ether	7.115	73	202582	19.75	ug/L		95
27) trans-1,2-dichloroethene	7.151	61	115121	20.97	ug/L		97
28) hexane	7.450	56	57054	19.49	ug/L		100
29) di-isopropyl ether	7.627	45	281240	20.60	ug/L		98
30) 2-butanone	8.213	72	29570	79.70	ug/L		92
31) 1,1-dichloroethane	7.654	63	140585	20.80	ug/L		100
32) chloroprene	7.748	53	106212	20.40	ug/L		98
33) acrylonitrile	7.052	53	29458	20.85	ug/L		99
34) vinyl acetate	7.580	86	11787	21.46	ug/L	#	89
35) ethyl tert-butyl ether	8.041	59	241762	20.14	ug/L		97
36) ethyl acetate	8.224	45	11593	23.16	ug/L		95
37) 2,2-dichloropropane	8.328	77	105148	19.86	ug/L		99
38) cis-1,2-dichloroethene	8.292	96	83363	20.36	ug/L		96
39) propionitrile	8.286	54	110761	205.03	ug/L		93
40) methyl acrylate	8.307	85	9191	19.67	ug/L	#	92
41) methacrylonitrile	8.464	67	27359	21.00	ug/L		97
42) bromochloromethane	8.564	128	40537	20.67	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\v4b3809\
Data File : 4b90055.d
Acq On : 22 Apr 2019 7:02 am
Operator : mariceld
Sample : CC3793-20 Inst : MS4B
Misc : MS34115,V4B3809,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4B3793.M
Quant Results File: M4B3793.RES
Quant Time: Apr 23 10:33:59 2019
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Mon Apr 15 07:19:51 2019
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
43)	tetrahydrofuran	8.579	72	9137	19.62	ug/L		95
44)	chloroform	8.632	83	129756	20.15	ug/L		99
45)	tert-butyl formate	8.663	59	57416	20.48	ug/L		98
47)	1,1,1-trichloroethane	8.883	97	113225	19.85	ug/L		98
48)	cyclohexane	8.992	84	116534	20.16	ug/L		97
50)	1,1-dichloropropene	9.029	75	92040	20.15	ug/L		99
51)	carbon tetrachloride	9.066	117	97710	20.49	ug/L		98
52)	tert-amyl alcohol	9.128	73	18758	78.69	ug/L		98
53)	isopropyl acetate	9.144	87	13349	20.60	ug/L	#	85
56)	n-butyl alcohol	9.652	41	72400	859.61	ug/L		95
57)	2,2,4-trimethylpentane	9.338	57	291343	19.77	ug/L		98
58)	benzene	9.259	78	279725	19.81	ug/L		99
59)	tert-amyl methyl ether	9.322	73	225070	19.45	ug/L		98
60)	heptane	9.479	57	50326	19.64	ug/L		96
61)	1,2-dichloroethane	9.280	62	86207	20.68	ug/L		97
62)	ethyl acrylate	9.897	55	74902	20.28	ug/L		98
63)	trichloroethene	9.929	95	69333	20.51	ug/L		97
64)	2-chloroethyl vinyl ether	10.677	63	195721	103.22	ug/L		99
65)	methyl methacrylate	10.154	100	15019	20.03	ug/L		96
66)	methylcyclohexane	10.227	83	131401	18.39	ug/L		98
67)	1,2-dichloropropane	10.206	63	72133	20.53	ug/L		98
68)	dibromomethane	10.316	93	42430	20.81	ug/L		100
69)	bromodichloromethane	10.457	83	90576	21.17	ug/L		100
70)	2-nitropropane	10.645	41	21098	29.85	ug/L		97
71)	epichlorohydrin	10.766	57	32944	100.84	ug/L		97
72)	cis-1,3-dichloropropene	10.907	75	105272	20.89	ug/L		98
73)	4-methyl-2-pentanone	10.996	58	108721	80.44	ug/L		98
74)	isoamyl alcohol	10.990	70	36970	347.59	ug/L	#	87
77)	toluene	11.294	92	156526	19.72	ug/L		97
78)	ethyl methacrylate	11.461	69	77022	19.94	ug/L		97
79)	trans-1,3-dichloropropene	11.477	75	90602	21.08	ug/L		95
80)	1,1,2-trichloroethane	11.712	83	48684	20.32	ug/L		99
81)	tetrachloroethene	11.874	164	57053	19.17	ug/L		99
82)	2-hexanone	11.874	58	99017	79.04	ug/L		98
83)	1,3-dichloropropane	11.900	76	88743	19.94	ug/L		98
84)	butyl acetate	11.958	56	44439	20.38	ug/L		99
85)	dibromochloromethane	12.167	129	67137	21.44	ug/L		99
86)	1,2-dibromoethane	12.329	107	76439	20.39	ug/L		98
87)	n-butyl ether	12.790	57	285750	19.68	ug/L		99
88)	chlorobenzene	12.842	112	176442	19.83	ug/L		99
89)	1,1,1,2-tetrachloroethane	12.910	131	73032	20.49	ug/L		99
90)	ethylbenzene	12.910	91	304532	19.54	ug/L		99
91)	m,p-xylene	13.035	106	232483	39.30	ug/L		98
92)	o-xylene	13.475	91	257115	19.47	ug/L		99
93)	styrene	13.490	104	194238	20.15	ug/L		100
94)	butyl acrylate	13.281	55	137758	19.72	ug/L		98
95)	isopropylbenzene	13.857	105	323602	19.34	ug/L		100
96)	bromoform	13.742	173	49174	21.81	ug/L		99
97)	cis-1,4-dichloro-2-butene	13.893	88	26094	22.37	ug/L		98
100)	1,1,2,2-tetrachloroethane	14.165	83	87564	19.66	ug/L		100
101)	trans-1,4-dichloro-2-b...	14.202	53	19426	21.77	ug/L		98
102)	1,2,3-trichloropropane	14.259	110	20971	19.83	ug/L		91
103)	bromobenzene	14.285	156	86281	19.62	ug/L		97
104)	n-propylbenzene	14.317	91	372822	19.49	ug/L		99
105)	2-chlorotoluene	14.463	126	80087	19.97	ug/L		98
106)	4-chlorotoluene	14.589	91	219163	19.52	ug/L		98
107)	1,3,5-trimethylbenzene	14.489	105	278380	19.36	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\v4b3809\
Data File : 4b90055.d
Acq On : 22 Apr 2019 7:02 am
Operator : mariceld
Sample : CC3793-20 Inst : MS4B
Misc : MS34115,V4B3809,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4B3793.M
Quant Results File: M4B3793.RES
Quant Time: Apr 23 10:33:59 2019
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Mon Apr 15 07:19:51 2019
Response via : Initial Calibration

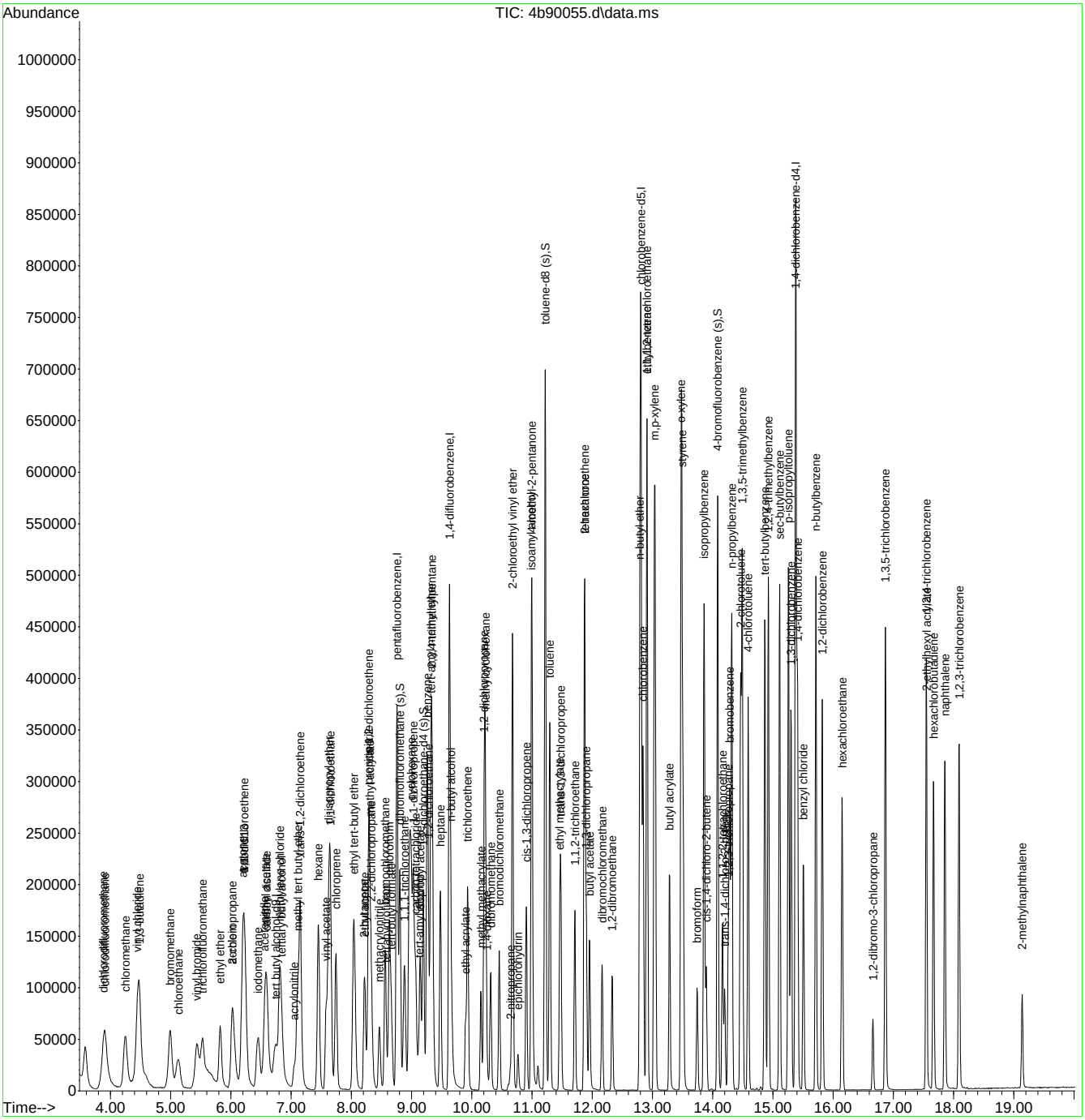
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
108) tert-butylbenzene	14.866	119	231909	18.87	ug/L	99
109) 1,2,4-trimethylbenzene	14.924	105	282369	19.59	ug/L	100
110) sec-butylbenzene	15.112	105	358106	19.15	ug/L	99
111) p-isopropyltoluene	15.258	119	308868	19.41	ug/L	99
112) 1,3-dichlorobenzene	15.300	146	165430	19.65	ug/L	99
113) 1,4-dichlorobenzene	15.410	146	166845	19.73	ug/L	99
114) 1,2-dichlorobenzene	15.818	146	168040	19.30	ug/L	99
115) benzyl chloride	15.504	91	165767	21.17	ug/L	97
116) n-butylbenzene	15.713	92	151581	19.73	ug/L	99
117) hexachloroethane	16.153	201	56503	19.81	ug/L	97
118) 1,2-dibromo-3-chloropr...	16.665	157	20817	18.89	ug/L	98
119) 1,3,5-trichlorobenzene	16.869	180	154253	19.17	ug/L	100
120) 1,2,4-trichlorobenzene	17.549	180	134773	19.07	ug/L	99
121) 2-ethylhexyl acrylate	17.554	70	6984	2.80	ug/L	85
122) hexachlorobutadiene	17.669	225	73518	18.59	ug/L	97
123) naphthalene	17.858	128	266012	18.36	ug/L	99
124) 1,2,3-trichlorobenzene	18.093	180	122487	18.97	ug/L	99
125) 2-methylnaphthalene	19.139	142	49649	6.95	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\v4b3809\
Data File : 4b90055.d
Acq On : 22 Apr 2019 7:02 am
Operator : mariceld
Sample : CC3793-20 Inst : MS4B
Misc : MS34115,V4B3809,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4B3793.M
Quant Results File: M4B3793.RES
Quant Time: Apr 23 10:33:59 2019
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Mon Apr 15 07:19:51 2019
Response via : Initial Calibration



GCMS Volatile Run Log

Standard / Reagents	Lot #				Column	ZB624(60mx0.25mmx1.4um)
STANDARDS	ABK v0192648-40.47	EC v0192648-58.9	Acrolein v0192648-54.11		Method	V8260C
Standard Concentrations	100ppm-10,000ppm	100ppm	100ppm		Init Calib Date	4/6/2019
STANDARDS	EXT ABK v0192648-52.6	EXT EC v019-2648-60.5	EXT Acro v019-2648-42.	EXT PA v019-2648-2		
Standard Concentrations	100ppm-10,000ppm	100ppm	100ppm	100ppm		
INTERNAL/SURROGATE	v0182648-30		Ace 3rd Source		Analysis Date	4/6/2019
Int/Surr Concentration	250/2500pm		v019-2648-12.3		Sequence loaded by	Prashant S
			400ppm		Data processed by	Bridget Kelly
					Batch ID	V4B3793
					Matrix	AQ
					Approved By:	KANYAV
pH Paper Lot#	217518		Initial Calibration Method	M4B3793	Approved Date:	4/10/2019 1:37:37 AM

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	CL	pH	ALS #	Status	Comments
4b	89751	BFB		NA			5			1	ok	5:47 pm
4b	89752	IC3793-0.2		NA			5			2	ok	1 uL ABK EC Acro / 500 mL
4b	89753	IC3793-0.5		NA			5			3	ok	1 uL ABK EC Acro / 200 mL
4b	89754	IC3793-1		NA			5			4	ok	1 uL ABK EC Acro / 100 mL
4b	89755	IC3793-2		NA			5			5	ok	2 uL ABK EC Acro / 100 mL
4b	89756	IC3793-4		NA			5			6	ok	4 uL ABK EC Acro / 100 mL
4b	89757	IC3793-8		NA			5			7	ok	8 uL ABK EC Acro / 100 mL
4b	89758	IC3793-20		NA			5			8	ok	20 uL ABK EC Acro / 100 mL
4b	89759	ICC3793-50		NA			5			9	ok	50 uL ABK EC Acro / 100 mL
4b	89760	IC3793-100		NA			5			10	ok	100 uL ABK EC Acro / 100 mL
4b	89761	IC3793-200		NA			5			11	ok	200 uL ABK EC Acro / 100 mL

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	CL	pH	ALS #	Status	Comments
4b	89762	IB		NA			5			12	ok	
4b	89763	IB		NA			5			13	ok	
4b	89764	ICV3793-50		NA			5			14	ok	50 uL EXT ABK EC Acro / 100 mL
4b	89765	ICV3793-50		NA			5			15	Not used	50 uL EXT PA Ace 3rd Source / 100 mL 3rd source ace expired

GCMS Volatile Run Log

Standard / Reagents	Lot #				Column	ZB624(60mx0.25mmx1.4um)
STANDARDS	ABK v0192648-40.57	EC v0192648-71.11	Acrolein v0192648-54.24		Method	8260C
Standard Concentrations	100ppm-10,000ppm	100ppm	100ppm		Init Calib Date	4/6/2019
STANDARDS						
Standard Concentrations						
INTERNAL/SURROGATE	v0182648-63				Analysis Date	4/22/2019
Int/Surr Concentration	250/2500pm				Sequence loaded by	Chelsea San Filippo
					Data processed by	kenrickb
					Batch ID	V4B3809
					Matrix	AQ
					Approved By:	MOHUI
pH Paper Lot#	217518		Initial Calibration Method	M4B3793	Approved Date:	4/23/2019 12:18:31 PM

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	CL	pH	ALS #	Status	Comments
4B	90053	IB		NA			5			1	ok	
4B	90054	IB		NA			5			2	ok	
4B	90055	BFB/CC3793-20		NA			5			3	ok/ok	7:02 AM ; 20uL ABK, EC, Acrolein / 100mL
4B	90056	BS		NA			5			4	ok	50uL ABK, EC, Acrolein / 100mL
4B	90057	IB		NA			5			5	ok	
4B	90058	MB		NA			5			6	ok	
4B	90059	JC80588B-12A		NA	MS33757	V8260SL	5			7	ok	1ppb MDLV Q2 ; 1uL ABK, EC, Acrolein / 100mL
4B	90060	JC80444B-29C		NA	MS33763	V8260SL	5			8	ok	1ppb LOQ/LOQ Q2 ; 1uL ABK, EC, Acrolein / 100mL
4B	90061	JC80444B-29D		NA	MS33763	V8260SL	5			9	ok	2ppb LOD/LOQ Q2 ; 2uL ABK, EC, Acrolein / 100mL
4B	90062	JC80588B-12B		NA	MS33757	V8260SL	5			10	ok	5ppb MDLV Q2 ; 5uL ABK, EC, Acrolein / 100mL
4B	90063	JC80444B-29E		NA	MS33763	V8260SL	5			11	ok	5ppb LOD/LOQ Q2 ; 5uL ABK, EC, Acrolein / 100mL

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	CL	pH	ALS #	Status	Comments
4B	90064	JC80444B-29B		NA	MS33763	V8260SL	5			12	ok	.5ppb LOD/LOQ Q2 ; 1uL ABK, EC, Acrolein / 200mL
4B	90065	JC80444B-29A		NA	MS33763	V8260SL	5			13	ok	.2ppb LOD/LOQ Q2 ; 1uL ABK, EC, Acrolein / 500mL
4B	90066	JC85982-1	5	NA	MS34115	V8260SL,13BUTADN ,224TMP,2CHL13BU	5		5	14	ok	
4B	90067	JC85982-1	5	10x	MS34115	V8260SL,13BUTADN ,224TMP,2CHL13BU	5/50		5	15	ok	
4B	90068	JC86653-1	2	NA	MS34141	V82602NG36GW+40	5		1	16	ok	
4B	90069	JC86673-4	2	NA	MS34149	V8260PCE,TCE,VC	5		1	17	ok	
4B	90070	JC86676-1	8	NA	MS34149	V8260BTX	5		1	18	ok	
4B	90071	JC86676-2	8	NA	MS34149	V8260BTX	5		1	19	ok	
4B	90072	JC86150-8R	2	NA	MS34130	V8260TCL20+, TBA	5		1	20	ok	
4B	90073	JC86676-1MS	7	NA	MS34149	V8260BTX	5		1	21	ok	20uL ABK, EC, Acrolein / 40mL
4B	90074	JC86719-6	1	500x	MS34154	V8260TCL20+	.1/50		1	22	ok	
4B	90075	JC86676-2DUP	7	NA	MS34149	V8260BTX	5		1	23	ok	
4B	90076	JC86653-2	1	NA	MS34141	V82602NG36GW+40	5		1	24	ok	
4B	90077	JC86653-3	1	NA	MS34141	V82602NG36GW+40	5		1	25	ok	
4B	90078	JC86719-6	1	50x	MS34154	V8260TCL20+	1/50		1	26	ok	22 Apr 2019 6:21 pm
4B	90079	IB	1	NA			5			27	ok	

Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Instrument Runlogs
- Initial and Continuing Calibration Blanks
- Initial and Continuing Calibration Checks
- High and Low Check Standards
- Interfering Element Check Standards
- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries
- IDL and Linear Range Summaries

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC86676
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA042219M1.CSV Date Analyzed: 04/22/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA46558
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Dilution Factor	PS Recov	Comments
09:35	MA46558-STD1	1		STDA
09:40	MA46558-STD2	1		STDA
09:45	MA46558-STD3	1		STDA
09:50	MA46558-STD4	1		STDB
09:55	MA46558-STD5	1		STDC
10:00	MA46558-STD6	1		STDD
10:05	MA46558-STD7	1		STDE
10:10	MA46558-STD8	1		STDF
10:15	MA46558-STD9	1		STDG
10:20	MA46558-STD10	1		STDH
10:25	MA46558-STD11	1		STDI
10:30	MA46558-STD12	1		STDJ
10:35	ZZZZZZ	1		
10:44	MA46558-ICVA1	1		
10:49	MA46558-ICV1	1		60ppb Al.
11:05	MA46558-ICB1	1		
11:10	ZZZZZZ	1		
11:15	MA46558-CCB1	1		
11:20	MA46558-CRI1	1		See rerun
11:25	MA46558-CCVA1	1		
11:30	MA46558-CCB2	1		
11:35	MA46558-CRI2	1		
11:40	MA46558-ICSA1	1		
11:45	MA46558-ICSAB1	1		
11:50	ZZZZZZ	1		
11:56	MA46558-CCVA2	1		
12:01	MA46558-CCB3	1		
12:06	ZZZZZZ	2		
12:11	ZZZZZZ	2		
12:17	MP14305-MB2	2		
12:22	MP14305-S1	5		
12:27	MP14305-S2	5		
12:31	ZZZZZZ	2		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC86676
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA042219M1.CSV Date Analyzed: 04/22/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA46558
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Dilution Factor	PS Recov	Comments
12:37	ZZZZZZ	5		
12:42	ZZZZZZ	10		
12:47	MA46558-CCVA3	1		
12:52	MA46558-CCB4	1		
12:57	ZZZZZZ	5		
13:02	ZZZZZZ	5		
13:07	ZZZZZZ	2		
13:12	ZZZZZZ	2		
13:17	ZZZZZZ	5		
13:22	MP14347-MB1	2		
13:27	MP14347-B1	2		
13:32	MP14347-S1	5		To reanalysis with QC sample at dilution and straight.
13:37	MA46558-CCVA4	1		
13:42	MA46558-CCB5	1		
13:47	MP14347-S2	5		To reanalysis with QC sample at dilution and straight.
13:53	MP14347-SD1	25		To reanalysis with QC sample at dilution and straight.
13:58	ZZZZZZ	10		
14:03	ZZZZZZ	10		
14:08	ZZZZZZ	10		
14:13	ZZZZZZ	2		
14:18	ZZZZZZ	5		
14:23	ZZZZZZ	5		
14:28	MA46558-CCVA5	1		
14:34	MA46558-CCB6	1		
14:39	ZZZZZZ	2		
14:44	MP14272-S2	25		
14:49	MP14272-S1	1000		No QC sample.
14:54	MP14272-S2	1000		No QC sample.
14:59	MP14272-SD1	50000		No QC sample.
15:04	ZZZZZZ	2		
15:09	ZZZZZZ	2		
15:14	ZZZZZZ	10		
15:19	ZZZZZZ	10		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC86676
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA042219M1.CSV Date Analyzed: 04/22/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA46558
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Dilution Factor	PS Recov	Comments
15:24	MA46558-CCVA6	1		
15:29	MA46558-CCB7	1		
15:34	ZZZZZZ	2		
15:39	ZZZZZZ	10		
15:44	ZZZZZZ	5		
15:49	ZZZZZZ	5		
15:54	ZZZZZZ	5		
15:59	ZZZZZZ	5		
16:06	ZZZZZZ	10		
16:11	ZZZZZZ	1		
16:16	ZZZZZZ	1		
16:21	MA46558-CCVA7	1		
16:26	MA46558-CCB8	1		
16:31	MP14304-S1	5		To reanalysis for Zn with QC sample
16:36	MP14304-S2	5		To reanalysis for Zn with QC sample
16:42	ZZZZZZ	2		
16:46	ZZZZZZ	5		
16:52	MP14272-PS1	25		
16:56	ZZZZZZ	1		
17:02	MA46558-CCVA8	1		
17:07	MA46558-CCB9	1		
17:12	MP14424-MB1	2		
17:17	MP14424-SD1	10		
17:22	ZZZZZZ	2		
17:27	ZZZZZZ	2		
17:32	MP14424-B1	2		
17:37	ZZZZZZ	2		
17:42	MP14424-S1	2		
17:47	MP14424-S2	2		
17:52	ZZZZZZ	1		
17:57	ZZZZZZ	1		
18:02	MA46558-CCVA9	1		
18:07	MA46558-CCB10	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC86676
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA042219M1.CSV Date Analyzed: 04/22/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA46558
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Dilution Factor	PS Recov	Comments
18:12	JC86645-3	2		(sample used for QC only; not part of login JC86676)
18:17	MP14424-S1	5		
18:22	MP14424-S2	5		
18:27	ZZZZZZ	1		
18:32	ZZZZZZ	2		
18:37	ZZZZZZ	1		
18:42	MA46558-CCVA10	1		
18:47	MA46558-CCB11	1		
18:52	ZZZZZZ	2		
18:57	ZZZZZZ	2		
19:02	ZZZZZZ	2		
19:07	ZZZZZZ	2		
19:12	ZZZZZZ	1		
19:17	ZZZZZZ	2		
19:22	ZZZZZZ	2		
19:27	ZZZZZZ	2		
19:32	MA46558-CCVA11	1		
19:37	MA46558-CCB12	1		
19:42	ZZZZZZ	2		
19:47	ZZZZZZ	2		
19:52	ZZZZZZ	2		
19:57	ZZZZZZ	1		
20:02	ZZZZZZ	2		
20:07	ZZZZZZ	2		
20:12	ZZZZZZ	1		
20:17	JC86676-1	2		
20:22	JC86676-2	2		
---------->	Last reportable sample/prep for job JC86676			
20:27	MA46558-CCVA12	1		
20:32	MA46558-CCB13	1		
---------->	Last reportable CCB for job JC86676			
20:37	ZZZZZZ	2		
20:42	ZZZZZZ	2		
20:47	ZZZZZZ	1		
20:52	MP14333A-MB1	2		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC86676
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA042219M1.CSV Date Analyzed: 04/22/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA46558
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Dilution Factor	PS Recov	Comments
20:57	MP14333A-B2	2		
21:02	MP14333A-S3	2		
21:07	MP14333A-S4	2		
21:12	JC86380-3	2		(sample used for QC only; not part of login JC86676)
21:17	MP14333A-SD1	10		
21:22	ZZZZZZ	2		
21:27	MA46558-CCVA13	1		
21:32	MA46558-CCB14	1		
21:37	ZZZZZZ	2		
21:42	ZZZZZZ	2		
21:47	ZZZZZZ	2		
21:52	ZZZZZZ	1		
21:57	ZZZZZZ	2		
22:02	ZZZZZZ	2		
22:07	ZZZZZZ	1		
22:12	ZZZZZZ	2		
22:17	ZZZZZZ	2		
22:22	MA46558-CCVA14	1		
22:27	MA46558-CCB15	1		
22:32	ZZZZZZ	2		
22:37	ZZZZZZ	2		
22:42	ZZZZZZ	2		
22:47	ZZZZZZ	1		
22:52	MP14458-MB1	1		
22:57	MP14458-B1	1		
23:02	MP14458-S1	1		
23:07	MP14458-S2	1		
23:12	JC86667-41	1		(sample used for QC only; not part of login JC86676)
23:17	MA46558-CCVA15	1		
23:22	MA46558-CCB16	1		
23:27	MP14458-S3	1		
23:33	JC86667-42	1		(sample used for QC only; not part of login JC86676)
23:38	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC86676
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA042219M1.CSV Date Analyzed: 04/22/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA46558
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Dilution Factor	PS Recov	Comments
23:43	ZZZZZZ	1		
23:48	ZZZZZZ	1		
23:53	ZZZZZZ	1		
23:58	ZZZZZZ	1		
00:03	ZZZZZZ	1		
00:08	ZZZZZZ	1		
00:13	ZZZZZZ	1		
00:18	MA46558-CCVA16	1		
00:23	MA46558-CCB17	1		
00:28	ZZZZZZ	1		
00:33	ZZZZZZ	1		
00:38	ZZZZZZ	1		
00:43	ZZZZZZ	1		
00:48	ZZZZZZ	1		
00:53	ZZZZZZ	1		
00:58	ZZZZZZ	1		
01:03	ZZZZZZ	1		
01:08	ZZZZZZ	1		
01:13	ZZZZZZ	1		
01:18	MA46558-CCVA17	1		
01:23	MA46558-CCB18	1		
01:28	MP14459-MB1	1		
01:33	MP14459-B1	1		
01:38	MP14459-S1	1		
01:43	MP14459-S2	1		
01:48	JC86667-61	1		(sample used for QC only; not part of login JC86676)
01:53	MP14459-S3	1		
01:58	JC86667-62	1		(sample used for QC only; not part of login JC86676)
02:03	ZZZZZZ	1		
02:08	ZZZZZZ	1		
02:13	ZZZZZZ	1		
02:19	MA46558-CCVA18	1		
02:23	MA46558-CCB19	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC86676
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA042219M1.CSV Date Analyzed: 04/22/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA46558
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Dilution Factor	PS Recov	Comments
02:29	ZZZZZZ	1		
02:34	ZZZZZZ	1		
02:39	ZZZZZZ	1		
02:44	ZZZZZZ	1		
02:49	ZZZZZZ	1		
02:54	ZZZZZZ	1		
02:59	ZZZZZZ	1		
03:04	ZZZZZZ	1		
03:09	ZZZZZZ	1		
03:14	ZZZZZZ	1		
03:19	MA46558-CCVA19	1		
03:24	MA46558-CCB20	1		
03:29	ZZZZZZ	1		
03:34	ZZZZZZ	1		
03:39	ZZZZZZ	1		
03:44	ZZZZZZ	1		
03:49	ZZZZZZ	1		
03:54	ZZZZZZ	1		
03:59	ZZZZZZ	1		
04:04	ZZZZZZ	1		
04:09	ZZZZZZ	1		
04:14	MA46558-CCVA20	1		
04:19	MA46558-CCB21	1		
04:24	ZZZZZZ	1		
04:29	ZZZZZZ	1		
04:34	ZZZZZZ	1		
04:39	ZZZZZZ	1		

Refer to raw data for calibration curve and standards.

REPORTED ELEMENTS SUMMARY

Login Number: JC86676
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA042219M1.CSV Date Analyzed: 04/22/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA46558
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Element: Dilution	Al	As	Ba	Cd	Fe	Pb	
10:35	ZZZZZZ	1							
10:44	MA46558-ICVA1	1	X	X	X	X	X	X	
10:49	MA46558-ICV1	1	X						
11:05	MA46558-ICB1	1	X	X	X	X	X	X	
11:10	ZZZZZZ	1							
11:15	MA46558-CCB1	1	X	X	X	X	X	X	
11:20	MA46558-CRI1	1	See rerun						
11:25	MA46558-CCVA1	1	X	X	X	X	X	X	
11:30	MA46558-CCB2	1	X	X	X	X	X	X	
11:35	MA46558-CRI2	1	X	X	X	X	X	X	
11:40	MA46558-ICSA1	1	X	X	X	X	X	X	
11:45	MA46558-ICSAB1	1	X	X	X	X	X	X	
11:50	ZZZZZZ	1							
11:56	MA46558-CCVA2	1	X	X	X	X	X	X	
12:01	MA46558-CCB3	1	X	X	X	X	X	X	
12:06	ZZZZZZ	2							
12:11	ZZZZZZ	2							
12:17	MP14305-MB2	2							
12:22	MP14305-S1	5							
12:27	MP14305-S2	5							
12:31	ZZZZZZ	2							
12:37	ZZZZZZ	5							
12:42	ZZZZZZ	10							
12:47	MA46558-CCVA3	1	X	X	X	X	X	X	
12:52	MA46558-CCB4	1	X	X	X	X	X	X	
12:57	ZZZZZZ	5							
13:02	ZZZZZZ	5							
13:07	ZZZZZZ	2							
13:12	ZZZZZZ	2							
13:17	ZZZZZZ	5							
13:22	MP14347-MB1	2							
13:27	MP14347-B1	2							
13:32	MP14347-S1	5	To reanalysis with QC sample at dilution and straight.						
		Element:	Al	As	Ba	Cd	Fe	Pb	

REPORTED ELEMENTS SUMMARY

Login Number: JC86676
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA042219M1.CSV Date Analyzed: 04/22/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA46558
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Element: Dilution	Al	As	Ba	Cd	Fe	Pb
13:37	MA46558-CCVA4	1	X	X	X	X	X	X
13:42	MA46558-CCB5	1	X	X	X	X	X	X
13:47	MP14347-S2	5	To reanalysis with QC sample at dilution and straight.					
13:53	MP14347-SD1	25	To reanalysis with QC sample at dilution and straight.					
13:58	ZZZZZZ	10						
14:03	ZZZZZZ	10						
14:08	ZZZZZZ	10						
14:13	ZZZZZZ	2						
14:18	ZZZZZZ	5						
14:23	ZZZZZZ	5						
14:28	MA46558-CCVA5	1	X	X	X	X	X	X
14:34	MA46558-CCB6	1	X	X	X	X	X	X
14:39	ZZZZZZ	2						
14:44	MP14272-S2	25	X	X		X		X
14:49	MP14272-S1	1000	No QC sample.					
14:54	MP14272-S2	1000	No QC sample.					
14:59	MP14272-SD1	50000	No QC sample.					
15:04	ZZZZZZ	2						
15:09	ZZZZZZ	2						
15:14	ZZZZZZ	10						
15:19	ZZZZZZ	10						
15:24	MA46558-CCVA6	1	X	X	X	X	X	X
15:29	MA46558-CCB7	1	X	X	X	X	X	X
15:34	ZZZZZZ	2						
15:39	ZZZZZZ	10						
15:44	ZZZZZZ	5						
15:49	ZZZZZZ	5						
15:54	ZZZZZZ	5						
15:59	ZZZZZZ	5						
16:06	ZZZZZZ	10						
16:11	ZZZZZZ	1						
16:16	ZZZZZZ	1						
16:21	MA46558-CCVA7	1	X	X	X	X	X	X
		Element:	Al	As	Ba	Cd	Fe	Pb

REPORTED ELEMENTS SUMMARY

Login Number: JC86676
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA042219M1.CSV Date Analyzed: 04/22/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA46558
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Dilution	Al	As	Ba	Cd	Fe	Pb	
16:26	MA46558-CCB8	1	X	X	X	X	X	X	
16:31	MP14304-S1	5		X					
16:36	MP14304-S2	5		X					
16:42	ZZZZZZ	2							
16:46	ZZZZZZ	5							
16:52	MP14272-PS1	25							
16:56	ZZZZZZ	1							
17:02	MA46558-CCVA8	1	X	X	X	X	X	X	
17:07	MA46558-CCB9	1	X	X	X	X	X	X	
17:12	MP14424-MB1	2	X	X	X	X	X	X	
17:17	MP14424-SD1	10	X	X	X	X	X	X	
17:22	ZZZZZZ	2							
17:27	ZZZZZZ	2							
17:32	MP14424-B1	2	X	X	X	X	X	X	
17:37	ZZZZZZ	2							
17:42	MP14424-S1	2	X	X	X	X	X	X	
17:47	MP14424-S2	2	X	X	X	X	X	X	
17:52	ZZZZZZ	1							
17:57	ZZZZZZ	1							
18:02	MA46558-CCVA9	1	X	X	X	X	X	X	
18:07	MA46558-CCB10	1	X	X	X	X	X	X	
18:12	JC86645-3	2							(a)
18:17	MP14424-S1	5							
18:22	MP14424-S2	5							
18:27	ZZZZZZ	1							
18:32	ZZZZZZ	2							
18:37	ZZZZZZ	1							
18:42	MA46558-CCVA10	1	X	X	X	X	X	X	
18:47	MA46558-CCB11	1	X	X	X	X	X	X	
18:52	ZZZZZZ	2							
18:57	ZZZZZZ	2							
19:02	ZZZZZZ	2							
19:07	ZZZZZZ	2							
	Element:		Al	As	Ba	Cd	Fe	Pb	

REPORTED ELEMENTS SUMMARY

Login Number: JC86676
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA042219M1.CSV Date Analyzed: 04/22/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA46558
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Element: Dilution	Al	As	Ba	Cd	Fe	Pb	
19:12	ZZZZZZ	1							
19:17	ZZZZZZ	2							
19:22	ZZZZZZ	2							
19:27	ZZZZZZ	2							
19:32	MA46558-CCVA11	1	X	X	X	X	X	X	
19:37	MA46558-CCB12	1	X	X	X	X	X	X	
19:42	ZZZZZZ	2							
19:47	ZZZZZZ	2							
19:52	ZZZZZZ	2							
19:57	ZZZZZZ	1							
20:02	ZZZZZZ	2							
20:07	ZZZZZZ	2							
20:12	ZZZZZZ	1							
20:17	JC86676-1	2	X	X	X	X	X	X	
20:22	JC86676-2	2	X	X	X	X	X	X	
20:27	MA46558-CCVA12	1	X	X	X	X	X	X	
20:32	MA46558-CCB13	1	X	X	X	X	X	X	
20:37	ZZZZZZ	2							
20:42	ZZZZZZ	2							
20:47	ZZZZZZ	1							
20:52	MP14333A-MB1	2				X			
20:57	MP14333A-B2	2				X			
21:02	MP14333A-S3	2				X			
21:07	MP14333A-S4	2				X			
21:12	JC86380-3	2				X			(a)
21:17	MP14333A-SD1	10				X			
21:22	ZZZZZZ	2							
21:27	MA46558-CCVA13	1	X	X	X	X	X	X	
21:32	MA46558-CCB14	1	X	X	X	X	X	X	
21:37	ZZZZZZ	2							
21:42	ZZZZZZ	2							
21:47	ZZZZZZ	2							
21:52	ZZZZZZ	1							
		Element:	Al	As	Ba	Cd	Fe	Pb	

REPORTED ELEMENTS SUMMARY

Login Number: JC86676
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA042219M1.CSV Date Analyzed: 04/22/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA46558
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Element: Dilution	Al	As	Ba	Cd	Fe	Pb	
21:57	ZZZZZZ	2							
22:02	ZZZZZZ	2							
22:07	ZZZZZZ	1							
22:12	ZZZZZZ	2							
22:17	ZZZZZZ	2							
22:22	MA46558-CCVA14	1	X	X	X	X	X	X	
22:27	MA46558-CCB15	1	X	X	X	X	X	X	
22:32	ZZZZZZ	2							
22:37	ZZZZZZ	2							
22:42	ZZZZZZ	2							
22:47	ZZZZZZ	1							
22:52	MP14458-MB1	1						X	
22:57	MP14458-B1	1						X	
23:02	MP14458-S1	1						X	
23:07	MP14458-S2	1						X	
23:12	JC86667-41	1						X	(a)
23:17	MA46558-CCVA15	1	X	X	X	X	X	X	
23:22	MA46558-CCB16	1	X	X	X	X	X	X	
23:27	MP14458-S3	1						X	
23:33	JC86667-42	1						X	(a)
23:38	ZZZZZZ	1							
23:43	ZZZZZZ	1							
23:48	ZZZZZZ	1							
23:53	ZZZZZZ	1							
23:58	ZZZZZZ	1							
00:03	ZZZZZZ	1							
00:08	ZZZZZZ	1							
00:13	ZZZZZZ	1							
00:18	MA46558-CCVA16	1			X			X	
00:23	MA46558-CCB17	1			X			X	
00:28	ZZZZZZ	1							
00:33	ZZZZZZ	1							
00:38	ZZZZZZ	1							
		Element:	Al	As	Ba	Cd	Fe	Pb	

REPORTED ELEMENTS SUMMARY

Login Number: JC86676
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA042219M1.CSV Date Analyzed: 04/22/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA46558
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Element: Dilution	Al	As	Ba	Cd	Fe	Pb	
00:43	ZZZZZZ	1							
00:48	ZZZZZZ	1							
00:53	ZZZZZZ	1							
00:58	ZZZZZZ	1							
01:03	ZZZZZZ	1							
01:08	ZZZZZZ	1							
01:13	ZZZZZZ	1							
01:18	MA46558-CCVA17	1			X			X	
01:23	MA46558-CCB18	1			X			X	
01:28	MP14459-MB1	1						X	
01:33	MP14459-B1	1						X	
01:38	MP14459-S1	1						X	
01:43	MP14459-S2	1						X	
01:48	JC86667-61	1						X	(a)
01:53	MP14459-S3	1						X	
01:58	JC86667-62	1						X	(a)
02:03	ZZZZZZ	1							
02:08	ZZZZZZ	1							
02:13	ZZZZZZ	1							
02:19	MA46558-CCVA18	1			X			X	
02:23	MA46558-CCB19	1			X			X	
02:29	ZZZZZZ	1							
02:34	ZZZZZZ	1							
02:39	ZZZZZZ	1							
02:44	ZZZZZZ	1							
02:49	ZZZZZZ	1							
02:54	ZZZZZZ	1							
02:59	ZZZZZZ	1							
03:04	ZZZZZZ	1							
03:09	ZZZZZZ	1							
03:14	ZZZZZZ	1							
03:19	MA46558-CCVA19	1			X			X	
03:24	MA46558-CCB20	1			X			X	
		Element:	Al	As	Ba	Cd	Fe	Pb	

REPORTED ELEMENTS SUMMARY

Login Number: JC86676
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA042219M1.CSV Date Analyzed: 04/22/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA46558
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Element: Dilution	Al	As	Ba	Cd	Fe	Pb
03:29	ZZZZZZ	1						
03:34	ZZZZZZ	1						
03:39	ZZZZZZ	1						
03:44	ZZZZZZ	1						
03:49	ZZZZZZ	1						
03:54	ZZZZZZ	1						
03:59	ZZZZZZ	1						
04:04	ZZZZZZ	1						
04:09	ZZZZZZ	1						
04:14	MA46558-CCVA20	1			X			X
04:19	MA46558-CCB21	1			X			X
04:24	ZZZZZZ	1						
04:29	ZZZZZZ	1						
04:34	ZZZZZZ	1						
04:39	ZZZZZZ	1						

(a) Sample used for QC only; not part of login JC86676.

Element:	Al	As	Ba	Cd	Fe	Pb

INTERNAL STANDARD SUMMARY

Login Number: JC86676
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA042219M1.CSV Date Analyzed: 04/22/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA46558
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8
09:35	MA46558-STD1	100	100	100	100	100	100	100	100
09:40	MA46558-STD2	100	100	100	100	100	100	100	100
09:45	MA46558-STD3	100	100	100	100	100	100	100	100
09:50	MA46558-STD4	98.739	99.312	101.167	99.982	99.404	100.618	100.129	98.462
09:55	MA46558-STD5	99.582	98.738	100.875	100.614	98.443	100.573	99.757	98.369
10:00	MA46558-STD6	97.685	98.987	100.846	99.874	98.509	100.971	99.725	98.58
10:05	MA46558-STD7	98.176	97.826	98.989	97.827	98.212	97.921	97.133	97.715
10:10	MA46558-STD8	96.028	96.599	98.763	98.799	97.141	97.432	97.476	96.763
10:15	MA46558-STD9	94.745	95.292	97.794	97.244	95.718	98.508	97.676	96.483
10:20	MA46558-STD10	96.243	97.266	100.677	99.845	98.032	100.568	100.534	98.67
10:25	MA46558-STD11	96.422	98.446	102.6	100.21	97.945	100.917	98.963	97.237
10:30	MA46558-STD12	97.302	98.466	103.141	100.119	99.032	100.426	98.165	97.832
10:35	ZZZZZZ	98.143	100.586	103.812	101.325	100.609	102.486	101.221	100.336
10:44	MA46558-ICVA1	97.027	99.801	102.692	99.844	100.121	100.247	98.763	100.296
10:49	MA46558-ICV1	97.257	98.508	102.987	100.134	98.243	101.49	99.519	98.448
11:05	MA46558-ICB1	98.333	98.878	103.066	100.397	99.481	102.27	98.865	99.085
11:10	ZZZZZZ	No results reported for the elements associated with this internal standard.							
11:15	MA46558-CCB1	98.945	99.511	104.841	100.326	100.527	103.131	100.986	100.304
11:20	MA46558-CRI1	No results reported for the elements associated with this internal standard.							
11:25	MA46558-CCVA1	98.003	99.355	102.029	98.62	99.21	101.453	97.732	98.795
11:30	MA46558-CCB2	97.443	98.38	103.333	99.962	98.476	102.484	100.497	98.462
11:35	MA46558-CRI2	97.211	99.161	103.117	100.22	99.531	101.877	99.422	99.109
11:40	MA46558-ICSA1	87.842	90.512	93.188	91.401	91.691	91.971	90.812	88.291
11:45	MA46558-ICSAB1	84.983	87.99	91.441	93.207	89.601	90.814	91.957	87.008
11:50	ZZZZZZ	84.732	88.035	89.784	96.568	92.377	93.169	98.015	92.266
11:56	MA46558-CCVA2	85.972	90.286	92.752	96.456	91.972	92.623	95.476	92.773
12:01	MA46558-CCB3	87.429	91.32	93.967	98.243	94.47	96.509	98.679	94.047
12:06	ZZZZZZ	87.675	89.496	91.759	97.27	92.946	92.803	98.609	93.039
12:11	ZZZZZZ	88.131	90.426	92.857	99.971	93.041	93.015	97.873	92.49
12:17	MP14305-MB2	89.516	92.211	94.119	100.368	95.537	96.053	101.845	95.507
12:22	MP14305-S1	88.14	88.712	90.588	96.212	91.972	91.953	95.442	91.193
12:27	MP14305-S2	86.807	88.372	91.072	96.955	91.384	90.94	97.515	91.166
12:31	ZZZZZZ	84.786	85.888	88.954	95.432	89.234	90.718	97.181	88.938

INTERNAL STANDARD SUMMARY

Login Number: JC86676
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA042219M1.CSV Date Analyzed: 04/22/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA46558
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8
12:37	ZZZZZZ	86.703	88.325	91.962	97.551	91.44	92.754	98.014	91.201
12:42	ZZZZZZ	88.936	90.913	94.088	97.558	93.278	94.679	98.816	93.308
12:47	MA46558-CCVA3	89.695	92.317	94.637	97.636	93.749	94.594	96.944	94.213
12:52	MA46558-CCB4	89.82	90.408	92.587	96.311	91.494	92.884	96.049	92.099
12:57	ZZZZZZ	91.483	95.44	98.349	102.836	94.917	95.712	100.26	94.125
13:02	ZZZZZZ	93.775	97.853	100.02	101.86	96.61	96.674	99.487	95.982
13:07	ZZZZZZ	93.907	92.738	96.676	103.551	95.201	95.122	102.772	94.84
13:12	ZZZZZZ	97.478	96.831	100.26	107.207	99.758	100.481	107.06	99.395
13:17	ZZZZZZ	99.16	101.435	103.306	107.014	101.83	104.315	106.194	101.794
13:22	MP14347-MB1	97.732	97.902	100.275	105.252	99.791	100.571	105.224	99.028
13:27	MP14347-B1	99.312	100.187	103.364	108.116	100.646	101.977	105.699	100.511
13:32	MP14347-S1	No results reported for the elements associated with this internal standard.							
13:37	MA46558-CCVA4	101.516	103.014	106.709	106.949	102.347	104.41	103.814	102.707
13:42	MA46558-CCB5	100.387	101.247	104.364	104.333	101.3	103.803	104.163	100.548
13:47	MP14347-S2	No results reported for the elements associated with this internal standard.							
13:53	MP14347-SD1	No results reported for the elements associated with this internal standard.							
13:58	ZZZZZZ	96.56	96.934	100.763	102.662	97.9	98.302	101.741	97.299
14:03	ZZZZZZ	95.476	97.65	101.789	101.309	98.205	99.364	100.903	97.95
14:08	ZZZZZZ	96.653	97.18	100.507	101.962	98.728	99.546	101.094	97.925
14:13	ZZZZZZ	93.761	93.118	95.764	101.621	96.572	96.966	101.973	95.142
14:18	ZZZZZZ	95.725	96.144	98.636	102.252	96.414	98.633	101.181	96.524
14:23	ZZZZZZ	96.111	96.85	99.528	102.591	97.046	97.701	102.291	97.033
14:28	MA46558-CCVA5	99.432	100.924	103.437	102.395	101.152	102.177	100.781	101.711
14:34	MA46558-CCB6	97.679	98.301	101.775	102.074	98.498	99.407	100.649	98.071
14:39	ZZZZZZ	95.187	94.377	96.702	101.765	95.859	96.556	102.242	95.989
14:44	MP14272-S2	102.519	105.223	110.462	106.751	100.846	104.026	100.236	99.931
14:49	MP14272-S1	No results reported for the elements associated with this internal standard.							
14:54	MP14272-S2	No results reported for the elements associated with this internal standard.							
14:59	MP14272-SD1	No results reported for the elements associated with this internal standard.							
15:04	ZZZZZZ	93.621	92.255	95.189	101.335	93.228	93.441	98.639	92.939
15:09	ZZZZZZ	No results reported for the elements associated with this internal standard.							
15:14	ZZZZZZ	126.391	120.209	123.056	113.51	115.732	117.791	110.473	114.843
15:19	ZZZZZZ	96.359	94.592	95.254	99.826	96.18	96.473	100.284	95.844

INTERNAL STANDARD SUMMARY

Login Number: JC86676
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA042219M1.CSV Date Analyzed: 04/22/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA46558
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8
15:24	MA46558-CCVA6	91.183	90.745	94.625	99.135	92.679	95.101	98.233	92.958
15:29	MA46558-CCB7	93.216	93.186	97.553	100.855	95.175	98.592	100.544	95.045
15:34	ZZZZZZ	No results reported for the elements associated with this internal standard.							
15:39	ZZZZZZ	125.082	121.949	122.069	116.066	117.495	118.943	112.145	117.177
15:44	ZZZZZZ	98.201	97.346	99.392	103.978	99.496	99.27	103.652	98.646
15:49	ZZZZZZ	94.523	95.163	96.896	101.958	97.268	97.373	102.067	97.424
15:54	ZZZZZZ	93.888	93.979	95.805	101.872	95.914	96.629	101.326	95.872
15:59	ZZZZZZ	95.058	94.147	97.361	102.132	96.536	97.954	101.027	96.145
16:06	ZZZZZZ	93.727	93.434	96.322	101.935	95.865	97.528	100.811	95.781
16:11	ZZZZZZ	96.847	95.471	99.435	103.216	98.16	100.628	102.54	96.998
16:16	ZZZZZZ	94.011	94.013	98.365	101.328	96.144	98.985	100.824	96.117
16:21	MA46558-CCVA7	94.118	94.379	97.977	101.749	95.739	98.372	99.957	96.076
16:26	MA46558-CCB8	95.895	95.614	99.47	102.196	97.733	99.939	102.402	97.318
16:31	MP14304-S1	96.069	96.305	100.961	102.637	97.521	100.989	102.026	97.285
16:36	MP14304-S2	96.333	97.589	101.302	102.752	98.887	101.822	103.714	98.546
16:42	ZZZZZZ	95.287	97.51	101.643	103.332	98.793	101.035	103.502	98.436
16:46	ZZZZZZ	97.568	98.848	103.166	104.429	100.366	103.167	104.759	100.069
16:52	MP14272-PS1	101.607	106.533	113.739	109.986	103.521	107.095	104.234	102.979
16:56	ZZZZZZ	103.252	104.082	109.02	107.14	105.234	107.079	107.861	104.64
17:02	MA46558-CCVA8	99.486	101.682	103.606	104.53	100.32	102.158	103.239	100.026
17:07	MA46558-CCB9	99.119	98.819	103.311	105.142	100.094	102.804	103.925	99.865
17:12	MP14424-MB1	98.551	96.609	99.454	105.538	99.921	100.764	105.531	99.767
17:17	MP14424-SD1	103.97	104.15	106.375	104.843	105.869	107.707	106.159	104.881
17:22	ZZZZZZ	97.052	94.916	98.118	102.566	96.205	97.302	101.59	97.002
17:27	ZZZZZZ	96.238	94.876	98.355	104.424	98.574	99.937	105.337	97.9
17:32	MP14424-B1	97.305	96.043	98.892	104.001	97.209	98.246	102.059	97.043
17:37	ZZZZZZ	95.904	94.3	96.989	104.15	97.395	97.416	104.171	96.783
17:42	MP14424-S1	96.544	95.328	97.084	103.282	98.194	99.778	104.328	97.468
17:47	MP14424-S2	95.913	94.094	97.71	103.821	96.651	98.632	104.66	96.415
17:52	ZZZZZZ	99.139	98.158	101.787	104.205	99.417	101.735	103.02	99.115
17:57	ZZZZZZ	98.291	97.838	101.565	103.611	98.838	101.048	103.153	98.276
18:02	MA46558-CCVA9	96.384	97.243	101.229	103.078	98.173	100.371	101.274	98.614
18:07	MA46558-CCB10	97.44	96.365	101.158	102.626	98.297	100.589	101.119	98.018

INTERNAL STANDARD SUMMARY

Login Number: JC86676
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA042219M1.CSV Date Analyzed: 04/22/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA46558
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8
18:12	JC86645-3	93.989	92.53	95.697	102.677	94.513	98.225	103.723	93.942
18:17	MP14424-S1	96.155	95.558	97.348	102.139	97.011	97.603	102.894	96.922
18:22	MP14424-S2	95.124	94.107	97.02	101.471	96.252	96.426	101.507	95.447
18:27	ZZZZZZ	97.716	96.407	100.021	101.794	96.901	99.065	101.545	97.619
18:32	ZZZZZZ	94.371	91.828	95.183	101.821	95.438	96.676	103.164	94.26
18:37	ZZZZZZ	98.648	97.455	100.857	102.059	98.541	101.337	101.65	98.2
18:42	MA46558-CCVA10	96.281	96.348	99.235	101.849	97.964	98.053	100.321	97.2
18:47	MA46558-CCB11	97.113	95.925	100.113	100.206	97.237	99.925	100.14	96.965
18:52	ZZZZZZ	93.362	92.507	95.703	101.005	93.839	95.6	102.064	93.408
18:57	ZZZZZZ	90.646	90.517	93.391	101.744	92.038	93.013	101.302	91.82
19:02	ZZZZZZ	95.111	94.969	96.381	102.116	96.333	95.071	100.8	95.52
19:07	ZZZZZZ	93.818	92.569	94.019	101.644	94.709	94.533	102.239	94.855
19:12	ZZZZZZ	96.51	96.269	99.203	102.432	97.622	99.325	100.783	97.564
19:17	ZZZZZZ	89.211	89.427	89.246	97.38	89.022	89.08	95.253	88.549
19:22	ZZZZZZ	90.03	88.778	90.435	98.817	91.325	90.767	99.445	91.081
19:27	ZZZZZZ	91.264	89.148	89.819	99.155	91.559	90.804	99.79	90.984
19:32	MA46558-CCVA11	92.403	91.501	93.871	99.029	93.77	94.549	97.198	93.354
19:37	MA46558-CCB12	92.665	90.61	94.29	98.432	92.923	94.457	98.654	92.507
19:42	ZZZZZZ	88.61	87.613	89.795	97.839	91.537	90.466	99.427	90.777
19:47	ZZZZZZ	88.552	87.002	90.501	100.181	90.117	91.896	100.516	89.994
19:52	ZZZZZZ	90.632	89.122	91.196	98.977	91.612	92.47	100.47	91.473
19:57	ZZZZZZ	94.779	93.185	97.119	101.032	95.372	97.086	100.36	94.912
20:02	ZZZZZZ	87.485	87.466	88.561	95.901	87.863	87.624	94.531	88.041
20:07	ZZZZZZ	86.277	84.742	86.274	94.773	87.871	87.241	96.416	87.671
20:12	ZZZZZZ	91.224	89.862	92.196	98.044	92.352	92.992	98.057	91.809
20:17	JC86676-1	86.74	85.41	87.871	97.615	89.37	89.704	98.298	89.078
20:22	JC86676-2	87.904	87.167	89.143	97.98	90.693	90.676	99.293	90.273
20:27	MA46558-CCVA12	91.808	90.806	92.784	98.327	93.1	92.322	96.528	92.826
20:32	MA46558-CCB13	90.421	89.319	92.325	96.06	91.344	92.866	97.043	91.524
20:37	ZZZZZZ	87.936	87.273	90.015	97.013	88.716	89.121	96.506	88.358
20:42	ZZZZZZ	91.11	88.786	91.902	98.571	91.576	91.116	98.946	91.486
20:47	ZZZZZZ	93.019	91.851	93.693	97.914	93.528	94.64	98.851	93.786
20:52	MP14333A-MB1	90.176	88.375	90.014	97.935	92.553	91.751	99.767	91.866

INTERNAL STANDARD SUMMARY

Login Number: JC86676
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA042219M1.CSV Date Analyzed: 04/22/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA46558
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8
20:57	MP14333A-B2	90.285	87.852	90.206	98.9	89.825	90.647	98.501	90.356
21:02	MP14333A-S3	85.467	87.297	88.393	95.136	86.207	86.481	91.769	86.424
21:07	MP14333A-S4	85.52	88.389	89.082	96.002	86.955	87.758	93.149	86.66
21:12	JC86380-3	86.41	90.818	92.926	97.235	89.188	90.352	94.687	88.248
21:17	MP14333A-SD1	93.314	98.537	100.626	103.291	99.602	101.288	100.516	98.841
21:22	ZZZZZZ	102.206	104.047	111.92	105.836	93.42	98.27	95.104	92.524
21:27	MA46558-CCVA13	92.749	93.927	95.865	99.7	95.818	96.332	99.652	95.305
21:32	MA46558-CCB14	92.59	93.214	97.383	100.888	95.06	98.521	100.573	94.659
21:37	ZZZZZZ	94.989	95.96	97.876	99.567	92.557	92.548	94.511	91.227
21:42	ZZZZZZ	96.083	96.747	99.854	99.723	90.276	92.428	92.523	90.136
21:47	ZZZZZZ	89.253	88.812	88.582	99.477	92.668	90.989	100.081	90.824
21:52	ZZZZZZ	93.847	93.195	96.399	101.343	95.315	97.279	100.956	95.291
21:57	ZZZZZZ	100.537	101.867	110.816	107.396	89.015	96.542	94.395	89.011
22:02	ZZZZZZ	85.782	117.302	114.636	124.62	112.264	113.89	119.937	104.987
22:07	ZZZZZZ	97.358	99.591	100.377	108.66	102.749	102.114	107.252	101.544
22:12	ZZZZZZ	96.281	99.2	97.977	110.038	112.427	112.504	124.026	112.101
22:17	ZZZZZZ	96.023	100.55	100.318	109.354	136.318	!a135.937	!a145.326	!a136.447 !a
22:22	MA46558-CCVA14	97.872	101.635	104.223	108.292	102.026	102.45	105.508	102.491
22:27	MA46558-CCB15	97.436	99.944	101.835	107.278	102.094	102.603	105.559	101.525
22:32	ZZZZZZ	90.578	94.641	94.249	102.802	101.415	99.961	108.641	101.616
22:37	ZZZZZZ	94.151	97.106	96.636	106.936	105.54	104.719	114.149	104.486
22:42	ZZZZZZ	97.483	97.988	98.041	107.988	107.221	105.277	114.417	105.487
22:47	ZZZZZZ	96.875	97.367	100.854	104.852	99.46	100.521	103.658	98.911
22:52	MP14458-MB1	94.489	95.054	98.057	102.252	96.553	98.714	102.074	96.8
22:57	MP14458-B1	93.225	94.054	97.161	100.579	95.669	96.962	99.986	96.057
23:02	MP14458-S1	90.023	93.539	97.428	98.227	96.807	98.771	99.103	96.121
23:07	MP14458-S2	89.012	91.81	96.674	97.494	95.824	99.27	98.165	95.333
23:12	JC86667-41	88.639	90.856	96.153	96.817	93.905	97.461	98.15	94.598
23:17	MA46558-CCVA15	85.844	88.561	90.971	96.415	90.204	93.133	95.779	90.573
23:22	MA46558-CCB16	88.494	88.12	92.43	97.294	90.095	92.941	97.634	90.464
23:27	MP14458-S3	88.377	91.457	96.238	97.337	94.86	96.774	97.049	94.374
23:33	JC86667-42	87.718	90.43	95.879	96.824	93.617	98.086	97.382	93.859
23:38	ZZZZZZ	87.966	91.21	96.193	96.493	94.403	97.722	98.35	94.377

INTERNAL STANDARD SUMMARY

Login Number: JC86676
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA042219M1.CSV Date Analyzed: 04/22/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA46558
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8
23:43	ZZZZZZ	88.17	90.629	95.011	95.976	93.761	98.119	97.854	94.096
23:48	ZZZZZZ	87.566	90.5	94.385	95.864	94.165	97.453	97.095	93.738
23:53	ZZZZZZ	86.758	90.447	94.649	95.293	93.21	96.55	96.941	93.92
23:58	ZZZZZZ	87.515	90.393	95.694	96.286	93.78	97.434	96.852	93.822
00:03	ZZZZZZ	87.7	91.183	95.274	96.284	94.227	97.469	96.849	93.851
00:08	ZZZZZZ	86.853	89.544	95.439	93.934	92.478	96.138	95.469	92.545
00:13	ZZZZZZ	86.366	89.483	94.309	94.935	92.888	96.312	96.668	92.74
00:18	MA46558-CCVA16	87.061	88.229	92.21	95.789	90.597	93.117	95.667	90.862
00:23	MA46558-CCB17	87.695	88.331	91.825	96.421	90.803	92.821	95.096	91.479
00:28	ZZZZZZ	89.179	91.426	94.714	95.416	94.093	96.581	97.449	94.242
00:33	ZZZZZZ	88.902	91.099	96.029	95.927	94.032	98.802	97.266	94.518
00:38	ZZZZZZ	87.526	90.053	95.418	95.229	93.575	96.762	96.331	92.953
00:43	ZZZZZZ	87.828	90.071	94.344	95.12	93.103	97.458	96.463	92.6
00:48	ZZZZZZ	87.295	89.756	93.586	94.635	93.222	96.206	95.447	92.551
00:53	ZZZZZZ	87.111	90.117	94.092	94.387	92.95	96.413	94.944	92.5
00:58	ZZZZZZ	86.407	88.812	93.632	93.854	91.681	96.038	94.841	92.254
01:03	ZZZZZZ	86.611	88.805	94.503	94.289	92.146	96.067	95.661	91.334
01:08	ZZZZZZ	86.941	89.192	92.861	94.095	92.441	95.164	94.76	92.033
01:13	ZZZZZZ	86.38	88.997	94.491	92.699	91.441	95.232	95.849	91.779
01:18	MA46558-CCVA17	87.337	86.859	90.605	94.237	89.613	91.291	93.38	89.734
01:23	MA46558-CCB18	87.493	87.615	91.601	94.157	90.774	90.81	93.974	90.077
01:28	MP14459-MB1	87.591	87.219	90.839	94.906	90.27	91.236	95.084	89.816
01:33	MP14459-B1	87.259	87.687	90.011	93.637	90.123	91.874	94.696	90.402
01:38	MP14459-S1	86.842	89.029	93.35	95.208	91.771	95.293	94.914	91.494
01:43	MP14459-S2	85.586	88.667	93.085	94.867	91.764	94.969	94.765	91.713
01:48	JC86667-61	86.017	88.784	94.056	93.368	91.491	95.643	94.574	91.619
01:53	MP14459-S3	86.092	88.262	93.439	93.61	92.277	95.144	95.057	91.84
01:58	JC86667-62	86.024	88.576	93.617	93.608	91.224	94.971	94.254	91.669
02:03	ZZZZZZ	85.684	88.329	92.649	92.907	91.827	95.674	93.796	91.725
02:08	ZZZZZZ	86.243	89.387	93.855	93.083	91.812	94.977	95.326	92.225
02:13	ZZZZZZ	85.47	88.074	92.208	93.5	91.135	94.761	94.918	91.778
02:19	MA46558-CCVA18	85.025	86.37	89.046	92.763	89.311	90.372	92.562	89.494
02:23	MA46558-CCB19	86.17	86.485	88.899	93.17	89.202	89.596	93.59	88.984

INTERNAL STANDARD SUMMARY

Login Number: JC86676
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA042219M1.CSV Date Analyzed: 04/22/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA46558
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8
02:29	ZZZZZZ	86.111	89.078	92.561	93.106	91.281	94.41	94.117	91.494
02:34	ZZZZZZ	85.762	88.627	93.309	93.601	91.745	94.192	95.055	91.629
02:39	ZZZZZZ	86.421	88.957	93.229	93.881	92.041	94.895	93.355	91.555
02:44	ZZZZZZ	86.507	88.776	93.008	92.954	91.486	93.402	94.78	91.621
02:49	ZZZZZZ	86.677	88.62	92.389	92.563	91.135	94.789	93.472	91.352
02:54	ZZZZZZ	85.622	87.434	93.337	92.62	90.418	93.188	94.749	90.007
02:59	ZZZZZZ	85.359	87.788	92.026	91.701	90.684	93.22	94.244	90.756
03:04	ZZZZZZ	85.162	87.421	92.327	92.221	90.105	92.707	93.558	90.431
03:09	ZZZZZZ	86.095	87.954	91.769	91.265	91.582	93.129	93.974	90.432
03:14	ZZZZZZ	85.338	87.638	91.335	93.112	90.429	93.065	93.971	90.16
03:19	MA46558-CCVA19	85.162	86.197	89.148	92.414	88.914	90.121	92.925	89.086
03:24	MA46558-CCB20	85.332	86.308	88.97	91.857	88.305	90.064	92.747	88.572
03:29	ZZZZZZ	86.775	88.029	93.581	92.842	92.189	93.675	93.855	91.313
03:34	ZZZZZZ	85.617	87.902	92.509	92.41	90.395	93.341	94.05	91.278
03:39	ZZZZZZ	85.563	87.984	91.874	91.173	91.322	93.997	93.579	91.114
03:44	ZZZZZZ	85.447	87.211	92.005	92.03	90.437	93.706	93.139	89.991
03:49	ZZZZZZ	85.581	87.39	91.452	92.201	90.285	93.069	93.171	90.893
03:54	ZZZZZZ	83.558	84.556	87.701	91.868	87.139	88.893	91.695	87.429
03:59	ZZZZZZ	84.692	85.247	87.386	92.282	87.844	89.582	92.139	87.378
04:04	ZZZZZZ	84.596	85.223	88.446	92.712	88.314	89.696	92.512	87.732
04:09	ZZZZZZ	84.864	85.426	88.968	91.833	88.082	89.867	92.395	87.319
04:14	MA46558-CCVA20	86.021	86.535	88.725	91.768	88.359	89.584	92.671	88.498
04:19	MA46558-CCB21	85.135	85.751	87.626	92.779	88.702	90.906	93.72	88.616
04:24	ZZZZZZ	85.717	85.942	89.311	93.018	88.126	89.555	92.428	88.222
04:29	ZZZZZZ	85.736	86.33	89.99	92.381	88.177	88.718	92.138	88.133
04:34	ZZZZZZ	85.579	86.292	89.643	93.421	88.393	90.154	92.243	88.644
04:39	ZZZZZZ	85.873	86.155	89.955	92.127	88.753	90.704	92.203	88.421

! = Outside limits.

LEGEND:

Istd#	Parameter	Limits
Istd#1	Lithium	60-125 %
Istd#2	Scandium (45-1)	60-125 %
Istd#3	Scandium (45-2)	60-125 %
Istd#4	Scandium (45-3)	60-125 %
Istd#5	Germanium (72-1)	60-125 %
Istd#6	Germanium (72-2)	60-125 %
Istd#7	Germanium (72-3)	60-125 %
Istd#8	Germanium (74-1)	60-125 %

INTERNAL STANDARD SUMMARY

Login Number: JC86676
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA042219M1.CSV Date Analyzed: 04/22/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA46558
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8

(a) No samples reported for the elements associated with this internal standard.

INTERNAL STANDARD SUMMARY

Login Number: JC86676
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA042219M1.CSV Date Analyzed: 04/22/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA46558
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16
09:35	MA46558-STD1	100	100	100	100	100	100	100	100
09:40	MA46558-STD2	100	100	100	100	100	100	100	100
09:45	MA46558-STD3	100	100	100	100	100	100	100	100
09:50	MA46558-STD4	100.077	99.03	99.416	99.404	99.393	99.125	100.001	100.202
09:55	MA46558-STD5	100.724	99.017	99.789	99.206	99.526	99.273	100.428	100.649
10:00	MA46558-STD6	99.616	99.79	99.137	99.515	99.143	98.783	99.561	98.97
10:05	MA46558-STD7	97.742	97.135	99.045	97.971	98.227	99.078	97.744	99.761
10:10	MA46558-STD8	97.293	96.359	98.103	96.921	97.369	97.827	97.198	99.025
10:15	MA46558-STD9	98.645	98.453	97.145	96.936	97.822	97.422	97.836	99.08
10:20	MA46558-STD10	99.71	99.674	98.921	98.52	98.534	98.983	99.927	101.029
10:25	MA46558-STD11	101.257	98.111	97.076	97.926	97.583	98.011	99.986	100.161
10:30	MA46558-STD12	100.481	97.515	96.037	96.714	95.091	97.759	99.491	101.178
10:35	ZZZZZZ	103.968	101	101.142	101.326	100.553	100.064	101.946	100.857
10:44	MA46558-ICVA1	101.265	98.295	98.571	97.096	95.702	98.828	99.683	101.547
10:49	MA46558-ICV1	101.659	99.431	99.455	99.913	99.927	99.948	101.889	101.184
11:05	MA46558-ICB1	102.716	98.974	100.467	100.578	99.12	99.921	103.082	101.854
11:10	ZZZZZZ	No results reported for the elements associated with this internal standard.							
11:15	MA46558-CCB1	103.083	100.74	101.021	100.865	99.704	100.193	103.412	101.413
11:20	MA46558-CRI1	No results reported for the elements associated with this internal standard.							
11:25	MA46558-CCVA1	100.938	97.726	97.629	97.568	95.567	98.287	99.561	101.819
11:30	MA46558-CCB2	101.37	99.165	99.049	99.932	100.189	99.738	101.411	100.643
11:35	MA46558-CRI2	101.46	99.691	100.297	99.976	98.982	100.154	102.412	100.899
11:40	MA46558-ICSA1	90.158	88.105	84.505	84.677	83.564	89.002	88.372	93.47
11:45	MA46558-ICSAB1	89.125	90.345	84.401	84.159	84.357	88.793	87.105	95.534
11:50	ZZZZZZ	91.423	97.186	94.638	94.474	99.214	96.298	93.382	101.498
11:56	MA46558-CCVA2	94.115	95.51	93.662	93.135	95.768	95.931	94.054	101.756
12:01	MA46558-CCB3	95.157	98.582	97.25	96.925	100.794	97.847	97.272	102.47
12:06	ZZZZZZ	93.396	99.942	94.373	94.412	99.942	96.086	93.124	100.856
12:11	ZZZZZZ	93.649	97.836	95.016	93.806	98.633	95.921	92.744	102.869
12:17	MP14305-MB2	95.92	101.339	95.916	96.012	100.799	98.264	94.526	103.052
12:22	MP14305-S1	91.304	95.364	92.866	90.729	96.2	95.525	91.044	100.005
12:27	MP14305-S2	91.855	96.511	92.079	90.926	96.371	95.173	91.367	101.521
12:31	ZZZZZZ	90.259	97.325	89.209	89.091	95.746	92.105	88.598	98.689

INTERNAL STANDARD SUMMARY

Login Number: JC86676
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA042219M1.CSV Date Analyzed: 04/22/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA46558
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16
12:37	ZZZZZZ	91.951	97.559	92.29	92.194	98.074	94.781	92.195	100.099
12:42	ZZZZZZ	93.528	98.534	93.676	93.288	97.524	95.504	94.354	100.868
12:47	MA46558-CCVA3	94.117	96.689	94.103	93.391	96.201	95.781	93.605	101.408
12:52	MA46558-CCB4	93.124	96.022	93.925	93.558	97.563	95.018	93.227	99.979
12:57	ZZZZZZ	95.845	100.285	94.148	94.419	97.578	95.366	94.153	102.411
13:02	ZZZZZZ	95.442	99.119	95.608	94.359	97.527	97.802	94.993	101.677
13:07	ZZZZZZ	95.873	101.984	95.961	95.193	100.676	96.881	93.825	100.974
13:12	ZZZZZZ	99.429	106.017	97.148	97.28	101.249	98.901	97.244	103.923
13:17	ZZZZZZ	102.583	104.806	101.087	100.263	102.332	102.088	100.218	104.536
13:22	MP14347-MB1	100.135	105.383	99.065	99.282	102.789	99.495	96.44	104.2
13:27	MP14347-B1	101.079	105.821	99.609	98.557	101.754	100.194	97.879	105.515
13:32	MP14347-S1	No results reported for the elements associated with this internal standard.							
13:37	MA46558-CCVA4	104.074	104.424	100.706	99.84	100.641	102.258	101.365	105.413
13:42	MA46558-CCB5	103.568	103.145	101.482	101.278	102.279	101.686	101.751	103.288
13:47	MP14347-S2	No results reported for the elements associated with this internal standard.							
13:53	MP14347-SD1	No results reported for the elements associated with this internal standard.							
13:58	ZZZZZZ	97.403	100.853	96.533	95.728	98.778	97.699	97.189	102.374
14:03	ZZZZZZ	99.454	102.064	97.455	97.342	99.032	98.34	97.867	102.15
14:08	ZZZZZZ	99.92	100.877	97.805	96.94	98.723	99.174	97.474	103.172
14:13	ZZZZZZ	96.017	101.706	95.496	94.921	100.152	96.524	93.305	101.376
14:18	ZZZZZZ	98.771	100.668	95.479	94.965	98.106	96.798	95.628	102.663
14:23	ZZZZZZ	98.434	101.388	95.956	94.726	97.71	97.364	95.481	102.072
14:28	MA46558-CCVA5	101.566	100.28	99.885	97.253	97.968	99.771	99.398	103.596
14:34	MA46558-CCB6	100.296	100.962	98.841	97.614	100.145	99.303	99.278	103.628
14:39	ZZZZZZ	97.069	101.664	95.405	94.61	99.104	96.797	93.831	102.01
14:44	MP14272-S2	104.141	99.64	93.447	93.24	91.322	97.364	99.677	102.68
14:49	MP14272-S1	No results reported for the elements associated with this internal standard.							
14:54	MP14272-S2	No results reported for the elements associated with this internal standard.							
14:59	MP14272-SD1	No results reported for the elements associated with this internal standard.							
15:04	ZZZZZZ	93.828	98.314	93.214	92.598	96.53	95.071	92.413	101.466
15:09	ZZZZZZ	No results reported for the elements associated with this internal standard.							
15:14	ZZZZZZ	117.578	109.296	109.372	106.338	103.772	110.548	110.902	110.773
15:19	ZZZZZZ	96.734	99.485	97.224	96.138	99.563	98.004	96.634	103.888

INTERNAL STANDARD SUMMARY

Login Number: JC86676
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA042219M1.CSV Date Analyzed: 04/22/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA46558
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16
15:24	MA46558-CCVA6	95.151	97.183	93.325	93.083	96.693	95.53	95.26	102.695
15:29	MA46558-CCB7	97.975	100.017	97.668	97.536	100.852	98.571	99.45	103.845
15:34	ZZZZZZ	No results reported for the elements associated with this internal standard.							
15:39	ZZZZZZ	117.338	111.901	111.489	107.548	105.554	111.57	112.34	112.519
15:44	ZZZZZZ	100.558	103.381	98.71	97.319	101.579	100.458	98.902	106.82
15:49	ZZZZZZ	98.173	101.484	95.907	95.107	98.158	98.7	96.734	106.693
15:54	ZZZZZZ	97.042	101.113	96.827	96.714	99.911	99.568	96.5	105.212
15:59	ZZZZZZ	97.863	101.337	95.069	94.277	98.409	98.365	96.017	104.609
16:06	ZZZZZZ	97.106	100.87	96.337	95.618	99.248	99.461	96.946	105.552
16:11	ZZZZZZ	100.574	102.51	99.374	98.152	101.388	100.545	100.382	106.382
16:16	ZZZZZZ	98.558	100.547	96.176	95.734	98.852	98.123	97.87	104.931
16:21	MA46558-CCVA7	98.348	100.39	94.896	94.811	97.636	97.776	97.636	104.968
16:26	MA46558-CCB8	100.497	101.967	98.428	97.87	100.99	100.671	100.377	105.668
16:31	MP14304-S1	99.966	101.397	98.371	97.829	99.876	99.985	99.932	106.726
16:36	MP14304-S2	100.455	102.521	98.757	98.283	100.88	100.654	100.884	105.991
16:42	ZZZZZZ	101.242	102.833	98.801	97.94	99.87	100.689	100.893	105.944
16:46	ZZZZZZ	102.404	104.228	100.271	99.522	102.01	102.476	102.236	107.635
16:52	MP14272-PS1	106.389	103.302	96.53	95.258	93.681	99.752	102.616	106.027
16:56	ZZZZZZ	106.538	106.791	105.131	104.499	104.37	105.745	105.836	110.084
17:02	MA46558-CCVA8	102.525	102.955	98.962	97.95	99.185	100.731	100.421	106.8
17:07	MA46558-CCB9	102.733	104.324	100.867	100.258	102.378	101.655	102.3	106.859
17:12	MP14424-MB1	102.075	105.375	99.321	97.514	102.546	99.992	98.597	107.47
17:17	MP14424-SD1	107.172	105.876	103.614	101.745	102.496	105.165	104.915	109.197
17:22	ZZZZZZ	97.401	101.277	96.23	95.168	98.88	98.237	94.909	105.818
17:27	ZZZZZZ	99.268	103.949	97.21	96.321	101.408	98.617	96.138	105.241
17:32	MP14424-B1	97.079	101.316	96.896	95.141	99.31	98.884	95.149	106.855
17:37	ZZZZZZ	97.394	104.56	93.895	92.833	98.021	96.669	93.959	105.397
17:42	MP14424-S1	98.052	103.666	93.315	91.129	96.097	97.732	92.793	106.786
17:47	MP14424-S2	97.082	103.075	91.436	90.909	95.872	96.351	91.942	106.983
17:52	ZZZZZZ	101.01	102.705	100.407	99.092	101.403	101.574	100.162	107.71
17:57	ZZZZZZ	101.259	102.464	99.379	98.222	100.967	100.744	99.776	106.67
18:02	MA46558-CCVA9	98.775	100.759	96.833	94.983	97.587	99.17	97.934	106.465
18:07	MA46558-CCB10	99.289	101.269	98.524	97.736	100.101	101.071	99.804	104.854

INTERNAL STANDARD SUMMARY

Login Number: JC86676
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA042219M1.CSV Date Analyzed: 04/22/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA46558
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16
18:12	JC86645-3	95.512	101.551	91.203	90.522	96.355	95.097	92.129	106.227
18:17	MP14424-S1	96.087	100.92	95.482	92.873	97.715	98.062	94.707	105.648
18:22	MP14424-S2	96.169	100.409	94.314	92.696	96.786	97.19	93.736	105.338
18:27	ZZZZZZ	99.345	101.725	97.889	96.8	100.43	100.24	98.415	108.077
18:32	ZZZZZZ	95.074	102.936	94.353	93.463	99.372	96.965	92.833	104.727
18:37	ZZZZZZ	100.374	100.845	99.25	97.559	100.371	101.154	99.439	106.84
18:42	MA46558-CCVA10	98.368	99.854	95.885	94.226	96.747	97.698	96.846	104.288
18:47	MA46558-CCB11	99.043	99.519	97.55	97.32	98.962	98.62	98.538	104.687
18:52	ZZZZZZ	94.793	100.827	90.008	89.265	94.407	93.912	91.427	103.059
18:57	ZZZZZZ	92.871	100.446	87.753	86.746	93.39	92.38	89.438	102.061
19:02	ZZZZZZ	94.829	100.485	92.664	90.989	95.766	95.462	91.294	104.443
19:07	ZZZZZZ	93.816	101.412	93.188	90.844	97.176	96.172	91.149	104.133
19:12	ZZZZZZ	98.589	101.349	98.749	96.739	100.188	100.232	97.289	106.832
19:17	ZZZZZZ	88.412	94.574	85.981	83.885	89.426	90.489	85.569	102.198
19:22	ZZZZZZ	90.271	99.333	89.122	87.684	93.603	93.038	87.784	103.193
19:27	ZZZZZZ	92.01	99.614	88.073	87.294	94.154	92.425	87.298	102.134
19:32	MA46558-CCVA11	93.308	97.966	93.454	90.959	95.747	96.309	92.432	103.966
19:37	MA46558-CCB12	93.591	98.858	94.425	92.87	98.159	97.125	94.809	102.934
19:42	ZZZZZZ	89.664	98.099	87.669	86.587	94.223	92.579	87.357	100.408
19:47	ZZZZZZ	91.063	99.006	87.215	86.571	93.604	92.477	87.607	101.787
19:52	ZZZZZZ	92.186	100.361	89.511	88.864	96.028	93.392	88.71	102.198
19:57	ZZZZZZ	96.475	99.759	96.858	95.332	99.197	98.71	96.251	105.602
20:02	ZZZZZZ	88.067	94.267	85.004	83.554	89.432	89.508	84.889	100.287
20:07	ZZZZZZ	87.524	95.733	85.694	84.745	91.428	90.427	85.166	101.318
20:12	ZZZZZZ	91.999	98.433	93.905	92.408	97.909	96.166	93.124	103.847
20:17	JC86676-1	88.822	97.422	87.428	85.99	93.517	91.443	86.949	101.16
20:22	JC86676-2	91.152	98.802	87.889	86.545	94.788	93.162	87.83	102.295
20:27	MA46558-CCVA12	93.241	96.816	92.583	90.523	94.675	95.916	91.91	104.369
20:32	MA46558-CCB13	92.328	96.687	93.389	91.55	96.928	95.902	91.888	103.116
20:37	ZZZZZZ	88.985	97.002	86.061	84.651	91.322	90.582	86.233	100.993
20:42	ZZZZZZ	89.94	98.75	87.916	86.248	93.072	92.034	87.564	101.293
20:47	ZZZZZZ	94.15	97.686	95.103	93.281	98.383	97.183	94.022	103.884
20:52	MP14333A-MB1	91.794	100.356	91.319	89.869	96.696	93.396	88.411	102.137

INTERNAL STANDARD SUMMARY

Login Number: JC86676
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA042219M1.CSV Date Analyzed: 04/22/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA46558
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16
20:57	MP14333A-B2	88.968	97.636	89.448	88.201	95.677	92.341	87.657	101.236
21:02	MP14333A-S3	86.584	91.918	78.62	76.165	80.027	83.767	81.051	91.831
21:07	MP14333A-S4	86.684	91.796	79.613	76.988	80.93	84.637	81.583	95.818
21:12	JC86380-3	89.344	93.995	81.12	78.919	82.416	86.706	83.643	97.286
21:17	MP14333A-SD1	99.872	100.588	94.351	91.939	93.664	98.456	97.451	107.227
21:22	ZZZZZZ	97.772	93.945	79.572	76.814	74.554	84.217	87.816	86.343
21:27	MA46558-CCVA13	95.668	99.479	95.176	92.803	96.483	97.177	94.678	106.041
21:32	MA46558-CCB14	96.776	99.457	96.764	95.598	99.093	97.776	97.871	104.666
21:37	ZZZZZZ	92.423	93.679	83.742	80.54	80.612	88.582	86.766	96.214
21:42	ZZZZZZ	91.968	92.059	79.515	75.721	75.944	84.474	84.128	89.019
21:47	ZZZZZZ	90.646	99.379	88.71	86.724	94.449	92.173	87.101	102.878
21:52	ZZZZZZ	96.64	101.07	97.046	94.661	99.298	99.52	96.007	105.572
21:57	ZZZZZZ	96.011	93.455	75.843	73.554	72.431	80.723	85.216	82.242
22:02	ZZZZZZ	104.604	110.36	90.629	86.762	89.738	95.494	89.715	107.36
22:07	ZZZZZZ	101.704	106.852	102.598	99.936	104.848	104.503	99.5	110.793
22:12	ZZZZZZ	112.037	121.714	97.249	94.611	101.182	100.117	94.607	109.524
22:17	ZZZZZZ	133.075	!a144.158	!a96.151	92.406	97.948	100.156	93.413	109.184
22:22	MA46558-CCVA14	102.491	105.383	101.058	98.664	100.593	103.221	99.138	111.207
22:27	MA46558-CCB15	101.189	106.075	101.953	99.142	102.705	103.699	100.584	109.616
22:32	ZZZZZZ	99.66	107.829	86.958	83.425	88.567	92.615	86.802	103.729
22:37	ZZZZZZ	102.703	113.552	94.812	92.305	99.606	98.469	91.727	106.387
22:42	ZZZZZZ	105.211	113.769	95.075	92.208	99.363	99.734	92.575	107.773
22:47	ZZZZZZ	100.267	103.83	99.456	97.461	100.912	101.472	98.207	108.21
22:52	MP14458-MB1	97.182	102.17	97.259	96.417	99.399	99.772	97.717	106.622
22:57	MP14458-B1	96.733	100.437	96.487	94.101	98.617	98.261	95.329	105.523
23:02	MP14458-S1	98.937	98.929	95.19	93.943	95.532	98.72	98.014	105.826
23:07	MP14458-S2	97.649	97.613	94.334	92.361	94.652	98.107	96.514	103.863
23:12	JC86667-41	97.504	98.273	93.381	91.962	94.945	96.469	96.92	104.223
23:17	MA46558-CCVA15	92.177	95.211	90.144	88.288	92.336	93.648	91.361	101.648
23:22	MA46558-CCB16	92.309	96.45	92.208	90.876	95.202	94.089	91.949	101.686
23:27	MP14458-S3	97.623	97.758	93.766	92.707	94.186	96.664	96.879	104.665
23:33	JC86667-42	96.988	97.943	93.139	92.379	94.342	95.836	97.367	104.137
23:38	ZZZZZZ	97.203	98.242	93.935	92.132	94.417	96.91	97.294	105.158

INTERNAL STANDARD SUMMARY

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Analyst: SN Run ID: MA46558
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16
23:43	ZZZZZZ	97.905	98.875	93.987	92.463	94.97	96.793	97.771	104.086
23:48	ZZZZZZ	97.217	97.026	93.584	91.3	94.062	96.211	96.099	103.646
23:53	ZZZZZZ	96.971	97.371	93.196	92.354	93.387	96.621	96.46	102.848
23:58	ZZZZZZ	97.377	96.997	93.653	92.058	94.458	97.019	96.73	103.58
00:03	ZZZZZZ	97.16	96.031	93.272	92.147	93.538	96.486	97.425	103.822
00:08	ZZZZZZ	96.785	96.031	91.888	90.651	92.454	95.411	95.594	101.938
00:13	ZZZZZZ	96.328	96.193	92.534	91.041	93.165	94.705	96.465	102.846
00:18	MA46558-CCVA16	93.053	95.052	92.228	90.043	94.862	94.3	92.976	101.984
00:23	MA46558-CCB17	92.775	95.854	92.716	91.425	94.823	94.819	93.021	102.375
00:28	ZZZZZZ	96.76	97.344	93.527	91.552	94.023	97.541	96.791	104.846
00:33	ZZZZZZ	96.988	96.213	93.468	91.765	93.545	97.013	97.546	104.485
00:38	ZZZZZZ	96.89	96.437	92.326	91.769	93.497	95.422	96.28	103.282
00:43	ZZZZZZ	95.745	95.765	92.662	90.93	93.211	95.697	95.652	103.465
00:48	ZZZZZZ	95.799	96.319	92.63	90.876	93.093	95.349	95.691	102.839
00:53	ZZZZZZ	95.415	95.109	92.06	90.132	92.569	95.054	95.798	102.922
00:58	ZZZZZZ	95.321	94.82	91.499	90.072	92.202	94.912	95.104	103.186
01:03	ZZZZZZ	95.133	95.578	91.751	91.13	92.302	94.365	95.75	102.766
01:08	ZZZZZZ	95.449	94.334	91.667	89.567	91.948	94.949	94.88	102.479
01:13	ZZZZZZ	95.593	94.875	91.261	90.253	91.974	94.564	94.626	102.205
01:18	MA46558-CCVA17	91.314	93.961	91.132	88.895	92.997	93.05	91.773	101.004
01:23	MA46558-CCB18	91.053	94.582	92.233	89.376	94.005	95.021	91.324	101.145
01:28	MP14459-MB1	91.001	95.154	91.575	89.594	93.748	94.305	91.561	101.406
01:33	MP14459-B1	90.959	93.158	91.537	89.32	93.636	93.432	91.259	101.863
01:38	MP14459-S1	95.531	94.431	91.258	89.433	92.724	94.863	94.674	101.63
01:43	MP14459-S2	96.042	94.352	90.828	89.697	92.175	94.255	95.013	102.294
01:48	JC86667-61	94.52	95.236	91.077	89.838	91.795	94.247	94.932	101.874
01:53	MP14459-S3	94.864	95.233	91.489	89.565	92.252	94.648	93.971	102.382
01:58	JC86667-62	95.011	94.895	91.254	89.592	91.953	94.562	94.767	102.688
02:03	ZZZZZZ	95.318	93.94	90.914	89.658	91.721	94.475	94.493	102.814
02:08	ZZZZZZ	94.903	94.674	90.957	89.702	92.136	94.822	94.426	102.388
02:13	ZZZZZZ	94.334	93.755	91.36	89.357	92.219	93.653	94.019	101.691
02:19	MA46558-CCVA18	89.271	93.372	89.629	88.259	92.714	92.181	91.052	101.648
02:23	MA46558-CCB19	90.127	92.698	90.832	89.059	92.974	93.02	90.916	101.049

INTERNAL STANDARD SUMMARY

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Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16
02:29	ZZZZZZ	93.456	93.948	90.744	89.225	92.186	93.816	93.936	102.385
02:34	ZZZZZZ	93.292	94.557	91.155	90.068	91.789	93.987	94.295	101.763
02:39	ZZZZZZ	94.441	94.122	90.88	89.278	91.229	94.377	94.719	102.804
02:44	ZZZZZZ	95.062	95.32	91.14	89.506	91.898	94.33	93.909	102.218
02:49	ZZZZZZ	94.76	94.441	91.089	89.257	91.537	93.753	93.927	101.596
02:54	ZZZZZZ	93.854	93.774	89.77	89.036	92.064	93.784	94.207	100.215
02:59	ZZZZZZ	92.732	93.57	90.144	88.736	91.149	93.909	92.981	102.456
03:04	ZZZZZZ	93.08	93.963	89.982	88.135	91.596	92.758	92.79	102.334
03:09	ZZZZZZ	92.535	92.692	90.587	89.192	91.68	94.392	93.446	101.958
03:14	ZZZZZZ	93.023	93.044	90.393	88.736	90.789	93.749	93.23	101.323
03:19	MA46558-CCVA19	89.591	92.749	90.051	87.935	92.246	92.476	90.33	100.16
03:24	MA46558-CCB20	89.31	92.932	90.603	87.996	92.263	92.302	90.719	101.19
03:29	ZZZZZZ	94.33	94.119	90.887	89.442	92.01	94.025	94.346	103.208
03:34	ZZZZZZ	92.664	93.197	90.433	88.863	90.621	93.59	93.838	102.294
03:39	ZZZZZZ	92.799	92.844	89.912	88.274	90.801	93.436	93.456	100.053
03:44	ZZZZZZ	93.02	93.787	89.981	88.913	91.004	92.9	93.731	100.877
03:49	ZZZZZZ	91.768	92.91	90.335	88.221	90.991	93.305	93.241	100.771
03:54	ZZZZZZ	88.604	91.997	89.137	87.006	91.98	91.075	89.579	99.498
03:59	ZZZZZZ	88.612	91.445	89.326	88.081	92.134	91.371	89.86	101.08
04:04	ZZZZZZ	88.918	92.101	89.812	87.576	92.267	92.264	89.622	100.526
04:09	ZZZZZZ	89.355	91.933	89.463	87.79	92.174	91.755	90.082	101.138
04:14	MA46558-CCVA20	89.258	91.949	90.076	87.671	91.887	92.148	89.992	100.778
04:19	MA46558-CCB21	89.321	93.19	89.432	87.98	92.494	91.988	90.063	99.749
04:24	ZZZZZZ	89.35	92.259	89.513	88.498	92.053	92.542	90.274	100.929
04:29	ZZZZZZ	89.61	92.118	90.694	87.909	92.254	93.149	90.405	100.982
04:34	ZZZZZZ	89.6	92.592	89.733	88.185	92.69	91.747	90.294	98.273
04:39	ZZZZZZ	89.796	92.318	90.67	88.143	92.584	92.685	90.085	101.01

! = Outside limits.

LEGEND:

Istd#	Parameter	Limits
Istd#9	Germanium (74-2)	60-125 %
Istd#10	Germanium (74-3)	60-125 %
Istd#11	Rhodium (103-1)	60-125 %
Istd#12	Rhodium (103-2)	60-125 %
Istd#13	Rhodium (103-3)	60-125 %
Istd#14	Indium (115-1)	60-125 %
Istd#15	Indium (115-2)	60-125 %
Istd#16	Terbium (159-1)	60-125 %

INTERNAL STANDARD SUMMARY

Login Number: JC86676
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA042219M1.CSV Date Analyzed: 04/22/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA46558
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16

(a) No samples reported for the elements associated with this internal standard.

INTERNAL STANDARD SUMMARY

Login Number: JC86676
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA042219M1.CSV Date Analyzed: 04/22/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA46558
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Istd#17	Istd#18	Istd#19	Istd#20	Istd#21	Istd#22
09:35	MA46558-STD1	100	100	100	100	100	100
09:40	MA46558-STD2	100	100	100	100	100	100
09:45	MA46558-STD3	100	100	100	100	100	100
09:50	MA46558-STD4	100.843	100.38	99.44	99.84	98.591	99.274
09:55	MA46558-STD5	100.74	100.031	99.936	100.837	98.705	99.816
10:00	MA46558-STD6	100.305	99.842	98.453	99.925	98.366	99.466
10:05	MA46558-STD7	99.195	98.945	99.596	99.126	99.381	99.022
10:10	MA46558-STD8	98.576	98.98	99.479	98.068	98.659	98.843
10:15	MA46558-STD9	99.222	99.597	99.107	99.436	97.912	98.729
10:20	MA46558-STD10	100.646	100.359	99.969	100.089	98.322	99.874
10:25	MA46558-STD11	100.726	99.807	99.481	100.554	97.152	98.431
10:30	MA46558-STD12	101.545	98.687	98.97	100.49	95.978	96.754
10:35	ZZZZZZ	100.916	100.228	99.843	100.515	98.715	100.589
10:44	MA46558-ICVA1	100.916	98.756	100.673	100.721	98.035	98.641
10:49	MA46558-ICV1	101.434	99.944	99.198	100.819	99.11	100.714
11:05	MA46558-ICB1	101.684	99.649	99.831	101.657	99.455	101.168
11:10	ZZZZZZ	No results reported for the elements associated with this internal standard.					
11:15	MA46558-CCB1	102.431	99.73	100.198	101.779	99.565	101.929
11:20	MA46558-CRI1	No results reported for the elements associated with this internal standard.					
11:25	MA46558-CCVA1	100.706	98.412	100.525	100.25	97.564	98.733
11:30	MA46558-CCB2	100.304	100.246	100.193	99.687	98.7	100.139
11:35	MA46558-CRI2	100.722	99.587	99.282	100.389	98.468	100.087
11:40	MA46558-ICSA1	93.566	90.608	94.299	92.923	86.96	86.471
11:45	MA46558-ICSAB1	93.131	91.746	95.925	93.403	88.86	86.747
11:50	ZZZZZZ	96.4	101.474	100.364	96.618	100.851	97.965
11:56	MA46558-CCVA2	97.648	99.343	101.436	97.723	98.804	96.663
12:01	MA46558-CCB3	98.879	101.087	100.458	98.691	101.057	99.735
12:06	ZZZZZZ	97.316	101.571	99.889	96.781	109.014	103.491
12:11	ZZZZZZ	97.525	102.248	101.424	97.785	102.035	98.72
12:17	MP14305-MB2	98.184	103.084	101.378	98.296	102.92	100.068
12:22	MP14305-S1	95.408	100.079	98.652	95.787	99.473	96.192
12:27	MP14305-S2	95.368	99.74	98.539	95.374	98.344	95.725
12:31	ZZZZZZ	94.048	99.969	98.221	94.216	97.594	93.918

INTERNAL STANDARD SUMMARY

Login Number: JC86676
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA042219M1.CSV Date Analyzed: 04/22/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA46558
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Istd#17	Istd#18	Istd#19	Istd#20	Istd#21	Istd#22
12:37	ZZZZZZ	95.693	100.971	99.249	95.663	98.641	95.541
12:42	ZZZZZZ	96.69	100.749	99.759	96.247	98.773	96.449
12:47	MA46558-CCVA3	97.419	100.057	99.389	97.271	97.367	95.357
12:52	MA46558-CCB4	95.546	99.027	97.912	95.074	97.913	95.895
12:57	ZZZZZZ	96.466	100.553	100.944	97.596	98.513	96.152
13:02	ZZZZZZ	96.88	99.479	100.811	97.247	98.956	95.893
13:07	ZZZZZZ	96.349	101.369	98.575	96.069	101.23	97.657
13:12	ZZZZZZ	100.054	103.364	102.731	99.954	100.198	97.805
13:17	ZZZZZZ	100.541	103.155	103.2	100.168	101.667	99.113
13:22	MP14347-MB1	98.337	102.175	101.708	97.992	101.734	98.373
13:27	MP14347-B1	100.204	102.813	103.208	99.46	100.771	97.85
13:32	MP14347-S1	No results reported for the elements associated with this internal standard.					
13:37	MA46558-CCVA4	101.407	101.996	102.918	100.291	99.3	97.928
13:42	MA46558-CCB5	100.416	101.157	102.319	99.581	100.747	99.965
13:47	MP14347-S2	No results reported for the elements associated with this internal standard.					
13:53	MP14347-SD1	No results reported for the elements associated with this internal standard.					
13:58	ZZZZZZ	97.943	100.2	99.297	97.492	98.156	96.317
14:03	ZZZZZZ	98.929	100.427	99.8	98.504	98.438	97.35
14:08	ZZZZZZ	97.696	100.274	100.03	97.869	99.216	97.292
14:13	ZZZZZZ	95.742	101.419	99.651	95.415	100.711	96.547
14:18	ZZZZZZ	96.875	101.285	100.035	97.324	97.971	95.638
14:23	ZZZZZZ	96.138	100.695	99.78	96.826	97.578	94.595
14:28	MA46558-CCVA5	99.415	99.636	101.836	98.932	98.588	96.415
14:34	MA46558-CCB6	98.522	100.689	100.369	98.029	99.229	97.711
14:39	ZZZZZZ	96.457	100.983	99.904	95.789	99.792	96.892
14:44	MP14272-S2	99.637	96.966	100.485	99.35	88.833	89.236
14:49	MP14272-S1	No results reported for the elements associated with this internal standard.					
14:54	MP14272-S2	No results reported for the elements associated with this internal standard.					
14:59	MP14272-SD1	No results reported for the elements associated with this internal standard.					
15:04	ZZZZZZ	95.227	99.595	99.23	95.073	98.33	95.098
15:09	ZZZZZZ	No results reported for the elements associated with this internal standard.					
15:14	ZZZZZZ	107.28	104.184	106.777	107.32	102.234	103.839
15:19	ZZZZZZ	99.004	103.021	101.451	99.144	102.07	100.171

INTERNAL STANDARD SUMMARY

Login Number: JC86676
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Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA042219M1.CSV Date Analyzed: 04/22/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA46558
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Istd#17	Istd#18	Istd#19	Istd#20	Istd#21	Istd#22
15:24	MA46558-CCVA6	98.278	101.632	101.256	98.812	98.979	97.699
15:29	MA46558-CCB7	100.604	102.315	100.728	99.913	101.802	100.695
15:34	ZZZZZZ	No results reported for the elements associated with this internal standard.					
15:39	ZZZZZZ	107.281	105.309	109.131	107.7	104.385	104.935
15:44	ZZZZZZ	101.467	104.78	104.147	101.341	101.989	100.574
15:49	ZZZZZZ	100.384	103.09	104.547	101.119	100.919	99.221
15:54	ZZZZZZ	99.001	103.188	102.586	99.479	102.685	100.696
15:59	ZZZZZZ	100.072	103.443	102.734	99.627	100.82	98.785
16:06	ZZZZZZ	99.748	103.175	102.868	99.845	102.43	100.333
16:11	ZZZZZZ	101.517	103.557	102.982	101.83	104.346	103.338
16:16	ZZZZZZ	100.614	102.504	101.968	100.564	101.615	100.393
16:21	MA46558-CCVA7	100.66	101.911	102.128	100.148	99.475	98.79
16:26	MA46558-CCB8	100.972	102.611	101.661	101.088	102.13	101.275
16:31	MP14304-S1	101.079	103.092	103.633	101.037	102.889	101.759
16:36	MP14304-S2	101.723	102.596	104.214	101.081	103.045	102
16:42	ZZZZZZ	101.097	103.311	103.988	101.913	102.686	101.198
16:46	ZZZZZZ	102.91	104.185	105.123	103.766	104.722	104.188
16:52	MP14272-PS1	101.922	99.034	103.342	101.402	91.571	91.4
16:56	ZZZZZZ	104.813	105.498	105.322	104.022	105.496	104.032
17:02	MA46558-CCVA8	102.301	102.613	104.082	101.806	101.386	100.351
17:07	MA46558-CCB9	101.432	103.035	102.905	101.235	102.661	101.587
17:12	MP14424-MB1	99.016	103.014	102.685	98.999	105.063	101.551
17:17	MP14424-SD1	104.001	104.014	109.364	106.593	105.434	104.533
17:22	ZZZZZZ	98.07	101.921	102.956	98.121	102.013	98.296
17:27	ZZZZZZ	98.68	103.275	102.932	97.585	102.424	99.067
17:32	MP14424-B1	98.157	102.635	102.867	98.009	100.833	96.949
17:37	ZZZZZZ	97.521	102.831	101.674	97.043	98.728	94.925
17:42	MP14424-S1	98.015	103.145	117.354	112.088	97.036	93.194
17:47	MP14424-S2	97.494	103.594	117.938	111.123	97.939	92.695
17:52	ZZZZZZ	101.041	102.801	104.011	100.71	103.235	100.596
17:57	ZZZZZZ	100.056	101.812	102.193	99.719	101.629	100.323
18:02	MA46558-CCVA9	99.123	101.269	101.959	99.288	99.853	97.889
18:07	MA46558-CCB10	99.789	101.517	102.117	99.6	101.662	100.203

INTERNAL STANDARD SUMMARY

Login Number: JC86676
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File ID: XA042219M1.CSV Date Analyzed: 04/22/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA46558
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Istd#17	Istd#18	Istd#19	Istd#20	Istd#21	Istd#22
18:12	JC86645-3	97.332	103.272	116.816	111.268	99.047	93.999
18:17	MP14424-S1	98.059	102.628	107.787	103.891	100.889	96.641
18:22	MP14424-S2	97.091	101.726	108.398	102.689	100.046	95.891
18:27	ZZZZZZ	99.067	102.629	102.236	98.66	101.852	99.254
18:32	ZZZZZZ	95.805	102.364	100.628	95.199	101.056	96.836
18:37	ZZZZZZ	99.809	102.496	102.438	99.609	102.18	99.921
18:42	MA46558-CCVA10	98.793	100.813	101.885	97.674	99.21	96.089
18:47	MA46558-CCB11	98.798	100.39	101.071	97.889	101.224	98.614
18:52	ZZZZZZ	95.272	99.894	99.332	95.562	97.092	92.995
18:57	ZZZZZZ	94.24	100.141	99.212	94.273	94.627	90.226
19:02	ZZZZZZ	96.019	101.065	101.272	96.196	97.245	92.468
19:07	ZZZZZZ	95.408	102.034	101.305	95.19	99.488	93.772
19:12	ZZZZZZ	98.606	102.088	103.266	98.668	102.876	98.551
19:17	ZZZZZZ	91.635	97.862	98.461	92.406	92.999	88.111
19:22	ZZZZZZ	92.27	99.437	98.971	92.11	96.772	91.465
19:27	ZZZZZZ	92.515	100.373	99.278	93.439	96.401	90.58
19:32	MA46558-CCVA11	96.135	100.464	101.483	96.067	99.556	94.248
19:37	MA46558-CCB12	95.353	100.712	100.807	95.046	100.4	96.537
19:42	ZZZZZZ	92.122	99.814	98.636	92.205	97.274	91.052
19:47	ZZZZZZ	92.325	100.487	98.451	92.88	95.617	90.699
19:52	ZZZZZZ	93.76	101.81	99.539	93.613	97.792	92.665
19:57	ZZZZZZ	97.051	101.982	102.096	97.145	101.837	98.262
20:02	ZZZZZZ	90.873	98.254	97.249	91.839	92.195	87.267
20:07	ZZZZZZ	90.784	99.17	98.526	91.43	95.797	89.365
20:12	ZZZZZZ	95.461	101.259	100.414	95.722	100.409	96.818
20:17	JC86676-1	91.187	100.488	98.007	92.245	97.082	91.131
20:22	JC86676-2	91.917	100.469	99.748	92.194	97.018	90.536
20:27	MA46558-CCVA12	95.644	100.006	100.939	95.979	99.532	94.82
20:32	MA46558-CCB13	94.212	100.149	99.729	94.513	99.77	95.867
20:37	ZZZZZZ	91.34	97.871	97.143	91.465	92.87	87.892
20:42	ZZZZZZ	92.135	98.842	98.538	92.187	94.168	89.53
20:47	ZZZZZZ	95.276	100.739	100.917	95.666	101.204	96.933
20:52	MP14333A-MB1	92.352	100.476	99.5	92.404	99.318	93.385

INTERNAL STANDARD SUMMARY

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File ID: XA042219M1.CSV Date Analyzed: 04/22/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA46558
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Istd#17	Istd#18	Istd#19	Istd#20	Istd#21	Istd#22
20:57	MP14333A-B2	91.306	99.501	97.866	91.649	96.696	91.228
21:02	MP14333A-S3	86.162	90.251	92.81	86.989	81.323	76.205
21:07	MP14333A-S4	86.514	90.642	93.955	86.969	81.626	76.89
21:12	JC86380-3	88.238	91.449	95.677	89.413	81.869	77.54
21:17	MP14333A-SD1	98.647	99.782	104.127	99.299	96.037	93.114
21:22	ZZZZZZ	84.229	81.486	87.131	84.134	69.831 !a	68.653 !a
21:27	MA46558-CCVA13	97.772	100.584	101.561	98.243	99.368	96.686
21:32	MA46558-CCB14	97.478	101.369	100.765	97.735	100.66	98.18
21:37	ZZZZZZ	88.558	88.967	93.845	88.756	81.008	77.213
21:42	ZZZZZZ	84.536	83.565	88.79	83.877	73.98	70.05
21:47	ZZZZZZ	92.198	100.5	99.877	93.588	96.15	91.385
21:52	ZZZZZZ	97.541	100.704	101.37	97.796	100.878	99.09
21:57	ZZZZZZ	81.088	78.422	82.808	81.535	65.963 !a	65.308 !a
22:02	ZZZZZZ	95.804	98.971	157.15 !a	143.63 !a	93.634	88.082
22:07	ZZZZZZ	100.195	104.873	106.355	99.543	105.362	100.38
22:12	ZZZZZZ	97.886	104.058	108.744	101.022	102.559	96.078
22:17	ZZZZZZ	96.74	103.042	105.344	97.088	98.539	92.499
22:22	MA46558-CCVA14	100.573	102.222	106.457	100.829	102.988	99.275
22:27	MA46558-CCB15	100.218	102.775	105.176	100.357	103.51	100.549
22:32	ZZZZZZ	91.296	96.62	100.085	92.046	90.223	83.947
22:37	ZZZZZZ	94.669	102.291	102.495	95.492	101.428	94.305
22:42	ZZZZZZ	95.117	102.08	103.486	95.347	101.553	94.216
22:47	ZZZZZZ	98.186	101.171	103.51	98.054	102.406	98.742
22:52	MP14458-MB1	97.548	100.464	102.426	97.701	101.417	98.045
22:57	MP14458-B1	96.077	100.178	101.271	96.184	101.26	97.409
23:02	MP14458-S1	98.587	99.86	102.662	99.225	101.485	99.313
23:07	MP14458-S2	97.49	98.864	100.635	99.024	100.925	98.834
23:12	JC86667-41	96.89	99.167	99.81	96.901	99.769	98.659
23:17	MA46558-CCVA15	93.439	97.104	97.997	93.995	96.859	93.594
23:22	MA46558-CCB16	93.328	97.474	97.684	94.264	98.589	95.822
23:27	MP14458-S3	97.4	98.848	100.121	97.962	99.968	98.749
23:33	JC86667-42	97.23	98.618	98.949	97.92	99.683	98.37
23:38	ZZZZZZ	97.34	99.284	100.563	97.978	99.951	98.575

INTERNAL STANDARD SUMMARY

Login Number: JC86676
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Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA042219M1.CSV Date Analyzed: 04/22/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA46558
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Istd#17	Istd#18	Istd#19	Istd#20	Istd#21	Istd#22
23:43	ZZZZZZ	97.705	99.022	99.931	98.474	99.513	98.873
23:48	ZZZZZZ	96.865	98.735	99.452	97.322	99.57	98.135
23:53	ZZZZZZ	97.353	98.032	99.029	97.752	99.243	98.186
23:58	ZZZZZZ	97.827	98.982	99.347	98.431	99.1	98.923
00:03	ZZZZZZ	97.567	98.107	99.091	97.82	98.953	98.327
00:08	ZZZZZZ	96.6	97.283	97.699	96.711	98.098	97.797
00:13	ZZZZZZ	96.402	97.496	98.111	97.179	97.691	97.241
00:18	MA46558-CCVA16	94.109	97.148	97.287	94.013	98.341	95.617
00:23	MA46558-CCB17	94.294	97.495	97.73	94.212	98.042	95.606
00:28	ZZZZZZ	97.721	98.556	100.022	97.228	99.44	97.316
00:33	ZZZZZZ	97.666	98.524	100.201	97.479	99.359	98.297
00:38	ZZZZZZ	97.11	98.184	98.832	97.06	98.827	98.009
00:43	ZZZZZZ	96.244	97.929	99.157	96.782	99.013	97.533
00:48	ZZZZZZ	96.314	97.628	98.707	97.001	98.499	97.507
00:53	ZZZZZZ	95.733	97.513	98.491	96.62	98.268	96.697
00:58	ZZZZZZ	94.914	97.331	98.078	95.405	97.399	96.476
01:03	ZZZZZZ	96.852	97.235	98.055	97.068	98.69	97.468
01:08	ZZZZZZ	95.721	96.823	96.901	96.358	97.83	96.939
01:13	ZZZZZZ	95.36	96.534	97.718	95.882	98.055	96.959
01:18	MA46558-CCVA17	93.343	96.596	97.606	93.569	98.087	94.918
01:23	MA46558-CCB18	93.364	96.673	97.11	93.571	98.519	94.827
01:28	MP14459-MB1	93.317	96.861	97.089	92.996	97.568	94.995
01:33	MP14459-B1	92.928	96.464	97.347	92.853	98.605	95.018
01:38	MP14459-S1	95.77	97.316	98.218	95.486	98.344	96.562
01:43	MP14459-S2	95.625	97.153	96.443	95.028	97.438	96.338
01:48	JC86667-61	95.431	96.03	97.743	95.56	97.27	96.51
01:53	MP14459-S3	94.963	97.393	97.923	95.993	100.637	98.338
01:58	JC86667-62	95.491	96.799	97.562	95.535	99.784	98.654
02:03	ZZZZZZ	94.821	96.475	97.79	95.563	97.596	95.903
02:08	ZZZZZZ	95.898	97.448	98.242	96.164	97.896	96.305
02:13	ZZZZZZ	94.914	97.084	96.751	95.208	97.666	95.972
02:19	MA46558-CCVA18	92.563	95.989	96.917	92.885	97.4	94.199
02:23	MA46558-CCB19	92.892	96.437	96.969	92.203	97.477	94.279

INTERNAL STANDARD SUMMARY

Login Number: JC86676
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA042219M1.CSV Date Analyzed: 04/22/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA46558
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Istd#17	Istd#18	Istd#19	Istd#20	Istd#21	Istd#22
02:29	ZZZZZZ	95.284	96.369	97.518	95.324	97.699	95.982
02:34	ZZZZZZ	95.009	96.443	97.555	95.403	96.607	95.759
02:39	ZZZZZZ	94.82	96.308	98.041	94.856	97.843	95.581
02:44	ZZZZZZ	95.079	97.065	97.689	95.486	97.507	95.745
02:49	ZZZZZZ	94.667	96.49	97.478	95.273	97.537	96.124
02:54	ZZZZZZ	94.836	96.01	96.431	95.18	97.058	95.576
02:59	ZZZZZZ	94.097	95.878	97.279	93.915	96.801	95.395
03:04	ZZZZZZ	94.209	96.2	97.059	99.57	96.894	94.954
03:09	ZZZZZZ	95.013	96.295	97.695	94.912	97.208	96.25
03:14	ZZZZZZ	94.382	96.186	96.743	94.843	96.47	95.728
03:19	MA46558-CCVA19	92.076	96.186	95.926	92.644	97.176	93.865
03:24	MA46558-CCB20	92.194	95.509	95.854	92.215	97.109	93.64
03:29	ZZZZZZ	95.033	96.606	97.753	95.027	97.971	96.04
03:34	ZZZZZZ	94.377	95.674	97.557	94.621	96.966	95.472
03:39	ZZZZZZ	94.008	95.922	97.433	94.35	97.218	95.56
03:44	ZZZZZZ	94.32	96.148	96.851	94.249	96.982	95.55
03:49	ZZZZZZ	94.07	96.235	96.462	94.643	96.66	95.394
03:54	ZZZZZZ	91.772	95.994	95.17	91.748	96.334	93.689
03:59	ZZZZZZ	91.468	95.764	96.027	91.598	96.087	93.543
04:04	ZZZZZZ	91.525	96.123	95.915	91.618	96.174	93.6
04:09	ZZZZZZ	91.396	95.011	95.118	91.641	96.058	93.515
04:14	MA46558-CCVA20	92.202	95.68	96.121	91.681	97.454	93.723
04:19	MA46558-CCB21	91.548	96.043	95.243	91.511	96.626	93.451
04:24	ZZZZZZ	92.116	95.514	96.17	92.053	96.491	93.131
04:29	ZZZZZZ	91.929	95.024	95.237	92.218	96.864	93.689
04:34	ZZZZZZ	91.706	95.618	96.149	92.113	95.598	93.682
04:39	ZZZZZZ	91.768	96.186	96.261	91.824	96.064	93.692

! = Outside limits.

LEGEND:

Istd#	Parameter	Limits
Istd#17	Terbium (159-2)	60-125 %
Istd#18	Terbium (159-3)	60-125 %
Istd#19	Holmium (165-1)	60-125 %
Istd#20	Holmium (165-2)	60-125 %
Istd#21	Bismuth (209-1)	60-125 %
Istd#22	Bismuth (209-2)	60-125 %

(a) No samples reported for the elements associated with this internal standard.

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC86676
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA042219M1.CSV Date Analyzed: 04/22/19 Methods: EPA 200.8, SW846 6020B
QC Limits: result < RL Run ID: MA46558 Units: ug/l

Time: / Sample ID:			11:05 ICB1		11:15 CCB1		11:30 CCB2		12:01 CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	25	.28	0.0282	<25	0.167	<25	0.531	<25	1.07	<25
Antimony	2.0	.094	anr							
Arsenic	0.50	.013	0.00213	<0.50	0.00918	<0.50	0.0160	<0.50	0.00234	<0.50
Barium	1.0	.008	-0.00124	<1.0	0.000995	<1.0	0.00333	<1.0	0.00428	<1.0
Beryllium	0.30	.004	anr							
Boron	25	.65	anr							
Cadmium	0.50	.004	-0.00315	<0.50	-0.00211	<0.50	0.00648	<0.50	0.00359	<0.50
Calcium	250	6.1								
Chromium	1.0	.014	anr							
Cobalt	0.50	.002								
Copper	2.0	.021	anr							
Iron	25	.43	0.0863	<25	0.0564	<25	0.678	<25	1.57	<25
Lead	0.50	.009	-0.00311	<0.50	-0.00511	<0.50	0.00865	<0.50	0.00809	<0.50
Magnesium	250	.15								
Manganese	1.0	.007	anr							
Molybdenum	1.0	.015								
Nickel	1.0	.017	anr							
Potassium	250	.71								
Selenium	0.50	.072	anr							
Silver	0.50	.004	anr							
Sodium	250	1	anr							
Strontium	1.0	.003								
Thallium	0.50	.004	anr							
Tin	5.0	.025								
Titanium	1.0	.035								
Vanadium	1.0	.009	anr							
Zinc	5.0	.029	anr							

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC86676
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA042219M1.CSV Date Analyzed: 04/22/19 Methods: EPA 200.8, SW846 6020B
QC Limits: result < RL Run ID: MA46558 Units: ug/l

Time: / Sample ID:			12:52 CCB4		13:42 CCB5		14:34 CCB6		15:29 CCB7	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	25	.28	0.627	<25	0.581	<25	0.416	<25	0.326	<25
Antimony	2.0	.094	anr							
Arsenic	0.50	.013	0.0117	<0.50	0.0158	<0.50	0.0223	<0.50	0.00540	<0.50
Barium	1.0	.008	0.0119	<1.0	0.00634	<1.0	0.00413	<1.0	0.00795	<1.0
Beryllium	0.30	.004	anr							
Boron	25	.65	anr							
Cadmium	0.50	.004	0.0145	<0.50	0.0000272	<0.50	-0.000883	<0.50	0.00341	<0.50
Calcium	250	6.1								
Chromium	1.0	.014	anr							
Cobalt	0.50	.002								
Copper	2.0	.021	anr							
Iron	25	.43	0.707	<25	0.667	<25	0.634	<25	0.685	<25
Lead	0.50	.009	0.0124	<0.50	0.0111	<0.50	0.00958	<0.50	0.00444	<0.50
Magnesium	250	.15								
Manganese	1.0	.007	anr							
Molybdenum	1.0	.015								
Nickel	1.0	.017	anr							
Potassium	250	.71								
Selenium	0.50	.072	anr							
Silver	0.50	.004	anr							
Sodium	250	1	anr							
Strontium	1.0	.003								
Thallium	0.50	.004	anr							
Tin	5.0	.025								
Titanium	1.0	.035								
Vanadium	1.0	.009	anr							
Zinc	5.0	.029	anr							

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC86676
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA042219M1.CSV Date Analyzed: 04/22/19 Methods: EPA 200.8, SW846 6020B
QC Limits: result < RL Run ID: MA46558 Units: ug/l

Time: / Sample ID:			16:26 CCB8		17:07 CCB9		18:07 CCB10		18:47 CCB11	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	25	.28	0.272	<25	0.336	<50	0.349	<25	0.383	<25
Antimony	2.0	.094	anr							
Arsenic	0.50	.013	0.00766	<0.50	0.0129	<1.0	0.0115	<0.50	0.00667	<0.50
Barium	1.0	.008	0.00717	<1.0	0.0150	<1.0	0.0143	<1.0	0.0111	<1.0
Beryllium	0.30	.004	anr							
Boron	25	.65	anr							
Cadmium	0.50	.004	-0.000951	<0.50	0.00205	<0.50	-0.00416	<0.50	0.00566	<0.50
Calcium	250	6.1								
Chromium	1.0	.014	anr							
Cobalt	0.50	.002								
Copper	2.0	.021	anr							
Iron	25	.43	0.548	<25	0.648	<50	0.688	<25	0.577	<25
Lead	0.50	.009	0.0102	<0.50	0.00931	<0.50	0.0104	<0.50	0.00804	<0.50
Magnesium	250	.15								
Manganese	1.0	.007	anr							
Molybdenum	1.0	.015								
Nickel	1.0	.017	anr							
Potassium	250	.71								
Selenium	0.50	.072	anr							
Silver	0.50	.004	anr							
Sodium	250	1	anr							
Strontium	1.0	.003								
Thallium	0.50	.004	anr							
Tin	5.0	.025								
Titanium	1.0	.035								
Vanadium	1.0	.009	anr							
Zinc	5.0	.029	anr							

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC86676
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA042219M1.CSV Date Analyzed: 04/22/19 Methods: EPA 200.8, SW846 6020B
QC Limits: result < RL Run ID: MA46558 Units: ug/l

Time:			19:37		20:32	
Sample ID:			CCB12		CCB13	
Metal	RL	IDL	raw	final	raw	final
Aluminum	25	.28	0.422	<25	0.310	<25
Antimony	2.0	.094	anr			
Arsenic	0.50	.013	0.0122	<0.50	0.0127	<0.50
Barium	1.0	.008	0.0119	<1.0	0.00637	<1.0
Beryllium	0.30	.004	anr			
Boron	25	.65	anr			
Cadmium	0.50	.004	-0.000651	<0.50	-0.000474	<0.50
Calcium	250	6.1				
Chromium	1.0	.014	anr			
Cobalt	0.50	.002				
Copper	2.0	.021	anr			
Iron	25	.43	0.750	<25	0.684	<25
Lead	0.50	.009	0.00844	<0.50	0.00564	<0.50
Magnesium	250	.15				
Manganese	1.0	.007	anr			
Molybdenum	1.0	.015				
Nickel	1.0	.017	anr			
Potassium	250	.71				
Selenium	0.50	.072	anr			
Silver	0.50	.004	anr			
Sodium	250	1	anr			
Strontium	1.0	.003				
Thallium	0.50	.004	anr			
Tin	5.0	.025				
Titanium	1.0	.035				
Vanadium	1.0	.009	anr			
Zinc	5.0	.029	anr			

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC86676
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA042219M1.CSV Date Analyzed: 04/22/19 Methods: EPA 200.8, SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA46558 Units: ug/l

Time:		10:44			10:49			11:25	
Sample ID:	ICVA	ICVA1		ICV	ICV1		CCVA	CCVA1	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	5500	5540	100.7	60	62.5	104.2	5000	5120	102.4
Antimony	anr								
Arsenic	60	57.5	95.8				50	48.7	97.4
Barium	60	59.7	99.5				50	49.5	99.0
Beryllium	anr								
Boron	anr								
Cadmium	60	58.5	97.5				50	49.9	99.8
Calcium									
Chromium	anr								
Cobalt									
Copper	anr								
Iron	5500	5520	100.4				5000	5240	104.8
Lead	60	59.6	99.3				50	50.3	100.6
Magnesium									
Manganese	anr								
Molybdenum									
Nickel	anr								
Potassium									
Selenium	anr								
Silver	anr								
Sodium	anr								
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC86676
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA042219M1.CSV Date Analyzed: 04/22/19 Methods: EPA 200.8, SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA46558 Units: ug/l

Time:		11:56			12:47			13:37	
Sample ID:	CCVA	CCVA2		CCVA	CCVA3		CCVA	CCVA4	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	5000	4970	99.4	5000	4980	99.6	5000	4980	99.6
Antimony	anr								
Arsenic	50	49.5	99.0	50	49.0	98.0	50	48.5	97.0
Barium	50	48.7	97.4	50	48.8	97.6	50	49.5	99.0
Beryllium	anr								
Boron	anr								
Cadmium	50	50.4	100.8	50	50.1	100.2	50	49.6	99.2
Calcium									
Chromium	anr								
Cobalt									
Copper	anr								
Iron	5000	5290	105.8	5000	5330	106.6	5000	5240	104.8
Lead	50	50.9	101.8	50	50.7	101.4	50	50.6	101.2
Magnesium									
Manganese	anr								
Molybdenum									
Nickel	anr								
Potassium									
Selenium	anr								
Silver	anr								
Sodium	anr								
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC86676
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA042219M1.CSV Date Analyzed: 04/22/19 Methods: EPA 200.8, SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA46558 Units: ug/l

Time:		14:28			15:24			16:21	
Sample ID:	CCVA	CCVA5		CCVA	CCVA6		CCVA	CCVA7	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	5000	4960	99.2	5000	5060	101.2	5000	5040	100.8
Antimony	anr								
Arsenic	50	48.4	96.8	50	49.6	99.2	50	49.4	98.8
Barium	50	49.7	99.4	50	48.5	97.0	50	48.1	96.2
Beryllium	anr								
Boron	anr								
Cadmium	50	49.3	98.6	50	50.0	100.0	50	50.0	100.0
Calcium									
Chromium	anr								
Cobalt									
Copper	anr								
Iron	5000	5270	105.4	5000	5330	106.6	5000	5320	106.4
Lead	50	50.6	101.2	50	51.2	102.4	50	51.1	102.2
Magnesium									
Manganese	anr								
Molybdenum									
Nickel	anr								
Potassium									
Selenium	anr								
Silver	anr								
Sodium	anr								
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC86676
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA042219M1.CSV Date Analyzed: 04/22/19 Methods: EPA 200.8, SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA46558 Units: ug/l

Time:		17:02			18:02			18:42	
Sample ID:	CCVA	CCVA8		CCVA	CCVA9		CCVA	CCVA10	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	5000	4970	99.4	5000	4980	99.6	5000	5010	100.2
Antimony	anr								
Arsenic	50	48.7	97.4	50	48.5	97.0	50	49.1	98.2
Barium	50	48.7	97.4	50	48.2	96.4	50	48.6	97.2
Beryllium	anr								
Boron	anr								
Cadmium	50	50.2	100.4	50	50.0	100.0	50	50.3	100.6
Calcium									
Chromium	anr								
Cobalt									
Copper	anr								
Iron	5000	5270	105.4	5000	5270	105.4	5000	5220	104.4
Lead	50	50.9	101.8	50	50.7	101.4	50	50.8	101.6
Magnesium									
Manganese	anr								
Molybdenum									
Nickel	anr								
Potassium									
Selenium	anr								
Silver	anr								
Sodium	anr								
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC86676
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA042219M1.CSV Date Analyzed: 04/22/19 Methods: EPA 200.8, SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA46558 Units: ug/l

Time:		19:32			20:27	
Sample ID:	CCVA	CCVA11		CCVA	CCVA12	
Metal	True	Results	% Rec	True	Results	% Rec
Aluminum	5000	4980	99.6	5000	4980	99.6
Antimony	anr					
Arsenic	50	48.9	97.8	50	49.2	98.4
Barium	50	47.9	95.8	50	47.9	95.8
Beryllium	anr					
Boron	anr					
Cadmium	50	50.2	100.4	50	51.0	102.0
Calcium						
Chromium	anr					
Cobalt						
Copper	anr					
Iron	5000	5350	107.0	5000	5370	107.4
Lead	50	50.7	101.4	50	51.1	102.2
Magnesium						
Manganese	anr					
Molybdenum						
Nickel	anr					
Potassium						
Selenium	anr					
Silver	anr					
Sodium	anr					
Strontium						
Thallium	anr					
Tin						
Titanium						
Vanadium	anr					
Zinc	anr					

(*) Outside of QC limits
(anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC86676
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA042219M1.CSV Date Analyzed: 04/22/19 Methods: EPA 200.8, SW846 6020B
QC Limits: 80 to 120 % Recovery Run ID: MA46558 Units: ug/l

Time:			11:35	
Sample ID:	CRI	CRIA	CRI2	
Metal	True	True	Results	% Rec
Aluminum	25	25	25.5	102.0
Antimony	2.0	0.25	anr	
Arsenic	0.50	0.50	0.477	95.4
Barium	1.0	0.50	0.998	99.8
Beryllium	0.50	0.25	anr	
Boron	25	2.5	anr	
Cadmium	0.50	0.25	0.500	100.0
Calcium	250	125		
Chromium	1.0	2.0	anr	
Cobalt	0.50	0.25		
Copper	2.0	2.0	anr	
Iron	25	25	25.8	103.2
Lead	0.50	0.25	0.498	99.6
Magnesium	250	125		
Manganese	1.0	0.25	anr	
Molybdenum	1.0	0.50		
Nickel	1.0	2.0	anr	
Potassium	250	125		
Selenium	0.50	0.50	anr	
Silver	0.50	1.0	anr	
Sodium	250	125	anr	
Strontium	5.0	0.50		
Thallium	0.50	0.25	anr	
Tin	5.0	0.50		
Titanium	1.0	0.50		
Vanadium	1.0	2.0	anr	
Zinc	5.0	2.0	anr	

(*) Outside of QC limits
(anr) Analyte not requested

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: JC86676
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA042219M1.CSV Date Analyzed: 04/22/19 Methods: EPA 200.8, SW846 6020B
QC Limits: 80 to 120 % Recovery Run ID: MA46558 Units: ug/l

Time:			11:40		11:45	
Sample ID:	ICSA	ICSAB	ICSA1		ICSAB1	
Metal	True	True	Results	% Rec	Results	% Rec
Aluminum	100000	100000	96700	96.7	96100	96.1
Antimony			0.214		0.183	
Arsenic		20	0.0716		19.1	95.5
Barium			0.191		0.213	
Beryllium			0.00136		-0.000137	
Boron		50	4.02		53.9	107.8
Cadmium		20	-0.489		18.3	91.5
Calcium	100000	100000	94400	94.4	95800	95.8
Chromium		20	0.304		20.3	101.5
Cobalt		20	0.318		19.8	99.0
Copper		20	0.00718		19.3	96.5
Iron	100000	100000	93400	93.4	95600	95.6
Lead			0.0734		0.0740	
Magnesium	100000	100000	94600	94.6	95800	95.8
Manganese		20	0.412		20.3	101.5
Molybdenum	2000	2000	2020	101.0	2030	101.5
Nickel		20	0.637		19.5	97.5
Potassium	100000	100000	99400	99.4	99400	99.4
Selenium		20	0.0903		18.7	93.5
Silver		20	0.0260		20.0	100.0
Sodium	100000	100000	92900	92.9	94300	94.3
Strontium	2000	2000	2000	100.0	2070	103.5
Thallium			0.00248		0.00461	
Tin	2000	2000	1840	92.0	1860	93.0
Titanium	2000	2000	1750	87.5	1770	88.5
Vanadium		20	-0.00402		20.5	102.5
Zinc		20	0.207		19.2	96.0

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: JC86676
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

QC Batch ID: MP14424
Matrix Type: AQUEOUS

Methods: SW846 6020B
Units: ug/l

Prep Date: 04/22/19

Metal	RL	IDL	MDL	MB raw	final
Aluminum	50	.55	32	3.6	<50
Antimony	4.0	.19	1.7		
Arsenic	1.0	.026	.94	0.058	<1.0
Barium	2.0	.016	.73	0.020	<2.0
Beryllium	1.0	.008	.15		
Boron	50	1.3	14		
Cadmium	1.0	.008	.17	0.0048	<1.0
Calcium	500	12	64		
Chromium	2.0	.028	.62		
Cobalt	1.0	.004	.17		
Copper	4.0	.042	1.9		
Iron	50	.86	19	2.6	<50
Lead	1.0	.018	.52	0.027	<1.0
Magnesium	500	.3	46		
Manganese	2.0	.014	.63		
Molybdenum	2.0	.03	.45		
Nickel	2.0	.034	.95		
Potassium	500	1.4	68		
Selenium	1.0	.14	.55		
Silver	1.0	.008	.16		
Sodium	500	2.1	140		
Strontium	10	.006	2.4		
Thallium	1.0	.008	.17		
Tin	10	.14	2.6		
Titanium	2.0	.07	1.6		
Vanadium	2.0	.018	1.8		
Zinc	10	.058	5.4		

Associated samples MP14424: JC86676-1, JC86676-2

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC86676
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

QC Batch ID: MP14424
Matrix Type: AQUEOUS

Methods: SW846 6020B
Units: ug/l

Prep Date: 04/22/19

Metal	JC86645-3 Original	MS	Spikelot MP6020AQ3%	Rec	QC Limits
Aluminum	1620	5480	4000	96.5	75-125
Antimony	anr				
Arsenic	2.6	72.1	80	86.9	75-125
Barium	27.0	101	80	92.5	75-125
Beryllium	anr				
Boron	anr				
Cadmium	0.13	75.2	80	93.8	75-125
Calcium					
Chromium	anr				
Cobalt					
Copper					
Iron	50.4	4230	4000	104.5	75-125
Lead	0.75	80.3	80	99.4	75-125
Magnesium					
Manganese	anr				
Molybdenum					
Nickel	anr				
Potassium					
Selenium					
Silver	anr				
Sodium					
Strontium					
Thallium					
Tin					
Titanium					
Vanadium	anr				
Zinc					

Associated samples MP14424: JC86676-1, JC86676-2

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC86676
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

QC Batch ID: MP14424
Matrix Type: AQUEOUS

Methods: SW846 6020B
Units: ug/l

Prep Date: 04/22/19

Metal	JC86645-3 Original	MSD	Spikelot MP6020AQ3%	Rec	MSD RPD	QC Limit
Aluminum	1620	5310	4000	92.3	3.2	20
Antimony	anr					
Arsenic	2.6	69.7	80	83.9	3.4	20
Barium	27.0	100	80	91.3	1.0	20
Beryllium	anr					
Boron	anr					
Cadmium	0.13	75.9	80	94.7	0.9	20
Calcium						
Chromium	anr					
Cobalt						
Copper						
Iron	50.4	4090	4000	101.0	3.4	20
Lead	0.75	79.8	80	98.8	0.6	20
Magnesium						
Manganese	anr					
Molybdenum						
Nickel	anr					
Potassium						
Selenium						
Silver	anr					
Sodium						
Strontium						
Thallium						
Tin						
Titanium						
Vanadium	anr					
Zinc						

Associated samples MP14424: JC86676-1, JC86676-2

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: JC86676
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

QC Batch ID: MP14424
Matrix Type: AQUEOUS

Methods: SW846 6020B
Units: ug/l

Prep Date: 04/22/19

Metal	BSP Result	Spikelot MP6020AQ3%	Rec	QC Limits
Aluminum	3690	4000	92.3	80-120
Antimony	anr			
Arsenic	67.4	80	84.3	80-120
Barium	72.2	80	90.3	80-120
Beryllium	anr			
Boron	anr			
Cadmium	73.8	80	92.3	80-120
Calcium				
Chromium	anr			
Cobalt				
Copper				
Iron	4040	4000	101.0	80-120
Lead	75.8	80	94.8	80-120
Magnesium				
Manganese	anr			
Molybdenum				
Nickel	anr			
Potassium				
Selenium				
Silver	anr			
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Vanadium	anr			
Zinc				

Associated samples MP14424: JC86676-1, JC86676-2

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: JC86676
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

QC Batch ID: MP14424
Matrix Type: AQUEOUS

Methods: SW846 6020B
Units: ug/l

Prep Date: 04/22/19

Metal	JC86645-3 Original	SDL 2:10	%DIF	QC Limits
Aluminum	1620	1670	2.9	0-10
Antimony	anr			
Arsenic	2.61	2.65	1.4	0-10
Barium	27.0	29.1	7.6	0-10
Beryllium	anr			
Boron	anr			
Cadmium	0.130	0.121	6.4	0-10
Calcium				
Chromium	anr			
Cobalt				
Copper				
Iron	50.4	49.1	2.7	0-10
Lead	0.755	0.696	7.8	0-10
Magnesium				
Manganese	anr			
Molybdenum				
Nickel	anr			
Potassium				
Selenium				
Silver	anr			
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Vanadium	anr			
Zinc				

Associated samples MP14424: JC86676-1, JC86676-2

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

Instrument Detection Limits

Job Number: JC86676
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Instrument ID: AGICPMS1 **Effective Date:** 01/31/19

Analyte	IDL ug/l
Aluminum	.045
Aluminum	.276
Antimony	.094
Arsenic	.12
Arsenic	.013
Barium	.008
Beryllium	.004
Boron	.648
Cadmium	.007
Cadmium	.004
Calcium	6.11
Chromium	.036
Chromium	.014
Cobalt	.0041
Cobalt	.002
Copper	.1044
Copper	.021
Iron	1.21
Iron	.432
Lead	.009
Magnesium	.033
Magnesium	.152
Manganese	.006
Manganese	.007
Molybdenum	.015
Nickel	.046
Nickel	.017
Potassium	.506
Potassium	.707
Selenium	.503
Selenium	.072
Silver	.004
Sodium	.357
Sodium	1.037
Strontium	.003
Thallium	.004
Tin	.025
Tin	.071
Titanium	.035
Titanium	.035
Vanadium	.112
Vanadium	.009
Zinc	.041
Zinc	.029

Instrument Detection Limits

Job Number: JC86676
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Instrument ID: AGICPMS1 **Effective Date:** 01/31/19

Analyte	IDL ug/l

The above applies to the following instrument runs:
MA46558

Instrument Linear Ranges

Job Number: JC86676
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Instrument ID: AGICPMS1 **Effective Date:** 09/10/18

Analyte	Linear Range ug/l
Aluminum	10000
Aluminum	10000
Antimony	100
Arsenic	100
Arsenic	100
Barium	100
Beryllium	100
Boron	200
Cadmium	100
Cadmium	100
Calcium	10000
Chromium	100
Chromium	100
Cobalt	100
Cobalt	100
Copper	100
Copper	100
Iron	10000
Iron	10000
Lithium	100
Lead	100
Magnesium	10000
Magnesium	10000
Manganese	100
Manganese	100
Molybdenum	100
Nickel	100
Nickel	100
Potassium	10000
Potassium	10000
Selenium	400
Selenium	400
Silver	100
Sodium	10000
Sodium	10000
Strontium	100
Thallium	100
Tin	100
Tin	100
Titanium	100
Titanium	100
Tungsten	100
Uranium	100
Vanadium	100
Vanadium	100
Zinc	100

Instrument Linear Ranges

Job Number: JC86676
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Instrument ID: AGICPMS1 **Effective Date:** 09/10/18

Analyte	Linear Range ug/l
Zinc	100

The above applies to the following instrument runs:
MA46558

Metals Analysis

Raw Data

Quantitation Report

File Name	001CALB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File	
Method Path	
Acq Time	4/22/2019 9:35
Sample Name	STDA 4
Sample Type	CalBlk
Comment	0
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/22/2019 18:08
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.004	ug/l	48.03	42.67	2.451E-05	Pulse	0.25	3
B			1	0.002	ug/l	1996.84	1,044.51	5.989E-04	Pulse	0.15	3
Ca			1	-0.252	ug/l	-501.01	16,809.15	5.621E-03	Pulse	0.10	3
Sr			1	0.001	ug/l	238.70	466.69	1.162E-04	Pulse	0.10	3
Mo			1	0.002	ug/l	30.03	56.67	1.411E-05	Pulse	0.10	3
Ag			1	0.000	ug/l	534.77	16.67	3.950E-06	Pulse	0.10	3
Sn			1	0.705	ug/l	10.66	3,519.29	8.340E-04	Pulse	0.10	3
Sb			1	0.000	ug/l	2218.23	193.34	3.432E-05	Pulse	0.10	3
Ba			1	0.001	ug/l	88.65	43.33	7.686E-06	Pulse	0.10	3
Tl			1	0.001	ug/l	312.26	413.36	1.284E-04	Pulse	0.10	3
Pb			1	0.000	ug/l	-446.92	306.68	9.536E-05	Pulse	0.10	3
Pb			1	0.005	ug/l	151.19	340.02	1.057E-04	Pulse	0.10	3
Pb			1	0.004	ug/l	17.54	1,340.08	4.166E-04	Pulse	0.10	3
Na			2	-0.618	ug/l	-21.19	9,846.30	1.107E-01	Pulse	0.30	3
Mg			2	-0.137	ug/l	-36.98	147.78	1.663E-03	Pulse	0.30	3
Al			2	0.282	ug/l	55.80	112.22	1.262E-03	Pulse	0.30	3
K			2	0.031	ug/l	2761.14	5,379.82	6.048E-02	Pulse	0.30	3
Ca			2	-0.106	ug/l	-1332.55	40.00	4.484E-04	Pulse	0.30	3
Ti			2	0.022	ug/l	171.38	4.45	4.975E-05	Pulse	0.30	3
V			2	0.002	ug/l	374.42	100.00	1.126E-03	Pulse	0.30	3
Cr			2	-0.004	ug/l	-250.73	443.35	4.986E-03	Pulse	0.30	3
Mn			2	0.000	ug/l	2570.40	57.78	6.482E-04	Pulse	0.30	3
Fe			2	0.046	ug/l	128.43	3,155.90	3.550E-02	Pulse	0.30	3
Co			2	0.000	ug/l	581.18	73.33	8.228E-04	Pulse	0.30	3
Ni			2	0.001	ug/l	397.07	48.89	5.500E-04	Pulse	0.30	3
Cu			2	-0.010	ug/l	-132.28	1,422.30	1.599E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	0.011	ug/l	434.99	203.34	2.285E-03	Pulse	0.30	3
As			2	0.008	ug/l	70.95	6.67	7.503E-05	Pulse	1.00	3
Cd			2	-0.004	ug/l	-46.21	2.22	4.520E-06	Pulse	0.30	3
Sn			2	0.017	ug/l	133.72	443.35	9.035E-04	Pulse	0.30	3
Se			3	-0.054	ug/l	-7.31	2.73	2.530E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,742,955.41	0.68	100.0	Pulse	0.10	3
1	Sc		2,991,444.02	0.77	100.0	Pulse	0.10	3
1	Ge		593,796.40	0.48	100.0	Pulse	0.10	3
1	Ge		823,712.41	1.09	100.0	Pulse	0.10	3
1	Rh		4,015,936.92	0.14	100.0	Pulse	0.10	3
1	In		4,215,113.33	0.60	100.0	Pulse	0.10	3
1	Tb		5,635,999.29	0.41	100.0	Analog	0.10	3
1	Ho		526,819.18	0.24	100.0	Pulse	0.10	3
1	Bi		3,216,291.41	0.48	100.0	Pulse	0.10	3
2	Sc		88,942.08	1.13	100.0	Pulse	0.30	3
2	Ge		54,059.17	1.72	100.0	Pulse	0.30	3
2	Ge		82,037.05	0.45	100.0	Pulse	0.30	3
2	Rh		1,658,586.12	0.44	100.0	Pulse	0.30	3
2	In		490,662.07	0.76	100.0	Pulse	0.30	3
2	Tb		1,969,379.92	0.98	100.0	Pulse	0.30	3
2	Ho		190,122.76	1.28	100.0	Pulse	0.30	3
2	Bi		1,328,659.50	1.41	100.0	Pulse	0.30	3
3	Sc		105,513.53	0.53	100.0	Pulse	0.30	3
3	Ge		70,785.86	0.28	100.0	Pulse	0.30	3
3	Ge		108,115.61	0.77	100.0	Pulse	0.30	3
3	Rh		1,323,601.89	0.49	100.0	Pulse	0.30	3
3	Tb		2,055,894.78	0.24	100.0	Pulse	0.30	3

Quantitation Report

File Name	002CALB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File	
Method Path	
Acq Time	4/22/2019 9:40
Sample Name	STDA
Sample Type	CalBlk
Comment	0
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/22/2019 18:08
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.010	ug/l	66.68	74.67	4.253E-05	Pulse	0.25	3
B			1	0.017	ug/l	66.29	1,106.73	6.308E-04	Pulse	0.15	3
Ca			1	0.952	ug/l	81.13	17,773.42	5.956E-03	Pulse	0.10	3
Sr			1	0.003	ug/l	51.02	540.03	1.358E-04	Pulse	0.10	3
Mo			1	0.005	ug/l	39.23	80.00	2.010E-05	Pulse	0.10	3
Ag			1	0.003	ug/l	36.59	73.33	1.740E-05	Pulse	0.10	3
Sn			1	0.656	ug/l	4.36	2,863.70	6.786E-04	Pulse	0.10	3
Sb			1	0.004	ug/l	135.38	250.01	4.435E-05	Pulse	0.10	3
Ba			1	0.015	ug/l	84.96	123.34	2.183E-05	Pulse	0.10	3
Tl			1	0.001	ug/l	171.96	403.35	1.245E-04	Pulse	0.10	3
Pb			1	0.001	ug/l	774.88	323.35	9.983E-05	Pulse	0.10	3
Pb			1	0.005	ug/l	175.75	336.68	1.041E-04	Pulse	0.10	3
Pb			1	0.005	ug/l	108.99	1,420.09	4.386E-04	Pulse	0.10	3
Na			2	-0.882	ug/l	-21.60	9,652.84	1.085E-01	Pulse	0.30	3
Mg			2	-0.061	ug/l	-74.73	173.34	1.949E-03	Pulse	0.30	3
Al			2	0.186	ug/l	109.26	102.22	1.149E-03	Pulse	0.30	3
K			2	0.690	ug/l	57.89	5,512.08	6.198E-02	Pulse	0.30	3
Ca			2	1.451	ug/l	99.35	57.78	6.499E-04	Pulse	0.30	3
Ti			2	0.133	ug/l	80.20	15.55	1.747E-04	Pulse	0.30	3
V			2	0.000	ug/l	-2890.72	93.34	1.049E-03	Pulse	0.30	3
Cr			2	0.009	ug/l	110.50	500.02	5.623E-03	Pulse	0.30	3
Mn			2	0.013	ug/l	50.96	84.44	9.496E-04	Pulse	0.30	3
Fe			2	0.030	ug/l	124.38	3,101.44	3.487E-02	Pulse	0.30	3
Co			2	0.000	ug/l	-423.81	67.78	7.619E-04	Pulse	0.30	3
Ni			2	0.009	ug/l	26.53	65.56	7.370E-04	Pulse	0.30	3
Cu			2	0.002	ug/l	621.11	1,495.65	1.682E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	0.099	ug/l	43.87	265.56	2.985E-03	Pulse	0.30	3
As			2	0.042	ug/l	77.94	20.33	2.282E-04	Pulse	1.00	3
Cd			2	0.026	ug/l	107.63	33.33	6.746E-05	Pulse	0.30	3
Sn			2	0.068	ug/l	32.31	556.69	1.125E-03	Pulse	0.30	3
Se			3	0.101	ug/l	22.72	15.40	1.436E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,754,553.48	0.28	100.0	Pulse	0.10	3
1	Sc		2,984,139.75	0.26	100.0	Pulse	0.10	3
1	Ge		589,109.23	0.74	100.0	Pulse	0.10	3
1	Ge		823,753.97	1.02	100.0	Pulse	0.10	3
1	Rh		3,977,735.88	0.72	100.0	Pulse	0.10	3
1	In		4,217,852.27	0.90	100.0	Pulse	0.10	3
1	Tb		5,628,515.75	1.09	100.0	Analog	0.10	3
1	Ho		526,553.72	1.40	100.0	Pulse	0.10	3
1	Bi		3,239,573.49	0.82	100.0	Pulse	0.10	3
2	Sc		88,938.72	0.45	100.0	Pulse	0.30	3
2	Ge		54,125.96	0.54	100.0	Pulse	0.30	3
2	Ge		82,899.41	1.05	100.0	Pulse	0.30	3
2	Rh		1,657,358.20	0.73	100.0	Pulse	0.30	3
2	In		495,013.01	0.32	100.0	Pulse	0.30	3
2	Tb		1,967,713.12	0.44	100.0	Pulse	0.30	3
2	Ho		190,116.01	0.89	100.0	Pulse	0.30	3
2	Bi		1,338,025.40	0.30	100.0	Pulse	0.30	3
3	Sc		103,775.92	1.07	100.0	Pulse	0.30	3
3	Ge		70,277.04	0.73	100.0	Pulse	0.30	3
3	Ge		107,299.74	0.67	100.0	Pulse	0.30	3
3	Rh		1,321,102.79	0.97	100.0	Pulse	0.30	3
3	Tb		2,048,532.35	1.31	100.0	Pulse	0.30	3

Quantitation Report

File Name	003CALB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File	
Method Path	
Acq Time	4/22/2019 9:45
Sample Name	STDA
Sample Type	CalBlk
Comment	0
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/22/2019 18:08
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.000	ug/l	3409.86	18.67	1.064E-05	Pulse	0.25	3
B			1	0.000	ug/l	---	1,035.62	5.935E-04	Pulse	0.15	3
Ca			1	0.000	ug/l	---	16,952.57	5.691E-03	Pulse	0.10	3
Sr			1	0.000	ug/l	---	420.02	1.059E-04	Pulse	0.10	3
Mo			1	0.000	ug/l	-26654.47	36.67	9.249E-06	Pulse	0.10	3
Ag			1	0.000	ug/l	1199.27	16.67	4.005E-06	Pulse	0.10	3
Sn			1	0.664	ug/l	1.05	2,940.40	7.016E-04	Pulse	0.10	3
Sb			1	0.001	ug/l	225.68	206.68	3.698E-05	Pulse	0.10	3
Ba			1	0.000	ug/l	---	36.67	6.568E-06	Pulse	0.10	3
Tl			1	0.000	ug/l	---	386.69	1.187E-04	Pulse	0.10	3
Pb			1	0.001	ug/l	363.00	330.02	1.012E-04	Pulse	0.10	3
Pb			1	0.000	ug/l	-6124.99	290.01	8.895E-05	Pulse	0.10	3
Pb			1	0.000	ug/l	703.73	1,183.40	3.628E-04	Pulse	0.10	3
Na			2	0.000	ug/l	---	10,242.33	1.157E-01	Pulse	0.30	3
Mg			2	-0.002	ug/l	-4600.55	192.23	2.169E-03	Pulse	0.30	3
Al			2	-0.001	ug/l	-1957.45	82.22	9.288E-04	Pulse	0.30	3
K			2	0.363	ug/l	298.98	5,418.72	6.123E-02	Pulse	0.30	3
Ca			2	-0.075	ug/l	-823.57	40.00	4.524E-04	Pulse	0.30	3
Ti			2	0.001	ug/l	6663.25	2.22	2.526E-05	Pulse	0.30	3
V			2	-0.001	ug/l	-459.38	90.00	1.018E-03	Pulse	0.30	3
Cr			2	0.002	ug/l	160.20	465.57	5.258E-03	Pulse	0.30	3
Mn			2	0.000	ug/l	---	56.66	6.410E-04	Pulse	0.30	3
Fe			2	0.000	ug/l	---	2,984.75	3.372E-02	Pulse	0.30	3
Co			2	0.000	ug/l	1966.72	70.00	7.917E-04	Pulse	0.30	3
Ni			2	0.000	ug/l	-1606.60	46.67	5.273E-04	Pulse	0.30	3
Cu			2	0.001	ug/l	670.12	1,481.20	1.673E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	-0.003	ug/l	-901.08	192.23	2.173E-03	Pulse	0.30	3
As			2	0.002	ug/l	390.03	4.33	4.900E-05	Pulse	1.00	3
Cd			2	0.000	ug/l	1657.06	6.67	1.340E-05	Pulse	0.30	3
Sn			2	0.016	ug/l	179.24	448.90	9.002E-04	Pulse	0.30	3
Se			3	-0.041	ug/l	-39.02	3.80	3.533E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,744,689.88	0.83	100.0	Pulse	0.10	3
1	Sc		2,979,262.66	0.66	100.0	Pulse	0.10	3
1	Ge		592,353.04	1.04	100.0	Pulse	0.10	3
1	Ge		828,092.54	1.25	100.0	Pulse	0.10	3
1	Rh		3,966,948.38	1.05	100.0	Pulse	0.10	3
1	In		4,190,146.54	1.49	100.0	Pulse	0.10	3
1	Tb		5,594,698.46	1.00	100.0	Mix	0.10	3
1	Ho		526,951.42	0.54	100.0	Pulse	0.10	3
1	Bi		3,259,776.10	0.78	100.0	Pulse	0.10	3
2	Sc		88,519.95	1.19	100.0	Pulse	0.30	3
2	Ge		54,701.21	0.34	100.0	Pulse	0.30	3
2	Ge		82,879.16	1.79	100.0	Pulse	0.30	3
2	Rh		1,664,530.04	0.61	100.0	Pulse	0.30	3
2	In		498,571.31	0.66	100.0	Pulse	0.30	3
2	Tb		1,972,741.10	0.68	100.0	Pulse	0.30	3
2	Ho		191,219.08	0.53	100.0	Pulse	0.30	3
2	Bi		1,337,897.86	0.65	100.0	Pulse	0.30	3
3	Sc		103,979.30	1.55	100.0	Pulse	0.30	3
3	Ge		70,284.78	0.77	100.0	Pulse	0.30	3
3	Ge		107,513.35	0.30	100.0	Pulse	0.30	3
3	Rh		1,310,767.90	0.67	100.0	Pulse	0.30	3
3	Tb		2,042,279.92	0.81	100.0	Pulse	0.30	3

Quantitation Report

File Name	004CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File	
Method Path	
Acq Time	4/22/2019 9:50
Sample Name	STDB
Sample Type	CalStd
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/22/2019 18:08
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.486	ug/l	2.66	2,761.61	1.603E-03	Pulse	0.25	3
B			1	24.051	ug/l	0.82	93,636.22	5.435E-02	Pulse	0.15	3
Ca			1	248.998	ug/l	1.49	221,759.73	7.495E-02	Pulse	0.10	3
Sr			1	4.956	ug/l	2.21	205,176.57	5.203E-02	Pulse	0.10	3
Mo			1	0.960	ug/l	5.94	8,302.47	2.105E-03	Pulse	0.10	3
Ag			1	0.469	ug/l	7.26	9,359.72	2.253E-03	Pulse	0.10	3
Sn			1	5.099	ug/l	1.31	61,982.88	1.492E-02	Pulse	0.10	3
Sb			1	1.860	ug/l	0.96	28,075.85	5.008E-03	Pulse	0.10	3
Ba			1	0.984	ug/l	1.92	5,821.31	1.038E-03	Pulse	0.10	3
Tl			1	0.486	ug/l	5.10	17,484.24	5.441E-03	Pulse	0.10	3
Pb			1	0.474	ug/l	5.34	6,091.52	1.896E-03	Pulse	0.10	3
Pb			1	0.507	ug/l	8.43	5,591.32	1.740E-03	Pulse	0.10	3
Pb			1	0.499	ug/l	0.76	25,216.20	7.846E-03	Pulse	0.10	3
Na			2	245.014	ug/l	1.10	189,387.66	2.115E+00	Pulse	0.30	3
Mg			2	257.470	ug/l	0.82	86,284.86	9.635E-01	Pulse	0.30	3
Al			2	26.521	ug/l	2.73	2,878.06	3.214E-02	Pulse	0.30	3
K			2	251.013	ug/l	0.99	56,725.72	6.335E-01	Pulse	0.30	3
Ca			2	276.130	ug/l	3.39	3,243.68	3.622E-02	Pulse	0.30	3
Ti			2	1.109	ug/l	16.58	114.45	1.278E-03	Pulse	0.30	3
V			2	1.034	ug/l	1.87	3,669.34	4.098E-02	Pulse	0.30	3
Cr			2	0.960	ug/l	2.09	4,778.52	5.337E-02	Pulse	0.30	3
Mn			2	0.992	ug/l	5.08	2,104.61	2.351E-02	Pulse	0.30	3
Fe			2	25.553	ug/l	0.82	91,846.67	1.026E+00	Pulse	0.30	3
Co			2	0.481	ug/l	4.52	3,853.83	4.305E-02	Pulse	0.30	3
Ni			2	0.986	ug/l	0.86	2,175.73	2.430E-02	Pulse	0.30	3
Cu			2	1.907	ug/l	2.82	12,869.58	1.437E-01	Pulse	0.30	3
Zn			2	4.841	ug/l	3.23	3,676.01	4.104E-02	Pulse	0.30	3
As			2	0.461	ug/l	6.48	187.33	2.091E-03	Pulse	1.00	3
Cd			2	0.492	ug/l	2.57	515.17	1.033E-03	Pulse	0.30	3
Sn			2	4.655	ug/l	2.07	10,347.92	2.076E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	0.503	ug/l	0.85	47.80	4.489E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,722,696.44	0.51	98.7	Pulse	0.10	3
1	Sc		2,958,762.04	0.74	99.3	Pulse	0.10	3
1	Ge		588,820.94	1.24	99.4	Pulse	0.10	3
1	Ge		815,358.71	1.06	98.5	Pulse	0.10	3
1	Rh		3,943,764.52	0.51	99.4	Pulse	0.10	3
1	In		4,153,473.48	0.70	99.1	Pulse	0.10	3
1	Tb		5,605,990.33	0.35	100.2	Analog	0.10	3
1	Ho		523,998.23	0.69	99.4	Pulse	0.10	3
1	Bi		3,213,842.35	0.65	98.6	Pulse	0.10	3
2	Sc		89,553.02	0.95	101.2	Pulse	0.30	3
2	Ge		55,039.06	0.99	100.6	Pulse	0.30	3
2	Ge		82,942.81	1.11	100.1	Pulse	0.30	3
2	Rh		1,654,616.43	0.90	99.4	Pulse	0.30	3
2	In		498,578.72	0.57	100.0	Pulse	0.30	3
2	Tb		1,989,370.27	0.40	100.8	Pulse	0.30	3
2	Ho		190,912.77	0.35	99.8	Pulse	0.30	3
2	Bi		1,328,184.81	0.52	99.3	Pulse	0.30	3
3	Sc		103,960.30	0.10	100.0	Pulse	0.30	3
3	Ge		70,375.27	0.95	100.1	Pulse	0.30	3
3	Ge		106,470.90	0.12	99.0	Pulse	0.30	3
3	Rh		1,302,815.50	0.23	99.4	Pulse	0.30	3
3	Tb		2,050,038.39	0.90	100.4	Pulse	0.30	3

Quantitation Report

File Name	005CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File	
Method Path	
Acq Time	4/22/2019 9:55
Sample Name	STDC
Sample Type	CalStd
Comment	5
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/22/2019 18:08
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	5.004	ug/l	1.26	28,506.55	1.641E-02	Pulse	0.25	3
B			1	5.425	ug/l	1.85	22,096.95	1.272E-02	Pulse	0.15	3
Ca			1	8.018	ug/l	6.44	23,303.79	7.921E-03	Pulse	0.10	3
Sr			1	4.968	ug/l	0.48	206,465.39	5.215E-02	Pulse	0.10	3
Mo			1	5.069	ug/l	1.28	43,857.98	1.108E-02	Pulse	0.10	3
Ag			1	5.015	ug/l	1.90	100,079.16	2.406E-02	Pulse	0.10	3
Sn			1	5.797	ug/l	2.05	71,375.74	1.716E-02	Pulse	0.10	3
Sb			1	5.027	ug/l	1.18	75,863.78	1.347E-02	Pulse	0.10	3
Ba			1	5.027	ug/l	1.46	29,732.71	5.280E-03	Pulse	0.10	3
Tl			1	4.972	ug/l	0.67	175,538.90	5.456E-02	Pulse	0.10	3
Pb			1	4.953	ug/l	2.54	60,739.58	1.888E-02	Pulse	0.10	3
Pb			1	5.006	ug/l	1.66	52,745.18	1.640E-02	Pulse	0.10	3
Pb			1	4.988	ug/l	1.74	241,926.89	7.520E-02	Pulse	0.10	3
Na			2	5.206	ug/l	7.23	14,124.88	1.582E-01	Pulse	0.30	3
Mg			2	4.866	ug/l	1.08	1,816.79	2.034E-02	Pulse	0.30	3
Al			2	5.235	ug/l	5.49	633.35	7.090E-03	Pulse	0.30	3
K			2	6.051	ug/l	6.17	6,626.94	7.422E-02	Pulse	0.30	3
Ca			2	29.468	ug/l	9.19	382.23	4.278E-03	Pulse	0.30	3
Ti			2	4.746	ug/l	6.80	481.12	5.392E-03	Pulse	0.30	3
V			2	5.043	ug/l	0.87	17,473.78	1.957E-01	Pulse	0.30	3
Cr			2	5.084	ug/l	0.40	23,245.30	2.603E-01	Pulse	0.30	3
Mn			2	5.139	ug/l	3.59	10,634.64	1.191E-01	Pulse	0.30	3
Fe			2	5.222	ug/l	1.88	21,110.35	2.364E-01	Pulse	0.30	3
Co			2	5.071	ug/l	1.11	39,830.37	4.460E-01	Pulse	0.30	3
Ni			2	5.093	ug/l	2.20	11,012.67	1.233E-01	Pulse	0.30	3
Cu			2	5.057	ug/l	3.03	31,568.20	3.536E-01	Pulse	0.30	3
Zn			2	4.784	ug/l	6.21	3,626.00	4.059E-02	Pulse	0.30	3
As			2	5.062	ug/l	2.51	2,011.13	2.253E-02	Pulse	1.00	3
Cd			2	4.968	ug/l	3.61	5,159.93	1.031E-02	Pulse	0.30	3
Sn			2	5.166	ug/l	2.09	11,487.60	2.294E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	5.206	ug/l	2.80	428.74	4.027E-03	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,737,392.45	0.47	99.6	Pulse	0.10	3
1	Sc		2,941,649.64	0.83	98.7	Pulse	0.10	3
1	Ge		583,132.80	1.11	98.4	Pulse	0.10	3
1	Ge		814,588.87	0.74	98.4	Pulse	0.10	3
1	Rh		3,958,595.57	1.31	99.8	Pulse	0.10	3
1	In		4,159,682.69	0.61	99.3	Pulse	0.10	3
1	Tb		5,631,035.12	1.38	100.6	Analog	0.10	3
1	Ho		526,612.65	1.72	99.9	Pulse	0.10	3
1	Bi		3,217,553.39	1.58	98.7	Pulse	0.10	3
2	Sc		89,294.20	1.52	100.9	Pulse	0.30	3
2	Ge		55,014.55	1.88	100.6	Pulse	0.30	3
2	Ge		83,478.80	0.67	100.7	Pulse	0.30	3
2	Rh		1,651,310.60	0.42	99.2	Pulse	0.30	3
2	In		500,703.23	0.64	100.4	Pulse	0.30	3
2	Tb		1,987,330.13	0.32	100.7	Pulse	0.30	3
2	Ho		192,820.41	0.62	100.8	Pulse	0.30	3
2	Bi		1,335,435.54	0.60	99.8	Pulse	0.30	3
3	Sc		104,617.72	0.78	100.6	Pulse	0.30	3
3	Ge		70,113.97	1.36	99.8	Pulse	0.30	3
3	Ge		106,456.67	0.09	99.0	Pulse	0.30	3
3	Rh		1,304,560.75	0.35	99.5	Pulse	0.30	3
3	Tb		2,042,911.10	0.81	100.0	Pulse	0.30	3

Quantitation Report

File Name	006CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File	
Method Path	
Acq Time	4/22/2019 10:00
Sample Name	STDD
Sample Type	CalStd
Comment	25
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/22/2019 18:08
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	25.137	ug/l	1.23	140,398.07	8.238E-02	Pulse	0.25	3
B			1	24.953	ug/l	1.56	96,065.12	5.637E-02	Pulse	0.15	3
Ca			1	38.125	ug/l	2.53	48,056.87	1.630E-02	Pulse	0.10	3
Sr			1	24.691	ug/l	0.73	1,017,672.35	2.588E-01	Pulse	0.10	3
Mo			1	25.061	ug/l	1.95	215,247.56	5.474E-02	Pulse	0.10	3
Ag			1	24.858	ug/l	1.09	493,593.70	1.192E-01	Pulse	0.10	3
Sn			1	24.964	ug/l	1.67	325,407.08	7.861E-02	Pulse	0.10	3
Sb			1	24.910	ug/l	1.48	368,938.31	6.663E-02	Pulse	0.10	3
Ba			1	24.951	ug/l	1.03	144,966.47	2.618E-02	Pulse	0.10	3
Tl			1	24.496	ug/l	1.32	860,252.54	2.683E-01	Pulse	0.10	3
Pb			1	24.452	ug/l	0.74	297,654.15	9.284E-02	Pulse	0.10	3
Pb			1	24.763	ug/l	1.61	258,857.88	8.074E-02	Pulse	0.10	3
Pb			1	24.677	ug/l	0.85	1,188,394.08	3.707E-01	Pulse	0.10	3
Na			2	24.968	ug/l	1.33	28,516.35	3.195E-01	Pulse	0.30	3
Mg			2	25.579	ug/l	3.38	8,719.00	9.768E-02	Pulse	0.30	3
Al			2	32.317	ug/l	4.56	3,478.18	3.896E-02	Pulse	0.30	3
K			2	25.412	ug/l	1.51	10,571.21	1.184E-01	Pulse	0.30	3
Ca			2	155.305	ug/l	3.20	1,836.79	2.057E-02	Pulse	0.30	3
Ti			2	24.035	ug/l	4.11	2,427.99	2.720E-02	Pulse	0.30	3
V			2	25.070	ug/l	0.83	86,474.76	9.687E-01	Pulse	0.30	3
Cr			2	25.120	ug/l	0.57	113,001.30	1.266E+00	Pulse	0.30	3
Mn			2	25.369	ug/l	0.55	52,279.03	5.857E-01	Pulse	0.30	3
Fe			2	25.638	ug/l	1.63	91,846.48	1.029E+00	Pulse	0.30	3
Co			2	24.897	ug/l	0.94	195,203.24	2.187E+00	Pulse	0.30	3
Ni			2	25.064	ug/l	1.41	54,001.41	6.049E-01	Pulse	0.30	3
Cu			2	24.976	ug/l	0.40	150,042.87	1.681E+00	Pulse	0.30	3
Zn			2	25.378	ug/l	2.17	18,373.79	2.058E-01	Pulse	0.30	3
As			2	25.110	ug/l	1.61	9,959.72	1.116E-01	Pulse	1.00	3
Cd			2	24.793	ug/l	0.79	25,507.05	5.139E-02	Pulse	0.30	3
Sn			2	24.871	ug/l	0.45	53,251.71	1.073E-01	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	24.564	ug/l	1.92	2,012.12	1.875E-02	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,704,298.16	0.74	97.7	Pulse	0.10	3
1	Sc		2,949,076.83	0.24	99.0	Pulse	0.10	3
1	Ge		583,521.85	0.30	98.5	Pulse	0.10	3
1	Ge		816,333.79	1.04	98.6	Pulse	0.10	3
1	Rh		3,932,697.44	0.48	99.1	Pulse	0.10	3
1	In		4,139,168.67	0.57	98.8	Pulse	0.10	3
1	Tb		5,537,089.71	0.58	99.0	Analog	0.10	3
1	Ho		518,799.23	1.64	98.5	Pulse	0.10	3
1	Bi		3,206,513.70	1.82	98.4	Pulse	0.10	3
2	Sc		89,268.47	0.80	100.8	Pulse	0.30	3
2	Ge		55,232.09	0.98	101.0	Pulse	0.30	3
2	Ge		82,560.91	0.96	99.6	Pulse	0.30	3
2	Rh		1,656,450.32	0.88	99.5	Pulse	0.30	3
2	In		496,383.88	0.98	99.6	Pulse	0.30	3
2	Tb		1,978,764.71	0.75	100.3	Pulse	0.30	3
2	Ho		191,075.94	1.28	99.9	Pulse	0.30	3
2	Bi		1,330,747.24	0.93	99.5	Pulse	0.30	3
3	Sc		103,848.33	1.38	99.9	Pulse	0.30	3
3	Ge		70,091.84	0.22	99.7	Pulse	0.30	3
3	Ge		107,287.52	0.50	99.8	Pulse	0.30	3
3	Rh		1,299,528.21	0.42	99.1	Pulse	0.30	3
3	Tb		2,039,057.56	0.70	99.8	Pulse	0.30	3

Quantitation Report

File Name	007CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File	
Method Path	
Acq Time	4/22/2019 10:05
Sample Name	STDE
Sample Type	CalStd
Comment	50
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/22/2019 18:08
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	49.402	ug/l	1.09	277,297.86	1.619E-01	Pulse	0.25	3
B			1	48.756	ug/l	1.42	187,684.06	1.096E-01	Pulse	0.15	3
Ca			1	65.461	ug/l	1.47	69,656.29	2.390E-02	Pulse	0.10	3
Sr			1	49.949	ug/l	1.88	2,056,400.80	5.234E-01	Pulse	0.10	3
Mo			1	49.900	ug/l	0.28	428,169.17	1.090E-01	Pulse	0.10	3
Ag			1	49.044	ug/l	0.74	976,754.62	2.353E-01	Pulse	0.10	3
Sn			1	48.538	ug/l	1.38	640,124.26	1.542E-01	Pulse	0.10	3
Sb			1	49.174	ug/l	0.53	733,999.96	1.315E-01	Pulse	0.10	3
Ba			1	49.756	ug/l	0.79	291,373.38	5.220E-02	Pulse	0.10	3
Tl			1	49.154	ug/l	1.08	1,743,740.08	5.383E-01	Pulse	0.10	3
Pb			1	48.803	ug/l	0.87	599,912.35	1.852E-01	Pulse	0.10	3
Pb			1	49.687	ug/l	0.71	524,544.52	1.619E-01	Pulse	0.10	3
Pb			1	49.541	ug/l	0.31	2,409,478.34	7.438E-01	Pulse	0.10	3
Na			2	49.435	ug/l	2.32	45,480.72	5.191E-01	Pulse	0.30	3
Mg			2	51.555	ug/l	2.73	17,056.51	1.947E-01	Pulse	0.30	3
Al			2	50.815	ug/l	2.98	5,320.91	6.072E-02	Pulse	0.30	3
K			2	52.599	ug/l	5.91	15,812.05	1.805E-01	Pulse	0.30	3
Ca			2	294.728	ug/l	4.26	3,385.95	3.863E-02	Pulse	0.30	3
Ti			2	49.274	ug/l	1.70	4,885.22	5.575E-02	Pulse	0.30	3
V			2	49.723	ug/l	0.91	168,258.96	1.920E+00	Pulse	0.30	3
Cr			2	49.979	ug/l	1.02	220,242.78	2.514E+00	Pulse	0.30	3
Mn			2	49.953	ug/l	0.62	100,991.88	1.153E+00	Pulse	0.30	3
Fe			2	52.120	ug/l	0.60	180,246.75	2.057E+00	Pulse	0.30	3
Co			2	50.068	ug/l	0.70	385,257.98	4.397E+00	Pulse	0.30	3
Ni			2	49.969	ug/l	1.87	105,623.22	1.206E+00	Pulse	0.30	3
Cu			2	50.660	ug/l	0.97	297,226.38	3.392E+00	Pulse	0.30	3
Zn			2	51.567	ug/l	0.55	36,450.47	4.160E-01	Pulse	0.30	3
As			2	49.739	ug/l	0.79	19,363.47	2.210E-01	Pulse	1.00	3
Cd			2	49.709	ug/l	0.83	50,204.30	1.030E-01	Pulse	0.30	3
Sn			2	49.609	ug/l	1.14	103,876.88	2.132E-01	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	50.249	ug/l	0.80	3,999.36	3.830E-02	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,712,865.54	0.27	98.2	Pulse	0.10	3
1	Sc		2,914,489.65	0.89	97.8	Pulse	0.10	3
1	Ge		581,761.71	1.78	98.2	Pulse	0.10	3
1	Ge		809,171.91	0.70	97.7	Pulse	0.10	3
1	Rh		3,929,061.40	0.54	99.0	Pulse	0.10	3
1	In		4,151,493.03	0.48	99.1	Pulse	0.10	3
1	Tb		5,581,339.29	0.26	99.8	Mix	0.10	3
1	Ho		524,823.55	0.54	99.6	Pulse	0.10	3
1	Bi		3,239,602.87	1.09	99.4	Pulse	0.10	3
2	Sc		87,625.26	1.00	99.0	Pulse	0.30	3
2	Ge		53,564.21	1.35	97.9	Pulse	0.30	3
2	Ge		81,007.41	1.40	97.7	Pulse	0.30	3
2	Rh		1,630,764.59	0.42	98.0	Pulse	0.30	3
2	In		487,325.98	0.28	97.7	Pulse	0.30	3
2	Tb		1,956,864.86	0.07	99.2	Pulse	0.30	3
2	Ho		189,546.94	0.22	99.1	Pulse	0.30	3
2	Bi		1,324,815.30	0.13	99.0	Pulse	0.30	3
3	Sc		101,719.82	1.54	97.8	Pulse	0.30	3
3	Ge		68,269.64	1.28	97.1	Pulse	0.30	3
3	Ge		104,433.53	0.13	97.1	Pulse	0.30	3
3	Rh		1,287,528.32	0.73	98.2	Pulse	0.30	3
3	Tb		2,020,730.06	0.54	98.9	Pulse	0.30	3

Quantitation Report

File Name	008CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File	
Method Path	
Acq Time	4/22/2019 10:10
Sample Name	STDF
Sample Type	CalStd
Comment	100
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/22/2019 18:08
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	100.482	ug/l	0.74	551,675.94	3.293E-01	Pulse	0.25	3
B			1	98.430	ug/l	0.71	369,612.14	2.206E-01	Pulse	0.15	3
Ca			1	134.723	ug/l	0.91	124,219.25	4.316E-02	Pulse	0.10	3
Sr			1	100.105	ug/l	0.48	4,081,761.71	1.049E+00	Pulse	0.10	3
Mo			1	102.023	ug/l	1.05	867,115.28	2.228E-01	Pulse	0.10	3
Ag			1	101.149	ug/l	0.65	1,988,969.66	4.852E-01	Pulse	0.10	3
Sn			1	100.735	ug/l	0.67	1,318,059.25	3.216E-01	Pulse	0.10	3
Sb			1	101.064	ug/l	0.37	1,497,164.14	2.702E-01	Pulse	0.10	3
Ba			1	100.133	ug/l	0.65	582,021.93	1.051E-01	Pulse	0.10	3
Tl			1	100.550	ug/l	0.44	3,540,935.26	1.101E+00	Pulse	0.10	3
Pb			1	100.010	ug/l	0.04	1,220,187.95	3.794E-01	Pulse	0.10	3
Pb			1	101.064	ug/l	0.82	1,058,861.15	3.293E-01	Pulse	0.10	3
Pb			1	100.810	ug/l	0.60	4,866,230.99	1.513E+00	Pulse	0.10	3
Na			2	97.598	ug/l	1.17	79,739.73	9.121E-01	Pulse	0.30	3
Mg			2	102.436	ug/l	0.71	33,629.09	3.847E-01	Pulse	0.30	3
Al			2	100.243	ug/l	2.47	10,393.30	1.189E-01	Pulse	0.30	3
K			2	100.692	ug/l	1.87	25,377.19	2.903E-01	Pulse	0.30	3
Ca			2	591.049	ug/l	2.76	6,732.54	7.701E-02	Pulse	0.30	3
Ti			2	102.761	ug/l	1.75	10,160.98	1.162E-01	Pulse	0.30	3
V			2	100.134	ug/l	1.14	337,986.77	3.866E+00	Pulse	0.30	3
Cr			2	99.858	ug/l	1.18	438,592.44	5.017E+00	Pulse	0.30	3
Mn			2	99.925	ug/l	0.39	201,510.50	2.305E+00	Pulse	0.30	3
Fe			2	103.049	ug/l	0.79	352,662.37	4.034E+00	Pulse	0.30	3
Co			2	99.609	ug/l	0.74	764,663.15	8.747E+00	Pulse	0.30	3
Ni			2	99.892	ug/l	0.24	210,642.52	2.409E+00	Pulse	0.30	3
Cu			2	99.620	ug/l	1.24	581,749.40	6.654E+00	Pulse	0.30	3
Zn			2	99.963	ug/l	0.06	70,320.91	8.044E-01	Pulse	0.30	3
As			2	100.394	ug/l	0.75	38,990.95	4.460E-01	Pulse	1.00	3
Cd			2	100.545	ug/l	0.83	100,968.81	2.084E-01	Pulse	0.30	3
Sn			2	100.886	ug/l	0.40	209,648.64	4.326E-01	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	100.978	ug/l	0.67	7,965.60	7.689E-02	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,675,384.31	0.49	96.0	Pulse	0.10	3
1	Sc		2,877,928.29	0.15	96.6	Pulse	0.10	3
1	Ge		575,416.16	0.59	97.1	Pulse	0.10	3
1	Ge		801,289.86	0.48	96.8	Pulse	0.10	3
1	Rh		3,891,705.57	1.18	98.1	Pulse	0.10	3
1	In		4,099,076.38	0.55	97.8	Pulse	0.10	3
1	Tb		5,540,142.63	0.58	99.0	Analog	0.10	3
1	Ho		524,206.84	0.88	99.5	Pulse	0.10	3
1	Bi		3,216,068.08	1.21	98.7	Pulse	0.10	3
2	Sc		87,425.11	0.39	98.8	Pulse	0.30	3
2	Ge		53,296.69	0.17	97.4	Pulse	0.30	3
2	Ge		80,635.76	0.75	97.3	Pulse	0.30	3
2	Rh		1,613,272.96	0.36	96.9	Pulse	0.30	3
2	In		484,601.06	0.57	97.2	Pulse	0.30	3
2	Tb		1,944,657.49	0.65	98.6	Pulse	0.30	3
2	Ho		187,525.30	0.71	98.1	Pulse	0.30	3
2	Bi		1,322,421.82	0.38	98.8	Pulse	0.30	3
3	Sc		102,730.47	0.89	98.8	Pulse	0.30	3
3	Ge		68,510.63	0.92	97.5	Pulse	0.30	3
3	Ge		103,598.32	0.46	96.4	Pulse	0.30	3
3	Rh		1,276,287.90	0.35	97.4	Pulse	0.30	3
3	Tb		2,021,447.56	0.50	99.0	Pulse	0.30	3

Quantitation Report

File Name	009CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File	
Method Path	
Acq Time	4/22/2019 10:15
Sample Name	STDG
Sample Type	CalStd
Comment	500MIN
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/22/2019 18:08
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.018	ug/l	28.89	114.67	6.949E-05	Pulse	0.25	3
B			1	200.425	ug/l	0.81	741,562.33	4.486E-01	Pulse	0.15	3
Ca			1	489.657	ug/l	0.48	402,820.63	1.419E-01	Pulse	0.10	3
Sr			1	0.014	ug/l	27.20	986.74	2.564E-04	Pulse	0.10	3
Mo			1	0.146	ug/l	6.65	1,260.10	3.271E-04	Pulse	0.10	3
Ag			1	0.018	ug/l	15.64	360.02	8.822E-05	Pulse	0.10	3
Sn			1	0.768	ug/l	2.35	4,234.03	1.037E-03	Pulse	0.10	3
Sb			1	0.838	ug/l	8.70	12,605.53	2.276E-03	Pulse	0.10	3
Ba			1	0.017	ug/l	31.53	136.68	2.468E-05	Pulse	0.10	3
Tl			1	0.031	ug/l	3.57	1,456.78	4.565E-04	Pulse	0.10	3
Pb			1	0.029	ug/l	7.08	653.37	2.047E-04	Pulse	0.10	3
Pb			1	0.029	ug/l	28.50	583.37	1.826E-04	Pulse	0.10	3
Pb			1	0.034	ug/l	3.89	2,753.55	8.626E-04	Pulse	0.10	3
Na			2	488.262	ug/l	0.58	354,895.21	4.100E+00	Pulse	0.30	3
Mg			2	500.370	ug/l	1.50	161,916.58	1.871E+00	Pulse	0.30	3
Al			2	498.442	ug/l	0.96	50,854.21	5.874E-01	Pulse	0.30	3
K			2	500.118	ug/l	0.29	104,068.28	1.202E+00	Pulse	0.30	3
Ca			2	518.661	ug/l	4.93	5,855.56	6.763E-02	Pulse	0.30	3
Ti			2	0.058	ug/l	90.75	7.78	9.005E-05	Pulse	0.30	3
V			2	0.002	ug/l	391.52	97.78	1.130E-03	Pulse	0.30	3
Cr			2	0.027	ug/l	75.10	564.46	6.517E-03	Pulse	0.30	3
Mn			2	0.032	ug/l	7.35	118.89	1.373E-03	Pulse	0.30	3
Fe			2	505.505	ug/l	0.83	1,701,594.00	1.966E+01	Pulse	0.30	3
Co			2	0.029	ug/l	7.18	290.01	3.350E-03	Pulse	0.30	3
Ni			2	0.018	ug/l	40.39	83.34	9.625E-04	Pulse	0.30	3
Cu			2	-0.102	ug/l	-1.24	855.59	9.883E-03	Pulse	0.30	3
Zn			2	-0.040	ug/l	-82.55	162.23	1.875E-03	Pulse	0.30	3
As			2	0.027	ug/l	24.86	14.00	1.616E-04	Pulse	1.00	3
Cd			2	0.012	ug/l	55.93	18.82	3.860E-05	Pulse	0.30	3
Sn			2	0.205	ug/l	12.64	833.37	1.708E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	199.792	ug/l	0.45	16,096.09	1.521E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,653,000.06	1.18	94.7	Pulse	0.10	3
1	Sc		2,839,007.56	0.68	95.3	Pulse	0.10	3
1	Ge		566,988.60	0.46	95.7	Pulse	0.10	3
1	Ge		798,967.28	0.87	96.5	Pulse	0.10	3
1	Rh		3,853,708.07	1.23	97.1	Pulse	0.10	3
1	In		4,082,133.42	0.87	97.4	Pulse	0.10	3
1	Tb		5,543,244.50	1.24	99.1	Analog	0.10	3
1	Ho		522,244.47	0.04	99.1	Pulse	0.10	3
1	Bi		3,191,695.68	1.10	97.9	Pulse	0.10	3
2	Sc		86,567.45	0.56	97.8	Pulse	0.30	3
2	Ge		53,885.17	1.73	98.5	Pulse	0.30	3
2	Ge		81,755.74	0.74	98.6	Pulse	0.30	3
2	Rh		1,613,520.63	0.06	96.9	Pulse	0.30	3
2	In		487,781.59	0.24	97.8	Pulse	0.30	3
2	Tb		1,957,388.33	0.63	99.2	Pulse	0.30	3
2	Ho		190,141.01	0.09	99.4	Pulse	0.30	3
2	Bi		1,320,887.59	0.77	98.7	Pulse	0.30	3
3	Sc		101,113.93	0.18	97.2	Pulse	0.30	3
3	Ge		68,651.31	1.39	97.7	Pulse	0.30	3
3	Ge		105,850.52	0.70	98.5	Pulse	0.30	3
3	Rh		1,282,225.26	0.35	97.8	Pulse	0.30	3
3	Tb		2,034,055.40	0.09	99.6	Pulse	0.30	3

Quantitation Report

File Name	010CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File	
Method Path	
Acq Time	4/22/2019 10:20
Sample Name	STDH
Sample Type	CalStd
Comment	1000MIN
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/22/2019 18:08
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.004	ug/l	30.74	37.33	2.223E-05	Pulse	0.25	3
B			1	8.533	ug/l	3.62	33,023.59	1.967E-02	Pulse	0.15	3
Ca			1	957.238	ug/l	1.28	788,028.79	2.719E-01	Pulse	0.10	3
Sr			1	0.011	ug/l	29.06	856.73	2.184E-04	Pulse	0.10	3
Mo			1	0.035	ug/l	22.51	340.02	8.658E-05	Pulse	0.10	3
Ag			1	0.007	ug/l	23.01	146.67	3.536E-05	Pulse	0.10	3
Sn			1	0.889	ug/l	30.42	5,905.59	1.423E-03	Pulse	0.10	3
Sb			1	0.265	ug/l	12.96	4,200.70	7.438E-04	Pulse	0.10	3
Ba			1	0.007	ug/l	53.54	76.67	1.357E-05	Pulse	0.10	3
Tl			1	0.007	ug/l	57.50	633.37	1.976E-04	Pulse	0.10	3
Pb			1	0.001	ug/l	335.88	326.68	1.019E-04	Pulse	0.10	3
Pb			1	0.004	ug/l	82.31	323.35	1.009E-04	Pulse	0.10	3
Pb			1	0.006	ug/l	49.35	1,423.42	4.442E-04	Pulse	0.10	3
Na			2	952.969	ug/l	0.70	703,262.56	7.892E+00	Pulse	0.30	3
Mg			2	978.382	ug/l	0.68	325,755.77	3.655E+00	Pulse	0.30	3
Al			2	968.120	ug/l	1.33	101,600.61	1.140E+00	Pulse	0.30	3
K			2	985.906	ug/l	0.75	205,963.91	2.311E+00	Pulse	0.30	3
Ca			2	970.969	ug/l	1.55	11,247.23	1.262E-01	Pulse	0.30	3
Ti			2	0.011	ug/l	514.83	3.33	3.708E-05	Pulse	0.30	3
V			2	-0.002	ug/l	-136.51	88.89	9.977E-04	Pulse	0.30	3
Cr			2	0.004	ug/l	46.95	477.79	5.361E-03	Pulse	0.30	3
Mn			2	0.015	ug/l	40.25	87.78	9.846E-04	Pulse	0.30	3
Fe			2	981.714	ug/l	0.53	3,399,156.74	3.814E+01	Pulse	0.30	3
Co			2	0.048	ug/l	12.29	445.57	4.998E-03	Pulse	0.30	3
Ni			2	0.029	ug/l	40.73	110.00	1.233E-03	Pulse	0.30	3
Cu			2	-0.109	ug/l	-1.14	838.92	9.413E-03	Pulse	0.30	3
Zn			2	0.020	ug/l	76.96	210.00	2.356E-03	Pulse	0.30	3
As			2	0.014	ug/l	39.73	9.33	1.046E-04	Pulse	1.00	3
Cd			2	-0.001	ug/l	-545.33	5.54	1.112E-05	Pulse	0.30	3
Sn			2	0.105	ug/l	14.09	637.80	1.280E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	395.238	ug/l	0.63	32,229.18	3.008E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,679,150.53	1.04	96.2	Pulse	0.10	3
1	Sc		2,897,807.04	0.10	97.3	Pulse	0.10	3
1	Ge		580,694.91	0.81	98.0	Pulse	0.10	3
1	Ge		817,079.21	0.14	98.7	Pulse	0.10	3
1	Rh		3,924,136.29	0.57	98.9	Pulse	0.10	3
1	In		4,147,547.99	0.60	99.0	Pulse	0.10	3
1	Tb		5,652,248.25	1.12	101.0	Analog	0.10	3
1	Ho		526,787.81	0.51	100.0	Pulse	0.10	3
1	Bi		3,205,070.68	0.31	98.3	Pulse	0.10	3
2	Sc		89,119.13	0.76	100.7	Pulse	0.30	3
2	Ge		55,012.18	0.43	100.6	Pulse	0.30	3
2	Ge		82,639.03	0.49	99.7	Pulse	0.30	3
2	Rh		1,639,894.42	0.22	98.5	Pulse	0.30	3
2	In		498,209.19	0.24	99.9	Pulse	0.30	3
2	Tb		1,985,488.05	0.82	100.6	Pulse	0.30	3
2	Ho		191,388.96	0.22	100.1	Pulse	0.30	3
2	Bi		1,336,215.88	0.15	99.9	Pulse	0.30	3
3	Sc		103,817.98	0.62	99.8	Pulse	0.30	3
3	Ge		70,659.94	0.84	100.5	Pulse	0.30	3
3	Ge		107,163.27	1.20	99.7	Pulse	0.30	3
3	Rh		1,291,547.42	0.09	98.5	Pulse	0.30	3
3	Tb		2,049,618.32	1.03	100.4	Pulse	0.30	3

Quantitation Report

File Name	011CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File	
Method Path	
Acq Time	4/22/2019 10:25
Sample Name	STDI
Sample Type	CalStd
Comment	5000MIN
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/22/2019 18:08
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.002	ug/l	150.58	28.00	1.662E-05	Pulse	0.25	3
B			1	5.586	ug/l	1.30	22,003.45	1.308E-02	Pulse	0.15	3
Ca			1	4851.467	ug/l	0.79	3,974,230.88	1.355E+00	Pulse	0.10	3
Sr			1	0.039	ug/l	2.18	1,973.53	5.126E-04	Pulse	0.10	3
Mo			1	0.030	ug/l	9.19	290.02	7.527E-05	Pulse	0.10	3
Ag			1	0.002	ug/l	60.19	60.00	1.465E-05	Pulse	0.10	3
Sn			1	0.600	ug/l	4.50	2,036.87	4.962E-04	Pulse	0.10	3
Sb			1	0.168	ug/l	6.29	2,710.34	4.836E-04	Pulse	0.10	3
Ba			1	0.002	ug/l	234.34	46.67	8.312E-06	Pulse	0.10	3
Tl			1	0.004	ug/l	42.47	500.03	1.581E-04	Pulse	0.10	3
Pb			1	-0.003	ug/l	-113.53	273.35	8.619E-05	Pulse	0.10	3
Pb			1	-0.006	ug/l	-37.00	223.35	7.056E-05	Pulse	0.10	3
Pb			1	0.000	ug/l	226.34	1,146.73	3.622E-04	Pulse	0.10	3
Na			2	4786.445	ug/l	1.11	3,557,333.61	3.917E+01	Pulse	0.30	3
Mg			2	4940.282	ug/l	0.79	1,675,471.22	1.845E+01	Pulse	0.30	3
Al			2	4889.533	ug/l	0.85	522,600.64	5.754E+00	Pulse	0.30	3
K			2	4899.696	ug/l	0.43	1,021,381.56	1.125E+01	Pulse	0.30	3
Ca			2	4958.079	ug/l	1.21	58,353.79	6.426E-01	Pulse	0.30	3
Ti			2	0.032	ug/l	116.11	5.55	6.116E-05	Pulse	0.30	3
V			2	0.002	ug/l	169.38	104.45	1.151E-03	Pulse	0.30	3
Cr			2	0.019	ug/l	37.25	555.57	6.119E-03	Pulse	0.30	3
Mn			2	0.074	ug/l	24.52	212.23	2.338E-03	Pulse	0.30	3
Fe			2	4943.307	ug/l	0.48	17,430,591.53	1.919E+02	Analog	0.30	3
Co			2	0.222	ug/l	3.21	1,839.02	2.025E-02	Pulse	0.30	3
Ni			2	0.190	ug/l	16.86	463.34	5.106E-03	Pulse	0.30	3
Cu			2	-0.096	ug/l	-5.80	934.48	1.029E-02	Pulse	0.30	3
Zn			2	0.004	ug/l	298.31	202.23	2.226E-03	Pulse	0.30	3
As			2	0.014	ug/l	105.01	9.33	1.030E-04	Pulse	1.00	3
Cd			2	-0.001	ug/l	-549.25	5.53	1.112E-05	Pulse	0.30	3
Sn			2	0.010	ug/l	215.96	436.68	8.761E-04	Pulse	0.30	3
Se			3	0.147	ug/l	5.72	18.80	1.782E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,682,257.64	0.59	96.4	Pulse	0.10	3
1	Sc		2,932,972.35	1.37	98.4	Pulse	0.10	3
1	Ge		580,180.41	1.20	97.9	Pulse	0.10	3

Quantitation Report

1	Ge		805,214.83	0.61	97.2	Pulse	0.10	3
1	Rh		3,850,938.90	1.40	97.1	Pulse	0.10	3
1	In		4,106,806.05	0.87	98.0	Pulse	0.10	3
1	Tb		5,603,699.92	0.77	100.2	Analog	0.10	3
1	Ho		524,216.03	0.31	99.5	Pulse	0.10	3
1	Bi		3,166,923.29	1.76	97.2	Pulse	0.10	3
2	Sc		90,821.06	0.79	102.6	Pulse	0.30	3
2	Ge		55,202.91	1.03	100.9	Pulse	0.30	3
2	Ge		83,921.05	0.65	101.3	Pulse	0.30	3
2	Rh		1,630,004.62	0.81	97.9	Pulse	0.30	3
2	In		498,499.53	0.79	100.0	Pulse	0.30	3
2	Tb		1,987,068.39	0.87	100.7	Pulse	0.30	3
2	Ho		192,277.79	1.37	100.6	Pulse	0.30	3
2	Bi		1,316,911.82	0.86	98.4	Pulse	0.30	3
3	Sc		104,197.26	0.64	100.2	Pulse	0.30	3
3	Ge		69,556.05	0.67	99.0	Pulse	0.30	3
3	Ge		105,482.45	0.29	98.1	Pulse	0.30	3
3	Rh		1,279,090.99	0.41	97.6	Pulse	0.30	3
3	Tb		2,038,343.81	0.56	99.8	Pulse	0.30	3

Quantitation Report

File Name	012CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File	
Method Path	
Acq Time	4/22/2019 10:30
Sample Name	STDJ
Sample Type	CalStd
Comment	10000MIN
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/22/2019 18:08
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.000	ug/l	280.11	20.00	1.178E-05	Pulse	0.25	3
B			1	4.143	ug/l	1.30	16,728.54	9.854E-03	Pulse	0.15	3
Ca			1	10079.085	ug/l	1.87	8,239,154.88	2.809E+00	Analog	0.10	3
Sr			1	0.093	ug/l	5.57	4,132.33	1.084E-03	Pulse	0.10	3
Mo			1	0.022	ug/l	11.06	220.01	5.776E-05	Pulse	0.10	3
Ag			1	0.003	ug/l	16.46	83.33	2.034E-05	Pulse	0.10	3
Sn			1	1.444	ug/l	2.76	13,119.24	3.203E-03	Pulse	0.10	3
Sb			1	0.138	ug/l	6.30	2,286.91	4.040E-04	Pulse	0.10	3
Ba			1	0.021	ug/l	27.32	163.34	2.891E-05	Pulse	0.10	3
Tl			1	0.001	ug/l	254.55	413.36	1.318E-04	Pulse	0.10	3
Pb			1	0.004	ug/l	80.88	350.02	1.120E-04	Pulse	0.10	3
Pb			1	0.004	ug/l	16.05	323.35	1.034E-04	Pulse	0.10	3
Pb			1	0.006	ug/l	51.78	1,373.42	4.394E-04	Pulse	0.10	3
Na			2	10112.192	ug/l	0.32	7,543,730.26	8.263E+01	Analog	0.30	3
Mg			2	10075.480	ug/l	0.71	3,434,902.99	3.762E+01	Pulse	0.30	3
Al			2	10069.687	ug/l	0.39	1,081,900.10	1.185E+01	Pulse	0.30	3
K			2	10115.784	ug/l	1.30	2,113,903.25	2.315E+01	Pulse	0.30	3
Ca			2	10163.725	ug/l	1.28	120,208.90	1.317E+00	Pulse	0.30	3
Ti			2	0.022	ug/l	347.42	4.44	4.907E-05	Pulse	0.30	3
V			2	0.002	ug/l	372.28	103.33	1.132E-03	Pulse	0.30	3
Cr			2	0.091	ug/l	1.78	888.93	9.736E-03	Pulse	0.30	3
Mn			2	0.167	ug/l	13.43	411.12	4.500E-03	Pulse	0.30	3
Fe			2	10029.857	ug/l	0.91	35,549,237.48	3.894E+02	Analog	0.30	3
Co			2	0.466	ug/l	3.88	3,808.26	4.171E-02	Pulse	0.30	3
Ni			2	0.358	ug/l	4.41	836.70	9.162E-03	Pulse	0.30	3
Cu			2	-0.028	ug/l	-33.57	1,355.63	1.485E-02	Pulse	0.30	3
Zn			2	0.917	ug/l	11.00	872.26	9.551E-03	Pulse	0.30	3
As			2	0.061	ug/l	20.20	28.67	3.141E-04	Pulse	1.00	3
Cd			2	-0.001	ug/l	-566.77	5.55	1.118E-05	Pulse	0.30	3
Sn			2	0.817	ug/l	6.91	2,147.95	4.331E-03	Pulse	0.30	3
Se			3	0.015	ug/l	67.75	8.20	7.819E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,697,615.67	0.31	97.3	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,933,568.18	1.56	98.5	Pulse	0.10	3
1	Ge		586,621.75	1.30	99.0	Pulse	0.10	3
1	Ge		810,137.18	2.05	97.8	Pulse	0.10	3
1	Rh		3,809,721.09	1.42	96.0	Pulse	0.10	3
1	In		4,096,240.92	0.52	97.8	Pulse	0.10	3
1	Tb		5,660,628.46	1.35	101.2	Analog	0.10	3
1	Ho		521,525.98	0.24	99.0	Pulse	0.10	3
1	Bi		3,128,675.47	1.50	96.0	Pulse	0.10	3
2	Sc		91,300.38	0.71	103.1	Pulse	0.30	3
2	Ge		54,934.22	0.63	100.4	Pulse	0.30	3
2	Ge		83,277.73	1.30	100.5	Pulse	0.30	3
2	Rh		1,609,841.57	0.22	96.7	Pulse	0.30	3
2	In		496,033.25	0.37	99.5	Pulse	0.30	3
2	Tb		2,003,210.96	0.81	101.5	Pulse	0.30	3
2	Ho		192,156.37	0.43	100.5	Pulse	0.30	3
2	Bi		1,294,471.41	0.68	96.8	Pulse	0.30	3
3	Sc		104,103.15	0.57	100.1	Pulse	0.30	3
3	Ge		68,994.96	0.88	98.2	Pulse	0.30	3
3	Ge		104,841.88	0.55	97.5	Pulse	0.30	3
3	Rh		1,246,425.71	0.87	95.1	Pulse	0.30	3
3	Tb		2,015,472.91	0.48	98.7	Pulse	0.30	3

Quantitation Report

File Name	013CALB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File	
Method Path	
Acq Time	4/22/2019 10:35
Sample Name	rinseconf
Sample Type	Sample
Comment	0
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/22/2019 18:08
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.000	ug/l	-2540.02	17.33	1.010E-05	Pulse	0.25	3
B			1	3.290	ug/l	5.39	13,608.00	7.948E-03	Pulse	0.15	3
Ca			1	-1.156	ug/l	-34.82	16,088.47	5.370E-03	Pulse	0.10	3
Sr			1	0.002	ug/l	89.89	513.36	1.278E-04	Pulse	0.10	3
Mo			1	0.010	ug/l	16.68	123.34	3.072E-05	Pulse	0.10	3
Ag			1	0.003	ug/l	50.26	76.67	1.829E-05	Pulse	0.10	3
Sn			1	0.824	ug/l	3.48	5,091.02	1.214E-03	Pulse	0.10	3
Sb			1	0.067	ug/l	10.24	1,200.09	2.126E-04	Pulse	0.10	3
Ba			1	0.000	ug/l	-2975.27	36.67	6.499E-06	Pulse	0.10	3
Tl			1	0.001	ug/l	74.97	426.69	1.325E-04	Pulse	0.10	3
Pb			1	-0.001	ug/l	-724.28	300.02	9.334E-05	Pulse	0.10	3
Pb			1	-0.007	ug/l	-63.52	216.68	6.732E-05	Pulse	0.10	3
Pb			1	-0.004	ug/l	-28.62	960.06	2.984E-04	Pulse	0.10	3
Na			2	-0.047	ug/l	-677.58	10,600.08	1.153E-01	Pulse	0.30	3
Mg			2	0.319	ug/l	80.25	308.90	3.367E-03	Pulse	0.30	3
Al			2	0.401	ug/l	23.22	128.89	1.402E-03	Pulse	0.30	3
K			2	1.014	ug/l	88.85	5,763.28	6.272E-02	Pulse	0.30	3
Ca			2	0.162	ug/l	640.97	44.44	4.830E-04	Pulse	0.30	3
Ti			2	-0.011	ug/l	-169.62	1.11	1.217E-05	Pulse	0.30	3
V			2	0.000	ug/l	352.34	98.89	1.077E-03	Pulse	0.30	3
Cr			2	-0.011	ug/l	-62.50	423.34	4.605E-03	Pulse	0.30	3
Mn			2	-0.008	ug/l	-39.29	42.22	4.591E-04	Pulse	0.30	3
Fe			2	0.817	ug/l	13.99	6,012.34	6.544E-02	Pulse	0.30	3
Co			2	-0.002	ug/l	-66.56	55.55	6.045E-04	Pulse	0.30	3
Ni			2	-0.008	ug/l	-73.48	31.11	3.394E-04	Pulse	0.30	3
Cu			2	-0.126	ug/l	-3.50	761.14	8.282E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	-0.135	ug/l	-4.27	102.22	1.112E-03	Pulse	0.30	3
As			2	0.006	ug/l	23.67	6.33	6.893E-05	Pulse	1.00	3
Cd			2	-0.001	ug/l	-652.93	5.55	1.091E-05	Pulse	0.30	3
Sn			2	0.179	ug/l	16.50	813.37	1.600E-03	Pulse	0.30	3
Se			3	-0.008	ug/l	-243.78	6.53	6.012E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,712,291.51	0.74	98.1	Pulse	0.10	3
1	Sc		2,996,727.14	1.19	100.6	Pulse	0.10	3
1	Ge		595,962.93	0.86	100.6	Pulse	0.10	3
1	Ge		830,872.12	0.65	100.3	Pulse	0.10	3
1	Rh		4,012,238.28	0.89	101.1	Pulse	0.10	3
1	In		4,192,846.27	0.51	100.1	Pulse	0.10	3
1	Tb		5,642,638.46	0.71	100.9	Analog	0.10	3
1	Ho		526,125.42	1.13	99.8	Pulse	0.10	3
1	Bi		3,217,878.39	1.07	98.7	Pulse	0.10	3
2	Sc		91,894.52	0.93	103.8	Pulse	0.30	3
2	Ge		56,061.27	1.47	102.5	Pulse	0.30	3
2	Ge		86,168.21	0.74	104.0	Pulse	0.30	3
2	Rh		1,686,605.45	0.90	101.3	Pulse	0.30	3
2	In		508,275.00	0.31	101.9	Pulse	0.30	3
2	Tb		1,990,812.84	0.32	100.9	Pulse	0.30	3
2	Ho		192,204.24	0.25	100.5	Pulse	0.30	3
2	Bi		1,345,780.54	0.21	100.6	Pulse	0.30	3
3	Sc		105,356.79	0.67	101.3	Pulse	0.30	3
3	Ge		71,142.99	1.34	101.2	Pulse	0.30	3
3	Ge		108,588.46	0.77	101.0	Pulse	0.30	3
3	Rh		1,318,013.56	0.29	100.6	Pulse	0.30	3
3	Tb		2,046,940.13	0.21	100.2	Pulse	0.30	3

Quantitation Report

File Name	014_ICV.d
File Path	C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File	
Method Path	
Acq Time	4/22/2019 10:44
Sample Name	ICVA
Sample Type	ICV
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/22/2019 18:08
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	59.305	ug/l	0.32	328,998.06	1.943E-01	Pulse	0.25	3
B			1	124.229	ug/l	0.85	471,064.08	2.783E-01	Pulse	0.15	3
Ca			1	5426.789	ug/l	0.34	4,504,885.77	1.515E+00	Pulse	0.10	3
Sr			1	60.567	ug/l	0.83	2,481,531.16	6.346E-01	Pulse	0.10	3
Mo			1	56.467	ug/l	0.41	482,205.98	1.233E-01	Pulse	0.10	3
Ag			1	58.111	ug/l	0.87	1,154,391.07	2.788E-01	Pulse	0.10	3
Sn			1	55.621	ug/l	0.31	732,562.83	1.769E-01	Pulse	0.10	3
Sb			1	58.703	ug/l	1.40	891,715.38	1.570E-01	Pulse	0.10	3
Ba			1	59.679	ug/l	0.79	355,696.83	6.261E-02	Pulse	0.10	3
Tl			1	61.238	ug/l	0.66	2,143,006.22	6.706E-01	Pulse	0.10	3
Pb			1	60.456	ug/l	0.38	733,076.03	2.294E-01	Pulse	0.10	3
Pb			1	58.019	ug/l	0.75	604,198.86	1.891E-01	Pulse	0.10	3
Pb			1	59.550	ug/l	0.57	2,856,985.18	8.940E-01	Pulse	0.10	3
Na			2	5323.910	ug/l	0.38	3,959,366.65	4.356E+01	Pulse	0.30	3
Mg			2	5507.063	ug/l	1.03	1,869,420.06	2.057E+01	Pulse	0.30	3
Al			2	5538.717	ug/l	0.83	592,532.62	6.518E+00	Pulse	0.30	3
K			2	5517.332	ug/l	0.48	1,150,488.98	1.266E+01	Pulse	0.30	3
Ca			2	5769.898	ug/l	0.81	67,966.75	7.477E-01	Pulse	0.30	3
Ti			2	53.364	ug/l	2.90	5,487.64	6.037E-02	Pulse	0.30	3
V			2	58.852	ug/l	0.47	206,590.82	2.273E+00	Pulse	0.30	3
Cr			2	58.127	ug/l	0.89	265,660.30	2.922E+00	Pulse	0.30	3
Mn			2	59.150	ug/l	1.03	124,051.68	1.365E+00	Pulse	0.30	3
Fe			2	5515.588	ug/l	0.48	19,466,018.12	2.141E+02	Analog	0.30	3
Co			2	57.579	ug/l	0.34	459,635.22	5.056E+00	Pulse	0.30	3
Ni			2	57.553	ug/l	0.10	126,211.14	1.388E+00	Pulse	0.30	3
Cu			2	56.391	ug/l	0.73	343,071.07	3.774E+00	Pulse	0.30	3
Zn			2	56.928	ug/l	1.52	41,725.31	4.590E-01	Pulse	0.30	3
As			2	57.468	ug/l	1.00	23,209.11	2.553E-01	Pulse	1.00	3
Cd			2	58.546	ug/l	0.86	60,296.47	1.213E-01	Pulse	0.30	3
Sn			2	55.726	ug/l	1.02	118,945.27	2.393E-01	Pulse	0.30	3
Se			3	254.953	ug/l	1.36	20,503.86	1.940E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,692,819.89	0.43	97.0	Pulse	0.10	3
1	Sc		2,973,326.41	0.39	99.8	Pulse	0.10	3
1	Ge		593,071.31	0.80	100.1	Pulse	0.10	3

Quantitation Report

1	Ge		830,545.01	0.95	100.3	Pulse	0.10	3
1	Rh		3,910,250.77	0.44	98.6	Pulse	0.10	3
1	In		4,141,032.26	0.41	98.8	Pulse	0.10	3
1	Tb		5,681,259.29	1.95	101.5	Mix	0.10	3
1	Ho		530,495.88	1.10	100.7	Pulse	0.10	3
1	Bi		3,195,724.64	0.80	98.0	Pulse	0.10	3
2	Sc		90,902.47	0.12	102.7	Pulse	0.30	3
2	Ge		54,836.21	1.55	100.2	Pulse	0.30	3
2	Ge		83,927.61	0.89	101.3	Pulse	0.30	3
2	Rh		1,616,199.07	0.18	97.1	Pulse	0.30	3
2	In		496,991.46	1.32	99.7	Pulse	0.30	3
2	Tb		1,990,816.94	0.61	100.9	Pulse	0.30	3
2	Ho		192,596.92	0.53	100.7	Pulse	0.30	3
2	Bi		1,319,714.74	0.36	98.6	Pulse	0.30	3
3	Sc		103,817.28	1.04	99.8	Pulse	0.30	3
3	Ge		69,415.66	0.88	98.8	Pulse	0.30	3
3	Ge		105,680.45	0.97	98.3	Pulse	0.30	3
3	Rh		1,254,433.38	0.75	95.7	Pulse	0.30	3
3	Tb		2,016,868.32	0.27	98.8	Pulse	0.30	3

Quantitation Report

File Name	015_ICV.d
File Path	C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File	
Method Path	
Acq Time	4/22/2019 10:49
Sample Name	ICV
Sample Type	ICV
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/22/2019 18:08
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.044	ug/l	14.15	262.68	1.548E-04	Pulse	0.25	3
B			1	5.631	ug/l	3.26	22,361.75	1.318E-02	Pulse	0.15	3
Ca			1	1.224	ug/l	54.43	17,700.08	6.031E-03	Pulse	0.10	3
Sr			1	0.008	ug/l	56.19	743.38	1.886E-04	Pulse	0.10	3
Mo			1	0.073	ug/l	3.65	663.37	1.682E-04	Pulse	0.10	3
Ag			1	0.010	ug/l	12.40	220.01	5.251E-05	Pulse	0.10	3
Sn			1	0.735	ug/l	2.73	3,897.29	9.305E-04	Pulse	0.10	3
Sb			1	0.058	ug/l	16.72	1,076.74	1.903E-04	Pulse	0.10	3
Ba			1	0.009	ug/l	41.87	93.34	1.650E-05	Pulse	0.10	3
Tl			1	0.013	ug/l	5.96	860.06	2.662E-04	Pulse	0.10	3
Pb			1	0.013	ug/l	44.45	470.03	1.455E-04	Pulse	0.10	3
Pb			1	0.006	ug/l	73.13	346.69	1.073E-04	Pulse	0.10	3
Pb			1	0.012	ug/l	12.34	1,743.45	5.397E-04	Pulse	0.10	3
Na			2	-0.864	ug/l	-37.23	9,908.53	1.087E-01	Pulse	0.30	3
Mg			2	0.165	ug/l	16.09	254.45	2.791E-03	Pulse	0.30	3
Al			2	62.490	ug/l	1.25	6,788.11	7.446E-02	Pulse	0.30	3
K			2	0.641	ug/l	164.13	5,639.91	6.187E-02	Pulse	0.30	3
Ca			2	3.396	ug/l	9.07	82.22	9.019E-04	Pulse	0.30	3
Ti			2	0.021	ug/l	349.75	4.44	4.875E-05	Pulse	0.30	3
V			2	0.004	ug/l	39.53	108.89	1.194E-03	Pulse	0.30	3
Cr			2	0.045	ug/l	35.04	677.80	7.436E-03	Pulse	0.30	3
Mn			2	0.012	ug/l	76.81	84.44	9.261E-04	Pulse	0.30	3
Fe			2	1.381	ug/l	8.44	7,963.12	8.734E-02	Pulse	0.30	3
Co			2	0.003	ug/l	126.06	91.11	9.994E-04	Pulse	0.30	3
Ni			2	0.003	ug/l	272.23	54.45	5.970E-04	Pulse	0.30	3
Cu			2	-0.073	ug/l	-11.00	1,078.94	1.183E-02	Pulse	0.30	3
Zn			2	-0.056	ug/l	-75.37	158.89	1.743E-03	Pulse	0.30	3
As			2	0.016	ug/l	75.04	10.33	1.133E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	0.008	ug/l	21.01	15.52	3.055E-05	Pulse	0.30	3
Sn			2	0.124	ug/l	1.81	692.24	1.363E-03	Pulse	0.30	3
Se			3	0.035	ug/l	75.16	9.93	9.291E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,696,830.90	0.26	97.3	Pulse	0.10	3
1	Sc		2,934,813.50	0.90	98.5	Pulse	0.10	3
1	Ge		581,947.10	0.53	98.2	Pulse	0.10	3
1	Ge		815,243.30	0.38	98.4	Pulse	0.10	3
1	Rh		3,945,330.98	0.43	99.5	Pulse	0.10	3
1	In		4,187,960.10	0.68	99.9	Pulse	0.10	3
1	Tb		5,660,948.04	0.81	101.2	Analog	0.10	3
1	Ho		522,724.38	0.14	99.2	Pulse	0.10	3
1	Bi		3,230,752.14	0.39	99.1	Pulse	0.10	3
2	Sc		91,164.14	0.29	103.0	Pulse	0.30	3
2	Ge		55,516.27	1.25	101.5	Pulse	0.30	3
2	Ge		84,253.89	1.13	101.7	Pulse	0.30	3
2	Rh		1,663,080.94	0.25	99.9	Pulse	0.30	3
2	In		507,988.30	0.47	101.9	Pulse	0.30	3
2	Tb		2,001,039.50	0.05	101.4	Pulse	0.30	3
2	Ho		192,784.86	0.98	100.8	Pulse	0.30	3
2	Bi		1,347,450.88	0.19	100.7	Pulse	0.30	3
3	Sc		104,118.87	0.30	100.1	Pulse	0.30	3
3	Ge		69,946.58	0.76	99.5	Pulse	0.30	3
3	Ge		106,901.72	0.28	99.4	Pulse	0.30	3
3	Rh		1,309,805.19	0.83	99.9	Pulse	0.30	3
3	Tb		2,041,135.62	0.59	99.9	Pulse	0.30	3

Quantitation Report

File Name	016_ICB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File	
Method Path	
Acq Time	4/22/2019 11:05
Sample Name	ICB
Sample Type	ICB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/22/2019 18:08
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.001	ug/l	167.80	24.00	1.398E-05	Pulse	0.25	3
B			1	2.416	ug/l	5.71	10,281.10	5.994E-03	Pulse	0.15	3
Ca			1	-1.021	ug/l	-23.40	15,928.16	5.407E-03	Pulse	0.10	3
Sr			1	0.000	ug/l	-460.29	406.69	1.021E-04	Pulse	0.10	3
Mo			1	0.006	ug/l	35.83	90.00	2.254E-05	Pulse	0.10	3
Ag			1	0.003	ug/l	61.53	73.34	1.754E-05	Pulse	0.10	3
Sn			1	0.661	ug/l	2.02	2,900.40	6.928E-04	Pulse	0.10	3
Sb			1	0.024	ug/l	33.23	553.37	9.713E-05	Pulse	0.10	3
Ba			1	-0.001	ug/l	-136.18	30.00	5.268E-06	Pulse	0.10	3
Tl			1	-0.002	ug/l	-24.62	310.01	9.560E-05	Pulse	0.10	3
Pb			1	-0.006	ug/l	-46.68	243.34	7.510E-05	Pulse	0.10	3
Pb			1	-0.004	ug/l	-87.78	243.34	7.503E-05	Pulse	0.10	3
Pb			1	-0.003	ug/l	-19.46	1,003.38	3.095E-04	Pulse	0.10	3
Na			2	-0.628	ug/l	-79.83	10,089.74	1.106E-01	Pulse	0.30	3
Mg			2	0.083	ug/l	62.86	226.67	2.485E-03	Pulse	0.30	3
Al			2	0.028	ug/l	623.61	87.78	9.631E-04	Pulse	0.30	3
K			2	1.767	ug/l	68.17	5,877.77	6.444E-02	Pulse	0.30	3
Ca			2	2.726	ug/l	67.34	74.44	8.151E-04	Pulse	0.30	3
Ti			2	0.021	ug/l	175.69	4.45	4.853E-05	Pulse	0.30	3
V			2	-0.003	ug/l	-178.66	86.67	9.500E-04	Pulse	0.30	3
Cr			2	-0.006	ug/l	-160.13	445.57	4.884E-03	Pulse	0.30	3
Mn			2	-0.002	ug/l	-384.55	54.44	5.969E-04	Pulse	0.30	3
Fe			2	0.086	ug/l	40.62	3,381.50	3.707E-02	Pulse	0.30	3
Co			2	0.001	ug/l	387.14	75.55	8.291E-04	Pulse	0.30	3
Ni			2	0.002	ug/l	294.89	52.22	5.717E-04	Pulse	0.30	3
Cu			2	0.010	ug/l	96.53	1,580.10	1.732E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	0.074	ug/l	73.59	254.45	2.791E-03	Pulse	0.30	3
As			2	0.002	ug/l	437.97	4.67	5.108E-05	Pulse	1.00	3
Cd			2	-0.003	ug/l	-99.23	3.33	6.466E-06	Pulse	0.30	3
Sn			2	0.029	ug/l	72.85	492.24	9.577E-04	Pulse	0.30	3
Se			3	-0.015	ug/l	-83.62	5.87	5.512E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,715,602.96	0.90	98.3	Pulse	0.10	3
1	Sc		2,945,841.00	0.27	98.9	Pulse	0.10	3
1	Ge		589,278.64	1.50	99.5	Pulse	0.10	3
1	Ge		820,515.25	0.43	99.1	Pulse	0.10	3
1	Rh		3,985,473.17	1.57	100.5	Pulse	0.10	3
1	In		4,186,815.47	1.05	99.9	Pulse	0.10	3
1	Tb		5,698,398.04	0.35	101.9	Analog	0.10	3
1	Ho		526,058.64	0.50	99.8	Pulse	0.10	3
1	Bi		3,242,012.24	0.69	99.5	Pulse	0.10	3
2	Sc		91,234.19	0.81	103.1	Pulse	0.30	3
2	Ge		55,943.13	1.14	102.3	Pulse	0.30	3
2	Ge		85,130.51	1.11	102.7	Pulse	0.30	3
2	Rh		1,674,156.15	0.62	100.6	Pulse	0.30	3
2	In		513,939.07	0.17	103.1	Pulse	0.30	3
2	Tb		2,005,952.35	0.36	101.7	Pulse	0.30	3
2	Ho		194,387.73	0.69	101.7	Pulse	0.30	3
2	Bi		1,353,529.29	0.52	101.2	Pulse	0.30	3
3	Sc		104,391.81	1.34	100.4	Pulse	0.30	3
3	Ge		69,486.96	1.08	98.9	Pulse	0.30	3
3	Ge		106,410.52	1.12	99.0	Pulse	0.30	3
3	Rh		1,299,230.85	0.99	99.1	Pulse	0.30	3
3	Tb		2,035,121.03	0.83	99.6	Pulse	0.30	3

Quantitation Report

File Name	017_CCV.d
File Path	C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File	
Method Path	
Acq Time	4/22/2019 11:10
Sample Name	emptrycupconf
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/22/2019 18:08
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

Quantitation Report

File Name	018_CCB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File	
Method Path	
Acq Time	4/22/2019 11:15
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/22/2019 18:08
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	-0.002	ug/l	-71.55	8.00	4.652E-06	Pulse	0.25	3
B			1	2.036	ug/l	4.65	8,880.29	5.145E-03	Pulse	0.15	3
Ca			1	0.783	ug/l	123.99	17,506.50	5.909E-03	Pulse	0.10	3
Sr			1	0.000	ug/l	-9404.80	423.36	1.057E-04	Pulse	0.10	3
Mo			1	0.003	ug/l	55.85	63.33	1.578E-05	Pulse	0.10	3
Ag			1	0.003	ug/l	18.33	73.33	1.744E-05	Pulse	0.10	3
Sn			1	0.656	ug/l	2.37	2,837.03	6.760E-04	Pulse	0.10	3
Sb			1	0.026	ug/l	29.73	586.70	1.032E-04	Pulse	0.10	3
Ba			1	0.001	ug/l	380.61	43.33	7.612E-06	Pulse	0.10	3
Tl			1	-0.001	ug/l	-357.48	353.35	1.088E-04	Pulse	0.10	3
Pb			1	-0.006	ug/l	-58.04	233.34	7.172E-05	Pulse	0.10	3
Pb			1	-0.011	ug/l	-34.23	176.68	5.430E-05	Pulse	0.10	3
Pb			1	-0.005	ug/l	-103.22	910.05	2.795E-04	Pulse	0.10	3
Na			2	-0.848	ug/l	-12.19	10,098.66	1.088E-01	Pulse	0.30	3
Mg			2	0.313	ug/l	43.05	310.01	3.344E-03	Pulse	0.30	3
Al			2	0.167	ug/l	154.64	104.45	1.126E-03	Pulse	0.30	3
K			2	1.949	ug/l	26.51	6,017.81	6.485E-02	Pulse	0.30	3
Ca			2	2.157	ug/l	48.84	68.89	7.414E-04	Pulse	0.30	3
Ti			2	-0.022	ug/l	0.00	0.00	0.000E+00	Pulse	0.30	3
V			2	-0.003	ug/l	-40.35	87.78	9.456E-04	Pulse	0.30	3
Cr			2	0.008	ug/l	162.15	517.79	5.584E-03	Pulse	0.30	3
Mn			2	-0.003	ug/l	-300.28	52.22	5.610E-04	Pulse	0.30	3
Fe			2	0.056	ug/l	74.04	3,333.72	3.591E-02	Pulse	0.30	3
Co			2	-0.002	ug/l	-214.58	60.00	6.446E-04	Pulse	0.30	3
Ni			2	-0.009	ug/l	-55.23	28.89	3.100E-04	Pulse	0.30	3
Cu			2	-0.006	ug/l	-75.81	1,508.98	1.626E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	0.060	ug/l	120.68	247.78	2.676E-03	Pulse	0.30	3
As			2	0.009	ug/l	51.59	7.67	8.239E-05	Pulse	1.00	3
Cd			2	-0.002	ug/l	-227.55	4.44	8.627E-06	Pulse	0.30	3
Sn			2	0.027	ug/l	37.01	488.90	9.484E-04	Pulse	0.30	3
Se			3	-0.031	ug/l	-16.51	4.60	4.249E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,726,282.80	1.02	98.9	Pulse	0.10	3
1	Sc		2,964,695.79	2.13	99.5	Pulse	0.10	3
1	Ge		595,472.25	1.92	100.5	Pulse	0.10	3
1	Ge		830,607.85	1.44	100.3	Pulse	0.10	3
1	Rh		4,007,440.46	1.62	101.0	Pulse	0.10	3
1	In		4,198,248.40	1.62	100.2	Pulse	0.10	3
1	Tb		5,673,764.50	1.49	101.4	Analog	0.10	3
1	Ho		527,992.32	1.62	100.2	Pulse	0.10	3
1	Bi		3,245,601.41	1.94	99.6	Pulse	0.10	3
2	Sc		92,805.34	1.61	104.8	Pulse	0.30	3
2	Ge		56,413.76	0.17	103.1	Pulse	0.30	3
2	Ge		85,434.36	0.82	103.1	Pulse	0.30	3
2	Rh		1,678,922.29	0.21	100.9	Pulse	0.30	3
2	In		515,583.76	0.60	103.4	Pulse	0.30	3
2	Tb		2,020,700.61	0.13	102.4	Pulse	0.30	3
2	Ho		194,620.15	0.90	101.8	Pulse	0.30	3
2	Bi		1,363,703.77	1.16	101.9	Pulse	0.30	3
3	Sc		104,317.77	1.38	100.3	Pulse	0.30	3
3	Ge		70,977.68	0.91	101.0	Pulse	0.30	3
3	Ge		108,308.51	1.16	100.7	Pulse	0.30	3
3	Rh		1,306,893.91	0.44	99.7	Pulse	0.30	3
3	Tb		2,036,772.35	0.44	99.7	Pulse	0.30	3

Quantitation Report

File Name	019LCCV.d
File Path	C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File	
Method Path	
Acq Time	4/22/2019 11:20
Sample Name	CRI
Sample Type	LLCCV
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/22/2019 18:08
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.477	ug/l	4.43	2,710.92	1.575E-03	Pulse	0.25	3
B			1	26.039	ug/l	0.50	101,213.03	5.880E-02	Pulse	0.15	3
Ca			1	251.250	ug/l	0.63	224,548.42	7.557E-02	Pulse	0.10	3
Sr			1	4.989	ug/l	0.76	208,795.12	5.238E-02	Pulse	0.10	3
Mo			1	0.994	ug/l	1.77	8,686.06	2.179E-03	Pulse	0.10	3
Ag			1	0.443	ug/l	5.76	9,002.86	2.128E-03	Pulse	0.10	3
Sn			1	5.174	ug/l	2.66	64,138.13	1.516E-02	Pulse	0.10	3
Sb			1	1.916	ug/l	3.37	29,248.16	5.157E-03	Pulse	0.10	3
Ba			1	0.978	ug/l	4.43	5,854.64	1.032E-03	Pulse	0.10	3
Tl			1	0.496	ug/l	5.26	17,888.07	5.549E-03	Pulse	0.10	3
Pb			1	0.489	ug/l	4.19	6,288.24	1.950E-03	Pulse	0.10	3
Pb			1	0.468	ug/l	3.05	5,207.79	1.615E-03	Pulse	0.10	3
Pb			1	0.491	ug/l	2.86	24,902.53	7.721E-03	Pulse	0.10	3
Na			2	245.907	ug/l	0.86	194,780.64	2.122E+00	Pulse	0.30	3
Mg			2	258.398	ug/l	0.52	88,753.04	9.670E-01	Pulse	0.30	3
Al			2	25.418	ug/l	3.89	2,830.28	3.084E-02	Pulse	0.30	3
K			2	256.686	ug/l	1.13	59,326.91	6.464E-01	Pulse	0.30	3
Ca			2	284.835	ug/l	6.78	3,427.07	3.735E-02	Pulse	0.30	3
Ti			2	0.695	ug/l	20.28	74.44	8.105E-04	Pulse	0.30	3
V			2	1.008	ug/l	2.87	3,668.23	3.996E-02	Pulse	0.30	3
Cr			2	1.012	ug/l	5.33	5,134.19	5.594E-02	Pulse	0.30	3
Mn			2	0.989	ug/l	5.85	2,153.50	2.346E-02	Pulse	0.30	3
Fe			2	25.703	ug/l	0.65	94,668.67	1.031E+00	Pulse	0.30	3
Co			2	0.497	ug/l	3.24	4,073.89	4.439E-02	Pulse	0.30	3
Ni			2	0.998	ug/l	5.58	2,256.85	2.458E-02	Pulse	0.30	3
Cu			2	1.912	ug/l	1.32	13,226.56	1.441E-01	Pulse	0.30	3
Zn			2	5.015	ug/l	6.91	3,893.84	4.244E-02	Pulse	0.30	3
As			2	0.491	ug/l	15.23	204.00	2.223E-03	Pulse	1.00	3
Cd			2	0.483	ug/l	5.54	518.51	1.014E-03	Pulse	0.30	3
Sn			2	4.697	ug/l	2.63	10,702.62	2.094E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	0.478	ug/l	10.16	46.33	4.303E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,721,343.69	0.75	98.7	Pulse	0.10	3
1	Sc		2,971,305.37	0.73	99.7	Pulse	0.10	3
1	Ge		589,666.36	0.80	99.5	Pulse	0.10	3
1	Ge		823,845.92	1.67	99.5	Pulse	0.10	3
1	Rh		3,986,256.81	0.58	100.5	Pulse	0.10	3
1	In		4,230,242.72	0.68	101.0	Pulse	0.10	3
1	Tb		5,672,365.54	0.71	101.4	Analog	0.10	3
1	Ho		523,745.84	0.58	99.4	Pulse	0.10	3
1	Bi		3,224,796.30	1.22	98.9	Pulse	0.10	3
2	Sc		91,782.12	0.65	103.7	Pulse	0.30	3
2	Ge		56,008.96	0.51	102.4	Pulse	0.30	3
2	Ge		85,039.99	0.38	102.6	Pulse	0.30	3
2	Rh		1,672,106.71	0.81	100.5	Pulse	0.30	3
2	In		511,230.41	0.62	102.5	Pulse	0.30	3
2	Tb		1,994,079.92	0.71	101.1	Pulse	0.30	3
2	Ho		192,627.06	0.71	100.7	Pulse	0.30	3
2	Bi		1,350,465.15	0.41	100.9	Pulse	0.30	3
3	Sc		104,046.38	0.49	100.1	Pulse	0.30	3
3	Ge		70,273.71	0.64	100.0	Pulse	0.30	3
3	Ge		107,702.26	0.84	100.2	Pulse	0.30	3
3	Rh		1,305,381.65	0.58	99.6	Pulse	0.30	3
3	Tb		2,040,196.52	0.06	99.9	Pulse	0.30	3

Quantitation Report

File Name 020_CCV.d
File Path C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File
Method Path
Acq Time 4/22/2019 11:25
Sample Name CCVA
Sample Type CCV
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/22/2019 18:08
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	50.486	ug/l	1.21	282,869.06	1.654E-01	Pulse	0.25	3
B			1	100.435	ug/l	1.17	384,855.21	2.251E-01	Pulse	0.15	3
Ca			1	5066.427	ug/l	0.26	4,188,106.19	1.415E+00	Pulse	0.10	3
Sr			1	51.535	ug/l	0.49	2,091,415.70	5.400E-01	Pulse	0.10	3
Mo			1	51.011	ug/l	1.29	431,462.93	1.114E-01	Pulse	0.10	3
Ag			1	49.475	ug/l	0.59	977,455.74	2.373E-01	Pulse	0.10	3
Sn			1	49.190	ug/l	0.26	643,637.69	1.563E-01	Pulse	0.10	3
Sb			1	50.278	ug/l	1.12	765,984.42	1.345E-01	Pulse	0.10	3
Ba			1	49.522	ug/l	2.02	296,007.44	5.196E-02	Pulse	0.10	3
Tl			1	50.366	ug/l	0.41	1,754,116.07	5.516E-01	Pulse	0.10	3
Pb			1	49.754	ug/l	0.63	600,476.33	1.888E-01	Pulse	0.10	3
Pb			1	50.397	ug/l	0.72	522,311.13	1.642E-01	Pulse	0.10	3
Pb			1	50.326	ug/l	0.09	2,402,924.24	7.556E-01	Pulse	0.10	3
Na			2	4978.603	ug/l	1.52	3,679,165.27	4.074E+01	Pulse	0.30	3
Mg			2	5123.178	ug/l	1.22	1,727,809.41	1.913E+01	Pulse	0.30	3
Al			2	5121.737	ug/l	1.69	544,361.30	6.028E+00	Pulse	0.30	3
K			2	5173.334	ug/l	0.59	1,072,111.31	1.187E+01	Pulse	0.30	3
Ca			2	5409.127	ug/l	1.50	63,308.50	7.010E-01	Pulse	0.30	3
Ti			2	48.135	ug/l	3.91	4,917.45	5.446E-02	Pulse	0.30	3
V			2	50.221	ug/l	1.04	175,164.39	1.940E+00	Pulse	0.30	3
Cr			2	49.960	ug/l	0.75	226,919.71	2.513E+00	Pulse	0.30	3
Mn			2	50.690	ug/l	1.84	105,623.37	1.170E+00	Pulse	0.30	3
Fe			2	5239.665	ug/l	0.72	18,373,669.83	2.034E+02	Analog	0.30	3
Co			2	49.668	ug/l	0.64	393,932.80	4.362E+00	Pulse	0.30	3
Ni			2	49.413	ug/l	0.84	107,663.96	1.192E+00	Pulse	0.30	3
Cu			2	49.404	ug/l	1.58	298,789.56	3.308E+00	Pulse	0.30	3
Zn			2	49.580	ug/l	1.77	36,129.87	4.001E-01	Pulse	0.30	3
As			2	48.673	ug/l	1.27	19,529.66	2.162E-01	Pulse	1.00	3
Cd			2	49.921	ug/l	0.39	51,354.58	1.035E-01	Pulse	0.30	3
Sn			2	49.071	ug/l	0.99	104,665.08	2.109E-01	Pulse	0.30	3
Se			3	197.295	ug/l	0.36	15,777.91	1.502E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,709,843.13	0.95	98.0	Pulse	0.10	3
1	Sc		2,960,050.48	0.75	99.4	Pulse	0.10	3
1	Ge		587,675.41	0.68	99.2	Pulse	0.10	3

Quantitation Report

1	Ge		818,114.10	0.47	98.8	Pulse	0.10	3
1	Rh		3,872,877.65	0.74	97.6	Pulse	0.10	3
1	In		4,118,366.82	1.36	98.3	Pulse	0.10	3
1	Tb		5,696,439.70	0.71	101.8	Analog	0.10	3
1	Ho		529,719.66	1.99	100.5	Pulse	0.10	3
1	Bi		3,180,363.91	1.08	97.6	Pulse	0.10	3
2	Sc		90,316.14	0.64	102.0	Pulse	0.30	3
2	Ge		55,496.13	1.00	101.5	Pulse	0.30	3
2	Ge		83,656.46	0.78	100.9	Pulse	0.30	3
2	Rh		1,624,048.31	0.42	97.6	Pulse	0.30	3
2	In		496,381.60	0.64	99.6	Pulse	0.30	3
2	Tb		1,986,670.96	0.17	100.7	Pulse	0.30	3
2	Ho		191,696.49	0.90	100.2	Pulse	0.30	3
2	Bi		1,320,948.94	0.53	98.7	Pulse	0.30	3
3	Sc		102,544.88	1.08	98.6	Pulse	0.30	3
3	Ge		68,690.39	0.22	97.7	Pulse	0.30	3
3	Ge		105,068.83	0.27	97.7	Pulse	0.30	3
3	Rh		1,252,665.19	0.47	95.6	Pulse	0.30	3
3	Tb		2,009,838.88	0.61	98.4	Pulse	0.30	3

Quantitation Report

File Name	021_CCB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File	
Method Path	
Acq Time	4/22/2019 11:30
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/22/2019 18:08
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.005	ug/l	46.24	45.33	2.667E-05	Pulse	0.25	3
B			1	4.920	ug/l	3.45	19,705.14	1.159E-02	Pulse	0.15	3
Ca			1	1.619	ug/l	39.00	17,997.10	6.141E-03	Pulse	0.10	3
Sr			1	0.010	ug/l	17.39	823.38	2.098E-04	Pulse	0.10	3
Mo			1	0.098	ug/l	0.30	873.39	2.223E-04	Pulse	0.10	3
Ag			1	0.011	ug/l	9.15	236.68	5.659E-05	Pulse	0.10	3
Sn			1	0.744	ug/l	1.50	4,010.67	9.594E-04	Pulse	0.10	3
Sb			1	0.185	ug/l	8.29	2,977.08	5.290E-04	Pulse	0.10	3
Ba			1	0.003	ug/l	57.36	56.67	1.006E-05	Pulse	0.10	3
Tl			1	0.018	ug/l	13.37	1,006.74	3.129E-04	Pulse	0.10	3
Pb			1	0.007	ug/l	65.73	390.02	1.212E-04	Pulse	0.10	3
Pb			1	0.006	ug/l	105.49	350.02	1.088E-04	Pulse	0.10	3
Pb			1	0.009	ug/l	26.90	1,563.42	4.860E-04	Pulse	0.10	3
Na			2	-0.399	ug/l	-89.84	10,288.79	1.125E-01	Pulse	0.30	3
Mg			2	0.689	ug/l	15.94	434.46	4.749E-03	Pulse	0.30	3
Al			2	0.531	ug/l	8.00	142.22	1.555E-03	Pulse	0.30	3
K			2	1.825	ug/l	64.71	5,905.56	6.457E-02	Pulse	0.30	3
Ca			2	3.367	ug/l	53.14	82.22	8.980E-04	Pulse	0.30	3
Ti			2	0.021	ug/l	175.64	4.45	4.854E-05	Pulse	0.30	3
V			2	-0.006	ug/l	-69.47	75.56	8.253E-04	Pulse	0.30	3
Cr			2	-0.008	ug/l	-190.76	436.68	4.776E-03	Pulse	0.30	3
Mn			2	0.006	ug/l	59.12	71.11	7.778E-04	Pulse	0.30	3
Fe			2	0.678	ug/l	11.15	5,493.20	6.005E-02	Pulse	0.30	3
Co			2	0.004	ug/l	25.15	103.34	1.129E-03	Pulse	0.30	3
Ni			2	0.008	ug/l	61.41	65.55	7.164E-04	Pulse	0.30	3
Cu			2	0.052	ug/l	3.02	1,841.23	2.013E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	0.116	ug/l	12.12	285.56	3.122E-03	Pulse	0.30	3
As			2	0.016	ug/l	22.33	10.33	1.129E-04	Pulse	1.00	3
Cd			2	0.006	ug/l	257.42	13.29	2.642E-05	Pulse	0.30	3
Sn			2	0.136	ug/l	19.63	714.47	1.413E-03	Pulse	0.30	3
Se			3	0.038	ug/l	29.88	10.20	9.571E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,700,080.47	0.42	97.4	Pulse	0.10	3
1	Sc		2,931,007.46	0.97	98.4	Pulse	0.10	3
1	Ge		583,328.13	0.98	98.5	Pulse	0.10	3
1	Ge		815,358.50	0.80	98.5	Pulse	0.10	3
1	Rh		3,929,236.61	1.79	99.0	Pulse	0.10	3
1	In		4,179,184.24	1.40	99.7	Pulse	0.10	3
1	Tb		5,630,665.75	0.96	100.6	Mix	0.10	3
1	Ho		527,967.50	0.98	100.2	Pulse	0.10	3
1	Bi		3,217,403.08	0.23	98.7	Pulse	0.10	3
2	Sc		91,470.00	0.73	103.3	Pulse	0.30	3
2	Ge		56,060.12	1.18	102.5	Pulse	0.30	3
2	Ge		84,014.76	0.45	101.4	Pulse	0.30	3
2	Rh		1,663,405.63	0.45	99.9	Pulse	0.30	3
2	In		505,606.72	0.72	101.4	Pulse	0.30	3
2	Tb		1,978,744.64	0.78	100.3	Pulse	0.30	3
2	Ho		190,621.07	0.50	99.7	Pulse	0.30	3
2	Bi		1,339,751.44	0.29	100.1	Pulse	0.30	3
3	Sc		103,939.36	1.59	100.0	Pulse	0.30	3
3	Ge		70,634.17	0.67	100.5	Pulse	0.30	3
3	Ge		106,615.11	1.16	99.2	Pulse	0.30	3
3	Rh		1,313,246.23	0.56	100.2	Pulse	0.30	3
3	Tb		2,047,313.95	0.47	100.2	Pulse	0.30	3

Quantitation Report

File Name	022LCCV.d
File Path	C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File	
Method Path	
Acq Time	4/22/2019 11:35
Sample Name	CRI
Sample Type	LLCCV
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/22/2019 18:08
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.516	ug/l	4.44	2,885.62	1.701E-03	Pulse	0.25	3
B			1	27.386	ug/l	1.88	104,814.05	6.181E-02	Pulse	0.15	3
Ca			1	250.280	ug/l	0.76	222,466.19	7.530E-02	Pulse	0.10	3
Sr			1	4.964	ug/l	0.58	207,314.55	5.211E-02	Pulse	0.10	3
Mo			1	0.965	ug/l	6.12	8,419.18	2.116E-03	Pulse	0.10	3
Ag			1	0.480	ug/l	2.80	9,669.92	2.305E-03	Pulse	0.10	3
Sn			1	5.189	ug/l	0.64	63,830.43	1.521E-02	Pulse	0.10	3
Sb			1	1.946	ug/l	3.99	29,558.65	5.238E-03	Pulse	0.10	3
Ba			1	0.998	ug/l	7.37	5,951.39	1.054E-03	Pulse	0.10	3
Tl			1	0.491	ug/l	2.10	17,624.32	5.491E-03	Pulse	0.10	3
Pb			1	0.465	ug/l	1.59	5,971.46	1.860E-03	Pulse	0.10	3
Pb			1	0.498	ug/l	1.06	5,491.25	1.711E-03	Pulse	0.10	3
Pb			1	0.498	ug/l	2.07	25,122.88	7.826E-03	Pulse	0.10	3
Na			2	245.059	ug/l	0.80	193,085.19	2.115E+00	Pulse	0.30	3
Mg			2	256.780	ug/l	0.44	87,714.98	9.610E-01	Pulse	0.30	3
Al			2	25.543	ug/l	6.41	2,828.05	3.099E-02	Pulse	0.30	3
K			2	255.036	ug/l	0.79	58,660.06	6.426E-01	Pulse	0.30	3
Ca			2	284.689	ug/l	3.42	3,407.06	3.733E-02	Pulse	0.30	3
Ti			2	0.968	ug/l	9.62	102.23	1.120E-03	Pulse	0.30	3
V			2	0.989	ug/l	4.68	3,582.66	3.925E-02	Pulse	0.30	3
Cr			2	0.971	ug/l	2.63	4,920.78	5.390E-02	Pulse	0.30	3
Mn			2	0.949	ug/l	8.40	2,056.82	2.253E-02	Pulse	0.30	3
Fe			2	25.828	ug/l	2.22	94,586.30	1.036E+00	Pulse	0.30	3
Co			2	0.485	ug/l	2.33	3,956.08	4.334E-02	Pulse	0.30	3
Ni			2	0.950	ug/l	6.02	2,139.06	2.343E-02	Pulse	0.30	3
Cu			2	1.939	ug/l	2.17	13,315.52	1.459E-01	Pulse	0.30	3
Zn			2	5.127	ug/l	4.29	3,954.98	4.334E-02	Pulse	0.30	3
As			2	0.477	ug/l	10.10	197.00	2.159E-03	Pulse	1.00	3
Cd			2	0.500	ug/l	6.75	535.16	1.048E-03	Pulse	0.30	3
Sn			2	4.775	ug/l	3.62	10,861.63	2.127E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	0.531	ug/l	9.95	50.40	4.701E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,696,030.94	1.27	97.2	Pulse	0.10	3
1	Sc		2,954,274.44	0.61	99.2	Pulse	0.10	3
1	Ge		589,576.50	0.70	99.5	Pulse	0.10	3
1	Ge		820,711.21	1.55	99.1	Pulse	0.10	3
1	Rh		3,978,747.34	0.60	100.3	Pulse	0.10	3
1	In		4,196,595.95	0.69	100.2	Pulse	0.10	3
1	Tb		5,644,967.00	1.13	100.9	Analog	0.10	3
1	Ho		523,167.90	0.84	99.3	Pulse	0.10	3
1	Bi		3,209,829.95	0.45	98.5	Pulse	0.10	3
2	Sc		91,278.82	0.62	103.1	Pulse	0.30	3
2	Ge		55,728.06	0.23	101.9	Pulse	0.30	3
2	Ge		84,089.46	0.73	101.5	Pulse	0.30	3
2	Rh		1,664,130.21	0.44	100.0	Pulse	0.30	3
2	In		510,595.94	0.51	102.4	Pulse	0.30	3
2	Tb		1,986,988.39	0.26	100.7	Pulse	0.30	3
2	Ho		191,963.83	0.41	100.4	Pulse	0.30	3
2	Bi		1,339,061.93	0.22	100.1	Pulse	0.30	3
3	Sc		104,208.36	0.56	100.2	Pulse	0.30	3
3	Ge		69,878.44	0.94	99.4	Pulse	0.30	3
3	Ge		107,181.28	0.54	99.7	Pulse	0.30	3
3	Rh		1,297,418.77	0.77	99.0	Pulse	0.30	3
3	Tb		2,033,840.41	0.29	99.6	Pulse	0.30	3

Quantitation Report

File Name	023ICSA.d
File Path	C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File	
Method Path	
Acq Time	4/22/2019 11:40
Sample Name	ICSA
Sample Type	ICSA
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/22/2019 18:08
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.001	ug/l	65.90	22.67	1.478E-05	Pulse	0.25	3
B			1	4.017	ug/l	0.81	14,671.07	9.573E-03	Pulse	0.15	3
Ca			1	94449.384	ug/l	0.31	70,856,192.28	2.628E+01	Analog	0.10	3
Sr			1	2002.728	ug/l	0.91	70,329,395.62	2.098E+01	Analog	0.10	3
Mo			1	2023.960	ug/l	0.32	14,815,807.28	4.420E+00	Analog	0.10	3
Ag			1	0.026	ug/l	14.32	480.02	1.286E-04	Pulse	0.10	3
Sn			1	1768.087	ug/l	0.99	21,134,458.02	5.667E+00	Analog	0.10	3
Sb			1	0.214	ug/l	8.50	3,170.44	6.063E-04	Pulse	0.10	3
Ba			1	0.191	ug/l	7.27	1,083.41	2.071E-04	Pulse	0.10	3
Tl			1	0.002	ug/l	42.85	413.35	1.459E-04	Pulse	0.10	3
Pb			1	0.053	ug/l	18.57	840.06	2.963E-04	Pulse	0.10	3
Pb			1	0.083	ug/l	13.34	1,020.07	3.598E-04	Pulse	0.10	3
Pb			1	0.073	ug/l	4.03	4,133.72	1.458E-03	Pulse	0.10	3
Na			2	92894.324	ug/l	0.31	62,534,555.29	7.581E+02	Analog	0.30	3
Mg			2	94576.651	ug/l	0.49	29,130,625.51	3.531E+02	Analog	0.30	3
Al			2	96740.759	ug/l	1.12	9,390,090.74	1.138E+02	Analog	0.30	3
K			2	99359.367	ug/l	0.84	18,716,149.81	2.269E+02	Analog	0.30	3
Ca			2	104622.203	ug/l	0.51	1,117,682.18	1.355E+01	Pulse	0.30	3
Ti			2	1754.964	ug/l	0.74	163,705.93	1.985E+00	Pulse	0.30	3
V			2	-0.004	ug/l	-77.32	74.44	9.028E-04	Pulse	0.30	3
Cr			2	0.304	ug/l	1.24	1,684.55	2.042E-02	Pulse	0.30	3
Mn			2	0.412	ug/l	9.68	835.59	1.013E-02	Pulse	0.30	3
Fe			2	93402.732	ug/l	1.09	299,086,014.78	3.626E+03	Analog	0.30	3
Co			2	0.318	ug/l	9.75	2,367.98	2.870E-02	Pulse	0.30	3
Ni			2	0.637	ug/l	10.29	1,310.07	1.588E-02	Pulse	0.30	3
Cu			2	0.007	ug/l	241.89	1,415.63	1.716E-02	Pulse	0.30	3
Zn			2	0.207	ug/l	13.35	317.78	3.853E-03	Pulse	0.30	3
As			2	0.072	ug/l	3.93	29.67	3.596E-04	Pulse	1.00	3
Cd			2	-0.489	ug/l	-10.45	-440.79	-1.000E-03	Pulse	0.30	3
Sn			2	1838.865	ug/l	0.32	3,468,023.13	7.871E+00	Pulse	0.30	3
Se			3	0.090	ug/l	13.26	12.80	1.352E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,532,571.82	0.85	87.8	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,696,594.23	0.90	90.5	Pulse	0.10	3
1	Ge		543,132.31	1.40	91.7	Pulse	0.10	3
1	Ge		731,130.02	0.44	88.3	Pulse	0.10	3
1	Rh		3,352,265.89	1.38	84.5	Pulse	0.10	3
1	In		3,729,301.41	0.87	89.0	Pulse	0.10	3
1	Tb		5,229,379.19	0.95	93.5	Pulse	0.10	3
1	Ho		496,909.11	2.21	94.3	Pulse	0.10	3
1	Bi		2,834,691.94	0.64	87.0	Pulse	0.10	3
2	Sc		82,490.31	0.42	93.2	Pulse	0.30	3
2	Ge		50,309.46	0.69	92.0	Pulse	0.30	3
2	Ge		74,722.00	1.17	90.2	Pulse	0.30	3
2	Rh		1,409,482.09	0.44	84.7	Pulse	0.30	3
2	In		440,598.59	0.37	88.4	Pulse	0.30	3
2	Tb		1,845,820.76	0.79	93.6	Pulse	0.30	3
2	Ho		177,687.37	1.30	92.9	Pulse	0.30	3
2	Bi		1,156,889.92	0.98	86.5	Pulse	0.30	3
3	Sc		95,038.53	0.89	91.4	Pulse	0.30	3
3	Ge		63,827.35	0.86	90.8	Pulse	0.30	3
3	Ge		94,724.85	0.61	88.1	Pulse	0.30	3
3	Rh		1,095,330.68	0.46	83.6	Pulse	0.30	3
3	Tb		1,850,469.51	0.17	90.6	Pulse	0.30	3

Quantitation Report

File Name	024ICSB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File	
Method Path	
Acq Time	4/22/2019 11:45
Sample Name	ICSAB
Sample Type	ICSB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/22/2019 18:08
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.000	ug/l	-900.95	14.67	9.875E-06	Pulse	0.25	3
B			1	53.948	ug/l	1.49	179,659.91	1.212E-01	Pulse	0.15	3
Ca			1	95762.385	ug/l	1.58	69,830,615.62	2.664E+01	Analog	0.10	3
Sr			1	2069.938	ug/l	1.30	72,604,770.59	2.169E+01	Analog	0.10	3
Mo			1	2031.445	ug/l	1.13	14,851,622.70	4.436E+00	Analog	0.10	3
Ag			1	19.992	ug/l	0.76	356,811.39	9.591E-02	Pulse	0.10	3
Sn			1	1819.347	ug/l	0.53	21,697,373.84	5.832E+00	Analog	0.10	3
Sb			1	0.183	ug/l	1.84	2,803.70	5.245E-04	Pulse	0.10	3
Ba			1	0.213	ug/l	8.11	1,230.09	2.303E-04	Pulse	0.10	3
Tl			1	0.005	ug/l	37.96	490.03	1.693E-04	Pulse	0.10	3
Pb			1	0.070	ug/l	5.18	1,046.75	3.614E-04	Pulse	0.10	3
Pb			1	0.071	ug/l	41.65	926.74	3.203E-04	Pulse	0.10	3
Pb			1	0.074	ug/l	9.91	4,247.09	1.467E-03	Pulse	0.10	3
Na			2	94251.463	ug/l	1.28	62,255,097.53	7.692E+02	Analog	0.30	3
Mg			2	95759.301	ug/l	0.61	28,940,783.29	3.576E+02	Analog	0.30	3
Al			2	96101.309	ug/l	1.77	9,152,418.80	1.131E+02	Analog	0.30	3
K			2	99435.972	ug/l	1.71	18,377,681.49	2.271E+02	Analog	0.30	3
Ca			2	105229.486	ug/l	0.95	1,103,029.44	1.363E+01	Pulse	0.30	3
Ti			2	1770.158	ug/l	1.24	162,015.00	2.002E+00	Pulse	0.30	3
V			2	20.511	ug/l	2.49	64,160.06	7.928E-01	Pulse	0.30	3
Cr			2	20.254	ug/l	0.97	82,692.38	1.022E+00	Pulse	0.30	3
Mn			2	20.331	ug/l	2.54	37,995.87	4.695E-01	Pulse	0.30	3
Fe			2	95577.191	ug/l	0.63	300,304,681.40	3.710E+03	Analog	0.30	3
Co			2	19.771	ug/l	1.08	140,567.34	1.737E+00	Pulse	0.30	3
Ni			2	19.523	ug/l	0.46	38,151.95	4.713E-01	Pulse	0.30	3
Cu			2	19.344	ug/l	1.05	105,674.21	1.306E+00	Pulse	0.30	3
Zn			2	19.204	ug/l	4.07	12,648.32	1.563E-01	Pulse	0.30	3
As			2	19.128	ug/l	2.74	6,879.46	8.501E-02	Pulse	1.00	3
Cd			2	18.309	ug/l	1.74	16,482.86	3.795E-02	Pulse	0.30	3
Sn			2	1856.600	ug/l	0.21	3,451,269.10	7.947E+00	Pulse	0.30	3
Se			3	18.733	ug/l	1.44	1,390.66	1.432E-02	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,482,693.55	0.84	85.0	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,621,446.32	1.11	88.0	Pulse	0.10	3
1	Ge		530,756.56	0.71	89.6	Pulse	0.10	3
1	Ge		720,509.08	0.80	87.0	Pulse	0.10	3
1	Rh		3,348,157.03	1.14	84.4	Pulse	0.10	3
1	In		3,720,568.76	1.50	88.8	Pulse	0.10	3
1	Tb		5,344,825.34	1.46	95.5	Mix	0.10	3
1	Ho		505,479.17	0.75	95.9	Pulse	0.10	3
1	Bi		2,896,641.31	0.83	88.9	Pulse	0.10	3
2	Sc		80,943.11	1.00	91.4	Pulse	0.30	3
2	Ge		49,676.54	0.66	90.8	Pulse	0.30	3
2	Ge		73,866.17	1.76	89.1	Pulse	0.30	3
2	Rh		1,400,855.81	0.96	84.2	Pulse	0.30	3
2	In		434,281.44	0.28	87.1	Pulse	0.30	3
2	Tb		1,837,241.52	0.26	93.1	Pulse	0.30	3
2	Ho		178,604.09	0.57	93.4	Pulse	0.30	3
2	Bi		1,160,589.71	0.36	86.7	Pulse	0.30	3
3	Sc		96,915.94	0.73	93.2	Pulse	0.30	3
3	Ge		64,631.66	0.48	92.0	Pulse	0.30	3
3	Ge		97,133.36	0.86	90.3	Pulse	0.30	3
3	Rh		1,105,721.00	0.58	84.4	Pulse	0.30	3
3	Tb		1,873,717.36	0.72	91.7	Pulse	0.30	3

Quantitation Report

File Name	025SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File	
Method Path	
Acq Time	4/22/2019 11:50
Sample Name	rinseconf
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/22/2019 18:08
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.000	ug/l	-391.30	14.67	9.923E-06	Pulse	0.25	3
B			1	2.610	ug/l	1.82	9,500.62	6.427E-03	Pulse	0.15	3
Ca			1	4.527	ug/l	15.83	18,227.37	6.950E-03	Pulse	0.10	3
Sr			1	0.169	ug/l	10.11	7,038.48	1.875E-03	Pulse	0.10	3
Mo			1	0.854	ug/l	7.20	7,038.49	1.875E-03	Pulse	0.10	3
Ag			1	0.008	ug/l	13.45	173.34	4.297E-05	Pulse	0.10	3
Sn			1	1.148	ug/l	1.16	9,096.31	2.255E-03	Pulse	0.10	3
Sb			1	0.028	ug/l	22.13	623.37	1.100E-04	Pulse	0.10	3
Ba			1	0.008	ug/l	61.10	83.33	1.463E-05	Pulse	0.10	3
Tl			1	-0.002	ug/l	-39.43	310.01	9.433E-05	Pulse	0.10	3
Pb			1	-0.007	ug/l	-18.13	223.34	6.796E-05	Pulse	0.10	3
Pb			1	-0.007	ug/l	-44.36	216.68	6.598E-05	Pulse	0.10	3
Pb			1	-0.004	ug/l	-37.78	953.38	2.900E-04	Pulse	0.10	3
Na			2	12.416	ug/l	7.97	17,252.26	2.170E-01	Pulse	0.30	3
Mg			2	4.654	ug/l	9.49	1,554.53	1.956E-02	Pulse	0.30	3
Al			2	4.753	ug/l	36.27	518.90	6.523E-03	Pulse	0.30	3
K			2	7.945	ug/l	5.13	6,242.33	7.854E-02	Pulse	0.30	3
Ca			2	4.420	ug/l	80.34	82.22	1.034E-03	Pulse	0.30	3
Ti			2	0.312	ug/l	63.02	30.00	3.776E-04	Pulse	0.30	3
V			2	-0.008	ug/l	-60.82	58.89	7.415E-04	Pulse	0.30	3
Cr			2	-0.011	ug/l	-89.12	366.68	4.615E-03	Pulse	0.30	3
Mn			2	-0.010	ug/l	-26.84	32.22	4.054E-04	Pulse	0.30	3
Fe			2	7.480	ug/l	7.43	25,761.39	3.241E-01	Pulse	0.30	3
Co			2	-0.001	ug/l	-220.82	56.67	7.127E-04	Pulse	0.30	3
Ni			2	-0.006	ug/l	-127.07	30.00	3.779E-04	Pulse	0.30	3
Cu			2	-0.050	ug/l	-24.59	1,061.16	1.335E-02	Pulse	0.30	3
Zn			2	-0.078	ug/l	-77.59	124.45	1.567E-03	Pulse	0.30	3
As			2	0.005	ug/l	103.53	5.00	6.297E-05	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	-0.001	ug/l	-442.60	5.14	1.110E-05	Pulse	0.30	3
Sn			2	0.508	ug/l	2.17	1,400.09	3.007E-03	Pulse	0.30	3
Se			3	-0.026	ug/l	-29.57	4.87	4.656E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,478,317.24	0.61	84.7	Pulse	0.10	3
1	Sc		2,622,794.70	0.63	88.0	Pulse	0.10	3
1	Ge		547,196.87	0.62	92.4	Pulse	0.10	3
1	Ge		764,044.36	0.81	92.3	Pulse	0.10	3
1	Rh		3,754,234.00	0.21	94.6	Pulse	0.10	3
1	In		4,035,012.32	1.18	96.3	Pulse	0.10	3
1	Tb		5,678,516.58	1.81	101.5	Analog	0.10	3
1	Ho		528,871.61	0.30	100.4	Pulse	0.10	3
1	Bi		3,287,521.72	1.14	100.9	Pulse	0.10	3
2	Sc		79,477.10	0.47	89.8	Pulse	0.30	3
2	Ge		50,964.84	0.36	93.2	Pulse	0.30	3
2	Ge		75,770.31	0.43	91.4	Pulse	0.30	3
2	Rh		1,572,547.75	0.02	94.5	Pulse	0.30	3
2	In		465,576.17	1.00	93.4	Pulse	0.30	3
2	Tb		1,901,729.37	0.01	96.4	Pulse	0.30	3
2	Ho		184,751.14	0.50	96.6	Pulse	0.30	3
2	Bi		1,310,668.25	0.78	98.0	Pulse	0.30	3
3	Sc		100,410.78	0.76	96.6	Pulse	0.30	3
3	Ge		68,889.86	0.54	98.0	Pulse	0.30	3
3	Ge		104,488.38	1.13	97.2	Pulse	0.30	3
3	Rh		1,300,470.23	0.32	99.2	Pulse	0.30	3
3	Tb		2,072,390.89	0.93	101.5	Pulse	0.30	3

Quantitation Report

File Name 026_CCV.d
File Path C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File
Method Path
Acq Time 4/22/2019 11:56
Sample Name CCVA
Sample Type CCV
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/22/2019 18:08
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	49.808	ug/l	1.02	244,809.84	1.632E-01	Pulse	0.25	3
B			1	100.276	ug/l	0.26	337,100.43	2.247E-01	Pulse	0.15	3
Ca			1	5058.030	ug/l	0.58	3,799,465.46	1.413E+00	Pulse	0.10	3
Sr			1	51.637	ug/l	0.94	2,010,397.37	5.411E-01	Pulse	0.10	3
Mo			1	50.411	ug/l	0.41	409,052.36	1.101E-01	Pulse	0.10	3
Ag			1	49.469	ug/l	1.70	953,766.31	2.373E-01	Pulse	0.10	3
Sn			1	49.254	ug/l	0.85	628,996.06	1.565E-01	Pulse	0.10	3
Sb			1	49.398	ug/l	0.82	752,046.21	1.321E-01	Pulse	0.10	3
Ba			1	48.726	ug/l	1.28	291,012.99	5.112E-02	Pulse	0.10	3
Tl			1	50.787	ug/l	0.73	1,791,236.01	5.562E-01	Pulse	0.10	3
Pb			1	50.195	ug/l	0.61	613,452.78	1.905E-01	Pulse	0.10	3
Pb			1	51.200	ug/l	0.61	537,376.01	1.669E-01	Pulse	0.10	3
Pb			1	50.870	ug/l	0.38	2,459,730.95	7.637E-01	Pulse	0.10	3
Na			2	4917.394	ug/l	2.07	3,303,132.09	4.024E+01	Pulse	0.30	3
Mg			2	5029.038	ug/l	1.79	1,541,652.47	1.878E+01	Pulse	0.30	3
Al			2	4966.442	ug/l	0.94	479,848.64	5.845E+00	Pulse	0.30	3
K			2	5073.049	ug/l	1.37	955,718.44	1.164E+01	Pulse	0.30	3
Ca			2	5286.991	ug/l	0.41	56,252.24	6.851E-01	Pulse	0.30	3
Ti			2	49.616	ug/l	2.89	4,607.36	5.613E-02	Pulse	0.30	3
V			2	50.884	ug/l	1.76	161,316.16	1.965E+00	Pulse	0.30	3
Cr			2	50.577	ug/l	0.98	208,821.95	2.544E+00	Pulse	0.30	3
Mn			2	50.687	ug/l	0.73	96,016.26	1.170E+00	Pulse	0.30	3
Fe			2	5293.075	ug/l	2.47	16,868,459.89	2.055E+02	Analog	0.30	3
Co			2	50.655	ug/l	1.59	365,171.17	4.448E+00	Pulse	0.30	3
Ni			2	50.490	ug/l	1.82	99,992.79	1.218E+00	Pulse	0.30	3
Cu			2	50.673	ug/l	2.15	278,523.98	3.393E+00	Pulse	0.30	3
Zn			2	50.647	ug/l	1.12	33,546.62	4.086E-01	Pulse	0.30	3
As			2	49.459	ug/l	1.29	18,041.29	2.197E-01	Pulse	1.00	3
Cd			2	50.399	ug/l	1.23	48,977.91	1.044E-01	Pulse	0.30	3
Sn			2	49.732	ug/l	1.28	100,203.95	2.137E-01	Pulse	0.30	3
Se			3	197.469	ug/l	0.43	15,433.72	1.503E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,499,947.92	1.22	86.0	Pulse	0.10	3
1	Sc		2,689,855.06	0.58	90.3	Pulse	0.10	3
1	Ge		544,796.95	0.14	92.0	Pulse	0.10	3

Quantitation Report

1	Ge		768,248.50	0.62	92.8	Pulse	0.10	3
1	Rh		3,715,542.45	0.11	93.7	Pulse	0.10	3
1	In		4,019,638.00	1.41	95.9	Pulse	0.10	3
1	Tb		5,692,923.67	1.39	101.8	Analog	0.10	3
1	Ho		534,520.99	0.36	101.4	Pulse	0.10	3
1	Bi		3,220,790.05	0.68	98.8	Pulse	0.10	3
2	Sc		82,103.92	1.56	92.8	Pulse	0.30	3
2	Ge		50,666.07	0.78	92.6	Pulse	0.30	3
2	Ge		78,001.82	0.53	94.1	Pulse	0.30	3
2	Rh		1,550,257.78	0.48	93.1	Pulse	0.30	3
2	In		468,924.46	0.24	94.1	Pulse	0.30	3
2	Tb		1,926,347.15	0.78	97.6	Pulse	0.30	3
2	Ho		186,864.84	0.45	97.7	Pulse	0.30	3
2	Bi		1,293,248.94	0.22	96.7	Pulse	0.30	3
3	Sc		100,294.73	0.86	96.5	Pulse	0.30	3
3	Ge		67,104.93	1.12	95.5	Pulse	0.30	3
3	Ge		102,685.74	0.35	95.5	Pulse	0.30	3
3	Rh		1,255,297.28	0.24	95.8	Pulse	0.30	3
3	Tb		2,028,866.86	0.54	99.3	Pulse	0.30	3

Quantitation Report

File Name	027_CCB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File	
Method Path	
Acq Time	4/22/2019 12:01
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/22/2019 18:08
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.001	ug/l	146.87	22.67	1.489E-05	Pulse	0.25	3
B			1	4.807	ug/l	3.59	17,293.63	1.134E-02	Pulse	0.15	3
Ca			1	-0.492	ug/l	-194.42	15,107.46	5.554E-03	Pulse	0.10	3
Sr			1	0.019	ug/l	12.87	1,183.42	3.069E-04	Pulse	0.10	3
Mo			1	0.127	ug/l	17.03	1,106.75	2.868E-04	Pulse	0.10	3
Ag			1	0.011	ug/l	14.10	240.01	5.858E-05	Pulse	0.10	3
Sn			1	0.774	ug/l	2.11	4,330.74	1.057E-03	Pulse	0.10	3
Sb			1	0.203	ug/l	12.06	3,300.47	5.759E-04	Pulse	0.10	3
Ba			1	0.004	ug/l	61.46	63.34	1.106E-05	Pulse	0.10	3
Tl			1	0.013	ug/l	7.82	850.06	2.580E-04	Pulse	0.10	3
Pb			1	0.009	ug/l	11.36	426.69	1.295E-04	Pulse	0.10	3
Pb			1	0.004	ug/l	110.27	340.02	1.032E-04	Pulse	0.10	3
Pb			1	0.008	ug/l	9.27	1,573.42	4.776E-04	Pulse	0.10	3
Na			2	2.995	ug/l	23.39	11,659.68	1.402E-01	Pulse	0.30	3
Mg			2	1.578	ug/l	12.58	671.13	8.070E-03	Pulse	0.30	3
Al			2	1.071	ug/l	29.18	182.23	2.190E-03	Pulse	0.30	3
K			2	3.276	ug/l	17.87	5,646.57	6.788E-02	Pulse	0.30	3
Ca			2	2.930	ug/l	31.41	70.00	8.415E-04	Pulse	0.30	3
Ti			2	0.014	ug/l	259.87	3.33	3.999E-05	Pulse	0.30	3
V			2	-0.008	ug/l	-27.61	62.22	7.482E-04	Pulse	0.30	3
Cr			2	0.000	ug/l	-5890.67	428.90	5.156E-03	Pulse	0.30	3
Mn			2	0.010	ug/l	115.89	73.34	8.821E-04	Pulse	0.30	3
Fe			2	1.574	ug/l	4.81	7,886.42	9.482E-02	Pulse	0.30	3
Co			2	0.004	ug/l	12.74	93.33	1.122E-03	Pulse	0.30	3
Ni			2	0.007	ug/l	122.87	58.89	7.076E-04	Pulse	0.30	3
Cu			2	0.060	ug/l	14.69	1,720.11	2.068E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	0.045	ug/l	56.05	212.23	2.552E-03	Pulse	0.30	3
As			2	0.002	ug/l	289.31	4.33	5.204E-05	Pulse	1.00	3
Cd			2	0.004	ug/l	2.22	9.91	2.044E-05	Pulse	0.30	3
Sn			2	0.177	ug/l	16.83	772.25	1.592E-03	Pulse	0.30	3
Se			3	0.009	ug/l	123.44	7.73	7.300E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,525,371.33	0.76	87.4	Pulse	0.10	3
1	Sc		2,720,669.65	1.03	91.3	Pulse	0.10	3
1	Ge		559,594.64	1.19	94.5	Pulse	0.10	3
1	Ge		778,795.74	1.19	94.0	Pulse	0.10	3
1	Rh		3,857,874.11	1.07	97.3	Pulse	0.10	3
1	In		4,099,925.83	0.85	97.8	Pulse	0.10	3
1	Tb		5,732,863.87	0.95	102.5	Analog	0.10	3
1	Ho		529,365.85	1.09	100.5	Pulse	0.10	3
1	Bi		3,294,229.01	0.76	101.1	Pulse	0.10	3
2	Sc		83,179.25	0.32	94.0	Pulse	0.30	3
2	Ge		52,791.66	0.18	96.5	Pulse	0.30	3
2	Ge		78,864.93	0.72	95.2	Pulse	0.30	3
2	Rh		1,613,337.54	0.92	96.9	Pulse	0.30	3
2	In		484,967.83	0.60	97.3	Pulse	0.30	3
2	Tb		1,950,617.35	0.99	98.9	Pulse	0.30	3
2	Ho		188,716.35	1.06	98.7	Pulse	0.30	3
2	Bi		1,334,357.59	0.67	99.7	Pulse	0.30	3
3	Sc		102,152.51	0.93	98.2	Pulse	0.30	3
3	Ge		69,356.31	0.83	98.7	Pulse	0.30	3
3	Ge		105,988.98	0.75	98.6	Pulse	0.30	3
3	Rh		1,321,181.37	0.32	100.8	Pulse	0.30	3
3	Tb		2,064,474.22	0.44	101.1	Pulse	0.30	3

Quantitation Report

File Name	028SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File	
Method Path	
Acq Time	4/22/2019 12:06
Sample Name	mp14305-mb1conf
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/22/2019 18:08
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.004	ug/l	135.45	25.33	1.658E-05	Pulse	0.25	3
B			1	8.362	ug/l	4.10	15,202.63	9.939E-03	Pulse	0.15	3
Ca			1	31.855	ug/l	5.28	26,989.35	1.012E-02	Pulse	0.10	3
Sr			1	0.119	ug/l	4.81	2,723.67	7.279E-04	Pulse	0.10	3
Mo			1	0.283	ug/l	4.28	1,190.09	3.179E-04	Pulse	0.10	3
Ag			1	0.027	ug/l	9.63	276.68	6.873E-05	Pulse	0.10	3
Sn			1	2.411	ug/l	0.91	9,820.09	2.439E-03	Pulse	0.10	3
Sb			1	0.401	ug/l	4.29	3,217.13	5.702E-04	Pulse	0.10	3
Ba			1	0.053	ug/l	40.21	193.34	3.418E-05	Pulse	0.10	3
Tl			1	0.049	ug/l	17.11	1,370.12	3.857E-04	Pulse	0.10	3
Pb			1	0.073	ug/l	11.62	833.39	2.345E-04	Pulse	0.10	3
Pb			1	0.046	ug/l	17.64	583.37	1.641E-04	Pulse	0.10	3
Pb			1	0.063	ug/l	12.40	2,953.57	8.310E-04	Pulse	0.10	3
Na			2	17.479	ug/l	4.24	15,191.38	1.870E-01	Pulse	0.30	3
Mg			2	5.634	ug/l	4.26	1,031.16	1.269E-02	Pulse	0.30	3
Al			2	6.741	ug/l	17.23	397.79	4.896E-03	Pulse	0.30	3
K			2	10.227	ug/l	23.10	5,853.31	7.208E-02	Pulse	0.30	3
Ca			2	50.078	ug/l	12.66	301.12	3.705E-03	Pulse	0.30	3
Ti			2	0.344	ug/l	44.67	17.78	2.193E-04	Pulse	0.30	3
V			2	0.106	ug/l	28.09	252.23	3.102E-03	Pulse	0.30	3
Cr			2	0.470	ug/l	16.05	1,376.75	1.695E-02	Pulse	0.30	3
Mn			2	0.196	ug/l	17.95	235.56	2.898E-03	Pulse	0.30	3
Fe			2	9.960	ug/l	2.56	18,438.19	2.270E-01	Pulse	0.30	3
Co			2	0.013	ug/l	15.48	111.11	1.368E-03	Pulse	0.30	3
Ni			2	0.098	ug/l	34.76	138.89	1.712E-03	Pulse	0.30	3
Cu			2	0.319	ug/l	17.21	2,220.18	2.732E-02	Pulse	0.30	3
Zn			2	5.185	ug/l	2.09	1,867.91	2.300E-02	Pulse	0.30	3
As			2	0.040	ug/l	75.12	10.67	1.312E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	-0.008	ug/l	-98.88	2.14	4.619E-06	Pulse	0.30	3
Sn			2	1.273	ug/l	6.34	1,651.78	3.557E-03	Pulse	0.30	3
Se			3	0.028	ug/l	134.46	8.27	7.699E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,529,659.22	0.46	87.7	Pulse	0.10	3
1	Sc		2,666,328.40	1.03	89.5	Pulse	0.10	3
1	Ge		550,569.39	0.42	92.9	Pulse	0.10	3
1	Ge		770,452.83	0.17	93.0	Pulse	0.10	3
1	Rh		3,743,744.53	2.33	94.4	Pulse	0.10	3
1	In		4,026,130.40	1.94	96.1	Pulse	0.10	3
1	Tb		5,642,561.79	1.24	100.9	Analog	0.10	3
1	Ho		526,365.63	2.05	99.9	Pulse	0.10	3
1	Bi		3,553,613.59	0.58	109.0	Pulse	0.10	3
2	Sc		81,225.31	0.92	91.8	Pulse	0.30	3
2	Ge		50,764.25	0.71	92.8	Pulse	0.30	3
2	Ge		77,405.66	1.46	93.4	Pulse	0.30	3
2	Rh		1,571,512.37	0.10	94.4	Pulse	0.30	3
2	In		464,288.30	0.47	93.1	Pulse	0.30	3
2	Tb		1,919,789.09	0.82	97.3	Pulse	0.30	3
2	Ho		185,062.94	0.61	96.8	Pulse	0.30	3
2	Bi		1,384,606.12	1.38	103.5	Pulse	0.30	3
3	Sc		101,140.64	0.38	97.3	Pulse	0.30	3
3	Ge		69,307.22	0.29	98.6	Pulse	0.30	3
3	Ge		107,450.58	0.79	99.9	Pulse	0.30	3
3	Rh		1,310,011.41	0.55	99.9	Pulse	0.30	3
3	Tb		2,074,364.43	0.54	101.6	Pulse	0.30	3

Quantitation Report

File Name	029SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File	
Method Path	
Acq Time	4/22/2019 12:11
Sample Name	mp14305-b1conf
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/22/2019 18:08
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	78.166	ug/l	1.42	196,915.60	1.281E-01	Pulse	0.25	3
B			1	90.736	ug/l	2.49	156,809.45	1.020E-01	Pulse	0.15	3
Ca			1	4127.896	ug/l	0.37	1,561,916.02	5.798E-01	Pulse	0.10	3
Sr			1	80.174	ug/l	0.79	1,583,264.30	4.201E-01	Pulse	0.10	3
Mo			1	77.089	ug/l	0.74	317,275.48	8.418E-02	Pulse	0.10	3
Ag			1	80.679	ug/l	0.71	777,783.27	1.935E-01	Pulse	0.10	3
Sn			1	76.771	ug/l	0.59	488,922.57	1.216E-01	Pulse	0.10	3
Sb			1	74.683	ug/l	1.96	574,615.07	9.987E-02	Pulse	0.10	3
Ba			1	76.252	ug/l	1.63	230,178.51	4.000E-02	Pulse	0.10	3
Tl			1	77.294	ug/l	1.22	1,407,789.56	4.232E-01	Pulse	0.10	3
Pb			1	77.017	ug/l	0.75	486,103.48	1.461E-01	Pulse	0.10	3
Pb			1	79.058	ug/l	0.60	428,515.79	1.288E-01	Pulse	0.10	3
Pb			1	78.430	ug/l	0.17	1,958,488.30	5.888E-01	Pulse	0.10	3
Na			2	3975.952	ug/l	1.08	1,342,697.48	1.634E+01	Pulse	0.30	3
Mg			2	4061.483	ug/l	1.17	623,384.82	7.585E+00	Pulse	0.30	3
Al			2	3915.072	ug/l	1.54	189,388.62	2.304E+00	Pulse	0.30	3
K			2	4021.960	ug/l	1.18	382,291.79	4.651E+00	Pulse	0.30	3
Ca			2	4479.224	ug/l	0.51	23,877.25	2.905E-01	Pulse	0.30	3
Ti			2	75.920	ug/l	3.55	3,529.31	4.295E-02	Pulse	0.30	3
V			2	80.500	ug/l	1.68	127,770.96	1.555E+00	Pulse	0.30	3
Cr			2	80.995	ug/l	1.39	167,472.92	2.038E+00	Pulse	0.30	3
Mn			2	81.098	ug/l	1.59	76,903.11	9.357E-01	Pulse	0.30	3
Fe			2	4307.679	ug/l	1.45	6,874,436.25	8.364E+01	Analog	0.30	3
Co			2	81.028	ug/l	1.43	292,423.50	3.558E+00	Pulse	0.30	3
Ni			2	80.448	ug/l	1.24	79,766.02	9.705E-01	Pulse	0.30	3
Cu			2	80.872	ug/l	0.95	222,819.96	2.711E+00	Pulse	0.30	3
Zn			2	77.986	ug/l	2.26	25,894.99	3.151E-01	Pulse	0.30	3
As			2	72.099	ug/l	1.43	13,164.31	1.602E-01	Pulse	1.00	3
Cd			2	78.562	ug/l	1.02	37,643.89	8.141E-02	Pulse	0.30	3
Sn			2	76.884	ug/l	0.68	76,464.10	1.654E-01	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	352.620	ug/l	0.45	14,116.40	1.342E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,537,617.22	1.25	88.1	Pulse	0.10	3
1	Sc		2,694,040.48	0.42	90.4	Pulse	0.10	3
1	Ge		551,128.83	1.31	93.0	Pulse	0.10	3
1	Ge		765,904.47	1.57	92.5	Pulse	0.10	3
1	Rh		3,769,225.88	1.03	95.0	Pulse	0.10	3
1	In		4,019,233.43	0.23	95.9	Pulse	0.10	3
1	Tb		5,755,214.50	2.30	102.9	Analog	0.10	3
1	Ho		534,456.46	1.21	101.4	Pulse	0.10	3
1	Bi		3,326,099.85	0.84	102.0	Pulse	0.10	3
2	Sc		82,196.69	1.29	92.9	Pulse	0.30	3
2	Ge		50,880.16	0.51	93.0	Pulse	0.30	3
2	Ge		77,615.59	0.76	93.6	Pulse	0.30	3
2	Rh		1,561,420.98	0.38	93.8	Pulse	0.30	3
2	In		462,392.68	0.75	92.7	Pulse	0.30	3
2	Tb		1,923,914.16	1.07	97.5	Pulse	0.30	3
2	Ho		186,984.03	0.84	97.8	Pulse	0.30	3
2	Bi		1,320,770.54	0.54	98.7	Pulse	0.30	3
3	Sc		103,949.12	0.54	100.0	Pulse	0.30	3
3	Ge		68,789.68	0.73	97.9	Pulse	0.30	3
3	Ge		105,187.27	0.24	97.8	Pulse	0.30	3
3	Rh		1,292,844.15	0.44	98.6	Pulse	0.30	3
3	Tb		2,088,195.40	0.03	102.2	Pulse	0.30	3

Quantitation Report

File Name	030SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File	
Method Path	
Acq Time	4/22/2019 12:17
Sample Name	mp14305-mb2 4
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/22/2019 18:08
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.008	ug/l	22.09	36.00	2.307E-05	Pulse	0.25	3
B			1	7.671	ug/l	2.70	14,315.20	9.166E-03	Pulse	0.15	3
Ca			1	394.242	ug/l	0.56	166,253.13	6.052E-02	Pulse	0.10	3
Sr			1	0.394	ug/l	3.53	8,255.79	2.170E-03	Pulse	0.10	3
Mo			1	0.161	ug/l	13.35	703.38	1.850E-04	Pulse	0.10	3
Ag			1	0.023	ug/l	19.72	243.34	5.903E-05	Pulse	0.10	3
Sn			1	2.161	ug/l	1.40	8,392.53	2.038E-03	Pulse	0.10	3
Sb			1	0.232	ug/l	8.94	1,980.38	3.436E-04	Pulse	0.10	3
Ba			1	0.173	ug/l	12.63	560.03	9.719E-05	Pulse	0.10	3
Tl			1	0.042	ug/l	22.44	1,163.43	3.472E-04	Pulse	0.10	3
Pb			1	0.098	ug/l	23.37	950.07	2.829E-04	Pulse	0.10	3
Pb			1	0.085	ug/l	18.99	763.38	2.273E-04	Pulse	0.10	3
Pb			1	0.107	ug/l	4.55	3,877.02	1.155E-03	Pulse	0.10	3
Na			2	41.924	ug/l	0.28	23,892.49	2.868E-01	Pulse	0.30	3
Mg			2	13.602	ug/l	3.06	2,296.85	2.757E-02	Pulse	0.30	3
Al			2	7.373	ug/l	10.36	438.90	5.268E-03	Pulse	0.30	3
K			2	24.129	ug/l	2.90	7,327.24	8.795E-02	Pulse	0.30	3
Ca			2	398.234	ug/l	0.66	2,186.84	2.625E-02	Pulse	0.30	3
Ti			2	0.406	ug/l	87.10	21.11	2.543E-04	Pulse	0.30	3
V			2	0.089	ug/l	47.40	231.11	2.777E-03	Pulse	0.30	3
Cr			2	0.408	ug/l	5.77	1,283.40	1.540E-02	Pulse	0.30	3
Mn			2	0.282	ug/l	14.51	324.45	3.894E-03	Pulse	0.30	3
Fe			2	7.147	ug/l	0.74	14,366.38	1.724E-01	Pulse	0.30	3
Co			2	0.018	ug/l	27.56	130.00	1.560E-03	Pulse	0.30	3
Ni			2	0.549	ug/l	7.33	595.57	7.150E-03	Pulse	0.30	3
Cu			2	0.449	ug/l	8.26	2,635.80	3.163E-02	Pulse	0.30	3
Zn			2	8.378	ug/l	2.33	2,983.64	3.581E-02	Pulse	0.30	3
As			2	0.082	ug/l	12.76	18.67	2.239E-04	Pulse	1.00	3
Cd			2	0.006	ug/l	186.89	8.85	1.877E-05	Pulse	0.30	3
Sn			2	0.892	ug/l	12.16	1,292.29	2.742E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	0.065	ug/l	89.03	9.93	9.120E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,561,771.13	1.16	89.5	Pulse	0.10	3
1	Sc		2,747,214.96	1.00	92.2	Pulse	0.10	3
1	Ge		565,917.92	0.81	95.5	Pulse	0.10	3
1	Ge		790,885.01	1.44	95.5	Pulse	0.10	3
1	Rh		3,804,946.30	0.84	95.9	Pulse	0.10	3
1	In		4,117,395.93	1.17	98.3	Pulse	0.10	3
1	Tb		5,765,469.50	0.92	103.1	Analog	0.10	3
1	Ho		534,214.30	1.64	101.4	Pulse	0.10	3
1	Bi		3,354,962.14	1.50	102.9	Pulse	0.10	3
2	Sc		83,314.51	0.81	94.1	Pulse	0.30	3
2	Ge		52,541.90	2.16	96.1	Pulse	0.30	3
2	Ge		79,498.04	1.02	95.9	Pulse	0.30	3
2	Rh		1,598,150.25	0.50	96.0	Pulse	0.30	3
2	In		471,280.99	0.19	94.5	Pulse	0.30	3
2	Tb		1,936,922.84	0.51	98.2	Pulse	0.30	3
2	Ho		187,960.24	0.19	98.3	Pulse	0.30	3
2	Bi		1,338,808.94	0.14	100.1	Pulse	0.30	3
3	Sc		104,361.65	0.51	100.4	Pulse	0.30	3
3	Ge		71,581.35	0.55	101.8	Pulse	0.30	3
3	Ge		108,952.96	0.81	101.3	Pulse	0.30	3
3	Rh		1,321,238.07	0.70	100.8	Pulse	0.30	3
3	Tb		2,105,262.00	0.66	103.1	Pulse	0.30	3

Quantitation Report

File Name	031SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File	
Method Path	
Acq Time	4/22/2019 12:22
Sample Name	mp14305-s1
Sample Type	Sample
Comment	
Prep Dilution	5.000
Auto Dilution	N/A
Total Dilution	5.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/22/2019 18:08
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	76.878	ug/l	0.46	77,495.56	5.039E-02	Pulse	0.25	3
B			1	102.727	ug/l	0.66	71,534.62	4.652E-02	Pulse	0.15	3
Ca			1	86337.416	ug/l	1.32	12,709,097.31	4.809E+00	Analog	0.10	3
Sr			1	280.941	ug/l	0.15	2,168,944.13	5.888E-01	Pulse	0.10	3
Mo			1	77.492	ug/l	1.19	124,710.14	3.385E-02	Pulse	0.10	3
Ag			1	78.198	ug/l	2.35	300,284.33	7.503E-02	Pulse	0.10	3
Sn			1	78.807	ug/l	0.07	196,564.03	4.911E-02	Pulse	0.10	3
Sb			1	75.553	ug/l	0.57	226,223.36	4.043E-02	Pulse	0.10	3
Ba			1	112.328	ug/l	1.23	131,910.56	2.357E-02	Pulse	0.10	3
Tl			1	77.326	ug/l	1.20	549,426.52	1.694E-01	Pulse	0.10	3
Pb			1	77.870	ug/l	0.28	191,844.81	5.916E-02	Pulse	0.10	3
Pb			1	80.147	ug/l	1.61	169,582.70	5.230E-02	Pulse	0.10	3
Pb			1	79.237	ug/l	0.64	772,265.29	2.382E-01	Pulse	0.10	3
Na			2	8630.060	ug/l	0.55	1,138,576.06	1.420E+01	Pulse	0.30	3
Mg			2	6007.683	ug/l	0.98	359,907.29	4.489E+00	Pulse	0.30	3
Al			2	4679.312	ug/l	1.32	88,371.32	1.102E+00	Pulse	0.30	3
K			2	5560.477	ug/l	0.93	208,417.50	2.599E+00	Pulse	0.30	3
Ca			2	86086.849	ug/l	0.91	178,821.34	2.230E+00	Pulse	0.30	3
Ti			2	84.108	ug/l	5.26	1,526.76	1.905E-02	Pulse	0.30	3
V			2	83.443	ug/l	1.69	51,732.54	6.452E-01	Pulse	0.30	3
Cr			2	201.057	ug/l	2.24	162,220.22	2.023E+00	Pulse	0.30	3
Mn			2	127.124	ug/l	1.58	47,062.37	5.870E-01	Pulse	0.30	3
Fe			2	61263.615	ug/l	0.91	38,140,680.71	4.757E+02	Analog	0.30	3
Co			2	79.986	ug/l	1.25	112,683.36	1.405E+00	Pulse	0.30	3
Ni			2	81.646	ug/l	0.46	31,618.19	3.943E-01	Pulse	0.30	3
Cu			2	81.630	ug/l	1.51	88,563.20	1.105E+00	Pulse	0.30	3
Zn			2	204.593	ug/l	1.86	26,502.62	3.305E-01	Pulse	0.30	3
As			2	77.438	ug/l	2.06	5,519.61	6.884E-02	Pulse	1.00	3
Cd			2	77.281	ug/l	2.05	14,544.20	3.204E-02	Pulse	0.30	3
Sn			2	78.045	ug/l	1.14	30,703.31	6.764E-02	Pulse	0.30	3
Se			3	364.425	ug/l	0.67	5,692.26	5.552E-02	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,537,776.16	0.20	88.1	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,642,951.21	0.61	88.7	Pulse	0.10	3
1	Ge		544,799.73	0.48	92.0	Pulse	0.10	3
1	Ge		755,165.15	0.99	91.2	Pulse	0.10	3
1	Rh		3,683,944.74	0.42	92.9	Pulse	0.10	3
1	In		4,002,654.67	0.81	95.5	Pulse	0.10	3
1	Tb		5,594,976.58	1.00	100.0	Analog	0.10	3
1	Ho		519,846.26	0.20	98.7	Pulse	0.10	3
1	Bi		3,242,598.81	0.87	99.5	Pulse	0.10	3
2	Sc		80,188.23	1.13	90.6	Pulse	0.30	3
2	Ge		50,299.51	0.40	92.0	Pulse	0.30	3
2	Ge		75,672.07	0.97	91.3	Pulse	0.30	3
2	Rh		1,510,218.83	1.07	90.7	Pulse	0.30	3
2	In		453,920.68	0.30	91.0	Pulse	0.30	3
2	Tb		1,882,150.41	0.51	95.4	Pulse	0.30	3
2	Ho		183,162.54	0.66	95.8	Pulse	0.30	3
2	Bi		1,286,957.14	1.01	96.2	Pulse	0.30	3
3	Sc		100,041.06	1.02	96.2	Pulse	0.30	3
3	Ge		67,081.37	0.13	95.4	Pulse	0.30	3
3	Ge		102,529.53	0.43	95.4	Pulse	0.30	3
3	Rh		1,260,958.32	0.44	96.2	Pulse	0.30	3
3	Tb		2,043,886.93	0.61	100.1	Pulse	0.30	3

Quantitation Report

File Name	032SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File	
Method Path	
Acq Time	4/22/2019 12:27
Sample Name	mp14305-s2
Sample Type	Sample
Comment	
Prep Dilution	5.000
Auto Dilution	N/A
Total Dilution	5.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/22/2019 18:08
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	74.714	ug/l	0.85	74,174.41	4.898E-02	Pulse	0.25	3
B			1	103.113	ug/l	2.07	70,711.07	4.669E-02	Pulse	0.15	3
Ca			1	87135.714	ug/l	1.07	12,775,939.81	4.853E+00	Analog	0.10	3
Sr			1	280.642	ug/l	0.84	2,148,112.57	5.881E-01	Pulse	0.10	3
Mo			1	75.945	ug/l	1.31	121,193.01	3.318E-02	Pulse	0.10	3
Ag			1	76.438	ug/l	1.44	292,427.56	7.334E-02	Pulse	0.10	3
Sn			1	76.546	ug/l	1.39	190,029.71	4.766E-02	Pulse	0.10	3
Sb			1	72.745	ug/l	0.96	221,130.41	3.893E-02	Pulse	0.10	3
Ba			1	110.052	ug/l	1.93	131,188.70	2.310E-02	Pulse	0.10	3
Tl			1	76.329	ug/l	0.49	536,185.52	1.673E-01	Pulse	0.10	3
Pb			1	76.411	ug/l	0.20	186,115.73	5.806E-02	Pulse	0.10	3
Pb			1	78.158	ug/l	1.59	163,492.82	5.100E-02	Pulse	0.10	3
Pb			1	77.678	ug/l	0.71	748,483.58	2.335E-01	Pulse	0.10	3
Na			2	8614.484	ug/l	1.10	1,142,561.66	1.417E+01	Pulse	0.30	3
Mg			2	5921.410	ug/l	1.21	356,635.15	4.424E+00	Pulse	0.30	3
Al			2	4601.537	ug/l	1.69	87,367.32	1.084E+00	Pulse	0.30	3
K			2	5416.829	ug/l	0.20	204,256.77	2.534E+00	Pulse	0.30	3
Ca			2	87456.898	ug/l	0.84	182,648.86	2.266E+00	Pulse	0.30	3
Ti			2	82.481	ug/l	3.55	1,505.64	1.868E-02	Pulse	0.30	3
V			2	80.394	ug/l	1.68	50,113.29	6.217E-01	Pulse	0.30	3
Cr			2	197.813	ug/l	0.42	160,486.63	1.991E+00	Pulse	0.30	3
Mn			2	126.167	ug/l	0.86	46,960.98	5.825E-01	Pulse	0.30	3
Fe			2	61131.898	ug/l	1.04	38,263,021.81	4.746E+02	Analog	0.30	3
Co			2	78.051	ug/l	1.70	110,554.85	1.371E+00	Pulse	0.30	3
Ni			2	78.011	ug/l	0.48	30,374.71	3.768E-01	Pulse	0.30	3
Cu			2	80.888	ug/l	1.42	88,236.88	1.095E+00	Pulse	0.30	3
Zn			2	209.901	ug/l	1.21	27,332.86	3.391E-01	Pulse	0.30	3
As			2	74.562	ug/l	1.20	5,343.22	6.628E-02	Pulse	1.00	3
Cd			2	76.059	ug/l	0.51	14,365.24	3.153E-02	Pulse	0.30	3
Sn			2	75.664	ug/l	0.78	29,882.88	6.560E-02	Pulse	0.30	3
Se			3	354.273	ug/l	1.80	5,599.69	5.397E-02	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,514,509.07	0.40	86.8	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,632,836.58	1.13	88.4	Pulse	0.10	3
1	Ge		541,314.00	0.37	91.4	Pulse	0.10	3
1	Ge		754,937.17	0.80	91.2	Pulse	0.10	3
1	Rh		3,652,739.01	1.49	92.1	Pulse	0.10	3
1	In		3,987,889.44	1.59	95.2	Pulse	0.10	3
1	Tb		5,679,816.79	0.19	101.5	Analog	0.10	3
1	Ho		519,254.76	1.42	98.5	Pulse	0.10	3
1	Bi		3,205,784.64	0.73	98.3	Pulse	0.10	3
2	Sc		80,616.97	1.01	91.1	Pulse	0.30	3
2	Ge		49,745.44	0.93	90.9	Pulse	0.30	3
2	Ge		76,128.69	1.52	91.9	Pulse	0.30	3
2	Rh		1,513,496.23	0.98	90.9	Pulse	0.30	3
2	In		455,530.91	0.44	91.4	Pulse	0.30	3
2	Tb		1,881,361.66	1.06	95.4	Pulse	0.30	3
2	Ho		182,372.44	0.69	95.4	Pulse	0.30	3
2	Bi		1,280,705.33	0.39	95.7	Pulse	0.30	3
3	Sc		100,813.42	0.98	97.0	Pulse	0.30	3
3	Ge		68,538.53	2.00	97.5	Pulse	0.30	3
3	Ge		103,761.79	0.96	96.5	Pulse	0.30	3
3	Rh		1,263,197.66	0.46	96.4	Pulse	0.30	3
3	Tb		2,036,970.27	0.75	99.7	Pulse	0.30	3

Quantitation Report

File Name	033SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File	
Method Path	
Acq Time	4/22/2019 12:31
Sample Name	jc86460-2
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/22/2019 18:08
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.043	ug/l	22.78	118.67	8.024E-05	Pulse	0.25	3
B			1	77.042	ug/l	0.47	128,248.04	8.670E-02	Pulse	0.15	3
Ca			1	17460.454	ug/l	1.55	6,227,938.24	2.434E+00	Analog	0.10	3
Sr			1	134.348	ug/l	0.27	2,490,828.82	7.038E-01	Pulse	0.10	3
Mo			1	7.920	ug/l	0.44	30,636.71	8.657E-03	Pulse	0.10	3
Ag			1	0.025	ug/l	44.92	250.01	6.480E-05	Pulse	0.10	3
Sn			1	2.089	ug/l	4.60	7,418.67	1.922E-03	Pulse	0.10	3
Sb			1	0.387	ug/l	2.92	3,047.08	5.519E-04	Pulse	0.10	3
Ba			1	24.677	ug/l	2.63	71,498.77	1.295E-02	Pulse	0.10	3
Tl			1	0.045	ug/l	29.33	1,153.43	3.627E-04	Pulse	0.10	3
Pb			1	0.482	ug/l	11.21	3,210.46	1.010E-03	Pulse	0.10	3
Pb			1	0.467	ug/l	8.77	2,707.00	8.507E-04	Pulse	0.10	3
Pb			1	0.475	ug/l	2.26	12,459.13	3.917E-03	Pulse	0.10	3
Na			2	9586.774	ug/l	0.55	3,088,841.33	3.923E+01	Pulse	0.30	3
Mg			2	4152.255	ug/l	0.17	610,588.43	7.754E+00	Pulse	0.30	3
Al			2	159.845	ug/l	1.43	7,478.42	9.497E-02	Pulse	0.30	3
K			2	4293.011	ug/l	0.18	390,624.26	4.961E+00	Pulse	0.30	3
Ca			2	17628.391	ug/l	0.88	89,919.39	1.142E+00	Pulse	0.30	3
Ti			2	1.579	ug/l	18.20	72.22	9.174E-04	Pulse	0.30	3
V			2	37.390	ug/l	0.86	56,904.94	7.227E-01	Pulse	0.30	3
Cr			2	302.112	ug/l	0.40	597,380.36	7.587E+00	Pulse	0.30	3
Mn			2	25.367	ug/l	0.64	23,081.83	2.931E-01	Pulse	0.30	3
Fe			2	344.745	ug/l	0.42	529,541.82	6.725E+00	Pulse	0.30	3
Co			2	1.222	ug/l	1.90	4,286.17	5.443E-02	Pulse	0.30	3
Ni			2	2.826	ug/l	2.02	2,724.71	3.460E-02	Pulse	0.30	3
Cu			2	5.271	ug/l	1.62	15,141.54	1.923E-01	Pulse	0.30	3
Zn			2	20.446	ug/l	2.32	6,632.53	8.423E-02	Pulse	0.30	3
As			2	0.418	ug/l	14.13	76.33	9.693E-04	Pulse	1.00	3
Cd			2	0.523	ug/l	8.50	245.15	5.549E-04	Pulse	0.30	3
Sn			2	0.903	ug/l	5.74	1,221.18	2.764E-03	Pulse	0.30	3
Se			3	0.792	ug/l	6.29	38.47	3.678E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,479,255.23	0.44	84.8	Pulse	0.10	3
1	Sc		2,558,839.29	1.25	85.9	Pulse	0.10	3
1	Ge		528,580.90	0.55	89.2	Pulse	0.10	3

Quantitation Report

1	Ge		736,488.22	0.56	88.9	Pulse	0.10	3
1	Rh		3,538,866.82	0.76	89.2	Pulse	0.10	3
1	In		3,859,335.03	0.54	92.1	Pulse	0.10	3
1	Tb		5,521,325.96	0.85	98.7	Analog	0.10	3
1	Ho		517,576.74	0.62	98.2	Pulse	0.10	3
1	Bi		3,181,335.16	0.85	97.6	Pulse	0.10	3
2	Sc		78,742.36	0.23	89.0	Pulse	0.30	3
2	Ge		49,624.00	1.60	90.7	Pulse	0.30	3
2	Ge		74,805.98	0.54	90.3	Pulse	0.30	3
2	Rh		1,482,951.33	0.09	89.1	Pulse	0.30	3
2	In		441,723.14	0.41	88.6	Pulse	0.30	3
2	Tb		1,855,324.93	0.15	94.0	Pulse	0.30	3
2	Ho		180,159.11	0.14	94.2	Pulse	0.30	3
2	Bi		1,256,532.52	0.40	93.9	Pulse	0.30	3
3	Sc		99,229.44	0.79	95.4	Pulse	0.30	3
3	Ge		68,303.28	1.86	97.2	Pulse	0.30	3
3	Ge		104,637.15	1.26	97.3	Pulse	0.30	3
3	Rh		1,255,012.24	0.52	95.7	Pulse	0.30	3
3	Tb		2,041,642.70	0.88	100.0	Pulse	0.30	3

Quantitation Report

File Name 034SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File
Method Path
Acq Time 4/22/2019 12:37
Sample Name jc86460-2
Sample Type Sample
Comment
Prep Dilution 5.000
Auto Dilution N/A
Total Dilution 5.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/22/2019 18:08
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.088	ug/l	82.28	102.67	6.781E-05	Pulse	0.25	3
B			1	84.228	ug/l	1.21	57,858.43	3.825E-02	Pulse	0.15	3
Ca			1	17179.884	ug/l	0.36	2,529,778.66	9.614E-01	Pulse	0.10	3
Sr			1	132.369	ug/l	0.88	1,015,722.59	2.775E-01	Pulse	0.10	3
Mo			1	7.712	ug/l	1.38	12,365.20	3.378E-03	Pulse	0.10	3
Ag			1	0.049	ug/l	31.42	200.01	5.026E-05	Pulse	0.10	3
Sn			1	4.799	ug/l	3.94	6,561.61	1.651E-03	Pulse	0.10	3
Sb			1	0.525	ug/l	6.45	1,763.50	3.148E-04	Pulse	0.10	3
Ba			1	24.123	ug/l	4.44	28,373.46	5.068E-03	Pulse	0.10	3
Tl			1	0.050	ug/l	9.71	733.38	2.281E-04	Pulse	0.10	3
Pb			1	0.432	ug/l	4.31	1,363.45	4.240E-04	Pulse	0.10	3
Pb			1	0.450	ug/l	12.72	1,230.10	3.824E-04	Pulse	0.10	3
Pb			1	0.427	ug/l	2.76	5,270.57	1.639E-03	Pulse	0.10	3
Na			2	9525.936	ug/l	1.03	1,274,824.19	1.566E+01	Pulse	0.30	3
Mg			2	4118.032	ug/l	1.04	250,508.49	3.077E+00	Pulse	0.30	3
Al			2	179.777	ug/l	3.62	3,519.30	4.324E-02	Pulse	0.30	3
K			2	4302.738	ug/l	0.86	164,838.20	2.025E+00	Pulse	0.30	3
Ca			2	17616.017	ug/l	0.92	37,181.47	4.567E-01	Pulse	0.30	3
Ti			2	4.724	ug/l	36.67	88.89	1.093E-03	Pulse	0.30	3
V			2	37.115	ug/l	2.50	23,407.74	2.876E-01	Pulse	0.30	3
Cr			2	298.145	ug/l	0.46	244,037.13	2.998E+00	Pulse	0.30	3
Mn			2	25.163	ug/l	0.40	9,499.49	1.167E-01	Pulse	0.30	3
Fe			2	343.444	ug/l	1.39	219,787.68	2.700E+00	Pulse	0.30	3
Co			2	1.231	ug/l	3.40	1,823.46	2.240E-02	Pulse	0.30	3
Ni			2	2.766	ug/l	6.24	1,128.94	1.387E-02	Pulse	0.30	3
Cu			2	5.191	ug/l	1.02	6,989.34	8.586E-02	Pulse	0.30	3
Zn			2	19.120	ug/l	6.16	2,675.81	3.288E-02	Pulse	0.30	3
As			2	1.311	ug/l	21.14	98.33	1.207E-03	Pulse	1.00	3
Cd			2	0.840	ug/l	25.40	166.05	3.613E-04	Pulse	0.30	3
Sn			2	1.993	ug/l	5.83	1,166.72	2.538E-03	Pulse	0.30	3
Se			3	2.388	ug/l	14.69	45.07	4.298E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,512,699.71	0.19	86.7	Pulse	0.10	3
1	Sc		2,631,434.55	0.71	88.3	Pulse	0.10	3
1	Ge		541,647.86	0.93	91.4	Pulse	0.10	3

Quantitation Report

1	Ge		755,230.59	1.16	91.2	Pulse	0.10	3
1	Rh		3,661,079.43	1.53	92.3	Pulse	0.10	3
1	In		3,971,465.40	1.14	94.8	Pulse	0.10	3
1	Tb		5,600,244.50	0.94	100.1	Analog	0.10	3
1	Ho		522,996.62	1.04	99.2	Pulse	0.10	3
1	Bi		3,215,488.18	0.53	98.6	Pulse	0.10	3
2	Sc		81,405.09	0.86	92.0	Pulse	0.30	3
2	Ge		50,737.42	1.04	92.8	Pulse	0.30	3
2	Ge		76,207.86	0.47	92.0	Pulse	0.30	3
2	Rh		1,534,599.42	0.39	92.2	Pulse	0.30	3
2	In		459,657.63	0.13	92.2	Pulse	0.30	3
2	Tb		1,887,770.20	0.28	95.7	Pulse	0.30	3
2	Ho		182,926.19	0.62	95.7	Pulse	0.30	3
2	Bi		1,278,241.20	0.06	95.5	Pulse	0.30	3
3	Sc		101,432.67	0.94	97.6	Pulse	0.30	3
3	Ge		68,888.94	1.61	98.0	Pulse	0.30	3
3	Ge		104,889.48	0.72	97.6	Pulse	0.30	3
3	Rh		1,285,521.82	0.22	98.1	Pulse	0.30	3
3	Tb		2,062,110.13	0.41	101.0	Pulse	0.30	3

Quantitation Report

File Name	035SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File	
Method Path	
Acq Time	4/22/2019 12:42
Sample Name	jc86460-3
Sample Type	Sample
Comment	
Prep Dilution	10.000
Auto Dilution	N/A
Total Dilution	10.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/22/2019 18:08
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.026	ug/l	113.19	29.33	1.886E-05	Pulse	0.25	3
B			1	1488.325	ug/l	0.70	517,107.58	3.333E-01	Pulse	0.15	3
Ca			1	13472.696	ug/l	0.78	1,030,401.73	3.804E-01	Pulse	0.10	3
Sr			1	82.268	ug/l	1.20	320,661.85	8.629E-02	Pulse	0.10	3
Mo			1	37.086	ug/l	1.52	30,125.91	8.108E-03	Pulse	0.10	3
Ag			1	0.055	ug/l	10.66	120.00	3.001E-05	Pulse	0.10	3
Sn			1	8.933	ug/l	0.64	5,754.58	1.438E-03	Pulse	0.10	3
Sb			1	0.854	ug/l	2.30	1,480.13	2.623E-04	Pulse	0.10	3
Ba			1	43.715	ug/l	1.26	25,915.91	4.593E-03	Pulse	0.10	3
Tl			1	0.493	ug/l	11.27	2,120.23	6.584E-04	Pulse	0.10	3
Pb			1	91.041	ug/l	0.89	111,488.54	3.463E-02	Pulse	0.10	3
Pb			1	89.306	ug/l	0.66	93,944.41	2.918E-02	Pulse	0.10	3
Pb			1	89.784	ug/l	1.33	434,966.32	1.351E-01	Pulse	0.10	3
Na			2	31174.212	ug/l	1.14	2,128,119.43	2.555E+01	Pulse	0.30	3
Mg			2	19815.933	ug/l	0.86	616,417.68	7.401E+00	Pulse	0.30	3
Al			2	28.505	ug/l	19.02	356.68	4.284E-03	Pulse	0.30	3
K			2	62269.764	ug/l	1.10	1,188,994.99	1.428E+01	Pulse	0.30	3
Ca			2	13880.359	ug/l	2.50	15,009.11	1.802E-01	Pulse	0.30	3
Ti			2	1.078	ug/l	82.46	12.22	1.465E-04	Pulse	0.30	3
V			2	1.744	ug/l	9.30	648.91	7.789E-03	Pulse	0.30	3
Cr			2	96.832	ug/l	3.18	40,902.62	4.912E-01	Pulse	0.30	3
Mn			2	31.331	ug/l	1.47	6,071.18	7.289E-02	Pulse	0.30	3
Fe			2	131.543	ug/l	2.27	45,334.34	5.443E-01	Pulse	0.30	3
Co			2	0.191	ug/l	23.93	204.45	2.454E-03	Pulse	0.30	3
Ni			2	1.634	ug/l	22.46	372.23	4.470E-03	Pulse	0.30	3
Cu			2	1.839	ug/l	2.37	2,410.21	2.894E-02	Pulse	0.30	3
Zn			2	3706.790	ug/l	0.25	247,919.79	2.977E+00	Pulse	0.30	3
As			2	0.456	ug/l	6.93	20.33	2.441E-04	Pulse	1.00	3
Cd			2	7.605	ug/l	8.72	747.45	1.589E-03	Pulse	0.30	3
Sn			2	3.099	ug/l	9.85	1,015.60	2.159E-03	Pulse	0.30	3
Se			3	0.989	ug/l	32.11	15.00	1.417E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,551,653.27	0.74	88.9	Pulse	0.10	3
1	Sc		2,708,549.54	0.81	90.9	Pulse	0.10	3
1	Ge		552,535.59	1.29	93.3	Pulse	0.10	3

Quantitation Report

1	Ge		772,673.63	1.45	93.3	Pulse	0.10	3
1	Rh		3,716,066.71	0.96	93.7	Pulse	0.10	3
1	In		4,001,748.57	1.02	95.5	Pulse	0.10	3
1	Tb		5,643,267.42	1.13	100.9	Analog	0.10	3
1	Ho		525,683.13	1.37	99.8	Pulse	0.10	3
1	Bi		3,219,783.28	0.41	98.8	Pulse	0.10	3
2	Sc		83,286.31	0.45	94.1	Pulse	0.30	3
2	Ge		51,790.72	2.34	94.7	Pulse	0.30	3
2	Ge		77,514.96	0.59	93.5	Pulse	0.30	3
2	Rh		1,552,805.53	0.21	93.3	Pulse	0.30	3
2	In		470,424.07	0.57	94.4	Pulse	0.30	3
2	Tb		1,907,442.70	0.51	96.7	Pulse	0.30	3
2	Ho		184,043.43	0.74	96.2	Pulse	0.30	3
2	Bi		1,290,388.46	0.29	96.4	Pulse	0.30	3
3	Sc		101,440.42	1.59	97.6	Pulse	0.30	3
3	Ge		69,452.39	0.32	98.8	Pulse	0.30	3
3	Ge		105,936.67	0.64	98.5	Pulse	0.30	3
3	Rh		1,278,316.23	0.68	97.5	Pulse	0.30	3
3	Tb		2,057,575.96	0.76	100.7	Pulse	0.30	3

Quantitation Report

File Name	036_CCV.d
File Path	C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File	
Method Path	
Acq Time	4/22/2019 12:47
Sample Name	CCVA
Sample Type	CCV
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/22/2019 18:08
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	49.332	ug/l	0.56	252,985.49	1.617E-01	Pulse	0.25	3
B			1	104.900	ug/l	1.94	367,838.82	2.351E-01	Pulse	0.15	3
Ca			1	5118.586	ug/l	0.27	3,931,433.59	1.429E+00	Pulse	0.10	3
Sr			1	51.478	ug/l	0.58	2,013,636.58	5.394E-01	Pulse	0.10	3
Mo			1	50.989	ug/l	0.72	415,688.31	1.114E-01	Pulse	0.10	3
Ag			1	49.474	ug/l	0.44	952,496.24	2.373E-01	Pulse	0.10	3
Sn			1	48.861	ug/l	1.13	622,965.70	1.552E-01	Pulse	0.10	3
Sb			1	49.247	ug/l	1.78	747,181.97	1.317E-01	Pulse	0.10	3
Ba			1	48.789	ug/l	1.39	290,412.49	5.119E-02	Pulse	0.10	3
Tl			1	50.137	ug/l	0.54	1,742,635.55	5.490E-01	Pulse	0.10	3
Pb			1	50.142	ug/l	0.45	603,908.62	1.903E-01	Pulse	0.10	3
Pb			1	50.789	ug/l	1.08	525,324.52	1.655E-01	Pulse	0.10	3
Pb			1	50.668	ug/l	0.55	2,414,444.22	7.607E-01	Pulse	0.10	3
Na			2	4986.605	ug/l	0.35	3,418,214.31	4.080E+01	Pulse	0.30	3
Mg			2	5087.925	ug/l	0.44	1,591,652.40	1.900E+01	Pulse	0.30	3
Al			2	4984.628	ug/l	0.85	491,420.08	5.866E+00	Pulse	0.30	3
K			2	5104.225	ug/l	0.32	981,230.66	1.171E+01	Pulse	0.30	3
Ca			2	5374.658	ug/l	0.96	58,346.10	6.965E-01	Pulse	0.30	3
Ti			2	48.132	ug/l	2.07	4,561.80	5.445E-02	Pulse	0.30	3
V			2	50.568	ug/l	0.45	163,599.42	1.953E+00	Pulse	0.30	3
Cr			2	50.607	ug/l	1.38	213,194.02	2.545E+00	Pulse	0.30	3
Mn			2	50.085	ug/l	1.11	96,805.28	1.156E+00	Pulse	0.30	3
Fe			2	5326.283	ug/l	1.38	17,322,702.64	2.068E+02	Analog	0.30	3
Co			2	50.199	ug/l	0.86	369,289.38	4.408E+00	Pulse	0.30	3
Ni			2	50.127	ug/l	0.50	101,310.42	1.209E+00	Pulse	0.30	3
Cu			2	50.468	ug/l	1.07	283,101.97	3.379E+00	Pulse	0.30	3
Zn			2	49.641	ug/l	1.99	33,552.13	4.005E-01	Pulse	0.30	3
As			2	48.973	ug/l	1.19	18,227.83	2.176E-01	Pulse	1.00	3
Cd			2	50.062	ug/l	0.65	48,418.51	1.038E-01	Pulse	0.30	3
Sn			2	49.538	ug/l	0.88	99,334.41	2.129E-01	Pulse	0.30	3
Se			3	196.657	ug/l	0.74	15,560.37	1.497E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,564,904.20	0.69	89.7	Pulse	0.10	3
1	Sc		2,750,375.17	1.09	92.3	Pulse	0.10	3
1	Ge		555,326.79	0.66	93.7	Pulse	0.10	3

Quantitation Report

1	Ge		780,171.99	0.39	94.2	Pulse	0.10	3
1	Rh		3,733,003.90	0.16	94.1	Pulse	0.10	3
1	In		4,013,372.33	0.93	95.8	Pulse	0.10	3
1	Tb		5,673,495.75	0.49	101.4	Analog	0.10	3
1	Ho		523,730.23	0.86	99.4	Pulse	0.10	3
1	Bi		3,173,956.93	0.62	97.4	Pulse	0.10	3
2	Sc		83,772.31	0.57	94.6	Pulse	0.30	3
2	Ge		51,743.83	1.14	94.6	Pulse	0.30	3
2	Ge		78,003.08	1.19	94.1	Pulse	0.30	3
2	Rh		1,554,528.51	0.73	93.4	Pulse	0.30	3
2	In		466,688.56	0.76	93.6	Pulse	0.30	3
2	Tb		1,921,819.58	1.10	97.4	Pulse	0.30	3
2	Ho		186,001.49	0.72	97.3	Pulse	0.30	3
2	Bi		1,275,774.92	0.90	95.4	Pulse	0.30	3
3	Sc		101,521.00	1.05	97.6	Pulse	0.30	3
3	Ge		68,136.90	0.53	96.9	Pulse	0.30	3
3	Ge		103,954.11	0.30	96.7	Pulse	0.30	3
3	Rh		1,260,967.97	0.58	96.2	Pulse	0.30	3
3	Tb		2,043,448.74	0.54	100.1	Pulse	0.30	3

Quantitation Report

File Name	037_CCB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File	
Method Path	
Acq Time	4/22/2019 12:52
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/22/2019 18:08
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.006	ug/l	32.93	46.67	2.978E-05	Pulse	0.25	3
B			1	6.838	ug/l	1.84	24,883.07	1.588E-02	Pulse	0.15	3
Ca			1	-1.154	ug/l	-57.24	14,466.82	5.370E-03	Pulse	0.10	3
Sr			1	0.011	ug/l	12.32	806.72	2.165E-04	Pulse	0.10	3
Mo			1	0.094	ug/l	22.58	800.06	2.146E-04	Pulse	0.10	3
Ag			1	0.011	ug/l	26.82	226.68	5.700E-05	Pulse	0.10	3
Sn			1	0.811	ug/l	2.53	4,680.89	1.175E-03	Pulse	0.10	3
Sb			1	0.201	ug/l	13.70	3,193.80	5.705E-04	Pulse	0.10	3
Ba			1	0.012	ug/l	73.59	106.67	1.910E-05	Pulse	0.10	3
Tl			1	0.018	ug/l	5.99	1,006.75	3.155E-04	Pulse	0.10	3
Pb			1	0.008	ug/l	75.07	406.69	1.274E-04	Pulse	0.10	3
Pb			1	0.009	ug/l	66.64	380.02	1.190E-04	Pulse	0.10	3
Pb			1	0.012	ug/l	30.86	1,730.11	5.422E-04	Pulse	0.10	3
Na			2	1.393	ug/l	46.24	10,417.74	1.271E-01	Pulse	0.30	3
Mg			2	0.543	ug/l	39.36	344.45	4.202E-03	Pulse	0.30	3
Al			2	0.627	ug/l	34.09	136.67	1.667E-03	Pulse	0.30	3
K			2	4.172	ug/l	18.50	5,731.05	6.993E-02	Pulse	0.30	3
Ca			2	3.130	ug/l	34.79	71.11	8.675E-04	Pulse	0.30	3
Ti			2	0.002	ug/l	952.07	2.22	2.707E-05	Pulse	0.30	3
V			2	-0.009	ug/l	-63.76	57.78	7.052E-04	Pulse	0.30	3
Cr			2	0.012	ug/l	93.40	472.24	5.763E-03	Pulse	0.30	3
Mn			2	0.001	ug/l	662.64	54.44	6.641E-04	Pulse	0.30	3
Fe			2	0.707	ug/l	12.50	5,011.93	6.115E-02	Pulse	0.30	3
Co			2	0.005	ug/l	59.00	103.33	1.261E-03	Pulse	0.30	3
Ni			2	-0.004	ug/l	-129.83	35.56	4.338E-04	Pulse	0.30	3
Cu			2	-0.009	ug/l	-57.32	1,320.07	1.611E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	0.071	ug/l	103.98	226.67	2.765E-03	Pulse	0.30	3
As			2	0.012	ug/l	88.63	7.67	9.348E-05	Pulse	1.00	3
Cd			2	0.014	ug/l	41.54	19.95	4.294E-05	Pulse	0.30	3
Sn			2	0.224	ug/l	23.10	832.26	1.790E-03	Pulse	0.30	3
Se			3	0.072	ug/l	40.41	12.47	1.208E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,567,089.00	0.71	89.8	Pulse	0.10	3
1	Sc		2,693,481.31	1.20	90.4	Pulse	0.10	3
1	Ge		541,965.28	0.72	91.5	Pulse	0.10	3
1	Ge		762,664.13	0.45	92.1	Pulse	0.10	3
1	Rh		3,725,940.67	0.52	93.9	Pulse	0.10	3
1	In		3,981,408.53	0.82	95.0	Pulse	0.10	3
1	Tb		5,593,511.58	0.98	100.0	Analog	0.10	3
1	Ho		515,947.44	1.29	97.9	Pulse	0.10	3
1	Bi		3,191,735.58	0.77	97.9	Pulse	0.10	3
2	Sc		81,957.84	0.20	92.6	Pulse	0.30	3
2	Ge		50,808.81	0.87	92.9	Pulse	0.30	3
2	Ge		77,180.31	0.80	93.1	Pulse	0.30	3
2	Rh		1,557,306.81	0.22	93.6	Pulse	0.30	3
2	In		464,803.39	0.14	93.2	Pulse	0.30	3
2	Tb		1,884,875.76	0.62	95.5	Pulse	0.30	3
2	Ho		181,799.01	0.75	95.1	Pulse	0.30	3
2	Bi		1,282,971.44	0.59	95.9	Pulse	0.30	3
3	Sc		100,143.69	0.42	96.3	Pulse	0.30	3
3	Ge		67,507.62	1.23	96.0	Pulse	0.30	3
3	Ge		103,236.35	0.83	96.0	Pulse	0.30	3
3	Rh		1,278,822.27	1.25	97.6	Pulse	0.30	3
3	Tb		2,022,400.48	0.66	99.0	Pulse	0.30	3

Quantitation Report

File Name	038SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File	
Method Path	
Acq Time	4/22/2019 12:57
Sample Name	jc86460-4
Sample Type	Sample
Comment	
Prep Dilution	5.000
Auto Dilution	N/A
Total Dilution	5.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/22/2019 18:08
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	1.358	ug/l	7.65	1,436.08	9.000E-04	Pulse	0.25	3
B			1	63.621	ug/l	1.25	46,343.43	2.904E-02	Pulse	0.15	3
Ca			1	935.933	ug/l	1.55	164,244.19	5.776E-02	Pulse	0.10	3
Sr			1	78.291	ug/l	0.45	613,059.12	1.641E-01	Pulse	0.10	3
Mo			1	6.000	ug/l	4.55	9,816.76	2.630E-03	Pulse	0.10	3
Ag			1	0.150	ug/l	8.00	590.04	1.477E-04	Pulse	0.10	3
Sn			1	7.853	ug/l	3.13	14,427.12	3.610E-03	Pulse	0.10	3
Sb			1	0.846	ug/l	9.51	2,783.69	4.864E-04	Pulse	0.10	3
Ba			1	79.824	ug/l	1.39	95,980.10	1.675E-02	Pulse	0.10	3
Tl			1	0.472	ug/l	4.11	3,700.60	1.153E-03	Pulse	0.10	3
Pb			1	68.887	ug/l	0.16	168,112.97	5.235E-02	Pulse	0.10	3
Pb			1	66.742	ug/l	0.56	139,897.23	4.357E-02	Pulse	0.10	3
Pb			1	67.474	ug/l	0.36	651,456.76	2.029E-01	Pulse	0.10	3
Na			2	43363.002	ug/l	0.93	6,170,699.75	7.088E+01	Analog	0.30	3
Mg			2	2588.861	ug/l	0.84	168,499.22	1.935E+00	Pulse	0.30	3
Al			2	34109.923	ug/l	0.13	698,937.25	8.028E+00	Pulse	0.30	3
K			2	5353.325	ug/l	0.55	218,058.03	2.505E+00	Pulse	0.30	3
Ca			2	1173.213	ug/l	1.50	2,685.81	3.085E-02	Pulse	0.30	3
Ti			2	110.838	ug/l	2.01	2,184.62	2.509E-02	Pulse	0.30	3
V			2	92.783	ug/l	0.87	62,450.33	7.173E-01	Pulse	0.30	3
Cr			2	214.344	ug/l	0.81	187,757.49	2.157E+00	Pulse	0.30	3
Mn			2	13.888	ug/l	1.89	5,632.13	6.470E-02	Pulse	0.30	3
Fe			2	20219.414	ug/l	0.08	13,669,316.40	1.570E+02	Analog	0.30	3
Co			2	1.395	ug/l	3.35	2,200.17	2.527E-02	Pulse	0.30	3
Ni			2	4.862	ug/l	16.54	2,088.19	2.398E-02	Pulse	0.30	3
Cu			2	5.428	ug/l	2.12	7,749.69	8.902E-02	Pulse	0.30	3
Zn			2	510.834	ug/l	1.54	71,562.95	8.220E-01	Pulse	0.30	3
As			2	41.824	ug/l	2.55	3,238.33	3.720E-02	Pulse	1.00	3
Cd			2	0.440	ug/l	39.44	91.71	1.952E-04	Pulse	0.30	3
Sn			2	4.497	ug/l	6.07	2,197.96	4.681E-03	Pulse	0.30	3
Se			3	3.415	ug/l	9.66	63.20	5.861E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,596,093.49	0.91	91.5	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,843,408.50	1.44	95.4	Pulse	0.10	3
1	Ge		562,244.60	1.54	94.9	Pulse	0.10	3
1	Ge		779,444.29	1.03	94.1	Pulse	0.10	3
1	Rh		3,734,789.32	1.80	94.1	Pulse	0.10	3
1	In		3,995,992.58	1.04	95.4	Pulse	0.10	3
1	Tb		5,729,606.16	2.48	102.4	Analog	0.10	3
1	Ho		531,923.24	2.36	100.9	Pulse	0.10	3
1	Bi		3,211,299.02	1.78	98.5	Pulse	0.10	3
2	Sc		87,058.87	0.46	98.3	Pulse	0.30	3
2	Ge		52,355.79	1.19	95.7	Pulse	0.30	3
2	Ge		79,435.56	0.12	95.8	Pulse	0.30	3
2	Rh		1,571,636.43	0.28	94.4	Pulse	0.30	3
2	In		469,419.02	0.58	94.2	Pulse	0.30	3
2	Tb		1,903,019.51	0.22	96.5	Pulse	0.30	3
2	Ho		186,622.13	0.46	97.6	Pulse	0.30	3
2	Bi		1,286,409.60	0.26	96.2	Pulse	0.30	3
3	Sc		106,928.49	0.62	102.8	Pulse	0.30	3
3	Ge		70,467.79	0.91	100.3	Pulse	0.30	3
3	Ge		107,820.01	1.20	100.3	Pulse	0.30	3
3	Rh		1,279,024.74	0.63	97.6	Pulse	0.30	3
3	Tb		2,053,578.53	0.11	100.6	Pulse	0.30	3

Quantitation Report

File Name	039SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File	
Method Path	
Acq Time	4/22/2019 13:02
Sample Name	jc86460-5
Sample Type	Sample
Comment	
Prep Dilution	5.000
Auto Dilution	N/A
Total Dilution	5.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/22/2019 18:08
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	1.422	ug/l	3.51	1,541.43	9.423E-04	Pulse	0.25	3
B			1	58.656	ug/l	2.64	43,874.67	2.682E-02	Pulse	0.15	3
Ca			1	777.307	ug/l	0.72	142,648.32	4.893E-02	Pulse	0.10	3
Sr			1	76.786	ug/l	0.18	610,603.09	1.610E-01	Pulse	0.10	3
Mo			1	6.316	ug/l	3.41	10,497.19	2.768E-03	Pulse	0.10	3
Ag			1	0.102	ug/l	14.24	416.69	1.016E-04	Pulse	0.10	3
Sn			1	8.890	ug/l	1.67	17,517.04	4.275E-03	Pulse	0.10	3
Sb			1	0.768	ug/l	12.73	2,530.34	4.447E-04	Pulse	0.10	3
Ba			1	78.883	ug/l	1.80	94,178.15	1.656E-02	Pulse	0.10	3
Tl			1	0.496	ug/l	2.72	3,887.35	1.205E-03	Pulse	0.10	3
Pb			1	94.758	ug/l	1.75	232,165.99	7.197E-02	Pulse	0.10	3
Pb			1	92.502	ug/l	0.99	194,667.65	6.035E-02	Pulse	0.10	3
Pb			1	93.660	ug/l	0.58	907,908.61	2.815E-01	Pulse	0.10	3
Na			2	43475.794	ug/l	0.91	6,291,646.97	7.106E+01	Analog	0.30	3
Mg			2	2635.268	ug/l	1.37	174,418.34	1.970E+00	Pulse	0.30	3
Al			2	33778.138	ug/l	0.54	703,879.12	7.950E+00	Pulse	0.30	3
K			2	5464.867	ug/l	0.74	226,259.20	2.556E+00	Pulse	0.30	3
Ca			2	993.434	ug/l	8.15	2,320.19	2.619E-02	Pulse	0.30	3
Ti			2	120.002	ug/l	6.86	2,404.65	2.716E-02	Pulse	0.30	3
V			2	93.562	ug/l	0.67	64,040.61	7.233E-01	Pulse	0.30	3
Cr			2	218.751	ug/l	1.24	194,856.71	2.201E+00	Pulse	0.30	3
Mn			2	16.317	ug/l	1.63	6,719.23	7.590E-02	Pulse	0.30	3
Fe			2	20272.994	ug/l	1.75	13,936,826.95	1.574E+02	Analog	0.30	3
Co			2	1.491	ug/l	3.49	2,386.87	2.696E-02	Pulse	0.30	3
Ni			2	4.408	ug/l	3.24	1,929.03	2.179E-02	Pulse	0.30	3
Cu			2	8.997	ug/l	2.32	12,091.21	1.366E-01	Pulse	0.30	3
Zn			2	1982.938	ug/l	0.55	281,951.60	3.185E+00	Pulse	0.30	3
As			2	41.170	ug/l	2.28	3,241.66	3.662E-02	Pulse	1.00	3
Cd			2	1.398	ug/l	8.08	280.65	5.926E-04	Pulse	0.30	3
Sn			2	6.311	ug/l	4.47	2,952.53	6.234E-03	Pulse	0.30	3
Se			3	3.852	ug/l	3.63	69.53	6.525E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,636,079.24	0.93	93.8	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,915,298.29	0.57	97.9	Pulse	0.10	3
1	Ge		572,274.11	0.62	96.6	Pulse	0.10	3
1	Ge		794,818.27	1.17	96.0	Pulse	0.10	3
1	Rh		3,792,724.94	0.39	95.6	Pulse	0.10	3
1	In		4,098,063.94	1.11	97.8	Pulse	0.10	3
1	Tb		5,688,511.79	1.12	101.7	Analog	0.10	3
1	Ho		531,227.45	0.76	100.8	Pulse	0.10	3
1	Bi		3,225,755.99	0.97	99.0	Pulse	0.10	3
2	Sc		88,537.86	0.95	100.0	Pulse	0.30	3
2	Ge		52,882.10	0.86	96.7	Pulse	0.30	3
2	Ge		79,101.69	0.54	95.4	Pulse	0.30	3
2	Rh		1,570,636.57	0.17	94.4	Pulse	0.30	3
2	In		473,606.38	0.30	95.0	Pulse	0.30	3
2	Tb		1,911,200.83	0.37	96.9	Pulse	0.30	3
2	Ho		185,955.41	0.22	97.2	Pulse	0.30	3
2	Bi		1,282,945.12	0.21	95.9	Pulse	0.30	3
3	Sc		105,913.36	0.73	101.9	Pulse	0.30	3
3	Ge		69,924.49	0.88	99.5	Pulse	0.30	3
3	Ge		106,566.21	1.04	99.1	Pulse	0.30	3
3	Rh		1,278,349.15	0.70	97.5	Pulse	0.30	3
3	Tb		2,031,648.88	0.75	99.5	Pulse	0.30	3

Quantitation Report

File Name	040SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File	
Method Path	
Acq Time	4/22/2019 13:07
Sample Name	jc86460-12
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/22/2019 18:08
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.046	ug/l	0.80	140.00	8.545E-05	Pulse	0.25	3
B			1	9.850	ug/l	4.29	19,011.05	1.160E-02	Pulse	0.15	3
Ca			1	21.834	ug/l	7.90	24,111.44	8.727E-03	Pulse	0.10	3
Sr			1	0.541	ug/l	2.61	11,180.90	2.937E-03	Pulse	0.10	3
Mo			1	0.041	ug/l	54.08	206.67	5.433E-05	Pulse	0.10	3
Ag			1	0.011	ug/l	53.13	123.34	3.031E-05	Pulse	0.10	3
Sn			1	2.006	ug/l	3.54	7,265.23	1.789E-03	Pulse	0.10	3
Sb			1	0.161	ug/l	17.61	1,406.78	2.488E-04	Pulse	0.10	3
Ba			1	0.875	ug/l	6.34	2,630.31	4.655E-04	Pulse	0.10	3
Tl			1	0.013	ug/l	19.46	623.37	1.888E-04	Pulse	0.10	3
Pb			1	0.049	ug/l	12.00	626.70	1.899E-04	Pulse	0.10	3
Pb			1	0.049	ug/l	30.54	560.03	1.698E-04	Pulse	0.10	3
Pb			1	0.053	ug/l	8.18	2,500.18	7.575E-04	Pulse	0.10	3
Na			2	21.771	ug/l	3.62	17,504.73	2.046E-01	Pulse	0.30	3
Mg			2	2.048	ug/l	17.18	513.35	6.000E-03	Pulse	0.30	3
Al			2	23.467	ug/l	1.65	1,261.17	1.474E-02	Pulse	0.30	3
K			2	4.259	ug/l	13.26	5,585.44	6.527E-02	Pulse	0.30	3
Ca			2	29.965	ug/l	8.71	205.56	2.402E-03	Pulse	0.30	3
Ti			2	0.232	ug/l	59.63	13.33	1.560E-04	Pulse	0.30	3
V			2	0.136	ug/l	2.67	315.56	3.688E-03	Pulse	0.30	3
Cr			2	0.604	ug/l	4.38	1,739.00	2.032E-02	Pulse	0.30	3
Mn			2	0.168	ug/l	21.16	221.12	2.583E-03	Pulse	0.30	3
Fe			2	4.705	ug/l	2.71	10,700.24	1.250E-01	Pulse	0.30	3
Co			2	0.024	ug/l	44.44	156.67	1.831E-03	Pulse	0.30	3
Ni			2	0.314	ug/l	15.29	368.90	4.312E-03	Pulse	0.30	3
Cu			2	0.462	ug/l	4.74	2,745.82	3.208E-02	Pulse	0.30	3
Zn			2	2.223	ug/l	7.54	951.15	1.111E-02	Pulse	0.30	3
As			2	0.067	ug/l	34.95	16.33	1.908E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	0.001	ug/l	580.52	6.65	1.422E-05	Pulse	0.30	3
Sn			2	0.799	ug/l	3.23	1,188.95	2.542E-03	Pulse	0.30	3
Se			3	0.004	ug/l	256.23	7.47	6.810E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,638,387.07	0.70	93.9	Pulse	0.10	3
1	Sc		2,762,895.17	0.45	92.7	Pulse	0.10	3
1	Ge		563,928.34	1.14	95.2	Pulse	0.10	3
1	Ge		785,362.12	0.62	94.8	Pulse	0.10	3
1	Rh		3,806,735.46	0.51	96.0	Pulse	0.10	3
1	In		4,059,460.23	0.79	96.9	Pulse	0.10	3
1	Tb		5,649,215.33	0.85	101.0	Analog	0.10	3
1	Ho		519,441.57	1.11	98.6	Pulse	0.10	3
1	Bi		3,299,863.18	1.17	101.2	Pulse	0.10	3
2	Sc		85,577.94	0.33	96.7	Pulse	0.30	3
2	Ge		52,032.63	0.89	95.1	Pulse	0.30	3
2	Ge		79,458.70	0.98	95.9	Pulse	0.30	3
2	Rh		1,584,520.42	0.30	95.2	Pulse	0.30	3
2	In		467,782.89	0.17	93.8	Pulse	0.30	3
2	Tb		1,900,722.70	0.95	96.3	Pulse	0.30	3
2	Ho		183,702.02	0.50	96.1	Pulse	0.30	3
2	Bi		1,306,548.38	0.29	97.7	Pulse	0.30	3
3	Sc		107,671.37	1.25	103.6	Pulse	0.30	3
3	Ge		72,233.34	0.03	102.8	Pulse	0.30	3
3	Ge		109,646.23	0.06	102.0	Pulse	0.30	3
3	Rh		1,319,631.86	0.85	100.7	Pulse	0.30	3
3	Tb		2,070,242.28	1.14	101.4	Pulse	0.30	3

Quantitation Report

File Name	041SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File	
Method Path	
Acq Time	4/22/2019 13:12
Sample Name	jc86460-2f
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/22/2019 18:08
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.016	ug/l	13.61	62.67	3.685E-05	Pulse	0.25	3
B			1	80.053	ug/l	1.17	153,170.30	9.006E-02	Pulse	0.15	3
Ca			1	17659.322	ug/l	1.16	7,101,813.85	2.462E+00	Analog	0.10	3
Sr			1	134.305	ug/l	0.50	2,711,616.42	7.036E-01	Pulse	0.10	3
Mo			1	7.896	ug/l	1.43	33,258.70	8.631E-03	Pulse	0.10	3
Ag			1	0.017	ug/l	28.28	186.67	4.500E-05	Pulse	0.10	3
Sn			1	1.983	ug/l	1.67	7,265.27	1.753E-03	Pulse	0.10	3
Sb			1	0.346	ug/l	2.08	2,890.38	4.972E-04	Pulse	0.10	3
Ba			1	23.776	ug/l	2.63	72,553.52	1.248E-02	Pulse	0.10	3
Tl			1	0.024	ug/l	25.41	810.06	2.481E-04	Pulse	0.10	3
Pb			1	0.084	ug/l	21.00	836.72	2.561E-04	Pulse	0.10	3
Pb			1	0.084	ug/l	21.32	740.05	2.266E-04	Pulse	0.10	3
Pb			1	0.099	ug/l	12.41	3,586.98	1.098E-03	Pulse	0.10	3
Na			2	9782.336	ug/l	0.80	3,552,121.94	4.003E+01	Pulse	0.30	3
Mg			2	4307.396	ug/l	0.48	713,881.32	8.044E+00	Pulse	0.30	3
Al			2	92.825	ug/l	1.56	4,929.67	5.554E-02	Pulse	0.30	3
K			2	4434.124	ug/l	0.58	454,567.13	5.122E+00	Pulse	0.30	3
Ca			2	17824.721	ug/l	0.42	102,472.97	1.155E+00	Pulse	0.30	3
Ti			2	0.355	ug/l	0.77	20.00	2.254E-04	Pulse	0.30	3
V			2	35.560	ug/l	0.52	61,002.76	6.873E-01	Pulse	0.30	3
Cr			2	321.510	ug/l	1.03	716,473.62	8.073E+00	Pulse	0.30	3
Mn			2	16.578	ug/l	1.52	17,021.13	1.918E-01	Pulse	0.30	3
Fe			2	229.174	ug/l	0.27	397,759.13	4.482E+00	Pulse	0.30	3
Co			2	1.201	ug/l	2.75	4,746.30	5.348E-02	Pulse	0.30	3
Ni			2	3.076	ug/l	3.14	3,338.15	3.761E-02	Pulse	0.30	3
Cu			2	5.110	ug/l	2.33	16,588.46	1.869E-01	Pulse	0.30	3
Zn			2	20.177	ug/l	2.67	7,379.52	8.315E-02	Pulse	0.30	3
As			2	0.345	ug/l	4.10	71.67	8.075E-04	Pulse	1.00	3
Cd			2	0.493	ug/l	9.61	253.96	5.238E-04	Pulse	0.30	3
Sn			2	0.674	ug/l	19.54	1,102.27	2.274E-03	Pulse	0.30	3
Se			3	0.825	ug/l	7.13	43.33	3.803E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,700,692.57	0.05	97.5	Pulse	0.10	3
1	Sc		2,884,850.58	0.93	96.8	Pulse	0.10	3
1	Ge		590,916.93	0.35	99.8	Pulse	0.10	3

Quantitation Report

1	Ge		823,080.30	0.86	99.4	Pulse	0.10	3
1	Rh		3,853,813.70	0.86	97.1	Pulse	0.10	3
1	In		4,144,109.60	0.63	98.9	Pulse	0.10	3
1	Tb		5,814,165.95	0.47	103.9	Analog	0.10	3
1	Ho		541,340.71	1.39	102.7	Pulse	0.10	3
1	Bi		3,266,227.24	0.32	100.2	Pulse	0.10	3
2	Sc		88,749.86	0.69	100.3	Pulse	0.30	3
2	Ge		54,964.40	1.50	100.5	Pulse	0.30	3
2	Ge		82,405.63	0.96	99.4	Pulse	0.30	3
2	Rh		1,619,249.41	0.37	97.3	Pulse	0.30	3
2	In		484,830.36	0.20	97.2	Pulse	0.30	3
2	Tb		1,973,814.50	0.11	100.1	Pulse	0.30	3
2	Ho		191,131.54	0.76	100.0	Pulse	0.30	3
2	Bi		1,308,530.26	0.26	97.8	Pulse	0.30	3
3	Sc		111,472.88	1.07	107.2	Pulse	0.30	3
3	Ge		75,246.55	0.52	107.1	Pulse	0.30	3
3	Ge		113,982.36	0.81	106.0	Pulse	0.30	3
3	Rh		1,327,133.73	0.16	101.2	Pulse	0.30	3
3	Tb		2,110,981.24	0.25	103.4	Pulse	0.30	3

Quantitation Report

File Name	042SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File	
Method Path	
Acq Time	4/22/2019 13:17
Sample Name	jc86460-2f
Sample Type	Sample
Comment	
Prep Dilution	5.000
Auto Dilution	N/A
Total Dilution	5.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/22/2019 18:08
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.037	ug/l	45.57	60.00	3.479E-05	Pulse	0.25	3
B			1	89.079	ug/l	1.48	69,911.86	4.042E-02	Pulse	0.15	3
Ca			1	17287.661	ug/l	0.65	2,923,412.25	9.674E-01	Pulse	0.10	3
Sr			1	133.948	ug/l	0.05	1,125,886.26	2.808E-01	Pulse	0.10	3
Mo			1	7.736	ug/l	1.42	13,586.24	3.388E-03	Pulse	0.10	3
Ag			1	8.467	ug/l	172.83	34,874.23	8.127E-03	Pulse	0.10	3
Sn			1	4.953	ug/l	0.42	7,485.39	1.750E-03	Pulse	0.10	3
Sb			1	0.412	ug/l	4.22	1,486.80	2.542E-04	Pulse	0.10	3
Ba			1	24.378	ug/l	1.97	29,946.27	5.122E-03	Pulse	0.10	3
Tl			1	0.022	ug/l	20.80	556.70	1.679E-04	Pulse	0.10	3
Pb			1	0.071	ug/l	98.20	496.69	1.498E-04	Pulse	0.10	3
Pb			1	0.036	ug/l	106.51	373.36	1.125E-04	Pulse	0.10	3
Pb			1	0.059	ug/l	3.46	1,770.11	5.341E-04	Pulse	0.10	3
Na			2	9764.969	ug/l	1.44	1,467,672.34	1.605E+01	Pulse	0.30	3
Mg			2	4329.709	ug/l	1.35	295,847.36	3.236E+00	Pulse	0.30	3
Al			2	96.782	ug/l	4.20	2,167.95	2.371E-02	Pulse	0.30	3
K			2	4498.776	ug/l	0.46	193,359.04	2.115E+00	Pulse	0.30	3
Ca			2	18083.767	ug/l	1.35	42,870.59	4.688E-01	Pulse	0.30	3
Ti			2	0.376	ug/l	44.01	10.00	1.096E-04	Pulse	0.30	3
V			2	35.605	ug/l	2.50	25,227.09	2.759E-01	Pulse	0.30	3
Cr			2	324.428	ug/l	1.47	298,238.17	3.262E+00	Pulse	0.30	3
Mn			2	17.029	ug/l	3.25	7,239.44	7.918E-02	Pulse	0.30	3
Fe			2	230.918	ug/l	1.66	167,007.65	1.827E+00	Pulse	0.30	3
Co			2	1.243	ug/l	5.51	2,067.93	2.261E-02	Pulse	0.30	3
Ni			2	3.071	ug/l	3.78	1,403.41	1.534E-02	Pulse	0.30	3
Cu			2	4.885	ug/l	5.85	7,476.23	8.178E-02	Pulse	0.30	3
Zn			2	19.546	ug/l	2.18	3,069.22	3.356E-02	Pulse	0.30	3
As			2	0.380	ug/l	17.33	34.67	3.795E-04	Pulse	1.00	3
Cd			2	0.534	ug/l	15.61	117.12	2.345E-04	Pulse	0.30	3
Sn			2	1.795	ug/l	12.13	1,183.39	2.369E-03	Pulse	0.30	3
Se			3	0.827	ug/l	5.94	21.67	1.923E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,730,032.37	1.43	99.2	Pulse	0.10	3
1	Sc		3,022,001.00	0.73	101.4	Pulse	0.10	3
1	Ge		603,195.79	0.64	101.8	Pulse	0.10	3

Quantitation Report

1	Ge		842,946.89	1.25	101.8	Pulse	0.10	3
1	Rh		4,010,087.34	1.33	101.1	Pulse	0.10	3
1	In		4,277,644.86	0.77	102.1	Pulse	0.10	3
1	Tb		5,848,461.37	2.02	104.5	Analog	0.10	3
1	Ho		543,816.23	0.38	103.2	Pulse	0.10	3
1	Bi		3,314,113.39	1.27	101.7	Pulse	0.10	3
2	Sc		91,446.41	1.13	103.3	Pulse	0.30	3
2	Ge		57,061.45	0.83	104.3	Pulse	0.30	3
2	Ge		85,020.00	0.80	102.6	Pulse	0.30	3
2	Rh		1,668,908.44	0.09	100.3	Pulse	0.30	3
2	In		499,655.82	0.57	100.2	Pulse	0.30	3
2	Tb		1,983,412.42	0.23	100.5	Pulse	0.30	3
2	Ho		191,539.53	0.59	100.2	Pulse	0.30	3
2	Bi		1,326,036.58	0.57	99.1	Pulse	0.30	3
3	Sc		111,272.60	0.22	107.0	Pulse	0.30	3
3	Ge		74,638.34	0.50	106.2	Pulse	0.30	3
3	Ge		112,679.97	0.24	104.8	Pulse	0.30	3
3	Rh		1,341,330.78	1.13	102.3	Pulse	0.30	3
3	Tb		2,106,716.93	0.56	103.2	Pulse	0.30	3

Quantitation Report

File Name	043SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File	
Method Path	
Acq Time	4/22/2019 13:22
Sample Name	mp14347-mb1 4
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/22/2019 18:08
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	-0.002	ug/l	-199.45	13.33	7.849E-06	Pulse	0.25	3
B			1	7.483	ug/l	2.09	15,273.83	8.957E-03	Pulse	0.15	3
Ca			1	64.104	ug/l	2.79	42,601.99	1.461E-02	Pulse	0.10	3
Sr			1	0.063	ug/l	3.72	1,703.50	4.335E-04	Pulse	0.10	3
Mo			1	0.037	ug/l	36.86	196.68	5.008E-05	Pulse	0.10	3
Ag			1	0.006	ug/l	85.97	73.33	1.753E-05	Pulse	0.10	3
Sn			1	1.858	ug/l	1.58	6,468.23	1.552E-03	Pulse	0.10	3
Sb			1	0.108	ug/l	7.63	1,036.74	1.780E-04	Pulse	0.10	3
Ba			1	0.065	ug/l	43.97	236.68	4.074E-05	Pulse	0.10	3
Tl			1	0.006	ug/l	132.98	496.69	1.498E-04	Pulse	0.10	3
Pb			1	0.036	ug/l	36.46	543.37	1.640E-04	Pulse	0.10	3
Pb			1	0.028	ug/l	56.85	450.03	1.357E-04	Pulse	0.10	3
Pb			1	0.036	ug/l	29.54	2,076.81	6.271E-04	Pulse	0.10	3
Na			2	17.722	ug/l	4.41	16,688.33	1.880E-01	Pulse	0.30	3
Mg			2	2.158	ug/l	18.46	550.02	6.204E-03	Pulse	0.30	3
Al			2	2.334	ug/l	28.63	204.45	2.303E-03	Pulse	0.30	3
K			2	7.862	ug/l	8.06	6,158.99	6.938E-02	Pulse	0.30	3
Ca			2	65.006	ug/l	5.01	414.45	4.671E-03	Pulse	0.30	3
Ti			2	0.113	ug/l	149.66	7.78	8.855E-05	Pulse	0.30	3
V			2	0.128	ug/l	17.27	313.34	3.527E-03	Pulse	0.30	3
Cr			2	0.395	ug/l	1.96	1,338.96	1.508E-02	Pulse	0.30	3
Mn			2	0.272	ug/l	31.18	334.45	3.778E-03	Pulse	0.30	3
Fe			2	3.460	ug/l	5.20	8,951.42	1.009E-01	Pulse	0.30	3
Co			2	0.021	ug/l	33.55	152.22	1.713E-03	Pulse	0.30	3
Ni			2	0.128	ug/l	21.14	184.45	2.077E-03	Pulse	0.30	3
Cu			2	0.128	ug/l	27.89	1,859.01	2.094E-02	Pulse	0.30	3
Zn			2	2.886	ug/l	4.67	1,222.29	1.377E-02	Pulse	0.30	3
As			2	0.064	ug/l	10.33	16.33	1.839E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	-0.001	ug/l	-1019.65	5.54	1.157E-05	Pulse	0.30	3
Sn			2	0.611	ug/l	8.73	1,028.94	2.140E-03	Pulse	0.30	3
Se			3	0.014	ug/l	465.51	8.13	7.182E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,705,112.93	0.93	97.7	Pulse	0.10	3
1	Sc		2,916,771.62	0.11	97.9	Pulse	0.10	3
1	Ge		591,112.84	1.09	99.8	Pulse	0.10	3
1	Ge		820,042.07	0.76	99.0	Pulse	0.10	3
1	Rh		3,929,839.63	0.68	99.1	Pulse	0.10	3
1	In		4,169,005.54	1.28	99.5	Pulse	0.10	3
1	Tb		5,829,669.91	2.21	104.2	Analog	0.10	3
1	Ho		535,951.96	0.97	101.7	Pulse	0.10	3
1	Bi		3,316,285.37	1.75	101.7	Pulse	0.10	3
2	Sc		88,763.69	1.57	100.3	Pulse	0.30	3
2	Ge		55,013.39	0.23	100.6	Pulse	0.30	3
2	Ge		82,990.77	0.78	100.1	Pulse	0.30	3
2	Rh		1,652,582.82	0.18	99.3	Pulse	0.30	3
2	In		480,819.69	0.52	96.4	Pulse	0.30	3
2	Tb		1,939,939.64	0.59	98.3	Pulse	0.30	3
2	Ho		187,379.10	0.96	98.0	Pulse	0.30	3
2	Bi		1,316,136.44	1.05	98.4	Pulse	0.30	3
3	Sc		109,440.51	0.24	105.3	Pulse	0.30	3
3	Ge		73,956.33	0.19	105.2	Pulse	0.30	3
3	Ge		113,300.87	0.84	105.4	Pulse	0.30	3
3	Rh		1,347,323.77	0.55	102.8	Pulse	0.30	3
3	Tb		2,086,703.81	0.19	102.2	Pulse	0.30	3

Quantitation Report

File Name	044SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File	
Method Path	
Acq Time	4/22/2019 13:27
Sample Name	mp14347-b1
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/22/2019 18:08
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	76.076	ug/l	1.35	215,994.73	1.247E-01	Pulse	0.25	3
B			1	89.578	ug/l	0.67	174,491.62	1.007E-01	Pulse	0.15	3
Ca			1	4013.097	ug/l	0.74	1,682,813.98	5.638E-01	Pulse	0.10	3
Sr			1	80.523	ug/l	0.06	1,667,103.57	4.219E-01	Pulse	0.10	3
Mo			1	76.509	ug/l	0.72	330,115.83	8.355E-02	Pulse	0.10	3
Ag			1	78.610	ug/l	1.40	791,545.53	1.886E-01	Pulse	0.10	3
Sn			1	75.088	ug/l	0.58	499,380.64	1.189E-01	Pulse	0.10	3
Sb			1	74.754	ug/l	1.21	590,095.06	9.997E-02	Pulse	0.10	3
Ba			1	76.565	ug/l	0.72	237,102.46	4.017E-02	Pulse	0.10	3
Tl			1	77.970	ug/l	0.50	1,402,483.05	4.270E-01	Pulse	0.10	3
Pb			1	77.557	ug/l	0.27	483,452.19	1.472E-01	Pulse	0.10	3
Pb			1	78.442	ug/l	0.81	419,942.40	1.278E-01	Pulse	0.10	3
Pb			1	78.373	ug/l	0.40	1,932,854.89	5.884E-01	Pulse	0.10	3
Na			2	3926.357	ug/l	0.76	1,476,205.95	1.613E+01	Pulse	0.30	3
Mg			2	3960.357	ug/l	1.43	676,666.15	7.396E+00	Pulse	0.30	3
Al			2	3773.999	ug/l	1.08	203,238.06	2.221E+00	Pulse	0.30	3
K			2	3983.286	ug/l	1.05	421,538.45	4.607E+00	Pulse	0.30	3
Ca			2	4359.015	ug/l	2.08	25,865.73	2.827E-01	Pulse	0.30	3
Ti			2	75.726	ug/l	2.65	3,919.40	4.284E-02	Pulse	0.30	3
V			2	78.963	ug/l	0.62	139,531.84	1.525E+00	Pulse	0.30	3
Cr			2	79.902	ug/l	1.20	183,925.05	2.010E+00	Pulse	0.30	3
Mn			2	78.330	ug/l	0.93	82,691.87	9.038E-01	Pulse	0.30	3
Fe			2	4140.625	ug/l	1.11	7,356,185.82	8.040E+01	Analog	0.30	3
Co			2	78.791	ug/l	0.52	316,558.10	3.460E+00	Pulse	0.30	3
Ni			2	78.258	ug/l	1.14	86,381.30	9.441E-01	Pulse	0.30	3
Cu			2	78.108	ug/l	0.95	239,612.14	2.619E+00	Pulse	0.30	3
Zn			2	74.129	ug/l	1.43	27,413.04	2.996E-01	Pulse	0.30	3
As			2	70.267	ug/l	0.33	14,283.25	1.561E-01	Pulse	1.00	3
Cd			2	75.909	ug/l	1.50	38,386.07	7.866E-02	Pulse	0.30	3
Sn			2	76.006	ug/l	0.81	79,780.04	1.635E-01	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	346.274	ug/l	0.49	14,993.71	1.318E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,732,683.81	0.76	99.3	Pulse	0.10	3
1	Sc		2,984,835.90	0.56	100.2	Pulse	0.10	3
1	Ge		596,176.75	0.83	100.6	Pulse	0.10	3
1	Ge		832,320.90	0.80	100.5	Pulse	0.10	3
1	Rh		3,951,418.06	0.75	99.6	Pulse	0.10	3
1	In		4,198,258.85	0.76	100.2	Pulse	0.10	3
1	Tb		5,903,234.08	1.80	105.5	Analog	0.10	3
1	Ho		543,856.02	1.54	103.2	Pulse	0.10	3
1	Bi		3,284,925.16	0.79	100.8	Pulse	0.10	3
2	Sc		91,497.89	0.80	103.4	Pulse	0.30	3
2	Ge		55,782.58	1.29	102.0	Pulse	0.30	3
2	Ge		83,773.40	0.76	101.1	Pulse	0.30	3
2	Rh		1,640,518.58	0.25	98.6	Pulse	0.30	3
2	In		487,996.05	0.14	97.9	Pulse	0.30	3
2	Tb		1,976,772.15	0.52	100.2	Pulse	0.30	3
2	Ho		190,186.54	0.50	99.5	Pulse	0.30	3
2	Bi		1,309,133.28	0.33	97.9	Pulse	0.30	3
3	Sc		112,417.77	0.43	108.1	Pulse	0.30	3
3	Ge		74,290.17	0.41	105.7	Pulse	0.30	3
3	Ge		113,772.23	0.45	105.8	Pulse	0.30	3
3	Rh		1,333,761.30	0.49	101.8	Pulse	0.30	3
3	Tb		2,099,720.89	0.31	102.8	Pulse	0.30	3

Quantitation Report

File Name 045SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File
Method Path
Acq Time 4/22/2019 13:32
Sample Name mp14347-s1
Sample Type Sample
Comment
Prep Dilution 5.000
Auto Dilution N/A
Total Dilution 5.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/22/2019 18:08
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	75.196	ug/l	0.65	86,701.89	4.929E-02	Pulse	0.25	3
B			1	462.553	ug/l	0.67	364,764.31	2.074E-01	Pulse	0.15	3
Ca			1	14372.287	ug/l	0.74	2,447,151.79	8.052E-01	Pulse	0.10	3
Sr			1	176.230	ug/l	0.75	1,457,028.26	3.694E-01	Pulse	0.10	3
Mo			1	75.626	ug/l	2.61	130,303.86	3.304E-02	Pulse	0.10	3
Ag			1	76.893	ug/l	0.93	314,992.67	7.378E-02	Pulse	0.10	3
Sn			1	75.304	ug/l	0.48	200,074.64	4.686E-02	Pulse	0.10	3
Sb			1	74.680	ug/l	0.10	235,027.89	3.997E-02	Pulse	0.10	3
Ba			1	89.179	ug/l	1.09	110,072.26	1.872E-02	Pulse	0.10	3
Tl			1	77.081	ug/l	1.16	550,929.04	1.689E-01	Pulse	0.10	3
Pb			1	76.674	ug/l	1.01	190,007.79	5.826E-02	Pulse	0.10	3
Pb			1	77.404	ug/l	1.35	164,738.40	5.051E-02	Pulse	0.10	3
Pb			1	77.680	ug/l	0.58	761,561.61	2.335E-01	Pulse	0.10	3
Na			2	18948.312	ug/l	0.65	2,844,261.07	3.104E+01	Pulse	0.30	3
Mg			2	13995.118	ug/l	0.82	957,945.24	1.045E+01	Pulse	0.30	3
Al			2	3804.050	ug/l	0.40	82,127.90	8.962E-01	Pulse	0.30	3
K			2	18109.491	ug/l	0.49	763,283.09	8.329E+00	Pulse	0.30	3
Ca			2	15219.639	ug/l	0.87	36,165.92	3.947E-01	Pulse	0.30	3
Ti			2	73.637	ug/l	8.59	1,527.87	1.668E-02	Pulse	0.30	3
V			2	79.300	ug/l	0.46	56,196.87	6.132E-01	Pulse	0.30	3
Cr			2	88.860	ug/l	0.57	82,211.30	8.971E-01	Pulse	0.30	3
Mn			2	86.858	ug/l	2.07	36,767.57	4.012E-01	Pulse	0.30	3
Fe			2	4316.163	ug/l	1.34	3,073,776.54	3.354E+01	Pulse	0.30	3
Co			2	79.702	ug/l	1.13	128,331.67	1.400E+00	Pulse	0.30	3
Ni			2	78.925	ug/l	1.25	34,930.43	3.812E-01	Pulse	0.30	3
Cu			2	77.574	ug/l	0.93	96,261.42	1.050E+00	Pulse	0.30	3
Zn			2	281.535	ug/l	2.56	41,603.88	4.540E-01	Pulse	0.30	3
As			2	69.085	ug/l	1.93	5,628.98	6.142E-02	Pulse	1.00	3
Cd			2	75.490	ug/l	1.00	15,453.73	3.130E-02	Pulse	0.30	3
Sn			2	74.476	ug/l	0.76	31,890.14	6.458E-02	Pulse	0.30	3
Se			3	359.991	ug/l	0.64	6,203.84	5.484E-02	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,758,902.57	0.62	100.8	Pulse	0.10	3
1	Sc		3,039,253.29	0.64	102.0	Pulse	0.10	3
1	Ge		606,787.63	1.09	102.4	Pulse	0.10	3

Quantitation Report

1	Ge		842,777.57	1.15	101.8	Pulse	0.10	3
1	Rh		3,945,112.44	1.71	99.4	Pulse	0.10	3
1	In		4,269,402.78	0.56	101.9	Pulse	0.10	3
1	Tb		5,880,407.41	1.00	105.1	Analog	0.10	3
1	Ho		540,833.02	1.15	102.6	Pulse	0.10	3
1	Bi		3,261,740.68	1.13	100.1	Pulse	0.10	3
2	Sc		91,642.09	0.80	103.5	Pulse	0.30	3
2	Ge		56,365.77	0.56	103.0	Pulse	0.30	3
2	Ge		84,837.74	1.17	102.4	Pulse	0.30	3
2	Rh		1,638,222.89	0.51	98.4	Pulse	0.30	3
2	In		493,770.32	0.70	99.0	Pulse	0.30	3
2	Tb		1,965,897.70	0.62	99.7	Pulse	0.30	3
2	Ho		190,322.19	1.34	99.5	Pulse	0.30	3
2	Bi		1,307,569.01	0.57	97.7	Pulse	0.30	3
3	Sc		111,894.54	0.42	107.6	Pulse	0.30	3
3	Ge		74,722.08	1.32	106.3	Pulse	0.30	3
3	Ge		113,124.22	0.68	105.2	Pulse	0.30	3
3	Rh		1,325,215.47	0.49	101.1	Pulse	0.30	3
3	Tb		2,094,144.22	0.11	102.5	Pulse	0.30	3

Quantitation Report

File Name	046_CCV.d
File Path	C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File	
Method Path	
Acq Time	4/22/2019 13:37
Sample Name	CCVA
Sample Type	CCV
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/22/2019 18:08
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	49.435	ug/l	1.06	286,938.95	1.620E-01	Pulse	0.25	3
B			1	103.979	ug/l	0.50	412,705.41	2.330E-01	Pulse	0.15	3
Ca			1	5087.622	ug/l	0.28	4,360,330.15	1.421E+00	Pulse	0.10	3
Sr			1	51.722	ug/l	0.26	2,165,156.74	5.420E-01	Pulse	0.10	3
Mo			1	50.659	ug/l	0.39	441,993.00	1.106E-01	Pulse	0.10	3
Ag			1	49.004	ug/l	0.50	1,007,248.97	2.351E-01	Pulse	0.10	3
Sn			1	48.604	ug/l	0.29	661,598.70	1.544E-01	Pulse	0.10	3
Sb			1	50.190	ug/l	0.44	791,605.07	1.342E-01	Pulse	0.10	3
Ba			1	49.462	ug/l	0.89	306,073.55	5.190E-02	Pulse	0.10	3
Tl			1	50.878	ug/l	1.25	1,803,377.68	5.572E-01	Pulse	0.10	3
Pb			1	50.042	ug/l	0.96	614,608.57	1.899E-01	Pulse	0.10	3
Pb			1	50.580	ug/l	0.28	533,541.89	1.648E-01	Pulse	0.10	3
Pb			1	50.552	ug/l	0.38	2,456,603.93	7.589E-01	Pulse	0.10	3
Na			2	4972.084	ug/l	0.48	3,843,089.43	4.069E+01	Pulse	0.30	3
Mg			2	5068.216	ug/l	0.39	1,787,780.62	1.893E+01	Pulse	0.30	3
Al			2	4981.554	ug/l	0.36	553,782.18	5.863E+00	Pulse	0.30	3
K			2	5142.382	ug/l	0.95	1,114,633.15	1.180E+01	Pulse	0.30	3
Ca			2	5373.984	ug/l	0.69	65,782.41	6.964E-01	Pulse	0.30	3
Ti			2	50.895	ug/l	0.56	5,438.74	5.758E-02	Pulse	0.30	3
V			2	50.374	ug/l	0.71	183,766.98	1.945E+00	Pulse	0.30	3
Cr			2	49.856	ug/l	0.62	236,845.34	2.507E+00	Pulse	0.30	3
Mn			2	50.058	ug/l	0.70	109,099.82	1.155E+00	Pulse	0.30	3
Fe			2	5235.106	ug/l	1.14	19,199,059.79	2.033E+02	Analog	0.30	3
Co			2	49.192	ug/l	1.08	408,050.54	4.320E+00	Pulse	0.30	3
Ni			2	49.116	ug/l	0.98	111,929.92	1.185E+00	Pulse	0.30	3
Cu			2	49.246	ug/l	1.33	311,514.42	3.298E+00	Pulse	0.30	3
Zn			2	49.293	ug/l	0.62	37,570.79	3.977E-01	Pulse	0.30	3
As			2	48.543	ug/l	0.69	20,371.67	2.157E-01	Pulse	1.00	3
Cd			2	49.550	ug/l	1.78	51,894.41	1.027E-01	Pulse	0.30	3
Sn			2	49.454	ug/l	1.38	107,386.48	2.125E-01	Pulse	0.30	3
Se			3	197.015	ug/l	0.90	16,834.76	1.500E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,771,143.75	0.52	101.5	Pulse	0.10	3
1	Sc		3,069,056.31	1.37	103.0	Pulse	0.10	3
1	Ge		606,254.51	0.50	102.3	Pulse	0.10	3

Quantitation Report

1	Ge		850,510.17	1.00	102.7	Pulse	0.10	3
1	Rh		3,994,946.92	1.34	100.7	Pulse	0.10	3
1	In		4,284,753.37	1.24	102.3	Pulse	0.10	3
1	Tb		5,897,535.33	1.07	105.4	Analog	0.10	3
1	Ho		542,326.64	1.29	102.9	Pulse	0.10	3
1	Bi		3,236,959.12	1.50	99.3	Pulse	0.10	3
2	Sc		94,458.89	0.26	106.7	Pulse	0.30	3
2	Ge		57,113.78	1.08	104.4	Pulse	0.30	3
2	Ge		86,255.29	0.82	104.1	Pulse	0.30	3
2	Rh		1,661,868.54	0.17	99.8	Pulse	0.30	3
2	In		505,375.07	0.46	101.4	Pulse	0.30	3
2	Tb		2,000,495.48	0.81	101.4	Pulse	0.30	3
2	Ho		191,775.64	1.84	100.3	Pulse	0.30	3
2	Bi		1,310,178.07	1.04	97.9	Pulse	0.30	3
3	Sc		111,205.14	0.37	106.9	Pulse	0.30	3
3	Ge		72,965.31	0.69	103.8	Pulse	0.30	3
3	Ge		112,269.61	0.63	104.4	Pulse	0.30	3
3	Rh		1,319,172.69	0.52	100.6	Pulse	0.30	3
3	Tb		2,083,037.83	0.34	102.0	Pulse	0.30	3

Quantitation Report

File Name	047_CCB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File	
Method Path	
Acq Time	4/22/2019 13:42
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/22/2019 18:08
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.006	ug/l	54.87	52.00	2.973E-05	Pulse	0.25	3
B			1	6.326	ug/l	1.09	25,806.73	1.473E-02	Pulse	0.15	3
Ca			1	0.799	ug/l	5.22	17,836.78	5.913E-03	Pulse	0.10	3
Sr			1	0.014	ug/l	34.02	1,006.75	2.505E-04	Pulse	0.10	3
Mo			1	0.097	ug/l	7.45	890.06	2.209E-04	Pulse	0.10	3
Ag			1	0.014	ug/l	22.50	296.68	6.960E-05	Pulse	0.10	3
Sn			1	0.870	ug/l	4.53	5,811.50	1.364E-03	Pulse	0.10	3
Sb			1	0.190	ug/l	12.03	3,133.75	5.425E-04	Pulse	0.10	3
Ba			1	0.006	ug/l	142.33	76.67	1.322E-05	Pulse	0.10	3
Tl			1	0.017	ug/l	16.36	983.40	2.996E-04	Pulse	0.10	3
Pb			1	0.004	ug/l	256.86	366.68	1.116E-04	Pulse	0.10	3
Pb			1	0.006	ug/l	131.82	363.35	1.105E-04	Pulse	0.10	3
Pb			1	0.011	ug/l	53.82	1,716.77	5.226E-04	Pulse	0.10	3
Na			2	0.760	ug/l	4.60	11,264.97	1.219E-01	Pulse	0.30	3
Mg			2	0.441	ug/l	22.58	353.34	3.822E-03	Pulse	0.30	3
Al			2	0.581	ug/l	41.77	148.89	1.613E-03	Pulse	0.30	3
K			2	3.886	ug/l	16.58	6,400.19	6.928E-02	Pulse	0.30	3
Ca			2	2.375	ug/l	33.45	71.11	7.697E-04	Pulse	0.30	3
Ti			2	0.000	ug/l	-8793.53	2.22	2.413E-05	Pulse	0.30	3
V			2	0.002	ug/l	269.49	105.56	1.141E-03	Pulse	0.30	3
Cr			2	0.006	ug/l	188.41	503.35	5.447E-03	Pulse	0.30	3
Mn			2	-0.001	ug/l	-537.20	56.67	6.137E-04	Pulse	0.30	3
Fe			2	0.667	ug/l	6.49	5,508.77	5.962E-02	Pulse	0.30	3
Co			2	0.008	ug/l	67.82	134.44	1.452E-03	Pulse	0.30	3
Ni			2	0.011	ug/l	35.08	73.33	7.936E-04	Pulse	0.30	3
Cu			2	-0.024	ug/l	-81.69	1,391.74	1.507E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	0.047	ug/l	28.20	237.78	2.574E-03	Pulse	0.30	3
As			2	0.016	ug/l	40.14	10.33	1.120E-04	Pulse	1.00	3
Cd			2	0.000	ug/l	11612.72	6.62	1.305E-05	Pulse	0.30	3
Sn			2	0.234	ug/l	15.73	931.15	1.836E-03	Pulse	0.30	3
Se			3	0.051	ug/l	95.84	11.67	1.050E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,751,449.69	0.55	100.4	Pulse	0.10	3
1	Sc		3,016,402.46	0.56	101.2	Pulse	0.10	3
1	Ge		600,052.49	0.58	101.3	Pulse	0.10	3
1	Ge		832,634.31	1.50	100.5	Pulse	0.10	3
1	Rh		4,025,744.32	1.39	101.5	Pulse	0.10	3
1	In		4,260,796.68	0.51	101.7	Pulse	0.10	3
1	Tb		5,778,670.12	0.90	103.3	Analog	0.10	3
1	Ho		539,173.33	1.06	102.3	Pulse	0.10	3
1	Bi		3,284,116.20	0.88	100.7	Pulse	0.10	3
2	Sc		92,382.96	0.96	104.4	Pulse	0.30	3
2	Ge		56,781.53	2.06	103.8	Pulse	0.30	3
2	Ge		85,836.51	0.53	103.6	Pulse	0.30	3
2	Rh		1,685,811.01	0.55	101.3	Pulse	0.30	3
2	In		507,302.34	0.06	101.8	Pulse	0.30	3
2	Tb		1,980,939.44	0.55	100.4	Pulse	0.30	3
2	Ho		190,418.52	0.57	99.6	Pulse	0.30	3
2	Bi		1,337,431.58	0.25	100.0	Pulse	0.30	3
3	Sc		108,484.49	1.22	104.3	Pulse	0.30	3
3	Ge		73,210.85	0.55	104.2	Pulse	0.30	3
3	Ge		110,894.57	1.20	103.1	Pulse	0.30	3
3	Rh		1,340,638.52	0.41	102.3	Pulse	0.30	3
3	Tb		2,065,916.38	0.58	101.2	Pulse	0.30	3

Quantitation Report

File Name	048SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File	
Method Path	
Acq Time	4/22/2019 13:47
Sample Name	mp14347-s2
Sample Type	Sample
Comment	
Prep Dilution	5.000
Auto Dilution	N/A
Total Dilution	5.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/22/2019 18:08
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	74.296	ug/l	0.94	82,954.36	4.870E-02	Pulse	0.25	3
B			1	465.986	ug/l	0.21	355,841.10	2.089E-01	Pulse	0.15	3
Ca			1	14477.174	ug/l	0.44	2,360,340.59	8.110E-01	Pulse	0.10	3
Sr			1	175.000	ug/l	0.55	1,422,147.89	3.668E-01	Pulse	0.10	3
Mo			1	76.595	ug/l	1.07	129,739.17	3.346E-02	Pulse	0.10	3
Ag			1	78.025	ug/l	0.29	310,809.20	7.486E-02	Pulse	0.10	3
Sn			1	76.607	ug/l	1.21	198,042.50	4.770E-02	Pulse	0.10	3
Sb			1	75.832	ug/l	1.26	234,921.55	4.058E-02	Pulse	0.10	3
Ba			1	88.642	ug/l	3.66	107,671.49	1.861E-02	Pulse	0.10	3
Tl			1	75.272	ug/l	0.52	532,798.09	1.649E-01	Pulse	0.10	3
Pb			1	75.375	ug/l	1.69	185,016.16	5.727E-02	Pulse	0.10	3
Pb			1	76.297	ug/l	1.86	160,841.13	4.979E-02	Pulse	0.10	3
Pb			1	76.326	ug/l	0.87	741,139.42	2.294E-01	Pulse	0.10	3
Na			2	18841.316	ug/l	2.25	2,759,952.67	3.086E+01	Pulse	0.30	3
Mg			2	13837.112	ug/l	1.89	924,304.09	1.034E+01	Pulse	0.30	3
Al			2	3787.449	ug/l	2.02	79,793.62	8.923E-01	Pulse	0.30	3
K			2	18049.206	ug/l	1.91	742,419.90	8.302E+00	Pulse	0.30	3
Ca			2	15328.160	ug/l	1.23	35,549.07	3.975E-01	Pulse	0.30	3
Ti			2	75.791	ug/l	5.21	1,535.65	1.717E-02	Pulse	0.30	3
V			2	76.920	ug/l	2.03	53,198.25	5.949E-01	Pulse	0.30	3
Cr			2	87.969	ug/l	0.65	79,440.24	8.882E-01	Pulse	0.30	3
Mn			2	87.092	ug/l	0.93	35,983.63	4.023E-01	Pulse	0.30	3
Fe			2	4318.021	ug/l	0.93	3,001,372.94	3.356E+01	Pulse	0.30	3
Co			2	79.337	ug/l	0.48	124,680.70	1.394E+00	Pulse	0.30	3
Ni			2	78.741	ug/l	2.19	34,008.54	3.803E-01	Pulse	0.30	3
Cu			2	76.374	ug/l	1.14	92,519.11	1.034E+00	Pulse	0.30	3
Zn			2	278.823	ug/l	2.39	40,212.60	4.497E-01	Pulse	0.30	3
As			2	71.438	ug/l	1.66	5,679.67	6.351E-02	Pulse	1.00	3
Cd			2	74.280	ug/l	0.35	14,801.84	3.080E-02	Pulse	0.30	3
Sn			2	75.632	ug/l	1.28	31,516.08	6.557E-02	Pulse	0.30	3
Se			3	362.630	ug/l	0.61	6,050.32	5.524E-02	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,703,286.68	0.49	97.6	Pulse	0.10	3
1	Sc		2,910,381.31	1.69	97.7	Pulse	0.10	3
1	Ge		588,452.47	0.71	99.3	Pulse	0.10	3

Quantitation Report

1	Ge		820,865.28	1.51	99.1	Pulse	0.10	3
1	Rh		3,877,316.09	1.39	97.7	Pulse	0.10	3
1	In		4,151,866.71	1.72	99.1	Pulse	0.10	3
1	Tb		5,789,134.29	1.37	103.5	Analog	0.10	3
1	Ho		530,489.98	1.10	100.7	Pulse	0.10	3
1	Bi		3,230,273.91	1.47	99.1	Pulse	0.10	3
2	Sc		89,448.15	1.67	101.0	Pulse	0.30	3
2	Ge		54,807.20	1.03	100.2	Pulse	0.30	3
2	Ge		82,842.93	0.10	100.0	Pulse	0.30	3
2	Rh		1,605,740.60	0.37	96.5	Pulse	0.30	3
2	In		480,621.12	0.34	96.4	Pulse	0.30	3
2	Tb		1,944,490.06	0.46	98.6	Pulse	0.30	3
2	Ho		187,390.60	0.86	98.0	Pulse	0.30	3
2	Bi		1,291,421.83	0.52	96.5	Pulse	0.30	3
3	Sc		107,570.65	0.33	103.5	Pulse	0.30	3
3	Ge		71,572.56	0.70	101.8	Pulse	0.30	3
3	Ge		109,522.26	0.54	101.9	Pulse	0.30	3
3	Rh		1,296,443.32	0.31	98.9	Pulse	0.30	3
3	Tb		2,051,449.36	0.33	100.4	Pulse	0.30	3

Quantitation Report

File Name 049SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File
Method Path
Acq Time 4/22/2019 13:53
Sample Name mp14347-sd1
Sample Type Sample
Comment
Prep Dilution 25.000
Auto Dilution N/A
Total Dilution 25.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/22/2019 18:08
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.550	ug/l	131.02	141.34	8.238E-05	Pulse	0.25	3
B			1	495.037	ug/l	1.06	76,897.76	4.485E-02	Pulse	0.15	3
Ca			1	11159.214	ug/l	0.43	380,059.79	1.298E-01	Pulse	0.10	3
Sr			1	96.169	ug/l	0.43	159,194.84	4.041E-02	Pulse	0.10	3
Mo			1	1.897	ug/l	41.49	690.06	1.750E-04	Pulse	0.10	3
Ag			1	0.409	ug/l	66.57	350.02	8.216E-05	Pulse	0.10	3
Sn			1	22.353	ug/l	2.06	6,108.11	1.440E-03	Pulse	0.10	3
Sb			1	1.847	ug/l	9.98	1,340.12	2.316E-04	Pulse	0.10	3
Ba			1	15.454	ug/l	9.25	3,790.61	6.551E-04	Pulse	0.10	3
Tl			1	0.428	ug/l	38.86	1,000.08	3.064E-04	Pulse	0.10	3
Pb			1	2.315	ug/l	20.11	1,460.16	4.475E-04	Pulse	0.10	3
Pb			1	1.926	ug/l	19.93	1,110.09	3.402E-04	Pulse	0.10	3
Pb			1	2.033	ug/l	11.24	5,140.57	1.576E-03	Pulse	0.10	3
Na			2	14876.485	ug/l	1.83	449,571.70	4.971E+00	Pulse	0.30	3
Mg			2	10003.361	ug/l	0.94	135,332.24	1.496E+00	Pulse	0.30	3
Al			2	76.220	ug/l	17.45	408.90	4.517E-03	Pulse	0.30	3
K			2	14073.310	ug/l	1.50	121,690.72	1.346E+00	Pulse	0.30	3
Ca			2	11378.871	ug/l	2.84	5,372.03	5.941E-02	Pulse	0.30	3
Ti			2	1.083	ug/l	74.06	6.67	7.359E-05	Pulse	0.30	3
V			2	0.850	ug/l	5.87	214.45	2.371E-03	Pulse	0.30	3
Cr			2	11.355	ug/l	3.77	2,529.12	2.796E-02	Pulse	0.30	3
Mn			2	11.788	ug/l	6.66	1,041.16	1.151E-02	Pulse	0.30	3
Fe			2	391.822	ug/l	1.73	58,071.54	6.421E-01	Pulse	0.30	3
Co			2	3.163	ug/l	3.57	1,075.60	1.189E-02	Pulse	0.30	3
Ni			2	4.137	ug/l	2.55	408.90	4.520E-03	Pulse	0.30	3
Cu			2	31.528	ug/l	2.54	9,108.19	1.007E-01	Pulse	0.30	3
Zn			2	260.816	ug/l	2.28	7,770.83	8.591E-02	Pulse	0.30	3
As			2	0.450	ug/l	26.85	11.00	1.215E-04	Pulse	1.00	3
Cd			2	0.306	ug/l	14.81	18.85	3.833E-05	Pulse	0.30	3
Sn			2	5.671	ug/l	8.37	886.70	1.803E-03	Pulse	0.30	3
Se			3	0.334	ug/l	78.46	8.33	7.660E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,714,381.13	0.18	98.3	Pulse	0.10	3
1	Sc		2,927,006.73	0.21	98.2	Pulse	0.10	3
1	Ge		587,613.92	0.73	99.2	Pulse	0.10	3

Quantitation Report

1	Ge		825,135.46	0.40	99.6	Pulse	0.10	3
1	Rh		3,939,915.77	0.76	99.3	Pulse	0.10	3
1	In		4,238,993.30	1.27	101.2	Pulse	0.10	3
1	Tb		5,785,224.91	0.64	103.4	Analog	0.10	3
1	Ho		527,030.57	1.20	100.0	Pulse	0.10	3
1	Bi		3,259,800.58	0.91	100.0	Pulse	0.10	3
2	Sc		90,448.93	1.20	102.2	Pulse	0.30	3
2	Ge		55,262.07	1.47	101.0	Pulse	0.30	3
2	Ge		83,780.21	0.09	101.1	Pulse	0.30	3
2	Rh		1,643,049.83	0.46	98.7	Pulse	0.30	3
2	In		491,706.54	0.90	98.6	Pulse	0.30	3
2	Tb		1,948,402.01	0.43	98.8	Pulse	0.30	3
2	Ho		187,622.57	0.74	98.1	Pulse	0.30	3
2	Bi		1,312,863.80	0.53	98.1	Pulse	0.30	3
3	Sc		106,138.55	0.84	102.1	Pulse	0.30	3
3	Ge		71,773.37	1.13	102.1	Pulse	0.30	3
3	Ge		108,752.39	0.51	101.2	Pulse	0.30	3
3	Rh		1,308,956.20	0.76	99.9	Pulse	0.30	3
3	Tb		2,043,708.87	0.90	100.1	Pulse	0.30	3

Quantitation Report

File Name 050SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File
Method Path
Acq Time 4/22/2019 13:58
Sample Name jc86546-6
Sample Type Sample
Comment
Prep Dilution 10.000
Auto Dilution N/A
Total Dilution 10.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/22/2019 18:08
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.027	ug/l	100.45	32.00	1.905E-05	Pulse	0.25	3
B			1	1050.786	ug/l	1.11	396,665.25	2.355E-01	Pulse	0.15	3
Ca			1	28743.722	ug/l	0.73	2,325,162.78	8.052E-01	Pulse	0.10	3
Sr			1	240.067	ug/l	0.76	963,476.50	2.516E-01	Pulse	0.10	3
Mo			1	1.512	ug/l	7.84	1,300.11	3.394E-04	Pulse	0.10	3
Ag			1	0.235	ug/l	19.22	476.69	1.166E-04	Pulse	0.10	3
Sn			1	9.651	ug/l	2.44	6,828.40	1.668E-03	Pulse	0.10	3
Sb			1	0.872	ug/l	7.60	1,530.13	2.671E-04	Pulse	0.10	3
Ba			1	7.148	ug/l	6.91	4,330.79	7.565E-04	Pulse	0.10	3
Tl			1	0.028	ug/l	60.75	476.69	1.490E-04	Pulse	0.10	3
Pb			1	0.389	ug/l	21.50	780.05	2.438E-04	Pulse	0.10	3
Pb			1	0.394	ug/l	13.54	696.71	2.178E-04	Pulse	0.10	3
Pb			1	0.372	ug/l	10.92	2,926.89	9.149E-04	Pulse	0.10	3
Na			2	165405.446	ug/l	2.36	12,047,574.80	1.351E+02	Analog	0.30	3
Mg			2	1172.687	ug/l	1.93	39,247.66	4.400E-01	Pulse	0.30	3
Al			2	179.997	ug/l	12.12	1,971.31	2.211E-02	Pulse	0.30	3
K			2	655.422	ug/l	3.20	18,733.94	2.100E-01	Pulse	0.30	3
Ca			2	29579.912	ug/l	1.14	34,210.74	3.835E-01	Pulse	0.30	3
Ti			2	3.423	ug/l	42.54	36.67	4.117E-04	Pulse	0.30	3
V			2	1.153	ug/l	16.51	491.13	5.509E-03	Pulse	0.30	3
Cr			2	109.076	ug/l	0.09	49,289.95	5.526E-01	Pulse	0.30	3
Mn			2	131.551	ug/l	1.45	27,115.65	3.040E-01	Pulse	0.30	3
Fe			2	13812.087	ug/l	0.80	4,785,409.39	5.365E+01	Pulse	0.30	3
Co			2	0.460	ug/l	6.01	430.01	4.820E-03	Pulse	0.30	3
Ni			2	4.446	ug/l	7.44	1,003.38	1.125E-02	Pulse	0.30	3
Cu			2	2.754	ug/l	4.22	3,124.77	3.503E-02	Pulse	0.30	3
Zn			2	58.478	ug/l	4.38	4,380.63	4.912E-02	Pulse	0.30	3
As			2	0.545	ug/l	29.46	25.33	2.838E-04	Pulse	1.00	3
Cd			2	0.069	ug/l	46.77	13.27	2.736E-05	Pulse	0.30	3
Sn			2	3.798	ug/l	2.73	1,191.17	2.458E-03	Pulse	0.30	3
Se			3	0.250	ug/l	43.29	9.27	8.546E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,684,667.20	0.88	96.6	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,887,913.50	1.07	96.9	Pulse	0.10	3
1	Ge		579,912.45	0.54	97.9	Pulse	0.10	3
1	Ge		805,721.63	0.98	97.3	Pulse	0.10	3
1	Rh		3,829,410.99	1.02	96.5	Pulse	0.10	3
1	In		4,093,724.24	0.82	97.7	Pulse	0.10	3
1	Tb		5,727,513.25	1.07	102.4	Analog	0.10	3
1	Ho		523,245.38	1.04	99.3	Pulse	0.10	3
1	Bi		3,199,670.79	0.75	98.2	Pulse	0.10	3
2	Sc		89,195.70	0.56	100.8	Pulse	0.30	3
2	Ge		53,772.64	0.70	98.3	Pulse	0.30	3
2	Ge		80,727.04	0.34	97.4	Pulse	0.30	3
2	Rh		1,593,424.90	0.32	95.7	Pulse	0.30	3
2	In		484,557.00	0.71	97.2	Pulse	0.30	3
2	Tb		1,932,168.12	0.45	97.9	Pulse	0.30	3
2	Ho		186,423.05	0.93	97.5	Pulse	0.30	3
2	Bi		1,288,627.94	0.45	96.3	Pulse	0.30	3
3	Sc		106,747.50	1.71	102.7	Pulse	0.30	3
3	Ge		71,508.08	1.17	101.7	Pulse	0.30	3
3	Ge		108,430.56	0.13	100.9	Pulse	0.30	3
3	Rh		1,294,752.49	1.51	98.8	Pulse	0.30	3
3	Tb		2,046,363.53	0.62	100.2	Pulse	0.30	3

Quantitation Report

File Name 051SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File
Method Path
Acq Time 4/22/2019 14:03
Sample Name jc86546-8
Sample Type Sample
Comment
Prep Dilution 10.000
Auto Dilution N/A
Total Dilution 10.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/22/2019 18:08
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.005	ug/l	247.57	20.00	1.201E-05	Pulse	0.25	3
B			1	825.134	ug/l	1.48	308,219.80	1.850E-01	Pulse	0.15	3
Ca			1	21787.160	ug/l	1.28	1,779,314.71	6.117E-01	Pulse	0.10	3
Sr			1	92.293	ug/l	0.82	374,219.87	9.680E-02	Pulse	0.10	3
Mo			1	2.558	ug/l	10.22	2,196.90	5.680E-04	Pulse	0.10	3
Ag			1	0.072	ug/l	22.35	156.68	3.800E-05	Pulse	0.10	3
Sn			1	10.386	ug/l	3.28	7,845.58	1.904E-03	Pulse	0.10	3
Sb			1	1.575	ug/l	10.80	2,600.32	4.551E-04	Pulse	0.10	3
Ba			1	103.276	ug/l	3.51	61,951.32	1.084E-02	Pulse	0.10	3
Tl			1	0.095	ug/l	13.73	713.38	2.223E-04	Pulse	0.10	3
Pb			1	273.332	ug/l	0.91	332,957.16	1.038E-01	Pulse	0.10	3
Pb			1	262.122	ug/l	0.34	274,249.83	8.546E-02	Pulse	0.10	3
Pb			1	267.445	ug/l	0.51	1,288,923.09	4.017E-01	Pulse	0.10	3
Na			2	74270.009	ug/l	0.73	5,470,892.00	6.072E+01	Analog	0.30	3
Mg			2	9428.716	ug/l	1.35	317,392.96	3.523E+00	Pulse	0.30	3
Al			2	161.779	ug/l	15.97	1,797.90	1.997E-02	Pulse	0.30	3
K			2	8974.037	ug/l	1.46	190,027.87	2.109E+00	Pulse	0.30	3
Ca			2	22286.197	ug/l	1.29	26,044.94	2.891E-01	Pulse	0.30	3
Ti			2	3.275	ug/l	41.99	35.56	3.949E-04	Pulse	0.30	3
V			2	15.654	ug/l	2.78	5,538.78	6.148E-02	Pulse	0.30	3
Cr			2	783.587	ug/l	0.99	354,802.61	3.938E+00	Pulse	0.30	3
Mn			2	93.282	ug/l	1.69	19,439.31	2.158E-01	Pulse	0.30	3
Fe			2	10294.812	ug/l	1.39	3,603,590.41	4.000E+01	Pulse	0.30	3
Co			2	0.707	ug/l	3.34	630.02	6.991E-03	Pulse	0.30	3
Ni			2	5.342	ug/l	9.06	1,207.84	1.341E-02	Pulse	0.30	3
Cu			2	4.009	ug/l	6.24	3,909.40	4.340E-02	Pulse	0.30	3
Zn			2	33.357	ug/l	6.75	2,609.13	2.896E-02	Pulse	0.30	3
As			2	2.688	ug/l	3.60	111.33	1.236E-03	Pulse	1.00	3
Cd			2	0.068	ug/l	96.30	13.22	2.705E-05	Pulse	0.30	3
Sn			2	4.059	ug/l	8.78	1,253.40	2.570E-03	Pulse	0.30	3
Se			3	0.126	ug/l	177.97	8.33	7.604E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,665,767.29	0.16	95.5	Pulse	0.10	3
1	Sc		2,909,251.94	1.77	97.7	Pulse	0.10	3
1	Ge		581,717.38	1.40	98.2	Pulse	0.10	3

Quantitation Report

1	Ge		811,118.22	1.45	98.0	Pulse	0.10	3
1	Rh		3,866,004.63	0.81	97.5	Pulse	0.10	3
1	In		4,120,570.75	0.40	98.3	Pulse	0.10	3
1	Tb		5,714,997.41	0.53	102.2	Analog	0.10	3
1	Ho		525,899.21	1.48	99.8	Pulse	0.10	3
1	Bi		3,208,863.39	1.47	98.4	Pulse	0.10	3
2	Sc		90,103.69	0.85	101.8	Pulse	0.30	3
2	Ge		54,353.35	0.70	99.4	Pulse	0.30	3
2	Ge		82,426.65	0.65	99.5	Pulse	0.30	3
2	Rh		1,620,284.73	0.72	97.3	Pulse	0.30	3
2	In		487,936.72	0.87	97.9	Pulse	0.30	3
2	Tb		1,951,608.60	0.34	98.9	Pulse	0.30	3
2	Ho		188,358.18	0.52	98.5	Pulse	0.30	3
2	Bi		1,302,436.93	0.77	97.3	Pulse	0.30	3
3	Sc		105,340.80	1.95	101.3	Pulse	0.30	3
3	Ge		70,919.73	1.41	100.9	Pulse	0.30	3
3	Ge		109,732.42	0.85	102.1	Pulse	0.30	3
3	Rh		1,298,078.80	0.15	99.0	Pulse	0.30	3
3	Tb		2,051,004.85	0.61	100.4	Pulse	0.30	3

Quantitation Report

File Name	052SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File	
Method Path	
Acq Time	4/22/2019 14:08
Sample Name	jc86546-9
Sample Type	Sample
Comment	
Prep Dilution	10.000
Auto Dilution	N/A
Total Dilution	10.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/22/2019 18:08
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.041	ug/l	30.12	40.00	2.371E-05	Pulse	0.25	3
B			1	830.461	ug/l	1.24	314,042.21	1.862E-01	Pulse	0.15	3
Ca			1	20141.586	ug/l	0.42	1,638,425.76	5.659E-01	Pulse	0.10	3
Sr			1	91.435	ug/l	0.52	372,058.71	9.590E-02	Pulse	0.10	3
Mo			1	0.756	ug/l	24.34	676.71	1.743E-04	Pulse	0.10	3
Ag			1	0.046	ug/l	84.80	106.67	2.559E-05	Pulse	0.10	3
Sn			1	9.378	ug/l	1.14	6,568.24	1.581E-03	Pulse	0.10	3
Sb			1	1.084	ug/l	7.62	1,870.18	3.240E-04	Pulse	0.10	3
Ba			1	103.561	ug/l	1.71	62,741.06	1.087E-02	Pulse	0.10	3
Tl			1	0.041	ug/l	61.47	530.03	1.639E-04	Pulse	0.10	3
Pb			1	232.839	ug/l	0.42	285,917.97	8.840E-02	Pulse	0.10	3
Pb			1	225.300	ug/l	0.54	237,622.51	7.347E-02	Pulse	0.10	3
Pb			1	229.607	ug/l	0.35	1,115,515.80	3.449E-01	Pulse	0.10	3
Na			2	76012.578	ug/l	1.78	5,528,077.42	6.214E+01	Analog	0.30	3
Mg			2	9830.511	ug/l	1.35	326,751.02	3.673E+00	Pulse	0.30	3
Al			2	120.586	ug/l	13.69	1,345.64	1.512E-02	Pulse	0.30	3
K			2	9234.911	ug/l	0.88	192,943.97	2.169E+00	Pulse	0.30	3
Ca			2	20624.215	ug/l	1.69	23,802.69	2.676E-01	Pulse	0.30	3
Ti			2	59.054	ug/l	170.93	596.35	6.703E-03	Pulse	0.30	3
V			2	12.748	ug/l	1.88	4,471.77	5.027E-02	Pulse	0.30	3
Cr			2	650.658	ug/l	1.17	290,987.33	3.271E+00	Pulse	0.30	3
Mn			2	85.749	ug/l	1.32	17,649.55	1.984E-01	Pulse	0.30	3
Fe			2	8699.061	ug/l	0.96	3,007,270.51	3.380E+01	Pulse	0.30	3
Co			2	0.607	ug/l	16.48	543.35	6.105E-03	Pulse	0.30	3
Ni			2	4.726	ug/l	1.44	1,061.16	1.193E-02	Pulse	0.30	3
Cu			2	0.986	ug/l	4.67	2,069.04	2.326E-02	Pulse	0.30	3
Zn			2	31.503	ug/l	4.10	2,444.66	2.747E-02	Pulse	0.30	3
As			2	1.948	ug/l	12.89	80.67	9.071E-04	Pulse	1.00	3
Cd			2	-0.008	ug/l	-889.60	5.52	1.138E-05	Pulse	0.30	3
Sn			2	3.296	ug/l	15.82	1,090.05	2.243E-03	Pulse	0.30	3
Se			3	0.064	ug/l	209.59	7.73	7.130E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,686,299.95	0.56	96.7	Pulse	0.10	3
1	Sc		2,895,258.39	1.11	97.2	Pulse	0.10	3
1	Ge		584,818.07	1.47	98.7	Pulse	0.10	3

Quantitation Report

1	Ge		810,906.03	0.68	97.9	Pulse	0.10	3
1	Rh		3,879,877.03	0.60	97.8	Pulse	0.10	3
1	In		4,155,526.86	0.66	99.2	Pulse	0.10	3
1	Tb		5,772,164.70	1.62	103.2	Analog	0.10	3
1	Ho		527,106.92	0.85	100.0	Pulse	0.10	3
1	Bi		3,234,214.74	0.43	99.2	Pulse	0.10	3
2	Sc		88,969.06	0.52	100.5	Pulse	0.30	3
2	Ge		54,452.63	1.14	99.5	Pulse	0.30	3
2	Ge		82,812.94	1.78	99.9	Pulse	0.30	3
2	Rh		1,613,592.57	0.87	96.9	Pulse	0.30	3
2	In		485,978.77	1.36	97.5	Pulse	0.30	3
2	Tb		1,927,294.79	0.42	97.7	Pulse	0.30	3
2	Ho		187,143.99	0.25	97.9	Pulse	0.30	3
2	Bi		1,301,668.94	0.78	97.3	Pulse	0.30	3
3	Sc		106,019.63	0.50	102.0	Pulse	0.30	3
3	Ge		71,053.56	0.82	101.1	Pulse	0.30	3
3	Ge		108,456.33	0.26	100.9	Pulse	0.30	3
3	Rh		1,294,034.29	0.30	98.7	Pulse	0.30	3
3	Tb		2,047,878.25	1.13	100.3	Pulse	0.30	3

Quantitation Report

File Name	053SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File	
Method Path	
Acq Time	4/22/2019 14:13
Sample Name	jc86546-14
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/22/2019 18:08
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.035	ug/l	16.78	110.67	6.759E-05	Pulse	0.25	3
B			1	18.070	ug/l	1.37	34,005.56	2.079E-02	Pulse	0.15	3
Ca			1	53.046	ug/l	1.94	36,257.00	1.307E-02	Pulse	0.10	3
Sr			1	0.388	ug/l	2.65	8,105.69	2.139E-03	Pulse	0.10	3
Mo			1	0.120	ug/l	5.94	533.36	1.408E-04	Pulse	0.10	3
Ag			1	0.025	ug/l	11.31	260.01	6.425E-05	Pulse	0.10	3
Sn			1	2.029	ug/l	3.57	7,385.34	1.826E-03	Pulse	0.10	3
Sb			1	0.145	ug/l	10.47	1,290.10	2.273E-04	Pulse	0.10	3
Ba			1	0.589	ug/l	4.57	1,790.16	3.154E-04	Pulse	0.10	3
Tl			1	0.101	ug/l	8.37	2,206.92	6.721E-04	Pulse	0.10	3
Pb			1	0.064	ug/l	21.07	713.38	2.174E-04	Pulse	0.10	3
Pb			1	0.069	ug/l	4.84	663.38	2.020E-04	Pulse	0.10	3
Pb			1	0.076	ug/l	10.71	3,036.92	9.254E-04	Pulse	0.10	3
Na			2	28.199	ug/l	2.21	19,563.63	2.308E-01	Pulse	0.30	3
Mg			2	2.927	ug/l	7.83	647.80	7.641E-03	Pulse	0.30	3
Al			2	23.790	ug/l	8.48	1,265.62	1.493E-02	Pulse	0.30	3
K			2	9.390	ug/l	12.65	6,028.93	7.112E-02	Pulse	0.30	3
Ca			2	59.044	ug/l	8.82	363.34	4.285E-03	Pulse	0.30	3
Ti			2	0.281	ug/l	51.94	15.55	1.837E-04	Pulse	0.30	3
V			2	0.144	ug/l	18.30	324.45	3.829E-03	Pulse	0.30	3
Cr			2	0.628	ug/l	5.50	1,773.45	2.092E-02	Pulse	0.30	3
Mn			2	0.231	ug/l	15.71	280.01	3.304E-03	Pulse	0.30	3
Fe			2	6.735	ug/l	18.95	13,944.34	1.644E-01	Pulse	0.30	3
Co			2	0.024	ug/l	21.48	154.45	1.821E-03	Pulse	0.30	3
Ni			2	0.164	ug/l	11.75	212.23	2.504E-03	Pulse	0.30	3
Cu			2	0.520	ug/l	13.93	2,884.73	3.402E-02	Pulse	0.30	3
Zn			2	3.814	ug/l	4.62	1,483.42	1.750E-02	Pulse	0.30	3
As			2	0.064	ug/l	19.10	15.67	1.848E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	0.004	ug/l	225.84	7.75	1.668E-05	Pulse	0.30	3
Sn			2	0.717	ug/l	8.94	1,101.16	2.367E-03	Pulse	0.30	3
Se			3	0.050	ug/l	69.21	9.33	8.538E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,635,836.98	0.90	93.8	Pulse	0.10	3
1	Sc		2,774,228.50	1.26	93.1	Pulse	0.10	3
1	Ge		572,046.65	1.97	96.6	Pulse	0.10	3
1	Ge		787,863.74	0.68	95.1	Pulse	0.10	3
1	Rh		3,788,287.55	1.43	95.5	Pulse	0.10	3
1	In		4,044,495.63	0.93	96.5	Pulse	0.10	3
1	Tb		5,671,693.25	3.25	101.4	Mix	0.10	3
1	Ho		525,111.90	1.52	99.7	Pulse	0.10	3
1	Bi		3,282,957.66	0.94	100.7	Pulse	0.10	3
2	Sc		84,770.51	0.40	95.8	Pulse	0.30	3
2	Ge		53,041.46	1.52	97.0	Pulse	0.30	3
2	Ge		79,578.29	0.47	96.0	Pulse	0.30	3
2	Rh		1,579,990.81	0.35	94.9	Pulse	0.30	3
2	In		465,190.19	0.31	93.3	Pulse	0.30	3
2	Tb		1,888,740.41	1.01	95.7	Pulse	0.30	3
2	Ho		182,451.18	0.61	95.4	Pulse	0.30	3
2	Bi		1,291,704.64	0.93	96.5	Pulse	0.30	3
3	Sc		105,665.24	0.53	101.6	Pulse	0.30	3
3	Ge		71,671.82	0.88	102.0	Pulse	0.30	3
3	Ge		109,347.51	0.30	101.7	Pulse	0.30	3
3	Rh		1,312,759.15	0.88	100.2	Pulse	0.30	3
3	Tb		2,071,263.11	0.38	101.4	Pulse	0.30	3

Quantitation Report

File Name	054SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File	
Method Path	
Acq Time	4/22/2019 14:18
Sample Name	jc86546-8f
Sample Type	Sample
Comment	
Prep Dilution	5.000
Auto Dilution	N/A
Total Dilution	5.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/22/2019 18:08
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.035	ug/l	27.49	56.00	3.354E-05	Pulse	0.25	3
B			1	844.229	ug/l	1.27	631,310.48	3.780E-01	Pulse	0.15	3
Ca			1	19486.236	ug/l	0.65	3,121,165.89	1.090E+00	Pulse	0.10	3
Sr			1	93.508	ug/l	0.19	742,493.48	1.960E-01	Pulse	0.10	3
Mo			1	1.164	ug/l	12.78	1,960.19	5.178E-04	Pulse	0.10	3
Ag			1	0.026	ug/l	19.85	116.67	2.875E-05	Pulse	0.10	3
Sn			1	5.141	ug/l	1.86	7,585.42	1.870E-03	Pulse	0.10	3
Sb			1	0.329	ug/l	19.37	1,206.76	2.102E-04	Pulse	0.10	3
Ba			1	89.240	ug/l	2.16	107,575.23	1.873E-02	Pulse	0.10	3
Tl			1	0.032	ug/l	23.22	603.37	1.889E-04	Pulse	0.10	3
Pb			1	27.922	ug/l	0.66	67,949.97	2.128E-02	Pulse	0.10	3
Pb			1	27.090	ug/l	0.18	56,643.04	1.774E-02	Pulse	0.10	3
Pb			1	27.211	ug/l	0.47	261,961.63	8.202E-02	Pulse	0.10	3
Na			2	74970.408	ug/l	0.82	10,692,304.30	1.225E+02	Analog	0.30	3
Mg			2	10578.690	ug/l	1.02	689,922.42	7.902E+00	Pulse	0.30	3
Al			2	72.886	ug/l	4.67	1,578.98	1.808E-02	Pulse	0.30	3
K			2	10198.264	ug/l	0.96	411,818.34	4.717E+00	Pulse	0.30	3
Ca			2	20230.834	ug/l	0.86	45,790.49	5.245E-01	Pulse	0.30	3
Ti			2	0.396	ug/l	84.16	10.00	1.142E-04	Pulse	0.30	3
V			2	1.485	ug/l	7.51	1,093.39	1.252E-02	Pulse	0.30	3
Cr			2	167.085	ug/l	1.33	146,876.78	1.682E+00	Pulse	0.30	3
Mn			2	69.667	ug/l	0.77	28,109.56	3.220E-01	Pulse	0.30	3
Fe			2	877.921	ug/l	0.32	598,052.54	6.850E+00	Pulse	0.30	3
Co			2	0.322	ug/l	17.11	562.24	6.439E-03	Pulse	0.30	3
Ni			2	5.572	ug/l	2.54	2,392.42	2.740E-02	Pulse	0.30	3
Cu			2	1.439	ug/l	8.31	3,130.34	3.586E-02	Pulse	0.30	3
Zn			2	24.526	ug/l	1.55	3,628.22	4.156E-02	Pulse	0.30	3
As			2	0.473	ug/l	11.52	40.33	4.617E-04	Pulse	1.00	3
Cd			2	0.002	ug/l	1545.35	6.57	1.378E-05	Pulse	0.30	3
Sn			2	2.172	ug/l	8.56	1,283.40	2.692E-03	Pulse	0.30	3
Se			3	0.054	ug/l	289.90	8.07	7.462E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,670,096.45	0.21	95.7	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,864,377.46	1.06	96.1	Pulse	0.10	3
1	Ge		571,110.13	0.45	96.4	Pulse	0.10	3
1	Ge		799,312.12	1.02	96.5	Pulse	0.10	3
1	Rh		3,787,603.07	0.69	95.5	Pulse	0.10	3
1	In		4,055,965.87	0.52	96.8	Pulse	0.10	3
1	Tb		5,743,662.20	0.52	102.7	Analog	0.10	3
1	Ho		527,133.53	0.66	100.0	Pulse	0.10	3
1	Bi		3,193,636.51	0.82	98.0	Pulse	0.10	3
2	Sc		87,312.45	0.86	98.6	Pulse	0.30	3
2	Ge		53,953.32	1.79	98.6	Pulse	0.30	3
2	Ge		81,860.68	0.39	98.8	Pulse	0.30	3
2	Rh		1,580,716.36	0.62	95.0	Pulse	0.30	3
2	In		476,775.30	0.33	95.6	Pulse	0.30	3
2	Tb		1,911,088.88	0.63	96.9	Pulse	0.30	3
2	Ho		186,101.88	0.67	97.3	Pulse	0.30	3
2	Bi		1,279,543.01	0.65	95.6	Pulse	0.30	3
3	Sc		106,321.41	1.35	102.3	Pulse	0.30	3
3	Ge		71,114.92	1.29	101.2	Pulse	0.30	3
3	Ge		108,231.25	0.93	100.7	Pulse	0.30	3
3	Rh		1,285,935.89	0.96	98.1	Pulse	0.30	3
3	Tb		2,068,532.21	1.09	101.3	Pulse	0.30	3

Quantitation Report

File Name	055SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File	
Method Path	
Acq Time	4/22/2019 14:23
Sample Name	jc86546-9f
Sample Type	Sample
Comment	
Prep Dilution	5.000
Auto Dilution	N/A
Total Dilution	5.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/22/2019 18:08
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	-0.006	ug/l	-125.69	10.67	6.367E-06	Pulse	0.25	3
B			1	846.308	ug/l	0.85	635,414.09	3.789E-01	Pulse	0.15	3
Ca			1	19462.835	ug/l	0.07	3,140,404.01	1.088E+00	Pulse	0.10	3
Sr			1	93.205	ug/l	0.74	743,808.71	1.954E-01	Pulse	0.10	3
Mo			1	1.330	ug/l	5.09	2,246.91	5.903E-04	Pulse	0.10	3
Ag			1	0.021	ug/l	83.24	96.67	2.382E-05	Pulse	0.10	3
Sn			1	5.122	ug/l	2.27	7,578.77	1.858E-03	Pulse	0.10	3
Sb			1	0.394	ug/l	8.39	1,396.79	2.448E-04	Pulse	0.10	3
Ba			1	87.725	ug/l	1.15	105,132.20	1.841E-02	Pulse	0.10	3
Tl			1	0.023	ug/l	47.39	536.70	1.689E-04	Pulse	0.10	3
Pb			1	22.237	ug/l	1.12	53,956.07	1.696E-02	Pulse	0.10	3
Pb			1	21.844	ug/l	2.75	45,547.90	1.432E-02	Pulse	0.10	3
Pb			1	22.027	ug/l	1.11	211,405.87	6.646E-02	Pulse	0.10	3
Na			2	72632.059	ug/l	1.79	10,451,695.42	1.186E+02	Analog	0.30	3
Mg			2	10363.408	ug/l	0.73	682,002.32	7.741E+00	Pulse	0.30	3
Al			2	17.971	ug/l	3.33	454.46	5.159E-03	Pulse	0.30	3
K			2	10062.923	ug/l	1.44	410,084.89	4.655E+00	Pulse	0.30	3
Ca			2	19744.615	ug/l	1.06	45,093.14	5.119E-01	Pulse	0.30	3
Ti			2	0.338	ug/l	29.10	8.89	1.010E-04	Pulse	0.30	3
V			2	1.278	ug/l	6.28	962.27	1.093E-02	Pulse	0.30	3
Cr			2	162.536	ug/l	0.16	144,193.20	1.637E+00	Pulse	0.30	3
Mn			2	65.461	ug/l	1.25	26,653.85	3.026E-01	Pulse	0.30	3
Fe			2	770.148	ug/l	1.06	529,720.67	6.013E+00	Pulse	0.30	3
Co			2	0.261	ug/l	11.02	473.34	5.370E-03	Pulse	0.30	3
Ni			2	5.989	ug/l	0.59	2,591.35	2.941E-02	Pulse	0.30	3
Cu			2	1.281	ug/l	14.46	2,972.53	3.375E-02	Pulse	0.30	3
Zn			2	27.566	ug/l	2.84	4,090.56	4.644E-02	Pulse	0.30	3
As			2	0.354	ug/l	39.71	31.33	3.557E-04	Pulse	1.00	3
Cd			2	0.013	ug/l	321.79	8.79	1.851E-05	Pulse	0.30	3
Sn			2	1.972	ug/l	11.12	1,200.06	2.521E-03	Pulse	0.30	3
Se			3	-0.063	ug/l	-111.32	6.20	5.683E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,676,846.44	0.37	96.1	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,885,403.29	1.25	96.8	Pulse	0.10	3
1	Ge		574,857.74	2.21	97.0	Pulse	0.10	3
1	Ge		803,521.84	2.23	97.0	Pulse	0.10	3
1	Rh		3,806,538.90	0.94	96.0	Pulse	0.10	3
1	In		4,079,709.21	1.69	97.4	Pulse	0.10	3
1	Tb		5,710,623.67	1.97	102.1	Analog	0.10	3
1	Ho		525,790.92	0.82	99.8	Pulse	0.10	3
1	Bi		3,180,826.51	0.97	97.6	Pulse	0.10	3
2	Sc		88,102.09	0.93	99.5	Pulse	0.30	3
2	Ge		53,443.80	0.49	97.7	Pulse	0.30	3
2	Ge		81,581.43	1.25	98.4	Pulse	0.30	3
2	Rh		1,576,737.89	0.87	94.7	Pulse	0.30	3
2	In		476,039.11	0.57	95.5	Pulse	0.30	3
2	Tb		1,896,546.52	0.20	96.1	Pulse	0.30	3
2	Ho		185,148.98	0.28	96.8	Pulse	0.30	3
2	Bi		1,265,578.28	0.24	94.6	Pulse	0.30	3
3	Sc		106,673.57	0.53	102.6	Pulse	0.30	3
3	Ge		71,895.09	1.04	102.3	Pulse	0.30	3
3	Ge		109,005.29	1.13	101.4	Pulse	0.30	3
3	Rh		1,280,756.37	0.42	97.7	Pulse	0.30	3
3	Tb		2,056,473.46	0.22	100.7	Pulse	0.30	3

Quantitation Report

File Name 056_CCV.d
File Path C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File
Method Path
Acq Time 4/22/2019 14:28
Sample Name CCVA
Sample Type CCV
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/22/2019 18:08
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	50.139	ug/l	0.09	285,042.20	1.643E-01	Pulse	0.25	3
B			1	108.085	ug/l	1.23	420,141.30	2.422E-01	Pulse	0.15	3
Ca			1	5083.604	ug/l	0.90	4,268,670.46	1.420E+00	Pulse	0.10	3
Sr			1	51.740	ug/l	0.58	2,148,275.12	5.422E-01	Pulse	0.10	3
Mo			1	50.577	ug/l	0.34	437,668.59	1.105E-01	Pulse	0.10	3
Ag			1	50.235	ug/l	1.10	1,007,468.37	2.410E-01	Pulse	0.10	3
Sn			1	49.531	ug/l	1.17	657,882.97	1.574E-01	Pulse	0.10	3
Sb			1	50.336	ug/l	1.14	780,216.44	1.346E-01	Pulse	0.10	3
Ba			1	49.748	ug/l	0.75	302,517.62	5.220E-02	Pulse	0.10	3
Tl			1	50.325	ug/l	0.88	1,771,105.08	5.511E-01	Pulse	0.10	3
Pb			1	49.786	ug/l	0.84	607,129.68	1.889E-01	Pulse	0.10	3
Pb			1	51.288	ug/l	1.05	537,103.38	1.671E-01	Pulse	0.10	3
Pb			1	50.602	ug/l	0.54	2,441,441.47	7.597E-01	Pulse	0.10	3
Na			2	4988.006	ug/l	0.84	3,736,918.18	4.082E+01	Pulse	0.30	3
Mg			2	5073.704	ug/l	0.39	1,734,779.24	1.895E+01	Pulse	0.30	3
Al			2	4959.832	ug/l	0.78	534,430.90	5.837E+00	Pulse	0.30	3
K			2	5144.997	ug/l	0.58	1,080,962.63	1.181E+01	Pulse	0.30	3
Ca			2	5325.618	ug/l	0.82	63,193.54	6.901E-01	Pulse	0.30	3
Ti			2	48.346	ug/l	3.38	5,008.59	5.469E-02	Pulse	0.30	3
V			2	50.162	ug/l	1.00	177,366.92	1.937E+00	Pulse	0.30	3
Cr			2	50.006	ug/l	0.73	230,257.92	2.515E+00	Pulse	0.30	3
Mn			2	49.666	ug/l	1.68	104,917.28	1.146E+00	Pulse	0.30	3
Fe			2	5271.190	ug/l	0.94	18,737,352.59	2.047E+02	Analog	0.30	3
Co			2	49.876	ug/l	0.62	401,036.47	4.380E+00	Pulse	0.30	3
Ni			2	49.187	ug/l	0.45	108,651.27	1.187E+00	Pulse	0.30	3
Cu			2	49.374	ug/l	1.20	302,725.19	3.307E+00	Pulse	0.30	3
Zn			2	49.108	ug/l	0.80	36,281.28	3.963E-01	Pulse	0.30	3
As			2	48.354	ug/l	0.66	19,669.48	2.148E-01	Pulse	1.00	3
Cd			2	49.316	ug/l	0.79	50,648.75	1.022E-01	Pulse	0.30	3
Sn			2	48.967	ug/l	0.31	104,275.05	2.104E-01	Pulse	0.30	3
Se			3	196.783	ug/l	2.23	16,144.93	1.498E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,734,776.95	0.26	99.4	Pulse	0.10	3
1	Sc		3,006,786.83	0.30	100.9	Pulse	0.10	3
1	Ge		599,176.02	0.73	101.2	Pulse	0.10	3

Quantitation Report

1	Ge		842,264.18	1.17	101.7	Pulse	0.10	3
1	Rh		3,962,402.96	0.65	99.9	Pulse	0.10	3
1	In		4,180,568.94	1.22	99.8	Pulse	0.10	3
1	Tb		5,795,866.16	0.21	103.6	Analog	0.10	3
1	Ho		536,625.67	1.44	101.8	Pulse	0.10	3
1	Bi		3,213,761.52	1.43	98.6	Pulse	0.10	3
2	Sc		91,562.71	1.25	103.4	Pulse	0.30	3
2	Ge		55,892.12	2.06	102.2	Pulse	0.30	3
2	Ge		84,176.69	0.89	101.6	Pulse	0.30	3
2	Rh		1,618,799.17	1.03	97.3	Pulse	0.30	3
2	In		495,569.58	0.56	99.4	Pulse	0.30	3
2	Tb		1,961,194.37	0.57	99.4	Pulse	0.30	3
2	Ho		189,177.73	0.28	98.9	Pulse	0.30	3
2	Bi		1,289,929.50	0.37	96.4	Pulse	0.30	3
3	Sc		106,469.24	0.67	102.4	Pulse	0.30	3
3	Ge		70,833.59	0.21	100.8	Pulse	0.30	3
3	Ge		107,814.05	1.43	100.3	Pulse	0.30	3
3	Rh		1,284,137.52	0.70	98.0	Pulse	0.30	3
3	Tb		2,034,846.17	0.21	99.6	Pulse	0.30	3

Quantitation Report

File Name	057_CCB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File	
Method Path	
Acq Time	4/22/2019 14:34
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/22/2019 18:08
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.007	ug/l	27.82	56.00	3.287E-05	Pulse	0.25	3
B			1	9.825	ug/l	0.92	38,439.37	2.256E-02	Pulse	0.15	3
Ca			1	0.194	ug/l	163.81	16,825.76	5.745E-03	Pulse	0.10	3
Sr			1	0.009	ug/l	19.99	800.06	2.041E-04	Pulse	0.10	3
Mo			1	0.082	ug/l	5.76	740.05	1.887E-04	Pulse	0.10	3
Ag			1	0.012	ug/l	7.01	250.01	6.008E-05	Pulse	0.10	3
Sn			1	0.837	ug/l	0.59	5,237.76	1.259E-03	Pulse	0.10	3
Sb			1	0.166	ug/l	10.92	2,763.69	4.770E-04	Pulse	0.10	3
Ba			1	0.004	ug/l	137.51	63.34	1.090E-05	Pulse	0.10	3
Tl			1	0.016	ug/l	22.32	953.40	2.948E-04	Pulse	0.10	3
Pb			1	0.009	ug/l	38.07	426.69	1.320E-04	Pulse	0.10	3
Pb			1	0.003	ug/l	273.08	316.68	9.787E-05	Pulse	0.10	3
Pb			1	0.010	ug/l	20.79	1,616.76	5.000E-04	Pulse	0.10	3
Na			2	1.396	ug/l	28.26	11,452.86	1.271E-01	Pulse	0.30	3
Mg			2	0.345	ug/l	27.82	312.23	3.465E-03	Pulse	0.30	3
Al			2	0.416	ug/l	78.28	127.78	1.419E-03	Pulse	0.30	3
K			2	3.039	ug/l	34.18	6,066.73	6.734E-02	Pulse	0.30	3
Ca			2	2.052	ug/l	49.03	65.56	7.277E-04	Pulse	0.30	3
Ti			2	0.000	ug/l	26239.76	2.22	2.477E-05	Pulse	0.30	3
V			2	-0.006	ug/l	-111.05	75.56	8.382E-04	Pulse	0.30	3
Cr			2	0.006	ug/l	111.38	492.24	5.464E-03	Pulse	0.30	3
Mn			2	0.003	ug/l	59.25	63.33	7.030E-04	Pulse	0.30	3
Fe			2	0.634	ug/l	7.58	5,255.34	5.834E-02	Pulse	0.30	3
Co			2	0.007	ug/l	31.13	125.56	1.394E-03	Pulse	0.30	3
Ni			2	0.002	ug/l	319.28	51.11	5.676E-04	Pulse	0.30	3
Cu			2	-0.042	ug/l	-14.46	1,253.40	1.391E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	0.017	ug/l	274.71	210.00	2.331E-03	Pulse	0.30	3
As			2	0.022	ug/l	26.15	12.67	1.406E-04	Pulse	1.00	3
Cd			2	-0.001	ug/l	-216.88	5.52	1.116E-05	Pulse	0.30	3
Sn			2	0.210	ug/l	15.18	857.81	1.733E-03	Pulse	0.30	3
Se			3	0.040	ug/l	45.83	10.53	9.696E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,704,194.39	0.23	97.7	Pulse	0.10	3
1	Sc		2,928,656.31	0.82	98.3	Pulse	0.10	3
1	Ge		583,458.59	1.12	98.5	Pulse	0.10	3
1	Ge		812,117.36	0.74	98.1	Pulse	0.10	3
1	Rh		3,920,978.38	0.67	98.8	Pulse	0.10	3
1	In		4,160,949.29	0.38	99.3	Pulse	0.10	3
1	Tb		5,797,652.00	1.12	103.6	Analog	0.10	3
1	Ho		528,896.62	0.25	100.4	Pulse	0.10	3
1	Bi		3,234,634.64	0.85	99.2	Pulse	0.10	3
2	Sc		90,091.53	0.32	101.8	Pulse	0.30	3
2	Ge		54,376.91	1.12	99.4	Pulse	0.30	3
2	Ge		83,124.79	1.03	100.3	Pulse	0.30	3
2	Rh		1,624,821.98	0.33	97.6	Pulse	0.30	3
2	In		494,971.42	0.71	99.3	Pulse	0.30	3
2	Tb		1,943,587.84	0.29	98.5	Pulse	0.30	3
2	Ho		187,449.27	1.14	98.0	Pulse	0.30	3
2	Bi		1,307,269.49	0.46	97.7	Pulse	0.30	3
3	Sc		106,135.77	0.81	102.1	Pulse	0.30	3
3	Ge		70,741.23	0.96	100.6	Pulse	0.30	3
3	Ge		108,547.91	0.80	101.0	Pulse	0.30	3
3	Rh		1,312,668.94	0.62	100.1	Pulse	0.30	3
3	Tb		2,056,350.75	0.23	100.7	Pulse	0.30	3

Quantitation Report

File Name	058SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File	
Method Path	
Acq Time	4/22/2019 14:39
Sample Name	mp14272-mb1conf
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/22/2019 18:08
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.007	ug/l	81.76	37.33	2.245E-05	Pulse	0.25	3
B			1	18.544	ug/l	2.11	35,403.89	2.132E-02	Pulse	0.15	3
Ca			1	322.933	ug/l	2.39	142,263.84	5.060E-02	Pulse	0.10	3
Sr			1	0.321	ug/l	8.42	6,775.01	1.790E-03	Pulse	0.10	3
Mo			1	0.129	ug/l	8.46	566.70	1.497E-04	Pulse	0.10	3
Ag			1	0.019	ug/l	18.54	196.68	4.846E-05	Pulse	0.10	3
Sn			1	2.949	ug/l	1.09	13,386.17	3.301E-03	Pulse	0.10	3
Sb			1	0.399	ug/l	5.16	3,240.44	5.677E-04	Pulse	0.10	3
Ba			1	0.109	ug/l	14.68	363.35	6.371E-05	Pulse	0.10	3
Tl			1	0.033	ug/l	25.63	976.74	3.005E-04	Pulse	0.10	3
Pb			1	0.073	ug/l	26.77	763.39	2.348E-04	Pulse	0.10	3
Pb			1	0.075	ug/l	9.56	686.71	2.112E-04	Pulse	0.10	3
Pb			1	0.078	ug/l	7.52	3,063.58	9.419E-04	Pulse	0.10	3
Na			2	18.901	ug/l	4.18	16,508.16	1.928E-01	Pulse	0.30	3
Mg			2	7.749	ug/l	6.64	1,424.53	1.664E-02	Pulse	0.30	3
Al			2	8.521	ug/l	21.70	508.93	5.943E-03	Pulse	0.30	3
K			2	10.644	ug/l	27.06	6,210.10	7.256E-02	Pulse	0.30	3
Ca			2	323.620	ug/l	3.12	1,833.46	2.142E-02	Pulse	0.30	3
Ti			2	0.392	ug/l	89.61	21.11	2.460E-04	Pulse	0.30	3
V			2	0.135	ug/l	13.23	313.34	3.660E-03	Pulse	0.30	3
Cr			2	0.442	ug/l	10.72	1,392.30	1.626E-02	Pulse	0.30	3
Mn			2	0.155	ug/l	12.25	207.78	2.428E-03	Pulse	0.30	3
Fe			2	5.677	ug/l	3.93	12,316.98	1.439E-01	Pulse	0.30	3
Co			2	0.021	ug/l	11.10	144.45	1.688E-03	Pulse	0.30	3
Ni			2	0.164	ug/l	16.08	214.45	2.506E-03	Pulse	0.30	3
Cu			2	0.251	ug/l	6.69	2,144.61	2.505E-02	Pulse	0.30	3
Zn			2	3.442	ug/l	3.46	1,370.08	1.601E-02	Pulse	0.30	3
As			2	0.083	ug/l	27.05	19.33	2.260E-04	Pulse	1.00	3
Cd			2	0.003	ug/l	462.50	7.74	1.656E-05	Pulse	0.30	3
Sn			2	1.677	ug/l	3.23	2,067.94	4.420E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	0.031	ug/l	91.04	8.53	7.807E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,660,709.59	0.50	95.2	Pulse	0.10	3
1	Sc		2,811,743.50	0.95	94.4	Pulse	0.10	3
1	Ge		567,823.41	0.79	95.9	Pulse	0.10	3
1	Ge		794,876.76	1.00	96.0	Pulse	0.10	3
1	Rh		3,784,685.78	0.51	95.4	Pulse	0.10	3
1	In		4,055,942.57	1.21	96.8	Pulse	0.10	3
1	Tb		5,707,134.71	0.85	102.0	Analog	0.10	3
1	Ho		526,445.92	0.64	99.9	Pulse	0.10	3
1	Bi		3,253,001.41	0.96	99.8	Pulse	0.10	3
2	Sc		85,600.20	0.52	96.7	Pulse	0.30	3
2	Ge		52,817.29	0.39	96.6	Pulse	0.30	3
2	Ge		80,450.26	1.02	97.1	Pulse	0.30	3
2	Rh		1,574,812.44	0.53	94.6	Pulse	0.30	3
2	In		467,816.25	0.34	93.8	Pulse	0.30	3
2	Tb		1,902,855.13	0.45	96.5	Pulse	0.30	3
2	Ho		183,166.63	1.31	95.8	Pulse	0.30	3
2	Bi		1,296,311.51	0.63	96.9	Pulse	0.30	3
3	Sc		105,814.44	1.28	101.8	Pulse	0.30	3
3	Ge		71,860.29	0.43	102.2	Pulse	0.30	3
3	Ge		109,302.73	0.10	101.7	Pulse	0.30	3
3	Rh		1,299,021.41	0.85	99.1	Pulse	0.30	3
3	Tb		2,062,345.75	0.59	101.0	Pulse	0.30	3

Quantitation Report

File Name 059SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File
Method Path
Acq Time 4/22/2019 14:44
Sample Name mp14272-s2 4
Sample Type Sample
Comment
Prep Dilution 25.000
Auto Dilution N/A
Total Dilution 25.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/22/2019 18:08
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	77.946	ug/l	1.66	18,293.94	1.023E-02	Pulse	0.25	3
B			1	3571.176	ug/l	0.28	572,173.97	3.199E-01	Pulse	0.15	3
Ca			1	314433.962	ug/l	1.51	10,983,173.17	3.504E+00	Analog	0.10	3
Sr			1	6367.056	ug/l	1.25	9,890,340.48	2.668E+00	Analog	0.10	3
Mo			1	93.702	ug/l	0.81	30,372.90	8.194E-03	Pulse	0.10	3
Ag			1	76.845	ug/l	1.43	60,171.82	1.475E-02	Pulse	0.10	3
Sn			1	93.886	ug/l	1.16	43,297.31	1.061E-02	Pulse	0.10	3
Sb			1	78.959	ug/l	0.79	48,706.56	8.478E-03	Pulse	0.10	3
Ba			1	92.448	ug/l	1.38	22,323.27	3.886E-03	Pulse	0.10	3
Tl			1	80.791	ug/l	0.87	102,804.21	3.550E-02	Pulse	0.10	3
Pb			1	82.083	ug/l	0.54	36,338.84	1.255E-02	Pulse	0.10	3
Pb			1	80.755	ug/l	2.10	30,726.14	1.061E-02	Pulse	0.10	3
Pb			1	81.967	ug/l	0.51	143,503.42	4.956E-02	Pulse	0.10	3
Na			2	7764546.290	ug/l	0.30	247,806,701.27	2.534E+03	Analog	0.30	3
Mg			2	954788.943	ug/l	1.39	13,943,635.28	1.426E+02	Analog	0.30	3
Al			2	3962.803	ug/l	0.89	18,328.94	1.875E-01	Pulse	0.30	3
K			2	292720.662	ug/l	0.09	2,619,673.51	2.679E+01	Pulse	0.30	3
Ca			2	336039.525	ug/l	0.40	170,255.71	1.741E+00	Pulse	0.30	3
Ti			2	76.822	ug/l	5.20	342.23	3.499E-03	Pulse	0.30	3
V			2	81.533	ug/l	0.13	12,412.56	1.269E-01	Pulse	0.30	3
Cr			2	76.595	ug/l	0.88	15,540.76	1.589E-01	Pulse	0.30	3
Mn			2	128.992	ug/l	2.01	11,696.47	1.196E-01	Pulse	0.30	3
Fe			2	4068.500	ug/l	1.29	620,993.95	6.351E+00	Pulse	0.30	3
Co			2	73.056	ug/l	1.74	25,163.77	2.574E-01	Pulse	0.30	3
Ni			2	73.344	ug/l	1.22	6,969.33	7.128E-02	Pulse	0.30	3
Cu			2	96.425	ug/l	1.20	26,760.73	2.737E-01	Pulse	0.30	3
Zn			2	68.757	ug/l	2.99	2,372.43	2.426E-02	Pulse	0.30	3
As			2	80.314	ug/l	3.96	1,399.40	1.431E-02	Pulse	1.00	3
Cd			2	71.588	ug/l	2.95	2,955.53	5.947E-03	Pulse	0.30	3
Sn			2	81.330	ug/l	3.96	7,332.89	1.476E-02	Pulse	0.30	3
Se			3	367.413	ug/l	0.53	1,204.85	1.125E-02	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,788,635.81	0.72	102.5	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		3,134,856.20	1.22	105.2	Pulse	0.10	3
1	Ge		597,363.74	1.24	100.8	Pulse	0.10	3
1	Ge		827,522.54	1.80	99.9	Pulse	0.10	3
1	Rh		3,706,980.78	1.41	93.4	Pulse	0.10	3
1	In		4,079,700.64	1.68	97.4	Pulse	0.10	3
1	Tb		5,744,645.54	0.61	102.7	Analog	0.10	3
1	Ho		529,508.23	0.66	100.5	Pulse	0.10	3
1	Bi		2,895,768.50	0.47	88.8	Pulse	0.10	3
2	Sc		97,780.90	0.40	110.5	Pulse	0.30	3
2	Ge		56,903.21	0.42	104.0	Pulse	0.30	3
2	Ge		86,311.22	0.54	104.1	Pulse	0.30	3
2	Rh		1,552,007.85	0.67	93.2	Pulse	0.30	3
2	In		496,961.17	0.48	99.7	Pulse	0.30	3
2	Tb		1,965,582.35	0.21	99.6	Pulse	0.30	3
2	Ho		189,976.00	0.27	99.3	Pulse	0.30	3
2	Bi		1,193,884.78	0.47	89.2	Pulse	0.30	3
3	Sc		110,998.68	0.67	106.8	Pulse	0.30	3
3	Ge		70,450.99	0.54	100.2	Pulse	0.30	3
3	Ge		107,126.41	1.44	99.6	Pulse	0.30	3
3	Rh		1,197,021.48	0.54	91.3	Pulse	0.30	3
3	Tb		1,980,309.51	0.31	97.0	Pulse	0.30	3

Quantitation Report

File Name	060SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File	
Method Path	
Acq Time	4/22/2019 14:49
Sample Name	mp14272-s1
Sample Type	Sample
Comment	
Prep Dilution	1000.000
Auto Dilution	N/A
Total Dilution	1000.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/22/2019 18:08
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	82.549	ug/l	15.89	493.35	2.808E-04	Pulse	0.25	3
B			1	11159.509	ug/l	1.50	44,866.00	2.554E-02	Pulse	0.15	3
Ca			1	315589.743	ug/l	0.34	280,955.02	9.347E-02	Pulse	0.10	3
Sr			1	5771.714	ug/l	0.34	243,440.93	6.057E-02	Pulse	0.10	3
Mo			1	92.937	ug/l	8.86	853.39	2.122E-04	Pulse	0.10	3
Ag			1	93.903	ug/l	1.78	1,933.53	4.542E-04	Pulse	0.10	3
Sn			1	908.002	ug/l	2.13	6,321.51	1.485E-03	Pulse	0.10	3
Sb			1	97.987	ug/l	16.97	1,743.49	2.960E-04	Pulse	0.10	3
Ba			1	121.504	ug/l	5.30	790.05	1.340E-04	Pulse	0.10	3
Tl			1	80.013	ug/l	6.35	3,267.15	9.948E-04	Pulse	0.10	3
Pb			1	101.654	ug/l	21.22	1,583.48	4.818E-04	Pulse	0.10	3
Pb			1	101.287	ug/l	13.62	1,376.78	4.192E-04	Pulse	0.10	3
Pb			1	101.997	ug/l	8.08	6,197.40	1.887E-03	Pulse	0.10	3
Na			2	8209033.959	ug/l	1.08	6,181,142.81	6.710E+01	Analog	0.30	3
Mg			2	969307.367	ug/l	0.58	333,607.63	3.621E+00	Pulse	0.30	3
Al			2	5554.005	ug/l	15.29	687.80	7.465E-03	Pulse	0.30	3
K			2	307887.605	ug/l	0.96	70,313.37	7.633E-01	Pulse	0.30	3
Ca			2	361579.890	ug/l	0.19	4,356.18	4.729E-02	Pulse	0.30	3
Ti			2	138.269	ug/l	0.57	16.67	1.810E-04	Pulse	0.30	3
V			2	82.548	ug/l	17.70	391.12	4.244E-03	Pulse	0.30	3
Cr			2	81.459	ug/l	0.66	852.26	9.252E-03	Pulse	0.30	3
Mn			2	173.489	ug/l	16.30	427.79	4.642E-03	Pulse	0.30	3
Fe			2	4529.610	ug/l	2.58	19,302.50	2.096E-01	Pulse	0.30	3
Co			2	77.789	ug/l	7.54	701.14	7.610E-03	Pulse	0.30	3
Ni			2	256.589	ug/l	6.69	618.91	6.717E-03	Pulse	0.30	3
Cu			2	62.590	ug/l	10.85	1,921.25	2.085E-02	Pulse	0.30	3
Zn			2	2731.467	ug/l	0.98	2,221.29	2.411E-02	Pulse	0.30	3
As			2	95.684	ug/l	8.69	43.00	4.667E-04	Pulse	1.00	3
Cd			2	85.931	ug/l	13.23	96.62	1.911E-04	Pulse	0.30	3
Sn			2	258.318	ug/l	9.15	980.04	1.938E-03	Pulse	0.30	3
Se			3	378.517	ug/l	5.81	38.73	3.544E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,756,834.02	0.07	100.7	Pulse	0.10	3
1	Sc		3,005,880.58	0.93	100.9	Pulse	0.10	3
1	Ge		594,492.61	0.55	100.4	Pulse	0.10	3

Quantitation Report

1	Ge		836,537.54	1.27	101.0	Pulse	0.10	3
1	Rh		4,019,011.29	0.95	101.3	Pulse	0.10	3
1	In		4,257,276.06	0.30	101.6	Pulse	0.10	3
1	Tb		5,893,393.46	0.68	105.3	Analog	0.10	3
1	Ho		537,759.45	0.72	102.1	Pulse	0.10	3
1	Bi		3,284,828.18	0.52	100.8	Pulse	0.10	3
2	Sc		92,120.10	0.49	104.1	Pulse	0.30	3
2	Ge		56,636.75	1.35	103.5	Pulse	0.30	3
2	Ge		86,177.22	0.87	104.0	Pulse	0.30	3
2	Rh		1,652,877.99	0.19	99.3	Pulse	0.30	3
2	In		505,698.10	0.65	101.4	Pulse	0.30	3
2	Tb		1,983,897.49	0.51	100.6	Pulse	0.30	3
2	Ho		190,701.08	1.03	99.7	Pulse	0.30	3
2	Bi		1,329,698.18	0.54	99.4	Pulse	0.30	3
3	Sc		107,101.03	0.51	103.0	Pulse	0.30	3
3	Ge		71,332.38	0.41	101.5	Pulse	0.30	3
3	Ge		109,276.84	0.25	101.6	Pulse	0.30	3
3	Rh		1,301,561.93	0.48	99.3	Pulse	0.30	3
3	Tb		2,049,128.74	0.36	100.3	Pulse	0.30	3

Quantitation Report

File Name 061SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File
Method Path
Acq Time 4/22/2019 14:54
Sample Name mp14272-s2
Sample Type Sample
Comment
Prep Dilution 1000.000
Auto Dilution N/A
Total Dilution 1000.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/22/2019 18:08
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	84.707	ug/l	4.20	492.02	2.879E-04	Pulse	0.25	3
B			1	9298.878	ug/l	2.46	36,535.18	2.138E-02	Pulse	0.15	3
Ca			1	330965.484	ug/l	0.39	286,948.48	9.775E-02	Pulse	0.10	3
Sr			1	5784.282	ug/l	1.05	239,320.72	6.070E-02	Pulse	0.10	3
Mo			1	185.877	ug/l	5.31	1,636.82	4.152E-04	Pulse	0.10	3
Ag			1	77.509	ug/l	3.69	1,566.81	3.755E-04	Pulse	0.10	3
Sn			1	1078.482	ug/l	4.13	8,475.94	2.032E-03	Pulse	0.10	3
Sb			1	129.148	ug/l	2.78	2,196.91	3.794E-04	Pulse	0.10	3
Ba			1	106.204	ug/l	9.70	683.37	1.180E-04	Pulse	0.10	3
Tl			1	93.307	ug/l	2.58	3,673.94	1.140E-03	Pulse	0.10	3
Pb			1	418.406	ug/l	3.22	5,421.18	1.683E-03	Pulse	0.10	3
Pb			1	432.055	ug/l	5.37	4,820.96	1.497E-03	Pulse	0.10	3
Pb			1	426.061	ug/l	0.34	21,743.69	6.750E-03	Pulse	0.10	3
Na			2	8091782.416	ug/l	1.46	6,047,152.81	6.614E+01	Analog	0.30	3
Mg			2	957260.757	ug/l	0.40	327,007.05	3.577E+00	Pulse	0.30	3
Al			2	5384.804	ug/l	9.25	664.47	7.266E-03	Pulse	0.30	3
K			2	299693.319	ug/l	1.01	68,078.68	7.446E-01	Pulse	0.30	3
Ca			2	351820.187	ug/l	1.66	4,208.35	4.602E-02	Pulse	0.30	3
Ti			2	74.960	ug/l	0.67	10.00	1.094E-04	Pulse	0.30	3
V			2	100.749	ug/l	24.99	452.23	4.947E-03	Pulse	0.30	3
Cr			2	108.466	ug/l	23.93	970.04	1.061E-02	Pulse	0.30	3
Mn			2	148.761	ug/l	8.50	372.23	4.072E-03	Pulse	0.30	3
Fe			2	4974.878	ug/l	1.41	20,740.21	2.268E-01	Pulse	0.30	3
Co			2	76.536	ug/l	11.35	685.58	7.500E-03	Pulse	0.30	3
Ni			2	4144.309	ug/l	3.11	9,185.97	1.005E-01	Pulse	0.30	3
Cu			2	332.103	ug/l	7.57	3,548.21	3.881E-02	Pulse	0.30	3
Zn			2	54578.284	ug/l	0.49	40,246.02	4.402E-01	Pulse	0.30	3
As			2	119.475	ug/l	2.81	52.33	5.723E-04	Pulse	1.00	3
Cd			2	62.205	ug/l	15.50	71.04	1.419E-04	Pulse	0.30	3
Sn			2	441.434	ug/l	6.49	1,362.30	2.722E-03	Pulse	0.30	3
Se			3	440.403	ug/l	6.37	43.53	4.015E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,708,975.52	0.21	98.0	Pulse	0.10	3
1	Sc		2,935,625.27	0.15	98.5	Pulse	0.10	3
1	Ge		589,034.03	0.60	99.4	Pulse	0.10	3

Quantitation Report

1	Ge		818,637.49	0.09	98.9	Pulse	0.10	3
1	Rh		3,942,329.53	0.33	99.4	Pulse	0.10	3
1	In		4,172,595.32	0.34	99.6	Pulse	0.10	3
1	Tb		5,790,753.25	0.54	103.5	Analog	0.10	3
1	Ho		529,488.09	1.13	100.5	Pulse	0.10	3
1	Bi		3,221,369.74	1.04	98.8	Pulse	0.10	3
2	Sc		91,433.00	0.52	103.3	Pulse	0.30	3
2	Ge		55,258.62	0.96	101.0	Pulse	0.30	3
2	Ge		84,082.88	0.26	101.5	Pulse	0.30	3
2	Rh		1,633,531.12	0.09	98.1	Pulse	0.30	3
2	In		500,529.58	0.67	100.4	Pulse	0.30	3
2	Tb		1,970,376.38	0.19	99.9	Pulse	0.30	3
2	Ho		190,435.89	0.86	99.6	Pulse	0.30	3
2	Bi		1,326,024.70	1.03	99.1	Pulse	0.30	3
3	Sc		106,034.27	1.21	102.0	Pulse	0.30	3
3	Ge		71,762.42	0.17	102.1	Pulse	0.30	3
3	Ge		108,389.13	1.26	100.8	Pulse	0.30	3
3	Rh		1,296,771.93	1.06	98.9	Pulse	0.30	3
3	Tb		2,040,198.46	0.77	99.9	Pulse	0.30	3

Quantitation Report

File Name 062SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File
Method Path
Acq Time 4/22/2019 14:59
Sample Name mp14272-sd1
Sample Type Sample
Comment
Prep Dilution 50000.000
Auto Dilution N/A
Total Dilution 50000.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/22/2019 18:08
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	-1.091	ug/l	-1836.90	17.33	1.025E-05	Pulse	0.25	3
B			1	290805.556	ug/l	2.09	22,969.32	1.359E-02	Pulse	0.15	3
Ca			1	3474879.070	ug/l	4.38	72,431.18	2.502E-02	Pulse	0.10	3
Sr			1	56202.211	ug/l	1.64	46,654.97	1.188E-02	Pulse	0.10	3
Mo			1	662.401	ug/l	17.49	150.01	3.821E-05	Pulse	0.10	3
Ag			1	103.456	ug/l	27.19	56.67	1.362E-05	Pulse	0.10	3
Sn			1	40554.112	ug/l	2.09	4,880.93	1.174E-03	Pulse	0.10	3
Sb			1	1373.802	ug/l	8.27	623.37	1.075E-04	Pulse	0.10	3
Ba			1	1058.014	ug/l	20.55	166.68	2.877E-05	Pulse	0.10	3
Tl			1	65.638	ug/l	337.35	430.03	1.331E-04	Pulse	0.10	3
Pb			1	-59.805	ug/l	-521.33	296.68	9.172E-05	Pulse	0.10	3
Pb			1	-357.607	ug/l	-29.80	213.34	6.605E-05	Pulse	0.10	3
Pb			1	-28.618	ug/l	-105.06	1,123.40	3.476E-04	Pulse	0.10	3
Na			2	77067457.784	ug/l	0.54	1,133,230.13	1.269E+01	Pulse	0.30	3
Mg			2	9408007.647	ug/l	1.80	62,919.54	7.047E-01	Pulse	0.30	3
Al			2	32890.005	ug/l	37.79	152.23	1.704E-03	Pulse	0.30	3
K			2	3083761.877	ug/l	3.57	17,963.12	2.012E-01	Pulse	0.30	3
Ca			2	4084338.263	ug/l	7.85	985.60	1.104E-02	Pulse	0.30	3
Ti			2	1663.164	ug/l	152.04	5.56	6.222E-05	Pulse	0.30	3
V			2	64.429	ug/l	629.06	98.89	1.108E-03	Pulse	0.30	3
Cr			2	868.689	ug/l	51.66	538.91	6.035E-03	Pulse	0.30	3
Mn			2	2302.320	ug/l	52.32	152.23	1.703E-03	Pulse	0.30	3
Fe			2	10668.788	ug/l	40.99	3,749.58	4.200E-02	Pulse	0.30	3
Co			2	-32.783	ug/l	-234.62	64.44	7.223E-04	Pulse	0.30	3
Ni			2	114.347	ug/l	37.04	52.22	5.848E-04	Pulse	0.30	3
Cu			2	-1489.390	ug/l	-21.97	1,312.29	1.470E-02	Pulse	0.30	3
Zn			2	3930.534	ug/l	60.07	252.23	2.825E-03	Pulse	0.30	3
As			2	120.431	ug/l	162.17	4.67	5.233E-05	Pulse	1.00	3
Cd			2	-96.439	ug/l	-97.61	4.43	8.996E-06	Pulse	0.30	3
Sn			2	9143.106	ug/l	18.75	795.59	1.615E-03	Pulse	0.30	3
Se			3	-562.410	ug/l	-103.03	6.20	5.789E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,689,682.65	0.55	96.8	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,895,844.85	1.63	97.2	Pulse	0.10	3
1	Ge		581,076.49	1.41	98.1	Pulse	0.10	3
1	Ge		811,352.75	1.03	98.0	Pulse	0.10	3
1	Rh		3,926,304.94	1.23	99.0	Pulse	0.10	3
1	In		4,157,040.76	0.83	99.2	Pulse	0.10	3
1	Tb		5,799,108.04	0.86	103.7	Analog	0.10	3
1	Ho		523,179.27	1.22	99.3	Pulse	0.10	3
1	Bi		3,231,751.93	0.98	99.1	Pulse	0.10	3
2	Sc		89,286.01	0.63	100.9	Pulse	0.30	3
2	Ge		54,606.46	1.37	99.8	Pulse	0.30	3
2	Ge		82,142.00	0.49	99.1	Pulse	0.30	3
2	Rh		1,624,133.03	0.34	97.6	Pulse	0.30	3
2	In		492,669.15	0.27	98.8	Pulse	0.30	3
2	Tb		1,944,107.77	0.28	98.5	Pulse	0.30	3
2	Ho		188,842.38	0.21	98.8	Pulse	0.30	3
2	Bi		1,318,235.16	0.16	98.5	Pulse	0.30	3
3	Sc		104,026.06	0.82	100.0	Pulse	0.30	3
3	Ge		70,177.72	0.30	99.8	Pulse	0.30	3
3	Ge		107,144.25	0.47	99.7	Pulse	0.30	3
3	Rh		1,295,706.13	0.55	98.9	Pulse	0.30	3
3	Tb		2,017,598.81	0.19	98.8	Pulse	0.30	3

Quantitation Report

File Name	063SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File	
Method Path	
Acq Time	4/22/2019 15:04
Sample Name	mp14272-b1conf
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/22/2019 18:08
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	76.711	ug/l	1.34	205,304.44	1.257E-01	Pulse	0.25	3
B			1	95.392	ug/l	1.12	175,106.62	1.072E-01	Pulse	0.15	3
Ca			1	4122.802	ug/l	0.54	1,591,597.11	5.791E-01	Pulse	0.10	3
Sr			1	82.770	ug/l	0.77	1,603,547.06	4.337E-01	Pulse	0.10	3
Mo			1	79.160	ug/l	0.73	319,620.30	8.644E-02	Pulse	0.10	3
Ag			1	82.161	ug/l	0.03	785,058.06	1.971E-01	Pulse	0.10	3
Sn			1	77.694	ug/l	0.56	490,495.77	1.231E-01	Pulse	0.10	3
Sb			1	75.565	ug/l	1.48	573,572.56	1.011E-01	Pulse	0.10	3
Ba			1	76.639	ug/l	0.58	228,229.36	4.021E-02	Pulse	0.10	3
Tl			1	78.554	ug/l	0.16	1,378,759.93	4.301E-01	Pulse	0.10	3
Pb			1	78.737	ug/l	0.85	478,909.82	1.494E-01	Pulse	0.10	3
Pb			1	79.671	ug/l	0.33	416,171.68	1.298E-01	Pulse	0.10	3
Pb			1	79.358	ug/l	0.70	1,909,680.10	5.958E-01	Pulse	0.10	3
Na			2	4046.313	ug/l	0.57	1,400,736.02	1.662E+01	Pulse	0.30	3
Mg			2	4087.238	ug/l	0.42	643,156.22	7.633E+00	Pulse	0.30	3
Al			2	3918.732	ug/l	0.64	194,350.49	2.307E+00	Pulse	0.30	3
K			2	4053.048	ug/l	0.69	394,924.91	4.687E+00	Pulse	0.30	3
Ca			2	4524.148	ug/l	1.24	24,722.90	2.934E-01	Pulse	0.30	3
Ti			2	74.900	ug/l	1.04	3,570.43	4.237E-02	Pulse	0.30	3
V			2	80.310	ug/l	0.98	130,689.31	1.551E+00	Pulse	0.30	3
Cr			2	80.599	ug/l	0.29	170,860.43	2.028E+00	Pulse	0.30	3
Mn			2	80.418	ug/l	0.44	78,184.90	9.279E-01	Pulse	0.30	3
Fe			2	4284.149	ug/l	0.28	7,009,418.89	8.319E+01	Analog	0.30	3
Co			2	80.232	ug/l	0.36	296,858.08	3.523E+00	Pulse	0.30	3
Ni			2	80.498	ug/l	1.12	81,829.29	9.711E-01	Pulse	0.30	3
Cu			2	79.310	ug/l	0.48	224,045.90	2.659E+00	Pulse	0.30	3
Zn			2	77.267	ug/l	1.74	26,307.88	3.122E-01	Pulse	0.30	3
As			2	71.277	ug/l	1.10	13,342.79	1.583E-01	Pulse	1.00	3
Cd			2	77.746	ug/l	0.25	37,120.41	8.057E-02	Pulse	0.30	3
Sn			2	76.790	ug/l	1.08	76,096.83	1.652E-01	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	356.374	ug/l	0.84	14,335.92	1.356E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,633,395.46	0.50	93.6	Pulse	0.10	3
1	Sc		2,748,527.15	1.17	92.3	Pulse	0.10	3
1	Ge		552,240.20	1.87	93.2	Pulse	0.10	3
1	Ge		769,619.31	1.29	92.9	Pulse	0.10	3
1	Rh		3,697,734.53	0.97	93.2	Pulse	0.10	3
1	In		3,983,611.66	0.63	95.1	Pulse	0.10	3
1	Tb		5,676,694.91	1.22	101.5	Analog	0.10	3
1	Ho		522,893.90	0.70	99.2	Pulse	0.10	3
1	Bi		3,205,332.45	0.69	98.3	Pulse	0.10	3
2	Sc		84,261.37	0.15	95.2	Pulse	0.30	3
2	Ge		51,113.14	0.14	93.4	Pulse	0.30	3
2	Ge		77,764.03	0.35	93.8	Pulse	0.30	3
2	Rh		1,541,329.49	0.29	92.6	Pulse	0.30	3
2	In		460,744.99	0.52	92.4	Pulse	0.30	3
2	Tb		1,878,585.83	0.26	95.2	Pulse	0.30	3
2	Ho		181,797.23	0.69	95.1	Pulse	0.30	3
2	Bi		1,272,312.03	0.04	95.1	Pulse	0.30	3
3	Sc		105,367.72	0.87	101.3	Pulse	0.30	3
3	Ge		69,328.51	0.97	98.6	Pulse	0.30	3
3	Ge		105,701.00	0.58	98.3	Pulse	0.30	3
3	Rh		1,265,281.37	0.37	96.5	Pulse	0.30	3
3	Tb		2,034,014.36	0.24	99.6	Pulse	0.30	3

Quantitation Report

File Name	064SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File	
Method Path	
Acq Time	4/22/2019 15:09
Sample Name	sampleconf
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/22/2019 18:08
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	79.799	ug/l	1.86	213,704.59	1.308E-01	Pulse	0.25	3
B			1	3148.488	ug/l	2.65	5,752,024.08	3.519E+00	Analog	0.15	3
Ca			1	279337.009	ug/l	0.92	112,506,668.32	3.885E+01	Analog	0.10	3
Sr			1	6297.890	ug/l	0.73	90,243,645.32	3.299E+01	Analog	0.10	3
Mo			1	102.775	ug/l	0.77	306,984.43	1.122E-01	Pulse	0.10	3
Ag			1	70.209	ug/l	0.94	511,613.70	1.684E-01	Pulse	0.10	3
Sn			1	76.144	ug/l	0.61	366,488.13	1.206E-01	Pulse	0.10	3
Sb			1	79.061	ug/l	0.74	438,380.84	1.057E-01	Pulse	0.10	3
Ba			1	96.652	ug/l	0.79	210,230.56	5.070E-02	Pulse	0.10	3
Tl			1	87.036	ug/l	0.83	914,089.70	4.766E-01	Pulse	0.10	3
Pb			1	84.567	ug/l	0.18	307,780.51	1.605E-01	Pulse	0.10	3
Pb			1	85.557	ug/l	0.32	267,412.44	1.394E-01	Pulse	0.10	3
Pb			1	85.137	ug/l	0.35	1,225,950.34	6.391E-01	Pulse	0.10	3
Na			2	6732159.073	ug/l	0.69	2,678,132,444.69	2.747E+04	Analog	0.30	3
Mg			2	808650.532	ug/l	0.16	147,219,829.71	1.510E+03	Analog	0.30	3
Al			2	3893.460	ug/l	0.56	223,458.01	2.292E+00	Pulse	0.30	3
K			2	284472.520	ug/l	1.33	31,668,877.63	3.248E+02	Analog	0.30	3
Ca			2	297499.737	ug/l	0.83	1,878,409.58	1.926E+01	Pulse	0.30	3
Ti			2	77.448	ug/l	4.26	4,272.82	4.381E-02	Pulse	0.30	3
V			2	78.914	ug/l	0.85	148,607.56	1.524E+00	Pulse	0.30	3
Cr			2	71.578	ug/l	1.22	175,652.79	1.801E+00	Pulse	0.30	3
Mn			2	114.193	ug/l	0.44	128,460.06	1.317E+00	Pulse	0.30	3
Fe			2	3722.593	ug/l	1.17	7,048,287.78	7.229E+01	Analog	0.30	3
Co			2	61.998	ug/l	1.13	265,467.27	2.723E+00	Pulse	0.30	3
Ni			2	58.932	ug/l	2.25	69,329.31	7.111E-01	Pulse	0.30	3
Cu			2	58.026	ug/l	1.58	190,110.38	1.950E+00	Pulse	0.30	3
Zn			2	52.063	ug/l	1.55	20,581.97	2.111E-01	Pulse	0.30	3
As			2	67.160	ug/l	0.78	14,549.82	1.492E-01	Pulse	1.00	3
Cd			2	63.352	ug/l	1.11	27,052.17	6.565E-02	Pulse	0.30	3
Sn			2	75.092	ug/l	0.87	66,558.40	1.615E-01	Pulse	0.30	3
Se			3	322.938	ug/l	0.99	10,980.67	1.229E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,634,198.94	0.90	93.7	Pulse	0.10	3
1	Sc		2,895,855.17	1.92	97.2	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		483,543.47	0.61	81.6	Pulse	0.10	3
1	Ge		676,300.61	1.51	81.7	Pulse	0.10	3
1	Rh		2,735,712.98	1.87	69.0	Pulse	0.10	3
1	In		3,037,782.51	1.27	72.5	Pulse	0.10	3
1	Tb		4,146,369.10	0.98	74.1	Pulse	0.10	3
1	Ho		390,816.95	2.44	74.2	Pulse	0.10	3
1	Bi		1,918,069.71	1.24	58.8	Pulse	0.10	3
2	Sc		97,513.80	1.31	110.2	Pulse	0.30	3
2	Ge		50,135.61	1.60	91.7	Pulse	0.30	3
2	Ge		76,210.08	0.35	92.0	Pulse	0.30	3
2	Rh		1,143,839.74	0.40	68.7	Pulse	0.30	3
2	In		412,036.16	1.14	82.6	Pulse	0.30	3
2	Tb		1,520,935.35	1.31	77.1	Pulse	0.30	3
2	Ho		147,102.13	1.28	76.9	Pulse	0.30	3
2	Bi		815,695.99	0.64	61.0	Pulse	0.30	3
3	Sc		102,978.70	0.44	99.0	Pulse	0.30	3
3	Ge		59,129.70	0.25	84.1	Pulse	0.30	3
3	Ge		89,339.40	0.56	83.1	Pulse	0.30	3
3	Rh		848,314.58	0.18	64.7	Pulse	0.30	3
3	Tb		1,460,470.64	0.41	71.5	Pulse	0.30	3

Quantitation Report

File Name	065SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File	
Method Path	
Acq Time	4/22/2019 15:14
Sample Name	jc86546-4 4
Sample Type	Sample
Comment	
Prep Dilution	10.000
Auto Dilution	N/A
Total Dilution	10.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/22/2019 18:08
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.085	ug/l	21.53	84.00	3.806E-05	Pulse	0.25	3
B			1	772.845	ug/l	0.61	382,238.01	1.733E-01	Pulse	0.15	3
Ca			1	250105.490	ug/l	0.45	24,933,919.63	6.962E+00	Analog	0.10	3
Sr			1	686.678	ug/l	0.69	3,121,725.79	7.195E-01	Pulse	0.10	3
Mo			1	1.007	ug/l	11.14	993.40	2.291E-04	Pulse	0.10	3
Ag			1	0.345	ug/l	7.07	783.38	1.692E-04	Pulse	0.10	3
Sn			1	9.691	ug/l	1.73	7,785.68	1.681E-03	Pulse	0.10	3
Sb			1	0.625	ug/l	19.83	1,246.76	2.011E-04	Pulse	0.10	3
Ba			1	49.362	ug/l	2.52	32,134.04	5.185E-03	Pulse	0.10	3
Tl			1	0.197	ug/l	2.69	1,113.41	3.341E-04	Pulse	0.10	3
Pb			1	0.574	ug/l	23.59	1,046.75	3.139E-04	Pulse	0.10	3
Pb			1	0.500	ug/l	19.79	840.06	2.521E-04	Pulse	0.10	3
Pb			1	0.552	ug/l	11.21	3,950.37	1.185E-03	Pulse	0.10	3
Na			2	74690.012	ug/l	1.78	6,648,925.15	6.106E+01	Analog	0.30	3
Mg			2	18730.492	ug/l	1.24	761,937.49	6.996E+00	Pulse	0.30	3
Al			2	130.313	ug/l	17.30	1,769.15	1.626E-02	Pulse	0.30	3
K			2	2144.095	ug/l	0.76	59,898.81	5.499E-01	Pulse	0.30	3
Ca			2	252901.159	ug/l	1.34	356,732.95	3.276E+00	Pulse	0.30	3
Ti			2	1.331	ug/l	98.01	18.89	1.751E-04	Pulse	0.30	3
V			2	1.220	ug/l	14.71	627.80	5.769E-03	Pulse	0.30	3
Cr			2	693.868	ug/l	1.45	379,836.23	3.488E+00	Pulse	0.30	3
Mn			2	27.070	ug/l	4.00	6,869.29	6.306E-02	Pulse	0.30	3
Fe			2	979.744	ug/l	2.89	417,791.74	3.837E+00	Pulse	0.30	3
Co			2	0.529	ug/l	8.98	590.02	5.424E-03	Pulse	0.30	3
Ni			2	4.015	ug/l	8.94	1,111.16	1.021E-02	Pulse	0.30	3
Cu			2	3.755	ug/l	0.28	4,542.90	4.170E-02	Pulse	0.30	3
Zn			2	25.311	ug/l	2.18	2,452.43	2.251E-02	Pulse	0.30	3
As			2	0.436	ug/l	43.01	25.67	2.354E-04	Pulse	1.00	3
Cd			2	-0.015	ug/l	-117.00	5.50	9.956E-06	Pulse	0.30	3
Sn			2	3.296	ug/l	8.48	1,240.06	2.243E-03	Pulse	0.30	3
Se			3	0.990	ug/l	31.63	16.67	1.418E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,205,123.50	0.93	126.4	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		3,581,350.99	0.50	120.2	Pulse	0.10	3
1	Ge		685,543.29	0.75	115.7	Pulse	0.10	3
1	Ge		951,004.62	0.97	114.8	Pulse	0.10	3
1	Rh		4,338,730.25	0.81	109.4	Pulse	0.10	3
1	In		4,632,137.78	0.96	110.5	Pulse	0.10	3
1	Tb		6,197,414.07	0.22	110.8	Analog	0.10	3
1	Ho		562,661.15	0.90	106.8	Pulse	0.10	3
1	Bi		3,332,609.85	0.60	102.2	Pulse	0.10	3
2	Sc		108,929.31	2.82	123.1	Pulse	0.30	3
2	Ge		64,433.16	1.84	117.8	Pulse	0.30	3
2	Ge		97,447.45	1.06	117.6	Pulse	0.30	3
2	Rh		1,770,034.16	0.29	106.3	Pulse	0.30	3
2	In		552,927.57	0.81	110.9	Pulse	0.30	3
2	Tb		2,116,351.44	0.42	107.3	Pulse	0.30	3
2	Ho		205,216.13	0.45	107.3	Pulse	0.30	3
2	Bi		1,389,264.42	0.63	103.8	Pulse	0.30	3
3	Sc		118,026.95	1.21	113.5	Pulse	0.30	3
3	Ge		77,645.76	0.58	110.5	Pulse	0.30	3
3	Ge		117,507.91	1.06	109.3	Pulse	0.30	3
3	Rh		1,360,216.58	0.54	103.8	Pulse	0.30	3
3	Tb		2,127,725.89	1.56	104.2	Pulse	0.30	3

Quantitation Report

File Name 066SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File
Method Path
Acq Time 4/22/2019 15:19
Sample Name jc86546-5
Sample Type Sample
Comment
Prep Dilution 10.000
Auto Dilution N/A
Total Dilution 10.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/22/2019 18:08
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	-0.005	ug/l	-421.20	14.67	8.707E-06	Pulse	0.25	3
B			1	234.473	ug/l	1.27	89,109.36	5.300E-02	Pulse	0.15	3
Ca			1	12348.764	ug/l	0.24	983,994.99	3.492E-01	Pulse	0.10	3
Sr			1	48.272	ug/l	1.56	195,447.06	5.068E-02	Pulse	0.10	3
Mo			1	0.432	ug/l	23.09	400.02	1.037E-04	Pulse	0.10	3
Ag			1	0.058	ug/l	30.44	130.01	3.160E-05	Pulse	0.10	3
Sn			1	9.096	ug/l	2.79	6,118.08	1.490E-03	Pulse	0.10	3
Sb			1	0.401	ug/l	4.96	820.05	1.411E-04	Pulse	0.10	3
Ba			1	154.688	ug/l	2.40	94,336.88	1.623E-02	Pulse	0.10	3
Tl			1	0.062	ug/l	47.78	620.04	1.864E-04	Pulse	0.10	3
Pb			1	0.245	ug/l	16.33	630.04	1.893E-04	Pulse	0.10	3
Pb			1	0.292	ug/l	13.52	613.37	1.844E-04	Pulse	0.10	3
Pb			1	0.291	ug/l	12.03	2,640.20	7.934E-04	Pulse	0.10	3
Na			2	9459.455	ug/l	1.18	660,496.73	7.834E+00	Pulse	0.30	3
Mg			2	6014.718	ug/l	0.80	189,537.71	2.248E+00	Pulse	0.30	3
Al			2	19.458	ug/l	27.95	271.12	3.220E-03	Pulse	0.30	3
K			2	3471.274	ug/l	0.69	71,913.39	8.529E-01	Pulse	0.30	3
Ca			2	12689.603	ug/l	1.54	13,897.01	1.648E-01	Pulse	0.30	3
Ti			2	0.839	ug/l	111.01	10.00	1.195E-04	Pulse	0.30	3
V			2	0.628	ug/l	29.95	293.34	3.480E-03	Pulse	0.30	3
Cr			2	528.366	ug/l	1.24	224,008.27	2.657E+00	Pulse	0.30	3
Mn			2	72.760	ug/l	3.95	14,198.46	1.684E-01	Pulse	0.30	3
Fe			2	66.595	ug/l	3.79	24,632.91	2.922E-01	Pulse	0.30	3
Co			2	2.890	ug/l	6.51	2,205.73	2.615E-02	Pulse	0.30	3
Ni			2	3.042	ug/l	16.67	662.25	7.864E-03	Pulse	0.30	3
Cu			2	10.005	ug/l	3.74	7,026.01	8.335E-02	Pulse	0.30	3
Zn			2	18.663	ug/l	9.87	1,446.75	1.717E-02	Pulse	0.30	3
As			2	0.217	ug/l	23.53	11.67	1.382E-04	Pulse	1.00	3
Cd			2	0.015	ug/l	129.28	7.77	1.613E-05	Pulse	0.30	3
Sn			2	2.635	ug/l	10.45	944.49	1.960E-03	Pulse	0.30	3
Se			3	0.406	ug/l	80.26	10.40	9.734E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,681,173.66	0.39	96.4	Pulse	0.10	3
1	Sc		2,818,154.85	0.16	94.6	Pulse	0.10	3
1	Ge		569,727.75	1.21	96.2	Pulse	0.10	3

Quantitation Report

1	Ge		793,677.23	0.36	95.8	Pulse	0.10	3
1	Rh		3,856,812.65	0.65	97.2	Pulse	0.10	3
1	In		4,106,520.14	1.04	98.0	Pulse	0.10	3
1	Tb		5,812,211.79	1.42	103.9	Analog	0.10	3
1	Ho		534,598.95	0.69	101.5	Pulse	0.10	3
1	Bi		3,327,243.18	0.39	102.1	Pulse	0.10	3
2	Sc		84,318.47	1.39	95.3	Pulse	0.30	3
2	Ge		52,771.63	0.79	96.5	Pulse	0.30	3
2	Ge		80,172.19	1.72	96.7	Pulse	0.30	3
2	Rh		1,600,239.80	1.12	96.1	Pulse	0.30	3
2	In		481,787.77	0.49	96.6	Pulse	0.30	3
2	Tb		1,953,093.46	0.22	99.0	Pulse	0.30	3
2	Ho		189,581.86	0.76	99.1	Pulse	0.30	3
2	Bi		1,340,181.72	0.22	100.2	Pulse	0.30	3
3	Sc		103,797.92	0.84	99.8	Pulse	0.30	3
3	Ge		70,484.36	0.47	100.3	Pulse	0.30	3
3	Ge		106,960.03	1.15	99.5	Pulse	0.30	3
3	Rh		1,305,042.79	0.23	99.6	Pulse	0.30	3
3	Tb		2,103,967.97	0.73	103.0	Pulse	0.30	3

Quantitation Report

File Name 067_CCV.d
File Path C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File
Method Path
Acq Time 4/22/2019 15:24
Sample Name CCVA
Sample Type CCV
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/22/2019 18:08
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	49.724	ug/l	0.64	259,228.23	1.630E-01	Pulse	0.25	3
B			1	110.146	ug/l	0.60	392,627.88	2.468E-01	Pulse	0.15	3
Ca			1	5107.927	ug/l	0.52	3,856,419.11	1.426E+00	Pulse	0.10	3
Sr			1	51.956	ug/l	0.82	2,015,455.07	5.444E-01	Pulse	0.10	3
Mo			1	50.809	ug/l	0.93	410,792.40	1.110E-01	Pulse	0.10	3
Ag			1	49.254	ug/l	1.32	945,784.46	2.363E-01	Pulse	0.10	3
Sn			1	49.372	ug/l	0.67	627,924.13	1.569E-01	Pulse	0.10	3
Sb			1	49.126	ug/l	2.08	754,765.74	1.314E-01	Pulse	0.10	3
Ba			1	48.489	ug/l	0.72	292,293.47	5.088E-02	Pulse	0.10	3
Tl			1	51.014	ug/l	0.94	1,802,410.23	5.587E-01	Pulse	0.10	3
Pb			1	50.681	ug/l	0.54	620,476.52	1.923E-01	Pulse	0.10	3
Pb			1	51.527	ug/l	0.24	541,767.98	1.679E-01	Pulse	0.10	3
Pb			1	51.156	ug/l	0.26	2,477,979.24	7.680E-01	Pulse	0.10	3
Na			2	5114.567	ug/l	0.58	3,505,200.35	4.185E+01	Pulse	0.30	3
Mg			2	5088.279	ug/l	0.90	1,591,521.53	1.900E+01	Pulse	0.30	3
Al			2	5058.982	ug/l	1.08	498,681.99	5.954E+00	Pulse	0.30	3
K			2	5137.611	ug/l	1.41	987,442.74	1.179E+01	Pulse	0.30	3
Ca			2	5431.991	ug/l	1.73	58,956.90	7.039E-01	Pulse	0.30	3
Ti			2	49.901	ug/l	1.74	4,728.51	5.645E-02	Pulse	0.30	3
V			2	50.307	ug/l	1.23	162,729.84	1.943E+00	Pulse	0.30	3
Cr			2	50.252	ug/l	1.54	211,671.63	2.527E+00	Pulse	0.30	3
Mn			2	50.561	ug/l	1.52	97,710.26	1.167E+00	Pulse	0.30	3
Fe			2	5334.348	ug/l	1.33	17,346,855.98	2.071E+02	Analog	0.30	3
Co			2	50.235	ug/l	0.83	369,502.44	4.412E+00	Pulse	0.30	3
Ni			2	50.166	ug/l	1.16	101,369.87	1.210E+00	Pulse	0.30	3
Cu			2	49.895	ug/l	0.60	279,862.54	3.341E+00	Pulse	0.30	3
Zn			2	50.220	ug/l	1.33	33,937.35	4.052E-01	Pulse	0.30	3
As			2	49.589	ug/l	1.35	18,454.74	2.203E-01	Pulse	1.00	3
Cd			2	50.038	ug/l	0.93	49,252.05	1.037E-01	Pulse	0.30	3
Sn			2	49.360	ug/l	0.58	100,732.31	2.121E-01	Pulse	0.30	3
Se			3	201.638	ug/l	0.67	16,034.89	1.535E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,590,863.48	0.33	91.2	Pulse	0.10	3
1	Sc		2,703,526.52	0.50	90.7	Pulse	0.10	3
1	Ge		548,987.65	0.48	92.7	Pulse	0.10	3

Quantitation Report

1	Ge		769,780.67	0.95	93.0	Pulse	0.10	3
1	Rh		3,702,145.36	0.75	93.3	Pulse	0.10	3
1	In		4,002,846.68	0.16	95.5	Pulse	0.10	3
1	Tb		5,745,472.00	0.75	102.7	Analog	0.10	3
1	Ho		533,567.45	1.20	101.3	Pulse	0.10	3
1	Bi		3,226,489.01	0.82	99.0	Pulse	0.10	3
2	Sc		83,762.20	0.79	94.6	Pulse	0.30	3
2	Ge		52,021.36	0.80	95.1	Pulse	0.30	3
2	Ge		78,860.40	0.90	95.2	Pulse	0.30	3
2	Rh		1,549,394.00	0.48	93.1	Pulse	0.30	3
2	In		474,937.07	0.54	95.3	Pulse	0.30	3
2	Tb		1,938,776.10	0.57	98.3	Pulse	0.30	3
2	Ho		188,948.04	0.84	98.8	Pulse	0.30	3
2	Bi		1,307,107.41	0.71	97.7	Pulse	0.30	3
3	Sc		103,080.33	0.54	99.1	Pulse	0.30	3
3	Ge		69,042.76	0.95	98.2	Pulse	0.30	3
3	Ge		104,485.08	1.04	97.2	Pulse	0.30	3
3	Rh		1,267,418.11	0.92	96.7	Pulse	0.30	3
3	Tb		2,075,619.92	0.81	101.6	Pulse	0.30	3

Quantitation Report

File Name	068_CCB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File	
Method Path	
Acq Time	4/22/2019 15:29
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/22/2019 18:08
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.002	ug/l	22.68	26.67	1.639E-05	Pulse	0.25	3
B			1	15.275	ug/l	1.73	56,493.74	3.474E-02	Pulse	0.15	3
Ca			1	-0.084	ug/l	-482.01	15,734.77	5.668E-03	Pulse	0.10	3
Sr			1	0.021	ug/l	17.92	1,263.43	3.262E-04	Pulse	0.10	3
Mo			1	0.089	ug/l	18.38	793.39	2.045E-04	Pulse	0.10	3
Ag			1	0.013	ug/l	32.00	270.01	6.543E-05	Pulse	0.10	3
Sn			1	0.854	ug/l	1.23	5,414.46	1.311E-03	Pulse	0.10	3
Sb			1	0.175	ug/l	6.56	2,923.71	5.032E-04	Pulse	0.10	3
Ba			1	0.008	ug/l	65.83	86.67	1.491E-05	Pulse	0.10	3
Tl			1	0.017	ug/l	17.10	1,016.74	3.065E-04	Pulse	0.10	3
Pb			1	0.005	ug/l	65.13	383.36	1.156E-04	Pulse	0.10	3
Pb			1	-0.001	ug/l	-453.82	283.35	8.537E-05	Pulse	0.10	3
Pb			1	0.004	ug/l	46.50	1,403.42	4.228E-04	Pulse	0.10	3
Na			2	97.777	ug/l	1.57	78,885.19	9.135E-01	Pulse	0.30	3
Mg			2	2.867	ug/l	16.25	1,112.28	1.288E-02	Pulse	0.30	3
Al			2	0.326	ug/l	80.39	113.34	1.313E-03	Pulse	0.30	3
K			2	5.392	ug/l	5.42	6,279.03	7.271E-02	Pulse	0.30	3
Ca			2	1.401	ug/l	69.20	55.55	6.435E-04	Pulse	0.30	3
Ti			2	0.012	ug/l	1.28	3.33	3.856E-05	Pulse	0.30	3
V			2	-0.002	ug/l	-195.32	83.34	9.655E-04	Pulse	0.30	3
Cr			2	-0.001	ug/l	-2954.05	443.34	5.136E-03	Pulse	0.30	3
Mn			2	0.007	ug/l	197.87	70.00	8.104E-04	Pulse	0.30	3
Fe			2	0.685	ug/l	34.95	5,206.87	6.032E-02	Pulse	0.30	3
Co			2	0.003	ug/l	67.52	93.33	1.081E-03	Pulse	0.30	3
Ni			2	-0.001	ug/l	-1086.20	44.45	5.151E-04	Pulse	0.30	3
Cu			2	0.045	ug/l	30.47	1,700.11	1.969E-02	Pulse	0.30	3
Zn			2	0.039	ug/l	139.10	216.67	2.510E-03	Pulse	0.30	3
As			2	0.005	ug/l	73.94	5.67	6.564E-05	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	0.003	ug/l	95.47	9.94	2.006E-05	Pulse	0.30	3
Sn			2	0.198	ug/l	7.27	833.37	1.681E-03	Pulse	0.30	3
Se			3	0.043	ug/l	35.67	10.67	9.912E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,626,328.31	0.44	93.2	Pulse	0.10	3
1	Sc		2,776,246.21	0.56	93.2	Pulse	0.10	3
1	Ge		563,771.68	1.13	95.2	Pulse	0.10	3
1	Ge		787,060.80	0.67	95.0	Pulse	0.10	3
1	Rh		3,874,451.61	0.99	97.7	Pulse	0.10	3
1	In		4,130,254.79	0.97	98.6	Pulse	0.10	3
1	Tb		5,809,828.24	0.66	103.8	Analog	0.10	3
1	Ho		530,785.09	0.74	100.7	Pulse	0.10	3
1	Bi		3,318,520.89	0.46	101.8	Pulse	0.10	3
2	Sc		86,354.03	0.46	97.6	Pulse	0.30	3
2	Ge		53,931.05	1.22	98.6	Pulse	0.30	3
2	Ge		81,200.68	1.34	98.0	Pulse	0.30	3
2	Rh		1,623,521.88	0.57	97.5	Pulse	0.30	3
2	In		495,830.97	0.28	99.5	Pulse	0.30	3
2	Tb		1,984,661.59	0.83	100.6	Pulse	0.30	3
2	Ho		191,052.10	0.24	99.9	Pulse	0.30	3
2	Bi		1,347,202.34	0.21	100.7	Pulse	0.30	3
3	Sc		104,868.10	1.24	100.9	Pulse	0.30	3
3	Ge		70,667.39	0.13	100.5	Pulse	0.30	3
3	Ge		107,531.42	1.06	100.0	Pulse	0.30	3
3	Rh		1,321,932.52	0.51	100.9	Pulse	0.30	3
3	Tb		2,089,549.85	0.70	102.3	Pulse	0.30	3

Quantitation Report

File Name	069SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File	
Method Path	
Acq Time	4/22/2019 15:34
Sample Name	mp14272-ps1conf
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/22/2019 18:08
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	81.157	ug/l	0.54	214,270.22	1.330E-01	Pulse	0.25	3
B			1	3225.616	ug/l	0.59	5,810,377.96	3.606E+00	Analog	0.15	3
Ca			1	276775.120	ug/l	0.56	113,079,524.98	3.850E+01	Analog	0.10	3
Sr			1	6284.830	ug/l	0.58	90,971,365.31	3.292E+01	Analog	0.10	3
Mo			1	103.507	ug/l	0.18	312,309.51	1.130E-01	Pulse	0.10	3
Ag			1	70.094	ug/l	0.13	515,601.80	1.681E-01	Pulse	0.10	3
Sn			1	76.529	ug/l	1.45	371,902.74	1.213E-01	Pulse	0.10	3
Sb			1	79.179	ug/l	0.51	442,173.64	1.059E-01	Pulse	0.10	3
Ba			1	96.332	ug/l	0.73	211,047.22	5.054E-02	Pulse	0.10	3
Tl			1	86.532	ug/l	0.55	913,120.12	4.738E-01	Pulse	0.10	3
Pb			1	83.962	ug/l	0.73	307,027.84	1.593E-01	Pulse	0.10	3
Pb			1	85.622	ug/l	1.59	268,908.24	1.395E-01	Pulse	0.10	3
Pb			1	85.031	ug/l	0.75	1,230,222.83	6.384E-01	Pulse	0.10	3
Na			2	6711763.051	ug/l	0.35	2,710,258,878.97	2.738E+04	Analog	0.30	3
Mg			2	812361.212	ug/l	0.55	150,114,994.04	1.517E+03	Analog	0.30	3
Al			2	3907.444	ug/l	0.42	227,636.75	2.300E+00	Pulse	0.30	3
K			2	287519.397	ug/l	0.51	32,490,655.38	3.283E+02	Analog	0.30	3
Ca			2	298626.465	ug/l	0.32	1,913,943.05	1.934E+01	Pulse	0.30	3
Ti			2	75.286	ug/l	1.72	4,215.03	4.259E-02	Pulse	0.30	3
V			2	79.999	ug/l	0.35	152,913.13	1.545E+00	Pulse	0.30	3
Cr			2	72.128	ug/l	0.66	179,648.66	1.815E+00	Pulse	0.30	3
Mn			2	114.770	ug/l	0.78	131,040.49	1.324E+00	Pulse	0.30	3
Fe			2	3765.580	ug/l	0.86	7,236,834.71	7.312E+01	Analog	0.30	3
Co			2	62.502	ug/l	0.69	271,646.16	2.745E+00	Pulse	0.30	3
Ni			2	58.574	ug/l	0.15	69,955.28	7.068E-01	Pulse	0.30	3
Cu			2	56.342	ug/l	0.53	187,426.86	1.894E+00	Pulse	0.30	3
Zn			2	51.787	ug/l	1.26	20,783.33	2.100E-01	Pulse	0.30	3
As			2	67.518	ug/l	1.65	14,847.76	1.500E-01	Pulse	1.00	3
Cd			2	62.880	ug/l	0.97	27,191.22	6.516E-02	Pulse	0.30	3
Sn			2	75.184	ug/l	1.20	67,472.55	1.617E-01	Pulse	0.30	3
Se			3	322.870	ug/l	0.64	11,395.22	1.229E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,611,368.86	1.75	92.4	Pulse	0.10	3
1	Sc		2,937,341.10	1.72	98.6	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		487,914.18	1.78	82.4	Pulse	0.10	3
1	Ge		681,915.69	1.90	82.3	Pulse	0.10	3
1	Rh		2,763,219.02	1.32	69.7	Pulse	0.10	3
1	In		3,066,702.66	1.41	73.2	Pulse	0.10	3
1	Tb		4,175,986.71	1.24	74.6	Pulse	0.10	3
1	Ho		394,682.74	0.82	74.9	Pulse	0.10	3
1	Bi		1,927,088.62	0.92	59.1	Pulse	0.10	3
2	Sc		98,975.61	1.16	111.8	Pulse	0.30	3
2	Ge		51,240.02	1.45	93.7	Pulse	0.30	3
2	Ge		76,769.35	1.46	92.6	Pulse	0.30	3
2	Rh		1,154,877.00	0.92	69.4	Pulse	0.30	3
2	In		417,251.08	1.64	83.7	Pulse	0.30	3
2	Tb		1,536,834.80	0.27	77.9	Pulse	0.30	3
2	Ho		148,543.70	0.72	77.7	Pulse	0.30	3
2	Bi		820,476.91	0.17	61.3	Pulse	0.30	3
3	Sc		107,175.70	1.69	103.1	Pulse	0.30	3
3	Ge		61,151.59	0.42	87.0	Pulse	0.30	3
3	Ge		92,731.14	0.35	86.3	Pulse	0.30	3
3	Rh		866,604.79	0.44	66.1	Pulse	0.30	3
3	Tb		1,486,594.91	0.25	72.8	Pulse	0.30	3

Quantitation Report

File Name	070SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File	
Method Path	
Acq Time	4/22/2019 15:39
Sample Name	jc86546-7
Sample Type	Sample
Comment	
Prep Dilution	10.000
Auto Dilution	N/A
Total Dilution	10.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/22/2019 18:08
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.088	ug/l	3.50	85.33	3.910E-05	Pulse	0.25	3
B			1	454.037	ug/l	0.94	222,772.84	1.021E-01	Pulse	0.15	3
Ca			1	174136.157	ug/l	0.45	17,617,732.24	4.849E+00	Analog	0.10	3
Sr			1	563.711	ug/l	1.22	2,612,128.14	5.907E-01	Pulse	0.10	3
Mo			1	0.638	ug/l	4.45	656.71	1.485E-04	Pulse	0.10	3
Ag			1	0.134	ug/l	19.87	316.68	6.780E-05	Pulse	0.10	3
Sn			1	9.418	ug/l	1.80	7,448.67	1.593E-03	Pulse	0.10	3
Sb			1	0.669	ug/l	6.54	1,340.10	2.128E-04	Pulse	0.10	3
Ba			1	33.076	ug/l	0.91	21,882.76	3.476E-03	Pulse	0.10	3
Tl			1	0.123	ug/l	36.08	863.39	2.536E-04	Pulse	0.10	3
Pb			1	0.113	ug/l	54.31	473.36	1.390E-04	Pulse	0.10	3
Pb			1	0.180	ug/l	27.58	503.36	1.479E-04	Pulse	0.10	3
Pb			1	0.169	ug/l	23.59	2,076.81	6.101E-04	Pulse	0.10	3
Na			2	91703.467	ug/l	1.03	8,097,879.96	7.494E+01	Analog	0.30	3
Mg			2	2543.937	ug/l	2.31	102,888.72	9.521E-01	Pulse	0.30	3
Al			2	2879.468	ug/l	0.73	36,709.85	3.398E-01	Pulse	0.30	3
K			2	2104.194	ug/l	2.28	58,443.72	5.408E-01	Pulse	0.30	3
Ca			2	177240.693	ug/l	0.57	248,054.56	2.296E+00	Pulse	0.30	3
Ti			2	0.605	ug/l	79.35	10.00	9.299E-05	Pulse	0.30	3
V			2	4.142	ug/l	2.16	1,842.35	1.705E-02	Pulse	0.30	3
Cr			2	470.078	ug/l	1.16	255,460.35	2.364E+00	Pulse	0.30	3
Mn			2	83.139	ug/l	0.92	20,787.63	1.924E-01	Pulse	0.30	3
Fe			2	36164.330	ug/l	1.67	15,171,011.06	1.404E+02	Analog	0.30	3
Co			2	0.355	ug/l	7.61	421.12	3.895E-03	Pulse	0.30	3
Ni			2	3.249	ug/l	10.12	904.48	8.365E-03	Pulse	0.30	3
Cu			2	0.141	ug/l	138.28	1,904.58	1.762E-02	Pulse	0.30	3
Zn			2	13.702	ug/l	6.23	1,424.53	1.319E-02	Pulse	0.30	3
As			2	0.837	ug/l	3.37	44.67	4.135E-04	Pulse	1.00	3
Cd			2	0.013	ug/l	325.42	8.86	1.571E-05	Pulse	0.30	3
Sn			2	3.001	ug/l	4.41	1,185.62	2.117E-03	Pulse	0.30	3
Se			3	0.568	ug/l	27.69	13.20	1.096E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,182,287.45	0.16	125.1	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		3,633,190.16	0.41	121.9	Pulse	0.10	3
1	Ge		695,985.54	1.02	117.5	Pulse	0.10	3
1	Ge		970,335.27	0.79	117.2	Pulse	0.10	3
1	Rh		4,422,706.39	1.13	111.5	Pulse	0.10	3
1	In		4,674,953.73	1.08	111.6	Pulse	0.10	3
1	Tb		6,295,121.16	1.75	112.5	Analog	0.10	3
1	Ho		575,064.93	0.31	109.1	Pulse	0.10	3
1	Bi		3,402,716.09	0.59	104.4	Pulse	0.10	3
2	Sc		108,055.75	2.04	122.1	Pulse	0.30	3
2	Ge		65,063.37	1.10	118.9	Pulse	0.30	3
2	Ge		97,248.37	0.67	117.3	Pulse	0.30	3
2	Rh		1,790,163.33	0.37	107.5	Pulse	0.30	3
2	In		560,095.52	1.91	112.3	Pulse	0.30	3
2	Tb		2,116,369.43	1.09	107.3	Pulse	0.30	3
2	Ho		205,942.60	1.70	107.7	Pulse	0.30	3
2	Bi		1,403,929.11	0.37	104.9	Pulse	0.30	3
3	Sc		120,685.07	0.73	116.1	Pulse	0.30	3
3	Ge		78,821.12	0.64	112.1	Pulse	0.30	3
3	Ge		120,308.44	1.81	111.9	Pulse	0.30	3
3	Rh		1,383,571.30	0.54	105.6	Pulse	0.30	3
3	Tb		2,150,709.64	0.15	105.3	Pulse	0.30	3

Quantitation Report

File Name	071SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File	
Method Path	
Acq Time	4/22/2019 15:44
Sample Name	jc86546-10
Sample Type	Sample
Comment	
Prep Dilution	5.000
Auto Dilution	N/A
Total Dilution	5.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/22/2019 18:08
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.050	ug/l	29.93	73.33	4.280E-05	Pulse	0.25	3
B			1	444.462	ug/l	0.63	341,445.01	1.993E-01	Pulse	0.15	3
Ca			1	17365.646	ug/l	0.34	2,818,167.35	9.717E-01	Pulse	0.10	3
Sr			1	86.282	ug/l	0.67	708,301.65	1.809E-01	Pulse	0.10	3
Mo			1	1.684	ug/l	4.90	2,917.04	7.449E-04	Pulse	0.10	3
Ag			1	0.040	ug/l	47.72	176.67	4.200E-05	Pulse	0.10	3
Sn			1	5.459	ug/l	3.34	8,732.74	2.075E-03	Pulse	0.10	3
Sb			1	1.039	ug/l	1.83	3,523.87	5.897E-04	Pulse	0.10	3
Ba			1	13.337	ug/l	0.20	16,762.98	2.805E-03	Pulse	0.10	3
Tl			1	0.018	ug/l	37.90	526.70	1.584E-04	Pulse	0.10	3
Pb			1	0.555	ug/l	10.31	1,720.17	5.175E-04	Pulse	0.10	3
Pb			1	0.435	ug/l	3.46	1,240.10	3.730E-04	Pulse	0.10	3
Pb			1	0.526	ug/l	3.43	6,434.14	1.935E-03	Pulse	0.10	3
Na			2	13104.964	ug/l	0.52	1,891,747.36	2.150E+01	Pulse	0.30	3
Mg			2	12645.918	ug/l	0.13	831,066.58	9.446E+00	Pulse	0.30	3
Al			2	182.595	ug/l	3.26	3,862.72	4.390E-02	Pulse	0.30	3
K			2	12227.532	ug/l	0.48	496,512.01	5.643E+00	Pulse	0.30	3
Ca			2	17592.772	ug/l	1.02	40,131.58	4.561E-01	Pulse	0.30	3
Ti			2	1.289	ug/l	86.98	27.78	3.162E-04	Pulse	0.30	3
V			2	0.658	ug/l	11.28	540.02	6.138E-03	Pulse	0.30	3
Cr			2	398.780	ug/l	0.10	352,633.03	4.008E+00	Pulse	0.30	3
Mn			2	13.843	ug/l	4.88	5,674.37	6.449E-02	Pulse	0.30	3
Fe			2	149.074	ug/l	0.59	104,793.34	1.191E+00	Pulse	0.30	3
Co			2	0.365	ug/l	11.80	632.24	7.187E-03	Pulse	0.30	3
Ni			2	2.595	ug/l	1.36	1,147.83	1.305E-02	Pulse	0.30	3
Cu			2	8.453	ug/l	4.03	11,379.60	1.293E-01	Pulse	0.30	3
Zn			2	8.682	ug/l	3.94	1,418.97	1.613E-02	Pulse	0.30	3
As			2	0.239	ug/l	24.49	22.33	2.539E-04	Pulse	1.00	3
Cd			2	0.001	ug/l	5221.43	6.51	1.322E-05	Pulse	0.30	3
Sn			2	2.229	ug/l	9.68	1,351.19	2.740E-03	Pulse	0.30	3
Se			3	0.040	ug/l	195.99	8.07	7.258E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,713,295.43	0.37	98.2	Pulse	0.10	3
1	Sc		2,900,203.81	0.47	97.3	Pulse	0.10	3
1	Ge		589,368.64	0.43	99.5	Pulse	0.10	3

Quantitation Report

1	Ge		816,876.94	0.99	98.6	Pulse	0.10	3
1	Rh		3,915,762.55	0.64	98.7	Pulse	0.10	3
1	In		4,209,351.49	0.35	100.5	Pulse	0.10	3
1	Tb		5,976,264.50	0.90	106.8	Analog	0.10	3
1	Ho		548,802.82	1.81	104.1	Pulse	0.10	3
1	Bi		3,324,609.12	0.26	102.0	Pulse	0.10	3
2	Sc		87,981.65	0.31	99.4	Pulse	0.30	3
2	Ge		54,302.08	0.14	99.3	Pulse	0.30	3
2	Ge		83,341.54	1.52	100.6	Pulse	0.30	3
2	Rh		1,619,911.88	0.95	97.3	Pulse	0.30	3
2	In		493,096.74	0.11	98.9	Pulse	0.30	3
2	Tb		2,001,676.38	0.65	101.5	Pulse	0.30	3
2	Ho		193,783.08	0.19	101.3	Pulse	0.30	3
2	Bi		1,345,575.88	0.45	100.6	Pulse	0.30	3
3	Sc		108,116.08	0.39	104.0	Pulse	0.30	3
3	Ge		72,851.41	0.65	103.7	Pulse	0.30	3
3	Ge		111,148.45	0.82	103.4	Pulse	0.30	3
3	Rh		1,331,468.56	0.77	101.6	Pulse	0.30	3
3	Tb		2,139,899.77	0.80	104.8	Pulse	0.30	3

Quantitation Report

File Name	072SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File	
Method Path	
Acq Time	4/22/2019 15:49
Sample Name	jc86546-11
Sample Type	Sample
Comment	
Prep Dilution	5.000
Auto Dilution	N/A
Total Dilution	5.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/22/2019 18:08
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	-0.002	ug/l	-262.35	14.67	8.901E-06	Pulse	0.25	3
B			1	508.191	ug/l	0.53	375,640.75	2.278E-01	Pulse	0.15	3
Ca			1	139947.404	ug/l	1.04	22,088,041.34	7.791E+00	Analog	0.10	3
Sr			1	485.310	ug/l	0.74	3,869,027.65	1.017E+00	Pulse	0.10	3
Mo			1	0.952	ug/l	4.46	1,616.81	4.250E-04	Pulse	0.10	3
Ag			1	0.197	ug/l	22.52	796.71	1.926E-04	Pulse	0.10	3
Sn			1	5.173	ug/l	1.28	7,818.90	1.891E-03	Pulse	0.10	3
Sb			1	0.460	ug/l	5.76	1,670.16	2.798E-04	Pulse	0.10	3
Ba			1	14.743	ug/l	1.41	18,504.97	3.100E-03	Pulse	0.10	3
Tl			1	0.019	ug/l	63.02	530.03	1.610E-04	Pulse	0.10	3
Pb			1	0.130	ug/l	2.96	640.04	1.946E-04	Pulse	0.10	3
Pb			1	0.054	ug/l	20.59	410.02	1.246E-04	Pulse	0.10	3
Pb			1	0.110	ug/l	14.31	2,256.82	6.859E-04	Pulse	0.10	3
Na			2	124829.279	ug/l	1.48	17,482,435.97	2.038E+02	Analog	0.30	3
Mg			2	3335.854	ug/l	1.10	213,854.51	2.493E+00	Pulse	0.30	3
Al			2	75.754	ug/l	2.61	1,609.00	1.876E-02	Pulse	0.30	3
K			2	1108.783	ug/l	0.72	48,603.75	5.667E-01	Pulse	0.30	3
Ca			2	141709.991	ug/l	0.56	314,853.68	3.671E+00	Pulse	0.30	3
Ti			2	0.922	ug/l	49.18	20.00	2.331E-04	Pulse	0.30	3
V			2	0.514	ug/l	1.94	431.12	5.026E-03	Pulse	0.30	3
Cr			2	422.752	ug/l	0.77	364,417.53	4.249E+00	Pulse	0.30	3
Mn			2	102.354	ug/l	1.47	40,544.09	4.727E-01	Pulse	0.30	3
Fe			2	3700.024	ug/l	0.52	2,466,766.36	2.876E+01	Pulse	0.30	3
Co			2	0.302	ug/l	8.29	522.24	6.090E-03	Pulse	0.30	3
Ni			2	4.666	ug/l	1.78	1,975.70	2.303E-02	Pulse	0.30	3
Cu			2	1.072	ug/l	12.90	2,655.81	3.097E-02	Pulse	0.30	3
Zn			2	12.364	ug/l	7.79	1,890.13	2.204E-02	Pulse	0.30	3
As			2	0.666	ug/l	16.42	54.33	6.334E-04	Pulse	1.00	3
Cd			2	-0.004	ug/l	-915.37	5.48	1.141E-05	Pulse	0.30	3
Sn			2	1.945	ug/l	12.82	1,204.50	2.497E-03	Pulse	0.30	3
Se			3	0.619	ug/l	29.03	17.53	1.607E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,649,127.69	0.49	94.5	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,835,144.54	0.16	95.2	Pulse	0.10	3
1	Ge		576,172.35	0.17	97.3	Pulse	0.10	3
1	Ge		806,759.68	0.40	97.4	Pulse	0.10	3
1	Rh		3,804,597.03	1.19	95.9	Pulse	0.10	3
1	In		4,135,683.44	0.02	98.7	Pulse	0.10	3
1	Tb		5,969,161.79	0.52	106.7	Analog	0.10	3
1	Ho		550,912.93	1.40	104.5	Pulse	0.10	3
1	Bi		3,289,746.31	0.77	100.9	Pulse	0.10	3
2	Sc		85,772.32	0.36	96.9	Pulse	0.30	3
2	Ge		53,264.28	1.82	97.4	Pulse	0.30	3
2	Ge		81,364.88	1.30	98.2	Pulse	0.30	3
2	Rh		1,583,076.53	0.39	95.1	Pulse	0.30	3
2	In		482,288.51	0.65	96.7	Pulse	0.30	3
2	Tb		1,980,307.98	0.36	100.4	Pulse	0.30	3
2	Ho		193,359.43	0.95	101.1	Pulse	0.30	3
2	Bi		1,327,480.40	0.43	99.2	Pulse	0.30	3
3	Sc		106,015.25	0.64	102.0	Pulse	0.30	3
3	Ge		71,737.72	0.37	102.1	Pulse	0.30	3
3	Ge		109,109.27	0.66	101.5	Pulse	0.30	3
3	Rh		1,286,627.93	0.62	98.2	Pulse	0.30	3
3	Tb		2,105,379.91	0.17	103.1	Pulse	0.30	3

Quantitation Report

File Name	073SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File	
Method Path	
Acq Time	4/22/2019 15:54
Sample Name	jc86546-12
Sample Type	Sample
Comment	
Prep Dilution	5.000
Auto Dilution	N/A
Total Dilution	5.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/22/2019 18:08
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.041	ug/l	19.70	61.33	3.747E-05	Pulse	0.25	3
B			1	134.134	ug/l	0.66	99,195.26	6.056E-02	Pulse	0.15	3
Ca			1	4629.820	ug/l	1.23	737,018.25	2.632E-01	Pulse	0.10	3
Sr			1	45.285	ug/l	0.33	364,869.26	9.499E-02	Pulse	0.10	3
Mo			1	0.639	ug/l	17.13	1,106.75	2.884E-04	Pulse	0.10	3
Ag			1	0.022	ug/l	34.13	103.34	2.475E-05	Pulse	0.10	3
Sn			1	5.022	ug/l	2.14	7,485.40	1.794E-03	Pulse	0.10	3
Sb			1	0.189	ug/l	14.62	796.72	1.354E-04	Pulse	0.10	3
Ba			1	64.537	ug/l	0.16	79,743.69	1.355E-02	Pulse	0.10	3
Tl			1	0.163	ug/l	8.77	1,590.14	4.748E-04	Pulse	0.10	3
Pb			1	0.788	ug/l	12.59	2,320.29	6.937E-04	Pulse	0.10	3
Pb			1	0.844	ug/l	9.31	2,140.24	6.390E-04	Pulse	0.10	3
Pb			1	0.828	ug/l	1.74	9,511.69	2.842E-03	Pulse	0.10	3
Na			2	22181.905	ug/l	0.99	3,079,667.93	3.631E+01	Pulse	0.30	3
Mg			2	2020.066	ug/l	1.23	128,116.93	1.511E+00	Pulse	0.30	3
Al			2	1360.931	ug/l	4.73	27,241.98	3.212E-01	Pulse	0.30	3
K			2	1682.404	ug/l	1.04	70,267.73	8.286E-01	Pulse	0.30	3
Ca			2	4693.544	ug/l	1.22	10,348.86	1.220E-01	Pulse	0.30	3
Ti			2	52.723	ug/l	49.96	1,013.65	1.195E-02	Pulse	0.30	3
V			2	2.193	ug/l	7.22	1,525.65	1.799E-02	Pulse	0.30	3
Cr			2	330.073	ug/l	0.43	281,416.25	3.318E+00	Pulse	0.30	3
Mn			2	18.069	ug/l	1.90	7,121.61	8.398E-02	Pulse	0.30	3
Fe			2	472.158	ug/l	0.32	313,737.16	3.699E+00	Pulse	0.30	3
Co			2	0.834	ug/l	5.69	1,307.85	1.542E-02	Pulse	0.30	3
Ni			2	4.060	ug/l	5.56	1,705.67	2.011E-02	Pulse	0.30	3
Cu			2	4.318	ug/l	4.86	6,294.60	7.423E-02	Pulse	0.30	3
Zn			2	17.975	ug/l	6.90	2,632.47	3.104E-02	Pulse	0.30	3
As			2	0.506	ug/l	26.74	41.67	4.915E-04	Pulse	1.00	3
Cd			2	0.063	ug/l	85.27	18.84	3.919E-05	Pulse	0.30	3
Sn			2	1.910	ug/l	9.23	1,186.73	2.467E-03	Pulse	0.30	3
Se			3	0.260	ug/l	22.28	11.53	1.061E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,638,060.98	1.03	93.9	Pulse	0.10	3
1	Sc		2,799,876.73	0.43	94.0	Pulse	0.10	3
1	Ge		568,147.15	0.44	95.9	Pulse	0.10	3

Quantitation Report

1	Ge		793,905.22	0.30	95.9	Pulse	0.10	3
1	Rh		3,841,071.40	1.06	96.8	Pulse	0.10	3
1	In		4,172,061.01	1.09	99.6	Pulse	0.10	3
1	Tb		5,886,272.41	0.34	105.2	Analog	0.10	3
1	Ho		540,575.77	0.70	102.6	Pulse	0.10	3
1	Bi		3,347,299.74	1.09	102.7	Pulse	0.10	3
2	Sc		84,806.37	0.24	95.8	Pulse	0.30	3
2	Ge		52,857.34	0.21	96.6	Pulse	0.30	3
2	Ge		80,427.88	0.60	97.0	Pulse	0.30	3
2	Rh		1,609,830.25	0.36	96.7	Pulse	0.30	3
2	In		481,119.61	0.37	96.5	Pulse	0.30	3
2	Tb		1,953,035.13	0.21	99.0	Pulse	0.30	3
2	Ho		190,223.46	0.88	99.5	Pulse	0.30	3
2	Bi		1,347,207.79	0.88	100.7	Pulse	0.30	3
3	Sc		105,925.75	0.67	101.9	Pulse	0.30	3
3	Ge		71,216.56	0.16	101.3	Pulse	0.30	3
3	Ge		108,709.94	0.54	101.1	Pulse	0.30	3
3	Rh		1,309,599.08	0.61	99.9	Pulse	0.30	3
3	Tb		2,107,393.46	0.92	103.2	Pulse	0.30	3

Quantitation Report

File Name	074SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File	
Method Path	
Acq Time	4/22/2019 15:59
Sample Name	jc86546-11f
Sample Type	Sample
Comment	
Prep Dilution	5.000
Auto Dilution	N/A
Total Dilution	5.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/22/2019 18:08
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.006	ug/l	116.93	24.00	1.448E-05	Pulse	0.25	3
B			1	481.996	ug/l	0.82	358,342.95	2.161E-01	Pulse	0.15	3
Ca			1	140317.589	ug/l	0.83	21,908,621.34	7.811E+00	Analog	0.10	3
Sr			1	469.748	ug/l	1.43	3,711,780.26	9.844E-01	Pulse	0.10	3
Mo			1	0.564	ug/l	7.21	963.40	2.556E-04	Pulse	0.10	3
Ag			1	0.035	ug/l	29.61	153.34	3.717E-05	Pulse	0.10	3
Sn			1	4.812	ug/l	0.22	6,838.44	1.659E-03	Pulse	0.10	3
Sb			1	0.368	ug/l	16.80	1,353.44	2.311E-04	Pulse	0.10	3
Ba			1	13.009	ug/l	3.28	16,015.54	2.736E-03	Pulse	0.10	3
Tl			1	0.025	ug/l	30.86	570.03	1.733E-04	Pulse	0.10	3
Pb			1	0.602	ug/l	7.97	1,816.85	5.526E-04	Pulse	0.10	3
Pb			1	0.551	ug/l	4.32	1,473.46	4.484E-04	Pulse	0.10	3
Pb			1	0.560	ug/l	5.78	6,694.18	2.036E-03	Pulse	0.10	3
Na			2	122041.407	ug/l	0.41	17,174,262.65	1.993E+02	Analog	0.30	3
Mg			2	2994.204	ug/l	0.30	192,898.54	2.238E+00	Pulse	0.30	3
Al			2	46.400	ug/l	11.64	1,021.16	1.185E-02	Pulse	0.30	3
K			2	1021.909	ug/l	1.14	45,418.13	5.270E-01	Pulse	0.30	3
Ca			2	141572.030	ug/l	0.63	316,055.56	3.667E+00	Pulse	0.30	3
Ti			2	0.517	ug/l	100.83	12.22	1.416E-04	Pulse	0.30	3
V			2	0.444	ug/l	3.24	386.68	4.487E-03	Pulse	0.30	3
Cr			2	265.481	ug/l	0.48	230,114.27	2.670E+00	Pulse	0.30	3
Mn			2	89.589	ug/l	0.54	35,666.25	4.138E-01	Pulse	0.30	3
Fe			2	2101.387	ug/l	0.35	1,408,960.08	1.635E+01	Pulse	0.30	3
Co			2	0.113	ug/l	24.94	237.78	2.759E-03	Pulse	0.30	3
Ni			2	2.347	ug/l	3.98	1,021.16	1.185E-02	Pulse	0.30	3
Cu			2	1.148	ug/l	10.14	2,756.93	3.198E-02	Pulse	0.30	3
Zn			2	10.398	ug/l	13.40	1,627.88	1.888E-02	Pulse	0.30	3
As			2	0.463	ug/l	36.76	39.00	4.526E-04	Pulse	1.00	3
Cd			2	-0.015	ug/l	-0.28	3.29	6.866E-06	Pulse	0.30	3
Sn			2	1.929	ug/l	13.56	1,188.95	2.483E-03	Pulse	0.30	3
Se			3	0.484	ug/l	31.92	15.27	1.401E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,658,474.64	0.32	95.1	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,804,882.77	1.11	94.1	Pulse	0.10	3
1	Ge		571,832.92	1.12	96.5	Pulse	0.10	3
1	Ge		796,172.80	1.44	96.1	Pulse	0.10	3
1	Rh		3,771,337.55	1.64	95.1	Pulse	0.10	3
1	In		4,121,648.15	1.39	98.4	Pulse	0.10	3
1	Tb		5,852,564.49	0.88	104.6	Analog	0.10	3
1	Ho		541,356.75	0.99	102.7	Pulse	0.10	3
1	Bi		3,286,508.80	1.29	100.8	Pulse	0.10	3
2	Sc		86,184.17	0.43	97.4	Pulse	0.30	3
2	Ge		53,582.10	1.20	98.0	Pulse	0.30	3
2	Ge		81,107.95	0.70	97.9	Pulse	0.30	3
2	Rh		1,569,266.36	0.25	94.3	Pulse	0.30	3
2	In		478,711.17	0.23	96.0	Pulse	0.30	3
2	Tb		1,974,152.70	0.21	100.1	Pulse	0.30	3
2	Ho		190,505.78	0.48	99.6	Pulse	0.30	3
2	Bi		1,321,637.94	0.30	98.8	Pulse	0.30	3
3	Sc		106,196.04	0.39	102.1	Pulse	0.30	3
3	Ge		71,006.66	1.25	101.0	Pulse	0.30	3
3	Ge		108,950.52	0.39	101.3	Pulse	0.30	3
3	Rh		1,289,913.21	0.42	98.4	Pulse	0.30	3
3	Tb		2,112,588.46	0.59	103.4	Pulse	0.30	3

Quantitation Report

File Name	075SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File	
Method Path	
Acq Time	4/22/2019 16:06
Sample Name	jc86594-6
Sample Type	Sample
Comment	
Prep Dilution	10.000
Auto Dilution	N/A
Total Dilution	10.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/22/2019 18:08
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.006	ug/l	220.59	20.00	1.222E-05	Pulse	0.25	3
B			1	450.111	ug/l	0.73	165,490.20	1.012E-01	Pulse	0.15	3
Ca			1	39101.035	ug/l	0.46	3,043,241.21	1.093E+00	Pulse	0.10	3
Sr			1	112.795	ug/l	0.85	452,003.95	1.183E-01	Pulse	0.10	3
Mo			1	7.520	ug/l	7.84	6,311.46	1.652E-03	Pulse	0.10	3
Ag			1	0.044	ug/l	52.98	103.34	2.484E-05	Pulse	0.10	3
Sn			1	9.889	ug/l	3.83	7,275.28	1.744E-03	Pulse	0.10	3
Sb			1	0.392	ug/l	11.08	820.05	1.389E-04	Pulse	0.10	3
Ba			1	90.425	ug/l	1.45	56,062.07	9.493E-03	Pulse	0.10	3
Tl			1	0.001	ug/l	1224.11	400.02	1.197E-04	Pulse	0.10	3
Pb			1	1.028	ug/l	3.12	1,623.49	4.862E-04	Pulse	0.10	3
Pb			1	1.086	ug/l	14.17	1,480.13	4.430E-04	Pulse	0.10	3
Pb			1	1.137	ug/l	4.31	6,887.56	2.062E-03	Pulse	0.10	3
Na			2	23962.944	ug/l	0.50	1,676,977.68	1.967E+01	Pulse	0.30	3
Mg			2	8620.777	ug/l	0.88	274,634.17	3.221E+00	Pulse	0.30	3
Al			2	907.484	ug/l	2.30	9,184.85	1.077E-01	Pulse	0.30	3
K			2	1612.757	ug/l	0.79	36,543.14	4.286E-01	Pulse	0.30	3
Ca			2	39507.905	ug/l	1.05	43,663.84	5.121E-01	Pulse	0.30	3
Ti			2	4.851	ug/l	51.40	48.89	5.731E-04	Pulse	0.30	3
V			2	6.241	ug/l	4.65	2,144.61	2.515E-02	Pulse	0.30	3
Cr			2	817.377	ug/l	0.97	350,220.94	4.107E+00	Pulse	0.30	3
Mn			2	12.020	ug/l	0.78	2,417.98	2.836E-02	Pulse	0.30	3
Fe			2	89.473	ug/l	4.45	32,491.26	3.810E-01	Pulse	0.30	3
Co			2	0.257	ug/l	18.93	258.89	3.037E-03	Pulse	0.30	3
Ni			2	20.270	ug/l	5.14	4,213.93	4.941E-02	Pulse	0.30	3
Cu			2	54.111	ug/l	1.22	32,163.72	3.772E-01	Pulse	0.30	3
Zn			2	57.143	ug/l	2.17	4,097.23	4.805E-02	Pulse	0.30	3
As			2	0.874	ug/l	1.07	36.67	4.300E-04	Pulse	1.00	3
Cd			2	0.023	ug/l	299.05	8.60	1.779E-05	Pulse	0.30	3
Sn			2	3.802	ug/l	8.01	1,188.96	2.460E-03	Pulse	0.30	3
Se			3	3.515	ug/l	7.46	36.20	3.339E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,635,237.24	0.60	93.7	Pulse	0.10	3
1	Sc		2,783,644.54	0.89	93.4	Pulse	0.10	3
1	Ge		567,860.76	0.95	95.9	Pulse	0.10	3

Quantitation Report

1	Ge		793,154.60	1.37	95.8	Pulse	0.10	3
1	Rh		3,821,649.73	0.83	96.3	Pulse	0.10	3
1	In		4,167,573.51	1.74	99.5	Pulse	0.10	3
1	Tb		5,905,308.87	0.81	105.6	Analog	0.10	3
1	Ho		542,064.30	1.29	102.9	Pulse	0.10	3
1	Bi		3,338,984.54	0.90	102.4	Pulse	0.10	3
2	Sc		85,264.31	0.68	96.3	Pulse	0.30	3
2	Ge		53,348.98	0.86	97.5	Pulse	0.30	3
2	Ge		80,480.50	0.72	97.1	Pulse	0.30	3
2	Rh		1,591,594.97	1.10	95.6	Pulse	0.30	3
2	In		483,347.28	0.45	96.9	Pulse	0.30	3
2	Tb		1,967,768.46	0.86	99.7	Pulse	0.30	3
2	Ho		190,922.41	1.59	99.8	Pulse	0.30	3
2	Bi		1,342,354.67	0.92	100.3	Pulse	0.30	3
3	Sc		105,991.64	0.50	101.9	Pulse	0.30	3
3	Ge		70,854.92	0.69	100.8	Pulse	0.30	3
3	Ge		108,448.39	0.72	100.9	Pulse	0.30	3
3	Rh		1,300,908.84	0.75	99.2	Pulse	0.30	3
3	Tb		2,107,117.07	0.67	103.2	Pulse	0.30	3

Quantitation Report

File Name	076SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File	
Method Path	
Acq Time	4/22/2019 16:11
Sample Name	mp14304-mb1conf
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/22/2019 18:08
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.002	ug/l	141.12	29.33	1.741E-05	Pulse	0.25	3
B			1	13.270	ug/l	2.06	51,114.65	3.026E-02	Pulse	0.15	3
Ca			1	63.640	ug/l	1.03	66,533.48	2.339E-02	Pulse	0.10	3
Sr			1	0.090	ug/l	2.61	4,137.36	1.049E-03	Pulse	0.10	3
Mo			1	0.012	ug/l	50.77	136.67	3.462E-05	Pulse	0.10	3
Ag			1	0.004	ug/l	63.77	106.67	2.523E-05	Pulse	0.10	3
Sn			1	0.600	ug/l	3.12	2,093.55	4.970E-04	Pulse	0.10	3
Sb			1	0.015	ug/l	24.11	443.36	7.436E-05	Pulse	0.10	3
Ba			1	0.033	ug/l	13.78	243.34	4.093E-05	Pulse	0.10	3
Tl			1	0.001	ug/l	199.69	436.69	1.283E-04	Pulse	0.10	3
Pb			1	0.036	ug/l	3.91	793.39	2.332E-04	Pulse	0.10	3
Pb			1	0.025	ug/l	20.89	576.70	1.696E-04	Pulse	0.10	3
Pb			1	0.036	ug/l	3.62	3,026.91	8.898E-04	Pulse	0.10	3
Na			2	97.724	ug/l	2.00	80,369.01	9.131E-01	Pulse	0.30	3
Mg			2	4.244	ug/l	11.74	1,585.65	1.802E-02	Pulse	0.30	3
Al			2	2.149	ug/l	2.57	304.45	3.459E-03	Pulse	0.30	3
K			2	8.919	ug/l	10.59	7,108.27	8.077E-02	Pulse	0.30	3
Ca			2	67.884	ug/l	1.34	814.48	9.253E-03	Pulse	0.30	3
Ti			2	0.012	ug/l	286.45	3.33	3.774E-05	Pulse	0.30	3
V			2	0.008	ug/l	61.23	118.89	1.351E-03	Pulse	0.30	3
Cr			2	0.070	ug/l	8.54	765.59	8.697E-03	Pulse	0.30	3
Mn			2	0.041	ug/l	15.10	140.00	1.591E-03	Pulse	0.30	3
Fe			2	1.306	ug/l	6.26	7,428.41	8.440E-02	Pulse	0.30	3
Co			2	0.007	ug/l	22.04	124.45	1.414E-03	Pulse	0.30	3
Ni			2	0.035	ug/l	4.67	120.00	1.363E-03	Pulse	0.30	3
Cu			2	0.037	ug/l	27.89	1,683.44	1.913E-02	Pulse	0.30	3
Zn			2	4.459	ug/l	2.02	3,342.60	3.797E-02	Pulse	0.30	3
As			2	0.007	ug/l	156.58	6.33	7.201E-05	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	0.003	ug/l	251.80	9.99	2.001E-05	Pulse	0.30	3
Sn			2	-0.038	ug/l	-2.78	335.56	6.705E-04	Pulse	0.30	3
Se			3	-0.014	ug/l	-26.82	6.13	5.566E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,689,672.76	1.00	96.8	Pulse	0.10	3
1	Sc		2,844,333.39	1.65	95.5	Pulse	0.10	3
1	Ge		581,452.43	1.23	98.2	Pulse	0.10	3
1	Ge		803,231.63	0.74	97.0	Pulse	0.10	3
1	Rh		3,942,111.82	0.55	99.4	Pulse	0.10	3
1	In		4,212,996.35	0.95	100.5	Pulse	0.10	3
1	Tb		5,951,756.37	2.33	106.4	Analog	0.10	3
1	Ho		542,664.72	2.15	103.0	Pulse	0.10	3
1	Bi		3,401,435.05	1.09	104.3	Pulse	0.10	3
2	Sc		88,019.49	0.59	99.4	Pulse	0.30	3
2	Ge		55,044.61	0.53	100.6	Pulse	0.30	3
2	Ge		83,354.72	0.78	100.6	Pulse	0.30	3
2	Rh		1,633,772.33	0.71	98.2	Pulse	0.30	3
2	In		500,475.81	0.49	100.4	Pulse	0.30	3
2	Tb		2,002,670.20	0.33	101.5	Pulse	0.30	3
2	Ho		194,718.85	0.97	101.8	Pulse	0.30	3
2	Bi		1,382,551.06	0.55	103.3	Pulse	0.30	3
3	Sc		107,323.68	0.75	103.2	Pulse	0.30	3
3	Ge		72,070.35	1.45	102.5	Pulse	0.30	3
3	Ge		110,212.42	0.81	102.5	Pulse	0.30	3
3	Rh		1,328,961.51	0.67	101.4	Pulse	0.30	3
3	Tb		2,114,930.20	0.55	103.6	Pulse	0.30	3

Quantitation Report

File Name	077SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File	
Method Path	
Acq Time	4/22/2019 16:16
Sample Name	mp14304-b1conf
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/22/2019 18:08
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	76.147	ug/l	1.38	409,288.39	2.495E-01	Pulse	0.25	3
B			1	85.426	ug/l	1.12	314,172.83	1.915E-01	Pulse	0.15	3
Ca			1	2038.604	ug/l	0.79	1,604,093.47	5.727E-01	Pulse	0.10	3
Sr			1	79.739	ug/l	1.31	3,187,542.66	8.355E-01	Pulse	0.10	3
Mo			1	75.208	ug/l	1.08	626,599.18	1.642E-01	Pulse	0.10	3
Ag			1	77.516	ug/l	0.37	1,528,896.23	3.719E-01	Pulse	0.10	3
Sn			1	72.460	ug/l	0.90	949,319.13	2.309E-01	Pulse	0.10	3
Sb			1	74.347	ug/l	1.45	1,167,025.19	1.988E-01	Pulse	0.10	3
Ba			1	74.411	ug/l	1.16	458,281.35	7.807E-02	Pulse	0.10	3
Tl			1	77.448	ug/l	0.23	2,809,097.25	8.481E-01	Pulse	0.10	3
Pb			1	76.973	ug/l	0.94	967,270.37	2.920E-01	Pulse	0.10	3
Pb			1	78.882	ug/l	0.83	851,299.80	2.570E-01	Pulse	0.10	3
Pb			1	78.121	ug/l	0.80	3,884,115.61	1.173E+00	Pulse	0.10	3
Na			2	2031.716	ug/l	0.49	1,453,523.24	1.669E+01	Pulse	0.30	3
Mg			2	1994.355	ug/l	0.68	648,579.47	7.449E+00	Pulse	0.30	3
Al			2	1966.677	ug/l	0.28	201,583.78	2.315E+00	Pulse	0.30	3
K			2	2015.851	ug/l	0.58	405,980.42	4.663E+00	Pulse	0.30	3
Ca			2	2406.382	ug/l	0.73	27,175.54	3.121E-01	Pulse	0.30	3
Ti			2	70.882	ug/l	2.05	6,981.55	8.018E-02	Pulse	0.30	3
V			2	77.082	ug/l	0.86	259,150.55	2.976E+00	Pulse	0.30	3
Cr			2	76.945	ug/l	0.47	336,702.25	3.867E+00	Pulse	0.30	3
Mn			2	77.552	ug/l	1.17	155,769.58	1.789E+00	Pulse	0.30	3
Fe			2	2094.007	ug/l	1.67	7,080,349.44	8.132E+01	Analog	0.30	3
Co			2	76.344	ug/l	1.04	583,705.85	6.704E+00	Pulse	0.30	3
Ni			2	75.953	ug/l	0.69	159,525.74	1.832E+00	Pulse	0.30	3
Cu			2	75.642	ug/l	0.77	440,295.35	5.057E+00	Pulse	0.30	3
Zn			2	85.534	ug/l	0.27	59,954.61	6.886E-01	Pulse	0.30	3
As			2	73.587	ug/l	0.48	28,465.68	3.269E-01	Pulse	1.00	3
Cd			2	77.011	ug/l	0.33	77,873.48	1.596E-01	Pulse	0.30	3
Sn			2	73.276	ug/l	0.71	153,437.95	3.145E-01	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	193.891	ug/l	0.13	15,953.41	1.476E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,640,196.70	0.22	94.0	Pulse	0.10	3
1	Sc		2,800,894.96	0.56	94.0	Pulse	0.10	3
1	Ge		569,511.72	0.70	96.1	Pulse	0.10	3
1	Ge		795,935.07	0.79	96.1	Pulse	0.10	3
1	Rh		3,815,262.86	0.63	96.2	Pulse	0.10	3
1	In		4,111,491.02	0.11	98.1	Pulse	0.10	3
1	Tb		5,870,565.75	1.00	104.9	Analog	0.10	3
1	Ho		537,322.96	0.98	102.0	Pulse	0.10	3
1	Bi		3,312,405.68	0.92	101.6	Pulse	0.10	3
2	Sc		87,072.31	0.53	98.4	Pulse	0.30	3
2	Ge		54,146.11	0.49	99.0	Pulse	0.30	3
2	Ge		81,684.05	0.41	98.6	Pulse	0.30	3
2	Rh		1,593,513.03	0.64	95.7	Pulse	0.30	3
2	In		487,951.55	0.30	97.9	Pulse	0.30	3
2	Tb		1,984,848.95	0.41	100.6	Pulse	0.30	3
2	Ho		192,297.29	0.53	100.6	Pulse	0.30	3
2	Bi		1,343,150.85	0.09	100.4	Pulse	0.30	3
3	Sc		105,360.30	0.33	101.3	Pulse	0.30	3
3	Ge		70,863.86	0.68	100.8	Pulse	0.30	3
3	Ge		108,101.66	0.45	100.5	Pulse	0.30	3
3	Rh		1,295,719.67	0.75	98.9	Pulse	0.30	3
3	Tb		2,093,427.63	0.16	102.5	Pulse	0.30	3

Quantitation Report

File Name	078_CCV.d
File Path	C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File	
Method Path	
Acq Time	4/22/2019 16:21
Sample Name	CCVA
Sample Type	CCV
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/22/2019 18:08
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	49.107	ug/l	0.90	264,251.89	1.609E-01	Pulse	0.25	3
B			1	110.126	ug/l	0.70	405,183.01	2.468E-01	Pulse	0.15	3
Ca			1	5115.540	ug/l	0.50	4,016,681.92	1.429E+00	Pulse	0.10	3
Sr			1	52.195	ug/l	0.96	2,058,942.52	5.469E-01	Pulse	0.10	3
Mo			1	50.982	ug/l	0.82	419,122.51	1.113E-01	Pulse	0.10	3
Ag			1	49.064	ug/l	0.48	964,273.94	2.354E-01	Pulse	0.10	3
Sn			1	49.399	ug/l	0.73	643,077.02	1.570E-01	Pulse	0.10	3
Sb			1	48.835	ug/l	1.43	766,864.99	1.306E-01	Pulse	0.10	3
Ba			1	48.051	ug/l	0.43	296,074.13	5.042E-02	Pulse	0.10	3
Tl			1	50.915	ug/l	0.47	1,808,020.75	5.576E-01	Pulse	0.10	3
Pb			1	50.198	ug/l	0.71	617,682.71	1.905E-01	Pulse	0.10	3
Pb			1	51.426	ug/l	0.88	543,435.09	1.676E-01	Pulse	0.10	3
Pb			1	51.067	ug/l	0.21	2,486,080.70	7.667E-01	Pulse	0.10	3
Na			2	5041.966	ug/l	1.67	3,577,851.25	4.126E+01	Pulse	0.30	3
Mg			2	5097.377	ug/l	1.34	1,650,828.62	1.904E+01	Pulse	0.30	3
Al			2	5043.077	ug/l	0.67	514,733.68	5.935E+00	Pulse	0.30	3
K			2	5162.972	ug/l	1.31	1,027,451.83	1.185E+01	Pulse	0.30	3
Ca			2	5333.519	ug/l	1.27	59,943.72	6.912E-01	Pulse	0.30	3
Ti			2	48.907	ug/l	1.40	4,798.53	5.533E-02	Pulse	0.30	3
V			2	50.701	ug/l	1.18	169,814.05	1.958E+00	Pulse	0.30	3
Cr			2	50.136	ug/l	1.41	218,668.02	2.521E+00	Pulse	0.30	3
Mn			2	50.914	ug/l	0.64	101,881.12	1.175E+00	Pulse	0.30	3
Fe			2	5324.097	ug/l	0.67	17,927,219.84	2.067E+02	Analog	0.30	3
Co			2	50.072	ug/l	1.22	381,345.11	4.397E+00	Pulse	0.30	3
Ni			2	49.461	ug/l	1.54	103,487.52	1.193E+00	Pulse	0.30	3
Cu			2	49.316	ug/l	0.75	286,429.83	3.303E+00	Pulse	0.30	3
Zn			2	50.697	ug/l	1.84	35,472.77	4.090E-01	Pulse	0.30	3
As			2	49.376	ug/l	1.91	19,024.39	2.194E-01	Pulse	1.00	3
Cd			2	49.963	ug/l	0.68	50,405.18	1.035E-01	Pulse	0.30	3
Sn			2	49.823	ug/l	0.45	104,207.67	2.141E-01	Pulse	0.30	3
Se			3	198.666	ug/l	1.51	16,318.50	1.512E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,642,061.01	0.20	94.1	Pulse	0.10	3
1	Sc		2,811,801.84	0.71	94.4	Pulse	0.10	3
1	Ge		567,112.44	0.77	95.7	Pulse	0.10	3

Quantitation Report

1	Ge		795,599.67	0.97	96.1	Pulse	0.10	3
1	Rh		3,764,487.75	0.95	94.9	Pulse	0.10	3
1	In		4,096,974.65	1.06	97.8	Pulse	0.10	3
1	Tb		5,872,639.49	1.75	105.0	Analog	0.10	3
1	Ho		538,163.82	1.65	102.1	Pulse	0.10	3
1	Bi		3,242,649.32	0.54	99.5	Pulse	0.10	3
2	Sc		86,729.40	0.65	98.0	Pulse	0.30	3
2	Ge		53,810.54	1.26	98.4	Pulse	0.30	3
2	Ge		81,509.96	0.99	98.3	Pulse	0.30	3
2	Rh		1,578,160.57	0.78	94.8	Pulse	0.30	3
2	In		486,786.87	1.04	97.6	Pulse	0.30	3
2	Tb		1,985,761.45	0.81	100.7	Pulse	0.30	3
2	Ho		191,501.51	1.06	100.1	Pulse	0.30	3
2	Bi		1,321,705.26	1.13	98.8	Pulse	0.30	3
3	Sc		105,798.10	0.13	101.7	Pulse	0.30	3
3	Ge		70,254.49	0.06	100.0	Pulse	0.30	3
3	Ge		107,932.76	1.38	100.4	Pulse	0.30	3
3	Rh		1,279,778.53	0.55	97.6	Pulse	0.30	3
3	Tb		2,081,317.14	0.23	101.9	Pulse	0.30	3

Quantitation Report

File Name	079_CCB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File	
Method Path	
Acq Time	4/22/2019 16:26
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/22/2019 18:08
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.009	ug/l	33.37	66.67	3.983E-05	Pulse	0.25	3
B			1	12.667	ug/l	1.72	48,362.15	2.891E-02	Pulse	0.15	3
Ca			1	-0.540	ug/l	-62.46	15,781.44	5.541E-03	Pulse	0.10	3
Sr			1	0.018	ug/l	16.98	1,133.42	2.903E-04	Pulse	0.10	3
Mo			1	0.088	ug/l	4.45	790.05	2.023E-04	Pulse	0.10	3
Ag			1	0.015	ug/l	11.40	326.68	7.740E-05	Pulse	0.10	3
Sn			1	0.879	ug/l	3.55	5,867.98	1.391E-03	Pulse	0.10	3
Sb			1	0.159	ug/l	8.60	2,717.01	4.593E-04	Pulse	0.10	3
Ba			1	0.007	ug/l	188.09	83.34	1.409E-05	Pulse	0.10	3
Tl			1	0.019	ug/l	10.80	1,090.07	3.274E-04	Pulse	0.10	3
Pb			1	0.004	ug/l	73.75	376.69	1.131E-04	Pulse	0.10	3
Pb			1	0.012	ug/l	36.59	423.36	1.272E-04	Pulse	0.10	3
Pb			1	0.010	ug/l	55.59	1,696.78	5.097E-04	Pulse	0.10	3
Na			2	63.653	ug/l	1.30	55,920.66	6.351E-01	Pulse	0.30	3
Mg			2	1.756	ug/l	10.91	768.92	8.734E-03	Pulse	0.30	3
Al			2	0.272	ug/l	25.26	110.00	1.249E-03	Pulse	0.30	3
K			2	5.207	ug/l	12.45	6,365.73	7.229E-02	Pulse	0.30	3
Ca			2	1.502	ug/l	166.44	57.78	6.565E-04	Pulse	0.30	3
Ti			2	0.001	ug/l	6540.73	2.22	2.527E-05	Pulse	0.30	3
V			2	0.008	ug/l	126.25	118.89	1.350E-03	Pulse	0.30	3
Cr			2	-0.001	ug/l	-345.88	451.12	5.123E-03	Pulse	0.30	3
Mn			2	-0.002	ug/l	-394.78	53.33	6.060E-04	Pulse	0.30	3
Fe			2	0.548	ug/l	12.15	4,840.77	5.498E-02	Pulse	0.30	3
Co			2	0.006	ug/l	65.12	115.56	1.312E-03	Pulse	0.30	3
Ni			2	-0.001	ug/l	-429.04	44.44	5.045E-04	Pulse	0.30	3
Cu			2	0.004	ug/l	283.23	1,491.20	1.693E-02	Pulse	0.30	3
Zn			2	0.035	ug/l	103.85	217.78	2.474E-03	Pulse	0.30	3
As			2	0.008	ug/l	106.89	6.67	7.568E-05	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	-0.001	ug/l	-197.81	5.51	1.102E-05	Pulse	0.30	3
Sn			2	0.285	ug/l	16.19	1,025.60	2.051E-03	Pulse	0.30	3
Se			3	0.050	ug/l	39.35	11.47	1.046E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,673,067.07	0.53	95.9	Pulse	0.10	3
1	Sc		2,848,604.75	1.34	95.6	Pulse	0.10	3
1	Ge		578,922.36	0.69	97.7	Pulse	0.10	3
1	Ge		805,883.27	0.52	97.3	Pulse	0.10	3
1	Rh		3,904,595.88	0.36	98.4	Pulse	0.10	3
1	In		4,218,282.40	0.81	100.7	Pulse	0.10	3
1	Tb		5,911,811.99	1.48	105.7	Analog	0.10	3
1	Ho		535,706.22	0.21	101.7	Pulse	0.10	3
1	Bi		3,329,201.10	0.06	102.1	Pulse	0.10	3
2	Sc		88,050.80	0.41	99.5	Pulse	0.30	3
2	Ge		54,667.72	1.10	99.9	Pulse	0.30	3
2	Ge		83,291.35	0.41	100.5	Pulse	0.30	3
2	Rh		1,629,070.91	0.21	97.9	Pulse	0.30	3
2	In		500,450.62	1.05	100.4	Pulse	0.30	3
2	Tb		1,991,911.79	0.33	101.0	Pulse	0.30	3
2	Ho		193,299.29	0.85	101.1	Pulse	0.30	3
2	Bi		1,354,951.72	0.80	101.3	Pulse	0.30	3
3	Sc		106,262.37	0.73	102.2	Pulse	0.30	3
3	Ge		71,973.24	0.68	102.4	Pulse	0.30	3
3	Ge		109,628.26	0.76	102.0	Pulse	0.30	3
3	Rh		1,323,742.72	0.43	101.0	Pulse	0.30	3
3	Tb		2,095,601.58	0.51	102.6	Pulse	0.30	3

Quantitation Report

File Name 080SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File
Method Path
Acq Time 4/22/2019 16:31
Sample Name mp14304-s1 1
Sample Type Sample
Comment
Prep Dilution 5.000
Auto Dilution N/A
Total Dilution 5.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/22/2019 18:08
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	70.638	ug/l	1.98	77,617.50	4.630E-02	Pulse	0.25	3
B			1	137.798	ug/l	0.80	104,243.05	6.220E-02	Pulse	0.15	3
Ca			1	14199.818	ug/l	1.43	2,282,637.31	7.956E-01	Pulse	0.10	3
Sr			1	172.676	ug/l	0.98	1,412,218.63	3.619E-01	Pulse	0.10	3
Mo			1	69.336	ug/l	0.58	118,204.84	3.029E-02	Pulse	0.10	3
Ag			1	71.424	ug/l	0.31	287,099.75	6.853E-02	Pulse	0.10	3
Sn			1	70.516	ug/l	2.05	183,488.10	4.379E-02	Pulse	0.10	3
Sb			1	67.219	ug/l	1.74	214,826.06	3.598E-02	Pulse	0.10	3
Ba			1	220.226	ug/l	0.23	275,941.19	4.621E-02	Pulse	0.10	3
Tl			1	71.483	ug/l	0.74	525,383.51	1.566E-01	Pulse	0.10	3
Pb			1	74.710	ug/l	0.97	190,389.47	5.677E-02	Pulse	0.10	3
Pb			1	76.066	ug/l	1.09	166,486.03	4.964E-02	Pulse	0.10	3
Pb			1	75.654	ug/l	0.66	762,723.65	2.274E-01	Pulse	0.10	3
Na			2	4471.555	ug/l	0.06	662,497.32	7.413E+00	Pulse	0.30	3
Mg			2	7787.618	ug/l	0.46	519,948.61	5.818E+00	Pulse	0.30	3
Al			2	2371.912	ug/l	0.95	49,969.71	5.591E-01	Pulse	0.30	3
K			2	4401.251	ug/l	0.24	184,996.43	2.070E+00	Pulse	0.30	3
Ca			2	15240.896	ug/l	0.78	35,320.77	3.952E-01	Pulse	0.30	3
Ti			2	87.464	ug/l	9.21	1,770.13	1.981E-02	Pulse	0.30	3
V			2	74.065	ug/l	1.66	51,193.24	5.728E-01	Pulse	0.30	3
Cr			2	77.439	ug/l	0.16	69,930.86	7.825E-01	Pulse	0.30	3
Mn			2	1441.515	ug/l	0.42	594,228.20	6.649E+00	Pulse	0.30	3
Fe			2	33886.049	ug/l	0.44	23,515,207.40	2.631E+02	Analog	0.30	3
Co			2	76.644	ug/l	0.87	120,354.76	1.347E+00	Pulse	0.30	3
Ni			2	76.968	ug/l	0.63	33,223.52	3.717E-01	Pulse	0.30	3
Cu			2	75.474	ug/l	0.74	91,377.42	1.022E+00	Pulse	0.30	3
Zn			2	240.467	ug/l	0.74	34,686.70	3.881E-01	Pulse	0.30	3
As			2	100.256	ug/l	1.36	7,963.62	8.911E-02	Pulse	1.00	3
Cd			2	71.809	ug/l	2.18	14,833.64	2.977E-02	Pulse	0.30	3
Sn			2	67.615	ug/l	1.02	29,251.63	5.871E-02	Pulse	0.30	3
Se			3	183.676	ug/l	2.03	3,053.75	2.801E-02	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,676,105.52	0.99	96.1	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,869,166.41	0.70	96.3	Pulse	0.10	3
1	Ge		577,667.93	1.07	97.5	Pulse	0.10	3
1	Ge		805,611.53	0.36	97.3	Pulse	0.10	3
1	Rh		3,902,339.52	0.88	98.4	Pulse	0.10	3
1	In		4,189,516.49	0.98	100.0	Pulse	0.10	3
1	Tb		5,970,993.04	0.78	106.7	Analog	0.10	3
1	Ho		546,096.10	1.20	103.6	Pulse	0.10	3
1	Bi		3,353,944.74	0.20	102.9	Pulse	0.10	3
2	Sc		89,370.98	0.28	101.0	Pulse	0.30	3
2	Ge		55,241.96	0.59	101.0	Pulse	0.30	3
2	Ge		82,851.12	1.00	100.0	Pulse	0.30	3
2	Rh		1,628,388.06	0.12	97.8	Pulse	0.30	3
2	In		498,231.96	0.16	99.9	Pulse	0.30	3
2	Tb		1,994,024.16	0.70	101.1	Pulse	0.30	3
2	Ho		193,202.71	1.36	101.0	Pulse	0.30	3
2	Bi		1,361,437.55	0.68	101.8	Pulse	0.30	3
3	Sc		106,720.94	1.41	102.6	Pulse	0.30	3
3	Ge		71,708.64	0.61	102.0	Pulse	0.30	3
3	Ge		109,015.53	0.86	101.4	Pulse	0.30	3
3	Rh		1,309,141.86	0.23	99.9	Pulse	0.30	3
3	Tb		2,105,429.64	0.99	103.1	Pulse	0.30	3

Quantitation Report

File Name 081SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File
Method Path
Acq Time 4/22/2019 16:36
Sample Name mp14304-s2
Sample Type Sample
Comment
Prep Dilution 5.000
Auto Dilution N/A
Total Dilution 5.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/22/2019 18:08
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	69.588	ug/l	0.95	76,670.65	4.562E-02	Pulse	0.25	3
B			1	132.037	ug/l	1.40	100,203.37	5.962E-02	Pulse	0.15	3
Ca			1	14038.652	ug/l	0.57	2,286,948.14	7.866E-01	Pulse	0.10	3
Sr			1	171.239	ug/l	1.34	1,406,067.06	3.589E-01	Pulse	0.10	3
Mo			1	68.348	ug/l	1.20	116,978.75	2.986E-02	Pulse	0.10	3
Ag			1	70.628	ug/l	1.72	285,796.87	6.777E-02	Pulse	0.10	3
Sn			1	69.841	ug/l	0.63	182,865.72	4.336E-02	Pulse	0.10	3
Sb			1	67.604	ug/l	1.47	214,540.37	3.618E-02	Pulse	0.10	3
Ba			1	220.215	ug/l	1.74	274,012.09	4.621E-02	Pulse	0.10	3
Tl			1	70.403	ug/l	0.73	518,236.71	1.543E-01	Pulse	0.10	3
Pb			1	73.862	ug/l	0.91	188,510.48	5.612E-02	Pulse	0.10	3
Pb			1	75.635	ug/l	0.82	165,806.08	4.936E-02	Pulse	0.10	3
Pb			1	74.966	ug/l	0.20	756,958.44	2.253E-01	Pulse	0.10	3
Na			2	4420.645	ug/l	0.05	657,283.25	7.330E+00	Pulse	0.30	3
Mg			2	7700.826	ug/l	0.41	515,897.27	5.753E+00	Pulse	0.30	3
Al			2	2352.696	ug/l	1.07	49,731.20	5.546E-01	Pulse	0.30	3
K			2	4386.203	ug/l	0.21	185,004.93	2.063E+00	Pulse	0.30	3
Ca			2	15035.425	ug/l	1.49	34,960.02	3.899E-01	Pulse	0.30	3
Ti			2	83.235	ug/l	3.49	1,690.11	1.885E-02	Pulse	0.30	3
V			2	73.476	ug/l	0.73	50,956.94	5.683E-01	Pulse	0.30	3
Cr			2	76.635	ug/l	0.51	69,442.31	7.744E-01	Pulse	0.30	3
Mn			2	1443.123	ug/l	0.42	596,892.63	6.656E+00	Pulse	0.30	3
Fe			2	33975.025	ug/l	0.98	23,655,199.62	2.638E+02	Analog	0.30	3
Co			2	75.662	ug/l	0.91	119,213.12	1.329E+00	Pulse	0.30	3
Ni			2	75.930	ug/l	0.71	32,887.34	3.667E-01	Pulse	0.30	3
Cu			2	74.840	ug/l	0.78	90,931.64	1.014E+00	Pulse	0.30	3
Zn			2	237.312	ug/l	1.66	34,352.67	3.831E-01	Pulse	0.30	3
As			2	98.444	ug/l	1.35	7,846.24	8.750E-02	Pulse	1.00	3
Cd			2	70.903	ug/l	0.31	14,786.81	2.940E-02	Pulse	0.30	3
Sn			2	67.741	ug/l	1.23	29,584.48	5.882E-02	Pulse	0.30	3
Se			3	179.441	ug/l	0.63	3,016.81	2.737E-02	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,680,704.85	0.55	96.3	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,907,423.08	1.73	97.6	Pulse	0.10	3
1	Ge		585,757.78	1.19	98.9	Pulse	0.10	3
1	Ge		816,055.85	1.23	98.5	Pulse	0.10	3
1	Rh		3,917,643.17	0.83	98.8	Pulse	0.10	3
1	In		4,217,567.42	0.47	100.7	Pulse	0.10	3
1	Tb		5,929,891.58	1.30	106.0	Analog	0.10	3
1	Ho		549,155.88	1.02	104.2	Pulse	0.10	3
1	Bi		3,359,045.26	0.84	103.0	Pulse	0.10	3
2	Sc		89,672.49	0.70	101.3	Pulse	0.30	3
2	Ge		55,697.90	0.90	101.8	Pulse	0.30	3
2	Ge		83,256.37	0.49	100.5	Pulse	0.30	3
2	Rh		1,635,956.95	0.26	98.3	Pulse	0.30	3
2	In		502,978.63	0.79	100.9	Pulse	0.30	3
2	Tb		2,006,729.78	1.43	101.7	Pulse	0.30	3
2	Ho		193,286.06	1.23	101.1	Pulse	0.30	3
2	Bi		1,364,662.30	0.67	102.0	Pulse	0.30	3
3	Sc		106,840.30	1.04	102.8	Pulse	0.30	3
3	Ge		72,895.08	0.35	103.7	Pulse	0.30	3
3	Ge		110,223.27	0.60	102.5	Pulse	0.30	3
3	Rh		1,322,296.61	0.70	100.9	Pulse	0.30	3
3	Tb		2,095,304.08	0.65	102.6	Pulse	0.30	3

Quantitation Report

File Name	082SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File	
Method Path	
Acq Time	4/22/2019 16:42
Sample Name	jc86364-2
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/22/2019 18:08
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.162	ug/l	19.49	458.68	2.759E-04	Pulse	0.25	3
B			1	55.998	ug/l	0.11	105,032.41	6.318E-02	Pulse	0.15	3
Ca			1	34167.291	ug/l	2.41	13,819,344.79	4.757E+00	Analog	0.10	3
Sr			1	144.958	ug/l	0.61	2,976,527.87	7.594E-01	Pulse	0.10	3
Mo			1	90.623	ug/l	0.62	387,843.86	9.896E-02	Pulse	0.10	3
Ag			1	0.130	ug/l	12.35	1,326.77	3.146E-04	Pulse	0.10	3
Sn			1	1.888	ug/l	2.85	6,751.71	1.600E-03	Pulse	0.10	3
Sb			1	5.065	ug/l	1.35	40,336.01	6.805E-03	Pulse	0.10	3
Ba			1	33.961	ug/l	1.09	105,624.73	1.782E-02	Pulse	0.10	3
Tl			1	0.221	ug/l	5.12	4,444.18	1.328E-03	Pulse	0.10	3
Pb			1	122.758	ug/l	1.38	779,550.72	2.329E-01	Pulse	0.10	3
Pb			1	123.409	ug/l	0.84	673,030.49	2.011E-01	Pulse	0.10	3
Pb			1	123.336	ug/l	0.97	3,098,805.45	9.258E-01	Pulse	0.10	3
Na			2	2090.145	ug/l	1.06	777,588.25	8.643E+00	Pulse	0.30	3
Mg			2	10422.457	ug/l	1.37	1,750,754.72	1.946E+01	Pulse	0.30	3
Al			2	190.542	ug/l	3.36	10,167.65	1.130E-01	Pulse	0.30	3
K			2	2341.626	ug/l	1.87	245,895.38	2.733E+00	Pulse	0.30	3
Ca			2	34664.104	ug/l	1.91	201,966.13	2.245E+00	Pulse	0.30	3
Ti			2	11.326	ug/l	17.37	577.80	6.428E-03	Pulse	0.30	3
V			2	6.437	ug/l	1.45	11,271.71	1.253E-01	Pulse	0.30	3
Cr			2	2.833	ug/l	0.69	6,861.50	7.626E-02	Pulse	0.30	3
Mn			2	552.690	ug/l	0.99	573,393.95	6.373E+00	Pulse	0.30	3
Fe			2	10649.621	ug/l	2.13	18,597,872.04	2.067E+02	Analog	0.30	3
Co			2	39.325	ug/l	2.08	155,379.60	1.727E+00	Pulse	0.30	3
Ni			2	174.985	ug/l	1.09	189,868.45	2.110E+00	Pulse	0.30	3
Cu			2	48.874	ug/l	1.43	147,986.40	1.645E+00	Pulse	0.30	3
Zn			2	1684.051	ug/l	1.76	608,071.66	6.759E+00	Pulse	0.30	3
As			2	63.650	ug/l	0.55	12,722.63	1.414E-01	Pulse	1.00	3
Cd			2	16.350	ug/l	0.57	8,527.90	1.695E-02	Pulse	0.30	3
Sn			2	0.698	ug/l	7.87	1,170.06	2.326E-03	Pulse	0.30	3
Se			3	2.681	ug/l	5.88	120.13	1.086E-03	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,662,458.08	0.07	95.3	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,905,068.08	0.54	97.5	Pulse	0.10	3
1	Ge		585,202.84	1.10	98.8	Pulse	0.10	3
1	Ge		815,140.98	0.89	98.4	Pulse	0.10	3
1	Rh		3,919,388.38	0.49	98.8	Pulse	0.10	3
1	In		4,219,014.54	0.80	100.7	Pulse	0.10	3
1	Tb		5,927,226.58	0.80	105.9	Analog	0.10	3
1	Ho		547,964.55	1.83	104.0	Pulse	0.10	3
1	Bi		3,347,329.33	0.25	102.7	Pulse	0.10	3
2	Sc		89,974.30	1.19	101.6	Pulse	0.30	3
2	Ge		55,267.47	0.29	101.0	Pulse	0.30	3
2	Ge		83,908.71	0.49	101.2	Pulse	0.30	3
2	Rh		1,630,238.16	0.22	97.9	Pulse	0.30	3
2	In		503,022.30	0.15	100.9	Pulse	0.30	3
2	Tb		1,994,381.03	0.85	101.1	Pulse	0.30	3
2	Ho		194,877.24	1.24	101.9	Pulse	0.30	3
2	Bi		1,353,922.20	0.39	101.2	Pulse	0.30	3
3	Sc		107,444.27	0.36	103.3	Pulse	0.30	3
3	Ge		72,746.46	1.21	103.5	Pulse	0.30	3
3	Ge		110,559.03	0.59	102.8	Pulse	0.30	3
3	Rh		1,309,065.78	0.74	99.9	Pulse	0.30	3
3	Tb		2,109,892.42	0.44	103.3	Pulse	0.30	3

Quantitation Report

File Name	083SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File	
Method Path	
Acq Time	4/22/2019 16:46
Sample Name	jc86364-6
Sample Type	Sample
Comment	
Prep Dilution	5.000
Auto Dilution	N/A
Total Dilution	5.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/22/2019 18:08
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.317	ug/l	6.82	370.68	2.178E-04	Pulse	0.25	3
B			1	66.671	ug/l	1.43	51,745.50	3.040E-02	Pulse	0.15	3
Ca			1	37333.265	ug/l	0.86	6,132,492.62	2.082E+00	Analog	0.10	3
Sr			1	125.147	ug/l	0.51	1,043,431.23	2.623E-01	Pulse	0.10	3
Mo			1	2.408	ug/l	1.80	4,220.74	1.061E-03	Pulse	0.10	3
Ag			1	0.114	ug/l	8.21	486.70	1.133E-04	Pulse	0.10	3
Sn			1	4.411	ug/l	1.03	6,021.38	1.402E-03	Pulse	0.10	3
Sb			1	2.494	ug/l	1.62	8,235.76	1.368E-03	Pulse	0.10	3
Ba			1	40.239	ug/l	2.52	50,874.28	8.449E-03	Pulse	0.10	3
Tl			1	0.091	ug/l	13.63	1,083.41	3.173E-04	Pulse	0.10	3
Pb			1	280.606	ug/l	0.20	726,939.00	2.129E-01	Pulse	0.10	3
Pb			1	289.365	ug/l	1.18	643,720.42	1.886E-01	Pulse	0.10	3
Pb			1	285.515	ug/l	0.56	2,926,296.95	8.573E-01	Pulse	0.10	3
Na			2	3704.893	ug/l	0.76	562,670.92	6.162E+00	Pulse	0.30	3
Mg			2	6970.328	ug/l	1.28	475,506.87	5.207E+00	Pulse	0.30	3
Al			2	187.049	ug/l	8.43	4,101.67	4.495E-02	Pulse	0.30	3
K			2	1391.756	ug/l	0.96	63,543.25	6.959E-01	Pulse	0.30	3
Ca			2	37403.386	ug/l	0.74	88,507.60	9.692E-01	Pulse	0.30	3
Ti			2	7.960	ug/l	2.23	166.67	1.825E-03	Pulse	0.30	3
V			2	10.572	ug/l	4.43	7,546.24	8.267E-02	Pulse	0.30	3
Cr			2	5.988	ug/l	1.01	5,961.14	6.527E-02	Pulse	0.30	3
Mn			2	1822.187	ug/l	1.79	767,423.75	8.405E+00	Pulse	0.30	3
Fe			2	45987.756	ug/l	1.11	32,605,158.70	3.571E+02	Analog	0.30	3
Co			2	4.990	ug/l	0.51	8,073.18	8.841E-02	Pulse	0.30	3
Ni			2	12.622	ug/l	2.85	5,608.79	6.140E-02	Pulse	0.30	3
Cu			2	68.002	ug/l	1.91	84,267.56	9.229E-01	Pulse	0.30	3
Zn			2	117.245	ug/l	2.44	17,381.59	1.904E-01	Pulse	0.30	3
As			2	21.707	ug/l	4.32	1,764.43	1.933E-02	Pulse	1.00	3
Cd			2	0.809	ug/l	7.88	177.59	3.484E-04	Pulse	0.30	3
Sn			2	1.343	ug/l	3.71	1,010.05	1.982E-03	Pulse	0.30	3
Se			3	0.892	ug/l	11.68	22.67	2.022E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,702,262.03	0.39	97.6	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,944,930.58	0.87	98.8	Pulse	0.10	3
1	Ge		594,519.67	1.14	100.4	Pulse	0.10	3
1	Ge		828,666.84	1.02	100.1	Pulse	0.10	3
1	Rh		3,977,706.29	0.57	100.3	Pulse	0.10	3
1	In		4,293,909.49	0.89	102.5	Pulse	0.10	3
1	Tb		6,021,831.37	1.01	107.6	Analog	0.10	3
1	Ho		553,947.20	0.55	105.1	Pulse	0.10	3
1	Bi		3,413,710.37	1.11	104.7	Pulse	0.10	3
2	Sc		91,322.42	1.45	103.2	Pulse	0.30	3
2	Ge		56,433.75	0.55	103.2	Pulse	0.30	3
2	Ge		84,871.49	0.53	102.4	Pulse	0.30	3
2	Rh		1,656,570.84	0.21	99.5	Pulse	0.30	3
2	In		509,720.80	0.35	102.2	Pulse	0.30	3
2	Tb		2,030,147.63	0.59	102.9	Pulse	0.30	3
2	Ho		198,420.75	0.35	103.8	Pulse	0.30	3
2	Bi		1,393,923.35	0.69	104.2	Pulse	0.30	3
3	Sc		108,584.74	1.15	104.4	Pulse	0.30	3
3	Ge		73,629.33	0.67	104.8	Pulse	0.30	3
3	Ge		112,059.09	0.43	104.2	Pulse	0.30	3
3	Rh		1,337,111.68	0.11	102.0	Pulse	0.30	3
3	Tb		2,127,754.71	0.44	104.2	Pulse	0.30	3

Quantitation Report

File Name	084SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File	
Method Path	
Acq Time	4/22/2019 16:52
Sample Name	mp14272-ps1
Sample Type	Sample
Comment	
Prep Dilution	25.000
Auto Dilution	N/A
Total Dilution	25.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/22/2019 18:08
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	84.585	ug/l	1.83	19,672.81	1.110E-02	Pulse	0.25	3
B			1	3509.079	ug/l	1.46	557,249.65	3.143E-01	Pulse	0.15	3
Ca			1	304700.536	ug/l	0.50	10,777,171.51	3.396E+00	Analog	0.10	3
Sr			1	6181.605	ug/l	0.57	9,919,351.31	2.591E+00	Analog	0.10	3
Mo			1	99.557	ug/l	0.98	33,339.05	8.705E-03	Pulse	0.10	3
Ag			1	81.395	ug/l	2.78	65,302.18	1.562E-02	Pulse	0.10	3
Sn			1	106.647	ug/l	1.47	51,207.75	1.225E-02	Pulse	0.10	3
Sb			1	85.148	ug/l	2.35	54,217.74	9.140E-03	Pulse	0.10	3
Ba			1	99.400	ug/l	3.22	24,777.34	4.178E-03	Pulse	0.10	3
Tl			1	89.365	ug/l	0.13	117,179.25	3.926E-02	Pulse	0.10	3
Pb			1	88.376	ug/l	0.67	40,309.23	1.350E-02	Pulse	0.10	3
Pb			1	88.175	ug/l	0.53	34,558.18	1.158E-02	Pulse	0.10	3
Pb			1	90.048	ug/l	0.82	162,406.44	5.441E-02	Pulse	0.10	3
Na			2	7374599.932	ug/l	1.68	242,327,812.59	2.407E+03	Analog	0.30	3
Mg			2	910071.139	ug/l	1.58	13,685,037.51	1.359E+02	Analog	0.30	3
Al			2	4223.286	ug/l	2.23	20,105.44	1.997E-01	Pulse	0.30	3
K			2	281533.400	ug/l	1.12	2,594,480.45	2.577E+01	Pulse	0.30	3
Ca			2	323676.573	ug/l	0.58	168,855.94	1.677E+00	Pulse	0.30	3
Ti			2	79.292	ug/l	14.86	363.34	3.611E-03	Pulse	0.30	3
V			2	87.488	ug/l	3.44	13,704.65	1.361E-01	Pulse	0.30	3
Cr			2	84.043	ug/l	2.50	17,505.00	1.739E-01	Pulse	0.30	3
Mn			2	134.249	ug/l	0.48	12,532.64	1.245E-01	Pulse	0.30	3
Fe			2	4441.127	ug/l	0.14	697,692.02	6.930E+00	Pulse	0.30	3
Co			2	79.849	ug/l	0.22	28,313.25	2.812E-01	Pulse	0.30	3
Ni			2	80.082	ug/l	0.47	7,830.83	7.778E-02	Pulse	0.30	3
Cu			2	84.158	ug/l	0.90	24,263.58	2.410E-01	Pulse	0.30	3
Zn			2	84.828	ug/l	1.65	2,962.52	2.942E-02	Pulse	0.30	3
As			2	87.980	ug/l	0.30	1,578.08	1.567E-02	Pulse	1.00	3
Cd			2	76.240	ug/l	3.39	3,239.87	6.332E-03	Pulse	0.30	3
Sn			2	94.165	ug/l	0.14	8,673.59	1.695E-02	Pulse	0.30	3
Se			3	388.568	ug/l	1.74	1,320.59	1.189E-02	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,772,734.59	0.11	101.6	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		3,173,895.68	1.20	106.5	Pulse	0.10	3
1	Ge		613,208.66	1.11	103.5	Pulse	0.10	3
1	Ge		852,757.83	0.95	103.0	Pulse	0.10	3
1	Rh		3,829,285.46	1.65	96.5	Pulse	0.10	3
1	In		4,179,761.31	0.66	99.8	Pulse	0.10	3
1	Tb		5,931,897.83	0.92	106.0	Analog	0.10	3
1	Ho		544,563.99	0.43	103.3	Pulse	0.10	3
1	Bi		2,985,018.60	0.67	91.6	Pulse	0.10	3
2	Sc		100,681.55	0.67	113.7	Pulse	0.30	3
2	Ge		58,582.36	1.02	107.1	Pulse	0.30	3
2	Ge		88,174.28	1.03	106.4	Pulse	0.30	3
2	Rh		1,585,594.07	0.09	95.3	Pulse	0.30	3
2	In		511,613.71	0.47	102.6	Pulse	0.30	3
2	Tb		2,010,657.91	0.48	101.9	Pulse	0.30	3
2	Ho		193,900.05	0.42	101.4	Pulse	0.30	3
2	Bi		1,222,838.28	0.32	91.4	Pulse	0.30	3
3	Sc		114,362.93	0.72	110.0	Pulse	0.30	3
3	Ge		73,260.98	0.86	104.2	Pulse	0.30	3
3	Ge		111,063.46	0.93	103.3	Pulse	0.30	3
3	Rh		1,227,942.49	0.65	93.7	Pulse	0.30	3
3	Tb		2,022,553.67	0.62	99.0	Pulse	0.30	3

Quantitation Report

File Name	085SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File	
Method Path	
Acq Time	4/22/2019 16:56
Sample Name	rinseconf
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/22/2019 18:08
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.002	ug/l	43.99	28.00	1.555E-05	Pulse	0.25	3
B			1	9.260	ug/l	1.69	38,354.70	2.129E-02	Pulse	0.15	3
Ca			1	2.662	ug/l	49.55	19,939.29	6.431E-03	Pulse	0.10	3
Sr			1	0.042	ug/l	22.78	2,263.61	5.435E-04	Pulse	0.10	3
Mo			1	0.017	ug/l	55.56	193.35	4.650E-05	Pulse	0.10	3
Ag			1	0.005	ug/l	35.76	123.34	2.786E-05	Pulse	0.10	3
Sn			1	0.827	ug/l	3.29	5,431.16	1.226E-03	Pulse	0.10	3
Sb			1	0.017	ug/l	42.00	493.36	8.007E-05	Pulse	0.10	3
Ba			1	0.004	ug/l	42.91	66.67	1.082E-05	Pulse	0.10	3
Tl			1	0.001	ug/l	336.62	430.03	1.251E-04	Pulse	0.10	3
Pb			1	-0.003	ug/l	-136.50	296.68	8.632E-05	Pulse	0.10	3
Pb			1	0.001	ug/l	263.46	320.01	9.303E-05	Pulse	0.10	3
Pb			1	0.002	ug/l	65.46	1,306.74	3.800E-04	Pulse	0.10	3
Na			2	88.120	ug/l	4.57	80,565.63	8.348E-01	Pulse	0.30	3
Mg			2	4.125	ug/l	13.90	1,696.77	1.758E-02	Pulse	0.30	3
Al			2	26.569	ug/l	174.06	3,092.54	3.219E-02	Pulse	0.30	3
K			2	6.365	ug/l	9.31	7,231.64	7.494E-02	Pulse	0.30	3
Ca			2	6.213	ug/l	15.24	122.23	1.267E-03	Pulse	0.30	3
Ti			2	-0.001	ug/l	-2750.05	2.22	2.315E-05	Pulse	0.30	3
V			2	-0.002	ug/l	-488.49	94.44	9.782E-04	Pulse	0.30	3
Cr			2	-0.006	ug/l	-89.57	467.79	4.848E-03	Pulse	0.30	3
Mn			2	0.006	ug/l	121.41	75.55	7.826E-04	Pulse	0.30	3
Fe			2	0.071	ug/l	59.33	3,520.42	3.648E-02	Pulse	0.30	3
Co			2	0.001	ug/l	256.74	84.45	8.757E-04	Pulse	0.30	3
Ni			2	0.001	ug/l	649.93	54.44	5.643E-04	Pulse	0.30	3
Cu			2	-0.097	ug/l	-15.10	987.82	1.024E-02	Pulse	0.30	3
Zn			2	0.266	ug/l	19.26	417.79	4.330E-03	Pulse	0.30	3
As			2	0.003	ug/l	243.82	5.33	5.522E-05	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	-0.003	ug/l	-93.89	3.32	6.295E-06	Pulse	0.30	3
Sn			2	0.188	ug/l	13.90	862.26	1.635E-03	Pulse	0.30	3
Se			3	-0.022	ug/l	-85.73	5.67	4.933E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,801,428.00	0.54	103.3	Pulse	0.10	3
1	Sc		3,100,875.06	0.79	104.1	Pulse	0.10	3
1	Ge		623,358.95	0.29	105.2	Pulse	0.10	3
1	Ge		866,511.97	0.18	104.6	Pulse	0.10	3
1	Rh		4,170,480.46	1.20	105.1	Pulse	0.10	3
1	In		4,430,858.38	0.55	105.7	Pulse	0.10	3
1	Tb		6,158,889.49	0.63	110.1	Analog	0.10	3
1	Ho		554,993.65	1.23	105.3	Pulse	0.10	3
1	Bi		3,438,949.32	0.54	105.5	Pulse	0.10	3
2	Sc		96,504.50	0.42	109.0	Pulse	0.30	3
2	Ge		58,573.42	0.99	107.1	Pulse	0.30	3
2	Ge		88,298.17	0.86	106.5	Pulse	0.30	3
2	Rh		1,739,419.97	1.03	104.5	Pulse	0.30	3
2	In		527,666.06	1.27	105.8	Pulse	0.30	3
2	Tb		2,067,685.54	0.65	104.8	Pulse	0.30	3
2	Ho		198,910.57	0.54	104.0	Pulse	0.30	3
2	Bi		1,391,839.88	0.33	104.0	Pulse	0.30	3
3	Sc		111,403.68	0.77	107.1	Pulse	0.30	3
3	Ge		75,810.17	0.41	107.9	Pulse	0.30	3
3	Ge		114,814.21	0.29	106.8	Pulse	0.30	3
3	Rh		1,368,054.08	0.27	104.4	Pulse	0.30	3
3	Tb		2,154,571.72	0.85	105.5	Pulse	0.30	3

Quantitation Report

File Name	086_CCV.d
File Path	C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File	
Method Path	
Acq Time	4/22/2019 17:02
Sample Name	CCVA
Sample Type	CCV
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/22/2019 18:08
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	49.146	ug/l	1.44	279,544.17	1.611E-01	Pulse	0.25	3
B			1	104.411	ug/l	1.18	406,115.14	2.340E-01	Pulse	0.15	3
Ca			1	5043.678	ug/l	3.17	4,264,488.06	1.409E+00	Pulse	0.10	3
Sr			1	51.996	ug/l	0.89	2,138,948.67	5.448E-01	Pulse	0.10	3
Mo			1	50.886	ug/l	0.59	436,276.09	1.111E-01	Pulse	0.10	3
Ag			1	49.627	ug/l	0.80	1,004,816.10	2.381E-01	Pulse	0.10	3
Sn			1	49.374	ug/l	0.65	662,140.25	1.569E-01	Pulse	0.10	3
Sb			1	49.634	ug/l	2.01	792,997.78	1.327E-01	Pulse	0.10	3
Ba			1	48.722	ug/l	2.23	305,392.30	5.112E-02	Pulse	0.10	3
Tl			1	50.579	ug/l	0.54	1,830,587.99	5.539E-01	Pulse	0.10	3
Pb			1	50.028	ug/l	1.36	627,385.13	1.898E-01	Pulse	0.10	3
Pb			1	51.165	ug/l	1.54	551,072.53	1.667E-01	Pulse	0.10	3
Pb			1	50.947	ug/l	1.01	2,527,869.89	7.649E-01	Pulse	0.10	3
Na			2	5014.664	ug/l	0.80	3,763,261.65	4.103E+01	Pulse	0.30	3
Mg			2	5047.451	ug/l	0.86	1,728,664.97	1.885E+01	Pulse	0.30	3
Al			2	4973.891	ug/l	0.88	536,846.63	5.854E+00	Pulse	0.30	3
K			2	5137.838	ug/l	0.87	1,081,265.34	1.179E+01	Pulse	0.30	3
Ca			2	5376.427	ug/l	1.55	63,896.18	6.967E-01	Pulse	0.30	3
Ti			2	49.234	ug/l	1.56	5,108.63	5.570E-02	Pulse	0.30	3
V			2	50.033	ug/l	0.96	177,207.64	1.932E+00	Pulse	0.30	3
Cr			2	49.552	ug/l	0.82	228,552.46	2.492E+00	Pulse	0.30	3
Mn			2	50.347	ug/l	0.92	106,538.80	1.162E+00	Pulse	0.30	3
Fe			2	5267.467	ug/l	1.18	18,755,399.26	2.045E+02	Analog	0.30	3
Co			2	49.117	ug/l	0.83	395,574.56	4.313E+00	Pulse	0.30	3
Ni			2	48.879	ug/l	0.33	108,152.50	1.179E+00	Pulse	0.30	3
Cu			2	48.553	ug/l	0.21	298,232.37	3.252E+00	Pulse	0.30	3
Zn			2	49.722	ug/l	1.36	36,793.42	4.012E-01	Pulse	0.30	3
As			2	48.683	ug/l	0.96	19,836.01	2.163E-01	Pulse	1.00	3
Cd			2	50.208	ug/l	0.45	52,098.28	1.041E-01	Pulse	0.30	3
Sn			2	49.984	ug/l	1.25	107,519.51	2.148E-01	Pulse	0.30	3
Se			3	198.829	ug/l	0.41	16,751.01	1.513E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,735,723.75	0.27	99.5	Pulse	0.10	3
1	Sc		3,029,382.77	2.87	101.7	Pulse	0.10	3
1	Ge		594,250.46	0.88	100.3	Pulse	0.10	3

Quantitation Report

1	Ge		828,311.19	0.64	100.0	Pulse	0.10	3
1	Rh		3,925,775.36	0.50	99.0	Pulse	0.10	3
1	In		4,220,756.55	0.65	100.7	Pulse	0.10	3
1	Tb		5,975,147.62	1.27	106.8	Analog	0.10	3
1	Ho		548,464.20	0.69	104.1	Pulse	0.10	3
1	Bi		3,304,955.78	0.32	101.4	Pulse	0.10	3
2	Sc		91,712.27	0.53	103.6	Pulse	0.30	3
2	Ge		55,881.85	1.03	102.2	Pulse	0.30	3
2	Ge		84,971.94	1.09	102.5	Pulse	0.30	3
2	Rh		1,630,408.24	0.47	98.0	Pulse	0.30	3
2	In		500,670.86	1.05	100.4	Pulse	0.30	3
2	Tb		2,018,124.30	0.82	102.3	Pulse	0.30	3
2	Ho		194,673.05	1.02	101.8	Pulse	0.30	3
2	Bi		1,342,596.72	1.06	100.4	Pulse	0.30	3
3	Sc		108,690.03	0.30	104.5	Pulse	0.30	3
3	Ge		72,561.35	1.65	103.2	Pulse	0.30	3
3	Ge		110,690.13	0.79	103.0	Pulse	0.30	3
3	Rh		1,300,080.09	0.69	99.2	Pulse	0.30	3
3	Tb		2,095,644.99	0.66	102.6	Pulse	0.30	3

Quantitation Report

File Name	087_CCB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File	
Method Path	
Acq Time	4/22/2019 17:07
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/22/2019 18:08
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.003	ug/l	31.75	37.33	2.160E-05	Pulse	0.25	3
B			1	9.305	ug/l	3.12	36,980.50	2.139E-02	Pulse	0.15	3
Ca			1	0.262	ug/l	252.13	16,969.36	5.764E-03	Pulse	0.10	3
Sr			1	0.018	ug/l	4.02	1,186.76	2.965E-04	Pulse	0.10	3
Mo			1	0.082	ug/l	6.97	753.38	1.883E-04	Pulse	0.10	3
Ag			1	0.010	ug/l	15.03	220.01	5.157E-05	Pulse	0.10	3
Sn			1	0.845	ug/l	4.24	5,461.15	1.283E-03	Pulse	0.10	3
Sb			1	0.159	ug/l	11.50	2,740.33	4.581E-04	Pulse	0.10	3
Ba			1	0.015	ug/l	86.30	133.34	2.228E-05	Pulse	0.10	3
Tl			1	0.013	ug/l	20.39	883.39	2.637E-04	Pulse	0.10	3
Pb			1	0.007	ug/l	67.71	406.69	1.217E-04	Pulse	0.10	3
Pb			1	0.008	ug/l	60.46	386.68	1.157E-04	Pulse	0.10	3
Pb			1	0.009	ug/l	44.92	1,656.76	4.959E-04	Pulse	0.10	3
Na			2	54.214	ug/l	2.58	51,034.22	5.581E-01	Pulse	0.30	3
Mg			2	1.989	ug/l	8.15	877.81	9.602E-03	Pulse	0.30	3
Al			2	0.336	ug/l	21.35	121.12	1.325E-03	Pulse	0.30	3
K			2	4.987	ug/l	6.96	6,565.81	7.179E-02	Pulse	0.30	3
Ca			2	1.694	ug/l	103.76	62.22	6.814E-04	Pulse	0.30	3
Ti			2	0.000	ug/l	-8805.26	2.22	2.437E-05	Pulse	0.30	3
V			2	-0.003	ug/l	-127.15	86.67	9.485E-04	Pulse	0.30	3
Cr			2	-0.002	ug/l	-448.51	462.23	5.051E-03	Pulse	0.30	3
Mn			2	0.006	ug/l	59.79	72.22	7.902E-04	Pulse	0.30	3
Fe			2	0.648	ug/l	7.56	5,385.39	5.888E-02	Pulse	0.30	3
Co			2	0.001	ug/l	165.60	81.11	8.858E-04	Pulse	0.30	3
Ni			2	-0.001	ug/l	-510.85	45.56	4.975E-04	Pulse	0.30	3
Cu			2	-0.028	ug/l	-32.11	1,353.41	1.480E-02	Pulse	0.30	3
Zn			2	0.081	ug/l	71.13	260.01	2.841E-03	Pulse	0.30	3
As			2	0.013	ug/l	89.79	9.00	9.875E-05	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	0.002	ug/l	353.86	8.83	1.724E-05	Pulse	0.30	3
Sn			2	0.243	ug/l	8.29	955.59	1.874E-03	Pulse	0.30	3
Se			3	0.028	ug/l	97.43	9.87	8.786E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,729,320.12	1.76	99.1	Pulse	0.10	3
1	Sc		2,944,067.87	1.25	98.8	Pulse	0.10	3
1	Ge		592,908.16	1.21	100.1	Pulse	0.10	3
1	Ge		826,971.37	1.59	99.9	Pulse	0.10	3
1	Rh		4,001,342.75	0.96	100.9	Pulse	0.10	3
1	In		4,259,494.08	1.89	101.7	Pulse	0.10	3
1	Tb		5,978,417.41	0.91	106.9	Analog	0.10	3
1	Ho		542,261.65	1.17	102.9	Pulse	0.10	3
1	Bi		3,346,528.08	1.92	102.7	Pulse	0.10	3
2	Sc		91,451.04	1.00	103.3	Pulse	0.30	3
2	Ge		56,235.27	1.89	102.8	Pulse	0.30	3
2	Ge		85,144.00	0.94	102.7	Pulse	0.30	3
2	Rh		1,668,822.60	0.09	100.3	Pulse	0.30	3
2	In		510,037.11	0.72	102.3	Pulse	0.30	3
2	Tb		2,000,981.24	0.30	101.4	Pulse	0.30	3
2	Ho		193,579.92	0.87	101.2	Pulse	0.30	3
2	Bi		1,359,130.85	0.71	101.6	Pulse	0.30	3
3	Sc		109,326.03	1.06	105.1	Pulse	0.30	3
3	Ge		73,043.25	1.57	103.9	Pulse	0.30	3
3	Ge		112,162.14	0.99	104.3	Pulse	0.30	3
3	Rh		1,341,943.49	0.30	102.4	Pulse	0.30	3
3	Tb		2,104,260.89	1.01	103.0	Pulse	0.30	3

Quantitation Report

File Name	088SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File	
Method Path	
Acq Time	4/22/2019 17:12
Sample Name	mp14424-mb1 4
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/22/2019 18:08
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.004	ug/l	163.45	29.33	1.703E-05	Pulse	0.25	3
B			1	18.847	ug/l	2.14	37,236.65	2.166E-02	Pulse	0.15	3
Ca			1	6.916	ug/l	44.42	19,155.04	6.653E-03	Pulse	0.10	3
Sr			1	0.048	ug/l	9.34	1,413.46	3.586E-04	Pulse	0.10	3
Mo			1	0.099	ug/l	7.36	463.36	1.176E-04	Pulse	0.10	3
Ag			1	0.027	ug/l	45.58	283.35	6.768E-05	Pulse	0.10	3
Sn			1	2.441	ug/l	2.60	10,420.48	2.487E-03	Pulse	0.10	3
Sb			1	0.242	ug/l	8.75	2,143.57	3.571E-04	Pulse	0.10	3
Ba			1	0.020	ug/l	18.67	103.33	1.714E-05	Pulse	0.10	3
Tl			1	0.041	ug/l	9.66	1,166.76	3.407E-04	Pulse	0.10	3
Pb			1	0.029	ug/l	25.91	520.03	1.519E-04	Pulse	0.10	3
Pb			1	0.008	ug/l	85.99	350.02	1.022E-04	Pulse	0.10	3
Pb			1	0.027	ug/l	23.49	1,923.46	5.618E-04	Pulse	0.10	3
Na			2	105.898	ug/l	3.24	48,222.87	5.478E-01	Pulse	0.30	3
Mg			2	3.884	ug/l	7.98	830.04	9.427E-03	Pulse	0.30	3
Al			2	3.610	ug/l	14.83	268.90	3.054E-03	Pulse	0.30	3
K			2	9.817	ug/l	21.13	6,304.59	7.161E-02	Pulse	0.30	3
Ca			2	10.794	ug/l	29.71	102.22	1.161E-03	Pulse	0.30	3
Ti			2	0.402	ug/l	50.26	22.22	2.521E-04	Pulse	0.30	3
V			2	0.100	ug/l	23.89	263.34	2.991E-03	Pulse	0.30	3
Cr			2	0.386	ug/l	8.49	1,307.85	1.485E-02	Pulse	0.30	3
Mn			2	0.090	ug/l	8.30	147.78	1.679E-03	Pulse	0.30	3
Fe			2	2.592	ug/l	6.69	7,396.19	8.402E-02	Pulse	0.30	3
Co			2	0.018	ug/l	16.88	138.89	1.578E-03	Pulse	0.30	3
Ni			2	0.033	ug/l	102.04	81.11	9.217E-04	Pulse	0.30	3
Cu			2	0.129	ug/l	17.63	1,846.79	2.098E-02	Pulse	0.30	3
Zn			2	1.173	ug/l	14.24	607.80	6.902E-03	Pulse	0.30	3
As			2	0.058	ug/l	25.84	15.00	1.703E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	0.005	ug/l	280.21	8.86	1.801E-05	Pulse	0.30	3
Sn			2	1.287	ug/l	6.17	1,763.45	3.588E-03	Pulse	0.30	3
Se			3	0.068	ug/l	40.12	10.47	9.237E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,719,403.52	0.60	98.6	Pulse	0.10	3
1	Sc		2,878,243.71	1.19	96.6	Pulse	0.10	3
1	Ge		591,885.30	2.10	99.9	Pulse	0.10	3
1	Ge		826,165.17	0.70	99.8	Pulse	0.10	3
1	Rh		3,940,024.84	1.03	99.3	Pulse	0.10	3
1	In		4,189,825.19	1.08	100.0	Pulse	0.10	3
1	Tb		6,012,611.37	3.19	107.5	Analog	0.10	3
1	Ho		541,101.62	1.63	102.7	Pulse	0.10	3
1	Bi		3,424,827.45	0.67	105.1	Pulse	0.10	3
2	Sc		88,036.32	0.50	99.5	Pulse	0.30	3
2	Ge		55,119.29	0.38	100.8	Pulse	0.30	3
2	Ge		84,598.81	0.88	102.1	Pulse	0.30	3
2	Rh		1,623,158.03	0.95	97.5	Pulse	0.30	3
2	In		491,577.53	0.24	98.6	Pulse	0.30	3
2	Tb		1,953,324.30	0.36	99.0	Pulse	0.30	3
2	Ho		189,305.33	0.49	99.0	Pulse	0.30	3
2	Bi		1,358,650.16	0.63	101.6	Pulse	0.30	3
3	Sc		109,738.01	1.28	105.5	Pulse	0.30	3
3	Ge		74,171.96	0.91	105.5	Pulse	0.30	3
3	Ge		113,292.72	0.51	105.4	Pulse	0.30	3
3	Rh		1,344,140.92	1.72	102.5	Pulse	0.30	3
3	Tb		2,103,825.26	1.00	103.0	Pulse	0.30	3

Quantitation Report

File Name	089SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File	
Method Path	
Acq Time	4/22/2019 17:17
Sample Name	mp14424-sd1
Sample Type	Sample
Comment	
Prep Dilution	10.000
Auto Dilution	N/A
Total Dilution	10.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/22/2019 18:08
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
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FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.184	ug/l	24.85	128.00	7.052E-05	Pulse	0.25	3
B			1	328.894	ug/l	0.41	134,431.72	7.411E-02	Pulse	0.15	3
Ca			1	22875.609	ug/l	0.86	1,991,937.73	6.420E-01	Pulse	0.10	3
Sr			1	222.609	ug/l	0.32	959,001.89	2.333E-01	Pulse	0.10	3
Mo			1	0.689	ug/l	7.33	656.70	1.598E-04	Pulse	0.10	3
Ag			1	0.073	ug/l	51.59	170.01	3.856E-05	Pulse	0.10	3
Sn			1	5.491	ug/l	1.15	1,473.46	3.344E-04	Pulse	0.10	3
Sb			1	0.416	ug/l	15.55	886.73	1.453E-04	Pulse	0.10	3
Ba			1	29.067	ug/l	3.31	18,661.86	3.056E-03	Pulse	0.10	3
Tl			1	0.110	ug/l	36.16	820.06	2.387E-04	Pulse	0.10	3
Pb			1	0.708	ug/l	17.80	1,253.44	3.647E-04	Pulse	0.10	3
Pb			1	0.572	ug/l	9.53	946.74	2.755E-04	Pulse	0.10	3
Pb			1	0.696	ug/l	8.25	4,813.84	1.401E-03	Pulse	0.10	3
Na			2	64665.745	ug/l	2.06	4,979,455.08	5.288E+01	Mix	0.30	3
Mg			2	8685.743	ug/l	0.38	305,591.63	3.245E+00	Pulse	0.30	3
Al			2	1669.983	ug/l	0.52	18,591.47	1.974E-01	Pulse	0.30	3
K			2	9437.896	ug/l	0.47	208,578.04	2.215E+00	Pulse	0.30	3
Ca			2	24182.030	ug/l	1.40	29,530.70	3.136E-01	Pulse	0.30	3
Ti			2	0.512	ug/l	153.06	7.78	8.254E-05	Pulse	0.30	3
V			2	0.096	ug/l	136.31	134.45	1.428E-03	Pulse	0.30	3
Cr			2	2.534	ug/l	3.57	1,683.44	1.788E-02	Pulse	0.30	3
Mn			2	23.102	ug/l	2.19	5,076.39	5.392E-02	Pulse	0.30	3
Fe			2	49.058	ug/l	1.34	21,106.22	2.242E-01	Pulse	0.30	3
Co			2	1.536	ug/l	1.89	1,343.41	1.427E-02	Pulse	0.30	3
Ni			2	3.699	ug/l	33.09	890.31	9.450E-03	Pulse	0.30	3
Cu			2	5.162	ug/l	7.73	4,809.65	5.108E-02	Pulse	0.30	3
Zn			2	20.548	ug/l	7.09	1,759.00	1.868E-02	Pulse	0.30	3
As			2	2.648	ug/l	15.11	114.67	1.218E-03	Pulse	1.00	3
Cd			2	0.121	ug/l	25.10	19.97	3.816E-05	Pulse	0.30	3
Sn			2	-0.813	ug/l	-21.15	253.34	4.845E-04	Pulse	0.30	3
Se			3	5.600	ug/l	8.25	56.07	4.925E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,813,951.68	0.44	104.0	Pulse	0.10	3
1	Sc		3,102,897.35	0.75	104.1	Pulse	0.10	3
1	Ge		627,119.34	1.37	105.9	Pulse	0.10	3

Quantitation Report

1	Ge		868,507.72	1.47	104.9	Pulse	0.10	3
1	Rh		4,110,301.61	0.45	103.6	Pulse	0.10	3
1	In		4,406,582.25	1.26	105.2	Pulse	0.10	3
1	Tb		6,109,221.16	1.85	109.2	Analog	0.10	3
1	Ho		576,294.52	0.97	109.4	Pulse	0.10	3
1	Bi		3,436,926.62	0.37	105.4	Pulse	0.10	3
2	Sc		94,162.69	0.61	106.4	Pulse	0.30	3
2	Ge		58,916.90	0.28	107.7	Pulse	0.30	3
2	Ge		88,823.51	0.46	107.2	Pulse	0.30	3
2	Rh		1,693,578.58	0.21	101.7	Pulse	0.30	3
2	In		523,075.93	0.38	104.9	Pulse	0.30	3
2	Tb		2,051,669.44	0.62	104.0	Pulse	0.30	3
2	Ho		203,826.39	0.30	106.6	Pulse	0.30	3
2	Bi		1,398,542.86	0.83	104.5	Pulse	0.30	3
3	Sc		109,014.52	0.72	104.8	Pulse	0.30	3
3	Ge		74,613.82	0.52	106.2	Pulse	0.30	3
3	Ge		113,830.65	0.33	105.9	Pulse	0.30	3
3	Rh		1,343,479.95	0.62	102.5	Pulse	0.30	3
3	Tb		2,124,262.56	0.79	104.0	Pulse	0.30	3

Quantitation Report

File Name	090SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File	
Method Path	
Acq Time	4/22/2019 17:22
Sample Name	mp14424-b1conf
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/22/2019 18:08
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	73.739	ug/l	0.57	204,593.90	1.208E-01	Pulse	0.25	3
B			1	97.786	ug/l	1.02	186,055.13	1.099E-01	Pulse	0.15	3
Ca			1	4012.475	ug/l	0.37	1,594,029.82	5.637E-01	Pulse	0.10	3
Sr			1	80.735	ug/l	0.54	1,614,788.41	4.230E-01	Pulse	0.10	3
Mo			1	75.735	ug/l	0.28	315,706.40	8.270E-02	Pulse	0.10	3
Ag			1	78.659	ug/l	0.08	776,629.26	1.887E-01	Pulse	0.10	3
Sn			1	75.333	ug/l	1.21	491,243.98	1.193E-01	Pulse	0.10	3
Sb			1	72.851	ug/l	0.76	576,776.52	9.742E-02	Pulse	0.10	3
Ba			1	74.896	ug/l	0.77	232,619.29	3.929E-02	Pulse	0.10	3
Tl			1	76.871	ug/l	0.36	1,399,756.44	4.209E-01	Pulse	0.10	3
Pb			1	76.114	ug/l	0.85	480,308.65	1.444E-01	Pulse	0.10	3
Pb			1	77.888	ug/l	1.16	422,110.15	1.269E-01	Pulse	0.10	3
Pb			1	77.080	ug/l	1.15	1,924,439.64	5.787E-01	Pulse	0.10	3
Na			2	4000.727	ug/l	1.23	1,427,655.05	1.644E+01	Pulse	0.30	3
Mg			2	3973.488	ug/l	0.65	644,493.41	7.421E+00	Pulse	0.30	3
Al			2	3831.575	ug/l	1.56	195,865.61	2.255E+00	Pulse	0.30	3
K			2	3997.502	ug/l	1.48	401,549.63	4.623E+00	Pulse	0.30	3
Ca			2	4405.169	ug/l	0.73	24,815.31	2.857E-01	Pulse	0.30	3
Ti			2	70.645	ug/l	1.06	3,471.52	3.997E-02	Pulse	0.30	3
V			2	77.977	ug/l	1.38	130,794.06	1.506E+00	Pulse	0.30	3
Cr			2	78.597	ug/l	1.86	171,744.68	1.978E+00	Pulse	0.30	3
Mn			2	78.389	ug/l	1.43	78,554.12	9.045E-01	Pulse	0.30	3
Fe			2	4222.424	ug/l	2.35	7,120,442.50	8.199E+01	Analog	0.30	3
Co			2	77.703	ug/l	1.46	296,332.78	3.412E+00	Pulse	0.30	3
Ni			2	77.566	ug/l	0.52	81,276.98	9.358E-01	Pulse	0.30	3
Cu			2	76.331	ug/l	1.12	222,313.73	2.560E+00	Pulse	0.30	3
Zn			2	71.403	ug/l	1.14	25,072.59	2.887E-01	Pulse	0.30	3
As			2	69.403	ug/l	0.23	13,391.83	1.542E-01	Pulse	1.00	3
Cd			2	75.647	ug/l	1.74	37,092.56	7.839E-02	Pulse	0.30	3
Sn			2	75.337	ug/l	0.14	76,681.80	1.621E-01	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	346.873	ug/l	0.29	14,374.96	1.320E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,693,248.89	0.59	97.1	Pulse	0.10	3
1	Sc		2,827,804.75	1.11	94.9	Pulse	0.10	3
1	Ge		569,873.81	0.41	96.2	Pulse	0.10	3
1	Ge		803,264.52	0.93	97.0	Pulse	0.10	3
1	Rh		3,817,388.48	0.72	96.2	Pulse	0.10	3
1	In		4,116,287.38	0.15	98.2	Pulse	0.10	3
1	Tb		5,920,195.12	0.86	105.8	Analog	0.10	3
1	Ho		542,527.10	0.84	103.0	Pulse	0.10	3
1	Bi		3,325,407.66	0.77	102.0	Pulse	0.10	3
2	Sc		86,854.38	0.55	98.1	Pulse	0.30	3
2	Ge		53,225.25	1.20	97.3	Pulse	0.30	3
2	Ge		80,725.11	1.14	97.4	Pulse	0.30	3
2	Rh		1,584,106.92	1.14	95.2	Pulse	0.30	3
2	In		473,187.48	0.77	94.9	Pulse	0.30	3
2	Tb		1,934,658.53	0.85	98.1	Pulse	0.30	3
2	Ho		187,625.17	0.52	98.1	Pulse	0.30	3
2	Bi		1,315,105.75	0.82	98.3	Pulse	0.30	3
3	Sc		106,647.15	1.08	102.6	Pulse	0.30	3
3	Ge		71,401.97	0.68	101.6	Pulse	0.30	3
3	Ge		108,886.77	0.30	101.3	Pulse	0.30	3
3	Rh		1,296,091.17	0.21	98.9	Pulse	0.30	3
3	Tb		2,081,514.08	0.30	101.9	Pulse	0.30	3

Quantitation Report

File Name	091SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File	
Method Path	
Acq Time	4/22/2019 17:27
Sample Name	jc86645-15
Sample Type	Sample
Comment	wfb
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/22/2019 18:08
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.034	ug/l	27.35	110.67	6.581E-05	Pulse	0.25	3
B			1	17.391	ug/l	2.32	33,626.99	2.003E-02	Pulse	0.15	3
Ca			1	16.411	ug/l	4.56	22,535.96	7.973E-03	Pulse	0.10	3
Sr			1	0.373	ug/l	3.03	7,952.30	2.062E-03	Pulse	0.10	3
Mo			1	0.105	ug/l	9.86	476.69	1.237E-04	Pulse	0.10	3
Ag			1	0.030	ug/l	33.04	310.01	7.511E-05	Pulse	0.10	3
Sn			1	2.171	ug/l	0.61	8,489.28	2.054E-03	Pulse	0.10	3
Sb			1	0.116	ug/l	10.20	1,116.75	1.896E-04	Pulse	0.10	3
Ba			1	0.673	ug/l	7.04	2,116.90	3.595E-04	Pulse	0.10	3
Tl			1	0.044	ug/l	7.35	1,200.10	3.595E-04	Pulse	0.10	3
Pb			1	0.033	ug/l	32.17	530.03	1.589E-04	Pulse	0.10	3
Pb			1	0.011	ug/l	60.33	356.69	1.068E-04	Pulse	0.10	3
Pb			1	0.030	ug/l	15.43	1,946.80	5.832E-04	Pulse	0.10	3
Na			2	87.984	ug/l	1.43	41,325.81	4.747E-01	Pulse	0.30	3
Mg			2	3.059	ug/l	1.91	686.69	7.888E-03	Pulse	0.30	3
Al			2	20.018	ug/l	5.95	1,106.72	1.271E-02	Pulse	0.30	3
K			2	10.415	ug/l	14.91	6,293.48	7.229E-02	Pulse	0.30	3
Ca			2	16.959	ug/l	47.95	135.56	1.560E-03	Pulse	0.30	3
Ti			2	0.114	ug/l	148.05	7.78	8.903E-05	Pulse	0.30	3
V			2	0.095	ug/l	9.52	252.23	2.897E-03	Pulse	0.30	3
Cr			2	0.584	ug/l	4.02	1,725.66	1.982E-02	Pulse	0.30	3
Mn			2	0.105	ug/l	29.97	161.11	1.853E-03	Pulse	0.30	3
Fe			2	2.224	ug/l	3.40	6,692.55	7.688E-02	Pulse	0.30	3
Co			2	0.022	ug/l	34.24	152.23	1.750E-03	Pulse	0.30	3
Ni			2	0.110	ug/l	5.95	161.11	1.850E-03	Pulse	0.30	3
Cu			2	0.352	ug/l	3.98	2,473.55	2.841E-02	Pulse	0.30	3
Zn			2	1.250	ug/l	16.92	627.80	7.212E-03	Pulse	0.30	3
As			2	0.076	ug/l	40.48	18.33	2.103E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	0.003	ug/l	334.21	7.75	1.619E-05	Pulse	0.30	3
Sn			2	0.936	ug/l	5.05	1,358.97	2.835E-03	Pulse	0.30	3
Se			3	0.092	ug/l	3.04	11.33	1.014E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,679,058.83	0.97	96.2	Pulse	0.10	3
1	Sc		2,826,601.52	1.47	94.9	Pulse	0.10	3
1	Ge		583,908.59	0.73	98.6	Pulse	0.10	3
1	Ge		810,706.13	0.21	97.9	Pulse	0.10	3
1	Rh		3,856,277.34	1.01	97.2	Pulse	0.10	3
1	In		4,132,203.97	1.00	98.6	Pulse	0.10	3
1	Tb		5,887,924.29	0.36	105.2	Analog	0.10	3
1	Ho		542,401.28	1.11	102.9	Pulse	0.10	3
1	Bi		3,338,778.18	1.00	102.4	Pulse	0.10	3
2	Sc		87,063.52	0.98	98.4	Pulse	0.30	3
2	Ge		54,666.69	1.03	99.9	Pulse	0.30	3
2	Ge		82,272.63	0.43	99.3	Pulse	0.30	3
2	Rh		1,603,296.50	0.32	96.3	Pulse	0.30	3
2	In		479,315.55	0.33	96.1	Pulse	0.30	3
2	Tb		1,946,697.49	0.88	98.7	Pulse	0.30	3
2	Ho		186,600.60	1.31	97.6	Pulse	0.30	3
2	Bi		1,325,412.20	0.43	99.1	Pulse	0.30	3
3	Sc		108,579.29	0.75	104.4	Pulse	0.30	3
3	Ge		74,035.57	0.60	105.3	Pulse	0.30	3
3	Ge		111,759.27	0.07	103.9	Pulse	0.30	3
3	Rh		1,329,222.03	0.26	101.4	Pulse	0.30	3
3	Tb		2,109,173.94	0.48	103.3	Pulse	0.30	3

Quantitation Report

File Name	092SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File	
Method Path	
Acq Time	4/22/2019 17:32
Sample Name	mp14424-b1
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/22/2019 18:08
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	72.925	ug/l	0.91	202,852.62	1.195E-01	Pulse	0.25	3
B			1	92.891	ug/l	1.76	177,258.86	1.044E-01	Pulse	0.15	3
Ca			1	3867.125	ug/l	1.16	1,555,153.20	5.435E-01	Pulse	0.10	3
Sr			1	77.234	ug/l	1.03	1,555,470.13	4.047E-01	Pulse	0.10	3
Mo			1	73.664	ug/l	1.33	309,178.60	8.044E-02	Pulse	0.10	3
Ag			1	75.646	ug/l	0.24	751,800.35	1.814E-01	Pulse	0.10	3
Sn			1	72.688	ug/l	0.50	476,893.05	1.151E-01	Pulse	0.10	3
Sb			1	70.286	ug/l	0.57	561,893.31	9.399E-02	Pulse	0.10	3
Ba			1	72.218	ug/l	0.08	226,502.35	3.789E-02	Pulse	0.10	3
Tl			1	75.033	ug/l	0.14	1,350,512.11	4.109E-01	Pulse	0.10	3
Pb			1	74.576	ug/l	0.56	465,161.11	1.415E-01	Pulse	0.10	3
Pb			1	76.338	ug/l	0.61	408,929.15	1.244E-01	Pulse	0.10	3
Pb			1	75.768	ug/l	0.53	1,869,800.87	5.689E-01	Pulse	0.10	3
Na			2	3861.668	ug/l	1.04	1,389,127.03	1.587E+01	Pulse	0.30	3
Mg			2	3844.548	ug/l	1.02	628,445.36	7.180E+00	Pulse	0.30	3
Al			2	3689.880	ug/l	1.65	190,090.58	2.172E+00	Pulse	0.30	3
K			2	3846.167	ug/l	1.35	389,559.38	4.451E+00	Pulse	0.30	3
Ca			2	4210.923	ug/l	1.22	23,906.17	2.731E-01	Pulse	0.30	3
Ti			2	71.216	ug/l	2.87	3,525.98	4.029E-02	Pulse	0.30	3
V			2	75.203	ug/l	1.61	127,125.86	1.452E+00	Pulse	0.30	3
Cr			2	75.996	ug/l	2.39	167,352.80	1.912E+00	Pulse	0.30	3
Mn			2	75.523	ug/l	2.31	76,270.37	8.714E-01	Pulse	0.30	3
Fe			2	4041.293	ug/l	0.97	6,868,715.14	7.847E+01	Analog	0.30	3
Co			2	74.684	ug/l	1.22	287,042.72	3.279E+00	Pulse	0.30	3
Ni			2	74.146	ug/l	1.62	78,295.51	8.945E-01	Pulse	0.30	3
Cu			2	74.207	ug/l	1.47	217,845.72	2.489E+00	Pulse	0.30	3
Zn			2	69.491	ug/l	1.29	24,596.29	2.810E-01	Pulse	0.30	3
As			2	67.374	ug/l	1.10	13,101.27	1.497E-01	Pulse	1.00	3
Cd			2	73.809	ug/l	1.95	36,282.50	7.649E-02	Pulse	0.30	3
Sn			2	72.913	ug/l	0.71	74,415.33	1.569E-01	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	338.358	ug/l	1.37	14,026.79	1.288E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,697,664.47	0.84	97.3	Pulse	0.10	3
1	Sc		2,861,377.66	0.66	96.0	Pulse	0.10	3
1	Ge		575,820.70	0.92	97.2	Pulse	0.10	3
1	Ge		803,607.36	1.00	97.0	Pulse	0.10	3
1	Rh		3,843,807.24	0.81	96.9	Pulse	0.10	3
1	In		4,143,371.01	0.81	98.9	Pulse	0.10	3
1	Tb		5,978,222.20	1.16	106.9	Analog	0.10	3
1	Ho		542,059.20	0.56	102.9	Pulse	0.10	3
1	Bi		3,286,923.70	0.41	100.8	Pulse	0.10	3
2	Sc		87,539.15	1.65	98.9	Pulse	0.30	3
2	Ge		53,741.49	0.68	98.2	Pulse	0.30	3
2	Ge		80,458.24	0.09	97.1	Pulse	0.30	3
2	Rh		1,583,647.23	0.13	95.1	Pulse	0.30	3
2	In		474,387.54	0.81	95.1	Pulse	0.30	3
2	Tb		1,936,379.30	0.28	98.2	Pulse	0.30	3
2	Ho		187,412.71	0.55	98.0	Pulse	0.30	3
2	Bi		1,297,077.41	0.46	96.9	Pulse	0.30	3
3	Sc		108,139.74	0.77	104.0	Pulse	0.30	3
3	Ge		71,732.14	1.56	102.1	Pulse	0.30	3
3	Ge		108,928.23	0.67	101.3	Pulse	0.30	3
3	Rh		1,301,718.49	0.07	99.3	Pulse	0.30	3
3	Tb		2,096,104.08	0.42	102.6	Pulse	0.30	3

Quantitation Report

File Name	093SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File	
Method Path	
Acq Time	4/22/2019 17:37
Sample Name	jc86645-2
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/22/2019 18:08
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.011	ug/l	51.50	46.67	2.789E-05	Pulse	0.25	3
B			1	296.480	ug/l	0.77	555,417.18	3.319E-01	Pulse	0.15	3
Ca			1	28613.238	ug/l	0.71	11,195,513.58	3.985E+00	Analog	0.10	3
Sr			1	126.561	ug/l	0.46	2,469,755.22	6.631E-01	Pulse	0.10	3
Mo			1	12.456	ug/l	1.06	50,691.17	1.361E-02	Pulse	0.10	3
Ag			1	0.022	ug/l	27.14	230.01	5.690E-05	Pulse	0.10	3
Sn			1	1.905	ug/l	2.16	6,591.66	1.627E-03	Pulse	0.10	3
Sb			1	0.139	ug/l	13.25	1,296.78	2.197E-04	Pulse	0.10	3
Ba			1	9.411	ug/l	0.51	29,148.35	4.943E-03	Pulse	0.10	3
Tl			1	0.049	ug/l	6.87	1,246.77	3.874E-04	Pulse	0.10	3
Pb			1	0.480	ug/l	3.21	3,237.15	1.006E-03	Pulse	0.10	3
Pb			1	0.474	ug/l	2.44	2,770.36	8.608E-04	Pulse	0.10	3
Pb			1	0.491	ug/l	1.74	13,009.43	4.043E-03	Pulse	0.10	3
Na			2	45534.310	ug/l	0.95	15,957,306.03	1.859E+02	Analog	0.30	3
Mg			2	5846.580	ug/l	2.08	937,085.52	1.092E+01	Pulse	0.30	3
Al			2	81.124	ug/l	5.31	4,176.18	4.866E-02	Pulse	0.30	3
K			2	12750.590	ug/l	1.38	1,254,559.74	1.461E+01	Pulse	0.30	3
Ca			2	28633.562	ug/l	1.62	159,189.79	1.855E+00	Pulse	0.30	3
Ti			2	1.404	ug/l	36.35	70.00	8.186E-04	Pulse	0.30	3
V			2	1.797	ug/l	5.36	3,068.10	3.573E-02	Pulse	0.30	3
Cr			2	39.830	ug/l	1.29	86,242.37	1.005E+00	Pulse	0.30	3
Mn			2	47.027	ug/l	0.87	46,604.38	5.429E-01	Pulse	0.30	3
Fe			2	5665.028	ug/l	0.98	9,442,228.79	1.100E+02	Analog	0.30	3
Co			2	1.235	ug/l	2.03	4,719.62	5.498E-02	Pulse	0.30	3
Ni			2	2.674	ug/l	3.58	2,812.50	3.277E-02	Pulse	0.30	3
Cu			2	1.294	ug/l	5.27	5,131.97	5.980E-02	Pulse	0.30	3
Zn			2	10.763	ug/l	4.85	3,893.84	4.538E-02	Pulse	0.30	3
As			2	1.087	ug/l	6.73	210.67	2.455E-03	Pulse	1.00	3
Cd			2	0.015	ug/l	117.01	13.17	2.808E-05	Pulse	0.30	3
Sn			2	0.727	ug/l	2.36	1,118.94	2.389E-03	Pulse	0.30	3
Se			3	0.505	ug/l	6.13	29.07	2.585E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,673,221.66	0.26	95.9	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,809,433.29	0.67	94.3	Pulse	0.10	3
1	Ge		576,924.46	0.96	97.4	Pulse	0.10	3
1	Ge		801,453.19	1.08	96.8	Pulse	0.10	3
1	Rh		3,724,771.09	0.32	93.9	Pulse	0.10	3
1	In		4,050,578.39	1.17	96.7	Pulse	0.10	3
1	Tb		5,896,665.75	1.43	105.4	Analog	0.10	3
1	Ho		535,771.37	1.04	101.7	Pulse	0.10	3
1	Bi		3,218,309.85	0.66	98.7	Pulse	0.10	3
2	Sc		85,855.01	1.83	97.0	Pulse	0.30	3
2	Ge		53,287.82	0.15	97.4	Pulse	0.30	3
2	Ge		80,719.39	0.28	97.4	Pulse	0.30	3
2	Rh		1,545,234.42	0.34	92.8	Pulse	0.30	3
2	In		468,451.33	0.69	94.0	Pulse	0.30	3
2	Tb		1,923,832.63	0.65	97.5	Pulse	0.30	3
2	Ho		185,565.33	0.86	97.0	Pulse	0.30	3
2	Bi		1,269,994.50	0.53	94.9	Pulse	0.30	3
3	Sc		108,294.13	0.47	104.1	Pulse	0.30	3
3	Ge		73,216.46	1.60	104.2	Pulse	0.30	3
3	Ge		112,416.38	1.26	104.6	Pulse	0.30	3
3	Rh		1,284,829.36	0.37	98.0	Pulse	0.30	3
3	Tb		2,100,102.90	0.27	102.8	Pulse	0.30	3

Quantitation Report

File Name	094SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File	
Method Path	
Acq Time	4/22/2019 17:42
Sample Name	mp14424-s1
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/22/2019 18:08
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	74.797	ug/l	0.55	206,433.81	1.226E-01	Pulse	0.25	3
B			1	400.205	ug/l	1.52	754,331.55	4.479E-01	Pulse	0.15	3
Ca			1	27879.538	ug/l	0.35	11,027,774.00	3.883E+00	Analog	0.10	3
Sr			1	333.817	ug/l	1.62	6,472,806.99	1.749E+00	Analog	0.10	3
Mo			1	79.038	ug/l	0.24	319,493.99	8.631E-02	Pulse	0.10	3
Ag			1	75.919	ug/l	0.76	745,678.24	1.821E-01	Pulse	0.10	3
Sn			1	75.700	ug/l	0.48	491,113.01	1.199E-01	Pulse	0.10	3
Sb			1	72.068	ug/l	0.55	575,775.20	9.638E-02	Pulse	0.10	3
Ba			1	101.032	ug/l	1.00	316,648.95	5.300E-02	Pulse	0.10	3
Tl			1	78.900	ug/l	0.34	1,366,624.30	4.320E-01	Pulse	0.10	3
Pb			1	78.818	ug/l	0.62	473,085.51	1.496E-01	Pulse	0.10	3
Pb			1	81.012	ug/l	1.73	417,590.20	1.320E-01	Pulse	0.10	3
Pb			1	80.296	ug/l	0.69	1,906,819.42	6.028E-01	Pulse	0.10	3
Na			2	72151.062	ug/l	1.44	25,305,728.44	2.945E+02	Analog	0.30	3
Mg			2	12906.155	ug/l	0.76	2,070,854.71	2.410E+01	Pulse	0.30	3
Al			2	5484.992	ug/l	0.66	277,407.05	3.228E+00	Pulse	0.30	3
K			2	13472.386	ug/l	0.76	1,326,770.36	1.544E+01	Pulse	0.30	3
Ca			2	28832.116	ug/l	1.45	160,484.97	1.867E+00	Pulse	0.30	3
Ti			2	72.975	ug/l	1.83	3,548.21	4.129E-02	Pulse	0.30	3
V			2	79.733	ug/l	0.52	132,333.11	1.540E+00	Pulse	0.30	3
Cr			2	81.427	ug/l	0.80	176,043.88	2.049E+00	Pulse	0.30	3
Mn			2	101.942	ug/l	0.60	101,067.25	1.176E+00	Pulse	0.30	3
Fe			2	4233.248	ug/l	0.16	7,064,016.11	8.220E+01	Analog	0.30	3
Co			2	79.037	ug/l	1.05	298,248.75	3.471E+00	Pulse	0.30	3
Ni			2	79.756	ug/l	1.31	82,690.53	9.622E-01	Pulse	0.30	3
Cu			2	81.526	ug/l	0.73	234,847.91	2.733E+00	Pulse	0.30	3
Zn			2	87.130	ug/l	0.59	30,231.33	3.518E-01	Pulse	0.30	3
As			2	72.068	ug/l	1.16	13,758.81	1.601E-01	Pulse	1.00	3
Cd			2	75.176	ug/l	0.59	36,040.15	7.790E-02	Pulse	0.30	3
Sn			2	76.399	ug/l	1.25	76,025.20	1.643E-01	Pulse	0.30	3
Se			3	337.620	ug/l	0.85	14,320.98	1.285E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,684,387.60	0.89	96.5	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,840,080.69	0.73	95.3	Pulse	0.10	3
1	Ge		581,653.76	0.76	98.2	Pulse	0.10	3
1	Ge		807,124.99	0.74	97.5	Pulse	0.10	3
1	Rh		3,701,749.84	1.00	93.3	Pulse	0.10	3
1	In		4,095,100.58	1.02	97.7	Pulse	0.10	3
1	Tb		5,974,368.66	0.98	106.8	Analog	0.10	3
1	Ho		618,400.86	0.36	117.4	Pulse	0.10	3
1	Bi		3,163,164.75	0.28	97.0	Pulse	0.10	3
2	Sc		85,938.87	0.47	97.1	Pulse	0.30	3
2	Ge		54,579.76	0.68	99.8	Pulse	0.30	3
2	Ge		81,264.28	1.21	98.1	Pulse	0.30	3
2	Rh		1,516,865.95	0.82	91.1	Pulse	0.30	3
2	In		462,638.50	0.37	92.8	Pulse	0.30	3
2	Tb		1,933,581.10	0.22	98.0	Pulse	0.30	3
2	Ho		214,333.24	0.62	112.1	Pulse	0.30	3
2	Bi		1,246,843.84	0.41	93.2	Pulse	0.30	3
3	Sc		107,391.87	0.72	103.3	Pulse	0.30	3
3	Ge		73,326.94	0.70	104.3	Pulse	0.30	3
3	Ge		111,454.36	0.74	103.7	Pulse	0.30	3
3	Rh		1,259,610.65	0.22	96.1	Pulse	0.30	3
3	Tb		2,106,510.54	0.23	103.1	Pulse	0.30	3

Quantitation Report

File Name	095SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File	
Method Path	
Acq Time	4/22/2019 17:47
Sample Name	mp14424-s2
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/22/2019 18:08
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	74.102	ug/l	0.87	203,178.23	1.214E-01	Pulse	0.25	3
B			1	403.156	ug/l	1.13	754,949.07	4.512E-01	Pulse	0.15	3
Ca			1	27825.581	ug/l	1.27	10,863,149.42	3.875E+00	Analog	0.10	3
Sr			1	336.056	ug/l	2.00	6,385,681.99	1.760E+00	Analog	0.10	3
Mo			1	79.118	ug/l	1.02	313,382.35	8.640E-02	Pulse	0.10	3
Ag			1	76.003	ug/l	0.36	735,978.89	1.823E-01	Pulse	0.10	3
Sn			1	75.115	ug/l	0.91	480,389.74	1.190E-01	Pulse	0.10	3
Sb			1	70.534	ug/l	1.74	564,553.34	9.433E-02	Pulse	0.10	3
Ba			1	100.486	ug/l	0.75	315,516.58	5.272E-02	Pulse	0.10	3
Tl			1	78.610	ug/l	0.66	1,374,239.61	4.305E-01	Pulse	0.10	3
Pb			1	79.082	ug/l	0.77	479,079.16	1.501E-01	Pulse	0.10	3
Pb			1	79.977	ug/l	1.71	416,087.68	1.303E-01	Pulse	0.10	3
Pb			1	79.847	ug/l	1.12	1,913,733.83	5.995E-01	Pulse	0.10	3
Na			2	71565.558	ug/l	1.53	25,260,828.44	2.921E+02	Analog	0.30	3
Mg			2	12587.141	ug/l	1.27	2,032,564.71	2.350E+01	Pulse	0.30	3
Al			2	5309.743	ug/l	1.87	270,246.76	3.125E+00	Pulse	0.30	3
K			2	13111.736	ug/l	1.63	1,299,601.13	1.503E+01	Pulse	0.30	3
Ca			2	28200.448	ug/l	0.85	157,969.19	1.826E+00	Pulse	0.30	3
Ti			2	73.985	ug/l	3.69	3,619.32	4.186E-02	Pulse	0.30	3
V			2	78.344	ug/l	0.78	130,861.45	1.513E+00	Pulse	0.30	3
Cr			2	79.604	ug/l	1.13	173,212.44	2.003E+00	Pulse	0.30	3
Mn			2	100.730	ug/l	1.86	100,499.32	1.162E+00	Pulse	0.30	3
Fe			2	4090.905	ug/l	0.13	6,870,647.09	7.944E+01	Analog	0.30	3
Co			2	77.778	ug/l	1.43	295,371.79	3.415E+00	Pulse	0.30	3
Ni			2	78.926	ug/l	0.08	82,356.53	9.522E-01	Pulse	0.30	3
Cu			2	80.577	ug/l	1.10	233,614.00	2.701E+00	Pulse	0.30	3
Zn			2	86.448	ug/l	0.29	30,190.11	3.491E-01	Pulse	0.30	3
As			2	69.686	ug/l	1.34	13,389.16	1.548E-01	Pulse	1.00	3
Cd			2	75.877	ug/l	0.17	36,042.68	7.863E-02	Pulse	0.30	3
Sn			2	75.907	ug/l	0.57	74,843.04	1.633E-01	Pulse	0.30	3
Se			3	340.050	ug/l	0.43	14,342.26	1.294E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,673,386.28	0.65	95.9	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,803,294.02	0.99	94.1	Pulse	0.10	3
1	Ge		572,512.71	1.19	96.7	Pulse	0.10	3
1	Ge		798,407.38	0.80	96.4	Pulse	0.10	3
1	Rh		3,627,230.26	0.47	91.4	Pulse	0.10	3
1	In		4,037,263.48	1.04	96.4	Pulse	0.10	3
1	Tb		5,985,353.66	1.04	107.0	Analog	0.10	3
1	Ho		621,478.50	0.66	117.9	Pulse	0.10	3
1	Bi		3,192,594.43	0.53	97.9	Pulse	0.10	3
2	Sc		86,492.94	1.07	97.7	Pulse	0.30	3
2	Ge		53,953.14	0.26	98.6	Pulse	0.30	3
2	Ge		80,460.47	1.00	97.1	Pulse	0.30	3
2	Rh		1,513,209.84	0.61	90.9	Pulse	0.30	3
2	In		458,394.77	0.31	91.9	Pulse	0.30	3
2	Tb		1,923,297.56	0.09	97.5	Pulse	0.30	3
2	Ho		212,488.61	0.55	111.1	Pulse	0.30	3
2	Bi		1,240,166.48	0.51	92.7	Pulse	0.30	3
3	Sc		107,952.11	0.66	103.8	Pulse	0.30	3
3	Ge		73,560.09	0.87	104.7	Pulse	0.30	3
3	Ge		110,819.76	0.47	103.1	Pulse	0.30	3
3	Rh		1,256,663.28	0.56	95.9	Pulse	0.30	3
3	Tb		2,115,685.75	0.29	103.6	Pulse	0.30	3

Quantitation Report

File Name 096SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File
Method Path
Acq Time 4/22/2019 17:52
Sample Name rinseconf
Sample Type Sample
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/22/2019 18:08
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.006	ug/l	72.17	53.33	3.091E-05	Pulse	0.25	3
B			1	10.725	ug/l	0.27	42,493.34	2.457E-02	Pulse	0.15	3
Ca			1	3.725	ug/l	22.37	19,672.20	6.727E-03	Pulse	0.10	3
Sr			1	0.038	ug/l	6.29	1,996.86	5.014E-04	Pulse	0.10	3
Mo			1	0.028	ug/l	35.04	280.01	7.027E-05	Pulse	0.10	3
Ag			1	0.017	ug/l	18.92	360.02	8.466E-05	Pulse	0.10	3
Sn			1	0.839	ug/l	1.60	5,384.44	1.265E-03	Pulse	0.10	3
Sb			1	0.033	ug/l	13.51	743.38	1.233E-04	Pulse	0.10	3
Ba			1	0.017	ug/l	11.12	150.01	2.491E-05	Pulse	0.10	3
Tl			1	0.015	ug/l	13.31	953.40	2.834E-04	Pulse	0.10	3
Pb			1	0.010	ug/l	44.75	456.69	1.357E-04	Pulse	0.10	3
Pb			1	0.010	ug/l	38.76	413.36	1.229E-04	Pulse	0.10	3
Pb			1	0.012	ug/l	9.84	1,780.12	5.290E-04	Pulse	0.10	3
Na			2	43.035	ug/l	1.77	42,069.92	4.669E-01	Pulse	0.30	3
Mg			2	2.328	ug/l	10.75	978.93	1.087E-02	Pulse	0.30	3
Al			2	0.226	ug/l	86.06	107.78	1.195E-03	Pulse	0.30	3
K			2	5.054	ug/l	21.13	6,483.56	7.194E-02	Pulse	0.30	3
Ca			2	4.227	ug/l	48.62	91.11	1.009E-03	Pulse	0.30	3
Ti			2	-0.022	ug/l	0.00	0.00	0.000E+00	Pulse	0.30	3
V			2	0.007	ug/l	62.43	120.00	1.332E-03	Pulse	0.30	3
Cr			2	-0.003	ug/l	-626.99	453.35	5.035E-03	Pulse	0.30	3
Mn			2	0.000	ug/l	14695.56	57.78	6.416E-04	Pulse	0.30	3
Fe			2	0.186	ug/l	9.21	3,689.35	4.094E-02	Pulse	0.30	3
Co			2	0.007	ug/l	21.74	124.45	1.381E-03	Pulse	0.30	3
Ni			2	-0.001	ug/l	-618.48	44.45	4.941E-04	Pulse	0.30	3
Cu			2	-0.092	ug/l	-11.43	952.26	1.057E-02	Pulse	0.30	3
Zn			2	0.282	ug/l	17.37	401.12	4.454E-03	Pulse	0.30	3
As			2	0.006	ug/l	61.07	6.33	7.039E-05	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	0.009	ug/l	75.36	15.54	3.105E-05	Pulse	0.30	3
Sn			2	0.179	ug/l	7.21	798.92	1.600E-03	Pulse	0.30	3
Se			3	0.013	ug/l	216.92	8.40	7.605E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,729,663.83	0.84	99.1	Pulse	0.10	3
1	Sc		2,924,375.06	0.34	98.2	Pulse	0.10	3
1	Ge		588,897.42	0.68	99.4	Pulse	0.10	3
1	Ge		820,764.21	0.80	99.1	Pulse	0.10	3
1	Rh		3,983,084.01	0.54	100.4	Pulse	0.10	3
1	In		4,256,093.04	0.97	101.6	Pulse	0.10	3
1	Tb		6,026,029.91	1.55	107.7	Analog	0.10	3
1	Ho		548,084.94	0.51	104.0	Pulse	0.10	3
1	Bi		3,365,221.93	0.92	103.2	Pulse	0.10	3
2	Sc		90,101.45	1.00	101.8	Pulse	0.30	3
2	Ge		55,650.03	0.73	101.7	Pulse	0.30	3
2	Ge		83,716.36	0.43	101.0	Pulse	0.30	3
2	Rh		1,649,419.90	0.38	99.1	Pulse	0.30	3
2	In		499,379.41	0.74	100.2	Pulse	0.30	3
2	Tb		1,993,281.24	1.16	101.0	Pulse	0.30	3
2	Ho		192,576.30	0.08	100.7	Pulse	0.30	3
2	Bi		1,345,871.82	0.24	100.6	Pulse	0.30	3
3	Sc		108,352.01	1.19	104.2	Pulse	0.30	3
3	Ge		72,407.20	1.32	103.0	Pulse	0.30	3
3	Ge		110,421.68	0.66	102.7	Pulse	0.30	3
3	Rh		1,329,160.78	0.51	101.4	Pulse	0.30	3
3	Tb		2,099,482.07	0.39	102.8	Pulse	0.30	3

Quantitation Report

File Name	097SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File	
Method Path	
Acq Time	4/22/2019 17:57
Sample Name	rinseconf
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/22/2019 18:08
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.000	ug/l	-1646.54	17.33	1.011E-05	Pulse	0.25	3
B			1	8.174	ug/l	2.17	32,348.85	1.886E-02	Pulse	0.15	3
Ca			1	1.468	ug/l	75.44	17,780.13	6.099E-03	Pulse	0.10	3
Sr			1	0.014	ug/l	8.13	996.73	2.528E-04	Pulse	0.10	3
Mo			1	0.004	ug/l	107.89	66.67	1.696E-05	Pulse	0.10	3
Ag			1	0.007	ug/l	36.41	156.67	3.715E-05	Pulse	0.10	3
Sn			1	0.826	ug/l	1.78	5,164.37	1.223E-03	Pulse	0.10	3
Sb			1	0.017	ug/l	40.24	480.03	8.027E-05	Pulse	0.10	3
Ba			1	0.005	ug/l	45.28	73.33	1.229E-05	Pulse	0.10	3
Tl			1	0.002	ug/l	93.96	483.36	1.459E-04	Pulse	0.10	3
Pb			1	-0.003	ug/l	-140.23	280.01	8.461E-05	Pulse	0.10	3
Pb			1	-0.008	ug/l	-47.62	206.68	6.247E-05	Pulse	0.10	3
Pb			1	-0.003	ug/l	-48.51	1,013.39	3.060E-04	Pulse	0.10	3
Na			2	39.517	ug/l	2.77	39,398.01	4.382E-01	Pulse	0.30	3
Mg			2	1.766	ug/l	13.20	788.92	8.771E-03	Pulse	0.30	3
Al			2	-0.002	ug/l	-3944.91	83.33	9.273E-04	Pulse	0.30	3
K			2	5.966	ug/l	18.65	6,654.74	7.403E-02	Pulse	0.30	3
Ca			2	3.874	ug/l	24.99	86.67	9.638E-04	Pulse	0.30	3
Ti			2	-0.022	ug/l	0.00	0.00	0.000E+00	Pulse	0.30	3
V			2	0.007	ug/l	109.22	118.89	1.321E-03	Pulse	0.30	3
Cr			2	-0.004	ug/l	-104.84	447.79	4.982E-03	Pulse	0.30	3
Mn			2	-0.003	ug/l	-77.90	51.11	5.685E-04	Pulse	0.30	3
Fe			2	-0.052	ug/l	-38.49	2,848.06	3.168E-02	Pulse	0.30	3
Co			2	0.004	ug/l	153.46	98.89	1.097E-03	Pulse	0.30	3
Ni			2	-0.006	ug/l	-103.56	34.44	3.827E-04	Pulse	0.30	3
Cu			2	-0.086	ug/l	-8.80	985.60	1.096E-02	Pulse	0.30	3
Zn			2	0.272	ug/l	32.85	393.34	4.377E-03	Pulse	0.30	3
As			2	0.005	ug/l	107.18	5.67	6.295E-05	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	0.003	ug/l	1.45	9.99	2.009E-05	Pulse	0.30	3
Sn			2	0.195	ug/l	17.56	830.03	1.669E-03	Pulse	0.30	3
Se			3	0.002	ug/l	922.78	7.47	6.776E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,714,866.71	0.07	98.3	Pulse	0.10	3
1	Sc		2,914,859.02	0.96	97.8	Pulse	0.10	3
1	Ge		585,469.73	1.30	98.8	Pulse	0.10	3
1	Ge		813,818.61	1.26	98.3	Pulse	0.10	3
1	Rh		3,942,326.09	1.20	99.4	Pulse	0.10	3
1	In		4,221,316.53	1.38	100.7	Pulse	0.10	3
1	Tb		5,967,884.08	1.34	106.7	Analog	0.10	3
1	Ho		538,507.43	1.42	102.2	Pulse	0.10	3
1	Bi		3,312,880.16	0.95	101.6	Pulse	0.10	3
2	Sc		89,904.97	0.89	101.6	Pulse	0.30	3
2	Ge		55,274.27	1.64	101.0	Pulse	0.30	3
2	Ge		83,922.20	0.33	101.3	Pulse	0.30	3
2	Rh		1,634,939.97	0.27	98.2	Pulse	0.30	3
2	In		497,456.50	0.56	99.8	Pulse	0.30	3
2	Tb		1,973,840.68	0.09	100.1	Pulse	0.30	3
2	Ho		190,681.61	0.76	99.7	Pulse	0.30	3
2	Bi		1,342,225.19	0.49	100.3	Pulse	0.30	3
3	Sc		107,734.15	1.57	103.6	Pulse	0.30	3
3	Ge		72,501.09	2.18	103.2	Pulse	0.30	3
3	Ge		110,162.09	1.31	102.5	Pulse	0.30	3
3	Rh		1,323,442.13	0.25	101.0	Pulse	0.30	3
3	Tb		2,079,281.17	0.40	101.8	Pulse	0.30	3

Quantitation Report

File Name	098_CCV.d
File Path	C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File	
Method Path	
Acq Time	4/22/2019 18:02
Sample Name	CCVA
Sample Type	CCV
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/22/2019 18:08
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	49.808	ug/l	0.12	274,481.00	1.632E-01	Pulse	0.25	3
B			1	106.037	ug/l	2.14	399,587.75	2.376E-01	Pulse	0.15	3
Ca			1	5118.595	ug/l	0.56	4,140,888.17	1.429E+00	Pulse	0.10	3
Sr			1	52.281	ug/l	0.42	2,104,294.34	5.478E-01	Pulse	0.10	3
Mo			1	50.733	ug/l	0.36	425,611.30	1.108E-01	Pulse	0.10	3
Ag			1	48.934	ug/l	0.48	975,475.66	2.347E-01	Pulse	0.10	3
Sn			1	49.428	ug/l	0.36	652,617.36	1.571E-01	Pulse	0.10	3
Sb			1	48.900	ug/l	0.74	778,894.28	1.308E-01	Pulse	0.10	3
Ba			1	48.190	ug/l	0.78	301,145.53	5.056E-02	Pulse	0.10	3
Tl			1	50.437	ug/l	0.50	1,797,851.54	5.523E-01	Pulse	0.10	3
Pb			1	50.095	ug/l	0.85	618,739.15	1.901E-01	Pulse	0.10	3
Pb			1	51.183	ug/l	0.50	542,920.89	1.668E-01	Pulse	0.10	3
Pb			1	50.740	ug/l	0.44	2,479,589.52	7.618E-01	Pulse	0.10	3
Na			2	4996.362	ug/l	1.55	3,662,857.63	4.088E+01	Pulse	0.30	3
Mg			2	5057.469	ug/l	1.77	1,692,001.78	1.889E+01	Pulse	0.30	3
Al			2	4981.661	ug/l	2.30	525,209.74	5.863E+00	Pulse	0.30	3
K			2	5147.345	ug/l	1.75	1,058,197.84	1.181E+01	Pulse	0.30	3
Ca			2	5325.734	ug/l	2.38	61,827.36	6.902E-01	Pulse	0.30	3
Ti			2	49.551	ug/l	1.61	5,024.17	5.606E-02	Pulse	0.30	3
V			2	50.186	ug/l	0.80	173,661.90	1.938E+00	Pulse	0.30	3
Cr			2	49.388	ug/l	1.37	222,539.22	2.484E+00	Pulse	0.30	3
Mn			2	49.896	ug/l	1.35	103,148.78	1.151E+00	Pulse	0.30	3
Fe			2	5267.063	ug/l	3.19	18,317,267.61	2.045E+02	Analog	0.30	3
Co			2	48.956	ug/l	2.02	385,152.77	4.299E+00	Pulse	0.30	3
Ni			2	48.192	ug/l	2.81	104,151.77	1.163E+00	Pulse	0.30	3
Cu			2	48.150	ug/l	1.35	288,935.76	3.225E+00	Pulse	0.30	3
Zn			2	49.177	ug/l	3.05	35,546.35	3.968E-01	Pulse	0.30	3
As			2	48.451	ug/l	1.24	19,286.39	2.153E-01	Pulse	1.00	3
Cd			2	50.046	ug/l	0.83	50,641.62	1.037E-01	Pulse	0.30	3
Sn			2	49.722	ug/l	0.15	104,313.75	2.136E-01	Pulse	0.30	3
Se			3	198.805	ug/l	0.57	16,391.78	1.513E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,681,599.75	0.54	96.4	Pulse	0.10	3
1	Sc		2,897,112.15	1.49	97.2	Pulse	0.10	3
1	Ge		581,527.94	0.89	98.2	Pulse	0.10	3

Quantitation Report

1	Ge		816,615.66	1.84	98.6	Pulse	0.10	3
1	Rh		3,841,328.48	1.12	96.8	Pulse	0.10	3
1	In		4,155,386.57	0.57	99.2	Pulse	0.10	3
1	Tb		5,956,402.00	1.43	106.5	Analog	0.10	3
1	Ho		537,272.51	1.24	102.0	Pulse	0.10	3
1	Bi		3,254,981.83	0.46	99.9	Pulse	0.10	3
2	Sc		89,607.76	1.81	101.2	Pulse	0.30	3
2	Ge		54,904.07	0.21	100.4	Pulse	0.30	3
2	Ge		81,864.07	0.53	98.8	Pulse	0.30	3
2	Rh		1,581,014.73	1.43	95.0	Pulse	0.30	3
2	In		488,269.56	1.10	97.9	Pulse	0.30	3
2	Tb		1,955,437.15	1.06	99.1	Pulse	0.30	3
2	Ho		189,857.49	0.16	99.3	Pulse	0.30	3
2	Bi		1,309,654.88	0.77	97.9	Pulse	0.30	3
3	Sc		107,179.28	1.42	103.1	Pulse	0.30	3
3	Ge		71,179.88	1.54	101.3	Pulse	0.30	3
3	Ge		108,329.64	0.55	100.8	Pulse	0.30	3
3	Rh		1,279,136.82	0.68	97.6	Pulse	0.30	3
3	Tb		2,068,188.18	0.42	101.3	Pulse	0.30	3

Quantitation Report

File Name	099_CCB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File	
Method Path	
Acq Time	4/22/2019 18:07
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/22/2019 18:08
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.008	ug/l	33.13	60.00	3.532E-05	Pulse	0.25	3
B			1	9.113	ug/l	2.23	35,635.40	2.096E-02	Pulse	0.15	3
Ca			1	-0.030	ug/l	-2979.39	16,308.48	5.683E-03	Pulse	0.10	3
Sr			1	0.024	ug/l	6.20	1,393.45	3.567E-04	Pulse	0.10	3
Mo			1	0.085	ug/l	14.30	760.05	1.946E-04	Pulse	0.10	3
Ag			1	0.012	ug/l	8.34	263.35	6.215E-05	Pulse	0.10	3
Sn			1	0.873	ug/l	6.06	5,819.06	1.374E-03	Pulse	0.10	3
Sb			1	0.157	ug/l	13.55	2,660.32	4.534E-04	Pulse	0.10	3
Ba			1	0.014	ug/l	42.38	126.67	2.158E-05	Pulse	0.10	3
Tl			1	0.017	ug/l	21.21	1,010.07	3.052E-04	Pulse	0.10	3
Pb			1	0.004	ug/l	123.62	373.36	1.129E-04	Pulse	0.10	3
Pb			1	0.010	ug/l	62.25	400.02	1.209E-04	Pulse	0.10	3
Pb			1	0.010	ug/l	43.56	1,696.77	5.127E-04	Pulse	0.10	3
Na			2	37.637	ug/l	0.89	37,864.54	4.228E-01	Pulse	0.30	3
Mg			2	2.106	ug/l	3.43	898.93	1.004E-02	Pulse	0.30	3
Al			2	0.349	ug/l	23.52	120.00	1.340E-03	Pulse	0.30	3
K			2	5.148	ug/l	17.94	6,460.20	7.216E-02	Pulse	0.30	3
Ca			2	2.662	ug/l	18.02	72.22	8.068E-04	Pulse	0.30	3
Ti			2	-0.011	ug/l	-173.55	1.11	1.231E-05	Pulse	0.30	3
V			2	0.004	ug/l	110.77	107.78	1.205E-03	Pulse	0.30	3
Cr			2	0.002	ug/l	1053.58	468.90	5.241E-03	Pulse	0.30	3
Mn			2	0.005	ug/l	193.39	66.67	7.455E-04	Pulse	0.30	3
Fe			2	0.688	ug/l	10.31	5,408.76	6.041E-02	Pulse	0.30	3
Co			2	0.004	ug/l	36.83	103.34	1.154E-03	Pulse	0.30	3
Ni			2	0.002	ug/l	355.63	52.22	5.833E-04	Pulse	0.30	3
Cu			2	-0.046	ug/l	-18.22	1,222.28	1.365E-02	Pulse	0.30	3
Zn			2	0.067	ug/l	10.32	244.45	2.730E-03	Pulse	0.30	3
As			2	0.012	ug/l	124.51	8.33	9.282E-05	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	-0.004	ug/l	-44.68	2.18	4.368E-06	Pulse	0.30	3
Sn			2	0.278	ug/l	11.14	1,006.71	2.023E-03	Pulse	0.30	3
Se			3	0.047	ug/l	35.35	11.13	1.023E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,700,034.18	0.81	97.4	Pulse	0.10	3
1	Sc		2,870,971.00	1.47	96.4	Pulse	0.10	3
1	Ge		582,265.06	1.97	98.3	Pulse	0.10	3
1	Ge		811,682.88	1.36	98.0	Pulse	0.10	3
1	Rh		3,908,399.84	1.42	98.5	Pulse	0.10	3
1	In		4,235,035.32	0.95	101.1	Pulse	0.10	3
1	Tb		5,866,251.79	0.50	104.9	Analog	0.10	3
1	Ho		538,105.33	0.91	102.1	Pulse	0.10	3
1	Bi		3,313,953.28	1.85	101.7	Pulse	0.10	3
2	Sc		89,545.29	0.92	101.2	Pulse	0.30	3
2	Ge		55,023.40	1.02	100.6	Pulse	0.30	3
2	Ge		82,289.52	0.34	99.3	Pulse	0.30	3
2	Rh		1,626,838.89	0.22	97.7	Pulse	0.30	3
2	In		497,593.02	0.26	99.8	Pulse	0.30	3
2	Tb		1,968,587.70	0.56	99.8	Pulse	0.30	3
2	Ho		190,453.88	0.66	99.6	Pulse	0.30	3
2	Bi		1,340,618.28	0.45	100.2	Pulse	0.30	3
3	Sc		106,709.70	1.08	102.6	Pulse	0.30	3
3	Ge		71,071.45	0.35	101.1	Pulse	0.30	3
3	Ge		108,877.91	0.40	101.3	Pulse	0.30	3
3	Rh		1,312,096.02	0.93	100.1	Pulse	0.30	3
3	Tb		2,073,254.01	0.79	101.5	Pulse	0.30	3

Quantitation Report

File Name	100SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File	
Method Path	
Acq Time	4/22/2019 18:12
Sample Name	jc86645-3
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/22/2019 18:08
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.165	ug/l	9.75	461.35	2.812E-04	Pulse	0.25	3
B			1	307.748	ug/l	1.17	564,986.50	3.445E-01	Pulse	0.15	3
Ca			1	23413.097	ug/l	1.51	8,990,959.03	3.262E+00	Analog	0.10	3
Sr			1	228.720	ug/l	0.39	4,334,800.87	1.198E+00	Pulse	0.10	3
Mo			1	0.373	ug/l	14.45	1,506.81	4.162E-04	Pulse	0.10	3
Ag			1	0.036	ug/l	17.53	360.02	9.035E-05	Pulse	0.10	3
Sn			1	2.072	ug/l	3.39	7,555.40	1.896E-03	Pulse	0.10	3
Sb			1	0.315	ug/l	16.34	2,707.00	4.549E-04	Pulse	0.10	3
Ba			1	27.023	ug/l	1.85	84,265.69	1.418E-02	Pulse	0.10	3
Tl			1	0.150	ug/l	4.89	3,040.43	9.416E-04	Pulse	0.10	3
Pb			1	0.765	ug/l	1.49	4,997.68	1.548E-03	Pulse	0.10	3
Pb			1	0.720	ug/l	3.91	4,077.39	1.263E-03	Pulse	0.10	3
Pb			1	0.755	ug/l	0.37	19,432.40	6.019E-03	Pulse	0.10	3
Na			2	66600.291	ug/l	1.82	23,023,143.53	2.718E+02	Analog	0.30	3
Mg			2	8557.350	ug/l	1.30	1,353,389.60	1.598E+01	Pulse	0.30	3
Al			2	1623.407	ug/l	1.18	80,980.47	9.561E-01	Pulse	0.30	3
K			2	9224.579	ug/l	1.14	897,008.30	1.059E+01	Pulse	0.30	3
Ca			2	23716.613	ug/l	1.72	130,110.82	1.536E+00	Pulse	0.30	3
Ti			2	0.696	ug/l	45.47	35.55	4.180E-04	Pulse	0.30	3
V			2	0.208	ug/l	14.52	430.01	5.071E-03	Pulse	0.30	3
Cr			2	3.025	ug/l	1.92	6,865.95	8.106E-02	Pulse	0.30	3
Mn			2	23.494	ug/l	1.94	23,006.11	2.715E-01	Pulse	0.30	3
Fe			2	50.411	ug/l	1.26	85,732.44	1.012E+00	Pulse	0.30	3
Co			2	1.509	ug/l	1.82	5,678.82	6.705E-02	Pulse	0.30	3
Ni			2	3.201	ug/l	1.49	3,313.70	3.912E-02	Pulse	0.30	3
Cu			2	5.796	ug/l	2.30	17,770.82	2.098E-01	Pulse	0.30	3
Zn			2	18.135	ug/l	2.29	6,349.08	7.496E-02	Pulse	0.30	3
As			2	2.611	ug/l	4.49	494.68	5.841E-03	Pulse	1.00	3
Cd			2	0.130	ug/l	19.46	67.70	1.475E-04	Pulse	0.30	3
Sn			2	0.870	ug/l	9.07	1,237.84	2.695E-03	Pulse	0.30	3
Se			3	5.427	ug/l	2.02	232.67	2.131E-03	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,639,818.77	1.11	94.0	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,756,702.56	1.27	92.5	Pulse	0.10	3
1	Ge		559,849.39	1.42	94.5	Pulse	0.10	3
1	Ge		777,925.64	1.34	93.9	Pulse	0.10	3
1	Rh		3,617,963.80	1.65	91.2	Pulse	0.10	3
1	In		3,984,693.10	1.05	95.1	Pulse	0.10	3
1	Tb		5,943,063.04	1.24	106.2	Analog	0.10	3
1	Ho		615,562.67	0.93	116.8	Pulse	0.10	3
1	Bi		3,228,726.51	0.89	99.0	Pulse	0.10	3
2	Sc		84,711.30	1.40	95.7	Pulse	0.30	3
2	Ge		53,730.23	1.75	98.2	Pulse	0.30	3
2	Ge		79,159.74	0.72	95.5	Pulse	0.30	3
2	Rh		1,506,766.05	0.72	90.5	Pulse	0.30	3
2	In		459,326.50	0.66	92.1	Pulse	0.30	3
2	Tb		1,920,105.41	0.95	97.3	Pulse	0.30	3
2	Ho		212,764.99	1.08	111.3	Pulse	0.30	3
2	Bi		1,257,611.69	0.67	94.0	Pulse	0.30	3
3	Sc		106,763.15	1.08	102.7	Pulse	0.30	3
3	Ge		72,901.61	0.64	103.7	Pulse	0.30	3
3	Ge		109,180.70	0.24	101.6	Pulse	0.30	3
3	Rh		1,262,995.02	0.88	96.4	Pulse	0.30	3
3	Tb		2,109,095.75	0.66	103.3	Pulse	0.30	3

Quantitation Report

File Name	101SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File	
Method Path	
Acq Time	4/22/2019 18:17
Sample Name	mp14424-s1
Sample Type	Sample
Comment	
Prep Dilution	5.000
Auto Dilution	N/A
Total Dilution	5.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/22/2019 18:08
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	74.042	ug/l	0.80	81,422.65	4.854E-02	Pulse	0.25	3
B			1	411.138	ug/l	1.49	309,330.83	1.844E-01	Pulse	0.15	3
Ca			1	26923.407	ug/l	0.60	4,280,149.52	1.503E+00	Pulse	0.10	3
Sr			1	306.663	ug/l	0.63	2,434,219.65	6.426E-01	Pulse	0.10	3
Mo			1	76.605	ug/l	0.36	126,762.57	3.347E-02	Pulse	0.10	3
Ag			1	76.281	ug/l	0.87	300,733.36	7.319E-02	Pulse	0.10	3
Sn			1	77.626	ug/l	0.47	198,670.18	4.835E-02	Pulse	0.10	3
Sb			1	73.267	ug/l	1.39	231,760.62	3.921E-02	Pulse	0.10	3
Ba			1	102.881	ug/l	1.25	127,629.01	2.159E-02	Pulse	0.10	3
Tl			1	76.162	ug/l	0.89	548,842.15	1.669E-01	Pulse	0.10	3
Pb			1	76.472	ug/l	0.52	191,082.67	5.810E-02	Pulse	0.10	3
Pb			1	78.593	ug/l	0.39	168,663.92	5.129E-02	Pulse	0.10	3
Pb			1	78.088	ug/l	0.33	771,912.85	2.347E-01	Pulse	0.10	3
Na			2	72614.576	ug/l	1.21	10,220,206.26	1.186E+02	Analog	0.30	3
Mg			2	12705.448	ug/l	1.32	817,703.70	9.490E+00	Pulse	0.30	3
Al			2	5468.649	ug/l	1.85	110,964.03	1.288E+00	Pulse	0.30	3
K			2	13398.475	ug/l	0.90	532,335.61	6.178E+00	Pulse	0.30	3
Ca			2	28584.793	ug/l	2.33	63,824.72	7.408E-01	Pulse	0.30	3
Ti			2	75.026	ug/l	3.14	1,464.53	1.699E-02	Pulse	0.30	3
V			2	78.180	ug/l	3.13	52,083.74	6.046E-01	Pulse	0.30	3
Cr			2	80.071	ug/l	1.11	69,697.57	8.089E-01	Pulse	0.30	3
Mn			2	101.048	ug/l	2.21	40,206.66	4.667E-01	Pulse	0.30	3
Fe			2	4015.279	ug/l	1.75	2,688,754.48	3.121E+01	Pulse	0.30	3
Co			2	78.762	ug/l	1.39	119,235.69	1.384E+00	Pulse	0.30	3
Ni			2	79.851	ug/l	2.44	33,224.73	3.857E-01	Pulse	0.30	3
Cu			2	81.980	ug/l	2.15	95,561.99	1.109E+00	Pulse	0.30	3
Zn			2	92.162	ug/l	1.75	12,932.99	1.501E-01	Pulse	0.30	3
As			2	72.807	ug/l	1.63	5,576.64	6.472E-02	Pulse	1.00	3
Cd			2	77.083	ug/l	2.32	15,087.91	3.196E-02	Pulse	0.30	3
Sn			2	76.378	ug/l	1.65	31,261.08	6.621E-02	Pulse	0.30	3
Se			3	361.830	ug/l	1.12	5,980.76	5.512E-02	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,677,608.41	0.53	96.2	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,846,915.79	0.60	95.6	Pulse	0.10	3
1	Ge		574,648.24	1.14	97.0	Pulse	0.10	3
1	Ge		802,606.37	0.60	96.9	Pulse	0.10	3
1	Rh		3,787,718.59	0.71	95.5	Pulse	0.10	3
1	In		4,108,927.57	0.16	98.1	Pulse	0.10	3
1	Tb		5,910,714.08	0.57	105.6	Analog	0.10	3
1	Ho		567,983.01	1.03	107.8	Pulse	0.10	3
1	Bi		3,288,751.41	0.78	100.9	Pulse	0.10	3
2	Sc		86,172.16	1.44	97.3	Pulse	0.30	3
2	Ge		53,390.22	1.31	97.6	Pulse	0.30	3
2	Ge		79,636.29	1.49	96.1	Pulse	0.30	3
2	Rh		1,545,893.73	1.19	92.9	Pulse	0.30	3
2	In		472,179.47	1.25	94.7	Pulse	0.30	3
2	Tb		1,934,449.51	0.93	98.1	Pulse	0.30	3
2	Ho		198,658.60	0.90	103.9	Pulse	0.30	3
2	Bi		1,292,960.22	0.50	96.6	Pulse	0.30	3
3	Sc		106,203.20	0.63	102.1	Pulse	0.30	3
3	Ge		72,319.16	1.15	102.9	Pulse	0.30	3
3	Ge		108,502.55	0.40	100.9	Pulse	0.30	3
3	Rh		1,280,811.23	0.30	97.7	Pulse	0.30	3
3	Tb		2,095,944.29	0.42	102.6	Pulse	0.30	3

Quantitation Report

File Name	102SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File	
Method Path	
Acq Time	4/22/2019 18:22
Sample Name	mp14424-s2
Sample Type	Sample
Comment	
Prep Dilution	5.000
Auto Dilution	N/A
Total Dilution	5.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/22/2019 18:08
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	73.994	ug/l	0.79	80,497.00	4.850E-02	Pulse	0.25	3
B			1	410.571	ug/l	3.09	305,585.23	1.841E-01	Pulse	0.15	3
Ca			1	27063.472	ug/l	1.09	4,237,145.67	1.511E+00	Pulse	0.10	3
Sr			1	310.174	ug/l	0.87	2,431,705.54	6.500E-01	Pulse	0.10	3
Mo			1	75.955	ug/l	0.15	124,145.67	3.318E-02	Pulse	0.10	3
Ag			1	75.685	ug/l	0.16	295,730.23	7.262E-02	Pulse	0.10	3
Sn			1	77.935	ug/l	1.24	197,705.57	4.855E-02	Pulse	0.10	3
Sb			1	72.740	ug/l	1.17	229,432.68	3.893E-02	Pulse	0.10	3
Ba			1	102.288	ug/l	1.55	126,523.59	2.147E-02	Pulse	0.10	3
Tl			1	76.920	ug/l	1.00	549,677.19	1.686E-01	Pulse	0.10	3
Pb			1	77.619	ug/l	0.91	192,328.27	5.897E-02	Pulse	0.10	3
Pb			1	79.804	ug/l	1.66	169,813.70	5.207E-02	Pulse	0.10	3
Pb			1	78.647	ug/l	0.59	770,929.90	2.364E-01	Pulse	0.10	3
Na			2	71855.990	ug/l	0.61	10,080,661.82	1.174E+02	Analog	0.30	3
Mg			2	12622.119	ug/l	1.03	809,671.63	9.428E+00	Pulse	0.30	3
Al			2	5441.596	ug/l	1.05	110,059.64	1.282E+00	Pulse	0.30	3
K			2	13248.927	ug/l	0.49	524,711.37	6.110E+00	Pulse	0.30	3
Ca			2	28347.676	ug/l	0.42	63,096.43	7.347E-01	Pulse	0.30	3
Ti			2	72.443	ug/l	4.37	1,408.97	1.641E-02	Pulse	0.30	3
V			2	77.143	ug/l	0.82	51,235.64	5.966E-01	Pulse	0.30	3
Cr			2	80.276	ug/l	1.12	69,643.04	8.110E-01	Pulse	0.30	3
Mn			2	102.086	ug/l	1.40	40,490.73	4.715E-01	Pulse	0.30	3
Fe			2	3955.336	ug/l	0.36	2,640,133.09	3.074E+01	Pulse	0.30	3
Co			2	78.438	ug/l	0.34	118,361.28	1.378E+00	Pulse	0.30	3
Ni			2	78.549	ug/l	0.89	32,580.03	3.794E-01	Pulse	0.30	3
Cu			2	81.492	ug/l	1.55	94,691.36	1.103E+00	Pulse	0.30	3
Zn			2	91.255	ug/l	0.41	12,766.21	1.487E-01	Pulse	0.30	3
As			2	73.429	ug/l	1.38	5,605.65	6.528E-02	Pulse	1.00	3
Cd			2	76.106	ug/l	2.15	14,744.34	3.155E-02	Pulse	0.30	3
Sn			2	76.647	ug/l	1.13	31,049.50	6.644E-02	Pulse	0.30	3
Se			3	362.499	ug/l	1.07	5,961.28	5.522E-02	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,659,625.10	0.37	95.1	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,803,693.71	0.83	94.1	Pulse	0.10	3
1	Ge		570,152.23	0.56	96.3	Pulse	0.10	3
1	Ge		790,385.48	1.10	95.4	Pulse	0.10	3
1	Rh		3,741,368.38	1.44	94.3	Pulse	0.10	3
1	In		4,072,385.38	1.19	97.2	Pulse	0.10	3
1	Tb		5,893,361.16	0.48	105.3	Analog	0.10	3
1	Ho		571,206.80	1.28	108.4	Pulse	0.10	3
1	Bi		3,261,280.37	0.89	100.0	Pulse	0.10	3
2	Sc		85,881.88	0.76	97.0	Pulse	0.30	3
2	Ge		52,746.05	1.28	96.4	Pulse	0.30	3
2	Ge		79,704.37	0.47	96.2	Pulse	0.30	3
2	Rh		1,542,948.34	0.53	92.7	Pulse	0.30	3
2	In		467,342.74	1.11	93.7	Pulse	0.30	3
2	Tb		1,915,356.94	0.53	97.1	Pulse	0.30	3
2	Ho		196,360.89	0.66	102.7	Pulse	0.30	3
2	Bi		1,282,928.94	0.20	95.9	Pulse	0.30	3
3	Sc		105,508.92	0.73	101.5	Pulse	0.30	3
3	Ge		71,343.77	0.27	101.5	Pulse	0.30	3
3	Ge		107,952.95	0.87	100.4	Pulse	0.30	3
3	Rh		1,268,634.39	0.38	96.8	Pulse	0.30	3
3	Tb		2,077,521.72	0.92	101.7	Pulse	0.30	3

Quantitation Report

File Name	103SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File	
Method Path	
Acq Time	4/22/2019 18:27
Sample Name	rinseconf
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/22/2019 18:08
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.002	ug/l	168.42	26.67	1.569E-05	Pulse	0.25	3
B			1	8.463	ug/l	3.00	33,255.07	1.951E-02	Pulse	0.15	3
Ca			1	1.595	ug/l	7.61	17,619.99	6.135E-03	Pulse	0.10	3
Sr			1	0.018	ug/l	6.91	1,123.42	2.893E-04	Pulse	0.10	3
Mo			1	0.013	ug/l	61.92	150.00	3.867E-05	Pulse	0.10	3
Ag			1	0.007	ug/l	34.12	156.67	3.735E-05	Pulse	0.10	3
Sn			1	0.842	ug/l	2.45	5,344.46	1.272E-03	Pulse	0.10	3
Sb			1	0.018	ug/l	16.73	490.03	8.108E-05	Pulse	0.10	3
Ba			1	0.008	ug/l	75.86	93.34	1.547E-05	Pulse	0.10	3
Tl			1	0.005	ug/l	32.19	593.37	1.787E-04	Pulse	0.10	3
Pb			1	-0.002	ug/l	-188.00	290.01	8.734E-05	Pulse	0.10	3
Pb			1	-0.007	ug/l	-41.87	223.34	6.723E-05	Pulse	0.10	3
Pb			1	-0.002	ug/l	-114.36	1,096.73	3.303E-04	Pulse	0.10	3
Na			2	26.088	ug/l	0.21	29,093.87	3.286E-01	Pulse	0.30	3
Mg			2	0.294	ug/l	27.90	290.01	3.274E-03	Pulse	0.30	3
Al			2	0.148	ug/l	97.18	97.78	1.104E-03	Pulse	0.30	3
K			2	5.221	ug/l	16.04	6,404.63	7.233E-02	Pulse	0.30	3
Ca			2	3.525	ug/l	101.51	81.11	9.186E-04	Pulse	0.30	3
Ti			2	0.000	ug/l	18392.91	2.22	2.484E-05	Pulse	0.30	3
V			2	0.004	ug/l	205.08	106.67	1.205E-03	Pulse	0.30	3
Cr			2	-0.013	ug/l	-21.66	398.90	4.505E-03	Pulse	0.30	3
Mn			2	-0.003	ug/l	-40.59	51.11	5.774E-04	Pulse	0.30	3
Fe			2	-0.132	ug/l	-16.34	2,530.23	2.858E-02	Pulse	0.30	3
Co			2	0.001	ug/l	281.65	76.67	8.647E-04	Pulse	0.30	3
Ni			2	0.004	ug/l	165.16	54.44	6.144E-04	Pulse	0.30	3
Cu			2	-0.100	ug/l	-13.78	886.70	1.001E-02	Pulse	0.30	3
Zn			2	0.262	ug/l	26.43	380.01	4.295E-03	Pulse	0.30	3
As			2	0.003	ug/l	62.81	4.67	5.275E-05	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	0.001	ug/l	136.91	7.76	1.581E-05	Pulse	0.30	3
Sn			2	0.203	ug/l	16.52	834.48	1.701E-03	Pulse	0.30	3
Se			3	-0.004	ug/l	-283.31	6.93	6.334E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,704,835.14	1.27	97.7	Pulse	0.10	3
1	Sc		2,872,225.48	0.80	96.4	Pulse	0.10	3
1	Ge		573,998.56	0.46	96.9	Pulse	0.10	3
1	Ge		808,373.71	0.56	97.6	Pulse	0.10	3
1	Rh		3,883,200.88	0.37	97.9	Pulse	0.10	3
1	In		4,200,223.64	1.06	100.2	Pulse	0.10	3
1	Tb		6,046,564.91	0.98	108.1	Analog	0.10	3
1	Ho		538,733.16	1.62	102.2	Pulse	0.10	3
1	Bi		3,320,139.95	0.59	101.9	Pulse	0.10	3
2	Sc		88,538.85	0.97	100.0	Pulse	0.30	3
2	Ge		54,189.59	0.60	99.1	Pulse	0.30	3
2	Ge		82,336.33	0.69	99.3	Pulse	0.30	3
2	Rh		1,611,266.78	0.77	96.8	Pulse	0.30	3
2	In		490,667.89	0.59	98.4	Pulse	0.30	3
2	Tb		1,954,333.53	0.22	99.1	Pulse	0.30	3
2	Ho		188,655.93	0.14	98.7	Pulse	0.30	3
2	Bi		1,327,911.51	0.65	99.3	Pulse	0.30	3
3	Sc		105,845.18	1.49	101.8	Pulse	0.30	3
3	Ge		71,370.35	1.18	101.5	Pulse	0.30	3
3	Ge		109,367.86	0.95	101.7	Pulse	0.30	3
3	Rh		1,316,406.16	0.70	100.4	Pulse	0.30	3
3	Tb		2,095,968.53	0.50	102.6	Pulse	0.30	3

Quantitation Report

File Name	104SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File	
Method Path	
Acq Time	4/22/2019 18:32
Sample Name	jc86711-6
Sample Type	Sample
Comment	wfb
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/22/2019 18:08
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.038	ug/l	44.42	118.67	7.213E-05	Pulse	0.25	3
B			1	18.911	ug/l	1.67	35,780.30	2.173E-02	Pulse	0.15	3
Ca			1	14.984	ug/l	3.70	21,270.97	7.775E-03	Pulse	0.10	3
Sr			1	0.616	ug/l	1.91	12,471.93	3.333E-03	Pulse	0.10	3
Mo			1	0.076	ug/l	34.97	346.68	9.228E-05	Pulse	0.10	3
Ag			1	0.020	ug/l	27.37	206.67	5.093E-05	Pulse	0.10	3
Sn			1	2.422	ug/l	0.64	9,980.12	2.457E-03	Pulse	0.10	3
Sb			1	0.103	ug/l	19.28	1,006.74	1.719E-04	Pulse	0.10	3
Ba			1	0.813	ug/l	1.95	2,536.95	4.331E-04	Pulse	0.10	3
Tl			1	0.014	ug/l	21.18	646.70	1.962E-04	Pulse	0.10	3
Pb			1	0.015	ug/l	83.69	413.36	1.253E-04	Pulse	0.10	3
Pb			1	0.005	ug/l	36.22	323.35	9.815E-05	Pulse	0.10	3
Pb			1	0.012	ug/l	39.64	1,476.75	4.482E-04	Pulse	0.10	3
Na			2	61.987	ug/l	4.48	31,053.50	3.686E-01	Pulse	0.30	3
Mg			2	0.941	ug/l	38.46	331.12	3.933E-03	Pulse	0.30	3
Al			2	23.879	ug/l	3.86	1,262.29	1.498E-02	Pulse	0.30	3
K			2	10.094	ug/l	10.33	6,060.06	7.193E-02	Pulse	0.30	3
Ca			2	18.521	ug/l	10.71	140.01	1.661E-03	Pulse	0.30	3
Ti			2	0.120	ug/l	88.82	7.78	9.228E-05	Pulse	0.30	3
V			2	0.154	ug/l	27.30	340.01	4.038E-03	Pulse	0.30	3
Cr			2	0.558	ug/l	0.37	1,614.54	1.916E-02	Pulse	0.30	3
Mn			2	0.113	ug/l	34.74	163.34	1.940E-03	Pulse	0.30	3
Fe			2	8.381	ug/l	2.09	16,545.05	1.964E-01	Pulse	0.30	3
Co			2	0.026	ug/l	24.49	162.23	1.927E-03	Pulse	0.30	3
Ni			2	0.309	ug/l	12.69	358.90	4.258E-03	Pulse	0.30	3
Cu			2	0.439	ug/l	12.06	2,638.02	3.130E-02	Pulse	0.30	3
Zn			2	1.461	ug/l	5.60	678.91	8.057E-03	Pulse	0.30	3
As			2	0.075	ug/l	76.84	17.67	2.091E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	-0.006	ug/l	-0.23	3.31	7.152E-06	Pulse	0.30	3
Sn			2	1.164	ug/l	4.22	1,537.87	3.323E-03	Pulse	0.30	3
Se			3	0.085	ug/l	61.37	10.93	9.877E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,646,474.22	0.89	94.4	Pulse	0.10	3
1	Sc		2,735,810.79	0.54	91.8	Pulse	0.10	3
1	Ge		565,328.87	0.95	95.4	Pulse	0.10	3
1	Ge		780,562.78	0.70	94.3	Pulse	0.10	3
1	Rh		3,742,940.05	1.83	94.4	Pulse	0.10	3
1	In		4,062,961.24	1.17	97.0	Pulse	0.10	3
1	Tb		5,859,147.20	1.75	104.7	Analog	0.10	3
1	Ho		530,258.92	1.41	100.6	Pulse	0.10	3
1	Bi		3,294,190.06	1.11	101.1	Pulse	0.10	3
2	Sc		84,255.88	0.87	95.2	Pulse	0.30	3
2	Ge		52,883.17	1.17	96.7	Pulse	0.30	3
2	Ge		78,796.69	0.91	95.1	Pulse	0.30	3
2	Rh		1,555,714.94	0.74	93.5	Pulse	0.30	3
2	In		462,836.72	0.23	92.8	Pulse	0.30	3
2	Tb		1,889,979.85	0.19	95.8	Pulse	0.30	3
2	Ho		182,038.07	0.38	95.2	Pulse	0.30	3
2	Bi		1,295,572.13	0.96	96.8	Pulse	0.30	3
3	Sc		105,873.07	0.98	101.8	Pulse	0.30	3
3	Ge		72,508.79	0.27	103.2	Pulse	0.30	3
3	Ge		110,669.82	0.16	102.9	Pulse	0.30	3
3	Rh		1,302,532.80	0.70	99.4	Pulse	0.30	3
3	Tb		2,090,567.42	0.30	102.4	Pulse	0.30	3

Quantitation Report

File Name	105SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File	
Method Path	
Acq Time	4/22/2019 18:37
Sample Name	rinseconf
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/22/2019 18:08
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	-0.002	ug/l	-54.56	6.67	3.865E-06	Pulse	0.25	3
B			1	5.798	ug/l	3.21	23,323.17	1.355E-02	Pulse	0.15	3
Ca			1	0.209	ug/l	298.25	16,692.34	5.749E-03	Pulse	0.10	3
Sr			1	0.010	ug/l	11.16	833.38	2.117E-04	Pulse	0.10	3
Mo			1	0.007	ug/l	78.93	100.01	2.540E-05	Pulse	0.10	3
Ag			1	0.004	ug/l	65.99	100.00	2.357E-05	Pulse	0.10	3
Sn			1	0.813	ug/l	3.15	5,004.30	1.181E-03	Pulse	0.10	3
Sb			1	0.005	ug/l	45.98	283.35	4.743E-05	Pulse	0.10	3
Ba			1	0.004	ug/l	119.24	63.33	1.057E-05	Pulse	0.10	3
Tl			1	0.000	ug/l	-440.97	390.02	1.171E-04	Pulse	0.10	3
Pb			1	-0.008	ug/l	-34.47	223.34	6.701E-05	Pulse	0.10	3
Pb			1	-0.012	ug/l	-48.22	166.68	4.998E-05	Pulse	0.10	3
Pb			1	-0.008	ug/l	-6.92	780.04	2.342E-04	Pulse	0.10	3
Na			2	22.965	ug/l	2.32	27,059.47	3.031E-01	Pulse	0.30	3
Mg			2	0.157	ug/l	88.10	246.67	2.764E-03	Pulse	0.30	3
Al			2	-0.030	ug/l	-643.38	80.00	8.947E-04	Pulse	0.30	3
K			2	4.528	ug/l	20.40	6,314.60	7.074E-02	Pulse	0.30	3
Ca			2	2.775	ug/l	10.70	73.33	8.215E-04	Pulse	0.30	3
Ti			2	-0.011	ug/l	-175.25	1.11	1.238E-05	Pulse	0.30	3
V			2	-0.006	ug/l	-80.46	74.45	8.328E-04	Pulse	0.30	3
Cr			2	-0.010	ug/l	-81.55	417.79	4.677E-03	Pulse	0.30	3
Mn			2	-0.011	ug/l	-86.42	35.56	3.979E-04	Pulse	0.30	3
Fe			2	-0.220	ug/l	-16.50	2,247.96	2.517E-02	Pulse	0.30	3
Co			2	0.000	ug/l	336.44	73.33	8.223E-04	Pulse	0.30	3
Ni			2	-0.009	ug/l	-58.72	28.89	3.239E-04	Pulse	0.30	3
Cu			2	-0.088	ug/l	-5.71	966.71	1.083E-02	Pulse	0.30	3
Zn			2	0.322	ug/l	25.44	426.68	4.781E-03	Pulse	0.30	3
As			2	0.005	ug/l	78.58	5.67	6.350E-05	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	-0.003	ug/l	-106.23	3.33	6.700E-06	Pulse	0.30	3
Sn			2	0.209	ug/l	20.56	856.71	1.728E-03	Pulse	0.30	3
Se			3	-0.030	ug/l	-33.60	4.73	4.366E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,721,108.10	0.98	98.6	Pulse	0.10	3
1	Sc		2,903,426.52	0.77	97.5	Pulse	0.10	3
1	Ge		583,713.26	1.32	98.5	Pulse	0.10	3
1	Ge		813,184.57	0.99	98.2	Pulse	0.10	3
1	Rh		3,937,181.81	0.30	99.2	Pulse	0.10	3
1	In		4,238,515.06	0.56	101.2	Pulse	0.10	3
1	Tb		5,977,398.66	0.96	106.8	Analog	0.10	3
1	Ho		539,798.49	1.41	102.4	Pulse	0.10	3
1	Bi		3,330,827.14	0.70	102.2	Pulse	0.10	3
2	Sc		89,278.58	0.93	100.9	Pulse	0.30	3
2	Ge		55,432.63	0.48	101.3	Pulse	0.30	3
2	Ge		83,189.37	1.87	100.4	Pulse	0.30	3
2	Rh		1,623,902.64	0.78	97.6	Pulse	0.30	3
2	In		495,774.32	0.42	99.4	Pulse	0.30	3
2	Tb		1,968,981.38	0.79	99.8	Pulse	0.30	3
2	Ho		190,471.59	0.21	99.6	Pulse	0.30	3
2	Bi		1,336,843.59	0.21	99.9	Pulse	0.30	3
3	Sc		106,120.31	0.15	102.1	Pulse	0.30	3
3	Ge		71,444.26	0.29	101.6	Pulse	0.30	3
3	Ge		108,421.53	0.54	100.8	Pulse	0.30	3
3	Rh		1,315,634.39	0.77	100.4	Pulse	0.30	3
3	Tb		2,093,248.46	0.96	102.5	Pulse	0.30	3

Quantitation Report

File Name	106_CCV.d
File Path	C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File	
Method Path	
Acq Time	4/22/2019 18:42
Sample Name	CCVA
Sample Type	CCV
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/22/2019 18:08
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	49.865	ug/l	0.29	274,498.32	1.634E-01	Pulse	0.25	3
B			1	103.959	ug/l	0.87	391,341.52	2.330E-01	Pulse	0.15	3
Ca			1	5141.239	ug/l	0.54	4,121,018.06	1.436E+00	Pulse	0.10	3
Sr			1	52.359	ug/l	1.18	2,086,673.72	5.486E-01	Pulse	0.10	3
Mo			1	50.587	ug/l	1.29	420,177.86	1.105E-01	Pulse	0.10	3
Ag			1	49.341	ug/l	0.38	968,964.57	2.367E-01	Pulse	0.10	3
Sn			1	49.624	ug/l	1.31	645,448.32	1.577E-01	Pulse	0.10	3
Sb			1	49.560	ug/l	0.63	773,272.83	1.325E-01	Pulse	0.10	3
Ba			1	48.643	ug/l	0.22	297,770.29	5.104E-02	Pulse	0.10	3
Tl			1	50.510	ug/l	0.32	1,788,826.07	5.531E-01	Pulse	0.10	3
Pb			1	50.142	ug/l	0.16	615,337.06	1.903E-01	Pulse	0.10	3
Pb			1	51.761	ug/l	0.77	545,487.52	1.687E-01	Pulse	0.10	3
Pb			1	50.838	ug/l	0.08	2,468,362.45	7.632E-01	Pulse	0.10	3
Na			2	5078.861	ug/l	0.75	3,650,437.22	4.156E+01	Pulse	0.30	3
Mg			2	5148.785	ug/l	0.75	1,688,959.79	1.923E+01	Pulse	0.30	3
Al			2	5007.945	ug/l	0.61	517,720.47	5.894E+00	Pulse	0.30	3
K			2	5172.556	ug/l	0.57	1,042,613.29	1.187E+01	Pulse	0.30	3
Ca			2	5418.691	ug/l	1.31	61,682.37	7.022E-01	Pulse	0.30	3
Ti			2	48.263	ug/l	2.14	4,796.29	5.460E-02	Pulse	0.30	3
V			2	50.404	ug/l	0.14	170,995.08	1.947E+00	Pulse	0.30	3
Cr			2	49.742	ug/l	1.16	219,751.31	2.502E+00	Pulse	0.30	3
Mn			2	50.483	ug/l	0.28	102,319.00	1.165E+00	Pulse	0.30	3
Fe			2	5219.519	ug/l	0.91	17,801,056.52	2.026E+02	Analog	0.30	3
Co			2	49.177	ug/l	0.51	379,357.46	4.319E+00	Pulse	0.30	3
Ni			2	48.694	ug/l	1.30	103,194.56	1.175E+00	Pulse	0.30	3
Cu			2	49.128	ug/l	0.93	289,010.10	3.290E+00	Pulse	0.30	3
Zn			2	49.868	ug/l	2.02	35,343.70	4.024E-01	Pulse	0.30	3
As			2	49.112	ug/l	0.38	19,167.25	2.182E-01	Pulse	1.00	3
Cd			2	50.268	ug/l	1.62	50,299.43	1.042E-01	Pulse	0.30	3
Sn			2	49.503	ug/l	0.56	102,705.83	2.127E-01	Pulse	0.30	3
Se			3	199.378	ug/l	0.29	16,291.61	1.518E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,679,799.57	0.51	96.3	Pulse	0.10	3
1	Sc		2,870,445.89	0.36	96.3	Pulse	0.10	3
1	Ge		580,292.35	0.62	98.0	Pulse	0.10	3

Quantitation Report

1	Ge		804,907.75	0.31	97.2	Pulse	0.10	3
1	Rh		3,803,707.34	1.32	95.9	Pulse	0.10	3
1	In		4,093,673.07	0.77	97.7	Pulse	0.10	3
1	Tb		5,834,579.50	1.37	104.3	Analog	0.10	3
1	Ho		536,883.68	0.38	101.9	Pulse	0.10	3
1	Bi		3,234,035.37	1.06	99.2	Pulse	0.10	3
2	Sc		87,842.82	0.23	99.2	Pulse	0.30	3
2	Ge		53,636.44	1.50	98.1	Pulse	0.30	3
2	Ge		81,526.48	0.14	98.4	Pulse	0.30	3
2	Rh		1,568,425.98	0.73	94.2	Pulse	0.30	3
2	In		482,844.28	0.77	96.8	Pulse	0.30	3
2	Tb		1,948,938.67	0.63	98.8	Pulse	0.30	3
2	Ho		186,771.60	0.77	97.7	Pulse	0.30	3
2	Bi		1,285,569.08	0.52	96.1	Pulse	0.30	3
3	Sc		105,902.33	0.73	101.8	Pulse	0.30	3
3	Ge		70,510.23	0.62	100.3	Pulse	0.30	3
3	Ge		107,356.08	0.48	99.9	Pulse	0.30	3
3	Rh		1,268,129.01	0.48	96.7	Pulse	0.30	3
3	Tb		2,058,884.08	0.59	100.8	Pulse	0.30	3

Quantitation Report

File Name	107_CCB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File	
Method Path	
Acq Time	4/22/2019 18:47
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/22/2019 18:08
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.005	ug/l	55.55	46.67	2.755E-05	Pulse	0.25	3
B			1	7.490	ug/l	1.54	29,372.41	1.734E-02	Pulse	0.15	3
Ca			1	-0.532	ug/l	-95.14	15,841.50	5.543E-03	Pulse	0.10	3
Sr			1	0.009	ug/l	47.95	793.39	2.050E-04	Pulse	0.10	3
Mo			1	0.072	ug/l	7.97	643.37	1.663E-04	Pulse	0.10	3
Ag			1	0.013	ug/l	22.38	270.01	6.539E-05	Pulse	0.10	3
Sn			1	0.837	ug/l	2.38	5,201.05	1.258E-03	Pulse	0.10	3
Sb			1	0.145	ug/l	9.25	2,470.29	4.219E-04	Pulse	0.10	3
Ba			1	0.011	ug/l	83.21	106.67	1.820E-05	Pulse	0.10	3
Tl			1	0.018	ug/l	7.29	1,053.41	3.192E-04	Pulse	0.10	3
Pb			1	0.006	ug/l	109.09	396.69	1.202E-04	Pulse	0.10	3
Pb			1	0.002	ug/l	106.31	320.02	9.699E-05	Pulse	0.10	3
Pb			1	0.008	ug/l	6.58	1,573.43	4.768E-04	Pulse	0.10	3
Na			2	20.694	ug/l	3.39	25,215.57	2.846E-01	Pulse	0.30	3
Mg			2	0.407	ug/l	24.88	327.79	3.698E-03	Pulse	0.30	3
Al			2	0.383	ug/l	41.69	122.23	1.381E-03	Pulse	0.30	3
K			2	3.954	ug/l	8.69	6,153.43	6.943E-02	Pulse	0.30	3
Ca			2	2.233	ug/l	42.00	66.66	7.512E-04	Pulse	0.30	3
Ti			2	-0.022	ug/l	0.00	0.00	0.000E+00	Pulse	0.30	3
V			2	0.003	ug/l	187.49	102.23	1.155E-03	Pulse	0.30	3
Cr			2	-0.005	ug/l	-220.93	436.68	4.926E-03	Pulse	0.30	3
Mn			2	0.003	ug/l	377.89	62.22	7.041E-04	Pulse	0.30	3
Fe			2	0.577	ug/l	11.07	4,974.14	5.612E-02	Pulse	0.30	3
Co			2	0.006	ug/l	72.19	113.33	1.279E-03	Pulse	0.30	3
Ni			2	0.000	ug/l	4710.05	47.78	5.369E-04	Pulse	0.30	3
Cu			2	-0.039	ug/l	-48.83	1,250.06	1.411E-02	Pulse	0.30	3
Zn			2	0.096	ug/l	132.22	262.23	2.963E-03	Pulse	0.30	3
As			2	0.007	ug/l	76.44	6.33	7.126E-05	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	0.006	ug/l	87.31	12.17	2.473E-05	Pulse	0.30	3
Sn			2	0.237	ug/l	12.32	906.70	1.846E-03	Pulse	0.30	3
Se			3	0.054	ug/l	39.14	11.53	1.078E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,694,321.70	0.20	97.1	Pulse	0.10	3
1	Sc		2,857,870.37	1.26	95.9	Pulse	0.10	3
1	Ge		575,984.35	0.21	97.2	Pulse	0.10	3
1	Ge		802,957.57	0.35	97.0	Pulse	0.10	3
1	Rh		3,869,747.65	0.36	97.5	Pulse	0.10	3
1	In		4,132,333.90	0.49	98.6	Pulse	0.10	3
1	Tb		5,856,945.33	0.71	104.7	Analog	0.10	3
1	Ho		532,596.64	0.82	101.1	Pulse	0.10	3
1	Bi		3,299,671.20	0.90	101.2	Pulse	0.10	3
2	Sc		88,620.40	1.37	100.1	Pulse	0.30	3
2	Ge		54,660.01	1.19	99.9	Pulse	0.30	3
2	Ge		82,086.09	0.15	99.0	Pulse	0.30	3
2	Rh		1,619,913.17	0.47	97.3	Pulse	0.30	3
2	In		491,281.51	0.70	98.5	Pulse	0.30	3
2	Tb		1,949,024.23	1.07	98.8	Pulse	0.30	3
2	Ho		187,182.80	0.92	97.9	Pulse	0.30	3
2	Bi		1,319,349.98	1.16	98.6	Pulse	0.30	3
3	Sc		104,193.16	1.01	100.2	Pulse	0.30	3
3	Ge		70,383.04	0.95	100.1	Pulse	0.30	3
3	Ge		106,996.44	0.50	99.5	Pulse	0.30	3
3	Rh		1,297,163.94	0.66	99.0	Pulse	0.30	3
3	Tb		2,050,245.75	0.43	100.4	Pulse	0.30	3

Quantitation Report

File Name	108SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File	
Method Path	
Acq Time	4/22/2019 18:52
Sample Name	jc86645-4
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/22/2019 18:08
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.029	ug/l	6.87	94.67	5.810E-05	Pulse	0.25	3
B			1	24939.594	ug/l	1.58	45,398,260.42	2.787E+01	Analog	0.15	3
Ca			1	1280.263	ug/l	0.56	506,398.94	1.837E-01	Pulse	0.10	3
Sr			1	8.255	ug/l	1.52	154,777.49	4.335E-02	Pulse	0.10	3
Mo			1	1.417	ug/l	6.35	5,557.83	1.556E-03	Pulse	0.10	3
Ag			1	0.030	ug/l	25.37	300.01	7.633E-05	Pulse	0.10	3
Sn			1	2.034	ug/l	3.52	7,221.93	1.835E-03	Pulse	0.10	3
Sb			1	0.264	ug/l	7.33	2,233.57	3.873E-04	Pulse	0.10	3
Ba			1	18.440	ug/l	0.58	55,809.14	9.679E-03	Pulse	0.10	3
Tl			1	0.204	ug/l	1.83	3,910.66	1.236E-03	Pulse	0.10	3
Pb			1	0.686	ug/l	3.31	4,424.27	1.398E-03	Pulse	0.10	3
Pb			1	0.710	ug/l	3.98	3,944.02	1.246E-03	Pulse	0.10	3
Pb			1	0.695	ug/l	0.70	17,631.54	5.571E-03	Pulse	0.10	3
Na			2	111221.639	ug/l	0.91	38,448,850.69	4.539E+02	Analog	0.30	3
Mg			2	462.872	ug/l	1.49	73,390.13	8.663E-01	Pulse	0.30	3
Al			2	680.412	ug/l	5.58	33,989.05	4.012E-01	Pulse	0.30	3
K			2	882.880	ug/l	0.35	90,491.97	1.068E+00	Pulse	0.30	3
Ca			2	1266.885	ug/l	1.56	6,988.20	8.250E-02	Pulse	0.30	3
Ti			2	12.149	ug/l	23.09	583.45	6.894E-03	Pulse	0.30	3
V			2	1.162	ug/l	3.21	1,989.04	2.348E-02	Pulse	0.30	3
Cr			2	8.749	ug/l	0.70	19,036.71	2.247E-01	Pulse	0.30	3
Mn			2	6.533	ug/l	2.95	6,435.77	7.597E-02	Pulse	0.30	3
Fe			2	864.674	ug/l	0.49	1,424,596.96	1.682E+01	Pulse	0.30	3
Co			2	0.849	ug/l	5.21	3,224.80	3.807E-02	Pulse	0.30	3
Ni			2	10.981	ug/l	2.54	11,260.68	1.329E-01	Pulse	0.30	3
Cu			2	1.149	ug/l	2.37	4,656.27	5.497E-02	Pulse	0.30	3
Zn			2	70.292	ug/l	0.53	24,078.87	2.842E-01	Pulse	0.30	3
As			2	0.355	ug/l	19.69	70.33	8.308E-04	Pulse	1.00	3
Cd			2	0.027	ug/l	99.59	18.62	4.085E-05	Pulse	0.30	3
Sn			2	0.815	ug/l	8.84	1,174.51	2.576E-03	Pulse	0.30	3
Se			3	2.963	ug/l	2.93	129.40	1.194E-03	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,628,869.74	0.95	93.4	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,756,039.12	1.17	92.5	Pulse	0.10	3
1	Ge		555,858.75	1.30	93.8	Pulse	0.10	3
1	Ge		773,505.25	1.28	93.4	Pulse	0.10	3
1	Rh		3,570,590.57	0.65	90.0	Pulse	0.10	3
1	In		3,935,033.90	0.76	93.9	Pulse	0.10	3
1	Tb		5,765,860.33	0.21	103.1	Analog	0.10	3
1	Ho		523,432.40	1.29	99.3	Pulse	0.10	3
1	Bi		3,164,986.10	0.62	97.1	Pulse	0.10	3
2	Sc		84,715.88	0.64	95.7	Pulse	0.30	3
2	Ge		52,294.48	0.94	95.6	Pulse	0.30	3
2	Ge		78,563.50	0.45	94.8	Pulse	0.30	3
2	Rh		1,485,837.44	0.32	89.3	Pulse	0.30	3
2	In		455,829.32	0.85	91.4	Pulse	0.30	3
2	Tb		1,879,466.39	0.32	95.3	Pulse	0.30	3
2	Ho		182,733.63	0.84	95.6	Pulse	0.30	3
2	Bi		1,244,177.48	0.68	93.0	Pulse	0.30	3
3	Sc		105,023.79	1.09	101.0	Pulse	0.30	3
3	Ge		71,735.61	0.52	102.1	Pulse	0.30	3
3	Ge		108,402.63	0.14	100.8	Pulse	0.30	3
3	Rh		1,237,458.94	0.19	94.4	Pulse	0.30	3
3	Tb		2,040,124.37	0.34	99.9	Pulse	0.30	3

Quantitation Report

File Name	109SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File	
Method Path	
Acq Time	4/22/2019 18:57
Sample Name	jc86645-7
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/22/2019 18:08
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.004	ug/l	156.30	28.00	1.769E-05	Pulse	0.25	3
B			1	1468.993	ug/l	0.20	2,597,391.98	1.642E+00	Pulse	0.15	3
Ca			1	166752.245	ug/l	0.90	62,548,770.73	2.320E+01	Analog	0.10	3
Sr			1	598.923	ug/l	2.14	10,918,707.34	3.137E+00	Analog	0.10	3
Mo			1	0.249	ug/l	1.66	980.07	2.816E-04	Pulse	0.10	3
Ag			1	0.015	ug/l	27.52	153.34	3.952E-05	Pulse	0.10	3
Sn			1	1.901	ug/l	2.50	6,271.51	1.621E-03	Pulse	0.10	3
Sb			1	0.144	ug/l	24.37	1,290.10	2.261E-04	Pulse	0.10	3
Ba			1	55.182	ug/l	1.37	165,306.04	2.895E-02	Pulse	0.10	3
Tl			1	0.009	ug/l	4.17	516.70	1.675E-04	Pulse	0.10	3
Pb			1	0.063	ug/l	26.26	663.38	2.152E-04	Pulse	0.10	3
Pb			1	0.069	ug/l	23.85	623.37	2.020E-04	Pulse	0.10	3
Pb			1	0.069	ug/l	8.70	2,693.53	8.733E-04	Pulse	0.10	3
Na			2	107736.826	ug/l	0.66	36,345,567.45	4.397E+02	Analog	0.30	3
Mg			2	7779.032	ug/l	1.12	1,200,753.04	1.453E+01	Pulse	0.30	3
Al			2	13.130	ug/l	4.14	715.58	8.655E-03	Pulse	0.30	3
K			2	2390.327	ug/l	0.93	230,555.43	2.789E+00	Pulse	0.30	3
Ca			2	167283.382	ug/l	0.13	895,507.36	1.083E+01	Pulse	0.30	3
Ti			2	0.171	ug/l	84.29	10.00	1.213E-04	Pulse	0.30	3
V			2	0.151	ug/l	8.61	328.89	3.977E-03	Pulse	0.30	3
Cr			2	26.180	ug/l	1.10	54,735.52	6.621E-01	Pulse	0.30	3
Mn			2	410.442	ug/l	0.59	391,279.87	4.733E+00	Pulse	0.30	3
Fe			2	17992.014	ug/l	0.63	28,871,628.85	3.492E+02	Analog	0.30	3
Co			2	0.429	ug/l	3.89	1,621.21	1.961E-02	Pulse	0.30	3
Ni			2	0.785	ug/l	17.37	826.70	1.000E-02	Pulse	0.30	3
Cu			2	0.506	ug/l	5.88	2,772.49	3.354E-02	Pulse	0.30	3
Zn			2	9.161	ug/l	2.86	3,220.35	3.895E-02	Pulse	0.30	3
As			2	0.688	ug/l	19.32	129.67	1.569E-03	Pulse	1.00	3
Cd			2	-0.003	ug/l	-135.23	4.39	9.828E-06	Pulse	0.30	3
Sn			2	0.707	ug/l	13.46	1,045.60	2.345E-03	Pulse	0.30	3
Se			3	0.122	ug/l	31.82	12.20	1.129E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,581,494.02	0.98	90.6	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,696,748.61	1.45	90.5	Pulse	0.10	3
1	Ge		545,189.69	0.99	92.0	Pulse	0.10	3
1	Ge		760,350.90	0.96	91.8	Pulse	0.10	3
1	Rh		3,481,124.32	2.13	87.8	Pulse	0.10	3
1	In		3,870,860.14	1.62	92.4	Pulse	0.10	3
1	Tb		5,709,996.37	0.47	102.1	Analog	0.10	3
1	Ho		522,796.82	1.06	99.2	Pulse	0.10	3
1	Bi		3,084,612.56	0.70	94.6	Pulse	0.10	3
2	Sc		82,670.08	0.61	93.4	Pulse	0.30	3
2	Ge		50,879.06	1.90	93.0	Pulse	0.30	3
2	Ge		76,970.37	1.71	92.9	Pulse	0.30	3
2	Rh		1,443,913.90	0.20	86.7	Pulse	0.30	3
2	In		445,910.98	0.36	89.4	Pulse	0.30	3
2	Tb		1,859,114.16	0.59	94.2	Pulse	0.30	3
2	Ho		180,268.45	0.87	94.3	Pulse	0.30	3
2	Bi		1,207,129.57	0.39	90.2	Pulse	0.30	3
3	Sc		105,792.67	1.10	101.7	Pulse	0.30	3
3	Ge		71,199.90	1.10	101.3	Pulse	0.30	3
3	Ge		107,993.24	0.90	100.4	Pulse	0.30	3
3	Rh		1,224,125.68	0.19	93.4	Pulse	0.30	3
3	Tb		2,045,159.71	0.68	100.1	Pulse	0.30	3

Quantitation Report

File Name	110SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File	
Method Path	
Acq Time	4/22/2019 19:02
Sample Name	jc86645-8
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/22/2019 18:08
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.006	ug/l	92.69	34.67	2.093E-05	Pulse	0.25	3
B			1	1188.937	ug/l	2.03	2,205,787.55	1.329E+00	Pulse	0.15	3
Ca			1	95.144	ug/l	3.25	53,534.95	1.892E-02	Pulse	0.10	3
Sr			1	0.545	ug/l	1.30	10,884.16	2.961E-03	Pulse	0.10	3
Mo			1	55.756	ug/l	0.81	223,799.30	6.089E-02	Pulse	0.10	3
Ag			1	0.020	ug/l	11.79	203.34	5.086E-05	Pulse	0.10	3
Sn			1	1.782	ug/l	4.25	5,724.62	1.430E-03	Pulse	0.10	3
Sb			1	0.482	ug/l	7.78	3,963.98	6.784E-04	Pulse	0.10	3
Ba			1	0.507	ug/l	42.44	1,591.55	2.723E-04	Pulse	0.10	3
Tl			1	0.003	ug/l	272.19	426.69	1.346E-04	Pulse	0.10	3
Pb			1	0.391	ug/l	8.51	2,657.01	8.384E-04	Pulse	0.10	3
Pb			1	0.394	ug/l	15.53	2,316.96	7.306E-04	Pulse	0.10	3
Pb			1	0.401	ug/l	5.12	10,671.91	3.366E-03	Pulse	0.10	3
Na			2	139243.845	ug/l	3.41	48,460,685.85	5.682E+02	Analog	0.30	3
Mg			2	40.327	ug/l	1.67	6,608.03	7.746E-02	Pulse	0.30	3
Al			2	302.681	ug/l	0.97	15,271.71	1.790E-01	Pulse	0.30	3
K			2	14751.786	ug/l	1.79	1,441,545.70	1.690E+01	Pulse	0.30	3
Ca			2	100.414	ug/l	11.37	594.46	6.964E-03	Pulse	0.30	3
Ti			2	1.018	ug/l	29.29	51.11	6.002E-04	Pulse	0.30	3
V			2	2814.892	ug/l	1.41	4,634,407.32	5.433E+01	Pulse	0.30	3
Cr			2	177.836	ug/l	1.87	381,116.33	4.468E+00	Pulse	0.30	3
Mn			2	2.196	ug/l	4.74	2,214.62	2.596E-02	Pulse	0.30	3
Fe			2	119.618	ug/l	1.76	200,929.94	2.355E+00	Pulse	0.30	3
Co			2	0.189	ug/l	12.74	774.47	9.085E-03	Pulse	0.30	3
Ni			2	4.269	ug/l	4.38	4,435.10	5.201E-02	Pulse	0.30	3
Cu			2	0.515	ug/l	10.05	2,888.06	3.383E-02	Pulse	0.30	3
Zn			2	3.832	ug/l	0.50	1,498.98	1.757E-02	Pulse	0.30	3
As			2	90.936	ug/l	2.29	17,231.41	2.020E-01	Pulse	1.00	3
Cd			2	-0.016	ug/l	-49.01	-1.83	-4.026E-06	Pulse	0.30	3
Sn			2	0.605	ug/l	15.78	967.82	2.126E-03	Pulse	0.30	3
Se			3	1.292	ug/l	7.05	60.27	5.579E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,659,393.59	0.63	95.1	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,829,388.81	1.46	95.0	Pulse	0.10	3
1	Ge		570,630.48	1.46	96.3	Pulse	0.10	3
1	Ge		790,994.57	0.92	95.5	Pulse	0.10	3
1	Rh		3,675,914.01	1.36	92.7	Pulse	0.10	3
1	In		4,000,002.25	0.83	95.5	Pulse	0.10	3
1	Tb		5,843,290.12	0.13	104.4	Analog	0.10	3
1	Ho		533,652.19	0.87	101.3	Pulse	0.10	3
1	Bi		3,169,964.33	0.45	97.2	Pulse	0.10	3
2	Sc		85,316.78	1.46	96.4	Pulse	0.30	3
2	Ge		52,004.73	0.34	95.1	Pulse	0.30	3
2	Ge		78,593.54	0.82	94.8	Pulse	0.30	3
2	Rh		1,514,541.01	0.49	91.0	Pulse	0.30	3
2	In		455,167.11	0.18	91.3	Pulse	0.30	3
2	Tb		1,894,208.19	0.81	96.0	Pulse	0.30	3
2	Ho		183,945.82	0.93	96.2	Pulse	0.30	3
2	Bi		1,237,126.48	0.02	92.5	Pulse	0.30	3
3	Sc		106,179.96	1.07	102.1	Pulse	0.30	3
3	Ge		70,846.96	0.48	100.8	Pulse	0.30	3
3	Ge		108,034.76	0.45	100.5	Pulse	0.30	3
3	Rh		1,255,273.87	0.46	95.8	Pulse	0.30	3
3	Tb		2,064,020.82	0.08	101.1	Pulse	0.30	3

Quantitation Report

File Name 111SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File
Method Path
Acq Time 4/22/2019 19:07
Sample Name jc86645-9
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/22/2019 18:08
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.017	ug/l	19.24	61.33	3.748E-05	Pulse	0.25	3
B			1	1454.037	ug/l	0.12	2,660,939.68	1.626E+00	Pulse	0.15	3
Ca			1	2126.933	ug/l	0.41	831,485.74	3.015E-01	Pulse	0.10	3
Sr			1	12.577	ug/l	0.35	243,935.37	6.599E-02	Pulse	0.10	3
Mo			1	0.972	ug/l	6.32	3,957.32	1.070E-03	Pulse	0.10	3
Ag			1	0.012	ug/l	41.60	133.34	3.301E-05	Pulse	0.10	3
Sn			1	2.056	ug/l	1.34	7,535.43	1.870E-03	Pulse	0.10	3
Sb			1	0.090	ug/l	9.71	900.06	1.545E-04	Pulse	0.10	3
Ba			1	29.428	ug/l	1.65	89,967.73	1.544E-02	Pulse	0.10	3
Tl			1	0.024	ug/l	2.91	813.39	2.508E-04	Pulse	0.10	3
Pb			1	0.166	ug/l	7.02	1,333.44	4.114E-04	Pulse	0.10	3
Pb			1	0.159	ug/l	22.17	1,130.22	3.478E-04	Pulse	0.10	3
Pb			1	0.166	ug/l	1.85	5,184.03	1.598E-03	Pulse	0.10	3
Na			2	46832.329	ug/l	0.83	15,911,502.15	1.912E+02	Analog	0.30	3
Mg			2	789.861	ug/l	1.03	122,897.81	1.477E+00	Pulse	0.30	3
Al			2	331.069	ug/l	9.33	16,276.01	1.957E-01	Pulse	0.30	3
K			2	602.238	ug/l	3.06	62,228.49	7.478E-01	Pulse	0.30	3
Ca			2	2144.374	ug/l	1.69	11,593.05	1.393E-01	Pulse	0.30	3
Ti			2	5.052	ug/l	23.73	240.01	2.881E-03	Pulse	0.30	3
V			2	0.693	ug/l	11.47	1,201.18	1.443E-02	Pulse	0.30	3
Cr			2	2535.660	ug/l	2.32	5,295,492.70	6.364E+01	Mix	0.30	3
Mn			2	7.684	ug/l	4.93	7,423.97	8.924E-02	Pulse	0.30	3
Fe			2	344.591	ug/l	0.16	559,446.52	6.722E+00	Pulse	0.30	3
Co			2	0.459	ug/l	6.99	1,743.45	2.095E-02	Pulse	0.30	3
Ni			2	4.433	ug/l	2.77	4,494.01	5.399E-02	Pulse	0.30	3
Cu			2	2.666	ug/l	0.72	8,781.33	1.055E-01	Pulse	0.30	3
Zn			2	8.900	ug/l	1.70	3,154.78	3.790E-02	Pulse	0.30	3
As			2	0.187	ug/l	21.38	38.00	4.573E-04	Pulse	1.00	3
Cd			2	0.074	ug/l	48.16	40.93	8.994E-05	Pulse	0.30	3
Sn			2	0.907	ug/l	5.34	1,260.07	2.773E-03	Pulse	0.30	3
Se			3	0.873	ug/l	10.38	43.47	3.985E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,636,833.13	0.80	93.8	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,757,880.27	1.07	92.6	Pulse	0.10	3
1	Ge		561,012.18	0.46	94.7	Pulse	0.10	3
1	Ge		785,483.51	1.69	94.9	Pulse	0.10	3
1	Rh		3,696,734.32	0.80	93.2	Pulse	0.10	3
1	In		4,029,730.78	1.01	96.2	Pulse	0.10	3
1	Tb		5,825,902.20	0.37	104.1	Analog	0.10	3
1	Ho		533,828.61	1.03	101.3	Pulse	0.10	3
1	Bi		3,243,097.45	1.76	99.5	Pulse	0.10	3
2	Sc		83,225.26	1.23	94.0	Pulse	0.30	3
2	Ge		51,710.56	1.61	94.5	Pulse	0.30	3
2	Ge		77,754.01	0.62	93.8	Pulse	0.30	3
2	Rh		1,512,122.02	0.64	90.8	Pulse	0.30	3
2	In		454,441.04	0.80	91.1	Pulse	0.30	3
2	Tb		1,882,153.05	0.26	95.4	Pulse	0.30	3
2	Ho		182,022.14	0.24	95.2	Pulse	0.30	3
2	Bi		1,254,571.13	0.23	93.8	Pulse	0.30	3
3	Sc		105,688.95	0.91	101.6	Pulse	0.30	3
3	Ge		71,858.22	0.20	102.2	Pulse	0.30	3
3	Ge		109,031.11	0.79	101.4	Pulse	0.30	3
3	Rh		1,273,745.54	0.13	97.2	Pulse	0.30	3
3	Tb		2,083,827.69	0.81	102.0	Pulse	0.30	3

Quantitation Report

File Name	112SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File	
Method Path	
Acq Time	4/22/2019 19:12
Sample Name	rinseconf
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/22/2019 18:08
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	-0.001	ug/l	-75.55	9.33	5.541E-06	Pulse	0.25	3
B			1	96.392	ug/l	0.40	363,793.68	2.161E-01	Pulse	0.15	3
Ca			1	5.350	ug/l	6.80	20,590.21	7.179E-03	Pulse	0.10	3
Sr			1	0.013	ug/l	29.68	926.73	2.368E-04	Pulse	0.10	3
Mo			1	0.008	ug/l	73.39	103.34	2.637E-05	Pulse	0.10	3
Ag			1	0.003	ug/l	14.56	80.00	1.904E-05	Pulse	0.10	3
Sn			1	0.802	ug/l	4.87	4,810.91	1.146E-03	Pulse	0.10	3
Sb			1	0.000	ug/l	1202.14	206.68	3.459E-05	Pulse	0.10	3
Ba			1	0.010	ug/l	44.70	103.34	1.728E-05	Pulse	0.10	3
Tl			1	-0.001	ug/l	-231.30	346.68	1.034E-04	Pulse	0.10	3
Pb			1	-0.012	ug/l	-3.72	166.68	4.970E-05	Pulse	0.10	3
Pb			1	-0.016	ug/l	-0.01	120.01	3.579E-05	Pulse	0.10	3
Pb			1	-0.011	ug/l	-5.32	653.37	1.948E-04	Pulse	0.10	3
Na			2	28.536	ug/l	0.34	30,609.97	3.486E-01	Pulse	0.30	3
Mg			2	0.173	ug/l	57.65	247.78	2.823E-03	Pulse	0.30	3
Al			2	-0.114	ug/l	-144.23	70.00	7.963E-04	Pulse	0.30	3
K			2	4.074	ug/l	30.36	6,120.08	6.971E-02	Pulse	0.30	3
Ca			2	2.402	ug/l	94.38	67.78	7.731E-04	Pulse	0.30	3
Ti			2	-0.022	ug/l	0.00	0.00	0.000E+00	Pulse	0.30	3
V			2	0.020	ug/l	34.18	161.11	1.836E-03	Pulse	0.30	3
Cr			2	0.092	ug/l	4.80	857.81	9.769E-03	Pulse	0.30	3
Mn			2	-0.001	ug/l	-300.01	54.44	6.203E-04	Pulse	0.30	3
Fe			2	-0.024	ug/l	-354.80	2,879.17	3.278E-02	Pulse	0.30	3
Co			2	0.001	ug/l	600.11	73.33	8.343E-04	Pulse	0.30	3
Ni			2	-0.003	ug/l	-90.13	40.00	4.556E-04	Pulse	0.30	3
Cu			2	-0.086	ug/l	-25.15	962.26	1.095E-02	Pulse	0.30	3
Zn			2	0.373	ug/l	13.70	455.56	5.189E-03	Pulse	0.30	3
As			2	0.003	ug/l	74.55	5.00	5.695E-05	Pulse	1.00	3
Cd			2	-0.002	ug/l	-104.38	4.44	9.158E-06	Pulse	0.30	3
Sn			2	0.201	ug/l	20.03	820.03	1.691E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	-0.035	ug/l	-56.05	4.33	3.981E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,683,795.00	0.50	96.5	Pulse	0.10	3
1	Sc		2,868,092.46	0.74	96.3	Pulse	0.10	3
1	Ge		578,269.43	1.18	97.6	Pulse	0.10	3
1	Ge		807,924.21	1.32	97.6	Pulse	0.10	3
1	Rh		3,917,313.69	1.08	98.7	Pulse	0.10	3
1	In		4,199,875.65	0.94	100.2	Pulse	0.10	3
1	Tb		5,976,904.70	0.62	106.8	Analog	0.10	3
1	Ho		544,159.89	0.32	103.3	Pulse	0.10	3
1	Bi		3,353,534.33	0.02	102.9	Pulse	0.10	3
2	Sc		87,814.02	0.68	99.2	Pulse	0.30	3
2	Ge		54,332.22	1.27	99.3	Pulse	0.30	3
2	Ge		81,709.66	1.47	98.6	Pulse	0.30	3
2	Rh		1,610,242.23	0.22	96.7	Pulse	0.30	3
2	In		485,054.39	0.40	97.3	Pulse	0.30	3
2	Tb		1,945,241.10	0.27	98.6	Pulse	0.30	3
2	Ho		188,672.68	0.39	98.7	Pulse	0.30	3
2	Bi		1,318,506.93	0.91	98.6	Pulse	0.30	3
3	Sc		106,508.49	1.29	102.4	Pulse	0.30	3
3	Ge		70,834.96	1.02	100.8	Pulse	0.30	3
3	Ge		108,963.93	0.99	101.3	Pulse	0.30	3
3	Rh		1,313,231.23	0.53	100.2	Pulse	0.30	3
3	Tb		2,084,925.89	0.25	102.1	Pulse	0.30	3

Quantitation Report

File Name	113SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File	
Method Path	
Acq Time	4/22/2019 19:17
Sample Name	jc86645-10
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/22/2019 18:08
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.127	ug/l	3.17	338.68	2.176E-04	Pulse	0.25	3
B			1	1370.151	ug/l	0.76	2,384,386.09	1.532E+00	Pulse	0.15	3
Ca			1	168.687	ug/l	2.99	77,658.93	2.915E-02	Pulse	0.10	3
Sr			1	31.554	ug/l	0.99	564,102.72	1.654E-01	Pulse	0.10	3
Mo			1	173.759	ug/l	0.07	647,128.78	1.897E-01	Pulse	0.10	3
Ag			1	0.031	ug/l	22.09	300.02	7.923E-05	Pulse	0.10	3
Sn			1	2.505	ug/l	1.90	9,816.70	2.589E-03	Pulse	0.10	3
Sb			1	0.264	ug/l	9.60	2,213.58	3.872E-04	Pulse	0.10	3
Ba			1	39.367	ug/l	2.03	118,096.63	2.066E-02	Pulse	0.10	3
Tl			1	0.273	ug/l	7.40	4,897.66	1.615E-03	Pulse	0.10	3
Pb			1	13.796	ug/l	1.12	79,608.01	2.626E-02	Pulse	0.10	3
Pb			1	13.252	ug/l	1.44	65,696.75	2.167E-02	Pulse	0.10	3
Pb			1	13.509	ug/l	0.52	308,350.43	1.017E-01	Pulse	0.10	3
Na			2	254266.900	ug/l	1.40	81,960,278.96	1.037E+03	Analog	0.30	3
Mg			2	491.437	ug/l	0.51	72,653.52	9.197E-01	Pulse	0.30	3
Al			2	6914.073	ug/l	0.83	321,433.59	4.069E+00	Pulse	0.30	3
K			2	6406.202	ug/l	0.89	582,457.27	7.373E+00	Pulse	0.30	3
Ca			2	251.779	ug/l	2.81	1,324.51	1.677E-02	Pulse	0.30	3
Ti			2	31.178	ug/l	6.99	1,394.53	1.765E-02	Pulse	0.30	3
V			2	43.068	ug/l	0.52	65,747.31	8.322E-01	Pulse	0.30	3
Cr			2	3093.579	ug/l	0.67	6,133,277.67	7.764E+01	Analog	0.30	3
Mn			2	3.578	ug/l	4.83	3,309.26	4.189E-02	Pulse	0.30	3
Fe			2	4241.673	ug/l	0.67	6,506,579.18	8.236E+01	Analog	0.30	3
Co			2	0.422	ug/l	5.34	1,526.75	1.933E-02	Pulse	0.30	3
Ni			2	3.548	ug/l	1.65	3,421.53	4.331E-02	Pulse	0.30	3
Cu			2	3.738	ug/l	0.57	11,156.12	1.412E-01	Pulse	0.30	3
Zn			2	6.871	ug/l	1.62	2,351.31	2.976E-02	Pulse	0.30	3
As			2	10.235	ug/l	1.90	1,799.11	2.277E-02	Pulse	1.00	3
Cd			2	-0.032	ug/l	-46.78	-8.52	-2.002E-05	Pulse	0.30	3
Sn			2	1.276	ug/l	5.30	1,520.10	3.563E-03	Pulse	0.30	3
Se			3	4.384	ug/l	0.48	176.33	1.734E-03	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,556,461.53	0.33	89.2	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,664,278.09	0.80	89.4	Pulse	0.10	3
1	Ge		527,321.95	0.70	89.0	Pulse	0.10	3
1	Ge		733,263.74	0.42	88.5	Pulse	0.10	3
1	Rh		3,410,808.07	0.98	86.0	Pulse	0.10	3
1	In		3,791,642.63	1.34	90.5	Pulse	0.10	3
1	Tb		5,717,663.67	0.77	102.2	Analog	0.10	3
1	Ho		518,840.12	0.97	98.5	Pulse	0.10	3
1	Bi		3,031,545.37	0.63	93.0	Pulse	0.10	3
2	Sc		79,000.34	0.29	89.2	Pulse	0.30	3
2	Ge		48,728.08	1.06	89.1	Pulse	0.30	3
2	Ge		73,274.81	0.73	88.4	Pulse	0.30	3
2	Rh		1,396,297.79	0.35	83.9	Pulse	0.30	3
2	In		426,621.31	0.85	85.6	Pulse	0.30	3
2	Tb		1,807,711.45	0.60	91.6	Pulse	0.30	3
2	Ho		176,698.12	0.23	92.4	Pulse	0.30	3
2	Bi		1,178,829.71	0.55	88.1	Pulse	0.30	3
3	Sc		101,254.55	0.51	97.4	Pulse	0.30	3
3	Ge		66,948.69	1.43	95.3	Pulse	0.30	3
3	Ge		101,679.79	1.06	94.6	Pulse	0.30	3
3	Rh		1,172,163.39	0.48	89.4	Pulse	0.30	3
3	Tb		1,998,609.29	0.29	97.9	Pulse	0.30	3

Quantitation Report

File Name	114SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File	
Method Path	
Acq Time	4/22/2019 19:22
Sample Name	jc86645-11
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/22/2019 18:08
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.048	ug/l	6.98	140.00	8.915E-05	Pulse	0.25	3
B			1	9997.165	ug/l	0.83	17,550,643.19	1.117E+01	Analog	0.15	3
Ca			1	2489.157	ug/l	1.10	930,672.64	3.519E-01	Pulse	0.10	3
Sr			1	16.005	ug/l	1.13	296,786.94	8.394E-02	Pulse	0.10	3
Mo			1	1.010	ug/l	6.83	3,930.64	1.112E-03	Pulse	0.10	3
Ag			1	0.012	ug/l	40.61	130.01	3.341E-05	Pulse	0.10	3
Sn			1	4.175	ug/l	0.47	20,534.31	5.267E-03	Pulse	0.10	3
Sb			1	0.063	ug/l	20.99	683.37	1.184E-04	Pulse	0.10	3
Ba			1	18.556	ug/l	2.47	56,232.75	9.740E-03	Pulse	0.10	3
Tl			1	0.215	ug/l	7.55	4,084.05	1.294E-03	Pulse	0.10	3
Pb			1	0.323	ug/l	5.68	2,236.91	7.090E-04	Pulse	0.10	3
Pb			1	0.304	ug/l	9.45	1,843.51	5.846E-04	Pulse	0.10	3
Pb			1	0.320	ug/l	4.56	8,691.32	2.756E-03	Pulse	0.10	3
Na			2	80778.861	ug/l	1.90	26,390,545.62	3.297E+02	Analog	0.30	3
Mg			2	773.006	ug/l	0.84	115,700.10	1.445E+00	Pulse	0.30	3
Al			2	152.679	ug/l	5.23	7,264.01	9.076E-02	Pulse	0.30	3
K			2	1216.571	ug/l	1.75	115,993.13	1.449E+00	Pulse	0.30	3
Ca			2	2514.288	ug/l	0.40	13,069.70	1.633E-01	Pulse	0.30	3
Ti			2	0.640	ug/l	105.49	31.11	3.867E-04	Pulse	0.30	3
V			2	0.175	ug/l	31.12	354.45	4.432E-03	Pulse	0.30	3
Cr			2	3.655	ug/l	4.16	7,757.48	9.688E-02	Pulse	0.30	3
Mn			2	21.002	ug/l	2.82	19,433.77	2.428E-01	Pulse	0.30	3
Fe			2	148.600	ug/l	1.32	233,574.51	2.918E+00	Pulse	0.30	3
Co			2	1.080	ug/l	3.87	3,859.39	4.821E-02	Pulse	0.30	3
Ni			2	10.652	ug/l	0.51	10,324.44	1.290E-01	Pulse	0.30	3
Cu			2	4.730	ug/l	4.20	13,948.26	1.743E-01	Pulse	0.30	3
Zn			2	95.063	ug/l	0.39	30,708.85	3.836E-01	Pulse	0.30	3
As			2	0.088	ug/l	78.37	19.00	2.381E-04	Pulse	1.00	3
Cd			2	0.088	ug/l	52.16	45.37	1.041E-04	Pulse	0.30	3
Sn			2	2.806	ug/l	6.53	2,991.44	6.837E-03	Pulse	0.30	3
Se			3	2.243	ug/l	1.68	98.20	9.196E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,570,748.38	0.74	90.0	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,644,941.21	0.58	88.8	Pulse	0.10	3
1	Ge		540,964.90	1.59	91.3	Pulse	0.10	3
1	Ge		754,238.17	1.18	91.1	Pulse	0.10	3
1	Rh		3,535,411.09	1.30	89.1	Pulse	0.10	3
1	In		3,898,411.48	1.81	93.0	Pulse	0.10	3
1	Tb		5,773,336.16	0.14	103.2	Analog	0.10	3
1	Ho		521,530.32	1.25	99.0	Pulse	0.10	3
1	Bi		3,154,548.50	0.71	96.8	Pulse	0.10	3
2	Sc		80,053.20	0.92	90.4	Pulse	0.30	3
2	Ge		49,650.80	1.37	90.8	Pulse	0.30	3
2	Ge		74,816.00	1.18	90.3	Pulse	0.30	3
2	Rh		1,459,528.80	0.61	87.7	Pulse	0.30	3
2	In		437,667.00	1.36	87.8	Pulse	0.30	3
2	Tb		1,820,252.15	0.33	92.3	Pulse	0.30	3
2	Ho		176,131.72	0.35	92.1	Pulse	0.30	3
2	Bi		1,223,713.18	0.78	91.5	Pulse	0.30	3
3	Sc		102,749.30	0.53	98.8	Pulse	0.30	3
3	Ge		69,894.39	0.70	99.4	Pulse	0.30	3
3	Ge		106,796.35	1.77	99.3	Pulse	0.30	3
3	Rh		1,226,917.14	0.32	93.6	Pulse	0.30	3
3	Tb		2,030,780.27	0.60	99.4	Pulse	0.30	3

Quantitation Report

File Name	115SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File	
Method Path	
Acq Time	4/22/2019 19:27
Sample Name	jc86645-12
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/22/2019 18:08
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.002	ug/l	98.90	22.67	1.424E-05	Pulse	0.25	3
B			1	5615.204	ug/l	1.02	9,992,986.55	6.276E+00	Analog	0.15	3
Ca			1	375.077	ug/l	0.21	153,657.49	5.785E-02	Pulse	0.10	3
Sr			1	4.039	ug/l	0.86	74,288.79	2.126E-02	Pulse	0.10	3
Mo			1	1.273	ug/l	3.52	4,887.62	1.399E-03	Pulse	0.10	3
Ag			1	0.014	ug/l	42.10	140.01	3.616E-05	Pulse	0.10	3
Sn			1	2.490	ug/l	2.03	9,936.85	2.565E-03	Pulse	0.10	3
Sb			1	0.064	ug/l	31.78	683.38	1.193E-04	Pulse	0.10	3
Ba			1	22.738	ug/l	2.40	68,178.12	1.193E-02	Pulse	0.10	3
Tl			1	0.036	ug/l	30.85	986.74	3.141E-04	Pulse	0.10	3
Pb			1	0.618	ug/l	8.83	3,987.36	1.269E-03	Pulse	0.10	3
Pb			1	0.585	ug/l	6.15	3,273.83	1.042E-03	Pulse	0.10	3
Pb			1	0.626	ug/l	2.26	15,880.69	5.053E-03	Pulse	0.10	3
Na			2	100945.562	ug/l	0.23	32,753,398.70	4.119E+02	Analog	0.30	3
Mg			2	395.758	ug/l	1.20	58,918.55	7.410E-01	Pulse	0.30	3
Al			2	271.505	ug/l	4.59	12,774.64	1.607E-01	Pulse	0.30	3
K			2	2431.580	ug/l	0.37	225,483.53	2.836E+00	Pulse	0.30	3
Ca			2	366.060	ug/l	2.65	1,921.24	2.417E-02	Pulse	0.30	3
Ti			2	36.874	ug/l	146.60	1,657.87	2.087E-02	Pulse	0.30	3
V			2	0.557	ug/l	7.36	938.93	1.181E-02	Pulse	0.30	3
Cr			2	8.694	ug/l	0.70	17,757.42	2.233E-01	Pulse	0.30	3
Mn			2	103.266	ug/l	0.83	94,718.93	1.191E+00	Pulse	0.30	3
Fe			2	343.211	ug/l	0.05	532,326.75	6.695E+00	Pulse	0.30	3
Co			2	2.850	ug/l	1.78	10,010.93	1.259E-01	Pulse	0.30	3
Ni			2	10.032	ug/l	4.32	9,658.46	1.215E-01	Pulse	0.30	3
Cu			2	1.934	ug/l	1.31	6,450.22	8.112E-02	Pulse	0.30	3
Zn			2	41.934	ug/l	1.96	13,551.27	1.704E-01	Pulse	0.30	3
As			2	0.145	ug/l	40.68	29.00	3.645E-04	Pulse	1.00	3
Cd			2	0.014	ug/l	80.65	11.98	2.753E-05	Pulse	0.30	3
Sn			2	1.260	ug/l	0.74	1,535.65	3.528E-03	Pulse	0.30	3
Se			3	2.545	ug/l	3.34	110.80	1.035E-03	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,592,265.20	0.83	91.3	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,655,961.94	0.50	89.1	Pulse	0.10	3
1	Ge		542,351.06	1.19	91.6	Pulse	0.10	3
1	Ge		753,435.41	0.80	91.0	Pulse	0.10	3
1	Rh		3,493,806.20	1.62	88.1	Pulse	0.10	3
1	In		3,872,738.55	0.92	92.4	Pulse	0.10	3
1	Tb		5,714,068.25	1.70	102.1	Analog	0.10	3
1	Ho		523,146.62	1.56	99.3	Pulse	0.10	3
1	Bi		3,142,454.01	0.46	96.4	Pulse	0.10	3
2	Sc		79,508.09	0.43	89.8	Pulse	0.30	3
2	Ge		49,670.97	0.88	90.8	Pulse	0.30	3
2	Ge		76,257.10	1.29	92.0	Pulse	0.30	3
2	Rh		1,453,037.02	0.42	87.3	Pulse	0.30	3
2	In		435,244.90	0.15	87.3	Pulse	0.30	3
2	Tb		1,825,073.33	0.50	92.5	Pulse	0.30	3
2	Ho		178,673.17	0.75	93.4	Pulse	0.30	3
2	Bi		1,211,866.06	0.61	90.6	Pulse	0.30	3
3	Sc		103,100.48	0.40	99.2	Pulse	0.30	3
3	Ge		70,137.37	0.92	99.8	Pulse	0.30	3
3	Ge		107,098.42	0.51	99.6	Pulse	0.30	3
3	Rh		1,234,140.85	0.27	94.2	Pulse	0.30	3
3	Tb		2,049,892.98	0.53	100.4	Pulse	0.30	3

Quantitation Report

File Name	116_CCV.d
File Path	C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File	
Method Path	
Acq Time	4/22/2019 19:32
Sample Name	CCVA
Sample Type	CCV
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/22/2019 18:08
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	48.877	ug/l	1.04	258,210.06	1.602E-01	Pulse	0.25	3
B			1	252.997	ug/l	0.25	912,642.29	5.661E-01	Pulse	0.15	3
Ca			1	5159.110	ug/l	0.74	3,927,469.11	1.441E+00	Pulse	0.10	3
Sr			1	51.947	ug/l	0.14	2,017,921.64	5.443E-01	Pulse	0.10	3
Mo			1	50.715	ug/l	0.81	410,637.13	1.108E-01	Pulse	0.10	3
Ag			1	48.800	ug/l	0.86	944,717.85	2.341E-01	Pulse	0.10	3
Sn			1	49.344	ug/l	0.50	632,703.31	1.568E-01	Pulse	0.10	3
Sb			1	48.779	ug/l	0.96	758,766.34	1.305E-01	Pulse	0.10	3
Ba			1	47.896	ug/l	1.20	292,284.16	5.025E-02	Pulse	0.10	3
Tl			1	50.917	ug/l	0.60	1,809,617.16	5.576E-01	Pulse	0.10	3
Pb			1	49.993	ug/l	0.60	615,672.91	1.897E-01	Pulse	0.10	3
Pb			1	50.713	ug/l	0.30	536,337.41	1.653E-01	Pulse	0.10	3
Pb			1	50.652	ug/l	0.06	2,467,866.68	7.604E-01	Pulse	0.10	3
Na			2	5082.095	ug/l	1.07	3,455,028.68	4.158E+01	Pulse	0.30	3
Mg			2	5138.741	ug/l	1.01	1,594,431.64	1.919E+01	Pulse	0.30	3
Al			2	4977.677	ug/l	1.26	486,729.22	5.858E+00	Pulse	0.30	3
K			2	5173.988	ug/l	1.68	986,421.35	1.187E+01	Pulse	0.30	3
Ca			2	5326.172	ug/l	1.60	57,345.94	6.902E-01	Pulse	0.30	3
Ti			2	50.342	ug/l	5.30	4,730.73	5.695E-02	Pulse	0.30	3
V			2	50.909	ug/l	1.57	163,352.23	1.966E+00	Pulse	0.30	3
Cr			2	50.368	ug/l	0.66	210,475.25	2.533E+00	Pulse	0.30	3
Mn			2	50.435	ug/l	1.22	96,689.14	1.164E+00	Pulse	0.30	3
Fe			2	5345.267	ug/l	2.28	17,241,788.20	2.075E+02	Analog	0.30	3
Co			2	49.886	ug/l	1.73	363,975.87	4.381E+00	Pulse	0.30	3
Ni			2	49.303	ug/l	1.26	98,828.29	1.189E+00	Pulse	0.30	3
Cu			2	49.409	ug/l	1.57	274,910.70	3.309E+00	Pulse	0.30	3
Zn			2	50.171	ug/l	3.29	33,627.83	4.048E-01	Pulse	0.30	3
As			2	48.903	ug/l	1.38	18,053.32	2.173E-01	Pulse	1.00	3
Cd			2	50.237	ug/l	0.82	47,979.60	1.041E-01	Pulse	0.30	3
Sn			2	50.127	ug/l	0.47	99,251.73	2.154E-01	Pulse	0.30	3
Se			3	197.772	ug/l	0.55	15,854.72	1.505E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,612,142.93	0.82	92.4	Pulse	0.10	3
1	Sc		2,726,066.52	0.85	91.5	Pulse	0.10	3
1	Ge		555,449.93	0.63	93.8	Pulse	0.10	3

Quantitation Report

1	Ge		773,053.66	1.26	93.4	Pulse	0.10	3
1	Rh		3,707,261.82	1.41	93.5	Pulse	0.10	3
1	In		4,035,472.76	0.64	96.3	Pulse	0.10	3
1	Tb		5,816,561.16	1.03	104.0	Analog	0.10	3
1	Ho		534,763.72	1.36	101.5	Pulse	0.10	3
1	Bi		3,245,292.45	1.12	99.6	Pulse	0.10	3
2	Sc		83,094.37	1.23	93.9	Pulse	0.30	3
2	Ge		51,719.40	0.45	94.5	Pulse	0.30	3
2	Ge		77,333.24	1.02	93.3	Pulse	0.30	3
2	Rh		1,514,036.09	0.36	91.0	Pulse	0.30	3
2	In		460,838.93	0.57	92.4	Pulse	0.30	3
2	Tb		1,896,492.91	0.80	96.1	Pulse	0.30	3
2	Ho		183,697.56	0.18	96.1	Pulse	0.30	3
2	Bi		1,260,945.64	0.13	94.2	Pulse	0.30	3
3	Sc		102,969.83	0.23	99.0	Pulse	0.30	3
3	Ge		68,315.39	0.57	97.2	Pulse	0.30	3
3	Ge		105,326.21	0.31	98.0	Pulse	0.30	3
3	Rh		1,255,015.71	0.07	95.7	Pulse	0.30	3
3	Tb		2,051,752.07	0.64	100.5	Pulse	0.30	3

Quantitation Report

File Name	117_CCB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File	
Method Path	
Acq Time	4/22/2019 19:37
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/22/2019 18:08
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.010	ug/l	26.74	68.00	4.205E-05	Pulse	0.25	3
B			1	118.297	ug/l	0.24	428,457.49	2.650E-01	Pulse	0.15	3
Ca			1	1.672	ug/l	38.11	16,618.99	6.156E-03	Pulse	0.10	3
Sr			1	0.010	ug/l	19.44	793.39	2.117E-04	Pulse	0.10	3
Mo			1	0.078	ug/l	23.24	673.37	1.795E-04	Pulse	0.10	3
Ag			1	0.016	ug/l	13.12	326.68	8.028E-05	Pulse	0.10	3
Sn			1	0.856	ug/l	1.19	5,364.48	1.318E-03	Pulse	0.10	3
Sb			1	0.134	ug/l	7.55	2,266.91	3.936E-04	Pulse	0.10	3
Ba			1	0.012	ug/l	36.51	110.01	1.910E-05	Pulse	0.10	3
Tl			1	0.018	ug/l	1.81	1,030.08	3.147E-04	Pulse	0.10	3
Pb			1	0.006	ug/l	37.10	383.35	1.171E-04	Pulse	0.10	3
Pb			1	0.008	ug/l	71.87	380.02	1.161E-04	Pulse	0.10	3
Pb			1	0.008	ug/l	20.65	1,580.09	4.828E-04	Pulse	0.10	3
Na			2	26.976	ug/l	1.32	28,031.01	3.358E-01	Pulse	0.30	3
Mg			2	0.390	ug/l	35.00	303.34	3.634E-03	Pulse	0.30	3
Al			2	0.422	ug/l	110.24	118.89	1.426E-03	Pulse	0.30	3
K			2	5.313	ug/l	19.38	6,053.39	7.253E-02	Pulse	0.30	3
Ca			2	1.678	ug/l	56.86	56.67	6.794E-04	Pulse	0.30	3
Ti			2	-0.022	ug/l	0.00	0.00	0.000E+00	Pulse	0.30	3
V			2	0.005	ug/l	158.40	104.45	1.253E-03	Pulse	0.30	3
Cr			2	0.011	ug/l	89.72	475.57	5.700E-03	Pulse	0.30	3
Mn			2	-0.004	ug/l	-252.49	46.67	5.583E-04	Pulse	0.30	3
Fe			2	0.750	ug/l	16.02	5,245.38	6.283E-02	Pulse	0.30	3
Co			2	0.004	ug/l	66.11	96.67	1.158E-03	Pulse	0.30	3
Ni			2	0.005	ug/l	103.70	54.45	6.522E-04	Pulse	0.30	3
Cu			2	-0.021	ug/l	-36.64	1,276.73	1.529E-02	Pulse	0.30	3
Zn			2	0.128	ug/l	110.63	268.90	3.222E-03	Pulse	0.30	3
As			2	0.012	ug/l	87.96	8.00	9.570E-05	Pulse	1.00	3
Cd			2	-0.001	ug/l	-301.18	5.50	1.164E-05	Pulse	0.30	3
Sn			2	0.281	ug/l	8.14	962.26	2.036E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	0.025	ug/l	44.32	9.07	8.527E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,616,723.96	0.32	92.7	Pulse	0.10	3
1	Sc		2,699,509.86	0.42	90.6	Pulse	0.10	3
1	Ge		550,431.31	0.79	92.9	Pulse	0.10	3
1	Ge		766,040.79	0.28	92.5	Pulse	0.10	3
1	Rh		3,745,797.55	1.05	94.4	Pulse	0.10	3
1	In		4,069,668.76	0.19	97.1	Pulse	0.10	3
1	Tb		5,758,868.04	0.13	102.9	Analog	0.10	3
1	Ho		531,202.54	0.39	100.8	Pulse	0.10	3
1	Bi		3,272,818.08	0.19	100.4	Pulse	0.10	3
2	Sc		83,465.30	0.58	94.3	Pulse	0.30	3
2	Ge		51,669.24	0.97	94.5	Pulse	0.30	3
2	Ge		77,567.78	1.16	93.6	Pulse	0.30	3
2	Rh		1,545,842.79	0.27	92.9	Pulse	0.30	3
2	In		472,692.22	0.44	94.8	Pulse	0.30	3
2	Tb		1,881,075.48	0.74	95.4	Pulse	0.30	3
2	Ho		181,745.53	0.72	95.0	Pulse	0.30	3
2	Bi		1,291,563.42	0.55	96.5	Pulse	0.30	3
3	Sc		102,349.34	1.12	98.4	Pulse	0.30	3
3	Ge		69,338.61	0.03	98.7	Pulse	0.30	3
3	Ge		106,285.20	1.16	98.9	Pulse	0.30	3
3	Rh		1,286,633.49	0.31	98.2	Pulse	0.30	3
3	Tb		2,056,828.53	0.60	100.7	Pulse	0.30	3

Quantitation Report

File Name 118SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File
Method Path
Acq Time 4/22/2019 19:42
Sample Name jc86645-13
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/22/2019 18:08
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.009	ug/l	144.36	38.67	2.513E-05	Pulse	0.25	3
B			1	1312.027	ug/l	0.48	2,267,811.58	1.467E+00	Pulse	0.15	3
Ca			1	9332.276	ug/l	0.93	3,402,412.24	1.304E+00	Pulse	0.10	3
Sr			1	24.311	ug/l	1.53	443,233.03	1.275E-01	Pulse	0.10	3
Mo			1	0.416	ug/l	8.36	1,613.49	4.638E-04	Pulse	0.10	3
Ag			1	0.026	ug/l	28.59	256.68	6.608E-05	Pulse	0.10	3
Sn			1	2.142	ug/l	1.08	7,785.58	2.007E-03	Pulse	0.10	3
Sb			1	0.222	ug/l	10.16	1,853.51	3.302E-04	Pulse	0.10	3
Ba			1	5.745	ug/l	3.37	16,949.83	3.020E-03	Pulse	0.10	3
Tl			1	0.018	ug/l	29.89	696.71	2.199E-04	Pulse	0.10	3
Pb			1	0.117	ug/l	11.51	1,006.74	3.172E-04	Pulse	0.10	3
Pb			1	0.105	ug/l	7.71	826.72	2.607E-04	Pulse	0.10	3
Pb			1	0.122	ug/l	6.71	4,040.38	1.274E-03	Pulse	0.10	3
Na			2	69172.980	ug/l	0.19	22,440,965.78	2.823E+02	Analog	0.30	3
Mg			2	78.900	ug/l	2.74	11,880.95	1.495E-01	Pulse	0.30	3
Al			2	100.978	ug/l	3.10	4,796.38	6.034E-02	Pulse	0.30	3
K			2	763.685	ug/l	0.78	74,092.73	9.321E-01	Pulse	0.30	3
Ca			2	9158.538	ug/l	0.54	47,174.27	5.935E-01	Pulse	0.30	3
Ti			2	0.550	ug/l	70.08	26.67	3.355E-04	Pulse	0.30	3
V			2	0.300	ug/l	4.58	544.46	6.849E-03	Pulse	0.30	3
Cr			2	106.216	ug/l	1.07	212,272.48	2.671E+00	Pulse	0.30	3
Mn			2	3.373	ug/l	2.89	3,142.56	3.953E-02	Pulse	0.30	3
Fe			2	2557.996	ug/l	0.73	3,949,055.68	4.968E+01	Pulse	0.30	3
Co			2	0.155	ug/l	7.78	603.35	7.590E-03	Pulse	0.30	3
Ni			2	0.928	ug/l	5.04	931.15	1.172E-02	Pulse	0.30	3
Cu			2	1.401	ug/l	1.81	5,035.27	6.335E-02	Pulse	0.30	3
Zn			2	2.731	ug/l	9.49	1,045.60	1.315E-02	Pulse	0.30	3
As			2	0.191	ug/l	30.25	37.00	4.656E-04	Pulse	1.00	3
Cd			2	0.037	ug/l	42.58	22.14	5.088E-05	Pulse	0.30	3
Sn			2	0.853	ug/l	9.43	1,157.84	2.659E-03	Pulse	0.30	3
Se			3	0.367	ug/l	15.47	21.73	2.061E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,545,971.85	0.80	88.6	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,610,236.00	1.35	87.6	Pulse	0.10	3
1	Ge		542,221.11	0.70	91.5	Pulse	0.10	3
1	Ge		751,714.31	0.72	90.8	Pulse	0.10	3
1	Rh		3,477,769.74	0.78	87.7	Pulse	0.10	3
1	In		3,879,203.83	0.80	92.6	Pulse	0.10	3
1	Tb		5,617,519.29	4.01	100.4	Mix	0.10	3
1	Ho		519,763.10	1.10	98.6	Pulse	0.10	3
1	Bi		3,170,922.24	1.47	97.3	Pulse	0.10	3
2	Sc		79,486.16	0.25	89.8	Pulse	0.30	3
2	Ge		49,485.86	0.54	90.5	Pulse	0.30	3
2	Ge		74,312.55	0.34	89.7	Pulse	0.30	3
2	Rh		1,441,265.88	0.48	86.6	Pulse	0.30	3
2	In		435,539.16	0.33	87.4	Pulse	0.30	3
2	Tb		1,817,325.69	0.18	92.1	Pulse	0.30	3
2	Ho		176,313.44	0.96	92.2	Pulse	0.30	3
2	Bi		1,218,177.97	0.22	91.1	Pulse	0.30	3
3	Sc		101,732.14	0.55	97.8	Pulse	0.30	3
3	Ge		69,882.19	0.64	99.4	Pulse	0.30	3
3	Ge		105,469.35	0.38	98.1	Pulse	0.30	3
3	Rh		1,235,049.67	0.36	94.2	Pulse	0.30	3
3	Tb		2,038,482.63	0.50	99.8	Pulse	0.30	3

Quantitation Report

File Name	119SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File	
Method Path	
Acq Time	4/22/2019 19:47
Sample Name	jc86645-14
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/22/2019 18:08
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.014	ug/l	48.50	52.00	3.367E-05	Pulse	0.25	3
B			1	2116.358	ug/l	0.34	3,655,199.02	2.366E+00	Pulse	0.15	3
Ca			1	59585.652	ug/l	1.14	21,492,713.85	8.292E+00	Analog	0.10	3
Sr			1	279.669	ug/l	2.08	5,068,721.80	1.465E+00	Mix	0.10	3
Mo			1	2.157	ug/l	0.15	8,179.05	2.364E-03	Pulse	0.10	3
Ag			1	0.017	ug/l	26.15	173.34	4.473E-05	Pulse	0.10	3
Sn			1	1.885	ug/l	2.67	6,181.44	1.595E-03	Pulse	0.10	3
Sb			1	0.136	ug/l	9.06	1,230.10	2.161E-04	Pulse	0.10	3
Ba			1	24.422	ug/l	1.30	72,985.75	1.282E-02	Pulse	0.10	3
Tl			1	0.014	ug/l	8.36	610.04	1.957E-04	Pulse	0.10	3
Pb			1	0.095	ug/l	49.13	863.39	2.772E-04	Pulse	0.10	3
Pb			1	0.148	ug/l	57.41	1,030.80	3.304E-04	Pulse	0.10	3
Pb			1	0.113	ug/l	13.20	3,757.72	1.205E-03	Pulse	0.10	3
Na			2	69068.811	ug/l	0.77	22,583,743.55	2.819E+02	Analog	0.30	3
Mg			2	1463.547	ug/l	0.71	219,064.92	2.735E+00	Pulse	0.30	3
Al			2	68.305	ug/l	2.59	3,293.70	4.112E-02	Pulse	0.30	3
K			2	480.236	ug/l	1.08	48,755.33	6.086E-01	Pulse	0.30	3
Ca			2	59129.635	ug/l	0.57	306,762.57	3.829E+00	Pulse	0.30	3
Ti			2	1.134	ug/l	36.30	53.34	6.659E-04	Pulse	0.30	3
V			2	0.343	ug/l	9.84	615.58	7.685E-03	Pulse	0.30	3
Cr			2	108.492	ug/l	0.77	218,514.45	2.728E+00	Pulse	0.30	3
Mn			2	45.593	ug/l	0.59	42,165.98	5.263E-01	Pulse	0.30	3
Fe			2	4647.804	ug/l	0.84	7,229,469.44	9.024E+01	Analog	0.30	3
Co			2	0.146	ug/l	6.85	574.46	7.170E-03	Pulse	0.30	3
Ni			2	3.215	ug/l	4.18	3,148.12	3.929E-02	Pulse	0.30	3
Cu			2	1.022	ug/l	5.08	4,064.99	5.074E-02	Pulse	0.30	3
Zn			2	6.353	ug/l	4.48	2,217.95	2.769E-02	Pulse	0.30	3
As			2	2.656	ug/l	2.42	476.01	5.942E-03	Pulse	1.00	3
Cd			2	0.082	ug/l	26.14	42.95	9.824E-05	Pulse	0.30	3
Sn			2	0.556	ug/l	13.00	883.37	2.023E-03	Pulse	0.30	3
Se			3	0.301	ug/l	20.85	19.27	1.811E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,544,963.55	0.46	88.6	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,592,023.35	1.27	87.0	Pulse	0.10	3
1	Ge		533,813.17	0.22	90.1	Pulse	0.10	3
1	Ge		745,230.09	1.08	90.0	Pulse	0.10	3
1	Rh		3,459,772.45	1.05	87.2	Pulse	0.10	3
1	In		3,874,927.52	0.32	92.5	Pulse	0.10	3
1	Tb		5,694,653.66	0.59	101.8	Analog	0.10	3
1	Ho		518,788.44	1.37	98.5	Pulse	0.10	3
1	Bi		3,116,903.91	0.31	95.6	Pulse	0.10	3
2	Sc		80,111.17	0.48	90.5	Pulse	0.30	3
2	Ge		50,268.13	0.33	91.9	Pulse	0.30	3
2	Ge		75,472.40	0.62	91.1	Pulse	0.30	3
2	Rh		1,440,997.20	0.70	86.6	Pulse	0.30	3
2	In		436,783.20	0.80	87.6	Pulse	0.30	3
2	Tb		1,821,341.18	0.12	92.3	Pulse	0.30	3
2	Ho		177,603.51	0.69	92.9	Pulse	0.30	3
2	Bi		1,213,459.08	0.62	90.7	Pulse	0.30	3
3	Sc		104,167.88	0.48	100.2	Pulse	0.30	3
3	Ge		70,647.68	0.73	100.5	Pulse	0.30	3
3	Ge		106,445.17	0.68	99.0	Pulse	0.30	3
3	Rh		1,226,925.54	0.11	93.6	Pulse	0.30	3
3	Tb		2,052,223.88	0.46	100.5	Pulse	0.30	3

Quantitation Report

File Name	120SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File	
Method Path	
Acq Time	4/22/2019 19:52
Sample Name	jc86645-9f
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/22/2019 18:08
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.006	ug/l	98.05	30.67	1.939E-05	Pulse	0.25	3
B			1	1489.058	ug/l	1.03	2,632,441.98	1.665E+00	Pulse	0.15	3
Ca			1	2081.910	ug/l	0.53	783,905.67	2.952E-01	Pulse	0.10	3
Sr			1	12.409	ug/l	0.51	231,182.45	6.511E-02	Pulse	0.10	3
Mo			1	0.274	ug/l	5.01	1,096.75	3.088E-04	Pulse	0.10	3
Ag			1	0.012	ug/l	9.81	126.67	3.236E-05	Pulse	0.10	3
Sn			1	1.771	ug/l	4.81	5,531.17	1.413E-03	Pulse	0.10	3
Sb			1	0.067	ug/l	30.65	703.38	1.230E-04	Pulse	0.10	3
Ba			1	27.740	ug/l	0.47	83,236.24	1.456E-02	Pulse	0.10	3
Tl			1	0.012	ug/l	37.20	593.37	1.862E-04	Pulse	0.10	3
Pb			1	0.098	ug/l	6.36	896.73	2.813E-04	Pulse	0.10	3
Pb			1	0.095	ug/l	8.44	776.72	2.436E-04	Pulse	0.10	3
Pb			1	0.091	ug/l	6.71	3,303.62	1.036E-03	Pulse	0.10	3
Na			2	48194.647	ug/l	1.70	15,880,750.48	1.967E+02	Analog	0.30	3
Mg			2	771.192	ug/l	0.40	116,403.49	1.442E+00	Pulse	0.30	3
Al			2	88.855	ug/l	17.40	4,291.61	5.321E-02	Pulse	0.30	3
K			2	587.195	ug/l	0.39	58,985.74	7.307E-01	Pulse	0.30	3
Ca			2	2083.538	ug/l	2.32	10,927.01	1.354E-01	Pulse	0.30	3
Ti			2	1.632	ug/l	48.49	76.67	9.475E-04	Pulse	0.30	3
V			2	0.195	ug/l	15.91	388.90	4.816E-03	Pulse	0.30	3
Cr			2	2602.512	ug/l	2.95	5,271,767.57	6.531E+01	Mix	0.30	3
Mn			2	6.954	ug/l	4.69	6,523.59	8.082E-02	Pulse	0.30	3
Fe			2	73.739	ug/l	0.98	118,254.43	1.465E+00	Pulse	0.30	3
Co			2	0.382	ug/l	1.30	1,415.64	1.754E-02	Pulse	0.30	3
Ni			2	1.295	ug/l	3.25	1,303.40	1.614E-02	Pulse	0.30	3
Cu			2	3.441	ug/l	3.96	10,599.07	1.313E-01	Pulse	0.30	3
Zn			2	8.671	ug/l	5.56	2,984.75	3.698E-02	Pulse	0.30	3
As			2	0.218	ug/l	34.58	42.33	5.252E-04	Pulse	1.00	3
Cd			2	0.007	ug/l	164.52	8.84	2.003E-05	Pulse	0.30	3
Sn			2	0.564	ug/l	14.95	901.15	2.038E-03	Pulse	0.30	3
Se			3	0.696	ug/l	9.89	35.73	3.311E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,581,250.88	0.39	90.6	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,655,192.15	0.98	89.1	Pulse	0.10	3
1	Ge		542,665.51	0.89	91.6	Pulse	0.10	3
1	Ge		757,482.54	0.70	91.5	Pulse	0.10	3
1	Rh		3,550,846.82	0.86	89.5	Pulse	0.10	3
1	In		3,913,245.13	0.77	93.4	Pulse	0.10	3
1	Tb		5,717,648.04	1.05	102.2	Analog	0.10	3
1	Ho		524,523.01	1.45	99.5	Pulse	0.10	3
1	Bi		3,187,808.81	1.31	97.8	Pulse	0.10	3
2	Sc		80,726.24	0.77	91.2	Pulse	0.30	3
2	Ge		50,582.48	0.71	92.5	Pulse	0.30	3
2	Ge		76,403.24	0.72	92.2	Pulse	0.30	3
2	Rh		1,479,163.55	0.86	88.9	Pulse	0.30	3
2	In		442,280.15	0.63	88.7	Pulse	0.30	3
2	Tb		1,849,642.77	0.40	93.8	Pulse	0.30	3
2	Ho		179,006.68	0.69	93.6	Pulse	0.30	3
2	Bi		1,239,760.71	0.92	92.7	Pulse	0.30	3
3	Sc		102,915.81	0.17	99.0	Pulse	0.30	3
3	Ge		70,615.20	0.77	100.5	Pulse	0.30	3
3	Ge		107,901.49	0.74	100.4	Pulse	0.30	3
3	Rh		1,258,704.50	0.85	96.0	Pulse	0.30	3
3	Tb		2,079,252.83	0.53	101.8	Pulse	0.30	3

Quantitation Report

File Name	121SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File	
Method Path	
Acq Time	4/22/2019 19:57
Sample Name	rinseconf
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/22/2019 18:08
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.000	ug/l	-508.39	14.67	8.806E-06	Pulse	0.25	3
B			1	88.361	ug/l	1.25	327,554.08	1.981E-01	Pulse	0.15	3
Ca			1	4.495	ug/l	21.81	19,268.57	6.941E-03	Pulse	0.10	3
Sr			1	0.014	ug/l	30.13	956.73	2.487E-04	Pulse	0.10	3
Mo			1	0.003	ug/l	99.72	56.67	1.475E-05	Pulse	0.10	3
Ag			1	0.003	ug/l	92.68	80.00	1.923E-05	Pulse	0.10	3
Sn			1	0.820	ug/l	2.11	4,980.99	1.204E-03	Pulse	0.10	3
Sb			1	0.002	ug/l	87.18	240.01	4.060E-05	Pulse	0.10	3
Ba			1	0.007	ug/l	61.97	83.34	1.404E-05	Pulse	0.10	3
Tl			1	-0.001	ug/l	-286.62	353.35	1.067E-04	Pulse	0.10	3
Pb			1	-0.009	ug/l	-26.70	210.01	6.333E-05	Pulse	0.10	3
Pb			1	-0.011	ug/l	-47.17	173.34	5.228E-05	Pulse	0.10	3
Pb			1	-0.010	ug/l	-24.26	700.04	2.111E-04	Pulse	0.10	3
Na			2	27.327	ug/l	2.46	29,117.28	3.387E-01	Pulse	0.30	3
Mg			2	0.164	ug/l	57.60	240.01	2.790E-03	Pulse	0.30	3
Al			2	-0.076	ug/l	-328.21	72.22	8.401E-04	Pulse	0.30	3
K			2	4.165	ug/l	10.94	6,010.03	6.991E-02	Pulse	0.30	3
Ca			2	4.125	ug/l	35.93	85.56	9.962E-04	Pulse	0.30	3
Ti			2	-0.022	ug/l	0.00	0.00	0.000E+00	Pulse	0.30	3
V			2	0.000	ug/l	2547.57	92.22	1.072E-03	Pulse	0.30	3
Cr			2	0.096	ug/l	30.69	858.92	9.987E-03	Pulse	0.30	3
Mn			2	-0.001	ug/l	-383.34	52.22	6.078E-04	Pulse	0.30	3
Fe			2	-0.077	ug/l	-38.05	2,643.58	3.074E-02	Pulse	0.30	3
Co			2	0.000	ug/l	-4502.79	66.67	7.743E-04	Pulse	0.30	3
Ni			2	-0.002	ug/l	-405.26	42.22	4.912E-04	Pulse	0.30	3
Cu			2	-0.073	ug/l	-11.71	1,014.49	1.180E-02	Pulse	0.30	3
Zn			2	0.363	ug/l	11.95	438.90	5.107E-03	Pulse	0.30	3
As			2	-0.006	ug/l	-51.67	1.33	1.556E-05	Pulse	1.00	3
Cd			2	-0.004	ug/l	-94.92	2.22	4.593E-06	Pulse	0.30	3
Sn			2	0.182	ug/l	25.62	774.47	1.613E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	-0.018	ug/l	-110.92	5.67	5.284E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,653,602.08	1.31	94.8	Pulse	0.10	3
1	Sc		2,776,217.46	0.56	93.2	Pulse	0.10	3
1	Ge		564,936.37	1.02	95.4	Pulse	0.10	3
1	Ge		785,957.02	0.97	94.9	Pulse	0.10	3
1	Rh		3,842,289.32	0.99	96.9	Pulse	0.10	3
1	In		4,136,092.18	1.46	98.7	Pulse	0.10	3
1	Tb		5,908,115.12	2.33	105.6	Analog	0.10	3
1	Ho		537,996.70	0.71	102.1	Pulse	0.10	3
1	Bi		3,319,646.93	1.41	101.8	Pulse	0.10	3
2	Sc		85,970.02	0.83	97.1	Pulse	0.30	3
2	Ge		53,107.19	0.59	97.1	Pulse	0.30	3
2	Ge		79,957.92	0.87	96.5	Pulse	0.30	3
2	Rh		1,586,832.19	0.44	95.3	Pulse	0.30	3
2	In		479,881.27	0.50	96.3	Pulse	0.30	3
2	Tb		1,914,569.16	0.79	97.1	Pulse	0.30	3
2	Ho		185,760.26	1.16	97.1	Pulse	0.30	3
2	Bi		1,314,645.89	0.75	98.3	Pulse	0.30	3
3	Sc		105,052.42	0.69	101.0	Pulse	0.30	3
3	Ge		70,538.07	0.47	100.4	Pulse	0.30	3
3	Ge		107,253.97	1.09	99.8	Pulse	0.30	3
3	Rh		1,300,237.93	0.30	99.2	Pulse	0.30	3
3	Tb		2,082,750.06	0.23	102.0	Pulse	0.30	3

Quantitation Report

File Name	122SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File	
Method Path	
Acq Time	4/22/2019 20:02
Sample Name	jc86645-10f
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/22/2019 18:08
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.087	ug/l	25.15	234.67	1.536E-04	Pulse	0.25	3
B			1	1325.998	ug/l	0.86	2,262,844.22	1.483E+00	Pulse	0.15	3
Ca			1	157.214	ug/l	2.66	71,805.68	2.755E-02	Pulse	0.10	3
Sr			1	18.978	ug/l	1.30	335,599.15	9.952E-02	Pulse	0.10	3
Mo			1	163.638	ug/l	0.56	602,525.98	1.787E-01	Pulse	0.10	3
Ag			1	0.026	ug/l	36.52	250.01	6.662E-05	Pulse	0.10	3
Sn			1	4.467	ug/l	3.41	21,505.45	5.735E-03	Pulse	0.10	3
Sb			1	0.180	ug/l	10.68	1,540.13	2.746E-04	Pulse	0.10	3
Ba			1	23.874	ug/l	0.54	70,299.77	1.253E-02	Pulse	0.10	3
Tl			1	0.184	ug/l	1.98	3,383.85	1.126E-03	Pulse	0.10	3
Pb			1	10.900	ug/l	0.76	62,405.28	2.077E-02	Pulse	0.10	3
Pb			1	10.545	ug/l	1.63	51,885.38	1.726E-02	Pulse	0.10	3
Pb			1	10.722	ug/l	0.79	242,860.16	8.081E-02	Pulse	0.10	3
Na			2	238822.224	ug/l	0.81	76,387,105.85	9.745E+02	Analog	0.30	3
Mg			2	289.244	ug/l	0.92	42,503.20	5.422E-01	Pulse	0.30	3
Al			2	4028.565	ug/l	0.45	185,875.75	2.371E+00	Pulse	0.30	3
K			2	5426.819	ug/l	0.75	490,326.51	6.255E+00	Pulse	0.30	3
Ca			2	215.342	ug/l	4.28	1,128.94	1.441E-02	Pulse	0.30	3
Ti			2	19.644	ug/l	5.26	872.26	1.113E-02	Pulse	0.30	3
V			2	36.088	ug/l	0.91	54,677.53	6.975E-01	Pulse	0.30	3
Cr			2	3001.206	ug/l	1.52	5,903,663.52	7.532E+01	Analog	0.30	3
Mn			2	1.897	ug/l	2.16	1,764.56	2.251E-02	Pulse	0.30	3
Fe			2	2365.579	ug/l	1.51	3,601,555.83	4.595E+01	Pulse	0.30	3
Co			2	0.295	ug/l	8.39	1,076.72	1.373E-02	Pulse	0.30	3
Ni			2	2.406	ug/l	2.96	2,315.75	2.954E-02	Pulse	0.30	3
Cu			2	3.288	ug/l	2.64	9,891.96	1.262E-01	Pulse	0.30	3
Zn			2	5.395	ug/l	2.00	1,869.02	2.384E-02	Pulse	0.30	3
As			2	9.348	ug/l	0.34	1,630.76	2.080E-02	Pulse	1.00	3
Cd			2	0.082	ug/l	40.69	41.42	9.798E-05	Pulse	0.30	3
Sn			2	3.351	ug/l	7.49	3,386.17	8.003E-03	Pulse	0.30	3
Se			3	3.920	ug/l	0.47	157.87	1.558E-03	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,526,345.80	0.61	87.5	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,605,851.37	0.63	87.5	Pulse	0.10	3
1	Ge		520,459.61	1.36	87.9	Pulse	0.10	3
1	Ge		729,061.34	1.09	88.0	Pulse	0.10	3
1	Rh		3,372,064.12	0.71	85.0	Pulse	0.10	3
1	In		3,750,531.39	0.77	89.5	Pulse	0.10	3
1	Tb		5,610,732.21	1.13	100.3	Analog	0.10	3
1	Ho		512,455.45	0.90	97.2	Pulse	0.10	3
1	Bi		3,005,343.81	1.10	92.2	Pulse	0.10	3
2	Sc		78,394.39	1.55	88.6	Pulse	0.30	3
2	Ge		47,931.33	1.07	87.6	Pulse	0.30	3
2	Ge		72,988.90	0.53	88.1	Pulse	0.30	3
2	Rh		1,390,788.38	0.17	83.6	Pulse	0.30	3
2	In		423,233.74	0.69	84.9	Pulse	0.30	3
2	Tb		1,792,686.53	0.49	90.9	Pulse	0.30	3
2	Ho		175,614.63	0.77	91.8	Pulse	0.30	3
2	Bi		1,167,546.72	0.49	87.3	Pulse	0.30	3
3	Sc		99,716.80	0.84	95.9	Pulse	0.30	3
3	Ge		66,441.08	0.58	94.5	Pulse	0.30	3
3	Ge		101,349.96	0.69	94.3	Pulse	0.30	3
3	Rh		1,172,247.04	0.11	89.4	Pulse	0.30	3
3	Tb		2,006,612.35	0.53	98.3	Pulse	0.30	3

Quantitation Report

File Name 123SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File
Method Path
Acq Time 4/22/2019 20:07
Sample Name jc86645-14f
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/22/2019 18:08
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.010	ug/l	110.19	41.33	2.749E-05	Pulse	0.25	3
B			1	2070.115	ug/l	1.29	3,483,499.03	2.314E+00	Pulse	0.15	3
Ca			1	61025.303	ug/l	0.87	21,441,106.35	8.493E+00	Analog	0.10	3
Sr			1	281.408	ug/l	0.36	5,011,344.30	1.474E+00	Pulse	0.10	3
Mo			1	1.788	ug/l	6.60	6,664.97	1.961E-03	Pulse	0.10	3
Ag			1	0.011	ug/l	28.88	116.67	3.082E-05	Pulse	0.10	3
Sn			1	1.923	ug/l	2.48	6,274.83	1.656E-03	Pulse	0.10	3
Sb			1	0.113	ug/l	7.45	1,046.75	1.846E-04	Pulse	0.10	3
Ba			1	24.603	ug/l	0.44	73,186.47	1.291E-02	Pulse	0.10	3
Tl			1	0.003	ug/l	185.54	416.69	1.335E-04	Pulse	0.10	3
Pb			1	0.045	ug/l	13.01	570.03	1.825E-04	Pulse	0.10	3
Pb			1	0.036	ug/l	59.97	460.02	1.474E-04	Pulse	0.10	3
Pb			1	0.047	ug/l	11.69	2,203.48	7.058E-04	Pulse	0.10	3
Na			2	70219.485	ug/l	2.06	21,883,953.02	2.866E+02	Analog	0.30	3
Mg			2	1529.153	ug/l	1.34	218,169.51	2.857E+00	Pulse	0.30	3
Al			2	35.305	ug/l	7.55	1,657.89	2.170E-02	Pulse	0.30	3
K			2	482.494	ug/l	0.88	46,672.72	6.112E-01	Pulse	0.30	3
Ca			2	60713.757	ug/l	1.71	300,232.05	3.932E+00	Pulse	0.30	3
Ti			2	0.164	ug/l	120.07	8.89	1.171E-04	Pulse	0.30	3
V			2	0.181	ug/l	39.13	346.68	4.548E-03	Pulse	0.30	3
Cr			2	53.472	ug/l	1.73	102,861.57	1.347E+00	Pulse	0.30	3
Mn			2	43.157	ug/l	2.33	38,044.89	4.982E-01	Pulse	0.30	3
Fe			2	2518.158	ug/l	1.44	3,734,914.71	4.891E+01	Pulse	0.30	3
Co			2	0.066	ug/l	23.39	281.12	3.686E-03	Pulse	0.30	3
Ni			2	0.369	ug/l	8.14	380.01	4.975E-03	Pulse	0.30	3
Cu			2	0.722	ug/l	7.17	3,112.56	4.075E-02	Pulse	0.30	3
Zn			2	2.585	ug/l	15.62	958.93	1.257E-02	Pulse	0.30	3
As			2	2.948	ug/l	5.04	503.01	6.589E-03	Pulse	1.00	3
Cd			2	0.057	ug/l	27.15	30.80	7.249E-05	Pulse	0.30	3
Sn			2	0.749	ug/l	4.99	1,034.49	2.436E-03	Pulse	0.30	3
Se			3	0.350	ug/l	6.01	20.53	1.995E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,505,258.74	0.24	86.3	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,524,683.66	0.35	84.7	Pulse	0.10	3
1	Ge		520,508.02	0.67	87.9	Pulse	0.10	3
1	Ge		726,000.64	0.60	87.7	Pulse	0.10	3
1	Rh		3,399,455.88	0.91	85.7	Pulse	0.10	3
1	In		3,789,007.39	0.65	90.4	Pulse	0.10	3
1	Tb		5,668,439.08	1.25	101.3	Analog	0.10	3
1	Ho		519,183.32	1.03	98.5	Pulse	0.10	3
1	Bi		3,122,772.14	0.77	95.8	Pulse	0.10	3
2	Sc		76,369.50	1.08	86.3	Pulse	0.30	3
2	Ge		47,721.73	0.46	87.2	Pulse	0.30	3
2	Ge		72,539.07	0.58	87.5	Pulse	0.30	3
2	Rh		1,410,610.36	0.39	84.7	Pulse	0.30	3
2	In		424,612.00	0.57	85.2	Pulse	0.30	3
2	Tb		1,790,934.09	0.56	90.8	Pulse	0.30	3
2	Ho		174,832.52	0.79	91.4	Pulse	0.30	3
2	Bi		1,195,613.29	0.61	89.4	Pulse	0.30	3
3	Sc		98,544.42	0.70	94.8	Pulse	0.30	3
3	Ge		67,765.50	0.90	96.4	Pulse	0.30	3
3	Ge		102,925.28	0.47	95.7	Pulse	0.30	3
3	Rh		1,198,410.85	0.16	91.4	Pulse	0.30	3
3	Tb		2,025,320.48	0.45	99.2	Pulse	0.30	3

Quantitation Report

File Name	124SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File	
Method Path	
Acq Time	4/22/2019 20:12
Sample Name	rinseconf
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/22/2019 18:08
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	-0.001	ug/l	-199.39	13.33	8.389E-06	Pulse	0.25	3
B			1	79.590	ug/l	2.09	284,052.95	1.785E-01	Pulse	0.15	3
Ca			1	6.381	ug/l	10.61	19,986.13	7.466E-03	Pulse	0.10	3
Sr			1	0.025	ug/l	14.63	1,376.78	3.699E-04	Pulse	0.10	3
Mo			1	0.006	ug/l	53.33	86.67	2.321E-05	Pulse	0.10	3
Ag			1	0.001	ug/l	41.91	43.33	1.078E-05	Pulse	0.10	3
Sn			1	0.807	ug/l	4.97	4,677.51	1.162E-03	Pulse	0.10	3
Sb			1	0.001	ug/l	337.34	220.01	3.784E-05	Pulse	0.10	3
Ba			1	0.011	ug/l	8.85	103.33	1.779E-05	Pulse	0.10	3
Tl			1	-0.003	ug/l	-11.89	266.68	8.147E-05	Pulse	0.10	3
Pb			1	-0.011	ug/l	-29.99	173.34	5.300E-05	Pulse	0.10	3
Pb			1	-0.015	ug/l	-43.87	136.67	4.177E-05	Pulse	0.10	3
Pb			1	-0.012	ug/l	-22.44	600.03	1.834E-04	Pulse	0.10	3
Na			2	33.010	ug/l	4.05	31,416.91	3.851E-01	Pulse	0.30	3
Mg			2	0.034	ug/l	109.53	187.78	2.302E-03	Pulse	0.30	3
Al			2	-0.190	ug/l	-89.01	57.78	7.060E-04	Pulse	0.30	3
K			2	3.630	ug/l	27.19	5,604.34	6.869E-02	Pulse	0.30	3
Ca			2	3.368	ug/l	14.10	73.33	8.982E-04	Pulse	0.30	3
Ti			2	-0.022	ug/l	0.00	0.00	0.000E+00	Pulse	0.30	3
V			2	0.000	ug/l	33413.60	86.67	1.059E-03	Pulse	0.30	3
Cr			2	0.079	ug/l	11.51	746.69	9.149E-03	Pulse	0.30	3
Mn			2	-0.003	ug/l	-273.16	46.67	5.734E-04	Pulse	0.30	3
Fe			2	-0.022	ug/l	-178.31	2,682.47	3.288E-02	Pulse	0.30	3
Co			2	-0.001	ug/l	-139.17	56.67	6.955E-04	Pulse	0.30	3
Ni			2	-0.002	ug/l	-151.57	38.89	4.762E-04	Pulse	0.30	3
Cu			2	-0.052	ug/l	-9.28	1,076.72	1.320E-02	Pulse	0.30	3
Zn			2	0.344	ug/l	10.56	404.46	4.957E-03	Pulse	0.30	3
As			2	0.014	ug/l	68.13	8.33	1.026E-04	Pulse	1.00	3
Cd			2	0.001	ug/l	534.15	6.66	1.434E-05	Pulse	0.30	3
Sn			2	0.195	ug/l	10.44	773.36	1.666E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	-0.049	ug/l	-31.74	3.07	2.889E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,591,575.30	1.07	91.2	Pulse	0.10	3
1	Sc		2,677,232.88	0.56	89.9	Pulse	0.10	3
1	Ge		547,048.34	0.64	92.4	Pulse	0.10	3
1	Ge		760,265.46	1.02	91.8	Pulse	0.10	3
1	Rh		3,725,144.42	1.29	93.9	Pulse	0.10	3
1	In		4,029,511.60	1.53	96.2	Pulse	0.10	3
1	Tb		5,809,947.41	1.55	103.8	Analog	0.10	3
1	Ho		529,132.48	1.01	100.4	Pulse	0.10	3
1	Bi		3,273,113.18	0.45	100.4	Pulse	0.10	3
2	Sc		81,611.70	1.75	92.2	Pulse	0.30	3
2	Ge		50,867.85	1.31	93.0	Pulse	0.30	3
2	Ge		76,248.24	0.65	92.0	Pulse	0.30	3
2	Rh		1,538,157.51	0.63	92.4	Pulse	0.30	3
2	In		464,290.75	0.55	93.1	Pulse	0.30	3
2	Tb		1,883,196.80	0.09	95.5	Pulse	0.30	3
2	Ho		183,038.91	0.78	95.7	Pulse	0.30	3
2	Bi		1,295,332.07	0.07	96.8	Pulse	0.30	3
3	Sc		101,945.70	0.67	98.0	Pulse	0.30	3
3	Ge		68,918.81	1.05	98.1	Pulse	0.30	3
3	Ge		105,828.28	1.36	98.4	Pulse	0.30	3
3	Rh		1,283,360.71	0.57	97.9	Pulse	0.30	3
3	Tb		2,067,987.00	0.46	101.3	Pulse	0.30	3

Quantitation Report

File Name	125SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File	
Method Path	
Acq Time	4/22/2019 20:17
Sample Name	jc86676-1
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/22/2019 18:08
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.034	ug/l	40.33	100.00	6.599E-05	Pulse	0.25	3
B			1	209.151	ug/l	1.00	354,645.86	2.343E-01	Pulse	0.15	3
Ca			1	49170.414	ug/l	0.47	17,414,155.16	6.844E+00	Analog	0.10	3
Sr			1	89.263	ug/l	0.42	1,622,035.29	4.677E-01	Pulse	0.10	3
Mo			1	10.998	ug/l	0.49	41,681.93	1.202E-02	Pulse	0.10	3
Ag			1	0.014	ug/l	0.77	140.01	3.654E-05	Pulse	0.10	3
Sn			1	1.855	ug/l	1.50	5,931.33	1.548E-03	Pulse	0.10	3
Sb			1	0.804	ug/l	1.49	6,278.15	1.109E-03	Pulse	0.10	3
Ba			1	8.486	ug/l	1.86	25,232.84	4.458E-03	Pulse	0.10	3
Tl			1	0.048	ug/l	6.19	1,203.43	3.802E-04	Pulse	0.10	3
Pb			1	2.082	ug/l	3.93	12,799.37	4.044E-03	Pulse	0.10	3
Pb			1	2.188	ug/l	6.99	11,558.34	3.653E-03	Pulse	0.10	3
Pb			1	2.174	ug/l	2.90	52,749.18	1.667E-02	Pulse	0.10	3
Na			2	21503.780	ug/l	0.79	6,832,760.84	8.785E+01	Analog	0.30	3
Mg			2	4777.169	ug/l	0.62	693,884.52	8.921E+00	Pulse	0.30	3
Al			2	690.614	ug/l	1.96	31,679.06	4.073E-01	Pulse	0.30	3
K			2	3224.637	ug/l	0.37	291,007.40	3.741E+00	Pulse	0.30	3
Ca			2	47981.182	ug/l	1.09	241,688.10	3.107E+00	Pulse	0.30	3
Ti			2	16.380	ug/l	6.43	722.46	9.286E-03	Pulse	0.30	3
V			2	2.365	ug/l	4.99	3,633.81	4.671E-02	Pulse	0.30	3
Cr			2	1.811	ug/l	5.25	3,936.94	5.062E-02	Pulse	0.30	3
Mn			2	173.428	ug/l	0.59	155,590.00	2.000E+00	Pulse	0.30	3
Fe			2	551.654	ug/l	0.96	835,444.07	1.074E+01	Pulse	0.30	3
Co			2	0.439	ug/l	5.76	1,558.98	2.004E-02	Pulse	0.30	3
Ni			2	2.376	ug/l	1.09	2,269.07	2.917E-02	Pulse	0.30	3
Cu			2	1.301	ug/l	3.27	4,668.49	6.002E-02	Pulse	0.30	3
Zn			2	14.747	ug/l	1.60	4,772.98	6.137E-02	Pulse	0.30	3
As			2	1.450	ug/l	9.66	253.67	3.262E-03	Pulse	1.00	3
Cd			2	0.025	ug/l	84.51	16.93	3.895E-05	Pulse	0.30	3
Sn			2	0.621	ug/l	17.20	937.82	2.162E-03	Pulse	0.30	3
Se			3	0.289	ug/l	24.09	18.47	1.764E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,513,350.00	0.57	86.7	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,544,595.38	1.59	85.4	Pulse	0.10	3
1	Ge		529,388.84	1.39	89.4	Pulse	0.10	3
1	Ge		737,645.93	1.19	89.1	Pulse	0.10	3
1	Rh		3,468,234.95	0.80	87.4	Pulse	0.10	3
1	In		3,831,603.03	0.69	91.4	Pulse	0.10	3
1	Tb		5,659,613.87	0.71	101.2	Analog	0.10	3
1	Ho		516,448.05	1.28	98.0	Pulse	0.10	3
1	Bi		3,164,668.60	1.30	97.1	Pulse	0.10	3
2	Sc		77,783.33	0.59	87.9	Pulse	0.30	3
2	Ge		49,069.17	1.07	89.7	Pulse	0.30	3
2	Ge		73,615.00	0.41	88.8	Pulse	0.30	3
2	Rh		1,431,327.44	0.32	86.0	Pulse	0.30	3
2	In		433,502.91	0.75	86.9	Pulse	0.30	3
2	Tb		1,798,878.54	1.02	91.2	Pulse	0.30	3
2	Ho		176,389.16	0.61	92.2	Pulse	0.30	3
2	Bi		1,219,240.85	0.64	91.1	Pulse	0.30	3
3	Sc		101,499.86	0.34	97.6	Pulse	0.30	3
3	Ge		69,088.60	0.70	98.3	Pulse	0.30	3
3	Ge		104,741.14	1.29	97.4	Pulse	0.30	3
3	Rh		1,225,797.35	0.35	93.5	Pulse	0.30	3
3	Tb		2,052,240.96	0.30	100.5	Pulse	0.30	3

Quantitation Report

File Name 126SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File
Method Path
Acq Time 4/22/2019 20:22
Sample Name jc86676-2
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/22/2019 18:08
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.029	ug/l	5.85	88.00	5.738E-05	Pulse	0.25	3
B			1	181.545	ug/l	0.77	312,080.42	2.035E-01	Pulse	0.15	3
Ca			1	48513.020	ug/l	0.88	17,536,225.57	6.752E+00	Analog	0.10	3
Sr			1	95.733	ug/l	0.73	1,748,751.22	5.016E-01	Pulse	0.10	3
Mo			1	10.300	ug/l	1.16	39,245.68	1.126E-02	Pulse	0.10	3
Ag			1	0.016	ug/l	49.51	166.67	4.283E-05	Pulse	0.10	3
Sn			1	1.955	ug/l	0.96	6,668.32	1.708E-03	Pulse	0.10	3
Sb			1	0.810	ug/l	6.21	6,388.24	1.117E-03	Pulse	0.10	3
Ba			1	10.535	ug/l	0.37	31,661.56	5.532E-03	Pulse	0.10	3
Tl			1	0.044	ug/l	9.11	1,133.42	3.583E-04	Pulse	0.10	3
Pb			1	2.649	ug/l	1.64	16,189.41	5.119E-03	Pulse	0.10	3
Pb			1	2.643	ug/l	2.36	13,893.65	4.393E-03	Pulse	0.10	3
Pb			1	2.669	ug/l	1.00	64,464.09	2.038E-02	Pulse	0.10	3
Na			2	19327.102	ug/l	0.74	6,230,819.34	7.897E+01	Analog	0.30	3
Mg			2	4809.709	ug/l	0.96	708,674.83	8.982E+00	Pulse	0.30	3
Al			2	854.094	ug/l	1.62	39,728.22	5.034E-01	Pulse	0.30	3
K			2	3268.099	ug/l	0.65	299,121.63	3.791E+00	Pulse	0.30	3
Ca			2	47967.571	ug/l	1.12	245,103.78	3.106E+00	Pulse	0.30	3
Ti			2	14.927	ug/l	8.13	667.84	8.464E-03	Pulse	0.30	3
V			2	2.679	ug/l	6.64	4,166.16	5.277E-02	Pulse	0.30	3
Cr			2	1.774	ug/l	10.46	3,924.01	4.969E-02	Pulse	0.30	3
Mn			2	191.558	ug/l	1.37	174,316.83	2.209E+00	Pulse	0.30	3
Fe			2	683.079	ug/l	1.60	1,048,695.45	1.329E+01	Pulse	0.30	3
Co			2	0.557	ug/l	3.99	1,991.25	2.524E-02	Pulse	0.30	3
Ni			2	2.822	ug/l	1.69	2,726.92	3.456E-02	Pulse	0.30	3
Cu			2	3.997	ug/l	3.63	11,821.02	1.498E-01	Pulse	0.30	3
Zn			2	22.145	ug/l	1.13	7,184.99	9.105E-02	Pulse	0.30	3
As			2	1.438	ug/l	3.70	255.33	3.235E-03	Pulse	1.00	3
Cd			2	0.030	ug/l	36.33	19.28	4.399E-05	Pulse	0.30	3
Sn			2	0.687	ug/l	12.57	1,007.82	2.302E-03	Pulse	0.30	3
Se			3	0.344	ug/l	27.98	20.93	1.972E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,533,644.59	0.39	87.9	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,596,945.27	0.58	87.2	Pulse	0.10	3
1	Ge		537,220.13	1.63	90.7	Pulse	0.10	3
1	Ge		747,547.93	1.47	90.3	Pulse	0.10	3
1	Rh		3,486,512.97	1.33	87.9	Pulse	0.10	3
1	In		3,903,629.95	1.10	93.2	Pulse	0.10	3
1	Tb		5,723,120.96	1.15	102.3	Analog	0.10	3
1	Ho		525,623.77	1.40	99.7	Pulse	0.10	3
1	Bi		3,162,557.14	0.64	97.0	Pulse	0.10	3
2	Sc		78,908.93	1.36	89.1	Pulse	0.30	3
2	Ge		49,600.63	0.41	90.7	Pulse	0.30	3
2	Ge		75,546.11	0.38	91.2	Pulse	0.30	3
2	Rh		1,440,560.39	0.24	86.5	Pulse	0.30	3
2	In		437,894.52	0.72	87.8	Pulse	0.30	3
2	Tb		1,813,286.32	0.74	91.9	Pulse	0.30	3
2	Ho		176,293.45	1.07	92.2	Pulse	0.30	3
2	Bi		1,211,275.96	0.47	90.5	Pulse	0.30	3
3	Sc		101,878.62	0.67	98.0	Pulse	0.30	3
3	Ge		69,788.21	0.55	99.3	Pulse	0.30	3
3	Ge		106,224.83	0.65	98.8	Pulse	0.30	3
3	Rh		1,242,454.81	0.64	94.8	Pulse	0.30	3
3	Tb		2,051,858.25	0.42	100.5	Pulse	0.30	3

Quantitation Report

File Name	127_CCV.d
File Path	C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File	
Method Path	
Acq Time	4/22/2019 20:27
Sample Name	CCVA
Sample Type	CCV
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/22/2019 18:08
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	48.544	ug/l	0.85	254,813.03	1.591E-01	Pulse	0.25	3
B			1	153.195	ug/l	0.06	549,442.18	3.430E-01	Pulse	0.15	3
Ca			1	5184.059	ug/l	0.59	3,916,278.38	1.448E+00	Pulse	0.10	3
Sr			1	52.577	ug/l	0.55	2,023,302.78	5.509E-01	Pulse	0.10	3
Mo			1	50.969	ug/l	0.44	408,799.07	1.113E-01	Pulse	0.10	3
Ag			1	48.874	ug/l	1.23	942,197.67	2.345E-01	Pulse	0.10	3
Sn			1	49.533	ug/l	0.69	632,492.44	1.574E-01	Pulse	0.10	3
Sb			1	48.858	ug/l	0.57	762,932.85	1.307E-01	Pulse	0.10	3
Ba			1	47.927	ug/l	0.55	293,637.40	5.029E-02	Pulse	0.10	3
Tl			1	50.607	ug/l	0.16	1,798,091.74	5.542E-01	Pulse	0.10	3
Pb			1	50.275	ug/l	1.27	618,990.83	1.908E-01	Pulse	0.10	3
Pb			1	51.534	ug/l	0.96	544,851.93	1.679E-01	Pulse	0.10	3
Pb			1	51.106	ug/l	0.18	2,489,366.49	7.673E-01	Pulse	0.10	3
Na			2	5103.944	ug/l	1.51	3,429,252.15	4.176E+01	Pulse	0.30	3
Mg			2	5160.578	ug/l	2.08	1,582,278.79	1.927E+01	Pulse	0.30	3
Al			2	4984.696	ug/l	2.81	481,608.44	5.866E+00	Pulse	0.30	3
K			2	5157.361	ug/l	2.56	971,609.27	1.183E+01	Pulse	0.30	3
Ca			2	5371.447	ug/l	2.99	57,144.11	6.961E-01	Pulse	0.30	3
Ti			2	49.253	ug/l	3.47	4,574.02	5.572E-02	Pulse	0.30	3
V			2	50.856	ug/l	2.83	161,239.61	1.964E+00	Pulse	0.30	3
Cr			2	50.768	ug/l	1.94	209,639.29	2.553E+00	Pulse	0.30	3
Mn			2	51.054	ug/l	3.53	96,695.80	1.178E+00	Pulse	0.30	3
Fe			2	5372.628	ug/l	2.74	17,124,997.10	2.086E+02	Analog	0.30	3
Co			2	49.988	ug/l	2.49	360,405.76	4.390E+00	Pulse	0.30	3
Ni			2	49.818	ug/l	2.87	98,670.51	1.202E+00	Pulse	0.30	3
Cu			2	49.857	ug/l	2.05	274,126.19	3.339E+00	Pulse	0.30	3
Zn			2	50.232	ug/l	3.01	33,271.61	4.053E-01	Pulse	0.30	3
As			2	49.247	ug/l	2.44	17,963.54	2.188E-01	Pulse	1.00	3
Cd			2	50.968	ug/l	0.93	48,402.04	1.056E-01	Pulse	0.30	3
Sn			2	49.804	ug/l	0.88	98,057.78	2.140E-01	Pulse	0.30	3
Se			3	198.836	ug/l	0.96	15,752.62	1.513E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,601,757.01	0.23	91.8	Pulse	0.10	3
1	Sc		2,705,337.35	0.52	90.8	Pulse	0.10	3
1	Ge		551,478.31	0.68	93.1	Pulse	0.10	3

Quantitation Report

1	Ge		768,686.68	0.70	92.8	Pulse	0.10	3
1	Rh		3,672,739.11	1.72	92.6	Pulse	0.10	3
1	In		4,019,018.09	1.62	95.9	Pulse	0.10	3
1	Tb		5,839,152.20	1.21	104.4	Analog	0.10	3
1	Ho		531,898.94	1.91	100.9	Pulse	0.10	3
1	Bi		3,244,514.85	0.96	99.5	Pulse	0.10	3
2	Sc		82,131.95	2.34	92.8	Pulse	0.30	3
2	Ge		50,501.13	0.70	92.3	Pulse	0.30	3
2	Ge		77,277.38	0.49	93.2	Pulse	0.30	3
2	Rh		1,506,785.60	1.37	90.5	Pulse	0.30	3
2	In		458,234.74	0.41	91.9	Pulse	0.30	3
2	Tb		1,886,811.04	0.22	95.6	Pulse	0.30	3
2	Ho		183,529.69	0.84	96.0	Pulse	0.30	3
2	Bi		1,268,594.46	0.15	94.8	Pulse	0.30	3
3	Sc		102,239.71	0.30	98.3	Pulse	0.30	3
3	Ge		67,844.56	1.36	96.5	Pulse	0.30	3
3	Ge		104,090.18	0.48	96.8	Pulse	0.30	3
3	Rh		1,240,965.89	0.43	94.7	Pulse	0.30	3
3	Tb		2,042,401.10	0.62	100.0	Pulse	0.30	3

Quantitation Report

File Name	128_CCB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File	
Method Path	
Acq Time	4/22/2019 20:32
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/22/2019 18:08
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.004	ug/l	139.04	34.67	2.204E-05	Pulse	0.25	3
B			1	50.380	ug/l	0.77	178,591.74	1.132E-01	Pulse	0.15	3
Ca			1	1.675	ug/l	21.98	16,385.39	6.157E-03	Pulse	0.10	3
Sr			1	0.013	ug/l	33.53	886.72	2.395E-04	Pulse	0.10	3
Mo			1	0.080	ug/l	17.65	680.04	1.834E-04	Pulse	0.10	3
Ag			1	0.015	ug/l	28.88	303.35	7.560E-05	Pulse	0.10	3
Sn			1	0.880	ug/l	2.04	5,601.19	1.394E-03	Pulse	0.10	3
Sb			1	0.141	ug/l	8.84	2,363.61	4.097E-04	Pulse	0.10	3
Ba			1	0.006	ug/l	76.58	76.67	1.325E-05	Pulse	0.10	3
Tl			1	0.014	ug/l	24.31	890.06	2.737E-04	Pulse	0.10	3
Pb			1	0.005	ug/l	91.10	376.69	1.158E-04	Pulse	0.10	3
Pb			1	-0.004	ug/l	-84.94	243.34	7.481E-05	Pulse	0.10	3
Pb			1	0.006	ug/l	38.74	1,433.42	4.408E-04	Pulse	0.10	3
Na			2	23.279	ug/l	5.03	24,977.39	3.057E-01	Pulse	0.30	3
Mg			2	0.586	ug/l	6.46	356.68	4.363E-03	Pulse	0.30	3
Al			2	0.310	ug/l	123.49	105.56	1.294E-03	Pulse	0.30	3
K			2	4.721	ug/l	9.79	5,817.74	7.118E-02	Pulse	0.30	3
Ca			2	3.575	ug/l	15.23	75.56	9.250E-04	Pulse	0.30	3
Ti			2	0.026	ug/l	79.66	4.44	5.440E-05	Pulse	0.30	3
V			2	0.001	ug/l	194.69	88.89	1.088E-03	Pulse	0.30	3
Cr			2	0.020	ug/l	78.02	503.35	6.157E-03	Pulse	0.30	3
Mn			2	-0.006	ug/l	-162.84	41.11	5.015E-04	Pulse	0.30	3
Fe			2	0.684	ug/l	2.02	4,926.38	6.028E-02	Pulse	0.30	3
Co			2	0.005	ug/l	63.95	101.11	1.237E-03	Pulse	0.30	3
Ni			2	0.000	ug/l	9325.52	43.34	5.318E-04	Pulse	0.30	3
Cu			2	-0.010	ug/l	-82.47	1,307.84	1.601E-02	Pulse	0.30	3
Zn			2	0.088	ug/l	42.78	236.67	2.897E-03	Pulse	0.30	3
As			2	0.013	ug/l	66.82	8.00	9.818E-05	Pulse	1.00	3
Cd			2	0.000	ug/l	-1123.75	5.51	1.201E-05	Pulse	0.30	3
Sn			2	0.268	ug/l	27.36	907.82	1.981E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	0.035	ug/l	48.86	9.67	9.286E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,577,560.37	0.62	90.4	Pulse	0.10	3
1	Sc		2,661,034.85	1.03	89.3	Pulse	0.10	3
1	Ge		541,081.33	0.97	91.3	Pulse	0.10	3
1	Ge		757,907.20	1.01	91.5	Pulse	0.10	3
1	Rh		3,704,674.01	0.63	93.4	Pulse	0.10	3
1	In		4,018,445.86	1.18	95.9	Pulse	0.10	3
1	Tb		5,769,031.16	1.30	103.1	Analog	0.10	3
1	Ho		525,521.00	0.49	99.7	Pulse	0.10	3
1	Bi		3,252,290.78	0.11	99.8	Pulse	0.10	3
2	Sc		81,725.64	1.16	92.3	Pulse	0.30	3
2	Ge		50,798.75	0.05	92.9	Pulse	0.30	3
2	Ge		76,520.57	0.51	92.3	Pulse	0.30	3
2	Rh		1,523,876.75	0.68	91.5	Pulse	0.30	3
2	In		458,127.64	1.16	91.9	Pulse	0.30	3
2	Tb		1,858,563.05	0.36	94.2	Pulse	0.30	3
2	Ho		180,726.19	0.27	94.5	Pulse	0.30	3
2	Bi		1,282,607.56	0.31	95.9	Pulse	0.30	3
3	Sc		99,882.29	1.98	96.1	Pulse	0.30	3
3	Ge		68,206.17	1.43	97.0	Pulse	0.30	3
3	Ge		103,951.78	1.97	96.7	Pulse	0.30	3
3	Rh		1,270,499.67	1.08	96.9	Pulse	0.30	3
3	Tb		2,045,317.35	0.19	100.1	Pulse	0.30	3

Quantitation Report

File Name	129SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Method File	
Method Path	
Acq Time	4/22/2019 20:37
Sample Name	jc86711-2
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/22/2019 18:08
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

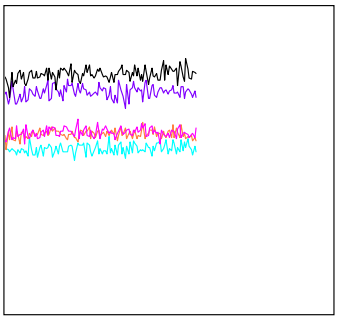
Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.030	ug/l	30.67	92.00	5.988E-05	Pulse	0.25	3
B			1	8213.423	ug/l	1.88	14,085,739.72	9.180E+00	Analog	0.15	3
Ca			1	256.681	ug/l	1.28	107,616.68	4.139E-02	Pulse	0.10	3
Sr			1	3.464	ug/l	8.17	62,257.37	1.825E-02	Pulse	0.10	3
Mo			1	43.283	ug/l	1.87	161,367.15	4.727E-02	Pulse	0.10	3
Ag			1	0.038	ug/l	19.45	356.68	9.398E-05	Pulse	0.10	3
Sn			1	1.964	ug/l	2.12	6,538.29	1.723E-03	Pulse	0.10	3
Sb			1	0.217	ug/l	15.55	1,833.51	3.246E-04	Pulse	0.10	3
Ba			1	5.157	ug/l	2.64	15,321.53	2.712E-03	Pulse	0.10	3
Tl			1	0.132	ug/l	3.55	2,546.99	8.416E-04	Pulse	0.10	3
Pb			1	0.603	ug/l	5.06	3,750.67	1.239E-03	Pulse	0.10	3
Pb			1	0.644	ug/l	8.08	3,443.88	1.138E-03	Pulse	0.10	3
Pb			1	0.611	ug/l	2.06	14,956.91	4.942E-03	Pulse	0.10	3
Na			2	196047.523	ug/l	0.38	63,739,913.02	7.999E+02	Analog	0.30	3
Mg			2	126.480	ug/l	0.89	18,988.57	2.383E-01	Pulse	0.30	3
Al			2	887.973	ug/l	1.94	41,698.82	5.234E-01	Pulse	0.30	3
K			2	14549.818	ug/l	1.08	1,328,086.58	1.667E+01	Pulse	0.30	3
Ca			2	234.601	ug/l	6.91	1,246.73	1.565E-02	Pulse	0.30	3
Ti			2	20.831	ug/l	5.90	940.06	1.180E-02	Pulse	0.30	3
V			2	1.390	ug/l	4.49	2,222.40	2.788E-02	Pulse	0.30	3
Cr			2	590.049	ug/l	0.52	1,180,220.65	1.481E+01	Pulse	0.30	3
Mn			2	2.353	ug/l	1.56	2,212.40	2.777E-02	Pulse	0.30	3
Fe			2	287.187	ug/l	0.75	446,843.68	5.608E+00	Pulse	0.30	3
Co			2	0.362	ug/l	4.77	1,328.96	1.668E-02	Pulse	0.30	3
Ni			2	2.163	ug/l	3.44	2,120.16	2.661E-02	Pulse	0.30	3
Cu			2	1.771	ug/l	5.43	6,030.06	7.568E-02	Pulse	0.30	3
Zn			2	25.638	ug/l	1.63	8,372.24	1.051E-01	Pulse	0.30	3
As			2	0.537	ug/l	7.96	98.33	1.233E-03	Pulse	1.00	3
Cd			2	-0.007	ug/l	-100.51	2.34	5.425E-06	Pulse	0.30	3
Sn			2	0.787	ug/l	10.28	1,082.27	2.517E-03	Pulse	0.30	3
Se			3	1.899	ug/l	5.54	82.27	7.889E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,534,206.37	0.93	87.9	Pulse	0.10	3

Current Signal

[1]



Mass	Range	Count	Avg. Count	RSD [%]
7	5000	2637	2680.1	2.99
59	5000	3516	3603.5	2.82
89	10000	5630	5841.9	2.42
140	10000	6049	5892.6	2.58
205	5000	3904	3888.5	2.60
156/140	1	0.727 %	0.632 %	17.49
70/140	5	3.208 %	3.469 %	9.13
9	20	1	0.4	211.60
11	200	91	100.7	11.85
88	100	51	55.8	14.51
95	20	7	4.8	59.83
107	20	2	2.0	83.90
121	50	15	19.5	26.27
137	50	44	30.7	18.63
208	200	69	74.0	12.13
Integration Time [sec]		0.10		

Plasma Parameters

RF Power	1500	W	Nebulizer Pump	0.10	rps
RF Matching	1.80	V	S/C Temp	2	℃
Smpl Depth	7.8	mm	Gas Switch	Dilution Gas	
Carrier Gas	0.55	L/min	Makeup/Dilution Gas	0.55	L/min
Option Gas	0.0	%			

Lenses Parameters

Extract 1	0.0	V	Cell Entrance	-32	V
Extract 2	-200.0	V	Cell Exit	-60	V
Omega Bias	-95	V	Deflect	15.6	V
Omega Lens	8.0	V	Plate Bias	-45	V

Cell Parameters

Use Gas	false		OctP Bias	-8.0	V
He Flow	0.0	mL/min	OctP RF	200	V
H2 Flow	0.0	mL/min	Energy Discrimination	5.0	V
3rd Gas Flow	0	%			

Meters

IF/BK Press	2.52E+2	Pa	S/C Temp (L)	2.0	℃
TMP Revolution	100.0	%	Carrier Gas(BP)	1.40E+2	kPa
Carrier Gas	0.55	L/min			

US EPA Tune Check Sample Report

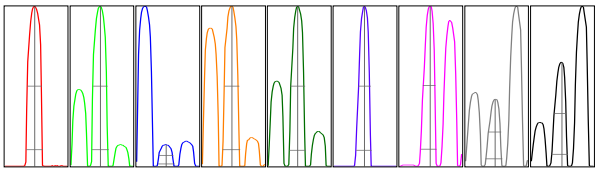
Batch Folder C:\Agilent\ICPMH\1\DATA\xa042219m1.b
Report Comment
Instrument Name G3281A JP10340551

[1]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
9	75191	0.70	5.00	
24	289967	0.38	5.00	
25	38953	0.87	5.00	
26	45270	0.73	5.00	
59	401185	0.32	5.00	
115	550444	0.54	5.00	
206	134437	0.47	5.00	
207	123259	0.14	5.00	
208	291999	0.25	5.00	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	74849	74517	75233	75507	75847
24	288554	290151	291491	290333	289307
25	38452	38860	39147	38953	39353
26	44756	45348	45608	45166	45472
59	399866	401782	402535	401990	399754
115	546735	551831	548135	554101	551416
206	134643	133499	135142	134136	134763
207	123392	123353	123184	123386	122982
208	292744	290857	291873	292550	291969

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width-X% (Flag)
9	11710	8.95	8.9 - 9.1		0.777	0.900	
24	46652	23.95	23.9 - 24.1		0.770	0.900	
25	6232	24.95	24.9 - 25.1		0.773	0.900	
26	7237	25.95	25.9 - 26.1		0.796	0.900	
59	68445	58.95	58.9 - 59.1		0.754	0.900	
115	102464	115.00	114.9 - 115.1		0.715	0.900	
206	24311	206.00	205.9 - 206.1		0.731	0.900	
207	22128	206.95	206.9 - 207.1		0.741	0.900	
208	52768	208.00	207.9 - 208.1		0.742	0.900	

X% = 10 **Integration Time [sec] =** 0.1 **Acquisition Time [sec] =** 235 **Y Axis =** Linear

Tune Parameters

Plasma Paramters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
RF Power	1500	W	Carrier Gas	0.55	L/min			
RF Matching	1.80	V	Option Gas	0.0	%			
Smpl Depth	7.8	mm	Nebulizer Pump	0.10	rps			
S/C Temp	2	℃						

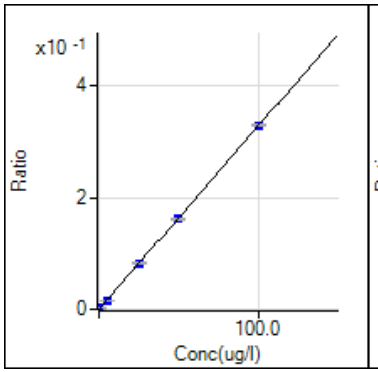
Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	8.0	V			
Extract 2	-200.0	V	Cell Entrance	-32	V			
Omega Bias	-95	V	Cell Exit	-60	V			
Deflect	15.6	V						

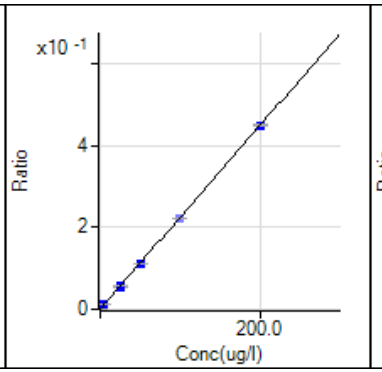
Cell Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Use Gas	false		3rd Gas Flow	0	%			
He Flow	0.0	mL/min	OctP Bias	-8.0	V			
H2 Flow	0.0	mL/min	OctP RF	200	V			
Energy Discrimination	5.0	V						

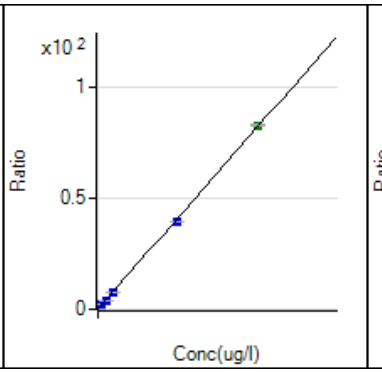
Calibration for C:\Agilent\ICPMH\1\DATA\xa042219m1.b\043SMPL.d



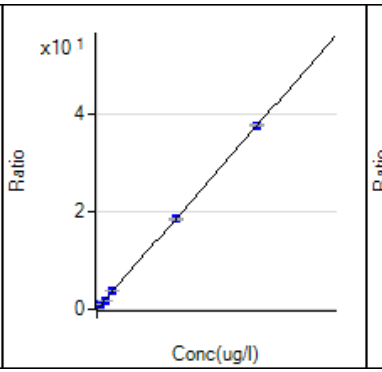
9 Be [1] / ISTD: 6 Li
y = 3.277E-3 x + 1.033E-5
R 1.0000
DL 0.0098
BEC 0.003151



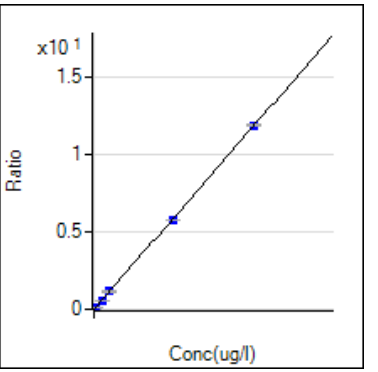
11 B [1] / ISTD: 6 Li
y = 2.235E-3 x + 5.935E-4
R 1.0000
DL 0.06239
BEC 0.2655



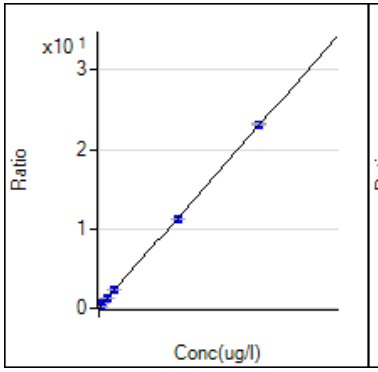
23 Na [2] / ISTD: 45 Sc
y = 8.160E-3 x + 1.157E-1
R 0.9997
DL 1.742
BEC 14.18



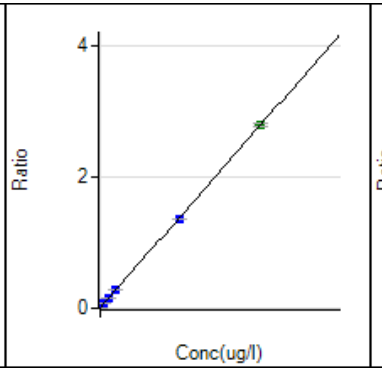
24 Mg [2] / ISTD: 45 Sc
y = 3.734E-3 x + 2.176E-3
R 1.0000
DL 0.2411
BEC 0.5828



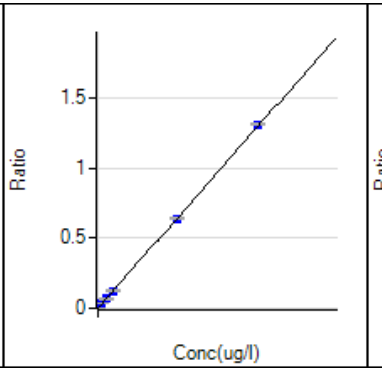
27 Al [2] / ISTD: 45 Sc
y = 1.177E-3 x + 9.299E-4
R 0.9999
DL 0.05086
BEC 0.7902



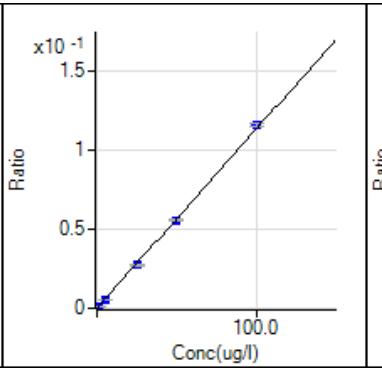
39 K [2] / ISTD: 45 Sc
y = 2.283E-3 x + 6.040E-2
R 0.9999
DL 3.259
BEC 26.46



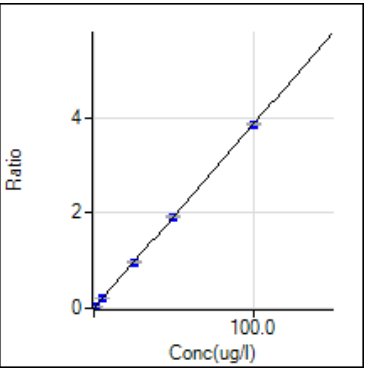
44 Ca [1] / ISTD: 45 Sc
y = 2.781E-4 x + 5.691E-3
R 0.9998
DL 2.413
BEC 20.46



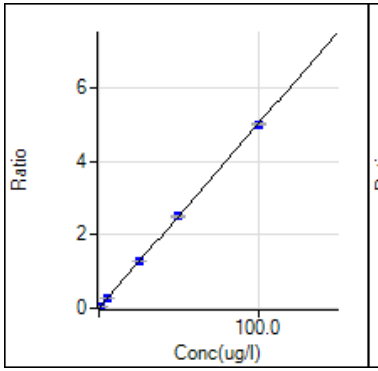
44 Ca [2] / ISTD: 45 Sc
y = 1.295E-4 x + 4.620E-4
R 0.9999
DL 1.841
BEC 3.568



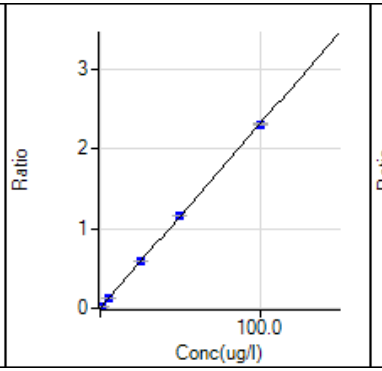
47 Ti [2] / ISTD: 45 Sc
y = 1.131E-3 x + 2.461E-5
R 0.9997
DL 0.1161
BEC 0.02176



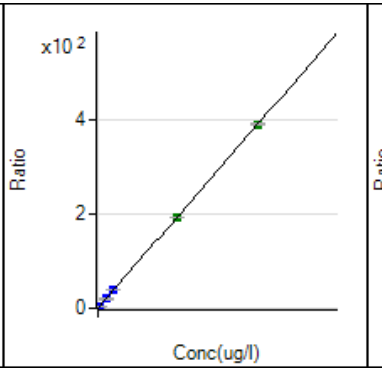
51 V [2] / ISTD: 45 Sc
y = 3.860E-2 x + 1.058E-3
R 1.0000
DL 0.01426
BEC 0.02741



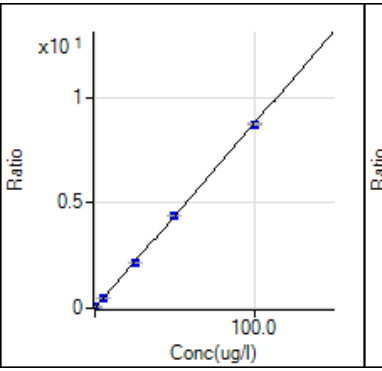
52 Cr [2] / ISTD: 45 Sc
y = 5.019E-2 x + 5.163E-3
R 1.0000
DL 0.009101
BEC 0.1029



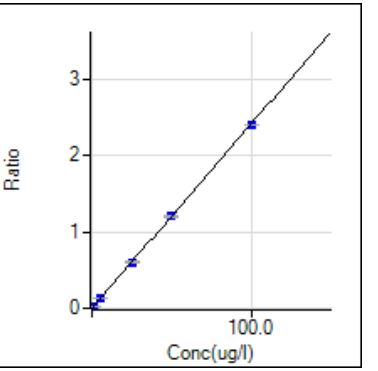
55 Mn [2] / ISTD: 45 Sc
y = 2.306E-2 x + 6.410E-4
R 1.0000
DL 0.03446
BEC 0.0278



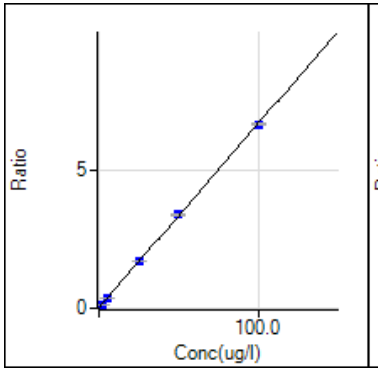
56 Fe [2] / ISTD: 45 Sc
y = 3.882E-2 x + 3.372E-2
R 1.0000
DL 0.06559
BEC 0.8686



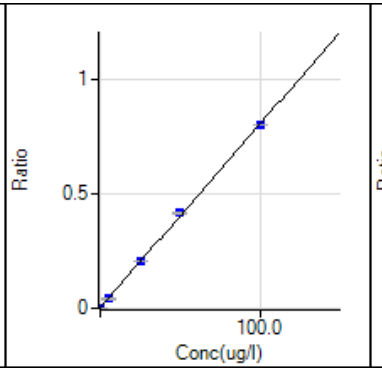
59 Co [2] / ISTD: 45 Sc
y = 8.780E-2 x + 7.798E-4
R 1.0000
DL 0.008
BEC 0.008882



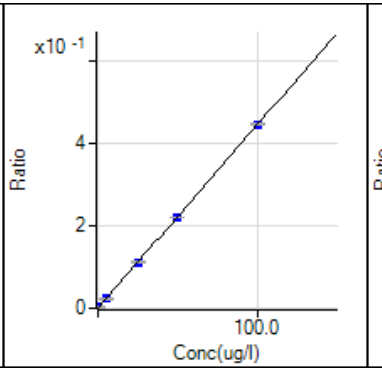
60 Ni [2] / ISTD: 45 Sc
y = 2.412E-2 x + 5.297E-4
R 1.0000
DL 0.004853
BEC 0.02197



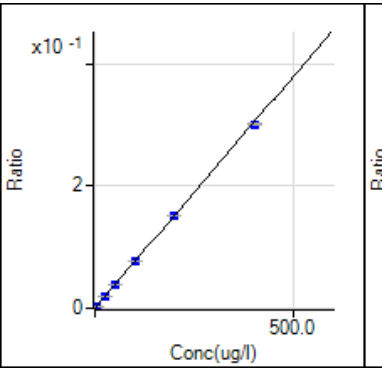
63 Cu [2] / ISTD: 45 Sc
y = 6.663E-2 x + 1.668E-2
R 1.0000
DL 0.01506
BEC 0.2504



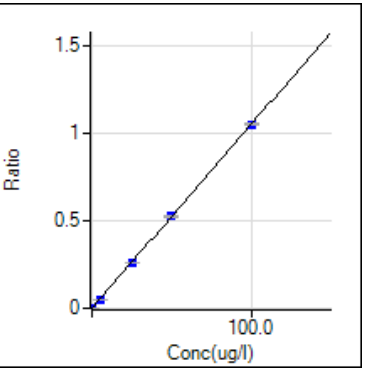
66 Zn [2] / ISTD: 45 Sc
y = 8.025E-3 x + 2.194E-3
R 0.9999
DL 0.07227
BEC 0.2735



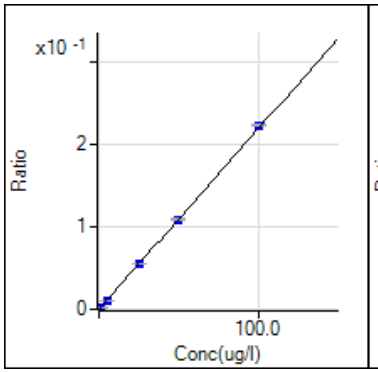
75 As [2] / ISTD: 45 Sc
y = 4.442E-3 x + 4.163E-5
R 1.0000
DL 0.01942
BEC 0.009373



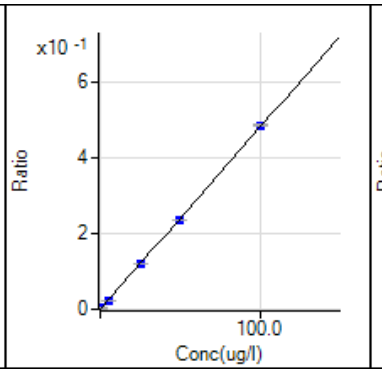
78 Se [3] / ISTD: 74 Ge
y = 7.608E-4 x + 6.645E-5
R 1.0000
DL 0.04789
BEC 0.08734



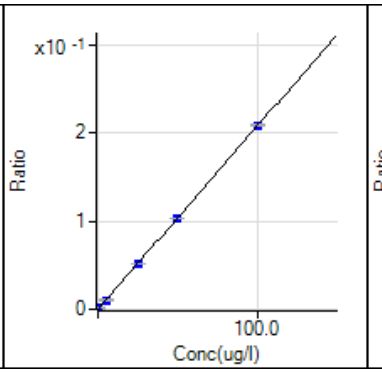
88 Sr [1] / ISTD: 103 Rh
y = 1.048E-2 x + 1.059E-4
R 1.0000
DL 0.0018
BEC 0.01011



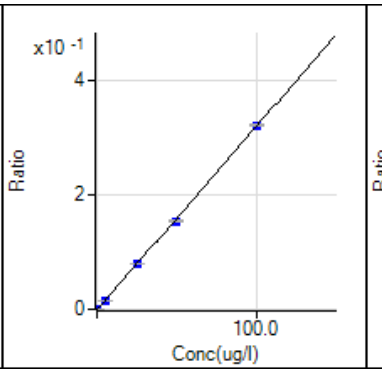
95 Mo [1] / ISTD: 103 Rh
y = 2.184E-3 x + 9.278E-6
R 0.9999
DL 0.01054
BEC 0.004249



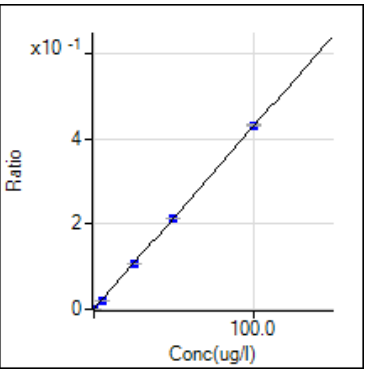
107 Ag [1] / ISTD: 115 In
y = 4.797E-3 x + 3.697E-6
R 0.9999
DL 0.002311
BEC 0.0007706



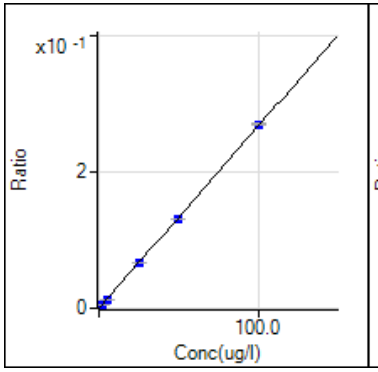
111 Cd [2] / ISTD: 115 In
y = 2.072E-3 x + 1.299E-5
R 1.0000
DL 0.00981
BEC 0.00627



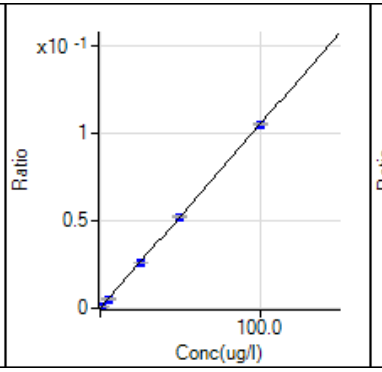
118 Sn [1] / ISTD: 115 In
y = 3.206E-3 x - 1.426E-3
R 0.9998
DL 0.02093
BEC -0.4448



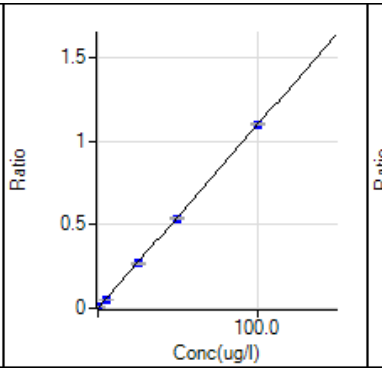
118 Sn [2] / ISTD: 115 In
y = 4.280E-3 x + 8.323E-4
R 1.0000
DL 0.0852
BEC 0.1945



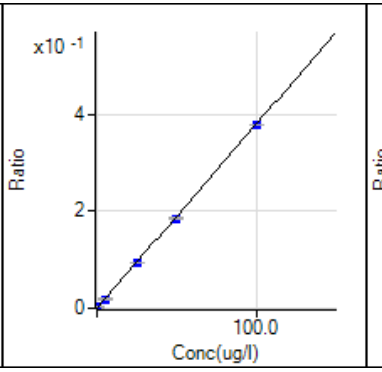
121 Sb [1] / ISTD: 159 Tb
y = 2.674E-3 x + 3.405E-5
R 0.9999
DL 0.007405
BEC 0.01274



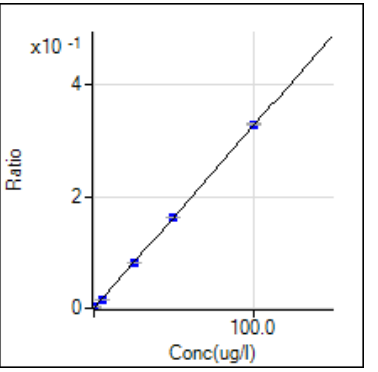
137 Ba [1] / ISTD: 159 Tb
y = 1.049E-3 x + 6.568E-6
R 1.0000
DL 0.006125
BEC 0.006261



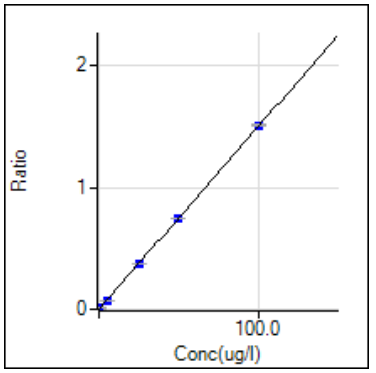
205 Tl [1] / ISTD: 209 Bi
y = 1.095E-2 x + 1.187E-4
R 0.9999
DL 0.006363
BEC 0.01085



206 Pb [1] / ISTD: 209 Bi
y = 3.793E-3 x + 9.625E-5
R 0.9999
DL 0.01412
BEC 0.02538



207 Pb [1] / ISTD: 209 Bi
y = 3.257E-3 x + 8.935E-5
R 1.0000
DL 0.02241
BEC 0.02743



208 Pb [1] / ISTD: 209 Bi

y = 1.501E-2 x + 3.562E-4

R	1.0000
DL	0.009399
BEC	0.02373

SGS North America Inc.

Accutest Aqueous Metals Digestion Form

Batch Information

Batch ID	Start Date	Start Time	End Date	End time	QC Samp 1	QC Samp 2
MP14424	4/22/2019	10:40	4/22/2019	16:20	JC86645-3	

Temperature

		Block ID1	Therm. ID#	Temperature	Correction	Corrected Temp
1	Start	3	2106305	97	-2	95
1	End	3	2106305	96	-2	94
2	Start					
2	End					

Methods and Equipment

	Dig. Method	Heating Method		Auto Pipette #	Digestion Tube Lot #	
	SW846 3010A	Digestion Block		M-74	1812114	

Sample ID	Bottle Number	Pres (Y/N)	Initial Sample Volume	Final Volume in ML	Reagent Groups Added	Spike Groups Added	Comments
MP14424-MB1	N/A	N	50	50	AB		
MP14424-B1	N/A	N	50	50	AB	ABCDE	
MP14424-S1	1	Y	50	50	AB	ABCDE	
MP14424-S2	1	Y	50	50	AB	ABCDE	
MP14424-SD1	1	Y	50	50	AB		
JC86645-10	1	Y	50	50	AB		
JC86645-10F	1	Y	50	50	AB		
JC86645-11	1	Y	50	50	AB		
JC86645-12	1	Y	50	50	AB		
JC86645-13	1	Y	50	50	AB		
JC86645-14	1	Y	50	50	AB		
JC86645-14F	1	Y	50	50	AB		
JC86645-15	1	Y	50	50	AB		
JC86645-2	1	Y	50	50	AB		
JC86645-3	1	Y	50	50	AB		
JC86645-4	1	Y	50	50	AB		
JC86645-7	1	Y	50	50	AB		
JC86645-8	1	Y	50	50	AB		
JC86645-9	1	Y	50	50	AB		
JC86645-9F	1	Y	50	50	AB		
JC86676-1	5	Y	50	50	AB		
JC86676-2	5	Y	50	50	AB		
JC86711-2	1	Y	50	50	AB		
JC86711-3	1	Y	50	50	AB		
JC86711-6	1	Y	50	50	AB		

Reagents Groups

Group	Description	MLs Used
A	CONC HNO3	3
B	1:1 HCL	5
C		
D		
E		
F		
G		
H		

Spike Groups

Group	Description	MLs Used
A	ACCUTEST 13B-REV1	0.2
B	ACCUTEST 14B-REV1	0.2
C	MINERALS 1000PPM	0.2
D	AG 20PPM	0.2
E	SE 20PPM	0.8
F	AG 20PPM	0.2
G		
H		

Comments:

Analyst TAYLORG **Approved by** RAKESHP **Approved on** 4/22/2019

Note: Reagent traceability for batch Start Date can be seen on the reagent traceability page for this batch.
Serial Dilution samples shown for QC purposes only.
Acceptable Temperature range is 90-95 degrees C unless otherwise noted

SGS

Metals Digestion Reagents Information Log

Digestion Batch ID: MP 14424 **Date:** 4/22/19

Matrix: ALL

Standard/Reagent Type	Exp. Date	Standard/Reagent ID
Spiking Solution - (ACCUTEST-13A REV1)	10/4/2019	MP-015-1153
Spiking Solution - (ACCUTEST-14A REV1)	10/4/2019	MP-015-1154
Spiking Solution - 5000 mg/l Minerals	2/15/2020	N2-MEB674932 MFG: INO. VENT.
Spiking Solution - Sulfur 1000ppm	4/11/2021	LOT: 041118 MFG: ABS. GRADE
Spiking Solution - Si 1000ppm	10/31/2019	N2-SI668066 MFG: INO. VENT.
Spiking Solution - Bi 1000ppm	1/16/2020	N2-BI669548 MFG: INO. VENT.
Spiking Solution - Se 20ppm	10/10/2019	MP-015-1156
Spiking Solution - Li 1000ppm	1/24/2020	N2-LI665824 MFG: INO. VENT.
Spiking Solution- Ag 20 ppm	10/16/2019	MP-015-1158
Spiking Solution - (ACCUTEST-13B REV1)	10/10/2019	MP-015-1157
Spiking Solution - (ACCUTEST-14B REV1)	7/3/2019	MP-015-1126
Spiking Solution - 1000ppm Minerals	6/4/2019	MP-015-1117
Spiking Solution- P		
Nitric Acid	4/19/2021	LOT: 213500 MFG: J.T. BAKER
Nitric Acid (1:1)	10/19/2019	MP-018-42-184 1:1 HNO3
Hydrochloric Acid	4/19/2021	LOT: 221681 MFG: J.T. BAKER
Hydrochloric Acid (1:1)	10/16/2019	MP-018-42-181 1:1 HCL
Hydrogen Peroxide	4/18/2021	LOT: 188006 MFG: FISHER
Soil Lab Control/Soil LC	3/31/2020	LOT: D094-540 MFG: ERA
Teflon Chips(For Soil MB and Blank Spike)	N/A	LOT: 24242815 MFG: SAINT-GOBAIN
Digestion Tubes	N/A	LOT: 1812114 MFG: ENV. EXPRESS
pH Paper	6/15/2021	LOT: 217518 MFG: HYDRION
Filter paper Q8	N/A	LOT: 16917460 MFG: FISHER
Filter paper 0.45µm	N/A	LOT: F8MA26136E MFG: FISHER

Spike witnessed By: LL

Validated By:

Validated On:

Metals Prep Reagent
1/17/18

General Chemistry

QC Data Summaries

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: JC86676
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Chemical Oxygen Demand	GP20799/GN94447	20	0.0	mg/l				
Chemical Oxygen Demand	GP20799/GN94447	20	0.0	mg/l	50	52.6	105.2	90-110%
HEM Oil and Grease	GP20823/GN94492	5.0	0.0	mg/l	40.78	33.6	82.4	78-114%
Solids, Total Suspended	GN94378	4.0	0.0	mg/l				

Associated Samples:
Batch GN94378: JC86676-1, JC86676-2
Batch GP20799: JC86676-1, JC86676-2
Batch GP20823: JC86676-1, JC86676-2
(*) Outside of QC limits

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: JC86676
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Chemical Oxygen Demand	GP20799/GN94447	JC86398-1	mg/l	0.0	0.0	0.0	0-25%
HEM Oil and Grease	GP20823/GN94492	JC86676-1	mg/l	3.2 U	0.0	0.0	0-18%
Solids, Total Suspended	GN94378	JC86676-1	mg/l	6.2	6.0	3.3	0-17%

Associated Samples:
Batch GN94378: JC86676-1, JC86676-2
Batch GP20799: JC86676-1, JC86676-2
Batch GP20823: JC86676-1, JC86676-2
(*) Outside of QC limits

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: JC86676
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Chemical Oxygen Demand	GP20799/GN94447	JC86398-1	mg/l	0.0	50	52.6	105.2	55-133%
HEM Oil and Grease	GP20823/GN94492	JC86828-1	mg/l	0.0	40.78	34.1	83.6	78-114%

Associated Samples:
Batch GP20799: JC86676-1, JC86676-2
Batch GP20823: JC86676-1, JC86676-2
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits

General Chemistry

Raw Data

Test: **Total Suspended Solids**
Method: **SM2540 D-11**

Product: **TSS**
Units: mg/l
RL: 4.0

GN Batch ID: GN94378
Analyst: RC
Date: 4/22/2019
Balance ID: B53

SGS

QC Summary Filtration Date: 4/22/19 OVEN ID: INC-21 Filtration Time: 13:01

MB ID:	GN94378-MB1	Result:	<rdl	RDL:	4	< RDL	yes
Dup ID:	GN94378-D1	Samp Resu	0	Dup Result:	0	% RPD:	0
Dup ID:	GN94378-D2	Samp Mass	6.2	Dup Mass:	6	% RPD:	3.28

Acceptable Temp. Range = 103 to 105 deg. C.

| | | | | | | |

TSS Worksheet

SGS ACCUTEST

Acceptable Temp. Range = 103 to 105 deg. C.

** Note - Filters are dried for a minimum of 1.5 h and dessicated for a minimum of 12 h. Constant mass is determined prior to filtering.

Date:	4/22/2019	4/22/2019					
Time (Start/Finish):	08:00/11:45	11:55/12:55					
Uncorr Temp Deg C (Start/Finish):	104/104	104/104					
Corr Temp Deg C (Start/Finish):	104/104	104/104					

Dish #	Filter size	Initial weight after drying** (mg)	Redry 1 Constant Weight in g (a)	Redry ?	Redry 2 Constant Weight in g (a)	Redry ?	Redry 3 Constant Weight in g (a)	Constant Weight
x1	42.00000	**0.0952**	**0.0952**	NO		*FALSE*		0.0952
x2	42.00000	**0.0949**	**0.0949**	NO		*FALSE*		0.0949
x3	42.00000	**0.0955**	**0.0955**	NO		*FALSE*		0.0955
x4	42.00000	**0.0960**	**0.0960**	NO		*FALSE*		0.0960
x5	42.00000	**0.0954**	**0.0954**	NO		***FALSE***		0.0954
x6	42.00000	**0.0953**	**0.0953**	NO		***FALSE***		0.0953
x7	42.00000	**0.0947**	**0.0948**	NO		***FALSE***		0.0948
x8	42.00000	**0.0949**	**0.0950**	NO		*FALSE*		0.0950
x9	42.00000	**0.0948**	**0.0948**	NO		*FALSE*		0.0948
x10	42.00000	**0.0954**	**0.0953**	NO		*FALSE*		0.0953
x11	42.00000	**0.0954**	**0.0954**	NO		*FALSE*		0.0954
x12	42.00000	**0.0952**	**0.0949**	NO		*FALSE*		0.0949
x13	42.00000	**0.0950**	**0.0950**	NO		*FALSE*		0.0950
x14	42.00000	**0.0950**	**0.0950**	NO		*FALSE*		0.0950
x15	42.00000	**0.0940**	**0.0940**	NO		*FALSE*		0.0940
				FALSE		FALSE		
				FALSE		FALSE		
				FALSE		FALSE		
				FALSE		FALSE		
				FALSE		FALSE		
				FALSE		FALSE		
				FALSE		FALSE		
				FALSE		FALSE		
				FALSE		FALSE		
				FALSE		FALSE		
				FALSE		FALSE		
				FALSE		FALSE		
				FALSE		FALSE		
				FALSE		FALSE		
				FALSE		FALSE		
				FALSE		FALSE		
				FALSE		FALSE		
				FALSE		FALSE		

X

JJY

SGS

GN94378

TSS SAMPLE DESCRIPTION SHEET

SGS Sample ID		Filter size used	Non-standard volumes. Comment with reason as shown below.	Limited Volume
JC86670-1	Clear	42	500	✓
JC86676-1	Pale		500	✓
JC86676-2	Cloudy		950	✓
JC86707-1	Slight Cloudy, Hazy, Particles, foamy		700 a	
JC86718-1	Slight pale		1000	
JC86718-2	almost clear		1000	
JC86718-3	↓		1000	
JC86668-4	foamy Cloudy Yellow		30 a	
JC86640-2	Smeelly, Cloudy Yellow & Particles, foamy		270 a	
JC82168-12E	Clear		100	✓
JC80495-2A	Clear		1000	
JC80495-2	↓	↓	1000	

QCD1
QCD2

Lot# P2731499

Reason (a). Sample contains heavy particulates and it can be assessed by appearance that it will clog the filter at higher volumes.
Reason (b). Initial analysis of the sample at a higher volume produced clogging. Rerunning at reduced volume.

Form: GN215-02
Rev. Date: 3/2/18

SGS

LOD and LOQ Scheduling

LOD Sample ID: JC80495-2A

Product:	TSS	**Matrix:**	Aq
LOD Concentration:	2 mg/L	**Units:**	mg/L
LOD Prep:	ERA P273-499 T.V. 32.2 mg/L 62.111 mg/L T 1000 ml of DI water		
Manufacturer/Lot:	P273-499	**Expiration Date:**	February 28, 202
GN ID:	GN94378	**Analysis Date**	04/22/19
Result/Units:	2	**Recovery:**	100 %
Within range of 50 to 150%? **	yes		

LOQ (RL) Sample ID:

Product:	TSS	**Matrix:**	Aq
LOQ Concentration:	4	**Units:**	mg/L
LOQ Prep:	124.223 mg/L of ERA P273-499 T.V. 32.2 T 1000 ml of DI water		
Manufacturer/Lot:	P273-499	**Expiration Date:**	Feb. 28, 2021
GN ID:	GN94378	**Analysis Date:**	04/22/19
Result/Units:	3.7	**Recovery:**	92.5 %
Within range of 70 to 130%? **	yes		

** if outside of range, notify supervisory team immediately to reschedule

Analyst: RC Date: 04/22/19

QC Review: Date:

Form: GN271-02
Rev. Date: 3/2/18

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ERA
A Waters Company

Reference Materials

▪ Certificate of Analysis ▪

Product: WatR™ Pollution Solids
Catalog Number: 499
Lot No. P273-499
Certificate Issue Date: December 21, 2017
Expiration Date: February 28, 2021
Revision Number: Original (Draft)

Product use instructions are included as part of the certification packet and are paginated separately from this Certificate of Analysis. Please reference the product use instructions for catalog #499 revision 030512.

CERTIFICATION

Parameter	Certified Value[1]	Uncertainty[2]	QC Performance Acceptance Limits[3]	PT Performance Acceptance Limits[4]
	mg/L	%	mg/L	mg/L
Total Suspended Solids	32.2	5.75	25.7 - 34.5	23.1 - 38.3
Total Dissolved Solids at 180°C	685	0.644	602 - 761	617 - 754
Total Solids at 105°C	734	0.642	632 - 807	661 - 807
pH (s.u.)	9.27	-	9.07 - 9.47	-

ANALYTICAL VERIFICATION

Parameter	Certified Value[1]	Proficiency Testing Study			NIST Traceability	
		Mean	Recovery[5]	n	SRM Number	Recovery
	mg/L	mg/L	%			%
Total Suspended Solids	32.2	29.8	92.6	56	-	-
Total Dissolved Solids at 180°C	685	677	98.8	27	999c	99.2
Total Solids at 105°C	734	737	101	25	999c	99.1
pH (s.u.)	9.27	-	-	-	187e	101

SGS

Test: Chemical Oxygen Demand (Low Level)
Product: COD AQ Methods: SM5220 C-11/ Hach 8000
Method: See above for AQ Units: mg/l
Hach 8000 /SM5220M mg/kg

Analyst: MRP
GN Batch ID: GN94447
GP Batch ID: GP20799
Date: 4/23/2019

Ave ml of FAS for Blank (A) = 3.80 Molarity of FAS: 0.0132

COD = { (A-B) x M x 8000 } / (sample amount in ml or g)

QC Summary:

Method Blank ID:	GP20799-MB1	Date	4/23/2019	Result:	0.0	DL:	20	<DL	Y
Spike Blank ID (± 10%):	BSLCONF	Date	4/23/2019	Result:	21.1	Spike:	20	% Rec:	105.3
Standard Check Low (±30%):	GP20799-B2	Date	4/23/2019	Result:	52.6	Spike:	50	% Rec:	105.3
Standard Check Mid (±10%):		Date:		Result:		Spike:		% Rec:	
Duplicate ID:	JC86398-1	Samp Result:		Dup Result:		% RPD:			
MS ID:	JC86398-1	Samp Result:	0	MS Result:	52.6	Spike:	50	% Rec:	105.3
External:		Result:		Known:		% Rec:			

Bottle #	Sample ID	Sample Volume (ml)	Dilution	Initial ml of FAS (C)	Final ml of FAS (D)	Total Vol FAS used in ml (D - C) = B	Blank FAS - Total FAS (A - B)	Calculated Result	Final Result	Detection Limit
MB1	GP20799-MB1	2.0000	1	0.00	3.80	3.80	0.00	0.0	0.00	20
MB2	GP20799-MB2	2.0000	1	0.00	3.80	3.80	0.00	0.0	0.00	20
BSP	BSLCONF	2.0000	1	0.00	3.40	3.40	0.40	21.1	21.06	20
BSP	GP20799-B2	2.0000	1	0.00	2.80	2.80	1.00	52.6	52.64	20
	GP20799-S1	2.0000	1	0.00	2.80	2.80	1.00	52.6	52.64	20
	GP20799-D1	2.0000	1	0.00	3.80	3.80	0.00	0.0	0.00	20
	JC86398-1	2.0000	1	0.00	3.80	3.80	0.00	0.0	0.00	20
	JC86398-2	2.0000	1	0.00	3.80	3.80	0.00	0.0	0.00	20
	JC86676-1	2.0000	1	0.00	3.75	3.75	0.05	2.6	2.63	20
	JC86676-2	2.0000	1	0.00	3.65	3.65	0.15	7.9	7.90	20
	JC86427-1	2.0000	1	0.00	3.50	3.50	0.30	15.8	15.79	20
	JC86427-2	2.0000	1	0.00	3.50	3.50	0.30	15.8	15.79	20
	JC86427-3	2.0000	1	0.00	3.55	3.55	0.25	13.2	13.16	20
	JC86427-4	2.0000	1	0.00	3.40	3.40	0.40	21.1	21.06	20
	JC86427-5	2.0000	1	0.00	3.45	3.45	0.35	18.4	18.42	20
	JC86427-6	2.0000	1	0.00	3.50	3.50	0.30	15.8	15.79	20
	JC86427-7	2.0000	1	0.00	3.40	3.40	0.40	21.1	21.06	20
	JC86427-12	2.0000	1	0.00	3.20	3.20	0.60	31.6	31.58	20
	JC86538-2	2.0000	1	0.00	3.25	3.25	0.55	29.0	28.95	20

Comments:

Validated By: Nancy Cole Validated Date: 4/14/2017
Analyst: Date: QC Reviewer: Date:
Document Control #: AGN-COD-20RL-03

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gn 9444)

Reagent Information Log - COD LOW (20 ppm)

Reagent	Reagent # or Manufacturer/Lot
Digestion Solution Tubes Low	~~1902024~~ GREEN WOOD ~~#190210A~~ XP02/2023
Ferroin Indicator Solution Low	GNE12-56780-COD XP5/15/19
Potassium Hydrogen Phthalate (KHP) Source	GNE3-57680-COD XP6/30/19
Standard Ferrous Ammonium Sulfate (FAS) Titrant 0.0124N/0.125N	GNE4--57809-COD XP10/19/19
H_2SO_4, Conc.	FISHER# 178261 XP:07/20/2023
Standard Potassium Dichromate Solution 0.025N	GNE12-56779-CODXP6/24/19
Potassium Hydrogen Phthalate ext source	GNE3-57681-COD XP6/30/19

Form: GN087-COD-01 Low 20 ppm
Rev Date:3/28/17

GENERAL CHEMISTRY STANDARD PREPARATION LOG FOR FE2

Product: COD

GN or GP Number: GN 94447

Description	standard	concentration	Stock vol used	Autopipet ID	al	Diluent	Volume	of	(a)	Analyst	Date
1000 ppm(STD)	GNE3-57680-COD	10,000 MG/L	10ML	A		DI water	100 ml	1000.00	6/30/2019	mrp	4/23/2019
1000PPM[EXT}	GNE3-57681-COD	10,000MG/L	10ML	A		DI water	100ml	1000	6/30/2019	mrp	4/23/2019
100ppm9STD)	GNE4-57695-COD	1000mg/l	10ML	A		DI water	100ML	100	5/2/2019	mrp	4/23/2019
100PPM[EXT}	GNE4-57696-COD	1000mg/l	10ML	A		DI water	100ml	100	5/2/2019	mrp	4/23/2019
Standard Description	used to prepare	Stock	Stock volume	Autopipet ID	al	Diluent	Volume	of Standard	(a)		
20	100PPM	20.00	10.00	A		DI water	50 ml	20.00	4/25/2019	eb	4/23/2019
50	100PPM	100.00	10.00	A		DI water	100ML	100.00	4/25/2019	eb	4/23/2019
150	1000PPM	150.00	7.5 ml	A		DI water	50 ml	150.00	4/25/2019	eb	4/23/2019
500	1000PPM	500.00	25 ml	A		DI water	50 ml	500.00	6/30/2019	eb	4/23/2019
10	100PPM	10.00	1.00	A		DI water	10 ml	10.00		eb	4/23/2019
[EXT]50	100PPM	50.00	25.00	A		DI water	50 ml	50.00	4/25/2019	eb	4/23/2019
[EXT]750	1000PPM	750.00	37.50	A		DI water	50 ml	750.00	4/25/2019	eb	4/23/2019

Form: GN121-02 FE2
Rev. Date 11/14/11

SGS

Test: Chemical Oxygen Demand Digestion Log	Product: COD	GPBatch ID:___ GP20799	
Method: SM5220 C-11, Hach 8000	Analyst___ MRP		Date:____ 4/23/2019
SM5220 C-11 Mod, Hach 8000 Mod	**Hach Low Level (20 to 150 mg/l)**		Lot no #190202A XP02/23
	Hach High Level (50 to 1500 mg/l)		_LOT NO_
Balance ID:___NA	Pipet ID: #46		

Standardization of FAS with Potassium Dichromate
Potassium Dichromate reagent number: see attached
Potassium Dichromate normality (N):__ 0.025N

mL of FAS for Standardization Blank 1: 3.5N
ml of FAS for Standardization Blank 2: 3.5N

Molarity of FAS = (N x vol. of dichromate digestion solution)/(ml of FAS for Standardization Blank)
Average molarity (Blank 1 and Blank 2) = 0.0132

Digestion START Time: 11:20 Digestion Temperature (deg. C):_____ 150 C
Digestion ENDTime: 13:30 Digestion Block ID:___ COD-3

Sample ID	Digestion Tube #	Initial Wt. (g) or Vol. (ml)	Final Vol. (ml)	Comments	BO NO
GP20799-MB1	MB1	2 ML	2 ML		
GP20799-MB2	MB2	2 ML	2 ML		
GP20799-B1	1	2 ML	2 ML	2ML OF20 PPM	
GP20799-B2	2	2 ML	2 ML	2ML OF 50 PPM	
GP20799-S1	3	2 ML	2 ML	1ML OF 100PPM	4
GP20799-D1	4	2 ML	2 ML		4
JC86398-1	5	2 ML	2 ML	Q.C	4
JC86398-2	6	2 ML	2 ML		4
JC86676-1	7	2 ML	2 ML		6
JC86676-2	8	2 ML	2 ML		6
JC86427-1	10	2 ML	2 ML		1
JC86427-2	11	2 ML	2 ML		1
JC86427-3	12	2 ML	2 ML		1
JC86427-4	13	2 ML	2 ML		1
JC86427-5	14	2 ML	2 ML		1
JC86427-6	15	2 ML	2 ML		1
JC86427-7	16	2 ML	2 ML		1
JC86427-12	17	2 ML	2 ML		1
JC86538-2	18	2 ML	2 ML		1

Form: GN018-04
Revised: 06/15/17

SGS

TEST: HEM Oil and Grease
Method: EPA 1664A
Date Extracted: 4/24/2019
Balance # Used: B16

OG1664
Reporting Date: 4/24/2019
Final Date Weighed: 4/24/2019
(Refer to balance log for balance calibration)

GN Group: GN94492
GP Group: GP20823
Analyst: TM
Units: mg/L

QC Summary

Units: mg/l

Dup Sample ID: JC86828-1
MS Sample ID: JC86828-1
Method Blank Date: 4/24/2019
Blank Spike Date: 4/24/2019
External: NA

Samp Res: <5
Samp Res: <5
Result: <5
Result: 33.6
Control Limit: NA

Dup Result: <5
Spike: 40.78
RL: 5
Spk Amt. 40.78
Result: NA

% RPD: 0%
MS Res: 34.1

% Rec. 83.62
<RL: yes
% Rec. 82.39
% Rec. NA

Speed Vap Temperature During Evaporation: 40 deg. C

Speed: Vap III
Vap ID:

(c) refer to Determination of Constant weights page for balance check weight results.

Flask #	Sample ID	Sample pH	Sample Volume (ml)	Total Weight (g)	Tare Weight (g)	Sample Weight (g)	Calc Result	Final Result	RL	Analysis Time
	0.002 g check (c)	na	na	0.0020	0.0020	na	na	na	na	11:00
	1.000 g check (c)	na	na	1.0000	1.0000	na	na	na	na	
	5.000 g check (c)	na	na	5.0003	5.0002	na	na	na	na	
	100 g check (c)	na	na	100.0019	100.0023	na	na	na	na	
MB	GP20823-MB1	<2	1000	2.4585	2.4582	0.0003	0.300	<5	5.00	11:00
BSP	GP20823-B1	<2	1000	2.5204	2.4868	0.0336	33.600	33.600	5.00	
MS	GP20823-S1	<2	1000	2.5114	2.4773	0.0341	34.100	34.100	5.00	
DUP	GP20823-D1	<2	1000	2.5070	2.5044	0.0026	2.600	<5	5.00	
1	JC86141-2	<2	1000	2.5456	2.5369	0.0087	8.700	8.700	5.00	
2	JC86828-1	<2	1000	2.4379	2.4378	0.0001	0.100	<5	5.00	
3	JC86181-1	<2	1000	2.4874	2.4219	0.0655	65.500	65.500	5.00	
4	JC86202-1	<2	1000	2.4376	2.4344	0.0032	3.200	<5	5.00	
5	JC86202-2	<2	1000	2.4259	2.4243	0.0016	1.600	<5	5.00	
6	JC86202-3	<2	1000	2.4456	2.4450	0.0006	0.600	<5	5.00	
7	JC86355-1	<2	1000	2.4370	2.4354	0.0016	1.600	<5	5.00	
8	JC86668-1	<2	1000	2.4522	2.4374	0.0148	14.800	14.800	5.00	
9	JC86676-1	<2	1000	2.5278	2.5264	0.0014	1.400	<5	5.00	
10	JC86676-2	<2	1000	2.5091	2.5090	0.0001	0.100	<5	5.00	17:00
	0.002 g check (c)	na	na	0.0020	0.0020	na	na	na	na	
	1.000g check(b)	na	na	1.0000	1.0000	na	na	na	na	

SGS

DETERMINATION OF CONSTANT WEIGHT

Test: HEM Oil and Grease
Method: EPA 1664A
Test Code: OG1664 10A

GN Group: GN94492
GP Group: GP20823
Analyst: TM
Units: mg/l

Balance ID#: B-16
Thermometer ID#: 73133
Thermometer correction factc 0

Definition of Constant Weight: Weight loss is less than 0.5 mg (0.0005 g).

Date:		4/24/2019	4/24/2019					
Start Time, End Time, Temp (Corrected, Uncorrected)	NA	15:30-16:00	16:35-17:05					Note: Samples must be dried at 70 +/- 2 deg. For a minimum of 30 minutes for each drying cycle.
Sample ID	Flask #	Initial Weight (g)	Second Weight (g)	Re-Weigh ?	Third Weight (g)	Re-Weigh ?	Fourth Weight (g)	Description
0.002 g check (c)		0.0020	0.0020	N				
1.000 g check (c)		1.0000	1.0000	N				
5.000 g check (c)		5.0003	5.0002					
100 g check (c)		100.0030	100.0028	N				
GP20823-MB1	MB	2.4585	2.4585	N				
GP20823-B1	BSP	2.5204	2.5204	N				
GP20823-S1	MS	2.5114	2.5114	N				
GP20823-D1	DUP	2.5070	2.5070	N				
JC86141-2	1	2.5456	2.5456	N				
JC86828-1	2	2.4379	2.4379	N				
JC86181-1	3	2.4874	2.4874	N				
JC86202-1	4	2.4376	2.4376	N				
JC86202-2	5	2.4259	2.4259	N				
JC86202-3	6	2.4456	2.4456	N				
JC86355-1	7	2.4370	2.4370	N				
JC86668-1	8	2.4522	2.4522	N				
JC86676-1	9	2.5278	2.5278	N				
JC86676-2	10	2.5091	2.5091	N				
1.000g check(b)		1.0000	1.0000	N				
5.000 g check (c)		5.0003	5.0002	N				

SGS

GP20823- OG1664

TRAY A

	Accutest Sample ID	Bottle #	Volume (mL)	Appearance (clarity, color, etc.)	Odor
MB	GP20823-MB1	NA	1000	CLEAR	NONE
BSP	GP20823-B1	NA	1000	CLEAR	NONE
MS	GP20823-S1	2	1000	CLEAR	NONE
DUP	GP20823-D1	1	1000	CLEAR	NONE
1	JC86141-2	2	1000	CLOUDY	NONE
2	JC86828-1	1	1000	CLEAR	NONE
3	JC86181-1	3	1000	CLOUDY	NONE
4	JC86202-1	1	1000	SLIGHTLY CLOUDY	NONE
5	JC86202-2	2	1000	CLEAR	NONE
6	JC86202-3	2	1000	CLEAR	NONE
7	JC86355-1	1	1000	CLEAR	NONE
8	JC86668-1	1	1000	CLOUDY	NONE
9	JC86676-1	2	1000	CLEAR	NONE
10	JC86676-2	2	1000	CLEAR	NONE
				HEM SPIKE	
				GNE4-57777-OG1664	
				5/16/2019	
				HEM: 8.155 mg/L HEX: 4.08 mg/L	

Form: GN-110
Rev. Date:4/24/2019

SGS

Reagent Information Log - OG1664 Water by EPA 1664A

Reagent	Expiration Date	Reagent # or Manufacturer/Lot
Hexane	12/12/2022	FISHER Lot #173528
HEM Spike	5/16/2019	GNE4-57777-OG1664
Methanol	4/4/2021	FISHER LOT #180813
Disk Filter	NA	LABORATORYSALES&SER.#103522
1:1 HCL	7/25/2019	GNE1-57044-PHC/OG1664
Sodium Sulfate	5/16/2019	GNE4-57781-PHC/OG1664
Filter 47mm	NA	LABORATORYSALES&SER.#150125
Pre-Filter 47mm	NA	LABORATORYSALES&SER.#141347
Filter 90/100mm	NA	LABORATORYSALES&SER.#140294
Pre-Filter 90/100mm	NA	LABORATORYSALES&SER.#141272
pH paper	6/1/2019	HYDRON LOT#215316
HEM Spike (ICV)	NA	NA

B1/S1= 5.0ml of 8.155 mg/L HEM SPIKE
HEX= 4.080 mg/L

Form: GN-087 1-44
Rev. Date: 11/4/08

The results set forth herein are provided by SGS North America Inc.

e-Hardcopy 2.0
Automated Report

Technical Report for

Tantara Corporation

USACE Buffalo Nike Missle UST, East Aurora, NY

19-382

SGS Job Number: JC87121

Sampling Dates: 04/24/19 - 04/25/19

Report to:

Tantara Corporation
54 Mason Street
Worcester, MA 01610
MLovejoy@TantaraCorp.com

ATTN: Mark Lovejoy

Total number of pages in report: 522

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Brian McGuire
General Manager

Client Service contact: Tammy McCloskey 732-329-0200

Certifications: NJ(12129), NY(10983), CA, CT, FL, IL, IN, KS, KY, LA, MA, MD, ME, MN, NC, OH VAP (CL0056), AK (UST-103), AZ (AZ0786), PA, RI, SC, TX, UT, VA, WV, DoD ELAP (ANAB L2248)

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SGS North America Inc.

Sample Summary

Tantara Corporation

Job No: JC87121

USACE Buffalo Nike Missle UST, East Aurora, NY
Project No: 19-382

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
JC87121-1	04/24/19	11:00	MJ	04/27/19	AQ	Water	SILO5-3
JC87121-2	04/25/19	11:15	MJ	04/27/19	AQ	Water	SILO3-1

CASE NARRATIVE / CONFORMANCE SUMMARY

Client: Tantara Corporation **Job No** JC87121

Site: USACE Buffalo Nike Missle UST, East Aurora, NY **Report Date** 5/6/2019 4:32:08 PM

On 04/27/2019, 2 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were received at SGS North America Inc. at a maximum corrected temperature of 1.1 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. Job Number of JC87121 was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Compounds qualified as out of range in the continuing calibration summary report are acceptable as per method requirements when there is a high bias but the sample result is non-detect.

MS Volatiles By Method SW846 8260C

Matrix: AQ **Batch ID:** VL9051

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC87067-2MS, JC87121-2DUP were used as the QC samples indicated.

Metals Analysis By Method SW846 6020B

Matrix: AQ **Batch ID:** MP14645

- All samples were digested within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC87142-4MS, JC87142-4MSD, JC87142-4SDL were used as the QC samples for metals.
- RPD(s) for Serial Dilution for Arsenic, Cadmium, Lead are outside control limits. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).
- MP14645-SD1 for Lead: Serial dilution indicates possible matrix interference.

General Chemistry By Method EPA 1664A

Matrix: AQ **Batch ID:** GP21011

- All samples were prepared within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC87121-1MS, JC87121-2DUP were used as the QC samples for HEM Oil and Grease.

General Chemistry By Method SM2540 D-11

Matrix: AQ **Batch ID:** GN94637

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC87023-1DUP were used as the QC samples for Solids, Total Suspended.

Matrix: AQ **Batch ID:** GN94725

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC87116-1DUP were used as the QC samples for Solids, Total Suspended.

General Chemistry By Method SM5220 C-11,HACH8000

Matrix: AQ **Batch ID:** GP20988

- All samples were prepared within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC87121-1DUP, JC87121-1MS were used as the QC samples for Chemical Oxygen Demand.

SGS North America Inc. certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting the Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

SGS North America Inc. is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. Data release is authorized by SGS North America Inc indicated via signature on the report cover

Summary of Hits

Job Number: JC87121
Account: Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY
Collected: 04/24/19 thru 04/25/19

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
JC87121-1	**SILO5-3**					
Aluminum		475	50	32	ug/l	SW846 6020B
Arsenic		1.2	1.0	0.94	ug/l	SW846 6020B
Barium		16.8	2.0	0.73	ug/l	SW846 6020B
Iron		573	50	19	ug/l	SW846 6020B
Lead		2.5	1.0	0.52	ug/l	SW846 6020B
Solids, Total Suspended		8.9	4.0	1.5	mg/l	SM2540 D-11
JC87121-2	**SILO3-1**					
Aluminum		1280	50	32	ug/l	SW846 6020B
Arsenic		1.6	1.0	0.94	ug/l	SW846 6020B
Barium		27.4	2.0	0.73	ug/l	SW846 6020B
Iron		1620	50	19	ug/l	SW846 6020B
Lead		5.6	1.0	0.52	ug/l	SW846 6020B
Solids, Total Suspended		48.8	4.0	1.5	mg/l	SM2540 D-11

Sample Results

Report of Analysis

SGS North America Inc.

Report of Analysis

Client Sample ID:	SILO5-3		
Lab Sample ID:	JC87121-1	**Date Sampled:**	04/24/19
Matrix:	AQ - Water	**Date Received:**	04/27/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	USACE Buffalo Nike Missle UST, East Aurora, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	L311564.D	1	04/30/19 10:54	BK	n/a	n/a	VL9051
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.50	0.43	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	88%		80-120%
17060-07-0	1,2-Dichloroethane-D4	89%		81-124%
2037-26-5	Toluene-D8	100%		80-120%
460-00-4	4-Bromofluorobenzene	94%		80-120%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SILO5-3
Lab Sample ID: JC87121-1
Matrix: AQ - Water
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Date Sampled: 04/24/19
Date Received: 04/27/19
Percent Solids: n/a

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Aluminum	475	50	32	ug/l	2	04/30/19	05/01/19	EAL	SW846 6020B [2]	SW846 3010A [3]
Arsenic	1.2	1.0	0.94	ug/l	2	04/30/19	04/30/19	GT	SW846 6020B [1]	SW846 3010A [3]
Barium	16.8	2.0	0.73	ug/l	2	04/30/19	04/30/19	GT	SW846 6020B [1]	SW846 3010A [3]
Cadmium	0.17 U	1.0	0.17	ug/l	2	04/30/19	05/01/19	EAL	SW846 6020B [2]	SW846 3010A [3]
Iron	573	50	19	ug/l	2	04/30/19	04/30/19	GT	SW846 6020B [1]	SW846 3010A [3]
Lead	2.5	1.0	0.52	ug/l	2	04/30/19	04/30/19	GT	SW846 6020B [1]	SW846 3010A [3]

(1) Instrument QC Batch: MA46617
(2) Instrument QC Batch: MA46632
(3) Prep QC Batch: MP14645

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	SILO5-3		
Lab Sample ID:	JC87121-1	**Date Sampled:**	04/24/19
Matrix:	AQ - Water	**Date Received:**	04/27/19
		Percent Solids:	n/a
Project:	USACE Buffalo Nike Missle UST, East Aurora, NY		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Chemical Oxygen Demand	11 U	20	11	mg/l	1	05/02/19 13:20	MP	SM5220 C-11,HACH8000
HEM Oil and Grease	1.2 U	5.0	1.2	mg/l	1	05/03/19 15:50	TM	EPA 1664A
Solids, Total Suspended	8.9	4.0	1.5	mg/l	1	04/29/19 12:18	RC	SM2540 D-11

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

SGS North America Inc.

Report of Analysis

Client Sample ID:	SILO3-1		
Lab Sample ID:	JC87121-2	**Date Sampled:**	04/25/19
Matrix:	AQ - Water	**Date Received:**	04/27/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	USACE Buffalo Nike Missle UST, East Aurora, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	L311565.D	1	04/30/19 11:21	BK	n/a	n/a	VL9051
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.50	0.43	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	90%		80-120%
17060-07-0	1,2-Dichloroethane-D4	91%		81-124%
2037-26-5	Toluene-D8	99%		80-120%
460-00-4	4-Bromofluorobenzene	96%		80-120%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SILO3-1
Lab Sample ID: JC87121-2
Matrix: AQ - Water
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Date Sampled: 04/25/19
Date Received: 04/27/19
Percent Solids: n/a

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Aluminum	1280	50	32	ug/l	2	04/30/19	05/01/19	EAL	SW846 6020B [2]	SW846 3010A [3]
Arsenic	1.6	1.0	0.94	ug/l	2	04/30/19	04/30/19	GT	SW846 6020B [1]	SW846 3010A [3]
Barium	27.4	2.0	0.73	ug/l	2	04/30/19	04/30/19	GT	SW846 6020B [1]	SW846 3010A [3]
Cadmium	0.17 U	1.0	0.17	ug/l	2	04/30/19	05/01/19	EAL	SW846 6020B [2]	SW846 3010A [3]
Iron	1620	50	19	ug/l	2	04/30/19	04/30/19	GT	SW846 6020B [1]	SW846 3010A [3]
Lead	5.6	1.0	0.52	ug/l	2	04/30/19	04/30/19	GT	SW846 6020B [1]	SW846 3010A [3]

(1) Instrument QC Batch: MA46617
(2) Instrument QC Batch: MA46632
(3) Prep QC Batch: MP14645

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	SILO3-1		
Lab Sample ID:	JC87121-2	**Date Sampled:**	04/25/19
Matrix:	AQ - Water	**Date Received:**	04/27/19
		Percent Solids:	n/a
Project:	USACE Buffalo Nike Missle UST, East Aurora, NY		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Chemical Oxygen Demand	11 U	20	11	mg/l	1	05/02/19 13:20	MP	SM5220 C-11,HACH8000
HEM Oil and Grease	1.2 U	5.0	1.2	mg/l	1	05/03/19 15:50	TM	EPA 1664A
Solids, Total Suspended	48.8	4.0	1.5	mg/l	1	04/30/19 16:18	RC	SM2540 D-11

RL = Reporting Limit
MDL = Method Detection Limit

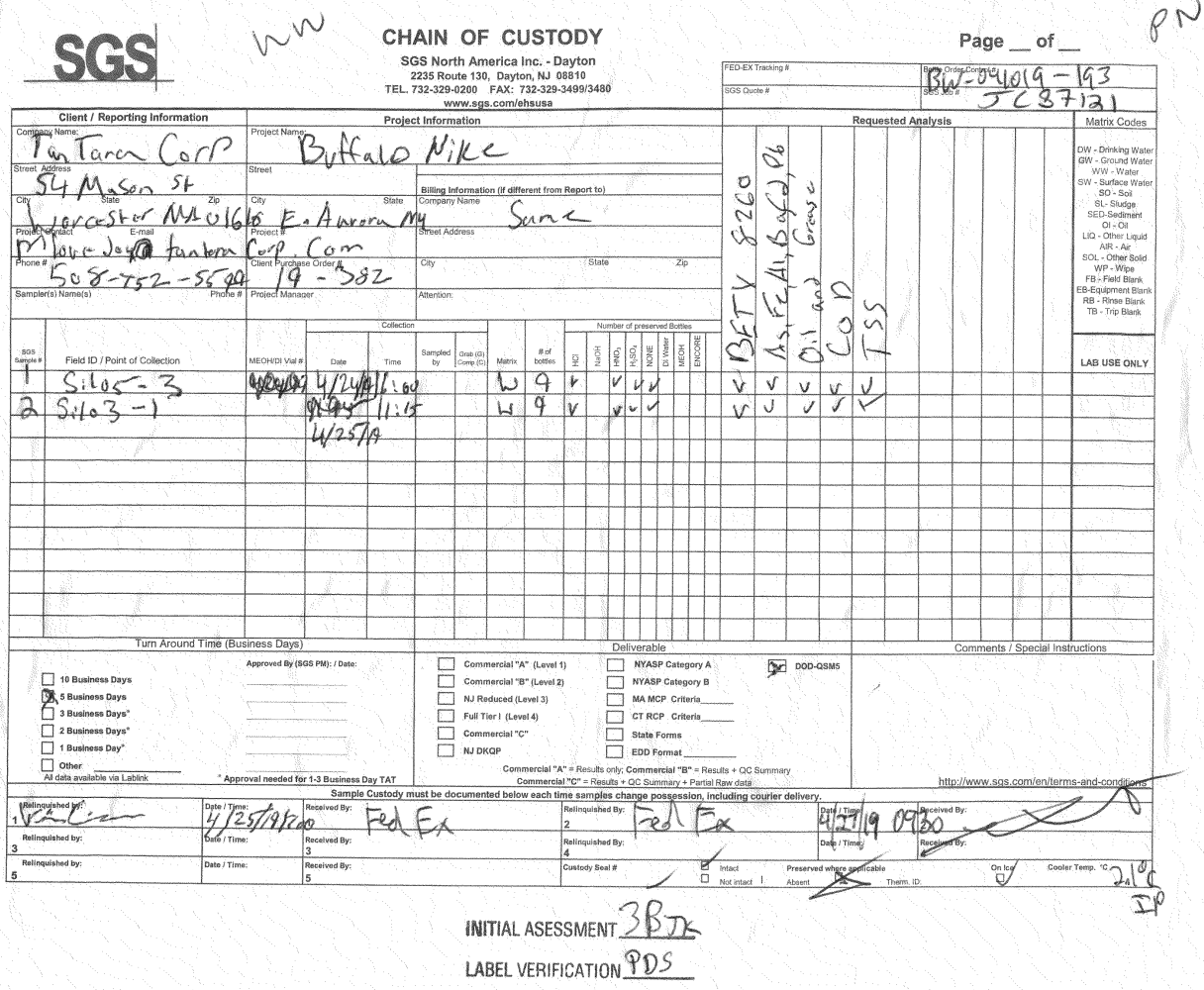
U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- Sample Tracking Chronicle
- Internal Chain of Custody



CHAIN OF CUSTODY

SGS North America Inc. - Dayton
2235 Route 130, Dayton, NJ 08810
TEL. 732-329-0200 FAX: 732-329-3499/3480
www.sgs.com/ehsusa

Page __ of __

FED-EX Tracking #: —
SGS Quote #: —
Bottle Order Control #: BW-04019-193
SGS Job #: JC87121

Client / Reporting Information

Company Name: TanTara Corp
Street Address: 54 Mason St
City / State / Zip: Worcester MA 01610
Project Contact / E-mail: Mike Jay@tantaracorp.com
Phone #: 508-752-5500
Sampler(s) Name(s) / Phone #:

Project Information

Project Name: Buffalo Mike
Street:
City / State:
Project #: 19-382
Client Purchase Order #:
Project Manager:

Billing Information (if different from Report to)

Company Name: Same
Street Address:
City / State / Zip:
Attention:

Requested Analysis

BETX 8260
As, Fe, Al, Ba, Cd, Cr
O&G, Grease
COD
TSS

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL - Sludge
SED-Sediment
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid
WP - Wipe
FB - Field Blank
EB-Equipment Blank
RB - Rinse Blank
TB - Trip Blank

SGS Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Grab (G) Comp (C)	Matrix	# of bottles	HCl	NaOH	HNO_3	H_2SO_4	NONE	DI Water	MEOH	ENCORE	LAB USE ONLY
1	S:105-3		4/24/19	1:00			W	9	V			V	V				
2	S:103-1		4/24/19	11:15			W	9	V			V	V				
			4/25/19														

L23
C11
A20
V1008

Turn Around Time (Business Days)

Approved By (SGS PM): / Date:

- [ ] 10 Business Days
- [x] 5 Business Days
- [ ] 3 Business Days*
- [ ] 2 Business Days*
- [ ] 1 Business Day*
- [ ] Other

All data available via Lablink

* Approval needed for 1-3 Business Day TAT

Deliverable

- [ ] Commercial "A" (Level 1)
- [ ] Commercial "B" (Level 2)
- [ ] NJ Reduced (Level 3)
- [ ] Full Tier I (Level 4)
- [ ] Commercial "C"
- [ ] NJ DKQP
- [ ] NYASP Category A
- [ ] NYASP Category B
- [ ] MA MCP Criteria
- [ ] CT RCP Criteria
- [ ] State Forms
- [ ] EDD Format
- [x] DOD-QSM5

Commercial "A" = Results only; Commercial "B" = Results + QC Summary
Commercial "C" = Results + QC Summary + Partial Raw data

Comments / Special Instructions

http://www.sgs.com/en/terms-and-conditions

Sample Custody must be documented below each time samples change possession, including courier delivery.

	Relinquished by:	Date / Time:	Received By:	Relinquished by:	Date / Time:	Received By:
1		4/25/19 1700	Fed Ex	Fed Ex	4/27/19 0900	
3						
5						

Custody Seal #: — Intact / Not intact — Preserved where applicable — Absent — On Ice — Therm. ID: — Cooler Temp. °C: 2.1

INITIAL ASSESMENT 3BDK

LABEL VERIFICATION PDS

EHSA-QAC-0023-02-FORM-Dayton - Standard COC.xlsx

JC87121: Chain of Custody
Page 1 of 5

SAMPLE LOG SHEET
SILO WATER TREATMENT DISCHARGE
Buffalo Nike Silo Closure, East Aurora, NY

Date: 4/25/19 Silo # 3

Time: 11:15 Treated Vol. Of Water from this Silo: _____ gals

Date of Last Calibration: _____

Water Apperance :	Clear	Cloudy	_____
Odor?	Yes	No	_____
Sample Collected:	Yes	No	

If yes, sample ID# _____

		Acceptable Limits
Temperature	_____ C	NA
pH:	_____	6.0 - 9.0
Dissolved Oxygen	_____ mg/L	5 mg/L or greater

Totalizer Start: 17737060

Totalizer Finish: 17737408

Notes: Meter Broken New one Coming

JC87121: Chain of Custody
Page 2 of 5

SAMPLE LOG SHEET
SILO WATER TREATMENT DISCHARGE
Buffalo Nike Silo Closure, East Aurora, NY

Date: 4/24/19 **Silo #** 5

Time: 16:00 **Treated Vol. Of Water from this Silo:** 344,700 gals

Date of Last Calibration: 4/24/19

Water Apperance : (Clear) Cloudy — Clear

Odor? Yes (No) — Nd

Sample Collected: Yes No

If yes, sample ID# [redacted] Silo-3

		Acceptable Limits
Temperature	12.19 C	NA
pH:	8.1	6.0 - 9.0
Dissolved Oxygen	15.52 mg/L	5 mg/L or greater

Totalizer Start: 1714 30600

Totalizer Finish: 1737600

Notes:

JC87121: Chain of Custody
Page 3 of 5

SGS Sample Receipt Summary

Job Number: JC87121 **Client:** TANTARA CORPORATION **Project:** USACE BUFFALO NIKE MISSLE UST, EAST AU

Date / Time Received: 4/27/2019 9:30:00 AM **Delivery Method:** FedEx **Airbill #'s:**

Cooler Temps (Raw Measured) °C: Cooler 1: (2.1);

Cooler Temps (Corrected) °C: Cooler 1: (1.1);

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	☑		☐	3. COC Present:	☑		☐
2. Custody Seals Intact:	☑		☐	4. Smpl Dates/Time OK	☑		☐

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Cooler temp verification:	IR Gun		
3. Cooler media:	Ice (Bag)		
4. No. Coolers:	1		

Quality Control Preservation	Y	or	N	N/A
1. Trip Blank present / cooler:	☐		☑	☐
2. Trip Blank listed on COC:	☐		☑	☐
3. Samples preserved properly:	☑		☐	
4. VOCs headspace free:	☑		☐	☐

Sample Integrity - Documentation	Y	or	N
1. Sample labels present on bottles:	☑		☐
2. Container labeling complete:	☑		☐
3. Sample container label / COC agree:	☑		☐

Sample Integrity - Condition	Y	or	N
1. Sample recvd within HT:	☑		☐
2. All containers accounted for:	☑		☐
3. Condition of sample:	Intact		

Sample Integrity - Instructions	Y	or	N	N/A
1. Analysis requested is clear:	☑		☐	
2. Bottles received for unspecified tests	☐		☑	
3. Sufficient volume recvd for analysis:	☑		☐	
4. Compositing instructions clear:	☐		☐	☑
5. Filtering instructions clear:	☐		☐	☑

Test Strip Lot #s: pH 1-12: 206717 pH 12+: 208717 Other: (Specify)

Comments -2: Did not receive HNO3 preserved volume for Metals. Aliquoted 500mL from one of the TSS volumes. Volume preserved on 4/27/19 @ 10:40.

SM089-02 Rev. Date 12/1/16

Responded to by: Tammy Esposito McCloskey Response Date: 4/29/19p

Proceed as noted per Mark Lovejoy

Internal Sample Tracking Chronicle

Tantara Corporation

Job No: JC87121

USACE Buffalo Nike Missle UST, East Aurora, NY
Project No: 19-382

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JC87121-1 SILO5-3	Collected: 24-APR-19 11:00 By: MJ		Received: 27-APR-19 By: DG			
JC87121-1	SM2540 D-11	29-APR-19 12:18	RC			TSS
JC87121-1	SW846 8260C	30-APR-19 10:54	BK			V8260BTX
JC87121-1	SW846 6020B	30-APR-19 23:14	GT	30-APR-19	WWZ	ASMS,BAMS,FEMS,PBMS
JC87121-1	SW846 6020B	01-MAY-19 16:07	EAL	30-APR-19	WWZ	ALMS,CDMS
JC87121-1	SM5220 C-11,HACH8000	02-MAY-19 13:20	MP	02-MAY-19	MP	COD
JC87121-1	EPA 1664A	03-MAY-19 15:50	TM	03-MAY-19	TM	OG1664
JC87121-2 SILO3-1	Collected: 25-APR-19 11:15 By: MJ		Received: 27-APR-19 By: DG			
JC87121-2	SW846 8260C	30-APR-19 11:21	BK			V8260BTX
JC87121-2	SM2540 D-11	30-APR-19 16:18	RC			TSS
JC87121-2	SW846 6020B	30-APR-19 23:29	GT	30-APR-19	WWZ	ASMS,BAMS,FEMS,PBMS
JC87121-2	SW846 6020B	01-MAY-19 16:12	EAL	30-APR-19	WWZ	ALMS,CDMS
JC87121-2	SM5220 C-11,HACH8000	02-MAY-19 13:20	MP	02-MAY-19	MP	COD
JC87121-2	EPA 1664A	03-MAY-19 15:50	TM	03-MAY-19	TM	OG1664

SGS Internal Chain of Custody

Job Number: JC87121
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY
Received: 04/27/19

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC87121-1.1	Secured Storage	Tharun Murali	05/03/19 09:36	Retrieve from Storage
JC87121-1.1	Tharun Murali		05/03/19 16:32	Depleted
JC87121-1.2	Secured Storage	Sahara Feliciano	05/01/19 16:56	Retrieve from Storage
JC87121-1.2	Sahara Feliciano	Secured Staging Area	05/01/19 16:56	Return to Storage
JC87121-1.2	Secured Staging Area	Tharun Murali	05/02/19 08:56	Retrieve from Storage
JC87121-1.2	Secured Storage	Matthew Robbins	05/02/19 19:03	Retrieve from Storage
Bottle was returned to secure storage, but inadvertently not scanned.				
JC87121-1.2	Secured Storage	Matthew Robbins	05/02/19 19:03	Retrieve from Storage
Bottle was returned to secure storage, but inadvertently not scanned.				
JC87121-1.2	Matthew Robbins	Secured Staging Area	05/02/19 19:03	Return to Storage
JC87121-1.2	Secured Staging Area	Tharun Murali	05/03/19 08:37	Retrieve from Storage
JC87121-1.2	Tharun Murali		05/03/19 16:32	Depleted
JC87121-1.2.1	Tharun Murali	TCLP	05/03/19 08:37	Leachate from JC87121-1.2
JC87121-1.4	Secured Storage	Dwayne Johnson	04/29/19 11:40	Retrieve from Storage
JC87121-1.4	Dwayne Johnson	Secured Staging Area	04/29/19 11:40	Return to Storage
JC87121-1.4	Secured Staging Area	Ruchitaben Chauhan	04/29/19 17:20	Retrieve from Storage
JC87121-1.4	Ruchitaben Chauhan		04/29/19 17:21	Depleted
JC87121-1.5	Secured Storage	Todd Shoemaker	04/29/19 15:01	Retrieve from Storage
JC87121-1.5	Todd Shoemaker	Secured Staging Area	04/29/19 15:02	Return to Storage
JC87121-1.5	Secured Staging Area	Moustafa Ramadan	04/29/19 18:15	Retrieve from Storage
JC87121-1.5	Moustafa Ramadan	Secured Storage	04/29/19 18:21	Return to Storage
JC87121-1.5	Secured Storage	Bhooma Patel	04/30/19 07:04	Retrieve from Storage
JC87121-1.5	Bhooma Patel	Secured Storage	04/30/19 10:50	Return to Storage
JC87121-1.5.1	Bhooma Patel	Metals Digestion	04/30/19 10:40	Digestate from JC87121-1.5
JC87121-1.5.1	Metals Digestion	Bhooma Patel	04/30/19 10:42	Digestate from JC87121-1.5
JC87121-1.5.1	Bhooma Patel	Metals Digestate Storage	04/30/19 10:42	Return to Storage
JC87121-1.6	Secured Storage	Benjamin Gaines	05/01/19 16:56	Retrieve from Storage
JC87121-1.6	Benjamin Gaines	Secured Staging Area	05/01/19 16:56	Return to Storage
JC87121-1.6	Secured Staging Area	Mahendra Patel	05/02/19 08:25	Retrieve from Storage
JC87121-1.6	Mahendra Patel	Secured Storage	05/02/19 17:46	Return to Storage
JC87121-1.7	Secured Storage	Devin Gomez	04/29/19 23:26	Retrieve from Storage
JC87121-1.7	Devin Gomez	GCMSL	04/29/19 23:26	Load on Instrument
JC87121-1.7	GCMSL	Jessica Potts	04/30/19 07:53	Unload from Instrument
JC87121-1.7	Jessica Potts	GCMSL	04/30/19 07:53	Load on Instrument
JC87121-1.7	GCMSL	Krizhka Cuenta	05/01/19 08:43	Unload from Instrument
JC87121-1.7	Krizhka Cuenta	Secured Storage	05/01/19 08:44	Return to Storage

SGS Internal Chain of Custody

Job Number: JC87121
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY
Received: 04/27/19

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC87121-1.8	Secured Storage	Krizhka Cuenta	04/30/19 12:08	Retrieve from Storage
JC87121-1.8	Krizhka Cuenta	GCMSL	04/30/19 12:08	Load on Instrument
JC87121-1.8	GCMSL	Krizhka Cuenta	04/30/19 12:14	Unload from Instrument
JC87121-1.8	Krizhka Cuenta		04/30/19 12:14	Broken
JC87121-2.1	Secured Storage	Sahara Feliciano	05/01/19 16:56	Retrieve from Storage
JC87121-2.1	Sahara Feliciano	Secured Staging Area	05/01/19 16:56	Return to Storage
JC87121-2.1	Secured Staging Area	Tharun Murali	05/02/19 08:56	Retrieve from Storage
JC87121-2.1	Secured Storage	Matthew Robbins	05/02/19 19:03	Retrieve from Storage
Bottle was returned to secure storage, but inadvertently not scanned.				
JC87121-2.1	Secured Storage	Matthew Robbins	05/02/19 19:03	Retrieve from Storage
Bottle was returned to secure storage, but inadvertently not scanned.				
JC87121-2.1	Matthew Robbins	Secured Staging Area	05/02/19 19:03	Return to Storage
JC87121-2.1	Secured Staging Area	Tharun Murali	05/03/19 08:37	Retrieve from Storage
JC87121-2.1	Tharun Murali		05/03/19 16:32	Depleted
JC87121-2.1.1	Tharun Murali	TCLP	05/03/19 08:37	Leachate from JC87121-2.1
JC87121-2.2	Secured Storage	Tharun Murali	05/03/19 09:36	Retrieve from Storage
JC87121-2.2	Tharun Murali		05/03/19 16:32	Depleted
JC87121-2.3	Secured Storage	Todd Shoemaker	04/30/19 09:07	Retrieve from Storage
JC87121-2.3	Todd Shoemaker	Secured Staging Area	04/30/19 09:08	Return to Storage
JC87121-2.3	Secured Staging Area	Ruchitaben Chauhan	04/30/19 09:33	Retrieve from Storage
JC87121-2.3	Ruchitaben Chauhan	Secured Storage	04/30/19 17:42	Return to Storage
JC87121-2.5	Secured Storage	Todd Shoemaker	04/29/19 15:01	Retrieve from Storage
JC87121-2.5	Todd Shoemaker	Secured Staging Area	04/29/19 15:02	Return to Storage
JC87121-2.5	Secured Staging Area	Moustafa Ramadan	04/29/19 18:15	Retrieve from Storage
JC87121-2.5	Moustafa Ramadan	Secured Storage	04/29/19 18:21	Return to Storage
JC87121-2.5	Secured Storage	Bhooma Patel	04/30/19 07:04	Retrieve from Storage
JC87121-2.5	Bhooma Patel	Secured Storage	04/30/19 10:50	Return to Storage
JC87121-2.5.1	Bhooma Patel	Metals Digestion	04/30/19 10:40	Digestate from JC87121-2.5
JC87121-2.5.1	Metals Digestion	Bhooma Patel	04/30/19 10:42	Digestate from JC87121-2.5
JC87121-2.5.1	Bhooma Patel	Metals Digestate Storage	04/30/19 10:42	Return to Storage
JC87121-2.6	Secured Storage	Benjamin Gaines	05/01/19 16:56	Retrieve from Storage
JC87121-2.6	Benjamin Gaines	Secured Staging Area	05/01/19 16:56	Return to Storage
JC87121-2.6	Secured Staging Area	Mahendra Patel	05/02/19 08:25	Retrieve from Storage
JC87121-2.6	Mahendra Patel	Secured Storage	05/02/19 17:46	Return to Storage
JC87121-2.8	Secured Storage	Krizhka Cuenta	04/30/19 12:08	Retrieve from Storage
JC87121-2.8	Krizhka Cuenta	GCMSL	04/30/19 12:08	Load on Instrument

SGS Internal Chain of Custody

Job Number: JC87121
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY
Received: 04/27/19

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC87121-2.8	GCMSL	Krizhka Cuenta	05/01/19 08:43	Unload from Instrument
JC87121-2.8	Krizhka Cuenta	Secured Storage	05/01/19 08:44	Return to Storage
JC87121-2.9	Secured Storage	Devin Gomez	04/29/19 23:26	Retrieve from Storage
JC87121-2.9	Devin Gomez	GCMSL	04/29/19 23:26	Load on Instrument
JC87121-2.9	GCMSL	Jessica Potts	04/30/19 07:53	Unload from Instrument
JC87121-2.9	Jessica Potts	GCMSL	04/30/19 07:53	Load on Instrument
JC87121-2.9	GCMSL	Krizhka Cuenta	05/01/19 08:43	Unload from Instrument
JC87121-2.9	Krizhka Cuenta	Secured Storage	05/01/19 08:44	Return to Storage

MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Instrument Performance Checks (BFB)
- Internal Standard Area Summaries
- Surrogate Recovery Summaries
- Initial and Continuing Calibration Summaries

Method Blank Summary

Job Number: JC87121
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VL9051-MB	L311558.D	1	04/30/19	BK	n/a	n/a	VL9051

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC87121-1, JC87121-2

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.50	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	87%	80-120%
17060-07-0	1,2-Dichloroethane-D4	90%	81-124%
2037-26-5	Toluene-D8	101%	80-120%
460-00-4	4-Bromofluorobenzene	95%	80-120%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

Blank Spike Summary

Job Number: JC87121
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VL9051-BS	L311556.D	1	04/30/19	BK	n/a	n/a	VL9051

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC87121-1, JC87121-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	50	53.7	107	80-120
100-41-4	Ethylbenzene	50	53.2	106	80-120
108-88-3	Toluene	50	54.5	109	80-120
1330-20-7	Xylene (total)	150	161	107	80-120

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	89%	80-120%
17060-07-0	1,2-Dichloroethane-D4	82%	81-124%
2037-26-5	Toluene-D8	93%	80-120%
460-00-4	4-Bromofluorobenzene	98%	80-120%

* = Outside of Control Limits.

Matrix Spike Summary

Job Number: JC87121
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC87067-2MS	L311569.D	1	04/30/19	BK	n/a	n/a	VL9051
JC87067-2	L311567.D	1	04/30/19	BK	n/a	n/a	VL9051

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC87121-1, JC87121-2

CAS No.	Compound	JC87067-2 ug/l	Q	Spike ug/l	MS ug/l	MS %	Limits
71-43-2	Benzene	ND		50	49.8	100	54-136
100-41-4	Ethylbenzene	ND		50	49.3	99	51-140
108-88-3	Toluene	1.3		50	50.2	98	60-135
1330-20-7	Xylene (total)	ND		150	146	97	56-139

CAS No.	Surrogate Recoveries	MS	JC87067-2	Limits
1868-53-7	Dibromofluoromethane	90%	92%	80-120%
17060-07-0	1,2-Dichloroethane-D4	84%	93%	81-124%
2037-26-5	Toluene-D8	91%	98%	80-120%
460-00-4	4-Bromofluorobenzene	99%	95%	80-120%

* = Outside of Control Limits.

Duplicate Summary

Job Number: JC87121
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC87121-2DUP	L311571.D	1	04/30/19	BK	n/a	n/a	VL9051
JC87121-2	L311565.D	1	04/30/19	BK	n/a	n/a	VL9051

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC87121-1, JC87121-2

CAS No.	Compound	JC87121-2 ug/l	Q	DUP ug/l	Q	RPD	Limits
71-43-2	Benzene	ND		ND		nc	20
100-41-4	Ethylbenzene	ND		ND		nc	20
108-88-3	Toluene	ND		ND		nc	20
1330-20-7	Xylene (total)	ND		ND		nc	20

CAS No.	Surrogate Recoveries	DUP	JC87121-2	Limits
1868-53-7	Dibromofluoromethane	91%	90%	80-120%
17060-07-0	1,2-Dichloroethane-D4	90%	91%	81-124%
2037-26-5	Toluene-D8	100%	99%	80-120%
460-00-4	4-Bromofluorobenzene	95%	96%	80-120%

* = Outside of Control Limits.

Instrument Performance Check (BFB)

Job Number: JC87121
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample: VL9011-BFB
Lab File ID: L310721.D
Instrument ID: GCMSL
Injection Date: 04/03/19
Injection Time: 17:18

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	17736	20.9		Pass
75	30.0 - 60.0% of mass 95	41733	49.1		Pass
95	Base peak, 100% relative abundance	84957	100.0		Pass
96	5.0 - 9.0% of mass 95	5939	6.99		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 120.0% of mass 95	72739	85.6		Pass
175	5.0 - 9.0% of mass 174	5566	6.55	(7.65) [a]	Pass
176	95.0 - 101.0% of mass 174	70429	82.9	(96.8) [a]	Pass
177	5.0 - 9.0% of mass 176	4796	5.65	(6.81) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
VL9011-IC9011	L310722.D	04/03/19	18:05	00:47	Initial cal 0.2
VL9011-IC9011	L310723.D	04/03/19	18:32	01:14	Initial cal 0.5
VL9011-IC9011	L310724.D	04/03/19	18:59	01:41	Initial cal 1
VL9011-IC9011	L310725.D	04/03/19	19:26	02:08	Initial cal 2
VL9011-IC9011	L310726.D	04/03/19	19:53	02:35	Initial cal 4
VL9011-IC9011	L310727.D	04/03/19	20:20	03:02	Initial cal 8
VL9011-IC9011	L310728.D	04/03/19	20:47	03:29	Initial cal 20
VL9011-ICC9011	L310729.D	04/03/19	21:15	03:57	Initial cal 50
VL9011-IC9011	L310730.D	04/03/19	21:42	04:24	Initial cal 100
VL9011-IC9011	L310731.D	04/03/19	22:09	04:51	Initial cal 200
VL9011-ICV9011	L310734.D	04/03/19	23:30	06:12	Initial cal verification 50
VL9011-ICV9011	L310735.D	04/03/19	23:57	06:39	Initial cal verification 50

Instrument Performance Check (BFB)

Job Number: JC87121
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample:	VL9051-BFB	**Injection Date:**	04/30/19
Lab File ID:	L311555.D	**Injection Time:**	06:26
Instrument ID:	GCMSL		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	11644	17.7		Pass
75	30.0 - 60.0% of mass 95	30595	46.5		Pass
95	Base peak, 100% relative abundance	65803	100.0		Pass
96	5.0 - 9.0% of mass 95	4369	6.64		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 120.0% of mass 95	56384	85.7		Pass
175	5.0 - 9.0% of mass 174	4248	6.46	(7.53) [a]	Pass
176	95.0 - 101.0% of mass 174	55915	85.0	(99.2) [a]	Pass
177	5.0 - 9.0% of mass 176	4117	6.26	(7.36) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
VL9051-CC9011	L311555.D	04/30/19	06:26	00:00	Continuing cal 20
VL9051-BS	L311556.D	04/30/19	06:58	00:32	Blank Spike
VL9051-MB	L311558.D	04/30/19	07:59	01:33	Method Blank
ZZZZZZ	L311559.D	04/30/19	08:38	02:12	(unrelated sample)
ZZZZZZ	L311560.D	04/30/19	09:06	02:40	(unrelated sample)
ZZZZZZ	L311561.D	04/30/19	09:33	03:07	(unrelated sample)
ZZZZZZ	L311563.D	04/30/19	10:27	04:01	(unrelated sample)
JC87121-1	L311564.D	04/30/19	10:54	04:28	SILO5-3
JC87121-2	L311565.D	04/30/19	11:21	04:55	SILO3-1
ZZZZZZ	L311566.D	04/30/19	11:48	05:22	(unrelated sample)
JC87067-2	L311567.D	04/30/19	12:15	05:49	(used for QC only; not part of job JC87121)
ZZZZZZ	L311568.D	04/30/19	12:42	06:16	(unrelated sample)
JC87067-2MS	L311569.D	04/30/19	13:09	06:43	Matrix Spike
ZZZZZZ	L311570.D	04/30/19	13:36	07:10	(unrelated sample)
JC87121-2DUP	L311571.D	04/30/19	14:03	07:37	Duplicate
ZZZZZZ	L311572.D	04/30/19	14:30	08:04	(unrelated sample)
ZZZZZZ	L311573.D	04/30/19	14:58	08:32	(unrelated sample)
ZZZZZZ	L311574.D	04/30/19	15:25	08:59	(unrelated sample)
ZZZZZZ	L311575.D	04/30/19	15:52	09:26	(unrelated sample)
ZZZZZZ	L311576.D	04/30/19	16:19	09:53	(unrelated sample)
ZZZZZZ	L311577.D	04/30/19	16:46	10:20	(unrelated sample)

Internal Standard Area Summary

Job Number: JC87121
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Check Std:	VL9051-CC9011	**Injection Date:**	04/30/19
Lab File ID:	L311555.D	**Injection Time:**	06:26
Instrument ID:	GCMSL	**Method:**	SW846 8260C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	146738	3.07	205395	4.29	276947	4.85	239511	7.24	106335	9.43
Upper Limit [a]	293476	3.57	410790	4.79	553894	5.35	479022	7.74	212670	9.93
Lower Limit [b]	73369	2.57	102698	3.79	138474	4.35	119756	6.74	53168	8.93

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
VL9051-BS	129165	3.07	191988	4.29	262375	4.85	228261	7.24	98977	9.44
VL9051-MB	169122	3.07	240841	4.29	312306	4.86	258617	7.24	124450	9.43
ZZZZZZ	147350	3.07	199669	4.28	270330	4.85	245504	7.24	114989	9.43
ZZZZZZ	156326	3.06	222299	4.28	291868	4.85	249928	7.24	112025	9.43
ZZZZZZ	131437	3.06	171401	4.28	246970	4.85	232563	7.24	105934	9.44
ZZZZZZ	171128	3.07	243806	4.29	321929	4.86	268190	7.25	129826	9.43
JC87121-1	170668	3.07	244866	4.29	321815	4.85	269289	7.24	129579	9.43
JC87121-2	181501	3.07	244853	4.29	324624	4.85	270977	7.24	129879	9.43
ZZZZZZ	173170	3.07	245407	4.29	327176	4.85	268707	7.24	131354	9.43
JC87067-2	173728	3.06	241971	4.29	326115	4.85	279042	7.24	133831	9.43
ZZZZZZ	158682	3.06	190137	4.28	254171	4.85	241319	7.24	105674	9.43
JC87067-2MS	134178	3.07	190943	4.28	261100	4.85	234384	7.24	100979	9.44
ZZZZZZ	165101	3.06	234206	4.28	308964	4.85	261271	7.24	124604	9.43
JC87121-2DUP	170222	3.06	243693	4.28	326183	4.85	275628	7.24	130042	9.43
ZZZZZZ	178040	3.06	248940	4.28	324789	4.85	275373	7.24	132065	9.43
ZZZZZZ	173118	3.07	252938	4.29	326918	4.85	275066	7.24	130698	9.43
ZZZZZZ	176440	3.07	251769	4.29	334900	4.85	284045	7.24	136556	9.44
ZZZZZZ	179715	3.06	245654	4.28	330865	4.85	280082	7.24	137593	9.44
ZZZZZZ	175802	3.07	242592	4.28	324478	4.85	272016	7.24	129545	9.43
ZZZZZZ	170222	3.06	242117	4.28	320732	4.85	270736	7.24	130405	9.43

IS 1 = Tert Butyl Alcohol-D9
IS 2 = Pentafluorobenzene
IS 3 = 1,4-Difluorobenzene
IS 4 = Chlorobenzene-D5
IS 5 = 1,4-Dichlorobenzene-d4

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Surrogate Recovery Summary

Job Number: JC87121
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Method: SW846 8260C **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4
JC87121-1	L311564.D	88	89	100	94
JC87121-2	L311565.D	90	91	99	96
JC87067-2MS	L311569.D	90	84	91	99
JC87121-2DUP	L311571.D	91	90	100	95
VL9051-BS	L311556.D	89	82	93	98
VL9051-MB	L311558.D	87	90	101	95

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	80-120%
S2 = 1,2-Dichloroethane-D4	81-124%
S3 = Toluene-D8	80-120%
S4 = 4-Bromofluorobenzene	80-120%

Initial Calibration Summary

Job Number: JC87121
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample: VL9011-ICC9011
Lab FileID: L310729.D

Response Factor Report GCMSL

Method : C:\MSDCHEM\1\METHODS\ML9011.M (RTE Integrator)
Title : SW846 Method V8260C, column ZB-624 60m x 0.25mm x 1.4 um
Last Update : Thu Apr 04 11:19:15 2019
Response via : Initial Calibration

Calibration Files
8 =L310727.D 0.5 =L310723.D 4 =L310726.D 50 =L310729.D
100 =L310730.D 1 =L310724.D 200 =L310731.D 20 =L310728.D
2 =L310725.D 0.2 =L310722.D = =

Compound	8	0.5	4	50	100	1	200	20	2	0.2	Avg	%RSD
1) I tert Butyl Alcohol-d9	ISTD											
2) 1,4-dioxane	0.098	0.096	0.099	0.097	0.112	0.100	0.103	0.093			0.100	5.70
3) ethanol	0.123	0.130	0.130	0.124	0.139	0.110	0.133	0.121			0.126	6.98
4) tertiary butyl alcohol	1.150	1.247	1.193	1.148	1.305	1.171	1.208	1.166			1.199	4.52
5) I pentafluorobenzene	ISTD											
6) chlorodifluoromethane	0.606	0.600	0.716	0.695	0.695	0.689	0.557				0.651	9.53
7) dichlorodifluoromethane	0.779	0.654	0.740	0.873	0.881	0.694	0.881	0.829	0.711	0.785	0.783	10.52
8) chloromethane	0.722	0.736	0.679	0.793	0.762	0.696	0.756	0.747	0.662		0.728	5.82
9) vinyl chloride	0.710	0.594	0.662	0.758	0.733	0.674	0.710	0.749	0.648	0.824	0.706	9.24
10) bromomethane	0.203	0.209	0.234	0.234	0.219	0.239	0.202				0.220	7.09
11) chloroethane	0.363	0.367	0.348	0.377	0.362	0.347	0.321	0.370	0.324	0.384	0.356	5.95
12) vinyl bromide	0.323	0.310	0.302	0.354	0.337	0.271	0.331	0.350	0.313		0.321	8.03
13) trichlorofluoromethane	0.764	0.700	0.740	0.815	0.787	0.706	0.727	0.805	0.727	0.701	0.747	5.77
14) ethyl ether	0.291	0.296	0.274	0.313	0.301	0.219	0.303	0.301	0.263		0.285	10.16
15) 2-chloropropane	0.858	0.868	0.872	0.912	0.850	0.818	0.807	0.895	0.815		0.855	4.24
16) acrolein	*This compound does not meet initial calibration criteria*											
	0.101	0.106	0.108	0.102	0.106	0.102	0.101				0.104	2.80
17) freon 113	0.335	0.330	0.345	0.355	0.331	0.307	0.331	0.358	0.332	0.362	0.339	4.87
18) 1,1-dichloroethene	0.425	0.463	0.414	0.444	0.411	0.398	0.414	0.444	0.393	0.458	0.426	5.76
19) acetone	0.066	0.073	0.068	0.068	0.062	0.065	0.064	0.066	0.069		0.067	4.71
20) acetonitrile	0.053	0.050	0.056	0.050	0.055	0.052	0.053	0.058			0.053	5.89
21) iodomethane	*This compound does not meet initial calibration criteria*											
	0.066	0.065	0.202	0.281	0.063	0.294	0.111	0.057			0.142	71.47
22) iso-butyl alcohol												

0.040 0.037 0.038 0.033 0.036 0.038 0.037 6.26

23) carbon disulfide
1.122 1.122 1.180 1.132 1.172 1.150 1.178 1.107 1.145 2.50

24) methylene chloride
0.432 0.431 0.421 0.456 0.441 0.427 0.442 0.456 0.431 0.437 2.84

25) methyl acetate
0.114 0.107 0.121 0.110 0.116 0.115 0.095 0.111 7.44

26) methyl tert butyl ether
1.398 1.297 1.388 1.474 1.380 1.333 1.324 1.452 1.383 1.426 1.385 4.04

27) trans-1,2-dichloroethene
0.439 0.382 0.419 0.449 0.425 0.425 0.420 0.447 0.425 0.426 4.66

28) hexane
0.634 0.694 0.647 0.703 0.682 0.599 0.675 0.683 0.624 0.660 5.39

29) di-isopropyl ether
1.582 1.609 1.619 1.653 1.534 1.559 1.453 1.691 1.590 1.719 1.601 4.83

30) ethyl tert-butyl ether
1.503 1.461 1.506 1.570 1.490 1.478 1.456 1.579 1.467 1.705 1.521 5.08

31) 2-butanone
0.085 0.084 0.083 0.092 0.084 0.082 0.085 0.086 0.081 0.084 3.83

32) 1,1-dichloroethane
0.815 0.810 0.818 0.853 0.792 0.796 0.765 0.858 0.802 0.842 0.815 3.57

33) chloroprene
0.724 0.713 0.736 0.774 0.734 0.672 0.721 0.777 0.695 0.862 0.741 7.21

34) acrylonitrile
0.259 0.239 0.282 0.263 0.274 0.264 0.263 5.56

35) vinyl acetate
0.116 0.113 0.127 0.122 0.131 0.122 0.122 5.43

36) ethyl acetate
0.111 0.111 0.127 0.114 0.120 0.106 0.115 6.51

37) 2,2-dichloropropane
0.636 0.664 0.667 0.648 0.604 0.636 0.598 0.670 0.651 0.642 4.07

38) cis-1,2-dichloroethene
0.463 0.455 0.474 0.481 0.454 0.481 0.445 0.489 0.467 0.468 3.12

39) propionitrile
0.110 0.108 0.105 0.108 0.094 0.109 0.092 0.107 0.105 0.104 6.39

40) methyl acrylate
0.098 0.098 0.098 0.090 0.094 0.096 0.086 0.094 4.88

41) bromochloromethane
0.218 0.216 0.215 0.216 0.202 0.193 0.195 0.221 0.227 0.212 5.66

42) tetrahydrofuran
0.099 0.101 0.098 0.093 0.094 0.094 0.100 0.097 3.37

43) chloroform
0.744 0.889 0.764 0.782 0.733 0.819 0.727 0.773 0.770 0.778 6.47

44) dibromofluoromethane (s)
0.409 0.389 0.403 0.430 0.429 0.389 0.436 0.416 0.403 0.393 0.410 4.26

45) methacrylonitrile
0.254 0.239 0.258 0.279 0.261 0.253 0.269 0.261 0.270 0.260 4.44

46) 1,1,1-trichloroethane
0.618 0.609 0.594 0.666 0.647 0.602 0.659 0.648 0.590 0.619 0.625 4.45

47) cyclohexane
0.581 0.545 0.599 0.594 0.578 0.631 0.574 0.592 0.576 0.586 3.94

48) 1,1-dichloropropene
0.591 0.563 0.595 0.621 0.590 0.540 0.584 0.621 0.562 0.585 4.63

49) carbon tetrachloride
0.502 0.554 0.519 0.538 0.513 0.505 0.516 0.541 0.485 0.579 0.525 5.33

50) isopropyl acetate
0.127 0.120 0.137 0.131 0.135 0.130 0.119 0.128 5.52

51) tert amyl alcohol
0.036 0.032 0.035 0.031 0.029 0.030 0.033 0.033 0.032 7.71

Initial Calibration Summary

Job Number: JC87121 **Sample:** VL9011-ICC9011
Account: TCMAW Tantara Corporation **Lab FileID:** L310729.D
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

52) I 1,4-difluorobenzene ----------ISTD----------
53) 1,2-dichloroethane-d4 (s)
0.340 0.342 0.338 0.321 0.320 0.332 0.312 0.340 0.349 0.345 0.334 3.67
54) tert-amyl methyl ether
0.954 1.005 0.966 0.918 0.853 0.979 0.810 0.948 0.958 1.041 0.943 7.24
55) 2,2,4-trimethylpentane
0.760 0.861 0.805 0.731 0.690 0.759 0.680 0.772 0.771 0.948 0.778 10.22
56) n-butyl alcohol
0.017 0.016 0.016 0.017 0.015 0.016 0.015 0.016 0.016 0.016 4.37
57) benzene
1.187 1.262 1.218 1.157 1.069 1.179 1.000 1.202 1.180 1.582 1.204 12.70
58) heptane
0.173 0.163 0.190 0.180 0.173 0.167 0.177 0.182 0.166 0.174 4.97
59) 1,2-dichloroethane
0.421 0.426 0.403 0.378 0.500 0.368 0.415 0.464 0.422 10.28
60) trichloroethene
0.285 0.304 0.309 0.308 0.297 0.315 0.292 0.308 0.286 0.301 3.57
61) ethyl acrylate
0.538 0.537 0.542 0.569 0.526 0.491 0.506 0.553 0.536 0.533 4.35
62) 2-nitropropane
0.122 0.108 0.131 0.136 0.135 0.129 0.127 8.11
63) 2-chloroethyl vinyl ether
0.257 0.257 0.260 0.248 0.224 0.261 0.205 0.255 0.252 0.248 0.247 7.32
64) methyl methacrylate
0.104 0.099 0.109 0.102 0.098 0.107 0.100 0.103 3.86
65) 1,2-dichloropropane
0.309 0.329 0.333 0.319 0.299 0.314 0.287 0.327 0.310 0.292 0.312 5.00
66) methylcyclohexane
0.453 0.614 0.472 0.461 0.434 0.498 0.427 0.471 0.469 0.478 11.60
67) dibromomethane
0.187 0.164 0.197 0.189 0.179 0.213 0.179 0.192 0.186 0.187 7.11
68) bromodichloromethane
0.384 0.401 0.391 0.409 0.398 0.376 0.395 0.405 0.381 0.438 0.398 4.40
69) cis-1,3-dichloropropene
0.484 0.527 0.504 0.515 0.491 0.517 0.480 0.501 0.504 0.502 3.10
70) epichlorohydrin
0.052 0.049 0.054 0.048 0.046 0.049 0.050 0.049 0.050 4.65
71) 4-methyl-2-pentanone
0.184 0.185 0.186 0.185 0.164 0.181 0.155 0.185 0.185 0.186 0.180 6.11
72) 3-methyl-1-butanol
0.016 0.014 0.015 0.013 0.013 0.013 0.015 0.014 0.014 7.79

73) I chlorobenzene-d5 ----------ISTD----------
74) toluene-d8 (s)
1.362 1.400 1.366 1.291 1.260 1.408 1.271 1.316 1.381 1.391 1.345 4.12
75) toluene
0.846 0.876 0.870 0.818 0.759 0.904 0.742 0.850 0.862 1.005 0.853 8.65
76) trans-1,3-dichloropropene
0.527 0.554 0.537 0.536 0.511 0.544 0.505 0.540 0.527 0.531 2.93
77) ethyl methacrylate
0.542 0.569 0.554 0.564 0.520 0.586 0.501 0.572 0.540 0.534 0.548 4.74
78) 1,1,2-trichloroethane
0.286 0.298 0.293 0.284 0.266 0.264 0.265 0.288 0.279 0.291 0.281 4.45
79) 2-hexanone
0.226 0.225 0.224 0.212 0.182 0.218 0.173 0.218 0.214 0.257 0.215 10.93
80) tetrachloroethene
0.369 0.401 0.377 0.359 0.334 0.391 0.330 0.369 0.369 0.425 0.372 7.69
81) 1,3-dichloropropane
0.582 0.653 0.607 0.540 0.504 0.574 0.485 0.569 0.556 0.563 9.01
82) butyl acetate

```
      0.346 0.377 0.357 0.347 0.310 0.374 0.309 0.347 0.353        0.347    6.88
 83)  dibromochloromethane
      0.338 0.347 0.349 0.337 0.327 0.343 0.321 0.338 0.326 0.361  0.339    3.54
 84)  1,2-dibromoethane
      0.450 0.458 0.459 0.433 0.413 0.474 0.409 0.444 0.459 0.526  0.452    7.32
 85)  n-butyl ether
      1.401 1.445 1.407 1.416 1.277 1.398 1.187 1.443 1.370        1.371    6.22
 86)  chlorobenzene
      0.876 0.977 0.900 0.870 0.812 0.949 0.786 0.885 0.904 1.156  0.912   11.28
 87)  1,1,1,2-tetrachloroethane
      0.299 0.282 0.306 0.288 0.266 0.329 0.254 0.301 0.302        0.292    7.65
 88)  ethylbenzene
      1.551 1.704 1.605 1.441 1.284 1.580 1.175 1.549 1.585        1.497   11.24
 89)  m,p-xylene
      0.585 0.625 0.590 0.550 0.498 0.618 0.469 0.582 0.566 0.726  0.581   12.16
 90)  o-xylene
      0.573 0.659 0.588 0.558 0.506 0.569 0.485 0.579 0.586 0.637  0.574    9.03
 91)  butyl acrylate
      0.857 0.867 0.844 0.907 0.833 0.808 0.801 0.893 0.816 0.805  0.843    4.45
 92)  styrene
      0.962 0.988 1.005 0.918 0.818 0.945 0.766 0.974 0.949        0.925    8.72
 93)  bromoform
      0.235 0.232 0.239 0.241 0.230 0.249 0.226 0.246 0.226        0.236    3.56
 94)  isopropylbenzene
      1.434 1.585 1.480 1.386 1.249 1.502 1.158 1.465 1.422        1.409    9.30
 95)  cis-1,4-dichloro-2-butene
      0.178       0.177 0.184 0.167 0.170 0.166 0.185 0.170        0.175    4.21

 96) I   1,4-dichlorobenzene-d ----------------ISTD---------------------
 97)  4-bromofluorobenzene (s)
      1.039 1.023 1.031 1.082 1.099 1.030 1.116 1.058 1.033 1.031  1.054    3.16
 98)  bromobenzene
      0.801 0.820 0.828 0.851 0.816 0.828 0.805 0.842 0.794        0.821    2.31
 99)  1,1,2,2-tetrachloroethane
      1.089 1.004 1.088 1.169 1.117 1.083 1.143 1.128 0.998 1.049  1.087    5.18
100)  trans-1,4-dichloro-2-butene
      0.318       0.302 0.341 0.323 0.339 0.327 0.339 0.293        0.323    5.47
101)  1,2,3-trichloropropane
      0.316 0.314 0.310 0.316 0.293 0.319 0.299 0.320 0.326        0.313    3.34
102)  n-propylbenzene
      3.572 3.640 3.658 3.645 3.364 3.589 3.215 3.729 3.471 4.310  3.619    7.95
103)  2-chlorotoluene
      0.744 0.763 0.739 0.756 0.721 0.755 0.730 0.754 0.722        0.743    2.09
104)  4-chlorotoluene
      0.732 0.652 0.758 0.739 0.698 0.716 0.696 0.749 0.708        0.716    4.55
105)  1,3,5-trimethylbenzene
      2.400 2.383 2.380 2.503 2.327 2.368 2.264 2.508 2.314 2.816  2.426    6.46
106)  tert-butylbenzene
      2.041 2.108 2.056 2.148 2.022 2.098 2.000 2.132 1.916 2.512  2.103    7.58
107)  1,2,4-trimethylbenzene
      2.465 2.536 2.461 2.505 2.336 2.445 2.245 2.539 2.263 2.705  2.450    5.66
108)  sec-butylbenzene
      2.911 2.975 2.839 2.989 2.793 2.931 2.730 3.012 2.769 3.616  2.957    8.50
109)  1,3-dichlorobenzene
      1.409 1.530 1.435 1.445 1.381 1.433 1.356 1.458 1.370 1.839  1.466    9.58
110)  p-isopropyltoluene
      2.334 2.488 2.370 2.389 2.212 2.381 2.127 2.437 2.215 2.786  2.374    7.71
111)  1,4-dichlorobenzene
      1.324 1.387 1.399 1.370 1.329 1.417 1.321 1.405 1.295        1.361    3.25
112)  1,2-dichlorobenzene
```

Initial Calibration Summary

Job Number: JC87121 **Sample:** VL9011-ICC9011
Account: TCMAW Tantara Corporation **Lab FileID:** L310729.D
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

```
       1.343 1.399 1.345 1.362 1.281 1.356 1.266 1.376 1.307        1.337    3.29
113)  n-butylbenzene
       1.091 1.100 1.049 1.229 1.179 1.106 1.218 1.184 1.020 1.471  1.165   11.05
114)  1,2-dibromo-3-chloropropane
       0.258       0.237 0.303 0.294             0.271 0.210        0.262   13.38
115)  1,3,5-trichlorobenzene
       0.915 0.941 0.939 1.002 0.987 0.947 1.010 0.975 0.887 1.154  0.976    7.55
116)  1,2,4-trichlorobenzene
       0.831 0.991 0.801 0.934 0.939 0.923 0.961 0.897 0.767        0.894    8.58
117)  hexachlorobutadiene
       0.342 0.337 0.343 0.367 0.359 0.344 0.383 0.358 0.321        0.350    5.21
118)  naphthalene
       2.710 2.616 2.536 2.966 2.793 2.460 2.767 2.857 2.416        2.680    6.94
119)  1,2,3-trichlorobenzene
       0.789 0.817 0.809 0.857 0.824 0.890 0.855 0.823 0.749        0.824    4.98
120)  hexachloroethane
       0.374 0.371 0.379 0.437 0.440 0.394 0.469 0.415 0.366        0.405    9.15
121)  benzyl chloride
      *This compound does not meet initial calibration criteria*
       1.746 1.789 1.663 2.000 1.919 1.777 1.982 1.883 1.639 2.113  1.851    8.33
122)  2-ethylhexyl acrylate
       0.417             0.576 0.622       0.707 0.508              0.566   19.50
123)  2-methylnaphthalene
       1.036       0.985 1.411 1.419       1.539 1.203              1.266   17.82
124)  bis(chloromethyl)ether
                                                                    0.000   -1.00
125)  ethylenimine
                                                                    0.000   -1.00
 ------------------------------------------------------------------------------
 (#) = Out of Range  ###  Number of calibration levels exceeded format  ###

           ML9011.M          Thu Apr 04 11:26:04 2019   1
```

Initial Calibration Verification

Job Number: JC87121
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample: VL9011-ICV9011
Lab FileID: L310734.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\VL9011\L310734.D Vial: 14
Acq On : 3 Apr 2019 11:30 pm Operator: juntaep
Sample : icv9011-50 Inst : GCMSL
Misc : MS33381,VL9011,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\ML9011.M (RTE Integrator)
Title : SW846 Method V8260C, column ZB-624 60m x 0.25mm x 1.4 um
Last Update : Thu Apr 04 11:19:15 2019
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	tert Butyl Alcohol-d9	1.000	1.000	0.0	95	0.00	3.06
2		1,4-dioxane	0.100	0.101	-1.0	98	0.00	5.28
3		ethanol	0.126	0.140	-11.1	103	0.00	2.49
4	M	tertiary butyl alcohol	1.199	1.234	-2.9	99	0.00	3.12
5	I	pentafluorobenzene	1.000	1.000	0.0	96	0.00	4.27
6		chlorodifluoromethane	0.651	0.839	-28.9	113	0.00	1.65
7		dichlorodifluoromethane	0.783	0.909	-16.1	100	0.00	1.63
8		chloromethane	0.728	0.853	-17.2	103	0.00	1.79
9		vinyl chloride	0.706	0.786	-11.3	99	0.00	1.88
10		bromomethane	0.220	0.279	-26.8	115	0.00	2.13
11		chloroethane	0.356	0.406	-14.0	103	0.00	2.21
12		vinyl bromide	0.321	0.383	-19.3	104	0.00	2.35
13		trichlorofluoromethane	0.747	0.858	-14.9	101	0.00	2.39
14		ethyl ether	0.285	0.330	-15.8	101	0.00	2.58
15		2-chloropropane	0.855	1.018	-19.1	107	0.00	2.66
16		acrolein	0.104	0.154	-48.1#	136	0.00	2.67
17		freon 113	0.339	0.418	-23.3	113	0.00	2.75
18		1,1-dichloroethene	0.426	0.443	-4.0	96	0.00	2.75
19		acetone	0.067	0.070	-4.5	99	0.00	2.77
20		acetonitrile		----------NA----------				
21		iodomethane	0.142	0.190	-33.8#	90	0.00	2.87
22		iso-butyl alcohol	0.037	0.040	-8.1	100	0.00	4.43
23		carbon disulfide	1.145	1.383	-20.8	112	0.00	2.93
24		methylene chloride	0.437	0.464	-6.2	97	0.00	3.08
25		methyl acetate	0.111	0.126	-13.5	100	0.00	2.97
26		methyl tert butyl ether	1.385	1.457	-5.2	95	0.00	3.25
27		trans-1,2-dichloroethene	0.426	0.457	-7.3	98	0.00	3.27
28		hexane	0.660	0.745	-12.9	102	0.00	3.44
29		di-isopropyl ether	1.601	1.675	-4.6	97	0.00	3.56
30		ethyl tert-butyl ether	1.521	1.589	-4.5	97	0.00	3.80
31		2-butanone	0.084	0.095	-13.1	99	0.00	3.92
32	M	1,1-dichloroethane	0.815	0.897	-10.1	101	0.00	3.56
33		chloroprene	0.741	0.828	-11.7	103	0.00	3.61
34		acrylonitrile	0.263	0.317	-20.5	108	0.00	3.23
35		vinyl acetate	0.122	0.127	-4.1	95	0.00	3.54
36		ethyl acetate	0.115	0.129	-12.2	98	0.00	3.94
37		2,2-dichloropropane	0.642	0.647	-0.8	96	0.00	3.96
38		cis-1,2-dichloroethene	0.468	0.493	-5.3	98	0.00	3.95
39		propionitrile	0.104	0.112	-7.7	100	0.00	3.97
40		methyl acrylate	0.094	0.104	-10.6	102	0.00	3.98
41		bromochloromethane	0.212	0.232	-9.4	103	0.00	4.12

Initial Calibration Verification

Job Number: JC87121 **Sample:** VL9011-ICV9011
Account: TCMAW Tantara Corporation **Lab FileID:** L310734.D
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

42		tetrahydrofuran	0.097	0.107	-10.3	105	0.00	4.12
43		chloroform	0.778	0.808	-3.9	99	0.00	4.17
44	S	dibromofluoromethane (s)	0.410	0.429	-4.6	96	0.00	4.28
45		methacrylonitrile	0.260	0.292	-12.3	100	0.00	4.08
46		1,1,1-trichloroethane	0.625	0.690	-10.4	99	0.00	4.31
47		cyclohexane	0.586	0.689	-17.6	111	0.00	4.37
48		1,1-dichloropropene	0.585	0.654	-11.8	101	0.00	4.42
49		carbon tetrachloride	0.525	0.569	-8.4	101	0.00	4.42
50		isopropyl acetate	0.128	0.136	-6.3	95	0.00	4.54
51		tert amyl alcohol	0.032	0.037	-15.6	102	0.00	4.52
52	I	1,4-difluorobenzene	1.000	1.000	0.0	96	0.00	4.84
53	S	1,2-dichloroethane-d4 (s)	0.334	0.322	3.6	96	0.00	4.54
54		tert-amyl methyl ether	0.943	0.929	1.5	97	0.00	4.63
55		2,2,4-trimethylpentane	0.778	0.788	-1.3	103	0.00	4.63
56		n-butyl alcohol	0.016	0.018	-12.5	99	0.00	4.90
57	M	benzene	1.204	1.223	-1.6	101	0.00	4.57
58		heptane	0.174	0.215	-23.6	114	0.00	4.74
59		1,2-dichloroethane	0.422	0.421	0.2	100	0.00	4.59
60		trichloroethene	0.301	0.327	-8.6	102	0.00	5.04
61		ethyl acrylate	0.533	0.595	-11.6	100	0.00	5.05
62		2-nitropropane	0.127	0.151	-18.9	110	0.00	5.59
63		2-chloroethyl vinyl ether	0.247	0.268	-8.5	103	0.00	5.62
64		methyl methacrylate	0.103	0.110	-6.8	97	0.00	5.24
65		1,2-dichloropropane	0.312	0.323	-3.5	97	0.00	5.24
66		methylcyclohexane	0.478	0.468	2.1	97	0.00	5.23
67		dibromomethane	0.187	0.189	-1.1	96	0.00	5.31
68		bromodichloromethane	0.398	0.419	-5.3	98	0.00	5.42
69		cis-1,3-dichloropropene	0.502	0.532	-6.0	99	0.00	5.76
70		epichlorohydrin	0.050	0.056	-12.0	100	0.00	5.67
71		4-methyl-2-pentanone	0.180	0.192	-6.7	99	0.00	5.86
72		3-methyl-1-butanol	0.014	0.016	-14.3	100	0.00	5.88
73	I	chlorobenzene-d5	1.000	1.000	0.0	96	0.00	7.24
74	S	toluene-d8 (s)	1.345	1.272	5.4	95	0.00	5.99
75		toluene	0.853	0.843	1.2	99	0.00	6.05
76		trans-1,3-dichloropropene	0.531	0.563	-6.0	101	0.00	6.22
77		ethyl methacrylate	0.548	0.594	-8.4	101	0.00	6.24
78		1,1,2-trichloroethane	0.281	0.291	-3.6	99	0.00	6.39
79		2-hexanone	0.215	0.218	-1.4	99	0.00	6.55
80		tetrachloroethene		----------NA----------				
81		1,3-dichloropropane	0.563	0.563	0.0	100	0.00	6.53
82		butyl acetate	0.347	0.350	-0.9	97	0.00	6.64
83		dibromochloromethane	0.339	0.360	-6.2	103	0.00	6.72
84		1,2-dibromoethane	0.452	0.451	0.2	100	0.00	6.84
85		n-butyl ether	1.371	1.512	-10.3	103	0.00	7.31
86		chlorobenzene	0.912	0.915	-0.3	101	0.00	7.27
87		1,1,1,2-tetrachloroethane	0.292	0.301	-3.1	101	0.00	7.33
88		ethylbenzene	1.497	1.487	0.7	99	0.00	7.34
89		m,p-xylene	0.581	0.564	2.9	99	0.00	7.46
90		o-xylene	0.574	0.571	0.5	99	0.00	7.81
91		butyl acrylate	0.843	0.926	-9.8	98	0.00	7.73
92		styrene	0.925	0.949	-2.6	100	0.00	7.83
93		bromoform	0.236	0.272	-15.3	109	0.00	8.00
94		isopropylbenzene	1.409	1.434	-1.8	100	0.00	8.15
95		cis-1,4-dichloro-2-butene	0.175	0.189	-8.0	99	0.00	8.20
96	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	97	0.00	9.43
97	S	4-bromofluorobenzene (s)	1.054	1.070	-1.5	96	0.00	8.32
98		bromobenzene	0.821	0.871	-6.1	99	0.00	8.46

Initial Calibration Verification

Job Number: JC87121 **Sample:** VL9011-ICV9011
Account: TCMAW Tantara Corporation **Lab FileID:** L310734.D
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

99	1,1,2,2-tetrachloroethane	1.087	1.204	-10.8	100	0.00	8.43
100	trans-1,4-dichloro-2-bute	0.323	0.389	-20.4	111	0.00	8.47
101	1,2,3-trichloropropane	0.313	0.320	-2.2	98	0.00	8.50
102	n-propylbenzene	3.619	3.759	-3.9	100	0.00	8.54
103	2-chlorotoluene	0.743	0.767	-3.2	99	0.00	8.64
104	4-chlorotoluene	0.716	0.771	-7.7	101	0.00	8.75
105	1,3,5-trimethylbenzene	2.426	2.530	-4.3	98	0.00	8.71
106	tert-butylbenzene	2.103	2.285	-8.7	103	0.00	9.02
107	1,2,4-trimethylbenzene	2.450	2.540	-3.7	98	0.00	9.08
108	sec-butylbenzene	2.957	3.073	-3.9	100	0.00	9.23
109	1,3-dichlorobenzene	1.466	1.505	-2.7	101	0.00	9.36
110	p-isopropyltoluene	2.374	2.473	-4.2	100	0.00	9.38
111	1,4-dichlorobenzene	1.361	1.427	-4.8	101	0.00	9.45
112	1,2-dichlorobenzene	1.337	1.398	-4.6	100	0.00	9.81
113	n-butylbenzene	1.165	1.266	-8.7	100	0.00	9.78
114	1,2-dibromo-3-chloropropa	0.262	0.300	-14.5	96	0.00	10.58
115	1,3,5-trichlorobenzene	0.976	1.050	-7.6	102	0.00	10.76
116	1,2,4-trichlorobenzene	0.894	0.951	-6.4	99	0.00	11.39
117	hexachlorobutadiene	0.350	0.385	-10.0	102	0.00	11.53
118	naphthalene	2.680	3.025	-12.9	99	0.00	11.66
119	1,2,3-trichlorobenzene	0.824	0.866	-5.1	98	0.00	11.88
120	hexachloroethane	0.405	0.474	-17.0	105	0.00	10.07
121	benzyl chloride	1.851	2.492	-34.6#	121	0.00	9.56
122	2-ethylhexyl acrylate	0.566	0.670	-18.4	113	0.00	11.57
123	2-methylnaphthalene	1.266	1.427	-12.7	98	0.00	12.79
124	bis(chloromethyl)ether		----------NA----------				
125	ethylenimine		----------NA----------				

(#) = Out of Range SPCC's out = 0 CCC's out = 0
L310729.D ML9011.M Thu Apr 04 11:25:39 2019 1

Initial Calibration Verification

Job Number: JC87121
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample: VL9011-ICV9011
Lab FileID: L310735.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\VL9011\L310735.D Vial: 15
Acq On : 3 Apr 2019 11:57 pm Operator: juntaep
Sample : icv9011-50 Inst : GCMSL
Misc : MS33381,VL9011,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\ML9011.M (RTE Integrator)
Title : SW846 Method V8260C, column ZB-624 60m x 0.25mm x 1.4 um
Last Update : Thu Apr 04 11:19:15 2019
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	tert Butyl Alcohol-d9	1.000	1.000	0.0	109	0.00	3.06
2		1,4-dioxane		----------	NA	----------		
3		ethanol		----------	NA	----------		
4	M	tertiary butyl alcohol		----------	NA	----------		
5	I	pentafluorobenzene	1.000	1.000	0.0	118	0.00	4.27
6		chlorodifluoromethane		----------	NA	----------		
7		dichlorodifluoromethane		----------	NA	----------		
8		chloromethane		----------	NA	----------		
9		vinyl chloride		----------	NA	----------		
10		bromomethane		----------	NA	----------		
11		chloroethane		----------	NA	----------		
12		vinyl bromide		----------	NA	----------		
13		trichlorofluoromethane		----------	NA	----------		
14		ethyl ether		----------	NA	----------		
15		2-chloropropane		----------	NA	----------		
16		acrolein		----------	NA	----------		
17		freon 113		----------	NA	----------		
18		1,1-dichloroethene		----------	NA	----------		
19		acetone	0.067	0.055	17.9	96	0.00	2.76
20		acetonitrile	0.053	0.055	-3.8	115	0.00	2.96
21		iodomethane		----------	NA	----------		
22		iso-butyl alcohol		----------	NA	----------		
23		carbon disulfide		----------	NA	----------		
24		methylene chloride		----------	NA	----------		
25		methyl acetate		----------	NA	----------		
26		methyl tert butyl ether		----------	NA	----------		
27		trans-1,2-dichloroethene		----------	NA	----------		
28		hexane		----------	NA	----------		
29		di-isopropyl ether		----------	NA	----------		
30		ethyl tert-butyl ether		----------	NA	----------		
31		2-butanone		----------	NA	----------		
32	M	1,1-dichloroethane		----------	NA	----------		
33		chloroprene		----------	NA	----------		
34		acrylonitrile		----------	NA	----------		
35		vinyl acetate		----------	NA	----------		
36		ethyl acetate		----------	NA	----------		
37		2,2-dichloropropane		----------	NA	----------		
38		cis-1,2-dichloroethene		----------	NA	----------		
39		propionitrile		----------	NA	----------		
40		methyl acrylate		----------	NA	----------		
41		bromochloromethane		----------	NA	----------		

Initial Calibration Verification

Job Number: JC87121
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample: VL9011-ICV9011
Lab FileID: L310735.D

42		tetrahydrofuran		----------NA----------				
43		chloroform		----------NA----------				
44	S	dibromofluoromethane (s)	0.410	0.425	-3.7	117	0.00	4.28
45		methacrylonitrile		----------NA----------				
46		1,1,1-trichloroethane		----------NA----------				
47		cyclohexane		----------NA----------				
48		1,1-dichloropropene		----------NA----------				
49		carbon tetrachloride		----------NA----------				
50		isopropyl acetate		----------NA----------				
51		tert amyl alcohol		----------NA----------				
52	I	1,4-difluorobenzene	1.000	1.000	0.0	113	0.00	4.84
53	S	1,2-dichloroethane-d4 (s)	0.334	0.346	-3.6	122	0.00	4.54
54		tert-amyl methyl ether		----------NA----------				
55		2,2,4-trimethylpentane		----------NA----------				
56		n-butyl alcohol		----------NA----------				
57	M	benzene		----------NA----------				
58		heptane		----------NA----------				
59		1,2-dichloroethane		----------NA----------				
60		trichloroethene		----------NA----------				
61		ethyl acrylate		----------NA----------				
62		2-nitropropane		----------NA----------				
63		2-chloroethyl vinyl ether		----------NA----------				
64		methyl methacrylate		----------NA----------				
65		1,2-dichloropropane		----------NA----------				
66		methylcyclohexane		----------NA----------				
67		dibromomethane		----------NA----------				
68		bromodichloromethane		----------NA----------				
69		cis-1,3-dichloropropene		----------NA----------				
70		epichlorohydrin		----------NA----------				
71		4-methyl-2-pentanone		----------NA----------				
72		3-methyl-1-butanol		----------NA----------				
73	I	chlorobenzene-d5	1.000	1.000	0.0	107	0.00	7.24
74	S	toluene-d8 (s)	1.345	1.413	-5.1	117	0.00	5.99
75		toluene		----------NA----------				
76		trans-1,3-dichloropropene		----------NA----------				
77		ethyl methacrylate		----------NA----------				
78		1,1,2-trichloroethane		----------NA----------				
79		2-hexanone		----------NA----------				
80		tetrachloroethene	0.372	0.346	7.0	103	0.00	6.48
81		1,3-dichloropropane		----------NA----------				
82		butyl acetate		----------NA----------				
83		dibromochloromethane		----------NA----------				
84		1,2-dibromoethane		----------NA----------				
85		n-butyl ether		----------NA----------				
86		chlorobenzene		----------NA----------				
87		1,1,1,2-tetrachloroethane		----------NA----------				
88		ethylbenzene		----------NA----------				
89		m,p-xylene		----------NA----------				
90		o-xylene		----------NA----------				
91		butyl acrylate		----------NA----------				
92		styrene		----------NA----------				
93		bromoform		----------NA----------				
94		isopropylbenzene		----------NA----------				
95		cis-1,4-dichloro-2-butene		----------NA----------				
96	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	119	0.00	9.43
97	S	4-bromofluorobenzene (s)	1.054	1.029	2.4	114	0.00	8.32
98		bromobenzene		----------NA----------				

Initial Calibration Verification

Job Number: JC87121 **Sample:** VL9011-ICV9011
Account: TCMAW Tantara Corporation **Lab FileID:** L310735.D
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

99	1,1,2,2-tetrachloroethane	----------NA----------	
100	trans-1,4-dichloro-2-bute	----------NA----------	
101	1,2,3-trichloropropane	----------NA----------	
102	n-propylbenzene	----------NA----------	
103	2-chlorotoluene	----------NA----------	
104	4-chlorotoluene	----------NA----------	
105	1,3,5-trimethylbenzene	----------NA----------	
106	tert-butylbenzene	----------NA----------	
107	1,2,4-trimethylbenzene	----------NA----------	
108	sec-butylbenzene	----------NA----------	
109	1,3-dichlorobenzene	----------NA----------	
110	p-isopropyltoluene	----------NA----------	
111	1,4-dichlorobenzene	----------NA----------	
112	1,2-dichlorobenzene	----------NA----------	
113	n-butylbenzene	----------NA----------	
114	1,2-dibromo-3-chloropropa	----------NA----------	
115	1,3,5-trichlorobenzene	----------NA----------	
116	1,2,4-trichlorobenzene	----------NA----------	
117	hexachlorobutadiene	----------NA----------	
118	naphthalene	----------NA----------	
119	1,2,3-trichlorobenzene	----------NA----------	
120	hexachloroethane	----------NA----------	
121	benzyl chloride	----------NA----------	
122	2-ethylhexyl acrylate	----------NA----------	
123	2-methylnaphthalene	----------NA----------	
124	bis(chloromethyl)ether	----------NA----------	
125	ethylenimine	----------NA----------	

(#) = Out of Range SPCC's out = 0 CCC's out = 0
L310729.D ML9011.M Thu Apr 04 11:21:14 2019 1

Continuing Calibration Summary

Job Number: JC87121
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample: VL9051-CC9011
Lab FileID: L311555.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\VL9051\L311555.D Vial: 2
Acq On : 30 Apr 2019 6:26 am Operator: brittank
Sample : cc9011-20 Inst : GCMSL
Misc : MS34348,VL9051,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\ML9011.M (RTE Integrator)
Title : SW846 Method V8260C, column ZB-624 60m x 0.25mm x 1.4 um
Last Update : Thu Apr 04 11:19:15 2019
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	tert Butyl Alcohol-d9	1.000	1.000	0.0	85	0.00	3.07
2		1,4-dioxane	0.100	0.126	-26.0#	104	0.00	5.28
3		ethanol	0.126	0.153	-21.4#	98	0.00	2.49
4	M	tertiary butyl alcohol	1.199	1.372	-14.4	96	0.00	3.12
5	I	pentafluorobenzene	1.000	1.000	0.0	94	0.01	4.29
6		chlorodifluoromethane	0.651	0.664	-2.0	90	0.00	1.65
7		dichlorodifluoromethane	0.783	0.796	-1.7	90	0.00	1.64
8		chloromethane	0.728	0.724	0.5	91	0.00	1.79
9		vinyl chloride	0.706	0.841	-19.1	105	0.00	1.88
10		bromomethane	0.220	0.209	5.0	82	0.00	2.14
11		chloroethane	0.356	0.450	-26.4#	114	0.00	2.21
12		vinyl bromide	0.321	0.326	-1.6	87	0.00	2.35
13		trichlorofluoromethane	0.747	0.754	-0.9	88	0.00	2.40
14		ethyl ether	0.285	0.332	-16.5	103	0.00	2.58
15		2-chloropropane	0.855	0.823	3.7	86	0.00	2.67
16		acrolein	0.104	0.110	-5.8	101	0.00	2.68
17		freon 113	0.339	0.357	-5.3	93	0.00	2.75
18		1,1-dichloroethene	0.426	0.453	-6.3	95	0.01	2.76
19		acetone	0.067	0.068	-1.5	96	0.00	2.77
20		acetonitrile	0.053	0.052	1.9	93	0.00	2.97
21		iodomethane	0.142	0.054	62.0#	46#	0.00	2.88
22		iso-butyl alcohol	0.037	0.037	0.0	90	0.00	4.43
23		carbon disulfide	1.145	1.250	-9.2	99	0.00	2.93
24		methylene chloride	0.437	0.475	-8.7	97	0.00	3.09
25		methyl acetate	0.111	0.127	-14.4	104	0.00	2.98
26		methyl tert butyl ether	1.385	1.515	-9.4	98	0.01	3.26
27		trans-1,2-dichloroethene	0.426	0.476	-11.7	100	0.00	3.27
28		hexane	0.660	0.612	7.3	84	0.00	3.45
29		di-isopropyl ether	1.601	1.635	-2.1	90	0.00	3.57
30		ethyl tert-butyl ether	1.521	1.585	-4.2	94	0.00	3.81
31		2-butanone	0.084	0.091	-8.3	99	0.00	3.93
32	M	1,1-dichloroethane	0.815	0.845	-3.7	92	0.00	3.57
33		chloroprene	0.741	0.721	2.7	87	0.00	3.62
34		acrylonitrile	0.263	0.277	-5.3	98	0.00	3.24
35		vinyl acetate	0.122	0.137	-12.3	105	0.01	3.55
36		ethyl acetate	0.115	0.108	6.1	96	0.01	3.95
37		2,2-dichloropropane	0.642	0.653	-1.7	91	0.00	3.97
38		cis-1,2-dichloroethene	0.468	0.499	-6.6	96	0.00	3.96
39		propionitrile	0.104	0.107	-2.9	94	0.00	3.98
40		methyl acrylate	0.094	0.107	-13.8	104	0.01	3.99
41		bromochloromethane	0.212	0.236	-11.3	100	0.01	4.13

Continuing Calibration Summary

Job Number: JC87121 **Sample:** VL9051-CC9011
Account: TCMAW Tantara Corporation **Lab FileID:** L311555.D
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

42		tetrahydrofuran	0.097	0.103	-6.2	102	0.00	4.13
43		chloroform	0.778	0.786	-1.0	95	0.01	4.18
44	S	dibromofluoromethane (s)	0.410	0.362	11.7	81	0.01	4.29
45		methacrylonitrile	0.260	0.283	-8.8	102	0.00	4.09
46		1,1,1-trichloroethane	0.625	0.626	-0.2	90	0.01	4.32
47		cyclohexane	0.586	0.619	-5.6	98	0.01	4.38
48		1,1-dichloropropene	0.585	0.573	2.1	86	0.01	4.43
49		carbon tetrachloride	0.525	0.510	2.9	88	0.00	4.43
50		isopropyl acetate	0.128	0.140	-9.4	101	0.00	4.55
51		tert amyl alcohol	0.032	0.035	-9.4	98	0.00	4.53
52	I	1,4-difluorobenzene	1.000	1.000	0.0	88	0.01	4.85
53	S	1,2-dichloroethane-d4 (s)	0.334	0.297	11.1	77	0.00	4.55
54		tert-amyl methyl ether	0.943	1.044	-10.7	97	0.00	4.64
55		2,2,4-trimethylpentane	0.778	0.735	5.5	84	0.00	4.64
56		n-butyl alcohol	0.016	0.018	-12.5	98	0.00	4.91
57	M	benzene	1.204	1.319	-9.6	97	0.00	4.58
58		heptane	0.174	0.169	2.9	82	0.01	4.75
59		1,2-dichloroethane	0.422	0.421	0.2	89	0.00	4.60
60		trichloroethene	0.301	0.332	-10.3	95	0.00	5.05
61		ethyl acrylate	0.533	0.611	-14.6	97	0.00	5.06
62		2-nitropropane	0.127	0.105	17.3	71	0.00	5.60
63		2-chloroethyl vinyl ether	0.247	0.268	-8.5	93	0.00	5.63
64		methyl methacrylate	0.103	0.127	-23.3#	105	0.00	5.24
65		1,2-dichloropropane	0.312	0.350	-12.2	94	0.00	5.24
66		methylcyclohexane	0.478	0.446	6.7	83	0.00	5.23
67		dibromomethane	0.187	0.212	-13.4	97	0.00	5.31
68		bromodichloromethane	0.398	0.442	-11.1	96	0.01	5.43
69		cis-1,3-dichloropropene	0.502	0.568	-13.1	100	0.00	5.77
70		epichlorohydrin	0.050	0.056	-12.0	99	0.00	5.68
71		4-methyl-2-pentanone	0.180	0.202	-12.2	96	0.00	5.87
72		3-methyl-1-butanol	0.014	0.017	-21.4#	100	0.00	5.89
73	I	chlorobenzene-d5	1.000	1.000	0.0	90	0.00	7.24
74	S	toluene-d8 (s)	1.345	1.279	4.9	87	0.00	6.00
75		toluene	0.853	0.939	-10.1	99	0.00	6.05
76		trans-1,3-dichloropropene	0.531	0.577	-8.7	96	0.00	6.22
77		ethyl methacrylate	0.548	0.642	-17.2	101	0.00	6.24
78		1,1,2-trichloroethane	0.281	0.327	-16.4	101	0.00	6.39
79		2-hexanone	0.215	0.236	-9.8	97	0.00	6.56
80		tetrachloroethene	0.372	0.416	-11.8	101	0.00	6.48
81		1,3-dichloropropane	0.563	0.624	-10.8	98	0.00	6.54
82		butyl acetate	0.347	0.381	-9.8	98	0.00	6.64
83		dibromochloromethane	0.339	0.378	-11.5	100	0.00	6.73
84		1,2-dibromoethane	0.452	0.534	-18.1	108	0.00	6.84
85		n-butyl ether	1.371	1.522	-11.0	95	0.00	7.31
86		chlorobenzene	0.912	0.985	-8.0	100	0.00	7.27
87		1,1,1,2-tetrachloroethane	0.292	0.335	-14.7	100	0.00	7.34
88		ethylbenzene	1.497	1.665	-11.2	96	0.00	7.35
89		m,p-xylene	0.581	0.642	-10.5	99	0.00	7.46
90		o-xylene	0.574	0.646	-12.5	100	0.00	7.82
91		butyl acrylate	0.843	0.968	-14.8	97	0.00	7.73
92		styrene	0.925	1.118	-20.9#	103	0.00	7.83
93		bromoform	0.236	0.282	-19.5	103	0.00	8.01
94		isopropylbenzene	1.409	1.576	-11.9	96	0.00	8.15
95		cis-1,4-dichloro-2-butene	0.175	0.184	-5.1	89	0.00	8.20
96	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	91	0.00	9.43
97	S	4-bromofluorobenzene (s)	1.054	1.030	2.3	89	0.00	8.32
98		bromobenzene	0.821	0.975	-18.8	106	0.00	8.47

Continuing Calibration Summary

Job Number: JC87121 **Sample:** VL9051-CC9011
Account: TCMAW Tantara Corporation **Lab FileID:** L311555.D
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

99	1,1,2,2-tetrachloroethane	1.087	1.265	-16.4	102	0.00	8.43
100	trans-1,4-dichloro-2-bute	0.323	0.319	1.2	86	0.00	8.47
101	1,2,3-trichloropropane	0.313	0.356	-13.7	102	0.00	8.50
102	n-propylbenzene	3.619	3.907	-8.0	96	0.00	8.54
103	2-chlorotoluene	0.743	0.825	-11.0	100	0.00	8.64
104	4-chlorotoluene	0.716	0.835	-16.6	102	0.00	8.76
105	1,3,5-trimethylbenzene	2.426	2.715	-11.9	99	0.00	8.71
106	tert-butylbenzene	2.103	2.268	-7.8	97	0.00	9.02
107	1,2,4-trimethylbenzene	2.450	2.743	-12.0	99	0.00	9.08
108	sec-butylbenzene	2.957	3.146	-6.4	95	0.00	9.24
109	1,3-dichlorobenzene	1.466	1.639	-11.8	103	0.00	9.36
110	p-isopropyltoluene	2.374	2.622	-10.4	98	0.00	9.38
111	1,4-dichlorobenzene	1.361	1.558	-14.5	101	0.00	9.45
112	1,2-dichlorobenzene	1.337	1.554	-16.2	103	0.00	9.81
113	n-butylbenzene	1.165	1.265	-8.6	98	0.00	9.78
114	1,2-dibromo-3-chloropropa	0.262	0.307	-17.2	103	0.00	10.58
115	1,3,5-trichlorobenzene	0.976	1.090	-11.7	102	0.00	10.76
116	1,2,4-trichlorobenzene	0.894	1.023	-14.4	104	0.00	11.39
117	hexachlorobutadiene	0.350	0.398	-13.7	102	0.00	11.53
118	naphthalene	2.680	3.142	-17.2	100	0.00	11.66
119	1,2,3-trichlorobenzene	0.824	0.935	-13.5	104	0.00	11.88
120	hexachloroethane	0.405	0.408	-0.7	90	0.00	10.07
121	benzyl chloride	1.851	2.174	-17.5	105	0.00	9.57
122	2-ethylhexyl acrylate	0.566	0.583	-3.0	105	0.00	11.57
123	2-methylnaphthalene	1.266	1.229	2.9	93	0.00	12.79
124	bis(chloromethyl)ether		----------NA----------				
125	ethylenimine		----------NA----------				

(#) = Out of Range SPCC's out = 0 CCC's out = 0
L310728.D ML9011.M Tue Apr 30 11:04:36 2019 1

MS Volatiles

Raw Data

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\5_may\5-1-19\vl9051\
Data File : l311564.d
Acq On : 30 Apr 2019 10:54 am
Operator : krizhkac
Sample : jc87121-1 Inst : GCMSL
Misc : MS34348,VL9051,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\ML9011.M
Quant Results File: ML9011.RES
Quant Time: May 01 04:05:13 2019
Quant Title : SW846 Method V8260C, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Thu Apr 04 11:19:15 2019
Response via : Initial Calibration

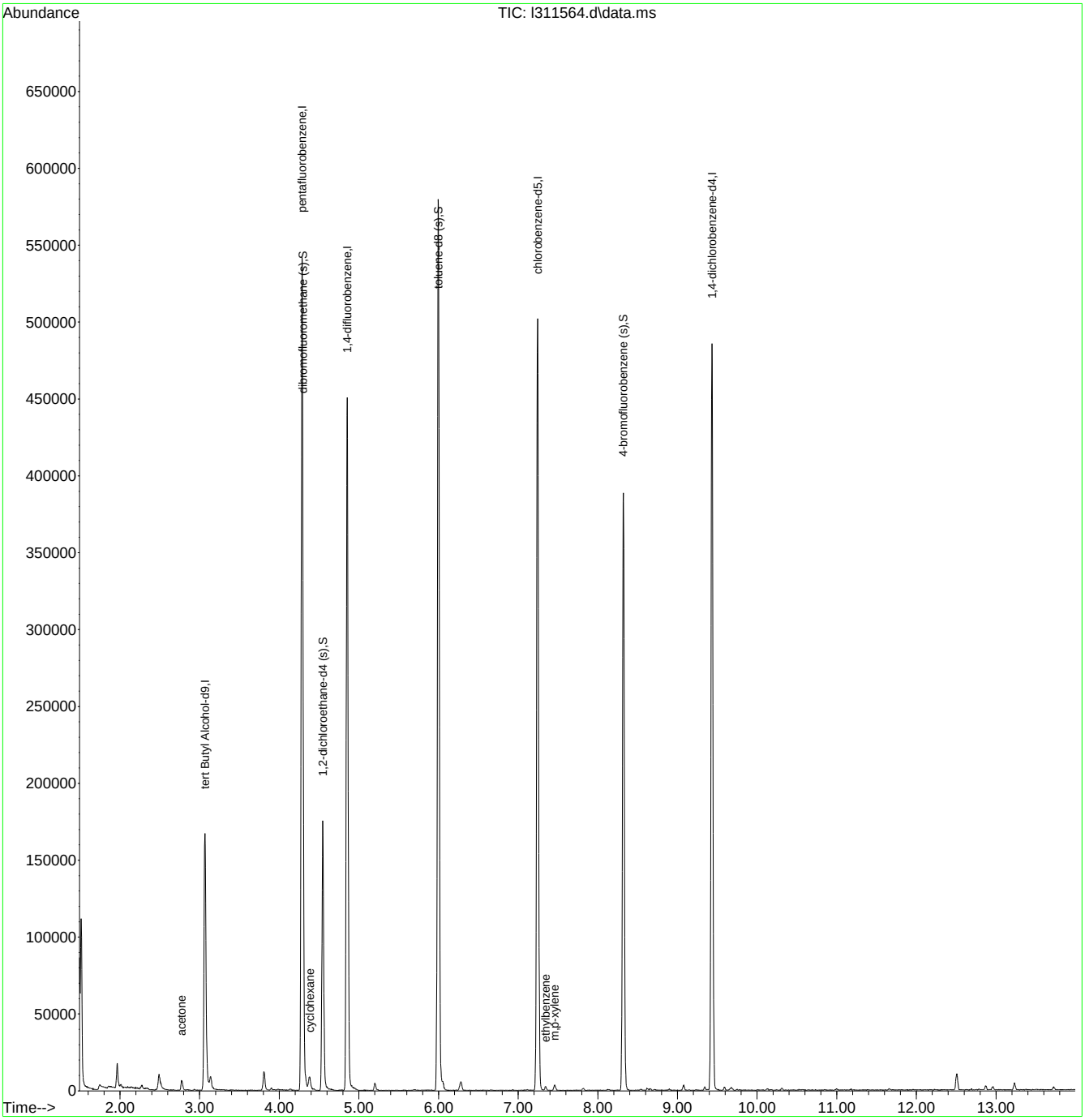
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert Butyl Alcohol-d9	3.066	65	170668	500.00	ug/L	0.00
5) pentafluorobenzene	4.286	168	244866	50.00	ug/L	0.01
52) 1,4-difluorobenzene	4.854	114	321815	50.00	ug/L	0.01
73) chlorobenzene-d5	7.244	117	269289	50.00	ug/L	0.00
96) 1,4-dichlorobenzene-d4	9.433	152	129579	50.00	ug/L	0.00
System Monitoring Compounds						
44) dibromofluoromethane (s)	4.295	113	88634	44.17	ug/L	0.01
Spiked Amount 50.000	Range 80 - 120		Recovery = 88.34%			
53) 1,2-dichloroethane-d4 (s)	4.545	65	95677	44.50	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 89.00%			
74) toluene-d8 (s)	5.996	98	363761	50.23	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.46%			
97) 4-bromofluorobenzene (s)	8.319	95	128253	46.95	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 93.90%			
Target Compounds						Qvalue
19) acetone	2.771	58	2246	6.86	ug/L #	57
47) cyclohexane	4.382	84	2706	0.94	ug/L #	50
88) ethylbenzene	7.344	91	1969	0.24	ug/L	93
89) m,p-xylene	7.456	106	1316	0.42	ug/L	89

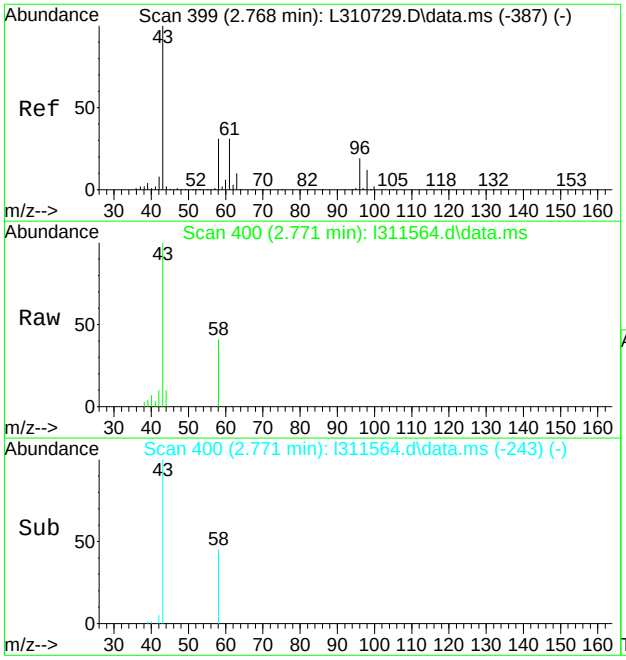
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\nizele\5_may\5-1-19\vl9051\
Data File : l311564.d
Acq On : 30 Apr 2019 10:54 am
Operator : krizhkac
Sample : jc87121-1 Inst : GCMSL
Misc : MS34348,VL9051,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\ML9011.M
Quant Results File: ML9011.RES
Quant Time: May 01 04:05:13 2019
Quant Title : SW846 Method V8260C, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Thu Apr 04 11:19:15 2019
Response via : Initial Calibration

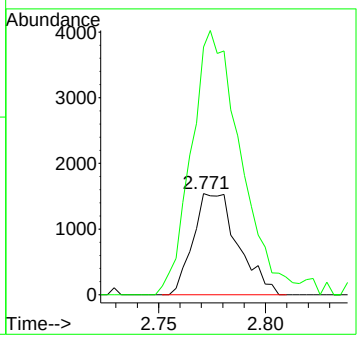


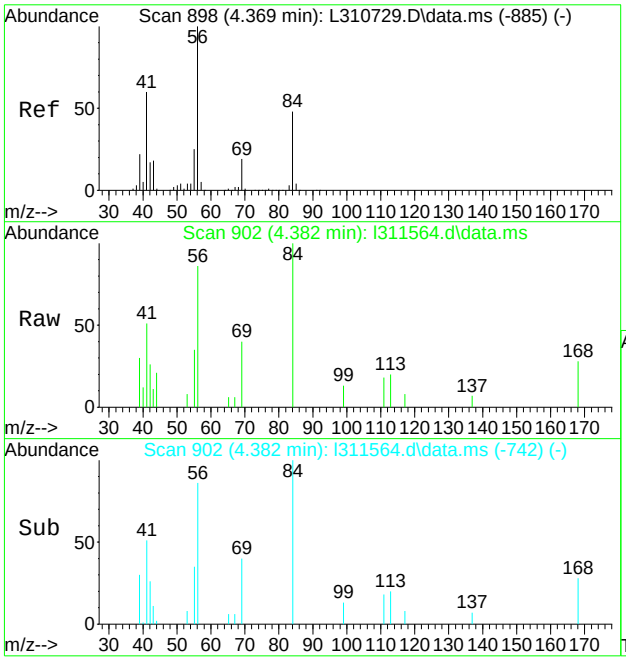


#19
acetone
Concen: 6.86 ug/L
RT: 2.771 min Scan# 400
Delta R.T. 0.003 min
Lab File: l311564.d
Acq: 30 Apr 2019 10:54 am

Tgt Ion: 58 Resp: 2246

Ion	Ratio	Lower	Upper
58	100		
43	236.1	293.9	353.9#

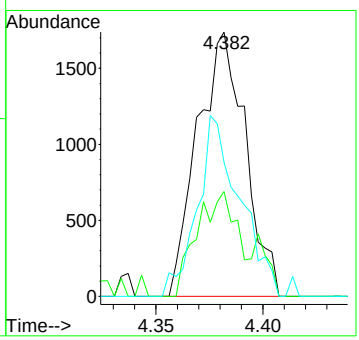


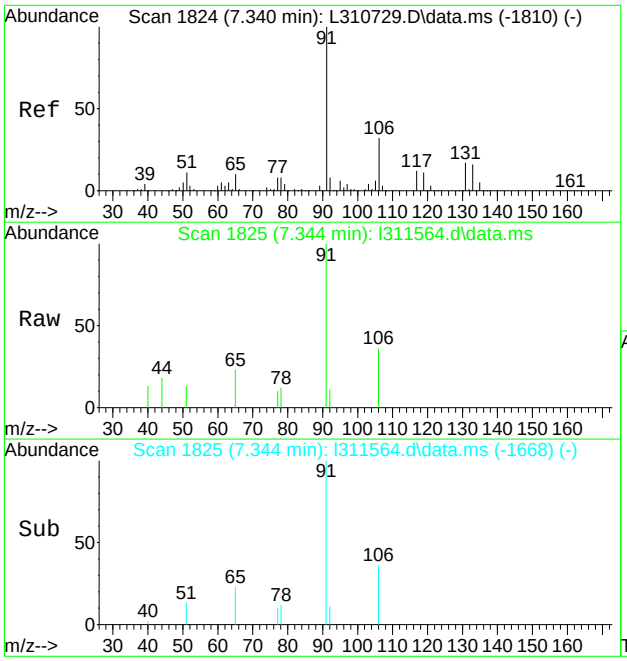


#47
cyclohexane
Concen: 0.94 ug/L
RT: 4.382 min Scan# 902
Delta R.T. 0.013 min
Lab File: l311564.d
Acq: 30 Apr 2019 10:54 am

Tgt Ion: 84 Resp: 2706

Ion	Ratio	Lower	Upper
84	100		
69	39.7	18.3	58.3
41	50.8	103.8	143.8#

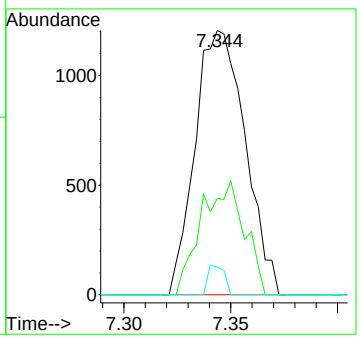


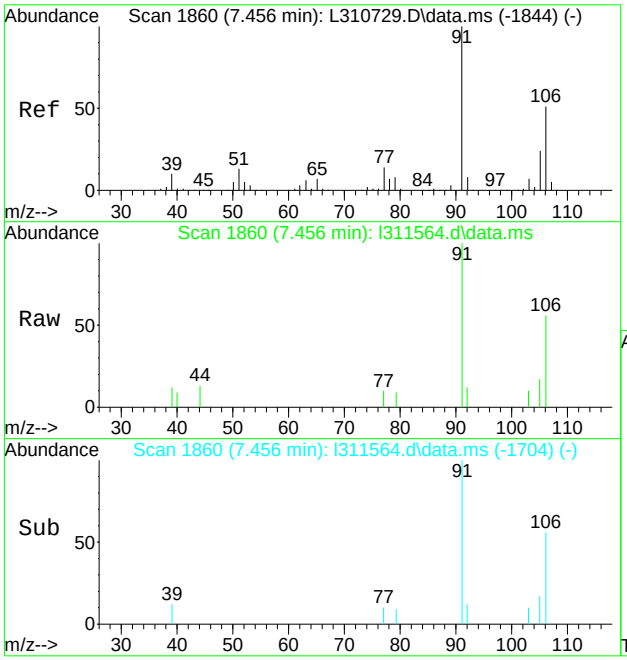


#88
ethylbenzene
Concen: 0.24 ug/L
RT: 7.344 min Scan# 1825
Delta R.T. 0.003 min
Lab File: l311564.d
Acq: 30 Apr 2019 10:54 am

Tgt Ion: 91 Resp: 1969

Ion	Ratio	Lower	Upper
91	100		
106	36.5	2.1	62.1
77	10.4	0.0	39.2

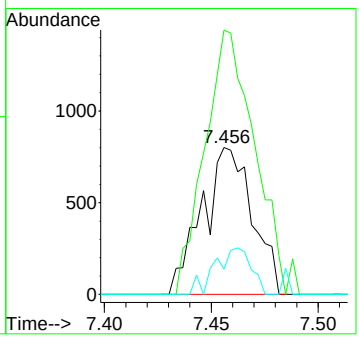




#89
m,p-xylene
Concen: 0.42 ug/L
RT: 7.456 min Scan# 1860
Delta R.T. 0.000 min
Lab File: l311564.d
Acq: 30 Apr 2019 10:54 am

Tgt Ion:106 Resp: 1316

Ion	Ratio	Lower	Upper
106	100		
91	180.0	165.4	225.4
77	17.2	7.1	47.1



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VL9051\
Data File : L311565.D
Acq On : 30 Apr 2019 11:21 am
Operator : krizhkac
Sample : jc87121-2
Misc : MS34348,VL9051,5,,,,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Apr 30 13:36:49 2019
Quant Method : C:\MSDCHEM\1\METHODS\ML9011.M
Quant Title : SW846 Method V8260C, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Thu Apr 04 11:19:15 2019
Response via : Initial Calibration

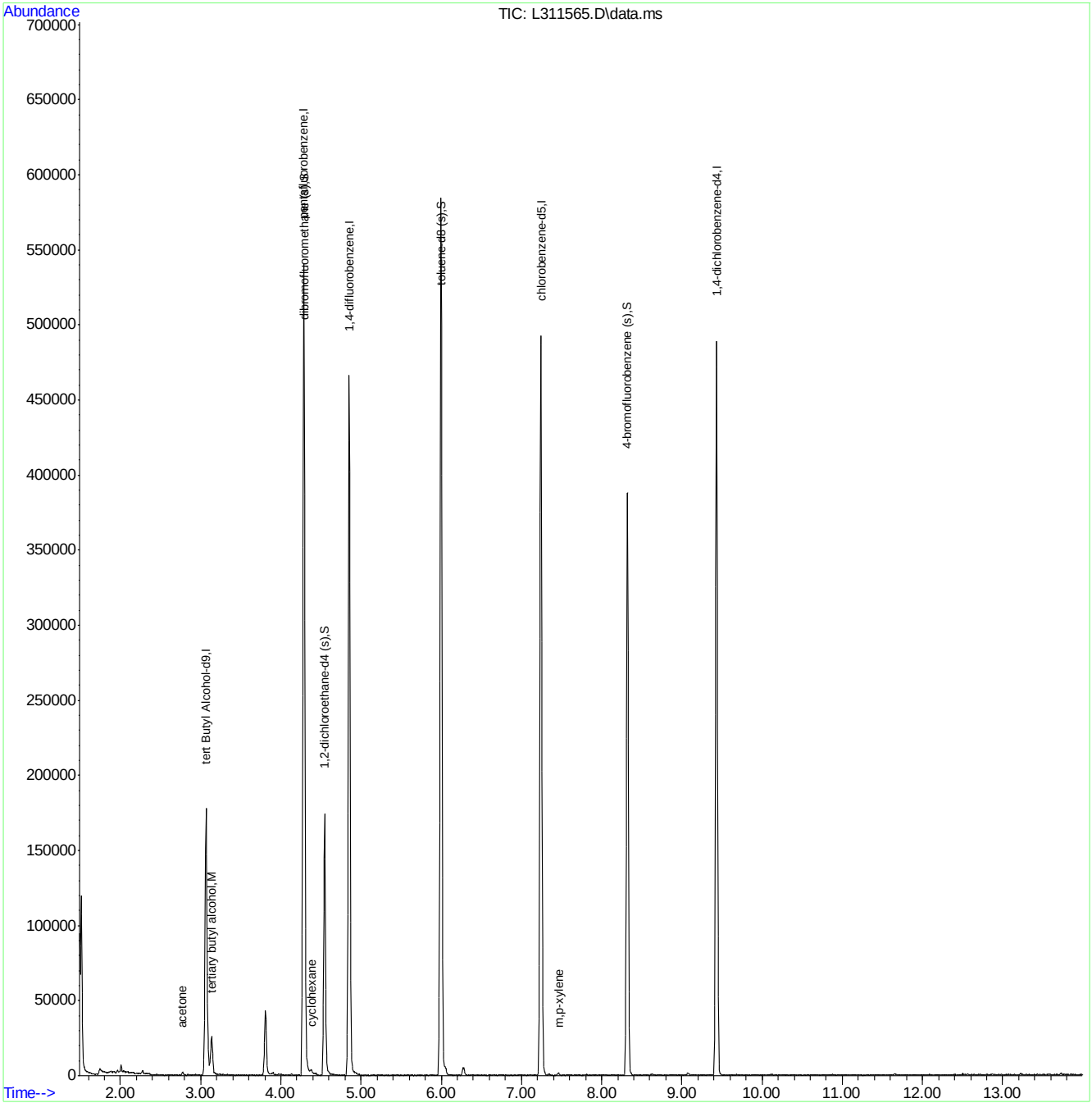
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert Butyl Alcohol-d9	3.066	65	181501	500.00	ug/L		0.00
5) pentafluorobenzene	4.285	168	244853	50.00	ug/L		0.01
52) 1,4-difluorobenzene	4.850	114	324624	50.00	ug/L		0.00
73) chlorobenzene-d5	7.244	117	270977	50.00	ug/L		0.00
96) 1,4-dichlorobenzene-d4	9.433	152	129879	50.00	ug/L		0.00
System Monitoring Compounds							
44) dibromofluoromethane (s)	4.292	113	90105	44.90	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 89.80%				
53) 1,2-dichloroethane-d4 (s)	4.545	65	98909	45.61	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 91.22%				
74) toluene-d8 (s)	5.996	98	362168	49.70	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.40%				
97) 4-bromofluorobenzene (s)	8.319	95	130842	47.78	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 95.56%				
Target Compounds							Qvalue
4) tertiary butyl alcohol	3.140	59	11168	25.67	ug/L		72
19) acetone	2.774	58	657	2.01	ug/L	#	56
47) cyclohexane	4.385	84	778	0.27	ug/L	#	40
89) m,p-xylene	7.462	106	831	0.26	ug/L	#	74

(#) = qualifier out of range (m) = manual integration (+) = signals summed

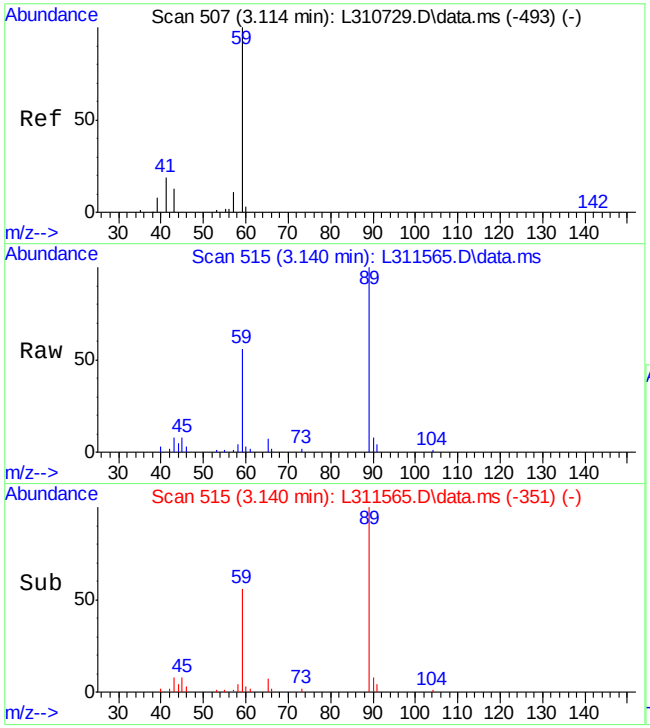
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VL9051\
Data File : L311565.D
Acq On : 30 Apr 2019 11:21 am
Operator : krizhkac
Sample : jc87121-2
Misc : MS34348,VL9051,5,,,,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Apr 30 13:36:49 2019
Quant Method : C:\MSDCHEM\1\METHODS\ML9011.M
Quant Title : SW846 Method V8260C, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Thu Apr 04 11:19:15 2019
Response via : Initial Calibration



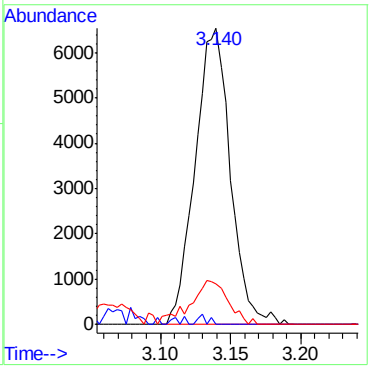
ML9011.M Tue Apr 30 13:39:57 2019 1 Page: 2

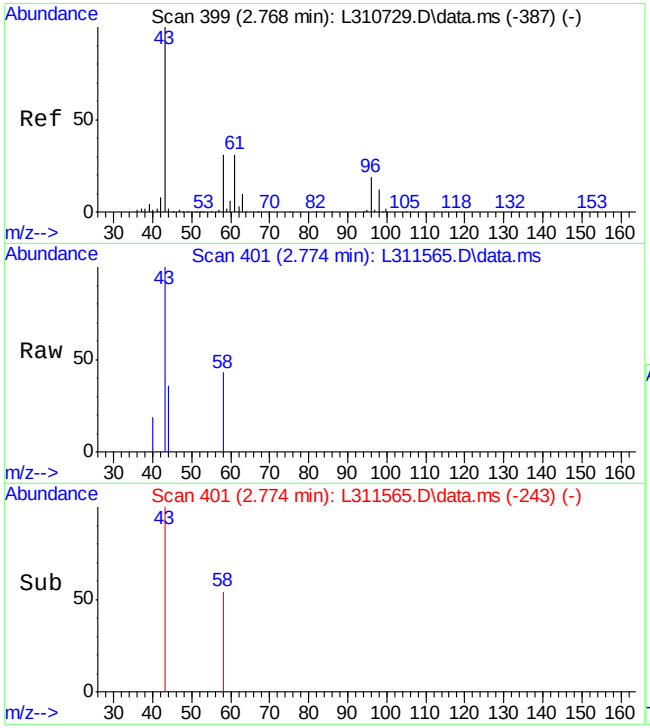


#4
tertiary butyl alcohol
Concen: 25.67 ug/L
RT: 3.140 min Scan# 515
Delta R.T. 0.026 min
Lab File: L311565.D
Acq: 30 Apr 2019 11:21 am

Tgt Ion: 59 Resp: 11168

Ion	Ratio	Lower	Upper
59	100		
41	0.0	0.0	51.4
43	13.6	0.0	44.6

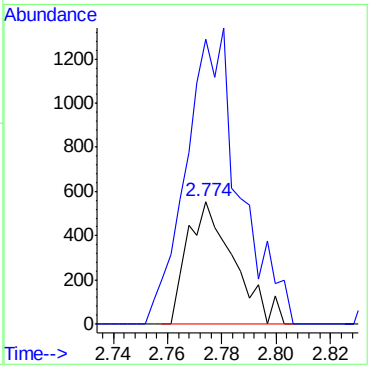


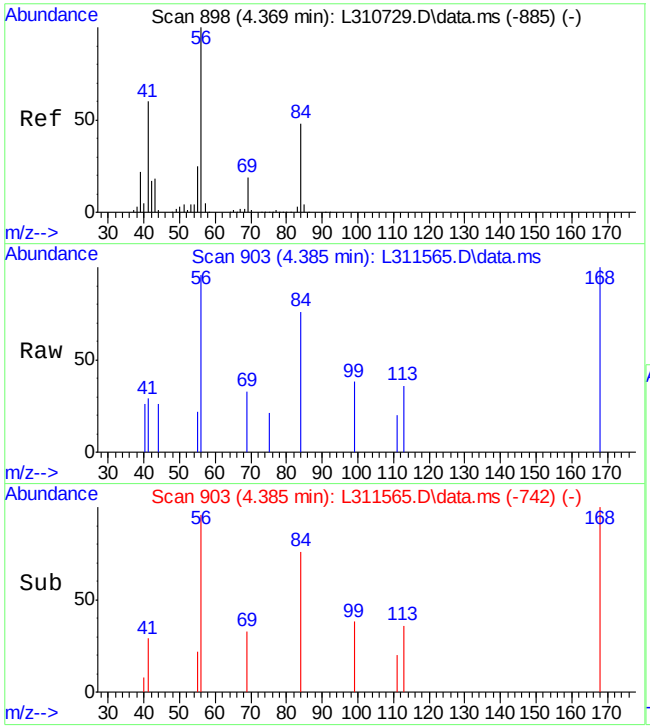


#19
acetone
Concen: 2.01 ug/L
RT: 2.774 min Scan# 401
Delta R.T. 0.006 min
Lab File: L311565.D
Acq: 30 Apr 2019 11:21 am

Tgt Ion: 58 Resp: 657

Ion	Ratio	Lower	Upper
58	100		
43	232.6	293.9	353.9#

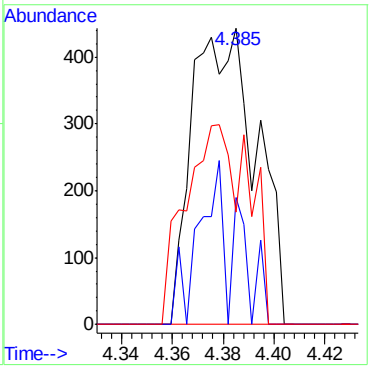


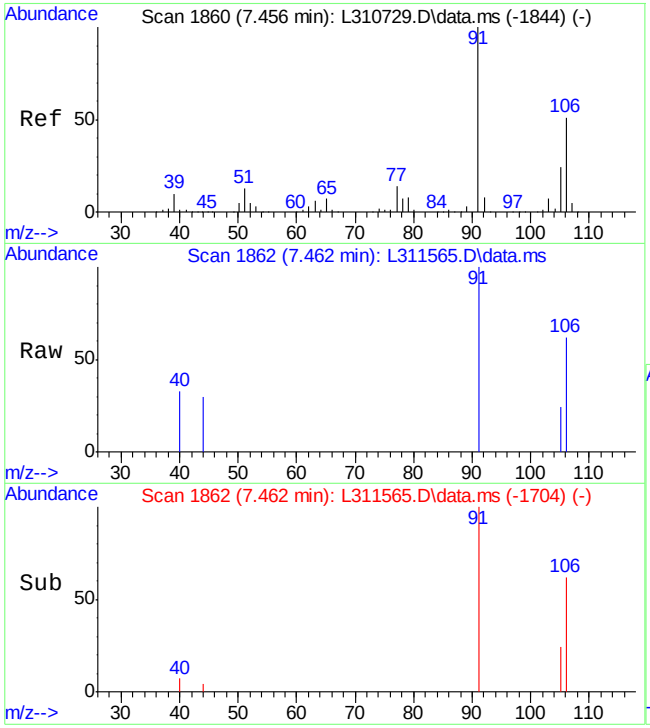


#47
cyclohexane
Concen: 0.27 ug/L
RT: 4.385 min Scan# 903
Delta R.T. 0.016 min
Lab File: L311565.D
Acq: 30 Apr 2019 11:21 am

Tgt Ion: 84 Resp: 778

Ion	Ratio	Lower	Upper
84	100		
69	42.9	18.3	58.3
41	37.9	103.8	143.8#

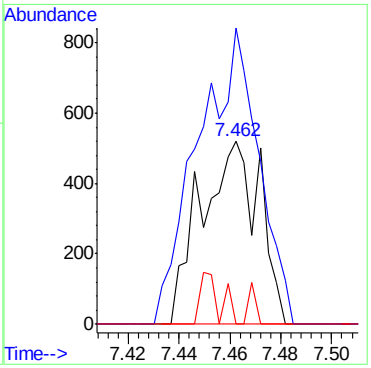




#89
m,p-xylene
Concen: 0.26 ug/L
RT: 7.462 min Scan# 1862
Delta R.T. 0.006 min
Lab File: L311565.D
Acq: 30 Apr 2019 11:21 am

Tgt Ion:106 Resp: 831

Ion	Ratio	Lower	Upper
106	100		
91	161.6	165.4	225.4#
77	0.0	7.1	47.1#



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VL9051\
Data File : L311558.D
Acq On : 30 Apr 2019 7:59 am
Operator : krizhkac
Sample : mb
Misc : MS34139,VL9051,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 30 11:07:05 2019
Quant Method : C:\MSDCHEM\1\METHODS\ML9011.M
Quant Title : SW846 Method V8260C, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Thu Apr 04 11:19:15 2019
Response via : Initial Calibration

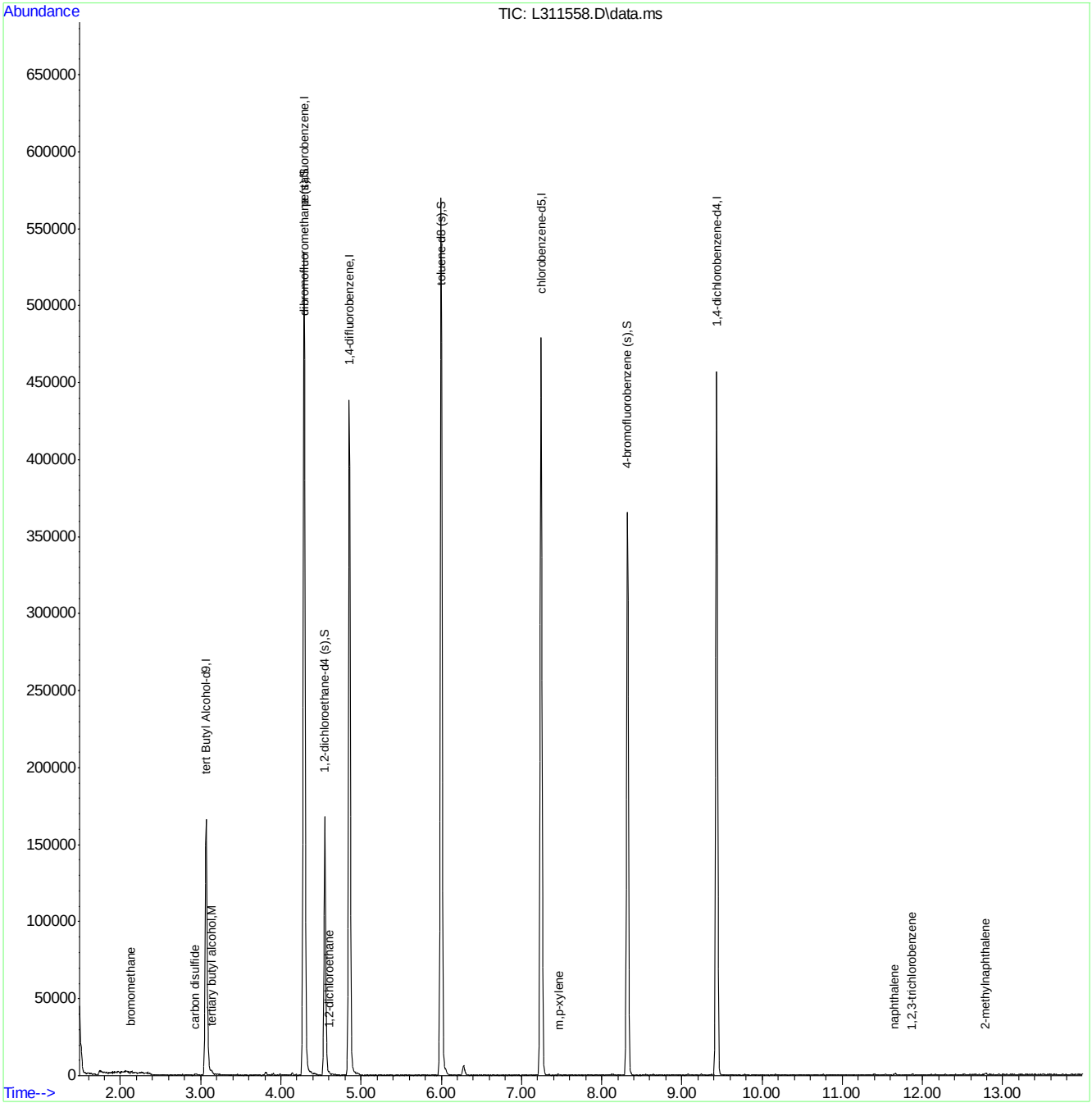
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert Butyl Alcohol-d9	3.066	65	169122	500.00	ug/L		0.00
5) pentafluorobenzene	4.289	168	240841	50.00	ug/L		0.02
52) 1,4-difluorobenzene	4.857	114	312306	50.00	ug/L		0.02
73) chlorobenzene-d5	7.244	117	258617	50.00	ug/L		0.00
96) 1,4-dichlorobenzene-d4	9.433	152	124450	50.00	ug/L		0.00
System Monitoring Compounds							
44) dibromofluoromethane (s)	4.295	113	85728	43.43	ug/L		0.01
Spiked Amount 50.000	Range 80 - 120		Recovery = 86.86%				
53) 1,2-dichloroethane-d4 (s)	4.549	65	94091	45.10	ug/L		0.01
Spiked Amount 50.000	Range 81 - 124		Recovery = 90.20%				
74) toluene-d8 (s)	5.999	98	351181	50.50	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.00%				
97) 4-bromofluorobenzene (s)	8.319	95	124862	47.59	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 95.18%				
Target Compounds							Qvalue
4) tertiary butyl alcohol	3.140	59	462	1.14	ug/L		59
10) bromomethane	2.129	94	585	0.55	ug/L	#	42
23) carbon disulfide	2.935	76	996	0.18	ug/L		72
59) 1,2-dichloroethane	4.606	62	373	0.14	ug/L		90
89) m,p-xylene	7.462	106	333	0.11	ug/L	#	35
118) naphthalene	11.653	128	1031	0.15	ug/L		68
119) 1,2,3-trichlorobenzene	11.871	180	321	0.16	ug/L	#	49
123) 2-methylnaphthalene	12.786	142	466	0.15	ug/L		97

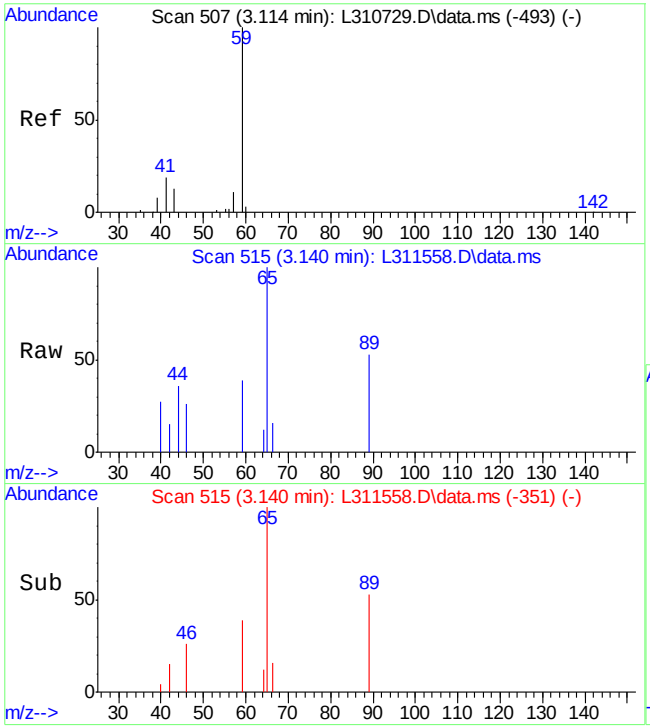
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VL9051\
Data File : L311558.D
Acq On : 30 Apr 2019 7:59 am
Operator : krizhkac
Sample : mb
Misc : MS34139,VL9051,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 30 11:07:05 2019
Quant Method : C:\MSDCHEM\1\METHODS\ML9011.M
Quant Title : SW846 Method V8260C, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Thu Apr 04 11:19:15 2019
Response via : Initial Calibration

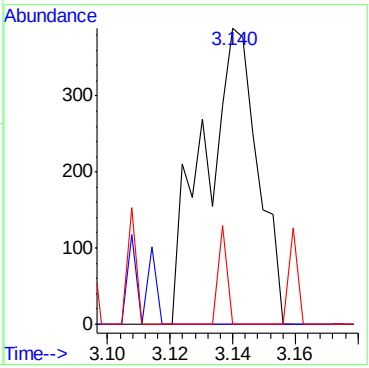


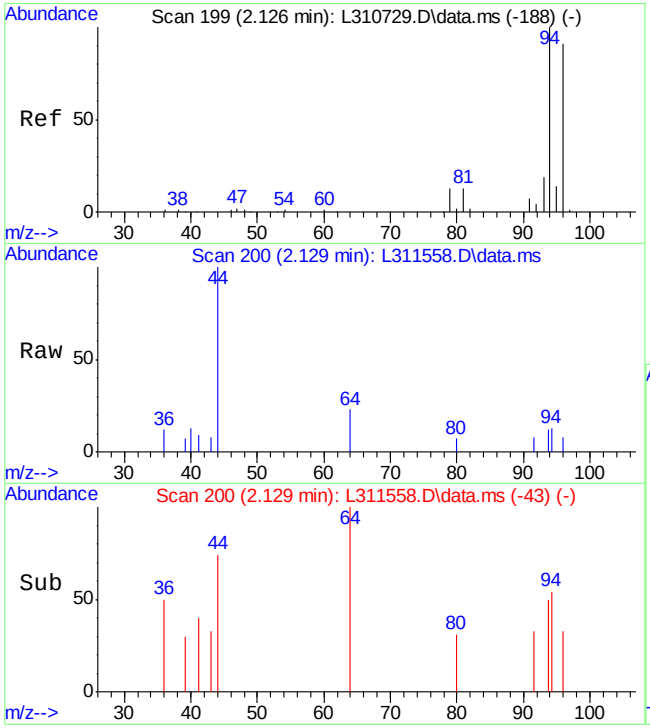


#4
tertiary butyl alcohol
Concen: 1.14 ug/L
RT: 3.140 min Scan# 515
Delta R.T. 0.026 min
Lab File: L311558.D
Acq: 30 Apr 2019 7:59 am

Tgt Ion: 59 Resp: 462

Ion	Ratio	Lower	Upper
59	100		
41	0.0	0.0	51.4
43	0.0	0.0	44.6

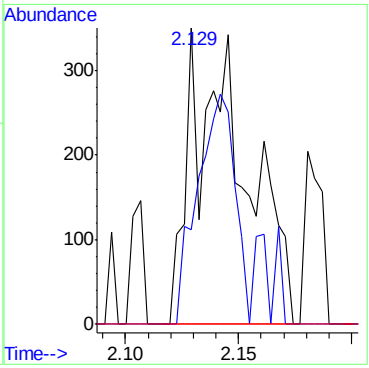


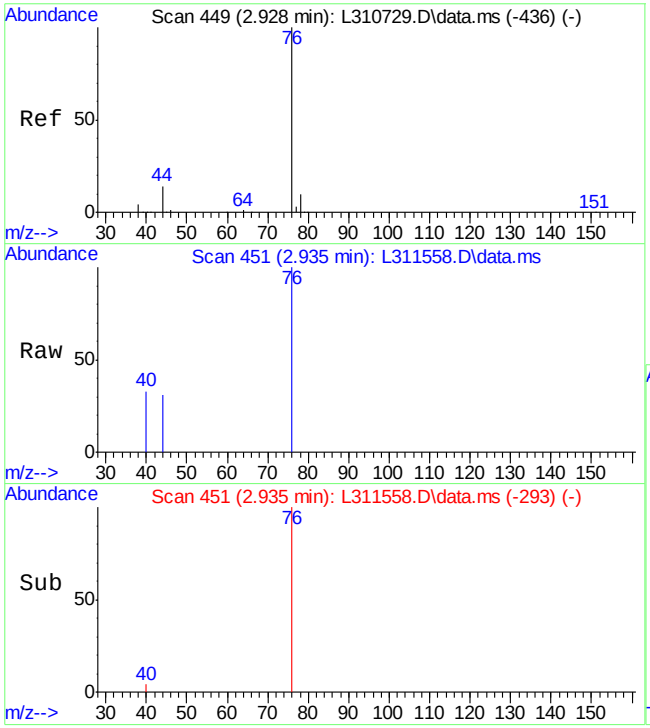


#10
bromomethane
Concen: 0.55 ug/L
RT: 2.129 min Scan# 200
Delta R.T. 0.003 min
Lab File: L311558.D
Acq: 30 Apr 2019 7:59 am

Tgt Ion: 94 Resp: 585

Ion	Ratio	Lower	Upper
94	100		
96	31.9	60.6	120.6#
95	0.0	0.0	43.8

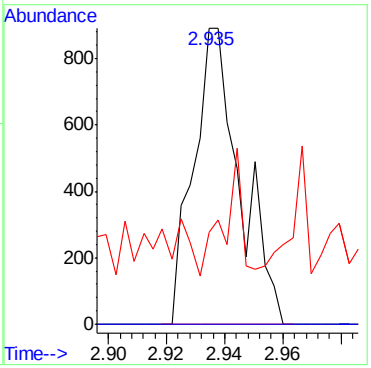


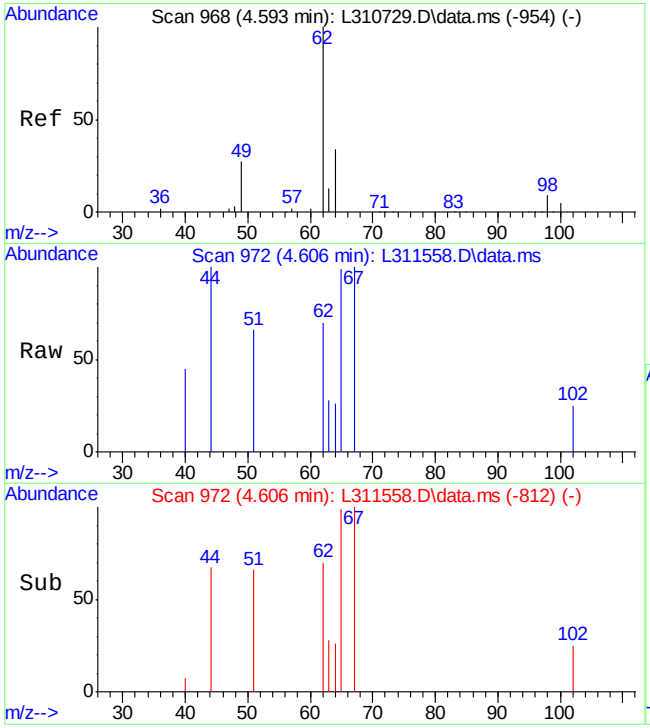


#23
carbon disulfide
Concen: 0.18 ug/L
RT: 2.935 min Scan# 451
Delta R.T. 0.006 min
Lab File: L311558.D
Acq: 30 Apr 2019 7:59 am

Tgt Ion: 76 Resp: 996

Ion	Ratio	Lower	Upper
76	100		
78	0.0	0.0	39.5
44	1.9	0.0	43.7

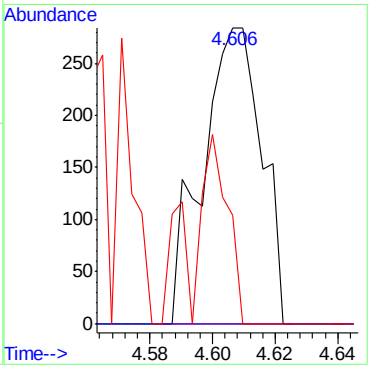


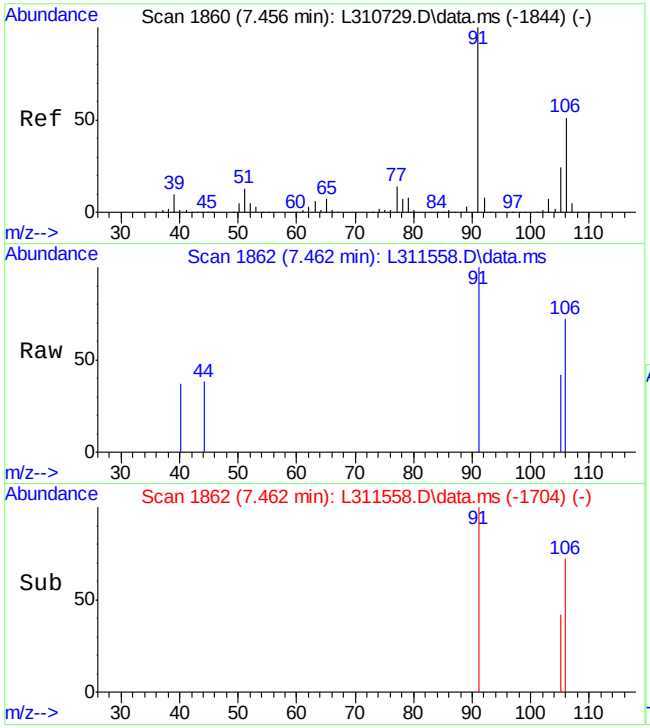


#59
1,2-dichloroethane
Concen: 0.14 ug/L
RT: 4.606 min Scan# 972
Delta R.T. 0.013 min
Lab File: L311558.D
Acq: 30 Apr 2019 7:59 am

Tgt Ion: 62 Resp: 373

Ion	Ratio	Lower	Upper
62	100		
98	0.0	0.0	39.4
64	36.6	3.6	63.6

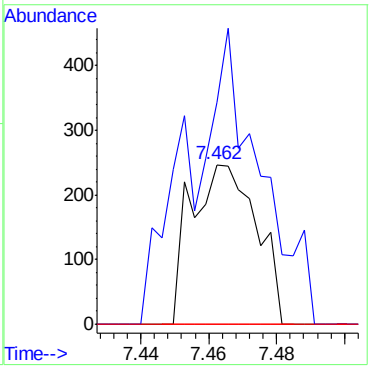


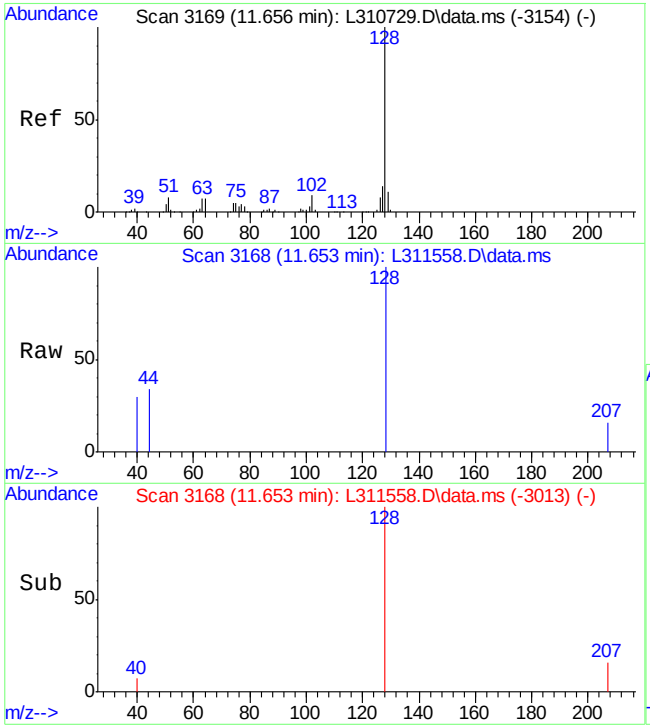


#89
m,p-xylene
Concen: 0.11 ug/L
RT: 7.462 min Scan# 1862
Delta R.T. 0.006 min
Lab File: L311558.D
Acq: 30 Apr 2019 7:59 am

Tgt Ion:106 Resp: 333

Ion	Ratio	Lower	Upper
106	100		
91	96.0	165.4	225.4#
77	0.0	7.1	47.1#

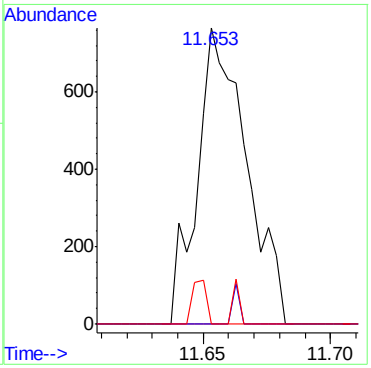


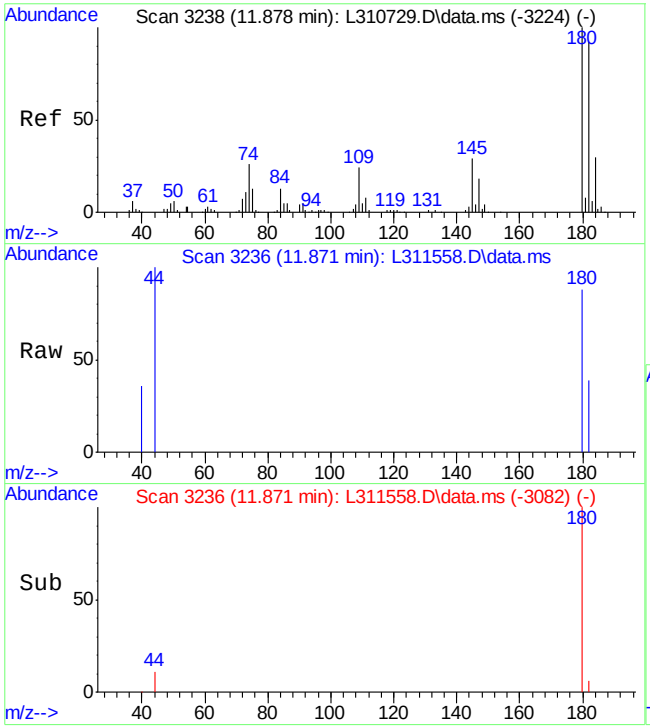


#118
naphthalene
Concen: 0.15 ug/L
RT: 11.653 min Scan# 3168
Delta R.T. -0.003 min
Lab File: L311558.D
Acq: 30 Apr 2019 7:59 am

Tgt Ion:128 Resp: 1031

Ion	Ratio	Lower	Upper
128	100		
129	0.0	0.0	41.2
127	0.0	0.0	43.7

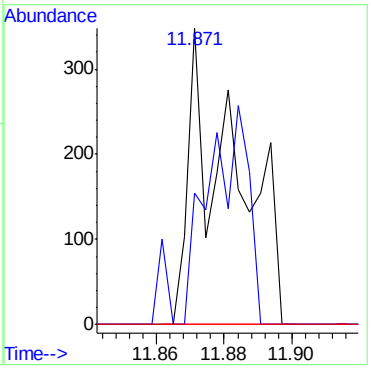


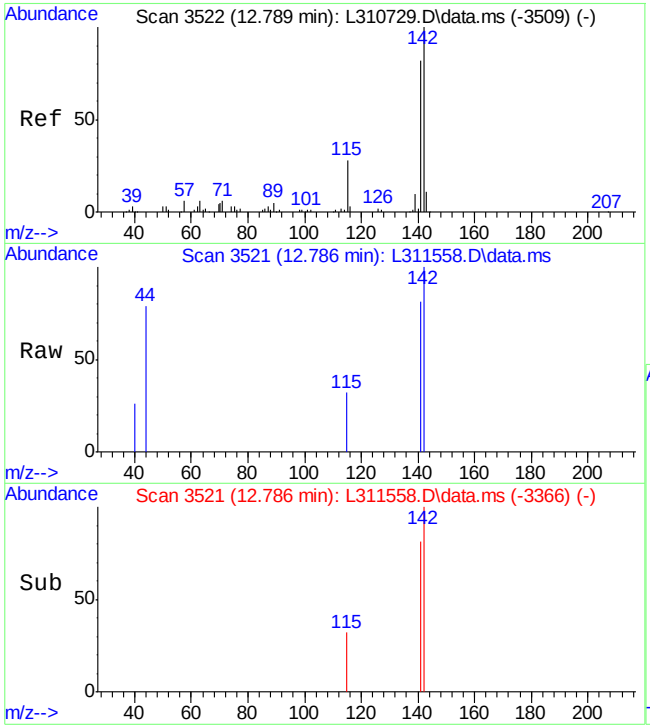


#119
1,2,3-trichlorobenzene
Concen: 0.16 ug/L
RT: 11.871 min Scan# 3236
Delta R.T. -0.006 min
Lab File: L311558.D
Acq: 30 Apr 2019 7:59 am

Tgt Ion:180 Resp: 321

Ion	Ratio	Lower	Upper
180	100		
182	44.5	62.1	122.1#
184	0.0	0.2	60.2#

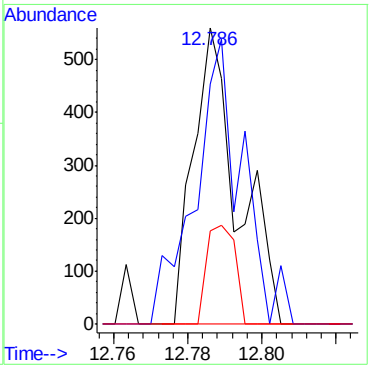




#123
2-methylnaphthalene
Concen: 0.15 ug/L
RT: 12.786 min Scan# 3521
Delta R.T. -0.003 min
Lab File: L311558.D
Acq: 30 Apr 2019 7:59 am

Tgt Ion:142 Resp: 466

Ion	Ratio	Lower	Upper
142	100		
141	80.9	62.2	102.2
115	31.6	8.2	48.2



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VL9051\
Data File : L311556.D
Acq On : 30 Apr 2019 6:58 am
Operator : brittank
Sample : bs
Misc : MS34348,VL9051,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 30 11:00:45 2019
Quant Method : C:\MSDCHEM\1\METHODS\ML9011.M
Quant Title : SW846 Method V8260C, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Thu Apr 04 11:19:15 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert Butyl Alcohol-d9	3.073	65	129165	500.00	ug/L		0.01
5) pentafluorobenzene	4.289	168	191988	50.00	ug/L		0.02
52) 1,4-difluorobenzene	4.853	114	262375	50.00	ug/L		0.01
73) chlorobenzene-d5	7.244	117	228261	50.00	ug/L		0.00
96) 1,4-dichlorobenzene-d4	9.436	152	98977	50.00	ug/L		0.00
System Monitoring Compounds							
44) dibromofluoromethane (s)	4.295	113	69883	44.41	ug/L		0.01
Spiked Amount 50.000	Range 80 - 120		Recovery = 88.82%				
53) 1,2-dichloroethane-d4 (s)	4.545	65	71810	40.97	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 81.94%				
74) toluene-d8 (s)	5.999	98	285518	46.51	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 93.02%				
97) 4-bromofluorobenzene (s)	8.322	95	102605	49.17	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.34%				
Target Compounds							Qvalue
2) 1,4-dioxane	5.290	88	39706	1543.62	ug/L		96
3) ethanol	2.492	45	190503	5845.54	ug/L		99
4) tertiary butyl alcohol	3.127	59	86937	280.78	ug/L		97
6) chlorodifluoromethane	1.651	51	123242	49.30	ug/L		98
7) dichlorodifluoromethane	1.638	85	151095	50.26	ug/L		99
8) chloromethane	1.795	50	131532	47.04	ug/L		96
9) vinyl chloride	1.882	62	151087	55.72	ug/L		98
10) bromomethane	2.132	94	47966	56.77	ug/L		98
11) chloroethane	2.213	64	82593	60.37	ug/L		98
12) vinyl bromide	2.354	106	64961	52.66	ug/L		98
13) trichlorofluoromethane	2.395	101	148546	51.77	ug/L		97
14) ethyl ether	2.582	74	60582	55.46	ug/L		97
15) 2-chloropropane	2.675	43	156637	47.71	ug/L		99
16) acrolein	2.684	56	17414	43.77	ug/L		96
17) freon 113	2.758	151	70621	54.33	ug/L		98
18) 1,1-dichloroethene	2.761	96	86558	52.87	ug/L		92
19) acetone	2.777	58	47233	183.93	ug/L		89
20) acetonitrile	2.970	40	89972	439.49	ug/L		93
21) iodomethane	2.880	142	29432	53.87	ug/L		95
22) iso-butyl alcohol	4.436	43	64401	453.39	ug/L		96
23) carbon disulfide	2.938	76	235612	53.57	ug/L		97
24) methylene chloride	3.095	84	89878	53.51	ug/L		93
25) methyl acetate	2.983	74	22483	52.68	ug/L	#	79
26) methyl tert butyl ether	3.262	73	276035	51.89	ug/L		98
27) trans-1,2-dichloroethene	3.278	96	87772	53.67	ug/L		98
28) hexane	3.454	57	122702	48.41	ug/L		96
29) di-isopropyl ether	3.567	45	289317	47.06	ug/L		92
30) ethyl tert-butyl ether	3.814	59	291153	49.84	ug/L		97
31) 2-butanone	3.936	72	66367	204.67	ug/L	#	79
32) 1,1-dichloroethane	3.576	63	154307	49.30	ug/L		99
33) chloroprene	3.628	53	138334	48.63	ug/L		95
34) acrylonitrile	3.243	53	50510	49.93	ug/L		96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VL9051\
Data File : L311556.D
Acq On : 30 Apr 2019 6:58 am
Operator : brittank
Sample : bs
Misc : MS34348,VL9051,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 30 11:00:45 2019
Quant Method : C:\MSDCHEM\1\METHODS\ML9011.M
Quant Title : SW846 Method V8260C, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Thu Apr 04 11:19:15 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
35) vinyl acetate	3.547	86	25538	54.48	ug/L	#	90
36) ethyl acetate	3.945	45	21162	48.08	ug/L	#	74
37) 2,2-dichloropropane	3.974	77	125060	50.77	ug/L		97
38) cis-1,2-dichloroethene	3.965	96	94995	52.90	ug/L		90
39) propionitrile	3.987	54	184838	462.02	ug/L		96
40) methyl acrylate	3.990	85	19034	52.53	ug/L	#	74
41) bromochloromethane	4.128	128	44341	54.60	ug/L	#	85
42) tetrahydrofuran	4.141	72	18095	48.63	ug/L	#	80
43) chloroform	4.186	83	145472	48.71	ug/L		98
45) methacrylonitrile	4.096	67	51413	51.41	ug/L		94
46) 1,1,1-trichloroethane	4.324	97	126699	52.79	ug/L		98
47) cyclohexane	4.382	84	120650	53.66	ug/L		87
48) 1,1-dichloropropene	4.433	75	116222	51.73	ug/L		96
49) carbon tetrachloride	4.436	117	103374	51.27	ug/L		95
50) isopropyl acetate	4.555	87	26059	52.89	ug/L	#	56
51) tert amyl alcohol	4.529	55	29497	238.00	ug/L		90
54) tert-amyl methyl ether	4.638	73	258614	52.24	ug/L		98
55) 2,2,4-trimethylpentane	4.642	57	196407	48.13	ug/L		96
56) n-butyl alcohol	4.914	56	222511	2617.12	ug/L		97
57) benzene	4.581	78	339044	53.68	ug/L		96
58) heptane	4.751	57	47069	51.41	ug/L		96
59) 1,2-dichloroethane	4.603	62	105990	47.89	ug/L		98
60) trichloroethene	5.046	95	91195	57.82	ug/L		97
61) ethyl acrylate	5.065	55	149391	53.41	ug/L		98
62) 2-nitropropane	5.601	41	28253	42.41	ug/L		88
63) 2-chloroethyl vinyl ether	5.630	63	322404	249.12	ug/L		97
64) methyl methacrylate	5.245	100	32187	59.74	ug/L	#	80
65) 1,2-dichloropropane	5.245	63	88522	54.05	ug/L		98
66) methylcyclohexane	5.235	83	123338	49.21	ug/L		93
67) dibromomethane	5.316	93	54101	55.07	ug/L		91
68) bromodichloromethane	5.434	83	115694	55.43	ug/L		99
69) cis-1,3-dichloropropene	5.771	75	145297	55.11	ug/L		96
70) epichlorohydrin	5.681	57	69755	267.61	ug/L		97
71) 4-methyl-2-pentanone	5.874	58	192240	203.94	ug/L		92
72) 3-methyl-1-butanol	5.893	70	79602	1083.53	ug/L		88
75) toluene	6.054	92	212396	54.54	ug/L		98
76) trans-1,3-dichloropropene	6.227	75	130887	53.98	ug/L		95
77) ethyl methacrylate	6.246	69	138060	55.15	ug/L		94
78) 1,1,2-trichloroethane	6.397	83	71696	55.81	ug/L		99
79) 2-hexanone	6.557	58	194530	198.29	ug/L		89
80) tetrachloroethene	6.490	166	96097	56.52	ug/L		96
81) 1,3-dichloropropane	6.541	76	134831	52.44	ug/L		99
82) butyl acetate	6.641	56	79651	50.31	ug/L		91
83) dibromochloromethane	6.727	129	87657	56.70	ug/L		97
84) 1,2-dibromoethane	6.846	107	116080	56.21	ug/L		95
85) n-butyl ether	7.315	57	336709	53.78	ug/L		98
86) chlorobenzene	7.270	112	228086	54.81	ug/L		97
87) 1,1,1,2-tetrachloroethane	7.340	131	75269	56.47	ug/L		95
88) ethylbenzene	7.347	91	363804	53.23	ug/L		99
89) m,p-xylene	7.462	106	281849	106.32	ug/L		100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VL9051\
Data File : L311556.D
Acq On : 30 Apr 2019 6:58 am
Operator : brittank
Sample : bs
Misc : MS34348,VL9051,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 30 11:00:45 2019
Quant Method : C:\MSDCHEM\1\METHODS\ML9011.M
Quant Title : SW846 Method V8260C, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Thu Apr 04 11:19:15 2019
Response via : Initial Calibration

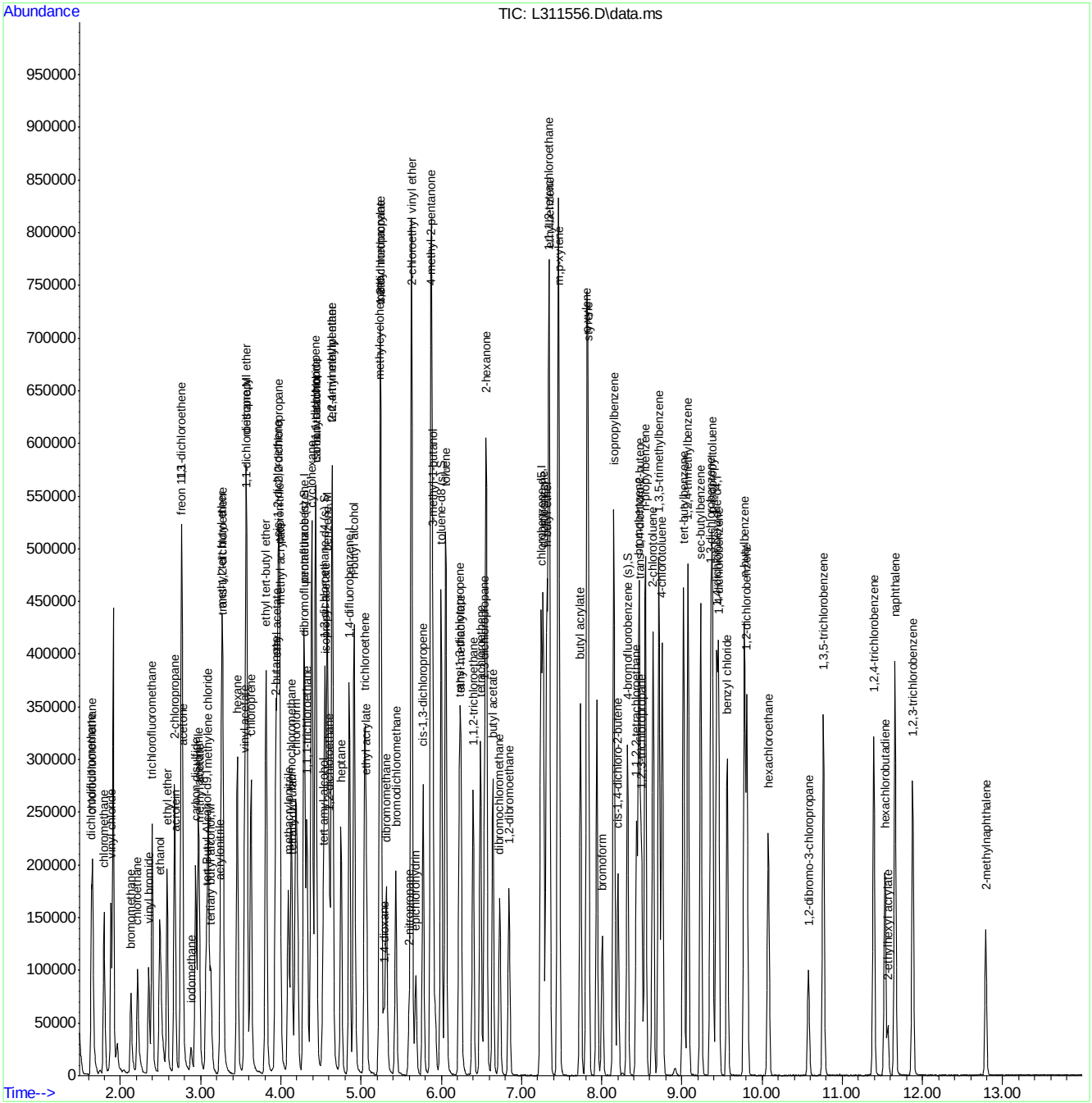
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
90) o-xylene	7.815	106	142012	54.19	ug/L	95
91) butyl acrylate	7.735	55	214076	55.62	ug/L	96
92) styrene	7.831	104	236936	56.11	ug/L	99
93) bromoform	8.008	173	63392	58.88	ug/L	99
94) isopropylbenzene	8.152	105	352900	54.86	ug/L	98
95) cis-1,4-dichloro-2-butene	8.204	88	42431	53.23	ug/L	97
98) bromobenzene	8.463	156	95923	59.05	ug/L	90
99) 1,1,2,2-tetrachloroethane	8.435	83	122617	56.99	ug/L	100
100) trans-1,4-dichloro-2-b...	8.473	53	31425	49.19	ug/L	88
101) 1,2,3-trichloropropane	8.499	110	32941	53.24	ug/L	98
102) n-propylbenzene	8.544	91	387007	54.02	ug/L	98
103) 2-chlorotoluene	8.640	126	83033	56.47	ug/L	94
104) 4-chlorotoluene	8.755	126	80488	56.75	ug/L	96
105) 1,3,5-trimethylbenzene	8.714	105	269339	56.08	ug/L	100
106) tert-butylbenzene	9.022	119	232352	55.80	ug/L	97
107) 1,2,4-trimethylbenzene	9.076	105	270204	55.72	ug/L	97
108) sec-butylbenzene	9.237	105	320423	54.75	ug/L	99
109) 1,3-dichlorobenzene	9.362	146	161527	55.67	ug/L	98
110) p-isopropyltoluene	9.381	119	257791	54.86	ug/L	100
111) 1,4-dichlorobenzene	9.458	146	155223	57.62	ug/L	97
112) 1,2-dichlorobenzene	9.808	146	151768	57.34	ug/L	96
113) n-butylbenzene	9.779	92	132642	57.53	ug/L	100
114) 1,2-dibromo-3-chloropr...	10.581	157	31328	60.33	ug/L	95
115) 1,3,5-trichlorobenzene	10.764	180	113791	58.91	ug/L	97
116) 1,2,4-trichlorobenzene	11.393	180	108019	61.06	ug/L	97
117) hexachlorobutadiene	11.531	225	43907	63.30	ug/L	97
118) naphthalene	11.660	128	315200	59.41	ug/L	99
119) 1,2,3-trichlorobenzene	11.878	180	94874	58.19	ug/L	95
120) hexachloroethane	10.078	119	45798	57.15	ug/L	91
121) benzyl chloride	9.564	91	218390	59.60	ug/L	98
122) 2-ethylhexyl acrylate	11.573	70	12188	10.88	ug/L	94
123) 2-methylnaphthalene	12.792	142	69486	27.74	ug/L	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VL9051\
Data File : L311556.D
Acq On : 30 Apr 2019 6:58 am
Operator : brittank
Sample : bs
Misc : MS34348,VL9051,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 30 11:00:45 2019
Quant Method : C:\MSDCHEM\1\METHODS\ML9011.M
Quant Title : SW846 Method V8260C, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Thu Apr 04 11:19:15 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\VL9051\
Data File : L311569.D
Acq On : 30 Apr 2019 1:09 pm
Operator : krizhkac
Sample : jc87067-2ms
Misc : MS34355,VL9051,5,,,,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Apr 30 14:36:21 2019
Quant Method : C:\MSDCHEM\1\METHODS\ML9011.M
Quant Title : SW846 Method V8260C, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Thu Apr 04 11:19:15 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert Butyl Alcohol-d9	3.066	65	134178	500.00	ug/L		0.00
5) pentafluorobenzene	4.279	168	190943	50.00	ug/L		0.00
52) 1,4-difluorobenzene	4.847	114	261100	50.00	ug/L		0.00
73) chlorobenzene-d5	7.241	117	234384	50.00	ug/L		0.00
96) 1,4-dichlorobenzene-d4	9.436	152	100979	50.00	ug/L		0.00
System Monitoring Compounds							
44) dibromofluoromethane (s)	4.289	113	70403	44.99	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 89.98%				
53) 1,2-dichloroethane-d4 (s)	4.542	65	73547	42.16	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 84.32%				
74) toluene-d8 (s)	5.996	98	287829	45.67	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 91.34%				
97) 4-bromofluorobenzene (s)	8.322	95	105903	49.74	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.48%				
Target Compounds							Qvalue
2) 1,4-dioxane	5.283	88	36805	1377.38	ug/L		95
3) ethanol	2.488	45	164413	4856.49	ug/L		98
4) tertiary butyl alcohol	3.121	59	88547	275.29	ug/L		95
6) chlorodifluoromethane	1.654	51	113103	45.50	ug/L		98
7) dichlorodifluoromethane	1.635	85	171255	57.28	ug/L		98
8) chloromethane	1.795	50	128961	46.38	ug/L		98
9) vinyl chloride	1.882	62	158245	58.68	ug/L		99
10) bromomethane	2.126	94	34251	40.76	ug/L		94
11) chloroethane	2.212	64	83525	61.38	ug/L		97
12) vinyl bromide	2.350	106	68082	55.50	ug/L		91
13) trichlorofluoromethane	2.392	101	168543	59.06	ug/L		99
14) ethyl ether	2.578	74	51834	47.71	ug/L		94
15) 2-chloropropane	2.671	43	146743	44.94	ug/L		99
16) acrolein	2.681	56	17845	45.10	ug/L		95
17) freon 113	2.755	151	72301	55.93	ug/L		90
18) 1,1-dichloroethene	2.761	96	83524	51.29	ug/L		89
19) acetone	2.774	58	43753	171.31	ug/L	#	83
20) acetonitrile	2.967	40	80742	396.56	ug/L		99
21) iodomethane	2.874	142	24575	45.23	ug/L		94
22) iso-butyl alcohol	4.433	43	58917	417.05	ug/L		99
23) carbon disulfide	2.931	76	227928	52.11	ug/L		96
24) methylene chloride	3.092	84	80697	48.31	ug/L		91
25) methyl acetate	2.976	74	19777	46.59	ug/L	#	72
26) methyl tert butyl ether	3.255	73	243393	46.00	ug/L		98
27) trans-1,2-dichloroethene	3.275	96	83263	51.20	ug/L		92
28) hexane	3.451	57	126952	50.36	ug/L		96
29) di-isopropyl ether	3.563	45	259981	42.52	ug/L		98
30) ethyl tert-butyl ether	3.807	59	256713	44.18	ug/L		97
31) 2-butanone	3.929	72	59824	185.50	ug/L	#	81
32) 1,1-dichloroethane	3.570	63	142600	45.81	ug/L		99
33) chloroprene	3.621	53	131790	46.59	ug/L		93
34) acrylonitrile	3.239	53	44494	44.22	ug/L		97

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\VL9051\
Data File : L311569.D
Acq On : 30 Apr 2019 1:09 pm
Operator : krizhkac
Sample : jc87067-2ms
Misc : MS34355,VL9051,5,,,,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Apr 30 14:36:21 2019
Quant Method : C:\MSDCHEM\1\METHODS\ML9011.M
Quant Title : SW846 Method V8260C, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Thu Apr 04 11:19:15 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
35) vinyl acetate	3.544	86	21884	46.94	ug/L		97
36) ethyl acetate	3.939	45	17226	39.35	ug/L		86
37) 2,2-dichloropropane	3.968	77	117766	48.07	ug/L		99
38) cis-1,2-dichloroethene	3.958	96	87597	49.05	ug/L		90
39) propionitrile	3.977	54	167369	420.64	ug/L		93
40) methyl acrylate	3.984	85	17249	47.86	ug/L	#	74
41) bromochloromethane	4.125	128	39750	49.21	ug/L	#	85
42) tetrahydrofuran	4.135	72	16498	44.58	ug/L	#	86
43) chloroform	4.176	83	135594	45.65	ug/L		95
45) methacrylonitrile	4.086	67	46334	46.59	ug/L		90
46) 1,1,1-trichloroethane	4.318	97	118623	49.69	ug/L		97
47) cyclohexane	4.375	84	121831	54.48	ug/L		88
48) 1,1-dichloropropene	4.427	75	110615	49.50	ug/L		95
49) carbon tetrachloride	4.433	117	98065	48.90	ug/L		100
50) isopropyl acetate	4.545	87	23628	48.22	ug/L	#	66
51) tert amyl alcohol	4.523	55	28076	227.78	ug/L		97
54) tert-amyl methyl ether	4.635	73	233163	47.33	ug/L		99
55) 2,2,4-trimethylpentane	4.635	57	207362	51.06	ug/L		95
56) n-butyl alcohol	4.908	56	203568	2406.01	ug/L		97
57) benzene	4.574	78	313156	49.82	ug/L		97
58) heptane	4.744	57	49775	54.63	ug/L		94
59) 1,2-dichloroethane	4.600	62	95476	43.35	ug/L		97
60) trichloroethene	5.043	95	84753	54.00	ug/L		95
61) ethyl acrylate	5.059	55	136724	49.12	ug/L		98
62) 2-nitropropane	5.591	41	25988	39.20	ug/L		93
63) 2-chloroethyl vinyl ether	5.624	63	42149	32.73	ug/L		95
64) methyl methacrylate	5.238	100	29372	54.78	ug/L	#	78
65) 1,2-dichloropropane	5.242	63	79852	49.00	ug/L		98
66) methylcyclohexane	5.229	83	126291	50.63	ug/L		93
67) dibromomethane	5.309	93	48863	49.98	ug/L		94
68) bromodichloromethane	5.428	83	103669	49.91	ug/L		99
69) cis-1,3-dichloropropene	5.768	75	134890	51.42	ug/L		95
70) epichlorohydrin	5.678	57	67693	260.96	ug/L		99
71) 4-methyl-2-pentanone	5.867	58	179751	191.62	ug/L		91
72) 3-methyl-1-butanol	5.887	70	72392	990.20	ug/L		94
75) toluene	6.050	92	200714	50.19	ug/L		98
76) trans-1,3-dichloropropene	6.220	75	116676	46.86	ug/L		97
77) ethyl methacrylate	6.243	69	124344	48.37	ug/L		91
78) 1,1,2-trichloroethane	6.390	83	65159	49.40	ug/L		98
79) 2-hexanone	6.557	58	180496	179.18	ug/L		89
80) tetrachloroethene	6.487	166	92080	52.74	ug/L		95
81) 1,3-dichloropropane	6.538	76	121617	46.06	ug/L		98
82) butyl acetate	6.638	56	74539	45.85	ug/L		91
83) dibromochloromethane	6.727	129	77389	48.75	ug/L		100
84) 1,2-dibromoethane	6.840	107	108725	51.27	ug/L		98
85) n-butyl ether	7.315	57	310849	48.35	ug/L		98
86) chlorobenzene	7.267	112	209120	48.94	ug/L		98
87) 1,1,1,2-tetrachloroethane	7.340	131	67518	49.33	ug/L		98
88) ethylbenzene	7.344	91	345753	49.27	ug/L		98
89) m,p-xylene	7.459	106	264723	97.25	ug/L		98

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\VL9051\
Data File : L311569.D
Acq On : 30 Apr 2019 1:09 pm
Operator : krizhkac
Sample : jc87067-2ms
Misc : MS34355,VL9051,5,,,,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Apr 30 14:36:21 2019
Quant Method : C:\MSDCHEM\1\METHODS\ML9011.M
Quant Title : SW846 Method V8260C, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Thu Apr 04 11:19:15 2019
Response via : Initial Calibration

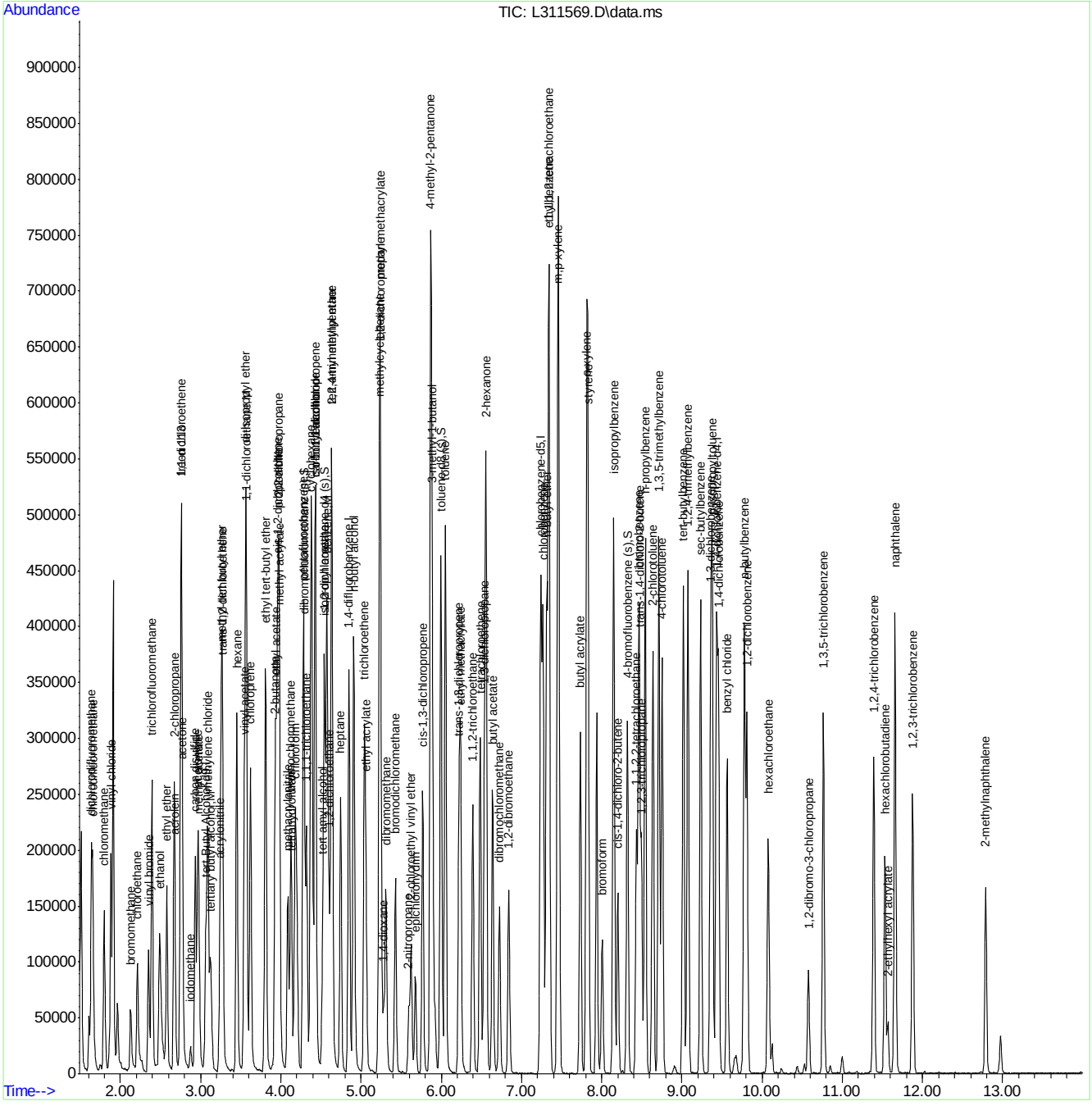
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
90) o-xylene	7.812	106	132328	49.18	ug/L	95
91) butyl acrylate	7.735	55	188692	47.75	ug/L	97
92) styrene	7.831	104	220525	50.86	ug/L	96
93) bromoform	8.008	173	56143	50.78	ug/L	95
94) isopropylbenzene	8.149	105	335591	50.81	ug/L	98
95) cis-1,4-dichloro-2-butene	8.204	88	35879	43.83	ug/L	98
98) bromobenzene	8.463	156	87871	53.02	ug/L	93
99) 1,1,2,2-tetrachloroethane	8.435	83	110811	50.48	ug/L	97
100) trans-1,4-dichloro-2-b...	8.473	53	26372	40.46	ug/L	92
101) 1,2,3-trichloropropane	8.499	110	30450	48.24	ug/L	94
102) n-propylbenzene	8.544	91	371457	50.82	ug/L	97
103) 2-chlorotoluene	8.640	126	77733	51.82	ug/L	94
104) 4-chlorotoluene	8.755	126	74259	51.32	ug/L	98
105) 1,3,5-trimethylbenzene	8.714	105	252134	51.45	ug/L	99
106) tert-butylbenzene	9.019	119	217802	51.27	ug/L	96
107) 1,2,4-trimethylbenzene	9.076	105	253237	51.18	ug/L	99
108) sec-butylbenzene	9.234	105	305886	51.23	ug/L	99
109) 1,3-dichlorobenzene	9.359	146	149810	50.61	ug/L	99
110) p-isopropyltoluene	9.381	119	247684	51.66	ug/L	99
111) 1,4-dichlorobenzene	9.455	146	144798	52.69	ug/L	99
112) 1,2-dichlorobenzene	9.811	146	139470	51.65	ug/L	97
113) n-butylbenzene	9.779	92	124831	53.07	ug/L	99
114) 1,2-dibromo-3-chloropr...	10.581	157	28916	54.58	ug/L	92
115) 1,3,5-trichlorobenzene	10.764	180	106466	54.03	ug/L	98
116) 1,2,4-trichlorobenzene	11.393	180	97714	54.14	ug/L	98
117) hexachlorobutadiene	11.534	225	42669	60.29	ug/L	96
118) naphthalene	11.660	128	337914	62.43	ug/L	99
119) 1,2,3-trichlorobenzene	11.878	180	85529	51.42	ug/L	96
120) hexachloroethane	10.078	119	41113	50.28	ug/L	95
121) benzyl chloride	9.564	91	200913	53.74	ug/L	99
122) 2-ethylhexyl acrylate	11.570	70	11685	10.22	ug/L	96
123) 2-methylnaphthalene	12.786	142	86731	33.93	ug/L	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\VL9051\
Data File : L311569.D
Acq On : 30 Apr 2019 1:09 pm
Operator : krizhkac
Sample : jc87067-2ms
Misc : MS34355,VL9051,5,,,,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Apr 30 14:36:21 2019
Quant Method : C:\MSDCHEM\1\METHODS\ML9011.M
Quant Title : SW846 Method V8260C, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Thu Apr 04 11:19:15 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VL9051\
Data File : L311571.D
Acq On : 30 Apr 2019 2:03 pm
Operator : krizhkac
Sample : jc87121-2dup
Misc : MS34348,VL9051,5,,,,1
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Apr 30 15:14:17 2019
Quant Method : C:\MSDCHEM\1\METHODS\ML9011.M
Quant Title : SW846 Method V8260C, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Thu Apr 04 11:19:15 2019
Response via : Initial Calibration

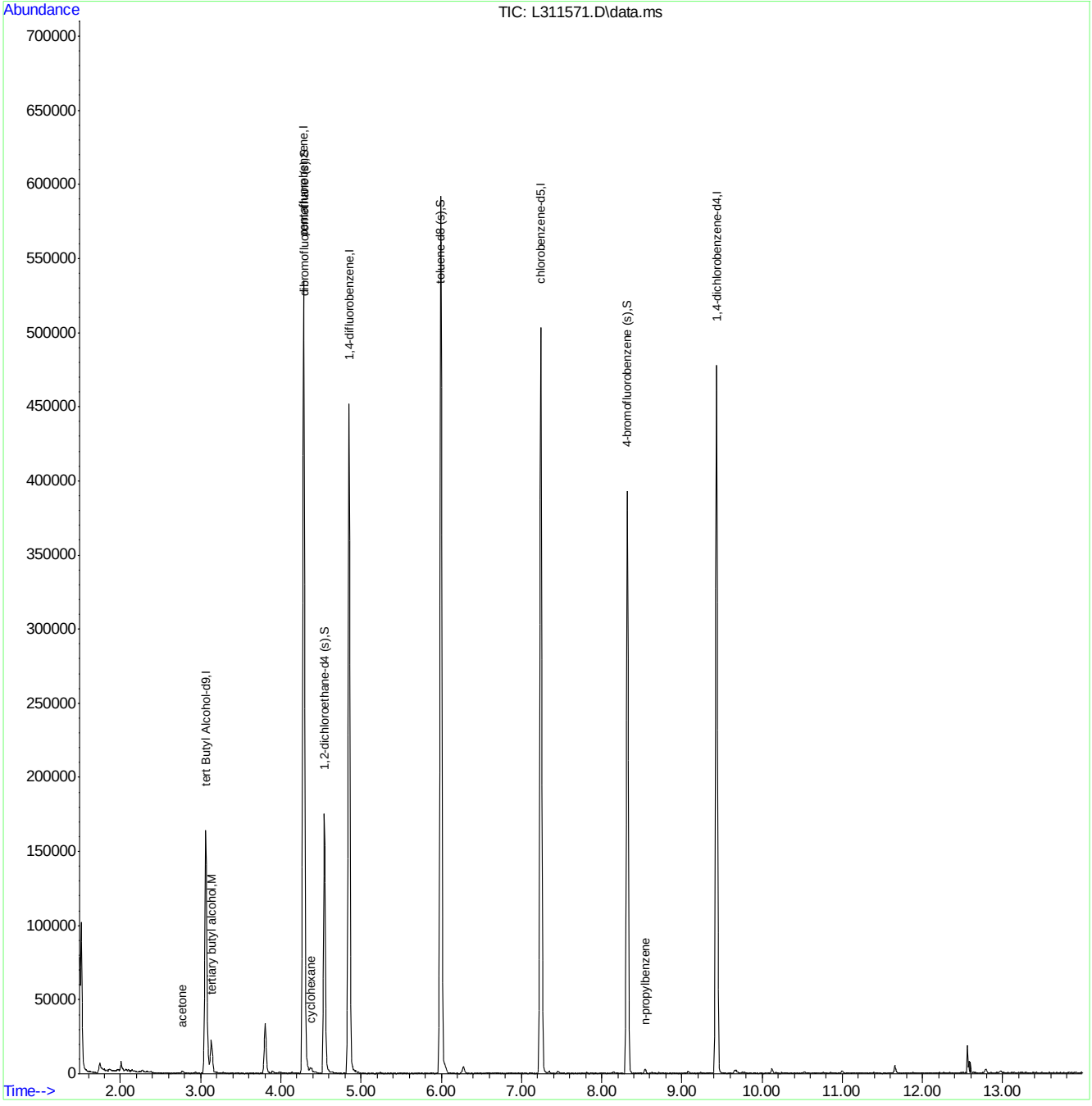
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert Butyl Alcohol-d9	3.063	65	170222	500.00	ug/L	0.00
5) pentafluorobenzene	4.282	168	243693	50.00	ug/L	0.00
52) 1,4-difluorobenzene	4.850	114	326183	50.00	ug/L	0.00
73) chlorobenzene-d5	7.241	117	275628	50.00	ug/L	0.00
96) 1,4-dichlorobenzene-d4	9.432	152	130042	50.00	ug/L	0.00
System Monitoring Compounds						
44) dibromofluoromethane (s)	4.289	113	90526	45.33	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 90.66%			
53) 1,2-dichloroethane-d4 (s)	4.542	65	98487	45.20	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 90.40%			
74) toluene-d8 (s)	5.992	98	369642	49.87	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.74%			
97) 4-bromofluorobenzene (s)	8.319	95	130168	47.48	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 94.96%			
Target Compounds						Qvalue
4) tertiary butyl alcohol	3.133	59	9579	23.48	ug/L	74
19) acetone	2.771	58	526	1.61	ug/L #	40
47) cyclohexane	4.375	84	814	0.29	ug/L #	49
102) n-propylbenzene	8.540	91	2689	0.29	ug/L	95

(#) = qualifier out of range (m) = manual integration (+) = signals summed

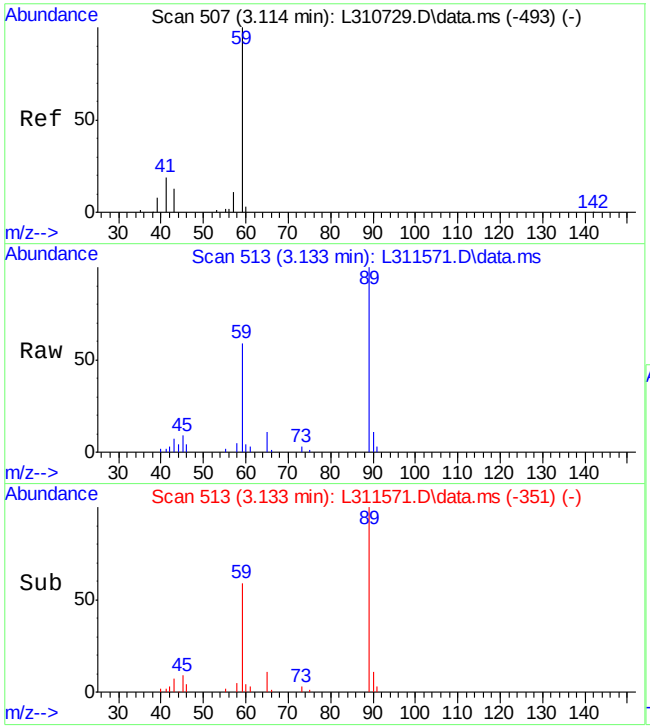
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VL9051\
Data File : L311571.D
Acq On : 30 Apr 2019 2:03 pm
Operator : krizhkac
Sample : jc87121-2dup
Misc : MS34348,VL9051,5,,,,1
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Apr 30 15:14:17 2019
Quant Method : C:\MSDCHEM\1\METHODS\ML9011.M
Quant Title : SW846 Method V8260C, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Thu Apr 04 11:19:15 2019
Response via : Initial Calibration



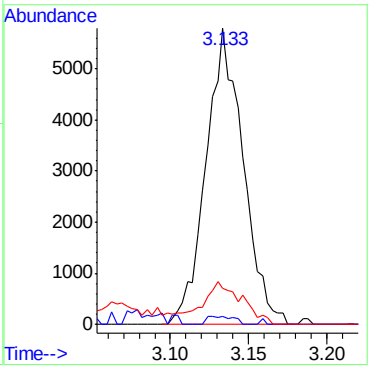
ML9011.M Tue Apr 30 15:14:32 2019 1 Page: 2

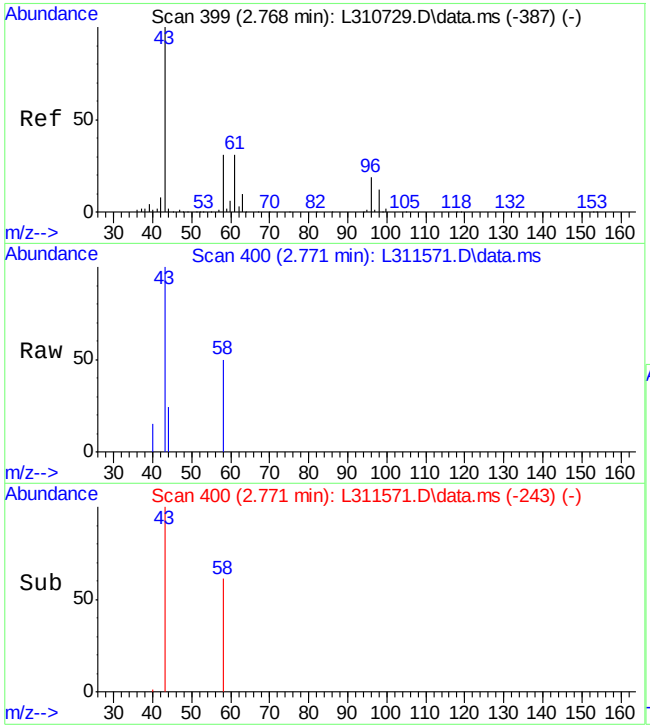


#4
tertiary butyl alcohol
Concen: 23.48 ug/L
RT: 3.133 min Scan# 513
Delta R.T. 0.019 min
Lab File: L311571.D
Acq: 30 Apr 2019 2:03 pm

Tgt Ion: 59 Resp: 9579

Ion	Ratio	Lower	Upper
59	100		
41	2.8	0.0	51.4
43	12.0	0.0	44.6

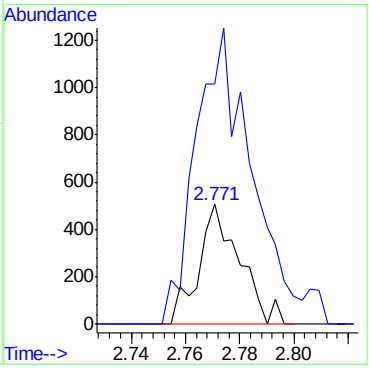


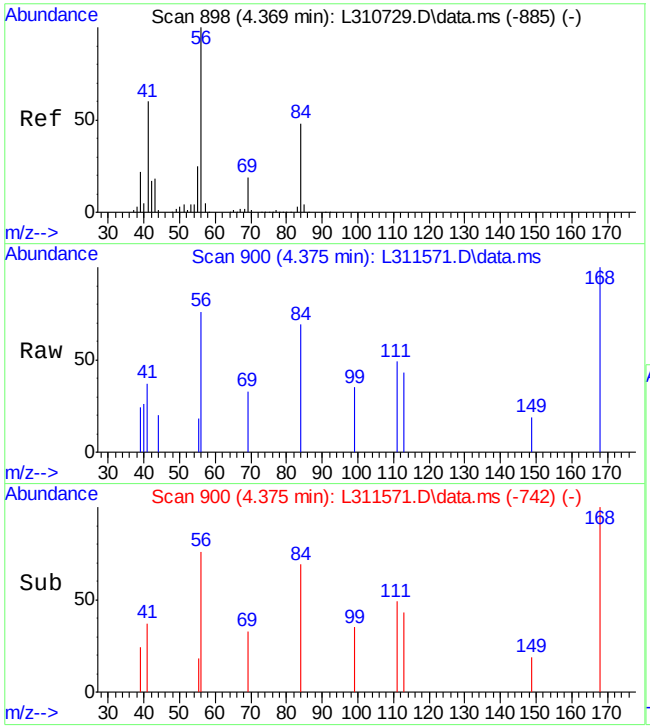


#19
acetone
Concen: 1.61 ug/L
RT: 2.771 min Scan# 400
Delta R.T. 0.003 min
Lab File: L311571.D
Acq: 30 Apr 2019 2:03 pm

Tgt Ion: 58 Resp: 526

Ion	Ratio	Lower	Upper
58	100		
43	200.6	293.9	353.9#

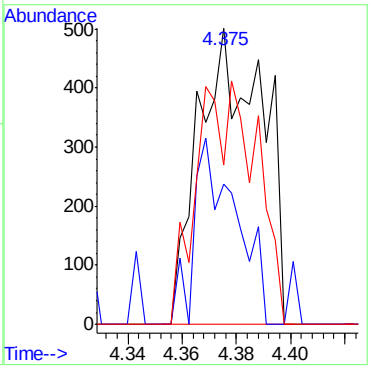


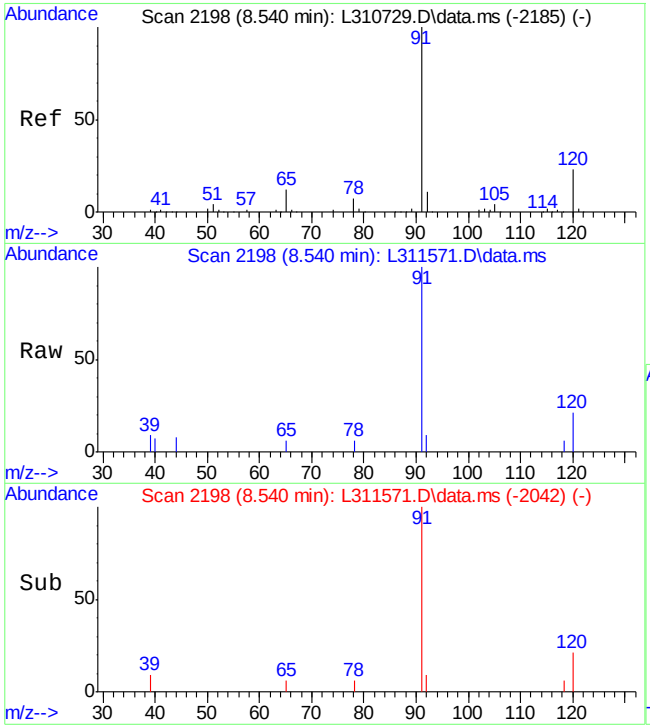


#47
cyclohexane
Concen: 0.29 ug/L
RT: 4.375 min Scan# 900
Delta R.T. 0.006 min
Lab File: L311571.D
Acq: 30 Apr 2019 2:03 pm

Tgt Ion: 84 Resp: 814

Ion	Ratio	Lower	Upper
84	100		
69	47.5	18.3	58.3
41	53.9	103.8	143.8#

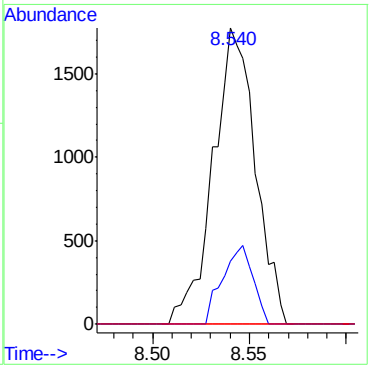




#102
n-propylbenzene
Concen: 0.29 ug/L
RT: 8.540 min Scan# 2198
Delta R.T. -0.000 min
Lab File: L311571.D
Acq: 30 Apr 2019 2:03 pm

Tgt Ion: 91 Resp: 2689

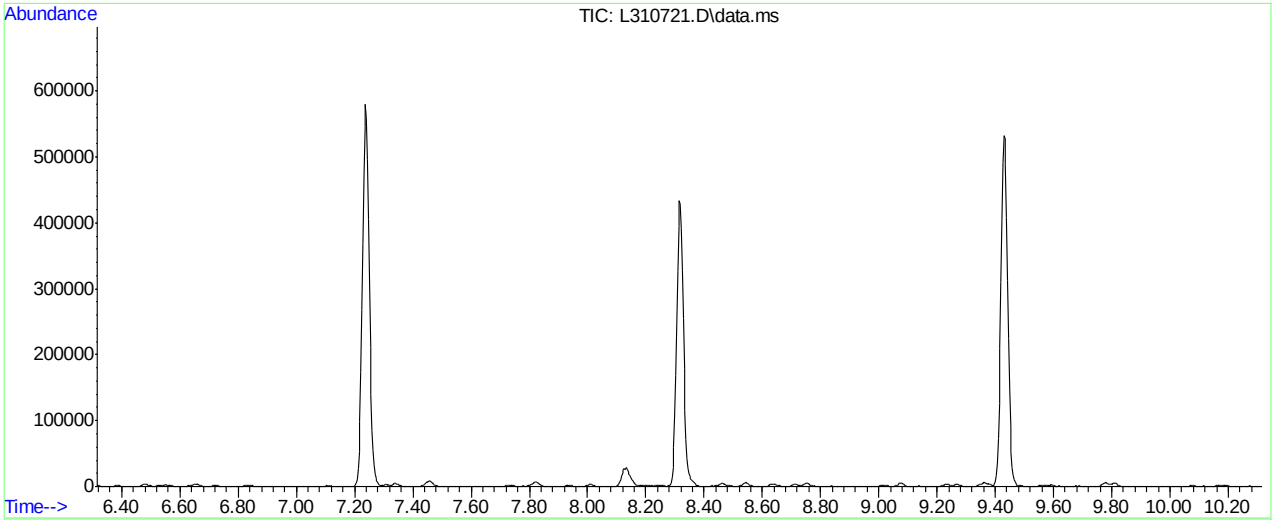
Ion	Ratio	Lower	Upper
91	100		
120	21.2	0.0	52.8
105	0.0	0.0	34.0

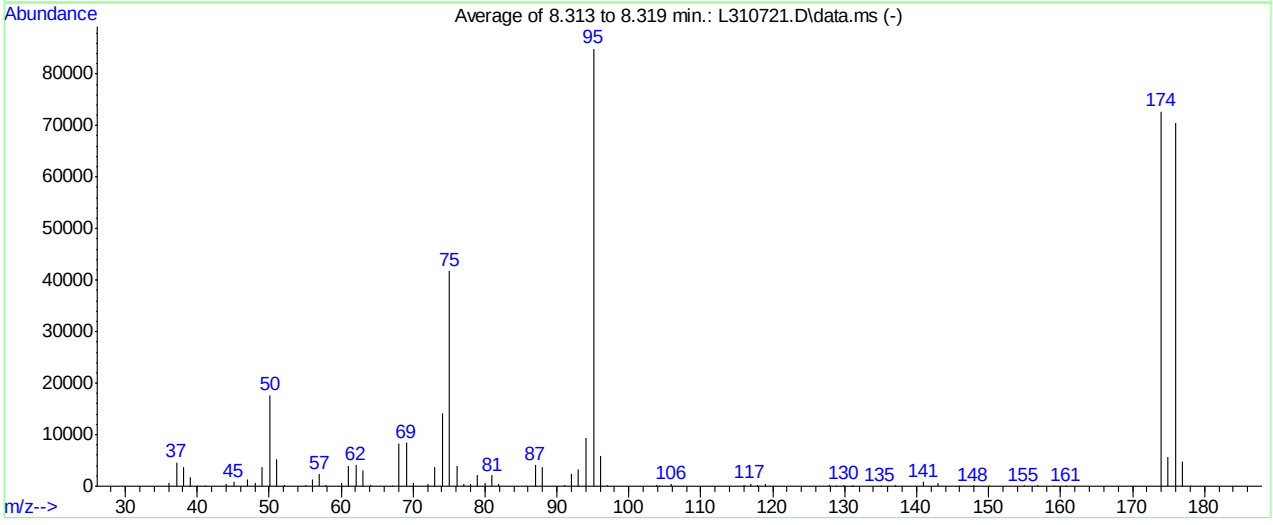


SW-846 Method 8260

Data File : C:\msdchem\1\DATA\VL9011\L310721.D Vial: 1
Acq On : 3 Apr 2019 5:18 pm Operator: juntaep
Sample : bfb Inst : GCMSL
Misc : MS33381,VL9011,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\ML9011.M (RTE Integrator)
Title : SW846 Method V8260C, column ZB-624 60m x 0.25mm x 1.4 um





AutoFind: Scans 2127, 2128, 2129; Background Corrected with Scan 2114

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	20.9	17736	PASS
75	95	30	60	49.1	41733	PASS
95	95	100	100	100.0	84957	PASS
96	95	5	9	7.0	5939	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	85.6	72739	PASS
175	174	5	9	7.7	5566	PASS
176	174	95	101	96.8	70429	PASS
177	176	5	9	6.8	4796	PASS

L310721.D ML9011.M Thu Apr 04 11:28:12 2019 1

Average of 8.313 to 8.319 min.: L310721.D\data.ms
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.10	760	50.10	17736	64.05	325	78.05	339
37.10	4658	51.10	5238	67.00	82	78.95	2209
38.10	3779	52.05	229	68.00	8252	80.00	590
39.05	1702	55.05	277	69.05	8484	81.00	2129
40.00	35	56.00	1232	70.05	641	81.95	435
41.00	44	57.00	2370	72.10	533	85.85	74
44.00	413	57.95	122	73.05	3755	87.00	4051
45.05	809	60.00	729	74.10	14234	88.00	3752
47.05	1350	61.05	4005	75.10	41733	91.00	302
48.00	561	62.05	4060	76.05	3817	92.00	2509
49.05	3691	63.05	2964	77.00	550	93.00	3223

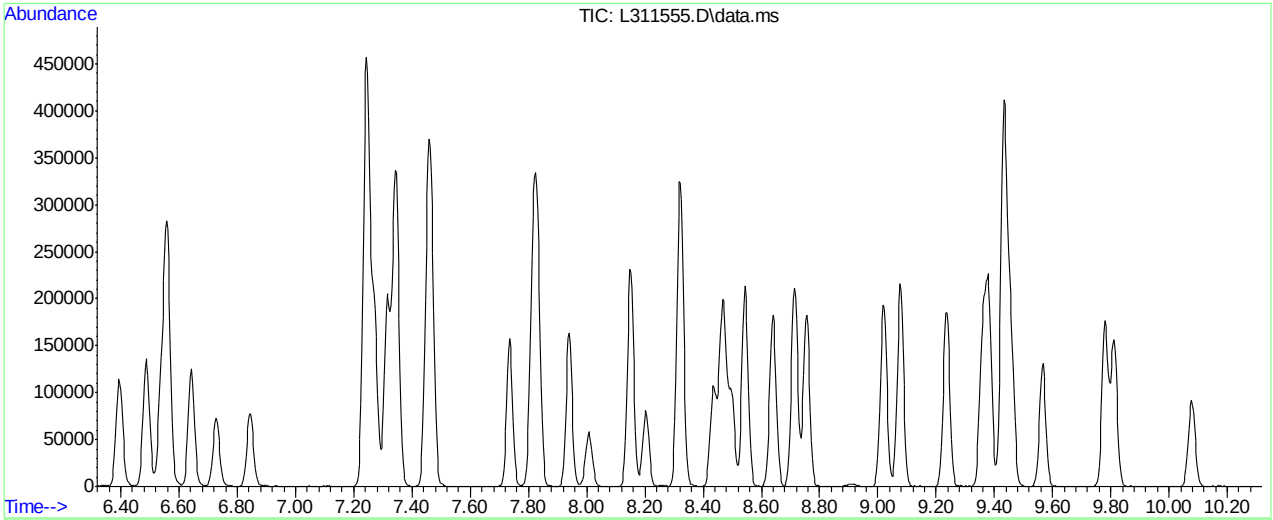
Average of 8.313 to 8.319 min.: L310721.D\data.ms
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
94.05	9390	127.90	264	149.90	50		
95.05	84957	128.85	107	154.95	190		
96.00	5939	129.90	272	156.90	148		
96.95	208	130.90	83	159.00	40		
103.90	263	131.10	61	160.80	46		
104.10	66	134.95	110	174.00	72739		
105.95	372	137.05	128	174.95	5566		
115.95	235	140.95	782	176.00	70429		
116.90	526	142.95	624	176.90	4796		
117.95	319	145.85	73	178.00	41		
118.95	405	147.95	181				

SW-846 Method 8260

Data File : C:\msdchem\1\DATA\VL9051\L311555.D Vial: 2
Acq On : 30 Apr 2019 6:26 am Operator: brittank
Sample : bfb Inst : GCMSL
Misc : MS34348,VL9051,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\ML9011.M (RTE Integrator)
Title : SW846 Method V8260C, column ZB-624 60m x 0.25mm x 1.4 um



AutoFind: Scans 2128, 2129, 2130; Background Corrected with Scan 2116

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.7	11644	PASS
75	95	30	60	46.5	30595	PASS
95	95	100	100	100.0	65803	PASS
96	95	5	9	6.6	4369	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	85.7	56384	PASS
175	174	5	9	7.5	4248	PASS
176	174	95	101	99.2	55915	PASS
177	176	5	9	7.4	4117	PASS

L311555.D ML9011.M Tue Apr 30 11:03:21 2019 1

Average of 8.316 to 8.322 min.: L311555.D\data.ms
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.05	655	51.90	47	68.05	5619	80.00	495
37.10	2832	52.20	38	69.05	5516	80.95	1404
38.10	2523	55.00	129	70.05	453	81.95	257
39.05	1010	56.00	703	71.95	368	86.10	41
44.00	219	57.05	1650	73.05	2550	87.00	2749
45.05	550	60.05	607	74.10	9543	88.00	3075
47.10	896	61.05	2753	75.10	30595	90.90	188
47.95	375	62.05	2785	76.10	2565	92.05	1456
49.05	2473	63.10	1939	77.00	334	93.00	2602
50.10	11644	63.95	229	77.95	250	94.05	6875
51.10	3551	67.05	206	78.95	1216	95.10	65803

Average of 8.316 to 8.322 min.: L311555.D\data.ms
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
96.05	4369	129.95	269	156.95	144		
96.95	105	130.90	105	159.05	79		
104.05	249	134.90	34	172.10	48		
105.00	45	136.80	38	174.00	56384		
105.95	255	140.95	574	175.00	4248		
115.90	201	142.00	44	176.00	55915		
116.95	324	142.95	562	177.00	4117		
117.85	196	144.90	41	177.95	80		
118.95	228	145.90	48				
127.80	55	147.95	156				
128.05	109	154.95	237				

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VL9011\
Data File : L310722.D
Acq On : 3 Apr 2019 6:05 pm
Operator : juntaep
Sample : ic9011-0.2
Misc : MS33381,VL9011,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 04 11:18:54 2019
Quant Method : C:\MSDCHEM\1\METHODS\ML9011.M
Quant Title : SW846 Method V8260C, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Thu Apr 04 10:38:58 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert Butyl Alcohol-d9	3.057	65	208291	500.00	ug/L		0.00
5) pentafluorobenzene	4.273	168	265513	50.00	ug/L		0.00
52) 1,4-difluorobenzene	4.844	114	349691	50.00	ug/L		0.00
73) chlorobenzene-d5	7.238	117	285400	50.00	ug/L		0.00
96) 1,4-dichlorobenzene-d4	9.429	152	132544	50.00	ug/L		0.00
System Monitoring Compounds							
44) dibromofluoromethane (s)	4.286	113	104430	45.78	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 91.56%				
53) 1,2-dichloroethane-d4 (s)	4.536	65	120731	53.80	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 107.60%				
74) toluene-d8 (s)	5.990	98	396947	53.87	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 107.74%				
97) 4-bromofluorobenzene (s)	8.316	95	136594	47.63	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 95.26%				
Target Compounds							Qvalue
7) dichlorodifluoromethane	1.641	85	834	0.18	ug/L		72
9) vinyl chloride	1.879	62	875	0.22	ug/L		90
11) chloroethane	2.216	64	408	0.20	ug/L		74
13) trichlorofluoromethane	2.396	101	744	0.17	ug/L		70
17) freon 113	2.749	151	384	0.20	ug/L	#	77
18) 1,1-dichloroethene	2.758	96	486	0.21	ug/L		94
26) methyl tert butyl ether	3.246	73	1514	0.19	ug/L		93
29) di-isopropyl ether	3.560	45	1826	0.21	ug/L		81
30) ethyl tert-butyl ether	3.807	59	1811	0.22	ug/L		84
32) 1,1-dichloroethane	3.570	63	894	0.20	ug/L		89
33) chloroprene	3.612	53	916	0.22	ug/L		91
46) 1,1,1-trichloroethane	4.308	97	657	0.19	ug/L	#	1
49) carbon tetrachloride	4.427	117	615	0.22	ug/L	#	57
54) tert-amyl methyl ether	4.623	73	1456	0.23	ug/L		93
55) 2,2,4-trimethylpentane	4.632	57	1326	0.26	ug/L		74
57) benzene	4.568	78	2213	0.27	ug/L		90
63) 2-chloroethyl vinyl ether	5.617	63	1734	1.00	ug/L		87
65) 1,2-dichloropropane	5.232	63	409	0.18	ug/L	#	41
68) bromodichloromethane	5.422	83	612	0.21	ug/L	#	63
71) 4-methyl-2-pentanone	5.861	58	1039	0.80	ug/L		97
75) toluene	6.047	92	1147	0.25	ug/L		94
77) ethyl methacrylate	6.230	69	610	0.19	ug/L		66
78) 1,1,2-trichloroethane	6.384	83	332	0.21	ug/L	#	70
79) 2-hexanone	6.554	58	1174	0.97	ug/L	#	62
80) tetrachloroethene	6.484	166	485	0.24	ug/L		68
83) dibromochloromethane	6.721	129	412	0.21	ug/L	#	58
84) 1,2-dibromoethane	6.837	107	600	0.24	ug/L		81
86) chlorobenzene	7.260	112	1320	0.27	ug/L		92
89) m,p-xylene	7.459	106	1657	0.53	ug/L		99
90) o-xylene	7.809	106	727	0.23	ug/L		96
91) butyl acrylate	7.735	55	919	0.18	ug/L		85
99) 1,1,2,2-tetrachloroethane	8.428	83	556	0.18	ug/L		75

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VL9011\
Data File : L310722.D
Acq On : 3 Apr 2019 6:05 pm
Operator : juntaep
Sample : ic9011-0.2
Misc : MS33381,VL9011,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 04 11:18:54 2019
Quant Method : C:\MSDCHEM\1\METHODS\ML9011.M
Quant Title : SW846 Method V8260C, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Thu Apr 04 10:38:58 2019
Response via : Initial Calibration

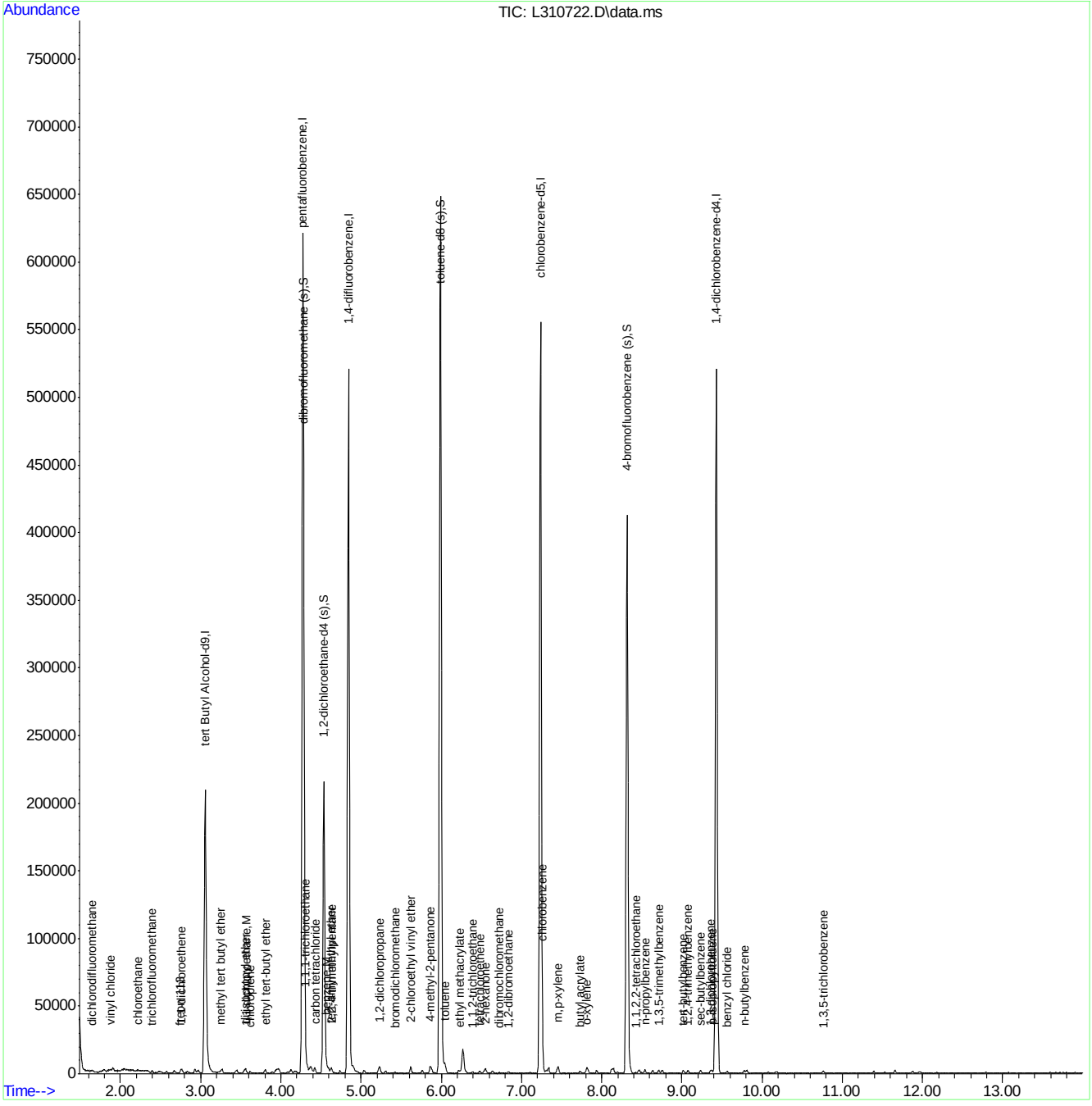
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
102) n-propylbenzene	8.541	91	2285	0.24	ug/L		89
105) 1,3,5-trimethylbenzene	8.711	105	1493	0.23	ug/L		93
106) tert-butylbenzene	9.019	119	1332	0.23	ug/L		79
107) 1,2,4-trimethylbenzene	9.076	105	1434	0.22	ug/L		88
108) sec-butylbenzene	9.234	105	1917	0.24	ug/L		88
109) 1,3-dichlorobenzene	9.362	146	975	0.25	ug/L		77
110) p-isopropyltoluene	9.375	119	1477	0.23	ug/L		75
113) n-butylbenzene	9.776	92	780	0.24	ug/L		79
115) 1,3,5-trichlorobenzene	10.771	180	612	0.23	ug/L	#	50
121) benzyl chloride	9.564	91	1120	0.21	ug/L		78

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VL9011\
Data File : L310722.D
Acq On : 3 Apr 2019 6:05 pm
Operator : juntaep
Sample : ic9011-0.2
Misc : MS33381,VL9011,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 04 11:18:54 2019
Quant Method : C:\MSDCHEM\1\METHODS\ML9011.M
Quant Title : SW846 Method V8260C, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Thu Apr 04 10:38:58 2019
Response via : Initial Calibration



ML9011.M Mon Apr 08 07:45:41 2019 1 Page: 3

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VL9011\
Data File : L310723.D
Acq On : 3 Apr 2019 6:32 pm
Operator : juntaep
Sample : ic9011-0.5
Misc : MS33381,VL9011,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 04 11:08:02 2019
Quant Method : C:\MSDCHEM\1\METHODS\ML9011.M
Quant Title : SW846 Method V8260C, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Thu Apr 04 10:38:58 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert Butyl Alcohol-d9	3.056	65	203974	500.00	ug/L		0.00
5) pentafluorobenzene	4.273	168	264840	50.00	ug/L		0.00
52) 1,4-difluorobenzene	4.841	114	347526	50.00	ug/L		0.00
73) chlorobenzene-d5	7.238	117	283262	50.00	ug/L		0.00
96) 1,4-dichlorobenzene-d4	9.429	152	131713	50.00	ug/L		0.00
System Monitoring Compounds							
44) dibromofluoromethane (s)	4.282	113	102992	45.26	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 90.52%				
53) 1,2-dichloroethane-d4 (s)	4.536	65	119002	53.36	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 106.72%				
74) toluene-d8 (s)	5.989	98	396608	54.23	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 108.46%				
97) 4-bromofluorobenzene (s)	8.316	95	134757	47.29	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 94.58%				
Target Compounds							Qvalue
7) dichlorodifluoromethane	1.638	85	1732	0.37	ug/L		89
8) chloromethane	1.792	50	1950	0.46	ug/L		90
9) vinyl chloride	1.882	62	1572	0.39	ug/L		96
11) chloroethane	2.213	64	972	0.49	ug/L		85
12) vinyl bromide	2.344	106	822	0.44	ug/L		91
13) trichlorofluoromethane	2.392	101	1855	0.43	ug/L		93
14) ethyl ether	2.572	74	785	0.47	ug/L		80
15) 2-chloropropane	2.671	43	2300	0.48	ug/L		87
17) freon 113	2.752	151	874	0.46	ug/L		85
18) 1,1-dichloroethene	2.758	96	1226	0.52	ug/L	#	82
19) acetone	2.768	58	771	2.13	ug/L	#	80
24) methylene chloride	3.089	84	1141	0.47	ug/L	#	67
26) methyl tert butyl ether	3.252	73	3436	0.44	ug/L		92
27) trans-1,2-dichloroethene	3.268	96	1013	0.43	ug/L		93
28) hexane	3.445	57	1839	0.49	ug/L		92
29) di-isopropyl ether	3.557	45	4260	0.49	ug/L		94
30) ethyl tert-butyl ether	3.801	59	3868	0.47	ug/L		99
31) 2-butanone	3.923	72	890	1.83	ug/L		92
32) 1,1-dichloroethane	3.563	63	2145	0.47	ug/L		92
33) chloroprene	3.612	53	1887	0.46	ug/L		91
37) 2,2-dichloropropane	3.961	77	1758	0.51	ug/L		79
38) cis-1,2-dichloroethene	3.952	96	1206	0.47	ug/L	#	75
39) propionitrile	3.974	54	2870	5.03	ug/L		98
41) bromochloromethane	4.112	128	573	0.50	ug/L		94
43) chloroform	4.173	83	2355	0.57	ug/L		86
45) methacrylonitrile	4.074	67	634	0.43	ug/L	#	48
46) 1,1,1-trichloroethane	4.314	97	1612	0.46	ug/L		89
47) cyclohexane	4.372	84	1444	0.46	ug/L		88
48) 1,1-dichloropropene	4.417	75	1490	0.45	ug/L		89
49) carbon tetrachloride	4.420	117	1468	0.51	ug/L	#	72
54) tert-amyl methyl ether	4.629	73	3492	0.55	ug/L		94
55) 2,2,4-trimethylpentane	4.632	57	2992	0.59	ug/L		87

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VL9011\
Data File : L310723.D
Acq On : 3 Apr 2019 6:32 pm
Operator : juntaep
Sample : ic9011-0.5
Misc : MS33381,VL9011,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 04 11:08:02 2019
Quant Method : C:\MSDCHEM\1\METHODS\ML9011.M
Quant Title : SW846 Method V8260C, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Thu Apr 04 10:38:58 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
56) n-butyl alcohol	4.898	56	2784	23.03	ug/L		99
57) benzene	4.568	78	4387	0.55	ug/L		91
58) heptane	4.744	57	566	0.45	ug/L	#	60
60) trichloroethene	5.030	95	1057	0.49	ug/L		84
61) ethyl acrylate	5.052	55	1866	0.47	ug/L		98
63) 2-chloroethyl vinyl ether	5.617	63	4470	2.60	ug/L		91
65) 1,2-dichloropropane	5.235	63	1145	0.52	ug/L		97
66) methylcyclohexane	5.222	83	2134	0.67	ug/L		76
67) dibromomethane	5.300	93	571	0.44	ug/L		88
68) bromodichloromethane	5.425	83	1393	0.49	ug/L		70
69) cis-1,3-dichloropropene	5.765	75	1830	0.51	ug/L		85
71) 4-methyl-2-pentanone	5.861	58	2577	2.01	ug/L		91
75) toluene	6.047	92	2480	0.53	ug/L		96
76) trans-1,3-dichloropropene	6.214	75	1569	0.52	ug/L		84
77) ethyl methacrylate	6.237	69	1613	0.50	ug/L		97
78) 1,1,2-trichloroethane	6.387	83	845	0.53	ug/L		85
79) 2-hexanone	6.548	58	2555	2.12	ug/L		93
80) tetrachloroethene	6.474	166	1135	0.56	ug/L		86
81) 1,3-dichloropropane	6.529	76	1849	0.60	ug/L		88
82) butyl acetate	6.634	56	1069	0.54	ug/L	#	66
83) dibromochloromethane	6.724	129	982	0.51	ug/L		75
84) 1,2-dibromoethane	6.837	107	1298	0.53	ug/L		93
85) n-butyl ether	7.308	57	4092	0.51	ug/L		97
86) chlorobenzene	7.267	112	2768	0.56	ug/L		88
87) 1,1,1,2-tetrachloroethane	7.334	131	799	0.49	ug/L		91
88) ethylbenzene	7.340	91	4828	0.59	ug/L		93
89) m,p-xylene	7.453	106	3538	1.14	ug/L		99
90) o-xylene	7.812	106	1866	0.59	ug/L	#	77
91) butyl acrylate	7.729	55	2457	0.48	ug/L		87
92) styrene	7.825	104	2798	0.54	ug/L		94
93) bromoform	7.998	173	656	0.48	ug/L		93
94) isopropylbenzene	8.146	105	4489	0.57	ug/L		94
98) bromobenzene	8.463	156	1080	0.48	ug/L	#	77
99) 1,1,2,2-tetrachloroethane	8.431	83	1323	0.43	ug/L		88
101) 1,2,3-trichloropropane	8.499	110	414	0.50	ug/L	#	33
102) n-propylbenzene	8.544	91	4794	0.50	ug/L		96
103) 2-chlorotoluene	8.634	126	1005	0.50	ug/L	#	62
104) 4-chlorotoluene	8.759	126	859	0.44	ug/L	#	72
105) 1,3,5-trimethylbenzene	8.714	105	3139	0.48	ug/L		98
106) tert-butylbenzene	9.015	119	2776	0.49	ug/L		87
107) 1,2,4-trimethylbenzene	9.073	105	3340	0.51	ug/L		99
108) sec-butylbenzene	9.234	105	3919	0.50	ug/L		87
109) 1,3-dichlorobenzene	9.362	146	2015	0.53	ug/L		81
110) p-isopropyltoluene	9.378	119	3277	0.52	ug/L		91
111) 1,4-dichlorobenzene	9.452	146	1827	0.51	ug/L		84
112) 1,2-dichlorobenzene	9.808	146	1843	0.51	ug/L		92
113) n-butylbenzene	9.779	92	1449	0.45	ug/L		88
115) 1,3,5-trichlorobenzene	10.758	180	1240	0.47	ug/L		83
116) 1,2,4-trichlorobenzene	11.393	180	1305	0.53	ug/L		97
117) hexachlorobutadiene	11.528	225	444	0.46	ug/L		84

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VL9011\
Data File : L310723.D
Acq On : 3 Apr 2019 6:32 pm
Operator : juntaep
Sample : ic9011-0.5
Misc : MS33381,VL9011,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 04 11:08:02 2019
Quant Method : C:\MSDCHEM\1\METHODS\ML9011.M
Quant Title : SW846 Method V8260C, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Thu Apr 04 10:38:58 2019
Response via : Initial Calibration

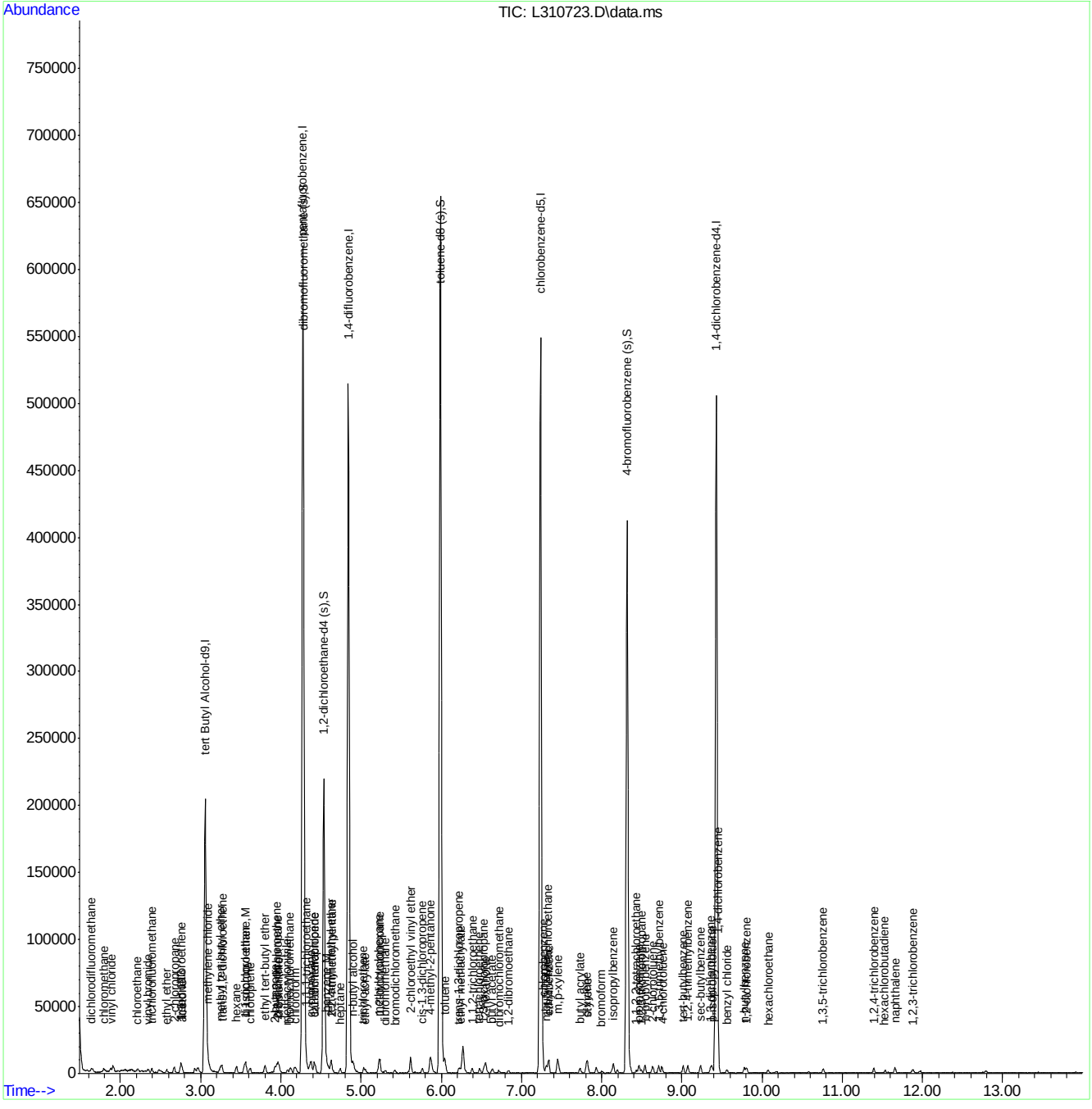
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
118) naphthalene	11.656	128	3446	0.44	ug/L	94
119) 1,2,3-trichlorobenzene	11.875	180	1076	0.48	ug/L	72
120) hexachloroethane	10.078	119	488	0.42	ug/L	91
121) benzyl chloride	9.558	91	2357	0.45	ug/L	91

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VL9011\
Data File : L310723.D
Acq On : 3 Apr 2019 6:32 pm
Operator : juntaep
Sample : ic9011-0.5
Misc : MS33381,VL9011,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 04 11:08:02 2019
Quant Method : C:\MSDCHEM\1\METHODS\ML9011.M
Quant Title : SW846 Method V8260C, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Thu Apr 04 10:38:58 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VL9011\
Data File : L310724.D
Acq On : 3 Apr 2019 6:59 pm
Operator : juntaep
Sample : ic9011-1
Misc : MS33381,VL9011,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 04 11:19:02 2019
Quant Method : C:\MSDCHEM\1\METHODS\ML9011.M
Quant Title : SW846 Method V8260C, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Thu Apr 04 10:38:58 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert Butyl Alcohol-d9	3.057	65	195043	500.00	ug/L		0.00
5) pentafluorobenzene	4.276	168	260336	50.00	ug/L		0.00
52) 1,4-difluorobenzene	4.844	114	346558	50.00	ug/L		0.00
73) chlorobenzene-d5	7.238	117	280423	50.00	ug/L		0.00
96) 1,4-dichlorobenzene-d4	9.433	152	127740	50.00	ug/L		0.00
System Monitoring Compounds							
44) dibromofluoromethane (s)	4.286	113	101217	45.25	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 90.50%				
53) 1,2-dichloroethane-d4 (s)	4.539	65	114977	51.70	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 103.40%				
74) toluene-d8 (s)	5.989	98	394713	54.52	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 109.04%				
97) 4-bromofluorobenzene (s)	8.316	95	131512	47.59	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 95.18%				
Target Compounds							Qvalue
2) 1,4-dioxane	5.280	88	1090	28.22	ug/L		81
3) ethanol	2.485	45	5429	107.39	ug/L		95
4) tertiary butyl alcohol	3.114	59	2545	5.47	ug/L		82
7) dichlorodifluoromethane	1.638	85	3615	0.79	ug/L		88
8) chloromethane	1.792	50	3626	0.88	ug/L		95
9) vinyl chloride	1.879	62	3509	0.89	ug/L		84
10) bromomethane	2.136	94	1142	0.94	ug/L	#	69
11) chloroethane	2.209	64	1805	0.92	ug/L		89
12) vinyl bromide	2.347	106	1410	0.76	ug/L		98
13) trichlorofluoromethane	2.389	101	3676	0.87	ug/L		83
14) ethyl ether	2.578	74	1142	0.70	ug/L	#	76
15) 2-chloropropane	2.668	43	4261	0.90	ug/L		98
17) freon 113	2.752	151	1598	0.86	ug/L		86
18) 1,1-dichloroethene	2.761	96	2070	0.89	ug/L	#	77
19) acetone	2.768	58	1364	3.84	ug/L	#	64
20) acetonitrile	2.963	40	2864	9.74	ug/L		82
21) iodomethane	2.867	142	327	0.31	ug/L	#	44
23) carbon disulfide	2.928	76	6103	0.99	ug/L		99
24) methylene chloride	3.082	84	2221	0.93	ug/L		84
26) methyl tert butyl ether	3.252	73	6942	0.90	ug/L		93
27) trans-1,2-dichloroethene	3.275	96	2215	0.95	ug/L		78
28) hexane	3.445	57	3121	0.85	ug/L		94
29) di-isopropyl ether	3.557	45	8115	0.94	ug/L		100
30) ethyl tert-butyl ether	3.804	59	7695	0.94	ug/L		95
31) 2-butanone	3.923	72	1705	3.56	ug/L		95
32) 1,1-dichloroethane	3.564	63	4143	0.93	ug/L		92
33) chloroprene	3.618	53	3497	0.87	ug/L		97
37) 2,2-dichloropropane	3.965	77	3313	0.98	ug/L		89
38) cis-1,2-dichloroethene	3.952	96	2504	1.00	ug/L	#	80
39) propionitrile	3.971	54	5653	10.08	ug/L		82
41) bromochloromethane	4.122	128	1003	0.89	ug/L	#	72
43) chloroform	4.173	83	4264	1.05	ug/L		95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VL9011\
Data File : L310724.D
Acq On : 3 Apr 2019 6:59 pm
Operator : juntaep
Sample : ic9011-1
Misc : MS33381,VL9011,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 04 11:19:02 2019
Quant Method : C:\MSDCHEM\1\METHODS\ML9011.M
Quant Title : SW846 Method V8260C, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Thu Apr 04 10:38:58 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45) methacrylonitrile	4.077	67	1315	0.90	ug/L	#	67
46) 1,1,1-trichloroethane	4.314	97	3132	0.90	ug/L	#	66
47) cyclohexane	4.372	84	3284	1.06	ug/L		98
48) 1,1-dichloropropene	4.424	75	2810	0.87	ug/L		93
49) carbon tetrachloride	4.420	117	2628	0.94	ug/L	#	77
51) tert amyl alcohol	4.510	55	745	4.10	ug/L	#	52
54) tert-amyl methyl ether	4.626	73	6788	1.07	ug/L		97
55) 2,2,4-trimethylpentane	4.629	57	5263	1.04	ug/L		96
56) n-butyl alcohol	4.902	56	5672	47.05	ug/L		85
57) benzene	4.571	78	8172	1.02	ug/L		96
58) heptane	4.741	57	1160	0.93	ug/L		91
59) 1,2-dichloroethane	4.594	62	3466	1.24	ug/L		88
60) trichloroethene	5.033	95	2184	1.02	ug/L	#	74
61) ethyl acrylate	5.056	55	3406	0.86	ug/L		94
63) 2-chloroethyl vinyl ether	5.617	63	9043	5.27	ug/L		92
65) 1,2-dichloropropane	5.235	63	2173	0.98	ug/L		90
66) methylcyclohexane	5.226	83	3450	1.08	ug/L		90
67) dibromomethane	5.300	93	1474	1.13	ug/L		80
68) bromodichloromethane	5.425	83	2606	0.92	ug/L		91
69) cis-1,3-dichloropropene	5.762	75	3581	1.00	ug/L		96
70) epichlorohydrin	5.678	57	1602	4.32	ug/L		95
71) 4-methyl-2-pentanone	5.864	58	5021	3.92	ug/L	#	85
72) 3-methyl-1-butanol	5.877	70	1774	17.03	ug/L		90
75) toluene	6.047	92	5068	1.10	ug/L		93
76) trans-1,3-dichloropropene	6.217	75	3050	1.01	ug/L		93
77) ethyl methacrylate	6.233	69	3285	1.04	ug/L		94
78) 1,1,2-trichloroethane	6.387	83	1479	0.93	ug/L		89
79) 2-hexanone	6.551	58	4884	4.10	ug/L		95
80) tetrachloroethene	6.480	166	2195	1.09	ug/L		98
81) 1,3-dichloropropane	6.532	76	3218	1.06	ug/L		98
82) butyl acetate	6.634	56	2096	1.08	ug/L	#	72
83) dibromochloromethane	6.721	129	1924	1.02	ug/L		98
84) 1,2-dibromoethane	6.837	107	2656	1.09	ug/L		97
85) n-butyl ether	7.308	57	7840	0.99	ug/L		95
86) chlorobenzene	7.263	112	5323	1.09	ug/L		95
87) 1,1,1,2-tetrachloroethane	7.337	131	1845	1.14	ug/L		86
88) ethylbenzene	7.344	91	8859	1.10	ug/L		97
89) m,p-xylene	7.456	106	6933	2.25	ug/L		87
90) o-xylene	7.809	106	3192	1.02	ug/L		93
91) butyl acrylate	7.729	55	4531	0.89	ug/L		94
92) styrene	7.825	104	5299	1.03	ug/L		98
93) bromoform	7.998	173	1396	1.03	ug/L		81
94) isopropylbenzene	8.146	105	8425	1.08	ug/L		99
95) cis-1,4-dichloro-2-butene	8.200	88	953	0.93	ug/L	#	89
98) bromobenzene	8.460	156	2115	0.97	ug/L		86
99) 1,1,2,2-tetrachloroethane	8.431	83	2766	0.93	ug/L		98
100) trans-1,4-dichloro-2-b...	8.467	53	865	0.99	ug/L		83
101) 1,2,3-trichloropropane	8.499	110	816	1.01	ug/L		76
102) n-propylbenzene	8.541	91	9170	0.98	ug/L		90
103) 2-chlorotoluene	8.637	126	1930	1.00	ug/L		87

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VL9011\
Data File : L310724.D
Acq On : 3 Apr 2019 6:59 pm
Operator : juntaep
Sample : ic9011-1
Misc : MS33381,VL9011,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 04 11:19:02 2019
Quant Method : C:\MSDCHEM\1\METHODS\ML9011.M
Quant Title : SW846 Method V8260C, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Thu Apr 04 10:38:58 2019
Response via : Initial Calibration

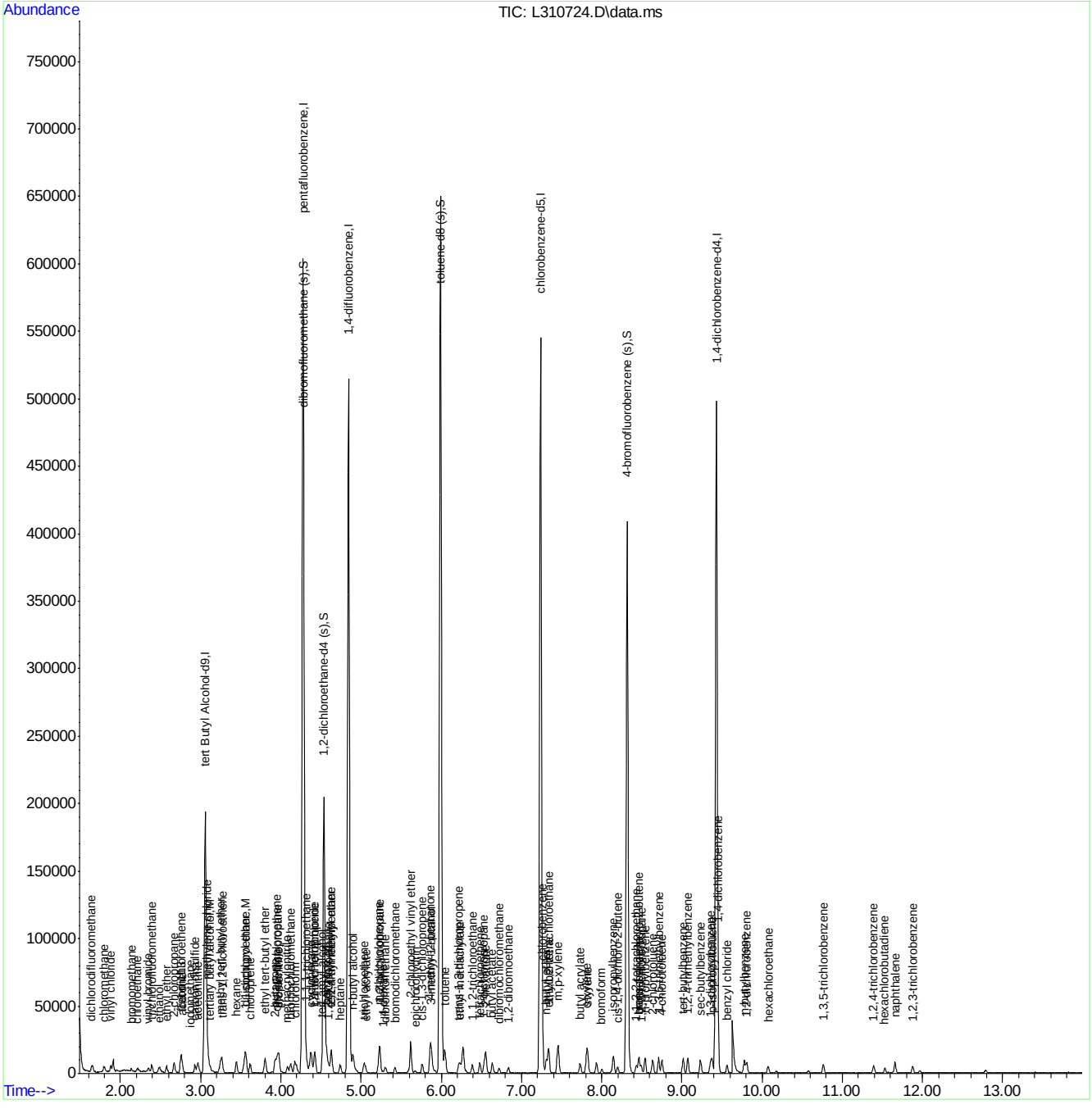
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
104) 4-chlorotoluene	8.749	126	1829	0.97 ug/L #	82
105) 1,3,5-trimethylbenzene	8.711	105	6049	0.95 ug/L	92
106) tert-butylbenzene	9.019	119	5361	0.98 ug/L	98
107) 1,2,4-trimethylbenzene	9.076	105	6246	0.98 ug/L	90
108) sec-butylbenzene	9.234	105	7487	0.98 ug/L	92
109) 1,3-dichlorobenzene	9.356	146	3661	0.99 ug/L	83
110) p-isopropyltoluene	9.378	119	6083	1.00 ug/L	91
111) 1,4-dichlorobenzene	9.452	146	3620	1.03 ug/L	81
112) 1,2-dichlorobenzene	9.805	146	3464	1.00 ug/L	87
113) n-butylbenzene	9.779	92	2826	0.90 ug/L	98
115) 1,3,5-trichlorobenzene	10.764	180	2420	0.95 ug/L	83
116) 1,2,4-trichlorobenzene	11.390	180	2357	0.99 ug/L	89
117) hexachlorobutadiene	11.525	225	878	0.94 ug/L	88
118) naphthalene	11.660	128	6285	0.83 ug/L	95
119) 1,2,3-trichlorobenzene	11.881	180	2273	1.04 ug/L	78
120) hexachloroethane	10.074	119	1006	0.90 ug/L	96
121) benzyl chloride	9.564	91	4539	0.89 ug/L	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VL9011\
Data File : L310724.D
Acq On : 3 Apr 2019 6:59 pm
Operator : juntaep
Sample : ic9011-1
Misc : MS33381,VL9011,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 04 11:19:02 2019
Quant Method : C:\MSDCHEM\1\METHODS\ML9011.M
Quant Title : SW846 Method V8260C, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Thu Apr 04 10:38:58 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VL9011\
Data File : L310725.D
Acq On : 3 Apr 2019 7:26 pm
Operator : juntaep
Sample : ic9011-2
Misc : MS33381,VL9011,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 04 11:12:31 2019
Quant Method : C:\MSDCHEM\1\METHODS\ML9011.M
Quant Title : SW846 Method V8260C, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Thu Apr 04 11:00:57 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert Butyl Alcohol-d9	3.056	65	210118	500.00	ug/L		0.00
5) pentafluorobenzene	4.276	168	256440	50.00	ug/L		0.00
52) 1,4-difluorobenzene	4.844	114	348380	50.00	ug/L		0.00
73) chlorobenzene-d5	7.238	117	287834	50.00	ug/L		0.00
96) 1,4-dichlorobenzene-d4	9.432	152	133781	50.00	ug/L		0.00
System Monitoring Compounds							
44) dibromofluoromethane (s)	4.285	113	103415	49.21	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.42%				
53) 1,2-dichloroethane-d4 (s)	4.536	65	121534	52.22	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 104.44%				
74) toluene-d8 (s)	5.989	98	397639	51.37	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.74%				
97) 4-bromofluorobenzene (s)	8.316	95	138261	49.02	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.04%				
Target Compounds							Qvalue
2) 1,4-dioxane	5.277	88	1960	46.84	ug/L		97
3) ethanol	2.488	45	10150	191.46	ug/L		91
4) tertiary butyl alcohol	3.117	59	4899	9.73	ug/L		97
6) chlorodifluoromethane	1.654	51	5709	1.75	ug/L		97
7) dichlorodifluoromethane	1.635	85	7295	1.82	ug/L		89
8) chloromethane	1.792	50	6791	1.82	ug/L		95
9) vinyl chloride	1.879	62	6643	1.83	ug/L		95
10) bromomethane	2.132	94	2073	1.84	ug/L		99
11) chloroethane	2.209	64	3328	1.82	ug/L		91
12) vinyl bromide	2.347	106	3210	1.95	ug/L		96
13) trichlorofluoromethane	2.392	101	7461	1.95	ug/L		95
14) ethyl ether	2.575	74	2695	1.85	ug/L		96
15) 2-chloropropane	2.668	43	8362	1.91	ug/L		99
16) acrolein	2.678	56	1031	1.94	ug/L		82
17) freon 113	2.748	151	3402	1.96	ug/L		91
18) 1,1-dichloroethene	2.758	96	4034	1.84	ug/L		90
19) acetone	2.771	58	2845	8.29	ug/L	#	66
20) acetonitrile	2.966	40	6000	22.41	ug/L		92
21) iodomethane	2.873	142	584	0.80	ug/L	#	44
23) carbon disulfide	2.928	76	11352	1.93	ug/L		96
24) methylene chloride	3.088	84	4417	1.97	ug/L		91
25) methyl acetate	2.973	74	979	1.72	ug/L	#	46
26) methyl tert butyl ether	3.249	73	14189	2.00	ug/L		89
27) trans-1,2-dichloroethene	3.271	96	4364	2.00	ug/L		93
28) hexane	3.451	57	6397	1.89	ug/L		90
29) di-isopropyl ether	3.560	45	16314	1.99	ug/L		98
30) ethyl tert-butyl ether	3.804	59	15043	1.93	ug/L		96
31) 2-butanone	3.929	72	3309	7.64	ug/L	#	76
32) 1,1-dichloroethane	3.567	63	8228	1.97	ug/L		96
33) chloroprene	3.615	53	7127	1.88	ug/L		95
37) 2,2-dichloropropane	3.964	77	6681	2.03	ug/L		92
38) cis-1,2-dichloroethene	3.948	96	4794	2.00	ug/L	#	73

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VL9011\
Data File : L310725.D
Acq On : 3 Apr 2019 7:26 pm
Operator : juntaep
Sample : ic9011-2
Misc : MS33381,VL9011,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 04 11:12:31 2019
Quant Method : C:\MSDCHEM\1\METHODS\ML9011.M
Quant Title : SW846 Method V8260C, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Thu Apr 04 11:00:57 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
39) propionitrile	3.977	54	10799	20.21	ug/L		93
40) methyl acrylate	3.977	85	885	1.83	ug/L	#	65
41) bromochloromethane	4.125	128	2332	2.15	ug/L	#	66
42) tetrahydrofuran	4.131	72	1026	2.06	ug/L		93
43) chloroform	4.170	83	7902	1.98	ug/L		92
45) methacrylonitrile	4.080	67	2770	2.07	ug/L		86
46) 1,1,1-trichloroethane	4.314	97	6052	1.89	ug/L		89
47) cyclohexane	4.372	84	5910	1.97	ug/L		96
48) 1,1-dichloropropene	4.420	75	5766	1.92	ug/L		96
49) carbon tetrachloride	4.423	117	4970	1.85	ug/L		84
50) isopropyl acetate	4.536	87	1217	1.85	ug/L	#	43
51) tert amyl alcohol	4.523	55	1703	10.29	ug/L	#	81
54) tert-amyl methyl ether	4.629	73	13348	2.05	ug/L		95
55) 2,2,4-trimethylpentane	4.629	57	10748	2.03	ug/L		91
56) n-butyl alcohol	4.905	56	11208	99.89	ug/L		99
57) benzene	4.568	78	16440	2.03	ug/L		94
58) heptane	4.741	57	2308	1.90	ug/L		88
59) 1,2-dichloroethane	4.593	62	6464	2.20	ug/L		98
60) trichloroethene	5.033	95	3989	1.90	ug/L		96
61) ethyl acrylate	5.059	55	7470	2.01	ug/L		97
63) 2-chloroethyl vinyl ether	5.620	63	17582	10.23	ug/L		98
64) methyl methacrylate	5.235	100	1395	1.95	ug/L	#	85
65) 1,2-dichloropropane	5.235	63	4325	1.99	ug/L		98
66) methylcyclohexane	5.226	83	6535	1.96	ug/L		95
67) dibromomethane	5.303	93	2597	1.99	ug/L		95
68) bromodichloromethane	5.424	83	5308	1.92	ug/L		91
69) cis-1,3-dichloropropene	5.765	75	7023	2.01	ug/L		92
70) epichlorohydrin	5.672	57	3433	9.92	ug/L		93
71) 4-methyl-2-pentanone	5.864	58	10289	8.22	ug/L		97
72) 3-methyl-1-butanol	5.883	70	3984	40.84	ug/L	#	81
75) toluene	6.047	92	9927	2.02	ug/L		98
76) trans-1,3-dichloropropene	6.214	75	6063	1.98	ug/L		87
77) ethyl methacrylate	6.236	69	6222	1.97	ug/L		89
78) 1,1,2-trichloroethane	6.384	83	3211	1.98	ug/L		87
79) 2-hexanone	6.551	58	9835	7.95	ug/L		98
80) tetrachloroethene	6.477	166	4246	1.98	ug/L		94
81) 1,3-dichloropropane	6.535	76	6401	1.97	ug/L		92
82) butyl acetate	6.634	56	4068	2.04	ug/L		97
83) dibromochloromethane	6.718	129	3748	1.92	ug/L		85
84) 1,2-dibromoethane	6.836	107	5283	2.03	ug/L		99
85) n-butyl ether	7.311	57	15776	2.00	ug/L		97
86) chlorobenzene	7.263	112	10412	1.98	ug/L		92
87) 1,1,1,2-tetrachloroethane	7.334	131	3477	2.07	ug/L		94
88) ethylbenzene	7.343	91	18247	2.12	ug/L		97
89) m,p-xylene	7.456	106	13024	3.90	ug/L		95
90) o-xylene	7.809	106	6747	2.04	ug/L		88
91) butyl acrylate	7.732	55	9392	1.94	ug/L		96
92) styrene	7.828	104	10928	2.05	ug/L		94
93) bromoform	8.004	173	2598	1.91	ug/L		89
94) isopropylbenzene	8.146	105	16368	2.02	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VL9011\
Data File : L310725.D
Acq On : 3 Apr 2019 7:26 pm
Operator : juntaep
Sample : ic9011-2
Misc : MS33381,VL9011,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 04 11:12:31 2019
Quant Method : C:\MSDCHEM\1\METHODS\ML9011.M
Quant Title : SW846 Method V8260C, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Thu Apr 04 11:00:57 2019
Response via : Initial Calibration

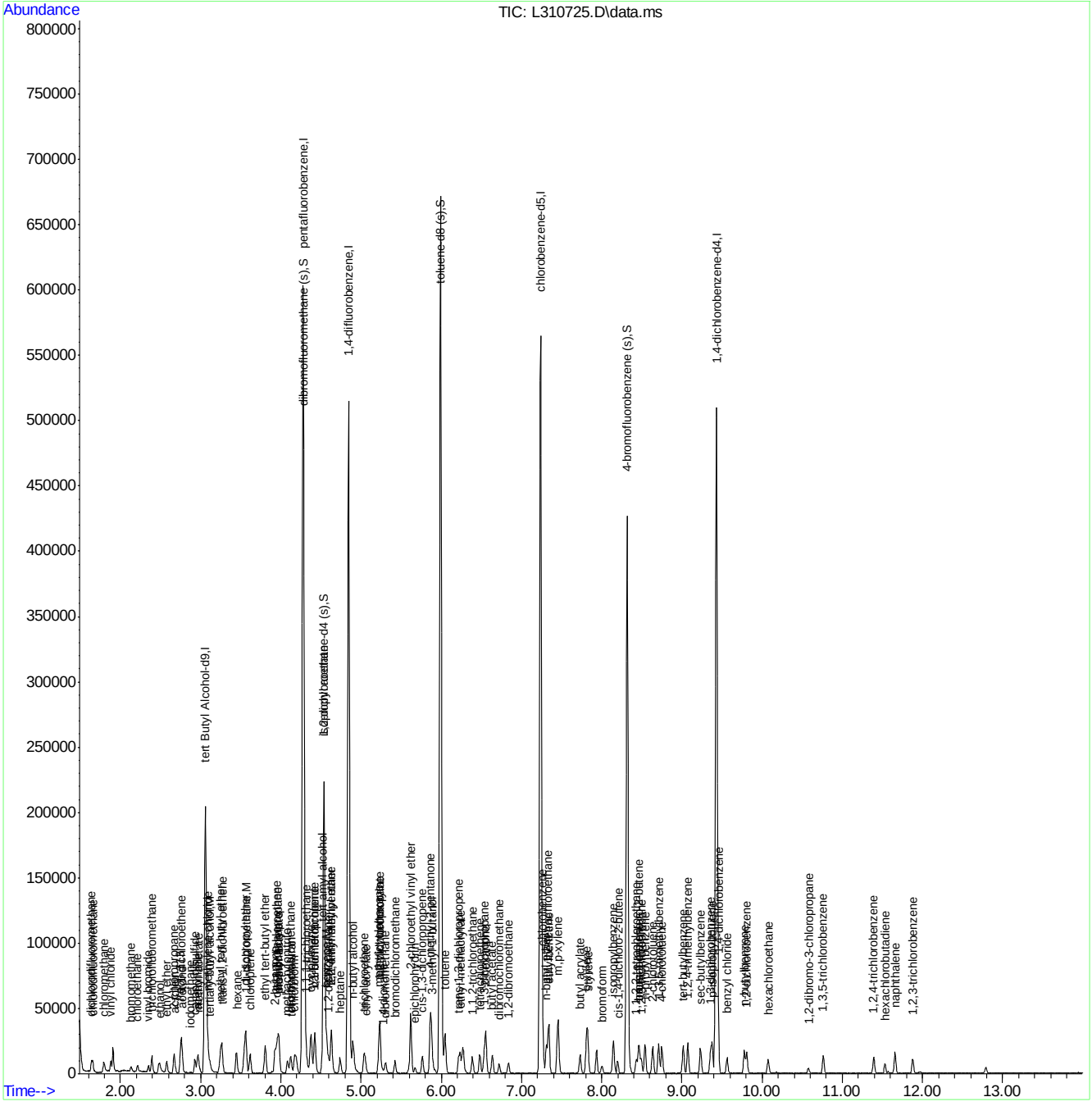
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
95)	cis-1,4-dichloro-2-butene	8.207	88	1957	1.94	ug/L	#	78
98)	bromobenzene	8.460	156	4249	1.94	ug/L		99
99)	1,1,2,2-tetrachloroethane	8.431	83	5343	1.84	ug/L		92
100)	trans-1,4-dichloro-2-b...	8.463	53	1568	1.81	ug/L	#	73
101)	1,2,3-trichloropropane	8.492	110	1744	2.09	ug/L		74
102)	n-propylbenzene	8.540	91	18572	1.92	ug/L		94
103)	2-chlorotoluene	8.633	126	3866	1.95	ug/L		87
104)	4-chlorotoluene	8.752	126	3789	1.98	ug/L		91
105)	1,3,5-trimethylbenzene	8.710	105	12385	1.91	ug/L		98
106)	tert-butylbenzene	9.018	119	10254	1.82	ug/L		94
107)	1,2,4-trimethylbenzene	9.073	105	12112	1.85	ug/L		94
108)	sec-butylbenzene	9.237	105	14819	1.87	ug/L		87
109)	1,3-dichlorobenzene	9.355	146	7332	1.87	ug/L		94
110)	p-isopropyltoluene	9.378	119	11852	1.87	ug/L		95
111)	1,4-dichlorobenzene	9.455	146	6929	1.90	ug/L		94
112)	1,2-dichlorobenzene	9.808	146	6994	1.95	ug/L		91
113)	n-butylbenzene	9.779	92	5459	1.75	ug/L		85
114)	1,2-dibromo-3-chloropr...	10.578	157	1125	1.60	ug/L		70
115)	1,3,5-trichlorobenzene	10.761	180	4745	1.82	ug/L		98
116)	1,2,4-trichlorobenzene	11.390	180	4105	1.72	ug/L		96
117)	hexachlorobutadiene	11.537	225	1720	1.83	ug/L		87
118)	naphthalene	11.656	128	12931	1.80	ug/L		99
119)	1,2,3-trichlorobenzene	11.878	180	4010	1.82	ug/L		95
120)	hexachloroethane	10.074	119	1957	1.81	ug/L		85
121)	benzyl chloride	9.564	91	8771	1.77	ug/L		92

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VL9011\
Data File : L310725.D
Acq On : 3 Apr 2019 7:26 pm
Operator : juntaep
Sample : ic9011-2
Misc : MS33381,VL9011,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 04 11:12:31 2019
Quant Method : C:\MSDCHEM\1\METHODS\ML9011.M
Quant Title : SW846 Method V8260C, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Thu Apr 04 11:00:57 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VL9011\
Data File : L310726.D
Acq On : 3 Apr 2019 7:53 pm
Operator : juntaep
Sample : ic9011-4
Misc : MS33381,VL9011,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 04 11:12:51 2019
Quant Method : C:\MSDCHEM\1\METHODS\ML9011.M
Quant Title : SW846 Method V8260C, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Thu Apr 04 10:38:58 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert Butyl Alcohol-d9	3.056	65	187837	500.00	ug/L		0.00
5) pentafluorobenzene	4.276	168	245266	50.00	ug/L		0.00
52) 1,4-difluorobenzene	4.844	114	333573	50.00	ug/L		0.00
73) chlorobenzene-d5	7.238	117	276189	50.00	ug/L		0.00
96) 1,4-dichlorobenzene-d4	9.433	152	126498	50.00	ug/L		0.00
System Monitoring Compounds							
44) dibromofluoromethane (s)	4.285	113	98897	46.93	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 93.86%				
53) 1,2-dichloroethane-d4 (s)	4.536	65	112881	52.74	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 105.48%				
74) toluene-d8 (s)	5.989	98	377167	52.89	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 105.78%				
97) 4-bromofluorobenzene (s)	8.316	95	130388	47.64	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 95.28%				
Target Compounds							Qvalue
2) 1,4-dioxane	5.274	88	3594	96.60	ug/L		96
3) ethanol	2.485	45	19485	400.21	ug/L		99
4) tertiary butyl alcohol	3.114	59	9373	20.92	ug/L		97
6) chlorodifluoromethane	1.654	51	11772	3.35	ug/L		94
7) dichlorodifluoromethane	1.638	85	14528	3.39	ug/L		94
8) chloromethane	1.795	50	13325	3.43	ug/L		97
9) vinyl chloride	1.882	62	12988	3.49	ug/L		99
10) bromomethane	2.132	94	4099	3.58	ug/L		88
11) chloroethane	2.212	64	6823	3.69	ug/L		95
12) vinyl bromide	2.350	106	5935	3.42	ug/L		88
13) trichlorofluoromethane	2.392	101	14529	3.63	ug/L		99
14) ethyl ether	2.572	74	5373	3.50	ug/L		82
15) 2-chloropropane	2.668	43	17115	3.83	ug/L		97
16) acrolein	2.678	56	2071	3.90	ug/L		72
17) freon 113	2.748	151	6762	3.88	ug/L		89
18) 1,1-dichloroethene	2.758	96	8131	3.73	ug/L		90
19) acetone	2.768	58	5324	15.91	ug/L	#	85
20) acetonitrile	2.963	40	9737	35.13	ug/L		95
21) iodomethane	2.870	142	1267	1.28	ug/L		81
22) iso-butyl alcohol	4.423	43	7205	38.26	ug/L		84
23) carbon disulfide	2.928	76	22017	3.80	ug/L		97
24) methylene chloride	3.089	84	8262	3.69	ug/L		97
25) methyl acetate	2.976	74	2100	3.54	ug/L	#	77
26) methyl tert butyl ether	3.252	73	27227	3.77	ug/L		98
27) trans-1,2-dichloroethene	3.268	96	8218	3.73	ug/L		94
28) hexane	3.448	57	12686	3.68	ug/L		93
29) di-isopropyl ether	3.557	45	31769	3.92	ug/L		95
30) ethyl tert-butyl ether	3.804	59	29556	3.84	ug/L		96
31) 2-butanone	3.929	72	6489	14.39	ug/L	#	84
32) 1,1-dichloroethane	3.567	63	16049	3.84	ug/L		98
33) chloroprene	3.618	53	14451	3.81	ug/L		98
34) acrylonitrile	3.233	53	4689	3.39	ug/L		91

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VL9011\
Data File : L310726.D
Acq On : 3 Apr 2019 7:53 pm
Operator : juntaep
Sample : ic9011-4
Misc : MS33381,VL9011,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 04 11:12:51 2019
Quant Method : C:\MSDCHEM\1\METHODS\ML9011.M
Quant Title : SW846 Method V8260C, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Thu Apr 04 10:38:58 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
35) vinyl acetate	3.535	86	2226	3.56	ug/L	#	78
36) ethyl acetate	3.932	45	2170	3.50	ug/L	#	76
37) 2,2-dichloropropane	3.961	77	13088	4.12	ug/L		94
38) cis-1,2-dichloroethene	3.952	96	9310	3.95	ug/L		89
39) propionitrile	3.974	54	20700	39.19	ug/L		96
40) methyl acrylate	3.977	85	1929	4.00	ug/L	#	79
41) bromochloromethane	4.115	128	4215	3.99	ug/L		81
42) tetrahydrofuran	4.131	72	1976	4.12	ug/L	#	86
43) chloroform	4.173	83	14985	3.90	ug/L		99
45) methacrylonitrile	4.087	67	5061	3.69	ug/L		97
46) 1,1,1-trichloroethane	4.314	97	11649	3.56	ug/L		86
47) cyclohexane	4.372	84	11752	4.03	ug/L		94
48) 1,1-dichloropropene	4.423	75	11681	3.83	ug/L		99
49) carbon tetrachloride	4.423	117	10182	3.86	ug/L		91
50) isopropyl acetate	4.539	87	2346	3.49	ug/L	#	53
51) tert amyl alcohol	4.516	55	3135	18.31	ug/L	#	81
54) tert-amyl methyl ether	4.629	73	25791	4.21	ug/L		94
55) 2,2,4-trimethylpentane	4.632	57	21477	4.40	ug/L		96
56) n-butyl alcohol	4.902	56	21418	184.57	ug/L		95
57) benzene	4.571	78	32511	4.21	ug/L		96
58) heptane	4.735	57	5063	4.21	ug/L	#	75
59) 1,2-dichloroethane	4.593	62	11361	4.23	ug/L		98
60) trichloroethene	5.036	95	8239	4.01	ug/L		88
61) ethyl acrylate	5.059	55	14461	3.81	ug/L		95
62) 2-nitropropane	5.588	41	2893	3.32	ug/L		94
63) 2-chloroethyl vinyl ether	5.620	63	34645	20.98	ug/L		97
64) methyl methacrylate	5.235	100	2644	3.64	ug/L	#	85
65) 1,2-dichloropropane	5.242	63	8889	4.17	ug/L		89
66) methylcyclohexane	5.222	83	12604	4.10	ug/L		97
67) dibromomethane	5.306	93	5245	4.17	ug/L		95
68) bromodichloromethane	5.425	83	10434	3.83	ug/L		92
69) cis-1,3-dichloropropene	5.765	75	13448	3.92	ug/L		96
70) epichlorohydrin	5.672	57	6508	18.22	ug/L		100
71) 4-methyl-2-pentanone	5.861	58	19865	16.10	ug/L		91
72) 3-methyl-1-butanol	5.880	70	7356	73.35	ug/L	#	90
75) toluene	6.044	92	19213	4.25	ug/L		95
76) trans-1,3-dichloropropene	6.217	75	11859	4.00	ug/L		98
77) ethyl methacrylate	6.240	69	12251	3.93	ug/L		99
78) 1,1,2-trichloroethane	6.387	83	6469	4.13	ug/L		98
79) 2-hexanone	6.554	58	19788	16.87	ug/L		98
80) tetrachloroethene	6.484	166	8331	4.20	ug/L		91
81) 1,3-dichloropropane	6.532	76	13418	4.50	ug/L		95
82) butyl acetate	6.634	56	7887	4.11	ug/L		91
83) dibromochloromethane	6.721	129	7706	4.14	ug/L		96
84) 1,2-dibromoethane	6.837	107	10140	4.24	ug/L		94
85) n-butyl ether	7.308	57	31082	3.97	ug/L		97
86) chlorobenzene	7.263	112	19879	4.14	ug/L		96
87) 1,1,1,2-tetrachloroethane	7.337	131	6770	4.25	ug/L		94
88) ethylbenzene	7.340	91	35463	4.46	ug/L		99
89) m,p-xylene	7.456	106	26065	8.59	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VL9011\
Data File : L310726.D
Acq On : 3 Apr 2019 7:53 pm
Operator : juntaep
Sample : ic9011-4
Misc : MS33381,VL9011,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 04 11:12:51 2019
Quant Method : C:\MSDCHEM\1\METHODS\ML9011.M
Quant Title : SW846 Method V8260C, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Thu Apr 04 10:38:58 2019
Response via : Initial Calibration

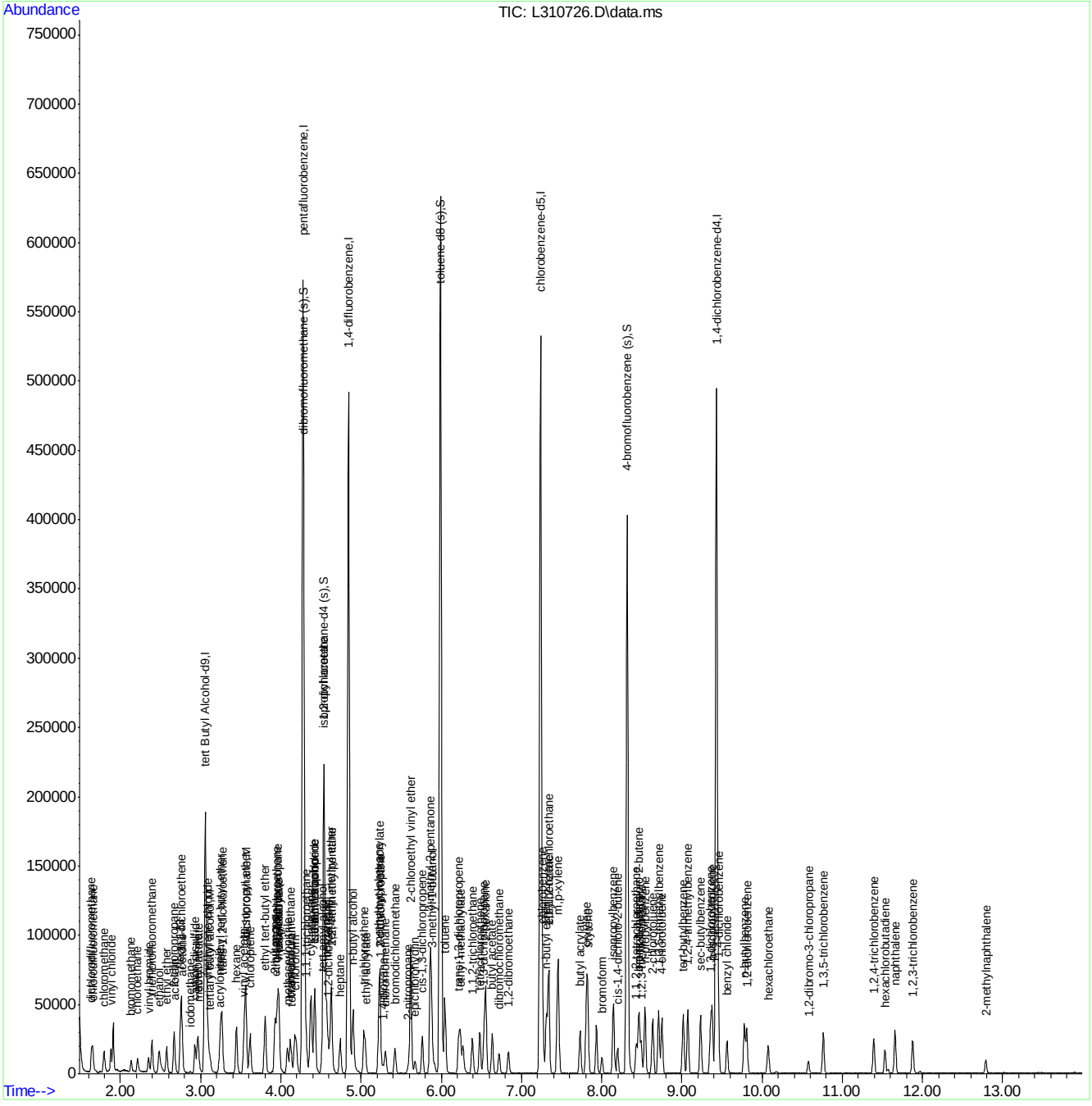
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
90) o-xylene	7.809	106	12987	4.22	ug/L		96
91) butyl acrylate	7.732	55	18650	3.72	ug/L		98
92) styrene	7.828	104	22211	4.38	ug/L		93
93) bromoform	8.005	173	5283	3.96	ug/L		97
94) isopropylbenzene	8.146	105	32697	4.27	ug/L		98
95) cis-1,4-dichloro-2-butene	8.200	88	3906	3.85	ug/L	#	90
98) bromobenzene	8.460	156	8379	3.89	ug/L		93
99) 1,1,2,2-tetrachloroethane	8.431	83	11010	3.72	ug/L		95
100) trans-1,4-dichloro-2-b...	8.467	53	3061	3.55	ug/L		88
101) 1,2,3-trichloropropane	8.496	110	3134	3.92	ug/L		90
102) n-propylbenzene	8.544	91	37014	4.01	ug/L		99
103) 2-chlorotoluene	8.637	126	7479	3.91	ug/L		87
104) 4-chlorotoluene	8.752	126	7673	4.10	ug/L		97
105) 1,3,5-trimethylbenzene	8.711	105	24086	3.80	ug/L		96
106) tert-butylbenzene	9.019	119	20802	3.83	ug/L		96
107) 1,2,4-trimethylbenzene	9.076	105	24903	3.93	ug/L		98
108) sec-butylbenzene	9.234	105	28733	3.80	ug/L		95
109) 1,3-dichlorobenzene	9.359	146	14526	3.97	ug/L		94
110) p-isopropyltoluene	9.378	119	23982	3.97	ug/L		98
111) 1,4-dichlorobenzene	9.458	146	14159	4.08	ug/L		88
112) 1,2-dichlorobenzene	9.814	146	13608	3.95	ug/L		89
113) n-butylbenzene	9.779	92	10611	3.41	ug/L		97
114) 1,2-dibromo-3-chloropr...	10.581	157	2397	3.12	ug/L		80
115) 1,3,5-trichlorobenzene	10.764	180	9498	3.75	ug/L		92
116) 1,2,4-trichlorobenzene	11.393	180	8109	3.43	ug/L		97
117) hexachlorobutadiene	11.538	225	3471	3.74	ug/L		94
118) naphthalene	11.656	128	25663	3.42	ug/L		99
119) 1,2,3-trichlorobenzene	11.878	180	8184	3.78	ug/L		96
120) hexachloroethane	10.078	119	3835	3.47	ug/L		93
121) benzyl chloride	9.564	91	16831	3.33	ug/L		97
123) 2-methylnaphthalene	12.792	142	4985	1.40	ug/L		86

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VL9011\
Data File : L310726.D
Acq On : 3 Apr 2019 7:53 pm
Operator : juntaep
Sample : ic9011-4
Misc : MS33381,VL9011,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 04 11:12:51 2019
Quant Method : C:\MSDCHEM\1\METHODS\ML9011.M
Quant Title : SW846 Method V8260C, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Thu Apr 04 10:38:58 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VL9011\
Data File : L310727.D
Acq On : 3 Apr 2019 8:20 pm
Operator : juntaep
Sample : ic9011-8
Misc : MS33381,VL9011,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 04 10:39:37 2019
Quant Method : C:\MSDCHEM\1\METHODS\ML9011.M
Quant Title : SW846 Method V8260C, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Thu Apr 04 10:38:58 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert Butyl Alcohol-d9	3.060	65	200531	500.00	ug/L		0.00
5) pentafluorobenzene	4.276	168	239631	50.00	ug/L		0.00
52) 1,4-difluorobenzene	4.841	114	336145	50.00	ug/L		0.00
73) chlorobenzene-d5	7.238	117	278527	50.00	ug/L		0.00
96) 1,4-dichlorobenzene-d4	9.429	152	125449	50.00	ug/L		0.00
System Monitoring Compounds							
44) dibromofluoromethane (s)	4.285	113	98110	47.65	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 95.30%				
53) 1,2-dichloroethane-d4 (s)	4.536	65	114332	53.00	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 106.00%				
74) toluene-d8 (s)	5.989	98	379464	52.77	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 105.54%				
97) 4-bromofluorobenzene (s)	8.319	95	130296	48.01	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 96.02%				
Target Compounds							Qvalue
2) 1,4-dioxane	5.274	88	7856	197.79	ug/L		84
3) ethanol	2.482	45	39366	757.37	ug/L		99
4) tertiary butyl alcohol	3.114	59	18450	38.56	ug/L		99
6) chlorodifluoromethane	1.654	51	23219	6.77	ug/L		98
7) dichlorodifluoromethane	1.638	85	29864	7.13	ug/L		97
8) chloromethane	1.792	50	27669	7.28	ug/L		96
9) vinyl chloride	1.879	62	27224	7.49	ug/L		98
10) bromomethane	2.132	94	7797	6.96	ug/L		97
11) chloroethane	2.212	64	13931	7.71	ug/L		99
12) vinyl bromide	2.350	106	12365	7.29	ug/L		94
13) trichlorofluoromethane	2.389	101	29295	7.50	ug/L		99
14) ethyl ether	2.575	74	11165	7.45	ug/L		86
15) 2-chloropropane	2.668	43	32889	7.53	ug/L		95
16) acrolein	2.678	56	3878	7.47	ug/L		86
17) freon 113	2.752	151	12853	7.55	ug/L		100
18) 1,1-dichloroethene	2.755	96	16292	7.65	ug/L		99
19) acetone	2.768	58	10124	30.96	ug/L		88
20) acetonitrile	2.960	40	20155	74.43	ug/L		99
21) iodomethane	2.867	142	2526	2.61	ug/L		97
22) iso-butyl alcohol	4.423	43	15244	82.84	ug/L		97
23) carbon disulfide	2.928	76	43017	7.61	ug/L		98
24) methylene chloride	3.085	84	16554	7.57	ug/L		98
25) methyl acetate	2.973	74	4363	7.52	ug/L	#	85
26) methyl tert butyl ether	3.252	73	53590	7.59	ug/L		95
27) trans-1,2-dichloroethene	3.271	96	16817	7.81	ug/L		98
28) hexane	3.445	57	24320	7.22	ug/L		97
29) di-isopropyl ether	3.557	45	60665	7.66	ug/L		96
30) ethyl tert-butyl ether	3.804	59	57639	7.66	ug/L		97
31) 2-butanone	3.923	72	12981	29.45	ug/L		100
32) 1,1-dichloroethane	3.567	63	31263	7.65	ug/L		97
33) chloroprene	3.615	53	27745	7.48	ug/L		96
34) acrylonitrile	3.233	53	9934	7.35	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VL9011\
Data File : L310727.D
Acq On : 3 Apr 2019 8:20 pm
Operator : juntaep
Sample : ic9011-8
Misc : MS33381,VL9011,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 04 10:39:37 2019
Quant Method : C:\MSDCHEM\1\METHODS\ML9011.M
Quant Title : SW846 Method V8260C, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Thu Apr 04 10:38:58 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
35) vinyl acetate	3.541	86	4458	7.30	ug/L		99
36) ethyl acetate	3.932	45	4242	6.99	ug/L		89
37) 2,2-dichloropropane	3.965	77	24372	7.85	ug/L		97
38) cis-1,2-dichloroethene	3.952	96	17753	7.71	ug/L		98
39) propionitrile	3.974	54	42034	81.45	ug/L		99
40) methyl acrylate	3.977	85	3756	7.98	ug/L	#	90
41) bromochloromethane	4.122	128	8374	8.10	ug/L	#	75
42) tetrahydrofuran	4.128	72	3797	8.10	ug/L		98
43) chloroform	4.173	83	28508	7.60	ug/L		99
45) methacrylonitrile	4.080	67	9750	7.28	ug/L		83
46) 1,1,1-trichloroethane	4.314	97	23712	7.43	ug/L		93
47) cyclohexane	4.369	84	22292	7.82	ug/L		98
48) 1,1-dichloropropene	4.420	75	22647	7.60	ug/L		93
49) carbon tetrachloride	4.423	117	19235	7.45	ug/L		90
50) isopropyl acetate	4.539	87	4881	7.43	ug/L	#	92
51) tert amyl alcohol	4.516	55	6850	40.95	ug/L	#	87
54) tert-amyl methyl ether	4.629	73	51317	8.31	ug/L		99
55) 2,2,4-trimethylpentane	4.629	57	40888	8.32	ug/L		95
56) n-butyl alcohol	4.902	56	45705	390.86	ug/L		96
57) benzene	4.568	78	63846	8.21	ug/L		97
58) heptane	4.741	57	9278	7.66	ug/L		99
59) 1,2-dichloroethane	4.593	62	22640	8.36	ug/L		99
60) trichloroethene	5.036	95	15352	7.42	ug/L		94
61) ethyl acrylate	5.052	55	28925	7.57	ug/L		98
62) 2-nitropropane	5.585	41	6586	7.50	ug/L		92
63) 2-chloroethyl vinyl ether	5.617	63	69039	41.49	ug/L		99
64) methyl methacrylate	5.232	100	5576	7.62	ug/L		95
65) 1,2-dichloropropane	5.235	63	16623	7.74	ug/L		94
66) methylcyclohexane	5.226	83	24356	7.86	ug/L		97
67) dibromomethane	5.303	93	10040	7.92	ug/L		95
68) bromodichloromethane	5.425	83	20670	7.52	ug/L		98
69) cis-1,3-dichloropropene	5.762	75	26013	7.52	ug/L		98
70) epichlorohydrin	5.672	57	14041	39.00	ug/L		97
71) 4-methyl-2-pentanone	5.864	58	39631	31.88	ug/L	#	84
72) 3-methyl-1-butanol	5.880	70	16749	165.74	ug/L		96
75) toluene	6.044	92	37702	8.27	ug/L		98
76) trans-1,3-dichloropropene	6.214	75	23482	7.86	ug/L		98
77) ethyl methacrylate	6.233	69	24170	7.69	ug/L		98
78) 1,1,2-trichloroethane	6.387	83	12761	8.08	ug/L		95
79) 2-hexanone	6.551	58	40240	34.02	ug/L		96
80) tetrachloroethene	6.480	166	16444	8.23	ug/L		97
81) 1,3-dichloropropane	6.535	76	25925	8.62	ug/L		97
82) butyl acetate	6.634	56	15420	7.97	ug/L		97
83) dibromochloromethane	6.721	129	15073	8.02	ug/L		98
84) 1,2-dibromoethane	6.837	107	20059	8.31	ug/L		98
85) n-butyl ether	7.311	57	62428	7.92	ug/L		99
86) chlorobenzene	7.263	112	39025	8.05	ug/L		99
87) 1,1,1,2-tetrachloroethane	7.334	131	13307	8.28	ug/L		95
88) ethylbenzene	7.340	91	69102	8.61	ug/L		97
89) m,p-xylene	7.456	106	52107	17.02	ug/L		97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VL9011\
Data File : L310727.D
Acq On : 3 Apr 2019 8:20 pm
Operator : juntaep
Sample : ic9011-8
Misc : MS33381,VL9011,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 04 10:39:37 2019
Quant Method : C:\MSDCHEM\1\METHODS\ML9011.M
Quant Title : SW846 Method V8260C, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Thu Apr 04 10:38:58 2019
Response via : Initial Calibration

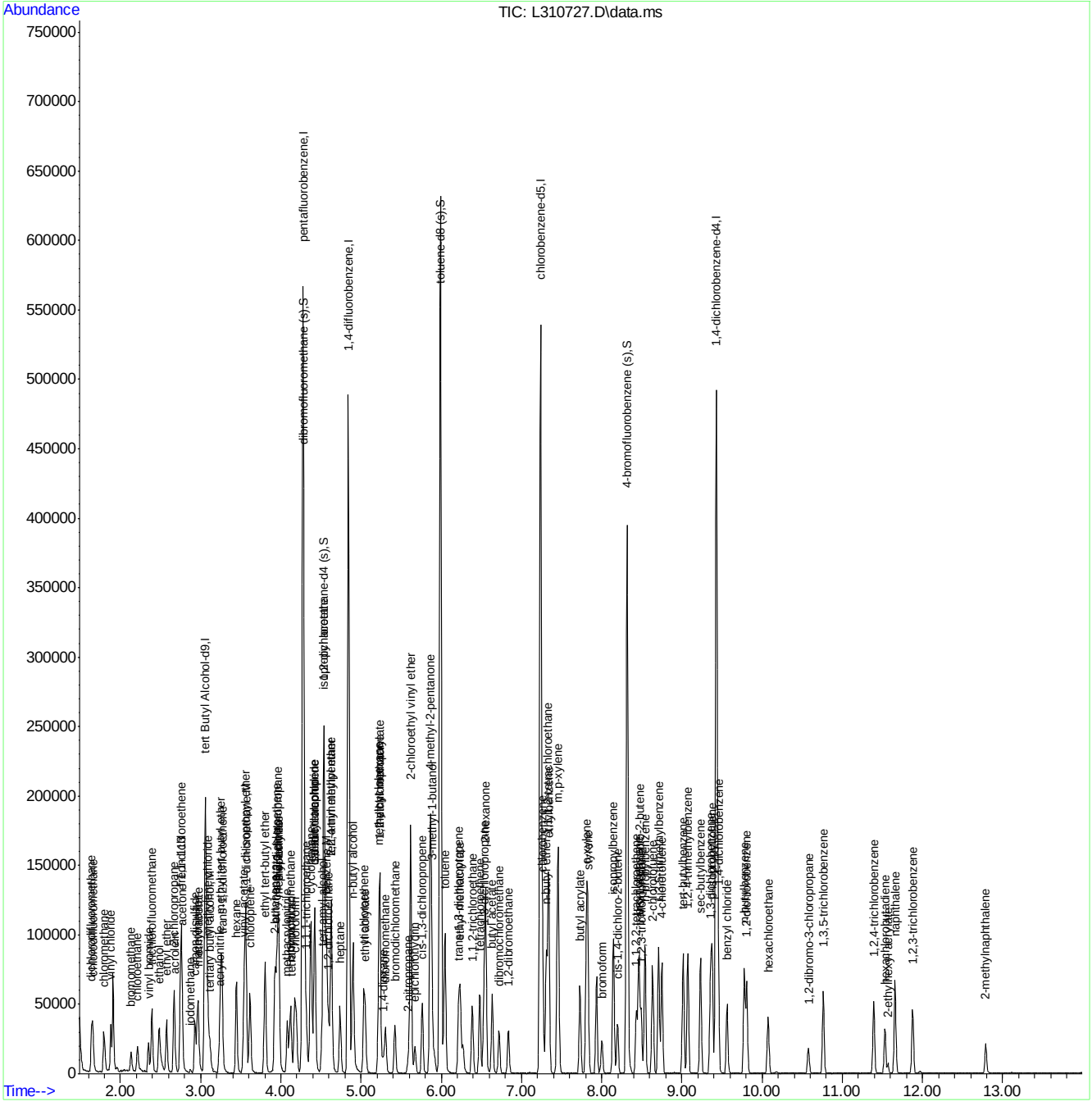
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
90)	o-xylene	7.809	106	25540	8.22	ug/L	91
91)	butyl acrylate	7.729	55	38178	7.56	ug/L	99
92)	styrene	7.828	104	42865	8.39	ug/L	96
93)	bromoform	8.001	173	10465	7.78	ug/L	95
94)	isopropylbenzene	8.146	105	63888	8.27	ug/L	99
95)	cis-1,4-dichloro-2-butene	8.197	88	7946	7.77	ug/L	96
98)	bromobenzene	8.460	156	16072	7.52	ug/L	97
99)	1,1,2,2-tetrachloroethane	8.431	83	21866	7.46	ug/L	98
100)	trans-1,4-dichloro-2-b...	8.470	53	6382	7.47	ug/L	88
101)	1,2,3-trichloropropane	8.492	110	6343	8.00	ug/L	93
102)	n-propylbenzene	8.540	91	71696	7.84	ug/L	97
103)	2-chlorotoluene	8.637	126	14930	7.87	ug/L	94
104)	4-chlorotoluene	8.752	126	14686	7.92	ug/L	100
105)	1,3,5-trimethylbenzene	8.711	105	48164	7.67	ug/L	97
106)	tert-butylbenzene	9.015	119	40969	7.60	ug/L	98
107)	1,2,4-trimethylbenzene	9.073	105	49469	7.87	ug/L	94
108)	sec-butylbenzene	9.234	105	58436	7.79	ug/L	97
109)	1,3-dichlorobenzene	9.359	146	28283	7.80	ug/L	98
110)	p-isopropyltoluene	9.378	119	46844	7.81	ug/L	98
111)	1,4-dichlorobenzene	9.455	146	26584	7.73	ug/L	97
112)	1,2-dichlorobenzene	9.808	146	26947	7.88	ug/L	96
113)	n-butylbenzene	9.779	92	21900	7.10	ug/L	94
114)	1,2-dibromo-3-chloropr...	10.578	157	5184	6.81	ug/L	91
115)	1,3,5-trichlorobenzene	10.764	180	18375	7.31	ug/L	95
116)	1,2,4-trichlorobenzene	11.393	180	16677	7.12	ug/L	97
117)	hexachlorobutadiene	11.534	225	6858	7.45	ug/L	90
118)	naphthalene	11.660	128	54387	7.31	ug/L	97
119)	1,2,3-trichlorobenzene	11.878	180	15827	7.36	ug/L	96
120)	hexachloroethane	10.078	119	7497	6.83	ug/L	97
121)	benzyl chloride	9.564	91	35041	6.98	ug/L	98
122)	2-ethylhexyl acrylate	11.570	70	1675	1.16	ug/L	93
123)	2-methylnaphthalene	12.789	142	10400	2.94	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VL9011\
Data File : L310727.D
Acq On : 3 Apr 2019 8:20 pm
Operator : juntaep
Sample : ic9011-8
Misc : MS33381,VL9011,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 04 10:39:37 2019
Quant Method : C:\MSDCHEM\1\METHODS\ML9011.M
Quant Title : SW846 Method V8260C, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Thu Apr 04 10:38:58 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VL9011\
Data File : L310728.D
Acq On : 3 Apr 2019 8:47 pm
Operator : juntaep
Sample : ic9011-20
Misc : MS33381,VL9011,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Apr 04 10:39:40 2019
Quant Method : C:\MSDCHEM\1\METHODS\ML9011.M
Quant Title : SW846 Method V8260C, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Thu Apr 04 10:38:58 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert Butyl Alcohol-d9	3.060	65	172976	500.00	ug/L	0.00
5) pentafluorobenzene	4.276	168	219608	50.00	ug/L	0.00
52) 1,4-difluorobenzene	4.844	114	314920	50.00	ug/L	0.00
73) chlorobenzene-d5	7.238	117	267333	50.00	ug/L	0.00
96) 1,4-dichlorobenzene-d4	9.432	152	116535	50.00	ug/L	0.00
System Monitoring Compounds						
44) dibromofluoromethane (s)	4.282	113	91320	48.40	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 96.80%			
53) 1,2-dichloroethane-d4 (s)	4.536	65	107133	53.01	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 106.02%			
74) toluene-d8 (s)	5.989	98	351741	50.96	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.92%			
97) 4-bromofluorobenzene (s)	8.316	95	123334	48.92	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.84%			
Target Compounds						Qvalue
2) 1,4-dioxane	5.277	88	17770	518.68	ug/L	100
3) ethanol	2.482	45	92034	2052.73	ug/L	99
4) tertiary butyl alcohol	3.114	59	41796	101.28	ug/L	100
6) chlorodifluoromethane	1.654	51	60540	19.26	ug/L	97
7) dichlorodifluoromethane	1.638	85	72820	18.98	ug/L	99
8) chloromethane	1.792	50	65659	18.86	ug/L	99
9) vinyl chloride	1.879	62	65801	19.76	ug/L	100
10) bromomethane	2.129	94	20998	20.46	ug/L	96
11) chloroethane	2.212	64	32521	19.63	ug/L	96
12) vinyl bromide	2.350	106	30702	19.74	ug/L	97
13) trichlorofluoromethane	2.392	101	70727	19.76	ug/L	99
14) ethyl ether	2.575	74	26417	19.23	ug/L	97
15) 2-chloropropane	2.668	43	78604	19.63	ug/L	96
16) acrolein	2.678	56	8953	18.83	ug/L	96
17) freon 113	2.748	151	31416	20.14	ug/L	99
18) 1,1-dichloroethene	2.755	96	39037	20.00	ug/L	97
19) acetone	2.768	58	23352	77.91	ug/L	95
20) acetonitrile	2.960	40	46364	186.84	ug/L	98
21) iodomethane	2.873	142	9733	10.97	ug/L	98
22) iso-butyl alcohol	4.423	43	33444	198.32	ug/L	92
23) carbon disulfide	2.928	76	103508	19.98	ug/L	99
24) methylene chloride	3.085	84	40020	19.97	ug/L	98
25) methyl acetate	2.970	74	10068	18.95	ug/L	95
26) methyl tert butyl ether	3.252	73	127528	19.70	ug/L	99
27) trans-1,2-dichloroethene	3.268	96	39305	19.91	ug/L	97
28) hexane	3.448	57	59985	19.42	ug/L	97
29) di-isopropyl ether	3.557	45	148582	20.47	ug/L	98
30) ethyl tert-butyl ether	3.804	59	138668	20.11	ug/L	97
31) 2-butanone	3.923	72	30133	74.61	ug/L	95
32) 1,1-dichloroethane	3.567	63	75392	20.13	ug/L	94
33) chloroprene	3.618	53	68266	20.09	ug/L	97
34) acrylonitrile	3.233	53	23184	18.73	ug/L	94

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VL9011\
Data File : L310728.D
Acq On : 3 Apr 2019 8:47 pm
Operator : juntaep
Sample : ic9011-20
Misc : MS33381,VL9011,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Apr 04 10:39:40 2019
Quant Method : C:\MSDCHEM\1\METHODS\ML9011.M
Quant Title : SW846 Method V8260C, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Thu Apr 04 10:38:58 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
35) vinyl acetate	3.541	86	10704	19.14	ug/L	#	82
36) ethyl acetate	3.932	45	9325	16.78	ug/L		91
37) 2,2-dichloropropane	3.961	77	58863	20.70	ug/L		97
38) cis-1,2-dichloroethene	3.952	96	42917	20.33	ug/L		96
39) propionitrile	3.974	54	94187	199.15	ug/L		99
40) methyl acrylate	3.977	85	8404	19.48	ug/L	#	88
41) bromochloromethane	4.119	128	19415	20.50	ug/L		95
42) tetrahydrofuran	4.128	72	8291	19.30	ug/L		86
43) chloroform	4.170	83	67932	19.77	ug/L		99
45) methacrylonitrile	4.080	67	22925	18.68	ug/L		92
46) 1,1,1-trichloroethane	4.311	97	56922	19.45	ug/L		97
47) cyclohexane	4.369	84	51996	19.91	ug/L		97
48) 1,1-dichloropropene	4.420	75	54557	19.99	ug/L		97
49) carbon tetrachloride	4.423	117	47482	20.08	ug/L		99
50) isopropyl acetate	4.536	87	11378	18.90	ug/L	#	89
51) tert amyl alcohol	4.516	55	14666	95.67	ug/L		93
54) tert-amyl methyl ether	4.629	73	119431	20.65	ug/L		99
55) 2,2,4-trimethylpentane	4.632	57	97253	21.11	ug/L		95
56) n-butyl alcohol	4.898	56	103337	943.27	ug/L		99
57) benzene	4.568	78	151360	20.77	ug/L		97
58) heptane	4.741	57	22940	20.23	ug/L		98
59) 1,2-dichloroethane	4.593	62	52282	20.62	ug/L		100
60) trichloroethene	5.036	95	38854	20.05	ug/L		99
61) ethyl acrylate	5.056	55	69636	19.44	ug/L		99
62) 2-nitropropane	5.588	41	16288	19.80	ug/L		88
63) 2-chloroethyl vinyl ether	5.617	63	160515	102.95	ug/L		99
64) methyl methacrylate	5.235	100	13430	19.58	ug/L		96
65) 1,2-dichloropropane	5.235	63	41194	20.48	ug/L		95
66) methylcyclohexane	5.226	83	59337	20.44	ug/L		99
67) dibromomethane	5.306	93	24167	20.35	ug/L		94
68) bromodichloromethane	5.421	83	51067	19.84	ug/L		100
69) cis-1,3-dichloropropene	5.761	75	63103	19.46	ug/L		97
70) epichlorohydrin	5.672	57	31673	93.91	ug/L		92
71) 4-methyl-2-pentanone	5.861	58	93466	80.25	ug/L		95
72) 3-methyl-1-butanol	5.880	70	37253	393.48	ug/L		96
75) toluene	6.047	92	90896	20.77	ug/L		99
76) trans-1,3-dichloropropene	6.217	75	57703	20.12	ug/L		99
77) ethyl methacrylate	6.236	69	61212	20.29	ug/L		99
78) 1,1,2-trichloroethane	6.387	83	30850	20.34	ug/L		100
79) 2-hexanone	6.551	58	93359	82.24	ug/L		98
80) tetrachloroethene	6.480	166	39486	20.58	ug/L		97
81) 1,3-dichloropropane	6.535	76	60805	21.06	ug/L		98
82) butyl acetate	6.634	56	37151	20.02	ug/L		99
83) dibromochloromethane	6.721	129	36146	20.05	ug/L		96
84) 1,2-dibromoethane	6.836	107	47505	20.50	ug/L		97
85) n-butyl ether	7.308	57	154312	20.39	ug/L		99
86) chlorobenzene	7.263	112	94680	20.35	ug/L		98
87) 1,1,1,2-tetrachloroethane	7.331	131	32151	20.85	ug/L		92
88) ethylbenzene	7.340	91	165607	21.49	ug/L		97
89) m,p-xylene	7.456	106	124380	42.33	ug/L		94

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VL9011\
Data File : L310728.D
Acq On : 3 Apr 2019 8:47 pm
Operator : juntaep
Sample : ic9011-20
Misc : MS33381,VL9011,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Apr 04 10:39:40 2019
Quant Method : C:\MSDCHEM\1\METHODS\ML9011.M
Quant Title : SW846 Method V8260C, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Thu Apr 04 10:38:58 2019
Response via : Initial Calibration

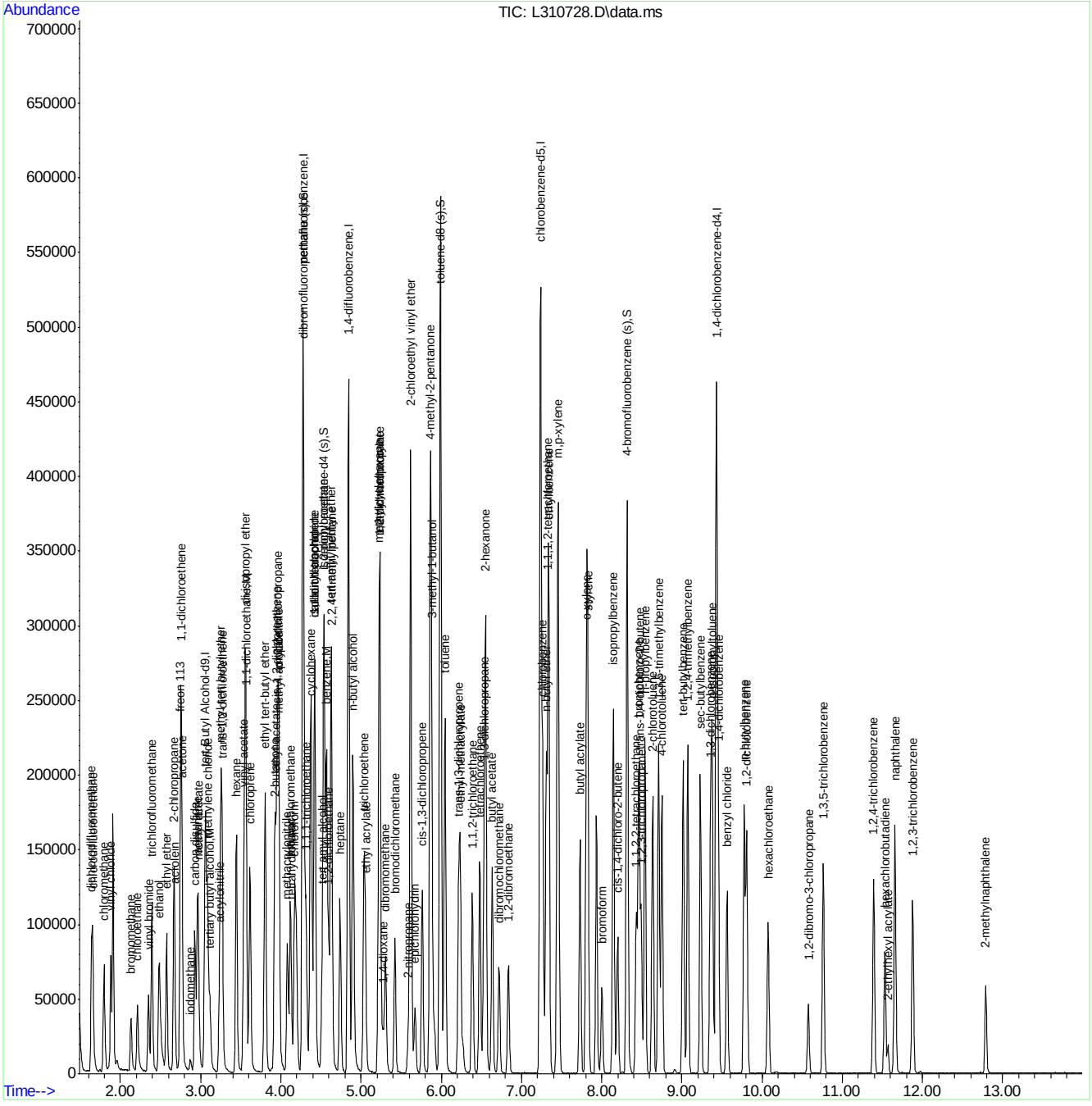
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
90) o-xylene	7.809	106	61917	20.77	ug/L	91
91) butyl acrylate	7.732	55	95470	19.69	ug/L	98
92) styrene	7.828	104	104184	21.23	ug/L	98
93) bromoform	8.001	173	26259	20.35	ug/L	98
94) isopropylbenzene	8.146	105	156622	21.13	ug/L	97
95) cis-1,4-dichloro-2-butene	8.200	88	19791	20.17	ug/L	94
98) bromobenzene	8.463	156	39262	19.79	ug/L	97
99) 1,1,2,2-tetrachloroethane	8.431	83	52567	19.30	ug/L	99
100) trans-1,4-dichloro-2-b...	8.470	53	15815	19.92	ug/L	92
101) 1,2,3-trichloropropane	8.492	110	14900	20.24	ug/L	95
102) n-propylbenzene	8.540	91	173807	20.46	ug/L	100
103) 2-chlorotoluene	8.637	126	35129	19.93	ug/L	97
104) 4-chlorotoluene	8.749	126	34904	20.27	ug/L	95
105) 1,3,5-trimethylbenzene	8.710	105	116927	20.04	ug/L	98
106) tert-butylbenzene	9.015	119	99401	19.85	ug/L	100
107) 1,2,4-trimethylbenzene	9.073	105	118331	20.27	ug/L	99
108) sec-butylbenzene	9.230	105	140394	20.15	ug/L	97
109) 1,3-dichlorobenzene	9.355	146	67978	20.18	ug/L	99
110) p-isopropyltoluene	9.378	119	113600	20.40	ug/L	99
111) 1,4-dichlorobenzene	9.455	146	65499	20.51	ug/L	99
112) 1,2-dichlorobenzene	9.808	146	64126	20.19	ug/L	97
113) n-butylbenzene	9.779	92	55193	19.26	ug/L	97
114) 1,2-dibromo-3-chloropr...	10.578	157	12622	17.84	ug/L	95
115) 1,3,5-trichlorobenzene	10.764	180	45450	19.47	ug/L	98
116) 1,2,4-trichlorobenzene	11.390	180	41806	19.21	ug/L	99
117) hexachlorobutadiene	11.531	225	16675	19.49	ug/L	96
118) naphthalene	11.656	128	133175	19.26	ug/L	100
119) 1,2,3-trichlorobenzene	11.878	180	38361	19.21	ug/L	96
120) hexachloroethane	10.074	119	19357	18.99	ug/L	94
121) benzyl chloride	9.564	91	87797	18.84	ug/L	99
122) 2-ethylhexyl acrylate	11.570	70	4736	3.53	ug/L	98
123) 2-methylnaphthalene	12.786	142	28048	8.53	ug/L	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VL9011\
Data File : L310728.D
Acq On : 3 Apr 2019 8:47 pm
Operator : juntaep
Sample : ic9011-20
Misc : MS33381,VL9011,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Apr 04 10:39:40 2019
Quant Method : C:\MSDCHEM\1\METHODS\ML9011.M
Quant Title : SW846 Method V8260C, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Thu Apr 04 10:38:58 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VL9011\
Data File : L310729.D
Acq On : 3 Apr 2019 9:15 pm
Operator : juntaep
Sample : icc9011-50
Misc : MS33381,VL9011,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Apr 04 10:39:43 2019
Quant Method : C:\MSDCHEM\1\METHODS\ML9011.M
Quant Title : SW846 Method V8260C, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Thu Apr 04 10:38:58 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert Butyl Alcohol-d9	3.060	65	174154	500.00	ug/L	0.00
5) pentafluorobenzene	4.273	168	204449	50.00	ug/L	0.00
52) 1,4-difluorobenzene	4.841	114	304007	50.00	ug/L	0.00
73) chlorobenzene-d5	7.238	117	266478	50.00	ug/L	0.00
96) 1,4-dichlorobenzene-d4	9.429	152	111968	50.00	ug/L	0.00
System Monitoring Compounds						
44) dibromofluoromethane (s)	4.282	113	87829	50.00	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.00%			
53) 1,2-dichloroethane-d4 (s)	4.536	65	97539	50.00	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 100.00%			
74) toluene-d8 (s)	5.989	98	344009	50.00	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.00%			
97) 4-bromofluorobenzene (s)	8.319	95	121124	50.00	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.00%			
Target Compounds						Qvalue
2) 1,4-dioxane	5.274	88	43117	1250.00	ug/L	100
3) ethanol	2.485	45	225701	5000.00	ug/L	100
4) tertiary butyl alcohol	3.114	59	103872	250.00	ug/L	100
6) chlorodifluoromethane	1.654	51	146307	50.00	ug/L	100
7) dichlorodifluoromethane	1.638	85	178578	50.00	ug/L	100
8) chloromethane	1.792	50	162095	50.00	ug/L	100
9) vinyl chloride	1.879	62	155045	50.00	ug/L	100
10) bromomethane	2.126	94	47775	50.00	ug/L	100
11) chloroethane	2.206	64	77105	50.00	ug/L	100
12) vinyl bromide	2.347	106	72385	50.00	ug/L	100
13) trichlorofluoromethane	2.389	101	166652	50.00	ug/L	100
14) ethyl ether	2.572	74	63933	50.00	ug/L	100
15) 2-chloropropane	2.665	43	186374	50.00	ug/L	100
16) acrolein	2.678	56	22137	50.00	ug/L	100
17) freon 113	2.745	151	72609	50.00	ug/L	100
18) 1,1-dichloroethene	2.752	96	90849	50.00	ug/L	100
19) acetone	2.768	58	55805	200.00	ug/L	100
20) acetonitrile	2.960	40	115510	500.00	ug/L	100
21) iodomethane	2.870	142	41298	50.00	ug/L	100
22) iso-butyl alcohol	4.423	43	78497	500.00	ug/L	100
23) carbon disulfide	2.928	76	241174	50.00	ug/L	100
24) methylene chloride	3.085	84	93305	50.00	ug/L	100
25) methyl acetate	2.973	74	24735	50.00	ug/L	100
26) methyl tert butyl ether	3.249	73	301264	50.00	ug/L	100
27) trans-1,2-dichloroethene	3.268	96	91889	50.00	ug/L	100
28) hexane	3.445	57	143788	50.00	ug/L	100
29) di-isopropyl ether	3.557	45	337885	50.00	ug/L	100
30) ethyl tert-butyl ether	3.801	59	321025	50.00	ug/L	100
31) 2-butanone	3.923	72	75201	200.00	ug/L	100
32) 1,1-dichloroethane	3.563	63	174331	50.00	ug/L	100
33) chloroprene	3.615	53	158176	50.00	ug/L	100
34) acrylonitrile	3.230	53	57620	50.00	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VL9011\
Data File : L310729.D
Acq On : 3 Apr 2019 9:15 pm
Operator : juntaep
Sample : icc9011-50
Misc : MS33381,VL9011,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Apr 04 10:39:43 2019
Quant Method : C:\MSDCHEM\1\METHODS\ML9011.M
Quant Title : SW846 Method V8260C, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Thu Apr 04 10:38:58 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
35) vinyl acetate	3.535	86	26035	50.00	ug/L	100
36) ethyl acetate	3.932	45	25872	50.00	ug/L	100
37) 2,2-dichloropropane	3.961	77	132384	50.00	ug/L	100
38) cis-1,2-dichloroethene	3.949	96	98251	50.00	ug/L	100
39) propionitrile	3.974	54	220151	500.00	ug/L	100
40) methyl acrylate	3.977	85	20086	50.00	ug/L	100
41) bromochloromethane	4.115	128	44084	50.00	ug/L	100
42) tetrahydrofuran	4.125	72	19992	50.00	ug/L	100
43) chloroform	4.170	83	159973	50.00	ug/L	100
45) methacrylonitrile	4.080	67	57113	50.00	ug/L	100
46) 1,1,1-trichloroethane	4.311	97	136213	50.00	ug/L	100
47) cyclohexane	4.369	84	121535	50.00	ug/L	100
48) 1,1-dichloropropene	4.417	75	127050	50.00	ug/L	100
49) carbon tetrachloride	4.423	117	110072	50.00	ug/L	100
50) isopropyl acetate	4.539	87	28021	50.00	ug/L	100
51) tert amyl alcohol	4.516	55	35678	250.00	ug/L	100
54) tert-amyl methyl ether	4.626	73	279219	50.00	ug/L	100
55) 2,2,4-trimethylpentane	4.629	57	222331	50.00	ug/L	100
56) n-butyl alcohol	4.902	56	264388	2500.00	ug/L	100
57) benzene	4.568	78	351733	50.00	ug/L	100
58) heptane	4.738	57	54737	50.00	ug/L	100
59) 1,2-dichloroethane	4.593	62	122406	50.00	ug/L	100
60) trichloroethene	5.036	95	93553	50.00	ug/L	100
61) ethyl acrylate	5.052	55	172897	50.00	ug/L	100
62) 2-nitropropane	5.588	41	39699	50.00	ug/L	100
63) 2-chloroethyl vinyl ether	5.617	63	376268	250.00	ug/L	100
64) methyl methacrylate	5.235	100	33110	50.00	ug/L	100
65) 1,2-dichloropropane	5.235	63	97077	50.00	ug/L	100
66) methylcyclohexane	5.222	83	140116	50.00	ug/L	100
67) dibromomethane	5.303	93	57332	50.00	ug/L	100
68) bromodichloromethane	5.421	83	124219	50.00	ug/L	100
69) cis-1,3-dichloropropene	5.762	75	156494	50.00	ug/L	100
70) epichlorohydrin	5.672	57	81398	250.00	ug/L	100
71) 4-methyl-2-pentanone	5.864	58	224865	200.00	ug/L	100
72) 3-methyl-1-butanol	5.880	70	91395	1000.00	ug/L	100
75) toluene	6.044	92	218107	50.00	ug/L	100
76) trans-1,3-dichloropropene	6.214	75	142954	50.00	ug/L	100
77) ethyl methacrylate	6.236	69	150368	50.00	ug/L	100
78) 1,1,2-trichloroethane	6.387	83	75591	50.00	ug/L	100
79) 2-hexanone	6.551	58	226317	200.00	ug/L	100
80) tetrachloroethene	6.480	166	95634	50.00	ug/L	100
81) 1,3-dichloropropane	6.535	76	143869	50.00	ug/L	100
82) butyl acetate	6.634	56	92500	50.00	ug/L	100
83) dibromochloromethane	6.721	129	89852	50.00	ug/L	100
84) 1,2-dibromoethane	6.837	107	115468	50.00	ug/L	100
85) n-butyl ether	7.308	57	377237	50.00	ug/L	100
86) chlorobenzene	7.263	112	231887	50.00	ug/L	100
87) 1,1,1,2-tetrachloroethane	7.334	131	76836	50.00	ug/L	100
88) ethylbenzene	7.340	91	384015	50.00	ug/L	100
89) m,p-xylene	7.456	106	292872	100.00	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VL9011\
Data File : L310729.D
Acq On : 3 Apr 2019 9:15 pm
Operator : juntaep
Sample : icc9011-50
Misc : MS33381,VL9011,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Apr 04 10:39:43 2019
Quant Method : C:\MSDCHEM\1\METHODS\ML9011.M
Quant Title : SW846 Method V8260C, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Thu Apr 04 10:38:58 2019
Response via : Initial Calibration

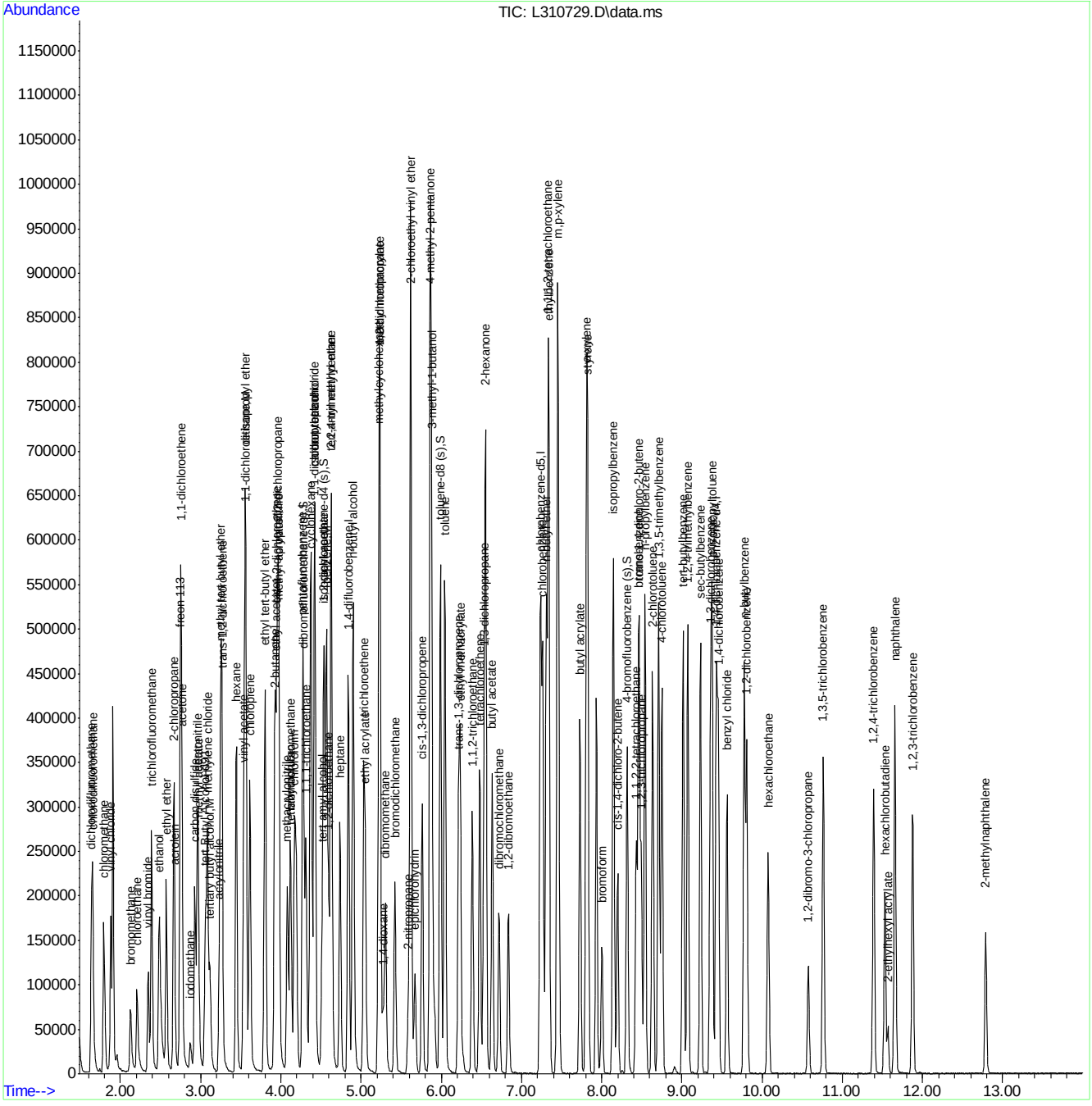
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
90) o-xylene	7.812	106	148599	50.00	ug/L	100
91) butyl acrylate	7.729	55	241656	50.00	ug/L	100
92) styrene	7.825	104	244529	50.00	ug/L	100
93) bromoform	8.001	173	64306	50.00	ug/L	100
94) isopropylbenzene	8.146	105	369418	50.00	ug/L	100
95) cis-1,4-dichloro-2-butene	8.200	88	48901	50.00	ug/L	100
98) bromobenzene	8.460	156	95321	50.00	ug/L	100
99) 1,1,2,2-tetrachloroethane	8.431	83	130847	50.00	ug/L	100
100) trans-1,4-dichloro-2-b...	8.467	53	38142	50.00	ug/L	100
101) 1,2,3-trichloropropane	8.496	110	35374	50.00	ug/L	100
102) n-propylbenzene	8.540	91	408106	50.00	ug/L	100
103) 2-chlorotoluene	8.634	126	84691	50.00	ug/L	100
104) 4-chlorotoluene	8.752	126	82743	50.00	ug/L	100
105) 1,3,5-trimethylbenzene	8.711	105	280252	50.00	ug/L	100
106) tert-butylbenzene	9.015	119	240534	50.00	ug/L	100
107) 1,2,4-trimethylbenzene	9.076	105	280508	50.00	ug/L	100
108) sec-butylbenzene	9.234	105	334721	50.00	ug/L	100
109) 1,3-dichlorobenzene	9.359	146	161814	50.00	ug/L	100
110) p-isopropyltoluene	9.378	119	267545	50.00	ug/L	100
111) 1,4-dichlorobenzene	9.455	146	153402	50.00	ug/L	100
112) 1,2-dichlorobenzene	9.808	146	152547	50.00	ug/L	100
113) n-butylbenzene	9.779	92	137650	50.00	ug/L	100
114) 1,2-dibromo-3-chloropr...	10.575	157	33981	50.00	ug/L	100
115) 1,3,5-trichlorobenzene	10.761	180	112143	50.00	ug/L	100
116) 1,2,4-trichlorobenzene	11.390	180	104573	50.00	ug/L	100
117) hexachlorobutadiene	11.534	225	41092	50.00	ug/L	100
118) naphthalene	11.656	128	332105	50.00	ug/L	100
119) 1,2,3-trichlorobenzene	11.878	180	95934	50.00	ug/L	100
120) hexachloroethane	10.074	119	48957	50.00	ug/L	100
121) benzyl chloride	9.564	91	223903	50.00	ug/L	100
122) 2-ethylhexyl acrylate	11.570	70	12891	10.00	ug/L	100
123) 2-methylnaphthalene	12.789	142	78980	25.00	ug/L	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VL9011\
Data File : L310729.D
Acq On : 3 Apr 2019 9:15 pm
Operator : juntaep
Sample : icc9011-50
Misc : MS33381,VL9011,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Apr 04 10:39:43 2019
Quant Method : C:\MSDCHEM\1\METHODS\ML9011.M
Quant Title : SW846 Method V8260C, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Thu Apr 04 10:38:58 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VL9011\
Data File : L310730.D
Acq On : 3 Apr 2019 9:42 pm
Operator : juntaep
Sample : ic9011-100
Misc : MS33381,VL9011,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Apr 04 10:39:46 2019
Quant Method : C:\MSDCHEM\1\METHODS\ML9011.M
Quant Title : SW846 Method V8260C, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Thu Apr 04 10:38:58 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert Butyl Alcohol-d9	3.066	65	151027	500.00	ug/L	0.00
5) pentafluorobenzene	4.276	168	193075	50.00	ug/L	0.00
52) 1,4-difluorobenzene	4.844	114	289234	50.00	ug/L	0.00
73) chlorobenzene-d5	7.238	117	258703	50.00	ug/L	0.00
96) 1,4-dichlorobenzene-d4	9.429	152	105014	50.00	ug/L	0.00
System Monitoring Compounds						
44) dibromofluoromethane (s)	4.286	113	82871	49.96	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.92%			
53) 1,2-dichloroethane-d4 (s)	4.536	65	92663	49.93	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 99.86%			
74) toluene-d8 (s)	5.989	98	325862	48.79	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.58%			
97) 4-bromofluorobenzene (s)	8.316	95	115392	50.79	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.58%			
Target Compounds						Qvalue
2) 1,4-dioxane	5.277	88	72965	2439.24	ug/L	96
3) ethanol	2.492	45	375090	9581.88	ug/L	98
4) tertiary butyl alcohol	3.121	59	173429	481.33	ug/L	95
6) chlorodifluoromethane	1.651	51	268267	97.08	ug/L	98
7) dichlorodifluoromethane	1.635	85	340240	100.88	ug/L	100
8) chloromethane	1.792	50	294256	96.11	ug/L	97
9) vinyl chloride	1.879	62	283113	96.68	ug/L	100
10) bromomethane	2.119	94	90270	100.04	ug/L	99
11) chloroethane	2.203	64	139668	95.91	ug/L	98
12) vinyl bromide	2.344	106	130299	95.31	ug/L	99
13) trichlorofluoromethane	2.386	101	303943	96.56	ug/L	100
14) ethyl ether	2.572	74	116168	96.20	ug/L	99
15) 2-chloropropane	2.665	43	328368	93.28	ug/L	99
16) acrolein	2.675	56	39469	94.40	ug/L	96
17) freon 113	2.748	151	127951	93.30	ug/L	99
18) 1,1-dichloroethene	2.752	96	158653	92.46	ug/L	96
19) acetone	2.768	58	96064	364.57	ug/L	96
20) acetonitrile	2.960	40	192318	881.51	ug/L	98
21) iodomethane	2.870	142	108476	139.07	ug/L	98
22) iso-butyl alcohol	4.430	43	128064	863.78	ug/L	98
23) carbon disulfide	2.928	76	437216	95.98	ug/L	99
24) methylene chloride	3.082	84	170409	96.70	ug/L	97
25) methyl acetate	2.970	74	42354	90.66	ug/L	97
26) methyl tert butyl ether	3.249	73	532770	93.63	ug/L	99
27) trans-1,2-dichloroethene	3.265	96	164001	94.50	ug/L	97
28) hexane	3.445	57	263271	96.94	ug/L	98
29) di-isopropyl ether	3.557	45	592377	92.82	ug/L	97
30) ethyl tert-butyl ether	3.804	59	575379	94.90	ug/L	99
31) 2-butanone	3.926	72	129092	363.55	ug/L	92
32) 1,1-dichloroethane	3.564	63	305972	92.93	ug/L	99
33) chloroprene	3.615	53	283509	94.90	ug/L	98
34) acrylonitrile	3.233	53	101439	93.21	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VL9011\
Data File : L310730.D
Acq On : 3 Apr 2019 9:42 pm
Operator : juntaep
Sample : ic9011-100
Misc : MS33381,VL9011,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Apr 04 10:39:46 2019
Quant Method : C:\MSDCHEM\1\METHODS\ML9011.M
Quant Title : SW846 Method V8260C, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Thu Apr 04 10:38:58 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
35) vinyl acetate	3.538	86	47258	96.11	ug/L	#	71
36) ethyl acetate	3.933	45	43874	89.79	ug/L		97
37) 2,2-dichloropropane	3.961	77	233076	93.22	ug/L		98
38) cis-1,2-dichloroethene	3.952	96	175358	94.50	ug/L		99
39) propionitrile	3.974	54	361664	869.79	ug/L		97
40) methyl acrylate	3.977	85	34889	91.97	ug/L	#	91
41) bromochloromethane	4.119	128	78023	93.71	ug/L		99
42) tetrahydrofuran	4.128	72	35813	94.84	ug/L		99
43) chloroform	4.170	83	282860	93.62	ug/L		99
45) methacrylonitrile	4.080	67	100627	93.28	ug/L		94
46) 1,1,1-trichloroethane	4.311	97	249810	97.10	ug/L		98
47) cyclohexane	4.369	84	223098	97.19	ug/L		98
48) 1,1-dichloropropene	4.420	75	227644	94.87	ug/L		98
49) carbon tetrachloride	4.423	117	198134	95.30	ug/L		98
50) isopropyl acetate	4.539	87	50701	95.80	ug/L	#	93
51) tert amyl alcohol	4.523	55	59072	438.31	ug/L	#	92
54) tert-amyl methyl ether	4.629	73	493476	92.88	ug/L		99
55) 2,2,4-trimethylpentane	4.629	57	398925	94.30	ug/L		98
56) n-butyl alcohol	4.908	56	438735	4360.48	ug/L		99
57) benzene	4.568	78	618315	92.38	ug/L		100
58) heptane	4.738	57	99817	95.84	ug/L		98
59) 1,2-dichloroethane	4.590	62	218494	93.81	ug/L		98
60) trichloroethene	5.036	95	171748	96.48	ug/L		99
61) ethyl acrylate	5.056	55	304070	92.43	ug/L		99
62) 2-nitropropane	5.592	41	78485	103.90	ug/L		88
63) 2-chloroethyl vinyl ether	5.620	63	647560	452.23	ug/L		98
64) methyl methacrylate	5.235	100	58990	93.63	ug/L		99
65) 1,2-dichloropropane	5.235	63	173147	93.74	ug/L		99
66) methylcyclohexane	5.223	83	251087	94.18	ug/L		98
67) dibromomethane	5.306	93	103652	95.01	ug/L		97
68) bromodichloromethane	5.425	83	230367	97.46	ug/L		98
69) cis-1,3-dichloropropene	5.765	75	284222	95.45	ug/L		97
70) epichlorohydrin	5.675	57	140158	452.46	ug/L		97
71) 4-methyl-2-pentanone	5.864	58	379806	355.06	ug/L		93
72) 3-methyl-1-butanol	5.887	70	147268	1693.64	ug/L		98
75) toluene	6.047	92	392459	92.67	ug/L		98
76) trans-1,3-dichloropropene	6.217	75	264511	95.30	ug/L		97
77) ethyl methacrylate	6.237	69	268838	92.08	ug/L		99
78) 1,1,2-trichloroethane	6.387	83	137403	93.62	ug/L		99
79) 2-hexanone	6.554	58	376156	342.41	ug/L		97
80) tetrachloroethene	6.480	166	172903	93.12	ug/L		98
81) 1,3-dichloropropane	6.535	76	260656	93.31	ug/L		99
82) butyl acetate	6.638	56	160478	89.35	ug/L		99
83) dibromochloromethane	6.724	129	169113	96.93	ug/L		99
84) 1,2-dibromoethane	6.840	107	213444	95.20	ug/L		99
85) n-butyl ether	7.312	57	660843	90.22	ug/L		99
86) chlorobenzene	7.267	112	419994	93.28	ug/L		98
87) 1,1,1,2-tetrachloroethane	7.334	131	137827	92.38	ug/L		97
88) ethylbenzene	7.340	91	664555	89.13	ug/L		98
89) m,p-xylene	7.456	106	515544	181.32	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VL9011\
Data File : L310730.D
Acq On : 3 Apr 2019 9:42 pm
Operator : juntaep
Sample : ic9011-100
Misc : MS33381,VL9011,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Apr 04 10:39:46 2019
Quant Method : C:\MSDCHEM\1\METHODS\ML9011.M
Quant Title : SW846 Method V8260C, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Thu Apr 04 10:38:58 2019
Response via : Initial Calibration

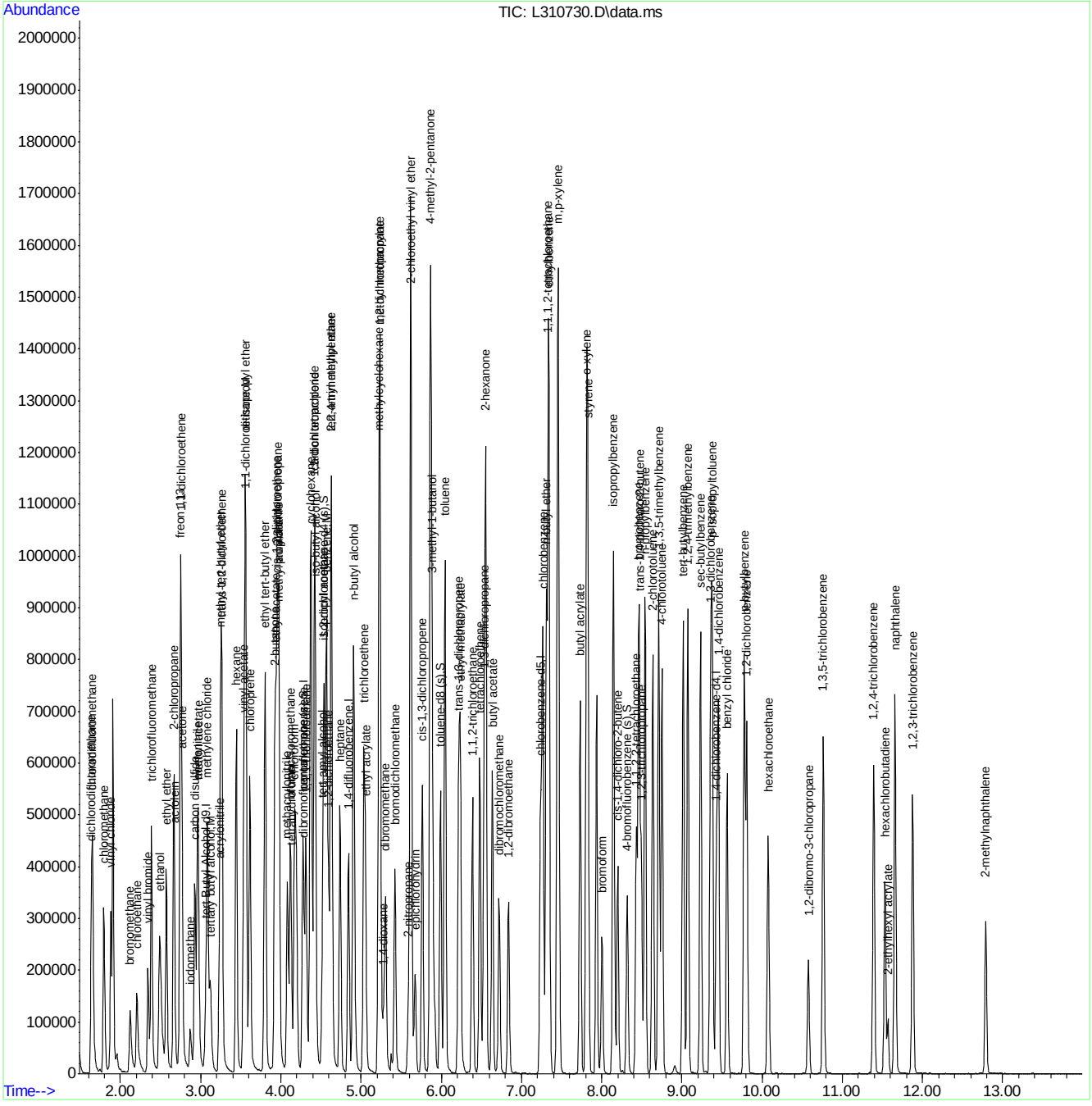
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
90)	o-xylene	7.812	106	262000	90.81	ug/L	98
91)	butyl acrylate	7.732	55	431139	91.89	ug/L	97
92)	styrene	7.828	104	423292	89.15	ug/L	99
93)	bromoform	8.005	173	118746	95.10	ug/L	99
94)	isopropylbenzene	8.146	105	646420	90.12	ug/L	98
95)	cis-1,4-dichloro-2-butene	8.200	88	86478	91.08	ug/L	97
98)	bromobenzene	8.464	156	171476	95.90	ug/L	98
99)	1,1,2,2-tetrachloroethane	8.431	83	234655	95.61	ug/L	97
100)	trans-1,4-dichloro-2-b...	8.470	53	67738	94.68	ug/L	99
101)	1,2,3-trichloropropane	8.496	110	61535	92.74	ug/L	99
102)	n-propylbenzene	8.544	91	706617	92.31	ug/L	98
103)	2-chlorotoluene	8.637	126	151535	95.39	ug/L	96
104)	4-chlorotoluene	8.752	126	146619	94.47	ug/L	97
105)	1,3,5-trimethylbenzene	8.711	105	488663	92.96	ug/L	100
106)	tert-butylbenzene	9.019	119	424617	94.11	ug/L	99
107)	1,2,4-trimethylbenzene	9.073	105	490539	93.23	ug/L	98
108)	sec-butylbenzene	9.234	105	586559	93.42	ug/L	99
109)	1,3-dichlorobenzene	9.359	146	290050	95.56	ug/L	99
110)	p-isopropyltoluene	9.378	119	464526	92.56	ug/L	97
111)	1,4-dichlorobenzene	9.455	146	279078	96.99	ug/L	98
112)	1,2-dichlorobenzene	9.808	146	269016	94.01	ug/L	99
113)	n-butylbenzene	9.776	92	247562	95.88	ug/L	99
114)	1,2-dibromo-3-chloropr...	10.578	157	61789	96.94	ug/L	93
115)	1,3,5-trichlorobenzene	10.761	180	207329	98.56	ug/L	99
116)	1,2,4-trichlorobenzene	11.390	180	197243	100.55	ug/L	99
117)	hexachlorobutadiene	11.531	225	75421	97.85	ug/L	96
118)	naphthalene	11.660	128	586512	94.15	ug/L	99
119)	1,2,3-trichlorobenzene	11.878	180	173102	96.19	ug/L	94
120)	hexachloroethane	10.078	119	92385	100.60	ug/L	98
121)	benzyl chloride	9.564	91	403044	95.96	ug/L	98
122)	2-ethylhexyl acrylate	11.570	70	26146	21.63	ug/L	94
123)	2-methylnaphthalene	12.789	142	149008	50.29	ug/L	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VL9011\
Data File : L310730.D
Acq On : 3 Apr 2019 9:42 pm
Operator : juntaep
Sample : ic9011-100
Misc : MS33381,VL9011,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Apr 04 10:39:46 2019
Quant Method : C:\MSDCHEM\1\METHODS\ML9011.M
Quant Title : SW846 Method V8260C, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Thu Apr 04 10:38:58 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VL9011\
Data File : L310731.D
Acq On : 3 Apr 2019 10:09 pm
Operator : juntaep
Sample : ic9011-200
Misc : MS33381,VL9011,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Apr 04 11:13:49 2019
Quant Method : C:\MSDCHEM\1\METHODS\ML9011.M
Quant Title : SW846 Method V8260C, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Thu Apr 04 10:38:58 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert Butyl Alcohol-d9	3.082	65	139337	500.00	ug/L	0.02
5) pentafluorobenzene	4.273	168	176700	50.00	ug/L	0.00
52) 1,4-difluorobenzene	4.844	114	271743	50.00	ug/L	0.00
73) chlorobenzene-d5	7.238	117	241034	50.00	ug/L	0.00
96) 1,4-dichlorobenzene-d4	9.433	152	94228	50.00	ug/L	0.00
System Monitoring Compounds						
44) dibromofluoromethane (s)	4.282	113	77076	50.77	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.54%			
53) 1,2-dichloroethane-d4 (s)	4.536	65	84815	48.64	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 97.28%			
74) toluene-d8 (s)	5.989	98	306429	49.24	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.48%			
97) 4-bromofluorobenzene (s)	8.319	95	105204	51.60	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 103.20%			
Target Compounds						Qvalue
2) 1,4-dioxane	5.283	88	138690	5025.43	ug/L	93
3) ethanol	2.508	45	613874	16997.41	ug/L	100
4) tertiary butyl alcohol	3.137	59	326368	981.78	ug/L	87
6) chlorodifluoromethane	1.651	51	491410	194.31	ug/L	96
7) dichlorodifluoromethane	1.635	85	622669	201.72	ug/L	100
8) chloromethane	1.795	50	534152	190.64	ug/L	96
9) vinyl chloride	1.882	62	502134	187.36	ug/L	99
11) chloroethane	2.196	64	226742	170.12	ug/L	99
12) vinyl bromide	2.341	106	234035	187.05	ug/L	98
13) trichlorofluoromethane	2.386	101	513898	178.40	ug/L	97
14) ethyl ether	2.572	74	214005	193.65	ug/L	92
15) 2-chloropropane	2.662	43	570417	177.06	ug/L	98
16) acrolein	2.678	56	74716	195.26	ug/L	93
17) freon 113	2.745	151	234103	186.52	ug/L	100
18) 1,1-dichloroethene	2.752	96	292349	186.17	ug/L	98
19) acetone	2.771	58	179737	745.32	ug/L	88
20) acetonitrile	2.960	40	365780	1831.97	ug/L	96
21) iodomethane	2.870	142	208035	291.42	ug/L	98
22) iso-butyl alcohol	4.443	43	253376	1867.37	ug/L	93
23) carbon disulfide	2.925	76	812996	195.02	ug/L	98
24) methylene chloride	3.082	84	312751	193.92	ug/L	100
25) methyl acetate	2.973	74	82335	192.57	ug/L	96
26) methyl tert butyl ether	3.252	73	935967	179.73	ug/L	96
27) trans-1,2-dichloroethene	3.265	96	297208	187.12	ug/L	99
28) hexane	3.442	57	477207	192.00	ug/L	98
29) di-isopropyl ether	3.557	45	1027104	175.86	ug/L	94
30) ethyl tert-butyl ether	3.801	59	1029192	185.47	ug/L	95
31) 2-butanone	3.926	72	240042	738.66	ug/L	92
32) 1,1-dichloroethane	3.563	63	540422	179.34	ug/L	100
33) chloroprene	3.615	53	509882	186.49	ug/L	98
34) acrylonitrile	3.233	53	193815	194.60	ug/L	99
35) vinyl acetate	3.538	86	92758	206.12	ug/L #	93

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VL9011\
Data File : L310731.D
Acq On : 3 Apr 2019 10:09 pm
Operator : juntaep
Sample : ic9011-200
Misc : MS33381,VL9011,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Apr 04 11:13:49 2019
Quant Method : C:\MSDCHEM\1\METHODS\ML9011.M
Quant Title : SW846 Method V8260C, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Thu Apr 04 10:38:58 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
36) ethyl acetate	3.936	45	84970	190.00	ug/L	#	49
37) 2,2-dichloropropane	3.961	77	422926	184.82	ug/L		99
38) cis-1,2-dichloroethene	3.949	96	314391	185.12	ug/L		98
39) propionitrile	3.981	54	648934	1705.29	ug/L		84
40) methyl acrylate	3.981	85	66274	190.88	ug/L	#	83
41) bromochloromethane	4.119	128	138101	181.23	ug/L		98
42) tetrahydrofuran	4.128	72	66183	191.52	ug/L		98
43) chloroform	4.170	83	513523	185.71	ug/L		98
45) methacrylonitrile	4.083	67	190037	192.50	ug/L		95
46) 1,1,1-trichloroethane	4.311	97	465598	197.75	ug/L		98
47) cyclohexane	4.369	84	405647	193.09	ug/L		98
48) 1,1-dichloropropene	4.417	75	412451	187.81	ug/L		97
49) carbon tetrachloride	4.423	117	364622	191.64	ug/L		99
50) isopropyl acetate	4.539	87	95327	196.81	ug/L	#	84
51) tert amyl alcohol	4.533	55	105377	854.35	ug/L	#	69
54) tert-amyl methyl ether	4.629	73	880600	176.41	ug/L		95
55) 2,2,4-trimethylpentane	4.629	57	738747	185.86	ug/L		98
56) n-butyl alcohol	4.918	56	833104	8812.98	ug/L		98
57) benzene	4.568	78	1086923	172.85	ug/L		97
58) heptane	4.738	57	192875	197.10	ug/L		98
59) 1,2-dichloroethane	4.590	62	400121	182.85	ug/L		99
60) trichloroethene	5.033	95	317686	189.95	ug/L		99
61) ethyl acrylate	5.056	55	550200	178.00	ug/L		99
62) 2-nitropropane	5.591	41	147131	207.31	ug/L		94
63) 2-chloroethyl vinyl ether	5.620	63	1114713	828.57	ug/L		94
64) methyl methacrylate	5.235	100	106896	180.59	ug/L		94
65) 1,2-dichloropropane	5.235	63	312417	180.02	ug/L		98
66) methylcyclohexane	5.222	83	463815	185.16	ug/L		99
67) dibromomethane	5.306	93	194398	189.67	ug/L		97
68) bromodichloromethane	5.425	83	429244	193.29	ug/L		100
69) cis-1,3-dichloropropene	5.765	75	521440	186.38	ug/L		96
70) epichlorohydrin	5.675	57	264190	907.75	ug/L		97
71) 4-methyl-2-pentanone	5.867	58	672559	669.21	ug/L	#	85
72) 3-methyl-1-butanol	5.893	70	282786	3461.47	ug/L		95
75) toluene	6.047	92	715071	181.23	ug/L		93
76) trans-1,3-dichloropropene	6.217	75	486826	188.25	ug/L		96
77) ethyl methacrylate	6.240	69	482861	177.51	ug/L		98
78) 1,1,2-trichloroethane	6.387	83	255814	187.07	ug/L		98
79) 2-hexanone	6.557	58	667397	652.05	ug/L		91
80) tetrachloroethene	6.480	166	318540	184.12	ug/L		98
81) 1,3-dichloropropane	6.535	76	468033	179.83	ug/L		97
82) butyl acetate	6.638	56	298234	178.22	ug/L		96
83) dibromochloromethane	6.721	129	309751	190.56	ug/L		99
84) 1,2-dibromoethane	6.840	107	393868	188.56	ug/L		99
85) n-butyl ether	7.311	57	1144255	167.67	ug/L		96
86) chlorobenzene	7.267	112	757789	180.64	ug/L		95
87) 1,1,1,2-tetrachloroethane	7.337	131	245067	176.31	ug/L		96
88) ethylbenzene	7.340	91	1132956	163.09	ug/L		94
89) m,p-xylene	7.456	106	904844	341.57	ug/L		91
90) o-xylene	7.812	106	468053	174.11	ug/L		94

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VL9011\
Data File : L310731.D
Acq On : 3 Apr 2019 10:09 pm
Operator : juntaep
Sample : ic9011-200
Misc : MS33381,VL9011,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Apr 04 11:13:49 2019
Quant Method : C:\MSDCHEM\1\METHODS\ML9011.M
Quant Title : SW846 Method V8260C, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Thu Apr 04 10:38:58 2019
Response via : Initial Calibration

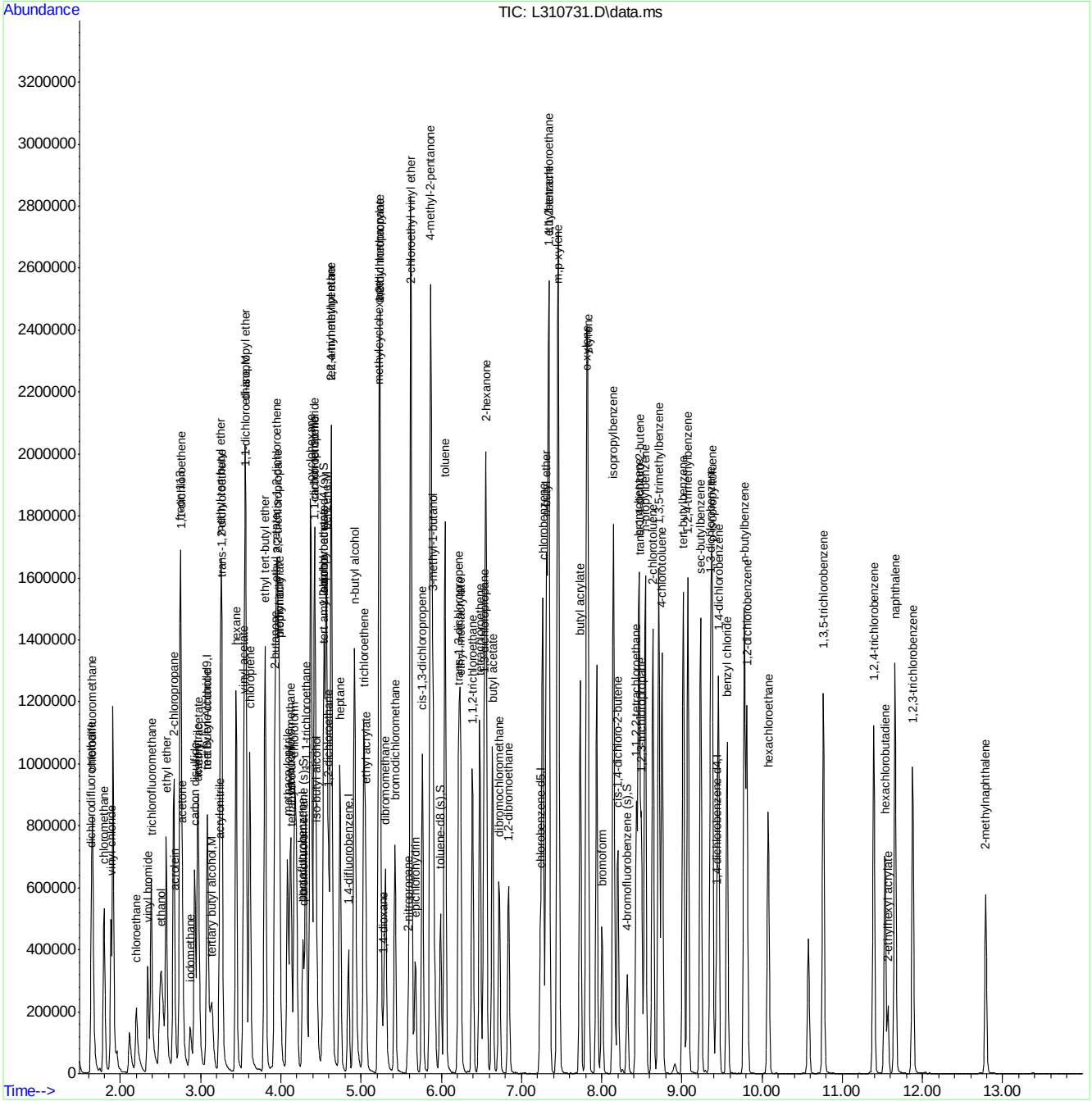
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
91) butyl acrylate	7.732	55	772022	176.60	ug/L	95
92) styrene	7.828	104	738058	166.84	ug/L	96
93) bromoform	8.008	173	217985	187.38	ug/L	97
94) isopropylbenzene	8.146	105	1116905	167.13	ug/L	95
95) cis-1,4-dichloro-2-butene	8.204	88	160205	181.10	ug/L	99
98) bromobenzene	8.463	156	303528	189.19	ug/L	98
99) 1,1,2,2-tetrachloroethane	8.435	83	430834	195.63	ug/L	98
100) trans-1,4-dichloro-2-b...	8.470	53	123318	192.09	ug/L	97
101) 1,2,3-trichloropropane	8.496	110	112750	189.37	ug/L	97
102) n-propylbenzene	8.544	91	1211685	176.40	ug/L	94
103) 2-chlorotoluene	8.637	126	274973	192.90	ug/L	92
104) 4-chlorotoluene	8.752	126	262292	188.34	ug/L	96
105) 1,3,5-trimethylbenzene	8.711	105	853348	180.91	ug/L	97
106) tert-butylbenzene	9.019	119	753968	186.23	ug/L	98
107) 1,2,4-trimethylbenzene	9.076	105	846336	179.26	ug/L	95
108) sec-butylbenzene	9.234	105	1028971	182.64	ug/L	98
109) 1,3-dichlorobenzene	9.359	146	511229	187.71	ug/L	97
110) p-isopropyltoluene	9.381	119	801525	177.99	ug/L	96
111) 1,4-dichlorobenzene	9.455	146	497955	192.86	ug/L	97
112) 1,2-dichlorobenzene	9.811	146	477289	185.89	ug/L	99
113) n-butylbenzene	9.779	92	459197	198.20	ug/L	96
115) 1,3,5-trichlorobenzene	10.764	180	380573	201.63	ug/L	98
116) 1,2,4-trichlorobenzene	11.393	180	362250	205.81	ug/L	98
117) hexachlorobutadiene	11.534	225	144388	208.77	ug/L	98
118) naphthalene	11.660	128	1042895	186.57	ug/L	96
119) 1,2,3-trichlorobenzene	11.878	180	322316	199.62	ug/L	96
120) hexachloroethane	10.078	119	176728	214.47	ug/L	98
121) benzyl chloride	9.564	91	746989	198.22	ug/L	96
122) 2-ethylhexyl acrylate	11.570	70	53326	49.15	ug/L	92
123) 2-methylnaphthalene	12.789	142	289989	109.07	ug/L	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VL9011\
Data File : L310731.D
Acq On : 3 Apr 2019 10:09 pm
Operator : juntaep
Sample : ic9011-200
Misc : MS33381,VL9011,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Apr 04 11:13:49 2019
Quant Method : C:\MSDCHEM\1\METHODS\ML9011.M
Quant Title : SW846 Method V8260C, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Thu Apr 04 10:38:58 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VL9011\
Data File : L310734.D
Acq On : 3 Apr 2019 11:30 pm
Operator : juntaep
Sample : icv9011-50
Misc : MS33381,VL9011,5,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Apr 04 11:25:26 2019
Quant Method : C:\MSDCHEM\1\METHODS\ML9011.M
Quant Title : SW846 Method V8260C, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Thu Apr 04 11:19:15 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert Butyl Alcohol-d9	3.060	65	166177	500.00	ug/L	0.00
5) pentafluorobenzene	4.273	168	196118	50.00	ug/L	0.00
52) 1,4-difluorobenzene	4.844	114	290492	50.00	ug/L	0.00
73) chlorobenzene-d5	7.238	117	256499	50.00	ug/L	0.00
96) 1,4-dichlorobenzene-d4	9.432	152	108719	50.00	ug/L	0.00
System Monitoring Compounds						
44) dibromofluoromethane (s)	4.282	113	84112	52.33	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 104.66%			
53) 1,2-dichloroethane-d4 (s)	4.536	65	93450	48.15	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 96.30%			
74) toluene-d8 (s)	5.989	98	326320	47.31	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 94.62%			
97) 4-bromofluorobenzene (s)	8.316	95	116356	50.76	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.52%			
Target Compounds						Qvalue
2) 1,4-dioxane	5.277	88	42163	1274.06	ug/L	95
3) ethanol	2.485	45	231994	5533.16	ug/L	99
4) tertiary butyl alcohol	3.117	59	102533	257.39	ug/L	96
6) chlorodifluoromethane	1.651	51	164633	64.48	ug/L	99
7) dichlorodifluoromethane	1.635	85	178271	58.06	ug/L	99
8) chloromethane	1.792	50	167238	58.55	ug/L	97
9) vinyl chloride	1.879	62	154060	55.62	ug/L	98
10) bromomethane	2.126	94	54704	63.39	ug/L	97
11) chloroethane	2.209	64	79699	57.02	ug/L	97
12) vinyl bromide	2.347	106	75049	59.56	ug/L	99
13) trichlorofluoromethane	2.389	101	168333	57.43	ug/L	98
14) ethyl ether	2.575	74	64737	58.01	ug/L	98
15) 2-chloropropane	2.665	43	199622	59.52	ug/L	99
16) acrolein	2.674	56	30208	74.33	ug/L	94
17) freon 113	2.745	151	81982	61.74	ug/L	99
18) 1,1-dichloroethene	2.755	96	86849	51.93	ug/L	95
19) acetone	2.768	58	55026	209.76	ug/L	98
21) iodomethane	2.873	142	37233	66.72	ug/L	97
22) iso-butyl alcohol	4.427	43	78354	540.00	ug/L	94
23) carbon disulfide	2.928	76	271161	60.36	ug/L	99
24) methylene chloride	3.082	84	90926	53.00	ug/L	96
25) methyl acetate	2.970	74	24773	56.82	ug/L	89
26) methyl tert butyl ether	3.252	73	571277	105.13	ug/L	98
27) trans-1,2-dichloroethene	3.268	96	89618	53.65	ug/L	95
28) hexane	3.445	57	146117	56.43	ug/L	97
29) di-isopropyl ether	3.557	45	328526	52.32	ug/L	99
30) ethyl tert-butyl ether	3.801	59	311599	52.21	ug/L	99
31) 2-butanone	3.923	72	74168	223.91	ug/L	92
32) 1,1-dichloroethane	3.563	63	175854	55.01	ug/L	97
33) chloroprene	3.615	53	162468	55.91	ug/L	99
34) acrylonitrile	3.233	53	62144	60.14	ug/L	96
35) vinyl acetate	3.538	86	24830	51.85	ug/L #	82

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VL9011\
Data File : L310734.D
Acq On : 3 Apr 2019 11:30 pm
Operator : juntaep
Sample : icv9011-50
Misc : MS33381,VL9011,5,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Apr 04 11:25:26 2019
Quant Method : C:\MSDCHEM\1\METHODS\ML9011.M
Quant Title : SW846 Method V8260C, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Thu Apr 04 11:19:15 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
36) ethyl acetate	3.936	45	25351	56.38	ug/L #	65
37) 2,2-dichloropropane	3.964	77	126816	50.40	ug/L	98
38) cis-1,2-dichloroethene	3.952	96	96595	52.66	ug/L	97
39) propionitrile	3.974	54	219084	536.08	ug/L	99
40) methyl acrylate	3.977	85	20433	55.20	ug/L	96
41) bromochloromethane	4.118	128	45567	54.92	ug/L	97
42) tetrahydrofuran	4.125	72	20995	55.24	ug/L	96
43) chloroform	4.173	83	158525	51.96	ug/L	99
45) methacrylonitrile	4.080	67	57331	56.12	ug/L	95
46) 1,1,1-trichloroethane	4.314	97	135401	55.22	ug/L	99
47) cyclohexane	4.369	84	135223	58.87	ug/L	94
48) 1,1-dichloropropene	4.417	75	128271	55.89	ug/L	97
49) carbon tetrachloride	4.423	117	111586	54.18	ug/L	97
50) isopropyl acetate	4.539	87	26590	52.83	ug/L	96
51) tert amyl alcohol	4.520	55	36533	288.57	ug/L	97
54) tert-amyl methyl ether	4.625	73	269992	49.26	ug/L	99
55) 2,2,4-trimethylpentane	4.629	57	229002	50.68	ug/L	97
56) n-butyl alcohol	4.901	56	260529	2767.68	ug/L	98
57) benzene	4.568	78	355210	50.80	ug/L	98
58) heptane	4.738	57	62502	61.66	ug/L	94
59) 1,2-dichloroethane	4.593	62	122416	49.96	ug/L	100
60) trichloroethene	5.036	95	95017	54.41	ug/L	98
61) ethyl acrylate	5.052	55	172747	55.78	ug/L	99
62) 2-nitropropane	5.591	41	43745	59.30	ug/L	90
63) 2-chloroethyl vinyl ether	5.617	63	388996	271.49	ug/L	100
64) methyl methacrylate	5.235	100	32038	53.71	ug/L	94
65) 1,2-dichloropropane	5.235	63	93881	51.77	ug/L	98
66) methylcyclohexane	5.226	83	136042	49.03	ug/L	99
67) dibromomethane	5.306	93	54831	50.41	ug/L	96
68) bromodichloromethane	5.421	83	121572	52.61	ug/L	96
69) cis-1,3-dichloropropene	5.765	75	154607	52.97	ug/L	98
70) epichlorohydrin	5.672	57	81495	282.38	ug/L	99
71) 4-methyl-2-pentanone	5.864	58	223050	213.72	ug/L	99
72) 3-methyl-1-butanol	5.880	70	91077	1119.73	ug/L	97
75) toluene	6.047	92	216131	49.39	ug/L	100
76) trans-1,3-dichloropropene	6.217	75	144511	53.04	ug/L	100
77) ethyl methacrylate	6.236	69	152240	54.12	ug/L	99
78) 1,1,2-trichloroethane	6.387	83	74727	51.77	ug/L	97
79) 2-hexanone	6.554	58	224105	203.29	ug/L	96
81) 1,3-dichloropropane	6.532	76	144374	49.97	ug/L	98
82) butyl acetate	6.637	56	89791	50.47	ug/L	98
83) dibromochloromethane	6.721	129	92308	53.13	ug/L	100
84) 1,2-dibromoethane	6.840	107	115650	49.83	ug/L	99
85) n-butyl ether	7.308	57	387846	55.13	ug/L	100
86) chlorobenzene	7.266	112	234628	50.17	ug/L	98
87) 1,1,1,2-tetrachloroethane	7.334	131	77259	51.58	ug/L	96
88) ethylbenzene	7.340	91	381532	49.68	ug/L	99
89) m,p-xylene	7.456	106	289322	97.12	ug/L	100
90) o-xylene	7.812	106	146426	49.73	ug/L	95
91) butyl acrylate	7.732	55	237495	54.91	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VL9011\
Data File : L310734.D
Acq On : 3 Apr 2019 11:30 pm
Operator : juntaep
Sample : icv9011-50
Misc : MS33381,VL9011,5,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Apr 04 11:25:26 2019
Quant Method : C:\MSDCHEM\1\METHODS\ML9011.M
Quant Title : SW846 Method V8260C, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Thu Apr 04 11:19:15 2019
Response via : Initial Calibration

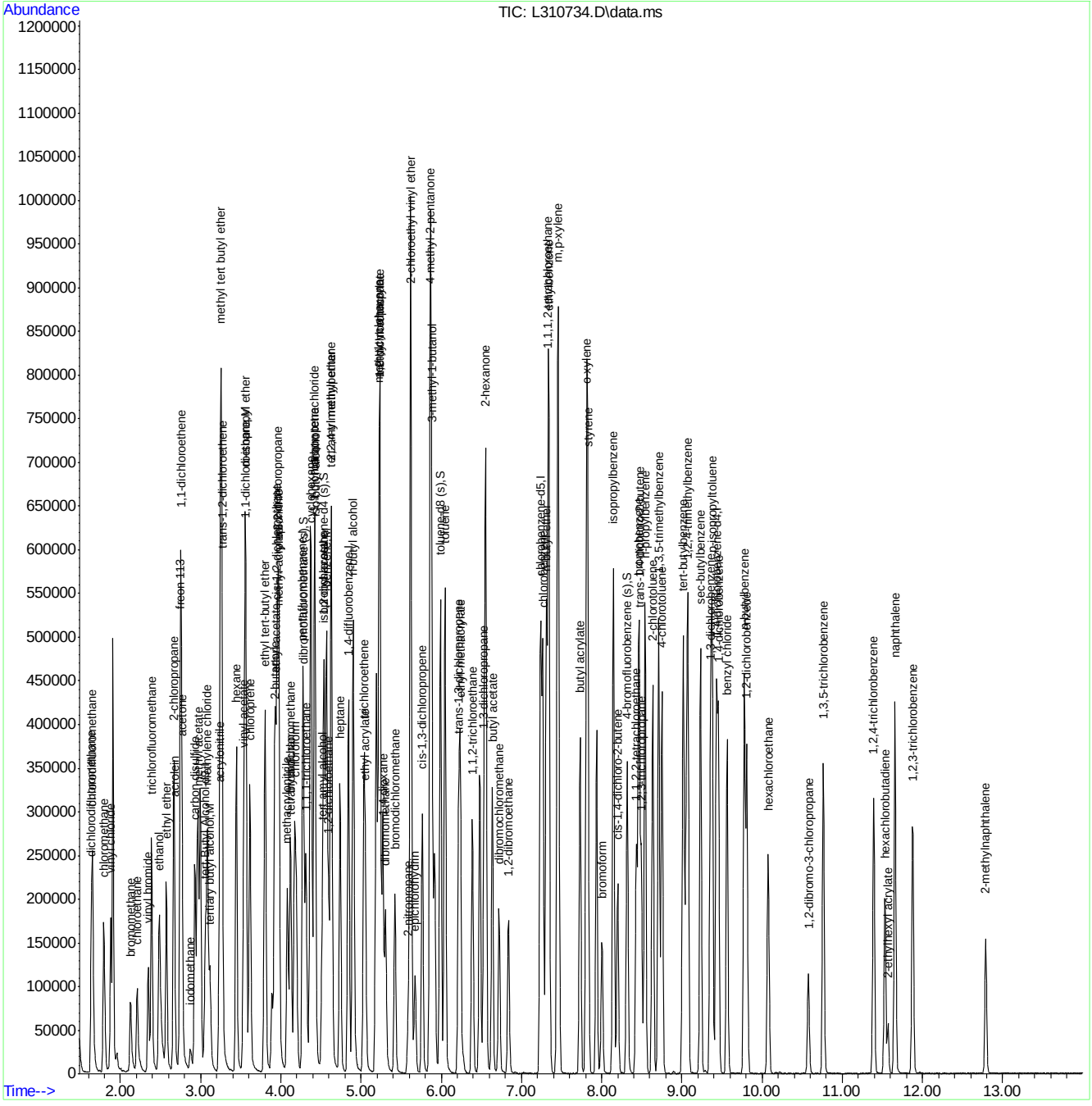
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
92) styrene	7.828	104	243438	51.31	ug/L	99
93) bromoform	8.004	173	69793	57.69	ug/L	98
94) isopropylbenzene	8.146	105	367859	50.89	ug/L	100
95) cis-1,4-dichloro-2-butene	8.200	88	48356	53.98	ug/L	98
98) bromobenzene	8.463	156	94716	53.08	ug/L	97
99) 1,1,2,2-tetrachloroethane	8.431	83	130849	55.37	ug/L	99
100) trans-1,4-dichloro-2-b...	8.470	53	42249	60.21	ug/L	95
101) 1,2,3-trichloropropane	8.495	110	34756	51.14	ug/L	100
102) n-propylbenzene	8.540	91	408670	51.93	ug/L	100
103) 2-chlorotoluene	8.637	126	83441	51.67	ug/L	97
104) 4-chlorotoluene	8.752	126	83867	53.84	ug/L	94
105) 1,3,5-trimethylbenzene	8.710	105	275086	52.14	ug/L	99
106) tert-butylbenzene	9.018	119	248403	54.31	ug/L	98
107) 1,2,4-trimethylbenzene	9.076	105	276100	51.83	ug/L	97
108) sec-butylbenzene	9.233	105	334106	51.97	ug/L	99
109) 1,3-dichlorobenzene	9.355	146	163591	51.33	ug/L	99
110) p-isopropyltoluene	9.378	119	268824	52.08	ug/L	98
111) 1,4-dichlorobenzene	9.455	146	155148	52.43	ug/L	98
112) 1,2-dichlorobenzene	9.808	146	151976	52.27	ug/L	97
113) n-butylbenzene	9.779	92	137649	54.35	ug/L	99
114) 1,2-dibromo-3-chloropr...	10.578	157	32637	57.22	ug/L	91
115) 1,3,5-trichlorobenzene	10.764	180	114196	53.83	ug/L	99
116) 1,2,4-trichlorobenzene	11.390	180	103381	53.20	ug/L	98
117) hexachlorobutadiene	11.534	225	41886	54.97	ug/L	95
118) naphthalene	11.656	128	328854	56.43	ug/L	99
119) 1,2,3-trichlorobenzene	11.878	180	94164	52.58	ug/L	96
120) hexachloroethane	10.074	119	51523	58.53	ug/L	96
121) benzyl chloride	9.564	91	270907	67.31	ug/L	100
122) 2-ethylhexyl acrylate	11.573	70	14566	11.83	ug/L	97
123) 2-methylnaphthalene	12.789	142	77561	28.19	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VL9011\
Data File : L310734.D
Acq On : 3 Apr 2019 11:30 pm
Operator : juntaep
Sample : icv9011-50
Misc : MS33381,VL9011,5,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Apr 04 11:25:26 2019
Quant Method : C:\MSDCHEM\1\METHODS\ML9011.M
Quant Title : SW846 Method V8260C, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Thu Apr 04 11:19:15 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VL9011\
Data File : L310735.D
Acq On : 3 Apr 2019 11:57 pm
Operator : juntaep
Sample : icv9011-50
Misc : MS33381,VL9011,5,,,,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Apr 04 11:17:09 2019
Quant Method : C:\MSDCHEM\1\METHODS\ML9011.M
Quant Title : SW846 Method V8260C, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Thu Apr 04 11:15:15 2019
Response via : Initial Calibration

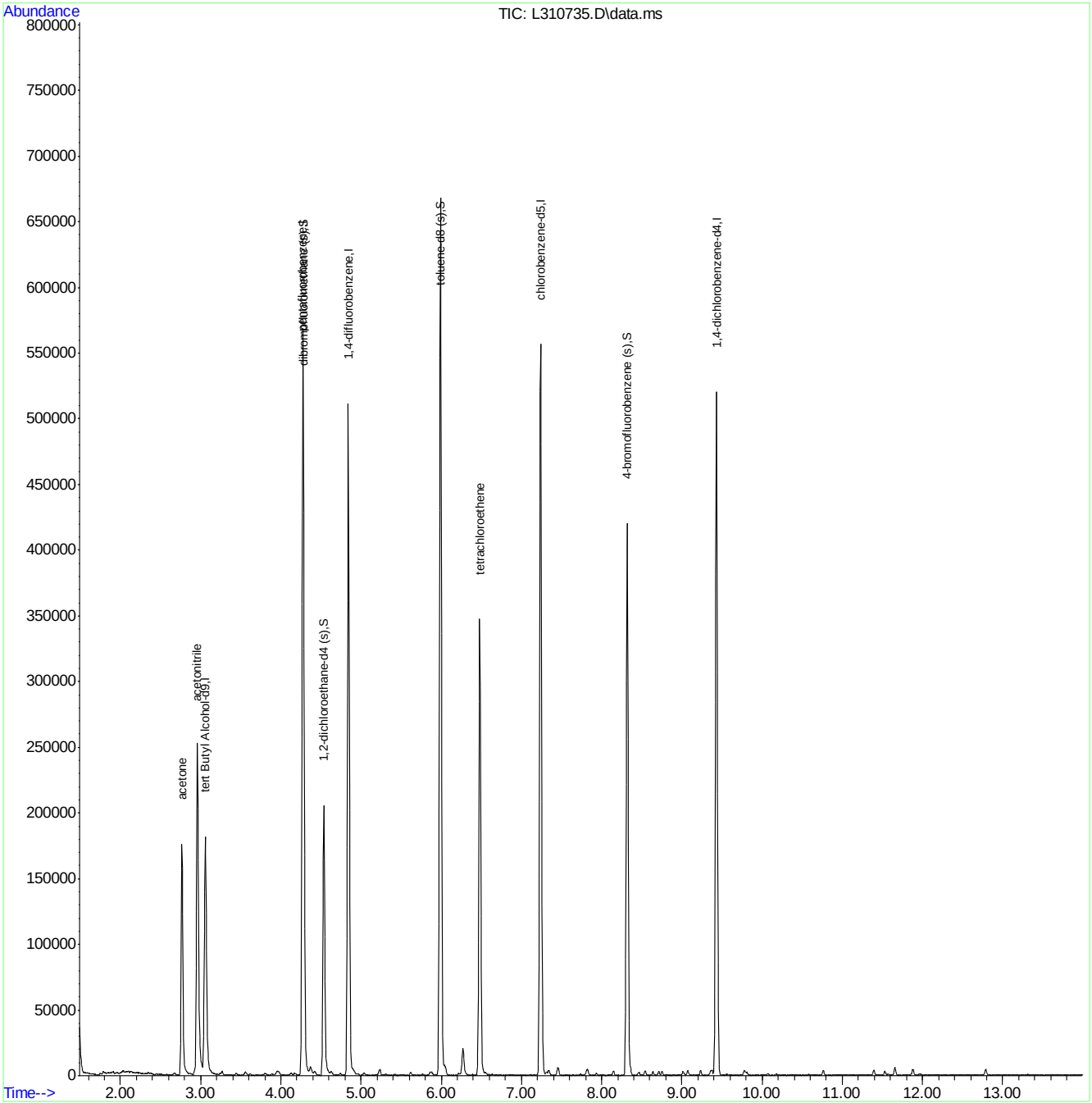
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert Butyl Alcohol-d9	3.057	65	190457	500.00	ug/L	0.00
5) pentafluorobenzene	4.273	168	241402	50.00	ug/L	0.00
52) 1,4-difluorobenzene	4.841	114	344787	50.00	ug/L	0.00
73) chlorobenzene-d5	7.238	117	284522	50.00	ug/L	0.00
96) 1,4-dichlorobenzene-d4	9.433	152	133761	50.00	ug/L	0.00
System Monitoring Compounds						
44) dibromofluoromethane (s)	4.282	113	102484	51.80	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 103.60%			
53) 1,2-dichloroethane-d4 (s)	4.536	65	119363	51.82	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 103.64%			
74) toluene-d8 (s)	5.989	98	401920	52.53	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 105.06%			
97) 4-bromofluorobenzene (s)	8.319	95	137681	48.82	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.64%			
Target Compounds						Qvalue
19) acetone	2.765	58	53567	165.89	ug/L	98
20) acetonitrile	2.957	40	132898	516.29	ug/L	97
80) tetrachloroethene	6.480	166	98313	46.39	ug/L	94

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VL9011\
Data File : L310735.D
Acq On : 3 Apr 2019 11:57 pm
Operator : juntaep
Sample : icv9011-50
Misc : MS33381,VL9011,5,,,,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Apr 04 11:17:09 2019
Quant Method : C:\MSDCHEM\1\METHODS\ML9011.M
Quant Title : SW846 Method V8260C, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Thu Apr 04 11:15:15 2019
Response via : Initial Calibration



ML9011.M Mon Apr 08 07:46:07 2019 1 Page: 2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VL9051\
Data File : L311555.D
Acq On : 30 Apr 2019 6:26 am
Operator : brittank
Sample : cc9011-20
Misc : MS34348,VL9051,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 30 11:00:42 2019
Quant Method : C:\MSDCHEM\1\METHODS\ML9011.M
Quant Title : SW846 Method V8260C, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Thu Apr 04 11:19:15 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert Butyl Alcohol-d9	3.066	65	146738	500.00	ug/L		0.00
5) pentafluorobenzene	4.285	168	205395	50.00	ug/L		0.01
52) 1,4-difluorobenzene	4.853	114	276947	50.00	ug/L		0.01
73) chlorobenzene-d5	7.244	117	239511	50.00	ug/L		0.00
96) 1,4-dichlorobenzene-d4	9.432	152	106335	50.00	ug/L		0.00
System Monitoring Compounds							
44) dibromofluoromethane (s)	4.295	113	74316	44.15	ug/L		0.01
Spiked Amount 50.000	Range 80 - 120		Recovery = 88.30%				
53) 1,2-dichloroethane-d4 (s)	4.545	65	82218	44.44	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 88.88%				
74) toluene-d8 (s)	5.999	98	306439	47.58	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 95.16%				
97) 4-bromofluorobenzene (s)	8.319	95	109565	48.87	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.74%				
Target Compounds							Qvalue
2) 1,4-dioxane	5.283	88	18445	631.20	ug/L		89
3) ethanol	2.488	45	89828	2426.26	ug/L		93
4) tertiary butyl alcohol	3.124	59	40266	114.47	ug/L		98
6) chlorodifluoromethane	1.654	51	54573	20.41	ug/L		95
7) dichlorodifluoromethane	1.638	85	65392	20.33	ug/L		100
8) chloromethane	1.792	50	59491	19.89	ug/L		97
9) vinyl chloride	1.879	62	69069	23.81	ug/L		99
10) bromomethane	2.135	94	17160	18.99	ug/L		98
11) chloroethane	2.212	64	36987	25.27	ug/L		95
12) vinyl bromide	2.353	106	26761	20.28	ug/L		99
13) trichlorofluoromethane	2.395	101	61932	20.17	ug/L		97
14) ethyl ether	2.581	74	27308	23.37	ug/L		94
15) 2-chloropropane	2.674	43	67614	19.25	ug/L		99
16) acrolein	2.684	56	9024	21.20	ug/L		85
17) freon 113	2.755	151	29370	21.12	ug/L		91
18) 1,1-dichloroethene	2.764	96	37255	21.27	ug/L		90
19) acetone	2.774	58	22499	81.89	ug/L	#	81
20) acetonitrile	2.966	40	42968	196.19	ug/L		97
21) iodomethane	2.877	142	4451	7.62	ug/L		95
22) iso-butyl alcohol	4.430	43	30100	198.07	ug/L		93
23) carbon disulfide	2.934	76	102701	21.83	ug/L		97
24) methylene chloride	3.092	84	38998	21.70	ug/L		91
25) methyl acetate	2.979	74	10472	22.94	ug/L	#	74
26) methyl tert butyl ether	3.262	73	124447	21.87	ug/L		95
27) trans-1,2-dichloroethene	3.274	96	39138	22.37	ug/L		97
28) hexane	3.454	57	50276	18.54	ug/L		94
29) di-isopropyl ether	3.566	45	134310	20.42	ug/L		98
30) ethyl tert-butyl ether	3.810	59	130186	20.83	ug/L		97
31) 2-butanone	3.932	72	29767	85.81	ug/L		97
32) 1,1-dichloroethane	3.573	63	69409	20.73	ug/L		97
33) chloroprene	3.624	53	59208	19.46	ug/L		94
34) acrylonitrile	3.239	53	22722	21.00	ug/L		97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VL9051\
Data File : L311555.D
Acq On : 30 Apr 2019 6:26 am
Operator : brittank
Sample : cc9011-20
Misc : MS34348,VL9051,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 30 11:00:42 2019
Quant Method : C:\MSDCHEM\1\METHODS\ML9011.M
Quant Title : SW846 Method V8260C, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Thu Apr 04 11:19:15 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
35) vinyl acetate	3.547	86	11275	22.48	ug/L	#	91
36) ethyl acetate	3.945	45	8909	18.92	ug/L	#	50
37) 2,2-dichloropropane	3.971	77	53653	20.36	ug/L		98
38) cis-1,2-dichloroethene	3.958	96	40999	21.34	ug/L		93
39) propionitrile	3.984	54	88216	206.11	ug/L		99
40) methyl acrylate	3.990	85	8766	22.61	ug/L	#	68
41) bromochloromethane	4.128	128	19379	22.30	ug/L	#	85
42) tetrahydrofuran	4.134	72	8481	21.31	ug/L	#	83
43) chloroform	4.183	83	64539	20.20	ug/L		96
45) methacrylonitrile	4.090	67	23275	21.75	ug/L		97
46) 1,1,1-trichloroethane	4.324	97	51390	20.01	ug/L		96
47) cyclohexane	4.382	84	50889	21.15	ug/L		92
48) 1,1-dichloropropene	4.430	75	47038	19.57	ug/L		94
49) carbon tetrachloride	4.433	117	41933	19.44	ug/L		96
50) isopropyl acetate	4.548	87	11534	21.88	ug/L	#	72
51) tert amyl alcohol	4.526	55	14392	108.55	ug/L		92
54) tert-amyl methyl ether	4.635	73	115648	22.13	ug/L		95
55) 2,2,4-trimethylpentane	4.638	57	81406	18.90	ug/L		97
56) n-butyl alcohol	4.911	56	101612	1132.25	ug/L		93
57) benzene	4.577	78	146097	21.91	ug/L		96
58) heptane	4.751	57	18739	19.39	ug/L		90
59) 1,2-dichloroethane	4.600	62	46631	19.96	ug/L		95
60) trichloroethene	5.046	95	36800	22.11	ug/L		94
61) ethyl acrylate	5.062	55	67690	22.93	ug/L		97
62) 2-nitropropane	5.598	41	11609	16.51	ug/L		89
63) 2-chloroethyl vinyl ether	5.627	63	148530	108.73	ug/L		98
64) methyl methacrylate	5.245	100	14078	24.75	ug/L	#	81
65) 1,2-dichloropropane	5.245	63	38753	22.42	ug/L		99
66) methylcyclohexane	5.232	83	49359	18.66	ug/L		97
67) dibromomethane	5.312	93	23537	22.70	ug/L		93
68) bromodichloromethane	5.434	83	48982	22.23	ug/L		97
69) cis-1,3-dichloropropene	5.771	75	62950	22.62	ug/L		96
70) epichlorohydrin	5.681	57	31254	113.59	ug/L		98
71) 4-methyl-2-pentanone	5.870	58	89353	89.80	ug/L		97
72) 3-methyl-1-butanol	5.886	70	37126	478.76	ug/L		97
75) toluene	6.053	92	89918	22.01	ug/L		95
76) trans-1,3-dichloropropene	6.223	75	55245	21.71	ug/L		97
77) ethyl methacrylate	6.243	69	61527	23.42	ug/L		95
78) 1,1,2-trichloroethane	6.394	83	31303	23.22	ug/L		97
79) 2-hexanone	6.560	58	90594	88.01	ug/L		93
80) tetrachloroethene	6.483	166	39862	22.34	ug/L		88
81) 1,3-dichloropropane	6.538	76	59760	22.15	ug/L		100
82) butyl acetate	6.641	56	36488	21.96	ug/L		94
83) dibromochloromethane	6.727	129	36187	22.31	ug/L		95
84) 1,2-dibromoethane	6.843	107	51152	23.60	ug/L		96
85) n-butyl ether	7.314	57	145848	22.20	ug/L		98
86) chlorobenzene	7.270	112	94322	21.60	ug/L		98
87) 1,1,1,2-tetrachloroethane	7.340	131	32073	22.93	ug/L		93
88) ethylbenzene	7.347	91	159559	22.25	ug/L		98
89) m,p-xylene	7.459	106	123085	44.25	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VL9051\
Data File : L311555.D
Acq On : 30 Apr 2019 6:26 am
Operator : brittank
Sample : cc9011-20
Misc : MS34348,VL9051,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 30 11:00:42 2019
Quant Method : C:\MSDCHEM\1\METHODS\ML9011.M
Quant Title : SW846 Method V8260C, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Thu Apr 04 11:19:15 2019
Response via : Initial Calibration

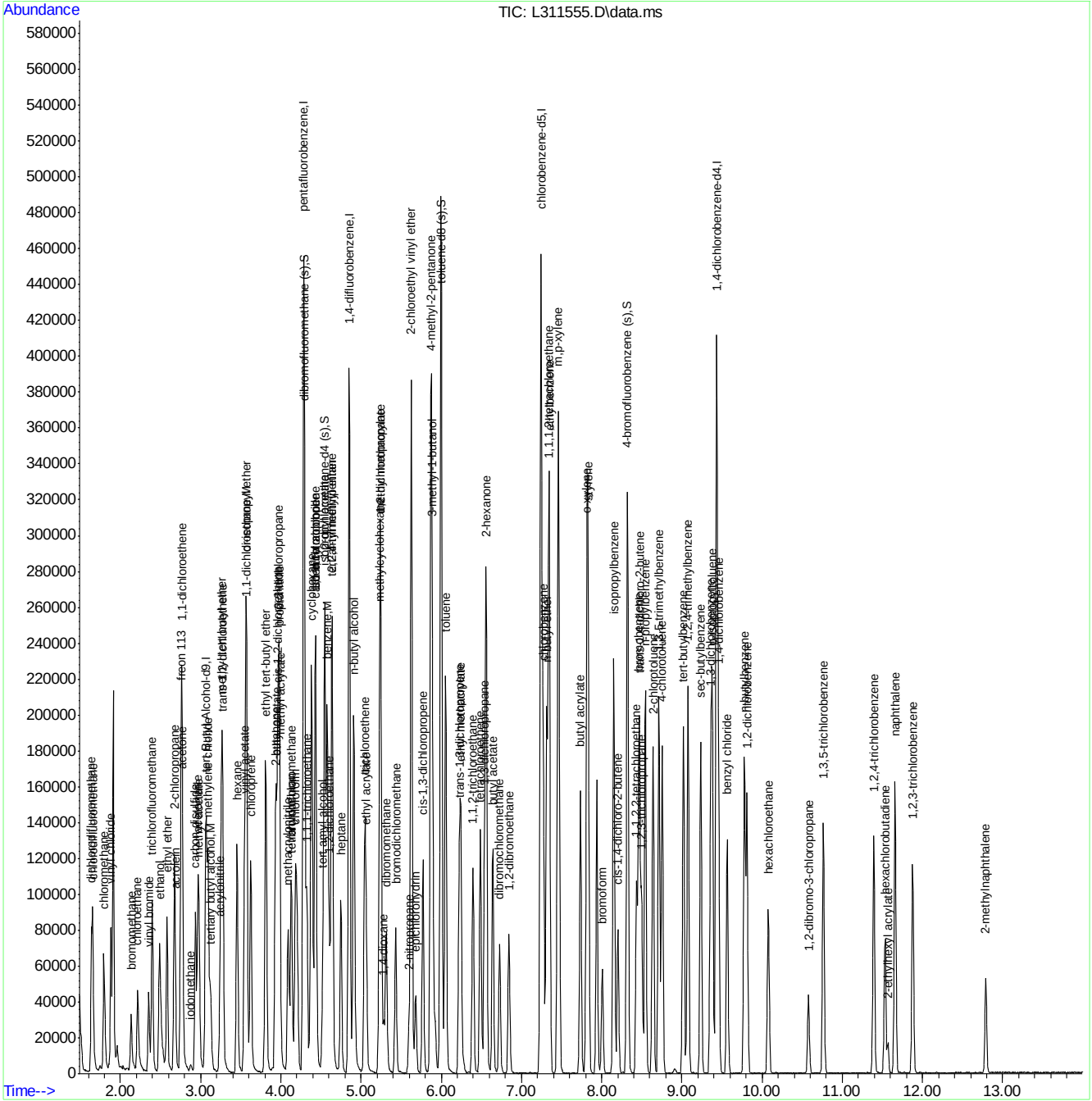
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
90) o-xylene	7.815	106	61845	22.49	ug/L	98
91) butyl acrylate	7.735	55	92725	22.96	ug/L	99
92) styrene	7.831	104	107084	24.17	ug/L	95
93) bromoform	8.008	173	27038	23.93	ug/L	98
94) isopropylbenzene	8.149	105	151010	22.37	ug/L	97
95) cis-1,4-dichloro-2-butene	8.203	88	17597	21.04	ug/L	98
98) bromobenzene	8.466	156	41479	23.77	ug/L	93
99) 1,1,2,2-tetrachloroethane	8.434	83	53792	23.27	ug/L	99
100) trans-1,4-dichloro-2-b...	8.470	53	13571	19.77	ug/L	97
101) 1,2,3-trichloropropane	8.499	110	15158	22.80	ug/L	98
102) n-propylbenzene	8.543	91	166182	21.59	ug/L	97
103) 2-chlorotoluene	8.643	126	35082	22.21	ug/L	86
104) 4-chlorotoluene	8.755	126	35502	23.30	ug/L	94
105) 1,3,5-trimethylbenzene	8.714	105	115484	22.38	ug/L	99
106) tert-butylbenzene	9.018	119	96454	21.56	ug/L	96
107) 1,2,4-trimethylbenzene	9.076	105	116683	22.40	ug/L	100
108) sec-butylbenzene	9.237	105	133804	21.28	ug/L	98
109) 1,3-dichlorobenzene	9.362	146	69715	22.36	ug/L	98
110) p-isopropyltoluene	9.381	119	111526	22.09	ug/L	98
111) 1,4-dichlorobenzene	9.455	146	66274	22.90	ug/L	99
112) 1,2-dichlorobenzene	9.811	146	66089	23.24	ug/L	99
113) n-butylbenzene	9.779	92	53817	21.73	ug/L	98
114) 1,2-dibromo-3-chloropr...	10.578	157	13057	23.41	ug/L	96
115) 1,3,5-trichlorobenzene	10.764	180	46360	22.34	ug/L	97
116) 1,2,4-trichlorobenzene	11.393	180	43526	22.90	ug/L	96
117) hexachlorobutadiene	11.534	225	16940	22.73	ug/L	96
118) naphthalene	11.659	128	133658	23.45	ug/L	100
119) 1,2,3-trichlorobenzene	11.878	180	39790	22.72	ug/L	99
120) hexachloroethane	10.074	119	17344	20.14	ug/L	95
121) benzyl chloride	9.567	91	92454	23.49	ug/L	98
122) 2-ethylhexyl acrylate	11.573	70	4962	4.12	ug/L	88
123) 2-methylnaphthalene	12.789	142	26147	9.71	ug/L	92

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\VL9051\
Data File : L311555.D
Acq On : 30 Apr 2019 6:26 am
Operator : brittank
Sample : cc9011-20
Misc : MS34348,VL9051,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 30 11:00:42 2019
Quant Method : C:\MSDCHEM\1\METHODS\ML9011.M
Quant Title : SW846 Method V8260C, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Thu Apr 04 11:19:15 2019
Response via : Initial Calibration



GCMS Volatile Run Log

Standard / Reagents	Lot #				Column	Rxi-624(60mx0.25mmx1.4um)
Standard	ABK: V018-2648-40.35	EC: V019-2648-53.11	Acrolein: V019-2648-21.5	3rd Acetone V019-26	Method	V8260C
Standard Concentration	100-10,000ppm	100ppm	100ppm	400ppm	Init Calib Date	4/3/2019
Standard	Ext. ABK: V019-2648-52.1	Ext. EC: V019-2648-47.7	Ext. Acrolein: V019-2648-	PA: V019-2648-22.3		
Standard Concentration	100-10,000ppm	100ppm	100ppm	100/1000ppm		
Internal Surrogate	V019-2648-31				Analysis Date	4/3/2019
Internal Surrogate Concentration	50/500ppm				Sequence loaded by	Austin Park
					Data processed by	.Robert Szot
Prepped by	Prashant S				Batch ID	VL9011
					Matrix	AQ
Initial Calibration Method	ML9011				Approved By:	KANYAV
					Approved Date:	4/5/2019 6:24:19 PM

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	CL	pH	ALS #	Status	Comments
I	310721	BFB		NA		V8260 AQ Initial Cal.	5			1	ok	
I	310722	IC9011-0.2		NA		V8260 AQ Initial Cal.	5			2	ok	0.2uL ABK, EC, Acrolein/100mL DI H2O.
I	310723	IC9011-0.5		NA		V8260 AQ Initial Cal.	5			3	ok	0.5uL ABK, EC, Acrolein/100mL DI H2O.
I	310724	IC9011-1		NA		V8260 AQ Initial Cal.	5			4	ok	1uL ABK, EC, Acrolein/100mL DI H2O.
I	310725	IC9011-2		NA		V8260 AQ Initial Cal.	5			5	ok	2uL ABK, EC, Acrolein/100mL DI H2O.
I	310726	IC9011-4		NA		V8260 AQ Initial Cal.	5			6	ok	4uL ABK, EC, Acrolein/100mL DI H2O.
I	310727	IC9011-8		NA		V8260 AQ Initial Cal.	5			7	ok	8uL ABK, EC, Acrolein/100mL DI H2O.
I	310728	IC9011-20		NA		V8260 AQ Initial Cal.	5			8	ok	20uL ABK, EC, Acrolein/100mL DI H2O.
I	310729	ICC9011-50		NA		V8260 AQ Initial Cal.	5			9	ok	50uL ABK, EC, Acrolein/100mL DI H2O.
I	310730	IC9011-100		NA		V8260 AQ Initial Cal.	5			10	ok	100uL ABK, EC, Acrolein/100mL DI H2O.
I	310731	IC9011-200		NA		V8260 AQ Initial Cal.	5			11	ok	200uL ABK, EC, Acrolein/100mL DI H2O.

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	CL	pH	ALS #	Status	Comments
I	310732	IB		NA		V8260 AQ Initial Cal.	5			12	ok	
I	310733	IB		NA		V8260 AQ Initial Cal.	5			13	ok	
I	310734	ICV9011-50		NA		V8260 AQ Initial Cal.	5			14	ok	50uL Ext. ABK, EC, Acrolein/100mL DI H2O.
I	310735	ICV9011-50		NA		V8260 AQ Initial Cal.	5			15	ok	50uL PA, 3rd Acetone/100mL DI H2O.

GCMS Volatile Run Log

Standard / Reagents	Lot #				Column	Rxi-624(60mx0.25mmx1.4um)
Standard	ABK: V019-2648-72.35	EC: V019-2648-82.7	Acrolein: V019-2648-54.55		Method	V8260C
Standard Concentration	100-10,000ppm	100ppm	100ppm		Init Calib Date	4/2/2019
Internal Surrogate	V019-2648-64					
Internal Surrogate Concentration	50/500ppm					
					Analysis Date	4/30/2019
					Sequence loaded by	Krizhka Cuenta
					Data processed by	nizele
					Batch ID	VL9051
					Matrix	AQ
Initial Calibration Method	ML9011				Approved By:	MOHUI
pH Paper Lot#	217518				Approved Date:	5/6/2019 4:35:57 PM

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	CL	pH	ALS #	Status	Comments
L	311554	IB		NA			5			1	ok	
L	311555	BFB/CC9011-20		NA			5			2	ok/ok	20uL ABK, EC, Acrolein/100mL (6:26 am) # 2,3,11, 92 high
L	311556	BS		NA			5			3	ok	50uL ABK, EC, Acrolein/100mL
L	311557	IB		NA			5			4	ok	
L	311558	MB		NA			5			5	ok	
L	311559	JC87064-7	2	NA	MS34347	V8260BTXM	5		1	6	ok	
L	311560	JC87064-3	2	50X	MS34347	V8260BTXM	1/50		1	7	ok	
L	311561	JC87064-6	2	NA	MS34347	V8260BTXM	5		1	8	ok	
L	311562	IB		NA			5			9	ok	btx c/o
L	311563	JC87067-3	2	NA	MS34355	V8260TCL20+	5		1	10	ok	
L	311564	JC87121-1	7	NA	MS34348	V8260BTX	5		1	11	ok	

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	CL	pH	ALS #	Status	Comments
L	311565	JC87121-2	9	NA	MS34348	V8260BTX	5		1	12	ok	
L	311566	JC87067-1	2	NA	MS34355	V8260TCL20+	5		1	13	ok	
L	311567	JC87067-2	2	NA	MS34355	V8260TCL20+	5		1	14	ok	
L	311568	JC87064-10	2	NA	MS34347	V8260BTXM	5		1	15	ok	+2B169414
L	311569	JC87067-2MS	1	NA	MS34355	V8260TCL20+	5		1	16	ok	20uL ABK, EC, Acrolein/40mL
L	311570	JC87064-13	2	200X	MS34347	V8260BTXM	0.25/50		1	17	ok	+2B169415
L	311571	JC87121-2DUP	8	NA	MS34348	V8260BTX	5		1	18	ok	
L	311572	JC87067-8	1	NA	MS34355	V8260TCL20+	5		1	19	ok	
L	311573	JC87067-9	2	NA	MS34355	V8260TCL20+	5		1	20	ok	
L	311574	JC87067-4	1	NA	MS34355	V8260TCL20+	5		1	21	ok	
L	311575	JC87067-5	1	NA	MS34355	V8260TCL20+	5		1	22	ok	
L	311576	JC87067-6	1	NA	MS34355	V8260TCL20+	5		1	23	ok	
L	311577	JC87067-7	1	NA	MS34355	V8260TCL20+	5		1	24	ok	4:46 pm

Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Instrument Runlogs
- Initial and Continuing Calibration Blanks
- Initial and Continuing Calibration Checks
- High and Low Check Standards
- Interfering Element Check Standards
- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries
- IDL and Linear Range Summaries

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC87121
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA043019M1L.CSV Date Analyzed: 04/30/19 Methods: EPA 200.8, SW846 6020B
Analyst: GT Run ID: MA46617
Parameters: As,Ba,Fe,Pb

Time	Sample Description	Dilution Factor	PS Recov	Comments
16:52	MA46617-STD1	1		STDA
16:57	MA46617-STD2	1		STDA
17:02	MA46617-STD3	1		STDA
17:07	MA46617-STD4	1		STDA
17:12	MA46617-STD5	1		STDB
17:17	MA46617-STD6	1		STDC
17:22	MA46617-STD7	1		STDD
17:27	MA46617-STD8	1		STDE
17:32	MA46617-STD9	1		STDF
17:37	MA46617-STD10	1		STDG
17:42	MA46617-STD11	1		STDH
17:47	MA46617-STD12	1		STDI
17:52	MA46617-STD13	1		STDJ
17:57	ZZZZZZ	1		
18:02	MA46617-ICVA1	1		
18:07	MA46617-ICV1	1		60ppb Al.
18:12	MA46617-ICB1	1		
18:17	MA46617-CCVA1	1		
18:22	MA46617-CCB1	1		
18:27	MA46617-CRI1	1		Al, Cd and Cu out
18:33	MA46617-ICSA1	1		
18:37	MA46617-ICSAB1	1		
18:42	MA46617-CCVA2	1		
18:47	MA46617-CCB2	1		
18:53	MP14655-MB1	2		
18:58	MP14655-B1	2		
19:03	MP14655-S1	2		
19:08	MP14655-S2	2		
19:13	JC87016-1	2		(sample used for QC only; not part of login JC87121)
19:18	MP14655-SD1	10		
19:23	ZZZZZZ	2		
19:28	ZZZZZZ	2		
19:33	MP14655-PS1	2		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC87121
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA043019M1L.CSV Date Analyzed: 04/30/19 Methods: EPA 200.8, SW846 6020B
Analyst: GT Run ID: MA46617
Parameters: As,Ba,Fe,Pb

Time	Sample Description	Dilution Factor	PS Recov	Comments
19:38	MA46617-CCVA3	1		
19:43	MA46617-CCB3	1		
19:48	ZZZZZZ	5		
19:53	ZZZZZZ	5		
19:58	MP14608-S1	10		
20:03	MP14608-S2	10		
20:08	ZZZZZZ	10		
20:13	ZZZZZZ	20		
20:18	ZZZZZZ	20		
20:23	ZZZZZZ	2		
20:28	ZZZZZZ	2		
20:33	MA46617-CCVA4	1		
20:38	MA46617-CCB4	1		
20:43	ZZZZZZ	5		
20:48	ZZZZZZ	5		
20:53	ZZZZZZ	5		
20:58	ZZZZZZ	5		
21:03	ZZZZZZ	5		
21:09	MP14627-MB1	1		
21:14	MP14627-B1	1		
21:19	MP14627-S1	1		
21:23	MP14627-S2	1		
21:29	MA46617-CCVA5	1		
21:34	MA46617-CCB5	1		
21:39	JC87047-1	1		(sample used for QC only; not part of login JC87121)
21:44	ZZZZZZ	1		
21:49	ZZZZZZ	1		
21:54	ZZZZZZ	1		
21:59	MP14645-MB1	2		Batch to reanalysis for Al, Cd and Cu, CRI out
22:04	MP14645-B1	2		
22:09	MP14645-B2	2		
22:14	MP14645-S1	2		
22:19	MP14645-S2	2		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC87121
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA043019M1L.CSV Date Analyzed: 04/30/19 Methods: EPA 200.8, SW846 6020B
Analyst: GT Run ID: MA46617
Parameters: As,Ba,Fe,Pb

Time	Sample Description	Dilution Factor	PS Recov	Comments
22:24	MA46617-CCVA6	1		
22:29	MA46617-CCB6	1		
22:34	JC87142-4	2		(sample used for QC only; not part of login JC87121)
22:39	MP14645-SD1	10		
22:44	ZZZZZZ	2		
22:49	ZZZZZZ	2		
22:54	ZZZZZZ	2		
22:59	ZZZZZZ	2		
23:04	ZZZZZZ	2		
23:09	ZZZZZZ	2		
23:14	JC87121-1	2		
23:19	MA46617-CCVA7	1		
23:24	MA46617-CCB7	1		
23:29	JC87121-2	2		
---------->	Last reportable sample/prep for job JC87121			
23:34	ZZZZZZ	2		
23:39	ZZZZZZ	2		
23:44	ZZZZZZ	2		
23:49	ZZZZZZ	2		
23:54	ZZZZZZ	2		
23:59	ZZZZZZ	2		
00:04	ZZZZZZ	2		
00:09	ZZZZZZ	2		
00:14	MA46617-CCVA8	1		
00:19	MA46617-CCB8	1		
---------->	Last reportable CCB for job JC87121			
00:24	ZZZZZZ	2		
00:29	ZZZZZZ	2		
00:34	ZZZZZZ	1		
00:39	ZZZZZZ	1		
00:45	ZZZZZZ	1		
00:50	MA46617-CCVA9	1		
00:55	MA46617-CCB9	1		
01:00	ZZZZZZ	1		
01:05	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC87121
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA043019M1L.CSV Date Analyzed: 04/30/19 Methods: EPA 200.8, SW846 6020B
Analyst: GT Run ID: MA46617
Parameters: As,Ba,Fe,Pb

Time	Sample Description	Dilution Factor	PS Recov	Comments
01:10	ZZZZZZ	1		

Refer to raw data for calibration curve and standards.

REPORTED ELEMENTS SUMMARY

Login Number: JC87121
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA043019M1L.CSV Date Analyzed: 04/30/19 Methods: EPA 200.8, SW846 6020B
Analyst: GT Run ID: MA46617
Parameters: As,Ba,Fe,Pb

Time	Sample Description	Element: Dilution	As	Ba	Fe	Pb	
17:57	ZZZZZZ	1					
18:02	MA46617-ICVA1	1	X	X	X	X	
18:07	MA46617-ICV1	1					
18:12	MA46617-ICB1	1	X	X	X	X	
18:17	MA46617-CCVA1	1	X	X	X	X	
18:22	MA46617-CCB1	1	X	X	X	X	
18:27	MA46617-CRI1	1	X	X	X	X	
18:33	MA46617-ICSA1	1	X	X	X	X	
18:37	MA46617-ICSAB1	1	X	X	X	X	
18:42	MA46617-CCVA2	1	X	X	X	X	
18:47	MA46617-CCB2	1	X	X	X	X	
18:53	MP14655-MB1	2				X	
18:58	MP14655-B1	2				X	
19:03	MP14655-S1	2				X	
19:08	MP14655-S2	2				X	
19:13	JC87016-1	2				X	(a)
19:18	MP14655-SD1	10				X	
19:23	ZZZZZZ	2					
19:28	ZZZZZZ	2					
19:33	MP14655-PS1	2				X	
19:38	MA46617-CCVA3	1	X	X	X	X	
19:43	MA46617-CCB3	1	X	X	X	X	
19:48	ZZZZZZ	5					
19:53	ZZZZZZ	5					
19:58	MP14608-S1	10				X	
20:03	MP14608-S2	10				X	
20:08	ZZZZZZ	10					
20:13	ZZZZZZ	20					
20:18	ZZZZZZ	20					
20:23	ZZZZZZ	2					
20:28	ZZZZZZ	2					
20:33	MA46617-CCVA4	1	X	X	X	X	
20:38	MA46617-CCB4	1	X	X	X	X	
		Element:	As	Ba	Fe	Pb	

REPORTED ELEMENTS SUMMARY

Login Number: JC87121
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA043019M1L.CSV Date Analyzed: 04/30/19 Methods: EPA 200.8, SW846 6020B
Analyst: GT Run ID: MA46617
Parameters: As,Ba,Fe,Pb

Time	Sample Description	Element: Dilution	As	Ba	Fe	Pb	
20:43	ZZZZZZ	5					
20:48	ZZZZZZ	5					
20:53	ZZZZZZ	5					
20:58	ZZZZZZ	5					
21:03	ZZZZZZ	5					
21:09	MP14627-MB1	1			X		
21:14	MP14627-B1	1			X		
21:19	MP14627-S1	1			X		
21:23	MP14627-S2	1			X		
21:29	MA46617-CCVA5	1	X	X	X	X	
21:34	MA46617-CCB5	1	X	X	X	X	
21:39	JC87047-1	1			X		(a)
21:44	ZZZZZZ	1					
21:49	ZZZZZZ	1					
21:54	ZZZZZZ	1					
21:59	MP14645-MB1	2	X	X	X	X	
22:04	MP14645-B1	2	X	X	X	X	
22:09	MP14645-B2	2	X	X	X	X	
22:14	MP14645-S1	2	X	X	X	X	
22:19	MP14645-S2	2	X	X	X	X	
22:24	MA46617-CCVA6	1	X	X	X	X	
22:29	MA46617-CCB6	1	X	X	X	X	
22:34	JC87142-4	2				X	(a)
22:39	MP14645-SD1	10	X	X	X	X	
22:44	ZZZZZZ	2					
22:49	ZZZZZZ	2					
22:54	ZZZZZZ	2					
22:59	ZZZZZZ	2					
23:04	ZZZZZZ	2					
23:09	ZZZZZZ	2					
23:14	JC87121-1	2	X	X	X	X	
23:19	MA46617-CCVA7	1	X	X	X	X	
23:24	MA46617-CCB7	1	X	X	X	X	
		Element:	As	Ba	Fe	Pb	

REPORTED ELEMENTS SUMMARY

Login Number: JC87121
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA043019M1L.CSV Date Analyzed: 04/30/19 Methods: EPA 200.8, SW846 6020B
Analyst: GT Run ID: MA46617
Parameters: As,Ba,Fe,Pb

Time	Sample Description	Element: Dilution	As	Ba	Fe	Pb
23:29	JC87121-2	2	X	X	X	X
23:34	ZZZZZZ	2				
23:39	ZZZZZZ	2				
23:44	ZZZZZZ	2				
23:49	ZZZZZZ	2				
23:54	ZZZZZZ	2				
23:59	ZZZZZZ	2				
00:04	ZZZZZZ	2				
00:09	ZZZZZZ	2				
00:14	MA46617-CCVA8	1	X	X	X	X
00:19	MA46617-CCB8	1	X	X	X	X
00:24	ZZZZZZ	2				
00:29	ZZZZZZ	2				
00:34	ZZZZZZ	1				
00:39	ZZZZZZ	1				
00:45	ZZZZZZ	1				
00:50	MA46617-CCVA9	1	X	X	X	X
00:55	MA46617-CCB9	1	X	X	X	X
01:00	ZZZZZZ	1				
01:05	ZZZZZZ	1				
01:10	ZZZZZZ	1				

(a) Sample used for QC only; not part of login JC87121.

Element:	As	Ba	Fe	Pb

INTERNAL STANDARD SUMMARY

Login Number: JC87121
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA043019M1L.CSV Date Analyzed: 04/30/19 Methods: EPA 200.8, SW846 6020B
Analyst: GT Run ID: MA46617
Parameters: As,Ba,Fe,Pb

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8
16:52	MA46617-STD1	100	100	100	100	100	100	100	100
16:57	MA46617-STD2	100	100	100	100	100	100	100	100
17:02	MA46617-STD3	100	100	100	100	100	100	100	100
17:07	MA46617-STD4	100	100	100	100	100	100	100	100
17:12	MA46617-STD5	100.198	100.632	99.809	99.414	99.277	99.405	99.995	99.111
17:17	MA46617-STD6	99.352	100.161	99.305	99.351	99.233	99.376	100.22	100.012
17:22	MA46617-STD7	99.089	99.637	98.753	99.134	98.48	97.205	99.904	99.298
17:27	MA46617-STD8	99.584	99.942	99.333	100.201	98.764	99.041	99.671	99.077
17:32	MA46617-STD9	99.388	99.512	99.544	100.524	98.113	96.007	98.641	99.558
17:37	MA46617-STD10	98.803	99.301	98.874	99.833	97.967	97.377	99.871	100.168
17:42	MA46617-STD11	99.537	100.404	98.696	100.027	98.654	98.405	100.475	99.459
17:47	MA46617-STD12	98.29	100.262	100.023	99.299	98.5	98.108	98.063	98.323
17:52	MA46617-STD13	98.945	100.253	101.337	98.861	99.158	99.073	98.652	98.007
17:57	ZZZZZZ	No results reported for the elements associated with this internal standard.							
18:02	MA46617-ICVA1	101.837	104.978	103.256	102.086	102.794	101.804	101.748	103.193
18:07	MA46617-ICV1	103.871	104.87	104.914	103.247	103.168	102.763	104.057	103.178
18:12	MA46617-ICB1	105.115	105.991	105.82	105.136	103.915	104.8	105.539	104.29
18:17	MA46617-CCVA1	104.135	107.156	105.671	104.237	103.951	102.352	103.897	104.88
18:22	MA46617-CCB1	104.664	106.551	106.4	104.682	104.116	103.952	104.721	104.246
18:27	MA46617-CRI1	105.84	108.05	107.256	106.314	105.702	105.059	105.879	105.971
18:33	MA46617-ICSA1	99.837	105.517	111.83	110.785	102.891	106.059	105.904	99.778
18:37	MA46617-ICSAB1	108.851	115.24	117.461	114.647	109.217	111.997	110.601	106.362
18:42	MA46617-CCVA2	102.223	110.435	107.764	109.241	108.68	108.499	108.882	110.106
18:47	MA46617-CCB2	99.908	106.583	105.075	109.083	106.027	107.633	109.948	107.564
18:53	MP14655-MB1	96.797	103.337	101.983	110.422	106.061	105.001	111.35	105.979
18:58	MP14655-B1	96.662	103.951	102.335	113.807	104.961	102.67	112.009	106.362
19:03	MP14655-S1	96.851	105.01	105.989	116.378	107.112	106.852	116.586	107.947
19:08	MP14655-S2	99.226	108.925	108.048	120.476	110.909	109.289	118.187	110.801
19:13	JC87016-1	99.407	109.713	108.875	123.2	112.454	111.817	122.539	111.366
19:18	MP14655-SD1	104.304	115.047	113.682	122.4	116.026	116.942	123.264	116.187
19:23	ZZZZZZ	102.939	111.295	110.123	122.998	114.476	112.277	122.811	113.318
19:28	ZZZZZZ	100.967	111.43	110.433	125.089	113.817	112.805	124.134	112.612
19:33	MP14655-PS1	100.759	111.514	111.671	124.999	113.29	113.236	124.439	112.349

INTERNAL STANDARD SUMMARY

Login Number: JC87121
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA043019M1L.CSV Date Analyzed: 04/30/19 Methods: EPA 200.8, SW846 6020B
Analyst: GT Run ID: MA46617
Parameters: As,Ba,Fe,Pb

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8
19:38	MA46617-CCVA3	103.288	114.342	115.436	122.997	113.029	112.7	121.91	114.347
19:43	MA46617-CCB3	104.948	114.374	113.932	124.98	112.969	114.527	123.368	114.228
19:48	ZZZZZZ	No results reported for the elements associated with this internal standard.							
19:53	ZZZZZZ	No results reported for the elements associated with this internal standard.							
19:58	MP14608-S1	105.488	119.305	118.841	129.424	114.504	117.632	123.728	114.68
20:03	MP14608-S2	106.574	121.52	117.344	130.268 !	114.74	116.583	122.921	114.942
20:08	ZZZZZZ	107.594	120.943	119.176	129.032	114.802	116.664	124.607	114.706
20:13	ZZZZZZ	109.754	120.894	118.92	127.97	117.652	117.985	124.837	117.654
20:18	ZZZZZZ	109.331	120.488	119.049	128.511	117.689	120.606	125.326	119.134
20:23	ZZZZZZ	No results reported for the elements associated with this internal standard.							
20:28	ZZZZZZ	No results reported for the elements associated with this internal standard.							
20:33	MA46617-CCVA4	106.157	117.571	116.048	124.799	116.017	117.05	121.317	116.457
20:38	MA46617-CCB4	106.636	116.562	116.267	125.714	114.711	118.058	124.791	115.633
20:43	ZZZZZZ	101.143	112.67	113.849	124.821	110.075	114.761	121.116	110.958
20:48	ZZZZZZ	107.388	118.854	119.165	129.922	118.485	121.155	125.277	118.488
20:53	ZZZZZZ	108.155	120.756	121.049	129.181	119.503	121.761	126.631	119.761
20:58	ZZZZZZ	106.791	120.868	119.781	130.307 !	118.05	120.4	128.306	117.512
21:03	ZZZZZZ	106.197	120.138	118.232	126.749	116.406	118.225	125.216	115.876
21:09	MP14627-MB1	107.878	119.052	117.741	127.907 !a	117.234	120.018	125.568 !a	118.392
21:14	MP14627-B1	110.879	122.736	122.206	130.246 !a	120.638	123.412	127.49 !a	121.906
21:19	MP14627-S1	105.082	118.57	117.578	126.18 !a	113.648	117.268	121.668	115.582
21:23	MP14627-S2	107.932	121.604	121.485	127.084 !a	117.086	120.023	122.401	118.218
21:29	MA46617-CCVA5	109.571	122.334	122.478	128.814 !a	119.086	120.446	126.015 !a	120.628
21:34	MA46617-CCB5	110.568	120.632	118.973	129.099 !a	118.847	121.548	125.969 !a	119.091
21:39	JC87047-1	108.02	120.395	120.275	127.15 !a	116.201	117.784	122.767	116.246
21:44	ZZZZZZ	No results reported for the elements associated with this internal standard.							
21:49	ZZZZZZ	No results reported for the elements associated with this internal standard.							
21:54	ZZZZZZ	104.588	122.106	128.008 !a	127.872 !a	113.24	120.855	121.053	114.871
21:59	MP14645-MB1	110.335	121.36	115.373	126.267	122.358	120.131	129.138	121.022
22:04	MP14645-B1	102.067	112.867	112.68	126.805	113.895	114.279	125.126	113.749
22:09	MP14645-B2	102.706	114.495	113.66	128.687	115.352	115.802	125.782	114.691
22:14	MP14645-S1	102.914	114.856	114.449	128.151	116.643	117.723	128.46	116.444
22:19	MP14645-S2	102.876	115.132	116.935	130.469 !a	116.681	120.143	130.009 !a	117.06

INTERNAL STANDARD SUMMARY

Login Number: JC87121
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA043019M1L.CSV Date Analyzed: 04/30/19 Methods: EPA 200.8, SW846 6020B
Analyst: GT Run ID: MA46617
Parameters: As,Ba,Fe,Pb

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8
22:24	MA46617-CCVA6	107.594	120.848	122.29	130.631	!a118.023	121.012	126.581	118.702
22:29	MA46617-CCB6	110.505	121.424	123.419	131.028	!a119.495	123.963	129.094	119.399
22:34	JC87142-4	105.397	117.091	116.82	129.036	118.4	120.085	131.009	!a117.462
22:39	MP14645-SD1	111.064	123.4	121.524	131.588	!a122.012	123.45	128.863	121.86
22:44	ZZZZZZ	102.152	115.371	113.914	125.484	114.795	115.373	124.225	114.995
22:49	ZZZZZZ	103.464	116.471	119.137	126.362	112.023	112.793	118.791	110.336
22:54	ZZZZZZ	105.336	117.307	117.231	123.277	116.294	115.895	120.276	113.007
22:59	ZZZZZZ	100.188	112.637	111.602	117.783	112.267	107.977	115.112	108.445
23:04	ZZZZZZ	97.719	110.967	108.664	116.603	111.42	106.065	113.242	107.977
23:09	ZZZZZZ	96.686	109.745	106.069	115.004	110.939	104.532	110.142	106.889
23:14	JC87121-1	97.775	108.46	105.895	118.375	113.133	109.038	119.172	110.789
23:19	MA46617-CCVA7	96.209	107.381	107.144	117.377	107.072	108.741	114.946	108.549
23:24	MA46617-CCB7	97.718	109.074	108.298	116.958	109.021	109.895	115.111	109.12
23:29	JC87121-2	96.361	107.922	106.793	118.689	111.248	110.242	120.405	109.971
23:34	ZZZZZZ	96.054	105.813	105.336	119.247	111.606	109.096	120.578	110.222
23:39	ZZZZZZ	90.611	102.833	101.491	116.064	106.299	109.082	116.55	106.05
23:44	ZZZZZZ	89.881	102.4	102.541	114.47	105.984	107.258	117.648	106.412
23:49	ZZZZZZ	90.419	103.101	103.613	118.146	107.844	108.356	119.727	107.453
23:54	ZZZZZZ	88.34	103.154	101.61	113.151	103.747	105.832	113.379	104.056
23:59	ZZZZZZ	87.913	101.68	98.899	109.812	103.23	104.136	111.847	103.942
00:04	ZZZZZZ	90.555	105.336	104.636	116.458	108.807	108.816	116.556	108.312
00:09	ZZZZZZ	89.635	104.384	104.008	115.286	107.969	107.187	112.929	105.955
00:14	MA46617-CCVA8	95.5	108.759	109.151	115.297	108.197	109.802	112.679	109.693
00:19	MA46617-CCB8	96.402	108.298	107.147	113.863	107.791	108.336	113.582	108.812
00:24	ZZZZZZ	92.1	103.824	101.86	112.641	107.428	106.8	113.028	107.59
00:29	ZZZZZZ	92.286	103.57	102.621	113.405	108.264	108.415	116.034	107.733
00:34	ZZZZZZ	No results reported for the elements associated with this internal standard.							
00:39	ZZZZZZ	No results reported for the elements associated with this internal standard.							
00:45	ZZZZZZ	No results reported for the elements associated with this internal standard.							
00:50	MA46617-CCVA9	91.7	103.512	104.382	110.559	103.684	105.06	109.091	104.958
00:55	MA46617-CCB9	94.493	104.936	105.235	111.618	105.302	106.088	110.296	106.266
01:00	ZZZZZZ	No results reported for the elements associated with this internal standard.							
01:05	ZZZZZZ	No results reported for the elements associated with this internal standard.							

INTERNAL STANDARD SUMMARY

Login Number: JC87121
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA043019M1L.CSV Date Analyzed: 04/30/19 Methods: EPA 200.8, SW846 6020B
Analyst: GT Run ID: MA46617
Parameters: As,Ba,Fe,Pb

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8
01:10	ZZZZZZ	No results reported for the elements associated with this internal standard.							

! = Outside limits.

Istd#	Parameter	Limits	CCV/CCB Limits
Istd#1	Lithium	60-125 %	60-125 %
Istd#2	Scandium (45-1)	60-125 %	60-125 %
Istd#3	Scandium (45-2)	60-125 %	60-125 %
Istd#4	Scandium (45-3)	60-125 %	60-125 %
Istd#5	Germanium (72-1)	60-125 %	60-125 %
Istd#6	Germanium (72-2)	60-125 %	60-125 %
Istd#7	Germanium (72-3)	60-125 %	60-125 %
Istd#8	Germanium (74-1)	60-125 %	60-125 %

(a) No samples reported for the elements associated with this internal standard.

INTERNAL STANDARD SUMMARY

Login Number: JC87121
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA043019M1L.CSV Date Analyzed: 04/30/19 Methods: EPA 200.8, SW846 6020B
Analyst: GT Run ID: MA46617
Parameters: As,Ba,Fe,Pb

Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16
16:52	MA46617-STD1	100	100	100	100	100	100	100	100
16:57	MA46617-STD2	100	100	100	100	100	100	100	100
17:02	MA46617-STD3	100	100	100	100	100	100	100	100
17:07	MA46617-STD4	100	100	100	100	100	100	100	100
17:12	MA46617-STD5	99.197	98.527	99.98	100.324	99.729	99.523	99.646	100.089
17:17	MA46617-STD6	98.241	98.425	99.905	99.985	100.746	99.019	99.179	99.287
17:22	MA46617-STD7	97.899	98.675	99.638	98.963	99.29	99.183	98.365	99.021
17:27	MA46617-STD8	98.006	98.616	99.993	99.219	99.552	99.661	98.877	99.33
17:32	MA46617-STD9	97.462	98.291	98.957	98.634	99.114	98.91	97.631	99.072
17:37	MA46617-STD10	98.953	98.915	98.821	99.062	99.902	98.75	98.458	98.897
17:42	MA46617-STD11	97.89	99.664	99.436	98.705	99.236	99.724	98.76	99.073
17:47	MA46617-STD12	97.256	96.953	97.291	97.524	96.813	97.692	98.015	98.869
17:52	MA46617-STD13	97.651	96.479	96.635	96.57	95.267	97.716	98.69	98.402
17:57	ZZZZZZ	No results reported for the elements associated with this internal standard.							
18:02	MA46617-ICVA1	101.873	101.418	100.332	99.846	98.528	101.084	100.285	100.747
18:07	MA46617-ICV1	102.709	103.235	102.468	103.052	103.238	101.705	102.919	101.119
18:12	MA46617-ICB1	104.567	103.238	104.391	103.943	103.558	103.06	103.456	102.153
18:17	MA46617-CCVA1	102.721	102.996	101.944	100.995	100.047	102.184	101.851	101.154
18:22	MA46617-CCB1	103.593	103.053	104.34	103.925	103.229	102.99	103.36	100.917
18:27	MA46617-CRI1	105.395	104.502	105.694	104.648	103.47	103.655	104.615	102.05
18:33	MA46617-ICSA1	104.703	103.195	91.712	93.63	92.284	94.883	98.776	95.663
18:37	MA46617-ICSAB1	109.661	106.377	97.818	96.985	94.541	100.353	101.182	100.386
18:42	MA46617-CCVA2	106.959	108.015	105.611	103.475	103.813	106.727	104.114	106.046
18:47	MA46617-CCB2	106.724	108.28	107.235	105.343	106.574	106.95	104.055	104.721
18:53	MP14655-MB1	105.663	109.858	103.777	103.117	107.147	105.077	100.792	103.975
18:58	MP14655-B1	104.328	111.824	103.647	102.776	107.841	105.087	99.183	104.874
19:03	MP14655-S1	106.881	117.576	102.977	103.634	108.558	105.36	99.867	105.683
19:08	MP14655-S2	110.295	117.765	104.865	104.411	109.745	106.491	100.06	106.421
19:13	JC87016-1	111.228	120.509	106.019	106.639	111.336	107.438	101.615	106.213
19:18	MP14655-SD1	115.351	121.238	112.772	111.943	114.607	113.489	108.527	110.684
19:23	ZZZZZZ	112.633	122.022	107.452	106.99	112.076	108.916	101.72	107.522
19:28	ZZZZZZ	112.75	122.804	106.788	107.516	113.242	108.555	101.763	107.813
19:33	MP14655-PS1	112.398	122.474	106.82	107.039	112.03	107.222	100.825	107.319

INTERNAL STANDARD SUMMARY

Login Number: JC87121
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA043019M1L.CSV Date Analyzed: 04/30/19 Methods: EPA 200.8, SW846 6020B
Analyst: GT Run ID: MA46617
Parameters: As,Ba,Fe,Pb

Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16
19:38	MA46617-CCVA3	114.797	120.219	110.228	109.066	112.47	111.111	105.354	109.816
19:43	MA46617-CCB3	115.415	121.145	112.127	112.189	116.122	112.524	106.712	110.229
19:48	ZZZZZZ	No results reported for the elements associated with this internal standard.							
19:53	ZZZZZZ	No results reported for the elements associated with this internal standard.							
19:58	MP14608-S1	116.156	121.635	110.29	110.089	112.276	110.908	106.349	109.685
20:03	MP14608-S2	115.398	120.914	111.722	107.467	112.022	112.498	104.554	110.421
20:08	ZZZZZZ	116.512	119.738	110.778	110.727	112.611	111.982	106.396	110.261
20:13	ZZZZZZ	117.023	122.591	114.194	111.829	114.383	113.945	108.524	110.719
20:18	ZZZZZZ	119.088	122.626	113.82	112.922	114.261	113.821	109.511	110.421
20:23	ZZZZZZ	No results reported for the elements associated with this internal standard.							
20:28	ZZZZZZ	No results reported for the elements associated with this internal standard.							
20:33	MA46617-CCVA4	116.053	121.053	111.638	109.375	112.461	112.229	105.703	109.118
20:38	MA46617-CCB4	116.874	122.242	113.882	111.862	116.008	112.393	107.127	107.955
20:43	ZZZZZZ	113.596	117.998	103.687	102.908	107.305	107.111	103.414	106.957
20:48	ZZZZZZ	121.4	124.085	111.825	111.416	114.51	114.046	108.603	109.779
20:53	ZZZZZZ	121.316	126.871	111.929	111.522	114.953	113.486	108.99	110.148
20:58	ZZZZZZ	120.544	124.782	112.386	112.345	115.458	113.369	108.167	110.4
21:03	ZZZZZZ	119.247	122.625	108.959	108.19	110.206	111.622	105.622	109.539
21:09	MP14627-MB1	120.118	125.868	!a115.808	114.438	116.947	114.651	109.538	110.787
21:14	MP14627-B1	122.011	126.397	!a116.32	114.111	117.183	115.757	110.181	111.429
21:19	MP14627-S1	117.806	120.996	107.807	107.34	109.081	110.502	105.741	109.38
21:23	MP14627-S2	119.419	122.736	109.983	108.51	110.002	111.374	107.612	108.967
21:29	MA46617-CCVA5	121.149	123.674	113.591	112.116	113.232	113.939	109.236	110.046
21:34	MA46617-CCB5	120.923	125.598	!a115.547	114.47	117.328	114.729	109.745	110.118
21:39	JC87047-1	118.402	120.886	108.743	107.866	110.133	111.075	106.789	109.128
21:44	ZZZZZZ	No results reported for the elements associated with this internal standard.							
21:49	ZZZZZZ	No results reported for the elements associated with this internal standard.							
21:54	ZZZZZZ	119.045	117.52	103.284	101.903	100.277	106.32	107.297	104.711
21:59	MP14645-MB1	119.942	127.052	114.543	111.693	116.377	113.928	106.053	108.343
22:04	MP14645-B1	114.545	123.321	108.776	108.05	113.522	108.711	101.854	107.919
22:09	MP14645-B2	115.149	126.855	109.072	108.482	113.773	109.731	102.921	107.036
22:14	MP14645-S1	118.345	126.452	106.899	107.065	111.466	107.897	102.867	106.688
22:19	MP14645-S2	119.489	128.876	106.67	106.74	112.205	108.12	103.064	106.852

INTERNAL STANDARD SUMMARY

Login Number: JC87121
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA043019M1L.CSV Date Analyzed: 04/30/19 Methods: EPA 200.8, SW846 6020B
Analyst: GT Run ID: MA46617
Parameters: As,Ba,Fe,Pb

Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16
22:24	MA46617-CCVA6	121.704	125.627	112.269	112.661	114.783	113.156	108.821	109.617
22:29	MA46617-CCB6	122.909	125.981	116.301	116.191	118.247	114.977	111.33	108.802
22:34	JC87142-4	120.253	128.917	107.703	107.631	112.496	109.982	103.492	106.688
22:39	MP14645-SD1	122.73	127.304	116.573	115.096	116.238	115.874	110.92	110.278
22:44	ZZZZZZ	117.017	121.112	103.256	102.097	105.756	106.352	100.86	104.865
22:49	ZZZZZZ	114.666	117.395	97.303	95.505	97.114	100.383	97.255	99.849
22:54	ZZZZZZ	115.508	117.84	99.662	99.029	100.16	103.241	99.725	101.745
22:59	ZZZZZZ	108.116	111.982	96.106	93.532	94.643	99.569	95.627	99.267
23:04	ZZZZZZ	106.437	111.468	95.451	92.929	95.203	100.065	95.033	100.697
23:09	ZZZZZZ	105.158	109.592	95.612	92.51	95.435	100.193	94.789	100.746
23:14	JC87121-1	109.999	116.81	104.287	102.282	107.153	106.383	98.658	105.512
23:19	MA46617-CCVA7	107.536	113.139	105.132	104.539	107.021	106.422	101.654	106.16
23:24	MA46617-CCB7	108.471	112.184	107.642	106.544	109.782	107.995	103.587	105.39
23:29	JC87121-2	109.896	118.904	102.981	101.607	107.062	106.604	99.235	104.462
23:34	ZZZZZZ	109.953	119.382	102.304	101.999	108.007	105.963	98.457	105.315
23:39	ZZZZZZ	107.259	114.94	99.418	98.419	104.054	102.347	95.738	103.117
23:44	ZZZZZZ	106.87	115.088	99.683	98.481	104.047	103.094	96.518	103.968
23:49	ZZZZZZ	107.762	117.889	98.912	99.756	105.201	103.409	97.65	103.583
23:54	ZZZZZZ	105.597	111.016	96.633	94.531	98.291	100.515	94.032	102.399
23:59	ZZZZZZ	104.409	109.563	96.056	93.864	97.777	99.738	93.771	101.377
00:04	ZZZZZZ	109.146	114.713	100.325	97.893	101.498	104.022	97.223	104.258
00:09	ZZZZZZ	105.828	111.483	95.421	94.426	97.812	100.104	95.363	101.58
00:14	MA46617-CCVA8	109.964	111.926	105.344	103.528	105.62	106.653	102.95	105.274
00:19	MA46617-CCB8	110.534	110.711	107.733	105.768	106.949	107.688	104.849	104.04
00:24	ZZZZZZ	105.42	111.592	101.183	98.024	101.837	103.803	96.474	103.671
00:29	ZZZZZZ	107.589	115.385	104.958	102.663	107.127	105.227	98.256	104.231
00:34	ZZZZZZ	No results reported for the elements associated with this internal standard.							
00:39	ZZZZZZ	No results reported for the elements associated with this internal standard.							
00:45	ZZZZZZ	No results reported for the elements associated with this internal standard.							
00:50	MA46617-CCVA9	105.954	107.361	102.164	100.014	101.919	103.144	101.008	102.529
00:55	MA46617-CCB9	106.814	108.434	105.685	103.614	105.5	105.282	103.169	102.637
01:00	ZZZZZZ	No results reported for the elements associated with this internal standard.							
01:05	ZZZZZZ	No results reported for the elements associated with this internal standard.							

INTERNAL STANDARD SUMMARY

Login Number: JC87121
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA043019M1L.CSV Date Analyzed: 04/30/19 Methods: EPA 200.8, SW846 6020B
Analyst: GT Run ID: MA46617
Parameters: As,Ba,Fe,Pb

Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16
01:10	ZZZZZZ	No results reported for the elements associated with this internal standard.							

! = Outside limits.

LEGEND:			CCV/CCB
Istd#	Parameter	Limits	Limits
Istd#9	Germanium (74-2)	60-125 %	60-125 %
Istd#10	Germanium (74-3)	60-125 %	60-125 %
Istd#11	Rhodium (103-1)	60-125 %	60-125 %
Istd#12	Rhodium (103-2)	60-125 %	60-125 %
Istd#13	Rhodium (103-3)	60-125 %	60-125 %
Istd#14	Indium (115-1)	60-125 %	60-125 %
Istd#15	Indium (115-2)	60-125 %	60-125 %
Istd#16	Terbium (159-1)	60-125 %	60-125 %

(a) No samples reported for the elements associated with this internal standard.

INTERNAL STANDARD SUMMARY

Login Number: JC87121
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA043019M1L.CSV Date Analyzed: 04/30/19 Methods: EPA 200.8, SW846 6020B
Analyst: GT Run ID: MA46617
Parameters: As,Ba,Fe,Pb

Time	Sample Description	Istd#17	Istd#18	Istd#19	Istd#20	Istd#21	Istd#22
16:52	MA46617-STD1	100	100	100	100	100	100
16:57	MA46617-STD2	100	100	100	100	100	100
17:02	MA46617-STD3	100	100	100	100	100	100
17:07	MA46617-STD4	100	100	100	100	100	100
17:12	MA46617-STD5	99.511	99.914	100.289	99.453	99.746	98.578
17:17	MA46617-STD6	99.555	99.669	99.426	99.804	99.889	98.909
17:22	MA46617-STD7	98.681	99.122	99.237	99.104	99.246	98.495
17:27	MA46617-STD8	98.974	99.636	99.571	98.462	100.368	98.083
17:32	MA46617-STD9	98.357	99.241	100.037	98.08	99.864	98.508
17:37	MA46617-STD10	98.853	99.822	99.318	98.932	99.071	98.062
17:42	MA46617-STD11	99.347	99.28	99.469	99.725	98.687	98.015
17:47	MA46617-STD12	98.389	98.493	99.785	98.552	97.242	96.152
17:52	MA46617-STD13	99.413	98.09	98.517	98.746	95.221	94.848
17:57	ZZZZZZ	No results reported for the elements associated with this internal standard.					
18:02	MA46617-ICVA1	100.566	99.882	101.186	99.738	98.048	97.534
18:07	MA46617-ICV1	100.728	101.43	100.311	101.117	99.525	99.933
18:12	MA46617-ICB1	101.661	101.344	102.342	101.559	99.962	100.11
18:17	MA46617-CCVA1	101.762	100.182	101.365	101.124	97.818	97.536
18:22	MA46617-CCB1	101.122	100.609	99.984	100.834	99.573	100.441
18:27	MA46617-CRI1	101.968	101.119	102.189	102.103	100.373	100.356
18:33	MA46617-ICSA1	97.63	94.678	95.624	97.665	86.653	87.692
18:37	MA46617-ICSAB1	98.828	95.922	99.294	98.843	89.296	88.334
18:42	MA46617-CCVA2	102.474	103.336	104.874	102.958	100.136	98.265
18:47	MA46617-CCB2	101.285	104.223	104.294	102.442	102.405	100.907
18:53	MP14655-MB1	100.902	104.898	103.3	101.071	115.285	106.452
18:58	MP14655-B1	100.715	106.7	104.781	101.058	103.472	98.935
19:03	MP14655-S1	99.413	107.411	106.028	101.225	103.27	97.962
19:08	MP14655-S2	100.471	108.348	107.364	101.859	103.422	97.685
19:13	JC87016-1	100.374	109.884	106.817	101.533	102.496	97.881
19:18	MP14655-SD1	104.51	110.255	110.496	105.873	107.999	103.614
19:23	ZZZZZZ	101.172	110.096	108.677	102.833	104.857	99.043
19:28	ZZZZZZ	100.662	110.241	108.067	101.663	104.122	98.046
19:33	MP14655-PS1	99.778	109.196	107.116	101.289	102.17	96.421

INTERNAL STANDARD SUMMARY

Login Number: JC87121
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA043019M1L.CSV Date Analyzed: 04/30/19 Methods: EPA 200.8, SW846 6020B
Analyst: GT Run ID: MA46617
Parameters: As,Ba,Fe,Pb

Time	Sample Description	Istd#17	Istd#18	Istd#19	Istd#20	Istd#21	Istd#22
19:38	MA46617-CCVA3	102.118	109.233	108.581	102.815	103.394	98.638
19:43	MA46617-CCB3	102.528	109.404	110.421	103.429	105.906	100.846
19:48	ZZZZZZ	No results reported for the elements associated with this internal standard.					
19:53	ZZZZZZ	No results reported for the elements associated with this internal standard.					
19:58	MP14608-S1	103.164	108.65	113.571	108.447	104.126	99.126
20:03	MP14608-S2	101.063	108.252	114.676	107.293	104.277	97.091
20:08	ZZZZZZ	102.447	108.994	113.546	107.537	104.731	99.583
20:13	ZZZZZZ	103.557	108.411	112.526	106.044	106.752	101.067
20:18	ZZZZZZ	104.38	109.329	111.855	107.416	106.672	101.523
20:23	ZZZZZZ	No results reported for the elements associated with this internal standard.					
20:28	ZZZZZZ	No results reported for the elements associated with this internal standard.					
20:33	MA46617-CCVA4	101.326	107.778	108.77	102.4	102.71	97.567
20:38	MA46617-CCB4	101.851	108.418	107.47	102.089	104.029	99.963
20:43	ZZZZZZ	100.582	107.248	106.525	101.22	97.745	93.315
20:48	ZZZZZZ	103.388	110.478	110.457	105.332	103.912	98.612
20:53	ZZZZZZ	103.666	109.796	109.419	104.286	103.285	98.971
20:58	ZZZZZZ	104.016	109.92	109.767	105.303	104.027	100.123
21:03	ZZZZZZ	101.002	107.649	108.318	102.108	99.97	95.381
21:09	MP14627-MB1	102.89	109.405	109.825	103.188	106.753	101.544
21:14	MP14627-B1	104.569	109.928	111.39	105.142	105.305	100.562
21:19	MP14627-S1	102.013	107.693	109.262	104.597	100.219	95.503
21:23	MP14627-S2	103.239	108.223	109.419	104.66	99.744	95.895
21:29	MA46617-CCVA5	102.398	108.288	109.866	104.498	102.49	98.868
21:34	MA46617-CCB5	103.143	109.409	109.065	103.574	104.976	101.223
21:39	JC87047-1	102.533	108.016	110.267	104.284	99.762	95.968
21:44	ZZZZZZ	No results reported for the elements associated with this internal standard.					
21:49	ZZZZZZ	No results reported for the elements associated with this internal standard.					
21:54	ZZZZZZ	100.859	101.22	104.125	102.033	89.901	88.284
21:59	MP14645-MB1	100.866	109.064	106.849	101.675	106.229	99.932
22:04	MP14645-B1	98.625	109.049	106.812	99.585	102.162	96.071
22:09	MP14645-B2	99.43	108.834	106.091	101.305	101.363	95.582
22:14	MP14645-S1	99.548	107.728	106.863	100.764	99.253	92.824
22:19	MP14645-S2	99.901	108.554	106.171	101.176	97.88	93.411

INTERNAL STANDARD SUMMARY

Login Number: JC87121
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA043019M1L.CSV Date Analyzed: 04/30/19 Methods: EPA 200.8, SW846 6020B
Analyst: GT Run ID: MA46617
Parameters: As,Ba,Fe,Pb

Time	Sample Description	Istd#17	Istd#18	Istd#19	Istd#20	Istd#21	Istd#22
22:24	MA46617-CCVA6	103.459	109.031	109.448	104.019	102.537	97.943
22:29	MA46617-CCB6	103.004	109.728	107.333	104.683	104.047	100.344
22:34	JC87142-4	99.605	108.705	107.158	100.326	99.52	93.425
22:39	MP14645-SD1	103.413	109.516	110.401	104.261	104.684	99.877
22:44	ZZZZZZ	97.628	104.907	104.661	98.58	94.234	89.006
22:49	ZZZZZZ	95.239	98.946	99.907	95.599	84.006	81.035
22:54	ZZZZZZ	96.034	100.764	102.325	97.24	88.723	85.346
22:59	ZZZZZZ	93.88	98.202	99.742	95.386	84.689	81.172
23:04	ZZZZZZ	93.574	98.322	100.458	94.583	86.008	81.079
23:09	ZZZZZZ	94.181	98.23	100.983	95.311	87.537	82.72
23:14	JC87121-1	97.784	105.908	105.855	98.609	101.757	94.816
23:19	MA46617-CCVA7	99.706	105.132	106.421	100.791	100.788	96.057
23:24	MA46617-CCB7	99.958	105.28	105.468	100.777	102.122	97.792
23:29	JC87121-2	97.524	105.868	104.952	98.396	99.956	92.762
23:34	ZZZZZZ	97.077	106.018	104.447	99.394	99.018	92.644
23:39	ZZZZZZ	95.429	103.812	102.808	96.645	96.377	90.204
23:44	ZZZZZZ	96.022	104.199	103.451	96.882	96.269	89.578
23:49	ZZZZZZ	96.626	105.616	105.517	98.414	95.543	89.957
23:54	ZZZZZZ	93.842	100.546	102.376	95.903	92.078	86.999
23:59	ZZZZZZ	93.903	100.234	100.974	95.484	92.138	85.915
00:04	ZZZZZZ	96.984	102.565	104.026	98.704	94.74	88.455
00:09	ZZZZZZ	94.755	99.95	101.888	96.519	88.8	84.235
00:14	MA46617-CCVA8	99.256	102.563	105.59	100.12	99.305	95.112
00:19	MA46617-CCB8	99.863	101.535	103.038	100.586	100.488	97.493
00:24	ZZZZZZ	96.363	101.406	104.066	97.743	96.635	90.662
00:29	ZZZZZZ	96.675	103.558	103.323	97.388	100.183	94.535
00:34	ZZZZZZ	No results reported for the elements associated with this internal standard.					
00:39	ZZZZZZ	No results reported for the elements associated with this internal standard.					
00:45	ZZZZZZ	No results reported for the elements associated with this internal standard.					
00:50	MA46617-CCVA9	97.874	101.02	102.728	98.496	97.898	94.413
00:55	MA46617-CCB9	98.197	101.807	102.911	98.638	99.044	96.634
01:00	ZZZZZZ	No results reported for the elements associated with this internal standard.					
01:05	ZZZZZZ	No results reported for the elements associated with this internal standard.					

INTERNAL STANDARD SUMMARY

Login Number: JC87121
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA043019M1L.CSV Date Analyzed: 04/30/19 Methods: EPA 200.8, SW846 6020B
Analyst: GT Run ID: MA46617
Parameters: As,Ba,Fe,Pb

Time	Sample Description	Istd#17	Istd#18	Istd#19	Istd#20	Istd#21	Istd#22
01:10	ZZZZZZ	No results reported for the elements associated with this internal standard.					

! = Outside limits.

LEGEND: Istd#	Parameter	Limits	CCV/CCB Limits
Istd#17	Terbium (159-2)	60-125 %	60-125 %
Istd#18	Terbium (159-3)	60-125 %	60-125 %
Istd#19	Holmium (165-1)	60-125 %	60-125 %
Istd#20	Holmium (165-2)	60-125 %	60-125 %
Istd#21	Bismuth (209-1)	60-125 %	60-125 %
Istd#22	Bismuth (209-2)	60-125 %	60-125 %

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC87121
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA043019M1L.CSV Date Analyzed: 04/30/19 Methods: EPA 200.8, SW846 6020B
QC Limits: result < 1/2 RL Run ID: MA46617 Units: ug/l

Time:				18:12		18:22		18:47	
Sample ID:				ICB1		CCB1		CCB2	
Metal	RL	IDL	LOD	raw	final	raw	final	raw	final
Aluminum	25	.28	20						
Antimony	2.0	.094	1.5						
Arsenic	0.50	.013	1.0	0.00213	<1.5	0.0211	<1.5	0.0151	<1.5
Barium	1.0	.008	0.50	-0.00602	<1.0	0.00491	<1.0	-0.00314	<1.0
Beryllium	0.50	.004	0.25						
Boron	25	.65	20						
Cadmium	0.50	.004	2.0						
Calcium	250	6.1	50						
Chromium	1.0	.014	3.0						
Cobalt	0.50	.002	0.25						
Copper	2.0	.021	4.0						
Iron	25	.43	13	0.112	<25	0.654	<25	2.95	<25
Lead	0.50	.009	1.0	0.00637	<1.5	0.0189	<1.5	0.0181	<1.5
Magnesium	250	.15	130						
Manganese	1.0	.007	1.0						
Molybdenum	1.0	.015	0.50						
Nickel	1.0	.017	3.0						
Potassium	250	.71	50						
Selenium	0.50	.072	0.50						
Silver	0.50	.004	0.50						
Sodium	250	1	100						
Strontium	5.0	.003	5.0						
Thallium	0.50	.004	0.50						
Tin	5.0	.071	2.5						
Titanium	1.0	.035	1.0						
Vanadium	1.0	.009	1.0						
Zinc	5.0	.029	7.5						

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC87121
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA043019M1L.CSV Date Analyzed: 04/30/19 Methods: EPA 200.8, SW846 6020B
QC Limits: result < 1/2 RL Run ID: MA46617 Units: ug/l

Time:				19:43		20:38		21:34	
Sample ID:				CCB3		CCB4		CCB5	
Metal	RL	IDL	LOD	raw	final	raw	final	raw	final
Aluminum	25	.28	20						
Antimony	2.0	.094	1.5						
Arsenic	0.50	.013	1.0	0.0117	<1.5	0.0159	<0.50	0.00474	<1.0
Barium	1.0	.008	0.50	0.00298	<1.0	0.00506	<1.0	0.0107	<1.0
Beryllium	0.50	.004	0.25						
Boron	25	.65	20						
Cadmium	0.50	.004	2.0						
Calcium	250	6.1	50						
Chromium	1.0	.014	3.0						
Cobalt	0.50	.002	0.25						
Copper	2.0	.021	4.0						
Iron	25	.43	13	0.956	<25	1.21	<25	1.34	<50
Lead	0.50	.009	1.0	0.0273	<1.5	0.0314	<0.50	0.0422	<0.50
Magnesium	250	.15	130						
Manganese	1.0	.007	1.0						
Molybdenum	1.0	.015	0.50						
Nickel	1.0	.017	3.0						
Potassium	250	.71	50						
Selenium	0.50	.072	0.50						
Silver	0.50	.004	0.50						
Sodium	250	1	100						
Strontium	5.0	.003	5.0						
Thallium	0.50	.004	0.50						
Tin	5.0	.071	2.5						
Titanium	1.0	.035	1.0						
Vanadium	1.0	.009	1.0						
Zinc	5.0	.029	7.5						

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC87121
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA043019M1L.CSV Date Analyzed: 04/30/19 Methods: EPA 200.8, SW846 6020B
QC Limits: result < 1/2 RL Run ID: MA46617 Units: ug/l

Time:				22:29		23:24		00:19	
Sample ID:				CCB6		CCB7		CCB8	
Metal	RL	IDL	LOD	raw	final	raw	final	raw	final
Aluminum	25	.28	20						
Antimony	2.0	.094	1.5						
Arsenic	0.50	.013	1.0	0.00574	<0.50	0.00993	<0.50	0.00607	<0.50
Barium	1.0	.008	0.50	0.0118	<1.0	0.0176	<1.0	0.0131	<1.0
Beryllium	0.50	.004	0.25						
Boron	25	.65	20						
Cadmium	0.50	.004	2.0						
Calcium	250	6.1	50						
Chromium	1.0	.014	3.0						
Cobalt	0.50	.002	0.25						
Copper	2.0	.021	4.0						
Iron	25	.43	13	1.22	<25	1.21	<25	1.78	<25
Lead	0.50	.009	1.0	0.0384	<0.50	0.0244	<0.50	0.0325	<0.50
Magnesium	250	.15	130						
Manganese	1.0	.007	1.0						
Molybdenum	1.0	.015	0.50						
Nickel	1.0	.017	3.0						
Potassium	250	.71	50						
Selenium	0.50	.072	0.50						
Silver	0.50	.004	0.50						
Sodium	250	1	100						
Strontium	5.0	.003	5.0						
Thallium	0.50	.004	0.50						
Tin	5.0	.071	2.5						
Titanium	1.0	.035	1.0						
Vanadium	1.0	.009	1.0						
Zinc	5.0	.029	7.5						

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC87121
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA043019M1L.CSV Date Analyzed: 04/30/19 Methods: EPA 200.8, SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA46617 Units: ug/l

Time:		18:02			18:07			18:17	
Sample ID:	ICVA	ICVA1		ICV	ICV1		CCVA	CCVA1	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony									
Arsenic	60	58.2	97.0				50	49.3	98.6
Barium	60	60.7	101.2				50	51.4	102.8
Beryllium									
Boron									
Cadmium	anr								
Calcium									
Chromium									
Cobalt									
Copper	anr								
Iron	5500	5640	102.5				5000	5090	101.8
Lead	60	60.1	100.2				50	51.3	102.6
Magnesium									
Manganese									
Molybdenum									
Nickel	anr								
Potassium									
Selenium									
Silver	anr								
Sodium									
Strontium									
Thallium									
Tin									
Titanium									
Vanadium									
Zinc									

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC87121
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA043019M1L.CSV Date Analyzed: 04/30/19 Methods: EPA 200.8, SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA46617 Units: ug/l

Time:		18:42			19:38			20:33	
Sample ID:	CCVA	CCVA2		CCVA	CCVA3		CCVA	CCVA4	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony									
Arsenic	50	50.7	101.4	50	49.7	99.4	50	50.7	101.4
Barium	50	51.5	103.0	50	51.2	102.4	50	52.1	104.2
Beryllium									
Boron									
Cadmium	anr								
Calcium									
Chromium									
Cobalt									
Copper	anr								
Iron	5000	5100	102.0	5000	4950	99.0	5000	5000	100.0
Lead	50	51.0	102.0	50	50.9	101.8	50	51.1	102.2
Magnesium									
Manganese									
Molybdenum									
Nickel	anr								
Potassium									
Selenium									
Silver	anr								
Sodium									
Strontium									
Thallium									
Tin									
Titanium									
Vanadium									
Zinc									

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC87121
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA043019M1L.CSV Date Analyzed: 04/30/19 Methods: EPA 200.8, SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA46617 Units: ug/l

Time:		21:29			22:24			23:19	
Sample ID:	CCVA	CCVA5		CCVA	CCVA6		CCVA	CCVA7	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony									
Arsenic	50	49.9	99.8	50	49.9	99.8	50	50.1	100.2
Barium	50	52.7	105.4	50	51.9	103.8	50	51.3	102.6
Beryllium									
Boron									
Cadmium	anr								
Calcium									
Chromium									
Cobalt									
Copper	anr								
Iron	5000	4970	99.4	5000	4990	99.8	5000	5070	101.4
Lead	50	51.0	102.0	50	50.3	100.6	50	50.6	101.2
Magnesium									
Manganese									
Molybdenum									
Nickel	anr								
Potassium									
Selenium									
Silver	anr								
Sodium									
Strontium									
Thallium									
Tin									
Titanium									
Vanadium									
Zinc									

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC87121
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA043019M1L.CSV Date Analyzed: 04/30/19 Methods: EPA 200.8, SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA46617 Units: ug/l

Time:		00:14	
Sample ID:	CCVA	CCVA8	
Metal	True	Results	% Rec
Aluminum	anr		
Antimony			
Arsenic	50	50.1	100.2
Barium	50	50.9	101.8
Beryllium			
Boron			
Cadmium	anr		
Calcium			
Chromium			
Cobalt			
Copper	anr		
Iron	5000	4980	99.6
Lead	50	50.8	101.6
Magnesium			
Manganese			
Molybdenum			
Nickel	anr		
Potassium			
Selenium			
Silver	anr		
Sodium			
Strontium			
Thallium			
Tin			
Titanium			
Vanadium			
Zinc			

(*) Outside of QC limits
(anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC87121
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA043019M1L.CSV Date Analyzed: 04/30/19 Methods: EPA 200.8, SW846 6020B
QC Limits: 80 to 120 % Recovery Run ID: MA46617 Units: ug/l

Time:			18:27	
Sample ID:	CRI	CRIA	CRI1	
Metal	True	True	Results	% Rec
Aluminum	25	25	anr	
Antimony	2.0	0.25		
Arsenic	0.50	0.50	0.501	100.2
Barium	1.0	0.50	1.06	106.0
Beryllium	0.50	0.25		
Boron	25	2.5		
Cadmium	0.50	0.25	anr	
Calcium	250	125		
Chromium	1.0	2.0		
Cobalt	0.50	0.25		
Copper	2.0	2.0	anr	
Iron	25	25	28.5	114.0
Lead	0.50	0.25	0.500	100.0
Magnesium	250	125		
Manganese	1.0	0.25		
Molybdenum	1.0	0.50		
Nickel	1.0	2.0	anr	
Potassium	250	125		
Selenium	0.50	0.50		
Silver	0.50	1.0	anr	
Sodium	250	125		
Strontium	5.0	0.50		
Thallium	0.50	0.25		
Tin	5.0	0.50		
Titanium	1.0	0.50		
Vanadium	1.0	2.0		
Zinc	5.0	2.0		

(*) Outside of QC limits
(anr) Analyte not requested

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: JC87121
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA043019M1L.CSV Date Analyzed: 04/30/19 Methods: EPA 200.8, SW846 6020B
QC Limits: 80 to 120 % Recovery Run ID: MA46617 Units: ug/l

Time:			18:33		18:37	
Sample ID:	ICSA	ICSAB	ICSA1		ICSAB1	
Metal	True	True	Results	% Rec	Results	% Rec
Aluminum	100000	100000	102000	102.0	103000	103.0
Antimony			0.200		0.212	
Arsenic		20	0.0822		18.3	91.5
Barium			0.320		0.368	
Beryllium			0.00204		0.00201	
Boron		50	4.48		58.5	117.0
Cadmium		20	-0.341		18.1	90.5
Calcium	100000	100000	97700	97.7	101000	101.0
Chromium		20	0.193		19.7	98.5
Cobalt		20	0.319*(a		18.6	93.0
Copper		20	-0.159		17.0	85.0
Iron	100000	100000	91100	91.1	93100	93.1
Lead			0.0821		0.0856	
Magnesium	100000	100000	96500	96.5	98600	98.6
Manganese		20	0.367		19.6	98.0
Molybdenum	2000	2000	2030	101.5	2090	104.5
Nickel		20	0.601		18.3	91.5
Potassium	100000	100000	102000	102.0	106000	106.0
Selenium		20	0.0905		19.6	98.0
Silver		20	0.0236		20.1	100.5
Sodium	100000	100000	95200	95.2	97800	97.8
Strontium	2000	2000	2030	101.5	2230	111.5
Thallium			0.00990		0.00687	
Tin	2000	2000	1860	93.0	1980	99.0
Titanium	2000	2000	1780	89.0	1810	90.5
Vanadium		20	0.0130		21.0	105.0
Zinc		20	0.688		16.5	82.5

(*) Outside of QC limits
(anr) Analyte not requested
(a) No samples reported for this element in the area bracketed by this QC.

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC87121
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA050119M2L.CSV Date Analyzed: 05/01/19 Methods: EPA 200.8, SW846 6020B
Analyst: EAL Run ID: MA46632
Parameters: Al,Cd

Time	Sample Description	Dilution Factor	PS Recov	Comments
12:21	MA46632-STD1	1		STDA
12:26	MA46632-STD2	1		STDA
12:31	MA46632-STD3	1		STDA
12:36	MA46632-STD4	1		STDB
12:41	MA46632-STD5	1		STDC
12:46	MA46632-STD6	1		STDD
12:51	MA46632-STD7	1		STDE
12:56	MA46632-STD8	1		STDF
13:01	MA46632-STD9	1		STDG
13:06	MA46632-STD10	1		STDH
13:11	MA46632-STD11	1		STDI
13:16	MA46632-STD12	1		STDJ
13:21	ZZZZZZ	1		
13:26	ZZZZZZ	1		
13:32	MA46632-STD13	1		STDB
13:37	ZZZZZZ	1		
13:44	MA46632-ICVA1	1		
13:51	MA46632-ICV1	1		60ppb Al.
14:00	MA46632-ICB1	1		
14:05	MA46632-CCVA1	1		
14:10	MA46632-CCB1	1		
14:15	MA46632-CRI1	1		
14:26	MA46632-ICSA1	1		
14:31	MA46632-ICSAB1	1		
14:36	ZZZZZZ	1		
14:42	MA46632-CCVA2	1		
14:47	MA46632-CCB2	1		
14:52	ZZZZZZ	1		
14:57	ZZZZZZ	1		
15:02	ZZZZZZ	2		
15:07	ZZZZZZ	5		
15:12	MP14645-MB1	2		
15:17	MP14645-B1	2		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC87121
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA050119M2L.CSV Date Analyzed: 05/01/19 Methods: EPA 200.8, SW846 6020B
Analyst: EAL Run ID: MA46632
Parameters: Al,Cd

Time	Sample Description	Dilution Factor	PS Recov	Comments
15:22	MP14645-B2	2		
15:27	MP14645-S1	2		
15:32	MP14645-S2	2		
15:37	MA46632-CCVA3	1		
15:42	MA46632-CCB3	1		
15:47	JC87142-4	2		(sample used for QC only; not part of login JC87121)
15:52	MP14645-SD1	10		
15:57	ZZZZZZ	2		
16:02	ZZZZZZ	2		
16:07	JC87121-1	2		
16:12	JC87121-2	2		
---------->	Last reportable sample/prep for job JC87121			
16:17	MP14668-MB1	5		
16:22	MP14668-B1	5		
16:27	MP14668-S1	5		overrange
16:32	MA46632-CCVA4	1		
16:38	MA46632-CCB4	1		
---------->	Last reportable CCB for job JC87121			
16:43	MP14668-S2	5		overrange
16:48	FA63522-11	5		(sample used for QC only; not part of login JC87121)
16:53	MP14668-SD1	25		
16:58	ZZZZZZ	5		
17:03	ZZZZZZ	5		
17:08	ZZZZZZ	5		
17:13	ZZZZZZ	5		
17:18	ZZZZZZ	5		
17:23	ZZZZZZ	5		
17:28	MA46632-CCVA5	1		
17:33	MA46632-CCB5	1		
17:38	ZZZZZZ	5		
17:43	ZZZZZZ	5		
17:48	MP14668-PS1	5		Overrange
17:53	ZZZZZZ	1		
17:58	ZZZZZZ	1		
18:03	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC87121
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA050119M2L.CSV Date Analyzed: 05/01/19 Methods: EPA 200.8, SW846 6020B
Analyst: EAL Run ID: MA46632
Parameters: Al,Cd

Time	Sample Description	Dilution Factor	PS Recov	Comments
18:08	MA46632-CCVA6	1		
18:13	MA46632-CCB6	1		
18:18	ZZZZZZ	1		
18:23	ZZZZZZ	1		
18:28	ZZZZZZ	1		
18:33	MA46632-CCVA7	1		
18:38	MA46632-CCB7	1		
18:43	MP14714-MB1	1		
18:48	MP14714-B1	1		
18:53	MP14714-S1	1		
18:58	MP14714-S2	1		
19:03	JC86671-82	1		(sample used for QC only; not part of login JC87121)
19:08	MP14714-S3	1		
19:13	JC86671-83	1		(sample used for QC only; not part of login JC87121)
19:18	ZZZZZZ	1		
19:23	ZZZZZZ	1		
19:28	ZZZZZZ	1		
19:33	MA46632-CCVA8	1		
19:38	MA46632-CCB8	1		
19:43	ZZZZZZ	1		
19:48	ZZZZZZ	1		
19:54	ZZZZZZ	1		
19:59	ZZZZZZ	1		
20:04	ZZZZZZ	1		
20:09	ZZZZZZ	1		
20:14	ZZZZZZ	1		
20:19	ZZZZZZ	1		
20:24	ZZZZZZ	1		
20:29	ZZZZZZ	1		
20:34	MA46632-CCVA9	1		
20:39	MA46632-CCB9	1		
20:44	ZZZZZZ	1		
20:49	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC87121
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA050119M2L.CSV Date Analyzed: 05/01/19 Methods: EPA 200.8, SW846 6020B
Analyst: EAL Run ID: MA46632
Parameters: Al,Cd

Time	Sample Description	Dilution Factor	PS Recov	Comments
20:54	ZZZZZZ	1		
20:59	ZZZZZZ	1		
21:04	ZZZZZZ	1		
21:09	MP14715-MB1	1		
21:14	MP14715-B1	1		
21:19	MP14715-S1	1		
21:24	MP14715-S2	1		
21:29	JC86671-103	1		(sample used for QC only; not part of login JC87121)
21:34	MA46632-CCVA10	1		
21:39	MA46632-CCB10	1		
21:44	MP14715-S3	1		
21:49	JC86671-104	1		(sample used for QC only; not part of login JC87121)
21:54	ZZZZZZ	1		
21:59	ZZZZZZ	1		
22:04	ZZZZZZ	1		
22:09	ZZZZZZ	1		
22:14	ZZZZZZ	1		
22:20	ZZZZZZ	1		
22:25	ZZZZZZ	1		
22:30	ZZZZZZ	1		
22:35	MA46632-CCVA11	1		
22:40	MA46632-CCB11	1		
22:45	ZZZZZZ	1		
22:50	ZZZZZZ	1		
22:55	ZZZZZZ	1		
23:00	ZZZZZZ	1		
23:05	ZZZZZZ	1		
23:10	ZZZZZZ	1		
23:15	ZZZZZZ	1		
23:20	ZZZZZZ	1		
23:25	ZZZZZZ	1		
23:30	ZZZZZZ	1		
23:35	MA46632-CCVA12	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC87121
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA050119M2L.CSV Date Analyzed: 05/01/19 Methods: EPA 200.8, SW846 6020B
Analyst: EAL Run ID: MA46632
Parameters: Al,Cd

Time	Sample Description	Dilution Factor	PS Recov	Comments
23:40	MA46632-CCB12	1		
23:45	MP14716-MB1	1		
23:50	MP14716-B1	1		
23:55	MP14716-S1	1		
00:00	MP14716-S2	1		
00:05	JC87195-1	1		(sample used for QC only; not part of login JC87121)
00:10	MP14716-S3	1		
00:15	JC87195-2	1		(sample used for QC only; not part of login JC87121)
00:20	ZZZZZZ	1		
00:25	ZZZZZZ	1		
00:30	ZZZZZZ	1		
00:35	MA46632-CCVA13	1		
00:40	MA46632-CCB13	1		
00:45	ZZZZZZ	1		
00:51	ZZZZZZ	1		
00:56	ZZZZZZ	1		
01:01	ZZZZZZ	1		
01:06	ZZZZZZ	1		
01:11	ZZZZZZ	1		
01:16	ZZZZZZ	1		
01:21	ZZZZZZ	1		
01:26	ZZZZZZ	1		
01:31	ZZZZZZ	1		
01:36	MA46632-CCVA14	1		
01:41	MA46632-CCB14	1		
01:46	ZZZZZZ	1		
01:51	ZZZZZZ	1		
01:56	ZZZZZZ	1		
02:01	ZZZZZZ	1		
02:06	ZZZZZZ	1		
02:11	MP14717-MB1	1		
02:16	MP14717-B1	1		
02:21	MP14717-S1	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC87121
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA050119M2L.CSV Date Analyzed: 05/01/19 Methods: EPA 200.8, SW846 6020B
Analyst: EAL Run ID: MA46632
Parameters: Al,Cd

Time	Sample Description	Dilution Factor	PS Recov	Comments
02:26	MP14717-S2	1		
02:31	JC87195-21	1		(sample used for QC only; not part of login JC87121)
02:36	MA46632-CCVA15	1		
02:41	MA46632-CCB15	1		
02:46	MP14717-S3	1		
02:51	JC87195-22	1		(sample used for QC only; not part of login JC87121)
02:56	ZZZZZZ	1		
03:01	ZZZZZZ	1		
03:06	ZZZZZZ	1		
03:11	ZZZZZZ	1		
03:16	ZZZZZZ	1		
03:21	ZZZZZZ	1		
03:26	ZZZZZZ	1		
03:31	ZZZZZZ	1		
03:36	MA46632-CCVA16	1		
03:41	MA46632-CCB16	1		
03:46	ZZZZZZ	1		
03:51	ZZZZZZ	1		
03:57	ZZZZZZ	1		
04:01	ZZZZZZ	1		
04:07	ZZZZZZ	1		
04:12	ZZZZZZ	1		
04:17	ZZZZZZ	1		
04:22	ZZZZZZ	1		
04:27	ZZZZZZ	1		
04:32	ZZZZZZ	1		
04:37	MA46632-CCVA17	1		
04:42	MA46632-CCB17	1		
04:47	ZZZZZZ	1		
04:52	ZZZZZZ	1		
04:57	ZZZZZZ	1		

Refer to raw data for calibration curve and standards.

REPORTED ELEMENTS SUMMARY

Login Number: JC87121
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA050119M2L.CSV Date Analyzed: 05/01/19 Methods: EPA 200.8, SW846 6020B
Analyst: EAL Run ID: MA46632
Parameters: Al,Cd

Time	Sample Description	Element: Dilution	Al	Cd	
13:21	ZZZZZZ	1			
13:26	ZZZZZZ	1			
13:37	ZZZZZZ	1			
13:44	MA46632-ICVA1	1	X	X	
13:51	MA46632-ICV1	1	X		
14:00	MA46632-ICB1	1	X	X	
14:05	MA46632-CCVA1	1	X	X	
14:10	MA46632-CCB1	1	X	X	
14:15	MA46632-CRI1	1	X	X	
14:26	MA46632-ICSA1	1	X	X	
14:31	MA46632-ICSAB1	1	X	X	
14:36	ZZZZZZ	1			
14:42	MA46632-CCVA2	1	X	X	
14:47	MA46632-CCB2	1	X	X	
14:52	ZZZZZZ	1			
14:57	ZZZZZZ	1			
15:02	ZZZZZZ	2			
15:07	ZZZZZZ	5			
15:12	MP14645-MB1	2	X	X	
15:17	MP14645-B1	2	X	X	
15:22	MP14645-B2	2	X	X	
15:27	MP14645-S1	2	X	X	
15:32	MP14645-S2	2	X	X	
15:37	MA46632-CCVA3	1	X	X	
15:42	MA46632-CCB3	1	X	X	
15:47	JC87142-4	2			(a)
15:52	MP14645-SD1	10	X	X	
15:57	ZZZZZZ	2			
16:02	ZZZZZZ	2			
16:07	JC87121-1	2	X	X	
16:12	JC87121-2	2	X	X	
16:17	MP14668-MB1	5			
16:22	MP14668-B1	5			
		Element:	Al	Cd	

REPORTED ELEMENTS SUMMARY

Login Number: JC87121
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA050119M2L.CSV Date Analyzed: 05/01/19 Methods: EPA 200.8, SW846 6020B
Analyst: EAL Run ID: MA46632
Parameters: Al,Cd

Time	Sample Description	Element: Dilution	A l	C d
16:27	MP14668-S1	5	overrange	
16:32	MA46632-CCVA4	1	X	X
16:38	MA46632-CCB4	1	X	X
16:43	MP14668-S2	5	overrange	
16:48	FA63522-11	5	Sc out, to rerun at higher dilution	
16:53	MP14668-SD1	25		
16:58	ZZZZZZ	5		
17:03	ZZZZZZ	5		
17:08	ZZZZZZ	5		
17:13	ZZZZZZ	5		
17:18	ZZZZZZ	5		
17:23	ZZZZZZ	5		
17:28	MA46632-CCVA5	1	X	X
17:33	MA46632-CCB5	1	X	X
17:38	ZZZZZZ	5		
17:43	ZZZZZZ	5		
17:48	MP14668-PS1	5	Overrange	
17:53	ZZZZZZ	1		
17:58	ZZZZZZ	1		
18:03	ZZZZZZ	1		
18:08	MA46632-CCVA6	1	X	X
18:13	MA46632-CCB6	1	X	X
18:18	ZZZZZZ	1		
18:23	ZZZZZZ	1		
18:28	ZZZZZZ	1		
18:33	MA46632-CCVA7	1	X	X
18:38	MA46632-CCB7	1	X	X
18:43	MP14714-MB1	1		
18:48	MP14714-B1	1		
18:53	MP14714-S1	1		
18:58	MP14714-S2	1		
19:03	JC86671-82	1		(a)
19:08	MP14714-S3	1		
		Element:	A l	C d

REPORTED ELEMENTS SUMMARY

Login Number: JC87121
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA050119M2L.CSV Date Analyzed: 05/01/19 Methods: EPA 200.8, SW846 6020B
Analyst: EAL Run ID: MA46632
Parameters: Al,Cd

Time	Sample Description	Element: Dilution	Al	Cd	
19:13	JC86671-83	1			(a)
19:18	ZZZZZZ	1			
19:23	ZZZZZZ	1			
19:28	ZZZZZZ	1			
19:33	MA46632-CCVA8	1			
19:38	MA46632-CCB8	1			
19:43	ZZZZZZ	1			
19:48	ZZZZZZ	1			
19:54	ZZZZZZ	1			
19:59	ZZZZZZ	1			
20:04	ZZZZZZ	1			
20:09	ZZZZZZ	1			
20:14	ZZZZZZ	1			
20:19	ZZZZZZ	1			
20:24	ZZZZZZ	1			
20:29	ZZZZZZ	1			
20:34	MA46632-CCVA9	1			
20:39	MA46632-CCB9	1			
20:44	ZZZZZZ	1			
20:49	ZZZZZZ	1			
20:54	ZZZZZZ	1			
20:59	ZZZZZZ	1			
21:04	ZZZZZZ	1			
21:09	MP14715-MB1	1			
21:14	MP14715-B1	1			
21:19	MP14715-S1	1			
21:24	MP14715-S2	1			
21:29	JC86671-103	1			(a)
21:34	MA46632-CCVA10	1			
21:39	MA46632-CCB10	1			
21:44	MP14715-S3	1			
21:49	JC86671-104	1			(a)
21:54	ZZZZZZ	1			
		Element:	Al	Cd	

REPORTED ELEMENTS SUMMARY

Login Number: JC87121
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA050119M2L.CSV Date Analyzed: 05/01/19 Methods: EPA 200.8, SW846 6020B
Analyst: EAL Run ID: MA46632
Parameters: Al,Cd

Time	Sample Description	Element: Dilution	Al	Cd	
21:59	ZZZZZZ	1			
22:04	ZZZZZZ	1			
22:09	ZZZZZZ	1			
22:14	ZZZZZZ	1			
22:20	ZZZZZZ	1			
22:25	ZZZZZZ	1			
22:30	ZZZZZZ	1			
22:35	MA46632-CCVA11	1			
22:40	MA46632-CCB11	1			
22:45	ZZZZZZ	1			
22:50	ZZZZZZ	1			
22:55	ZZZZZZ	1			
23:00	ZZZZZZ	1			
23:05	ZZZZZZ	1			
23:10	ZZZZZZ	1			
23:15	ZZZZZZ	1			
23:20	ZZZZZZ	1			
23:25	ZZZZZZ	1			
23:30	ZZZZZZ	1			
23:35	MA46632-CCVA12	1			
23:40	MA46632-CCB12	1			
23:45	MP14716-MB1	1			
23:50	MP14716-B1	1			
23:55	MP14716-S1	1			
00:00	MP14716-S2	1			
00:05	JC87195-1	1			(a)
00:10	MP14716-S3	1			
00:15	JC87195-2	1			(a)
00:20	ZZZZZZ	1			
00:25	ZZZZZZ	1			
00:30	ZZZZZZ	1			
00:35	MA46632-CCVA13	1			
00:40	MA46632-CCB13	1			
		Element:	Al	Cd	

REPORTED ELEMENTS SUMMARY

Login Number: JC87121
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA050119M2L.CSV Date Analyzed: 05/01/19 Methods: EPA 200.8, SW846 6020B
Analyst: EAL Run ID: MA46632
Parameters: Al,Cd

Time	Sample Description	Element: Dilution	Al	Cd	
00:45	ZZZZZZ	1			
00:51	ZZZZZZ	1			
00:56	ZZZZZZ	1			
01:01	ZZZZZZ	1			
01:06	ZZZZZZ	1			
01:11	ZZZZZZ	1			
01:16	ZZZZZZ	1			
01:21	ZZZZZZ	1			
01:26	ZZZZZZ	1			
01:31	ZZZZZZ	1			
01:36	MA46632-CCVA14	1			
01:41	MA46632-CCB14	1			
01:46	ZZZZZZ	1			
01:51	ZZZZZZ	1			
01:56	ZZZZZZ	1			
02:01	ZZZZZZ	1			
02:06	ZZZZZZ	1			
02:11	MP14717-MB1	1			
02:16	MP14717-B1	1			
02:21	MP14717-S1	1			
02:26	MP14717-S2	1			
02:31	JC87195-21	1			(a)
02:36	MA46632-CCVA15	1			
02:41	MA46632-CCB15	1			
02:46	MP14717-S3	1			
02:51	JC87195-22	1			(a)
02:56	ZZZZZZ	1			
03:01	ZZZZZZ	1			
03:06	ZZZZZZ	1			
03:11	ZZZZZZ	1			
03:16	ZZZZZZ	1			
03:21	ZZZZZZ	1			
03:26	ZZZZZZ	1			
		Element:	Al	Cd	

REPORTED ELEMENTS SUMMARY

Login Number: JC87121
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA050119M2L.CSV Date Analyzed: 05/01/19 Methods: EPA 200.8, SW846 6020B
Analyst: EAL Run ID: MA46632
Parameters: Al,Cd

Time	Sample Description	Element: Dilution	Al	Cd
03:31	ZZZZZZ	1		
03:36	MA46632-CCVA16	1		
03:41	MA46632-CCB16	1		
03:46	ZZZZZZ	1		
03:51	ZZZZZZ	1		
03:57	ZZZZZZ	1		
04:01	ZZZZZZ	1		
04:07	ZZZZZZ	1		
04:12	ZZZZZZ	1		
04:17	ZZZZZZ	1		
04:22	ZZZZZZ	1		
04:27	ZZZZZZ	1		
04:32	ZZZZZZ	1		
04:37	MA46632-CCVA17	1		
04:42	MA46632-CCB17	1		
04:47	ZZZZZZ	1		
04:52	ZZZZZZ	1		
04:57	ZZZZZZ	1		

(a) Sample used for QC only; not part of login JC87121.

Element:	Al	Cd

INTERNAL STANDARD SUMMARY

Login Number: JC87121
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA050119M2L.CSV Date Analyzed: 05/01/19 Methods: EPA 200.8, SW846 6020B
Analyst: EAL Run ID: MA46632
Parameters: Al,Cd

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8
12:21	MA46632-STD1	100	100	100	100	100	100	100	100
12:26	MA46632-STD2	100	100	100	100	100	100	100	100
12:31	MA46632-STD3	100	100	100	100	100	100	100	100
12:36	MA46632-STD4	99.864	100.581	100.3	100.797	99.093	99.597	99.76	101.222
12:41	MA46632-STD5	99.961	99.85	98.524	99.682	98.325	97.999	99.151	100.938
12:46	MA46632-STD6	99.632	99.711	99.009	100.136	98.353	97.57	99.663	100.252
12:51	MA46632-STD7	98.993	98.646	98.057	101.382	97.518	97.551	99.013	99.816
12:56	MA46632-STD8	99.514	99.579	99.053	100.621	98.332	98.559	99.975	100.677
13:01	MA46632-STD9	99.528	99.214	97.864	99.492	97.932	97.797	99.767	100.638
13:06	MA46632-STD10	100.187	100.357	100.59	101.263	98.44	99.995	102.105	102.111
13:11	MA46632-STD11	101.668	102.064	100.738	101.184	99.884	99.325	102.021	101.62
13:16	MA46632-STD12	101.121	102.942	102.043	102.673	100.942	100.657	101.858	101.509
13:21	ZZZZZZ	100.774	101.304	100.384	102.18	99.479	100.751	102.574	102.281
13:26	ZZZZZZ	101.256	101.946	100.652	100.314	100.846	99.236	101	101.764
13:32	MA46632-STD13	101.714	101.774	101.206	100.529	100.966	98.815	102.255	102.692
13:37	ZZZZZZ	101.67	101.651	101.341	100.938	99.049	100.379	101.543	101.598
13:44	MA46632-ICVA1	100.476	101.052	100.852	101.422	99.117	100.039	99.516	101.714
13:51	MA46632-ICV1	99.903	100.283	99.196	100.429	97.584	98.854	100.858	99.638
14:00	MA46632-ICB1	100.043	100.891	101.017	100.673	99.078	99.485	100.432	101.077
14:05	MA46632-CCVA1	100.862	101.56	101.43	100.946	100.072	99.838	100.285	102.191
14:10	MA46632-CCB1	100.775	100.166	100.779	100.158	99.364	99.694	99.756	100.827
14:15	MA46632-CRI1	99.744	100.647	101.334	100.635	98.975	99.806	100.55	100.398
14:26	MA46632-ICSA1	98.019	100.584	104.047	102.891	102.637	104.016	101.2	98.074
14:31	MA46632-ICSAB1	98.91	103.615	105.217	104.398	105.631	104.646	103.096	101.189
14:36	ZZZZZZ	101.525	104.075	101.826	105.23	103.589	103.6	107.25	105.599
14:42	MA46632-CCVA2	100.032	103.909	102.432	108.15	103.149	102.635	106.782	105.368
14:47	MA46632-CCB2	101.619	104.201	101.992	108.504	104.108	103.589	107.984	106.193
14:52	ZZZZZZ	103.926	106.519	105.173	109.166	107.032	106.237	110.78	107.934
14:57	ZZZZZZ	103.659	107.207	106.67	111.891	108.025	106.235	109.693	108.943
15:02	ZZZZZZ	103.101	108.314	107.347	111.332	107.716	108.608	112.1	109.053
15:07	ZZZZZZ	106.216	110.154	109.554	112.442	110.682	111.091	112.79	112.045
15:12	MP14645-MB1	106.136	106.6	104.51	115.109	106.584	106.79	115.886	109.19
15:17	MP14645-B1	106.806	108.321	105.366	118.965	107.231	106.29	115.428	109.895

INTERNAL STANDARD SUMMARY

Login Number: JC87121
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA050119M2L.CSV Date Analyzed: 05/01/19 Methods: EPA 200.8, SW846 6020B
Analyst: EAL Run ID: MA46632
Parameters: Al,Cd

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8
15:22	MP14645-B2	108.103	109.842	107.199	117.879	108.539	108.435	118.166	111.787
15:27	MP14645-S1	105.341	106.906	106.765	118.496	106.704	107.281	115.963	108.897
15:32	MP14645-S2	106.661	108.28	106.59	118.819	107.175	107.512	118.048	110.079
15:37	MA46632-CCVA3	112.028	114.488	113.415	120.846	111.756	112.421	117.597	113.818
15:42	MA46632-CCB3	112.621	114.331	112.983	118.512	110.378	112.967	117.695	113.201
15:47	JC87142-4	109.24	109.842	107.171	119.921	108.468	110.173	121.013	110.939
15:52	MP14645-SD1	112.701	113.851	112.708	119.261	111.7	113.554	117.04	114.135
15:57	ZZZZZZ	105.384	108.18	104.654	115.526	106.339	105.083	113.007	106.864
16:02	ZZZZZZ	107.821	111.741	113.406	120.138	106.244	106.596	112.738	106.821
16:07	JC87121-1	113.685	112.813	111.89	121.475	114.237	112.871	119.937	113.363
16:12	JC87121-2	111.635	111.907	109.13	121.996	112.461	109.576	121.651	112.37
16:17	MP14668-MB1	No results reported for the elements associated with this internal standard.							
16:22	MP14668-B1	No results reported for the elements associated with this internal standard.							
16:27	MP14668-S1	No results reported for the elements associated with this internal standard.							
16:32	MA46632-CCVA4	115.469	119.281	117.457	123.878	115.307	114.721	120.51	117.028
16:38	MA46632-CCB4	115.677	117.134	116.002	123.013	113.449	115.511	121.69	115.735
16:43	MP14668-S2	No results reported for the elements associated with this internal standard.							
16:48	FA63522-11	No results reported for the elements associated with this internal standard.							
16:53	MP14668-SD1	No results reported for the elements associated with this internal standard.							
16:58	ZZZZZZ	No results reported for the elements associated with this internal standard.							
17:03	ZZZZZZ	No results reported for the elements associated with this internal standard.							
17:08	ZZZZZZ	No results reported for the elements associated with this internal standard.							
17:13	ZZZZZZ	No results reported for the elements associated with this internal standard.							
17:18	ZZZZZZ	No results reported for the elements associated with this internal standard.							
17:23	ZZZZZZ	No results reported for the elements associated with this internal standard.							
17:28	MA46632-CCVA5	107.844	112.573	110.305	117.705	109.231	110.353	114.296	111.725
17:33	MA46632-CCB5	109.519	113.188	110.818	120.396	111.827	111.63	117.887	112.768
17:38	ZZZZZZ	No results reported for the elements associated with this internal standard.							
17:43	ZZZZZZ	No results reported for the elements associated with this internal standard.							
17:48	MP14668-PS1	No results reported for the elements associated with this internal standard.							
17:53	ZZZZZZ	111.654	114.529	112.13	119.917	113.187	113.389	117.432	113.721
17:58	ZZZZZZ	112.165	115.362	112.896	119.921	113.488	113.015	117.622	114.591
18:03	ZZZZZZ	112.32	115.126	113.772	121.041	113.026	113.63	118.042	113.802

INTERNAL STANDARD SUMMARY

Login Number: JC87121
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA050119M2L.CSV Date Analyzed: 05/01/19 Methods: EPA 200.8, SW846 6020B
Analyst: EAL Run ID: MA46632
Parameters: Al,Cd

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8
18:08	MA46632-CCVA6	109.618	113.323	111.196	117.436	111.185	110.649	114.69	112.255
18:13	MA46632-CCB6	110.303	113.247	111.063	119.57	111.602	112.549	116.535	113.01
18:18	ZZZZZZ	111.855	113.802	112.935	118.419	111.403	111.9	116.667	113.081
18:23	ZZZZZZ	113.021	113.745	112.399	118.582	112.42	112.392	117.591	113.67
18:28	ZZZZZZ	112.757	114.263	112.214	118.718	111.638	113.509	116.934	114.039
18:33	MA46632-CCVA7	110.286	113.876	111.185	117.776	109.934	110.51	114.38	113.272
18:38	MA46632-CCB7	111.092	114.005	111.204	118.52	111.842	111.67	116.006	113.935
18:43	MP14714-MB1	111.487	114.438	112.454	118.448	112.252	110.984	116.343	114.184
18:48	MP14714-B1	111.654	113.336	110.97	118.196	111.535	111.918	116.033	113.85
18:53	MP14714-S1	106.135	111.507	108.121	114.355	111.463	112.085	114.83	113.942
18:58	MP14714-S2	106.643	111.752	109.85	113.027	111.212	111.099	114.001	113.917
19:03	JC86671-82	105.562	110.302	109.047	112.938	110.622	112.018	114.606	113.184
19:08	MP14714-S3	105.424	109.363	107.499	111.72	109.694	109.613	112.974	112.209
19:13	JC86671-83	105.139	108.711	108.194	111.492	108.325	108.524	111.106	109.689
19:18	ZZZZZZ	105.169	108.473	107.37	109.579	108.439	109.676	110.596	110.996
19:23	ZZZZZZ	105.444	109.024	107.311	110.551	108.314	109.071	111.737	110.674
19:28	ZZZZZZ	105.356	108.645	109.101	110.535	108.147	109.547	111.735	110.154
19:33	MA46632-CCVA8	107.622	109.506	108.051	113.281	108.811	107.865	111.819	109.367
19:38	MA46632-CCB8	105.899	106.455	105.313	111.265	104.957	106.886	111.145	106.937
19:43	ZZZZZZ	101.804	106.086	104.503	108.718	106.175	106.473	109.661	107.546
19:48	ZZZZZZ	103.308	106.478	105.348	109.767	106.339	109.095	109.772	108.762
19:54	ZZZZZZ	105.127	108.645	106.755	109.12	108.513	109.071	109.675	110.251
19:59	ZZZZZZ	105.277	108.135	106.033	110.81	107.891	108.815	110.633	110.346
20:04	ZZZZZZ	105.613	109.833	106.91	111.986	107.466	108.715	111.167	110.157
20:09	ZZZZZZ	106.62	109.55	107.77	109.289	108.334	109.152	110.368	110.504
20:14	ZZZZZZ	106.274	108.881	108.366	110.347	108.404	109.788	110.119	110.422
20:19	ZZZZZZ	105.806	109.006	108.585	110.674	108.611	110.102	110.363	109.871
20:24	ZZZZZZ	106.367	110.197	109.172	110.522	108.554	109.812	110.506	110.56
20:29	ZZZZZZ	106.362	110.205	109.201	110.819	109.038	109.477	110.918	110.582
20:34	MA46632-CCVA9	109.995	109.869	107.252	112.976	109.643	107.653	110.379	110.462
20:39	MA46632-CCB9	106.368	107.699	106.128	110.733	107.1	105.96	110.087	108.021
20:44	ZZZZZZ	102.977	106.2	105.249	108.559	105.264	107.37	108.91	108.039
20:49	ZZZZZZ	104.199	108.184	106.766	108.802	106.921	109.173	109.39	108.628

INTERNAL STANDARD SUMMARY

Login Number: JC87121
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA050119M2L.CSV Date Analyzed: 05/01/19 Methods: EPA 200.8, SW846 6020B
Analyst: EAL Run ID: MA46632
Parameters: Al,Cd

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8
20:54	ZZZZZZ	105.113	108.055	108.092	109.205	107.094	108.678	109.546	108.885
20:59	ZZZZZZ	104.508	107.675	107.929	108.942	107.286	108.339	109.724	108.929
21:04	ZZZZZZ	104.279	107.962	108.039	107.873	108.105	107.747	108.794	110.053
21:09	MP14715-MB1	108.191	109.107	106.871	111.089	107.181	107.734	110.726	109.586
21:14	MP14715-B1	105.282	106.361	105.268	108.213	106.048	105.28	108.382	107.108
21:19	MP14715-S1	101.864	105.574	104.548	105.983	105.402	105.769	106.854	107.512
21:24	MP14715-S2	101.635	105.343	104.453	106.022	104.626	105.316	107.837	107.036
21:29	JC86671-103	101.675	105.659	104.726	107.146	105.307	106.449	106.999	107.584
21:34	MA46632-CCVA10	105.311	105.57	104.976	109.37	105.214	105.167	108.819	106.397
21:39	MA46632-CCB10	103.212	105.215	103.541	107.767	104.078	103.2	108.724	106.135
21:44	MP14715-S3	100.394	104.29	102.022	105.254	104.6	104.652	105.586	106.563
21:49	JC86671-104	101.327	104.667	103.838	105.692	104.741	105.489	107.261	106.692
21:54	ZZZZZZ	101.48	105.627	104.824	105.425	104.684	105.68	106.252	106.611
21:59	ZZZZZZ	101.752	105.59	103.619	106.039	105.533	105.719	106.039	107.125
22:04	ZZZZZZ	101.908	106.598	105.133	105.563	105.165	106.46	106.512	107.179
22:09	ZZZZZZ	102.601	106.397	106.667	106.008	106.194	108.294	105.023	108.2
22:14	ZZZZZZ	102.366	106.417	105.488	106.349	105.228	106.174	105.448	107.235
22:20	ZZZZZZ	102.347	107.053	106.117	105.564	105.354	105.96	107.467	107.212
22:25	ZZZZZZ	102.581	105.786	105.448	106.558	105.14	107.983	106.41	106.977
22:30	ZZZZZZ	101.525	105.574	105.916	105.834	105.315	107.14	106.048	107.521
22:35	MA46632-CCVA11	104.342	106.151	104.159	108.486	105.167	104.746	107.139	106.468
22:40	MA46632-CCB11	103.053	103.621	103.308	106.634	103.226	102.739	106.078	103.945
22:45	ZZZZZZ	100.27	104.207	103.67	103.687	103.611	104.361	105.082	105.211
22:50	ZZZZZZ	100.832	104.309	103.697	104.02	103.971	102.909	104.776	106.092
22:55	ZZZZZZ	101.144	104.559	103.54	105.179	104.396	104.252	105.417	105.811
23:00	ZZZZZZ	101.589	105.125	105.484	103.551	104.554	105.191	104.851	106.634
23:05	ZZZZZZ	101.311	105.596	105.041	104.346	104.076	105.387	104.439	106.09
23:10	ZZZZZZ	101.394	105.257	105.765	104.518	104.414	106.92	105.738	106.221
23:15	ZZZZZZ	102.392	106.159	106.279	106.34	105.375	105.609	105.686	107.334
23:20	ZZZZZZ	102.642	107.177	106.302	105.4	105.518	107.755	107.094	107.282
23:25	ZZZZZZ	102.92	106.968	105.544	105.367	104.752	107.177	105.181	107.389
23:30	ZZZZZZ	102.711	106.223	107.003	106.075	105.26	106.509	105.923	106.832
23:35	MA46632-CCVA12	105.382	106.174	104.081	107.308	105.653	105.178	104.996	107.127

INTERNAL STANDARD SUMMARY

Login Number: JC87121
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA050119M2L.CSV Date Analyzed: 05/01/19 Methods: EPA 200.8, SW846 6020B
Analyst: EAL Run ID: MA46632
Parameters: Al,Cd

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8
23:40	MA46632-CCB12	102.305	104.882	104.082	105.777	103.47	103.341	105.27	104.54
23:45	MP14716-MB1	102.528	103.51	103.829	106.919	104.046	102.357	104.919	104.989
23:50	MP14716-B1	101.894	103.76	102.391	106.769	103.368	102.153	105.048	104.05
23:55	MP14716-S1	101.241	104.493	103.995	104.572	103.683	105.222	105.785	106.163
00:00	MP14716-S2	101.675	105.72	105.524	104.723	104.857	105.866	104.643	107.256
00:05	JC87195-1	101.988	105.886	106.805	104.84	105.163	106.823	105.041	106.975
00:10	MP14716-S3	101.986	105.938	105.751	104.216	104.001	104.843	105.215	106.889
00:15	JC87195-2	102.336	106.166	106.207	104.765	104.999	106.279	104.387	106.229
00:20	ZZZZZZ	101.563	105.535	105.933	103.559	104.687	107.229	104.285	106.44
00:25	ZZZZZZ	102.085	106.077	105.697	103.986	104.921	105.212	104.64	106.127
00:30	ZZZZZZ	101.892	105.742	107.206	103.81	103.724	104.919	104.484	105.774
00:35	MA46632-CCVA13	103.96	104.843	103.976	105.028	104.017	103.273	103.884	104.91
00:40	MA46632-CCB13	101.947	104.357	102.929	105.543	101.56	101.489	105.43	103.627
00:45	ZZZZZZ	100.442	104.811	103.227	103.233	103.698	103.699	103.092	105.609
00:51	ZZZZZZ	100.674	104.09	104.437	103.956	103.255	104.275	103.986	105.254
00:56	ZZZZZZ	101.586	104.935	104.818	103.118	103.547	105.787	103.456	105.727
01:01	ZZZZZZ	101.295	104.993	104.612	103.787	103.494	104.762	105.512	105.568
01:06	ZZZZZZ	100.527	104.95	105.39	103.35	103.499	105.452	103.529	104.982
01:11	ZZZZZZ	101.346	105.789	105.544	103.82	104.669	105.376	103.776	105.742
01:16	ZZZZZZ	102.664	106.833	106.836	104.887	105.09	106.206	104.335	107.185
01:21	ZZZZZZ	101.862	105.67	105.263	103.603	103.876	105.209	104.138	106.33
01:26	ZZZZZZ	101.443	105.884	106.778	103.496	104.741	105.656	104.733	106.483
01:31	ZZZZZZ	100.79	104.908	106.001	102.98	102.882	105.45	104.681	104.252
01:36	MA46632-CCVA14	103.21	105.498	104.501	105.18	103.954	104.359	103.816	105.928
01:41	MA46632-CCB14	102.015	104.106	103.125	105.355	103.091	102.357	104.124	104.052
01:46	ZZZZZZ	100.746	104.595	102.966	102.863	102.964	104.071	103.25	105.478
01:51	ZZZZZZ	101.676	105.383	104.309	103.788	103.468	104.916	102.753	106.406
01:56	ZZZZZZ	101.557	105.735	105.396	104.248	103.386	106.494	103.563	105.343
02:01	ZZZZZZ	101.055	105.669	105.124	102.441	104.477	106.331	104.405	106.285
02:06	ZZZZZZ	100.949	105.277	106.53	103.855	102.925	103.951	104.362	105.813
02:11	MP14717-MB1	104.362	105.96	105.023	106.429	104.919	104.579	104.106	105.818
02:16	MP14717-B1	103	104.19	103.212	104.756	103.081	101.211	103.25	105.626
02:21	MP14717-S1	99.475	103.667	102.34	102.016	101.797	103.888	101.403	104.567

INTERNAL STANDARD SUMMARY

Login Number: JC87121
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA050119M2L.CSV Date Analyzed: 05/01/19 Methods: EPA 200.8, SW846 6020B
Analyst: EAL Run ID: MA46632
Parameters: Al,Cd

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8
02:26	MP14717-S2	99.013	103.483	103.025	102.153	102.618	103.644	102.119	103.94
02:31	JC87195-21	100.356	105.15	105.113	102.343	102.905	104.265	103.092	105.04
02:36	MA46632-CCVA15	103.243	104.187	102.761	105.601	102.727	102.069	103.296	103.878
02:41	MA46632-CCB15	102.315	103.702	102.63	104.992	102.461	102.166	104.258	103.348
02:46	MP14717-S3	100.123	103.519	103.688	101.477	102.762	104.001	102.576	105.4
02:51	JC87195-22	99.406	103.801	103.364	102.182	102.352	104.113	102.553	103.603
02:56	ZZZZZZ	100.133	104.268	104.801	102.427	102.209	103.953	104.629	104.705
03:01	ZZZZZZ	100.638	103.904	104.336	103.01	102.632	105.136	103.192	104.502
03:06	ZZZZZZ	102.088	105.26	105.009	103.29	103.94	104.037	103.395	105.874
03:11	ZZZZZZ	100.754	104.728	105.239	102.412	102.916	104.607	103.583	105.274
03:16	ZZZZZZ	101.379	105.549	105.513	103.609	103.166	104.526	103.078	105.777
03:21	ZZZZZZ	101.218	104.35	104.88	103.491	103.377	105.128	103.325	105.72
03:26	ZZZZZZ	101.447	105.258	107.117	102.733	103.419	105.502	102.535	106.298
03:31	ZZZZZZ	102.218	106.242	106.028	103.822	104.894	106.049	105.104	106.11
03:36	MA46632-CCVA16	105.175	105.963	104.465	105.254	105.452	103.197	105.12	105.63
03:41	MA46632-CCB16	102.984	104.728	103.677	104.172	102.665	101.97	103.658	103.76
03:46	ZZZZZZ	100.779	104.122	103.488	102.302	103.568	103.943	102.091	104.48
03:51	ZZZZZZ	100.21	104.467	105.688	103.487	104.064	105.146	103.923	105.714
03:57	ZZZZZZ	101.323	104.403	106.529	102.717	102.62	104.942	103.633	105.284
04:01	ZZZZZZ	100.78	105.189	104.662	102.141	104.265	104.259	103.094	105.716
04:07	ZZZZZZ	101.905	105.346	105.193	102.197	103.82	103.603	103.866	105.133
04:12	ZZZZZZ	102.026	105.981	105.553	101.792	104.184	106.271	102.264	105.742
04:17	ZZZZZZ	102.792	106.133	105.155	103.813	103.627	104.866	103.816	106.368
04:22	ZZZZZZ	101.708	105.304	105.396	102.273	103.638	106.447	103.151	105.805
04:27	ZZZZZZ	102.094	105.308	106.219	103.616	103.64	103.966	103.361	105.362
04:32	ZZZZZZ	102.011	106.58	107.179	104.591	104.994	105.298	103.816	106.283
04:37	MA46632-CCVA17	105.495	105.685	104.838	104.929	104.962	103.514	105.324	105.602
04:42	MA46632-CCB17	102.425	103.216	103.454	104.82	102.889	102.234	103.492	104.061
04:47	ZZZZZZ	102.792	103.239	101.607	104.075	101.851	102.242	103.755	102.196
04:52	ZZZZZZ	101.899	103.659	102.594	105.482	103.157	100.222	104.697	104.236
04:57	ZZZZZZ	101.792	103.637	103.793	105.467	102.23	101.148	103.49	103.739

! = Outside limits.

LEGEND:

Istd#	Parameter	Limits
Istd#1	Lithium	60-125 %

INTERNAL STANDARD SUMMARY

Login Number: JC87121
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA050119M2L.CSV Date Analyzed: 05/01/19 Methods: EPA 200.8, SW846 6020B
Analyst: EAL Run ID: MA46632
Parameters: Al,Cd

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8

Istd#8	Scandium (45-1)	60-125 %
Istd#3	Scandium (45-2)	60-125 %
Istd#4	Scandium (45-3)	60-125 %
Istd#5	Germanium (72-1)	60-125 %
Istd#6	Germanium (72-2)	60-125 %
Istd#7	Germanium (72-3)	60-125 %
Istd#8	Germanium (74-1)	60-125 %

INTERNAL STANDARD SUMMARY

Login Number: JC87121
Account: TCMAW - Tantara Corporation
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File ID: XA050119M2L.CSV Date Analyzed: 05/01/19 Methods: EPA 200.8, SW846 6020B
Analyst: EAL Run ID: MA46632
Parameters: Al,Cd

Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16
12:21	MA46632-STD1	100	100	100	100	100	100	100	100
12:26	MA46632-STD2	100	100	100	100	100	100	100	100
12:31	MA46632-STD3	100	100	100	100	100	100	100	100
12:36	MA46632-STD4	100.646	100.955	100.546	99.545	100.183	100.933	99.84	99.381
12:41	MA46632-STD5	97.605	100.159	99.556	98.466	99.359	99.444	98.379	99.625
12:46	MA46632-STD6	98.733	100.216	99.604	98.502	99.583	99.438	98.51	99.495
12:51	MA46632-STD7	97.929	99.714	98.272	97.608	99.458	98.902	97.697	98.819
12:56	MA46632-STD8	99.105	99.649	100.352	98.365	99.887	100.315	97.754	100.515
13:01	MA46632-STD9	99.315	100.06	98.539	98.108	99.321	100.028	98.539	99.568
13:06	MA46632-STD10	100.086	102.358	99.428	99.133	100.678	100.38	99.24	99.78
13:11	MA46632-STD11	100.119	101.293	99.12	98.005	99.061	100.496	99.535	100.65
13:16	MA46632-STD12	100.355	103.095	98.358	97.952	98.517	100.026	99.073	100.646
13:21	ZZZZZZ	101.772	101.703	101.203	99.863	101.637	101.524	100.274	99.924
13:26	ZZZZZZ	100.119	101.978	101.665	100.321	101.252	101.768	100.63	100.443
13:32	MA46632-STD13	100.21	102.057	101.577	99.889	101.57	102.466	100.449	100.611
13:37	ZZZZZZ	100.824	101.911	100.88	100.522	101.408	100.741	101.071	99.819
13:44	MA46632-ICVA1	99.076	100.677	98.056	97.358	97.673	99.785	98.107	99.694
13:51	MA46632-ICV1	99.071	100.309	99.403	99.016	100.201	100.32	99.597	99.734
14:00	MA46632-ICB1	100.63	100.588	100.588	99.972	99.943	100.63	100.875	100.1
14:05	MA46632-CCVA1	100.791	100.994	99.13	98.116	97.795	100.175	99.131	100.583
14:10	MA46632-CCB1	100.889	101.387	100.532	99.889	100.678	101.103	100.432	99.723
14:15	MA46632-CRI1	100.147	101.625	99.798	99.19	100.43	99.986	100.013	100.282
14:26	MA46632-ICSA1	99.774	97.894	90.139	90.354	89.089	94.429	95.691	96.689
14:31	MA46632-ICSAB1	100.184	99.582	91.955	90.804	90.294	95.997	94.795	98.181
14:36	ZZZZZZ	104.69	108.014	104.866	103.019	104.757	105.384	102.044	104.664
14:42	MA46632-CCVA2	102.649	107.505	103.242	100.035	103.059	104.635	100.019	104.615
14:47	MA46632-CCB2	104.69	108.54	105.232	102.988	106.089	106.395	101.341	105.051
14:52	ZZZZZZ	105.97	111.2	106.44	106.013	108.122	107.654	104.106	106.476
14:57	ZZZZZZ	107.656	110.996	105.852	103.644	106.487	106.897	102.719	106.161
15:02	ZZZZZZ	109.159	112.485	104.479	103.615	105.366	107.158	103.692	107.624
15:07	ZZZZZZ	111.847	113.243	109.753	107.677	109.283	110.938	106.774	108.165
15:12	MP14645-MB1	107.712	116.951	106.681	104.63	110.061	106.771	100.268	105.798
15:17	MP14645-B1	107.446	117.06	106.622	104.215	109.871	107.953	100.838	108.011

INTERNAL STANDARD SUMMARY

Login Number: JC87121
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA050119M2L.CSV Date Analyzed: 05/01/19 Methods: EPA 200.8, SW846 6020B
Analyst: EAL Run ID: MA46632
Parameters: Al,Cd

Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16
15:22	MP14645-B2	108.415	116.751	107.05	104.463	110.425	108.218	101	108.369
15:27	MP14645-S1	108.644	117.856	101.519	101.09	107.747	104.478	98.128	106.141
15:32	MP14645-S2	109.362	119.563	101.738	100.998	107.857	105.22	97.816	106.128
15:37	MA46632-CCVA3	111.863	117.864	108.804	106.307	109.647	110.133	103.66	108.691
15:42	MA46632-CCB3	112.563	117.286	110.147	108.774	112.436	110.103	105.749	108.1
15:47	JC87142-4	110.168	120.286	103.481	102.269	108.318	105.5	98.97	106.562
15:52	MP14645-SD1	112.789	118.67	109.651	107.952	111.38	110.606	105.659	109.793
15:57	ZZZZZZ	105.49	114.47	98.878	96.853	102.397	103.421	95.697	105.659
16:02	ZZZZZZ	108.402	112.928	94.912	94.164	96.742	99.5	96.605	101.62
16:07	JC87121-1	111.374	121.567	107.106	104.884	111.255	109.03	101.569	108.051
16:12	JC87121-2	109.824	122.129	104.921	103.388	110.094	107.124	99.927	107.688
16:17	MP14668-MB1	No results reported for the elements associated with this internal standard.							
16:22	MP14668-B1	No results reported for the elements associated with this internal standard.							
16:27	MP14668-S1	No results reported for the elements associated with this internal standard.							
16:32	MA46632-CCVA4	115.6	120.402	111.181	108.257	111.612	112.484	106.519	110.255
16:38	MA46632-CCB4	115.501	119.948	112.026	110.857	113.745	113.087	108.565	108.553
16:43	MP14668-S2	No results reported for the elements associated with this internal standard.							
16:48	FA63522-11	No results reported for the elements associated with this internal standard.							
16:53	MP14668-SD1	No results reported for the elements associated with this internal standard.							
16:58	ZZZZZZ	No results reported for the elements associated with this internal standard.							
17:03	ZZZZZZ	No results reported for the elements associated with this internal standard.							
17:08	ZZZZZZ	No results reported for the elements associated with this internal standard.							
17:13	ZZZZZZ	No results reported for the elements associated with this internal standard.							
17:18	ZZZZZZ	No results reported for the elements associated with this internal standard.							
17:23	ZZZZZZ	No results reported for the elements associated with this internal standard.							
17:28	MA46632-CCVA5	112.134	116.271	106.956	104.699	107.441	107.803	101.842	105.898
17:33	MA46632-CCB5	112.411	118.369	108.867	107.339	111.224	109.53	103.804	106.873
17:38	ZZZZZZ	No results reported for the elements associated with this internal standard.							
17:43	ZZZZZZ	No results reported for the elements associated with this internal standard.							
17:48	MP14668-PS1	No results reported for the elements associated with this internal standard.							
17:53	ZZZZZZ	113.696	117.653	110.813	107.492	111.255	109.976	104.727	106.257
17:58	ZZZZZZ	113.926	117.873	112.3	107.754	111.664	110.212	104.56	105.716
18:03	ZZZZZZ	114.553	119.274	110.696	108.015	111.628	109.824	104.611	106.128

INTERNAL STANDARD SUMMARY

Login Number: JC87121
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Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA050119M2L.CSV Date Analyzed: 05/01/19 Methods: EPA 200.8, SW846 6020B
Analyst: EAL Run ID: MA46632
Parameters: Al,Cd

Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16
18:08	MA46632-CCVA6	110.532	115.407	107.535	104.621	107.848	107.595	102.033	106.412
18:13	MA46632-CCB6	112.644	117.704	109.99	107.474	111.841	109.854	104.035	106.001
18:18	ZZZZZZ	113.203	116.293	109.942	106.993	110.82	110.292	103.735	107.095
18:23	ZZZZZZ	112.188	117.954	109.472	107.437	110.636	109.445	104.672	105.9
18:28	ZZZZZZ	114.175	117.703	110.446	107.377	110.324	109.963	104.782	106.609
18:33	MA46632-CCVA7	110.885	115.597	107.113	103.867	107.55	107.861	101.739	106.356
18:38	MA46632-CCB7	113.143	116.61	110.251	107.073	110.596	110.247	104.162	106.703
18:43	MP14714-MB1	111.647	117.814	110.533	107.125	110.859	109.99	104.086	106.447
18:48	MP14714-B1	111.341	116.32	109.743	106.539	109.941	109.491	103.062	106.497
18:53	MP14714-S1	113.075	115.189	107.901	104.838	107.462	109.427	104.372	107.513
18:58	MP14714-S2	111.253	113.92	107.919	104.376	106.64	110.157	104.734	107.233
19:03	JC86671-82	112.355	113.997	106.692	105.051	106.653	108.98	105.224	107.09
19:08	MP14714-S3	111.518	112.82	106.848	103.512	106.05	108.133	103.84	106.231
19:13	JC86671-83	110.251	112.243	105.083	103.357	104.959	107.623	103.078	105.545
19:18	ZZZZZZ	110.259	111.558	104.944	102.994	104.857	106.784	103.905	106.326
19:23	ZZZZZZ	110.938	111.78	105.634	103.481	105.644	107.457	103.729	105.338
19:28	ZZZZZZ	109.292	110.538	104.54	102.787	104.827	106.741	103.972	105.266
19:33	MA46632-CCVA8	108.115	112.416	106.413	103.427	107.339	106.575	101.593	104.194
19:38	MA46632-CCB8	106.289	110.73	104.463	102.644	106.871	104.994	100.41	103.335
19:43	ZZZZZZ	108.611	110.727	103.086	100.568	103.933	105.662	101.341	104.212
19:48	ZZZZZZ	108.409	110.477	103.804	101.085	104.066	105.611	102.112	104.26
19:54	ZZZZZZ	109.174	110.458	104.197	102.236	104.236	106.351	102.877	104.827
19:59	ZZZZZZ	109.392	110.436	105.116	102.158	103.771	105.819	102.808	104.797
20:04	ZZZZZZ	110.539	111.155	105.25	102.64	103.807	106.336	103.827	105.099
20:09	ZZZZZZ	109.802	109.972	105.581	103.029	104.291	107.606	103.633	104.978
20:14	ZZZZZZ	111.033	110.758	105.222	103.039	104.143	106.703	103.913	104.159
20:19	ZZZZZZ	110.012	109.897	104.787	102.815	104.444	106.281	104.327	104.603
20:24	ZZZZZZ	110.757	110.697	105.339	102.488	103.318	107.694	104.129	104.917
20:29	ZZZZZZ	109.656	111.118	105.434	103.64	104.01	107.023	105.093	105.371
20:34	MA46632-CCVA9	108.705	111.59	106.356	103.283	106.211	106.729	101.91	104.157
20:39	MA46632-CCB9	106.087	110.086	105.95	102.796	106.316	105.863	100.646	103.291
20:44	ZZZZZZ	108.117	110.504	103.766	101.404	103.383	104.816	102.284	103.983
20:49	ZZZZZZ	108.518	108.825	104.239	101.975	103.584	106.361	103.13	104.113

INTERNAL STANDARD SUMMARY

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Account: TCMAW - Tantara Corporation
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File ID: XA050119M2L.CSV Date Analyzed: 05/01/19 Methods: EPA 200.8, SW846 6020B
Analyst: EAL Run ID: MA46632
Parameters: Al,Cd

Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16
20:54	ZZZZZZ	108.971	109.916	104.186	102.261	103.331	105.709	103.481	104.536
20:59	ZZZZZZ	108.814	111.513	103.728	101.275	103.156	105.921	104.088	103.259
21:04	ZZZZZZ	109.467	109.015	105.384	102.107	103.629	107.004	103.382	104.014
21:09	MP14715-MB1	106.977	108.926	106.047	102.936	104.784	105.891	101.914	102.91
21:14	MP14715-B1	104.828	109.641	104.065	101.521	104.931	104.798	99.983	103.101
21:19	MP14715-S1	106.525	107.611	102.227	100.765	101.847	105.047	101.862	103.59
21:24	MP14715-S2	107.159	108.665	103.355	100.273	102.045	104.365	102.232	103.028
21:29	JC86671-103	106.77	106.734	102.831	100.956	101.881	105.267	103.247	102.621
21:34	MA46632-CCVA10	104.846	109.336	104.127	101.138	104.568	104.654	100.416	102.524
21:39	MA46632-CCB10	104.268	108.48	103.542	101.95	104.157	104.206	100.417	103.021
21:44	MP14715-S3	105.217	106.575	103.095	99.023	100.429	104.542	100.725	102.529
21:49	JC86671-104	105.811	107.595	101.868	99.747	101.104	103.699	102.083	102.858
21:54	ZZZZZZ	106.982	105.937	102.805	100.144	100.631	104.304	102.059	102.378
21:59	ZZZZZZ	106.677	105.524	102.993	100.124	100.371	104.916	102.892	102.272
22:04	ZZZZZZ	106.719	105.811	102.533	100.612	101.56	105.179	103.263	102.765
22:09	ZZZZZZ	107.437	106.226	103.371	101.125	101.377	105.159	102.709	103.599
22:14	ZZZZZZ	107.975	106.194	103.082	100.796	101.274	104.954	103.07	103.575
22:20	ZZZZZZ	107.485	107.065	102.5	100.266	101.606	104.731	103.71	102.936
22:25	ZZZZZZ	106.949	108.085	102.372	100.694	101.822	104.737	103.348	102.633
22:30	ZZZZZZ	107.313	106.977	102.244	100.734	100.88	103.891	103.176	102.088
22:35	MA46632-CCVA11	104.988	106.739	103.787	101.528	103.327	104.51	100.807	101.975
22:40	MA46632-CCB11	104.132	106.789	102.207	100.795	103.607	102.706	100.414	100.911
22:45	ZZZZZZ	104.888	104.397	101.823	99.453	100.098	103.466	101.626	102.313
22:50	ZZZZZZ	104.711	105.078	101.194	99.475	99.945	102.608	102.209	102.575
22:55	ZZZZZZ	106.138	106.088	102.218	99.888	100.589	103.805	102.699	102.241
23:00	ZZZZZZ	106.319	105.349	101.638	100.128	99.919	104.002	101.906	102.544
23:05	ZZZZZZ	104.785	105.88	101.969	99.544	100.155	103.913	103.274	102.277
23:10	ZZZZZZ	107.19	105.618	102.446	100.141	100.553	104.229	102.942	102.467
23:15	ZZZZZZ	107.043	106.338	103.077	100.898	101.449	105.235	104.442	102.602
23:20	ZZZZZZ	106.443	105.67	103.255	101.092	101.451	104.904	103.933	102.728
23:25	ZZZZZZ	107.355	106.544	102.378	101.144	101.349	104.863	104.503	102.605
23:30	ZZZZZZ	107.618	106.025	103.035	100.648	101.273	105.061	103.807	102.459
23:35	MA46632-CCVA12	103.34	105.922	104.167	101.346	103.242	104.184	101.462	102.796

INTERNAL STANDARD SUMMARY

Login Number: JC87121
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA050119M2L.CSV Date Analyzed: 05/01/19 Methods: EPA 200.8, SW846 6020B
Analyst: EAL Run ID: MA46632
Parameters: Al,Cd

Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16
23:40	MA46632-CCB12	103.547	105.701	102.555	101.091	103.099	103.454	100.403	101.531
23:45	MP14716-MB1	102.575	106.026	102.713	100.481	102.943	103.412	99.81	101.871
23:50	MP14716-B1	102.211	105.781	102.221	100.213	102.717	103.15	99.415	101.57
23:55	MP14716-S1	105.895	106.976	101.833	100.109	101.068	103.978	102.63	103.082
00:00	MP14716-S2	105.888	106.237	102.966	100.313	100.175	104.334	103.038	102.931
00:05	JC87195-1	106.531	104.813	102.781	100.647	100.653	105.098	103.833	103.309
00:10	MP14716-S3	106.229	105.319	101.986	100.248	99.827	104.775	103.093	103.405
00:15	JC87195-2	107.21	104.971	102.219	100.702	99.78	105.012	103.757	103.141
00:20	ZZZZZZ	106.319	104.217	102.279	100.459	99.475	104.303	103.148	102.487
00:25	ZZZZZZ	107.775	104.637	102.171	100.189	99.893	104.14	103.609	102.588
00:30	ZZZZZZ	106.748	105.061	102.317	99.823	99.534	103.598	104.098	101.524
00:35	MA46632-CCVA13	103.61	105.455	102.746	100.253	101.101	102.924	100.455	100.893
00:40	MA46632-CCB13	103.438	105.22	102.637	100.335	102.848	102.918	100.349	101.644
00:45	ZZZZZZ	104.058	102.963	100.699	98.42	99.53	103.167	102.017	101.743
00:51	ZZZZZZ	104.774	104.098	100.445	99.787	99.411	102.795	102.802	101.214
00:56	ZZZZZZ	104.793	103.643	101.535	99.589	99.114	103.182	102.812	101.629
01:01	ZZZZZZ	105.144	105.017	101.024	99.257	99.356	102.551	102.04	101.045
01:06	ZZZZZZ	106.388	104.935	101.357	99.93	99.111	102.237	102.673	101.22
01:11	ZZZZZZ	106.462	103.902	101.361	100.078	98.856	103.053	102.507	101.446
01:16	ZZZZZZ	107.965	104.532	102.752	100.946	99.914	103.903	104.641	102.176
01:21	ZZZZZZ	106.598	104.257	101.669	100.392	99.618	103.119	103.278	101.668
01:26	ZZZZZZ	105.909	104.596	102.287	100.688	99.548	102.72	103.536	101.246
01:31	ZZZZZZ	106.868	104.014	100.492	99.318	97.965	102.455	102.995	100.568
01:36	MA46632-CCVA14	104.668	105.648	103.514	100.608	102.317	102.885	100.601	101.341
01:41	MA46632-CCB14	102.589	104.718	102.515	100.121	102.245	102.26	100.12	100.89
01:46	ZZZZZZ	105.394	104.025	101.1	98.356	99.366	102.537	102.167	101.552
01:51	ZZZZZZ	105.508	103.356	101.078	99.205	98.681	102.981	102.948	102.005
01:56	ZZZZZZ	106.163	104.073	101.251	99.793	98.838	102.799	103.06	101.531
02:01	ZZZZZZ	106.998	104.309	101.832	99.589	99.394	103.512	104.105	101.278
02:06	ZZZZZZ	105.819	104.767	101.428	99.276	99.655	102.538	103.385	100.502
02:11	MP14717-MB1	103.347	105.192	102.91	101.044	102.184	103.86	101.493	101.123
02:16	MP14717-B1	102.574	104.98	101.947	99.035	101.167	102.377	99.403	101.238
02:21	MP14717-S1	104.849	102.255	100.918	98.156	97.821	102.739	100.922	101.677

INTERNAL STANDARD SUMMARY

Login Number: JC87121
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA050119M2L.CSV Date Analyzed: 05/01/19 Methods: EPA 200.8, SW846 6020B
Analyst: EAL Run ID: MA46632
Parameters: Al,Cd

Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16
02:26	MP14717-S2	103.862	102.658	100.339	98.483	98.603	102.407	100.846	100.893
02:31	JC87195-21	105.298	103.6	100.78	98.715	98.397	102.799	102.607	101.724
02:36	MA46632-CCVA15	102.47	103.8	102.308	99.452	101.116	102.007	99.405	100.32
02:41	MA46632-CCB15	102.155	104.855	101.943	99.8	101.236	101.863	99.841	100.474
02:46	MP14717-S3	104.94	102.608	100.238	98.477	98.388	102.186	101.408	100.84
02:51	JC87195-22	105.184	103.903	100.302	98.749	98.671	102.054	101.987	100.54
02:56	ZZZZZZ	104.557	104.118	100.658	98.797	98.267	102.523	101.581	100.481
03:01	ZZZZZZ	106.327	103.293	100.124	98.833	99.522	102.156	102.033	100.517
03:06	ZZZZZZ	104.568	104.273	100.818	99.223	99.121	102.999	102.247	100.657
03:11	ZZZZZZ	105.867	103.679	100.691	99.031	98.207	101.996	102.198	100.936
03:16	ZZZZZZ	105.576	103.595	100.606	99.211	98.854	102.323	102.844	100.158
03:21	ZZZZZZ	105.713	102.954	100.937	98.862	98.643	103.117	102.671	100.213
03:26	ZZZZZZ	105.874	103.448	101.402	99.204	99.012	103.079	103.448	101.089
03:31	ZZZZZZ	106.655	105.221	101.588	98.93	98.891	102.745	103.85	100.633
03:36	MA46632-CCVA16	104.38	104.794	103.429	100.425	101.576	103.661	100.578	101.347
03:41	MA46632-CCB16	102.504	103.646	102.496	99.63	100.829	103.087	100.902	101.41
03:46	ZZZZZZ	104.836	101.973	100.892	98.641	98.592	101.992	101.991	100.572
03:51	ZZZZZZ	104.477	104.51	100.36	99.106	99.123	101.69	102.263	100.286
03:57	ZZZZZZ	105.424	103.654	100.914	99.282	98.845	102.656	103.282	101.059
04:01	ZZZZZZ	104.933	103.511	100.84	99.226	98.748	102.87	102.321	100.475
04:07	ZZZZZZ	104.925	103.703	101.672	98.539	98.647	102.823	102.99	100.394
04:12	ZZZZZZ	105.356	102.816	101.832	98.988	97.962	103.612	102.493	101.416
04:17	ZZZZZZ	105.599	103.958	101.509	99.698	99.122	103.456	102.837	101.074
04:22	ZZZZZZ	106.389	103.066	100.698	98.689	98.29	103.278	101.785	100.638
04:27	ZZZZZZ	106.565	104.283	100.852	98.825	98.317	102.62	103.907	101.244
04:32	ZZZZZZ	106.075	103.57	102.306	99.535	98.921	103.713	103.891	101.239
04:37	MA46632-CCVA17	105.159	104.727	103.679	100.231	101.354	103.128	100.964	101.295
04:42	MA46632-CCB17	102.657	103.496	102.51	99.987	100.972	101.847	100.15	100.348
04:47	ZZZZZZ	102.406	103.91	101.073	99.2	101.505	101.923	99.253	99.753
04:52	ZZZZZZ	101.799	104.848	102.203	99	101.65	102.362	99.466	99.781
04:57	ZZZZZZ	102.616	104.615	101.429	99.805	101.919	103.087	99.567	100.618

! = Outside limits.

LEGEND:

Istd#	Parameter	Limits
Istd#9	Germanium (74-2)	60-125 %

INTERNAL STANDARD SUMMARY

Login Number: JC87121
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA050119M2L.CSV Date Analyzed: 05/01/19 Methods: EPA 200.8, SW846 6020B
Analyst: EAL Run ID: MA46632
Parameters: Al,Cd

Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16

Istd#16 Germanium (74-3)	60-125 %
Istd#11 Rhodium (103-1)	60-125 %
Istd#12 Rhodium (103-2)	60-125 %
Istd#13 Rhodium (103-3)	60-125 %
Istd#14 Indium (115-1)	60-125 %
Istd#15 Indium (115-2)	60-125 %
Istd#16 Terbium (159-1)	60-125 %

INTERNAL STANDARD SUMMARY

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Analyst: EAL Run ID: MA46632
Parameters: Al,Cd

Time	Sample Description	Istd#17	Istd#18	Istd#19	Istd#20	Istd#21	Istd#22
12:21	MA46632-STD1	100	100	100	100	100	100
12:26	MA46632-STD2	100	100	100	100	100	100
12:31	MA46632-STD3	100	100	100	100	100	100
12:36	MA46632-STD4	99.328	99.778	101.865	99.89	99.978	99.71
12:41	MA46632-STD5	98.851	99.817	100.762	99.022	100.341	99.389
12:46	MA46632-STD6	99.491	99.917	100.615	99.409	100.77	100.312
12:51	MA46632-STD7	98.815	100.219	100.131	99.29	100.487	99.531
12:56	MA46632-STD8	99.097	100.176	101.568	98.904	101.034	100.081
13:01	MA46632-STD9	98.967	99.952	100.262	98.91	100.815	99.374
13:06	MA46632-STD10	100.092	100.963	101.218	100.218	100.29	99.652
13:11	MA46632-STD11	100.019	100.337	101.345	100.621	98.753	98.407
13:16	MA46632-STD12	100.5	100.714	101.738	100.167	97.216	97.005
13:21	ZZZZZZ	100.133	101.473	101.17	99.978	100.577	100.652
13:26	ZZZZZZ	100.095	100.429	101.399	100.223	101.094	100.69
13:32	MA46632-STD13	100.59	100.668	101.745	100.271	101.043	100.659
13:37	ZZZZZZ	100.532	101.398	100.563	100.203	99.76	100.214
13:44	MA46632-ICVA1	98.546	99.539	100.707	98.896	99.013	97.465
13:51	MA46632-ICV1	99.04	100.542	99.42	99.386	99.469	99.726
14:00	MA46632-ICB1	100.223	100.11	100.377	99.527	100.02	100.077
14:05	MA46632-CCVA1	99.935	99.888	101.832	100.095	99.27	98.374
14:10	MA46632-CCB1	100.117	100.384	100.428	99.737	100.678	100.478
14:15	MA46632-CRI1	100.189	100.052	100.6	99.76	100.185	99.735
14:26	MA46632-ICSA1	97.404	94.582	97.765	97.184	89.144	88.913
14:31	MA46632-ICSAB1	96.612	94.863	98.745	96.304	89.451	88.396
14:36	ZZZZZZ	99.977	103.222	104.527	100.458	103.206	100.145
14:42	MA46632-CCVA2	100.287	104.361	105.881	100.7	102.6	98.648
14:47	MA46632-CCB2	100.628	104.755	105.989	101.549	104.69	100.819
14:52	ZZZZZZ	102.43	105.761	107.291	102.215	106.552	103.053
14:57	ZZZZZZ	101.354	105.752	106.419	102.724	104.417	101.178
15:02	ZZZZZZ	102.935	105.971	108.344	103.682	103.106	99.901
15:07	ZZZZZZ	103.528	107.184	109.836	105.156	108.483	106.448
15:12	MP14645-MB1	100.401	108.887	107.448	101.312	121.82	110.989
15:17	MP14645-B1	101.323	108.332	109.098	102.38	109.108	102.256

INTERNAL STANDARD SUMMARY

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File ID: XA050119M2L.CSV Date Analyzed: 05/01/19 Methods: EPA 200.8, SW846 6020B
Analyst: EAL Run ID: MA46632
Parameters: Al,Cd

Time	Sample Description	Istd#17	Istd#18	Istd#19	Istd#20	Istd#21	Istd#22
15:22	MP14645-B2	100.57	108.482	110.002	100.974	108.21	100.571
15:27	MP14645-S1	99.948	108.281	108.387	100.469	102.7	96.689
15:32	MP14645-S2	98.67	108.217	108.455	99.941	101.44	95.646
15:37	MA46632-CCVA3	102.485	107.863	109.424	102.963	105.041	98.934
15:42	MA46632-CCB3	103.133	108.173	108.263	103.405	106.279	101.978
15:47	JC87142-4	100.217	108.931	107.562	100.849	104.161	97.72
15:52	MP14645-SD1	103.078	108.917	109.942	103.382	107.672	102.39
15:57	ZZZZZZ	98.503	105.933	106.606	99.409	98.116	92.311
16:02	ZZZZZZ	97.645	102.284	103.221	97.782	87.833	84.924
16:07	JC87121-1	101.614	110.875	109.593	102.026	105.369	98.523
16:12	JC87121-2	100.418	110.008	109.183	100.362	104.43	97.415
16:17	MP14668-MB1	No results reported for the elements associated with this internal standard.					
16:22	MP14668-B1	No results reported for the elements associated with this internal standard.					
16:27	MP14668-S1	No results reported for the elements associated with this internal standard.					
16:32	MA46632-CCVA4	103.287	108.694	110.882	104.029	105.023	99.055
16:38	MA46632-CCB4	103.23	108.581	110.05	103.592	106.925	101.633
16:43	MP14668-S2	No results reported for the elements associated with this internal standard.					
16:48	FA63522-11	No results reported for the elements associated with this internal standard.					
16:53	MP14668-SD1	No results reported for the elements associated with this internal standard.					
16:58	ZZZZZZ	No results reported for the elements associated with this internal standard.					
17:03	ZZZZZZ	No results reported for the elements associated with this internal standard.					
17:08	ZZZZZZ	No results reported for the elements associated with this internal standard.					
17:13	ZZZZZZ	No results reported for the elements associated with this internal standard.					
17:18	ZZZZZZ	No results reported for the elements associated with this internal standard.					
17:23	ZZZZZZ	No results reported for the elements associated with this internal standard.					
17:28	MA46632-CCVA5	99.581	105.075	106.852	100.341	101.992	96.426
17:33	MA46632-CCB5	99.918	106.174	108.129	100.498	104.095	98.5
17:38	ZZZZZZ	No results reported for the elements associated with this internal standard.					
17:43	ZZZZZZ	No results reported for the elements associated with this internal standard.					
17:48	MP14668-PS1	No results reported for the elements associated with this internal standard.					
17:53	ZZZZZZ	99.647	104.851	106.33	99.956	103.131	98.261
17:58	ZZZZZZ	99.852	105.76	107.347	100.289	103.69	98.349
18:03	ZZZZZZ	99.556	105.846	107.307	100.536	103.21	98.956

INTERNAL STANDARD SUMMARY

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Analyst: EAL Run ID: MA46632
Parameters: Al,Cd

Time	Sample Description	Istd#17	Istd#18	Istd#19	Istd#20	Istd#21	Istd#22
18:08	MA46632-CCVA6	99.878	104.883	107.325	100.392	101.756	97.415
18:13	MA46632-CCB6	99.728	105.99	106.592	99.937	103.658	98.604
18:18	ZZZZZZ	99.504	105.396	106.532	99.388	103.078	98.014
18:23	ZZZZZZ	99.536	105.454	106.462	100.317	103.807	98.74
18:28	ZZZZZZ	99.944	104.425	107.478	100.083	103.833	98.935
18:33	MA46632-CCVA7	99.457	104.878	107.138	99.735	101.447	96.951
18:38	MA46632-CCB7	99.943	105.418	108.473	100.274	103.793	98.867
18:43	MP14714-MB1	99.499	105.038	107.118	100.984	103.71	99.033
18:48	MP14714-B1	99.662	105.328	106.858	100.255	104.097	99.337
18:53	MP14714-S1	100.846	105.608	108.943	101.728	105.049	100.791
18:58	MP14714-S2	100.455	105.276	108.488	102.094	105.164	100.474
19:03	JC86671-82	101.163	105.649	107.777	102.08	104.889	101.055
19:08	MP14714-S3	101.384	105.027	106.401	101.565	104.055	100.631
19:13	JC86671-83	100.204	104.115	105.958	101.094	103.451	100.123
19:18	ZZZZZZ	100.388	103.646	107.182	101.189	103.557	99.722
19:23	ZZZZZZ	100.376	104.136	105.787	100.639	103.987	100.571
19:28	ZZZZZZ	100.541	103.328	105.849	100.823	102.728	99.692
19:33	MA46632-CCVA8	98.222	104.091	105.39	98.172	102.938	98.374
19:38	MA46632-CCB8	97.597	103.085	104.811	98.566	102.39	97.419
19:43	ZZZZZZ	99.381	103.211	105.318	100.57	102.166	98.937
19:48	ZZZZZZ	99.461	103.558	105.349	100.153	101.914	99.052
19:54	ZZZZZZ	99.826	103.799	106.336	100.555	102.417	99.604
19:59	ZZZZZZ	99.651	102.433	105.131	100.27	102.374	99.343
20:04	ZZZZZZ	100.038	103.529	105.552	99.91	102.727	99.612
20:09	ZZZZZZ	100.731	103.21	106.49	100.778	103.243	99.353
20:14	ZZZZZZ	100.957	103.449	105.04	100.815	102.284	99.956
20:19	ZZZZZZ	100.635	102.95	104.965	101.066	102.413	99.961
20:24	ZZZZZZ	100.802	102.419	106.045	101.039	103.227	100.079
20:29	ZZZZZZ	101.129	102.893	105.761	101.404	103.062	99.982
20:34	MA46632-CCVA9	99.256	103.186	105.535	99.257	103.66	98.97
20:39	MA46632-CCB9	98.074	102.429	103.77	98.769	101.75	97.54
20:44	ZZZZZZ	100.205	102.966	105.746	100.23	102.418	99.67
20:49	ZZZZZZ	100.958	103.152	105.764	100.614	102.124	99.734

INTERNAL STANDARD SUMMARY

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Analyst: EAL Run ID: MA46632
Parameters: Al,Cd

Time	Sample Description	Istd#17	Istd#18	Istd#19	Istd#20	Istd#21	Istd#22
20:54	ZZZZZZ	100.329	102.449	104.208	100.979	102.345	99.701
20:59	ZZZZZZ	100.46	102.529	104.475	100.474	102.099	99.556
21:04	ZZZZZZ	100.403	102.341	104.772	101.582	101.437	99.793
21:09	MP14715-MB1	98.52	102.253	104.173	98.64	101.507	98.002
21:14	MP14715-B1	97.797	102.26	103.705	97.704	101.713	98.058
21:19	MP14715-S1	99.716	101.477	104.816	99.537	102.026	99.101
21:24	MP14715-S2	99.469	102.118	104.556	99.818	101.542	98.893
21:29	JC86671-103	99.787	102.312	103.588	100.169	101.153	98.998
21:34	MA46632-CCVA10	98.398	102.07	103.866	98.131	101.322	97.885
21:39	MA46632-CCB10	98.132	102.419	102.952	97.823	100.996	97.192
21:44	MP14715-S3	99.251	101.553	103.858	99.297	101.736	98.554
21:49	JC86671-104	99.478	101.293	103.071	99.308	101.652	98.443
21:54	ZZZZZZ	100.096	101.026	103.423	99.861	101.511	98.887
21:59	ZZZZZZ	99.921	100.923	101.927	100.31	100.748	98.385
22:04	ZZZZZZ	100.321	102.206	103.617	100.201	101.427	99.435
22:09	ZZZZZZ	100.465	101.421	103.073	100.462	101.119	99.774
22:14	ZZZZZZ	100.293	101.513	104.293	100.954	101.073	99.598
22:20	ZZZZZZ	100.637	101.4	103.617	100.265	100.801	99.402
22:25	ZZZZZZ	100.694	101.474	103.62	100.409	100.615	99.816
22:30	ZZZZZZ	99.881	101.115	102.24	100.215	100.779	99.3
22:35	MA46632-CCVA11	98.287	100.638	102.723	98.295	101.338	98.168
22:40	MA46632-CCB11	98.022	101.774	102.052	98.147	100.676	98.14
22:45	ZZZZZZ	99.338	100.588	103.165	99.552	100.87	98.917
22:50	ZZZZZZ	99.917	101.161	102.405	99.343	100.856	98.97
22:55	ZZZZZZ	99.685	100.882	103.55	99.066	100.195	98.8
23:00	ZZZZZZ	100.581	100.348	102.79	99.938	100.199	99.611
23:05	ZZZZZZ	100.184	99.69	102.733	99.955	100.068	99.393
23:10	ZZZZZZ	100.268	100.507	102.738	99.985	100.745	99.404
23:15	ZZZZZZ	101.286	101.419	103.458	101.138	101.29	99.843
23:20	ZZZZZZ	101.178	101.142	103.61	101.667	100.634	99.797
23:25	ZZZZZZ	101.063	101.329	103.968	101.345	100.804	99.865
23:30	ZZZZZZ	100.825	101.054	102.824	101.258	100.842	99.474
23:35	MA46632-CCVA12	98.925	101.167	103.689	98.347	101.169	98.932

INTERNAL STANDARD SUMMARY

Login Number: JC87121
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA050119M2L.CSV Date Analyzed: 05/01/19 Methods: EPA 200.8, SW846 6020B
Analyst: EAL Run ID: MA46632
Parameters: Al,Cd

Time	Sample Description	Istd#17	Istd#18	Istd#19	Istd#20	Istd#21	Istd#22
23:40	MA46632-CCB12	98.834	102.188	102.625	99	100.939	98.555
23:45	MP14716-MB1	98.702	101.179	103.262	98.24	100.886	98.51
23:50	MP14716-B1	97.878	101.42	102.732	98.01	101.492	98.558
23:55	MP14716-S1	100.984	102.528	104.008	101.093	99.993	99.169
00:00	MP14716-S2	101.058	101.413	103.808	100.45	99.564	99.057
00:05	JC87195-1	100.962	101.545	103.794	101.341	98.558	99.082
00:10	MP14716-S3	101.11	100.776	103.98	101.716	99.751	99.446
00:15	JC87195-2	101.65	100.64	103.319	101.45	99.715	99.474
00:20	ZZZZZZ	100.195	100.066	103.201	100.248	99.963	99.018
00:25	ZZZZZZ	101.003	100.819	103.133	101.104	99.782	99.468
00:30	ZZZZZZ	100.373	100.521	102.843	99.668	99.784	98.929
00:35	MA46632-CCVA13	98.072	99.527	101.329	98.416	100.552	98.468
00:40	MA46632-CCB13	98.036	101.377	102.906	98.121	100.309	97.65
00:45	ZZZZZZ	99.49	100.165	102.286	99.974	100.07	98.348
00:51	ZZZZZZ	100.089	100.41	102.368	100.384	99.985	99.277
00:56	ZZZZZZ	100.187	99.292	102.041	100.134	99.874	98.858
01:01	ZZZZZZ	99.928	99.449	102.373	100.437	99.322	99.07
01:06	ZZZZZZ	100.363	100.038	102.138	100.327	99.328	98.755
01:11	ZZZZZZ	99.878	99.655	102.258	99.623	99.318	99.189
01:16	ZZZZZZ	101.899	100.516	103.174	101.321	99.575	99.709
01:21	ZZZZZZ	100.248	100.152	102.665	100.67	99.278	98.982
01:26	ZZZZZZ	100.687	100.329	102.578	100.625	99.297	99.435
01:31	ZZZZZZ	99.684	98.541	101.478	99.586	98.492	98.523
01:36	MA46632-CCVA14	98.172	99.775	102.148	98.635	100.323	98.495
01:41	MA46632-CCB14	97.818	100.407	102.281	97.716	99.417	97.796
01:46	ZZZZZZ	99.808	99.657	101.44	100.034	98.753	98.023
01:51	ZZZZZZ	100.232	99.496	102.38	100.37	99.614	98.512
01:56	ZZZZZZ	100.633	99.171	102.629	99.957	99.015	98.567
02:01	ZZZZZZ	101.134	99.473	101.583	100.422	98.989	99.361
02:06	ZZZZZZ	100.563	99.655	101.318	100.367	99.039	99.16
02:11	MP14717-MB1	98.984	100.38	100.528	98.573	99.99	98.115
02:16	MP14717-B1	97.167	99.043	101.482	96.956	101.117	97.265
02:21	MP14717-S1	99.161	99.047	102.38	99.815	99.332	97.736

INTERNAL STANDARD SUMMARY

Login Number: JC87121
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA050119M2L.CSV Date Analyzed: 05/01/19 Methods: EPA 200.8, SW846 6020B
Analyst: EAL Run ID: MA46632
Parameters: Al,Cd

Time	Sample Description	Istd#17	Istd#18	Istd#19	Istd#20	Istd#21	Istd#22
02:26	MP14717-S2	99.231	99.072	101.794	98.954	99.157	97.998
02:31	JC87195-21	99.889	99.488	100.894	99.553	99.682	98.834
02:36	MA46632-CCVA15	97.593	99.971	102.116	97.297	100.017	97.598
02:41	MA46632-CCB15	98.076	100.191	102.032	97.412	98.733	97.368
02:46	MP14717-S3	99.348	99.646	102.36	99.275	99.391	97.868
02:51	JC87195-22	99.299	99.175	100.876	99.699	98.664	98.467
02:56	ZZZZZZ	100.053	100.178	101.679	99.741	98.321	98.676
03:01	ZZZZZZ	99.743	99.919	101.914	99.212	98.931	98.085
03:06	ZZZZZZ	99.918	99.879	101.643	99.41	98.719	97.763
03:11	ZZZZZZ	99.426	99.41	101.131	100.428	98.193	98.189
03:16	ZZZZZZ	100.05	99.212	100.948	100.333	98.889	98.978
03:21	ZZZZZZ	99.965	99.194	100.979	100.19	98.107	98.026
03:26	ZZZZZZ	99.442	99.583	101.762	99.616	98.643	99.268
03:31	ZZZZZZ	100.559	99.348	101.735	100.754	98.395	98.29
03:36	MA46632-CCVA16	98.675	99.721	102.853	98.506	100.649	98.689
03:41	MA46632-CCB16	98.483	99.795	101.839	98.02	99.764	97.7
03:46	ZZZZZZ	100.029	99.256	102.21	98.882	99.086	97.821
03:51	ZZZZZZ	99.493	99.777	100.929	99.569	97.966	98.572
03:57	ZZZZZZ	100.667	99.697	101.499	99.728	99.055	98.414
04:01	ZZZZZZ	99.55	98.813	100.906	100.033	98.572	98.071
04:07	ZZZZZZ	99.588	98.945	102.439	99.65	98.622	98.439
04:12	ZZZZZZ	99.962	99.215	101.55	99.681	99.387	99.113
04:17	ZZZZZZ	100.264	99.412	102.43	99.615	98.703	98.757
04:22	ZZZZZZ	100.113	98.994	100.829	100.267	97.714	98.26
04:27	ZZZZZZ	100.579	99.043	102.479	100.459	98.655	98.651
04:32	ZZZZZZ	100.496	99.648	101.196	100.278	99.067	98.956
04:37	MA46632-CCVA17	98.98	99.94	101.549	99.424	100.395	99.089
04:42	MA46632-CCB17	97.742	99.76	101.857	97.965	98.956	96.758
04:47	ZZZZZZ	97.421	99.516	101.386	97.438	99.297	97.243
04:52	ZZZZZZ	97.03	99.421	100.305	96.883	98.607	96.627
04:57	ZZZZZZ	97.032	100.161	101.043	96.64	99.956	96.716

! = Outside limits.

LEGEND:

Istd#	Parameter	Limits
Istd#17	Terbium (159-2)	60-125 %

INTERNAL STANDARD SUMMARY

Login Number: JC87121
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA050119M2L.CSV Date Analyzed: 05/01/19 Methods: EPA 200.8, SW846 6020B
Analyst: EAL Run ID: MA46632
Parameters: Al,Cd

Time	Sample Description	Istd#17	Istd#18	Istd#19	Istd#20	Istd#21	Istd#22

Istd#22 Terbium (159-3)	60-125 %
Istd#19 Holmium (165-1)	60-125 %
Istd#20 Holmium (165-2)	60-125 %
Istd#21 Bismuth (209-1)	60-125 %
Istd#22 Bismuth (209-2)	60-125 %

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC87121
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA050119M2L.CSV Date Analyzed: 05/01/19 Methods: EPA 200.8, SW846 6020B
QC Limits: result < 1/2 RL Run ID: MA46632 Units: ug/l

Time: / Sample ID:				14:00 ICB1		14:10 CCB1		14:47 CCB2	
Metal	RL	IDL	LOD	raw	final	raw	final	raw	final
Aluminum	25	.28	20	-0.522	<25	-0.184	<25	0.479	<25
Antimony	2.0	.094	1.5						
Arsenic	0.50	.013	1.0						
Barium	1.0	.008	0.50						
Beryllium	0.30	.004	0.25						
Boron	25	.65	20						
Cadmium	0.50	.004	2.0	0.00789	<3.0	0.00920	<3.0	0.0130	<3.0
Calcium	250	6.1	50						
Chromium	1.0	.014	3.0						
Cobalt	0.50	.002	0.25						
Copper	2.0	.021	4.0						
Iron	25	.43	13						
Lead	0.50	.009	1.0						
Magnesium	250	.15	130						
Manganese	1.0	.007	1.0						
Molybdenum	1.0	.015	0.50						
Nickel	1.0	.017	3.0						
Potassium	250	.71	50						
Selenium	0.50	.072	0.50						
Silver	0.50	.004	0.50						
Sodium	250	1	100						
Strontium	1.0	.003	5.0						
Thallium	0.50	.004	0.50						
Tin	5.0	.025	2.5						
Titanium	1.0	.035	1.0						
Vanadium	1.0	.009	1.0						
Zinc	5.0	.029	7.5						

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC87121
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA050119M2L.CSV Date Analyzed: 05/01/19 Methods: EPA 200.8, SW846 6020B
QC Limits: result < 1/2 RL Run ID: MA46632 Units: ug/l

Time: / Sample ID: / Metal	RL	IDL	LOD	15:42 CCB3 raw	15:42 CCB3 final	16:38 CCB4 raw	16:38 CCB4 final
Aluminum	25	.28	20	0.0325	<25	0.633	<25
Antimony	2.0	.094	1.5				
Arsenic	0.50	.013	1.0				
Barium	1.0	.008	0.50				
Beryllium	0.30	.004	0.25				
Boron	25	.65	20				
Cadmium	0.50	.004	2.0	0.0137	<0.50	0.0133	<3.0
Calcium	250	6.1	50				
Chromium	1.0	.014	3.0				
Cobalt	0.50	.002	0.25				
Copper	2.0	.021	4.0				
Iron	25	.43	13				
Lead	0.50	.009	1.0				
Magnesium	250	.15	130				
Manganese	1.0	.007	1.0				
Molybdenum	1.0	.015	0.50				
Nickel	1.0	.017	3.0				
Potassium	250	.71	50				
Selenium	0.50	.072	0.50				
Silver	0.50	.004	0.50				
Sodium	250	1	100				
Strontium	1.0	.003	5.0				
Thallium	0.50	.004	0.50				
Tin	5.0	.025	2.5				
Titanium	1.0	.035	1.0				
Vanadium	1.0	.009	1.0				
Zinc	5.0	.029	7.5				

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC87121
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA050119M2L.CSV Date Analyzed: 05/01/19 Methods: EPA 200.8, SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA46632 Units: ug/l

Time:		13:44			13:51			14:05	
Sample ID:	ICVA	ICVA1		ICV	ICV1		CCVA	CCVA1	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	5500	5470	99.5	60	64.2	107.0	5000	5040	100.8
Antimony									
Arsenic									
Barium									
Beryllium									
Boron									
Cadmium	60	58.9	98.2				50	48.9	97.8
Calcium									
Chromium	anr								
Cobalt									
Copper	anr								
Iron	anr								
Lead	anr								
Magnesium									
Manganese									
Molybdenum									
Nickel									
Potassium									
Selenium									
Silver									
Sodium									
Strontium									
Thallium									
Tin									
Titanium									
Vanadium									
Zinc									

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC87121
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA050119M2L.CSV Date Analyzed: 05/01/19 Methods: EPA 200.8, SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA46632 Units: ug/l

Time:		14:42			15:37			16:32	
Sample ID:	CCVA	CCVA2		CCVA	CCVA3		CCVA	CCVA4	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	5000	4880	97.6	5000	4770	95.4	5000	4800	96.0
Antimony									
Arsenic									
Barium									
Beryllium									
Boron									
Cadmium	50	49.2	98.4	50	50.4	100.8	50	49.8	99.6
Calcium									
Chromium	anr								
Cobalt									
Copper	anr								
Iron	anr								
Lead	anr								
Magnesium									
Manganese									
Molybdenum									
Nickel									
Potassium									
Selenium									
Silver									
Sodium									
Strontium									
Thallium									
Tin									
Titanium									
Vanadium									
Zinc									

(*) Outside of QC limits
(anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC87121
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA050119M2L.CSV Date Analyzed: 05/01/19 Methods: EPA 200.8, SW846 6020B
QC Limits: 80 to 120 % Recovery Run ID: MA46632 Units: ug/l

Time:			14:15	
Sample ID:	CRI	CRIA	CRI1	
Metal	True	True	Results	% Rec
Aluminum	25	25	25.5	102.0
Antimony	2.0	0.25		
Arsenic	0.50	0.50		
Barium	1.0	0.50		
Beryllium	0.50	0.25		
Boron	25	2.5		
Cadmium	0.50	0.25	0.526	105.2
Calcium	250	125		
Chromium	1.0	2.0	anr	
Cobalt	0.50	0.25		
Copper	2.0	2.0	anr	
Iron	25	25	anr	
Lead	0.50	0.25	anr	
Magnesium	250	125		
Manganese	1.0	0.25		
Molybdenum	1.0	0.50		
Nickel	1.0	2.0		
Potassium	250	125		
Selenium	0.50	0.50		
Silver	0.50	1.0		
Sodium	250	125		
Strontium	5.0	0.50		
Thallium	0.50	0.25		
Tin	5.0	0.50		
Titanium	1.0	0.50		
Vanadium	1.0	2.0		
Zinc	5.0	2.0		

(*) Outside of QC limits
(anr) Analyte not requested

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: JC87121
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA050119M2L.CSV Date Analyzed: 05/01/19 Methods: EPA 200.8, SW846 6020B
QC Limits: 80 to 120 % Recovery Run ID: MA46632 Units: ug/l

Time:			14:26		14:31	
Sample ID:	ICSA	ICSAB	ICSA1		ICSAB1	
Metal	True	True	Results	% Rec	Results	% Rec
Aluminum	100000	100000	94500	94.5	97700	97.7
Antimony			0.187		0.178	
Arsenic		20	0.0768		18.2	91.0
Barium			0.213		0.292	
Beryllium			0.00437		0.000295	
Boron		50	2.26		54.7	109.4
Cadmium		20	-0.365		17.6	88.0
Calcium	100000	100000	97000	97.0	98400	98.4
Chromium		20	0.291		19.4	97.0
Cobalt		20	0.311*(a		18.8	94.0
Copper		20	0.156		17.2	86.0
Iron	100000	100000	89800	89.8	92500	92.5
Lead			0.0817		0.0858	
Magnesium	100000	100000	93900	93.9	96600	96.6
Manganese		20	0.381		19.3	96.5
Molybdenum	2000	2000	1970	98.5	2030	101.5
Nickel		20	0.608		18.2	91.0
Potassium	100000	100000	98900	98.9	101000	101.0
Selenium		20	0.195		18.9	94.5
Silver		20	0.0156		19.2	96.0
Sodium	100000	100000	93600	93.6	96800	96.8
Strontium	2000	2000	1970	98.5	2210	110.5
Thallium			0.00481		0.00425	
Tin	2000	2000	1810	90.5	1930	96.5
Titanium	2000	2000	1690	84.5	1730	86.5
Vanadium		20	0.0129		20.5	102.5
Zinc		20	0.416		16.2	81.0

(*) Outside of QC limits
(anr) Analyte not requested
(a) No samples reported for this element in the area bracketed by this QC.

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: JC87121
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

QC Batch ID: MP14645
Matrix Type: AQUEOUS

Methods: SW846 6020B
Units: ug/l

Prep Date: 04/30/19

Metal	RL	IDL	MDL	MB raw	final
Aluminum	50	.55	32	3.9	<50
Antimony	4.0	.19	1.7		
Arsenic	1.0	.026	.94	0.089	<1.0
Barium	2.0	.016	.73	0.22	<2.0
Beryllium	1.0	.008	.15		
Boron	50	1.3	14		
Cadmium	1.0	.008	.17	0.024	<1.0
Calcium	500	12	64		
Chromium	2.0	.028	.62		
Cobalt	1.0	.004	.17		
Copper	4.0	.042	1.9		
Iron	50	.86	19	13.2	<50
Lead	1.0	.018	.52	0.10	<1.0
Magnesium	500	.3	46		
Manganese	2.0	.014	.63		
Molybdenum	2.0	.03	.45		
Nickel	2.0	.034	.95		
Potassium	500	1.4	68		
Selenium	1.0	.14	.55		
Silver	1.0	.008	.16		
Sodium	500	2.1	140		
Strontium	10	.006	2.4		
Thallium	1.0	.008	.17		
Tin	10	.14	2.6		
Titanium	2.0	.07	1.6		
Vanadium	2.0	.018	1.8		
Zinc	10	.058	5.4		

Associated samples MP14645: JC87121-1, JC87121-2

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC87121
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

QC Batch ID: MP14645
Matrix Type: AQUEOUS

Methods: SW846 6020B
Units: ug/l

Prep Date: 04/30/19

Metal	JC87142-4 Original	MS	Spikelot MP6020AQ3	% Rec	QC Limits
Aluminum	832	4690	4000	96.5	75-125
Antimony					
Arsenic	1.1	71.8	80	88.4	75-125
Barium	39.0	117	80	97.5	75-125
Beryllium					
Boron					
Cadmium	0.17	73.9	80	92.2	75-125
Calcium					
Chromium					
Cobalt					
Copper	anr				
Iron	1340	5400	4000	101.5	75-125
Lead	2.8	80.2	80	96.8	75-125
Magnesium					
Manganese					
Molybdenum					
Nickel	anr				
Potassium					
Selenium					
Silver					
Sodium					
Strontium					
Thallium					
Tin					
Titanium					
Vanadium					
Zinc					

Associated samples MP14645: JC87121-1, JC87121-2

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC87121
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

QC Batch ID: MP14645
Matrix Type: AQUEOUS

Methods: SW846 6020B
Units: ug/l

Prep Date: 04/30/19

Metal	JC87142-4 Original	MSD	Spikelot MP6020AQ3%	Rec	MSD RPD	QC Limit
Aluminum	832	4790	4000	99.0	2.1	20
Antimony						
Arsenic	1.1	71.7	80	88.3	0.1	20
Barium	39.0	118	80	98.8	0.9	20
Beryllium						
Boron						
Cadmium	0.17	75.5	80	94.2	2.1	20
Calcium						
Chromium						
Cobalt						
Copper	anr					
Iron	1340	5420	4000	102.0	0.4	20
Lead	2.8	82.1	80	99.1	2.3	20
Magnesium						
Manganese						
Molybdenum						
Nickel	anr					
Potassium						
Selenium						
Silver						
Sodium						
Strontium						
Thallium						
Tin						
Titanium						
Vanadium						
Zinc						

Associated samples MP14645: JC87121-1, JC87121-2

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: JC87121
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

QC Batch ID: MP14645
Matrix Type: AQUEOUS

Methods: SW846 6020B
Units: ug/l

Prep Date:			04/30/19					04/30/19	
Metal	BSP Result	Spikelot MP6020AQ3% Rec		QC Limits	BSD Result	Spikelot MP6020AQ3% Rec		BSD RPD	QC Limit
Aluminum	3760	4000	94.0	80-120	3730	4000	93.3	0.8	20
Antimony									
Arsenic	71.8	80	89.8	80-120	71.2	80	89.0	0.8	20
Barium	78.2	80	97.8	80-120	80.4	80	100.5	2.8	20
Beryllium									
Boron									
Cadmium	75.4	80	94.3	80-120	75.5	80	94.4	0.1	20
Calcium									
Chromium									
Cobalt									
Copper	anr								
Iron	4020	4000	100.5	80-120	4070	4000	101.8	1.2	20
Lead	77.5	80	96.9	80-120	78.6	80	98.3	1.4	20
Magnesium									
Manganese									
Molybdenum									
Nickel	anr								
Potassium									
Selenium									
Silver									
Sodium									
Strontium									
Thallium									
Tin									
Titanium									
Vanadium									
Zinc									

Associated samples MP14645: JC87121-1, JC87121-2

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: JC87121
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

QC Batch ID: MP14645 Methods: SW846 6020B
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 04/30/19

Metal	JC87142-4 Original	SDL 2:10	%DIF	QC Limits
Aluminum	832	833	0.1	0-10
Antimony				
Arsenic	1.07	7.95	641.5(a)	0-10
Barium	39.0	39.0	0.1	0-10
Beryllium				
Boron				
Cadmium	0.168	0.199	18.6 (a)	0-10
Calcium				
Chromium				
Cobalt				
Copper	anr			
Iron	1340	1390	3.8	0-10
Lead	2.79	3.32	19.1*(b)	0-10
Magnesium				
Manganese				
Molybdenum				
Nickel	anr			
Potassium				
Selenium				
Silver				
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Vanadium				
Zinc				

Associated samples MP14645: JC87121-1, JC87121-2

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested
(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).
(b) Serial dilution indicates possible matrix interference.

Instrument Detection Limits

Job Number: JC87121
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Instrument ID: AGICPMS1 **Effective Date:** 01/31/19

Analyte	IDL ug/l
Aluminum	.045
Aluminum	.276
Antimony	.094
Arsenic	.12
Arsenic	.013
Barium	.008
Beryllium	.004
Boron	.648
Cadmium	.007
Cadmium	.004
Calcium	6.11
Chromium	.036
Chromium	.014
Cobalt	.0041
Cobalt	.002
Copper	.1044
Copper	.021
Iron	1.21
Iron	.432
Lead	.009
Magnesium	.033
Magnesium	.152
Manganese	.006
Manganese	.007
Molybdenum	.015
Nickel	.046
Nickel	.017
Potassium	.506
Potassium	.707
Selenium	.503
Selenium	.072
Silver	.004
Sodium	.357
Sodium	1.037
Strontium	.003
Thallium	.004
Tin	.025
Tin	.071
Titanium	.035
Titanium	.035
Vanadium	.112
Vanadium	.009
Zinc	.041
Zinc	.029

Instrument Detection Limits

Job Number: JC87121
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Instrument ID: AGICPMS1 **Effective Date:** 01/31/19

Analyte	IDL ug/l

The above applies to the following instrument runs:
MA46617,MA46632

Instrument Linear Ranges

Job Number: JC87121
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Instrument ID: AGICPMS1 **Effective Date:** 09/10/18

Analyte	Linear Range ug/l
Aluminum	10000
Aluminum	10000
Antimony	100
Arsenic	100
Arsenic	100
Barium	100
Beryllium	100
Boron	200
Cadmium	100
Cadmium	100
Calcium	10000
Chromium	100
Chromium	100
Cobalt	100
Cobalt	100
Copper	100
Copper	100
Iron	10000
Iron	10000
Lithium	100
Lead	100
Magnesium	10000
Magnesium	10000
Manganese	100
Manganese	100
Molybdenum	100
Nickel	100
Nickel	100
Potassium	10000
Potassium	10000
Selenium	400
Selenium	400
Silver	100
Sodium	10000
Sodium	10000
Strontium	100
Thallium	100
Tin	100
Tin	100
Titanium	100
Titanium	100
Tungsten	100
Uranium	100
Vanadium	100
Vanadium	100
Zinc	100

Instrument Linear Ranges

Job Number: JC87121
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Instrument ID: AGICPMS1 **Effective Date:** 09/10/18

Analyte	Linear Range ug/l
Zinc	100

The above applies to the following instrument runs:
MA46617,MA46632

Metals Analysis

Raw Data

Quantitation Report

File Name	001CALB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa043019m6.b
Method File	
Method Path	
Acq Time	4/30/2019 16:52
Sample Name	STDA 4
Sample Type	CalBlk
Comment	0
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/30/2019 19:15
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.001	ug/l	289.39	10.67	7.147E-06	Pulse	0.25	3
B			1	0.089	ug/l	89.36	3,976.13	2.650E-03	Pulse	0.15	3
Ca			1	-15.793	ug/l	-2.93	15,497.70	7.922E-03	Pulse	0.10	3
Sr			1	-0.005	ug/l	-38.34	436.69	1.850E-04	Pulse	0.10	3
Mo			1	0.001	ug/l	321.73	26.67	1.135E-05	Pulse	0.10	3
Ag			1	0.001	ug/l	331.12	36.67	1.443E-05	Pulse	0.10	3
Sn			1	0.394	ug/l	7.00	2,967.06	1.172E-03	Pulse	0.10	3
Sb			1	0.008	ug/l	30.05	263.34	7.839E-05	Pulse	0.10	3
Ba			1	-0.006	ug/l	-91.59	43.33	1.290E-05	Pulse	0.10	3
Tl			1	-0.001	ug/l	-153.76	83.33	4.225E-05	Pulse	0.10	3
Pb			1	-0.016	ug/l	-26.81	120.00	6.105E-05	Pulse	0.10	3
Pb			1	-0.009	ug/l	-65.94	86.67	4.439E-05	Pulse	0.10	3
Pb			1	-0.011	ug/l	-23.06	456.69	2.331E-04	Pulse	0.10	3
Na			2	-0.628	ug/l	-11.37	5,998.90	8.362E-02	Pulse	0.30	3
Mg			2	-3.122	ug/l	-1.06	198.89	2.773E-03	Pulse	0.30	3
Al			2	-0.908	ug/l	-83.43	935.59	1.304E-02	Pulse	0.30	3
K			2	0.631	ug/l	80.29	7,517.32	1.048E-01	Pulse	0.30	3
Ca			2	-14.962	ug/l	-12.47	130.00	1.812E-03	Pulse	0.30	3
Ti			2	-0.039	ug/l	0.00	0.00	0.000E+00	Pulse	0.30	3
V			2	-0.002	ug/l	-586.65	100.00	1.394E-03	Pulse	0.30	3
Cr			2	-0.063	ug/l	-15.66	514.46	7.172E-03	Pulse	0.30	3
Mn			2	-0.042	ug/l	-12.65	83.33	1.162E-03	Pulse	0.30	3
Fe			2	-0.268	ug/l	-16.42	3,280.38	4.573E-02	Pulse	0.30	3
Co			2	-0.003	ug/l	-73.51	47.78	6.661E-04	Pulse	0.30	3
Ni			2	-0.079	ug/l	-14.74	80.00	1.115E-03	Pulse	0.30	3
Cu			2	-0.255	ug/l	-16.22	991.15	1.382E-02	Pulse	0.30	3
Zn			2	0.778	ug/l	9.37	791.14	1.103E-02	Pulse	0.30	3
As			2	0.002	ug/l	191.06	5.67	7.900E-05	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	0.133	ug/l	3.37	3.33	9.448E-06	Pulse	0.30	3
Sn			2	0.012	ug/l	305.44	536.68	1.522E-03	Pulse	0.30	3
Se			3	0.002	ug/l	350.02	1.53	2.487E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,499,809.37	0.84	100.0	Pulse	0.10	3
1	Sc		1,956,103.15	1.34	100.0	Pulse	0.10	3
1	Ge		361,284.72	0.95	100.0	Pulse	0.10	3
1	Ge		501,379.51	2.03	100.0	Pulse	0.10	3
1	Rh		2,358,287.31	1.67	100.0	Pulse	0.10	3
1	In		2,533,129.24	1.10	100.0	Pulse	0.10	3
1	Tb		3,361,129.74	0.83	100.0	Pulse	0.10	3
1	Ho		319,003.61	0.96	100.0	Pulse	0.10	3
1	Bi		1,962,141.85	1.71	100.0	Pulse	0.10	3
2	Sc		71,736.73	0.03	100.0	Pulse	0.30	3
2	Ge		37,952.93	1.05	100.0	Pulse	0.30	3
2	Ge		56,448.30	0.84	100.0	Pulse	0.30	3
2	Rh		1,031,250.90	0.39	100.0	Pulse	0.30	3
2	In		352,768.30	0.26	100.0	Pulse	0.30	3
2	Tb		1,304,704.05	0.43	100.0	Pulse	0.30	3
2	Ho		124,967.33	0.45	100.0	Pulse	0.30	3
2	Bi		870,794.46	0.14	100.0	Pulse	0.30	3
3	Sc		65,823.87	1.61	100.0	Pulse	0.30	3
3	Ge		40,846.56	1.84	100.0	Pulse	0.30	3
3	Ge		61,547.90	1.05	100.0	Pulse	0.30	3
3	Rh		713,399.40	0.96	100.0	Pulse	0.30	3
3	Tb		1,109,844.92	0.64	100.0	Pulse	0.30	3

Quantitation Report

File Name	002CALB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa043019m6.b
Method File	
Method Path	
Acq Time	4/30/2019 16:57
Sample Name	STDA 4
Sample Type	CalBlk
Comment	0
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/30/2019 19:15
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.001	ug/l	157.35	9.33	6.233E-06	Pulse	0.25	3
B			1	0.028	ug/l	273.91	3,756.08	2.504E-03	Pulse	0.15	3
Ca			1	24.971	ug/l	8.23	39,798.53	2.007E-02	Pulse	0.10	3
Sr			1	0.010	ug/l	26.73	860.06	3.636E-04	Pulse	0.10	3
Mo			1	0.003	ug/l	144.03	36.67	1.556E-05	Pulse	0.10	3
Ag			1	-0.001	ug/l	-89.53	13.33	5.163E-06	Pulse	0.10	3
Sn			1	0.378	ug/l	6.73	2,843.68	1.119E-03	Pulse	0.10	3
Sb			1	0.002	ug/l	138.13	203.34	6.005E-05	Pulse	0.10	3
Ba			1	0.000	ug/l	2896.23	70.00	2.078E-05	Pulse	0.10	3
Tl			1	0.001	ug/l	54.54	140.01	7.090E-05	Pulse	0.10	3
Pb			1	-0.006	ug/l	-28.15	196.68	9.959E-05	Pulse	0.10	3
Pb			1	0.014	ug/l	52.45	243.35	1.232E-04	Pulse	0.10	3
Pb			1	0.004	ug/l	101.05	940.05	4.756E-04	Pulse	0.10	3
Na			2	0.139	ug/l	201.74	6,460.19	9.093E-02	Pulse	0.30	3
Mg			2	3.320	ug/l	15.76	2,171.28	3.058E-02	Pulse	0.30	3
Al			2	37.114	ug/l	1.85	4,587.34	6.456E-02	Pulse	0.30	3
K			2	0.320	ug/l	296.15	7,386.14	1.040E-01	Pulse	0.30	3
Ca			2	29.588	ug/l	10.96	566.69	7.979E-03	Pulse	0.30	3
Ti			2	-0.039	ug/l	0.00	0.00	0.000E+00	Pulse	0.30	3
V			2	-0.001	ug/l	-1084.87	101.11	1.425E-03	Pulse	0.30	3
Cr			2	0.040	ug/l	71.97	854.48	1.204E-02	Pulse	0.30	3
Mn			2	0.060	ug/l	51.92	248.89	3.510E-03	Pulse	0.30	3
Fe			2	-0.031	ug/l	-312.81	3,877.17	5.456E-02	Pulse	0.30	3
Co			2	-0.001	ug/l	-465.57	58.89	8.250E-04	Pulse	0.30	3
Ni			2	0.120	ug/l	15.76	377.79	5.321E-03	Pulse	0.30	3
Cu			2	0.289	ug/l	12.37	3,222.57	4.537E-02	Pulse	0.30	3
Zn			2	4.133	ug/l	7.20	2,545.79	3.585E-02	Pulse	0.30	3
As			2	0.000	ug/l	-13754.00	5.00	7.035E-05	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	0.133	ug/l	3.40	3.33	9.491E-06	Pulse	0.30	3
Sn			2	0.010	ug/l	106.44	530.02	1.511E-03	Pulse	0.30	3
Se			3	-0.004	ug/l	-331.01	1.20	1.948E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,499,694.37	0.44	100.0	Pulse	0.10	3
1	Sc		1,982,968.56	0.83	100.0	Pulse	0.10	3
1	Ge		364,402.09	1.57	100.0	Pulse	0.10	3
1	Ge		505,076.23	0.23	100.0	Pulse	0.10	3
1	Rh		2,365,705.28	1.03	100.0	Pulse	0.10	3
1	In		2,543,424.52	2.08	100.0	Pulse	0.10	3
1	Tb		3,383,495.05	1.48	100.0	Pulse	0.10	3
1	Ho		320,281.82	1.61	100.0	Pulse	0.10	3
1	Bi		1,974,269.29	1.46	100.0	Pulse	0.10	3
2	Sc		71,070.51	1.96	100.0	Pulse	0.30	3
2	Ge		37,715.75	1.05	100.0	Pulse	0.30	3
2	Ge		57,071.68	0.27	100.0	Pulse	0.30	3
2	Rh		1,031,049.02	0.80	100.0	Pulse	0.30	3
2	In		350,842.15	1.22	100.0	Pulse	0.30	3
2	Tb		1,296,970.33	0.52	100.0	Pulse	0.30	3
2	Ho		125,058.67	1.23	100.0	Pulse	0.30	3
2	Bi		871,970.38	0.81	100.0	Pulse	0.30	3
3	Sc		65,394.17	0.47	100.0	Pulse	0.30	3
3	Ge		40,177.12	0.11	100.0	Pulse	0.30	3
3	Ge		61,600.10	0.03	100.0	Pulse	0.30	3
3	Rh		713,110.15	0.41	100.0	Pulse	0.30	3
3	Tb		1,114,956.38	0.48	100.0	Pulse	0.30	3

Quantitation Report

File Name	003CALB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa043019m6.b
Method File	
Method Path	
Acq Time	4/30/2019 17:02
Sample Name	STDA
Sample Type	CalBlk
Comment	0
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/30/2019 19:15
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.000	ug/l	316.95	8.00	5.304E-06	Pulse	0.25	3
B			1	-0.019	ug/l	-167.42	3,607.15	2.391E-03	Pulse	0.15	3
Ca			1	16.418	ug/l	2.50	34,920.76	1.752E-02	Pulse	0.10	3
Sr			1	0.007	ug/l	77.31	790.05	3.311E-04	Pulse	0.10	3
Mo			1	-0.002	ug/l	-61.72	13.33	5.566E-06	Pulse	0.10	3
Ag			1	-0.001	ug/l	-103.51	20.00	7.876E-06	Pulse	0.10	3
Sn			1	0.497	ug/l	24.79	3,856.07	1.515E-03	Pulse	0.10	3
Sb			1	0.012	ug/l	24.96	300.01	8.878E-05	Pulse	0.10	3
Ba			1	0.005	ug/l	267.75	90.00	2.676E-05	Pulse	0.10	3
Tl			1	-0.001	ug/l	-466.83	96.67	4.885E-05	Pulse	0.10	3
Pb			1	0.002	ug/l	253.69	266.68	1.340E-04	Pulse	0.10	3
Pb			1	0.008	ug/l	115.73	206.68	1.039E-04	Pulse	0.10	3
Pb			1	0.002	ug/l	59.28	900.05	4.519E-04	Pulse	0.10	3
Na			2	0.308	ug/l	86.11	6,543.56	9.254E-02	Pulse	0.30	3
Mg			2	1.564	ug/l	6.49	1,626.76	2.300E-02	Pulse	0.30	3
Al			2	34.362	ug/l	0.91	4,301.70	6.083E-02	Pulse	0.30	3
K			2	0.001	ug/l	122906.39	7,289.44	1.031E-01	Pulse	0.30	3
Ca			2	15.207	ug/l	18.09	423.34	5.988E-03	Pulse	0.30	3
Ti			2	-0.026	ug/l	-87.78	1.11	1.568E-05	Pulse	0.30	3
V			2	-0.001	ug/l	-933.01	101.11	1.430E-03	Pulse	0.30	3
Cr			2	0.049	ug/l	45.19	884.48	1.251E-02	Pulse	0.30	3
Mn			2	0.021	ug/l	120.85	185.56	2.626E-03	Pulse	0.30	3
Fe			2	0.071	ug/l	92.90	4,126.12	5.833E-02	Pulse	0.30	3
Co			2	-0.003	ug/l	-77.23	46.67	6.609E-04	Pulse	0.30	3
Ni			2	0.078	ug/l	16.30	313.34	4.429E-03	Pulse	0.30	3
Cu			2	0.380	ug/l	21.03	3,581.69	5.062E-02	Pulse	0.30	3
Zn			2	3.246	ug/l	2.18	2,071.27	2.929E-02	Pulse	0.30	3
As			2	0.001	ug/l	596.89	5.33	7.554E-05	Pulse	1.00	3
Cd			2	0.135	ug/l	5.09	4.44	1.266E-05	Pulse	0.30	3
Sn			2	0.038	ug/l	27.62	572.24	1.633E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	-0.005	ug/l	-222.28	1.13	1.850E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,508,581.67	0.03	100.0	Pulse	0.10	3
1	Sc		1,993,161.22	1.00	100.0	Pulse	0.10	3
1	Ge		364,335.02	0.80	100.0	Pulse	0.10	3
1	Ge		505,863.71	1.19	100.0	Pulse	0.10	3
1	Rh		2,385,823.98	1.85	100.0	Pulse	0.10	3
1	In		2,536,766.83	1.98	100.0	Pulse	0.10	3
1	Tb		3,380,659.01	1.91	100.0	Pulse	0.10	3
1	Ho		317,674.82	0.76	100.0	Pulse	0.10	3
1	Bi		1,992,357.31	1.64	100.0	Pulse	0.10	3
2	Sc		70,717.95	0.94	100.0	Pulse	0.30	3
2	Ge		37,235.84	1.76	100.0	Pulse	0.30	3
2	Ge		56,346.85	1.03	100.0	Pulse	0.30	3
2	Rh		1,037,491.14	0.63	100.0	Pulse	0.30	3
2	In		350,335.09	0.47	100.0	Pulse	0.30	3
2	Tb		1,290,663.80	0.63	100.0	Pulse	0.30	3
2	Ho		123,979.50	1.08	100.0	Pulse	0.30	3
2	Bi		863,545.05	0.52	100.0	Pulse	0.30	3
3	Sc		65,138.78	0.94	100.0	Pulse	0.30	3
3	Ge		40,463.42	1.07	100.0	Pulse	0.30	3
3	Ge		61,372.51	0.56	100.0	Pulse	0.30	3
3	Rh		718,951.52	0.62	100.0	Pulse	0.30	3
3	Tb		1,115,572.98	0.62	100.0	Pulse	0.30	3

Quantitation Report

File Name	004CALB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa043019m6.b
Method File	
Method Path	
Acq Time	4/30/2019 17:07
Sample Name	STDA
Sample Type	CalBlk
Comment	0
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/30/2019 19:15
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.000	ug/l	-2507.55	5.33	3.509E-06	Pulse	0.25	3
B			1	0.000	ug/l	---	3,736.06	2.438E-03	Pulse	0.15	3
Ca			1	0.000	ug/l	---	25,353.38	1.263E-02	Pulse	0.10	3
Sr			1	0.000	ug/l	---	596.70	2.499E-04	Pulse	0.10	3
Mo			1	0.000	ug/l	1160.55	23.33	9.733E-06	Pulse	0.10	3
Ag			1	0.000	ug/l	32873.51	30.00	1.174E-05	Pulse	0.10	3
Sn			1	0.394	ug/l	3.86	3,017.08	1.172E-03	Pulse	0.10	3
Sb			1	0.000	ug/l	414.30	193.34	5.659E-05	Pulse	0.10	3
Ba			1	0.000	ug/l	---	70.00	2.042E-05	Pulse	0.10	3
Tl			1	0.000	ug/l	---	110.00	5.527E-05	Pulse	0.10	3
Pb			1	0.000	ug/l	288638.61	246.68	1.242E-04	Pulse	0.10	3
Pb			1	0.003	ug/l	362.98	170.01	8.582E-05	Pulse	0.10	3
Pb			1	0.000	ug/l	907.62	833.37	4.195E-04	Pulse	0.10	3
Na			2	0.000	ug/l	---	6,399.06	8.960E-02	Pulse	0.30	3
Mg			2	-0.195	ug/l	-114.57	1,101.16	1.541E-02	Pulse	0.30	3
Al			2	25.366	ug/l	8.52	3,475.94	4.864E-02	Pulse	0.30	3
K			2	-0.759	ug/l	-283.70	7,220.52	1.011E-01	Pulse	0.30	3
Ca			2	0.053	ug/l	4175.67	277.78	3.891E-03	Pulse	0.30	3
Ti			2	0.000	ug/l	---	3.33	4.662E-05	Pulse	0.30	3
V			2	-0.002	ug/l	-506.54	100.00	1.401E-03	Pulse	0.30	3
Cr			2	0.014	ug/l	129.45	774.47	1.084E-02	Pulse	0.30	3
Mn			2	0.000	ug/l	---	152.22	2.135E-03	Pulse	0.30	3
Fe			2	0.000	ug/l	---	3,978.31	5.570E-02	Pulse	0.30	3
Co			2	-0.004	ug/l	-57.36	43.33	6.057E-04	Pulse	0.30	3
Ni			2	0.013	ug/l	202.18	218.89	3.066E-03	Pulse	0.30	3
Cu			2	-0.016	ug/l	-77.36	1,975.70	2.765E-02	Pulse	0.30	3
Zn			2	1.618	ug/l	8.91	1,231.17	1.724E-02	Pulse	0.30	3
As			2	0.000	ug/l	-2865.00	5.00	7.006E-05	Pulse	1.00	3
Cd			2	0.129	ug/l	0.00	0.00		Pulse	0.30	3
Sn			2	0.028	ug/l	51.63	561.13	1.591E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	-0.003	ug/l	-250.20	1.27	2.033E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,532,557.78	1.48	100.0	Pulse	0.10	3
1	Sc		2,007,267.68	1.39	100.0	Pulse	0.10	3
1	Ge		372,413.76	1.57	100.0	Pulse	0.10	3
1	Ge		512,549.09	0.89	100.0	Pulse	0.10	3
1	Rh		2,389,640.17	1.78	100.0	Pulse	0.10	3
1	In		2,572,752.45	1.41	100.0	Pulse	0.10	3
1	Tb		3,414,608.59	1.40	100.0	Pulse	0.10	3
1	Ho		323,407.42	0.67	100.0	Pulse	0.10	3
1	Bi		1,988,499.09	1.37	100.0	Pulse	0.10	3
2	Sc		71,438.85	1.16	100.0	Pulse	0.30	3
2	Ge		38,213.64	0.35	100.0	Pulse	0.30	3
2	Ge		57,381.53	1.91	100.0	Pulse	0.30	3
2	Rh		1,037,641.52	1.06	100.0	Pulse	0.30	3
2	In		352,685.15	0.86	100.0	Pulse	0.30	3
2	Tb		1,307,784.81	0.30	100.0	Pulse	0.30	3
2	Ho		124,870.11	1.66	100.0	Pulse	0.30	3
2	Bi		872,988.38	0.96	100.0	Pulse	0.30	3
3	Sc		66,032.20	1.59	100.0	Pulse	0.30	3
3	Ge		40,584.79	0.97	100.0	Pulse	0.30	3
3	Ge		62,363.97	0.40	100.0	Pulse	0.30	3
3	Rh		723,699.80	0.18	100.0	Pulse	0.30	3
3	Tb		1,132,051.28	1.02	100.0	Pulse	0.30	3

Quantitation Report

File Name 005CALS.d
File Path C:\Agilent\ICPMH\1\DATA\xa043019m6.b
Method File
Method Path
Acq Time 4/30/2019 17:12
Sample Name STDB
Sample Type CalStd
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/30/2019 19:15
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.514	ug/l	4.43	2,976.31	1.938E-03	Pulse	0.25	3
B			1	25.061	ug/l	1.12	95,891.38	6.245E-02	Pulse	0.15	3
Ca			1	239.687	ug/l	1.19	169,777.77	8.405E-02	Pulse	0.10	3
Sr			1	5.070	ug/l	0.41	145,253.51	6.080E-02	Pulse	0.10	3
Mo			1	0.930	ug/l	4.37	5,367.75	2.246E-03	Pulse	0.10	3
Ag			1	0.501	ug/l	1.09	6,518.24	2.546E-03	Pulse	0.10	3
Sn			1	4.962	ug/l	1.01	41,976.77	1.640E-02	Pulse	0.10	3
Sb			1	1.941	ug/l	3.63	18,948.63	5.545E-03	Pulse	0.10	3
Ba			1	1.041	ug/l	3.31	4,200.70	1.229E-03	Pulse	0.10	3
Tl			1	0.511	ug/l	2.17	11,868.47	5.983E-03	Pulse	0.10	3
Pb			1	0.493	ug/l	9.08	4,154.08	2.094E-03	Pulse	0.10	3
Pb			1	0.486	ug/l	4.85	3,490.54	1.760E-03	Pulse	0.10	3
Pb			1	0.492	ug/l	1.91	16,387.52	8.262E-03	Pulse	0.10	3
Na			2	256.743	ug/l	0.63	180,658.18	2.534E+00	Pulse	0.30	3
Mg			2	263.208	ug/l	0.22	82,168.81	1.152E+00	Pulse	0.30	3
Al			2	24.041	ug/l	3.76	3,340.37	4.685E-02	Pulse	0.30	3
K			2	262.296	ug/l	1.82	57,314.23	8.038E-01	Pulse	0.30	3
Ca			2	259.611	ug/l	4.27	2,839.16	3.982E-02	Pulse	0.30	3
Ti			2	0.946	ug/l	26.70	84.44	1.184E-03	Pulse	0.30	3
V			2	1.041	ug/l	2.19	2,885.84	4.048E-02	Pulse	0.30	3
Cr			2	0.941	ug/l	3.18	3,921.62	5.501E-02	Pulse	0.30	3
Mn			2	1.063	ug/l	2.67	1,900.13	2.665E-02	Pulse	0.30	3
Fe			2	26.638	ug/l	0.51	74,613.89	1.046E+00	Pulse	0.30	3
Co			2	0.510	ug/l	0.74	2,939.19	4.122E-02	Pulse	0.30	3
Ni			2	0.907	ug/l	7.87	1,567.87	2.198E-02	Pulse	0.30	3
Cu			2	2.575	ug/l	2.62	12,683.88	1.779E-01	Pulse	0.30	3
Zn			2	4.773	ug/l	1.01	2,893.62	4.058E-02	Pulse	0.30	3
As			2	0.502	ug/l	3.68	153.67	2.155E-03	Pulse	1.00	3
Cd			2	0.598	ug/l	8.01	347.48	9.891E-04	Pulse	0.30	3
Sn			2	4.701	ug/l	2.89	7,678.61	2.185E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	0.552	ug/l	5.85	29.67	4.830E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,535,598.25	0.57	100.2	Pulse	0.10	3
1	Sc		2,019,956.53	1.12	100.6	Pulse	0.10	3
1	Ge		369,722.79	1.78	99.3	Pulse	0.10	3
1	Ge		507,990.93	1.28	99.1	Pulse	0.10	3
1	Rh		2,389,166.79	0.99	100.0	Pulse	0.10	3
1	In		2,560,489.66	1.63	99.5	Pulse	0.10	3
1	Tb		3,417,660.99	1.01	100.1	Pulse	0.10	3
1	Ho		324,341.26	0.09	100.3	Pulse	0.10	3
1	Bi		1,983,456.12	0.89	99.7	Pulse	0.10	3
2	Sc		71,302.66	0.63	99.8	Pulse	0.30	3
2	Ge		37,986.34	2.15	99.4	Pulse	0.30	3
2	Ge		56,921.04	0.35	99.2	Pulse	0.30	3
2	Rh		1,041,000.48	0.52	100.3	Pulse	0.30	3
2	In		351,438.27	1.17	99.6	Pulse	0.30	3
2	Tb		1,301,389.29	0.64	99.5	Pulse	0.30	3
2	Ho		124,186.81	0.24	99.5	Pulse	0.30	3
2	Bi		860,577.66	0.21	98.6	Pulse	0.30	3
3	Sc		65,645.24	1.22	99.4	Pulse	0.30	3
3	Ge		40,582.58	1.76	100.0	Pulse	0.30	3
3	Ge		61,445.21	1.13	98.5	Pulse	0.30	3
3	Rh		721,741.07	0.31	99.7	Pulse	0.30	3
3	Tb		1,131,078.74	0.52	99.9	Pulse	0.30	3

Quantitation Report

File Name	006CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\xa043019m6.b
Method File	
Method Path	
Acq Time	4/30/2019 17:17
Sample Name	STDC
Sample Type	CalStd
Comment	5
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/30/2019 19:15
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	5.044	ug/l	2.15	28,924.62	1.900E-02	Pulse	0.25	3
B			1	5.520	ug/l	1.86	23,837.21	1.566E-02	Pulse	0.15	3
Ca			1	-12.018	ug/l	-2.64	18,187.20	9.047E-03	Pulse	0.10	3
Sr			1	5.027	ug/l	0.89	143,918.97	6.028E-02	Pulse	0.10	3
Mo			1	5.026	ug/l	3.36	28,873.48	1.209E-02	Pulse	0.10	3
Ag			1	5.017	ug/l	1.93	64,622.41	2.537E-02	Pulse	0.10	3
Sn			1	5.524	ug/l	0.63	46,539.60	1.827E-02	Pulse	0.10	3
Sb			1	5.120	ug/l	2.04	49,278.18	1.454E-02	Pulse	0.10	3
Ba			1	5.024	ug/l	3.07	19,849.98	5.854E-03	Pulse	0.10	3
Tl			1	5.024	ug/l	1.96	115,905.59	5.835E-02	Pulse	0.10	3
Pb			1	5.027	ug/l	1.73	40,111.82	2.020E-02	Pulse	0.10	3
Pb			1	5.126	ug/l	1.99	35,419.81	1.783E-02	Pulse	0.10	3
Pb			1	5.043	ug/l	1.04	160,506.28	8.081E-02	Pulse	0.10	3
Na			2	6.461	ug/l	3.32	10,720.15	1.511E-01	Pulse	0.30	3
Mg			2	1.895	ug/l	20.80	1,733.44	2.443E-02	Pulse	0.30	3
Al			2	-1.356	ug/l	-63.24	882.25	1.244E-02	Pulse	0.30	3
K			2	4.946	ug/l	16.67	8,252.10	1.163E-01	Pulse	0.30	3
Ca			2	15.829	ug/l	47.17	431.12	6.075E-03	Pulse	0.30	3
Ti			2	4.702	ug/l	8.68	404.46	5.702E-03	Pulse	0.30	3
V			2	5.036	ug/l	0.74	13,487.81	1.901E-01	Pulse	0.30	3
Cr			2	4.895	ug/l	1.96	17,266.90	2.434E-01	Pulse	0.30	3
Mn			2	5.171	ug/l	3.00	8,615.67	1.214E-01	Pulse	0.30	3
Fe			2	5.695	ug/l	2.20	18,977.67	2.675E-01	Pulse	0.30	3
Co			2	5.058	ug/l	0.35	28,454.64	4.011E-01	Pulse	0.30	3
Ni			2	4.968	ug/l	3.12	7,657.41	1.079E-01	Pulse	0.30	3
Cu			2	4.830	ug/l	2.05	21,899.14	3.087E-01	Pulse	0.30	3
Zn			2	5.051	ug/l	2.75	3,024.76	4.264E-02	Pulse	0.30	3
As			2	5.163	ug/l	4.33	1,525.74	2.150E-02	Pulse	1.00	3
Cd			2	5.141	ug/l	1.57	3,700.12	1.058E-02	Pulse	0.30	3
Sn			2	5.043	ug/l	0.21	8,161.07	2.333E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	5.151	ug/l	1.70	264.67	4.312E-03	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,522,622.89	0.86	99.4	Pulse	0.10	3
1	Sc		2,010,495.65	0.88	100.2	Pulse	0.10	3
1	Ge		369,558.29	2.13	99.2	Pulse	0.10	3
1	Ge		512,612.70	1.77	100.0	Pulse	0.10	3
1	Rh		2,387,358.40	0.40	99.9	Pulse	0.10	3
1	In		2,547,519.44	1.15	99.0	Pulse	0.10	3
1	Tb		3,390,245.57	1.14	99.3	Pulse	0.10	3
1	Ho		321,551.93	1.59	99.4	Pulse	0.10	3
1	Bi		1,986,298.41	1.50	99.9	Pulse	0.10	3
2	Sc		70,942.15	0.36	99.3	Pulse	0.30	3
2	Ge		37,975.21	1.45	99.4	Pulse	0.30	3
2	Ge		56,372.44	1.40	98.2	Pulse	0.30	3
2	Rh		1,037,482.91	0.37	100.0	Pulse	0.30	3
2	In		349,790.39	0.82	99.2	Pulse	0.30	3
2	Tb		1,301,959.01	0.71	99.6	Pulse	0.30	3
2	Ho		124,625.94	0.83	99.8	Pulse	0.30	3
2	Bi		863,465.90	0.66	98.9	Pulse	0.30	3
3	Sc		65,603.96	1.61	99.4	Pulse	0.30	3
3	Ge		40,673.95	1.34	100.2	Pulse	0.30	3
3	Ge		61,381.51	0.70	98.4	Pulse	0.30	3
3	Rh		729,095.87	0.33	100.7	Pulse	0.30	3
3	Tb		1,128,299.71	0.84	99.7	Pulse	0.30	3

Quantitation Report

File Name	007CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\xa043019m6.b
Method File	
Method Path	
Acq Time	4/30/2019 17:22
Sample Name	STDD
Sample Type	CalStd
Comment	25
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/30/2019 19:15
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	25.044	ug/l	1.33	143,215.02	9.431E-02	Pulse	0.25	3
B			1	24.493	ug/l	1.85	92,773.31	6.109E-02	Pulse	0.15	3
Ca			1	23.230	ug/l	0.09	39,100.10	1.955E-02	Pulse	0.10	3
Sr			1	24.839	ug/l	0.89	706,891.47	2.969E-01	Pulse	0.10	3
Mo			1	24.890	ug/l	1.73	142,514.39	5.985E-02	Pulse	0.10	3
Ag			1	24.949	ug/l	1.41	321,804.15	1.261E-01	Pulse	0.10	3
Sn			1	25.252	ug/l	0.98	214,390.71	8.402E-02	Pulse	0.10	3
Sb			1	24.886	ug/l	0.55	238,194.67	7.045E-02	Pulse	0.10	3
Ba			1	24.814	ug/l	1.12	97,491.93	2.883E-02	Pulse	0.10	3
Tl			1	24.780	ug/l	0.19	567,633.77	2.876E-01	Pulse	0.10	3
Pb			1	25.018	ug/l	0.63	197,406.14	1.000E-01	Pulse	0.10	3
Pb			1	25.049	ug/l	1.88	171,403.97	8.686E-02	Pulse	0.10	3
Pb			1	24.876	ug/l	0.55	783,486.37	3.970E-01	Pulse	0.10	3
Na			2	25.956	ug/l	1.34	23,753.42	3.367E-01	Pulse	0.30	3
Mg			2	22.640	ug/l	0.37	8,040.89	1.140E-01	Pulse	0.30	3
Al			2	28.700	ug/l	4.75	3,750.45	5.316E-02	Pulse	0.30	3
K			2	23.508	ug/l	0.68	11,704.22	1.659E-01	Pulse	0.30	3
Ca			2	145.353	ug/l	4.07	1,693.44	2.400E-02	Pulse	0.30	3
Ti			2	25.038	ug/l	3.35	2,127.95	3.016E-02	Pulse	0.30	3
V			2	25.239	ug/l	1.10	66,800.15	9.469E-01	Pulse	0.30	3
Cr			2	25.208	ug/l	0.63	85,449.50	1.211E+00	Pulse	0.30	3
Mn			2	25.282	ug/l	1.48	41,302.51	5.855E-01	Pulse	0.30	3
Fe			2	26.787	ug/l	0.81	74,214.35	1.052E+00	Pulse	0.30	3
Co			2	24.603	ug/l	0.60	137,383.66	1.947E+00	Pulse	0.30	3
Ni			2	25.135	ug/l	1.63	37,724.24	5.347E-01	Pulse	0.30	3
Cu			2	24.821	ug/l	0.68	103,553.82	1.468E+00	Pulse	0.30	3
Zn			2	25.377	ug/l	0.63	13,616.88	1.930E-01	Pulse	0.30	3
As			2	25.270	ug/l	1.64	7,406.70	1.050E-01	Pulse	1.00	3
Cd			2	24.931	ug/l	3.90	18,153.35	5.234E-02	Pulse	0.30	3
Sn			2	24.565	ug/l	0.88	37,452.23	1.080E-01	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	24.981	ug/l	1.44	1,281.45	2.083E-02	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,518,588.52	0.99	99.1	Pulse	0.10	3
1	Sc		1,999,985.70	0.99	99.6	Pulse	0.10	3
1	Ge		366,751.92	0.99	98.5	Pulse	0.10	3
1	Ge		508,949.94	0.86	99.3	Pulse	0.10	3
1	Rh		2,380,978.14	0.64	99.6	Pulse	0.10	3
1	In		2,551,726.68	0.53	99.2	Pulse	0.10	3
1	Tb		3,381,184.22	0.95	99.0	Pulse	0.10	3
1	Ho		320,938.28	0.76	99.2	Pulse	0.10	3
1	Bi		1,973,509.50	0.89	99.2	Pulse	0.10	3
2	Sc		70,548.28	0.30	98.8	Pulse	0.30	3
2	Ge		37,145.56	0.69	97.2	Pulse	0.30	3
2	Ge		56,176.23	1.72	97.9	Pulse	0.30	3
2	Rh		1,026,883.71	0.32	99.0	Pulse	0.30	3
2	In		346,917.17	0.70	98.4	Pulse	0.30	3
2	Tb		1,290,530.12	0.65	98.7	Pulse	0.30	3
2	Ho		123,751.29	1.09	99.1	Pulse	0.30	3
2	Bi		859,846.61	0.27	98.5	Pulse	0.30	3
3	Sc		65,460.12	1.06	99.1	Pulse	0.30	3
3	Ge		40,545.77	1.26	99.9	Pulse	0.30	3
3	Ge		61,537.73	1.06	98.7	Pulse	0.30	3
3	Rh		718,564.83	0.72	99.3	Pulse	0.30	3
3	Tb		1,122,106.83	0.23	99.1	Pulse	0.30	3

Quantitation Report

File Name	008CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\xa043019m6.b
Method File	
Method Path	
Acq Time	4/30/2019 17:27
Sample Name	STDE
Sample Type	CalStd
Comment	50
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/30/2019 19:15
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	49.845	ug/l	2.10	286,430.84	1.877E-01	Pulse	0.25	3
B			1	49.170	ug/l	0.95	183,405.96	1.202E-01	Pulse	0.15	3
Ca			1	49.794	ug/l	1.87	55,102.47	2.747E-02	Pulse	0.10	3
Sr			1	49.275	ug/l	0.61	1,406,675.29	5.887E-01	Pulse	0.10	3
Mo			1	49.259	ug/l	0.83	283,016.59	1.184E-01	Pulse	0.10	3
Ag			1	49.206	ug/l	0.83	637,718.49	2.487E-01	Pulse	0.10	3
Sn			1	48.907	ug/l	0.65	417,545.92	1.629E-01	Pulse	0.10	3
Sb			1	49.541	ug/l	1.16	475,453.35	1.402E-01	Pulse	0.10	3
Ba			1	50.021	ug/l	2.36	197,061.24	5.810E-02	Pulse	0.10	3
Tl			1	49.305	ug/l	1.41	1,142,020.63	5.722E-01	Pulse	0.10	3
Pb			1	49.513	ug/l	1.27	394,865.09	1.978E-01	Pulse	0.10	3
Pb			1	49.841	ug/l	0.17	344,774.92	1.727E-01	Pulse	0.10	3
Pb			1	49.682	ug/l	0.49	1,581,692.52	7.925E-01	Pulse	0.10	3
Na			2	51.528	ug/l	0.79	41,166.53	5.801E-01	Pulse	0.30	3
Mg			2	47.624	ug/l	1.71	15,740.79	2.218E-01	Pulse	0.30	3
Al			2	46.381	ug/l	2.11	5,472.05	7.711E-02	Pulse	0.30	3
K			2	49.573	ug/l	1.74	16,713.99	2.355E-01	Pulse	0.30	3
Ca			2	277.391	ug/l	2.05	3,000.31	4.228E-02	Pulse	0.30	3
Ti			2	50.190	ug/l	1.02	4,287.26	6.042E-02	Pulse	0.30	3
V			2	49.898	ug/l	0.85	132,733.94	1.870E+00	Pulse	0.30	3
Cr			2	50.078	ug/l	0.39	170,039.32	2.396E+00	Pulse	0.30	3
Mn			2	50.123	ug/l	0.13	82,218.28	1.159E+00	Pulse	0.30	3
Fe			2	52.170	ug/l	0.64	141,646.78	1.996E+00	Pulse	0.30	3
Co			2	49.354	ug/l	0.49	277,151.43	3.906E+00	Pulse	0.30	3
Ni			2	49.900	ug/l	0.82	75,141.18	1.059E+00	Pulse	0.30	3
Cu			2	50.034	ug/l	0.49	207,903.97	2.930E+00	Pulse	0.30	3
Zn			2	50.341	ug/l	0.48	26,803.11	3.777E-01	Pulse	0.30	3
As			2	49.978	ug/l	0.32	14,729.65	2.076E-01	Pulse	1.00	3
Cd			2	49.384	ug/l	1.96	36,247.14	1.039E-01	Pulse	0.30	3
Sn			2	49.268	ug/l	0.70	74,995.92	2.151E-01	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	50.309	ug/l	0.27	2,577.94	4.192E-02	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,526,187.64	0.71	99.6	Pulse	0.10	3
1	Sc		2,006,099.14	1.12	99.9	Pulse	0.10	3
1	Ge		367,809.64	1.05	98.8	Pulse	0.10	3
1	Ge		507,817.70	1.39	99.1	Pulse	0.10	3
1	Rh		2,389,468.45	1.71	100.0	Pulse	0.10	3
1	In		2,564,033.47	1.43	99.7	Pulse	0.10	3
1	Tb		3,391,714.74	0.78	99.3	Pulse	0.10	3
1	Ho		322,020.19	0.91	99.6	Pulse	0.10	3
1	Bi		1,995,818.25	0.68	100.4	Pulse	0.10	3
2	Sc		70,962.18	0.45	99.3	Pulse	0.30	3
2	Ge		37,847.18	0.64	99.0	Pulse	0.30	3
2	Ge		56,237.63	0.57	98.0	Pulse	0.30	3
2	Rh		1,029,538.64	0.44	99.2	Pulse	0.30	3
2	In		348,726.07	0.45	98.9	Pulse	0.30	3
2	Tb		1,294,367.90	0.63	99.0	Pulse	0.30	3
2	Ho		122,950.20	1.51	98.5	Pulse	0.30	3
2	Bi		856,249.51	0.76	98.1	Pulse	0.30	3
3	Sc		66,164.99	0.61	100.2	Pulse	0.30	3
3	Ge		40,451.15	1.00	99.7	Pulse	0.30	3
3	Ge		61,500.99	0.30	98.6	Pulse	0.30	3
3	Rh		720,455.91	0.25	99.6	Pulse	0.30	3
3	Tb		1,127,926.24	0.37	99.6	Pulse	0.30	3

Quantitation Report

File Name	009CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\xa043019m6.b
Method File	
Method Path	
Acq Time	4/30/2019 17:32
Sample Name	STDF
Sample Type	CalStd
Comment	100
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/30/2019 19:15
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	100.054	ug/l	1.24	573,897.69	3.768E-01	Pulse	0.25	3
B			1	98.591	ug/l	0.81	363,319.11	2.385E-01	Pulse	0.15	3
Ca			1	115.095	ug/l	0.69	93,727.34	4.692E-02	Pulse	0.10	3
Sr			1	100.399	ug/l	0.90	2,835,896.21	1.199E+00	Pulse	0.10	3
Mo			1	101.882	ug/l	0.81	579,274.73	2.450E-01	Pulse	0.10	3
Ag			1	100.847	ug/l	0.39	1,297,054.82	5.097E-01	Pulse	0.10	3
Sn			1	100.486	ug/l	0.26	851,856.13	3.348E-01	Pulse	0.10	3
Sb			1	100.525	ug/l	0.53	962,068.01	2.844E-01	Pulse	0.10	3
Ba			1	100.034	ug/l	0.81	393,000.03	1.162E-01	Pulse	0.10	3
Tl			1	100.401	ug/l	0.68	2,313,739.55	1.165E+00	Pulse	0.10	3
Pb			1	100.157	ug/l	0.75	794,437.93	4.001E-01	Pulse	0.10	3
Pb			1	101.042	ug/l	0.31	695,279.26	3.501E-01	Pulse	0.10	3
Pb			1	100.412	ug/l	0.32	3,179,784.46	1.601E+00	Pulse	0.10	3
Na			2	99.301	ug/l	0.96	73,591.85	1.035E+00	Pulse	0.30	3
Mg			2	98.115	ug/l	2.09	31,270.09	4.398E-01	Pulse	0.30	3
Al			2	95.454	ug/l	2.91	10,212.07	1.436E-01	Pulse	0.30	3
K			2	98.961	ug/l	1.32	26,130.50	3.675E-01	Pulse	0.30	3
Ca			2	595.360	ug/l	4.91	6,136.76	8.630E-02	Pulse	0.30	3
Ti			2	99.911	ug/l	1.84	8,550.06	1.202E-01	Pulse	0.30	3
V			2	99.792	ug/l	0.77	265,903.57	3.739E+00	Pulse	0.30	3
Cr			2	99.871	ug/l	0.24	339,106.78	4.769E+00	Pulse	0.30	3
Mn			2	99.859	ug/l	1.36	163,981.48	2.306E+00	Pulse	0.30	3
Fe			2	103.216	ug/l	1.16	276,932.85	3.895E+00	Pulse	0.30	3
Co			2	98.352	ug/l	0.79	553,374.30	7.782E+00	Pulse	0.30	3
Ni			2	100.087	ug/l	1.49	150,816.29	2.121E+00	Pulse	0.30	3
Cu			2	99.454	ug/l	1.20	412,102.57	5.795E+00	Pulse	0.30	3
Zn			2	98.379	ug/l	0.97	52,129.13	7.331E-01	Pulse	0.30	3
As			2	99.840	ug/l	1.00	29,480.12	4.146E-01	Pulse	1.00	3
Cd			2	100.318	ug/l	1.38	72,791.80	2.114E-01	Pulse	0.30	3
Sn			2	101.498	ug/l	0.73	152,007.73	4.415E-01	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	101.050	ug/l	0.78	5,159.35	8.417E-02	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,523,185.98	0.73	99.4	Pulse	0.10	3
1	Sc		1,997,480.29	1.17	99.5	Pulse	0.10	3
1	Ge		365,387.92	0.93	98.1	Pulse	0.10	3
1	Ge		510,282.54	0.80	99.6	Pulse	0.10	3
1	Rh		2,364,723.82	0.19	99.0	Pulse	0.10	3
1	In		2,544,718.97	0.62	98.9	Pulse	0.10	3
1	Tb		3,382,907.87	0.70	99.1	Pulse	0.10	3
1	Ho		323,526.14	0.38	100.0	Pulse	0.10	3
1	Bi		1,985,794.34	1.06	99.9	Pulse	0.10	3
2	Sc		71,112.86	1.24	99.5	Pulse	0.30	3
2	Ge		36,687.82	1.65	96.0	Pulse	0.30	3
2	Ge		55,925.47	0.82	97.5	Pulse	0.30	3
2	Rh		1,023,469.54	0.56	98.6	Pulse	0.30	3
2	In		344,330.76	0.84	97.6	Pulse	0.30	3
2	Tb		1,286,302.90	0.35	98.4	Pulse	0.30	3
2	Ho		122,472.97	1.10	98.1	Pulse	0.30	3
2	Bi		859,959.67	0.33	98.5	Pulse	0.30	3
3	Sc		66,378.17	0.41	100.5	Pulse	0.30	3
3	Ge		40,033.43	1.02	98.6	Pulse	0.30	3
3	Ge		61,297.88	0.36	98.3	Pulse	0.30	3
3	Rh		717,288.09	0.74	99.1	Pulse	0.30	3
3	Tb		1,123,464.16	0.46	99.2	Pulse	0.30	3

Quantitation Report

File Name	010CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\xa043019m6.b
Method File	
Method Path	
Acq Time	4/30/2019 17:37
Sample Name	STDG
Sample Type	CalStd
Comment	500MIN
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/30/2019 19:15
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.015	ug/l	12.46	89.33	5.902E-05	Pulse	0.25	3
B			1	200.955	ug/l	1.35	732,290.16	4.836E-01	Pulse	0.15	3
Ca			1	473.647	ug/l	0.86	306,481.73	1.538E-01	Pulse	0.10	3
Sr			1	0.015	ug/l	41.70	1,023.40	4.340E-04	Pulse	0.10	3
Mo			1	0.165	ug/l	17.02	960.06	4.061E-04	Pulse	0.10	3
Ag			1	0.021	ug/l	23.55	293.35	1.156E-04	Pulse	0.10	3
Sn			1	0.484	ug/l	3.29	3,737.23	1.471E-03	Pulse	0.10	3
Sb			1	0.905	ug/l	2.85	8,836.05	2.617E-03	Pulse	0.10	3
Ba			1	0.027	ug/l	19.33	176.68	5.232E-05	Pulse	0.10	3
Tl			1	0.032	ug/l	12.58	840.05	4.266E-04	Pulse	0.10	3
Pb			1	0.018	ug/l	26.40	386.68	1.964E-04	Pulse	0.10	3
Pb			1	0.032	ug/l	18.32	363.35	1.845E-04	Pulse	0.10	3
Pb			1	0.024	ug/l	16.54	1,576.75	8.006E-04	Pulse	0.10	3
Na			2	492.741	ug/l	0.87	337,623.88	4.780E+00	Pulse	0.30	3
Mg			2	502.000	ug/l	0.74	154,195.33	2.183E+00	Pulse	0.30	3
Al			2	507.889	ug/l	1.99	49,607.02	7.024E-01	Pulse	0.30	3
K			2	498.450	ug/l	1.06	101,328.29	1.435E+00	Pulse	0.30	3
Ca			2	503.311	ug/l	5.43	5,193.09	7.356E-02	Pulse	0.30	3
Ti			2	0.066	ug/l	67.22	8.89	1.256E-04	Pulse	0.30	3
V			2	0.012	ug/l	77.17	134.45	1.907E-03	Pulse	0.30	3
Cr			2	-0.121	ug/l	-15.75	308.90	4.367E-03	Pulse	0.30	3
Mn			2	-0.009	ug/l	-13.72	136.67	1.935E-03	Pulse	0.30	3
Fe			2	505.296	ug/l	1.28	1,331,246.34	1.885E+01	Pulse	0.30	3
Co			2	0.033	ug/l	12.05	248.89	3.521E-03	Pulse	0.30	3
Ni			2	-0.068	ug/l	-9.63	95.56	1.354E-03	Pulse	0.30	3
Cu			2	-0.349	ug/l	-6.20	590.02	8.361E-03	Pulse	0.30	3
Zn			2	-0.416	ug/l	-14.11	154.45	2.191E-03	Pulse	0.30	3
As			2	0.014	ug/l	40.12	9.00	1.272E-04	Pulse	1.00	3
Cd			2	0.145	ug/l	7.90	12.15	3.498E-05	Pulse	0.30	3
Sn			2	0.248	ug/l	8.69	883.37	2.544E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	200.336	ug/l	1.66	10,290.83	1.668E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,514,206.95	0.46	98.8	Pulse	0.10	3
1	Sc		1,993,232.99	1.24	99.3	Pulse	0.10	3
1	Ge		364,841.06	1.19	98.0	Pulse	0.10	3
1	Ge		513,408.98	0.95	100.2	Pulse	0.10	3
1	Rh		2,361,455.80	1.65	98.8	Pulse	0.10	3
1	In		2,540,586.05	0.80	98.7	Pulse	0.10	3
1	Tb		3,376,956.10	0.16	98.9	Pulse	0.10	3
1	Ho		321,201.40	1.32	99.3	Pulse	0.10	3
1	Bi		1,970,025.96	0.63	99.1	Pulse	0.10	3
2	Sc		70,634.26	1.59	98.9	Pulse	0.30	3
2	Ge		37,211.34	0.33	97.4	Pulse	0.30	3
2	Ge		56,780.67	2.14	99.0	Pulse	0.30	3
2	Rh		1,027,905.17	0.84	99.1	Pulse	0.30	3
2	In		347,247.44	0.55	98.5	Pulse	0.30	3
2	Tb		1,292,782.03	0.71	98.9	Pulse	0.30	3
2	Ho		123,535.94	0.36	98.9	Pulse	0.30	3
2	Bi		856,066.22	0.69	98.1	Pulse	0.30	3
3	Sc		65,921.82	1.06	99.8	Pulse	0.30	3
3	Ge		40,532.41	1.43	99.9	Pulse	0.30	3
3	Ge		61,687.14	1.48	98.9	Pulse	0.30	3
3	Rh		722,990.32	1.16	99.9	Pulse	0.30	3
3	Tb		1,130,032.63	0.75	99.8	Pulse	0.30	3

Quantitation Report

File Name	011CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\xa043019m6.b
Method File	
Method Path	
Acq Time	4/30/2019 17:42
Sample Name	STDH
Sample Type	CalStd
Comment	1000MIN
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/30/2019 19:15
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.002	ug/l	63.11	18.67	1.223E-05	Pulse	0.25	3
B			1	8.884	ug/l	1.91	36,169.91	2.371E-02	Pulse	0.15	3
Ca			1	947.638	ug/l	1.16	594,604.72	2.950E-01	Pulse	0.10	3
Sr			1	0.009	ug/l	64.14	840.05	3.533E-04	Pulse	0.10	3
Mo			1	0.048	ug/l	12.37	296.68	1.249E-04	Pulse	0.10	3
Ag			1	0.005	ug/l	58.54	96.67	3.779E-05	Pulse	0.10	3
Sn			1	0.340	ug/l	2.42	2,543.63	9.914E-04	Pulse	0.10	3
Sb			1	0.299	ug/l	10.37	3,050.40	9.013E-04	Pulse	0.10	3
Ba			1	-0.005	ug/l	-88.11	50.00	1.476E-05	Pulse	0.10	3
Tl			1	0.009	ug/l	16.18	303.35	1.547E-04	Pulse	0.10	3
Pb			1	-0.006	ug/l	-42.12	193.34	9.846E-05	Pulse	0.10	3
Pb			1	-0.002	ug/l	-215.12	133.34	6.793E-05	Pulse	0.10	3
Pb			1	-0.004	ug/l	-95.66	680.03	3.468E-04	Pulse	0.10	3
Na			2	978.725	ug/l	0.80	663,214.42	9.407E+00	Pulse	0.30	3
Mg			2	1001.160	ug/l	0.64	305,837.90	4.338E+00	Pulse	0.30	3
Al			2	999.953	ug/l	0.38	96,530.76	1.369E+00	Pulse	0.30	3
K			2	992.493	ug/l	1.58	194,197.34	2.754E+00	Pulse	0.30	3
Ca			2	986.997	ug/l	1.12	9,907.48	1.405E-01	Pulse	0.30	3
Ti			2	-0.039	ug/l	0.00	0.00		Pulse	0.30	3
V			2	-0.001	ug/l	-371.03	100.00	1.419E-03	Pulse	0.30	3
Cr			2	-0.112	ug/l	-9.61	340.01	4.820E-03	Pulse	0.30	3
Mn			2	0.009	ug/l	182.18	164.45	2.333E-03	Pulse	0.30	3
Fe			2	996.026	ug/l	0.73	2,615,809.62	3.710E+01	Pulse	0.30	3
Co			2	0.053	ug/l	4.28	356.68	5.059E-03	Pulse	0.30	3
Ni			2	-0.054	ug/l	-17.61	115.56	1.638E-03	Pulse	0.30	3
Cu			2	-0.352	ug/l	-1.71	576.69	8.179E-03	Pulse	0.30	3
Zn			2	-0.301	ug/l	-4.14	214.45	3.042E-03	Pulse	0.30	3
As			2	0.014	ug/l	75.14	9.00	1.277E-04	Pulse	1.00	3
Cd			2	0.138	ug/l	3.32	6.64	1.908E-05	Pulse	0.30	3
Sn			2	0.026	ug/l	123.67	551.13	1.582E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	398.156	ug/l	0.44	20,608.85	3.316E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,525,457.25	0.48	99.5	Pulse	0.10	3
1	Sc		2,015,378.25	1.68	100.4	Pulse	0.10	3
1	Ge		367,400.59	2.01	98.7	Pulse	0.10	3
1	Ge		509,776.62	1.55	99.5	Pulse	0.10	3
1	Rh		2,376,161.84	1.33	99.4	Pulse	0.10	3
1	In		2,565,659.72	1.60	99.7	Pulse	0.10	3
1	Tb		3,382,964.22	1.72	99.1	Pulse	0.10	3
1	Ho		321,689.03	1.64	99.5	Pulse	0.10	3
1	Bi		1,962,382.16	1.14	98.7	Pulse	0.10	3
2	Sc		70,507.03	0.73	98.7	Pulse	0.30	3
2	Ge		37,604.32	1.48	98.4	Pulse	0.30	3
2	Ge		56,170.73	1.20	97.9	Pulse	0.30	3
2	Rh		1,024,201.80	1.25	98.7	Pulse	0.30	3
2	In		348,312.04	0.72	98.8	Pulse	0.30	3
2	Tb		1,299,239.29	0.23	99.3	Pulse	0.30	3
2	Ho		124,526.24	0.68	99.7	Pulse	0.30	3
2	Bi		855,663.33	0.21	98.0	Pulse	0.30	3
3	Sc		66,050.05	0.80	100.0	Pulse	0.30	3
3	Ge		40,777.54	0.75	100.5	Pulse	0.30	3
3	Ge		62,154.36	0.47	99.7	Pulse	0.30	3
3	Rh		718,172.44	0.65	99.2	Pulse	0.30	3
3	Tb		1,123,901.24	0.51	99.3	Pulse	0.30	3

Quantitation Report

File Name	012CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\xa043019m6.b
Method File	
Method Path	
Acq Time	4/30/2019 17:47
Sample Name	STDI
Sample Type	CalStd
Comment	5000MIN
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/30/2019 19:15
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.001	ug/l	58.90	13.33	8.855E-06	Pulse	0.25	3
B			1	5.422	ug/l	1.69	23,229.48	1.542E-02	Pulse	0.15	3
Ca			1	4926.845	ug/l	0.95	2,980,057.46	1.481E+00	Pulse	0.10	3
Sr			1	0.046	ug/l	9.30	1,846.83	7.940E-04	Pulse	0.10	3
Mo			1	0.026	ug/l	3.77	166.68	7.169E-05	Pulse	0.10	3
Ag			1	0.003	ug/l	73.08	70.00	2.785E-05	Pulse	0.10	3
Sn			1	0.273	ug/l	5.86	1,930.19	7.684E-04	Pulse	0.10	3
Sb			1	0.178	ug/l	11.30	1,886.86	5.582E-04	Pulse	0.10	3
Ba			1	0.013	ug/l	17.02	120.00	3.553E-05	Pulse	0.10	3
Tl			1	0.005	ug/l	47.82	213.34	1.104E-04	Pulse	0.10	3
Pb			1	-0.010	ug/l	-8.39	166.68	8.620E-05	Pulse	0.10	3
Pb			1	-0.005	ug/l	-28.27	110.00	5.689E-05	Pulse	0.10	3
Pb			1	-0.006	ug/l	-44.77	610.03	3.154E-04	Pulse	0.10	3
Na			2	4930.645	ug/l	0.61	3,360,340.49	4.703E+01	Pulse	0.30	3
Mg			2	5015.076	ug/l	0.88	1,547,969.94	2.166E+01	Pulse	0.30	3
Al			2	5083.554	ug/l	0.93	493,170.17	6.902E+00	Pulse	0.30	3
K			2	4969.915	ug/l	2.07	955,997.25	1.338E+01	Pulse	0.30	3
Ca			2	5115.040	ug/l	2.01	50,869.55	7.120E-01	Pulse	0.30	3
Ti			2	-0.013	ug/l	-351.95	2.22	3.124E-05	Pulse	0.30	3
V			2	0.000	ug/l	2698.27	105.56	1.478E-03	Pulse	0.30	3
Cr			2	-0.099	ug/l	-0.13	387.79	5.427E-03	Pulse	0.30	3
Mn			2	0.028	ug/l	35.89	198.89	2.784E-03	Pulse	0.30	3
Fe			2	5024.507	ug/l	1.83	13,356,473.91	1.869E+02	Analog	0.30	3
Co			2	0.212	ug/l	8.92	1,264.51	1.769E-02	Pulse	0.30	3
Ni			2	0.079	ug/l	19.92	317.79	4.448E-03	Pulse	0.30	3
Cu			2	-0.323	ug/l	-1.65	703.36	9.844E-03	Pulse	0.30	3
Zn			2	0.309	ug/l	26.58	540.01	7.555E-03	Pulse	0.30	3
As			2	0.038	ug/l	27.78	16.33	2.287E-04	Pulse	1.00	3
Cd			2	0.136	ug/l	7.00	5.54	1.608E-05	Pulse	0.30	3
Sn			2	-0.101	ug/l	-30.01	356.68	1.032E-03	Pulse	0.30	3
Se			3	0.151	ug/l	9.23	9.00	1.488E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,506,346.66	0.37	98.3	Pulse	0.10	3
1	Sc		2,012,534.24	0.53	100.3	Pulse	0.10	3
1	Ge		366,826.79	0.13	98.5	Pulse	0.10	3

Quantitation Report

1	Ge		503,951.91	0.79	98.3	Pulse	0.10	3
1	Rh		2,324,909.13	1.06	97.3	Pulse	0.10	3
1	In		2,513,381.93	1.64	97.7	Pulse	0.10	3
1	Tb		3,376,000.05	2.06	98.9	Pulse	0.10	3
1	Ho		322,711.03	0.92	99.8	Pulse	0.10	3
1	Bi		1,933,646.74	0.37	97.2	Pulse	0.10	3
2	Sc		71,455.33	0.58	100.0	Pulse	0.30	3
2	Ge		37,490.76	1.37	98.1	Pulse	0.30	3
2	Ge		55,807.23	0.60	97.3	Pulse	0.30	3
2	Rh		1,011,952.25	0.37	97.5	Pulse	0.30	3
2	In		345,685.18	0.36	98.0	Pulse	0.30	3
2	Tb		1,286,719.98	0.31	98.4	Pulse	0.30	3
2	Ho		123,062.52	1.37	98.6	Pulse	0.30	3
2	Bi		839,392.43	0.71	96.2	Pulse	0.30	3
3	Sc		65,569.36	0.34	99.3	Pulse	0.30	3
3	Ge		39,798.50	1.77	98.1	Pulse	0.30	3
3	Ge		60,463.68	0.33	97.0	Pulse	0.30	3
3	Rh		700,633.89	0.44	96.8	Pulse	0.30	3
3	Tb		1,114,992.00	0.13	98.5	Pulse	0.30	3

Quantitation Report

File Name	013CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\xa043019m6.b
Method File	
Method Path	
Acq Time	4/30/2019 17:52
Sample Name	STDJ
Sample Type	CalStd
Comment	10000MIN
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/30/2019 19:15
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.001	ug/l	61.70	12.00	7.913E-06	Pulse	0.25	3
B			1	3.955	ug/l	3.65	18,056.54	1.191E-02	Pulse	0.15	3
Ca			1	10043.389	ug/l	0.58	6,047,702.20	3.005E+00	Analog	0.10	3
Sr			1	0.096	ug/l	15.34	3,220.44	1.396E-03	Pulse	0.10	3
Mo			1	0.028	ug/l	17.94	176.68	7.647E-05	Pulse	0.10	3
Ag			1	0.002	ug/l	58.87	56.67	2.261E-05	Pulse	0.10	3
Sn			1	0.538	ug/l	4.16	4,154.04	1.652E-03	Pulse	0.10	3
Sb			1	0.147	ug/l	9.09	1,586.81	4.719E-04	Pulse	0.10	3
Ba			1	0.013	ug/l	57.32	120.01	3.570E-05	Pulse	0.10	3
Tl			1	0.005	ug/l	86.37	210.01	1.107E-04	Pulse	0.10	3
Pb			1	0.024	ug/l	39.21	416.69	2.200E-04	Pulse	0.10	3
Pb			1	0.031	ug/l	46.66	346.68	1.831E-04	Pulse	0.10	3
Pb			1	0.025	ug/l	7.73	1,546.75	8.168E-04	Pulse	0.10	3
Na			2	10036.999	ug/l	2.53	6,921,548.33	9.564E+01	Analog	0.30	3
Mg			2	9969.561	ug/l	1.68	3,115,972.65	4.305E+01	Pulse	0.30	3
Al			2	10210.144	ug/l	1.94	1,002,289.20	1.385E+01	Pulse	0.30	3
K			2	10029.496	ug/l	1.95	1,946,679.86	2.690E+01	Pulse	0.30	3
Ca			2	10128.390	ug/l	2.00	101,767.71	1.406E+00	Pulse	0.30	3
Ti			2	0.025	ug/l	90.49	5.56	7.702E-05	Pulse	0.30	3
V			2	0.011	ug/l	47.64	136.67	1.887E-03	Pulse	0.30	3
Cr			2	-0.057	ug/l	-17.00	537.79	7.433E-03	Pulse	0.30	3
Mn			2	0.105	ug/l	16.98	330.01	4.554E-03	Pulse	0.30	3
Fe			2	9987.832	ug/l	2.03	26,891,371.71	3.715E+02	Analog	0.30	3
Co			2	0.459	ug/l	7.18	2,691.36	3.720E-02	Pulse	0.30	3
Ni			2	0.296	ug/l	6.83	655.58	9.053E-03	Pulse	0.30	3
Cu			2	-0.287	ug/l	-4.01	865.59	1.196E-02	Pulse	0.30	3
Zn			2	0.663	ug/l	20.56	736.69	1.018E-02	Pulse	0.30	3
As			2	0.057	ug/l	12.08	22.33	3.085E-04	Pulse	1.00	3
Cd			2	0.133	ug/l	5.92	3.32	9.591E-06	Pulse	0.30	3
Sn			2	0.182	ug/l	15.83	785.58	2.257E-03	Pulse	0.30	3
Se			3	0.072	ug/l	26.12	5.00	8.318E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,516,382.72	0.44	98.9	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,012,347.31	1.27	100.3	Pulse	0.10	3
1	Ge		369,277.51	0.74	99.2	Pulse	0.10	3
1	Ge		502,331.91	0.64	98.0	Pulse	0.10	3
1	Rh		2,309,225.28	1.47	96.6	Pulse	0.10	3
1	In		2,513,998.07	1.66	97.7	Pulse	0.10	3
1	Tb		3,360,048.70	1.58	98.4	Pulse	0.10	3
1	Ho		318,609.74	1.26	98.5	Pulse	0.10	3
1	Bi		1,893,469.71	0.62	95.2	Pulse	0.10	3
2	Sc		72,393.95	1.78	101.3	Pulse	0.30	3
2	Ge		37,859.39	1.60	99.1	Pulse	0.30	3
2	Ge		56,033.61	0.85	97.7	Pulse	0.30	3
2	Rh		1,002,048.22	0.59	96.6	Pulse	0.30	3
2	In		348,066.47	0.44	98.7	Pulse	0.30	3
2	Tb		1,300,104.88	0.21	99.4	Pulse	0.30	3
2	Ho		123,304.51	0.51	98.7	Pulse	0.30	3
2	Bi		828,009.19	0.17	94.8	Pulse	0.30	3
3	Sc		65,280.31	0.18	98.9	Pulse	0.30	3
3	Ge		40,037.85	1.29	98.7	Pulse	0.30	3
3	Ge		60,168.15	1.64	96.5	Pulse	0.30	3
3	Rh		689,444.80	0.49	95.3	Pulse	0.30	3
3	Tb		1,110,424.26	0.33	98.1	Pulse	0.30	3

Quantitation Report

File Name	014SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa043019m6.b
Method File	
Method Path	
Acq Time	4/30/2019 17:57
Sample Name	rinsconf
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/30/2019 19:15
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.001	ug/l	166.22	10.67	6.885E-06	Pulse	0.25	3
B			1	3.070	ug/l	3.61	15,224.86	9.788E-03	Pulse	0.15	3
Ca			1	-6.646	ug/l	-23.31	21,911.86	1.065E-02	Pulse	0.10	3
Sr			1	0.000	ug/l	-877.64	600.03	2.461E-04	Pulse	0.10	3
Mo			1	0.004	ug/l	83.61	46.67	1.907E-05	Pulse	0.10	3
Ag			1	0.001	ug/l	157.51	46.67	1.798E-05	Pulse	0.10	3
Sn			1	0.437	ug/l	1.92	3,427.16	1.315E-03	Pulse	0.10	3
Sb			1	0.076	ug/l	19.88	916.73	2.693E-04	Pulse	0.10	3
Ba			1	-0.003	ug/l	-173.74	56.67	1.660E-05	Pulse	0.10	3
Tl			1	0.004	ug/l	36.86	196.68	9.992E-05	Pulse	0.10	3
Pb			1	-0.005	ug/l	-86.69	206.68	1.049E-04	Pulse	0.10	3
Pb			1	0.007	ug/l	33.88	193.34	9.822E-05	Pulse	0.10	3
Pb			1	0.002	ug/l	140.22	876.71	4.452E-04	Pulse	0.10	3
Na			2	0.810	ug/l	26.96	7,030.42	9.732E-02	Pulse	0.30	3
Mg			2	-0.662	ug/l	-41.85	966.70	1.339E-02	Pulse	0.30	3
Al			2	13.662	ug/l	3.98	2,369.08	3.278E-02	Pulse	0.30	3
K			2	-1.401	ug/l	-53.62	7,178.28	9.936E-02	Pulse	0.30	3
Ca			2	-6.067	ug/l	-21.16	220.00	3.044E-03	Pulse	0.30	3
Ti			2	-0.039	ug/l	0.00	0.00	0.000E+00	Pulse	0.30	3
V			2	-0.007	ug/l	-24.64	86.67	1.199E-03	Pulse	0.30	3
Cr			2	-0.020	ug/l	-90.26	663.35	9.191E-03	Pulse	0.30	3
Mn			2	-0.019	ug/l	-83.78	122.22	1.692E-03	Pulse	0.30	3
Fe			2	1.088	ug/l	5.04	6,950.42	9.617E-02	Pulse	0.30	3
Co			2	-0.003	ug/l	-101.34	48.89	6.738E-04	Pulse	0.30	3
Ni			2	-0.018	ug/l	-110.27	173.34	2.398E-03	Pulse	0.30	3
Cu			2	-0.065	ug/l	-37.91	1,792.34	2.481E-02	Pulse	0.30	3
Zn			2	0.813	ug/l	7.11	815.59	1.129E-02	Pulse	0.30	3
As			2	0.003	ug/l	194.64	6.00	8.317E-05	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	0.132	ug/l	1.94	2.22	6.234E-06	Pulse	0.30	3
Sn			2	0.077	ug/l	46.63	642.24	1.803E-03	Pulse	0.30	3
Se			3	0.039	ug/l	5.72	3.47	5.517E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,555,222.06	0.91	101.5	Pulse	0.10	3
1	Sc		2,058,722.05	1.32	102.6	Pulse	0.10	3
1	Ge		379,089.64	0.95	101.8	Pulse	0.10	3
1	Ge		519,993.73	0.82	101.5	Pulse	0.10	3
1	Rh		2,434,165.85	2.12	101.9	Pulse	0.10	3
1	In		2,605,821.45	1.53	101.3	Pulse	0.10	3
1	Tb		3,401,280.68	1.28	99.6	Pulse	0.10	3
1	Ho		324,492.07	1.09	100.3	Pulse	0.10	3
1	Bi		1,968,734.66	1.11	99.0	Pulse	0.10	3
2	Sc		72,261.08	1.95	101.2	Pulse	0.30	3
2	Ge		38,721.42	1.21	101.3	Pulse	0.30	3
2	Ge		57,712.68	0.49	100.6	Pulse	0.30	3
2	Rh		1,058,414.58	0.66	102.0	Pulse	0.30	3
2	In		356,323.99	0.36	101.0	Pulse	0.30	3
2	Tb		1,312,411.76	0.62	100.4	Pulse	0.30	3
2	Ho		125,492.15	0.31	100.5	Pulse	0.30	3
2	Bi		873,019.58	0.30	100.0	Pulse	0.30	3
3	Sc		67,735.54	0.50	102.6	Pulse	0.30	3
3	Ge		41,805.60	1.18	103.0	Pulse	0.30	3
3	Ge		62,830.58	0.02	100.7	Pulse	0.30	3
3	Rh		738,868.81	0.52	102.1	Pulse	0.30	3
3	Tb		1,141,730.86	0.50	100.9	Pulse	0.30	3

Quantitation Report

File Name 015_ICV.d
File Path C:\Agilent\ICPMH\1\DATA\xa043019m6.b
Method File
Method Path
Acq Time 4/30/2019 18:02
Sample Name ICVA 5
Sample Type ICV
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/30/2019 19:15
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	59.907	ug/l	1.29	352,075.32	2.256E-01	Pulse	0.25	3
B			1	124.757	ug/l	0.89	470,045.45	3.012E-01	Pulse	0.15	3
Ca			1	5494.618	ug/l	0.88	3,476,954.01	1.650E+00	Pulse	0.10	3
Sr			1	62.158	ug/l	0.44	1,780,413.31	7.426E-01	Pulse	0.10	3
Mo			1	57.809	ug/l	1.39	333,256.41	1.390E-01	Pulse	0.10	3
Ag			1	58.271	ug/l	0.95	765,981.79	2.945E-01	Pulse	0.10	3
Sn			1	57.864	ug/l	0.73	501,109.99	1.927E-01	Pulse	0.10	3
Sb			1	59.870	ug/l	1.37	582,727.76	1.694E-01	Pulse	0.10	3
Ba			1	60.722	ug/l	1.61	242,627.82	7.053E-02	Pulse	0.10	3
Tl			1	62.452	ug/l	1.42	1,413,032.37	7.248E-01	Pulse	0.10	3
Pb			1	61.139	ug/l	0.42	476,240.32	2.443E-01	Pulse	0.10	3
Pb			1	59.000	ug/l	0.52	398,658.33	2.045E-01	Pulse	0.10	3
Pb			1	60.145	ug/l	0.53	1,870,297.95	9.593E-01	Pulse	0.10	3
Na			2	5488.367	ug/l	1.49	3,859,989.99	5.234E+01	Pulse	0.30	3
Mg			2	5593.611	ug/l	1.90	1,781,884.03	2.416E+01	Pulse	0.30	3
Al			2	5752.312	ug/l	1.69	575,856.73	7.808E+00	Pulse	0.30	3
K			2	5615.089	ug/l	1.74	1,113,889.23	1.510E+01	Pulse	0.30	3
Ca			2	5962.177	ug/l	2.40	61,151.58	8.292E-01	Pulse	0.30	3
Ti			2	57.136	ug/l	4.38	5,071.95	6.877E-02	Pulse	0.30	3
V			2	60.425	ug/l	1.25	167,038.44	2.265E+00	Pulse	0.30	3
Cr			2	59.151	ug/l	1.81	208,602.99	2.829E+00	Pulse	0.30	3
Mn			2	59.721	ug/l	0.80	101,791.51	1.380E+00	Pulse	0.30	3
Fe			2	5641.188	ug/l	1.19	15,479,156.61	2.099E+02	Analog	0.30	3
Co			2	57.794	ug/l	2.14	337,270.37	4.573E+00	Pulse	0.30	3
Ni			2	58.465	ug/l	2.52	91,453.92	1.240E+00	Pulse	0.30	3
Cu			2	57.374	ug/l	2.83	247,437.28	3.355E+00	Pulse	0.30	3
Zn			2	57.736	ug/l	2.16	31,889.92	4.324E-01	Pulse	0.30	3
As			2	58.236	ug/l	2.81	17,835.40	2.419E-01	Pulse	1.00	3
Cd			2	58.424	ug/l	1.83	43,503.83	1.230E-01	Pulse	0.30	3
Sn			2	57.651	ug/l	0.33	88,913.89	2.514E-01	Pulse	0.30	3
Se			3	255.249	ug/l	0.60	13,444.91	2.126E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,560,706.40	0.13	101.8	Pulse	0.10	3
1	Sc		2,107,180.60	1.03	105.0	Pulse	0.10	3
1	Ge		382,818.08	1.04	102.8	Pulse	0.10	3

Quantitation Report

1	Ge		528,913.23	1.39	103.2	Pulse	0.10	3
1	Rh		2,397,563.04	1.57	100.3	Pulse	0.10	3
1	In		2,600,645.61	2.05	101.1	Pulse	0.10	3
1	Tb		3,440,129.01	1.38	100.7	Pulse	0.10	3
1	Ho		327,243.26	1.74	101.2	Pulse	0.10	3
1	Bi		1,949,676.63	1.03	98.0	Pulse	0.10	3
2	Sc		73,764.54	1.65	103.3	Pulse	0.30	3
2	Ge		38,903.04	0.87	101.8	Pulse	0.30	3
2	Ge		58,456.54	1.14	101.9	Pulse	0.30	3
2	Rh		1,036,042.32	0.27	99.8	Pulse	0.30	3
2	In		353,690.12	0.91	100.3	Pulse	0.30	3
2	Tb		1,315,181.96	1.03	100.6	Pulse	0.30	3
2	Ho		124,543.04	1.62	99.7	Pulse	0.30	3
2	Bi		851,463.00	0.70	97.5	Pulse	0.30	3
3	Sc		67,409.91	1.34	102.1	Pulse	0.30	3
3	Ge		41,294.36	1.64	101.7	Pulse	0.30	3
3	Ge		63,248.59	0.36	101.4	Pulse	0.30	3
3	Rh		713,044.66	0.75	98.5	Pulse	0.30	3
3	Tb		1,130,719.09	0.76	99.9	Pulse	0.30	3

Quantitation Report

File Name	016_ICV.d
File Path	C:\Agilent\ICPMH\1\DATA\xa043019m6.b
Method File	
Method Path	
Acq Time	4/30/2019 18:07
Sample Name	ICV
Sample Type	ICV
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/30/2019 19:15
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.044	ug/l	4.14	272.01	1.709E-04	Pulse	0.25	3
B			1	5.457	ug/l	3.09	24,678.33	1.550E-02	Pulse	0.15	3
Ca			1	-17.831	ug/l	-5.06	15,394.25	7.315E-03	Pulse	0.10	3
Sr			1	0.012	ug/l	33.43	966.74	3.945E-04	Pulse	0.10	3
Mo			1	0.086	ug/l	11.18	530.03	2.163E-04	Pulse	0.10	3
Ag			1	0.008	ug/l	18.74	136.67	5.220E-05	Pulse	0.10	3
Sn			1	0.373	ug/l	5.21	2,883.69	1.102E-03	Pulse	0.10	3
Sb			1	0.079	ug/l	15.09	963.40	2.789E-04	Pulse	0.10	3
Ba			1	0.015	ug/l	93.89	130.01	3.773E-05	Pulse	0.10	3
Tl			1	0.023	ug/l	6.91	633.37	3.199E-04	Pulse	0.10	3
Pb			1	0.006	ug/l	57.37	296.68	1.498E-04	Pulse	0.10	3
Pb			1	0.014	ug/l	59.07	243.35	1.229E-04	Pulse	0.10	3
Pb			1	0.012	ug/l	39.11	1,190.07	6.015E-04	Pulse	0.10	3
Na			2	0.482	ug/l	26.97	7,059.31	9.419E-02	Pulse	0.30	3
Mg			2	-2.562	ug/l	-0.77	388.90	5.189E-03	Pulse	0.30	3
Al			2	55.567	ug/l	5.73	6,710.29	8.956E-02	Pulse	0.30	3
K			2	-1.872	ug/l	-11.86	7,352.80	9.810E-02	Pulse	0.30	3
Ca			2	-17.240	ug/l	-3.84	112.22	1.497E-03	Pulse	0.30	3
Ti			2	0.023	ug/l	92.20	5.56	7.400E-05	Pulse	0.30	3
V			2	0.007	ug/l	28.55	130.01	1.735E-03	Pulse	0.30	3
Cr			2	-0.066	ug/l	-1.11	525.57	7.013E-03	Pulse	0.30	3
Mn			2	-0.030	ug/l	-59.29	108.89	1.450E-03	Pulse	0.30	3
Fe			2	1.302	ug/l	8.87	7,800.81	1.041E-01	Pulse	0.30	3
Co			2	0.003	ug/l	167.07	86.67	1.159E-03	Pulse	0.30	3
Ni			2	-0.097	ug/l	-5.11	54.44	7.267E-04	Pulse	0.30	3
Cu			2	-0.317	ug/l	-1.03	763.36	1.019E-02	Pulse	0.30	3
Zn			2	0.277	ug/l	25.23	548.90	7.321E-03	Pulse	0.30	3
As			2	0.017	ug/l	26.42	10.67	1.422E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	0.142	ug/l	3.04	9.97	2.745E-05	Pulse	0.30	3
Sn			2	0.058	ug/l	83.60	624.46	1.721E-03	Pulse	0.30	3
Se			3	0.076	ug/l	9.62	5.53	8.593E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,591,883.26	0.37	103.9	Pulse	0.10	3
1	Sc		2,105,012.26	0.94	104.9	Pulse	0.10	3
1	Ge		384,213.55	0.18	103.2	Pulse	0.10	3
1	Ge		528,836.94	0.94	103.2	Pulse	0.10	3
1	Rh		2,448,604.96	1.05	102.5	Pulse	0.10	3
1	In		2,616,629.34	0.86	101.7	Pulse	0.10	3
1	Tb		3,452,834.22	1.43	101.1	Pulse	0.10	3
1	Ho		324,414.10	1.71	100.3	Pulse	0.10	3
1	Bi		1,979,059.71	1.45	99.5	Pulse	0.10	3
2	Sc		74,949.50	1.16	104.9	Pulse	0.30	3
2	Ge		39,269.41	1.05	102.8	Pulse	0.30	3
2	Ge		58,935.90	0.39	102.7	Pulse	0.30	3
2	Rh		1,069,314.09	0.96	103.1	Pulse	0.30	3
2	In		362,980.53	0.41	102.9	Pulse	0.30	3
2	Tb		1,317,300.22	0.85	100.7	Pulse	0.30	3
2	Ho		126,264.40	1.04	101.1	Pulse	0.30	3
2	Bi		872,405.24	0.43	99.9	Pulse	0.30	3
3	Sc		68,176.35	1.31	103.2	Pulse	0.30	3
3	Ge		42,231.14	0.43	104.1	Pulse	0.30	3
3	Ge		64,381.73	1.66	103.2	Pulse	0.30	3
3	Rh		747,131.93	0.23	103.2	Pulse	0.30	3
3	Tb		1,148,234.40	0.65	101.4	Pulse	0.30	3

Quantitation Report

File Name	017_ICB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa043019m6.b
Method File	
Method Path	
Acq Time	4/30/2019 18:12
Sample Name	ICB
Sample Type	ICB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/30/2019 19:15
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.001	ug/l	92.79	10.67	6.596E-06	Pulse	0.25	3
B			1	3.440	ug/l	0.60	17,197.92	1.068E-02	Pulse	0.15	3
Ca			1	-11.172	ug/l	-6.70	19,782.35	9.299E-03	Pulse	0.10	3
Sr			1	-0.004	ug/l	-10.95	503.36	2.018E-04	Pulse	0.10	3
Mo			1	0.021	ug/l	26.57	146.68	5.884E-05	Pulse	0.10	3
Ag			1	0.004	ug/l	12.20	86.67	3.271E-05	Pulse	0.10	3
Sn			1	0.470	ug/l	3.53	3,778.92	1.425E-03	Pulse	0.10	3
Sb			1	0.038	ug/l	34.34	566.70	1.624E-04	Pulse	0.10	3
Ba			1	-0.006	ug/l	-168.11	46.67	1.344E-05	Pulse	0.10	3
Tl			1	0.006	ug/l	48.91	240.01	1.206E-04	Pulse	0.10	3
Pb			1	0.002	ug/l	548.13	260.01	1.312E-04	Pulse	0.10	3
Pb			1	0.008	ug/l	161.13	203.34	1.027E-04	Pulse	0.10	3
Pb			1	0.006	ug/l	72.16	1,023.39	5.153E-04	Pulse	0.10	3
Na			2	-0.118	ug/l	-219.26	6,688.07	8.848E-02	Pulse	0.30	3
Mg			2	-1.813	ug/l	-14.77	636.69	8.425E-03	Pulse	0.30	3
Al			2	8.778	ug/l	6.66	1,977.92	2.617E-02	Pulse	0.30	3
K			2	-2.492	ug/l	-34.04	7,291.66	9.645E-02	Pulse	0.30	3
Ca			2	-9.579	ug/l	-11.33	193.33	2.557E-03	Pulse	0.30	3
Ti			2	-0.027	ug/l	-78.73	1.11	1.457E-05	Pulse	0.30	3
V			2	-0.003	ug/l	-330.12	102.23	1.354E-03	Pulse	0.30	3
Cr			2	-0.037	ug/l	-25.29	635.58	8.408E-03	Pulse	0.30	3
Mn			2	-0.022	ug/l	-15.22	123.34	1.631E-03	Pulse	0.30	3
Fe			2	0.112	ug/l	50.95	4,525.16	5.985E-02	Pulse	0.30	3
Co			2	-0.001	ug/l	-638.20	62.22	8.212E-04	Pulse	0.30	3
Ni			2	-0.016	ug/l	-366.99	184.48	2.441E-03	Pulse	0.30	3
Cu			2	-0.128	ug/l	-20.78	1,601.21	2.118E-02	Pulse	0.30	3
Zn			2	0.508	ug/l	5.54	682.24	9.024E-03	Pulse	0.30	3
As			2	0.002	ug/l	302.11	6.00	7.941E-05	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	0.133	ug/l	3.23	3.32	9.084E-06	Pulse	0.30	3
Sn			2	0.095	ug/l	15.92	685.58	1.879E-03	Pulse	0.30	3
Se			3	0.046	ug/l	28.78	3.93	6.100E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,610,944.81	1.54	105.1	Pulse	0.10	3
1	Sc		2,127,525.07	0.66	106.0	Pulse	0.10	3
1	Ge		386,992.74	1.22	103.9	Pulse	0.10	3
1	Ge		534,536.19	1.18	104.3	Pulse	0.10	3
1	Rh		2,494,561.47	1.07	104.4	Pulse	0.10	3
1	In		2,651,484.33	1.39	103.1	Pulse	0.10	3
1	Tb		3,488,133.60	0.94	102.2	Pulse	0.10	3
1	Ho		330,981.78	0.31	102.3	Pulse	0.10	3
1	Bi		1,987,752.73	1.47	100.0	Pulse	0.10	3
2	Sc		75,596.84	0.72	105.8	Pulse	0.30	3
2	Ge		40,047.96	0.99	104.8	Pulse	0.30	3
2	Ge		60,002.07	0.65	104.6	Pulse	0.30	3
2	Rh		1,078,551.14	0.84	103.9	Pulse	0.30	3
2	In		364,873.67	0.88	103.5	Pulse	0.30	3
2	Tb		1,329,512.55	0.92	101.7	Pulse	0.30	3
2	Ho		126,817.11	0.53	101.6	Pulse	0.30	3
2	Bi		873,946.58	0.75	100.1	Pulse	0.30	3
3	Sc		69,423.68	0.82	105.1	Pulse	0.30	3
3	Ge		42,832.72	1.22	105.5	Pulse	0.30	3
3	Ge		64,383.04	1.62	103.2	Pulse	0.30	3
3	Rh		749,449.29	0.65	103.6	Pulse	0.30	3
3	Tb		1,147,271.31	0.48	101.3	Pulse	0.30	3

Quantitation Report

File Name	018_CCV.d
File Path	C:\Agilent\ICPMH\1\DATA\xa043019m6.b
Method File	
Method Path	
Acq Time	4/30/2019 18:17
Sample Name	CCVA
Sample Type	CCV
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/30/2019 19:15
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	51.818	ug/l	1.75	311,370.45	1.951E-01	Pulse	0.25	3
B			1	105.050	ug/l	1.48	405,307.54	2.540E-01	Pulse	0.15	3
Ca			1	5169.786	ug/l	0.76	3,340,545.99	1.553E+00	Pulse	0.10	3
Sr			1	51.813	ug/l	0.92	1,507,880.03	6.190E-01	Pulse	0.10	3
Mo			1	50.706	ug/l	1.74	297,004.62	1.219E-01	Pulse	0.10	3
Ag			1	49.663	ug/l	0.14	659,919.43	2.510E-01	Pulse	0.10	3
Sn			1	49.348	ug/l	0.05	431,999.66	1.643E-01	Pulse	0.10	3
Sb			1	53.394	ug/l	0.04	521,853.07	1.511E-01	Pulse	0.10	3
Ba			1	51.445	ug/l	0.61	206,403.05	5.975E-02	Pulse	0.10	3
Tl			1	51.082	ug/l	0.62	1,153,167.20	5.929E-01	Pulse	0.10	3
Pb			1	51.056	ug/l	0.25	396,813.21	2.040E-01	Pulse	0.10	3
Pb			1	51.442	ug/l	0.96	346,796.05	1.783E-01	Pulse	0.10	3
Pb			1	51.284	ug/l	0.28	1,591,158.12	8.180E-01	Pulse	0.10	3
Na			2	5008.141	ug/l	0.60	3,605,695.27	4.777E+01	Pulse	0.30	3
Mg			2	5288.058	ug/l	1.05	1,724,300.45	2.284E+01	Pulse	0.30	3
Al			2	5240.847	ug/l	1.69	537,104.23	7.115E+00	Pulse	0.30	3
K			2	5140.809	ug/l	1.05	1,044,481.21	1.384E+01	Pulse	0.30	3
Ca			2	5536.018	ug/l	0.36	58,145.49	7.702E-01	Pulse	0.30	3
Ti			2	50.849	ug/l	0.48	4,620.70	6.121E-02	Pulse	0.30	3
V			2	50.436	ug/l	0.70	142,723.25	1.891E+00	Pulse	0.30	3
Cr			2	50.136	ug/l	1.00	181,092.65	2.399E+00	Pulse	0.30	3
Mn			2	50.307	ug/l	1.35	87,782.08	1.163E+00	Pulse	0.30	3
Fe			2	5090.448	ug/l	0.28	14,296,682.21	1.894E+02	Analog	0.30	3
Co			2	48.318	ug/l	0.79	288,636.15	3.824E+00	Pulse	0.30	3
Ni			2	48.952	ug/l	1.62	78,412.96	1.039E+00	Pulse	0.30	3
Cu			2	48.979	ug/l	1.06	216,540.83	2.869E+00	Pulse	0.30	3
Zn			2	49.281	ug/l	1.04	27,919.44	3.699E-01	Pulse	0.30	3
As			2	49.310	ug/l	1.06	15,458.99	2.048E-01	Pulse	1.00	3
Cd			2	49.292	ug/l	1.67	37,265.54	1.037E-01	Pulse	0.30	3
Sn			2	48.981	ug/l	0.85	76,803.36	2.138E-01	Pulse	0.30	3
Se			3	194.848	ug/l	2.21	10,419.71	1.623E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,595,935.88	1.10	104.1	Pulse	0.10	3
1	Sc		2,150,912.26	1.20	107.2	Pulse	0.10	3
1	Ge		387,127.84	0.67	104.0	Pulse	0.10	3

Quantitation Report

1	Ge		537,563.25	0.87	104.9	Pulse	0.10	3
1	Rh		2,436,098.09	1.39	101.9	Pulse	0.10	3
1	In		2,628,954.00	1.17	102.2	Pulse	0.10	3
1	Tb		3,454,007.13	1.16	101.2	Pulse	0.10	3
1	Ho		327,822.12	1.18	101.4	Pulse	0.10	3
1	Bi		1,945,104.76	0.22	97.8	Pulse	0.10	3
2	Sc		75,489.84	0.80	105.7	Pulse	0.30	3
2	Ge		39,112.38	1.29	102.4	Pulse	0.30	3
2	Ge		58,942.64	0.56	102.7	Pulse	0.30	3
2	Rh		1,047,965.55	0.77	101.0	Pulse	0.30	3
2	In		359,213.01	0.31	101.9	Pulse	0.30	3
2	Tb		1,330,826.86	0.75	101.8	Pulse	0.30	3
2	Ho		126,273.69	0.54	101.1	Pulse	0.30	3
2	Bi		851,477.83	0.45	97.5	Pulse	0.30	3
3	Sc		68,830.08	1.41	104.2	Pulse	0.30	3
3	Ge		42,166.53	0.85	103.9	Pulse	0.30	3
3	Ge		64,232.49	2.49	103.0	Pulse	0.30	3
3	Rh		724,037.40	0.77	100.0	Pulse	0.30	3
3	Tb		1,134,112.80	0.14	100.2	Pulse	0.30	3

Quantitation Report

File Name	019_CCB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa043019m6.b
Method File	
Method Path	
Acq Time	4/30/2019 18:22
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/30/2019 19:15
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.007	ug/l	29.55	48.00	2.998E-05	Pulse	0.25	3
B			1	5.116	ug/l	3.16	23,565.63	1.469E-02	Pulse	0.15	3
Ca			1	-10.631	ug/l	-9.28	20,229.71	9.460E-03	Pulse	0.10	3
Sr			1	0.005	ug/l	35.75	776.71	3.114E-04	Pulse	0.10	3
Mo			1	0.093	ug/l	2.85	580.03	2.326E-04	Pulse	0.10	3
Ag			1	0.009	ug/l	43.19	146.67	5.543E-05	Pulse	0.10	3
Sn			1	0.572	ug/l	3.63	4,680.89	1.766E-03	Pulse	0.10	3
Sb			1	0.088	ug/l	8.65	1,050.07	3.048E-04	Pulse	0.10	3
Ba			1	0.005	ug/l	51.92	90.00	2.612E-05	Pulse	0.10	3
Tl			1	0.021	ug/l	11.19	583.37	2.948E-04	Pulse	0.10	3
Pb			1	0.017	ug/l	37.48	383.36	1.936E-04	Pulse	0.10	3
Pb			1	0.022	ug/l	74.25	300.01	1.516E-04	Pulse	0.10	3
Pb			1	0.019	ug/l	17.72	1,416.75	7.156E-04	Pulse	0.10	3
Na			2	0.198	ug/l	258.00	6,953.73	9.149E-02	Pulse	0.30	3
Mg			2	-1.434	ug/l	-14.65	764.47	1.006E-02	Pulse	0.30	3
Al			2	10.506	ug/l	10.49	2,166.83	2.851E-02	Pulse	0.30	3
K			2	-2.505	ug/l	-42.23	7,328.36	9.641E-02	Pulse	0.30	3
Ca			2	-13.164	ug/l	-3.96	156.67	2.061E-03	Pulse	0.30	3
Ti			2	-0.027	ug/l	-78.71	1.11	1.457E-05	Pulse	0.30	3
V			2	0.010	ug/l	108.40	141.11	1.857E-03	Pulse	0.30	3
Cr			2	-0.024	ug/l	-57.93	686.69	9.032E-03	Pulse	0.30	3
Mn			2	-0.022	ug/l	-58.69	124.45	1.637E-03	Pulse	0.30	3
Fe			2	0.654	ug/l	6.08	6,082.34	8.003E-02	Pulse	0.30	3
Co			2	0.002	ug/l	96.59	80.00	1.053E-03	Pulse	0.30	3
Ni			2	-0.029	ug/l	-8.91	164.45	2.163E-03	Pulse	0.30	3
Cu			2	-0.105	ug/l	-15.61	1,709.00	2.249E-02	Pulse	0.30	3
Zn			2	0.562	ug/l	13.59	716.69	9.427E-03	Pulse	0.30	3
As			2	0.021	ug/l	53.43	12.00	1.581E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	0.136	ug/l	4.88	5.52	1.518E-05	Pulse	0.30	3
Sn			2	0.238	ug/l	14.80	912.26	2.502E-03	Pulse	0.30	3
Se			3	0.102	ug/l	23.75	6.93	1.079E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,604,035.93	1.05	104.7	Pulse	0.10	3
1	Sc		2,138,767.99	1.63	106.6	Pulse	0.10	3
1	Ge		387,741.38	0.54	104.1	Pulse	0.10	3
1	Ge		534,314.17	0.26	104.2	Pulse	0.10	3
1	Rh		2,493,351.00	0.51	104.3	Pulse	0.10	3
1	In		2,649,666.57	0.62	103.0	Pulse	0.10	3
1	Tb		3,445,908.70	0.54	100.9	Pulse	0.10	3
1	Ho		323,355.07	0.98	100.0	Pulse	0.10	3
1	Bi		1,980,013.04	1.18	99.6	Pulse	0.10	3
2	Sc		76,011.00	0.65	106.4	Pulse	0.30	3
2	Ge		39,723.78	0.88	104.0	Pulse	0.30	3
2	Ge		59,443.38	1.66	103.6	Pulse	0.30	3
2	Rh		1,078,372.04	0.39	103.9	Pulse	0.30	3
2	In		364,536.79	0.36	103.4	Pulse	0.30	3
2	Tb		1,322,459.15	0.35	101.1	Pulse	0.30	3
2	Ho		125,912.04	0.65	100.8	Pulse	0.30	3
2	Bi		876,837.26	0.43	100.4	Pulse	0.30	3
3	Sc		69,123.50	1.01	104.7	Pulse	0.30	3
3	Ge		42,500.64	0.77	104.7	Pulse	0.30	3
3	Ge		64,268.22	0.41	103.1	Pulse	0.30	3
3	Rh		747,068.76	0.97	103.2	Pulse	0.30	3
3	Tb		1,138,941.72	0.87	100.6	Pulse	0.30	3

Quantitation Report

File Name	020LCCV.d
File Path	C:\Agilent\ICPMH\1\DATA\xa043019m6.b
Method File	
Method Path	
Acq Time	4/30/2019 18:27
Sample Name	CRI
Sample Type	LLCCV
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/30/2019 19:15
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.512	ug/l	1.97	3,131.00	1.930E-03	Pulse	0.25	3
B			1	28.921	ug/l	0.85	116,282.96	7.169E-02	Pulse	0.15	3
Ca			1	233.839	ug/l	0.73	178,513.92	8.231E-02	Pulse	0.10	3
Sr			1	4.977	ug/l	0.75	150,755.68	5.969E-02	Pulse	0.10	3
Mo			1	1.004	ug/l	7.73	6,121.38	2.424E-03	Pulse	0.10	3
Ag			1	0.504	ug/l	3.83	6,828.39	2.561E-03	Pulse	0.10	3
Sn			1	4.958	ug/l	0.52	43,688.36	1.638E-02	Pulse	0.10	3
Sb			1	2.036	ug/l	1.03	20,263.52	5.815E-03	Pulse	0.10	3
Ba			1	1.057	ug/l	4.57	4,350.75	1.248E-03	Pulse	0.10	3
Tl			1	0.511	ug/l	4.03	11,951.94	5.988E-03	Pulse	0.10	3
Pb			1	0.490	ug/l	2.44	4,157.41	2.083E-03	Pulse	0.10	3
Pb			1	0.506	ug/l	2.77	3,650.55	1.829E-03	Pulse	0.10	3
Pb			1	0.500	ug/l	2.54	16,727.60	8.381E-03	Pulse	0.10	3
Na			2	257.520	ug/l	1.98	194,667.92	2.541E+00	Pulse	0.30	3
Mg			2	259.405	ug/l	2.50	87,020.54	1.136E+00	Pulse	0.30	3
Al			2	17.835	ug/l	8.37	2,943.62	3.844E-02	Pulse	0.30	3
K			2	260.124	ug/l	0.93	61,141.10	7.980E-01	Pulse	0.30	3
Ca			2	264.942	ug/l	10.36	3,104.77	4.056E-02	Pulse	0.30	3
Ti			2	1.055	ug/l	33.87	101.11	1.316E-03	Pulse	0.30	3
V			2	1.029	ug/l	4.23	3,064.77	4.001E-02	Pulse	0.30	3
Cr			2	0.890	ug/l	1.27	4,028.32	5.258E-02	Pulse	0.30	3
Mn			2	1.188	ug/l	6.51	2,262.40	2.954E-02	Pulse	0.30	3
Fe			2	28.532	ug/l	2.40	85,559.43	1.117E+00	Pulse	0.30	3
Co			2	0.498	ug/l	2.99	3,084.77	4.027E-02	Pulse	0.30	3
Ni			2	0.913	ug/l	1.17	1,694.55	2.212E-02	Pulse	0.30	3
Cu			2	2.572	ug/l	2.26	13,619.09	1.778E-01	Pulse	0.30	3
Zn			2	4.517	ug/l	1.60	2,963.63	3.868E-02	Pulse	0.30	3
As			2	0.501	ug/l	11.57	165.00	2.151E-03	Pulse	1.00	3
Cd			2	0.616	ug/l	1.32	379.69	1.029E-03	Pulse	0.30	3
Sn			2	4.663	ug/l	1.70	8,000.99	2.169E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	0.578	ug/l	7.31	32.87	5.046E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,622,056.80	0.48	105.8	Pulse	0.10	3
1	Sc		2,168,862.67	1.07	108.1	Pulse	0.10	3
1	Ge		393,649.90	0.94	105.7	Pulse	0.10	3
1	Ge		543,152.40	0.91	106.0	Pulse	0.10	3
1	Rh		2,525,710.64	0.95	105.7	Pulse	0.10	3
1	In		2,666,799.21	1.47	103.7	Pulse	0.10	3
1	Tb		3,484,604.74	1.26	102.0	Pulse	0.10	3
1	Ho		330,487.63	0.75	102.2	Pulse	0.10	3
1	Bi		1,995,906.69	0.71	100.4	Pulse	0.10	3
2	Sc		76,622.70	1.54	107.3	Pulse	0.30	3
2	Ge		40,147.04	0.94	105.1	Pulse	0.30	3
2	Ge		60,477.26	0.64	105.4	Pulse	0.30	3
2	Rh		1,085,866.97	0.19	104.6	Pulse	0.30	3
2	In		368,962.23	0.82	104.6	Pulse	0.30	3
2	Tb		1,333,527.83	0.58	102.0	Pulse	0.30	3
2	Ho		127,496.10	0.86	102.1	Pulse	0.30	3
2	Bi		876,093.56	1.23	100.4	Pulse	0.30	3
3	Sc		70,201.30	0.60	106.3	Pulse	0.30	3
3	Ge		42,970.85	1.19	105.9	Pulse	0.30	3
3	Ge		65,171.53	1.19	104.5	Pulse	0.30	3
3	Rh		748,812.43	0.62	103.5	Pulse	0.30	3
3	Tb		1,144,721.13	0.47	101.1	Pulse	0.30	3

Quantitation Report

File Name	021ICSA.d
File Path	C:\Agilent\ICPMH\1\DATA\xa043019m6.b
Method File	
Method Path	
Acq Time	4/30/2019 18:33
Sample Name	ICSA
Sample Type	ICSA
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/30/2019 19:15
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.002	ug/l	50.29	17.33	1.131E-05	Pulse	0.25	3
B			1	4.484	ug/l	0.47	20,158.97	1.318E-02	Pulse	0.15	3
Ca			1	97710.184	ug/l	0.52	61,691,650.75	2.913E+01	Analog	0.10	3
Sr			1	2031.121	ug/l	0.94	53,155,457.54	2.426E+01	Analog	0.10	3
Mo			1	2025.210	ug/l	0.67	10,672,049.42	4.869E+00	Analog	0.10	3
Ag			1	0.024	ug/l	21.78	320.02	1.307E-04	Pulse	0.10	3
Sn			1	1815.863	ug/l	0.73	14,771,924.78	6.052E+00	Analog	0.10	3
Sb			1	0.200	ug/l	11.21	2,030.21	6.212E-04	Pulse	0.10	3
Ba			1	0.320	ug/l	8.47	1,283.43	3.925E-04	Pulse	0.10	3
Tl			1	0.010	ug/l	17.68	293.34	1.701E-04	Pulse	0.10	3
Pb			1	0.076	ug/l	0.61	736.72	4.276E-04	Pulse	0.10	3
Pb			1	0.087	ug/l	35.73	650.03	3.778E-04	Pulse	0.10	3
Pb			1	0.082	ug/l	8.20	2,966.90	1.722E-03	Pulse	0.10	3
Na			2	95177.569	ug/l	1.37	72,379,788.24	9.061E+02	Analog	0.30	3
Mg			2	96470.185	ug/l	1.04	33,264,582.01	4.164E+02	Analog	0.30	3
Al			2	101779.713	ug/l	1.24	11,016,334.84	1.379E+02	Analog	0.30	3
K			2	101529.972	ug/l	1.31	21,672,947.47	2.713E+02	Analog	0.30	3
Ca			2	109820.269	ug/l	1.28	1,214,663.25	1.521E+01	Pulse	0.30	3
Ti			2	1784.439	ug/l	1.20	171,457.18	2.146E+00	Pulse	0.30	3
V			2	0.013	ug/l	66.18	156.67	1.957E-03	Pulse	0.30	3
Cr			2	0.193	ug/l	7.52	1,546.76	1.936E-02	Pulse	0.30	3
Mn			2	0.367	ug/l	10.13	847.81	1.061E-02	Pulse	0.30	3
Fe			2	91110.934	ug/l	1.24	270,697,704.80	3.389E+03	Analog	0.30	3
Co			2	0.319	ug/l	3.88	2,083.49	2.609E-02	Pulse	0.30	3
Ni			2	0.601	ug/l	9.16	1,238.95	1.551E-02	Pulse	0.30	3
Cu			2	-0.159	ug/l	-12.92	1,548.98	1.939E-02	Pulse	0.30	3
Zn			2	0.688	ug/l	12.87	826.70	1.036E-02	Pulse	0.30	3
As			2	0.082	ug/l	22.87	33.00	4.120E-04	Pulse	1.00	3
Cd			2	-0.341	ug/l	-13.36	-345.49	-9.914E-04	Pulse	0.30	3
Sn			2	1857.617	ug/l	0.20	2,805,922.04	8.054E+00	Pulse	0.30	3
Se			3	0.090	ug/l	18.41	6.33	9.834E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,530,067.36	2.25	99.8	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,117,999.29	2.37	105.5	Pulse	0.10	3
1	Ge		383,181.19	1.74	102.9	Pulse	0.10	3
1	Ge		511,413.11	2.55	99.8	Pulse	0.10	3
1	Rh		2,191,586.89	1.77	91.7	Pulse	0.10	3
1	In		2,441,102.45	2.39	94.9	Pulse	0.10	3
1	Tb		3,266,509.53	2.20	95.7	Pulse	0.10	3
1	Ho		309,256.07	2.73	95.6	Pulse	0.10	3
1	Bi		1,723,102.73	1.15	86.7	Pulse	0.10	3
2	Sc		79,890.09	2.14	111.8	Pulse	0.30	3
2	Ge		40,529.16	0.63	106.1	Pulse	0.30	3
2	Ge		60,080.02	1.25	104.7	Pulse	0.30	3
2	Rh		971,546.07	0.67	93.6	Pulse	0.30	3
2	In		348,368.70	0.56	98.8	Pulse	0.30	3
2	Tb		1,276,784.85	0.59	97.6	Pulse	0.30	3
2	Ho		121,954.64	1.12	97.7	Pulse	0.30	3
2	Bi		765,544.48	0.68	87.7	Pulse	0.30	3
3	Sc		73,154.03	0.43	110.8	Pulse	0.30	3
3	Ge		42,980.92	1.65	105.9	Pulse	0.30	3
3	Ge		64,356.27	0.81	103.2	Pulse	0.30	3
3	Rh		667,857.01	0.72	92.3	Pulse	0.30	3
3	Tb		1,071,802.42	0.89	94.7	Pulse	0.30	3

Quantitation Report

File Name	022ICSB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa043019m6.b
Method File	
Method Path	
Acq Time	4/30/2019 18:37
Sample Name	ICSAB
Sample Type	ICSB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/30/2019 19:15
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.002	ug/l	16.99	18.67	1.118E-05	Pulse	0.25	3
B			1	58.466	ug/l	1.83	237,627.90	1.424E-01	Pulse	0.15	3
Ca			1	100825.853	ug/l	1.07	69,519,400.63	3.006E+01	Analog	0.10	3
Sr			1	2231.041	ug/l	0.77	62,275,215.74	2.664E+01	Analog	0.10	3
Mo			1	2092.001	ug/l	1.67	11,755,101.07	5.030E+00	Analog	0.10	3
Ag			1	20.063	ug/l	0.90	261,823.02	1.014E-01	Pulse	0.10	3
Sn			1	1930.236	ug/l	0.17	16,608,285.17	6.433E+00	Analog	0.10	3
Sb			1	0.212	ug/l	3.78	2,246.92	6.553E-04	Pulse	0.10	3
Ba			1	0.368	ug/l	6.77	1,533.48	4.476E-04	Pulse	0.10	3
Tl			1	0.007	ug/l	16.29	240.01	1.350E-04	Pulse	0.10	3
Pb			1	0.077	ug/l	23.90	766.71	4.325E-04	Pulse	0.10	3
Pb			1	0.094	ug/l	23.84	713.38	4.021E-04	Pulse	0.10	3
Pb			1	0.086	ug/l	7.51	3,156.92	1.779E-03	Pulse	0.10	3
Na			2	97771.405	ug/l	0.92	78,105,845.79	9.308E+02	Analog	0.30	3
Mg			2	98645.767	ug/l	2.01	35,728,967.47	4.258E+02	Analog	0.30	3
Al			2	103240.273	ug/l	1.05	11,738,443.42	1.399E+02	Analog	0.30	3
K			2	105609.023	ug/l	2.61	23,679,948.50	2.822E+02	Analog	0.30	3
Ca			2	113050.590	ug/l	0.76	1,313,492.97	1.565E+01	Pulse	0.30	3
Ti			2	1808.312	ug/l	1.08	182,517.04	2.175E+00	Pulse	0.30	3
V			2	21.000	ug/l	1.22	66,127.58	7.881E-01	Pulse	0.30	3
Cr			2	19.700	ug/l	1.55	79,611.80	9.488E-01	Pulse	0.30	3
Mn			2	19.591	ug/l	0.79	38,108.35	4.542E-01	Pulse	0.30	3
Fe			2	93135.639	ug/l	0.61	290,671,899.56	3.464E+03	Analog	0.30	3
Co			2	18.586	ug/l	0.99	123,459.67	1.471E+00	Pulse	0.30	3
Ni			2	18.264	ug/l	0.99	32,668.06	3.893E-01	Pulse	0.30	3
Cu			2	17.028	ug/l	0.58	85,250.48	1.016E+00	Pulse	0.30	3
Zn			2	16.539	ug/l	1.42	10,709.16	1.276E-01	Pulse	0.30	3
As			2	18.309	ug/l	0.98	6,384.60	7.609E-02	Pulse	1.00	3
Cd			2	18.100	ug/l	1.32	13,533.48	3.792E-02	Pulse	0.30	3
Sn			2	1983.642	ug/l	0.99	3,069,048.63	8.601E+00	Pulse	0.30	3
Se			3	19.610	ug/l	0.86	1,084.84	1.635E-02	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,668,199.94	0.98	108.9	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,313,167.47	2.00	115.2	Pulse	0.10	3
1	Ge		406,737.42	1.04	109.2	Pulse	0.10	3
1	Ge		545,159.00	1.41	106.4	Pulse	0.10	3
1	Rh		2,337,507.41	1.79	97.8	Pulse	0.10	3
1	In		2,581,831.41	1.94	100.4	Pulse	0.10	3
1	Tb		3,427,785.37	1.59	100.4	Pulse	0.10	3
1	Ho		321,123.34	1.17	99.3	Pulse	0.10	3
1	Bi		1,775,655.29	1.50	89.3	Pulse	0.10	3
2	Sc		83,912.85	0.72	117.5	Pulse	0.30	3
2	Ge		42,798.13	0.75	112.0	Pulse	0.30	3
2	Ge		62,925.20	0.51	109.7	Pulse	0.30	3
2	Rh		1,006,355.86	0.58	97.0	Pulse	0.30	3
2	In		356,855.54	0.96	101.2	Pulse	0.30	3
2	Tb		1,292,456.06	0.55	98.8	Pulse	0.30	3
2	Ho		123,424.96	0.70	98.8	Pulse	0.30	3
2	Bi		771,143.27	0.63	88.3	Pulse	0.30	3
3	Sc		75,704.01	0.64	114.6	Pulse	0.30	3
3	Ge		44,887.05	0.73	110.6	Pulse	0.30	3
3	Ge		66,340.78	1.09	106.4	Pulse	0.30	3
3	Rh		684,189.63	0.83	94.5	Pulse	0.30	3
3	Tb		1,085,887.73	0.47	95.9	Pulse	0.30	3

Quantitation Report

File Name	023_CCV.d
File Path	C:\Agilent\ICPMH\1\DATA\xa043019m6.b
Method File	
Method Path	
Acq Time	4/30/2019 18:42
Sample Name	CCVA
Sample Type	CCV
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/30/2019 19:15
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	51.026	ug/l	0.48	301,012.95	1.921E-01	Pulse	0.25	3
B			1	104.759	ug/l	0.89	396,834.41	2.533E-01	Pulse	0.15	3
Ca			1	5186.167	ug/l	0.48	3,453,611.93	1.558E+00	Pulse	0.10	3
Sr			1	52.587	ug/l	1.10	1,585,318.83	6.283E-01	Pulse	0.10	3
Mo			1	52.225	ug/l	1.49	316,852.50	1.256E-01	Pulse	0.10	3
Ag			1	49.204	ug/l	0.93	682,793.06	2.487E-01	Pulse	0.10	3
Sn			1	49.441	ug/l	0.79	452,001.65	1.646E-01	Pulse	0.10	3
Sb			1	53.324	ug/l	0.85	546,389.81	1.509E-01	Pulse	0.10	3
Ba			1	51.506	ug/l	0.69	216,620.57	5.983E-02	Pulse	0.10	3
Tl			1	51.024	ug/l	0.16	1,179,130.19	5.922E-01	Pulse	0.10	3
Pb			1	51.177	ug/l	0.24	407,185.67	2.045E-01	Pulse	0.10	3
Pb			1	51.232	ug/l	0.71	353,557.46	1.776E-01	Pulse	0.10	3
Pb			1	51.012	ug/l	0.48	1,620,230.49	8.137E-01	Pulse	0.10	3
Na			2	4939.101	ug/l	0.25	3,626,696.10	4.711E+01	Pulse	0.30	3
Mg			2	5183.246	ug/l	0.59	1,723,640.42	2.239E+01	Pulse	0.30	3
Al			2	5148.923	ug/l	0.69	538,145.10	6.991E+00	Pulse	0.30	3
K			2	5148.443	ug/l	1.33	1,066,663.57	1.386E+01	Pulse	0.30	3
Ca			2	5581.091	ug/l	1.58	59,772.20	7.765E-01	Pulse	0.30	3
Ti			2	50.008	ug/l	5.82	4,632.92	6.020E-02	Pulse	0.30	3
V			2	51.527	ug/l	1.00	148,689.18	1.932E+00	Pulse	0.30	3
Cr			2	50.356	ug/l	0.88	185,485.72	2.409E+00	Pulse	0.30	3
Mn			2	50.480	ug/l	1.43	89,823.96	1.167E+00	Pulse	0.30	3
Fe			2	5102.976	ug/l	0.79	14,615,146.64	1.899E+02	Analog	0.30	3
Co			2	49.274	ug/l	0.66	300,181.21	3.899E+00	Pulse	0.30	3
Ni			2	49.320	ug/l	0.25	80,573.15	1.047E+00	Pulse	0.30	3
Cu			2	48.839	ug/l	0.78	220,206.19	2.861E+00	Pulse	0.30	3
Zn			2	49.262	ug/l	1.23	28,463.72	3.697E-01	Pulse	0.30	3
As			2	50.692	ug/l	1.13	16,206.38	2.105E-01	Pulse	1.00	3
Cd			2	49.723	ug/l	0.89	38,429.45	1.047E-01	Pulse	0.30	3
Sn			2	50.807	ug/l	0.71	81,414.96	2.217E-01	Pulse	0.30	3
Se			3	196.115	ug/l	1.87	11,000.35	1.633E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,566,628.73	1.19	102.2	Pulse	0.10	3
1	Sc		2,216,717.52	1.22	110.4	Pulse	0.10	3
1	Ge		404,738.68	0.83	108.7	Pulse	0.10	3

Quantitation Report

1	Ge		564,346.99	0.58	110.1	Pulse	0.10	3
1	Rh		2,523,733.76	2.13	105.6	Pulse	0.10	3
1	In		2,745,823.16	2.17	106.7	Pulse	0.10	3
1	Tb		3,621,071.72	1.46	106.0	Pulse	0.10	3
1	Ho		339,170.38	1.37	104.9	Pulse	0.10	3
1	Bi		1,991,203.10	1.13	100.1	Pulse	0.10	3
2	Sc		76,985.35	1.21	107.8	Pulse	0.30	3
2	Ge		41,461.45	0.64	108.5	Pulse	0.30	3
2	Ge		61,374.85	0.56	107.0	Pulse	0.30	3
2	Rh		1,073,699.12	0.74	103.5	Pulse	0.30	3
2	In		367,196.24	0.63	104.1	Pulse	0.30	3
2	Tb		1,340,139.98	0.25	102.5	Pulse	0.30	3
2	Ho		128,564.22	0.58	103.0	Pulse	0.30	3
2	Bi		857,845.63	0.98	98.3	Pulse	0.30	3
3	Sc		72,134.08	1.51	109.2	Pulse	0.30	3
3	Ge		44,189.68	0.69	108.9	Pulse	0.30	3
3	Ge		67,362.64	1.80	108.0	Pulse	0.30	3
3	Rh		751,292.11	0.85	103.8	Pulse	0.30	3
3	Tb		1,169,817.80	0.92	103.3	Pulse	0.30	3

Quantitation Report

File Name	024_CCB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa043019m6.b
Method File	
Method Path	
Acq Time	4/30/2019 18:47
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/30/2019 19:15
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.008	ug/l	39.27	53.33	3.480E-05	Pulse	0.25	3
B			1	4.728	ug/l	7.93	21,064.48	1.376E-02	Pulse	0.15	3
Ca			1	-7.759	ug/l	-6.78	22,068.66	1.032E-02	Pulse	0.10	3
Sr			1	0.042	ug/l	9.69	1,913.53	7.471E-04	Pulse	0.10	3
Mo			1	0.247	ug/l	4.86	1,543.46	6.021E-04	Pulse	0.10	3
Ag			1	0.013	ug/l	41.06	220.01	7.988E-05	Pulse	0.10	3
Sn			1	0.678	ug/l	3.04	5,827.96	2.118E-03	Pulse	0.10	3
Sb			1	0.106	ug/l	15.36	1,273.43	3.562E-04	Pulse	0.10	3
Ba			1	-0.003	ug/l	-228.56	60.00	1.677E-05	Pulse	0.10	3
Tl			1	0.022	ug/l	9.75	640.04	3.145E-04	Pulse	0.10	3
Pb			1	0.009	ug/l	41.60	330.02	1.619E-04	Pulse	0.10	3
Pb			1	0.026	ug/l	47.11	336.68	1.650E-04	Pulse	0.10	3
Pb			1	0.018	ug/l	31.29	1,433.42	7.031E-04	Pulse	0.10	3
Na			2	5.863	ug/l	8.64	10,914.72	1.454E-01	Pulse	0.30	3
Mg			2	0.306	ug/l	118.38	1,318.96	1.757E-02	Pulse	0.30	3
Al			2	14.223	ug/l	3.16	2,518.00	3.354E-02	Pulse	0.30	3
K			2	1.602	ug/l	44.71	8,060.91	1.074E-01	Pulse	0.30	3
Ca			2	-8.377	ug/l	-28.84	204.45	2.724E-03	Pulse	0.30	3
Ti			2	0.084	ug/l	25.72	11.11	1.481E-04	Pulse	0.30	3
V			2	0.018	ug/l	72.53	161.11	2.145E-03	Pulse	0.30	3
Cr			2	-0.024	ug/l	-15.82	675.58	9.001E-03	Pulse	0.30	3
Mn			2	-0.029	ug/l	-39.66	110.00	1.465E-03	Pulse	0.30	3
Fe			2	2.946	ug/l	1.21	12,404.77	1.653E-01	Pulse	0.30	3
Co			2	0.002	ug/l	197.14	80.00	1.067E-03	Pulse	0.30	3
Ni			2	-0.050	ug/l	-23.49	128.89	1.718E-03	Pulse	0.30	3
Cu			2	0.001	ug/l	1920.56	2,149.05	2.863E-02	Pulse	0.30	3
Zn			2	0.580	ug/l	14.73	717.80	9.560E-03	Pulse	0.30	3
As			2	0.015	ug/l	43.66	10.00	1.333E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	0.142	ug/l	2.99	9.89	2.691E-05	Pulse	0.30	3
Sn			2	0.376	ug/l	11.44	1,137.83	3.100E-03	Pulse	0.30	3
Se			3	0.053	ug/l	8.14	4.53	6.714E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,531,144.50	0.57	99.9	Pulse	0.10	3
1	Sc		2,139,408.09	0.59	106.6	Pulse	0.10	3
1	Ge		394,860.25	1.65	106.0	Pulse	0.10	3
1	Ge		551,320.72	1.52	107.6	Pulse	0.10	3
1	Rh		2,562,529.29	1.22	107.2	Pulse	0.10	3
1	In		2,751,565.41	0.73	107.0	Pulse	0.10	3
1	Tb		3,575,817.03	0.53	104.7	Pulse	0.10	3
1	Ho		337,292.94	0.92	104.3	Pulse	0.10	3
1	Bi		2,036,320.49	1.47	102.4	Pulse	0.10	3
2	Sc		75,064.48	0.67	105.1	Pulse	0.30	3
2	Ge		41,130.63	0.90	107.6	Pulse	0.30	3
2	Ge		61,239.96	0.85	106.7	Pulse	0.30	3
2	Rh		1,093,079.50	0.49	105.3	Pulse	0.30	3
2	In		366,987.95	0.62	104.1	Pulse	0.30	3
2	Tb		1,324,594.12	0.12	101.3	Pulse	0.30	3
2	Ho		127,919.57	0.40	102.4	Pulse	0.30	3
2	Bi		880,905.31	0.35	100.9	Pulse	0.30	3
3	Sc		72,030.18	0.72	109.1	Pulse	0.30	3
3	Ge		44,622.01	0.62	109.9	Pulse	0.30	3
3	Ge		67,527.84	0.97	108.3	Pulse	0.30	3
3	Rh		771,275.99	0.57	106.6	Pulse	0.30	3
3	Tb		1,179,858.60	0.89	104.2	Pulse	0.30	3

Quantitation Report

File Name	025SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa043019m6.b
Method File	
Method Path	
Acq Time	4/30/2019 18:53
Sample Name	mp14655-mb1 5
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/30/2019 19:15
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.007	ug/l	70.64	25.33	1.709E-05	Pulse	0.25	3
B			1	8.430	ug/l	0.54	18,588.34	1.253E-02	Pulse	0.15	3
Ca			1	29.127	ug/l	6.95	35,188.29	1.697E-02	Pulse	0.10	3
Sr			1	0.172	ug/l	8.23	3,170.42	1.278E-03	Pulse	0.10	3
Mo			1	0.386	ug/l	6.16	1,173.41	4.733E-04	Pulse	0.10	3
Ag			1	0.031	ug/l	26.62	240.01	8.893E-05	Pulse	0.10	3
Sn			1	1.812	ug/l	6.63	7,785.52	2.879E-03	Pulse	0.10	3
Sb			1	0.316	ug/l	11.14	1,783.50	5.023E-04	Pulse	0.10	3
Ba			1	0.076	ug/l	26.42	230.01	6.471E-05	Pulse	0.10	3
Tl			1	0.088	ug/l	10.59	1,296.77	5.659E-04	Pulse	0.10	3
Pb			1	0.055	ug/l	8.99	536.70	2.341E-04	Pulse	0.10	3
Pb			1	0.060	ug/l	9.49	410.02	1.789E-04	Pulse	0.10	3
Pb			1	0.061	ug/l	4.11	2,063.47	9.001E-04	Pulse	0.10	3
Na			2	24.976	ug/l	1.65	15,189.14	2.085E-01	Pulse	0.30	3
Mg			2	3.299	ug/l	14.46	1,702.33	2.337E-02	Pulse	0.30	3
Al			2	-11.140	ug/l	-7.45	490.01	6.726E-03	Pulse	0.30	3
K			2	10.407	ug/l	4.39	8,524.48	1.170E-01	Pulse	0.30	3
Ca			2	30.249	ug/l	44.82	435.57	5.977E-03	Pulse	0.30	3
Ti			2	0.785	ug/l	5.72	37.78	5.186E-04	Pulse	0.30	3
V			2	0.193	ug/l	5.74	371.12	5.094E-03	Pulse	0.30	3
Cr			2	0.239	ug/l	21.81	1,155.61	1.586E-02	Pulse	0.30	3
Mn			2	0.637	ug/l	14.43	691.14	9.487E-03	Pulse	0.30	3
Fe			2	10.295	ug/l	1.72	18,006.60	2.472E-01	Pulse	0.30	3
Co			2	0.010	ug/l	45.40	94.44	1.296E-03	Pulse	0.30	3
Ni			2	-0.072	ug/l	-64.51	147.78	2.028E-03	Pulse	0.30	3
Cu			2	-0.166	ug/l	-17.79	1,733.45	2.379E-02	Pulse	0.30	3
Zn			2	1.607	ug/l	18.26	816.70	1.121E-02	Pulse	0.30	3
As			2	0.098	ug/l	33.20	20.00	2.744E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	0.266	ug/l	5.79	3.24	9.136E-06	Pulse	0.30	3
Sn			2	1.250	ug/l	12.06	1,484.53	4.177E-03	Pulse	0.30	3
Se			3	0.127	ug/l	37.79	5.20	7.583E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,483,470.80	0.21	96.8	Pulse	0.10	3
1	Sc		2,074,246.01	1.57	103.3	Pulse	0.10	3
1	Ge		394,986.35	0.97	106.1	Pulse	0.10	3
1	Ge		543,193.11	2.08	106.0	Pulse	0.10	3
1	Rh		2,479,892.15	1.16	103.8	Pulse	0.10	3
1	In		2,703,367.71	1.28	105.1	Pulse	0.10	3
1	Tb		3,550,340.78	1.34	104.0	Pulse	0.10	3
1	Ho		334,079.99	1.15	103.3	Pulse	0.10	3
1	Bi		2,292,433.45	0.64	115.3	Pulse	0.10	3
2	Sc		72,855.81	0.45	102.0	Pulse	0.30	3
2	Ge		40,124.78	1.29	105.0	Pulse	0.30	3
2	Ge		60,631.05	1.46	105.7	Pulse	0.30	3
2	Rh		1,069,983.32	0.33	103.1	Pulse	0.30	3
2	In		355,476.70	0.60	100.8	Pulse	0.30	3
2	Tb		1,319,574.77	0.38	100.9	Pulse	0.30	3
2	Ho		126,207.71	0.62	101.1	Pulse	0.30	3
2	Bi		929,313.78	0.94	106.5	Pulse	0.30	3
3	Sc		72,913.88	0.33	110.4	Pulse	0.30	3
3	Ge		45,191.16	0.56	111.3	Pulse	0.30	3
3	Ge		68,511.82	0.77	109.9	Pulse	0.30	3
3	Rh		775,419.74	0.49	107.1	Pulse	0.30	3
3	Tb		1,187,497.31	1.11	104.9	Pulse	0.30	3

Quantitation Report

File Name	026SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa043019m6.b
Method File	
Method Path	
Acq Time	4/30/2019 18:58
Sample Name	mp14655-b1
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/30/2019 19:15
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	74.708	ug/l	1.69	208,359.78	1.407E-01	Pulse	0.25	3
B			1	91.415	ug/l	0.92	165,743.30	1.119E-01	Pulse	0.15	3
Ca			1	3948.803	ug/l	0.34	1,253,988.39	6.010E-01	Pulse	0.10	3
Sr			1	77.804	ug/l	0.99	1,151,280.74	4.648E-01	Pulse	0.10	3
Mo			1	74.314	ug/l	1.02	221,278.82	8.935E-02	Pulse	0.10	3
Ag			1	77.092	ug/l	0.38	526,761.11	1.948E-01	Pulse	0.10	3
Sn			1	73.291	ug/l	0.85	329,798.41	1.220E-01	Pulse	0.10	3
Sb			1	75.729	ug/l	0.53	383,749.90	1.072E-01	Pulse	0.10	3
Ba			1	76.762	ug/l	1.47	159,676.88	4.459E-02	Pulse	0.10	3
Tl			1	75.195	ug/l	0.44	897,828.43	4.364E-01	Pulse	0.10	3
Pb			1	75.202	ug/l	0.69	309,200.16	1.503E-01	Pulse	0.10	3
Pb			1	75.669	ug/l	0.25	269,851.53	1.312E-01	Pulse	0.10	3
Pb			1	75.365	ug/l	0.60	1,236,958.04	6.012E-01	Pulse	0.10	3
Na			2	3930.734	ug/l	0.48	1,374,332.48	1.880E+01	Pulse	0.30	3
Mg			2	3904.464	ug/l	0.64	617,243.83	8.443E+00	Pulse	0.30	3
Al			2	3794.670	ug/l	0.49	188,978.38	2.585E+00	Pulse	0.30	3
K			2	3946.955	ug/l	0.68	392,951.37	5.375E+00	Pulse	0.30	3
Ca			2	4431.304	ug/l	3.07	22,704.50	3.106E-01	Pulse	0.30	3
Ti			2	73.359	ug/l	4.34	3,229.25	4.417E-02	Pulse	0.30	3
V			2	79.257	ug/l	0.26	108,625.29	1.486E+00	Pulse	0.30	3
Cr			2	78.472	ug/l	0.80	137,411.60	1.880E+00	Pulse	0.30	3
Mn			2	78.213	ug/l	2.06	66,119.26	9.044E-01	Pulse	0.30	3
Fe			2	3995.841	ug/l	0.80	5,436,485.62	7.436E+01	Analog	0.30	3
Co			2	77.236	ug/l	0.90	223,424.75	3.056E+00	Pulse	0.30	3
Ni			2	77.714	ug/l	0.80	60,324.31	8.252E-01	Pulse	0.30	3
Cu			2	77.274	ug/l	0.18	165,877.11	2.269E+00	Pulse	0.30	3
Zn			2	71.301	ug/l	1.57	19,667.44	2.690E-01	Pulse	0.30	3
As			2	70.335	ug/l	0.60	10,679.17	1.461E-01	Pulse	1.00	3
Cd			2	73.986	ug/l	1.42	27,210.32	7.779E-02	Pulse	0.30	3
Sn			2	75.495	ug/l	0.27	57,756.35	1.651E-01	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	329.404	ug/l	0.92	9,565.86	1.372E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,481,400.55	0.56	96.7	Pulse	0.10	3
1	Sc		2,086,578.25	0.58	104.0	Pulse	0.10	3
1	Ge		390,887.94	1.73	105.0	Pulse	0.10	3
1	Ge		545,155.53	1.66	106.4	Pulse	0.10	3
1	Rh		2,476,790.43	1.07	103.6	Pulse	0.10	3
1	In		2,703,630.44	1.30	105.1	Pulse	0.10	3
1	Tb		3,581,024.53	1.29	104.9	Pulse	0.10	3
1	Ho		338,871.11	1.61	104.8	Pulse	0.10	3
1	Bi		2,057,539.97	0.56	103.5	Pulse	0.10	3
2	Sc		73,107.19	0.52	102.3	Pulse	0.30	3
2	Ge		39,233.78	0.75	102.7	Pulse	0.30	3
2	Ge		59,865.11	1.09	104.3	Pulse	0.30	3
2	Rh		1,066,449.51	0.84	102.8	Pulse	0.30	3
2	In		349,805.18	0.32	99.2	Pulse	0.30	3
2	Tb		1,317,137.62	0.77	100.7	Pulse	0.30	3
2	Ho		126,191.02	1.60	101.1	Pulse	0.30	3
2	Bi		863,692.38	1.13	98.9	Pulse	0.30	3
3	Sc		75,149.47	0.33	113.8	Pulse	0.30	3
3	Ge		45,458.60	1.82	112.0	Pulse	0.30	3
3	Ge		69,738.15	0.82	111.8	Pulse	0.30	3
3	Rh		780,442.82	0.29	107.8	Pulse	0.30	3
3	Tb		1,207,896.55	0.78	106.7	Pulse	0.30	3

Quantitation Report

File Name	027SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa043019m6.b
Method File	
Method Path	
Acq Time	4/30/2019 19:03
Sample Name	mp14655-s1
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/30/2019 19:15
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	76.015	ug/l	0.81	212,434.86	1.431E-01	Pulse	0.25	3
B			1	107.612	ug/l	1.74	194,853.38	1.313E-01	Pulse	0.15	3
Ca			1	21203.073	ug/l	0.66	6,685,429.28	3.172E+00	Analog	0.10	3
Sr			1	195.973	ug/l	0.08	2,880,206.52	1.170E+00	Pulse	0.10	3
Mo			1	76.420	ug/l	1.02	226,077.60	9.188E-02	Pulse	0.10	3
Ag			1	77.399	ug/l	1.04	530,231.96	1.956E-01	Pulse	0.10	3
Sn			1	73.446	ug/l	1.28	331,376.35	1.222E-01	Pulse	0.10	3
Sb			1	75.755	ug/l	0.70	386,847.04	1.072E-01	Pulse	0.10	3
Ba			1	118.392	ug/l	0.52	248,100.70	6.876E-02	Pulse	0.10	3
Tl			1	75.820	ug/l	1.53	903,506.84	4.400E-01	Pulse	0.10	3
Pb			1	80.121	ug/l	1.58	328,747.20	1.601E-01	Pulse	0.10	3
Pb			1	80.951	ug/l	1.08	288,108.50	1.403E-01	Pulse	0.10	3
Pb			1	80.233	ug/l	1.16	1,314,182.46	6.400E-01	Pulse	0.10	3
Na			2	5569.016	ug/l	0.50	2,013,815.13	2.660E+01	Pulse	0.30	3
Mg			2	11698.604	ug/l	0.60	1,912,964.37	2.527E+01	Pulse	0.30	3
Al			2	5883.728	ug/l	0.97	302,872.51	4.000E+00	Pulse	0.30	3
K			2	5635.526	ug/l	1.38	577,726.56	7.631E+00	Pulse	0.30	3
Ca			2	22061.281	ug/l	0.78	115,908.72	1.531E+00	Pulse	0.30	3
Ti			2	93.209	ug/l	4.69	4,247.29	5.610E-02	Pulse	0.30	3
V			2	83.465	ug/l	0.29	118,469.57	1.565E+00	Pulse	0.30	3
Cr			2	81.580	ug/l	2.55	147,905.88	1.954E+00	Pulse	0.30	3
Mn			2	86.246	ug/l	1.32	75,493.30	9.971E-01	Pulse	0.30	3
Fe			2	5628.266	ug/l	1.45	7,928,728.02	1.047E+02	Analog	0.30	3
Co			2	77.164	ug/l	1.17	231,180.26	3.053E+00	Pulse	0.30	3
Ni			2	80.861	ug/l	1.11	64,998.53	8.585E-01	Pulse	0.30	3
Cu			2	81.271	ug/l	0.62	180,575.82	2.385E+00	Pulse	0.30	3
Zn			2	92.808	ug/l	0.90	26,392.45	3.486E-01	Pulse	0.30	3
As			2	72.066	ug/l	2.53	11,331.27	1.497E-01	Pulse	1.00	3
Cd			2	74.693	ug/l	1.10	27,660.49	7.854E-02	Pulse	0.30	3
Sn			2	74.424	ug/l	0.54	57,337.08	1.628E-01	Pulse	0.30	3
Se			3	322.913	ug/l	1.11	9,859.43	1.345E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,484,290.48	0.69	96.9	Pulse	0.10	3
1	Sc		2,107,841.43	1.11	105.0	Pulse	0.10	3
1	Ge		398,899.71	1.32	107.1	Pulse	0.10	3

Quantitation Report

1	Ge		553,283.40	1.27	107.9	Pulse	0.10	3
1	Rh		2,460,782.88	1.14	103.0	Pulse	0.10	3
1	In		2,710,649.01	0.36	105.4	Pulse	0.10	3
1	Tb		3,608,661.72	1.82	105.7	Pulse	0.10	3
1	Ho		342,903.09	2.17	106.0	Pulse	0.10	3
1	Bi		2,053,526.32	1.04	103.3	Pulse	0.10	3
2	Sc		75,717.65	0.82	106.0	Pulse	0.30	3
2	Ge		40,832.14	1.56	106.9	Pulse	0.30	3
2	Ge		61,330.18	0.81	106.9	Pulse	0.30	3
2	Rh		1,075,348.46	0.83	103.6	Pulse	0.30	3
2	In		352,214.75	1.00	99.9	Pulse	0.30	3
2	Tb		1,300,113.04	0.10	99.4	Pulse	0.30	3
2	Ho		126,399.30	0.94	101.2	Pulse	0.30	3
2	Bi		855,195.75	0.64	98.0	Pulse	0.30	3
3	Sc		76,846.93	0.49	116.4	Pulse	0.30	3
3	Ge		47,316.04	0.99	116.6	Pulse	0.30	3
3	Ge		73,325.04	1.07	117.6	Pulse	0.30	3
3	Rh		785,632.10	0.45	108.6	Pulse	0.30	3
3	Tb		1,215,947.73	0.27	107.4	Pulse	0.30	3

Quantitation Report

File Name 028SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa043019m6.b
Method File
Method Path
Acq Time 4/30/2019 19:08
Sample Name mp14655-s2
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/30/2019 19:15
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	75.096	ug/l	2.01	214,995.36	1.414E-01	Pulse	0.25	3
B			1	107.439	ug/l	2.28	199,297.43	1.311E-01	Pulse	0.15	3
Ca			1	21246.413	ug/l	0.59	6,948,628.02	3.178E+00	Analog	0.10	3
Sr			1	194.747	ug/l	0.75	2,914,630.69	1.163E+00	Pulse	0.10	3
Mo			1	75.773	ug/l	0.26	228,288.29	9.110E-02	Pulse	0.10	3
Ag			1	77.150	ug/l	1.04	534,189.88	1.950E-01	Pulse	0.10	3
Sn			1	72.313	ug/l	1.02	329,724.47	1.204E-01	Pulse	0.10	3
Sb			1	75.612	ug/l	0.84	388,768.77	1.070E-01	Pulse	0.10	3
Ba			1	118.393	ug/l	0.95	249,824.38	6.876E-02	Pulse	0.10	3
Tl			1	75.972	ug/l	0.57	906,623.08	4.409E-01	Pulse	0.10	3
Pb			1	79.761	ug/l	0.58	327,757.06	1.594E-01	Pulse	0.10	3
Pb			1	80.192	ug/l	0.41	285,828.27	1.390E-01	Pulse	0.10	3
Pb			1	79.475	ug/l	0.40	1,303,704.75	6.340E-01	Pulse	0.10	3
Na			2	5527.965	ug/l	0.36	2,037,907.56	2.640E+01	Pulse	0.30	3
Mg			2	11573.350	ug/l	0.33	1,929,316.18	2.499E+01	Pulse	0.30	3
Al			2	5704.602	ug/l	1.37	299,411.12	3.879E+00	Pulse	0.30	3
K			2	5571.297	ug/l	0.80	582,376.07	7.545E+00	Pulse	0.30	3
Ca			2	21819.544	ug/l	0.52	116,872.16	1.514E+00	Pulse	0.30	3
Ti			2	94.570	ug/l	2.51	4,393.97	5.692E-02	Pulse	0.30	3
V			2	84.155	ug/l	0.50	121,770.81	1.578E+00	Pulse	0.30	3
Cr			2	80.300	ug/l	0.80	148,447.61	1.923E+00	Pulse	0.30	3
Mn			2	85.620	ug/l	0.44	76,407.30	9.899E-01	Pulse	0.30	3
Fe			2	5554.920	ug/l	0.33	7,978,133.57	1.034E+02	Analog	0.30	3
Co			2	76.763	ug/l	0.24	234,459.98	3.038E+00	Pulse	0.30	3
Ni			2	80.781	ug/l	0.76	66,197.55	8.576E-01	Pulse	0.30	3
Cu			2	80.672	ug/l	0.12	182,742.53	2.367E+00	Pulse	0.30	3
Zn			2	92.682	ug/l	1.39	26,871.00	3.481E-01	Pulse	0.30	3
As			2	70.743	ug/l	1.29	11,340.62	1.469E-01	Pulse	1.00	3
Cd			2	74.281	ug/l	1.12	27,559.16	7.810E-02	Pulse	0.30	3
Sn			2	74.419	ug/l	1.22	57,439.51	1.628E-01	Pulse	0.30	3
Se			3	325.987	ug/l	0.67	9,969.97	1.358E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,520,689.96	0.72	99.2	Pulse	0.10	3
1	Sc		2,186,425.02	1.66	108.9	Pulse	0.10	3
1	Ge		413,040.53	0.33	110.9	Pulse	0.10	3

Quantitation Report

1	Ge		567,909.48	1.06	110.8	Pulse	0.10	3
1	Rh		2,505,899.29	1.37	104.9	Pulse	0.10	3
1	In		2,739,744.88	1.72	106.5	Pulse	0.10	3
1	Tb		3,633,843.70	1.70	106.4	Pulse	0.10	3
1	Ho		347,224.63	1.01	107.4	Pulse	0.10	3
1	Bi		2,056,536.07	1.42	103.4	Pulse	0.10	3
2	Sc		77,188.50	0.25	108.0	Pulse	0.30	3
2	Ge		41,763.28	1.57	109.3	Pulse	0.30	3
2	Ge		63,288.72	0.44	110.3	Pulse	0.30	3
2	Rh		1,083,410.86	0.14	104.4	Pulse	0.30	3
2	In		352,896.51	1.10	100.1	Pulse	0.30	3
2	Tb		1,313,946.89	0.60	100.5	Pulse	0.30	3
2	Ho		127,191.06	0.70	101.9	Pulse	0.30	3
2	Bi		852,776.75	0.54	97.7	Pulse	0.30	3
3	Sc		79,552.91	0.46	120.5	Pulse	0.30	3
3	Ge		47,965.75	0.36	118.2	Pulse	0.30	3
3	Ge		73,443.17	0.27	117.8	Pulse	0.30	3
3	Rh		794,224.94	0.79	109.7	Pulse	0.30	3
3	Tb		1,226,556.13	0.21	108.3	Pulse	0.30	3

Quantitation Report

File Name	029SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa043019m6.b
Method File	
Method Path	
Acq Time	4/30/2019 19:13
Sample Name	jc87016-1
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/30/2019 19:15
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.112	ug/l	18.88	326.68	2.143E-04	Pulse	0.25	3
B			1	20.027	ug/l	0.88	40,243.53	2.642E-02	Pulse	0.15	3
Ca			1	16704.500	ug/l	0.28	5,508,965.13	2.501E+00	Analog	0.10	3
Sr			1	112.398	ug/l	0.41	1,700,987.16	6.714E-01	Pulse	0.10	3
Mo			1	1.447	ug/l	8.12	4,430.73	1.748E-03	Pulse	0.10	3
Ag			1	0.052	ug/l	29.60	393.35	1.426E-04	Pulse	0.10	3
Sn			1	1.350	ug/l	4.21	5,827.95	2.108E-03	Pulse	0.10	3
Sb			1	1.036	ug/l	3.16	5,514.47	1.520E-03	Pulse	0.10	3
Ba			1	40.182	ug/l	0.48	84,679.69	2.335E-02	Pulse	0.10	3
Tl			1	0.064	ug/l	8.42	873.39	4.284E-04	Pulse	0.10	3
Pb			1	4.064	ug/l	0.06	16,790.07	8.238E-03	Pulse	0.10	3
Pb			1	3.948	ug/l	4.05	14,090.49	6.913E-03	Pulse	0.10	3
Pb			1	3.920	ug/l	1.42	64,543.19	3.167E-02	Pulse	0.10	3
Na			2	1702.785	ug/l	1.44	637,296.76	8.195E+00	Pulse	0.30	3
Mg			2	7724.421	ug/l	1.11	1,297,846.44	1.669E+01	Pulse	0.30	3
Al			2	1985.716	ug/l	1.10	105,737.78	1.360E+00	Pulse	0.30	3
K			2	1718.430	ug/l	1.47	186,529.23	2.398E+00	Pulse	0.30	3
Ca			2	17221.546	ug/l	1.34	93,004.82	1.196E+00	Pulse	0.30	3
Ti			2	25.327	ug/l	10.82	1,188.98	1.528E-02	Pulse	0.30	3
V			2	5.797	ug/l	4.11	8,556.73	1.100E-01	Pulse	0.30	3
Cr			2	3.264	ug/l	1.74	6,838.15	8.793E-02	Pulse	0.30	3
Mn			2	10.909	ug/l	1.50	9,954.20	1.280E-01	Pulse	0.30	3
Fe			2	1643.715	ug/l	1.42	2,381,596.78	3.062E+01	Pulse	0.30	3
Co			2	1.465	ug/l	3.29	4,575.13	5.883E-02	Pulse	0.30	3
Ni			2	5.228	ug/l	2.98	4,518.45	5.810E-02	Pulse	0.30	3
Cu			2	6.142	ug/l	0.13	16,074.63	2.067E-01	Pulse	0.30	3
Zn			2	26.685	ug/l	0.61	8,087.62	1.040E-01	Pulse	0.30	3
As			2	2.427	ug/l	5.67	397.34	5.109E-03	Pulse	1.00	3
Cd			2	0.313	ug/l	11.80	20.90	5.839E-05	Pulse	0.30	3
Sn			2	0.668	ug/l	12.53	1,045.60	2.917E-03	Pulse	0.30	3
Se			3	0.409	ug/l	18.05	14.53	1.934E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,523,476.10	0.30	99.4	Pulse	0.10	3
1	Sc		2,202,229.97	0.96	109.7	Pulse	0.10	3
1	Ge		418,793.39	0.97	112.5	Pulse	0.10	3

Quantitation Report

1	Ge		570,803.13	1.45	111.4	Pulse	0.10	3
1	Rh		2,533,481.47	0.59	106.0	Pulse	0.10	3
1	In		2,764,111.35	1.30	107.4	Pulse	0.10	3
1	Tb		3,626,750.78	1.11	106.2	Pulse	0.10	3
1	Ho		345,453.81	0.64	106.8	Pulse	0.10	3
1	Bi		2,038,136.74	0.83	102.5	Pulse	0.10	3
2	Sc		77,779.12	1.15	108.9	Pulse	0.30	3
2	Ge		42,729.16	0.82	111.8	Pulse	0.30	3
2	Ge		63,824.11	0.45	111.2	Pulse	0.30	3
2	Rh		1,106,531.76	0.64	106.6	Pulse	0.30	3
2	In		358,380.15	0.49	101.6	Pulse	0.30	3
2	Tb		1,312,680.54	1.07	100.4	Pulse	0.30	3
2	Ho		126,784.89	0.61	101.5	Pulse	0.30	3
2	Bi		854,488.53	0.32	97.9	Pulse	0.30	3
3	Sc		81,351.59	0.81	123.2	Pulse	0.30	3
3	Ge		49,732.15	1.33	122.5	Pulse	0.30	3
3	Ge		75,154.17	0.07	120.5	Pulse	0.30	3
3	Rh		805,740.90	0.19	111.3	Pulse	0.30	3
3	Tb		1,243,938.39	0.29	109.9	Pulse	0.30	3

Quantitation Report

File Name	030SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa043019m6.b
Method File	
Method Path	
Acq Time	4/30/2019 19:18
Sample Name	mp14655-sd1
Sample Type	Sample
Comment	
Prep Dilution	10.000
Auto Dilution	N/A
Total Dilution	10.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/30/2019 19:15
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.081	ug/l	9.95	54.67	3.421E-05	Pulse	0.25	3
B			1	37.777	ug/l	5.08	18,354.65	1.148E-02	Pulse	0.15	3
Ca			1	17626.888	ug/l	1.39	1,242,125.71	5.379E-01	Pulse	0.10	3
Sr			1	115.876	ug/l	0.89	373,571.67	1.386E-01	Pulse	0.10	3
Mo			1	1.629	ug/l	6.35	1,080.07	4.010E-04	Pulse	0.10	3
Ag			1	0.108	ug/l	13.72	193.34	6.625E-05	Pulse	0.10	3
Sn			1	3.658	ug/l	3.30	3,147.19	1.078E-03	Pulse	0.10	3
Sb			1	1.268	ug/l	7.33	1,566.80	4.145E-04	Pulse	0.10	3
Ba			1	52.409	ug/l	2.83	23,077.75	6.106E-03	Pulse	0.10	3
Tl			1	0.130	ug/l	11.08	443.36	2.066E-04	Pulse	0.10	3
Pb			1	7.169	ug/l	4.42	6,411.61	2.987E-03	Pulse	0.10	3
Pb			1	7.056	ug/l	0.74	5,411.19	2.520E-03	Pulse	0.10	3
Pb			1	7.034	ug/l	3.69	24,962.30	1.163E-02	Pulse	0.10	3
Na			2	1775.513	ug/l	0.39	144,546.26	1.780E+00	Pulse	0.30	3
Mg			2	7919.424	ug/l	0.42	278,945.30	3.435E+00	Pulse	0.30	3
Al			2	2009.428	ug/l	1.73	23,270.64	2.865E-01	Pulse	0.30	3
K			2	1763.062	ug/l	1.03	46,624.66	5.741E-01	Pulse	0.30	3
Ca			2	18154.327	ug/l	2.65	20,724.15	2.552E-01	Pulse	0.30	3
Ti			2	28.969	ug/l	19.69	286.67	3.531E-03	Pulse	0.30	3
V			2	6.182	ug/l	3.69	2,000.15	2.463E-02	Pulse	0.30	3
Cr			2	1.834	ug/l	10.44	1,534.53	1.890E-02	Pulse	0.30	3
Mn			2	12.294	ug/l	6.35	2,476.89	3.050E-02	Pulse	0.30	3
Fe			2	1703.710	ug/l	0.65	519,137.13	6.392E+00	Pulse	0.30	3
Co			2	1.309	ug/l	9.91	913.37	1.125E-02	Pulse	0.30	3
Ni			2	4.619	ug/l	3.99	1,020.04	1.256E-02	Pulse	0.30	3
Cu			2	4.050	ug/l	3.27	4,229.49	5.208E-02	Pulse	0.30	3
Zn			2	42.829	ug/l	3.96	3,001.42	3.696E-02	Pulse	0.30	3
As			2	2.361	ug/l	13.36	85.33	1.051E-03	Pulse	1.00	3
Cd			2	1.424	ug/l	1.69	11.05	2.887E-05	Pulse	0.30	3
Sn			2	-0.354	ug/l	-68.51	503.35	1.316E-03	Pulse	0.30	3
Se			3	0.686	ug/l	19.52	6.07	8.017E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,598,521.66	0.54	104.3	Pulse	0.10	3
1	Sc		2,309,303.35	1.05	115.0	Pulse	0.10	3
1	Ge		432,097.88	2.17	116.0	Pulse	0.10	3

Quantitation Report

1	Ge		595,514.39	0.24	116.2	Pulse	0.10	3
1	Rh		2,694,835.17	1.36	112.8	Pulse	0.10	3
1	In		2,919,801.71	0.94	113.5	Pulse	0.10	3
1	Tb		3,779,420.05	1.00	110.7	Pulse	0.10	3
1	Ho		357,351.83	1.87	110.5	Pulse	0.10	3
1	Bi		2,147,567.62	1.58	108.0	Pulse	0.10	3
2	Sc		81,213.15	0.27	113.7	Pulse	0.30	3
2	Ge		44,687.69	0.97	116.9	Pulse	0.30	3
2	Ge		66,190.09	1.03	115.4	Pulse	0.30	3
2	Rh		1,161,563.46	0.52	111.9	Pulse	0.30	3
2	In		382,757.46	0.73	108.5	Pulse	0.30	3
2	Tb		1,366,760.67	0.30	104.5	Pulse	0.30	3
2	Ho		132,204.27	0.73	105.9	Pulse	0.30	3
2	Bi		904,536.77	0.41	103.6	Pulse	0.30	3
3	Sc		80,823.50	1.28	122.4	Pulse	0.30	3
3	Ge		50,026.42	2.22	123.3	Pulse	0.30	3
3	Ge		75,608.61	1.01	121.2	Pulse	0.30	3
3	Rh		829,408.46	0.70	114.6	Pulse	0.30	3
3	Tb		1,248,141.34	0.91	110.3	Pulse	0.30	3

Quantitation Report

File Name 031SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa043019m6.b
Method File
Method Path
Acq Time 4/30/2019 19:23
Sample Name jc87016-2
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/30/2019 19:15
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.119	ug/l	11.16	358.68	2.274E-04	Pulse	0.25	3
B			1	18.592	ug/l	2.63	38,962.90	2.470E-02	Pulse	0.15	3
Ca			1	17335.134	ug/l	0.93	5,797,648.87	2.595E+00	Analog	0.10	3
Sr			1	114.849	ug/l	0.75	1,761,517.37	6.860E-01	Pulse	0.10	3
Mo			1	1.332	ug/l	4.86	4,137.36	1.611E-03	Pulse	0.10	3
Ag			1	0.033	ug/l	27.03	263.34	9.411E-05	Pulse	0.10	3
Sn			1	1.414	ug/l	5.71	6,208.11	2.215E-03	Pulse	0.10	3
Sb			1	0.734	ug/l	4.53	4,013.99	1.094E-03	Pulse	0.10	3
Ba			1	47.425	ug/l	1.09	101,169.00	2.755E-02	Pulse	0.10	3
Tl			1	0.067	ug/l	21.07	920.06	4.416E-04	Pulse	0.10	3
Pb			1	4.354	ug/l	5.78	18,385.41	8.817E-03	Pulse	0.10	3
Pb			1	4.246	ug/l	1.80	15,491.94	7.430E-03	Pulse	0.10	3
Pb			1	4.199	ug/l	2.58	70,647.34	3.388E-02	Pulse	0.10	3
Na			2	1672.518	ug/l	2.02	633,289.96	8.050E+00	Pulse	0.30	3
Mg			2	7893.606	ug/l	1.32	1,341,446.79	1.705E+01	Pulse	0.30	3
Al			2	2151.822	ug/l	0.75	115,800.58	1.472E+00	Pulse	0.30	3
K			2	1713.341	ug/l	1.27	188,144.69	2.392E+00	Pulse	0.30	3
Ca			2	17687.950	ug/l	0.71	96,615.22	1.228E+00	Pulse	0.30	3
Ti			2	28.982	ug/l	7.07	1,374.56	1.748E-02	Pulse	0.30	3
V			2	5.894	ug/l	3.79	8,797.98	1.119E-01	Pulse	0.30	3
Cr			2	3.512	ug/l	1.32	7,380.61	9.382E-02	Pulse	0.30	3
Mn			2	12.964	ug/l	2.09	11,932.20	1.517E-01	Pulse	0.30	3
Fe			2	1786.288	ug/l	0.62	2,617,634.07	3.327E+01	Pulse	0.30	3
Co			2	1.213	ug/l	6.75	3,846.05	4.889E-02	Pulse	0.30	3
Ni			2	4.636	ug/l	4.66	4,078.32	5.185E-02	Pulse	0.30	3
Cu			2	6.138	ug/l	2.24	16,248.14	2.066E-01	Pulse	0.30	3
Zn			2	27.141	ug/l	2.32	8,312.18	1.057E-01	Pulse	0.30	3
As			2	2.091	ug/l	5.73	347.01	4.411E-03	Pulse	1.00	3
Cd			2	0.327	ug/l	2.70	26.44	7.372E-05	Pulse	0.30	3
Sn			2	0.753	ug/l	8.32	1,112.27	3.100E-03	Pulse	0.30	3
Se			3	0.299	ug/l	18.01	11.20	1.473E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,577,593.03	0.62	102.9	Pulse	0.10	3
1	Sc		2,233,990.49	1.62	111.3	Pulse	0.10	3
1	Ge		426,323.26	1.38	114.5	Pulse	0.10	3

Quantitation Report

1	Ge		580,810.95	1.41	113.3	Pulse	0.10	3
1	Rh		2,567,724.75	1.24	107.5	Pulse	0.10	3
1	In		2,802,135.69	0.90	108.9	Pulse	0.10	3
1	Tb		3,671,454.84	1.63	107.5	Pulse	0.10	3
1	Ho		351,470.50	1.84	108.7	Pulse	0.10	3
1	Bi		2,085,072.73	0.81	104.9	Pulse	0.10	3
2	Sc		78,670.88	1.07	110.1	Pulse	0.30	3
2	Ge		42,905.10	0.09	112.3	Pulse	0.30	3
2	Ge		64,630.63	0.68	112.6	Pulse	0.30	3
2	Rh		1,110,169.09	0.26	107.0	Pulse	0.30	3
2	In		358,750.88	0.31	101.7	Pulse	0.30	3
2	Tb		1,323,108.14	0.81	101.2	Pulse	0.30	3
2	Ho		128,408.28	1.46	102.8	Pulse	0.30	3
2	Bi		864,632.62	0.74	99.0	Pulse	0.30	3
3	Sc		81,218.54	0.69	123.0	Pulse	0.30	3
3	Ge		49,842.49	0.95	122.8	Pulse	0.30	3
3	Ge		76,097.50	1.63	122.0	Pulse	0.30	3
3	Rh		811,096.49	0.47	112.1	Pulse	0.30	3
3	Tb		1,246,347.56	0.43	110.1	Pulse	0.30	3

Quantitation Report

File Name 032SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa043019m6.b
Method File
Method Path
Acq Time 4/30/2019 19:28
Sample Name jc87016-3
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/30/2019 19:15
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.107	ug/l	5.81	318.68	2.059E-04	Pulse	0.25	3
B			1	16.949	ug/l	2.39	35,170.28	2.273E-02	Pulse	0.15	3
Ca			1	17074.875	ug/l	0.22	5,718,597.83	2.557E+00	Analog	0.10	3
Sr			1	116.336	ug/l	0.34	1,773,343.62	6.949E-01	Pulse	0.10	3
Mo			1	1.306	ug/l	3.22	4,030.63	1.579E-03	Pulse	0.10	3
Ag			1	0.034	ug/l	17.01	273.34	9.790E-05	Pulse	0.10	3
Sn			1	1.327	ug/l	4.22	5,777.93	2.069E-03	Pulse	0.10	3
Sb			1	0.738	ug/l	5.25	4,050.66	1.100E-03	Pulse	0.10	3
Ba			1	48.238	ug/l	0.80	103,182.63	2.803E-02	Pulse	0.10	3
Tl			1	0.041	ug/l	20.05	610.04	2.943E-04	Pulse	0.10	3
Pb			1	4.387	ug/l	0.72	18,395.31	8.884E-03	Pulse	0.10	3
Pb			1	4.269	ug/l	3.25	15,468.62	7.470E-03	Pulse	0.10	3
Pb			1	4.297	ug/l	1.03	71,783.54	3.467E-02	Pulse	0.10	3
Na			2	1660.775	ug/l	0.94	630,686.97	7.995E+00	Pulse	0.30	3
Mg			2	7935.340	ug/l	0.59	1,352,409.22	1.714E+01	Pulse	0.30	3
Al			2	2225.090	ug/l	1.34	120,039.88	1.522E+00	Pulse	0.30	3
K			2	1792.131	ug/l	4.80	196,936.49	2.497E+00	Pulse	0.30	3
Ca			2	17639.714	ug/l	0.77	96,629.68	1.225E+00	Pulse	0.30	3
Ti			2	40.617	ug/l	48.61	1,925.64	2.447E-02	Pulse	0.30	3
V			2	5.916	ug/l	1.56	8,858.01	1.123E-01	Pulse	0.30	3
Cr			2	3.437	ug/l	0.61	7,260.54	9.203E-02	Pulse	0.30	3
Mn			2	12.822	ug/l	0.68	11,838.79	1.501E-01	Pulse	0.30	3
Fe			2	1793.768	ug/l	1.10	2,635,961.42	3.341E+01	Pulse	0.30	3
Co			2	1.051	ug/l	3.42	3,351.49	4.248E-02	Pulse	0.30	3
Ni			2	4.202	ug/l	2.45	3,728.24	4.725E-02	Pulse	0.30	3
Cu			2	6.153	ug/l	0.71	16,329.36	2.070E-01	Pulse	0.30	3
Zn			2	30.440	ug/l	5.40	9,297.18	1.179E-01	Pulse	0.30	3
As			2	2.150	ug/l	6.84	357.67	4.533E-03	Pulse	1.00	3
Cd			2	0.322	ug/l	9.63	24.24	6.758E-05	Pulse	0.30	3
Sn			2	0.575	ug/l	18.19	974.49	2.716E-03	Pulse	0.30	3
Se			3	0.258	ug/l	28.36	10.00	1.306E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,547,383.33	0.72	101.0	Pulse	0.10	3
1	Sc		2,236,702.52	1.14	111.4	Pulse	0.10	3
1	Ge		423,870.97	2.00	113.8	Pulse	0.10	3

Quantitation Report

1	Ge		577,189.69	0.94	112.6	Pulse	0.10	3
1	Rh		2,551,845.95	0.90	106.8	Pulse	0.10	3
1	In		2,792,846.89	1.10	108.6	Pulse	0.10	3
1	Tb		3,681,397.96	1.43	107.8	Pulse	0.10	3
1	Ho		349,496.35	2.18	108.1	Pulse	0.10	3
1	Bi		2,070,463.61	1.01	104.1	Pulse	0.10	3
2	Sc		78,892.00	0.84	110.4	Pulse	0.30	3
2	Ge		43,106.71	1.22	112.8	Pulse	0.30	3
2	Ge		64,697.44	1.81	112.7	Pulse	0.30	3
2	Rh		1,115,634.71	0.85	107.5	Pulse	0.30	3
2	In		358,903.18	0.46	101.8	Pulse	0.30	3
2	Tb		1,316,447.10	1.23	100.7	Pulse	0.30	3
2	Ho		126,946.17	1.59	101.7	Pulse	0.30	3
2	Bi		855,934.17	1.05	98.0	Pulse	0.30	3
3	Sc		82,598.95	0.63	125.1	Pulse	0.30	3
3	Ge		50,379.70	1.00	124.1	Pulse	0.30	3
3	Ge		76,585.42	0.56	122.8	Pulse	0.30	3
3	Rh		819,531.48	0.47	113.2	Pulse	0.30	3
3	Tb		1,247,987.76	0.38	110.2	Pulse	0.30	3

Quantitation Report

File Name	033SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa043019m6.b
Method File	
Method Path	
Acq Time	4/30/2019 19:33
Sample Name	mp14655-ps1
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/30/2019 19:15
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	81.613	ug/l	1.33	237,297.65	1.537E-01	Pulse	0.25	3
B			1	112.363	ug/l	0.58	211,505.43	1.370E-01	Pulse	0.15	3
Ca			1	19502.762	ug/l	1.04	6,532,282.61	2.918E+00	Analog	0.10	3
Sr			1	188.069	ug/l	1.50	2,866,920.17	1.123E+00	Pulse	0.10	3
Mo			1	82.705	ug/l	0.91	253,791.21	9.943E-02	Pulse	0.10	3
Ag			1	81.556	ug/l	0.42	568,556.80	2.061E-01	Pulse	0.10	3
Sn			1	80.964	ug/l	1.12	371,808.56	1.348E-01	Pulse	0.10	3
Sb			1	81.532	ug/l	0.77	422,737.07	1.154E-01	Pulse	0.10	3
Ba			1	119.584	ug/l	1.75	254,456.10	6.945E-02	Pulse	0.10	3
Tl			1	82.532	ug/l	1.80	972,833.55	4.789E-01	Pulse	0.10	3
Pb			1	86.429	ug/l	0.51	350,833.84	1.727E-01	Pulse	0.10	3
Pb			1	86.685	ug/l	0.30	305,217.37	1.502E-01	Pulse	0.10	3
Pb			1	86.855	ug/l	0.95	1,407,326.74	6.928E-01	Pulse	0.10	3
Na			2	5630.828	ug/l	1.56	2,144,970.12	2.689E+01	Pulse	0.30	3
Mg			2	11028.597	ug/l	1.49	1,899,899.30	2.382E+01	Pulse	0.30	3
Al			2	5627.501	ug/l	1.43	305,228.71	3.827E+00	Pulse	0.30	3
K			2	5646.573	ug/l	1.28	609,837.89	7.645E+00	Pulse	0.30	3
Ca			2	20102.623	ug/l	2.00	111,286.55	1.395E+00	Pulse	0.30	3
Ti			2	99.211	ug/l	1.71	4,762.98	5.971E-02	Pulse	0.30	3
V			2	90.429	ug/l	1.65	135,202.43	1.695E+00	Pulse	0.30	3
Cr			2	87.359	ug/l	2.34	166,796.63	2.091E+00	Pulse	0.30	3
Mn			2	90.324	ug/l	2.12	83,280.38	1.044E+00	Pulse	0.30	3
Fe			2	5600.036	ug/l	0.54	8,312,588.00	1.042E+02	Analog	0.30	3
Co			2	83.097	ug/l	1.22	262,281.60	3.288E+00	Pulse	0.30	3
Ni			2	86.409	ug/l	0.77	73,165.71	9.172E-01	Pulse	0.30	3
Cu			2	85.871	ug/l	1.67	200,857.41	2.518E+00	Pulse	0.30	3
Zn			2	94.474	ug/l	1.62	28,295.63	3.547E-01	Pulse	0.30	3
As			2	76.964	ug/l	0.45	12,750.98	1.598E-01	Pulse	1.00	3
Cd			2	79.951	ug/l	1.39	29,898.68	8.408E-02	Pulse	0.30	3
Sn			2	82.781	ug/l	0.42	64,327.16	1.809E-01	Pulse	0.30	3
Se			3	352.200	ug/l	0.83	11,201.89	1.467E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,544,197.28	0.81	100.8	Pulse	0.10	3
1	Sc		2,238,393.61	1.72	111.5	Pulse	0.10	3
1	Ge		421,905.83	1.48	113.3	Pulse	0.10	3

Quantitation Report

1	Ge		575,843.78	1.98	112.3	Pulse	0.10	3
1	Rh		2,552,620.12	1.80	106.8	Pulse	0.10	3
1	In		2,758,568.45	1.12	107.2	Pulse	0.10	3
1	Tb		3,664,537.86	1.43	107.3	Pulse	0.10	3
1	Ho		346,421.79	0.92	107.1	Pulse	0.10	3
1	Bi		2,031,646.69	1.66	102.2	Pulse	0.10	3
2	Sc		79,776.21	1.64	111.7	Pulse	0.30	3
2	Ge		43,271.70	0.59	113.2	Pulse	0.30	3
2	Ge		64,495.64	1.25	112.4	Pulse	0.30	3
2	Rh		1,110,676.28	0.77	107.0	Pulse	0.30	3
2	In		355,595.23	0.31	100.8	Pulse	0.30	3
2	Tb		1,304,880.85	0.47	99.8	Pulse	0.30	3
2	Ho		126,479.87	0.84	101.3	Pulse	0.30	3
2	Bi		841,743.16	1.25	96.4	Pulse	0.30	3
3	Sc		82,539.46	0.81	125.0	Pulse	0.30	3
3	Ge		50,503.39	1.02	124.4	Pulse	0.30	3
3	Ge		76,379.92	0.92	122.5	Pulse	0.30	3
3	Rh		810,757.61	0.76	112.0	Pulse	0.30	3
3	Tb		1,236,149.95	0.05	109.2	Pulse	0.30	3

Quantitation Report

File Name	034_CCV.d
File Path	C:\Agilent\ICPMH\1\DATA\xa043019m6.b
Method File	
Method Path	
Acq Time	4/30/2019 19:38
Sample Name	CCVA
Sample Type	CCV
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/30/2019 19:15
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	50.191	ug/l	0.82	299,188.53	1.890E-01	Pulse	0.25	3
B			1	110.316	ug/l	0.59	422,009.65	2.666E-01	Pulse	0.15	3
Ca			1	5173.440	ug/l	0.75	3,567,124.63	1.554E+00	Pulse	0.10	3
Sr			1	51.871	ug/l	0.23	1,632,343.15	6.197E-01	Pulse	0.10	3
Mo			1	50.591	ug/l	0.12	320,420.45	1.216E-01	Pulse	0.10	3
Ag			1	49.024	ug/l	0.81	708,327.59	2.478E-01	Pulse	0.10	3
Sn			1	49.429	ug/l	1.03	470,499.16	1.646E-01	Pulse	0.10	3
Sb			1	53.977	ug/l	0.43	572,732.38	1.527E-01	Pulse	0.10	3
Ba			1	51.243	ug/l	0.52	223,178.60	5.952E-02	Pulse	0.10	3
Tl			1	50.873	ug/l	0.38	1,213,909.04	5.904E-01	Pulse	0.10	3
Pb			1	50.839	ug/l	0.45	417,663.21	2.031E-01	Pulse	0.10	3
Pb			1	51.227	ug/l	0.88	365,023.72	1.775E-01	Pulse	0.10	3
Pb			1	50.903	ug/l	0.49	1,669,399.55	8.120E-01	Pulse	0.10	3
Na			2	4923.764	ug/l	0.49	3,872,720.96	4.696E+01	Pulse	0.30	3
Mg			2	5026.970	ug/l	0.21	1,790,797.50	2.172E+01	Pulse	0.30	3
Al			2	4786.872	ug/l	0.76	536,045.25	6.500E+00	Pulse	0.30	3
K			2	4987.391	ug/l	0.17	1,107,233.40	1.343E+01	Pulse	0.30	3
Ca			2	5347.268	ug/l	0.37	61,363.35	7.441E-01	Pulse	0.30	3
Ti			2	48.352	ug/l	2.59	4,799.64	5.821E-02	Pulse	0.30	3
V			2	51.559	ug/l	0.30	159,381.56	1.933E+00	Pulse	0.30	3
Cr			2	50.466	ug/l	0.28	199,127.49	2.415E+00	Pulse	0.30	3
Mn			2	48.598	ug/l	0.88	92,643.93	1.123E+00	Pulse	0.30	3
Fe			2	4947.132	ug/l	0.71	15,178,459.40	1.841E+02	Analog	0.30	3
Co			2	49.261	ug/l	1.21	321,474.15	3.898E+00	Pulse	0.30	3
Ni			2	49.105	ug/l	0.52	85,934.67	1.042E+00	Pulse	0.30	3
Cu			2	48.401	ug/l	0.40	233,805.52	2.835E+00	Pulse	0.30	3
Zn			2	48.516	ug/l	0.76	30,035.34	3.642E-01	Pulse	0.30	3
As			2	49.737	ug/l	1.19	17,034.21	2.066E-01	Pulse	1.00	3
Cd			2	50.253	ug/l	0.06	39,301.45	1.058E-01	Pulse	0.30	3
Sn			2	51.185	ug/l	1.08	82,995.54	2.234E-01	Pulse	0.30	3
Se			3	193.456	ug/l	0.37	12,079.37	1.611E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,582,953.26	0.78	103.3	Pulse	0.10	3
1	Sc		2,295,150.85	1.42	114.3	Pulse	0.10	3
1	Ge		420,935.45	0.44	113.0	Pulse	0.10	3

Quantitation Report

1	Ge		586,086.40	0.86	114.3	Pulse	0.10	3
1	Rh		2,634,047.57	1.27	110.2	Pulse	0.10	3
1	In		2,858,603.89	0.99	111.1	Pulse	0.10	3
1	Tb		3,749,793.70	1.49	109.8	Pulse	0.10	3
1	Ho		351,160.06	0.82	108.6	Pulse	0.10	3
1	Bi		2,055,989.29	0.93	103.4	Pulse	0.10	3
2	Sc		82,465.95	0.47	115.4	Pulse	0.30	3
2	Ge		43,066.76	1.95	112.7	Pulse	0.30	3
2	Ge		65,872.47	1.15	114.8	Pulse	0.30	3
2	Rh		1,131,711.58	0.16	109.1	Pulse	0.30	3
2	In		371,569.36	0.40	105.4	Pulse	0.30	3
2	Tb		1,335,485.22	1.34	102.1	Pulse	0.30	3
2	Ho		128,385.57	0.29	102.8	Pulse	0.30	3
2	Bi		861,099.03	0.26	98.6	Pulse	0.30	3
3	Sc		81,217.69	0.22	123.0	Pulse	0.30	3
3	Ge		49,477.07	0.38	121.9	Pulse	0.30	3
3	Ge		74,973.05	0.81	120.2	Pulse	0.30	3
3	Rh		813,943.63	0.75	112.5	Pulse	0.30	3
3	Tb		1,236,577.90	0.70	109.2	Pulse	0.30	3

Quantitation Report

File Name	035_CCB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa043019m6.b
Method File	
Method Path	
Acq Time	4/30/2019 19:43
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/30/2019 19:15
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.009	ug/l	54.40	58.67	3.645E-05	Pulse	0.25	3
B			1	5.072	ug/l	1.45	23,456.57	1.458E-02	Pulse	0.15	3
Ca			1	-8.220	ug/l	-1.42	23,367.14	1.018E-02	Pulse	0.10	3
Sr			1	0.011	ug/l	47.04	1,020.07	3.811E-04	Pulse	0.10	3
Mo			1	0.104	ug/l	8.95	696.70	2.599E-04	Pulse	0.10	3
Ag			1	0.013	ug/l	34.33	223.34	7.697E-05	Pulse	0.10	3
Sn			1	0.584	ug/l	3.43	5,231.06	1.806E-03	Pulse	0.10	3
Sb			1	0.131	ug/l	8.60	1,610.14	4.275E-04	Pulse	0.10	3
Ba			1	0.003	ug/l	125.17	90.00	2.388E-05	Pulse	0.10	3
Tl			1	0.020	ug/l	12.99	593.37	2.819E-04	Pulse	0.10	3
Pb			1	0.024	ug/l	26.49	460.02	2.184E-04	Pulse	0.10	3
Pb			1	0.030	ug/l	20.13	380.02	1.806E-04	Pulse	0.10	3
Pb			1	0.027	ug/l	5.24	1,786.78	8.483E-04	Pulse	0.10	3
Na			2	2.341	ug/l	11.89	9,103.63	1.119E-01	Pulse	0.30	3
Mg			2	-1.048	ug/l	-8.92	954.48	1.173E-02	Pulse	0.30	3
Al			2	12.350	ug/l	4.93	2,523.55	3.101E-02	Pulse	0.30	3
K			2	-1.519	ug/l	-52.18	8,062.02	9.905E-02	Pulse	0.30	3
Ca			2	-9.993	ug/l	-22.47	203.34	2.500E-03	Pulse	0.30	3
Ti			2	-0.005	ug/l	-721.48	3.33	4.099E-05	Pulse	0.30	3
V			2	0.009	ug/l	108.00	145.56	1.792E-03	Pulse	0.30	3
Cr			2	-0.028	ug/l	-31.80	717.80	8.817E-03	Pulse	0.30	3
Mn			2	-0.016	ug/l	-74.66	143.33	1.758E-03	Pulse	0.30	3
Fe			2	0.956	ug/l	4.62	7,427.29	9.126E-02	Pulse	0.30	3
Co			2	0.002	ug/l	111.98	83.33	1.025E-03	Pulse	0.30	3
Ni			2	-0.039	ug/l	-32.79	160.00	1.969E-03	Pulse	0.30	3
Cu			2	-0.010	ug/l	-366.01	2,276.85	2.800E-02	Pulse	0.30	3
Zn			2	0.561	ug/l	22.16	765.58	9.416E-03	Pulse	0.30	3
As			2	0.012	ug/l	106.25	9.67	1.190E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	0.137	ug/l	3.08	6.63	1.764E-05	Pulse	0.30	3
Sn			2	0.311	ug/l	7.78	1,060.05	2.816E-03	Pulse	0.30	3
Se			3	0.077	ug/l	20.30	6.60	8.745E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,608,381.09	1.08	104.9	Pulse	0.10	3
1	Sc		2,295,785.54	1.79	114.4	Pulse	0.10	3
1	Ge		420,710.92	0.65	113.0	Pulse	0.10	3
1	Ge		585,473.05	1.28	114.2	Pulse	0.10	3
1	Rh		2,679,431.21	1.02	112.1	Pulse	0.10	3
1	In		2,894,960.66	1.43	112.5	Pulse	0.10	3
1	Tb		3,763,884.01	1.32	110.2	Pulse	0.10	3
1	Ho		357,108.98	1.34	110.4	Pulse	0.10	3
1	Bi		2,105,942.94	1.66	105.9	Pulse	0.10	3
2	Sc		81,391.56	1.97	113.9	Pulse	0.30	3
2	Ge		43,765.09	0.62	114.5	Pulse	0.30	3
2	Ge		66,226.86	1.59	115.4	Pulse	0.30	3
2	Rh		1,164,117.59	0.81	112.2	Pulse	0.30	3
2	In		376,355.80	0.45	106.7	Pulse	0.30	3
2	Tb		1,340,842.66	0.59	102.5	Pulse	0.30	3
2	Ho		129,151.39	0.47	103.4	Pulse	0.30	3
2	Bi		880,374.55	0.35	100.8	Pulse	0.30	3
3	Sc		82,527.30	0.74	125.0	Pulse	0.30	3
3	Ge		50,068.62	0.49	123.4	Pulse	0.30	3
3	Ge		75,550.65	1.03	121.1	Pulse	0.30	3
3	Rh		840,372.36	0.27	116.1	Pulse	0.30	3
3	Tb		1,238,513.91	0.54	109.4	Pulse	0.30	3

Quantitation Report

File Name	036SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa043019m6.b
Method File	
Method Path	
Acq Time	4/30/2019 19:48
Sample Name	mp14608-mb1conf
Sample Type	Sample
Comment	
Prep Dilution	5.000
Auto Dilution	N/A
Total Dilution	5.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/30/2019 19:15
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.017	ug/l	28.98	26.67	1.626E-05	Pulse	0.25	3
B			1	19.022	ug/l	1.78	18,921.98	1.155E-02	Pulse	0.15	3
Ca			1	24.290	ug/l	22.65	32,879.96	1.408E-02	Pulse	0.10	3
Sr			1	0.449	ug/l	6.63	3,587.20	1.322E-03	Pulse	0.10	3
Mo			1	0.417	ug/l	17.76	570.03	2.099E-04	Pulse	0.10	3
Ag			1	0.041	ug/l	26.16	153.34	5.283E-05	Pulse	0.10	3
Sn			1	18.033	ug/l	1.02	34,448.38	1.188E-02	Pulse	0.10	3
Sb			1	0.331	ug/l	3.55	910.06	2.432E-04	Pulse	0.10	3
Ba			1	0.249	ug/l	13.06	293.34	7.835E-05	Pulse	0.10	3
Tl			1	0.044	ug/l	45.14	336.68	1.574E-04	Pulse	0.10	3
Pb			1	0.056	ug/l	50.65	360.02	1.685E-04	Pulse	0.10	3
Pb			1	0.159	ug/l	36.51	396.68	1.855E-04	Pulse	0.10	3
Pb			1	0.099	ug/l	13.47	1,556.76	7.284E-04	Pulse	0.10	3
Na			2	86.555	ug/l	1.14	21,173.33	2.544E-01	Pulse	0.30	3
Mg			2	1.924	ug/l	39.67	1,490.64	1.791E-02	Pulse	0.30	3
Al			2	-38.775	ug/l	-8.37	313.34	3.765E-03	Pulse	0.30	3
K			2	27.959	ug/l	21.28	9,825.19	1.180E-01	Pulse	0.30	3
Ca			2	6.829	ug/l	163.25	338.90	4.072E-03	Pulse	0.30	3
Ti			2	0.804	ug/l	71.21	20.00	2.400E-04	Pulse	0.30	3
V			2	0.106	ug/l	24.83	188.89	2.269E-03	Pulse	0.30	3
Cr			2	0.288	ug/l	42.98	1,073.38	1.290E-02	Pulse	0.30	3
Mn			2	0.139	ug/l	24.17	231.12	2.777E-03	Pulse	0.30	3
Fe			2	33.466	ug/l	2.61	25,354.30	3.046E-01	Pulse	0.30	3
Co			2	0.006	ug/l	142.65	82.22	9.881E-04	Pulse	0.30	3
Ni			2	-0.219	ug/l	-22.93	154.45	1.856E-03	Pulse	0.30	3
Cu			2	-1.151	ug/l	-8.12	1,268.95	1.525E-02	Pulse	0.30	3
Zn			2	3.198	ug/l	12.95	832.25	1.000E-02	Pulse	0.30	3
As			2	0.141	ug/l	96.27	15.67	1.879E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	0.685	ug/l	5.27	6.63	1.746E-05	Pulse	0.30	3
Sn			2	17.134	ug/l	2.23	6,203.50	1.632E-02	Pulse	0.30	3
Se			3	0.288	ug/l	67.41	5.40	7.103E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,638,773.41	1.05	106.9	Pulse	0.10	3
1	Sc		2,336,469.29	1.56	116.4	Pulse	0.10	3
1	Ge		429,335.59	1.90	115.3	Pulse	0.10	3
1	Ge		588,661.14	1.13	114.8	Pulse	0.10	3
1	Rh		2,713,708.92	1.10	113.6	Pulse	0.10	3
1	In		2,900,218.55	0.74	112.7	Pulse	0.10	3
1	Tb		3,742,040.78	1.07	109.6	Pulse	0.10	3
1	Ho		349,300.97	0.53	108.0	Pulse	0.10	3
1	Bi		2,137,436.22	0.63	107.5	Pulse	0.10	3
2	Sc		83,230.58	0.39	116.5	Pulse	0.30	3
2	Ge		45,237.90	1.94	118.4	Pulse	0.30	3
2	Ge		67,778.96	1.10	118.1	Pulse	0.30	3
2	Rh		1,178,220.44	1.09	113.5	Pulse	0.30	3
2	In		380,012.72	0.27	107.7	Pulse	0.30	3
2	Tb		1,352,400.26	1.07	103.4	Pulse	0.30	3
2	Ho		130,373.53	0.12	104.4	Pulse	0.30	3
2	Bi		898,509.86	1.25	102.9	Pulse	0.30	3
3	Sc		83,874.88	0.39	127.0	Pulse	0.30	3
3	Ge		51,010.44	1.14	125.7	Pulse	0.30	3
3	Ge		76,125.30	0.55	122.1	Pulse	0.30	3
3	Rh		845,322.21	0.33	116.8	Pulse	0.30	3
3	Tb		1,245,463.59	0.92	110.0	Pulse	0.30	3

Quantitation Report

File Name	037SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa043019m6.b
Method File	
Method Path	
Acq Time	4/30/2019 19:53
Sample Name	mp14608-b1conf
Sample Type	Sample
Comment	
Prep Dilution	5.000
Auto Dilution	N/A
Total Dilution	5.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/30/2019 19:15
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	193.987	ug/l	0.25	236,511.47	1.461E-01	Pulse	0.25	3
B			1	229.161	ug/l	0.94	181,620.62	1.122E-01	Pulse	0.15	3
Ca			1	9967.853	ug/l	0.65	1,405,596.70	6.067E-01	Pulse	0.10	3
Sr			1	200.730	ug/l	0.21	1,265,248.70	4.797E-01	Pulse	0.10	3
Mo			1	183.505	ug/l	0.73	232,780.81	8.825E-02	Pulse	0.10	3
Ag			1	99.035	ug/l	0.94	285,833.80	1.001E-01	Pulse	0.10	3
Sn			1	199.078	ug/l	1.05	378,425.73	1.326E-01	Pulse	0.10	3
Sb			1	194.660	ug/l	0.21	409,035.66	1.102E-01	Pulse	0.10	3
Ba			1	199.755	ug/l	0.58	172,293.34	4.641E-02	Pulse	0.10	3
Tl			1	194.714	ug/l	0.34	941,019.10	4.520E-01	Pulse	0.10	3
Pb			1	194.113	ug/l	1.25	323,002.99	1.552E-01	Pulse	0.10	3
Pb			1	196.237	ug/l	1.16	283,277.60	1.360E-01	Pulse	0.10	3
Pb			1	195.180	ug/l	0.28	1,296,600.82	6.228E-01	Pulse	0.10	3
Na			2	10020.295	ug/l	1.08	1,556,111.29	1.917E+01	Pulse	0.30	3
Mg			2	9850.693	ug/l	1.25	691,729.64	8.520E+00	Pulse	0.30	3
Al			2	9449.384	ug/l	1.51	209,035.91	2.575E+00	Pulse	0.30	3
K			2	10036.763	ug/l	1.51	443,714.20	5.466E+00	Pulse	0.30	3
Ca			2	10952.911	ug/l	2.43	24,932.05	3.071E-01	Pulse	0.30	3
Ti			2	178.220	ug/l	3.74	3,484.85	4.292E-02	Pulse	0.30	3
V			2	201.700	ug/l	0.97	122,790.64	1.512E+00	Pulse	0.30	3
Cr			2	200.984	ug/l	1.27	156,312.02	1.925E+00	Pulse	0.30	3
Mn			2	190.297	ug/l	1.84	71,463.45	8.803E-01	Pulse	0.30	3
Fe			2	10132.813	ug/l	1.37	6,123,685.03	7.543E+01	Analog	0.30	3
Co			2	196.136	ug/l	1.17	252,028.31	3.104E+00	Pulse	0.30	3
Ni			2	197.411	ug/l	0.68	68,066.42	8.384E-01	Pulse	0.30	3
Cu			2	193.329	ug/l	1.05	184,343.77	2.271E+00	Pulse	0.30	3
Zn			2	186.498	ug/l	1.28	22,832.67	2.812E-01	Pulse	0.30	3
As			2	183.589	ug/l	0.76	12,382.03	1.525E-01	Pulse	1.00	3
Cd			2	195.325	ug/l	1.25	30,330.51	8.216E-02	Pulse	0.30	3
Sn			2	204.282	ug/l	1.46	65,924.69	1.786E-01	Pulse	0.30	3
Se			3	458.041	ug/l	0.83	5,782.35	7.631E-02	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,618,904.77	1.23	105.6	Pulse	0.10	3
1	Sc		2,316,794.03	0.56	115.4	Pulse	0.10	3
1	Ge		420,903.00	1.36	113.0	Pulse	0.10	3

Quantitation Report

1	Ge		581,337.49	1.42	113.4	Pulse	0.10	3
1	Rh		2,637,616.00	1.06	110.4	Pulse	0.10	3
1	In		2,854,984.85	1.10	111.0	Pulse	0.10	3
1	Tb		3,712,455.99	1.42	108.7	Pulse	0.10	3
1	Ho		351,082.82	2.23	108.6	Pulse	0.10	3
1	Bi		2,082,047.94	1.48	104.7	Pulse	0.10	3
2	Sc		81,189.47	0.84	113.6	Pulse	0.30	3
2	Ge		44,111.50	0.69	115.4	Pulse	0.30	3
2	Ge		65,976.92	0.24	115.0	Pulse	0.30	3
2	Rh		1,144,343.25	0.09	110.3	Pulse	0.30	3
2	In		369,146.56	0.44	104.7	Pulse	0.30	3
2	Tb		1,335,081.44	0.76	102.1	Pulse	0.30	3
2	Ho		128,830.51	0.27	103.2	Pulse	0.30	3
2	Bi		864,259.06	0.79	99.0	Pulse	0.30	3
3	Sc		83,940.76	0.41	127.1	Pulse	0.30	3
3	Ge		50,085.35	1.01	123.4	Pulse	0.30	3
3	Ge		75,779.20	0.58	121.5	Pulse	0.30	3
3	Rh		829,950.05	0.95	114.7	Pulse	0.30	3
3	Tb		1,242,618.15	0.31	109.8	Pulse	0.30	3

Quantitation Report

File Name	038SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa043019m6.b
Method File	
Method Path	
Acq Time	4/30/2019 19:58
Sample Name	mp14608-s1 4
Sample Type	Sample
Comment	
Prep Dilution	10.000
Auto Dilution	N/A
Total Dilution	10.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/30/2019 19:15
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	205.506	ug/l	2.16	125,116.00	7.739E-02	Pulse	0.25	3
B			1	317.096	ug/l	1.02	126,698.24	7.837E-02	Pulse	0.15	3
Ca			1	93909.064	ug/l	0.28	6,731,566.98	2.811E+00	Analog	0.10	3
Sr			1	386.743	ug/l	0.20	1,217,892.22	4.621E-01	Pulse	0.10	3
Mo			1	278.662	ug/l	0.44	176,599.82	6.701E-02	Pulse	0.10	3
Ag			1	100.666	ug/l	0.95	145,197.33	5.089E-02	Pulse	0.10	3
Sn			1	209.052	ug/l	1.84	198,392.57	6.953E-02	Pulse	0.10	3
Sb			1	90.701	ug/l	1.15	96,284.32	2.571E-02	Pulse	0.10	3
Ba			1	659.366	ug/l	1.26	286,821.76	7.658E-02	Pulse	0.10	3
Tl			1	204.333	ug/l	1.09	491,106.49	2.372E-01	Pulse	0.10	3
Pb			1	530.604	ug/l	0.70	438,981.67	2.120E-01	Pulse	0.10	3
Pb			1	516.518	ug/l	1.16	370,693.05	1.790E-01	Pulse	0.10	3
Pb			1	522.297	ug/l	0.73	1,725,065.47	8.331E-01	Pulse	0.10	3
Na			2	10428.481	ug/l	1.87	850,299.01	1.002E+01	Pulse	0.30	3
Mg			2	45081.927	ug/l	1.15	1,653,322.09	1.948E+01	Pulse	0.30	3
Al			2	103309.419	ug/l	1.71	1,189,389.33	1.401E+01	Pulse	0.30	3
K			2	25341.044	ug/l	2.06	583,384.59	6.873E+00	Pulse	0.30	3
Ca			2	96513.290	ug/l	1.30	113,743.84	1.340E+00	Pulse	0.30	3
Ti			2	1067.354	ug/l	1.64	10,904.77	1.284E-01	Pulse	0.30	3
V			2	598.801	ug/l	2.33	190,504.31	2.244E+00	Pulse	0.30	3
Cr			2	366.558	ug/l	1.32	149,121.41	1.757E+00	Pulse	0.30	3
Mn			2	3066.640	ug/l	1.86	600,790.22	7.078E+00	Pulse	0.30	3
Fe			2	204646.063	ug/l	1.71	64,614,932.99	7.612E+02	Analog	0.30	3
Co			2	265.398	ug/l	1.55	178,314.05	2.101E+00	Pulse	0.30	3
Ni			2	460.231	ug/l	1.61	82,920.42	9.768E-01	Pulse	0.30	3
Cu			2	464.925	ug/l	2.20	231,259.65	2.724E+00	Pulse	0.30	3
Zn			2	1295.679	ug/l	2.10	81,815.83	9.639E-01	Pulse	0.30	3
As			2	368.279	ug/l	1.00	12,985.84	1.530E-01	Pulse	1.00	3
Cd			2	210.063	ug/l	0.34	16,524.10	4.406E-02	Pulse	0.30	3
Sn			2	204.767	ug/l	1.17	33,844.06	9.024E-02	Pulse	0.30	3
Se			3	512.713	ug/l	0.93	3,240.32	4.272E-02	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,616,664.71	0.54	105.5	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,394,780.69	1.50	119.3	Pulse	0.10	3
1	Ge		426,428.60	2.10	114.5	Pulse	0.10	3
1	Ge		587,791.70	2.32	114.7	Pulse	0.10	3
1	Rh		2,635,535.90	1.52	110.3	Pulse	0.10	3
1	In		2,853,400.99	1.73	110.9	Pulse	0.10	3
1	Tb		3,745,304.22	1.70	109.7	Pulse	0.10	3
1	Ho		367,295.98	0.81	113.6	Pulse	0.10	3
1	Bi		2,070,540.65	0.90	104.1	Pulse	0.10	3
2	Sc		84,898.85	1.43	118.8	Pulse	0.30	3
2	Ge		44,951.55	2.27	117.6	Pulse	0.30	3
2	Ge		66,652.30	0.57	116.2	Pulse	0.30	3
2	Rh		1,142,327.76	1.15	110.1	Pulse	0.30	3
2	In		375,075.81	0.81	106.3	Pulse	0.30	3
2	Tb		1,349,156.75	1.06	103.2	Pulse	0.30	3
2	Ho		135,417.78	1.48	108.4	Pulse	0.30	3
2	Bi		865,358.70	1.24	99.1	Pulse	0.30	3
3	Sc		85,461.78	0.76	129.4	Pulse	0.30	3
3	Ge		50,214.77	0.60	123.7	Pulse	0.30	3
3	Ge		75,856.31	0.58	121.6	Pulse	0.30	3
3	Rh		812,542.92	0.21	112.3	Pulse	0.30	3
3	Tb		1,229,976.79	0.18	108.7	Pulse	0.30	3

Quantitation Report

File Name 039SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa043019m6.b
Method File
Method Path
Acq Time 4/30/2019 20:03
Sample Name mp14608-s2
Sample Type Sample
Comment
Prep Dilution 10.000
Auto Dilution N/A
Total Dilution 10.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/30/2019 19:15
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	209.401	ug/l	0.80	128,793.72	7.885E-02	Pulse	0.25	3
B			1	331.967	ug/l	1.18	133,816.50	8.193E-02	Pulse	0.15	3
Ca			1	115816.033	ug/l	0.41	8,448,881.75	3.464E+00	Analog	0.10	3
Sr			1	490.549	ug/l	0.87	1,564,750.86	5.861E-01	Pulse	0.10	3
Mo			1	273.955	ug/l	0.29	175,873.84	6.588E-02	Pulse	0.10	3
Ag			1	101.874	ug/l	0.49	149,058.56	5.150E-02	Pulse	0.10	3
Sn			1	206.701	ug/l	0.65	198,969.65	6.875E-02	Pulse	0.10	3
Sb			1	97.326	ug/l	0.96	104,009.76	2.759E-02	Pulse	0.10	3
Ba			1	754.394	ug/l	0.45	330,356.98	8.762E-02	Pulse	0.10	3
Tl			1	206.664	ug/l	0.54	497,424.50	2.399E-01	Pulse	0.10	3
Pb			1	487.375	ug/l	0.70	403,814.81	1.947E-01	Pulse	0.10	3
Pb			1	468.973	ug/l	0.90	337,075.87	1.625E-01	Pulse	0.10	3
Pb			1	475.049	ug/l	0.23	1,571,313.30	7.578E-01	Pulse	0.10	3
Na			2	10881.799	ug/l	4.08	875,167.34	1.045E+01	Pulse	0.30	3
Mg			2	46120.708	ug/l	3.95	1,668,856.25	1.992E+01	Pulse	0.30	3
Al			2	117460.855	ug/l	3.43	1,334,351.65	1.593E+01	Pulse	0.30	3
K			2	25603.939	ug/l	3.40	581,616.09	6.943E+00	Pulse	0.30	3
Ca			2	120389.847	ug/l	4.03	139,926.59	1.670E+00	Pulse	0.30	3
Ti			2	1392.413	ug/l	1.76	14,040.49	1.675E-01	Pulse	0.30	3
V			2	702.078	ug/l	3.41	220,414.08	2.631E+00	Pulse	0.30	3
Cr			2	393.791	ug/l	4.01	158,005.83	1.886E+00	Pulse	0.30	3
Mn			2	3297.315	ug/l	3.38	637,485.44	7.610E+00	Pulse	0.30	3
Fe			2	234296.758	ug/l	2.61	73,018,477.10	8.715E+02	Analog	0.30	3
Co			2	279.927	ug/l	3.47	185,594.32	2.216E+00	Pulse	0.30	3
Ni			2	466.474	ug/l	3.53	82,943.81	9.900E-01	Pulse	0.30	3
Cu			2	474.575	ug/l	4.09	232,885.98	2.780E+00	Pulse	0.30	3
Zn			2	1383.312	ug/l	3.19	86,175.43	1.029E+00	Pulse	0.30	3
As			2	336.422	ug/l	4.25	11,706.20	1.397E-01	Pulse	1.00	3
Cd			2	216.315	ug/l	1.58	16,727.95	4.537E-02	Pulse	0.30	3
Sn			2	216.246	ug/l	2.97	35,095.66	9.521E-02	Pulse	0.30	3
Se			3	522.540	ug/l	0.62	3,282.99	4.354E-02	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,633,307.64	0.23	106.6	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,439,233.61	1.16	121.5	Pulse	0.10	3
1	Ge		427,309.41	0.09	114.7	Pulse	0.10	3
1	Ge		589,132.80	0.76	114.9	Pulse	0.10	3
1	Rh		2,669,749.44	0.69	111.7	Pulse	0.10	3
1	In		2,894,307.18	0.88	112.5	Pulse	0.10	3
1	Tb		3,770,453.69	0.86	110.4	Pulse	0.10	3
1	Ho		370,869.67	1.04	114.7	Pulse	0.10	3
1	Bi		2,073,550.23	1.28	104.3	Pulse	0.10	3
2	Sc		83,829.29	3.23	117.3	Pulse	0.30	3
2	Ge		44,550.61	1.66	116.6	Pulse	0.30	3
2	Ge		66,216.97	0.40	115.4	Pulse	0.30	3
2	Rh		1,115,121.24	2.33	107.5	Pulse	0.30	3
2	In		368,744.73	2.05	104.6	Pulse	0.30	3
2	Tb		1,321,691.61	3.43	101.1	Pulse	0.30	3
2	Ho		133,976.32	2.66	107.3	Pulse	0.30	3
2	Bi		847,596.48	1.21	97.1	Pulse	0.30	3
3	Sc		86,019.02	0.75	130.3	Pulse	0.30	3
3	Ge		49,887.04	0.84	122.9	Pulse	0.30	3
3	Ge		75,406.54	0.55	120.9	Pulse	0.30	3
3	Rh		810,702.73	0.09	112.0	Pulse	0.30	3
3	Tb		1,225,464.47	0.59	108.3	Pulse	0.30	3

Quantitation Report

File Name 040SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa043019m6.b
Method File
Method Path
Acq Time 4/30/2019 20:08
Sample Name jc86769-1
Sample Type Sample
Comment
Prep Dilution 10.000
Auto Dilution N/A
Total Dilution 10.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/30/2019 19:15
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	7.551	ug/l	6.73	4,695.37	2.847E-03	Pulse	0.25	3
B			1	124.314	ug/l	0.81	53,100.60	3.221E-02	Pulse	0.15	3
Ca			1	88226.891	ug/l	0.90	6,412,531.57	2.642E+00	Analog	0.10	3
Sr			1	180.912	ug/l	0.85	572,552.80	2.163E-01	Pulse	0.10	3
Mo			1	88.105	ug/l	2.86	56,082.25	2.119E-02	Pulse	0.10	3
Ag			1	0.556	ug/l	6.74	843.38	2.926E-04	Pulse	0.10	3
Sn			1	45.297	ug/l	0.21	43,086.62	1.496E-02	Pulse	0.10	3
Sb			1	5.228	ug/l	5.76	5,777.96	1.534E-03	Pulse	0.10	3
Ba			1	627.587	ug/l	0.74	274,434.70	7.289E-02	Pulse	0.10	3
Tl			1	5.366	ug/l	2.79	13,086.25	6.282E-03	Pulse	0.10	3
Pb			1	670.505	ug/l	0.52	557,859.32	2.679E-01	Pulse	0.10	3
Pb			1	648.172	ug/l	0.58	467,791.91	2.246E-01	Pulse	0.10	3
Pb			1	655.381	ug/l	0.39	2,176,774.59	1.045E+00	Pulse	0.10	3
Na			2	897.292	ug/l	0.64	80,348.70	9.438E-01	Pulse	0.30	3
Mg			2	31354.909	ug/l	1.22	1,153,573.25	1.355E+01	Pulse	0.30	3
Al			2	110985.628	ug/l	1.22	1,281,354.08	1.505E+01	Pulse	0.30	3
K			2	11316.465	ug/l	1.84	266,122.32	3.126E+00	Pulse	0.30	3
Ca			2	90504.624	ug/l	1.14	106,986.26	1.257E+00	Pulse	0.30	3
Ti			2	997.304	ug/l	3.36	10,218.79	1.200E-01	Pulse	0.30	3
V			2	346.205	ug/l	1.02	110,521.08	1.298E+00	Pulse	0.30	3
Cr			2	163.859	ug/l	1.75	67,326.87	7.909E-01	Pulse	0.30	3
Mn			2	4833.316	ug/l	1.33	949,535.94	1.115E+01	Pulse	0.30	3
Fe			2	238926.745	ug/l	1.63	75,653,450.33	8.887E+02	Analog	0.30	3
Co			2	72.651	ug/l	0.77	49,009.16	5.757E-01	Pulse	0.30	3
Ni			2	213.805	ug/l	0.68	38,762.18	4.553E-01	Pulse	0.30	3
Cu			2	270.767	ug/l	1.03	136,094.57	1.599E+00	Pulse	0.30	3
Zn			2	1106.799	ug/l	1.89	70,154.46	8.241E-01	Pulse	0.30	3
As			2	119.259	ug/l	1.53	4,221.22	4.958E-02	Pulse	1.00	3
Cd			2	10.274	ug/l	3.01	711.58	1.896E-03	Pulse	0.30	3
Sn			2	42.964	ug/l	2.08	7,540.76	2.009E-02	Pulse	0.30	3
Se			3	11.910	ug/l	4.52	75.80	1.015E-03	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,648,937.85	1.66	107.6	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,427,648.56	1.50	120.9	Pulse	0.10	3
1	Ge		427,540.24	1.92	114.8	Pulse	0.10	3
1	Ge		587,924.39	1.66	114.7	Pulse	0.10	3
1	Rh		2,647,190.85	1.88	110.8	Pulse	0.10	3
1	In		2,881,017.86	1.24	112.0	Pulse	0.10	3
1	Tb		3,764,995.78	0.75	110.3	Pulse	0.10	3
1	Ho		367,216.78	0.87	113.5	Pulse	0.10	3
1	Bi		2,082,576.22	2.05	104.7	Pulse	0.10	3
2	Sc		85,137.88	1.23	119.2	Pulse	0.30	3
2	Ge		44,581.73	0.60	116.7	Pulse	0.30	3
2	Ge		66,856.13	0.49	116.5	Pulse	0.30	3
2	Rh		1,148,950.34	0.63	110.7	Pulse	0.30	3
2	In		375,244.30	0.96	106.4	Pulse	0.30	3
2	Tb		1,339,789.29	0.56	102.4	Pulse	0.30	3
2	Ho		134,281.17	0.88	107.5	Pulse	0.30	3
2	Bi		869,344.20	0.48	99.6	Pulse	0.30	3
3	Sc		85,202.68	0.77	129.0	Pulse	0.30	3
3	Ge		50,571.36	1.09	124.6	Pulse	0.30	3
3	Ge		74,673.19	1.58	119.7	Pulse	0.30	3
3	Rh		814,963.67	1.03	112.6	Pulse	0.30	3
3	Tb		1,233,868.70	1.03	109.0	Pulse	0.30	3

Quantitation Report

File Name 041SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa043019m6.b
Method File
Method Path
Acq Time 4/30/2019 20:13
Sample Name jc86769-3
Sample Type Sample
Comment
Prep Dilution 20.000
Auto Dilution N/A
Total Dilution 20.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/30/2019 19:15
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	5.964	ug/l	11.81	1,894.80	1.126E-03	Pulse	0.25	3
B			1	185.998	ug/l	2.30	41,560.09	2.471E-02	Pulse	0.15	3
Ca			1	52319.246	ug/l	0.22	1,922,318.88	7.922E-01	Pulse	0.10	3
Sr			1	180.449	ug/l	0.34	294,719.65	1.080E-01	Pulse	0.10	3
Mo			1	108.403	ug/l	2.16	35,580.21	1.304E-02	Pulse	0.10	3
Ag			1	1.870	ug/l	13.62	1,420.12	4.842E-04	Pulse	0.10	3
Sn			1	75.125	ug/l	0.64	36,282.85	1.238E-02	Pulse	0.10	3
Sb			1	16.397	ug/l	5.36	8,976.22	2.375E-03	Pulse	0.10	3
Ba			1	964.491	ug/l	0.50	211,774.08	5.602E-02	Pulse	0.10	3
Tl			1	5.629	ug/l	1.91	7,051.96	3.321E-03	Pulse	0.10	3
Pb			1	1031.804	ug/l	0.68	437,589.93	2.061E-01	Pulse	0.10	3
Pb			1	967.137	ug/l	0.60	355,777.47	1.676E-01	Pulse	0.10	3
Pb			1	991.407	ug/l	0.65	1,678,425.69	7.907E-01	Pulse	0.10	3
Na			2	1151.662	ug/l	1.59	54,181.65	6.378E-01	Pulse	0.30	3
Mg			2	22153.798	ug/l	0.98	407,586.91	4.798E+00	Pulse	0.30	3
Al			2	101933.387	ug/l	0.08	587,869.72	6.920E+00	Pulse	0.30	3
K			2	11968.804	ug/l	0.65	144,577.34	1.702E+00	Pulse	0.30	3
Ca			2	53467.268	ug/l	0.62	31,769.26	3.740E-01	Pulse	0.30	3
Ti			2	1431.796	ug/l	0.60	7,319.46	8.616E-02	Pulse	0.30	3
V			2	443.415	ug/l	0.44	70,675.03	8.319E-01	Pulse	0.30	3
Cr			2	377.326	ug/l	0.20	77,229.71	9.091E-01	Pulse	0.30	3
Mn			2	10508.076	ug/l	0.31	1,030,052.01	1.212E+01	Pulse	0.30	3
Fe			2	592345.871	ug/l	0.20	93,587,787.39	1.102E+03	Analog	0.30	3
Co			2	99.870	ug/l	1.98	33,637.66	3.960E-01	Pulse	0.30	3
Ni			2	326.851	ug/l	1.86	29,621.16	3.487E-01	Pulse	0.30	3
Cu			2	623.569	ug/l	0.64	156,019.03	1.836E+00	Pulse	0.30	3
Zn			2	2674.065	ug/l	0.34	84,483.52	9.944E-01	Pulse	0.30	3
As			2	199.164	ug/l	0.71	3,518.39	4.141E-02	Pulse	1.00	3
Cd			2	41.324	ug/l	8.62	1,563.83	4.088E-03	Pulse	0.30	3
Sn			2	67.938	ug/l	1.24	6,197.94	1.619E-02	Pulse	0.30	3
Se			3	13.126	ug/l	13.84	43.53	5.695E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,682,044.20	0.59	109.8	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,426,674.50	1.19	120.9	Pulse	0.10	3
1	Ge		438,153.08	1.17	117.7	Pulse	0.10	3
1	Ge		603,036.58	0.98	117.7	Pulse	0.10	3
1	Rh		2,728,827.36	1.33	114.2	Pulse	0.10	3
1	In		2,931,529.45	1.22	113.9	Pulse	0.10	3
1	Tb		3,780,631.82	1.75	110.7	Pulse	0.10	3
1	Ho		363,917.85	1.75	112.5	Pulse	0.10	3
1	Bi		2,122,768.82	1.97	106.8	Pulse	0.10	3
2	Sc		84,954.73	0.24	118.9	Pulse	0.30	3
2	Ge		45,086.42	0.83	118.0	Pulse	0.30	3
2	Ge		67,149.69	0.19	117.0	Pulse	0.30	3
2	Rh		1,160,382.70	0.83	111.8	Pulse	0.30	3
2	In		382,749.79	1.49	108.5	Pulse	0.30	3
2	Tb		1,354,296.75	0.68	103.6	Pulse	0.30	3
2	Ho		132,417.35	0.42	106.0	Pulse	0.30	3
2	Bi		882,306.80	0.45	101.1	Pulse	0.30	3
3	Sc		84,501.30	0.61	128.0	Pulse	0.30	3
3	Ge		50,664.96	0.82	124.8	Pulse	0.30	3
3	Ge		76,452.32	0.29	122.6	Pulse	0.30	3
3	Rh		827,786.13	0.10	114.4	Pulse	0.30	3
3	Tb		1,227,268.36	0.25	108.4	Pulse	0.30	3

Quantitation Report

File Name	042SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa043019m6.b
Method File	
Method Path	
Acq Time	4/30/2019 20:18
Sample Name	jc86769-7
Sample Type	Sample
Comment	
Prep Dilution	20.000
Auto Dilution	N/A
Total Dilution	20.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/30/2019 19:15
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	7.083	ug/l	1.31	2,240.18	1.337E-03	Pulse	0.25	3
B			1	122.440	ug/l	3.01	28,653.51	1.710E-02	Pulse	0.15	3
Ca			1	161190.187	ug/l	1.14	5,838,091.16	2.414E+00	Analog	0.10	3
Sr			1	293.949	ug/l	1.72	478,121.78	1.758E-01	Pulse	0.10	3
Mo			1	50.127	ug/l	1.92	16,412.29	6.035E-03	Pulse	0.10	3
Ag			1	1.547	ug/l	13.75	1,180.09	4.027E-04	Pulse	0.10	3
Sn			1	172.421	ug/l	0.95	83,722.66	2.859E-02	Pulse	0.10	3
Sb			1	13.729	ug/l	1.37	7,532.05	1.997E-03	Pulse	0.10	3
Ba			1	692.008	ug/l	0.79	151,554.07	4.020E-02	Pulse	0.10	3
Tl			1	3.827	ug/l	2.10	4,827.62	2.276E-03	Pulse	0.10	3
Pb			1	1002.670	ug/l	0.57	424,933.86	2.003E-01	Pulse	0.10	3
Pb			1	954.233	ug/l	1.16	350,814.61	1.654E-01	Pulse	0.10	3
Pb			1	968.217	ug/l	0.98	1,638,105.98	7.722E-01	Pulse	0.10	3
Na			2	1064.673	ug/l	1.87	50,715.67	5.964E-01	Pulse	0.30	3
Mg			2	39218.482	ug/l	0.51	721,246.20	8.481E+00	Pulse	0.30	3
Al			2	88134.122	ug/l	0.76	508,998.96	5.985E+00	Pulse	0.30	3
K			2	10069.285	ug/l	0.88	123,151.34	1.448E+00	Pulse	0.30	3
Ca			2	164157.629	ug/l	0.95	96,961.39	1.140E+00	Pulse	0.30	3
Ti			2	1509.948	ug/l	1.00	7,727.45	9.086E-02	Pulse	0.30	3
V			2	274.358	ug/l	0.98	43,825.50	5.153E-01	Pulse	0.30	3
Cr			2	259.565	ug/l	0.52	53,453.64	6.285E-01	Pulse	0.30	3
Mn			2	6155.240	ug/l	0.89	604,076.66	7.103E+00	Pulse	0.30	3
Fe			2	217453.847	ug/l	0.23	34,396,794.19	4.044E+02	Analog	0.30	3
Co			2	70.179	ug/l	2.06	23,688.21	2.785E-01	Pulse	0.30	3
Ni			2	243.479	ug/l	1.42	22,150.58	2.604E-01	Pulse	0.30	3
Cu			2	909.728	ug/l	0.68	226,748.18	2.666E+00	Pulse	0.30	3
Zn			2	1541.661	ug/l	1.47	48,947.33	5.756E-01	Pulse	0.30	3
As			2	122.892	ug/l	1.74	2,175.49	2.558E-02	Pulse	1.00	3
Cd			2	10.133	ug/l	6.24	308.04	7.974E-04	Pulse	0.30	3
Sn			2	167.417	ug/l	1.66	14,582.40	3.776E-02	Pulse	0.30	3
Se			3	12.553	ug/l	5.52	41.73	5.457E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,675,560.78	1.76	109.3	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,418,526.47	1.97	120.5	Pulse	0.10	3
1	Ge		438,290.66	1.73	117.7	Pulse	0.10	3
1	Ge		610,620.11	1.35	119.1	Pulse	0.10	3
1	Rh		2,719,885.90	1.68	113.8	Pulse	0.10	3
1	In		2,928,331.14	1.47	113.8	Pulse	0.10	3
1	Tb		3,770,455.05	1.87	110.4	Pulse	0.10	3
1	Ho		361,747.38	2.66	111.9	Pulse	0.10	3
1	Bi		2,121,170.07	1.40	106.7	Pulse	0.10	3
2	Sc		85,047.49	0.74	119.0	Pulse	0.30	3
2	Ge		46,088.13	1.16	120.6	Pulse	0.30	3
2	Ge		68,334.54	0.47	119.1	Pulse	0.30	3
2	Rh		1,171,728.18	0.50	112.9	Pulse	0.30	3
2	In		386,228.03	0.44	109.5	Pulse	0.30	3
2	Tb		1,365,068.42	0.24	104.4	Pulse	0.30	3
2	Ho		134,129.96	0.87	107.4	Pulse	0.30	3
2	Bi		886,281.46	0.70	101.5	Pulse	0.30	3
3	Sc		84,858.65	1.07	128.5	Pulse	0.30	3
3	Ge		50,863.37	0.09	125.3	Pulse	0.30	3
3	Ge		76,474.70	0.68	122.6	Pulse	0.30	3
3	Rh		826,909.55	0.09	114.3	Pulse	0.30	3
3	Tb		1,237,660.58	0.25	109.3	Pulse	0.30	3

Quantitation Report

File Name	043SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa043019m6.b
Method File	
Method Path	
Acq Time	4/30/2019 20:23
Sample Name	mp14585-mb1conf
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/30/2019 19:15
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.004	ug/l	54.02	17.33	1.048E-05	Pulse	0.25	3
B			1	6.573	ug/l	1.82	17,046.61	1.031E-02	Pulse	0.15	3
Ca			1	-8.966	ug/l	-29.70	26,815.58	1.129E-02	Pulse	0.10	3
Sr			1	0.030	ug/l	5.91	1,166.75	4.314E-04	Pulse	0.10	3
Mo			1	0.132	ug/l	16.14	453.36	1.674E-04	Pulse	0.10	3
Ag			1	0.014	ug/l	23.51	136.67	4.768E-05	Pulse	0.10	3
Sn			1	1.916	ug/l	2.17	8,756.03	3.052E-03	Pulse	0.10	3
Sb			1	0.116	ug/l	22.83	813.38	2.200E-04	Pulse	0.10	3
Ba			1	0.032	ug/l	46.99	143.34	3.879E-05	Pulse	0.10	3
Tl			1	0.013	ug/l	38.22	283.35	1.329E-04	Pulse	0.10	3
Pb			1	0.125	ug/l	17.49	793.38	3.729E-04	Pulse	0.10	3
Pb			1	0.150	ug/l	5.58	713.38	3.350E-04	Pulse	0.10	3
Pb			1	0.138	ug/l	10.47	3,220.26	1.514E-03	Pulse	0.10	3
Na			2	8.005	ug/l	14.72	10,598.99	1.277E-01	Pulse	0.30	3
Mg			2	-3.755	ug/l	-9.24	676.69	8.145E-03	Pulse	0.30	3
Al			2	-14.566	ug/l	-3.62	365.57	4.405E-03	Pulse	0.30	3
K			2	0.051	ug/l	1685.84	8,565.61	1.032E-01	Pulse	0.30	3
Ca			2	-6.823	ug/l	-43.62	283.34	3.411E-03	Pulse	0.30	3
Ti			2	0.256	ug/l	45.13	16.67	2.007E-04	Pulse	0.30	3
V			2	0.138	ug/l	14.21	336.67	4.052E-03	Pulse	0.30	3
Cr			2	0.221	ug/l	10.13	1,280.07	1.541E-02	Pulse	0.30	3
Mn			2	0.187	ug/l	26.18	356.68	4.290E-03	Pulse	0.30	3
Fe			2	55.018	ug/l	1.32	89,574.46	1.079E+00	Pulse	0.30	3
Co			2	0.038	ug/l	44.62	198.89	2.402E-03	Pulse	0.30	3
Ni			2	8.672	ug/l	1.16	7,849.72	9.455E-02	Pulse	0.30	3
Cu			2	1.470	ug/l	4.65	5,912.24	7.122E-02	Pulse	0.30	3
Zn			2	2.146	ug/l	2.72	1,096.72	1.321E-02	Pulse	0.30	3
As			2	0.047	ug/l	21.38	14.00	1.686E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	0.266	ug/l	3.20	3.30	8.907E-06	Pulse	0.30	3
Sn			2	1.369	ug/l	8.69	1,643.44	4.437E-03	Pulse	0.30	3
Se			3	0.064	ug/l	24.97	3.93	4.945E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,654,007.23	0.91	107.9	Pulse	0.10	3
1	Sc		2,374,423.82	0.86	118.3	Pulse	0.10	3
1	Ge		442,124.80	1.65	118.7	Pulse	0.10	3
1	Ge		606,988.83	1.34	118.4	Pulse	0.10	3
1	Rh		2,703,756.84	1.44	113.1	Pulse	0.10	3
1	In		2,869,578.76	1.82	111.5	Pulse	0.10	3
1	Tb		3,694,101.71	1.47	108.2	Pulse	0.10	3
1	Ho		348,227.99	1.43	107.7	Pulse	0.10	3
1	Bi		2,128,945.96	1.43	107.1	Pulse	0.10	3
2	Sc		83,027.36	1.57	116.2	Pulse	0.30	3
2	Ge		46,042.44	0.91	120.5	Pulse	0.30	3
2	Ge		68,479.41	2.35	119.3	Pulse	0.30	3
2	Rh		1,156,527.76	0.73	111.5	Pulse	0.30	3
2	In		370,428.42	0.79	105.0	Pulse	0.30	3
2	Tb		1,318,892.52	0.40	100.8	Pulse	0.30	3
2	Ho		127,383.75	1.16	102.0	Pulse	0.30	3
2	Bi		881,681.70	0.79	101.0	Pulse	0.30	3
3	Sc		85,047.48	0.97	128.8	Pulse	0.30	3
3	Ge		52,046.05	0.23	128.2	Pulse	0.30	3
3	Ge		79,574.98	1.21	127.6	Pulse	0.30	3
3	Rh		848,909.13	0.22	117.3	Pulse	0.30	3
3	Tb		1,234,742.21	0.58	109.1	Pulse	0.30	3

Quantitation Report

File Name	044SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa043019m6.b
Method File	
Method Path	
Acq Time	4/30/2019 20:28
Sample Name	mp14585-b2conf
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/30/2019 19:15
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	77.105	ug/l	0.79	233,232.13	1.452E-01	Pulse	0.25	3
B			1	97.172	ug/l	1.73	190,826.74	1.188E-01	Pulse	0.15	3
Ca			1	4003.903	ug/l	0.72	1,411,867.84	6.092E-01	Pulse	0.10	3
Sr			1	79.776	ug/l	1.34	1,255,844.04	4.766E-01	Pulse	0.10	3
Mo			1	73.994	ug/l	0.35	234,376.47	8.896E-02	Pulse	0.10	3
Ag			1	80.858	ug/l	0.57	572,499.69	2.043E-01	Pulse	0.10	3
Sn			1	74.618	ug/l	1.67	347,971.62	1.242E-01	Pulse	0.10	3
Sb			1	78.146	ug/l	0.68	405,744.94	1.106E-01	Pulse	0.10	3
Ba			1	79.731	ug/l	1.74	169,945.84	4.631E-02	Pulse	0.10	3
Tl			1	77.833	ug/l	0.56	920,506.45	4.517E-01	Pulse	0.10	3
Pb			1	77.514	ug/l	0.91	315,667.65	1.549E-01	Pulse	0.10	3
Pb			1	79.168	ug/l	0.56	279,640.53	1.372E-01	Pulse	0.10	3
Pb			1	78.121	ug/l	0.58	1,269,989.45	6.232E-01	Pulse	0.10	3
Na			2	3944.706	ug/l	0.64	1,553,439.07	1.887E+01	Pulse	0.30	3
Mg			2	3908.249	ug/l	0.86	695,904.12	8.451E+00	Pulse	0.30	3
Al			2	3701.376	ug/l	0.12	207,646.78	2.522E+00	Pulse	0.30	3
K			2	3968.729	ug/l	0.89	444,977.13	5.404E+00	Pulse	0.30	3
Ca			2	4315.637	ug/l	0.67	24,915.39	3.026E-01	Pulse	0.30	3
Ti			2	68.225	ug/l	3.26	3,382.60	4.108E-02	Pulse	0.30	3
V			2	81.525	ug/l	1.03	125,842.94	1.528E+00	Pulse	0.30	3
Cr			2	80.275	ug/l	1.24	158,303.50	1.923E+00	Pulse	0.30	3
Mn			2	75.102	ug/l	1.38	71,514.80	8.685E-01	Pulse	0.30	3
Fe			2	4015.341	ug/l	1.22	6,153,322.67	7.473E+01	Analog	0.30	3
Co			2	78.128	ug/l	0.86	254,558.14	3.091E+00	Pulse	0.30	3
Ni			2	78.456	ug/l	0.41	68,591.83	8.330E-01	Pulse	0.30	3
Cu			2	76.828	ug/l	0.73	185,765.84	2.256E+00	Pulse	0.30	3
Zn			2	70.689	ug/l	1.73	21,964.80	2.668E-01	Pulse	0.30	3
As			2	70.600	ug/l	0.54	12,073.46	1.466E-01	Pulse	1.00	3
Cd			2	76.085	ug/l	1.62	29,081.53	8.000E-02	Pulse	0.30	3
Sn			2	76.709	ug/l	0.80	60,972.68	1.677E-01	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	328.532	ug/l	1.35	10,739.31	1.368E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,606,591.90	1.09	104.8	Pulse	0.10	3
1	Sc		2,317,844.71	2.17	115.5	Pulse	0.10	3
1	Ge		421,989.98	0.88	113.3	Pulse	0.10	3
1	Ge		589,540.86	1.58	115.0	Pulse	0.10	3
1	Rh		2,634,613.56	1.55	110.3	Pulse	0.10	3
1	In		2,801,539.87	0.71	108.9	Pulse	0.10	3
1	Tb		3,669,536.61	1.50	107.5	Pulse	0.10	3
1	Ho		346,123.84	2.28	107.0	Pulse	0.10	3
1	Bi		2,037,948.98	0.74	102.5	Pulse	0.10	3
2	Sc		82,340.86	0.41	115.3	Pulse	0.30	3
2	Ge		44,845.81	0.96	117.4	Pulse	0.30	3
2	Ge		67,087.06	1.34	116.9	Pulse	0.30	3
2	Rh		1,137,340.47	1.26	109.6	Pulse	0.30	3
2	In		363,501.00	0.74	103.1	Pulse	0.30	3
2	Tb		1,307,648.94	0.56	100.0	Pulse	0.30	3
2	Ho		126,471.11	1.14	101.3	Pulse	0.30	3
2	Bi		842,616.36	0.78	96.5	Pulse	0.30	3
3	Sc		85,391.70	0.59	129.3	Pulse	0.30	3
3	Ge		51,613.43	0.99	127.2	Pulse	0.30	3
3	Ge		78,503.01	0.96	125.9	Pulse	0.30	3
3	Rh		835,194.40	0.66	115.4	Pulse	0.30	3
3	Tb		1,250,847.45	0.95	110.5	Pulse	0.30	3

Quantitation Report

File Name 045_CCV.d
File Path C:\Agilent\ICPMH\1\DATA\xa043019m6.b
Method File
Method Path
Acq Time 4/30/2019 20:33
Sample Name CCVA
Sample Type CCV
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/30/2019 19:15
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	49.945	ug/l	0.85	305,991.76	1.881E-01	Pulse	0.25	3
B			1	111.579	ug/l	0.90	438,631.96	2.696E-01	Pulse	0.15	3
Ca			1	5149.503	ug/l	0.50	3,651,030.15	1.547E+00	Pulse	0.10	3
Sr			1	51.835	ug/l	1.27	1,651,885.13	6.193E-01	Pulse	0.10	3
Mo			1	50.900	ug/l	0.61	326,511.52	1.224E-01	Pulse	0.10	3
Ag			1	49.500	ug/l	0.27	722,412.54	2.502E-01	Pulse	0.10	3
Sn			1	49.497	ug/l	0.36	475,890.17	1.648E-01	Pulse	0.10	3
Sb			1	55.008	ug/l	0.31	579,931.96	1.557E-01	Pulse	0.10	3
Ba			1	52.069	ug/l	0.24	225,349.18	6.048E-02	Pulse	0.10	3
Tl			1	50.920	ug/l	0.90	1,206,920.32	5.910E-01	Pulse	0.10	3
Pb			1	51.132	ug/l	1.35	417,289.77	2.043E-01	Pulse	0.10	3
Pb			1	51.449	ug/l	1.10	364,171.19	1.783E-01	Pulse	0.10	3
Pb			1	51.119	ug/l	0.91	1,665,368.76	8.154E-01	Pulse	0.10	3
Na			2	4968.180	ug/l	0.52	3,928,334.01	4.738E+01	Pulse	0.30	3
Mg			2	5092.368	ug/l	0.52	1,823,640.55	2.200E+01	Pulse	0.30	3
Al			2	4812.563	ug/l	1.49	541,693.07	6.535E+00	Pulse	0.30	3
K			2	5085.035	ug/l	1.15	1,134,617.56	1.369E+01	Pulse	0.30	3
Ca			2	5321.278	ug/l	1.49	61,389.05	7.405E-01	Pulse	0.30	3
Ti			2	49.148	ug/l	3.28	4,906.33	5.916E-02	Pulse	0.30	3
V			2	52.146	ug/l	1.14	162,036.41	1.955E+00	Pulse	0.30	3
Cr			2	51.027	ug/l	1.63	202,370.80	2.441E+00	Pulse	0.30	3
Mn			2	48.193	ug/l	1.61	92,350.05	1.114E+00	Pulse	0.30	3
Fe			2	5000.709	ug/l	1.76	15,421,662.72	1.860E+02	Analog	0.30	3
Co			2	49.564	ug/l	0.72	325,147.07	3.922E+00	Pulse	0.30	3
Ni			2	49.573	ug/l	0.83	87,204.42	1.052E+00	Pulse	0.30	3
Cu			2	48.915	ug/l	1.53	237,482.12	2.865E+00	Pulse	0.30	3
Zn			2	48.665	ug/l	3.00	30,284.70	3.653E-01	Pulse	0.30	3
As			2	50.667	ug/l	0.96	17,443.98	2.104E-01	Pulse	1.00	3
Cd			2	49.844	ug/l	0.56	39,109.69	1.049E-01	Pulse	0.30	3
Sn			2	50.848	ug/l	0.30	82,722.94	2.219E-01	Pulse	0.30	3
Se			3	192.611	ug/l	0.61	12,110.20	1.604E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,626,916.41	0.87	106.2	Pulse	0.10	3
1	Sc		2,359,964.65	1.35	117.6	Pulse	0.10	3
1	Ge		432,062.81	0.12	116.0	Pulse	0.10	3

Quantitation Report

1	Ge		596,897.94	0.79	116.5	Pulse	0.10	3
1	Rh		2,667,740.17	1.38	111.6	Pulse	0.10	3
1	In		2,887,378.98	0.84	112.2	Pulse	0.10	3
1	Tb		3,725,942.86	1.18	109.1	Pulse	0.10	3
1	Ho		351,769.42	1.23	108.8	Pulse	0.10	3
1	Bi		2,042,391.53	1.32	102.7	Pulse	0.10	3
2	Sc		82,903.44	1.39	116.0	Pulse	0.30	3
2	Ge		44,728.89	2.03	117.0	Pulse	0.30	3
2	Ge		66,592.87	1.76	116.1	Pulse	0.30	3
2	Rh		1,134,919.54	1.23	109.4	Pulse	0.30	3
2	In		372,800.12	1.08	105.7	Pulse	0.30	3
2	Tb		1,325,128.49	0.77	101.3	Pulse	0.30	3
2	Ho		127,866.93	0.72	102.4	Pulse	0.30	3
2	Bi		851,747.17	0.57	97.6	Pulse	0.30	3
3	Sc		82,407.84	0.40	124.8	Pulse	0.30	3
3	Ge		49,236.21	1.04	121.3	Pulse	0.30	3
3	Ge		75,493.70	0.47	121.1	Pulse	0.30	3
3	Rh		813,877.85	0.75	112.5	Pulse	0.30	3
3	Tb		1,220,104.99	0.43	107.8	Pulse	0.30	3

Quantitation Report

File Name	046_CCB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa043019m6.b
Method File	
Method Path	
Acq Time	4/30/2019 20:38
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/30/2019 19:15
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.006	ug/l	42.93	45.33	2.777E-05	Pulse	0.25	3
B			1	4.986	ug/l	2.69	23,492.12	1.438E-02	Pulse	0.15	3
Ca			1	-10.247	ug/l	-6.34	22,402.31	9.574E-03	Pulse	0.10	3
Sr			1	0.006	ug/l	29.08	873.38	3.212E-04	Pulse	0.10	3
Mo			1	0.103	ug/l	9.17	700.04	2.571E-04	Pulse	0.10	3
Ag			1	0.011	ug/l	44.12	200.01	6.946E-05	Pulse	0.10	3
Sn			1	0.563	ug/l	6.27	5,014.28	1.734E-03	Pulse	0.10	3
Sb			1	0.093	ug/l	13.21	1,173.41	3.181E-04	Pulse	0.10	3
Ba			1	0.005	ug/l	147.72	96.67	2.630E-05	Pulse	0.10	3
Tl			1	0.024	ug/l	14.16	680.04	3.291E-04	Pulse	0.10	3
Pb			1	0.026	ug/l	40.21	470.02	2.276E-04	Pulse	0.10	3
Pb			1	0.037	ug/l	7.81	423.35	2.046E-04	Pulse	0.10	3
Pb			1	0.031	ug/l	10.58	1,890.11	9.142E-04	Pulse	0.10	3
Na			2	1.771	ug/l	11.88	8,842.39	1.065E-01	Pulse	0.30	3
Mg			2	-1.087	ug/l	-13.97	960.04	1.156E-02	Pulse	0.30	3
Al			2	14.891	ug/l	3.94	2,861.39	3.445E-02	Pulse	0.30	3
K			2	-1.951	ug/l	-23.74	8,130.95	9.789E-02	Pulse	0.30	3
Ca			2	-5.827	ug/l	-22.11	255.56	3.077E-03	Pulse	0.30	3
Ti			2	-0.005	ug/l	-623.19	3.33	4.017E-05	Pulse	0.30	3
V			2	0.024	ug/l	23.72	196.67	2.368E-03	Pulse	0.30	3
Cr			2	-0.015	ug/l	-85.78	784.47	9.444E-03	Pulse	0.30	3
Mn			2	-0.015	ug/l	-65.55	148.89	1.792E-03	Pulse	0.30	3
Fe			2	1.207	ug/l	12.78	8,356.47	1.006E-01	Pulse	0.30	3
Co			2	0.003	ug/l	87.90	95.56	1.151E-03	Pulse	0.30	3
Ni			2	-0.020	ug/l	-73.51	196.67	2.368E-03	Pulse	0.30	3
Cu			2	0.009	ug/l	163.27	2,419.10	2.913E-02	Pulse	0.30	3
Zn			2	0.637	ug/l	11.57	828.92	9.981E-03	Pulse	0.30	3
As			2	0.016	ug/l	58.78	11.33	1.364E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	0.137	ug/l	3.07	6.63	1.755E-05	Pulse	0.30	3
Sn			2	0.249	ug/l	17.05	962.26	2.548E-03	Pulse	0.30	3
Se			3	0.078	ug/l	12.24	6.73	8.830E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,634,262.08	0.59	106.6	Pulse	0.10	3
1	Sc		2,339,708.25	1.07	116.6	Pulse	0.10	3
1	Ge		427,200.94	1.53	114.7	Pulse	0.10	3
1	Ge		592,676.96	2.30	115.6	Pulse	0.10	3
1	Rh		2,721,362.25	1.65	113.9	Pulse	0.10	3
1	In		2,891,604.52	1.78	112.4	Pulse	0.10	3
1	Tb		3,686,230.78	1.36	108.0	Pulse	0.10	3
1	Ho		347,566.74	1.91	107.5	Pulse	0.10	3
1	Bi		2,068,621.74	1.55	104.0	Pulse	0.10	3
2	Sc		83,059.81	0.23	116.3	Pulse	0.30	3
2	Ge		45,114.38	1.20	118.1	Pulse	0.30	3
2	Ge		67,063.90	1.19	116.9	Pulse	0.30	3
2	Rh		1,160,726.41	0.94	111.9	Pulse	0.30	3
2	In		377,821.01	0.57	107.1	Pulse	0.30	3
2	Tb		1,331,986.09	0.78	101.9	Pulse	0.30	3
2	Ho		127,478.12	0.54	102.1	Pulse	0.30	3
2	Bi		872,661.49	0.43	100.0	Pulse	0.30	3
3	Sc		83,011.85	1.12	125.7	Pulse	0.30	3
3	Ge		50,646.13	0.90	124.8	Pulse	0.30	3
3	Ge		76,234.72	0.58	122.2	Pulse	0.30	3
3	Rh		839,552.29	0.70	116.0	Pulse	0.30	3
3	Tb		1,227,345.58	0.15	108.4	Pulse	0.30	3

Quantitation Report

File Name 047SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa043019m6.b
Method File
Method Path
Acq Time 4/30/2019 20:43
Sample Name jc86976-6
Sample Type Sample
Comment
Prep Dilution 5.000
Auto Dilution N/A
Total Dilution 5.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/30/2019 19:15
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.020	ug/l	42.03	29.33	1.890E-05	Pulse	0.25	3
B			1	110.792	ug/l	1.92	86,027.49	5.550E-02	Pulse	0.15	3
Ca			1	585138.361	ug/l	0.63	78,892,302.16	3.489E+01	Analog	0.10	3
Sr			1	1533.531	ug/l	1.06	9,075,103.62	3.663E+00	Analog	0.10	3
Mo			1	34.817	ug/l	2.71	41,517.87	1.675E-02	Pulse	0.10	3
Ag			1	0.058	ug/l	23.98	193.34	7.021E-05	Pulse	0.10	3
Sn			1	1.674	ug/l	7.09	2,686.99	9.746E-04	Pulse	0.10	3
Sb			1	0.374	ug/l	15.92	976.74	2.675E-04	Pulse	0.10	3
Ba			1	28.207	ug/l	0.62	23,996.06	6.571E-03	Pulse	0.10	3
Tl			1	0.070	ug/l	20.13	423.35	2.176E-04	Pulse	0.10	3
Pb			1	0.583	ug/l	15.18	1,146.75	5.894E-04	Pulse	0.10	3
Pb			1	0.666	ug/l	16.60	1,043.41	5.363E-04	Pulse	0.10	3
Pb			1	0.638	ug/l	5.82	4,760.47	2.448E-03	Pulse	0.10	3
Na			2	176526.378	ug/l	0.90	27,341,503.36	3.362E+02	Analog	0.30	3
Mg			2	85465.056	ug/l	0.76	6,001,992.40	7.380E+01	Analog	0.30	3
Al			2	159.287	ug/l	2.90	4,670.85	5.744E-02	Pulse	0.30	3
K			2	36818.894	ug/l	0.54	1,608,291.81	1.977E+01	Pulse	0.30	3
Ca			2	598260.109	ug/l	0.73	1,347,403.00	1.657E+01	Pulse	0.30	3
Ti			2	6.732	ug/l	15.20	135.56	1.666E-03	Pulse	0.30	3
V			2	1.325	ug/l	8.54	926.71	1.140E-02	Pulse	0.30	3
Cr			2	0.355	ug/l	33.71	1,101.16	1.354E-02	Pulse	0.30	3
Mn			2	6203.605	ug/l	0.74	2,328,400.60	2.863E+01	Pulse	0.30	3
Fe			2	195.924	ug/l	1.02	123,057.23	1.513E+00	Pulse	0.30	3
Co			2	0.771	ug/l	2.28	1,064.49	1.309E-02	Pulse	0.30	3
Ni			2	3.901	ug/l	5.49	1,568.98	1.930E-02	Pulse	0.30	3
Cu			2	2.107	ug/l	10.05	4,311.73	5.303E-02	Pulse	0.30	3
Zn			2	8.669	ug/l	8.57	1,472.30	1.810E-02	Pulse	0.30	3
As			2	1.100	ug/l	2.82	80.00	9.837E-04	Pulse	1.00	3
Cd			2	1.019	ug/l	2.27	57.81	1.585E-04	Pulse	0.30	3
Sn			2	0.052	ug/l	659.72	552.24	1.514E-03	Pulse	0.30	3
Se			3	1.336	ug/l	5.12	18.07	2.455E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,550,072.71	0.66	101.1	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,261,587.20	1.54	112.7	Pulse	0.10	3
1	Ge		409,934.52	1.01	110.1	Pulse	0.10	3
1	Ge		568,712.95	0.34	111.0	Pulse	0.10	3
1	Rh		2,477,750.54	1.62	103.7	Pulse	0.10	3
1	In		2,755,694.61	1.33	107.1	Pulse	0.10	3
1	Tb		3,652,146.82	2.25	107.0	Pulse	0.10	3
1	Ho		344,509.88	1.49	106.5	Pulse	0.10	3
1	Bi		1,943,651.79	1.28	97.7	Pulse	0.10	3
2	Sc		81,332.37	0.94	113.8	Pulse	0.30	3
2	Ge		43,854.24	0.32	114.8	Pulse	0.30	3
2	Ge		65,182.93	0.94	113.6	Pulse	0.30	3
2	Rh		1,067,813.95	0.47	102.9	Pulse	0.30	3
2	In		364,725.81	0.38	103.4	Pulse	0.30	3
2	Tb		1,315,391.44	0.62	100.6	Pulse	0.30	3
2	Ho		126,394.03	1.19	101.2	Pulse	0.30	3
2	Bi		814,632.71	0.20	93.3	Pulse	0.30	3
3	Sc		82,422.22	0.96	124.8	Pulse	0.30	3
3	Ge		49,154.81	1.78	121.1	Pulse	0.30	3
3	Ge		73,588.44	0.26	118.0	Pulse	0.30	3
3	Rh		776,566.57	0.27	107.3	Pulse	0.30	3
3	Tb		1,214,100.37	0.25	107.2	Pulse	0.30	3

Quantitation Report

File Name	048SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa043019m6.b
Method File	
Method Path	
Acq Time	4/30/2019 20:48
Sample Name	jc86976-7
Sample Type	Sample
Comment	
Prep Dilution	5.000
Auto Dilution	N/A
Total Dilution	5.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/30/2019 19:15
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.028	ug/l	66.29	40.00	2.437E-05	Pulse	0.25	3
B			1	80.165	ug/l	3.40	67,185.63	4.083E-02	Pulse	0.15	3
Ca			1	66559.694	ug/l	2.31	9,491,080.27	3.979E+00	Analog	0.10	3
Sr			1	215.352	ug/l	0.24	1,375,171.75	5.146E-01	Pulse	0.10	3
Mo			1	7.605	ug/l	1.69	9,796.62	3.666E-03	Pulse	0.10	3
Ag			1	0.072	ug/l	11.97	246.68	8.408E-05	Pulse	0.10	3
Sn			1	1.467	ug/l	9.50	2,453.61	8.365E-04	Pulse	0.10	3
Sb			1	0.315	ug/l	7.52	876.72	2.340E-04	Pulse	0.10	3
Ba			1	51.648	ug/l	2.82	45,030.67	1.201E-02	Pulse	0.10	3
Tl			1	0.037	ug/l	34.09	293.34	1.421E-04	Pulse	0.10	3
Pb			1	0.412	ug/l	21.61	936.74	4.532E-04	Pulse	0.10	3
Pb			1	0.403	ug/l	36.64	733.38	3.543E-04	Pulse	0.10	3
Pb			1	0.416	ug/l	10.75	3,600.33	1.742E-03	Pulse	0.10	3
Na			2	78719.984	ug/l	0.99	12,766,174.49	1.500E+02	Analog	0.30	3
Mg			2	8834.451	ug/l	0.33	650,659.63	7.643E+00	Pulse	0.30	3
Al			2	484.026	ug/l	0.97	12,380.80	1.454E-01	Pulse	0.30	3
K			2	6502.223	ug/l	0.33	304,524.75	3.577E+00	Pulse	0.30	3
Ca			2	67086.378	ug/l	0.38	158,446.43	1.861E+00	Pulse	0.30	3
Ti			2	13.856	ug/l	26.94	287.80	3.380E-03	Pulse	0.30	3
V			2	2.094	ug/l	4.17	1,461.19	1.716E-02	Pulse	0.30	3
Cr			2	1.248	ug/l	2.38	1,876.80	2.205E-02	Pulse	0.30	3
Mn			2	14.759	ug/l	2.40	5,978.93	7.024E-02	Pulse	0.30	3
Fe			2	272.023	ug/l	1.62	176,999.85	2.079E+00	Pulse	0.30	3
Co			2	0.137	ug/l	7.43	260.00	3.054E-03	Pulse	0.30	3
Ni			2	1.081	ug/l	12.70	626.69	7.362E-03	Pulse	0.30	3
Cu			2	8.358	ug/l	1.14	10,685.77	1.255E-01	Pulse	0.30	3
Zn			2	12.078	ug/l	5.97	1,970.14	2.314E-02	Pulse	0.30	3
As			2	0.768	ug/l	4.64	60.33	7.086E-04	Pulse	1.00	3
Cd			2	0.682	ug/l	3.04	6.17	1.613E-05	Pulse	0.30	3
Sn			2	-0.292	ug/l	-18.49	465.57	1.216E-03	Pulse	0.30	3
Se			3	0.452	ug/l	22.22	7.60	9.834E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,645,790.03	0.77	107.4	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,385,712.78	1.86	118.9	Pulse	0.10	3
1	Ge		441,253.35	1.72	118.5	Pulse	0.10	3
1	Ge		607,308.98	1.50	118.5	Pulse	0.10	3
1	Rh		2,672,206.63	1.15	111.8	Pulse	0.10	3
1	In		2,934,126.32	0.76	114.0	Pulse	0.10	3
1	Tb		3,748,524.74	1.11	109.8	Pulse	0.10	3
1	Ho		357,225.51	0.93	110.5	Pulse	0.10	3
1	Bi		2,066,295.90	1.24	103.9	Pulse	0.10	3
2	Sc		85,130.06	0.66	119.2	Pulse	0.30	3
2	Ge		46,297.56	1.44	121.2	Pulse	0.30	3
2	Ge		69,661.11	0.56	121.4	Pulse	0.30	3
2	Rh		1,156,102.49	0.25	111.4	Pulse	0.30	3
2	In		383,027.26	0.68	108.6	Pulse	0.30	3
2	Tb		1,352,086.51	0.60	103.4	Pulse	0.30	3
2	Ho		131,527.97	0.46	105.3	Pulse	0.30	3
2	Bi		860,875.49	0.99	98.6	Pulse	0.30	3
3	Sc		85,790.25	0.38	129.9	Pulse	0.30	3
3	Ge		50,843.22	0.84	125.3	Pulse	0.30	3
3	Ge		77,384.50	1.59	124.1	Pulse	0.30	3
3	Rh		828,705.14	0.59	114.5	Pulse	0.30	3
3	Tb		1,250,670.26	0.91	110.5	Pulse	0.30	3

Quantitation Report

File Name	049SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa043019m6.b
Method File	
Method Path	
Acq Time	4/30/2019 20:53
Sample Name	jc86976-8
Sample Type	Sample
Comment	
Prep Dilution	5.000
Auto Dilution	N/A
Total Dilution	5.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/30/2019 19:15
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.065	ug/l	7.12	86.67	5.228E-05	Pulse	0.25	3
B			1	251.560	ug/l	0.51	203,726.90	1.229E-01	Pulse	0.15	3
Ca			1	57525.368	ug/l	0.55	8,340,790.08	3.441E+00	Analog	0.10	3
Sr			1	146.973	ug/l	0.61	939,639.62	3.513E-01	Pulse	0.10	3
Mo			1	0.357	ug/l	14.13	483.36	1.810E-04	Pulse	0.10	3
Ag			1	0.031	ug/l	21.13	126.67	4.334E-05	Pulse	0.10	3
Sn			1	1.641	ug/l	0.77	2,780.34	9.523E-04	Pulse	0.10	3
Sb			1	0.578	ug/l	6.27	1,440.11	3.829E-04	Pulse	0.10	3
Ba			1	33.771	ug/l	1.67	29,576.09	7.863E-03	Pulse	0.10	3
Tl			1	0.044	ug/l	13.72	323.35	1.574E-04	Pulse	0.10	3
Pb			1	0.521	ug/l	6.02	1,110.08	5.406E-04	Pulse	0.10	3
Pb			1	0.559	ug/l	25.05	946.73	4.624E-04	Pulse	0.10	3
Pb			1	0.529	ug/l	4.62	4,313.73	2.101E-03	Pulse	0.10	3
Na			2	103704.972	ug/l	1.46	17,080,690.99	1.975E+02	Analog	0.30	3
Mg			2	11145.228	ug/l	1.75	833,346.72	9.638E+00	Pulse	0.30	3
Al			2	739.642	ug/l	2.21	18,565.25	2.147E-01	Pulse	0.30	3
K			2	4242.235	ug/l	1.43	204,899.31	2.370E+00	Pulse	0.30	3
Ca			2	58671.355	ug/l	1.61	140,788.81	1.628E+00	Pulse	0.30	3
Ti			2	23.814	ug/l	27.07	498.98	5.776E-03	Pulse	0.30	3
V			2	1.901	ug/l	12.11	1,357.89	1.571E-02	Pulse	0.30	3
Cr			2	2.489	ug/l	7.50	2,930.31	3.388E-02	Pulse	0.30	3
Mn			2	48.185	ug/l	1.73	19,410.41	2.245E-01	Pulse	0.30	3
Fe			2	751.368	ug/l	2.01	488,143.05	5.645E+00	Pulse	0.30	3
Co			2	0.392	ug/l	4.50	613.35	7.093E-03	Pulse	0.30	3
Ni			2	1.508	ug/l	23.54	792.25	9.170E-03	Pulse	0.30	3
Cu			2	1.388	ug/l	13.25	3,863.84	4.469E-02	Pulse	0.30	3
Zn			2	11.797	ug/l	9.83	1,965.70	2.272E-02	Pulse	0.30	3
As			2	0.612	ug/l	22.81	50.00	5.790E-04	Pulse	1.00	3
Cd			2	0.678	ug/l	4.65	5.51	1.437E-05	Pulse	0.30	3
Sn			2	-0.484	ug/l	-12.09	403.34	1.049E-03	Pulse	0.30	3
Se			3	3.135	ug/l	3.08	43.13	5.452E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,657,530.61	0.54	108.2	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,423,892.41	0.68	120.8	Pulse	0.10	3
1	Ge		445,046.36	1.07	119.5	Pulse	0.10	3
1	Ge		613,834.65	1.69	119.8	Pulse	0.10	3
1	Rh		2,674,710.17	1.74	111.9	Pulse	0.10	3
1	In		2,919,704.05	1.37	113.5	Pulse	0.10	3
1	Tb		3,761,139.11	1.01	110.1	Pulse	0.10	3
1	Ho		353,868.39	1.83	109.4	Pulse	0.10	3
1	Bi		2,053,816.43	2.21	103.3	Pulse	0.10	3
2	Sc		86,476.04	1.23	121.0	Pulse	0.30	3
2	Ge		46,529.36	0.87	121.8	Pulse	0.30	3
2	Ge		69,612.97	0.46	121.3	Pulse	0.30	3
2	Rh		1,157,200.75	0.51	111.5	Pulse	0.30	3
2	In		384,390.54	0.48	109.0	Pulse	0.30	3
2	Tb		1,355,732.27	1.02	103.7	Pulse	0.30	3
2	Ho		130,222.10	0.43	104.3	Pulse	0.30	3
2	Bi		864,009.67	0.79	99.0	Pulse	0.30	3
3	Sc		85,300.99	0.52	129.2	Pulse	0.30	3
3	Ge		51,392.83	0.29	126.6	Pulse	0.30	3
3	Ge		79,121.62	1.14	126.9	Pulse	0.30	3
3	Rh		831,914.97	0.66	115.0	Pulse	0.30	3
3	Tb		1,242,941.83	0.23	109.8	Pulse	0.30	3

Quantitation Report

File Name 050SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa043019m6.b
Method File
Method Path
Acq Time 4/30/2019 20:58
Sample Name jc87008-1
Sample Type Sample
Comment
Prep Dilution 5.000
Auto Dilution N/A
Total Dilution 5.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/30/2019 19:15
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.501	ug/l	11.44	624.02	3.812E-04	Pulse	0.25	3
B			1	41.058	ug/l	2.67	36,176.72	2.210E-02	Pulse	0.15	3
Ca			1	30067.159	ug/l	0.66	4,377,880.66	1.805E+00	Pulse	0.10	3
Sr			1	160.874	ug/l	1.03	1,032,585.51	3.845E-01	Pulse	0.10	3
Mo			1	2.594	ug/l	13.16	3,373.83	1.257E-03	Pulse	0.10	3
Ag			1	0.020	ug/l	18.28	93.34	3.198E-05	Pulse	0.10	3
Sn			1	1.816	ug/l	5.43	3,120.42	1.069E-03	Pulse	0.10	3
Sb			1	0.288	ug/l	20.34	823.39	2.185E-04	Pulse	0.10	3
Ba			1	179.727	ug/l	0.48	157,407.89	4.176E-02	Pulse	0.10	3
Tl			1	0.072	ug/l	18.55	460.03	2.223E-04	Pulse	0.10	3
Pb			1	4.689	ug/l	3.39	8,005.81	3.869E-03	Pulse	0.10	3
Pb			1	4.488	ug/l	5.88	6,585.05	3.185E-03	Pulse	0.10	3
Pb			1	4.398	ug/l	1.60	29,865.98	1.444E-02	Pulse	0.10	3
Na			2	20518.348	ug/l	0.68	3,350,502.30	3.916E+01	Pulse	0.30	3
Mg			2	5674.040	ug/l	0.67	420,554.03	4.915E+00	Pulse	0.30	3
Al			2	5799.428	ug/l	0.34	135,697.39	1.586E+00	Pulse	0.30	3
K			2	5323.152	ug/l	0.47	252,193.53	2.947E+00	Pulse	0.30	3
Ca			2	31159.319	ug/l	0.20	74,151.56	8.666E-01	Pulse	0.30	3
Ti			2	99.285	ug/l	5.81	2,047.97	2.393E-02	Pulse	0.30	3
V			2	18.400	ug/l	1.91	11,921.06	1.393E-01	Pulse	0.30	3
Cr			2	17.480	ug/l	1.43	15,122.56	1.767E-01	Pulse	0.30	3
Mn			2	248.732	ug/l	0.29	98,400.05	1.150E+00	Pulse	0.30	3
Fe			2	53540.958	ug/l	0.39	34,085,136.42	3.983E+02	Analog	0.30	3
Co			2	5.980	ug/l	1.91	8,173.23	9.552E-02	Pulse	0.30	3
Ni			2	15.075	ug/l	1.86	5,698.82	6.660E-02	Pulse	0.30	3
Cu			2	3.848	ug/l	2.98	6,265.70	7.322E-02	Pulse	0.30	3
Zn			2	37.281	ug/l	5.84	5,170.87	6.043E-02	Pulse	0.30	3
As			2	7.482	ug/l	6.73	537.68	6.284E-03	Pulse	1.00	3
Cd			2	0.698	ug/l	3.41	8.72	2.285E-05	Pulse	0.30	3
Sn			2	-0.031	ug/l	-192.14	550.02	1.442E-03	Pulse	0.30	3
Se			3	0.871	ug/l	16.68	13.07	1.680E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,636,638.77	1.06	106.8	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,426,146.47	1.35	120.9	Pulse	0.10	3
1	Ge		439,635.45	1.40	118.1	Pulse	0.10	3
1	Ge		602,307.95	1.21	117.5	Pulse	0.10	3
1	Rh		2,685,628.50	0.60	112.4	Pulse	0.10	3
1	In		2,916,711.79	1.08	113.4	Pulse	0.10	3
1	Tb		3,769,725.15	1.78	110.4	Pulse	0.10	3
1	Ho		354,993.24	2.68	109.8	Pulse	0.10	3
1	Bi		2,068,567.99	1.03	104.0	Pulse	0.10	3
2	Sc		85,570.02	0.23	119.8	Pulse	0.30	3
2	Ge		46,009.07	0.69	120.4	Pulse	0.30	3
2	Ge		69,170.09	0.77	120.5	Pulse	0.30	3
2	Rh		1,165,741.59	1.16	112.3	Pulse	0.30	3
2	In		381,487.97	0.24	108.2	Pulse	0.30	3
2	Tb		1,360,307.41	0.55	104.0	Pulse	0.30	3
2	Ho		131,491.73	0.01	105.3	Pulse	0.30	3
2	Bi		874,061.13	0.26	100.1	Pulse	0.30	3
3	Sc		86,044.48	0.46	130.3	Pulse	0.30	3
3	Ge		52,072.73	0.70	128.3	Pulse	0.30	3
3	Ge		77,818.86	0.94	124.8	Pulse	0.30	3
3	Rh		835,568.87	0.26	115.5	Pulse	0.30	3
3	Tb		1,244,355.61	0.39	109.9	Pulse	0.30	3

Quantitation Report

File Name	051SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa043019m6.b
Method File	
Method Path	
Acq Time	4/30/2019 21:03
Sample Name	jc87008-2
Sample Type	Sample
Comment	
Prep Dilution	5.000
Auto Dilution	N/A
Total Dilution	5.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/30/2019 19:15
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.385	ug/l	8.92	477.35	2.933E-04	Pulse	0.25	3
B			1	55.083	ug/l	0.54	46,900.44	2.882E-02	Pulse	0.15	3
Ca			1	147315.453	ug/l	0.18	21,202,448.85	8.792E+00	Analog	0.10	3
Sr			1	794.274	ug/l	0.15	4,940,232.32	1.897E+00	Pulse	0.10	3
Mo			1	2.511	ug/l	6.33	3,170.43	1.217E-03	Pulse	0.10	3
Ag			1	0.024	ug/l	36.32	103.34	3.600E-05	Pulse	0.10	3
Sn			1	2.042	ug/l	5.07	3,503.86	1.220E-03	Pulse	0.10	3
Sb			1	0.166	ug/l	39.67	560.03	1.494E-04	Pulse	0.10	3
Ba			1	830.261	ug/l	1.33	721,291.74	1.928E-01	Pulse	0.10	3
Tl			1	0.066	ug/l	24.79	413.35	2.081E-04	Pulse	0.10	3
Pb			1	3.541	ug/l	4.56	5,871.38	2.953E-03	Pulse	0.10	3
Pb			1	4.191	ug/l	33.65	5,931.14	2.979E-03	Pulse	0.10	3
Pb			1	3.622	ug/l	8.21	23,791.17	1.196E-02	Pulse	0.10	3
Na			2	104657.327	ug/l	0.22	16,837,700.44	1.993E+02	Analog	0.30	3
Mg			2	21475.809	ug/l	1.07	1,567,287.34	1.856E+01	Pulse	0.30	3
Al			2	4494.445	ug/l	0.40	104,072.02	1.232E+00	Pulse	0.30	3
K			2	14670.313	ug/l	0.72	670,714.99	7.941E+00	Pulse	0.30	3
Ca			2	152427.864	ug/l	0.25	356,777.21	4.224E+00	Pulse	0.30	3
Ti			2	89.822	ug/l	6.00	1,829.01	2.165E-02	Pulse	0.30	3
V			2	14.268	ug/l	2.06	9,153.71	1.084E-01	Pulse	0.30	3
Cr			2	13.498	ug/l	1.93	11,720.90	1.388E-01	Pulse	0.30	3
Mn			2	1065.525	ug/l	0.77	415,471.92	4.919E+00	Pulse	0.30	3
Fe			2	201650.141	ug/l	0.59	126,704,679.41	1.500E+03	Analog	0.30	3
Co			2	7.304	ug/l	0.90	9,836.34	1.165E-01	Pulse	0.30	3
Ni			2	23.667	ug/l	1.98	8,695.70	1.030E-01	Pulse	0.30	3
Cu			2	2.471	ug/l	6.55	4,835.21	5.725E-02	Pulse	0.30	3
Zn			2	56.509	ug/l	4.90	7,509.59	8.888E-02	Pulse	0.30	3
As			2	12.864	ug/l	3.24	908.03	1.075E-02	Pulse	1.00	3
Cd			2	0.671	ug/l	3.63	4.29	1.150E-05	Pulse	0.30	3
Sn			2	0.267	ug/l	30.87	633.35	1.700E-03	Pulse	0.30	3
Se			3	0.653	ug/l	27.19	10.07	1.317E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,627,522.87	0.26	106.2	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,411,487.93	0.96	120.1	Pulse	0.10	3
1	Ge		433,513.59	0.67	116.4	Pulse	0.10	3
1	Ge		593,921.16	1.05	115.9	Pulse	0.10	3
1	Rh		2,603,717.41	1.48	109.0	Pulse	0.10	3
1	In		2,871,756.19	0.94	111.6	Pulse	0.10	3
1	Tb		3,740,318.07	1.20	109.5	Pulse	0.10	3
1	Ho		350,309.50	0.47	108.3	Pulse	0.10	3
1	Bi		1,987,898.25	1.35	100.0	Pulse	0.10	3
2	Sc		84,463.24	0.99	118.2	Pulse	0.30	3
2	Ge		45,177.93	1.47	118.2	Pulse	0.30	3
2	Ge		68,425.99	1.56	119.2	Pulse	0.30	3
2	Rh		1,122,619.68	0.65	108.2	Pulse	0.30	3
2	In		372,514.11	0.45	105.6	Pulse	0.30	3
2	Tb		1,320,882.52	0.78	101.0	Pulse	0.30	3
2	Ho		127,502.55	0.82	102.1	Pulse	0.30	3
2	Bi		832,664.24	0.46	95.4	Pulse	0.30	3
3	Sc		83,695.20	1.11	126.7	Pulse	0.30	3
3	Ge		50,818.81	0.90	125.2	Pulse	0.30	3
3	Ge		76,473.64	0.89	122.6	Pulse	0.30	3
3	Rh		797,559.73	0.34	110.2	Pulse	0.30	3
3	Tb		1,218,637.63	0.41	107.6	Pulse	0.30	3

Quantitation Report

File Name	052SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa043019m6.b
Method File	
Method Path	
Acq Time	4/30/2019 21:09
Sample Name	mp14627-mb1 1
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/30/2019 19:15
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.001	ug/l	129.81	10.67	6.434E-06	Pulse	0.25	3
B			1	2.162	ug/l	5.58	12,591.60	7.614E-03	Pulse	0.15	3
Ca			1	22.666	ug/l	3.14	46,318.52	1.938E-02	Pulse	0.10	3
Sr			1	0.068	ug/l	4.91	2,953.71	1.068E-03	Pulse	0.10	3
Mo			1	0.016	ug/l	13.62	133.34	4.817E-05	Pulse	0.10	3
Ag			1	0.002	ug/l	53.80	63.33	2.149E-05	Pulse	0.10	3
Sn			1	0.269	ug/l	2.67	2,223.57	7.536E-04	Pulse	0.10	3
Sb			1	0.018	ug/l	20.38	403.36	1.066E-04	Pulse	0.10	3
Ba			1	0.040	ug/l	34.75	253.34	6.679E-05	Pulse	0.10	3
Tl			1	0.004	ug/l	59.03	206.68	9.750E-05	Pulse	0.10	3
Pb			1	0.009	ug/l	25.97	343.35	1.617E-04	Pulse	0.10	3
Pb			1	0.011	ug/l	97.57	236.68	1.116E-04	Pulse	0.10	3
Pb			1	0.011	ug/l	12.37	1,246.73	5.874E-04	Pulse	0.10	3
Na			2	12.777	ug/l	2.47	17,769.43	2.112E-01	Pulse	0.30	3
Mg			2	-1.063	ug/l	-16.31	981.15	1.166E-02	Pulse	0.30	3
Al			2	-7.746	ug/l	-2.42	317.78	3.778E-03	Pulse	0.30	3
K			2	-1.536	ug/l	-32.93	8,327.71	9.900E-02	Pulse	0.30	3
Ca			2	17.832	ug/l	31.11	534.46	6.352E-03	Pulse	0.30	3
Ti			2	0.005	ug/l	367.81	4.44	5.270E-05	Pulse	0.30	3
V			2	-0.016	ug/l	-6.31	72.22	8.584E-04	Pulse	0.30	3
Cr			2	0.001	ug/l	2126.10	857.81	1.020E-02	Pulse	0.30	3
Mn			2	0.067	ug/l	14.30	308.90	3.672E-03	Pulse	0.30	3
Fe			2	6.603	ug/l	8.29	25,353.00	3.013E-01	Pulse	0.30	3
Co			2	0.004	ug/l	59.13	100.00	1.189E-03	Pulse	0.30	3
Ni			2	-0.064	ug/l	-23.14	121.11	1.438E-03	Pulse	0.30	3
Cu			2	-0.270	ug/l	-10.56	1,085.60	1.292E-02	Pulse	0.30	3
Zn			2	2.265	ug/l	2.15	1,852.35	2.202E-02	Pulse	0.30	3
As			2	0.013	ug/l	79.44	10.33	1.227E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	0.136	ug/l	3.47	5.54	1.433E-05	Pulse	0.30	3
Sn			2	-0.110	ug/l	-7.79	383.34	9.922E-04	Pulse	0.30	3
Se			3	0.000	ug/l	-9011.65	1.80	2.296E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,653,297.95	1.27	107.9	Pulse	0.10	3
1	Sc		2,389,683.72	1.70	119.1	Pulse	0.10	3
1	Ge		436,597.23	0.96	117.2	Pulse	0.10	3
1	Ge		606,815.80	1.79	118.4	Pulse	0.10	3
1	Rh		2,767,402.56	1.45	115.8	Pulse	0.10	3
1	In		2,949,694.74	1.64	114.7	Pulse	0.10	3
1	Tb		3,782,954.84	1.70	110.8	Pulse	0.10	3
1	Ho		355,181.82	1.73	109.8	Pulse	0.10	3
1	Bi		2,122,779.03	0.85	106.8	Pulse	0.10	3
2	Sc		84,112.75	0.94	117.7	Pulse	0.30	3
2	Ge		45,863.06	0.42	120.0	Pulse	0.30	3
2	Ge		68,925.81	0.56	120.1	Pulse	0.30	3
2	Rh		1,187,459.40	1.08	114.4	Pulse	0.30	3
2	In		386,323.93	0.24	109.5	Pulse	0.30	3
2	Tb		1,345,581.72	0.44	102.9	Pulse	0.30	3
2	Ho		128,850.42	0.36	103.2	Pulse	0.30	3
2	Bi		886,470.45	0.41	101.5	Pulse	0.30	3
3	Sc		84,460.01	1.17	127.9	Pulse	0.30	3
3	Ge		50,961.38	0.24	125.6	Pulse	0.30	3
3	Ge		78,496.44	1.04	125.9	Pulse	0.30	3
3	Rh		846,347.52	0.22	116.9	Pulse	0.30	3
3	Tb		1,238,524.60	0.44	109.4	Pulse	0.30	3

Quantitation Report

File Name	053SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa043019m6.b
Method File	
Method Path	
Acq Time	4/30/2019 21:14
Sample Name	mp14627-b1
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/30/2019 19:15
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	77.800	ug/l	1.04	497,810.89	2.930E-01	Pulse	0.25	3
B			1	85.370	ug/l	0.99	351,486.33	2.069E-01	Pulse	0.15	3
Ca			1	2059.834	ug/l	0.53	1,543,298.52	6.264E-01	Pulse	0.10	3
Sr			1	80.323	ug/l	0.45	2,666,902.67	9.595E-01	Pulse	0.10	3
Mo			1	74.648	ug/l	0.29	498,908.52	1.795E-01	Pulse	0.10	3
Ag			1	78.988	ug/l	1.33	1,189,020.03	3.992E-01	Pulse	0.10	3
Sn			1	72.673	ug/l	1.16	720,916.66	2.421E-01	Pulse	0.10	3
Sb			1	82.061	ug/l	0.48	883,356.13	2.322E-01	Pulse	0.10	3
Ba			1	82.028	ug/l	1.24	362,456.53	9.527E-02	Pulse	0.10	3
Tl			1	79.447	ug/l	1.22	1,930,334.29	9.220E-01	Pulse	0.10	3
Pb			1	78.917	ug/l	1.12	660,047.66	3.153E-01	Pulse	0.10	3
Pb			1	79.922	ug/l	1.20	579,879.62	2.770E-01	Pulse	0.10	3
Pb			1	79.387	ug/l	1.03	2,650,735.90	1.266E+00	Pulse	0.10	3
Na			2	1991.368	ug/l	0.31	1,662,810.21	1.905E+01	Pulse	0.30	3
Mg			2	1966.800	ug/l	0.60	742,603.95	8.506E+00	Pulse	0.30	3
Al			2	1905.521	ug/l	0.73	226,642.39	2.596E+00	Pulse	0.30	3
K			2	2039.954	ug/l	1.15	484,753.17	5.553E+00	Pulse	0.30	3
Ca			2	2430.582	ug/l	0.57	29,713.21	3.403E-01	Pulse	0.30	3
Ti			2	72.981	ug/l	2.76	7,668.50	8.783E-02	Pulse	0.30	3
V			2	80.707	ug/l	0.48	264,042.87	3.024E+00	Pulse	0.30	3
Cr			2	78.588	ug/l	0.48	327,786.70	3.755E+00	Pulse	0.30	3
Mn			2	76.024	ug/l	0.65	153,321.56	1.756E+00	Pulse	0.30	3
Fe			2	2028.876	ug/l	0.81	6,592,665.29	7.552E+01	Analog	0.30	3
Co			2	77.113	ug/l	0.77	532,690.64	6.102E+00	Pulse	0.30	3
Ni			2	76.690	ug/l	0.74	141,941.88	1.626E+00	Pulse	0.30	3
Cu			2	75.692	ug/l	0.60	385,669.11	4.418E+00	Pulse	0.30	3
Zn			2	82.932	ug/l	2.44	54,021.95	6.188E-01	Pulse	0.30	3
As			2	75.045	ug/l	0.63	27,206.23	3.116E-01	Pulse	1.00	3
Cd			2	76.917	ug/l	0.51	62,964.64	1.620E-01	Pulse	0.30	3
Sn			2	74.571	ug/l	0.61	126,195.97	3.247E-01	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	190.620	ug/l	1.58	12,511.50	1.588E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,699,290.68	1.60	110.9	Pulse	0.10	3
1	Sc		2,463,635.85	0.78	122.7	Pulse	0.10	3
1	Ge		449,274.02	0.71	120.6	Pulse	0.10	3
1	Ge		624,826.46	1.13	121.9	Pulse	0.10	3
1	Rh		2,779,621.21	1.65	116.3	Pulse	0.10	3
1	In		2,978,133.30	0.53	115.8	Pulse	0.10	3
1	Tb		3,804,855.88	1.15	111.4	Pulse	0.10	3
1	Ho		360,244.70	0.23	111.4	Pulse	0.10	3
1	Bi		2,093,979.40	2.25	105.3	Pulse	0.10	3
2	Sc		87,302.35	0.42	122.2	Pulse	0.30	3
2	Ge		47,160.08	0.79	123.4	Pulse	0.30	3
2	Ge		70,011.60	1.22	122.0	Pulse	0.30	3
2	Rh		1,184,058.01	0.64	114.1	Pulse	0.30	3
2	In		388,590.67	0.70	110.2	Pulse	0.30	3
2	Tb		1,367,540.50	0.35	104.6	Pulse	0.30	3
2	Ho		131,291.43	0.53	105.1	Pulse	0.30	3
2	Bi		877,890.73	0.23	100.6	Pulse	0.30	3
3	Sc		86,004.40	0.82	130.2	Pulse	0.30	3
3	Ge		51,741.69	0.91	127.5	Pulse	0.30	3
3	Ge		78,825.90	2.04	126.4	Pulse	0.30	3
3	Rh		848,054.03	0.60	117.2	Pulse	0.30	3
3	Tb		1,244,439.12	0.65	109.9	Pulse	0.30	3

Quantitation Report

File Name 054SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa043019m6.b
Method File
Method Path
Acq Time 4/30/2019 21:19
Sample Name mp14627-s1
Sample Type Sample
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/30/2019 19:15
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	71.752	ug/l	0.41	435,121.79	2.702E-01	Pulse	0.25	3
B			1	436.900	ug/l	0.40	1,688,742.12	1.049E+00	Pulse	0.15	3
Ca			1	69549.491	ug/l	1.16	49,351,084.27	2.074E+01	Analog	0.10	3
Sr			1	350.413	ug/l	1.49	10,780,667.76	4.185E+00	Analog	0.10	3
Mo			1	71.734	ug/l	0.70	444,357.65	1.725E-01	Pulse	0.10	3
Ag			1	70.986	ug/l	0.31	1,020,006.91	3.588E-01	Pulse	0.10	3
Sn			1	68.143	ug/l	0.33	645,254.38	2.270E-01	Pulse	0.10	3
Sb			1	71.710	ug/l	0.83	757,723.27	2.029E-01	Pulse	0.10	3
Ba			1	200.679	ug/l	0.87	870,294.31	2.330E-01	Pulse	0.10	3
Tl			1	75.124	ug/l	0.18	1,737,474.71	8.719E-01	Pulse	0.10	3
Pb			1	76.533	ug/l	0.32	609,296.75	3.057E-01	Pulse	0.10	3
Pb			1	77.348	ug/l	1.03	534,163.98	2.680E-01	Pulse	0.10	3
Pb			1	77.006	ug/l	0.22	2,447,425.58	1.228E+00	Pulse	0.10	3
Na			2	21189.111	ug/l	1.32	16,951,030.99	2.018E+02	Analog	0.30	3
Mg			2	13083.615	ug/l	0.72	4,745,187.45	5.649E+01	Pulse	0.30	3
Al			2	2497.088	ug/l	0.93	285,385.90	3.398E+00	Pulse	0.30	3
K			2	3528.943	ug/l	0.67	800,519.97	9.530E+00	Pulse	0.30	3
Ca			2	72341.625	ug/l	0.27	841,486.93	1.002E+01	Pulse	0.30	3
Ti			2	81.350	ug/l	3.57	8,223.24	9.790E-02	Pulse	0.30	3
V			2	77.246	ug/l	0.62	243,156.52	2.895E+00	Pulse	0.30	3
Cr			2	73.392	ug/l	0.46	294,576.40	3.507E+00	Pulse	0.30	3
Mn			2	1888.175	ug/l	0.19	3,659,551.66	4.357E+01	Pulse	0.30	3
Fe			2	6479.653	ug/l	1.51	20,247,436.42	2.411E+02	Analog	0.30	3
Co			2	70.092	ug/l	0.16	465,872.31	5.546E+00	Pulse	0.30	3
Ni			2	70.078	ug/l	0.53	124,814.10	1.486E+00	Pulse	0.30	3
Cu			2	69.721	ug/l	0.64	341,982.82	4.071E+00	Pulse	0.30	3
Zn			2	71.171	ug/l	0.48	44,670.63	5.318E-01	Pulse	0.30	3
As			2	70.771	ug/l	0.48	24,686.24	2.939E-01	Pulse	1.00	3
Cd			2	70.175	ug/l	0.79	55,122.65	1.478E-01	Pulse	0.30	3
Sn			2	69.681	ug/l	0.74	113,200.83	3.035E-01	Pulse	0.30	3
Se			3	100.035	ug/l	1.03	6,286.94	8.332E-02	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,610,437.42	0.41	105.1	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,380,010.12	1.26	118.6	Pulse	0.10	3
1	Ge		423,240.17	1.61	113.6	Pulse	0.10	3
1	Ge		592,412.76	1.40	115.6	Pulse	0.10	3
1	Rh		2,576,194.65	1.47	107.8	Pulse	0.10	3
1	In		2,842,944.83	1.07	110.5	Pulse	0.10	3
1	Tb		3,734,886.82	1.47	109.4	Pulse	0.10	3
1	Ho		353,359.98	1.25	109.3	Pulse	0.10	3
1	Bi		1,992,856.64	0.86	100.2	Pulse	0.10	3
2	Sc		83,996.56	0.23	117.6	Pulse	0.30	3
2	Ge		44,812.38	1.54	117.3	Pulse	0.30	3
2	Ge		67,599.16	0.36	117.8	Pulse	0.30	3
2	Rh		1,113,806.21	0.24	107.3	Pulse	0.30	3
2	In		372,933.23	0.19	105.7	Pulse	0.30	3
2	Tb		1,334,105.68	0.23	102.0	Pulse	0.30	3
2	Ho		130,609.83	1.09	104.6	Pulse	0.30	3
2	Bi		833,730.82	0.23	95.5	Pulse	0.30	3
3	Sc		83,319.10	0.47	126.2	Pulse	0.30	3
3	Ge		49,378.89	1.64	121.7	Pulse	0.30	3
3	Ge		75,457.72	1.47	121.0	Pulse	0.30	3
3	Rh		789,416.84	0.70	109.1	Pulse	0.30	3
3	Tb		1,219,142.63	0.48	107.7	Pulse	0.30	3

Quantitation Report

File Name	055SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa043019m6.b
Method File	
Method Path	
Acq Time	4/30/2019 21:23
Sample Name	mp14627-s2
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/30/2019 19:15
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	69.201	ug/l	1.09	431,051.73	2.606E-01	Pulse	0.25	3
B			1	435.657	ug/l	0.96	1,729,604.93	1.046E+00	Pulse	0.15	3
Ca			1	67738.301	ug/l	0.48	49,299,019.27	2.020E+01	Analog	0.10	3
Sr			1	342.060	ug/l	1.41	10,736,113.17	4.085E+00	Analog	0.10	3
Mo			1	68.547	ug/l	0.67	433,184.99	1.648E-01	Pulse	0.10	3
Ag			1	68.646	ug/l	0.38	994,168.09	3.470E-01	Pulse	0.10	3
Sn			1	65.093	ug/l	1.27	621,196.01	2.168E-01	Pulse	0.10	3
Sb			1	69.965	ug/l	0.86	736,514.23	1.980E-01	Pulse	0.10	3
Ba			1	195.395	ug/l	0.37	844,244.62	2.269E-01	Pulse	0.10	3
Tl			1	72.194	ug/l	0.75	1,661,713.52	8.379E-01	Pulse	0.10	3
Pb			1	74.481	ug/l	0.59	590,133.29	2.976E-01	Pulse	0.10	3
Pb			1	74.340	ug/l	0.97	510,932.78	2.576E-01	Pulse	0.10	3
Pb			1	74.106	ug/l	0.80	2,343,966.91	1.182E+00	Pulse	0.10	3
Na			2	20403.741	ug/l	0.47	16,864,717.11	1.943E+02	Analog	0.30	3
Mg			2	12528.150	ug/l	1.27	4,694,380.51	5.409E+01	Pulse	0.30	3
Al			2	2335.557	ug/l	0.76	275,860.26	3.179E+00	Pulse	0.30	3
K			2	3354.389	ug/l	1.50	786,573.27	9.064E+00	Pulse	0.30	3
Ca			2	70111.035	ug/l	1.16	842,589.62	9.709E+00	Pulse	0.30	3
Ti			2	77.494	ug/l	3.13	8,092.04	9.326E-02	Pulse	0.30	3
V			2	73.202	ug/l	1.61	238,067.18	2.743E+00	Pulse	0.30	3
Cr			2	69.490	ug/l	1.36	288,202.98	3.321E+00	Pulse	0.30	3
Mn			2	1821.319	ug/l	0.56	3,647,227.63	4.203E+01	Pulse	0.30	3
Fe			2	6075.393	ug/l	0.71	19,615,004.22	2.260E+02	Analog	0.30	3
Co			2	66.591	ug/l	0.63	457,296.73	5.269E+00	Pulse	0.30	3
Ni			2	66.181	ug/l	0.18	121,803.05	1.403E+00	Pulse	0.30	3
Cu			2	65.144	ug/l	0.37	330,304.28	3.806E+00	Pulse	0.30	3
Zn			2	68.607	ug/l	1.59	44,508.08	5.128E-01	Pulse	0.30	3
As			2	67.583	ug/l	0.88	24,356.07	2.807E-01	Pulse	1.00	3
Cd			2	67.674	ug/l	0.02	54,095.51	1.425E-01	Pulse	0.30	3
Sn			2	66.062	ug/l	0.17	109,249.97	2.879E-01	Pulse	0.30	3
Se			3	95.269	ug/l	0.76	6,074.06	7.936E-02	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,654,123.39	1.00	107.9	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,440,912.31	1.59	121.6	Pulse	0.10	3
1	Ge		436,046.17	1.00	117.1	Pulse	0.10	3
1	Ge		605,923.23	1.40	118.2	Pulse	0.10	3
1	Rh		2,628,203.82	0.82	110.0	Pulse	0.10	3
1	In		2,865,382.58	0.65	111.4	Pulse	0.10	3
1	Tb		3,720,782.34	1.16	109.0	Pulse	0.10	3
1	Ho		353,870.76	1.68	109.4	Pulse	0.10	3
1	Bi		1,983,410.39	1.51	99.7	Pulse	0.10	3
2	Sc		86,787.43	1.05	121.5	Pulse	0.30	3
2	Ge		45,865.31	0.77	120.0	Pulse	0.30	3
2	Ge		68,524.32	1.16	119.4	Pulse	0.30	3
2	Rh		1,125,948.04	1.05	108.5	Pulse	0.30	3
2	In		379,530.55	0.19	107.6	Pulse	0.30	3
2	Tb		1,350,145.95	0.97	103.2	Pulse	0.30	3
2	Ho		130,689.36	1.48	104.7	Pulse	0.30	3
2	Bi		837,154.00	1.07	95.9	Pulse	0.30	3
3	Sc		83,916.40	0.80	127.1	Pulse	0.30	3
3	Ge		49,676.38	0.20	122.4	Pulse	0.30	3
3	Ge		76,542.87	0.52	122.7	Pulse	0.30	3
3	Rh		796,087.12	0.86	110.0	Pulse	0.30	3
3	Tb		1,225,139.22	0.27	108.2	Pulse	0.30	3

Quantitation Report

File Name	056_CCV.d
File Path	C:\Agilent\ICPMH\1\DATA\xa043019m6.b
Method File	
Method Path	
Acq Time	4/30/2019 21:29
Sample Name	CCVA
Sample Type	CCV
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/30/2019 19:15
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	50.317	ug/l	1.52	318,185.66	1.895E-01	Pulse	0.25	3
B			1	128.466	ug/l	1.43	520,678.99	3.101E-01	Pulse	0.15	3
Ca			1	5176.052	ug/l	0.46	3,818,676.09	1.555E+00	Pulse	0.10	3
Sr			1	52.976	ug/l	0.42	1,717,999.56	6.329E-01	Pulse	0.10	3
Mo			1	51.549	ug/l	0.59	336,460.31	1.239E-01	Pulse	0.10	3
Ag			1	49.428	ug/l	1.46	732,436.94	2.498E-01	Pulse	0.10	3
Sn			1	49.692	ug/l	0.65	485,070.15	1.655E-01	Pulse	0.10	3
Sb			1	54.893	ug/l	0.52	583,681.50	1.553E-01	Pulse	0.10	3
Ba			1	52.665	ug/l	0.77	229,878.75	6.117E-02	Pulse	0.10	3
Tl			1	50.991	ug/l	0.44	1,206,068.00	5.918E-01	Pulse	0.10	3
Pb			1	51.109	ug/l	0.42	416,206.94	2.042E-01	Pulse	0.10	3
Pb			1	51.231	ug/l	0.45	361,881.78	1.776E-01	Pulse	0.10	3
Pb			1	50.995	ug/l	0.50	1,657,842.82	8.134E-01	Pulse	0.10	3
Na			2	4910.598	ug/l	0.26	4,098,018.72	4.684E+01	Pulse	0.30	3
Mg			2	5020.460	ug/l	0.26	1,897,548.54	2.169E+01	Pulse	0.30	3
Al			2	4779.802	ug/l	0.24	567,897.60	6.490E+00	Pulse	0.30	3
K			2	5086.201	ug/l	0.41	1,197,895.61	1.369E+01	Pulse	0.30	3
Ca			2	5419.318	ug/l	1.49	65,975.34	7.541E-01	Pulse	0.30	3
Ti			2	47.078	ug/l	0.89	4,958.57	5.667E-02	Pulse	0.30	3
V			2	51.126	ug/l	0.58	167,684.05	1.917E+00	Pulse	0.30	3
Cr			2	50.012	ug/l	0.52	209,382.67	2.393E+00	Pulse	0.30	3
Mn			2	48.859	ug/l	1.11	98,819.37	1.129E+00	Pulse	0.30	3
Fe			2	4966.510	ug/l	0.70	16,166,747.69	1.848E+02	Analog	0.30	3
Co			2	48.581	ug/l	1.20	336,354.78	3.844E+00	Pulse	0.30	3
Ni			2	48.367	ug/l	0.73	89,805.74	1.026E+00	Pulse	0.30	3
Cu			2	47.460	ug/l	0.95	243,296.58	2.781E+00	Pulse	0.30	3
Zn			2	46.818	ug/l	0.65	30,767.86	3.516E-01	Pulse	0.30	3
As			2	49.867	ug/l	0.68	18,121.71	2.071E-01	Pulse	1.00	3
Cd			2	49.696	ug/l	1.10	40,297.70	1.046E-01	Pulse	0.30	3
Sn			2	50.854	ug/l	0.32	85,499.95	2.219E-01	Pulse	0.30	3
Se			3	191.989	ug/l	1.03	12,331.90	1.599E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,679,240.99	0.47	109.6	Pulse	0.10	3
1	Sc		2,455,575.54	1.61	122.3	Pulse	0.10	3
1	Ge		443,493.70	1.47	119.1	Pulse	0.10	3

Quantitation Report

1	Ge		618,278.68	1.85	120.6	Pulse	0.10	3
1	Rh		2,714,423.29	1.46	113.6	Pulse	0.10	3
1	In		2,931,377.73	1.30	113.9	Pulse	0.10	3
1	Tb		3,757,636.40	1.39	110.0	Pulse	0.10	3
1	Ho		355,314.62	1.91	109.9	Pulse	0.10	3
1	Bi		2,038,016.95	1.13	102.5	Pulse	0.10	3
2	Sc		87,496.66	0.77	122.5	Pulse	0.30	3
2	Ge		46,026.90	1.67	120.4	Pulse	0.30	3
2	Ge		69,517.24	0.91	121.1	Pulse	0.30	3
2	Rh		1,163,365.82	0.54	112.1	Pulse	0.30	3
2	In		385,260.86	0.32	109.2	Pulse	0.30	3
2	Tb		1,339,151.61	0.85	102.4	Pulse	0.30	3
2	Ho		130,486.63	0.87	104.5	Pulse	0.30	3
2	Bi		863,109.67	0.39	98.9	Pulse	0.30	3
3	Sc		85,058.61	0.55	128.8	Pulse	0.30	3
3	Ge		51,143.04	0.74	126.0	Pulse	0.30	3
3	Ge		77,127.75	0.74	123.7	Pulse	0.30	3
3	Rh		819,461.98	0.86	113.2	Pulse	0.30	3
3	Tb		1,225,881.10	0.75	108.3	Pulse	0.30	3

Quantitation Report

File Name	057_CCB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa043019m6.b
Method File	
Method Path	
Acq Time	4/30/2019 21:34
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/30/2019 19:15
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.009	ug/l	50.39	62.67	3.703E-05	Pulse	0.25	3
B			1	15.523	ug/l	2.87	67,105.05	3.961E-02	Pulse	0.15	3
Ca			1	-6.646	ug/l	-17.75	25,777.32	1.065E-02	Pulse	0.10	3
Sr			1	0.014	ug/l	33.87	1,143.42	4.139E-04	Pulse	0.10	3
Mo			1	0.114	ug/l	16.30	783.38	2.833E-04	Pulse	0.10	3
Ag			1	0.020	ug/l	12.21	336.68	1.140E-04	Pulse	0.10	3
Sn			1	0.640	ug/l	7.71	5,884.64	1.992E-03	Pulse	0.10	3
Sb			1	0.108	ug/l	4.85	1,360.12	3.616E-04	Pulse	0.10	3
Ba			1	0.011	ug/l	45.08	123.34	3.282E-05	Pulse	0.10	3
Tl			1	0.028	ug/l	21.44	780.05	3.745E-04	Pulse	0.10	3
Pb			1	0.040	ug/l	12.48	590.03	2.824E-04	Pulse	0.10	3
Pb			1	0.048	ug/l	12.66	506.70	2.425E-04	Pulse	0.10	3
Pb			1	0.042	ug/l	8.36	2,270.15	1.087E-03	Pulse	0.10	3
Na			2	4.769	ug/l	7.48	11,473.97	1.350E-01	Pulse	0.30	3
Mg			2	-0.521	ug/l	-33.26	1,190.06	1.400E-02	Pulse	0.30	3
Al			2	21.369	ug/l	3.33	3,673.77	4.323E-02	Pulse	0.30	3
K			2	-2.016	ug/l	-33.92	8,305.47	9.772E-02	Pulse	0.30	3
Ca			2	-4.722	ug/l	-57.95	274.45	3.230E-03	Pulse	0.30	3
Ti			2	0.037	ug/l	133.93	7.78	9.157E-05	Pulse	0.30	3
V			2	0.012	ug/l	62.15	163.34	1.922E-03	Pulse	0.30	3
Cr			2	-0.020	ug/l	-46.84	782.25	9.204E-03	Pulse	0.30	3
Mn			2	0.021	ug/l	96.29	223.34	2.627E-03	Pulse	0.30	3
Fe			2	1.344	ug/l	6.12	8,981.52	1.057E-01	Pulse	0.30	3
Co			2	0.003	ug/l	88.44	94.44	1.111E-03	Pulse	0.30	3
Ni			2	-0.025	ug/l	-64.92	191.11	2.248E-03	Pulse	0.30	3
Cu			2	0.096	ug/l	2.39	2,904.73	3.418E-02	Pulse	0.30	3
Zn			2	0.617	ug/l	12.56	835.59	9.833E-03	Pulse	0.30	3
As			2	0.005	ug/l	173.31	7.67	9.023E-05	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	0.145	ug/l	5.60	13.29	3.433E-05	Pulse	0.30	3
Sn			2	0.305	ug/l	20.52	1,081.16	2.792E-03	Pulse	0.30	3
Se			3	0.101	ug/l	17.80	8.40	1.073E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,694,519.61	0.80	110.6	Pulse	0.10	3
1	Sc		2,421,403.30	0.73	120.6	Pulse	0.10	3
1	Ge		442,601.53	2.09	118.8	Pulse	0.10	3
1	Ge		610,398.84	1.42	119.1	Pulse	0.10	3
1	Rh		2,761,149.33	1.34	115.5	Pulse	0.10	3
1	In		2,951,705.61	1.37	114.7	Pulse	0.10	3
1	Tb		3,760,104.42	2.01	110.1	Pulse	0.10	3
1	Ho		352,725.47	1.58	109.1	Pulse	0.10	3
1	Bi		2,087,447.31	2.23	105.0	Pulse	0.10	3
2	Sc		84,992.59	0.42	119.0	Pulse	0.30	3
2	Ge		46,448.07	0.51	121.5	Pulse	0.30	3
2	Ge		69,387.68	0.57	120.9	Pulse	0.30	3
2	Rh		1,187,786.55	0.64	114.5	Pulse	0.30	3
2	In		387,054.91	0.74	109.7	Pulse	0.30	3
2	Tb		1,348,882.20	0.51	103.1	Pulse	0.30	3
2	Ho		129,332.83	0.44	103.6	Pulse	0.30	3
2	Bi		883,661.42	0.14	101.2	Pulse	0.30	3
3	Sc		85,247.19	1.09	129.1	Pulse	0.30	3
3	Ge		51,124.24	1.65	126.0	Pulse	0.30	3
3	Ge		78,327.95	0.81	125.6	Pulse	0.30	3
3	Rh		849,100.38	0.30	117.3	Pulse	0.30	3
3	Tb		1,238,569.08	0.34	109.4	Pulse	0.30	3

Quantitation Report

File Name	058SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa043019m6.b
Method File	
Method Path	
Acq Time	4/30/2019 21:39
Sample Name	jc87047-1
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/30/2019 19:15
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.057	ug/l	7.89	361.34	2.183E-04	Pulse	0.25	3
B			1	356.253	ug/l	2.02	1,416,274.15	8.555E-01	Pulse	0.15	3
Ca			1	67183.665	ug/l	1.57	48,409,299.28	2.003E+01	Analog	0.10	3
Sr			1	272.735	ug/l	1.91	8,463,703.00	3.257E+00	Analog	0.10	3
Mo			1	0.463	ug/l	10.92	2,920.38	1.123E-03	Pulse	0.10	3
Ag			1	0.038	ug/l	21.40	580.03	2.031E-04	Pulse	0.10	3
Sn			1	0.311	ug/l	5.17	2,560.30	8.958E-04	Pulse	0.10	3
Sb			1	0.177	ug/l	14.06	2,070.21	5.550E-04	Pulse	0.10	3
Ba			1	123.475	ug/l	0.54	534,305.28	1.434E-01	Pulse	0.10	3
Tl			1	0.042	ug/l	7.61	1,083.42	5.465E-04	Pulse	0.10	3
Pb			1	2.843	ug/l	3.55	22,771.52	1.148E-02	Pulse	0.10	3
Pb			1	2.731	ug/l	2.24	18,922.65	9.538E-03	Pulse	0.10	3
Pb			1	2.728	ug/l	1.78	87,094.87	4.390E-02	Pulse	0.10	3
Na			2	18883.534	ug/l	0.07	15,453,576.05	1.799E+02	Analog	0.30	3
Mg			2	10977.971	ug/l	0.84	4,072,821.09	4.740E+01	Pulse	0.30	3
Al			2	508.459	ug/l	1.80	60,414.45	7.032E-01	Pulse	0.30	3
K			2	1543.187	ug/l	0.39	363,068.65	4.226E+00	Pulse	0.30	3
Ca			2	68416.561	ug/l	1.30	814,021.11	9.475E+00	Pulse	0.30	3
Ti			2	12.967	ug/l	14.20	1,344.58	1.564E-02	Pulse	0.30	3
V			2	1.318	ug/l	4.60	4,368.40	5.084E-02	Pulse	0.30	3
Cr			2	0.781	ug/l	4.55	4,069.43	4.736E-02	Pulse	0.30	3
Mn			2	1767.878	ug/l	1.13	3,504,704.31	4.079E+01	Pulse	0.30	3
Fe			2	4416.558	ug/l	0.59	14,118,405.55	1.643E+02	Analog	0.30	3
Co			2	0.557	ug/l	0.97	3,864.94	4.498E-02	Pulse	0.30	3
Ni			2	1.570	ug/l	2.17	3,093.66	3.601E-02	Pulse	0.30	3
Cu			2	1.752	ug/l	0.28	11,183.89	1.302E-01	Pulse	0.30	3
Zn			2	6.397	ug/l	5.33	4,517.34	5.259E-02	Pulse	0.30	3
As			2	1.914	ug/l	3.04	688.69	8.017E-03	Pulse	1.00	3
Cd			2	0.277	ug/l	7.25	117.60	3.123E-04	Pulse	0.30	3
Sn			2	-0.020	ug/l	-198.86	521.13	1.384E-03	Pulse	0.30	3
Se			3	0.192	ug/l	17.53	13.80	1.831E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,655,474.21	1.02	108.0	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,416,645.12	1.17	120.4	Pulse	0.10	3
1	Ge		432,748.99	1.72	116.2	Pulse	0.10	3
1	Ge		595,815.79	2.29	116.2	Pulse	0.10	3
1	Rh		2,598,571.11	0.86	108.7	Pulse	0.10	3
1	In		2,857,688.27	0.46	111.1	Pulse	0.10	3
1	Tb		3,726,295.15	1.52	109.1	Pulse	0.10	3
1	Ho		356,610.46	2.31	110.3	Pulse	0.10	3
1	Bi		1,983,762.16	1.43	99.8	Pulse	0.10	3
2	Sc		85,923.10	1.17	120.3	Pulse	0.30	3
2	Ge		45,009.58	0.62	117.8	Pulse	0.30	3
2	Ge		67,940.74	0.75	118.4	Pulse	0.30	3
2	Rh		1,119,266.14	0.28	107.9	Pulse	0.30	3
2	In		376,628.79	0.21	106.8	Pulse	0.30	3
2	Tb		1,340,909.22	0.49	102.5	Pulse	0.30	3
2	Ho		130,219.26	1.05	104.3	Pulse	0.30	3
2	Bi		837,790.09	1.07	96.0	Pulse	0.30	3
3	Sc		83,959.84	0.83	127.1	Pulse	0.30	3
3	Ge		49,824.58	1.44	122.8	Pulse	0.30	3
3	Ge		75,389.53	0.19	120.9	Pulse	0.30	3
3	Rh		797,031.46	0.38	110.1	Pulse	0.30	3
3	Tb		1,222,798.56	0.78	108.0	Pulse	0.30	3

Quantitation Report

File Name 059SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa043019m6.b
Method File
Method Path
Acq Time 4/30/2019 21:44
Sample Name jc87047-2
Sample Type Sample
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/30/2019 19:15
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.025	ug/l	3.09	158.67	9.662E-05	Pulse	0.25	3
B			1	193.820	ug/l	1.48	766,157.40	4.665E-01	Pulse	0.15	3
Ca			1	42065.342	ug/l	1.27	30,553,510.38	1.255E+01	Analog	0.10	3
Sr			1	220.328	ug/l	0.96	6,885,588.65	2.631E+00	Analog	0.10	3
Mo			1	0.827	ug/l	7.44	5,231.04	1.998E-03	Pulse	0.10	3
Ag			1	0.012	ug/l	55.56	206.67	7.227E-05	Pulse	0.10	3
Sn			1	0.825	ug/l	1.22	7,465.31	2.607E-03	Pulse	0.10	3
Sb			1	0.258	ug/l	3.66	2,913.70	7.860E-04	Pulse	0.10	3
Ba			1	129.474	ug/l	1.42	557,034.26	1.504E-01	Pulse	0.10	3
Tl			1	0.010	ug/l	9.35	350.02	1.765E-04	Pulse	0.10	3
Pb			1	11.260	ug/l	1.06	89,379.47	4.509E-02	Pulse	0.10	3
Pb			1	10.873	ug/l	1.25	74,823.49	3.774E-02	Pulse	0.10	3
Pb			1	10.918	ug/l	0.66	345,874.06	1.745E-01	Pulse	0.10	3
Na			2	24052.776	ug/l	0.99	19,745,355.33	2.291E+02	Analog	0.30	3
Mg			2	15187.172	ug/l	1.25	5,652,279.50	6.557E+01	Analog	0.30	3
Al			2	118.608	ug/l	2.70	15,082.55	1.750E-01	Pulse	0.30	3
K			2	1222.300	ug/l	0.24	290,352.91	3.368E+00	Pulse	0.30	3
Ca			2	43366.874	ug/l	0.62	517,809.81	6.007E+00	Pulse	0.30	3
Ti			2	3.251	ug/l	3.58	341.12	3.957E-03	Pulse	0.30	3
V			2	0.748	ug/l	0.96	2,543.56	2.951E-02	Pulse	0.30	3
Cr			2	0.314	ug/l	0.94	2,165.72	2.513E-02	Pulse	0.30	3
Mn			2	3884.226	ug/l	1.23	7,725,400.53	8.962E+01	Analog	0.30	3
Fe			2	14544.458	ug/l	0.65	46,634,897.04	5.410E+02	Analog	0.30	3
Co			2	2.352	ug/l	2.08	16,120.24	1.870E-01	Pulse	0.30	3
Ni			2	1.421	ug/l	6.10	2,832.49	3.286E-02	Pulse	0.30	3
Cu			2	0.644	ug/l	1.48	5,685.49	6.596E-02	Pulse	0.30	3
Zn			2	7.445	ug/l	0.99	5,202.00	6.035E-02	Pulse	0.30	3
As			2	11.472	ug/l	1.43	4,111.86	4.770E-02	Pulse	1.00	3
Cd			2	0.177	ug/l	9.82	38.65	1.023E-04	Pulse	0.30	3
Sn			2	0.512	ug/l	4.80	1,393.41	3.689E-03	Pulse	0.30	3
Se			3	0.171	ug/l	6.11	12.47	1.656E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,642,211.85	0.29	107.2	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,435,196.06	1.24	121.3	Pulse	0.10	3
1	Ge		437,438.96	1.25	117.5	Pulse	0.10	3
1	Ge		600,527.96	1.47	117.2	Pulse	0.10	3
1	Rh		2,616,451.78	1.06	109.5	Pulse	0.10	3
1	In		2,863,373.41	1.33	111.3	Pulse	0.10	3
1	Tb		3,705,324.32	1.78	108.5	Pulse	0.10	3
1	Ho		350,721.36	2.41	108.4	Pulse	0.10	3
1	Bi		1,982,229.14	1.20	99.7	Pulse	0.10	3
2	Sc		86,198.72	0.33	120.7	Pulse	0.30	3
2	Ge		45,320.39	0.97	118.6	Pulse	0.30	3
2	Ge		68,363.39	1.58	119.1	Pulse	0.30	3
2	Rh		1,125,041.07	1.28	108.4	Pulse	0.30	3
2	In		377,731.07	0.44	107.1	Pulse	0.30	3
2	Tb		1,340,702.10	1.08	102.5	Pulse	0.30	3
2	Ho		129,706.26	0.76	103.9	Pulse	0.30	3
2	Bi		837,127.69	0.68	95.9	Pulse	0.30	3
3	Sc		84,182.13	0.79	127.5	Pulse	0.30	3
3	Ge		49,960.53	0.57	123.1	Pulse	0.30	3
3	Ge		75,272.54	0.84	120.7	Pulse	0.30	3
3	Rh		796,232.94	0.67	110.0	Pulse	0.30	3
3	Tb		1,216,109.47	0.15	107.4	Pulse	0.30	3

Quantitation Report

File Name 060SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa043019m6.b
Method File
Method Path
Acq Time 4/30/2019 21:49
Sample Name jc87047-4
Sample Type Sample
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/30/2019 19:15
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.136	ug/l	4.62	881.37	5.156E-04	Pulse	0.25	3
B			1	28.955	ug/l	2.04	122,686.24	7.177E-02	Pulse	0.15	3
Ca			1	3253.400	ug/l	0.19	2,434,677.41	9.821E-01	Pulse	0.10	3
Sr			1	20.213	ug/l	0.66	668,323.38	2.416E-01	Pulse	0.10	3
Mo			1	0.803	ug/l	5.16	5,361.07	1.939E-03	Pulse	0.10	3
Ag			1	0.018	ug/l	18.09	303.35	1.016E-04	Pulse	0.10	3
Sn			1	0.410	ug/l	9.38	3,660.57	1.224E-03	Pulse	0.10	3
Sb			1	0.112	ug/l	9.36	1,400.11	3.716E-04	Pulse	0.10	3
Ba			1	124.125	ug/l	0.86	542,898.79	1.441E-01	Pulse	0.10	3
Tl			1	0.018	ug/l	15.42	543.36	2.588E-04	Pulse	0.10	3
Pb			1	0.597	ug/l	2.42	5,267.79	2.510E-03	Pulse	0.10	3
Pb			1	0.547	ug/l	3.31	4,137.38	1.971E-03	Pulse	0.10	3
Pb			1	0.559	ug/l	2.69	19,585.68	9.331E-03	Pulse	0.10	3
Na			2	1972.216	ug/l	0.35	1,657,493.41	1.886E+01	Pulse	0.30	3
Mg			2	515.445	ug/l	0.42	196,921.54	2.241E+00	Pulse	0.30	3
Al			2	286.948	ug/l	1.45	35,413.85	4.031E-01	Pulse	0.30	3
K			2	370.305	ug/l	0.51	95,979.10	1.092E+00	Pulse	0.30	3
Ca			2	3375.236	ug/l	0.66	41,394.60	4.711E-01	Pulse	0.30	3
Ti			2	7.395	ug/l	25.10	785.63	8.941E-03	Pulse	0.30	3
V			2	8.649	ug/l	0.70	28,592.49	3.254E-01	Pulse	0.30	3
Cr			2	0.802	ug/l	2.71	4,251.71	4.839E-02	Pulse	0.30	3
Mn			2	514.890	ug/l	0.88	1,044,004.27	1.188E+01	Pulse	0.30	3
Fe			2	33093.479	ug/l	0.63	108,153,704.59	1.231E+03	Analog	0.30	3
Co			2	5.008	ug/l	1.44	34,892.51	3.971E-01	Pulse	0.30	3
Ni			2	0.976	ug/l	1.66	2,060.16	2.345E-02	Pulse	0.30	3
Cu			2	5.158	ug/l	1.91	28,793.14	3.277E-01	Pulse	0.30	3
Zn			2	17.522	ug/l	2.11	11,853.27	1.349E-01	Pulse	0.30	3
As			2	25.201	ug/l	0.35	9,199.26	1.047E-01	Pulse	1.00	3
Cd			2	0.245	ug/l	1.27	96.36	2.456E-04	Pulse	0.30	3
Sn			2	0.045	ug/l	95.61	652.24	1.662E-03	Pulse	0.30	3
Se			3	1.555	ug/l	7.16	102.53	1.318E-03	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,709,561.99	0.72	111.5	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,479,064.60	1.95	123.5	Pulse	0.10	3
1	Ge		449,968.00	0.96	120.8	Pulse	0.10	3
1	Ge		617,249.33	1.32	120.4	Pulse	0.10	3
1	Rh		2,765,910.17	2.09	115.7	Pulse	0.10	3
1	In		2,993,069.37	2.21	116.3	Pulse	0.10	3
1	Tb		3,766,129.32	0.94	110.3	Pulse	0.10	3
1	Ho		358,950.36	2.05	111.0	Pulse	0.10	3
1	Bi		2,098,918.67	0.57	105.6	Pulse	0.10	3
2	Sc		87,864.14	0.24	123.0	Pulse	0.30	3
2	Ge		46,916.11	0.77	122.8	Pulse	0.30	3
2	Ge		70,569.55	1.26	123.0	Pulse	0.30	3
2	Rh		1,189,269.12	0.36	114.6	Pulse	0.30	3
2	In		392,228.56	0.82	111.2	Pulse	0.30	3
2	Tb		1,348,963.35	0.56	103.1	Pulse	0.30	3
2	Ho		132,152.07	1.59	105.8	Pulse	0.30	3
2	Bi		880,684.52	1.11	100.9	Pulse	0.30	3
3	Sc		86,052.75	1.44	130.3	Pulse	0.30	3
3	Ge		51,899.94	0.24	127.9	Pulse	0.30	3
3	Ge		77,798.70	0.83	124.7	Pulse	0.30	3
3	Rh		838,027.62	0.59	115.8	Pulse	0.30	3
3	Tb		1,228,759.67	0.46	108.5	Pulse	0.30	3

Quantitation Report

File Name 061SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa043019m6.b
Method File
Method Path
Acq Time 4/30/2019 21:54
Sample Name jc87050-2
Sample Type Sample
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/30/2019 19:15
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	4.082	ug/l	1.05	24,645.87	1.537E-02	Pulse	0.25	3
B			1	782.790	ug/l	0.66	3,008,468.28	1.877E+00	Pulse	0.15	3
Ca			1	116055.857	ug/l	0.54	84,792,987.07	3.460E+01	Analog	0.10	3
Sr			1	1691.170	ug/l	1.38	49,845,424.26	2.020E+01	Analog	0.10	3
Mo			1	1.222	ug/l	2.51	7,275.24	2.948E-03	Pulse	0.10	3
Ag			1	0.046	ug/l	9.40	673.37	2.463E-04	Pulse	0.10	3
Sn			1	0.289	ug/l	4.23	2,246.91	8.216E-04	Pulse	0.10	3
Sb			1	0.310	ug/l	9.20	3,330.48	9.322E-04	Pulse	0.10	3
Ba			1	103.959	ug/l	0.24	431,679.68	1.207E-01	Pulse	0.10	3
Tl			1	0.025	ug/l	25.21	616.70	3.442E-04	Pulse	0.10	3
Pb			1	0.326	ug/l	10.13	2,550.31	1.425E-03	Pulse	0.10	3
Pb			1	0.295	ug/l	2.55	1,963.53	1.098E-03	Pulse	0.10	3
Pb			1	0.307	ug/l	2.64	9,484.87	5.304E-03	Pulse	0.10	3
Na			2	274457.340	ug/l	0.49	238,935,954.95	2.613E+03	Analog	0.30	3
Mg			2	10122.903	ug/l	1.17	3,997,421.09	4.371E+01	Pulse	0.30	3
Al			2	391.290	ug/l	0.27	49,787.58	5.444E-01	Pulse	0.30	3
K			2	8166.153	ug/l	1.47	2,004,432.91	2.192E+01	Pulse	0.30	3
Ca			2	124789.205	ug/l	0.77	1,580,090.91	1.728E+01	Pulse	0.30	3
Ti			2	1.345	ug/l	8.36	152.23	1.665E-03	Pulse	0.30	3
V			2	0.806	ug/l	4.35	2,895.84	3.167E-02	Pulse	0.30	3
Cr			2	0.476	ug/l	5.56	3,003.64	3.285E-02	Pulse	0.30	3
Mn			2	107.804	ug/l	0.95	227,663.61	2.490E+00	Pulse	0.30	3
Fe			2	655.703	ug/l	0.53	2,235,329.43	2.444E+01	Pulse	0.30	3
Co			2	1.888	ug/l	1.86	13,741.40	1.503E-01	Pulse	0.30	3
Ni			2	7.422	ug/l	0.29	14,618.83	1.599E-01	Pulse	0.30	3
Cu			2	1.149	ug/l	4.90	8,707.94	9.522E-02	Pulse	0.30	3
Zn			2	26.553	ug/l	1.56	18,447.16	2.017E-01	Pulse	0.30	3
As			2	0.757	ug/l	1.97	294.00	3.215E-03	Pulse	1.00	3
Cd			2	0.158	ug/l	2.61	22.97	6.068E-05	Pulse	0.30	3
Sn			2	-0.091	ug/l	-4.19	406.68	1.075E-03	Pulse	0.30	3
Se			3	0.194	ug/l	2.50	13.53	1.846E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,602,868.72	1.94	104.6	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,450,988.14	1.99	122.1	Pulse	0.10	3
1	Ge		421,722.96	1.99	113.2	Pulse	0.10	3
1	Ge		588,768.80	2.06	114.9	Pulse	0.10	3
1	Rh		2,468,125.80	1.33	103.3	Pulse	0.10	3
1	In		2,735,361.27	1.51	106.3	Pulse	0.10	3
1	Tb		3,575,483.07	1.58	104.7	Pulse	0.10	3
1	Ho		336,748.38	2.02	104.1	Pulse	0.10	3
1	Bi		1,787,674.61	1.73	89.9	Pulse	0.10	3
2	Sc		91,447.58	0.45	128.0	Pulse	0.30	3
2	Ge		46,182.99	1.71	120.9	Pulse	0.30	3
2	Ge		68,309.97	1.05	119.0	Pulse	0.30	3
2	Rh		1,057,391.45	1.02	101.9	Pulse	0.30	3
2	In		378,420.00	0.28	107.3	Pulse	0.30	3
2	Tb		1,319,012.20	0.76	100.9	Pulse	0.30	3
2	Ho		127,408.66	2.04	102.0	Pulse	0.30	3
2	Bi		770,707.77	0.24	88.3	Pulse	0.30	3
3	Sc		84,436.86	1.82	127.9	Pulse	0.30	3
3	Ge		49,129.24	0.09	121.1	Pulse	0.30	3
3	Ge		73,290.17	1.10	117.5	Pulse	0.30	3
3	Rh		725,706.08	0.35	100.3	Pulse	0.30	3
3	Tb		1,145,859.54	0.48	101.2	Pulse	0.30	3

Quantitation Report

File Name	062SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa043019m6.b
Method File	
Method Path	
Acq Time	4/30/2019 21:59
Sample Name	mp14645-mb1 4
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/30/2019 19:15
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.015	ug/l	28.99	54.67	3.233E-05	Pulse	0.25	3
B			1	64.183	ug/l	2.23	134,061.95	7.928E-02	Pulse	0.15	3
Ca			1	65.750	ug/l	7.82	54,611.87	2.242E-02	Pulse	0.10	3
Sr			1	0.424	ug/l	13.73	7,609.58	2.781E-03	Pulse	0.10	3
Mo			1	0.227	ug/l	65.36	770.58	2.816E-04	Pulse	0.10	3
Ag			1	0.028	ug/l	14.49	240.01	8.197E-05	Pulse	0.10	3
Sn			1	1.500	ug/l	1.13	6,911.74	2.358E-03	Pulse	0.10	3
Sb			1	0.200	ug/l	5.71	1,253.43	3.389E-04	Pulse	0.10	3
Ba			1	0.224	ug/l	21.29	556.70	1.506E-04	Pulse	0.10	3
Tl			1	0.036	ug/l	16.43	556.70	2.634E-04	Pulse	0.10	3
Pb			1	0.090	ug/l	13.87	640.04	3.029E-04	Pulse	0.10	3
Pb			1	0.098	ug/l	16.90	516.70	2.447E-04	Pulse	0.10	3
Pb			1	0.100	ug/l	6.02	2,553.52	1.209E-03	Pulse	0.10	3
Na			2	66.998	ug/l	11.28	33,691.92	4.085E-01	Pulse	0.30	3
Mg			2	-0.695	ug/l	-51.76	1,215.62	1.475E-02	Pulse	0.30	3
Al			2	1.950	ug/l	49.07	1,285.62	1.559E-02	Pulse	0.30	3
K			2	1.306	ug/l	145.75	8,640.09	1.048E-01	Pulse	0.30	3
Ca			2	63.733	ug/l	11.20	683.36	8.295E-03	Pulse	0.30	3
Ti			2	0.191	ug/l	70.44	13.33	1.617E-04	Pulse	0.30	3
V			2	0.378	ug/l	10.96	704.47	8.546E-03	Pulse	0.30	3
Cr			2	0.880	ug/l	4.91	2,565.78	3.112E-02	Pulse	0.30	3
Mn			2	0.587	ug/l	8.18	734.47	8.911E-03	Pulse	0.30	3
Fe			2	13.217	ug/l	5.08	24,842.24	3.015E-01	Pulse	0.30	3
Co			2	0.033	ug/l	22.00	181.11	2.195E-03	Pulse	0.30	3
Ni			2	0.788	ug/l	6.17	916.70	1.112E-02	Pulse	0.30	3
Cu			2	0.369	ug/l	5.94	3,239.25	3.931E-02	Pulse	0.30	3
Zn			2	2.562	ug/l	4.86	1,215.61	1.475E-02	Pulse	0.30	3
As			2	0.089	ug/l	11.67	21.00	2.546E-04	Pulse	1.00	3
Cd			2	0.283	ug/l	5.27	9.98	2.675E-05	Pulse	0.30	3
Sn			2	0.891	ug/l	13.78	1,271.18	3.400E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	0.076	ug/l	12.81	4.33	5.470E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,690,950.43	0.04	110.3	Pulse	0.10	3
1	Sc		2,436,011.16	1.14	121.4	Pulse	0.10	3
1	Ge		455,679.08	1.01	122.4	Pulse	0.10	3
1	Ge		620,295.12	1.84	121.0	Pulse	0.10	3
1	Rh		2,737,167.77	0.60	114.5	Pulse	0.10	3
1	In		2,931,095.41	1.33	113.9	Pulse	0.10	3
1	Tb		3,699,475.47	0.68	108.3	Pulse	0.10	3
1	Ho		345,557.96	0.45	106.8	Pulse	0.10	3
1	Bi		2,112,363.98	1.08	106.2	Pulse	0.10	3
2	Sc		82,421.14	1.15	115.4	Pulse	0.30	3
2	Ge		45,906.53	0.50	120.1	Pulse	0.30	3
2	Ge		68,824.37	1.15	119.9	Pulse	0.30	3
2	Rh		1,158,972.03	0.82	111.7	Pulse	0.30	3
2	In		374,032.02	0.86	106.1	Pulse	0.30	3
2	Tb		1,319,116.58	0.51	100.9	Pulse	0.30	3
2	Ho		126,961.45	0.91	101.7	Pulse	0.30	3
2	Bi		872,392.78	0.98	99.9	Pulse	0.30	3
3	Sc		83,377.15	1.86	126.3	Pulse	0.30	3
3	Ge		52,410.49	1.20	129.1	Pulse	0.30	3
3	Ge		79,234.51	0.42	127.1	Pulse	0.30	3
3	Rh		842,223.33	0.85	116.4	Pulse	0.30	3
3	Tb		1,234,659.29	0.68	109.1	Pulse	0.30	3

Quantitation Report

File Name	063SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa043019m6.b
Method File	
Method Path	
Acq Time	4/30/2019 22:04
Sample Name	mp14645-b1
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/30/2019 19:15
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	75.083	ug/l	1.09	221,131.46	1.414E-01	Pulse	0.25	3
B			1	131.016	ug/l	0.46	249,183.00	1.593E-01	Pulse	0.15	3
Ca			1	3996.551	ug/l	0.06	1,377,652.32	6.081E-01	Pulse	0.10	3
Sr			1	78.952	ug/l	0.73	1,226,066.70	4.717E-01	Pulse	0.10	3
Mo			1	75.291	ug/l	0.55	235,289.82	9.052E-02	Pulse	0.10	3
Ag			1	78.009	ug/l	0.68	551,428.36	1.971E-01	Pulse	0.10	3
Sn			1	75.125	ug/l	1.56	349,662.91	1.250E-01	Pulse	0.10	3
Sb			1	78.979	ug/l	0.98	411,813.34	1.118E-01	Pulse	0.10	3
Ba			1	78.227	ug/l	0.62	167,429.61	4.544E-02	Pulse	0.10	3
Tl			1	77.428	ug/l	0.58	912,781.79	4.493E-01	Pulse	0.10	3
Pb			1	77.541	ug/l	1.19	314,782.72	1.549E-01	Pulse	0.10	3
Pb			1	78.025	ug/l	0.13	274,726.33	1.352E-01	Pulse	0.10	3
Pb			1	77.514	ug/l	0.19	1,256,113.96	6.183E-01	Pulse	0.10	3
Na			2	3971.611	ug/l	0.92	1,528,915.43	1.899E+01	Pulse	0.30	3
Mg			2	3896.245	ug/l	1.31	678,199.43	8.425E+00	Pulse	0.30	3
Al			2	3706.239	ug/l	0.19	203,263.90	2.525E+00	Pulse	0.30	3
K			2	4009.731	ug/l	0.69	439,425.54	5.459E+00	Pulse	0.30	3
Ca			2	4368.131	ug/l	2.36	24,648.32	3.062E-01	Pulse	0.30	3
Ti			2	71.581	ug/l	1.69	3,469.29	4.310E-02	Pulse	0.30	3
V			2	79.213	ug/l	1.21	119,535.02	1.485E+00	Pulse	0.30	3
Cr			2	78.296	ug/l	1.37	150,962.61	1.875E+00	Pulse	0.30	3
Mn			2	75.121	ug/l	0.59	69,933.57	8.688E-01	Pulse	0.30	3
Fe			2	4015.388	ug/l	1.33	6,015,602.96	7.473E+01	Analog	0.30	3
Co			2	76.824	ug/l	0.22	244,704.35	3.040E+00	Pulse	0.30	3
Ni			2	77.643	ug/l	1.27	66,360.64	8.244E-01	Pulse	0.30	3
Cu			2	75.861	ug/l	0.72	179,346.98	2.228E+00	Pulse	0.30	3
Zn			2	70.643	ug/l	0.94	21,459.73	2.666E-01	Pulse	0.30	3
As			2	71.817	ug/l	1.06	12,006.09	1.492E-01	Pulse	1.00	3
Cd			2	75.146	ug/l	1.06	28,384.73	7.901E-02	Pulse	0.30	3
Sn			2	76.838	ug/l	1.12	60,355.89	1.680E-01	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	329.957	ug/l	0.98	10,567.07	1.374E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,564,230.43	0.74	102.1	Pulse	0.10	3
1	Sc		2,265,537.20	1.02	112.9	Pulse	0.10	3
1	Ge		424,160.32	1.25	113.9	Pulse	0.10	3
1	Ge		583,018.11	2.05	113.7	Pulse	0.10	3
1	Rh		2,599,360.07	1.25	108.8	Pulse	0.10	3
1	In		2,796,858.83	1.99	108.7	Pulse	0.10	3
1	Tb		3,685,002.45	0.99	107.9	Pulse	0.10	3
1	Ho		345,437.73	1.47	106.8	Pulse	0.10	3
1	Bi		2,031,484.08	0.73	102.2	Pulse	0.10	3
2	Sc		80,497.41	0.50	112.7	Pulse	0.30	3
2	Ge		43,670.35	0.87	114.3	Pulse	0.30	3
2	Ge		65,727.45	0.69	114.5	Pulse	0.30	3
2	Rh		1,121,172.87	0.10	108.1	Pulse	0.30	3
2	In		359,222.60	0.60	101.9	Pulse	0.30	3
2	Tb		1,289,806.79	0.48	98.6	Pulse	0.30	3
2	Ho		124,351.41	0.68	99.6	Pulse	0.30	3
2	Bi		838,686.70	0.45	96.1	Pulse	0.30	3
3	Sc		83,731.99	1.22	126.8	Pulse	0.30	3
3	Ge		50,781.97	0.74	125.1	Pulse	0.30	3
3	Ge		76,907.83	0.66	123.3	Pulse	0.30	3
3	Rh		821,559.18	0.46	113.5	Pulse	0.30	3
3	Tb		1,234,491.79	0.33	109.0	Pulse	0.30	3

Quantitation Report

File Name	064SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa043019m6.b
Method File	
Method Path	
Acq Time	4/30/2019 22:09
Sample Name	mp14645-b2
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/30/2019 19:15
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	76.685	ug/l	0.46	227,267.71	1.444E-01	Pulse	0.25	3
B			1	126.736	ug/l	0.15	242,676.60	1.542E-01	Pulse	0.15	3
Ca			1	4040.358	ug/l	0.37	1,412,536.18	6.146E-01	Pulse	0.10	3
Sr			1	80.322	ug/l	0.68	1,250,726.05	4.799E-01	Pulse	0.10	3
Mo			1	76.249	ug/l	0.71	238,940.36	9.167E-02	Pulse	0.10	3
Ag			1	80.017	ug/l	0.29	570,909.51	2.022E-01	Pulse	0.10	3
Sn			1	75.489	ug/l	0.85	354,711.02	1.257E-01	Pulse	0.10	3
Sb			1	79.055	ug/l	0.85	408,861.40	1.119E-01	Pulse	0.10	3
Ba			1	80.442	ug/l	2.01	170,761.24	4.672E-02	Pulse	0.10	3
Tl			1	78.252	ug/l	0.10	915,296.76	4.541E-01	Pulse	0.10	3
Pb			1	78.343	ug/l	0.30	315,549.41	1.565E-01	Pulse	0.10	3
Pb			1	78.871	ug/l	0.06	275,528.47	1.367E-01	Pulse	0.10	3
Pb			1	78.649	ug/l	0.19	1,264,490.39	6.274E-01	Pulse	0.10	3
Na			2	3977.015	ug/l	0.55	1,544,301.74	1.902E+01	Pulse	0.30	3
Mg			2	3890.193	ug/l	0.36	683,060.95	8.412E+00	Pulse	0.30	3
Al			2	3847.288	ug/l	0.76	212,781.49	2.621E+00	Pulse	0.30	3
K			2	4019.199	ug/l	0.30	444,284.93	5.472E+00	Pulse	0.30	3
Ca			2	4427.664	ug/l	1.00	25,198.02	3.103E-01	Pulse	0.30	3
Ti			2	73.897	ug/l	2.71	3,612.65	4.449E-02	Pulse	0.30	3
V			2	81.699	ug/l	0.32	124,357.90	1.532E+00	Pulse	0.30	3
Cr			2	80.450	ug/l	0.81	156,446.56	1.927E+00	Pulse	0.30	3
Mn			2	75.892	ug/l	0.65	71,265.78	8.777E-01	Pulse	0.30	3
Fe			2	4067.066	ug/l	1.40	6,145,749.62	7.569E+01	Analog	0.30	3
Co			2	78.260	ug/l	0.66	251,441.83	3.097E+00	Pulse	0.30	3
Ni			2	79.058	ug/l	0.85	68,153.36	8.394E-01	Pulse	0.30	3
Cu			2	76.761	ug/l	0.27	183,026.36	2.254E+00	Pulse	0.30	3
Zn			2	71.135	ug/l	0.48	21,794.61	2.684E-01	Pulse	0.30	3
As			2	71.163	ug/l	1.11	12,000.08	1.478E-01	Pulse	1.00	3
Cd			2	75.437	ug/l	0.74	28,791.79	7.932E-02	Pulse	0.30	3
Sn			2	77.122	ug/l	0.96	61,213.69	1.686E-01	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	322.358	ug/l	0.25	10,619.90	1.342E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,574,034.17	0.77	102.7	Pulse	0.10	3
1	Sc		2,298,224.86	0.57	114.5	Pulse	0.10	3
1	Ge		429,588.17	0.73	115.4	Pulse	0.10	3
1	Ge		587,845.58	0.96	114.7	Pulse	0.10	3
1	Rh		2,606,435.22	1.03	109.1	Pulse	0.10	3
1	In		2,823,102.68	1.25	109.7	Pulse	0.10	3
1	Tb		3,654,849.32	1.39	107.0	Pulse	0.10	3
1	Ho		343,106.50	1.34	106.1	Pulse	0.10	3
1	Bi		2,015,597.16	1.42	101.4	Pulse	0.10	3
2	Sc		81,197.30	0.67	113.7	Pulse	0.30	3
2	Ge		44,251.98	1.98	115.8	Pulse	0.30	3
2	Ge		66,074.16	0.95	115.1	Pulse	0.30	3
2	Rh		1,125,659.16	0.91	108.5	Pulse	0.30	3
2	In		362,986.06	0.52	102.9	Pulse	0.30	3
2	Tb		1,300,325.88	0.74	99.4	Pulse	0.30	3
2	Ho		126,499.52	1.38	101.3	Pulse	0.30	3
2	Bi		834,418.94	0.44	95.6	Pulse	0.30	3
3	Sc		84,975.12	0.67	128.7	Pulse	0.30	3
3	Ge		51,048.40	0.59	125.8	Pulse	0.30	3
3	Ge		79,111.70	0.95	126.9	Pulse	0.30	3
3	Rh		823,377.29	0.63	113.8	Pulse	0.30	3
3	Tb		1,232,054.12	0.50	108.8	Pulse	0.30	3

Quantitation Report

File Name	065SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa043019m6.b
Method File	
Method Path	
Acq Time	4/30/2019 22:14
Sample Name	mp14645-s1
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/30/2019 19:15
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	74.909	ug/l	0.44	222,446.76	1.410E-01	Pulse	0.25	3
B			1	159.796	ug/l	0.77	305,575.90	1.938E-01	Pulse	0.15	3
Ca			1	28139.160	ug/l	1.45	9,693,536.32	4.205E+00	Analog	0.10	3
Sr			1	220.453	ug/l	0.86	3,363,419.12	1.317E+00	Pulse	0.10	3
Mo			1	79.784	ug/l	0.61	245,032.17	9.592E-02	Pulse	0.10	3
Ag			1	79.113	ug/l	0.31	554,988.50	1.999E-01	Pulse	0.10	3
Sn			1	72.102	ug/l	0.42	333,138.86	1.200E-01	Pulse	0.10	3
Sb			1	77.263	ug/l	1.37	398,277.65	1.093E-01	Pulse	0.10	3
Ba			1	117.449	ug/l	1.01	248,485.57	6.821E-02	Pulse	0.10	3
Tl			1	77.322	ug/l	0.98	885,604.88	4.487E-01	Pulse	0.10	3
Pb			1	80.271	ug/l	0.88	316,584.13	1.604E-01	Pulse	0.10	3
Pb			1	80.104	ug/l	1.31	274,026.55	1.388E-01	Pulse	0.10	3
Pb			1	80.173	ug/l	0.66	1,262,219.58	6.395E-01	Pulse	0.10	3
Na			2	42265.487	ug/l	1.84	16,454,715.46	2.013E+02	Analog	0.30	3
Mg			2	10221.767	ug/l	0.38	1,805,089.23	2.208E+01	Pulse	0.30	3
Al			2	4833.425	ug/l	0.96	268,879.55	3.289E+00	Pulse	0.30	3
K			2	9643.307	ug/l	0.54	1,061,557.77	1.298E+01	Pulse	0.30	3
Ca			2	28997.624	ug/l	0.59	164,417.32	2.011E+00	Pulse	0.30	3
Ti			2	90.616	ug/l	4.03	4,459.65	5.454E-02	Pulse	0.30	3
V			2	84.317	ug/l	0.56	129,232.03	1.581E+00	Pulse	0.30	3
Cr			2	83.916	ug/l	0.44	164,281.11	2.009E+00	Pulse	0.30	3
Mn			2	87.940	ug/l	1.22	83,121.72	1.017E+00	Pulse	0.30	3
Fe			2	5398.945	ug/l	0.74	8,213,500.23	1.005E+02	Analog	0.30	3
Co			2	76.464	ug/l	0.30	247,381.10	3.026E+00	Pulse	0.30	3
Ni			2	79.072	ug/l	1.48	68,640.92	8.395E-01	Pulse	0.30	3
Cu			2	77.327	ug/l	0.81	185,633.57	2.270E+00	Pulse	0.30	3
Zn			2	86.817	ug/l	1.47	26,687.33	3.264E-01	Pulse	0.30	3
As			2	71.820	ug/l	0.71	12,195.23	1.492E-01	Pulse	1.00	3
Cd			2	74.217	ug/l	0.98	28,309.64	7.803E-02	Pulse	0.30	3
Sn			2	73.761	ug/l	0.94	58,538.12	1.614E-01	Pulse	0.30	3
Se			3	319.702	ug/l	0.91	10,498.76	1.331E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,577,211.55	1.68	102.9	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,305,469.24	1.63	114.9	Pulse	0.10	3
1	Ge		434,395.70	1.13	116.6	Pulse	0.10	3
1	Ge		596,831.81	1.35	116.4	Pulse	0.10	3
1	Rh		2,554,492.30	1.18	106.9	Pulse	0.10	3
1	In		2,775,913.17	1.82	107.9	Pulse	0.10	3
1	Tb		3,642,968.90	1.08	106.7	Pulse	0.10	3
1	Ho		345,602.40	0.67	106.9	Pulse	0.10	3
1	Bi		1,973,651.48	0.80	99.3	Pulse	0.10	3
2	Sc		81,761.28	0.51	114.4	Pulse	0.30	3
2	Ge		44,986.30	1.30	117.7	Pulse	0.30	3
2	Ge		67,908.18	0.54	118.3	Pulse	0.30	3
2	Rh		1,110,954.68	1.02	107.1	Pulse	0.30	3
2	In		362,795.91	0.25	102.9	Pulse	0.30	3
2	Tb		1,301,873.73	0.20	99.5	Pulse	0.30	3
2	Ho		125,823.76	0.62	100.8	Pulse	0.30	3
2	Bi		810,344.53	0.31	92.8	Pulse	0.30	3
3	Sc		84,620.96	0.45	128.2	Pulse	0.30	3
3	Ge		52,135.05	0.36	128.5	Pulse	0.30	3
3	Ge		78,860.34	0.52	126.5	Pulse	0.30	3
3	Rh		806,681.81	0.62	111.5	Pulse	0.30	3
3	Tb		1,219,535.82	0.67	107.7	Pulse	0.30	3

Quantitation Report

File Name	066SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa043019m6.b
Method File	
Method Path	
Acq Time	4/30/2019 22:19
Sample Name	mp14645-s2
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/30/2019 19:15
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	76.199	ug/l	0.49	226,189.27	1.435E-01	Pulse	0.25	3
B			1	160.296	ug/l	1.37	306,399.17	1.944E-01	Pulse	0.15	3
Ca			1	28643.916	ug/l	0.76	9,892,657.14	4.280E+00	Analog	0.10	3
Sr			1	222.754	ug/l	0.71	3,391,087.55	1.330E+00	Pulse	0.10	3
Mo			1	80.458	ug/l	1.01	246,579.71	9.673E-02	Pulse	0.10	3
Ag			1	79.437	ug/l	1.22	558,379.46	2.008E-01	Pulse	0.10	3
Sn			1	71.305	ug/l	1.28	330,119.36	1.187E-01	Pulse	0.10	3
Sb			1	77.846	ug/l	0.73	401,907.38	1.102E-01	Pulse	0.10	3
Ba			1	117.909	ug/l	0.34	249,838.83	6.847E-02	Pulse	0.10	3
Tl			1	78.830	ug/l	1.58	890,345.69	4.575E-01	Pulse	0.10	3
Pb			1	81.365	ug/l	1.45	316,413.56	1.626E-01	Pulse	0.10	3
Pb			1	82.485	ug/l	0.84	278,234.37	1.430E-01	Pulse	0.10	3
Pb			1	82.114	ug/l	1.11	1,274,736.13	6.550E-01	Pulse	0.10	3
Na			2	42387.637	ug/l	0.82	16,861,593.77	2.018E+02	Analog	0.30	3
Mg			2	10263.057	ug/l	0.22	1,851,747.43	2.217E+01	Pulse	0.30	3
Al			2	4870.207	ug/l	0.87	276,806.55	3.314E+00	Pulse	0.30	3
K			2	9586.106	ug/l	0.67	1,078,242.35	1.291E+01	Pulse	0.30	3
Ca			2	29031.264	ug/l	0.78	168,183.80	2.013E+00	Pulse	0.30	3
Ti			2	85.056	ug/l	3.05	4,277.31	5.120E-02	Pulse	0.30	3
V			2	83.617	ug/l	0.66	130,941.11	1.567E+00	Pulse	0.30	3
Cr			2	82.997	ug/l	0.05	166,020.85	1.987E+00	Pulse	0.30	3
Mn			2	87.285	ug/l	0.69	84,297.66	1.009E+00	Pulse	0.30	3
Fe			2	5422.166	ug/l	0.96	8,428,069.11	1.009E+02	Analog	0.30	3
Co			2	75.275	ug/l	0.26	248,826.23	2.979E+00	Pulse	0.30	3
Ni			2	77.655	ug/l	0.29	68,879.73	8.245E-01	Pulse	0.30	3
Cu			2	76.692	ug/l	0.70	188,133.68	2.252E+00	Pulse	0.30	3
Zn			2	87.374	ug/l	1.88	27,439.65	3.285E-01	Pulse	0.30	3
As			2	71.663	ug/l	0.10	12,433.07	1.488E-01	Pulse	1.00	3
Cd			2	74.094	ug/l	0.41	28,317.31	7.790E-02	Pulse	0.30	3
Sn			2	74.235	ug/l	0.39	59,022.06	1.624E-01	Pulse	0.30	3
Se			3	314.235	ug/l	1.16	10,516.77	1.309E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,576,640.83	1.36	102.9	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,311,015.69	1.85	115.1	Pulse	0.10	3
1	Ge		434,537.63	0.86	116.7	Pulse	0.10	3
1	Ge		599,989.21	1.03	117.1	Pulse	0.10	3
1	Rh		2,549,023.03	1.23	106.7	Pulse	0.10	3
1	In		2,781,670.14	2.04	108.1	Pulse	0.10	3
1	Tb		3,648,564.53	0.70	106.9	Pulse	0.10	3
1	Ho		343,365.80	0.57	106.2	Pulse	0.10	3
1	Bi		1,946,349.60	1.00	97.9	Pulse	0.10	3
2	Sc		83,536.78	0.20	116.9	Pulse	0.30	3
2	Ge		45,911.03	0.15	120.1	Pulse	0.30	3
2	Ge		68,564.38	1.29	119.5	Pulse	0.30	3
2	Rh		1,107,577.67	0.41	106.7	Pulse	0.30	3
2	In		363,490.35	0.28	103.1	Pulse	0.30	3
2	Tb		1,306,495.61	0.42	99.9	Pulse	0.30	3
2	Ho		126,338.71	0.60	101.2	Pulse	0.30	3
2	Bi		815,471.03	0.72	93.4	Pulse	0.30	3
3	Sc		86,151.86	0.23	130.5	Pulse	0.30	3
3	Ge		52,763.77	1.43	130.0	Pulse	0.30	3
3	Ge		80,372.30	0.86	128.9	Pulse	0.30	3
3	Rh		812,029.55	0.17	112.2	Pulse	0.30	3
3	Tb		1,228,892.56	0.54	108.6	Pulse	0.30	3

Quantitation Report

File Name	067_CCV.d
File Path	C:\Agilent\ICPMH\1\DATA\xa043019m6.b
Method File	
Method Path	
Acq Time	4/30/2019 22:24
Sample Name	CCVA
Sample Type	CCV
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/30/2019 19:15
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	49.947	ug/l	2.18	310,087.25	1.881E-01	Pulse	0.25	3
B			1	120.028	ug/l	2.47	477,869.27	2.898E-01	Pulse	0.15	3
Ca			1	5135.736	ug/l	0.29	3,742,843.38	1.543E+00	Pulse	0.10	3
Sr			1	52.600	ug/l	0.94	1,686,018.77	6.284E-01	Pulse	0.10	3
Mo			1	51.106	ug/l	0.48	329,672.73	1.229E-01	Pulse	0.10	3
Ag			1	49.209	ug/l	1.44	724,064.70	2.487E-01	Pulse	0.10	3
Sn			1	49.296	ug/l	0.56	477,846.61	1.641E-01	Pulse	0.10	3
Sb			1	54.475	ug/l	0.97	576,977.75	1.541E-01	Pulse	0.10	3
Ba			1	51.936	ug/l	0.97	225,801.84	6.033E-02	Pulse	0.10	3
Tl			1	50.427	ug/l	1.02	1,193,224.07	5.852E-01	Pulse	0.10	3
Pb			1	49.981	ug/l	0.81	407,193.40	1.997E-01	Pulse	0.10	3
Pb			1	50.806	ug/l	0.28	359,036.17	1.761E-01	Pulse	0.10	3
Pb			1	50.281	ug/l	0.65	1,635,276.72	8.020E-01	Pulse	0.10	3
Na			2	4916.966	ug/l	1.46	4,096,499.56	4.690E+01	Pulse	0.30	3
Mg			2	5023.683	ug/l	1.34	1,895,634.30	2.170E+01	Pulse	0.30	3
Al			2	4785.721	ug/l	1.62	567,643.69	6.498E+00	Pulse	0.30	3
K			2	5111.697	ug/l	1.45	1,201,836.20	1.376E+01	Pulse	0.30	3
Ca			2	5433.960	ug/l	0.55	66,056.66	7.561E-01	Pulse	0.30	3
Ti			2	46.557	ug/l	4.31	4,897.44	5.605E-02	Pulse	0.30	3
V			2	51.699	ug/l	0.93	169,290.94	1.938E+00	Pulse	0.30	3
Cr			2	50.324	ug/l	0.49	210,358.26	2.408E+00	Pulse	0.30	3
Mn			2	48.741	ug/l	0.42	98,439.13	1.127E+00	Pulse	0.30	3
Fe			2	4993.712	ug/l	1.23	16,229,348.80	1.858E+02	Analog	0.30	3
Co			2	49.034	ug/l	0.92	338,968.29	3.880E+00	Pulse	0.30	3
Ni			2	48.687	ug/l	0.40	90,261.84	1.033E+00	Pulse	0.30	3
Cu			2	47.715	ug/l	0.89	244,187.72	2.795E+00	Pulse	0.30	3
Zn			2	47.666	ug/l	1.51	31,266.52	3.579E-01	Pulse	0.30	3
As			2	49.910	ug/l	1.66	18,106.03	2.073E-01	Pulse	1.00	3
Cd			2	49.764	ug/l	1.13	40,197.57	1.047E-01	Pulse	0.30	3
Sn			2	49.798	ug/l	0.42	83,416.58	2.173E-01	Pulse	0.30	3
Se			3	190.593	ug/l	0.33	12,435.98	1.587E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,648,936.56	0.97	107.6	Pulse	0.10	3
1	Sc		2,425,735.38	1.46	120.8	Pulse	0.10	3
1	Ge		439,532.36	1.84	118.0	Pulse	0.10	3

Quantitation Report

1	Ge		608,405.82	1.26	118.7	Pulse	0.10	3
1	Rh		2,682,814.65	1.20	112.3	Pulse	0.10	3
1	In		2,911,229.73	1.52	113.2	Pulse	0.10	3
1	Tb		3,742,974.94	0.79	109.6	Pulse	0.10	3
1	Ho		353,963.90	1.62	109.4	Pulse	0.10	3
1	Bi		2,038,952.42	0.85	102.5	Pulse	0.10	3
2	Sc		87,362.80	1.50	122.3	Pulse	0.30	3
2	Ge		46,243.02	0.38	121.0	Pulse	0.30	3
2	Ge		69,835.37	0.76	121.7	Pulse	0.30	3
2	Rh		1,169,012.42	0.81	112.7	Pulse	0.30	3
2	In		383,795.88	0.58	108.8	Pulse	0.30	3
2	Tb		1,353,017.38	0.25	103.5	Pulse	0.30	3
2	Ho		129,888.22	0.53	104.0	Pulse	0.30	3
2	Bi		855,029.22	0.45	97.9	Pulse	0.30	3
3	Sc		86,258.28	0.64	130.6	Pulse	0.30	3
3	Ge		51,372.71	1.22	126.6	Pulse	0.30	3
3	Ge		78,345.76	0.85	125.6	Pulse	0.30	3
3	Rh		830,682.15	0.36	114.8	Pulse	0.30	3
3	Tb		1,234,286.34	0.44	109.0	Pulse	0.30	3

Quantitation Report

File Name	068_CCB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa043019m6.b
Method File	
Method Path	
Acq Time	4/30/2019 22:29
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/30/2019 19:15
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.010	ug/l	12.97	69.33	4.093E-05	Pulse	0.25	3
B			1	12.179	ug/l	1.63	53,517.64	3.160E-02	Pulse	0.15	3
Ca			1	-8.096	ug/l	-4.54	24,899.52	1.022E-02	Pulse	0.10	3
Sr			1	0.022	ug/l	9.58	1,433.45	5.157E-04	Pulse	0.10	3
Mo			1	0.101	ug/l	11.72	703.37	2.531E-04	Pulse	0.10	3
Ag			1	0.017	ug/l	21.21	286.68	9.711E-05	Pulse	0.10	3
Sn			1	0.570	ug/l	4.64	5,204.44	1.758E-03	Pulse	0.10	3
Sb			1	0.084	ug/l	14.72	1,086.74	2.926E-04	Pulse	0.10	3
Ba			1	0.012	ug/l	110.35	126.67	3.417E-05	Pulse	0.10	3
Tl			1	0.026	ug/l	19.62	746.71	3.611E-04	Pulse	0.10	3
Pb			1	0.033	ug/l	6.76	533.37	2.578E-04	Pulse	0.10	3
Pb			1	0.039	ug/l	3.33	433.36	2.094E-04	Pulse	0.10	3
Pb			1	0.038	ug/l	7.63	2,123.48	1.027E-03	Pulse	0.10	3
Na			2	6.490	ug/l	1.36	13,347.56	1.514E-01	Pulse	0.30	3
Mg			2	-0.900	ug/l	-25.69	1,090.05	1.236E-02	Pulse	0.30	3
Al			2	22.843	ug/l	1.55	3,987.18	4.522E-02	Pulse	0.30	3
K			2	-2.405	ug/l	-47.84	8,523.35	9.668E-02	Pulse	0.30	3
Ca			2	-8.299	ug/l	-21.78	241.11	2.735E-03	Pulse	0.30	3
Ti			2	0.045	ug/l	161.44	8.89	1.006E-04	Pulse	0.30	3
V			2	0.003	ug/l	133.94	140.00	1.588E-03	Pulse	0.30	3
Cr			2	0.001	ug/l	235.76	901.15	1.022E-02	Pulse	0.30	3
Mn			2	0.026	ug/l	67.45	241.11	2.735E-03	Pulse	0.30	3
Fe			2	1.224	ug/l	9.74	8,923.61	1.012E-01	Pulse	0.30	3
Co			2	0.007	ug/l	109.14	124.44	1.413E-03	Pulse	0.30	3
Ni			2	-0.016	ug/l	-77.69	215.56	2.445E-03	Pulse	0.30	3
Cu			2	0.086	ug/l	16.83	2,961.41	3.359E-02	Pulse	0.30	3
Zn			2	0.603	ug/l	21.58	857.81	9.731E-03	Pulse	0.30	3
As			2	0.006	ug/l	190.84	8.33	9.438E-05	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	0.141	ug/l	4.95	9.95	2.535E-05	Pulse	0.30	3
Sn			2	0.196	ug/l	16.36	911.15	2.321E-03	Pulse	0.30	3
Se			3	0.083	ug/l	23.73	7.27	9.248E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,693,549.21	0.30	110.5	Pulse	0.10	3
1	Sc		2,437,307.46	1.12	121.4	Pulse	0.10	3
1	Ge		445,016.23	1.59	119.5	Pulse	0.10	3
1	Ge		611,979.61	1.56	119.4	Pulse	0.10	3
1	Rh		2,779,181.63	1.56	116.3	Pulse	0.10	3
1	In		2,958,083.66	1.98	115.0	Pulse	0.10	3
1	Tb		3,715,172.76	1.37	108.8	Pulse	0.10	3
1	Ho		347,124.04	1.08	107.3	Pulse	0.10	3
1	Bi		2,068,976.95	1.40	104.0	Pulse	0.10	3
2	Sc		88,169.04	0.43	123.4	Pulse	0.30	3
2	Ge		47,370.83	1.55	124.0	Pulse	0.30	3
2	Ge		70,527.01	0.99	122.9	Pulse	0.30	3
2	Rh		1,205,645.79	0.20	116.2	Pulse	0.30	3
2	In		392,644.28	0.13	111.3	Pulse	0.30	3
2	Tb		1,347,073.63	0.52	103.0	Pulse	0.30	3
2	Ho		130,717.79	0.97	104.7	Pulse	0.30	3
2	Bi		875,988.33	0.41	100.3	Pulse	0.30	3
3	Sc		86,520.54	0.47	131.0	Pulse	0.30	3
3	Ge		52,392.61	0.79	129.1	Pulse	0.30	3
3	Ge		78,566.92	0.66	126.0	Pulse	0.30	3
3	Rh		855,754.48	0.48	118.2	Pulse	0.30	3
3	Tb		1,242,176.27	0.46	109.7	Pulse	0.30	3

Quantitation Report

File Name	069SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa043019m6.b
Method File	
Method Path	
Acq Time	4/30/2019 22:34
Sample Name	jc87142-4
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/30/2019 19:15
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.041	ug/l	11.78	130.67	8.088E-05	Pulse	0.25	3
B			1	62.148	ug/l	2.46	124,112.65	7.685E-02	Pulse	0.15	3
Ca			1	24345.769	ug/l	0.31	8,555,211.96	3.640E+00	Analog	0.10	3
Sr			1	139.410	ug/l	0.55	2,143,023.20	8.327E-01	Pulse	0.10	3
Mo			1	2.017	ug/l	1.85	6,264.77	2.434E-03	Pulse	0.10	3
Ag			1	0.043	ug/l	10.63	343.35	1.214E-04	Pulse	0.10	3
Sn			1	1.861	ug/l	3.19	8,375.84	2.959E-03	Pulse	0.10	3
Sb			1	0.339	ug/l	17.68	1,953.53	5.357E-04	Pulse	0.10	3
Ba			1	38.997	ug/l	0.68	82,558.32	2.266E-02	Pulse	0.10	3
Tl			1	0.055	ug/l	25.31	740.05	3.735E-04	Pulse	0.10	3
Pb			1	2.932	ug/l	6.54	11,825.46	5.978E-03	Pulse	0.10	3
Pb			1	2.788	ug/l	6.97	9,706.90	4.904E-03	Pulse	0.10	3
Pb			1	2.788	ug/l	2.54	44,791.37	2.264E-02	Pulse	0.10	3
Na			2	38614.318	ug/l	1.40	15,347,138.83	1.839E+02	Analog	0.30	3
Mg			2	6405.026	ug/l	0.81	1,155,027.49	1.384E+01	Pulse	0.30	3
Al			2	1045.702	ug/l	4.98	60,303.11	7.227E-01	Pulse	0.30	3
K			2	5643.954	ug/l	0.47	637,745.67	7.642E+00	Pulse	0.30	3
Ca			2	24731.137	ug/l	0.52	143,176.47	1.716E+00	Pulse	0.30	3
Ti			2	22.940	ug/l	59.31	1,154.06	1.384E-02	Pulse	0.30	3
V			2	3.684	ug/l	3.15	5,880.06	7.047E-02	Pulse	0.30	3
Cr			2	5.387	ug/l	1.81	11,556.38	1.385E-01	Pulse	0.30	3
Mn			2	13.559	ug/l	3.90	13,229.85	1.586E-01	Pulse	0.30	3
Fe			2	1335.209	ug/l	1.08	2,076,808.25	2.489E+01	Pulse	0.30	3
Co			2	0.305	ug/l	5.88	1,082.27	1.297E-02	Pulse	0.30	3
Ni			2	6.569	ug/l	1.62	6,033.38	7.230E-02	Pulse	0.30	3
Cu			2	3.487	ug/l	0.67	10,822.54	1.297E-01	Pulse	0.30	3
Zn			2	22.728	ug/l	2.98	7,455.10	8.934E-02	Pulse	0.30	3
As			2	1.072	ug/l	7.50	191.67	2.296E-03	Pulse	1.00	3
Cd			2	0.433	ug/l	4.68	67.45	1.847E-04	Pulse	0.30	3
Sn			2	1.044	ug/l	10.90	1,362.30	3.732E-03	Pulse	0.30	3
Se			3	0.361	ug/l	5.48	13.93	1.733E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,615,272.30	0.76	105.4	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,350,323.61	1.68	117.1	Pulse	0.10	3
1	Ge		440,936.80	1.24	118.4	Pulse	0.10	3
1	Ge		602,049.80	1.68	117.5	Pulse	0.10	3
1	Rh		2,573,704.60	1.11	107.7	Pulse	0.10	3
1	In		2,829,568.80	1.11	110.0	Pulse	0.10	3
1	Tb		3,642,993.90	1.45	106.7	Pulse	0.10	3
1	Ho		346,558.21	1.49	107.2	Pulse	0.10	3
1	Bi		1,978,960.23	1.16	99.5	Pulse	0.10	3
2	Sc		83,455.10	0.79	116.8	Pulse	0.30	3
2	Ge		45,888.72	0.86	120.1	Pulse	0.30	3
2	Ge		69,002.73	0.74	120.3	Pulse	0.30	3
2	Rh		1,116,824.09	0.67	107.6	Pulse	0.30	3
2	In		365,002.50	1.14	103.5	Pulse	0.30	3
2	Tb		1,302,625.02	0.42	99.6	Pulse	0.30	3
2	Ho		125,277.03	0.56	100.3	Pulse	0.30	3
2	Bi		815,589.97	0.13	93.4	Pulse	0.30	3
3	Sc		85,205.18	1.39	129.0	Pulse	0.30	3
3	Ge		53,169.61	0.46	131.0	Pulse	0.30	3
3	Ge		80,397.76	1.24	128.9	Pulse	0.30	3
3	Rh		814,130.04	0.88	112.5	Pulse	0.30	3
3	Tb		1,230,601.41	0.39	108.7	Pulse	0.30	3

Quantitation Report

File Name	070SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa043019m6.b
Method File	
Method Path	
Acq Time	4/30/2019 22:39
Sample Name	mp14645-sd1
Sample Type	Sample
Comment	
Prep Dilution	10.000
Auto Dilution	N/A
Total Dilution	10.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/30/2019 19:15
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.107	ug/l	3.02	74.67	4.386E-05	Pulse	0.25	3
B			1	115.878	ug/l	1.43	51,379.86	3.019E-02	Pulse	0.15	3
Ca			1	25726.969	ug/l	1.04	1,930,255.44	7.793E-01	Pulse	0.10	3
Sr			1	135.775	ug/l	1.99	452,313.44	1.624E-01	Pulse	0.10	3
Mo			1	7.769	ug/l	3.20	5,227.72	1.877E-03	Pulse	0.10	3
Ag			1	0.101	ug/l	26.75	186.68	6.263E-05	Pulse	0.10	3
Sn			1	3.369	ug/l	8.81	2,927.05	9.816E-04	Pulse	0.10	3
Sb			1	3.292	ug/l	6.35	3,713.91	9.870E-04	Pulse	0.10	3
Ba			1	39.024	ug/l	1.76	17,143.28	4.552E-03	Pulse	0.10	3
Tl			1	0.200	ug/l	18.29	600.04	2.879E-04	Pulse	0.10	3
Pb			1	3.334	ug/l	0.99	3,030.42	1.456E-03	Pulse	0.10	3
Pb			1	3.200	ug/l	3.71	2,463.62	1.184E-03	Pulse	0.10	3
Pb			1	3.321	ug/l	1.97	11,882.28	5.709E-03	Pulse	0.10	3
Na			2	36819.456	ug/l	0.54	3,050,651.68	3.514E+01	Pulse	0.30	3
Mg			2	6486.417	ug/l	0.56	244,484.76	2.816E+00	Pulse	0.30	3
Al			2	1042.936	ug/l	9.65	13,506.67	1.556E-01	Pulse	0.30	3
K			2	5719.387	ug/l	0.68	141,591.91	1.631E+00	Pulse	0.30	3
Ca			2	27378.571	ug/l	1.78	33,237.61	3.829E-01	Pulse	0.30	3
Ti			2	15.884	ug/l	17.93	170.00	1.957E-03	Pulse	0.30	3
V			2	3.686	ug/l	2.80	1,326.73	1.528E-02	Pulse	0.30	3
Cr			2	10.154	ug/l	1.17	5,082.15	5.854E-02	Pulse	0.30	3
Mn			2	16.716	ug/l	11.66	3,533.38	4.070E-02	Pulse	0.30	3
Fe			2	1385.630	ug/l	1.20	452,226.95	5.209E+00	Pulse	0.30	3
Co			2	0.399	ug/l	5.40	351.12	4.044E-03	Pulse	0.30	3
Ni			2	8.878	ug/l	5.89	1,873.46	2.157E-02	Pulse	0.30	3
Cu			2	4.952	ug/l	12.28	4,974.14	5.731E-02	Pulse	0.30	3
Zn			2	40.560	ug/l	5.48	3,062.54	3.528E-02	Pulse	0.30	3
As			2	7.949	ug/l	4.29	292.67	3.371E-03	Pulse	1.00	3
Cd			2	1.581	ug/l	1.38	24.19	6.181E-05	Pulse	0.30	3
Sn			2	-0.499	ug/l	-16.60	490.01	1.253E-03	Pulse	0.30	3
Se			3	6.823	ug/l	11.00	46.93	5.912E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,702,116.11	0.36	111.1	Pulse	0.10	3
1	Sc		2,476,972.98	0.55	123.4	Pulse	0.10	3
1	Ge		454,388.64	0.92	122.0	Pulse	0.10	3

Quantitation Report

1	Ge		624,589.93	1.30	121.9	Pulse	0.10	3
1	Rh		2,785,673.71	1.79	116.6	Pulse	0.10	3
1	In		2,981,153.22	0.67	115.9	Pulse	0.10	3
1	Tb		3,765,574.63	2.06	110.3	Pulse	0.10	3
1	Ho		357,046.17	1.74	110.4	Pulse	0.10	3
1	Bi		2,081,643.04	1.30	104.7	Pulse	0.10	3
2	Sc		86,815.44	0.74	121.5	Pulse	0.30	3
2	Ge		47,174.61	0.38	123.4	Pulse	0.30	3
2	Ge		70,424.36	0.85	122.7	Pulse	0.30	3
2	Rh		1,194,281.83	0.38	115.1	Pulse	0.30	3
2	In		391,198.69	0.43	110.9	Pulse	0.30	3
2	Tb		1,352,414.84	0.41	103.4	Pulse	0.30	3
2	Ho		130,190.79	0.96	104.3	Pulse	0.30	3
2	Bi		871,917.07	0.31	99.9	Pulse	0.30	3
3	Sc		86,890.25	0.80	131.6	Pulse	0.30	3
3	Ge		52,298.91	0.98	128.9	Pulse	0.30	3
3	Ge		79,391.72	0.23	127.3	Pulse	0.30	3
3	Rh		841,214.55	0.29	116.2	Pulse	0.30	3
3	Tb		1,239,773.11	0.64	109.5	Pulse	0.30	3

Quantitation Report

File Name 071SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa043019m6.b
Method File
Method Path
Acq Time 4/30/2019 22:44
Sample Name jc86800-1
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/30/2019 19:15
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.033	ug/l	12.19	102.67	6.552E-05	Pulse	0.25	3
B			1	55.746	ug/l	0.49	108,301.81	6.918E-02	Pulse	0.15	3
Ca			1	92086.500	ug/l	0.15	31,802,704.53	1.373E+01	Analog	0.10	3
Sr			1	643.667	ug/l	1.04	9,484,196.94	3.844E+00	Analog	0.10	3
Mo			1	9.707	ug/l	1.03	28,813.42	1.168E-02	Pulse	0.10	3
Ag			1	0.022	ug/l	6.40	186.68	6.820E-05	Pulse	0.10	3
Sn			1	1.481	ug/l	3.07	6,368.18	2.327E-03	Pulse	0.10	3
Sb			1	1.196	ug/l	2.64	6,254.76	1.747E-03	Pulse	0.10	3
Ba			1	146.127	ug/l	0.59	303,845.17	8.486E-02	Pulse	0.10	3
Tl			1	0.023	ug/l	18.92	356.69	1.903E-04	Pulse	0.10	3
Pb			1	1.408	ug/l	4.83	5,504.56	2.936E-03	Pulse	0.10	3
Pb			1	1.427	ug/l	6.04	4,774.26	2.547E-03	Pulse	0.10	3
Pb			1	1.417	ug/l	1.30	21,937.08	1.171E-02	Pulse	0.10	3
Na			2	165925.220	ug/l	0.28	64,278,261.89	7.899E+02	Analog	0.30	3
Mg			2	13650.147	ug/l	0.48	2,398,773.86	2.948E+01	Pulse	0.30	3
Al			2	30.431	ug/l	3.57	2,839.17	3.489E-02	Pulse	0.30	3
K			2	8732.707	ug/l	0.75	957,631.98	1.177E+01	Pulse	0.30	3
Ca			2	94552.239	ug/l	0.45	532,896.21	6.548E+00	Pulse	0.30	3
Ti			2	1.444	ug/l	34.14	74.45	9.149E-04	Pulse	0.30	3
V			2	1.255	ug/l	2.16	2,032.37	2.497E-02	Pulse	0.30	3
Cr			2	0.593	ug/l	6.16	1,976.81	2.429E-02	Pulse	0.30	3
Mn			2	2233.045	ug/l	0.27	2,096,627.07	2.576E+01	Pulse	0.30	3
Fe			2	3982.966	ug/l	0.85	6,032,347.12	7.413E+01	Analog	0.30	3
Co			2	8.636	ug/l	2.03	27,875.82	3.425E-01	Pulse	0.30	3
Ni			2	8.756	ug/l	3.04	7,767.46	9.545E-02	Pulse	0.30	3
Cu			2	3.514	ug/l	1.61	10,617.96	1.305E-01	Pulse	0.30	3
Zn			2	6.203	ug/l	3.69	2,295.75	2.821E-02	Pulse	0.30	3
As			2	16.931	ug/l	0.50	2,865.92	3.522E-02	Pulse	1.00	3
Cd			2	0.402	ug/l	4.51	54.05	1.519E-04	Pulse	0.30	3
Sn			2	0.755	ug/l	10.14	1,104.50	3.105E-03	Pulse	0.30	3
Se			3	0.377	ug/l	14.02	13.60	1.801E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,565,541.15	1.10	102.2	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,315,808.40	1.60	115.4	Pulse	0.10	3
1	Ge		427,514.02	1.98	114.8	Pulse	0.10	3
1	Ge		589,408.30	1.14	115.0	Pulse	0.10	3
1	Rh		2,467,437.31	1.54	103.3	Pulse	0.10	3
1	In		2,736,185.80	0.92	106.4	Pulse	0.10	3
1	Tb		3,580,726.09	1.47	104.9	Pulse	0.10	3
1	Ho		338,480.96	1.91	104.7	Pulse	0.10	3
1	Bi		1,873,847.16	1.31	94.2	Pulse	0.10	3
2	Sc		81,378.57	0.46	113.9	Pulse	0.30	3
2	Ge		44,088.22	0.51	115.4	Pulse	0.30	3
2	Ge		67,146.30	0.64	117.0	Pulse	0.30	3
2	Rh		1,059,398.60	0.30	102.1	Pulse	0.30	3
2	In		355,717.22	0.46	100.9	Pulse	0.30	3
2	Tb		1,276,770.50	0.66	97.6	Pulse	0.30	3
2	Ho		123,097.01	0.15	98.6	Pulse	0.30	3
2	Bi		777,016.39	0.93	89.0	Pulse	0.30	3
3	Sc		82,860.01	0.51	125.5	Pulse	0.30	3
3	Ge		50,416.37	1.17	124.2	Pulse	0.30	3
3	Ge		75,530.49	0.63	121.1	Pulse	0.30	3
3	Rh		765,354.92	0.88	105.8	Pulse	0.30	3
3	Tb		1,187,596.31	0.41	104.9	Pulse	0.30	3

Quantitation Report

File Name	072SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa043019m6.b
Method File	
Method Path	
Acq Time	4/30/2019 22:49
Sample Name	jc86800-4
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/30/2019 19:15
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.008	ug/l	76.44	29.33	1.855E-05	Pulse	0.25	3
B			1	45.365	ug/l	2.11	89,969.68	5.675E-02	Pulse	0.15	3
Ca			1	6789.751	ug/l	0.35	2,394,701.53	1.024E+00	Pulse	0.10	3
Sr			1	20.674	ug/l	1.09	287,581.57	1.237E-01	Pulse	0.10	3
Mo			1	7.871	ug/l	1.56	22,019.06	9.472E-03	Pulse	0.10	3
Ag			1	0.079	ug/l	10.90	543.36	2.102E-04	Pulse	0.10	3
Sn			1	1.257	ug/l	6.44	5,047.68	1.954E-03	Pulse	0.10	3
Sb			1	1.559	ug/l	1.76	7,705.49	2.260E-03	Pulse	0.10	3
Ba			1	11.604	ug/l	2.45	23,044.41	6.757E-03	Pulse	0.10	3
Tl			1	0.030	ug/l	16.73	380.02	2.276E-04	Pulse	0.10	3
Pb			1	0.099	ug/l	18.05	536.70	3.215E-04	Pulse	0.10	3
Pb			1	0.126	ug/l	4.87	490.03	2.934E-04	Pulse	0.10	3
Pb			1	0.100	ug/l	10.77	2,016.80	1.208E-03	Pulse	0.10	3
Na			2	794984.805	ug/l	1.52	321,994,556.09	3.784E+03	Analog	0.30	3
Mg			2	179371.410	ug/l	1.29	32,946,067.58	3.872E+02	Analog	0.30	3
Al			2	-17.074	ug/l	-3.26	230.00	2.706E-03	Pulse	0.30	3
K			2	16844.262	ug/l	1.25	1,923,351.87	2.260E+01	Pulse	0.30	3
Ca			2	6959.851	ug/l	2.66	41,315.60	4.856E-01	Pulse	0.30	3
Ti			2	0.530	ug/l	43.53	31.11	3.655E-04	Pulse	0.30	3
V			2	1.803	ug/l	5.33	2,998.09	3.523E-02	Pulse	0.30	3
Cr			2	1.540	ug/l	3.06	3,987.19	4.685E-02	Pulse	0.30	3
Mn			2	0.419	ug/l	18.04	592.24	6.970E-03	Pulse	0.30	3
Fe			2	4.338	ug/l	6.25	11,603.09	1.364E-01	Pulse	0.30	3
Co			2	0.131	ug/l	7.77	517.79	6.089E-03	Pulse	0.30	3
Ni			2	1.210	ug/l	3.28	1,326.74	1.559E-02	Pulse	0.30	3
Cu			2	-0.125	ug/l	-19.24	2,126.83	2.498E-02	Pulse	0.30	3
Zn			2	2.251	ug/l	7.42	1,156.72	1.359E-02	Pulse	0.30	3
As			2	0.615	ug/l	9.70	114.67	1.348E-03	Pulse	1.00	3
Cd			2	0.264	ug/l	3.51	2.20	6.426E-06	Pulse	0.30	3
Sn			2	0.632	ug/l	11.81	973.38	2.839E-03	Pulse	0.30	3
Se			3	0.868	ug/l	4.14	28.13	3.842E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,585,645.00	1.58	103.5	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,337,885.85	2.04	116.5	Pulse	0.10	3
1	Ge		417,189.73	1.88	112.0	Pulse	0.10	3
1	Ge		565,526.64	2.05	110.3	Pulse	0.10	3
1	Rh		2,325,189.29	2.11	97.3	Pulse	0.10	3
1	In		2,582,594.39	1.70	100.4	Pulse	0.10	3
1	Tb		3,409,468.80	1.47	99.8	Pulse	0.10	3
1	Ho		323,105.83	1.72	99.9	Pulse	0.10	3
1	Bi		1,670,456.43	0.82	84.0	Pulse	0.10	3
2	Sc		85,110.17	2.10	119.1	Pulse	0.30	3
2	Ge		43,102.24	0.41	112.8	Pulse	0.30	3
2	Ge		65,797.36	0.75	114.7	Pulse	0.30	3
2	Rh		990,996.91	0.35	95.5	Pulse	0.30	3
2	In		343,002.41	1.06	97.3	Pulse	0.30	3
2	Tb		1,245,515.19	0.32	95.2	Pulse	0.30	3
2	Ho		119,374.47	0.60	95.6	Pulse	0.30	3
2	Bi		707,426.03	0.93	81.0	Pulse	0.30	3
3	Sc		83,439.54	0.41	126.4	Pulse	0.30	3
3	Ge		48,210.99	0.63	118.8	Pulse	0.30	3
3	Ge		73,212.22	0.52	117.4	Pulse	0.30	3
3	Rh		702,816.71	0.41	97.1	Pulse	0.30	3
3	Tb		1,120,114.68	0.35	98.9	Pulse	0.30	3

Quantitation Report

File Name 073SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa043019m6.b
Method File
Method Path
Acq Time 4/30/2019 22:54
Sample Name jc86965-1f
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/30/2019 19:15
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.012	ug/l	49.67	41.33	2.551E-05	Pulse	0.25	3
B			1	55.486	ug/l	0.09	111,178.09	6.887E-02	Pulse	0.15	3
Ca			1	68835.624	ug/l	1.18	24,176,477.14	1.027E+01	Analog	0.10	3
Sr			1	274.895	ug/l	0.67	3,909,705.36	1.642E+00	Pulse	0.10	3
Mo			1	2.494	ug/l	6.02	7,161.84	3.008E-03	Pulse	0.10	3
Ag			1	0.024	ug/l	20.23	193.34	7.269E-05	Pulse	0.10	3
Sn			1	1.105	ug/l	5.70	4,514.13	1.700E-03	Pulse	0.10	3
Sb			1	0.362	ug/l	11.58	1,973.53	5.675E-04	Pulse	0.10	3
Ba			1	96.908	ug/l	0.46	195,537.71	5.628E-02	Pulse	0.10	3
Tl			1	0.033	ug/l	10.40	433.36	2.454E-04	Pulse	0.10	3
Pb			1	0.867	ug/l	9.25	3,277.16	1.856E-03	Pulse	0.10	3
Pb			1	0.821	ug/l	3.50	2,640.34	1.497E-03	Pulse	0.10	3
Pb			1	0.820	ug/l	0.57	12,255.78	6.947E-03	Pulse	0.10	3
Na			2	594120.486	ug/l	1.11	236,840,799.48	2.828E+03	Analog	0.30	3
Mg			2	7042.863	ug/l	0.24	1,274,380.02	1.522E+01	Pulse	0.30	3
Al			2	50.434	ug/l	6.38	4,057.20	4.844E-02	Pulse	0.30	3
K			2	11098.607	ug/l	0.66	1,250,170.82	1.493E+01	Pulse	0.30	3
Ca			2	69732.273	ug/l	0.27	404,538.48	4.830E+00	Pulse	0.30	3
Ti			2	3.055	ug/l	7.19	157.78	1.884E-03	Pulse	0.30	3
V			2	1.110	ug/l	6.01	1,863.46	2.225E-02	Pulse	0.30	3
Cr			2	0.279	ug/l	11.96	1,406.74	1.680E-02	Pulse	0.30	3
Mn			2	157.551	ug/l	1.55	152,396.78	1.820E+00	Pulse	0.30	3
Fe			2	132.338	ug/l	0.72	210,770.37	2.517E+00	Pulse	0.30	3
Co			2	0.773	ug/l	4.84	2,636.91	3.148E-02	Pulse	0.30	3
Ni			2	8.729	ug/l	1.86	7,968.68	9.515E-02	Pulse	0.30	3
Cu			2	7.221	ug/l	2.26	19,926.64	2.379E-01	Pulse	0.30	3
Zn			2	13.077	ug/l	2.57	4,492.88	5.364E-02	Pulse	0.30	3
As			2	0.315	ug/l	14.30	60.67	7.247E-04	Pulse	1.00	3
Cd			2	0.400	ug/l	12.53	52.94	1.505E-04	Pulse	0.30	3
Sn			2	0.345	ug/l	5.61	780.03	2.218E-03	Pulse	0.30	3
Se			3	0.485	ug/l	23.66	16.53	2.249E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,614,329.86	1.34	105.3	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,354,671.01	1.95	117.3	Pulse	0.10	3
1	Ge		433,095.51	2.32	116.3	Pulse	0.10	3
1	Ge		579,218.71	1.80	113.0	Pulse	0.10	3
1	Rh		2,381,574.39	1.60	99.7	Pulse	0.10	3
1	In		2,656,128.85	1.19	103.2	Pulse	0.10	3
1	Tb		3,474,194.43	1.60	101.7	Pulse	0.10	3
1	Ho		330,925.47	1.37	102.3	Pulse	0.10	3
1	Bi		1,764,261.80	1.57	88.7	Pulse	0.10	3
2	Sc		83,748.80	0.46	117.2	Pulse	0.30	3
2	Ge		44,287.73	2.82	115.9	Pulse	0.30	3
2	Ge		66,280.52	1.90	115.5	Pulse	0.30	3
2	Rh		1,027,564.82	0.14	99.0	Pulse	0.30	3
2	In		351,716.50	0.81	99.7	Pulse	0.30	3
2	Tb		1,255,919.95	0.81	96.0	Pulse	0.30	3
2	Ho		121,423.99	0.17	97.2	Pulse	0.30	3
2	Bi		745,062.29	0.43	85.3	Pulse	0.30	3
3	Sc		81,402.65	0.42	123.3	Pulse	0.30	3
3	Ge		48,813.79	0.36	120.3	Pulse	0.30	3
3	Ge		73,489.98	0.77	117.8	Pulse	0.30	3
3	Rh		724,860.49	0.96	100.2	Pulse	0.30	3
3	Tb		1,140,704.12	0.88	100.8	Pulse	0.30	3

Quantitation Report

File Name	074SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa043019m6.b
Method File	
Method Path	
Acq Time	4/30/2019 22:59
Sample Name	jc86965-2f
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/30/2019 19:15
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.016	ug/l	49.50	50.67	3.305E-05	Pulse	0.25	3
B			1	40.058	ug/l	1.42	77,379.58	5.040E-02	Pulse	0.15	3
Ca			1	200000.384	ug/l	1.14	67,401,965.66	2.981E+01	Analog	0.10	3
Sr			1	1081.438	ug/l	1.67	14,827,299.36	6.458E+00	Analog	0.10	3
Mo			1	6.358	ug/l	0.72	17,573.60	7.652E-03	Pulse	0.10	3
Ag			1	0.025	ug/l	13.93	193.34	7.555E-05	Pulse	0.10	3
Sn			1	1.191	ug/l	8.51	4,727.54	1.844E-03	Pulse	0.10	3
Sb			1	0.365	ug/l	11.28	1,940.19	5.718E-04	Pulse	0.10	3
Ba			1	151.190	ug/l	0.20	297,590.31	8.780E-02	Pulse	0.10	3
Tl			1	0.031	ug/l	18.85	393.35	2.337E-04	Pulse	0.10	3
Pb			1	2.148	ug/l	1.01	7,432.12	4.413E-03	Pulse	0.10	3
Pb			1	1.987	ug/l	4.72	5,921.43	3.518E-03	Pulse	0.10	3
Pb			1	2.045	ug/l	2.24	28,141.42	1.671E-02	Pulse	0.10	3
Na			2	802188.749	ug/l	2.74	304,354,832.35	3.818E+03	Analog	0.30	3
Mg			2	31606.538	ug/l	0.45	5,439,952.56	6.823E+01	Analog	0.30	3
Al			2	99.688	ug/l	1.76	6,521.32	8.181E-02	Pulse	0.30	3
K			2	19060.011	ug/l	0.61	2,037,864.16	2.556E+01	Pulse	0.30	3
Ca			2	204686.905	ug/l	1.00	1,129,736.66	1.417E+01	Pulse	0.30	3
Ti			2	4.952	ug/l	5.58	241.11	3.025E-03	Pulse	0.30	3
V			2	1.209	ug/l	6.15	1,921.25	2.411E-02	Pulse	0.30	3
Cr			2	0.285	ug/l	15.76	1,350.07	1.694E-02	Pulse	0.30	3
Mn			2	543.554	ug/l	0.34	500,099.81	6.273E+00	Pulse	0.30	3
Fe			2	219.974	ug/l	1.13	330,561.46	4.146E+00	Pulse	0.30	3
Co			2	5.057	ug/l	1.03	16,018.98	2.009E-01	Pulse	0.30	3
Ni			2	7.732	ug/l	1.13	6,744.78	8.461E-02	Pulse	0.30	3
Cu			2	3.441	ug/l	1.54	10,232.17	1.283E-01	Pulse	0.30	3
Zn			2	12.343	ug/l	1.31	4,060.55	5.093E-02	Pulse	0.30	3
As			2	0.850	ug/l	6.10	146.33	1.836E-03	Pulse	1.00	3
Cd			2	0.345	ug/l	13.39	31.29	9.276E-05	Pulse	0.30	3
Sn			2	0.475	ug/l	22.48	842.25	2.498E-03	Pulse	0.30	3
Se			3	0.490	ug/l	1.58	15.87	2.272E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,535,439.68	0.84	100.2	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,260,927.10	1.13	112.6	Pulse	0.10	3
1	Ge		418,099.07	1.04	112.3	Pulse	0.10	3
1	Ge		555,835.89	1.27	108.4	Pulse	0.10	3
1	Rh		2,296,594.81	2.13	96.1	Pulse	0.10	3
1	In		2,561,658.74	1.69	99.6	Pulse	0.10	3
1	Tb		3,389,579.22	1.42	99.3	Pulse	0.10	3
1	Ho		322,572.49	1.58	99.7	Pulse	0.10	3
1	Bi		1,684,045.03	1.65	84.7	Pulse	0.10	3
2	Sc		79,727.03	1.38	111.6	Pulse	0.30	3
2	Ge		41,262.03	1.45	108.0	Pulse	0.30	3
2	Ge		62,038.38	0.77	108.1	Pulse	0.30	3
2	Rh		970,525.48	1.13	93.5	Pulse	0.30	3
2	In		337,263.24	0.67	95.6	Pulse	0.30	3
2	Tb		1,227,749.71	0.83	93.9	Pulse	0.30	3
2	Ho		119,109.21	0.77	95.4	Pulse	0.30	3
2	Bi		708,620.18	0.57	81.2	Pulse	0.30	3
3	Sc		77,774.61	0.43	117.8	Pulse	0.30	3
3	Ge		46,717.81	1.49	115.1	Pulse	0.30	3
3	Ge		69,836.52	1.14	112.0	Pulse	0.30	3
3	Rh		684,930.89	0.41	94.6	Pulse	0.30	3
3	Tb		1,111,693.39	0.24	98.2	Pulse	0.30	3

Quantitation Report

File Name 075SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa043019m6.b
Method File
Method Path
Acq Time 4/30/2019 23:04
Sample Name jc86965-8f
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/30/2019 19:15
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.016	ug/l	58.42	50.67	3.380E-05	Pulse	0.25	3
B			1	48.081	ug/l	0.92	89,860.12	6.000E-02	Pulse	0.15	3
Ca			1	218537.297	ug/l	1.79	72,554,925.59	3.257E+01	Analog	0.10	3
Sr			1	1309.199	ug/l	0.17	17,831,404.32	7.818E+00	Analog	0.10	3
Mo			1	9.455	ug/l	2.54	25,951.59	1.138E-02	Pulse	0.10	3
Ag			1	0.018	ug/l	20.50	150.01	5.818E-05	Pulse	0.10	3
Sn			1	1.166	ug/l	3.08	4,637.48	1.802E-03	Pulse	0.10	3
Sb			1	0.295	ug/l	7.89	1,626.81	4.734E-04	Pulse	0.10	3
Ba			1	172.611	ug/l	1.28	344,651.02	1.002E-01	Pulse	0.10	3
Tl			1	0.026	ug/l	13.93	350.02	2.046E-04	Pulse	0.10	3
Pb			1	0.747	ug/l	7.66	2,763.68	1.616E-03	Pulse	0.10	3
Pb			1	0.754	ug/l	10.28	2,363.61	1.381E-03	Pulse	0.10	3
Pb			1	0.740	ug/l	2.47	10,791.93	6.310E-03	Pulse	0.10	3
Na			2	622974.115	ug/l	0.45	230,191,030.85	2.965E+03	Analog	0.30	3
Mg			2	54692.473	ug/l	1.35	9,164,258.52	1.181E+02	Analog	0.30	3
Al			2	76.981	ug/l	6.44	5,155.32	6.642E-02	Pulse	0.30	3
K			2	20210.283	ug/l	1.02	2,103,476.86	2.710E+01	Pulse	0.30	3
Ca			2	224561.542	ug/l	0.81	1,206,845.96	1.555E+01	Pulse	0.30	3
Ti			2	3.779	ug/l	12.53	180.00	2.319E-03	Pulse	0.30	3
V			2	1.059	ug/l	4.01	1,653.43	2.130E-02	Pulse	0.30	3
Cr			2	0.397	ug/l	7.32	1,523.42	1.962E-02	Pulse	0.30	3
Mn			2	173.409	ug/l	1.01	155,455.42	2.003E+00	Pulse	0.30	3
Fe			2	181.276	ug/l	1.10	266,001.24	3.427E+00	Pulse	0.30	3
Co			2	1.683	ug/l	3.86	5,235.33	6.745E-02	Pulse	0.30	3
Ni			2	8.039	ug/l	3.81	6,819.26	8.786E-02	Pulse	0.30	3
Cu			2	3.048	ug/l	1.86	9,078.15	1.170E-01	Pulse	0.30	3
Zn			2	8.513	ug/l	4.25	2,853.61	3.676E-02	Pulse	0.30	3
As			2	0.578	ug/l	12.81	98.67	1.270E-03	Pulse	1.00	3
Cd			2	0.351	ug/l	11.05	33.18	9.915E-05	Pulse	0.30	3
Sn			2	0.427	ug/l	21.02	802.25	2.394E-03	Pulse	0.30	3
Se			3	1.260	ug/l	5.33	38.07	5.478E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,497,604.30	0.68	97.7	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,227,411.58	0.84	111.0	Pulse	0.10	3
1	Ge		414,944.07	1.04	111.4	Pulse	0.10	3
1	Ge		553,434.35	2.10	108.0	Pulse	0.10	3
1	Rh		2,280,932.00	1.35	95.5	Pulse	0.10	3
1	In		2,574,427.11	1.47	100.1	Pulse	0.10	3
1	Tb		3,438,406.41	1.60	100.7	Pulse	0.10	3
1	Ho		324,888.78	2.42	100.5	Pulse	0.10	3
1	Bi		1,710,270.86	1.35	86.0	Pulse	0.10	3
2	Sc		77,628.45	0.90	108.7	Pulse	0.30	3
2	Ge		40,531.34	2.36	106.1	Pulse	0.30	3
2	Ge		61,074.92	0.75	106.4	Pulse	0.30	3
2	Rh		964,266.63	0.61	92.9	Pulse	0.30	3
2	In		335,165.60	0.86	95.0	Pulse	0.30	3
2	Tb		1,223,751.76	0.18	93.6	Pulse	0.30	3
2	Ho		118,105.84	0.62	94.6	Pulse	0.30	3
2	Bi		707,806.79	0.31	81.1	Pulse	0.30	3
3	Sc		76,995.58	0.80	116.6	Pulse	0.30	3
3	Ge		45,958.95	0.73	113.2	Pulse	0.30	3
3	Ge		69,516.18	1.24	111.5	Pulse	0.30	3
3	Rh		688,981.55	0.29	95.2	Pulse	0.30	3
3	Tb		1,113,059.37	0.33	98.3	Pulse	0.30	3

Quantitation Report

File Name 076SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa043019m6.b
Method File
Method Path
Acq Time 4/30/2019 23:09
Sample Name jc86965-10f
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/30/2019 19:15
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.012	ug/l	29.86	40.00	2.696E-05	Pulse	0.25	3
B			1	21.346	ug/l	1.76	41,477.57	2.799E-02	Pulse	0.15	3
Ca			1	146982.609	ug/l	1.17	48,264,830.95	2.191E+01	Analog	0.10	3
Sr			1	656.317	ug/l	1.15	8,954,123.20	3.919E+00	Analog	0.10	3
Mo			1	2.623	ug/l	7.36	7,228.58	3.162E-03	Pulse	0.10	3
Ag			1	0.009	ug/l	70.60	86.67	3.350E-05	Pulse	0.10	3
Sn			1	1.193	ug/l	2.53	4,760.91	1.847E-03	Pulse	0.10	3
Sb			1	0.156	ug/l	6.88	950.06	2.761E-04	Pulse	0.10	3
Ba			1	185.476	ug/l	0.93	370,478.13	1.077E-01	Pulse	0.10	3
Tl			1	0.019	ug/l	40.84	286.68	1.649E-04	Pulse	0.10	3
Pb			1	1.010	ug/l	3.53	3,723.93	2.140E-03	Pulse	0.10	3
Pb			1	0.945	ug/l	5.12	2,980.41	1.713E-03	Pulse	0.10	3
Pb			1	0.976	ug/l	2.50	14,259.84	8.194E-03	Pulse	0.10	3
Na			2	578025.832	ug/l	1.58	208,451,756.16	2.751E+03	Analog	0.30	3
Mg			2	19695.960	ug/l	1.34	3,221,837.09	4.253E+01	Pulse	0.30	3
Al			2	50.992	ug/l	3.01	3,698.23	4.882E-02	Pulse	0.30	3
K			2	15632.450	ug/l	2.02	1,589,635.67	2.098E+01	Pulse	0.30	3
Ca			2	148974.201	ug/l	1.75	781,459.36	1.032E+01	Pulse	0.30	3
Ti			2	2.407	ug/l	9.33	113.34	1.494E-03	Pulse	0.30	3
V			2	0.842	ug/l	7.02	1,307.85	1.725E-02	Pulse	0.30	3
Cr			2	0.352	ug/l	14.31	1,404.53	1.855E-02	Pulse	0.30	3
Mn			2	201.012	ug/l	1.46	175,851.04	2.321E+00	Pulse	0.30	3
Fe			2	107.142	ug/l	2.64	155,159.88	2.048E+00	Pulse	0.30	3
Co			2	1.471	ug/l	3.71	4,475.11	5.908E-02	Pulse	0.30	3
Ni			2	4.432	ug/l	2.96	3,763.80	4.968E-02	Pulse	0.30	3
Cu			2	2.178	ug/l	4.80	6,949.31	9.175E-02	Pulse	0.30	3
Zn			2	5.061	ug/l	6.35	1,817.90	2.399E-02	Pulse	0.30	3
As			2	0.354	ug/l	5.89	61.00	8.045E-04	Pulse	1.00	3
Cd			2	0.304	ug/l	19.07	16.29	4.896E-05	Pulse	0.30	3
Sn			2	0.470	ug/l	25.55	832.25	2.488E-03	Pulse	0.30	3
Se			3	0.417	ug/l	24.91	13.47	1.968E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,481,769.73	0.85	96.7	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,202,865.95	1.25	109.7	Pulse	0.10	3
1	Ge		413,153.17	1.56	110.9	Pulse	0.10	3
1	Ge		547,858.72	1.13	106.9	Pulse	0.10	3
1	Rh		2,284,784.50	1.02	95.6	Pulse	0.10	3
1	In		2,577,729.97	1.19	100.2	Pulse	0.10	3
1	Tb		3,440,097.87	1.25	100.7	Pulse	0.10	3
1	Ho		326,587.70	0.99	101.0	Pulse	0.10	3
1	Bi		1,740,676.90	1.34	87.5	Pulse	0.10	3
2	Sc		75,774.42	1.83	106.1	Pulse	0.30	3
2	Ge		39,945.42	0.99	104.5	Pulse	0.30	3
2	Ge		60,341.11	1.31	105.2	Pulse	0.30	3
2	Rh		959,919.10	0.36	92.5	Pulse	0.30	3
2	In		334,306.85	0.57	94.8	Pulse	0.30	3
2	Tb		1,231,690.99	0.24	94.2	Pulse	0.30	3
2	Ho		119,015.26	0.30	95.3	Pulse	0.30	3
2	Bi		722,132.05	0.42	82.7	Pulse	0.30	3
3	Sc		75,939.43	1.10	115.0	Pulse	0.30	3
3	Ge		44,701.02	2.95	110.1	Pulse	0.30	3
3	Ge		68,345.81	1.82	109.6	Pulse	0.30	3
3	Rh		690,663.18	0.59	95.4	Pulse	0.30	3
3	Tb		1,112,015.47	0.47	98.2	Pulse	0.30	3

Quantitation Report

File Name 077SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa043019m6.b
Method File
Method Path
Acq Time 4/30/2019 23:14
Sample Name jc87121-1
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/30/2019 19:15
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.033	ug/l	13.30	97.33	6.496E-05	Pulse	0.25	3
B			1	58.256	ug/l	1.08	108,170.43	7.219E-02	Pulse	0.15	3
Ca			1	58123.269	ug/l	1.43	18,879,824.72	8.673E+00	Analog	0.10	3
Sr			1	143.214	ug/l	0.69	2,131,738.30	8.554E-01	Pulse	0.10	3
Mo			1	13.557	ug/l	1.79	40,632.43	1.631E-02	Pulse	0.10	3
Ag			1	0.030	ug/l	20.55	240.01	8.765E-05	Pulse	0.10	3
Sn			1	1.646	ug/l	5.15	7,121.89	2.602E-03	Pulse	0.10	3
Sb			1	0.426	ug/l	10.11	2,370.26	6.577E-04	Pulse	0.10	3
Ba			1	16.756	ug/l	1.47	35,124.26	9.749E-03	Pulse	0.10	3
Tl			1	0.030	ug/l	14.77	470.02	2.322E-04	Pulse	0.10	3
Pb			1	2.470	ug/l	3.53	10,227.26	5.056E-03	Pulse	0.10	3
Pb			1	2.540	ug/l	1.00	9,056.42	4.476E-03	Pulse	0.10	3
Pb			1	2.483	ug/l	0.89	40,890.20	2.021E-02	Pulse	0.10	3
Na			2	5565.806	ug/l	0.75	2,010,955.89	2.658E+01	Pulse	0.30	3
Mg			2	4586.404	ug/l	0.71	750,084.08	9.915E+00	Pulse	0.30	3
Al			2	689.823	ug/l	5.99	36,432.71	4.816E-01	Pulse	0.30	3
K			2	7031.661	ug/l	0.59	718,335.75	9.495E+00	Pulse	0.30	3
Ca			2	58571.377	ug/l	0.77	306,985.00	4.058E+00	Pulse	0.30	3
Ti			2	21.873	ug/l	66.02	998.20	1.320E-02	Pulse	0.30	3
V			2	2.200	ug/l	3.87	3,228.15	4.267E-02	Pulse	0.30	3
Cr			2	1.787	ug/l	3.73	3,988.32	5.272E-02	Pulse	0.30	3
Mn			2	36.771	ug/l	1.24	32,253.69	4.263E-01	Pulse	0.30	3
Fe			2	573.462	ug/l	1.07	810,966.37	1.072E+01	Pulse	0.30	3
Co			2	0.401	ug/l	3.78	1,266.73	1.674E-02	Pulse	0.30	3
Ni			2	2.002	ug/l	3.40	1,813.45	2.397E-02	Pulse	0.30	3
Cu			2	3.175	ug/l	2.99	9,125.95	1.206E-01	Pulse	0.30	3
Zn			2	51.059	ug/l	1.08	14,686.69	1.941E-01	Pulse	0.30	3
As			2	1.210	ug/l	11.15	195.33	2.583E-03	Pulse	1.00	3
Cd			2	0.322	ug/l	8.75	23.56	6.779E-05	Pulse	0.30	3
Sn			2	0.953	ug/l	2.39	1,230.06	3.535E-03	Pulse	0.30	3
Se			3	0.550	ug/l	9.48	18.33	2.519E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,498,462.23	0.29	97.8	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,177,075.02	0.93	108.5	Pulse	0.10	3
1	Ge		421,322.51	0.80	113.1	Pulse	0.10	3
1	Ge		567,847.47	1.40	110.8	Pulse	0.10	3
1	Rh		2,492,087.31	1.18	104.3	Pulse	0.10	3
1	In		2,736,965.30	0.41	106.4	Pulse	0.10	3
1	Tb		3,602,830.68	0.58	105.5	Pulse	0.10	3
1	Ho		342,343.54	1.18	105.9	Pulse	0.10	3
1	Bi		2,023,443.40	1.21	101.8	Pulse	0.10	3
2	Sc		75,650.44	0.40	105.9	Pulse	0.30	3
2	Ge		41,667.58	0.92	109.0	Pulse	0.30	3
2	Ge		63,119.40	1.50	110.0	Pulse	0.30	3
2	Rh		1,061,325.31	0.33	102.3	Pulse	0.30	3
2	In		347,950.57	0.38	98.7	Pulse	0.30	3
2	Tb		1,278,801.24	1.34	97.8	Pulse	0.30	3
2	Ho		123,132.80	1.28	98.6	Pulse	0.30	3
2	Bi		827,732.64	0.87	94.8	Pulse	0.30	3
3	Sc		78,165.45	0.90	118.4	Pulse	0.30	3
3	Ge		48,365.70	0.47	119.2	Pulse	0.30	3
3	Ge		72,847.30	1.54	116.8	Pulse	0.30	3
3	Rh		775,468.96	0.79	107.2	Pulse	0.30	3
3	Tb		1,198,938.11	0.60	105.9	Pulse	0.30	3

Quantitation Report

File Name	078_CCV.d
File Path	C:\Agilent\ICPMH\1\DATA\xa043019m6.b
Method File	
Method Path	
Acq Time	4/30/2019 23:19
Sample Name	CCVA
Sample Type	CCV
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/30/2019 19:15
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	49.520	ug/l	0.47	274,950.62	1.865E-01	Pulse	0.25	3
B			1	107.462	ug/l	0.74	383,015.76	2.598E-01	Pulse	0.15	3
Ca			1	5147.535	ug/l	0.58	3,333,373.60	1.547E+00	Pulse	0.10	3
Sr			1	52.619	ug/l	0.42	1,579,349.14	6.286E-01	Pulse	0.10	3
Mo			1	51.000	ug/l	1.14	308,085.00	1.226E-01	Pulse	0.10	3
Ag			1	48.665	ug/l	0.35	673,443.42	2.460E-01	Pulse	0.10	3
Sn			1	49.398	ug/l	0.65	450,370.53	1.645E-01	Pulse	0.10	3
Sb			1	53.311	ug/l	0.67	546,822.48	1.509E-01	Pulse	0.10	3
Ba			1	51.268	ug/l	0.16	215,865.86	5.955E-02	Pulse	0.10	3
Tl			1	50.368	ug/l	1.44	1,171,383.18	5.846E-01	Pulse	0.10	3
Pb			1	50.353	ug/l	0.85	403,209.82	2.012E-01	Pulse	0.10	3
Pb			1	50.798	ug/l	1.51	352,827.22	1.761E-01	Pulse	0.10	3
Pb			1	50.587	ug/l	1.02	1,617,108.02	8.069E-01	Pulse	0.10	3
Na			2	4930.157	ug/l	0.52	3,599,179.44	4.702E+01	Pulse	0.30	3
Mg			2	5012.589	ug/l	0.54	1,657,371.74	2.165E+01	Pulse	0.30	3
Al			2	4886.226	ug/l	1.31	507,828.92	6.635E+00	Pulse	0.30	3
K			2	5049.645	ug/l	0.36	1,040,421.28	1.359E+01	Pulse	0.30	3
Ca			2	5458.730	ug/l	1.15	58,134.06	7.595E-01	Pulse	0.30	3
Ti			2	48.414	ug/l	3.09	4,460.65	5.828E-02	Pulse	0.30	3
V			2	51.513	ug/l	0.95	147,797.89	1.931E+00	Pulse	0.30	3
Cr			2	50.749	ug/l	0.72	185,855.09	2.428E+00	Pulse	0.30	3
Mn			2	49.315	ug/l	0.82	87,254.91	1.140E+00	Pulse	0.30	3
Fe			2	5071.767	ug/l	0.29	14,442,696.65	1.887E+02	Analog	0.30	3
Co			2	49.037	ug/l	0.55	297,016.04	3.880E+00	Pulse	0.30	3
Ni			2	49.598	ug/l	0.35	80,559.74	1.053E+00	Pulse	0.30	3
Cu			2	48.616	ug/l	1.00	217,952.67	2.848E+00	Pulse	0.30	3
Zn			2	49.204	ug/l	1.37	28,266.65	3.693E-01	Pulse	0.30	3
As			2	50.099	ug/l	0.24	15,926.10	2.081E-01	Pulse	1.00	3
Cd			2	49.328	ug/l	1.87	37,216.99	1.038E-01	Pulse	0.30	3
Sn			2	50.209	ug/l	0.05	78,562.03	2.191E-01	Pulse	0.30	3
Se			3	193.347	ug/l	0.97	11,361.33	1.610E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,474,454.94	1.04	96.2	Pulse	0.10	3
1	Sc		2,155,433.14	1.10	107.4	Pulse	0.10	3
1	Ge		398,751.54	1.58	107.1	Pulse	0.10	3

Quantitation Report

1	Ge		556,366.18	1.02	108.5	Pulse	0.10	3
1	Rh		2,512,280.38	0.42	105.1	Pulse	0.10	3
1	In		2,737,964.65	1.46	106.4	Pulse	0.10	3
1	Tb		3,624,959.95	0.69	106.2	Pulse	0.10	3
1	Ho		344,174.16	0.23	106.4	Pulse	0.10	3
1	Bi		2,004,159.71	1.66	100.8	Pulse	0.10	3
2	Sc		76,542.14	0.55	107.1	Pulse	0.30	3
2	Ge		41,553.90	1.34	108.7	Pulse	0.30	3
2	Ge		61,706.05	1.18	107.5	Pulse	0.30	3
2	Rh		1,084,741.28	0.86	104.5	Pulse	0.30	3
2	In		358,518.29	0.79	101.7	Pulse	0.30	3
2	Tb		1,303,936.55	0.67	99.7	Pulse	0.30	3
2	Ho		125,857.29	0.89	100.8	Pulse	0.30	3
2	Bi		838,563.77	0.37	96.1	Pulse	0.30	3
3	Sc		77,506.70	0.79	117.4	Pulse	0.30	3
3	Ge		46,650.79	0.23	114.9	Pulse	0.30	3
3	Ge		70,558.15	0.79	113.1	Pulse	0.30	3
3	Rh		774,509.80	1.47	107.0	Pulse	0.30	3
3	Tb		1,190,145.34	0.16	105.1	Pulse	0.30	3

Quantitation Report

File Name	079_CCB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa043019m6.b
Method File	
Method Path	
Acq Time	4/30/2019 23:24
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/30/2019 19:15
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.007	ug/l	38.40	45.33	3.031E-05	Pulse	0.25	3
B			1	6.522	ug/l	1.68	27,039.55	1.806E-02	Pulse	0.15	3
Ca			1	-8.833	ug/l	-8.01	21,884.98	9.996E-03	Pulse	0.10	3
Sr			1	0.029	ug/l	11.44	1,546.80	6.019E-04	Pulse	0.10	3
Mo			1	0.094	ug/l	16.82	606.70	2.355E-04	Pulse	0.10	3
Ag			1	0.011	ug/l	56.40	186.67	6.742E-05	Pulse	0.10	3
Sn			1	0.546	ug/l	4.12	4,660.86	1.677E-03	Pulse	0.10	3
Sb			1	0.070	ug/l	10.43	916.72	2.548E-04	Pulse	0.10	3
Ba			1	0.018	ug/l	36.77	146.67	4.082E-05	Pulse	0.10	3
Tl			1	0.023	ug/l	21.04	653.37	3.220E-04	Pulse	0.10	3
Pb			1	0.021	ug/l	15.91	420.02	2.068E-04	Pulse	0.10	3
Pb			1	0.029	ug/l	19.82	356.69	1.756E-04	Pulse	0.10	3
Pb			1	0.024	ug/l	10.11	1,630.09	8.026E-04	Pulse	0.10	3
Na			2	36.542	ug/l	1.77	33,844.88	4.375E-01	Pulse	0.30	3
Mg			2	-0.224	ug/l	-19.97	1,182.28	1.528E-02	Pulse	0.30	3
Al			2	29.432	ug/l	0.84	4,189.46	5.415E-02	Pulse	0.30	3
K			2	-2.661	ug/l	-25.82	7,426.16	9.600E-02	Pulse	0.30	3
Ca			2	-6.592	ug/l	-51.22	230.01	2.971E-03	Pulse	0.30	3
Ti			2	-0.039	ug/l	0.00	0.00	0.000E+00	Pulse	0.30	3
V			2	0.006	ug/l	168.42	130.00	1.682E-03	Pulse	0.30	3
Cr			2	-0.002	ug/l	-269.92	778.92	1.007E-02	Pulse	0.30	3
Mn			2	0.011	ug/l	26.56	184.45	2.384E-03	Pulse	0.30	3
Fe			2	1.209	ug/l	4.76	7,789.72	1.007E-01	Pulse	0.30	3
Co			2	0.008	ug/l	24.11	115.56	1.494E-03	Pulse	0.30	3
Ni			2	-0.011	ug/l	-180.96	196.67	2.545E-03	Pulse	0.30	3
Cu			2	0.096	ug/l	7.73	2,644.69	3.418E-02	Pulse	0.30	3
Zn			2	0.641	ug/l	14.34	774.47	1.001E-02	Pulse	0.30	3
As			2	0.010	ug/l	237.26	8.67	1.118E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	0.132	ug/l	3.78	2.18	5.966E-06	Pulse	0.30	3
Sn			2	0.230	ug/l	22.01	901.15	2.467E-03	Pulse	0.30	3
Se			3	0.096	ug/l	7.04	7.20	1.029E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,497,590.73	0.55	97.7	Pulse	0.10	3
1	Sc		2,189,407.52	1.09	109.1	Pulse	0.10	3
1	Ge		406,010.14	2.17	109.0	Pulse	0.10	3
1	Ge		559,292.54	1.69	109.1	Pulse	0.10	3
1	Rh		2,572,254.08	1.96	107.6	Pulse	0.10	3
1	In		2,778,451.97	1.19	108.0	Pulse	0.10	3
1	Tb		3,598,639.01	1.30	105.4	Pulse	0.10	3
1	Ho		341,091.04	1.58	105.5	Pulse	0.10	3
1	Bi		2,030,691.17	0.65	102.1	Pulse	0.10	3
2	Sc		77,367.15	0.89	108.3	Pulse	0.30	3
2	Ge		41,995.00	0.77	109.9	Pulse	0.30	3
2	Ge		62,242.50	0.89	108.5	Pulse	0.30	3
2	Rh		1,105,544.02	0.23	106.5	Pulse	0.30	3
2	In		365,337.50	0.08	103.6	Pulse	0.30	3
2	Tb		1,307,239.81	0.25	100.0	Pulse	0.30	3
2	Ho		125,840.53	0.76	100.8	Pulse	0.30	3
2	Bi		853,712.83	0.27	97.8	Pulse	0.30	3
3	Sc		77,229.90	0.72	117.0	Pulse	0.30	3
3	Ge		46,717.76	1.00	115.1	Pulse	0.30	3
3	Ge		69,962.51	0.42	112.2	Pulse	0.30	3
3	Rh		794,492.00	0.69	109.8	Pulse	0.30	3
3	Tb		1,191,822.83	0.69	105.3	Pulse	0.30	3

Quantitation Report

File Name 080SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa043019m6.b
Method File
Method Path
Acq Time 4/30/2019 23:29
Sample Name jc87121-2
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/30/2019 19:15
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.088	ug/l	8.89	250.67	1.697E-04	Pulse	0.25	3
B			1	62.420	ug/l	1.25	113,965.05	7.717E-02	Pulse	0.15	3
Ca			1	60597.244	ug/l	1.19	19,585,961.37	9.041E+00	Analog	0.10	3
Sr			1	148.854	ug/l	0.55	2,187,826.95	8.891E-01	Pulse	0.10	3
Mo			1	13.566	ug/l	2.11	40,154.77	1.632E-02	Pulse	0.10	3
Ag			1	0.049	ug/l	27.99	370.02	1.351E-04	Pulse	0.10	3
Sn			1	2.305	ug/l	6.16	10,150.30	3.700E-03	Pulse	0.10	3
Sb			1	0.590	ug/l	5.13	3,177.10	8.907E-04	Pulse	0.10	3
Ba			1	27.388	ug/l	3.36	56,778.52	1.592E-02	Pulse	0.10	3
Tl			1	0.077	ug/l	7.94	1,000.07	5.033E-04	Pulse	0.10	3
Pb			1	5.577	ug/l	2.82	22,380.95	1.126E-02	Pulse	0.10	3
Pb			1	5.642	ug/l	1.54	19,573.64	9.848E-03	Pulse	0.10	3
Pb			1	5.627	ug/l	1.00	89,973.43	4.527E-02	Pulse	0.10	3
Na			2	6644.275	ug/l	0.30	2,419,623.58	3.172E+01	Pulse	0.30	3
Mg			2	4994.852	ug/l	0.65	823,697.19	1.080E+01	Pulse	0.30	3
Al			2	2220.679	ug/l	1.40	115,861.05	1.519E+00	Pulse	0.30	3
K			2	7065.523	ug/l	0.86	727,879.43	9.541E+00	Pulse	0.30	3
Ca			2	60424.939	ug/l	0.42	319,374.15	4.186E+00	Pulse	0.30	3
Ti			2	52.525	ug/l	23.94	2,414.51	3.164E-02	Pulse	0.30	3
V			2	5.289	ug/l	3.85	7,668.66	1.005E-01	Pulse	0.30	3
Cr			2	3.761	ug/l	1.65	7,609.66	9.975E-02	Pulse	0.30	3
Mn			2	73.889	ug/l	1.92	65,197.59	8.546E-01	Pulse	0.30	3
Fe			2	1615.311	ug/l	0.87	2,296,041.78	3.010E+01	Pulse	0.30	3
Co			2	0.826	ug/l	2.97	2,559.12	3.354E-02	Pulse	0.30	3
Ni			2	4.451	ug/l	4.05	3,806.03	4.989E-02	Pulse	0.30	3
Cu			2	4.986	ug/l	0.84	13,210.96	1.732E-01	Pulse	0.30	3
Zn			2	53.872	ug/l	0.88	15,605.31	2.045E-01	Pulse	0.30	3
As			2	1.622	ug/l	4.25	262.33	3.439E-03	Pulse	1.00	3
Cd			2	0.393	ug/l	9.16	50.19	1.433E-04	Pulse	0.30	3
Sn			2	1.588	ug/l	4.91	1,719.00	4.912E-03	Pulse	0.30	3
Se			3	0.655	ug/l	13.78	21.93	2.959E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,476,780.78	0.94	96.4	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,166,289.92	0.72	107.9	Pulse	0.10	3
1	Ge		414,302.56	1.74	111.2	Pulse	0.10	3
1	Ge		563,656.80	1.62	110.0	Pulse	0.10	3
1	Rh		2,460,875.33	1.37	103.0	Pulse	0.10	3
1	In		2,742,650.81	0.92	106.6	Pulse	0.10	3
1	Tb		3,566,978.38	1.09	104.5	Pulse	0.10	3
1	Ho		339,423.61	1.78	105.0	Pulse	0.10	3
1	Bi		1,987,616.69	0.57	100.0	Pulse	0.10	3
2	Sc		76,291.99	0.26	106.8	Pulse	0.30	3
2	Ge		42,127.62	1.44	110.2	Pulse	0.30	3
2	Ge		63,060.08	0.25	109.9	Pulse	0.30	3
2	Rh		1,054,318.85	0.73	101.6	Pulse	0.30	3
2	In		349,985.53	0.29	99.2	Pulse	0.30	3
2	Tb		1,275,401.96	0.71	97.5	Pulse	0.30	3
2	Ho		122,866.70	0.63	98.4	Pulse	0.30	3
2	Bi		809,803.86	0.20	92.8	Pulse	0.30	3
3	Sc		78,372.84	0.55	118.7	Pulse	0.30	3
3	Ge		48,866.29	1.60	120.4	Pulse	0.30	3
3	Ge		74,153.05	0.38	118.9	Pulse	0.30	3
3	Rh		774,809.15	0.24	107.1	Pulse	0.30	3
3	Tb		1,198,485.57	0.66	105.9	Pulse	0.30	3

Quantitation Report

File Name	081SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa043019m6.b
Method File	
Method Path	
Acq Time	4/30/2019 23:34
Sample Name	jc87142-1
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/30/2019 19:15
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.011	ug/l	13.82	36.00	2.447E-05	Pulse	0.25	3
B			1	80.949	ug/l	0.62	146,264.05	9.936E-02	Pulse	0.15	3
Ca			1	22465.734	ug/l	1.07	7,135,479.27	3.360E+00	Analog	0.10	3
Sr			1	110.293	ug/l	0.39	1,610,608.67	6.588E-01	Pulse	0.10	3
Mo			1	0.362	ug/l	7.15	1,086.74	4.446E-04	Pulse	0.10	3
Ag			1	0.015	ug/l	41.55	133.34	4.896E-05	Pulse	0.10	3
Sn			1	1.360	ug/l	0.83	5,794.64	2.126E-03	Pulse	0.10	3
Sb			1	0.195	ug/l	13.48	1,193.42	3.320E-04	Pulse	0.10	3
Ba			1	31.439	ug/l	1.42	65,703.36	1.827E-02	Pulse	0.10	3
Tl			1	0.037	ug/l	14.38	536.69	2.728E-04	Pulse	0.10	3
Pb			1	0.399	ug/l	1.36	1,813.50	9.209E-04	Pulse	0.10	3
Pb			1	0.386	ug/l	13.34	1,466.79	7.440E-04	Pulse	0.10	3
Pb			1	0.378	ug/l	4.10	6,747.48	3.426E-03	Pulse	0.10	3
Na			2	20569.298	ug/l	2.09	7,372,852.49	9.800E+01	Analog	0.30	3
Mg			2	6586.510	ug/l	1.77	1,070,778.74	1.423E+01	Pulse	0.30	3
Al			2	74.718	ug/l	3.39	4,881.91	6.489E-02	Pulse	0.30	3
K			2	7652.294	ug/l	1.99	776,786.79	1.032E+01	Pulse	0.30	3
Ca			2	22777.755	ug/l	1.76	118,914.65	1.580E+00	Pulse	0.30	3
Ti			2	1.373	ug/l	36.11	65.56	8.722E-04	Pulse	0.30	3
V			2	0.491	ug/l	4.27	802.25	1.066E-02	Pulse	0.30	3
Cr			2	1.193	ug/l	9.89	2,903.62	3.857E-02	Pulse	0.30	3
Mn			2	10.740	ug/l	0.85	9,483.93	1.260E-01	Pulse	0.30	3
Fe			2	759.188	ug/l	1.44	1,066,467.15	1.417E+01	Pulse	0.30	3
Co			2	0.595	ug/l	7.46	1,840.12	2.444E-02	Pulse	0.30	3
Ni			2	2.125	ug/l	5.58	1,902.35	2.527E-02	Pulse	0.30	3
Cu			2	1.066	ug/l	11.74	4,473.99	5.949E-02	Pulse	0.30	3
Zn			2	10.598	ug/l	2.43	3,345.93	4.447E-02	Pulse	0.30	3
As			2	0.433	ug/l	16.33	73.00	9.696E-04	Pulse	1.00	3
Cd			2	0.448	ug/l	6.94	69.94	2.014E-04	Pulse	0.30	3
Sn			2	0.633	ug/l	3.17	986.71	2.842E-03	Pulse	0.30	3
Se			3	0.491	ug/l	15.07	16.93	2.276E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,472,083.48	0.88	96.1	Pulse	0.10	3
1	Sc		2,123,940.17	1.41	105.8	Pulse	0.10	3
1	Ge		415,637.43	2.94	111.6	Pulse	0.10	3

Quantitation Report

1	Ge		564,942.09	2.11	110.2	Pulse	0.10	3
1	Rh		2,444,688.45	1.63	102.3	Pulse	0.10	3
1	In		2,726,156.95	0.75	106.0	Pulse	0.10	3
1	Tb		3,596,096.30	1.21	105.3	Pulse	0.10	3
1	Ho		337,790.30	0.67	104.4	Pulse	0.10	3
1	Bi		1,968,981.17	1.65	99.0	Pulse	0.10	3
2	Sc		75,251.00	1.45	105.3	Pulse	0.30	3
2	Ge		41,689.73	0.70	109.1	Pulse	0.30	3
2	Ge		63,092.50	1.94	110.0	Pulse	0.30	3
2	Rh		1,058,389.06	0.28	102.0	Pulse	0.30	3
2	In		347,243.89	0.32	98.5	Pulse	0.30	3
2	Tb		1,269,552.66	0.57	97.1	Pulse	0.30	3
2	Ho		124,113.19	0.61	99.4	Pulse	0.30	3
2	Bi		808,775.26	0.75	92.6	Pulse	0.30	3
3	Sc		78,741.51	0.97	119.2	Pulse	0.30	3
3	Ge		48,936.53	1.74	120.6	Pulse	0.30	3
3	Ge		74,451.07	1.32	119.4	Pulse	0.30	3
3	Rh		781,645.09	0.96	108.0	Pulse	0.30	3
3	Tb		1,200,182.32	1.17	106.0	Pulse	0.30	3

Quantitation Report

File Name	082SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa043019m6.b
Method File	
Method Path	
Acq Time	4/30/2019 23:39
Sample Name	jc87142-2
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/30/2019 19:15
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.010	ug/l	58.48	32.00	2.297E-05	Pulse	0.25	3
B			1	191.543	ug/l	0.46	321,855.44	2.318E-01	Pulse	0.15	3
Ca			1	46397.999	ug/l	1.52	14,294,249.37	6.926E+00	Analog	0.10	3
Sr			1	433.274	ug/l	0.39	6,146,745.12	2.587E+00	Analog	0.10	3
Mo			1	0.663	ug/l	4.92	1,913.52	8.058E-04	Pulse	0.10	3
Ag			1	0.014	ug/l	52.07	126.67	4.818E-05	Pulse	0.10	3
Sn			1	1.277	ug/l	5.98	5,231.08	1.986E-03	Pulse	0.10	3
Sb			1	0.228	ug/l	15.05	1,333.44	3.785E-04	Pulse	0.10	3
Ba			1	74.766	ug/l	0.74	152,904.39	4.343E-02	Pulse	0.10	3
Tl			1	0.013	ug/l	16.29	250.01	1.304E-04	Pulse	0.10	3
Pb			1	3.262	ug/l	3.69	12,725.87	6.638E-03	Pulse	0.10	3
Pb			1	3.214	ug/l	1.76	10,811.02	5.642E-03	Pulse	0.10	3
Pb			1	3.212	ug/l	1.70	49,864.35	2.602E-02	Pulse	0.10	3
Na			2	53962.724	ug/l	1.93	18,626,494.81	2.569E+02	Analog	0.30	3
Mg			2	8849.781	ug/l	1.60	1,385,859.28	1.912E+01	Pulse	0.30	3
Al			2	281.705	ug/l	3.90	14,867.91	2.051E-01	Pulse	0.30	3
K			2	14638.059	ug/l	1.12	1,424,970.81	1.966E+01	Pulse	0.30	3
Ca			2	47569.866	ug/l	1.38	238,980.35	3.296E+00	Pulse	0.30	3
Ti			2	4.055	ug/l	14.70	180.01	2.485E-03	Pulse	0.30	3
V			2	1.449	ug/l	2.92	2,074.60	2.861E-02	Pulse	0.30	3
Cr			2	3.322	ug/l	2.39	6,474.75	8.929E-02	Pulse	0.30	3
Mn			2	227.934	ug/l	1.65	190,782.51	2.632E+00	Pulse	0.30	3
Fe			2	29311.117	ug/l	2.14	39,518,207.32	5.451E+02	Analog	0.30	3
Co			2	0.797	ug/l	4.71	2,349.08	3.241E-02	Pulse	0.30	3
Ni			2	2.038	ug/l	6.89	1,765.67	2.435E-02	Pulse	0.30	3
Cu			2	2.607	ug/l	5.24	7,551.81	1.042E-01	Pulse	0.30	3
Zn			2	11.355	ug/l	7.45	3,428.17	4.727E-02	Pulse	0.30	3
As			2	10.081	ug/l	4.13	1,522.08	2.100E-02	Pulse	1.00	3
Cd			2	0.482	ug/l	3.70	79.89	2.366E-04	Pulse	0.30	3
Sn			2	0.605	ug/l	14.83	938.93	2.781E-03	Pulse	0.30	3
Se			3	0.343	ug/l	20.36	11.87	1.659E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,388,667.93	0.93	90.6	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,064,124.97	0.92	102.8	Pulse	0.10	3
1	Ge		395,872.76	0.39	106.3	Pulse	0.10	3
1	Ge		543,560.49	1.03	106.1	Pulse	0.10	3
1	Rh		2,375,727.67	1.48	99.4	Pulse	0.10	3
1	In		2,633,136.18	1.25	102.3	Pulse	0.10	3
1	Tb		3,521,038.70	0.81	103.1	Pulse	0.10	3
1	Ho		332,488.73	0.65	102.8	Pulse	0.10	3
1	Bi		1,916,458.62	1.44	96.4	Pulse	0.10	3
2	Sc		72,504.34	1.27	101.5	Pulse	0.30	3
2	Ge		41,684.22	1.33	109.1	Pulse	0.30	3
2	Ge		61,546.62	2.22	107.3	Pulse	0.30	3
2	Rh		1,021,236.63	0.37	98.4	Pulse	0.30	3
2	In		337,654.02	0.55	95.7	Pulse	0.30	3
2	Tb		1,248,001.27	0.87	95.4	Pulse	0.30	3
2	Ho		120,680.46	1.58	96.6	Pulse	0.30	3
2	Bi		787,470.47	0.51	90.2	Pulse	0.30	3
3	Sc		76,639.38	0.16	116.1	Pulse	0.30	3
3	Ge		47,301.64	0.39	116.6	Pulse	0.30	3
3	Ge		71,680.92	2.12	114.9	Pulse	0.30	3
3	Rh		753,040.53	0.51	104.1	Pulse	0.30	3
3	Tb		1,175,201.76	0.14	103.8	Pulse	0.30	3

Quantitation Report

File Name	083SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa043019m6.b
Method File	
Method Path	
Acq Time	4/30/2019 23:44
Sample Name	jc87142-3
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/30/2019 19:15
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.020	ug/l	3.46	57.33	4.161E-05	Pulse	0.25	3
B			1	107.860	ug/l	0.44	181,238.67	1.316E-01	Pulse	0.15	3
Ca			1	44742.037	ug/l	1.40	13,729,069.79	6.679E+00	Analog	0.10	3
Sr			1	344.317	ug/l	1.09	4,897,288.47	2.056E+00	Pulse	0.10	3
Mo			1	0.464	ug/l	4.99	1,350.11	5.666E-04	Pulse	0.10	3
Ag			1	0.015	ug/l	49.13	133.34	5.036E-05	Pulse	0.10	3
Sn			1	1.448	ug/l	4.68	6,024.73	2.271E-03	Pulse	0.10	3
Sb			1	0.192	ug/l	14.32	1,163.42	3.275E-04	Pulse	0.10	3
Ba			1	137.065	ug/l	1.10	282,565.67	7.960E-02	Pulse	0.10	3
Tl			1	0.010	ug/l	41.75	220.01	1.148E-04	Pulse	0.10	3
Pb			1	16.354	ug/l	1.80	62,747.38	3.278E-02	Pulse	0.10	3
Pb			1	15.623	ug/l	1.79	51,946.13	2.714E-02	Pulse	0.10	3
Pb			1	15.849	ug/l	0.12	242,645.12	1.268E-01	Pulse	0.10	3
Na			2	68588.163	ug/l	1.00	23,920,272.94	3.266E+02	Analog	0.30	3
Mg			2	9392.498	ug/l	0.94	1,486,096.36	2.029E+01	Pulse	0.30	3
Al			2	86.617	ug/l	9.53	5,342.35	7.295E-02	Pulse	0.30	3
K			2	8895.374	ug/l	0.54	877,913.09	1.198E+01	Pulse	0.30	3
Ca			2	45583.575	ug/l	0.34	231,403.57	3.159E+00	Pulse	0.30	3
Ti			2	1.462	ug/l	76.34	67.78	9.261E-04	Pulse	0.30	3
V			2	1.064	ug/l	5.62	1,567.87	2.140E-02	Pulse	0.30	3
Cr			2	1.576	ug/l	5.31	3,493.75	4.769E-02	Pulse	0.30	3
Mn			2	1322.531	ug/l	1.10	1,117,752.32	1.526E+01	Pulse	0.30	3
Fe			2	44487.688	ug/l	1.31	60,604,555.37	8.274E+02	Analog	0.30	3
Co			2	0.747	ug/l	3.25	2,227.95	3.042E-02	Pulse	0.30	3
Ni			2	2.621	ug/l	2.54	2,235.73	3.052E-02	Pulse	0.30	3
Cu			2	3.496	ug/l	1.75	9,519.49	1.300E-01	Pulse	0.30	3
Zn			2	31.572	ug/l	0.35	8,941.41	1.221E-01	Pulse	0.30	3
As			2	4.818	ug/l	4.34	738.02	1.007E-02	Pulse	1.00	3
Cd			2	0.418	ug/l	2.53	57.72	1.696E-04	Pulse	0.30	3
Sn			2	0.740	ug/l	8.91	1,045.61	3.072E-03	Pulse	0.30	3
Se			3	0.411	ug/l	21.02	13.93	1.941E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,377,483.00	0.97	89.9	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,055,435.65	0.88	102.4	Pulse	0.10	3
1	Ge		394,700.15	1.52	106.0	Pulse	0.10	3
1	Ge		545,412.17	1.67	106.4	Pulse	0.10	3
1	Rh		2,382,075.59	2.30	99.7	Pulse	0.10	3
1	In		2,652,346.86	0.88	103.1	Pulse	0.10	3
1	Tb		3,550,098.38	1.07	104.0	Pulse	0.10	3
1	Ho		334,567.78	1.66	103.5	Pulse	0.10	3
1	Bi		1,914,298.78	1.13	96.3	Pulse	0.10	3
2	Sc		73,254.45	0.92	102.5	Pulse	0.30	3
2	Ge		40,987.02	0.08	107.3	Pulse	0.30	3
2	Ge		61,323.57	0.23	106.9	Pulse	0.30	3
2	Rh		1,021,874.72	0.13	98.5	Pulse	0.30	3
2	In		340,405.64	0.41	96.5	Pulse	0.30	3
2	Tb		1,255,757.34	0.65	96.0	Pulse	0.30	3
2	Ho		120,976.08	0.12	96.9	Pulse	0.30	3
2	Bi		782,005.25	0.52	89.6	Pulse	0.30	3
3	Sc		75,586.76	0.98	114.5	Pulse	0.30	3
3	Ge		47,747.33	1.33	117.6	Pulse	0.30	3
3	Ge		71,773.36	1.19	115.1	Pulse	0.30	3
3	Rh		752,991.45	0.06	104.0	Pulse	0.30	3
3	Tb		1,179,587.24	0.44	104.2	Pulse	0.30	3

Quantitation Report

File Name	084SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa043019m6.b
Method File	
Method Path	
Acq Time	4/30/2019 23:49
Sample Name	jc87142-5
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/30/2019 19:15
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.025	ug/l	27.04	69.33	4.997E-05	Pulse	0.25	3
B			1	44.078	ug/l	1.12	76,506.66	5.521E-02	Pulse	0.15	3
Ca			1	48996.031	ug/l	0.47	15,133,189.78	7.313E+00	Analog	0.10	3
Sr			1	242.522	ug/l	0.39	3,423,442.24	1.448E+00	Pulse	0.10	3
Mo			1	0.448	ug/l	5.15	1,293.44	5.475E-04	Pulse	0.10	3
Ag			1	0.016	ug/l	32.54	140.00	5.261E-05	Pulse	0.10	3
Sn			1	1.366	ug/l	1.79	5,681.26	2.136E-03	Pulse	0.10	3
Sb			1	0.161	ug/l	8.14	1,003.40	2.836E-04	Pulse	0.10	3
Ba			1	42.984	ug/l	1.30	88,351.18	2.498E-02	Pulse	0.10	3
Tl			1	0.020	ug/l	34.77	330.02	1.736E-04	Pulse	0.10	3
Pb			1	0.275	ug/l	5.28	1,280.10	6.736E-04	Pulse	0.10	3
Pb			1	0.284	ug/l	5.78	1,076.75	5.667E-04	Pulse	0.10	3
Pb			1	0.274	ug/l	2.24	4,937.17	2.599E-03	Pulse	0.10	3
Na			2	98323.682	ug/l	1.19	34,647,841.95	4.681E+02	Analog	0.30	3
Mg			2	8904.409	ug/l	0.83	1,423,724.42	1.923E+01	Pulse	0.30	3
Al			2	16.206	ug/l	8.92	1,869.02	2.525E-02	Pulse	0.30	3
K			2	3149.982	ug/l	0.64	319,068.51	4.311E+00	Pulse	0.30	3
Ca			2	49263.425	ug/l	0.93	252,676.59	3.414E+00	Pulse	0.30	3
Ti			2	0.347	ug/l	12.31	18.89	2.552E-04	Pulse	0.30	3
V			2	0.321	ug/l	9.26	553.35	7.475E-03	Pulse	0.30	3
Cr			2	2.777	ug/l	5.82	5,648.80	7.632E-02	Pulse	0.30	3
Mn			2	22.126	ug/l	1.11	19,052.22	2.574E-01	Pulse	0.30	3
Fe			2	111.210	ug/l	0.71	157,205.31	2.124E+00	Pulse	0.30	3
Co			2	0.398	ug/l	9.68	1,231.17	1.663E-02	Pulse	0.30	3
Ni			2	2.760	ug/l	2.46	2,367.99	3.199E-02	Pulse	0.30	3
Cu			2	5.049	ug/l	1.42	12,951.88	1.750E-01	Pulse	0.30	3
Zn			2	17.400	ug/l	4.41	5,154.20	6.964E-02	Pulse	0.30	3
As			2	0.521	ug/l	5.79	85.33	1.153E-03	Pulse	1.00	3
Cd			2	0.340	ug/l	0.02	29.95	8.695E-05	Pulse	0.30	3
Sn			2	0.634	ug/l	2.33	978.93	2.842E-03	Pulse	0.30	3
Se			3	0.938	ug/l	11.76	30.40	4.136E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,385,727.54	1.18	90.4	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,069,504.19	1.58	103.1	Pulse	0.10	3
1	Ge		401,624.28	1.87	107.8	Pulse	0.10	3
1	Ge		550,748.69	0.69	107.5	Pulse	0.10	3
1	Rh		2,363,650.23	1.57	98.9	Pulse	0.10	3
1	In		2,660,448.02	1.78	103.4	Pulse	0.10	3
1	Tb		3,536,970.36	1.61	103.6	Pulse	0.10	3
1	Ho		341,250.76	1.11	105.5	Pulse	0.10	3
1	Bi		1,899,861.95	1.10	95.5	Pulse	0.10	3
2	Sc		74,019.94	0.13	103.6	Pulse	0.30	3
2	Ge		41,406.84	1.47	108.4	Pulse	0.30	3
2	Ge		61,835.53	0.14	107.8	Pulse	0.30	3
2	Rh		1,035,104.82	1.30	99.8	Pulse	0.30	3
2	In		344,397.37	0.09	97.7	Pulse	0.30	3
2	Tb		1,263,658.53	0.49	96.6	Pulse	0.30	3
2	Ho		122,889.19	1.30	98.4	Pulse	0.30	3
2	Bi		785,317.28	0.90	90.0	Pulse	0.30	3
3	Sc		78,014.70	0.79	118.1	Pulse	0.30	3
3	Ge		48,590.93	1.22	119.7	Pulse	0.30	3
3	Ge		73,520.16	1.18	117.9	Pulse	0.30	3
3	Rh		761,336.88	0.49	105.2	Pulse	0.30	3
3	Tb		1,195,629.26	0.88	105.6	Pulse	0.30	3

Quantitation Report

File Name	085SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa043019m6.b
Method File	
Method Path	
Acq Time	4/30/2019 23:54
Sample Name	jc87142-6
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/30/2019 19:15
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.013	ug/l	30.28	38.67	2.859E-05	Pulse	0.25	3
B			1	74.827	ug/l	1.60	124,580.53	9.203E-02	Pulse	0.15	3
Ca			1	34299.995	ug/l	0.33	10,607,345.68	5.123E+00	Analog	0.10	3
Sr			1	309.695	ug/l	0.77	4,270,856.81	1.849E+00	Pulse	0.10	3
Mo			1	0.481	ug/l	13.27	1,356.77	5.878E-04	Pulse	0.10	3
Ag			1	0.013	ug/l	18.99	113.34	4.385E-05	Pulse	0.10	3
Sn			1	1.586	ug/l	1.62	6,471.58	2.502E-03	Pulse	0.10	3
Sb			1	0.574	ug/l	6.17	3,033.75	8.678E-04	Pulse	0.10	3
Ba			1	95.367	ug/l	1.03	193,669.35	5.539E-02	Pulse	0.10	3
Tl			1	0.011	ug/l	8.15	216.68	1.183E-04	Pulse	0.10	3
Pb			1	10.278	ug/l	1.06	37,799.29	2.065E-02	Pulse	0.10	3
Pb			1	10.234	ug/l	0.59	32,593.53	1.780E-02	Pulse	0.10	3
Pb			1	10.218	ug/l	0.84	149,890.46	8.187E-02	Pulse	0.10	3
Na			2	279059.880	ug/l	0.85	96,424,256.17	1.328E+03	Analog	0.30	3
Mg			2	6503.191	ug/l	0.57	1,020,012.18	1.405E+01	Pulse	0.30	3
Al			2	76.539	ug/l	2.88	4,799.72	6.612E-02	Pulse	0.30	3
K			2	15831.322	ug/l	0.41	1,542,466.43	2.125E+01	Pulse	0.30	3
Ca			2	35438.845	ug/l	0.23	178,337.30	2.457E+00	Pulse	0.30	3
Ti			2	2.772	ug/l	101.65	124.49	1.713E-03	Pulse	0.30	3
V			2	1.504	ug/l	6.01	2,151.28	2.964E-02	Pulse	0.30	3
Cr			2	1.555	ug/l	5.57	3,427.06	4.721E-02	Pulse	0.30	3
Mn			2	273.880	ug/l	1.45	229,503.16	3.162E+00	Pulse	0.30	3
Fe			2	23572.022	ug/l	1.10	31,823,769.84	4.384E+02	Analog	0.30	3
Co			2	0.413	ug/l	7.40	1,248.95	1.721E-02	Pulse	0.30	3
Ni			2	1.979	ug/l	3.51	1,722.33	2.373E-02	Pulse	0.30	3
Cu			2	3.813	ug/l	2.12	10,099.87	1.391E-01	Pulse	0.30	3
Zn			2	23.006	ug/l	3.97	6,560.28	9.037E-02	Pulse	0.30	3
As			2	5.017	ug/l	5.21	761.02	1.048E-02	Pulse	1.00	3
Cd			2	0.280	ug/l	5.24	7.72	2.330E-05	Pulse	0.30	3
Sn			2	0.873	ug/l	9.45	1,114.50	3.360E-03	Pulse	0.30	3
Se			3	0.315	ug/l	9.68	10.67	1.540E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,353,867.88	0.79	88.3	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,070,567.37	2.18	103.2	Pulse	0.10	3
1	Ge		386,369.06	0.87	103.7	Pulse	0.10	3
1	Ge		533,338.35	0.76	104.1	Pulse	0.10	3
1	Rh		2,309,191.22	0.62	96.6	Pulse	0.10	3
1	In		2,585,991.81	1.57	100.5	Pulse	0.10	3
1	Tb		3,496,514.53	1.01	102.4	Pulse	0.10	3
1	Ho		331,092.14	0.37	102.4	Pulse	0.10	3
1	Bi		1,830,964.56	1.21	92.1	Pulse	0.10	3
2	Sc		72,589.34	0.38	101.6	Pulse	0.30	3
2	Ge		40,442.24	0.82	105.8	Pulse	0.30	3
2	Ge		60,593.07	1.34	105.6	Pulse	0.30	3
2	Rh		980,895.93	0.19	94.5	Pulse	0.30	3
2	In		331,635.98	0.24	94.0	Pulse	0.30	3
2	Tb		1,227,251.86	0.75	93.8	Pulse	0.30	3
2	Ho		119,754.21	0.62	95.9	Pulse	0.30	3
2	Bi		759,491.67	1.03	87.0	Pulse	0.30	3
3	Sc		74,716.27	1.14	113.2	Pulse	0.30	3
3	Ge		46,014.63	0.09	113.4	Pulse	0.30	3
3	Ge		69,233.73	0.99	111.0	Pulse	0.30	3
3	Rh		711,332.47	0.73	98.3	Pulse	0.30	3
3	Tb		1,138,235.61	0.57	100.5	Pulse	0.30	3

Quantitation Report

File Name 086SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa043019m6.b
Method File
Method Path
Acq Time 4/30/2019 23:59
Sample Name jc87142-7
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/30/2019 19:15
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.004	ug/l	94.17	14.67	1.084E-05	Pulse	0.25	3
B			1	75.200	ug/l	1.76	124,598.77	9.247E-02	Pulse	0.15	3
Ca			1	64052.767	ug/l	0.64	19,503,404.29	9.556E+00	Analog	0.10	3
Sr			1	416.181	ug/l	1.41	5,704,395.54	2.485E+00	Analog	0.10	3
Mo			1	0.868	ug/l	4.91	2,416.93	1.053E-03	Pulse	0.10	3
Ag			1	0.013	ug/l	29.17	116.67	4.549E-05	Pulse	0.10	3
Sn			1	1.516	ug/l	2.50	6,121.42	2.386E-03	Pulse	0.10	3
Sb			1	0.147	ug/l	19.01	910.06	2.631E-04	Pulse	0.10	3
Ba			1	131.992	ug/l	0.39	265,332.27	7.665E-02	Pulse	0.10	3
Tl			1	0.050	ug/l	5.65	636.70	3.476E-04	Pulse	0.10	3
Pb			1	2.021	ug/l	2.35	7,618.87	4.159E-03	Pulse	0.10	3
Pb			1	2.037	ug/l	4.79	6,601.72	3.604E-03	Pulse	0.10	3
Pb			1	2.026	ug/l	1.47	30,356.64	1.657E-02	Pulse	0.10	3
Na			2	240632.646	ug/l	1.64	80,931,987.90	1.145E+03	Analog	0.30	3
Mg			2	11523.205	ug/l	0.51	1,758,260.34	2.489E+01	Pulse	0.30	3
Al			2	7.372	ug/l	14.59	1,361.18	1.927E-02	Pulse	0.30	3
K			2	13345.582	ug/l	0.55	1,266,704.01	1.793E+01	Pulse	0.30	3
Ca			2	65236.406	ug/l	0.85	319,283.95	4.519E+00	Pulse	0.30	3
Ti			2	0.551	ug/l	38.30	26.67	3.778E-04	Pulse	0.30	3
V			2	0.577	ug/l	1.78	867.81	1.228E-02	Pulse	0.30	3
Cr			2	1.038	ug/l	9.49	2,465.77	3.490E-02	Pulse	0.30	3
Mn			2	379.031	ug/l	0.62	309,088.63	4.375E+00	Pulse	0.30	3
Fe			2	17369.678	ug/l	0.59	22,825,428.54	3.231E+02	Analog	0.30	3
Co			2	0.745	ug/l	6.02	2,144.61	3.035E-02	Pulse	0.30	3
Ni			2	1.880	ug/l	4.80	1,602.32	2.268E-02	Pulse	0.30	3
Cu			2	5.728	ug/l	1.29	13,754.75	1.947E-01	Pulse	0.30	3
Zn			2	21.947	ug/l	2.29	6,107.86	8.645E-02	Pulse	0.30	3
As			2	1.186	ug/l	6.54	179.00	2.533E-03	Pulse	1.00	3
Cd			2	0.397	ug/l	10.10	48.77	1.476E-04	Pulse	0.30	3
Sn			2	0.874	ug/l	2.43	1,112.27	3.363E-03	Pulse	0.30	3
Se			3	1.738	ug/l	3.90	51.00	7.465E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,347,325.02	1.26	87.9	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,040,995.34	1.45	101.7	Pulse	0.10	3
1	Ge		384,441.63	1.76	103.2	Pulse	0.10	3
1	Ge		532,754.82	1.44	103.9	Pulse	0.10	3
1	Rh		2,295,396.74	0.85	96.1	Pulse	0.10	3
1	In		2,566,018.60	1.84	99.7	Pulse	0.10	3
1	Tb		3,461,619.22	1.15	101.4	Pulse	0.10	3
1	Ho		326,557.67	1.54	101.0	Pulse	0.10	3
1	Bi		1,832,163.67	1.23	92.1	Pulse	0.10	3
2	Sc		70,652.00	0.46	98.9	Pulse	0.30	3
2	Ge		39,793.99	0.07	104.1	Pulse	0.30	3
2	Ge		59,911.62	0.82	104.4	Pulse	0.30	3
2	Rh		973,974.89	0.34	93.9	Pulse	0.30	3
2	In		330,716.60	0.32	93.8	Pulse	0.30	3
2	Tb		1,228,050.44	1.20	93.9	Pulse	0.30	3
2	Ho		119,231.19	0.94	95.5	Pulse	0.30	3
2	Bi		750,029.45	0.43	85.9	Pulse	0.30	3
3	Sc		72,511.21	1.45	109.8	Pulse	0.30	3
3	Ge		45,392.91	1.77	111.8	Pulse	0.30	3
3	Ge		68,328.00	0.48	109.6	Pulse	0.30	3
3	Rh		707,611.41	0.60	97.8	Pulse	0.30	3
3	Tb		1,134,702.14	0.49	100.2	Pulse	0.30	3

Quantitation Report

File Name	087SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa043019m6.b
Method File	
Method Path	
Acq Time	5/1/2019 0:04
Sample Name	jc87142-8
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/30/2019 19:15
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.050	ug/l	9.14	134.67	9.705E-05	Pulse	0.25	3
B			1	60.902	ug/l	1.50	104,581.00	7.535E-02	Pulse	0.15	3
Ca			1	48706.930	ug/l	0.96	15,372,351.02	7.270E+00	Analog	0.10	3
Sr			1	283.890	ug/l	0.44	4,064,653.17	1.695E+00	Pulse	0.10	3
Mo			1	1.675	ug/l	6.65	4,850.90	2.023E-03	Pulse	0.10	3
Ag			1	0.028	ug/l	20.83	220.01	8.219E-05	Pulse	0.10	3
Sn			1	1.211	ug/l	7.22	5,024.31	1.876E-03	Pulse	0.10	3
Sb			1	0.347	ug/l	4.56	1,946.86	5.469E-04	Pulse	0.10	3
Ba			1	85.199	ug/l	1.04	176,151.29	4.948E-02	Pulse	0.10	3
Tl			1	0.062	ug/l	10.84	783.38	4.158E-04	Pulse	0.10	3
Pb			1	1.156	ug/l	5.79	4,580.91	2.431E-03	Pulse	0.10	3
Pb			1	1.193	ug/l	3.39	4,034.02	2.141E-03	Pulse	0.10	3
Pb			1	1.170	ug/l	2.62	18,351.88	9.741E-03	Pulse	0.10	3
Na			2	141843.304	ug/l	2.14	50,472,636.88	6.752E+02	Analog	0.30	3
Mg			2	10925.717	ug/l	1.04	1,763,825.14	2.360E+01	Pulse	0.30	3
Al			2	2386.792	ug/l	3.13	121,938.78	1.631E+00	Pulse	0.30	3
K			2	13511.126	ug/l	1.48	1,356,673.80	1.815E+01	Pulse	0.30	3
Ca			2	49705.192	ug/l	0.65	257,452.27	3.444E+00	Pulse	0.30	3
Ti			2	53.099	ug/l	43.60	2,388.03	3.198E-02	Pulse	0.30	3
V			2	8.841	ug/l	1.41	12,487.05	1.670E-01	Pulse	0.30	3
Cr			2	4.368	ug/l	3.18	8,536.73	1.142E-01	Pulse	0.30	3
Mn			2	117.258	ug/l	0.92	101,273.96	1.355E+00	Pulse	0.30	3
Fe			2	6964.441	ug/l	1.04	9,685,167.67	1.296E+02	Analog	0.30	3
Co			2	0.421	ug/l	3.45	1,312.29	1.756E-02	Pulse	0.30	3
Ni			2	2.584	ug/l	2.65	2,252.41	3.013E-02	Pulse	0.30	3
Cu			2	8.638	ug/l	0.40	20,857.85	2.790E-01	Pulse	0.30	3
Zn			2	17.652	ug/l	2.32	5,275.35	7.057E-02	Pulse	0.30	3
As			2	1.539	ug/l	10.25	244.00	3.265E-03	Pulse	1.00	3
Cd			2	0.362	ug/l	13.09	37.52	1.099E-04	Pulse	0.30	3
Sn			2	0.536	ug/l	4.94	902.26	2.631E-03	Pulse	0.30	3
Se			3	1.672	ug/l	9.33	51.47	7.191E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,387,803.73	0.54	90.6	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,114,366.95	1.67	105.3	Pulse	0.10	3
1	Ge		405,211.95	0.88	108.8	Pulse	0.10	3
1	Ge		555,151.26	1.51	108.3	Pulse	0.10	3
1	Rh		2,397,415.64	0.45	100.3	Pulse	0.10	3
1	In		2,676,226.97	1.07	104.0	Pulse	0.10	3
1	Tb		3,559,999.53	1.81	104.3	Pulse	0.10	3
1	Ho		336,428.75	1.53	104.0	Pulse	0.10	3
1	Bi		1,883,899.45	0.70	94.7	Pulse	0.10	3
2	Sc		74,751.03	0.72	104.6	Pulse	0.30	3
2	Ge		41,582.73	0.30	108.8	Pulse	0.30	3
2	Ge		62,629.58	1.21	109.1	Pulse	0.30	3
2	Rh		1,015,774.12	0.47	97.9	Pulse	0.30	3
2	In		342,889.77	1.53	97.2	Pulse	0.30	3
2	Tb		1,268,348.21	0.50	97.0	Pulse	0.30	3
2	Ho		123,251.91	0.87	98.7	Pulse	0.30	3
2	Bi		772,202.44	0.36	88.5	Pulse	0.30	3
3	Sc		76,899.55	1.17	116.5	Pulse	0.30	3
3	Ge		47,303.96	1.57	116.6	Pulse	0.30	3
3	Ge		71,539.29	0.86	114.7	Pulse	0.30	3
3	Rh		734,539.50	0.51	101.5	Pulse	0.30	3
3	Tb		1,161,086.55	0.54	102.6	Pulse	0.30	3

Quantitation Report

File Name 088SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa043019m6.b
Method File
Method Path
Acq Time 5/1/2019 0:09
Sample Name jc87142-9
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/30/2019 19:15
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.023	ug/l	30.51	65.33	4.761E-05	Pulse	0.25	3
B			1	233.459	ug/l	1.10	387,330.82	2.820E-01	Pulse	0.15	3
Ca			1	140031.306	ug/l	1.00	43,742,816.02	2.088E+01	Analog	0.10	3
Sr			1	877.696	ug/l	1.49	11,950,173.99	5.241E+00	Analog	0.10	3
Mo			1	1.388	ug/l	9.88	3,823.93	1.678E-03	Pulse	0.10	3
Ag			1	0.013	ug/l	46.05	113.34	4.405E-05	Pulse	0.10	3
Sn			1	1.265	ug/l	3.06	5,067.67	1.967E-03	Pulse	0.10	3
Sb			1	0.382	ug/l	9.71	2,066.88	5.961E-04	Pulse	0.10	3
Ba			1	121.053	ug/l	0.89	243,853.36	7.030E-02	Pulse	0.10	3
Tl			1	0.144	ug/l	8.23	1,570.15	8.892E-04	Pulse	0.10	3
Pb			1	0.303	ug/l	13.73	1,286.78	7.289E-04	Pulse	0.10	3
Pb			1	0.332	ug/l	3.63	1,146.76	6.494E-04	Pulse	0.10	3
Pb			1	0.313	ug/l	6.11	5,133.88	2.908E-03	Pulse	0.10	3
Na			2	292899.339	ug/l	1.00	103,594,062.55	1.394E+03	Analog	0.30	3
Mg			2	42754.929	ug/l	0.83	6,857,682.78	9.229E+01	Analog	0.30	3
Al			2	307.777	ug/l	4.54	16,552.23	2.228E-01	Pulse	0.30	3
K			2	28873.514	ug/l	0.49	2,873,261.42	3.867E+01	Pulse	0.30	3
Ca			2	144704.194	ug/l	0.12	744,480.84	1.002E+01	Pulse	0.30	3
Ti			2	5.617	ug/l	14.18	254.45	3.425E-03	Pulse	0.30	3
V			2	2.284	ug/l	0.89	3,287.03	4.424E-02	Pulse	0.30	3
Cr			2	2.197	ug/l	4.53	4,644.06	6.250E-02	Pulse	0.30	3
Mn			2	38.471	ug/l	0.37	33,135.45	4.460E-01	Pulse	0.30	3
Fe			2	361.156	ug/l	0.76	503,178.61	6.772E+00	Pulse	0.30	3
Co			2	0.275	ug/l	1.17	874.48	1.177E-02	Pulse	0.30	3
Ni			2	2.623	ug/l	2.89	2,269.07	3.054E-02	Pulse	0.30	3
Cu			2	4.460	ug/l	0.83	11,732.04	1.579E-01	Pulse	0.30	3
Zn			2	7.971	ug/l	4.29	2,582.46	3.475E-02	Pulse	0.30	3
As			2	0.604	ug/l	5.34	98.33	1.323E-03	Pulse	1.00	3
Cd			2	0.301	ug/l	3.54	15.36	4.564E-05	Pulse	0.30	3
Sn			2	0.569	ug/l	14.65	908.93	2.703E-03	Pulse	0.30	3
Se			3	5.032	ug/l	1.68	147.27	2.118E-03	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,373,707.63	0.58	89.6	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,095,273.30	1.51	104.4	Pulse	0.10	3
1	Ge		402,093.25	2.09	108.0	Pulse	0.10	3
1	Ge		543,070.39	1.55	106.0	Pulse	0.10	3
1	Rh		2,280,220.90	1.41	95.4	Pulse	0.10	3
1	In		2,575,426.17	0.82	100.1	Pulse	0.10	3
1	Tb		3,468,546.72	0.94	101.6	Pulse	0.10	3
1	Ho		329,513.19	1.41	101.9	Pulse	0.10	3
1	Bi		1,765,784.71	0.40	88.8	Pulse	0.10	3
2	Sc		74,302.43	0.17	104.0	Pulse	0.30	3
2	Ge		40,960.04	0.75	107.2	Pulse	0.30	3
2	Ge		60,725.79	0.60	105.8	Pulse	0.30	3
2	Rh		979,801.66	0.27	94.4	Pulse	0.30	3
2	In		336,329.94	0.62	95.4	Pulse	0.30	3
2	Tb		1,239,193.01	0.51	94.8	Pulse	0.30	3
2	Ho		120,523.58	0.76	96.5	Pulse	0.30	3
2	Bi		735,364.47	0.29	84.2	Pulse	0.30	3
3	Sc		76,126.04	1.17	115.3	Pulse	0.30	3
3	Ge		45,831.88	1.13	112.9	Pulse	0.30	3
3	Ge		69,525.05	1.15	111.5	Pulse	0.30	3
3	Rh		707,864.90	0.50	97.8	Pulse	0.30	3
3	Tb		1,131,486.34	0.62	100.0	Pulse	0.30	3

Quantitation Report

File Name	089_CCV.d
File Path	C:\Agilent\ICPMH\1\DATA\xa043019m6.b
Method File	
Method Path	
Acq Time	5/1/2019 0:14
Sample Name	CCVA
Sample Type	CCV
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/30/2019 19:15
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	49.889	ug/l	0.96	274,946.07	1.879E-01	Pulse	0.25	3
B			1	108.816	ug/l	0.48	384,924.86	2.630E-01	Pulse	0.15	3
Ca			1	5112.393	ug/l	0.62	3,353,293.70	1.536E+00	Pulse	0.10	3
Sr			1	52.222	ug/l	0.96	1,570,587.01	6.239E-01	Pulse	0.10	3
Mo			1	50.807	ug/l	1.21	307,552.50	1.222E-01	Pulse	0.10	3
Ag			1	48.701	ug/l	1.12	675,450.98	2.462E-01	Pulse	0.10	3
Sn			1	49.237	ug/l	1.05	449,883.35	1.640E-01	Pulse	0.10	3
Sb			1	53.340	ug/l	0.54	542,582.30	1.509E-01	Pulse	0.10	3
Ba			1	50.894	ug/l	1.12	212,512.86	5.912E-02	Pulse	0.10	3
Tl			1	51.040	ug/l	1.33	1,169,651.21	5.924E-01	Pulse	0.10	3
Pb			1	50.623	ug/l	1.47	399,414.78	2.023E-01	Pulse	0.10	3
Pb			1	51.206	ug/l	0.67	350,448.51	1.775E-01	Pulse	0.10	3
Pb			1	50.757	ug/l	1.02	1,598,680.31	8.096E-01	Pulse	0.10	3
Na			2	4820.651	ug/l	1.59	3,584,813.89	4.598E+01	Pulse	0.30	3
Mg			2	4935.520	ug/l	1.76	1,662,212.22	2.132E+01	Pulse	0.30	3
Al			2	4865.993	ug/l	1.44	515,135.71	6.607E+00	Pulse	0.30	3
K			2	5028.782	ug/l	1.85	1,055,386.94	1.354E+01	Pulse	0.30	3
Ca			2	5379.046	ug/l	1.11	58,359.33	7.485E-01	Pulse	0.30	3
Ti			2	48.927	ug/l	2.31	4,591.79	5.890E-02	Pulse	0.30	3
V			2	50.710	ug/l	1.79	148,199.45	1.901E+00	Pulse	0.30	3
Cr			2	49.353	ug/l	1.68	184,121.93	2.362E+00	Pulse	0.30	3
Mn			2	48.572	ug/l	1.72	87,538.56	1.123E+00	Pulse	0.30	3
Fe			2	4984.862	ug/l	2.87	14,457,126.65	1.855E+02	Analog	0.30	3
Co			2	48.349	ug/l	1.42	298,303.91	3.826E+00	Pulse	0.30	3
Ni			2	48.360	ug/l	2.17	80,010.58	1.026E+00	Pulse	0.30	3
Cu			2	47.737	ug/l	1.75	218,032.17	2.797E+00	Pulse	0.30	3
Zn			2	47.591	ug/l	1.19	27,863.76	3.574E-01	Pulse	0.30	3
As			2	50.135	ug/l	1.37	16,234.07	2.082E-01	Pulse	1.00	3
Cd			2	48.625	ug/l	0.30	37,156.96	1.023E-01	Pulse	0.30	3
Sn			2	49.981	ug/l	0.76	79,204.06	2.181E-01	Pulse	0.30	3
Se			3	193.527	ug/l	0.86	11,250.25	1.612E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,463,596.63	1.15	95.5	Pulse	0.10	3
1	Sc		2,183,085.85	1.43	108.8	Pulse	0.10	3
1	Ge		402,941.62	0.83	108.2	Pulse	0.10	3

Quantitation Report

1	Ge		562,230.68	1.56	109.7	Pulse	0.10	3
1	Rh		2,517,351.32	1.33	105.3	Pulse	0.10	3
1	In		2,743,914.30	1.26	106.7	Pulse	0.10	3
1	Tb		3,594,693.49	1.13	105.3	Pulse	0.10	3
1	Ho		341,486.99	1.34	105.6	Pulse	0.10	3
1	Bi		1,974,674.24	0.84	99.3	Pulse	0.10	3
2	Sc		77,976.55	1.57	109.2	Pulse	0.30	3
2	Ge		41,959.33	1.14	109.8	Pulse	0.30	3
2	Ge		63,099.11	1.19	110.0	Pulse	0.30	3
2	Rh		1,074,254.58	1.06	103.5	Pulse	0.30	3
2	In		363,090.11	0.39	103.0	Pulse	0.30	3
2	Tb		1,298,052.76	0.48	99.3	Pulse	0.30	3
2	Ho		125,020.07	0.49	100.1	Pulse	0.30	3
2	Bi		830,316.03	1.28	95.1	Pulse	0.30	3
3	Sc		76,132.85	0.51	115.3	Pulse	0.30	3
3	Ge		45,730.55	1.01	112.7	Pulse	0.30	3
3	Ge		69,801.76	0.50	111.9	Pulse	0.30	3
3	Rh		764,371.59	0.50	105.6	Pulse	0.30	3
3	Tb		1,161,066.27	0.54	102.6	Pulse	0.30	3

Quantitation Report

File Name	090_CCB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa043019m6.b
Method File	
Method Path	
Acq Time	5/1/2019 0:19
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/30/2019 19:15
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.010	ug/l	38.97	60.00	4.068E-05	Pulse	0.25	3
B			1	6.577	ug/l	3.21	26,863.84	1.819E-02	Pulse	0.15	3
Ca			1	-10.594	ug/l	-5.58	20,590.06	9.471E-03	Pulse	0.10	3
Sr			1	0.032	ug/l	13.35	1,620.14	6.292E-04	Pulse	0.10	3
Mo			1	0.118	ug/l	26.72	756.71	2.933E-04	Pulse	0.10	3
Ag			1	0.013	ug/l	17.31	220.01	7.933E-05	Pulse	0.10	3
Sn			1	0.546	ug/l	7.46	4,650.89	1.678E-03	Pulse	0.10	3
Sb			1	0.075	ug/l	19.15	953.39	2.684E-04	Pulse	0.10	3
Ba			1	0.013	ug/l	74.73	126.67	3.566E-05	Pulse	0.10	3
Tl			1	0.027	ug/l	11.30	730.04	3.653E-04	Pulse	0.10	3
Pb			1	0.032	ug/l	5.80	503.36	2.519E-04	Pulse	0.10	3
Pb			1	0.036	ug/l	40.07	400.02	2.002E-04	Pulse	0.10	3
Pb			1	0.032	ug/l	11.11	1,860.12	9.311E-04	Pulse	0.10	3
Na			2	39.654	ug/l	4.29	35,744.29	4.671E-01	Pulse	0.30	3
Mg			2	-0.024	ug/l	-1223.04	1,236.73	1.615E-02	Pulse	0.30	3
Al			2	33.633	ug/l	0.46	4,580.67	5.984E-02	Pulse	0.30	3
K			2	-1.459	ug/l	-37.72	7,592.91	9.921E-02	Pulse	0.30	3
Ca			2	-7.195	ug/l	-27.23	221.12	2.887E-03	Pulse	0.30	3
Ti			2	-0.027	ug/l	-76.92	1.11	1.434E-05	Pulse	0.30	3
V			2	-0.003	ug/l	-152.38	104.45	1.365E-03	Pulse	0.30	3
Cr			2	-0.005	ug/l	-168.60	758.92	9.914E-03	Pulse	0.30	3
Mn			2	0.026	ug/l	103.84	208.89	2.733E-03	Pulse	0.30	3
Fe			2	1.775	ug/l	3.67	9,317.18	1.217E-01	Pulse	0.30	3
Co			2	0.003	ug/l	74.25	87.78	1.146E-03	Pulse	0.30	3
Ni			2	-0.022	ug/l	-81.18	177.78	2.325E-03	Pulse	0.30	3
Cu			2	0.110	ug/l	17.53	2,674.70	3.495E-02	Pulse	0.30	3
Zn			2	0.577	ug/l	5.74	730.03	9.536E-03	Pulse	0.30	3
As			2	0.006	ug/l	106.69	7.33	9.577E-05	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	0.139	ug/l	4.72	7.73	2.091E-05	Pulse	0.30	3
Sn			2	0.201	ug/l	26.45	864.48	2.338E-03	Pulse	0.30	3
Se			3	0.095	ug/l	6.40	7.07	1.023E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,477,418.25	0.90	96.4	Pulse	0.10	3
1	Sc		2,173,831.01	0.79	108.3	Pulse	0.10	3
1	Ge		401,426.88	0.79	107.8	Pulse	0.10	3
1	Ge		557,716.36	1.35	108.8	Pulse	0.10	3
1	Rh		2,574,433.81	1.74	107.7	Pulse	0.10	3
1	In		2,770,537.12	1.13	107.7	Pulse	0.10	3
1	Tb		3,552,556.92	0.10	104.0	Pulse	0.10	3
1	Ho		333,231.22	0.24	103.0	Pulse	0.10	3
1	Bi		1,998,201.01	0.66	100.5	Pulse	0.10	3
2	Sc		76,544.46	1.17	107.1	Pulse	0.30	3
2	Ge		41,399.07	0.51	108.3	Pulse	0.30	3
2	Ge		63,425.99	0.86	110.5	Pulse	0.30	3
2	Rh		1,097,495.69	0.35	105.8	Pulse	0.30	3
2	In		369,786.75	0.34	104.8	Pulse	0.30	3
2	Tb		1,305,994.78	0.99	99.9	Pulse	0.30	3
2	Ho		125,602.46	0.74	100.6	Pulse	0.30	3
2	Bi		851,104.55	1.09	97.5	Pulse	0.30	3
3	Sc		75,186.12	0.97	113.9	Pulse	0.30	3
3	Ge		46,097.06	0.50	113.6	Pulse	0.30	3
3	Ge		69,044.00	0.96	110.7	Pulse	0.30	3
3	Rh		773,991.32	0.64	106.9	Pulse	0.30	3
3	Tb		1,149,429.01	0.50	101.5	Pulse	0.30	3

Quantitation Report

File Name	091SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa043019m6.b
Method File	
Method Path	
Acq Time	5/1/2019 0:24
Sample Name	jc87142-10
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/30/2019 19:15
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

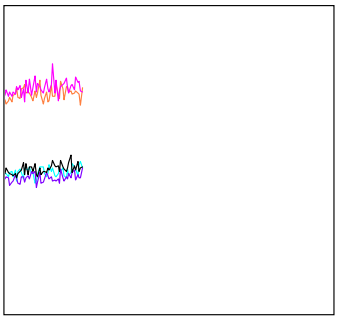
Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.021	ug/l	21.15	60.00	4.247E-05	Pulse	0.25	3
B			1	183.801	ug/l	0.39	314,055.72	2.225E-01	Pulse	0.15	3
Ca			1	45166.027	ug/l	1.37	14,049,357.29	6.742E+00	Analog	0.10	3
Sr			1	425.071	ug/l	0.90	6,137,757.83	2.538E+00	Analog	0.10	3
Mo			1	0.704	ug/l	6.35	2,070.21	8.558E-04	Pulse	0.10	3
Ag			1	0.035	ug/l	41.61	266.68	9.979E-05	Pulse	0.10	3
Sn			1	1.552	ug/l	5.43	6,531.57	2.445E-03	Pulse	0.10	3
Sb			1	0.210	ug/l	4.40	1,250.09	3.530E-04	Pulse	0.10	3
Ba			1	72.856	ug/l	1.61	149,787.03	4.232E-02	Pulse	0.10	3
Tl			1	0.021	ug/l	41.71	343.35	1.784E-04	Pulse	0.10	3
Pb			1	3.092	ug/l	2.65	12,105.32	6.299E-03	Pulse	0.10	3
Pb			1	3.084	ug/l	2.03	10,410.61	5.418E-03	Pulse	0.10	3
Pb			1	3.069	ug/l	1.52	47,798.16	2.488E-02	Pulse	0.10	3
Na			2	51925.947	ug/l	1.67	17,990,282.62	2.472E+02	Analog	0.30	3
Mg			2	8541.779	ug/l	0.52	1,342,666.82	1.845E+01	Pulse	0.30	3
Al			2	259.744	ug/l	1.26	13,842.49	1.902E-01	Pulse	0.30	3
K			2	14298.995	ug/l	0.81	1,397,271.85	1.920E+01	Pulse	0.30	3
Ca			2	47313.086	ug/l	0.83	238,569.73	3.279E+00	Pulse	0.30	3
Ti			2	4.211	ug/l	14.89	187.78	2.579E-03	Pulse	0.30	3
V			2	1.336	ug/l	3.04	1,927.91	2.649E-02	Pulse	0.30	3
Cr			2	1.697	ug/l	6.65	3,681.56	5.058E-02	Pulse	0.30	3
Mn			2	223.666	ug/l	0.73	187,917.99	2.582E+00	Pulse	0.30	3
Fe			2	28893.162	ug/l	0.37	39,104,178.44	5.374E+02	Analog	0.30	3
Co			2	0.802	ug/l	2.32	2,372.42	3.260E-02	Pulse	0.30	3
Ni			2	1.530	ug/l	7.69	1,381.19	1.897E-02	Pulse	0.30	3
Cu			2	2.191	ug/l	1.56	6,703.66	9.213E-02	Pulse	0.30	3
Zn			2	9.477	ug/l	2.77	2,934.74	4.033E-02	Pulse	0.30	3
As			2	9.568	ug/l	4.46	1,450.07	1.993E-02	Pulse	1.00	3
Cd			2	0.455	ug/l	3.12	71.00	2.087E-04	Pulse	0.30	3
Sn			2	0.895	ug/l	2.05	1,160.05	3.409E-03	Pulse	0.30	3
Se			3	0.375	ug/l	14.62	12.47	1.791E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,411,481.50	0.84	92.1	Pulse	0.10	3

Current Signal

[1]



Mass	Range	Count	Avg. Count	RSD [%]
7	5000	2363	2305.1	3.35
59	5000	2366	2207.7	3.22
89	5000	3679	3573.6	2.73
140	5000	3612	3671.8	3.13
205	5000	2391	2348.2	3.37
156/140	1	0.554 %	0.581 %	21.40
70/140	20	16.586 %	15.043 %	7.09
9	20	1	0.1	354.90
11	500	360	357.0	6.62
88	50	11	14.2	32.84
95	20	0	1.7	86.57
107	20	1	0.9	96.93
121	50	9	11.4	34.42
137	20	3	2.5	71.18
208	50	38	27.4	17.77
Integration Time [sec]		0.10		

Plasma Parameters

RF Power	1500	W	Nebulizer Pump	0.10	rps
RF Matching	1.80	V	S/C Temp	2	℃
Smpl Depth	7.8	mm	Gas Switch	Dilution Gas	
Carrier Gas	0.55	L/min	Makeup/Dilution Gas	0.55	L/min
Option Gas	0.0	%			

Lenses Parameters

Extract 1	0.0	V	Cell Entrance	-40	V
Extract 2	-170.0	V	Cell Exit	-60	V
Omega Bias	-95	V	Deflect	15.6	V
Omega Lens	6.9	V	Plate Bias	-45	V

Cell Parameters

Use Gas	false		OctP Bias	-8.0	V
He Flow	0.0	mL/min	OctP RF	200	V
H2 Flow	0.0	mL/min	Energy Discrimination	5.0	V
3rd Gas Flow	0	%			

Meters

IF/BK Press	2.59E+2	Pa	S/C Temp (L)	1.9	℃
TMP Revolution	100.0	%	Carrier Gas(BP)	1.41E+2	kPa
Carrier Gas	0.55	L/min			

US EPA Tune Check Sample Report

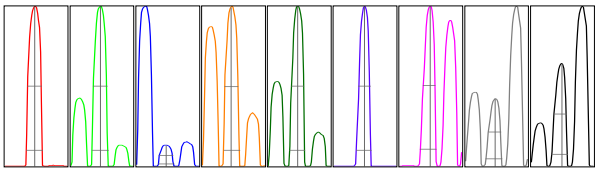
Batch Folder C:\Agilent\ICPMH\1\DATA\xa043019m3.b
Report Comment
Instrument Name G3281A JP10340551

[1]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
9	70481	0.72	5.00	
24	216563	0.71	5.00	
25	28672	0.68	5.00	
26	32763	0.78	5.00	
59	257350	0.24	5.00	
115	346837	0.38	5.00	
206	88147	0.31	5.00	
207	81010	0.40	5.00	
208	191029	0.54	5.00	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	69710	70661	70471	70449	71111
24	214777	217423	215103	218334	217178
25	28467	28489	28675	28905	28824
26	32467	32686	32777	32718	33168
59	257401	257939	256446	257050	257913
115	347263	347590	347219	347639	344475
206	88069	88560	88202	88089	87813
207	80691	81451	80826	81243	80840
208	190024	192537	191616	190306	190663

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width-X% (Flag)
9	11458	8.95	8.9 - 9.1		0.762	0.900	
24	36542	23.95	23.9 - 24.1		0.756	0.900	
25	4822	24.95	24.9 - 25.1		0.725	0.900	
26	5480	25.90	25.9 - 26.1		0.758	0.900	
59	45277	58.95	58.9 - 59.1		0.703	0.900	
115	65890	115.00	114.9 - 115.1		0.699	0.900	
206	15731	206.00	205.9 - 206.1		0.736	0.900	
207	14346	206.95	206.9 - 207.1		0.739	0.900	
208	34008	208.00	207.9 - 208.1		0.743	0.900	

X% = 10 **Integration Time [sec] =** 0.1 **Acquisition Time [sec] =** 235 **Y Axis =** Linear

Tune Parameters

Plasma Paramters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
RF Power	1500	W	Carrier Gas	0.55	L/min			
RF Matching	1.80	V	Option Gas	0.0	%			
Smpl Depth	7.8	mm	Nebulizer Pump	0.10	rps			
S/C Temp	2	℃						

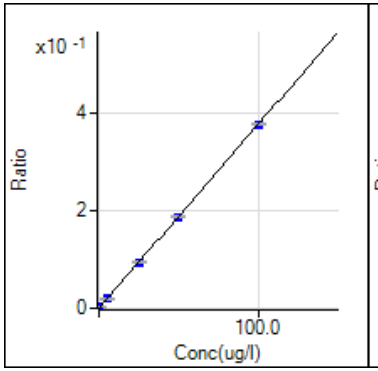
Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	6.9	V			
Extract 2	-170.0	V	Cell Entrance	-40	V			
Omega Bias	-95	V	Cell Exit	-60	V			
Deflect	15.6	V						

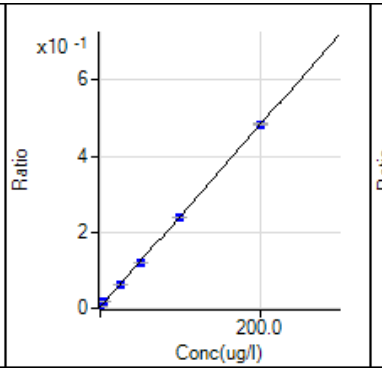
Cell Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Use Gas	false		3rd Gas Flow	0	%			
He Flow	0.0	mL/min	OctP Bias	-8.0	V			
H2 Flow	0.0	mL/min	OctP RF	200	V			
Energy Discrimination	5.0	V						

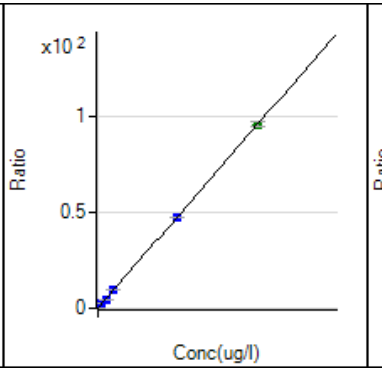
Calibration for C:\Agilent\ICPMH\1\DATA\xa043019m6.b\019_CCB.d



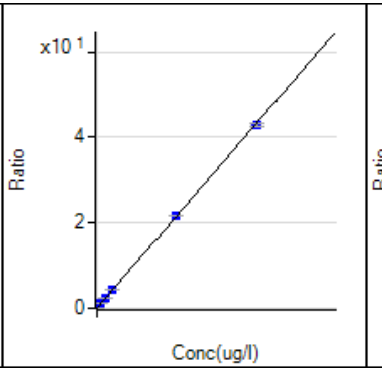
9 Be [1] / ISTD: 6 Li
y = 3.766E-3 x + 3.630E-6
R 1.0000
DL 0.002421
BEC 0.0009641



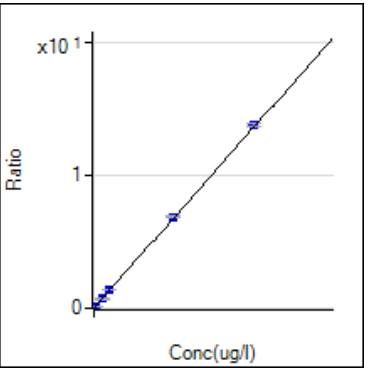
11 B [1] / ISTD: 6 Li
y = 2.395E-3 x + 2.438E-3
R 0.9999
DL 0.05681
BEC 1.018



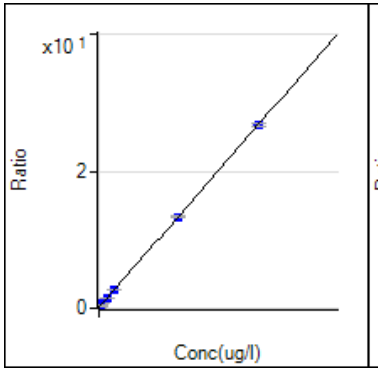
23 Na [2] / ISTD: 45 Sc
y = 9.520E-3 x + 8.960E-2
R 1.0000
DL 1.196
BEC 9.412



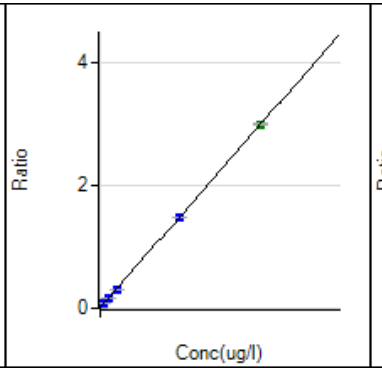
24 Mg [2] / ISTD: 45 Sc
y = 4.317E-3 x + 1.625E-2
R 1.0000
DL 0.6691
BEC 3.764



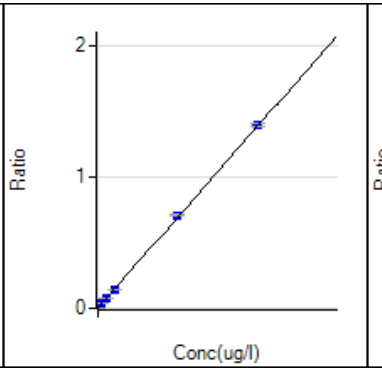
27 Al [2] / ISTD: 45 Sc
y = 1.355E-3 x + 1.427E-2
R 1.0000
DL 6.487
BEC 10.53



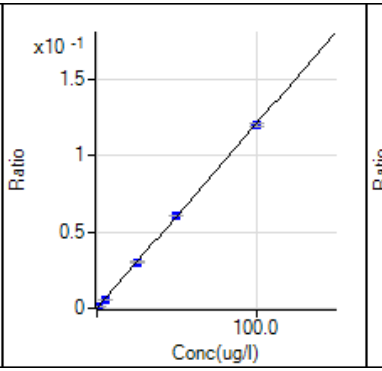
39 K [2] / ISTD: 45 Sc
y = 2.671E-3 x + 1.031E-1
R 1.0000
DL 6.462
BEC 38.59



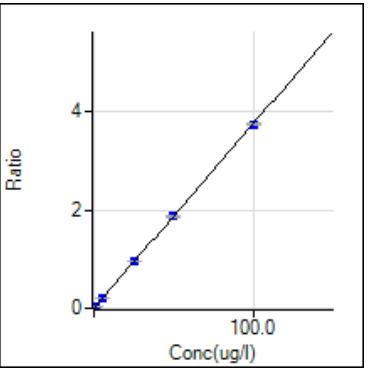
44 Ca [1] / ISTD: 45 Sc
y = 2.980E-4 x + 1.263E-2
R 1.0000
DL 5.766
BEC 42.38



44 Ca [2] / ISTD: 45 Sc
y = 1.384E-4 x + 3.883E-3
R 1.0000
DL 6.69
BEC 28.05

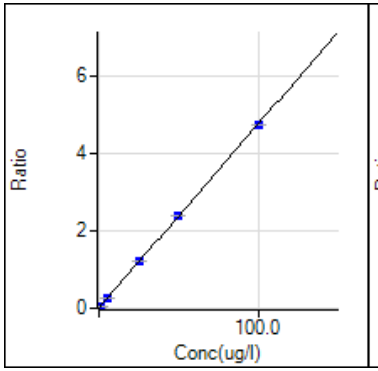


47 Ti [2] / ISTD: 45 Sc
y = 1.203E-3 x + 4.662E-5
R 1.0000
DL 0.001345
BEC 0.03876

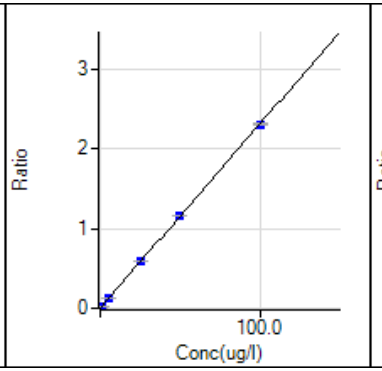


51 V [2] / ISTD: 45 Sc
y = 3.746E-2 x + 1.472E-3
R 1.0000
DL 0.02884
BEC 0.0393

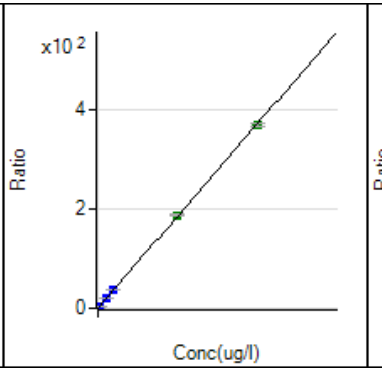
Calibration for C:\Agilent\ICPMH\1\DATA\xa043019m6.b\019_CCB.d



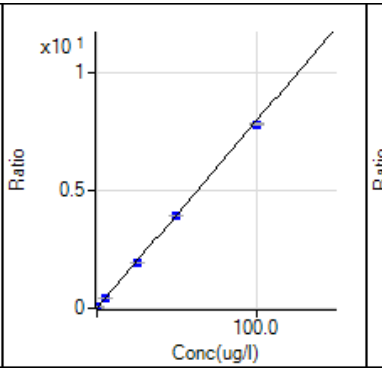
52 Cr [2] / ISTD: 45 Sc
y = 4.765E-2 x + 1.016E-2
R 1.0000
DL 0.05561
BEC 0.2132



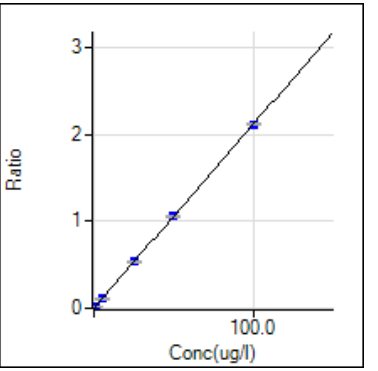
55 Mn [2] / ISTD: 45 Sc
y = 2.307E-2 x + 2.135E-3
R 1.0000
DL 0.06754
BEC 0.09252



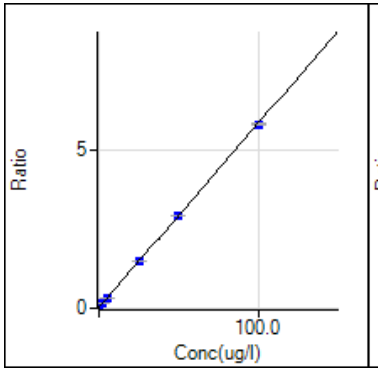
56 Fe [2] / ISTD: 45 Sc
y = 3.719E-2 x + 5.570E-2
R 1.0000
DL 0.09496
BEC 1.497



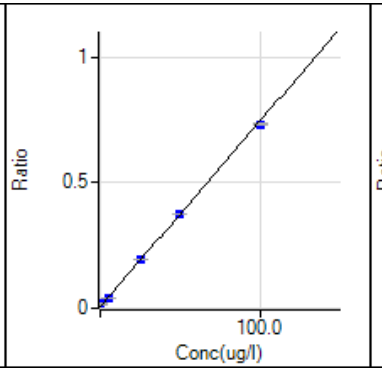
59 Co [2] / ISTD: 45 Sc
y = 7.912E-2 x + 8.883E-4
R 1.0000
DL 0.006146
BEC 0.01123



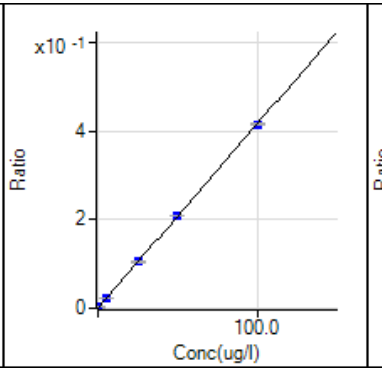
60 Ni [2] / ISTD: 45 Sc
y = 2.116E-2 x + 2.785E-3
R 1.0000
DL 0.08036
BEC 0.1316



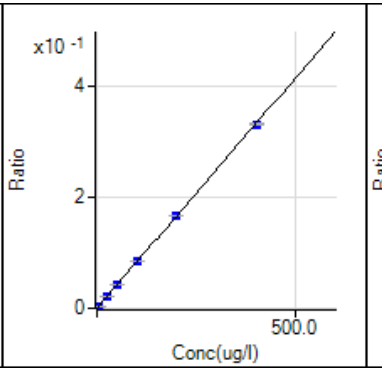
63 Cu [2] / ISTD: 45 Sc
y = 5.799E-2 x + 2.859E-2
R 1.0000
DL 0.0377
BEC 0.4931



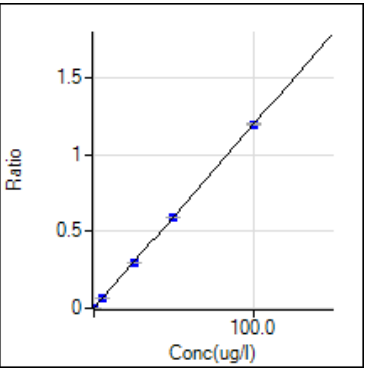
66 Zn [2] / ISTD: 45 Sc
y = 7.398E-3 x + 5.269E-3
R 0.9998
DL 0.4324
BEC 0.7122



75 As [2] / ISTD: 45 Sc
y = 4.152E-3 x + 7.056E-5
R 1.0000
DL 0.01039
BEC 0.01699

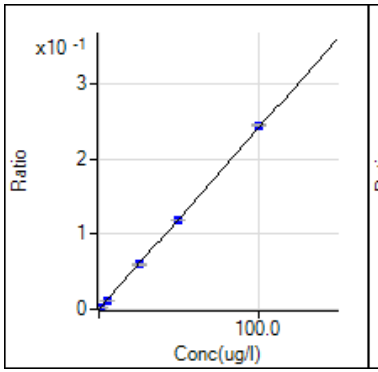


78 Se [3] / ISTD: 74 Ge
y = 8.327E-4 x + 2.301E-5
R 1.0000
DL 0.02423
BEC 0.02764

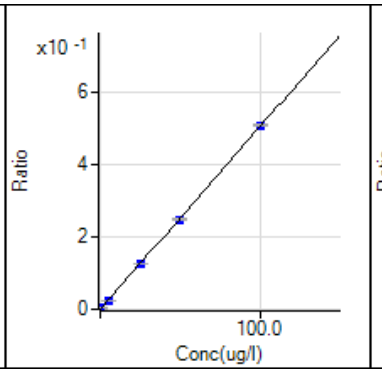


88 Sr [1] / ISTD: 103 Rh
y = 1.194E-2 x + 2.499E-4
R 1.0000
DL 0.01825
BEC 0.02092

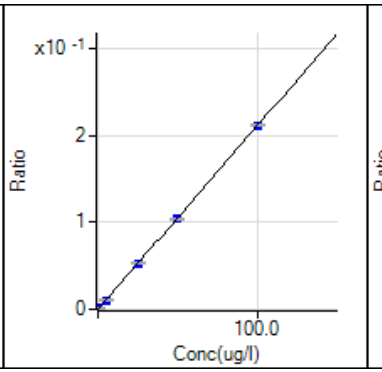
Calibration for C:\Agilent\ICPMH\1\DATA\xa043019m6.b\019_CCB.d



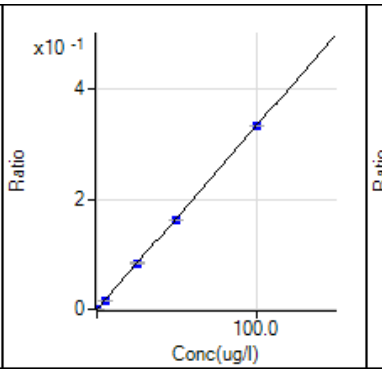
95 Mo [1] / ISTD: 103 Rh
y = 2.404E-3 x + 9.323E-6
R 0.9999
DL 0.005946
BEC 0.003878



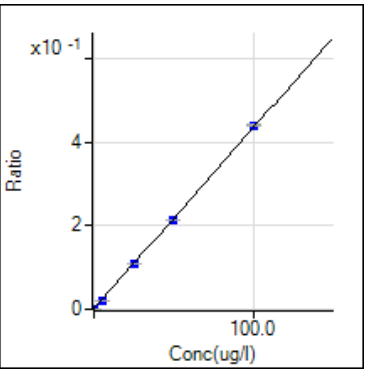
107 Ag [1] / ISTD: 115 In
y = 5.054E-3 x + 1.170E-5
R 0.9999
DL 0.008447
BEC 0.002315



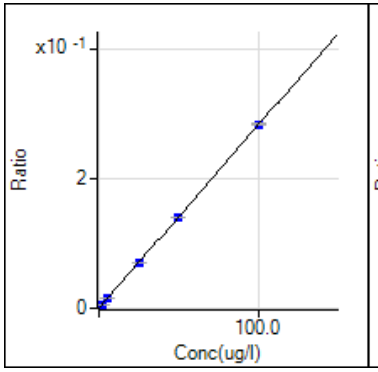
111 Cd [2] / ISTD: 115 In
y = 2.110E-3 x - 2.717E-4
R 1.0000
DL 0
BEC -0.1288



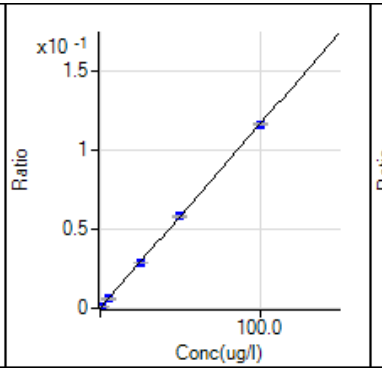
118 Sn [1] / ISTD: 115 In
y = 3.333E-3 x - 1.413E-4
R 0.9999
DL 0.04568
BEC -0.0424



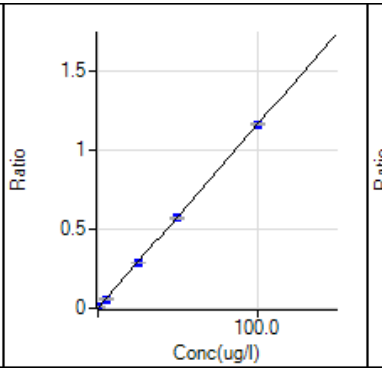
118 Sn [2] / ISTD: 115 In
y = 4.335E-3 x + 1.469E-3
R 0.9999
DL 0.04365
BEC 0.3388



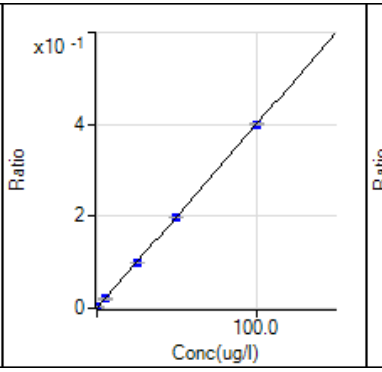
121 Sb [1] / ISTD: 159 Tb
y = 2.829E-3 x + 5.570E-5
R 1.0000
DL 0.003897
BEC 0.01969



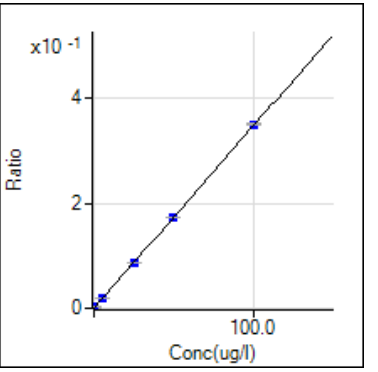
137 Ba [1] / ISTD: 159 Tb
y = 1.161E-3 x + 2.042E-5
R 1.0000
DL 0.02671
BEC 0.01759



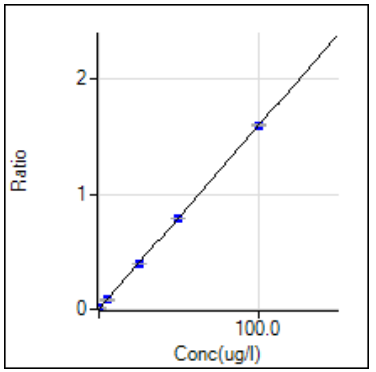
205 Tl [1] / ISTD: 209 Bi
y = 1.160E-2 x + 5.527E-5
R 1.0000
DL 0.003352
BEC 0.004763



206 Pb [1] / ISTD: 209 Bi
y = 3.993E-3 x + 1.242E-4
R 1.0000
DL 0.01604
BEC 0.0311



207 Pb [1] / ISTD: 209 Bi
y = 3.464E-3 x + 7.507E-5
R 1.0000
DL 0.03378
BEC 0.02167



208 Pb [1] / ISTD: 209 Bi

y = 1.594E-2 x + 4.137E-4

R	1.0000
DL	0.00986
BEC	0.02595

Quantitation Report

File Name	001CALB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa050119m2.b
Method File	
Method Path	
Acq Time	5/1/2019 12:21
Sample Name	STDA 4
Sample Type	CalBlk
Comment	0
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/1/2019 13:25
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	-0.001	ug/l	-54.60	2.67	1.509E-06	Pulse	0.25	3
B			1	0.212	ug/l	37.76	7,661.92	4.354E-03	Pulse	0.15	3
Ca			1	1.992	ug/l	23.30	15,497.76	6.463E-03	Pulse	0.10	3
Sr			1	0.002	ug/l	157.76	330.02	1.121E-04	Pulse	0.10	3
Mo			1	0.004	ug/l	67.56	43.33	1.478E-05	Pulse	0.10	3
Ag			1	0.000	ug/l	458.49	30.00	9.511E-06	Pulse	0.10	3
Sn			1	0.366	ug/l	2.13	1,650.15	5.233E-04	Pulse	0.10	3
Sb			1	0.001	ug/l	522.86	206.67	5.039E-05	Pulse	0.10	3
Ba			1	0.004	ug/l	179.95	33.33	8.182E-06	Pulse	0.10	3
Tl			1	0.000	ug/l	-441.11	163.34	6.859E-05	Pulse	0.10	3
Pb			1	-0.002	ug/l	-93.93	143.34	6.027E-05	Pulse	0.10	3
Pb			1	-0.002	ug/l	-249.22	133.34	5.599E-05	Pulse	0.10	3
Pb			1	-0.001	ug/l	-726.43	573.36	2.408E-04	Pulse	0.10	3
Na			2	0.133	ug/l	195.89	5,933.34	7.899E-02	Pulse	0.30	3
Mg			2	0.026	ug/l	178.43	57.78	7.687E-04	Pulse	0.30	3
Al			2	-0.558	ug/l	-34.65	36.67	4.897E-04	Pulse	0.30	3
K			2	0.279	ug/l	391.88	6,752.55	8.992E-02	Pulse	0.30	3
Ca			2	-0.104	ug/l	-949.41	35.56	4.730E-04	Pulse	0.30	3
Ti			2	0.012	ug/l	173.21	1.11	1.497E-05	Pulse	0.30	3
V			2	0.005	ug/l	171.17	100.00	1.334E-03	Pulse	0.30	3
Cr			2	-0.002	ug/l	-917.73	321.12	4.276E-03	Pulse	0.30	3
Mn			2	-0.019	ug/l	-8.66	40.00	5.323E-04	Pulse	0.30	3
Fe			2	0.030	ug/l	157.62	1,538.99	2.048E-02	Pulse	0.30	3
Co			2	0.002	ug/l	31.23	67.78	9.021E-04	Pulse	0.30	3
Ni			2	-0.007	ug/l	-17.95	21.11	2.813E-04	Pulse	0.30	3
Cu			2	-0.237	ug/l	-2.54	547.79	7.292E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	-0.041	ug/l	-52.00	117.78	1.567E-03	Pulse	0.30	3
As			2	-0.006	ug/l	-230.35	4.33	5.749E-05	Pulse	1.00	3
Cd			2	0.005	ug/l	43.56	5.56	1.418E-05	Pulse	0.30	3
Sn			2	0.011	ug/l	306.53	267.79	6.849E-04	Pulse	0.30	3
Se			3	-0.013	ug/l	-66.87	1.80	2.411E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,759,868.28	0.83	100.0	Pulse	0.10	3
1	Sc		2,398,329.76	2.14	100.0	Pulse	0.10	3
1	Ge		451,606.78	1.40	100.0	Pulse	0.10	3
1	Ge		628,385.80	1.48	100.0	Pulse	0.10	3
1	Rh		2,943,128.50	1.48	100.0	Pulse	0.10	3
1	In		3,152,863.38	1.64	100.0	Pulse	0.10	3
1	Tb		4,114,062.33	1.58	100.0	Pulse	0.10	3
1	Ho		384,521.88	1.75	100.0	Pulse	0.10	3
1	Bi		2,376,863.25	1.33	100.0	Pulse	0.10	3
2	Sc		75,097.01	1.20	100.0	Pulse	0.30	3
2	Ge		41,979.55	1.07	100.0	Pulse	0.30	3
2	Ge		63,723.76	0.65	100.0	Pulse	0.30	3
2	Rh		1,233,257.17	0.31	100.0	Pulse	0.30	3
2	In		391,351.33	0.63	100.0	Pulse	0.30	3
2	Tb		1,485,373.66	0.20	100.0	Pulse	0.30	3
2	Ho		143,276.29	0.14	100.0	Pulse	0.30	3
2	Bi		1,018,524.02	0.23	100.0	Pulse	0.30	3
3	Sc		75,903.80	0.06	100.0	Pulse	0.30	3
3	Ge		48,960.93	0.95	100.0	Pulse	0.30	3
3	Ge		74,636.32	0.62	100.0	Pulse	0.30	3
3	Rh		908,043.99	1.03	100.0	Pulse	0.30	3
3	Tb		1,399,285.67	1.18	100.0	Pulse	0.30	3

Quantitation Report

File Name	002CALB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa050119m2.b
Method File	
Method Path	
Acq Time	5/1/2019 12:26
Sample Name	STDA
Sample Type	CalBlk
Comment	0
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/1/2019 13:25
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.001	ug/l	116.89	16.00	8.986E-06	Pulse	0.25	3
B			1	0.059	ug/l	62.73	7,128.35	4.001E-03	Pulse	0.15	3
Ca			1	0.519	ug/l	109.10	14,720.37	6.032E-03	Pulse	0.10	3
Sr			1	0.004	ug/l	92.00	406.69	1.364E-04	Pulse	0.10	3
Mo			1	0.004	ug/l	71.44	40.00	1.340E-05	Pulse	0.10	3
Ag			1	0.001	ug/l	104.14	46.67	1.471E-05	Pulse	0.10	3
Sn			1	0.363	ug/l	3.62	1,636.81	5.152E-04	Pulse	0.10	3
Sb			1	-0.004	ug/l	-87.37	153.34	3.732E-05	Pulse	0.10	3
Ba			1	0.006	ug/l	112.97	43.33	1.059E-05	Pulse	0.10	3
Tl			1	-0.001	ug/l	-165.46	156.67	6.568E-05	Pulse	0.10	3
Pb			1	-0.003	ug/l	-96.28	140.00	5.866E-05	Pulse	0.10	3
Pb			1	-0.003	ug/l	-95.07	123.34	5.169E-05	Pulse	0.10	3
Pb			1	-0.001	ug/l	-221.75	570.02	2.390E-04	Pulse	0.10	3
Na			2	0.176	ug/l	38.85	5,958.89	7.939E-02	Pulse	0.30	3
Mg			2	0.022	ug/l	235.49	56.67	7.534E-04	Pulse	0.30	3
Al			2	-0.403	ug/l	-61.61	52.22	6.930E-04	Pulse	0.30	3
K			2	-0.588	ug/l	-138.54	6,581.37	8.770E-02	Pulse	0.30	3
Ca			2	1.962	ug/l	74.59	56.67	7.539E-04	Pulse	0.30	3
Ti			2	0.085	ug/l	23.51	7.78	1.035E-04	Pulse	0.30	3
V			2	0.001	ug/l	359.69	88.89	1.183E-03	Pulse	0.30	3
Cr			2	-0.007	ug/l	-182.49	300.01	3.997E-03	Pulse	0.30	3
Mn			2	-0.004	ug/l	-66.04	65.56	8.733E-04	Pulse	0.30	3
Fe			2	0.017	ug/l	55.34	1,500.08	1.999E-02	Pulse	0.30	3
Co			2	0.000	ug/l	135.72	56.67	7.552E-04	Pulse	0.30	3
Ni			2	-0.001	ug/l	-798.61	32.22	4.301E-04	Pulse	0.30	3
Cu			2	-0.250	ug/l	-1.84	482.24	6.422E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	-0.021	ug/l	-184.08	128.89	1.720E-03	Pulse	0.30	3
As			2	0.004	ug/l	227.01	7.67	1.024E-04	Pulse	1.00	3
Cd			2	0.003	ug/l	154.57	3.33	8.544E-06	Pulse	0.30	3
Sn			2	0.032	ug/l	28.84	302.23	7.759E-04	Pulse	0.30	3
Se			3	0.033	ug/l	50.33	4.53	6.042E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,781,827.92	0.87	100.0	Pulse	0.10	3
1	Sc		2,440,052.62	0.86	100.0	Pulse	0.10	3
1	Ge		459,560.27	0.84	100.0	Pulse	0.10	3
1	Ge		633,467.84	0.59	100.0	Pulse	0.10	3
1	Rh		2,980,758.71	0.65	100.0	Pulse	0.10	3
1	In		3,177,776.50	0.62	100.0	Pulse	0.10	3
1	Tb		4,100,429.94	1.27	100.0	Pulse	0.10	3
1	Ho		388,035.87	1.19	100.0	Pulse	0.10	3
1	Bi		2,386,573.45	0.73	100.0	Pulse	0.10	3
2	Sc		75,060.06	1.26	100.0	Pulse	0.30	3
2	Ge		42,105.35	0.62	100.0	Pulse	0.30	3
2	Ge		63,663.65	1.46	100.0	Pulse	0.30	3
2	Rh		1,227,600.78	0.35	100.0	Pulse	0.30	3
2	In		389,465.78	0.45	100.0	Pulse	0.30	3
2	Tb		1,481,008.72	0.86	100.0	Pulse	0.30	3
2	Ho		142,123.32	1.25	100.0	Pulse	0.30	3
2	Bi		1,015,292.74	0.30	100.0	Pulse	0.30	3
3	Sc		76,135.89	0.65	100.0	Pulse	0.30	3
3	Ge		49,077.92	0.81	100.0	Pulse	0.30	3
3	Ge		74,972.37	1.39	100.0	Pulse	0.30	3
3	Rh		915,065.83	0.31	100.0	Pulse	0.30	3
3	Tb		1,407,572.31	0.94	100.0	Pulse	0.30	3

Quantitation Report

File Name	003CALB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa050119m2.b
Method File	
Method Path	
Acq Time	5/1/2019 12:31
Sample Name	STDA
Sample Type	CalBlk
Comment	0
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/1/2019 13:25
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.000	ug/l	-734.69	6.67	3.729E-06	Pulse	0.25	3
B			1	0.000	ug/l	---	6,899.34	3.866E-03	Pulse	0.15	3
Ca			1	0.000	ug/l	---	14,353.46	5.880E-03	Pulse	0.10	3
Sr			1	0.000	ug/l	---	270.01	9.048E-05	Pulse	0.10	3
Mo			1	0.000	ug/l	1061.51	13.33	4.430E-06	Pulse	0.10	3
Ag			1	0.000	ug/l	5275.14	26.67	8.444E-06	Pulse	0.10	3
Sn			1	0.375	ug/l	2.09	1,770.16	5.553E-04	Pulse	0.10	3
Sb			1	0.000	ug/l	-912.07	193.34	4.646E-05	Pulse	0.10	3
Ba			1	0.000	ug/l	---	16.67	4.002E-06	Pulse	0.10	3
Tl			1	0.000	ug/l	---	173.34	7.226E-05	Pulse	0.10	3
Pb			1	0.001	ug/l	1029.68	173.34	7.259E-05	Pulse	0.10	3
Pb			1	0.000	ug/l	-6241.01	150.01	6.260E-05	Pulse	0.10	3
Pb			1	0.000	ug/l	-2165.34	590.03	2.467E-04	Pulse	0.10	3
Na			2	0.000	ug/l	---	5,784.38	7.776E-02	Pulse	0.30	3
Mg			2	-0.008	ug/l	-250.81	46.67	6.276E-04	Pulse	0.30	3
Al			2	-0.431	ug/l	-63.07	48.89	6.559E-04	Pulse	0.30	3
K			2	-0.865	ug/l	-103.32	6,470.21	8.699E-02	Pulse	0.30	3
Ca			2	-0.840	ug/l	-118.13	27.78	3.729E-04	Pulse	0.30	3
Ti			2	0.000	ug/l	---	0.00		Pulse	0.30	3
V			2	-0.002	ug/l	-83.09	80.00	1.076E-03	Pulse	0.30	3
Cr			2	-0.005	ug/l	-235.58	306.67	4.122E-03	Pulse	0.30	3
Mn			2	0.000	ug/l	---	72.22	9.713E-04	Pulse	0.30	3
Fe			2	0.000	ug/l	---	1,437.86	1.933E-02	Pulse	0.30	3
Co			2	0.000	ug/l	-6466.32	53.33	7.165E-04	Pulse	0.30	3
Ni			2	0.000	ug/l	-1821.16	32.22	4.331E-04	Pulse	0.30	3
Cu			2	-0.249	ug/l	-6.46	482.24	6.486E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	-0.018	ug/l	-146.03	130.00	1.748E-03	Pulse	0.30	3
As			2	-0.002	ug/l	-475.26	5.67	7.617E-05	Pulse	1.00	3
Cd			2	0.000	ug/l	-3040.71	1.11	2.861E-06	Pulse	0.30	3
Sn			2	0.008	ug/l	270.94	258.89	6.677E-04	Pulse	0.30	3
Se			3	0.002	ug/l	649.44	2.67	3.590E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,784,789.13	1.05	100.0	Pulse	0.10	3
1	Sc		2,440,839.65	1.29	100.0	Pulse	0.10	3
1	Ge		465,771.90	2.30	100.0	Pulse	0.10	3
1	Ge		633,324.55	1.13	100.0	Pulse	0.10	3
1	Rh		2,980,771.00	2.02	100.0	Pulse	0.10	3
1	In		3,187,555.77	1.93	100.0	Pulse	0.10	3
1	Tb		4,160,099.21	1.16	100.0	Pulse	0.10	3
1	Ho		386,593.64	0.68	100.0	Pulse	0.10	3
1	Bi		2,395,324.65	1.33	100.0	Pulse	0.10	3
2	Sc		74,387.18	0.61	100.0	Pulse	0.30	3
2	Ge		42,582.08	0.16	100.0	Pulse	0.30	3
2	Ge		63,718.25	2.90	100.0	Pulse	0.30	3
2	Rh		1,233,599.40	0.03	100.0	Pulse	0.30	3
2	In		387,801.22	0.67	100.0	Pulse	0.30	3
2	Tb		1,488,773.48	0.41	100.0	Pulse	0.30	3
2	Ho		143,287.99	0.09	100.0	Pulse	0.30	3
2	Bi		1,013,475.62	0.51	100.0	Pulse	0.30	3
3	Sc		76,174.02	0.81	100.0	Pulse	0.30	3
3	Ge		49,239.53	0.32	100.0	Pulse	0.30	3
3	Ge		74,326.22	0.77	100.0	Pulse	0.30	3
3	Rh		921,628.85	0.13	100.0	Pulse	0.30	3
3	Tb		1,422,371.37	0.21	100.0	Pulse	0.30	3

Quantitation Report

File Name	004CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\xa050119m2.b
Method File	
Method Path	
Acq Time	5/1/2019 12:36
Sample Name	STDB
Sample Type	CalStd
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/1/2019 13:25
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.530	ug/l	3.74	3,387.05	1.900E-03	Pulse	0.25	3
B			1	25.135	ug/l	2.25	109,860.86	6.164E-02	Pulse	0.15	3
Ca			1	263.695	ug/l	1.63	203,743.21	8.300E-02	Pulse	0.10	3
Sr			1	5.011	ug/l	0.39	177,300.54	5.916E-02	Pulse	0.10	3
Mo			1	0.932	ug/l	8.63	6,671.63	2.227E-03	Pulse	0.10	3
Ag			1	0.498	ug/l	3.55	8,085.69	2.514E-03	Pulse	0.10	3
Sn			1	5.084	ug/l	0.51	52,960.54	1.646E-02	Pulse	0.10	3
Sb			1	2.015	ug/l	4.04	24,139.23	5.840E-03	Pulse	0.10	3
Ba			1	1.029	ug/l	3.12	5,041.04	1.219E-03	Pulse	0.10	3
Tl			1	0.498	ug/l	5.63	13,937.13	5.819E-03	Pulse	0.10	3
Pb			1	0.479	ug/l	8.96	4,720.95	1.972E-03	Pulse	0.10	3
Pb			1	0.510	ug/l	7.86	4,407.49	1.841E-03	Pulse	0.10	3
Pb			1	0.505	ug/l	6.57	19,832.68	8.282E-03	Pulse	0.10	3
Na			2	262.362	ug/l	1.03	186,387.86	2.498E+00	Pulse	0.30	3
Mg			2	262.895	ug/l	1.63	83,066.35	1.113E+00	Pulse	0.30	3
Al			2	26.285	ug/l	8.36	2,660.24	3.563E-02	Pulse	0.30	3
K			2	258.211	ug/l	0.88	55,977.70	7.502E-01	Pulse	0.30	3
Ca			2	293.216	ug/l	2.23	3,012.53	4.037E-02	Pulse	0.30	3
Ti			2	1.065	ug/l	12.71	96.67	1.295E-03	Pulse	0.30	3
V			2	1.072	ug/l	4.07	3,211.46	4.303E-02	Pulse	0.30	3
Cr			2	1.057	ug/l	4.29	4,321.72	5.793E-02	Pulse	0.30	3
Mn			2	1.120	ug/l	5.62	2,037.92	2.732E-02	Pulse	0.30	3
Fe			2	29.751	ug/l	1.37	87,004.76	1.166E+00	Pulse	0.30	3
Co			2	0.508	ug/l	5.57	3,271.48	4.386E-02	Pulse	0.30	3
Ni			2	1.019	ug/l	0.83	1,811.23	2.427E-02	Pulse	0.30	3
Cu			2	4.858	ug/l	1.10	25,542.15	3.423E-01	Pulse	0.30	3
Zn			2	5.042	ug/l	6.65	3,094.79	4.150E-02	Pulse	0.30	3
As			2	0.533	ug/l	14.65	182.67	2.451E-03	Pulse	1.00	3
Cd			2	0.545	ug/l	11.01	457.47	1.182E-03	Pulse	0.30	3
Sn			2	4.800	ug/l	1.69	8,566.87	2.213E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	0.488	ug/l	7.80	31.47	4.194E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,782,359.32	0.17	99.9	Pulse	0.10	3
1	Sc		2,455,020.74	1.72	100.6	Pulse	0.10	3
1	Ge		461,547.15	1.82	99.1	Pulse	0.10	3
1	Ge		641,064.63	1.26	101.2	Pulse	0.10	3
1	Rh		2,997,054.64	0.95	100.5	Pulse	0.10	3
1	In		3,217,289.59	0.90	100.9	Pulse	0.10	3
1	Tb		4,134,337.33	1.57	99.4	Pulse	0.10	3
1	Ho		393,801.77	0.97	101.9	Pulse	0.10	3
1	Bi		2,394,794.44	1.26	100.0	Pulse	0.10	3
2	Sc		74,610.44	1.34	100.3	Pulse	0.30	3
2	Ge		42,410.53	0.29	99.6	Pulse	0.30	3
2	Ge		64,130.09	0.99	100.6	Pulse	0.30	3
2	Rh		1,227,981.51	0.56	99.5	Pulse	0.30	3
2	In		387,182.11	0.56	99.8	Pulse	0.30	3
2	Tb		1,478,773.52	0.33	99.3	Pulse	0.30	3
2	Ho		143,130.67	0.66	99.9	Pulse	0.30	3
2	Bi		1,010,533.12	0.51	99.7	Pulse	0.30	3
3	Sc		76,781.36	1.00	100.8	Pulse	0.30	3
3	Ge		49,121.37	2.58	99.8	Pulse	0.30	3
3	Ge		75,036.00	0.44	101.0	Pulse	0.30	3
3	Rh		923,317.22	0.65	100.2	Pulse	0.30	3
3	Tb		1,419,216.71	0.66	99.8	Pulse	0.30	3

Quantitation Report

File Name	005CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\xa050119m2.b
Method File	
Method Path	
Acq Time	5/1/2019 12:41
Sample Name	STDC
Sample Type	CalStd
Comment	5
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/1/2019 13:25
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	4.979	ug/l	1.11	31,823.04	1.784E-02	Pulse	0.25	3
B			1	5.309	ug/l	2.36	28,668.94	1.607E-02	Pulse	0.15	3
Ca			1	13.219	ug/l	4.08	23,751.12	9.747E-03	Pulse	0.10	3
Sr			1	5.043	ug/l	0.18	176,699.83	5.954E-02	Pulse	0.10	3
Mo			1	4.985	ug/l	2.53	35,283.34	1.189E-02	Pulse	0.10	3
Ag			1	4.974	ug/l	1.66	79,281.51	2.502E-02	Pulse	0.10	3
Sn			1	5.635	ug/l	0.72	58,068.23	1.832E-02	Pulse	0.10	3
Sb			1	5.110	ug/l	2.62	61,076.39	1.474E-02	Pulse	0.10	3
Ba			1	5.127	ug/l	1.34	25,097.71	6.055E-03	Pulse	0.10	3
Tl			1	5.001	ug/l	1.25	138,907.54	5.780E-02	Pulse	0.10	3
Pb			1	5.070	ug/l	1.50	48,564.14	2.021E-02	Pulse	0.10	3
Pb			1	5.095	ug/l	2.03	42,802.94	1.781E-02	Pulse	0.10	3
Pb			1	5.062	ug/l	1.05	194,057.25	8.074E-02	Pulse	0.10	3
Na			2	7.915	ug/l	5.42	11,048.14	1.508E-01	Pulse	0.30	3
Mg			2	5.776	ug/l	6.21	1,839.01	2.511E-02	Pulse	0.30	3
Al			2	6.773	ug/l	6.18	738.92	1.009E-02	Pulse	0.30	3
K			2	4.243	ug/l	49.66	7,329.46	1.001E-01	Pulse	0.30	3
Ca			2	37.268	ug/l	12.99	406.68	5.556E-03	Pulse	0.30	3
Ti			2	5.211	ug/l	6.63	464.46	6.337E-03	Pulse	0.30	3
V			2	4.994	ug/l	2.07	14,388.59	1.963E-01	Pulse	0.30	3
Cr			2	5.086	ug/l	3.42	19,200.14	2.621E-01	Pulse	0.30	3
Mn			2	4.977	ug/l	1.50	8,646.79	1.180E-01	Pulse	0.30	3
Fe			2	6.465	ug/l	3.40	19,676.31	2.686E-01	Pulse	0.30	3
Co			2	5.046	ug/l	2.31	31,452.35	4.293E-01	Pulse	0.30	3
Ni			2	5.041	ug/l	4.44	8,666.81	1.183E-01	Pulse	0.30	3
Cu			2	4.906	ug/l	2.02	25,318.46	3.455E-01	Pulse	0.30	3
Zn			2	5.297	ug/l	0.52	3,188.14	4.350E-02	Pulse	0.30	3
As			2	5.216	ug/l	1.61	1,704.10	2.325E-02	Pulse	1.00	3
Cd			2	4.931	ug/l	0.80	4,069.96	1.067E-02	Pulse	0.30	3
Sn			2	5.217	ug/l	1.38	9,153.85	2.399E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	5.048	ug/l	6.29	298.93	4.017E-03	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,784,095.01	0.75	100.0	Pulse	0.10	3
1	Sc		2,437,177.47	1.19	99.8	Pulse	0.10	3
1	Ge		457,969.43	1.13	98.3	Pulse	0.10	3
1	Ge		639,266.68	1.16	100.9	Pulse	0.10	3
1	Rh		2,967,534.23	1.23	99.6	Pulse	0.10	3
1	In		3,169,845.89	2.40	99.4	Pulse	0.10	3
1	Tb		4,144,507.23	1.19	99.6	Pulse	0.10	3
1	Ho		389,539.49	0.96	100.8	Pulse	0.10	3
1	Bi		2,403,498.87	0.77	100.3	Pulse	0.10	3
2	Sc		73,288.96	1.69	98.5	Pulse	0.30	3
2	Ge		41,729.93	1.19	98.0	Pulse	0.30	3
2	Ge		62,192.50	0.23	97.6	Pulse	0.30	3
2	Rh		1,214,669.92	0.18	98.5	Pulse	0.30	3
2	In		381,515.84	0.54	98.4	Pulse	0.30	3
2	Tb		1,471,662.20	0.28	98.9	Pulse	0.30	3
2	Ho		141,886.11	0.42	99.0	Pulse	0.30	3
2	Bi		1,007,282.18	0.29	99.4	Pulse	0.30	3
3	Sc		75,931.99	1.39	99.7	Pulse	0.30	3
3	Ge		48,821.62	1.22	99.2	Pulse	0.30	3
3	Ge		74,444.47	1.27	100.2	Pulse	0.30	3
3	Rh		915,725.21	0.65	99.4	Pulse	0.30	3
3	Tb		1,419,765.22	0.57	99.8	Pulse	0.30	3

Quantitation Report

File Name	006CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\xa050119m2.b
Method File	
Method Path	
Acq Time	5/1/2019 12:46
Sample Name	STDD
Sample Type	CalStd
Comment	25
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/1/2019 13:25
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	24.962	ug/l	1.33	158,977.64	8.941E-02	Pulse	0.25	3
B			1	24.579	ug/l	0.66	107,335.64	6.036E-02	Pulse	0.15	3
Ca			1	45.287	ug/l	1.39	46,546.07	1.913E-02	Pulse	0.10	3
Sr			1	25.038	ug/l	0.52	876,620.82	2.953E-01	Pulse	0.10	3
Mo			1	25.051	ug/l	1.06	177,311.95	5.972E-02	Pulse	0.10	3
Ag			1	24.869	ug/l	0.72	396,341.21	1.250E-01	Pulse	0.10	3
Sn			1	25.030	ug/l	0.59	265,726.05	8.383E-02	Pulse	0.10	3
Sb			1	24.998	ug/l	0.87	297,597.78	7.191E-02	Pulse	0.10	3
Ba			1	24.963	ug/l	0.48	121,963.71	2.947E-02	Pulse	0.10	3
Tl			1	24.698	ug/l	1.37	688,317.07	2.852E-01	Pulse	0.10	3
Pb			1	24.777	ug/l	0.67	237,693.06	9.847E-02	Pulse	0.10	3
Pb			1	24.652	ug/l	0.68	207,440.24	8.594E-02	Pulse	0.10	3
Pb			1	24.775	ug/l	0.35	951,646.20	3.942E-01	Pulse	0.10	3
Na			2	27.803	ug/l	1.79	24,620.21	3.343E-01	Pulse	0.30	3
Mg			2	25.533	ug/l	1.26	8,008.64	1.087E-01	Pulse	0.30	3
Al			2	32.759	ug/l	9.98	3,248.13	4.411E-02	Pulse	0.30	3
K			2	24.107	ug/l	5.27	11,114.90	1.509E-01	Pulse	0.30	3
Ca			2	154.381	ug/l	1.93	1,582.31	2.149E-02	Pulse	0.30	3
Ti			2	24.042	ug/l	4.67	2,153.51	2.923E-02	Pulse	0.30	3
V			2	24.943	ug/l	1.07	71,876.80	9.759E-01	Pulse	0.30	3
Cr			2	24.763	ug/l	1.29	92,727.15	1.259E+00	Pulse	0.30	3
Mn			2	24.747	ug/l	1.34	42,924.61	5.828E-01	Pulse	0.30	3
Fe			2	27.029	ug/l	1.24	78,165.64	1.061E+00	Pulse	0.30	3
Co			2	24.822	ug/l	1.10	155,318.02	2.109E+00	Pulse	0.30	3
Ni			2	24.849	ug/l	0.69	42,825.58	5.815E-01	Pulse	0.30	3
Cu			2	24.190	ug/l	1.49	118,835.05	1.614E+00	Pulse	0.30	3
Zn			2	25.319	ug/l	0.38	14,787.90	2.008E-01	Pulse	0.30	3
As			2	24.334	ug/l	1.30	7,964.96	1.081E-01	Pulse	1.00	3
Cd			2	24.699	ug/l	1.10	20,409.65	5.343E-02	Pulse	0.30	3
Sn			2	24.789	ug/l	1.17	42,643.11	1.116E-01	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	24.665	ug/l	0.65	1,452.14	1.950E-02	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,778,224.26	1.05	99.6	Pulse	0.10	3
1	Sc		2,433,778.97	1.19	99.7	Pulse	0.10	3
1	Ge		458,099.90	1.16	98.4	Pulse	0.10	3
1	Ge		634,920.58	1.64	100.3	Pulse	0.10	3
1	Rh		2,968,956.83	1.32	99.6	Pulse	0.10	3
1	In		3,169,637.82	1.21	99.4	Pulse	0.10	3
1	Tb		4,139,095.04	2.02	99.5	Pulse	0.10	3
1	Ho		388,970.63	1.67	100.6	Pulse	0.10	3
1	Bi		2,413,762.52	1.41	100.8	Pulse	0.10	3
2	Sc		73,650.36	0.60	99.0	Pulse	0.30	3
2	Ge		41,547.22	0.61	97.6	Pulse	0.30	3
2	Ge		62,910.71	1.10	98.7	Pulse	0.30	3
2	Rh		1,215,116.30	0.48	98.5	Pulse	0.30	3
2	In		382,022.39	0.53	98.5	Pulse	0.30	3
2	Tb		1,481,197.51	0.34	99.5	Pulse	0.30	3
2	Ho		142,440.84	0.84	99.4	Pulse	0.30	3
2	Bi		1,016,633.99	0.75	100.3	Pulse	0.30	3
3	Sc		76,277.83	1.01	100.1	Pulse	0.30	3
3	Ge		49,073.56	0.56	99.7	Pulse	0.30	3
3	Ge		74,486.71	0.58	100.2	Pulse	0.30	3
3	Rh		917,784.89	0.62	99.6	Pulse	0.30	3
3	Tb		1,421,186.96	1.29	99.9	Pulse	0.30	3

Quantitation Report

File Name	007CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\xa050119m2.b
Method File	
Method Path	
Acq Time	5/1/2019 12:51
Sample Name	STDE
Sample Type	CalStd
Comment	50
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/1/2019 13:25
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	49.626	ug/l	1.36	314,045.40	1.777E-01	Pulse	0.25	3
B			1	49.388	ug/l	1.23	207,397.45	1.174E-01	Pulse	0.15	3
Ca			1	75.449	ug/l	0.85	67,293.58	2.795E-02	Pulse	0.10	3
Sr			1	50.033	ug/l	0.64	1,728,059.04	5.899E-01	Pulse	0.10	3
Mo			1	49.162	ug/l	0.66	343,313.14	1.172E-01	Pulse	0.10	3
Ag			1	49.730	ug/l	0.33	788,278.24	2.500E-01	Pulse	0.10	3
Sn			1	49.045	ug/l	0.95	519,998.63	1.650E-01	Pulse	0.10	3
Sb			1	49.363	ug/l	1.53	583,529.78	1.419E-01	Pulse	0.10	3
Ba			1	49.660	ug/l	1.58	240,946.10	5.861E-02	Pulse	0.10	3
Tl			1	49.465	ug/l	0.29	1,374,566.07	5.711E-01	Pulse	0.10	3
Pb			1	49.199	ug/l	0.42	470,467.89	1.955E-01	Pulse	0.10	3
Pb			1	49.720	ug/l	0.73	417,037.10	1.733E-01	Pulse	0.10	3
Pb			1	49.551	ug/l	0.32	1,897,283.96	7.883E-01	Pulse	0.10	3
Na			2	53.523	ug/l	0.88	41,691.24	5.716E-01	Pulse	0.30	3
Mg			2	52.418	ug/l	3.06	16,231.27	2.225E-01	Pulse	0.30	3
Al			2	52.294	ug/l	1.51	5,083.04	6.969E-02	Pulse	0.30	3
K			2	49.755	ug/l	0.48	15,797.61	2.166E-01	Pulse	0.30	3
Ca			2	310.614	ug/l	3.75	3,117.00	4.274E-02	Pulse	0.30	3
Ti			2	48.464	ug/l	1.64	4,298.38	5.893E-02	Pulse	0.30	3
V			2	49.546	ug/l	0.57	141,321.70	1.937E+00	Pulse	0.30	3
Cr			2	49.791	ug/l	1.28	184,336.36	2.527E+00	Pulse	0.30	3
Mn			2	49.752	ug/l	1.69	85,393.28	1.171E+00	Pulse	0.30	3
Fe			2	53.345	ug/l	1.33	151,411.03	2.076E+00	Pulse	0.30	3
Co			2	50.116	ug/l	1.82	310,509.85	4.257E+00	Pulse	0.30	3
Ni			2	49.990	ug/l	0.55	85,292.36	1.169E+00	Pulse	0.30	3
Cu			2	48.967	ug/l	1.10	236,541.31	3.243E+00	Pulse	0.30	3
Zn			2	49.844	ug/l	0.84	28,698.57	3.934E-01	Pulse	0.30	3
As			2	49.324	ug/l	0.88	15,982.82	2.191E-01	Pulse	1.00	3
Cd			2	49.761	ug/l	0.43	40,779.47	1.076E-01	Pulse	0.30	3
Sn			2	49.373	ug/l	0.83	83,997.44	2.217E-01	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	50.035	ug/l	0.16	2,928.46	3.951E-02	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,766,812.15	0.23	99.0	Pulse	0.10	3
1	Sc		2,407,792.73	1.00	98.6	Pulse	0.10	3
1	Ge		454,211.80	0.78	97.5	Pulse	0.10	3
1	Ge		632,156.94	1.20	99.8	Pulse	0.10	3
1	Rh		2,929,254.75	0.87	98.3	Pulse	0.10	3
1	In		3,152,566.87	0.78	98.9	Pulse	0.10	3
1	Tb		4,110,960.88	0.57	98.8	Pulse	0.10	3
1	Ho		387,100.25	0.47	100.1	Pulse	0.10	3
1	Bi		2,406,986.06	0.81	100.5	Pulse	0.10	3
2	Sc		72,941.90	0.50	98.1	Pulse	0.30	3
2	Ge		41,539.37	2.01	97.6	Pulse	0.30	3
2	Ge		62,398.69	0.95	97.9	Pulse	0.30	3
2	Rh		1,204,096.03	0.50	97.6	Pulse	0.30	3
2	In		378,869.90	1.10	97.7	Pulse	0.30	3
2	Tb		1,471,133.62	0.73	98.8	Pulse	0.30	3
2	Ho		142,269.93	0.73	99.3	Pulse	0.30	3
2	Bi		1,008,724.09	0.59	99.5	Pulse	0.30	3
3	Sc		77,226.65	1.13	101.4	Pulse	0.30	3
3	Ge		48,753.60	1.07	99.0	Pulse	0.30	3
3	Ge		74,113.94	0.56	99.7	Pulse	0.30	3
3	Rh		916,631.49	0.42	99.5	Pulse	0.30	3
3	Tb		1,425,481.05	0.57	100.2	Pulse	0.30	3

Quantitation Report

File Name	008CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\xa050119m2.b
Method File	
Method Path	
Acq Time	5/1/2019 12:56
Sample Name	STDF
Sample Type	CalStd
Comment	100
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/1/2019 13:25
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	100.409	ug/l	0.54	638,743.57	3.596E-01	Pulse	0.25	3
B			1	101.081	ug/l	0.65	419,532.15	2.362E-01	Pulse	0.15	3
Ca			1	141.853	ug/l	1.94	115,136.34	4.737E-02	Pulse	0.10	3
Sr			1	99.974	ug/l	1.09	3,525,829.84	1.179E+00	Pulse	0.10	3
Mo			1	100.897	ug/l	0.86	719,497.49	2.405E-01	Pulse	0.10	3
Ag			1	100.432	ug/l	0.80	1,614,586.49	5.050E-01	Pulse	0.10	3
Sn			1	100.466	ug/l	0.74	1,082,783.37	3.386E-01	Pulse	0.10	3
Sb			1	100.528	ug/l	0.68	1,208,507.56	2.890E-01	Pulse	0.10	3
Ba			1	100.173	ug/l	1.18	494,320.92	1.182E-01	Pulse	0.10	3
Tl			1	100.343	ug/l	1.09	2,803,197.04	1.158E+00	Pulse	0.10	3
Pb			1	100.338	ug/l	0.18	964,550.48	3.986E-01	Pulse	0.10	3
Pb			1	100.025	ug/l	0.08	843,386.52	3.485E-01	Pulse	0.10	3
Pb			1	100.618	ug/l	0.16	3,873,054.47	1.600E+00	Pulse	0.10	3
Na			2	103.095	ug/l	0.98	75,811.66	1.029E+00	Pulse	0.30	3
Mg			2	103.910	ug/l	1.88	32,455.65	4.405E-01	Pulse	0.30	3
Al			2	103.379	ug/l	1.41	10,063.12	1.366E-01	Pulse	0.30	3
K			2	101.284	ug/l	1.71	25,676.46	3.485E-01	Pulse	0.30	3
Ca			2	587.238	ug/l	2.87	5,921.13	8.036E-02	Pulse	0.30	3
Ti			2	100.996	ug/l	2.33	9,048.10	1.228E-01	Pulse	0.30	3
V			2	100.458	ug/l	0.95	289,354.96	3.927E+00	Pulse	0.30	3
Cr			2	100.316	ug/l	0.82	374,847.02	5.087E+00	Pulse	0.30	3
Mn			2	100.187	ug/l	0.76	173,634.09	2.357E+00	Pulse	0.30	3
Fe			2	105.467	ug/l	0.68	300,999.61	4.085E+00	Pulse	0.30	3
Co			2	100.082	ug/l	0.52	626,366.09	8.501E+00	Pulse	0.30	3
Ni			2	100.102	ug/l	0.44	172,494.02	2.341E+00	Pulse	0.30	3
Cu			2	98.113	ug/l	0.35	477,069.62	6.475E+00	Pulse	0.30	3
Zn			2	97.496	ug/l	0.56	56,574.88	7.678E-01	Pulse	0.30	3
As			2	101.097	ug/l	0.75	33,085.66	4.490E-01	Pulse	1.00	3
Cd			2	100.577	ug/l	0.89	82,468.58	2.175E-01	Pulse	0.30	3
Sn			2	101.060	ug/l	0.81	171,778.49	4.531E-01	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	100.503	ug/l	1.15	5,875.79	7.933E-02	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,776,122.08	0.42	99.5	Pulse	0.10	3
1	Sc		2,430,571.94	0.66	99.6	Pulse	0.10	3
1	Ge		458,003.94	0.84	98.3	Pulse	0.10	3
1	Ge		637,614.55	0.52	100.7	Pulse	0.10	3
1	Rh		2,991,274.75	0.45	100.4	Pulse	0.10	3
1	In		3,197,581.38	1.09	100.3	Pulse	0.10	3
1	Tb		4,181,524.21	1.50	100.5	Pulse	0.10	3
1	Ho		392,654.25	1.06	101.6	Pulse	0.10	3
1	Bi		2,420,094.44	1.15	101.0	Pulse	0.10	3
2	Sc		73,682.83	0.72	99.1	Pulse	0.30	3
2	Ge		41,968.26	0.51	98.6	Pulse	0.30	3
2	Ge		63,148.21	0.53	99.1	Pulse	0.30	3
2	Rh		1,213,424.19	0.47	98.4	Pulse	0.30	3
2	In		379,090.12	0.35	97.8	Pulse	0.30	3
2	Tb		1,475,330.08	0.32	99.1	Pulse	0.30	3
2	Ho		141,716.87	0.82	98.9	Pulse	0.30	3
2	Bi		1,014,300.24	0.04	100.1	Pulse	0.30	3
3	Sc		76,647.34	1.55	100.6	Pulse	0.30	3
3	Ge		49,227.24	0.98	100.0	Pulse	0.30	3
3	Ge		74,065.07	0.17	99.6	Pulse	0.30	3
3	Rh		920,588.89	0.48	99.9	Pulse	0.30	3
3	Tb		1,424,873.38	0.39	100.2	Pulse	0.30	3

Quantitation Report

File Name	009CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\xa050119m2.b
Method File	
Method Path	
Acq Time	5/1/2019 13:01
Sample Name	STDG
Sample Type	CalStd
Comment	500MIN
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/1/2019 13:25
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.013	ug/l	2.79	86.67	4.879E-05	Pulse	0.25	3
B			1	199.641	ug/l	1.49	822,028.37	4.627E-01	Pulse	0.15	3
Ca			1	505.647	ug/l	0.57	372,364.49	1.538E-01	Pulse	0.10	3
Sr			1	0.027	ug/l	13.19	1,216.77	4.143E-04	Pulse	0.10	3
Mo			1	0.173	ug/l	9.50	1,220.10	4.153E-04	Pulse	0.10	3
Ag			1	0.021	ug/l	13.01	366.68	1.150E-04	Pulse	0.10	3
Sn			1	0.620	ug/l	1.83	4,410.81	1.383E-03	Pulse	0.10	3
Sb			1	0.907	ug/l	1.65	10,997.63	2.655E-03	Pulse	0.10	3
Ba			1	0.025	ug/l	27.15	136.67	3.302E-05	Pulse	0.10	3
Tl			1	0.034	ug/l	4.87	1,120.09	4.638E-04	Pulse	0.10	3
Pb			1	0.028	ug/l	20.66	433.36	1.796E-04	Pulse	0.10	3
Pb			1	0.032	ug/l	20.33	420.02	1.737E-04	Pulse	0.10	3
Pb			1	0.034	ug/l	5.15	1,893.45	7.842E-04	Pulse	0.10	3
Na			2	503.732	ug/l	1.79	343,953.58	4.725E+00	Pulse	0.30	3
Mg			2	507.596	ug/l	1.68	156,449.80	2.149E+00	Pulse	0.30	3
Al			2	507.003	ug/l	0.69	48,412.53	6.650E-01	Pulse	0.30	3
K			2	501.149	ug/l	1.76	99,880.84	1.372E+00	Pulse	0.30	3
Ca			2	488.696	ug/l	5.54	4,872.98	6.696E-02	Pulse	0.30	3
Ti			2	0.101	ug/l	86.61	8.89	1.224E-04	Pulse	0.30	3
V			2	0.014	ug/l	91.51	123.33	1.691E-03	Pulse	0.30	3
Cr			2	0.021	ug/l	6.51	393.34	5.403E-03	Pulse	0.30	3
Mn			2	0.034	ug/l	10.30	128.89	1.770E-03	Pulse	0.30	3
Fe			2	508.313	ug/l	0.90	1,427,888.94	1.962E+01	Pulse	0.30	3
Co			2	0.031	ug/l	10.41	243.34	3.342E-03	Pulse	0.30	3
Ni			2	0.022	ug/l	54.18	70.00	9.609E-04	Pulse	0.30	3
Cu			2	-0.216	ug/l	-2.62	630.02	8.655E-03	Pulse	0.30	3
Zn			2	0.079	ug/l	96.38	182.23	2.505E-03	Pulse	0.30	3
As			2	0.007	ug/l	134.44	8.33	1.146E-04	Pulse	1.00	3
Cd			2	0.015	ug/l	72.92	13.26	3.467E-05	Pulse	0.30	3
Sn			2	0.359	ug/l	11.18	856.70	2.243E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	200.899	ug/l	0.51	11,791.37	1.585E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,776,358.53	1.14	99.5	Pulse	0.10	3
1	Sc		2,421,664.91	1.10	99.2	Pulse	0.10	3
1	Ge		456,138.16	0.96	97.9	Pulse	0.10	3
1	Ge		637,364.26	1.83	100.6	Pulse	0.10	3
1	Rh		2,937,217.46	0.56	98.5	Pulse	0.10	3
1	In		3,188,433.09	1.22	100.0	Pulse	0.10	3
1	Tb		4,142,112.54	0.54	99.6	Pulse	0.10	3
1	Ho		387,605.63	1.42	100.3	Pulse	0.10	3
1	Bi		2,414,839.44	1.32	100.8	Pulse	0.10	3
2	Sc		72,798.18	0.99	97.9	Pulse	0.30	3
2	Ge		41,644.09	0.59	97.8	Pulse	0.30	3
2	Ge		63,281.94	0.94	99.3	Pulse	0.30	3
2	Rh		1,210,264.33	0.86	98.1	Pulse	0.30	3
2	In		382,136.90	0.64	98.5	Pulse	0.30	3
2	Tb		1,473,397.96	0.24	99.0	Pulse	0.30	3
2	Ho		141,725.48	0.61	98.9	Pulse	0.30	3
2	Bi		1,007,132.53	1.04	99.4	Pulse	0.30	3
3	Sc		75,786.71	0.40	99.5	Pulse	0.30	3
3	Ge		49,124.75	1.37	99.8	Pulse	0.30	3
3	Ge		74,370.77	0.39	100.1	Pulse	0.30	3
3	Rh		915,367.85	0.87	99.3	Pulse	0.30	3
3	Tb		1,421,684.81	0.82	100.0	Pulse	0.30	3

Quantitation Report

File Name	010CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\xa050119m2.b
Method File	
Method Path	
Acq Time	5/1/2019 13:06
Sample Name	STDH
Sample Type	CalStd
Comment	1000MIN
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/1/2019 13:25
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.002	ug/l	38.29	22.67	1.267E-05	Pulse	0.25	3
B			1	7.807	ug/l	1.89	38,996.18	2.181E-02	Pulse	0.15	3
Ca			1	995.048	ug/l	0.89	727,258.56	2.969E-01	Pulse	0.10	3
Sr			1	0.027	ug/l	5.09	1,210.10	4.083E-04	Pulse	0.10	3
Mo			1	0.032	ug/l	13.22	236.68	7.988E-05	Pulse	0.10	3
Ag			1	0.004	ug/l	21.72	93.33	2.915E-05	Pulse	0.10	3
Sn			1	0.504	ug/l	1.92	3,167.19	9.899E-04	Pulse	0.10	3
Sb			1	0.295	ug/l	6.77	3,710.57	8.942E-04	Pulse	0.10	3
Ba			1	0.018	ug/l	62.84	103.34	2.480E-05	Pulse	0.10	3
Tl			1	0.009	ug/l	17.48	420.02	1.748E-04	Pulse	0.10	3
Pb			1	0.008	ug/l	20.46	243.34	1.013E-04	Pulse	0.10	3
Pb			1	0.015	ug/l	75.98	280.01	1.165E-04	Pulse	0.10	3
Pb			1	0.012	ug/l	39.34	1,066.72	4.440E-04	Pulse	0.10	3
Na			2	978.679	ug/l	0.81	681,444.07	9.107E+00	Pulse	0.30	3
Mg			2	985.521	ug/l	0.67	312,195.59	4.172E+00	Pulse	0.30	3
Al			2	974.960	ug/l	1.16	95,602.34	1.278E+00	Pulse	0.30	3
K			2	985.048	ug/l	0.71	195,364.62	2.611E+00	Pulse	0.30	3
Ca			2	943.289	ug/l	2.47	9,636.20	1.288E-01	Pulse	0.30	3
Ti			2	0.012	ug/l	173.21	1.11	1.475E-05	Pulse	0.30	3
V			2	0.012	ug/l	59.10	120.00	1.604E-03	Pulse	0.30	3
Cr			2	0.018	ug/l	13.28	392.23	5.242E-03	Pulse	0.30	3
Mn			2	0.079	ug/l	30.80	211.12	2.823E-03	Pulse	0.30	3
Fe			2	989.539	ug/l	1.13	2,855,758.08	3.817E+01	Pulse	0.30	3
Co			2	0.041	ug/l	14.98	314.45	4.201E-03	Pulse	0.30	3
Ni			2	0.048	ug/l	42.63	117.78	1.573E-03	Pulse	0.30	3
Cu			2	-0.180	ug/l	-11.76	826.70	1.105E-02	Pulse	0.30	3
Zn			2	0.474	ug/l	5.91	420.01	5.614E-03	Pulse	0.30	3
As			2	-0.003	ug/l	-125.86	5.33	7.123E-05	Pulse	1.00	3
Cd			2	0.007	ug/l	160.22	6.65	1.723E-05	Pulse	0.30	3
Sn			2	0.205	ug/l	9.63	597.80	1.553E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	391.692	ug/l	1.16	23,513.42	3.091E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,788,121.45	0.64	100.2	Pulse	0.10	3
1	Sc		2,449,550.02	0.86	100.4	Pulse	0.10	3
1	Ge		458,508.14	0.23	98.4	Pulse	0.10	3
1	Ge		646,695.08	0.26	102.1	Pulse	0.10	3
1	Rh		2,963,713.29	0.39	99.4	Pulse	0.10	3
1	In		3,199,669.22	1.06	100.4	Pulse	0.10	3
1	Tb		4,150,946.19	1.15	99.8	Pulse	0.10	3
1	Ho		391,300.84	0.64	101.2	Pulse	0.10	3
1	Bi		2,402,261.11	0.35	100.3	Pulse	0.10	3
2	Sc		74,825.75	0.57	100.6	Pulse	0.30	3
2	Ge		42,579.94	1.24	100.0	Pulse	0.30	3
2	Ge		63,772.96	0.16	100.1	Pulse	0.30	3
2	Rh		1,222,906.62	0.35	99.1	Pulse	0.30	3
2	In		384,855.77	0.67	99.2	Pulse	0.30	3
2	Tb		1,490,149.87	0.64	100.1	Pulse	0.30	3
2	Ho		143,599.78	0.66	100.2	Pulse	0.30	3
2	Bi		1,009,944.72	0.94	99.7	Pulse	0.30	3
3	Sc		77,136.34	0.11	101.3	Pulse	0.30	3
3	Ge		50,276.09	0.33	102.1	Pulse	0.30	3
3	Ge		76,078.48	0.82	102.4	Pulse	0.30	3
3	Rh		927,877.15	1.24	100.7	Pulse	0.30	3
3	Tb		1,436,067.55	0.43	101.0	Pulse	0.30	3

Quantitation Report

File Name	011CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\xa050119m2.b
Method File	
Method Path	
Acq Time	5/1/2019 13:11
Sample Name	STDI
Sample Type	CalStd
Comment	5000MIN
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/1/2019 13:25
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.001	ug/l	30.15	14.67	8.081E-06	Pulse	0.25	3
B			1	4.777	ug/l	0.92	26,939.46	1.485E-02	Pulse	0.15	3
Ca			1	5000.641	ug/l	0.25	3,658,200.68	1.468E+00	Pulse	0.10	3
Sr			1	0.052	ug/l	16.77	2,083.56	7.058E-04	Pulse	0.10	3
Mo			1	0.014	ug/l	51.86	113.34	3.848E-05	Pulse	0.10	3
Ag			1	0.003	ug/l	30.92	80.00	2.494E-05	Pulse	0.10	3
Sn			1	0.390	ug/l	2.42	1,940.19	6.055E-04	Pulse	0.10	3
Sb			1	0.183	ug/l	16.49	2,406.94	5.746E-04	Pulse	0.10	3
Ba			1	0.008	ug/l	96.50	56.67	1.361E-05	Pulse	0.10	3
Tl			1	0.005	ug/l	47.60	316.68	1.340E-04	Pulse	0.10	3
Pb			1	0.007	ug/l	71.97	230.01	9.728E-05	Pulse	0.10	3
Pb			1	0.007	ug/l	121.71	210.01	8.874E-05	Pulse	0.10	3
Pb			1	0.011	ug/l	16.51	1,003.38	4.241E-04	Pulse	0.10	3
Na			2	4989.990	ug/l	0.32	3,455,754.65	4.612E+01	Pulse	0.30	3
Mg			2	5021.028	ug/l	0.55	1,592,711.05	2.125E+01	Pulse	0.30	3
Al			2	4950.090	ug/l	0.87	485,742.64	6.482E+00	Pulse	0.30	3
K			2	4999.551	ug/l	0.78	965,775.41	1.289E+01	Pulse	0.30	3
Ca			2	4987.185	ug/l	0.37	50,869.58	6.788E-01	Pulse	0.30	3
Ti			2	0.097	ug/l	77.84	8.89	1.184E-04	Pulse	0.30	3
V			2	0.026	ug/l	43.86	161.12	2.150E-03	Pulse	0.30	3
Cr			2	0.027	ug/l	85.00	430.01	5.739E-03	Pulse	0.30	3
Mn			2	0.078	ug/l	13.53	210.00	2.803E-03	Pulse	0.30	3
Fe			2	5090.741	ug/l	1.39	14,707,123.30	1.963E+02	Analog	0.30	3
Co			2	0.224	ug/l	5.62	1,481.20	1.977E-02	Pulse	0.30	3
Ni			2	0.220	ug/l	16.89	418.90	5.593E-03	Pulse	0.30	3
Cu			2	-0.215	ug/l	-5.63	655.58	8.747E-03	Pulse	0.30	3
Zn			2	0.409	ug/l	19.28	382.23	5.103E-03	Pulse	0.30	3
As			2	0.019	ug/l	116.34	12.67	1.690E-04	Pulse	1.00	3
Cd			2	0.005	ug/l	158.64	5.54	1.440E-05	Pulse	0.30	3
Sn			2	0.064	ug/l	18.30	354.45	9.183E-04	Pulse	0.30	3
Se			3	0.156	ug/l	4.37	11.87	1.576E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,814,565.19	0.18	101.7	Pulse	0.10	3
1	Sc		2,491,222.20	0.62	102.1	Pulse	0.10	3
1	Ge		465,229.69	1.94	99.9	Pulse	0.10	3

Quantitation Report

1	Ge		643,582.85	0.86	101.6	Pulse	0.10	3
1	Rh		2,954,530.90	1.04	99.1	Pulse	0.10	3
1	In		3,203,380.63	1.12	100.5	Pulse	0.10	3
1	Tb		4,187,138.38	1.32	100.6	Pulse	0.10	3
1	Ho		391,794.77	1.56	101.3	Pulse	0.10	3
1	Bi		2,365,444.70	0.91	98.8	Pulse	0.10	3
2	Sc		74,936.20	0.63	100.7	Pulse	0.30	3
2	Ge		42,294.62	0.61	99.3	Pulse	0.30	3
2	Ge		63,794.03	0.89	100.1	Pulse	0.30	3
2	Rh		1,208,985.40	0.58	98.0	Pulse	0.30	3
2	In		385,998.52	0.50	99.5	Pulse	0.30	3
2	Tb		1,489,055.70	0.76	100.0	Pulse	0.30	3
2	Ho		144,178.17	0.91	100.6	Pulse	0.30	3
2	Bi		997,332.98	0.83	98.4	Pulse	0.30	3
3	Sc		77,075.95	1.11	101.2	Pulse	0.30	3
3	Ge		50,234.82	1.04	102.0	Pulse	0.30	3
3	Ge		75,287.17	0.73	101.3	Pulse	0.30	3
3	Rh		912,971.28	0.54	99.1	Pulse	0.30	3
3	Tb		1,427,160.50	0.15	100.3	Pulse	0.30	3

Quantitation Report

File Name	012CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\xa050119m2.b
Method File	
Method Path	
Acq Time	5/1/2019 13:16
Sample Name	STDJ
Sample Type	CalStd
Comment	10000MIN
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/1/2019 13:25
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.001	ug/l	160.77	13.33	7.392E-06	Pulse	0.25	3
B			1	3.681	ug/l	4.12	22,241.67	1.233E-02	Pulse	0.15	3
Ca			1	9999.550	ug/l	1.11	7,362,807.60	2.931E+00	Analog	0.10	3
Sr			1	0.103	ug/l	4.06	3,817.25	1.302E-03	Pulse	0.10	3
Mo			1	0.024	ug/l	38.37	176.68	6.024E-05	Pulse	0.10	3
Ag			1	0.003	ug/l	67.12	80.00	2.507E-05	Pulse	0.10	3
Sn			1	0.508	ug/l	0.58	3,203.78	1.005E-03	Pulse	0.10	3
Sb			1	0.153	ug/l	0.99	2,043.55	4.881E-04	Pulse	0.10	3
Ba			1	0.037	ug/l	21.66	200.01	4.776E-05	Pulse	0.10	3
Tl			1	0.006	ug/l	36.61	320.01	1.374E-04	Pulse	0.10	3
Pb			1	0.021	ug/l	28.13	360.02	1.548E-04	Pulse	0.10	3
Pb			1	0.024	ug/l	13.74	343.35	1.475E-04	Pulse	0.10	3
Pb			1	0.027	ug/l	2.89	1,563.42	6.715E-04	Pulse	0.10	3
Na			2	10006.641	ug/l	0.87	7,014,001.53	9.240E+01	Analog	0.30	3
Mg			2	9974.081	ug/l	0.89	3,204,901.05	4.222E+01	Pulse	0.30	3
Al			2	9936.024	ug/l	0.46	987,577.91	1.301E+01	Pulse	0.30	3
K			2	10006.111	ug/l	1.03	1,951,231.87	2.571E+01	Pulse	0.30	3
Ca			2	10080.259	ug/l	1.24	104,112.29	1.372E+00	Pulse	0.30	3
Ti			2	0.036	ug/l	99.90	3.33	4.390E-05	Pulse	0.30	3
V			2	0.009	ug/l	119.11	112.22	1.479E-03	Pulse	0.30	3
Cr			2	0.069	ug/l	27.63	595.57	7.848E-03	Pulse	0.30	3
Mn			2	0.177	ug/l	16.48	388.90	5.122E-03	Pulse	0.30	3
Fe			2	9955.177	ug/l	0.80	29,133,377.73	3.838E+02	Analog	0.30	3
Co			2	0.445	ug/l	2.37	2,925.85	3.854E-02	Pulse	0.30	3
Ni			2	0.387	ug/l	13.69	721.13	9.501E-03	Pulse	0.30	3
Cu			2	-0.107	ug/l	-19.51	1,203.39	1.585E-02	Pulse	0.30	3
Zn			2	0.861	ug/l	11.67	656.69	8.652E-03	Pulse	0.30	3
As			2	0.057	ug/l	36.62	25.67	3.383E-04	Pulse	1.00	3
Cd			2	0.000	ug/l	-3046.40	1.09	2.860E-06	Pulse	0.30	3
Sn			2	0.190	ug/l	11.66	570.02	1.484E-03	Pulse	0.30	3
Se			3	0.050	ug/l	24.55	5.67	7.393E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,804,791.47	0.78	101.1	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,512,653.61	1.22	102.9	Pulse	0.10	3
1	Ge		470,159.30	1.09	100.9	Pulse	0.10	3
1	Ge		642,883.71	0.69	101.5	Pulse	0.10	3
1	Rh		2,931,839.75	0.18	98.4	Pulse	0.10	3
1	In		3,188,379.19	0.31	100.0	Pulse	0.10	3
1	Tb		4,186,979.42	0.17	100.6	Pulse	0.10	3
1	Ho		393,311.57	0.25	101.7	Pulse	0.10	3
1	Bi		2,328,643.98	1.11	97.2	Pulse	0.10	3
2	Sc		75,907.09	0.24	102.0	Pulse	0.30	3
2	Ge		42,861.76	0.88	100.7	Pulse	0.30	3
2	Ge		63,944.74	1.74	100.4	Pulse	0.30	3
2	Rh		1,208,331.06	0.77	98.0	Pulse	0.30	3
2	In		384,206.23	0.99	99.1	Pulse	0.30	3
2	Tb		1,496,210.01	0.57	100.5	Pulse	0.30	3
2	Ho		143,526.81	0.89	100.2	Pulse	0.30	3
2	Bi		983,120.31	0.81	97.0	Pulse	0.30	3
3	Sc		78,209.99	0.38	102.7	Pulse	0.30	3
3	Ge		50,154.47	1.22	101.9	Pulse	0.30	3
3	Ge		76,626.50	0.75	103.1	Pulse	0.30	3
3	Rh		907,959.48	0.42	98.5	Pulse	0.30	3
3	Tb		1,432,533.69	0.71	100.7	Pulse	0.30	3

Quantitation Report

File Name	013SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa050119m2.b
Method File	
Method Path	
Acq Time	5/1/2019 13:21
Sample Name	rinseconf
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/1/2019 13:25
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.000	ug/l	-2181.17	6.67	3.691E-06	Pulse	0.25	3
B			1	2.402	ug/l	4.21	16,882.03	9.387E-03	Pulse	0.15	3
Ca			1	0.161	ug/l	191.80	14,656.95	5.927E-03	Pulse	0.10	3
Sr			1	0.005	ug/l	49.88	453.36	1.501E-04	Pulse	0.10	3
Mo			1	0.008	ug/l	31.30	70.00	2.324E-05	Pulse	0.10	3
Ag			1	0.001	ug/l	129.01	50.00	1.536E-05	Pulse	0.10	3
Sn			1	0.378	ug/l	3.48	1,830.18	5.660E-04	Pulse	0.10	3
Sb			1	0.055	ug/l	7.42	850.06	2.046E-04	Pulse	0.10	3
Ba			1	0.002	ug/l	207.58	26.67	6.372E-06	Pulse	0.10	3
Tl			1	0.001	ug/l	180.35	213.34	8.859E-05	Pulse	0.10	3
Pb			1	-0.002	ug/l	-254.21	153.34	6.374E-05	Pulse	0.10	3
Pb			1	0.004	ug/l	38.15	186.68	7.745E-05	Pulse	0.10	3
Pb			1	0.000	ug/l	186.18	613.36	2.546E-04	Pulse	0.10	3
Na			2	3.398	ug/l	118.64	8,143.83	1.091E-01	Pulse	0.30	3
Mg			2	0.849	ug/l	13.61	317.78	4.255E-03	Pulse	0.30	3
Al			2	0.295	ug/l	81.60	120.00	1.606E-03	Pulse	0.30	3
K			2	-0.543	ug/l	-257.83	6,556.91	8.781E-02	Pulse	0.30	3
Ca			2	1.778	ug/l	56.22	54.44	7.290E-04	Pulse	0.30	3
Ti			2	0.037	ug/l	173.21	3.33	4.476E-05	Pulse	0.30	3
V			2	0.009	ug/l	70.56	110.00	1.474E-03	Pulse	0.30	3
Cr			2	-0.008	ug/l	-134.74	293.34	3.929E-03	Pulse	0.30	3
Mn			2	-0.010	ug/l	-109.87	55.56	7.433E-04	Pulse	0.30	3
Fe			2	1.429	ug/l	9.83	5,557.66	7.441E-02	Pulse	0.30	3
Co			2	0.000	ug/l	-5605.89	53.33	7.146E-04	Pulse	0.30	3
Ni			2	-0.004	ug/l	-139.48	26.67	3.572E-04	Pulse	0.30	3
Cu			2	-0.236	ug/l	-6.51	547.81	7.337E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	0.002	ug/l	1668.72	142.23	1.904E-03	Pulse	0.30	3
As			2	0.000	ug/l	4405.65	6.33	8.478E-05	Pulse	1.00	3
Cd			2	0.008	ug/l	105.56	7.77	2.001E-05	Pulse	0.30	3
Sn			2	0.040	ug/l	86.26	316.67	8.150E-04	Pulse	0.30	3
Se			3	0.013	ug/l	25.14	3.40	4.498E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,798,606.28	0.60	100.8	Pulse	0.10	3
1	Sc		2,472,669.55	0.36	101.3	Pulse	0.10	3
1	Ge		463,343.25	1.02	99.5	Pulse	0.10	3
1	Ge		647,770.63	0.70	102.3	Pulse	0.10	3
1	Rh		3,016,622.77	1.05	101.2	Pulse	0.10	3
1	In		3,236,127.47	1.63	101.5	Pulse	0.10	3
1	Tb		4,156,921.40	1.83	99.9	Pulse	0.10	3
1	Ho		391,117.32	2.08	101.2	Pulse	0.10	3
1	Bi		2,409,149.75	0.99	100.6	Pulse	0.10	3
2	Sc		74,672.92	0.41	100.4	Pulse	0.30	3
2	Ge		42,901.80	0.39	100.8	Pulse	0.30	3
2	Ge		64,847.22	1.04	101.8	Pulse	0.30	3
2	Rh		1,231,905.40	0.42	99.9	Pulse	0.30	3
2	In		388,865.39	0.85	100.3	Pulse	0.30	3
2	Tb		1,490,748.93	1.18	100.1	Pulse	0.30	3
2	Ho		143,256.24	0.52	100.0	Pulse	0.30	3
2	Bi		1,020,080.79	0.53	100.7	Pulse	0.30	3
3	Sc		77,834.95	1.45	102.2	Pulse	0.30	3
3	Ge		50,506.88	0.53	102.6	Pulse	0.30	3
3	Ge		75,591.73	1.06	101.7	Pulse	0.30	3
3	Rh		936,718.95	0.50	101.6	Pulse	0.30	3
3	Tb		1,443,325.98	0.02	101.5	Pulse	0.30	3

Quantitation Report

File Name	014SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa050119m2.b
Method File	
Method Path	
Acq Time	5/1/2019 13:26
Sample Name	rinseconf
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/1/2019 13:25
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.000	ug/l	719.20	8.00	4.436E-06	Pulse	0.25	3
B			1	1.847	ug/l	2.39	14,657.70	8.111E-03	Pulse	0.15	3
Ca			1	-0.571	ug/l	-185.35	14,213.21	5.713E-03	Pulse	0.10	3
Sr			1	0.003	ug/l	57.12	366.68	1.211E-04	Pulse	0.10	3
Mo			1	0.012	ug/l	21.06	100.01	3.304E-05	Pulse	0.10	3
Ag			1	0.001	ug/l	107.57	46.67	1.442E-05	Pulse	0.10	3
Sn			1	0.383	ug/l	0.82	1,890.19	5.827E-04	Pulse	0.10	3
Sb			1	0.045	ug/l	17.64	740.05	1.769E-04	Pulse	0.10	3
Ba			1	0.002	ug/l	60.32	26.67	6.392E-06	Pulse	0.10	3
Tl			1	0.002	ug/l	80.89	230.01	9.506E-05	Pulse	0.10	3
Pb			1	-0.002	ug/l	-224.86	150.01	6.190E-05	Pulse	0.10	3
Pb			1	-0.003	ug/l	-112.43	126.67	5.220E-05	Pulse	0.10	3
Pb			1	0.000	ug/l	-510.33	593.36	2.451E-04	Pulse	0.10	3
Na			2	0.341	ug/l	84.50	6,057.82	8.091E-02	Pulse	0.30	3
Mg			2	0.184	ug/l	28.79	107.78	1.440E-03	Pulse	0.30	3
Al			2	-0.274	ug/l	-116.27	64.44	8.615E-04	Pulse	0.30	3
K			2	-1.900	ug/l	-7.33	6,314.61	8.434E-02	Pulse	0.30	3
Ca			2	0.125	ug/l	980.36	37.78	5.042E-04	Pulse	0.30	3
Ti			2	0.000	ug/l	---	0.00	0.000E+00	Pulse	0.30	3
V			2	0.000	ug/l	2614.86	85.56	1.143E-03	Pulse	0.30	3
Cr			2	-0.009	ug/l	-49.79	291.12	3.889E-03	Pulse	0.30	3
Mn			2	-0.010	ug/l	-79.47	55.55	7.422E-04	Pulse	0.30	3
Fe			2	0.367	ug/l	5.52	2,508.01	3.350E-02	Pulse	0.30	3
Co			2	-0.002	ug/l	-71.18	42.22	5.636E-04	Pulse	0.30	3
Ni			2	0.000	ug/l	56.81	33.33	4.452E-04	Pulse	0.30	3
Cu			2	-0.252	ug/l	-5.16	472.24	6.309E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	-0.004	ug/l	-212.75	138.89	1.855E-03	Pulse	0.30	3
As			2	-0.011	ug/l	-42.71	2.67	3.558E-05	Pulse	1.00	3
Cd			2	0.001	ug/l	367.33	2.22	5.734E-06	Pulse	0.30	3
Sn			2	0.025	ug/l	55.31	291.12	7.454E-04	Pulse	0.30	3
Se			3	0.017	ug/l	115.32	3.67	4.830E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,807,202.47	0.45	101.3	Pulse	0.10	3
1	Sc		2,488,339.55	0.86	101.9	Pulse	0.10	3
1	Ge		469,713.85	0.93	100.8	Pulse	0.10	3
1	Ge		644,498.42	0.51	101.8	Pulse	0.10	3
1	Rh		3,030,398.39	1.09	101.7	Pulse	0.10	3
1	In		3,243,925.64	0.88	101.8	Pulse	0.10	3
1	Tb		4,178,530.15	1.39	100.4	Pulse	0.10	3
1	Ho		392,000.58	1.65	101.4	Pulse	0.10	3
1	Bi		2,421,531.63	1.67	101.1	Pulse	0.10	3
2	Sc		74,872.55	0.36	100.7	Pulse	0.30	3
2	Ge		42,256.77	1.11	99.2	Pulse	0.30	3
2	Ge		63,794.20	0.30	100.1	Pulse	0.30	3
2	Rh		1,237,563.36	1.00	100.3	Pulse	0.30	3
2	In		390,245.12	1.41	100.6	Pulse	0.30	3
2	Tb		1,490,189.91	0.57	100.1	Pulse	0.30	3
2	Ho		143,607.68	0.70	100.2	Pulse	0.30	3
2	Bi		1,020,468.50	0.19	100.7	Pulse	0.30	3
3	Sc		76,412.84	0.51	100.3	Pulse	0.30	3
3	Ge		49,732.10	0.45	101.0	Pulse	0.30	3
3	Ge		75,796.07	1.08	102.0	Pulse	0.30	3
3	Rh		933,166.28	0.67	101.3	Pulse	0.30	3
3	Tb		1,428,467.06	1.02	100.4	Pulse	0.30	3

Quantitation Report

File Name 015CALS.d
File Path C:\Agilent\ICPMH\1\DATA\xa050119m2.b
Method File
Method Path
Acq Time 5/1/2019 13:32
Sample Name STDB
Sample Type CalStd
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 5/1/2019 13:34
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.472	ug/l	1.48	3,076.33	1.695E-03	Pulse	0.25	3
B			1	28.011	ug/l	0.78	124,054.07	6.834E-02	Pulse	0.15	3
Ca			1	267.032	ug/l	0.88	208,609.26	8.398E-02	Pulse	0.10	3
Sr			1	4.969	ug/l	1.13	177,657.17	5.867E-02	Pulse	0.10	3
Mo			1	0.947	ug/l	7.03	6,848.36	2.263E-03	Pulse	0.10	3
Ag			1	4.690	ug/l	0.99	77,251.70	2.365E-02	Pulse	0.10	3
Sn			1	4.956	ug/l	2.08	51,609.14	1.580E-02	Pulse	0.10	3
Sb			1	1.876	ug/l	1.55	22,737.07	5.432E-03	Pulse	0.10	3
Ba			1	1.043	ug/l	4.28	5,171.07	1.235E-03	Pulse	0.10	3
Tl			1	0.493	ug/l	1.41	13,947.00	5.762E-03	Pulse	0.10	3
Pb			1	0.491	ug/l	6.09	4,887.66	2.020E-03	Pulse	0.10	3
Pb			1	0.532	ug/l	5.38	4,640.90	1.917E-03	Pulse	0.10	3
Pb			1	0.509	ug/l	3.22	20,199.41	8.344E-03	Pulse	0.10	3
Na			2	256.363	ug/l	1.26	183,908.69	2.443E+00	Pulse	0.30	3
Mg			2	261.147	ug/l	1.64	83,256.38	1.106E+00	Pulse	0.30	3
Al			2	25.105	ug/l	0.75	2,583.57	3.432E-02	Pulse	0.30	3
K			2	254.860	ug/l	2.52	55,774.63	7.409E-01	Pulse	0.30	3
Ca			2	290.514	ug/l	2.11	3,012.54	4.002E-02	Pulse	0.30	3
Ti			2	0.972	ug/l	38.16	88.89	1.182E-03	Pulse	0.30	3
V			2	1.021	ug/l	2.49	3,086.99	4.100E-02	Pulse	0.30	3
Cr			2	0.963	ug/l	3.98	3,973.87	5.279E-02	Pulse	0.30	3
Mn			2	0.937	ug/l	2.54	1,731.22	2.300E-02	Pulse	0.30	3
Fe			2	26.324	ug/l	0.83	77,850.90	1.034E+00	Pulse	0.30	3
Co			2	0.481	ug/l	1.14	3,099.22	4.117E-02	Pulse	0.30	3
Ni			2	1.005	ug/l	5.43	1,802.34	2.394E-02	Pulse	0.30	3
Cu			2	1.981	ug/l	2.03	10,156.56	1.349E-01	Pulse	0.30	3
Zn			2	5.669	ug/l	6.14	3,495.97	4.645E-02	Pulse	0.30	3
As			2	0.497	ug/l	8.86	172.33	2.289E-03	Pulse	1.00	3
Cd			2	0.505	ug/l	17.59	426.36	1.095E-03	Pulse	0.30	3
Sn			2	4.667	ug/l	2.18	8,374.54	2.150E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	0.447	ug/l	12.44	29.33	3.869E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,815,379.96	0.83	101.7	Pulse	0.10	3
1	Sc		2,484,135.64	1.02	101.8	Pulse	0.10	3
1	Ge		470,270.76	0.56	101.0	Pulse	0.10	3
1	Ge		650,375.13	1.22	102.7	Pulse	0.10	3
1	Rh		3,027,770.48	0.68	101.6	Pulse	0.10	3
1	In		3,266,146.81	0.53	102.5	Pulse	0.10	3
1	Tb		4,185,519.52	0.32	100.6	Pulse	0.10	3
1	Ho		393,339.03	0.66	101.7	Pulse	0.10	3
1	Bi		2,420,313.45	1.02	101.0	Pulse	0.10	3
2	Sc		75,284.48	0.78	101.2	Pulse	0.30	3
2	Ge		42,077.36	1.17	98.8	Pulse	0.30	3
2	Ge		63,852.16	1.31	100.2	Pulse	0.30	3
2	Rh		1,232,230.23	0.11	99.9	Pulse	0.30	3
2	In		389,542.12	0.30	100.4	Pulse	0.30	3
2	Tb		1,497,554.28	0.25	100.6	Pulse	0.30	3
2	Ho		143,676.37	0.27	100.3	Pulse	0.30	3
2	Bi		1,020,152.32	0.39	100.7	Pulse	0.30	3
3	Sc		76,577.28	2.38	100.5	Pulse	0.30	3
3	Ge		50,349.67	0.57	102.3	Pulse	0.30	3
3	Ge		75,855.06	1.16	102.1	Pulse	0.30	3
3	Rh		936,100.17	0.37	101.6	Pulse	0.30	3
3	Tb		1,431,878.66	0.40	100.7	Pulse	0.30	3

Quantitation Report

File Name	016SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa050119m2.b
Method File	
Method Path	
Acq Time	5/1/2019 13:37
Sample Name	rinseconf
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/1/2019 13:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.001	ug/l	41.52	16.00	8.820E-06	Pulse	0.25	3
B			1	1.459	ug/l	3.10	13,109.82	7.224E-03	Pulse	0.15	3
Ca			1	-1.135	ug/l	-43.49	13,762.82	5.548E-03	Pulse	0.10	3
Sr			1	0.005	ug/l	60.76	436.69	1.453E-04	Pulse	0.10	3
Mo			1	0.006	ug/l	90.54	56.67	1.877E-05	Pulse	0.10	3
Ag			1	0.000	ug/l	1235.18	53.33	1.661E-05	Pulse	0.10	3
Sn			1	0.461	ug/l	2.73	1,943.53	6.053E-04	Pulse	0.10	3
Sb			1	0.055	ug/l	17.90	836.72	2.013E-04	Pulse	0.10	3
Ba			1	0.005	ug/l	111.92	40.00	9.601E-06	Pulse	0.10	3
Tl			1	0.000	ug/l	-407.69	163.34	6.837E-05	Pulse	0.10	3
Pb			1	-0.001	ug/l	-419.37	156.67	6.547E-05	Pulse	0.10	3
Pb			1	-0.005	ug/l	-40.49	110.01	4.605E-05	Pulse	0.10	3
Pb			1	-0.001	ug/l	-72.26	560.03	2.344E-04	Pulse	0.10	3
Na			2	0.089	ug/l	131.21	5,924.45	7.859E-02	Pulse	0.30	3
Mg			2	0.145	ug/l	39.72	95.56	1.268E-03	Pulse	0.30	3
Al			2	-0.613	ug/l	-13.85	47.78	6.338E-04	Pulse	0.30	3
K			2	-1.842	ug/l	-47.51	6,316.81	8.380E-02	Pulse	0.30	3
Ca			2	0.255	ug/l	707.53	40.00	5.305E-04	Pulse	0.30	3
Ti			2	0.000	ug/l	---	0.00	0.000E+00	Pulse	0.30	3
V			2	0.011	ug/l	49.26	113.34	1.504E-03	Pulse	0.30	3
Cr			2	-0.004	ug/l	-121.49	288.89	3.832E-03	Pulse	0.30	3
Mn			2	-0.023	ug/l	-54.09	32.22	4.274E-04	Pulse	0.30	3
Fe			2	0.167	ug/l	26.88	1,943.47	2.578E-02	Pulse	0.30	3
Co			2	0.002	ug/l	14.99	58.89	7.812E-04	Pulse	0.30	3
Ni			2	0.003	ug/l	402.59	37.78	5.011E-04	Pulse	0.30	3
Cu			2	0.003	ug/l	264.83	517.79	6.868E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	-0.005	ug/l	-462.31	141.11	1.872E-03	Pulse	0.30	3
As			2	-0.001	ug/l	-837.38	5.67	7.514E-05	Pulse	1.00	3
Cd			2	0.007	ug/l	158.57	6.67	1.696E-05	Pulse	0.30	3
Sn			2	0.043	ug/l	27.09	316.67	8.079E-04	Pulse	0.30	3
Se			3	-0.011	ug/l	-66.91	1.93	2.554E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,814,588.25	0.44	101.7	Pulse	0.10	3
1	Sc		2,481,140.80	1.18	101.7	Pulse	0.10	3
1	Ge		461,343.95	0.50	99.0	Pulse	0.10	3
1	Ge		643,444.73	0.50	101.6	Pulse	0.10	3
1	Rh		3,006,990.79	0.88	100.9	Pulse	0.10	3
1	In		3,211,163.39	0.78	100.7	Pulse	0.10	3
1	Tb		4,152,554.31	0.89	99.8	Pulse	0.10	3
1	Ho		388,771.09	0.89	100.6	Pulse	0.10	3
1	Bi		2,389,582.41	0.74	99.8	Pulse	0.10	3
2	Sc		75,384.86	0.09	101.3	Pulse	0.30	3
2	Ge		42,743.52	1.44	100.4	Pulse	0.30	3
2	Ge		64,243.52	0.65	100.8	Pulse	0.30	3
2	Rh		1,240,041.79	0.48	100.5	Pulse	0.30	3
2	In		391,955.51	0.36	101.1	Pulse	0.30	3
2	Tb		1,496,686.85	0.71	100.5	Pulse	0.30	3
2	Ho		143,578.36	0.59	100.2	Pulse	0.30	3
2	Bi		1,015,643.50	0.30	100.2	Pulse	0.30	3
3	Sc		76,888.22	0.84	100.9	Pulse	0.30	3
3	Ge		49,999.49	0.77	101.5	Pulse	0.30	3
3	Ge		75,746.86	0.42	101.9	Pulse	0.30	3
3	Rh		934,608.57	0.57	101.4	Pulse	0.30	3
3	Tb		1,442,256.71	0.56	101.4	Pulse	0.30	3

Quantitation Report

File Name	017_ICV.d
File Path	C:\Agilent\ICPMH\1\DATA\xa050119m2.b
Method File	
Method Path	
Acq Time	5/1/2019 13:44
Sample Name	ICVA 5
Sample Type	ICV
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/1/2019 13:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	58.782	ug/l	0.73	377,441.80	2.105E-01	Pulse	0.25	3
B			1	123.238	ug/l	0.66	515,601.80	2.875E-01	Pulse	0.15	3
Ca			1	5594.630	ug/l	0.49	4,050,433.38	1.642E+00	Pulse	0.10	3
Sr			1	62.369	ug/l	0.53	2,149,200.75	7.353E-01	Pulse	0.10	3
Mo			1	57.309	ug/l	1.22	399,382.00	1.366E-01	Pulse	0.10	3
Ag			1	56.744	ug/l	0.23	909,729.57	2.860E-01	Pulse	0.10	3
Sn			1	57.073	ug/l	0.53	610,729.75	1.920E-01	Pulse	0.10	3
Sb			1	59.779	ug/l	0.77	712,288.35	1.718E-01	Pulse	0.10	3
Ba			1	60.971	ug/l	1.26	298,435.61	7.196E-02	Pulse	0.10	3
Tl			1	61.408	ug/l	0.33	1,681,363.57	7.089E-01	Pulse	0.10	3
Pb			1	60.799	ug/l	0.75	572,814.45	2.415E-01	Pulse	0.10	3
Pb			1	58.261	ug/l	0.64	481,467.02	2.030E-01	Pulse	0.10	3
Pb			1	59.686	ug/l	0.49	2,251,665.28	9.494E-01	Pulse	0.10	3
Na			2	5452.741	ug/l	1.28	3,779,701.24	5.039E+01	Pulse	0.30	3
Mg			2	5507.891	ug/l	1.07	1,748,867.46	2.331E+01	Pulse	0.30	3
Al			2	5472.719	ug/l	0.95	537,828.26	7.169E+00	Pulse	0.30	3
K			2	5503.592	ug/l	0.70	1,063,494.47	1.418E+01	Pulse	0.30	3
Ca			2	5833.294	ug/l	0.06	59,572.42	7.941E-01	Pulse	0.30	3
Ti			2	55.531	ug/l	2.09	5,066.39	6.752E-02	Pulse	0.30	3
V			2	58.548	ug/l	0.47	171,698.19	2.289E+00	Pulse	0.30	3
Cr			2	57.986	ug/l	1.70	220,625.77	2.941E+00	Pulse	0.30	3
Mn			2	58.414	ug/l	1.02	103,101.59	1.374E+00	Pulse	0.30	3
Fe			2	5548.322	ug/l	0.62	16,047,297.14	2.139E+02	Analog	0.30	3
Co			2	58.256	ug/l	0.54	368,796.42	4.916E+00	Pulse	0.30	3
Ni			2	58.742	ug/l	0.47	103,068.06	1.374E+00	Pulse	0.30	3
Cu			2	56.443	ug/l	1.50	274,555.56	3.660E+00	Pulse	0.30	3
Zn			2	56.173	ug/l	2.09	33,251.55	4.433E-01	Pulse	0.30	3
As			2	57.014	ug/l	0.48	19,000.03	2.533E-01	Pulse	1.00	3
Cd			2	58.905	ug/l	1.13	48,466.32	1.274E-01	Pulse	0.30	3
Sn			2	57.471	ug/l	0.54	98,066.32	2.578E-01	Pulse	0.30	3
Se			3	253.645	ug/l	0.71	14,978.03	2.002E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,793,285.47	0.47	100.5	Pulse	0.10	3
1	Sc		2,466,509.23	0.86	101.1	Pulse	0.10	3
1	Ge		461,658.76	1.22	99.1	Pulse	0.10	3

Quantitation Report

1	Ge		644,179.22	0.98	101.7	Pulse	0.10	3
1	Rh		2,922,829.23	1.32	98.1	Pulse	0.10	3
1	In		3,180,706.12	1.16	99.8	Pulse	0.10	3
1	Tb		4,147,380.04	1.17	99.7	Pulse	0.10	3
1	Ho		389,326.22	1.97	100.7	Pulse	0.10	3
1	Bi		2,371,679.29	1.35	99.0	Pulse	0.10	3
2	Sc		75,020.96	0.97	100.9	Pulse	0.30	3
2	Ge		42,598.80	1.02	100.0	Pulse	0.30	3
2	Ge		63,129.42	1.14	99.1	Pulse	0.30	3
2	Rh		1,201,010.58	1.00	97.4	Pulse	0.30	3
2	In		380,461.74	0.22	98.1	Pulse	0.30	3
2	Tb		1,467,130.43	1.15	98.5	Pulse	0.30	3
2	Ho		141,706.16	0.96	98.9	Pulse	0.30	3
2	Bi		987,788.85	0.57	97.5	Pulse	0.30	3
3	Sc		77,256.88	1.09	101.4	Pulse	0.30	3
3	Ge		49,001.12	1.25	99.5	Pulse	0.30	3
3	Ge		74,829.64	0.54	100.7	Pulse	0.30	3
3	Rh		900,179.96	0.38	97.7	Pulse	0.30	3
3	Tb		1,415,812.97	0.85	99.5	Pulse	0.30	3

Quantitation Report

File Name	018_ICV.d
File Path	C:\Agilent\ICPMH\1\DATA\xa050119m2.b
Method File	
Method Path	
Acq Time	5/1/2019 13:51
Sample Name	ICV
Sample Type	ICV
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/1/2019 13:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.040	ug/l	12.48	262.67	1.474E-04	Pulse	0.25	3
B			1	2.672	ug/l	2.50	17,858.59	1.002E-02	Pulse	0.15	3
Ca			1	5.234	ug/l	26.46	18,137.25	7.411E-03	Pulse	0.10	3
Sr			1	0.014	ug/l	11.72	766.72	2.588E-04	Pulse	0.10	3
Mo			1	0.034	ug/l	3.87	250.01	8.437E-05	Pulse	0.10	3
Ag			1	0.003	ug/l	10.68	106.67	3.336E-05	Pulse	0.10	3
Sn			1	0.587	ug/l	1.61	3,290.44	1.029E-03	Pulse	0.10	3
Sb			1	0.034	ug/l	14.37	590.03	1.421E-04	Pulse	0.10	3
Ba			1	0.018	ug/l	33.44	106.67	2.576E-05	Pulse	0.10	3
Tl			1	0.008	ug/l	19.27	403.35	1.692E-04	Pulse	0.10	3
Pb			1	0.018	ug/l	13.05	336.68	1.413E-04	Pulse	0.10	3
Pb			1	0.029	ug/l	29.16	390.02	1.637E-04	Pulse	0.10	3
Pb			1	0.020	ug/l	5.28	1,356.74	5.694E-04	Pulse	0.10	3
Na			2	1.009	ug/l	25.51	6,424.62	8.707E-02	Pulse	0.30	3
Mg			2	0.649	ug/l	18.82	251.12	3.404E-03	Pulse	0.30	3
Al			2	64.215	ug/l	1.15	6,312.37	8.554E-02	Pulse	0.30	3
K			2	-0.128	ug/l	-1369.66	6,507.99	8.818E-02	Pulse	0.30	3
Ca			2	6.753	ug/l	39.10	104.45	1.414E-03	Pulse	0.30	3
Ti			2	0.111	ug/l	88.12	10.00	1.354E-04	Pulse	0.30	3
V			2	0.007	ug/l	151.26	101.11	1.370E-03	Pulse	0.30	3
Cr			2	0.065	ug/l	15.31	540.02	7.319E-03	Pulse	0.30	3
Mn			2	0.057	ug/l	7.19	171.11	2.319E-03	Pulse	0.30	3
Fe			2	2.019	ug/l	1.87	7,168.29	9.715E-02	Pulse	0.30	3
Co			2	0.006	ug/l	20.82	81.11	1.099E-03	Pulse	0.30	3
Ni			2	0.024	ug/l	59.23	74.45	1.008E-03	Pulse	0.30	3
Cu			2	0.311	ug/l	5.97	1,975.70	2.677E-02	Pulse	0.30	3
Zn			2	0.614	ug/l	23.00	496.68	6.733E-03	Pulse	0.30	3
As			2	-0.002	ug/l	-165.13	5.33	7.223E-05	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	0.009	ug/l	49.17	8.88	2.298E-05	Pulse	0.30	3
Sn			2	0.175	ug/l	15.93	540.02	1.398E-03	Pulse	0.30	3
Se			3	0.049	ug/l	12.66	5.40	7.241E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,783,057.38	0.38	99.9	Pulse	0.10	3
1	Sc		2,447,746.11	0.82	100.3	Pulse	0.10	3
1	Ge		454,517.52	0.49	97.6	Pulse	0.10	3
1	Ge		631,029.14	0.95	99.6	Pulse	0.10	3
1	Rh		2,962,979.54	1.00	99.4	Pulse	0.10	3
1	In		3,197,746.24	0.22	100.3	Pulse	0.10	3
1	Tb		4,149,049.52	1.06	99.7	Pulse	0.10	3
1	Ho		384,351.92	1.26	99.4	Pulse	0.10	3
1	Bi		2,382,599.91	0.63	99.5	Pulse	0.10	3
2	Sc		73,788.78	0.46	99.2	Pulse	0.30	3
2	Ge		42,094.11	0.81	98.9	Pulse	0.30	3
2	Ge		63,126.02	1.39	99.1	Pulse	0.30	3
2	Rh		1,221,457.38	0.13	99.0	Pulse	0.30	3
2	In		386,240.15	0.16	99.6	Pulse	0.30	3
2	Tb		1,474,475.95	0.59	99.0	Pulse	0.30	3
2	Ho		142,407.84	0.87	99.4	Pulse	0.30	3
2	Bi		1,010,703.57	0.28	99.7	Pulse	0.30	3
3	Sc		76,500.91	0.27	100.4	Pulse	0.30	3
3	Ge		49,661.93	1.07	100.9	Pulse	0.30	3
3	Ge		74,555.99	1.02	100.3	Pulse	0.30	3
3	Rh		923,482.95	0.45	100.2	Pulse	0.30	3
3	Tb		1,430,083.45	0.57	100.5	Pulse	0.30	3

Quantitation Report

File Name	019_ICB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa050119m2.b
Method File	
Method Path	
Acq Time	5/1/2019 14:00
Sample Name	ICB
Sample Type	ICB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/1/2019 13:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.001	ug/l	137.26	10.67	5.956E-06	Pulse	0.25	3
B			1	1.494	ug/l	7.63	13,045.28	7.304E-03	Pulse	0.15	3
Ca			1	-1.667	ug/l	-29.89	13,282.44	5.393E-03	Pulse	0.10	3
Sr			1	0.003	ug/l	41.58	366.68	1.223E-04	Pulse	0.10	3
Mo			1	0.010	ug/l	16.74	83.33	2.781E-05	Pulse	0.10	3
Ag			1	0.001	ug/l	87.26	73.33	2.278E-05	Pulse	0.10	3
Sn			1	0.444	ug/l	1.60	1,753.51	5.467E-04	Pulse	0.10	3
Sb			1	0.017	ug/l	4.05	393.35	9.445E-05	Pulse	0.10	3
Ba			1	0.007	ug/l	78.92	50.00	1.200E-05	Pulse	0.10	3
Tl			1	0.001	ug/l	30.33	200.01	8.347E-05	Pulse	0.10	3
Pb			1	-0.001	ug/l	-117.06	160.01	6.679E-05	Pulse	0.10	3
Pb			1	-0.003	ug/l	-315.77	130.00	5.397E-05	Pulse	0.10	3
Pb			1	0.000	ug/l	-2935.47	600.03	2.503E-04	Pulse	0.10	3
Na			2	-0.153	ug/l	-42.64	5,737.70	7.635E-02	Pulse	0.30	3
Mg			2	0.093	ug/l	62.69	78.89	1.050E-03	Pulse	0.30	3
Al			2	-0.522	ug/l	-48.23	56.66	7.529E-04	Pulse	0.30	3
K			2	-2.158	ug/l	-14.59	6,235.67	8.299E-02	Pulse	0.30	3
Ca			2	0.802	ug/l	289.52	45.55	6.049E-04	Pulse	0.30	3
Ti			2	0.134	ug/l	62.93	12.22	1.625E-04	Pulse	0.30	3
V			2	0.011	ug/l	73.78	115.56	1.537E-03	Pulse	0.30	3
Cr			2	0.002	ug/l	404.24	311.12	4.140E-03	Pulse	0.30	3
Mn			2	-0.012	ug/l	-43.55	51.11	6.800E-04	Pulse	0.30	3
Fe			2	0.207	ug/l	8.36	2,051.27	2.730E-02	Pulse	0.30	3
Co			2	0.004	ug/l	109.10	68.89	9.170E-04	Pulse	0.30	3
Ni			2	0.019	ug/l	196.39	66.68	8.898E-04	Pulse	0.30	3
Cu			2	-0.010	ug/l	-55.66	453.35	6.032E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	0.007	ug/l	456.37	147.78	1.968E-03	Pulse	0.30	3
As			2	0.008	ug/l	178.04	8.67	1.156E-04	Pulse	1.00	3
Cd			2	0.008	ug/l	76.94	7.77	1.988E-05	Pulse	0.30	3
Sn			2	0.059	ug/l	19.20	344.45	8.805E-04	Pulse	0.30	3
Se			3	0.116	ug/l	20.53	9.40	1.257E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,785,563.26	1.15	100.0	Pulse	0.10	3
1	Sc		2,462,583.30	1.13	100.9	Pulse	0.10	3
1	Ge		461,477.31	0.99	99.1	Pulse	0.10	3
1	Ge		640,143.24	0.94	101.1	Pulse	0.10	3
1	Rh		2,998,304.75	0.69	100.6	Pulse	0.10	3
1	In		3,207,640.07	1.95	100.6	Pulse	0.10	3
1	Tb		4,164,272.33	0.80	100.1	Pulse	0.10	3
1	Ho		388,050.82	0.86	100.4	Pulse	0.10	3
1	Bi		2,395,813.30	1.35	100.0	Pulse	0.10	3
2	Sc		75,143.86	0.64	101.0	Pulse	0.30	3
2	Ge		42,362.64	0.89	99.5	Pulse	0.30	3
2	Ge		64,119.85	1.07	100.6	Pulse	0.30	3
2	Rh		1,233,252.41	0.43	100.0	Pulse	0.30	3
2	In		391,193.73	1.40	100.9	Pulse	0.30	3
2	Tb		1,492,091.50	0.90	100.2	Pulse	0.30	3
2	Ho		142,610.45	0.71	99.5	Pulse	0.30	3
2	Bi		1,014,255.31	1.03	100.1	Pulse	0.30	3
3	Sc		76,686.30	0.60	100.7	Pulse	0.30	3
3	Ge		49,452.46	0.88	100.4	Pulse	0.30	3
3	Ge		74,763.58	1.06	100.6	Pulse	0.30	3
3	Rh		921,108.12	0.70	99.9	Pulse	0.30	3
3	Tb		1,423,931.09	0.13	100.1	Pulse	0.30	3

Quantitation Report

File Name 020_CCV.d
File Path C:\Agilent\ICPMH\1\DATA\xa050119m2.b
Method File
Method Path
Acq Time 5/1/2019 14:05
Sample Name CCVA
Sample Type CCV
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 5/1/2019 13:34
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	50.290	ug/l	0.72	324,138.43	1.801E-01	Pulse	0.25	3
B			1	100.910	ug/l	0.46	425,049.05	2.361E-01	Pulse	0.15	3
Ca			1	5179.475	ug/l	0.18	3,769,821.40	1.521E+00	Pulse	0.10	3
Sr			1	51.131	ug/l	0.59	1,781,310.18	6.029E-01	Pulse	0.10	3
Mo			1	49.932	ug/l	1.16	351,743.68	1.190E-01	Pulse	0.10	3
Ag			1	49.081	ug/l	1.07	789,975.61	2.474E-01	Pulse	0.10	3
Sn			1	48.294	ug/l	0.61	518,333.90	1.623E-01	Pulse	0.10	3
Sb			1	51.057	ug/l	0.65	613,867.18	1.467E-01	Pulse	0.10	3
Ba			1	50.050	ug/l	0.81	247,197.32	5.907E-02	Pulse	0.10	3
Tl			1	50.235	ug/l	1.08	1,379,077.22	5.800E-01	Pulse	0.10	3
Pb			1	49.627	ug/l	0.34	468,798.30	1.972E-01	Pulse	0.10	3
Pb			1	49.940	ug/l	0.82	413,775.46	1.740E-01	Pulse	0.10	3
Pb			1	49.954	ug/l	0.62	1,889,479.92	7.947E-01	Pulse	0.10	3
Na			2	5049.253	ug/l	1.03	3,520,449.72	4.666E+01	Pulse	0.30	3
Mg			2	5146.044	ug/l	0.65	1,643,367.96	2.178E+01	Pulse	0.30	3
Al			2	5043.397	ug/l	1.38	498,466.75	6.607E+00	Pulse	0.30	3
K			2	5090.161	ug/l	1.08	989,715.34	1.312E+01	Pulse	0.30	3
Ca			2	5384.795	ug/l	0.53	55,311.34	7.331E-01	Pulse	0.30	3
Ti			2	47.200	ug/l	4.11	4,331.72	5.739E-02	Pulse	0.30	3
V			2	49.799	ug/l	1.53	146,878.26	1.947E+00	Pulse	0.30	3
Cr			2	49.824	ug/l	0.59	190,712.39	2.528E+00	Pulse	0.30	3
Mn			2	49.417	ug/l	1.34	87,736.43	1.163E+00	Pulse	0.30	3
Fe			2	5135.113	ug/l	0.64	14,938,076.07	1.980E+02	Analog	0.30	3
Co			2	49.254	ug/l	0.87	313,587.23	4.156E+00	Pulse	0.30	3
Ni			2	48.871	ug/l	0.34	86,243.74	1.143E+00	Pulse	0.30	3
Cu			2	48.617	ug/l	0.84	237,923.04	3.154E+00	Pulse	0.30	3
Zn			2	48.872	ug/l	1.61	29,117.04	3.859E-01	Pulse	0.30	3
As			2	48.234	ug/l	0.38	16,166.34	2.143E-01	Pulse	1.00	3
Cd			2	48.948	ug/l	0.84	40,690.22	1.059E-01	Pulse	0.30	3
Sn			2	48.509	ug/l	0.45	83,671.41	2.177E-01	Pulse	0.30	3
Se			3	194.090	ug/l	1.55	11,496.69	1.532E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,800,175.61	1.36	100.9	Pulse	0.10	3
1	Sc		2,478,917.62	0.76	101.6	Pulse	0.10	3
1	Ge		466,109.48	1.74	100.1	Pulse	0.10	3

Quantitation Report

1	Ge		647,200.47	1.41	102.2	Pulse	0.10	3
1	Rh		2,954,830.79	1.65	99.1	Pulse	0.10	3
1	In		3,193,134.80	1.01	100.2	Pulse	0.10	3
1	Tb		4,184,345.36	1.28	100.6	Pulse	0.10	3
1	Ho		393,675.58	1.55	101.8	Pulse	0.10	3
1	Bi		2,377,837.20	1.63	99.3	Pulse	0.10	3
2	Sc		75,450.81	1.20	101.4	Pulse	0.30	3
2	Ge		42,513.03	1.24	99.8	Pulse	0.30	3
2	Ge		64,222.26	1.29	100.8	Pulse	0.30	3
2	Rh		1,210,362.73	1.24	98.1	Pulse	0.30	3
2	In		384,430.14	1.36	99.1	Pulse	0.30	3
2	Tb		1,487,809.21	1.37	99.9	Pulse	0.30	3
2	Ho		143,423.56	1.11	100.1	Pulse	0.30	3
2	Bi		996,994.09	1.25	98.4	Pulse	0.30	3
3	Sc		76,894.97	0.87	100.9	Pulse	0.30	3
3	Ge		49,380.05	1.42	100.3	Pulse	0.30	3
3	Ge		75,064.98	1.25	101.0	Pulse	0.30	3
3	Rh		901,307.15	0.18	97.8	Pulse	0.30	3
3	Tb		1,420,779.63	0.21	99.9	Pulse	0.30	3

Quantitation Report

File Name	021_CCB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa050119m2.b
Method File	
Method Path	
Acq Time	5/1/2019 14:10
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/1/2019 13:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.009	ug/l	45.33	62.67	3.483E-05	Pulse	0.25	3
B			1	3.714	ug/l	3.45	22,326.23	1.241E-02	Pulse	0.15	3
Ca			1	-0.954	ug/l	-30.02	13,692.77	5.601E-03	Pulse	0.10	3
Sr			1	0.012	ug/l	3.72	686.71	2.291E-04	Pulse	0.10	3
Mo			1	0.101	ug/l	17.59	733.38	2.445E-04	Pulse	0.10	3
Ag			1	0.005	ug/l	7.30	133.34	4.138E-05	Pulse	0.10	3
Sn			1	0.565	ug/l	2.20	3,080.42	9.557E-04	Pulse	0.10	3
Sb			1	0.164	ug/l	2.21	2,133.55	5.143E-04	Pulse	0.10	3
Ba			1	0.012	ug/l	27.08	73.33	1.768E-05	Pulse	0.10	3
Tl			1	0.023	ug/l	12.66	816.72	3.388E-04	Pulse	0.10	3
Pb			1	0.010	ug/l	62.64	270.01	1.118E-04	Pulse	0.10	3
Pb			1	0.013	ug/l	52.65	266.68	1.108E-04	Pulse	0.10	3
Pb			1	0.014	ug/l	24.93	1,160.06	4.806E-04	Pulse	0.10	3
Na			2	0.253	ug/l	68.77	6,004.50	8.010E-02	Pulse	0.30	3
Mg			2	0.548	ug/l	26.00	223.34	2.974E-03	Pulse	0.30	3
Al			2	-0.184	ug/l	-193.72	90.00	1.196E-03	Pulse	0.30	3
K			2	-1.374	ug/l	-33.32	6,371.27	8.499E-02	Pulse	0.30	3
Ca			2	-1.025	ug/l	-127.99	26.67	3.564E-04	Pulse	0.30	3
Ti			2	0.025	ug/l	173.21	2.22	3.011E-05	Pulse	0.30	3
V			2	0.018	ug/l	25.07	134.45	1.792E-03	Pulse	0.30	3
Cr			2	0.002	ug/l	678.16	306.67	4.095E-03	Pulse	0.30	3
Mn			2	-0.008	ug/l	-159.87	58.89	7.860E-04	Pulse	0.30	3
Fe			2	0.802	ug/l	2.73	3,767.15	5.024E-02	Pulse	0.30	3
Co			2	0.004	ug/l	91.03	74.44	9.952E-04	Pulse	0.30	3
Ni			2	0.000	ug/l	597.84	33.33	4.450E-04	Pulse	0.30	3
Cu			2	0.007	ug/l	152.26	532.24	7.098E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	0.039	ug/l	125.41	166.67	2.221E-03	Pulse	0.30	3
As			2	-0.003	ug/l	-187.12	5.00	6.686E-05	Pulse	1.00	3
Cd			2	0.009	ug/l	131.71	8.85	2.270E-05	Pulse	0.30	3
Sn			2	0.212	ug/l	16.35	608.91	1.564E-03	Pulse	0.30	3
Se			3	0.134	ug/l	5.62	10.53	1.398E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,798,621.70	0.55	100.8	Pulse	0.10	3
1	Sc		2,444,902.67	1.01	100.2	Pulse	0.10	3
1	Ge		462,810.77	0.76	99.4	Pulse	0.10	3
1	Ge		638,563.84	1.23	100.8	Pulse	0.10	3
1	Rh		2,996,627.14	1.30	100.5	Pulse	0.10	3
1	In		3,222,702.18	0.57	101.1	Pulse	0.10	3
1	Tb		4,148,591.29	0.19	99.7	Pulse	0.10	3
1	Ho		388,249.13	0.41	100.4	Pulse	0.10	3
1	Bi		2,411,558.30	1.39	100.7	Pulse	0.10	3
2	Sc		74,966.43	1.41	100.8	Pulse	0.30	3
2	Ge		42,451.71	1.64	99.7	Pulse	0.30	3
2	Ge		64,284.91	1.91	100.9	Pulse	0.30	3
2	Rh		1,232,228.95	0.63	99.9	Pulse	0.30	3
2	In		389,475.93	0.48	100.4	Pulse	0.30	3
2	Tb		1,490,512.30	0.88	100.1	Pulse	0.30	3
2	Ho		142,910.68	0.46	99.7	Pulse	0.30	3
2	Bi		1,018,323.85	0.97	100.5	Pulse	0.30	3
3	Sc		76,294.55	0.41	100.2	Pulse	0.30	3
3	Ge		49,119.32	0.48	99.8	Pulse	0.30	3
3	Ge		75,357.37	1.37	101.4	Pulse	0.30	3
3	Rh		927,873.75	0.12	100.7	Pulse	0.30	3
3	Tb		1,427,830.98	0.36	100.4	Pulse	0.30	3

Quantitation Report

File Name	022LCCV.d
File Path	C:\Agilent\ICPMH\1\DATA\xa050119m2.b
Method File	
Method Path	
Acq Time	5/1/2019 14:15
Sample Name	CRI
Sample Type	LLCCV
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/1/2019 13:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.522	ug/l	3.75	3,335.05	1.873E-03	Pulse	0.25	3
B			1	28.176	ug/l	0.50	122,328.70	6.872E-02	Pulse	0.15	3
Ca			1	253.796	ug/l	0.30	196,796.98	8.011E-02	Pulse	0.10	3
Sr			1	4.992	ug/l	0.82	175,340.56	5.894E-02	Pulse	0.10	3
Mo			1	0.994	ug/l	0.71	7,065.14	2.375E-03	Pulse	0.10	3
Ag			1	4.741	ug/l	0.51	76,210.20	2.391E-02	Pulse	0.10	3
Sn			1	5.104	ug/l	1.49	51,956.61	1.630E-02	Pulse	0.10	3
Sb			1	1.890	ug/l	2.83	22,834.04	5.472E-03	Pulse	0.10	3
Ba			1	1.025	ug/l	3.06	5,064.35	1.214E-03	Pulse	0.10	3
Tl			1	0.498	ug/l	0.91	13,970.45	5.821E-03	Pulse	0.10	3
Pb			1	0.513	ug/l	4.46	5,061.03	2.109E-03	Pulse	0.10	3
Pb			1	0.510	ug/l	4.15	4,417.48	1.841E-03	Pulse	0.10	3
Pb			1	0.504	ug/l	2.79	19,852.54	8.273E-03	Pulse	0.10	3
Na			2	251.472	ug/l	1.33	180,735.65	2.398E+00	Pulse	0.30	3
Mg			2	256.815	ug/l	1.48	81,978.99	1.088E+00	Pulse	0.30	3
Al			2	25.486	ug/l	3.37	2,624.69	3.482E-02	Pulse	0.30	3
K			2	251.100	ug/l	1.51	55,119.25	7.313E-01	Pulse	0.30	3
Ca			2	294.875	ug/l	5.85	3,061.43	4.061E-02	Pulse	0.30	3
Ti			2	1.442	ug/l	33.72	132.24	1.754E-03	Pulse	0.30	3
V			2	0.977	ug/l	4.31	2,958.08	3.925E-02	Pulse	0.30	3
Cr			2	0.975	ug/l	1.78	4,026.09	5.341E-02	Pulse	0.30	3
Mn			2	1.111	ug/l	1.72	2,042.37	2.710E-02	Pulse	0.30	3
Fe			2	25.961	ug/l	0.81	76,894.46	1.020E+00	Pulse	0.30	3
Co			2	0.505	ug/l	3.42	3,257.03	4.320E-02	Pulse	0.30	3
Ni			2	1.001	ug/l	5.41	1,797.90	2.385E-02	Pulse	0.30	3
Cu			2	1.979	ug/l	2.93	10,154.34	1.347E-01	Pulse	0.30	3
Zn			2	4.993	ug/l	1.33	3,101.44	4.114E-02	Pulse	0.30	3
As			2	0.450	ug/l	11.47	157.00	2.082E-03	Pulse	1.00	3
Cd			2	0.526	ug/l	17.33	443.02	1.141E-03	Pulse	0.30	3
Sn			2	4.675	ug/l	1.79	8,351.18	2.153E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	0.604	ug/l	9.23	38.53	5.102E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,780,223.35	0.51	99.7	Pulse	0.10	3
1	Sc		2,456,640.38	1.47	100.6	Pulse	0.10	3
1	Ge		460,998.72	0.75	99.0	Pulse	0.10	3
1	Ge		635,843.68	1.14	100.4	Pulse	0.10	3
1	Rh		2,974,760.48	0.70	99.8	Pulse	0.10	3
1	In		3,187,115.07	1.58	100.0	Pulse	0.10	3
1	Tb		4,171,811.29	0.97	100.3	Pulse	0.10	3
1	Ho		388,913.20	1.00	100.6	Pulse	0.10	3
1	Bi		2,399,763.82	0.66	100.2	Pulse	0.10	3
2	Sc		75,379.45	0.97	101.3	Pulse	0.30	3
2	Ge		42,499.65	1.49	99.8	Pulse	0.30	3
2	Ge		63,811.99	0.49	100.1	Pulse	0.30	3
2	Rh		1,223,601.86	0.47	99.2	Pulse	0.30	3
2	In		387,851.08	0.95	100.0	Pulse	0.30	3
2	Tb		1,491,590.74	0.25	100.2	Pulse	0.30	3
2	Ho		142,944.29	0.47	99.8	Pulse	0.30	3
2	Bi		1,010,785.00	0.18	99.7	Pulse	0.30	3
3	Sc		76,657.52	0.20	100.6	Pulse	0.30	3
3	Ge		49,510.42	1.05	100.6	Pulse	0.30	3
3	Ge		75,533.68	0.46	101.6	Pulse	0.30	3
3	Rh		925,593.44	0.64	100.4	Pulse	0.30	3
3	Tb		1,423,114.70	0.39	100.1	Pulse	0.30	3

Quantitation Report

File Name	023ICSA.d
File Path	C:\Agilent\ICPMH\1\DATA\xa050119m2.b
Method File	
Method Path	
Acq Time	5/1/2019 14:26
Sample Name	ICSA
Sample Type	ICSA
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/1/2019 13:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.004	ug/l	43.61	33.33	1.912E-05	Pulse	0.25	3
B			1	2.260	ug/l	0.67	15,863.29	9.068E-03	Pulse	0.15	3
Ca			1	97032.814	ug/l	0.59	69,684,062.30	2.839E+01	Analog	0.10	3
Sr			1	1966.373	ug/l	0.22	62,283,712.41	2.318E+01	Analog	0.10	3
Mo			1	1970.143	ug/l	1.13	12,618,818.15	4.697E+00	Analog	0.10	3
Ag			1	0.016	ug/l	31.73	283.35	9.424E-05	Pulse	0.10	3
Sn			1	1752.888	ug/l	1.94	17,827,815.15	5.925E+00	Analog	0.10	3
Sb			1	0.187	ug/l	12.11	2,336.93	5.807E-04	Pulse	0.10	3
Ba			1	0.213	ug/l	9.15	1,026.74	2.554E-04	Pulse	0.10	3
Tl			1	0.005	ug/l	56.90	273.35	1.278E-04	Pulse	0.10	3
Pb			1	0.083	ug/l	4.26	856.73	4.011E-04	Pulse	0.10	3
Pb			1	0.084	ug/l	13.56	763.38	3.577E-04	Pulse	0.10	3
Pb			1	0.082	ug/l	7.26	3,310.27	1.550E-03	Pulse	0.10	3
Na			2	93637.039	ug/l	1.32	66,867,990.68	8.640E+02	Analog	0.30	3
Mg			2	93900.353	ug/l	0.83	30,760,475.44	3.974E+02	Analog	0.30	3
Al			2	94516.816	ug/l	1.23	9,581,612.68	1.238E+02	Analog	0.30	3
K			2	98903.351	ug/l	1.49	19,600,771.44	2.533E+02	Analog	0.30	3
Ca			2	105000.092	ug/l	0.76	1,105,597.56	1.429E+01	Pulse	0.30	3
Ti			2	1694.571	ug/l	0.58	159,480.56	2.061E+00	Pulse	0.30	3
V			2	0.013	ug/l	67.67	123.34	1.594E-03	Pulse	0.30	3
Cr			2	0.291	ug/l	5.98	1,450.08	1.874E-02	Pulse	0.30	3
Mn			2	0.381	ug/l	9.18	767.81	9.918E-03	Pulse	0.30	3
Fe			2	89848.820	ug/l	1.10	268,077,713.79	3.464E+03	Analog	0.30	3
Co			2	0.311	ug/l	6.11	2,075.71	2.682E-02	Pulse	0.30	3
Ni			2	0.608	ug/l	10.11	1,134.50	1.466E-02	Pulse	0.30	3
Cu			2	0.156	ug/l	13.38	1,296.73	1.676E-02	Pulse	0.30	3
Zn			2	0.416	ug/l	17.36	401.12	5.181E-03	Pulse	0.30	3
As			2	0.077	ug/l	48.38	32.67	4.224E-04	Pulse	1.00	3
Cd			2	-0.365	ug/l	-8.29	-291.60	-7.857E-04	Pulse	0.30	3
Sn			2	1806.011	ug/l	0.89	2,998,653.42	8.081E+00	Pulse	0.30	3
Se			3	0.195	ug/l	9.10	13.67	1.879E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,749,429.14	1.66	98.0	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,455,095.64	2.17	100.6	Pulse	0.10	3
1	Ge		478,054.66	2.59	102.6	Pulse	0.10	3
1	Ge		621,127.65	1.13	98.1	Pulse	0.10	3
1	Rh		2,686,841.84	2.38	90.1	Pulse	0.10	3
1	In		3,009,963.43	3.29	94.4	Pulse	0.10	3
1	Tb		4,022,354.11	1.89	96.7	Pulse	0.10	3
1	Ho		377,954.55	2.51	97.8	Pulse	0.10	3
1	Bi		2,135,276.48	1.23	89.1	Pulse	0.10	3
2	Sc		77,397.35	0.49	104.0	Pulse	0.30	3
2	Ge		44,292.16	1.09	104.0	Pulse	0.30	3
2	Ge		63,574.31	0.15	99.8	Pulse	0.30	3
2	Rh		1,114,603.95	0.55	90.4	Pulse	0.30	3
2	In		371,089.67	0.95	95.7	Pulse	0.30	3
2	Tb		1,450,132.30	0.39	97.4	Pulse	0.30	3
2	Ho		139,252.95	1.44	97.2	Pulse	0.30	3
2	Bi		901,113.78	0.28	88.9	Pulse	0.30	3
3	Sc		78,376.32	1.59	102.9	Pulse	0.30	3
3	Ge		49,830.22	1.69	101.2	Pulse	0.30	3
3	Ge		72,761.20	0.59	97.9	Pulse	0.30	3
3	Rh		821,072.95	0.07	89.1	Pulse	0.30	3
3	Tb		1,345,313.18	0.38	94.6	Pulse	0.30	3

Quantitation Report

File Name 024ICSB.d
File Path C:\Agilent\ICPMH\1\DATA\xa050119m2.b
Method File
Method Path
Acq Time 5/1/2019 14:31
Sample Name ICSAB
Sample Type ICSB
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 5/1/2019 13:34
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.000	ug/l	429.53	8.00	4.539E-06	Pulse	0.25	3
B			1	54.721	ug/l	1.70	229,165.47	1.298E-01	Pulse	0.15	3
Ca			1	98394.232	ug/l	0.21	72,797,018.91	2.878E+01	Analog	0.10	3
Sr			1	2209.809	ug/l	1.72	71,391,365.60	2.605E+01	Analog	0.10	3
Mo			1	2033.962	ug/l	0.21	13,291,147.30	4.849E+00	Analog	0.10	3
Ag			1	19.220	ug/l	1.11	296,483.05	9.689E-02	Pulse	0.10	3
Sn			1	1862.672	ug/l	0.75	19,266,363.88	6.296E+00	Analog	0.10	3
Sb			1	0.178	ug/l	7.41	2,266.91	5.546E-04	Pulse	0.10	3
Ba			1	0.292	ug/l	4.85	1,423.45	3.484E-04	Pulse	0.10	3
Tl			1	0.004	ug/l	17.04	260.01	1.213E-04	Pulse	0.10	3
Pb			1	0.080	ug/l	5.29	833.39	3.891E-04	Pulse	0.10	3
Pb			1	0.082	ug/l	30.52	753.38	3.508E-04	Pulse	0.10	3
Pb			1	0.086	ug/l	6.67	3,463.63	1.616E-03	Pulse	0.10	3
Na			2	96785.431	ug/l	2.57	69,883,608.33	8.930E+02	Analog	0.30	3
Mg			2	96552.438	ug/l	1.08	31,983,702.06	4.087E+02	Analog	0.30	3
Al			2	97715.201	ug/l	1.04	10,016,486.82	1.280E+02	Analog	0.30	3
K			2	101485.595	ug/l	1.31	20,337,709.19	2.599E+02	Analog	0.30	3
Ca			2	108866.632	ug/l	0.79	1,159,166.14	1.481E+01	Pulse	0.30	3
Ti			2	1730.013	ug/l	1.05	164,641.92	2.104E+00	Pulse	0.30	3
V			2	20.507	ug/l	1.54	62,794.93	8.024E-01	Pulse	0.30	3
Cr			2	19.354	ug/l	1.86	77,033.24	9.843E-01	Pulse	0.30	3
Mn			2	19.336	ug/l	0.71	35,658.52	4.556E-01	Pulse	0.30	3
Fe			2	92517.390	ug/l	0.96	279,138,246.69	3.567E+03	Analog	0.30	3
Co			2	18.769	ug/l	1.05	123,986.86	1.584E+00	Pulse	0.30	3
Ni			2	18.204	ug/l	1.91	33,342.69	4.261E-01	Pulse	0.30	3
Cu			2	17.158	ug/l	1.24	87,439.60	1.117E+00	Pulse	0.30	3
Zn			2	16.229	ug/l	3.96	10,126.57	1.294E-01	Pulse	0.30	3
As			2	18.189	ug/l	2.13	6,326.91	8.085E-02	Pulse	1.00	3
Cd			2	17.561	ug/l	2.61	13,958.70	3.798E-02	Pulse	0.30	3
Sn			2	1927.474	ug/l	0.68	3,170,365.22	8.625E+00	Pulse	0.30	3
Se			3	18.852	ug/l	2.87	1,103.17	1.491E-02	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,765,335.42	0.24	98.9	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,529,070.49	1.38	103.6	Pulse	0.10	3
1	Ge		492,001.10	1.24	105.6	Pulse	0.10	3
1	Ge		640,855.29	1.31	101.2	Pulse	0.10	3
1	Rh		2,740,956.63	1.80	92.0	Pulse	0.10	3
1	In		3,059,962.59	0.96	96.0	Pulse	0.10	3
1	Tb		4,084,418.59	2.02	98.2	Pulse	0.10	3
1	Ho		381,740.33	1.37	98.7	Pulse	0.10	3
1	Bi		2,142,636.17	1.36	89.5	Pulse	0.10	3
2	Sc		78,267.75	1.02	105.2	Pulse	0.30	3
2	Ge		44,560.58	0.27	104.6	Pulse	0.30	3
2	Ge		63,835.34	0.11	100.2	Pulse	0.30	3
2	Rh		1,120,158.08	0.81	90.8	Pulse	0.30	3
2	In		367,615.32	1.22	94.8	Pulse	0.30	3
2	Tb		1,438,332.72	0.96	96.6	Pulse	0.30	3
2	Ho		137,992.45	0.64	96.3	Pulse	0.30	3
2	Bi		895,868.99	0.48	88.4	Pulse	0.30	3
3	Sc		79,523.87	0.45	104.4	Pulse	0.30	3
3	Ge		50,764.23	0.79	103.1	Pulse	0.30	3
3	Ge		74,015.88	1.35	99.6	Pulse	0.30	3
3	Rh		832,174.55	0.39	90.3	Pulse	0.30	3
3	Tb		1,349,298.31	0.72	94.9	Pulse	0.30	3

Quantitation Report

File Name	025SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa050119m2.b
Method File	
Method Path	
Acq Time	5/1/2019 14:36
Sample Name	rinseconf
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/1/2019 13:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.007	ug/l	48.21	49.33	2.725E-05	Pulse	0.25	3
B			1	1.211	ug/l	4.49	12,055.62	6.653E-03	Pulse	0.15	3
Ca			1	15.337	ug/l	9.19	26,328.41	1.037E-02	Pulse	0.10	3
Sr			1	0.286	ug/l	9.30	10,807.31	3.460E-03	Pulse	0.10	3
Mo			1	1.001	ug/l	7.39	7,475.39	2.391E-03	Pulse	0.10	3
Ag			1	0.008	ug/l	19.88	190.01	5.659E-05	Pulse	0.10	3
Sn			1	0.907	ug/l	7.13	7,088.53	2.111E-03	Pulse	0.10	3
Sb			1	0.022	ug/l	15.73	470.03	1.079E-04	Pulse	0.10	3
Ba			1	0.015	ug/l	50.66	96.67	2.217E-05	Pulse	0.10	3
Tl			1	0.000	ug/l	1129.40	183.35	7.428E-05	Pulse	0.10	3
Pb			1	0.001	ug/l	583.41	180.01	7.281E-05	Pulse	0.10	3
Pb			1	0.003	ug/l	188.02	183.35	7.408E-05	Pulse	0.10	3
Pb			1	0.004	ug/l	29.50	760.04	3.074E-04	Pulse	0.10	3
Na			2	12.617	ug/l	13.92	14,705.42	1.942E-01	Pulse	0.30	3
Mg			2	8.480	ug/l	7.36	2,768.04	3.655E-02	Pulse	0.30	3
Al			2	8.716	ug/l	16.25	973.38	1.285E-02	Pulse	0.30	3
K			2	9.213	ug/l	21.03	8,490.01	1.121E-01	Pulse	0.30	3
Ca			2	13.063	ug/l	28.35	172.23	2.273E-03	Pulse	0.30	3
Ti			2	0.760	ug/l	20.99	70.00	9.245E-04	Pulse	0.30	3
V			2	0.017	ug/l	78.42	132.22	1.745E-03	Pulse	0.30	3
Cr			2	-0.003	ug/l	-97.77	291.12	3.843E-03	Pulse	0.30	3
Mn			2	-0.006	ug/l	-181.89	63.33	8.362E-04	Pulse	0.30	3
Fe			2	11.593	ug/l	11.14	35,311.37	4.663E-01	Pulse	0.30	3
Co			2	0.003	ug/l	33.61	67.78	8.950E-04	Pulse	0.30	3
Ni			2	0.003	ug/l	120.14	38.89	5.135E-04	Pulse	0.30	3
Cu			2	0.076	ug/l	13.95	877.82	1.159E-02	Pulse	0.30	3
Zn			2	0.070	ug/l	83.69	186.67	2.465E-03	Pulse	0.30	3
As			2	0.062	ug/l	48.26	27.00	3.567E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	0.016	ug/l	27.44	15.17	3.835E-05	Pulse	0.30	3
Sn			2	0.457	ug/l	16.34	1,053.38	2.662E-03	Pulse	0.30	3
Se			3	0.092	ug/l	28.33	8.53	1.063E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,812,002.20	0.73	101.5	Pulse	0.10	3
1	Sc		2,540,303.30	0.65	104.1	Pulse	0.10	3
1	Ge		482,487.94	0.78	103.6	Pulse	0.10	3
1	Ge		668,782.20	0.78	105.6	Pulse	0.10	3
1	Rh		3,125,811.41	1.38	104.9	Pulse	0.10	3
1	In		3,359,176.10	0.48	105.4	Pulse	0.10	3
1	Tb		4,354,115.77	0.74	104.7	Pulse	0.10	3
1	Ho		404,093.73	1.71	104.5	Pulse	0.10	3
1	Bi		2,472,125.02	0.93	103.2	Pulse	0.10	3
2	Sc		75,745.35	0.27	101.8	Pulse	0.30	3
2	Ge		44,115.04	1.52	103.6	Pulse	0.30	3
2	Ge		66,706.68	0.67	104.7	Pulse	0.30	3
2	Rh		1,270,839.95	0.45	103.0	Pulse	0.30	3
2	In		395,726.47	0.38	102.0	Pulse	0.30	3
2	Tb		1,488,428.03	0.42	100.0	Pulse	0.30	3
2	Ho		143,943.98	0.48	100.5	Pulse	0.30	3
2	Bi		1,014,945.72	0.98	100.1	Pulse	0.30	3
3	Sc		80,158.23	0.50	105.2	Pulse	0.30	3
3	Ge		52,809.54	2.02	107.3	Pulse	0.30	3
3	Ge		80,282.94	0.41	108.0	Pulse	0.30	3
3	Rh		965,467.29	0.49	104.8	Pulse	0.30	3
3	Tb		1,468,199.77	0.36	103.2	Pulse	0.30	3

Quantitation Report

File Name	026_CCV.d
File Path	C:\Agilent\ICPMH\1\DATA\xa050119m2.b
Method File	
Method Path	
Acq Time	5/1/2019 14:42
Sample Name	CCVA
Sample Type	CCV
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/1/2019 13:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	49.524	ug/l	1.04	316,585.86	1.773E-01	Pulse	0.25	3
B			1	103.848	ug/l	1.41	433,628.75	2.429E-01	Pulse	0.15	3
Ca			1	5166.426	ug/l	0.62	3,847,244.95	1.517E+00	Pulse	0.10	3
Sr			1	51.215	ug/l	0.29	1,858,280.50	6.039E-01	Pulse	0.10	3
Mo			1	49.047	ug/l	0.30	359,863.18	1.169E-01	Pulse	0.10	3
Ag			1	48.958	ug/l	0.34	823,069.16	2.468E-01	Pulse	0.10	3
Sn			1	48.353	ug/l	0.14	542,060.88	1.625E-01	Pulse	0.10	3
Sb			1	51.249	ug/l	0.06	640,846.92	1.473E-01	Pulse	0.10	3
Ba			1	50.264	ug/l	0.54	258,188.98	5.933E-02	Pulse	0.10	3
Tl			1	50.063	ug/l	0.17	1,420,438.47	5.780E-01	Pulse	0.10	3
Pb			1	49.510	ug/l	1.10	483,452.58	1.967E-01	Pulse	0.10	3
Pb			1	50.082	ug/l	0.81	428,894.37	1.745E-01	Pulse	0.10	3
Pb			1	49.962	ug/l	0.35	1,953,337.04	7.948E-01	Pulse	0.10	3
Na			2	4992.201	ug/l	0.54	3,515,314.72	4.614E+01	Pulse	0.30	3
Mg			2	5068.212	ug/l	0.58	1,634,539.69	2.145E+01	Pulse	0.30	3
Al			2	4877.195	ug/l	1.49	486,813.57	6.389E+00	Pulse	0.30	3
K			2	5053.118	ug/l	1.65	992,260.31	1.302E+01	Pulse	0.30	3
Ca			2	5315.766	ug/l	0.79	55,138.56	7.237E-01	Pulse	0.30	3
Ti			2	46.131	ug/l	0.87	4,273.94	5.609E-02	Pulse	0.30	3
V			2	50.502	ug/l	1.02	150,437.74	1.974E+00	Pulse	0.30	3
Cr			2	49.643	ug/l	0.65	191,900.59	2.519E+00	Pulse	0.30	3
Mn			2	48.784	ug/l	1.19	87,464.97	1.148E+00	Pulse	0.30	3
Fe			2	5082.733	ug/l	1.57	14,930,456.07	1.960E+02	Analog	0.30	3
Co			2	50.041	ug/l	1.11	321,759.73	4.223E+00	Pulse	0.30	3
Ni			2	48.880	ug/l	0.54	87,111.65	1.143E+00	Pulse	0.30	3
Cu			2	48.646	ug/l	0.76	240,423.36	3.155E+00	Pulse	0.30	3
Zn			2	49.304	ug/l	0.73	29,661.32	3.893E-01	Pulse	0.30	3
As			2	49.138	ug/l	1.01	16,631.14	2.183E-01	Pulse	1.00	3
Cd			2	49.219	ug/l	0.92	41,285.76	1.064E-01	Pulse	0.30	3
Sn			2	49.477	ug/l	0.38	86,101.98	2.220E-01	Pulse	0.30	3
Se			3	193.646	ug/l	0.50	12,211.27	1.528E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,785,357.76	0.76	100.0	Pulse	0.10	3
1	Sc		2,536,242.98	0.84	103.9	Pulse	0.10	3
1	Ge		480,437.18	0.84	103.1	Pulse	0.10	3

Quantitation Report

1	Ge		667,322.44	1.09	105.4	Pulse	0.10	3
1	Rh		3,077,410.16	1.39	103.2	Pulse	0.10	3
1	In		3,335,305.64	1.06	104.6	Pulse	0.10	3
1	Tb		4,352,091.40	1.64	104.6	Pulse	0.10	3
1	Ho		409,327.75	1.08	105.9	Pulse	0.10	3
1	Bi		2,457,593.19	1.50	102.6	Pulse	0.10	3
2	Sc		76,196.33	0.82	102.4	Pulse	0.30	3
2	Ge		43,703.91	1.01	102.6	Pulse	0.30	3
2	Ge		65,406.11	0.63	102.6	Pulse	0.30	3
2	Rh		1,234,034.08	0.44	100.0	Pulse	0.30	3
2	In		387,873.37	0.24	100.0	Pulse	0.30	3
2	Tb		1,493,052.58	0.41	100.3	Pulse	0.30	3
2	Ho		144,290.41	0.28	100.7	Pulse	0.30	3
2	Bi		999,773.05	0.48	98.6	Pulse	0.30	3
3	Sc		82,381.90	0.64	108.1	Pulse	0.30	3
3	Ge		52,578.72	0.96	106.8	Pulse	0.30	3
3	Ge		79,904.56	0.57	107.5	Pulse	0.30	3
3	Rh		949,819.37	0.60	103.1	Pulse	0.30	3
3	Tb		1,484,396.19	0.46	104.4	Pulse	0.30	3

Quantitation Report

File Name	027_CCB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa050119m2.b
Method File	
Method Path	
Acq Time	5/1/2019 14:47
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/1/2019 13:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.004	ug/l	72.34	33.33	1.835E-05	Pulse	0.25	3
B			1	3.267	ug/l	5.25	20,643.96	1.139E-02	Pulse	0.15	3
Ca			1	1.571	ug/l	39.75	16,128.38	6.340E-03	Pulse	0.10	3
Sr			1	0.029	ug/l	3.91	1,350.10	4.305E-04	Pulse	0.10	3
Mo			1	0.156	ug/l	4.87	1,180.09	3.760E-04	Pulse	0.10	3
Ag			1	0.012	ug/l	25.12	250.01	7.385E-05	Pulse	0.10	3
Sn			1	0.611	ug/l	4.39	3,767.28	1.110E-03	Pulse	0.10	3
Sb			1	0.159	ug/l	18.28	2,190.23	5.008E-04	Pulse	0.10	3
Ba			1	0.008	ug/l	81.98	56.67	1.297E-05	Pulse	0.10	3
Tl			1	0.016	ug/l	12.99	633.37	2.526E-04	Pulse	0.10	3
Pb			1	0.012	ug/l	0.40	300.01	1.196E-04	Pulse	0.10	3
Pb			1	0.009	ug/l	14.46	243.34	9.704E-05	Pulse	0.10	3
Pb			1	0.017	ug/l	24.78	1,290.07	5.144E-04	Pulse	0.10	3
Na			2	3.781	ug/l	7.74	8,545.56	1.126E-01	Pulse	0.30	3
Mg			2	1.302	ug/l	16.80	467.79	6.168E-03	Pulse	0.30	3
Al			2	0.479	ug/l	16.98	156.67	2.065E-03	Pulse	0.30	3
K			2	2.744	ug/l	54.34	7,249.44	9.554E-02	Pulse	0.30	3
Ca			2	0.775	ug/l	200.02	45.55	6.012E-04	Pulse	0.30	3
Ti			2	0.048	ug/l	114.04	4.44	5.816E-05	Pulse	0.30	3
V			2	-0.001	ug/l	-770.18	81.11	1.069E-03	Pulse	0.30	3
Cr			2	0.006	ug/l	21.44	327.79	4.320E-03	Pulse	0.30	3
Mn			2	-0.002	ug/l	-946.66	70.00	9.248E-04	Pulse	0.30	3
Fe			2	1.791	ug/l	4.80	6,703.69	8.837E-02	Pulse	0.30	3
Co			2	0.002	ug/l	37.77	56.67	7.472E-04	Pulse	0.30	3
Ni			2	-0.002	ug/l	-191.74	30.00	3.958E-04	Pulse	0.30	3
Cu			2	0.038	ug/l	32.07	691.13	9.113E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	0.038	ug/l	13.78	167.78	2.212E-03	Pulse	0.30	3
As			2	0.007	ug/l	124.57	8.67	1.144E-04	Pulse	1.00	3
Cd			2	0.013	ug/l	34.83	12.15	3.092E-05	Pulse	0.30	3
Sn			2	0.245	ug/l	10.16	673.36	1.714E-03	Pulse	0.30	3
Se			3	0.066	ug/l	4.27	6.93	8.596E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,813,687.88	1.16	101.6	Pulse	0.10	3
1	Sc		2,543,369.91	1.42	104.2	Pulse	0.10	3
1	Ge		484,903.52	1.79	104.1	Pulse	0.10	3
1	Ge		672,547.49	1.56	106.2	Pulse	0.10	3
1	Rh		3,136,737.98	1.64	105.2	Pulse	0.10	3
1	In		3,391,402.26	1.36	106.4	Pulse	0.10	3
1	Tb		4,370,235.77	0.64	105.1	Pulse	0.10	3
1	Ho		409,746.62	1.17	106.0	Pulse	0.10	3
1	Bi		2,507,674.81	0.17	104.7	Pulse	0.10	3
2	Sc		75,869.27	0.95	102.0	Pulse	0.30	3
2	Ge		44,110.54	0.72	103.6	Pulse	0.30	3
2	Ge		66,706.69	0.38	104.7	Pulse	0.30	3
2	Rh		1,270,461.10	0.59	103.0	Pulse	0.30	3
2	In		393,002.44	0.69	101.3	Pulse	0.30	3
2	Tb		1,498,122.47	0.07	100.6	Pulse	0.30	3
2	Ho		145,507.98	1.48	101.5	Pulse	0.30	3
2	Bi		1,021,774.27	0.33	100.8	Pulse	0.30	3
3	Sc		82,652.23	0.96	108.5	Pulse	0.30	3
3	Ge		53,170.70	0.87	108.0	Pulse	0.30	3
3	Ge		80,673.47	1.07	108.5	Pulse	0.30	3
3	Rh		977,743.54	0.92	106.1	Pulse	0.30	3
3	Tb		1,490,002.02	0.75	104.8	Pulse	0.30	3

Quantitation Report

File Name	028SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa050119m2.b
Method File	
Method Path	
Acq Time	5/1/2019 14:52
Sample Name	mp14627-mb1conf
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/1/2019 13:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.002	ug/l	76.93	17.33	9.368E-06	Pulse	0.25	3
B			1	2.228	ug/l	4.22	16,679.71	8.994E-03	Pulse	0.15	3
Ca			1	14.961	ug/l	3.97	26,665.46	1.026E-02	Pulse	0.10	3
Sr			1	0.038	ug/l	12.85	1,706.82	5.385E-04	Pulse	0.10	3
Mo			1	0.096	ug/l	9.78	740.05	2.331E-04	Pulse	0.10	3
Ag			1	0.002	ug/l	105.08	86.67	2.518E-05	Pulse	0.10	3
Sn			1	0.461	ug/l	5.29	2,076.88	6.041E-04	Pulse	0.10	3
Sb			1	0.104	ug/l	8.97	1,523.46	3.437E-04	Pulse	0.10	3
Ba			1	0.039	ug/l	40.95	220.01	4.956E-05	Pulse	0.10	3
Tl			1	0.005	ug/l	56.87	320.02	1.255E-04	Pulse	0.10	3
Pb			1	0.023	ug/l	14.67	413.35	1.619E-04	Pulse	0.10	3
Pb			1	0.022	ug/l	53.08	356.68	1.396E-04	Pulse	0.10	3
Pb			1	0.020	ug/l	21.23	1,453.41	5.692E-04	Pulse	0.10	3
Na			2	10.213	ug/l	3.40	13,455.47	1.720E-01	Pulse	0.30	3
Mg			2	1.848	ug/l	14.42	663.36	8.476E-03	Pulse	0.30	3
Al			2	1.657	ug/l	3.78	282.23	3.607E-03	Pulse	0.30	3
K			2	0.928	ug/l	27.79	7,110.49	9.089E-02	Pulse	0.30	3
Ca			2	13.157	ug/l	19.79	178.89	2.286E-03	Pulse	0.30	3
Ti			2	0.222	ug/l	50.67	21.11	2.698E-04	Pulse	0.30	3
V			2	0.013	ug/l	19.95	125.56	1.605E-03	Pulse	0.30	3
Cr			2	0.123	ug/l	9.06	802.25	1.025E-02	Pulse	0.30	3
Mn			2	0.084	ug/l	11.95	231.12	2.954E-03	Pulse	0.30	3
Fe			2	4.004	ug/l	2.18	13,587.93	1.737E-01	Pulse	0.30	3
Co			2	0.004	ug/l	19.47	74.44	9.516E-04	Pulse	0.30	3
Ni			2	0.033	ug/l	22.24	94.45	1.207E-03	Pulse	0.30	3
Cu			2	0.098	ug/l	10.77	1,015.60	1.298E-02	Pulse	0.30	3
Zn			2	2.589	ug/l	4.27	1,741.22	2.225E-02	Pulse	0.30	3
As			2	0.035	ug/l	39.02	18.67	2.387E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	0.011	ug/l	70.23	11.06	2.744E-05	Pulse	0.30	3
Sn			2	0.079	ug/l	49.33	392.23	9.715E-04	Pulse	0.30	3
Se			3	0.041	ug/l	27.54	5.47	6.611E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,854,867.71	1.29	103.9	Pulse	0.10	3
1	Sc		2,599,950.07	0.82	106.5	Pulse	0.10	3
1	Ge		498,522.94	0.53	107.0	Pulse	0.10	3
1	Ge		683,570.61	0.43	107.9	Pulse	0.10	3
1	Rh		3,172,719.64	1.32	106.4	Pulse	0.10	3
1	In		3,431,533.79	2.05	107.7	Pulse	0.10	3
1	Tb		4,429,506.50	1.74	106.5	Pulse	0.10	3
1	Ho		414,780.11	2.15	107.3	Pulse	0.10	3
1	Bi		2,552,255.90	0.72	106.6	Pulse	0.10	3
2	Sc		78,235.57	0.38	105.2	Pulse	0.30	3
2	Ge		45,238.12	0.53	106.2	Pulse	0.30	3
2	Ge		67,522.22	0.96	106.0	Pulse	0.30	3
2	Rh		1,307,771.37	0.44	106.0	Pulse	0.30	3
2	In		403,723.24	0.37	104.1	Pulse	0.30	3
2	Tb		1,524,957.47	0.64	102.4	Pulse	0.30	3
2	Ho		146,461.59	0.50	102.2	Pulse	0.30	3
2	Bi		1,044,417.63	0.61	103.1	Pulse	0.30	3
3	Sc		83,155.88	0.28	109.2	Pulse	0.30	3
3	Ge		54,547.42	0.41	110.8	Pulse	0.30	3
3	Ge		82,651.07	0.71	111.2	Pulse	0.30	3
3	Rh		996,482.56	0.69	108.1	Pulse	0.30	3
3	Tb		1,504,319.18	0.28	105.8	Pulse	0.30	3

Quantitation Report

File Name	029SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa050119m2.b
Method File	
Method Path	
Acq Time	5/1/2019 14:57
Sample Name	mp14627-b1conf
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/1/2019 13:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	77.477	ug/l	0.90	513,202.52	2.774E-01	Pulse	0.25	3
B			1	80.880	ug/l	1.47	351,515.83	1.900E-01	Pulse	0.15	3
Ca			1	2095.107	ug/l	0.56	1,618,874.56	6.187E-01	Pulse	0.10	3
Sr			1	79.561	ug/l	0.35	2,959,630.58	9.380E-01	Pulse	0.10	3
Mo			1	73.600	ug/l	0.48	553,673.17	1.755E-01	Pulse	0.10	3
Ag			1	77.267	ug/l	0.47	1,326,987.69	3.895E-01	Pulse	0.10	3
Sn			1	71.744	ug/l	0.85	823,222.98	2.416E-01	Pulse	0.10	3
Sb			1	79.034	ug/l	0.17	1,002,780.06	2.271E-01	Pulse	0.10	3
Ba			1	79.156	ug/l	0.08	412,598.12	9.342E-02	Pulse	0.10	3
Tl			1	77.762	ug/l	0.77	2,245,303.71	8.977E-01	Pulse	0.10	3
Pb			1	77.613	ug/l	0.78	771,122.52	3.083E-01	Pulse	0.10	3
Pb			1	77.466	ug/l	1.18	675,097.72	2.699E-01	Pulse	0.10	3
Pb			1	77.785	ug/l	0.61	3,094,591.57	1.237E+00	Pulse	0.10	3
Na			2	2007.474	ug/l	0.77	1,475,779.07	1.860E+01	Pulse	0.30	3
Mg			2	1996.558	ug/l	0.93	670,585.06	8.451E+00	Pulse	0.30	3
Al			2	1939.197	ug/l	1.07	201,647.46	2.541E+00	Pulse	0.30	3
K			2	2016.453	ug/l	0.59	416,593.40	5.250E+00	Pulse	0.30	3
Ca			2	2404.892	ug/l	0.97	25,999.23	3.277E-01	Pulse	0.30	3
Ti			2	70.506	ug/l	1.81	6,802.58	8.573E-02	Pulse	0.30	3
V			2	78.977	ug/l	0.82	244,942.79	3.087E+00	Pulse	0.30	3
Cr			2	77.802	ug/l	0.72	313,020.54	3.945E+00	Pulse	0.30	3
Mn			2	75.565	ug/l	0.80	141,051.91	1.778E+00	Pulse	0.30	3
Fe			2	2046.933	ug/l	1.56	6,262,850.58	7.893E+01	Analog	0.30	3
Co			2	78.194	ug/l	1.24	523,550.90	6.598E+00	Pulse	0.30	3
Ni			2	76.929	ug/l	1.28	142,753.63	1.799E+00	Pulse	0.30	3
Cu			2	76.070	ug/l	1.49	391,219.53	4.931E+00	Pulse	0.30	3
Zn			2	77.873	ug/l	0.77	48,700.86	6.137E-01	Pulse	0.30	3
As			2	74.334	ug/l	0.21	26,197.95	3.302E-01	Pulse	1.00	3
Cd			2	77.606	ug/l	0.65	66,853.23	1.678E-01	Pulse	0.30	3
Sn			2	73.432	ug/l	1.31	131,117.68	3.292E-01	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	193.187	ug/l	0.50	12,578.09	1.525E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,850,101.45	1.44	103.7	Pulse	0.10	3
1	Sc		2,616,746.52	0.65	107.2	Pulse	0.10	3
1	Ge		503,149.07	1.34	108.0	Pulse	0.10	3
1	Ge		689,961.14	1.33	108.9	Pulse	0.10	3
1	Rh		3,155,204.22	0.96	105.9	Pulse	0.10	3
1	In		3,407,403.62	1.14	106.9	Pulse	0.10	3
1	Tb		4,416,405.45	0.75	106.2	Pulse	0.10	3
1	Ho		411,407.59	0.98	106.4	Pulse	0.10	3
1	Bi		2,501,130.07	0.23	104.4	Pulse	0.10	3
2	Sc		79,348.77	0.32	106.7	Pulse	0.30	3
2	Ge		45,236.90	0.71	106.2	Pulse	0.30	3
2	Ge		68,596.66	0.88	107.7	Pulse	0.30	3
2	Rh		1,278,549.12	0.60	103.6	Pulse	0.30	3
2	In		398,345.17	0.55	102.7	Pulse	0.30	3
2	Tb		1,508,927.82	0.52	101.4	Pulse	0.30	3
2	Ho		147,190.92	0.97	102.7	Pulse	0.30	3
2	Bi		1,025,418.47	0.10	101.2	Pulse	0.30	3
3	Sc		85,231.88	0.28	111.9	Pulse	0.30	3
3	Ge		54,012.22	1.25	109.7	Pulse	0.30	3
3	Ge		82,499.42	0.49	111.0	Pulse	0.30	3
3	Rh		981,411.00	0.48	106.5	Pulse	0.30	3
3	Tb		1,504,180.63	0.29	105.8	Pulse	0.30	3

Quantitation Report

File Name	030SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa050119m2.b
Method File	
Method Path	
Acq Time	5/1/2019 15:02
Sample Name	jc87047-2 1
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/1/2019 13:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.046	ug/l	13.73	158.67	8.617E-05	Pulse	0.25	3
B			1	169.908	ug/l	0.61	366,918.76	1.994E-01	Pulse	0.15	3
Ca			1	42642.835	ug/l	0.95	16,502,394.75	6.242E+00	Analog	0.10	3
Sr			1	209.839	ug/l	1.00	3,852,134.73	1.237E+00	Pulse	0.10	3
Mo			1	1.085	ug/l	3.86	4,040.65	1.297E-03	Pulse	0.10	3
Ag			1	0.051	ug/l	12.03	496.69	1.455E-04	Pulse	0.10	3
Sn			1	1.761	ug/l	1.34	6,911.77	2.023E-03	Pulse	0.10	3
Sb			1	0.454	ug/l	0.62	3,120.42	6.969E-04	Pulse	0.10	3
Ba			1	125.561	ug/l	0.88	331,748.39	7.410E-02	Pulse	0.10	3
Tl			1	0.126	ug/l	2.02	1,973.54	7.991E-04	Pulse	0.10	3
Pb			1	11.210	ug/l	0.87	55,150.35	2.233E-02	Pulse	0.10	3
Pb			1	10.559	ug/l	1.10	45,578.01	1.846E-02	Pulse	0.10	3
Pb			1	10.877	ug/l	1.01	214,223.21	8.674E-02	Pulse	0.10	3
Na			2	24646.702	ug/l	0.84	9,085,267.14	1.138E+02	Analog	0.30	3
Mg			2	14995.606	ug/l	0.54	2,534,134.34	3.174E+01	Pulse	0.30	3
Al			2	130.609	ug/l	1.17	6,944.85	8.697E-02	Pulse	0.30	3
K			2	1236.989	ug/l	0.39	133,490.72	1.672E+00	Pulse	0.30	3
Ca			2	43376.485	ug/l	1.34	235,635.93	2.951E+00	Pulse	0.30	3
Ti			2	3.798	ug/l	12.69	184.45	2.309E-03	Pulse	0.30	3
V			2	0.748	ug/l	2.78	1,253.40	1.570E-02	Pulse	0.30	3
Cr			2	0.438	ug/l	4.37	1,206.73	1.511E-02	Pulse	0.30	3
Mn			2	3857.073	ug/l	0.32	3,620,905.13	4.534E+01	Pulse	0.30	3
Fe			2	15029.979	ug/l	0.59	23,135,813.52	2.897E+02	Analog	0.30	3
Co			2	2.500	ug/l	1.20	8,472.26	1.061E-01	Pulse	0.30	3
Ni			2	1.604	ug/l	1.77	1,532.31	1.919E-02	Pulse	0.30	3
Cu			2	0.999	ug/l	2.82	3,113.67	3.899E-02	Pulse	0.30	3
Zn			2	7.201	ug/l	1.61	2,411.31	3.020E-02	Pulse	0.30	3
As			2	11.882	ug/l	1.14	2,113.14	2.646E-02	Pulse	1.00	3
Cd			2	0.074	ug/l	58.28	33.11	8.242E-05	Pulse	0.30	3
Sn			2	1.039	ug/l	3.79	1,182.28	2.940E-03	Pulse	0.30	3
Se			3	0.406	ug/l	28.30	16.20	1.939E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,840,137.40	1.02	103.1	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,643,767.15	1.38	108.3	Pulse	0.10	3
1	Ge		501,712.10	1.37	107.7	Pulse	0.10	3
1	Ge		690,660.49	1.48	109.1	Pulse	0.10	3
1	Rh		3,114,269.02	1.09	104.5	Pulse	0.10	3
1	In		3,415,718.53	0.74	107.2	Pulse	0.10	3
1	Tb		4,477,284.62	0.92	107.6	Pulse	0.10	3
1	Ho		418,849.71	0.86	108.3	Pulse	0.10	3
1	Bi		2,469,726.26	0.76	103.1	Pulse	0.10	3
2	Sc		79,852.35	0.53	107.3	Pulse	0.30	3
2	Ge		46,247.59	1.76	108.6	Pulse	0.30	3
2	Ge		69,554.13	0.59	109.2	Pulse	0.30	3
2	Rh		1,278,189.53	0.07	103.6	Pulse	0.30	3
2	In		402,119.25	0.35	103.7	Pulse	0.30	3
2	Tb		1,532,467.75	0.39	102.9	Pulse	0.30	3
2	Ho		148,563.91	0.45	103.7	Pulse	0.30	3
2	Bi		1,012,475.24	0.30	99.9	Pulse	0.30	3
3	Sc		84,806.33	1.25	111.3	Pulse	0.30	3
3	Ge		55,197.34	0.65	112.1	Pulse	0.30	3
3	Ge		83,605.91	1.74	112.5	Pulse	0.30	3
3	Rh		971,082.98	0.94	105.4	Pulse	0.30	3
3	Tb		1,507,307.65	0.37	106.0	Pulse	0.30	3

Quantitation Report

File Name	031SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa050119m2.b
Method File	
Method Path	
Acq Time	5/1/2019 15:07
Sample Name	jc87047-4
Sample Type	Sample
Comment	
Prep Dilution	5.000
Auto Dilution	N/A
Total Dilution	5.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/1/2019 13:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.157	ug/l	17.59	220.00	1.160E-04	Pulse	0.25	3
B			1	28.776	ug/l	1.70	32,440.12	1.711E-02	Pulse	0.15	3
Ca			1	3571.165	ug/l	0.16	577,461.45	2.148E-01	Pulse	0.10	3
Sr			1	19.990	ug/l	1.82	154,479.62	4.722E-02	Pulse	0.10	3
Mo			1	1.084	ug/l	9.67	1,703.50	5.210E-04	Pulse	0.10	3
Ag			1	0.016	ug/l	51.73	113.33	3.211E-05	Pulse	0.10	3
Sn			1	2.629	ug/l	11.45	2,905.07	8.234E-04	Pulse	0.10	3
Sb			1	0.210	ug/l	22.58	743.38	1.650E-04	Pulse	0.10	3
Ba			1	121.298	ug/l	1.95	128,832.18	2.864E-02	Pulse	0.10	3
Tl			1	0.130	ug/l	9.24	970.07	3.735E-04	Pulse	0.10	3
Pb			1	0.849	ug/l	10.91	1,933.54	7.447E-04	Pulse	0.10	3
Pb			1	0.775	ug/l	10.30	1,570.15	6.038E-04	Pulse	0.10	3
Pb			1	0.842	ug/l	2.38	7,611.09	2.928E-03	Pulse	0.10	3
Na			2	2037.113	ug/l	1.17	312,637.68	3.837E+00	Pulse	0.30	3
Mg			2	556.494	ug/l	0.68	38,442.53	4.717E-01	Pulse	0.30	3
Al			2	310.183	ug/l	2.82	6,738.08	8.269E-02	Pulse	0.30	3
K			2	380.321	ug/l	4.43	23,074.92	2.832E-01	Pulse	0.30	3
Ca			2	3572.204	ug/l	3.93	7,958.66	9.769E-02	Pulse	0.30	3
Ti			2	7.637	ug/l	19.17	151.11	1.857E-03	Pulse	0.30	3
V			2	8.588	ug/l	3.83	5,556.57	6.820E-02	Pulse	0.30	3
Cr			2	0.700	ug/l	3.41	904.48	1.110E-02	Pulse	0.30	3
Mn			2	523.375	ug/l	0.40	200,638.53	2.462E+00	Pulse	0.30	3
Fe			2	33821.639	ug/l	0.31	21,253,416.38	2.608E+02	Analog	0.30	3
Co			2	5.300	ug/l	4.97	7,336.14	9.006E-02	Pulse	0.30	3
Ni			2	1.360	ug/l	10.42	553.35	6.796E-03	Pulse	0.30	3
Cu			2	5.805	ug/l	3.01	6,664.75	8.180E-02	Pulse	0.30	3
Zn			2	28.166	ug/l	3.28	3,761.59	4.617E-02	Pulse	0.30	3
As			2	26.637	ug/l	2.60	1,934.12	2.374E-02	Pulse	1.00	3
Cd			2	0.123	ug/l	30.20	23.24	5.614E-05	Pulse	0.30	3
Sn			2	0.412	ug/l	13.26	407.79	9.847E-04	Pulse	0.30	3
Se			3	1.983	ug/l	7.04	29.20	3.468E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,895,729.84	0.54	106.2	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,688,673.50	1.28	110.2	Pulse	0.10	3
1	Ge		515,526.20	1.44	110.7	Pulse	0.10	3
1	Ge		709,608.01	0.20	112.0	Pulse	0.10	3
1	Rh		3,271,486.83	0.95	109.8	Pulse	0.10	3
1	In		3,536,215.93	1.36	110.9	Pulse	0.10	3
1	Tb		4,499,769.31	1.40	108.2	Pulse	0.10	3
1	Ho		424,618.51	1.56	109.8	Pulse	0.10	3
1	Bi		2,598,530.54	1.35	108.5	Pulse	0.10	3
2	Sc		81,494.44	1.31	109.6	Pulse	0.30	3
2	Ge		47,305.00	0.84	111.1	Pulse	0.30	3
2	Ge		71,266.97	1.73	111.8	Pulse	0.30	3
2	Rh		1,328,304.36	0.13	107.7	Pulse	0.30	3
2	In		414,072.74	0.42	106.8	Pulse	0.30	3
2	Tb		1,541,303.93	0.63	103.5	Pulse	0.30	3
2	Ho		150,675.86	0.61	105.2	Pulse	0.30	3
2	Bi		1,078,822.53	1.08	106.4	Pulse	0.30	3
3	Sc		85,651.67	1.80	112.4	Pulse	0.30	3
3	Ge		55,537.40	0.47	112.8	Pulse	0.30	3
3	Ge		84,168.99	0.83	113.2	Pulse	0.30	3
3	Rh		1,007,181.45	0.36	109.3	Pulse	0.30	3
3	Tb		1,524,554.56	0.06	107.2	Pulse	0.30	3

Quantitation Report

File Name	032SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa050119m2.b
Method File	
Method Path	
Acq Time	5/1/2019 15:12
Sample Name	mp14645-mb1 4
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/1/2019 13:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.012	ug/l	28.97	48.00	2.533E-05	Pulse	0.25	3
B			1	7.779	ug/l	1.04	24,282.11	1.282E-02	Pulse	0.15	3
Ca			1	84.477	ug/l	1.17	47,445.22	1.823E-02	Pulse	0.10	3
Sr			1	0.144	ug/l	9.28	2,990.39	9.406E-04	Pulse	0.10	3
Mo			1	0.172	ug/l	11.83	663.37	2.087E-04	Pulse	0.10	3
Ag			1	0.017	ug/l	17.74	200.01	5.876E-05	Pulse	0.10	3
Sn			1	2.226	ug/l	3.60	9,559.86	2.808E-03	Pulse	0.10	3
Sb			1	0.183	ug/l	13.17	1,353.44	3.073E-04	Pulse	0.10	3
Ba			1	0.222	ug/l	14.95	593.37	1.348E-04	Pulse	0.10	3
Tl			1	0.062	ug/l	22.87	1,260.11	4.319E-04	Pulse	0.10	3
Pb			1	0.125	ug/l	23.84	926.73	3.176E-04	Pulse	0.10	3
Pb			1	0.113	ug/l	17.83	760.05	2.605E-04	Pulse	0.10	3
Pb			1	0.123	ug/l	10.87	3,593.63	1.232E-03	Pulse	0.10	3
Na			2	26.218	ug/l	3.89	15,447.15	1.987E-01	Pulse	0.30	3
Mg			2	7.659	ug/l	1.67	1,311.18	1.686E-02	Pulse	0.30	3
Al			2	3.922	ug/l	19.19	311.12	4.006E-03	Pulse	0.30	3
K			2	6.885	ug/l	17.99	7,565.12	9.732E-02	Pulse	0.30	3
Ca			2	84.569	ug/l	10.50	485.57	6.248E-03	Pulse	0.30	3
Ti			2	0.235	ug/l	16.02	11.11	1.427E-04	Pulse	0.30	3
V			2	0.074	ug/l	6.52	196.67	2.529E-03	Pulse	0.30	3
Cr			2	0.467	ug/l	2.32	1,231.17	1.583E-02	Pulse	0.30	3
Mn			2	0.440	ug/l	5.66	477.79	6.147E-03	Pulse	0.30	3
Fe			2	12.444	ug/l	0.91	20,149.12	2.592E-01	Pulse	0.30	3
Co			2	0.029	ug/l	35.87	143.34	1.847E-03	Pulse	0.30	3
Ni			2	0.128	ug/l	15.67	150.00	1.930E-03	Pulse	0.30	3
Cu			2	0.671	ug/l	3.41	2,206.84	2.838E-02	Pulse	0.30	3
Zn			2	5.591	ug/l	3.73	1,855.69	2.388E-02	Pulse	0.30	3
As			2	0.058	ug/l	22.61	16.33	2.103E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	0.024	ug/l	38.13	11.07	2.844E-05	Pulse	0.30	3
Sn			2	1.586	ug/l	6.13	1,618.99	4.164E-03	Pulse	0.30	3
Se			3	0.087	ug/l	24.53	5.93	6.829E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,894,305.80	0.83	106.1	Pulse	0.10	3
1	Sc		2,601,938.30	0.62	106.6	Pulse	0.10	3
1	Ge		496,436.94	0.44	106.6	Pulse	0.10	3
1	Ge		691,526.66	2.02	109.2	Pulse	0.10	3
1	Rh		3,179,920.68	1.19	106.7	Pulse	0.10	3
1	In		3,403,399.69	1.09	106.8	Pulse	0.10	3
1	Tb		4,401,280.98	0.76	105.8	Pulse	0.10	3
1	Ho		415,388.86	0.82	107.4	Pulse	0.10	3
1	Bi		2,917,974.33	0.08	121.8	Pulse	0.10	3
2	Sc		77,742.27	1.20	104.5	Pulse	0.30	3
2	Ge		45,473.28	0.69	106.8	Pulse	0.30	3
2	Ge		68,632.40	0.38	107.7	Pulse	0.30	3
2	Rh		1,290,712.94	0.57	104.6	Pulse	0.30	3
2	In		388,838.85	0.67	100.3	Pulse	0.30	3
2	Tb		1,494,739.11	1.00	100.4	Pulse	0.30	3
2	Ho		145,168.31	0.72	101.3	Pulse	0.30	3
2	Bi		1,124,844.85	2.09	111.0	Pulse	0.30	3
3	Sc		87,683.22	1.70	115.1	Pulse	0.30	3
3	Ge		57,061.55	0.56	115.9	Pulse	0.30	3
3	Ge		86,925.23	0.61	117.0	Pulse	0.30	3
3	Rh		1,014,351.84	0.73	110.1	Pulse	0.30	3
3	Tb		1,548,778.76	0.80	108.9	Pulse	0.30	3

Quantitation Report

File Name	033SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa050119m2.b
Method File	
Method Path	
Acq Time	5/1/2019 15:17
Sample Name	mp14645-b1
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/1/2019 13:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	74.222	ug/l	0.49	253,293.56	1.329E-01	Pulse	0.25	3
B			1	90.395	ug/l	0.89	205,658.66	1.079E-01	Pulse	0.15	3
Ca			1	4431.464	ug/l	0.77	1,728,909.24	6.539E-01	Pulse	0.10	3
Sr			1	78.496	ug/l	1.13	1,470,656.80	4.628E-01	Pulse	0.10	3
Mo			1	74.549	ug/l	0.41	282,432.65	8.887E-02	Pulse	0.10	3
Ag			1	77.214	ug/l	0.78	669,685.85	1.946E-01	Pulse	0.10	3
Sn			1	75.433	ug/l	0.54	435,479.93	1.266E-01	Pulse	0.10	3
Sb			1	77.580	ug/l	0.85	500,829.37	1.115E-01	Pulse	0.10	3
Ba			1	77.511	ug/l	0.75	205,534.08	4.574E-02	Pulse	0.10	3
Tl			1	74.239	ug/l	0.99	1,120,036.76	4.286E-01	Pulse	0.10	3
Pb			1	73.576	ug/l	1.41	381,996.41	1.462E-01	Pulse	0.10	3
Pb			1	73.909	ug/l	0.53	336,609.03	1.288E-01	Pulse	0.10	3
Pb			1	73.870	ug/l	0.75	1,535,759.31	5.876E-01	Pulse	0.10	3
Na			2	4083.152	ug/l	1.75	1,482,155.43	1.891E+01	Pulse	0.30	3
Mg			2	4030.652	ug/l	1.69	668,510.84	8.531E+00	Pulse	0.30	3
Al			2	3759.303	ug/l	1.82	193,039.51	2.463E+00	Pulse	0.30	3
K			2	4039.331	ug/l	1.23	412,100.09	5.258E+00	Pulse	0.30	3
Ca			2	4809.451	ug/l	1.87	25,676.53	3.276E-01	Pulse	0.30	3
Ti			2	73.326	ug/l	2.32	3,493.74	4.458E-02	Pulse	0.30	3
V			2	78.959	ug/l	1.75	120,971.65	1.544E+00	Pulse	0.30	3
Cr			2	79.842	ug/l	1.83	158,776.04	2.026E+00	Pulse	0.30	3
Mn			2	75.580	ug/l	2.40	69,699.28	8.895E-01	Pulse	0.30	3
Fe			2	4101.683	ug/l	1.96	6,197,526.00	7.908E+01	Analog	0.30	3
Co			2	79.370	ug/l	1.67	262,451.80	3.349E+00	Pulse	0.30	3
Ni			2	77.812	ug/l	2.22	71,315.55	9.101E-01	Pulse	0.30	3
Cu			2	77.402	ug/l	1.77	196,828.38	2.512E+00	Pulse	0.30	3
Zn			2	80.035	ug/l	4.73	24,781.05	3.163E-01	Pulse	0.30	3
As			2	71.183	ug/l	2.13	12,391.03	1.581E-01	Pulse	1.00	3
Cd			2	75.377	ug/l	1.60	31,874.45	8.151E-02	Pulse	0.30	3
Sn			2	76.158	ug/l	1.44	66,861.88	1.710E-01	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	337.236	ug/l	0.80	11,578.41	1.331E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,906,257.28	1.25	106.8	Pulse	0.10	3
1	Sc		2,643,935.80	1.06	108.3	Pulse	0.10	3
1	Ge		499,452.27	0.56	107.2	Pulse	0.10	3
1	Ge		695,990.25	1.34	109.9	Pulse	0.10	3
1	Rh		3,178,145.99	1.74	106.6	Pulse	0.10	3
1	In		3,441,066.30	1.39	108.0	Pulse	0.10	3
1	Tb		4,493,362.33	0.97	108.0	Pulse	0.10	3
1	Ho		421,765.51	1.23	109.1	Pulse	0.10	3
1	Bi		2,613,483.97	1.13	109.1	Pulse	0.10	3
2	Sc		78,378.73	1.54	105.4	Pulse	0.30	3
2	Ge		45,260.34	2.04	106.3	Pulse	0.30	3
2	Ge		68,462.88	0.40	107.4	Pulse	0.30	3
2	Rh		1,285,593.77	1.07	104.2	Pulse	0.30	3
2	In		391,051.47	0.73	100.8	Pulse	0.30	3
2	Tb		1,508,465.32	0.03	101.3	Pulse	0.30	3
2	Ho		146,697.81	1.22	102.4	Pulse	0.30	3
2	Bi		1,036,340.20	0.10	102.3	Pulse	0.30	3
3	Sc		90,620.06	1.00	119.0	Pulse	0.30	3
3	Ge		56,836.30	1.07	115.4	Pulse	0.30	3
3	Ge		87,005.94	0.23	117.1	Pulse	0.30	3
3	Rh		1,012,603.67	0.88	109.9	Pulse	0.30	3
3	Tb		1,540,877.33	0.76	108.3	Pulse	0.30	3

Quantitation Report

File Name	034SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa050119m2.b
Method File	
Method Path	
Acq Time	5/1/2019 15:22
Sample Name	mp14645-b2
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/1/2019 13:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	75.219	ug/l	0.92	259,802.60	1.347E-01	Pulse	0.25	3
B			1	94.319	ug/l	1.56	216,865.86	1.124E-01	Pulse	0.15	3
Ca			1	4148.953	ug/l	1.02	1,642,441.17	6.126E-01	Pulse	0.10	3
Sr			1	80.400	ug/l	0.53	1,512,446.44	4.740E-01	Pulse	0.10	3
Mo			1	75.514	ug/l	0.76	287,230.63	9.002E-02	Pulse	0.10	3
Ag			1	79.350	ug/l	0.83	689,784.37	2.000E-01	Pulse	0.10	3
Sn			1	75.427	ug/l	0.35	436,518.25	1.266E-01	Pulse	0.10	3
Sb			1	77.696	ug/l	0.53	503,250.77	1.116E-01	Pulse	0.10	3
Ba			1	78.495	ug/l	0.55	208,830.23	4.632E-02	Pulse	0.10	3
Tl			1	76.198	ug/l	0.35	1,140,113.11	4.399E-01	Pulse	0.10	3
Pb			1	76.395	ug/l	0.71	393,367.36	1.518E-01	Pulse	0.10	3
Pb			1	77.003	ug/l	0.39	347,789.98	1.342E-01	Pulse	0.10	3
Pb			1	76.835	ug/l	0.86	1,584,184.75	6.112E-01	Pulse	0.10	3
Na			2	4084.384	ug/l	0.57	1,508,673.52	1.892E+01	Pulse	0.30	3
Mg			2	4018.273	ug/l	0.97	678,174.16	8.505E+00	Pulse	0.30	3
Al			2	3731.938	ug/l	1.04	195,004.64	2.445E+00	Pulse	0.30	3
K			2	4029.327	ug/l	0.74	418,293.04	5.246E+00	Pulse	0.30	3
Ca			2	4394.414	ug/l	1.97	23,875.03	2.994E-01	Pulse	0.30	3
Ti			2	71.585	ug/l	2.12	3,470.41	4.352E-02	Pulse	0.30	3
V			2	81.111	ug/l	0.40	126,448.08	1.586E+00	Pulse	0.30	3
Cr			2	79.939	ug/l	0.44	161,762.27	2.029E+00	Pulse	0.30	3
Mn			2	75.792	ug/l	0.67	71,128.62	8.920E-01	Pulse	0.30	3
Fe			2	4055.828	ug/l	0.87	6,235,678.22	7.820E+01	Analog	0.30	3
Co			2	79.691	ug/l	0.78	268,138.48	3.363E+00	Pulse	0.30	3
Ni			2	78.505	ug/l	1.04	73,218.11	9.182E-01	Pulse	0.30	3
Cu			2	77.532	ug/l	0.32	200,623.87	2.516E+00	Pulse	0.30	3
Zn			2	72.088	ug/l	0.46	22,734.75	2.851E-01	Pulse	0.30	3
As			2	70.740	ug/l	0.97	12,530.81	1.571E-01	Pulse	1.00	3
Cd			2	75.530	ug/l	0.64	31,988.19	8.167E-02	Pulse	0.30	3
Sn			2	76.004	ug/l	1.47	66,842.13	1.706E-01	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	339.657	ug/l	0.25	11,630.92	1.340E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,929,406.57	1.19	108.1	Pulse	0.10	3
1	Sc		2,681,076.73	1.28	109.8	Pulse	0.10	3
1	Ge		505,542.76	0.86	108.5	Pulse	0.10	3
1	Ge		707,972.10	1.17	111.8	Pulse	0.10	3
1	Rh		3,190,913.81	1.40	107.0	Pulse	0.10	3
1	In		3,449,493.85	1.74	108.2	Pulse	0.10	3
1	Tb		4,508,237.75	1.54	108.4	Pulse	0.10	3
1	Ho		425,259.62	1.78	110.0	Pulse	0.10	3
1	Bi		2,591,981.68	0.98	108.2	Pulse	0.10	3
2	Sc		79,742.51	0.36	107.2	Pulse	0.30	3
2	Ge		46,173.98	0.67	108.4	Pulse	0.30	3
2	Ge		69,079.90	0.02	108.4	Pulse	0.30	3
2	Rh		1,288,653.25	0.44	104.5	Pulse	0.30	3
2	In		391,681.13	0.52	101.0	Pulse	0.30	3
2	Tb		1,497,254.59	1.13	100.6	Pulse	0.30	3
2	Ho		144,683.44	0.61	101.0	Pulse	0.30	3
2	Bi		1,019,258.54	0.41	100.6	Pulse	0.30	3
3	Sc		89,793.41	0.11	117.9	Pulse	0.30	3
3	Ge		58,184.22	0.69	118.2	Pulse	0.30	3
3	Ge		86,776.80	0.44	116.8	Pulse	0.30	3
3	Rh		1,017,707.74	0.99	110.4	Pulse	0.30	3
3	Tb		1,543,023.06	0.27	108.5	Pulse	0.30	3

Quantitation Report

File Name	035SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa050119m2.b
Method File	
Method Path	
Acq Time	5/1/2019 15:27
Sample Name	mp14645-s1
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/1/2019 13:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	73.836	ug/l	0.97	248,538.51	1.322E-01	Pulse	0.25	3
B			1	129.530	ug/l	1.01	287,541.42	1.529E-01	Pulse	0.15	3
Ca			1	28566.279	ug/l	1.26	10,916,414.42	4.183E+00	Analog	0.10	3
Sr			1	218.304	ug/l	0.81	3,894,097.96	1.287E+00	Pulse	0.10	3
Mo			1	78.317	ug/l	1.16	282,540.58	9.336E-02	Pulse	0.10	3
Ag			1	76.983	ug/l	0.69	646,156.79	1.940E-01	Pulse	0.10	3
Sn			1	72.993	ug/l	0.73	407,731.70	1.224E-01	Pulse	0.10	3
Sb			1	75.360	ug/l	0.43	478,082.89	1.083E-01	Pulse	0.10	3
Ba			1	113.146	ug/l	0.78	294,825.74	6.677E-02	Pulse	0.10	3
Tl			1	75.906	ug/l	1.06	1,077,895.12	4.382E-01	Pulse	0.10	3
Pb			1	78.549	ug/l	0.95	383,861.43	1.560E-01	Pulse	0.10	3
Pb			1	78.523	ug/l	0.78	336,580.71	1.368E-01	Pulse	0.10	3
Pb			1	78.534	ug/l	0.73	1,536,866.68	6.247E-01	Pulse	0.10	3
Na			2	42894.757	ug/l	0.73	15,721,039.38	1.980E+02	Analog	0.30	3
Mg			2	10442.236	ug/l	0.38	1,755,119.20	2.210E+01	Pulse	0.30	3
Al			2	4685.190	ug/l	0.86	243,786.47	3.070E+00	Pulse	0.30	3
K			2	9419.747	ug/l	0.39	964,523.61	1.214E+01	Pulse	0.30	3
Ca			2	28464.415	ug/l	0.49	153,809.05	1.937E+00	Pulse	0.30	3
Ti			2	83.950	ug/l	9.93	4,053.01	5.104E-02	Pulse	0.30	3
V			2	80.953	ug/l	0.37	125,688.55	1.583E+00	Pulse	0.30	3
Cr			2	81.360	ug/l	0.51	163,965.97	2.065E+00	Pulse	0.30	3
Mn			2	85.664	ug/l	1.13	80,055.59	1.008E+00	Pulse	0.30	3
Fe			2	5288.635	ug/l	0.85	8,097,461.06	1.020E+02	Analog	0.30	3
Co			2	76.981	ug/l	0.51	257,973.30	3.248E+00	Pulse	0.30	3
Ni			2	77.154	ug/l	1.61	71,665.10	9.024E-01	Pulse	0.30	3
Cu			2	77.459	ug/l	0.96	199,621.03	2.514E+00	Pulse	0.30	3
Zn			2	88.716	ug/l	1.75	27,829.26	3.504E-01	Pulse	0.30	3
As			2	69.953	ug/l	0.71	12,341.34	1.554E-01	Pulse	1.00	3
Cd			2	73.927	ug/l	1.23	30,419.20	7.994E-02	Pulse	0.30	3
Sn			2	74.283	ug/l	1.13	63,472.61	1.668E-01	Pulse	0.30	3
Se			3	329.168	ug/l	1.23	11,377.74	1.299E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,880,116.94	0.76	105.3	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,609,414.23	1.09	106.9	Pulse	0.10	3
1	Ge		496,999.19	0.08	106.7	Pulse	0.10	3
1	Ge		689,670.30	1.31	108.9	Pulse	0.10	3
1	Rh		3,026,063.39	1.05	101.5	Pulse	0.10	3
1	In		3,330,279.43	1.27	104.5	Pulse	0.10	3
1	Tb		4,415,580.45	1.44	106.1	Pulse	0.10	3
1	Ho		419,018.03	1.44	108.4	Pulse	0.10	3
1	Bi		2,459,998.40	1.66	102.7	Pulse	0.10	3
2	Sc		79,419.11	0.43	106.8	Pulse	0.30	3
2	Ge		45,682.61	0.96	107.3	Pulse	0.30	3
2	Ge		69,226.15	1.39	108.6	Pulse	0.30	3
2	Rh		1,247,050.54	1.00	101.1	Pulse	0.30	3
2	In		380,543.48	0.19	98.1	Pulse	0.30	3
2	Tb		1,487,995.81	0.46	99.9	Pulse	0.30	3
2	Ho		143,959.46	0.32	100.5	Pulse	0.30	3
2	Bi		979,921.66	0.36	96.7	Pulse	0.30	3
3	Sc		90,263.52	0.59	118.5	Pulse	0.30	3
3	Ge		57,099.52	0.57	116.0	Pulse	0.30	3
3	Ge		87,597.79	0.83	117.9	Pulse	0.30	3
3	Rh		993,030.55	0.46	107.7	Pulse	0.30	3
3	Tb		1,540,156.92	0.14	108.3	Pulse	0.30	3

Quantitation Report

File Name	036SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa050119m2.b
Method File	
Method Path	
Acq Time	5/1/2019 15:32
Sample Name	mp14645-s2
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/1/2019 13:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	74.471	ug/l	0.89	253,805.45	1.333E-01	Pulse	0.25	3
B			1	130.335	ug/l	0.72	292,892.41	1.539E-01	Pulse	0.15	3
Ca			1	28114.357	ug/l	0.69	10,881,627.76	4.117E+00	Analog	0.10	3
Sr			1	221.790	ug/l	0.49	3,964,882.55	1.307E+00	Pulse	0.10	3
Mo			1	78.749	ug/l	0.34	284,691.88	9.388E-02	Pulse	0.10	3
Ag			1	77.284	ug/l	0.42	653,281.76	1.948E-01	Pulse	0.10	3
Sn			1	70.583	ug/l	0.61	396,985.57	1.184E-01	Pulse	0.10	3
Sb			1	75.756	ug/l	0.16	480,546.75	1.088E-01	Pulse	0.10	3
Ba			1	114.047	ug/l	0.78	297,138.58	6.730E-02	Pulse	0.10	3
Tl			1	77.178	ug/l	0.90	1,082,505.24	4.455E-01	Pulse	0.10	3
Pb			1	80.111	ug/l	0.72	386,706.97	1.591E-01	Pulse	0.10	3
Pb			1	79.676	ug/l	0.50	337,350.93	1.388E-01	Pulse	0.10	3
Pb			1	80.080	ug/l	0.30	1,547,855.84	6.370E-01	Pulse	0.10	3
Na			2	43207.220	ug/l	0.86	15,809,773.82	1.994E+02	Analog	0.30	3
Mg			2	10618.537	ug/l	0.65	1,781,798.54	2.247E+01	Pulse	0.30	3
Al			2	4791.820	ug/l	0.82	248,924.69	3.140E+00	Pulse	0.30	3
K			2	9607.571	ug/l	0.48	982,006.18	1.239E+01	Pulse	0.30	3
Ca			2	28743.110	ug/l	0.86	155,066.60	1.956E+00	Pulse	0.30	3
Ti			2	82.882	ug/l	2.89	3,994.99	5.039E-02	Pulse	0.30	3
V			2	82.230	ug/l	0.44	127,461.99	1.608E+00	Pulse	0.30	3
Cr			2	83.525	ug/l	0.27	168,045.33	2.119E+00	Pulse	0.30	3
Mn			2	86.385	ug/l	0.78	80,596.02	1.017E+00	Pulse	0.30	3
Fe			2	5425.950	ug/l	1.69	8,293,688.00	1.046E+02	Analog	0.30	3
Co			2	77.765	ug/l	0.80	260,167.30	3.281E+00	Pulse	0.30	3
Ni			2	78.588	ug/l	1.20	72,876.67	9.192E-01	Pulse	0.30	3
Cu			2	77.999	ug/l	0.85	200,677.44	2.531E+00	Pulse	0.30	3
Zn			2	89.295	ug/l	1.76	27,963.93	3.527E-01	Pulse	0.30	3
As			2	71.145	ug/l	0.92	12,530.82	1.580E-01	Pulse	1.00	3
Cd			2	75.462	ug/l	0.40	30,952.37	8.160E-02	Pulse	0.30	3
Sn			2	72.897	ug/l	0.93	62,093.87	1.637E-01	Pulse	0.30	3
Se			3	325.455	ug/l	1.33	11,412.17	1.284E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,903,665.40	0.20	106.7	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,642,942.30	1.45	108.3	Pulse	0.10	3
1	Ge		499,191.37	1.25	107.2	Pulse	0.10	3
1	Ge		697,154.21	1.29	110.1	Pulse	0.10	3
1	Rh		3,032,577.77	0.44	101.7	Pulse	0.10	3
1	In		3,353,941.43	0.66	105.2	Pulse	0.10	3
1	Tb		4,415,040.87	0.96	106.1	Pulse	0.10	3
1	Ho		419,281.23	0.81	108.5	Pulse	0.10	3
1	Bi		2,429,819.96	0.87	101.4	Pulse	0.10	3
2	Sc		79,289.43	0.60	106.6	Pulse	0.30	3
2	Ge		45,780.70	1.12	107.5	Pulse	0.30	3
2	Ge		69,683.48	0.76	109.4	Pulse	0.30	3
2	Rh		1,245,906.31	0.27	101.0	Pulse	0.30	3
2	In		379,332.19	0.37	97.8	Pulse	0.30	3
2	Tb		1,468,966.40	0.78	98.7	Pulse	0.30	3
2	Ho		143,203.59	0.54	99.9	Pulse	0.30	3
2	Bi		969,352.53	0.48	95.6	Pulse	0.30	3
3	Sc		90,509.32	0.19	118.8	Pulse	0.30	3
3	Ge		58,126.28	1.05	118.0	Pulse	0.30	3
3	Ge		88,866.91	1.01	119.6	Pulse	0.30	3
3	Rh		994,042.63	0.83	107.9	Pulse	0.30	3
3	Tb		1,539,244.14	0.55	108.2	Pulse	0.30	3

Quantitation Report

File Name	037_CCV.d
File Path	C:\Agilent\ICPMH\1\DATA\xa050119m2.b
Method File	
Method Path	
Acq Time	5/1/2019 15:37
Sample Name	CCVA
Sample Type	CCV
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/1/2019 13:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	49.474	ug/l	1.65	354,190.75	1.771E-01	Pulse	0.25	3
B			1	107.814	ug/l	2.02	503,893.68	2.520E-01	Pulse	0.15	3
Ca			1	5149.787	ug/l	0.18	4,225,523.69	1.512E+00	Pulse	0.10	3
Sr			1	51.832	ug/l	1.49	1,981,972.10	6.111E-01	Pulse	0.10	3
Mo			1	49.070	ug/l	0.90	379,426.80	1.170E-01	Pulse	0.10	3
Ag			1	49.337	ug/l	0.93	873,014.15	2.487E-01	Pulse	0.10	3
Sn			1	48.024	ug/l	1.36	566,601.48	1.614E-01	Pulse	0.10	3
Sb			1	51.658	ug/l	0.62	671,127.44	1.484E-01	Pulse	0.10	3
Ba			1	50.453	ug/l	1.38	269,267.78	5.955E-02	Pulse	0.10	3
Tl			1	50.050	ug/l	0.70	1,453,877.01	5.778E-01	Pulse	0.10	3
Pb			1	49.921	ug/l	1.12	499,019.12	1.983E-01	Pulse	0.10	3
Pb			1	50.040	ug/l	0.57	438,749.75	1.744E-01	Pulse	0.10	3
Pb			1	50.091	ug/l	0.56	2,004,969.32	7.969E-01	Pulse	0.10	3
Na			2	5094.122	ug/l	0.36	3,971,620.54	4.708E+01	Pulse	0.30	3
Mg			2	5076.007	ug/l	0.35	1,812,615.83	2.149E+01	Pulse	0.30	3
Al			2	4774.616	ug/l	0.31	527,712.50	6.255E+00	Pulse	0.30	3
K			2	5103.218	ug/l	0.47	1,109,538.08	1.315E+01	Pulse	0.30	3
Ca			2	5255.455	ug/l	0.59	60,359.88	7.155E-01	Pulse	0.30	3
Ti			2	47.652	ug/l	3.16	4,888.55	5.794E-02	Pulse	0.30	3
V			2	50.383	ug/l	0.45	166,173.32	1.970E+00	Pulse	0.30	3
Cr			2	49.620	ug/l	0.29	212,381.99	2.517E+00	Pulse	0.30	3
Mn			2	47.680	ug/l	0.61	94,660.61	1.122E+00	Pulse	0.30	3
Fe			2	5001.804	ug/l	0.14	16,269,471.02	1.928E+02	Analog	0.30	3
Co			2	49.336	ug/l	0.48	351,243.30	4.163E+00	Pulse	0.30	3
Ni			2	48.687	ug/l	0.94	96,073.41	1.139E+00	Pulse	0.30	3
Cu			2	48.008	ug/l	0.12	262,726.87	3.114E+00	Pulse	0.30	3
Zn			2	47.694	ug/l	1.15	31,774.21	3.766E-01	Pulse	0.30	3
As			2	48.467	ug/l	0.77	18,163.41	2.153E-01	Pulse	1.00	3
Cd			2	50.438	ug/l	1.85	43,840.48	1.091E-01	Pulse	0.30	3
Sn			2	49.231	ug/l	0.91	88,786.77	2.209E-01	Pulse	0.30	3
Se			3	191.533	ug/l	0.67	13,241.28	1.512E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,999,460.42	0.04	112.0	Pulse	0.10	3
1	Sc		2,794,462.77	1.36	114.5	Pulse	0.10	3
1	Ge		520,527.27	2.00	111.8	Pulse	0.10	3

Quantitation Report

1	Ge		720,838.09	1.40	113.8	Pulse	0.10	3
1	Rh		3,243,194.43	1.14	108.8	Pulse	0.10	3
1	In		3,510,542.38	1.42	110.1	Pulse	0.10	3
1	Tb		4,521,638.89	0.47	108.7	Pulse	0.10	3
1	Ho		423,026.40	1.33	109.4	Pulse	0.10	3
1	Bi		2,516,080.74	0.32	105.0	Pulse	0.10	3
2	Sc		84,366.25	0.65	113.4	Pulse	0.30	3
2	Ge		47,871.00	1.76	112.4	Pulse	0.30	3
2	Ge		71,277.12	1.61	111.9	Pulse	0.30	3
2	Rh		1,311,408.11	0.93	106.3	Pulse	0.30	3
2	In		401,995.35	1.81	103.7	Pulse	0.30	3
2	Tb		1,525,771.61	0.20	102.5	Pulse	0.30	3
2	Ho		147,534.19	0.31	103.0	Pulse	0.30	3
2	Bi		1,002,668.50	0.55	98.9	Pulse	0.30	3
3	Sc		92,053.19	0.78	120.8	Pulse	0.30	3
3	Ge		57,904.27	1.29	117.6	Pulse	0.30	3
3	Ge		87,603.54	1.29	117.9	Pulse	0.30	3
3	Rh		1,010,542.95	1.24	109.6	Pulse	0.30	3
3	Tb		1,534,218.03	0.86	107.9	Pulse	0.30	3

Quantitation Report

File Name	038_CCB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa050119m2.b
Method File	
Method Path	
Acq Time	5/1/2019 15:42
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/1/2019 13:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.010	ug/l	15.65	77.33	3.852E-05	Pulse	0.25	3
B			1	5.184	ug/l	1.66	31,750.02	1.580E-02	Pulse	0.15	3
Ca			1	3.883	ug/l	21.40	19,575.51	7.016E-03	Pulse	0.10	3
Sr			1	0.016	ug/l	16.42	903.40	2.749E-04	Pulse	0.10	3
Mo			1	0.100	ug/l	10.95	796.71	2.426E-04	Pulse	0.10	3
Ag			1	0.015	ug/l	8.16	316.68	9.025E-05	Pulse	0.10	3
Sn			1	0.573	ug/l	0.97	3,447.18	9.820E-04	Pulse	0.10	3
Sb			1	0.204	ug/l	2.31	2,833.70	6.301E-04	Pulse	0.10	3
Ba			1	0.009	ug/l	46.70	63.33	1.410E-05	Pulse	0.10	3
Tl			1	0.025	ug/l	16.79	923.40	3.627E-04	Pulse	0.10	3
Pb			1	0.030	ug/l	15.10	480.03	1.886E-04	Pulse	0.10	3
Pb			1	0.021	ug/l	14.15	350.02	1.375E-04	Pulse	0.10	3
Pb			1	0.025	ug/l	13.32	1,653.44	6.498E-04	Pulse	0.10	3
Na			2	2.945	ug/l	6.57	8,819.05	1.049E-01	Pulse	0.30	3
Mg			2	0.797	ug/l	21.63	338.90	4.029E-03	Pulse	0.30	3
Al			2	0.032	ug/l	599.10	124.45	1.480E-03	Pulse	0.30	3
K			2	1.173	ug/l	43.17	7,691.84	9.151E-02	Pulse	0.30	3
Ca			2	2.183	ug/l	33.49	66.67	7.927E-04	Pulse	0.30	3
Ti			2	0.022	ug/l	86.60	2.22	2.629E-05	Pulse	0.30	3
V			2	0.010	ug/l	79.47	123.33	1.468E-03	Pulse	0.30	3
Cr			2	0.009	ug/l	81.04	374.46	4.453E-03	Pulse	0.30	3
Mn			2	-0.002	ug/l	-130.19	76.66	9.126E-04	Pulse	0.30	3
Fe			2	1.180	ug/l	2.39	5,449.85	6.484E-02	Pulse	0.30	3
Co			2	0.006	ug/l	43.27	94.44	1.124E-03	Pulse	0.30	3
Ni			2	0.005	ug/l	93.95	45.56	5.420E-04	Pulse	0.30	3
Cu			2	0.033	ug/l	16.08	741.14	8.819E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	0.075	ug/l	51.35	210.00	2.499E-03	Pulse	0.30	3
As			2	0.006	ug/l	202.74	9.00	1.071E-04	Pulse	1.00	3
Cd			2	0.014	ug/l	82.24	13.28	3.235E-05	Pulse	0.30	3
Sn			2	0.225	ug/l	14.91	664.47	1.621E-03	Pulse	0.30	3
Se			3	0.093	ug/l	19.92	9.33	1.070E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,010,052.86	1.43	112.6	Pulse	0.10	3
1	Sc		2,790,629.85	0.91	114.3	Pulse	0.10	3
1	Ge		514,110.21	1.13	110.4	Pulse	0.10	3
1	Ge		716,928.69	1.45	113.2	Pulse	0.10	3
1	Rh		3,283,236.51	1.90	110.1	Pulse	0.10	3
1	In		3,509,602.44	1.86	110.1	Pulse	0.10	3
1	Tb		4,497,067.43	1.29	108.1	Pulse	0.10	3
1	Ho		418,536.13	1.40	108.3	Pulse	0.10	3
1	Bi		2,545,730.01	0.92	106.3	Pulse	0.10	3
2	Sc		84,044.73	0.83	113.0	Pulse	0.30	3
2	Ge		48,103.91	2.28	113.0	Pulse	0.30	3
2	Ge		71,723.38	0.94	112.6	Pulse	0.30	3
2	Rh		1,341,838.73	0.63	108.8	Pulse	0.30	3
2	In		410,094.11	0.44	105.7	Pulse	0.30	3
2	Tb		1,535,417.65	0.76	103.1	Pulse	0.30	3
2	Ho		148,166.36	0.72	103.4	Pulse	0.30	3
2	Bi		1,033,521.35	0.71	102.0	Pulse	0.30	3
3	Sc		90,275.66	1.19	118.5	Pulse	0.30	3
3	Ge		57,952.40	1.43	117.7	Pulse	0.30	3
3	Ge		87,174.49	0.34	117.3	Pulse	0.30	3
3	Rh		1,036,238.29	0.65	112.4	Pulse	0.30	3
3	Tb		1,538,622.37	0.42	108.2	Pulse	0.30	3

Quantitation Report

File Name	039SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa050119m2.b
Method File	
Method Path	
Acq Time	5/1/2019 15:47
Sample Name	jc87142-4
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/1/2019 13:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.044	ug/l	26.46	161.33	8.284E-05	Pulse	0.25	3
B			1	44.218	ug/l	0.70	106,753.80	5.475E-02	Pulse	0.15	3
Ca			1	24285.271	ug/l	1.85	9,536,281.11	3.557E+00	Analog	0.10	3
Sr			1	137.479	ug/l	0.22	2,499,886.16	8.105E-01	Pulse	0.10	3
Mo			1	2.168	ug/l	3.31	7,985.64	2.588E-03	Pulse	0.10	3
Ag			1	0.059	ug/l	17.51	556.70	1.653E-04	Pulse	0.10	3
Sn			1	2.817	ug/l	1.02	12,805.70	3.808E-03	Pulse	0.10	3
Sb			1	0.907	ug/l	2.02	5,971.35	1.347E-03	Pulse	0.10	3
Ba			1	37.267	ug/l	1.34	97,493.62	2.200E-02	Pulse	0.10	3
Tl			1	0.095	ug/l	3.49	1,553.48	6.224E-04	Pulse	0.10	3
Pb			1	2.850	ug/l	2.03	14,294.02	5.730E-03	Pulse	0.10	3
Pb			1	2.651	ug/l	3.44	11,674.99	4.681E-03	Pulse	0.10	3
Pb			1	2.747	ug/l	1.61	55,115.33	2.209E-02	Pulse	0.10	3
Na			2	39758.610	ug/l	1.56	14,626,303.86	1.835E+02	Analog	0.30	3
Mg			2	6583.185	ug/l	0.67	1,110,688.22	1.393E+01	Pulse	0.30	3
Al			2	831.900	ug/l	2.17	43,549.21	5.462E-01	Pulse	0.30	3
K			2	5573.320	ug/l	0.19	575,732.70	7.222E+00	Pulse	0.30	3
Ca			2	24358.370	ug/l	0.73	132,128.51	1.657E+00	Pulse	0.30	3
Ti			2	12.194	ug/l	15.22	591.17	7.414E-03	Pulse	0.30	3
V			2	3.462	ug/l	1.47	5,477.64	6.872E-02	Pulse	0.30	3
Cr			2	5.190	ug/l	1.21	10,799.18	1.355E-01	Pulse	0.30	3
Mn			2	13.803	ug/l	1.22	13,013.02	1.632E-01	Pulse	0.30	3
Fe			2	1326.129	ug/l	0.47	2,039,322.42	2.558E+01	Pulse	0.30	3
Co			2	0.334	ug/l	2.61	1,171.17	1.469E-02	Pulse	0.30	3
Ni			2	2.789	ug/l	1.38	2,634.69	3.305E-02	Pulse	0.30	3
Cu			2	4.341	ug/l	3.71	11,729.84	1.472E-01	Pulse	0.30	3
Zn			2	23.057	ug/l	1.87	7,372.87	9.249E-02	Pulse	0.30	3
As			2	1.280	ug/l	11.22	233.00	2.924E-03	Pulse	1.00	3
Cd			2	0.168	ug/l	22.09	70.71	1.842E-04	Pulse	0.30	3
Sn			2	2.044	ug/l	6.32	1,991.27	5.189E-03	Pulse	0.30	3
Se			3	0.568	ug/l	10.47	23.07	2.582E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,949,700.86	1.00	109.2	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,681,076.11	1.43	109.8	Pulse	0.10	3
1	Ge		505,213.12	1.53	108.5	Pulse	0.10	3
1	Ge		702,606.74	1.64	110.9	Pulse	0.10	3
1	Rh		3,084,519.33	1.44	103.5	Pulse	0.10	3
1	In		3,362,885.60	1.53	105.5	Pulse	0.10	3
1	Tb		4,433,067.64	1.63	106.6	Pulse	0.10	3
1	Ho		415,828.85	1.62	107.6	Pulse	0.10	3
1	Bi		2,494,996.21	1.82	104.2	Pulse	0.10	3
2	Sc		79,721.48	0.99	107.2	Pulse	0.30	3
2	Ge		46,913.97	1.83	110.2	Pulse	0.30	3
2	Ge		70,197.00	1.19	110.2	Pulse	0.30	3
2	Rh		1,261,591.72	0.86	102.3	Pulse	0.30	3
2	In		383,806.26	0.45	99.0	Pulse	0.30	3
2	Tb		1,492,009.00	0.38	100.2	Pulse	0.30	3
2	Ho		144,504.81	0.20	100.8	Pulse	0.30	3
2	Bi		990,365.90	0.61	97.7	Pulse	0.30	3
3	Sc		91,348.31	1.10	119.9	Pulse	0.30	3
3	Ge		59,586.09	0.71	121.0	Pulse	0.30	3
3	Ge		89,404.38	1.00	120.3	Pulse	0.30	3
3	Rh		998,292.19	0.66	108.3	Pulse	0.30	3
3	Tb		1,549,399.80	0.75	108.9	Pulse	0.30	3

Quantitation Report

File Name	040SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa050119m2.b
Method File	
Method Path	
Acq Time	5/1/2019 15:52
Sample Name	mp14645-sd1
Sample Type	Sample
Comment	
Prep Dilution	10.000
Auto Dilution	N/A
Total Dilution	10.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/1/2019 13:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.072	ug/l	23.47	58.67	2.916E-05	Pulse	0.25	3
B			1	60.624	ug/l	2.43	35,840.43	1.782E-02	Pulse	0.15	3
Ca			1	25492.237	ug/l	0.51	2,088,160.28	7.515E-01	Pulse	0.10	3
Sr			1	140.727	ug/l	0.95	542,531.08	1.660E-01	Pulse	0.10	3
Mo			1	2.233	ug/l	13.86	1,753.50	5.365E-04	Pulse	0.10	3
Ag			1	0.049	ug/l	30.97	143.34	4.058E-05	Pulse	0.10	3
Sn			1	4.358	ug/l	1.98	1,830.23	5.191E-04	Pulse	0.10	3
Sb			1	0.438	ug/l	17.67	776.72	1.700E-04	Pulse	0.10	3
Ba			1	39.024	ug/l	0.59	21,055.09	4.610E-03	Pulse	0.10	3
Tl			1	0.050	ug/l	66.51	336.69	1.304E-04	Pulse	0.10	3
Pb			1	3.607	ug/l	10.12	3,877.29	1.503E-03	Pulse	0.10	3
Pb			1	3.365	ug/l	9.39	3,190.46	1.236E-03	Pulse	0.10	3
Pb			1	3.445	ug/l	3.52	14,780.10	5.729E-03	Pulse	0.10	3
Na			2	39603.059	ug/l	0.46	3,069,960.23	3.662E+01	Pulse	0.30	3
Mg			2	6901.182	ug/l	0.18	244,951.75	2.922E+00	Pulse	0.30	3
Al			2	832.644	ug/l	2.03	9,263.77	1.105E-01	Pulse	0.30	3
K			2	5804.753	ug/l	0.56	131,997.66	1.574E+00	Pulse	0.30	3
Ca			2	25824.614	ug/l	2.03	29,495.10	3.518E-01	Pulse	0.30	3
Ti			2	9.802	ug/l	21.36	100.00	1.192E-03	Pulse	0.30	3
V			2	3.463	ug/l	7.89	1,225.62	1.462E-02	Pulse	0.30	3
Cr			2	4.765	ug/l	3.26	2,360.20	2.815E-02	Pulse	0.30	3
Mn			2	14.734	ug/l	3.81	2,985.86	3.561E-02	Pulse	0.30	3
Fe			2	1379.561	ug/l	0.53	447,504.48	5.338E+00	Pulse	0.30	3
Co			2	0.340	ug/l	13.32	292.23	3.484E-03	Pulse	0.30	3
Ni			2	3.492	ug/l	10.42	721.13	8.601E-03	Pulse	0.30	3
Cu			2	4.597	ug/l	7.06	3,053.65	3.641E-02	Pulse	0.30	3
Zn			2	37.277	ug/l	1.01	2,615.79	3.120E-02	Pulse	0.30	3
As			2	1.124	ug/l	5.30	48.67	5.804E-04	Pulse	1.00	3
Cd			2	0.199	ug/l	28.22	18.80	4.583E-05	Pulse	0.30	3
Sn			2	0.320	ug/l	53.40	311.12	7.591E-04	Pulse	0.30	3
Se			3	0.780	ug/l	26.33	8.40	9.540E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,011,466.62	0.94	112.7	Pulse	0.10	3
1	Sc		2,778,932.25	1.89	113.9	Pulse	0.10	3
1	Ge		520,266.89	1.85	111.7	Pulse	0.10	3

Quantitation Report

1	Ge		722,847.88	1.45	114.1	Pulse	0.10	3
1	Rh		3,268,434.02	1.13	109.7	Pulse	0.10	3
1	In		3,525,629.45	1.60	110.6	Pulse	0.10	3
1	Tb		4,567,508.68	1.66	109.8	Pulse	0.10	3
1	Ho		425,030.45	1.37	109.9	Pulse	0.10	3
1	Bi		2,579,083.09	1.16	107.7	Pulse	0.10	3
2	Sc		83,840.63	0.59	112.7	Pulse	0.30	3
2	Ge		48,353.50	0.91	113.6	Pulse	0.30	3
2	Ge		71,867.34	1.10	112.8	Pulse	0.30	3
2	Rh		1,331,691.37	1.25	108.0	Pulse	0.30	3
2	In		409,747.34	0.72	105.7	Pulse	0.30	3
2	Tb		1,534,601.74	1.27	103.1	Pulse	0.30	3
2	Ho		148,134.47	0.86	103.4	Pulse	0.30	3
2	Bi		1,037,699.58	0.99	102.4	Pulse	0.30	3
3	Sc		90,845.65	0.86	119.3	Pulse	0.30	3
3	Ge		57,630.11	0.47	117.0	Pulse	0.30	3
3	Ge		88,203.21	1.69	118.7	Pulse	0.30	3
3	Rh		1,026,513.60	0.50	111.4	Pulse	0.30	3
3	Tb		1,549,208.06	0.44	108.9	Pulse	0.30	3

Quantitation Report

File Name 041SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa050119m2.b
Method File
Method Path
Acq Time 5/1/2019 15:57
Sample Name jc86800-1
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 5/1/2019 13:34
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.028	ug/l	35.65	101.33	5.376E-05	Pulse	0.25	3
B			1	41.022	ug/l	0.83	96,060.36	5.107E-02	Pulse	0.15	3
Ca			1	92079.084	ug/l	1.74	35,565,536.97	1.347E+01	Analog	0.10	3
Sr			1	637.270	ug/l	0.56	11,070,999.42	3.756E+00	Analog	0.10	3
Mo			1	9.598	ug/l	1.63	33,729.88	1.145E-02	Pulse	0.10	3
Ag			1	0.025	ug/l	37.07	260.01	7.882E-05	Pulse	0.10	3
Sn			1	1.925	ug/l	1.56	7,582.12	2.300E-03	Pulse	0.10	3
Sb			1	1.351	ug/l	0.56	8,722.71	1.985E-03	Pulse	0.10	3
Ba			1	141.845	ug/l	0.57	367,945.37	8.371E-02	Pulse	0.10	3
Tl			1	0.061	ug/l	8.31	1,003.40	4.268E-04	Pulse	0.10	3
Pb			1	1.431	ug/l	4.30	6,845.17	2.912E-03	Pulse	0.10	3
Pb			1	1.384	ug/l	1.35	5,814.70	2.474E-03	Pulse	0.10	3
Pb			1	1.414	ug/l	1.51	27,013.97	1.149E-02	Pulse	0.10	3
Na			2	168885.102	ug/l	0.85	60,657,070.92	7.792E+02	Analog	0.30	3
Mg			2	14014.210	ug/l	0.66	2,308,921.09	2.966E+01	Pulse	0.30	3
Al			2	35.901	ug/l	2.53	1,942.36	2.495E-02	Pulse	0.30	3
K			2	8682.761	ug/l	0.56	872,045.73	1.120E+01	Pulse	0.30	3
Ca			2	93586.417	ug/l	0.92	495,625.78	6.366E+00	Pulse	0.30	3
Ti			2	2.020	ug/l	11.86	95.55	1.228E-03	Pulse	0.30	3
V			2	1.220	ug/l	1.48	1,940.13	2.492E-02	Pulse	0.30	3
Cr			2	0.811	ug/l	0.83	1,912.36	2.457E-02	Pulse	0.30	3
Mn			2	2231.364	ug/l	0.35	2,042,162.00	2.623E+01	Pulse	0.30	3
Fe			2	4008.914	ug/l	0.51	6,017,215.73	7.729E+01	Analog	0.30	3
Co			2	8.856	ug/l	2.60	29,130.30	3.742E-01	Pulse	0.30	3
Ni			2	8.767	ug/l	2.41	8,012.03	1.029E-01	Pulse	0.30	3
Cu			2	4.173	ug/l	2.89	11,031.59	1.417E-01	Pulse	0.30	3
Zn			2	5.899	ug/l	7.96	1,953.47	2.509E-02	Pulse	0.30	3
As			2	17.112	ug/l	0.73	2,963.95	3.807E-02	Pulse	1.00	3
Cd			2	0.188	ug/l	38.33	76.19	2.056E-04	Pulse	0.30	3
Sn			2	1.120	ug/l	8.50	1,157.83	3.121E-03	Pulse	0.30	3
Se			3	0.446	ug/l	20.63	17.87	2.098E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,880,888.51	1.19	105.4	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,640,503.14	1.44	108.2	Pulse	0.10	3
1	Ge		495,296.47	1.34	106.3	Pulse	0.10	3
1	Ge		676,793.38	1.32	106.9	Pulse	0.10	3
1	Rh		2,947,341.62	1.54	98.9	Pulse	0.10	3
1	In		3,296,594.58	1.15	103.4	Pulse	0.10	3
1	Tb		4,395,521.60	1.53	105.7	Pulse	0.10	3
1	Ho		412,133.21	0.93	106.6	Pulse	0.10	3
1	Bi		2,350,207.41	0.98	98.1	Pulse	0.10	3
2	Sc		77,849.28	0.83	104.7	Pulse	0.30	3
2	Ge		44,746.73	1.70	105.1	Pulse	0.30	3
2	Ge		67,216.61	0.31	105.5	Pulse	0.30	3
2	Rh		1,194,783.32	0.28	96.9	Pulse	0.30	3
2	In		371,113.15	0.93	95.7	Pulse	0.30	3
2	Tb		1,466,488.83	0.35	98.5	Pulse	0.30	3
2	Ho		142,441.83	0.33	99.4	Pulse	0.30	3
2	Bi		935,545.69	0.50	92.3	Pulse	0.30	3
3	Sc		88,000.55	1.42	115.5	Pulse	0.30	3
3	Ge		55,644.29	1.00	113.0	Pulse	0.30	3
3	Ge		85,081.48	1.29	114.5	Pulse	0.30	3
3	Rh		943,717.98	1.21	102.4	Pulse	0.30	3
3	Tb		1,506,758.41	0.79	105.9	Pulse	0.30	3

Quantitation Report

File Name 042SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa050119m2.b
Method File
Method Path
Acq Time 5/1/2019 16:02
Sample Name jc86800-4
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 5/1/2019 13:34
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.006	ug/l	58.46	26.67	1.388E-05	Pulse	0.25	3
B			1	32.571	ug/l	1.90	79,574.20	4.135E-02	Pulse	0.15	3
Ca			1	6924.614	ug/l	0.48	2,777,977.77	1.019E+00	Pulse	0.10	3
Sr			1	20.398	ug/l	0.65	340,421.33	1.203E-01	Pulse	0.10	3
Mo			1	7.856	ug/l	1.07	26,506.18	9.369E-03	Pulse	0.10	3
Ag			1	0.028	ug/l	20.68	273.34	8.623E-05	Pulse	0.10	3
Sn			1	1.762	ug/l	1.74	6,421.71	2.025E-03	Pulse	0.10	3
Sb			1	1.193	ug/l	5.06	7,425.40	1.757E-03	Pulse	0.10	3
Ba			1	11.224	ug/l	1.60	28,016.08	6.627E-03	Pulse	0.10	3
Tl			1	0.010	ug/l	36.24	270.01	1.283E-04	Pulse	0.10	3
Pb			1	0.146	ug/l	10.45	760.05	3.611E-04	Pulse	0.10	3
Pb			1	0.152	ug/l	12.77	693.38	3.294E-04	Pulse	0.10	3
Pb			1	0.159	ug/l	7.79	3,193.60	1.518E-03	Pulse	0.10	3
Na			2	807555.384	ug/l	1.43	314,259,178.63	3.725E+03	Analog	0.30	3
Mg			2	181606.315	ug/l	1.21	32,420,417.60	3.843E+02	Analog	0.30	3
Al			2	2.717	ug/l	27.22	271.12	3.216E-03	Pulse	0.30	3
K			2	16782.360	ug/l	0.81	1,819,435.62	2.157E+01	Pulse	0.30	3
Ca			2	6943.743	ug/l	0.77	39,885.47	4.728E-01	Pulse	0.30	3
Ti			2	0.237	ug/l	95.48	12.22	1.442E-04	Pulse	0.30	3
V			2	1.698	ug/l	3.92	2,890.28	3.427E-02	Pulse	0.30	3
Cr			2	1.809	ug/l	2.69	4,202.80	4.982E-02	Pulse	0.30	3
Mn			2	0.341	ug/l	12.85	420.01	4.979E-03	Pulse	0.30	3
Fe			2	6.819	ug/l	1.69	12,717.29	1.508E-01	Pulse	0.30	3
Co			2	0.127	ug/l	3.78	503.35	5.968E-03	Pulse	0.30	3
Ni			2	1.438	ug/l	6.93	1,454.54	1.725E-02	Pulse	0.30	3
Cu			2	0.547	ug/l	4.32	2,053.49	2.435E-02	Pulse	0.30	3
Zn			2	4.085	ug/l	8.42	1,514.53	1.796E-02	Pulse	0.30	3
As			2	0.424	ug/l	13.56	86.33	1.024E-03	Pulse	1.00	3
Cd			2	0.016	ug/l	127.59	7.66	2.039E-05	Pulse	0.30	3
Sn			2	0.824	ug/l	6.14	921.15	2.459E-03	Pulse	0.30	3
Se			3	0.870	ug/l	3.98	31.67	3.773E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,924,375.73	0.46	107.8	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,727,409.54	1.26	111.7	Pulse	0.10	3
1	Ge		494,855.98	1.09	106.2	Pulse	0.10	3
1	Ge		676,521.97	1.80	106.8	Pulse	0.10	3
1	Rh		2,829,119.75	0.85	94.9	Pulse	0.10	3
1	In		3,171,626.04	0.78	99.5	Pulse	0.10	3
1	Tb		4,227,488.37	1.21	101.6	Pulse	0.10	3
1	Ho		399,044.11	2.20	103.2	Pulse	0.10	3
1	Bi		2,103,890.49	0.84	87.8	Pulse	0.10	3
2	Sc		84,359.88	0.76	113.4	Pulse	0.30	3
2	Ge		45,390.65	0.26	106.6	Pulse	0.30	3
2	Ge		69,072.11	0.95	108.4	Pulse	0.30	3
2	Rh		1,161,606.31	0.60	94.2	Pulse	0.30	3
2	In		374,633.46	0.47	96.6	Pulse	0.30	3
2	Tb		1,453,710.22	0.52	97.6	Pulse	0.30	3
2	Ho		140,109.94	0.73	97.8	Pulse	0.30	3
2	Bi		860,688.85	0.25	84.9	Pulse	0.30	3
3	Sc		91,513.57	0.17	120.1	Pulse	0.30	3
3	Ge		55,511.73	0.76	112.7	Pulse	0.30	3
3	Ge		83,935.25	1.10	112.9	Pulse	0.30	3
3	Rh		891,605.62	0.22	96.7	Pulse	0.30	3
3	Tb		1,454,864.80	0.62	102.3	Pulse	0.30	3

Quantitation Report

File Name 043SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa050119m2.b
Method File
Method Path
Acq Time 5/1/2019 16:07
Sample Name jc87121-1
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 5/1/2019 13:34
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.038	ug/l	10.70	144.00	7.100E-05	Pulse	0.25	3
B			1	51.022	ug/l	0.88	126,983.37	6.258E-02	Pulse	0.15	3
Ca			1	57967.841	ug/l	1.78	23,352,932.98	8.483E+00	Analog	0.10	3
Sr			1	142.878	ug/l	1.18	2,688,733.50	8.423E-01	Pulse	0.10	3
Mo			1	13.304	ug/l	0.63	50,644.24	1.586E-02	Pulse	0.10	3
Ag			1	0.032	ug/l	5.86	333.35	9.588E-05	Pulse	0.10	3
Sn			1	1.808	ug/l	5.62	7,305.29	2.101E-03	Pulse	0.10	3
Sb			1	0.406	ug/l	11.46	2,820.36	6.276E-04	Pulse	0.10	3
Ba			1	16.042	ug/l	0.22	42,569.80	9.470E-03	Pulse	0.10	3
Tl			1	0.026	ug/l	2.02	556.70	2.205E-04	Pulse	0.10	3
Pb			1	2.490	ug/l	2.29	12,659.23	5.015E-03	Pulse	0.10	3
Pb			1	2.497	ug/l	4.74	11,134.65	4.413E-03	Pulse	0.10	3
Pb			1	2.521	ug/l	2.04	51,227.06	2.030E-02	Pulse	0.10	3
Na			2	5682.706	ug/l	1.66	2,188,088.32	2.629E+01	Pulse	0.30	3
Mg			2	4682.453	ug/l	1.52	824,752.64	9.910E+00	Pulse	0.30	3
Al			2	474.905	ug/l	4.90	25,994.51	3.124E-01	Pulse	0.30	3
K			2	6982.744	ug/l	2.21	751,093.62	9.026E+00	Pulse	0.30	3
Ca			2	57334.503	ug/l	1.22	324,612.00	3.900E+00	Pulse	0.30	3
Ti			2	6.432	ug/l	55.12	324.51	3.910E-03	Pulse	0.30	3
V			2	2.052	ug/l	3.47	3,427.06	4.119E-02	Pulse	0.30	3
Cr			2	1.910	ug/l	1.22	4,359.51	5.238E-02	Pulse	0.30	3
Mn			2	35.290	ug/l	1.24	34,607.33	4.158E-01	Pulse	0.30	3
Fe			2	545.675	ug/l	1.02	876,977.33	1.054E+01	Pulse	0.30	3
Co			2	0.404	ug/l	6.72	1,470.08	1.767E-02	Pulse	0.30	3
Ni			2	2.109	ug/l	3.61	2,087.94	2.509E-02	Pulse	0.30	3
Cu			2	3.852	ug/l	2.85	10,929.30	1.313E-01	Pulse	0.30	3
Zn			2	51.695	ug/l	2.81	17,057.86	2.050E-01	Pulse	0.30	3
As			2	1.074	ug/l	2.67	205.33	2.467E-03	Pulse	1.00	3
Cd			2	0.057	ug/l	44.96	25.45	6.473E-05	Pulse	0.30	3
Sn			2	1.048	ug/l	6.25	1,165.61	2.960E-03	Pulse	0.30	3
Se			3	0.638	ug/l	19.57	25.80	2.857E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,029,038.16	0.69	113.7	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,753,596.21	2.16	112.8	Pulse	0.10	3
1	Ge		532,083.90	1.72	114.2	Pulse	0.10	3
1	Ge		717,952.86	1.94	113.4	Pulse	0.10	3
1	Rh		3,192,575.89	1.97	107.1	Pulse	0.10	3
1	In		3,475,384.54	1.61	109.0	Pulse	0.10	3
1	Tb		4,495,016.39	1.79	108.1	Pulse	0.10	3
1	Ho		423,679.94	2.77	109.6	Pulse	0.10	3
1	Bi		2,523,923.24	1.58	105.4	Pulse	0.10	3
2	Sc		83,231.58	1.28	111.9	Pulse	0.30	3
2	Ge		48,062.71	0.57	112.9	Pulse	0.30	3
2	Ge		70,965.86	0.68	111.4	Pulse	0.30	3
2	Rh		1,293,850.99	0.41	104.9	Pulse	0.30	3
2	In		393,885.70	0.65	101.6	Pulse	0.30	3
2	Tb		1,512,803.52	0.78	101.6	Pulse	0.30	3
2	Ho		146,190.37	1.04	102.0	Pulse	0.30	3
2	Bi		998,510.65	0.81	98.5	Pulse	0.30	3
3	Sc		92,532.77	1.01	121.5	Pulse	0.30	3
3	Ge		59,056.31	1.08	119.9	Pulse	0.30	3
3	Ge		90,356.24	0.93	121.6	Pulse	0.30	3
3	Rh		1,025,361.76	0.61	111.3	Pulse	0.30	3
3	Tb		1,577,059.45	0.55	110.9	Pulse	0.30	3

Quantitation Report

File Name	044SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa050119m2.b
Method File	
Method Path	
Acq Time	5/1/2019 16:12
Sample Name	jc87121-2
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/1/2019 13:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.072	ug/l	21.10	262.67	1.320E-04	Pulse	0.25	3
B			1	51.295	ug/l	0.92	125,319.24	6.290E-02	Pulse	0.15	3
Ca			1	59890.535	ug/l	0.67	23,938,325.48	8.764E+00	Analog	0.10	3
Sr			1	147.977	ug/l	1.12	2,727,729.96	8.723E-01	Pulse	0.10	3
Mo			1	13.798	ug/l	1.07	51,446.95	1.645E-02	Pulse	0.10	3
Ag			1	0.027	ug/l	38.54	290.01	8.462E-05	Pulse	0.10	3
Sn			1	2.334	ug/l	0.77	10,210.36	2.991E-03	Pulse	0.10	3
Sb			1	0.507	ug/l	3.81	3,463.82	7.730E-04	Pulse	0.10	3
Ba			1	22.907	ug/l	2.19	60,579.75	1.352E-02	Pulse	0.10	3
Tl			1	0.054	ug/l	5.26	956.73	3.824E-04	Pulse	0.10	3
Pb			1	5.461	ug/l	0.59	27,302.71	1.091E-02	Pulse	0.10	3
Pb			1	5.533	ug/l	0.72	24,267.26	9.701E-03	Pulse	0.10	3
Pb			1	5.535	ug/l	1.01	110,729.34	4.427E-02	Pulse	0.10	3
Na			2	6974.886	ug/l	0.38	2,618,288.92	3.225E+01	Pulse	0.30	3
Mg			2	5139.958	ug/l	0.35	883,085.11	1.088E+01	Pulse	0.30	3
Al			2	1284.724	ug/l	1.28	68,414.93	8.428E-01	Pulse	0.30	3
K			2	6654.802	ug/l	0.80	698,631.62	8.606E+00	Pulse	0.30	3
Ca			2	59397.830	ug/l	0.24	328,028.51	4.041E+00	Pulse	0.30	3
Ti			2	18.939	ug/l	13.47	934.57	1.151E-02	Pulse	0.30	3
V			2	3.579	ug/l	4.81	5,764.43	7.100E-02	Pulse	0.30	3
Cr			2	2.934	ug/l	2.87	6,356.87	7.831E-02	Pulse	0.30	3
Mn			2	71.706	ug/l	0.39	68,509.84	8.439E-01	Pulse	0.30	3
Fe			2	1546.160	ug/l	0.36	2,420,914.07	2.982E+01	Pulse	0.30	3
Co			2	0.836	ug/l	1.72	2,912.52	3.588E-02	Pulse	0.30	3
Ni			2	3.495	ug/l	4.12	3,352.60	4.130E-02	Pulse	0.30	3
Cu			2	5.157	ug/l	3.03	14,088.35	1.736E-01	Pulse	0.30	3
Zn			2	51.311	ug/l	0.61	16,518.42	2.035E-01	Pulse	0.30	3
As			2	1.539	ug/l	8.15	284.00	3.499E-03	Pulse	1.00	3
Cd			2	0.119	ug/l	54.73	50.86	1.313E-04	Pulse	0.30	3
Sn			2	1.612	ug/l	11.80	1,635.66	4.223E-03	Pulse	0.30	3
Se			3	0.614	ug/l	23.35	25.07	2.761E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,992,449.35	1.23	111.6	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,731,471.52	1.42	111.9	Pulse	0.10	3
1	Ge		523,810.31	1.79	112.5	Pulse	0.10	3
1	Ge		711,668.48	1.13	112.4	Pulse	0.10	3
1	Rh		3,127,444.43	2.30	104.9	Pulse	0.10	3
1	In		3,414,622.61	1.80	107.1	Pulse	0.10	3
1	Tb		4,479,920.04	1.35	107.7	Pulse	0.10	3
1	Ho		422,092.82	1.01	109.2	Pulse	0.10	3
1	Bi		2,501,440.85	0.85	104.4	Pulse	0.10	3
2	Sc		81,178.53	0.32	109.1	Pulse	0.30	3
2	Ge		46,659.89	0.67	109.6	Pulse	0.30	3
2	Ge		69,978.12	0.72	109.8	Pulse	0.30	3
2	Rh		1,275,394.98	0.63	103.4	Pulse	0.30	3
2	In		387,516.77	0.80	99.9	Pulse	0.30	3
2	Tb		1,494,996.71	0.77	100.4	Pulse	0.30	3
2	Ho		143,807.09	0.50	100.4	Pulse	0.30	3
2	Bi		987,273.89	0.46	97.4	Pulse	0.30	3
3	Sc		92,929.26	0.78	122.0	Pulse	0.30	3
3	Ge		59,900.51	0.98	121.7	Pulse	0.30	3
3	Ge		90,773.88	0.74	122.1	Pulse	0.30	3
3	Rh		1,014,655.72	0.70	110.1	Pulse	0.30	3
3	Tb		1,564,726.40	0.84	110.0	Pulse	0.30	3

Quantitation Report

File Name	045SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa050119m2.b
Method File	
Method Path	
Acq Time	5/1/2019 16:17
Sample Name	mp14668-mb1 5
Sample Type	Sample
Comment	
Prep Dilution	5.000
Auto Dilution	N/A
Total Dilution	5.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/1/2019 13:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.024	ug/l	39.73	44.00	2.102E-05	Pulse	0.25	3
B			1	9.419	ug/l	1.35	17,186.75	8.202E-03	Pulse	0.15	3
Ca			1	414.388	ug/l	1.23	85,553.92	3.012E-02	Pulse	0.10	3
Sr			1	1.394	ug/l	6.77	11,294.41	3.376E-03	Pulse	0.10	3
Mo			1	0.265	ug/l	10.48	436.69	1.305E-04	Pulse	0.10	3
Ag			1	0.024	ug/l	58.95	143.34	3.979E-05	Pulse	0.10	3
Sn			1	16.684	ug/l	3.05	37,251.73	1.033E-02	Pulse	0.10	3
Sb			1	0.065	ug/l	9.91	373.35	8.158E-05	Pulse	0.10	3
Ba			1	0.978	ug/l	18.74	1,073.41	2.348E-04	Pulse	0.10	3
Tl			1	0.011	ug/l	35.26	260.01	9.864E-05	Pulse	0.10	3
Pb			1	0.337	ug/l	10.17	890.06	3.379E-04	Pulse	0.10	3
Pb			1	0.340	ug/l	15.60	793.38	3.012E-04	Pulse	0.10	3
Pb			1	0.385	ug/l	5.28	3,890.36	1.477E-03	Pulse	0.10	3
Na			2	358.653	ug/l	0.30	63,358.80	7.396E-01	Pulse	0.30	3
Mg			2	88.443	ug/l	3.74	6,469.11	7.552E-02	Pulse	0.30	3
Al			2	58.380	ug/l	5.32	1,433.52	1.673E-02	Pulse	0.30	3
K			2	74.807	ug/l	8.91	10,863.63	1.268E-01	Pulse	0.30	3
Ca			2	435.796	ug/l	10.56	1,057.83	1.235E-02	Pulse	0.30	3
Ti			2	6.474	ug/l	149.84	133.46	1.574E-03	Pulse	0.30	3
V			2	0.483	ug/l	21.67	416.68	4.861E-03	Pulse	0.30	3
Cr			2	0.760	ug/l	3.96	1,003.38	1.171E-02	Pulse	0.30	3
Mn			2	0.863	ug/l	2.31	431.12	5.032E-03	Pulse	0.30	3
Fe			2	27.139	ug/l	2.69	19,580.80	2.286E-01	Pulse	0.30	3
Co			2	0.043	ug/l	28.96	115.56	1.347E-03	Pulse	0.30	3
Ni			2	0.573	ug/l	12.66	266.67	3.115E-03	Pulse	0.30	3
Cu			2	1.132	ug/l	4.99	1,825.68	2.131E-02	Pulse	0.30	3
Zn			2	9.305	ug/l	3.81	1,416.75	1.653E-02	Pulse	0.30	3
As			2	0.057	ug/l	83.01	11.33	1.325E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	0.031	ug/l	105.11	6.64	1.623E-05	Pulse	0.30	3
Sn			2	15.131	ug/l	2.96	5,827.82	1.416E-02	Pulse	0.30	3
Se			3	0.088	ug/l	113.66	4.33	4.785E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,095,601.83	0.85	117.4	Pulse	0.10	3
1	Sc		2,840,260.17	1.30	116.4	Pulse	0.10	3
1	Ge		533,145.77	1.20	114.5	Pulse	0.10	3
1	Ge		729,117.85	0.98	115.1	Pulse	0.10	3
1	Rh		3,346,080.78	0.89	112.3	Pulse	0.10	3
1	In		3,607,874.06	0.84	113.2	Pulse	0.10	3
1	Tb		4,574,797.12	1.07	110.0	Pulse	0.10	3
1	Ho		429,107.25	1.46	111.0	Pulse	0.10	3
1	Bi		2,634,760.27	0.72	110.0	Pulse	0.10	3
2	Sc		85,672.93	1.09	115.2	Pulse	0.30	3
2	Ge		48,829.41	0.99	114.7	Pulse	0.30	3
2	Ge		72,358.27	0.93	113.6	Pulse	0.30	3
2	Rh		1,361,973.25	0.70	110.4	Pulse	0.30	3
2	In		411,656.06	1.01	106.2	Pulse	0.30	3
2	Tb		1,537,916.68	0.92	103.3	Pulse	0.30	3
2	Ho		147,823.32	0.73	103.2	Pulse	0.30	3
2	Bi		1,048,333.43	0.27	103.4	Pulse	0.30	3
3	Sc		93,560.11	0.65	122.8	Pulse	0.30	3
3	Ge		59,331.65	0.87	120.5	Pulse	0.30	3
3	Ge		90,511.42	0.43	121.8	Pulse	0.30	3
3	Rh		1,061,938.53	0.40	115.2	Pulse	0.30	3
3	Tb		1,569,702.30	0.39	110.4	Pulse	0.30	3

Quantitation Report

File Name 046SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa050119m2.b
Method File
Method Path
Acq Time 5/1/2019 16:22
Sample Name mp14668-b1
Sample Type Sample
Comment
Prep Dilution 5.000
Auto Dilution N/A
Total Dilution 5.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 5/1/2019 13:34
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	190.526	ug/l	1.04	278,840.53	1.364E-01	Pulse	0.25	3
B			1	205.254	ug/l	0.31	200,991.38	9.835E-02	Pulse	0.15	3
Ca			1	10343.930	ug/l	0.45	1,688,744.97	6.110E-01	Pulse	0.10	3
Sr			1	202.288	ug/l	0.77	1,529,109.88	4.770E-01	Pulse	0.10	3
Mo			1	184.601	ug/l	1.80	282,130.19	8.803E-02	Pulse	0.10	3
Ag			1	97.264	ug/l	1.15	343,416.28	9.806E-02	Pulse	0.10	3
Sn			1	194.600	ug/l	0.53	457,418.56	1.306E-01	Pulse	0.10	3
Sb			1	197.049	ug/l	0.26	510,845.75	1.132E-01	Pulse	0.10	3
Ba			1	196.720	ug/l	1.48	209,494.11	4.644E-02	Pulse	0.10	3
Tl			1	193.993	ug/l	0.77	1,140,051.15	4.479E-01	Pulse	0.10	3
Pb			1	193.774	ug/l	1.32	391,882.68	1.540E-01	Pulse	0.10	3
Pb			1	193.991	ug/l	0.91	344,128.09	1.352E-01	Pulse	0.10	3
Pb			1	194.864	ug/l	0.42	1,578,091.41	6.200E-01	Pulse	0.10	3
Na			2	10312.246	ug/l	0.97	1,597,080.84	1.911E+01	Pulse	0.30	3
Mg			2	10077.051	ug/l	0.06	713,104.59	8.531E+00	Pulse	0.30	3
Al			2	9473.057	ug/l	0.49	207,548.51	2.483E+00	Pulse	0.30	3
K			2	10078.621	ug/l	0.27	438,705.12	5.248E+00	Pulse	0.30	3
Ca			2	11052.987	ug/l	1.48	25,179.20	3.012E-01	Pulse	0.30	3
Ti			2	182.418	ug/l	1.19	3,708.24	4.436E-02	Pulse	0.30	3
V			2	196.808	ug/l	0.81	128,650.12	1.539E+00	Pulse	0.30	3
Cr			2	197.029	ug/l	0.50	167,182.01	2.000E+00	Pulse	0.30	3
Mn			2	187.441	ug/l	0.81	73,759.06	8.824E-01	Pulse	0.30	3
Fe			2	10067.209	ug/l	0.08	6,489,830.71	7.764E+01	Analog	0.30	3
Co			2	196.175	ug/l	0.54	276,769.42	3.311E+00	Pulse	0.30	3
Ni			2	193.617	ug/l	0.85	75,716.04	9.058E-01	Pulse	0.30	3
Cu			2	192.059	ug/l	0.63	208,383.77	2.493E+00	Pulse	0.30	3
Zn			2	218.194	ug/l	0.95	28,819.89	3.448E-01	Pulse	0.30	3
As			2	182.493	ug/l	1.40	13,554.29	1.622E-01	Pulse	1.00	3
Cd			2	197.638	ug/l	0.53	34,257.26	8.548E-02	Pulse	0.30	3
Sn			2	199.231	ug/l	1.24	71,692.97	1.789E-01	Pulse	0.30	3
Se			3	485.368	ug/l	0.85	6,778.80	7.663E-02	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,043,659.35	0.44	114.5	Pulse	0.10	3
1	Sc		2,764,021.63	1.32	113.2	Pulse	0.10	3
1	Ge		516,912.13	1.19	111.0	Pulse	0.10	3

Quantitation Report

1	Ge		717,052.07	1.42	113.2	Pulse	0.10	3
1	Rh		3,205,751.20	2.08	107.5	Pulse	0.10	3
1	In		3,501,731.29	1.38	109.9	Pulse	0.10	3
1	Tb		4,510,964.72	1.49	108.4	Pulse	0.10	3
1	Ho		422,940.80	1.01	109.4	Pulse	0.10	3
1	Bi		2,545,238.71	1.42	106.3	Pulse	0.10	3
2	Sc		83,589.21	0.24	112.4	Pulse	0.30	3
2	Ge		47,481.07	1.94	111.5	Pulse	0.30	3
2	Ge		71,090.72	1.42	111.6	Pulse	0.30	3
2	Rh		1,310,861.20	0.20	106.3	Pulse	0.30	3
2	In		400,758.47	0.46	103.3	Pulse	0.30	3
2	Tb		1,517,338.41	0.68	101.9	Pulse	0.30	3
2	Ho		147,920.92	0.36	103.2	Pulse	0.30	3
2	Bi		1,008,421.52	0.78	99.5	Pulse	0.30	3
3	Sc		92,579.60	0.67	121.5	Pulse	0.30	3
3	Ge		58,141.94	0.64	118.1	Pulse	0.30	3
3	Ge		88,468.34	0.84	119.0	Pulse	0.30	3
3	Rh		1,032,383.74	0.23	112.0	Pulse	0.30	3
3	Tb		1,558,382.72	0.53	109.6	Pulse	0.30	3

Quantitation Report

File Name	047SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa050119m2.b
Method File	
Method Path	
Acq Time	5/1/2019 16:27
Sample Name	mp14668-s1
Sample Type	Sample
Comment	
Prep Dilution	5.000
Auto Dilution	N/A
Total Dilution	5.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/1/2019 13:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	204.208	ug/l	0.70	295,972.49	1.462E-01	Pulse	0.25	3
B			1	548.951	ug/l	1.35	519,254.23	2.566E-01	Pulse	0.15	3
Ca			1	23783.792	ug/l	0.19	4,702,733.26	1.397E+00	Pulse	0.10	3
Sr			1	518.166	ug/l	0.30	3,920,427.55	1.222E+00	Pulse	0.10	3
Mo			1	174.229	ug/l	0.51	266,597.52	8.308E-02	Pulse	0.10	3
Ag			1	93.926	ug/l	0.67	333,681.06	9.470E-02	Pulse	0.10	3
Sn			1	191.255	ug/l	0.69	452,343.97	1.284E-01	Pulse	0.10	3
Sb			1	69.553	ug/l	0.72	184,763.40	4.000E-02	Pulse	0.10	3
Ba			1	597.154	ug/l	0.37	651,061.98	1.410E-01	Pulse	0.10	3
Tl			1	191.092	ug/l	0.54	1,080,189.54	4.412E-01	Pulse	0.10	3
Pb			1	359.873	ug/l	0.30	699,925.98	2.859E-01	Pulse	0.10	3
Pb			1	348.197	ug/l	1.36	594,043.77	2.426E-01	Pulse	0.10	3
Pb			1	355.221	ug/l	0.64	2,766,490.04	1.130E+00	Pulse	0.10	3
Na			2	41671.165	ug/l	0.32	7,904,224.13	7.697E+01	Analog	0.30	3
Mg			2	57907.946	ug/l	0.64	5,034,019.38	4.902E+01	Pulse	0.30	3
Al			2	242535.138	ug/l	0.27	6,524,426.97	6.353E+01	Analog	0.30	3
K			2	50068.613	ug/l	0.46	2,641,349.34	2.572E+01	Pulse	0.30	3
Ca			2	25207.902	ug/l	1.67	70,483.51	6.864E-01	Pulse	0.30	3
Ti			2	2774.774	ug/l	0.36	69,296.88	6.748E-01	Pulse	0.30	3
V			2	650.831	ug/l	0.26	522,399.42	5.087E+00	Pulse	0.30	3
Cr			2	587.195	ug/l	0.32	611,281.56	5.953E+00	Pulse	0.30	3
Mn			2	983.724	ug/l	0.69	475,133.84	4.627E+00	Pulse	0.30	3
Fe			2	200466.706	ug/l	0.37	158,726,824.81	1.546E+03	Analog	0.30	3
Co			2	196.936	ug/l	0.42	341,342.77	3.324E+00	Pulse	0.30	3
Ni			2	269.670	ug/l	0.27	129,541.34	1.261E+00	Pulse	0.30	3
Cu			2	215.184	ug/l	0.46	286,751.49	2.792E+00	Pulse	0.30	3
Zn			2	545.935	ug/l	0.75	88,291.17	8.598E-01	Pulse	0.30	3
As			2	195.027	ug/l	0.67	17,794.67	1.733E-01	Pulse	1.00	3
Cd			2	179.621	ug/l	0.49	31,794.84	7.769E-02	Pulse	0.30	3
Sn			2	194.130	ug/l	1.17	71,344.72	1.743E-01	Pulse	0.30	3
Se			3	441.941	ug/l	0.64	6,192.24	6.977E-02	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,024,014.50	0.75	113.4	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		3,365,990.47	1.51	137.9	Pulse	0.10	3
1	Ge		546,900.21	0.62	117.4	Pulse	0.10	3
1	Ge		735,765.72	1.06	116.2	Pulse	0.10	3
1	Rh		3,208,775.79	1.32	107.6	Pulse	0.10	3
1	In		3,523,646.90	1.18	110.5	Pulse	0.10	3
1	Tb		4,619,012.95	2.11	111.0	Pulse	0.10	3
1	Ho		497,027.66	1.54	128.6	Pulse	0.10	3
1	Bi		2,448,013.25	1.25	102.2	Pulse	0.10	3
2	Sc		102,691.15	0.39	138.0	Pulse	0.30	3
2	Ge		52,617.78	0.44	123.6	Pulse	0.30	3
2	Ge		74,381.72	0.75	116.7	Pulse	0.30	3
2	Rh		1,307,002.03	0.53	106.0	Pulse	0.30	3
2	In		409,252.20	0.31	105.5	Pulse	0.30	3
2	Tb		1,552,668.55	0.45	104.3	Pulse	0.30	3
2	Ho		174,288.11	0.54	121.6	Pulse	0.30	3
2	Bi		984,609.93	0.48	97.2	Pulse	0.30	3
3	Sc		109,546.74	0.65	143.8	Pulse	0.30	3
3	Ge		61,540.80	1.06	125.0	Pulse	0.30	3
3	Ge		88,746.10	0.33	119.4	Pulse	0.30	3
3	Rh		996,423.68	0.41	108.1	Pulse	0.30	3
3	Tb		1,537,219.77	0.39	108.1	Pulse	0.30	3

Quantitation Report

File Name	048_CCV.d
File Path	C:\Agilent\ICPMH\1\DATA\xa050119m2.b
Method File	
Method Path	
Acq Time	5/1/2019 16:32
Sample Name	CCVA
Sample Type	CCV
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/1/2019 13:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	49.430	ug/l	1.60	364,756.70	1.770E-01	Pulse	0.25	3
B			1	110.076	ug/l	0.49	530,091.89	2.572E-01	Pulse	0.15	3
Ca			1	5152.482	ug/l	0.81	4,404,995.66	1.513E+00	Pulse	0.10	3
Sr			1	51.808	ug/l	1.41	2,024,140.44	6.109E-01	Pulse	0.10	3
Mo			1	49.330	ug/l	1.35	389,713.09	1.176E-01	Pulse	0.10	3
Ag			1	49.135	ug/l	0.30	887,997.09	2.477E-01	Pulse	0.10	3
Sn			1	48.283	ug/l	0.42	581,860.12	1.623E-01	Pulse	0.10	3
Sb			1	52.684	ug/l	1.00	694,310.33	1.514E-01	Pulse	0.10	3
Ba			1	50.602	ug/l	1.39	273,941.30	5.973E-02	Pulse	0.10	3
Tl			1	50.409	ug/l	1.07	1,463,959.92	5.820E-01	Pulse	0.10	3
Pb			1	50.147	ug/l	1.18	501,149.47	1.992E-01	Pulse	0.10	3
Pb			1	50.063	ug/l	1.01	438,842.69	1.745E-01	Pulse	0.10	3
Pb			1	50.280	ug/l	0.56	2,012,116.10	7.999E-01	Pulse	0.10	3
Na			2	5093.579	ug/l	1.01	4,112,627.20	4.707E+01	Pulse	0.30	3
Mg			2	5073.356	ug/l	1.26	1,876,165.55	2.147E+01	Pulse	0.30	3
Al			2	4795.733	ug/l	0.94	548,921.32	6.283E+00	Pulse	0.30	3
K			2	5120.515	ug/l	1.66	1,152,902.04	1.320E+01	Pulse	0.30	3
Ca			2	5257.587	ug/l	0.88	62,535.52	7.158E-01	Pulse	0.30	3
Ti			2	46.755	ug/l	1.30	4,967.47	5.685E-02	Pulse	0.30	3
V			2	50.579	ug/l	1.16	172,758.98	1.977E+00	Pulse	0.30	3
Cr			2	49.805	ug/l	0.71	220,765.31	2.527E+00	Pulse	0.30	3
Mn			2	47.799	ug/l	0.16	98,277.38	1.125E+00	Pulse	0.30	3
Fe			2	4992.884	ug/l	0.66	16,819,664.33	1.925E+02	Analog	0.30	3
Co			2	49.293	ug/l	0.94	363,435.38	4.160E+00	Pulse	0.30	3
Ni			2	47.971	ug/l	1.41	98,034.65	1.122E+00	Pulse	0.30	3
Cu			2	47.658	ug/l	1.28	270,098.98	3.091E+00	Pulse	0.30	3
Zn			2	46.884	ug/l	0.84	32,350.83	3.703E-01	Pulse	0.30	3
As			2	48.159	ug/l	0.34	18,691.69	2.139E-01	Pulse	1.00	3
Cd			2	49.800	ug/l	0.77	44,487.68	1.077E-01	Pulse	0.30	3
Sn			2	49.739	ug/l	0.56	92,182.63	2.232E-01	Pulse	0.30	3
Se			3	192.688	ug/l	0.48	13,608.57	1.521E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,060,880.50	0.90	115.5	Pulse	0.10	3
1	Sc		2,911,469.75	1.37	119.3	Pulse	0.10	3
1	Ge		537,069.20	1.12	115.3	Pulse	0.10	3

Quantitation Report

1	Ge		741,164.86	1.60	117.0	Pulse	0.10	3
1	Rh		3,314,042.56	1.89	111.2	Pulse	0.10	3
1	In		3,585,500.33	0.48	112.5	Pulse	0.10	3
1	Tb		4,586,700.77	0.36	110.3	Pulse	0.10	3
1	Ho		428,663.06	0.92	110.9	Pulse	0.10	3
1	Bi		2,515,649.86	1.04	105.0	Pulse	0.10	3
2	Sc		87,372.79	0.56	117.5	Pulse	0.30	3
2	Ge		48,850.59	0.64	114.7	Pulse	0.30	3
2	Ge		73,658.58	0.14	115.6	Pulse	0.30	3
2	Rh		1,335,460.99	0.34	108.3	Pulse	0.30	3
2	In		413,083.65	0.28	106.5	Pulse	0.30	3
2	Tb		1,537,713.34	0.65	103.3	Pulse	0.30	3
2	Ho		149,060.46	0.69	104.0	Pulse	0.30	3
2	Bi		1,003,898.81	0.50	99.1	Pulse	0.30	3
3	Sc		94,362.85	1.73	123.9	Pulse	0.30	3
3	Ge		59,338.38	1.07	120.5	Pulse	0.30	3
3	Ge		89,490.34	0.88	120.4	Pulse	0.30	3
3	Rh		1,028,651.31	1.15	111.6	Pulse	0.30	3
3	Tb		1,546,027.20	1.26	108.7	Pulse	0.30	3

Quantitation Report

File Name	049_CCB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa050119m2.b
Method File	
Method Path	
Acq Time	5/1/2019 16:38
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/1/2019 13:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.010	ug/l	8.35	82.67	4.005E-05	Pulse	0.25	3
B			1	5.225	ug/l	1.15	32,807.49	1.589E-02	Pulse	0.15	3
Ca			1	5.141	ug/l	2.91	21,110.80	7.384E-03	Pulse	0.10	3
Sr			1	0.017	ug/l	5.99	970.07	2.906E-04	Pulse	0.10	3
Mo			1	0.090	ug/l	7.30	733.38	2.195E-04	Pulse	0.10	3
Ag			1	0.011	ug/l	45.16	260.01	7.217E-05	Pulse	0.10	3
Sn			1	0.577	ug/l	4.77	3,593.92	9.966E-04	Pulse	0.10	3
Sb			1	0.183	ug/l	7.42	2,566.96	5.684E-04	Pulse	0.10	3
Ba			1	0.012	ug/l	18.70	83.33	1.847E-05	Pulse	0.10	3
Tl			1	0.024	ug/l	10.87	893.39	3.489E-04	Pulse	0.10	3
Pb			1	0.024	ug/l	16.22	420.02	1.641E-04	Pulse	0.10	3
Pb			1	0.026	ug/l	40.53	393.35	1.537E-04	Pulse	0.10	3
Pb			1	0.029	ug/l	16.44	1,806.78	7.058E-04	Pulse	0.10	3
Na			2	5.506	ug/l	1.42	11,093.74	1.286E-01	Pulse	0.30	3
Mg			2	1.040	ug/l	18.54	436.68	5.060E-03	Pulse	0.30	3
Al			2	0.633	ug/l	53.97	195.56	2.266E-03	Pulse	0.30	3
K			2	2.112	ug/l	41.32	8,104.27	9.392E-02	Pulse	0.30	3
Ca			2	1.277	ug/l	194.24	57.78	6.694E-04	Pulse	0.30	3
Ti			2	0.074	ug/l	49.52	7.78	9.012E-05	Pulse	0.30	3
V			2	0.001	ug/l	394.60	98.89	1.146E-03	Pulse	0.30	3
Cr			2	0.016	ug/l	25.67	417.79	4.841E-03	Pulse	0.30	3
Mn			2	-0.002	ug/l	-235.31	80.00	9.272E-04	Pulse	0.30	3
Fe			2	1.775	ug/l	7.90	7,574.07	8.777E-02	Pulse	0.30	3
Co			2	0.007	ug/l	25.39	105.55	1.223E-03	Pulse	0.30	3
Ni			2	0.007	ug/l	117.46	52.22	6.050E-04	Pulse	0.30	3
Cu			2	0.022	ug/l	18.52	697.80	8.086E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	0.016	ug/l	234.78	175.56	2.034E-03	Pulse	0.30	3
As			2	0.007	ug/l	215.88	9.67	1.119E-04	Pulse	1.00	3
Cd			2	0.013	ug/l	27.18	13.29	3.154E-05	Pulse	0.30	3
Sn			2	0.212	ug/l	16.75	658.91	1.566E-03	Pulse	0.30	3
Se			3	0.089	ug/l	41.73	9.27	1.039E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,064,587.27	0.35	115.7	Pulse	0.10	3
1	Sc		2,859,064.75	0.70	117.1	Pulse	0.10	3
1	Ge		528,415.16	1.19	113.4	Pulse	0.10	3
1	Ge		732,976.08	1.04	115.7	Pulse	0.10	3
1	Rh		3,339,248.08	1.27	112.0	Pulse	0.10	3
1	In		3,604,710.04	0.99	113.1	Pulse	0.10	3
1	Tb		4,515,912.12	1.02	108.6	Pulse	0.10	3
1	Ho		425,445.71	1.12	110.0	Pulse	0.10	3
1	Bi		2,561,201.05	0.73	106.9	Pulse	0.10	3
2	Sc		86,290.59	0.23	116.0	Pulse	0.30	3
2	Ge		49,187.15	2.03	115.5	Pulse	0.30	3
2	Ge		73,595.00	0.56	115.5	Pulse	0.30	3
2	Rh		1,367,526.16	0.63	110.9	Pulse	0.30	3
2	In		421,015.23	0.55	108.6	Pulse	0.30	3
2	Tb		1,536,867.54	0.63	103.2	Pulse	0.30	3
2	Ho		148,434.40	0.76	103.6	Pulse	0.30	3
2	Bi		1,030,027.84	0.28	101.6	Pulse	0.30	3
3	Sc		93,703.67	0.49	123.0	Pulse	0.30	3
3	Ge		59,919.55	0.98	121.7	Pulse	0.30	3
3	Ge		89,152.71	0.23	119.9	Pulse	0.30	3
3	Rh		1,048,305.69	0.53	113.7	Pulse	0.30	3
3	Tb		1,544,426.88	0.67	108.6	Pulse	0.30	3

Quantitation Report

File Name	050SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa050119m2.b
Method File	
Method Path	
Acq Time	5/1/2019 16:43
Sample Name	mp14668-s2
Sample Type	Sample
Comment	
Prep Dilution	5.000
Auto Dilution	N/A
Total Dilution	5.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/1/2019 13:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	201.849	ug/l	1.88	288,858.85	1.445E-01	Pulse	0.25	3
B			1	558.592	ug/l	3.72	521,584.96	2.610E-01	Pulse	0.15	3
Ca			1	23296.058	ug/l	0.51	4,675,676.28	1.369E+00	Pulse	0.10	3
Sr			1	516.653	ug/l	0.15	3,904,253.59	1.218E+00	Pulse	0.10	3
Mo			1	168.125	ug/l	1.09	256,907.61	8.017E-02	Pulse	0.10	3
Ag			1	93.625	ug/l	0.26	330,945.63	9.439E-02	Pulse	0.10	3
Sn			1	186.597	ug/l	1.56	438,980.07	1.252E-01	Pulse	0.10	3
Sb			1	67.344	ug/l	0.15	178,110.74	3.873E-02	Pulse	0.10	3
Ba			1	616.263	ug/l	1.08	669,014.34	1.455E-01	Pulse	0.10	3
Tl			1	185.887	ug/l	0.88	1,048,225.40	4.292E-01	Pulse	0.10	3
Pb			1	351.920	ug/l	0.82	682,797.96	2.796E-01	Pulse	0.10	3
Pb			1	342.206	ug/l	0.60	582,359.59	2.385E-01	Pulse	0.10	3
Pb			1	348.066	ug/l	0.63	2,704,144.71	1.107E+00	Pulse	0.10	3
Na			2	39722.050	ug/l	0.79	7,513,683.04	7.337E+01	Analog	0.30	3
Mg			2	57620.070	ug/l	0.80	4,994,825.22	4.878E+01	Pulse	0.30	3
Al			2	250625.423	ug/l	2.63	6,723,345.98	6.565E+01	Analog	0.30	3
K			2	50569.748	ug/l	0.74	2,660,221.36	2.598E+01	Pulse	0.30	3
Ca			2	24918.941	ug/l	0.86	69,479.54	6.785E-01	Pulse	0.30	3
Ti			2	2883.200	ug/l	1.27	71,802.98	7.012E-01	Pulse	0.30	3
V			2	648.776	ug/l	0.64	519,279.68	5.071E+00	Pulse	0.30	3
Cr			2	603.665	ug/l	0.19	626,645.44	6.119E+00	Pulse	0.30	3
Mn			2	988.288	ug/l	0.73	475,993.42	4.648E+00	Pulse	0.30	3
Fe			2	198086.676	ug/l	1.56	156,401,838.23	1.527E+03	Analog	0.30	3
Co			2	193.132	ug/l	0.88	333,806.74	3.260E+00	Pulse	0.30	3
Ni			2	265.327	ug/l	0.38	127,095.90	1.241E+00	Pulse	0.30	3
Cu			2	215.156	ug/l	0.86	285,899.00	2.792E+00	Pulse	0.30	3
Zn			2	596.751	ug/l	1.30	96,221.07	9.396E-01	Pulse	0.30	3
As			2	186.384	ug/l	1.00	16,958.79	1.656E-01	Pulse	1.00	3
Cd			2	175.886	ug/l	1.88	31,009.37	7.607E-02	Pulse	0.30	3
Sn			2	188.913	ug/l	1.40	69,160.65	1.697E-01	Pulse	0.30	3
Se			3	429.366	ug/l	0.40	5,958.89	6.779E-02	Pulse	5.00	3

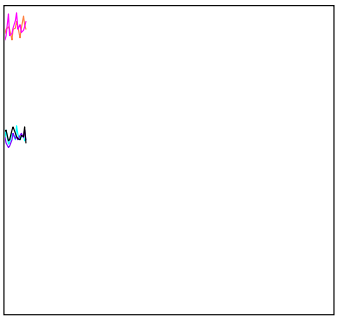
ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,998,560.38	1.28	112.0	Pulse	0.10	3

NOTE: The remaining raw data for this batch is not relevant to this job. As such it has been omitted.

Current Signal

[1]



Mass	Range	Count	Avg. Count	RSD [%]
7	5000	2818	2877.0	2.92
59	5000	2820	2846.9	2.82
89	5000	4622	4637.8	2.13
140	5000	4749	4655.2	2.83
205	5000	2782	2906.7	2.96
156/140	1	0.505 %	0.586 %	21.42
70/140	10	5.433 %	5.394 %	6.82
9	20	0	0.1	374.17
11	1000	593	575.8	6.57
88	50	18	22.9	31.29
95	20	2	3.3	65.85
107	20	1	1.4	114.18
121	50	13	14.9	27.67
137	20	4	3.4	38.05
208	50	39	34.4	16.57
Integration Time [sec]		0.10		

Plasma Parameters

RF Power	1500	W	Nebulizer Pump	0.10	rps
RF Matching	1.80	V	S/C Temp	2	℃
Smpl Depth	7.8	mm	Gas Switch	Dilution Gas	
Carrier Gas	0.55	L/min	Makeup/Dilution Gas	0.55	L/min
Option Gas	0.0	%			

Lenses Parameters

Extract 1	0.0	V	Cell Entrance	-40	V
Extract 2	-175.0	V	Cell Exit	-58	V
Omega Bias	-95	V	Deflect	15.6	V
Omega Lens	6.2	V	Plate Bias	-45	V

Cell Parameters

Use Gas	false		OctP Bias	-8.0	V
He Flow	0.0	mL/min	OctP RF	200	V
H2 Flow	0.0	mL/min	Energy Discrimination	5.0	V
3rd Gas Flow	0	%			

Meters

IF/BK Press	2.56E+2	Pa	S/C Temp (L)	1.9	℃
TMP Revolution	100.0	%	Carrier Gas(BP)	1.41E+2	kPa
Carrier Gas	0.55	L/min			

US EPA Tune Check Sample Report

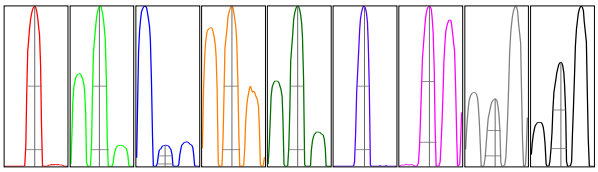
Batch Folder C:\Agilent\ICPMH\1\DATA\xa050119m1.b
Report Comment
Instrument Name G3281A JP10340551

[1]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
9	57419	0.82	5.00	
24	197454	0.64	5.00	
25	26456	0.93	5.00	
26	29942	0.99	5.00	
59	230484	1.02	5.00	
115	322583	0.95	5.00	
206	79860	0.77	5.00	
207	74365	0.59	5.00	
208	173847	1.00	5.00	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	56655	57585	57815	57748	57295
24	195460	198132	198633	198036	197007
25	26023	26577	26543	26632	26504
26	29535	30166	30177	30113	29719
59	229800	231297	233873	230002	227448
115	319783	325877	325011	323181	319064
206	79509	80248	80568	79961	79015
207	74075	74486	75090	74115	74057
208	172659	175589	175913	172505	172568

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width-X% (Flag)
9	9147	8.95	8.9 - 9.1		0.795	0.900	
24	31981	23.90	23.9 - 24.1		0.789	0.900	
25	4177	24.90	24.9 - 25.1		0.754	0.900	
26	4838	25.95	25.9 - 26.1		0.794	0.900	
59	37870	58.95	58.9 - 59.1		0.749	0.900	
115	56429	115.00	114.9 - 115.1		0.720	0.900	
206	13429	205.95	205.9 - 206.1		0.761	0.900	
207	12289	206.95	206.9 - 207.1		0.734	0.900	
208	29210	207.95	207.9 - 208.1		0.734	0.900	

X% = 10 **Integration Time [sec] =** 0.1 **Acquisition Time [sec] =** 235 **Y Axis =** Linear

Tune Parameters

Plasma Paramters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
RF Power	1500	W	Carrier Gas	0.55	L/min			
RF Matching	1.80	V	Option Gas	0.0	%			
Smpl Depth	7.8	mm	Nebulizer Pump	0.10	rps			
S/C Temp	2	℃						

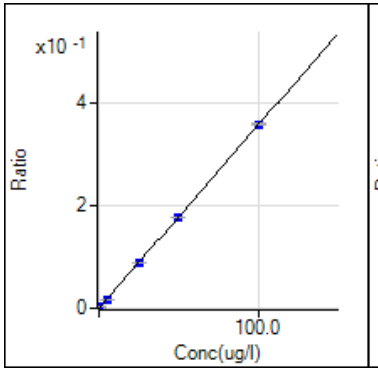
Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	6.2	V			
Extract 2	-175.0	V	Cell Entrance	-40	V			
Omega Bias	-95	V	Cell Exit	-58	V			
Deflect	15.6	V						

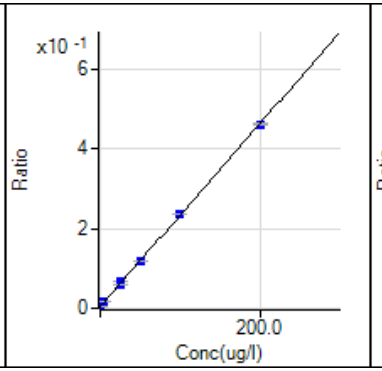
Cell Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Use Gas	false		3rd Gas Flow	0	%			
He Flow	0.0	mL/min	OctP Bias	-8.0	V			
H2 Flow	0.0	mL/min	OctP RF	200	V			
Energy Discrimination	5.0	V						

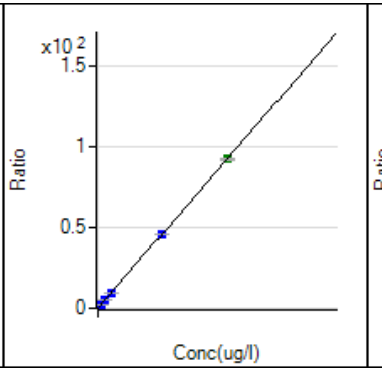
Calibration for C:\Agilent\ICPMH\1\DATA\xa050119m2.b\030SMPL.d



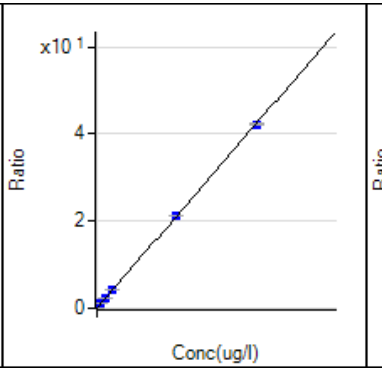
9 Be [1] / ISTD: 6 Li
y = 3.580E-3 x + 3.481E-6
R 1.0000
DL 0.001066
BEC 0.0009724



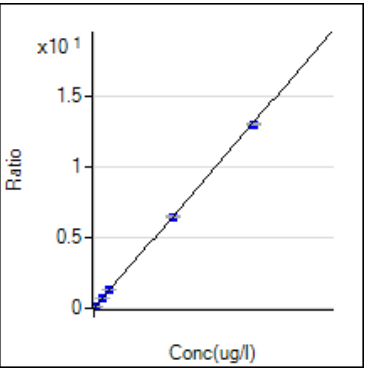
11 B [1] / ISTD: 6 Li
y = 2.302E-3 x + 3.866E-3
R 0.9998
DL 0.1003
BEC 1.679



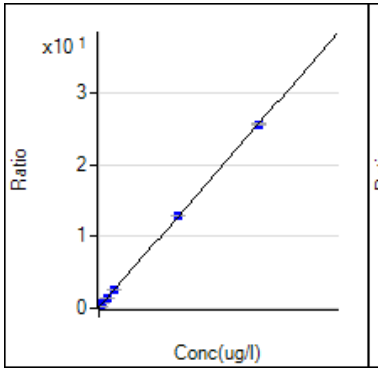
23 Na [2] / ISTD: 45 Sc
y = 9.226E-3 x + 7.776E-2
R 1.0000
DL 0.5913
BEC 8.429



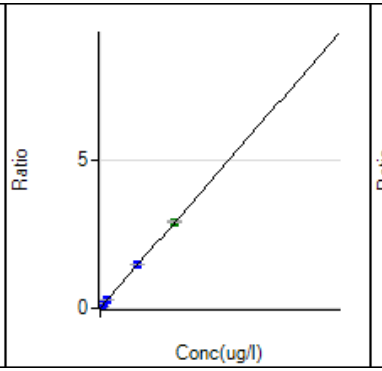
24 Mg [2] / ISTD: 45 Sc
y = 4.233E-3 x + 6.558E-4
R 1.0000
DL 0.05677
BEC 0.1549



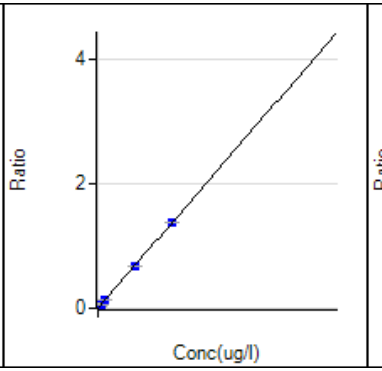
27 Al [2] / ISTD: 45 Sc
y = 1.310E-3 x + 1.437E-3
R 1.0000
DL 0.8152
BEC 1.097



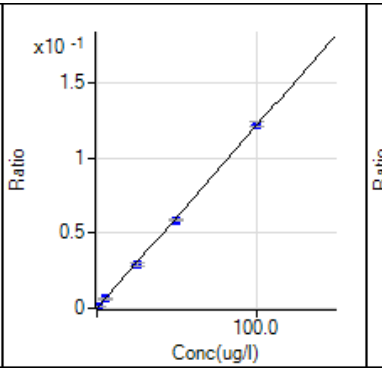
39 K [2] / ISTD: 45 Sc
y = 2.560E-3 x + 8.851E-2
R 1.0000
DL 2.681
BEC 34.58



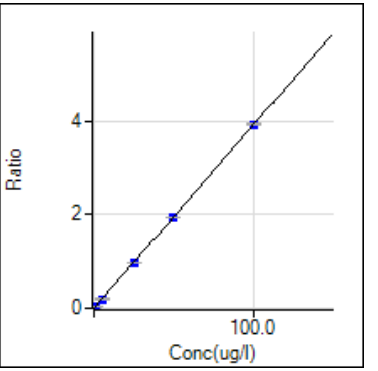
44 Ca [1] / ISTD: 45 Sc
y = 2.925E-4 x + 5.880E-3
R 1.0000
DL 0.7986
BEC 20.1



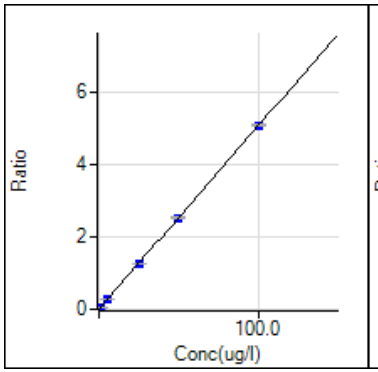
44 Ca [2] / ISTD: 45 Sc
y = 1.360E-4 x + 4.957E-4
R 1.0000
DL 2.975
BEC 3.644



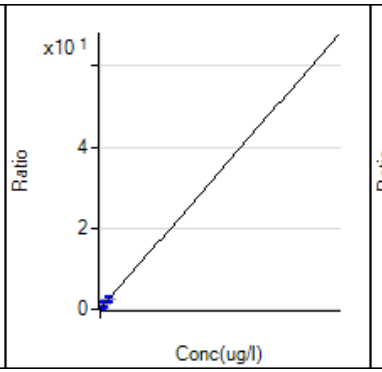
47 Ti [2] / ISTD: 45 Sc
y = 1.216E-3 x
R 0.9998
DL 0
BEC 0



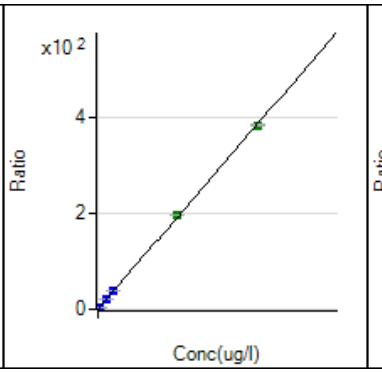
51 V [2] / ISTD: 45 Sc
y = 3.907E-2 x + 1.090E-3
R 1.0000
DL 0.003927
BEC 0.0279



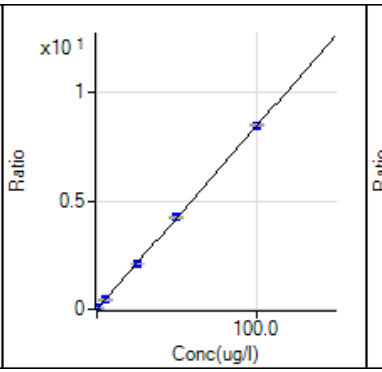
52 Cr [2] / ISTD: 45 Sc
y = 5.065E-2 x + 4.014E-3
R 1.0000
DL 0.03237
BEC 0.07924



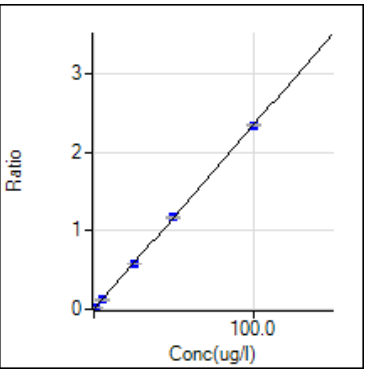
55 Mn [2] / ISTD: 45 Sc
y = 2.351E-2 x + 9.713E-4
R 1.0000
DL 0.04866
BEC 0.04131



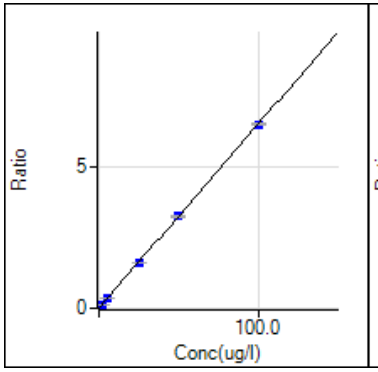
56 Fe [2] / ISTD: 45 Sc
y = 3.855E-2 x + 1.933E-2
R 0.9999
DL 0.02985
BEC 0.5014



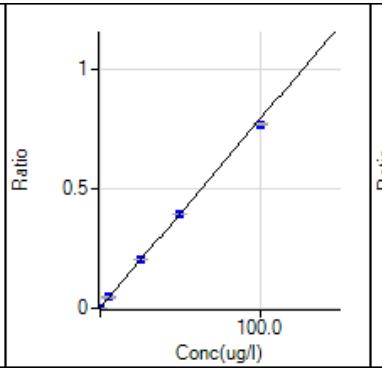
59 Co [2] / ISTD: 45 Sc
y = 8.438E-2 x + 6.157E-4
R 1.0000
DL 0.004089
BEC 0.007297



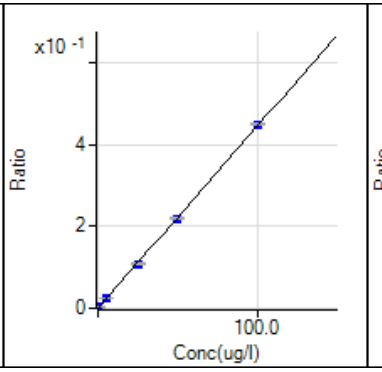
60 Ni [2] / ISTD: 45 Sc
y = 2.338E-2 x + 4.368E-4
R 1.0000
DL 0.02168
BEC 0.01868



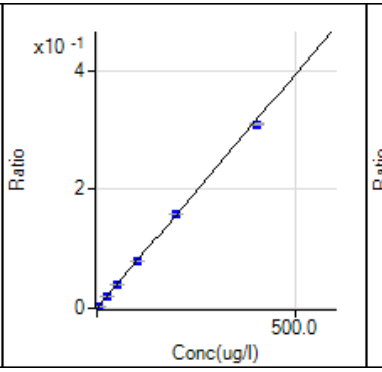
63 Cu [2] / ISTD: 45 Sc
y = 6.473E-2 x + 6.655E-3
R 1.0000
DL 0.04906
BEC 0.1028



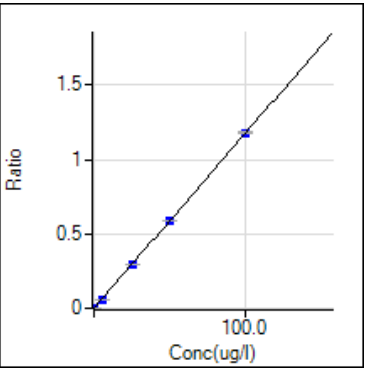
66 Zn [2] / ISTD: 45 Sc
y = 7.857E-3 x + 1.912E-3
R 0.9999
DL 0.07841
BEC 0.2433



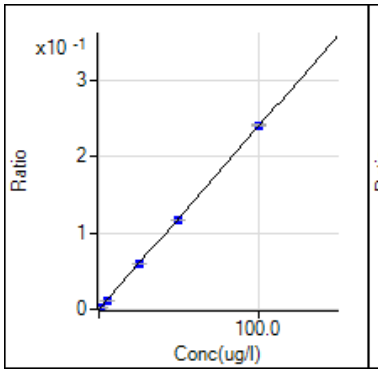
75 As [2] / ISTD: 45 Sc
y = 4.441E-3 x + 8.154E-5
R 0.9999
DL 0.02275
BEC 0.01836



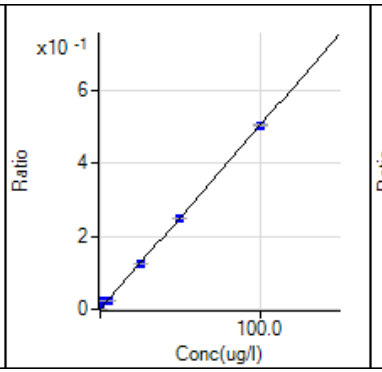
78 Se [3] / ISTD: 74 Ge
y = 7.890E-4 x + 3.389E-5
R 0.9999
DL 0.03155
BEC 0.04296



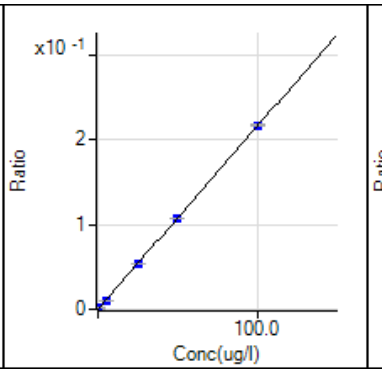
88 Sr [1] / ISTD: 103 Rh
y = 1.179E-2 x + 9.048E-5
R 1.0000
DL 0.002607
BEC 0.007675



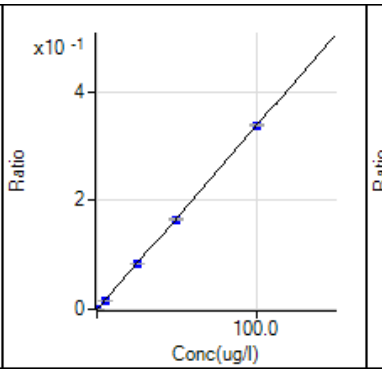
95 Mo [1] / ISTD: 103 Rh
y = 2.384E-3 x + 4.142E-6
R 0.9999
DL 0.004829
BEC 0.001737



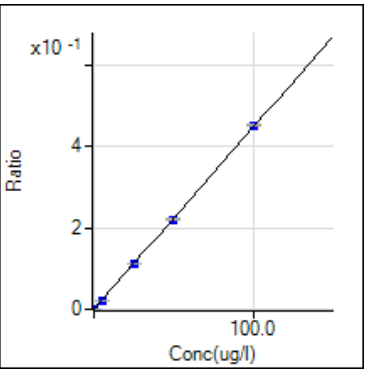
107 Ag [1] / ISTD: 115 In
y = 5.040E-3 x + 1.580E-5
R 0.9991
DL 0.003992
BEC 0.003134



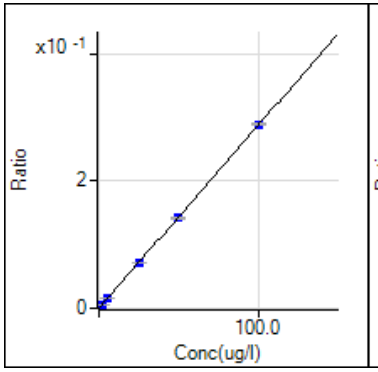
111 Cd [2] / ISTD: 115 In
y = 2.163E-3 x + 2.819E-6
R 1.0000
DL 0.006875
BEC 0.001304



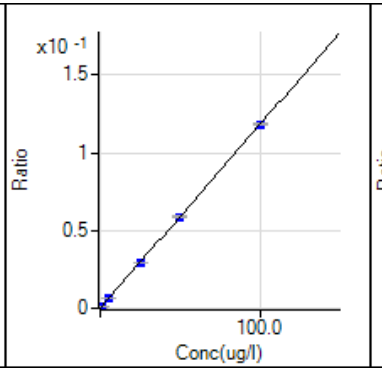
118 Sn [1] / ISTD: 115 In
y = 3.381E-3 x - 9.543E-4
R 0.9999
DL 0.02353
BEC -0.2823



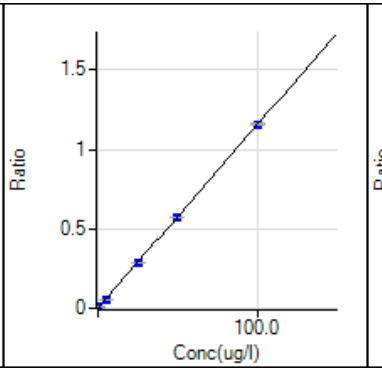
118 Sn [2] / ISTD: 115 In
y = 4.474E-3 x + 6.161E-4
R 0.9999
DL 0.06196
BEC 0.1377



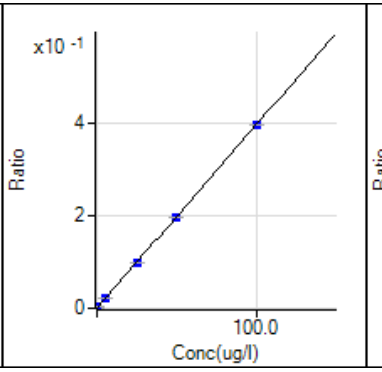
121 Sb [1] / ISTD: 159 Tb
y = 2.872E-3 x + 4.421E-5
R 1.0000
DL 0.009385
BEC 0.01539



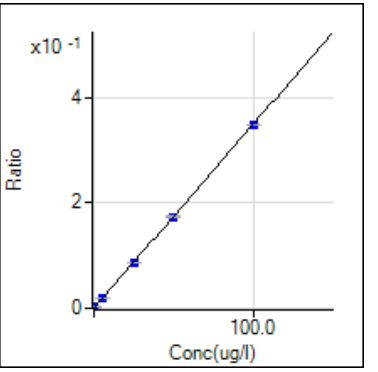
137 Ba [1] / ISTD: 159 Tb
y = 1.180E-3 x + 4.002E-6
R 1.0000
DL 0.003489
BEC 0.003391



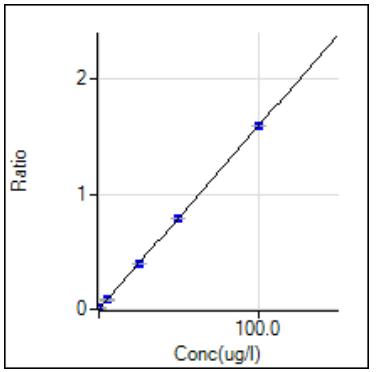
205 Tl [1] / ISTD: 209 Bi
y = 1.154E-2 x + 7.226E-5
R 1.0000
DL 0.003078
BEC 0.00626



206 Pb [1] / ISTD: 209 Bi
y = 3.971E-3 x + 7.031E-5
R 1.0000
DL 0.01931
BEC 0.0177



207 Pb [1] / ISTD: 209 Bi
y = 3.483E-3 x + 6.417E-5
R 1.0000
DL 0.01049
BEC 0.01842



208 Pb [1] / ISTD: 209 Bi

y = 1.590E-2 x + 2.509E-4

R	1.0000
DL	0.01009
BEC	0.01578

SGS North America Inc.

Accutest Aqueous Metals Digestion Form

Batch Information

Batch ID	Start Date	Start Time	End Date	End time	QC Samp 1	QC Samp 2
MP14645	4/30/2019	9:05	4/30/2019	14:35	JC87142-4	

Temperature

		Block ID1	Therm. ID#	Temperature	Correction	Corrected Temp
1	Start	8	4156601	94	0	94
1	End	8	4156601	95	0	95
2	Start					
2	End					

Methods and Equipment

	Dig. Method	Heating Method		Auto Pipette #	Digestion Tube Lot #	
	SW846 3010A	Digestion Block		M-74	1812114	

Sample ID	Bottle Number	Pres (Y/N)	Initial Sample Volume	Final Volume in ML	Reagent Groups Added	Spike Groups Added	Comments
MP14645-MB1	N/A	N	50	50	AB		
MP14645-B1	N/A	N	50	50	AB	ABCD	
MP14645-S1	1	Y	50	50	AB	ABCD	
MP14645-S2	1	Y	50	50	AB	ABCD	
MP14645-SD1	1	Y	50	50	AB		
JC86800-1	3	Y	50	50	AB		
JC86800-4	5	Y	50	50	AB		
JC86965-10F	3	Y	50	50	AB		
JC86965-1F	3	Y	50	50	AB		
JC86965-2F	2	Y	50	50	AB		
JC86965-8F	2	Y	50	50	AB		
JC87121-1	5	Y	50	50	AB		
JC87121-2	5	Y	50	50	AB		
JC87142-1	1	Y	50	50	AB		
JC87142-10	1	Y	50	50	AB		
JC87142-11	1	Y	50	50	AB		
JC87142-2	1	Y	50	50	AB		
JC87142-3	1	Y	50	50	AB		
JC87142-4	1	Y	50	50	AB		
JC87142-5	1	Y	50	50	AB		
JC87142-6	1	Y	50	50	AB		
JC87142-7	1	Y	50	50	AB		
JC87142-8	1	Y	50	50	AB		
JC87142-9	1	Y	50	50	AB		
MP14645-B2	N/A	N	50	50	AB	ABCD	

Reagents Groups

Group	Description	MLs Used
A	CONC HNO3	3
B	1:1 HCL	5
C		
D		
E		
F		
G		
H		

Spike Groups

Group	Description	MLs Used
A	ACCUTEST 13B REV-1	0.2
B	ACCUTEST 14B REV-1	0.2
C	AG 20PPM	0.2
D	MINERALS 1000PPM	0.2
E	SE 20PPM	0.8
F	MINERALS 1000PPM	0.2
G		
H		

Comments:

Analyst BHOOMAP **Approved by** Wendyz **Approved on** 4/30/2019

Note: Reagent traceability for batch Start Date can be seen on the reagent traceability page for this batch.
Serial Dilution samples shown for QC purposes only.
Acceptable Temperature range is 90-95 degrees C unless otherwise noted

SGS

Metals Digestion Reagents Information Log

Digestion Batch ID: MP 14645 **Date:** 4/30/19

Matrix: ALL

Standard/Reagent Type	Exp. Date	Standard/Reagent ID
Spiking Solution - (ACCUTEST-13A REV1)	10/16/2019	MP-015-1159
Spiking Solution - (ACCUTEST-14A REV1)	10/16/2019	MP-015-1160
Spiking Solution - 5000 mg/l Minerals	4/25/2020	P2-MEB678659 MFG: INO. VENT.
Spiking Solution - Sulfur 1000ppm	4/11/2021	LOT: 041118 MFG: ABS. GRADE
Spiking Solution - Si 1000ppm	10/31/2019	N2-SI668066 MFG: INO. VENT.
Spiking Solution - Bi 1000ppm	4/12/2020	N2-BI669548 MFG: INO. VENT.
Spiking Solution - Se 20ppm	10/10/2019	MP-015-1156
Spiking Solution - Li 1000ppm	4/18/2020	N2-LI665824 MFG: INO. VENT.
Spiking Solution- Ag 20 ppm	10/23/2019	MP-015-1163
Spiking Solution - (ACCUTEST-13B REV1)	10/10/2019	MP-015-1157
Spiking Solution - (ACCUTEST-14B REV1)	9/27/2019	MP-015-1148
Spiking Solution - 1000ppm Minerals	6/4/2019	MP-015-1117
Spiking Solution- P		
Nitric Acid	4/29/2021	LOT: 213500 MFG: J.T. BAKER
Nitric Acid (1:1)	10/29/2019	MP-018-42-196 1:1 HNO3
Hydrochloric Acid	4/29/2021	LOT: 221681 MFG: J.T. BAKER
Hydrochloric Acid (1:1)	10/23/2019	MP-018-42-192 1:1 HCL
Hydrogen Peroxide	4/26/2021	LOT: 189267 MFG: FISHER
Soil Lab Control/Soil LC	3/31/2020	LOT: D094-540 MFG: ERA
Teflon Chips(For Soil MB and Blank Spike)	N/A	LOT: 24242815 MFG: SAINT-GOBAIN
Digestion Tubes	N/A	LOT: 1812114 MFG: ENV. EXPRESS
pH Paper	6/15/2021	LOT: 217518 MFG: HYDRION
Filter paper Q8	N/A	LOT: 16917460 MFG: FISHER
Filter paper 0.45µm	N/A	LOT: F8MA26136E MFG: FISHER

Spike witnessed By: TG

Validated By:

Validated On:

Metals Prep Reagent
1/17/18

9.3.1 9

General Chemistry

QC Data Summaries

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: JC87121
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Chemical Oxygen Demand	GP20988/GN94824	20	0.0	mg/l				
Chemical Oxygen Demand	GP20988/GN94824	20	0.0	mg/l	50	49.3	98.6	90-110%
HEM Oil and Grease	GP21011/GN94899	5.0	0.0	mg/l	40.78	33.3	81.7	78-114%
Solids, Total Suspended	GN94637	4.0	0.0	mg/l				
Solids, Total Suspended	GN94725	4.0	0.0	mg/l				

Associated Samples:
Batch GN94637: JC87121-1
Batch GN94725: JC87121-2
Batch GP20988: JC87121-1, JC87121-2
Batch GP21011: JC87121-1, JC87121-2
(*) Outside of QC limits

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: JC87121
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Chemical Oxygen Demand	GP20988/GN94824	JC87121-1	mg/l	11 U	0.0	0.0	0-25%
HEM Oil and Grease	GP21011/GN94899	JC87121-2	mg/l	1.2 U	0.0	0.0	0-18%
Solids, Total Suspended	GN94637	JC87023-1	mg/l	1.5 U	0.0	0.0	0-17%
Solids, Total Suspended	GN94725	JC87116-1	mg/l	620	630	1.6	0-17%

Associated Samples:
Batch GN94637: JC87121-1
Batch GN94725: JC87121-2
Batch GP20988: JC87121-1, JC87121-2
Batch GP21011: JC87121-1, JC87121-2
(*) Outside of QC limits

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: JC87121
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Chemical Oxygen Demand	GP20988/GN94824	JC87121-1	mg/l	11 U	50	57.5	115.0	55-133%
HEM Oil and Grease	GP21011/GN94899	JC87121-1	mg/l	1.2 U	40.78	35.5	87.1	78-114%

Associated Samples:
Batch GP20988: JC87121-1, JC87121-2
Batch GP21011: JC87121-1, JC87121-2
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits

General Chemistry

Raw Data

Test: **Total Suspended Solids**
Method: **SM2540 D-11**

Product: **TSS**
Units: mg/l
RL: 4.0

GN Batch ID: GN94637
Analyst: RC
Date: 4/29/2019
Balance ID: B53

SGS

QC Summary Filtration Date: 4/29/19 OVEN ID: INC-21 Filtration Time: 12:18

MB ID:	GN94637-MB1	Result:	<rdl	RDL:	4	< RDL	yes
Dup ID:	GN94637-D1	Samp Resu	0.73	Dup Result:	0.73	% RPD:	0
Dup ID:	GN94637-D2	Samp Mass	1.2	Dup Mass:	1.2	% RPD:	0

Acceptable Temp. Range = 103 to 105 deg. C.

Therm ID: 5624416
Corr Factor: 0
FILTER LOT# 111301

		Date:	4/29/2019	4/29/2019												
		Time (Start/Finish):	13:13/14:45	14:46/15:33												
		UnCorr Temp (Start/Finish):	104/104	104/104												
		Corr Temp (Start/Finish):	104/104	104/104												
Bot #	Dish #	Sample ID	Filter Size*	Volume Filtered (ml)	Filter Tare Weight in g*	Weight after drying at 104 deg. C in g	Redry #1 Weight in g (a)	Redry ?	Redry # 2 Weight in g (a)	Redry ?	Redry # 3 Weight in g (a)	Constant Weight in g (a)	TSS in mg/l (Calculated)	Final TSS in mg/l**	Mass %RPD	Mass %RPD > 5%
	X1	GN94637-MB1	42	1000.0	0.0954	0.0954	0.0954	NO				0.0954		0.00		1000
	X2	GN94637-D1	42	550.0	0.0966	0.0970	0.0970	NO				0.0970		0.73	0.00%	550
5	X3	JC87023-1	42	550.0	0.0972	0.0976	0.0976	NO				0.0976		0.73		550
	X4	GN94637-D2	42	500.0	0.0950	0.0958	0.0956	NO				0.0956		1.20	0.00%	500
6	X5	JC87029-1	42	500.0	0.0946	0.0954	0.0952	NO				0.0952		1.20		500
4	X6	JC87026-4	42	100.0	0.0946	0.0997	0.0997	NO				0.0997		51.00		100
4	X7	JC87025-3	42	100.0	0.0955	0.1280	0.1280	NO				0.1280		325.00		100
1	X8	JC87016-1	42	980.0	0.0951	0.1021	0.1021	NO				0.1021		7.14		980
1	X9	JC87016-2	42	1000.0	0.0949	0.1055	0.1055	NO				0.1055		10.60		1000
1	X10	JC87016-3	42	1000.0	0.0948	0.1060	0.1060	NO				0.1060		11.20		1000
4	X11	JC87121-1	42	950.0	0.0999	0.1084	0.1084	NO				0.1084		8.95		950
5	X12	JC87054-8	42	1000.0	0.0998	0.1037	0.1036	NO				0.1036		3.80		1000
2	X13	JC87056-1	42	10.0	0.0997	0.1586	0.1586	NO				0.1586		5890.00		10
2	X14	JC87056-2	42	20.0	0.0995	0.1195	0.1195	NO				0.1195		1000.00		20
2	X15	JC87056-3	42	100.0	0.0997	0.1112	0.1111	NO				0.1111		114.00		100
1	X16	JC87095-1	42	800.0	0.0999	0.1038	0.1039	NO				0.1039		5.00		800
1	X17	JC87095-2	42	800.0	0.0992	0.1014	0.1014	NO				0.1014		2.75		800
4	X18	JC86985-1	42	400.0	0.0990	0.1183	0.1183	NO				0.1183		48.25		400
4	X19	JC86981-5	42	1000.0	0.0998	0.0999	0.0999	NO				0.0999		0.10		1000
4	X20	JC86981-4	42	1000.0	0.0998	0.1047	0.1047	NO				0.1047		4.90		1000
3	X21	JC86981-3	42	200.0	0.0995	0.1353	0.1354	NO				0.1354		179.50		200
3	X22	JC86981-2	42	30.0	0.0991	0.1350	0.1350	NO				0.1350		1196.67		30
4	X23	JC86981-1	42	700.0	0.0999	0.1215	0.1215	NO				0.1215		30.86		700

(a) Redries when result is <DL after the initial weighing. Note: Constant weight is a change of <4% of the sample mass or 0.0005 g, whichever is

*Filters are dried and dessicated for a minimum of 12 hours ensure constant tare weight

**Final TSS, mg/L = [(constant weight - filter tare mass, g) × 1000] ÷ (initial volume, mL ÷ 1000)

Comments:

DAYT-WET-0196-10-FORM-TSS
REV DATE 10/17/18

4/29/19

TSS Worksheet

SGS ACCUTEST

Acceptable Temp. Range = 103 to 105 deg. C.

** Note - Filters are dried for a minimum of 1.5 h and dessicated for a minimum of 12 h. Constant mass is determined prior to filtering.

Date:		4/26/2019	4/29/2019				
Time (Start/Finish):		08:00/10:00	10:45/12:00				
Uncorr Temp Deg C (Start/Finish):		104/104	104/104				
Corr Temp Deg C (Start/Finish):		104/104	104/104				
Dish #	**Filter size**	**Initial weight after drying** (mg)**	**Redry 1 Constant Weight in g (a)**	**Redry ?**	**Redry 2 Constant Weight in g (a)**	**Redry ?**	**Redry 3 Constant Weight in g (a)**
x1	42.00000	**0.0954**	**0.0954**	NO		*FALSE*	
x2	42.00000	**0.0966**	**0.0966**	NO		*FALSE*	
x3	42.00000	**0.0971**	**0.0972**	NO		*FALSE*	
x4	42.00000	**0.0950**	**0.0950**	NO		*FALSE*	
x5	42.00000	**0.0946**	**0.0946**	NO		*FALSE*	
x6	42.00000	**0.0946**	**0.0946**	NO		***FALSE***	
x7	42.00000	**0.0954**	**0.0955**	NO		***FALSE***	
x8	42.00000	**0.0951**	**0.0951**	NO		***FALSE***	
x9	42.00000	**0.0949**	**0.0949**	NO		*FALSE*	
x10	42.00000	**0.0947**	**0.0948**	NO		*FALSE*	
x11	42.00000	**0.0999**	**0.0999**	NO		*FALSE*	
x12	42.00000	**0.0998**	**0.0998**	NO		*FALSE*	
x13	42.00000	**0.0998**	0.0997	NO		*FALSE*	
x14	42.00000	**0.0995**	**0.0995**	NO		*FALSE*	
x15	42.00000	**0.0997**	**0.0997**	NO		*FALSE*	
x16	42.00000	**0.0999**	**0.0999**	NO		***FALSE***	
x17	42.00000	**0.0990**	**0.0992**	NO		***FALSE***	
x18	42.00000	**0.0990**	**0.0990**	NO		***FALSE***	
x19	42.00000	**0.0998**	**0.0998**	NO		***FALSE***	
x20	42.00000	**0.0998**	**0.0998**	NO		*FALSE*	
x21	42.00000	**0.0995**	**0.0995**	NO		*FALSE*	
x22	42.00000	**0.0991**	**0.0991**	NO		*FALSE*	
x23	42.00000	**0.0999**	**0.0999**	NO		*FALSE*	
				FALSE		FALSE	
				FALSE		FALSE	
				FALSE		FALSE	
				YES		FALSE	
				FALSE		FALSE	
				FALSE		FALSE	
				FALSE		FALSE	
				FALSE		FALSE	
				FALSE		FALSE	
				FALSE		FALSE	

Constant Weight	
0.0954	X
0.0966	
0.0972	
0.0950	
0.0946	
0.0946	
0.0955	
0.0951	
0.0949	
0.0948	
0.0999	
0.0998	
0.0997	
0.0995	
0.0997	
0.0999	
0.0992	
0.0990	
0.0998	
0.0998	
0.0995	
0.0991	
0.0999	
0.0991	

JJY

SGS

GN94637
TSS SAMPLE DESCRIPTION SHEET

	SGS Sample ID		Filter size used	Non-standard volumes. Comment with reason as shown below.	Limited Volume	
5	JC87023-1	Clear	47	550	L	QC1
6	JC87029-1	few Black Particles		500	L	QC2
4	JC87026-4	foamy Cloudy Pale & Particles		100 a		
4	JC87025-3	cloudy Offwhite, Scaly		100 a		
1	JC87016-1	Cloudy Pale yellow		950	L	
1	JC87016-2	Cloudy Orange/yellow		1000		
1	JC87016-3	↓		1000		
4	JC87121-1	Cloudy		950	L	
5	JC87054-8	foamy Cloudy yellow		1000		
2	JC87056-1	Cloudy Black, Particles, slight thick	(R)	~~1000~~ 100 a		
2	JC87056-2	Cloudy Brown Particles		20 a		
2	JC87056-3	cloudy Black Particles		100 a		
1	JC87095-1	almost clear		800	L	
1	JC87095-2	↓		800	L	
4	JC86985-1	foamy, Cloudy light grey		400 a		
4	JC86981-5	Clear		1000		
4	JC86981-4	foamy, Cloudy, Hazy pale		1000		
3	JC86981-3	foamy cloudy orange		200 a		
3	JC86981-2	foamy slight thick orange	(R)	~~300~~ 30 a		
4	JC86981-1	foamy Cloudy Pale	↓	700 a		

Reason (a). Sample contains heavy particulates and it can be assessed by appearance that it will clog the filter at higher volumes.
Reason (b). Initial analysis of the sample at a higher volume produced clogging. Rerunning at reduced volume.

Form: GN215-02
Rev. Date: 3/2/18

Test: **Total Suspended Solids**
Method: **SM2540 D-11**

Product: **TSS**
Units: mg/l
RL: 4.0

GN Batch ID: GN94725
Analyst: RC
Date: 4/30/2019
Balance ID: B53

SGS

QC Summary						
	Filtration Date:	4/30/19	OVEN ID:	INC-21	Filtration Time:	16:18
MB ID: GN94725-MB1	Result:	<RDL	RDL:	4	< RDL	YES
Dup ID: GN94725-D1	Samp Resu	620	Dup Result:	630	% RPD:	1.6
Dup ID: GN94725-D2	Samp Mass	7	Dup Mass:	7.2	% RPD:	2.82

Acceptable Temp. Range = 103 to 105 deg. C.

Date:	4-5/30-1/2019	5/1/2019			
Time (Start/Finish):	17:20/10:23	10:34/12:37			
UnCorr Temp (Start/Finish):	104/104	104/104			
Corr Temp (Start/Finish):	104/104	104/104			

Therm ID: 5624416
Corr Factor: 0
FILTER LOT# 111301

Bot #	Dish #	Sample ID	Filter Size*	Volume Filtered (ml)	Filter Tare Weight in g*	Weight after drying at 104 deg. C in g	Redry #1 Weight in g (a)	Redry ?	Redry # 2 Weight in g (a)	Redry ?	Redry # 3 Weight in g (a)	Constant Weight in g (a)	TSS in mg/l (Calculated)	Final TSS in mg/l**	Mass %RPD	Mass %RPD > 5%
	X1	GN94725-MB1	42	1000.0	0.0972	0.0972	0.0972	NO				0.0972		0.00		1000
	X2	GN94725-D1	42	50.0	0.0973	0.1286	0.1288	NO				0.1288		630.00	1.60%	50
8	X3	JC87116-1	42	50.0	0.0979	0.1288	0.1289	NO				0.1289		620.00		50
	X4	GN94725-D2	42	500.0	0.0982	0.1018	0.1018	NO				0.1018		7.20	2.82%	500
3	X5	JC87116-4	42	500.0	0.0984	0.1019	0.1019	NO				0.1019		7.00		500
2	X6	JC87116-3	42	500.0	0.0977	0.1155	0.1154	NO				0.1154		35.40		500
3	X7	JC87116-2	42	500.0	0.0979	0.1247	0.1248	NO				0.1248		53.80		500
3	X8	JC87121-2	42	500.0	0.0989	0.1233	0.1233	NO				0.1233		48.80		500
6	X9	JC87160-2	42	950.0	0.0976	0.0988	0.0988	NO				0.0988		1.26		950
6	X10	JC87160-1	42	1000.0	0.0975	0.0991	0.0991	NO				0.0991		1.60		1000
2	X11	JC87100-1	42	150.0	0.0984	0.1009	0.1009	NO				0.1009		16.67		150
5	X12	JC87072-7	42	200.0	0.0984	0.1570	0.1570	NO				0.1570		293.00		200
5	X13	JC87072-4	42	300.0	0.0968	0.1198	0.1197	NO				0.1197		76.33		300
6	X14	JC87072-1	42	750.0	0.0989	0.1552	0.1554	NO				0.1554		75.33		750
3	X15	JC87010-1	42	250.0	0.0986	0.1470	0.1470	NO				0.1470		193.60		250
3	X16	JC87166-1	42	1000.0	0.0975	0.1235	0.1235	NO				0.1235		26.00		1000

(a) Redries when result is <DL after the initial weighing. Note: Constant weight is a change of <4% of the sample mass or 0.0005 g, whichever is
*Filters are dried and dessicated for a minimum of 12 hours ensure constant tare weight.
**Final TSS, mg/L = [(constant weight - filter tare mass, g) × 1000] ÷ (initial volume, mL ÷ 1000)
Comments:

DAYT-WET-0196-10-FORM-TSS
REV DATE 10/17/18

TSS Worksheet

SGS ACCUTEST

Acceptable Temp. Range = 103 to 105 deg. C.

** Note - Filters are dried for a minimum of 1.5 h and dessicated for a minimum of 12 h. Constant mass is determined prior to filtering.

Date:	4/29-30/19	4/30/2019					
Time (Start/Finish):	17:30/08:00	13:00/16:00					
Uncorr Temp Deg C (Start/Finish):	104/104	104/104					
Corr Temp Deg C (Start/Finish):	104/104	104/104					

Dish #	Filter size	Initial weight after drying** (mg)	Redry 1 Constant Weight in g (a)	Redry ?	Redry 2 Constant Weight in g (a)	Redry ?	Redry 3 Constant Weight in g (a)
X1	42.00000	0.0974	0.0972	NO		FALSE	
X2	42.00000	0.0973	0.0973	NO		FALSE	
X3	42.00000	0.0978	0.0979	NO		FALSE	
X4	42.00000	0.0982	0.0982	NO		FALSE	
X5	42.00000	0.0984	0.0984	NO		FALSE	
X6	42.00000	0.0978	0.0977	NO		FALSE	
X7	42.00000	0.0979	0.0979	NO		FALSE	
X8	42.00000	0.0989	0.0989	NO		FALSE	
X9	42.00000	0.0976	0.0976	NO		FALSE	
X10	42.00000	0.0974	0.0975	NO		FALSE	
X11	42.00000	0.0984	0.0984	NO		FALSE	
X12	42.00000	0.0984	0.0984	NO		FALSE	
X13	42.00000	0.0968	0.0968	NO		FALSE	
X14	42.00000	0.0988	0.0989	NO		FALSE	
X15	42.00000	0.0986	0.0986	NO		FALSE	
X16	42.00000	0.0975	0.0975	NO		FALSE	
				FALSE		FALSE	
				FALSE		FALSE	
				FALSE		FALSE	
				FALSE		FALSE	
				FALSE		FALSE	
				FALSE		FALSE	
				FALSE		FALSE	
				FALSE		FALSE	
				FALSE		FALSE	
				FALSE		FALSE	
				FALSE		FALSE	
				FALSE		FALSE	
				FALSE		FALSE	
				FALSE		FALSE	
				FALSE		FALSE	
				FALSE		FALSE	
				FALSE		FALSE	
				FALSE		FALSE	
				FALSE		FALSE	
				FALSE		FALSE	

Constant Weight
0.0972
0.0973
0.0979
0.0982
0.0984
0.0977
0.0979
0.0989
0.0976
0.0975
0.0984
0.0984
0.0968
0.0989
0.0986
0.0975

X

JJY

SGS

GN94725
TSS SAMPLE DESCRIPTION SHEET

	SGS Sample ID		Filter size used	Non-standard volumes. Comment with reason as shown below.	Limited Volume
8	JC87116-1	foamy cloudy Dark orange	42	50 a	QCD1
3	JC87116-4	foamy Hazy & Pale	↓	500	L QCD2
2	JC87116-3	foamy cloudy Orange/yellow		500 a	
3	JC87116-2	foamy cloudy Orange		500 a	
3	JC87121-2	Cloudy Pale		500 a	
6	JC87160-2	slight cloudy Pale		950	L
6	JC87160-1	↓		1000	
2	JC87100-1	extreme foamy & clear		150 a	
5	JC87072-7	foamy, cloudy Brown Particles		200 a	
5	JC87072-4	cloudy Brown		300 a	
6	JC87072-1	foamy cloudy Brown		750 a	
3	JC87010-1	foamy cloudy Sea green		250 a	
3	JC87166-1	foamy cloudy yellow	↓	1000	

Reason (a). Sample contains heavy particulates and it can be assessed by appearance that it will clog the filter at higher volumes.
Reason (b). Initial analysis of the sample at a higher volume produced clogging. Rerunning at reduced volume.

Form: GN215-02
Rev. Date: 3/2/18

SGS

Test: Chemical Oxygen Demand (Low Level)
Product: COD AQ Methods: SM5220 C-11/ Hach 8000
Method: See above for AQ Hach 8000 /SM5220M (◉) Units: mg/l ( ) mg/kg

Analyst: MRP
GN Batch ID: GN94824
GP Batch ID: GP20988
Date: 5/2/2019

Ave ml of FAS for Blank (A) = 3.65 Molarity of FAS: 0.0137

COD = { (A-B) x M x 8000 } / (sample amount in ml or g)

QC Summary:

Method Blank ID:	GP20988-MB1	Date	5/2/2019	Result:	0.0	DL:	20	<DL	Y
Spike Blank ID (± 10%):	BSLCONF	Date	5/2/2019	Result:	21.9	Spike:	20	% Rec:	109.5
Standard Check Low (±30%):	GP20988-B2	Date	5/2/2019	Result:	49.3	Spike:	50	% Rec:	98.6
Standard Check Mid (±10%):		Date		Result:		Spike:		% Rec:	
Duplicate ID:	JC87121-1	Samp Result:	8.2	Dup Result:	8.2	% RPD:	0.0		
MS ID:	JC87121-1	Samp Result:	8.2	MS Result:	57.5	Spike:	50	% Rec:	98.6
External:		Result:		Known:		% Rec:			

Bottle #	Sample ID	Sample Volume (ml)	Dilution	Initial ml of FAS (C)	Final ml of FAS (D)	Total Vol FAS used in ml (D - C) = B	Blank FAS - Total FAS (A - B)	Calculated Result	Final Result	Detection Limit
MB1	GP20988-MB1	2.0000	1	0.00	3.65	3.65	0.00	0.0	0.00	20
MB2	GP20988-MB2	2.0000	1	0.00	3.65	3.65	0.00	0.0	0.00	20
BSP	BSLCONF	2.0000	1	0.00	3.25	3.25	0.40	21.9	21.90	20
BSP	GP20988-B2	2.0000	1	0.00	2.75	2.75	0.90	49.3	49.28	20
	GP20988-S1	2.0000	1	0.00	2.60	2.60	1.05	57.5	57.50	20
	GP20988-D1	2.0000	1	0.00	3.50	3.50	0.15	8.2	8.21	20
	JC87121-1	2.0000	1	0.00	3.50	3.50	0.15	8.2	8.21	20
	JC87121-2	2.0000	1	0.00	3.65	3.65	0.00	0.0	0.00	20
	JC87161-1	2.0000	1	0.00	2.75	2.75	0.90	49.3	49.28	20
	JC87191-1	2.0000	1	0.00	3.60	3.60	0.05	2.7	2.74	20
	JC87191-2	2.0000	1	0.00	3.55	3.55	0.10	5.5	5.48	20
	JC87191-3	2.0000	1	0.00	3.65	3.65	0.00	0.0	0.00	20
	JC87191-4	2.0000	1	0.00	3.40	3.40	0.25	13.7	13.69	20
	JC87191-5	2.0000	1	0.00	3.60	3.60	0.05	2.7	2.74	20
	JC86833-1	2.0000	1	0.00	3.65	3.65	0.00	0.0	0.00	20
	JC86833-2	2.0000	1	0.00	3.65	3.65	0.00	0.0	0.00	20
	JC86833-3	2.0000	1	0.00	3.60	3.60	0.05	2.7	2.74	20
	JC86833-4	2.0000	1	0.00	3.50	3.50	0.15	8.2	8.21	20
	JC86833-5	2.0000	1	0.00	3.35	3.35	0.30	16.4	16.43	20
	JC86833-6	2.0000	1	0.00	3.60	3.60	0.05	2.7	2.74	20
	JC86833-7	2.0000	1	0.00	3.40	3.40	0.25	13.7	13.69	20
	JC86833-8	2.0000	1	0.00	3.65	3.65	0.00	0.0	0.00	20
	JC86833-9	2.0000	1	0.00	3.65	3.65	0.00	0.0	0.00	20
	JC86833-10	2.0000	1	0.00	3.65	3.65	0.00	0.0	0.00	20
	JC87160-1	2.0000	1	0.00	3.45	3.45	0.20	11.0	10.95	20
	JC87160-2	2.0000	1	0.00	3.40	3.40	0.25	13.7	13.69	20

Comments:

Validated By: Nancy Cole Validated Date: 4/14/2017
Analyst: Date: QC Reviewer: Date:
Document Control #: ~~ACN-COD-20RL-03~~

gn 94824

Reagent Information Log - COD LOW (20 ppm)

Reagent	Reagent # or Manufacturer/Lot
Digestion Solution Tubes Low	GREEN WOOD #190202A XP02/2023
Ferroin Indicator Solution Low	GNE12-56780-COD XP5/15/19
Potassium Hydrogen Phthalate (KHP) Source	GNE3-57680-COD XP6/30/19
Standard Ferrous Ammonium Sulfate (FAS) Titrant 0.0124N/0.125N	GNE4--57809-COD XP10/19/19
H_2SO_4, Conc.	FISHER# 178261 XP:07/20/2023
Standard Potassium Dichromate Solution 0.025N	GNE12-56779-CODXP6/24/19
Potassium Hydrogen Phthalate ext source	GNE3-57681-COD XP6/30/19

Form: GN087-COD-01 Low 20 ppm
Rev Date:3/28/17

GENERAL CHEMISTRY STANDARD PREPARATION LOG FOR FE2

Product: COD

GN or GP Number: GN 94824

Description	standard	concentration	Stock vol used	Autopipet ID	al	Diluent	Volume	of	(a)	Analyst	Date
1000 ppm(STD)	GNE3-57680-COD	10,000 MG/L	10ML	A		DI water	100 ml	1000.00	6/30/2019	mrp	5/2/2019
1000PPM[EXT}	GNE3-57681-COD	10,000MG/L	10ML	A		DI water	100ml	1000	6/30/2019	mrp	5/2/2019
100ppm9STD)	GNE4-57865-COD	1000mg/l	10ML	A		DI water	100ML	100	5/29/2019	mrp	5/2/2019
100PPM[EXT}	GNE4-57866-COD	1000mg/l	10ML	A		DI water	100ml	100	5/29/2019	mrp	5/2/2019
Standard Description	used to prepare	Stock	Stock volume	Autopipet ID	al	Diluent	Volume	of Standard	(a)		
20	100PPM	20.00	10.00	A		DI water	50 ml	20.00	5/6/2019	eb	5/2/2019
50	100PPM	100.00	10.00	A		DI water	100ML	100.00	5/6/2019	eb	5/2/2019
150	1000PPM	150.00	7.5 ml	A		DI water	50 ml	150.00	5/6/2019	eb	5/2/2019
500	1000PPM	500.00	25 ml	A		DI water	50 ml	500.00	6/30/2019	eb	5/2/2019
10	100PPM	10.00	1.00	A		DI water	10 ml	10.00		eb	5/2/2019
[EXT]50	100PPM	50.00	25.00	A		DI water	50 ml	50.00	5/6/2019	eb	5/2/2019
[EXT]750	1000PPM	750.00	37.50	A		DI water	50 ml	750.00	5/6/2019	eb	5/2/2019

Form GN121-02 FE2
Rev Date 11/14/11

SGS

GN 94824

Test: Chemical Oxygen Demand Digestion Log	Product: COD	GPBatch ID:	GP20988
Method: SM5220 C-11, Hach 8000	Analyst MRP	Date:	5/2/2019
SM5220 C-11 Mod, Hach 8000 Mod	**Hach Low Level (20 to 150 mg/l)**	Lot no	#190202A XP02/23
	Hach High Level (50 to 1500 mg/l)	_LOT NO_	
Balance ID: NA	Pipet ID: CLASS A GLASS PIPETTE		

Standardization of FAS with Potassium Dichromate
Potassium Dichromate reagent number: see attached
Potassium Dichromate normality (N): 0.025N

mL of FAS for Standardization Blank 1: 3.65
ml of FAS for Standardization Blank 2: 3.65

Molarity of FAS = (N x vol. of dichromate digestion solution)/(ml of FAS for Standardization Blank)
Average molarity (Blank 1 and Blank 2) = 0.0137

Digestion START Time: 9:30 Digestion Temperature (deg. C): 150 C
Digestion ENDTime: 11:30 Digestion Block ID: COD-3

Sample ID	Digestion Tube #	Initial Wt. (g) or Vol. (ml)	Final Vol. (ml)	Comments	BO NO
GP20988-MB1	MB1	2 ML	2 ML		
GP20988-MB2	MB2	2 ML	2 ML		
GP20988-B1	1	2 ML	2 ML	2ML OF20 PPM	
GP20988-B2	2	2 ML	2 ML	2ML OF 50 PPM	
GP20988-S1	3	2 ML	2 ML	1ML OF 100PPM	6
GP20988-D1	4	2 ML	2 ML		6
JC87121-1	5	2 ML	2 ML	Q.C	6
JC87121-2	6	2 ML	2 ML		6
JC87161-1	7	2 ML	2 ML		12
JC87191-1	8	2 ML	2 ML		2
JC87191-2	9	2 ML	2 ML		2
JC87191-3	10	2 ML	2 ML		2
JC87191-4	11	2 ML	2 ML		2
JC87191-5	12	2 ML	2 ML		2
JC86833-1	13	2 ML	2 ML		4
JC86833-2	14	2 ML	2 ML		4
JC86833-3	15	2 ML	2 ML		4
JC86833-4	16	2 ML	2 ML		4
JC86833-5	17	2 ML	2 ML		4
JC86833-6	18	2 ML	2 ML		4
JC86833-7	19	2 ML	2 ML		4
JC86833-8	20	2 ML	2 ML		4
JC86833-9	21	2 ML	2 ML		4
JC86833-10	22	2 ML	2 ML		4
JC87160-1	23	2 ML	2 ML		4
JC87160-2	24	2 ML	2 ML		4

Form: GN018-04
Revised: 06/15/17

SGS

TEST: HEM Oil and Grease
Method: EPA 1664A
Date Extracted: 5/3/2019
Balance # Used: B16

OG1664
Reporting Date: 5/3/2019
Final Date Weighed: 5/3/2019
(Refer to balance log for balance calibration)

GN Group: GN94899
GP Group: GP21011
Analyst: TM
Units: mg/L

QC Summary

Units: mg/l

Dup Sample ID: JC87121-2
MS Sample ID: JC87121-1
Method Blank Date: 5/3/2019
Blank Spike Date: 5/3/2019
External: NA

Samp Res: <5
Samp Res: <5
Result: <5
Result: 33.3
Control Limit: NA

Dup Result: <5
Spike: 40.78
RL: 5
Spk Amt. 40.78
Result: NA

% RPD: 0%
MS Res: 35.5

% Rec. 87.05
<RL: yes
% Rec. 81.66
% Rec. NA

Speed Vap Temperature During Evaporation: 40 deg. C

Speed: Vap III
Vap ID:

(c) refer to Determination of Constant weights page for balance check weight results.

Flask #	Sample ID	Sample pH	Sample Volume (ml)	Total Weight (g)	Tare Weight (g)	Sample Weight (g)	Calc Result	Final Result	RL	Analysis Time
	0.002 g check (c)	na	na	0.0020	0.0020	na	na	na	na	9:00
	1.000 g check (c)	na	na	1.0000	1.0000	na	na	na	na	
	5.000 g check (c)	na	na	5.0000	5.0002	na	na	na	na	
	100 g check (c)	na	na	100.0020	100.0023	na	na	na	na	
MB	GP21011-MB1	<2	1000	2.4661	2.4660	0.0001	0.100	<5	5.00	9:00
BSP	GP21011-B1	<2	1000	2.5269	2.4936	0.0333	33.300	33.300	5.00	
MS	GP21011-S1	<2	1000	2.5172	2.4817	0.0355	35.500	35.500	5.00	
DUP	GP21011-D1	<2	1000	2.4925	2.4923	0.0002	0.200	<5	5.00	
1	JC87410-1	<2	1000	2.5072	2.5071	0.0001	0.100	<5	5.00	
2	JC87311-1	<2	1000	2.5640	2.5015	0.0625	62.500	62.500	5.00	
3	JC87121-1	<2	1000	2.5004	2.5002	0.0002	0.200	<5	5.00	
4	JC87121-2	<2	1000	2.4678	2.4674	0.0004	0.400	<5	5.00	
5	JC87060-1	<2	1000	2.5205	2.5202	0.0003	0.300	<5	5.00	
6	JC87023-1	<2	1000	2.5191	2.5188	0.0003	0.300	<5	5.00	15:50
	0.002 g check (c)	na	na	0.0020	0.0020	na	na	na	na	
	1.000g check(b)	na	na	1.0000	1.0000	na	na	na	na	

5/6/19

SGS

DETERMINATION OF CONSTANT WEIGHT

Test: HEM Oil and Grease
Method: EPA 1664A
Test Code: OG1664 10A

GN Group: GN94899
GP Group: GP21011
Analyst: TM
Units: mg/l

Balance ID#: B-16
Thermometer ID#: 73133
Thermometer correction factc 0

Definition of Constant Weight: Weight loss is less than 0.5 mg (0.0005 g).

Date:		5/3/2019	5/3/2019					
Start Time, End Time, Temp (Corrected, Uncorrected)	NA	13:30-14:00	14:35-15:05					Note: Samples must be dried at 70 +/- 2 deg. For a minimum of 30 minutes for each drying cycle.
Sample ID	Flask #	Initial Weight (g)	Second Weight (g)	Re-Weigh ?	Third Weight (g)	Re-Weigh ?	Fourth Weight (g)	Description
0.002 g check (c)		0.0020	0.0020	N				
1.000 g check (c)		1.0000	1.0000	N				
5.000 g check (c)		5.0003	5.0001					
100 g check (c)		100.0020	100.0019	N				
GP21011-MB1	MB	2.4661	2.4661	N				
GP21011-B1	BSP	2.5269	2.5269	N				
GP21011-S1	MS	2.5172	2.5172	N				
GP21011-D1	DUP	2.4925	2.4925	N				
JC87410-1	1	2.5072	2.5072	N				
JC87311-1	2	2.5640	2.5640	N				
JC87121-1	3	2.5004	2.5004	N				
JC87121-2	4	2.4678	2.4678	N				
JC87060-1	5	2.5205	2.5205	N				
JC87023-1	6	2.5191	2.5191	N				
1.000g check(b)		1.0000	1.0000	N				
5.000 g check (c)		5.0003	5.0001	N				

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GP21011- OG1664 TRAY B

	Accutest Sample ID	Bottle #	Volume (mL)	Appearance (clarity, color, etc.)	Odor
MB	GP21011-MB1	NA	1000	CLEAR	NONE
BSP	GP21011-B1	NA	1000	CLEAR	NONE
MS	GP21011-S1	1	1000	CLEAR	NONE
DUP	GP21011-D1	2	1000	CLEAR	NONE
1	JC87410-1	1	1000	CLEAR	NONE
2	JC87311-1	1	1000	CLOUDY	NONE
3	JC87121-1	2	1000	CLEAR	NONE
4	JC87121-2	1	1000	CLEAR	NONE
5	JC87060-1	1	1000	CLEAR	NONE
6	JC87023-1	1	1000	CLEAR	NONE
				HEM SPIKE	
				GNE4-57777-OG1664	
				5/16/2019	
				HEM: 8.155 mg/L HEX: 4.08 mg/L	

Form: GN-110
Rev. Date:5/3/2019

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Reagent Information Log - OG1664 Water by EPA 1664A

Reagent	Expiration Date	Reagent # or Manufacturer/Lot
Hexane	12/12/2022	FISHER Lot #173528
HEM Spike	5/16/2019	GNE4-57777-OG1664
Methanol	4/4/2021	FISHER LOT #180813
Disk Filter	NA	LABORATORYSALES&SER.#103522
1:1 HCL	7/25/2019	GNE1-57044-PHC/OG1664
Sodium Sulfate	5/16/2019	GNE4-57781-PHC/OG1664
Filter 47mm	NA	LABORATORYSALES&SER.#150125
Pre-Filter 47mm	NA	LABORATORYSALES&SER.#141347
Filter 90/100mm	NA	LABORATORYSALES&SER.#140294
Pre-Filter 90/100mm	NA	LABORATORYSALES&SER.#141272
pH paper	6/1/2019	HYDRON LOT#215316
HEM Spike (ICV)	NA	NA

B1/S1= 5.0ml of 8.155 mg/L HEM SPIKE
HEX= 4.080 mg/L

Form: GN-087 1-44
Rev. Date: 11/4/08

The results set forth herein are provided by SGS North America Inc.

e-Hardcopy 2.0
Automated Report

Technical Report for

Tantara Corporation

USACE Buffalo Nike Missle UST, East Aurora, NY

19-382

SGS Job Number: JC87363

Sampling Date: 05/01/19

Report to:

Tantara Corporation
54 Mason Street
Worcester, MA 01610
MLovejoy@TantaraCorp.com

ATTN: Mark Lovejoy

Total number of pages in report: 1532

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Brian McGuire
General Manager

Client Service contact: Tammy McCloskey 732-329-0200

Certifications: NJ(12129), NY(10983), CA, CT, FL, IL, IN, KS, KY, LA, MA, MD, ME, MN, NC, OH VAP (CL0056), AK (UST-103), AZ (AZ0786), PA, RI, SC, TX, UT, VA, WV, DoD ELAP (ANAB L2248)

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SGS North America Inc.

Sample Summary

Tantara Corporation

Job No: JC87363

USACE Buffalo Nike Missle UST, East Aurora, NY
Project No: 19-382

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
JC87363-1	05/01/19	10:30	ML	05/02/19	AQ	Water	SILO2
JC87363-2	05/01/19	10:45	ML	05/02/19	AQ	Water	SILO3-2
JC87363-3	05/01/19	13:00	ML	05/02/19	SO	Soil	SIL05

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

CASE NARRATIVE / CONFORMANCE SUMMARY

Client:	Tantara Corporation	**Job No**	JC87363
Site:	USACE Buffalo Nike Missle UST, East Aurora, NY	**Report Date**	5/10/2019 6:03:22 PM

On 05/02/2019, 3 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were received at SGS North America Inc. at a maximum corrected temperature of 2 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. Job Number of JC87363 was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Compounds qualified as out of range in the continuing calibration summary report are acceptable as per method requirements when there is a high bias but the sample result is non-detect.

MS Volatiles By Method SW846 8260C

Matrix: AQ **Batch ID:** V3D6294

- All samples were analyzed within the recommended method holding time.
- Sample(s) JC87226-2DUP, JC87363-2MS were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

Matrix: SO **Batch ID:** V1C7209

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC87361-7DUP, JC87361-8MS were used as the QC samples indicated.
- RPD(s) for Duplicate for Acetone are outside control limits for sample JC87361-7DUP. Outside control limits due to sample non-homogeneity.
- JC87363-3 for Bromoform: Associated CCV outside of control limits high, sample was ND.
- JC87363-3 for Chloromethane: Associated CCV outside of control limits low.
- JC87363-3 for Bromomethane: Associated CCV outside of control limits low.

MS Semi-volatiles By Method SW846 8270D

Matrix: SO **Batch ID:** OP20158

- All samples were extracted within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC87361-5MS, JC87361-5MSD were used as the QC samples indicated.
- JC87363-3 for Benzoic acid: Associated CCV outside of control limits high, sample was ND.
- JC87363-3 for 4,6-Dinitro-o-cresol: Associated CCV outside of control limits high, sample was ND.
- JC87363-3 for 2-Nitroaniline: Associated CCV outside of control limits high, sample was ND.

GC/LC Semi-volatiles By Method SW846 8082A

Matrix: SO **Batch ID:** OP20179

- All samples were extracted within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC87280-6MS, JC87280-6MSD were used as the QC samples indicated.
- JC87363-3 for Aroclor 1260: Associated CCV outside of control limits high, sample was ND.
- JC87363-3 for Aroclor 1016: Associated CCV outside of control limits high, sample was ND.

Metals Analysis By Method SW846 6010D

Matrix: SO **Batch ID:** MP14776

- All samples were digested within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC87355-1MS, JC87355-1MSD, JC87355-1SDL were used as the QC samples for metals.
- RPD(s) for Serial Dilution for Cadmium are outside control limits for sample MP14776-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

Metals Analysis By Method SW846 6020B

Matrix: AQ **Batch ID:** MP14786

- All samples were digested within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC87418-1MS, JC87418-1MSD, JC87418-1SDL, JC87418-1FSDL were used as the QC samples for metals.
- RPD(s) for Serial Dilution for Aluminum, Cadmium, Lead, Aluminum, Arsenic are outside control limits for sample MP14786-SD1, MP14786-SD2. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

Metals Analysis By Method SW846 7471B

Matrix: SO **Batch ID:** MP14783

- All samples were digested within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC87323-1MS, JC87323-1MSD were used as the QC samples for metals.

General Chemistry By Method EPA 1664A

Matrix: AQ **Batch ID:** GP21140

- All samples were prepared within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC87412-3DUP, JC87412-3MS were used as the QC samples for HEM Oil and Grease.

General Chemistry By Method SM2540 D-11

Matrix: AQ **Batch ID:** GN94861

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC87394-4DUP were used as the QC samples for Solids, Total Suspended.

General Chemistry By Method SM2540 G 18TH ED MOD

Matrix: SO **Batch ID:** GN94973

- Sample(s) JC87397-1DUP were used as the QC samples for Solids, Percent.

General Chemistry By Method SM5220 C-11,HACH8000

Matrix: AQ **Batch ID:** GP21111

- All samples were prepared within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC87409-2DUP, JC87409-2MS were used as the QC samples for Chemical Oxygen Demand.

SGS North America Inc. certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting the Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

SGS North America Inc. is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. Data release is authorized by SGS North America Inc indicated via signature on the report cover

Summary of Hits

Job Number: JC87363
Account: Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY
Collected: 05/01/19

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
JC87363-1	**SILO2**					
Aluminum		382	50	32	ug/l	SW846 6020B
Arsenic		1.0	1.0	0.94	ug/l	SW846 6020B
Barium		40.6	2.0	0.73	ug/l	SW846 6020B
Iron		648	50	19	ug/l	SW846 6020B
Lead		2.7	1.0	0.52	ug/l	SW846 6020B
HEM Oil and Grease		12.3	5.0	1.2	mg/l	EPA 1664A
Solids, Total Suspended		86.9	4.0	1.5	mg/l	SM2540 D-11
JC87363-2	**SILO3-2**					
Aluminum		944	50	32	ug/l	SW846 6020B
Arsenic		1.0	1.0	0.94	ug/l	SW846 6020B
Barium		19.7	2.0	0.73	ug/l	SW846 6020B
Iron		838	50	19	ug/l	SW846 6020B
Lead		2.1	1.0	0.52	ug/l	SW846 6020B
HEM Oil and Grease		1.4 B	5.0	1.2	mg/l	EPA 1664A
Solids, Total Suspended		10.5	4.0	1.5	mg/l	SM2540 D-11
JC87363-3	**SIL05**					
Acenaphthene		176	40	14	ug/kg	SW846 8270D
Anthracene		301	40	25	ug/kg	SW846 8270D
Benzo(a)anthracene		317	40	11	ug/kg	SW846 8270D
Benzo(a)pyrene		325	40	18	ug/kg	SW846 8270D
Benzo(b)fluoranthene		347	40	18	ug/kg	SW846 8270D
Benzo(g,h,i)perylene		177	40	20	ug/kg	SW846 8270D
Benzo(k)fluoranthene		131	40	19	ug/kg	SW846 8270D
Carbazole		134	81	5.9	ug/kg	SW846 8270D
Chrysene		273	40	13	ug/kg	SW846 8270D
Dibenzo(a,h)anthracene		88.8	40	18	ug/kg	SW846 8270D
Dibenzofuran		130	81	16	ug/kg	SW846 8270D
Fluoranthene		771	40	18	ug/kg	SW846 8270D
Fluorene		201	40	19	ug/kg	SW846 8270D
Indeno(1,2,3-cd)pyrene		221	40	19	ug/kg	SW846 8270D
1-Methylnaphthalene		30.6 J	40	7.9	ug/kg	SW846 8270D
2-Methylnaphthalene		54.2	40	9.2	ug/kg	SW846 8270D
Naphthalene		204	40	11	ug/kg	SW846 8270D
Phenanthrene		976	40	14	ug/kg	SW846 8270D
Pyrene		640	40	13	ug/kg	SW846 8270D
Arsenic		6.7	2.6	0.36	mg/kg	SW846 6010D
Barium		61.3	26	2.4	mg/kg	SW846 6010D
Cadmium		0.32 B	0.64	0.089	mg/kg	SW846 6010D
Chromium		28.1	1.3	0.47	mg/kg	SW846 6010D

Summary of Hits

Job Number: JC87363
Account: Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY
Collected: 05/01/19

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Lead		29.6	2.6	0.52	mg/kg	SW846 6010D
Mercury		0.030	0.029	0.013	mg/kg	SW846 7471B

Sample Results

Report of Analysis

SGS North America Inc.

Report of Analysis

Client Sample ID:	SILO2		
Lab Sample ID:	JC87363-1	**Date Sampled:**	05/01/19
Matrix:	AQ - Water	**Date Received:**	05/02/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	USACE Buffalo Nike Missle UST, East Aurora, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3D147178.D	1	05/03/19 11:07	EH	n/a	n/a	V3D6294
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.50	0.43	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		80-120%
17060-07-0	1,2-Dichloroethane-D4	104%		81-124%
2037-26-5	Toluene-D8	102%		80-120%
460-00-4	4-Bromofluorobenzene	95%		80-120%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SILO2
Lab Sample ID: JC87363-1
Matrix: AQ - Water
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Date Sampled: 05/01/19
Date Received: 05/02/19
Percent Solids: n/a

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Aluminum	382	50	32	ug/l	2	05/03/19	05/06/19	SN	SW846 6020B [1]	SW846 3010A [2]
Arsenic	1.0	1.0	0.94	ug/l	2	05/03/19	05/06/19	SN	SW846 6020B [1]	SW846 3010A [2]
Barium	40.6	2.0	0.73	ug/l	2	05/03/19	05/06/19	SN	SW846 6020B [1]	SW846 3010A [2]
Cadmium	0.17 U	1.0	0.17	ug/l	2	05/03/19	05/06/19	SN	SW846 6020B [1]	SW846 3010A [2]
Iron	648	50	19	ug/l	2	05/03/19	05/06/19	SN	SW846 6020B [1]	SW846 3010A [2]
Lead	2.7	1.0	0.52	ug/l	2	05/03/19	05/06/19	SN	SW846 6020B [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA46658
(2) Prep QC Batch: MP14786

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	SILO2		
Lab Sample ID:	JC87363-1	**Date Sampled:**	05/01/19
Matrix:	AQ - Water	**Date Received:**	05/02/19
		Percent Solids:	n/a
Project:	USACE Buffalo Nike Missle UST, East Aurora, NY		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Chemical Oxygen Demand	11 U	20	11	mg/l	1	05/09/19 17:14	EB	SM5220 C-11,HACH8000
HEM Oil and Grease	12.3	5.0	1.2	mg/l	1	05/10/19 16:00	TM	EPA 1664A
Solids, Total Suspended	86.9	4.0	1.5	mg/l	1	05/03/19 10:45	RC	SM2540 D-11

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

SGS North America Inc.

Report of Analysis

Client Sample ID:	SILO3-2		
Lab Sample ID:	JC87363-2	**Date Sampled:**	05/01/19
Matrix:	AQ - Water	**Date Received:**	05/02/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	USACE Buffalo Nike Missle UST, East Aurora, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3D147179.D	1	05/03/19 11:33	EH	n/a	n/a	V3D6294
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.50	0.43	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		80-120%
17060-07-0	1,2-Dichloroethane-D4	103%		81-124%
2037-26-5	Toluene-D8	102%		80-120%
460-00-4	4-Bromofluorobenzene	97%		80-120%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SILO3-2
Lab Sample ID: JC87363-2
Matrix: AQ - Water
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Date Sampled: 05/01/19
Date Received: 05/02/19
Percent Solids: n/a

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Aluminum	944	50	32	ug/l	2	05/03/19	05/06/19	SN	SW846 6020B [1]	SW846 3010A [2]
Arsenic	1.0	1.0	0.94	ug/l	2	05/03/19	05/06/19	SN	SW846 6020B [1]	SW846 3010A [2]
Barium	19.7	2.0	0.73	ug/l	2	05/03/19	05/06/19	SN	SW846 6020B [1]	SW846 3010A [2]
Cadmium	0.17 U	1.0	0.17	ug/l	2	05/03/19	05/06/19	SN	SW846 6020B [1]	SW846 3010A [2]
Iron	838	50	19	ug/l	2	05/03/19	05/06/19	SN	SW846 6020B [1]	SW846 3010A [2]
Lead	2.1	1.0	0.52	ug/l	2	05/03/19	05/06/19	SN	SW846 6020B [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA46658
(2) Prep QC Batch: MP14786

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	SILO3-2		
Lab Sample ID:	JC87363-2	**Date Sampled:**	05/01/19
Matrix:	AQ - Water	**Date Received:**	05/02/19
		Percent Solids:	n/a
Project:	USACE Buffalo Nike Missle UST, East Aurora, NY		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Chemical Oxygen Demand	11 U	20	11	mg/l	1	05/09/19 17:14	EB	SM5220 C-11,HACH8000
HEM Oil and Grease	1.4 B	5.0	1.2	mg/l	1	05/10/19 16:00	TM	EPA 1664A
Solids, Total Suspended	10.5	4.0	1.5	mg/l	1	05/03/19 10:45	RC	SM2540 D-11

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

SGS North America Inc.

Report of Analysis

Client Sample ID:	SIL05		
Lab Sample ID:	JC87363-3	**Date Sampled:**	05/01/19
Matrix:	SO - Soil	**Date Received:**	05/02/19
Method:	SW846 8260C	**Percent Solids:**	81.5
Project:	USACE Buffalo Nike Missle UST, East Aurora, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1C164276.D	1	05/03/19 13:25	EH	n/a	n/a	V1C7209
Run #2							

	Initial Weight
Run #1	5.3 g
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	12	5.8	ug/kg	
71-43-2	Benzene	ND	0.58	0.44	ug/kg	
108-86-1	Bromobenzene	ND	5.8	0.46	ug/kg	
74-97-5	Bromochloromethane	ND	5.8	0.50	ug/kg	
75-27-4	Bromodichloromethane	ND	2.3	0.51	ug/kg	
75-25-2	Bromoform [a]	ND	5.8	0.47	ug/kg	
74-83-9	Bromomethane [b]	ND	5.8	1.2	ug/kg	
78-93-3	2-Butanone (MEK)	ND	12	4.3	ug/kg	
104-51-8	n-Butylbenzene	ND	2.3	0.47	ug/kg	
135-98-8	sec-Butylbenzene	ND	2.3	0.42	ug/kg	
98-06-6	tert-Butylbenzene	ND	2.3	0.41	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.3	0.64	ug/kg	
108-90-7	Chlorobenzene	ND	2.3	0.41	ug/kg	
75-00-3	Chloroethane	ND	5.8	0.80	ug/kg	
67-66-3	Chloroform	ND	2.3	0.43	ug/kg	
74-87-3	Chloromethane [b]	ND	5.8	2.3	ug/kg	
95-49-8	o-Chlorotoluene	ND	2.3	0.44	ug/kg	
106-43-4	p-Chlorotoluene	ND	2.3	0.65	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.3	0.97	ug/kg	
124-48-1	Dibromochloromethane	ND	2.3	0.39	ug/kg	
106-93-4	1,2-Dibromoethane	ND	1.2	0.38	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	1.2	0.35	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1.2	0.42	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1.2	0.40	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	5.8	0.74	ug/kg	
75-34-3	1,1-Dichloroethane	ND	1.2	0.45	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.2	0.54	ug/kg	
75-35-4	1,1-Dichloroethene	ND	1.2	0.76	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	1.2	1.1	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	1.2	0.77	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.3	0.47	ug/kg	
142-28-9	1,3-Dichloropropane	ND	2.3	0.42	ug/kg	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SIL05		
Lab Sample ID:	JC87363-3	**Date Sampled:**	05/01/19
Matrix:	SO - Soil	**Date Received:**	05/02/19
Method:	SW846 8260C	**Percent Solids:**	81.5
Project:	USACE Buffalo Nike Missle UST, East Aurora, NY		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
594-20-7	2,2-Dichloropropane	ND	2.3	0.50	ug/kg	
563-58-6	1,1-Dichloropropene	ND	2.3	0.63	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.3	0.41	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.3	0.38	ug/kg	
100-41-4	Ethylbenzene	ND	1.2	0.64	ug/kg	
87-68-3	Hexachlorobutadiene	ND	5.8	0.58	ug/kg	
98-82-8	Isopropylbenzene	ND	2.3	0.81	ug/kg	
99-87-6	p-Isopropyltoluene	ND	2.3	0.37	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.2	0.41	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.8	1.8	ug/kg	
74-95-3	Methylene bromide	ND	5.8	0.39	ug/kg	
75-09-2	Methylene chloride	ND	5.8	2.9	ug/kg	
91-20-3	Naphthalene	ND	5.8	2.3	ug/kg	
103-65-1	n-Propylbenzene	ND	2.3	0.36	ug/kg	
100-42-5	Styrene	ND	2.3	0.67	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	2.3	0.66	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.3	0.45	ug/kg	
127-18-4	Tetrachloroethene	ND	2.3	0.53	ug/kg	
108-88-3	Toluene	ND	1.2	0.44	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	5.8	1.2	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	5.8	1.2	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	2.3	0.49	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	2.3	0.40	ug/kg	
79-01-6	Trichloroethene	ND	1.2	0.88	ug/kg	
75-69-4	Trichlorofluoromethane	ND	5.8	0.79	ug/kg	
96-18-4	1,2,3-Trichloropropane	ND	5.8	0.64	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	2.3	0.74	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	2.3	0.41	ug/kg	
75-01-4	Vinyl chloride	ND	2.3	0.54	ug/kg	
	m,p-Xylene	ND	1.2	0.86	ug/kg	
95-47-6	o-Xylene	ND	1.2	0.67	ug/kg	
1330-20-7	Xylene (total)	ND	1.2	0.67	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%		75-127%
17060-07-0	1,2-Dichloroethane-D4	119%		75-130%
2037-26-5	Toluene-D8	100%		80-120%
460-00-4	4-Bromofluorobenzene	102%		79-127%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SIL05		
Lab Sample ID:	JC87363-3	**Date Sampled:**	05/01/19
Matrix:	SO - Soil	**Date Received:**	05/02/19
Method:	SW846 8260C	**Percent Solids:**	81.5
Project:	USACE Buffalo Nike Missle UST, East Aurora, NY		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q

(a) Associated CCV outside of control limits high, sample was ND.
(b) Associated CCV outside of control limits low.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	SIL05		
Lab Sample ID:	JC87363-3	**Date Sampled:**	05/01/19
Matrix:	SO - Soil	**Date Received:**	05/02/19
Method:	SW846 8270D SW846 3546	**Percent Solids:**	81.5
Project:	USACE Buffalo Nike Missle UST, East Aurora, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F184467.D	1	05/06/19 16:16	AR	05/05/19 15:45	OP20158	EF7923
Run #2							

	Initial Weight	Final Volume
Run #1	30.3 g	1.0 ml
Run #2		

ABN Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic acid [a]	ND	810	67	ug/kg	
95-57-8	2-Chlorophenol	ND	81	20	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	200	25	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	200	35	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	200	72	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	200	150	ug/kg	
534-52-1	4,6-Dinitro-o-cresol [a]	ND	200	43	ug/kg	
95-48-7	2-Methylphenol	ND	81	26	ug/kg	
	3&4-Methylphenol	ND	81	33	ug/kg	
88-75-5	2-Nitrophenol	ND	200	27	ug/kg	
100-02-7	4-Nitrophenol	ND	400	110	ug/kg	
87-86-5	Pentachlorophenol	ND	160	38	ug/kg	
108-95-2	Phenol	ND	81	21	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	200	30	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	200	24	ug/kg	
83-32-9	Acenaphthene	176	40	14	ug/kg	
208-96-8	Acenaphthylene	ND	40	21	ug/kg	
62-53-3	Aniline	ND	81	18	ug/kg	
120-12-7	Anthracene	301	40	25	ug/kg	
92-87-5	Benzidine	ND	400	70	ug/kg	
56-55-3	Benzo(a)anthracene	317	40	11	ug/kg	
50-32-8	Benzo(a)pyrene	325	40	18	ug/kg	
205-99-2	Benzo(b)fluoranthene	347	40	18	ug/kg	
191-24-2	Benzo(g,h,i)perylene	177	40	20	ug/kg	
207-08-9	Benzo(k)fluoranthene	131	40	19	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	81	16	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	81	9.9	ug/kg	
100-51-6	Benzyl Alcohol	ND	81	14	ug/kg	
91-58-7	2-Chloronaphthalene	ND	81	9.6	ug/kg	
106-47-8	4-Chloroaniline	ND	200	15	ug/kg	
86-74-8	Carbazole	134	81	5.9	ug/kg	
218-01-9	Chrysene	273	40	13	ug/kg	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SIL05		
Lab Sample ID:	JC87363-3	**Date Sampled:**	05/01/19
Matrix:	SO - Soil	**Date Received:**	05/02/19
Method:	SW846 8270D SW846 3546	**Percent Solids:**	81.5
Project:	USACE Buffalo Nike Missle UST, East Aurora, NY		

ABN Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
111-91-1	bis(2-Chloroethoxy)methane	ND	81	8.7	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	81	17	ug/kg	
108-60-1	2,2'-Oxybis(1-chloropropane)	ND	81	15	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	81	13	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	81	12	ug/kg	
122-66-7	1,2-Diphenylhydrazine	ND	81	9.2	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	81	8.6	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	81	9.8	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	40	13	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	40	20	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	81	34	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	88.8	40	18	ug/kg	
132-64-9	Dibenzofuran	130	81	16	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	81	6.6	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	81	10	ug/kg	
84-66-2	Diethyl phthalate	ND	81	8.6	ug/kg	
131-11-3	Dimethyl phthalate	ND	81	7.2	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	81	9.5	ug/kg	
206-44-0	Fluoranthene	771	40	18	ug/kg	
86-73-7	Fluorene	201	40	19	ug/kg	
118-74-1	Hexachlorobenzene	ND	81	10	ug/kg	
87-68-3	Hexachlorobutadiene	ND	40	16	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	400	16	ug/kg	
67-72-1	Hexachloroethane	ND	200	20	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	221	40	19	ug/kg	
78-59-1	Isophorone	ND	81	8.7	ug/kg	
90-12-0	1-Methylnaphthalene	30.6	40	7.9	ug/kg	J
91-57-6	2-Methylnaphthalene	54.2	40	9.2	ug/kg	
88-74-4	2-Nitroaniline [a]	ND	200	9.6	ug/kg	
99-09-2	3-Nitroaniline	ND	200	10	ug/kg	
100-01-6	4-Nitroaniline	ND	200	10	ug/kg	
91-20-3	Naphthalene	204	40	11	ug/kg	
98-95-3	Nitrobenzene	ND	81	16	ug/kg	
62-75-9	n-Nitrosodimethylamine	ND	81	14	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	81	12	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	200	15	ug/kg	
85-01-8	Phenanthrene	976	40	14	ug/kg	
129-00-0	Pyrene	640	40	13	ug/kg	
110-86-1	Pyridine	ND	81	14	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	81	11	ug/kg	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SIL05		
Lab Sample ID:	JC87363-3	**Date Sampled:**	05/01/19
Matrix:	SO - Soil	**Date Received:**	05/02/19
Method:	SW846 8270D SW846 3546	**Percent Solids:**	81.5
Project:	USACE Buffalo Nike Missle UST, East Aurora, NY		

ABN Full List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	81%		23-115%
4165-62-2	Phenol-d5	80%		27-114%
118-79-6	2,4,6-Tribromophenol	84%		19-152%
4165-60-0	Nitrobenzene-d5	79%		26-134%
321-60-8	2-Fluorobiphenyl	78%		39-124%
1718-51-0	Terphenyl-d14	87%		36-134%

(a) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	SIL05		
Lab Sample ID:	JC87363-3	**Date Sampled:**	05/01/19
Matrix:	SO - Soil	**Date Received:**	05/02/19
Method:	SW846 8082A SW846 3546	**Percent Solids:**	81.5
Project:	USACE Buffalo Nike Missle UST, East Aurora, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EF189670.D	1	05/07/19 19:32	TR	05/05/19 15:45	OP20179	GEF6439
Run #2							

	Initial Weight	Final Volume
Run #1	15.0 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016 [a]	ND	41	19	ug/kg	
11104-28-2	Aroclor 1221	ND	41	21	ug/kg	
11141-16-5	Aroclor 1232	ND	41	31	ug/kg	
53469-21-9	Aroclor 1242	ND	41	17	ug/kg	
12672-29-6	Aroclor 1248	ND	41	36	ug/kg	
11097-69-1	Aroclor 1254	ND	41	22	ug/kg	
11096-82-5	Aroclor 1260 [a]	ND	41	17	ug/kg	
11100-14-4	Aroclor 1268	ND	41	17	ug/kg	
37324-23-5	Aroclor 1262	ND	41	27	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	89%		31-146%
877-09-8	Tetrachloro-m-xylene	96%		31-146%
2051-24-3	Decachlorobiphenyl	88%		17-164%
2051-24-3	Decachlorobiphenyl	92%		17-164%

(a) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SIL05		
Lab Sample ID:	JC87363-3	**Date Sampled:**	05/01/19
Matrix:	SO - Soil	**Date Received:**	05/02/19
		Percent Solids:	81.5
Project:	USACE Buffalo Nike Missle UST, East Aurora, NY		

Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	6.7	2.6	0.36	mg/kg	1	05/03/19	05/04/19	MET	SW846 6010D [2]	SW846 3050B [3]
Barium	61.3	26	2.4	mg/kg	1	05/03/19	05/04/19	MET	SW846 6010D [2]	SW846 3050B [3]
Cadmium	0.32 B	0.64	0.089	mg/kg	1	05/03/19	05/04/19	MET	SW846 6010D [2]	SW846 3050B [3]
Chromium	28.1	1.3	0.47	mg/kg	1	05/03/19	05/04/19	MET	SW846 6010D [2]	SW846 3050B [3]
Lead	29.6	2.6	0.52	mg/kg	1	05/03/19	05/04/19	MET	SW846 6010D [2]	SW846 3050B [3]
Mercury	0.030	0.029	0.013	mg/kg	1	05/03/19	05/03/19	EAL	SW846 7471B [1]	SW846 7471B [4]
Selenium	0.83 U	2.6	0.83	mg/kg	1	05/03/19	05/04/19	MET	SW846 6010D [2]	SW846 3050B [3]
Silver	0.22 U	0.64	0.22	mg/kg	1	05/03/19	05/04/19	MET	SW846 6010D [2]	SW846 3050B [3]

(1) Instrument QC Batch: MA46645
(2) Instrument QC Batch: MA46646
(3) Prep QC Batch: MP14776
(4) Prep QC Batch: MP14783

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- Sample Tracking Chronicle
- Internal Chain of Custody

SO
SLL
WW

SGS CHAIN OF CUSTODY

SGS North America Inc. - Dayton
2235 Route 130, Dayton, NJ 08810
TEL. 732-329-0200 FAX: 732-329-3499/3480
www.sgs.com/ehsusa

Page 1 of 1

FED-EX Tracking #:
Bottle Order Control #: BW-041019-193
SGS Quote #:
SGS Job #: JC87363

Client / Reporting Information

Company Name: TANTARA Corp
Street Address: 54 Mason St
City / State / Zip: Worcester MA 01610
Project Contact / E-mail: mlovejoy@tantaracorp.com
Phone #: 508-752-5599
Sampler(s) Name(s) / Phone #: M. Lovejoy

Project Information

Project Name: Buffalo Nike
Street:
City / State: E. Aurora, NY
Project #:
Client Purchase Order #: 19-382
Project Manager: M. Lovejoy

Billing Information (if different from Report to)

Company Name: same
Street Address:
City / State / Zip:
Attention:

Requested Analysis

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL - Sludge; SED - Sediment; OI - Oil; LIQ - Other Liquid; AIR - Air; SOL - Other Solid; WP - Wipe; FB - Field Blank; EB - Equipment Blank; RB - Rinse Blank; TB - Trip Blank

SGS Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Grab (G) / Comp (C)	Matrix	# of bottles	Number of preserved Bottles: HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE	BETX 8260	As, Fe, Al, Ba, Cd, Pb	O&G and Grease	COD	TSS	VOCs 8260	SVOCs 8270	RCRA 8 Metals	PCBs	LAB USE ONLY
1	SILO2		5/1/19	1030	ML	G	W	9	✓			✓	✓				✓	✓	✓	✓	✓					
2	SILO3-2			1045		G	W	9	✓			✓	✓				✓	✓	✓	✓	✓					
3	SILO5			1300		G	S	5					✓			✓						✓	✓	✓	✓	

DSG
P41
Enlove
14P6
L25
A6
C18
V1040
40135

Turn Around Time (Business Days)

Approved By (SGS PM): / Date:

- [ ] 10 Business Days
- [x] 5 Business Days
- [ ] 3 Business Days*
- [ ] 2 Business Days*
- [ ] 1 Business Day*
- [ ] Other

All data available via Lablink

* Approval needed for 1-3 Business Day TAT

Deliverable

- [ ] Commercial "A" (Level 1)
- [ ] Commercial "B" (Level 2)
- [ ] NJ Reduced (Level 3)
- [ ] Full Tier I (Level 4)
- [ ] Commercial "C"
- [ ] NJ DKQP
- [ ] NYASP Category A
- [ ] NYASP Category B
- [ ] MA MCP Criteria
- [ ] CT RCP Criteria
- [ ] State Forms
- [ ] EDD Format
- [ ] DOD-QSM5

Commercial "A" = Results only; Commercial "B" = Results + QC Summary
Commercial "C" = Results + QC Summary + Partial Raw data

Comments / Special Instructions

INITIAL ASESSMENT 3B DOM
LABEL VERIFICATION

http://www.sgs.com/en/terms-and-conditions

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by:	Date / Time:	Received By:	Relinquished By:	Date / Time:	Received By:
1	5/1/19 1530	1	2	5/2/19 9:50	2
3		3	4		4
5		5	Custody Seal #	Intact / Not Intact	Preserved where applicable: Absent / Therm. ID: VO / On Ice: Y / Cooler Temp. °C: 3.0°C - 1

EHSA-QAC-0023-02-FORM-Dayton - Standard COC.xlsx

SGS Sample Receipt Summary

Job Number: JC87363 **Client:** TANTARA CORPORATION **Project:** USACE BUFFALO NIKE MISSLE UST, EAST AU

Date / Time Received: 5/2/2019 9:50:00 AM **Delivery Method:** **Airbill #'s:**

Cooler Temps (Raw Measured) °C: Cooler 1: (3.0);

Cooler Temps (Corrected) °C: Cooler 1: (2.0);

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	☑		☐	3. COC Present:	☑		☐
2. Custody Seals Intact:	☑		☐	4. Smpl Dates/Time OK	☑		☐

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Cooler temp verification:	IR Gun		
3. Cooler media:	Ice (Bag)		
4. No. Coolers:	1		

Quality Control Preservation	Y	or	N	N/A
1. Trip Blank present / cooler:	☐		☑	☐
2. Trip Blank listed on COC:	☐		☑	☐
3. Samples preserved properly:	☑		☐	
4. VOCs headspace free:	☑		☐	☐

Sample Integrity - Documentation	Y	or	N
1. Sample labels present on bottles:	☑		☐
2. Container labeling complete:	☑		☐
3. Sample container label / COC agree:	☑		☐

Sample Integrity - Condition	Y	or	N
1. Sample recvd within HT:	☑		☐
2. All containers accounted for:	☑		☐
3. Condition of sample:	Intact		

Sample Integrity - Instructions	Y	or	N	N/A
1. Analysis requested is clear:	☑		☐	
2. Bottles received for unspecified tests	☐		☑	
3. Sufficient volume recvd for analysis:	☑		☐	
4. Compositing instructions clear:	☐		☐	☑
5. Filtering instructions clear:	☐		☐	☑

Test Strip Lot #s: pH 1-12: 206717 pH 12+: 208717 Other: (Specify)

Comments

SM089-03
Rev. Date 12/7/17

Internal Sample Tracking Chronicle

Tantara Corporation

Job No: JC87363

USACE Buffalo Nike Missle UST, East Aurora, NY
Project No: 19-382

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JC87363-1 SILO2	Collected: 01-MAY-19 10:30 By: ML		Received: 02-MAY-19 By: DG			
JC87363-1	SM2540 D-11	03-MAY-19 10:45	RC			TSS
JC87363-1	SW846 8260C	03-MAY-19 11:07	EH			V8260BTX
JC87363-1	SW846 6020B	06-MAY-19 17:59	SN	03-MAY-19	MR	ALMS,ASMS,BAMS,CDMS,FEMS,PBMS
JC87363-1	SM5220 C-11,HACH8000	09-MAY-19 17:14	EB	08-MAY-19	MP	COD
JC87363-1	EPA 1664A	10-MAY-19 16:00	TM	10-MAY-19	TM	OG1664
JC87363-2 SILO3-2	Collected: 01-MAY-19 10:45 By: ML		Received: 02-MAY-19 By: DG			
JC87363-2	SM2540 D-11	03-MAY-19 10:45	RC			TSS
JC87363-2	SW846 8260C	03-MAY-19 11:33	EH			V8260BTX
JC87363-2	SW846 6020B	06-MAY-19 18:19	SN	03-MAY-19	MR	ALMS,ASMS,BAMS,CDMS,FEMS,PBMS
JC87363-2	SM5220 C-11,HACH8000	09-MAY-19 17:14	EB	08-MAY-19	MP	COD
JC87363-2	EPA 1664A	10-MAY-19 16:00	TM	10-MAY-19	TM	OG1664
JC87363-3 SIL05	Collected: 01-MAY-19 13:00 By: ML		Received: 02-MAY-19 By: DG			
JC87363-3	SW846 7471B	03-MAY-19 13:21	EAL	03-MAY-19	EAL	HG
JC87363-3	SW846 8260C	03-MAY-19 13:25	EH			V8260STD
JC87363-3	SW846 6010D	04-MAY-19 03:30	MET	03-MAY-19	TG	AG,AS,BA,CD,CR,PB,SE
JC87363-3	SW846 8270D	06-MAY-19 16:16	AR	05-MAY-19	SA	AB8270STD
JC87363-3	SM2540 G 18TH ED MOD	06-MAY-19 16:22	BG			SOL104
JC87363-3	SW846 8082A	07-MAY-19 19:32	TR	05-MAY-19	SA	P8082PCB11

SGS Internal Chain of Custody

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY
Received: 05/02/19

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC87363-1.1	Secured Storage	Sahara Feliciano	05/08/19 20:14	Retrieve from Storage
JC87363-1.1	Sahara Feliciano	Secured Staging Area	05/08/19 20:14	Return to Storage
JC87363-1.1	Secured Staging Area	Tharun Murali	05/09/19 09:19	Retrieve from Storage
JC87363-1.1	Secured Storage	Sahara Feliciano	05/09/19 16:44	Retrieve from Storage
Bottle was returned to secure storage, but inadvertently not scanned.				
JC87363-1.1	Sahara Feliciano	Secured Staging Area	05/09/19 16:44	Return to Storage
JC87363-1.1	Secured Staging Area	Tharun Murali	05/10/19 08:48	Retrieve from Storage
JC87363-1.1	Tharun Murali		05/10/19 16:36	Depleted
JC87363-1.1.1	Tharun Murali	TCLP	05/10/19 13:18	Leachate from JC87363-1.1
JC87363-1.2	Secured Storage	Sahara Feliciano	05/08/19 20:14	Retrieve from Storage
JC87363-1.2	Sahara Feliciano	Secured Staging Area	05/08/19 20:14	Return to Storage
JC87363-1.2	Secured Staging Area	Tharun Murali	05/09/19 09:19	Retrieve from Storage
JC87363-1.2	Tharun Murali	Secured Storage	05/09/19 21:55	Return to Storage
JC87363-1.3	Secured Storage	Todd Shoemaker	05/03/19 16:02	Retrieve from Storage
JC87363-1.3	Todd Shoemaker	Secured Staging Area	05/03/19 16:03	Return to Storage
JC87363-1.3	Secured Staging Area	Moustafa Ramadan	05/03/19 17:36	Retrieve from Storage
JC87363-1.3	Moustafa Ramadan	Secured Storage	05/03/19 18:00	Return to Storage
JC87363-1.3.1	Moustafa Ramadan	Metals Digestion	05/03/19 17:40	Digestate from JC87363-1.3
JC87363-1.3.1	Metals Digestion	Moustafa Ramadan	05/03/19 17:40	Digestate from JC87363-1.3
JC87363-1.3.1	Moustafa Ramadan	Metals Digestate Storage	05/03/19 17:40	Return to Storage
JC87363-1.4	Secured Storage	Todd Shoemaker	05/08/19 08:28	Retrieve from Storage
JC87363-1.4	Todd Shoemaker	Secured Staging Area	05/08/19 08:29	Return to Storage
JC87363-1.4	Secured Staging Area	Mahendra Patel	05/08/19 14:40	Retrieve from Storage
JC87363-1.4	Mahendra Patel	Secured Storage	05/08/19 19:00	Return to Storage
JC87363-1.6	Secured Storage	Todd Shoemaker	05/03/19 11:50	Retrieve from Storage
JC87363-1.6	Todd Shoemaker	Secured Staging Area	05/03/19 11:50	Return to Storage
JC87363-1.6	Secured Staging Area	Ruchitaben Chauhan	05/03/19 12:16	Retrieve from Storage
JC87363-1.6	Ruchitaben Chauhan	Secured Storage	05/03/19 17:50	Return to Storage
JC87363-1.7	Secured Storage	Krizhka Cuenta	05/03/19 10:02	Retrieve from Storage
JC87363-1.7	Krizhka Cuenta	GCMS3D	05/03/19 10:02	Load on Instrument
JC87363-1.7	GCMS3D	Krizhka Cuenta	05/06/19 08:53	Unload from Instrument
JC87363-1.7	Krizhka Cuenta	Secured Storage	05/06/19 08:53	Return to Storage
JC87363-2.1	Secured Storage	Sahara Feliciano	05/08/19 20:14	Retrieve from Storage
JC87363-2.1	Sahara Feliciano	Secured Staging Area	05/08/19 20:14	Return to Storage
JC87363-2.1	Secured Staging Area	Tharun Murali	05/09/19 09:19	Retrieve from Storage
JC87363-2.1	Secured Storage	Sahara Feliciano	05/09/19 16:44	Retrieve from Storage

SGS Internal Chain of Custody

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY
Received: 05/02/19

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
Bottle was returned to secure storage, but inadvertently not scanned.				
JC87363-2.1	Sahara Feliciano	Secured Staging Area	05/09/19 16:44	Return to Storage
JC87363-2.1	Secured Staging Area	Tharun Murali	05/10/19 08:48	Retrieve from Storage
JC87363-2.1	Tharun Murali		05/10/19 16:36	Depleted
JC87363-2.1.1	Tharun Murali	TCLP	05/10/19 13:18	Leachate from JC87363-2.1
JC87363-2.3	Secured Storage	Todd Shoemaker	05/03/19 16:02	Retrieve from Storage
JC87363-2.3	Todd Shoemaker	Secured Staging Area	05/03/19 16:03	Return to Storage
JC87363-2.3	Secured Staging Area	Moustafa Ramadan	05/03/19 17:36	Retrieve from Storage
JC87363-2.3	Moustafa Ramadan	Secured Storage	05/03/19 18:00	Return to Storage
JC87363-2.3.1	Moustafa Ramadan	Metals Digestion	05/03/19 17:40	Digestate from JC87363-2.3
JC87363-2.3.1	Metals Digestion	Moustafa Ramadan	05/03/19 17:40	Digestate from JC87363-2.3
JC87363-2.3.1	Moustafa Ramadan	Metals Digestate Storage	05/03/19 17:40	Return to Storage
JC87363-2.4	Secured Storage	Todd Shoemaker	05/08/19 08:28	Retrieve from Storage
JC87363-2.4	Todd Shoemaker	Secured Staging Area	05/08/19 08:29	Return to Storage
JC87363-2.4	Secured Staging Area	Mahendra Patel	05/08/19 14:40	Retrieve from Storage
JC87363-2.4	Mahendra Patel	Secured Storage	05/08/19 19:00	Return to Storage
JC87363-2.5	Secured Storage	Todd Shoemaker	05/03/19 11:50	Retrieve from Storage
JC87363-2.5	Todd Shoemaker	Secured Staging Area	05/03/19 11:50	Return to Storage
JC87363-2.5	Secured Staging Area	Ruchitaben Chauhan	05/03/19 12:16	Retrieve from Storage
JC87363-2.5	Ruchitaben Chauhan		05/03/19 17:49	Depleted
JC87363-2.7	Secured Storage	Krizhka Cuenta	05/03/19 10:02	Retrieve from Storage
JC87363-2.7	Krizhka Cuenta	GCMS3D	05/03/19 10:02	Load on Instrument
JC87363-2.7	GCMS3D	Krizhka Cuenta	05/06/19 08:53	Unload from Instrument
JC87363-2.7	Krizhka Cuenta	Secured Storage	05/06/19 08:53	Return to Storage
JC87363-2.8	Secured Storage	Krizhka Cuenta	05/03/19 12:24	Retrieve from Storage
JC87363-2.8	Krizhka Cuenta	GCMS3D	05/03/19 12:24	Load on Instrument
JC87363-2.8	GCMS3D	Krizhka Cuenta	05/06/19 08:53	Unload from Instrument
JC87363-2.8	Krizhka Cuenta	Secured Storage	05/06/19 08:53	Return to Storage
JC87363-3.1	Secured Storage	Taylor Gorman	05/03/19 07:37	Retrieve from Storage
JC87363-3.1	Taylor Gorman	Secured Storage	05/03/19 09:02	Return to Storage
JC87363-3.1	Secured Storage	Todd Shoemaker	05/03/19 09:15	Retrieve from Storage
JC87363-3.1	Todd Shoemaker	Secured Staging Area	05/03/19 09:15	Return to Storage
JC87363-3.1	Secured Staging Area	Edouard Adrian Lee	05/03/19 09:17	Retrieve from Storage
JC87363-3.1	Edouard Adrian Lee	Secured Storage	05/03/19 17:42	Return to Storage
JC87363-3.1	Secured Storage	Sahara Feliciano	05/04/19 11:41	Retrieve from Storage
JC87363-3.1	Sahara Feliciano	Secured Staging Area	05/04/19 11:41	Return to Storage

SGS Internal Chain of Custody

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY
Received: 05/02/19

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC87363-3.1	Secured Staging Area	Sauvelson Auguste	05/04/19 12:52	Retrieve from Storage
JC87363-3.1	Sauvelson Auguste	Secured Storage	05/05/19 10:28	Return to Storage
JC87363-3.1	Secured Storage	Benjamin Gaines	05/06/19 11:38	Retrieve from Storage
JC87363-3.1	Benjamin Gaines	Secured Staging Area	05/06/19 11:38	Return to Storage
JC87363-3.1	Secured Staging Area	Benjamin Gaines	05/06/19 11:49	Retrieve from Storage
JC87363-3.1	Benjamin Gaines	Secured Storage	05/06/19 16:18	Return to Storage
JC87363-3.1.1	Taylor Gorman	Metals Digestion	05/03/19 07:38	Digestate from JC87363-3.1
JC87363-3.1.1	Metals Digestion	Taylor Gorman	05/03/19 07:38	Digestate from JC87363-3.1
JC87363-3.1.1	Taylor Gorman	Metals Digestate Storage	05/03/19 07:38	Return to Storage
JC87363-3.1.2	Sauvelson Auguste	Organics Prep	05/04/19 12:56	Extract from JC87363-3.1
JC87363-3.1.2	Organics Prep	Sauvelson Auguste	05/05/19 15:33	Extract from JC87363-3.1
JC87363-3.1.2	Sauvelson Auguste	Extract Storage	05/05/19 15:33	Return to Storage
JC87363-3.1.3	Sauvelson Auguste	Organics Prep	05/04/19 13:29	Extract from JC87363-3.1
JC87363-3.1.3	Organics Prep	Sauvelson Auguste	05/05/19 15:31	Extract from JC87363-3.1
JC87363-3.1.3	Sauvelson Auguste	Extract Storage	05/05/19 15:31	Return to Storage
JC87363-3.1.3	Extract Storage	Carol Boykin	05/05/19 23:14	Retrieve from Storage
JC87363-3.1.3	Carol Boykin	GCMSM	05/05/19 23:14	Load on Instrument
JC87363-3.1.3	GCMSM	Angela Rastelli	05/06/19 11:30	Unload from Instrument
JC87363-3.1.3	Angela Rastelli	GCMSF	05/06/19 11:30	Load on Instrument
JC87363-3.1.3	GCMSF	Angela Rastelli	05/07/19 11:12	Unload from Instrument
JC87363-3.1.3	Angela Rastelli	Extract Freezer	05/07/19 11:12	Return to Storage
JC87363-3.4	Secured Storage	Brittany Klimek	05/02/19 22:58	Retrieve from Storage
JC87363-3.4	Brittany Klimek	Secured Storage	05/02/19 22:58	Return to Storage
JC87363-3.5	Secured Storage	Brittany Klimek	05/02/19 22:58	Retrieve from Storage
JC87363-3.5	Brittany Klimek	Secured Storage	05/02/19 22:58	Return to Storage
JC87363-3.6	Secured Storage	Brittany Klimek	05/02/19 22:58	Retrieve from Storage
JC87363-3.6	Brittany Klimek	Secured Storage	05/02/19 22:58	Return to Storage
JC87363-3.6	Secured Storage	Eddie Huang	05/03/19 13:22	Retrieve from Storage
JC87363-3.6	Eddie Huang	GCMS1C	05/03/19 13:22	Load on Instrument
JC87363-3.6	GCMS1C	Prashant Shukla	05/04/19 11:30	Unload from Instrument
JC87363-3.6	Prashant Shukla		05/04/19 11:31	Depleted

MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Instrument Performance Checks (BFB)
- Internal Standard Area Summaries
- Surrogate Recovery Summaries
- Initial and Continuing Calibration Summaries

Method Blank Summary

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V3D6294-MB	3D147174.D	1	05/03/19	EH	n/a	n/a	V3D6294

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC87363-1, JC87363-2

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.50	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	99%	80-120%
17060-07-0	1,2-Dichloroethane-D4	99%	81-124%
2037-26-5	Toluene-D8	105%	80-120%
460-00-4	4-Bromofluorobenzene	96%	80-120%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

Method Blank Summary

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V1C7209-MB	1C164270.D	1	05/03/19	EH	n/a	n/a	V1C7209

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC87363-3

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	5.0	ug/kg	
71-43-2	Benzene	ND	0.50	0.38	ug/kg	
108-86-1	Bromobenzene	ND	5.0	0.40	ug/kg	
74-97-5	Bromochloromethane	ND	5.0	0.43	ug/kg	
75-27-4	Bromodichloromethane	ND	2.0	0.44	ug/kg	
75-25-2	Bromoform	ND	5.0	0.40	ug/kg	
74-83-9	Bromomethane	ND	5.0	1.0	ug/kg	
78-93-3	2-Butanone (MEK)	ND	10	3.7	ug/kg	
104-51-8	n-Butylbenzene	ND	2.0	0.41	ug/kg	
135-98-8	sec-Butylbenzene	ND	2.0	0.37	ug/kg	
98-06-6	tert-Butylbenzene	ND	2.0	0.35	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.0	0.55	ug/kg	
108-90-7	Chlorobenzene	ND	2.0	0.35	ug/kg	
75-00-3	Chloroethane	ND	5.0	0.69	ug/kg	
67-66-3	Chloroform	ND	2.0	0.37	ug/kg	
74-87-3	Chloromethane	ND	5.0	2.0	ug/kg	
95-49-8	o-Chlorotoluene	ND	2.0	0.38	ug/kg	
106-43-4	p-Chlorotoluene	ND	2.0	0.56	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.84	ug/kg	
124-48-1	Dibromochloromethane	ND	2.0	0.34	ug/kg	
106-93-4	1,2-Dibromoethane	ND	1.0	0.33	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.31	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.36	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.34	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.64	ug/kg	
75-34-3	1,1-Dichloroethane	ND	1.0	0.39	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.0	0.47	ug/kg	
75-35-4	1,1-Dichloroethene	ND	1.0	0.66	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.96	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.67	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.0	0.41	ug/kg	
142-28-9	1,3-Dichloropropane	ND	2.0	0.37	ug/kg	
594-20-7	2,2-Dichloropropane	ND	2.0	0.43	ug/kg	
563-58-6	1,1-Dichloropropene	ND	2.0	0.54	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.0	0.35	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.0	0.33	ug/kg	

Method Blank Summary

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V1C7209-MB	1C164270.D	1	05/03/19	EH	n/a	n/a	V1C7209

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC87363-3

CAS No.	Compound	Result	RL	MDL	Units	Q
100-41-4	Ethylbenzene	ND	1.0	0.55	ug/kg	
87-68-3	Hexachlorobutadiene	ND	5.0	0.50	ug/kg	
98-82-8	Isopropylbenzene	ND	2.0	0.70	ug/kg	
99-87-6	p-Isopropyltoluene	ND	2.0	0.32	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.35	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.6	ug/kg	
74-95-3	Methylene bromide	ND	5.0	0.34	ug/kg	
75-09-2	Methylene chloride	ND	5.0	2.5	ug/kg	
91-20-3	Naphthalene	ND	5.0	2.0	ug/kg	
103-65-1	n-Propylbenzene	ND	2.0	0.31	ug/kg	
100-42-5	Styrene	ND	2.0	0.58	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	2.0	0.57	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.0	0.39	ug/kg	
127-18-4	Tetrachloroethene	ND	2.0	0.46	ug/kg	
108-88-3	Toluene	ND	1.0	0.38	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	1.0	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	1.0	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	2.0	0.43	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	2.0	0.34	ug/kg	
79-01-6	Trichloroethene	ND	1.0	0.76	ug/kg	
75-69-4	Trichlorofluoromethane	ND	5.0	0.68	ug/kg	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.56	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.64	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.36	ug/kg	
75-01-4	Vinyl chloride	ND	2.0	0.47	ug/kg	
	m,p-Xylene	ND	1.0	0.75	ug/kg	
95-47-6	o-Xylene	ND	1.0	0.58	ug/kg	
1330-20-7	Xylene (total)	ND	1.0	0.58	ug/kg	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	102%	75-127%
17060-07-0	1,2-Dichloroethane-D4	112%	75-130%
2037-26-5	Toluene-D8	101%	80-120%
460-00-4	4-Bromofluorobenzene	99%	79-127%

Method Blank Summary

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V1C7209-MB	1C164270.D	1	05/03/19	EH	n/a	n/a	V1C7209

The QC reported here applies to the following samples: **Method:**

JC87363-3

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/kg	

Blank Spike Summary

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V1C7209-BS	1C164268.D	1	05/03/19	EH	n/a	n/a	V1C7209

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC87363-3

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
67-64-1	Acetone	200	177	89	48-149
71-43-2	Benzene	50	43.9	88	74-117
108-86-1	Bromobenzene	50	49.9	100	77-117
74-97-5	Bromochloromethane	50	49.0	98	82-121
75-27-4	Bromodichloromethane	50	51.8	104	78-119
75-25-2	Bromoform	50	60.4	121	76-130
74-83-9	Bromomethane	50	39.4	79	58-137
78-93-3	2-Butanone (MEK)	200	188	94	65-143
104-51-8	n-Butylbenzene	50	47.9	96	74-123
135-98-8	sec-Butylbenzene	50	48.4	97	74-123
98-06-6	tert-Butylbenzene	50	49.7	99	73-124
56-23-5	Carbon tetrachloride	50	53.1	106	69-136
108-90-7	Chlorobenzene	50	49.1	98	79-117
75-00-3	Chloroethane	50	40.8	82	62-139
67-66-3	Chloroform	50	45.4	91	76-119
74-87-3	Chloromethane	50	37.0	74	52-144
95-49-8	o-Chlorotoluene	50	49.6	99	77-118
106-43-4	p-Chlorotoluene	50	47.3	95	75-117
96-12-8	1,2-Dibromo-3-chloropropane	50	54.2	108	72-124
124-48-1	Dibromochloromethane	50	56.7	113	78-122
106-93-4	1,2-Dibromoethane	50	43.7	87	80-116
95-50-1	1,2-Dichlorobenzene	50	51.3	103	77-117
541-73-1	1,3-Dichlorobenzene	50	49.4	99	75-117
106-46-7	1,4-Dichlorobenzene	50	49.6	99	76-115
75-71-8	Dichlorodifluoromethane	50	41.7	83	43-156
75-34-3	1,1-Dichloroethane	50	43.0	86	75-124
107-06-2	1,2-Dichloroethane	50	49.7	99	74-124
75-35-4	1,1-Dichloroethene	50	43.0	86	64-129
156-59-2	cis-1,2-Dichloroethene	50	43.7	87	74-118
156-60-5	trans-1,2-Dichloroethene	50	42.6	85	71-125
78-87-5	1,2-Dichloropropane	50	44.3	89	80-119
142-28-9	1,3-Dichloropropane	50	48.4	97	79-115
594-20-7	2,2-Dichloropropane	50	48.9	98	66-130
563-58-6	1,1-Dichloropropene	50	45.4	91	74-124
10061-01-5	cis-1,3-Dichloropropene	50	48.5	97	80-119
10061-02-6	trans-1,3-Dichloropropene	50	50.8	102	78-119

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V1C7209-BS	1C164268.D	1	05/03/19	EH	n/a	n/a	V1C7209

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC87363-3

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
100-41-4	Ethylbenzene	50	47.6	95	75-118
87-68-3	Hexachlorobutadiene	50	54.9	110	64-133
98-82-8	Isopropylbenzene	50	49.2	98	74-122
99-87-6	p-Isopropyltoluene	50	49.7	99	74-121
1634-04-4	Methyl Tert Butyl Ether	50	48.3	97	75-123
108-10-1	4-Methyl-2-pentanone(MIBK)	200	182	91	73-136
74-95-3	Methylene bromide	50	50.6	101	82-120
75-09-2	Methylene chloride	50	43.7	87	73-120
91-20-3	Naphthalene	50	54.2	108	71-130
103-65-1	n-Propylbenzene	50	47.8	96	75-120
100-42-5	Styrene	50	49.2	98	78-120
630-20-6	1,1,1,2-Tetrachloroethane	50	55.7	111	75-122
79-34-5	1,1,2,2-Tetrachloroethane	50	48.2	96	72-120
127-18-4	Tetrachloroethene	50	51.6	103	69-128
108-88-3	Toluene	50	45.8	92	74-117
87-61-6	1,2,3-Trichlorobenzene	50	53.7	107	72-133
120-82-1	1,2,4-Trichlorobenzene	50	55.9	112	73-132
71-55-6	1,1,1-Trichloroethane	50	51.3	103	73-131
79-00-5	1,1,2-Trichloroethane	50	49.8	100	79-117
79-01-6	Trichloroethene	50	50.3	101	80-120
75-69-4	Trichlorofluoromethane	50	49.9	100	63-141
96-18-4	1,2,3-Trichloropropane	50	51.9	104	77-121
95-63-6	1,2,4-Trimethylbenzene	50	48.9	98	76-119
108-67-8	1,3,5-Trimethylbenzene	50	49.1	98	74-119
75-01-4	Vinyl chloride	50	41.5	83	55-145
	m,p-Xylene	100	96.0	96	75-120
95-47-6	o-Xylene	50	48.7	97	75-119
1330-20-7	Xylene (total)	150	145	97	76-119

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	101%	75-127%
17060-07-0	1,2-Dichloroethane-D4	109%	75-130%
2037-26-5	Toluene-D8	101%	80-120%
460-00-4	4-Bromofluorobenzene	100%	79-127%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V3D6294-BS	3D147171.D	1	05/03/19	EH	n/a	n/a	V3D6294
V3D6294-BSD	3D147172.D	1	05/03/19	EH	n/a	n/a	V3D6294

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC87363-1, JC87363-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	50	50.4	101	49.1	98	3	80-120/20
100-41-4	Ethylbenzene	50	49.4	99	49.0	98	1	80-120/20
108-88-3	Toluene	50	48.6	97	47.9	96	1	80-120/20
1330-20-7	Xylene (total)	150	148	99	146	97	1	80-120/20

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	102%	102%	80-120%
17060-07-0	1,2-Dichloroethane-D4	99%	100%	81-124%
2037-26-5	Toluene-D8	102%	102%	80-120%
460-00-4	4-Bromofluorobenzene	97%	97%	80-120%

* = Outside of Control Limits.

Matrix Spike Summary

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC87363-2MS	3D147182.D	1	05/03/19	EH	n/a	n/a	V3D6294
JC87363-2	3D147179.D	1	05/03/19	EH	n/a	n/a	V3D6294

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC87363-1, JC87363-2

CAS No.	Compound	JC87363-2 ug/l	Q	Spike ug/l	MS ug/l	MS %	Limits
71-43-2	Benzene	ND		50	47.8	96	54-136
100-41-4	Ethylbenzene	ND		50	46.6	93	51-140
108-88-3	Toluene	ND		50	46.1	92	60-135
1330-20-7	Xylene (total)	ND		150	137	91	56-139

CAS No.	Surrogate Recoveries	MS	JC87363-2	Limits
1868-53-7	Dibromofluoromethane	103%	102%	80-120%
17060-07-0	1,2-Dichloroethane-D4	100%	103%	81-124%
2037-26-5	Toluene-D8	103%	102%	80-120%
460-00-4	4-Bromofluorobenzene	98%	97%	80-120%

* = Outside of Control Limits.

Matrix Spike Summary

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC87361-8MS	1C164277.D	1	05/03/19	EH	n/a	n/a	V1C7209
JC87361-8	1C164272.D	1	05/03/19	EH	n/a	n/a	V1C7209

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC87363-3

CAS No.	Compound	JC87361-8 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	Limits
67-64-1	Acetone	135		279	363	82	10-157
71-43-2	Benzene	ND		69.7	60.3	86	58-125
108-86-1	Bromobenzene	ND		69.7	54.6	78	50-129
74-97-5	Bromochloromethane	ND		69.7	59.9	86	60-127
75-27-4	Bromodichloromethane	ND		69.7	67.7	97	57-128
75-25-2	Bromoform	ND		69.7	68.8	99	48-133
74-83-9	Bromomethane	ND		69.7	49.4	71	31-141
78-93-3	2-Butanone (MEK)	ND		279	276	99	29-146
104-51-8	n-Butylbenzene	ND		69.7	65.4	94	23-149
135-98-8	sec-Butylbenzene	ND		69.7	75.1	108	33-147
98-06-6	tert-Butylbenzene	ND		69.7	79.6	114	39-145
56-23-5	Carbon tetrachloride	ND		69.7	90.1	129	51-143
108-90-7	Chlorobenzene	ND		69.7	55.7	80	54-130
75-00-3	Chloroethane	ND		69.7	46.7	67	22-153
67-66-3	Chloroform	ND		69.7	64.4	92	61-125
74-87-3	Chloromethane	ND		69.7	44.3	64	43-142
95-49-8	o-Chlorotoluene	ND		69.7	66.5	95	47-137
106-43-4	p-Chlorotoluene	ND		69.7	53.5	77	44-133
96-12-8	1,2-Dibromo-3-chloropropane	ND		69.7	63.9	92	41-127
124-48-1	Dibromochloromethane	ND		69.7	69.2	99	56-127
106-93-4	1,2-Dibromoethane	ND		69.7	46.8	67	54-121
95-50-1	1,2-Dichlorobenzene	ND		69.7	46.9	67	41-134
541-73-1	1,3-Dichlorobenzene	ND		69.7	47.7	68	41-135
106-46-7	1,4-Dichlorobenzene	ND		69.7	44.0	63	41-133
75-71-8	Dichlorodifluoromethane	ND		69.7	66.5	95	30-153
75-34-3	1,1-Dichloroethane	ND		69.7	61.2	88	61-131
107-06-2	1,2-Dichloroethane	ND		69.7	66.9	96	56-126
75-35-4	1,1-Dichloroethene	ND		69.7	65.1	93	53-132
156-59-2	cis-1,2-Dichloroethene	ND		69.7	55.2	79	57-125
156-60-5	trans-1,2-Dichloroethene	ND		69.7	57.4	82	56-130
78-87-5	1,2-Dichloropropane	ND		69.7	55.6	80	63-126
142-28-9	1,3-Dichloropropane	ND		69.7	59.1	85	58-119
594-20-7	2,2-Dichloropropane	ND		69.7	79.2	114	41-135
563-58-6	1,1-Dichloropropene	ND		69.7	64.9	93	53-132
10061-01-5	cis-1,3-Dichloropropene	ND		69.7	55.5	80	55-126
10061-02-6	trans-1,3-Dichloropropene	ND		69.7	54.3	78	51-126

* = Outside of Control Limits.

Matrix Spike Summary

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC87361-8MS	1C164277.D	1	05/03/19	EH	n/a	n/a	V1C7209
JC87361-8	1C164272.D	1	05/03/19	EH	n/a	n/a	V1C7209

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC87363-3

CAS No.	Compound	JC87361-8 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	Limits
100-41-4	Ethylbenzene	ND		69.7	62.2	89	49-132
87-68-3	Hexachlorobutadiene	ND		69.7	74.9	107	10-165
98-82-8	Isopropylbenzene	ND		69.7	68.3	98	43-141
99-87-6	p-Isopropyltoluene	ND		69.7	73.0	105	34-144
1634-04-4	Methyl Tert Butyl Ether	ND		69.7	68.4	98	58-123
108-10-1	4-Methyl-2-pentanone(MIBK)	ND		279	229	82	40-140
74-95-3	Methylene bromide	ND		69.7	58.2	83	57-124
75-09-2	Methylene chloride	ND		69.7	56.2	81	57-123
91-20-3	Naphthalene	ND		69.7	28.4	41	22-145
103-65-1	n-Propylbenzene	ND		69.7	70.5	101	41-139
100-42-5	Styrene	ND		69.7	51.5	74	46-139
630-20-6	1,1,1,2-Tetrachloroethane	ND		69.7	74.8	107	53-133
79-34-5	1,1,2,2-Tetrachloroethane	ND		69.7	62.8	90	44-127
127-18-4	Tetrachloroethene	ND		69.7	73.8	106	39-154
108-88-3	Toluene	ND		69.7	61.4	88	54-127
87-61-6	1,2,3-Trichlorobenzene	ND		69.7	27.6	40	17-151
120-82-1	1,2,4-Trichlorobenzene	ND		69.7	30.8	44	19-153
71-55-6	1,1,1-Trichloroethane	ND		69.7	85.0	122	57-138
79-00-5	1,1,2-Trichloroethane	ND		69.7	61.9	89	53-127
79-01-6	Trichloroethene	ND		69.7	67.6	97	52-140
75-69-4	Trichlorofluoromethane	ND		69.7	71.9	103	46-142
96-18-4	1,2,3-Trichloropropane	ND		69.7	75.4	108	48-129
95-63-6	1,2,4-Trimethylbenzene	ND		69.7	64.1	92	39-142
108-67-8	1,3,5-Trimethylbenzene	ND		69.7	70.6	101	40-140
75-01-4	Vinyl chloride	ND		69.7	52.9	76	43-146
	m,p-Xylene	ND		139	124	89	45-137
95-47-6	o-Xylene	ND		69.7	62.0	89	48-135
1330-20-7	Xylene (total)	ND		209	186	89	46-137

CAS No.	Surrogate Recoveries	MS	JC87361-8	Limits
1868-53-7	Dibromofluoromethane	104%	103%	75-127%
17060-07-0	1,2-Dichloroethane-D4	120%	116%	75-130%
2037-26-5	Toluene-D8	105%	104%	80-120%
460-00-4	4-Bromofluorobenzene	107%	106%	79-127%

* = Outside of Control Limits.

Duplicate Summary

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC87226-2DUP	3D147184.D	1	05/03/19	EH	n/a	n/a	V3D6294
JC87226-2	3D147180.D	1	05/03/19	EH	n/a	n/a	V3D6294

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC87363-1, JC87363-2

CAS No.	Compound	JC87226-2 ug/l	Q	DUP ug/l	Q	RPD	Limits
71-43-2	Benzene	ND		ND		nc	20
100-41-4	Ethylbenzene	ND		ND		nc	20
108-88-3	Toluene	ND		ND		nc	20
1330-20-7	Xylene (total)	ND		ND		nc	20

CAS No.	Surrogate Recoveries	DUP	JC87226-2	Limits
1868-53-7	Dibromofluoromethane	101%	104%	80-120%
17060-07-0	1,2-Dichloroethane-D4	102%	104%	81-124%
2037-26-5	Toluene-D8	102%	102%	80-120%
460-00-4	4-Bromofluorobenzene	97%	97%	80-120%

* = Outside of Control Limits.

Duplicate Summary

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC87361-7DUP	1C164279.D	1	05/03/19	EH	n/a	n/a	V1C7209
JC87361-7	1C164271.D	1	05/03/19	EH	n/a	n/a	V1C7209

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC87363-3

CAS No.	Compound	JC87361-7 ug/kg	Q	DUP ug/kg	Q	RPD	Limits
67-64-1	Acetone	97.2		24.7		119* [a]	40
71-43-2	Benzene	ND		ND		nc	30
108-86-1	Bromobenzene	ND		ND		nc	30
74-97-5	Bromochloromethane	ND		ND		nc	30
75-27-4	Bromodichloromethane	ND		ND		nc	30
75-25-2	Bromoform	ND		ND		nc	30
74-83-9	Bromomethane	ND		ND		nc	30
78-93-3	2-Butanone (MEK)	ND		ND		nc	30
104-51-8	n-Butylbenzene	ND		ND		nc	30
135-98-8	sec-Butylbenzene	ND		ND		nc	30
98-06-6	tert-Butylbenzene	ND		ND		nc	30
56-23-5	Carbon tetrachloride	ND		ND		nc	30
108-90-7	Chlorobenzene	ND		ND		nc	30
75-00-3	Chloroethane	ND		ND		nc	30
67-66-3	Chloroform	ND		ND		nc	30
74-87-3	Chloromethane	ND		ND		nc	30
95-49-8	o-Chlorotoluene	ND		ND		nc	30
106-43-4	p-Chlorotoluene	ND		ND		nc	30
96-12-8	1,2-Dibromo-3-chloropropane	ND		ND		nc	30
124-48-1	Dibromochloromethane	ND		ND		nc	30
106-93-4	1,2-Dibromoethane	ND		ND		nc	30
95-50-1	1,2-Dichlorobenzene	ND		ND		nc	30
541-73-1	1,3-Dichlorobenzene	ND		ND		nc	30
106-46-7	1,4-Dichlorobenzene	ND		ND		nc	30
75-71-8	Dichlorodifluoromethane	ND		ND		nc	30
75-34-3	1,1-Dichloroethane	ND		ND		nc	30
107-06-2	1,2-Dichloroethane	ND		ND		nc	30
75-35-4	1,1-Dichloroethene	ND		ND		nc	30
156-59-2	cis-1,2-Dichloroethene	ND		ND		nc	30
156-60-5	trans-1,2-Dichloroethene	ND		ND		nc	30
78-87-5	1,2-Dichloropropane	ND		ND		nc	30
142-28-9	1,3-Dichloropropane	ND		ND		nc	30
594-20-7	2,2-Dichloropropane	ND		ND		nc	30
563-58-6	1,1-Dichloropropene	ND		ND		nc	30
10061-01-5	cis-1,3-Dichloropropene	ND		ND		nc	30
10061-02-6	trans-1,3-Dichloropropene	ND		ND		nc	30

* = Outside of Control Limits.

Duplicate Summary

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC87361-7DUP	1C164279.D	1	05/03/19	EH	n/a	n/a	V1C7209
JC87361-7	1C164271.D	1	05/03/19	EH	n/a	n/a	V1C7209

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC87363-3

CAS No.	Compound	JC87361-7 ug/kg	Q	DUP ug/kg	Q	RPD	Limits
100-41-4	Ethylbenzene	ND		ND		nc	30
87-68-3	Hexachlorobutadiene	ND		ND		nc	30
98-82-8	Isopropylbenzene	ND		ND		nc	30
99-87-6	p-Isopropyltoluene	ND		ND		nc	30
1634-04-4	Methyl Tert Butyl Ether	ND		ND		nc	30
108-10-1	4-Methyl-2-pentanone(MIBK)	ND		ND		nc	30
74-95-3	Methylene bromide	ND		ND		nc	30
75-09-2	Methylene chloride	ND		ND		nc	36
91-20-3	Naphthalene	ND		ND		nc	30
103-65-1	n-Propylbenzene	ND		ND		nc	30
100-42-5	Styrene	ND		ND		nc	30
630-20-6	1,1,1,2-Tetrachloroethane	ND		ND		nc	30
79-34-5	1,1,2,2-Tetrachloroethane	ND		ND		nc	30
127-18-4	Tetrachloroethene	ND		ND		nc	30
108-88-3	Toluene	ND		ND		nc	24
87-61-6	1,2,3-Trichlorobenzene	ND		ND		nc	30
120-82-1	1,2,4-Trichlorobenzene	ND		ND		nc	30
71-55-6	1,1,1-Trichloroethane	ND		ND		nc	30
79-00-5	1,1,2-Trichloroethane	ND		ND		nc	30
79-01-6	Trichloroethene	ND		ND		nc	30
75-69-4	Trichlorofluoromethane	ND		ND		nc	30
96-18-4	1,2,3-Trichloropropane	ND		ND		nc	30
95-63-6	1,2,4-Trimethylbenzene	ND		ND		nc	30
108-67-8	1,3,5-Trimethylbenzene	ND		ND		nc	30
75-01-4	Vinyl chloride	ND		ND		nc	30
	m,p-Xylene	ND		ND		nc	32
95-47-6	o-Xylene	ND		ND		nc	30
1330-20-7	Xylene (total)	ND		ND		nc	33

CAS No.	Surrogate Recoveries	DUP	JC87361-7	Limits
1868-53-7	Dibromofluoromethane	101%	102%	75-127%
17060-07-0	1,2-Dichloroethane-D4	121%	115%	75-130%
2037-26-5	Toluene-D8	102%	102%	80-120%
460-00-4	4-Bromofluorobenzene	99%	105%	79-127%

* = Outside of Control Limits.

Duplicate Summary

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC87361-7DUP	1C164279.D	1	05/03/19	EH	n/a	n/a	V1C7209
JC87361-7	1C164271.D	1	05/03/19	EH	n/a	n/a	V1C7209

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC87363-3

(a) Outside control limits due to sample non-homogeneity.

* = Outside of Control Limits.

Instrument Performance Check (BFB)

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample:	V1C7200-BFB	**Injection Date:**	04/24/19
Lab File ID:	1C164004.D	**Injection Time:**	14:40
Instrument ID:	GCMS1C		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	14.99 - 40.0% of mass 95	9866	18.0		Pass
75	30.0 - 60.0% of mass 95	26882	49.0		Pass
95	Base peak, 100% relative abundance	54821	100.0		Pass
96	5.0 - 9.0% of mass 95	3741	6.82		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 120.0% of mass 95	47850	87.3		Pass
175	5.0 - 9.0% of mass 174	3704	6.76	(7.74) [a]	Pass
176	95.0 - 101.0% of mass 174	46538	84.9	(97.3) [a]	Pass
177	5.0 - 9.0% of mass 176	3149	5.74	(6.77) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V1C7200-IC7200	1C164005.D	04/24/19	15:12	00:32	Initial cal 0.5
V1C7200-IC7200	1C164006.D	04/24/19	15:38	00:58	Initial cal 1
V1C7200-IC7200	1C164007.D	04/24/19	16:05	01:25	Initial cal 2
V1C7200-IC7200	1C164008.D	04/24/19	16:31	01:51	Initial cal 4
V1C7200-IC7200	1C164009.D	04/24/19	16:58	02:18	Initial cal 8
V1C7200-IC7200	1C164010.D	04/24/19	17:24	02:44	Initial cal 20
V1C7200-ICC7200	1C164011.D	04/24/19	17:51	03:11	Initial cal 50
V1C7200-IC7200	1C164012.D	04/24/19	18:17	03:37	Initial cal 100
V1C7200-IC7200	1C164013.D	04/24/19	18:44	04:04	Initial cal 200
V1C7200-ICV7200	1C164016.D	04/24/19	20:03	05:23	Initial cal verification 50
V1C7200-ICV7200	1C164017.D	04/24/19	20:30	05:50	Initial cal verification 50

Instrument Performance Check (BFB)

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample: V1C7209-BFB
Lab File ID: 1C164266.D
Instrument ID: GCMS1C
Injection Date: 05/03/19
Injection Time: 08:23

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	14.99 - 40.0% of mass 95	8143	18.1		Pass
75	30.0 - 60.0% of mass 95	22435	50.0		Pass
95	Base peak, 100% relative abundance	44875	100.0		Pass
96	5.0 - 9.0% of mass 95	2929	6.53		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 120.0% of mass 95	41227	91.9		Pass
175	5.0 - 9.0% of mass 174	3089	6.88	(7.49) [a]	Pass
176	95.0 - 101.0% of mass 174	40291	89.8	(97.7) [a]	Pass
177	5.0 - 9.0% of mass 176	2651	5.91	(6.58) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V1C7209-CC7200	1C164266.D	05/03/19	08:23	00:00	Continuing cal 50
V1C7209-BS	1C164268.D	05/03/19	09:33	01:10	Blank Spike
V1C7209-MB	1C164270.D	05/03/19	10:37	02:14	Method Blank
JC87361-7	1C164271.D	05/03/19	11:13	02:50	(used for QC only; not part of job JC87363)
JC87361-8	1C164272.D	05/03/19	11:39	03:16	(used for QC only; not part of job JC87363)
ZZZZZZ	1C164273.D	05/03/19	12:05	03:42	(unrelated sample)
ZZZZZZ	1C164275.D	05/03/19	12:58	04:35	(unrelated sample)
JC87363-3	1C164276.D	05/03/19	13:25	05:02	SIL05
JC87361-8MS	1C164277.D	05/03/19	13:51	05:28	Matrix Spike
JC87361-7DUP	1C164279.D	05/03/19	14:44	06:21	Duplicate
ZZZZZZ	1C164280.D	05/03/19	15:10	06:47	(unrelated sample)
ZZZZZZ	1C164281.D	05/03/19	15:36	07:13	(unrelated sample)
ZZZZZZ	1C164282.D	05/03/19	16:03	07:40	(unrelated sample)
ZZZZZZ	1C164283.D	05/03/19	16:29	08:06	(unrelated sample)
ZZZZZZ	1C164284.D	05/03/19	16:55	08:32	(unrelated sample)
ZZZZZZ	1C164285.D	05/03/19	17:22	08:59	(unrelated sample)
ZZZZZZ	1C164286.D	05/03/19	17:48	09:25	(unrelated sample)
ZZZZZZ	1C164287.D	05/03/19	18:15	09:52	(unrelated sample)
ZZZZZZ	1C164288.D	05/03/19	18:41	10:18	(unrelated sample)
ZZZZZZ	1C164289.D	05/03/19	19:08	10:45	(unrelated sample)

Instrument Performance Check (BFB)

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample:	V3D6212-BFB	**Injection Date:**	03/07/19
Lab File ID:	3D145269.D	**Injection Time:**	17:57
Instrument ID:	GCMS3D		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	14.99 - 40.0% of mass 95	16616	17.6		Pass
75	30.0 - 60.0% of mass 95	44517	47.2		Pass
95	Base peak, 100% relative abundance	94402	100.0		Pass
96	5.0 - 9.0% of mass 95	6251	6.62		Pass
173	Less than 2.0% of mass 174	981	1.04	(1.17) [a]	Pass
174	50.0 - 120.0% of mass 95	83682	88.6		Pass
175	5.0 - 9.0% of mass 174	6242	6.61	(7.46) [a]	Pass
176	95.0 - 101.0% of mass 174	80954	85.8	(96.7) [a]	Pass
177	5.0 - 9.0% of mass 176	5431	5.75	(6.71) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V3D6212-IC6212	3D145270.D	03/07/19	18:37	00:40	Initial cal 0.2
V3D6212-IC6212	3D145271.D	03/07/19	19:02	01:05	Initial cal 0.5
V3D6212-IC6212	3D145272.D	03/07/19	19:27	01:30	Initial cal 1
V3D6212-IC6212	3D145273.D	03/07/19	19:52	01:55	Initial cal 2
V3D6212-IC6212	3D145274.D	03/07/19	20:17	02:20	Initial cal 4
V3D6212-IC6212	3D145275.D	03/07/19	20:43	02:46	Initial cal 8
V3D6212-IC6212	3D145276.D	03/07/19	21:08	03:11	Initial cal 20
V3D6212-ICC6212	3D145277.D	03/07/19	21:33	03:36	Initial cal 50
V3D6212-IC6212	3D145278.D	03/07/19	21:58	04:01	Initial cal 100
V3D6212-IC6212	3D145279.D	03/07/19	22:24	04:27	Initial cal 200
V3D6212-ICV6212	3D145282.D	03/07/19	23:39	05:42	Initial cal verification 50

Instrument Performance Check (BFB)

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample:	V3D6294-BFB	**Injection Date:**	05/03/19
Lab File ID:	3D147170.D	**Injection Time:**	06:27
Instrument ID:	GCMS3D		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	14.99 - 40.0% of mass 95	19161	17.6		Pass
75	30.0 - 60.0% of mass 95	50405	46.3		Pass
95	Base peak, 100% relative abundance	108861	100.0		Pass
96	5.0 - 9.0% of mass 95	7140	6.56		Pass
173	Less than 2.0% of mass 174	971	0.89	(0.93) [a]	Pass
174	50.0 - 120.0% of mass 95	104611	96.1		Pass
175	5.0 - 9.0% of mass 174	7657	7.03	(7.32) [a]	Pass
176	95.0 - 101.0% of mass 174	101645	93.4	(97.2) [a]	Pass
177	5.0 - 9.0% of mass 176	6676	6.13	(6.57) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V3D6294-CC6212	3D147170.D	05/03/19	06:27	00:00	Continuing cal 20
V3D6294-BS	3D147171.D	05/03/19	07:00	00:33	Blank Spike
V3D6294-BSD	3D147172.D	05/03/19	07:25	00:58	Blank Spike Duplicate
V3D6294-MB	3D147174.D	05/03/19	08:27	02:00	Method Blank
ZZZZZZ	3D147175.D	05/03/19	09:51	03:24	(unrelated sample)
ZZZZZZ	3D147176.D	05/03/19	10:17	03:50	(unrelated sample)
ZZZZZZ	3D147177.D	05/03/19	10:42	04:15	(unrelated sample)
JC87363-1	3D147178.D	05/03/19	11:07	04:40	SILO2
JC87363-2	3D147179.D	05/03/19	11:33	05:06	SILO3-2
JC87226-2	3D147180.D	05/03/19	11:58	05:31	(used for QC only; not part of job JC87363)
JC87363-2MS	3D147182.D	05/03/19	12:48	06:21	Matrix Spike
JC87226-2DUP	3D147184.D	05/03/19	13:38	07:11	Duplicate
ZZZZZZ	3D147185.D	05/03/19	14:03	07:36	(unrelated sample)
ZZZZZZ	3D147186.D	05/03/19	14:28	08:01	(unrelated sample)
ZZZZZZ	3D147187.D	05/03/19	14:53	08:26	(unrelated sample)
ZZZZZZ	3D147188.D	05/03/19	15:19	08:52	(unrelated sample)
ZZZZZZ	3D147189.D	05/03/19	15:44	09:17	(unrelated sample)
ZZZZZZ	3D147190.D	05/03/19	16:09	09:42	(unrelated sample)
ZZZZZZ	3D147191.D	05/03/19	16:34	10:07	(unrelated sample)
ZZZZZZ	3D147192.D	05/03/19	16:59	10:32	(unrelated sample)
ZZZZZZ	3D147193.D	05/03/19	17:24	10:57	(unrelated sample)

Internal Standard Area Summary

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Check Std:	V1C7209-CC7200	**Injection Date:**	05/03/19
Lab File ID:	1C164266.D	**Injection Time:**	08:23
Instrument ID:	GCMS1C	**Method:**	SW846 8260C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	42874	7.36	142635	9.60	194386	10.52	153918	13.66	84010	15.97
Upper Limit [a]	85748	7.86	285270	10.10	388772	11.02	307836	14.16	168020	16.47
Lower Limit [b]	21437	6.86	71318	9.10	97193	10.02	76959	13.16	42005	15.47

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
V1C7209-BS	43450	7.36	146789	9.60	197638	10.52	157528	13.66	85065	15.97
V1C7209-MB	42970	7.36	141145	9.60	184907	10.52	151999	13.66	82369	15.97
JC87361-7	40093	7.36	136193	9.60	180860	10.52	140559	13.66	66951	15.97
JC87361-8	35802	7.37	124088	9.60	163487	10.52	130588	13.66	63439	15.97
ZZZZZZ	31816	7.36	108526	9.60	146055	10.52	105168	13.66	42368	15.97
ZZZZZZ	27110	7.36	123363	9.60	160403	10.52	127491	13.66	62753	15.97
JC87363-3	32139	7.36	107497	9.60	140906	10.52	115687	13.66	59192	15.97
JC87361-8MS	31652	7.36	104147	9.60	139209	10.52	106789	13.66	49895	15.97
JC87361-7DUP	33703	7.37	115422	9.60	149606	10.52	120906	13.66	62539	15.97
ZZZZZZ	32530	7.37	117218	9.60	153339	10.52	127197	13.66	70423	15.97
ZZZZZZ	28367	7.37	111633	9.60	149141	10.52	123204	13.66	68135	15.97
ZZZZZZ	29074	7.36	112032	9.60	145554	10.52	123742	13.66	69334	15.97
ZZZZZZ	26494	7.36	109807	9.60	142680	10.52	119861	13.66	66037	15.97
ZZZZZZ	26696	7.36	107666	9.60	139794	10.52	117842	13.66	65460	15.97
ZZZZZZ	25572	7.36	105715	9.60	135736	10.52	115498	13.66	64902	15.97
ZZZZZZ	26249	7.36	104118	9.60	133881	10.52	115429	13.66	65778	15.97
ZZZZZZ	27199	7.36	103967	9.60	136103	10.52	115294	13.66	64340	15.97
ZZZZZZ	26220	7.37	101951	9.60	130538	10.52	111587	13.66	63287	15.97
ZZZZZZ	28562	7.37	108235	9.60	140123	10.52	118412	13.66	65997	15.97

IS 1 = Tert Butyl Alcohol-D9
IS 2 = Pentafluorobenzene
IS 3 = 1,4-Difluorobenzene
IS 4 = Chlorobenzene-D5
IS 5 = 1,4-Dichlorobenzene-d4

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Internal Standard Area Summary

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Check Std:	V3D6294-CC6212	**Injection Date:**	05/03/19
Lab File ID:	3D147170.D	**Injection Time:**	06:27
Instrument ID:	GCMS3D	**Method:**	SW846 8260C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	228322	2.98	373844	4.19	503634	4.75	429065	7.14	209528	9.34
Upper Limit [a]	456644	3.48	747688	4.69	1007268	5.25	858130	7.64	419056	9.84
Lower Limit [b]	114161	2.48	186922	3.69	251817	4.25	214533	6.64	104764	8.84

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
V3D6294-BS	218037	2.99	366532	4.19	493925	4.75	433093	7.14	212569	9.34
V3D6294-BSD	228625	2.98	361417	4.19	496784	4.75	430520	7.14	211381	9.34
V3D6294-MB	211907	2.98	361067	4.19	487980	4.75	406998	7.14	199891	9.34
ZZZZZZ	218338	2.98	358101	4.19	485264	4.75	420160	7.14	207242	9.34
ZZZZZZ	225061	2.98	362092	4.19	488498	4.75	419681	7.14	206712	9.34
ZZZZZZ	223573	2.98	364832	4.19	492394	4.75	426747	7.14	208156	9.34
JC87363-1	247328	2.98	375050	4.19	513094	4.75	449757	7.14	222789	9.34
JC87363-2	228768	2.98	366469	4.19	500000	4.75	436874	7.14	213606	9.34
JC87226-2	243976	2.98	364445	4.19	507930	4.75	440080	7.14	215948	9.34
JC87363-2MS	233431	2.99	363635	4.19	499430	4.75	432001	7.14	210269	9.34
JC87226-2DUP	234754	2.98	355301	4.19	487796	4.75	423001	7.14	206294	9.34
ZZZZZZ	230404	2.98	360285	4.19	498276	4.75	427549	7.14	209852	9.34
ZZZZZZ	234176	2.98	339818	4.19	458832	4.75	403303	7.14	197747	9.34
ZZZZZZ	207282	2.98	348410	4.19	470960	4.75	427935	7.14	205908	9.34
ZZZZZZ	242490	2.98	356094	4.19	484803	4.75	424784	7.14	205122	9.34
ZZZZZZ	237189	2.98	351543	4.19	482871	4.75	409917	7.14	194313	9.34
ZZZZZZ	233227	2.98	356845	4.19	490822	4.75	381697	7.14	200145	9.34
ZZZZZZ	237385	2.98	353405	4.19	487033	4.75	413550	7.14	186869	9.34
ZZZZZZ	225376	2.98	338428	4.19	452642	4.75	420428	7.14	202554	9.34
ZZZZZZ	230857	2.98	320617	4.19	435881	4.75	406406	7.14	205667	9.34

IS 1 = Tert Butyl Alcohol-D9
IS 2 = Pentafluorobenzene
IS 3 = 1,4-Difluorobenzene
IS 4 = Chlorobenzene-D5
IS 5 = 1,4-Dichlorobenzene-d4

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Surrogate Recovery Summary

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Method: SW846 8260C **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4
JC87363-1	3D147178.D	103	104	102	95
JC87363-2	3D147179.D	102	103	102	97
JC87226-2DUP	3D147184.D	101	102	102	97
JC87363-2MS	3D147182.D	103	100	103	98
V3D6294-BS	3D147171.D	102	99	102	97
V3D6294-BSD	3D147172.D	102	100	102	97
V3D6294-MB	3D147174.D	99	99	105	96

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	80-120%
S2 = 1,2-Dichloroethane-D4	81-124%
S3 = Toluene-D8	80-120%
S4 = 4-Bromofluorobenzene	80-120%

Surrogate Recovery Summary

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Method: SW846 8260C **Matrix:** SO

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4
JC87363-3	1C164276.D	104	119	100	102
JC87361-7DUP	1C164279.D	101	121	102	99
JC87361-8MS	1C164277.D	104	120	105	107
V1C7209-BS	1C164268.D	101	109	101	100
V1C7209-MB	1C164270.D	102	112	101	99

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	75-127%
S2 = 1,2-Dichloroethane-D4	75-130%
S3 = Toluene-D8	80-120%
S4 = 4-Bromofluorobenzene	79-127%

Initial Calibration Summary

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample: V1C7200-ICC7200
Lab FileID: 1C164011.D

Response Factor Report GCMS1C

Method : C:\MSDCHEM\1\METHODS\M1CS7200.M (RTE Integrator)
Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
Last Update : Thu Apr 25 08:03:13 2019
Response via : Initial Calibration

Calibration Files
1 =1C164006.D 0.5 =1C164005.D 100 =1C164012.D 50 =1C164011.D
20 =1C164010.D 200 =1C164013.D 4 =1C164008.D 2 =1C164007.D
8 =1C164009.D =

Compound	1	0.5	100	50	20	200	4	2	8	Avg	%RSD
1) tert butyl alcohol-d9	----------ISTD----------										
2) tertiary butyl alcohol		1.382	1.299	1.340	1.361	1.299	1.213	1.403		1.328	4.83
3) ethanol										0.000#	-1.00
4) 1,4-dioxane		0.130	0.123	0.121	0.129	0.098		0.127		0.121	9.95
5) I pentafluorobenzene	----------ISTD----------										
6) chlorodifluoromethane	0.492	0.512	0.534	0.549	0.507	0.505	0.517	0.551	0.521	0.521	3.87
7) dichlorodifluoromethane	0.773	0.591	0.765	0.779	0.784	0.729	0.774	0.703	0.755	0.739	8.32
8) chloromethane	0.571	0.599	0.529	0.543	0.539	0.485	0.545	0.525	0.543	0.542	5.79
9) vinyl chloride	0.554	0.448	0.517	0.536	0.535	0.492	0.522	0.478	0.510	0.510	6.43
10) 1,3-butadiene	0.316	0.275	0.331	0.345	0.323	0.313	0.326	0.329	0.325	0.320	5.99
11) bromomethane	0.440	0.384	0.368	0.384	0.387	0.347	0.399	0.384	0.407	0.389	6.61
12) chloroethane	0.317		0.311	0.311	0.314	0.288	0.308	0.287	0.308	0.306	3.76
13) trichlorofluoromethane	0.750	0.686	0.781	0.802	0.802	0.736	0.790	0.737	0.764	0.761	4.99
14) vinyl bromide	0.298		0.306	0.312	0.310	0.290	0.309	0.264	0.298	0.298	5.34
15) ethyl ether		0.214	0.213	0.205	0.205	0.194	0.184	0.207		0.203	5.20
16) acrolein		0.055	0.054	0.052	0.054			0.047		0.052	6.21
17) freon 113	0.300		0.351	0.363	0.337	0.334	0.352	0.310	0.344	0.336	6.37
18) 1,1-dichloroethene	0.419	0.397	0.405	0.422	0.394	0.375	0.411	0.441	0.421	0.409	4.69
19) acetone		0.104	0.099	0.101	0.098	0.102	0.100	0.109		0.102	3.51
20) acetonitrile		0.042	0.042	0.044	0.041	0.045	0.036	0.047		0.042	8.67
21) iodomethane		0.491	0.436	0.336	0.486	0.244		0.274		0.378	28.61

----- Linear regression ----- Coefficient = 0.9965
Response Ratio = -0.02896 + 0.48886 *A

Initial Calibration Summary

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample: V1C7200-ICC7200
Lab FileID: 1C164011.D

22)	carbon disulfide										
	1.504	1.254	1.307	1.239	1.184	1.344	1.425	1.320	1.322	7.83	
23)	methylene chloride										
		0.438	0.446	0.435	0.413	0.449	0.463	0.465	0.444	3.97	
24)	methyl acetate										
		0.247	0.255	0.252	0.242	0.227		0.266	0.248	5.36	
25)	methyl tert butyl ether										
	1.046	1.090	1.150	1.157	1.107	1.092	1.131	1.062	1.147	1.109	3.60
26)	trans-1,2-dichloroethene										
	0.464	0.513	0.432	0.454	0.441	0.403	0.460	0.469	0.453	0.454	6.53
27)	di-isopropyl ether										
	1.333	1.349	1.388	1.406	1.374	1.300	1.370	1.370	1.402	1.366	2.49
28)	2-butanone										
		0.040	0.040	0.040	0.038	0.036	0.033	0.041	0.038	7.39	
29)	1,1-dichloroethane										
	0.750	0.767	0.745	0.784	0.784	0.690	0.822	0.803	0.793	0.771	5.06
30)	chloroprene										
	0.667	0.610	0.667	0.695	0.674	0.628	0.672	0.676	0.692	0.665	4.22
31)	acrylonitrile										
		0.116	0.116	0.114	0.112	0.091		0.116	0.111	8.79	
32)	hexane										
	0.697	0.673	0.714	0.743	0.696	0.670	0.744	0.704	0.713	0.706	3.70
33)	vinyl acetate										
		0.068	0.070	0.068	0.064	0.051		0.065	0.064	10.57	
34)	ethyl tert-butyl ether										
	1.212	1.278	1.365	1.379	1.338	1.293	1.326	1.283	1.373	1.316	4.18
35)	ethyl acetate										
		0.049	0.051	0.051	0.047	0.042		0.050	0.048	7.05	
36)	2,2-dichloropropane										
	0.694	0.658	0.679	0.712	0.672	0.634	0.712	0.718	0.707	0.687	4.19
37)	cis-1,2-dichloroethene										
	0.494	0.474	0.473	0.491	0.484	0.435	0.515	0.538	0.508	0.490	5.95
38)	methyl acrylate										
		0.055	0.055	0.052	0.054	0.034		0.051	0.050	16.35	
39)	propionitrile										
	0.043		0.049	0.049	0.051	0.047	0.048	0.045	0.056	0.048	7.62
40)	bromochloromethane										
	0.190		0.219	0.222	0.218	0.203	0.221	0.205	0.225	0.213	5.78
41)	tetrahydrofuran										
		0.046	0.047	0.047	0.044	0.040		0.051	0.046	7.90	
42)	chloroform										
	0.556	0.659	0.511	0.528	0.526	0.476	0.541	0.568	0.545	0.546	9.23
43)	t-butyl formate										
		0.295	0.333	0.269	0.306	0.271	0.258	0.322	0.293	9.86	
44)	dibromofluoromethane (s)										
	0.417	0.417	0.428	0.425	0.423	0.422	0.422	0.419	0.422	0.422	0.84
45)	methacrylonitrile										
		0.145	0.149	0.142	0.141	0.139	0.119	0.145	0.140	6.95	
46)	1,1,1-trichloroethane										
	0.690	0.624	0.724	0.745	0.707	0.684	0.731	0.729	0.723	0.706	5.21
47)	cyclohexane										
	0.767	0.570	0.688	0.716	0.747	0.642	0.727	0.682	0.735	0.697	8.70
48)	1,1-dichloropropene										
	0.582	0.575	0.589	0.621	0.597	0.558	0.617	0.619	0.625	0.598	3.96
49)	iso-butyl alcohol										
		0.015	0.016	0.016	0.015	0.015		0.017	0.016	6.04	
50)	carbon tetrachloride										
	0.615	0.548	0.630	0.652	0.615	0.595	0.628	0.631	0.637	0.617	4.92
51)	tert amyl alcohol										
		0.015	0.015	0.015	0.015	0.014		0.015	0.015	4.02	

Initial Calibration Summary

Job Number: JC87363 **Sample:** V1C7200-ICC7200
Account: TCMAW Tantara Corporation **Lab FileID:** 1C164011.D
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

52) I 1,4-difluorobenzene ----------ISTD----------
53) 1,2-dichloroethane-d4 (s)
0.318 0.309 0.311 0.307 0.320 0.309 0.315 0.316 0.322 0.314 1.71
54) n-butyl alcohol
0.008 0.008 0.008 0.008 0.007 0.006 0.008 0.007# 10.61
55) 2,2,4-trimethylpentane
1.191 0.971 1.196 1.241 1.226 1.116 1.321 1.241 1.300 1.200 8.73
56) benzene
1.277 1.410 1.156 1.208 1.232 1.050 1.307 1.309 1.318 1.252 8.40
57) tert-amyl methyl ether
0.160 0.199 0.203 0.202 0.187 0.195 0.197 0.218 0.195 8.56
58) heptane
0.241 0.270 0.280 0.275 0.250 0.291 0.263 0.291 0.270 6.66
59) isopropyl acetate
0.055 0.054 0.051 0.052 0.044 0.055 0.052 7.85
60) 1,2-dichloroethane
0.469 0.383 0.389 0.397 0.354 0.406 0.420 0.437 0.407 8.68
61) trichloroethene
0.318 0.289 0.322 0.335 0.327 0.300 0.324 0.349 0.337 0.322 5.76
62) ethyl acrylate
0.260 0.310 0.317 0.310 0.294 0.305 0.290 0.334 0.302 7.23
63) 2-nitropropane
0.000# -1.00
64) 2-chloroethyl vinyl ether
0.133 0.144 0.147 0.165 0.147 0.144 0.143 0.139 0.175 0.149 8.87
65) methyl methacrylate
0.064 0.064 0.063 0.061 0.057 0.067 0.063 5.13
66) 1,2-dichloropropane
0.304 0.295 0.288 0.298 0.309 0.265 0.310 0.295 0.318 0.298 5.11
67) dibromomethane
0.157 0.177 0.180 0.176 0.167 0.175 0.176 0.189 0.175 5.24
68) methylcyclohexane
0.634 0.521 0.543 0.528 0.490 0.573 0.596 0.561 0.556 8.20
69) bromodichloromethane
0.403 0.408 0.435 0.434 0.420 0.409 0.418 0.440 0.434 0.422 3.25
70) epichlorohydrin
0.024 0.024 0.024 0.024 0.023 0.022 0.026 0.024 5.06
71) cis-1,3-dichloropropene
0.474 0.492 0.485 0.495 0.487 0.459 0.489 0.474 0.508 0.485 2.90
72) 4-methyl-2-pentanone
0.085 0.093 0.084 0.085 0.086 0.079 0.087 0.086 0.095 0.087 5.57
73) 3-methyl-1-butanol
0.011 0.011 0.011 0.011 0.010 0.010 0.012 0.011 7.44

74) I chlorobenzene-d5 ----------ISTD----------
75) toluene-d8 (s)
1.348 1.350 1.347 1.337 1.339 1.329 1.340 1.373 1.358 1.347 0.97
76) toluene
0.939 1.030 0.869 0.885 0.868 0.807 0.945 0.951 0.941 0.915 7.06
77) trans-1,3-dichloropropene
0.484 0.524 0.521 0.530 0.511 0.489 0.514 0.512 0.550 0.515 3.90
78) ethyl methacrylate
0.318 0.322 0.387 0.386 0.381 0.360 0.369 0.343 0.410 0.364 8.59
79) 1,1,2-trichloroethane
0.218 0.226 0.254 0.255 0.247 0.239 0.250 0.228 0.252 0.241 5.71
80) tetrachloroethene
0.303 0.314 0.320 0.329 0.310 0.296 0.333 0.342 0.316 0.318 4.67
81) 1,3-dichloropropane
0.403 0.435 0.446 0.453 0.449 0.413 0.457 0.455 0.468 0.442 4.85

Initial Calibration Summary

Job Number: JC87363 **Sample:** V1C7200-ICC7200
Account: TCMAW Tantara Corporation **Lab FileID:** 1C164011.D
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

82)	2-hexanone											
		0.090	0.093	0.099	0.101	0.103	0.090	0.104	0.103	0.112	0.099	7.35
83)	butyl acetate											
				0.179	0.182	0.182	0.169	0.185	0.175	0.197	0.181	4.76
84)	dibromochloromethane											
		0.339	0.332	0.393	0.384	0.361	0.379	0.353	0.348	0.372	0.363	5.78
85)	1,2-dibromoethane											
		0.361	0.331	0.408	0.404	0.397	0.389	0.385	0.374	0.397	0.383	6.40
86)	n-butyl ether											
		1.382	1.483	1.373	1.378	1.344	1.251	1.382	1.389	1.411	1.377	4.42
87)	chlorobenzene											
		0.920	0.986	0.916	0.921	0.899	0.853	0.939	0.964	0.960	0.928	4.25
88)	1,1,1,2-tetrachloroethane											
		0.324	0.295	0.356	0.357	0.339	0.333	0.348	0.334	0.352	0.338	5.77
89)	ethylbenzene											
		1.702	1.965	1.601	1.641	1.586	1.451	1.744	1.745	1.706	1.682	8.40
90)	m,p-xylene											
		0.639	0.694	0.597	0.610	0.605	0.531	0.640	0.662	0.647	0.625	7.43
91)	o-xylene											
		0.579	0.640	0.578	0.596	0.589	0.523	0.630	0.613	0.621	0.597	5.94
92)	styrene											
		1.012	1.014	0.962	0.994	0.977	0.863	1.026	1.016	1.041	0.989	5.39
93)	bromoform											
		0.192	0.196	0.246	0.238	0.218	0.240	0.208	0.219	0.223	0.220	8.70
94)	butyl acrylate											
		0.559	0.548	0.599	0.602	0.588	0.567	0.571	0.570	0.613	0.580	3.78
95)	isopropylbenzene											
		1.584	1.811	1.567	1.586	1.550	1.439	1.621	1.675	1.615	1.605	6.24
96)	cis-1,4-dichloro-2-butene											
				0.144	0.140	0.133	0.139	0.122		0.139	0.136	5.71
97)	I 1,4-dichlorobenzene-d ----------ISTD----------											
98)	4-bromofluorobenzene (s)											
		0.928	0.944	0.940	0.931	0.929	0.953	0.938	0.939	0.946	0.939	0.88
99)	bromobenzene											
		0.786	0.827	0.771	0.783	0.775	0.715	0.807	0.790	0.812	0.785	4.07
100)	1,1,2,2-tetrachloroethane											
		0.534	0.595	0.640	0.636	0.620	0.627	0.617	0.630	0.643	0.616	5.50
101)	trans-1,4-dichloro-2-butene											
				0.172	0.173	0.163	0.169	0.156		0.173	0.168	4.12
102)	1,2,3-trichloropropane											
				0.159	0.161	0.160	0.153	0.152		0.166	0.159	3.34
103)	n-propylbenzene											
		3.621	3.902	3.473	3.603	3.492	3.166	3.771	3.767	3.702	3.611	5.99
104)	4-ethyltoluene											
											0.000#	-1.00
105)	2-chlorotoluene											
		0.711	0.707	0.687	0.704	0.698	0.632	0.745	0.712	0.730	0.703	4.49
106)	4-chlorotoluene											
		2.237	2.571	2.146	2.168	2.135	1.999	2.233	2.250	2.259	2.222	6.95
107)	1,3,5-trimethylbenzene											
		2.592	2.907	2.534	2.589	2.514	2.345	2.646	2.629	2.688	2.605	5.78
108)	tert-butylbenzene											
		0.410		0.444	0.454	0.445	0.419	0.438	0.428	0.455	0.437	3.73
109)	1,2,4-trimethylbenzene											
		2.607	2.950	2.508	2.555	2.524	2.336	2.674	2.687	2.641	2.609	6.39
110)	sec-butylbenzene											
		3.232	3.413	3.187	3.258	3.154	2.939	3.312	3.383	3.266	3.238	4.33
111)	1,3-dichlorobenzene											
		1.445	1.636	1.452	1.464	1.455	1.355	1.548	1.512	1.514	1.487	5.28

Initial Calibration Summary

Job Number: JC87363 **Sample:** V1C7200-ICC7200
Account: TCMAW Tantara Corporation **Lab FileID:** 1C164011.D
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

112)	p-isopropyltoluene										
	2.786	2.957	2.732	2.790	2.752	2.523	2.887	2.790	2.854	2.785	4.35
113)	1,4-dichlorobenzene										
	1.493	1.639	1.446	1.465	1.431	1.353	1.504	1.505	1.532	1.485	5.27
114)	benzyl chloride										
	1.189	1.386	1.309	1.309	1.235	1.251	1.224	1.242	1.363	1.279	5.20
115)	1,2-dichlorobenzene										
	1.320	1.499	1.392	1.407	1.373	1.307	1.426	1.316	1.446	1.387	4.70
116)	1,4-diethylbenzene										
										0.000#	-1.00
117)	n-butylbenzene										
	1.370	1.505	1.385	1.420	1.389	1.283	1.500	1.437	1.451	1.416	4.88
118)	1,2-dibromo-3-chloropropane										
		0.127	0.126	0.127	0.123	0.123	0.107	0.130		0.123	6.19
119)	1,3,5-trichlorobenzene										
	1.100	1.285	1.142	1.142	1.117	1.054	1.158	1.126	1.151	1.142	5.47
120)	1,2,4,5-tetramethylbenzene										
										0.000#	-1.00
121)	2-ethylhexyl acrylate										
		0.637	0.584	0.506	0.622			0.508		0.571	10.83
122)	1,2,4-trichlorobenzene										
	0.932	0.910	0.957	0.953	0.923	0.884	0.955	0.888	0.967	0.930	3.30
123)	hexachlorobutadiene										
	0.631	0.662	0.651	0.674	0.645	0.602	0.670	0.676	0.666	0.653	3.71
124)	naphthalene										
	1.716	2.032	1.812	1.824	1.812	1.701	1.780	1.708	1.898	1.809	5.85
125)	1,2,3-trichlorobenzene										
	0.778	0.998	0.887	0.889	0.844	0.828	0.898	0.866	0.918	0.879	7.01
126)	hexachloroethane										
	0.423		0.537	0.524	0.489	0.526	0.492	0.496	0.494	0.498	7.10
127)	2-methylnaphthalene										
		1.258	1.223	1.122	1.198	0.958		1.152		1.152	9.26
128)	bis(chloromethyl)ether										
										0.000#	-1.00
129)	ethylenimine										
										0.000#	-1.00

(#) = Out of Range ### Number of calibration levels exceeded format ###

M1CS7200.M Thu Apr 25 08:06:45 2019

Initial Calibration Verification

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample: V1C7200-ICV7200
Lab FileID: 1C164016.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\V1C7200\1C164016.D Vial: 14
Acq On : 24 Apr 2019 8:03 pm Operator: ROBERTS
Sample : ICV7200-50 Inst : GCMS1C
Misc : MS34128,V1C7200,5.0,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M1CS7200.M (RTE Integrator)
Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
Last Update : Thu Apr 25 08:03:13 2019
Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1		tert butyl alcohol-d9	1.000	1.000	0.0	102	-0.02	7.36
2	M	tertiary butyl alcohol	1.328	1.294	2.6	102	-0.02	7.48
3		ethanol		----------NA----------				
4	M	1,4-dioxane	0.121	0.121	0.0	100	0.00	11.25
5	I	pentafluorobenzene	1.000	1.000	0.0	105	0.00	9.60
6	M	chlorodifluoromethane	0.521	0.552	-6.0	106	0.00	3.90
7	M	dichlorodifluoromethane	0.739	0.681	7.8	92	0.00	3.86
8	M	chloromethane	0.542	0.580	-7.0	112	0.00	4.28
9	M	vinyl chloride	0.510	0.478	6.3	94	0.00	4.51
10		1,3-butadiene	0.320	0.378	-18.1	115	0.00	4.59
11	M	bromomethane	0.389	0.368	5.4	101	0.02	5.19
12	M	chloroethane	0.306	0.269	12.1	91	0.01	5.38
13	M	trichlorofluoromethane	0.761	0.738	3.0	97	0.00	5.81
14		vinyl bromide	0.298	0.310	-4.0	104	0.00	5.72
15	M	ethyl ether	0.203	0.212	-4.4	105	0.00	6.25
16	M	acrolein	0.052	0.055	-5.8	107	0.00	6.54
17		freon 113	0.336	0.386	-14.9	112	0.00	6.62
18	M	1,1-dichloroethene	0.409	0.386	5.6	96	0.00	6.68
19	M	acetone	0.102	0.099	2.9	104	0.00	6.75
20	M	acetonitrile		----------NA----------				
		----------	True	Calc.	% Drift	----------		
21	M	iodomethane	50.000	44.599	10.8	98	0.00	6.97
		----------	AvgRF	CCRF	% Dev	----------		
22	M	carbon disulfide	1.322	1.384	-4.7	111	0.00	7.09
23	M	methylene chloride	0.444	0.428	3.6	101	0.00	7.42
24	M	methyl acetate	0.248	0.234	5.6	97	0.00	7.21
25	M	methyl tert butyl ether	1.109	1.096	1.2	100	0.00	7.71
26	M	trans-1,2-dichloroethene	0.454	0.432	4.8	100	0.00	7.79
27	M	di-isopropyl ether	1.366	1.296	5.1	97	0.00	8.30
28	M	2-butanone	0.038	0.039	-2.6	102	0.00	9.06
29	M	1,1-dichloroethane	0.771	0.766	0.6	103	0.00	8.36
30	M	chloroprene	0.665	0.685	-3.0	104	0.00	8.46
31	M	acrylonitrile	0.111	0.113	-1.8	103	0.00	7.77
32		hexane	0.706	0.766	-8.5	108	0.00	8.06
33	M	vinyl acetate	0.064	0.062	3.1	94	0.00	8.34
34	M	ethyl tert-butyl ether	1.316	1.284	2.4	98	0.00	8.77
35	M	ethyl acetate	0.048	0.049	-2.1	101	0.00	9.07
36	M	2,2-dichloropropane	0.687	0.660	3.9	98	0.00	9.08
37	M	cis-1,2-dichloroethene	0.490	0.466	4.9	100	0.00	9.10

Initial Calibration Verification

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample: V1C7200-ICV7200
Lab FileID: 1C164016.D

38		methyl acrylate	0.050	0.053	-6.0	101	0.00	9.15
39	M	propionitrile	0.048	0.049	-2.1	104	0.00	9.18
40	M	bromochloromethane	0.213	0.219	-2.8	103	0.00	9.42
41	M	tetrahydrofuran	0.046	0.046	0.0	104	0.00	9.45
42	M	chloroform	0.546	0.514	5.9	102	0.00	9.47
43	M	t-butyl formate	0.293	0.289	1.4	91	0.00	9.48
44	S	dibromofluoromethane (s)	0.422	0.431	-2.1	107	0.00	9.67
45	M	methacrylonitrile	0.140	0.142	-1.4	100	0.00	9.36
46	M	1,1,1-trichloroethane	0.706	0.705	0.1	99	0.00	9.70
47		cyclohexane	0.697	0.660	5.3	97	0.00	9.76
48		1,1-dichloropropene	0.598	0.601	-0.5	102	0.00	9.88
49		iso-butyl alcohol	0.016	0.015	6.3	99	0.00	9.91
50		carbon tetrachloride	0.617	0.637	-3.2	103	0.00	9.91
51		tert amyl alcohol	0.015	0.015	0.0	105	0.00	10.02
52	I	1,4-difluorobenzene	1.000	1.000	0.0	106	0.00	10.52
53	S	1,2-dichloroethane-d4 (s)	0.314	0.301	4.1	104	0.00	10.09
54	M	n-butyl alcohol	0.007	0.007#	0.0	102	0.00	10.65
55		2,2,4-trimethylpentane	1.200	1.162	3.2	99	0.00	10.11
56	M	benzene	1.252	1.169	6.6	103	0.00	10.15
57	M	tert-amyl methyl ether	0.195	0.186	4.6	97	0.00	10.16
58	M	heptane	0.270	0.321	-18.9	122	0.00	10.29
59	M	isopropyl acetate	0.052	0.049	5.8	96	0.00	10.06
60	M	1,2-dichloroethane	0.407	0.364	10.6	99	0.00	10.18
61	M	trichloroethene	0.322	0.326	-1.2	103	0.00	10.86
62		ethyl acrylate	0.302	0.306	-1.3	102	0.00	10.86
63	M	2-nitropropane		----------NA----------				
64	M	2-chloroethyl vinyl ether	0.149	0.164	-10.1	105	0.00	11.65
65	M	methyl methacrylate	0.063	0.061	3.2	102	0.00	11.12
66	M	1,2-dichloropropane	0.298	0.286	4.0	102	0.00	11.13
67	M	dibromomethane	0.175	0.168	4.0	99	0.00	11.30
68	M	methylcyclohexane	0.556	0.521	6.3	102	0.00	11.06
69	M	bromodichloromethane	0.422	0.406	3.8	99	0.00	11.43
70		epichlorohydrin	0.024	0.024	0.0	106	0.00	11.79
71	M	cis-1,3-dichloropropene	0.485	0.475	2.1	102	0.00	11.87
72	M	4-methyl-2-pentanone	0.087	0.082	5.7	101	0.00	11.96
73	M	3-methyl-1-butanol	0.011	0.011	0.0	102	0.00	11.98
74	I	chlorobenzene-d5	1.000	1.000	0.0	106	0.00	13.66
75	S	toluene-d8 (s)	1.347	1.318	2.2	104	0.00	12.15
76		toluene	0.915	0.856	6.4	102	0.00	12.22
77		trans-1,3-dichloropropene	0.515	0.517	-0.4	103	0.00	12.43
78		ethyl methacrylate	0.364	0.372	-2.2	102	0.00	12.41
79		1,1,2-trichloroethane	0.241	0.243	-0.8	100	0.00	12.65
80	M	tetrachloroethene		----------NA----------				
81	M	1,3-dichloropropane	0.442	0.437	1.1	102	0.00	12.83
82		2-hexanone	0.099	0.097	2.0	102	0.00	12.80
83	M	butyl acetate	0.181	0.175	3.3	102	0.00	12.87
84	M	dibromochloromethane	0.363	0.382	-5.2	105	0.00	13.10
85	M	1,2-dibromoethane	0.383	0.385	-0.5	101	0.00	13.24
86		n-butyl ether	1.377	1.387	-0.7	106	0.00	13.57
87	M	chlorobenzene	0.928	0.900	3.0	103	0.00	13.69
88	M	1,1,1,2-tetrachloroethane	0.338	0.345	-2.1	102	0.00	13.75
89	M	ethylbenzene	1.682	1.566	6.9	101	0.00	13.73
90	M	m,p-xylene	0.625	0.589	5.8	102	0.00	13.84
91	M	o-xylene	0.597	0.567	5.0	101	0.00	14.26
92	M	styrene	0.989	0.957	3.2	102	0.00	14.27
93	M	bromoform	0.220	0.244	-10.9	108	0.00	14.55
94		butyl acrylate	0.580	0.569	1.9	100	0.00	14.07
95		isopropylbenzene	1.605	1.540	4.0	103	0.00	14.59

Initial Calibration Verification

Job Number: JC87363 **Sample:** V1C7200-ICV7200
Account: TCMAW Tantara Corporation **Lab FileID:** 1C164016.D
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

96		cis-1,4-dichloro-2-butene	0.136	0.133	2.2	100	0.00	14.69
97	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	105	0.00	15.97
98	S	4-bromofluorobenzene (s)	0.939	0.936	0.3	106	0.00	14.81
99	M	bromobenzene	0.785	0.756	3.7	102	0.00	15.00
100	M	1,1,2,2-tetrachloroethane	0.616	0.611	0.8	101	0.00	14.92
101	M	trans-1,4-dichloro-2-bute	0.168	0.185	-10.1	112	0.00	14.96
102	M	1,2,3-trichloropropane	0.159	0.156	1.9	102	0.00	14.99
103	M	n-propylbenzene	3.611	3.485	3.5	102	0.00	15.00
104		4-ethyltoluene		----------NA----------				
105	M	2-chlorotoluene	0.703	0.677	3.7	101	0.00	15.15
106	M	4-chlorotoluene	2.222	2.130	4.1	104	0.00	15.25
107	M	1,3,5-trimethylbenzene	2.605	2.486	4.6	101	0.00	15.15
108	M	tert-butylbenzene	0.437	0.445	-1.8	103	0.00	15.49
109	M	1,2,4-trimethylbenzene	2.609	2.504	4.0	103	0.00	15.54
110	M	sec-butylbenzene	3.238	3.165	2.3	102	0.00	15.71
111	M	1,3-dichlorobenzene	1.487	1.459	1.9	105	0.00	15.91
112	M	p-isopropyltoluene	2.785	2.742	1.5	104	0.00	15.83
113	M	1,4-dichlorobenzene	1.485	1.432	3.6	103	0.00	16.00
114		benzyl chloride	1.279	1.601	-25.2	129	0.00	16.12
115	M	1,2-dichlorobenzene	1.387	1.375	0.9	103	0.00	16.40
116		1,4-diethylbenzene		----------NA----------				
117	M	n-butylbenzene	1.416	1.382	2.4	102	0.00	16.25
118	M	1,2-dibromo-3-chloropropa	0.123	0.119	3.3	100	0.00	17.19
119		1,3,5-trichlorobenzene	1.142	1.121	1.8	103	0.00	17.35
120		1,2,4,5-tetramethylbenzen		----------NA----------				
121		2-ethylhexyl acrylate	0.571	0.589	-3.2	106	0.00	17.88
122	M	1,2,4-trichlorobenzene	0.930	0.890	4.3	98	0.00	17.92
123	M	hexachlorobutadiene	0.653	0.630	3.5	99	0.00	18.01
124	M	naphthalene	1.809	1.780	1.6	103	0.00	18.16
125	M	1,2,3-trichlorobenzene	0.879	0.827	5.9	98	0.00	18.38
126	m	hexachloroethane	0.498	0.527	-5.8	106	0.00	16.66
127		2-methylnaphthalene	1.152	1.152	0.0	99	0.00	19.13
128		bis(chloromethyl)ether		----------NA----------				
129		ethylenimine		----------NA----------				

(#) = Out of Range SPCC's out = 0 CCC's out = 0
1C164011.D M1CS7200.M Thu Apr 25 08:06:32 2019

Initial Calibration Verification

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample: V1C7200-ICV7200
Lab FileID: 1C164017.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\V1C7200\1C164017.D Vial: 15
Acq On : 24 Apr 2019 8:30 pm Operator: ROBERTS
Sample : ICV7200-50 Inst : GCMS1C
Misc : MS34128,V1C7200,5.0,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M1CS7200.M (RTE Integrator)
Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
Last Update : Thu Apr 25 08:03:13 2019
Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1		tert butyl alcohol-d9	1.000	1.000	0.0	104	-0.02	7.36
2	M	tertiary butyl alcohol		----------NA----------				
3		ethanol		----------NA----------				
4	M	1,4-dioxane		----------NA----------				
5	I	pentafluorobenzene	1.000	1.000	0.0	107	0.00	9.60
6	M	chlorodifluoromethane		----------NA----------				
7	M	dichlorodifluoromethane		----------NA----------				
8	M	chloromethane		----------NA----------				
9	M	vinyl chloride		----------NA----------				
10		1,3-butadiene		----------NA----------				
11	M	bromomethane		----------NA----------				
12	M	chloroethane		----------NA----------				
13	M	trichlorofluoromethane		----------NA----------				
14		vinyl bromide		----------NA----------				
15	M	ethyl ether		----------NA----------				
16	M	acrolein		----------NA----------				
17		freon 113		----------NA----------				
18	M	1,1-dichloroethene		----------NA----------				
19	M	acetone		----------NA----------				
20	M	acetonitrile	0.042	0.042	0.0	105	0.00	7.22
		----------	True	Calc.	% Drift	----------		
21	M	iodomethane		----------NA----------				
		----------	AvgRF	CCRF	% Dev	----------		
22	M	carbon disulfide		----------NA----------				
23	M	methylene chloride		----------NA----------				
24	M	methyl acetate		----------NA----------				
25	M	methyl tert butyl ether		----------NA----------				
26	M	trans-1,2-dichloroethene		----------NA----------				
27	M	di-isopropyl ether		----------NA----------				
28	M	2-butanone		----------NA----------				
29	M	1,1-dichloroethane		----------NA----------				
30	M	chloroprene		----------NA----------				
31	M	acrylonitrile		----------NA----------				
32		hexane		----------NA----------				
33	M	vinyl acetate		----------NA----------				
34	M	ethyl tert-butyl ether		----------NA----------				
35	M	ethyl acetate		----------NA----------				
36	M	2,2-dichloropropane		----------NA----------				
37	M	cis-1,2-dichloroethene		----------NA----------				

Initial Calibration Verification

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample: V1C7200-ICV7200
Lab FileID: 1C164017.D

38		methyl acrylate		----------NA----------					
39	M	propionitrile		----------NA----------					
40	M	bromochloromethane		----------NA----------					
41	M	tetrahydrofuran		----------NA----------					
42	M	chloroform		----------NA----------					
43	M	t-butyl formate		----------NA----------					
44	S	dibromofluoromethane (s)	0.422	0.418	0.9	106	0.00	9.67	
45	M	methacrylonitrile		----------NA----------					
46	M	1,1,1-trichloroethane		----------NA----------					
47		cyclohexane		----------NA----------					
48		1,1-dichloropropene		----------NA----------					
49		iso-butyl alcohol		----------NA----------					
50		carbon tetrachloride		----------NA----------					
51		tert amyl alcohol		----------NA----------					
52	I	1,4-difluorobenzene	1.000	1.000	0.0	104	0.00	10.52	
53	S	1,2-dichloroethane-d4 (s)	0.314	0.311	1.0	105	0.00	10.09	
54	M	n-butyl alcohol		----------NA----------					
55		2,2,4-trimethylpentane		----------NA----------					
56	M	benzene		----------NA----------					
57	M	tert-amyl methyl ether		----------NA----------					
58	M	heptane		----------NA----------					
59	M	isopropyl acetate		----------NA----------					
60	M	1,2-dichloroethane		----------NA----------					
61	M	trichloroethene		----------NA----------					
62		ethyl acrylate		----------NA----------					
63	M	2-nitropropane		----------NA----------					
64	M	2-chloroethyl vinyl ether		----------NA----------					
65	M	methyl methacrylate		----------NA----------					
66	M	1,2-dichloropropane		----------NA----------					
67	M	dibromomethane		----------NA----------					
68	M	methylcyclohexane		----------NA----------					
69	M	bromodichloromethane		----------NA----------					
70		epichlorohydrin		----------NA----------					
71	M	cis-1,3-dichloropropene		----------NA----------					
72	M	4-methyl-2-pentanone		----------NA----------					
73	M	3-methyl-1-butanol		----------NA----------					
74	I	chlorobenzene-d5	1.000	1.000	0.0	107	0.00	13.66	
75	S	toluene-d8 (s)	1.347	1.330	1.3	107	0.00	12.15	
76		toluene		----------NA----------					
77		trans-1,3-dichloropropene		----------NA----------					
78		ethyl methacrylate		----------NA----------					
79		1,1,2-trichloroethane		----------NA----------					
80	M	tetrachloroethene	0.318	0.309	2.8	101	0.00	12.80	
81	M	1,3-dichloropropane		----------NA----------					
82		2-hexanone		----------NA----------					
83	M	butyl acetate		----------NA----------					
84	M	dibromochloromethane		----------NA----------					
85	M	1,2-dibromoethane		----------NA----------					
86		n-butyl ether		----------NA----------					
87	M	chlorobenzene		----------NA----------					
88	M	1,1,1,2-tetrachloroethane		----------NA----------					
89	M	ethylbenzene		----------NA----------					
90	M	m,p-xylene		----------NA----------					
91	M	o-xylene		----------NA----------					
92	M	styrene		----------NA----------					
93	M	bromoform		----------NA----------					
94		butyl acrylate		----------NA----------					
95		isopropylbenzene		----------NA----------					

Initial Calibration Verification

Job Number: JC87363 **Sample:** V1C7200-ICV7200
Account: TCMAW Tantara Corporation **Lab FileID:** 1C164017.D
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

96		cis-1,4-dichloro-2-butene		----------NA----------				
97	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	106	0.00	15.97
98	S	4-bromofluorobenzene (s)	0.939	0.934	0.5	106	0.00	14.81
99	M	bromobenzene		----------NA----------				
100	M	1,1,2,2-tetrachloroethane		----------NA----------				
101	M	trans-1,4-dichloro-2-bute		----------NA----------				
102	M	1,2,3-trichloropropane		----------NA----------				
103	M	n-propylbenzene		----------NA----------				
104		4-ethyltoluene		----------NA----------				
105	M	2-chlorotoluene		----------NA----------				
106	M	4-chlorotoluene		----------NA----------				
107	M	1,3,5-trimethylbenzene		----------NA----------				
108	M	tert-butylbenzene		----------NA----------				
109	M	1,2,4-trimethylbenzene		----------NA----------				
110	M	sec-butylbenzene		----------NA----------				
111	M	1,3-dichlorobenzene		----------NA----------				
112	M	p-isopropyltoluene		----------NA----------				
113	M	1,4-dichlorobenzene		----------NA----------				
114		benzyl chloride		----------NA----------				
115	M	1,2-dichlorobenzene		----------NA----------				
116		1,4-diethylbenzene		----------NA----------				
117	M	n-butylbenzene		----------NA----------				
118	M	1,2-dibromo-3-chloropropa		----------NA----------				
119		1,3,5-trichlorobenzene		----------NA----------				
120		1,2,4,5-tetramethylbenzen		----------NA----------				
121		2-ethylhexyl acrylate		----------NA----------				
122	M	1,2,4-trichlorobenzene		----------NA----------				
123	M	hexachlorobutadiene		----------NA----------				
124	M	naphthalene		----------NA----------				
125	M	1,2,3-trichlorobenzene		----------NA----------				
126	m	hexachloroethane		----------NA----------				
127		2-methylnaphthalene		----------NA----------				
128		bis(chloromethyl)ether		----------NA----------				
129		ethylenimine		----------NA----------				

(#) = Out of Range SPCC's out = 0 CCC's out = 0
1C164011.D M1CS7200.M Thu Apr 25 08:06:34 2019

Continuing Calibration Summary

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample: V1C7209-CC7200
Lab FileID: 1C164266.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\eu...19\v1c7209\1c164266.d Vial: 3
Acq On : 3 May 2019 8:23 am Operator: EddieH
Sample : cc7200-50 Inst : GCMS1C
Misc : MS34270,V1C7209,5.0,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M1CS7200.M (RTE Integrator)
Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
Last Update : Thu Apr 25 08:03:13 2019
Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1		tert butyl alcohol-d9	1.000	1.000	0.0	76	-0.02	7.36
2	M	tertiary butyl alcohol	1.328	1.432	-7.8	84	0.00	7.49
3		ethanol		----------NA----------				
4	M	1,4-dioxane	0.121	0.133	-9.9	82	0.00	11.25
5	I	pentafluorobenzene	1.000	1.000	0.0	87	0.00	9.60
6	M	chlorodifluoromethane	0.521	0.405	22.3#	64	0.00	3.90
7	M	dichlorodifluoromethane	0.739	0.614	16.9	68	0.00	3.86
8	M	chloromethane	0.542	0.406	25.1#	65	0.00	4.28
9	M	vinyl chloride	0.510	0.435	14.7	70	0.00	4.51
10		1,3-butadiene	0.320	0.257	19.7	64	0.00	4.59
11	M	bromomethane	0.389	0.311	20.1#	70	0.02	5.20
12	M	chloroethane	0.306	0.255	16.7	71	0.01	5.38
13	M	trichlorofluoromethane	0.761	0.768	-0.9	83	0.00	5.81
14		vinyl bromide	0.298	0.374	-25.5#	104	0.01	5.73
15	M	ethyl ether	0.203	0.190	6.4	77	0.00	6.25
16	M	acrolein	0.052	0.055	-5.8	89	0.00	6.54
17		freon 113	0.336	0.326	3.0	78	0.00	6.62
18	M	1,1-dichloroethene	0.409	0.359	12.2	74	0.00	6.68
19	M	acetone	0.102	0.091	10.8	80	0.00	6.76
20	M	acetonitrile	0.042	0.034	19.0	69	0.00	7.21
		----------	True	Calc.	% Drift	----------		
21	M	iodomethane	50.000	38.382	23.2#	69	0.00	6.97
		----------	AvgRF	CCRF	% Dev	----------		
22	M	carbon disulfide	1.322	1.054	20.3#	70	0.00	7.09
23	M	methylene chloride	0.444	0.397	10.6	77	0.00	7.42
24	M	methyl acetate	0.248	0.201	19.0	69	0.00	7.21
25	M	methyl tert butyl ether	1.109	1.089	1.8	82	0.00	7.71
26	M	trans-1,2-dichloroethene	0.454	0.403	11.2	77	0.00	7.79
27	M	di-isopropyl ether	1.366	1.109	18.8	68	0.00	8.30
28	M	2-butanone	0.038	0.037	2.6	80	0.00	9.06
29	M	1,1-dichloroethane	0.771	0.676	12.3	75	0.00	8.36
30	M	chloroprene	0.665	0.622	6.5	78	0.00	8.46
31	M	acrylonitrile	0.111	0.098	11.7	74	0.00	7.77
32		hexane	0.706	0.540	23.5#	63	0.00	8.06
33	M	vinyl acetate	0.064	0.063	1.6	78	0.00	8.34
34	M	ethyl tert-butyl ether	1.316	1.228	6.7	77	0.00	8.77
35	M	ethyl acetate	0.048	0.042	12.5	72	0.00	9.07
36	M	2,2-dichloropropane	0.687	0.692	-0.7	84	0.00	9.08
37	M	cis-1,2-dichloroethene	0.490	0.439	10.4	77	0.00	9.10

Continuing Calibration Summary

Job Number: JC87363 **Sample:** V1C7209-CC7200
Account: TCMAW Tantara Corporation **Lab FileID:** 1C164266.D
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

38		methyl acrylate	0.050	0.052	-4.0	81	0.00	9.16
39	M	propionitrile	0.048	0.043	10.4	75	0.00	9.19
40	M	bromochloromethane	0.213	0.210	1.4	82	0.00	9.41
41	M	tetrahydrofuran	0.046	0.043	6.5	80	0.00	9.45
42	M	chloroform	0.546	0.503	7.9	82	0.00	9.47
43	M	t-butyl formate	0.293	0.268	8.5	70	0.00	9.48
44	S	dibromofluoromethane (s)	0.422	0.426	-0.9	87	0.00	9.67
45	M	methacrylonitrile	0.140	0.128	8.6	75	0.00	9.36
46	M	1,1,1-trichloroethane	0.706	0.752	-6.5	87	0.00	9.70
47		cyclohexane	0.697	0.573	17.8	69	0.00	9.76
48		1,1-dichloropropene	0.598	0.556	7.0	78	0.00	9.88
49		iso-butyl alcohol	0.016	0.013	18.8	72	0.00	9.90
50		carbon tetrachloride	0.617	0.674	-9.2	90	0.00	9.90
51		tert amyl alcohol	0.015	0.014	6.7	80	0.00	10.02
52	I	1,4-difluorobenzene	1.000	1.000	0.0	83	0.00	10.52
53	S	1,2-dichloroethane-d4 (s)	0.314	0.341	-8.6	93	0.00	10.09
54	M	n-butyl alcohol	0.007	0.007#	0.0	76	0.00	10.65
55		2,2,4-trimethylpentane	1.200	0.968	19.3	65	0.00	10.11
56	M	benzene	1.252	1.112	11.2	77	0.00	10.15
57	M	tert-amyl methyl ether	0.195	0.209	-7.2	86	0.00	10.16
58	M	heptane	0.270	0.226	16.3	67	0.00	10.29
59	M	isopropyl acetate	0.052	0.053	-1.9	82	0.00	10.06
60	M	1,2-dichloroethane	0.407	0.411	-1.0	88	0.00	10.18
61	M	trichloroethene	0.322	0.331	-2.8	82	0.00	10.86
62		ethyl acrylate	0.302	0.283	6.3	74	0.00	10.86
63	M	2-nitropropane		----------NA----------				
64	M	2-chloroethyl vinyl ether	0.149	0.143	4.0	72	0.00	11.65
65	M	methyl methacrylate	0.063	0.062	1.6	81	0.00	11.12
66	M	1,2-dichloropropane	0.298	0.260	12.8	73	0.00	11.13
67	M	dibromomethane	0.175	0.174	0.6	81	0.00	11.30
68	M	methylcyclohexane	0.556	0.466	16.2	71	0.00	11.06
69	M	bromodichloromethane	0.422	0.438	-3.8	84	0.00	11.43
70		epichlorohydrin	0.024	0.023	4.2	79	0.00	11.79
71	M	cis-1,3-dichloropropene	0.485	0.476	1.9	80	0.00	11.87
72	M	4-methyl-2-pentanone	0.087	0.078	10.3	77	0.00	11.96
73	M	3-methyl-1-butanol	0.011	0.011	0.0	79	0.00	11.98
74	I	chlorobenzene-d5	1.000	1.000	0.0	85	0.00	13.66
75	S	toluene-d8 (s)	1.347	1.362	-1.1	86	0.00	12.15
76		toluene	0.915	0.844	7.8	81	0.00	12.22
77		trans-1,3-dichloropropene	0.515	0.530	-2.9	85	0.00	12.43
78		ethyl methacrylate	0.364	0.366	-0.5	80	0.00	12.41
79		1,1,2-trichloroethane	0.241	0.243	-0.8	80	0.00	12.65
80	M	tetrachloroethene	0.318	0.332	-4.4	85	0.00	12.80
81	M	1,3-dichloropropane	0.442	0.432	2.3	81	0.00	12.83
82		2-hexanone	0.099	0.093	6.1	78	0.00	12.80
83	M	butyl acetate	0.181	0.165	8.8	76	0.00	12.87
84	M	dibromochloromethane	0.363	0.407	-12.1	90	0.00	13.10
85	M	1,2-dibromoethane	0.383	0.338	11.7	71	0.00	13.24
86		n-butyl ether	1.377	1.205	12.5	74	0.00	13.57
87	M	chlorobenzene	0.928	0.919	1.0	84	0.00	13.69
88	M	1,1,1,2-tetrachloroethane	0.338	0.372	-10.1	88	0.00	13.75
89	M	ethylbenzene	1.682	1.628	3.2	84	0.00	13.73
90	M	m,p-xylene	0.625	0.611	2.2	85	0.00	13.84
91	M	o-xylene	0.597	0.593	0.7	84	0.00	14.26
92	M	styrene	0.989	0.986	0.3	84	0.00	14.27
93	M	bromoform	0.220	0.265	-20.5#	94	0.00	14.55
94		butyl acrylate	0.580	0.563	2.9	79	0.00	14.08
95		isopropylbenzene	1.605	1.604	0.1	86	0.00	14.59

Continuing Calibration Summary

Job Number: JC87363 **Sample:** V1C7209-CC7200
Account: TCMAW Tantara Corporation **Lab FileID:** 1C164266.D
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

96		cis-1,4-dichloro-2-butene	0.136	0.163	-19.9	98	0.00	14.68
97	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	88	0.00	15.97
98	S	4-bromofluorobenzene (s)	0.939	0.926	1.4	87	0.00	14.81
99	M	bromobenzene	0.785	0.776	1.1	87	0.00	15.00
100	M	1,1,2,2-tetrachloroethane	0.616	0.594	3.6	82	0.00	14.92
101	M	trans-1,4-dichloro-2-bute	0.168	0.175	-4.2	89	0.00	14.96
102	M	1,2,3-trichloropropane	0.159	0.168	-5.7	92	0.00	14.99
103	M	n-propylbenzene	3.611	3.499	3.1	85	0.00	14.99
104		4-ethyltoluene		----------NA----------				
105	M	2-chlorotoluene	0.703	0.696	1.0	87	0.00	15.15
106	M	4-chlorotoluene	2.222	2.131	4.1	86	0.00	15.25
107	M	1,3,5-trimethylbenzene	2.605	2.554	2.0	87	0.00	15.15
108	M	tert-butylbenzene	0.437	0.436	0.2	85	0.00	15.49
109	M	1,2,4-trimethylbenzene	2.609	2.567	1.6	88	0.00	15.54
110	M	sec-butylbenzene	3.238	3.146	2.8	85	0.00	15.71
111	M	1,3-dichlorobenzene	1.487	1.477	0.7	89	0.00	15.91
112	M	p-isopropyltoluene	2.785	2.763	0.8	87	0.00	15.83
113	M	1,4-dichlorobenzene	1.485	1.468	1.1	88	0.00	16.00
114		benzyl chloride	1.279	1.425	-11.4	96	0.00	16.12
115	M	1,2-dichlorobenzene	1.387	1.422	-2.5	89	0.00	16.40
116		1,4-diethylbenzene		----------NA----------				
117	M	n-butylbenzene	1.416	1.379	2.6	85	0.00	16.25
118	M	1,2-dibromo-3-chloropropa	0.123	0.134	-8.9	94	0.00	17.19
119		1,3,5-trichlorobenzene	1.142	1.239	-8.5	95	0.00	17.35
120		1,2,4,5-tetramethylbenzen		----------NA----------				
121		2-ethylhexyl acrylate	0.571	0.541	5.3	81	0.00	17.88
122	M	1,2,4-trichlorobenzene	0.930	1.049	-12.8	97	0.00	17.92
123	M	hexachlorobutadiene	0.653	0.718	-10.0	94	0.00	18.01
124	M	naphthalene	1.809	1.971	-9.0	95	0.00	18.16
125	M	1,2,3-trichlorobenzene	0.879	0.952	-8.3	94	0.00	18.37
126	m	hexachloroethane	0.498	0.558	-12.0	94	0.00	16.66
127		2-methylnaphthalene	1.152	1.340	-16.3	96	0.00	19.12
128		bis(chloromethyl)ether		----------NA----------				
129		ethylenimine		----------NA----------				

(#) = Out of Range SPCC's out = 0 CCC's out = 0
1C164011.D M1CS7200.M Sat May 04 23:37:26 2019

Initial Calibration Summary

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample: V3D6212-ICC6212
Lab FileID: 3D145277.D

Response Factor Report MS3D

Method : C:\MSDCHEM\1\METHODS\M3D6212.M (RTE Integrator)
Title : SW846 8260C/ EPA 624, Rxi-624 60 m x 0.25 mm x 1.4Fri Mar 08 17:11:15 2019
Last Update : Fri Mar 08 17:11:15 2019
Response via : Initial Calibration

Calibration Files
1 =3D145272.D 0.5 =3D145271.D 100 =3D145278.D 50 =3D145277.D
20 =3D145276.D 200 =3D145279.D 4 =3D145274.D 2 =3D145273.D
8 =3D145275.D 0.2 =3D145270.D = =

Compound	1	0.5	100	50	20	200	4	2	8	0.2	Avg	%RSD
1) tert butyl alcohol-d9	----------ISTD----------											
2) tertiary butyl alcohol	1.429	1.270	1.229	1.244	1.253	1.258	1.206	1.308	1.247	1.499	1.294	7.32
3) ethanol	0.144	0.116	0.109	0.114	0.117	0.103	0.114	0.124	0.119	0.141	0.120	10.95
4) 1,4-dioxane	0.131	0.107	0.113	0.115	0.120	0.115	0.110	0.119	0.119		0.117	5.89
5) I pentafluorobenzene	----------ISTD----------											
6) chlorodifluoromethane	0.502	0.444	0.459	0.456	0.453	0.459	0.426	0.474	0.445	0.428	0.455	4.86
7) dichlorodifluoromethane	0.500	0.531	0.523	0.533	0.530	0.514	0.506	0.491	0.509	0.401	0.504	7.67
8) chloromethane	0.485	0.501	0.462	0.468	0.462	0.474	0.461	0.449	0.456		0.469	3.36
9) vinyl chloride	0.471	0.463	0.493	0.499	0.494	0.497	0.456	0.456	0.483	0.437	0.475	4.52
10) 1,3-butadiene	0.444	0.359	0.385	0.385	0.389	0.381	0.369	0.402	0.390	0.423	0.393	6.37
11) bromomethane	0.191		0.178	0.180	0.185	0.147	0.170	0.184	0.185		0.178	7.65
12) chloroethane	0.319	0.357	0.289	0.293	0.291	0.272	0.289	0.280	0.281	0.266	0.294	9.04
13) trichlorofluoromethane	0.577	0.602	0.601	0.618	0.607	0.595	0.589	0.556	0.597	0.628	0.597	3.37
14) vinyl bromide	0.282	0.264	0.286	0.288	0.282	0.291	0.270	0.254	0.273	0.281	0.277	4.18
15) ethyl ether	0.242	0.237	0.224	0.225	0.221	0.225	0.203	0.237	0.217	0.181	0.221	8.20
16) acrolein	0.092	0.090	0.089	0.090	0.085	0.089	0.091	0.083	0.084	0.081	0.087	4.39
17) freon 113	0.356	0.314	0.324	0.324	0.329	0.326	0.320	0.333	0.319		0.327	3.74
18) 1,1-dichloroethene	0.385	0.290	0.349	0.345	0.348	0.352	0.316	0.330	0.337	0.265	0.332	10.31
19) acetone	0.057		0.050	0.049	0.049	0.050	0.048	0.048	0.049		0.050	5.76
20) acetonitrile	0.092	0.080	0.074	0.073	0.073	0.073	0.071	0.076	0.073		0.076	8.41
21) iodomethane *This compound fails Initial Calibration criteria*			0.252	0.195	0.102	0.280	0.038	0.037	0.057		0.137	75.39
22) carbon disulfide	1.058	0.950	0.889	0.872	0.872	0.911	0.847	0.887	0.854		0.904	7.23
23) methylene chloride												

0.418 0.367 0.351 0.348 0.348 0.352 0.355 0.375 0.353 0.455 0.372 9.69

24) methyl acetate
0.491 0.419 0.402 0.392 0.399 0.394 0.398 0.418 0.392 0.427 0.413 7.25

25) methyl tert butyl ether
1.247 1.053 1.117 1.103 1.113 1.116 1.073 1.106 1.117 1.050 1.109 4.95

26) trans-1,2-dichloroethene
0.408 0.376 0.365 0.365 0.365 0.371 0.347 0.362 0.361 0.408 0.373 5.40

27) di-isopropyl ether
1.430 1.212 1.239 1.250 1.242 1.241 1.201 1.255 1.236 1.181 1.249 5.45

28) 2-butanone
0.077 0.062 0.070 0.069 0.068 0.069 0.063 0.067 0.069 0.060 0.068 7.02

29) 1,1-dichloroethane
0.701 0.607 0.625 0.627 0.631 0.627 0.610 0.634 0.630 0.575 0.627 5.04

30) chloroprene
0.683 0.524 0.610 0.611 0.607 0.609 0.581 0.592 0.612 0.551 0.598 7.05

31) acrylonitrile
0.206 0.161 0.196 0.194 0.191 0.195 0.193 0.197 0.192 0.192 6.42

32) hexane
0.352 0.309 0.314 0.308 0.307 0.307 0.301 0.320 0.309 0.314 4.84

33) vinyl acetate
0.112 0.091 0.112 0.110 0.111 0.114 0.100 0.104 0.106 0.107 6.78

34) ethyl tert-butyl ether
1.300 1.151 1.190 1.192 1.188 1.201 1.160 1.187 1.184 1.114 1.187 4.01

35) ethyl acetate
0.090 0.082 0.082 0.080 0.082 0.087 0.080 0.087 0.084 4.50

36) 2,2-dichloropropane
0.637 0.529 0.527 0.531 0.543 0.527 0.507 0.549 0.531 0.523 0.540 6.64

37) cis-1,2-dichloroethene
0.433 0.362 0.397 0.394 0.399 0.401 0.388 0.386 0.394 0.457 0.401 6.59

38) methyl acrylate
0.078 0.082 0.081 0.079 0.082 0.072 0.080 0.076 0.079 4.30

39) propionitrile
0.097 0.081 0.084 0.083 0.083 0.083 0.083 0.082 0.083 0.074 0.083 6.88

40) bromochloromethane
0.211 0.165 0.174 0.179 0.183 0.171 0.178 0.190 0.177 0.157 0.178 8.17

41) tetrahydrofuran
0.094 0.075 0.074 0.075 0.073 0.070 0.065 0.074 0.075 11.10

42) chloroform
0.443 0.402 0.391 0.390 0.389 0.393 0.386 0.395 0.397 0.505 0.409 9.15

43) t-butyl formate
0.350 0.288 0.370 0.359 0.355 0.374 0.320 0.316 0.333 0.341 8.27

44) dibromofluoromethane (s)
0.357 0.354 0.360 0.359 0.356 0.354 0.354 0.356 0.356 0.346 0.355 1.04

45) methacrylonitrile
0.212 0.160 0.208 0.205 0.200 0.207 0.193 0.206 0.202 0.199 7.86

46) 1,1,1-trichloroethane
0.618 0.562 0.565 0.561 0.562 0.572 0.528 0.578 0.548 0.531 0.563 4.51

47) cyclohexane
0.604 0.640 0.579 0.589 0.586 0.587 0.579 0.575 0.568 0.663 0.597 5.15

48) 1,1-dichloropropene
0.612 0.498 0.522 0.514 0.515 0.526 0.479 0.522 0.517 0.483 0.519 7.05

49) iso-butyl alcohol
0.039 0.034 0.033 0.032 0.031 0.034 0.032 0.032 0.031 0.033 7.55

50) carbon tetrachloride
0.475 0.440 0.485 0.472 0.468 0.492 0.442 0.459 0.468 0.394 0.460 6.16

51) tert amyl alcohol
0.035 0.028 0.028 0.028 0.028 0.027 0.028 0.026 0.028 0.028 9.09

52) I 1,4-difluorobenzene ----------ISTD----------

53) 1,2-dichloroethane-d4 (s)

0.284 0.286 0.276 0.276 0.273 0.268 0.286 0.289 0.285 0.285 0.281 2.45

54) n-butyl alcohol
0.018 0.015 0.017 0.016 0.016 0.017 0.015 0.015 0.016 0.016 6.68

55) 2,2,4-trimethylpentane
0.789 0.723 0.694 0.687 0.692 0.697 0.685 0.730 0.709 0.685 0.709 4.54

56) benzene
1.194 1.110 1.053 1.050 1.069 1.058 1.033 1.098 1.061 1.042 1.077 4.42

57) tert-amyl methyl ether
0.229 0.212 0.207 0.207 0.210 0.211 0.202 0.211 0.211 0.194 0.209 4.24

58) heptane
0.208 0.187 0.183 0.181 0.181 0.182 0.173 0.192 0.183 0.161 0.183 6.55

59) isopropyl acetate
0.097 0.090 0.089 0.090 0.090 0.084 0.085 0.086 0.089 4.54

60) 1,2-dichloroethane
0.454 0.337 0.343 0.345 0.339 0.354 0.368 0.356 0.362 10.70

61) trichloroethene
0.310 0.265 0.289 0.286 0.288 0.292 0.271 0.298 0.285 0.313 0.290 5.19

62) ethyl acrylate
0.472 0.423 0.454 0.449 0.452 0.456 0.438 0.445 0.441 0.391 0.442 4.98

63) 2-nitropropane
0.088 0.086 0.085 0.078 0.074 0.088 0.077 0.067 0.072 0.079 9.37

64) 2-chloroethyl vinyl ether
0.171 0.146 0.199 0.195 0.191 0.200 0.170 0.172 0.182 0.181 9.78

65) methyl methacrylate
0.398 0.373 0.338 0.336 0.332 0.337 0.319 0.330 0.330 0.422 0.352 9.76

66) 1,2-dichloropropane
0.291 0.248 0.259 0.259 0.258 0.261 0.251 0.262 0.256 0.261 4.70

67) dibromomethane
0.174 0.149 0.155 0.154 0.154 0.156 0.155 0.154 0.152 0.126 0.153 7.67

68) methylcyclohexane
0.445 0.441 0.440 0.444 0.455 0.514 0.452 0.456 5.75

69) bromodichloromethane
0.357 0.307 0.332 0.324 0.317 0.337 0.306 0.302 0.310 0.294 0.319 5.97

70) epichlorohydrin
0.045 0.038 0.046 0.045 0.045 0.044 0.041 0.042 0.043 0.043 5.70

71) cis-1,3-dichloropropene
0.436 0.365 0.424 0.418 0.415 0.431 0.392 0.422 0.407 0.475 0.419 6.83

72) 4-methyl-2-pentanone
0.166 0.139 0.151 0.150 0.151 0.149 0.147 0.150 0.151 0.134 0.149 5.59

73) 3-methyl-1-butanol
0.024 0.018 0.025 0.024 0.023 0.025 0.022 0.021 0.023 0.023 8.69

74) I chlorobenzene-d5 ----------ISTD----------

75) toluene-d8 (s)
1.263 1.272 1.260 1.264 1.277 1.265 1.262 1.277 1.283 1.277 1.270 0.65

76) toluene
0.873 0.796 0.786 0.787 0.791 0.802 0.798 0.813 0.800 0.862 0.811 3.84

77) trans-1,3-dichloropropene
0.483 0.436 0.452 0.451 0.443 0.468 0.420 0.426 0.436 0.519 0.453 6.57

78) ethyl methacrylate
0.519 0.437 0.490 0.491 0.489 0.498 0.455 0.450 0.484 0.436 0.475 5.93

79) 1,1,2-trichloroethane
0.254 0.202 0.227 0.230 0.231 0.231 0.225 0.237 0.228 0.230 5.80

80) tetrachloroethene
0.318 0.269 0.280 0.283 0.284 0.286 0.269 0.277 0.283 0.291 0.284 4.88

81) 1,3-dichloropropane
0.552 0.457 0.472 0.480 0.482 0.488 0.457 0.492 0.479 0.435 0.479 6.45

82) 2-hexanone
0.202 0.161 0.183 0.185 0.184 0.183 0.178 0.177 0.183 0.164 0.180 6.37

83) butyl acetate

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      0.308 0.249 0.287 0.294 0.287 0.293 0.281 0.284 0.286 0.274  0.284    5.41
 84)  dibromochloromethane
      0.296 0.251 0.296 0.288 0.272 0.308 0.254 0.257 0.264 0.232  0.272    9.00
 85)  1,2-dibromoethane
      0.404 0.324 0.358 0.362 0.359 0.366 0.346 0.341 0.356 0.426  0.364    8.17
 86)  n-butyl ether
      1.455 1.157 1.296 1.303 1.298 1.323 1.236 1.306 1.325 1.267  1.297    5.79
 87)  chlorobenzene
      0.968 0.870 0.826 0.842 0.834 0.854 0.827 0.879 0.843 0.891  0.863    4.96
 88)  1,1,1,2-tetrachloroethane
      0.298 0.274 0.293 0.291 0.284 0.302 0.251 0.277 0.274        0.283    5.60
 89)  ethylbenzene
      1.680 1.400 1.453 1.478 1.485 1.482 1.425 1.510 1.484 1.449  1.484    5.11
 90)  m,p-xylene
      0.658 0.571 0.567 0.575 0.576 0.577 0.553 0.592 0.579 0.582  0.583    4.83
 91)  o-xylene
      0.645 0.555 0.541 0.551 0.552 0.552 0.545 0.539 0.555 0.582  0.562    5.64
 92)  styrene
      1.038 0.880 0.947 0.956 0.948 0.963 0.914 0.941 0.948 0.888  0.942    4.69
 93)  bromoform
      0.197       0.226 0.215 0.201 0.238 0.169 0.181 0.187        0.202   11.60
 94)  butyl acrylate
      0.709 0.605 0.713 0.718 0.704 0.726 0.647 0.625 0.680 0.557  0.668    8.59
 95)  n-amyl acetate
      0.325 0.242 0.297 0.299 0.296 0.298 0.275 0.283 0.288        0.289    7.79
 96)  isopropylbenzene
      1.575 1.412 1.407 1.420 1.419 1.422 1.373 1.409 1.430 1.311  1.418    4.60
 97)  cis-1,4-dichloro-2-butene
      0.142       0.169 0.167 0.153 0.174 0.134 0.137 0.140        0.152   10.58

 98) I   1,4-dichlorobenzene-d ----------------ISTD---------------------
 99)  4-bromofluorobenzene (s)
      0.938 0.948 0.951 0.945 0.946 0.953 0.943 0.936 0.940 0.940  0.944    0.61
100)  bromobenzene
      0.924 0.814 0.777 0.783 0.786 0.802 0.772 0.780 0.767 0.728  0.793    6.47
101)  1,1,2,2-tetrachloroethane
      0.959 0.791 0.886 0.894 0.877 0.908 0.841 0.870 0.866 0.782  0.867    6.07
102)  trans-1,4-dichloro-2-butene
      0.292       0.267 0.261 0.257 0.273 0.242 0.239 0.239        0.259    7.31
103)  1,2,3-trichloropropane
      0.338 0.290 0.295 0.293 0.296 0.302 0.301 0.286 0.302        0.300    5.06
104)  n-propylbenzene
      3.702 3.414 3.457 3.406 3.438 3.514 3.230 3.312 3.300 3.388  3.416    3.82
105)  2-chlorotoluene
      0.824 0.688 0.717 0.711 0.723 0.738 0.682 0.691 0.693 0.648  0.711    6.59
106)  4-chlorotoluene
      0.801 0.741 0.716 0.711 0.714 0.736 0.669 0.714 0.693 0.627  0.712    6.42
107)  1,3,5-trimethylbenzene
      2.698 2.289 2.416 2.405 2.434 2.464 2.289 2.376 2.375 2.353  2.410    4.82
108)  tert-butylbenzene
      0.600 0.498 0.537 0.526 0.541 0.549 0.521 0.537 0.525        0.537    5.16
109)  1,2,4-trimethylbenzene
      2.683 2.294 2.399 2.384 2.377 2.457 2.233 2.316 2.377 2.250  2.377    5.40
110)  sec-butylbenzene
      3.090 2.740 2.904 2.853 2.867 2.914 2.663 2.768 2.822 2.523  2.814    5.48
111)  1,3-dichlorobenzene
      1.539 1.339 1.374 1.371 1.388 1.413 1.314 1.385 1.365 1.529  1.402    5.33
112)  p-isopropyltoluene
      2.721 2.274 2.473 2.455 2.440 2.517 2.310 2.391 2.424 2.519  2.453    5.05
113)  1,4-dichlorobenzene
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       1.592 1.401 1.406 1.393 1.402 1.429 1.366 1.431 1.383        1.423    4.69
114)  benzyl chloride
       1.777 1.487 1.780 1.776 1.701 1.863 1.496 1.531 1.561 1.617  1.659    8.27
115)  1,2-dichlorobenzene
       1.433 1.349 1.300 1.298 1.336 1.343 1.255 1.364 1.291 1.424  1.339    4.28
116)  n-butylbenzene
       1.178 0.955 1.147 1.118 1.107 1.164 1.044 1.041 1.079 1.007  1.084    6.66
117)  1,2-dibromo-3-chloropropane
       0.175       0.194 0.190 0.177 0.208 0.163 0.156 0.164        0.178   10.01
118)  1,3,5-trichlorobenzene
       1.031 0.897 0.955 0.944 0.929 0.988 0.871 0.882 0.917 1.049  0.946    6.41
119)  2-ethylhexyl acrylate
                   0.506 0.471 0.397 0.547             0.366        0.457   16.44
120)  1,2,4-trichlorobenzene
       0.815 0.757 0.877 0.840 0.828 0.898 0.771 0.758 0.789 0.862  0.819    6.14
121)  hexachlorobutadiene
       0.334 0.314 0.336 0.330 0.320 0.355 0.297 0.296 0.323        0.323    5.87
122)  naphthalene
       2.702 2.396 2.704 2.626 2.554 2.789 2.331 2.351 2.393 3.160  2.601    9.87
123)  1,2,3-trichlorobenzene
       0.831 0.688 0.808 0.788 0.756 0.825 0.705 0.695 0.749 0.660  0.750    8.20
124)  hexachloroethane
       0.331       0.390 0.368 0.336 0.419 0.297 0.313 0.307        0.345   12.58
125)  2-methylnaphthalene
                   1.248 1.156 0.998 1.279 0.825       0.905        1.069   17.51
126)  Bis(chloromethyl)ether
                                                                    0.000#  -1.00
127)  Ethylenimine
                                                                    0.000#  -1.00
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 (#) = Out of Range  ###  Number of calibration levels exceeded format  ###

           M3D6212.M         Fri Mar 08 17:12:13 2019   3D
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Initial Calibration Verification

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample: V3D6212-ICV6212
Lab FileID: 3D145282.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\V3D6212\3D145282.D Vial: 14
Acq On : 7 Mar 2019 11:39 pm Operator: juntaep
Sample : icv6212-50 Inst : MS3D
Misc : MS32815,V3D6212,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M3D6212.M (RTE Integrator)
Title : SW846 8260C/ EPA 624, Rxi-624 60 m x 0.25 mm x 1.4Fri Mar 08 17:11:15 2019
Last Update : Fri Mar 08 17:11:15 2019
Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1		tert butyl alcohol-d9	1.000	1.000	0.0	96	0.00	2.99
2	M	tertiary butyl alcohol	1.294	1.301	-0.5	100	0.00	3.04
3		ethanol	0.120	0.121	-0.8	102	0.00	2.42
4	M	1,4-dioxane	0.117	0.125	-6.8	105	0.00	5.18
5	I	pentafluorobenzene	1.000	1.000	0.0	96	0.00	4.19
6	M	chlorodifluoromethane	0.455	0.429	5.7	90	0.00	1.61
7	M	dichlorodifluoromethane	0.504	0.520	-3.2	93	0.00	1.60
8	M	chloromethane	0.469	0.512	-9.2	105	0.00	1.75
9	M	vinyl chloride	0.475	0.479	-0.8	92	0.00	1.83
10		1,3-butadiene	0.393	0.401	-2.0	100	0.00	1.86
11	M	bromomethane	0.178	0.213	-19.7	113	0.00	2.07
12	M	chloroethane	0.294	0.263	10.5	86	0.00	2.15
13	M	trichlorofluoromethane	0.597	0.580	2.8	90	0.00	2.33
14		vinyl bromide	0.277	0.285	-2.9	95	0.00	2.29
15	M	ethyl ether	0.221	0.231	-4.5	98	0.00	2.51
16	M	acrolein	0.087	0.104	-19.5	111	0.00	2.61
17		freon 113	0.327	0.329	-0.6	97	0.00	2.69
18	M	1,1-dichloroethene	0.332	0.310	6.6	86	0.00	2.69
19	M	acetone	0.050	0.052	-4.0	102	0.00	2.69
20	M	acetonitrile	0.076	0.075	1.3	98	0.00	2.88
21	M	iodomethane	0.137	0.158	-15.3	77	0.00	2.80
22	M	carbon disulfide	0.904	0.911	-0.8	100	0.00	2.86
23	M	methylene chloride	0.372	0.349	6.2	96	0.00	3.01
24	M	methyl acetate	0.413	0.401	2.9	98	0.00	2.90
25	M	methyl tert butyl ether	1.109	1.157	-4.3	101	0.00	3.18
26	M	trans-1,2-dichloroethene	0.373	0.349	6.4	92	0.00	3.19
27	M	di-isopropyl ether	1.249	1.212	3.0	93	0.00	3.48
28	M	2-butanone	0.068	0.073	-7.4	100	0.00	3.84
29	M	1,1-dichloroethane	0.627	0.620	1.1	95	0.00	3.49
30	M	chloroprene	0.598	0.613	-2.5	96	0.00	3.54
31	M	acrylonitrile	0.192	0.218	-13.5	108	0.00	3.15
32		hexane	0.314	0.254	19.1	79	0.00	3.38
33	M	vinyl acetate	0.107	0.106	0.9	93	0.00	3.46
34	M	ethyl tert-butyl ether	1.187	1.184	0.3	95	0.00	3.72
35	M	ethyl acetate	0.084	0.084	0.0	98	0.00	3.85
36	M	2,2-dichloropropane	0.540	0.504	6.7	91	0.00	3.88
37	M	cis-1,2-dichloroethene	0.401	0.407	-1.5	99	0.00	3.87
38		methyl acrylate	0.079	0.084	-6.3	99	0.00	3.89
39	M	propionitrile	0.083	0.088	-6.0	102	0.00	3.88
40	M	bromochloromethane	0.178	0.184	-3.4	98	0.00	4.04
41	M	tetrahydrofuran	0.075	0.079	-5.3	101	0.00	4.04

Initial Calibration Verification

Job Number: JC87363 **Sample:** V3D6212-ICV6212
Account: TCMAW Tantara Corporation **Lab FileID:** 3D145282.D
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

42	M	chloroform	0.409	0.392	4.2	96	0.00	4.09
43	M	t-butyl formate	0.341	0.330	3.2	88	0.00	4.11
44	S	dibromofluoromethane (s)	0.355	0.365	-2.8	97	0.00	4.20
45	M	methacrylonitrile	0.199	0.211	-6.0	99	0.00	3.99
46	M	1,1,1-trichloroethane	0.563	0.542	3.7	93	0.00	4.23
47		cyclohexane	0.597	0.543	9.0	88	0.00	4.29
48		1,1-dichloropropene	0.519	0.512	1.3	95	0.00	4.33
49		iso-butyl alcohol	0.033	0.035	-6.1	104	0.00	4.33
50		carbon tetrachloride	0.460	0.465	-1.1	94	0.00	4.35
51		tert amyl alcohol	0.028	0.030	-7.1	105	0.00	4.43
52	I	1,4-difluorobenzene	1.000	1.000	0.0	96	0.00	4.75
53	S	1,2-dichloroethane-d4 (s)	0.281	0.277	1.4	96	0.00	4.45
54	M	n-butyl alcohol	0.016	0.017	-6.3	102	0.00	4.81
55		2,2,4-trimethylpentane	0.709	0.650	8.3	91	0.00	4.55
56	M	benzene	1.077	1.062	1.4	97	0.00	4.48
57	M	tert-amyl methyl ether	0.209	0.205	1.9	95	0.00	4.54
58	M	heptane	0.183	0.189	-3.3	100	0.00	4.66
59	M	isopropyl acetate	0.089	0.089	0.0	95	0.00	4.45
60	M	1,2-dichloroethane	0.362	0.351	3.0	98	0.00	4.50
61	M	trichloroethene	0.290	0.290	0.0	97	0.00	4.95
62		ethyl acrylate	0.442	0.481	-8.8	103	0.00	4.96
63	M	2-nitropropane	0.079	0.087	-10.1	106	0.00	5.49
64	M	2-chloroethyl vinyl ether	0.181	0.212	-17.1	104	0.00	5.53
65	M	methyl methacrylate	0.352	0.354	-0.6	101	0.00	5.14
66	M	1,2-dichloropropane	0.261	0.264	-1.1	98	0.00	5.14
67	M	dibromomethane	0.153	0.162	-5.9	101	0.00	5.21
68	M	methylcyclohexane	0.456	0.418	8.3	91	0.00	5.14
69	M	bromodichloromethane	0.319	0.331	-3.8	98	0.00	5.33
70		epichlorohydrin	0.043	0.046	-7.0	97	0.00	5.58
71	M	cis-1,3-dichloropropene	0.419	0.433	-3.3	99	0.00	5.67
72	M	4-methyl-2-pentanone	0.149	0.160	-7.4	103	0.00	5.77
73	M	3-methyl-1-butanol	0.023	0.027	-17.4	105	0.00	5.79
74	I	chlorobenzene-d5	1.000	1.000	0.0	97	0.00	7.14
75	S	toluene-d8 (s)	1.270	1.256	1.1	96	0.00	5.90
76		toluene	0.811	0.809	0.2	100	0.00	5.96
77		trans-1,3-dichloropropene	0.453	0.448	1.1	96	0.00	6.12
78		ethyl methacrylate	0.475	0.490	-3.2	97	0.00	6.14
79		1,1,2-trichloroethane	0.230	0.239	-3.9	101	0.00	6.29
80	M	tetrachloroethene	0.284	0.284	0.0	97	0.00	6.39
81	M	1,3-dichloropropane	0.479	0.507	-5.8	102	0.00	6.44
82		2-hexanone	0.180	0.193	-7.2	102	0.00	6.46
83	M	butyl acetate	0.284	0.305	-7.4	100	0.00	6.54
84	M	dibromochloromethane	0.272	0.312	-14.7	105	0.00	6.63
85	M	1,2-dibromoethane	0.364	0.377	-3.6	101	0.00	6.74
86		n-butyl ether	1.297	1.353	-4.3	101	0.00	7.22
87	M	chlorobenzene	0.863	0.851	1.4	98	0.00	7.17
88	M	1,1,1,2-tetrachloroethane	0.283	0.307	-8.5	102	0.00	7.24
89	M	ethylbenzene	1.484	1.499	-1.0	98	0.00	7.25
90	M	m,p-xylene	0.583	0.585	-0.3	99	0.00	7.36
91	M	o-xylene	0.562	0.561	0.2	99	0.00	7.72
92	M	styrene	0.942	0.990	-5.1	100	0.00	7.74
93	M	bromoform	0.202	0.238	-17.8	107	0.00	7.91
94		butyl acrylate	0.668	0.753	-12.7	101	0.00	7.64
95		n-amyl acetate	0.289	0.291	-0.7	94	0.00	7.85
96		isopropylbenzene	1.418	1.451	-2.3	99	0.00	8.06
97		cis-1,4-dichloro-2-butene	0.152	0.167	-9.9	97	0.00	8.10
98	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	97	0.00	9.34

Initial Calibration Verification

Job Number: JC87363 **Sample:** V3D6212-ICV6212
Account: TCMAW Tantara Corporation **Lab FileID:** 3D145282.D
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

99	S	4-bromofluorobenzene (s)	0.944	0.943	0.1	97	0.00	8.22
100	M	bromobenzene	0.793	0.803	-1.3	100	0.00	8.37
101	M	1,1,2,2-tetrachloroethane	0.867	0.922	-6.3	100	0.00	8.34
102	M	trans-1,4-dichloro-2-bute	0.259	0.308	-18.9	115	0.00	8.38
103	M	1,2,3-trichloropropane	0.300	0.305	-1.7	101	0.00	8.39
104	M	n-propylbenzene	3.416	3.459	-1.3	99	0.00	8.45
105	M	2-chlorotoluene	0.711	0.720	-1.3	99	0.00	8.55
106	M	4-chlorotoluene	0.712	0.754	-5.9	103	0.00	8.66
107	M	1,3,5-trimethylbenzene	2.410	2.423	-0.5	98	0.00	8.62
108	M	tert-butylbenzene	0.537	0.593	-10.4	110	0.00	8.93
109	M	1,2,4-trimethylbenzene	2.377	2.499	-5.1	102	0.00	8.99
110	M	sec-butylbenzene	2.814	2.893	-2.8	99	0.00	9.14
111	M	1,3-dichlorobenzene	1.402	1.420	-1.3	101	0.00	9.27
112	M	p-isopropyltoluene	2.453	2.497	-1.8	99	0.00	9.29
113	M	1,4-dichlorobenzene	1.423	1.428	-0.4	100	0.00	9.36
114		benzyl chloride	1.659	1.400	15.6	77	0.00	9.47
115	M	1,2-dichlorobenzene	1.339	1.346	-0.5	101	0.00	9.72
116	M	n-butylbenzene	1.084	1.135	-4.7	99	0.00	9.69
117	M	1,2-dibromo-3-chloropropa	0.178	0.191	-7.3	97	0.00	10.48
118		1,3,5-trichlorobenzene	0.946	0.964	-1.9	99	0.00	10.68
119		2-ethylhexyl acrylate	0.457	0.570	-24.7	118	0.00	11.48
120	M	1,2,4-trichlorobenzene	0.819	0.869	-6.1	101	0.00	11.31
121	M	hexachlorobutadiene	0.323	0.329	-1.9	97	0.00	11.45
122	M	naphthalene	2.601	2.750	-5.7	102	0.00	11.57
123	M	1,2,3-trichlorobenzene	0.750	0.806	-7.5	100	0.00	11.79
124	m	hexachloroethane	0.345	0.384	-11.3	102	0.00	9.99
125		2-methylnaphthalene	1.069	1.186	-10.9	100	0.00	12.70
126		Bis(chloromethyl)ether		----------NA----------				
127		Ethylenimine		----------NA----------				

(#) = Out of Range SPCC's out = 0 CCC's out = 0
3D145277.D M3D6212.M Fri Mar 08 17:11:58 2019 3D

Continuing Calibration Summary

Job Number: JC87363 **Sample:** V3D6294-CC6212
Account: TCMAW Tantara Corporation **Lab FileID:** 3D147170.D
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\ke... 6\v3d6294\3d147170.d Vial: 2
Acq On : 3 May 2019 6:27 am Operator: EddieH
Sample : CC6212-20 Inst : MS3D
Misc : MS34467,V3D6294,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M3D6212.M (RTE Integrator)
Title : SW846 8260C/ EPA 624, Rxi-624 60 m x 0.25 mm x 1.4Fri Mar 08 17:11:15 2019
Last Update : Fri Mar 08 17:11:15 2019
Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1		tert butyl alcohol-d9	1.000	1.000	0.0	106	0.00	2.98
2	M	tertiary butyl alcohol	1.294	1.210	6.5	103	0.00	3.04
3		ethanol	0.120	0.123	-2.5	112	0.00	2.42
4	M	1,4-dioxane	0.117	0.121	-3.4	107	0.00	5.18
5	I	pentafluorobenzene	1.000	1.000	0.0	116	0.00	4.19
6	M	chlorodifluoromethane	0.455	0.381	16.3	97	0.00	1.61
7	M	dichlorodifluoromethane	0.504	0.461	8.5	101	0.00	1.60
8	M	chloromethane	0.469	0.467	0.4	117	0.00	1.75
9	M	vinyl chloride	0.475	0.482	-1.5	113	0.00	1.83
10		1,3-butadiene	0.393	0.392	0.3	117	0.00	1.86
11	M	bromomethane	0.178	0.170	4.5	106	0.00	2.08
12	M	chloroethane	0.294	0.292	0.7	116	0.00	2.16
13	M	trichlorofluoromethane	0.597	0.522	12.6	100	0.00	2.33
14		vinyl bromide	0.277	0.300	-8.3	123	0.00	2.29
15	M	ethyl ether	0.221	0.220	0.5	115	0.00	2.51
16	M	acrolein	0.087	0.090	-3.4	122	0.00	2.61
17		freon 113	0.327	0.271	17.1	96	0.00	2.69
18	M	1,1-dichloroethene	0.332	0.316	4.8	105	0.00	2.69
19	M	acetone	0.050	0.051	-2.0	121	0.00	2.69
20	M	acetonitrile	0.076	0.071	6.6	112	0.00	2.88
21	M	iodomethane	0.137	0.098	28.5#	111	0.00	2.80
22	M	carbon disulfide	0.904	0.807	10.7	107	0.00	2.86
23	M	methylene chloride	0.372	0.352	5.4	117	0.00	3.01
24	M	methyl acetate	0.413	0.383	7.3	111	0.00	2.90
25	M	methyl tert butyl ether	1.109	1.089	1.8	113	0.00	3.18
26	M	trans-1,2-dichloroethene	0.373	0.345	7.5	110	0.00	3.19
27	M	di-isopropyl ether	1.249	1.209	3.2	113	0.00	3.48
28	M	2-butanone	0.068	0.068	0.0	116	0.00	3.83
29	M	1,1-dichloroethane	0.627	0.607	3.2	111	0.00	3.49
30	M	chloroprene	0.598	0.547	8.5	104	0.00	3.54
31	M	acrylonitrile	0.192	0.192	0.0	116	0.00	3.15
32		hexane	0.314	0.249	20.7#	94	0.00	3.37
33	M	vinyl acetate	0.107	0.104	2.8	109	0.00	3.46
34	M	ethyl tert-butyl ether	1.187	1.144	3.6	111	0.00	3.72
35	M	ethyl acetate	0.084	0.087	-3.6	125	0.00	3.85
36	M	2,2-dichloropropane	0.540	0.526	2.6	112	0.00	3.88
37	M	cis-1,2-dichloroethene	0.401	0.386	3.7	112	0.00	3.86
38		methyl acrylate	0.079	0.078	1.3	114	0.00	3.89
39	M	propionitrile	0.083	0.083	0.0	116	0.00	3.88
40	M	bromochloromethane	0.178	0.182	-2.2	115	0.00	4.03
41	M	tetrahydrofuran	0.075	0.074	1.3	113	0.00	4.04

Continuing Calibration Summary

Job Number: JC87363 **Sample:** V3D6294-CC6212
Account: TCMAW Tantara Corporation **Lab FileID:** 3D147170.D
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

42	M	chloroform	0.409	0.374	8.6	111	0.00	4.08
43	M	t-butyl formate	0.341	0.323	5.3	106	0.00	4.10
44	S	dibromofluoromethane (s)	0.355	0.355	0.0	115	0.00	4.19
45	M	methacrylonitrile	0.199	0.199	0.0	115	0.00	3.99
46	M	1,1,1-trichloroethane	0.563	0.517	8.2	107	0.00	4.23
47		cyclohexane	0.597	0.554	7.2	109	0.00	4.29
48		1,1-dichloropropene	0.519	0.472	9.1	106	0.00	4.33
49		iso-butyl alcohol	0.033	0.030	9.1	111	0.00	4.33
50		carbon tetrachloride	0.460	0.438	4.8	108	0.00	4.34
51		tert amyl alcohol	0.028	0.027	3.6	110	0.00	4.43
52	I	1,4-difluorobenzene	1.000	1.000	0.0	112	0.00	4.75
53	S	1,2-dichloroethane-d4 (s)	0.281	0.272	3.2	111	0.00	4.44
54	M	n-butyl alcohol	0.016	0.015	6.3	106	0.00	4.81
55		2,2,4-trimethylpentane	0.709	0.725	-2.3	117	0.00	4.55
56	M	benzene	1.077	1.063	1.3	111	0.00	4.48
57	M	tert-amyl methyl ether	0.209	0.201	3.8	107	0.00	4.54
58	M	heptane	0.183	0.173	5.5	107	0.00	4.66
59	M	isopropyl acetate	0.089	0.089	0.0	111	0.00	4.45
60	M	1,2-dichloroethane	0.362	0.339	6.4	110	0.00	4.50
61	M	trichloroethene	0.290	0.277	4.5	108	0.00	4.95
62		ethyl acrylate	0.442	0.444	-0.5	110	0.00	4.96
63	M	2-nitropropane	0.079	0.088	-11.4	133	0.00	5.49
64	M	2-chloroethyl vinyl ether	0.181	0.209	-15.5	123	0.00	5.52
65	M	methyl methacrylate	0.352	0.327	7.1	110	0.00	5.14
66	M	1,2-dichloropropane	0.261	0.265	-1.5	115	0.00	5.14
67	M	dibromomethane	0.153	0.156	-2.0	114	0.00	5.21
68	M	methylcyclohexane	0.456	0.416	8.8	106	0.00	5.14
69	M	bromodichloromethane	0.319	0.326	-2.2	115	0.00	5.33
70		epichlorohydrin	0.043	0.045	-4.7	113	0.00	5.57
71	M	cis-1,3-dichloropropene	0.419	0.413	1.4	111	0.00	5.67
72	M	4-methyl-2-pentanone	0.149	0.152	-2.0	113	0.00	5.77
73	M	3-methyl-1-butanol	0.023	0.022	4.3	105	0.00	5.78
74	I	chlorobenzene-d5	1.000	1.000	0.0	112	0.00	7.14
75	S	toluene-d8 (s)	1.270	1.308	-3.0	115	0.00	5.89
76		toluene	0.811	0.786	3.1	112	0.00	5.96
77		trans-1,3-dichloropropene	0.453	0.435	4.0	110	0.00	6.12
78		ethyl methacrylate	0.475	0.472	0.6	109	0.00	6.14
79		1,1,2-trichloroethane	0.230	0.238	-3.5	116	0.00	6.29
80	M	tetrachloroethene	0.284	0.284	0.0	112	0.00	6.39
81	M	1,3-dichloropropane	0.479	0.491	-2.5	114	0.00	6.44
82		2-hexanone	0.180	0.185	-2.8	113	0.00	6.46
83	M	butyl acetate	0.284	0.285	-0.4	112	0.00	6.54
84	M	dibromochloromethane	0.272	0.302	-11.0	125	0.00	6.63
85	M	1,2-dibromoethane	0.364	0.332	8.8	104	0.00	6.74
86		n-butyl ether	1.297	1.247	3.9	108	0.00	7.22
87	M	chlorobenzene	0.863	0.821	4.9	111	0.00	7.17
88	M	1,1,1,2-tetrachloroethane	0.283	0.291	-2.8	115	0.00	7.24
89	M	ethylbenzene	1.484	1.451	2.2	110	0.00	7.25
90	M	m,p-xylene	0.583	0.564	3.3	110	0.00	7.36
91	M	o-xylene	0.562	0.555	1.2	113	0.00	7.72
92	M	styrene	0.942	0.916	2.8	108	0.00	7.73
93	M	bromoform	0.202	0.235	-16.3	131	0.00	7.91
94		butyl acrylate	0.668	0.663	0.7	106	0.00	7.64
95		n-amyl acetate	0.289	0.288	0.3	109	0.00	7.85
96		isopropylbenzene	1.418	1.392	1.8	110	0.00	8.05
97		cis-1,4-dichloro-2-butene	0.152	0.129	15.1	95	0.00	8.10
98	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	118	0.00	9.34

Continuing Calibration Summary

Job Number: JC87363 **Sample:** V3D6294-CC6212
Account: TCMAW Tantara Corporation **Lab FileID:** 3D147170.D
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

99	S	4-bromofluorobenzene (s)	0.944	0.914	3.2	114	0.00	8.22
100	M	bromobenzene	0.793	0.761	4.0	114	0.00	8.37
101	M	1,1,2,2-tetrachloroethane	0.867	0.868	-0.1	117	0.00	8.33
102	M	trans-1,4-dichloro-2-bute	0.259	0.209	19.3	96	0.00	8.37
103	M	1,2,3-trichloropropane	0.300	0.287	4.3	114	0.00	8.39
104	M	n-propylbenzene	3.416	3.183	6.8	109	0.00	8.45
105	M	2-chlorotoluene	0.711	0.675	5.1	110	0.00	8.54
106	M	4-chlorotoluene	0.712	0.660	7.3	109	0.00	8.66
107	M	1,3,5-trimethylbenzene	2.410	2.264	6.1	110	0.00	8.62
108	M	tert-butylbenzene	0.537	0.508	5.4	111	0.00	8.92
109	M	1,2,4-trimethylbenzene	2.377	2.264	4.8	112	0.00	8.99
110	M	sec-butylbenzene	2.814	2.713	3.6	112	0.00	9.14
111	M	1,3-dichlorobenzene	1.402	1.305	6.9	111	0.00	9.27
112	M	p-isopropyltoluene	2.453	2.347	4.3	114	0.00	9.29
113	M	1,4-dichlorobenzene	1.423	1.337	6.0	113	0.00	9.36
114		benzyl chloride	1.659	1.648	0.7	114	0.00	9.47
115	M	1,2-dichlorobenzene	1.339	1.285	4.0	114	0.00	9.72
116	M	n-butylbenzene	1.084	1.038	4.2	111	0.00	9.69
117	M	1,2-dibromo-3-chloropropa	0.178	0.161	9.6	107	0.00	10.48
118		1,3,5-trichlorobenzene	0.946	0.910	3.8	116	0.00	10.67
119		2-ethylhexyl acrylate	0.457	0.240	47.5#	71	0.00	11.48
120	M	1,2,4-trichlorobenzene	0.819	0.770	6.0	110	0.00	11.30
121	M	hexachlorobutadiene	0.323	0.309	4.3	114	0.00	11.45
122	M	naphthalene	2.601	2.220	14.6	103	0.00	11.56
123	M	1,2,3-trichlorobenzene	0.750	0.695	7.3	109	0.00	11.79
124	m	hexachloroethane	0.345	0.387	-12.2	136	0.00	9.99
125		2-methylnaphthalene	1.069	0.632	40.9#	75	0.00	12.70
126		Bis(chloromethyl)ether		----------NA----------				
127		Ethylenimine		----------NA----------				

(#) = Out of Range SPCC's out = 0 CCC's out = 0
3D145276.D M3D6212.M Mon May 06 00:14:36 2019

MS Volatiles

Raw Data

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\may 6\v3d6294\
Data File : 3d147178.d
Acq On : 3 May 2019 11:07 am
Operator : krizhkac
Sample : jc87363-1 Inst : MS3D
Misc : MS34465,V3D6294,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3D6212.M
Quant Results File: M3D6212.RES
Quant Time: May 06 00:00:26 2019
Quant Title : SW846 8260C/ EPA 624, Rxi-624 60 m x 0.25 mm x 1.4Fri Mar 08 17:11:15 2019
QLast Update : Fri Mar 08 17:11:15 2019
Response via : Initial Calibration

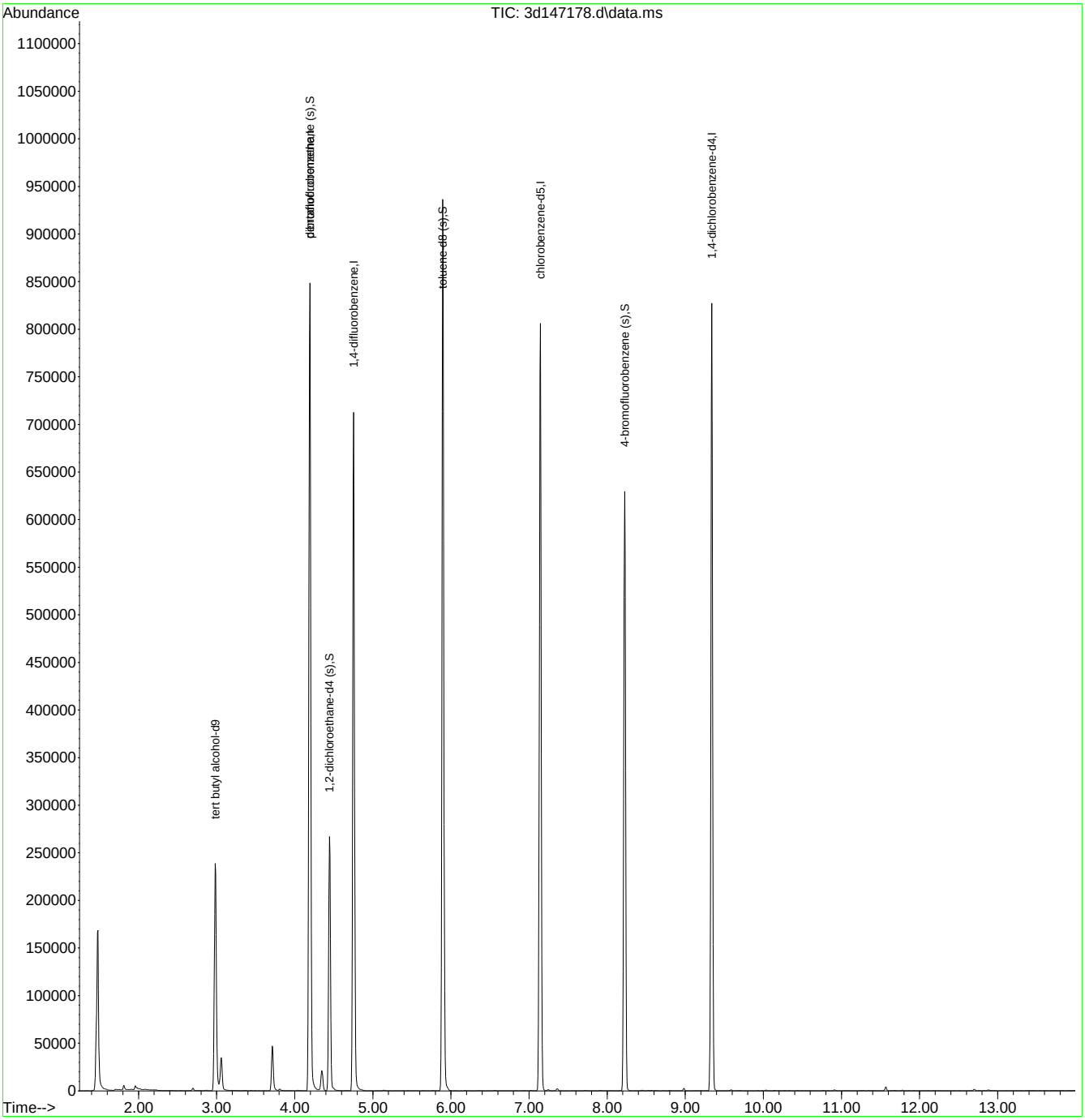
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	2.980	65	247328	500.00	ug/L	0.00
5) pentafluorobenzene	4.194	168	375050	50.00	ug/L	0.00
52) 1,4-difluorobenzene	4.754	114	513094	50.00	ug/L	0.00
74) chlorobenzene-d5	7.144	117	449757	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	9.339	152	222789	50.00	ug/L	0.00
System Monitoring Compounds						
44) dibromofluoromethane (s)	4.194	113	137639	51.65	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 103.30%			
53) 1,2-dichloroethane-d4 (s)	4.444	65	149988	52.06	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 104.12%			
75) toluene-d8 (s)	5.894	98	581060	50.87	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.74%			
99) 4-bromofluorobenzene (s)	8.223	95	200430	47.65	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 95.30%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\may 6\v3d6294\
Data File : 3d147178.d
Acq On : 3 May 2019 11:07 am
Operator : krizhkac
Sample : jc87363-1 Inst : MS3D
Misc : MS34465,V3D6294,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3D6212.M
Quant Results File: M3D6212.RES
Quant Time: May 06 00:00:26 2019
Quant Title : SW846 8260C/ EPA 624, Rxi-624 60 m x 0.25 mm x 1.4Fri Mar 08 17:11:15 2019
QLast Update : Fri Mar 08 17:11:15 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\may 6\v3d6294\
Data File : 3d147179.d
Acq On : 3 May 2019 11:33 am
Operator : krizhkac
Sample : jc87363-2 Inst : MS3D
Misc : MS34465,V3D6294,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3D6212.M
Quant Results File: M3D6212.RES
Quant Time: May 06 00:01:54 2019
Quant Title : SW846 8260C/ EPA 624, Rxi-624 60 m x 0.25 mm x 1.4Fri Mar 08 17:11:15 2019
QLast Update : Fri Mar 08 17:11:15 2019
Response via : Initial Calibration

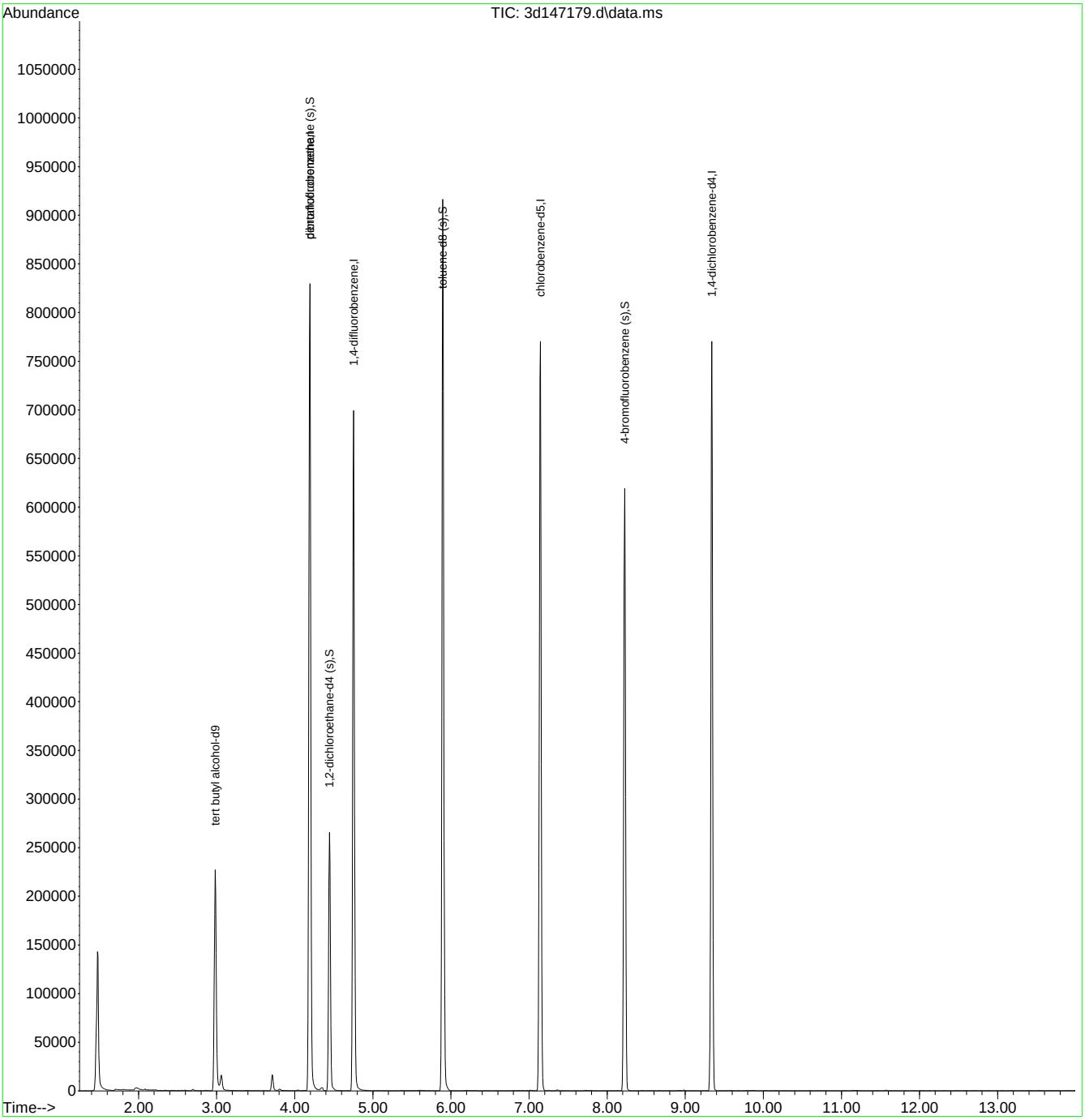
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	2.980	65	228768	500.00	ug/L	0.00
5) pentafluorobenzene	4.193	168	366469	50.00	ug/L	0.00
52) 1,4-difluorobenzene	4.754	114	500000	50.00	ug/L	0.00
74) chlorobenzene-d5	7.144	117	436874	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	9.339	152	213606	50.00	ug/L	0.00
System Monitoring Compounds						
44) dibromofluoromethane (s)	4.193	113	133387	51.22	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.44%			
53) 1,2-dichloroethane-d4 (s)	4.443	65	144514	51.47	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 102.94%			
75) toluene-d8 (s)	5.894	98	565067	50.92	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.84%			
99) 4-bromofluorobenzene (s)	8.223	95	195667	48.51	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.02%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\may 6\v3d6294\
Data File : 3d147179.d
Acq On : 3 May 2019 11:33 am
Operator : krizhkac
Sample : jc87363-2 Inst : MS3D
Misc : MS34465,V3D6294,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3D6212.M
Quant Results File: M3D6212.RES
Quant Time: May 06 00:01:54 2019
Quant Title : SW846 8260C/ EPA 624, Rxi-624 60 m x 0.25 mm x 1.4Fri Mar 08 17:11:15 2019
QLast Update : Fri Mar 08 17:11:15 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\eunicem050619\v1c7209\
Data File : 1c164276.d
Acq On : 3 May 2019 1:25 pm
Operator : EddieH
Sample : JC87363-3 Inst : GCMS1C
Misc : MS34463,V1C7209,5.3,,,,1
ALS Vial : 13 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M1CS7200.M
Quant Results File: M1CS7200.RES
Quant Time: May 04 23:52:45 2019
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Apr 25 08:03:13 2019
Response via : Initial Calibration

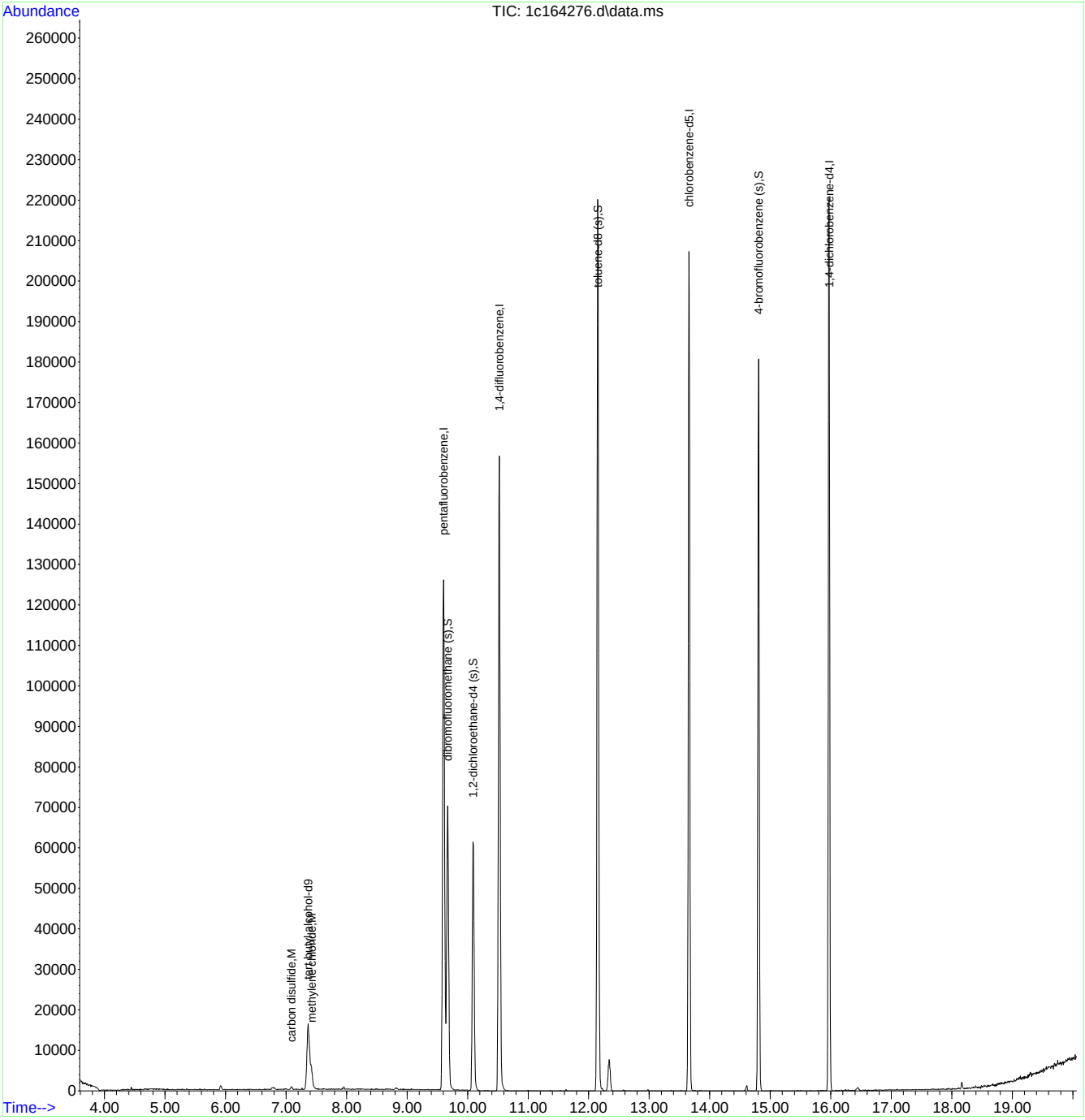
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.364	65	32139	500.00	ug/L	-0.02
5) pentafluorobenzene	9.602	168	107497	50.00	ug/L	0.00
52) 1,4-difluorobenzene	10.523	114	140906	50.00	ug/L	0.00
74) chlorobenzene-d5	13.656	117	115687	50.00	ug/L	0.00
97) 1,4-dichlorobenzene-d4	15.973	152	59192	50.00	ug/L	0.00
System Monitoring Compounds						
44) dibromofluoromethane (s)	9.670	113	47206	52.07	ug/L	0.00
Spiked Amount 50.000	Range 75 - 127		Recovery = 104.14%			
53) 1,2-dichloroethane-d4 (s)	10.089	65	52743	59.59	ug/L	0.00
Spiked Amount 50.000	Range 75 - 130		Recovery = 119.18%			
75) toluene-d8 (s)	12.149	98	156368	50.18	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.36%			
98) 4-bromofluorobenzene (s)	14.806	95	56548	50.89	ug/L	0.00
Spiked Amount 50.000	Range 79 - 127		Recovery = 101.78%			
Target Compounds						Qvalue
22) carbon disulfide	7.086	76	952	0.33	ug/L	52
23) methylene chloride	7.421	84	1755	1.84	ug/L	86

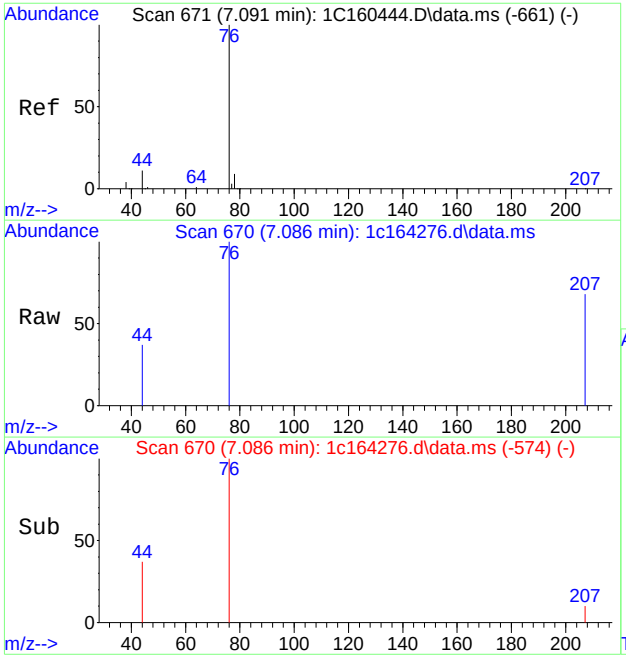
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\eunicem050619\v1c7209\
Data File : 1c164276.d
Acq On : 3 May 2019 1:25 pm
Operator : EddieH
Sample : JC87363-3 Inst : GCMS1C
Misc : MS34463,V1C7209,5.3,,,,1
ALS Vial : 13 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M1CS7200.M
Quant Results File: M1CS7200.RES
Quant Time: May 04 23:52:45 2019
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Apr 25 08:03:13 2019
Response via : Initial Calibration

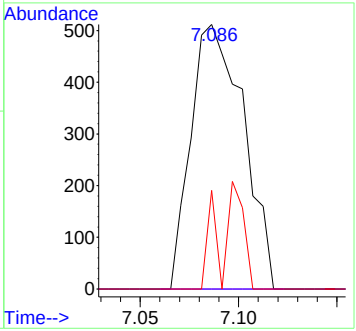


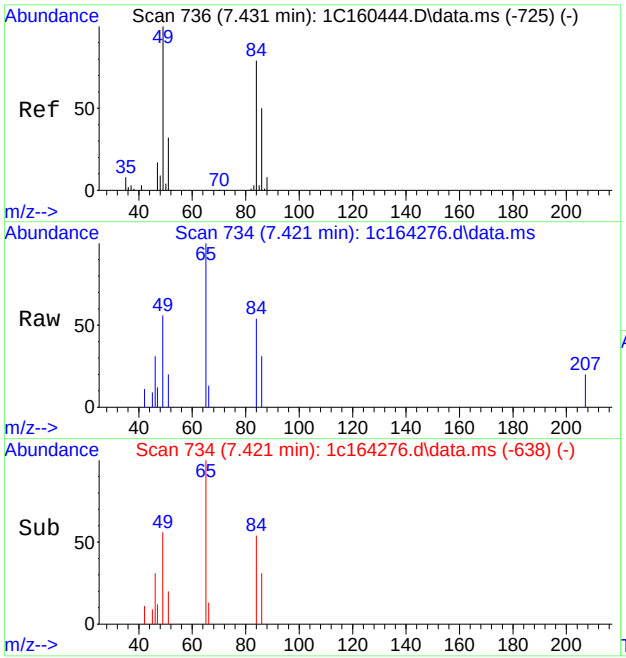


#22
carbon disulfide
Concen: 0.33 ug/L
RT: 7.086 min Scan# 670
Delta R.T. 0.000 min
Lab File: 1c164276.d
Acq: 3 May 2019 1:25 pm

Tgt Ion: 76 Resp: 952

Ion	Ratio	Lower	Upper
76	100		
78	0.0	0.0	39.3
44	37.3	0.0	42.1

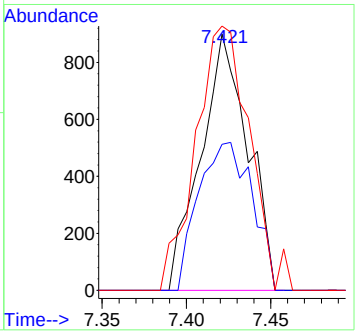




#23
methylene chloride
Concen: 1.84 ug/L
RT: 7.421 min Scan# 734
Delta R.T. 0.000 min
Lab File: 1c164276.d
Acq: 3 May 2019 1:25 pm

Tgt Ion: 84 Resp: 1755

Ion	Ratio	Lower	Upper
84	100		
86	56.9	33.8	93.8
49	103.1	91.8	151.8



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\may 6\v3d6294\
Data File : 3d147174.d
Acq On : 3 May 2019 8:27 am
Operator : EddieH
Sample : mb Inst : MS3D
Misc : MS34467,V3D6294,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3D6212.M
Quant Results File: M3D6212.RES
Quant Time: May 06 00:12:46 2019
Quant Title : SW846 8260C/ EPA 624, Rxi-624 60 m x 0.25 mm x 1.4Fri Mar 08 17:11:15 2019
QLast Update : Fri Mar 08 17:11:15 2019
Response via : Initial Calibration

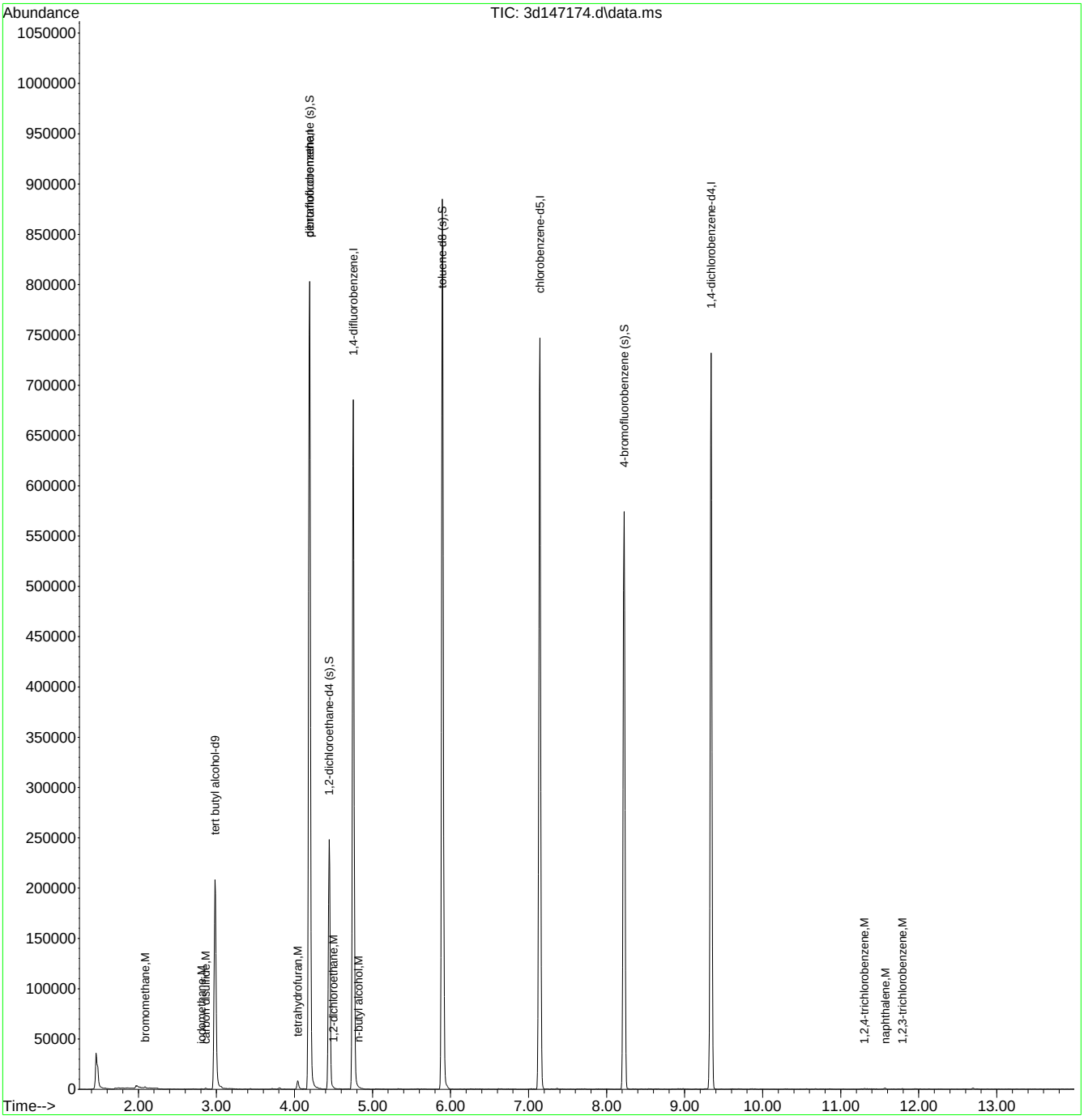
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	2.980	65	211907	500.00	ug/L	0.00
5) pentafluorobenzene	4.193	168	361067	50.00	ug/L	0.00
52) 1,4-difluorobenzene	4.754	114	487980	50.00	ug/L	0.00
74) chlorobenzene-d5	7.144	117	406998	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	9.339	152	199891	50.00	ug/L	0.00
System Monitoring Compounds						
44) dibromofluoromethane (s)	4.193	113	126724	49.39	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.78%			
53) 1,2-dichloroethane-d4 (s)	4.443	65	134960	49.25	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 98.50%			
75) toluene-d8 (s)	5.894	98	542148	52.44	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 104.88%			
99) 4-bromofluorobenzene (s)	8.223	95	182040	48.23	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 96.46%			
Target Compounds						Qvalue
11) bromomethane	2.084	94	599	0.47	ug/L	92
21) iodomethane	2.810	142	414	0.42	ug/L	79
22) carbon disulfide	2.858	76	1158	0.18	ug/L	85
41) tetrahydrofuran	4.041	72	1879	3.47	ug/L #	82
54) n-butyl alcohol	4.821	56	571	3.63	ug/L	80
60) 1,2-dichloroethane	4.498	62	623	0.18	ug/L	90
120) 1,2,4-trichlorobenzene	11.302	180	391	0.12	ug/L	66
122) naphthalene	11.570	128	1412	0.14	ug/L	85
123) 1,2,3-trichlorobenzene	11.789	180	334	0.11	ug/L	81

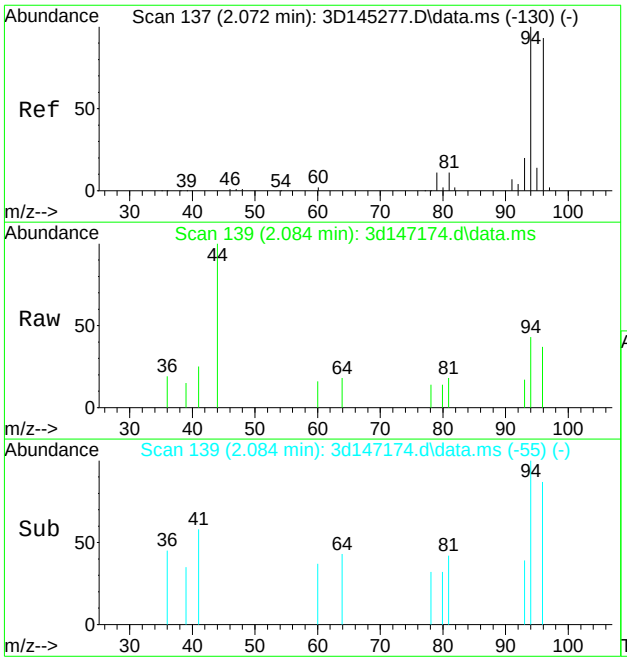
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\may 6\v3d6294\
Data File : 3d147174.d
Acq On : 3 May 2019 8:27 am
Operator : EddieH
Sample : mb Inst : MS3D
Misc : MS34467,V3D6294,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3D6212.M
Quant Results File: M3D6212.RES
Quant Time: May 06 00:12:46 2019
Quant Title : SW846 8260C/ EPA 624, Rxi-624 60 m x 0.25 mm x 1.4Fri Mar 08 17:11:15 2019
QLast Update : Fri Mar 08 17:11:15 2019
Response via : Initial Calibration

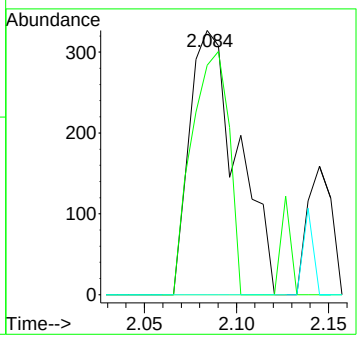


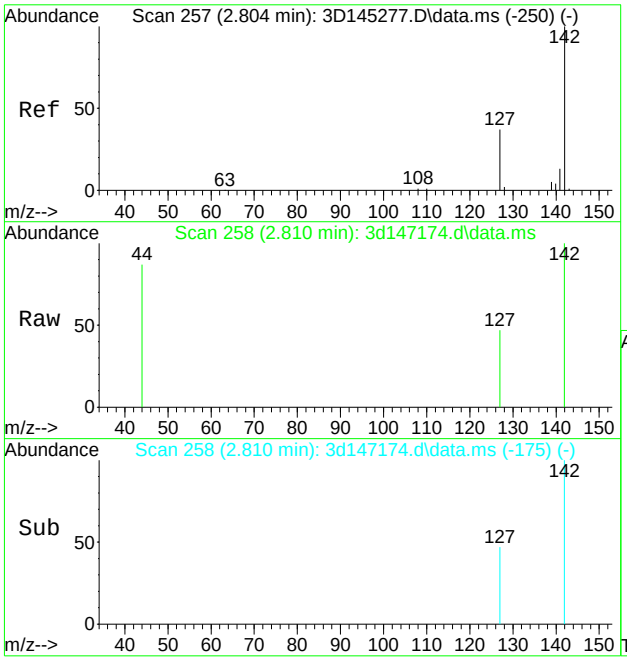


#11
bromomethane
Concen: 0.47 ug/L
RT: 2.084 min Scan# 139
Delta R.T. 0.012 min
Lab File: 3d147174.d
Acq: 3 May 2019 8:27 am

Tgt Ion: 94 Resp: 599

Ion	Ratio	Lower	Upper
94	100		
96	86.9	62.5	122.5
79	0.0	0.0	41.3

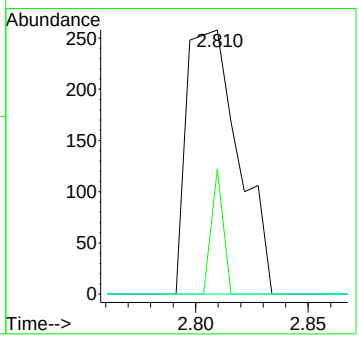


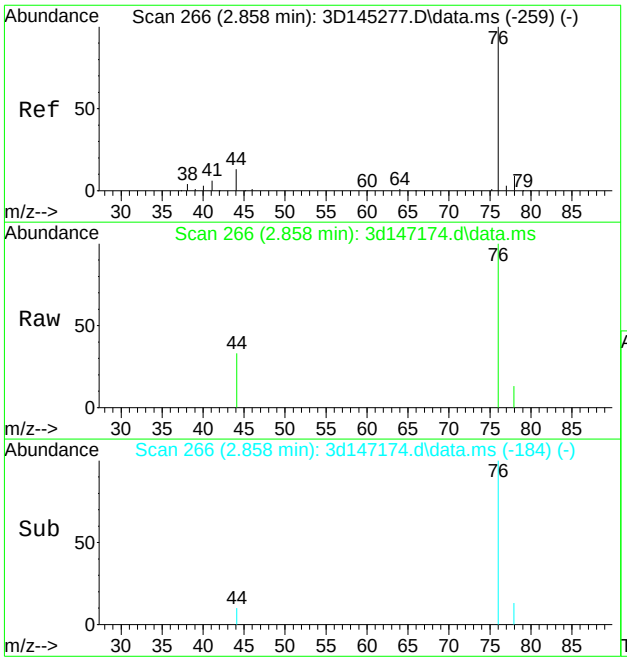


#21
iodomethane
Concen: 0.42 ug/L
RT: 2.810 min Scan# 258
Delta R.T. 0.007 min
Lab File: 3d147174.d
Acq: 3 May 2019 8:27 am

Tgt Ion:142 Resp: 414

Ion	Ratio	Lower	Upper
142	100		
127	47.3	7.3	67.3
141	0.0	0.0	43.2

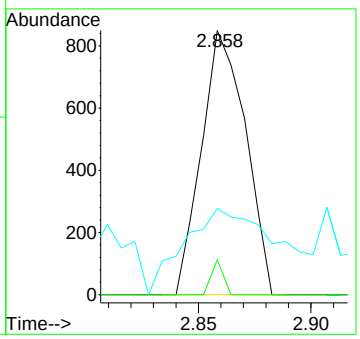


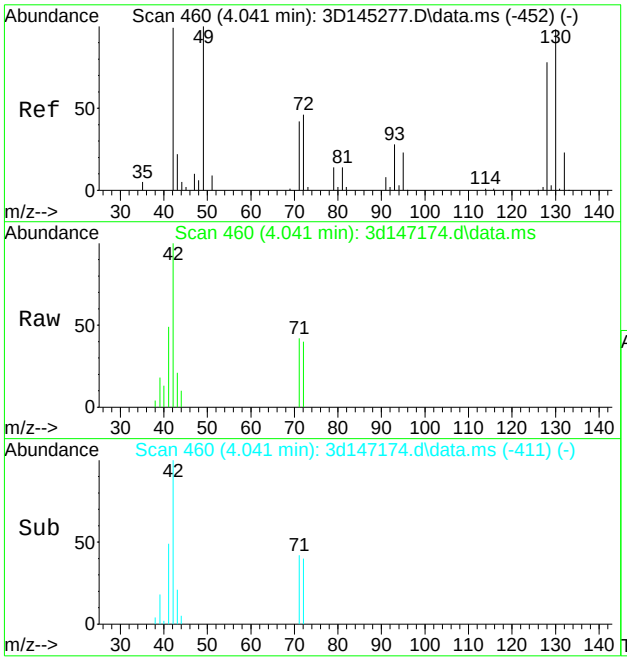


#22
carbon disulfide
Concen: 0.18 ug/L
RT: 2.858 min Scan# 266
Delta R.T. 0.000 min
Lab File: 3d147174.d
Acq: 3 May 2019 8:27 am

Tgt Ion: 76 Resp: 1158

Ion	Ratio	Lower	Upper
76	100		
78	13.2	0.0	39.3
44	19.8	0.0	42.7

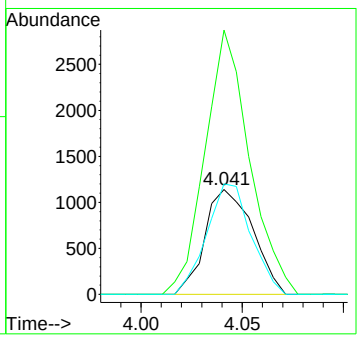


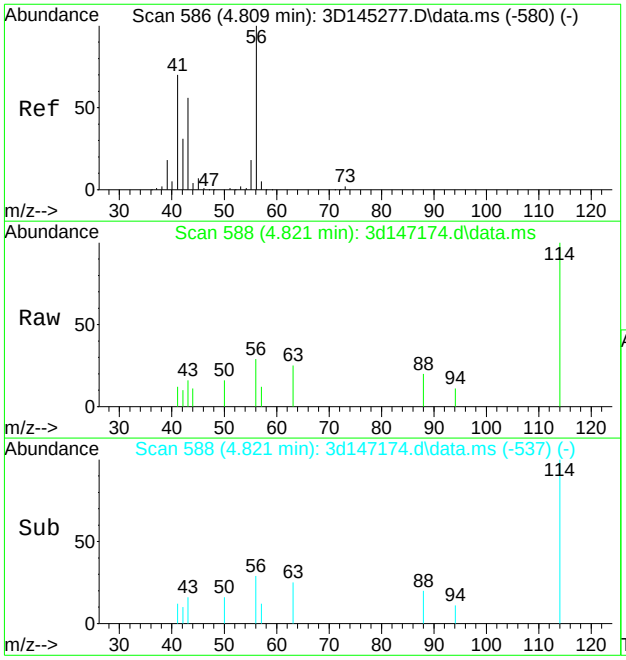


#41
tetrahydrofuran
Concen: 3.47 ug/L
RT: 4.041 min Scan# 460
Delta R.T. 0.000 min
Lab File: 3d147174.d
Acq: 3 May 2019 8:27 am

Tgt Ion: 72 Resp: 1879

Ion	Ratio	Lower	Upper
72	100		
42	252.3	190.1	250.1#
71	105.4	61.4	121.4

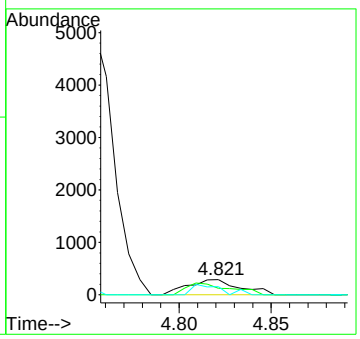


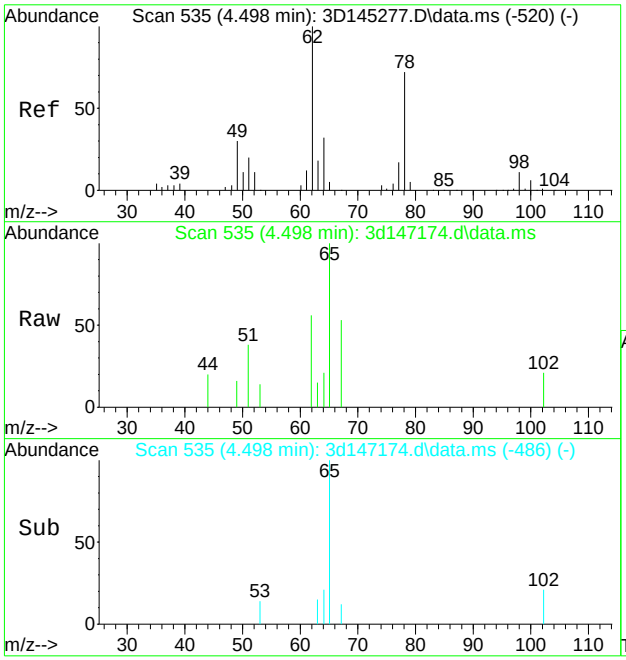


#54
n-butyl alcohol
Concen: 3.63 ug/L
RT: 4.821 min Scan# 588
Delta R.T. 0.012 min
Lab File: 3d147174.d
Acq: 3 May 2019 8:27 am

Tgt Ion: 56 Resp: 571

Ion	Ratio	Lower	Upper
56	100		
41	42.4	39.8	99.8
43	53.8	25.5	85.5

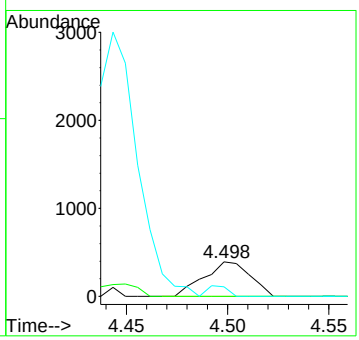


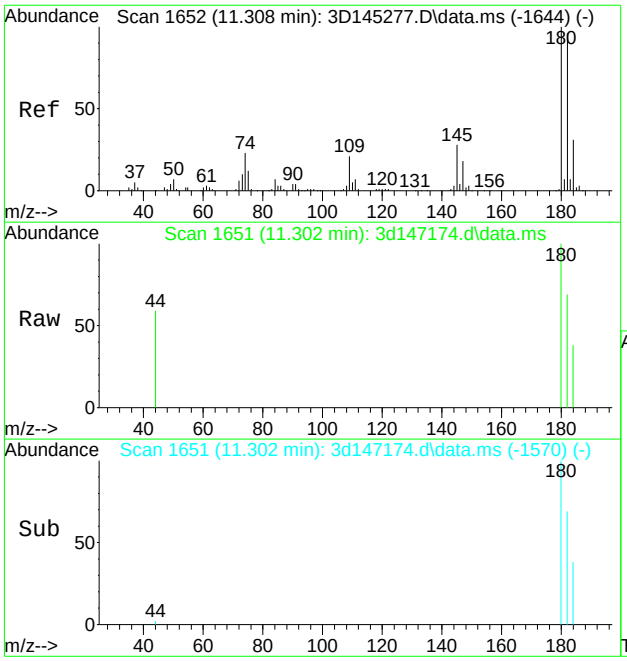


#60
1,2-dichloroethane
Concen: 0.18 ug/L
RT: 4.498 min Scan# 535
Delta R.T. 0.000 min
Lab File: 3d147174.d
Acq: 3 May 2019 8:27 am

Tgt Ion: 62 Resp: 623

Ion	Ratio	Lower	Upper
62	100		
98	0.0	0.0	40.6
49	27.7	0.0	59.7

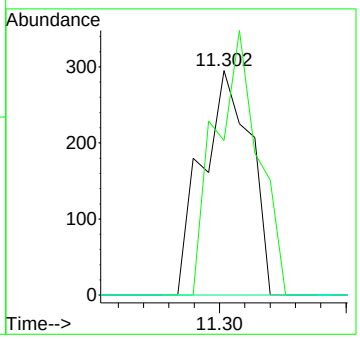


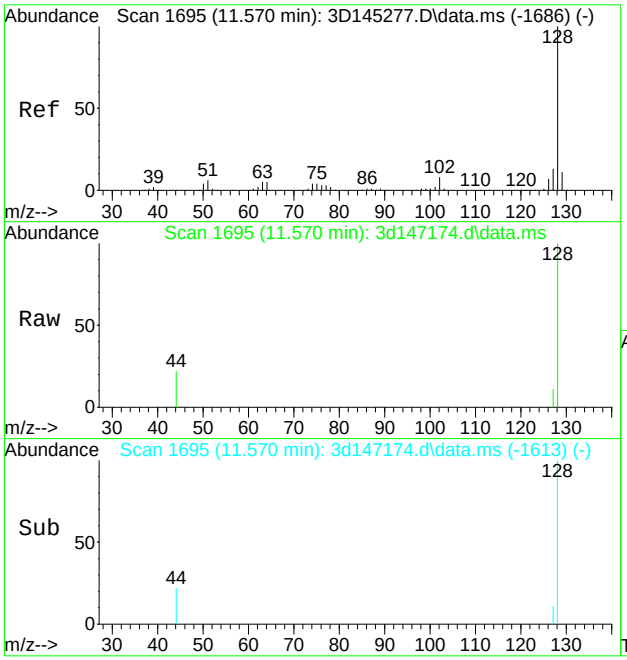


#120
1,2,4-trichlorobenzene
Concen: 0.12 ug/L
RT: 11.302 min Scan# 1651
Delta R.T. -0.006 min
Lab File: 3d147174.d
Acq: 3 May 2019 8:27 am

Tgt Ion:180 Resp: 391

Ion	Ratio	Lower	Upper
180	100		
182	68.8	66.4	126.4
145	0.0	0.0	58.1

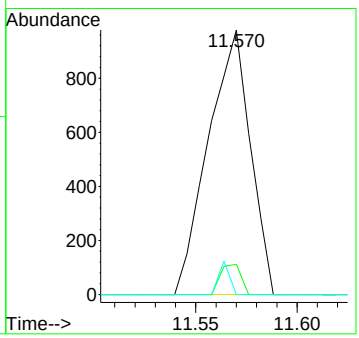


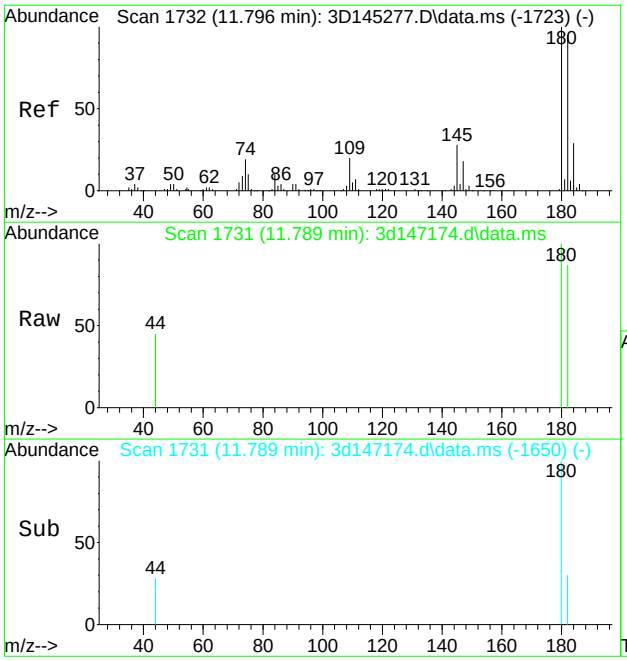


#122
naphthalene
Concen: 0.14 ug/L
RT: 11.570 min Scan# 1695
Delta R.T. -0.000 min
Lab File: 3d147174.d
Acq: 3 May 2019 8:27 am

Tgt Ion:128 Resp: 1412

Ion	Ratio	Lower	Upper
128	100		
127	11.4	0.0	43.1
129	0.0	0.0	40.8

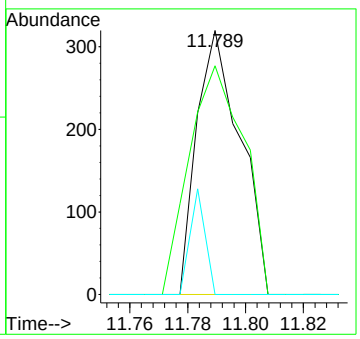




#123
1,2,3-trichlorobenzene
Concen: 0.11 ug/L
RT: 11.789 min Scan# 1731
Delta R.T. -0.006 min
Lab File: 3d147174.d
Acq: 3 May 2019 8:27 am

Tgt Ion:180 Resp: 334

Ion	Ratio	Lower	Upper
180	100		
182	86.6	65.1	125.1
145	0.0	0.0	58.1



7.2.1

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\eunicem050619\v1c7209\
Data File : 1c164270.d
Acq On : 3 May 2019 10:37 am
Operator : EddieH
Sample : mb Inst : GCMS1C
Misc : MS28413,V1C7209,5.0,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M1CS7200.M
Quant Results File: M1CS7200.RES
Quant Time: May 04 23:41:15 2019
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Apr 25 08:03:13 2019
Response via : Initial Calibration

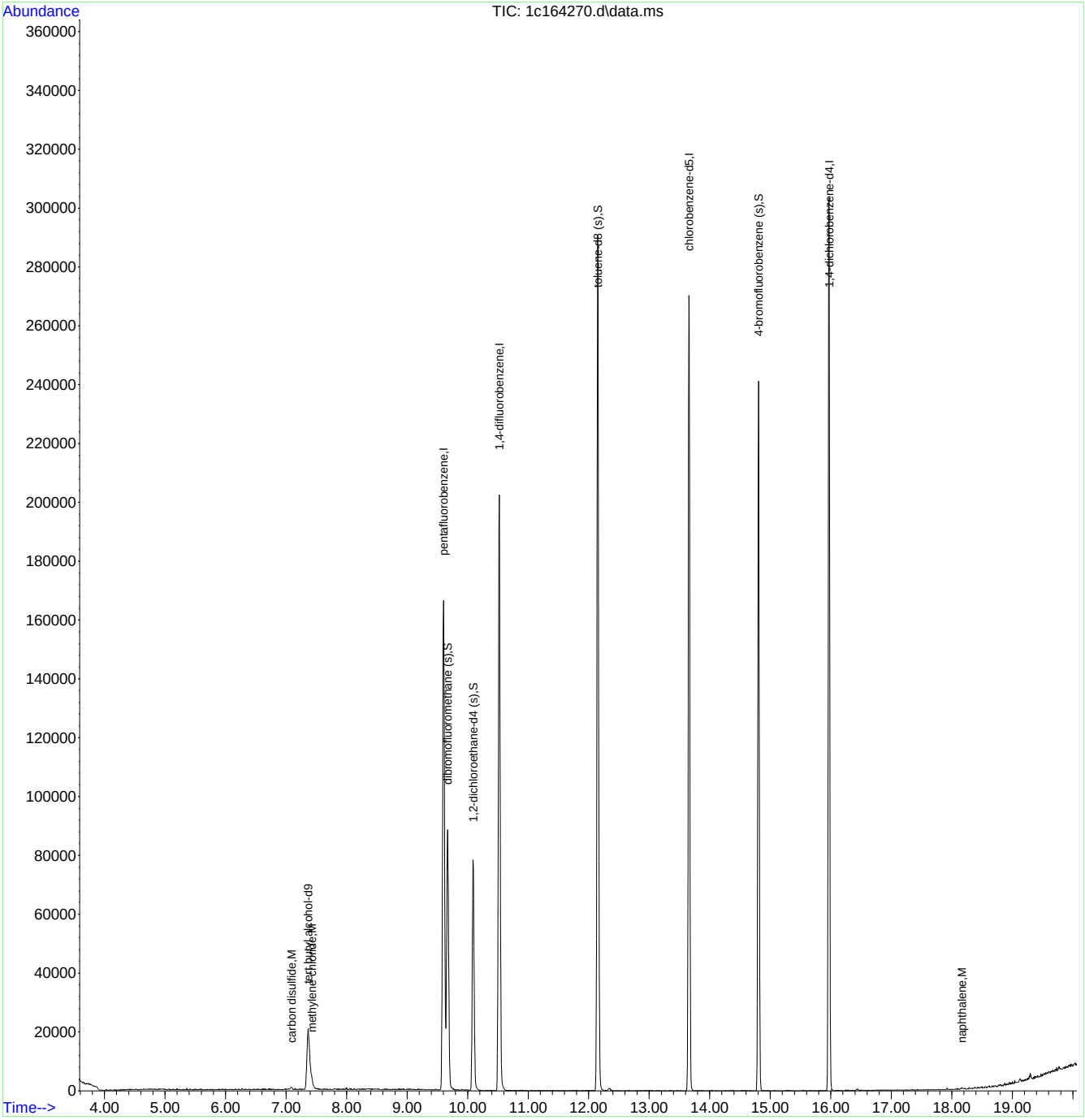
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.364	65	42970	500.00	ug/L	-0.02
5) pentafluorobenzene	9.602	168	141145	50.00	ug/L	0.00
52) 1,4-difluorobenzene	10.523	114	184907	50.00	ug/L	0.00
74) chlorobenzene-d5	13.656	117	151999	50.00	ug/L	0.00
97) 1,4-dichlorobenzene-d4	15.973	152	82369	50.00	ug/L	0.00
System Monitoring Compounds						
44) dibromofluoromethane (s)	9.670	113	60473	50.80	ug/L	0.00
Spiked Amount 50.000	Range 75 - 127		Recovery = 101.60%			
53) 1,2-dichloroethane-d4 (s)	10.094	65	65019	55.97	ug/L	0.00
Spiked Amount 50.000	Range 75 - 130		Recovery = 111.94%			
75) toluene-d8 (s)	12.149	98	206355	50.40	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.80%			
98) 4-bromofluorobenzene (s)	14.806	95	76338	49.37	ug/L	0.00
Spiked Amount 50.000	Range 79 - 127		Recovery = 98.74%			
Target Compounds						Qvalue
22) carbon disulfide	7.092	76	1090	0.29	ug/L	53
23) methylene chloride	7.426	84	808	0.64	ug/L #	80
124) naphthalene	18.164	128	625	0.21	ug/L	68

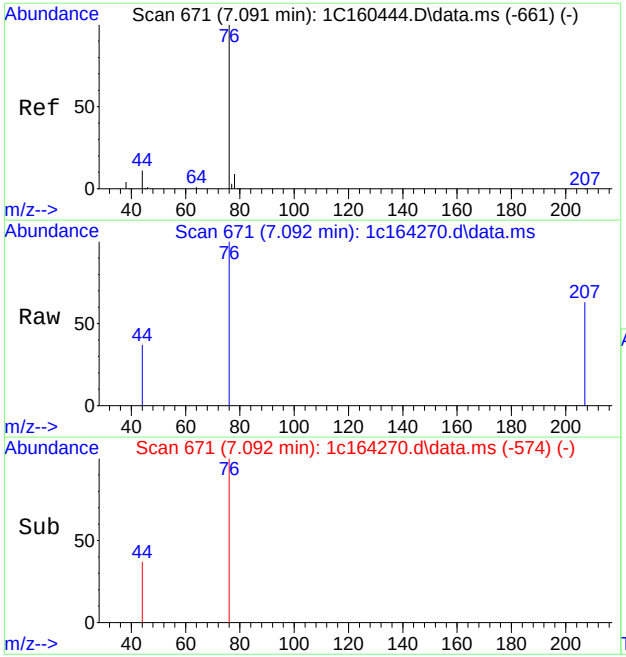
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\eunicem050619\v1c7209\
Data File : 1c164270.d
Acq On : 3 May 2019 10:37 am
Operator : EddieH
Sample : mb Inst : GCMS1C
Misc : MS28413,V1C7209,5.0,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M1CS7200.M
Quant Results File: M1CS7200.RES
Quant Time: May 04 23:41:15 2019
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Apr 25 08:03:13 2019
Response via : Initial Calibration

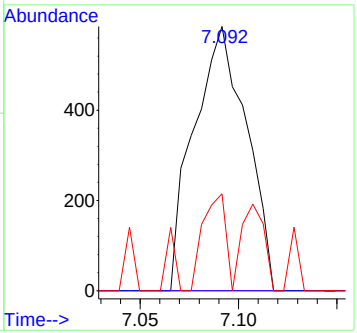


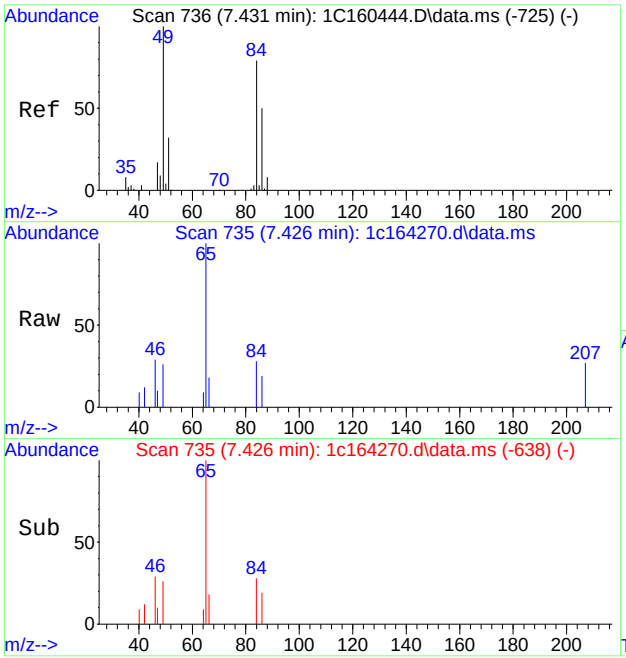


#22
carbon disulfide
Concen: 0.29 ug/L
RT: 7.092 min Scan# 671
Delta R.T. 0.005 min
Lab File: 1c164270.d
Acq: 3 May 2019 10:37 am

Tgt Ion: 76 Resp: 1090

Ion	Ratio	Lower	Upper
76	100		
78	0.0	0.0	39.3
44	36.7	0.0	42.1

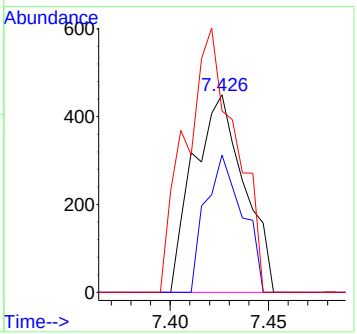


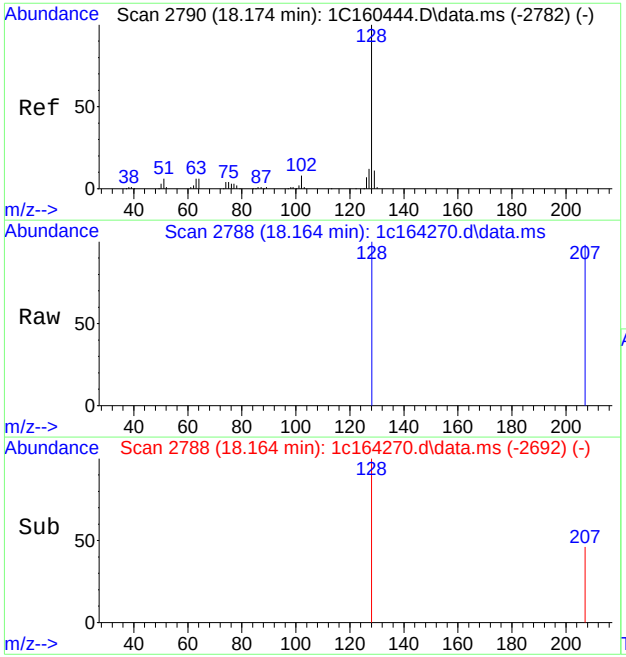


#23
methylene chloride
Concen: 0.64 ug/L
RT: 7.426 min Scan# 735
Delta R.T. 0.005 min
Lab File: 1c164270.d
Acq: 3 May 2019 10:37 am

Tgt Ion: 84 Resp: 808

Ion	Ratio	Lower	Upper
84	100		
86	69.6	33.8	93.8
49	91.8	91.8	151.8#

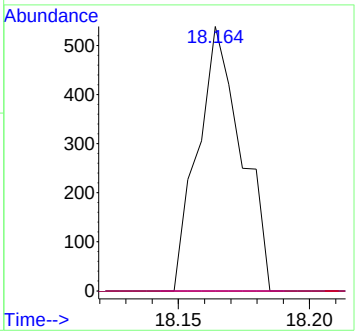




#124
naphthalene
Concen: 0.21 ug/L
RT: 18.164 min Scan# 2788
Delta R.T. 0.000 min
Lab File: 1c164270.d
Acq: 3 May 2019 10:37 am

Tgt Ion:128 Resp: 625

Ion	Ratio	Lower	Upper
128	100		
127	0.0	0.0	43.5
129	0.0	0.0	41.2



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\may 6\v3d6294\
Data File : 3d147171.d
Acq On : 3 May 2019 7:00 am
Operator : EddieH
Sample : bs Inst : MS3D
Misc : MS34467,V3D6294,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3D6212.M
Quant Results File: M3D6212.RES
Quant Time: May 03 09:18:46 2019
Quant Title : SW846 8260C/ EPA 624, Rxi-624 60 m x 0.25 mm x 1.4Fri Mar 08 17:11:15 2019
QLast Update : Fri Mar 08 17:11:15 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	2.986	65	218037	500.00	ug/L	0.00
5) pentafluorobenzene	4.193	168	366532	50.00	ug/L	0.00
52) 1,4-difluorobenzene	4.754	114	493925	50.00	ug/L	0.00
74) chlorobenzene-d5	7.144	117	433093	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	9.339	152	212569	50.00	ug/L	0.00
System Monitoring Compounds						
44) dibromofluoromethane (s)	4.193	113	133403	51.22	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.44%			
53) 1,2-dichloroethane-d4 (s)	4.443	65	136651	49.27	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 98.54%			
75) toluene-d8 (s)	5.894	98	560093	50.92	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.84%			
99) 4-bromofluorobenzene (s)	8.223	95	194155	48.37	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 96.74%			
Target Compounds						Qvalue
2) tertiary butyl alcohol	3.041	59	137270	243.21	ug/L	100
3) ethanol	2.419	45	270097	5160.58	ug/L	99
4) 1,4-dioxane	5.181	88	65407	1287.43	ug/L	99
6) chlorodifluoromethane	1.615	51	134601	40.38	ug/L	99
7) dichlorodifluoromethane	1.602	85	169734	45.95	ug/L	99
8) chloromethane	1.749	50	163228	47.51	ug/L	98
9) vinyl chloride	1.834	62	176118	50.59	ug/L	100
10) 1,3-butadiene	1.865	54	131622	45.72	ug/L	99
11) bromomethane	2.072	94	69035	53.01	ug/L	98
12) chloroethane	2.157	64	105994	49.22	ug/L	98
13) trichlorofluoromethane	2.334	101	187699	42.89	ug/L	98
14) vinyl bromide	2.291	106	105736	52.04	ug/L	99
15) ethyl ether	2.511	74	83370	51.43	ug/L	99
16) acrolein	2.608	56	33023	51.59	ug/L	98
17) freon 113	2.688	151	99699	41.58	ug/L	98
18) 1,1-dichloroethene	2.694	96	117466	48.31	ug/L	92
19) acetone	2.694	58	72294	197.81	ug/L	91
20) acetonitrile	2.877	41	259277	465.00	ug/L	99
21) iodomethane	2.803	142	79318	78.78	ug/L	95
22) carbon disulfide	2.858	76	293181	44.23	ug/L	98
23) methylene chloride	3.011	84	129532	47.47	ug/L	98
24) methyl acetate	2.901	43	139589	46.07	ug/L	98
25) methyl tert butyl ether	3.175	73	407879	50.15	ug/L	99
26) trans-1,2-dichloroethene	3.194	96	127502	46.64	ug/L	99
27) di-isopropyl ether	3.480	45	454536	49.66	ug/L	98
28) 2-butanone	3.834	72	99247	200.51	ug/L	93
29) 1,1-dichloroethane	3.486	63	226110	49.20	ug/L	98
30) chloroprene	3.535	53	201134	45.89	ug/L	99
31) acrylonitrile	3.151	53	70498	50.20	ug/L	99
32) hexane	3.377	56	95818	41.60	ug/L	99
33) vinyl acetate	3.456	86	39318	50.26	ug/L	98
34) ethyl tert-butyl ether	3.724	59	431595	49.61	ug/L	99
35) ethyl acetate	3.846	45	28703	46.66	ug/L #	25
36) 2,2-dichloropropane	3.876	77	192775	48.65	ug/L	99
37) cis-1,2-dichloroethene	3.864	96	143667	48.85	ug/L	98
38) methyl acrylate	3.895	85	29559	51.19	ug/L	99
39) propionitrile	3.876	54	301872	495.86	ug/L	82
40) bromochloromethane	4.029	128	68421	52.29	ug/L	96
41) tetrahydrofuran	4.041	72	26021	47.29	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\may 6\v3d6294\
Data File : 3d147171.d
Acq On : 3 May 2019 7:00 am
Operator : EddieH
Sample : bs Inst : MS3D
Misc : MS34467,V3D6294,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3D6212.M
Quant Results File: M3D6212.RES
Quant Time: May 03 09:18:46 2019
Quant Title : SW846 8260C/ EPA 624, Rxi-624 60 m x 0.25 mm x 1.4Fri Mar 08 17:11:15 2019
QLast Update : Fri Mar 08 17:11:15 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
42) chloroform	4.084	85	141441	47.17	ug/L	97
43) t-butyl formate	4.102	59	123847	49.60	ug/L	95
45) methacrylonitrile	3.986	67	75550	51.70	ug/L	100
46) 1,1,1-trichloroethane	4.230	97	191050	46.33	ug/L	99
47) cyclohexane	4.291	84	193021	44.11	ug/L	95
48) 1,1-dichloropropene	4.334	75	178147	46.82	ug/L	99
49) iso-butyl alcohol	4.334	43	104943	432.10	ug/L	99
50) carbon tetrachloride	4.340	117	162988	48.38	ug/L	98
51) tert amyl alcohol	4.425	55	46321	222.84	ug/L	93
54) n-butyl alcohol	4.809	56	383558	2409.64	ug/L	97
55) 2,2,4-trimethylpentane	4.547	57	376158	53.70	ug/L	94
56) benzene	4.480	78	536216	50.41	ug/L	100
57) tert-amyl methyl ether	4.541	87	103287	49.95	ug/L	92
58) heptane	4.657	71	91718	50.70	ug/L	99
59) isopropyl acetate	4.449	87	45377	51.71	ug/L	99
60) 1,2-dichloroethane	4.498	62	169103	47.29	ug/L	98
61) trichloroethene	4.949	130	140180	48.96	ug/L	99
62) ethyl acrylate	4.962	55	227554	52.10	ug/L	99
63) 2-nitropropane	5.486	41	43364	55.23	ug/L	92
64) 2-chloroethyl vinyl ether	5.522	63	543893	304.44	ug/L	100
65) methyl methacrylate	5.144	69	168918	48.64	ug/L	94
66) 1,2-dichloropropane	5.138	63	134663	52.32	ug/L	100
67) dibromomethane	5.212	93	79469	52.61	ug/L	99
68) methylcyclohexane	5.138	83	213032	47.31	ug/L	99
69) bromodichloromethane	5.327	83	169402	53.81	ug/L	98
70) epichlorohydrin	5.571	57	111392	261.67	ug/L	96
71) cis-1,3-dichloropropene	5.669	75	217829	52.69	ug/L	96
72) 4-methyl-2-pentanone	5.766	58	306632	208.76	ug/L	99
73) 3-methyl-1-butanol	5.785	55	220677	976.78	ug/L	97
76) toluene	5.955	92	341085	48.57	ug/L	99
77) trans-1,3-dichloropropene	6.120	75	196552	50.05	ug/L	98
78) ethyl methacrylate	6.144	69	212475	51.65	ug/L	97
79) 1,1,2-trichloroethane	6.291	83	101921	51.27	ug/L	97
80) tetrachloroethene	6.394	164	123543	50.21	ug/L	98
81) 1,3-dichloropropane	6.437	76	213809	51.48	ug/L	99
82) 2-hexanone	6.455	58	316544	203.08	ug/L	96
83) butyl acetate	6.541	56	126299	51.30	ug/L	98
84) dibromochloromethane	6.626	129	134438	57.09	ug/L	99
85) 1,2-dibromoethane	6.742	107	146924	46.56	ug/L	99
86) n-butyl ether	7.223	57	556989	49.59	ug/L	100
87) chlorobenzene	7.168	112	359559	48.08	ug/L	99
88) 1,1,1,2-tetrachloroethane	7.242	131	129253	52.78	ug/L	97
89) ethylbenzene	7.248	91	635675	49.44	ug/L	98
90) m,p-xylene	7.364	106	497789	98.58	ug/L	98
91) o-xylene	7.717	106	240950	49.52	ug/L	99
92) styrene	7.729	104	408907	50.10	ug/L	97
93) bromoform	7.906	173	105786	60.58	ug/L	98
94) butyl acrylate	7.638	55	309460	53.45	ug/L	97
95) n-amyl acetate	7.845	70	129621	51.72	ug/L	94
96) isopropylbenzene	8.052	105	614467	50.03	ug/L	99
97) cis-1,4-dichloro-2-butene	8.101	88	61389	46.60	ug/L	96
100) bromobenzene	8.369	156	161119	47.78	ug/L	95
101) 1,1,2,2-tetrachloroethane	8.333	83	182872	49.59	ug/L	98
102) trans-1,4-dichloro-2-b...	8.369	53	47201	42.91	ug/L	87
103) 1,2,3-trichloropropane	8.394	110	59133	46.31	ug/L	99
104) n-propylbenzene	8.449	91	694751	47.84	ug/L	99
105) 2-chlorotoluene	8.546	126	146058	48.30	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\may 6\v3d6294\
Data File : 3d147171.d
Acq On : 3 May 2019 7:00 am
Operator : EddieH
Sample : bs Inst : MS3D
Misc : MS34467,V3D6294,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3D6212.M
Quant Results File: M3D6212.RES
Quant Time: May 03 09:18:46 2019
Quant Title : SW846 8260C/ EPA 624, Rxi-624 60 m x 0.25 mm x 1.4Fri Mar 08 17:11:15 2019
QLast Update : Fri Mar 08 17:11:15 2019
Response via : Initial Calibration

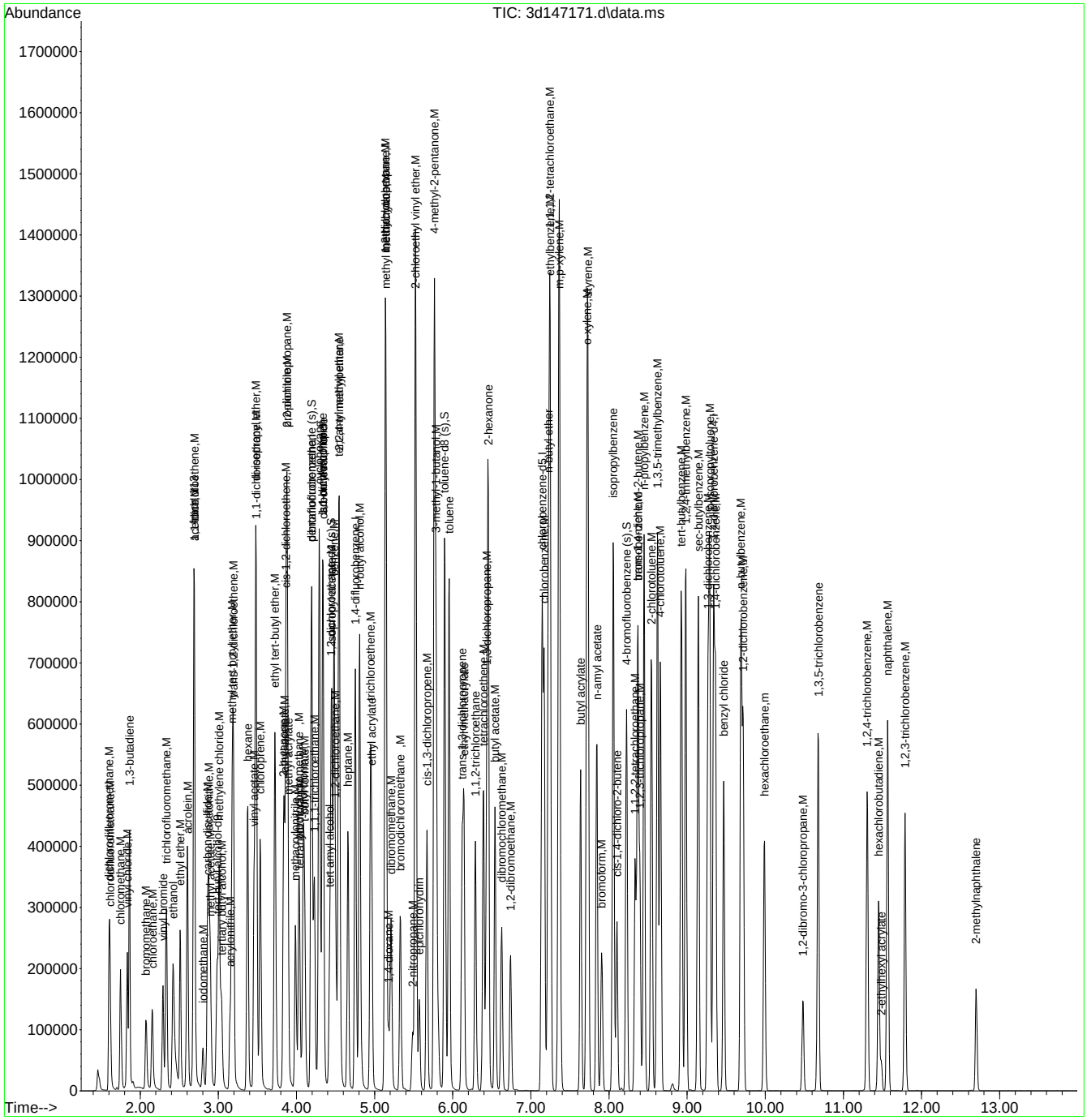
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
106) 4-chlorotoluene	8.656	126	143558	47.42	ug/L	100
107) 1,3,5-trimethylbenzene	8.619	105	491087	47.93	ug/L	98
108) tert-butylbenzene	8.924	134	110318	48.32	ug/L	98
109) 1,2,4-trimethylbenzene	8.985	105	486446	48.14	ug/L	99
110) sec-butylbenzene	9.144	105	588700	49.20	ug/L	99
111) 1,3-dichlorobenzene	9.266	146	286951	48.15	ug/L	99
112) p-isopropyltoluene	9.290	119	508726	48.79	ug/L	99
113) 1,4-dichlorobenzene	9.363	146	287683	47.57	ug/L	97
114) benzyl chloride	9.467	91	365262	51.79	ug/L	98
115) 1,2-dichlorobenzene	9.717	146	273765	48.09	ug/L	98
116) n-butylbenzene	9.686	92	233289	50.63	ug/L	97
117) 1,2-dibromo-3-chloropr...	10.479	75	34674	45.72	ug/L	95
118) 1,3,5-trichlorobenzene	10.680	180	204170	50.75	ug/L	98
119) 2-ethylhexyl acrylate	11.485	70	12863	6.61	ug/L	96
120) 1,2,4-trichlorobenzene	11.302	180	176085	50.55	ug/L	98
121) hexachlorobutadiene	11.448	225	68630	50.04	ug/L	97
122) naphthalene	11.564	128	502810	45.48	ug/L	99
123) 1,2,3-trichlorobenzene	11.790	180	156538	49.06	ug/L	100
124) hexachloroethane	9.991	201	87382	59.57	ug/L	94
125) 2-methylnaphthalene	12.698	142	83144	18.30	ug/L	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\may 6\v3d6294\
Data File : 3d147171.d
Acq On : 3 May 2019 7:00 am
Operator : EddieH
Sample : bs Inst : MS3D
Misc : MS34467,V3D6294,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3D6212.M
Quant Results File: M3D6212.RES
Quant Time: May 03 09:18:46 2019
Quant Title : SW846 8260C/ EPA 624, Rxi-624 60 m x 0.25 mm x 1.4Fri Mar 08 17:11:15 2019
QLast Update : Fri Mar 08 17:11:15 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\may 6\v3d6294\
Data File : 3d147172.d
Acq On : 3 May 2019 7:25 am
Operator : EddieH
Sample : bsd Inst : MS3D
Misc : MS34467,V3D6294,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3D6212.M
Quant Results File: M3D6212.RES
Quant Time: May 03 09:18:50 2019
Quant Title : SW846 8260C/ EPA 624, Rxi-624 60 m x 0.25 mm x 1.4Fri Mar 08 17:11:15 2019
QLast Update : Fri Mar 08 17:11:15 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	2.980	65	228625	500.00	ug/L		0.00
5) pentafluorobenzene	4.188	168	361417	50.00	ug/L		0.00
52) 1,4-difluorobenzene	4.755	114	496784	50.00	ug/L		0.00
74) chlorobenzene-d5	7.144	117	430520	50.00	ug/L		0.00
98) 1,4-dichlorobenzene-d4	9.339	152	211381	50.00	ug/L		0.00
System Monitoring Compounds							
44) dibromofluoromethane (s)	4.194	113	131129	51.06	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.12%				
53) 1,2-dichloroethane-d4 (s)	4.444	65	138866	49.78	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 99.56%				
75) toluene-d8 (s)	5.895	98	555807	50.83	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.66%				
99) 4-bromofluorobenzene (s)	8.223	95	193217	48.41	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 96.82%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	3.035	59	143537	242.54	ug/L		99
3) ethanol	2.420	45	281072	5121.57	ug/L		96
4) 1,4-dioxane	5.181	88	68746	1290.49	ug/L		94
6) chlorodifluoromethane	1.615	51	129770	39.48	ug/L		100
7) dichlorodifluoromethane	1.603	85	161791	44.42	ug/L		98
8) chloromethane	1.749	50	161813	47.77	ug/L		98
9) vinyl chloride	1.834	62	172230	50.17	ug/L		99
10) 1,3-butadiene	1.859	54	125863	44.33	ug/L		97
11) bromomethane	2.072	94	72497	56.45	ug/L		99
12) chloroethane	2.151	64	105508	49.69	ug/L		98
13) trichlorofluoromethane	2.334	101	185224	42.92	ug/L		98
14) vinyl bromide	2.285	106	103840	51.83	ug/L		99
15) ethyl ether	2.511	74	82801	51.80	ug/L		99
16) acrolein	2.609	56	32935	52.18	ug/L		98
17) freon 113	2.688	151	96091	40.64	ug/L		98
18) 1,1-dichloroethene	2.688	96	114726	47.85	ug/L		98
19) acetone	2.694	58	73117	202.89	ug/L		87
20) acetonitrile	2.877	41	263440	479.15	ug/L		99
21) iodomethane	2.804	142	79307	79.88	ug/L		98
22) carbon disulfide	2.859	76	285345	43.65	ug/L		98
23) methylene chloride	3.011	84	127069	47.23	ug/L		99
24) methyl acetate	2.895	43	142199	47.59	ug/L		100
25) methyl tert butyl ether	3.176	73	405911	50.62	ug/L		99
26) trans-1,2-dichloroethene	3.194	96	124513	46.20	ug/L		99
27) di-isopropyl ether	3.480	45	447953	49.63	ug/L		98
28) 2-butanone	3.834	72	102208	209.41	ug/L		94
29) 1,1-dichloroethane	3.480	63	219710	48.49	ug/L		99
30) chloroprene	3.535	53	196614	45.49	ug/L		99
31) acrylonitrile	3.145	53	71188	51.41	ug/L		99
32) hexane	3.371	56	91904	40.47	ug/L		99
33) vinyl acetate	3.456	86	39577	51.30	ug/L		98
34) ethyl tert-butyl ether	3.724	59	428192	49.92	ug/L		99
35) ethyl acetate	3.846	45	29351	48.38	ug/L	#	41
36) 2,2-dichloropropane	3.877	77	186010	47.61	ug/L		99
37) cis-1,2-dichloroethene	3.864	96	142172	49.03	ug/L		99
38) methyl acrylate	3.889	85	30609	53.76	ug/L	#	84
39) propionitrile	3.877	54	309672	515.87	ug/L		83
40) bromochloromethane	4.029	128	67246	52.12	ug/L		94
41) tetrahydrofuran	4.041	72	27161	50.06	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\may 6\v3d6294\
Data File : 3d147172.d
Acq On : 3 May 2019 7:25 am
Operator : EddieH
Sample : bsd Inst : MS3D
Misc : MS34467,V3D6294,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3D6212.M
Quant Results File: M3D6212.RES
Quant Time: May 03 09:18:50 2019
Quant Title : SW846 8260C/ EPA 624, Rxi-624 60 m x 0.25 mm x 1.4Fri Mar 08 17:11:15 2019
QLast Update : Fri Mar 08 17:11:15 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
42) chloroform	4.084	85	138222	46.75	ug/L	95
43) t-butyl formate	4.102	59	124974	50.76	ug/L	95
45) methacrylonitrile	3.986	67	76536	53.12	ug/L	98
46) 1,1,1-trichloroethane	4.230	97	188269	46.30	ug/L	99
47) cyclohexane	4.291	84	185554	43.00	ug/L	92
48) 1,1-dichloropropene	4.334	75	171511	45.72	ug/L	98
49) iso-butyl alcohol	4.334	43	115679	483.05	ug/L	96
50) carbon tetrachloride	4.340	117	158650	47.76	ug/L	98
51) tert amyl alcohol	4.425	55	48459	236.43	ug/L	94
54) n-butyl alcohol	4.809	56	402861	2516.34	ug/L	97
55) 2,2,4-trimethylpentane	4.547	57	363361	51.58	ug/L	95
56) benzene	4.480	78	525775	49.14	ug/L	99
57) tert-amyl methyl ether	4.541	87	103255	49.65	ug/L	96
58) heptane	4.657	71	89326	49.09	ug/L	98
59) isopropyl acetate	4.450	87	45450	51.49	ug/L	96
60) 1,2-dichloroethane	4.498	62	169879	47.24	ug/L	98
61) trichloroethene	4.950	130	138177	47.98	ug/L	99
62) ethyl acrylate	4.962	55	230348	52.44	ug/L	98
63) 2-nitropropane	5.486	41	44653	56.55	ug/L	89
64) 2-chloroethyl vinyl ether	5.523	63	549404	305.75	ug/L	99
65) methyl methacrylate	5.139	69	168412	48.21	ug/L	97
66) 1,2-dichloropropane	5.139	63	133599	51.60	ug/L	99
67) dibromomethane	5.212	93	79387	52.25	ug/L	99
68) methylcyclohexane	5.139	83	204854	45.23	ug/L	99
69) bromodichloromethane	5.328	83	169482	53.53	ug/L	98
70) epichlorohydrin	5.571	57	114457	267.32	ug/L	96
71) cis-1,3-dichloropropene	5.669	75	214496	51.58	ug/L	97
72) 4-methyl-2-pentanone	5.766	58	314992	213.21	ug/L	96
73) 3-methyl-1-butanol	5.785	55	231517	1018.87	ug/L	98
76) toluene	5.955	92	334514	47.92	ug/L	99
77) trans-1,3-dichloropropene	6.120	75	195121	49.98	ug/L	99
78) ethyl methacrylate	6.144	69	213126	52.12	ug/L	97
79) 1,1,2-trichloroethane	6.291	83	102722	51.98	ug/L	97
80) tetrachloroethene	6.394	164	121881	49.83	ug/L	97
81) 1,3-dichloropropane	6.431	76	212437	51.46	ug/L	96
82) 2-hexanone	6.455	58	322699	208.26	ug/L	96
83) butyl acetate	6.541	56	128158	52.37	ug/L	99
84) dibromochloromethane	6.626	129	134328	57.38	ug/L	99
85) 1,2-dibromoethane	6.736	107	147585	47.05	ug/L	99
86) n-butyl ether	7.224	57	550913	49.34	ug/L	99
87) chlorobenzene	7.169	112	351787	47.32	ug/L	98
88) 1,1,1,2-tetrachloroethane	7.242	131	126717	52.06	ug/L	99
89) ethylbenzene	7.248	91	626703	49.03	ug/L	99
90) m,p-xylene	7.364	106	487487	97.11	ug/L	99
91) o-xylene	7.717	106	238085	49.22	ug/L	99
92) styrene	7.730	104	407047	50.17	ug/L	97
93) bromoform	7.906	173	105646	60.86	ug/L	98
94) butyl acrylate	7.638	55	312015	54.21	ug/L	97
95) n-amyl acetate	7.845	70	131168	52.65	ug/L	91
96) isopropylbenzene	8.053	105	602452	49.35	ug/L	99
97) cis-1,4-dichloro-2-butene	8.101	88	63017	48.12	ug/L	96
100) bromobenzene	8.370	156	162280	48.40	ug/L	95
101) 1,1,2,2-tetrachloroethane	8.333	83	184561	50.33	ug/L	99
102) trans-1,4-dichloro-2-b...	8.370	53	47299	43.24	ug/L	89
103) 1,2,3-trichloropropane	8.394	110	59785	47.09	ug/L	99
104) n-propylbenzene	8.449	91	681462	47.19	ug/L	99
105) 2-chlorotoluene	8.540	126	143788	47.82	ug/L	96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\may 6\v3d6294\
Data File : 3d147172.d
Acq On : 3 May 2019 7:25 am
Operator : EddieH
Sample : bsd Inst : MS3D
Misc : MS34467,V3D6294,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3D6212.M
Quant Results File: M3D6212.RES
Quant Time: May 03 09:18:50 2019
Quant Title : SW846 8260C/ EPA 624, Rxi-624 60 m x 0.25 mm x 1.4Fri Mar 08 17:11:15 2019
QLast Update : Fri Mar 08 17:11:15 2019
Response via : Initial Calibration

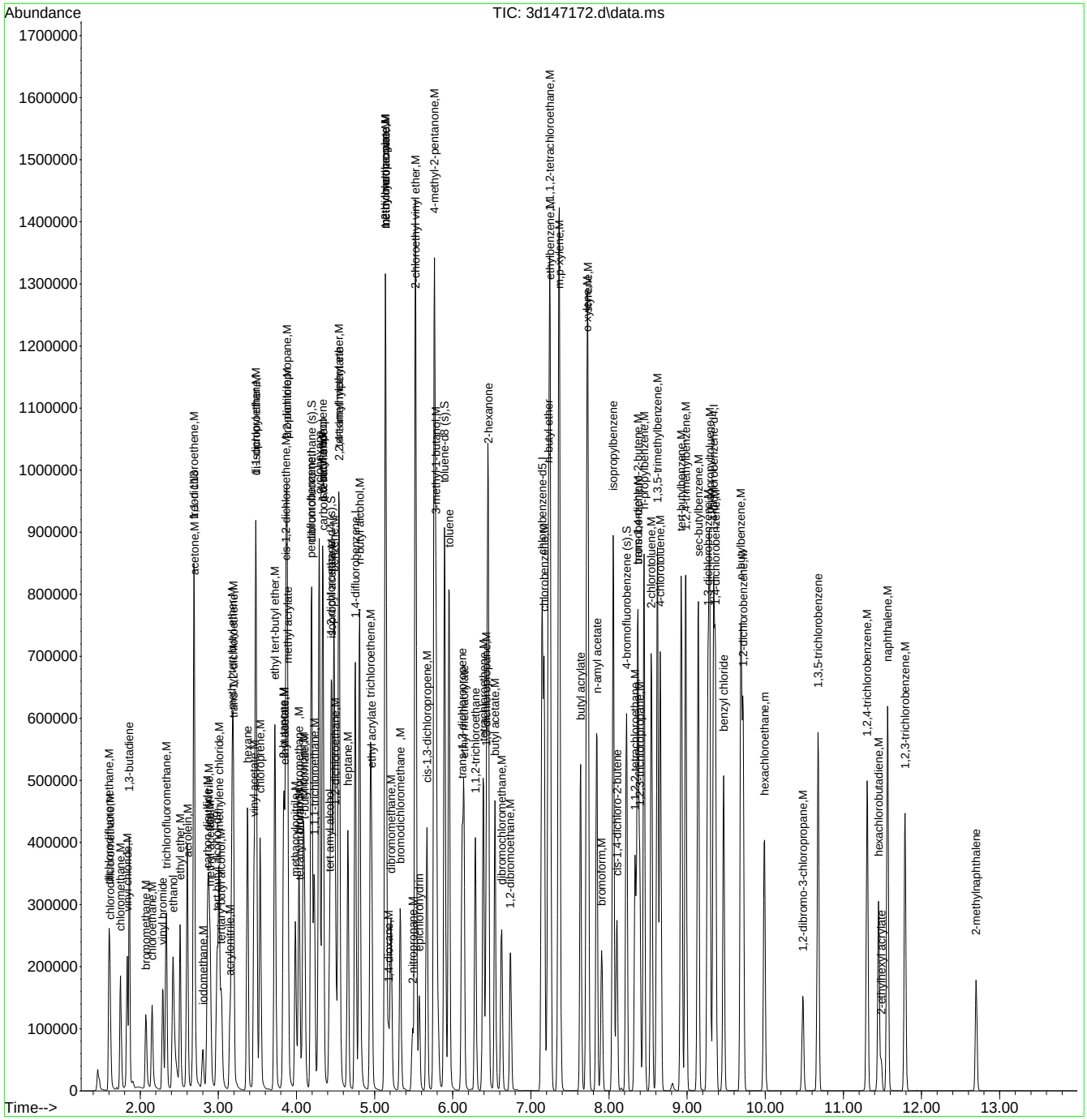
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
106) 4-chlorotoluene	8.656	126	142663	47.39	ug/L	97
107) 1,3,5-trimethylbenzene	8.620	105	480816	47.20	ug/L	98
108) tert-butylbenzene	8.924	134	108746	47.90	ug/L	95
109) 1,2,4-trimethylbenzene	8.985	105	481144	47.88	ug/L	99
110) sec-butylbenzene	9.144	105	578495	48.62	ug/L	99
111) 1,3-dichlorobenzene	9.266	146	283493	47.84	ug/L	98
112) p-isopropyltoluene	9.290	119	500337	48.25	ug/L	99
113) 1,4-dichlorobenzene	9.363	146	286965	47.71	ug/L	98
114) benzyl chloride	9.467	91	365699	52.14	ug/L	98
115) 1,2-dichlorobenzene	9.717	146	273766	48.36	ug/L	99
116) n-butylbenzene	9.686	92	227482	49.64	ug/L	97
117) 1,2-dibromo-3-chloropr...	10.479	75	35596	47.20	ug/L	97
118) 1,3,5-trichlorobenzene	10.674	180	200633	50.15	ug/L	99
119) 2-ethylhexyl acrylate	11.485	70	13017	6.73	ug/L	94
120) 1,2,4-trichlorobenzene	11.302	180	175608	50.70	ug/L	98
121) hexachlorobutadiene	11.448	225	68783	50.44	ug/L	99
122) naphthalene	11.564	128	513626	46.72	ug/L	100
123) 1,2,3-trichlorobenzene	11.790	180	158475	49.95	ug/L	97
124) hexachloroethane	9.991	201	85708	58.76	ug/L	96
125) 2-methylnaphthalene	12.698	142	90218	19.97	ug/L	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\may 6\v3d6294\
Data File : 3d147172.d
Acq On : 3 May 2019 7:25 am
Operator : EddieH
Sample : bsd Inst : MS3D
Misc : MS34467,V3D6294,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3D6212.M
Quant Results File: M3D6212.RES
Quant Time: May 03 09:18:50 2019
Quant Title : SW846 8260C/ EPA 624, Rxi-624 60 m x 0.25 mm x 1.4Fri Mar 08 17:11:15 2019
QLast Update : Fri Mar 08 17:11:15 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\eunicem050619\v1c7209\
Data File : 1c164268.d
Acq On : 3 May 2019 9:33 am
Operator : EddieH
Sample : bs Inst : GCMS1C
Misc : MS34463,V1C7209,5.0,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M1CS7200.M
Quant Results File: M1CS7200.RES
Quant Time: May 04 23:39:56 2019
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Apr 25 08:03:13 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.364	65	43450	500.00	ug/L	-0.02
5) pentafluorobenzene	9.602	168	146789	50.00	ug/L	0.00
52) 1,4-difluorobenzene	10.523	114	197638	50.00	ug/L	0.00
74) chlorobenzene-d5	13.661	117	157528	50.00	ug/L	0.00
97) 1,4-dichlorobenzene-d4	15.973	152	85065	50.00	ug/L	0.00
System Monitoring Compounds						
44) dibromofluoromethane (s)	9.670	113	62340	50.36	ug/L	0.00
Spiked Amount 50.000	Range 75 - 127		Recovery = 100.72%			
53) 1,2-dichloroethane-d4 (s)	10.089	65	67754	54.57	ug/L	0.00
Spiked Amount 50.000	Range 75 - 130		Recovery = 109.14%			
75) toluene-d8 (s)	12.149	98	213942	50.42	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.84%			
98) 4-bromofluorobenzene (s)	14.806	95	79814	49.98	ug/L	0.00
Spiked Amount 50.000	Range 79 - 127		Recovery = 99.96%			
Target Compounds						Qvalue
2) tertiary butyl alcohol	7.479	59	31504	272.98	ug/L	99
4) 1,4-dioxane	11.255	88	14610	1386.52	ug/L	92
6) chlorodifluoromethane	3.896	51	56970	37.25	ug/L	93
7) dichlorodifluoromethane	3.865	85	90394	41.65	ug/L	99
8) chloromethane	4.278	50	58902	37.01	ug/L	99
9) vinyl chloride	4.513	62	62142	41.48	ug/L	98
10) 1,3-butadiene	4.586	54	36795	39.13	ug/L	98
11) bromomethane	5.198	94	45018	39.43	ug/L	94
12) chloroethane	5.376	64	36575	40.76	ug/L	98
13) trichlorofluoromethane	5.810	101	111386	49.87	ug/L	99
14) vinyl bromide	5.726	106	53419	60.97	ug/L	98
15) ethyl ether	6.255	74	26866	45.03	ug/L	91
16) acrolein	6.537	56	8066	52.62	ug/L	95
17) freon 113	6.616	151	48234	48.83	ug/L	99
18) 1,1-dichloroethene	6.678	96	51660	42.99	ug/L	99
19) acetone	6.752	43	52860	177.05	ug/L	99
20) acetonitrile	7.212	41	49313	396.04	ug/L	99
21) iodomethane	6.971	142	53273	40.08	ug/L	96
22) carbon disulfide	7.086	76	150520	38.78	ug/L	98
23) methylene chloride	7.421	84	56920	43.67	ug/L	95
24) methyl acetate	7.212	43	29653	40.72	ug/L	96
25) methyl tert butyl ether	7.714	73	157247	48.28	ug/L	95
26) trans-1,2-dichloroethene	7.787	96	56818	42.60	ug/L	98
27) di-isopropyl ether	8.305	45	160709	40.09	ug/L	92
28) 2-butanone	9.063	72	21046	187.52	ug/L #	85
29) 1,1-dichloroethane	8.363	63	97347	43.02	ug/L	98
30) chloroprene	8.457	53	87007	44.59	ug/L	98
31) acrylonitrile	7.772	53	14334	43.98	ug/L	99
32) hexane	8.059	57	81206	39.18	ug/L	96
33) vinyl acetate	8.342	86	9442	50.03	ug/L #	60
34) ethyl tert-butyl ether	8.765	59	177982	46.06	ug/L	98
35) ethyl acetate	9.074	45	6047	42.68	ug/L #	54
36) 2,2-dichloropropane	9.084	77	98711	48.92	ug/L	99
37) cis-1,2-dichloroethene	9.095	96	62951	43.73	ug/L	99
38) methyl acrylate	9.152	85	7485	50.64	ug/L #	88
39) propionitrile	9.184	54	62449	439.17	ug/L	99
40) bromochloromethane	9.414	128	30621	48.97	ug/L	89
41) tetrahydrofuran	9.445	72	6059	45.19	ug/L #	85
42) chloroform	9.466	85	72733	45.40	ug/L	97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\eunicem050619\v1c7209\
Data File : 1c164268.d
Acq On : 3 May 2019 9:33 am
Operator : EddieH
Sample : bs Inst : GCMS1C
Misc : MS34463,V1C7209,5.0,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M1CS7200.M
Quant Results File: M1CS7200.RES
Quant Time: May 04 23:39:56 2019
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Apr 25 08:03:13 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
43) t-butyl formate	9.482	59	38765	44.99	ug/L		91
45) methacrylonitrile	9.356	67	18708	45.58	ug/L		94
46) 1,1,1-trichloroethane	9.701	97	106299	51.28	ug/L		98
47) cyclohexane	9.759	84	84030	41.05	ug/L		95
48) 1,1-dichloropropene	9.885	75	79732	45.40	ug/L		96
49) iso-butyl alcohol	9.900	43	18749	404.81	ug/L		96
50) carbon tetrachloride	9.900	117	96084	53.07	ug/L		99
51) tert amyl alcohol	10.015	55	10035	231.93	ug/L		89
54) n-butyl alcohol	10.653	56	69893	2423.49	ug/L		97
55) 2,2,4-trimethylpentane	10.115	57	198627	41.86	ug/L		98
56) benzene	10.151	78	217191	43.89	ug/L		99
57) tert-amyl methyl ether	10.162	87	41127	53.33	ug/L	#	87
58) heptane	10.287	71	46112	43.18	ug/L		93
59) isopropyl acetate	10.062	87	10389	50.75	ug/L	#	91
60) 1,2-dichloroethane	10.183	62	80024	49.74	ug/L		97
61) trichloroethene	10.863	130	64127	50.35	ug/L		98
62) ethyl acrylate	10.857	55	56945	47.64	ug/L		99
64) 2-chloroethyl vinyl ether	11.652	63	140944	239.96	ug/L		96
65) methyl methacrylate	11.119	100	12869	52.04	ug/L	#	70
66) 1,2-dichloropropane	11.135	63	52211	44.31	ug/L		99
67) dibromomethane	11.302	93	34896	50.59	ug/L		92
68) methylcyclohexane	11.056	83	94691	43.11	ug/L		94
69) bromodichloromethane	11.422	83	86491	51.81	ug/L		100
70) epichlorohydrin	11.788	57	23167	244.61	ug/L		99
71) cis-1,3-dichloropropene	11.872	75	92992	48.53	ug/L		98
72) 4-methyl-2-pentanone	11.956	58	62158	181.65	ug/L		95
73) 3-methyl-1-butanol	11.982	55	42459	978.70	ug/L		93
76) toluene	12.222	92	132013	45.79	ug/L		99
77) trans-1,3-dichloropropene	12.432	75	82457	50.83	ug/L		98
78) ethyl methacrylate	12.406	69	57841	50.44	ug/L		95
79) 1,1,2-trichloroethane	12.646	83	37798	49.76	ug/L		96
80) tetrachloroethene	12.798	164	51743	51.61	ug/L		98
81) 1,3-dichloropropane	12.829	76	67416	48.40	ug/L		95
82) 2-hexanone	12.803	58	59098	188.57	ug/L		95
83) butyl acetate	12.871	56	25665	44.93	ug/L		98
84) dibromochloromethane	13.091	129	64782	56.72	ug/L		99
85) 1,2-dibromoethane	13.242	107	52724	43.69	ug/L		98
86) n-butyl ether	13.572	57	187896	43.32	ug/L		96
87) chlorobenzene	13.687	112	143657	49.11	ug/L		97
88) 1,1,1,2-tetrachloroethane	13.750	131	59256	55.70	ug/L		97
89) ethylbenzene	13.734	91	252351	47.61	ug/L		99
90) m,p-xylene	13.839	106	189020	95.99	ug/L		99
91) o-xylene	14.257	106	91531	48.69	ug/L		97
92) styrene	14.267	104	153237	49.15	ug/L		95
93) bromoform	14.550	173	41882	60.43	ug/L		98
94) butyl acrylate	14.074	55	87765	48.07	ug/L		97
95) isopropylbenzene	14.587	105	249011	49.24	ug/L		99
96) cis-1,4-dichloro-2-butene	14.681	88	25693	59.85	ug/L		88
99) bromobenzene	15.000	156	66634	49.89	ug/L		94
100) 1,1,2,2-tetrachloroethane	14.916	83	50469	48.18	ug/L		93
101) trans-1,4-dichloro-2-b...	14.958	53	15171	53.22	ug/L		97
102) 1,2,3-trichloropropane	14.994	110	14040	51.95	ug/L		98
103) n-propylbenzene	14.994	91	293519	47.78	ug/L		100
105) 2-chlorotoluene	15.151	126	59309	49.60	ug/L		93
106) 4-chlorotoluene	15.251	91	178874	47.32	ug/L		99
107) 1,3,5-trimethylbenzene	15.146	105	217716	49.13	ug/L		99
108) tert-butylbenzene	15.491	134	36908	49.69	ug/L		89

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\eunicem050619\v1c7209\
Data File : 1c164268.d
Acq On : 3 May 2019 9:33 am
Operator : EddieH
Sample : bs Inst : GCMS1C
Misc : MS34463,V1C7209,5.0,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M1CS7200.M
Quant Results File: M1CS7200.RES
Quant Time: May 04 23:39:56 2019
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Apr 25 08:03:13 2019
Response via : Initial Calibration

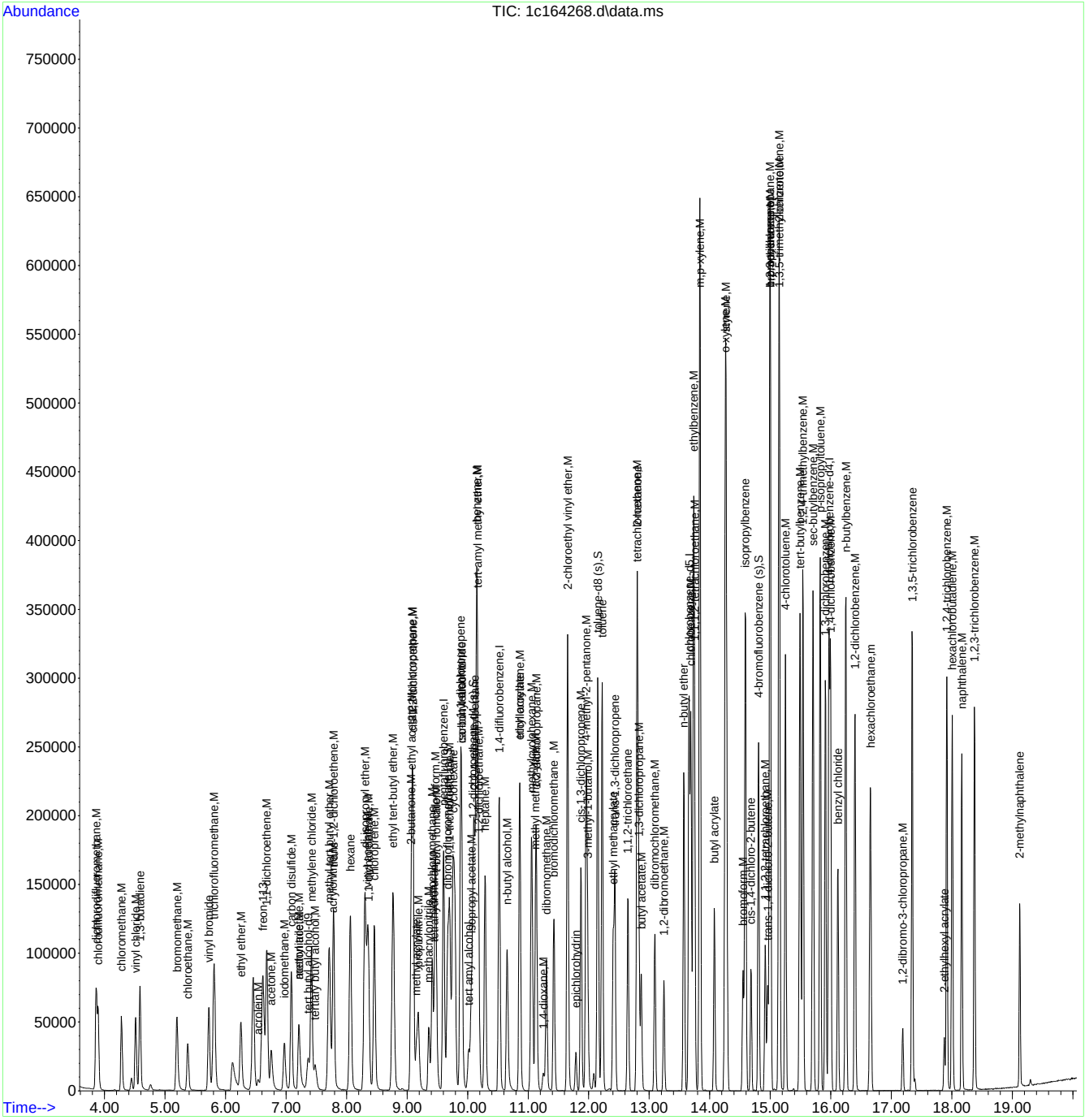
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
109) 1,2,4-trimethylbenzene	15.538	105	217022	48.89	ug/L	99
110) sec-butylbenzene	15.706	105	266587	48.39	ug/L	99
111) 1,3-dichlorobenzene	15.910	146	125036	49.43	ug/L	99
112) p-isopropyltoluene	15.826	119	235415	49.68	ug/L	99
113) 1,4-dichlorobenzene	15.999	146	125381	49.62	ug/L	97
114) benzyl chloride	16.119	91	118371	54.41	ug/L	100
115) 1,2-dichlorobenzene	16.401	146	120974	51.26	ug/L	98
117) n-butylbenzene	16.250	92	115443	47.93	ug/L	98
118) 1,2-dibromo-3-chloropr...	17.186	75	11371	54.23	ug/L	98
119) 1,3,5-trichlorobenzene	17.348	180	103133	53.10	ug/L	100
121) 2-ethylhexyl acrylate	17.876	70	9261	9.53	ug/L	92
122) 1,2,4-trichlorobenzene	17.918	180	88505	55.94	ug/L	98
123) hexachlorobutadiene	18.007	225	60987	54.91	ug/L	95
124) naphthalene	18.164	128	166928	54.23	ug/L	100
125) 1,2,3-trichlorobenzene	18.373	180	80334	53.75	ug/L	98
126) hexachloroethane	16.658	201	47242	55.81	ug/L	99
127) 2-methylnaphthalene	19.121	142	56051	28.60	ug/L	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\eunicem050619\v1c7209\
Data File : 1c164268.d
Acq On : 3 May 2019 9:33 am
Operator : EddieH
Sample : bs Inst : GCMS1C
Misc : MS34463,V1C7209,5.0,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M1CS7200.M
Quant Results File: M1CS7200.RES
Quant Time: May 04 23:39:56 2019
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Apr 25 08:03:13 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\may 6\v3d6294\
Data File : 3d147182.d
Acq On : 3 May 2019 12:48 pm
Operator : krizhkac
Sample : jc87363-2ms Inst : MS3D
Misc : MS34465,V3D6294,5,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3D6212.M
Quant Results File: M3D6212.RES
Quant Time: May 03 14:00:19 2019
Quant Title : SW846 8260C/ EPA 624, Rxi-624 60 m x 0.25 mm x 1.4Fri Mar 08 17:11:15 2019
QLast Update : Fri Mar 08 17:11:15 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	2.986	65	233431	500.00	ug/L	0.00
5) pentafluorobenzene	4.187	168	363635	50.00	ug/L	0.00
52) 1,4-difluorobenzene	4.754	114	499430	50.00	ug/L	0.00
74) chlorobenzene-d5	7.144	117	432001	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	9.339	152	210269	50.00	ug/L	0.00
System Monitoring Compounds						
44) dibromofluoromethane (s)	4.194	113	133461	51.65	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 103.30%			
53) 1,2-dichloroethane-d4 (s)	4.444	65	140904	50.24	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 100.48%			
75) toluene-d8 (s)	5.894	98	563802	51.38	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.76%			
99) 4-bromofluorobenzene (s)	8.223	95	195053	49.13	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.26%			
Target Compounds						Qvalue
2) tertiary butyl alcohol	3.035	59	134964	223.36	ug/L	99
3) ethanol	2.420	45	254495	4541.82	ug/L	97
4) 1,4-dioxane	5.181	88	60866	1119.04	ug/L	97
6) chlorodifluoromethane	1.615	51	157684	47.68	ug/L	99
7) dichlorodifluoromethane	1.603	85	184045	50.22	ug/L	99
8) chloromethane	1.749	50	166877	48.96	ug/L	99
9) vinyl chloride	1.834	62	189168	54.77	ug/L	99
10) 1,3-butadiene	1.859	54	157799	55.24	ug/L	99
11) bromomethane	2.072	94	64569	49.97	ug/L	99
12) chloroethane	2.151	64	112066	52.46	ug/L	99
13) trichlorofluoromethane	2.334	101	209845	48.33	ug/L	98
14) vinyl bromide	2.292	106	115069	57.08	ug/L	97
15) ethyl ether	2.511	74	79226	49.27	ug/L	99
16) acrolein	2.609	56	33497	52.74	ug/L	95
17) freon 113	2.688	151	109996	46.24	ug/L	97
18) 1,1-dichloroethene	2.688	96	122483	50.77	ug/L	99
19) acetone	2.694	58	68114	187.85	ug/L	90
20) acetonitrile	2.877	41	244973	442.84	ug/L	99
21) iodomethane	2.804	142	61050	61.12	ug/L	97
22) carbon disulfide	2.858	76	314088	47.76	ug/L	98
23) methylene chloride	3.011	84	122431	45.23	ug/L	98
24) methyl acetate	2.895	43	130364	43.36	ug/L	99
25) methyl tert butyl ether	3.176	73	376209	46.63	ug/L	100
26) trans-1,2-dichloroethene	3.194	96	125769	46.38	ug/L	99
27) di-isopropyl ether	3.480	45	428382	47.17	ug/L	98
28) 2-butanone	3.834	72	92113	187.58	ug/L	99
29) 1,1-dichloroethane	3.480	63	218030	47.82	ug/L	99
30) chloroprene	3.535	53	206127	47.40	ug/L	99
31) acrylonitrile	3.151	53	65120	46.74	ug/L	99
32) hexane	3.371	56	111582	48.83	ug/L	99
33) vinyl acetate	3.456	86	35973	46.35	ug/L	100
34) ethyl tert-butyl ether	3.724	59	400059	46.35	ug/L	100
35) ethyl acetate	3.846	45	26899	44.07	ug/L #	43
36) 2,2-dichloropropane	3.877	77	192011	48.85	ug/L	100
37) cis-1,2-dichloroethene	3.864	96	136052	46.63	ug/L	99
38) methyl acrylate	3.889	85	26648	46.52	ug/L #	73
39) propionitrile	3.877	54	284836	471.60	ug/L	83
40) bromochloromethane	4.029	128	62859	48.42	ug/L	92
41) tetrahydrofuran	4.041	72	24540	44.95	ug/L	97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\may 6\v3d6294\
Data File : 3d147182.d
Acq On : 3 May 2019 12:48 pm
Operator : krizhkac
Sample : jc87363-2ms Inst : MS3D
Misc : MS34465,V3D6294,5,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3D6212.M
Quant Results File: M3D6212.RES
Quant Time: May 03 14:00:19 2019
Quant Title : SW846 8260C/ EPA 624, Rxi-624 60 m x 0.25 mm x 1.4Fri Mar 08 17:11:15 2019
QLast Update : Fri Mar 08 17:11:15 2019
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
42)	chloroform	4.084	85	131482	44.20	ug/L	98
43)	t-butyl formate	4.102	59	89247	36.03	ug/L	92
45)	methacrylonitrile	3.986	67	69960	48.26	ug/L	96
46)	1,1,1-trichloroethane	4.230	97	187712	45.88	ug/L	100
47)	cyclohexane	4.291	84	216092	49.77	ug/L	98
48)	1,1-dichloropropene	4.334	75	177407	47.00	ug/L	99
49)	iso-butyl alcohol	4.334	43	104242	432.64	ug/L	99
50)	carbon tetrachloride	4.340	117	160481	48.01	ug/L	99
51)	tert amyl alcohol	4.425	55	44331	214.97	ug/L	98
54)	n-butyl alcohol	4.809	56	359443	2233.25	ug/L	98
55)	2,2,4-trimethylpentane	4.547	57	417403	58.93	ug/L	89
56)	benzene	4.480	78	514615	47.85	ug/L	100
57)	tert-amyl methyl ether	4.541	87	95187	45.52	ug/L	94
58)	heptane	4.657	71	102992	56.30	ug/L	98
59)	isopropyl acetate	4.450	87	40403	45.53	ug/L	100
60)	1,2-dichloroethane	4.498	62	157472	43.55	ug/L	98
61)	trichloroethene	4.950	130	135324	46.74	ug/L	99
62)	ethyl acrylate	4.962	55	208273	47.16	ug/L	98
63)	2-nitropropane	5.486	41	38522	48.52	ug/L	95
64)	2-chloroethyl vinyl ether	5.523	63	5581	3.09	ug/L	95
65)	methyl methacrylate	5.139	69	161187	45.90	ug/L	95
66)	1,2-dichloropropane	5.139	63	127101	48.83	ug/L	99
67)	dibromomethane	5.212	93	72283	47.32	ug/L	99
68)	methylcyclohexane	5.139	83	231685	50.89	ug/L	99
69)	bromodichloromethane	5.328	83	155353	48.80	ug/L	98
70)	epichlorohydrin	5.571	57	99405	230.94	ug/L	98
71)	cis-1,3-dichloropropene	5.669	75	197477	47.24	ug/L	98
72)	4-methyl-2-pentanone	5.766	58	281694	189.67	ug/L	97
73)	3-methyl-1-butanol	5.785	55	205500	899.58	ug/L	98
76)	toluene	5.955	92	322744	46.08	ug/L	98
77)	trans-1,3-dichloropropene	6.120	75	177242	45.25	ug/L	99
78)	ethyl methacrylate	6.144	69	192536	46.92	ug/L	97
79)	1,1,2-trichloroethane	6.291	83	93410	47.11	ug/L	95
80)	tetrachloroethene	6.394	164	118853	48.42	ug/L	97
81)	1,3-dichloropropane	6.431	76	192780	46.54	ug/L	95
82)	2-hexanone	6.455	58	291587	187.54	ug/L	96
83)	butyl acetate	6.541	56	114353	46.56	ug/L	99
84)	dibromochloromethane	6.626	129	119567	50.90	ug/L	98
85)	1,2-dibromoethane	6.742	107	129353	41.10	ug/L	99
86)	n-butyl ether	7.223	57	524698	46.83	ug/L	100
87)	chlorobenzene	7.169	112	329460	44.17	ug/L	98
88)	1,1,1,2-tetrachloroethane	7.242	131	116006	47.49	ug/L	99
89)	ethylbenzene	7.248	91	597773	46.61	ug/L	99
90)	m,p-xylene	7.364	106	459148	91.16	ug/L	99
91)	o-xylene	7.717	106	223350	46.02	ug/L	97
92)	styrene	7.729	104	374817	46.04	ug/L	97
93)	bromoform	7.906	173	92103	52.88	ug/L	97
94)	butyl acrylate	7.638	55	280038	48.49	ug/L	97
95)	n-amyl acetate	7.845	70	117081	46.83	ug/L	91
96)	isopropylbenzene	8.053	105	578280	47.21	ug/L	100
97)	cis-1,4-dichloro-2-butene	8.101	88	54621	41.57	ug/L	95
100)	bromobenzene	8.364	156	145206	43.53	ug/L	98
101)	1,1,2,2-tetrachloroethane	8.333	83	165238	45.30	ug/L	100
102)	trans-1,4-dichloro-2-b...	8.370	53	42786	39.32	ug/L	91
103)	1,2,3-trichloropropane	8.394	110	53809	42.60	ug/L	97
104)	n-propylbenzene	8.449	91	652776	45.44	ug/L	99
105)	2-chlorotoluene	8.540	126	134176	44.86	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\may 6\v3d6294\
Data File : 3d147182.d
Acq On : 3 May 2019 12:48 pm
Operator : krizhkac
Sample : jc87363-2ms Inst : MS3D
Misc : MS34465,V3D6294,5,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3D6212.M
Quant Results File: M3D6212.RES
Quant Time: May 03 14:00:19 2019
Quant Title : SW846 8260C/ EPA 624, Rxi-624 60 m x 0.25 mm x 1.4Fri Mar 08 17:11:15 2019
QLast Update : Fri Mar 08 17:11:15 2019
Response via : Initial Calibration

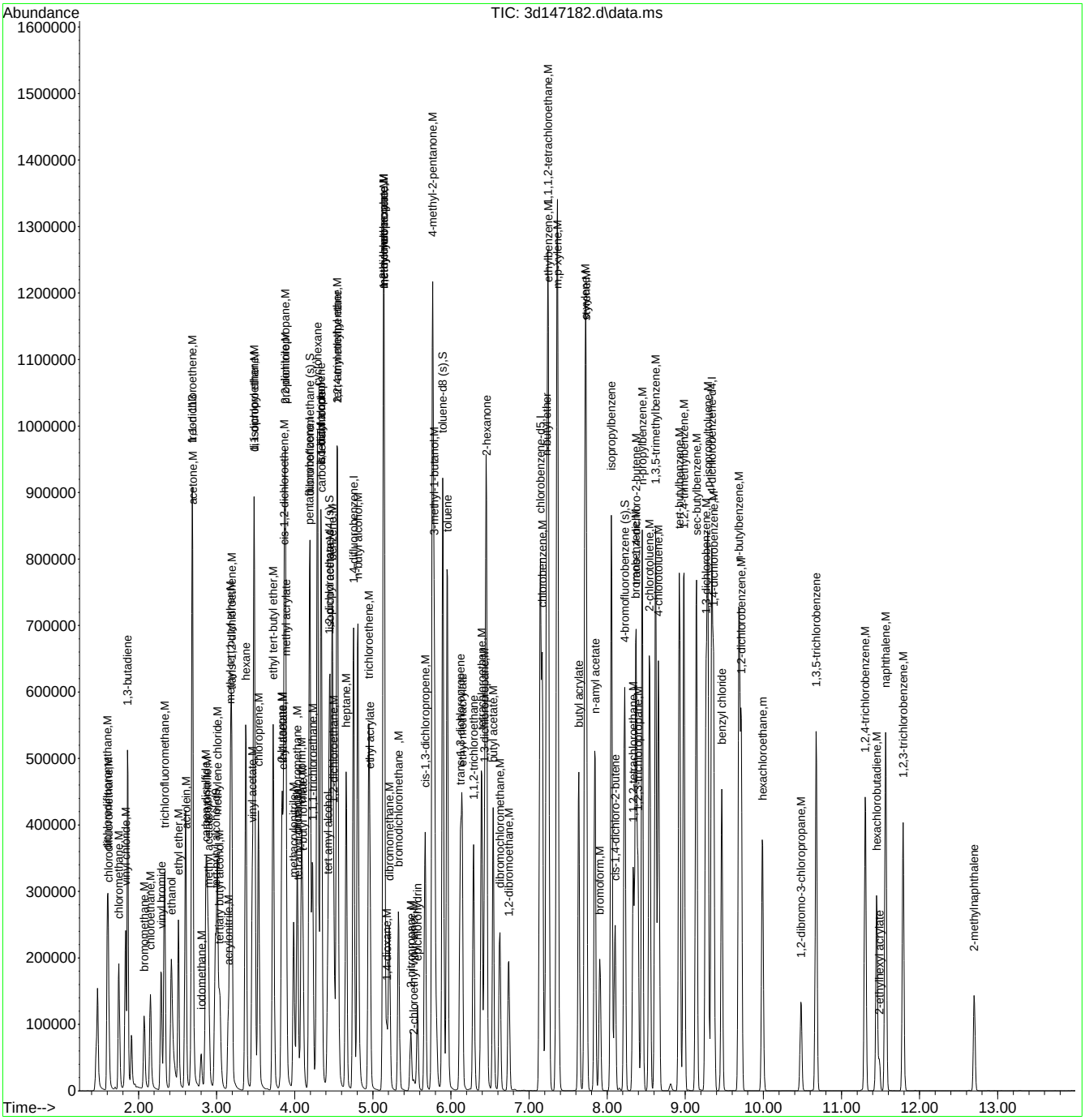
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
106) 4-chlorotoluene	8.656	126	131641	43.96	ug/L	96
107) 1,3,5-trimethylbenzene	8.620	105	452497	44.65	ug/L	97
108) tert-butylbenzene	8.924	134	103512	45.83	ug/L	95
109) 1,2,4-trimethylbenzene	8.985	105	448120	44.83	ug/L	100
110) sec-butylbenzene	9.144	105	560785	47.38	ug/L	99
111) 1,3-dichlorobenzene	9.266	146	258274	43.81	ug/L	98
112) p-isopropyltoluene	9.290	119	476826	46.23	ug/L	99
113) 1,4-dichlorobenzene	9.363	146	259837	43.43	ug/L	97
114) benzyl chloride	9.467	91	326318	46.77	ug/L	99
115) 1,2-dichlorobenzene	9.717	146	244317	43.38	ug/L	97
116) n-butylbenzene	9.686	92	220097	48.29	ug/L	97
117) 1,2-dibromo-3-chloropr...	10.479	75	31407	41.87	ug/L	94
118) 1,3,5-trichlorobenzene	10.674	180	182748	45.92	ug/L	99
119) 2-ethylhexyl acrylate	11.485	70	12611	6.56	ug/L	94
120) 1,2,4-trichlorobenzene	11.302	180	156277	45.36	ug/L	99
121) hexachlorobutadiene	11.448	225	64848	47.80	ug/L	98
122) naphthalene	11.564	128	443109	40.52	ug/L	100
123) 1,2,3-trichlorobenzene	11.790	180	139444	44.18	ug/L	99
124) hexachloroethane	9.991	201	77617	53.50	ug/L	94
125) 2-methylnaphthalene	12.698	142	73765	16.42	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\may 6\v3d6294\
Data File : 3d147182.d
Acq On : 3 May 2019 12:48 pm
Operator : krizhkac
Sample : jc87363-2ms Inst : MS3D
Misc : MS34465,V3D6294,5,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3D6212.M
Quant Results File: M3D6212.RES
Quant Time: May 03 14:00:19 2019
Quant Title : SW846 8260C/ EPA 624, Rxi-624 60 m x 0.25 mm x 1.4Fri Mar 08 17:11:15 2019
QLast Update : Fri Mar 08 17:11:15 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\eunicem050619\v1c7209\
Data File : 1c164277.d
Acq On : 3 May 2019 1:51 pm
Operator : EddieH
Sample : JC87361-8ms Inst : GCMS1C
Misc : MS34463,V1C7209,4.3,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M1CS7200.M
Quant Results File: M1CS7200.RES
Quant Time: May 04 23:53:31 2019
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Apr 25 08:03:13 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.358	65	31652	500.00	ug/L	-0.02
5) pentafluorobenzene	9.602	168	104147	50.00	ug/L	0.00
52) 1,4-difluorobenzene	10.523	114	139209	50.00	ug/L	0.00
74) chlorobenzene-d5	13.655	117	106789	50.00	ug/L	0.00
97) 1,4-dichlorobenzene-d4	15.972	152	49895	50.00	ug/L	0.00
System Monitoring Compounds						
44) dibromofluoromethane (s)	9.670	113	45884	52.24	ug/L	0.00
Spiked Amount 50.000	Range 75 - 127		Recovery = 104.48%			
53) 1,2-dichloroethane-d4 (s)	10.088	65	52686	60.25	ug/L	0.00
Spiked Amount 50.000	Range 75 - 130		Recovery = 120.50%			
75) toluene-d8 (s)	12.149	98	151060	52.51	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 105.02%			
98) 4-bromofluorobenzene (s)	14.806	95	49912	53.29	ug/L	0.00
Spiked Amount 50.000	Range 79 - 127		Recovery = 106.58%			
Target Compounds						Qvalue
2) tertiary butyl alcohol	7.484	59	23304	277.20	ug/L	96
4) 1,4-dioxane	11.250	88	10525	1371.15	ug/L	97
6) chlorodifluoromethane	3.891	51	52149	48.05	ug/L	90
7) dichlorodifluoromethane	3.859	85	73451	47.71	ug/L	98
8) chloromethane	4.278	50	35893	31.79	ug/L	99
9) vinyl chloride	4.508	62	40359	37.97	ug/L	97
10) 1,3-butadiene	4.581	54	30665	45.96	ug/L	97
11) bromomethane	5.193	94	28727	35.47	ug/L	99
12) chloroethane	5.371	64	21314	33.48	ug/L	99
13) trichlorofluoromethane	5.805	101	81723	51.57	ug/L	96
14) vinyl bromide	5.721	106	32086	51.62	ug/L	97
15) ethyl ether	6.249	74	18178	42.94	ug/L	93
16) acrolein	6.537	56	2460	22.62	ug/L	86
17) freon 113	6.616	151	41633	59.41	ug/L	94
18) 1,1-dichloroethene	6.678	96	39826	46.71	ug/L	99
19) acetone	6.746	43	55190	260.54	ug/L	95
20) acetonitrile	7.207	41	30651	346.95	ug/L	98
21) iodomethane	6.966	142	35054	37.39	ug/L	93
22) carbon disulfide	7.086	76	101448	36.84	ug/L	97
23) methylene chloride	7.416	84	37298	40.33	ug/L	95
24) methyl acetate	7.207	43	22582	43.71	ug/L	91
25) methyl tert butyl ether	7.709	73	113338	49.05	ug/L	94
26) trans-1,2-dichloroethene	7.782	96	38986	41.19	ug/L	97
27) di-isopropyl ether	8.305	45	106421	37.42	ug/L	89
28) 2-butanone	9.058	72	15750	197.79	ug/L #	61
29) 1,1-dichloroethane	8.362	63	70467	43.89	ug/L	98
30) chloroprene	8.457	53	65869	47.58	ug/L	97
31) acrylonitrile	7.766	53	8530	36.89	ug/L	99
32) hexane	8.059	57	57048	38.79	ug/L	92
33) vinyl acetate	8.336	86	4219	31.51	ug/L #	77
34) ethyl tert-butyl ether	8.765	59	124156	45.29	ug/L	95
35) ethyl acetate	9.074	45	3264	32.47	ug/L #	69
36) 2,2-dichloropropane	9.079	77	81335	56.82	ug/L	94
37) cis-1,2-dichloroethene	9.095	96	40408	39.56	ug/L	100
38) methyl acrylate	9.152	85	4596	43.83	ug/L	94
39) propionitrile	9.189	54	40768	404.09	ug/L	92
40) bromochloromethane	9.414	128	19072	42.99	ug/L	88
41) tetrahydrofuran	9.445	72	4207	44.22	ug/L #	64
42) chloroform	9.466	85	52522	46.21	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\eunicem050619\v1c7209\
Data File : 1c164277.d
Acq On : 3 May 2019 1:51 pm
Operator : EddieH
Sample : JC87361-8ms Inst : GCMS1C
Misc : MS34463,V1C7209,4.3,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M1CS7200.M
Quant Results File: M1CS7200.RES
Quant Time: May 04 23:53:31 2019
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Apr 25 08:03:13 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
43) t-butyl formate	9.476	59	25901	42.37	ug/L		92
45) methacrylonitrile	9.361	67	11886	40.82	ug/L		81
46) 1,1,1-trichloroethane	9.701	97	89699	60.99	ug/L		99
47) cyclohexane	9.759	84	53802	37.05	ug/L		90
48) 1,1-dichloropropene	9.884	75	58036	46.58	ug/L		97
49) iso-butyl alcohol	9.900	43	12592	383.19	ug/L		96
50) carbon tetrachloride	9.900	117	82989	64.60	ug/L		95
51) tert amyl alcohol	10.010	55	7417	241.60	ug/L		90
54) n-butyl alcohol	10.653	56	47741	2350.19	ug/L		96
55) 2,2,4-trimethylpentane	10.109	57	129777	38.83	ug/L		95
56) benzene	10.146	78	150701	43.24	ug/L		99
57) tert-amyl methyl ether	10.156	87	29395	54.11	ug/L	#	83
58) heptane	10.287	71	31034	41.26	ug/L		94
59) isopropyl acetate	10.062	87	7141	49.53	ug/L	#	76
60) 1,2-dichloroethane	10.177	62	54345	47.96	ug/L		94
61) trichloroethene	10.862	130	43505	48.49	ug/L		98
62) ethyl acrylate	10.862	55	32114	38.14	ug/L		95
64) 2-chloroethyl vinyl ether	11.652	63	85179	205.89	ug/L		96
65) methyl methacrylate	11.124	100	7930	45.53	ug/L	#	82
66) 1,2-dichloropropane	11.134	63	33118	39.90	ug/L		98
67) dibromomethane	11.302	93	20279	41.74	ug/L		93
68) methylcyclohexane	11.061	83	69002	44.60	ug/L		93
69) bromodichloromethane	11.427	83	57125	48.58	ug/L		100
70) epichlorohydrin	11.788	57	15231	228.31	ug/L		99
71) cis-1,3-dichloropropene	11.872	75	53683	39.77	ug/L		97
72) 4-methyl-2-pentanone	11.956	58	39562	164.14	ug/L		94
73) 3-methyl-1-butanol	11.982	55	29072	951.38	ug/L		95
76) toluene	12.222	92	86048	44.02	ug/L		99
77) trans-1,3-dichloropropene	12.432	75	42862	38.97	ug/L		99
78) ethyl methacrylate	12.405	69	32614	41.96	ug/L		96
79) 1,1,2-trichloroethane	12.651	83	22863	44.40	ug/L		95
80) tetrachloroethene	12.798	164	35967	52.92	ug/L		99
81) 1,3-dichloropropane	12.829	76	40004	42.37	ug/L		94
82) 2-hexanone	12.803	58	38142	179.53	ug/L		96
83) butyl acetate	12.871	56	13577	35.06	ug/L		99
84) dibromochloromethane	13.096	129	38451	49.66	ug/L		99
85) 1,2-dibromoethane	13.242	107	27460	33.57	ug/L		99
86) n-butyl ether	13.572	57	112020	38.10	ug/L		95
87) chlorobenzene	13.687	112	79160	39.92	ug/L		97
88) 1,1,1,2-tetrachloroethane	13.750	131	38663	53.61	ug/L		94
89) ethylbenzene	13.734	91	160210	44.59	ug/L		100
90) m,p-xylene	13.839	106	118470	88.75	ug/L		99
91) o-xylene	14.257	106	56668	44.47	ug/L		100
92) styrene	14.267	104	78006	36.91	ug/L		94
93) bromoform	14.550	173	23191	49.36	ug/L		100
94) butyl acrylate	14.079	55	41527	33.55	ug/L		96
95) isopropylbenzene	14.592	105	167992	49.00	ug/L		99
96) cis-1,4-dichloro-2-butene	14.686	88	13210	45.39	ug/L		84
99) bromobenzene	15.000	156	30702	39.19	ug/L		96
100) 1,1,2,2-tetrachloroethane	14.916	83	27659	45.01	ug/L		97
101) trans-1,4-dichloro-2-b...	14.953	53	6660	39.83	ug/L		89
102) 1,2,3-trichloropropane	14.994	110	8575	54.09	ug/L		94
103) n-propylbenzene	14.994	91	182094	50.54	ug/L		98
105) 2-chlorotoluene	15.151	126	33438	47.68	ug/L		96
106) 4-chlorotoluene	15.251	91	85131	38.39	ug/L		96
107) 1,3,5-trimethylbenzene	15.146	105	131564	50.61	ug/L		99
108) tert-butylbenzene	15.491	134	24885	57.12	ug/L		94

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\eunicem050619\v1c7209\
Data File : 1c164277.d
Acq On : 3 May 2019 1:51 pm
Operator : EddieH
Sample : JC87361-8ms Inst : GCMS1C
Misc : MS34463,V1C7209,4.3,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M1CS7200.M
Quant Results File: M1CS7200.RES
Quant Time: May 04 23:53:31 2019
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Apr 25 08:03:13 2019
Response via : Initial Calibration

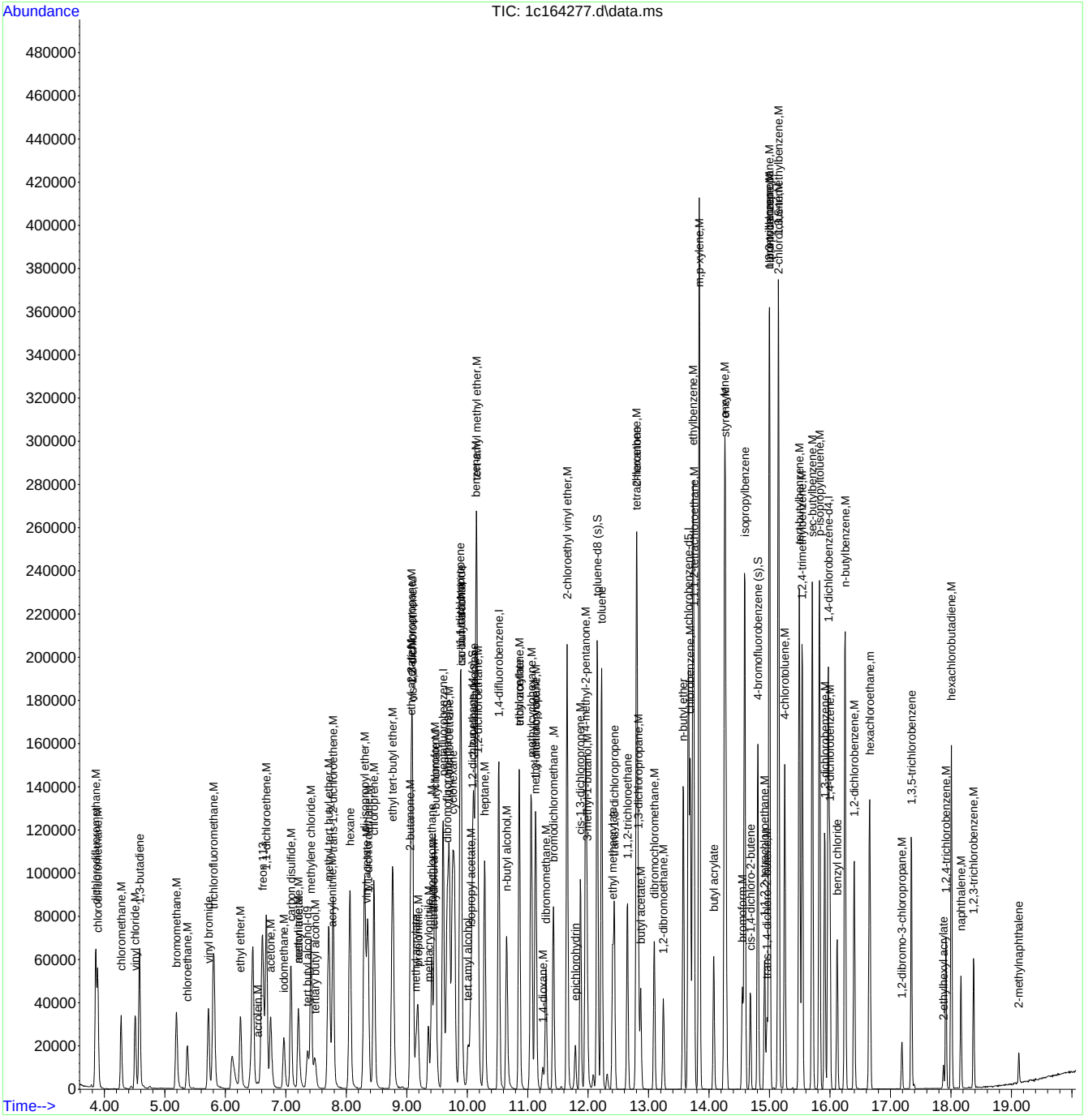
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
109) 1,2,4-trimethylbenzene	15.538	105	119738	45.99	ug/L	99
110) sec-butylbenzene	15.706	105	174022	53.85	ug/L	99
111) 1,3-dichlorobenzene	15.915	146	50795	34.24	ug/L	99
112) p-isopropyltoluene	15.826	119	145607	52.38	ug/L	98
113) 1,4-dichlorobenzene	15.999	146	46747	31.54	ug/L	98
114) benzyl chloride	16.119	91	51230	40.15	ug/L	100
115) 1,2-dichlorobenzene	16.401	146	46618	33.67	ug/L	98
117) n-butylbenzene	16.250	92	66276	46.92	ug/L	96
118) 1,2-dibromo-3-chloropr...	17.186	75	5638	45.84	ug/L	96
119) 1,3,5-trichlorobenzene	17.348	180	36242	31.81	ug/L	98
121) 2-ethylhexyl acrylate	17.876	70	2678	4.70	ug/L	93
122) 1,2,4-trichlorobenzene	17.918	180	20512	22.10	ug/L	98
123) hexachlorobutadiene	18.007	225	34987	53.71	ug/L	96
124) naphthalene	18.164	128	36730	20.35	ug/L	98
125) 1,2,3-trichlorobenzene	18.373	180	17371	19.82	ug/L	97
126) hexachloroethane	16.658	201	28049	56.49	ug/L	96
127) 2-methylnaphthalene	19.121	142	6475	5.63	ug/L	94

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\eunicem050619\v1c7209\
Data File : 1c164277.d
Acq On : 3 May 2019 1:51 pm
Operator : EddieH
Sample : JC87361-8ms Inst : GCMS1C
Misc : MS34463,V1C7209,4.3,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M1CS7200.M
Quant Results File: M1CS7200.RES
Quant Time: May 04 23:53:31 2019
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Apr 25 08:03:13 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\may 6\v3d6294\
Data File : 3d147184.d
Acq On : 3 May 2019 1:38 pm
Operator : krizhkac
Sample : jc87226-2dup Inst : MS3D
Misc : MS34461,V3D6294,5,,,,1
ALS Vial : 16 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3D6212.M
Quant Results File: M3D6212.RES
Quant Time: May 05 23:48:57 2019
Quant Title : SW846 8260C/ EPA 624, Rxi-624 60 m x 0.25 mm x 1.4Fri Mar 08 17:11:15 2019
QLast Update : Fri Mar 08 17:11:15 2019
Response via : Initial Calibration

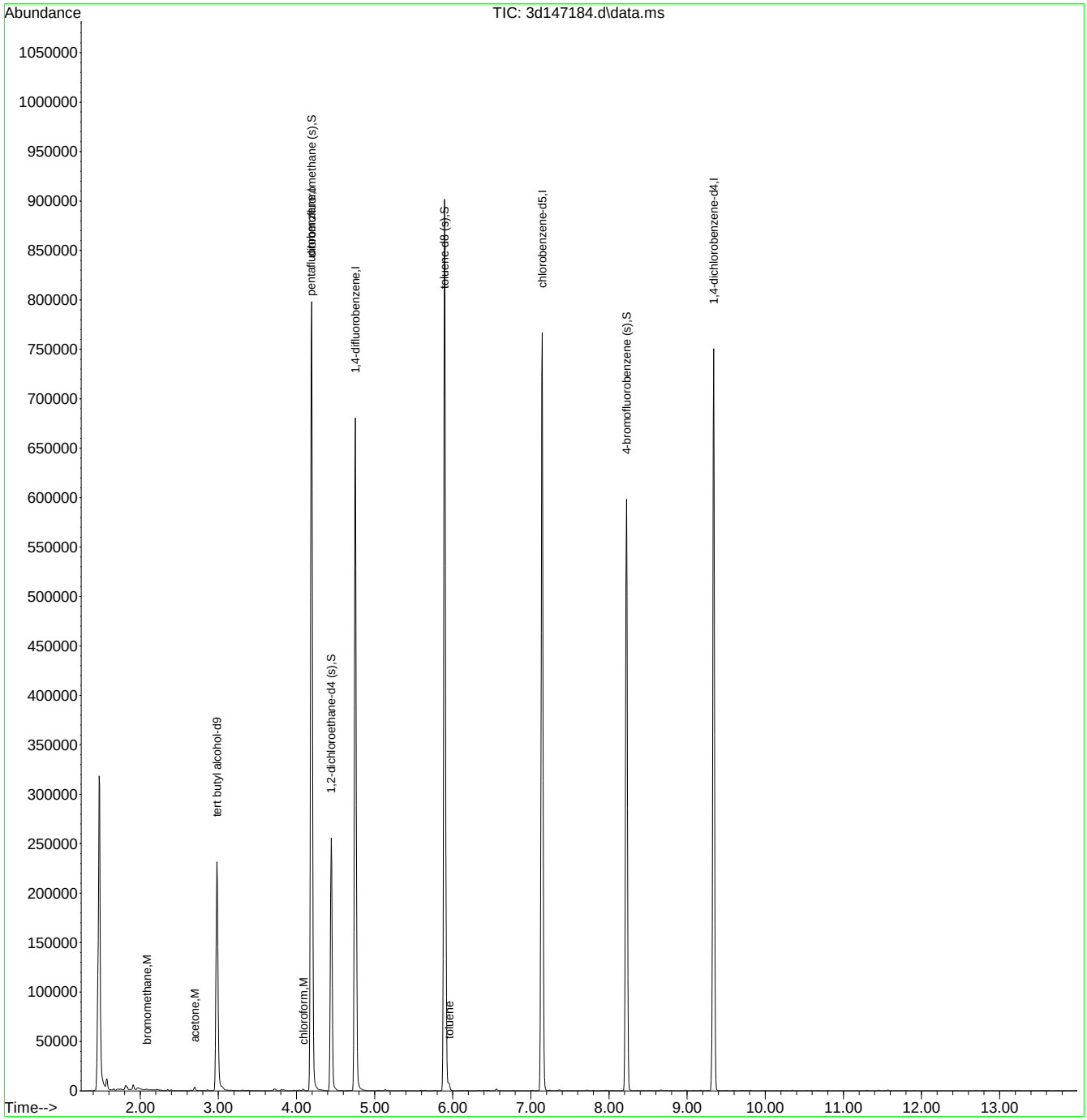
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	2.980	65	234754	500.00	ug/L	0.00
5) pentafluorobenzene	4.187	168	355301	50.00	ug/L	0.00
52) 1,4-difluorobenzene	4.754	114	487796	50.00	ug/L	0.00
74) chlorobenzene-d5	7.144	117	423001	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	9.339	152	206294	50.00	ug/L	0.00
System Monitoring Compounds						
44) dibromofluoromethane (s)	4.194	113	127882	50.65	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.30%			
53) 1,2-dichloroethane-d4 (s)	4.444	65	139591	50.96	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 101.92%			
75) toluene-d8 (s)	5.894	98	550287	51.22	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.44%			
99) 4-bromofluorobenzene (s)	8.223	95	188607	48.42	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 96.84%			
Target Compounds						Qvalue
11) bromomethane	2.084	94	500	0.40	ug/L	91
19) acetone	2.700	58	1095	3.09	ug/L #	77
42) chloroform	4.090	85	784	0.27	ug/L	87
76) toluene	5.955	92	1785	0.26	ug/L	89

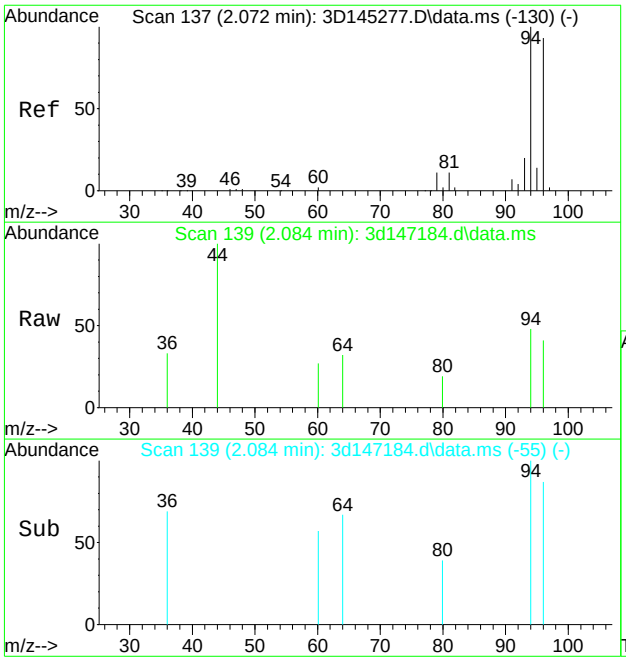
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\may 6\v3d6294\
Data File : 3d147184.d
Acq On : 3 May 2019 1:38 pm
Operator : krizhkac
Sample : jc87226-2dup Inst : MS3D
Misc : MS34461,V3D6294,5,,,,1
ALS Vial : 16 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3D6212.M
Quant Results File: M3D6212.RES
Quant Time: May 05 23:48:57 2019
Quant Title : SW846 8260C/ EPA 624, Rxi-624 60 m x 0.25 mm x 1.4Fri Mar 08 17:11:15 2019
QLast Update : Fri Mar 08 17:11:15 2019
Response via : Initial Calibration

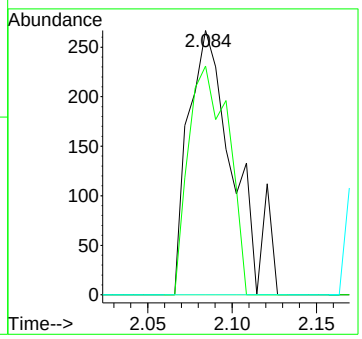


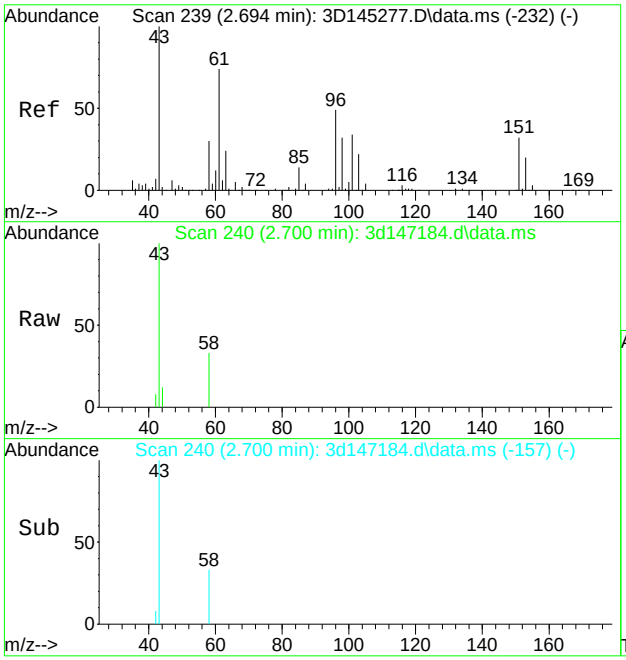


#11
bromomethane
Concen: 0.40 ug/L
RT: 2.084 min Scan# 139
Delta R.T. 0.012 min
Lab File: 3d147184.d
Acq: 3 May 2019 1:38 pm

Tgt Ion: 94 Resp: 500

Ion	Ratio	Lower	Upper
94	100		
96	86.5	62.5	122.5
79	0.0	0.0	41.3

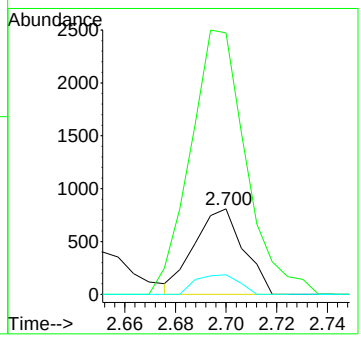


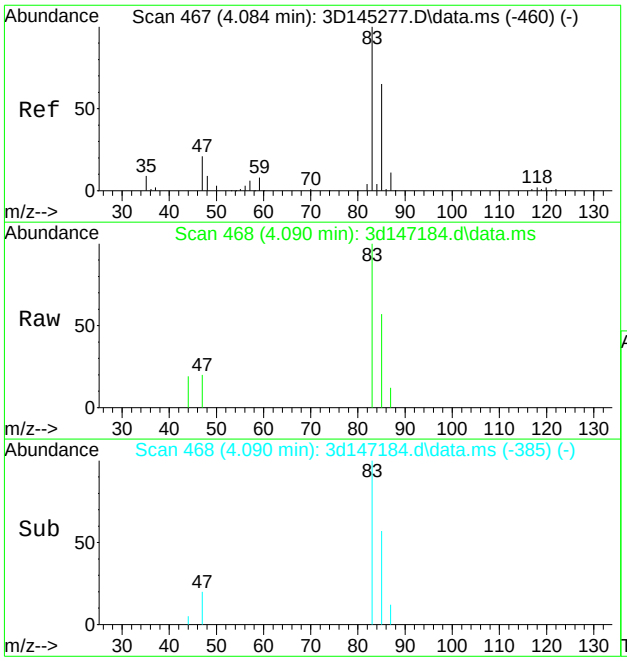


#19
acetone
Concen: 3.09 ug/L
RT: 2.700 min Scan# 240
Delta R.T. 0.007 min
Lab File: 3d147184.d
Acq: 3 May 2019 1:38 pm

Tgt Ion: 58 Resp: 1095

Ion	Ratio	Lower	Upper
58	100		
43	285.1	306.2	366.2#
42	23.1	0.0	54.2

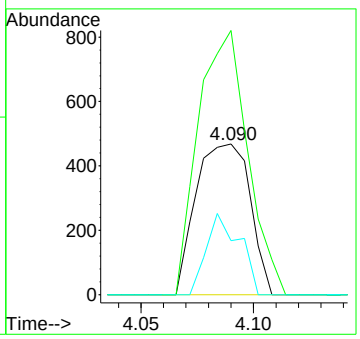


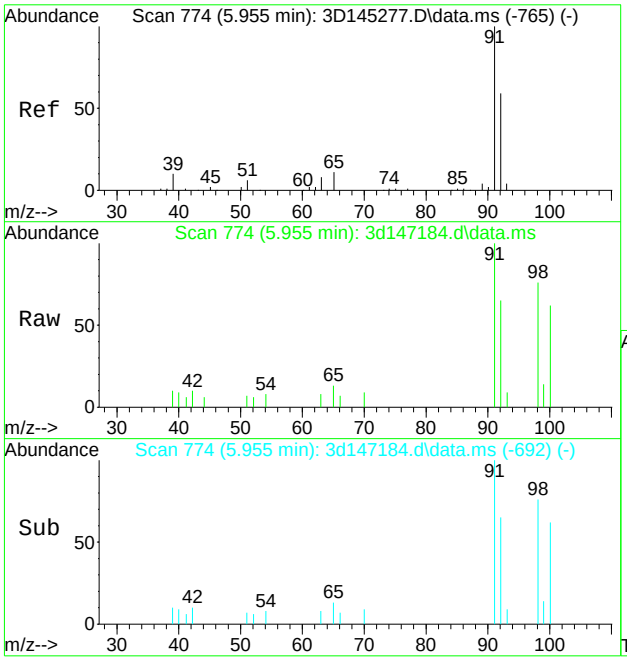


#42
chloroform
Concen: 0.27 ug/L
RT: 4.090 min Scan# 468
Delta R.T. 0.006 min
Lab File: 3d147184.d
Acq: 3 May 2019 1:38 pm

Tgt Ion: 85 Resp: 784

Ion	Ratio	Lower	Upper
85	100		
83	175.4	124.4	184.4
47	35.9	6.9	66.9

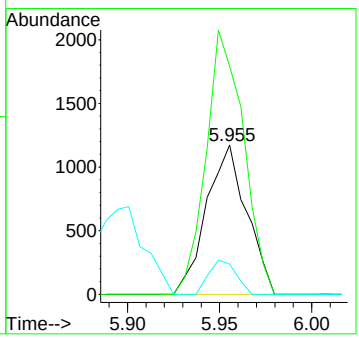




#76
toluene
Concen: 0.26 ug/L
RT: 5.955 min Scan# 774
Delta R.T. -0.000 min
Lab File: 3d147184.d
Acq: 3 May 2019 1:38 pm

Tgt Ion: 92 Resp: 1785

Ion	Ratio	Lower	Upper
92	100		
91	152.8	148.6	188.6
65	20.3	0.0	38.9



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\eunicem050619\v1c7209\
Data File : 1c164279.d
Acq On : 3 May 2019 2:44 pm
Operator : EddieH
Sample : JC87361-7dup Inst : GCMS1C
Misc : MS34463,V1C7209,5.7,,,,1
ALS Vial : 16 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M1CS7200.M
Quant Results File: M1CS7200.RES
Quant Time: May 04 23:54:02 2019
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Apr 25 08:03:13 2019
Response via : Initial Calibration

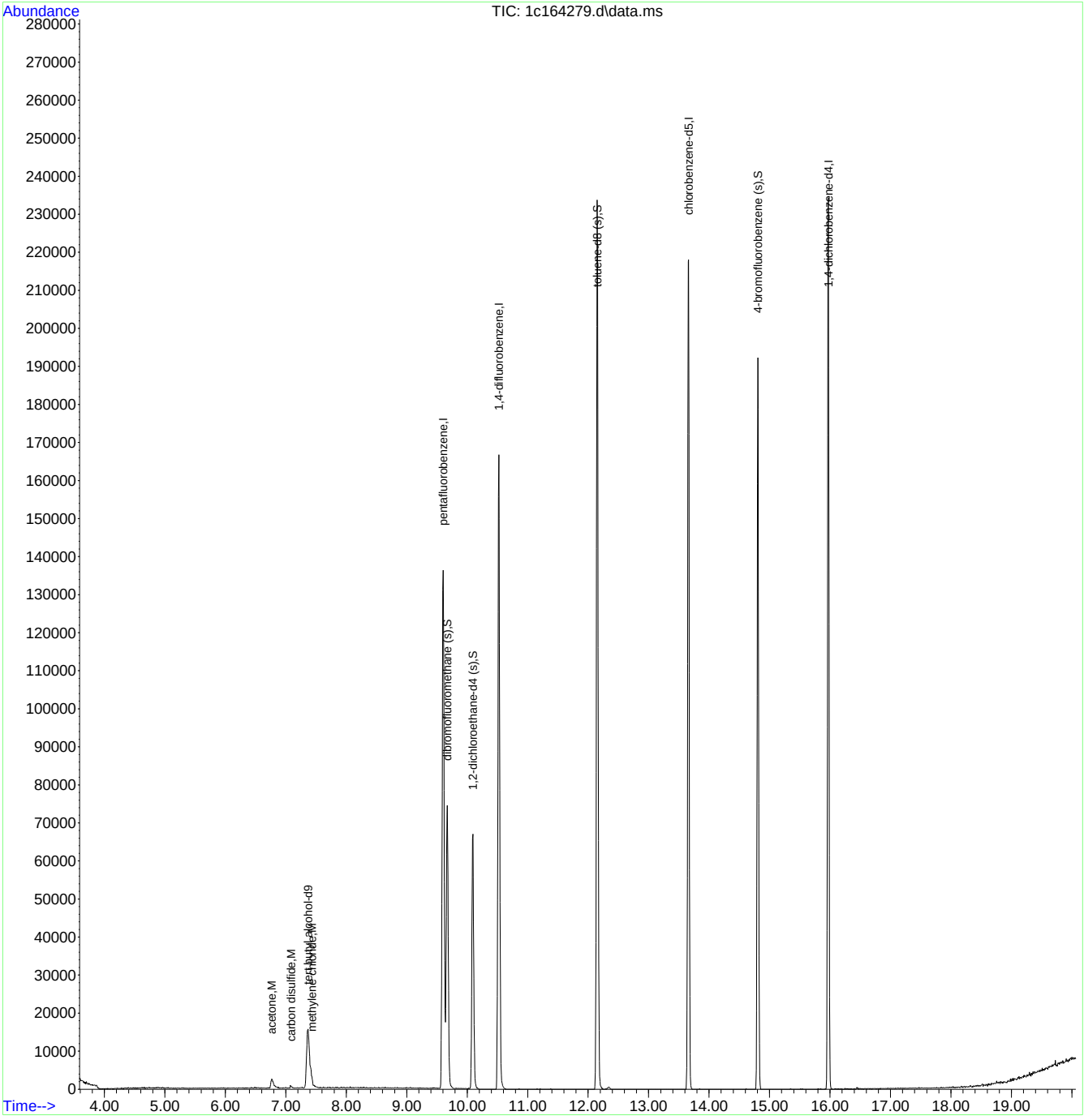
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.369	65	33703	500.00	ug/L	-0.01
5) pentafluorobenzene	9.602	168	115422	50.00	ug/L	0.00
52) 1,4-difluorobenzene	10.523	114	149606	50.00	ug/L	0.00
74) chlorobenzene-d5	13.661	117	120906	50.00	ug/L	0.00
97) 1,4-dichlorobenzene-d4	15.972	152	62539	50.00	ug/L	0.00
System Monitoring Compounds						
44) dibromofluoromethane (s)	9.670	113	49320	50.67	ug/L	0.00
Spiked Amount 50.000	Range 75 - 127		Recovery = 101.34%			
53) 1,2-dichloroethane-d4 (s)	10.094	65	56832	60.47	ug/L	0.00
Spiked Amount 50.000	Range 75 - 130		Recovery = 120.94%			
75) toluene-d8 (s)	12.149	98	165966	50.96	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.92%			
98) 4-bromofluorobenzene (s)	14.806	95	58353	49.70	ug/L	0.00
Spiked Amount 50.000	Range 79 - 127		Recovery = 99.40%			
Target Compounds						Qvalue
19) acetone	6.767	43	5680	24.19	ug/L	88
22) carbon disulfide	7.086	76	749	0.25	ug/L	71
23) methylene chloride	7.431	84	818	0.80	ug/L	81

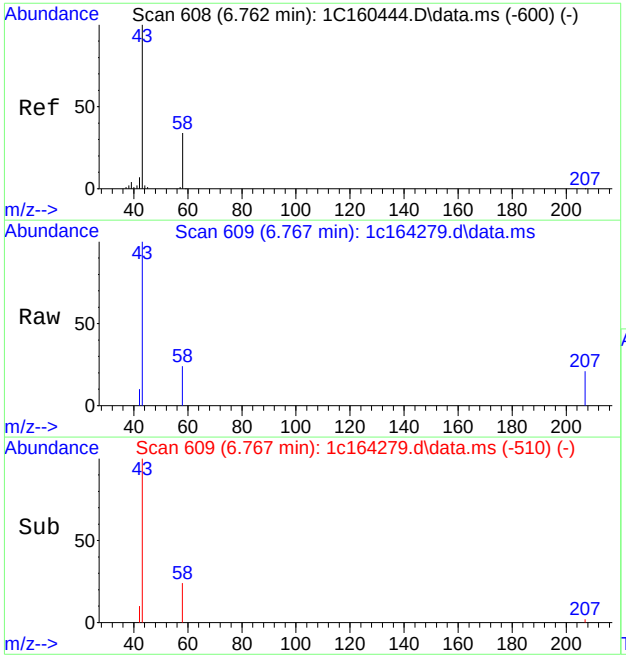
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\eunicem050619\v1c7209\
Data File : 1c164279.d
Acq On : 3 May 2019 2:44 pm
Operator : EddieH
Sample : JC87361-7dup Inst : GCMS1C
Misc : MS34463,V1C7209,5.7,,,,1
ALS Vial : 16 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M1CS7200.M
Quant Results File: M1CS7200.RES
Quant Time: May 04 23:54:02 2019
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Apr 25 08:03:13 2019
Response via : Initial Calibration

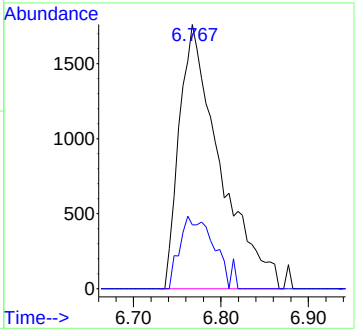


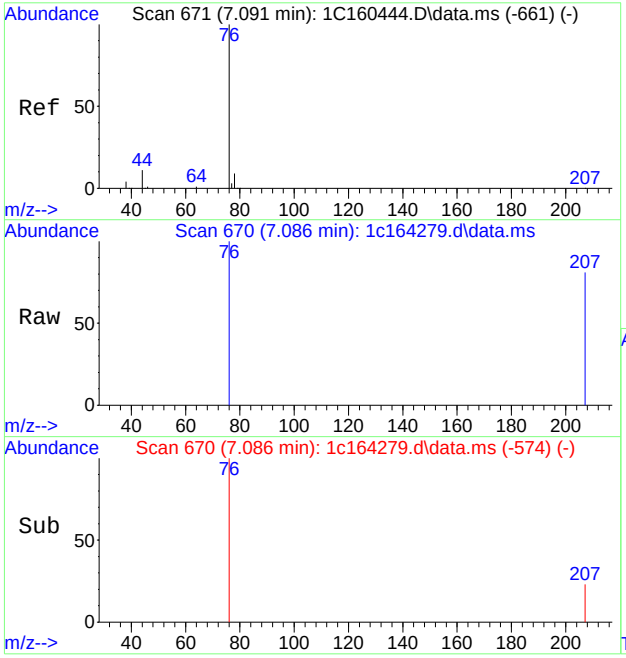


#19
acetone
Concen: 24.19 ug/L
RT: 6.767 min Scan# 609
Delta R.T. 0.016 min
Lab File: 1c164279.d
Acq: 3 May 2019 2:44 pm

Tgt Ion: 43 Resp: 5680

Ion	Ratio	Lower	Upper
43	100		
58	24.2	0.5	60.5

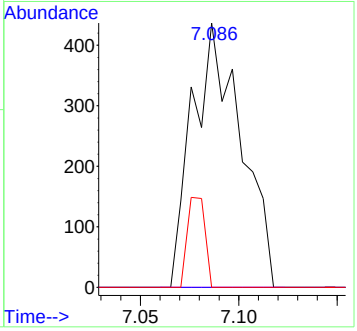


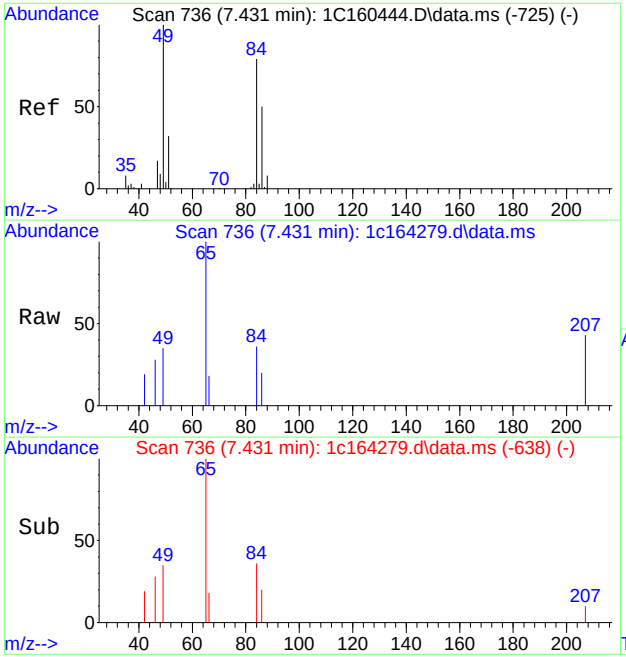


#22
carbon disulfide
Concen: 0.25 ug/L
RT: 7.086 min Scan# 670
Delta R.T. 0.000 min
Lab File: 1c164279.d
Acq: 3 May 2019 2:44 pm

Tgt Ion: 76 Resp: 749

Ion	Ratio	Lower	Upper
76	100		
78	0.0	0.0	39.3
44	0.0	0.0	42.1

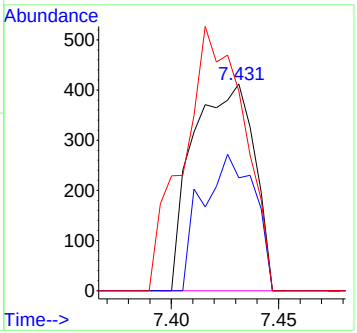




#23
methylene chloride
Concen: 0.80 ug/L
RT: 7.431 min Scan# 736
Delta R.T. 0.010 min
Lab File: 1c164279.d
Acq: 3 May 2019 2:44 pm

Tgt Ion: 84 Resp: 818

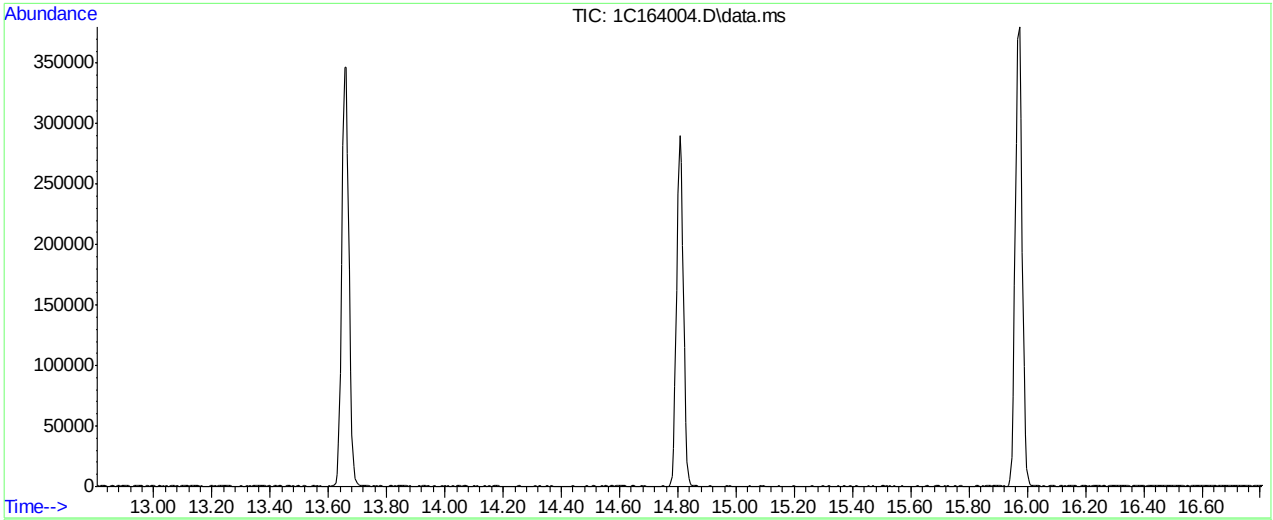
Ion	Ratio	Lower	Upper
84	100		
86	54.6	33.8	93.8
49	96.6	91.8	151.8



SW-846 Method 8260

Data File : C:\msdchem\1\DATA\V1C7200\1C164004.D Vial: 2
Acq On : 24 Apr 2019 2:40 pm Operator: ROBERTS
Sample : BFB Inst : GCMS1C
Misc : MS34128,V1C7200,5.0,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M1CS7200.M (RTE Integrator)
Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um



AutoFind: Scans 2145, 2146, 2147; Background Corrected with Scan 2137

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.0	9866	PASS
75	95	30	60	49.0	26882	PASS
95	95	100	100	100.0	54821	PASS
96	95	5	9	6.8	3741	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	87.3	47850	PASS
175	174	5	9	7.7	3704	PASS
176	174	95	101	97.3	46538	PASS
177	176	5	9	6.8	3149	PASS

1C164004.D M1CS7200.M Thu Apr 25 08:08:51 2019

Average of 14.801 to 14.811 min.: 1C164004.D\data.ms
BFB
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.10	544	51.10	2948	69.10	5345	81.00	1518
37.10	2561	55.10	98	70.05	372	81.95	264
38.10	2103	56.05	747	72.05	321	87.00	2269
39.10	936	57.10	1355	73.10	2372	88.00	2197
40.00	55	60.10	509	74.10	8770	90.95	209
44.10	255	61.05	2423	75.10	26882	92.10	1459
45.05	457	62.10	2371	76.10	2329	93.05	2145
47.05	626	63.10	1826	77.05	319	94.10	6042
48.10	307	64.10	101	78.05	253	95.10	54821
49.10	2240	67.10	114	79.00	1429	96.05	3741
50.10	9866	68.05	5387	80.00	468	103.95	254

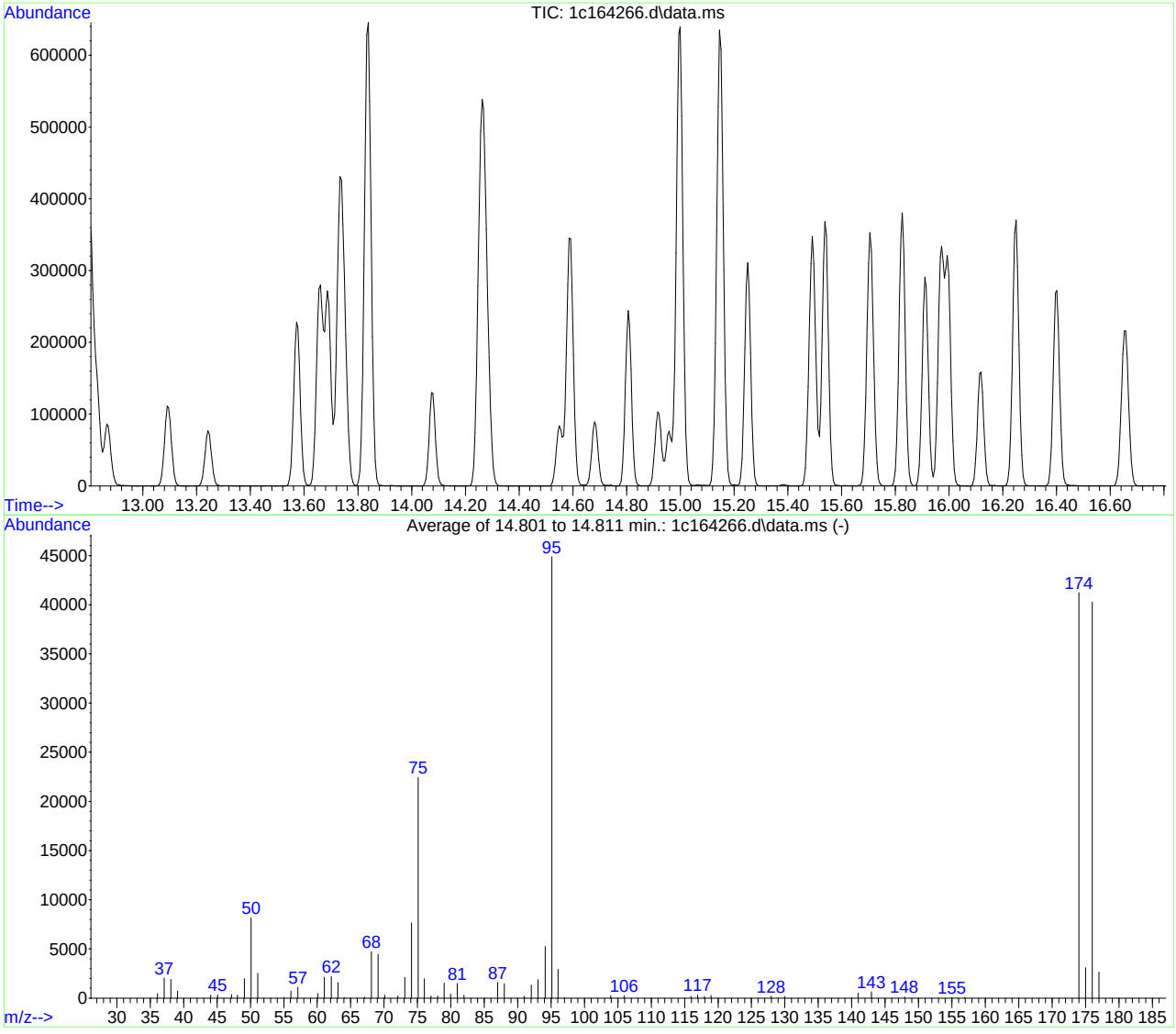
Average of 14.801 to 14.811 min.: 1C164004.D\data.ms
BFB
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
105.95	231	154.95	117				
115.95	210	174.00	47850				
117.00	333	175.00	3704				
117.95	212	176.00	46538				
119.00	281	177.00	3149				
127.90	120						
128.90	103						
129.95	234						
140.95	508						
142.95	581						
148.00	51						

SW-846 Method 8260

Data File : C:\msdchem\1\data\eu...19\v1c7209\1c164266.d Vial: 3
Acq On : 3 May 2019 8:23 am Operator: EddieH
Sample : BFB Inst : GCMS1C
Misc : MS34270,V1C7209,5.0,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M1CS7200.M (RTE Integrator)
Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um



AutoFind: Scans 2145, 2146, 2147; Background Corrected with Scan 2137

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.1	8143	PASS
75	95	30	60	50.0	22435	PASS
95	95	100	100	100.0	44875	PASS
96	95	5	9	6.5	2929	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	91.9	41227	PASS
175	174	5	9	7.5	3089	PASS
176	174	95	101	97.7	40291	PASS
177	176	5	9	6.6	2651	PASS

1c164266.d M1CS7200.M Sat May 04 23:34:09 2019

Average of 14.801 to 14.811 min.: 1c164266.d\data.ms
BFB
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.10	458	55.00	61	70.10	298	81.95	301
37.10	2038	56.05	708	72.05	212	87.00	1584
38.10	1892	57.10	1116	73.10	2109	88.00	1443
39.10	733	60.10	465	74.10	7651	90.95	207
44.05	310	61.05	2141	75.10	22435	92.05	1312
45.10	327	62.10	2193	76.05	1981	93.05	1866
47.15	357	63.10	1570	77.05	230	94.10	5253
48.05	299	64.10	53	78.05	210	95.10	44875
49.10	1974	67.10	98	79.00	1541	96.05	2929
50.10	8143	68.10	4725	79.95	417	97.00	49
51.10	2516	69.10	4471	80.95	1491	103.95	238

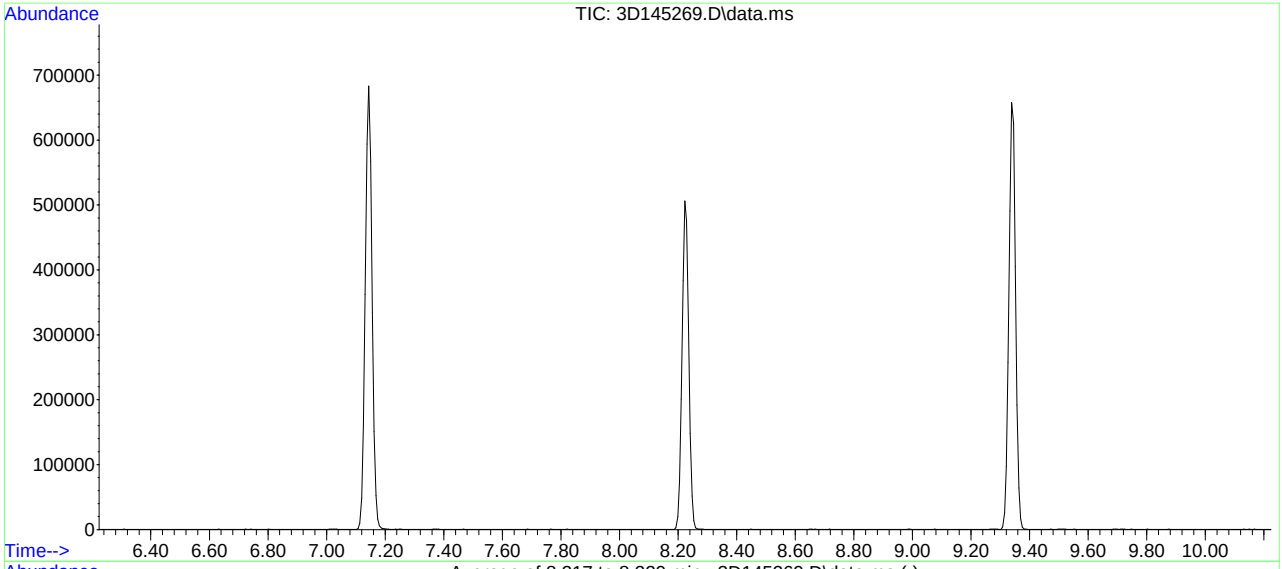
Average of 14.801 to 14.811 min.: 1c164266.d\data.ms
BFB
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
105.95	240	156.90	48				
115.95	184	174.00	41227				
116.95	315	175.00	3089				
117.95	158	176.00	40291				
118.95	264	177.00	2651				
127.95	202						
129.95	176						
140.95	514						
142.95	634						
147.90	108						
155.00	53						

SW-846 Method 8260

Data File : C:\msdchem\1\DATA\V3D6212\3D145269.D Vial: 1
Acq On : 7 Mar 2019 5:57 pm Operator: juntaep
Sample : bfb Inst : MS3D
Misc : MS32815,V3D6212,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M3D6212.M (RTE Integrator)
Title : SW846 8260C/ EPA 624, Rxi-624 60 m x 0.25 mm x 1.4Fri Mar 08 16:34:21 2019



AutoFind: Scans 1145, 1146, 1147; Background Corrected with Scan 1138

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.6	16616	PASS
75	95	30	60	47.2	44517	PASS
95	95	100	100	100.0	94402	PASS
96	95	5	9	6.6	6251	PASS
173	174	0.00	2	1.2	981	PASS
174	95	50	120	88.6	83682	PASS
175	174	5	9	7.5	6242	PASS
176	174	95	101	96.7	80954	PASS
177	176	5	9	6.7	5431	PASS

3D145269.D M3D6212.M Fri Mar 08 16:35:43 2019 3D

Average of 8.217 to 8.229 min.: 3D145269.D\data.ms
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.10	929	50.10	16616	64.05	266	77.95	389
37.10	4485	51.10	5184	67.05	252	78.95	1810
38.10	3824	52.05	271	68.10	8574	80.00	528
39.10	1481	55.05	252	69.10	8750	80.95	1906
40.05	134	56.10	1178	70.05	642	81.95	407
43.00	33	57.10	2129	72.05	486	86.05	84
44.00	408	58.00	38	73.10	3702	87.00	3819
45.10	770	60.05	819	74.10	14942	88.00	3677
47.10	1123	61.10	4107	75.10	44517	90.95	260
48.05	543	62.10	3916	76.10	3753	92.10	2353
49.10	3618	63.10	2995	77.00	570	93.05	3478

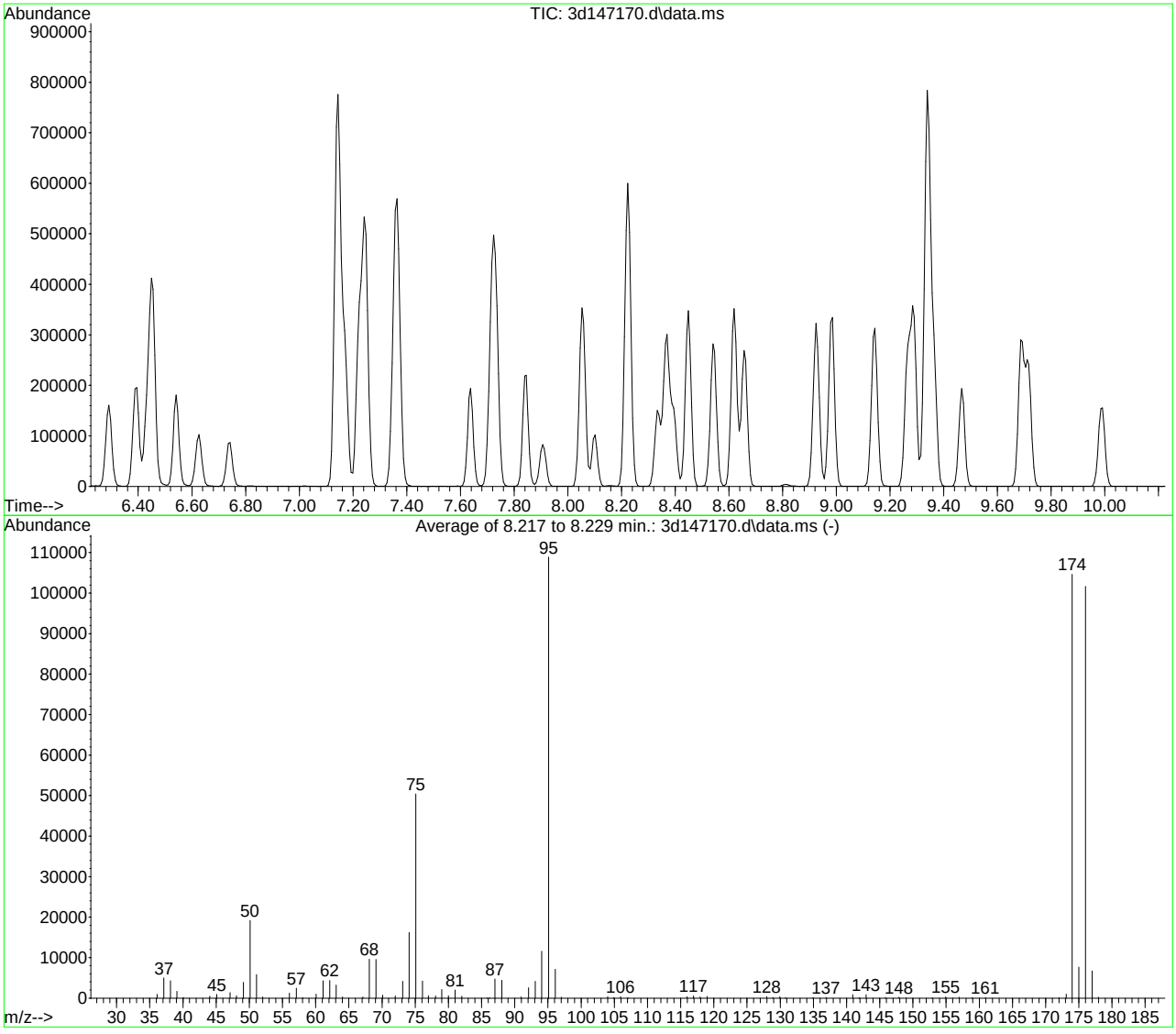
Average of 8.217 to 8.229 min.: 3D145269.D\data.ms
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
94.10	10403	118.90	399	154.95	258		
95.10	94402	127.95	349	156.80	46		
96.10	6251	128.90	172	156.95	110		
97.05	220	129.95	307	158.85	133		
103.95	270	130.90	90	160.90	78		
104.95	69	134.95	178	173.15	981		
105.95	272	136.90	145	174.00	83682		
115.00	40	140.95	781	175.00	6242		
115.95	260	142.95	821	176.00	80954		
117.00	492	146.00	162	177.00	5431		
117.95	261	147.95	211	177.95	154		

SW-846 Method 8260

Data File : C:\msdchem\1\data\ke... 6\v3d6294\3d147170.d Vial: 2
Acq On : 3 May 2019 6:27 am Operator: EddieH
Sample : BFB Inst : MS3D
Misc : MS34194,V3D6294,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M3D6212.M (RTE Integrator)
Title : SW846 8260C/ EPA 624, Rxi-624 60 m x 0.25 mm x 1.4Fri Mar 08 17:11:15 2019



AutoFind: Scans 1145, 1146, 1147; Background Corrected with Scan 1137

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.6	19161	PASS
75	95	30	60	46.3	50405	PASS
95	95	100	100	100.0	108861	PASS
96	95	5	9	6.6	7140	PASS
173	174	0.00	2	0.9	971	PASS
174	95	50	120	96.1	104611	PASS
175	174	5	9	7.3	7657	PASS
176	174	95	101	97.2	101645	PASS
177	176	5	9	6.6	6676	PASS

3d147170.d M3D6212.M Mon May 06 00:06:54 2019

Average of 8.217 to 8.229 min.: 3d147170.d\data.ms
BFB
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.10	955	51.10	5811	68.10	9624	80.00	632
37.10	4987	52.00	284	69.10	9525	81.00	2027
38.10	4294	56.05	1256	70.10	755	82.00	473
39.10	1686	57.10	2424	72.00	539	85.80	45
40.05	152	58.05	110	73.10	4152	86.20	88
44.05	474	60.05	972	74.10	16217	87.00	4738
45.10	904	61.10	4253	75.10	50405	88.05	4426
47.10	1380	62.10	4364	76.10	4195	90.95	282
48.05	591	63.10	3179	77.00	583	92.10	2600
49.10	3876	64.05	271	78.05	530	93.10	4139
50.10	19161	67.10	258	79.00	2099	94.05	11579

Average of 8.217 to 8.229 min.: 3d147170.d\data.ms
BFB
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
95.10	108861	127.95	365	149.00	43	177.00	6676
96.10	7140	128.90	154	152.90	36	177.95	198
97.05	234	129.95	341	154.95	261		
104.00	325	130.80	85	156.95	196		
104.90	89	134.95	116	158.95	101		
105.95	368	136.90	157	160.90	88		
107.05	114	140.95	870	172.00	84		
115.95	334	141.90	122	173.10	971		
116.95	561	142.95	888	174.00	104611		
117.95	276	145.85	141	175.00	7657		
119.00	421	147.90	207	176.00	101645		

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1C7200\
Data File : 1C164005.D
Acq On : 24 Apr 2019 3:12 pm
Operator : ROBERTS
Sample : IC7200-0.5
Misc : MS34128,V1C7200,5.0,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 25 07:51:51 2019
Quant Method : C:\MSDCHEM\1\METHODS\M1CS7200.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Apr 25 06:46:50 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	7.358	65	56857	500.00	ug/L		0.00
5) pentafluorobenzene	9.602	168	180407	50.00	ug/L		0.00
52) 1,4-difluorobenzene	10.523	114	247388	50.00	ug/L		0.00
74) chlorobenzene-d5	13.656	117	195319	50.00	ug/L		0.00
97) 1,4-dichlorobenzene-d4	15.973	152	101386	50.00	ug/L		0.00
System Monitoring Compounds							
44) dibromofluoromethane (s)	9.670	113	75317	49.10	ug/L		0.00
Spiked Amount 50.000	Range 75 - 127		Recovery = 98.20%				
53) 1,2-dichloroethane-d4 (s)	10.088	65	76558	50.42	ug/L		0.00
Spiked Amount 50.000	Range 75 - 130		Recovery = 100.84%				
75) toluene-d8 (s)	12.149	98	263586	50.46	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.92%				
98) 4-bromofluorobenzene (s)	14.806	95	95733	50.70	ug/L		0.00
Spiked Amount 50.000	Range 79 - 127		Recovery = 101.40%				
Target Compounds							Qvalue
6) chlorodifluoromethane	3.896	51	923	0.47	ug/L		65
7) dichlorodifluoromethane	3.859	85	1066	0.38	ug/L		90
8) chloromethane	4.283	50	1081	0.55	ug/L		89
9) vinyl chloride	4.508	62	808	0.42	ug/L		86
10) 1,3-butadiene	4.586	54	497	0.40	ug/L	#	71
11) bromomethane	5.198	94	693	0.50	ug/L		91
13) trichlorofluoromethane	5.810	101	1237	0.43	ug/L		80
18) 1,1-dichloroethene	6.684	96	716	0.47	ug/L		90
25) methyl tert butyl ether	7.719	73	1967	0.47	ug/L		97
26) trans-1,2-dichloroethene	7.782	96	925	0.56	ug/L		91
27) di-isopropyl ether	8.300	45	2433	0.48	ug/L		94
29) 1,1-dichloroethane	8.357	63	1384	0.49	ug/L		84
30) chloroprene	8.467	53	1101	0.44	ug/L		89
32) hexane	8.070	57	1214	0.45	ug/L		91
34) ethyl tert-butyl ether	8.765	59	2305	0.46	ug/L		96
36) 2,2-dichloropropane	9.089	77	1187	0.46	ug/L		71
37) cis-1,2-dichloroethene	9.100	96	855	0.48	ug/L	#	68
42) chloroform	9.466	85	1189	0.62	ug/L		91
46) 1,1,1-trichloroethane	9.696	97	1125	0.42	ug/L	#	66
47) cyclohexane	9.769	84	1029	0.40	ug/L		84
48) 1,1-dichloropropene	9.879	75	1037	0.46	ug/L		97
50) carbon tetrachloride	9.895	117	989	0.42	ug/L	#	66
55) 2,2,4-trimethylpentane	10.115	57	2403	0.39	ug/L		82
56) benzene	10.151	78	3489	0.58	ug/L		86
61) trichloroethene	10.863	130	715	0.43	ug/L		88
64) 2-chloroethyl vinyl ether	11.663	63	1781	2.18	ug/L		97
66) 1,2-dichloropropane	11.140	63	730	0.49	ug/L		93
69) bromodichloromethane	11.427	83	1009	0.47	ug/L		91
71) cis-1,3-dichloropropene	11.877	75	1217	0.50	ug/L		90
72) 4-methyl-2-pentanone	11.961	58	924	2.19	ug/L	#	75
76) toluene	12.228	92	2011	0.58	ug/L		97
77) trans-1,3-dichloropropene	12.437	75	1024	0.49	ug/L		79

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1C7200\
Data File : 1C164005.D
Acq On : 24 Apr 2019 3:12 pm
Operator : ROBERTS
Sample : IC7200-0.5
Misc : MS34128,V1C7200,5.0,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 25 07:51:51 2019
Quant Method : C:\MSDCHEM\1\METHODS\M1CS7200.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Apr 25 06:46:50 2019
Response via : Initial Calibration

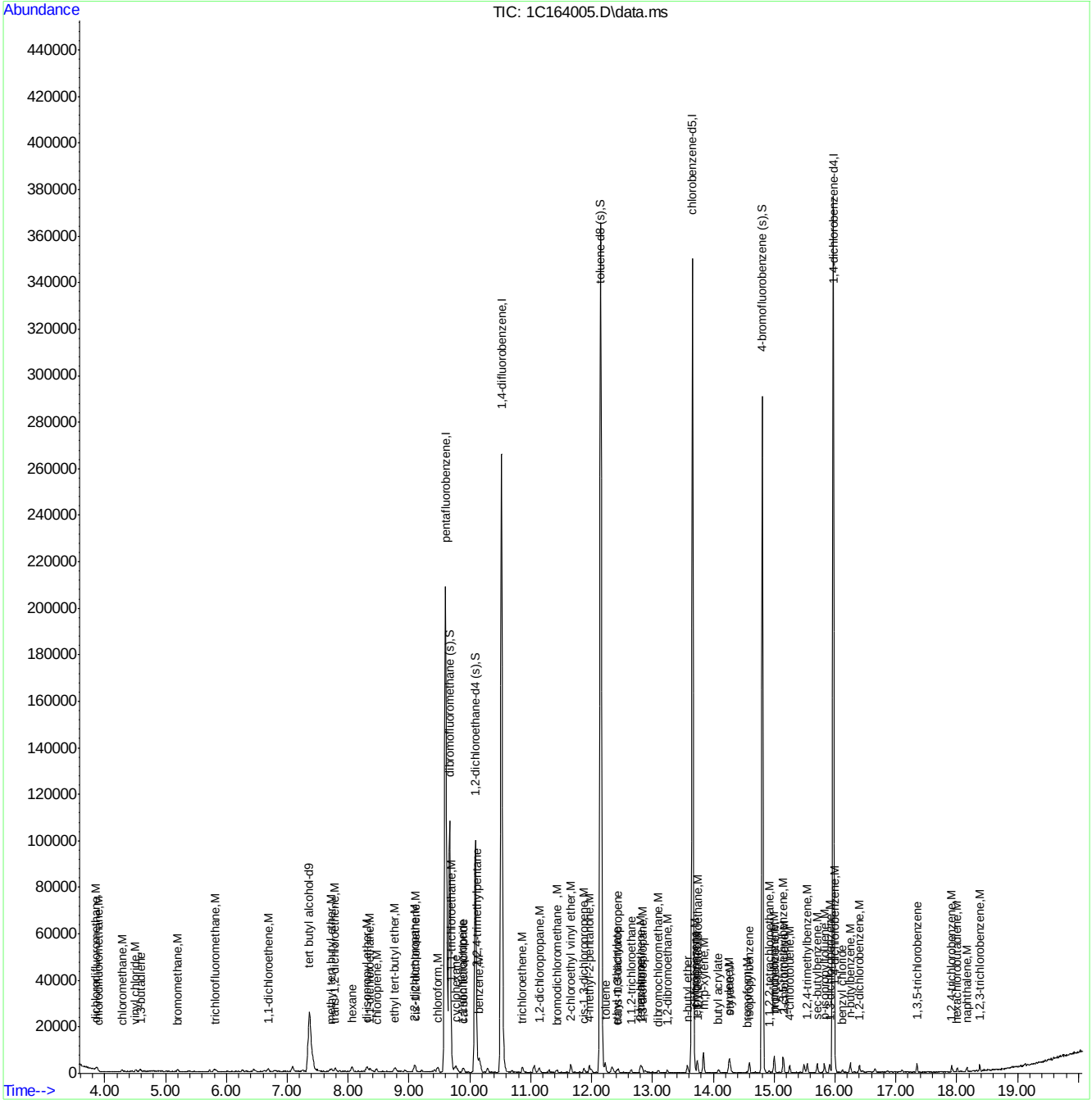
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
78) ethyl methacrylate	12.411	69	629	0.42 ug/L #	75
79) 1,1,2-trichloroethane	12.651	83	441	0.44 ug/L	93
80) tetrachloroethene	12.803	164	614	0.48 ug/L	90
81) 1,3-dichloropropane	12.834	76	850	0.48 ug/L	84
82) 2-hexanone	12.813	58	726	1.85 ug/L #	78
84) dibromochloromethane	13.091	129	649	0.43 ug/L	81
85) 1,2-dibromoethane	13.242	107	647	0.41 ug/L	89
86) n-butyl ether	13.577	57	2896	0.54 ug/L	92
87) chlorobenzene	13.692	112	1925	0.54 ug/L	84
88) 1,1,1,2-tetrachloroethane	13.750	131	577	0.41 ug/L	74
89) ethylbenzene	13.734	91	3838	0.60 ug/L	91
90) m,p-xylene	13.844	106	2712	1.14 ug/L	88
91) o-xylene	14.257	106	1250	0.54 ug/L	95
92) styrene	14.273	104	1980	0.51 ug/L	97
93) bromoform	14.555	173	383	0.41 ug/L #	36
94) butyl acrylate	14.079	55	1070	0.45 ug/L	94
95) isopropylbenzene	14.586	105	3537	0.57 ug/L	91
99) bromobenzene	15.005	156	838	0.53 ug/L	88
100) 1,1,2,2-tetrachloroethane	14.916	83	603	0.47 ug/L	93
103) n-propylbenzene	15.000	91	3956	0.54 ug/L	91
105) 2-chlorotoluene	15.157	126	717	0.50 ug/L #	70
106) 4-chlorotoluene	15.256	91	2607	0.59 ug/L	94
107) 1,3,5-trimethylbenzene	15.146	105	2947	0.56 ug/L	98
109) 1,2,4-trimethylbenzene	15.544	105	2991	0.58 ug/L	96
110) sec-butylbenzene	15.706	105	3460	0.52 ug/L	93
111) 1,3-dichlorobenzene	15.915	146	1659	0.56 ug/L	96
112) p-isopropyltoluene	15.826	119	2998	0.53 ug/L	98
113) 1,4-dichlorobenzene	15.999	146	1662	0.56 ug/L	94
114) benzyl chloride	16.119	91	1405	0.53 ug/L	94
115) 1,2-dichlorobenzene	16.401	146	1520	0.53 ug/L	97
117) n-butylbenzene	16.250	92	1526	0.53 ug/L	97
119) 1,3,5-trichlorobenzene	17.348	180	1303	0.56 ug/L	95
122) 1,2,4-trichlorobenzene	17.918	180	923	0.48 ug/L	97
123) hexachlorobutadiene	18.007	225	671	0.49 ug/L	95
124) naphthalene	18.169	128	2060	0.56 ug/L	86
125) 1,2,3-trichlorobenzene	18.378	180	1012	0.56 ug/L	85

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1C7200\
Data File : 1C164005.D
Acq On : 24 Apr 2019 3:12 pm
Operator : ROBERTS
Sample : IC7200-0.5
Misc : MS34128,V1C7200,5.0,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 25 07:51:51 2019
Quant Method : C:\MSDCHEM\1\METHODS\M1CS7200.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Apr 25 06:46:50 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1C7200\
Data File : 1C164006.D
Acq On : 24 Apr 2019 3:38 pm
Operator : ROBERTS
Sample : IC7200-1
Misc : MS34128,V1C7200,5.0,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 25 07:53:15 2019
Quant Method : C:\MSDCHEM\1\METHODS\M1CS7200.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Apr 25 06:46:50 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	7.363	65	55643	500.00	ug/L		0.00
5) pentafluorobenzene	9.602	168	174973	50.00	ug/L		0.00
52) 1,4-difluorobenzene	10.522	114	238846	50.00	ug/L		0.00
74) chlorobenzene-d5	13.661	117	190511	50.00	ug/L		0.00
97) 1,4-dichlorobenzene-d4	15.972	152	100142	50.00	ug/L		0.00
System Monitoring Compounds							
44) dibromofluoromethane (s)	9.670	113	72928	49.01	ug/L		0.00
Spiked Amount 50.000	Range 75 - 127		Recovery = 98.02%				
53) 1,2-dichloroethane-d4 (s)	10.088	65	76004	51.85	ug/L		0.00
Spiked Amount 50.000	Range 75 - 130		Recovery = 103.70%				
75) toluene-d8 (s)	12.149	98	256822	50.41	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.82%				
98) 4-bromofluorobenzene (s)	14.806	95	92963	49.85	ug/L		0.00
Spiked Amount 50.000	Range 79 - 127		Recovery = 99.70%				
Target Compounds							Qvalue
6) chlorodifluoromethane	3.896	51	1722	0.90	ug/L		88
7) dichlorodifluoromethane	3.864	85	2706	0.99	ug/L		94
8) chloromethane	4.278	50	1997	1.05	ug/L		95
9) vinyl chloride	4.513	62	1939	1.03	ug/L		88
10) 1,3-butadiene	4.591	54	1106	0.92	ug/L		92
11) bromomethane	5.198	94	1539	1.15	ug/L		92
12) chloroethane	5.376	64	1111	1.02	ug/L		92
13) trichlorofluoromethane	5.815	101	2623	0.93	ug/L		93
14) vinyl bromide	5.726	106	1044	0.96	ug/L		81
17) freon 113	6.615	151	1051	0.83	ug/L		88
18) 1,1-dichloroethene	6.689	96	1465	0.99	ug/L		85
22) carbon disulfide	7.086	76	5263	1.15	ug/L		94
25) methyl tert butyl ether	7.714	73	3661	0.90	ug/L		98
26) trans-1,2-dichloroethene	7.792	96	1625	1.02	ug/L		88
27) di-isopropyl ether	8.310	45	4665	0.95	ug/L		94
29) 1,1-dichloroethane	8.357	63	2624	0.96	ug/L		97
30) chloroprene	8.462	53	2335	0.96	ug/L		94
32) hexane	8.059	57	2438	0.94	ug/L		90
34) ethyl tert-butyl ether	8.776	59	4240	0.88	ug/L		98
36) 2,2-dichloropropane	9.089	77	2428	0.97	ug/L		83
37) cis-1,2-dichloroethene	9.105	96	1730	1.01	ug/L		91
39) propionitrile	9.204	54	1517	8.79	ug/L		60
40) bromochloromethane	9.419	128	664	0.85	ug/L		90
42) chloroform	9.471	85	1947	1.05	ug/L		95
46) 1,1,1-trichloroethane	9.701	97	2413	0.93	ug/L		80
47) cyclohexane	9.759	84	2685	1.07	ug/L		99
48) 1,1-dichloropropene	9.895	75	2038	0.94	ug/L		93
50) carbon tetrachloride	9.895	117	2151	0.94	ug/L		98
55) 2,2,4-trimethylpentane	10.115	57	5689	0.96	ug/L		88
56) benzene	10.151	78	6098	1.06	ug/L		98
57) tert-amyl methyl ether	10.162	87	764	0.79	ug/L	#	73
58) heptane	10.292	71	1152	0.86	ug/L		87

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1C7200\
Data File : 1C164006.D
Acq On : 24 Apr 2019 3:38 pm
Operator : ROBERTS
Sample : IC7200-1
Misc : MS34128,V1C7200,5.0,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 25 07:53:15 2019
Quant Method : C:\MSDCHEM\1\METHODS\M1CS7200.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Apr 25 06:46:50 2019
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
60)	1,2-dichloroethane	10.182	62	2241	1.21	ug/L		89
61)	trichloroethene	10.868	130	1518	0.95	ug/L		96
62)	ethyl acrylate	10.878	55	1241	0.82	ug/L		63
64)	2-chloroethyl vinyl ether	11.657	63	3185	4.04	ug/L		99
66)	1,2-dichloropropane	11.140	63	1451	1.02	ug/L		98
67)	dibromomethane	11.297	93	752	0.88	ug/L		95
68)	methylcyclohexane	11.056	83	3029	1.17	ug/L		92
69)	bromodichloromethane	11.433	83	1927	0.93	ug/L		96
71)	cis-1,3-dichloropropene	11.877	75	2266	0.96	ug/L		98
72)	4-methyl-2-pentanone	11.961	58	1617	3.98	ug/L	#	61
76)	toluene	12.228	92	3578	1.06	ug/L	#	85
77)	trans-1,3-dichloropropene	12.437	75	1845	0.91	ug/L		94
78)	ethyl methacrylate	12.416	69	1210	0.82	ug/L		86
79)	1,1,2-trichloroethane	12.646	83	832	0.86	ug/L	#	77
80)	tetrachloroethene	12.803	164	1154	0.92	ug/L		88
81)	1,3-dichloropropane	12.834	76	1534	0.89	ug/L		96
82)	2-hexanone	12.819	58	1377	3.59	ug/L		87
84)	dibromochloromethane	13.096	129	1293	0.88	ug/L		100
85)	1,2-dibromoethane	13.247	107	1374	0.89	ug/L		97
86)	n-butyl ether	13.577	57	5266	1.00	ug/L		97
87)	chlorobenzene	13.692	112	3505	1.00	ug/L		83
88)	1,1,1,2-tetrachloroethane	13.750	131	1233	0.91	ug/L		94
89)	ethylbenzene	13.734	91	6486	1.04	ug/L		94
90)	m,p-xylene	13.838	106	4869	2.09	ug/L		92
91)	o-xylene	14.257	106	2208	0.97	ug/L		100
92)	styrene	14.267	104	3856	1.02	ug/L		96
93)	bromoform	14.550	173	731	0.81	ug/L		86
94)	butyl acrylate	14.084	55	2129	0.93	ug/L		98
95)	isopropylbenzene	14.592	105	6035	1.00	ug/L		95
99)	bromobenzene	15.005	156	1574	1.00	ug/L	#	80
100)	1,1,2,2-tetrachloroethane	14.921	83	1070	0.84	ug/L		91
103)	n-propylbenzene	15.000	91	7253	1.01	ug/L		99
105)	2-chlorotoluene	15.156	126	1425	1.01	ug/L	#	85
106)	4-chlorotoluene	15.256	91	4480	1.03	ug/L		94
107)	1,3,5-trimethylbenzene	15.146	105	5192	1.00	ug/L		98
108)	tert-butylbenzene	15.496	134	821	0.90	ug/L		93
109)	1,2,4-trimethylbenzene	15.543	105	5222	1.02	ug/L		95
110)	sec-butylbenzene	15.706	105	6474	0.99	ug/L		97
111)	1,3-dichlorobenzene	15.915	146	2894	0.99	ug/L		87
112)	p-isopropyltoluene	15.826	119	5579	1.00	ug/L		92
113)	1,4-dichlorobenzene	15.999	146	2990	1.02	ug/L		98
114)	benzyl chloride	16.119	91	2382	0.91	ug/L		92
115)	1,2-dichlorobenzene	16.401	146	2644	0.94	ug/L		95
117)	n-butylbenzene	16.250	92	2743	0.96	ug/L		98
119)	1,3,5-trichlorobenzene	17.348	180	2203	0.96	ug/L		92
122)	1,2,4-trichlorobenzene	17.918	180	1867	0.98	ug/L		92
123)	hexachlorobutadiene	18.012	225	1263	0.94	ug/L		95
124)	naphthalene	18.169	128	3436	0.94	ug/L		96
125)	1,2,3-trichlorobenzene	18.378	180	1559	0.88	ug/L		88
126)	hexachloroethane	16.658	201	847	0.81	ug/L		91

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1C7200\
Data File : 1C164006.D
Acq On : 24 Apr 2019 3:38 pm
Operator : ROBERTS
Sample : IC7200-1
Misc : MS34128,V1C7200,5.0,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 25 07:53:15 2019
Quant Method : C:\MSDCHEM\1\METHODS\M1CS7200.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Apr 25 06:46:50 2019
Response via : Initial Calibration

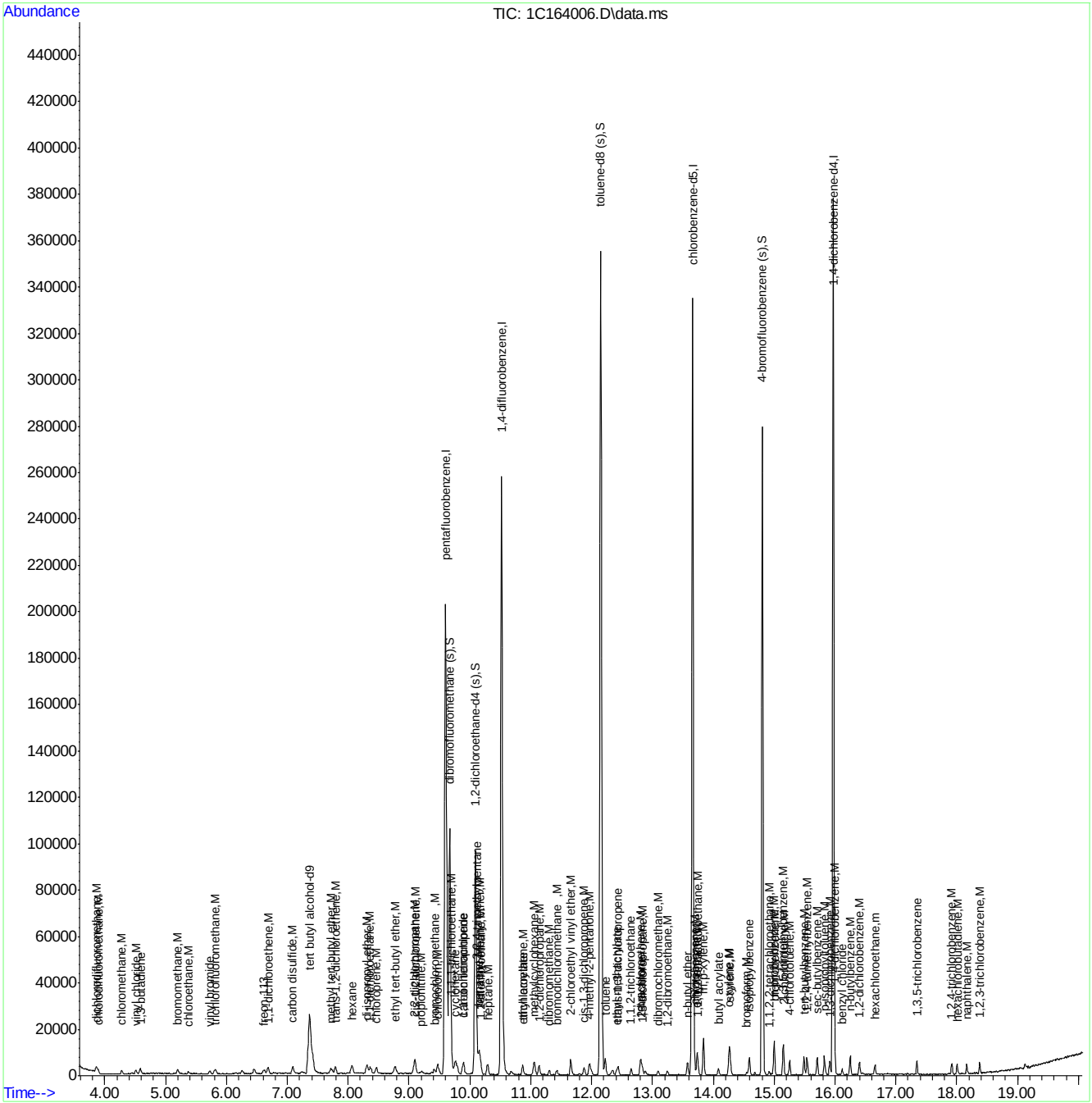
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1C7200\
Data File : 1C164006.D
Acq On : 24 Apr 2019 3:38 pm
Operator : ROBERTS
Sample : IC7200-1
Misc : MS34128,V1C7200,5.0,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 25 07:53:15 2019
Quant Method : C:\MSDCHEM\1\METHODS\M1CS7200.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Apr 25 06:46:50 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1C7200\
Data File : 1C164007.D
Acq On : 24 Apr 2019 4:05 pm
Operator : ROBERTS
Sample : IC7200-2
Misc : MS34128,V1C7200,5.0,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 25 07:55:28 2019
Quant Method : C:\MSDCHEM\1\METHODS\M1CS7200.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Apr 25 06:46:50 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	7.369	65	57479	500.00	ug/L		0.00
5) pentafluorobenzene	9.602	168	175704	50.00	ug/L		0.00
52) 1,4-difluorobenzene	10.523	114	242175	50.00	ug/L		0.00
74) chlorobenzene-d5	13.661	117	191175	50.00	ug/L		0.00
97) 1,4-dichlorobenzene-d4	15.972	152	99385	50.00	ug/L		0.00
System Monitoring Compounds							
44) dibromofluoromethane (s)	9.670	113	73586	49.25	ug/L		0.00
Spiked Amount 50.000	Range 75 - 127		Recovery = 98.50%				
53) 1,2-dichloroethane-d4 (s)	10.094	65	76594	51.53	ug/L		0.00
Spiked Amount 50.000	Range 75 - 130		Recovery = 103.06%				
75) toluene-d8 (s)	12.149	98	262567	51.36	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.72%				
98) 4-bromofluorobenzene (s)	14.806	95	93274	50.40	ug/L		0.00
Spiked Amount 50.000	Range 79 - 127		Recovery = 100.80%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	7.489	59	1394	9.34	ug/L		67
6) chlorodifluoromethane	3.896	51	3875	2.01	ug/L		95
7) dichlorodifluoromethane	3.864	85	4940	1.81	ug/L		92
8) chloromethane	4.278	50	3691	1.93	ug/L		98
9) vinyl chloride	4.513	62	3360	1.79	ug/L		92
10) 1,3-butadiene	4.581	54	2309	1.90	ug/L		87
11) bromomethane	5.203	94	2700	2.00	ug/L		84
12) chloroethane	5.376	64	2019	1.85	ug/L		94
13) trichlorofluoromethane	5.810	101	5183	1.84	ug/L		97
14) vinyl bromide	5.737	106	1853	1.69	ug/L		81
15) ethyl ether	6.255	74	1295	1.73	ug/L	#	77
17) freon 113	6.621	151	2180	1.71	ug/L		90
18) 1,1-dichloroethene	6.678	96	3099	2.09	ug/L		91
19) acetone	6.783	43	2812	8.05	ug/L		90
20) acetonitrile	7.238	41	2495	16.77	ug/L		88
22) carbon disulfide	7.086	76	10013	2.18	ug/L		99
23) methylene chloride	7.421	84	3253	2.08	ug/L		96
25) methyl tert butyl ether	7.714	73	7466	1.84	ug/L		97
26) trans-1,2-dichloroethene	7.787	96	3295	2.06	ug/L		87
27) di-isopropyl ether	8.305	45	9628	1.95	ug/L		95
28) 2-butanone	9.089	72	933	6.63	ug/L	#	50
29) 1,1-dichloroethane	8.363	63	5644	2.05	ug/L		96
30) chloroprene	8.462	53	4748	1.94	ug/L		99
32) hexane	8.064	57	4949	1.90	ug/L		97
34) ethyl tert-butyl ether	8.776	59	9014	1.86	ug/L		96
36) 2,2-dichloropropane	9.084	77	5048	2.02	ug/L		98
37) cis-1,2-dichloroethene	9.100	96	3783	2.19	ug/L		94
39) propionitrile	9.205	54	3159	18.22	ug/L		95
40) bromochloromethane	9.424	128	1443	1.85	ug/L		87
42) chloroform	9.466	85	3994	2.15	ug/L		95
43) t-butyl formate	9.492	59	1811	1.55	ug/L	#	79
45) methacrylonitrile	9.377	67	837	1.60	ug/L		90

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1C7200\
Data File : 1C164007.D
Acq On : 24 Apr 2019 4:05 pm
Operator : ROBERTS
Sample : IC7200-2
Misc : MS34128,V1C7200,5.0,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 25 07:55:28 2019
Quant Method : C:\MSDCHEM\1\METHODS\M1CS7200.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Apr 25 06:46:50 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
46) 1,1,1-trichloroethane	9.701	97	5121	1.96	ug/L		94
47) cyclohexane	9.759	84	4792	1.90	ug/L		93
48) 1,1-dichloropropene	9.884	75	4353	2.00	ug/L		95
50) carbon tetrachloride	9.900	117	4437	1.94	ug/L		96
54) n-butyl alcohol	10.669	56	2816	75.87	ug/L		94
55) 2,2,4-trimethylpentane	10.109	57	12025	2.00	ug/L		92
56) benzene	10.151	78	12677	2.17	ug/L		99
57) tert-amyl methyl ether	10.167	87	1905	1.94	ug/L	#	84
58) heptane	10.292	71	2550	1.88	ug/L		98
60) 1,2-dichloroethane	10.183	62	4071	2.16	ug/L		94
61) trichloroethene	10.863	130	3380	2.08	ug/L		93
62) ethyl acrylate	10.873	55	2808	1.83	ug/L		85
64) 2-chloroethyl vinyl ether	11.658	63	6733	8.42	ug/L		97
66) 1,2-dichloropropane	11.135	63	2862	1.98	ug/L		92
67) dibromomethane	11.302	93	1707	1.96	ug/L		78
68) methylcyclohexane	11.061	83	5770	2.19	ug/L		100
69) bromodichloromethane	11.433	83	4259	2.02	ug/L		93
70) epichlorohydrin	11.804	57	1058	8.97	ug/L		79
71) cis-1,3-dichloropropene	11.877	75	4588	1.91	ug/L		98
72) 4-methyl-2-pentanone	11.961	58	3349	8.12	ug/L		94
73) 3-methyl-1-butanol	11.987	55	1848	33.74	ug/L		95
76) toluene	12.222	92	7273	2.15	ug/L		91
77) trans-1,3-dichloropropene	12.437	75	3913	1.93	ug/L		98
78) ethyl methacrylate	12.411	69	2624	1.78	ug/L		96
79) 1,1,2-trichloroethane	12.651	83	1747	1.79	ug/L		94
80) tetrachloroethene	12.803	164	2619	2.08	ug/L		95
81) 1,3-dichloropropane	12.829	76	3478	2.01	ug/L		93
82) 2-hexanone	12.813	58	3149	8.18	ug/L	#	85
83) butyl acetate	12.881	56	1342	1.92	ug/L	#	71
84) dibromochloromethane	13.096	129	2663	1.81	ug/L		87
85) 1,2-dibromoethane	13.242	107	2860	1.85	ug/L		98
86) n-butyl ether	13.577	57	10620	2.02	ug/L		99
87) chlorobenzene	13.692	112	7371	2.09	ug/L		78
88) 1,1,1,2-tetrachloroethane	13.755	131	2556	1.87	ug/L		93
89) ethylbenzene	13.734	91	13341	2.13	ug/L		96
90) m,p-xylene	13.839	106	10131	4.34	ug/L		90
91) o-xylene	14.257	106	4690	2.06	ug/L		93
92) styrene	14.273	104	7772	2.04	ug/L		95
93) bromoform	14.555	173	1672	1.84	ug/L		91
94) butyl acrylate	14.084	55	4360	1.89	ug/L		93
95) isopropylbenzene	14.592	105	12805	2.11	ug/L		96
99) bromobenzene	15.005	156	3141	2.02	ug/L		95
100) 1,1,2,2-tetrachloroethane	14.916	83	2504	1.98	ug/L		93
103) n-propylbenzene	15.000	91	14977	2.09	ug/L		99
105) 2-chlorotoluene	15.157	126	2829	2.02	ug/L		98
106) 4-chlorotoluene	15.251	91	8946	2.08	ug/L		99
107) 1,3,5-trimethylbenzene	15.146	105	10453	2.03	ug/L		96
108) tert-butylbenzene	15.491	134	1701	1.89	ug/L	#	86
109) 1,2,4-trimethylbenzene	15.538	105	10680	2.10	ug/L		99
110) sec-butylbenzene	15.711	105	13449	2.08	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1C7200\
Data File : 1C164007.D
Acq On : 24 Apr 2019 4:05 pm
Operator : ROBERTS
Sample : IC7200-2
Misc : MS34128,V1C7200,5.0,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 25 07:55:28 2019
Quant Method : C:\MSDCHEM\1\METHODS\M1CS7200.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Apr 25 06:46:50 2019
Response via : Initial Calibration

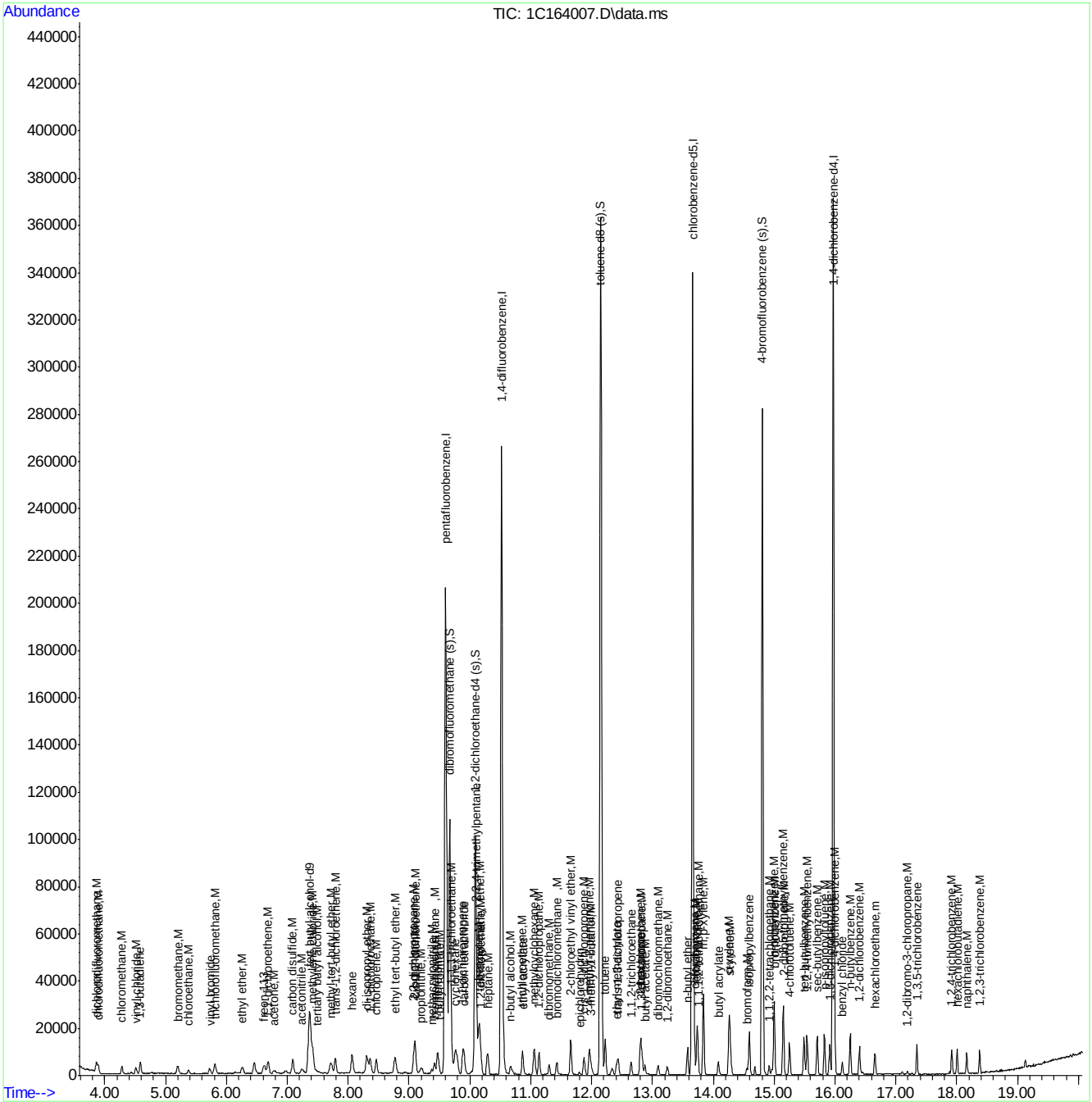
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
111) 1,3-dichlorobenzene	15.915	146	6011	2.07	ug/L	99
112) p-isopropyltoluene	15.826	119	11090	2.00	ug/L	94
113) 1,4-dichlorobenzene	15.999	146	5982	2.05	ug/L	98
114) benzyl chloride	16.119	91	4936	1.90	ug/L	91
115) 1,2-dichlorobenzene	16.401	146	5233	1.87	ug/L	94
117) n-butylbenzene	16.250	92	5712	2.02	ug/L	100
118) 1,2-dibromo-3-chloropr...	17.191	75	425	1.70	ug/L	94
119) 1,3,5-trichlorobenzene	17.348	180	4478	1.97	ug/L	94
122) 1,2,4-trichlorobenzene	17.918	180	3531	1.86	ug/L	93
123) hexachlorobutadiene	18.012	225	2689	2.01	ug/L	91
124) naphthalene	18.164	128	6789	1.87	ug/L	96
125) 1,2,3-trichlorobenzene	18.373	180	3441	1.95	ug/L	95
126) hexachloroethane	16.652	201	1970	1.89	ug/L	95

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1C7200\
Data File : 1C164007.D
Acq On : 24 Apr 2019 4:05 pm
Operator : ROBERTS
Sample : IC7200-2
Misc : MS34128,V1C7200,5.0,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 25 07:55:28 2019
Quant Method : C:\MSDCHEM\1\METHODS\M1CS7200.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Apr 25 06:46:50 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1C7200\
Data File : 1C164008.D
Acq On : 24 Apr 2019 4:31 pm
Operator : ROBERTS
Sample : IC7200-4
Misc : MS34128,V1C7200,5.0,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 25 07:57:40 2019
Quant Method : C:\MSDCHEM\1\METHODS\M1CS7200.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Apr 25 07:00:24 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	7.363	65	55724	500.00	ug/L		-0.02
5) pentafluorobenzene	9.602	168	170562	50.00	ug/L		0.00
52) 1,4-difluorobenzene	10.522	114	236748	50.00	ug/L		0.00
74) chlorobenzene-d5	13.661	117	188030	50.00	ug/L		0.00
97) 1,4-dichlorobenzene-d4	15.972	152	97716	50.00	ug/L		0.00
System Monitoring Compounds							
44) dibromofluoromethane (s)	9.670	113	71979	50.04	ug/L		0.00
Spiked Amount 50.000	Range 75 - 127		Recovery = 100.08%				
53) 1,2-dichloroethane-d4 (s)	10.088	65	74465	50.17	ug/L		0.00
Spiked Amount 50.000	Range 75 - 130		Recovery = 100.34%				
75) toluene-d8 (s)	12.149	98	252005	49.75	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.50%				
98) 4-bromofluorobenzene (s)	14.806	95	91643	49.96	ug/L		0.00
Spiked Amount 50.000	Range 79 - 127		Recovery = 99.92%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	7.494	59	2896	19.57	ug/L		81
4) 1,4-dioxane	11.255	88	1088	80.51	ug/L		93
6) chlorodifluoromethane	3.896	51	7059	3.97	ug/L		97
7) dichlorodifluoromethane	3.864	85	10560	4.19	ug/L		95
8) chloromethane	4.283	50	7443	4.03	ug/L		97
9) vinyl chloride	4.518	62	7128	4.10	ug/L		95
10) 1,3-butadiene	4.581	54	4443	4.07	ug/L		92
11) bromomethane	5.198	94	5451	4.11	ug/L		95
12) chloroethane	5.376	64	4209	4.11	ug/L		98
13) trichlorofluoromethane	5.810	101	10775	4.15	ug/L		94
14) vinyl bromide	5.721	106	4216	4.14	ug/L		95
15) ethyl ether	6.260	74	2653	3.83	ug/L		98
17) freon 113	6.621	151	4806	4.19	ug/L		91
18) 1,1-dichloroethene	6.684	96	5602	4.01	ug/L		97
19) acetone	6.772	43	5560	16.00	ug/L		99
20) acetonitrile	7.233	41	6090	43.30	ug/L		95
21) iodomethane	6.976	142	3328	4.96	ug/L		91
22) carbon disulfide	7.091	76	18345	4.07	ug/L		100
23) methylene chloride	7.421	84	6128	4.05	ug/L		94
24) methyl acetate	7.227	43	3092	3.67	ug/L		97
25) methyl tert butyl ether	7.714	73	15436	4.08	ug/L		99
26) trans-1,2-dichloroethene	7.787	96	6276	4.05	ug/L		95
27) di-isopropyl ether	8.310	45	18687	4.01	ug/L		96
28) 2-butanone	9.079	72	1944	14.91	ug/L	#	83
29) 1,1-dichloroethane	8.362	63	11210	4.26	ug/L		97
30) chloroprene	8.462	53	9175	4.05	ug/L		96
31) acrylonitrile	7.787	53	1246	3.29	ug/L		83
32) hexane	8.064	57	10152	4.22	ug/L		97
33) vinyl acetate	8.347	86	697	3.18	ug/L	#	35
34) ethyl tert-butyl ether	8.770	59	18089	4.03	ug/L		100
35) ethyl acetate	9.084	45	571	3.47	ug/L	#	12
36) 2,2-dichloropropane	9.089	77	9711	4.14	ug/L		96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1C7200\
Data File : 1C164008.D
Acq On : 24 Apr 2019 4:31 pm
Operator : ROBERTS
Sample : IC7200-4
Misc : MS34128,V1C7200,5.0,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 25 07:57:40 2019
Quant Method : C:\MSDCHEM\1\METHODS\M1CS7200.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Apr 25 07:00:24 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) cis-1,2-dichloroethene	9.100	96	7024	4.20	ug/L		99
38) methyl acrylate	9.168	85	463	2.70	ug/L		90
39) propionitrile	9.199	54	6583	39.84	ug/L		91
40) bromochloromethane	9.419	128	3015	4.15	ug/L		88
41) tetrahydrofuran	9.461	72	542	3.53	ug/L	#	38
42) chloroform	9.471	85	7388	3.97	ug/L		93
43) t-butyl formate	9.487	59	3693	3.69	ug/L		88
45) methacrylonitrile	9.367	67	1891	3.97	ug/L		97
46) 1,1,1-trichloroethane	9.701	97	9971	4.14	ug/L		97
47) cyclohexane	9.759	84	9917	4.17	ug/L		94
48) 1,1-dichloropropene	9.884	75	8417	4.12	ug/L		97
49) iso-butyl alcohol	9.911	43	2014	37.79	ug/L		79
50) carbon tetrachloride	9.905	117	8565	4.07	ug/L		95
51) tert amyl alcohol	10.020	55	930	18.54	ug/L	#	87
54) n-butyl alcohol	10.664	56	6366	184.30	ug/L		94
55) 2,2,4-trimethylpentane	10.115	57	25011	4.40	ug/L		92
56) benzene	10.151	78	24745	4.17	ug/L		99
57) tert-amyl methyl ether	10.156	87	3696	4.00	ug/L	#	77
58) heptane	10.287	71	5511	4.31	ug/L		99
59) isopropyl acetate	10.067	87	836	3.41	ug/L	#	45
60) 1,2-dichloroethane	10.183	62	7698	3.99	ug/L		99
61) trichloroethene	10.862	130	6137	4.02	ug/L		99
62) ethyl acrylate	10.868	55	5778	4.03	ug/L		96
64) 2-chloroethyl vinyl ether	11.652	63	13513	19.21	ug/L		99
65) methyl methacrylate	11.129	100	1086	3.67	ug/L	#	76
66) 1,2-dichloropropane	11.140	63	5869	4.16	ug/L		94
67) dibromomethane	11.297	93	3308	4.00	ug/L		94
68) methylcyclohexane	11.061	83	10856	4.13	ug/L		94
69) bromodichloromethane	11.427	83	7912	3.96	ug/L		93
70) epichlorohydrin	11.793	57	2214	19.51	ug/L		94
71) cis-1,3-dichloropropene	11.877	75	9261	4.03	ug/L		96
72) 4-methyl-2-pentanone	11.961	58	6577	16.05	ug/L		94
73) 3-methyl-1-butanol	11.987	55	3912	75.35	ug/L		95
76) toluene	12.222	92	14220	4.13	ug/L		95
77) trans-1,3-dichloropropene	12.437	75	7725	3.99	ug/L		95
78) ethyl methacrylate	12.411	69	5549	4.05	ug/L		98
79) 1,1,2-trichloroethane	12.651	83	3768	4.16	ug/L		95
80) tetrachloroethene	12.803	164	5015	4.19	ug/L		95
81) 1,3-dichloropropane	12.829	76	6867	4.13	ug/L		96
82) 2-hexanone	12.808	58	6270	16.76	ug/L		99
83) butyl acetate	12.876	56	2780	4.08	ug/L	#	81
84) dibromochloromethane	13.096	129	5314	3.90	ug/L		100
85) 1,2-dibromoethane	13.247	107	5792	4.02	ug/L		99
86) n-butyl ether	13.577	57	20791	4.02	ug/L		99
87) chlorobenzene	13.692	112	14121	4.04	ug/L		93
88) 1,1,1,2-tetrachloroethane	13.750	131	5235	4.12	ug/L		96
89) ethylbenzene	13.734	91	26240	4.15	ug/L		97
90) m,p-xylene	13.838	106	19255	8.19	ug/L		97
91) o-xylene	14.257	106	9475	4.22	ug/L		99
92) styrene	14.273	104	15435	4.15	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1C7200\
Data File : 1C164008.D
Acq On : 24 Apr 2019 4:31 pm
Operator : ROBERTS
Sample : IC7200-4
Misc : MS34128,V1C7200,5.0,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 25 07:57:40 2019
Quant Method : C:\MSDCHEM\1\METHODS\M1CS7200.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Apr 25 07:00:24 2019
Response via : Initial Calibration

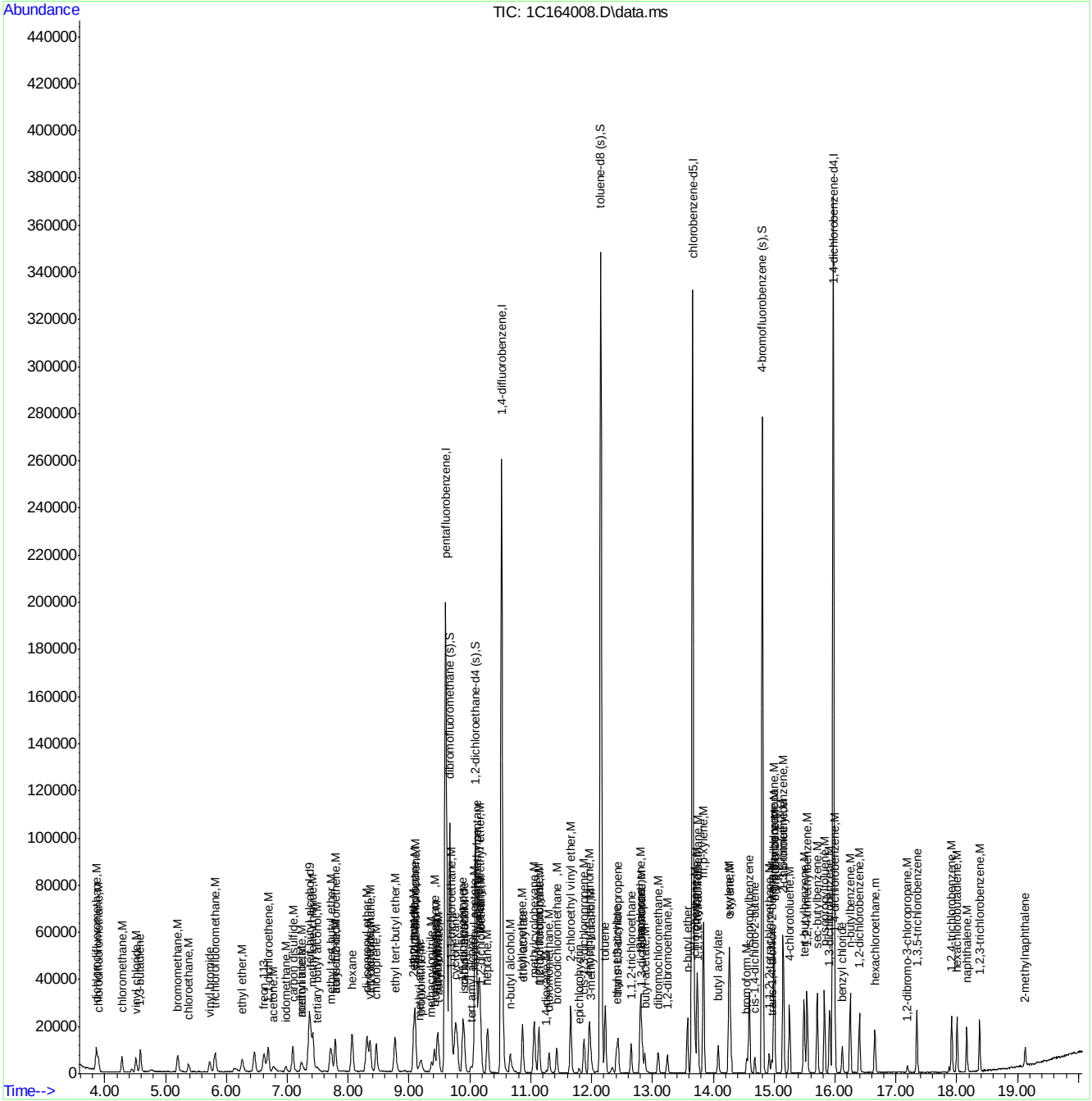
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
93) bromoform	14.550	173	3131	3.78	ug/L	93
94) butyl acrylate	14.079	55	8589	3.94	ug/L	93
95) isopropylbenzene	14.592	105	24378	4.04	ug/L	98
96) cis-1,4-dichloro-2-butene	14.681	88	1836	3.58	ug/L	95
99) bromobenzene	15.005	156	6308	4.11	ug/L	92
100) 1,1,2,2-tetrachloroethane	14.921	83	4827	4.01	ug/L	96
101) trans-1,4-dichloro-2-b...	14.963	53	1217	3.68	ug/L	92
102) 1,2,3-trichloropropane	14.994	110	1191	3.84	ug/L	87
103) n-propylbenzene	14.994	91	29478	4.18	ug/L	98
105) 2-chlorotoluene	15.151	126	5821	4.24	ug/L	99
106) 4-chlorotoluene	15.251	91	17459	4.02	ug/L	94
107) 1,3,5-trimethylbenzene	15.146	105	20683	4.06	ug/L	98
108) tert-butylbenzene	15.496	134	3427	4.02	ug/L	97
109) 1,2,4-trimethylbenzene	15.538	105	20902	4.10	ug/L	99
110) sec-butylbenzene	15.706	105	25887	4.09	ug/L	98
111) 1,3-dichlorobenzene	15.910	146	12105	4.17	ug/L	95
112) p-isopropyltoluene	15.826	119	22566	4.15	ug/L	98
113) 1,4-dichlorobenzene	15.999	146	11756	4.05	ug/L	98
114) benzyl chloride	16.119	91	9571	3.83	ug/L	98
115) 1,2-dichlorobenzene	16.401	146	11146	4.11	ug/L	97
117) n-butylbenzene	16.250	92	11727	4.24	ug/L	100
118) 1,2-dibromo-3-chloropr...	17.191	75	961	3.99	ug/L	84
119) 1,3,5-trichlorobenzene	17.348	180	9054	4.06	ug/L	99
122) 1,2,4-trichlorobenzene	17.918	180	7466	4.11	ug/L	95
123) hexachlorobutadiene	18.007	225	5234	4.10	ug/L	95
124) naphthalene	18.164	128	13916	3.94	ug/L	96
125) 1,2,3-trichlorobenzene	18.378	180	7017	4.09	ug/L	98
126) hexachloroethane	16.658	201	3847	3.98	ug/L	92
127) 2-methylnaphthalene	19.126	142	3745	1.66	ug/L	95

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1C7200\
Data File : 1C164008.D
Acq On : 24 Apr 2019 4:31 pm
Operator : ROBERTS
Sample : IC7200-4
Misc : MS34128,V1C7200,5.0,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 25 07:57:40 2019
Quant Method : C:\MSDCHEM\1\METHODS\M1CS7200.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Apr 25 07:00:24 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1C7200\
Data File : 1C164009.D
Acq On : 24 Apr 2019 4:58 pm
Operator : ROBERTS
Sample : IC7200-8
Misc : MS34128,V1C7200,5.0,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 25 07:58:32 2019
Quant Method : C:\MSDCHEM\1\METHODS\M1CS7200.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Apr 25 07:00:24 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	7.363	65	55488	500.00	ug/L		-0.02
5) pentafluorobenzene	9.607	168	165932	50.00	ug/L		0.00
52) 1,4-difluorobenzene	10.522	114	227576	50.00	ug/L		0.00
74) chlorobenzene-d5	13.661	117	181339	50.00	ug/L		0.00
97) 1,4-dichlorobenzene-d4	15.972	152	94471	50.00	ug/L		0.00
System Monitoring Compounds							
44) dibromofluoromethane (s)	9.670	113	70051	50.06	ug/L		0.00
Spiked Amount 50.000	Range 75 - 127		Recovery = 100.12%				
53) 1,2-dichloroethane-d4 (s)	10.094	65	73358	51.41	ug/L		0.00
Spiked Amount 50.000	Range 75 - 130		Recovery = 102.82%				
75) toluene-d8 (s)	12.149	98	246336	50.43	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.86%				
98) 4-bromofluorobenzene (s)	14.806	95	89360	50.39	ug/L		0.00
Spiked Amount 50.000	Range 79 - 127		Recovery = 100.78%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	7.499	59	6227	42.25	ug/L		98
4) 1,4-dioxane	11.249	88	2815	209.19	ug/L		92
6) chlorodifluoromethane	3.896	51	13838	8.00	ug/L		96
7) dichlorodifluoromethane	3.864	85	20050	8.17	ug/L		99
8) chloromethane	4.278	50	14407	8.01	ug/L		99
9) vinyl chloride	4.513	62	13527	7.99	ug/L		98
10) 1,3-butadiene	4.586	54	8630	8.12	ug/L		94
11) bromomethane	5.198	94	10802	8.37	ug/L		97
12) chloroethane	5.376	64	8171	8.20	ug/L		94
13) trichlorofluoromethane	5.815	101	20281	8.03	ug/L		95
14) vinyl bromide	5.721	106	7912	7.99	ug/L		96
15) ethyl ether	6.255	74	5490	8.14	ug/L		98
16) acrolein	6.547	56	1239	7.15	ug/L		90
17) freon 113	6.621	151	9138	8.18	ug/L		92
18) 1,1-dichloroethene	6.683	96	11179	8.23	ug/L		94
19) acetone	6.762	43	11532	34.10	ug/L		99
20) acetonitrile	7.222	41	12594	92.04	ug/L		93
21) iodomethane	6.976	142	7283	7.45	ug/L		93
22) carbon disulfide	7.091	76	35052	7.99	ug/L		99
23) methylene chloride	7.426	84	12333	8.37	ug/L		93
24) methyl acetate	7.222	43	7064	8.62	ug/L		98
25) methyl tert butyl ether	7.719	73	30464	8.28	ug/L		97
26) trans-1,2-dichloroethene	7.787	96	12025	7.97	ug/L		99
27) di-isopropyl ether	8.305	45	37209	8.21	ug/L		98
28) 2-butanone	9.068	72	4314	34.00	ug/L	#	88
29) 1,1-dichloroethane	8.362	63	21056	8.23	ug/L		100
30) chloroprene	8.462	53	18382	8.33	ug/L		98
31) acrylonitrile	7.787	53	3077	8.35	ug/L		98
32) hexane	8.064	57	18926	8.08	ug/L		99
33) vinyl acetate	8.347	86	1723	8.08	ug/L	#	42
34) ethyl tert-butyl ether	8.770	59	36452	8.35	ug/L		98
35) ethyl acetate	9.079	45	1327	8.29	ug/L	#	26

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1C7200\
Data File : 1C164009.D
Acq On : 24 Apr 2019 4:58 pm
Operator : ROBERTS
Sample : IC7200-8
Misc : MS34128,V1C7200,5.0,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 25 07:58:32 2019
Quant Method : C:\MSDCHEM\1\METHODS\M1CS7200.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Apr 25 07:00:24 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
36) 2,2-dichloropropane	9.089	77	18777	8.23	ug/L		97
37) cis-1,2-dichloroethene	9.100	96	13474	8.28	ug/L		96
38) methyl acrylate	9.163	85	1361	8.15	ug/L	#	81
39) propionitrile	9.189	54	14742	91.71	ug/L		94
40) bromochloromethane	9.414	128	5980	8.46	ug/L		95
41) tetrahydrofuran	9.455	72	1346	9.00	ug/L		91
42) chloroform	9.466	85	14473	7.99	ug/L		94
43) t-butyl formate	9.482	59	8556	8.78	ug/L		94
45) methacrylonitrile	9.367	67	3849	8.30	ug/L		93
46) 1,1,1-trichloroethane	9.701	97	19195	8.19	ug/L		93
47) cyclohexane	9.759	84	19504	8.43	ug/L		98
48) 1,1-dichloropropene	9.884	75	16602	8.36	ug/L		96
49) iso-butyl alcohol	9.905	43	4641	89.52	ug/L		95
50) carbon tetrachloride	9.900	117	16899	8.26	ug/L		97
51) tert amyl alcohol	10.020	55	2019	41.36	ug/L	#	87
54) n-butyl alcohol	10.658	56	14748	444.18	ug/L		96
55) 2,2,4-trimethylpentane	10.115	57	47326	8.66	ug/L		97
56) benzene	10.151	78	47981	8.42	ug/L		99
57) tert-amyl methyl ether	10.162	87	7928	8.93	ug/L		97
58) heptane	10.292	71	10599	8.62	ug/L		91
59) isopropyl acetate	10.067	87	1989	8.44	ug/L	#	78
60) 1,2-dichloroethane	10.182	62	15913	8.59	ug/L		96
61) trichloroethene	10.862	130	12282	8.37	ug/L		98
62) ethyl acrylate	10.868	55	12146	8.82	ug/L		94
64) 2-chloroethyl vinyl ether	11.652	63	31916	47.19	ug/L		97
65) methyl methacrylate	11.129	100	2430	8.53	ug/L	#	90
66) 1,2-dichloropropane	11.134	63	11574	8.53	ug/L		99
67) dibromomethane	11.302	93	6866	8.64	ug/L		97
68) methylcyclohexane	11.056	83	20413	8.07	ug/L		95
69) bromodichloromethane	11.427	83	15795	8.22	ug/L		98
70) epichlorohydrin	11.793	57	4702	43.11	ug/L		97
71) cis-1,3-dichloropropene	11.872	75	18480	8.38	ug/L		99
72) 4-methyl-2-pentanone	11.961	58	13774	34.96	ug/L		99
73) 3-methyl-1-butanol	11.987	55	8787	176.07	ug/L		95
76) toluene	12.228	92	27315	8.23	ug/L		100
77) trans-1,3-dichloropropene	12.437	75	15945	8.54	ug/L		97
78) ethyl methacrylate	12.411	69	11903	9.02	ug/L		96
79) 1,1,2-trichloroethane	12.651	83	7305	8.35	ug/L		94
80) tetrachloroethene	12.798	164	9158	7.94	ug/L		98
81) 1,3-dichloropropane	12.829	76	13583	8.47	ug/L		98
82) 2-hexanone	12.808	58	13004	36.04	ug/L		98
83) butyl acetate	12.871	56	5704	8.67	ug/L		90
84) dibromochloromethane	13.096	129	10788	8.20	ug/L		98
85) 1,2-dibromoethane	13.242	107	11521	8.29	ug/L		98
86) n-butyl ether	13.577	57	40932	8.20	ug/L		98
87) chlorobenzene	13.692	112	27854	8.27	ug/L		96
88) 1,1,1,2-tetrachloroethane	13.750	131	10203	8.33	ug/L		95
89) ethylbenzene	13.734	91	49501	8.11	ug/L		99
90) m,p-xylene	13.838	106	37519	16.55	ug/L		98
91) o-xylene	14.257	106	18029	8.33	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1C7200\
Data File : 1C164009.D
Acq On : 24 Apr 2019 4:58 pm
Operator : ROBERTS
Sample : IC7200-8
Misc : MS34128,V1C7200,5.0,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 25 07:58:32 2019
Quant Method : C:\MSDCHEM\1\METHODS\M1CS7200.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Apr 25 07:00:24 2019
Response via : Initial Calibration

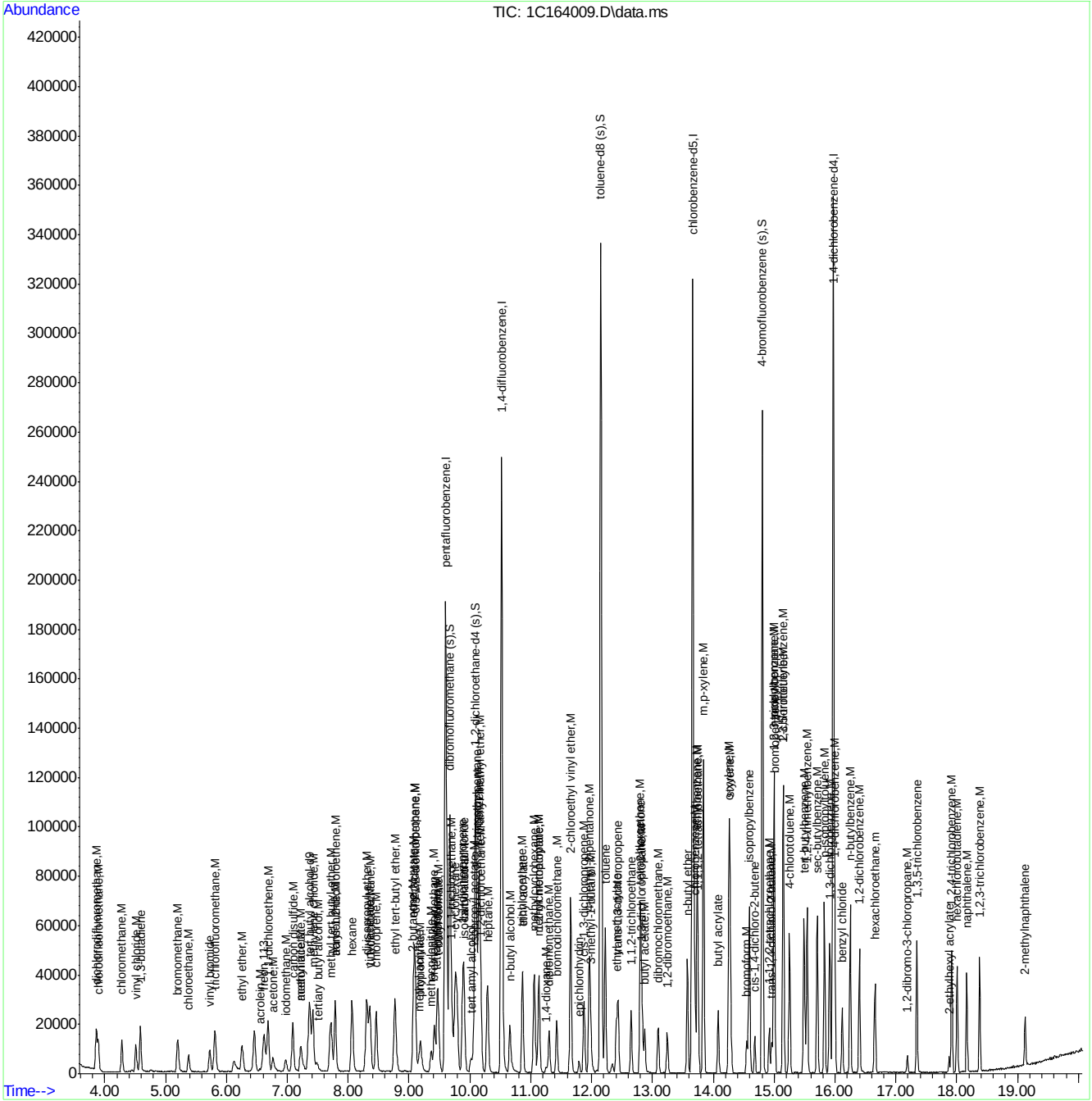
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
92) styrene	14.273	104	30192	8.41	ug/L	95
93) bromoform	14.550	173	6477	8.12	ug/L	98
94) butyl acrylate	14.079	55	17800	8.47	ug/L	97
95) isopropylbenzene	14.592	105	46854	8.05	ug/L	99
96) cis-1,4-dichloro-2-butene	14.686	88	4022	8.14	ug/L	95
99) bromobenzene	15.005	156	12275	8.28	ug/L	93
100) 1,1,2,2-tetrachloroethane	14.916	83	9715	8.35	ug/L	99
101) trans-1,4-dichloro-2-b...	14.958	53	2608	8.17	ug/L	99
102) 1,2,3-trichloropropane	14.994	110	2515	8.38	ug/L	93
103) n-propylbenzene	15.000	91	55956	8.20	ug/L	99
105) 2-chlorotoluene	15.151	126	11030	8.31	ug/L	91
106) 4-chlorotoluene	15.251	91	34145	8.13	ug/L	96
107) 1,3,5-trimethylbenzene	15.146	105	40627	8.25	ug/L	99
108) tert-butylbenzene	15.491	134	6871	8.34	ug/L	92
109) 1,2,4-trimethylbenzene	15.543	105	39918	8.10	ug/L	97
110) sec-butylbenzene	15.711	105	49369	8.07	ug/L	99
111) 1,3-dichlorobenzene	15.915	146	22878	8.14	ug/L	96
112) p-isopropyltoluene	15.826	119	43136	8.20	ug/L	99
113) 1,4-dichlorobenzene	15.999	146	23150	8.25	ug/L	98
114) benzyl chloride	16.119	91	20601	8.53	ug/L	96
115) 1,2-dichlorobenzene	16.401	146	21851	8.34	ug/L	98
117) n-butylbenzene	16.250	92	21929	8.20	ug/L	96
118) 1,2-dibromo-3-chloropr...	17.186	75	1970	8.46	ug/L	91
119) 1,3,5-trichlorobenzene	17.348	180	17399	8.07	ug/L	98
121) 2-ethylhexyl acrylate	17.881	70	1537	1.42	ug/L	84
122) 1,2,4-trichlorobenzene	17.918	180	14615	8.32	ug/L	94
123) hexachlorobutadiene	18.007	225	10064	8.16	ug/L	97
124) naphthalene	18.164	128	28695	8.39	ug/L	97
125) 1,2,3-trichlorobenzene	18.378	180	13878	8.36	ug/L	99
126) hexachloroethane	16.658	201	7461	7.97	ug/L	95
127) 2-methylnaphthalene	19.126	142	8707	4.00	ug/L	95

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1C7200\
Data File : 1C164009.D
Acq On : 24 Apr 2019 4:58 pm
Operator : ROBERTS
Sample : IC7200-8
Misc : MS34128,V1C7200,5.0,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 25 07:58:32 2019
Quant Method : C:\MSDCHEM\1\METHODS\M1CS7200.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Apr 25 07:00:24 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1C7200\
Data File : 1C164010.D
Acq On : 24 Apr 2019 5:24 pm
Operator : ROBERTS
Sample : IC7200-20
Misc : MS34128,V1C7200,5.0,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Apr 25 07:59:57 2019
Quant Method : C:\MSDCHEM\1\METHODS\M1CS7200.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Apr 25 07:00:24 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	7.364	65	54717	500.00	ug/L		-0.02
5) pentafluorobenzene	9.602	168	165339	50.00	ug/L		0.00
52) 1,4-difluorobenzene	10.523	114	229939	50.00	ug/L		0.00
74) chlorobenzene-d5	13.656	117	181832	50.00	ug/L		0.00
97) 1,4-dichlorobenzene-d4	15.972	152	94337	50.00	ug/L		0.00
System Monitoring Compounds							
44) dibromofluoromethane (s)	9.670	113	69877	50.11	ug/L		0.00
Spiked Amount 50.000	Range 75 - 127		Recovery = 100.22%				
53) 1,2-dichloroethane-d4 (s)	10.094	65	73480	50.97	ug/L		0.00
Spiked Amount 50.000	Range 75 - 130		Recovery = 101.94%				
75) toluene-d8 (s)	12.149	98	243555	49.73	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.46%				
98) 4-bromofluorobenzene (s)	14.806	95	87595	49.46	ug/L		0.00
Spiked Amount 50.000	Range 79 - 127		Recovery = 98.92%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	7.479	59	14659	100.86	ug/L		97
4) 1,4-dioxane	11.255	88	6632	499.79	ug/L		100
6) chlorodifluoromethane	3.896	51	33557	19.48	ug/L		98
7) dichlorodifluoromethane	3.864	85	51843	21.21	ug/L		100
8) chloromethane	4.278	50	35633	19.88	ug/L		99
9) vinyl chloride	4.513	62	35395	20.98	ug/L		99
10) 1,3-butadiene	4.586	54	21366	20.18	ug/L		98
11) bromomethane	5.198	94	25577	19.89	ug/L		97
12) chloroethane	5.376	64	20761	20.92	ug/L		97
13) trichlorofluoromethane	5.815	101	53015	21.07	ug/L		98
14) vinyl bromide	5.721	106	20519	20.79	ug/L		99
15) ethyl ether	6.260	74	13547	20.16	ug/L		96
16) acrolein	6.553	56	3446	19.96	ug/L		97
17) freon 113	6.621	151	22266	20.01	ug/L		97
18) 1,1-dichloroethene	6.684	96	26028	19.23	ug/L		97
19) acetone	6.757	43	26667	79.14	ug/L		97
20) acetonitrile	7.217	41	28821	211.38	ug/L		99
21) iodomethane	6.971	142	22193	16.69	ug/L		97
22) carbon disulfide	7.092	76	81917	18.74	ug/L		99
23) methylene chloride	7.421	84	28737	19.57	ug/L		100
24) methyl acetate	7.217	43	16682	20.44	ug/L		96
25) methyl tert butyl ether	7.714	73	73230	19.96	ug/L		100
26) trans-1,2-dichloroethene	7.787	96	29156	19.41	ug/L		98
27) di-isopropyl ether	8.305	45	90848	20.12	ug/L		100
28) 2-butanone	9.069	72	10546	83.42	ug/L		97
29) 1,1-dichloroethane	8.363	63	51871	20.35	ug/L		98
30) chloroprene	8.462	53	44580	20.28	ug/L		98
31) acrylonitrile	7.777	53	7553	20.58	ug/L		99
32) hexane	8.064	57	46056	19.73	ug/L		97
33) vinyl acetate	8.342	86	4465	21.01	ug/L	#	88
34) ethyl tert-butyl ether	8.770	59	88516	20.34	ug/L		98
35) ethyl acetate	9.074	45	3349	20.99	ug/L	#	78

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1C7200\
Data File : 1C164010.D
Acq On : 24 Apr 2019 5:24 pm
Operator : ROBERTS
Sample : IC7200-20
Misc : MS34128,V1C7200,5.0,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Apr 25 07:59:57 2019
Quant Method : C:\MSDCHEM\1\METHODS\M1CS7200.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Apr 25 07:00:24 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
36) 2,2-dichloropropane	9.084	77	44448	19.56	ug/L		99
37) cis-1,2-dichloroethene	9.100	96	32029	19.75	ug/L		96
38) methyl acrylate	9.157	85	3424	20.57	ug/L		98
39) propionitrile	9.189	54	33412	208.61	ug/L		99
40) bromochloromethane	9.414	128	14394	20.44	ug/L		93
41) tetrahydrofuran	9.450	72	3081	20.68	ug/L	#	84
42) chloroform	9.471	85	34787	19.28	ug/L		96
43) t-butyl formate	9.482	59	17760	18.30	ug/L		94
45) methacrylonitrile	9.361	67	9362	20.25	ug/L		96
46) 1,1,1-trichloroethane	9.701	97	46731	20.01	ug/L		97
47) cyclohexane	9.759	84	49405	21.43	ug/L		99
48) 1,1-dichloropropene	9.884	75	39485	19.96	ug/L		99
49) iso-butyl alcohol	9.905	43	10669	206.54	ug/L		92
50) carbon tetrachloride	9.900	117	40687	19.95	ug/L		100
51) tert amyl alcohol	10.020	55	4797	98.63	ug/L		98
54) n-butyl alcohol	10.653	56	34678	1033.71	ug/L		99
55) 2,2,4-trimethylpentane	10.115	57	112791	20.43	ug/L		99
56) benzene	10.151	78	113319	19.68	ug/L		100
57) tert-amyl methyl ether	10.156	87	18608	20.74	ug/L		99
58) heptane	10.287	71	25263	20.33	ug/L		97
59) isopropyl acetate	10.062	87	4689	19.69	ug/L	#	91
60) 1,2-dichloroethane	10.183	62	36540	19.52	ug/L		98
61) trichloroethene	10.863	130	30069	20.29	ug/L		98
62) ethyl acrylate	10.863	55	28474	20.47	ug/L		99
64) 2-chloroethyl vinyl ether	11.652	63	67512	98.79	ug/L		99
65) methyl methacrylate	11.129	100	5793	20.14	ug/L	#	88
66) 1,2-dichloropropane	11.140	63	28411	20.73	ug/L		97
67) dibromomethane	11.307	93	16186	20.17	ug/L		96
68) methylcyclohexane	11.061	83	48530	18.99	ug/L		98
69) bromodichloromethane	11.427	83	38623	19.89	ug/L		99
70) epichlorohydrin	11.799	57	11113	100.85	ug/L		92
71) cis-1,3-dichloropropene	11.877	75	44783	20.09	ug/L		97
72) 4-methyl-2-pentanone	11.961	58	31548	79.24	ug/L		99
73) 3-methyl-1-butanol	11.987	55	20910	414.68	ug/L		97
76) toluene	12.222	92	63153	18.98	ug/L		98
77) trans-1,3-dichloropropene	12.437	75	37159	19.84	ug/L		99
78) ethyl methacrylate	12.405	69	27693	20.92	ug/L		97
79) 1,1,2-trichloroethane	12.651	83	17938	20.46	ug/L		96
80) tetrachloroethene	12.803	164	22580	19.51	ug/L		96
81) 1,3-dichloropropane	12.829	76	32654	20.31	ug/L		94
82) 2-hexanone	12.803	58	30006	82.95	ug/L		94
83) butyl acetate	12.871	56	13272	20.13	ug/L		99
84) dibromochloromethane	13.096	129	26291	19.94	ug/L		98
85) 1,2-dibromoethane	13.242	107	28899	20.75	ug/L		100
86) n-butyl ether	13.572	57	97742	19.52	ug/L		100
87) chlorobenzene	13.692	112	65368	19.36	ug/L		98
88) 1,1,1,2-tetrachloroethane	13.750	131	24679	20.10	ug/L		98
89) ethylbenzene	13.734	91	115372	18.86	ug/L		100
90) m,p-xylene	13.839	106	87963	38.70	ug/L		99
91) o-xylene	14.257	106	42868	19.76	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1C7200\
Data File : 1C164010.D
Acq On : 24 Apr 2019 5:24 pm
Operator : ROBERTS
Sample : IC7200-20
Misc : MS34128,V1C7200,5.0,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Apr 25 07:59:57 2019
Quant Method : C:\MSDCHEM\1\METHODS\M1CS7200.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Apr 25 07:00:24 2019
Response via : Initial Calibration

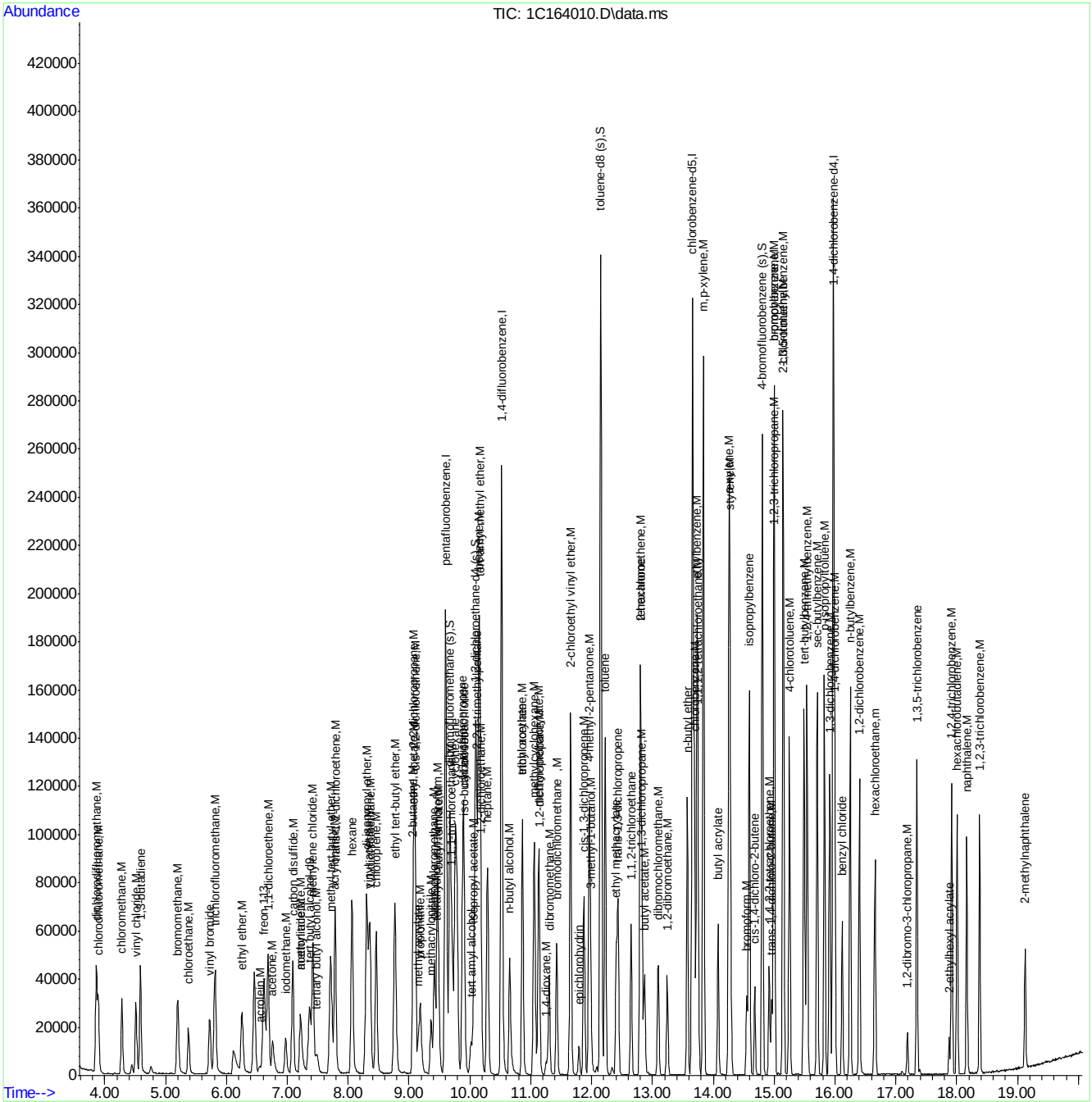
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
92) styrene	14.273	104	71084	19.75	ug/L	97
93) bromoform	14.550	173	15846	19.81	ug/L	95
94) butyl acrylate	14.079	55	42733	20.28	ug/L	98
95) isopropylbenzene	14.592	105	112759	19.32	ug/L	99
96) cis-1,4-dichloro-2-butene	14.686	88	9706	19.59	ug/L	99
99) bromobenzene	15.000	156	29229	19.73	ug/L	96
100) 1,1,2,2-tetrachloroethane	14.916	83	23377	20.12	ug/L	99
101) trans-1,4-dichloro-2-b...	14.958	53	6157	19.31	ug/L	96
102) 1,2,3-trichloropropane	14.989	110	6051	20.19	ug/L	94
103) n-propylbenzene	15.000	91	131766	19.34	ug/L	99
105) 2-chlorotoluene	15.151	126	26328	19.85	ug/L	91
106) 4-chlorotoluene	15.251	91	80570	19.22	ug/L	99
107) 1,3,5-trimethylbenzene	15.146	105	94881	19.31	ug/L	99
108) tert-butylbenzene	15.491	134	16810	20.44	ug/L	91
109) 1,2,4-trimethylbenzene	15.538	105	95257	19.35	ug/L	97
110) sec-butylbenzene	15.706	105	119026	19.48	ug/L	99
111) 1,3-dichlorobenzene	15.915	146	54886	19.57	ug/L	99
112) p-isopropyltoluene	15.826	119	103841	19.76	ug/L	99
113) 1,4-dichlorobenzene	15.999	146	53986	19.26	ug/L	99
114) benzyl chloride	16.119	91	46603	19.32	ug/L	100
115) 1,2-dichlorobenzene	16.401	146	51807	19.79	ug/L	98
117) n-butylbenzene	16.250	92	52422	19.63	ug/L	98
118) 1,2-dibromo-3-chloropr...	17.186	75	4774	20.53	ug/L	95
119) 1,3,5-trichlorobenzene	17.348	180	42154	19.57	ug/L	99
121) 2-ethylhexyl acrylate	17.876	70	3815	3.54	ug/L	97
122) 1,2,4-trichlorobenzene	17.918	180	34835	19.85	ug/L	96
123) hexachlorobutadiene	18.007	225	24338	19.76	ug/L	99
124) naphthalene	18.164	128	68377	20.03	ug/L	99
125) 1,2,3-trichlorobenzene	18.378	180	31839	19.21	ug/L	99
126) hexachloroethane	16.658	201	18468	19.77	ug/L	97
127) 2-methylnaphthalene	19.126	142	21172	9.74	ug/L	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1C7200\
Data File : 1C164010.D
Acq On : 24 Apr 2019 5:24 pm
Operator : ROBERTS
Sample : IC7200-20
Misc : MS34128,V1C7200,5.0,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Apr 25 07:59:57 2019
Quant Method : C:\MSDCHEM\1\METHODS\M1CS7200.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Apr 25 07:00:24 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1C7200\
Data File : 1C164011.D
Acq On : 24 Apr 2019 5:51 pm
Operator : ROBERTS
Sample : ICC7200-50
Misc : MS34128,V1C7200,5.0,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Apr 25 08:00:33 2019
Quant Method : C:\MSDCHEM\1\METHODS\M1CS7200.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Apr 25 07:00:24 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.363	65	56373	500.00	ug/L	-0.02
5) pentafluorobenzene	9.602	168	164623	50.00	ug/L	0.00
52) 1,4-difluorobenzene	10.522	114	233011	50.00	ug/L	0.00
74) chlorobenzene-d5	13.661	117	181991	50.00	ug/L	0.00
97) 1,4-dichlorobenzene-d4	15.972	152	95487	50.00	ug/L	0.00
System Monitoring Compounds						
44) dibromofluoromethane (s)	9.670	113	69994	50.42	ug/L	0.00
Spiked Amount 50.000	Range 75 - 127		Recovery = 100.84%			
53) 1,2-dichloroethane-d4 (s)	10.094	65	71506	48.95	ug/L	0.00
Spiked Amount 50.000	Range 75 - 130		Recovery = 97.90%			
75) toluene-d8 (s)	12.154	98	243344	49.64	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.28%			
98) 4-bromofluorobenzene (s)	14.806	95	88912	49.60	ug/L	0.00
Spiked Amount 50.000	Range 79 - 127		Recovery = 99.20%			
Target Compounds						Qvalue
2) tertiary butyl alcohol	7.484	59	36614	244.53	ug/L	100
4) 1,4-dioxane	11.255	88	17321	1266.97	ug/L	100
6) chlorodifluoromethane	3.896	51	90321	52.65	ug/L	100
7) dichlorodifluoromethane	3.859	85	128184	52.67	ug/L	100
8) chloromethane	4.277	50	89458	50.13	ug/L	100
9) vinyl chloride	4.513	62	88173	52.49	ug/L	100
10) 1,3-butadiene	4.586	54	56832	53.90	ug/L	100
11) bromomethane	5.198	94	63134	49.32	ug/L	100
12) chloroethane	5.376	64	51243	51.85	ug/L	100
13) trichlorofluoromethane	5.810	101	132054	52.72	ug/L	100
14) vinyl bromide	5.721	106	51408	52.32	ug/L	100
15) ethyl ether	6.255	74	35117	52.48	ug/L	100
16) acrolein	6.537	56	8835	51.39	ug/L	100
17) freon 113	6.621	151	59753	53.94	ug/L	100
18) 1,1-dichloroethene	6.683	96	69437	51.53	ug/L	100
19) acetone	6.757	43	65472	195.15	ug/L	100
20) acetonitrile	7.212	41	69713	513.51	ug/L	100
21) iodomethane	6.971	142	71724	47.52	ug/L	100
22) carbon disulfide	7.086	76	215170	49.44	ug/L	100
23) methylene chloride	7.421	84	73348	50.18	ug/L	100
24) methyl acetate	7.206	43	41930	51.59	ug/L	100
25) methyl tert butyl ether	7.714	73	190536	52.17	ug/L	100
26) trans-1,2-dichloroethene	7.787	96	74779	49.99	ug/L	100
27) di-isopropyl ether	8.305	45	231495	51.49	ug/L	100
28) 2-butanone	9.063	72	26364	209.46	ug/L	100
29) 1,1-dichloroethane	8.362	63	129096	50.86	ug/L	100
30) chloroprene	8.456	53	114424	52.29	ug/L	100
31) acrylonitrile	7.771	53	19090	52.23	ug/L	100
32) hexane	8.064	57	122299	52.61	ug/L	100
33) vinyl acetate	8.341	86	11510	54.38	ug/L	100
34) ethyl tert-butyl ether	8.770	59	226990	52.38	ug/L	100
35) ethyl acetate	9.068	45	8334	52.45	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1C7200\
Data File : 1C164011.D
Acq On : 24 Apr 2019 5:51 pm
Operator : ROBERTS
Sample : ICC7200-50
Misc : MS34128,V1C7200,5.0,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Apr 25 08:00:33 2019
Quant Method : C:\MSDCHEM\1\METHODS\M1CS7200.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Apr 25 07:00:24 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
36) 2,2-dichloropropane	9.084	77	117154	51.77	ug/L	100
37) cis-1,2-dichloroethene	9.100	96	80856	50.08	ug/L	100
38) methyl acrylate	9.152	85	9117	55.00	ug/L	100
39) propionitrile	9.183	54	81216	509.27	ug/L	100
40) bromochloromethane	9.419	128	36596	52.19	ug/L	100
41) tetrahydrofuran	9.445	72	7683	51.78	ug/L	100
42) chloroform	9.466	85	86994	48.42	ug/L	100
43) t-butyl formate	9.482	59	54897	56.81	ug/L	100
45) methacrylonitrile	9.361	67	24468	53.15	ug/L	100
46) 1,1,1-trichloroethane	9.701	97	122706	52.78	ug/L	100
47) cyclohexane	9.759	84	117872	51.36	ug/L	100
48) 1,1-dichloropropene	9.884	75	102154	51.87	ug/L	100
49) iso-butyl alcohol	9.900	43	25743	500.52	ug/L	100
50) carbon tetrachloride	9.900	117	107353	52.87	ug/L	100
51) tert amyl alcohol	10.020	55	12393	255.92	ug/L	100
54) n-butyl alcohol	10.653	56	89284	2626.36	ug/L	100
55) 2,2,4-trimethylpentane	10.114	57	289122	51.68	ug/L	100
56) benzene	10.151	78	281491	48.25	ug/L	100
57) tert-amyl methyl ether	10.162	87	47297	52.02	ug/L	100
58) heptane	10.287	71	65199	51.79	ug/L	100
59) isopropyl acetate	10.062	87	12665	52.48	ug/L	100
60) 1,2-dichloroethane	10.182	62	90613	47.77	ug/L	100
61) trichloroethene	10.862	130	77997	51.94	ug/L	100
62) ethyl acrylate	10.862	55	73915	52.45	ug/L	100
64) 2-chloroethyl vinyl ether	11.652	63	192296	277.69	ug/L	100
65) methyl methacrylate	11.124	100	14883	51.05	ug/L	100
66) 1,2-dichloropropane	11.134	63	69478	50.01	ug/L	100
67) dibromomethane	11.302	93	41830	51.44	ug/L	100
68) methylcyclohexane	11.061	83	126577	48.88	ug/L	100
69) bromodichloromethane	11.427	83	101243	51.44	ug/L	100
70) epichlorohydrin	11.788	57	28364	254.02	ug/L	100
71) cis-1,3-dichloropropene	11.872	75	115388	51.08	ug/L	100
72) 4-methyl-2-pentanone	11.961	58	79338	196.66	ug/L	100
73) 3-methyl-1-butanol	11.982	55	52697	1031.29	ug/L	100
76) toluene	12.222	92	161091	48.36	ug/L	100
77) trans-1,3-dichloropropene	12.431	75	96510	51.49	ug/L	100
78) ethyl methacrylate	12.405	69	70204	52.99	ug/L	100
79) 1,1,2-trichloroethane	12.651	83	46466	52.95	ug/L	100
80) tetrachloroethene	12.803	164	59873	51.70	ug/L	100
81) 1,3-dichloropropane	12.829	76	82462	51.24	ug/L	100
82) 2-hexanone	12.803	58	73296	202.44	ug/L	100
83) butyl acetate	12.871	56	33189	50.29	ug/L	100
84) dibromochloromethane	13.096	129	69957	53.02	ug/L	100
85) 1,2-dibromoethane	13.242	107	73605	52.79	ug/L	100
86) n-butyl ether	13.572	57	250704	50.03	ug/L	100
87) chlorobenzene	13.687	112	167537	49.57	ug/L	100
88) 1,1,1,2-tetrachloroethane	13.749	131	65035	52.92	ug/L	100
89) ethylbenzene	13.734	91	298727	48.78	ug/L	100
90) m,p-xylene	13.838	106	222121	97.64	ug/L	100
91) o-xylene	14.257	106	108443	49.93	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1C7200\
Data File : 1C164011.D
Acq On : 24 Apr 2019 5:51 pm
Operator : ROBERTS
Sample : ICC7200-50
Misc : MS34128,V1C7200,5.0,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Apr 25 08:00:33 2019
Quant Method : C:\MSDCHEM\1\METHODS\M1CS7200.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Apr 25 07:00:24 2019
Response via : Initial Calibration

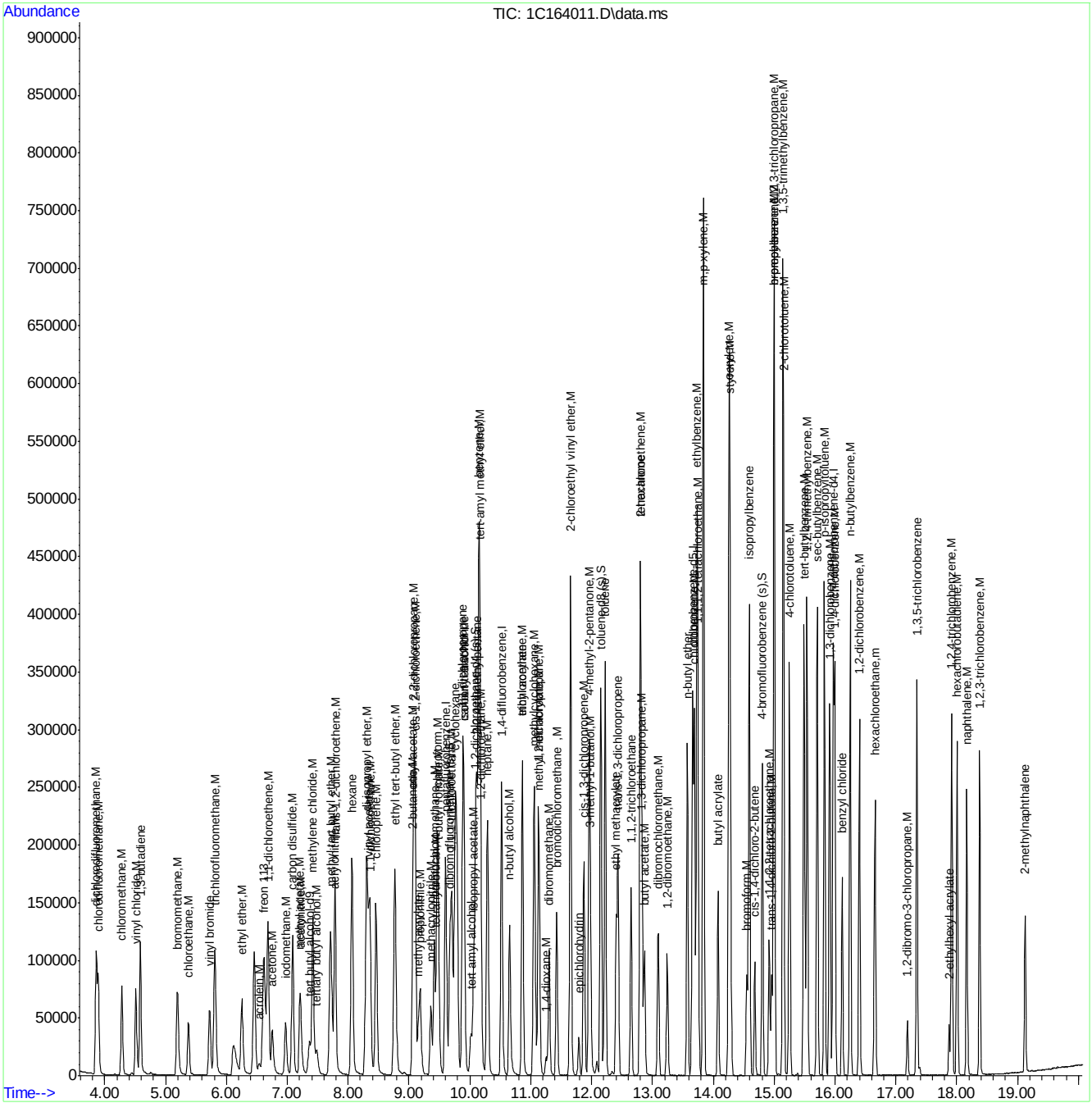
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
92) styrene	14.272	104	180980	50.25	ug/L	100
93) bromoform	14.550	173	43307	54.08	ug/L	100
94) butyl acrylate	14.079	55	109563	51.94	ug/L	100
95) isopropylbenzene	14.592	105	288577	49.39	ug/L	100
96) cis-1,4-dichloro-2-butene	14.680	88	25503	51.42	ug/L	100
99) bromobenzene	14.999	156	74780	49.88	ug/L	100
100) 1,1,2,2-tetrachloroethane	14.916	83	60734	51.65	ug/L	100
101) trans-1,4-dichloro-2-b...	14.958	53	16558	51.31	ug/L	100
102) 1,2,3-trichloropropane	14.994	110	15415	50.81	ug/L	100
103) n-propylbenzene	14.999	91	344035	49.89	ug/L	100
105) 2-chlorotoluene	15.156	126	67254	50.11	ug/L	100
106) 4-chlorotoluene	15.251	91	206975	48.78	ug/L	100
107) 1,3,5-trimethylbenzene	15.146	105	247192	49.69	ug/L	100
108) tert-butylbenzene	15.491	134	43315	52.04	ug/L	100
109) 1,2,4-trimethylbenzene	15.538	105	243979	48.97	ug/L	100
110) sec-butylbenzene	15.706	105	311051	50.30	ug/L	100
111) 1,3-dichlorobenzene	15.915	146	139799	49.23	ug/L	100
112) p-isopropyltoluene	15.826	119	266385	50.08	ug/L	100
113) 1,4-dichlorobenzene	15.998	146	139927	49.33	ug/L	100
114) benzyl chloride	16.119	91	125008	51.19	ug/L	100
115) 1,2-dichlorobenzene	16.401	146	134309	50.69	ug/L	100
117) n-butylbenzene	16.250	92	135625	50.17	ug/L	100
118) 1,2-dibromo-3-chloropr...	17.191	75	11999	50.98	ug/L	100
119) 1,3,5-trichlorobenzene	17.348	180	109002	49.99	ug/L	100
121) 2-ethylhexyl acrylate	17.876	70	11145	10.22	ug/L	100
122) 1,2,4-trichlorobenzene	17.918	180	90974	51.22	ug/L	100
123) hexachlorobutadiene	18.007	225	64340	51.61	ug/L	100
124) naphthalene	18.164	128	174189	50.42	ug/L	100
125) 1,2,3-trichlorobenzene	18.378	180	84916	50.61	ug/L	100
126) hexachloroethane	16.657	201	50069	52.94	ug/L	100
127) 2-methylnaphthalene	19.126	142	58392	26.54	ug/L	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1C7200\
Data File : 1C164011.D
Acq On : 24 Apr 2019 5:51 pm
Operator : ROBERTS
Sample : ICC7200-50
Misc : MS34128,V1C7200,5.0,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Apr 25 08:00:33 2019
Quant Method : C:\MSDCHEM\1\METHODS\M1CS7200.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Apr 25 07:00:24 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1C7200\
Data File : 1C164012.D
Acq On : 24 Apr 2019 6:17 pm
Operator : ROBERTS
Sample : IC7200-100
Misc : MS34128,V1C7200,5.0,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Apr 25 08:01:01 2019
Quant Method : C:\MSDCHEM\1\METHODS\M1CS7200.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Apr 25 07:00:24 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	7.364	65	54362	500.00	ug/L		-0.02
5) pentafluorobenzene	9.602	168	164574	50.00	ug/L		0.00
52) 1,4-difluorobenzene	10.523	114	234870	50.00	ug/L		0.00
74) chlorobenzene-d5	13.661	117	183738	50.00	ug/L		0.00
97) 1,4-dichlorobenzene-d4	15.973	152	97215	50.00	ug/L		0.00
System Monitoring Compounds							
44) dibromofluoromethane (s)	9.670	113	70392	50.72	ug/L		0.00
Spiked Amount 50.000	Range 75 - 127		Recovery = 101.44%				
53) 1,2-dichloroethane-d4 (s)	10.089	65	72935	49.53	ug/L		0.00
Spiked Amount 50.000	Range 75 - 130		Recovery = 99.06%				
75) toluene-d8 (s)	12.149	98	247436	49.99	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.98%				
98) 4-bromofluorobenzene (s)	14.806	95	91427	50.10	ug/L		0.00
Spiked Amount 50.000	Range 79 - 127		Recovery = 100.20%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	7.484	59	75126	520.30	ug/L		99
4) 1,4-dioxane	11.250	88	35303	2677.82	ug/L		100
6) chlorodifluoromethane	3.896	51	175905	102.58	ug/L		99
7) dichlorodifluoromethane	3.859	85	251851	103.51	ug/L		99
8) chloromethane	4.278	50	174007	97.53	ug/L		100
9) vinyl chloride	4.513	62	170167	101.32	ug/L		98
10) 1,3-butadiene	4.586	54	108887	103.30	ug/L		97
11) bromomethane	5.193	94	121094	94.62	ug/L		99
12) chloroethane	5.371	64	102265	103.50	ug/L		99
13) trichlorofluoromethane	5.810	101	257020	102.63	ug/L		98
14) vinyl bromide	5.721	106	100668	102.48	ug/L		98
15) ethyl ether	6.255	74	70390	105.23	ug/L		98
16) acrolein	6.537	56	17990	104.67	ug/L		96
17) freon 113	6.616	151	115449	104.25	ug/L		98
18) 1,1-dichloroethene	6.678	96	133249	98.91	ug/L		98
19) acetone	6.752	43	136356	406.55	ug/L		100
20) acetonitrile	7.212	41	139353	1026.78	ug/L		99
21) iodomethane	6.971	142	161754	103.49	ug/L		99
22) carbon disulfide	7.086	76	412730	94.86	ug/L		99
23) methylene chloride	7.421	84	144165	98.65	ug/L		99
24) methyl acetate	7.207	43	81159	99.90	ug/L		98
25) methyl tert butyl ether	7.714	73	378515	103.67	ug/L		99
26) trans-1,2-dichloroethene	7.787	96	142185	95.07	ug/L		99
27) di-isopropyl ether	8.305	45	456763	101.62	ug/L		98
28) 2-butanone	9.063	72	52945	420.77	ug/L		93
29) 1,1-dichloroethane	8.363	63	245160	96.62	ug/L		98
30) chloroprene	8.462	53	219477	100.33	ug/L		99
31) acrylonitrile	7.766	53	38255	104.69	ug/L		98
32) hexane	8.064	57	234975	101.12	ug/L		98
33) vinyl acetate	8.336	86	22383	105.79	ug/L	#	95
34) ethyl tert-butyl ether	8.765	59	449388	103.73	ug/L		99
35) ethyl acetate	9.069	45	16246	102.27	ug/L	#	94

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1C7200\
Data File : 1C164012.D
Acq On : 24 Apr 2019 6:17 pm
Operator : ROBERTS
Sample : IC7200-100
Misc : MS34128,V1C7200,5.0,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Apr 25 08:01:01 2019
Quant Method : C:\MSDCHEM\1\METHODS\M1CS7200.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Apr 25 07:00:24 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
36) 2,2-dichloropropane	9.079	77	223523	98.81	ug/L		98
37) cis-1,2-dichloroethene	9.100	96	155780	96.52	ug/L		99
38) methyl acrylate	9.158	85	18192	109.78	ug/L	#	87
39) propionitrile	9.184	54	159700	1001.72	ug/L		98
40) bromochloromethane	9.414	128	72220	103.02	ug/L		96
41) tetrahydrofuran	9.445	72	15206	102.52	ug/L		98
42) chloroform	9.466	85	168040	93.56	ug/L		99
43) t-butyl formate	9.477	59	97174	100.60	ug/L		96
45) methacrylonitrile	9.356	67	47742	103.75	ug/L		96
46) 1,1,1-trichloroethane	9.701	97	238226	102.50	ug/L		99
47) cyclohexane	9.759	84	226538	98.73	ug/L		99
48) 1,1-dichloropropene	9.885	75	193904	98.48	ug/L		99
49) iso-butyl alcohol	9.900	43	50930	990.53	ug/L		96
50) carbon tetrachloride	9.900	117	207463	102.20	ug/L		99
51) tert amyl alcohol	10.021	55	24638	508.94	ug/L		98
54) n-butyl alcohol	10.653	56	181265	5289.84	ug/L		98
55) 2,2,4-trimethylpentane	10.115	57	561985	99.66	ug/L		99
56) benzene	10.151	78	543215	92.38	ug/L		99
57) tert-amyl methyl ether	10.157	87	93594	102.12	ug/L		98
58) heptane	10.287	71	126733	99.87	ug/L		99
59) isopropyl acetate	10.062	87	25717	105.72	ug/L	#	90
60) 1,2-dichloroethane	10.183	62	180067	94.18	ug/L		99
61) trichloroethene	10.863	130	151238	99.91	ug/L		99
62) ethyl acrylate	10.857	55	145668	102.54	ug/L		97
64) 2-chloroethyl vinyl ether	11.652	63	344534	493.59	ug/L		99
65) methyl methacrylate	11.124	100	29939	101.88	ug/L		98
66) 1,2-dichloropropane	11.135	63	135409	96.70	ug/L		99
67) dibromomethane	11.302	93	83122	101.40	ug/L		98
68) methylcyclohexane	11.056	83	244623	93.72	ug/L		99
69) bromodichloromethane	11.427	83	204356	103.01	ug/L		99
70) epichlorohydrin	11.788	57	57461	510.53	ug/L		98
71) cis-1,3-dichloropropene	11.872	75	227902	100.08	ug/L		98
72) 4-methyl-2-pentanone	11.961	58	157137	386.42	ug/L		99
73) 3-methyl-1-butanol	11.982	55	105565	2049.57	ug/L		99
76) toluene	12.222	92	319473	95.00	ug/L		100
77) trans-1,3-dichloropropene	12.432	75	191542	101.22	ug/L		98
78) ethyl methacrylate	12.406	69	142307	106.40	ug/L		99
79) 1,1,2-trichloroethane	12.651	83	93348	105.35	ug/L		98
80) tetrachloroethene	12.803	164	117586	100.56	ug/L		99
81) 1,3-dichloropropane	12.829	76	164065	100.98	ug/L		99
82) 2-hexanone	12.803	58	145768	398.77	ug/L		98
83) butyl acetate	12.871	56	65653	98.54	ug/L		99
84) dibromochloromethane	13.096	129	144481	108.45	ug/L		97
85) 1,2-dibromoethane	13.242	107	150074	106.62	ug/L		99
86) n-butyl ether	13.572	57	504362	99.69	ug/L		100
87) chlorobenzene	13.687	112	336438	98.61	ug/L		99
88) 1,1,1,2-tetrachloroethane	13.750	131	130796	105.42	ug/L		97
89) ethylbenzene	13.734	91	588190	95.14	ug/L		100
90) m,p-xylene	13.839	106	438472	190.90	ug/L		97
91) o-xylene	14.257	106	212486	96.91	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1C7200\
Data File : 1C164012.D
Acq On : 24 Apr 2019 6:17 pm
Operator : ROBERTS
Sample : IC7200-100
Misc : MS34128,V1C7200,5.0,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Apr 25 08:01:01 2019
Quant Method : C:\MSDCHEM\1\METHODS\M1CS7200.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Apr 25 07:00:24 2019
Response via : Initial Calibration

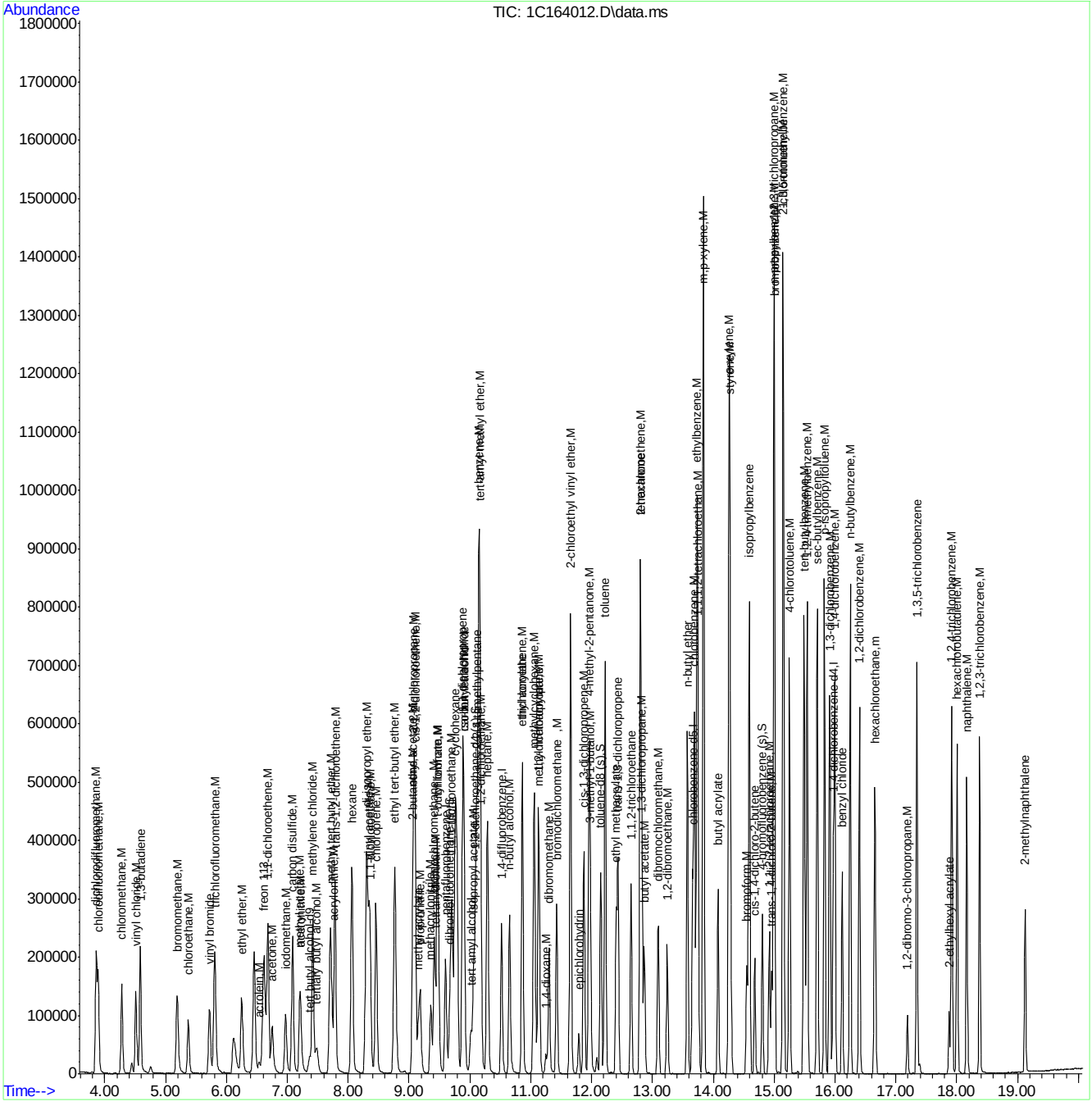
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
92) styrene	14.273	104	353538	97.23	ug/L	99
93) bromoform	14.550	173	90473	111.91	ug/L	100
94) butyl acrylate	14.079	55	219935	103.27	ug/L	98
95) isopropylbenzene	14.592	105	575810	97.62	ug/L	100
96) cis-1,4-dichloro-2-butene	14.686	88	53028	105.90	ug/L	97
99) bromobenzene	15.005	156	149860	98.19	ug/L	92
100) 1,1,2,2-tetrachloroethane	14.921	83	124527	104.01	ug/L	97
101) trans-1,4-dichloro-2-b...	14.958	53	33362	101.53	ug/L	92
102) 1,2,3-trichloropropane	14.994	110	31001	100.37	ug/L	99
103) n-propylbenzene	15.000	91	675283	96.19	ug/L	99
105) 2-chlorotoluene	15.151	126	133528	97.72	ug/L	90
106) 4-chlorotoluene	15.251	91	417206	96.57	ug/L	100
107) 1,3,5-trimethylbenzene	15.146	105	492609	97.26	ug/L	99
108) tert-butylbenzene	15.491	134	86331	101.87	ug/L	95
109) 1,2,4-trimethylbenzene	15.544	105	487621	96.12	ug/L	97
110) sec-butylbenzene	15.706	105	619600	98.41	ug/L	99
111) 1,3-dichlorobenzene	15.915	146	282370	97.68	ug/L	100
112) p-isopropyltoluene	15.826	119	531211	98.09	ug/L	99
113) 1,4-dichlorobenzene	15.999	146	281197	97.37	ug/L	99
114) benzyl chloride	16.119	91	254434	102.34	ug/L	98
115) 1,2-dichlorobenzene	16.401	146	270601	100.32	ug/L	99
117) n-butylbenzene	16.250	92	269323	97.85	ug/L	99
118) 1,2-dibromo-3-chloropr...	17.191	75	24716	103.14	ug/L	97
119) 1,3,5-trichlorobenzene	17.348	180	221999	100.01	ug/L	100
121) 2-ethylhexyl acrylate	17.876	70	24771	22.30	ug/L	94
122) 1,2,4-trichlorobenzene	17.918	180	186074	102.91	ug/L	100
123) hexachlorobutadiene	18.007	225	126500	99.66	ug/L	98
124) naphthalene	18.164	128	352248	100.14	ug/L	100
125) 1,2,3-trichlorobenzene	18.378	180	172497	100.99	ug/L	100
126) hexachloroethane	16.658	201	104355	108.39	ug/L	99
127) 2-methylnaphthalene	19.126	142	122310	54.61	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1C7200\
Data File : 1C164012.D
Acq On : 24 Apr 2019 6:17 pm
Operator : ROBERTS
Sample : IC7200-100
Misc : MS34128,V1C7200,5.0,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Apr 25 08:01:01 2019
Quant Method : C:\MSDCHEM\1\METHODS\M1CS7200.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Apr 25 07:00:24 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1C7200\
Data File : 1C164013.D
Acq On : 24 Apr 2019 6:44 pm
Operator : ROBERTS
Sample : IC7200-200
Misc : MS34128,V1C7200,5.0,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Apr 25 08:02:00 2019
Quant Method : C:\MSDCHEM\1\METHODS\M1CS7200.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Apr 25 07:00:24 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.379	65	55377	500.00	ug/L	0.00
5) pentafluorobenzene	9.602	168	166522	50.00	ug/L	0.00
52) 1,4-difluorobenzene	10.523	114	239614	50.00	ug/L	0.00
74) chlorobenzene-d5	13.661	117	189631	50.00	ug/L	0.00
97) 1,4-dichlorobenzene-d4	15.972	152	97742	50.00	ug/L	0.00
System Monitoring Compounds						
44) dibromofluoromethane (s)	9.670	113	70317	50.07	ug/L	0.00
Spiked Amount 50.000	Range 75 - 127		Recovery = 100.14%			
53) 1,2-dichloroethane-d4 (s)	10.088	65	74062	49.30	ug/L	0.00
Spiked Amount 50.000	Range 75 - 130		Recovery = 98.60%			
75) toluene-d8 (s)	12.149	98	251967	49.33	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.66%			
98) 4-bromofluorobenzene (s)	14.806	95	93115	50.75	ug/L	0.00
Spiked Amount 50.000	Range 79 - 127		Recovery = 101.50%			
Target Compounds						Qvalue
2) tertiary butyl alcohol	7.494	59	150758	1024.96	ug/L	87
4) 1,4-dioxane	11.250	88	71490	5323.29	ug/L	98
6) chlorodifluoromethane	3.891	51	336323	193.83	ug/L	98
7) dichlorodifluoromethane	3.859	85	485415	197.18	ug/L	99
8) chloromethane	4.278	50	322753	178.79	ug/L	99
9) vinyl chloride	4.513	62	327982	193.01	ug/L	98
10) 1,3-butadiene	4.581	54	208320	195.32	ug/L	98
11) bromomethane	5.177	94	231204	178.55	ug/L	97
12) chloroethane	5.366	64	191915	191.97	ug/L	99
13) trichlorofluoromethane	5.805	101	490566	193.60	ug/L	98
14) vinyl bromide	5.716	106	193285	194.46	ug/L	98
15) ethyl ether	6.255	74	136622	201.85	ug/L	98
16) acrolein	6.532	56	35961	206.78	ug/L	97
17) freon 113	6.616	151	222609	198.67	ug/L	98
18) 1,1-dichloroethene	6.678	96	250089	183.46	ug/L	99
19) acetone	6.752	43	260056	766.29	ug/L	98
20) acetonitrile	7.212	41	273493	1991.58	ug/L	98
21) iodomethane	6.971	142	323876	201.89	ug/L	99
22) carbon disulfide	7.086	76	788625	179.14	ug/L	100
23) methylene chloride	7.421	84	275371	186.23	ug/L	99
24) methyl acetate	7.207	43	161252	196.16	ug/L	99
25) methyl tert butyl ether	7.714	73	727040	196.79	ug/L	99
26) trans-1,2-dichloroethene	7.782	96	268674	177.55	ug/L	98
27) di-isopropyl ether	8.305	45	865623	190.34	ug/L	98
28) 2-butanone	9.063	72	101400	796.43	ug/L	99
29) 1,1-dichloroethane	8.362	63	459392	178.94	ug/L	100
30) chloroprene	8.457	53	418196	188.93	ug/L	100
31) acrylonitrile	7.766	53	74917	202.63	ug/L	96
32) hexane	8.059	57	446430	189.87	ug/L	99
33) vinyl acetate	8.342	86	42812	199.98	ug/L	95
34) ethyl tert-butyl ether	8.765	59	861092	196.44	ug/L	99
35) ethyl acetate	9.069	45	31381	195.24	ug/L #	88

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1C7200\
Data File : 1C164013.D
Acq On : 24 Apr 2019 6:44 pm
Operator : ROBERTS
Sample : IC7200-200
Misc : MS34128,V1C7200,5.0,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Apr 25 08:02:00 2019
Quant Method : C:\MSDCHEM\1\METHODS\M1CS7200.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Apr 25 07:00:24 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
36) 2,2-dichloropropane	9.084	77	422041	184.39	ug/L		98
37) cis-1,2-dichloroethene	9.100	96	290081	177.63	ug/L		99
38) methyl acrylate	9.152	85	36271	216.32	ug/L		96
39) propionitrile	9.189	54	313364	1942.58	ug/L		93
40) bromochloromethane	9.414	128	135320	190.78	ug/L		94
41) tetrahydrofuran	9.445	72	29417	196.01	ug/L		89
42) chloroform	9.466	85	316928	174.39	ug/L		98
43) t-butyl formate	9.482	59	204142	208.86	ug/L		95
45) methacrylonitrile	9.356	67	93768	201.38	ug/L		97
46) 1,1,1-trichloroethane	9.701	97	455508	193.69	ug/L		99
47) cyclohexane	9.759	84	427961	184.33	ug/L		99
48) 1,1-dichloropropene	9.884	75	371977	186.71	ug/L		99
49) iso-butyl alcohol	9.905	43	101063	1942.56	ug/L		96
50) carbon tetrachloride	9.900	117	396026	192.81	ug/L		99
51) tert amyl alcohol	10.020	55	50140	1023.62	ug/L		98
54) n-butyl alcohol	10.659	56	360092	10300.49	ug/L		98
55) 2,2,4-trimethylpentane	10.115	57	1069898	185.98	ug/L		99
56) benzene	10.151	78	1006338	167.75	ug/L		99
57) tert-amyl methyl ether	10.156	87	179039	191.49	ug/L		94
58) heptane	10.287	71	240032	185.41	ug/L		98
59) isopropyl acetate	10.062	87	49710	200.31	ug/L	#	82
60) 1,2-dichloroethane	10.183	62	339158	173.88	ug/L		99
61) trichloroethene	10.863	130	287069	185.89	ug/L		99
62) ethyl acrylate	10.857	55	281989	194.57	ug/L		97
64) 2-chloroethyl vinyl ether	11.652	63	692395	972.30	ug/L		99
65) methyl methacrylate	11.124	100	58167	194.02	ug/L		95
66) 1,2-dichloropropane	11.134	63	254422	178.10	ug/L		100
67) dibromomethane	11.302	93	159805	191.09	ug/L		99
68) methylcyclohexane	11.056	83	469779	176.42	ug/L		100
69) bromodichloromethane	11.427	83	392194	193.77	ug/L		100
70) epichlorohydrin	11.788	57	113573	989.09	ug/L		98
71) cis-1,3-dichloropropene	11.877	75	440218	189.49	ug/L		99
72) 4-methyl-2-pentanone	11.961	58	302097	728.19	ug/L		99
73) 3-methyl-1-butanol	11.987	55	210563	4007.20	ug/L		96
76) toluene	12.222	92	612236	176.39	ug/L		98
77) trans-1,3-dichloropropene	12.432	75	370643	189.79	ug/L		99
78) ethyl methacrylate	12.405	69	273101	197.84	ug/L		98
79) 1,1,2-trichloroethane	12.651	83	181425	198.40	ug/L		98
80) tetrachloroethene	12.798	164	224199	185.78	ug/L		99
81) 1,3-dichloropropane	12.829	76	313423	186.92	ug/L		99
82) 2-hexanone	12.803	58	272460	722.19	ug/L		98
83) butyl acetate	12.871	56	127993	186.14	ug/L		95
84) dibromochloromethane	13.096	129	287305	208.96	ug/L		98
85) 1,2-dibromoethane	13.242	107	295211	203.21	ug/L		100
86) n-butyl ether	13.577	57	948549	181.67	ug/L		98
87) chlorobenzene	13.692	112	647220	183.80	ug/L		99
88) 1,1,1,2-tetrachloroethane	13.750	131	252779	197.40	ug/L		98
89) ethylbenzene	13.734	91	1100428	172.46	ug/L		100
90) m,p-xylene	13.839	106	806285	340.14	ug/L		100
91) o-xylene	14.257	106	396381	175.16	ug/L		97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1C7200\
Data File : 1C164013.D
Acq On : 24 Apr 2019 6:44 pm
Operator : ROBERTS
Sample : IC7200-200
Misc : MS34128,V1C7200,5.0,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Apr 25 08:02:00 2019
Quant Method : C:\MSDCHEM\1\METHODS\M1CS7200.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Apr 25 07:00:24 2019
Response via : Initial Calibration

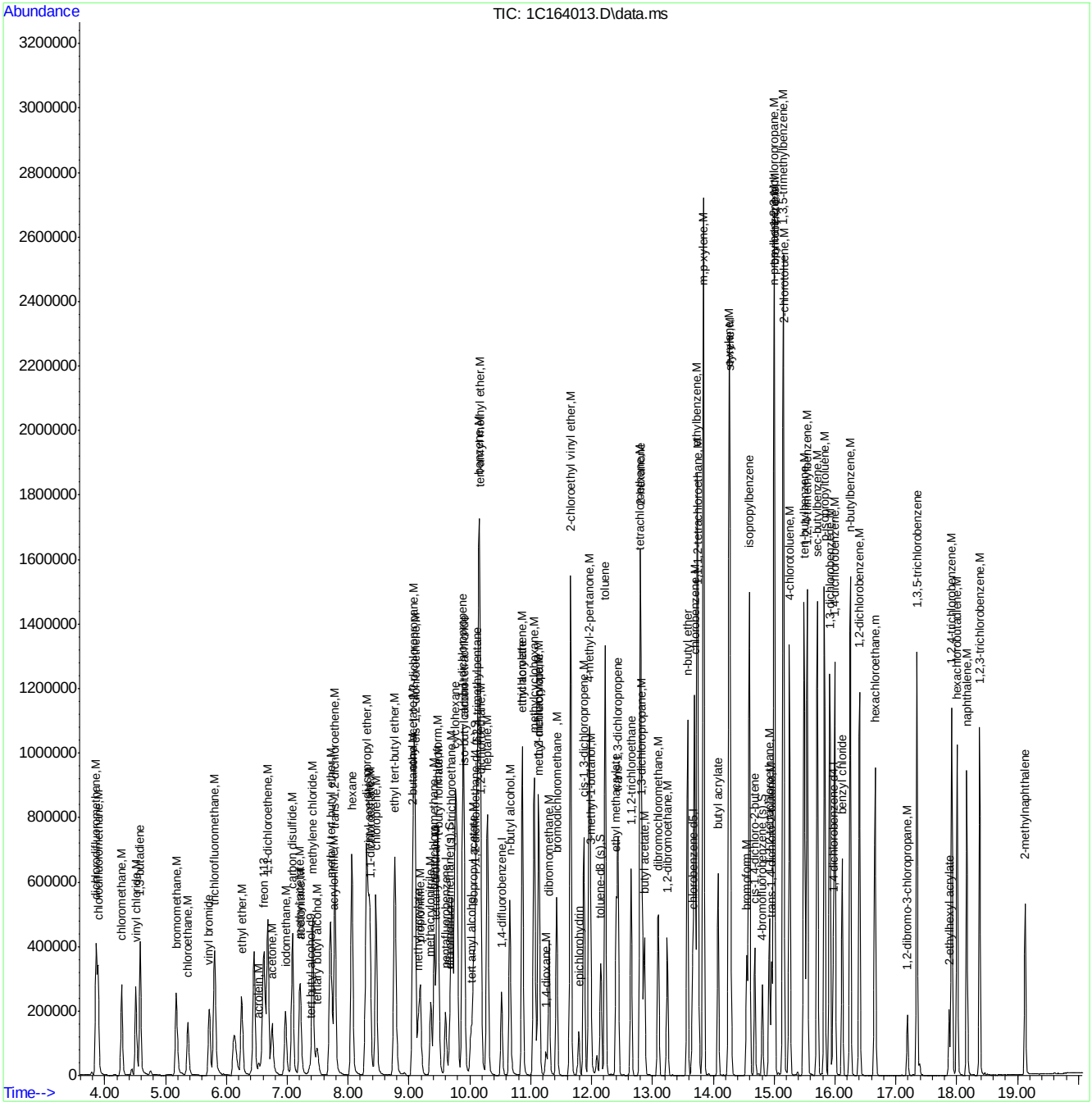
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
92) styrene	14.273	104	654467	174.40	ug/L	98
93) bromoform	14.550	173	182034	218.17	ug/L	99
94) butyl acrylate	14.079	55	429918	195.59	ug/L	99
95) isopropylbenzene	14.592	105	1091513	179.29	ug/L	99
96) cis-1,4-dichloro-2-butene	14.686	88	105472	204.08	ug/L	97
99) bromobenzene	15.005	156	279537	182.16	ug/L	93
100) 1,1,2,2-tetrachloroethane	14.921	83	245073	203.59	ug/L	96
101) trans-1,4-dichloro-2-b...	14.958	53	66081	200.03	ug/L	96
102) 1,2,3-trichloropropane	14.994	110	59884	192.84	ug/L	98
103) n-propylbenzene	15.000	91	1237824	175.37	ug/L	98
105) 2-chlorotoluene	15.157	126	247026	179.80	ug/L	99
106) 4-chlorotoluene	15.251	91	781379	179.89	ug/L	99
107) 1,3,5-trimethylbenzene	15.146	105	916952	180.07	ug/L	99
108) tert-butylbenzene	15.491	134	163739	192.17	ug/L	97
109) 1,2,4-trimethylbenzene	15.544	105	913444	179.09	ug/L	97
110) sec-butylbenzene	15.706	105	1149116	181.53	ug/L	99
111) 1,3-dichlorobenzene	15.915	146	529790	182.28	ug/L	99
112) p-isopropyltoluene	15.826	119	986254	181.13	ug/L	99
113) 1,4-dichlorobenzene	15.999	146	529027	182.20	ug/L	98
114) benzyl chloride	16.119	91	489153	195.69	ug/L	99
115) 1,2-dichlorobenzene	16.401	146	511068	188.45	ug/L	99
117) n-butylbenzene	16.250	92	501694	181.30	ug/L	99
118) 1,2-dibromo-3-chloropr...	17.191	75	48196	200.04	ug/L	97
119) 1,3,5-trichlorobenzene	17.348	180	412161	184.67	ug/L	99
121) 2-ethylhexyl acrylate	17.876	70	48621	43.54	ug/L	92
122) 1,2,4-trichlorobenzene	17.918	180	345690	190.15	ug/L	98
123) hexachlorobutadiene	18.007	225	235261	184.35	ug/L	98
124) naphthalene	18.164	128	664874	188.00	ug/L	100
125) 1,2,3-trichlorobenzene	18.378	180	323863	188.59	ug/L	100
126) hexachloroethane	16.658	201	205516	212.31	ug/L	98
127) 2-methylnaphthalene	19.126	142	234284	104.03	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1C7200\
Data File : 1C164013.D
Acq On : 24 Apr 2019 6:44 pm
Operator : ROBERTS
Sample : IC7200-200
Misc : MS34128,V1C7200,5.0,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Apr 25 08:02:00 2019
Quant Method : C:\MSDCHEM\1\METHODS\M1CS7200.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Apr 25 07:00:24 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1C7200\
Data File : 1C164016.D
Acq On : 24 Apr 2019 8:03 pm
Operator : ROBERTS
Sample : ICV7200-50
Misc : MS34128,V1C7200,5.0,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Apr 25 08:05:21 2019
Quant Method : C:\MSDCHEM\1\METHODS\M1CS7200.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Apr 25 08:03:13 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.363	65	57618	500.00	ug/L	-0.02
5) pentafluorobenzene	9.602	168	173118	50.00	ug/L	0.00
52) 1,4-difluorobenzene	10.523	114	246979	50.00	ug/L	0.00
74) chlorobenzene-d5	13.661	117	192341	50.00	ug/L	0.00
97) 1,4-dichlorobenzene-d4	15.972	152	100566	50.00	ug/L	0.00
System Monitoring Compounds						
44) dibromofluoromethane (s)	9.670	113	74690	51.16	ug/L	0.00
Spiked Amount 50.000	Range 75 - 127		Recovery = 102.32%			
53) 1,2-dichloroethane-d4 (s)	10.094	65	74278	47.87	ug/L	0.00
Spiked Amount 50.000	Range 75 - 130		Recovery = 95.74%			
75) toluene-d8 (s)	12.149	98	253579	48.94	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.88%			
98) 4-bromofluorobenzene (s)	14.806	95	94168	49.88	ug/L	0.00
Spiked Amount 50.000	Range 79 - 127		Recovery = 99.76%			
Target Compounds						Qvalue
2) tertiary butyl alcohol	7.479	59	37273	243.55	ug/L	98
4) 1,4-dioxane	11.255	88	17368	1242.96	ug/L	100
6) chlorodifluoromethane	3.896	51	95602	53.00	ug/L	99
7) dichlorodifluoromethane	3.859	85	117839	46.04	ug/L	97
8) chloromethane	4.278	50	100452	53.52	ug/L	100
9) vinyl chloride	4.513	62	82812	46.88	ug/L	99
10) 1,3-butadiene	4.586	54	65370	58.95	ug/L	99
11) bromomethane	5.193	94	63779	47.37	ug/L	97
12) chloroethane	5.376	64	46561	44.00	ug/L	100
13) trichlorofluoromethane	5.810	101	127812	48.52	ug/L	98
14) vinyl bromide	5.721	106	53653	51.92	ug/L	100
15) ethyl ether	6.255	74	36720	52.19	ug/L	98
16) acrolein	6.537	56	9495	52.52	ug/L	96
17) freon 113	6.616	151	66824	57.37	ug/L	99
18) 1,1-dichloroethene	6.684	96	66876	47.19	ug/L	95
19) acetone	6.752	43	68360	194.14	ug/L	98
21) iodomethane	6.971	142	70476	44.60	ug/L	98
22) carbon disulfide	7.086	76	239679	52.36	ug/L	99
23) methylene chloride	7.421	84	74074	48.19	ug/L	99
24) methyl acetate	7.207	43	40528	47.19	ug/L	100
25) methyl tert butyl ether	7.709	73	379527	98.82	ug/L	85
26) trans-1,2-dichloroethene	7.787	96	74815	47.56	ug/L	98
27) di-isopropyl ether	8.305	45	224275	47.44	ug/L	100
28) 2-butanone	9.063	72	26988	203.90	ug/L	99
29) 1,1-dichloroethane	8.362	63	132683	49.71	ug/L	99
30) chloroprene	8.457	53	118582	51.53	ug/L	99
31) acrylonitrile	7.766	53	19600	50.99	ug/L	98
32) hexane	8.064	57	132624	54.26	ug/L	98
33) vinyl acetate	8.336	86	10807	48.56	ug/L	95
34) ethyl tert-butyl ether	8.770	59	222343	48.79	ug/L	99
35) ethyl acetate	9.068	45	8436	50.49	ug/L	99
36) 2,2-dichloropropane	9.084	77	114252	48.01	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1C7200\
Data File : 1C164016.D
Acq On : 24 Apr 2019 8:03 pm
Operator : ROBERTS
Sample : ICV7200-50
Misc : MS34128,V1C7200,5.0,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Apr 25 08:05:21 2019
Quant Method : C:\MSDCHEM\1\METHODS\M1CS7200.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Apr 25 08:03:13 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) cis-1,2-dichloroethene	9.100	96	80678	47.52	ug/L		98
38) methyl acrylate	9.152	85	9201	52.78	ug/L	#	88
39) propionitrile	9.184	54	84232	502.27	ug/L		99
40) bromochloromethane	9.419	128	37852	51.33	ug/L		97
41) tetrahydrofuran	9.450	72	7987	50.51	ug/L		85
42) chloroform	9.466	85	88951	47.08	ug/L		97
43) t-butyl formate	9.482	59	50004	49.21	ug/L		96
45) methacrylonitrile	9.361	67	24506	50.62	ug/L		98
46) 1,1,1-trichloroethane	9.701	97	122064	49.93	ug/L		98
47) cyclohexane	9.759	84	114307	47.35	ug/L		97
48) 1,1-dichloropropene	9.884	75	104027	50.23	ug/L		99
49) iso-butyl alcohol	9.905	43	25426	465.49	ug/L		97
50) carbon tetrachloride	9.905	117	110210	51.61	ug/L		97
51) tert amyl alcohol	10.020	55	13053	255.79	ug/L		95
54) n-butyl alcohol	10.653	56	91012	2525.32	ug/L		98
55) 2,2,4-trimethylpentane	10.115	57	287100	48.42	ug/L		100
56) benzene	10.151	78	288641	46.68	ug/L		99
57) tert-amyl methyl ether	10.156	87	46019	47.75	ug/L		96
58) heptane	10.287	71	79376	59.48	ug/L		98
59) isopropyl acetate	10.057	87	12187	47.64	ug/L		98
60) 1,2-dichloroethane	10.183	62	89943	44.74	ug/L		100
61) trichloroethene	10.862	130	80509	50.58	ug/L		99
62) ethyl acrylate	10.857	55	75474	50.52	ug/L		97
64) 2-chloroethyl vinyl ether	11.652	63	202680	276.13	ug/L		99
65) methyl methacrylate	11.124	100	15175	49.11	ug/L		95
66) 1,2-dichloropropane	11.134	63	70694	48.01	ug/L		99
67) dibromomethane	11.302	93	41413	48.04	ug/L		100
68) methylcyclohexane	11.061	83	128728	46.90	ug/L		100
69) bromodichloromethane	11.427	83	100324	48.09	ug/L		99
70) epichlorohydrin	11.788	57	30188	255.06	ug/L		97
71) cis-1,3-dichloropropene	11.872	75	117437	49.04	ug/L		99
72) 4-methyl-2-pentanone	11.956	58	80525	188.31	ug/L		96
73) 3-methyl-1-butanol	11.982	55	53502	986.87	ug/L		98
76) toluene	12.222	92	164589	46.75	ug/L		99
77) trans-1,3-dichloropropene	12.432	75	99447	50.20	ug/L		99
78) ethyl methacrylate	12.405	69	71553	51.11	ug/L		98
79) 1,1,2-trichloroethane	12.651	83	46655	50.30	ug/L		96
81) 1,3-dichloropropane	12.829	76	83998	49.39	ug/L		99
82) 2-hexanone	12.803	58	74960	195.89	ug/L		99
83) butyl acetate	12.871	56	33745	48.38	ug/L		97
84) dibromochloromethane	13.096	129	73448	52.67	ug/L		96
85) 1,2-dibromoethane	13.242	107	74074	50.27	ug/L		100
86) n-butyl ether	13.572	57	266698	50.36	ug/L		99
87) chlorobenzene	13.692	112	173070	48.46	ug/L		97
88) 1,1,1,2-tetrachloroethane	13.750	131	66339	51.08	ug/L		98
89) ethylbenzene	13.734	91	301301	46.56	ug/L		99
90) m,p-xylene	13.838	106	226680	94.28	ug/L		98
91) o-xylene	14.257	106	109148	47.55	ug/L		97
92) styrene	14.267	104	183991	48.34	ug/L		95
93) bromoform	14.550	173	46911	55.43	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1C7200\
Data File : 1C164016.D
Acq On : 24 Apr 2019 8:03 pm
Operator : ROBERTS
Sample : ICV7200-50
Misc : MS34128,V1C7200,5.0,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Apr 25 08:05:21 2019
Quant Method : C:\MSDCHEM\1\METHODS\M1CS7200.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Apr 25 08:03:13 2019
Response via : Initial Calibration

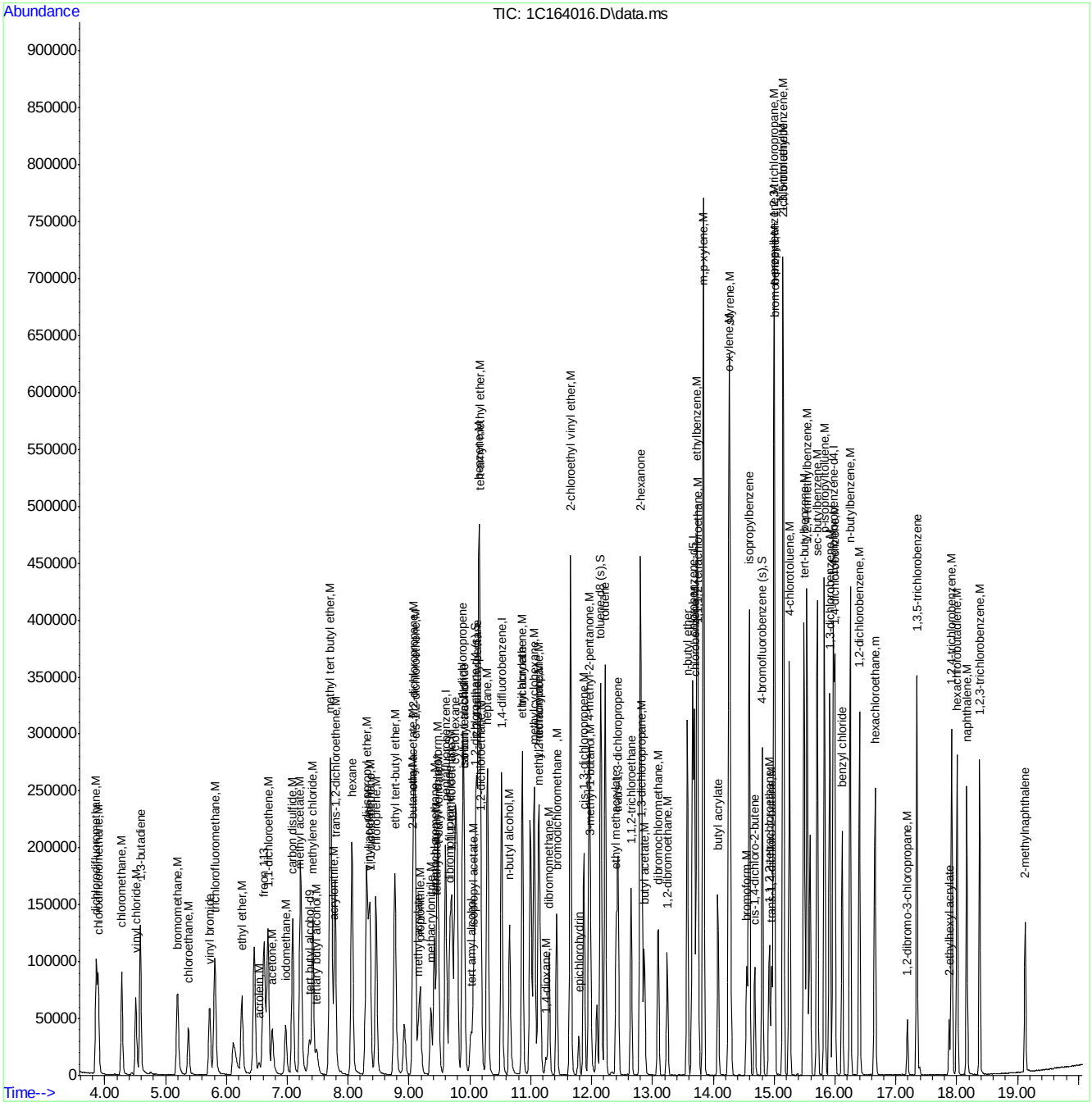
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
94) butyl acrylate	14.074	55	109388	49.06	ug/L	99
95) isopropylbenzene	14.592	105	296299	47.98	ug/L	99
96) cis-1,4-dichloro-2-butene	14.686	88	25513	48.67	ug/L	98
99) bromobenzene	15.005	156	76003	48.14	ug/L	92
100) 1,1,2,2-tetrachloroethane	14.916	83	61440	49.61	ug/L	97
101) trans-1,4-dichloro-2-b...	14.958	53	18590	55.16	ug/L	98
102) 1,2,3-trichloropropane	14.994	110	15695	49.12	ug/L	99
103) n-propylbenzene	15.000	91	350472	48.26	ug/L	100
105) 2-chlorotoluene	15.151	126	68127	48.19	ug/L	91
106) 4-chlorotoluene	15.251	91	214234	47.94	ug/L	100
107) 1,3,5-trimethylbenzene	15.146	105	250029	47.72	ug/L	98
108) tert-butylbenzene	15.491	134	44771	50.99	ug/L	97
109) 1,2,4-trimethylbenzene	15.538	105	251797	47.98	ug/L	98
110) sec-butylbenzene	15.706	105	318316	48.87	ug/L	99
111) 1,3-dichlorobenzene	15.915	146	146711	49.06	ug/L	99
112) p-isopropyltoluene	15.826	119	275784	49.23	ug/L	99
113) 1,4-dichlorobenzene	15.999	146	143981	48.20	ug/L	98
114) benzyl chloride	16.119	91	161005	62.60	ug/L	99
115) 1,2-dichlorobenzene	16.401	146	138244	49.54	ug/L	99
117) n-butylbenzene	16.250	92	138955	48.80	ug/L	100
118) 1,2-dibromo-3-chloropr...	17.191	75	11975	48.31	ug/L	90
119) 1,3,5-trichlorobenzene	17.348	180	112780	49.11	ug/L	99
121) 2-ethylhexyl acrylate	17.876	70	11841	10.31	ug/L	96
122) 1,2,4-trichlorobenzene	17.918	180	89511	47.85	ug/L	95
123) hexachlorobutadiene	18.007	225	63375	48.27	ug/L	98
124) naphthalene	18.164	128	178986	49.19	ug/L	99
125) 1,2,3-trichlorobenzene	18.378	180	83182	47.08	ug/L	98
126) hexachloroethane	16.658	201	52954	52.92	ug/L	98
127) 2-methylnaphthalene	19.126	142	57911	24.99	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1C7200\
Data File : 1C164016.D
Acq On : 24 Apr 2019 8:03 pm
Operator : ROBERTS
Sample : ICV7200-50
Misc : MS34128,V1C7200,5.0,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Apr 25 08:05:21 2019
Quant Method : C:\MSDCHEM\1\METHODS\M1CS7200.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Apr 25 08:03:13 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1C7200\
Data File : 1C164017.D
Acq On : 24 Apr 2019 8:30 pm
Operator : ROBERTS
Sample : ICV7200-50
Misc : MS34128,V1C7200,5.0,,,,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Apr 25 08:05:55 2019
Quant Method : C:\MSDCHEM\1\METHODS\M1CS7200.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Apr 25 08:03:13 2019
Response via : Initial Calibration

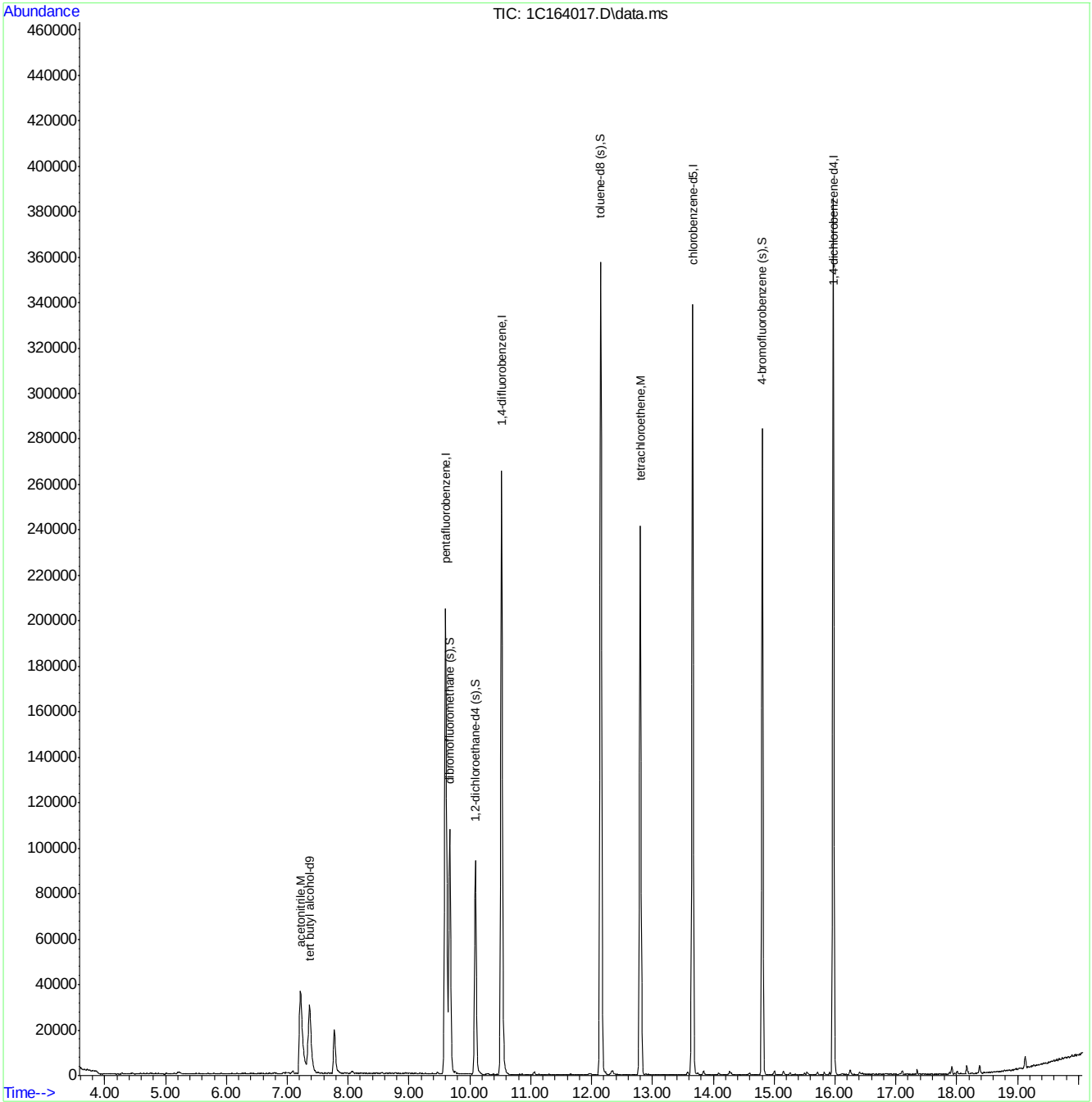
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.364	65	58834	500.00	ug/L	-0.02
5) pentafluorobenzene	9.602	168	176659	50.00	ug/L	0.00
52) 1,4-difluorobenzene	10.523	114	241919	50.00	ug/L	0.00
74) chlorobenzene-d5	13.661	117	195243	50.00	ug/L	0.00
97) 1,4-dichlorobenzene-d4	15.973	152	101236	50.00	ug/L	0.00
System Monitoring Compounds						
44) dibromofluoromethane (s)	9.670	113	73907	49.61	ug/L	0.00
Spiked Amount 50.000	Range 75 - 127		Recovery = 99.22%			
53) 1,2-dichloroethane-d4 (s)	10.089	65	75274	49.53	ug/L	0.00
Spiked Amount 50.000	Range 75 - 130		Recovery = 99.06%			
75) toluene-d8 (s)	12.149	98	259692	49.38	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.76%			
98) 4-bromofluorobenzene (s)	14.806	95	94564	49.76	ug/L	0.00
Spiked Amount 50.000	Range 79 - 127		Recovery = 99.52%			
Target Compounds						Qvalue
20) acetonitrile	7.217	41	73398	489.80	ug/L	99
80) tetrachloroethene	12.803	164	60363	48.58	ug/L	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1C7200\
Data File : 1C164017.D
Acq On : 24 Apr 2019 8:30 pm
Operator : ROBERTS
Sample : ICV7200-50
Misc : MS34128,V1C7200,5.0,,,,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Apr 25 08:05:55 2019
Quant Method : C:\MSDCHEM\1\METHODS\M1CS7200.M
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Apr 25 08:03:13 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\eunicem050619\v1c7209\
Data File : 1c164266.d
Acq On : 3 May 2019 8:23 am
Operator : EddieH
Sample : cc7200-50 Inst : GCMS1C
Misc : MS34270,V1C7209,5.0,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M1CS7200.M
Quant Results File: M1CS7200.RES
Quant Time: May 04 23:35:36 2019
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Apr 25 08:03:13 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.363	65	42874	500.00	ug/L	-0.02
5) pentafluorobenzene	9.602	168	142635	50.00	ug/L	0.00
52) 1,4-difluorobenzene	10.523	114	194386	50.00	ug/L	0.00
74) chlorobenzene-d5	13.655	117	153918	50.00	ug/L	0.00
97) 1,4-dichlorobenzene-d4	15.972	152	84010	50.00	ug/L	0.00
System Monitoring Compounds						
44) dibromofluoromethane (s)	9.670	113	60708	50.47	ug/L	0.00
Spiked Amount 50.000	Range 75 - 127		Recovery = 100.94%			
53) 1,2-dichloroethane-d4 (s)	10.094	65	66192	54.21	ug/L	0.00
Spiked Amount 50.000	Range 75 - 130		Recovery = 108.42%			
75) toluene-d8 (s)	12.149	98	209593	50.55	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.10%			
98) 4-bromofluorobenzene (s)	14.806	95	77784	49.32	ug/L	0.00
Spiked Amount 50.000	Range 79 - 127		Recovery = 98.64%			
Target Compounds						Qvalue
2) tertiary butyl alcohol	7.489	59	30696	269.55	ug/L	98
4) 1,4-dioxane	11.250	88	14229	1368.50	ug/L	98
6) chlorodifluoromethane	3.896	51	57791	38.88	ug/L	96
7) dichlorodifluoromethane	3.859	85	87586	41.54	ug/L	97
8) chloromethane	4.278	50	57946	37.47	ug/L	99
9) vinyl chloride	4.513	62	62109	42.67	ug/L	98
10) 1,3-butadiene	4.586	54	36590	40.05	ug/L	97
11) bromomethane	5.198	94	44393	40.02	ug/L	97
12) chloroethane	5.376	64	36424	41.78	ug/L	96
13) trichlorofluoromethane	5.810	101	109601	50.50	ug/L	98
14) vinyl bromide	5.726	106	53289	62.59	ug/L	98
15) ethyl ether	6.255	74	27034	46.63	ug/L	92
16) acrolein	6.537	56	7867	52.81	ug/L	94
17) freon 113	6.616	151	46494	48.44	ug/L	98
18) 1,1-dichloroethene	6.684	96	51261	43.90	ug/L	98
19) acetone	6.757	43	52175	179.84	ug/L	95
20) acetonitrile	7.212	41	48356	399.66	ug/L	98
21) iodomethane	6.971	142	49396	38.38	ug/L	96
22) carbon disulfide	7.086	76	150397	39.88	ug/L	98
23) methylene chloride	7.421	84	56684	44.75	ug/L	93
24) methyl acetate	7.212	43	28740	40.62	ug/L	99
25) methyl tert butyl ether	7.714	73	155388	49.10	ug/L	96
26) trans-1,2-dichloroethene	7.787	96	57542	44.39	ug/L	96
27) di-isopropyl ether	8.305	45	158202	40.61	ug/L	93
28) 2-butanone	9.063	72	21177	194.19	ug/L #	82
29) 1,1-dichloroethane	8.357	63	96445	43.86	ug/L	100
30) chloroprene	8.457	53	88751	46.81	ug/L	98
31) acrylonitrile	7.766	53	14040	44.33	ug/L	96
32) hexane	8.064	57	76978	38.22	ug/L	95
33) vinyl acetate	8.341	86	8936	48.73	ug/L #	73
34) ethyl tert-butyl ether	8.770	59	175137	46.64	ug/L	97
35) ethyl acetate	9.074	45	5963	43.31	ug/L #	71
36) 2,2-dichloropropane	9.084	77	98735	50.36	ug/L	98
37) cis-1,2-dichloroethene	9.100	96	62649	44.79	ug/L	97
38) methyl acrylate	9.157	85	7403	51.55	ug/L #	90
39) propionitrile	9.189	54	61125	442.38	ug/L	94
40) bromochloromethane	9.414	128	29996	49.37	ug/L	89
41) tetrahydrofuran	9.450	72	6183	47.46	ug/L #	77
42) chloroform	9.466	85	71686	46.05	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\eunicem050619\v1c7209\
Data File : 1c164266.d
Acq On : 3 May 2019 8:23 am
Operator : EddieH
Sample : cc7200-50 Inst : GCMS1C
Misc : MS34270,V1C7209,5.0,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M1CS7200.M
Quant Results File: M1CS7200.RES
Quant Time: May 04 23:35:36 2019
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Apr 25 08:03:13 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
43) t-butyl formate	9.476	59	38194	45.62	ug/L		92
45) methacrylonitrile	9.361	67	18249	45.76	ug/L		88
46) 1,1,1-trichloroethane	9.701	97	107202	53.22	ug/L		98
47) cyclohexane	9.764	84	81667	41.06	ug/L		97
48) 1,1-dichloropropene	9.884	75	79278	46.46	ug/L		99
49) iso-butyl alcohol	9.900	43	18521	411.54	ug/L		95
50) carbon tetrachloride	9.900	117	96108	54.63	ug/L		98
51) tert amyl alcohol	10.015	55	9954	236.75	ug/L		94
54) n-butyl alcohol	10.653	56	67689	2386.34	ug/L		97
55) 2,2,4-trimethylpentane	10.109	57	188126	40.31	ug/L		99
56) benzene	10.151	78	216105	44.41	ug/L		100
57) tert-amyl methyl ether	10.162	87	40691	53.65	ug/L	#	84
58) heptane	10.287	71	43864	41.77	ug/L		96
59) isopropyl acetate	10.062	87	10358	51.45	ug/L		98
60) 1,2-dichloroethane	10.183	62	79976	50.54	ug/L		94
61) trichloroethene	10.862	130	64291	51.32	ug/L		98
62) ethyl acrylate	10.857	55	55058	46.83	ug/L		99
64) 2-chloroethyl vinyl ether	11.652	63	139015	240.63	ug/L		97
65) methyl methacrylate	11.124	100	12065	49.61	ug/L	#	89
66) 1,2-dichloropropane	11.134	63	50521	43.59	ug/L		98
67) dibromomethane	11.302	93	33815	49.84	ug/L		93
68) methylcyclohexane	11.056	83	90498	41.89	ug/L		97
69) bromodichloromethane	11.427	83	85108	51.83	ug/L		98
70) epichlorohydrin	11.788	57	22491	241.44	ug/L		98
71) cis-1,3-dichloropropene	11.872	75	92477	49.07	ug/L		97
72) 4-methyl-2-pentanone	11.961	58	60782	180.60	ug/L		93
73) 3-methyl-1-butanol	11.982	55	41428	970.91	ug/L		92
76) toluene	12.222	92	129957	46.13	ug/L		100
77) trans-1,3-dichloropropene	12.432	75	81641	51.50	ug/L		98
78) ethyl methacrylate	12.405	69	56264	50.22	ug/L		97
79) 1,1,2-trichloroethane	12.651	83	37369	50.35	ug/L		98
80) tetrachloroethene	12.803	164	51129	52.20	ug/L		98
81) 1,3-dichloropropane	12.829	76	66487	48.85	ug/L		95
82) 2-hexanone	12.803	58	57516	187.83	ug/L		99
83) butyl acetate	12.871	56	25341	45.40	ug/L		98
84) dibromochloromethane	13.096	129	62652	56.14	ug/L		98
85) 1,2-dibromoethane	13.242	107	52026	44.12	ug/L		100
86) n-butyl ether	13.572	57	185466	43.76	ug/L		96
87) chlorobenzene	13.687	112	141436	49.48	ug/L		99
88) 1,1,1,2-tetrachloroethane	13.750	131	57291	55.12	ug/L		98
89) ethylbenzene	13.734	91	250523	48.37	ug/L		99
90) m,p-xylene	13.838	106	188230	97.83	ug/L		99
91) o-xylene	14.257	106	91296	49.70	ug/L		96
92) styrene	14.267	104	151735	49.81	ug/L		95
93) bromoform	14.550	173	40852	60.32	ug/L		98
94) butyl acrylate	14.079	55	86686	48.59	ug/L		97
95) isopropylbenzene	14.592	105	246945	49.98	ug/L		99
96) cis-1,4-dichloro-2-butene	14.681	88	25071	59.77	ug/L		90
99) bromobenzene	15.000	156	65191	49.43	ug/L		96
100) 1,1,2,2-tetrachloroethane	14.916	83	49868	48.20	ug/L		97
101) trans-1,4-dichloro-2-b...	14.958	53	14661	52.07	ug/L		95
102) 1,2,3-trichloropropane	14.994	110	14105	52.84	ug/L		98
103) n-propylbenzene	14.994	91	293980	48.46	ug/L		99
105) 2-chlorotoluene	15.151	126	58446	49.49	ug/L		96
106) 4-chlorotoluene	15.251	91	179003	47.95	ug/L		97
107) 1,3,5-trimethylbenzene	15.146	105	214574	49.03	ug/L		99
108) tert-butylbenzene	15.491	134	36644	49.95	ug/L		91

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\eunicem050619\v1c7209\
Data File : 1c164266.d
Acq On : 3 May 2019 8:23 am
Operator : EddieH
Sample : cc7200-50 Inst : GCMS1C
Misc : MS34270,V1C7209,5.0,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M1CS7200.M
Quant Results File: M1CS7200.RES
Quant Time: May 04 23:35:36 2019
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Apr 25 08:03:13 2019
Response via : Initial Calibration

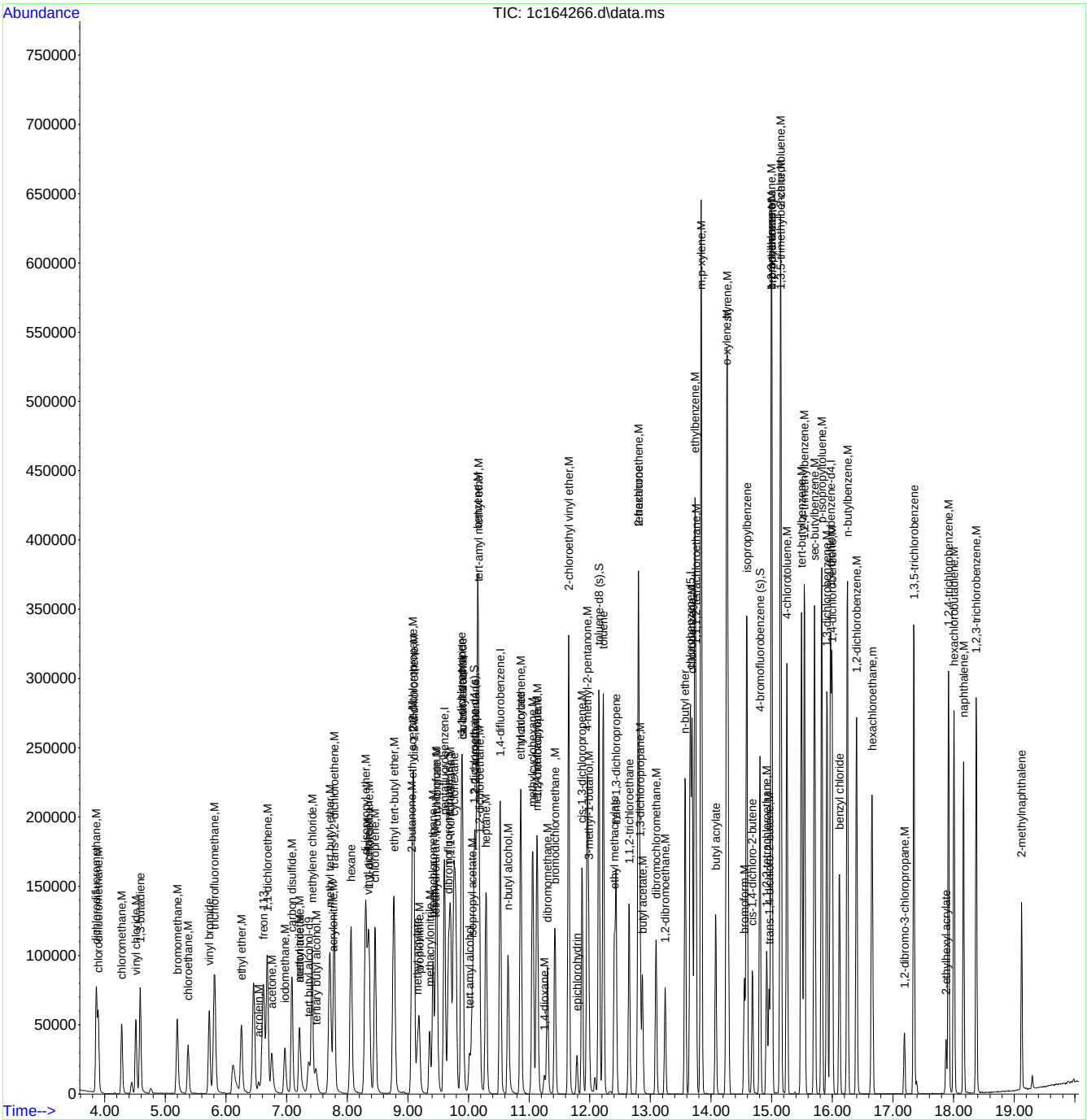
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
109) 1,2,4-trimethylbenzene	15.538	105	215670	49.20	ug/L	98
110) sec-butylbenzene	15.706	105	264268	48.57	ug/L	99
111) 1,3-dichlorobenzene	15.910	146	124047	49.66	ug/L	98
112) p-isopropyltoluene	15.826	119	232101	49.59	ug/L	99
113) 1,4-dichlorobenzene	15.999	146	123346	49.43	ug/L	100
114) benzyl chloride	16.119	91	119716	55.72	ug/L	98
115) 1,2-dichlorobenzene	16.401	146	119496	51.27	ug/L	100
117) n-butylbenzene	16.250	92	115842	48.70	ug/L	97
118) 1,2-dibromo-3-chloropr...	17.191	75	11267	54.41	ug/L	99
119) 1,3,5-trichlorobenzene	17.348	180	104076	54.25	ug/L	99
121) 2-ethylhexyl acrylate	17.876	70	9083	9.46	ug/L	94
122) 1,2,4-trichlorobenzene	17.918	180	88161	56.42	ug/L	97
123) hexachlorobutadiene	18.007	225	60336	55.01	ug/L	99
124) naphthalene	18.164	128	165599	54.48	ug/L	98
125) 1,2,3-trichlorobenzene	18.373	180	79990	54.19	ug/L	99
126) hexachloroethane	16.658	201	46883	56.08	ug/L	97
127) 2-methylnaphthalene	19.121	142	56294	29.08	ug/L	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\eunicem050619\v1c7209\
Data File : 1c164266.d
Acq On : 3 May 2019 8:23 am
Operator : EddieH
Sample : cc7200-50 Inst : GCMS1C
Misc : MS34270,V1C7209,5.0,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M1CS7200.M
Quant Results File: M1CS7200.RES
Quant Time: May 04 23:35:36 2019
Quant Title : SW846 8260C, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Apr 25 08:03:13 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D6212\
Data File : 3D145270.D
Acq On : 7 Mar 2019 6:37 pm
Operator : juntaep
Sample : ic6212-0.2
Misc : MS32815,V3D6212,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 08 18:23:27 2019
Quant Method : C:\MSDCHEM\1\METHODS\M3D6212.M
Quant Title : SW846 8260C/ EPA 624, Rxi-624 60 m x 0.25 mm x 1.4Fri Mar 08 16:34:21 2019
QLast Update : Fri Mar 08 16:34:21 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	2.980	65	220104	500.00	ug/L	0.00
5) pentafluorobenzene	4.194	168	330657	50.00	ug/L	0.00
52) 1,4-difluorobenzene	4.754	114	448083	50.00	ug/L	0.00
74) chlorobenzene-d5	7.144	117	380674	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	9.339	152	179911	50.00	ug/L	0.00
System Monitoring Compounds						
44) dibromofluoromethane (s)	4.200	113	114571	48.21	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 96.42%			
53) 1,2-dichloroethane-d4 (s)	4.443	65	127662	51.89	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 103.78%			
75) toluene-d8 (s)	5.894	98	486169	50.50	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.00%			
99) 4-bromofluorobenzene (s)	8.223	95	169166	49.75	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.50%			
Target Compounds						Qvalue
2) tertiary butyl alcohol	3.035	59	660	1.21	ug/L	70
3) ethanol	2.426	45	1242	24.85	ug/L	74
6) chlorodifluoromethane	1.615	51	566	0.19	ug/L	66
7) dichlorodifluoromethane	1.603	85	531	0.15	ug/L	92
9) vinyl chloride	1.834	62	578	0.18	ug/L	75
10) 1,3-butadiene	1.865	54	560	0.22	ug/L	93
12) chloroethane	2.157	64	352	0.18	ug/L	49
13) trichlorofluoromethane	2.340	101	830	0.20	ug/L	93
14) vinyl bromide	2.291	106	372	0.20	ug/L #	65
15) ethyl ether	2.511	74	239	0.16	ug/L	88
16) acrolein	2.608	56	107	0.18	ug/L	98
18) 1,1-dichloroethene	2.694	96	350	0.15	ug/L	83
23) methylene chloride	3.011	84	602	0.26	ug/L #	74
24) methyl acetate	2.901	43	565	0.22	ug/L	63
25) methyl tert butyl ether	3.169	73	1389	0.19	ug/L	83
26) trans-1,2-dichloroethene	3.194	96	540	0.22	ug/L	96
27) di-isopropyl ether	3.486	45	1562	0.19	ug/L	89
28) 2-butanone	3.840	72	316	0.69	ug/L #	74
29) 1,1-dichloroethane	3.486	63	761	0.18	ug/L	74
30) chloroprene	3.535	53	729	0.18	ug/L	90
34) ethyl tert-butyl ether	3.730	59	1474	0.19	ug/L	95
36) 2,2-dichloropropane	3.883	77	692	0.20	ug/L	84
37) cis-1,2-dichloroethene	3.870	96	605	0.23	ug/L #	71
39) propionitrile	3.883	54	979	1.79	ug/L	94
40) bromochloromethane	4.029	128	208	0.18	ug/L #	65
42) chloroform	4.090	85	668	0.26	ug/L #	62
46) 1,1,1-trichloroethane	4.230	97	702	0.19	ug/L #	1
47) cyclohexane	4.291	84	877	0.22	ug/L #	81
48) 1,1-dichloropropene	4.334	75	639	0.19	ug/L	88
50) carbon tetrachloride	4.340	117	521	0.17	ug/L #	83
55) 2,2,4-trimethylpentane	4.541	57	1227	0.20	ug/L	84
56) benzene	4.480	78	1867	0.20	ug/L	94
57) tert-amyl methyl ether	4.541	87	347	0.19	ug/L #	42
58) heptane	4.657	71	289	0.18	ug/L #	82
61) trichloroethene	4.949	130	561	0.22	ug/L	91
62) ethyl acrylate	4.968	55	701	0.17	ug/L	75
65) methyl methacrylate	5.145	69	756	0.25	ug/L	92
67) dibromomethane	5.212	93	225	0.16	ug/L	98
69) bromodichloromethane	5.327	83	527	0.18	ug/L	80
71) cis-1,3-dichloropropene	5.669	75	851	0.23	ug/L	98
72) 4-methyl-2-pentanone	5.766	58	962	0.72	ug/L	94

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D6212\
Data File : 3D145270.D
Acq On : 7 Mar 2019 6:37 pm
Operator : juntaep
Sample : ic6212-0.2
Misc : MS32815,V3D6212,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 08 18:23:27 2019
Quant Method : C:\MSDCHEM\1\METHODS\M3D6212.M
Quant Title : SW846 8260C/ EPA 624, Rxi-624 60 m x 0.25 mm x 1.4Fri Mar 08 16:34:21 2019
QLast Update : Fri Mar 08 16:34:21 2019
Response via : Initial Calibration

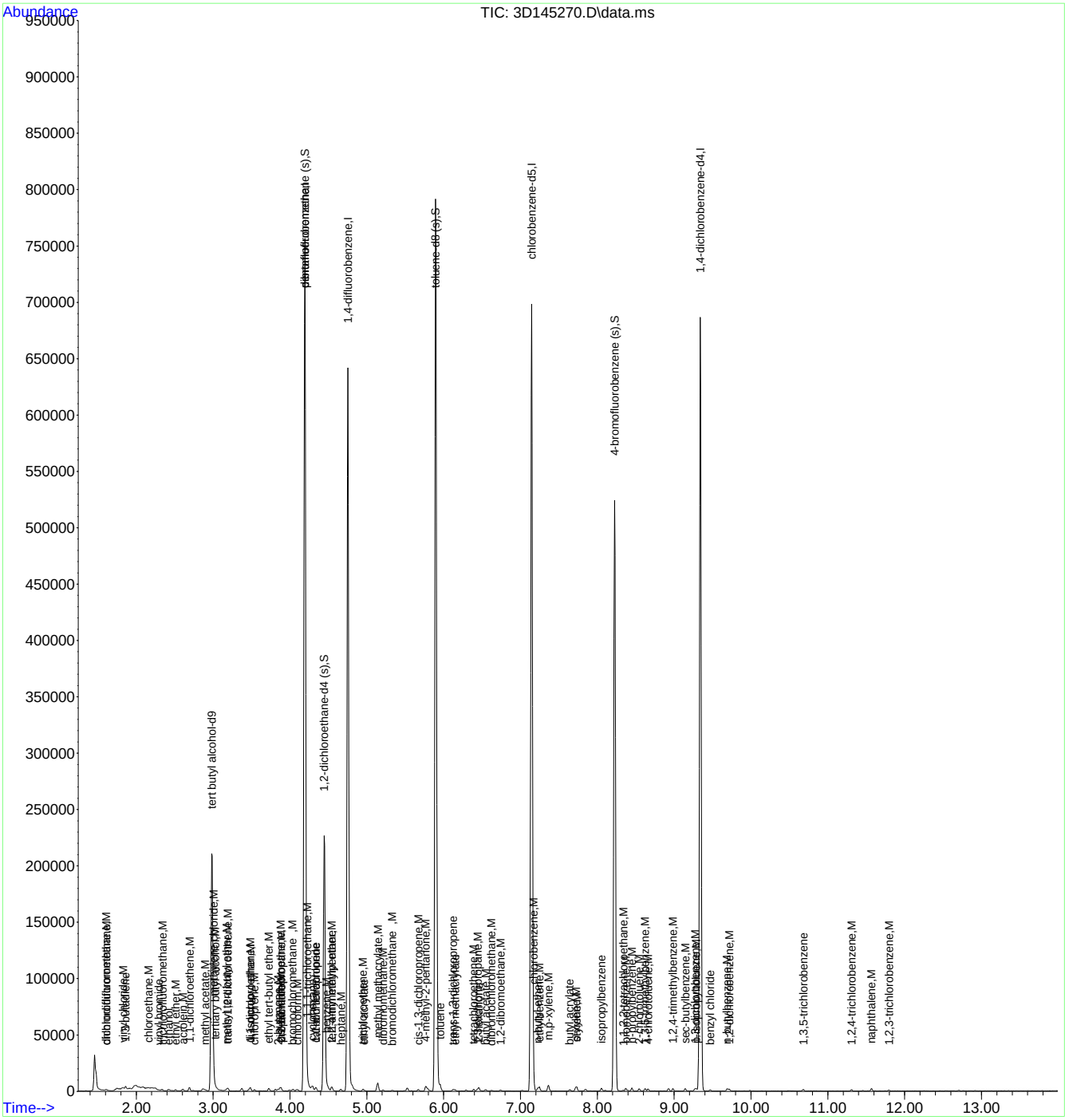
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
76) toluene	5.955	92	1313	0.22	ug/L	#	85
77) trans-1,3-dichloropropene	6.120	75	790	0.23	ug/L		96
78) ethyl methacrylate	6.150	69	664	0.18	ug/L		76
80) tetrachloroethene	6.388	164	443	0.21	ug/L	#	76
81) 1,3-dichloropropane	6.437	76	662	0.18	ug/L		92
82) 2-hexanone	6.455	58	996	0.71	ug/L		89
83) butyl acetate	6.541	56	417	0.19	ug/L		96
84) dibromochloromethane	6.620	129	353	0.16	ug/L		78
85) 1,2-dibromoethane	6.742	107	648	0.23	ug/L		98
86) n-butyl ether	7.223	57	1929	0.19	ug/L		93
87) chlorobenzene	7.175	112	1356	0.21	ug/L		72
89) ethylbenzene	7.248	91	2206	0.20	ug/L		94
90) m,p-xylene	7.358	106	1771	0.40	ug/L	#	76
91) o-xylene	7.717	106	886	0.21	ug/L		85
92) styrene	7.736	104	1352	0.19	ug/L		97
94) butyl acrylate	7.638	55	848	0.16	ug/L		82
96) isopropylbenzene	8.053	105	1997	0.18	ug/L		90
100) bromobenzene	8.370	156	524	0.19	ug/L	#	71
101) 1,1,2,2-tetrachloroethane	8.339	83	563	0.18	ug/L		92
104) n-propylbenzene	8.449	91	2438	0.20	ug/L		84
105) 2-chlorotoluene	8.546	126	466	0.18	ug/L	#	77
106) 4-chlorotoluene	8.656	126	451	0.18	ug/L	#	63
107) 1,3,5-trimethylbenzene	8.620	105	1693	0.20	ug/L		91
109) 1,2,4-trimethylbenzene	8.985	105	1619	0.19	ug/L		93
110) sec-butylbenzene	9.138	105	1816	0.18	ug/L		94
111) 1,3-dichlorobenzene	9.266	146	1100	0.22	ug/L		99
112) p-isopropyltoluene	9.284	119	1813	0.21	ug/L		85
114) benzyl chloride	9.467	91	1164	0.18	ug/L		97
115) 1,2-dichlorobenzene	9.717	146	1025	0.22	ug/L		83
116) n-butylbenzene	9.692	92	725	0.18	ug/L		99
118) 1,3,5-trichlorobenzene	10.674	180	755	0.22	ug/L		93
120) 1,2,4-trichlorobenzene	11.302	180	620	0.21	ug/L	#	58
122) naphthalene	11.564	128	2274	0.24	ug/L		98
123) 1,2,3-trichlorobenzene	11.790	180	475	0.17	ug/L		94

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D6212\
Data File : 3D145270.D
Acq On : 7 Mar 2019 6:37 pm
Operator : juntaep
Sample : ic6212-0.2
Misc : MS32815,V3D6212,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 08 18:23:27 2019
Quant Method : C:\MSDCHEM\1\METHODS\M3D6212.M
Quant Title : SW846 8260C/ EPA 624, Rxi-624 60 m x 0.25 mm x 1.4Fri Mar 08 16:34:21 2019
QLast Update : Fri Mar 08 16:34:21 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D6212\
Data File : 3D145271.D
Acq On : 7 Mar 2019 7:02 pm
Operator : juntaep
Sample : ic6212-0.5
Misc : MS32815,V3D6212,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 08 18:24:30 2019
Quant Method : C:\MSDCHEM\1\METHODS\M3D6212.M
Quant Title : SW846 8260C/ EPA 624, Rxi-624 60 m x 0.25 mm x 1.4Fri Mar 08 16:34:21 2019
QLast Update : Fri Mar 08 16:34:21 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) tert butyl alcohol-d9	2.980	65	215585	500.00	ug/L		0.00
5) pentafluorobenzene	4.194	168	328988	50.00	ug/L		0.00
52) 1,4-difluorobenzene	4.755	114	448861	50.00	ug/L		0.00
74) chlorobenzene-d5	7.144	117	384722	50.00	ug/L		0.00
98) 1,4-dichlorobenzene-d4	9.339	152	179875	50.00	ug/L		0.00
System Monitoring Compounds							
44) dibromofluoromethane (s)	4.200	113	116460	49.25	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.50%				
53) 1,2-dichloroethane-d4 (s)	4.444	65	128245	52.03	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 104.06%				
75) toluene-d8 (s)	5.895	98	489292	50.29	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.58%				
99) 4-bromofluorobenzene (s)	8.223	95	170520	50.16	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.32%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	3.041	59	1369	2.55	ug/L		82
3) ethanol	2.420	45	2494	50.95	ug/L		96
4) 1,4-dioxane	5.181	88	578	11.68	ug/L		84
6) chlorodifluoromethane	1.615	51	1462	0.49	ug/L		86
7) dichlorodifluoromethane	1.603	85	1746	0.50	ug/L		93
8) chloromethane	1.749	50	1647	0.54	ug/L		89
9) vinyl chloride	1.834	62	1522	0.46	ug/L		84
10) 1,3-butadiene	1.859	54	1182	0.47	ug/L		93
12) chloroethane	2.157	64	1176	0.61	ug/L		88
13) trichlorofluoromethane	2.334	101	1979	0.49	ug/L		92
14) vinyl bromide	2.292	106	869	0.46	ug/L	#	77
15) ethyl ether	2.517	74	781	0.53	ug/L	#	83
16) acrolein	2.615	56	297	0.50	ug/L		94
17) freon 113	2.688	151	1034	0.48	ug/L		89
18) 1,1-dichloroethene	2.688	96	954	0.42	ug/L		94
20) acetonitrile	2.883	41	2620	5.46	ug/L		99
22) carbon disulfide	2.859	76	3127	0.55	ug/L		93
23) methylene chloride	3.011	84	1207	0.53	ug/L		78
24) methyl acetate	2.901	43	1377	0.54	ug/L		84
25) methyl tert butyl ether	3.176	73	3464	0.48	ug/L		83
26) trans-1,2-dichloroethene	3.194	96	1236	0.51	ug/L		92
27) di-isopropyl ether	3.480	45	3986	0.48	ug/L		91
28) 2-butanone	3.834	72	818	1.79	ug/L		93
29) 1,1-dichloroethane	3.486	63	1996	0.47	ug/L		96
30) chloroprene	3.535	53	1723	0.43	ug/L		95
31) acrylonitrile	3.157	53	530	0.42	ug/L		80
32) hexane	3.377	56	1016	0.50	ug/L		83
33) vinyl acetate	3.462	86	301	0.42	ug/L		93
34) ethyl tert-butyl ether	3.730	59	3786	0.48	ug/L		93
36) 2,2-dichloropropane	3.883	77	1739	0.50	ug/L		84
37) cis-1,2-dichloroethene	3.864	96	1190	0.46	ug/L		87
39) propionitrile	3.877	54	2650	4.88	ug/L		72
40) bromochloromethane	4.029	128	544	0.46	ug/L	#	83
42) chloroform	4.090	85	1322	0.52	ug/L		91
43) t-butyl formate	4.108	59	949	0.40	ug/L		83
45) methacrylonitrile	3.992	67	527	0.39	ug/L		96
46) 1,1,1-trichloroethane	4.230	97	1850	0.50	ug/L	#	13
47) cyclohexane	4.291	84	2105	0.54	ug/L	#	84
48) 1,1-dichloropropene	4.334	75	1640	0.48	ug/L		95
49) iso-butyl alcohol	4.340	43	1106	5.33	ug/L		92
50) carbon tetrachloride	4.346	117	1448	0.47	ug/L		83

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D6212\
Data File : 3D145271.D
Acq On : 7 Mar 2019 7:02 pm
Operator : juntaep
Sample : ic6212-0.5
Misc : MS32815,V3D6212,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 08 18:24:30 2019
Quant Method : C:\MSDCHEM\1\METHODS\M3D6212.M
Quant Title : SW846 8260C/ EPA 624, Rxi-624 60 m x 0.25 mm x 1.4Fri Mar 08 16:34:21 2019
QLast Update : Fri Mar 08 16:34:21 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
51) tert amyl alcohol	4.431	55	455	2.50	ug/L		81
54) n-butyl alcohol	4.809	56	3275	22.21	ug/L		97
55) 2,2,4-trimethylpentane	4.547	57	3245	0.53	ug/L		93
56) benzene	4.480	78	4981	0.53	ug/L		88
57) tert-amyl methyl ether	4.541	87	953	0.51	ug/L		95
58) heptane	4.657	71	841	0.52	ug/L		90
61) trichloroethene	4.950	130	1188	0.46	ug/L		90
62) ethyl acrylate	4.968	55	1898	0.47	ug/L		91
63) 2-nitropropane	5.486	41	387	0.55	ug/L	#	73
64) 2-chloroethyl vinyl ether	5.523	63	3283	1.87	ug/L		94
65) methyl methacrylate	5.145	69	1676	0.56	ug/L		96
66) 1,2-dichloropropane	5.145	63	1114	0.48	ug/L		89
67) dibromomethane	5.212	93	670	0.48	ug/L		93
69) bromodichloromethane	5.328	83	1378	0.47	ug/L		96
70) epichlorohydrin	5.578	57	853	2.10	ug/L	#	58
71) cis-1,3-dichloropropene	5.669	75	1640	0.44	ug/L		93
72) 4-methyl-2-pentanone	5.767	58	2491	1.85	ug/L		98
73) 3-methyl-1-butanol	5.791	55	1659	7.61	ug/L		96
76) toluene	5.955	92	3063	0.51	ug/L		97
77) trans-1,3-dichloropropene	6.126	75	1676	0.48	ug/L		84
78) ethyl methacrylate	6.144	69	1682	0.45	ug/L		91
79) 1,1,2-trichloroethane	6.291	83	778	0.44	ug/L	#	75
80) tetrachloroethene	6.394	164	1036	0.48	ug/L		91
81) 1,3-dichloropropane	6.437	76	1759	0.48	ug/L		97
82) 2-hexanone	6.455	58	2478	1.75	ug/L		98
83) butyl acetate	6.541	56	957	0.42	ug/L		96
84) dibromochloromethane	6.626	129	965	0.44	ug/L		90
85) 1,2-dibromoethane	6.742	107	1246	0.45	ug/L		90
86) n-butyl ether	7.224	57	4453	0.44	ug/L		88
87) chlorobenzene	7.169	112	3347	0.52	ug/L		90
88) 1,1,1,2-tetrachloroethane	7.242	131	1053	0.47	ug/L		93
89) ethylbenzene	7.248	91	5385	0.47	ug/L		90
90) m,p-xylene	7.364	106	4396	0.99	ug/L		93
91) o-xylene	7.717	106	2134	0.50	ug/L	#	76
92) styrene	7.736	104	3386	0.46	ug/L		89
94) butyl acrylate	7.638	55	2327	0.42	ug/L		94
95) n-amyl acetate	7.845	70	931	0.40	ug/L		93
96) isopropylbenzene	8.059	105	5433	0.50	ug/L		96
100) bromobenzene	8.370	156	1464	0.52	ug/L		86
101) 1,1,2,2-tetrachloroethane	8.339	83	1423	0.44	ug/L		92
103) 1,2,3-trichloropropane	8.400	110	521	0.49	ug/L		87
104) n-propylbenzene	8.449	91	6141	0.50	ug/L		98
105) 2-chlorotoluene	8.546	126	1237	0.48	ug/L	#	79
106) 4-chlorotoluene	8.656	126	1332	0.52	ug/L		93
107) 1,3,5-trimethylbenzene	8.620	105	4117	0.48	ug/L		98
108) tert-butylbenzene	8.931	134	896	0.47	ug/L	#	84
109) 1,2,4-trimethylbenzene	8.985	105	4126	0.48	ug/L		91
110) sec-butylbenzene	9.144	105	4928	0.48	ug/L		94
111) 1,3-dichlorobenzene	9.266	146	2408	0.49	ug/L		97
112) p-isopropyltoluene	9.290	119	4091	0.46	ug/L		95
113) 1,4-dichlorobenzene	9.369	146	2520	0.50	ug/L		95
114) benzyl chloride	9.467	91	2674	0.42	ug/L		86
115) 1,2-dichlorobenzene	9.717	146	2426	0.52	ug/L		95
116) n-butylbenzene	9.693	92	1717	0.43	ug/L		91
118) 1,3,5-trichlorobenzene	10.680	180	1613	0.47	ug/L		87
120) 1,2,4-trichlorobenzene	11.308	180	1361	0.45	ug/L		82
121) hexachlorobutadiene	11.454	225	564	0.48	ug/L		86
122) naphthalene	11.570	128	4310	0.46	ug/L		97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D6212\
Data File : 3D145271.D
Acq On : 7 Mar 2019 7:02 pm
Operator : juntaep
Sample : ic6212-0.5
Misc : MS32815,V3D6212,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 08 18:24:30 2019
Quant Method : C:\MSDCHEM\1\METHODS\M3D6212.M
Quant Title : SW846 8260C/ EPA 624, Rxi-624 60 m x 0.25 mm x 1.4Fri Mar 08 16:34:21 2019
QLast Update : Fri Mar 08 16:34:21 2019
Response via : Initial Calibration

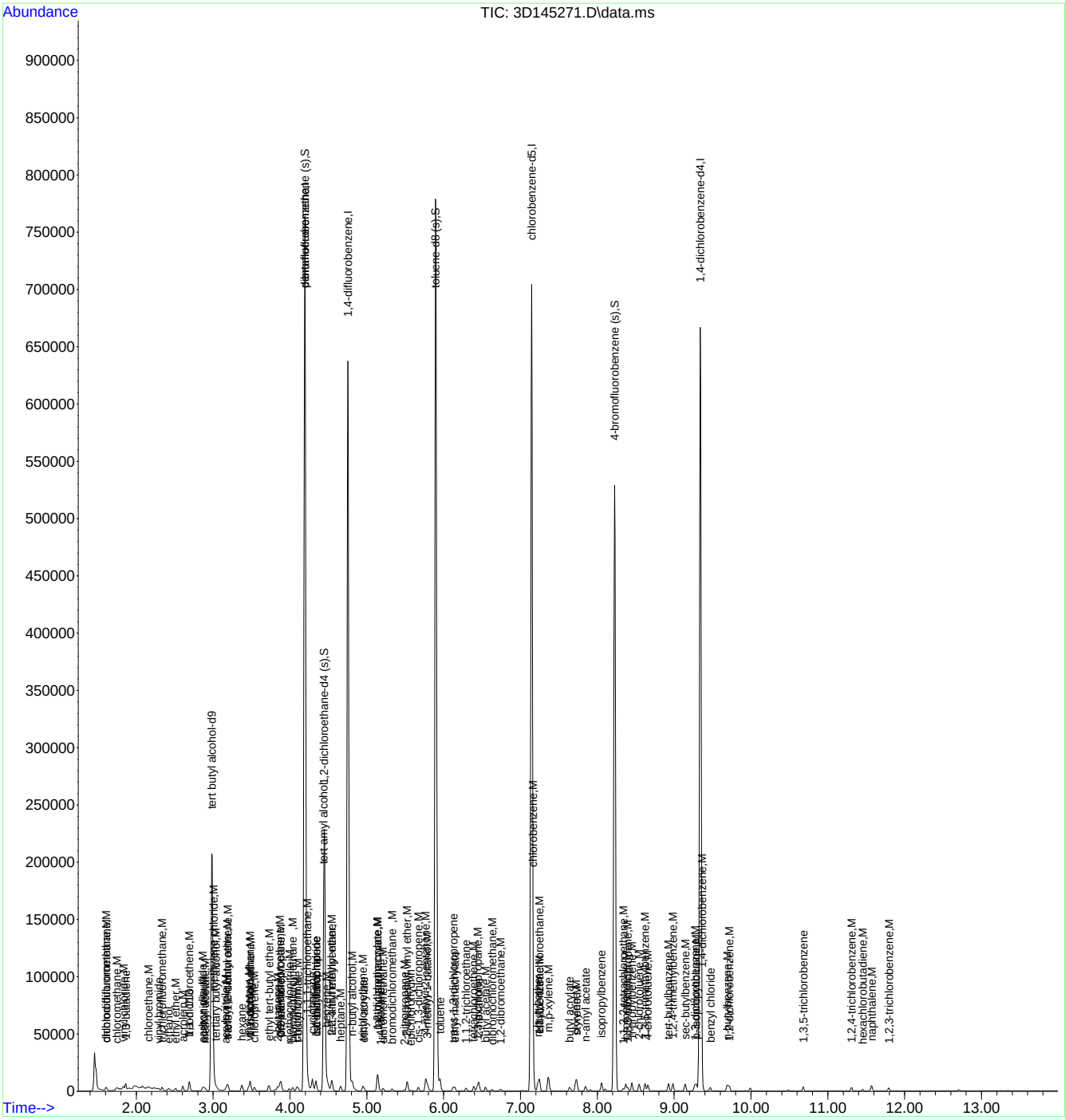
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
123) 1,2,3-trichlorobenzene	11.790	180	1237	0.44	ug/L	89

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D6212\
Data File : 3D145271.D
Acq On : 7 Mar 2019 7:02 pm
Operator : juntaep
Sample : ic6212-0.5
Misc : MS32815,V3D6212,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 08 18:24:30 2019
Quant Method : C:\MSDCHEM\1\METHODS\M3D6212.M
Quant Title : SW846 8260C/ EPA 624, Rxi-624 60 m x 0.25 mm x 1.4Fri Mar 08 16:34:21 2019
QLast Update : Fri Mar 08 16:34:21 2019
Response via : Initial Calibration



M3D6212.M Mon Mar 11 14:49:33 2019 3D

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D6212\
Data File : 3D145272.D
Acq On : 7 Mar 2019 7:27 pm
Operator : juntaep
Sample : ic6212-1
Misc : MS32815,V3D6212,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 08 18:25:04 2019
Quant Method : C:\MSDCHEM\1\METHODS\M3D6212.M
Quant Title : SW846 8260C/ EPA 624, Rxi-624 60 m x 0.25 mm x 1.4Fri Mar 08 16:34:21 2019
QLast Update : Fri Mar 08 16:34:21 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	2.986	65	218651	500.00	ug/L	0.00
5) pentafluorobenzene	4.194	168	324918	50.00	ug/L	0.00
52) 1,4-difluorobenzene	4.754	114	447955	50.00	ug/L	0.00
74) chlorobenzene-d5	7.144	117	384138	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	9.339	152	180549	50.00	ug/L	0.00
System Monitoring Compounds						
44) dibromofluoromethane (s)	4.200	113	115835	49.60	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.20%			
53) 1,2-dichloroethane-d4 (s)	4.450	65	127387	51.79	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 103.58%			
75) toluene-d8 (s)	5.901	98	484991	49.93	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.86%			
99) 4-bromofluorobenzene (s)	8.223	95	169334	49.62	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.24%			
Target Compounds						Qvalue
2) tertiary butyl alcohol	3.041	59	3125	5.75	ug/L	90
3) ethanol	2.420	45	6293	126.76	ug/L	94
4) 1,4-dioxane	5.181	88	1427	28.43	ug/L	91
6) chlorodifluoromethane	1.615	51	3262	1.10	ug/L	98
7) dichlorodifluoromethane	1.603	85	3250	0.94	ug/L	99
8) chloromethane	1.749	50	3149	1.04	ug/L	95
9) vinyl chloride	1.834	62	3061	0.94	ug/L	92
10) 1,3-butadiene	1.865	54	2886	1.15	ug/L	96
11) bromomethane	2.084	94	1238	1.06	ug/L	78
12) chloroethane	2.157	64	2074	1.09	ug/L	93
13) trichlorofluoromethane	2.334	101	3747	0.93	ug/L	97
14) vinyl bromide	2.291	106	1834	0.98	ug/L	93
15) ethyl ether	2.517	74	1570	1.07	ug/L	86
16) acrolein	2.615	56	596	1.02	ug/L	95
17) freon 113	2.688	151	2316	1.10	ug/L	91
18) 1,1-dichloroethene	2.694	96	2503	1.12	ug/L	97
19) acetone	2.694	58	1475	4.62	ug/L	90
20) acetonitrile	2.883	41	5967	12.59	ug/L	96
22) carbon disulfide	2.865	76	6873	1.21	ug/L	94
23) methylene chloride	3.011	84	2717	1.20	ug/L	97
24) methyl acetate	2.901	43	3191	1.26	ug/L	93
25) methyl tert butyl ether	3.182	73	8103	1.13	ug/L	96
26) trans-1,2-dichloroethene	3.194	96	2654	1.12	ug/L	91
27) di-isopropyl ether	3.480	45	9295	1.14	ug/L	94
28) 2-butanone	3.840	72	1989	4.41	ug/L	94
29) 1,1-dichloroethane	3.486	63	4558	1.10	ug/L	87
30) chloroprene	3.541	53	4440	1.12	ug/L	95
31) acrylonitrile	3.151	53	1341	1.07	ug/L	80
32) hexane	3.377	56	2289	1.14	ug/L	92
33) vinyl acetate	3.456	86	726	1.03	ug/L #	91
34) ethyl tert-butyl ether	3.730	59	8448	1.09	ug/L	93
35) ethyl acetate	3.852	45	588	1.12	ug/L #	68
36) 2,2-dichloropropane	3.877	77	4142	1.20	ug/L	92
37) cis-1,2-dichloroethene	3.864	96	2816	1.10	ug/L	99
38) methyl acrylate	3.895	85	504	0.96	ug/L	98
39) propionitrile	3.883	54	6322	11.79	ug/L	87
40) bromochloromethane	4.029	128	1372	1.18	ug/L	92
41) tetrahydrofuran	4.047	72	610	1.21	ug/L	83
42) chloroform	4.090	85	2876	1.14	ug/L	98
43) t-butyl formate	4.108	59	2272	0.97	ug/L	93
45) methacrylonitrile	3.992	67	1380	1.03	ug/L	96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D6212\
Data File : 3D145272.D
Acq On : 7 Mar 2019 7:27 pm
Operator : juntaep
Sample : ic6212-1
Misc : MS32815,V3D6212,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 08 18:25:04 2019
Quant Method : C:\MSDCHEM\1\METHODS\M3D6212.M
Quant Title : SW846 8260C/ EPA 624, Rxi-624 60 m x 0.25 mm x 1.4Fri Mar 08 16:34:21 2019
QLast Update : Fri Mar 08 16:34:21 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
46) 1,1,1-trichloroethane	4.224	97	4015	1.10	ug/L	#	53
47) cyclohexane	4.291	84	3922	1.02	ug/L		94
48) 1,1-dichloropropene	4.334	75	3977	1.19	ug/L		97
49) iso-butyl alcohol	4.334	43	2549	12.45	ug/L		95
50) carbon tetrachloride	4.346	117	3087	1.01	ug/L		94
51) tert amyl alcohol	4.425	55	1135	6.30	ug/L		89
54) n-butyl alcohol	4.809	56	8176	55.55	ug/L		95
55) 2,2,4-trimethylpentane	4.547	57	7069	1.15	ug/L		96
56) benzene	4.480	78	10699	1.14	ug/L		92
57) tert-amyl methyl ether	4.547	87	2049	1.10	ug/L		92
58) heptane	4.663	71	1861	1.15	ug/L		94
59) isopropyl acetate	4.456	87	867	1.09	ug/L	#	63
60) 1,2-dichloroethane	4.504	62	4071	1.33	ug/L		94
61) trichloroethene	4.949	130	2776	1.08	ug/L		96
62) ethyl acrylate	4.968	55	4229	1.05	ug/L		98
63) 2-nitropropane	5.486	41	784	1.12	ug/L		88
64) 2-chloroethyl vinyl ether	5.529	63	7678	4.39	ug/L		92
65) methyl methacrylate	5.145	69	3568	1.19	ug/L		88
66) 1,2-dichloropropane	5.145	63	2606	1.12	ug/L		88
67) dibromomethane	5.212	93	1561	1.13	ug/L		98
69) bromodichloromethane	5.334	83	3202	1.10	ug/L		92
70) epichlorohydrin	5.577	57	2024	5.00	ug/L		90
71) cis-1,3-dichloropropene	5.669	75	3909	1.04	ug/L		92
72) 4-methyl-2-pentanone	5.766	58	5942	4.43	ug/L		94
73) 3-methyl-1-butanol	5.791	55	4265	19.60	ug/L		87
76) toluene	5.955	92	6707	1.11	ug/L		87
77) trans-1,3-dichloropropene	6.120	75	3712	1.07	ug/L		95
78) ethyl methacrylate	6.144	69	3986	1.06	ug/L		97
79) 1,1,2-trichloroethane	6.291	83	1949	1.10	ug/L		94
80) tetrachloroethene	6.394	164	2445	1.13	ug/L		93
81) 1,3-dichloropropane	6.437	76	4244	1.15	ug/L		96
82) 2-hexanone	6.455	58	6199	4.37	ug/L		98
83) butyl acetate	6.547	56	2364	1.04	ug/L		88
84) dibromochloromethane	6.626	129	2276	1.03	ug/L		91
85) 1,2-dibromoethane	6.742	107	3105	1.12	ug/L		88
86) n-butyl ether	7.223	57	11179	1.12	ug/L		97
87) chlorobenzene	7.169	112	7437	1.15	ug/L		93
88) 1,1,1,2-tetrachloroethane	7.236	131	2291	1.02	ug/L		93
89) ethylbenzene	7.248	91	12906	1.14	ug/L		98
90) m,p-xylene	7.364	106	10110	2.29	ug/L		91
91) o-xylene	7.723	106	4959	1.17	ug/L		92
92) styrene	7.736	104	7975	1.09	ug/L		95
93) bromoform	7.912	173	1511	0.92	ug/L		94
94) butyl acrylate	7.638	55	5450	0.99	ug/L		91
95) n-amyl acetate	7.845	70	2499	1.09	ug/L		92
96) isopropylbenzene	8.059	105	12097	1.11	ug/L		95
97) cis-1,4-dichloro-2-butene	8.107	88	1091	0.85	ug/L		99
100) bromobenzene	8.370	156	3337	1.18	ug/L		87
101) 1,1,2,2-tetrachloroethane	8.333	83	3462	1.07	ug/L		94
102) trans-1,4-dichloro-2-b...	8.370	53	1056	1.12	ug/L	#	53
103) 1,2,3-trichloropropane	8.400	110	1221	1.15	ug/L		89
104) n-propylbenzene	8.449	91	13367	1.09	ug/L		94
105) 2-chlorotoluene	8.546	126	2975	1.16	ug/L		91
106) 4-chlorotoluene	8.662	126	2892	1.13	ug/L		91
107) 1,3,5-trimethylbenzene	8.620	105	9743	1.12	ug/L		99
108) tert-butylbenzene	8.930	134	2166	1.14	ug/L		94
109) 1,2,4-trimethylbenzene	8.985	105	9688	1.13	ug/L		99
110) sec-butylbenzene	9.144	105	11159	1.08	ug/L		97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D6212\
Data File : 3D145272.D
Acq On : 7 Mar 2019 7:27 pm
Operator : juntaep
Sample : ic6212-1
Misc : MS32815,V3D6212,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 08 18:25:04 2019
Quant Method : C:\MSDCHEM\1\METHODS\M3D6212.M
Quant Title : SW846 8260C/ EPA 624, Rxi-624 60 m x 0.25 mm x 1.4Fri Mar 08 16:34:21 2019
QLast Update : Fri Mar 08 16:34:21 2019
Response via : Initial Calibration

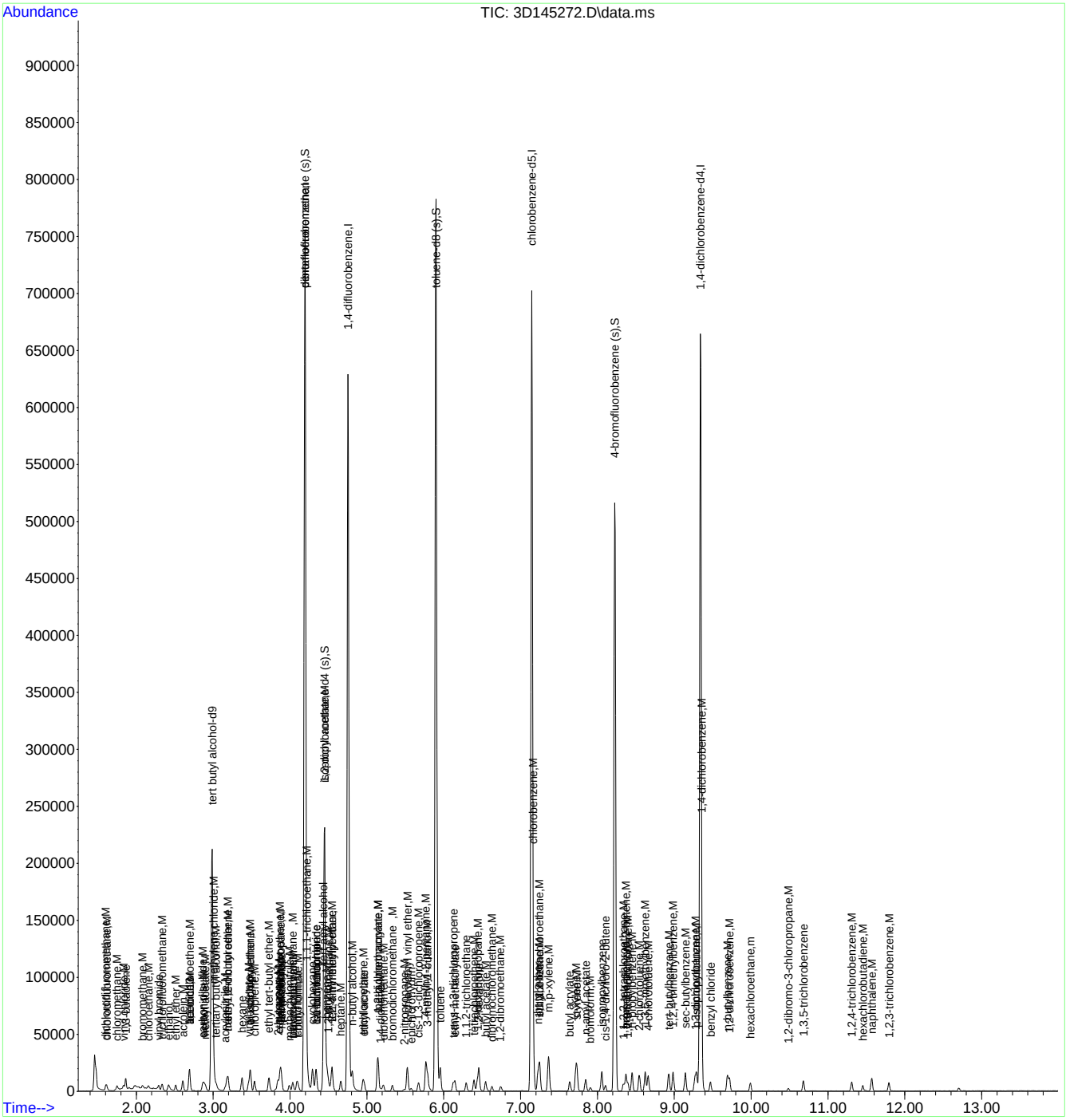
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
111) 1,3-dichlorobenzene	9.272	146	5558	1.12 ug/L	99
112) p-isopropyltoluene	9.290	119	9826	1.11 ug/L	98
113) 1,4-dichlorobenzene	9.363	146	5749	1.14 ug/L	94
114) benzyl chloride	9.473	91	6415	1.01 ug/L	93
115) 1,2-dichlorobenzene	9.717	146	5175	1.10 ug/L	97
116) n-butylbenzene	9.692	92	4255	1.05 ug/L	96
117) 1,2-dibromo-3-chloropr...	10.479	75	631	0.92 ug/L #	83
118) 1,3,5-trichlorobenzene	10.680	180	3724	1.09 ug/L	89
120) 1,2,4-trichlorobenzene	11.308	180	2944	0.97 ug/L	92
121) hexachlorobutadiene	11.454	225	1207	1.01 ug/L	95
122) naphthalene	11.570	128	9758	1.03 ug/L	94
123) 1,2,3-trichlorobenzene	11.796	180	3001	1.05 ug/L	92
124) hexachloroethane	9.991	201	1194	0.90 ug/L	82

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D6212\
Data File : 3D145272.D
Acq On : 7 Mar 2019 7:27 pm
Operator : juntaep
Sample : ic6212-1
Misc : MS32815,V3D6212,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 08 18:25:04 2019
Quant Method : C:\MSDCHEM\1\METHODS\M3D6212.M
Quant Title : SW846 8260C/ EPA 624, Rxi-624 60 m x 0.25 mm x 1.4Fri Mar 08 16:34:21 2019
QLast Update : Fri Mar 08 16:34:21 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D6212\
Data File : 3D145273.D
Acq On : 7 Mar 2019 7:52 pm
Operator : juntaep
Sample : ic6212-2
Misc : MS32815,V3D6212,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 08 18:25:17 2019
Quant Method : C:\MSDCHEM\1\METHODS\M3D6212.M
Quant Title : SW846 8260C/ EPA 624, Rxi-624 60 m x 0.25 mm x 1.4Fri Mar 08 16:34:21 2019
QLast Update : Fri Mar 08 16:34:21 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) tert butyl alcohol-d9	2.986	65	218913	500.00	ug/L		0.00
5) pentafluorobenzene	4.193	168	330735	50.00	ug/L		0.00
52) 1,4-difluorobenzene	4.754	114	454681	50.00	ug/L		0.00
74) chlorobenzene-d5	7.144	117	388374	50.00	ug/L		0.00
98) 1,4-dichlorobenzene-d4	9.339	152	185181	50.00	ug/L		0.00
System Monitoring Compounds							
44) dibromofluoromethane (s)	4.199	113	117743	49.53	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.06%				
53) 1,2-dichloroethane-d4 (s)	4.443	65	131331	52.60	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 105.20%				
75) toluene-d8 (s)	5.900	98	495803	50.48	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.96%				
99) 4-bromofluorobenzene (s)	8.223	95	173353	49.53	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.06%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	3.041	59	5726	10.51	ug/L		95
3) ethanol	2.419	45	10870	218.70	ug/L		99
4) 1,4-dioxane	5.181	88	2608	51.90	ug/L		97
6) chlorodifluoromethane	1.615	51	6272	2.08	ug/L		98
7) dichlorodifluoromethane	1.602	85	6490	1.84	ug/L		92
8) chloromethane	1.749	50	5943	1.92	ug/L		95
9) vinyl chloride	1.834	62	6033	1.83	ug/L		99
10) 1,3-butadiene	1.858	54	5321	2.09	ug/L		98
11) bromomethane	2.078	94	2435	2.04	ug/L		95
12) chloroethane	2.157	64	3702	1.91	ug/L		92
13) trichlorofluoromethane	2.334	101	7361	1.80	ug/L		96
14) vinyl bromide	2.291	106	3364	1.77	ug/L		99
15) ethyl ether	2.517	74	3132	2.10	ug/L		88
16) acrolein	2.608	56	1095	1.85	ug/L		88
17) freon 113	2.688	151	4399	2.05	ug/L		91
18) 1,1-dichloroethene	2.688	96	4369	1.91	ug/L		86
19) acetone	2.694	58	2516	7.74	ug/L	#	82
20) acetonitrile	2.883	41	10048	20.84	ug/L		94
21) iodomethane	2.803	142	491	0.38	ug/L		89
22) carbon disulfide	2.858	76	11732	2.03	ug/L		97
23) methylene chloride	3.011	84	4957	2.16	ug/L		97
24) methyl acetate	2.901	43	5533	2.15	ug/L		94
25) methyl tert butyl ether	3.175	73	14631	2.01	ug/L		98
26) trans-1,2-dichloroethene	3.194	96	4787	1.98	ug/L		98
27) di-isopropyl ether	3.480	45	16608	2.01	ug/L		91
28) 2-butanone	3.834	72	3568	7.77	ug/L	#	86
29) 1,1-dichloroethane	3.486	63	8391	1.98	ug/L		97
30) chloroprene	3.535	53	7836	1.94	ug/L		97
31) acrylonitrile	3.151	53	2600	2.03	ug/L		97
32) hexane	3.376	56	4237	2.08	ug/L		86
33) vinyl acetate	3.456	86	1373	1.91	ug/L	#	63
34) ethyl tert-butyl ether	3.724	59	15704	1.99	ug/L		95
35) ethyl acetate	3.852	45	1055	1.98	ug/L	#	88
36) 2,2-dichloropropane	3.876	77	7266	2.07	ug/L		94
37) cis-1,2-dichloroethene	3.870	96	5107	1.96	ug/L		97
38) methyl acrylate	3.895	85	1064	1.99	ug/L	#	90
39) propionitrile	3.876	54	10825	19.83	ug/L		77
40) bromochloromethane	4.029	128	2510	2.12	ug/L		90
41) tetrahydrofuran	4.047	72	861	1.67	ug/L	#	74
42) chloroform	4.084	85	5224	2.03	ug/L		96
43) t-butyl formate	4.102	59	4185	1.76	ug/L		88

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D6212\
Data File : 3D145273.D
Acq On : 7 Mar 2019 7:52 pm
Operator : juntaep
Sample : ic6212-2
Misc : MS32815,V3D6212,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 08 18:25:17 2019
Quant Method : C:\MSDCHEM\1\METHODS\M3D6212.M
Quant Title : SW846 8260C/ EPA 624, Rxi-624 60 m x 0.25 mm x 1.4Fri Mar 08 16:34:21 2019
QLast Update : Fri Mar 08 16:34:21 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
45) methacrylonitrile	3.992	67	2719	2.00	ug/L		84
46) 1,1,1-trichloroethane	4.230	97	7643	2.06	ug/L		80
47) cyclohexane	4.291	84	7612	1.95	ug/L		99
48) 1,1-dichloropropene	4.334	75	6904	2.03	ug/L		99
49) iso-butyl alcohol	4.334	43	4277	20.52	ug/L		97
50) carbon tetrachloride	4.340	117	6075	1.94	ug/L		88
51) tert amyl alcohol	4.425	55	1721	9.39	ug/L		91
54) n-butyl alcohol	4.809	56	13696	91.68	ug/L		97
55) 2,2,4-trimethylpentane	4.547	57	13279	2.12	ug/L		96
56) benzene	4.480	78	19972	2.09	ug/L		94
57) tert-amyl methyl ether	4.541	87	3833	2.04	ug/L		93
58) heptane	4.657	71	3494	2.12	ug/L		94
59) isopropyl acetate	4.449	87	1538	1.90	ug/L	#	69
60) 1,2-dichloroethane	4.498	62	6695	2.15	ug/L		99
61) trichloroethene	4.949	130	5423	2.08	ug/L		97
62) ethyl acrylate	4.968	55	8098	1.99	ug/L		96
63) 2-nitropropane	5.486	41	1223	1.72	ug/L		88
64) 2-chloroethyl vinyl ether	5.529	63	15677	8.84	ug/L		97
65) methyl methacrylate	5.144	69	5998	1.96	ug/L		94
66) 1,2-dichloropropane	5.144	63	4769	2.03	ug/L		99
67) dibromomethane	5.211	93	2801	2.00	ug/L		98
68) methylcyclohexane	5.138	83	9346	2.33	ug/L		99
69) bromodichloromethane	5.327	83	5497	1.86	ug/L		98
70) epichlorohydrin	5.571	57	3792	9.23	ug/L		99
71) cis-1,3-dichloropropene	5.669	75	7672	2.02	ug/L		97
72) 4-methyl-2-pentanone	5.766	58	10891	8.00	ug/L		98
73) 3-methyl-1-butanol	5.791	55	7745	35.07	ug/L		97
76) toluene	5.955	92	12635	2.07	ug/L		94
77) trans-1,3-dichloropropene	6.120	75	6616	1.89	ug/L		94
78) ethyl methacrylate	6.144	69	6995	1.84	ug/L		97
79) 1,1,2-trichloroethane	6.297	83	3681	2.06	ug/L	#	82
80) tetrachloroethene	6.394	164	4298	1.96	ug/L		88
81) 1,3-dichloropropane	6.437	76	7648	2.05	ug/L		97
82) 2-hexanone	6.455	58	10986	7.66	ug/L		98
83) butyl acetate	6.547	56	4408	1.93	ug/L		95
84) dibromochloromethane	6.626	129	3997	1.79	ug/L		93
85) 1,2-dibromoethane	6.742	107	5304	1.89	ug/L		97
86) n-butyl ether	7.223	57	20293	2.01	ug/L		99
87) chlorobenzene	7.168	112	13654	2.09	ug/L		98
88) 1,1,1,2-tetrachloroethane	7.242	131	4306	1.90	ug/L		95
89) ethylbenzene	7.248	91	23463	2.04	ug/L		99
90) m,p-xylene	7.364	106	18386	4.11	ug/L		98
91) o-xylene	7.717	106	8370	1.96	ug/L		94
92) styrene	7.735	104	14619	1.97	ug/L		97
93) bromoform	7.906	173	2809	1.68	ug/L		99
94) butyl acrylate	7.638	55	9708	1.74	ug/L		99
95) n-amyl acetate	7.845	70	4394	1.89	ug/L		91
96) isopropylbenzene	8.059	105	21887	1.99	ug/L		99
97) cis-1,4-dichloro-2-butene	8.101	88	2129	1.64	ug/L		98
100) bromobenzene	8.369	156	5775	1.99	ug/L		97
101) 1,1,2,2-tetrachloroethane	8.339	83	6446	1.95	ug/L		97
102) trans-1,4-dichloro-2-b...	8.376	53	1769	1.83	ug/L	#	78
103) 1,2,3-trichloropropane	8.400	110	2121	1.96	ug/L		96
104) n-propylbenzene	8.449	91	24535	1.95	ug/L		98
105) 2-chlorotoluene	8.546	126	5119	1.95	ug/L	#	80
106) 4-chlorotoluene	8.662	126	5289	2.01	ug/L		95
107) 1,3,5-trimethylbenzene	8.619	105	17600	1.98	ug/L		97
108) tert-butylbenzene	8.930	134	3977	2.04	ug/L	#	87

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D6212\
Data File : 3D145273.D
Acq On : 7 Mar 2019 7:52 pm
Operator : juntaep
Sample : ic6212-2
Misc : MS32815,V3D6212,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 08 18:25:17 2019
Quant Method : C:\MSDCHEM\1\METHODS\M3D6212.M
Quant Title : SW846 8260C/ EPA 624, Rxi-624 60 m x 0.25 mm x 1.4Fri Mar 08 16:34:21 2019
QLast Update : Fri Mar 08 16:34:21 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
109) 1,2,4-trimethylbenzene	8.985	105	17153	1.94	ug/L		98
110) sec-butylbenzene	9.144	105	20501	1.94	ug/L		99
111) 1,3-dichlorobenzene	9.266	146	10259	2.02	ug/L		97
112) p-isopropyltoluene	9.290	119	17713	1.95	ug/L		95
113) 1,4-dichlorobenzene	9.363	146	10599	2.05	ug/L		97
114) benzyl chloride	9.467	91	11342	1.74	ug/L		100
115) 1,2-dichlorobenzene	9.717	146	10100	2.10	ug/L		95
116) n-butylbenzene	9.686	92	7709	1.86	ug/L		94
117) 1,2-dibromo-3-chloropr...	10.485	75	1154	1.64	ug/L		93
118) 1,3,5-trichlorobenzene	10.680	180	6533	1.87	ug/L		96
119) 2-ethylhexyl acrylate	11.485	70	306	0.18	ug/L	#	81
120) 1,2,4-trichlorobenzene	11.308	180	5615	1.80	ug/L		89
121) hexachlorobutadiene	11.454	225	2189	1.79	ug/L		98
122) naphthalene	11.570	128	17412	1.79	ug/L		97
123) 1,2,3-trichlorobenzene	11.789	180	5147	1.76	ug/L		100
124) hexachloroethane	9.991	201	2317	1.70	ug/L		86

(#) = qualifier out of range (m) = manual integration (+) = signals summed

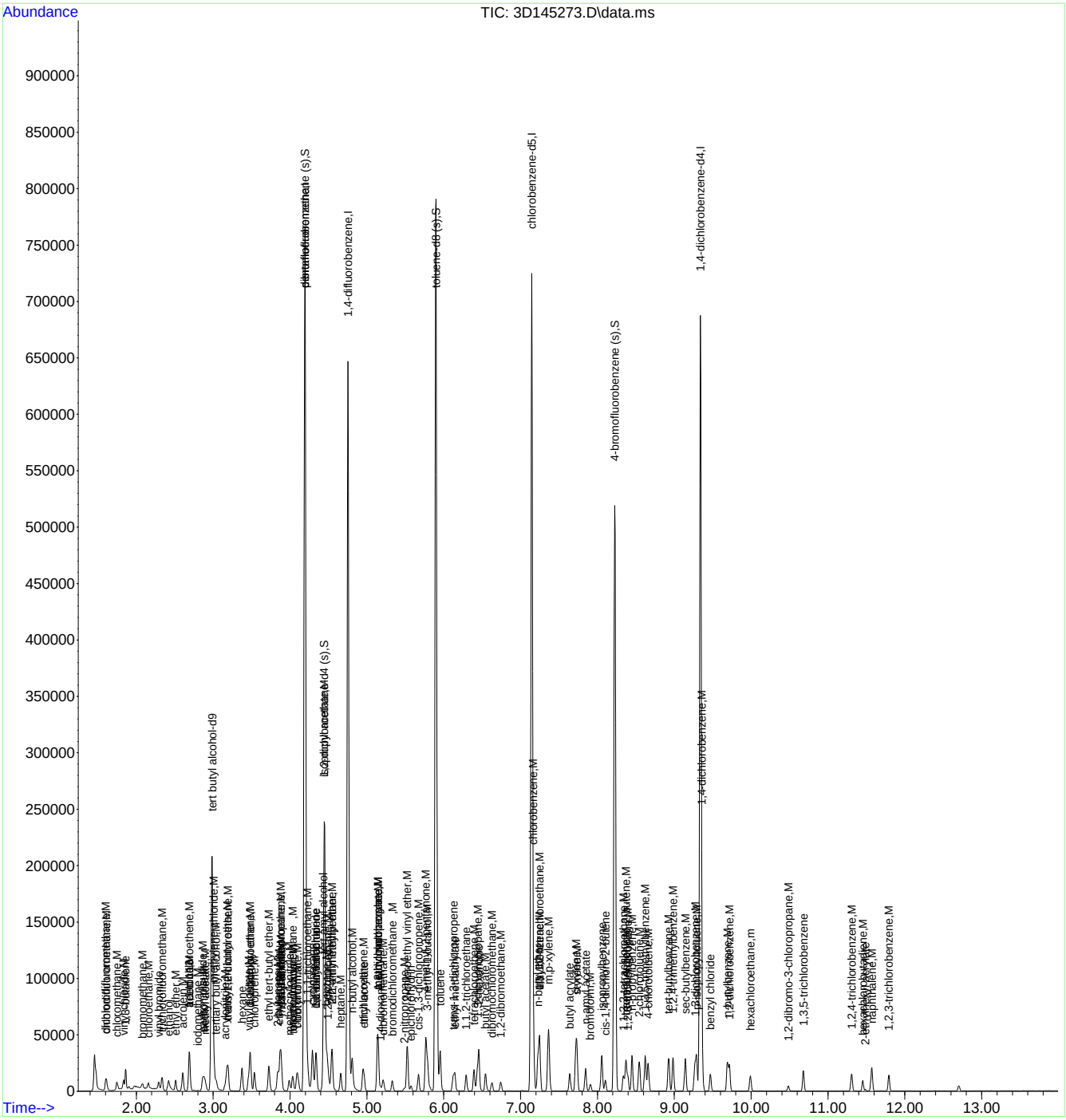
7.7.16

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D6212\
Data File : 3D145273.D
Acq On : 7 Mar 2019 7:52 pm
Operator : juntaep
Sample : ic6212-2
Misc : MS32815,V3D6212,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 08 18:25:17 2019
Quant Method : C:\MSDCHEM\1\METHODS\M3D6212.M
Quant Title : SW846 8260C/ EPA 624, Rxi-624 60 m x 0.25 mm x 1.4Fri Mar 08 16:34:21 2019
QLast Update : Fri Mar 08 16:34:21 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D6212\
Data File : 3D145274.D
Acq On : 7 Mar 2019 8:17 pm
Operator : juntaep
Sample : ic6212-4
Misc : MS32815,V3D6212,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 08 17:34:49 2019
Quant Method : C:\MSDCHEM\1\METHODS\M3D6212.M
Quant Title : SW846 8260C/ EPA 624, Rxi-624 60 m x 0.25 mm x 1.4Fri Mar 08 16:34:21 2019
QLast Update : Fri Mar 08 16:34:21 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) tert butyl alcohol-d9	2.986	65	219201	500.00	ug/L		0.00
5) pentafluorobenzene	4.194	168	325395	50.00	ug/L		0.00
52) 1,4-difluorobenzene	4.754	114	449080	50.00	ug/L		0.00
74) chlorobenzene-d5	7.144	117	383406	50.00	ug/L		0.00
98) 1,4-dichlorobenzene-d4	9.339	152	179727	50.00	ug/L		0.00
System Monitoring Compounds							
44) dibromofluoromethane (s)	4.200	113	115048	49.19	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.38%				
53) 1,2-dichloroethane-d4 (s)	4.450	65	128365	52.06	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 104.12%				
75) toluene-d8 (s)	5.894	98	483787	49.90	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.80%				
99) 4-bromofluorobenzene (s)	8.223	95	169436	49.88	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.76%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	3.041	59	10577	19.40	ug/L		95
3) ethanol	2.420	45	20000	401.87	ug/L		100
4) 1,4-dioxane	5.181	88	4808	95.55	ug/L		96
6) chlorodifluoromethane	1.615	51	11095	3.74	ug/L		98
7) dichlorodifluoromethane	1.603	85	13173	3.80	ug/L		99
8) chloromethane	1.749	50	12013	3.95	ug/L		98
9) vinyl chloride	1.834	62	11874	3.66	ug/L		97
10) 1,3-butadiene	1.865	54	9609	3.84	ug/L		95
11) bromomethane	2.078	94	4438	3.78	ug/L		87
12) chloroethane	2.157	64	7513	3.94	ug/L		98
13) trichlorofluoromethane	2.334	101	15342	3.81	ug/L		94
14) vinyl bromide	2.292	106	7037	3.75	ug/L		97
15) ethyl ether	2.511	74	5279	3.60	ug/L		95
16) acrolein	2.608	56	2371	4.07	ug/L		96
17) freon 113	2.688	151	8325	3.95	ug/L		92
18) 1,1-dichloroethene	2.694	96	8232	3.67	ug/L		94
19) acetone	2.700	58	5037	15.74	ug/L		89
20) acetonitrile	2.883	41	18567	39.13	ug/L		99
21) iodomethane	2.804	142	979	0.77	ug/L		90
22) carbon disulfide	2.858	76	22048	3.89	ug/L		99
23) methylene chloride	3.011	84	9251	4.09	ug/L		95
24) methyl acetate	2.901	43	10372	4.10	ug/L		95
25) methyl tert butyl ether	3.182	73	27943	3.89	ug/L		93
26) trans-1,2-dichloroethene	3.194	96	9026	3.80	ug/L		93
27) di-isopropyl ether	3.480	45	31258	3.84	ug/L		95
28) 2-butanone	3.840	72	6610	14.63	ug/L	#	84
29) 1,1-dichloroethane	3.486	63	15886	3.82	ug/L		99
30) chloroprene	3.535	53	15118	3.80	ug/L		98
31) acrylonitrile	3.151	53	5024	3.99	ug/L		97
32) hexane	3.371	56	7847	3.92	ug/L		91
33) vinyl acetate	3.462	86	2616	3.70	ug/L		96
34) ethyl tert-butyl ether	3.724	59	30189	3.89	ug/L		100
35) ethyl acetate	3.852	45	2266	4.33	ug/L	#	63
36) 2,2-dichloropropane	3.883	77	13187	3.81	ug/L		97
37) cis-1,2-dichloroethene	3.870	96	10098	3.94	ug/L		96
38) methyl acrylate	3.895	85	1879	3.57	ug/L	#	52
39) propionitrile	3.883	54	21485	40.00	ug/L		92
40) bromochloromethane	4.029	128	4621	3.96	ug/L		93
41) tetrahydrofuran	4.041	72	1822	3.60	ug/L	#	73
42) chloroform	4.090	85	10044	3.96	ug/L		96
43) t-butyl formate	4.108	59	8335	3.56	ug/L		92

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D6212\
Data File : 3D145274.D
Acq On : 7 Mar 2019 8:17 pm
Operator : juntaep
Sample : ic6212-4
Misc : MS32815,V3D6212,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 08 17:34:49 2019
Quant Method : C:\MSDCHEM\1\METHODS\M3D6212.M
Quant Title : SW846 8260C/ EPA 624, Rxi-624 60 m x 0.25 mm x 1.4Fri Mar 08 16:34:21 2019
QLast Update : Fri Mar 08 16:34:21 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
45) methacrylonitrile	3.986	67	5028	3.76	ug/L		96
46) 1,1,1-trichloroethane	4.230	97	13751	3.77	ug/L		93
47) cyclohexane	4.291	84	15082	3.93	ug/L		97
48) 1,1-dichloropropene	4.334	75	12469	3.72	ug/L		93
49) iso-butyl alcohol	4.334	43	8236	40.16	ug/L		92
50) carbon tetrachloride	4.340	117	11518	3.75	ug/L		96
51) tert amyl alcohol	4.425	55	3706	20.55	ug/L		93
54) n-butyl alcohol	4.809	56	27781	188.28	ug/L		96
55) 2,2,4-trimethylpentane	4.547	57	24618	3.99	ug/L		96
56) benzene	4.480	78	37112	3.93	ug/L		100
57) tert-amyl methyl ether	4.541	87	7245	3.90	ug/L		99
58) heptane	4.663	71	6220	3.83	ug/L		95
59) isopropyl acetate	4.450	87	3023	3.78	ug/L	#	85
60) 1,2-dichloroethane	4.504	62	12702	4.13	ug/L		98
61) trichloroethene	4.950	130	9735	3.79	ug/L		97
62) ethyl acrylate	4.962	55	15722	3.90	ug/L		98
63) 2-nitropropane	5.486	41	2763	3.93	ug/L	#	85
64) 2-chloroethyl vinyl ether	5.523	63	30501	17.40	ug/L		98
65) methyl methacrylate	5.145	69	11462	3.80	ug/L		87
66) 1,2-dichloropropane	5.145	63	9014	3.88	ug/L		95
67) dibromomethane	5.212	93	5581	4.04	ug/L		99
68) methylcyclohexane	5.138	83	16352	4.13	ug/L		98
69) bromodichloromethane	5.334	83	11010	3.78	ug/L		99
70) epichlorohydrin	5.571	57	7442	18.34	ug/L		98
71) cis-1,3-dichloropropene	5.669	75	14076	3.75	ug/L		98
72) 4-methyl-2-pentanone	5.766	58	21094	15.68	ug/L		97
73) 3-methyl-1-butanol	5.791	55	16105	73.84	ug/L		98
76) toluene	5.955	92	24466	4.06	ug/L		96
77) trans-1,3-dichloropropene	6.120	75	12880	3.73	ug/L		97
78) ethyl methacrylate	6.144	69	13965	3.71	ug/L		96
79) 1,1,2-trichloroethane	6.291	83	6903	3.92	ug/L		95
80) tetrachloroethene	6.394	164	8263	3.81	ug/L		96
81) 1,3-dichloropropane	6.437	76	14028	3.81	ug/L		91
82) 2-hexanone	6.455	58	21889	15.47	ug/L		99
83) butyl acetate	6.547	56	8621	3.82	ug/L		92
84) dibromochloromethane	6.626	129	7806	3.54	ug/L		98
85) 1,2-dibromoethane	6.742	107	10622	3.82	ug/L		99
86) n-butyl ether	7.223	57	37910	3.79	ug/L		99
87) chlorobenzene	7.169	112	25362	3.93	ug/L		98
88) 1,1,1,2-tetrachloroethane	7.242	131	7692	3.44	ug/L		95
89) ethylbenzene	7.248	91	43717	3.86	ug/L		99
90) m,p-xylene	7.364	106	33934	7.69	ug/L		98
91) o-xylene	7.717	106	16729	3.96	ug/L		95
92) styrene	7.736	104	28020	3.82	ug/L		97
93) bromoform	7.912	173	5176	3.14	ug/L		97
94) butyl acrylate	7.638	55	19858	3.60	ug/L		96
95) n-amyl acetate	7.845	70	8439	3.68	ug/L		91
96) isopropylbenzene	8.053	105	42124	3.87	ug/L		99
97) cis-1,4-dichloro-2-butene	8.101	88	4113	3.21	ug/L		91
100) bromobenzene	8.370	156	11094	3.94	ug/L		96
101) 1,1,2,2-tetrachloroethane	8.339	83	12087	3.76	ug/L		99
102) trans-1,4-dichloro-2-b...	8.370	53	3474	3.70	ug/L		91
103) 1,2,3-trichloropropane	8.400	110	4333	4.12	ug/L		98
104) n-propylbenzene	8.449	91	46435	3.79	ug/L		97
105) 2-chlorotoluene	8.546	126	9810	3.84	ug/L	#	85
106) 4-chlorotoluene	8.656	126	9616	3.76	ug/L		93
107) 1,3,5-trimethylbenzene	8.620	105	32915	3.81	ug/L		95
108) tert-butylbenzene	8.930	134	7489	3.96	ug/L	#	83

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D6212\
Data File : 3D145274.D
Acq On : 7 Mar 2019 8:17 pm
Operator : juntaep
Sample : ic6212-4
Misc : MS32815,V3D6212,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 08 17:34:49 2019
Quant Method : C:\MSDCHEM\1\METHODS\M3D6212.M
Quant Title : SW846 8260C/ EPA 624, Rxi-624 60 m x 0.25 mm x 1.4Fri Mar 08 16:34:21 2019
QLast Update : Fri Mar 08 16:34:21 2019
Response via : Initial Calibration

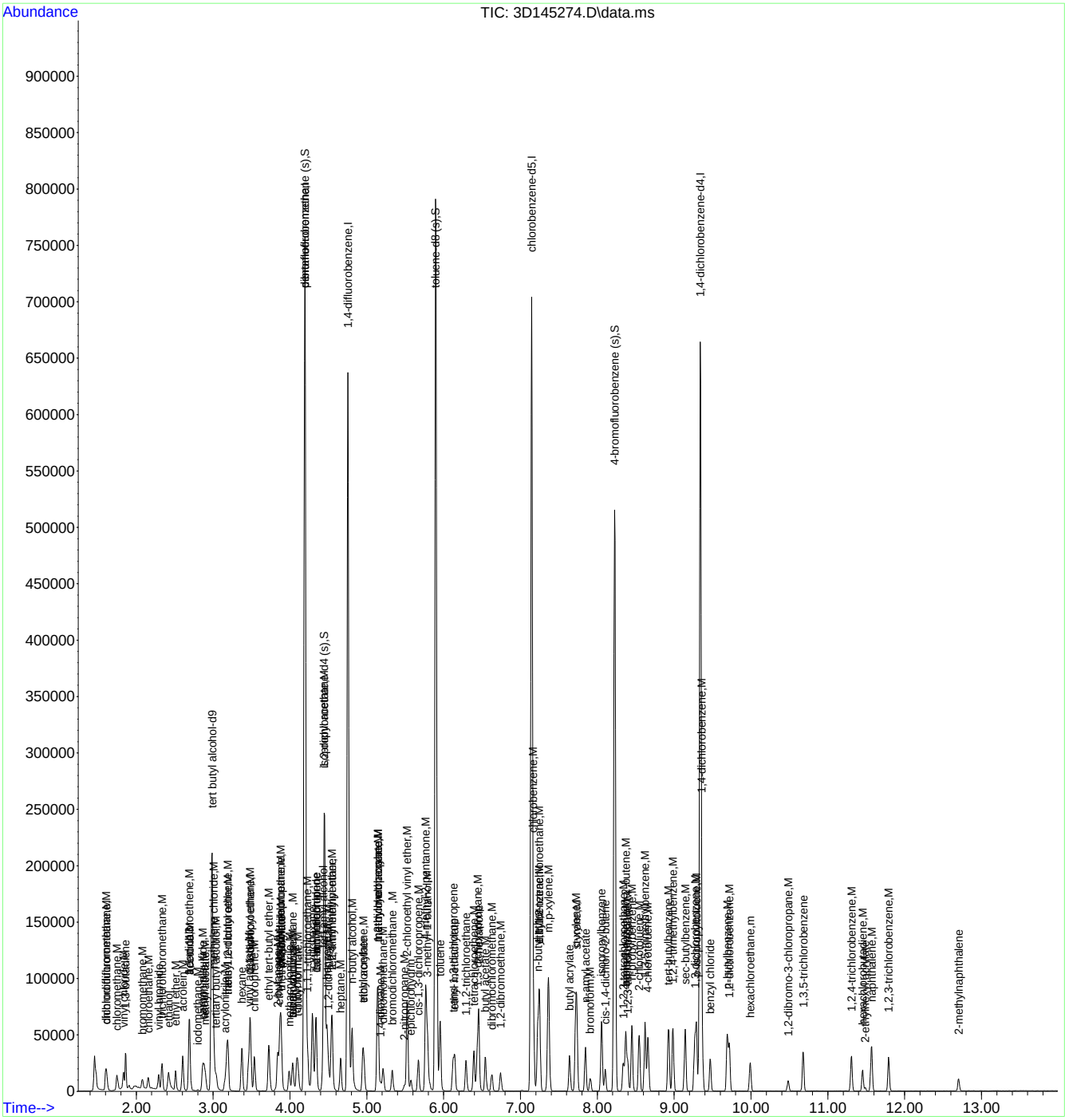
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
109) 1,2,4-trimethylbenzene	8.985	105	32108	3.75 ug/L	97
110) sec-butylbenzene	9.144	105	38285	3.73 ug/L	98
111) 1,3-dichlorobenzene	9.266	146	18899	3.83 ug/L	99
112) p-isopropyltoluene	9.290	119	33214	3.76 ug/L	98
113) 1,4-dichlorobenzene	9.363	146	19637	3.92 ug/L	97
114) benzyl chloride	9.467	91	21516	3.40 ug/L	99
115) 1,2-dichlorobenzene	9.717	146	18038	3.87 ug/L	98
116) n-butylbenzene	9.692	92	15010	3.74 ug/L	97
117) 1,2-dibromo-3-chloropr...	10.479	75	2337	3.41 ug/L	84
118) 1,3,5-trichlorobenzene	10.680	180	12523	3.69 ug/L	97
119) 2-ethylhexyl acrylate	11.485	70	858	0.51 ug/L	90
120) 1,2,4-trichlorobenzene	11.308	180	11079	3.67 ug/L	99
121) hexachlorobutadiene	11.454	225	4274	3.60 ug/L	98
122) naphthalene	11.570	128	33511	3.55 ug/L	98
123) 1,2,3-trichlorobenzene	11.790	180	10142	3.58 ug/L	96
124) hexachloroethane	9.991	201	4265	3.22 ug/L #	78
125) 2-methylnaphthalene	12.704	142	5930	1.43 ug/L	95

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D6212\
Data File : 3D145274.D
Acq On : 7 Mar 2019 8:17 pm
Operator : juntaep
Sample : ic6212-4
Misc : MS32815,V3D6212,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 08 17:34:49 2019
Quant Method : C:\MSDCHEM\1\METHODS\M3D6212.M
Quant Title : SW846 8260C/ EPA 624, Rxi-624 60 m x 0.25 mm x 1.4Fri Mar 08 16:34:21 2019
QLast Update : Fri Mar 08 16:34:21 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D6212\
Data File : 3D145275.D
Acq On : 7 Mar 2019 8:43 pm
Operator : juntaep
Sample : ic6212-8
Misc : MS32815,V3D6212,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 08 17:34:51 2019
Quant Method : C:\MSDCHEM\1\METHODS\M3D6212.M
Quant Title : SW846 8260C/ EPA 624, Rxi-624 60 m x 0.25 mm x 1.4Fri Mar 08 16:34:21 2019
QLast Update : Fri Mar 08 16:34:21 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) tert butyl alcohol-d9	2.987	65	214029	500.00	ug/L		0.00
5) pentafluorobenzene	4.194	168	324423	50.00	ug/L		0.00
52) 1,4-difluorobenzene	4.755	114	448674	50.00	ug/L		0.00
74) chlorobenzene-d5	7.144	117	378727	50.00	ug/L		0.00
98) 1,4-dichlorobenzene-d4	9.339	152	179943	50.00	ug/L		0.00
System Monitoring Compounds							
44) dibromofluoromethane (s)	4.200	113	115608	49.58	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.16%				
53) 1,2-dichloroethane-d4 (s)	4.450	65	127721	51.84	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 103.68%				
75) toluene-d8 (s)	5.901	98	486065	50.75	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.50%				
99) 4-bromofluorobenzene (s)	8.223	95	169070	49.71	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.42%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	3.035	59	21349	40.10	ug/L		90
3) ethanol	2.420	45	40807	839.76	ug/L		96
4) 1,4-dioxane	5.181	88	10223	208.07	ug/L		95
6) chlorodifluoromethane	1.615	51	23084	7.80	ug/L		99
7) dichlorodifluoromethane	1.603	85	26446	7.65	ug/L		99
8) chloromethane	1.749	50	23673	7.80	ug/L		97
9) vinyl chloride	1.834	62	25090	7.75	ug/L		98
10) 1,3-butadiene	1.859	54	20248	8.11	ug/L		97
11) bromomethane	2.078	94	9625	8.23	ug/L		97
12) chloroethane	2.157	64	14604	7.68	ug/L		96
13) trichlorofluoromethane	2.334	101	30988	7.73	ug/L		98
14) vinyl bromide	2.292	106	14152	7.57	ug/L		98
15) ethyl ether	2.511	74	11264	7.71	ug/L		98
16) acrolein	2.609	56	4342	7.47	ug/L		97
17) freon 113	2.688	151	16541	7.86	ug/L		95
18) 1,1-dichloroethene	2.694	96	17467	7.80	ug/L		96
19) acetone	2.694	58	10221	32.04	ug/L		99
20) acetonitrile	2.883	41	38139	80.63	ug/L		99
21) iodomethane	2.804	142	2979	2.35	ug/L		90
22) carbon disulfide	2.859	76	44320	7.83	ug/L		99
23) methylene chloride	3.011	84	18345	8.13	ug/L		97
24) methyl acetate	2.901	43	20370	8.07	ug/L		99
25) methyl tert butyl ether	3.176	73	57960	8.10	ug/L		99
26) trans-1,2-dichloroethene	3.194	96	18755	7.91	ug/L		95
27) di-isopropyl ether	3.480	45	64160	7.91	ug/L		99
28) 2-butanone	3.840	72	14316	31.78	ug/L		100
29) 1,1-dichloroethane	3.486	63	32716	7.89	ug/L		99
30) chloroprene	3.535	53	31750	8.01	ug/L		95
31) acrylonitrile	3.151	53	9945	7.92	ug/L		92
32) hexane	3.377	56	16020	8.02	ug/L		91
33) vinyl acetate	3.456	86	5501	7.81	ug/L	#	92
34) ethyl tert-butyl ether	3.724	59	61444	7.94	ug/L		99
35) ethyl acetate	3.852	45	4510	8.64	ug/L		96
36) 2,2-dichloropropane	3.883	77	27552	7.99	ug/L		99
37) cis-1,2-dichloroethene	3.871	96	20476	8.02	ug/L		99
38) methyl acrylate	3.895	85	3956	7.53	ug/L	#	83
39) propionitrile	3.877	54	42865	80.04	ug/L		77
40) bromochloromethane	4.035	128	9165	7.88	ug/L		99
41) tetrahydrofuran	4.041	72	3820	7.57	ug/L		85
42) chloroform	4.090	85	20620	8.16	ug/L		96
43) t-butyl formate	4.108	59	17298	7.42	ug/L		91

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D6212\
Data File : 3D145275.D
Acq On : 7 Mar 2019 8:43 pm
Operator : juntaep
Sample : ic6212-8
Misc : MS32815,V3D6212,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 08 17:34:51 2019
Quant Method : C:\MSDCHEM\1\METHODS\M3D6212.M
Quant Title : SW846 8260C/ EPA 624, Rxi-624 60 m x 0.25 mm x 1.4Fri Mar 08 16:34:21 2019
QLast Update : Fri Mar 08 16:34:21 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
45) methacrylonitrile	3.992	67	10501	7.88	ug/L		96
46) 1,1,1-trichloroethane	4.230	97	28459	7.82	ug/L		91
47) cyclohexane	4.291	84	29460	7.70	ug/L		99
48) 1,1-dichloropropene	4.334	75	26847	8.04	ug/L		96
49) iso-butyl alcohol	4.334	43	16162	79.05	ug/L		97
50) carbon tetrachloride	4.346	117	24272	7.92	ug/L		97
51) tert amyl alcohol	4.425	55	7143	39.73	ug/L		90
54) n-butyl alcohol	4.809	56	56481	383.14	ug/L		98
55) 2,2,4-trimethylpentane	4.547	57	50877	8.25	ug/L		98
56) benzene	4.480	78	76139	8.08	ug/L		98
57) tert-amyl methyl ether	4.541	87	15138	8.15	ug/L		95
58) heptane	4.663	71	13148	8.10	ug/L		93
59) isopropyl acetate	4.450	87	6197	7.76	ug/L	#	94
60) 1,2-dichloroethane	4.505	62	25551	8.31	ug/L		99
61) trichloroethene	4.950	130	20475	7.97	ug/L		98
62) ethyl acrylate	4.962	55	31693	7.87	ug/L		99
63) 2-nitropropane	5.486	41	5194	7.39	ug/L		95
64) 2-chloroethyl vinyl ether	5.523	63	65367	37.33	ug/L		100
65) methyl methacrylate	5.145	69	23712	7.87	ug/L		92
66) 1,2-dichloropropane	5.145	63	18376	7.92	ug/L		98
67) dibromomethane	5.212	93	10936	7.92	ug/L		91
68) methylcyclohexane	5.139	83	32483	8.22	ug/L		98
69) bromodichloromethane	5.334	83	22241	7.64	ug/L		99
70) epichlorohydrin	5.571	57	15260	37.64	ug/L		96
71) cis-1,3-dichloropropene	5.669	75	29227	7.79	ug/L		98
72) 4-methyl-2-pentanone	5.767	58	43272	32.19	ug/L		99
73) 3-methyl-1-butanol	5.791	55	32825	150.64	ug/L		99
76) toluene	5.955	92	48447	8.13	ug/L		96
77) trans-1,3-dichloropropene	6.120	75	26449	7.75	ug/L		98
78) ethyl methacrylate	6.144	69	29312	7.89	ug/L		99
79) 1,1,2-trichloroethane	6.291	83	13842	7.96	ug/L		97
80) tetrachloroethene	6.394	164	17156	8.01	ug/L		97
81) 1,3-dichloropropane	6.437	76	29005	7.98	ug/L		99
82) 2-hexanone	6.455	58	44474	31.82	ug/L		99
83) butyl acetate	6.541	56	17309	7.76	ug/L		97
84) dibromochloromethane	6.626	129	15982	7.33	ug/L		96
85) 1,2-dibromoethane	6.742	107	21583	7.87	ug/L		92
86) n-butyl ether	7.224	57	80306	8.14	ug/L		99
87) chlorobenzene	7.169	112	51081	8.01	ug/L		98
88) 1,1,1,2-tetrachloroethane	7.242	131	16597	7.52	ug/L		97
89) ethylbenzene	7.248	91	89951	8.04	ug/L		99
90) m,p-xylene	7.364	106	70121	16.09	ug/L		99
91) o-xylene	7.717	106	33614	8.05	ug/L		98
92) styrene	7.736	104	57461	7.94	ug/L		98
93) bromoform	7.912	173	11332	6.97	ug/L		95
94) butyl acrylate	7.638	55	41179	7.57	ug/L		96
95) n-amyl acetate	7.845	70	17468	7.71	ug/L		97
96) isopropylbenzene	8.059	105	86636	8.06	ug/L		99
97) cis-1,4-dichloro-2-butene	8.108	88	8484	6.70	ug/L		98
100) bromobenzene	8.370	156	22075	7.84	ug/L		97
101) 1,1,2,2-tetrachloroethane	8.339	83	24931	7.75	ug/L		94
102) trans-1,4-dichloro-2-b...	8.370	53	6873	7.31	ug/L		98
103) 1,2,3-trichloropropane	8.400	110	8687	8.24	ug/L		97
104) n-propylbenzene	8.449	91	95019	7.75	ug/L		98
105) 2-chlorotoluene	8.546	126	19938	7.80	ug/L		91
106) 4-chlorotoluene	8.662	126	19963	7.80	ug/L		96
107) 1,3,5-trimethylbenzene	8.620	105	68365	7.90	ug/L		97
108) tert-butylbenzene	8.924	134	15111	7.98	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D6212\
Data File : 3D145275.D
Acq On : 7 Mar 2019 8:43 pm
Operator : juntaep
Sample : ic6212-8
Misc : MS32815,V3D6212,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 08 17:34:51 2019
Quant Method : C:\MSDCHEM\1\METHODS\M3D6212.M
Quant Title : SW846 8260C/ EPA 624, Rxi-624 60 m x 0.25 mm x 1.4Fri Mar 08 16:34:21 2019
QLast Update : Fri Mar 08 16:34:21 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
109) 1,2,4-trimethylbenzene	8.985	105	68448	7.98 ug/L	99
110) sec-butylbenzene	9.144	105	81245	7.91 ug/L	98
111) 1,3-dichlorobenzene	9.266	146	39295	7.96 ug/L	99
112) p-isopropyltoluene	9.290	119	69803	7.90 ug/L	99
113) 1,4-dichlorobenzene	9.363	146	39827	7.94 ug/L	97
114) benzyl chloride	9.473	91	44948	7.09 ug/L	100
115) 1,2-dichlorobenzene	9.717	146	37170	7.96 ug/L	97
116) n-butylbenzene	9.693	92	31060	7.72 ug/L	99
117) 1,2-dibromo-3-chloropr...	10.485	75	4731	6.90 ug/L	98
118) 1,3,5-trichlorobenzene	10.680	180	26399	7.77 ug/L	99
119) 2-ethylhexyl acrylate	11.491	70	2107	1.24 ug/L #	82
120) 1,2,4-trichlorobenzene	11.308	180	22705	7.51 ug/L	98
121) hexachlorobutadiene	11.454	225	9286	7.82 ug/L	98
122) naphthalene	11.570	128	68898	7.29 ug/L	99
123) 1,2,3-trichlorobenzene	11.796	180	21551	7.60 ug/L	94
124) hexachloroethane	9.991	201	8837	6.67 ug/L	89
125) 2-methylnaphthalene	12.704	142	13035	3.13 ug/L	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

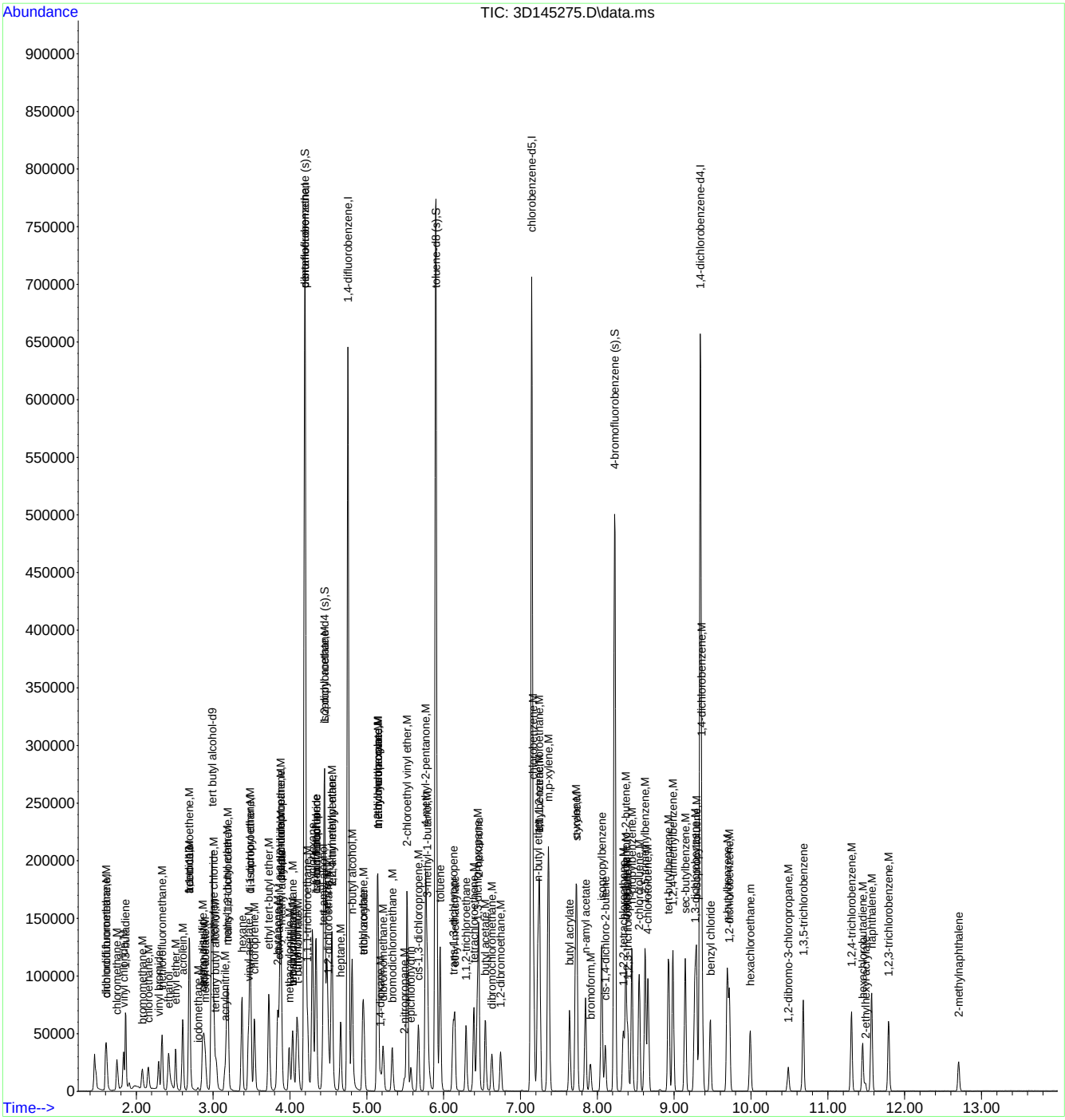
7.7.18

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D6212\
Data File : 3D145275.D
Acq On : 7 Mar 2019 8:43 pm
Operator : juntaep
Sample : ic6212-8
Misc : MS32815,V3D6212,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 08 17:34:51 2019
Quant Method : C:\MSDCHEM\1\METHODS\M3D6212.M
Quant Title : SW846 8260C/ EPA 624, Rxi-624 60 m x 0.25 mm x 1.4Fri Mar 08 16:34:21 2019
QLast Update : Fri Mar 08 16:34:21 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D6212\
Data File : 3D145276.D
Acq On : 7 Mar 2019 9:08 pm
Operator : juntaep
Sample : ic6212-20
Misc : MS32815,V3D6212,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 08 17:34:53 2019
Quant Method : C:\MSDCHEM\1\METHODS\M3D6212.M
Quant Title : SW846 8260C/ EPA 624, Rxi-624 60 m x 0.25 mm x 1.4Fri Mar 08 16:34:21 2019
QLast Update : Fri Mar 08 16:34:21 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	2.987	65	214460	500.00	ug/L	0.00
5) pentafluorobenzene	4.194	168	322889	50.00	ug/L	0.00
52) 1,4-difluorobenzene	4.755	114	449969	50.00	ug/L	0.00
74) chlorobenzene-d5	7.144	117	382190	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	9.345	152	177453	50.00	ug/L	0.00
System Monitoring Compounds						
44) dibromofluoromethane (s)	4.200	113	115082	49.59	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.18%			
53) 1,2-dichloroethane-d4 (s)	4.444	65	123039	49.80	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 99.60%			
75) toluene-d8 (s)	5.895	98	488236	50.52	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.04%			
99) 4-bromofluorobenzene (s)	8.223	95	167945	50.07	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.14%			
Target Compounds						Qvalue
2) tertiary butyl alcohol	3.035	59	53732	100.71	ug/L	99
3) ethanol	2.420	45	100168	2057.20	ug/L	96
4) 1,4-dioxane	5.181	88	25748	522.99	ug/L	98
6) chlorodifluoromethane	1.615	51	58572	19.88	ug/L	98
7) dichlorodifluoromethane	1.597	85	68431	19.88	ug/L	99
8) chloromethane	1.749	50	59675	19.77	ug/L	98
9) vinyl chloride	1.828	62	63772	19.79	ug/L	99
10) 1,3-butadiene	1.859	54	50193	20.20	ug/L	99
11) bromomethane	2.072	94	23942	20.58	ug/L	99
12) chloroethane	2.151	64	37570	19.84	ug/L	97
13) trichlorofluoromethane	2.334	101	78391	19.64	ug/L	99
14) vinyl bromide	2.285	106	36407	19.57	ug/L	99
15) ethyl ether	2.511	74	28494	19.59	ug/L	98
16) acrolein	2.609	56	11024	19.06	ug/L	97
17) freon 113	2.688	151	42430	20.27	ug/L	99
18) 1,1-dichloroethene	2.688	96	44997	20.19	ug/L	99
19) acetone	2.694	58	25093	79.02	ug/L	98
20) acetonitrile	2.883	41	93960	199.57	ug/L	99
21) iodomethane	2.804	142	13238	10.50	ug/L	96
22) carbon disulfide	2.859	76	112583	20.00	ug/L	99
23) methylene chloride	3.011	84	44932	20.02	ug/L	99
24) methyl acetate	2.901	43	51595	20.55	ug/L	99
25) methyl tert butyl ether	3.176	73	143770	20.19	ug/L	98
26) trans-1,2-dichloroethene	3.194	96	47116	19.97	ug/L	98
27) di-isopropyl ether	3.480	45	160380	19.87	ug/L	99
28) 2-butanone	3.834	72	35225	78.56	ug/L	92
29) 1,1-dichloroethane	3.486	63	81547	19.75	ug/L	99
30) chloroprene	3.535	53	78349	19.85	ug/L	99
31) acrylonitrile	3.151	53	24661	19.73	ug/L	100
32) hexane	3.377	56	39702	19.97	ug/L	95
33) vinyl acetate	3.456	86	14314	20.43	ug/L	94
34) ethyl tert-butyl ether	3.724	59	153427	19.93	ug/L	99
35) ethyl acetate	3.846	45	10380	19.98	ug/L #	20
36) 2,2-dichloropropane	3.877	77	70134	20.44	ug/L	99
37) cis-1,2-dichloroethene	3.864	96	51548	20.27	ug/L	98
38) methyl acrylate	3.895	85	10166	19.44	ug/L	91
39) propionitrile	3.877	54	106571	199.95	ug/L	80
40) bromochloromethane	4.035	128	23614	20.39	ug/L	94
41) tetrahydrofuran	4.041	72	9748	19.42	ug/L	97
42) chloroform	4.084	85	50273	19.98	ug/L	98
43) t-butyl formate	4.102	59	45797	19.73	ug/L	97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D6212\
Data File : 3D145276.D
Acq On : 7 Mar 2019 9:08 pm
Operator : juntaep
Sample : ic6212-20
Misc : MS32815,V3D6212,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 08 17:34:53 2019
Quant Method : C:\MSDCHEM\1\METHODS\M3D6212.M
Quant Title : SW846 8260C/ EPA 624, Rxi-624 60 m x 0.25 mm x 1.4Fri Mar 08 16:34:21 2019
QLast Update : Fri Mar 08 16:34:21 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
45) methacrylonitrile	3.986	67	25793	19.44	ug/L	98
46) 1,1,1-trichloroethane	4.230	97	72555	20.03	ug/L	99
47) cyclohexane	4.291	84	75708	19.89	ug/L	100
48) 1,1-dichloropropene	4.334	75	66565	20.04	ug/L	98
49) iso-butyl alcohol	4.334	43	39978	196.46	ug/L	97
50) carbon tetrachloride	4.340	117	60449	19.82	ug/L	98
51) tert amyl alcohol	4.425	55	18365	102.64	ug/L	98
54) n-butyl alcohol	4.809	56	145910	986.94	ug/L	99
55) 2,2,4-trimethylpentane	4.547	57	124506	20.13	ug/L	98
56) benzene	4.480	78	192469	20.37	ug/L	100
57) tert-amyl methyl ether	4.541	87	37810	20.30	ug/L	97
58) heptane	4.657	71	32526	19.98	ug/L	98
59) isopropyl acetate	4.450	87	16157	20.17	ug/L	98
60) 1,2-dichloroethane	4.505	62	62036	20.12	ug/L	98
61) trichloroethene	4.950	130	51876	20.13	ug/L	99
62) ethyl acrylate	4.962	55	81424	20.17	ug/L	99
63) 2-nitropropane	5.486	41	13346	18.93	ug/L	98
64) 2-chloroethyl vinyl ether	5.523	63	171901	97.89	ug/L	99
65) methyl methacrylate	5.145	69	59811	19.79	ug/L	97
66) 1,2-dichloropropane	5.145	63	46416	19.94	ug/L	98
67) dibromomethane	5.212	93	27702	20.00	ug/L	96
68) methylcyclohexane	5.139	83	79255	19.99	ug/L	99
69) bromodichloromethane	5.334	83	57134	19.57	ug/L	97
70) epichlorohydrin	5.571	57	40063	98.52	ug/L	96
71) cis-1,3-dichloropropene	5.669	75	74699	19.86	ug/L	99
72) 4-methyl-2-pentanone	5.767	58	108630	80.59	ug/L	98
73) 3-methyl-1-butanol	5.785	55	84061	384.65	ug/L	92
76) toluene	5.955	92	120858	20.10	ug/L	98
77) trans-1,3-dichloropropene	6.120	75	67676	19.64	ug/L	99
78) ethyl methacrylate	6.144	69	74718	19.92	ug/L	99
79) 1,1,2-trichloroethane	6.291	83	35382	20.16	ug/L	98
80) tetrachloroethene	6.394	164	43464	20.11	ug/L	98
81) 1,3-dichloropropane	6.437	76	73654	20.08	ug/L	97
82) 2-hexanone	6.455	58	112809	79.97	ug/L	99
83) butyl acetate	6.541	56	43882	19.50	ug/L	98
84) dibromochloromethane	6.626	129	41603	18.91	ug/L	99
85) 1,2-dibromoethane	6.742	107	54853	19.81	ug/L	98
86) n-butyl ether	7.224	57	198455	19.93	ug/L	99
87) chlorobenzene	7.169	112	127512	19.82	ug/L	98
88) 1,1,1,2-tetrachloroethane	7.242	131	43425	19.49	ug/L	98
89) ethylbenzene	7.248	91	226971	20.09	ug/L	100
90) m,p-xylene	7.364	106	176215	40.07	ug/L	99
91) o-xylene	7.717	106	84318	20.01	ug/L	98
92) styrene	7.736	104	144950	19.84	ug/L	98
93) bromoform	7.912	173	30738	18.72	ug/L	96
94) butyl acrylate	7.638	55	107555	19.59	ug/L	99
95) n-amyl acetate	7.845	70	45221	19.77	ug/L	99
96) isopropylbenzene	8.059	105	216974	20.00	ug/L	100
97) cis-1,4-dichloro-2-butene	8.101	88	23361	18.27	ug/L	97
100) bromobenzene	8.370	156	55769	20.07	ug/L	97
101) 1,1,2,2-tetrachloroethane	8.339	83	62221	19.61	ug/L	99
102) trans-1,4-dichloro-2-b...	8.370	53	18237	19.66	ug/L	95
103) 1,2,3-trichloropropane	8.400	110	21000	20.20	ug/L	98
104) n-propylbenzene	8.449	91	244019	20.19	ug/L	98
105) 2-chlorotoluene	8.546	126	51290	20.34	ug/L	94
106) 4-chlorotoluene	8.662	126	50649	20.07	ug/L	94
107) 1,3,5-trimethylbenzene	8.620	105	172798	20.25	ug/L	99
108) tert-butylbenzene	8.931	134	38390	20.56	ug/L	93

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D6212\
Data File : 3D145276.D
Acq On : 7 Mar 2019 9:08 pm
Operator : juntaep
Sample : ic6212-20
Misc : MS32815,V3D6212,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 08 17:34:53 2019
Quant Method : C:\MSDCHEM\1\METHODS\M3D6212.M
Quant Title : SW846 8260C/ EPA 624, Rxi-624 60 m x 0.25 mm x 1.4Fri Mar 08 16:34:21 2019
QLast Update : Fri Mar 08 16:34:21 2019
Response via : Initial Calibration

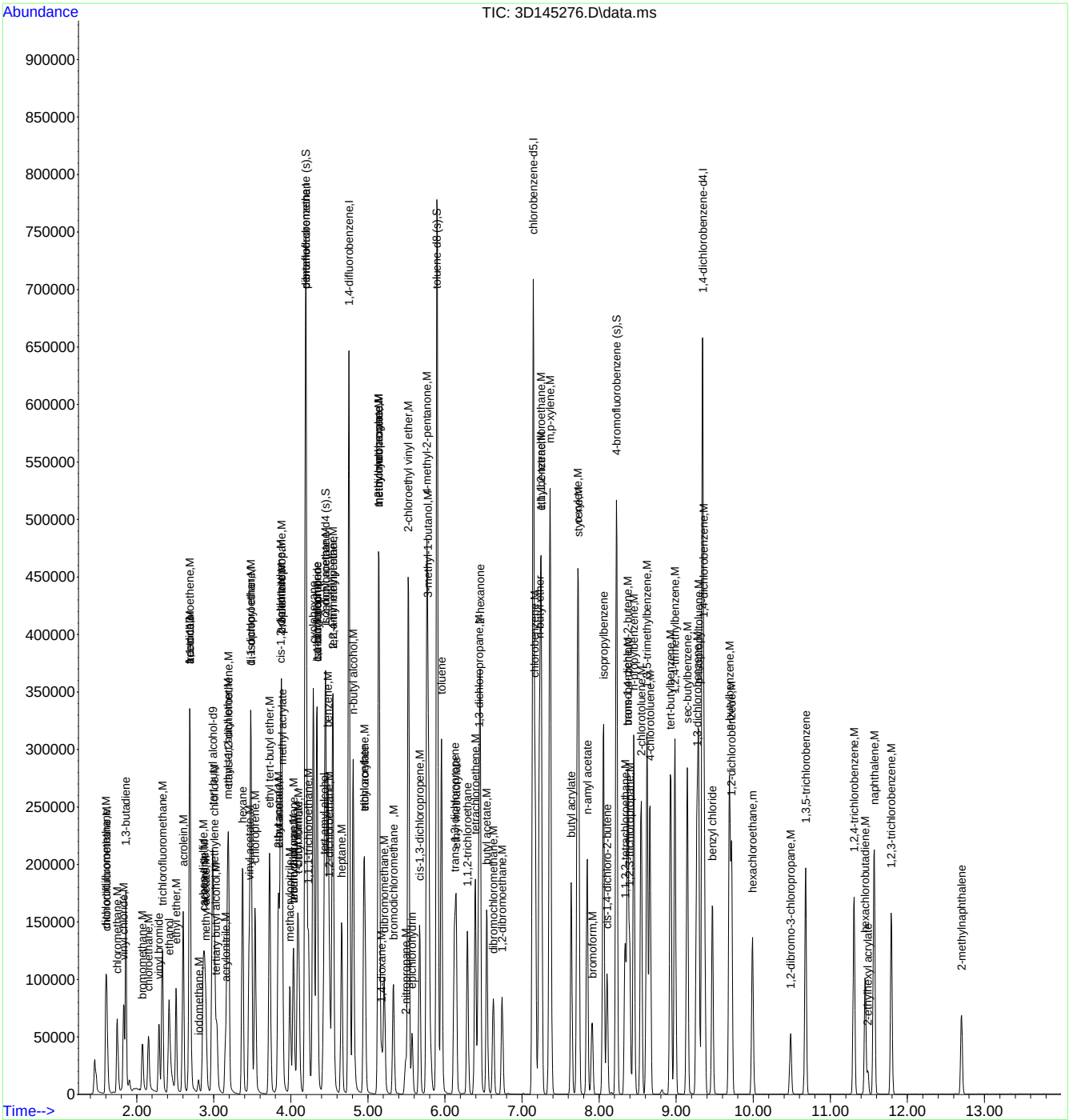
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
109) 1,2,4-trimethylbenzene	8.985	105	168705	19.94	ug/L	98
110) sec-butylbenzene	9.144	105	203497	20.09	ug/L	100
111) 1,3-dichlorobenzene	9.266	146	98501	20.24	ug/L	98
112) p-isopropyltoluene	9.290	119	173222	19.88	ug/L	99
113) 1,4-dichlorobenzene	9.363	146	99527	20.13	ug/L	99
114) benzyl chloride	9.473	91	120718	19.32	ug/L	98
115) 1,2-dichlorobenzene	9.717	146	94796	20.58	ug/L	99
116) n-butylbenzene	9.693	92	78565	19.81	ug/L	100
117) 1,2-dibromo-3-chloropr...	10.485	75	12599	18.64	ug/L	95
118) 1,3,5-trichlorobenzene	10.680	180	65914	19.67	ug/L	100
119) 2-ethylhexyl acrylate	11.485	70	5632	3.37	ug/L	97
120) 1,2,4-trichlorobenzene	11.308	180	58739	19.69	ug/L	99
121) hexachlorobutadiene	11.448	225	22686	19.38	ug/L	98
122) naphthalene	11.570	128	181308	19.45	ug/L	98
123) 1,2,3-trichlorobenzene	11.790	180	53636	19.18	ug/L	98
124) hexachloroethane	9.991	201	23827	18.24	ug/L	93
125) 2-methylnaphthalene	12.704	142	35423	8.64	ug/L	93

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D6212\
Data File : 3D145276.D
Acq On : 7 Mar 2019 9:08 pm
Operator : juntaep
Sample : ic6212-20
Misc : MS32815,V3D6212,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 08 17:34:53 2019
Quant Method : C:\MSDCHEM\1\METHODS\M3D6212.M
Quant Title : SW846 8260C/ EPA 624, Rxi-624 60 m x 0.25 mm x 1.4Fri Mar 08 16:34:21 2019
QLast Update : Fri Mar 08 16:34:21 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D6212\
Data File : 3D145277.D
Acq On : 7 Mar 2019 9:33 pm
Operator : juntaep
Sample : icc6212-50
Misc : MS32815,V3D6212,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 08 17:34:55 2019
Quant Method : C:\MSDCHEM\1\METHODS\M3D6212.M
Quant Title : SW846 8260C/ EPA 624, Rxi-624 60 m x 0.25 mm x 1.4Fri Mar 08 16:34:21 2019
QLast Update : Fri Mar 08 16:34:21 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	2.986	65	225616	500.00	ug/L	0.00
5) pentafluorobenzene	4.194	168	332373	50.00	ug/L	0.00
52) 1,4-difluorobenzene	4.754	114	464326	50.00	ug/L	0.00
74) chlorobenzene-d5	7.144	117	393376	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	9.339	152	184438	50.00	ug/L	0.00
System Monitoring Compounds						
44) dibromofluoromethane (s)	4.200	113	119445	50.00	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.00%			
53) 1,2-dichloroethane-d4 (s)	4.444	65	128353	50.34	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 100.68%			
75) toluene-d8 (s)	5.901	98	497397	50.00	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.00%			
99) 4-bromofluorobenzene (s)	8.223	95	174305	50.00	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.00%			
Target Compounds						Qvalue
2) tertiary butyl alcohol	3.041	59	140319	250.00	ug/L	100
3) ethanol	2.420	45	256122	5000.00	ug/L	100
4) 1,4-dioxane	5.181	88	64742	1250.00	ug/L	100
6) chlorodifluoromethane	1.615	51	151664	50.00	ug/L	100
7) dichlorodifluoromethane	1.597	85	177188	50.00	ug/L	100
8) chloromethane	1.749	50	155385	50.00	ug/L	100
9) vinyl chloride	1.834	62	165887	50.00	ug/L	100
10) 1,3-butadiene	1.859	54	127906	50.00	ug/L	100
11) bromomethane	2.072	94	59884	50.00	ug/L	100
12) chloroethane	2.151	64	97454	50.00	ug/L	100
13) trichlorofluoromethane	2.328	101	205448	50.00	ug/L	100
14) vinyl bromide	2.285	106	95734	50.00	ug/L	100
15) ethyl ether	2.511	74	74860	50.00	ug/L	100
16) acrolein	2.609	56	29770	50.00	ug/L	100
17) freon 113	2.688	151	107739	50.00	ug/L	100
18) 1,1-dichloroethene	2.688	96	114687	50.00	ug/L	100
19) acetone	2.694	58	65374	200.00	ug/L	100
20) acetonitrile	2.883	41	242315	500.00	ug/L	100
21) iodomethane	2.804	142	64891	50.00	ug/L	100
22) carbon disulfide	2.858	76	289789	50.00	ug/L	100
23) methylene chloride	3.011	84	115527	50.00	ug/L	100
24) methyl acetate	2.901	43	130263	50.40	ug/L	100
25) methyl tert butyl ether	3.175	73	366459	50.00	ug/L	100
26) trans-1,2-dichloroethene	3.194	96	121438	50.00	ug/L	100
27) di-isopropyl ether	3.480	45	415440	50.00	ug/L	100
28) 2-butanone	3.834	72	92314	200.00	ug/L	100
29) 1,1-dichloroethane	3.486	63	208385	49.02	ug/L	100
30) chloroprene	3.535	53	203116	50.00	ug/L	100
31) acrylonitrile	3.151	53	64344	50.00	ug/L	100
32) hexane	3.371	56	102305	50.00	ug/L	100
33) vinyl acetate	3.456	86	36404	50.47	ug/L	99
34) ethyl tert-butyl ether	3.724	59	396276	50.00	ug/L	100
35) ethyl acetate	3.852	45	27279	51.00	ug/L	99
36) 2,2-dichloropropane	3.877	77	176630	50.00	ug/L	100
37) cis-1,2-dichloroethene	3.870	96	130857	50.00	ug/L	100
38) methyl acrylate	3.895	85	26916	50.00	ug/L	100
39) propionitrile	3.883	54	274326	500.00	ug/L	100
40) bromochloromethane	4.035	128	59599	50.00	ug/L	100
41) tetrahydrofuran	4.041	72	24711	47.82	ug/L	97
42) chloroform	4.084	85	129477	50.00	ug/L	100
43) t-butyl formate	4.108	59	119464	50.00	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D6212\
Data File : 3D145277.D
Acq On : 7 Mar 2019 9:33 pm
Operator : juntaep
Sample : icc6212-50
Misc : MS32815,V3D6212,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 08 17:34:55 2019
Quant Method : C:\MSDCHEM\1\METHODS\M3D6212.M
Quant Title : SW846 8260C/ EPA 624, Rxi-624 60 m x 0.25 mm x 1.4Fri Mar 08 16:34:21 2019
QLast Update : Fri Mar 08 16:34:21 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
45) methacrylonitrile	3.986	67	68274	50.00	ug/L	100
46) 1,1,1-trichloroethane	4.230	97	186407	50.00	ug/L	100
47) cyclohexane	4.291	84	195783	49.96	ug/L	100
48) 1,1-dichloropropene	4.334	75	170975	50.00	ug/L	100
49) iso-butyl alcohol	4.334	43	107309	512.29	ug/L	100
50) carbon tetrachloride	4.346	117	157007	50.00	ug/L	100
51) tert amyl alcohol	4.425	55	45946	249.46	ug/L	100
54) n-butyl alcohol	4.809	56	380621	2494.92	ug/L	100
55) 2,2,4-trimethylpentane	4.547	57	319183	50.00	ug/L	100
56) benzene	4.480	78	487606	50.00	ug/L	100
57) tert-amyl methyl ether	4.547	87	96122	50.00	ug/L	100
58) heptane	4.657	71	83986	50.00	ug/L	100
59) isopropyl acetate	4.450	87	41332	50.00	ug/L	100
60) 1,2-dichloroethane	4.498	62	159068	50.00	ug/L	100
61) trichloroethene	4.950	130	132954	50.00	ug/L	100
62) ethyl acrylate	4.962	55	208324	50.02	ug/L	100
63) 2-nitropropane	5.486	41	36383	50.00	ug/L	100
64) 2-chloroethyl vinyl ether	5.523	63	453004	250.00	ug/L	100
65) methyl methacrylate	5.145	69	155930	50.00	ug/L	100
66) 1,2-dichloropropane	5.145	63	120079	50.00	ug/L	100
67) dibromomethane	5.212	93	71470	50.00	ug/L	100
68) methylcyclohexane	5.139	83	204584	50.00	ug/L	100
69) bromodichloromethane	5.334	83	150623	50.00	ug/L	100
70) epichlorohydrin	5.571	57	104901	250.00	ug/L	100
71) cis-1,3-dichloropropene	5.669	75	194107	50.00	ug/L	100
72) 4-methyl-2-pentanone	5.766	58	278190	200.00	ug/L	100
73) 3-methyl-1-butanol	5.791	55	225510	1000.00	ug/L	100
76) toluene	5.955	92	309451	50.00	ug/L	100
77) trans-1,3-dichloropropene	6.120	75	177300	50.00	ug/L	100
78) ethyl methacrylate	6.144	69	193039	50.00	ug/L	100
79) 1,1,2-trichloroethane	6.291	83	90337	50.00	ug/L	100
80) tetrachloroethene	6.394	164	111227	50.00	ug/L	100
81) 1,3-dichloropropane	6.437	76	188800	50.00	ug/L	100
82) 2-hexanone	6.455	58	290368	200.00	ug/L	100
83) butyl acetate	6.541	56	115839	50.00	ug/L	100
84) dibromochloromethane	6.626	129	113241	50.00	ug/L	100
85) 1,2-dibromoethane	6.742	107	142476	50.00	ug/L	100
86) n-butyl ether	7.223	57	512502	50.00	ug/L	100
87) chlorobenzene	7.175	112	331096	50.00	ug/L	100
88) 1,1,1,2-tetrachloroethane	7.242	131	114643	50.00	ug/L	100
89) ethylbenzene	7.248	91	581326	50.00	ug/L	100
90) m,p-xylene	7.364	106	452660	100.00	ug/L	100
91) o-xylene	7.717	106	216822	50.00	ug/L	100
92) styrene	7.736	104	376063	50.00	ug/L	100
93) bromoform	7.912	173	84485	50.00	ug/L	100
94) butyl acrylate	7.638	55	282593	50.00	ug/L	100
95) n-amyl acetate	7.845	70	117729	50.00	ug/L	100
96) isopropylbenzene	8.059	105	558401	50.00	ug/L	100
97) cis-1,4-dichloro-2-butene	8.101	88	65806	50.00	ug/L	100
100) bromobenzene	8.370	156	144372	50.00	ug/L	100
101) 1,1,2,2-tetrachloroethane	8.339	83	164872	50.00	ug/L	100
102) trans-1,4-dichloro-2-b...	8.370	53	48217	50.00	ug/L	100
103) 1,2,3-trichloropropane	8.400	110	54018	50.00	ug/L	100
104) n-propylbenzene	8.449	91	628139	50.00	ug/L	100
105) 2-chlorotoluene	8.546	126	131052	50.00	ug/L	100
106) 4-chlorotoluene	8.656	126	131132	50.00	ug/L	100
107) 1,3,5-trimethylbenzene	8.620	105	443537	50.00	ug/L	100
108) tert-butylbenzene	8.924	134	97043	50.00	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D6212\
Data File : 3D145277.D
Acq On : 7 Mar 2019 9:33 pm
Operator : juntaep
Sample : icc6212-50
Misc : MS32815,V3D6212,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 08 17:34:55 2019
Quant Method : C:\MSDCHEM\1\METHODS\M3D6212.M
Quant Title : SW846 8260C/ EPA 624, Rxi-624 60 m x 0.25 mm x 1.4Fri Mar 08 16:34:21 2019
QLast Update : Fri Mar 08 16:34:21 2019
Response via : Initial Calibration

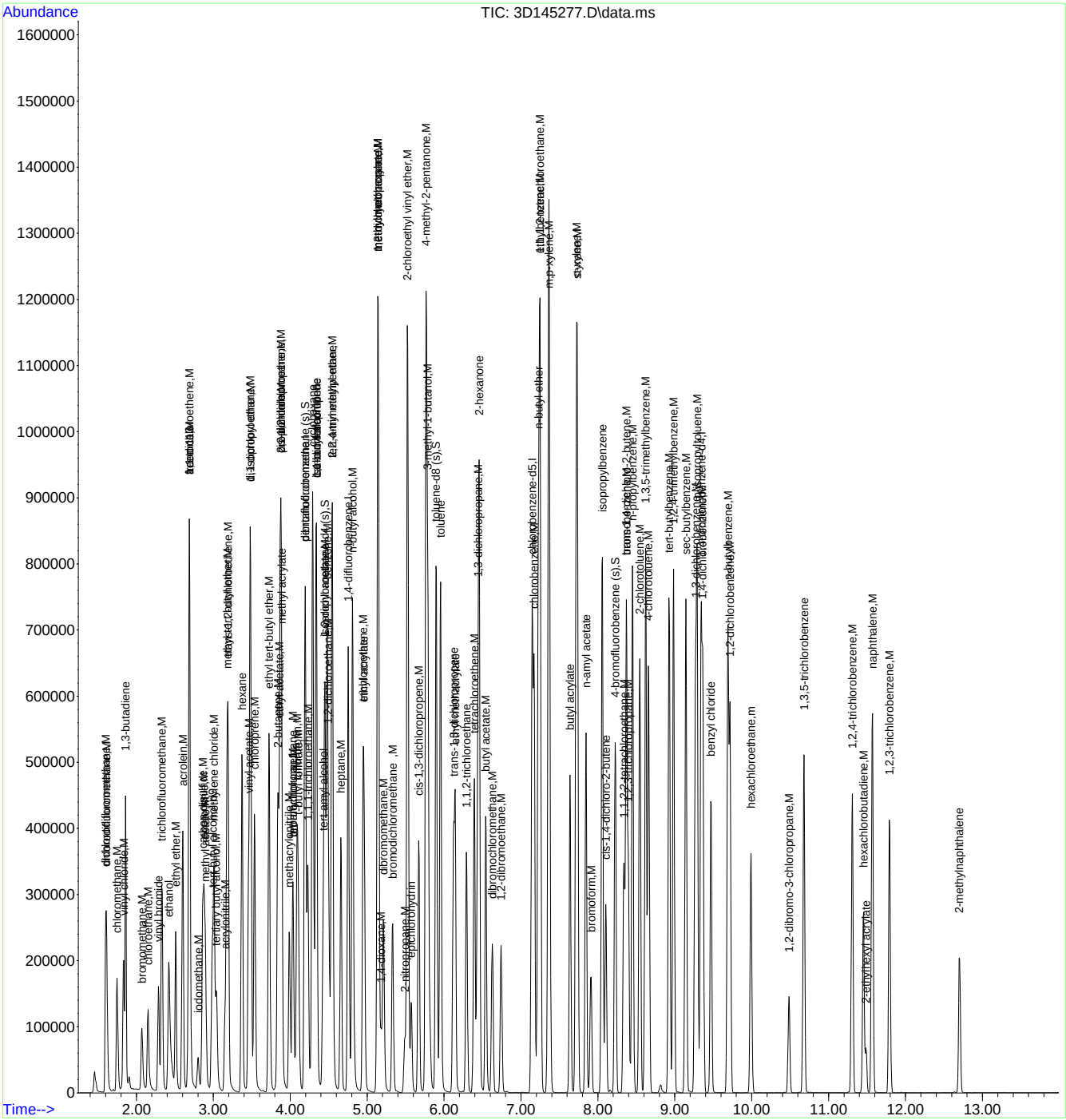
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
109) 1,2,4-trimethylbenzene	8.985	105	439701	50.00	ug/L	100
110) sec-butylbenzene	9.144	105	526280	50.00	ug/L	100
111) 1,3-dichlorobenzene	9.266	146	252953	50.02	ug/L	100
112) p-isopropyltoluene	9.290	119	452845	50.00	ug/L	100
113) 1,4-dichlorobenzene	9.363	146	256952	50.00	ug/L	100
114) benzyl chloride	9.467	91	327604	50.44	ug/L	100
115) 1,2-dichlorobenzene	9.717	146	239429	50.00	ug/L	100
116) n-butylbenzene	9.693	92	206150	50.00	ug/L	100
117) 1,2-dibromo-3-chloropr...	10.485	75	35128	50.00	ug/L	100
118) 1,3,5-trichlorobenzene	10.680	180	174147	50.00	ug/L	100
119) 2-ethylhexyl acrylate	11.485	70	17385	10.00	ug/L	100
120) 1,2,4-trichlorobenzene	11.308	180	154996	50.00	ug/L	100
121) hexachlorobutadiene	11.454	225	60844	50.00	ug/L	100
122) naphthalene	11.570	128	484311	50.00	ug/L	100
123) 1,2,3-trichlorobenzene	11.796	180	145363	50.00	ug/L	100
124) hexachloroethane	9.991	201	67896	50.00	ug/L	100
125) 2-methylnaphthalene	12.704	142	106583	25.00	ug/L	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D6212\
Data File : 3D145277.D
Acq On : 7 Mar 2019 9:33 pm
Operator : juntaep
Sample : icc6212-50
Misc : MS32815,V3D6212,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 08 17:34:55 2019
Quant Method : C:\MSDCHEM\1\METHODS\M3D6212.M
Quant Title : SW846 8260C/ EPA 624, Rxi-624 60 m x 0.25 mm x 1.4Fri Mar 08 16:34:21 2019
QLast Update : Fri Mar 08 16:34:21 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D6212\
Data File : 3D145278.D
Acq On : 7 Mar 2019 9:58 pm
Operator : juntaep
Sample : ic6212-100
Misc : MS32815,V3D6212,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 08 17:34:57 2019
Quant Method : C:\MSDCHEM\1\METHODS\M3D6212.M
Quant Title : SW846 8260C/ EPA 624, Rxi-624 60 m x 0.25 mm x 1.4Fri Mar 08 16:34:21 2019
QLast Update : Fri Mar 08 16:34:21 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	2.987	65	221946	500.00	ug/L	0.00
5) pentafluorobenzene	4.194	168	317315	50.00	ug/L	0.00
52) 1,4-difluorobenzene	4.755	114	444227	50.00	ug/L	0.00
74) chlorobenzene-d5	7.144	117	384624	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	9.339	152	178165	50.00	ug/L	0.00
System Monitoring Compounds						
44) dibromofluoromethane (s)	4.194	113	114157	50.05	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.10%			
53) 1,2-dichloroethane-d4 (s)	4.444	65	122388	50.18	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 100.36%			
75) toluene-d8 (s)	5.901	98	484541	49.82	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.64%			
99) 4-bromofluorobenzene (s)	8.223	95	169516	50.34	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.68%			
Target Compounds						Qvalue
2) tertiary butyl alcohol	3.041	59	272807	494.08	ug/L	98
3) ethanol	2.426	45	484592	9616.61	ug/L	97
4) 1,4-dioxane	5.181	88	125175	2456.77	ug/L	99
6) chlorodifluoromethane	1.615	51	291548	100.68	ug/L	99
7) dichlorodifluoromethane	1.597	85	332028	98.14	ug/L	99
8) chloromethane	1.749	50	293307	98.86	ug/L	100
9) vinyl chloride	1.834	62	313025	98.83	ug/L	100
10) 1,3-butadiene	1.859	54	244235	100.01	ug/L	99
11) bromomethane	2.060	94	112845	98.69	ug/L	99
12) chloroethane	2.145	64	183417	98.57	ug/L	98
13) trichlorofluoromethane	2.328	101	381653	97.29	ug/L	97
14) vinyl bromide	2.285	106	181609	99.35	ug/L	100
15) ethyl ether	2.511	74	142044	99.38	ug/L	98
16) acrolein	2.609	56	56334	99.11	ug/L	99
17) freon 113	2.682	151	205472	99.88	ug/L	94
18) 1,1-dichloroethene	2.688	96	221484	101.14	ug/L	98
19) acetone	2.694	58	125777	403.05	ug/L	94
20) acetonitrile	2.883	41	470792	1017.55	ug/L	99
21) iodomethane	2.804	142	159900	129.05	ug/L	99
22) carbon disulfide	2.859	76	563887	101.91	ug/L	99
23) methylene chloride	3.011	84	222762	100.99	ug/L	100
24) methyl acetate	2.901	43	255159	103.40	ug/L	100
25) methyl tert butyl ether	3.176	73	708931	101.32	ug/L	98
26) trans-1,2-dichloroethene	3.194	96	231933	100.03	ug/L	97
27) di-isopropyl ether	3.480	45	786540	99.16	ug/L	99
28) 2-butanone	3.834	72	177764	403.41	ug/L	94
29) 1,1-dichloroethane	3.480	63	396587	97.73	ug/L	99
30) chloroprene	3.535	53	387051	99.80	ug/L	99
31) acrylonitrile	3.151	53	124230	101.12	ug/L	99
32) hexane	3.371	56	199532	102.15	ug/L	97
33) vinyl acetate	3.456	86	71322	103.57	ug/L	99
34) ethyl tert-butyl ether	3.724	59	754972	99.78	ug/L	99
35) ethyl acetate	3.852	45	52340	102.50	ug/L	95
36) 2,2-dichloropropane	3.877	77	334657	99.23	ug/L	99
37) cis-1,2-dichloroethene	3.864	96	251934	100.83	ug/L	98
38) methyl acrylate	3.895	85	52180	101.53	ug/L #	87
39) propionitrile	3.883	54	533291	1018.13	ug/L	99
40) bromochloromethane	4.029	128	110731	97.31	ug/L	93
41) tetrahydrofuran	4.041	72	47603	96.48	ug/L	96
42) chloroform	4.090	85	248092	100.35	ug/L	98
43) t-butyl formate	4.108	59	234532	102.82	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D6212\
Data File : 3D145278.D
Acq On : 7 Mar 2019 9:58 pm
Operator : juntaep
Sample : ic6212-100
Misc : MS32815,V3D6212,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 08 17:34:57 2019
Quant Method : C:\MSDCHEM\1\METHODS\M3D6212.M
Quant Title : SW846 8260C/ EPA 624, Rxi-624 60 m x 0.25 mm x 1.4Fri Mar 08 16:34:21 2019
QLast Update : Fri Mar 08 16:34:21 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
45) methacrylonitrile	3.992	67	132101	101.33 ug/L	94
46) 1,1,1-trichloroethane	4.230	97	358647	100.77 ug/L	100
47) cyclohexane	4.291	84	367539	98.23 ug/L	100
48) 1,1-dichloropropene	4.334	75	331423	101.52 ug/L	99
49) iso-butyl alcohol	4.340	43	211427	1057.24 ug/L	99
50) carbon tetrachloride	4.340	117	307898	102.71 ug/L	99
51) tert amyl alcohol	4.431	55	87726	498.91 ug/L	87
54) n-butyl alcohol	4.815	56	745451	5107.41 ug/L	98
55) 2,2,4-trimethylpentane	4.547	57	616818	101.00 ug/L	98
56) benzene	4.480	78	935741	100.29 ug/L	99
57) tert-amyl methyl ether	4.541	87	184162	100.13 ug/L	98
58) heptane	4.657	71	162281	100.98 ug/L	99
59) isopropyl acetate	4.450	87	79634	100.69 ug/L	98
60) 1,2-dichloroethane	4.498	62	299691	98.46 ug/L	99
61) trichloroethene	4.950	130	257175	101.09 ug/L	99
62) ethyl acrylate	4.962	55	403250	101.20 ug/L	98
63) 2-nitropropane	5.486	41	75277	108.13 ug/L	99
64) 2-chloroethyl vinyl ether	5.529	63	885288	510.67 ug/L	99
65) methyl methacrylate	5.145	69	299929	100.53 ug/L	99
66) 1,2-dichloropropane	5.145	63	230447	100.30 ug/L	99
67) dibromomethane	5.212	93	137625	100.64 ug/L	96
68) methylcyclohexane	5.139	83	394955	100.89 ug/L	100
69) bromodichloromethane	5.334	83	294527	102.19 ug/L	98
70) epichlorohydrin	5.578	57	202455	504.32 ug/L	97
71) cis-1,3-dichloropropene	5.669	75	376860	101.47 ug/L	99
72) 4-methyl-2-pentanone	5.766	58	536377	403.07 ug/L	97
73) 3-methyl-1-butanol	5.791	55	440668	2042.51 ug/L	99
76) toluene	5.955	92	604647	99.92 ug/L	99
77) trans-1,3-dichloropropene	6.120	75	347987	100.37 ug/L	99
78) ethyl methacrylate	6.144	69	377236	99.93 ug/L	100
79) 1,1,2-trichloroethane	6.291	83	174526	98.80 ug/L	97
80) tetrachloroethene	6.394	164	215196	98.94 ug/L	98
81) 1,3-dichloropropane	6.437	76	363393	98.43 ug/L	100
82) 2-hexanone	6.455	58	563205	396.75 ug/L	100
83) butyl acetate	6.541	56	220598	97.38 ug/L	97
84) dibromochloromethane	6.626	129	227494	102.73 ug/L	99
85) 1,2-dibromoethane	6.742	107	275502	98.88 ug/L	99
86) n-butyl ether	7.224	57	996951	99.48 ug/L	99
87) chlorobenzene	7.175	112	635636	98.17 ug/L	99
88) 1,1,1,2-tetrachloroethane	7.242	131	225518	100.59 ug/L	99
89) ethylbenzene	7.248	91	1117411	98.30 ug/L	100
90) m,p-xylene	7.364	106	871882	197.00 ug/L	98
91) o-xylene	7.717	106	416538	98.24 ug/L	98
92) styrene	7.736	104	728361	99.04 ug/L	99
93) bromoform	7.912	173	173740	105.16 ug/L	98
94) butyl acrylate	7.638	55	548639	99.28 ug/L	98
95) n-amyl acetate	7.845	70	228839	99.40 ug/L	98
96) isopropylbenzene	8.059	105	1082549	99.14 ug/L	99
97) cis-1,4-dichloro-2-butene	8.101	88	130197	101.18 ug/L	97
100) bromobenzene	8.370	156	276836	99.25 ug/L	99
101) 1,1,2,2-tetrachloroethane	8.339	83	315655	99.10 ug/L	98
102) trans-1,4-dichloro-2-b...	8.376	53	95178	102.17 ug/L	87
103) 1,2,3-trichloropropane	8.400	110	105253	100.85 ug/L	96
104) n-propylbenzene	8.449	91	1231735	101.49 ug/L	99
105) 2-chlorotoluene	8.546	126	255345	100.85 ug/L	98
106) 4-chlorotoluene	8.662	126	255168	100.72 ug/L	95
107) 1,3,5-trimethylbenzene	8.620	105	860789	100.45 ug/L	100
108) tert-butylbenzene	8.931	134	191289	102.03 ug/L	94

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D6212\
Data File : 3D145278.D
Acq On : 7 Mar 2019 9:58 pm
Operator : juntaep
Sample : ic6212-100
Misc : MS32815,V3D6212,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 08 17:34:57 2019
Quant Method : C:\MSDCHEM\1\METHODS\M3D6212.M
Quant Title : SW846 8260C/ EPA 624, Rxi-624 60 m x 0.25 mm x 1.4Fri Mar 08 16:34:21 2019
QLast Update : Fri Mar 08 16:34:21 2019
Response via : Initial Calibration

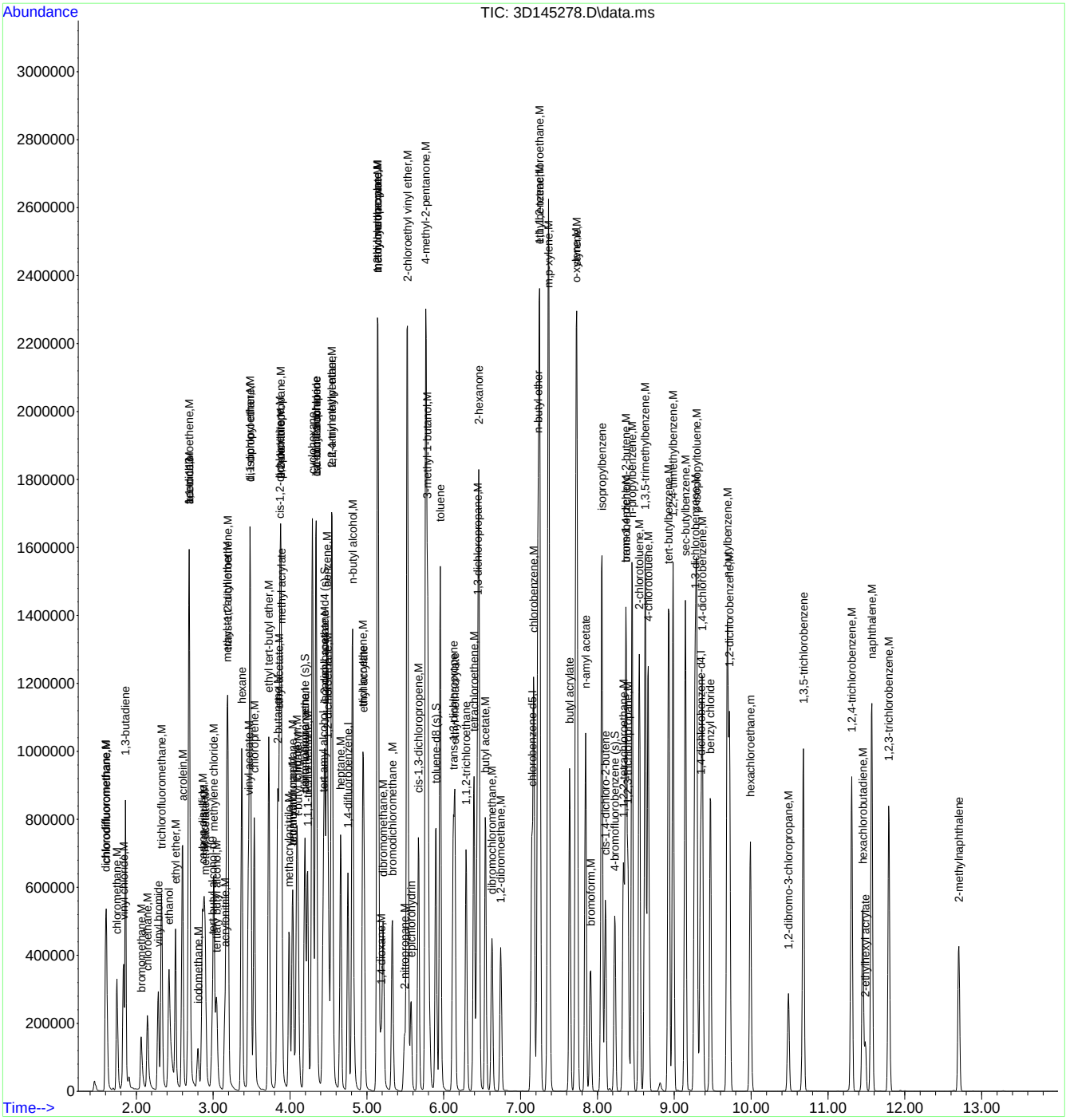
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
109) 1,2,4-trimethylbenzene	8.985	105	854891	100.64	ug/L	99
110) sec-butylbenzene	9.144	105	1034738	101.77	ug/L	99
111) 1,3-dichlorobenzene	9.266	146	489709	100.24	ug/L	99
112) p-isopropyltoluene	9.290	119	881304	100.73	ug/L	99
113) 1,4-dichlorobenzene	9.363	146	500944	100.91	ug/L	99
114) benzyl chloride	9.467	91	634216	101.09	ug/L	99
115) 1,2-dichlorobenzene	9.717	146	463071	100.11	ug/L	100
116) n-butylbenzene	9.693	92	408612	102.59	ug/L	100
117) 1,2-dibromo-3-chloropr...	10.485	75	69027	101.71	ug/L	93
118) 1,3,5-trichlorobenzene	10.680	180	340242	101.13	ug/L	98
119) 2-ethylhexyl acrylate	11.485	70	36088	21.49	ug/L	96
120) 1,2,4-trichlorobenzene	11.308	180	312449	104.34	ug/L	99
121) hexachlorobutadiene	11.454	225	119676	101.81	ug/L	99
122) naphthalene	11.570	128	963410	102.96	ug/L	100
123) 1,2,3-trichlorobenzene	11.790	180	288081	102.58	ug/L	99
124) hexachloroethane	9.991	201	138959	105.94	ug/L	97
125) 2-methylnaphthalene	12.704	142	222384	54.00	ug/L	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D6212\
Data File : 3D145278.D
Acq On : 7 Mar 2019 9:58 pm
Operator : juntaep
Sample : ic6212-100
Misc : MS32815,V3D6212,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 08 17:34:57 2019
Quant Method : C:\MSDCHEM\1\METHODS\M3D6212.M
Quant Title : SW846 8260C/ EPA 624, Rxi-624 60 m x 0.25 mm x 1.4Fri Mar 08 16:34:21 2019
QLast Update : Fri Mar 08 16:34:21 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D6212\
Data File : 3D145279.D
Acq On : 7 Mar 2019 10:24 pm
Operator : juntaep
Sample : ic6212-200
Misc : MS32815,V3D6212,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 08 17:34:59 2019
Quant Method : C:\MSDCHEM\1\METHODS\M3D6212.M
Quant Title : SW846 8260C/ EPA 624, Rxi-624 60 m x 0.25 mm x 1.4Fri Mar 08 16:34:21 2019
QLast Update : Fri Mar 08 16:34:21 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	2.993	65	205530	500.00	ug/L	0.00
5) pentafluorobenzene	4.188	168	306498	50.00	ug/L	0.00
52) 1,4-difluorobenzene	4.755	114	430091	50.00	ug/L	0.00
74) chlorobenzene-d5	7.144	117	365870	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	9.339	152	166968	50.00	ug/L	0.00
System Monitoring Compounds						
44) dibromofluoromethane (s)	4.194	113	108652	49.32	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.64%			
53) 1,2-dichloroethane-d4 (s)	4.444	65	115204	48.78	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 97.56%			
75) toluene-d8 (s)	5.901	98	462716	50.01	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.02%			
99) 4-bromofluorobenzene (s)	8.223	95	159140	50.43	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.86%			
Target Compounds						Qvalue
2) tertiary butyl alcohol	3.048	59	516956	1011.05	ug/L	98
3) ethanol	2.432	45	844743	18102.66	ug/L	97
4) 1,4-dioxane	5.187	88	236165	5005.35	ug/L	97
6) chlorodifluoromethane	1.609	51	562728	201.18	ug/L	97
7) dichlorodifluoromethane	1.597	85	630482	192.93	ug/L	99
8) chloromethane	1.749	50	581251	202.83	ug/L	98
9) vinyl chloride	1.828	62	609270	199.14	ug/L	100
10) 1,3-butadiene	1.859	54	467179	198.04	ug/L	99
11) bromomethane	2.054	94	180833	163.73	ug/L	99
12) chloroethane	2.139	64	333358	185.47	ug/L	98
13) trichlorofluoromethane	2.322	101	729668	192.57	ug/L	98
14) vinyl bromide	2.279	106	356556	201.94	ug/L	98
15) ethyl ether	2.511	74	276242	200.08	ug/L	95
16) acrolein	2.603	56	109344	199.15	ug/L	100
17) freon 113	2.682	151	399225	200.92	ug/L	99
18) 1,1-dichloroethene	2.682	96	431552	204.03	ug/L	100
19) acetone	2.694	58	243578	808.09	ug/L	91
20) acetonitrile	2.883	41	889008	1989.27	ug/L	99
21) iodomethane	2.798	142	342819	286.45	ug/L	99
22) carbon disulfide	2.852	76	1116796	208.96	ug/L	100
23) methylene chloride	3.005	84	431833	202.68	ug/L	99
24) methyl acetate	2.895	43	483350	202.79	ug/L	99
25) methyl tert butyl ether	3.176	73	1367984	202.41	ug/L	99
26) trans-1,2-dichloroethene	3.188	96	454773	203.05	ug/L	98
27) di-isopropyl ether	3.480	45	1521073	198.52	ug/L	98
28) 2-butanone	3.840	72	339927	798.63	ug/L #	81
29) 1,1-dichloroethane	3.480	63	768742	196.12	ug/L	98
30) chloroprene	3.535	53	746433	199.26	ug/L	98
31) acrylonitrile	3.151	53	239414	201.75	ug/L	97
32) hexane	3.371	56	375842	199.19	ug/L	98
33) vinyl acetate	3.456	86	140099	210.63	ug/L	98
34) ethyl tert-butyl ether	3.724	59	1472822	201.52	ug/L	99
35) ethyl acetate	3.846	45	100912	204.59	ug/L #	5
36) 2,2-dichloropropane	3.877	77	646641	198.50	ug/L	100
37) cis-1,2-dichloroethene	3.864	96	491946	203.84	ug/L	99
38) methyl acrylate	3.895	85	100344	202.14	ug/L #	84
39) propionitrile	3.883	54	1012575	2001.37	ug/L	97
40) bromochloromethane	4.029	128	209294	190.41	ug/L	93
41) tetrahydrofuran	4.041	72	89647	188.11	ug/L	99
42) chloroform	4.084	85	482410	202.02	ug/L	99
43) t-butyl formate	4.102	59	458341	208.03	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D6212\
Data File : 3D145279.D
Acq On : 7 Mar 2019 10:24 pm
Operator : juntaep
Sample : ic6212-200
Misc : MS32815,V3D6212,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 08 17:34:59 2019
Quant Method : C:\MSDCHEM\1\METHODS\M3D6212.M
Quant Title : SW846 8260C/ EPA 624, Rxi-624 60 m x 0.25 mm x 1.4Fri Mar 08 16:34:21 2019
QLast Update : Fri Mar 08 16:34:21 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
45) methacrylonitrile	3.986	67	253940	201.67 ug/L	97
46) 1,1,1-trichloroethane	4.224	97	701740	204.12 ug/L	98
47) cyclohexane	4.285	84	719111	198.98 ug/L #	83
48) 1,1-dichloropropene	4.334	75	645191	204.61 ug/L	100
49) iso-butyl alcohol	4.346	43	412799	2137.05 ug/L	97
50) carbon tetrachloride	4.340	117	602896	208.21 ug/L	99
51) tert amyl alcohol	4.438	55	164674	969.57 ug/L #	79
54) n-butyl alcohol	4.822	56	1421509	10059.49 ug/L	98
55) 2,2,4-trimethylpentane	4.547	57	1198389	202.67 ug/L	97
56) benzene	4.480	78	1819767	201.46 ug/L	100
57) tert-amyl methyl ether	4.541	87	363061	203.89 ug/L	98
58) heptane	4.657	71	313792	201.68 ug/L	99
59) isopropyl acetate	4.450	87	155660	203.29 ug/L	93
60) 1,2-dichloroethane	4.498	62	583484	198.01 ug/L	100
61) trichloroethene	4.950	130	503141	204.28 ug/L	99
62) ethyl acrylate	4.962	55	783990	203.22 ug/L	99
63) 2-nitropropane	5.486	41	151112	224.20 ug/L	94
64) 2-chloroethyl vinyl ether	5.529	63	1722586	1026.32 ug/L	98
65) methyl methacrylate	5.145	69	580452	200.94 ug/L	96
66) 1,2-dichloropropane	5.139	63	449196	201.93 ug/L	100
67) dibromomethane	5.212	93	267896	202.34 ug/L	98
68) methylcyclohexane	5.139	83	763317	201.40 ug/L	99
69) bromodichloromethane	5.328	83	579087	207.53 ug/L	98
70) epichlorohydrin	5.578	57	376129	967.74 ug/L	96
71) cis-1,3-dichloropropene	5.669	75	741034	206.08 ug/L	98
72) 4-methyl-2-pentanone	5.767	58	1028046	797.93 ug/L	97
73) 3-methyl-1-butanol	5.797	55	844485	4042.86 ug/L	99
76) toluene	5.955	92	1173205	203.81 ug/L	99
77) trans-1,3-dichloropropene	6.120	75	684811	207.64 ug/L	99
78) ethyl methacrylate	6.144	69	728598	202.91 ug/L	99
79) 1,1,2-trichloroethane	6.291	83	338460	201.42 ug/L	98
80) tetrachloroethene	6.394	164	419082	202.55 ug/L	97
81) 1,3-dichloropropane	6.437	76	713948	203.29 ug/L	96
82) 2-hexanone	6.455	58	1068544	791.32 ug/L	99
83) butyl acetate	6.541	56	429233	199.20 ug/L	100
84) dibromochloromethane	6.626	129	451468	214.33 ug/L	100
85) 1,2-dibromoethane	6.742	107	536138	202.30 ug/L	98
86) n-butyl ether	7.224	57	1936254	203.10 ug/L	99
87) chlorobenzene	7.169	112	1249449	202.87 ug/L	98
88) 1,1,1,2-tetrachloroethane	7.242	131	441772	207.16 ug/L	100
89) ethylbenzene	7.248	91	2168162	200.50 ug/L	100
90) m,p-xylene	7.364	106	1689033	401.19 ug/L	99
91) o-xylene	7.717	106	808513	200.46 ug/L	98
92) styrene	7.736	104	1410039	201.57 ug/L	99
93) bromoform	7.912	173	348139	221.53 ug/L	98
94) butyl acrylate	7.638	55	1062193	202.07 ug/L	99
95) n-amyl acetate	7.845	70	436259	199.21 ug/L	97
96) isopropylbenzene	8.059	105	2081544	200.40 ug/L	100
97) cis-1,4-dichloro-2-butene	8.101	88	254914	208.25 ug/L	98
100) bromobenzene	8.370	156	535777	204.97 ug/L	99
101) 1,1,2,2-tetrachloroethane	8.339	83	606630	203.22 ug/L	98
102) trans-1,4-dichloro-2-b...	8.376	53	182235	208.75 ug/L	87
103) 1,2,3-trichloropropane	8.400	110	201472	206.00 ug/L	98
104) n-propylbenzene	8.449	91	2346779	206.33 ug/L	99
105) 2-chlorotoluene	8.546	126	492694	207.64 ug/L	98
106) 4-chlorotoluene	8.662	126	491526	207.03 ug/L	98
107) 1,3,5-trimethylbenzene	8.620	105	1645618	204.92 ug/L	99
108) tert-butylbenzene	8.931	134	366762	208.74 ug/L	90

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D6212\
Data File : 3D145279.D
Acq On : 7 Mar 2019 10:24 pm
Operator : juntaep
Sample : ic6212-200
Misc : MS32815,V3D6212,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 08 17:34:59 2019
Quant Method : C:\MSDCHEM\1\METHODS\M3D6212.M
Quant Title : SW846 8260C/ EPA 624, Rxi-624 60 m x 0.25 mm x 1.4Fri Mar 08 16:34:21 2019
QLast Update : Fri Mar 08 16:34:21 2019
Response via : Initial Calibration

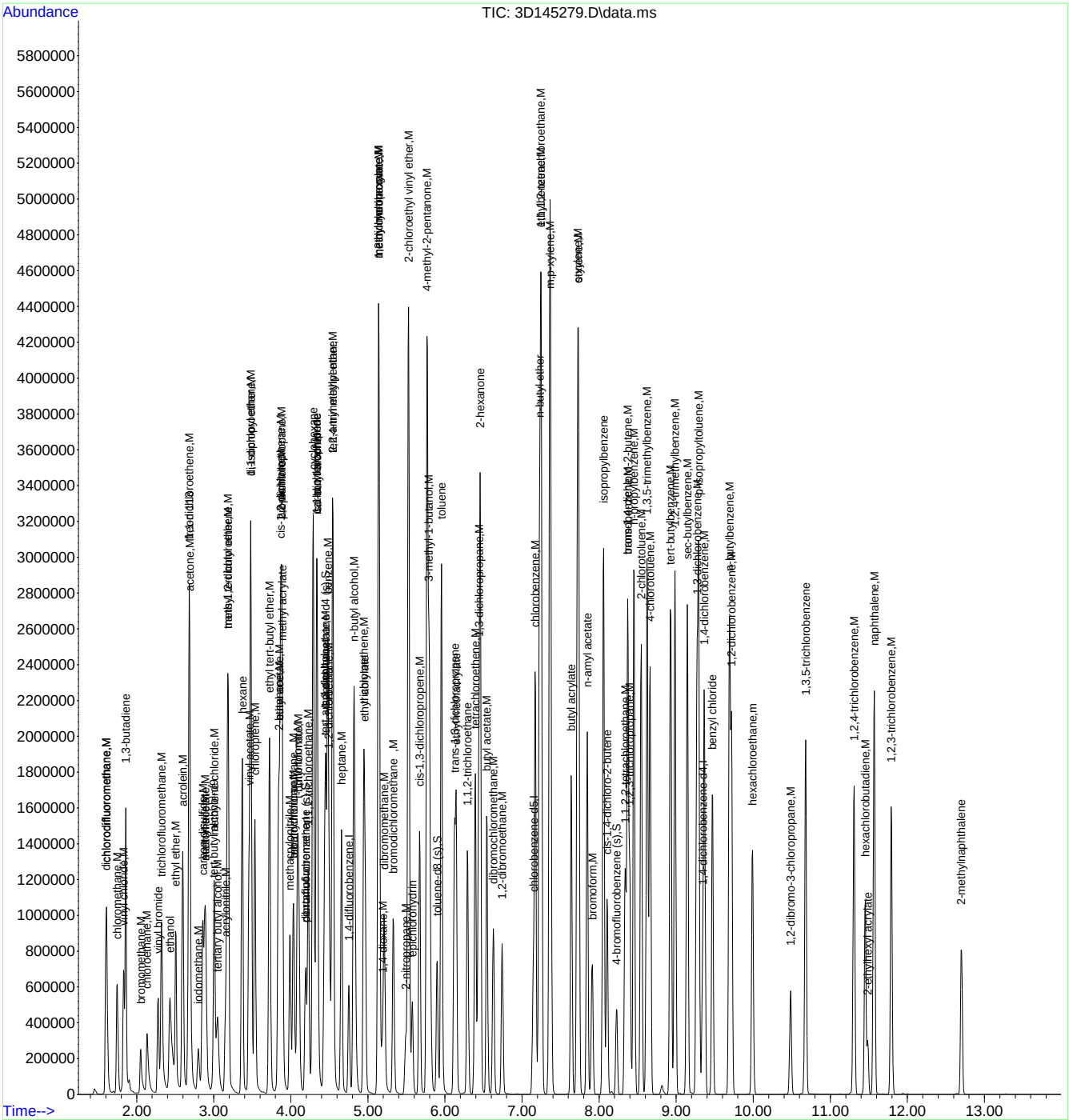
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
109) 1,2,4-trimethylbenzene	8.985	105	1640913	206.12 ug/L	99
110) sec-butylbenzene	9.144	105	1946371	204.27 ug/L	99
111) 1,3-dichlorobenzene	9.266	146	943791	206.14 ug/L	99
112) p-isopropyltoluene	9.290	119	1681171	205.05 ug/L	100
113) 1,4-dichlorobenzene	9.363	146	954511	205.17 ug/L	98
114) benzyl chloride	9.473	91	1244452	211.66 ug/L	97
115) 1,2-dichlorobenzene	9.717	146	896843	206.88 ug/L	99
116) n-butylbenzene	9.693	92	777153	208.21 ug/L	99
117) 1,2-dibromo-3-chloropr...	10.485	75	138939	218.45 ug/L	93
118) 1,3,5-trichlorobenzene	10.680	180	659880	209.28 ug/L	98
119) 2-ethylhexyl acrylate	11.485	70	73018	46.40 ug/L	98
120) 1,2,4-trichlorobenzene	11.308	180	599700	213.70 ug/L	99
121) hexachlorobutadiene	11.454	225	236942	215.09 ug/L	99
122) naphthalene	11.570	128	1862972	212.46 ug/L	99
123) 1,2,3-trichlorobenzene	11.790	180	551070	209.38 ug/L	99
124) hexachloroethane	9.991	201	280033	227.80 ug/L	96
125) 2-methylnaphthalene	12.704	142	426981	110.63 ug/L	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D6212\
Data File : 3D145279.D
Acq On : 7 Mar 2019 10:24 pm
Operator : juntaep
Sample : ic6212-200
Misc : MS32815,V3D6212,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 08 17:34:59 2019
Quant Method : C:\MSDCHEM\1\METHODS\M3D6212.M
Quant Title : SW846 8260C/ EPA 624, Rxi-624 60 m x 0.25 mm x 1.4Fri Mar 08 16:34:21 2019
QLast Update : Fri Mar 08 16:34:21 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D6212\
Data File : 3D145282.D
Acq On : 7 Mar 2019 11:39 pm
Operator : juntaep
Sample : icv6212-50
Misc : MS32815,V3D6212,5,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 08 18:11:18 2019
Quant Method : C:\MSDCHEM\1\METHODS\M3D6212.M
Quant Title : SW846 8260C/ EPA 624, Rxi-624 60 m x 0.25 mm x 1.4Fri Mar 08 17:10:41 2019
QLast Update : Fri Mar 08 17:11:15 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) tert butyl alcohol-d9	2.986	65	216191	500.00	ug/L		0.00
5) pentafluorobenzene	4.194	168	318149	50.00	ug/L		0.00
52) 1,4-difluorobenzene	4.754	114	444546	50.00	ug/L		0.00
74) chlorobenzene-d5	7.144	117	381060	50.00	ug/L		0.00
98) 1,4-dichlorobenzene-d4	9.339	152	179664	50.00	ug/L		0.00
System Monitoring Compounds							
44) dibromofluoromethane (s)	4.200	113	115969	51.30	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.60%				
53) 1,2-dichloroethane-d4 (s)	4.450	65	122994	49.27	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 98.54%				
75) toluene-d8 (s)	5.901	98	478622	49.45	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.90%				
99) 4-bromofluorobenzene (s)	8.223	95	169416	49.94	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.88%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	3.041	59	140650	251.33	ug/L		98
3) ethanol	2.419	45	260773	5024.98	ug/L		99
4) 1,4-dioxane	5.181	88	67673	1343.41	ug/L		95
6) chlorodifluoromethane	1.615	51	136591	47.20	ug/L		100
7) dichlorodifluoromethane	1.603	85	165339	51.57	ug/L		99
8) chloromethane	1.749	50	162976	54.65	ug/L		100
9) vinyl chloride	1.834	62	152272	50.39	ug/L		99
10) 1,3-butadiene	1.865	54	127513	51.02	ug/L		100
11) bromomethane	2.072	94	67624	59.82	ug/L		97
12) chloroethane	2.151	64	83635	44.74	ug/L		100
13) trichlorofluoromethane	2.334	101	184620	48.60	ug/L		98
14) vinyl bromide	2.291	106	90684	51.42	ug/L		99
15) ethyl ether	2.511	74	73355	52.14	ug/L		98
16) acrolein	2.608	56	33184	59.72	ug/L		98
17) freon 113	2.688	151	104611	50.26	ug/L		96
18) 1,1-dichloroethene	2.688	96	98563	46.70	ug/L		99
19) acetone	2.694	58	66718	210.31	ug/L		97
20) acetonitrile	2.883	41	238255	492.28	ug/L		99
21) iodomethane	2.804	142	50241	57.49	ug/L		98
22) carbon disulfide	2.858	76	289692	50.35	ug/L		99
23) methylene chloride	3.011	84	110987	46.86	ug/L		98
24) methyl acetate	2.901	43	127632	48.53	ug/L		99
25) methyl tert butyl ether	3.175	73	735944	104.25	ug/L		99
26) trans-1,2-dichloroethene	3.194	96	111161	46.85	ug/L		97
27) di-isopropyl ether	3.480	45	385518	48.52	ug/L		100
28) 2-butanone	3.840	72	92406	215.08	ug/L	#	85
29) 1,1-dichloroethane	3.486	63	197295	49.46	ug/L		99
30) chloroprene	3.535	53	194928	51.23	ug/L		100
31) acrylonitrile	3.151	53	69369	56.91	ug/L		99
32) hexane	3.377	56	80967	40.50	ug/L		98
33) vinyl acetate	3.456	86	33860	49.86	ug/L	#	93
34) ethyl tert-butyl ether	3.724	59	376536	49.87	ug/L		99
35) ethyl acetate	3.852	45	26816	50.22	ug/L	#	88
36) 2,2-dichloropropane	3.877	77	160371	46.63	ug/L		97
37) cis-1,2-dichloroethene	3.870	96	129478	50.72	ug/L		97
38) methyl acrylate	3.895	85	26772	53.42	ug/L	#	88
39) propionitrile	3.883	54	280204	530.26	ug/L		94
40) bromochloromethane	4.035	128	58406	51.43	ug/L		95
41) tetrahydrofuran	4.041	72	25024	52.39	ug/L		97
42) chloroform	4.090	85	124766	47.93	ug/L		99
43) t-butyl formate	4.108	59	104911	48.41	ug/L		97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D6212\
Data File : 3D145282.D
Acq On : 7 Mar 2019 11:39 pm
Operator : juntaep
Sample : icv6212-50
Misc : MS32815,V3D6212,5,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 08 18:11:18 2019
Quant Method : C:\MSDCHEM\1\METHODS\M3D6212.M
Quant Title : SW846 8260C/ EPA 624, Rxi-624 60 m x 0.25 mm x 1.4Fri Mar 08 17:10:41 2019
QLast Update : Fri Mar 08 17:11:15 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
45) methacrylonitrile	3.992	67	67251	53.02	ug/L	99
46) 1,1,1-trichloroethane	4.230	97	172460	48.18	ug/L	99
47) cyclohexane	4.291	84	172644	45.45	ug/L	96
48) 1,1-dichloropropene	4.334	75	162774	49.29	ug/L	99
49) iso-butyl alcohol	4.334	43	111898	530.81	ug/L	99
50) carbon tetrachloride	4.346	117	147831	50.55	ug/L	99
51) tert amyl alcohol	4.425	55	48387	268.18	ug/L	93
54) n-butyl alcohol	4.809	56	387889	2707.53	ug/L	99
55) 2,2,4-trimethylpentane	4.547	57	289088	45.86	ug/L	99
56) benzene	4.480	78	471942	49.30	ug/L	99
57) tert-amyl methyl ether	4.541	87	90924	48.85	ug/L	99
58) heptane	4.657	71	83966	51.57	ug/L	97
59) isopropyl acetate	4.450	87	39452	49.95	ug/L	95
60) 1,2-dichloroethane	4.504	62	155966	48.46	ug/L	99
61) trichloroethene	4.949	130	128807	49.98	ug/L	99
62) ethyl acrylate	4.962	55	213809	54.40	ug/L	100
63) 2-nitropropane	5.486	41	38585	54.60	ug/L	94
64) 2-chloroethyl vinyl ether	5.529	63	471302	293.11	ug/L	98
65) methyl methacrylate	5.145	69	157271	50.31	ug/L	99
66) 1,2-dichloropropane	5.145	63	117341	50.65	ug/L	97
67) dibromomethane	5.212	93	72173	53.08	ug/L	98
68) methylcyclohexane	5.138	83	185641	45.81	ug/L	99
69) bromodichloromethane	5.334	83	147036	51.89	ug/L	99
70) epichlorohydrin	5.577	57	101588	265.15	ug/L	95
71) cis-1,3-dichloropropene	5.669	75	192518	51.74	ug/L	100
72) 4-methyl-2-pentanone	5.766	58	285335	215.84	ug/L	99
73) 3-methyl-1-butanol	5.791	55	236444	1162.83	ug/L	99
76) toluene	5.955	92	308442	49.92	ug/L	98
77) trans-1,3-dichloropropene	6.120	75	170593	49.37	ug/L	98
78) ethyl methacrylate	6.144	69	186607	51.56	ug/L	99
79) 1,1,2-trichloroethane	6.291	83	91061	52.06	ug/L	96
80) tetrachloroethene	6.394	164	108219	49.98	ug/L	98
81) 1,3-dichloropropane	6.437	76	193091	52.84	ug/L	99
82) 2-hexanone	6.455	58	294905	215.03	ug/L	99
83) butyl acetate	6.541	56	116397	53.73	ug/L	98
84) dibromochloromethane	6.626	129	118774	57.32	ug/L	96
85) 1,2-dibromoethane	6.742	107	143701	51.76	ug/L	99
86) n-butyl ether	7.223	57	515762	52.19	ug/L	99
87) chlorobenzene	7.175	112	324287	49.29	ug/L	99
88) 1,1,1,2-tetrachloroethane	7.242	131	117067	54.34	ug/L	100
89) ethylbenzene	7.248	91	571293	50.50	ug/L	99
90) m,p-xylene	7.364	106	445900	100.36	ug/L	99
91) o-xylene	7.717	106	213898	49.96	ug/L	100
92) styrene	7.736	104	377290	52.53	ug/L	99
93) bromoform	7.912	173	90669	59.01	ug/L	97
94) butyl acrylate	7.638	55	286831	56.31	ug/L	97
95) n-amyl acetate	7.845	70	110947	50.31	ug/L	98
96) isopropylbenzene	8.059	105	552777	51.16	ug/L	99
97) cis-1,4-dichloro-2-butene	8.101	88	63557	54.83	ug/L	96
100) bromobenzene	8.370	156	144349	50.65	ug/L	98
101) 1,1,2,2-tetrachloroethane	8.339	83	165585	53.13	ug/L	98
102) trans-1,4-dichloro-2-b...	8.376	53	55262	59.44	ug/L	94
103) 1,2,3-trichloropropane	8.394	110	54772	50.75	ug/L	99
104) n-propylbenzene	8.449	91	621455	50.63	ug/L	99
105) 2-chlorotoluene	8.546	126	129359	50.62	ug/L	98
106) 4-chlorotoluene	8.662	126	135529	52.97	ug/L	94
107) 1,3,5-trimethylbenzene	8.619	105	435278	50.27	ug/L	98
108) tert-butylbenzene	8.930	134	106491	55.18	ug/L	92

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D6212\
Data File : 3D145282.D
Acq On : 7 Mar 2019 11:39 pm
Operator : juntaep
Sample : icv6212-50
Misc : MS32815,V3D6212,5,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 08 18:11:18 2019
Quant Method : C:\MSDCHEM\1\METHODS\M3D6212.M
Quant Title : SW846 8260C/ EPA 624, Rxi-624 60 m x 0.25 mm x 1.4Fri Mar 08 17:10:41 2019
QLast Update : Fri Mar 08 17:11:15 2019
Response via : Initial Calibration

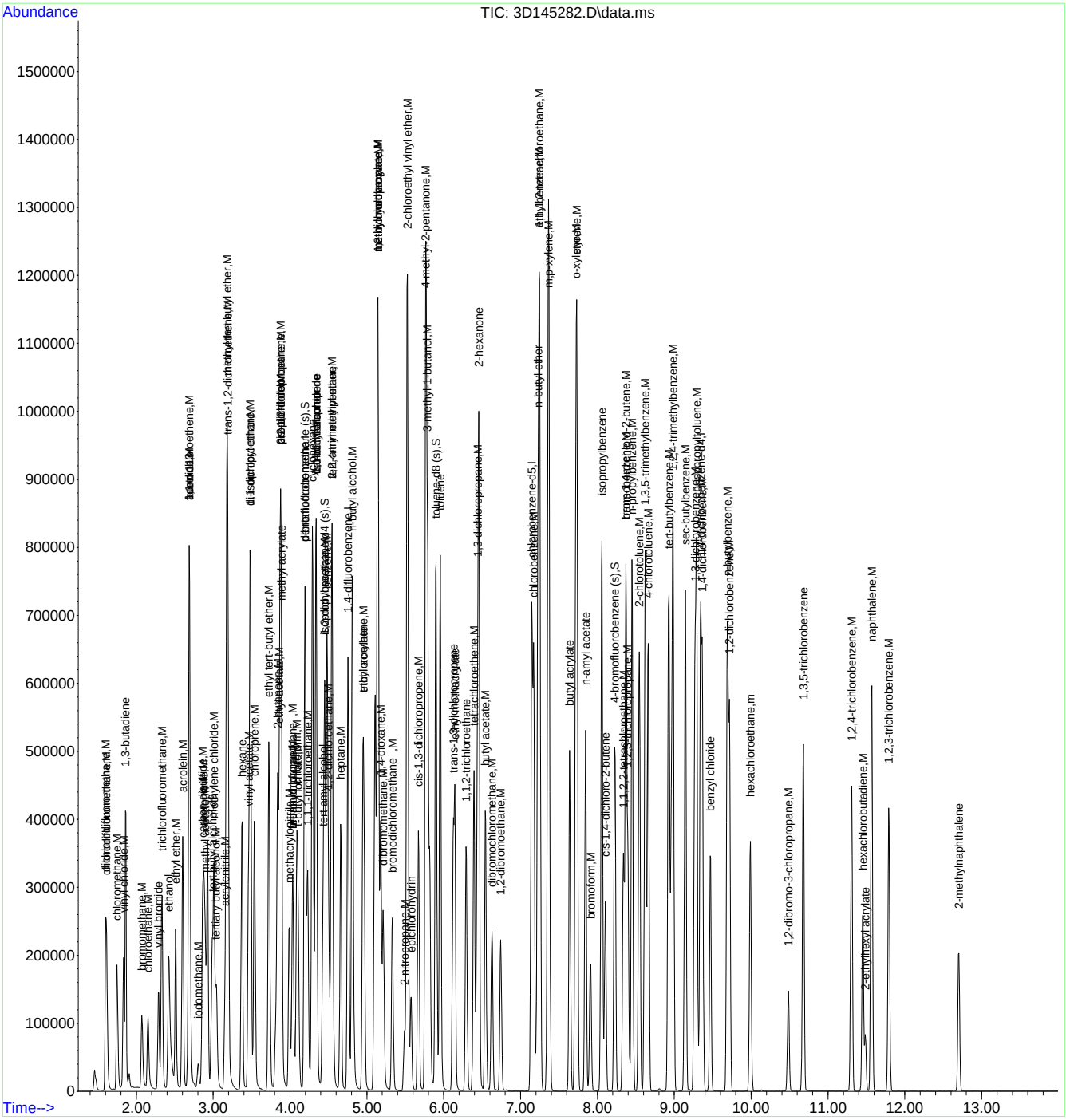
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
109) 1,2,4-trimethylbenzene	8.985	105	449053	52.58	ug/L	100
110) sec-butylbenzene	9.144	105	519736	51.39	ug/L	99
111) 1,3-dichlorobenzene	9.266	146	255104	50.65	ug/L	100
112) p-isopropyltoluene	9.290	119	448551	50.90	ug/L	99
113) 1,4-dichlorobenzene	9.363	146	256596	50.20	ug/L	99
114) benzyl chloride	9.473	91	251546	42.20	ug/L	98
115) 1,2-dichlorobenzene	9.717	146	241787	50.25	ug/L	98
116) n-butylbenzene	9.692	92	203836	52.34	ug/L	99
117) 1,2-dibromo-3-chloropr...	10.485	75	34230	53.40	ug/L	92
118) 1,3,5-trichlorobenzene	10.680	180	173238	50.95	ug/L	99
119) 2-ethylhexyl acrylate	11.485	70	20495	12.47	ug/L	99
120) 1,2,4-trichlorobenzene	11.308	180	156214	53.06	ug/L	97
121) hexachlorobutadiene	11.454	225	59130	51.01	ug/L	99
122) naphthalene	11.570	128	494139	52.88	ug/L	99
123) 1,2,3-trichlorobenzene	11.790	180	144773	53.68	ug/L	99
124) hexachloroethane	9.991	201	68922	55.59	ug/L	97
125) 2-methylnaphthalene	12.704	142	106568	27.76	ug/L	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V3D6212\
Data File : 3D145282.D
Acq On : 7 Mar 2019 11:39 pm
Operator : juntaep
Sample : icv6212-50
Misc : MS32815,V3D6212,5,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 08 18:11:18 2019
Quant Method : C:\MSDCHEM\1\METHODS\M3D6212.M
Quant Title : SW846 8260C/ EPA 624, Rxi-624 60 m x 0.25 mm x 1.4Fri Mar 08 17:10:41 2019
QLast Update : Fri Mar 08 17:11:15 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\may 6\v3d6294\
Data File : 3d147170.d
Acq On : 3 May 2019 6:27 am
Operator : EddieH
Sample : CC6212-20 Inst : MS3D
Misc : MS34467,V3D6294,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3D6212.M
Quant Results File: M3D6212.RES
Quant Time: May 03 10:14:19 2019
Quant Title : SW846 8260C/ EPA 624, Rxi-624 60 m x 0.25 mm x 1.4Fri Mar 08 17:11:15 2019
QLast Update : Fri Mar 08 17:11:15 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	2.980	65	228322	500.00	ug/L	0.00
5) pentafluorobenzene	4.194	168	373844	50.00	ug/L	0.00
52) 1,4-difluorobenzene	4.754	114	503634	50.00	ug/L	0.00
74) chlorobenzene-d5	7.144	117	429065	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	9.339	152	209528	50.00	ug/L	0.00
System Monitoring Compounds						
44) dibromofluoromethane (s)	4.194	113	132694	49.95	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.90%			
53) 1,2-dichloroethane-d4 (s)	4.443	65	137183	48.51	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 97.02%			
75) toluene-d8 (s)	5.894	98	561265	51.50	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 103.00%			
99) 4-bromofluorobenzene (s)	8.223	95	191407	48.38	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 96.76%			
Target Compounds						Qvalue
2) tertiary butyl alcohol	3.035	59	55254	93.49	ug/L	97
3) ethanol	2.420	45	112185	2046.90	ug/L	98
4) 1,4-dioxane	5.181	88	27542	517.70	ug/L	95
6) chlorodifluoromethane	1.615	51	57008	16.77	ug/L	99
7) dichlorodifluoromethane	1.603	85	68980	18.31	ug/L	99
8) chloromethane	1.749	50	69804	19.92	ug/L	98
9) vinyl chloride	1.834	62	72145	20.32	ug/L	99
10) 1,3-butadiene	1.865	54	58581	19.95	ug/L	97
11) bromomethane	2.078	94	25428	19.14	ug/L	100
12) chloroethane	2.157	64	43702	19.90	ug/L	98
13) trichlorofluoromethane	2.334	101	78098	17.50	ug/L	99
14) vinyl bromide	2.291	106	44793	21.61	ug/L	99
15) ethyl ether	2.511	74	32827	19.86	ug/L	95
16) acrolein	2.608	56	13414	20.54	ug/L	95
17) freon 113	2.688	151	40585	16.60	ug/L	99
18) 1,1-dichloroethene	2.688	96	47277	19.06	ug/L	97
19) acetone	2.694	58	30333	81.37	ug/L	89
20) acetonitrile	2.877	41	105553	185.60	ug/L	99
21) iodomethane	2.804	142	14646	14.26	ug/L	99
22) carbon disulfide	2.858	76	120740	17.86	ug/L	98
23) methylene chloride	3.011	84	52574	18.89	ug/L	99
24) methyl acetate	2.901	43	57285	18.54	ug/L	97
25) methyl tert butyl ether	3.175	73	162808	19.63	ug/L	98
26) trans-1,2-dichloroethene	3.194	96	51635	18.52	ug/L	99
27) di-isopropyl ether	3.480	45	180748	19.36	ug/L	99
28) 2-butanone	3.834	72	40860	80.93	ug/L #	85
29) 1,1-dichloroethane	3.486	63	90773	19.37	ug/L	99
30) chloroprene	3.535	53	81862	18.31	ug/L	99
31) acrylonitrile	3.151	53	28669	20.02	ug/L	97
32) hexane	3.371	56	37174	15.83	ug/L	98
33) vinyl acetate	3.456	86	15596	19.55	ug/L	98
34) ethyl tert-butyl ether	3.724	59	171034	19.28	ug/L	100
35) ethyl acetate	3.846	45	12986	20.70	ug/L #	41
36) 2,2-dichloropropane	3.877	77	78687	19.47	ug/L	99
37) cis-1,2-dichloroethene	3.864	96	57771	19.26	ug/L	98
38) methyl acrylate	3.889	85	11593	19.68	ug/L #	77
39) propionitrile	3.877	54	123904	199.55	ug/L	83
40) bromochloromethane	4.029	128	27232	20.41	ug/L	96
41) tetrahydrofuran	4.041	72	11009	19.62	ug/L	97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\may 6\v3d6294\
Data File : 3d147170.d
Acq On : 3 May 2019 6:27 am
Operator : EddieH
Sample : CC6212-20 Inst : MS3D
Misc : MS34467,V3D6294,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3D6212.M
Quant Results File: M3D6212.RES
Quant Time: May 03 10:14:19 2019
Quant Title : SW846 8260C/ EPA 624, Rxi-624 60 m x 0.25 mm x 1.4Fri Mar 08 17:11:15 2019
QLast Update : Fri Mar 08 17:11:15 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
42) chloroform	4.084	85	55897	18.28	ug/L	99
43) t-butyl formate	4.102	59	48365	18.99	ug/L	95
45) methacrylonitrile	3.986	67	29767	19.97	ug/L	98
46) 1,1,1-trichloroethane	4.230	97	77315	18.38	ug/L	99
47) cyclohexane	4.291	84	82852	18.56	ug/L	99
48) 1,1-dichloropropene	4.334	75	70648	18.21	ug/L	98
49) iso-butyl alcohol	4.334	43	44517	179.71	ug/L	97
50) carbon tetrachloride	4.340	117	65525	19.07	ug/L	99
51) tert amyl alcohol	4.425	55	20149	95.04	ug/L	99
54) n-butyl alcohol	4.809	56	155261	956.60	ug/L	97
55) 2,2,4-trimethylpentane	4.547	57	146118	20.46	ug/L	94
56) benzene	4.480	78	214198	19.75	ug/L	98
57) tert-amyl methyl ether	4.541	87	40396	19.16	ug/L	90
58) heptane	4.657	71	34889	18.91	ug/L	99
59) isopropyl acetate	4.450	87	17991	20.11	ug/L	97
60) 1,2-dichloroethane	4.498	62	68339	18.74	ug/L	97
61) trichloroethene	4.949	130	55811	19.12	ug/L	97
62) ethyl acrylate	4.962	55	89525	20.10	ug/L	98
63) 2-nitropropane	5.486	41	17726	22.14	ug/L	95
64) 2-chloroethyl vinyl ether	5.523	63	210665	115.64	ug/L	99
65) methyl methacrylate	5.145	69	65905	18.61	ug/L	95
66) 1,2-dichloropropane	5.138	63	53364	20.33	ug/L	100
67) dibromomethane	5.212	93	31442	20.41	ug/L	99
68) methylcyclohexane	5.138	83	83755	18.24	ug/L	99
69) bromodichloromethane	5.327	83	65726	20.48	ug/L	98
70) epichlorohydrin	5.571	57	45231	104.20	ug/L	98
71) cis-1,3-dichloropropene	5.669	75	83126	19.72	ug/L	97
72) 4-methyl-2-pentanone	5.766	58	122772	81.97	ug/L	97
73) 3-methyl-1-butanol	5.785	55	88667	384.90	ug/L	96
76) toluene	5.955	92	134829	19.38	ug/L	100
77) trans-1,3-dichloropropene	6.120	75	74708	19.20	ug/L	98
78) ethyl methacrylate	6.144	69	81085	19.90	ug/L	97
79) 1,1,2-trichloroethane	6.291	83	40924	20.78	ug/L	99
80) tetrachloroethene	6.394	164	48735	19.99	ug/L	96
81) 1,3-dichloropropane	6.437	76	84311	20.49	ug/L	99
82) 2-hexanone	6.455	58	126933	82.20	ug/L	96
83) butyl acetate	6.541	56	48991	20.09	ug/L	96
84) dibromochloromethane	6.626	129	51890	22.24	ug/L	97
85) 1,2-dibromoethane	6.742	107	56969	18.22	ug/L	99
86) n-butyl ether	7.223	57	213957	19.23	ug/L	100
87) chlorobenzene	7.169	112	140988	19.03	ug/L	99
88) 1,1,1,2-tetrachloroethane	7.242	131	49905	20.57	ug/L	98
89) ethylbenzene	7.248	91	249013	19.55	ug/L	98
90) m,p-xylene	7.364	106	193550	38.69	ug/L	96
91) o-xylene	7.717	106	95194	19.75	ug/L	95
92) styrene	7.729	104	157195	19.44	ug/L	95
93) bromoform	7.906	173	40267	23.28	ug/L	95
94) butyl acrylate	7.638	55	113783	19.84	ug/L	97
95) n-amyl acetate	7.845	70	49466	19.92	ug/L	93
96) isopropylbenzene	8.053	105	238930	19.64	ug/L	100
97) cis-1,4-dichloro-2-butene	8.101	88	22132	16.96	ug/L	91
100) bromobenzene	8.370	156	63752	19.18	ug/L	93
101) 1,1,2,2-tetrachloroethane	8.333	83	72769	20.02	ug/L	99
102) trans-1,4-dichloro-2-b...	8.370	53	17544	16.18	ug/L	89
103) 1,2,3-trichloropropane	8.394	110	24016	19.08	ug/L	99
104) n-propylbenzene	8.449	91	266812	18.64	ug/L	99
105) 2-chlorotoluene	8.540	126	56597	18.99	ug/L	94

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\may 6\v3d6294\
Data File : 3d147170.d
Acq On : 3 May 2019 6:27 am
Operator : EddieH
Sample : CC6212-20 Inst : MS3D
Misc : MS34467,V3D6294,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3D6212.M
Quant Results File: M3D6212.RES
Quant Time: May 03 10:14:19 2019
Quant Title : SW846 8260C/ EPA 624, Rxi-624 60 m x 0.25 mm x 1.4Fri Mar 08 17:11:15 2019
QLast Update : Fri Mar 08 17:11:15 2019
Response via : Initial Calibration

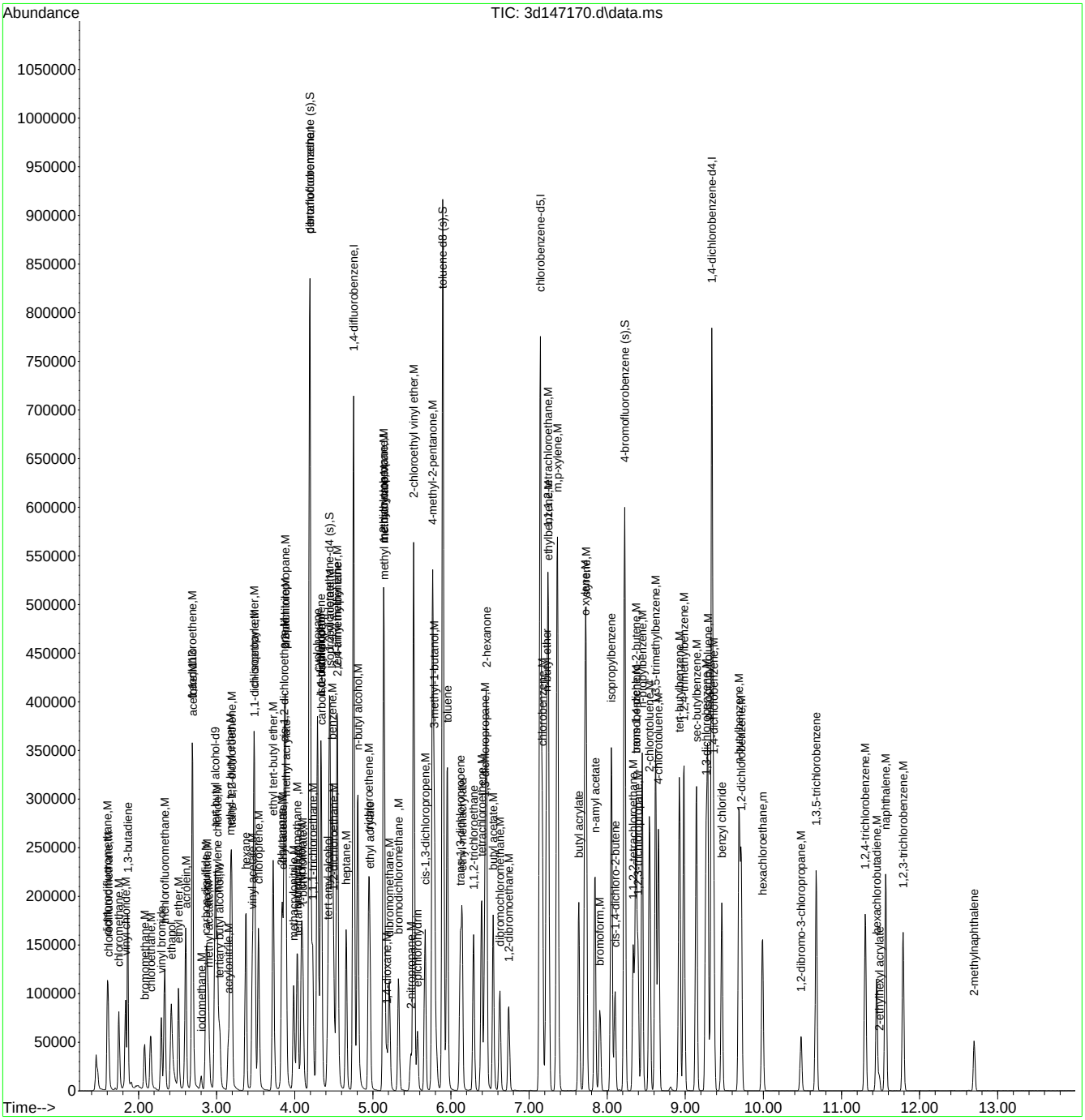
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
106) 4-chlorotoluene	8.656	126	55343	18.55	ug/L	99
107) 1,3,5-trimethylbenzene	8.620	105	189776	18.79	ug/L	99
108) tert-butylbenzene	8.924	134	42610	18.93	ug/L	91
109) 1,2,4-trimethylbenzene	8.985	105	189708	19.05	ug/L	98
110) sec-butylbenzene	9.144	105	227418	19.28	ug/L	99
111) 1,3-dichlorobenzene	9.266	146	109376	18.62	ug/L	97
112) p-isopropyltoluene	9.290	119	196663	19.13	ug/L	98
113) 1,4-dichlorobenzene	9.363	146	112087	18.80	ug/L	98
114) benzyl chloride	9.467	91	138079	19.86	ug/L	99
115) 1,2-dichlorobenzene	9.717	146	107669	19.19	ug/L	98
116) n-butylbenzene	9.686	92	87036	19.16	ug/L	98
117) 1,2-dibromo-3-chloropr...	10.479	75	13503	18.06	ug/L	97
118) 1,3,5-trichlorobenzene	10.674	180	76304	19.24	ug/L	98
119) 2-ethylhexyl acrylate	11.485	70	4022	2.10	ug/L	94
120) 1,2,4-trichlorobenzene	11.302	180	64572	18.81	ug/L	98
121) hexachlorobutadiene	11.448	225	25861	19.13	ug/L	98
122) naphthalene	11.564	128	186079	17.07	ug/L	99
123) 1,2,3-trichlorobenzene	11.790	180	58260	18.52	ug/L	98
124) hexachloroethane	9.991	201	32475	22.46	ug/L	95
125) 2-methylnaphthalene	12.698	142	26466	5.91	ug/L	93

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\may 6\v3d6294\
Data File : 3d147170.d
Acq On : 3 May 2019 6:27 am
Operator : EddieH
Sample : CC6212-20 Inst : MS3D
Misc : MS34467,V3D6294,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M3D6212.M
Quant Results File: M3D6212.RES
Quant Time: May 03 10:14:19 2019
Quant Title : SW846 8260C/ EPA 624, Rxi-624 60 m x 0.25 mm x 1.4Fri Mar 08 17:11:15 2019
QLast Update : Fri Mar 08 17:11:15 2019
Response via : Initial Calibration



GCMS Volatile Run Log

Standard / Reagents	Lot #			
Standard	ABK: V019-2648-72.23	EC: V019-2648-80.11	Acrolein V019-2648-54.40	
Standard Concentrations	100-10,000 PPM	100 PPM	100 PPM	
Internal Surrogate	V019-2648-64			
I/S Concentration	50/500 PPM			
Standard	ABK: V019-2648-52.7	Ext EC: V019-2648-76.5	Ext Acrolein: V019-2648-42.5	Ext PA: V019-2648-79.1
Standard Concentrations	100-10000 PPM	100 PPM	100 PPM	100/1000 PPM
Rough reviewed by				

Standard / Reagents			
GCMS1C	Instrument ID:	Sequence loaded by	Robert Szot
Analysis Date	4/19/1942	Data processed by	Robert Szot
Column	Rxi-624(60mx0.25mmx1.4um)	Batch ID	V1C7200
Method	V8260C	Matrix	SO
Init Calib Date	4/24/19	Approved By:	KANYAV
Init Calib Quant Method	M1CS7200	Approved Date:	4/25/2019 4:27:41 PM
DI Purge Volume	5		

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Smpl Amt (g)	MeOH/ DI FV (ml)	MeOH Purge (uL)	ALS #	Status	Comments
1C	164004	BFB		NA			5	5		1	ok	2:40 pm
1C	164005	IC7200-0.5		NA		8260 initial calibration	5	5		2	ok	2.5 uL ABK, EC, Acrolein / 500 mL DI H2O
1C	164006	IC7200-1		NA		8260 initial calibration	5	5		3	ok	2 uL ABK, EC, Acrolein / 200 mL DI H2O
1C	164007	IC7200-2		NA		8260 initial calibration	5	5		4	ok	4 uL ABK, EC, Acrolein / 200 mL DI H2O
1C	164008	IC7200-4		NA		8260 initial calibration	5	5		5	ok	2 uL ABK, EC, Acrolein / 50 mL DI H2O
1C	164009	IC7200-8		NA		8260 initial calibration	5	5		6	ok	4 uL ABK, EC, Acrolein / 50 mL DI H2O

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Smpl Amt (g)	MeOH/ DI FV (ml)	MeOH Purge (uL)	ALS #	Status	Comments
1C	164010	IC7200-20		NA		8260 initial calibration	5	5		7	ok	10 uL ABK, EC, Acrolein / 50 mL DI H2O
1C	164011	IC7200-50		NA		8260 initial calibration	5	5		8	ok	25 uL ABK, EC, Acrolein / 50 mL DI H2O
1C	164012	IC7200-100		NA		8260 initial calibration	5	5		9	ok	50 uL ABK, EC, Acrolein / 50 mL DI H2O
1C	164013	IC7200-200		NA		8260 initial calibration	5	5		10	ok	100 uL ABK, EC, Acrolein / 50 mL DI H2O
1C	164014	IB		NA			5	5		11	ok	
1C	164015	IB		NA			5	5		12	ok	
1C	164016	ICV7200-50		NA		8260 initial calibration	5	5		13	ok	25 uL Ext ABK, Ext EC, Ext Acrolein / 100 mL DI H2O
1C	164017	ICV7200-50		NA		8260 initial calibration	5	5		14	ok	25 uL Ext PA / 100 mL DI H2O

GCMS Volatile Run Log

Standard / Reagents	Lot #			
Standard	ABK: V019-2648-72.55	EC: V019-2648-92.3	Acrolein: V019-2648-88.13	
Standard Concentrations	100-10,000ppm	100ppm	100ppm	
Internal Surrogate	V019-2648-64			
I/S Concentration	50/500ppm			
Rough reviewed by	Prashant B. Shukla			

Standard / Reagents			
GCMS1C	Instrument ID:	Sequence loaded by	Eddie Huang
Analysis Date	5/3/2019	Data processed by	eunicem
Column	Rxi-624(60mx0.25mmx1.4um)	Batch ID	V1C7209
Method	V8260C	Matrix	SO
Initial Calibration Date	4/24/19	Approved By:	MOHUI
Initial Calibration Method	M1CS7200	Approved Date:	5/6/2019 11:44:42 AM
DI Purge Volume	5		

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Smpl Amt (g)	MeOH/ DI FV (ml)	MeOH Purge (uL)	ALS #	Status	Comments
1C	164264	IB		NA				5		1	ok	
1C	164265	IB		NA				5		2	ok	
1C	164266	BFB/CC7200-50		NA				5		3	ok/ok	50uLABK,EC,Acrolein/100mL DI H2O. 8:23am, 5/3/19. #8,11,22 low. #93 high.
1C	164267	CC7200-2		NA				5		4	ok	2uLABK,EC,Acrolein/100mL DI H2O. For #8,11,22.
1C	164268	BS		NA				5		5	ok	50uLABK,EC,Acrolein/100mL DI H2O.
1C	164269	IB		NA				5		6	ok	

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Smpl Amt (g)	MeOH/ DI FV (ml)	MeOH Purge (uL)	ALS #	Status	Comments
1C	164270	MB		NA				5		7	ok	
1C	164271	JC87361-7	4	NA	MS34463	V8260TCL20	5.78	5		8	ok	
1C	164272	JC87361-8	4	NA	MS34463	V8260TCL20	3.69	5		9	ok	
1C	164273	JC87361-9	4	NA	MS34463	V8260TCL20	4.69	5		10	ok	
1C	164274	JC87361-10	4	NA	MS34463	V8260TCL20	5.89	5		11	RR	RR LL #22 CCHIT.
1C	164275	JC87361-11	4	NA	MS34463	V8260TCL20	5.38	5		12	ok	
1C	164276	JC87363-3	6	NA	MS34463	V8260STD	5.28	5		13	ok	
1C	164277	JC87361-8MS	3	NA	MS34463	V8260TCL20	4.27	5		14	ok	2.5uLABK,EC,Acrolein/sample.
1C	164278	IB		NA				5		15	ok	
1C	164279	JC87361-7DUP	3	NA	MS34463	V8260TCL20	5.66	5		16	ok	
1C	164280	JC86926-17	5	NA	MS34290	V8260NHF	5.00	5		17	ok	
1C	164281	JC86926-1	5	NA	MS34290	V8260NHF	4.70	5		18	ok	
1C	164282	JC86926-2	5	NA	MS34290	V8260NHF	3.89	5		19	ok	
1C	164283	JC86926-3	5	NA	MS34290	V8260NHF	5.51	5		20	ok	
1C	164284	JC86926-4	5	NA	MS34290	V8260NHF	4.73	5		21	ok	
1C	164285	JC86926-5	5	NA	MS34290	V8260NHF	5.17	5		22	ok	
1C	164286	JC86926-6	5	NA	MS34290	V8260NHF	6.10	5		23	ok	
1C	164287	JC86926-7	5	NA	MS34290	V8260NHF	5.55	5		24	ok	
1C	164288	JC86926-10	5	NA	MS34290	V8260NHF	5.58	5		25	ok	
1C	164289	JC86926-12	5	NA	MS34290	V8260NHF	5.34	5		26	ok	7:08pm

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Smpl Amt (g)	MeOH/ DI FV (ml)	MeOH Purge (uL)	ALS #	Status	Comments
1C	164290	IB		NA				5		27	ok	

GCMS Volatile Run Log

Standard / Reagents	Lot #				Column	Rxi-624(30mx0.25mmx1.4um)
Standard	ABK: V018-2645-148.34	EC:V019-2645-09.5	Acrolein:V018-2645-128.63	Ext. PA: V018-2645-130.1	Method	V8260C
Standard Concentration	100-10,000ppm	100ppm	100ppm	1000ppm	Init Calib Date	3/7/2019
Standard	Ext. ABK: V019-2648-06.1	Ext. EC: V019-2648-03.6	Ext. Acrolein: V018-2645-142.3	Acetone 3rd: V019-2648-12.2		
Standard Concentration	100-10,000ppm	100ppm	100ppm	400ppm		
Internal Surrogate	V018-2645-126				Analysis Date	3/7/2019
Internal Surrogate Concentration	50/500ppm				Sequence loaded by	Brittany Klimek
					Data processed by	Bridget Kelly
					Batch ID	V3D6212
					Matrix	AQ
Initial Calibration Method	M3D6212				Approved By:	BRIDGETK
pH Paper Lot#					Approved Date:	3/11/2019 3:21:17 PM

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	CL	pH	ALS #	Status	Comments
3d	145269	BFB		NA			5			1	ok	3/7/19; 5:57pm.
3d	145270	IC6212-0.2		NA		V8260 AQ Init. Cal.	5			2	ok	0.2uL ABK, EC, Acrolein/100mL DI H2O.
3d	145271	IC6212-0.5		NA		V8260 AQ Init. Cal.	5			3	ok	0.5uL ABK, EC, Acrolein/100mL DI H2O.
3d	145272	IC6212-1		NA		V8260 AQ Init. Cal.	5			4	ok	1uL ABK, EC, Acrolein/100mL DI H2O.
3d	145273	IC6212-2		NA		V8260 AQ Init. Cal.	5			5	ok	2uL ABK, EC, Acrolein/100mL DI H2O.
3d	145274	IC6212-4		NA		V8260 AQ Init. Cal.	5			6	ok	4uL ABK, EC, Acrolein/100mL DI H2O.
3d	145275	IC6212-8		NA		V8260 AQ Init. Cal.	5			7	ok	8uL ABK, EC, Acrolein/100mL DI H2O.
3d	145276	IC6212-20		NA		V8260 AQ Init. Cal.	5			8	ok	20uL ABK, EC, Acrolein/100mL DI H2O.
3d	145277	ICC6212-50		NA		V8260 AQ Init. Cal.	5			9	ok	50uL ABK, EC, Acrolein/100mL DI H2O.
3d	145278	IC6212-100		NA		V8260 AQ Init. Cal.	5			10	ok	100uL ABK, EC, Acrolein/100mL DI H2O.
3d	145279	IC6212-200		NA		V8260 AQ Init. Cal.	5			11	ok	200uL ABK, EC, Acrolein/100mL DI H2O.

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	CL	pH	ALS #	Status	Comments
3d	145280	IB		NA			5			12	ok	
3d	145281	IB		NA			5			13	ok	
3d	145282	ICV6212-50		NA		V8260 AQ Init. Cal.	5			14	ok	50uL Ext, ABK, EC, Acrolein/100mL DI H2O.
3d	145283	ICV6212-50		NA		V8260 AQ Init. Cal.	5			15	not needed	50uL Ext. PA, Acetone/100mL DI H2O.

GCMS Volatile Run Log

Standard / Reagents	Lot #				Column	Rxi-624(30mx0.25mmx1.4um)
Standard	ABK: V019-2648-72.51	EC: V019-2648-84.10	Acrolein: V019-2648-88.2		Method	V8260C
Standard Concentration	100-10,000ppm	100ppm	100ppm		Init Calib Date	3/8/2019
Internal Surrogate	V019-2648-64					
Internal Surrogate Concentration	50/500ppm					
					Analysis Date	5/3/2019
					Sequence loaded by	Krizhka Cuenta
					Data processed by	kenrickb
					Batch ID	V3D6294
					Matrix	AQ
Initial Calibration Method	M3D6212				Approved By:	KANYAV
pH Paper Lot#	217518				Approved Date:	5/7/2019 7:17:50 PM

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	CL	pH	ALS #	Status	Comments
3D	147169	IB		NA			5			1	ok	
3D	147170	BFB/CC6212-20		NA			5			2	ok/ok	20 uL ABK, EC, Acrolein/100 mL (6:27 am)
3D	147171	BS		NA			5			3	ok	50 uL ABK, EC, Acrolein/100 mL
3D	147172	BSD		NA			5			4	ok	50 uL ABK, EC, Acrolein/100 mL
3D	147173	IB		NA			5			5	ok	
3D	147174	MB		NA			5			6	ok	THF= 3.47
3D	147175	JC87192-7	1	4X	MS34394	V8260CP51G	12.5/50		1	7	ok	ETHL; +L311595
3D	147176	JC87192-8	2	10X	MS34394	V8260CP51G	5/50		1	8	ok	ETHL; +L311596
3D	147177	JC87192-9	2	10X	MS34394	V8260CP51G	5/50		1	9	ok	ETHL; +L311597
3D	147178	JC87363-1	7	NA	MS34465	V8260BTX	5		1	10	ok	
3D	147179	JC87363-2	7	NA	MS34465	V8260BTX	5		1	11	ok	

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	CL	pH	ALS #	Status	Comments
3D	147180	JC87226-2	1	NA	MS34461	V8260TCL20+	5		1	12	ok	
3D	147181	JC87309-2	5	50X	MS34467	V8260TCL42+	1/50		1	13	rr	50x no screen; o/d 1x
3D	147182	JC87363-2MS	8	NA	MS34465	V8260BTX	5		1	14	ok	20 uL ABK, EC, Acrolein/40 mL
3D	147183	IB		NA			5			15	ok	
3D	147184	JC87226-2DUP	2	NA	MS34461	V8260TCL20+	5		1	16	ok	
3D	147185	JC87309-2	5	NA	MS34467	V8260TCL42+	5		1	17	ok	
3D	147186	JC87391-2	2	NA	MS34467	V8260PPTCL42+	5		1	18	ok	MPXYL, NAP, OXYL, TBA; double checked client ID
3D	147187	JC87391-4	5	NA	MS34467	V8260PPTCL42+	5		1	19	ok	MPXYL, NAP, OXYL, TBA; double checked client ID
3D	147188	JC87394-2	1	NA	MS34473	V8260PPTCL42+	5		1	20	ok	MPXYL, NAP, OXYL, TBA
3D	147189	JC87394-4	5	NA	MS34473	V8260PPTCL42+	5		1	21	ok	MPXYL, NAP, OXYL, TBA; double checked client ID
3D	147190	JC87391-3	1	NA	MS34467	V8260PPTCL42+	5		1	22	ok	MPXYL, NAP, OXYL, TBA
3D	147191	JC87394-3	1	NA	MS34473	V8260PPTCL42+	5		1	23	ok	MPXYL, NAP, OXYL, TBA
3D	147192	JC87391-1	2	NA	MS34467	V8260PPTCL42+	5		1	24	ok	MPXYL, NAP, OXYL, TBA
3D	147193	JC87394-1	1	NA	MS34473	V8260PPTCL42+	5		1	25	ok	MPXYL, NAP, OXYL, TBA. 3 May 2019 5:24 pm

MS Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Instrument Performance Checks (DFTPP)
- Internal Standard Area Summaries
- Surrogate Recovery Summaries
- Initial and Continuing Calibration Summaries

Method Blank Summary

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP20158-MB	M154076.D	1	05/06/19	CB	05/05/19	OP20158	EM6583

The QC reported here applies to the following samples: **Method:** SW846 8270D

JC87363-3

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic acid	ND	670	55	ug/kg	
95-57-8	2-Chlorophenol	ND	67	16	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	170	20	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	170	28	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	170	59	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	170	130	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	170	36	ug/kg	
95-48-7	2-Methylphenol	ND	67	21	ug/kg	
	3&4-Methylphenol	ND	67	27	ug/kg	
88-75-5	2-Nitrophenol	ND	170	22	ug/kg	
100-02-7	4-Nitrophenol	ND	330	89	ug/kg	
87-86-5	Pentachlorophenol	ND	130	31	ug/kg	
108-95-2	Phenol	ND	67	17	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	170	25	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	170	20	ug/kg	
83-32-9	Acenaphthene	ND	33	11	ug/kg	
208-96-8	Acenaphthylene	ND	33	17	ug/kg	
62-53-3	Aniline	ND	67	15	ug/kg	
120-12-7	Anthracene	ND	33	20	ug/kg	
92-87-5	Benzidine	ND	330	58	ug/kg	
56-55-3	Benzo(a)anthracene	ND	33	9.4	ug/kg	
50-32-8	Benzo(a)pyrene	ND	33	15	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	33	15	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	33	17	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	33	16	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	67	13	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	67	8.1	ug/kg	
100-51-6	Benzyl Alcohol	ND	67	12	ug/kg	
91-58-7	2-Chloronaphthalene	ND	67	7.9	ug/kg	
106-47-8	4-Chloroaniline	ND	170	12	ug/kg	
86-74-8	Carbazole	ND	67	4.8	ug/kg	
218-01-9	Chrysene	ND	33	10	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	67	7.1	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	67	14	ug/kg	
108-60-1	2,2'-Oxybis(1-chloropropane)	ND	67	12	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	67	11	ug/kg	

Method Blank Summary

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP20158-MB	M154076.D	1	05/06/19	CB	05/05/19	OP20158	EM6583

The QC reported here applies to the following samples: **Method:** SW846 8270D

JC87363-3

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	67	9.6	ug/kg	
122-66-7	1,2-Diphenylhydrazine	ND	67	7.6	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	67	7.1	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	67	8.1	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	33	10	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	33	17	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	67	28	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	33	15	ug/kg	
132-64-9	Dibenzofuran	ND	67	14	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	67	5.4	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	67	8.3	ug/kg	
84-66-2	Diethyl phthalate	ND	67	7.1	ug/kg	
131-11-3	Dimethyl phthalate	ND	67	5.9	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	67	7.8	ug/kg	
206-44-0	Fluoranthene	ND	33	15	ug/kg	
86-73-7	Fluorene	ND	33	15	ug/kg	
118-74-1	Hexachlorobenzene	ND	67	8.4	ug/kg	
87-68-3	Hexachlorobutadiene	ND	33	13	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	330	13	ug/kg	
67-72-1	Hexachloroethane	ND	170	16	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	33	16	ug/kg	
78-59-1	Isophorone	ND	67	7.1	ug/kg	
90-12-0	1-Methylnaphthalene	ND	33	6.5	ug/kg	
91-57-6	2-Methylnaphthalene	ND	33	7.5	ug/kg	
88-74-4	2-Nitroaniline	ND	170	7.9	ug/kg	
99-09-2	3-Nitroaniline	ND	170	8.3	ug/kg	
100-01-6	4-Nitroaniline	ND	170	8.6	ug/kg	
91-20-3	Naphthalene	ND	33	9.4	ug/kg	
98-95-3	Nitrobenzene	ND	67	13	ug/kg	
62-75-9	n-Nitrosodimethylamine	ND	67	12	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	67	9.6	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	170	12	ug/kg	
85-01-8	Phenanthrene	ND	33	11	ug/kg	
129-00-0	Pyrene	ND	33	11	ug/kg	
110-86-1	Pyridine	ND	67	11	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	67	8.7	ug/kg	

Method Blank Summary

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP20158-MB	M154076.D	1	05/06/19	CB	05/05/19	OP20158	EM6583

The QC reported here applies to the following samples: **Method:** SW846 8270D

JC87363-3

CAS No.	Surrogate Recoveries		Limits
367-12-4	2-Fluorophenol	62%	23-115%
4165-62-2	Phenol-d5	62%	27-114%
118-79-6	2,4,6-Tribromophenol	99%	19-152%
4165-60-0	Nitrobenzene-d5	71%	26-134%
321-60-8	2-Fluorobiphenyl	82%	39-124%
1718-51-0	Terphenyl-d14	79%	36-134%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	system artifact	2.73	200	ug/kg	J
	system artifact/aldol-condensation	3.11	460	ug/kg	J
	Total TIC, Semi-Volatile		0	ug/kg	

Method Blank Summary

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP20158-MB	P129342.D	1	05/06/19	CS	05/05/19	OP20158	EP5854

The QC reported here applies to the following samples: **Method:** SW846 8270D

JC87363-3

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic acid	ND	670	55	ug/kg	
95-57-8	2-Chlorophenol	ND	67	16	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	170	20	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	170	28	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	170	59	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	170	130	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	170	36	ug/kg	
95-48-7	2-Methylphenol	ND	67	21	ug/kg	
	3&4-Methylphenol	ND	67	27	ug/kg	
88-75-5	2-Nitrophenol	ND	170	22	ug/kg	
100-02-7	4-Nitrophenol	ND	330	89	ug/kg	
87-86-5	Pentachlorophenol	ND	130	31	ug/kg	
108-95-2	Phenol	ND	67	17	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	170	25	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	170	20	ug/kg	
83-32-9	Acenaphthene	ND	33	11	ug/kg	
208-96-8	Acenaphthylene	ND	33	17	ug/kg	
62-53-3	Aniline	ND	67	15	ug/kg	
120-12-7	Anthracene	ND	33	20	ug/kg	
92-87-5	Benzidine	ND	330	58	ug/kg	
56-55-3	Benzo(a)anthracene	ND	33	9.4	ug/kg	
50-32-8	Benzo(a)pyrene	ND	33	15	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	33	15	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	33	17	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	33	16	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	67	13	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	67	8.1	ug/kg	
100-51-6	Benzyl Alcohol	ND	67	12	ug/kg	
91-58-7	2-Chloronaphthalene	ND	67	7.9	ug/kg	
106-47-8	4-Chloroaniline	ND	170	12	ug/kg	
86-74-8	Carbazole	ND	67	4.8	ug/kg	
218-01-9	Chrysene	ND	33	10	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	67	7.1	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	67	14	ug/kg	
108-60-1	2,2'-Oxybis(1-chloropropane)	ND	67	12	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	67	11	ug/kg	

Method Blank Summary

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP20158-MB	P129342.D	1	05/06/19	CS	05/05/19	OP20158	EP5854

The QC reported here applies to the following samples: **Method:** SW846 8270D

JC87363-3

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	67	9.6	ug/kg	
122-66-7	1,2-Diphenylhydrazine	ND	67	7.6	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	67	7.1	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	67	8.1	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	33	10	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	33	17	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	67	28	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	33	15	ug/kg	
132-64-9	Dibenzofuran	ND	67	14	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	67	5.4	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	67	8.3	ug/kg	
84-66-2	Diethyl phthalate	ND	67	7.1	ug/kg	
131-11-3	Dimethyl phthalate	ND	67	5.9	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	67	7.8	ug/kg	
206-44-0	Fluoranthene	ND	33	15	ug/kg	
86-73-7	Fluorene	ND	33	15	ug/kg	
118-74-1	Hexachlorobenzene	ND	67	8.4	ug/kg	
87-68-3	Hexachlorobutadiene	ND	33	13	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	330	13	ug/kg	
67-72-1	Hexachloroethane	ND	170	16	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	33	16	ug/kg	
78-59-1	Isophorone	ND	67	7.1	ug/kg	
90-12-0	1-Methylnaphthalene	ND	33	6.5	ug/kg	
91-57-6	2-Methylnaphthalene	ND	33	7.5	ug/kg	
88-74-4	2-Nitroaniline	ND	170	7.9	ug/kg	
99-09-2	3-Nitroaniline	ND	170	8.3	ug/kg	
100-01-6	4-Nitroaniline	ND	170	8.6	ug/kg	
91-20-3	Naphthalene	ND	33	9.4	ug/kg	
98-95-3	Nitrobenzene	ND	67	13	ug/kg	
62-75-9	n-Nitrosodimethylamine	ND	67	12	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	67	9.6	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	170	12	ug/kg	
85-01-8	Phenanthrene	ND	33	11	ug/kg	
129-00-0	Pyrene	ND	33	11	ug/kg	
110-86-1	Pyridine	ND	67	11	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	67	8.7	ug/kg	

Method Blank Summary

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP20158-MB	P129342.D	1	05/06/19	CS	05/05/19	OP20158	EP5854

The QC reported here applies to the following samples: **Method:** SW846 8270D

JC87363-3

CAS No.	Surrogate Recoveries		Limits
367-12-4	2-Fluorophenol	84%	23-115%
4165-62-2	Phenol-d5	85%	27-114%
118-79-6	2,4,6-Tribromophenol	74%	19-152%
4165-60-0	Nitrobenzene-d5	87%	26-134%
321-60-8	2-Fluorobiphenyl	94%	39-124%
1718-51-0	Terphenyl-d14	90%	36-134%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	system artifact/aldol-condensation	2.40	450	ug/kg	J
	Total TIC, Semi-Volatile		0	ug/kg	

Method Blank Summary

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP20158-MB	F184461.D	1	05/06/19	AR	05/05/19	OP20158	EF7923

The QC reported here applies to the following samples: **Method:** SW846 8270D

JC87363-3

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic acid	ND	670	55	ug/kg	
95-57-8	2-Chlorophenol	ND	67	16	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	170	20	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	170	28	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	170	59	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	170	130	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	170	36	ug/kg	
95-48-7	2-Methylphenol	ND	67	21	ug/kg	
	3&4-Methylphenol	ND	67	27	ug/kg	
88-75-5	2-Nitrophenol	ND	170	22	ug/kg	
100-02-7	4-Nitrophenol	ND	330	89	ug/kg	
87-86-5	Pentachlorophenol	ND	130	31	ug/kg	
108-95-2	Phenol	ND	67	17	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	170	25	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	170	20	ug/kg	
83-32-9	Acenaphthene	ND	33	11	ug/kg	
208-96-8	Acenaphthylene	ND	33	17	ug/kg	
62-53-3	Aniline	ND	67	15	ug/kg	
120-12-7	Anthracene	ND	33	20	ug/kg	
92-87-5	Benzidine	ND	330	58	ug/kg	
56-55-3	Benzo(a)anthracene	ND	33	9.4	ug/kg	
50-32-8	Benzo(a)pyrene	ND	33	15	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	33	15	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	33	17	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	33	16	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	67	13	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	67	8.1	ug/kg	
100-51-6	Benzyl Alcohol	ND	67	12	ug/kg	
91-58-7	2-Chloronaphthalene	ND	67	7.9	ug/kg	
106-47-8	4-Chloroaniline	ND	170	12	ug/kg	
86-74-8	Carbazole	ND	67	4.8	ug/kg	
218-01-9	Chrysene	ND	33	10	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	67	7.1	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	67	14	ug/kg	
108-60-1	2,2'-Oxybis(1-chloropropane)	ND	67	12	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	67	11	ug/kg	

Method Blank Summary

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP20158-MB	F184461.D	1	05/06/19	AR	05/05/19	OP20158	EF7923

The QC reported here applies to the following samples: **Method:** SW846 8270D

JC87363-3

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	67	9.6	ug/kg	
122-66-7	1,2-Diphenylhydrazine	ND	67	7.6	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	67	7.1	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	67	8.1	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	33	10	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	33	17	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	67	28	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	33	15	ug/kg	
132-64-9	Dibenzofuran	ND	67	14	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	67	5.4	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	67	8.3	ug/kg	
84-66-2	Diethyl phthalate	ND	67	7.1	ug/kg	
131-11-3	Dimethyl phthalate	ND	67	5.9	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	67	7.8	ug/kg	
206-44-0	Fluoranthene	ND	33	15	ug/kg	
86-73-7	Fluorene	ND	33	15	ug/kg	
118-74-1	Hexachlorobenzene	ND	67	8.4	ug/kg	
87-68-3	Hexachlorobutadiene	ND	33	13	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	330	13	ug/kg	
67-72-1	Hexachloroethane	ND	170	16	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	33	16	ug/kg	
78-59-1	Isophorone	ND	67	7.1	ug/kg	
90-12-0	1-Methylnaphthalene	ND	33	6.5	ug/kg	
91-57-6	2-Methylnaphthalene	ND	33	7.5	ug/kg	
88-74-4	2-Nitroaniline	ND	170	7.9	ug/kg	
99-09-2	3-Nitroaniline	ND	170	8.3	ug/kg	
100-01-6	4-Nitroaniline	ND	170	8.6	ug/kg	
91-20-3	Naphthalene	ND	33	9.4	ug/kg	
98-95-3	Nitrobenzene	ND	67	13	ug/kg	
62-75-9	n-Nitrosodimethylamine	ND	67	12	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	67	9.6	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	170	12	ug/kg	
85-01-8	Phenanthrene	ND	33	11	ug/kg	
129-00-0	Pyrene	ND	33	11	ug/kg	
110-86-1	Pyridine	ND	67	11	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	67	8.7	ug/kg	

Method Blank Summary

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP20158-MB	F184461.D	1	05/06/19	AR	05/05/19	OP20158	EF7923

The QC reported here applies to the following samples: **Method:** SW846 8270D

JC87363-3

CAS No.	Surrogate Recoveries		Limits
367-12-4	2-Fluorophenol	87%	23-115%
4165-62-2	Phenol-d5	83%	27-114%
118-79-6	2,4,6-Tribromophenol	71%	19-152%
4165-60-0	Nitrobenzene-d5	81%	26-134%
321-60-8	2-Fluorobiphenyl	83%	39-124%
1718-51-0	Terphenyl-d14	99%	36-134%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	system artifact	2.81	260	ug/kg	J
	system artifact/aldol-condensation	3.20	590	ug/kg	J
	Total TIC, Semi-Volatile		0	ug/kg	

Blank Spike Summary

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP20158-BS	M154078.D	1	05/06/19	CB	05/05/19	OP20158	EM6583

The QC reported here applies to the following samples: **Method:** SW846 8270D

JC87363-3

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
65-85-0	Benzoic acid	1670	1770	106	37-139
95-57-8	2-Chlorophenol	1670	1300	78	44-122
59-50-7	4-Chloro-3-methyl phenol	1670	1300	78	50-123
120-83-2	2,4-Dichlorophenol	1670	1460	88	48-122
105-67-9	2,4-Dimethylphenol	1670	1600	96	48-124
51-28-5	2,4-Dinitrophenol	3330	3720	112	34-146
534-52-1	4,6-Dinitro-o-cresol	1670	1670	100	49-140
95-48-7	2-Methylphenol	1670	1350	81	40-126
	3&4-Methylphenol	1670	1370	82	40-127
88-75-5	2-Nitrophenol	1670	1660	100	44-133
100-02-7	4-Nitrophenol	1670	1090	65	35-153
87-86-5	Pentachlorophenol	1670	1850	111	15-149
108-95-2	Phenol	1670	1130	68	50-109
95-95-4	2,4,5-Trichlorophenol	1670	1570	94	45-124
88-06-2	2,4,6-Trichlorophenol	1670	1640	98	57-122
83-32-9	Acenaphthene	1670	1470	88	53-119
208-96-8	Acenaphthylene	1670	1460	88	41-125
62-53-3	Aniline	1670	1080	65	10-132
120-12-7	Anthracene	1670	1420	85	51-120
92-87-5	Benzidine	3330	1020	31	10-136
56-55-3	Benzo(a)anthracene	1670	1270	76	54-118
50-32-8	Benzo(a)pyrene	1670	1400	84	55-121
205-99-2	Benzo(b)fluoranthene	1670	1360	82	57-116
191-24-2	Benzo(g,h,i)perylene	1670	1440	86	40-124
207-08-9	Benzo(k)fluoranthene	1670	1270	76	59-116
101-55-3	4-Bromophenyl phenyl ether	1670	1420	85	60-122
85-68-7	Butyl benzyl phthalate	1670	1320	79	51-134
100-51-6	Benzyl Alcohol	1670	1370	82	43-125
91-58-7	2-Chloronaphthalene	1670	1410	85	49-120
106-47-8	4-Chloroaniline	1670	963	58	10-115
86-74-8	Carbazole	1670	1350	81	52-124
218-01-9	Chrysene	1670	1230	74	51-115
111-91-1	bis(2-Chloroethoxy)methane	1670	1360	82	36-131
111-44-4	bis(2-Chloroethyl)ether	1670	1170	70	41-131
108-60-1	2,2'-Oxybis(1-chloropropane)	1670	1400	84	22-134
7005-72-3	4-Chlorophenyl phenyl ether	1670	1440	86	56-118

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP20158-BS	M154078.D	1	05/06/19	CB	05/05/19	OP20158	EM6583

The QC reported here applies to the following samples: **Method:** SW846 8270D

JC87363-3

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
95-50-1	1,2-Dichlorobenzene	1670	1270	76	41-124
122-66-7	1,2-Diphenylhydrazine	1670	1280	77	46-135
541-73-1	1,3-Dichlorobenzene	1670	1210	73	36-126
106-46-7	1,4-Dichlorobenzene	1670	1340	80	40-124
121-14-2	2,4-Dinitrotoluene	1670	1540	92	57-131
606-20-2	2,6-Dinitrotoluene	1670	1770	106	57-132
91-94-1	3,3'-Dichlorobenzidine	3330	2670	80	10-129
53-70-3	Dibenzo(a,h)anthracene	1670	1390	83	48-121
132-64-9	Dibenzofuran	1670	1410	85	51-119
84-74-2	Di-n-butyl phthalate	1670	1440	86	59-125
117-84-0	Di-n-octyl phthalate	1670	1300	78	47-147
84-66-2	Diethyl phthalate	1670	1390	83	57-116
131-11-3	Dimethyl phthalate	1670	1430	86	56-116
117-81-7	bis(2-Ethylhexyl)phthalate	1670	1280	77	53-133
206-44-0	Fluoranthene	1670	1380	83	58-117
86-73-7	Fluorene	1670	1490	89	56-114
118-74-1	Hexachlorobenzene	1670	1520	91	50-128
87-68-3	Hexachlorobutadiene	1670	1400	84	43-129
77-47-4	Hexachlorocyclopentadiene	3330	3430	103	15-140
67-72-1	Hexachloroethane	1670	1290	77	43-123
193-39-5	Indeno(1,2,3-cd)pyrene	1670	1360	82	49-124
78-59-1	Isophorone	1670	1340	80	38-128
90-12-0	1-Methylnaphthalene	1670	1280	77	32-125
91-57-6	2-Methylnaphthalene	1670	1370	82	37-124
88-74-4	2-Nitroaniline	1670	1380	83	45-144
99-09-2	3-Nitroaniline	1670	1250	75	10-134
100-01-6	4-Nitroaniline	1670	1510	91	41-130
91-20-3	Naphthalene	1670	1490	89	44-116
98-95-3	Nitrobenzene	1670	1260	76	36-132
62-75-9	n-Nitrosodimethylamine	1670	996	60	17-136
621-64-7	N-Nitroso-di-n-propylamine	1670	1300	78	38-125
86-30-6	N-Nitrosodiphenylamine	1670	1420	85	51-122
85-01-8	Phenanthrene	1670	1510	91	53-119
129-00-0	Pyrene	1670	1270	76	54-124
110-86-1	Pyridine	1670	808	48	10-125
120-82-1	1,2,4-Trichlorobenzene	1670	1400	84	42-122

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP20158-BS	M154078.D	1	05/06/19	CB	05/05/19	OP20158	EM6583

The QC reported here applies to the following samples: **Method:** SW846 8270D

JC87363-3

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	68%	23-115%
4165-62-2	Phenol-d5	69%	27-114%
118-79-6	2,4,6-Tribromophenol	109%	19-152%
4165-60-0	Nitrobenzene-d5	73%	26-134%
321-60-8	2-Fluorobiphenyl	83%	39-124%
1718-51-0	Terphenyl-d14	81%	36-134%

8.2.1

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* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP20158-MS	M154086.D	1	05/06/19	CB	05/05/19	OP20158	EM6583
OP20158-MSD	M154087.D	1	05/06/19	CB	05/05/19	OP20158	EM6583
JC87361-5	M154085.D	1	05/06/19	CB	05/05/19	OP20158	EM6583

The QC reported here applies to the following samples: **Method:** SW846 8270D

JC87363-3

CAS No.	Compound	JC87361-5 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	Spike ug/kg	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
65-85-0	Benzoic acid	ND		2110	560	27	2060	402	19	33	10-150/50
95-57-8	2-Chlorophenol	ND		2110	1500	71	2060	1560	76	4	10-137/34
59-50-7	4-Chloro-3-methyl phenol	ND		2110	1540	73	2060	1520	74	1	11-147/35
120-83-2	2,4-Dichlorophenol	ND		2110	1770	84	2060	1760	85	1	15-140/34
105-67-9	2,4-Dimethylphenol	ND		2110	1890	89	2060	1910	93	1	10-151/34
51-28-5	2,4-Dinitrophenol	ND		4220	2720	64	4130	2890	70	6	10-148/49
534-52-1	4,6-Dinitro-o-cresol	ND		2110	1550	73	2060	1570	76	1	10-150/48
95-48-7	2-Methylphenol	ND		2110	1590	75	2060	1610	78	1	10-138/33
	3&4-Methylphenol	ND		2110	1610	76	2060	1640	79	2	10-143/33
88-75-5	2-Nitrophenol	ND		2110	1960	93	2060	2000	97	2	10-150/39
100-02-7	4-Nitrophenol	ND		2110	1230	58	2060	1280	62	4	10-163/38
87-86-5	Pentachlorophenol	ND		2110	1730	82	2060	1750	85	1	10-148/39
108-95-2	Phenol	ND		2110	1340	63	2060	1400	68	4	24-114/32
95-95-4	2,4,5-Trichlorophenol	ND		2110	1820	86	2060	1900	92	4	10-146/36
88-06-2	2,4,6-Trichlorophenol	ND		2110	1830	87	2060	1900	92	4	16-148/36
83-32-9	Acenaphthene	ND		2110	1770	84	2060	1860	90	5	21-136/34
208-96-8	Acenaphthylene	ND		2110	1750	83	2060	1840	89	5	10-143/36
62-53-3	Aniline	ND		2110	1230	58	2060	1230	60	0	10-110/50
120-12-7	Anthracene	ND		2110	1770	84	2060	1820	88	3	10-147/39
92-87-5	Benzidine	ND		4220	1380	33	4130	1330	32	4	10-149/50
56-55-3	Benzo(a)anthracene	ND		2110	1560	74	2060	1610	78	3	10-151/41
50-32-8	Benzo(a)pyrene	ND		2110	1680	80	2060	1720	83	2	10-149/40
205-99-2	Benzo(b)fluoranthene	ND		2110	1640	78	2060	1670	81	2	10-147/42
191-24-2	Benzo(g,h,i)perylene	ND		2110	1700	81	2060	1750	85	3	10-150/41
207-08-9	Benzo(k)fluoranthene	ND		2110	1480	70	2060	1570	76	6	12-142/41
101-55-3	4-Bromophenyl phenyl ether	ND		2110	1710	81	2060	1800	87	5	26-138/37
85-68-7	Butyl benzyl phthalate	ND		2110	1640	78	2060	1690	82	3	24-143/36
100-51-6	Benzyl Alcohol	ND		2110	1630	77	2060	1670	81	2	13-143/33
91-58-7	2-Chloronaphthalene	ND		2110	1710	81	2060	1800	87	5	24-130/31
106-47-8	4-Chloroaniline	ND		2110	1270	60	2060	1180	57	7	10-111/52
86-74-8	Carbazole	ND		2110	1670	79	2060	1690	82	1	12-146/39
218-01-9	Chrysene	ND		2110	1530	72	2060	1570	76	3	10-151/41
111-91-1	bis(2-Chloroethoxy)methane	ND		2110	1690	80	2060	1710	83	1	10-144/35
111-44-4	bis(2-Chloroethyl)ether	ND		2110	1420	67	2060	1490	72	5	12-142/35
108-60-1	2,2'-Oxybis(1-chloropropane)	ND		2110	1630	77	2060	1720	83	5	10-137/33
7005-72-3	4-Chlorophenyl phenyl ether	ND		2110	1730	82	2060	1800	87	4	21-136/35

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP20158-MS	M154086.D	1	05/06/19	CB	05/05/19	OP20158	EM6583
OP20158-MSD	M154087.D	1	05/06/19	CB	05/05/19	OP20158	EM6583
JC87361-5	M154085.D	1	05/06/19	CB	05/05/19	OP20158	EM6583

The QC reported here applies to the following samples: **Method:** SW846 8270D

JC87363-3

CAS No.	Compound	JC87361-5 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	Spike ug/kg	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
95-50-1	1,2-Dichlorobenzene	ND		2110	1520	72	2060	1570	76	3	11-134/31
122-66-7	1,2-Diphenylhydrazine	ND		2110	1610	76	2060	1690	82	5	20-144/34
541-73-1	1,3-Dichlorobenzene	ND		2110	1450	69	2060	1510	73	4	10-140/31
106-46-7	1,4-Dichlorobenzene	ND		2110	1600	76	2060	1650	80	3	10-139/31
121-14-2	2,4-Dinitrotoluene	ND		2110	1840	87	2060	1980	96	7	14-148/41
606-20-2	2,6-Dinitrotoluene	ND		2110	2180	103	2060	2240	109	3	14-152/40
91-94-1	3,3'-Dichlorobenzidine	ND		4220	3370	80	4130	3390	82	1	10-137/47
53-70-3	Dibenzo(a,h)anthracene	ND		2110	1670	79	2060	1660	80	1	10-152/38
132-64-9	Dibenzofuran	ND		2110	1690	80	2060	1710	83	1	17-141/36
84-74-2	Di-n-butyl phthalate	ND		2110	1770	84	2060	1850	90	4	26-137/35
117-84-0	Di-n-octyl phthalate	ND		2110	1590	75	2060	1630	79	2	23-145/36
84-66-2	Diethyl phthalate	ND		2110	1700	81	2060	1810	88	6	25-133/35
131-11-3	Dimethyl phthalate	ND		2110	1720	81	2060	1790	87	4	21-134/36
117-81-7	bis(2-Ethylhexyl)phthalate	ND		2110	1610	76	2060	1630	79	1	26-144/39
206-44-0	Fluoranthene	ND		2110	1660	79	2060	1740	84	5	10-151/44
86-73-7	Fluorene	ND		2110	1790	85	2060	1880	91	5	19-133/36
118-74-1	Hexachlorobenzene	ND		2110	1800	85	2060	1870	91	4	18-142/37
87-68-3	Hexachlorobutadiene	ND		2110	1610	76	2060	1690	82	5	16-137/32
77-47-4	Hexachlorocyclopentadiene	ND		4220	3530	84	4130	3710	90	5	10-150/50
67-72-1	Hexachloroethane	ND		2110	1490	71	2060	1570	76	5	10-131/38
193-39-5	Indeno(1,2,3-cd)pyrene	ND		2110	1590	75	2060	1630	79	2	10-148/41
78-59-1	Isophorone	ND		2110	1630	77	2060	1690	82	4	11-142/33
90-12-0	1-Methylnaphthalene	ND		2110	1580	75	2060	1610	78	2	10-144/35
91-57-6	2-Methylnaphthalene	ND		2110	1640	78	2060	1610	78	2	10-141/35
88-74-4	2-Nitroaniline	ND		2110	1680	80	2060	1810	88	7	14-156/38
99-09-2	3-Nitroaniline	ND		2110	1650	78	2060	1700	82	3	10-144/45
100-01-6	4-Nitroaniline	ND		2110	1860	88	2060	1890	92	2	10-156/44
91-20-3	Naphthalene	ND		2110	1820	86	2060	1890	92	4	10-136/36
98-95-3	Nitrobenzene	ND		2110	1520	72	2060	1580	77	4	10-142/34
62-75-9	n-Nitrosodimethylamine	ND		2110	1170	55	2060	1240	60	6	10-139/37
621-64-7	N-Nitroso-di-n-propylamine	ND		2110	1530	72	2060	1620	78	6	10-142/31
86-30-6	N-Nitrosodiphenylamine	ND		2110	1770	84	2060	1860	90	5	10-156/37
85-01-8	Phenanthrene	ND		2110	1860	88	2060	1950	94	5	11-145/45
129-00-0	Pyrene	ND		2110	1560	74	2060	1610	78	3	11-155/44
110-86-1	Pyridine	ND		2110	962	46	2060	880	43	9	10-110/42
120-82-1	1,2,4-Trichlorobenzene	ND		2110	1680	80	2060	1730	84	3	12-135/33

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP20158-MS	M154086.D	1	05/06/19	CB	05/05/19	OP20158	EM6583
OP20158-MSD	M154087.D	1	05/06/19	CB	05/05/19	OP20158	EM6583
JC87361-5	M154085.D	1	05/06/19	CB	05/05/19	OP20158	EM6583

The QC reported here applies to the following samples: **Method:** SW846 8270D

JC87363-3

CAS No.	Surrogate Recoveries	MS	MSD	JC87361-5	Limits
367-12-4	2-Fluorophenol	66%	71%		23-115%
4165-62-2	Phenol-d5	67%	71%		27-114%
118-79-6	2,4,6-Tribromophenol	106%	114%		19-152%
4165-60-0	Nitrobenzene-d5	73%	77%	72%	26-134%
321-60-8	2-Fluorobiphenyl	81%	87%	76%	39-124%
1718-51-0	Terphenyl-d14	82%	86%	64%	36-134%

* = Outside of Control Limits.

Instrument Performance Check (DFTPP)

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample: EF7873-DFTPP
Lab File ID: F183413.D
Instrument ID: GCMSF
Injection Date: 03/25/19
Injection Time: 11:35

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	12426	55.0		Pass
68	Less than 2.0% of mass 69	0	0.00	(0.00) [a]	Pass
69	Mass 69 relative abundance	13154	58.2		Pass
70	Less than 2.0% of mass 69	109	0.48	(0.83) [a]	Pass
127	40.0 - 60.0% of mass 198	12599	55.8		Pass
197	Less than 1.0% of mass 198	0	0.00		Pass
198	Base peak, 100% relative abundance	22587	100.0		Pass
199	5.0 - 9.0% of mass 198	1597	7.07		Pass
275	10.0 - 30.0% of mass 198	5418	24.0		Pass
365	1.0 - 100.0% of mass 198	761	3.37		Pass
441	Present, but less than mass 443	2608	11.5	(84.7) [b]	Pass
442	40.0 - 100.0% of mass 198	16385	72.5		Pass
443	17.0 - 23.0% of mass 442	3078	13.6	(18.8) [c]	Pass

(a) Value is % of mass 69
(b) Value is % of mass 443
(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
EF7873-IC7873	F183414.D	03/25/19	12:08	00:33	Initial cal 1
EF7873-IC7873	F183415.D	03/25/19	12:51	01:16	Initial cal 100
EF7873-IC7873	F183416.D	03/25/19	13:18	01:43	Initial cal 2
EF7873-IC7873	F183417.D	03/25/19	13:44	02:09	Initial cal 80
EF7873-IC7873	F183418.D	03/25/19	14:11	02:36	Initial cal 5
EF7873-ICC7873	F183419.D	03/25/19	14:38	03:03	Initial cal 50
EF7873-IC7873	F183420.D	03/25/19	15:04	03:29	Initial cal 10
EF7873-IC7873	F183422.D	03/25/19	15:58	04:23	Initial cal 25
EF7873-ICV7873	F183424.D	03/25/19	16:51	05:16	Initial cal verification 50
EF7873-ICV7873	F183428.D	03/25/19	18:38	07:03	Initial cal verification 50

Instrument Performance Check (DFTPP)

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample:	EF7874-DFTPP	**Injection Date:**	03/25/19
Lab File ID:	F183429.D	**Injection Time:**	19:01
Instrument ID:	GCMSF		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	8291	49.7		Pass
68	Less than 2.0% of mass 69	0	0.00	(0.00) [a]	Pass
69	Mass 69 relative abundance	8550	51.2		Pass
70	Less than 2.0% of mass 69	0	0.00	(0.00) [a]	Pass
127	40.0 - 60.0% of mass 198	8593	51.5		Pass
197	Less than 1.0% of mass 198	0	0.00		Pass
198	Base peak, 100% relative abundance	16697	100.0		Pass
199	5.0 - 9.0% of mass 198	1093	6.55		Pass
275	10.0 - 30.0% of mass 198	4522	27.1		Pass
365	1.0 - 100.0% of mass 198	709	4.25		Pass
441	Present, but less than mass 443	1922	11.5	(78.5) [b]	Pass
442	40.0 - 100.0% of mass 198	13657	81.8		Pass
443	17.0 - 23.0% of mass 442	2448	14.7	(17.9) [c]	Pass

(a) Value is % of mass 69
(b) Value is % of mass 443
(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
EF7874-IC7874	F183430.D	03/25/19	19:13	00:12	Initial cal 100
EF7874-IC7874	F183431.D	03/25/19	19:40	00:39	Initial cal 80
EF7874-ICC7874	F183432.D	03/25/19	20:07	01:06	Initial cal 50
EF7874-IC7874	F183433.D	03/25/19	20:33	01:32	Initial cal 25
EF7874-IC7874	F183434.D	03/25/19	21:00	01:59	Initial cal 10
EF7874-IC7874	F183435.D	03/25/19	21:27	02:26	Initial cal 5
EF7874-IC7874	F183436.D	03/25/19	21:53	02:52	Initial cal 2
EF7874-IC7874	F183437.D	03/25/19	22:20	03:19	Initial cal 1
EF7874-ICV7874	F183438.D	03/25/19	22:46	03:45	Initial cal verification 50
EF7874-ICV7874	F183439.D	03/25/19	23:13	04:12	Initial cal verification 50

Instrument Performance Check (DFTPP)

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample:	EF7875-DFTPP	**Injection Date:**	03/25/19
Lab File ID:	F183440.D	**Injection Time:**	23:36
Instrument ID:	GCMSF		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	8366	55.3		Pass
68	Less than 2.0% of mass 69	156	1.03	(1.97) [a]	Pass
69	Mass 69 relative abundance	7926	52.4		Pass
70	Less than 2.0% of mass 69	0	0.00	(0.00) [a]	Pass
127	40.0 - 60.0% of mass 198	8117	53.7		Pass
197	Less than 1.0% of mass 198	0	0.00		Pass
198	Base peak, 100% relative abundance	15127	100.0		Pass
199	5.0 - 9.0% of mass 198	1040	6.88		Pass
275	10.0 - 30.0% of mass 198	3850	25.5		Pass
365	1.0 - 100.0% of mass 198	495	3.27		Pass
441	Present, but less than mass 443	1899	12.6	(89.4) [b]	Pass
442	40.0 - 100.0% of mass 198	11115	73.5		Pass
443	17.0 - 23.0% of mass 442	2124	14.0	(19.1) [c]	Pass

(a) Value is % of mass 69
(b) Value is % of mass 443
(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
EF7875-IC7875	F183441.D	03/25/19	23:48	00:12	Initial cal 100
EF7875-IC7875	F183442.D	03/26/19	00:14	00:38	Initial cal 80
EF7875-ICC7875	F183443.D	03/26/19	00:41	01:05	Initial cal 50
EF7875-IC7875	F183444.D	03/26/19	01:07	01:31	Initial cal 25
EF7875-IC7875	F183445.D	03/26/19	01:34	01:58	Initial cal 10
EF7875-IC7875	F183446.D	03/26/19	02:01	02:25	Initial cal 5
EF7875-IC7875	F183447.D	03/26/19	02:27	02:51	Initial cal 2
EF7875-ICV7875	F183449.D	03/26/19	03:20	03:44	Initial cal verification 50

Instrument Performance Check (DFTPP)

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample:	EF7876-DFTPP	**Injection Date:**	03/26/19
Lab File ID:	F183451.D	**Injection Time:**	16:44
Instrument ID:	GCMSF		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	9045	56.1		Pass
68	Less than 2.0% of mass 69	135	0.84	(1.50) [a]	Pass
69	Mass 69 relative abundance	8978	55.7		Pass
70	Less than 2.0% of mass 69	0	0.00	(0.00) [a]	Pass
127	40.0 - 60.0% of mass 198	9066	56.3		Pass
197	Less than 1.0% of mass 198	0	0.00		Pass
198	Base peak, 100% relative abundance	16113	100.0		Pass
199	5.0 - 9.0% of mass 198	1102	6.84		Pass
275	10.0 - 30.0% of mass 198	4071	25.3		Pass
365	1.0 - 100.0% of mass 198	472	2.93		Pass
441	Present, but less than mass 443	1690	10.5	(87.0) [b]	Pass
442	40.0 - 100.0% of mass 198	10834	67.2		Pass
443	17.0 - 23.0% of mass 442	1942	12.1	(17.9) [c]	Pass

(a) Value is % of mass 69
(b) Value is % of mass 443
(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
EF7876-ICV7873	F183455.D	03/26/19	18:16	01:32	Initial cal verification 50
EF7876-ICV7873	F183456.D	03/26/19	18:42	01:58	Initial cal verification 50

Instrument Performance Check (DFTPP)

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample:	EF7877-DFTPP	**Injection Date:**	03/27/19
Lab File ID:	F183457.D	**Injection Time:**	11:19
Instrument ID:	GCMSF		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	9207	51.5		Pass
68	Less than 2.0% of mass 69	0	0.00	(0.00) [a]	Pass
69	Mass 69 relative abundance	9168	51.2		Pass
70	Less than 2.0% of mass 69	0	0.00	(0.00) [a]	Pass
127	40.0 - 60.0% of mass 198	9804	54.8		Pass
197	Less than 1.0% of mass 198	0	0.00		Pass
198	Base peak, 100% relative abundance	17890	100.0		Pass
199	5.0 - 9.0% of mass 198	1356	7.58		Pass
275	10.0 - 30.0% of mass 198	4698	26.3		Pass
365	1.0 - 100.0% of mass 198	608	3.40		Pass
441	Present, but less than mass 443	1981	11.1	(83.1) [b]	Pass
442	40.0 - 100.0% of mass 198	13553	75.8		Pass
443	17.0 - 23.0% of mass 442	2385	13.3	(17.6) [c]	Pass

(a) Value is % of mass 69
(b) Value is % of mass 443
(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
EF7877-ICV7873	F183458.D	03/27/19	11:47	00:28	Initial cal verification 50
EF7877-ICV7873	F183459.D	03/27/19	12:13	00:54	Initial cal verification 50

Instrument Performance Check (DFTPP)

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample:	EF7923-DFTPP	**Injection Date:**	05/06/19
Lab File ID:	F184451.D	**Injection Time:**	09:19
Instrument ID:	GCMSF		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	11072	51.2		Pass
68	Less than 2.0% of mass 69	78	0.36	(0.71) [a]	Pass
69	Mass 69 relative abundance	11031	51.0		Pass
70	Less than 2.0% of mass 69	51	0.24	(0.46) [a]	Pass
127	40.0 - 60.0% of mass 198	11799	54.6		Pass
197	Less than 1.0% of mass 198	0	0.00		Pass
198	Base peak, 100% relative abundance	21626	100.0		Pass
199	5.0 - 9.0% of mass 198	1473	6.81		Pass
275	10.0 - 30.0% of mass 198	4632	21.4		Pass
365	1.0 - 100.0% of mass 198	648	3.00		Pass
441	Present, but less than mass 443	1604	7.42	(72.8) [b]	Pass
442	40.0 - 100.0% of mass 198	11184	51.7		Pass
443	17.0 - 23.0% of mass 442	2202	10.2	(19.7) [c]	Pass

(a) Value is % of mass 69
(b) Value is % of mass 443
(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
EF7923-CC7873	F184453.D	05/06/19	09:57	00:38	Continuing cal 50
EF7923-CC7874	F184454.D	05/06/19	10:24	01:05	Continuing cal 50
EF7923-CC7875	F184455.D	05/06/19	10:52	01:33	Continuing cal 50
OP19637-MB2	F184456.D	05/06/19	11:19	02:00	Method Blank
ZZZZZZ	F184457.D	05/06/19	11:46	02:27	(unrelated sample)
ZZZZZZ	F184458.D	05/06/19	12:13	02:54	(unrelated sample)
ZZZZZZ	F184459.D	05/06/19	12:40	03:21	(unrelated sample)
OP20153-MB1	F184460.D	05/06/19	13:07	03:48	Method Blank
OP20158-MB	F184461.D	05/06/19	13:34	04:15	Method Blank
ZZZZZZ	F184462.D	05/06/19	14:01	04:42	(unrelated sample)
ZZZZZZ	F184463.D	05/06/19	14:28	05:09	(unrelated sample)
ZZZZZZ	F184464.D	05/06/19	14:55	05:36	(unrelated sample)
ZZZZZZ	F184465.D	05/06/19	15:22	06:03	(unrelated sample)
ZZZZZZ	F184466.D	05/06/19	15:49	06:30	(unrelated sample)
JC87363-3	F184467.D	05/06/19	16:16	06:57	SIL05
ZZZZZZ	F184468.D	05/06/19	16:43	07:24	(unrelated sample)

Instrument Performance Check (DFTPP)

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample: EM6556-DFTPP
Lab File ID: M153400.D
Instrument ID: GCMSM
Injection Date: 04/12/19
Injection Time: 16:58

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	83353	36.5		Pass
68	Less than 2.0% of mass 69	0	0.00	(0.00) [a]	Pass
69	Mass 69 relative abundance	109417	47.9		Pass
70	Less than 2.0% of mass 69	587	0.26	(0.54) [a]	Pass
127	40.0 - 60.0% of mass 198	110333	48.3		Pass
197	Less than 1.0% of mass 198	0	0.00		Pass
198	Base peak, 100% relative abundance	228245	100.0		Pass
199	5.0 - 9.0% of mass 198	15342	6.72		Pass
275	10.0 - 30.0% of mass 198	60088	26.3		Pass
365	1.0 - 100.0% of mass 198	7944	3.48		Pass
441	Present, but less than mass 443	22441	9.83	(76.7) [b]	Pass
442	40.0 - 100.0% of mass 198	151640	66.4		Pass
443	17.0 - 23.0% of mass 442	29258	12.8	(19.3) [c]	Pass

(a) Value is % of mass 69
(b) Value is % of mass 443
(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
EM6556-IC6556	M153401A.D	04/12/19	17:56	00:58	Initial cal 100
EM6556-IC6556	M153402.D	04/12/19	18:24	01:26	Initial cal 80
EM6556-ICC6556	M153403.D	04/12/19	18:53	01:55	Initial cal 50
EM6556-IC6556	M153404.D	04/12/19	19:21	02:23	Initial cal 25
EM6556-IC6556	M153405.D	04/12/19	19:49	02:51	Initial cal 10
EM6556-IC6556	M153406.D	04/12/19	20:18	03:20	Initial cal 5
EM6556-IC6556	M153407.D	04/12/19	20:46	03:48	Initial cal 2
EM6556-IC6556	M153408.D	04/12/19	21:15	04:17	Initial cal 1
EM6556-ICV6556	M153409.D	04/12/19	21:43	04:45	Initial cal verification 50
EM6556-ICV6556	M153410.D	04/12/19	22:12	05:14	Initial cal verification 50
EM6556-ICV6556	M153411.D	04/12/19	22:40	05:42	Initial cal verification 50
EM6556-ICV6556	M153413.D	04/12/19	23:37	06:39	Initial cal verification 50
EM6556-ICV6556	M153414.D	04/13/19	00:06	07:08	Initial cal verification 50

Instrument Performance Check (DFTPP)

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample:	EM6557-DFTPP	**Injection Date:**	04/13/19
Lab File ID:	M153419.D	**Injection Time:**	01:19
Instrument ID:	GCMSM		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	79824	32.2		Pass
68	Less than 2.0% of mass 69	1315	0.53	(1.36) [a]	Pass
69	Mass 69 relative abundance	96837	39.1		Pass
70	Less than 2.0% of mass 69	513	0.21	(0.53) [a]	Pass
127	40.0 - 60.0% of mass 198	111752	45.1		Pass
197	Less than 1.0% of mass 198	0	0.00		Pass
198	Base peak, 100% relative abundance	247893	100.0		Pass
199	5.0 - 9.0% of mass 198	17598	7.10		Pass
275	10.0 - 30.0% of mass 198	63149	25.5		Pass
365	1.0 - 100.0% of mass 198	8195	3.31		Pass
441	Present, but less than mass 443	21483	8.67	(80.5) [b]	Pass
442	40.0 - 100.0% of mass 198	138565	55.9		Pass
443	17.0 - 23.0% of mass 442	26703	10.8	(19.3) [c]	Pass

(a) Value is % of mass 69
(b) Value is % of mass 443
(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
EM6557-IC6557	M153420.D	04/13/19	01:52	00:33	Initial cal 100
EM6557-IC6557	M153421.D	04/13/19	02:20	01:01	Initial cal 80
EM6557-ICC6557	M153422.D	04/13/19	02:49	01:30	Initial cal 50
EM6557-IC6557	M153423.D	04/13/19	03:17	01:58	Initial cal 25
EM6557-IC6557	M153424.D	04/13/19	03:46	02:27	Initial cal 10
EM6557-IC6557	M153425.D	04/13/19	04:14	02:55	Initial cal 5
EM6557-IC6557	M153426.D	04/13/19	04:42	03:23	Initial cal 2
EM6557-IC6557	M153427.D	04/13/19	05:11	03:52	Initial cal 1

Instrument Performance Check (DFTPP)

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample: EM6558-DFTPP
Lab File ID: M153431.D
Instrument ID: GCMSM
Injection Date: 04/14/19
Injection Time: 14:31

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	99360	32.8		Pass
68	Less than 2.0% of mass 69	1999	0.66	(1.64) [a]	Pass
69	Mass 69 relative abundance	121985	40.2		Pass
70	Less than 2.0% of mass 69	727	0.24	(0.60) [a]	Pass
127	40.0 - 60.0% of mass 198	139984	46.2		Pass
197	Less than 1.0% of mass 198	0	0.00		Pass
198	Base peak, 100% relative abundance	303253	100.0		Pass
199	5.0 - 9.0% of mass 198	20557	6.78		Pass
275	10.0 - 30.0% of mass 198	74381	24.5		Pass
365	1.0 - 100.0% of mass 198	9225	3.04		Pass
441	Present, but less than mass 443	24993	8.24	(75.9) [b]	Pass
442	40.0 - 100.0% of mass 198	162856	53.7		Pass
443	17.0 - 23.0% of mass 442	32909	10.9	(20.2) [c]	Pass

(a) Value is % of mass 69
(b) Value is % of mass 443
(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
EM6558-IC6558	M153432.D	04/14/19	14:42	00:11	Initial cal 100
EM6558-IC6558	M153433.D	04/14/19	15:11	00:40	Initial cal 80
EM6558-ICC6558	M153434.D	04/14/19	15:39	01:08	Initial cal 50
EM6558-IC6558	M153435.D	04/14/19	16:08	01:37	Initial cal 25
EM6558-IC6558	M153436.D	04/14/19	16:37	02:06	Initial cal 10
EM6558-IC6558	M153437.D	04/14/19	17:05	02:34	Initial cal 5
EM6558-IC6558	M153438.D	04/14/19	17:34	03:03	Initial cal 2
EM6558-IC6558	M153439.D	04/14/19	18:02	03:31	Initial cal 1
EM6558-ICV6558	M153440.D	04/14/19	18:31	04:00	Initial cal verification 50
EM6557-ICV6557	M153441.D	04/14/19	19:00	04:29	Initial cal verification 50
EM6557-ICV6557	M153442.D	04/14/19	19:28	04:57	Initial cal verification 50

Instrument Performance Check (DFTPP)

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample: EM6559-DFTPP
Lab File ID: M153443.D
Instrument ID: GCMSM
Injection Date: 04/15/19
Injection Time: 13:54

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	75686	33.3		Pass
68	Less than 2.0% of mass 69	1135	0.50	(1.18) [a]	Pass
69	Mass 69 relative abundance	96290	42.4		Pass
70	Less than 2.0% of mass 69	481	0.21	(0.50) [a]	Pass
127	40.0 - 60.0% of mass 198	109790	48.4		Pass
197	Less than 1.0% of mass 198	521	0.23		Pass
198	Base peak, 100% relative abundance	227010	100.0		Pass
199	5.0 - 9.0% of mass 198	15330	6.75		Pass
275	10.0 - 30.0% of mass 198	54288	23.9		Pass
365	1.0 - 100.0% of mass 198	6995	3.08		Pass
441	Present, but less than mass 443	17393	7.66	(73.0) [b]	Pass
442	40.0 - 100.0% of mass 198	120749	53.2		Pass
443	17.0 - 23.0% of mass 442	23826	10.5	(19.7) [c]	Pass

(a) Value is % of mass 69
(b) Value is % of mass 443
(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
EM6559-ICV6556	M153444.D	04/15/19	14:05	00:11	Initial cal verification 50
EM6559-CC6556	M153445.D	04/15/19	14:34	00:40	Continuing cal 50
EM6559-CC6557	M153446.D	04/15/19	15:02	01:08	Continuing cal 50
EM6559-CC6558	M153447.D	04/15/19	15:30	01:36	Continuing cal 50
OP19732-MB1	M153453.D	04/15/19	18:20	04:26	Method Blank
OP19732-BS1	M153454.D	04/15/19	18:49	04:55	Blank Spike
OP19732-BSD	M153455.D	04/15/19	19:17	05:23	Blank Spike Duplicate
ZZZZZZ	M153456.D	04/15/19	19:45	05:51	(unrelated sample)
ZZZZZZ	M153457.D	04/15/19	20:13	06:19	(unrelated sample)
ZZZZZZ	M153458.D	04/15/19	20:41	06:47	(unrelated sample)
ZZZZZZ	M153459.D	04/15/19	21:09	07:15	(unrelated sample)
JC86204-7	M153460.D	04/15/19	21:38	07:44	(used for QC only; not part of job JC87363)
OP19732-MS	M153461.D	04/15/19	22:06	08:12	Matrix Spike
OP19732-MSD	M153462.D	04/15/19	22:34	08:40	Matrix Spike Duplicate
ZZZZZZ	M153463.D	04/15/19	23:02	09:08	(unrelated sample)
ZZZZZZ	M153464.D	04/15/19	23:30	09:36	(unrelated sample)
ZZZZZZ	M153465.D	04/15/19	23:58	10:04	(unrelated sample)
ZZZZZZ	M153466.D	04/16/19	00:26	10:32	(unrelated sample)
ZZZZZZ	M153467.D	04/16/19	00:54	11:00	(unrelated sample)

Instrument Performance Check (DFTPP)

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample:	EM6559-DFTPP	**Injection Date:**	04/15/19
Lab File ID:	M153443.D	**Injection Time:**	13:54
Instrument ID:	GCMSM		

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
ZZZZZZ	M153468.D	04/16/19	01:22	11:28	(unrelated sample)

Instrument Performance Check (DFTPP)

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample:	EM6583-DFTPP	**Injection Date:**	05/05/19
Lab File ID:	M154069.D	**Injection Time:**	21:44
Instrument ID:	GCMSM		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	52570	31.2		Pass
68	Less than 2.0% of mass 69	0	0.00	(0.00) [a]	Pass
69	Mass 69 relative abundance	70911	42.1		Pass
70	Less than 2.0% of mass 69	362	0.21	(0.51) [a]	Pass
127	40.0 - 60.0% of mass 198	76655	45.5		Pass
197	Less than 1.0% of mass 198	0	0.00		Pass
198	Base peak, 100% relative abundance	168397	100.0		Pass
199	5.0 - 9.0% of mass 198	10853	6.44		Pass
275	10.0 - 30.0% of mass 198	46490	27.6		Pass
365	1.0 - 100.0% of mass 198	5398	3.21		Pass
441	Present, but less than mass 443	21537	12.8	(72.0) [b]	Pass
442	40.0 - 100.0% of mass 198	150898	89.6		Pass
443	17.0 - 23.0% of mass 442	29900	17.8	(19.8) [c]	Pass

(a) Value is % of mass 69
(b) Value is % of mass 443
(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
EM6583-CC6556	M154070.D	05/05/19	22:02	00:18	Continuing cal 25
EM6583-CC6557	M154071.D	05/05/19	22:30	00:46	Continuing cal 25
EM6583-CC6558	M154072.D	05/05/19	22:59	01:15	Continuing cal 25
OP20153-MB1	M154075.D	05/06/19	00:27	02:43	Method Blank
OP20158-MB	M154076.D	05/06/19	00:56	03:12	Method Blank
OP20153-BS1	M154077.D	05/06/19	01:24	03:40	Blank Spike
OP20158-BS	M154078.D	05/06/19	01:52	04:08	Blank Spike
ZZZZZZ	M154079.D	05/06/19	02:21	04:37	(unrelated sample)
ZZZZZZ	M154080.D	05/06/19	02:49	05:05	(unrelated sample)
ZZZZZZ	M154081.D	05/06/19	03:18	05:34	(unrelated sample)
ZZZZZZ	M154082.D	05/06/19	03:46	06:02	(unrelated sample)
ZZZZZZ	M154083.D	05/06/19	04:15	06:31	(unrelated sample)
ZZZZZZ	M154084.D	05/06/19	04:43	06:59	(unrelated sample)
JC87361-5	M154085.D	05/06/19	05:12	07:28	(used for QC only; not part of job JC87363)
OP20158-MS	M154086.D	05/06/19	05:40	07:56	Matrix Spike
OP20158-MSD	M154087.D	05/06/19	06:08	08:24	Matrix Spike Duplicate
ZZZZZZ	M154088.D	05/06/19	06:37	08:53	(unrelated sample)
ZZZZZZ	M154089.D	05/06/19	07:05	09:21	(unrelated sample)
ZZZZZZ	M154090.D	05/06/19	07:34	09:50	(unrelated sample)

Instrument Performance Check (DFTPP)

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample:	EM6583-DFTPP	**Injection Date:**	05/05/19
Lab File ID:	M154069.D	**Injection Time:**	21:44
Instrument ID:	GCMSM		

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
ZZZZZZ	M154093.D	05/06/19	08:02	10:18	(unrelated sample)
ZZZZZZ	M154094A.D	05/06/19	09:28	11:44	(unrelated sample)

Instrument Performance Check (DFTPP)

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample:	EP5844-DFTPP	**Injection Date:**	04/23/19
Lab File ID:	P129140.D	**Injection Time:**	22:58
Instrument ID:	GCMSP		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	56915	32.1		Pass
68	Less than 2.0% of mass 69	179	0.10	(0.25) [a]	Pass
69	Mass 69 relative abundance	71554	40.4		Pass
70	Less than 2.0% of mass 69	52	0.03	(0.07) [a]	Pass
127	40.0 - 60.0% of mass 198	85866	48.5		Pass
197	Less than 1.0% of mass 198	0	0.00		Pass
198	Base peak, 100% relative abundance	177125	100.0		Pass
199	5.0 - 9.0% of mass 198	12424	7.01		Pass
275	10.0 - 30.0% of mass 198	43450	24.5		Pass
365	1.0 - 100.0% of mass 198	6536	3.69		Pass
441	Present, but less than mass 443	13691	7.73	(72.9) [b]	Pass
442	40.0 - 100.0% of mass 198	94040	53.1		Pass
443	17.0 - 23.0% of mass 442	18788	10.6	(20.0) [c]	Pass

(a) Value is % of mass 69
(b) Value is % of mass 443
(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
EP5844-IC5844	P129141A.D	04/24/19	02:03	03:05	Initial cal 100
EP5844-IC5844	P129142A.D	04/24/19	02:30	03:32	Initial cal 80
EP5844-ICC5844	P129143A.D	04/24/19	02:57	03:59	Initial cal 50
EP5844-IC5844	P129144A.D	04/24/19	03:24	04:26	Initial cal 25
EP5844-IC5844	P129145A.D	04/24/19	03:51	04:53	Initial cal 10
EP5844-IC5844	P129146A.D	04/24/19	04:18	05:20	Initial cal 5
EP5844-IC5844	P129147.D	04/24/19	04:45	05:47	Initial cal 2
EP5844-IC5844	P129148.D	04/24/19	05:12	06:14	Initial cal 1
EP5844-ICV5844	P129149.D	04/24/19	05:39	06:41	Initial cal verification 50
EP5844-ICV5844	P129150.D	04/24/19	06:06	07:08	Initial cal verification 50
EP5844-ICV5844	P129151.D	04/24/19	06:33	07:35	Initial cal verification 50
EP5844-ICV5844	P129152.D	04/24/19	07:00	08:02	Initial cal verification 50
EP5844-ICV5844	P129153.D	04/24/19	07:27	08:29	Initial cal verification 50
EP5844-ICV5844	P129154.D	04/24/19	07:54	08:56	Initial cal verification 50

Instrument Performance Check (DFTPP)

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample:	EP5845-DFTPP	**Injection Date:**	04/24/19
Lab File ID:	P129155.D	**Injection Time:**	08:17
Instrument ID:	GCMSP		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	44871	36.9		Pass
68	Less than 2.0% of mass 69	0	0.00	(0.00) [a]	Pass
69	Mass 69 relative abundance	55085	45.3		Pass
70	Less than 2.0% of mass 69	231	0.19	(0.42) [a]	Pass
127	40.0 - 60.0% of mass 198	62498	51.4		Pass
197	Less than 1.0% of mass 198	0	0.00		Pass
198	Base peak, 100% relative abundance	121520	100.0		Pass
199	5.0 - 9.0% of mass 198	7568	6.23		Pass
275	10.0 - 30.0% of mass 198	30287	24.9		Pass
365	1.0 - 100.0% of mass 198	5190	4.27		Pass
441	Present, but less than mass 443	9479	7.80	(86.3) [b]	Pass
442	40.0 - 100.0% of mass 198	61008	50.2		Pass
443	17.0 - 23.0% of mass 442	10978	9.03	(18.0) [c]	Pass

(a) Value is % of mass 69
(b) Value is % of mass 443
(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
EP5845-IC5845	P129156.D	04/24/19	08:30	00:13	Initial cal 100
EP5845-IC5845	P129157.D	04/24/19	08:57	00:40	Initial cal 80
EP5845-ICC5845	P129158.D	04/24/19	09:24	01:07	Initial cal 50
EP5845-IC5845	P129159.D	04/24/19	09:51	01:34	Initial cal 25
EP5845-IC5845	P129160.D	04/24/19	10:18	02:01	Initial cal 10
EP5845-IC5845	P129161.D	04/24/19	10:45	02:28	Initial cal 5
EP5845-IC5845	P129162.D	04/24/19	11:12	02:55	Initial cal 2
EP5845-IC5845	P129163.D	04/24/19	11:39	03:22	Initial cal 1
EP5845-ICV5845	P129164.D	04/24/19	12:07	03:50	Initial cal verification 50
EP5845-ICV5845	P129165.D	04/24/19	12:34	04:17	Initial cal verification 50

Instrument Performance Check (DFTPP)

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample:	EP5846-DFTPP	**Injection Date:**	04/24/19
Lab File ID:	P129171.D	**Injection Time:**	15:00
Instrument ID:	GCMSP		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	52650	40.1		Pass
68	Less than 2.0% of mass 69	1163	0.89	(1.85) [a]	Pass
69	Mass 69 relative abundance	62917	47.9		Pass
70	Less than 2.0% of mass 69	336	0.26	(0.53) [a]	Pass
127	40.0 - 60.0% of mass 198	73506	56.0		Pass
197	Less than 1.0% of mass 198	0	0.00		Pass
198	Base peak, 100% relative abundance	131282	100.0		Pass
199	5.0 - 9.0% of mass 198	9203	7.01		Pass
275	10.0 - 30.0% of mass 198	32757	25.0		Pass
365	1.0 - 100.0% of mass 198	5447	4.15		Pass
441	Present, but less than mass 443	9758	7.43	(83.0) [b]	Pass
442	40.0 - 100.0% of mass 198	61629	46.9		Pass
443	17.0 - 23.0% of mass 442	11757	8.96	(19.1) [c]	Pass

(a) Value is % of mass 69
(b) Value is % of mass 443
(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
EP5846-IC5846	P129172.D	04/24/19	16:08	01:08	Initial cal 100
EP5846-IC5846	P129173.D	04/24/19	16:35	01:35	Initial cal 80
EP5846-ICC5846	P129174.D	04/24/19	17:02	02:02	Initial cal 50
EP5846-IC5846	P129175.D	04/24/19	17:29	02:29	Initial cal 25
EP5846-IC5846	P129176.D	04/24/19	17:56	02:56	Initial cal 10
EP5846-IC5846	P129177.D	04/24/19	18:23	03:23	Initial cal 5
EP5846-IC5846	P129178.D	04/24/19	18:50	03:50	Initial cal 2
EP5846-ICV5846	P129180.D	04/24/19	19:44	04:44	Initial cal verification 50

Instrument Performance Check (DFTPP)

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample:	EP5854-DFTPP	**Injection Date:**	05/06/19
Lab File ID:	P129334.D	**Injection Time:**	07:31
Instrument ID:	GCMSP		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	62298	37.8		Pass
68	Less than 2.0% of mass 69	338	0.21	(0.44) [a]	Pass
69	Mass 69 relative abundance	77098	46.8		Pass
70	Less than 2.0% of mass 69	592	0.36	(0.77) [a]	Pass
127	40.0 - 60.0% of mass 198	87309	53.0		Pass
197	Less than 1.0% of mass 198	0	0.00		Pass
198	Base peak, 100% relative abundance	164773	100.0		Pass
199	5.0 - 9.0% of mass 198	11163	6.77		Pass
275	10.0 - 30.0% of mass 198	39346	23.9		Pass
365	1.0 - 100.0% of mass 198	6296	3.82		Pass
441	Present, but less than mass 443	12164	7.38	(81.6) [b]	Pass
442	40.0 - 100.0% of mass 198	77986	47.3		Pass
443	17.0 - 23.0% of mass 442	14916	9.05	(19.1) [c]	Pass

(a) Value is % of mass 69
(b) Value is % of mass 443
(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
EP5854-CC5844	P129335.D	05/06/19	07:44	00:13	Continuing cal 25
EP5854-CC5845	P129336.D	05/06/19	08:11	00:40	Continuing cal 25
EP5854-CC5846	P129337.D	05/06/19	08:38	01:07	Continuing cal 25
OP20158-MB	P129342.D	05/06/19	10:54	03:23	Method Blank
OP20149-MB	P129353.D	05/06/19	11:22	03:51	Method Blank
ZZZZZZ	P129354.D	05/06/19	11:56	04:25	(unrelated sample)
ZZZZZZ	P129355.D	05/06/19	12:24	04:53	(unrelated sample)
ZZZZZZ	P129356.D	05/06/19	12:51	05:20	(unrelated sample)
ZZZZZZ	P129352.D	05/06/19	13:18	05:47	(unrelated sample)
ZZZZZZ	P129344.D	05/06/19	14:13	06:42	(unrelated sample)
OP20149-BS	P129358.D	05/06/19	14:40	07:09	Blank Spike
OP20149-BSD	P129359.D	05/06/19	15:07	07:36	Blank Spike Duplicate
ZZZZZZ	P129357.D	05/06/19	15:35	08:04	(unrelated sample)
ZZZZZZ	P129345.D	05/06/19	16:02	08:31	(unrelated sample)
ZZZZZZ	P129346.D	05/06/19	16:29	08:58	(unrelated sample)
ZZZZZZ	P129347.D	05/06/19	16:57	09:26	(unrelated sample)
ZZZZZZ	P129348.D	05/06/19	17:24	09:53	(unrelated sample)
ZZZZZZ	P129349.D	05/06/19	17:52	10:21	(unrelated sample)
ZZZZZZ	P129350.D	05/06/19	18:19	10:48	(unrelated sample)

Instrument Performance Check (DFTPP)

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample:	EP5854-DFTPP	**Injection Date:**	05/06/19
Lab File ID:	P129334.D	**Injection Time:**	07:31
Instrument ID:	GCMSP		

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
ZZZZZZ	P129351.D	05/06/19	18:46	11:15	(unrelated sample)
ZZZZZZ	P129360.D	05/06/19	19:13	11:42	(unrelated sample)

Internal Standard Area Summary

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Check Std:	EF7923-CC7873	**Injection Date:**	05/06/19
Lab File ID:	F184453.D	**Injection Time:**	09:57
Instrument ID:	GCMSF	**Method:**	SW846 8270D

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
Check Std	39507	4.46	155084	5.38	81994	6.72	130858	8.47	110837	13.59	116359	16.59
Upper Limit [a]	79014	4.96	310168	5.88	163988	7.22	261716	8.97	221674	14.09	232718	17.09
Lower Limit [b]	19754	3.96	77542	4.88	40997	6.22	65429	7.97	55419	13.09	58180	16.09
Lab Sample ID	**IS 1 AREA**	**RT**	**IS 2 AREA**	**RT**	**IS 3 AREA**	**RT**	**IS 4 AREA**	**RT**	**IS 5 AREA**	**RT**	**IS 6 AREA**	**RT**
OP19637-MB2	34654	4.46	136385	5.38	68764	6.72	107367	8.47	83938	13.58	75647	16.59
ZZZZZZ	35383	4.46	139179	5.38	70846	6.72	104083	8.47	78537	13.58	80565	16.59
ZZZZZZ	34232	4.46	133925	5.38	67717	6.72	106178	8.47	80954	13.58	83890	16.59
ZZZZZZ	34347	4.46	134071	5.38	69689	6.72	107760	8.47	80163	13.58	87283	16.59
OP20153-MB1	43801	4.46	169025	5.38	83264	6.72	139202	8.47	111891	13.58	95559	16.59
OP20158-MB	44201	4.46	163581	5.38	79123	6.72	131274	8.47	105112	13.58	93513	16.59
ZZZZZZ	37355	4.46	140368	5.38	72439	6.72	117525	8.47	92062	13.58	89743	16.59
ZZZZZZ	40676	4.46	117420	5.38	59644	6.72	105405	8.47	89984	13.58	83571	16.59
ZZZZZZ	39496	4.46	144311	5.38	70266	6.72	116656	8.47	72954	13.58	66805	16.59
ZZZZZZ	40631	4.46	122620	5.38	58361	6.72	100701	8.47	91934	13.58	93580	16.59
ZZZZZZ	37983	4.46	141029	5.38	71289	6.72	121980	8.47	128076	13.62	126707	16.69
JC87363-3	37606	4.46	140672	5.38	69966	6.73	123555	8.48	99807	13.60	100470	16.62
ZZZZZZ	51327	4.46	185382	5.38	90754	6.73	123578	8.48	111057	13.60	114887	16.62

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Internal Standard Area Summary

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Check Std:	EM6583-CC6556	**Injection Date:**	05/05/19
Lab File ID:	M154070.D	**Injection Time:**	22:02
Instrument ID:	GCMSM	**Method:**	SW846 8270D

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
Check Std	245076	4.37	847601	5.43	507309	7.63	972539	10.17	858562	15.27	990552	17.86
Upper Limit [a]	490152	4.87	1695202	5.93	1014618	8.13	1945078	10.67	1717124	15.77	1981104	18.36
Lower Limit [b]	122538	3.87	423801	4.93	253655	7.13	486270	9.67	429281	14.77	495276	17.36

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
OP20153-MB1	262628	4.37	864920	5.42	480126	7.63	944339	10.17	897375	15.26	903748	17.86
OP20158-MB	260059	4.37	839764	5.42	455874	7.62	905330	10.17	866866	15.26	874541	17.86
OP20153-BS1	259805	4.38	805600	5.42	453829	7.63	931872	10.17	880853	15.27	846054	17.86
OP20158-BS	216642	4.37	687069	5.42	391909	7.63	824108	10.17	790042	15.27	809371	17.86
ZZZZZZ	289581	4.37	932286	5.42	519066	7.63	1044059	10.17	1000009	15.26	1008976	17.86
ZZZZZZ	285957	4.37	928655	5.42	515379	7.62	1014932	10.17	977045	15.26	997843	17.86
ZZZZZZ	288377	4.37	957415	5.42	524638	7.63	1036937	10.17	1004439	15.26	1011866	17.86
ZZZZZZ	289302	4.37	933346	5.42	512728	7.63	1024372	10.16	957080	15.26	959171	17.86
ZZZZZZ	283832	4.37	933772	5.42	512583	7.62	1011252	10.16	945150	15.26	968186	17.85
ZZZZZZ	303822	4.37	990195	5.42	540943	7.63	1059174	10.16	977928	15.26	973244	17.85
JC87361-5	250652	4.37	831966	5.42	456379	7.62	887327	10.16	839366	15.26	870405	17.85
OP20158-MS	233979	4.37	735017	5.42	416025	7.62	847551	10.16	800592	15.27	846443	17.86
OP20158-MSD	220910	4.37	698201	5.42	385416	7.62	788007	10.17	761010	15.27	793439	17.86
ZZZZZZ	247271	4.37	796664	5.42	437724	7.62	875142	10.16	821984	15.26	844786	17.85
ZZZZZZ	254906	4.37	837016	5.42	456484	7.62	914156	10.16	846334	15.26	864089	17.85
ZZZZZZ	246377	4.37	786997	5.42	442261	7.62	871423	10.16	818041	15.26	831964	17.85
ZZZZZZ	258378	4.37	820104	5.42	442667	7.62	886590	10.16	831984	15.26	829320	17.85
ZZZZZZ	259721	4.37	833795	5.42	444509	7.62	857528	10.16	763056	15.26	785071	17.85

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Internal Standard Area Summary

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Check Std:	EP5854-CC5844	**Injection Date:**	05/06/19
Lab File ID:	P129335.D	**Injection Time:**	07:44
Instrument ID:	GCMSP	**Method:**	SW846 8270D

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
Check Std	169402	3.78	579886	4.71	333115	5.95	612891	7.36	633139	12.01	631167	14.93
Upper Limit [a]	338804	4.28	1159772	5.21	666230	6.45	1225782	7.86	1266278	12.51	1262334	15.43
Lower Limit [b]	84701	3.28	289943	4.21	166558	5.45	306446	6.86	316570	11.51	315584	14.43

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
OP20158-MB	163708	3.78	576655	4.71	314712	5.95	570015	7.35	509614	12.00	494066	14.92
OP20149-MB	154317	3.77	552859	4.71	309466	5.95	591733	7.35	542460	12.00	535566	14.92
ZZZZZZ	161638	3.77	564509	4.71	308047	5.95	578760	7.35	512873	12.00	507582	14.93
ZZZZZZ	164146	3.77	548006	4.71	278832	5.95	525062	7.36	516861	12.01	544489	14.94
ZZZZZZ	131854	3.78	410999	4.72	241165	5.97	518742	7.38	572735	12.03	560751	14.97
ZZZZZZ	133471	3.78	501517	4.72	290790	5.95	484500	7.36	490657	12.01	490533	14.94
ZZZZZZ	156324	3.78	540876	4.71	284513	5.95	514661	7.36	452208	12.00	437049	14.93
OP20149-BS	159992	3.78	523827	4.71	309391	5.95	554450	7.36	547488	12.01	514436	14.94
OP20149-BSD	160458	3.78	527905	4.71	310943	5.96	566213	7.36	548839	12.01	518240	14.94
ZZZZZZ	136980	3.78	501633	4.71	279472	5.95	549167	7.35	507878	12.00	516584	14.93
ZZZZZZ	162115	3.78	560620	4.71	297649	5.95	532980	7.36	461193	12.01	442467	14.94
ZZZZZZ	159386	3.78	556977	4.71	295282	5.95	522942	7.36	461691	12.01	442866	14.94
ZZZZZZ	156079	3.78	536604	4.71	282628	5.95	497501	7.36	444746	12.01	429793	14.94
ZZZZZZ	147692	3.78	509150	4.71	261501	5.95	455702	7.36	402541	12.04	405465	14.97
ZZZZZZ	157538	3.78	539496	4.71	288376	5.95	529510	7.36	447722	12.01	432463	14.94
ZZZZZZ	152676	3.78	527712	4.71	268247	5.95	500500	7.36	447565	12.01	431369	14.93
ZZZZZZ	154728	3.78	531405	4.71	287234	5.95	509945	7.36	435345	12.01	429459	14.94
ZZZZZZ	153057	3.78	535187	4.71	293957	5.95	542154	7.36	510469	12.01	499341	14.94

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Surrogate Recovery Summary

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Method: SW846 8270D **Matrix:** SO

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4	S5	S6
JC87363-3	F184467.D	81	80	84	79	78	87
OP20158-BS	M154078.D	68	69	109	73	83	81
OP20158-MB	M154076.D	62	62	99	71	82	79
OP20158-MB	P129342.D	84	85	74	87	94	90
OP20158-MB	F184461.D	87	83	71	81	83	99
OP20158-MS	M154086.D	66	67	106	73	81	82
OP20158-MSD	M154087.D	71	71	114	77	87	86

Surrogate Compounds	Recovery Limits
S1 = 2-Fluorophenol	23-115%
S2 = Phenol-d5	27-114%
S3 = 2,4,6-Tribromophenol	19-152%
S4 = Nitrobenzene-d5	26-134%
S5 = 2-Fluorobiphenyl	39-124%
S6 = Terphenyl-d14	36-134%

Initial Calibration Summary

Job Number: JC87363 **Sample:** EF7873-ICC7873
Account: TCMAW Tantara Corporation **Lab FileID:** F183419.D
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Response Factor Report GCMSF

Method : C:\MSDCHEM\1\METHODS\MF7873.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Mar 26 13:56:40 2019
Response via : Initial Calibration

Calibration Files
2 =F183416.D 5 =F183418.D 25 =F183421.D 80 =F183417.D
100 =F183415.D 50 =F183419.D 10 =F183420.D 1 =F183414.D

Compound	2	5	25	80	100	50	10	1	Avg	%RSD
1) I 1,4-Dichlorobenzene-d	ISTD									
2) 1,4-Dioxane	0.551	0.517	0.545	0.532	0.612	0.571	0.555	0.775	0.582	14.27
3) Pyridine	1.467	1.511	1.545	1.546	1.757	1.523	1.522	1.165	1.504	10.79
4) N-Nitrosodim	0.810	0.889	0.796	0.780	0.885	0.823	0.861	1.086	0.866	11.26
5) 2-Fluorophen	1.200	1.315	1.322	1.314	1.397	1.376	1.253	1.412	1.323	5.45
6) Indene	2.084	2.230	2.373	2.199	2.149	2.234	2.332	2.259	2.232	4.16
7) Cumene	3.360	3.340	3.353	3.238	3.301	3.450	3.292	3.323	3.332	1.85
8) Phenol-d5	1.916	1.646	1.721	1.716	1.739	1.758	1.742	1.681	1.740	4.57
9) Phenol	2.094	1.937	2.044	2.048	2.045	2.127	2.031	2.104	2.054	2.85
10) Aniline	2.121	2.183	2.070	1.932	1.895	1.994	2.156	2.258	2.076	6.13
11) bis(2-Chloro	1.367	1.372	1.365	1.377	1.362	1.379	1.325	1.532	1.385	4.46
12) 2-Chlorophen	1.321	1.388	1.411	1.389	1.370	1.428	1.384	1.345	1.380	2.48
13) Decane	1.696	1.720	1.767	1.652	1.680	1.817	1.782	1.758	1.734	3.24
14) 1,3-Dichloro	1.584	1.629	1.606	1.572	1.555	1.605	1.614	1.562	1.591	1.66
15) 1,4-Dichloro	1.536	1.608	1.619	1.653	1.630	1.624	1.689	1.699	1.632	3.12
16) Benzyl alcoh	0.883	0.789	0.918	0.887	0.879	0.907	0.930	0.814	0.876	5.67
17) 1,2-Dichloro	1.677	1.540	1.621	1.504	1.510	1.562	1.674	1.520	1.576	4.54
18) Acetophenone	1.901	1.945	2.132	1.997	1.989	2.051	2.176	2.112	2.038	4.73
19) 2-Methylphen	1.208	1.183	1.341	1.279	1.274	1.296	1.287	1.249	1.265	3.98
20) 2,2'-oxybis(	0.354	0.345	0.390	0.385	0.367	0.390	0.381		0.373	4.83
21) 3&4-Methylph	1.328	1.275	1.381	1.366	1.325	1.368	1.347	1.139	1.316	6.01
22) n-Nitroso-di	1.058	1.094	1.226	1.129	1.140	1.151	1.192	1.086	1.135	4.92
23) Hexachloroet	0.496	0.577	0.570	0.571	0.560	0.571	0.584	0.560	0.561	4.90
24) I Naphthalene-d8	ISTD									
25) Nitrobenzene	0.396	0.423	0.436	0.442	0.433	0.442	0.430	0.401	0.426	4.13
26) Nitrobenzene	0.432	0.445	0.466	0.466	0.449	0.458	0.453	0.426	0.449	3.28
27) Quinoline	0.691	0.677	0.687	0.722	0.699	0.711	0.693	0.664	0.693	2.64
28) Isophorone	0.764	0.758	0.723	0.730	0.715	0.744	0.781	0.702	0.740	3.63
29) 2-Nitropheno	0.183	0.177	0.182	0.199	0.193	0.211	0.175	0.186	0.188	6.55
30) 2,4-Dimethyl	0.316	0.313	0.357	0.389	0.383	0.377	0.330	0.310	0.347	9.66
31) Benzoic acid	0.112	0.131	0.164	0.243	0.261	0.231	0.158		0.186	31.53
----- Quadratic regression -----									Coefficient =	0.9985
Response Ratio = -0.00930 + 0.18887 *A + 0.03034 *A^2										
32) bis(2-Chloro	0.459	0.471	0.441	0.448	0.436	0.456	0.437	0.428	0.447	3.15
33) 2,4-Dichloro	0.259	0.280	0.290	0.311	0.306	0.310	0.297	0.283	0.292	6.15
34) 2,6-Dichloro	0.304	0.271	0.296	0.303	0.296	0.311	0.296	0.222	0.287	10.07
35) 1,3,5-Trichl	0.343	0.354	0.355	0.355	0.346	0.359	0.343	0.378	0.354	3.23
36) 1,2,4-Trichl	0.367	0.345	0.344	0.345	0.338	0.345	0.337	0.377	0.350	4.06
37) 1,2,3-Trichl	0.302	0.329	0.335	0.347	0.338	0.347	0.328	0.314	0.330	4.69
38) Naphthalene	1.069	1.067	1.042	1.048	1.007	1.051	1.046	1.072	1.050	1.99
39) 4-Chloroanil	0.471	0.416	0.424	0.431	0.407	0.431	0.421	0.369	0.421	6.74
40) 2,3-Dichloro	0.456	0.350	0.363	0.379	0.359	0.379	0.369	0.418	0.384	9.22
41) Caprolactam	0.188	0.182	0.194	0.211	0.200	0.210	0.201	0.191	0.197	5.16
42) Hexachlorobu	0.199	0.185	0.192	0.198	0.194	0.199	0.195	0.180	0.193	3.60

Initial Calibration Summary

Job Number: JC87363 **Sample:** EF7873-ICC7873
Account: TCMAW Tantara Corporation **Lab FileID:** F183419.D
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

43)	4-Chloro-3-m	0.306	0.321	0.322	0.339	0.332	0.340	0.318	0.318	0.324	3.65
44)	2-Methylnaph	0.555	0.593	0.579	0.578	0.569	0.587	0.566	0.677	0.588	6.46
45)	1-Methylnaph	0.752	0.729	0.717	0.727	0.708	0.734	0.751	0.872	0.749	6.96
46)	Dimethylnaph	0.612	0.656	0.625	0.648	0.615	0.643	0.621	0.673	0.637	3.41
47)	I Acenaphthene-d10	ISTD									
48)	Hexachlorocy	0.264	0.330	0.355	0.373	0.384	0.390	0.357	0.275	0.341	14.12
49)	2,4,6-Trichl	0.381	0.337	0.378	0.379	0.379	0.387	0.384	0.392	0.377	4.51
50)	2,4,5-Trichl	0.423	0.381	0.410	0.477	0.413	0.424	0.403	0.355	0.411	8.62
51)	2-Fluorobiph	1.466	1.449	1.434	1.582	1.402	1.679	1.436	1.448	1.487	6.33
52)	2-Chloronaph	1.076	1.155	1.227	1.209	1.192	1.268	1.191	1.182	1.187	4.74
53)	Biphenyl	1.407	1.547	1.588	1.564	1.546	1.668	1.600	1.622	1.568	4.88
54)	2-Nitroanili	0.362	0.374	0.422	0.437	0.435	0.453	0.418	0.406	0.413	7.63
55)	Dimethylphth	1.232	1.393	1.370	1.360	1.387	1.420	1.366	1.382	1.364	4.13
56)	Acenaphthyle	2.012	1.912	1.945	2.031	1.932	2.007	1.928	1.933	1.963	2.36
57)	2,6-Dinitrot	0.291	0.283	0.295	0.308	0.311	0.312	0.278	0.244	0.290	7.77
58)	3-Nitroanili	0.294	0.341	0.347	0.352	0.360	0.375	0.352	0.298	0.340	8.51
59)	Acenaphthene	1.306	1.309	1.337	1.300	1.269	1.362	1.337	1.347	1.321	2.28
60)	2,4-Dinitrop	0.077	0.104	0.125	0.167	0.171	0.167	0.115		0.132	27.85
	----- Quadratic regression -----									Coefficient =	0.9980
	Response Ratio = -0.01838 + 0.15785 *A + 0.00345 *A^2										
61)	4-Nitropheno	0.179	0.214	0.227	0.231	0.236	0.187			0.212	11.23
62)	Dibenzofuran	1.559	1.675	1.710	1.667	1.648	1.736	1.665	1.678	1.667	3.11
63)	2,4-Dinitrot	0.308	0.353	0.395	0.418	0.417	0.431	0.370	0.370	0.383	10.67
64)	2,3,4,6-Tetr	0.279	0.295	0.308	0.343	0.345	0.347	0.301	0.238	0.307	12.36
65)	Diethylphtha	1.260	1.417	1.427	1.507	1.418	1.481	1.415	1.340	1.408	5.52
66)	Fluorene	1.295	1.353	1.337	1.359	1.342	1.369	1.366	1.240	1.333	3.32
67)	4-Chlorophen	0.597	0.632	0.619	0.623	0.610	0.629	0.627	0.596	0.617	2.29
68)	4-Nitroanili	0.292	0.345	0.378	0.377	0.381	0.390	0.372	0.289	0.353	11.50
69)	I Phenanthrene-d10	ISTD									
70)	4,6-Dinitro-	0.073	0.075	0.097	0.129	0.127	0.121	0.085		0.101	24.37
	----- Quadratic regression -----									Coefficient =	0.9984
	Response Ratio = -0.00682 + 0.11849 *A + 0.00520 *A^2										
71)	n-Nitrosodip	0.548	0.507	0.539	0.548	0.515	0.551	0.525	0.562	0.537	3.59
72)	1,2-Diphenyl	0.942	0.934	0.976	0.949	0.893	1.158	0.941	0.920	0.964	8.47
73)	2,4,6-Tribro	0.103	0.107	0.122	0.126	0.124	0.147	0.105		0.119	12.98
74)	4-Bromopheny	0.221	0.200	0.215	0.238	0.200	0.214	0.207	0.207	0.213	5.84
75)	Hexachlorobe	0.269	0.248	0.245	0.262	0.236	0.252	0.249	0.271	0.254	4.75
76)	Pentachlorop	0.093	0.103	0.122	0.149	0.153	0.141	0.111		0.124	18.84
	----- Quadratic regression -----									Coefficient =	0.9997
	Response Ratio = -0.00825 + 0.12946 *A + 0.00509 *A^2										
77)	Phenanthrene	1.144	1.122	1.184	1.206	1.118	1.185	1.122	1.053	1.142	4.32
78)	Anthracene	1.145	1.132	1.194	1.320	1.131	1.200	1.134	0.913	1.146	9.91
79)	Carbazole	1.207	1.019	1.073	1.068	1.057	1.096	1.010	0.905	1.054	8.11
80)	Di-n-butylph	1.376	1.295	1.413	1.416	1.425	1.416	1.332	1.024	1.337	10.07
81)	Fluoranthene	1.244	1.142	1.160	1.389	1.236	1.225	1.124	0.999	1.190	9.51
82)	Octadecane	0.523	0.577	0.636	0.596	0.583	0.621	0.595	0.578	0.589	5.72
83)	I Chrysene-d12	ISTD									
84)	Pyrene	1.495	1.393	1.408	1.613	1.394	1.588	1.423	1.296	1.451	7.38
85)	Terphenyl-d1	0.945	0.863	0.879	0.919	0.899	0.913	0.898	0.802	0.890	4.87
86)	Butylbenzylp	0.689	0.665	0.668	0.735	0.770	0.721	0.651	0.624	0.690	7.01
87)	Benzo[a]anth	1.565	1.290	1.248	1.299	1.265	1.299	1.255	1.311	1.316	7.81
88)	3,3'-Dichlor	0.397	0.437	0.432	0.486	0.470	0.477	0.424	0.317	0.430	12.69
89)	Chrysene	1.595	1.356	1.281	1.321	1.355	1.316	1.321	1.219	1.346	8.17
90)	bis(2-Ethylh	1.016	0.859	0.945	1.022	1.004	1.012	0.887	0.798	0.943	9.08

Initial Calibration Summary

Job Number: JC87363 **Sample:** EF7873-ICC7873
Account: TCMAW Tantara Corporation **Lab FileID:** F183419.D
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

```
 91) I   Perylene-d12          ----------------ISTD--------------------
 92) Di-n-octylph 1.046 1.225 1.398 1.615 1.478 1.607 1.112 1.166 1.331  16.82
          ----- Quadratic regression -----                Coefficient =  0.9967
               Response Ratio = -0.07986 + 1.76688 *A + -0.08956 *A^2

 93) Benzo[b]fluo 0.813 1.131 1.178 1.237 1.108 1.246 0.977 1.134 1.103  13.09
 94) Benzo[k]fluo 1.105 1.214 1.210 1.220 1.013 1.242 1.021 1.305 1.166   9.20
 95) Benzo[a]pyre 0.722 1.017 1.086 1.216       1.091 1.006 0.709 0.978  19.63
          ----- Quadratic regression -----                Coefficient =  0.9995
               Response Ratio = 0.00053 + 0.95488 *A + 0.12808 *A^2

 96) Indeno[1,2,3 0.533 0.798 0.953 1.078 1.016 1.072 0.750 0.527 0.841  26.83
          ----- Quadratic regression -----                Coefficient =  0.9982
               Response Ratio = -0.05180 + 1.15137 *A + -0.03931 *A^2

 97) Dibenz(a,h)a       0.696 0.955 1.068 0.923 1.029 0.685       0.893  18.47
 98) Dibenz[a,h]a 0.628 0.985 1.038 1.125 1.103 1.147 0.952 0.575 0.944  23.54
          ----- Quadratic regression -----                Coefficient =  0.9995
               Response Ratio = -0.03462 + 1.18159 *A + -0.02366 *A^2

 99) 7,12-Dimethy       0.449 0.504 0.554 0.473 0.541 0.395       0.486  12.30
100) Benzo[g,h,i] 0.764 1.031 1.063 1.302       1.183 0.885 0.746 0.996  21.02
          ----- Quadratic regression -----                Coefficient =  0.9999
               Response Ratio = -0.01075 + 0.97936 *A + 0.16488 *A^2


 ------------------------------------------------------------------------------
 (#) = Out of Range  ###  Number of calibration levels exceeded format  ###

           MF7873.M          Wed Mar 27 18:22:04 2019
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Initial Calibration Verification

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY
Sample: EF7873-ICV7873
Lab FileID: F183424.D

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\EF7873\F183424.D Vial: 11
Acq On : 25 Mar 2019 4:51 pm Operator: kristis
Sample : icv7873-50 Inst : GCMSF
Misc : op18378,ef7873,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MF7873.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Mar 26 13:56:40 2019
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	133	0.00	4.64
6	t	Indene	2.232	2.425	-8.6	144	0.00	4.83
7	t	Cumene	3.332	3.073	7.8	118	0.00	4.05
13	t	Decane	1.734	1.486	14.3	108	0.00	4.53
24	I	Naphthalene-d8	1.000	1.000	0.0	134	0.00	5.57
27	t	Quinoline	0.693	0.634	8.5	119	0.00	5.82
40	t	2,3-Dichloroaniline	0.384	0.318	17.2	113	0.00	6.30-
46	t	Dimethylnaphthalene	0.637	0.570	10.5	119	0.00	6.59
47	I	Acenaphthene-d10	1.000	1.000	0.0	115	0.00	6.97
48	t	Hexachlorocyclopentadiene	0.341	0.353	-3.5	127	0.00	6.21
69	I	Phenanthrene-d10	1.000	1.000	0.0	123	0.00	8.82
82	t	Octadecane	0.589	0.549	6.8	109	0.00	8.73

(#) = Out of Range SPCC's out = 0 CCC's out = 0
F183443A.D MF7873.M Wed Mar 27 18:19:03 2019

8.7.2

8

Initial Calibration Verification

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample: EF7873-ICV7873
Lab FileID: F183428.D

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\EF7873\F183428.D Vial: 15
Acq On : 25 Mar 2019 6:38 pm Operator: kristis
Sample : icv7873-50 Inst : GCMSF
Misc : op18378,ef7873,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MF7873.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Mar 26 13:56:40 2019
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
83 I	Chrysene-d12	1.000	1.000	0.0	101	-0.01	14.02
88 t	3,3'-Dichlorobenzidine	0.430	0.448	-4.2	95	0.00	14.05

(#) = Out of Range SPCC's out = 0 CCC's out = 0
F183443A.D MF7873.M Wed Mar 27 18:19:05 2019

8.7.3

Initial Calibration Summary

Job Number: JC87363 **Sample:** EF7874-ICC7874
Account: TCMAW Tantara Corporation **Lab FileID:** F183432.D
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Response Factor Report GCMSF

Method : C:\MSDCHEM\1\METHODS\MF7874.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Mar 26 13:21:05 2019
Response via : Initial Calibration

Calibration Files
2 =F183436.D 5 =F183435.D 25 =F183433.D 80 =F183431.D
100 =F183430.D 50 =F183432.D 10 =F183434.D 1 =F183437.D

Compound	2	5	25	80	100	50	10	1	Avg	%RSD
156) I 1,4-Dichlorobenzene-d	ISTD									
157) Benzaldehyde	1.124	1.105	1.207	1.101	1.101	1.162	1.175	1.125	1.138	3.48
158) I Phenanthrene-d10b	ISTD									
159) Atrazine	0.145	0.156	0.194	0.199	0.199	0.202	0.176		0.182	12.61
162) I Naphthalene-d8b	ISTD									
163) Hydroquinone	0.235	0.309	0.316	0.313	0.314	0.254			0.290	12.43
164) I Acenaphthene-d10b	ISTD									
165) 1,2,4,5-Tetr	0.516	0.508	0.557	0.567	0.569	0.572	0.568	0.484	0.543	6.34

(#) = Out of Range ### Number of calibration levels exceeded format ###

MF7873.M Tue Mar 26 13:25:13 2019

8.7.4

Initial Calibration Verification

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample: EF7874-ICV7874
Lab FileID: F183438.D

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\EF7873\F183438.D Vial: 24
Acq On : 25 Mar 2019 10:46 pm Operator: kristis
Sample : icv7874-50 Inst : GCMSF
Misc : op18378,ef7874,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MF7873.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Mar 26 13:21:05 2019
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
156	I	1,4-Dichlorobenzene-d4b	1.000	1.000	0.0	153	0.00	4.64
157		Benzaldehyde	1.138	1.191	-4.7	157	0.00	4.32
158	I	Phenanthrene-d10b	1.000	1.000	0.0	156	0.00	8.82
159		Atrazine	0.182	0.200	-9.9	155	0.02	8.43
164	I	Acenaphthene-d10b	1.000	1.000	0.0	138	0.00	6.97
165		1,2,4,5-Tetrachlorobenzen	0.543	0.582	-7.2	140	0.00	6.22

(#) = Out of Range SPCC's out = 0 CCC's out = 0
F183432A.D MF7873.M Tue Mar 26 13:24:59 2019

8.7.5

8

Initial Calibration Verification

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample: EF7874-ICV7874
Lab FileID: F183439.D

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\EF7873\F183439.D Vial: 25
Acq On : 25 Mar 2019 11:13 pm Operator: kristis
Sample : icv7874-50 Inst : GCMSF
Misc : op18378,ef7874,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MF7873.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Mar 26 13:21:05 2019
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
162 I	Naphthalene-d8b	1.000	1.000	0.0	72	0.00	5.57
163	Hydroquinone	0.290	0.319	-10.0	73	-0.02	5.85

(#) = Out of Range SPCC's out = 0 CCC's out = 0
F183432A.D MF7873.M Tue Mar 26 13:25:01 2019

8.7.6

Initial Calibration Summary

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample: EF7875-ICC7875
Lab FileID: F183443.D

Response Factor Report GCMSF

Method : C:\MSDCHEM\1\METHODS\MF7875.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Mar 26 13:56:40 2019
Response via : Initial Calibration

Calibration Files
2 =F183447.D 5 =F183446.D 25 =F183444.D 80 =F183442.D
100 =F183441.D 50 =F183443.D 10 =F183445.D 1 =

Compound	2	5	25	80	100	50	10	1	Avg	%RSD
160) I Chrysene-d12b	----------	----------	----------	----------	----------	ISTD	----------	----------		
161) Benzidine	0.462	0.806	0.977	0.981	0.878	0.589			0.782	27.25

----- Quadratic regression ----- Coefficient = 0.9994
Response Ratio = -0.06872 + 0.88812 *A + 0.05121 *A^2

(#) = Out of Range ### Number of calibration levels exceeded format ###

MF7873.M Tue Mar 26 14:00:33 2019

8.7.7

Initial Calibration Verification

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample: EF7875-ICV7875
Lab FileID: F183449.D

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\EF7873\F183449.D Vial: 34
Acq On : 26 Mar 2019 3:20 am Operator: kristis
Sample : icv7875-50 Inst : GCMSF
Misc : op18378,ef7875,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MF7873.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Mar 26 13:56:40 2019
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
160 I	Chrysene-d12b	1.000	1.000	0.0	125	0.00	14.02
		True	Calc.	% Drift			
161	Benzidine	50.000	42.109	15.8	105	0.01	11.30

(#) = Out of Range SPCC's out = 0 CCC's out = 0
F183443A.D MF7873.M Tue Mar 26 14:00:24 2019

8.7.8

Initial Calibration Verification

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY
Sample: EF7876-ICV7873
Lab FileID: F183455.D

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\EF7876\F183455.D Vial: 5
Acq On : 26 Mar 2019 6:16 pm Operator: angelar
Sample : icv7873-50 Inst : GCMSF
Misc : op18378,ef7876,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MF7873.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Mar 26 13:56:40 2019
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	121	0.00	4.64
5	S	2-Fluorophenol	1.323	1.361	-2.9	120	0.00	3.65
8	S	Phenol-d5	1.740	1.676	3.7	115	0.00	4.37
24	I	Naphthalene-d8	1.000	1.000	0.0	115	0.00	5.56
25	S	Nitrobenzene-d5	0.426	0.429	-0.7	112	0.00	5.04
47	I	Acenaphthene-d10	1.000	1.000	0.0	111	0.00	6.97
51	S	2-Fluorobiphenyl	1.487	1.433	3.6	95	0.00	6.36
69	I	Phenanthrene-d10	1.000	1.000	0.0	108	-0.01	8.80
73	S	2,4,6-Tribromophenol	0.119	0.113	5.0	83	-0.01	7.83
83	I	Chrysene-d12	1.000	1.000	0.0	105	-0.03	14.00
85	S	Terphenyl-d14	0.890	0.947	-6.4	109	-0.01	11.82

(#) = Out of Range SPCC's out = 0 CCC's out = 0
F183443A.D MF7873.M Wed Mar 27 18:21:47 2019

8.7.9

Initial Calibration Verification

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample: EF7876-ICV7873
Lab FileID: F183456.D

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\EF7876\F183456.D Vial: 6
Acq On : 26 Mar 2019 6:42 pm Operator: angelar
Sample : icv7873-50 Inst : GCMSF
Misc : op18378,ef7876,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MF7873.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Mar 26 13:56:40 2019
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
24 I	Naphthalene-d8	1.000	1.000	0.0	80	0.00	5.56
	----------	True	Calc.	% Drift	----------		
31 t	Benzoic acid	50.000	49.108	1.8	74	0.01	5.40

(#) = Out of Range SPCC's out = 0 CCC's out = 0
F183443A.D MF7873.M Wed Mar 27 18:21:49 2019

8.7.10

8

Initial Calibration Verification

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample: EF7877-ICV7873
Lab FileID: F183458.D

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\EF7877\F183458.D Vial: 2
Acq On : 27 Mar 2019 11:47 am Operator: angelar
Sample : icv7873-50 Inst : GCMSF
Misc : op18378,ef7877,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MF7873.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Mar 26 13:56:40 2019
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	84	-0.02	4.62
3	t	Pyridine	1.504	1.532	-1.9	85	-0.03	2.47
4	t	N-Nitrosodimethylamine	0.866	0.868	-0.2	89	-0.02	2.44
9	t	Phenol	2.054	1.933	5.9	77	-0.02	4.37
10	t	Aniline	2.076	2.183	-5.2	92	-0.02	4.38
11	t	bis(2-Chloroethyl)ether	1.385	1.369	1.2	84	-0.02	4.42
12	t	2-Chlorophenol	1.380	1.342	2.8	79	-0.02	4.47
14	t	1,3-Dichlorobenzene	1.591	1.537	3.4	81	-0.02	4.58
15	t	1,4-Dichlorobenzene	1.632	1.572	3.7	82	-0.02	4.64
16	t	Benzyl alcohol	0.876	0.897	-2.4	83	-0.02	4.72
17	t	1,2-Dichlorobenzene	1.576	1.479	6.2	80	-0.02	4.75
19	t	2-Methylphenol	1.265	1.225	3.2	80	-0.02	4.81
20	t	2,2'-oxybis(1-Chloropropa	0.373	0.399	-7.0	86	-0.01	4.83
21	t	3&4-Methylphenol	1.316	1.281	2.7	79	-0.02	4.92
22		n-Nitroso-di-n-propylamin	1.135	1.060	6.6	78	-0.02	4.92
23	t	Hexachloroethane	0.561	0.535	4.6	79	-0.02	5.00
24	I	Naphthalene-d8	1.000	1.000	0.0	77	-0.02	5.55
26	t	Nitrobenzene	0.449	0.452	-0.7	76	-0.02	5.04
28	t	Isophorone	0.740	0.761	-2.8	78	-0.02	5.22
29	t	2-Nitrophenol	0.188	0.188	0.0	68	-0.02	5.27
30	t	2,4-Dimethylphenol	0.347	0.383	-10.4	78	-0.02	5.30
32	t	bis(2-Chloroethoxy)methan	0.447	0.444	0.7	75	-0.02	5.37
33	t	2,4-Dichlorophenol	0.292	0.297	-1.7	73	-0.02	5.45
36	t	1,2,4-Trichlorobenzene	0.350	0.345	1.4	77	-0.02	5.51
38	t	Naphthalene	1.050	1.060	-1.0	77	-0.02	5.57
39	t	4-Chloroaniline	0.421	0.414	1.7	74	-0.02	5.60
42	t	Hexachlorobutadiene	0.193	0.196	-1.6	76	-0.02	5.66
43	t	4-Chloro-3-methylphenol	0.324	0.320	1.2	72	-0.02	5.95
44	t	2-Methylnaphthalene	0.588	0.615	-4.6	80	-0.02	6.06
45	t	1-Methylnaphthalene	0.749	0.676	9.7	71	-0.02	6.14
47	I	Acenaphthene-d10	1.000	1.000	0.0	74	-0.02	6.95
49	t	2,4,6-Trichlorophenol	0.377	0.385	-2.1	74	-0.02	6.28
50	t	2,4,5-Trichlorophenol	0.411	0.417	-1.5	73	-0.02	6.31
52	t	2-Chloronaphthalene	1.187	1.192	-0.4	70	-0.02	6.45
54	t	2-Nitroaniline	0.413	0.408	1.2	67	-0.02	6.53
55	t	Dimethylphthalate	1.364	1.324	2.9	69	-0.02	6.69
56	t	Acenaphthylene	1.963	1.928	1.8	71	-0.02	6.81
57	t	2,6-Dinitrotoluene	0.290	0.297	-2.4	71	-0.02	6.74
58	t	3-Nitroaniline	0.340	0.333	2.1	66	-0.02	6.90
59	t	Acenaphthene	1.321	1.210	8.4	66	-0.02	6.98

Initial Calibration Verification

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample: EF7877-ICV7873
Lab FileID: F183458.D

			True	Calc.	% Drift			
60	t	2,4-Dinitrophenol	50.000	44.866	10.3	86	-0.03	6.99

			AvgRF	CCRF	% Dev			
61	t	4-Nitrophenol	0.212	0.201	5.2	63	-0.03	7.06
62	t	Dibenzofuran	1.667	1.642	1.5	70	-0.02	7.15
63	t	2,4-Dinitrotoluene	0.383	0.378	1.3	65	-0.02	7.13
64		2,3,4,6-Tetrachlorophenol	0.307	0.338	-10.1	72	-0.03	7.28
65	t	Diethylphthalate	1.408	1.358	3.6	68	-0.02	7.40
66	t	Fluorene	1.333	1.290	3.2	70	-0.03	7.53
67	t	4-Chlorophenyl-phenylethe	0.617	0.599	2.9	71	-0.03	7.53
68	t	4-Nitroaniline	0.353	0.344	2.5	66	-0.02	7.55
69	I	Phenanthrene-d10	1.000	1.000	0.0	71	-0.03	8.78

			True	Calc.	% Drift			
70	t	4,6-Dinitro-2-methylpheno	50.000	43.830	12.3	60	-0.03	7.58

			AvgRF	CCRF	% Dev			
71	t	n-Nitrosodiphenylamine	0.537	0.624	-16.2	80	-0.03	7.67
72	t	1,2-Diphenylhydrazine	0.964	0.954	1.0	58	-0.03	7.72
74	t	4-Bromophenyl-phenylether	0.213	0.210	1.4	69	-0.03	8.15
75	t	Hexachlorobenzene	0.254	0.240	5.5	67	-0.03	8.23

			True	Calc.	% Drift			
76	t	Pentachlorophenol	50.000	52.290	-4.6	90	-0.03	8.51

			AvgRF	CCRF	% Dev			
77	t	Phenanthrene	1.142	1.142	0.0	68	-0.04	8.82
78	t	Anthracene	1.146	1.147	-0.1	68	-0.03	8.90
79	t	Carbazole	1.054	1.000	5.1	65	-0.03	9.16
80	t	Di-n-butylphthalate	1.337	1.294	3.2	65	-0.03	9.87
81	t	Fluoranthene	1.190	1.130	5.0	65	-0.04	10.92
83	I	Chrysene-d12	1.000	1.000	0.0	65	-0.05	13.98
84	t	Pyrene	1.451	1.428	1.6	59	-0.04	11.36
86	t	Butylbenzylphthalate	0.690	0.706	-2.3	64	-0.04	12.96
87	t	Benzo[a]anthracene	1.316	1.305	0.8	66	-0.04	13.97
89	t	Chrysene	1.346	1.263	6.2	63	-0.04	14.04
90	t	bis(2-Ethylhexyl)phthalat	0.943	0.976	-3.5	63	-0.04	14.37
91	I	Perylene-d12	1.000	1.000	0.0	66	-0.05	17.01

			True	Calc.	% Drift			
92	t	Di-n-octylphthalate	50.000	48.454	3.1	64	-0.04	15.80

			AvgRF	CCRF	% Dev			
93	t	Benzo[b]fluoranthene	1.103	1.107	-0.4	59	-0.05	16.26
94	t	Benzo[k]fluoranthene	1.166	1.160	0.5	62	-0.05	16.32

			True	Calc.	% Drift			
95	t	Benzo[a]pyrene	50.000	50.505	-1.0	69	-0.05	16.89
96	t	Indeno[1,2,3-cd]pyrene	50.000	50.890	-1.8	67	-0.05	18.94

			True	Calc.	% Drift			
98	t	Dibenz[a,h]anthracene	50.000	48.421	3.2	63	-0.05	19.01

8.7.11

8

Initial Calibration Verification

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample: EF7877-ICV7873
Lab FileID: F183458.D

			True	Calc.	% Drift			
100	t	Benzo[g,h,i]perylene	50.000	49.949	0.1	66	-0.04	19.38

(#) = Out of Range SPCC's out = 0 CCC's out = 0

F183443A.D MF7873.M Wed Mar 27 18:11:45 2019

8.7.11

8

Initial Calibration Verification

Job Number: JC87363 **Sample:** EF7877-ICV7873
Account: TCMAW Tantara Corporation **Lab FileID:** F183459.D
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\EF7877\F183459.D Vial: 3
Acq On : 27 Mar 2019 12:13 pm Operator: angelar
Sample : icv7873-50 Inst : GCMSF
Misc : op18378,ef7877,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MF7873.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Tue Mar 26 13:56:40 2019
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	79	-0.02	4.62
2	t	1,4-Dioxane	0.582	0.568	2.4	79	-0.02	2.15
18	t	Acetophenone	2.038	1.953	4.2	75	-0.02	4.92
24	I	Naphthalene-d8	1.000	1.000	0.0	74	-0.02	5.55
34		2,6-Dichlorophenol	0.287	0.284	1.0	67	-0.02	5.61
41	t	Caprolactam	0.197	0.181	8.1	64	-0.03	5.83
47	I	Acenaphthene-d10	1.000	1.000	0.0	71	-0.03	6.95
53	t	Biphenyl	1.568	1.571	-0.2	67	-0.02	6.43
91	I	Perylene-d12	1.000	1.000	0.0	61	-0.06	17.00
99	t	7,12-Dimethylbenz(a)anthr	0.486	0.535	-10.1	61	-0.05	16.28

(#) = Out of Range SPCC's out = 0 CCC's out = 0
F183443A.D MF7873.M Wed Mar 27 18:11:47 2019

8.7.12

8

Continuing Calibration Summary

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample: EF7923-CC7873
Lab FileID: F184453.D

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\EF7923\F184453.D Vial: 2
Acq On : 6 May 2019 9:57 am Operator: angelar
Sample : cc7873-50 Inst : GCMSF
Misc : op18378,ef7923,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MF7873.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Mon Apr 22 12:39:29 2019
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	130	-0.03	4.46
2	t	1,4-Dioxane	0.582	0.652	-12.0	148	-0.17	1.93
3	t	Pyridine	1.504	1.752	-16.5	149	-0.13	2.28
4	t	N-Nitrosodimethylamine	0.866	0.844	2.5	133	-0.13	2.24
5	S	2-Fluorophenol	1.323	1.468	-11.0	138	-0.03	3.49
6	t	Indene	2.232	2.404	-7.7	140	-0.02	4.64
7	t	Cumene	3.332	3.581	-7.5	135	-0.05	3.86
8	S	Phenol-d5	1.740	1.916	-10.1	141	0.00	4.23
9	t	Phenol	2.054	2.294	-11.7	140	0.00	4.24
10	t	Aniline	2.076	2.141	-3.1	139	-0.03	4.22
11	t	bis(2-Chloroethyl)ether	1.385	1.538	-11.0	145	-0.03	4.26
12	t	2-Chlorophenol	1.380	1.498	-8.6	136	-0.02	4.31
13	t	Decane	1.734	1.853	-6.9	132	-0.03	4.35
14	t	1,3-Dichlorobenzene	1.591	1.628	-2.3	132	-0.03	4.41
15	t	1,4-Dichlorobenzene	1.632	1.676	-2.7	134	-0.03	4.47
16	t	Benzyl alcohol	0.876	0.946	-8.0	135	-0.02	4.57
17	t	1,2-Dichlorobenzene	1.576	1.542	2.2	128	-0.02	4.58
18	t	Acetophenone	2.038	2.154	-5.7	136	-0.01	4.76
19	t	2-Methylphenol	1.265	1.437	-13.6	144	-0.02	4.67
20	t	2,2'-oxybis(1-Chloropropa	0.373	0.409	-9.7	136	0.00	4.66
21	t	3&4-Methylphenol	1.316	1.522	-15.7	144	-0.02	4.78
22		n-Nitroso-di-n-propylamin	1.135	1.206	-6.3	136	0.00	4.76
23	t	Hexachloroethane	0.561	0.550	2.0	125	-0.02	4.82
24	I	Naphthalene-d8	1.000	1.000	0.0	128	-0.03	5.38
25	S	Nitrobenzene-d5	0.426	0.459	-7.7	132	-0.04	4.86
26	t	Nitrobenzene	0.449	0.473	-5.3	132	-0.04	4.88
27	t	Quinoline	0.693	0.743	-7.2	133	-0.01	5.64
28	t	Isophorone	0.740	0.773	-4.5	132	-0.03	5.05
29	t	2-Nitrophenol	0.188	0.209	-11.2	126	-0.03	5.11
30	t	2,4-Dimethylphenol	0.347	0.375	-8.1	127	-0.01	5.16
		----------	True	Calc.	% Drift	----------		
31	t	Benzoic acid	50.000	69.952	-39.9#	182	0.03	5.26
		----------	AvgRF	CCRF	% Dev	----------		
32	t	bis(2-Chloroethoxy)methan	0.447	0.470	-5.1	131	-0.03	5.20
33	t	2,4-Dichlorophenol	0.292	0.315	-7.9	129	-0.01	5.29
34		2,6-Dichlorophenol	0.287	0.311	-8.4	127	-0.02	5.44
35		1,3,5-Trichlorobenzene	0.354	0.333	5.9	118	-0.03	5.11
36	t	1,2,4-Trichlorobenzene	0.350	0.312	10.9	115	-0.03	5.34
37		1,2,3-Trichlorobenzene	0.330	0.320	3.0	118	-0.03	5.50

Continuing Calibration Summary

Job Number: JC87363 **Sample:** EF7923-CC7873
Account: TCMAW Tantara Corporation **Lab FileID:** F184453.D
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

38	t	Naphthalene	1.050	1.091	-3.9	132	-0.03	5.39
39	t	4-Chloroaniline	0.421	0.418	0.7	124	-0.02	5.44
40	t	2,3-Dichloroaniline	0.384	0.371	3.4	125	-0.02	6.10
41	t	Caprolactam	0.197	0.204	-3.6	124	0.00	5.70
42	t	Hexachlorobutadiene	0.193	0.174	9.8	111	-0.03	5.49
43	t	4-Chloro-3-methylphenol	0.324	0.338	-4.3	127	0.00	5.80
44	t	2-Methylnaphthalene	0.588	0.578	1.7	126	-0.02	5.89
45	t	1-Methylnaphthalene	0.749	0.735	1.9	128	-0.03	5.96
46	t	Dimethylnaphthalene	0.637	0.619	2.8	123	-0.03	6.36
47	I	Acenaphthene-d10	1.000	1.000	0.0	123	-0.04	6.72
48	t	Hexachlorocyclopentadiene	0.341	0.373	-9.4	118	-0.02	6.01
49	t	2,4,6-Trichlorophenol	0.377	0.393	-4.2	125	-0.03	6.10
50	t	2,4,5-Trichlorophenol	0.411	0.413	-0.5	120	-0.02	6.14
51	S	2-Fluorobiphenyl	1.487	1.450	2.5	106	-0.02	6.16
52	t	2-Chloronaphthalene	1.187	1.269	-6.9	123	-0.02	6.25
53	t	Biphenyl	1.568	1.591	-1.5	118	-0.02	6.24
54	t	2-Nitroaniline	0.413	0.595	-44.1#	162	-0.01	6.34
55	t	Dimethylphthalate	1.364	1.372	-0.6	119	-0.02	6.49
56	t	Acenaphthylene	1.963	1.966	-0.2	121	-0.03	6.59
57	t	2,6-Dinitrotoluene	0.290	0.316	-9.0	125	-0.02	6.53
58	t	3-Nitroaniline	0.340	0.370	-8.8	122	-0.02	6.69
59	t	Acenaphthene	1.321	1.305	1.2	118	-0.04	6.75
			True	Calc.	% Drift			
60	t	2,4-Dinitrophenol	100.000	112.948	-12.9	134	-0.02	6.79
			AvgRF	CCRF	% Dev			
61	t	4-Nitrophenol	0.212	0.234	-10.4	122	0.02	6.89
62	t	Dibenzofuran	1.667	1.732	-3.9	123	-0.04	6.92
63	t	2,4-Dinitrotoluene	0.383	0.427	-11.5	122	-0.03	6.91
64		2,3,4,6-Tetrachlorophenol	0.307	0.335	-9.1	119	-0.03	7.05
65	t	Diethylphthalate	1.408	1.383	1.8	115	-0.03	7.16
66	t	Fluorene	1.333	1.405	-5.4	126	-0.05	7.28
67	t	4-Chlorophenyl-phenylethe	0.617	0.594	3.7	116	-0.05	7.28
68	t	4-Nitroaniline	0.353	0.371	-5.1	117	-0.02	7.31
69	I	Phenanthrene-d10	1.000	1.000	0.0	110	-0.05	8.47
			True	Calc.	% Drift			
70	t	4,6-Dinitro-2-methylpheno	50.000	63.340	-26.7#	141	-0.01	7.34
			AvgRF	CCRF	% Dev			
71	t	n-Nitrosodiphenylamine	0.537	0.603	-12.3	121	-0.02	7.42
72	t	1,2-Diphenylhydrazine	0.964	1.095	-13.6	104	-0.03	7.46
73	S	2,4,6-Tribromophenol	0.119	0.118	0.8	89	-0.03	7.55
74	t	4-Bromophenyl-phenylether	0.213	0.213	0.0	110	-0.04	7.86
75	t	Hexachlorobenzene	0.254	0.239	5.9	104	-0.04	7.95
			True	Calc.	% Drift			
76	t	Pentachlorophenol	100.000	108.682	-8.7	119	-0.03	8.23
			AvgRF	CCRF	% Dev			
77	t	Phenanthrene	1.142	1.189	-4.1	110	-0.05	8.51
78	t	Anthracene	1.146	1.212	-5.8	111	-0.04	8.59
79	t	Carbazole	1.054	1.175	-11.5	118	-0.03	8.86
80	t	Di-n-butylphthalate	1.337	1.504	-12.5	117	-0.03	9.54
81	t	Fluoranthene	1.190	1.210	-1.7	109	-0.04	10.56
82	t	Octadecane	0.589	0.689	-17.0	122	-0.04	8.40

8.7.13

8

Continuing Calibration Summary

Job Number: JC87363 **Sample:** EF7923-CC7873
Account: TCMAW Tantara Corporation **Lab FileID:** F184453.D
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

83	I	Chrysene-d12	1.000	1.000	0.0	105	-0.06	13.59
84	t	Pyrene	1.451	1.550	-6.8	102	-0.10	10.99
85	S	Terphenyl-d14	0.890	0.910	-2.2	105	-0.09	11.42
86	t	Butylbenzylphthalate	0.690	0.787	-14.1	114	-0.06	12.58
87	t	Benzo[a]anthracene	1.316	1.271	3.4	103	-0.05	13.57
88	t	3,3'-Dichlorobenzidine	0.430	0.484	-12.6	106	-0.04	13.62
89	t	Chrysene	1.346	1.366	-1.5	109	-0.05	13.64
90	t	bis(2-Ethylhexyl)phthalat	0.943	1.095	-16.1	114	-0.03	13.99
91	I	Perylene-d12	1.000	1.000	0.0	104	-0.08	16.59
		----------	True	Calc.	% Drift	----------		
92	t	Di-n-octylphthalate	50.000	53.873	-7.7	110	-0.06	15.42
		----------	AvgRF	CCRF	% Dev	----------		
93	t	Benzo[b]fluoranthene	1.103	1.249	-13.2	104	-0.08	15.86
94	t	Benzo[k]fluoranthene	1.166	1.335	-14.5	111	-0.07	15.92
		----------	True	Calc.	% Drift	----------		
95	t	Benzo[a]pyrene	50.000	50.051	-0.1	106	-0.07	16.48
96	t	Indeno[1,2,3-cd]pyrene	50.000	43.760	12.5	90	-0.07	18.53
		----------	AvgRF	CCRF	% Dev	----------		
97	t	Dibenz(a,h)acridine	0.893	0.870	2.6	88	-0.03	18.18
		----------	True	Calc.	% Drift	----------		
98	t	Dibenz[a,h]anthracene	50.000	45.274	9.5	92	-0.07	18.60
		----------	AvgRF	CCRF	% Dev	----------		
99	t	7,12-Dimethylbenz(a)anthr	0.486	0.573	-17.9	110	-0.08	15.88
		----------	True	Calc.	% Drift	----------		
100	t	Benzo[g,h,i]perylene	50.000	44.799	10.4	91	-0.07	18.96

(#) = Out of Range SPCC's out = 0 CCC's out = 0
F183443A.D MF7873.M Mon May 06 11:17:07 2019

8.7.13

8

Continuing Calibration Summary

Job Number: JC87363 **Sample:** EF7923-CC7874
Account: TCMAW Tantara Corporation **Lab FileID:** F184454.D
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\EF7923\F184454.D Vial: 3
Acq On : 6 May 2019 10:24 am Operator: angelar
Sample : cc7874-50 Inst : GCMSF
Misc : op18378,ef7923,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MF7873.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Mon Apr 22 12:39:29 2019
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
101 I	1,4-Dichlorobenzene-d4b	1.000	1.000	0.0	114	-0.03	4.46
102	Benzaldehyde	1.138	1.313	-15.4	129	-0.04	4.13
103 I	Phenanthrene-d10b	1.000	1.000	0.0	103	-0.05	8.47
104	Atrazine	0.182	0.218	-19.8	112	-0.04	8.12
107 I	Naphthalene-d8b	1.000	1.000	0.0	119	-0.03	5.38
108	Hydroquinone	0.290	0.361	-24.5#	137	0.00	5.70
109 I	Acenaphthene-d10b	1.000	1.000	0.0	110	-0.04	6.72
110	1,2,4,5-Tetrachlorobenzen	0.543	0.556	-2.4	107	-0.01	6.01

(#) = Out of Range SPCC's out = 0 CCC's out = 0
F183443A.D MF7873.M Mon May 06 11:21:16 2019

8.7.14

8

Continuing Calibration Summary

Job Number: JC87363 **Sample:** EF7923-CC7875
Account: TCMAW Tantara Corporation **Lab FileID:** F184455.D
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\EF7923\F184455.D Vial: 4
Acq On : 6 May 2019 10:52 am Operator: angelar
Sample : cc7875-50 Inst : GCMSF
Misc : op18378,ef7923,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MF7873.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Mon Apr 22 12:39:29 2019
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
105 I	Chrysene-d12b	1.000	1.000	0.0	124	-0.07	13.58
		True	Calc.	% Drift			
106	Benzidine	50.000	47.684	4.6	120	-0.03	10.90

(#) = Out of Range SPCC's out = 0 CCC's out = 0
F183443A.D MF7873.M Mon May 06 11:21:54 2019

8.7.15

8

Initial Calibration Summary

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample: EM6556-ICC6556
Lab FileID: M153403.D

Response Factor Report MSM

Method : C:\MSDCHEM\1\METHODS\MM6556.M (RTE Integrator)
Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
Last Update : Mon Apr 15 11:48:45 2019
Response via : Initial Calibration

Calibration Files
2 =m153407.D 5 =m153406.D 100 =m153401a.D 50 =m153403.D
1 =m153408.D 10 =m153405.D 80 =m153402.D 25 =m153404.D

Compound	2	5	100	50	1	10	80	25	Avg	%RSD
1) I 1,4-Dichlorobenzene-d	ISTD									
2) 1,4-Dioxane	0.708	0.743	0.878	0.834	0.754	0.769	0.838	0.806	0.791	7.22
3) Pyridine	1.719	1.899	2.080	1.986	1.599	1.929	2.017	2.015	1.906	8.67
4) N-Nitrosodim	0.611	0.658	0.748	0.726	0.596	0.660	0.712	0.712	0.678	8.19
5) 2-Fluorophen	1.392	1.557	1.642	1.697	1.337	1.606	1.626	1.654	1.564	8.32
6) Indene	2.197	2.273	1.875	2.043	2.326	2.246	1.879	2.081	2.115	8.25
7) Cumene	3.772	3.943	3.403	3.707	3.790	3.993	3.431	3.854	3.737	5.83
8) Phenol-d5	1.761	1.954	1.939	2.047	1.803	2.022	1.926	1.997	1.931	5.25
9) Phenol	2.008	2.159	1.806	2.027	2.088	2.201	1.835	2.112	2.030	7.08
10) Aniline	2.230	2.299		1.746	2.255	2.178	1.604	1.919	2.033	13.60
11) bis(2-Chloro	1.442	1.502	1.304	1.367	1.444	1.477	1.291	1.404	1.404	5.53
12) 2-Chlorophen	1.342	1.505	1.320	1.415	1.325	1.493	1.323	1.431	1.394	5.56
13) Decane	1.149	1.177	0.887	0.992	1.191	1.157	0.904	1.063	1.065	11.59
14) 1,3-Dichloro	1.704	1.742	1.423	1.582	1.760	1.682	1.435	1.629	1.620	8.08
15) 1,4-Dichloro	1.545	1.528	1.346	1.462	1.480	1.533	1.382	1.491	1.471	4.92
16) Benzyl alcoh	0.716	0.815	0.858	0.887	0.795	0.828	0.836	0.838	0.822	6.20
17) 1,2-Dichloro	1.478	1.541	1.289	1.452	1.528	1.552	1.324	1.480	1.455	6.77
18) Acetophenone	1.906	1.989	1.617	1.746	2.053	1.960	1.627	1.824	1.840	8.97
19) 2-Methylphen	1.157	1.289	1.049	1.152	1.225	1.264	1.052	1.202	1.174	7.63
20) 2,2'-oxybis(	0.347	0.382	0.334	0.356	0.421	0.370	0.335	0.358	0.363	7.84
21) 3&4-Methylph	1.176	1.253	1.052	1.174	1.212	1.284	1.084	1.208	1.180	6.68
22) n-Nitroso-di	0.983	1.035	0.775	0.855	0.991	1.011	0.778	0.915	0.918	11.35
23) Hexachloroet	0.615	0.653	0.576	0.628	0.629	0.644	0.590	0.637	0.621	4.29
24) I Naphthalene-d8	ISTD									
25) Nitrobenzene	0.405	0.451	0.411	0.428	0.422	0.451	0.411	0.436	0.427	4.23
26) Nitrobenzene	0.423	0.440	0.377	0.407	0.412	0.450	0.385	0.420	0.414	6.01
27) Quinoline	0.727	0.785	0.726	0.777	0.735	0.801	0.739	0.772	0.758	3.87
28) Isophorone	0.769	0.806	0.711	0.775	0.767	0.826	0.729	0.801	0.773	5.02
29) 2-Nitropheno	0.156	0.189	0.192	0.216	0.144	0.215	0.205	0.216	0.192	14.59
30) 2,4-Dimethyl	0.268	0.310	0.342	0.348	0.251	0.321	0.347	0.351	0.317	12.19
31) Benzoic acid		0.168	0.256	0.297		0.239	0.292	0.262	0.252	18.58
32) bis(2-Chloro	0.476	0.495	0.432	0.456	0.503	0.488	0.438	0.463	0.469	5.55
33) 2,4-Dichloro	0.318	0.354	0.303	0.339	0.331	0.350	0.318	0.348	0.333	5.47
34) 2,6-Dichloro	0.297	0.328	0.277	0.303	0.288	0.324	0.285	0.312	0.302	6.18
35) 1,3,5-Trichl	0.456	0.454	0.341	0.390	0.474	0.450	0.355	0.421	0.418	12.02
36) 1,2,4-Trichl	0.439	0.438	0.348	0.390	0.434	0.433	0.364	0.408	0.407	8.83
37) 1,2,3-Trichl	0.403	0.405	0.315	0.351	0.442	0.402	0.328	0.374	0.378	11.49
38) Naphthalene	0.990	1.041	0.871	0.955	1.062	1.027	0.900	0.989	0.979	6.87
39) 4-Chloroanil	0.451	0.466	0.383	0.434	0.432	0.467	0.399	0.441	0.434	6.85
40) 2,3-Dichloro	0.432	0.459	0.379	0.418	0.416	0.458	0.395	0.436	0.424	6.62
41) Caprolactam	0.133	0.160	0.163	0.166	0.122	0.165	0.164	0.159	0.154	10.90
42) Hexachlorobu	0.245	0.261	0.213	0.234	0.261	0.260	0.220	0.245	0.242	7.75
43) 4-Chloro-3-m	0.311	0.354	0.344	0.372	0.286	0.369	0.352	0.367	0.344	8.87
44) 2-Methylnaph	0.614	0.662	0.549	0.614	0.649	0.668	0.575	0.637	0.621	6.76
45) 1-Methylnaph	0.822	0.839	0.690	0.768	0.854	0.835	0.713	0.795	0.790	7.72

Initial Calibration Summary

Job Number: JC87363 **Sample:** EM6556-ICC6556
Account: TCMAW Tantara Corporation **Lab FileID:** M153403.D
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

```
46) Dimethylnaph 0.710 0.748 0.603 0.672 0.698 0.746 0.624 0.699 0.687   7.63

47) I   Acenaphthene-d10      ----------------ISTD--------------------
48) Hexachlorocy 0.348 0.400 0.384 0.414 0.335 0.419 0.397 0.415 0.389   8.17
49) 2,4,6-Trichl 0.448 0.456 0.391 0.426 0.418 0.474 0.404 0.447 0.433   6.49
50) 2,4,5-Trichl 0.470 0.471 0.434 0.465 0.442 0.509 0.458 0.467 0.465   4.87
51) 2-Fluorobiph 1.636 1.609 1.284 1.377 1.646 1.579 1.311 1.454 1.487  10.04
52) 2-Chloronaph 1.385 1.362 1.026 1.108 1.411 1.306 1.054 1.193 1.231  12.62
53) Biphenyl     1.718 1.712 1.406 1.518 1.746 1.720 1.431 1.605 1.607   8.64
54) 2-Nitroanili 0.238 0.328 0.375 0.374 0.254 0.359 0.371 0.356 0.332  16.70
55) Dimethylphth 1.523 1.567 1.384 1.472 1.580 1.595 1.408 1.498 1.503   5.21
56) Acenaphthyle 2.012 2.074 1.715 1.849 2.035 2.078 1.751 1.942 1.932   7.46
57) 2,6-Dinitrot 0.208 0.271 0.307 0.330 0.195 0.308 0.314 0.320 0.282  18.60
58) 3-Nitroanili 0.258 0.324 0.368 0.376       0.367 0.371 0.366 0.347  12.41
59) Acenaphthene 1.184 1.223 1.081 1.142 1.219 1.222 1.112 1.177 1.170   4.59
60) 2,4-Dinitrop 0.037 0.065 0.162 0.168       0.101 0.170 0.133 0.119  44.46
          ----- Quadratic regression -----              Coefficient =  0.9976
               Response Ratio = -0.03138 + 0.18187 *A + -0.00221 *A^2

61) 4-Nitropheno       0.151 0.212 0.209       0.183 0.205 0.196 0.193  11.89
62) Dibenzofuran 1.894 1.911 1.525 1.637 1.871 1.865 1.554 1.736 1.749   9.08
63) 2,4-Dinitrot 0.224 0.340 0.380 0.398 0.229 0.399 0.381 0.397 0.344  21.80
          ----- Quadratic regression -----              Coefficient =  0.9999
               Response Ratio = -0.00674 + 0.41733 *A + -0.01431 *A^2

64) 2,3,4,6-Tetr 0.354 0.432 0.430 0.461 0.292 0.459 0.441 0.459 0.416  14.64
65) Diethylphtha 1.430 1.511 1.380 1.463 1.412 1.539 1.399 1.488 1.453   3.92
66) Fluorene     1.516 1.533 1.303 1.397 1.567 1.528 1.331 1.438 1.452   6.88
67) 4-Chlorophen 0.802 0.818 0.646 0.699 0.848 0.799 0.666 0.752 0.754   9.97
68) 4-Nitroanili 0.258 0.325 0.333 0.335 0.222 0.338 0.328 0.334 0.309  14.20

69) I   Phenanthrene-d10      ----------------ISTD--------------------
70) 4,6-Dinitro- 0.040 0.064 0.119 0.126       0.091 0.127 0.108 0.096  34.65
          ----- Quadratic regression -----              Coefficient =  0.9979
               Response Ratio = -0.01033 + 0.14209 *A + -0.00691 *A^2

71) n-Nitrosodip 0.547 0.581 0.465 0.508 0.565 0.574 0.479 0.534 0.532   8.25
72) 1,2-Diphenyl 0.746 0.781 0.656 0.692 0.763 0.791 0.668 0.735 0.729   7.05
73) 2,4,6-Tribro 0.105 0.140 0.134 0.148 0.112 0.148 0.141 0.148 0.135  12.52
74) 4-Bromopheny 0.273 0.289 0.243 0.269 0.287 0.294 0.254 0.275 0.273   6.54
75) Hexachlorobe 0.336 0.325 0.254 0.282 0.343 0.323 0.264 0.299 0.303  11.10
76) Pentachlorop 0.114 0.167 0.168 0.186       0.185 0.175 0.188 0.169  15.31
77) Phenanthrene 1.093 1.072 0.832 0.913 1.139 1.050 0.861 0.975 0.992  11.50
78) Anthracene   1.096 1.138 0.912 1.003 1.077 1.134 0.941 1.056 1.045   8.13
79) Carbazole    1.008 1.095 0.897 0.986 0.992 1.090 0.928 1.038 1.004   7.00
80) Di-n-butylph 1.063 1.269 1.168 1.274 1.029 1.350 1.206 1.321 1.210   9.67
81) Fluoranthene 1.306 1.426 1.155 1.283 1.315 1.441 1.201 1.362 1.311   7.63
82) Octadecane   0.318 0.339 0.293 0.313 0.325 0.346 0.304 0.330 0.321   5.47

83) I   Chrysene-d12          ----------------ISTD--------------------
84) Pyrene       1.449 1.522 1.423 1.470 1.454 1.535 1.390 1.474 1.465   3.28
85) Terphenyl-d1 1.025 1.080 1.100 1.104 1.041 1.111 1.071 1.098 1.079   2.90
86) Butylbenzylp 0.422 0.545 0.671 0.671       0.609 0.656 0.638 0.602  15.09
87) Benzo[a]anth 1.245 1.356 1.360 1.463 1.305 1.401 1.408 1.419 1.370   5.07
88) 3,3'-Dichlor 0.325 0.417 0.525 0.516       0.457 0.509 0.488 0.463  15.43
89) Chrysene     1.227 1.229 1.237 1.216 1.232 1.224 1.177 1.196 1.217   1.70
90) bis(2-Ethylh 0.429 0.641 0.885 0.849       0.736 0.822 0.795 0.737  21.41
          ----- Quadratic regression -----              Coefficient =  0.9986
               Response Ratio = -0.01303 + 0.78239 *A + 0.03842 *A^2
```

Initial Calibration Summary

Job Number: JC87363 **Sample:** EM6556-ICC6556
Account: TCMAW Tantara Corporation **Lab FileID:** M153403.D
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

```
 91) I   Perylene-d12          ----------------ISTD--------------------
 92) Di-n-octylph 0.593 0.938 1.309 1.353       1.204 1.308 1.292 1.142  24.47
          ----- Quadratic regression -----                Coefficient =  0.9998
               Response Ratio = -0.05184 + 1.42207 *A + -0.03846 *A^2

 93) Benzo[b]fluo 1.115 1.346 1.253 1.322 0.999 1.407 1.283 1.357 1.260  10.92
 94) Benzo[k]fluo 1.279 1.297 1.061 1.153 1.238 1.296 1.064 1.208 1.200   8.13
 95) Benzo[a]pyre 0.955 1.160 1.036 1.200 0.887 1.245 1.147 1.219 1.106  11.88
 96) Indeno[1,2,3 0.695 0.937 1.073 1.100 0.589 1.099 1.069 1.119 0.960  21.46
          ----- Quadratic regression -----                Coefficient =  0.9999
               Response Ratio = -0.01582 + 1.14231 *A + -0.02711 *A^2

 97) Dibenz(a,h)a 0.719 0.949 1.041 1.109       1.095 1.056 1.131 1.014  14.13
 98) Dibenz[a,h]a 0.822 1.081 1.067 1.108 0.708 1.172 1.069 1.129 1.020  16.04
 99) 7,12-Dimethy 0.350 0.395 0.534 0.542       0.490 0.525 0.546 0.483  16.29
100) Benzo[g,h,i] 0.883 1.072 1.069 1.118 0.845 1.179 1.072 1.154 1.049  11.58

 ------------------------------------------------------------------------------
 (#) = Out of Range  ###  Number of calibration levels exceeded format  ###

           MM6556.M          Mon Apr 15 12:00:07 2019
```

8.7.16

8

Initial Calibration Verification

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample: EM6556-ICV6556
Lab FileID: M153409.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EM6556\m153409.D Vial: 10
Acq On : 12 Apr 2019 9:43 pm Operator: christc2
Sample : icv6556-50 Inst : MSM
Misc : op17006,em6556,1000,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MM6556.M (RTE Integrator)
Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
Last Update : Mon Apr 15 11:20:55 2019
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	97	0.00	4.59
4	t	N-Nitrosodimethylamine	0.678	0.565	16.7	76	0.01	2.42
11	t	bis(2-Chloroethyl)ether	1.404	1.437	-2.4	102	0.00	4.39
14	t	1,3-Dichlorobenzene	1.620	1.516	6.4	93	0.00	4.55
15	t	1,4-Dichlorobenzene	1.471	1.383	6.0	92	0.00	4.60
17	t	1,2-Dichlorobenzene	1.455	1.349	7.3	90	0.00	4.72
20	t	2,2'-oxybis(1-Chloropropa	0.363	0.401	-10.5	110	0.00	4.80
22	t	n-Nitroso-di-n-propylamin	0.918	0.943	-2.7	107	0.00	4.91
23	t	Hexachloroethane	0.621	0.560	9.8	87	0.00	5.00
24	I	Naphthalene-d8	1.000	1.000	0.0	90	0.00	5.70
26	t	Nitrobenzene	0.414	0.373	9.9	83	0.00	5.04
28	t	Isophorone	0.773	0.707	8.5	82	0.00	5.25
32	t	bis(2-Chloroethoxy)methan	0.469	0.458	2.3	91	0.00	5.46
36	t	1,2,4-Trichlorobenzene	0.407	0.384	5.7	89	0.00	5.64
38	t	Naphthalene	0.979	0.926	5.4	87	0.00	5.72
42	t	Hexachlorobutadiene	0.242	0.234	3.3	90	0.00	5.86
47	I	Acenaphthene-d10	1.000	1.000	0.0	90	0.00	7.99
48	t	Hexachlorocyclopentadiene	0.389	0.377	3.1	81	0.00	6.73
52	t	2-Chloronaphthalene	1.231	1.176	4.5	95	0.00	7.15
55	t	Dimethylphthalate	1.503	1.333	11.3	81	0.00	7.61
56	t	Acenaphthylene	1.932	1.650	14.6	80	0.00	7.76
57	t	2,6-Dinitrotoluene	0.282	0.244	13.5	66	0.00	7.68
59	t	Acenaphthene	1.170	0.994	15.0	78	0.00	8.04
		----------	True	Calc.	% Drift	----------		
63	t	2,4-Dinitrotoluene	50.000	38.321	23.4	68	0.00	8.33
		----------	AvgRF	CCRF	% Dev	----------		
65	t	Diethylphthalate	1.453	1.283	11.7	79	0.00	8.79
66	t	Fluorene	1.452	1.263	13.0	81	0.00	8.90
67	t	4-Chlorophenyl-phenylethe	0.754	0.629	16.6	81	0.00	8.94
69	I	Phenanthrene-d10	1.000	1.000	0.0	85	0.00	10.57

8.7.17

8

Initial Calibration Verification

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample: EM6556-ICV6556
Lab FileID: M153409.D

71	t	n-Nitrosodiphenylamine	0.532	0.445	16.4	74	0.00	9.15
72	t	1,2-Diphenylhydrazine	0.729	0.634	13.0	78	0.00	9.21
74	t	4-Bromophenyl-phenylether	0.273	0.245	10.3	77	0.00	9.80
75	t	Hexachlorobenzene	0.303	0.254	16.2	76	0.00	9.89
77	t	Phenanthrene	0.992	0.904	8.9	84	0.00	10.62
78	t	Anthracene	1.045	0.924	11.6	78	0.00	10.71
80	t	Di-n-butylphthalate	1.210	1.104	8.8	74	0.00	11.88
81	t	Fluoranthene	1.311	1.142	12.9	76	0.00	12.89
83	I	Chrysene-d12	1.000	1.000	0.0	79	0.00	15.71
84	t	Pyrene	1.465	1.357	7.4	73	0.00	13.31
86	t	Butylbenzylphthalate	0.602	0.596	1.0	70	0.00	14.80
87	t	Benzo[a]anthracene	1.370	1.292	5.7	70	0.00	15.69
89	t	Chrysene	1.217	1.090	10.4	71	0.00	15.75
			True	Calc.	% Drift			
90	t	bis(2-Ethylhexyl)phthalat	50.000	45.228	9.5	68	0.00	16.03
			AvgRF	CCRF	% Dev			
91	I	Perylene-d12	1.000	1.000	0.0	75	0.00	18.30
			True	Calc.	% Drift			
92	t	Di-n-octylphthalate	50.000	44.043	11.9	65	0.00	17.25
			AvgRF	CCRF	% Dev			
93	t	Benzo[b]fluoranthene	1.260	1.158	8.1	66	0.00	17.67
94	t	Benzo[k]fluoranthene	1.200	1.130	5.8	74	-0.01	17.72
95	t	Benzo[a]pyrene	1.106	1.111	-0.5	70	0.00	18.20
			True	Calc.	% Drift			
96	t	Indeno[1,2,3-cd]pyrene	50.000	46.704	6.6	70	-0.01	19.96
			AvgRF	CCRF	% Dev			
98	t	Dibenz[a,h]anthracene	1.020	0.964	5.5	66	0.00	20.02
100	t	Benzo[g,h,i]perylene	1.049	1.073	-2.3	72	0.00	20.38

(#) = Out of Range SPCC's out = 0 CCC's out = 0
m153403.D MM6556.M Mon Apr 15 11:24:59 2019

8.7.17

8

Initial Calibration Verification

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample: EM6556-ICV6556
Lab FileID: M153410.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EM6556\m153410.D Vial: 11
Acq On : 12 Apr 2019 10:12 pm Operator: christc2
Sample : icv6556-50 Inst : MSM
Misc : op17006,em6556,1000,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MM6556.M (RTE Integrator)
Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
Last Update : Mon Apr 15 11:20:55 2019
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	103	0.00	4.59
2	t	1,4-Dioxane	0.791	0.669	15.4	83	0.02	2.14
6	t	Indene	2.115	2.248	-6.3	114	0.00	4.79
7	t	Cumene	3.737	3.309	11.5	92	0.00	4.00
13	t	Decane	1.065	0.918	13.8	96	0.00	4.48
18	t	Acetophenone	1.840	1.709	7.1	101	0.00	4.90
24	I	Naphthalene-d8	1.000	1.000	0.0	106	0.00	5.70
27	t	Quinoline	0.758	0.648	14.5	88	-0.02	6.07
40	t	2,3-Dichloroaniline	0.424	0.327	22.9	83	0.00	6.87
41	t	Caprolactam	0.154	0.115	25.3	74	-0.04	6.14
45	t	1-Methylnaphthalene	0.790	0.638	19.2	88	0.00	6.63
46	t	Dimethylnaphthalene	0.687	0.576	16.2	91	0.00	7.36
47	I	Acenaphthene-d10	1.000	1.000	0.0	90	0.00	7.99
53	t	Biphenyl	1.607	1.507	6.2	90	0.00	7.13
69	I	Phenanthrene-d10	1.000	1.000	0.0	90	0.00	10.57
82	t	Octadecane	0.321	0.314	2.2	91	0.00	10.61
83	I	Chrysene-d12	1.000	1.000	0.0	105	-0.02	15.70
		----------	AvgRF	CCRF	% Dev		----------	
91	I	Perylene-d12	1.000	1.000	0.0	77	0.00	18.30
99	t	7,12-Dimethylbenz(a)anthr	0.483	0.387	19.9	55	-0.02	17.68

(#) = Out of Range SPCC's out = 0 CCC's out = 0
m153403.D MM6556.M Mon Apr 15 11:34:24 2019

8.7.18

8

Initial Calibration Verification

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY
Sample: EM6556-ICV6556
Lab FileID: M153411.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EM6556\m153411.D Vial: 12
Acq On : 12 Apr 2019 10:40 pm Operator: christc2
Sample : icv6556-50 Inst : MSM
Misc : op17006,em6556,1000,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MM6556.M (RTE Integrator)
Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
Last Update : Mon Apr 15 11:38:00 2019
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	101	0.00	4.59
9	t	Phenol	2.030	1.988	2.1	99	0.00	4.34
12	t	2-Chlorophenol	1.394	1.399	-0.4	99	0.00	4.43
19	t	2-Methylphenol	1.174	1.239	-5.5	108	0.00	4.78
21	t	3&4-Methylphenol	1.180	1.273	-7.9	109	0.00	4.91
24	I	Naphthalene-d8	1.000	1.000	0.0	91	0.00	5.70
29	t	2-Nitrophenol	0.192	0.214	-11.5	90	0.00	5.33
30	t	2,4-Dimethylphenol	0.317	0.372	-17.4	97	0.00	5.37
31	t	Benzoic acid	0.252	0.240	4.8	74	-0.02	5.48
33	t	2,4-Dichlorophenol	0.333	0.329	1.2	88	0.00	5.55
34	t	2,6-Dichlorophenol	0.302	0.324	-7.3	97	0.00	5.78
43	t	4-Chloro-3-methylphenol	0.344	0.347	-0.9	85	-0.02	6.32
47	I	Acenaphthene-d10	1.000	1.000	0.0	92	0.00	7.99
49	t	2,4,6-Trichlorophenol	0.433	0.467	-7.9	101	0.00	6.88
50	t	2,4,5-Trichlorophenol	0.465	0.447	3.9	89	-0.01	6.93
			True	Calc.	% Drift			
60	t	2,4-Dinitrophenol	50.000	37.761	24.5	76	-0.02	8.10
			AvgRF	CCRF	% Dev			
61	t	4-Nitrophenol	0.193	0.172	10.9	76	-0.02	8.25
			AvgRF	CCRF	% Dev			
64	t	2,3,4,6-Tetrachlorophenol	0.416	0.402	3.4	81	0.00	8.54
69	I	Phenanthrene-d10	1.000	1.000	0.0	81	0.00	10.57
			True	Calc.	% Drift			
70	t	4,6-Dinitro-2-methylpheno	50.000	46.695	6.6	75	-0.02	9.01
76	t	Pentachlorophenol	0.169	0.216	-27.8	94	0.00	10.26

(#) = Out of Range SPCC's out = 0 CCC's out = 0
m153403.D MM6556.M Mon Apr 15 11:41:07 2019

8.7.19

8

Initial Calibration Verification

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY
Sample: EM6556-ICV6556
Lab FileID: M153413.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EM6556\m153413.D Vial: 14
Acq On : 12 Apr 2019 11:37 pm Operator: christc2
Sample : icv6556-50 Inst : MSM
Misc : op17006,em6556,1000,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MM6556.M (RTE Integrator)
Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
Last Update : Mon Apr 15 11:48:45 2019
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	107	0.00	4.59
5	S	2-Fluorophenol	1.564	1.346	13.9	85	0.00	3.61
8	S	Phenol-d5	1.931	1.610	16.6	84	0.00	4.32
24	I	Naphthalene-d8	1.000	1.000	0.0	101	0.00	5.70
25	S	Nitrobenzene-d5	0.427	0.382	10.5	91	0.00	5.03
47	I	Acenaphthene-d10	1.000	1.000	0.0	93	0.00	7.99
51	S	2-Fluorobiphenyl	1.487	1.360	8.5	92	0.00	7.00
69	I	Phenanthrene-d10	1.000	1.000	0.0	85	0.00	10.57
73	S	2,4,6-Tribromophenol	0.135	0.136	-0.7	78	0.00	9.32
83	I	Chrysene-d12	1.000	1.000	0.0	85	-0.01	15.70
85	S	Terphenyl-d14	1.079	1.040	3.6	80	0.00	13.74

(#) = Out of Range SPCC's out = 0 CCC's out = 0
m153403.D MM6556.M Mon Apr 15 11:56:06 2019

Initial Calibration Verification

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample: EM6556-ICV6556
Lab FileID: M153414.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EM6556\m153414.D Vial: 15
Acq On : 13 Apr 2019 12:06 am Operator: christc2
Sample : icv6556-50 Inst : MSM
Misc : op17006,em6556,1000,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MM6556.M (RTE Integrator)
Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
Last Update : Mon Apr 15 11:48:45 2019
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
83 I	Chrysene-d12	1.000	1.000	0.0	155	0.00	15.71
88 t	3,3'-Dichlorobenzidine	0.463	0.428	7.6	129	0.00	15.73

(#) = Out of Range SPCC's out = 0 CCC's out = 0
m153403.D MM6556.M Mon Apr 15 11:59:07 2019

8.7.21

8

Initial Calibration Summary

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample: EM6557-ICC6557
Lab FileID: M153422.D

Response Factor Report MSM

Method : C:\MSDCHEM\1\METHODS\MM6557.M (RTE Integrator)
Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
Last Update : Mon Apr 15 12:52:14 2019
Response via : Initial Calibration

Calibration Files
2 =m153426.D 5 =m153425.D 100 =m153420.D 50 =m153422.D
1 =m153427.D 10 =m153424.D 80 =m153421.D 25 =m153423.D

Compound	2	5	100	50	1	10	80	25	Avg	%RSD
101) I 1,4-Dichlorobenzene-d	ISTD									
102) Benzaldehyde	1.151	1.145	1.016	1.112	1.161	1.125	1.076	1.194	1.122	4.93
103) I Acenaphthene-d10a	ISTD									
104) 1,2,4,5-Tetr	0.709	0.733	0.583	0.654	0.751	0.705	0.610	0.718	0.683	8.87
105) Atrazine	0.138	0.163	0.196	0.213		0.186	0.202	0.214	0.187	14.95
108) Chrysene-d12b	ISTD									
109) 1-chloroocta		0.208	0.240	0.265		0.238	0.246	0.280	0.246	9.95
110) I Phenanthrene-d10a	ISTD									
111) o-terphenyl	0.576	0.606	0.551	0.609	0.568	0.607	0.572	0.661	0.594	5.80
112) Pentachloron		0.033	0.052	0.054		0.041	0.053	0.051	0.047#	18.00
113) I Naphthalene-d8a	ISTD									
114) Hydroquinone			0.353	0.351		0.240	0.356	0.328	0.326	15.05

(#) = Out of Range ### Number of calibration levels exceeded format ###

MM6556.M Mon Apr 15 12:56:13 2019

8.7.22

8

Initial Calibration Summary

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample: EM6558-ICC6558
Lab FileID: M153434.D

Response Factor Report MSM

Method : C:\MSDCHEM\1\METHODS\MM6558.M (RTE Integrator)
Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
Last Update : Mon Apr 15 13:37:21 2019
Response via : Initial Calibration

Calibration Files
2 =m153438.D 5 =m153437.D 100 =m153432.D 50 =m153434.D
1 =m153439.D 10 =m153436.D 80 =m153433.D 25 =m153435.D

Compound	2	5	100	50	1	10	80	25	Avg	%RSD
106) I Chrysene-d12a	ISTD									
107) Benzidine	0.823	0.831			0.519	0.856	0.747	0.755		18.30

(#) = Out of Range ### Number of calibration levels exceeded format ###

MM6556.M Mon Apr 15 13:38:55 2019

8.7.23

8

Initial Calibration Verification

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample: EM6558-ICV6558
Lab FileID: M153440.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EM6557\m153440.D Vial: 20
Acq On : 14 Apr 2019 6:31 pm Operator: chriss2
Sample : icv6558-50 Inst : MSM
Misc : op17006,em6558,1000,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MM6556.M (RTE Integrator)
Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
Last Update : Mon Apr 15 13:37:21 2019
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
106	I	Chrysene-d12a	1.000	1.000	0.0	132	0.00	15.70
107	t	Benzidine	0.755	0.656	13.1	104	0.01	13.24

(#) = Out of Range SPCC's out = 0 CCC's out = 0
m153434A.D MM6556.M Mon Apr 15 13:39:26 2019

8.7.24

8

Initial Calibration Verification

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample: EM6557-ICV6557
Lab FileID: M153441.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EM6557\m153441.D Vial: 21
Acq On : 14 Apr 2019 7:00 pm Operator: chriss2
Sample : icv6557-50 Inst : MSM
Misc : op17006,em6557,1000,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MM6556.M (RTE Integrator)
Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
Last Update : Mon Apr 15 12:52:14 2019
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
101	I	1,4-Dichlorobenzene-d4a	1.000	1.000	0.0	101	0.00	4.59
102	t	Benzaldehyde	1.122	1.084	3.4	99	0.00	4.26
103	I	Acenaphthene-d10a	1.000	1.000	0.0	103	0.00	7.99
104	I	1,2,4,5-Tetrachlorobenzen	0.683	0.641	6.1	101	0.00	6.73
105	t	Atrazine	0.187	0.205	-9.6	99	0.01	10.19
110	I	Phenanthrene-d10a	1.000	1.000	0.0	100	0.00	10.57
112		Pentachloronitrobenzene	0.047	0.047#	0.0	86	0.00	10.29

(#) = Out of Range SPCC's out = 0 CCC's out = 0
m153422a.D MM6556.M Mon Apr 15 12:56:40 2019

8.7.25

8

Initial Calibration Verification

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample: EM6557-ICV6557
Lab FileID: M153442.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EM6557\m153442.D Vial: 22
Acq On : 14 Apr 2019 7:28 pm Operator: chriss2
Sample : icv6557-50 Inst : MSM
Misc : op17006,em6557,1000,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MM6556.M (RTE Integrator)
Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
Last Update : Mon Apr 15 12:52:14 2019
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
113 I	Naphthalene-d8a	1.000	1.000	0.0	116	0.00	5.69
114	Hydroquinone	0.326	0.304	6.7	101	0.00	6.14

(#) = Out of Range SPCC's out = 0 CCC's out = 0
m153422a.D MM6556.M Mon Apr 15 12:56:42 2019

8.7.26

8

Initial Calibration Verification

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample: EM6559-ICV6556
Lab FileID: M153444.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EM6559\m153444.D Vial: 2
Acq On : 15 Apr 2019 2:05 pm Operator: christc2
Sample : icv6556-50 Inst : MSM
Misc : op17006,em6559,1000,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MM6556.M (RTE Integrator)
Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
Last Update : Mon Apr 15 13:37:21 2019
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	99	0.00	4.59
3	t	Pyridine	1.906	1.645	13.7	82	0.08	2.53
10	t	Aniline	2.033	2.248	-10.6	127	0.00	4.35
16	t	Benzyl alcohol	0.822	0.855	-4.0	95	0.00	4.70
24	I	Naphthalene-d8	1.000	1.000	0.0	100	0.00	5.69
39	t	4-Chloroaniline	0.434	0.404	6.9	94	0.00	5.77
44	t	2-Methylnaphthalene	0.621	0.527	15.1	86	0.00	6.50
47	I	Acenaphthene-d10	1.000	1.000	0.0	90	0.00	7.99
54	t	2-Nitroaniline	0.332	0.313	5.7	75	-0.01	7.30
58	t	3-Nitroaniline	0.347	0.328	5.5	78	-0.01	7.93
62	t	Dibenzofuran	1.749	1.620	7.4	89	0.00	8.32
68	t	4-Nitroaniline	0.309	0.317	-2.6	85	-0.02	8.95
69	I	Phenanthrene-d10	1.000	1.000	0.0	83	-0.01	10.57
79	t	Carbazole	1.004	0.941	6.3	79	-0.01	11.05

(#) = Out of Range SPCC's out = 0 CCC's out = 0
m153434A.D MM6556.M Mon Apr 15 14:54:07 2019

8.7.27

8

Continuing Calibration Summary

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample: EM6583-CC6556
Lab FileID: M154070.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EM6583\m154070.D Vial: 2
Acq On : 5 May 2019 10:02 pm Operator: carolb
Sample : cc6556-25 Inst : MSM
Misc : op17006,em6583,1000,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MM6556.M (RTE Integrator)
Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
Last Update : Mon May 06 08:15:34 2019
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	88	-0.02	4.37
2	t	1,4-Dioxane	0.791	0.621	21.5#	68	-0.10	1.84
3	t	Pyridine	1.906	1.428	25.1#	63	-0.15	2.19
4	t	N-Nitrosodimethylamine	0.678	0.526	22.4#	65	-0.16	2.14
5	S	2-Fluorophenol	1.564	1.300	16.9	69	-0.05	3.40
6	t	Indene	2.115	2.024	4.3	86	0.09	4.57
7	t	Cumene	3.737	3.048	18.4	70	-0.05	3.77
8	S	Phenol-d5	1.931	1.669	13.6	74	0.00	4.13
9	t	Phenol	2.030	1.730	14.8	72	-0.01	4.14
10	t	Aniline	2.033	1.880	7.5	86	-0.03	4.13
11	t	bis(2-Chloroethyl)ether	1.404	1.159	17.5	73	-0.02	4.19
12	t	2-Chlorophenol	1.394	1.361	2.4	84	-0.02	4.22
13	t	Decane	1.065	1.000	6.1	83	-0.02	4.27
14	t	1,3-Dichlorobenzene	1.620	1.551	4.3	84	-0.02	4.33
15	t	1,4-Dichlorobenzene	1.471	1.444	1.8	85	-0.02	4.38
16	t	Benzyl alcohol	0.822	0.783	4.7	82	-0.01	4.49
17	t	1,2-Dichlorobenzene	1.455	1.436	1.3	86	-0.02	4.50
18	t	Acetophenone	1.840	1.694	7.9	82	-0.02	4.68
19	t	2-Methylphenol	1.174	1.140	2.9	84	0.00	4.58
20	t	2,2'-oxybis(1-Chloropropa	0.363	0.330	9.1	81	-0.02	4.58
21	t	3&4-Methylphenol	1.180	1.166	1.2	85	-0.01	4.70
22	t	n-Nitroso-di-n-propylamin	0.918	0.876	4.6	85	-0.02	4.68
23	t	Hexachloroethane	0.621	0.579	6.8	80	-0.03	4.76
24	I	Naphthalene-d8	1.000	1.000	0.0	88	-0.03	5.43
25	S	Nitrobenzene-d5	0.427	0.360	15.7	73	-0.02	4.80
26	t	Nitrobenzene	0.414	0.358	13.5	75	-0.02	4.81
27	t	Quinoline	0.758	0.741	2.2	84	-0.04	5.79
28	t	Isophorone	0.773	0.670	13.3	74	-0.02	5.01
29	t	2-Nitrophenol	0.192	0.231	-20.3#	94	-0.02	5.08
30	t	2,4-Dimethylphenol	0.317	0.299	5.7	75	0.00	5.13
31	t	Benzoic acid	0.252	0.297	-17.9	100	-0.02	5.24
32	t	bis(2-Chloroethoxy)methan	0.469	0.422	10.0	80	-0.02	5.20
33	t	2,4-Dichlorophenol	0.333	0.341	-2.4	86	-0.02	5.30
34	t	2,6-Dichlorophenol	0.302	0.324	-7.3	91	-0.02	5.52
35	t	1,3,5-Trichlorobenzene	0.418	0.407	2.6	85	-0.03	5.09
36	t	1,2,4-Trichlorobenzene	0.407	0.392	3.7	84	-0.03	5.37
37	t	1,2,3-Trichlorobenzene	0.378	0.368	2.6	87	-0.03	5.59
38	t	Naphthalene	0.979	0.979	0.0	87	-0.03	5.44
39	t	4-Chloroaniline	0.434	0.450	-3.7	90	-0.02	5.51
40	t	2,3-Dichloroaniline	0.424	0.437	-3.1	88	-0.03	6.55
41	t	Caprolactam	0.154	0.145	5.8	80	-0.03	5.87

Continuing Calibration Summary

Job Number: JC87363 **Sample:** EM6583-CC6556
Account: TCMAW Tantara Corporation **Lab FileID:** M154070.D
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

42	t	Hexachlorobutadiene	0.242	0.212	12.4	76	-0.03	5.58
43	t	4-Chloro-3-methylphenol	0.344	0.311	9.6	75	0.00	6.06
44	t	2-Methylnaphthalene	0.621	0.597	3.9	82	-0.03	6.19
45	t	1-Methylnaphthalene	0.790	0.765	3.2	85	-0.03	6.31
46	t	Dimethylnaphthalene	0.687	0.668	2.8	84	-0.02	7.02
47	I	Acenaphthene-d10	1.000	1.000	0.0	87	-0.04	7.63
48	t	Hexachlorocyclopentadiene	0.389	0.390	-0.3	82	-0.05	6.40
49	t	2,4,6-Trichlorophenol	0.433	0.451	-4.2	88	-0.03	6.57
50	t	2,4,5-Trichlorophenol	0.465	0.490	-5.4	91	-0.03	6.62
51	S	2-Fluorobiphenyl	1.487	1.412	5.0	85	-0.04	6.68
52	t	2-Chloronaphthalene	1.231	1.206	2.0	88	-0.04	6.82
53	t	Biphenyl	1.607	1.586	1.3	86	-0.04	6.80
54	t	2-Nitroaniline	0.332	0.353	-6.3	86	-0.04	6.97
55	t	Dimethylphthalate	1.503	1.404	6.6	82	-0.03	7.27
56	t	Acenaphthylene	1.932	1.954	-1.1	88	-0.04	7.41
57	t	2,6-Dinitrotoluene	0.282	0.327	-16.0	89	-0.03	7.34
58	t	3-Nitroaniline	0.347	0.378	-8.9	90	-0.02	7.59
59	t	Acenaphthene	1.170	1.167	0.3	86	-0.04	7.67
		----------	True	Calc.	% Drift	----------		
60	t	2,4-Dinitrophenol	50.000	58.933	-17.9	121	0.00	7.76
		----------	AvgRF	CCRF	% Dev	----------		
61	t	4-Nitrophenol	0.193	0.145	24.9#	64	0.04	7.95
62	t	Dibenzofuran	1.749	1.762	-0.7	88	-0.03	7.95
		----------	True	Calc.	% Drift	----------		
63	t	2,4-Dinitrotoluene	25.000	27.284	-9.1	95	-0.01	7.98
		----------	AvgRF	CCRF	% Dev	----------		
64	t	2,3,4,6-Tetrachlorophenol	0.416	0.450	-8.2	85	0.00	8.19
65	t	Diethylphthalate	1.453	1.370	5.7	80	0.00	8.43
66	t	Fluorene	1.452	1.439	0.9	87	-0.02	8.52
67	t	4-Chlorophenyl-phenylethe	0.754	0.702	6.9	81	0.00	8.56
68	t	4-Nitroaniline	0.309	0.338	-9.4	88	0.00	8.59
69	I	Phenanthrene-d10	1.000	1.000	0.0	83	-0.04	10.17
		----------	True	Calc.	% Drift	----------		
70	t	4,6-Dinitro-2-methylpheno	25.000	30.265	-21.1#	115	-0.05	8.66
		----------	AvgRF	CCRF	% Dev	----------		
71	t	n-Nitrosodiphenylamine	0.532	0.543	-2.1	85	-0.06	8.77
72	t	1,2-Diphenylhydrazine	0.729	0.660	9.5	75	-0.06	8.83
73	S	2,4,6-Tribromophenol	0.135	0.164	-21.5#	92	-0.05	8.94
74	t	4-Bromophenyl-phenylether	0.273	0.262	4.0	79	-0.05	9.41
75	t	Hexachlorobenzene	0.303	0.311	-2.6	86	-0.05	9.49
76	t	Pentachlorophenol	0.169	0.202	-19.5	89	-0.03	9.87
77	t	Phenanthrene	0.992	1.073	-8.2	91	-0.04	10.21
78	t	Anthracene	1.045	1.082	-3.5	85	-0.03	10.31
79	t	Carbazole	1.004	1.072	-6.8	86	-0.01	10.65
80	t	Di-n-butylphthalate	1.210	1.317	-8.8	83	0.07	11.49
81	t	Fluoranthene	1.311	1.287	1.8	79	0.00	12.46
82	t	Octadecane	0.321	0.326	-1.6	82	0.00	10.22
83	I	Chrysene-d12	1.000	1.000	0.0	79	-0.18	15.27
84	t	Pyrene	1.465	1.491	-1.8	80	-0.20	12.88
85	S	Terphenyl-d14	1.079	1.061	1.7	76	-0.19	13.32
86	t	Butylbenzylphthalate	0.602	0.649	-7.8	81	-0.16	14.39

Continuing Calibration Summary

Job Number: JC87363 **Sample:** EM6583-CC6556
Account: TCMAW Tantara Corporation **Lab FileID:** M154070.D
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

87	t	Benzo[a]anthracene	1.370	1.393	-1.7	78	-0.20	15.25
88	t	3,3'-Dichlorobenzidine	0.463	0.531	-14.7	86	-0.21	15.30
89	t	Chrysene	1.217	1.224	-0.6	81	-0.19	15.32
		----------	True	Calc.	% Drift	----------		
90	t	bis(2-Ethylhexyl)phthalat	25.000	27.330	-9.3	86	-0.16	15.62
		----------	AvgRF	CCRF	% Dev	----------		
91	I	Perylene-d12	1.000	1.000	0.0	82	-0.18	17.86
		----------	True	Calc.	% Drift	----------		
92	t	Di-n-octylphthalate	25.000	24.970	0.1	83	-0.17	16.83
		----------	AvgRF	CCRF	% Dev	----------		
93	t	Benzo[b]fluoranthene	1.260	1.268	-0.6	76	-0.19	17.23
94	t	Benzo[k]fluoranthene	1.200	1.096	8.7	74	-0.19	17.28
95	t	Benzo[a]pyrene	1.106	1.119	-1.2	75	-0.19	17.76
		----------	True	Calc.	% Drift	----------		
96	t	Indeno[1,2,3-cd]pyrene	25.000	24.138	3.4	78	-0.19	19.49
		----------	AvgRF	CCRF	% Dev	----------		
97	t	Dibenz(a,h)acridine	1.014	1.009	0.5	73	-0.16	19.19
98	t	Dibenz[a,h]anthracene	1.020	1.062	-4.1	77	-0.19	19.54
99	t	7,12-Dimethylbenz(a)anthr	0.483	0.527	-9.1	79	-0.20	17.25
100	t	Benzo[g,h,i]perylene	1.049	1.056	-0.7	75	-0.23	19.87

(#) = Out of Range SPCC's out = 0 CCC's out = 0
m153435A.D MM6556.M Mon May 06 08:16:40 2019

8.7.28

8

Continuing Calibration Summary

Job Number: JC87363 **Sample:** EM6583-CC6557
Account: TCMAW Tantara Corporation **Lab FileID:** M154071.D
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EM6583\m154071.D Vial: 3
Acq On : 5 May 2019 10:30 pm Operator: carolb
Sample : cc6557-25 Inst : MSM
Misc : op17006,em6583,1000,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MM6556.M (RTE Integrator)
Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
Last Update : Mon May 06 08:07:21 2019
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
101	I	1,4-Dichlorobenzene-d4a	1.000	1.000	0.0	101	-0.02	4.37
102	t	Benzaldehyde	1.122	1.023	8.8	86	-0.04	4.05
103	I	Acenaphthene-d10a	1.000	1.000	0.0	105	-0.04	7.63
104	I	1,2,4,5-Tetrachlorobenzen	0.683	0.671	1.8	98	-0.04	6.41
105	t	Atrazine	0.187	0.239	-27.8#	118	0.05	9.81
108		Chrysene-d12b	1.000	1.000	0.0	103	-0.19	15.27
109	s	1-chlorooctadecane	0.246	0.288	-17.1	106	-0.20	12.53
110	I	Phenanthrene-d10a	1.000	1.000	0.0	108	-0.14	10.17
111	s	o-terphenyl	0.594	0.629	-5.9	103	-0.12	10.98
112		Pentachloronitrobenzene	0.047	0.058	-23.4#	123	-0.13	9.90
113	I	Naphthalene-d8a	1.000	1.000	0.0	99	-0.03	5.42
114		Hydroquinone	0.326	0.367	-12.6	111	0.00	5.88

(#) = Out of Range SPCC's out = 0 CCC's out = 0
m153435A.D MM6556.M Mon May 06 08:12:26 2019

8.7.29

8

Continuing Calibration Summary

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample: EM6583-CC6558
Lab FileID: M154072.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EM6583\m154072.D Vial: 4
Acq On : 5 May 2019 10:59 pm Operator: carolb
Sample : cc6558-25 Inst : MSM
Misc : op17006,em6583,1000,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\MM6556.M (RTE Integrator)
Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
Last Update : Mon May 06 08:07:21 2019
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
106 I	Chrysene-d12a	1.000	1.000	0.0	88	-0.19	15.27
107 t	Benzidine	0.755	0.867	-14.8	102	-0.24	12.82

(#) = Out of Range SPCC's out = 0 CCC's out = 0
m153435A.D MM6556.M Mon May 06 08:12:28 2019

8.7.30

8

Initial Calibration Summary

Job Number: JC87363 **Sample:** EP5844-ICC5844
Account: TCMAW Tantara Corporation **Lab FileID:** P129143A.D
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Response Factor Report MSVOAMSP

Method : C:\MSDCHEM\1\METHODS\MP5844.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Fri Apr 26 11:57:54 2019
Response via : Initial Calibration

Calibration Files
2 =p129147.D 5 =p129146a.D 25 =p129144a.D 80 =p129142a.D
100 =p129141a.D 50 =p129143a.D 10 =p129145a.D 1 =p129148.D

Compound	2	5	25	80	100	50	10	1	Avg	%RSD
1) I 1,4-Dichlorobenzene-d	ISTD									
2) 1,4-Dioxane	0.609	0.573	0.660	0.694	0.677	0.670	0.642	0.664	0.649	6.12
3) Pyridine	1.136	1.435	1.179	1.211	1.399	1.142	1.412	0.920	1.229	14.40
4) N-Nitrosodim	0.521	0.576	0.727	0.697	0.731	0.700	0.689	0.591	0.654	12.16
5) 2-Fluorophen	1.018	1.118	1.405	1.523	1.546	1.512	1.260	0.900	1.285	19.48
6) Indene	2.063	2.085	2.134	2.048	1.992	2.226	2.127	2.081	2.095	3.32
7) Cumene	3.265	3.366	3.597	3.389	3.209	3.640	3.523	3.365	3.419	4.50
8) Phenol-d5	1.436	1.593	1.747	1.684	1.688	1.854	1.713	1.341	1.632	10.35
9) Phenol	1.668	1.721	1.881	1.790	1.748	1.975	1.840	1.603	1.778	6.74
10) Aniline	1.804	1.907	0.842	0.983	1.020	0.699	1.771	1.844	1.359	37.97
---- Quadratic regression ---- Coefficient = 0.9863										
Response Ratio = 0.13877 + 0.43487 *A + 0.21626 *A^2										
11) bis(2-Chloro	1.321	1.280	1.566	1.380	1.351	1.623	1.461	1.291	1.409	9.13
12) 2-Chlorophen	1.314	1.298	1.366	1.357	1.380	1.437	1.355	1.216	1.340	4.88
13) Decane	1.104	1.038	1.011	0.870	0.807	0.952	1.023	1.098	0.988	10.65
14) 1,3-Dichloro	1.570	1.637	1.614	1.534	1.475	1.614	1.619	1.548	1.576	3.49
15) 1,4-Dichloro	1.500	1.513	1.529	1.502	1.446	1.601	1.532	1.593	1.527	3.32
16) Benzyl alcoh	0.533	0.634	0.690	0.764	0.792	0.756	0.724	0.336	0.653	23.43
---- Quadratic regression ---- Coefficient = 0.9998										
Response Ratio = -0.00771 + 0.70401 *A + 0.03537 *A^2										
17) 1,2-Dichloro	1.536	1.466	1.571	1.541	1.488	1.590	1.525	1.489	1.526	2.81
18) Acetophenone	2.002	1.982	1.942	1.901	1.946	2.029	1.997	1.884	1.960	2.59
19) 2-Methylphen	1.141	1.146	1.277	1.242	1.269	1.300	1.281	1.293	1.244	5.17
20) 2,2'-oxybis(	0.301	0.319	0.331	0.331	0.330	0.341	0.345	0.324	0.328	4.17
21) 3&4-Methylph	1.233	1.172	1.227	1.229	1.262	1.299	1.317	1.002	1.218	8.05
22) n-Nitroso-di	0.970	0.960	0.898	0.862	0.875	0.940	0.961	0.984	0.931	5.01
23) Hexachloroet	0.638	0.616	0.631	0.622	0.598	0.648	0.635	0.611	0.625	2.56
24) I Naphthalene-d8	ISTD									
25) Nitrobenzene	0.434	0.436	0.428	0.415	0.407	0.442	0.452	0.425	0.430	3.38
26) Nitrobenzene	0.463	0.463	0.428	0.394	0.391	0.427	0.452	0.461	0.435	6.89
27) Quinoline	0.650	0.686	0.727	0.778	0.794	0.780	0.712	0.674	0.725	7.46
28) Isophorone	0.741	0.744	0.767	0.721	0.704	0.768	0.774	0.752	0.747	3.28
29) 2-Nitropheno	0.167	0.206	0.218	0.195	0.192	0.223	0.207	0.167	0.197	10.76
30) 2,4-Dimethyl		0.248	0.371	0.391	0.382	0.402	0.301		0.349	17.52
31) Benzoic acid		0.104	0.279	0.301	0.301	0.305	0.169		0.243	35.19
---- Quadratic regression ---- Coefficient = 0.9997										
Response Ratio = -0.03614 + 0.34636 *A + -0.01255 *A^2										
32) bis(2-Chloro	0.407	0.439	0.437	0.438	0.414	0.456	0.450	0.417	0.432	4.08
33) 2,4-Dichloro	0.254	0.318	0.346	0.367	0.367	0.366	0.336	0.279	0.329	13.00
34) 2,6-Dichloro	0.302	0.314	0.337	0.327	0.326	0.351	0.321	0.292	0.321	5.85
35) 1,3,5-Trichl	0.361	0.377	0.408	0.387	0.360	0.415	0.393	0.397	0.387	5.20
36) 1,2,4-Trichl	0.357	0.361	0.386	0.371	0.364	0.392	0.379	0.348	0.370	4.10

8.7.31

8

Initial Calibration Summary

Job Number: JC87363 **Sample:** EP5844-ICC5844
Account: TCMAW Tantara Corporation **Lab FileID:** P129143A.D
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

37)	1,2,3-Trichl	0.342	0.360	0.364	0.346	0.322	0.370	0.358	0.332	0.349	4.70
38)	Naphthalene	0.970	0.925	0.962	0.944	0.918	1.031	0.964	0.926	0.955	3.84
39)	4-Chloroanil	0.369	0.410	0.359	0.355	0.334	0.367	0.406	0.375	0.372	6.84
40)	2,3-Dichloro	0.387	0.411	0.416	0.427	0.433	0.446	0.417	0.379	0.414	5.42
41)	Caprolactam	0.146	0.157	0.154	0.143	0.122	0.161	0.160	0.111	0.144	12.81
42)	Hexachlorobu	0.228	0.225	0.240	0.219	0.209	0.245	0.234	0.230	0.229	4.99
43)	4-Chloro-3-m	0.326	0.337	0.361	0.363	0.357	0.384	0.352	0.289	0.346	8.34
44)	2-Methylnaph	0.545	0.556	0.571	0.535	0.510	0.583	0.555	0.526	0.548	4.36
45)	1-Methylnaph	0.689	0.707	0.736	0.708	0.688	0.750	0.714	0.683	0.709	3.35
46)	Dimethylnaph	0.609	0.632	0.651	0.621	0.623	0.686	0.651	0.600	0.634	4.37
47)	I Acenaphthene-d10	----------ISTD----------									
48)	Hexachlorocy	0.204	0.346	0.346	0.314	0.352	0.272			0.306	19.01
49)	2,4,6-Trichl	0.373	0.390	0.422	0.410	0.392	0.414	0.404	0.365	0.396	5.09
50)	2,4,5-Trichl	0.381	0.370	0.447	0.402	0.374	0.436	0.423	0.308	0.393	11.35
51)	2-Fluorobiph	1.310	1.323	1.364	1.146	1.054	1.293	1.369	1.281	1.267	8.73
52)	2-Chloronaph	1.128	1.146	1.143	1.011	0.894	1.118	1.152	1.083	1.084	8.28
53)	Biphenyl	1.372	1.363	1.470	1.207	1.110	1.405	1.431	1.429	1.348	9.25
54)	2-Nitroanili	0.411	0.394	0.375	0.291	0.270	0.355	0.408	0.355	0.357	14.63
55)	Dimethylphth	1.378	1.389	1.438	1.398	1.326	1.445	1.445	1.363	1.398	3.07
56)	Acenaphthyle	1.728	1.758	1.763	1.593	1.569	1.737	1.809	1.734	1.711	4.94
57)	2,6-Dinitrot	0.278	0.288	0.302	0.302	0.292	0.317	0.302	0.262	0.293	5.89
58)	3-Nitroanili	0.309	0.299	0.327	0.310	0.306	0.324	0.339	0.240	0.307	9.83
59)	Acenaphthene	1.056	1.057	1.083	1.043	0.932	1.099	1.091	1.055	1.052	4.96
60)	2,4-Dinitrop	0.036	0.102	0.176	0.210	0.209	0.195	0.138		0.152	42.51
	---- Quadratic regression ---- Coefficient = 0.9995										
	Response Ratio = -0.02450 + 0.19639 *A + 0.00395 *A^2										
61)	4-Nitropheno	0.196	0.184	0.229	0.233	0.229	0.239	0.225		0.220	9.44
62)	Dibenzofuran	1.544	1.572	1.671	1.591	1.533	1.659	1.662	1.530	1.595	3.79
63)	2,4-Dinitrot	0.361	0.408	0.406	0.402	0.402	0.410	0.424	0.306	0.390	9.87
64)	2,3,4,6-Tetr	0.303	0.316	0.369	0.394	0.396	0.394	0.360	0.221	0.344	17.74
65)	Diethylphtha	1.395	1.462	1.463	1.378	1.322	1.456	1.512	1.394	1.423	4.28
66)	Fluorene	1.275	1.302	1.355	1.221	1.124	1.343	1.367	1.240	1.279	6.41
67)	4-Chlorophen	0.628	0.644	0.671	0.621	0.577	0.665	0.656	0.597	0.632	5.26
68)	4-Nitroanili	0.246	0.296	0.297	0.308	0.310	0.317	0.317	0.253	0.293	9.55
69)	I Phenanthrene-d10	----------ISTD----------									
70)	4,6-Dinitro-	0.120	0.150	0.166	0.169	0.161	0.132			0.150	13.26
71)	n-Nitrosodip	0.480	0.490	0.534	0.549	0.535	0.551	0.506	0.503	0.518	5.28
72)	1,2-Diphenyl	0.842	0.818	0.793	0.781	0.731	0.793	0.842	0.882	0.810	5.72
73)	2,4,6-Tribro	0.100	0.110	0.137	0.157	0.158	0.144	0.126		0.133	16.88
74)	4-Bromopheny	0.204	0.215	0.252	0.282	0.270	0.270	0.235	0.216	0.243	12.13
75)	Hexachlorobe	0.255	0.250	0.283	0.305	0.300	0.300	0.270	0.255	0.277	8.18
76)	Pentachlorop	0.075	0.115	0.172	0.198	0.199	0.190	0.137		0.155	30.69
	---- Quadratic regression ---- Coefficient = 0.9997										
	Response Ratio = -0.02002 + 0.19009 *A + 0.00271 *A^2										
77)	Phenanthrene	0.995	0.981	1.054	1.097	1.068	1.114	1.026	1.004	1.042	4.67
78)	Anthracene	1.040	1.052	1.108	1.136	1.114	1.144	1.069	1.051	1.089	3.78
79)	Carbazole	0.978	1.021	1.067	1.094	1.105	1.111	1.054	0.983	1.052	5.02
80)	Di-n-butylph	1.370	1.442	1.567	1.561	1.513	1.615	1.513	1.358	1.492	6.30
81)	Fluoranthene	1.163	1.212	1.333	1.386	1.384	1.404	1.308	1.096	1.286	8.96
82)	Octadecane	0.416	0.404	0.420	0.382	0.349	0.412	0.425	0.455	0.408	7.73
83)	I Chrysene-d12	----------ISTD----------									
84)	Pyrene	1.333	1.321	1.447	1.441	1.353	1.467	1.362	1.354	1.385	4.14
85)	Terphenyl-d1	0.800	0.822	0.950	1.024	0.968	0.974	0.876	0.835	0.906	9.17
86)	Butylbenzylp	0.649	0.677	0.754	0.745	0.692	0.756	0.726	0.700	0.712	5.46
87)	Benzo[a]anth	1.254	1.266	1.318	1.358	1.348	1.364	1.274	1.367	1.319	3.60

Initial Calibration Summary

Job Number: JC87363 **Sample:** EP5844-ICC5844
Account: TCMAW Tantara Corporation **Lab FileID:** P129143A.D
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

```
 88) 3,3'-Dichlor 0.366 0.406 0.466 0.496 0.495 0.492 0.434 0.313 0.434  15.57
 89) Chrysene     1.074 1.109 1.203 1.235 1.197 1.239 1.131 1.103 1.161   5.56
 90) bis(2-Ethylh 0.847 0.921 1.027 1.025 0.947 1.035 0.964 0.857 0.953   7.84

 91) I   Perylene-d12          ----------------ISTD--------------------
 92) Di-n-octylph 1.289 1.451 1.750 1.756 1.525 1.773 1.590 1.237 1.546  13.61
 93) Benzo[b]fluo 1.030 1.063 1.240 1.467 1.466 1.365 1.175 0.947 1.219  16.42
 94) Benzo[k]fluo 0.999 1.046 1.122 0.991 0.908 1.073 1.052 1.016 1.026   6.20
 95) Benzo[a]pyre 0.942 0.966 1.072 1.128 1.110 1.129 1.013 0.888 1.031   8.96
 96) Indeno[1,2,3 0.809 0.900 0.989 1.035 1.099 1.043 0.958 0.706 0.942  13.95
 97) Dibenz(a,h)a 0.777 0.825 0.968 1.028 1.054 1.023 0.919 0.673 0.908  15.13
 98) Dibenz[a,h]a 0.856 0.914 0.996 1.064 1.140 1.053 0.943 0.720 0.961  13.82
 99) 7,12-Dimethy 0.263 0.286 0.492 0.580 0.552 0.558 0.375 0.249 0.419  33.84
             ---- Quadratic regression ----  Coefficient =  0.9981
               Response Ratio = -0.03113 + 0.58812 *A + -0.00582 *A^2

100) Benzo[g,h,i] 0.873 0.923 0.983 0.996 1.074 1.022 0.962 0.767 0.950  10.07


 ----------------------------------------------------------------------------
 (#) = Out of Range  ###  Number of calibration levels exceeded format  ###

          MP5844.M          Fri Apr 26 12:00:18 2019   ACLIMS
```

8.7.31

8

Initial Calibration Verification

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample: EP5844-ICV5844
Lab FileID: P129149.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EP5844\p129149.D Vial: 10
Acq On : 24 Apr 2019 5:39 am Operator: chriss2
Sample : icv5844-50 Inst : MSVOAMSP
Misc : op13894,ep5844,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MP5844.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Fri Apr 26 11:57:54 2019
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	114	0.00	3.84
4	t	N-Nitrosodimethylamine	0.654	0.653	0.2	107	0.04	1.47
		----------	AvgRF	CCRF	% Dev	----------		
11	t	bis(2-Chloroethyl)ether	1.409	1.360	3.5	96	0.00	3.66
14	t	1,3-Dichlorobenzene	1.576	1.601	-1.6	113	0.00	3.80
15	t	1,4-Dichlorobenzene	1.527	1.527	0.0	109	0.00	3.85
		----------	AvgRF	CCRF	% Dev	----------		
17	t	1,2-Dichlorobenzene	1.526	1.458	4.5	105	0.00	3.97
20	t	2,2'-oxybis(1-Chloropropa	0.328	0.370	-12.8	124	0.00	4.07
22		n-Nitroso-di-n-propylamin	0.931	0.909	2.4	111	-0.01	4.17
23	t	Hexachloroethane	0.625	0.587	6.1	104	0.00	4.21
24	I	Naphthalene-d8	1.000	1.000	0.0	108	0.00	4.77
26	t	Nitrobenzene	0.435	0.412	5.3	104	0.00	4.28
28	t	Isophorone	0.747	0.754	-0.9	106	-0.01	4.45
		----------	AvgRF	CCRF	% Dev	----------		
32	t	bis(2-Chloroethoxy)methan	0.432	0.458	-6.0	109	0.00	4.63
36	t	1,2,4-Trichlorobenzene	0.370	0.385	-4.1	106	0.00	4.74
38	t	Naphthalene	0.955	0.975	-2.1	102	0.00	4.79
42	t	Hexachlorobutadiene	0.229	0.242	-5.7	107	0.00	4.89
47	I	Acenaphthene-d10	1.000	1.000	0.0	98	0.00	6.02
48	t	Hexachlorocyclopentadiene	0.306	0.348	-13.7	75	0.00	5.40

Initial Calibration Verification

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY
Sample: EP5844-ICV5844
Lab FileID: P129149.D

52	t	2-Chloronaphthalene	1.084	1.204	-11.1	105	0.00	5.63
55	t	Dimethylphthalate	1.398	1.363	2.5	92	0.00	5.85
56	t	Acenaphthylene	1.711	1.697	0.8	96	0.00	5.92
57	t	2,6-Dinitrotoluene	0.293	0.279	4.8	86	0.00	5.89
59	t	Acenaphthene	1.052	1.029	2.2	92	0.00	6.04
63	t	2,4-Dinitrotoluene	0.390	0.376	3.6	90	0.00	6.19
65	t	Diethylphthalate	1.423	1.382	2.9	93	0.00	6.40
66	t	Fluorene	1.279	1.272	0.5	93	0.00	6.47
67	t	4-Chlorophenyl-phenylethe	0.632	0.605	4.3	89	0.00	6.48
69	I	Phenanthrene-d10	1.000	1.000	0.0	103	-0.01	7.45
71	t	n-Nitrosodiphenylamine	0.518	0.469	9.5	87	0.00	6.59
72	t	1,2-Diphenylhydrazine	0.810	0.727	10.2	94	0.00	6.63
74	t	4-Bromophenyl-phenylether	0.243	0.229	5.8	87	0.00	6.96
75	t	Hexachlorobenzene	0.277	0.246	11.2	84	0.00	7.02
		----------	AvgRF	CCRF	% Dev	----------		
77	t	Phenanthrene	1.042	0.974	6.5	90	-0.01	7.49
78	t	Anthracene	1.089	0.990	9.1	89	0.00	7.56
80	t	Di-n-butylphthalate	1.492	1.313	12.0	84	0.00	8.42
81	t	Fluoranthene	1.286	1.161	9.7	85	0.00	9.30
83	I	Chrysene-d12	1.000	1.000	0.0	85	0.00	12.17
84	t	Pyrene	1.385	1.381	0.3	80	0.00	9.69
86	t	Butylbenzylphthalate	0.712	0.720	-1.1	81	0.00	11.26
87	t	Benzo[a]anthracene	1.319	1.254	4.9	78	0.00	12.15
89	t	Chrysene	1.161	1.147	1.2	79	-0.01	12.22
90	t	bis(2-Ethylhexyl)phthalat	0.953	0.959	-0.6	79	0.00	12.65
91	I	Perylene-d12	1.000	1.000	0.0	83	-0.01	15.10
92	t	Di-n-octylphthalate	1.546	1.626	-5.2	76	-0.01	14.06
93	t	Benzo[b]fluoranthene	1.219	1.107	9.2	68	-0.02	14.38
94	t	Benzo[k]fluoranthene	1.026	1.051	-2.4	82	-0.02	14.44
95	t	Benzo[a]pyrene	1.031	1.052	-2.0	78	-0.01	14.99
96	t	Indeno[1,2,3-cd]pyrene	0.942	0.966	-2.5	77	-0.02	17.02
98	t	Dibenz[a,h]anthracene	0.961	0.917	4.6	73	-0.01	17.09
		----------	AvgRF	CCRF	% Dev	----------		
100	t	Benzo[g,h,i]perylene	0.950	0.963	-1.4	78	-0.01	17.43

(#) = Out of Range SPCC's out = 0 CCC's out = 0

8.7.32

8

Initial Calibration Verification

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample: EP5844-ICV5844
Lab FileID: P129149.D

p129143a.D MP5844.M Fri Apr 26 12:15:51 2019 ACLIMS

Initial Calibration Verification

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY
Sample: EP5844-ICV5844
Lab FileID: P129150.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EP5844\p129150.D Vial: 11
Acq On : 24 Apr 2019 6:06 am Operator: chriss2
Sample : icv5844-50 Inst : MSVOAMSP
Misc : op13894,ep5844,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MP5844.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Fri Apr 26 11:57:54 2019
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	115	0.00	3.84
2	t	1,4-Dioxane	0.649	0.596	8.2	102	0.04	1.25
6	t	Indene	2.095	2.265	-8.1	117	0.00	4.03
7	t	Cumene	3.419	3.267	4.4	103	0.00	3.21
13	t	Decane	0.988	0.946	4.3	114	0.00	3.75
18	t	Acetophenone	1.960	1.831	6.6	104	0.00	4.15
24	I	Naphthalene-d8	1.000	1.000	0.0	120	0.00	4.77
27	t	Quinoline	0.725	0.632	12.8	97	-0.03	5.03
40	t	2,3-Dichloroaniline	0.414	0.316	23.7	85	0.00	5.49
41	t	Caprolactam	0.144	0.120	16.7	89	-0.04	5.11
45	t	1-Methylnaphthalene	0.709	0.621	12.4	99	0.00	5.36
46	t	Dimethylnaphthalene	0.634	0.569	10.3	99	0.00	5.73
47	I	Acenaphthene-d10	1.000	1.000	0.0	101	0.00	6.02
53	t	Biphenyl	1.348	1.360	-0.9	98	0.00	5.62
69	I	Phenanthrene-d10	1.000	1.000	0.0	100	-0.01	7.46
82	t	Octadecane	0.408	0.393	3.7	95	0.00	7.44
83	I	Chrysene-d12	1.000	1.000	0.0	94	-0.02	12.15
91	I	Perylene-d12	1.000	1.000	0.0	90	-0.02	15.09
			True	Calc.	% Drift			
99	t	7,12-Dimethylbenz(a)anthr	50.000	38.460	23.1	68	-0.03	14.39

(#) = Out of Range SPCC's out = 0 CCC's out = 0
p129143a.D MP5844.M Fri Apr 26 12:27:58 2019 ACLIMS

Initial Calibration Verification

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample: EP5844-ICV5844
Lab FileID: P129151.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EP5844\p129151.D Vial: 12
Acq On : 24 Apr 2019 6:33 am Operator: chriss2
Sample : icv5844-50 Inst : MSVOAMSP
Misc : op13894,ep5844,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MP5844.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Fri Apr 26 11:57:54 2019
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	79	0.00	3.84
3	t	Pyridine	1.229	1.202	2.2	83	0.14	1.62
		----------	True	Calc.	% Drift	----------		
10	t	Aniline	50.000	75.169	-50.3#	156	0.00	3.62
		----------	AvgRF	CCRF	% Dev	----------		
		----------	True	Calc.	% Drift	----------		
16	t	Benzyl alcohol	50.000	62.800	-25.6	99	0.00	3.99
24	I	Naphthalene-d8	1.000	1.000	0.0	91	0.00	4.77
39	t	4-Chloroaniline	0.372	0.349	6.2	87	0.00	4.85
44	t	2-Methylnaphthalene	0.548	0.548	0.0	85	0.00	5.29
47	I	Acenaphthene-d10	1.000	1.000	0.0	85	0.00	6.02
54	t	2-Nitroaniline	0.357	0.379	-6.2	91	0.00	5.72
58	t	3-Nitroaniline	0.307	0.321	-4.6	85	0.00	6.01
62	t	Dibenzofuran	1.595	1.579	1.0	81	0.00	6.18
68	t	4-Nitroaniline	0.293	0.329	-12.3	89	-0.02	6.52
69	I	Phenanthrene-d10	1.000	1.000	0.0	94	-0.01	7.46
79	t	Carbazole	1.052	1.023	2.8	86	0.00	7.81

(#) = Out of Range SPCC's out = 0 CCC's out = 0
p129143a.D MP5844.M Fri Apr 26 12:15:55 2019 ACLIMS

Initial Calibration Verification

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample: EP5844-ICV5844
Lab FileID: P129152.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EP5844\p129152.D Vial: 13
Acq On : 24 Apr 2019 7:00 am Operator: chriss2
Sample : icv5844-50 Inst : MSVOAMSP
Misc : op13894,ep5844,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MP5844.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Fri Apr 26 11:57:54 2019
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	113	0.00	3.84
9	t	Phenol	1.778	1.866	-4.9	107	0.00	3.66
12	t	2-Chlorophenol	1.340	1.408	-5.1	111	0.00	3.70
19	t	2-Methylphenol	1.244	1.339	-7.6	117	-0.02	4.09
21	t	3&4-Methylphenol	1.218	1.351	-10.9	118	0.00	4.21
24	I	Naphthalene-d8	1.000	1.000	0.0	102	0.00	4.77
29	t	2-Nitrophenol	0.197	0.237	-20.3	109	0.00	4.51
30	t	2,4-Dimethylphenol	0.349	0.419	-20.1	107	0.00	4.58
		----------	True	Calc.	% Drift	----------		
31	t	Benzoic acid	50.000	47.288	5.4	95	0.00	4.75
33	t	2,4-Dichlorophenol	0.329	0.367	-11.6	102	-0.01	4.70
34		2,6-Dichlorophenol	0.321	0.359	-11.8	105	0.00	4.85
43	t	4-Chloro-3-methylphenol	0.346	0.381	-10.1	102	-0.02	5.23
47	I	Acenaphthene-d10	1.000	1.000	0.0	99	0.00	6.02
49	t	2,4,6-Trichlorophenol	0.396	0.474	-19.7	113	0.00	5.51
50	t	2,4,5-Trichlorophenol	0.393	0.444	-13.0	101	-0.02	5.54
		----------	True	Calc.	% Drift	----------		
60	t	2,4-Dinitrophenol	50.000	47.748	4.5	74	0.00	6.09
		----------	AvgRF	CCRF	% Dev	----------		
61	t	4-Nitrophenol	0.220	0.236	-7.3	98	-0.01	6.20
64		2,3,4,6-Tetrachlorophenol	0.344	0.368	-7.0	92	-0.01	6.30

Initial Calibration Verification

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample: EP5844-ICV5844
Lab FileID: P129152.D

				True	Calc.	% Drift			
69	I	Phenanthrene-d10		1.000	1.000	0.0	99	-0.01	7.46
70	t	4,6-Dinitro-2-methylpheno		0.150	0.157	-4.7	96	-0.02	6.54
76	t	Pentachlorophenol		50.000	55.000	-10.0	84	0.00	7.27

(#) = Out of Range SPCC's out = 0 CCC's out = 0
p129143a.D MP5844.M Fri Apr 26 12:15:57 2019 ACLIMS

8.7.35

8

Initial Calibration Verification

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample: EP5844-ICV5844
Lab FileID: P129153.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EP5844\p129153.D Vial: 14
Acq On : 24 Apr 2019 7:27 am Operator: chriss2
Sample : icv5844-50 Inst : MSVOAMSP
Misc : op13894,ep5844,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MP5844.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Fri Apr 26 11:57:54 2019
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	118	0.00	3.84
5	S	2-Fluorophenol	1.285	1.286	-0.1	100	0.00	2.84
8	S	Phenol-d5	1.632	1.598	2.1	102	0.00	3.65
24	I	Naphthalene-d8	1.000	1.000	0.0	120	0.00	4.77
25	S	Nitrobenzene-d5	0.430	0.419	2.6	113	0.00	4.26
47	I	Acenaphthene-d10	1.000	1.000	0.0	102	0.00	6.02
51	S	2-Fluorobiphenyl	1.267	1.329	-4.9	105	0.00	5.55
69	I	Phenanthrene-d10	1.000	1.000	0.0	102	-0.01	7.45
73	S	2,4,6-Tribromophenol	0.133	0.125	6.0	89	-0.01	6.70
83	I	Chrysene-d12	1.000	1.000	0.0	85	-0.02	12.15
85	S	Terphenyl-d14	0.906	1.017	-12.3	88	0.00	10.12

(#) = Out of Range SPCC's out = 0 CCC's out = 0
p129143a.D MP5844.M Fri Apr 26 12:15:59 2019 ACLIMS

Initial Calibration Verification

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample: EP5844-ICV5844
Lab FileID: P129154.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EP5844\p129154.D Vial: 15
Acq On : 24 Apr 2019 7:54 am Operator: chriss2
Sample : icv5844-50 Inst : MSVOAMSP
Misc : op13894,ep5844,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MP5844.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Fri Apr 26 11:57:54 2019
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
83 I	Chrysene-d12	1.000	1.000	0.0	164	-0.01	12.16
88 t	3,3'-Dichlorobenzidine	0.434	0.459	-5.8	153	0.00	12.24

(#) = Out of Range SPCC's out = 0 CCC's out = 0
p129143a.D MP5844.M Fri Apr 26 12:16:01 2019 ACLIMS

8.7.37

8

Initial Calibration Summary

Job Number: JC87363 **Sample:** EP5845-ICC5845
Account: TCMAW Tantara Corporation **Lab FileID:** P129158.D
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Response Factor Report MSVOAMSP

Method : C:\MSDCHEM\1\METHODS\MP5845.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Wed Apr 24 13:36:52 2019
Response via : Initial Calibration

Calibration Files
2 =p129162.D 5 =p129161.D 25 =p129159.D 80 =p129157.D
100 =p129156.D 50 =p129158.D 10 =p129160.D 1 =p129163.D

Compound	2	5	25	80	100	50	10	1	Avg	%RSD
1										
157) I 1,4-Dichlorobenzene-d	ISTD									
158) Benzaldehyde	0.928	1.060	1.189	1.118	1.086	1.117	1.053	0.803	1.044	11.78
159) I Phenanthrene-d10b	ISTD									
160) Atrazine	0.194	0.205	0.234	0.237	0.230	0.224	0.208	0.188	0.215	8.74
163) I Naphthalene-d8b	ISTD									
164) Hydroquinone			0.265	0.309	0.282	0.270	0.208		0.267	13.90
165) I Acenaphthene-d10b	ISTD									
166) 1,2,4,5-Tetr	0.554	0.574	0.614	0.614	0.626	0.635	0.570	0.519	0.588	6.90

(#) = Out of Range ### Number of calibration levels exceeded format ###

MP5844.M Wed Apr 24 13:41:34 2019 ACLIMS

8.7.38

8

Initial Calibration Verification

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample: EP5845-ICV5845
Lab FileID: P129164.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EP5844\p129164.D Vial: 24
Acq On : 24 Apr 2019 12:07 pm Operator: chriss2
Sample : icv5845-50 Inst : MSVOAMSP
Misc : op13894,ep5845,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MP5844.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Wed Apr 24 13:36:52 2019
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
157	I	1,4-Dichlorobenzene-d4b	1.000	1.000	0.0	84	0.00	3.84
158		Benzaldehyde	1.044	1.188	-13.8	89	-0.02	3.50
159	I	Phenanthrene-d10b	1.000	1.000	0.0	93	0.01	7.46
160		Atrazine	0.215	0.238	-10.7	99	0.02	7.20
165	I	Acenaphthene-d10b	1.000	1.000	0.0	90	0.00	6.02
166		1,2,4,5-Tetrachlorobenzen	0.588	0.615	-4.6	87	0.00	5.41

(#) = Out of Range SPCC's out = 0 CCC's out = 0
p129158a.D MP5844.M Wed Apr 24 13:48:19 2019 ACLIMS

8.7.39

8

Initial Calibration Verification

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample: EP5845-ICV5845
Lab FileID: P129165.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EP5844\p129165.D Vial: 25
Acq On : 24 Apr 2019 12:34 pm Operator: chriss2
Sample : icv5845-50 Inst : MSVOAMSP
Misc : op13894,ep5845,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MP5844.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Wed Apr 24 13:36:52 2019
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
163 I	Naphthalene-d8b	1.000	1.000	0.0	106	0.00	4.77
164	Hydroquinone	0.267	0.321	-20.2	126	-0.04	5.15

(#) = Out of Range SPCC's out = 0 CCC's out = 0
p129158a.D MP5844.M Wed Apr 24 13:48:21 2019 ACLIMS

8.7.40

8

Initial Calibration Summary

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample: EP5846-ICC5846
Lab FileID: P129174.D

Response Factor Report MSVOAMSP

Method : C:\MSDCHEM\1\METHODS\MP5846.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Apr 25 08:18:41 2019
Response via : Initial Calibration

Calibration Files
2 =p129178.D 5 =p129177.D 25 =p129175.D 80 =p129173.D
100 =p129172.D 50 =p129174.D 10 =p129176.D 1 =

Compound	2	5	25	80	100	50	10	1	Avg	%RSD
161) I Chrysene-d12b	ISTD									
162) Benzidine			0.766	0.942	0.935	0.880	0.635		0.832	15.73

(#) = Out of Range ### Number of calibration levels exceeded format ###

MP5844.M Thu Apr 25 08:20:02 2019 ACLIMS

8.7.41

8

Initial Calibration Verification

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample: EP5846-ICV5846
Lab FileID: P129180.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EP5844\p129180.D Vial: 34
Acq On : 24 Apr 2019 7:44 pm Operator: chriss2
Sample : icv5846-50 Inst : MSVOAMSP
Misc : op13894,ep5846,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MP5844.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Thu Apr 25 08:18:41 2019
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
161 I	Chrysene-d12b	1.000	1.000	0.0	105	0.00	12.15
162	Benzidine	0.832	0.734	11.8	88	0.00	9.65

(#) = Out of Range SPCC's out = 0 CCC's out = 0
p129174.D MP5844.M Thu Apr 25 08:20:28 2019 ACLIMS

8.7.42

8

Continuing Calibration Summary

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample: EP5854-CC5844
Lab FileID: P129335.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EP5854\p129335.D Vial: 2
Acq On : 6 May 2019 7:44 am Operator: chriss2
Sample : cc5844-25 Inst : MSVOAMSP
Misc : op13894,ep5854,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MP5844.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Mon May 06 09:56:01 2019
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	69	-0.06	3.78
2	t	1,4-Dioxane	0.649	0.744	-14.6	78	-0.05	1.16
3	t	Pyridine	1.229	1.810	-47.3#	106	-0.11	1.37
4	t	N-Nitrosodimethylamine	0.654	0.711	-8.7	68	-0.06	1.36
5	S	2-Fluorophenol	1.285	1.405	-9.3	69	0.18	2.83
8	S	Phenol-d5	1.632	1.905	-16.7	76	0.00	3.65
9	t	Phenol	1.778	1.679	5.6	62	0.00	3.66
		----------	True	Calc.	% Drift		----------	
10	t	Aniline	25.000	60.118	-140.5#	169	-0.07	3.55
		----------	AvgRF	CCRF	% Dev		----------	
11	t	bis(2-Chloroethyl)ether	1.409	1.318	6.5	58	-0.06	3.60
12	t	2-Chlorophenol	1.340	1.298	3.1	66	-0.04	3.67
13	t	Decane	0.988	0.991	-0.3	68	-0.06	3.69
14	t	1,3-Dichlorobenzene	1.576	1.461	7.3	63	-0.06	3.73
15	t	1,4-Dichlorobenzene	1.527	1.415	7.3	64	-0.06	3.79
		----------	True	Calc.	% Drift		----------	
16	t	Benzyl alcohol	25.000	29.162	-16.6	84	-0.05	3.93
		----------	AvgRF	CCRF	% Dev		----------	
17	t	1,2-Dichlorobenzene	1.526	1.415	7.3	62	-0.06	3.90
18	t	Acetophenone	1.960	1.830	6.6	65	-0.06	4.10
19	t	2-Methylphenol	1.244	1.242	0.2	67	-0.03	4.08
20	t	2,2'-oxybis(1-Chloropropa	0.328	0.355	-8.2	74	-0.06	4.01
21	t	3&4-Methylphenol	1.218	1.262	-3.6	71	-0.01	4.21
22		n-Nitroso-di-n-propylamin	0.931	0.884	5.0	68	-0.07	4.11
23	t	Hexachloroethane	0.625	0.606	3.0	67	-0.06	4.15
24	I	Naphthalene-d8	1.000	1.000	0.0	66	-0.06	4.71
25	S	Nitrobenzene-d5	0.430	0.534	-24.2#	83	-0.06	4.20
26	t	Nitrobenzene	0.435	0.584	-34.3#	90	-0.06	4.22
28	t	Isophorone	0.747	0.820	-9.8	71	-0.06	4.40
29	t	2-Nitrophenol	0.197	0.198	-0.5	60	-0.06	4.45
30	t	2,4-Dimethylphenol	0.349	0.428	-22.6#	76	-0.03	4.55
		----------	AvgRF	CCRF	% Dev		----------	
32	t	bis(2-Chloroethoxy)methan	0.432	0.469	-8.6	71	-0.06	4.58

Continuing Calibration Summary

Job Number: JC87363 **Sample:** EP5854-CC5844
Account: TCMAW Tantara Corporation **Lab FileID:** P129335.D
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

33	t	2,4-Dichlorophenol	0.329	0.333	-1.2	64	-0.03	4.68
34		2,6-Dichlorophenol	0.321	0.284	11.5	56	-0.05	4.81
36	t	1,2,4-Trichlorobenzene	0.370	0.380	-2.7	65	-0.06	4.68
38	t	Naphthalene	0.955	0.963	-0.8	66	-0.06	4.73
39	t	4-Chloroaniline	0.372	0.374	-0.5	69	-0.06	4.80
41	t	Caprolactam	0.144	0.155	-7.6	67	-0.10	5.05
42	t	Hexachlorobutadiene	0.229	0.210	8.3	58	-0.06	4.83
43	t	4-Chloro-3-methylphenol	0.346	0.346	0.0	63	-0.03	5.22
44	t	2-Methylnaphthalene	0.548	0.602	-9.9	70	-0.06	5.23
45	t	1-Methylnaphthalene	0.709	0.655	7.6	59	-0.06	5.29
47	I	Acenaphthene-d10	1.000	1.000	0.0	61	-0.07	5.95
48	t	Hexachlorocyclopentadiene	0.306	0.346	13.1	60	-0.06	5.35
49	t	2,4,6-Trichlorophenol	0.396	0.427	-7.8	61	-0.05	5.46
50	t	2,4,5-Trichlorophenol	0.393	0.418	-6.4	57	-0.06	5.52
51	S	2-Fluorobiphenyl	1.267	1.650	-30.2#	74	-0.06	5.49
52	t	2-Chloronaphthalene	1.084	1.360	-25.5#	72	-0.06	5.57
53	t	Biphenyl	1.348	1.400	-3.9	58	-0.06	5.56
54	t	2-Nitroaniline	0.357	0.394	-10.4	64	-0.06	5.67
55	t	Dimethylphthalate	1.398	1.370	2.0	58	-0.06	5.79
56	t	Acenaphthylene	1.711	1.759	-2.8	61	-0.06	5.85
57	t	2,6-Dinitrotoluene	0.293	0.293	0.0	59	-0.06	5.83
58	t	3-Nitroaniline	0.307	0.311	-1.3	58	-0.05	5.96
59	t	Acenaphthene	1.052	1.060	-0.8	59	-0.06	5.98
			True	Calc.	% Drift			
60	t	2,4-Dinitrophenol	25.000	19.927	20.1#	40#	-0.06	6.04
			AvgRF	CCRF	% Dev			
61	t	4-Nitrophenol	0.220	0.274	-24.5#	73	0.00	6.21
62	t	Dibenzofuran	1.595	1.636	-2.6	59	-0.07	6.11
63	t	2,4-Dinitrotoluene	0.390	0.380	2.6	57	-0.07	6.13
64		2,3,4,6-Tetrachlorophenol	0.344	0.362	-5.2	60	-0.06	6.24
65	t	Diethylphthalate	1.423	1.456	-2.3	60	-0.08	6.33
66	t	Fluorene	1.279	1.295	-1.3	58	-0.08	6.39
67	t	4-Chlorophenyl-phenylethe	0.632	0.612	3.2	55	-0.08	6.40
68	t	4-Nitroaniline	0.293	0.310	-5.8	63	-0.07	6.46
69	I	Phenanthrene-d10	1.000	1.000	0.0	64	-0.11	7.36
70	t	4,6-Dinitro-2-methylpheno	0.150	0.112	25.3#	48#	-0.09	6.47
71	t	n-Nitrosodiphenylamine	0.518	0.590	-13.9	70	-0.08	6.52
72	t	1,2-Diphenylhydrazine	0.810	0.930	-14.8	75	-0.09	6.55
73	S	2,4,6-Tribromophenol	0.133	0.125	6.0	58	-0.08	6.63
74	t	4-Bromophenyl-phenylether	0.243	0.218	10.3	55	-0.09	6.87
75	t	Hexachlorobenzene	0.277	0.238	14.1	53	-0.10	6.93
			True	Calc.	% Drift			
76	t	Pentachlorophenol	25.000	18.217	27.1#	40#	-0.08	7.19
			AvgRF	CCRF	% Dev			
77	t	Phenanthrene	1.042	0.992	4.8	60	-0.11	7.39
78	t	Anthracene	1.089	1.073	1.5	62	-0.11	7.45
79	t	Carbazole	1.052	1.012	3.8	60	-0.10	7.71
80	t	Di-n-butylphthalate	1.492	1.429	4.2	58	-0.12	8.31
81	t	Fluoranthene	1.286	1.219	5.2	58	-0.14	9.16
82	t	Octadecane	0.408	0.411	-0.7	62	-0.10	7.34

8.7.43

8

Continuing Calibration Summary

Job Number: JC87363 **Sample:** EP5854-CC5844
Account: TCMAW Tantara Corporation **Lab FileID:** P129335.D
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

83	I	Chrysene-d12	1.000	1.000	0.0	70	-0.17	12.01
84	t	Pyrene	1.385	1.214	12.3	59	-0.15	9.54
85	S	Terphenyl-d14	0.906	1.015	-12.0	75	-0.14	9.98
86	t	Butylbenzylphthalate	0.712	0.626	12.1	58	-0.14	11.11
87	t	Benzo[a]anthracene	1.319	1.053	20.2#	56	-0.16	11.99
88	t	3,3'-Dichlorobenzidine	0.434	0.378	12.9	57	-0.15	12.09
89	t	Chrysene	1.161	0.968	16.6	56	-0.18	12.05
90	t	bis(2-Ethylhexyl)phthalat	0.953	0.863	9.4	59	-0.15	12.51
91	I	Perylene-d12	1.000	1.000	0.0	68	-0.18	14.93
92	t	Di-n-octylphthalate	1.546	1.505	2.7	58	-0.16	13.91
93	t	Benzo[b]fluoranthene	1.219	1.079	11.5	59	-0.18	14.21
94	t	Benzo[k]fluoranthene	1.026	0.982	4.3	59	-0.19	14.27
95	t	Benzo[a]pyrene	1.031	1.015	1.6	64	-0.18	14.82
96	t	Indeno[1,2,3-cd]pyrene	0.942	0.941	0.1	64	-0.19	16.84
98	t	Dibenz[a,h]anthracene	0.961	0.892	7.2	61	-0.19	16.91
		----------	True	Calc.	% Drift	----------		
99	t	7,12-Dimethylbenz(a)anthr	25.000	22.890	8.4	67	-0.19	14.23
		----------	AvgRF	CCRF	% Dev	----------		
100	t	Benzo[g,h,i]perylene	0.950	0.975	-2.6	67	-0.20	17.25

(#) = Out of Range SPCC's out = 0 CCC's out = 0
p129175a.D MP5844.M Mon May 06 10:10:51 2019 ACLIMS

8.7.43

8

Continuing Calibration Summary

Job Number: JC87363 **Sample:** EP5854-CC5845
Account: TCMAW Tantara Corporation **Lab FileID:** P129336.D
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EP5854\p129336.D Vial: 3
Acq On : 6 May 2019 8:11 am Operator: chriss2
Sample : cc5845-25 Inst : MSVOAMSP
Misc : op13894,ep5854,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MP5844.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Mon May 06 09:56:01 2019
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
101 I	1,4-Dichlorobenzene-d4b	1.000	1.000	0.0	96	-0.05	3.78
102	Benzaldehyde	1.044	1.103	-5.7	89	-0.07	3.45
103 I	Phenanthrene-d10b	1.000	1.000	0.0	82	-0.09	7.36
104	Atrazine	0.215	0.198	7.9	69	-0.07	7.11
109 I	Acenaphthene-d10b	1.000	1.000	0.0	78	-0.06	5.95
110	1,2,4,5-Tetrachlorobenzen	0.588	0.638	-8.5	81	-0.06	5.34

(#) = Out of Range SPCC's out = 0 CCC's out = 0
p129175a.D MP5844.M Mon May 06 10:10:53 2019 ACLIMS

8.7.44

8

Continuing Calibration Summary

Job Number: JC87363 **Sample:** EP5854-CC5846
Account: TCMAW Tantara Corporation **Lab FileID:** P129337.D
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\EP5854\p129337.D Vial: 4
Acq On : 6 May 2019 8:38 am Operator: chriss2
Sample : cc5846-25 Inst : MSVOAMSP
Misc : op13894,ep5854,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MP5844.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS
Last Update : Mon May 06 09:56:01 2019
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
105 I	Chrysene-d12b	1.000	1.000	0.0	167	-0.14	12.00
106	Benzidine	0.832	0.654	21.4#	142	-0.11	9.52

(#) = Out of Range SPCC's out = 0 CCC's out = 0
p129175a.D MP5844.M Mon May 06 10:10:55 2019 ACLIMS

8.7.45

8

MS Semi-volatiles

Raw Data

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\michellc\ef7923\
Data File : f184467.d
Acq On : 6 May 2019 4:16 pm
Operator : angelar
Sample : jc87363-3 Inst : GCMSF
Misc : op20158,ef7923,30.3,,,1,1
ALS Vial : 16 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MF7873.M
Quant Results File: MF7873.RES
Quant Time: May 06 22:42:42 2019
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon May 06 22:21:49 2019
Response via : Initial Calibration

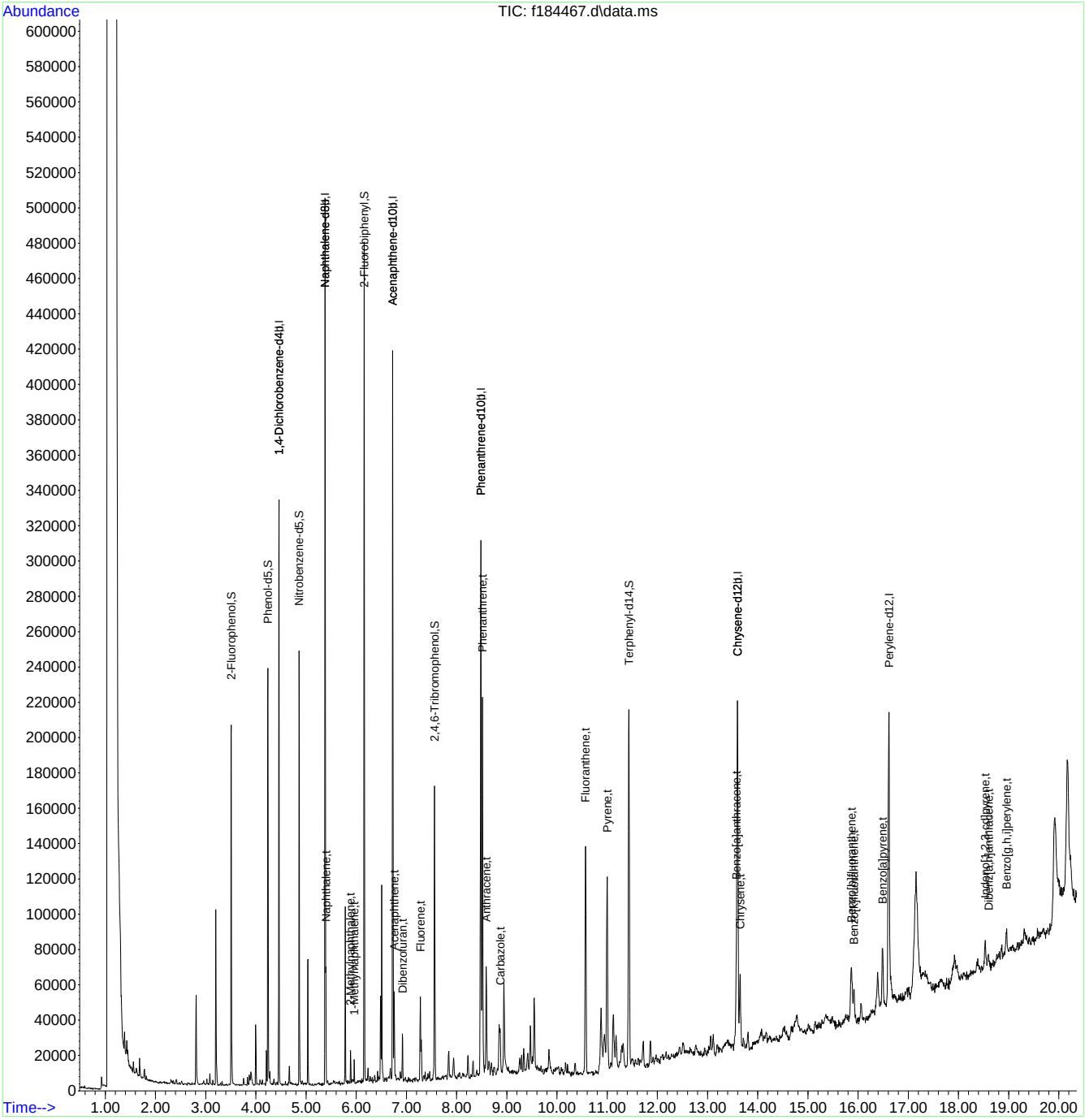
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.462	152	37606	40.00	ppm	0.00
24) Naphthalene-d8	5.380	136	140672	40.00	ppm	0.00
47) Acenaphthene-d10	6.727	164	69966	40.00	ppm	0.00
69) Phenanthrene-d10	8.484	188	123555	40.00	ppm	0.01
83) Chrysene-d12	13.597	240	99807	40.00	ppm	0.02
91) Perylene-d12	16.615	264	100470	40.00	ppm	0.02
101) 1,4-Dichlorobenzene-d4b	4.462	152	37606	40.00	ppm	0.00
103) Phenanthrene-d10b	8.484	188	123555	40.00	ppm	0.01
105) Chrysene-d12b	13.597	240	99807	40.00	ppm	0.02
107) Naphthalene-d8b	5.380	136	140672	40.00	ppm	0.00
109) Acenaphthene-d10b	6.727	164	69966	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	3.511	112	50339	40.46	ppm	0.02
Spiked Amount 50.000			Recovery = 80.92%			
8) Phenol-d5	4.243	99	65682	40.15	ppm	0.02
Spiked Amount 50.000			Recovery = 80.30%			
25) Nitrobenzene-d5	4.862	82	58758	39.26	ppm	0.00
Spiked Amount 50.000			Recovery = 78.52%			
51) 2-Fluorobiphenyl	6.160	172	101468	39.01	ppm	0.00
Spiked Amount 50.000			Recovery = 78.02%			
73) 2,4,6-Tribromophenol	7.560	330	15513	42.17	ppm	0.00
Spiked Amount 50.000			Recovery = 84.34%			
85) Terphenyl-d14	11.433	244	96685	43.55	ppm	0.01
Spiked Amount 50.000			Recovery = 87.10%			
Target Compounds						Qvalue
38) Naphthalene	5.396	128	18627	5.04	ppm	98
44) 2-Methylnaphthalene	5.888	141	2770	1.34	ppm	91
45) 1-Methylnaphthalene	5.957	142	1987	0.75	ppm	93
59) Acenaphthene	6.759	153	10013	4.33	ppm	96
62) Dibenzofuran	6.924	168	9386	3.22	ppm	99
66) Fluorene	7.277	166	11594	4.97	ppm	95
77) Phenanthrene	8.516	178	85003	24.10	ppm	100
78) Anthracene	8.591	178	26322	7.44	ppm	97
79) Carbazole	8.869	167	10809	3.32	ppm	98
81) Fluoranthene	10.568	202	69981	19.04	ppm	95
84) Pyrene	11.000	202	57243	15.81	ppm	92
87) Benzo[a]anthracene	13.575	228	25726	7.83	ppm	98
89) Chrysene	13.650	228	22612	6.74	ppm	96
93) Benzo[b]fluoranthene	15.867	252	23769	8.58	ppm	91
94) Benzo[k]fluoranthene	15.915	252	9485	3.24	ppm	87
95) Benzo[a]pyrene	16.487	252	19848	8.04	ppm	94
96) Indeno[1,2,3-cd]pyrene	18.528	276	10540	5.47	ppm	91
98) Dibenz[a,h]anthracene	18.602	278	3023	2.19	ppm	70
100) Benzo[g,h,i]perylene	18.955	276	9858	4.37	ppm	91

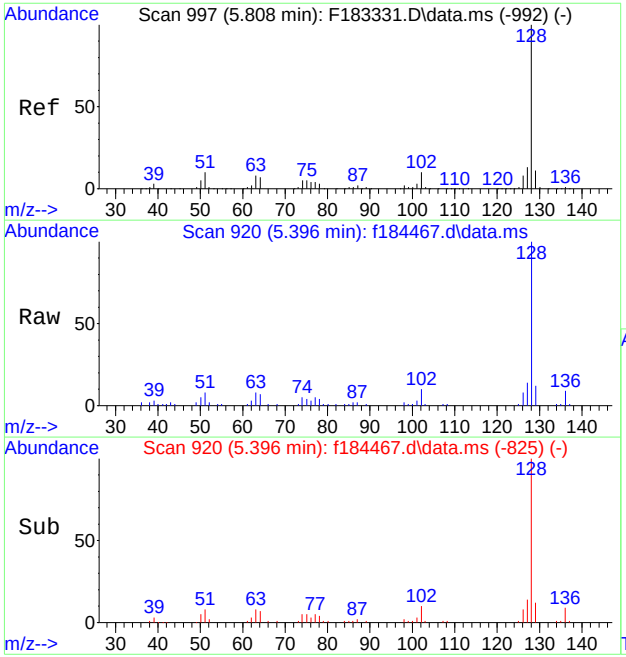
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\michellc\ef7923\
Data File : f184467.d
Acq On : 6 May 2019 4:16 pm
Operator : angelar
Sample : jc87363-3 Inst : GCMSF
Misc : op20158,ef7923,30.3,,,1,1
ALS Vial : 16 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MF7873.M
Quant Results File: MF7873.RES
Quant Time: May 06 22:42:42 2019
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon May 06 22:21:49 2019
Response via : Initial Calibration

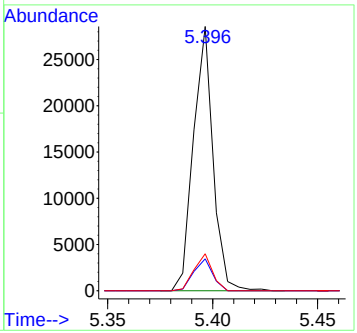


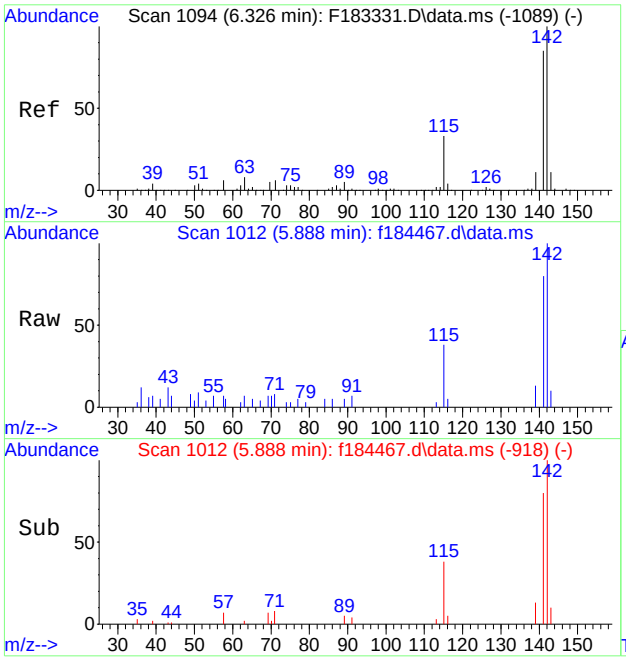


#38
Naphthalene
Concen: 5.04 ppm
RT: 5.396 min Scan# 920
Delta R.T. 0.005 min
Lab File: f184467.d
Acq: 6 May 2019 4:16 pm

Tgt Ion:128 Resp: 18627

Ion	Ratio	Lower	Upper
128	100		
129	12.1	0.0	40.8
127	14.0	0.0	43.5

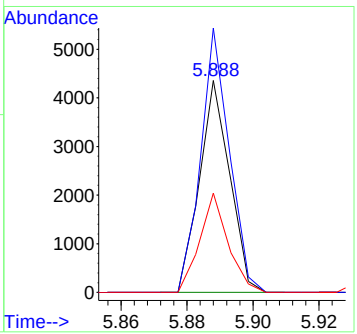


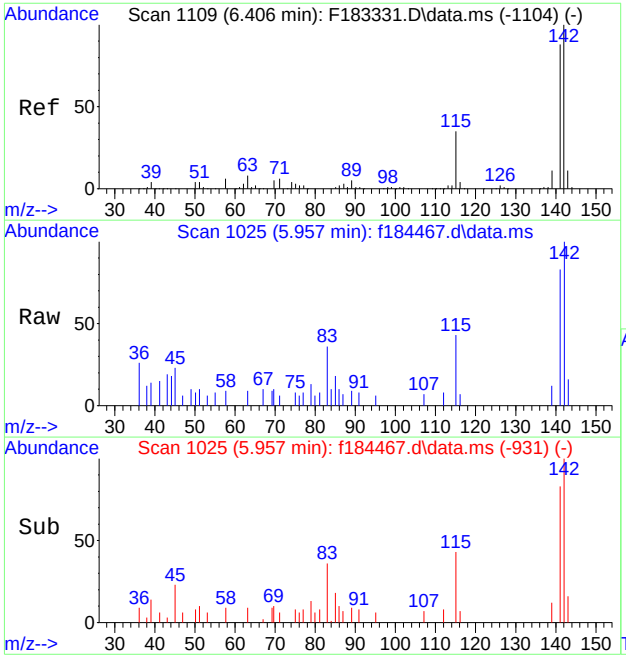


#44
2-Methylnaphthalene
Concen: 1.34 ppm
RT: 5.888 min Scan# 1012
Delta R.T. 0.000 min
Lab File: f184467.d
Acq: 6 May 2019 4:16 pm

Tgt Ion:141 Resp: 2770

Ion	Ratio	Lower	Upper
141	100		
142	124.8	85.2	145.2
115	46.9	10.2	70.2

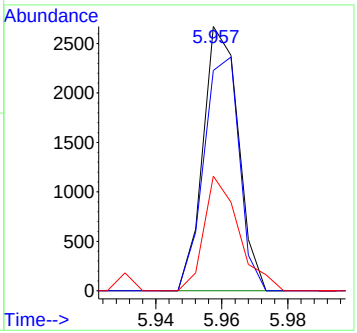


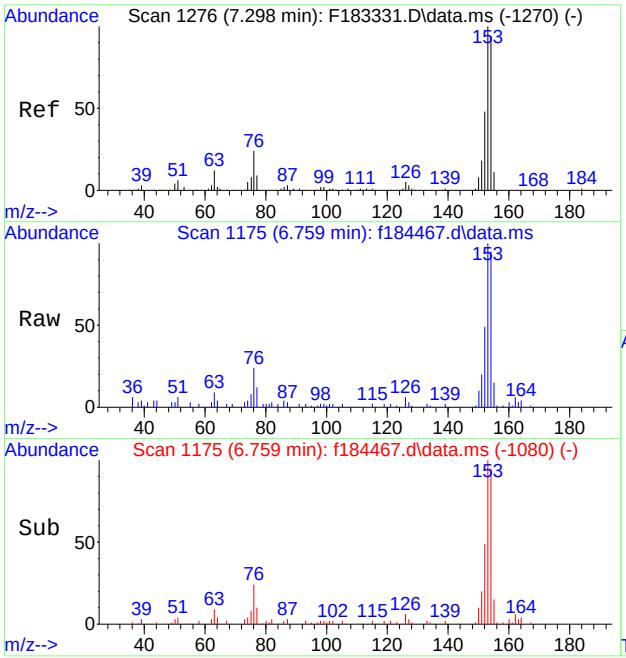


#45
1-Methylnaphthalene
Concen: 0.75 ppm
RT: 5.957 min Scan# 1025
Delta R.T. 0.000 min
Lab File: f184467.d
Acq: 6 May 2019 4:16 pm

Tgt Ion:142 Resp: 1987

Ion	Ratio	Lower	Upper
142	100		
141	83.3	59.0	119.0
115	43.4	8.1	68.1

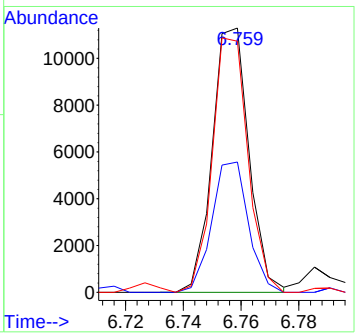


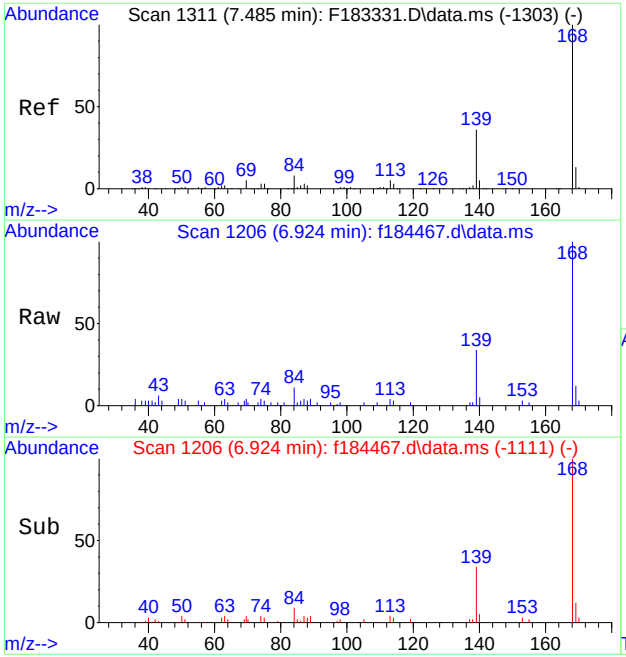


#59
Acenaphthene
Concen: 4.33 ppm
RT: 6.759 min Scan# 1175
Delta R.T. 0.005 min
Lab File: f184467.d
Acq: 6 May 2019 4:16 pm

Tgt Ion:153 Resp: 10013

Ion	Ratio	Lower	Upper
153	100		
152	49.8	17.1	77.1
154	95.0	61.9	121.9

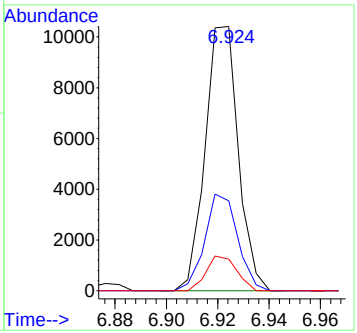


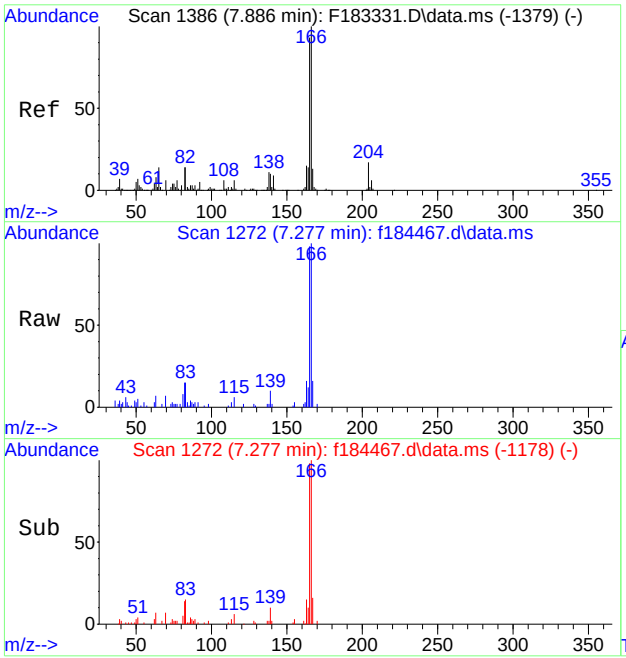


#62
Dibenzofuran
Concen: 3.22 ppm
RT: 6.924 min Scan# 1206
Delta R.T. 0.005 min
Lab File: f184467.d
Acq: 6 May 2019 4:16 pm

Tgt Ion:168 Resp: 9386

Ion	Ratio	Lower	Upper
168	100		
139	34.1	3.7	63.7
169	12.0	0.0	43.3

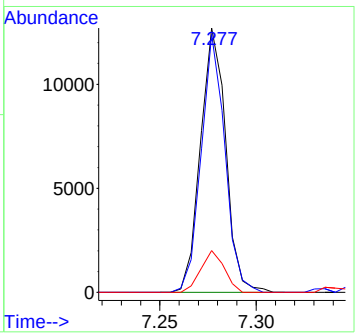


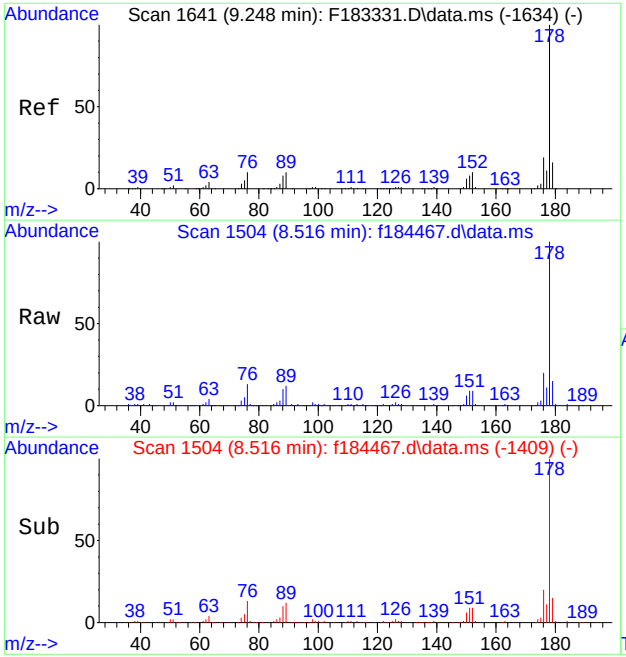


#66
Fluorene
Concen: 4.97 ppm
RT: 7.277 min Scan# 1272
Delta R.T. 0.000 min
Lab File: f184467.d
Acq: 6 May 2019 4:16 pm

Tgt Ion:166 Resp: 11594

Ion	Ratio	Lower	Upper
166	100		
165	97.7	63.3	123.3
167	15.8	0.0	43.0

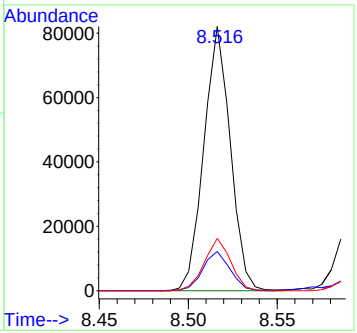


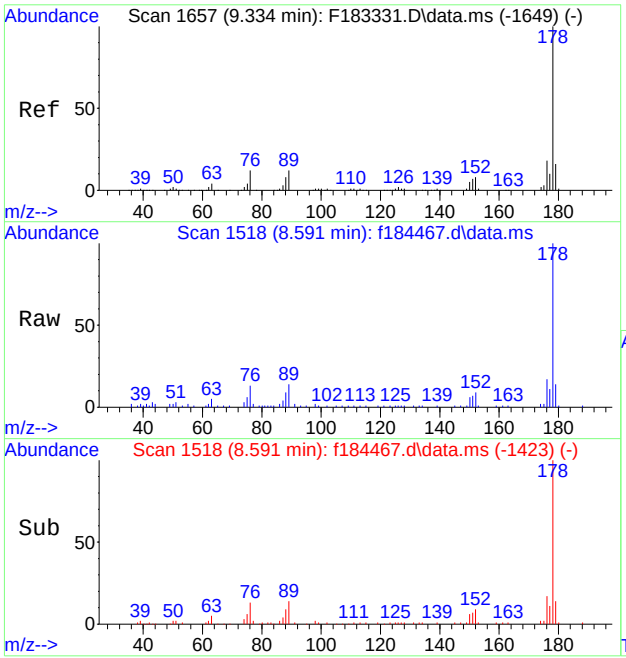


#77
Phenanthrene
Concen: 24.10 ppm
RT: 8.516 min Scan# 1504
Delta R.T. 0.005 min
Lab File: f184467.d
Acq: 6 May 2019 4:16 pm

Tgt Ion:178 Resp: 85003

Ion	Ratio	Lower	Upper
178	100		
179	14.7	0.0	44.8
176	19.8	0.0	49.8

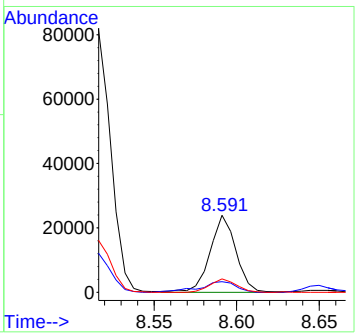


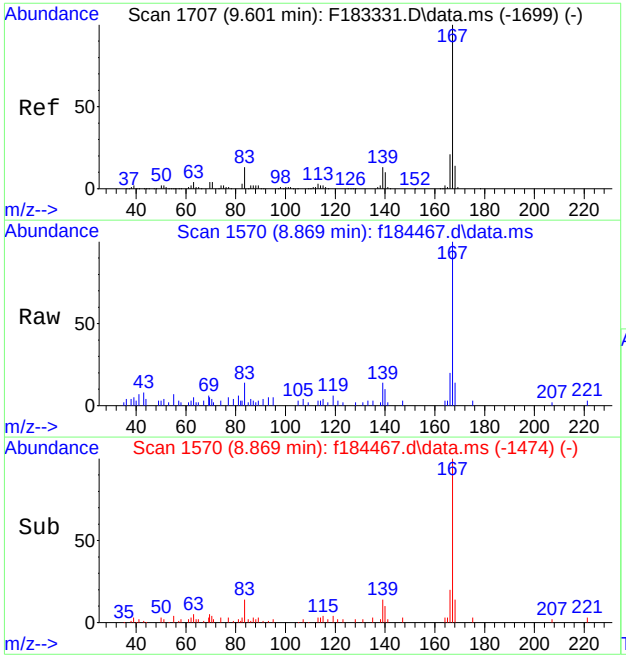


#78
Anthracene
Concen: 7.44 ppm
RT: 8.591 min Scan# 1518
Delta R.T. 0.005 min
Lab File: f184467.d
Acq: 6 May 2019 4:16 pm

Tgt Ion:178 Resp: 26322

Ion	Ratio	Lower	Upper
178	100		
179	13.6	0.0	44.4
176	17.2	0.0	49.1

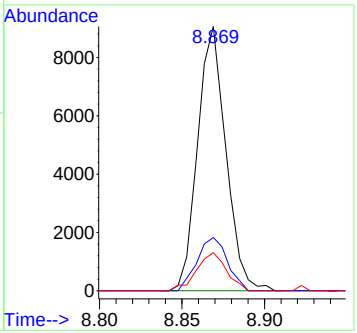


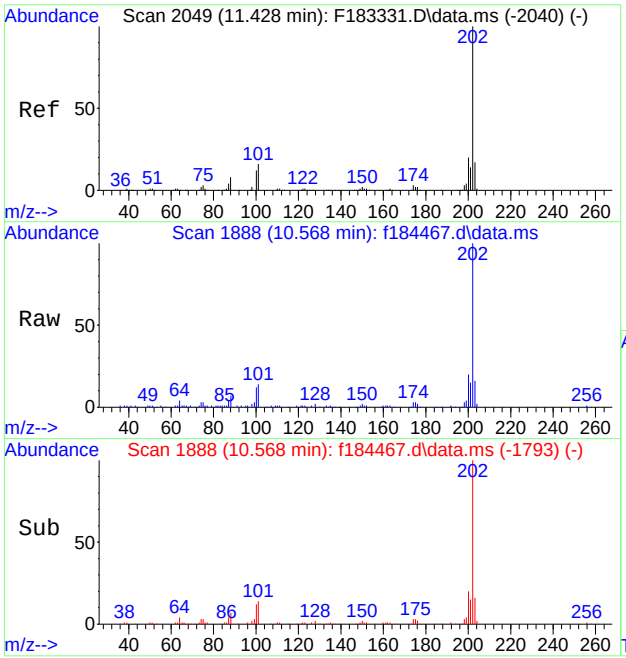


#79
Carbazole
Concen: 3.32 ppm
RT: 8.869 min Scan# 1570
Delta R.T. 0.011 min
Lab File: f184467.d
Acq: 6 May 2019 4:16 pm

Tgt Ion:167 Resp: 10809

Ion	Ratio	Lower	Upper
167	100		
166	20.2	0.0	51.8
139	14.5	0.0	44.1

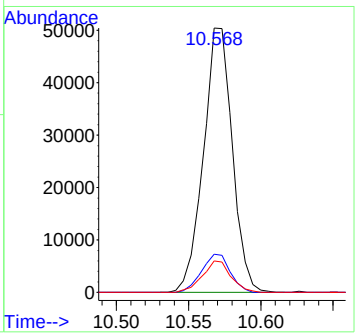


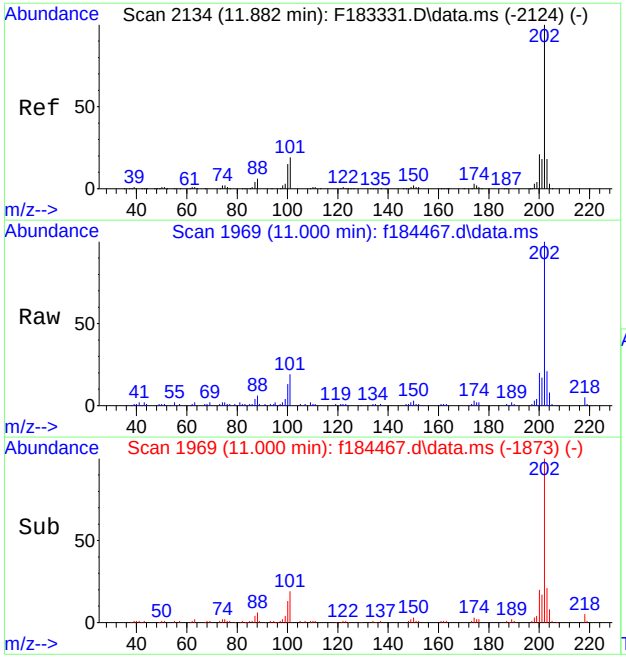


#81
Fluoranthene
Concen: 19.04 ppm
RT: 10.568 min Scan# 1888
Delta R.T. 0.005 min
Lab File: f184467.d
Acq: 6 May 2019 4:16 pm

Tgt Ion:202 Resp: 69981

Ion	Ratio	Lower	Upper
202	100		
101	14.4	0.0	47.4
100	11.9	0.0	43.0

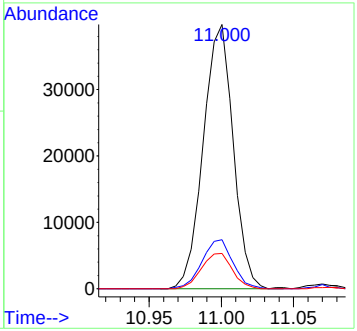


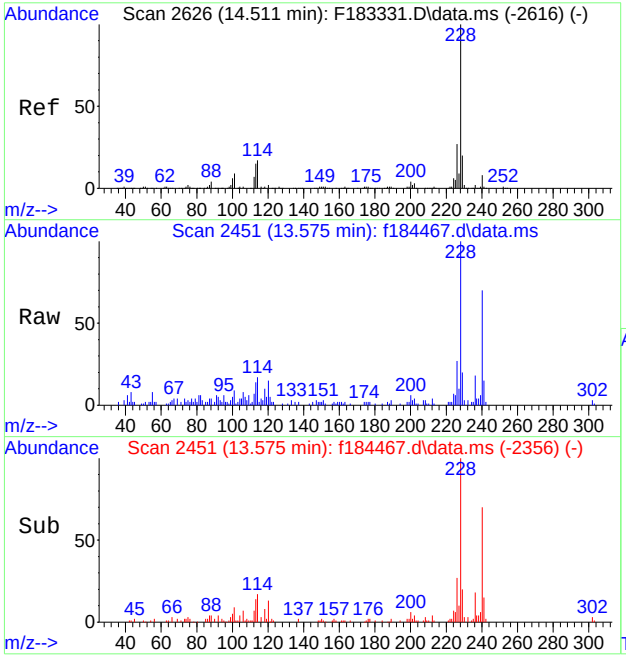


#84
Pyrene
Concen: 15.81 ppm
RT: 11.000 min Scan# 1969
Delta R.T. 0.011 min
Lab File: f184467.d
Acq: 6 May 2019 4:16 pm

Tgt Ion:202 Resp: 57243

Ion	Ratio	Lower	Upper
202	100		
101	18.6	0.0	52.4
100	13.4	0.0	47.2

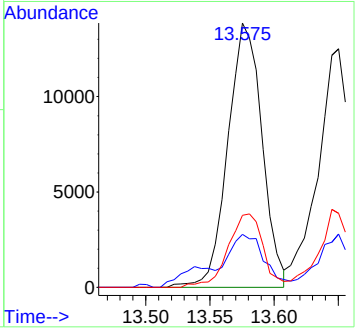


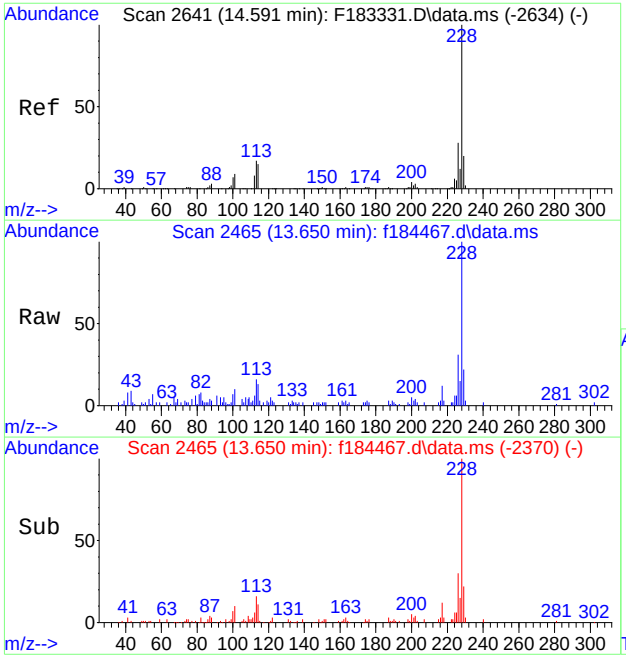


#87
Benzo[a]anthracene
Concen: 7.83 ppm
RT: 13.575 min Scan# 2451
Delta R.T. 0.005 min
Lab File: f184467.d
Acq: 6 May 2019 4:16 pm

Tgt Ion:228 Resp: 25726

Ion	Ratio	Lower	Upper
228	100		
229	19.2	0.0	50.2
226	27.0	0.0	57.7

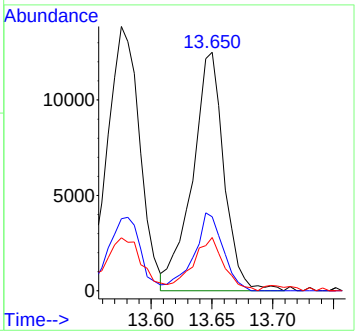


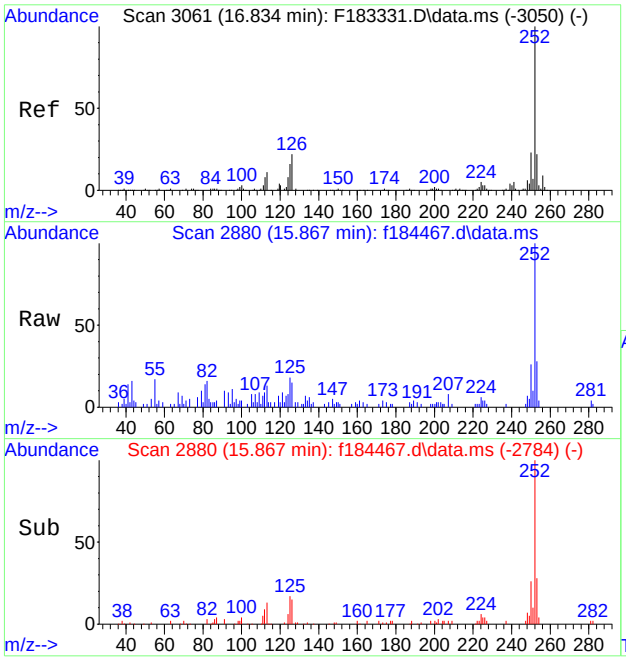


#89
Chrysene
Concen: 6.74 ppm
RT: 13.650 min Scan# 2465
Delta R.T. 0.005 min
Lab File: f184467.d
Acq: 6 May 2019 4:16 pm

Tgt Ion:228 Resp: 22612

Ion	Ratio	Lower	Upper
228	100		
226	31.0	0.0	58.7
229	20.8	0.0	48.8

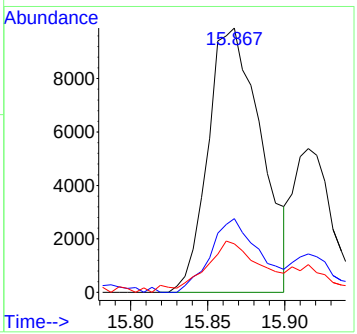


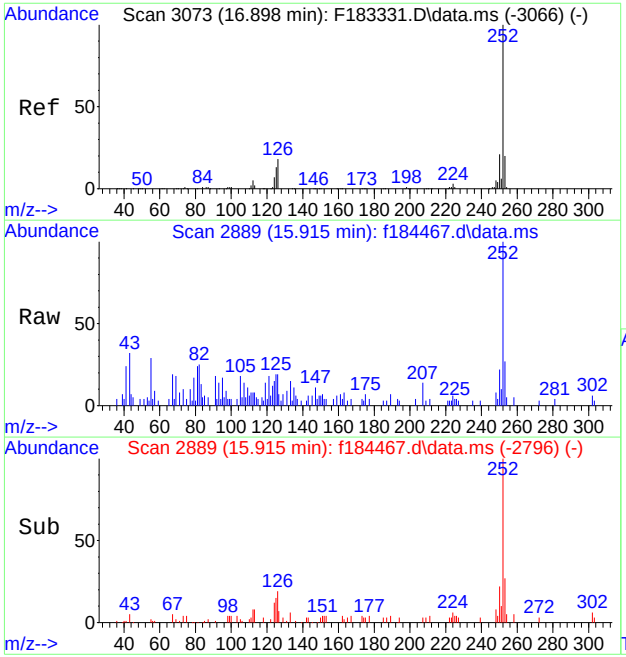


#93
Benzo[b]fluoranthene
Concen: 8.58 ppm
RT: 15.867 min Scan# 2880
Delta R.T. 0.011 min
Lab File: f184467.d
Acq: 6 May 2019 4:16 pm

Tgt Ion:252 Resp: 23769

Ion	Ratio	Lower	Upper
252	100		
253	28.1	0.0	51.6
125	16.1	0.0	45.2

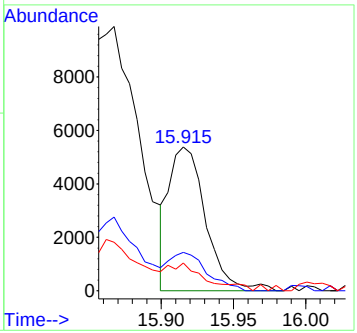


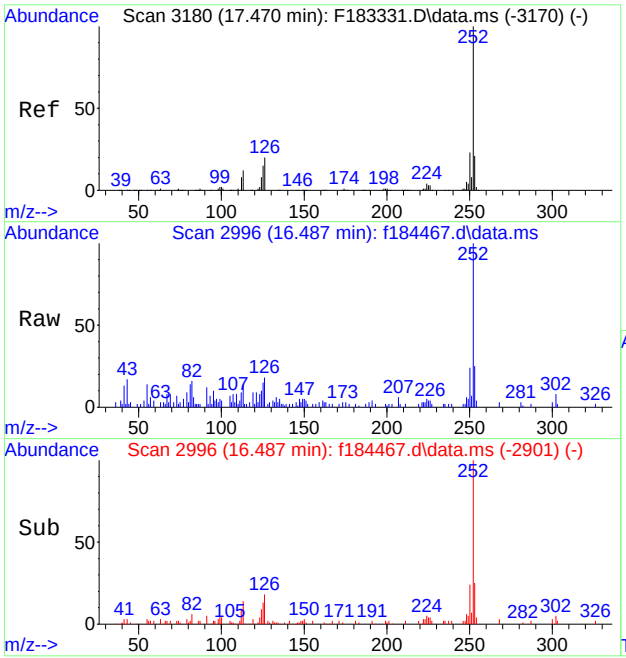


#94
Benzo[k]fluoranthene
Concen: 3.24 ppm
RT: 15.915 min Scan# 2889
Delta R.T. -0.005 min
Lab File: f184467.d
Acq: 6 May 2019 4:16 pm

Tgt Ion:252 Resp: 9485

Ion	Ratio	Lower	Upper
252	100		
253	26.6	0.0	50.2
125	18.0	0.0	43.3

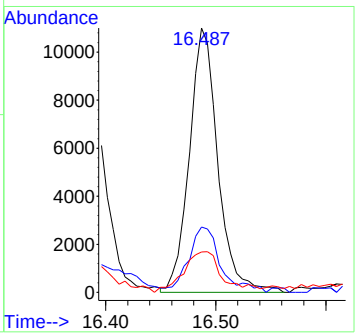


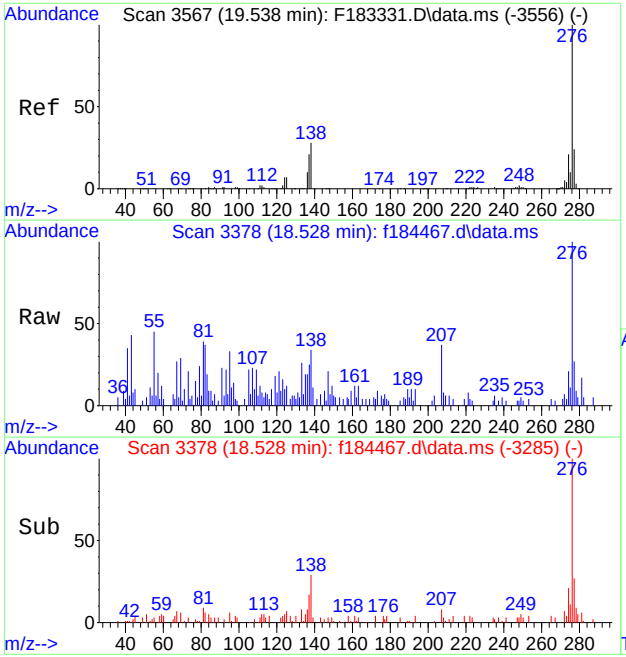


#95
Benzo[a]pyrene
Concen: 8.04 ppm
RT: 16.487 min Scan# 2996
Delta R.T. 0.005 min
Lab File: f184467.d
Acq: 6 May 2019 4:16 pm

Tgt Ion:252 Resp: 19848

Ion	Ratio	Lower	Upper
252	100		
253	23.2	0.0	51.2
125	13.8	0.0	47.1

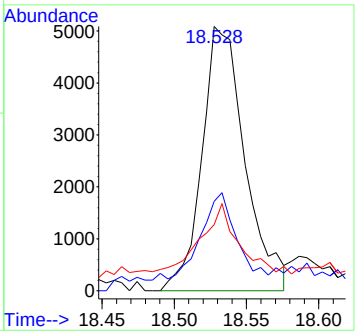


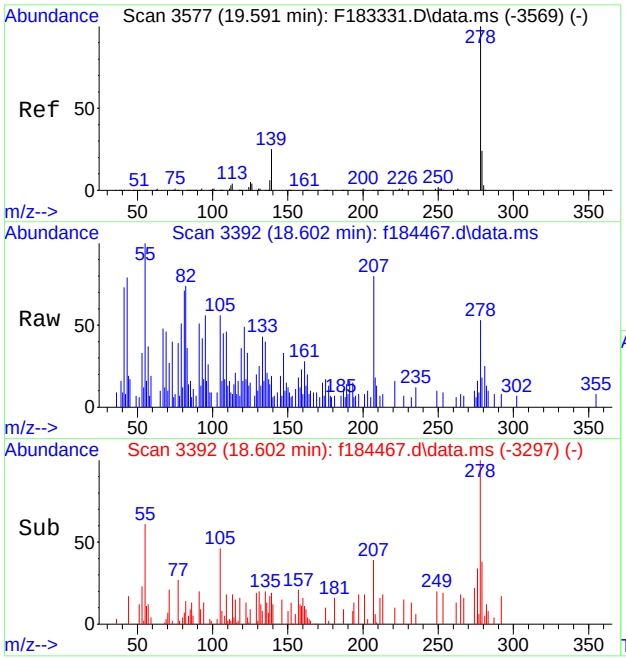


#96
Indeno[1,2,3-cd]pyrene
Concen: 5.47 ppm
RT: 18.528 min Scan# 3378
Delta R.T. -0.005 min
Lab File: f184467.d
Acq: 6 May 2019 4:16 pm

Tgt Ion:276 Resp: 10540

Ion	Ratio	Lower	Upper
276	100		
138	28.5	2.1	62.1
137	17.3	0.0	53.5

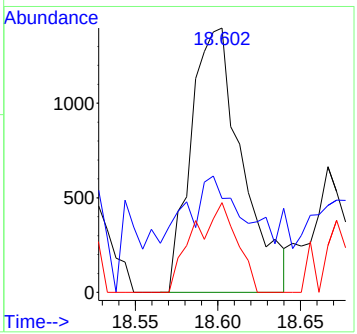


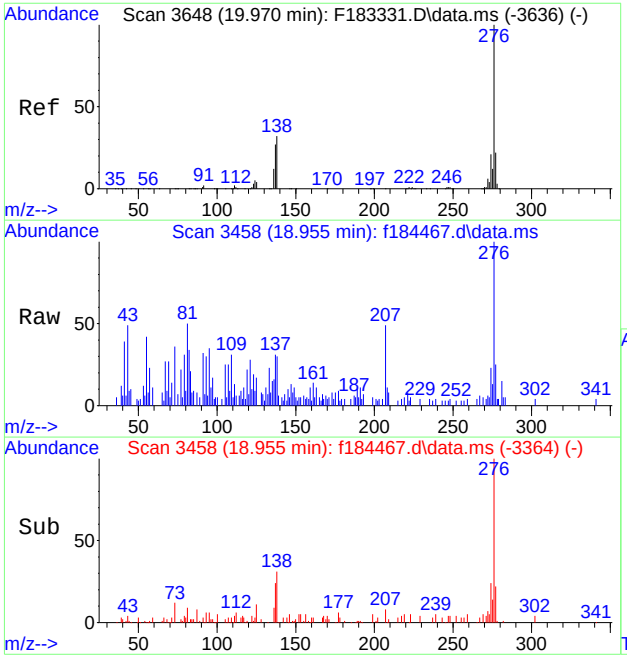


#98
Dibenz[a,h]anthracene
Concen: 2.19 ppm
RT: 18.602 min Scan# 3392
Delta R.T. 0.005 min
Lab File: f184467.d
Acq: 6 May 2019 4:16 pm

Tgt Ion:278 Resp: 3023

Ion	Ratio	Lower	Upper
278	100		
139	11.3	0.0	57.9
279	37.0	0.0	53.6

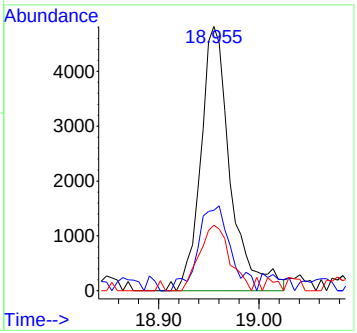




#100
Benzo[g,h,i]perylene
Concen: 4.37 ppm
RT: 18.955 min Scan# 3458
Delta R.T. 0.000 min
Lab File: f184467.d
Acq: 6 May 2019 4:16 pm

Tgt Ion:276 Resp: 9858

Ion	Ratio	Lower	Upper
276	100		
138	28.9	6.6	66.6
277	23.3	0.0	54.2



Quantitation Report (QT/LSC Reviewed)

Data Path : C:\msdchem\1\DATA\EM6583\
Data File : m154076.D
Acq On : 6 May 2019 12:56 am
Operator : carolb
Sample : op20158-mb
Misc : op20158,em6583,30,,,1,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: May 06 08:34:16 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6556.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Fri May 03 08:21:24 2019
Response via : Initial Calibration

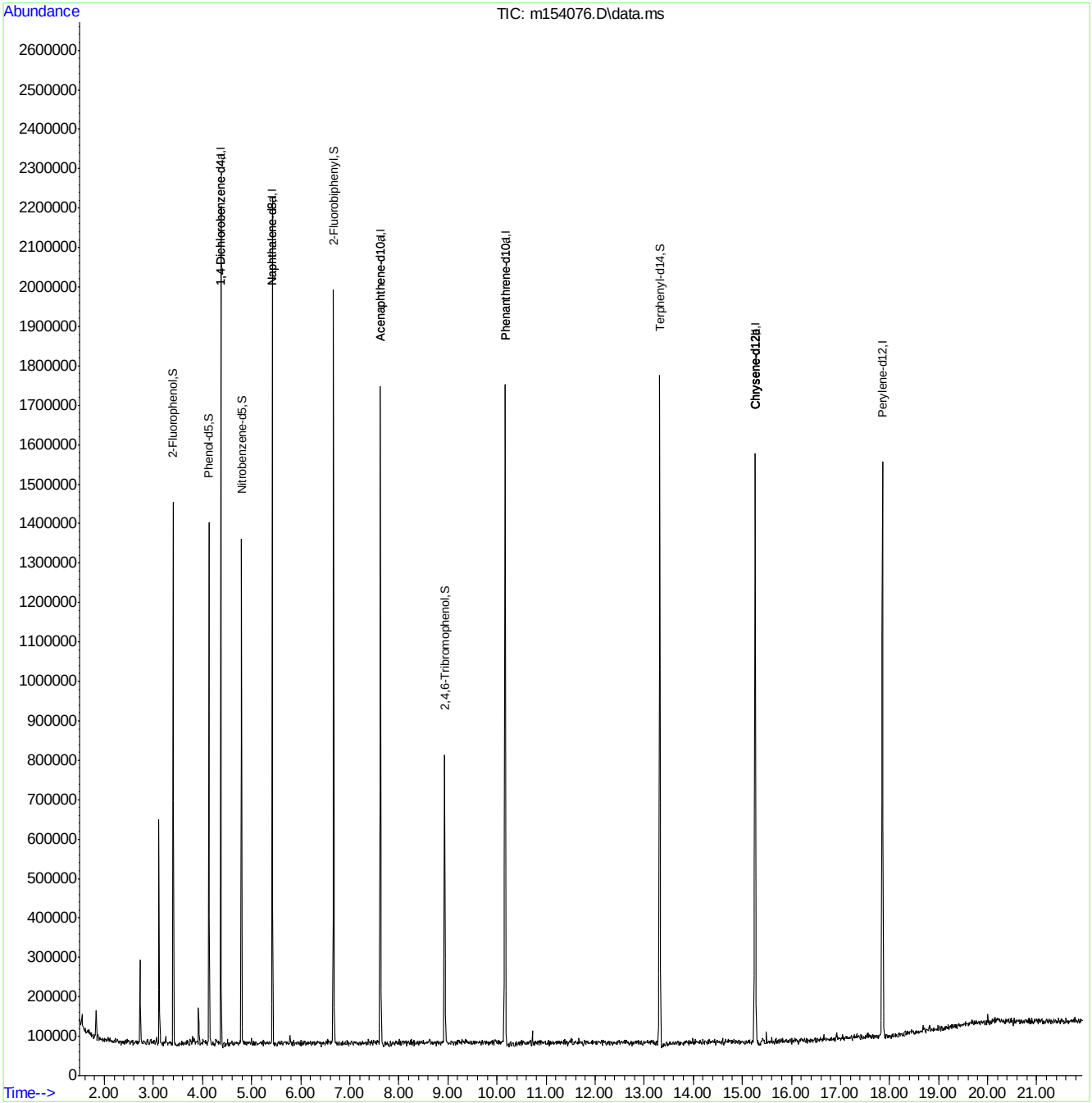
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.372	152	260059	40.00	ppm	-0.02
24) Naphthalene-d8	5.419	136	839764	40.00	ppm	-0.03
47) Acenaphthene-d10	7.625	164	455874	40.00	ppm	-0.04
69) Phenanthrene-d10	10.167	188	905330	40.00	ppm	-0.04
83) Chrysene-d12	15.263	240	866866	40.00	ppm	-0.20
91) Perylene-d12	17.858	264	874541	40.00	ppm	-0.19
101) 1,4-Dichlorobenzene-d4a	4.372	152	260059	40.00	ppm	-0.02
103) Acenaphthene-d10a	7.625	164	455874	40.00	ppm	-0.04
106) Chrysene-d12a	15.263	240	866866	40.00	ppm	-0.20
108) Chrysene-d12b	15.263	240	867614	40.00	ppm	-0.20
110) Phenanthrene-d10a	10.167	188	905330	40.00	ppm	-0.14
113) Naphthalene-d8a	5.419	136	839764	40.00	ppm	-0.03
115) Chrysene-d12c	15.263	240	866866	40.00	ppm	-0.20
System Monitoring Compounds						
5) 2-Fluorophenol	3.400	112	313054	30.79	ppm	-0.05
Spiked Amount 50.000			Recovery = 61.58%			
8) Phenol-d5	4.132	99	390558	31.10	ppm	0.00
Spiked Amount 50.000			Recovery = 62.20%			
25) Nitrobenzene-d5	4.794	82	319339	35.65	ppm	-0.02
Spiked Amount 50.000			Recovery = 71.30%			
51) 2-Fluorobiphenyl	6.669	172	693087	40.89	ppm	-0.05
Spiked Amount 50.000			Recovery = 81.78%			
73) 2,4,6-Tribromophenol	8.933	330	150115	49.29	ppm	-0.06
Spiked Amount 50.000			Recovery = 98.58%			
85) Terphenyl-d14	13.318	244	925944	39.61	ppm	-0.19
Spiked Amount 50.000			Recovery = 79.22%			
109) 1-chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
111) o-terphenyl	0.000	230	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT/LSC Reviewed)

Data Path : C:\msdchem\1\DATA\EM6583\
Data File : m154076.D
Acq On : 6 May 2019 12:56 am
Operator : carolb
Sample : op20158-mb
Misc : op20158,em6583,30,,,1,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: May 06 08:34:16 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6556.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Fri May 03 08:21:24 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5854\
Data File : p129342.D
Acq On : 6 May 2019 10:54 am
Operator : chriss2
Sample : op20158-mb
Misc : op20158,ep5854,30.0,,,1,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: May 06 11:32:44 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5844.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Apr 26 12:50:52 2019
Response via : Initial Calibration

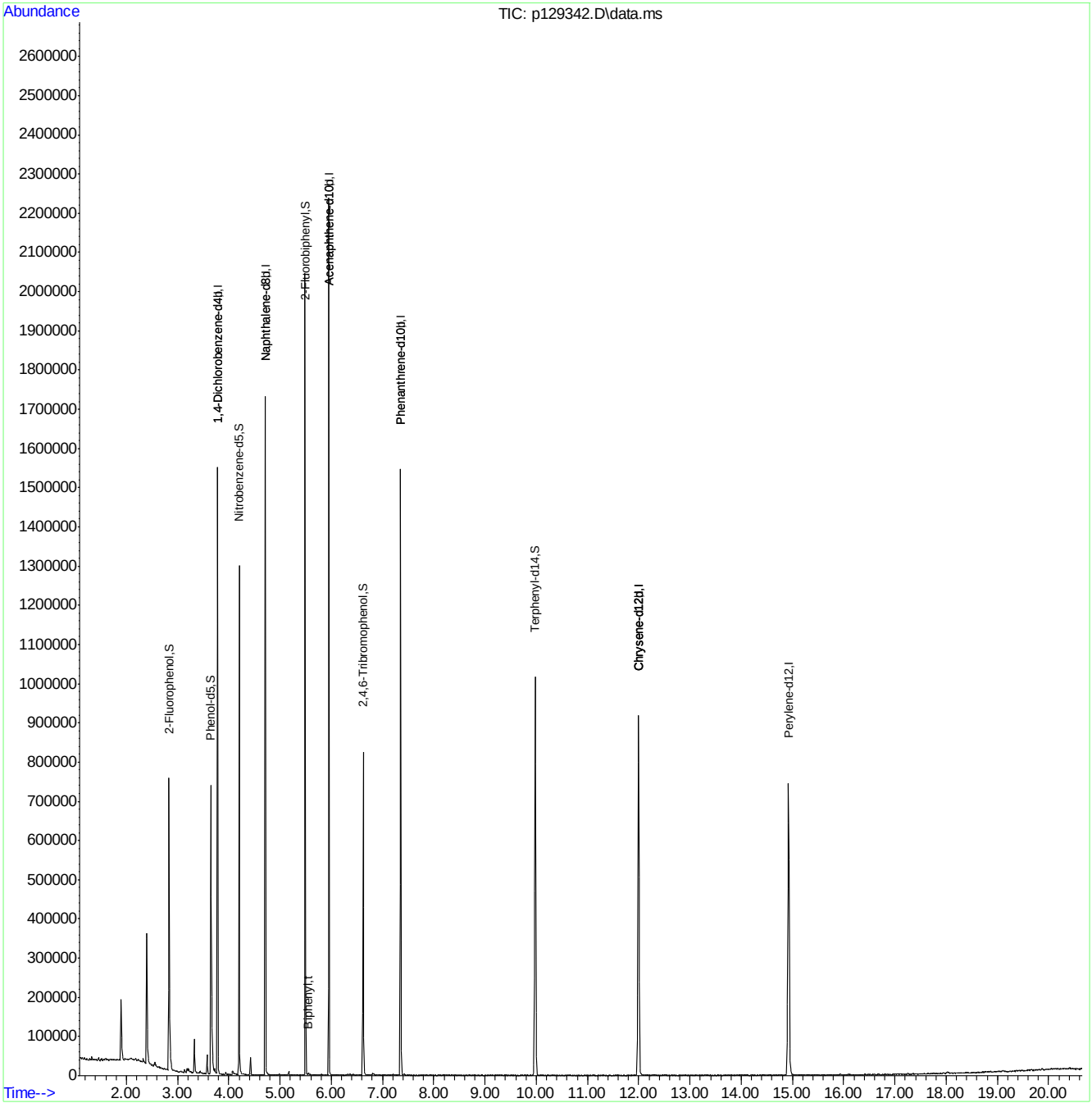
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.780	152	163708	40.00	ppm	-0.06
24) Naphthalene-d8	4.714	136	576655	40.00	ppm	-0.06
47) Acenaphthene-d10	5.954	164	314712	40.00	ppm	-0.07
69) Phenanthrene-d10	7.354	188	570015	40.00	ppm	-0.11
83) Chrysene-d12	11.996	240	509614	40.00	ppm	-0.18
91) Perylene-d12	14.924	264	494066	40.00	ppm	-0.19
101) 1,4-Dichlorobenzene-d4b	3.780	152	163708	40.00	ppm	-0.06
103) Phenanthrene-d10b	7.354	188	570015	40.00	ppm	-0.10
105) Chrysene-d12b	11.996	240	509614	40.00	ppm	-0.15
107) Naphthalene-d8b	4.714	136	576655	40.00	ppm	-0.06
109) Acenaphthene-d10b	5.954	164	314712	40.00	ppm	-0.06
111) Chrysene-d12d	11.996	240	509614	40.00	ppm	-0.18
System Monitoring Compounds						
5) 2-Fluorophenol	2.829	112	220579	41.94	ppm	-0.02
Spiked Amount 50.000			Recovery = 83.88%			
8) Phenol-d5	3.651	99	283007	42.37	ppm	0.00
Spiked Amount 50.000			Recovery = 84.74%			
25) Nitrobenzene-d5	4.202	82	270677	43.69	ppm	-0.06
Spiked Amount 50.000			Recovery = 87.38%			
51) 2-Fluorobiphenyl	5.494	172	467310	46.86	ppm	-0.06
Spiked Amount 50.000			Recovery = 93.72%			
73) 2,4,6-Tribromophenol	6.622	330	70186	37.00	ppm	-0.09
Spiked Amount 50.000			Recovery = 74.00%			
85) Terphenyl-d14	9.982	244	518509	44.91	ppm	-0.14
Spiked Amount 50.000			Recovery = 89.82%			
Target Compounds						Qvalue
53) Biphenyl	5.553	154	1075	0.10	ppm	69

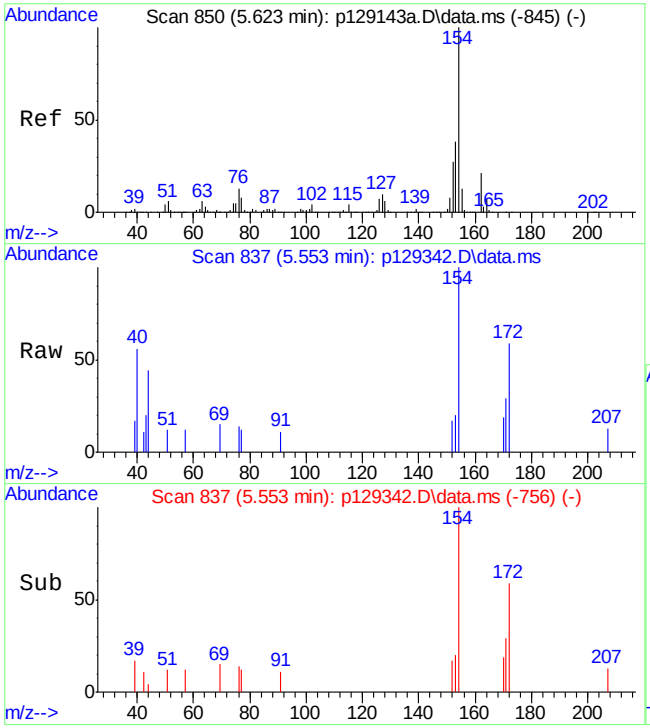
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5854\
Data File : p129342.D
Acq On : 6 May 2019 10:54 am
Operator : chriss2
Sample : op20158-mb
Misc : op20158,ep5854,30.0,,,1,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: May 06 11:32:44 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5844.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Apr 26 12:50:52 2019
Response via : Initial Calibration

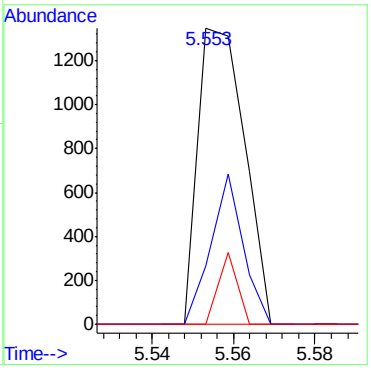




#53
Biphenyl
Concen: 0.10 ppm
RT: 5.553 min Scan# 837
Delta R.T. -0.069 min
Lab File: p129342.D
Acq: 6 May 2019 10:54 am

Tgt Ion:154 Resp: 1075

Ion	Ratio	Lower	Upper
154	100		
153	19.7	8.1	68.1
155	0.0	0.0	43.2



Quantitation Report (QT/LSC Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7923\
Data File : F184461.D
Acq On : 6 May 2019 1:34 pm
Operator : angelar
Sample : op20158-mb
Misc : op20158,ef7923,30.0,,,1,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: May 06 14:44:34 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF7873.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Apr 22 12:39:29 2019
Response via : Initial Calibration

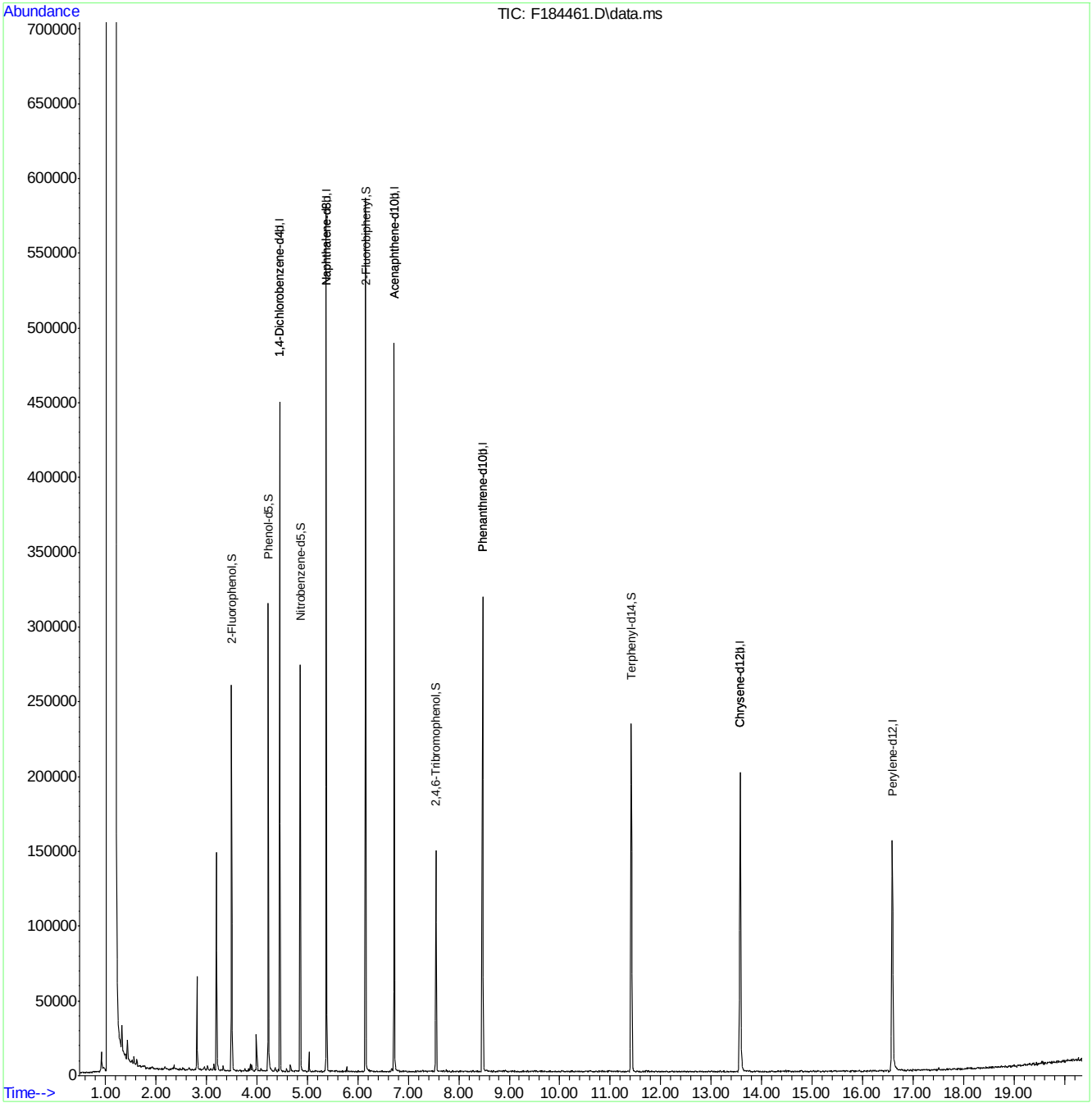
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.456	152	44201	40.00	ppm	-0.03
24) Naphthalene-d8	5.375	136	163581	40.00	ppm	-0.03
47) Acenaphthene-d10	6.721	164	79123	40.00	ppm	-0.04
69) Phenanthrene-d10	8.474	188	131274	40.00	ppm	-0.05
83) Chrysene-d12	13.575	240	105112	40.00	ppm	-0.08
91) Perylene-d12	16.588	264	93513	40.00	ppm	-0.08
101) 1,4-Dichlorobenzene-d4b	4.456	152	44201	40.00	ppm	-0.03
103) Phenanthrene-d10b	8.474	188	131274	40.00	ppm	-0.05
105) Chrysene-d12b	13.575	240	105112	40.00	ppm	-0.08
107) Naphthalene-d8b	5.375	136	163581	40.00	ppm	-0.03
109) Acenaphthene-d10b	6.721	164	79123	40.00	ppm	-0.04
System Monitoring Compounds						
5) 2-Fluorophenol	3.500	112	63978	43.75	ppm	-0.02
Spiked Amount 50.000			Recovery = 87.50%			
8) Phenol-d5	4.226	99	79606	41.40	ppm	0.00
Spiked Amount 50.000			Recovery = 82.80%			
25) Nitrobenzene-d5	4.862	82	70576	40.56	ppm	-0.04
Spiked Amount 50.000			Recovery = 81.12%			
51) 2-Fluorobiphenyl	6.155	172	121638	41.35	ppm	-0.02
Spiked Amount 50.000			Recovery = 82.70%			
73) 2,4,6-Tribromophenol	7.549	330	13933	35.65	ppm	-0.03
Spiked Amount 50.000			Recovery = 71.30%			
85) Terphenyl-d14	11.417	244	115582	49.44	ppm	-0.09
Spiked Amount 50.000			Recovery = 98.88%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT/LSC Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7923\
Data File : F184461.D
Acq On : 6 May 2019 1:34 pm
Operator : angelar
Sample : op20158-mb
Misc : op20158,ef7923,30.0,,,1,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: May 06 14:44:34 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF7873.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Apr 22 12:39:29 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6583\
Data File : m154078.D
Acq On : 6 May 2019 1:52 am
Operator : carolb
Sample : op20158-bs
Misc : op20158,em6583,30,,,1,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: May 06 08:39:21 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6556.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon May 06 08:15:34 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.375	152	216642	40.00	ppm	-0.02
24) Naphthalene-d8	5.422	136	687069	40.00	ppm	-0.03
47) Acenaphthene-d10	7.628	164	391909	40.00	ppm	-0.04
69) Phenanthrene-d10	10.170	188	824108	40.00	ppm	-0.04
83) Chrysene-d12	15.271	240	790042	40.00	ppm	-0.19
91) Perylene-d12	17.861	264	809371	40.00	ppm	-0.18
101) 1,4-Dichlorobenzene-d4a	4.375	152	216642	40.00	ppm	-0.02
103) Acenaphthene-d10a	7.628	164	391909	40.00	ppm	-0.04
106) Chrysene-d12a	15.271	240	790637	40.00	ppm	-0.19
108) Chrysene-d12b	15.271	240	790637	40.00	ppm	-0.19
110) Phenanthrene-d10a	10.170	188	824108	40.00	ppm	-0.14
113) Naphthalene-d8a	5.422	136	687069	40.00	ppm	-0.03
115) Chrysene-d12c	15.271	240	790058	40.00	ppm	-0.19
System Monitoring Compounds						
5) 2-Fluorophenol	3.403	112	286818	33.86	ppm	-0.05
Spiked Amount 50.000			Recovery = 67.72%			
8) Phenol-d5	4.134	99	359471	34.37	ppm	0.00
Spiked Amount 50.000			Recovery = 68.74%			
25) Nitrobenzene-d5	4.797	82	266170	36.31	ppm	-0.02
Spiked Amount 50.000			Recovery = 72.62%			
51) 2-Fluorobiphenyl	6.671	172	602537	41.35	ppm	-0.04
Spiked Amount 50.000			Recovery = 82.70%			
73) 2,4,6-Tribromophenol	8.936	330	151151	54.52	ppm	-0.06
Spiked Amount 50.000			Recovery = 109.04%			
85) Terphenyl-d14	13.316	244	867377	40.71	ppm	-0.19
Spiked Amount 50.000			Recovery = 81.42%			
109) 1-chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
111) o-terphenyl	0.000	230	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
Target Compounds						Qvalue
2) 1,4-Dioxane	1.854	88	78394	18.29	ppm	97
3) Pyridine	2.196	79	250128	24.23	ppm	96
4) N-Nitrosodimethylamine	2.153	42	109676	29.87	ppm	93
6) Indene	4.562	116	473277	41.32	ppm	98
7) Cumene	3.782	105	605605	29.93	ppm	98
9) Phenol	4.140	94	372668	33.90	ppm	92
10) Aniline	4.134	93	358076	32.52	ppm	92
11) bis(2-Chloroethyl)ether	4.188	93	266517	35.05	ppm	98
12) 2-Chlorophenol	4.225	128	294976	39.06	ppm	98
13) Decane	4.268	43	187182	32.46	ppm	93
14) 1,3-Dichlorobenzene	4.332	146	318598	36.32	ppm	97
15) 1,4-Dichlorobenzene	4.386	146	319630	40.13	ppm	96
16) Benzyl alcohol	4.487	108	182850	41.10	ppm	91
17) 1,2-Dichlorobenzene	4.498	146	300264	38.09	ppm	95
18) Acetophenone	4.679	105	361091	36.23	ppm	97
19) 2-Methylphenol	4.583	108	257942	40.58	ppm	94

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6583\
Data File : m154078.D
Acq On : 6 May 2019 1:52 am
Operator : carolb
Sample : op20158-bs
Misc : op20158,em6583,30,,,1,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: May 06 08:39:21 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6556.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon May 06 08:15:34 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
20) 2,2'-oxybis(1-Chloropr...	4.583	121	82663	42.05	ppm		99
21) 3&4-Methylphenol	4.695	108	261971	40.98	ppm		96
22) n-Nitroso-di-n-propyla...	4.685	70	194211	39.06	ppm		95
23) Hexachloroethane	4.754	201	130505	38.78	ppm		95
26) Nitrobenzene	4.813	77	269591	37.88	ppm		88
27) Quinoline	5.790	129	532057	40.88	ppm		94
28) Isophorone	5.010	82	533402	40.17	ppm		99
29) 2-Nitrophenol	5.080	139	163985	49.81	ppm		81
30) 2,4-Dimethylphenol	5.128	107	261284	47.93	ppm		90
31) Benzoic acid	5.251	105	230701	53.24	ppm		89
32) bis(2-Chloroethoxy)met...	5.203	93	328678	40.80	ppm		99
33) 2,4-Dichlorophenol	5.304	162	249674	43.68	ppm		94
34) 2,6-Dichlorophenol	5.512	162	239517	46.23	ppm		94
36) 1,2,4-Trichlorobenzene	5.374	180	292799	41.91	ppm		98
38) Naphthalene	5.443	128	752495	44.73	ppm		98
39) 4-Chloroaniline	5.507	127	215299	28.88	ppm		96
40) 2,3-Dichloroaniline	6.554	161	287922	39.51	ppm		96
41) Caprolactam	5.886	55	107671	40.71	ppm		98
42) Hexachlorobutadiene	5.577	225	175201	42.08	ppm		99
43) 4-Chloro-3-methylphenol	6.052	107	230650	38.99	ppm		89
44) 2-Methylnaphthalene	6.196	141	437099	40.98	ppm		95
45) 1-Methylnaphthalene	6.314	142	522678	38.54	ppm		95
46) Dimethylnaphthalene	7.019	156	486779	41.23	ppm		95
48) Hexachlorocyclopentadiene	6.404	237	391927	102.84	ppm		97
49) 2,4,6-Trichlorophenol	6.570	196	208203	49.07	ppm		95
50) 2,4,5-Trichlorophenol	6.623	196	215040	47.23	ppm		98
52) 2-Chloronaphthalene	6.816	162	508480	42.17	ppm		96
53) Biphenyl	6.805	154	661759	42.03	ppm		98
54) 2-Nitroaniline	6.976	65	134876	41.48	ppm		94
55) Dimethylphthalate	7.270	163	630290	42.79	ppm		99
56) Acenaphthylene	7.403	152	826561	43.66	ppm		99
57) 2,6-Dinitrotoluene	7.344	165	146254	53.02	ppm		90
58) 3-Nitroaniline	7.595	138	127465	37.47	ppm		83
59) Acenaphthene	7.676	153	506709	44.21	ppm		96
60) 2,4-Dinitrophenol	7.766	184	179717	111.54	ppm		92
61) 4-Nitrophenol	7.943	109	61572	32.60	ppm	#	39
62) Dibenzofuran	7.953	168	723819	42.24	ppm		94
63) 2,4-Dinitrotoluene	7.980	165	178539	46.14	ppm		75
64) 2,3,4,6-Tetrachlorophenol	8.183	232	194146	47.62	ppm		96
65) Diethylphthalate	8.429	149	592169	41.61	ppm		98
66) Fluorene	8.520	166	635406	44.68	ppm		98
67) 4-Chlorophenyl-phenyle...	8.562	204	318932	43.18	ppm		92
68) 4-Nitroaniline	8.594	138	137113	45.23	ppm		77
70) 4,6-Dinitro-2-methylph...	8.664	198	128878	49.96	ppm		89
71) n-Nitrosodiphenylamine	8.776	169	465585	42.50	ppm		100
72) 1,2-Diphenylhydrazine	8.829	77	579102	38.55	ppm		96
74) 4-Bromophenyl-phenylether	9.411	248	239946	42.64	ppm		97
75) Hexachlorobenzene	9.492	284	284802	45.57	ppm		90
76) Pentachlorophenol	9.876	266	193607	55.62	ppm		96
77) Phenanthrene	10.213	178	926387	45.34	ppm		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6583\
Data File : m154078.D
Acq On : 6 May 2019 1:52 am
Operator : carolb
Sample : op20158-bs
Misc : op20158,em6583,30,,,1,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: May 06 08:39:21 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6556.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon May 06 08:15:34 2019
Response via : Initial Calibration

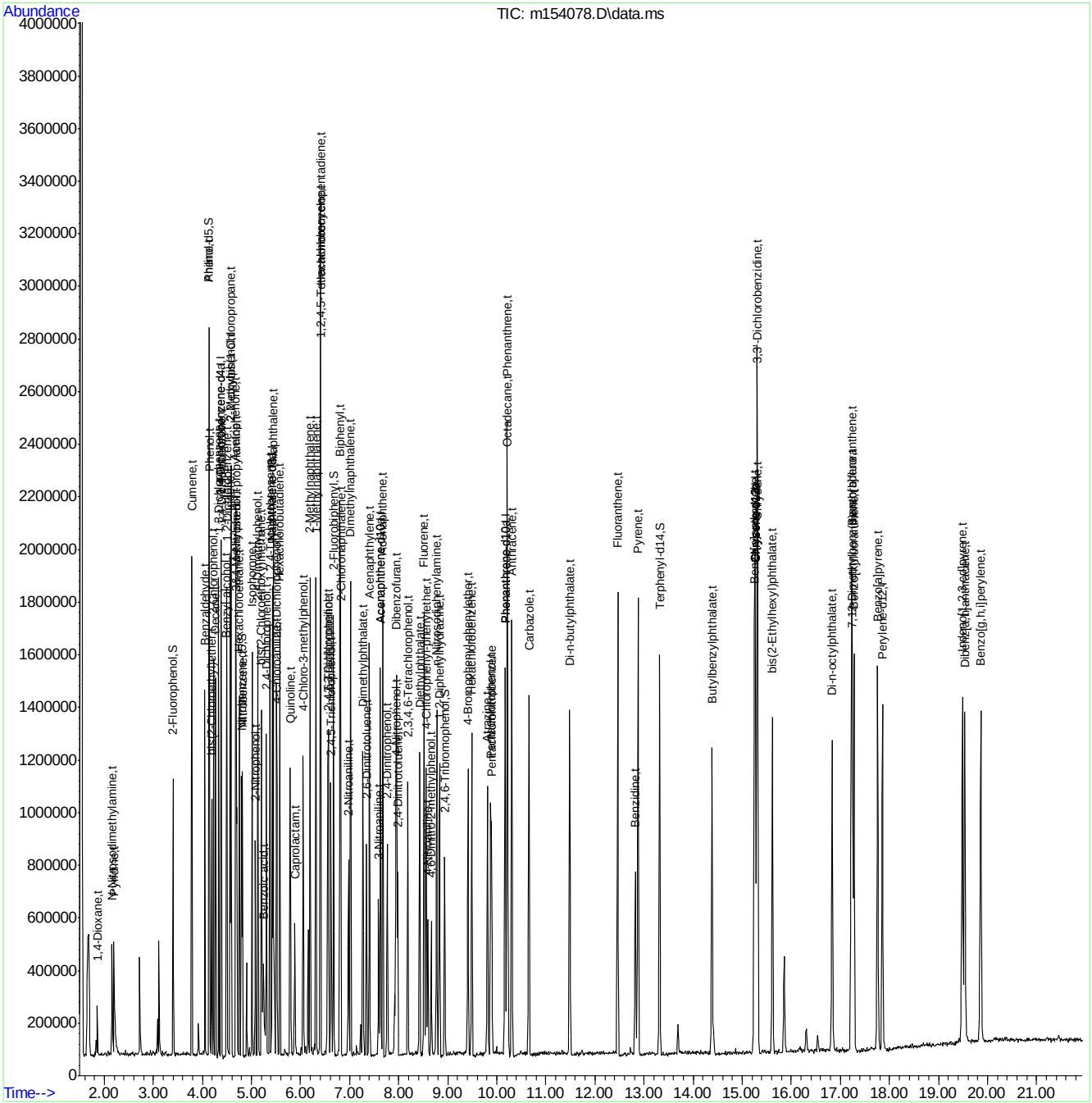
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
78) Anthracene	10.303	178	915098	42.52	ppm	99
79) Carbazole	10.656	167	835309	40.37	ppm	99
80) Di-n-butylphthalate	11.484	149	1076424	43.19	ppm	98
81) Fluoranthene	12.467	202	1114738	41.27	ppm	98
82) Octadecane	10.218	57	273045	41.28	ppm	97
84) Pyrene	12.878	202	1099183	38.00	ppm	98
86) Butylbenzylphthalate	14.384	149	471020	39.65	ppm	97
87) Benzo[a]anthracene	15.249	228	1033554	38.21	ppm	97
88) 3,3'-Dichlorobenzidine	15.303	252	731007	80.01	ppm	99
89) Chrysene	15.319	228	889156	36.98	ppm	97
90) bis(2-Ethylhexyl)phtha...	15.618	149	610322	38.36	ppm	96
92) Di-n-octylphthalate	16.836	149	1053833	39.12	ppm	99
93) Benzo[b]fluoranthene	17.231	252	1039804	40.78	ppm	99
94) Benzo[k]fluoranthene	17.279	252	926680	38.18	ppm	98
95) Benzo[a]pyrene	17.760	252	942542	42.11	ppm	98
96) Indeno[1,2,3-cd]pyrene	19.490	276	905588	40.72	ppm	100
98) Dibenz[a,h]anthracene	19.538	278	861928	41.78	ppm	99
99) 7,12-Dimethylbenz(a)an...	17.247	256	422142	43.17	ppm	93
100) Benzo[g,h,i]perylene	19.864	276	919952	43.34	ppm	99
102) Benzaldehyde	4.049	105	191598	31.52	ppm	95
104) 1,2,4,5-Tetrachloroben...	6.410	216	296425	44.28	ppm	98
105) Atrazine	9.812	215	104673	57.02	ppm	91
107) Benzidine	12.824	184	455599	30.52	ppm	97
112) Pentachloronitrobenzene	9.892	295	47502	48.88	ppm	87

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6583\
Data File : m154078.D
Acq On : 6 May 2019 1:52 am
Operator : carolb
Sample : op20158-bs
Misc : op20158,em6583,30,,,1,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: May 06 08:39:21 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6556.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon May 06 08:15:34 2019
Response via : Initial Calibration



Manual Integrations APPROVED (compounds with "m" flag)
Nancy Ma
05/06/19 12:56

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6583\
Data File : m154086.D
Acq On : 6 May 2019 5:40 am
Operator : carolb
Sample : op20158-ms
Misc : op20158,em6583,30.2,,,1,1
ALS Vial : 18 Sample Multiplier: 1

Quant Time: May 06 09:04:18 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6556.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon May 06 08:54:41 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.375	152	233979	40.00	ppm	-0.02
24) Naphthalene-d8	5.422	136	735017	40.00	ppm	-0.03
47) Acenaphthene-d10	7.622	164	416025	40.00	ppm	-0.04
69) Phenanthrene-d10	10.165	188	847551	40.00	ppm	-0.04
83) Chrysene-d12	15.265	240	800592	40.00	ppm	-0.19
91) Perylene-d12	17.856	264	846443	40.00	ppm	-0.19
101) 1,4-Dichlorobenzene-d4a	4.375	152	233979	40.00	ppm	-0.02
103) Acenaphthene-d10a	7.622	164	416025	40.00	ppm	-0.04
106) Chrysene-d12a	15.265	240	800592	40.00	ppm	-0.19
108) Chrysene-d12b	15.265	240	800592	40.00	ppm	-0.19
110) Phenanthrene-d10a	10.165	188	847551	40.00	ppm	-0.14
113) Naphthalene-d8a	5.422	136	735017	40.00	ppm	-0.03
115) Chrysene-d12c	15.265	240	799977	40.00	ppm	-0.19
System Monitoring Compounds						
5) 2-Fluorophenol	3.397	112	300802	32.88	ppm	-0.05
Spiked Amount 50.000			Recovery = 65.76%			
8) Phenol-d5	4.129	99	378579	33.51	ppm	0.00
Spiked Amount 50.000			Recovery = 67.02%			
25) Nitrobenzene-d5	4.797	82	285085	36.36	ppm	-0.02
Spiked Amount 50.000			Recovery = 72.72%			
51) 2-Fluorobiphenyl	6.672	172	625123	40.42	ppm	-0.04
Spiked Amount 50.000			Recovery = 80.84%			
73) 2,4,6-Tribromophenol	8.936	330	150703	52.85	ppm	-0.06
Spiked Amount 50.000			Recovery = 105.70%			
85) Terphenyl-d14	13.316	244	886839	41.08	ppm	-0.19
Spiked Amount 50.000			Recovery = 82.16%			
109) 1-chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
111) o-terphenyl	0.000	230	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
Target Compounds						Qvalue
2) 1,4-Dioxane	1.854	88	78734	17.01	ppm	96
3) Pyridine	2.201	79	253821	22.77	ppm	97
4) N-Nitrosodimethylamine	2.158	42	110162	27.78	ppm	96
6) Indene	4.562	116	479817	38.78	ppm	99
7) Cumene	3.782	105	624322	28.56	ppm	97
9) Phenol	4.140	94	377880	31.83	ppm	100
10) Aniline	4.135	93	346860	29.17	ppm	85
11) bis(2-Chloroethyl)ether	4.188	93	277051	33.74	ppm	96
12) 2-Chlorophenol	4.225	128	289584	35.51	ppm	98
13) Decane	4.268	43	193066	31.00	ppm	91
14) 1,3-Dichlorobenzene	4.332	146	325855	34.40	ppm	96
15) 1,4-Dichlorobenzene	4.386	146	326719	37.98	ppm	96
16) Benzyl alcohol	4.487	108	185821	38.67	ppm	89
17) 1,2-Dichlorobenzene	4.498	146	305980	35.94	ppm	96
18) Acetophenone	4.679	105	375900	34.92	ppm	96
19) 2-Methylphenol	4.578	108	257970	37.57	ppm	97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6583\
Data File : m154086.D
Acq On : 6 May 2019 5:40 am
Operator : carolb
Sample : op20158-ms
Misc : op20158,em6583,30.2,,,1,1
ALS Vial : 18 Sample Multiplier: 1

Quant Time: May 06 09:04:18 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6556.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon May 06 08:54:41 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
20) 2,2'-oxybis(1-Chloropr...	4.583	121	82020	38.63	ppm		89
21) 3&4-Methylphenol	4.695	108	263124	38.11	ppm		94
22) n-Nitroso-di-n-propyla...	4.685	70	194143	36.16	ppm		97
23) Hexachloroethane	4.754	201	128127	35.25	ppm		94
26) Nitrobenzene	4.807	77	274413	36.04	ppm		99
27) Quinoline	5.785	129	549524	39.47	ppm		94
28) Isophorone	5.010	82	546527	38.48	ppm		97
29) 2-Nitrophenol	5.075	139	163170	46.33	ppm		92
30) 2,4-Dimethylphenol	5.128	107	260579	44.68	ppm		89
31) Benzoic acid	5.213	105	61490m	13.27	ppm		
32) bis(2-Chloroethoxy)met...	5.203	93	344374	39.96	ppm		100
33) 2,4-Dichlorophenol	5.299	162	255688	41.81	ppm		93
34) 2,6-Dichlorophenol	5.512	162	236560	42.68	ppm		98
36) 1,2,4-Trichlorobenzene	5.374	180	298041	39.88	ppm		98
38) Naphthalene	5.443	128	773427	42.98	ppm		99
39) 4-Chloroaniline	5.502	127	239363	30.02	ppm		97
40) 2,3-Dichloroaniline	6.554	161	299575	38.43	ppm		97
41) Caprolactam	5.870	55	106686	37.71	ppm		86
42) Hexachlorobutadiene	5.577	225	170222	38.21	ppm		96
43) 4-Chloro-3-methylphenol	6.052	107	230933	36.49	ppm		87
44) 2-Methylnaphthalene	6.196	141	442596	38.79	ppm		96
45) 1-Methylnaphthalene	6.314	142	541661	37.33	ppm		95
46) Dimethylnaphthalene	7.019	156	492982	39.03	ppm		94
48) Hexachlorocyclopentadiene	6.404	237	338363	83.64	ppm		99
49) 2,4,6-Trichlorophenol	6.565	196	194683	43.23	ppm		98
50) 2,4,5-Trichlorophenol	6.618	196	208646	43.17	ppm		97
52) 2-Chloronaphthalene	6.816	162	517617	40.44	ppm		95
53) Biphenyl	6.800	154	682057	40.81	ppm		98
54) 2-Nitroaniline	6.976	65	137698	39.89	ppm		90
55) Dimethylphthalate	7.270	163	637213	40.75	ppm		99
56) Acenaphthylene	7.403	152	834397	41.52	ppm		99
57) 2,6-Dinitrotoluene	7.344	165	151025	51.57	ppm		88
58) 3-Nitroaniline	7.590	138	140991	39.04	ppm		81
59) Acenaphthene	7.676	153	509493	41.87	ppm		96
60) 2,4-Dinitrophenol	7.761	184	106290	64.35	ppm		93
61) 4-Nitrophenol	7.937	109	58189	29.03	ppm	#	66
62) Dibenzofuran	7.953	168	727259	39.98	ppm		94
63) 2,4-Dinitrotoluene	7.975	165	179679	43.68	ppm		72
64) 2,3,4,6-Tetrachlorophenol	8.183	232	177649	41.04	ppm		95
65) Diethylphthalate	8.429	149	608703	40.29	ppm		98
66) Fluorene	8.514	166	641388	42.48	ppm		99
67) 4-Chlorophenyl-phenyle...	8.557	204	320798	40.91	ppm		92
68) 4-Nitroaniline	8.594	138	141578	44.00	ppm		79
70) 4,6-Dinitro-2-methylph...	8.658	198	96636	36.63	ppm		89
71) n-Nitrosodiphenylamine	8.771	169	471762	41.87	ppm		99
72) 1,2-Diphenylhydrazine	8.829	77	589686	38.16	ppm		97
74) 4-Bromophenyl-phenylether	9.411	248	234602	40.54	ppm		94
75) Hexachlorobenzene	9.486	284	274304	42.68	ppm		90
76) Pentachlorophenol	9.871	266	146555	40.94	ppm		96
77) Phenanthrene	10.207	178	923175	43.93	ppm		97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6583\
Data File : m154086.D
Acq On : 6 May 2019 5:40 am
Operator : carolb
Sample : op20158-ms
Misc : op20158,em6583,30.2,,,1,1
ALS Vial : 18 Sample Multiplier: 1

Quant Time: May 06 09:04:18 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6556.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon May 06 08:54:41 2019
Response via : Initial Calibration

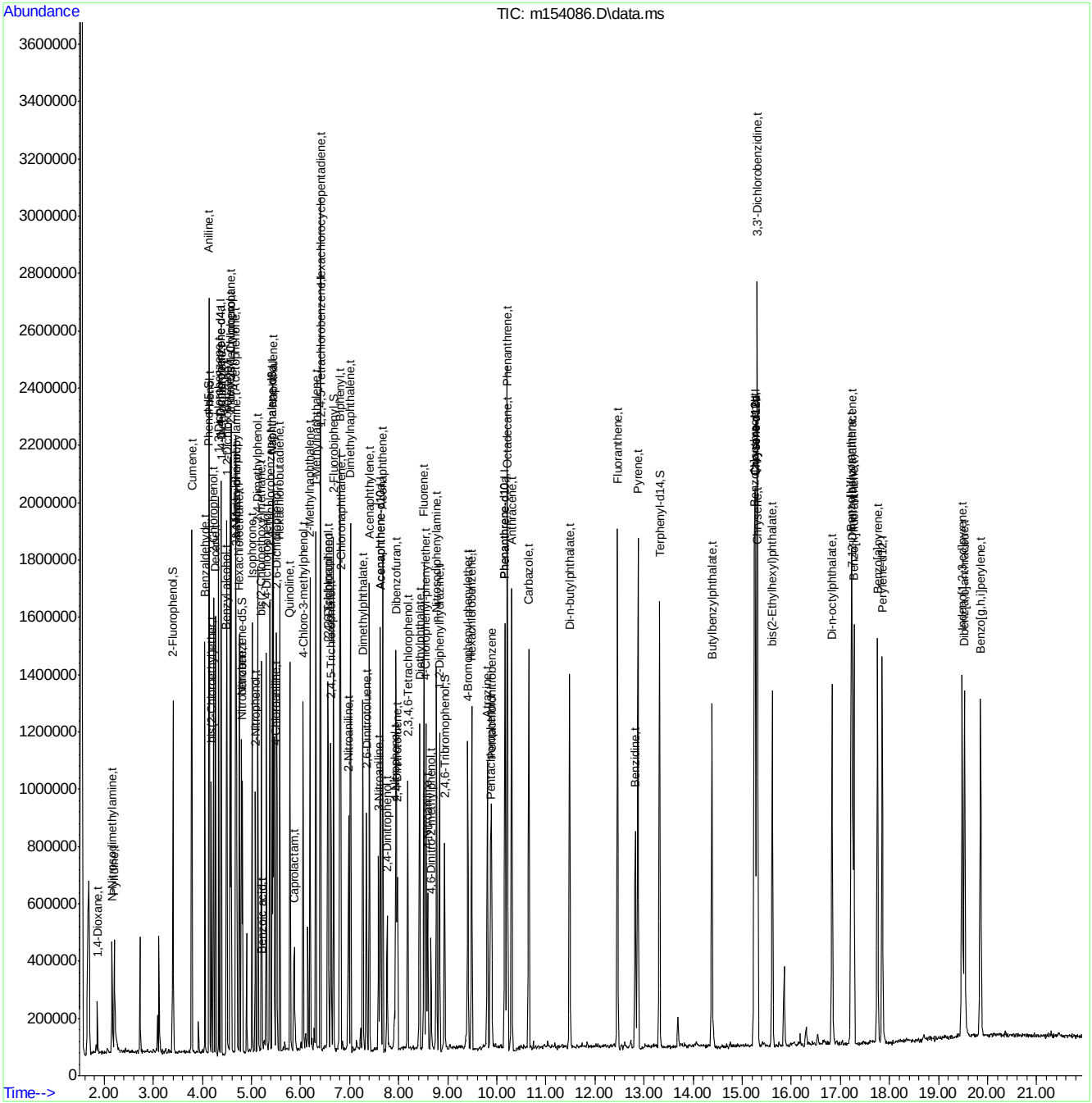
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
78) Anthracene	10.303	178	925512	41.81	ppm	99
79) Carbazole	10.651	167	841033	39.52	ppm	98
80) Di-n-butylphthalate	11.484	149	1074611	41.92	ppm	98
81) Fluoranthene	12.461	202	1090824	39.27	ppm	99
82) Octadecane	10.218	57	287955	42.33	ppm	96
84) Pyrene	12.878	202	1082598	36.93	ppm	99
86) Butylbenzylphthalate	14.384	149	467769	38.85	ppm	98
87) Benzo[a]anthracene	15.249	228	1014102	37.00	ppm	97
88) 3,3'-Dichlorobenzidine	15.303	252	738786	79.80	ppm	99
89) Chrysene	15.319	228	881421	36.18	ppm	97
90) bis(2-Ethylhexyl)phtha...	15.612	149	612480	38.01	ppm	99
92) Di-n-octylphthalate	16.830	149	1059803	37.63	ppm	99
93) Benzo[b]fluoranthene	17.225	252	1033465	38.75	ppm	98
94) Benzo[k]fluoranthene	17.279	252	888565	35.01	ppm	99
95) Benzo[a]pyrene	17.760	252	929611	39.71	ppm	98
96) Indeno[1,2,3-cd]pyrene	19.485	276	874103	37.55	ppm	97
98) Dibenz[a,h]anthracene	19.533	278	851242	39.46	ppm	98
99) 7,12-Dimethylbenz(a)an...	17.241	256	408273	39.93	ppm	95
100) Benzo[g,h,i]perylene	19.859	276	891036	40.14	ppm	98
102) Benzaldehyde	4.049	105	204734	31.18	ppm	96
104) 1,2,4,5-Tetrachloroben...	6.410	216	297171	41.82	ppm	99
105) Atrazine	9.812	215	103484	53.10	ppm	91
107) Benzidine	12.819	184	492205	32.56	ppm	97
112) Pentachloronitrobenzene	9.892	295	46295	46.32	ppm	89

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6583\
Data File : m154086.D
Acq On : 6 May 2019 5:40 am
Operator : carolb
Sample : op20158-ms
Misc : op20158,em6583,30.2,,,1,1
ALS Vial : 18 Sample Multiplier: 1

Quant Time: May 06 09:04:18 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6556.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon May 06 08:54:41 2019
Response via : Initial Calibration



Manual Integration Approval Summary

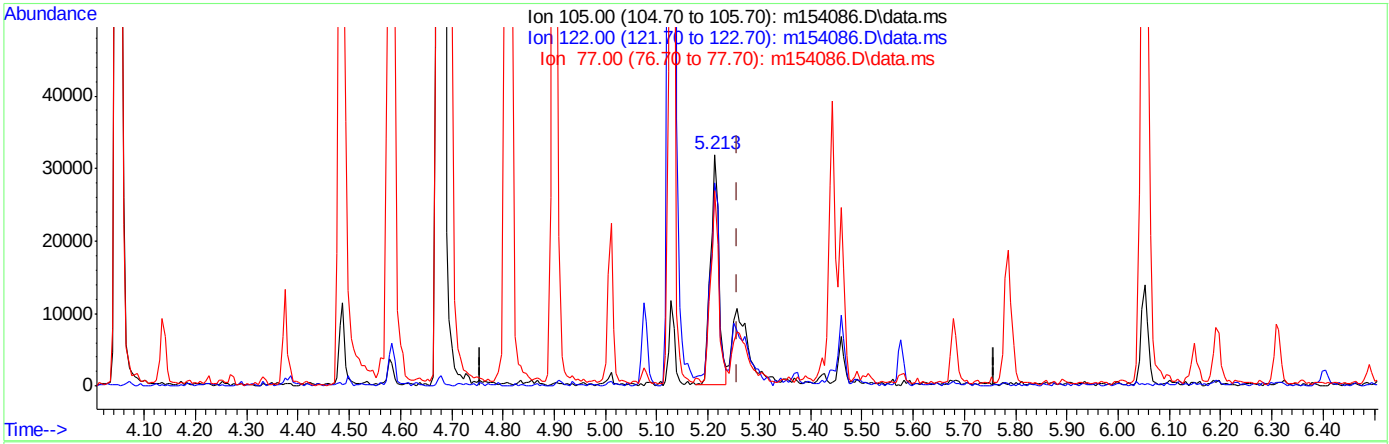
Sample Number:	OP20158-MS	**Method:**	SW846 8270D
Lab FileID:	M154086.D	**Analyst approved:**	05/06/19 09:29 Ying Li
Injection Time:	05/06/19 05:40	**Supervisor approved:**	05/06/19 12:56 Nancy Ma

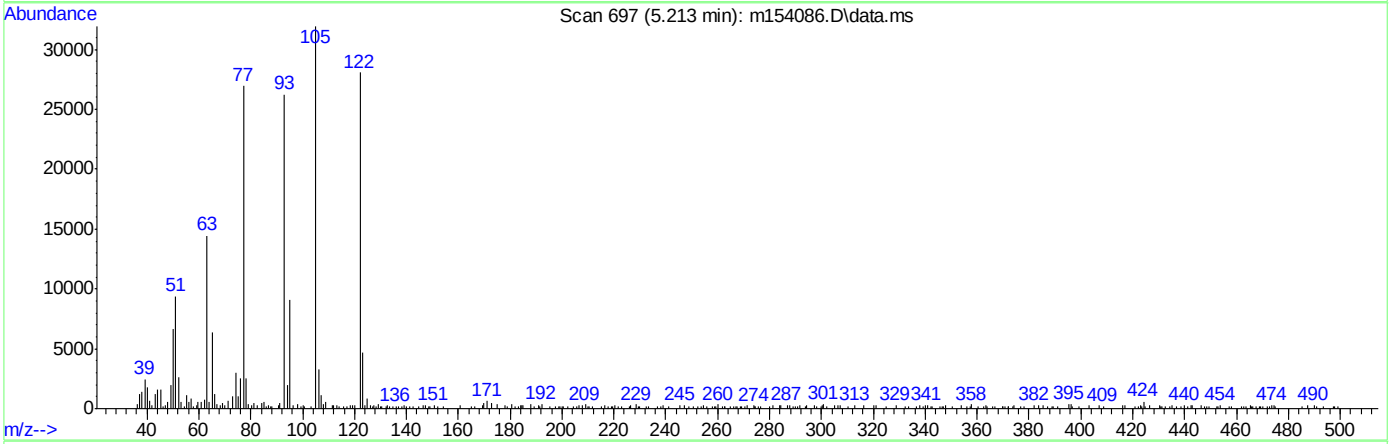
Parameter	CAS	Sig#	R.T. (min.)	Reason
Benzoic acid	65-85-0		5.21	Split peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EM6583\
Data File : m154086.D
Acq On : 6 May 2019 5:40 am
Operator : carolb
Sample : op20158-ms
Misc : op20158,em6583,30.2,,,1,1
ALS Vial : 18 Sample Multiplier: 1

Quant Time: May 06 09:02:54 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6556.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon May 06 08:54:41 2019
Response via : Initial Calibration





TIC: m154086.D\data.ms

(31) Benzoic acid (t)

5.213min (-0.044) 7.76ppm

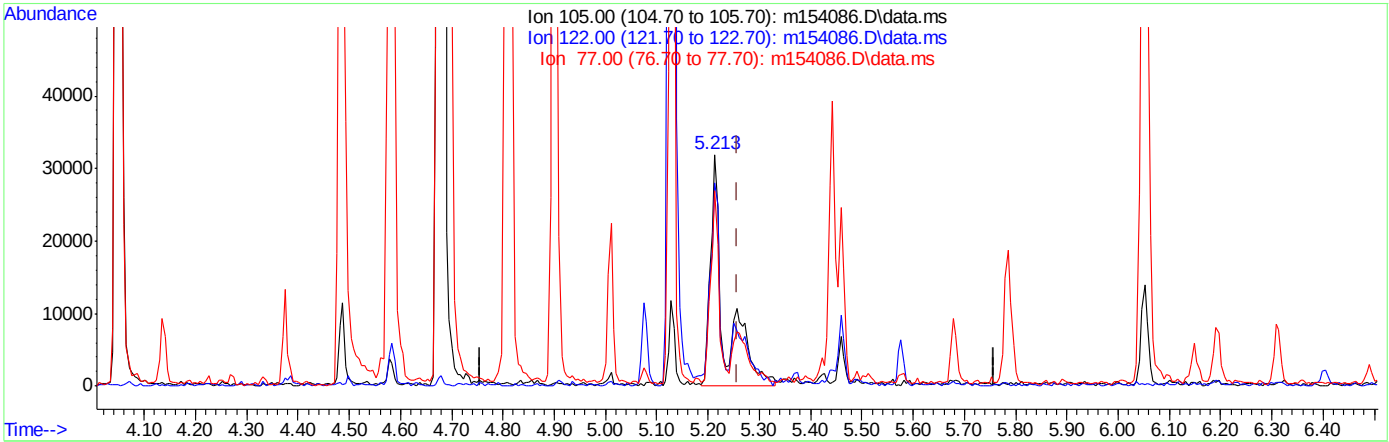
response 35955

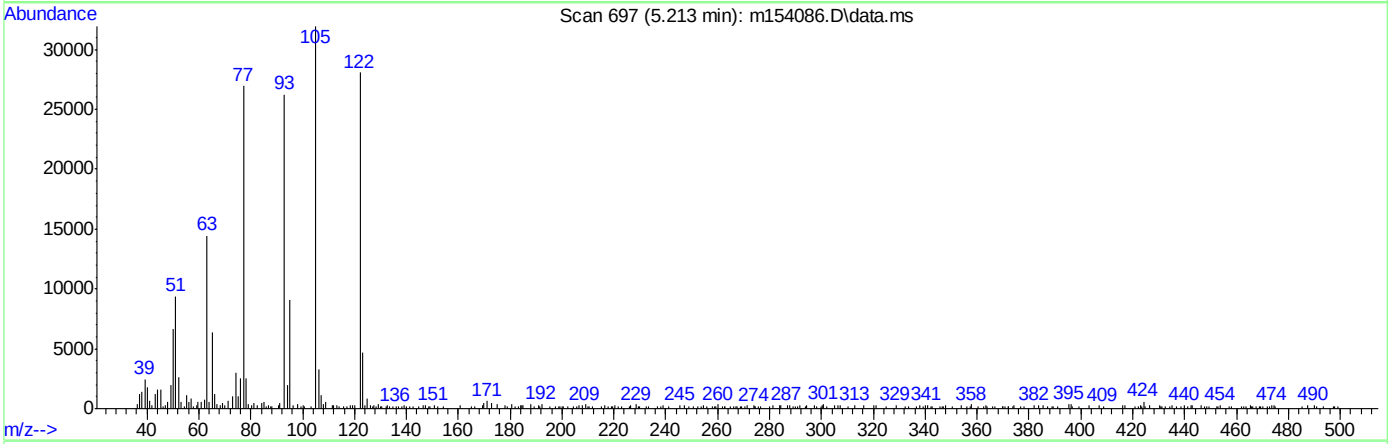
Ion	Exp%	Act%
105.00	100	100
122.00	71.60	86.22
77.00	74.50	82.64
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EM6583\
Data File : m154086.D
Acq On : 6 May 2019 5:40 am
Operator : carolb
Sample : op20158-ms
Misc : op20158,em6583,30.2,,,1,1
ALS Vial : 18 Sample Multiplier: 1

Quant Time: May 06 09:02:54 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6556.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon May 06 08:54:41 2019
Response via : Initial Calibration





TIC: m154086.D\data.ms

(31) Benzoic acid (t)

5.213min (-0.044) 13.27ppm m

response 61490

Ion	Exp%	Act%
105.00	100	100
122.00	71.60	87.98
77.00	74.50	84.42
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6583\
Data File : m154087.D
Acq On : 6 May 2019 6:08 am
Operator : carolb
Sample : op20158-msd
Misc : op20158,em6583,30.9,,,1,1
ALS Vial : 19 Sample Multiplier: 1

Quant Time: May 06 09:06:49 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6556.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon May 06 09:05:37 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.372	152	220910	40.00	ppm	-0.02
24) Naphthalene-d8	5.424	136	698201	40.00	ppm	-0.03
47) Acenaphthene-d10	7.624	164	385416	40.00	ppm	-0.04
69) Phenanthrene-d10	10.167	188	788007	40.00	ppm	-0.04
83) Chrysene-d12	15.267	240	761010	40.00	ppm	-0.19
91) Perylene-d12	17.858	264	793439	40.00	ppm	-0.19
101) 1,4-Dichlorobenzene-d4a	4.372	152	220910	40.00	ppm	-0.02
103) Acenaphthene-d10a	7.624	164	385416	40.00	ppm	-0.04
106) Chrysene-d12a	15.267	240	761010	40.00	ppm	-0.19
108) Chrysene-d12b	15.267	240	761010	40.00	ppm	-0.19
110) Phenanthrene-d10a	10.167	188	788007	40.00	ppm	-0.14
113) Naphthalene-d8a	5.424	136	698201	40.00	ppm	-0.03
115) Chrysene-d12c	15.267	240	761010	40.00	ppm	-0.19
System Monitoring Compounds						
5) 2-Fluorophenol	3.400	112	304514	35.26	ppm	-0.05
Spiked Amount 50.000			Recovery = 70.52%			
8) Phenol-d5	4.131	99	377024	35.35	ppm	0.00
Spiked Amount 50.000			Recovery = 70.70%			
25) Nitrobenzene-d5	4.794	82	287909	38.65	ppm	-0.02
Spiked Amount 50.000			Recovery = 77.30%			
51) 2-Fluorobiphenyl	6.674	172	622650	43.45	ppm	-0.04
Spiked Amount 50.000			Recovery = 86.90%			
73) 2,4,6-Tribromophenol	8.933	330	151351	57.09	ppm	-0.06
Spiked Amount 50.000			Recovery = 114.18%			
85) Terphenyl-d14	13.313	244	883726	43.06	ppm	-0.19
Spiked Amount 50.000			Recovery = 86.12%			
109) 1-chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
111) o-terphenyl	0.000	230	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
Target Compounds						Qvalue
2) 1,4-Dioxane	1.856	88	74812	17.12	ppm	97
3) Pyridine	2.198	79	224287	21.31	ppm	95
4) N-Nitrosodimethylamine	2.155	42	112270	29.99	ppm	96
6) Indene	4.564	116	479375	41.04	ppm	99
7) Cumene	3.779	105	620487	30.07	ppm	99
9) Phenol	4.142	94	379543	33.86	ppm	94
10) Aniline	4.137	93	333869	29.73	ppm	58
11) bis(2-Chloroethyl)ether	4.185	93	279661	36.07	ppm	97
12) 2-Chlorophenol	4.227	128	290271	37.70	ppm	96
13) Decane	4.270	43	189755	32.27	ppm	95
14) 1,3-Dichlorobenzene	4.334	146	326226	36.47	ppm	94
15) 1,4-Dichlorobenzene	4.388	146	324955	40.01	ppm	95
16) Benzyl alcohol	4.484	108	183058	40.35	ppm	94
17) 1,2-Dichlorobenzene	4.500	146	306365	38.12	ppm	95
18) Acetophenone	4.676	105	377909	37.18	ppm	99
19) 2-Methylphenol	4.580	108	253410	39.09	ppm	95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6583\
Data File : m154087.D
Acq On : 6 May 2019 6:08 am
Operator : carolb
Sample : op20158-msd
Misc : op20158,em6583,30.9,,,1,1
ALS Vial : 19 Sample Multiplier: 1

Quant Time: May 06 09:06:49 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6556.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon May 06 09:05:37 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
20) 2,2'-oxybis(1-Chloropr...	4.580	121	83458	41.64	ppm	#	85
21) 3&4-Methylphenol	4.697	108	259340	39.79	ppm		98
22) n-Nitroso-di-n-propyla...	4.681	70	199288	39.31	ppm		91
23) Hexachloroethane	4.756	201	130858	38.14	ppm		96
26) Nitrobenzene	4.810	77	277023	38.30	ppm		95
27) Quinoline	5.787	129	551208	41.68	ppm		94
28) Isophorone	5.007	82	551227	40.85	ppm		99
29) 2-Nitrophenol	5.077	139	161965	48.42	ppm		89
30) 2,4-Dimethylphenol	5.130	107	255921	46.20	ppm		88
31) Benzoic acid	5.216	105	42865	9.73	ppm		86
32) bis(2-Chloroethoxy)met...	5.205	93	338470	41.35	ppm		99
33) 2,4-Dichlorophenol	5.301	162	247011	42.53	ppm		95
34) 2,6-Dichlorophenol	5.515	162	233615	44.37	ppm		95
36) 1,2,4-Trichlorobenzene	5.370	180	297897	41.96	ppm		99
38) Naphthalene	5.440	128	782287	45.76	ppm		100
39) 4-Chloroaniline	5.504	127	216625	28.60	ppm		97
40) 2,3-Dichloroaniline	6.551	161	296361	40.02	ppm		98
41) Caprolactam	5.872	55	109996	40.93	ppm		91
42) Hexachlorobutadiene	5.579	225	173711	41.05	ppm		99
43) 4-Chloro-3-methylphenol	6.054	107	222015	36.93	ppm		84
44) 2-Methylnaphthalene	6.193	141	423958	39.11	ppm		95
45) 1-Methylnaphthalene	6.310	142	538525	39.07	ppm		97
46) Dimethylnaphthalene	7.021	156	480220	40.02	ppm		96
48) Hexachlorocyclopentadiene	6.401	237	336807	89.86	ppm		99
49) 2,4,6-Trichlorophenol	6.567	196	192054	46.03	ppm		98
50) 2,4,5-Trichlorophenol	6.620	196	205730	45.94	ppm		98
52) 2-Chloronaphthalene	6.818	162	516802	43.59	ppm		95
53) Biphenyl	6.802	154	671011	43.34	ppm		99
54) 2-Nitroaniline	6.978	65	140199	43.84	ppm		88
55) Dimethylphthalate	7.272	163	629059	43.43	ppm		99
56) Acenaphthylene	7.405	152	831018	44.64	ppm		99
57) 2,6-Dinitrotoluene	7.341	165	147143	54.24	ppm		91
58) 3-Nitroaniline	7.592	138	137998	41.25	ppm		84
59) Acenaphthene	7.672	153	508119	45.08	ppm		96
60) 2,4-Dinitrophenol	7.763	184	107954	70.00	ppm		86
61) 4-Nitrophenol	7.939	109	57707	31.07	ppm	#	55
62) Dibenzofuran	7.950	168	699823	41.52	ppm		98
63) 2,4-Dinitrotoluene	7.977	165	182451	47.99	ppm		76
64) 2,3,4,6-Tetrachlorophenol	8.180	232	174179	43.44	ppm		97
65) Diethylphthalate	8.426	149	613788	43.85	ppm		98
66) Fluorene	8.516	166	635346	45.42	ppm		98
67) 4-Chlorophenyl-phenyle...	8.559	204	316131	43.52	ppm		92
68) 4-Nitroaniline	8.596	138	136496	45.79	ppm		85
70) 4,6-Dinitro-2-methylph...	8.661	198	93188	37.95	ppm		86
71) n-Nitrosodiphenylamine	8.773	169	471064	44.97	ppm		98
72) 1,2-Diphenylhydrazine	8.826	77	587867	40.92	ppm		98
74) 4-Bromophenyl-phenylether	9.408	248	234203	43.53	ppm		96
75) Hexachlorobenzene	9.488	284	271304	45.40	ppm		90
76) Pentachlorophenol	9.873	266	141383	42.48	ppm		98
77) Phenanthrene	10.209	178	922787	47.23	ppm		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6583\
Data File : m154087.D
Acq On : 6 May 2019 6:08 am
Operator : carolb
Sample : op20158-msd
Misc : op20158,em6583,30.9,,,1,1
ALS Vial : 19 Sample Multiplier: 1

Quant Time: May 06 09:06:49 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6556.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon May 06 09:05:37 2019
Response via : Initial Calibration

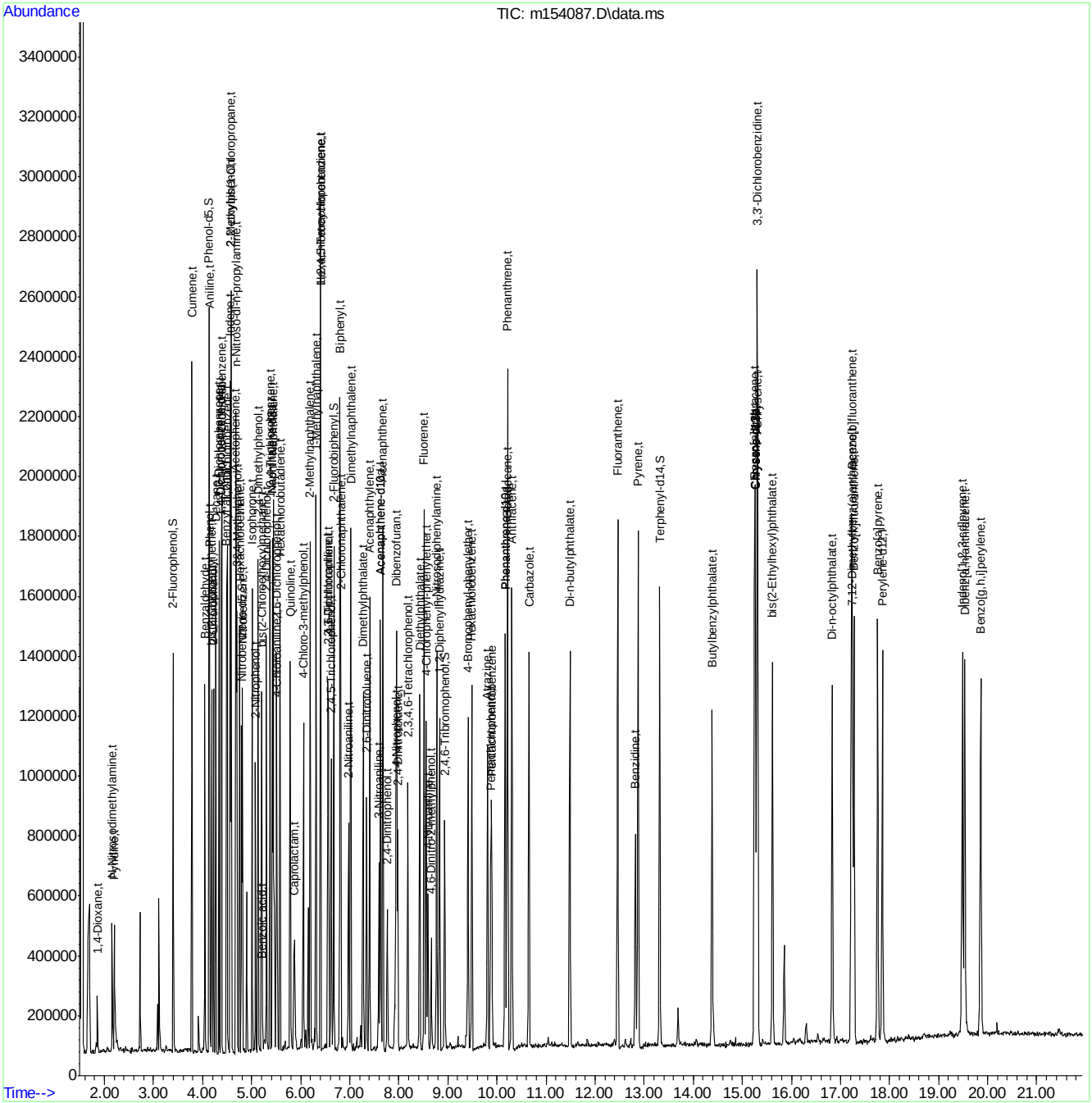
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
78) Anthracene	10.300	178	908489	44.14	ppm	99
79) Carbazole	10.653	167	808602	40.87	ppm	98
80) Di-n-butylphthalate	11.486	149	1070179	44.90	ppm	98
81) Fluoranthene	12.463	202	1086558	42.07	ppm	98
82) Octadecane	10.220	57	276443	43.70	ppm	95
84) Pyrene	12.875	202	1083459	38.88	ppm	99
86) Butylbenzylphthalate	14.386	149	469241	41.00	ppm	99
87) Benzo[a]anthracene	15.251	228	1015095	38.96	ppm	98
88) 3,3'-Dichlorobenzidine	15.305	252	723321	82.19	ppm	98
89) Chrysene	15.316	228	878299	37.92	ppm	99
90) bis(2-Ethylhexyl)phtha...	15.615	149	605215	39.42	ppm	97
92) Di-n-octylphthalate	16.832	149	1041346	39.43	ppm	99
93) Benzo[b]fluoranthene	17.228	252	1010929	40.44	ppm	98
94) Benzo[k]fluoranthene	17.276	252	907299	38.13	ppm	98
95) Benzo[a]pyrene	17.756	252	915851	41.74	ppm	98
96) Indeno[1,2,3-cd]pyrene	19.487	276	861662	39.51	ppm	97
98) Dibenz[a,h]anthracene	19.535	278	811320	40.12	ppm	98
99) 7,12-Dimethylbenz(a)an...	17.244	256	395664	41.28	ppm	95
100) Benzo[g,h,i]perylene	19.861	276	884151	42.49	ppm	100
102) Benzaldehyde	4.046	105	204428	32.98	ppm	96
104) 1,2,4,5-Tetrachloroben...	6.407	216	296503	45.04	ppm	99
105) Atrazine	9.809	215	103283	57.21	ppm	94
107) Benzidine	12.821	184	462171	32.17	ppm	98
112) Pentachloronitrobenzene	9.894	295	43528	46.85	ppm	86

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6583\
Data File : m154087.D
Acq On : 6 May 2019 6:08 am
Operator : carolb
Sample : op20158-msd
Misc : op20158,em6583,30.9,,,1,1
ALS Vial : 19 Sample Multiplier: 1

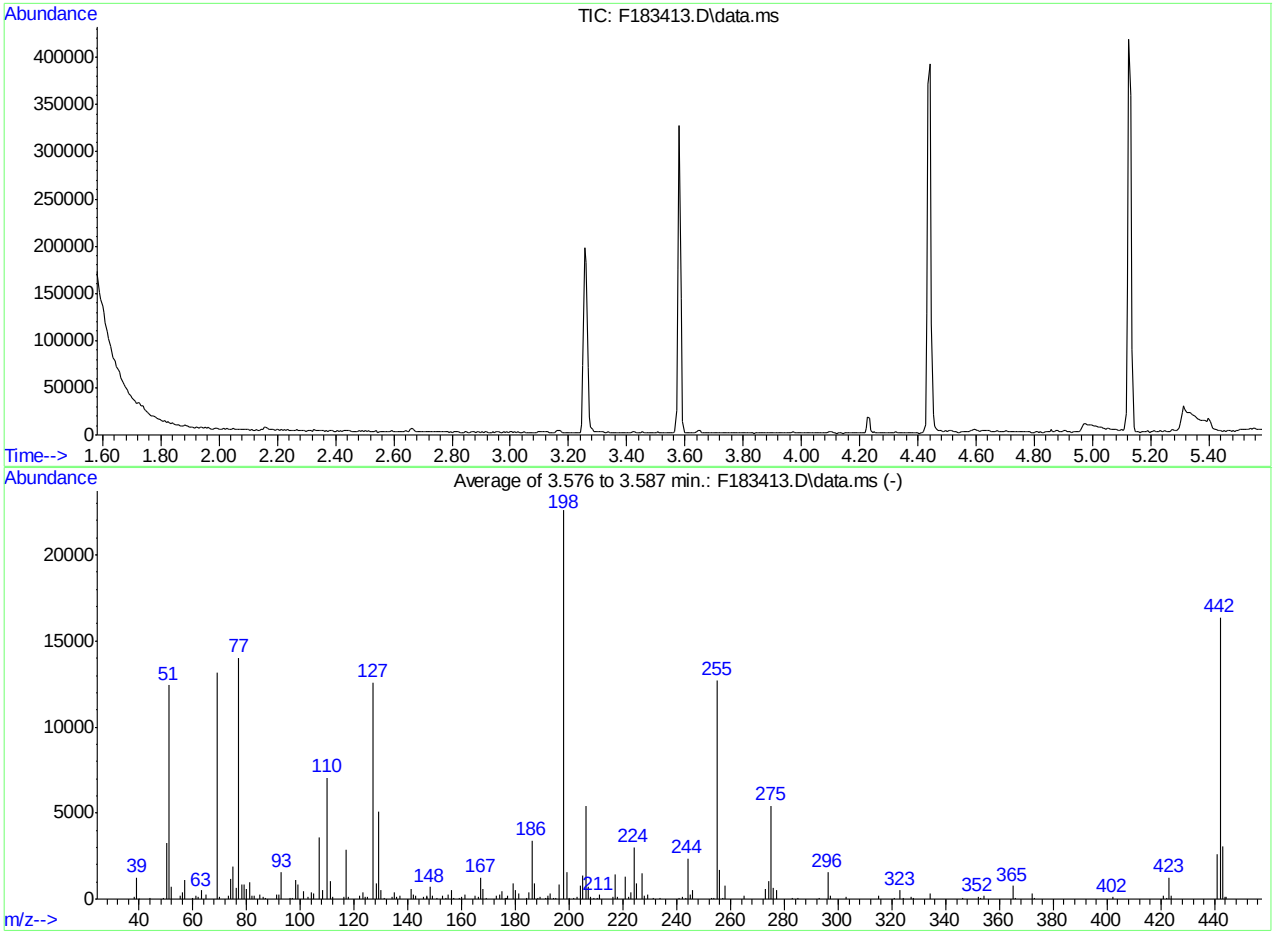
Quant Time: May 06 09:06:49 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6556.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon May 06 09:05:37 2019
Response via : Initial Calibration



DFTPP

Data File : C:\MSDCHEM\1\DATA\EF7873\F183413.D Vial: 1
Acq On : 25 Mar 2019 11:35 am Operator: kristis
Sample : dftpp Inst : GCMSF
Misc : op18378,ef7873,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MF7873.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS



AutoFind: Scans 392, 393, 394; Background Corrected with Scan 388

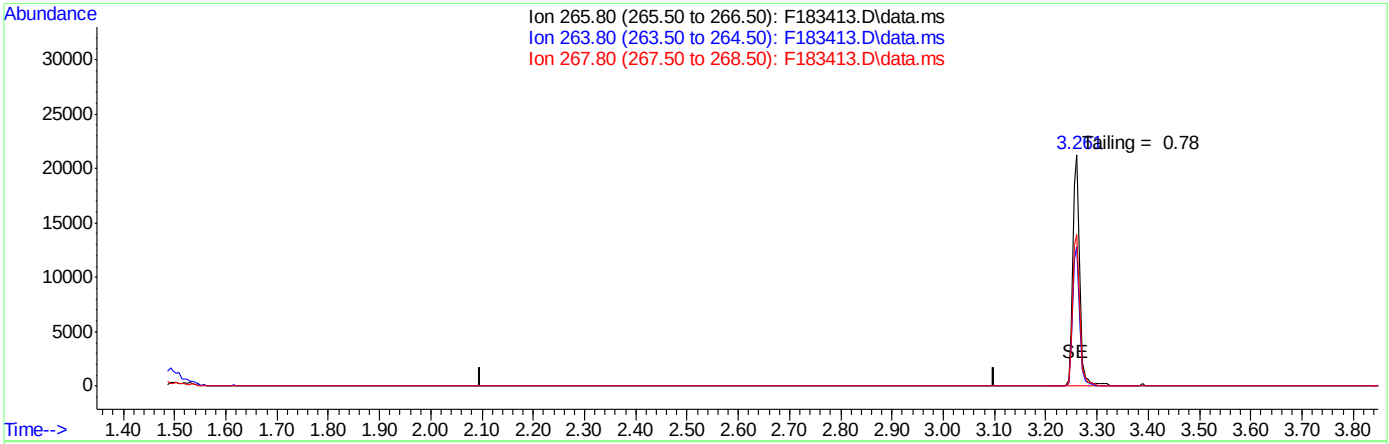
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	55.0	12426	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	58.2	13154	PASS
70	69	0.00	2	0.8	109	PASS
127	198	40	60	55.8	12599	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	22587	PASS
199	198	5	9	7.1	1597	PASS
275	198	10	30	24.0	5418	PASS
365	198	1	100	3.4	761	PASS
441	443	0.10	100	84.7	2608	PASS
442	198	40	100	72.5	16385	PASS
443	442	17	23	18.8	3078	PASS

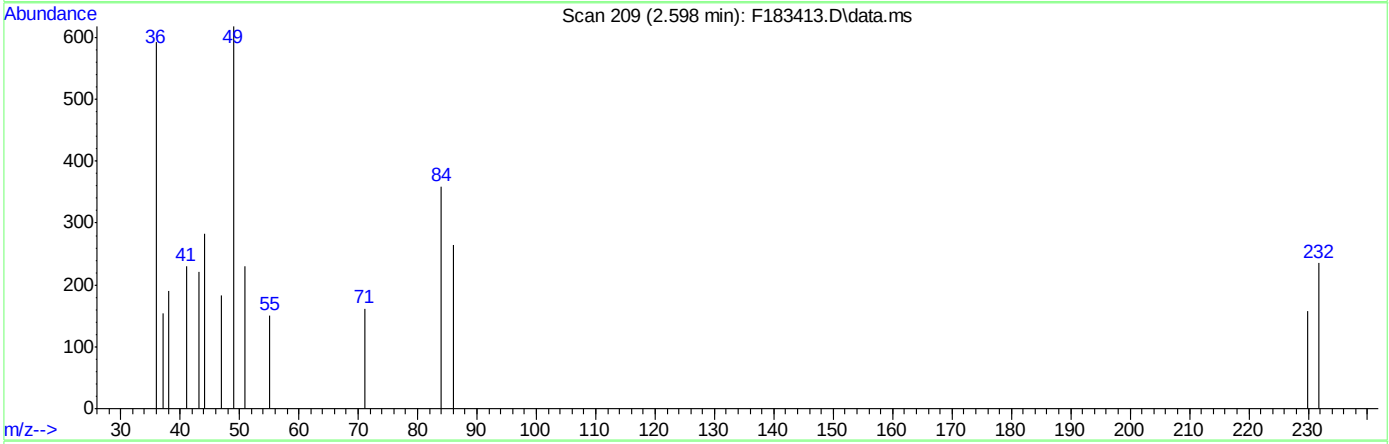
F183413.D MF7873.M Wed Mar 27 18:17:56 2019

Quantitation Report (Qedit)

Data Path : C:\MSDCHEM\1\DATA\EF7873\
Data File : F183413.D
Acq On : 25 Mar 2019 11:35 am
Operator : kristis
Sample : dftpp
Misc : op18378,ef7873,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 25 11:41:56 2019
Quant Method : C:\MSDCHEM\1\METHODS\DFTPPF.M
Quant Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
QLast Update : Wed Feb 13 13:11:05 2019
Response via : Initial Calibration





TIC: F183413.D\data.ms

(1) Pentachlorophenol (t)

2.599min (-2.599) 0.00ppb

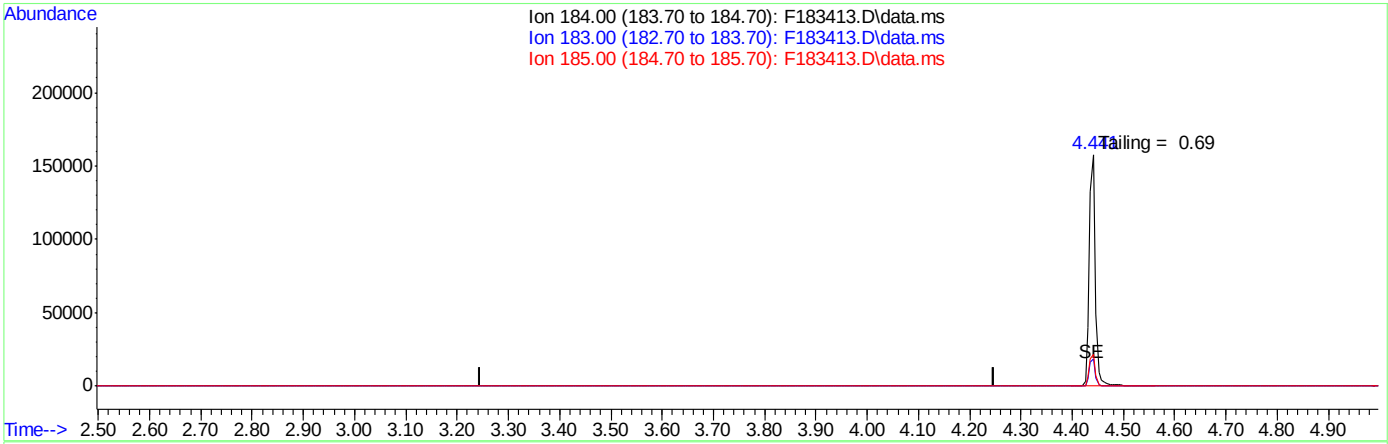
response 0

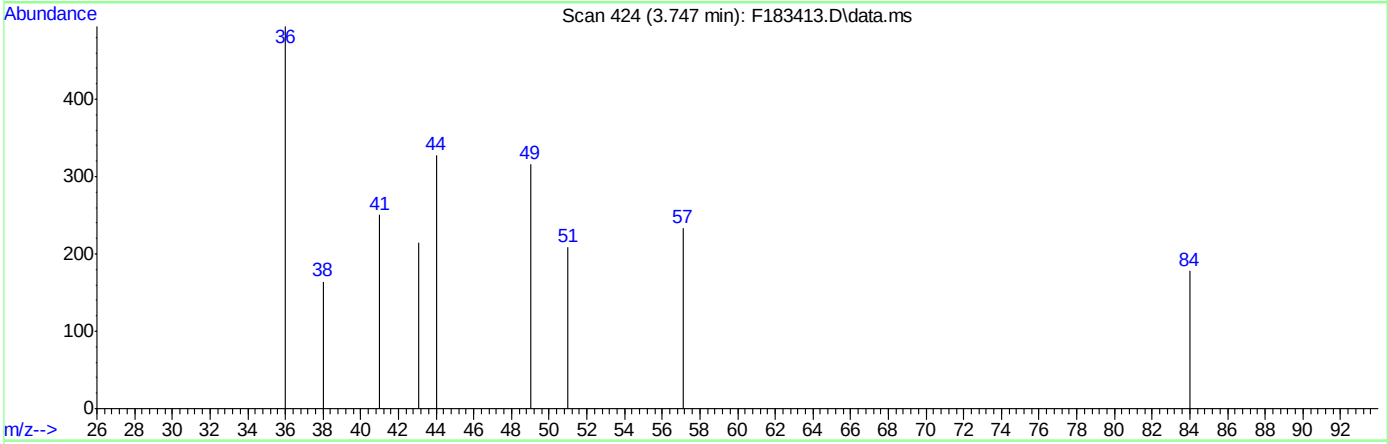
Ion	Exp%	Act%
265.80	100	0.00
263.80	64.10	0.00#
267.80	62.50	0.00#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\MSDCHEM\1\DATA\EF7873\
Data File : F183413.D
Acq On : 25 Mar 2019 11:35 am
Operator : kristis
Sample : dftpp
Misc : op18378,ef7873,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 25 11:41:56 2019
Quant Method : C:\MSDCHEM\1\METHODS\DFTPPF.M
Quant Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
QLast Update : Wed Feb 13 13:11:05 2019
Response via : Initial Calibration





TIC: F183413.D\data.ms

(2) Benzidine (t)

3.747min (-3.747) 0.00ppb

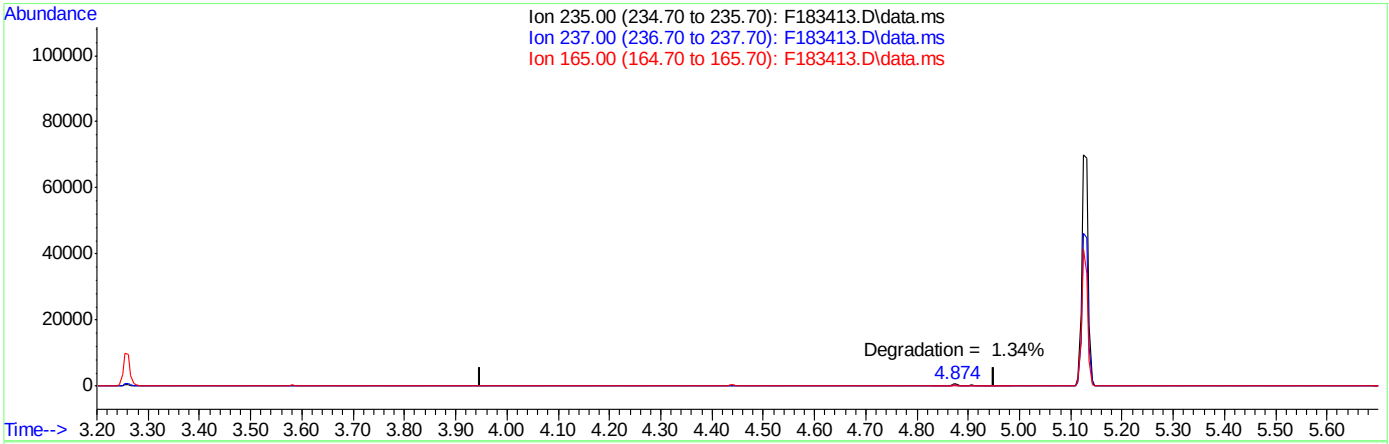
response 0

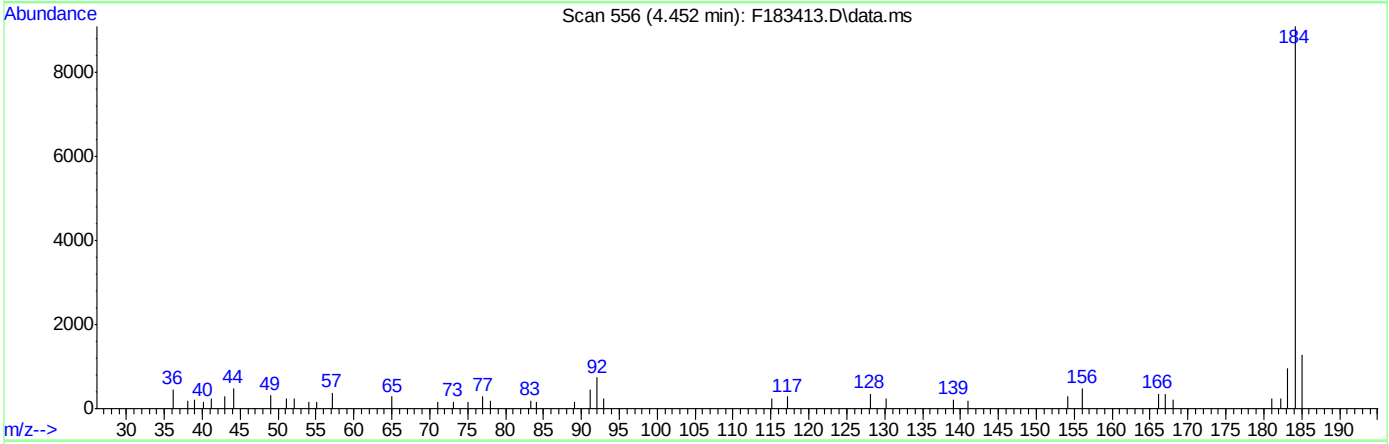
Ion	Exp%	Act%
184.00	100	0.00
183.00	11.10	0.00
185.00	14.30	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\MSDCHEM\1\DATA\EF7873\
Data File : F183413.D
Acq On : 25 Mar 2019 11:35 am
Operator : kristis
Sample : dftpp
Misc : op18378,ef7873,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 25 11:41:56 2019
Quant Method : C:\MSDCHEM\1\METHODS\DFTPPF.M
Quant Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
QLast Update : Wed Feb 13 13:11:05 2019
Response via : Initial Calibration





TIC: F183413.D\data.ms

(3) ddt (t)

4.450min (-4.450) 0.00ppb

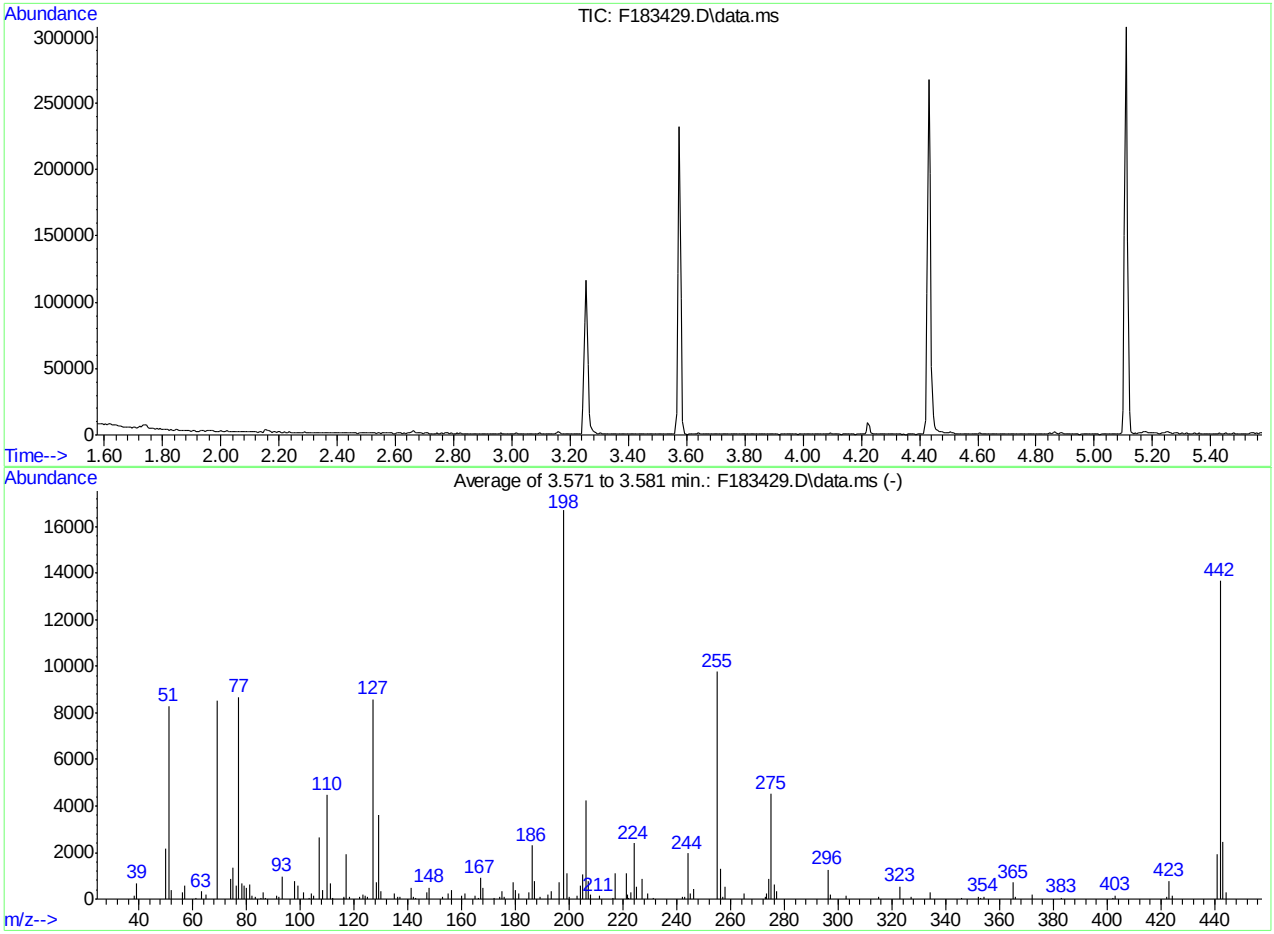
response 0

Ion	Exp%	Act%
235.00	100	0.00
237.00	63.50	0.00#
165.00	54.60	0.00#
0.00	0.00	0.00

DFTPP

Data File : C:\MSDCHEM\1\DATA\EF7873\F183429.D Vial: 1
Acq On : 25 Mar 2019 7:01 pm Operator: kristis
Sample : dftpp Inst : GCMSF
Misc : op18378,ef7874,1000,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\DFTPPF.M (RTE Integrator)
Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um



AutoFind: Scans 391, 392, 393; Background Corrected with Scan 387

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	49.7	8291	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	51.2	8550	PASS
70	69	0.00	2	0.0	0	PASS
127	198	40	60	51.5	8593	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	16697	PASS
199	198	5	9	6.5	1093	PASS
275	198	10	30	27.1	4522	PASS
365	198	1	100	4.2	709	PASS
441	443	0.10	100	78.5	1922	PASS
442	198	40	100	81.8	13657	PASS
443	442	17	23	17.9	2448	PASS

F183429.D DFTPPF.M Tue Mar 26 12:56:31 2019

Average of 3.571 to 3.581 min.: F183429.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
38.05	125	74.10	846	86.05	308	107.10	2659
39.10	687	75.10	1366	87.00	70	108.10	403
50.10	2190	76.10	576	91.00	151	110.00	4458
51.10	8291	77.10	8684	92.00	100	111.05	686
52.15	365	78.10	671	93.05	969	112.10	60
56.05	304	79.05	570	98.00	790	116.00	57
57.10	577	80.05	504	99.00	576	116.20	81
61.10	52	81.10	643	101.05	276	117.00	1945
63.05	322	82.05	162	103.10	66	118.10	121
65.10	175	83.10	79	104.00	256	121.90	79
69.00	8550	85.20	52	105.05	158	123.05	211

Average of 3.571 to 3.581 min.: F183429.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
124.05	122	142.80	52	168.00	485	189.00	90
124.90	75	147.00	270	172.10	58	192.00	173
127.10	8593	148.00	500	173.90	85	193.10	325
128.05	719	153.00	106	175.05	319	196.00	706
129.00	3609	155.05	239	175.95	111	198.00	16697
130.05	331	156.05	380	179.00	727	199.00	1093
135.05	240	160.05	123	180.00	408	200.00	74
136.00	76	161.05	231	181.00	235	203.00	144
137.00	81	164.95	132	185.10	299	204.05	573
141.00	460	166.00	72	186.05	2304	205.05	1080
142.10	80	167.00	894	187.10	750	206.10	4225

Average of 3.571 to 3.581 min.: F183429.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
207.05	779	227.05	860	258.00	542	315.00	80
208.05	207	228.95	248	264.95	266	323.00	552
211.05	144	231.10	62	272.90	79	326.95	101
216.10	54	242.20	81	273.10	248	334.00	297
217.00	1120	243.00	103	274.00	862	346.00	60
221.05	1091	244.05	1954	275.00	4522	352.00	80
221.70	211	245.05	242	276.05	616	353.00	66
222.00	56	246.05	417	277.00	353	354.00	113
222.95	295	255.00	9757	296.00	1265	365.00	709
224.05	2393	256.00	1305	296.95	177	365.90	75
225.00	537	257.00	82	303.05	137	372.00	217

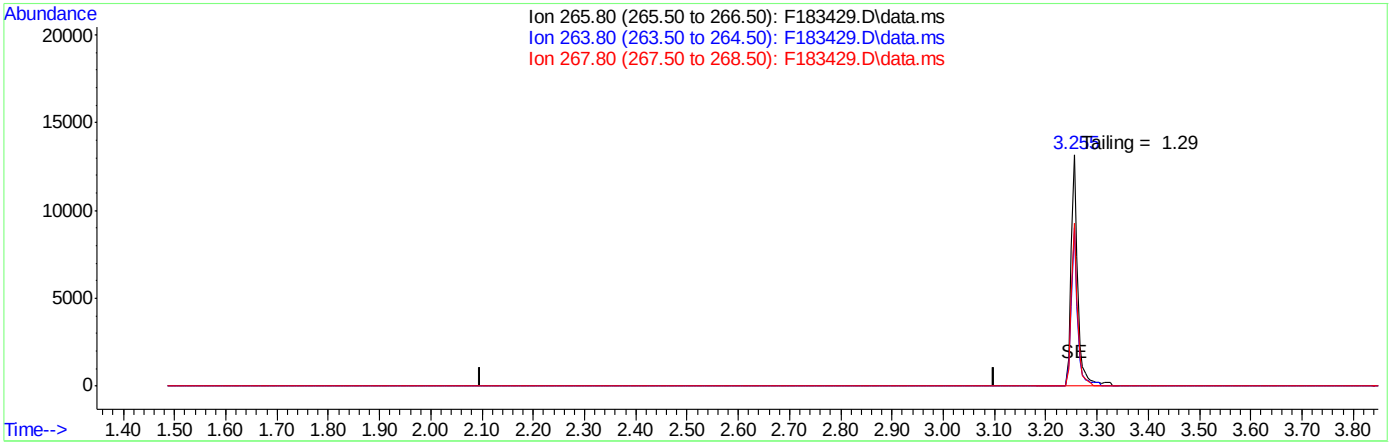
Average of 3.571 to 3.581 min.: F183429.D\data.ms
dftpp
Modified:subtracted

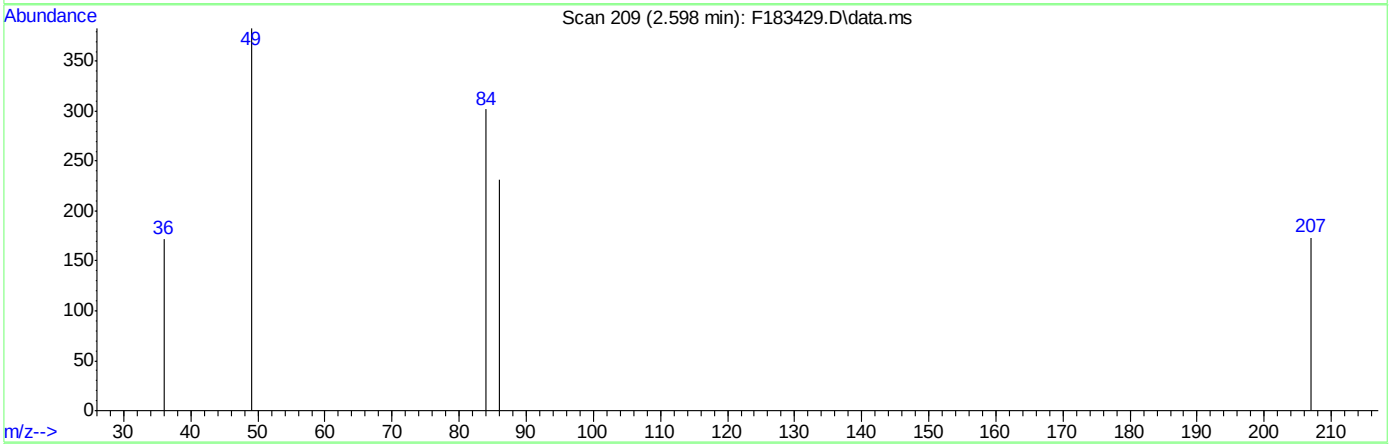
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
383.00	58						
402.10	54						
402.95	146						
421.95	108						
422.95	795						
423.95	169						
441.00	1922						
442.00	13657						
443.00	2448						
444.00	277						

Quantitation Report (Qedit)

Data Path : C:\MSDCHEM\1\DATA\EF7873\
Data File : F183429.D
Acq On : 25 Mar 2019 7:01 pm
Operator : kristis
Sample : dftpp
Misc : op18378,ef7874,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 25 19:07:50 2019
Quant Method : C:\MSDCHEM\1\METHODS\DFTPPF.M
Quant Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
QLast Update : Wed Feb 13 13:11:05 2019
Response via : Initial Calibration





TIC: F183429.D\data.ms

(1) Pentachlorophenol (t)

2.599min (-2.599) 0.00ppb

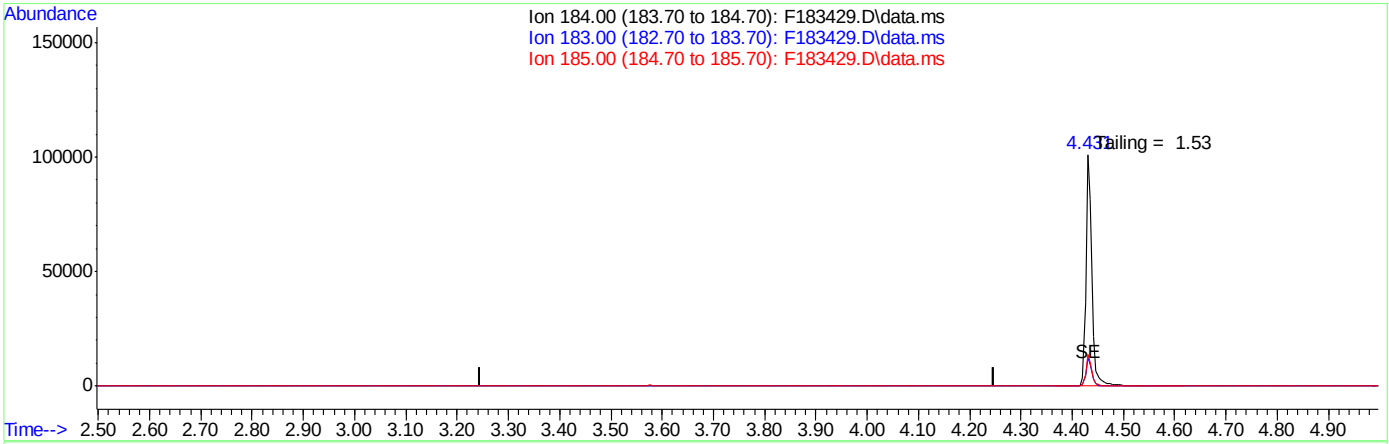
response 0

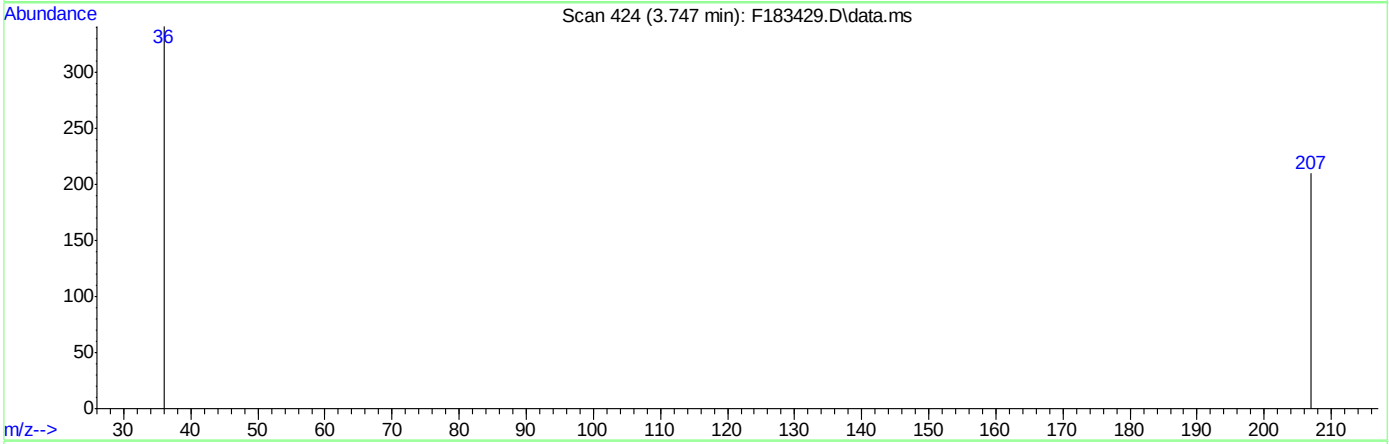
Ion	Exp%	Act%
265.80	100	0.00
263.80	64.10	0.00#
267.80	62.50	0.00#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\MSDCHEM\1\DATA\EF7873\
Data File : F183429.D
Acq On : 25 Mar 2019 7:01 pm
Operator : kristis
Sample : dftpp
Misc : op18378,ef7874,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 25 19:07:50 2019
Quant Method : C:\MSDCHEM\1\METHODS\DFTPPF.M
Quant Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
QLast Update : Wed Feb 13 13:11:05 2019
Response via : Initial Calibration





TIC: F183429.D\data.ms

(2) Benzidine (t)

3.747min (-3.747) 0.00ppb

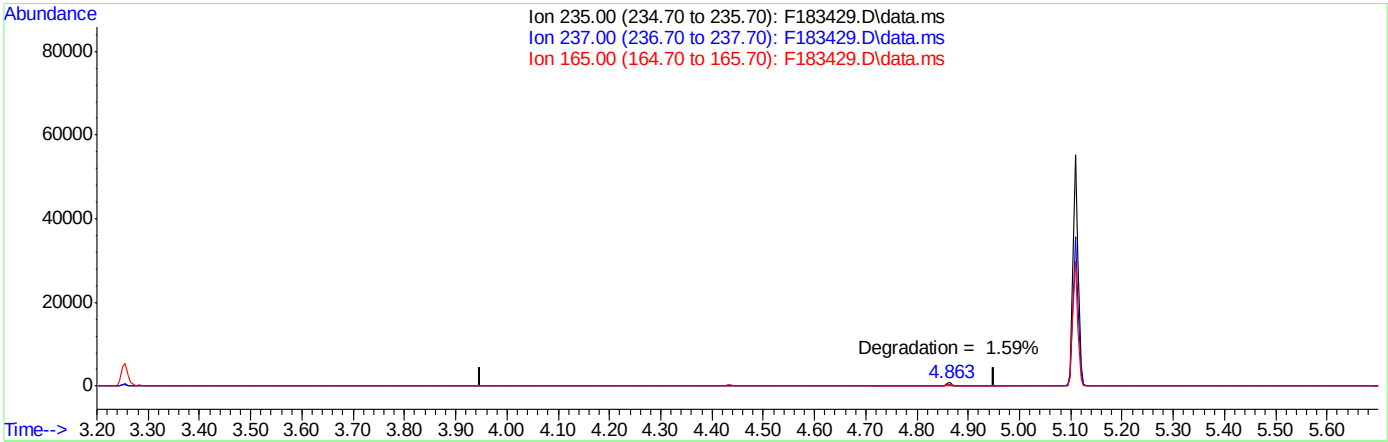
response 0

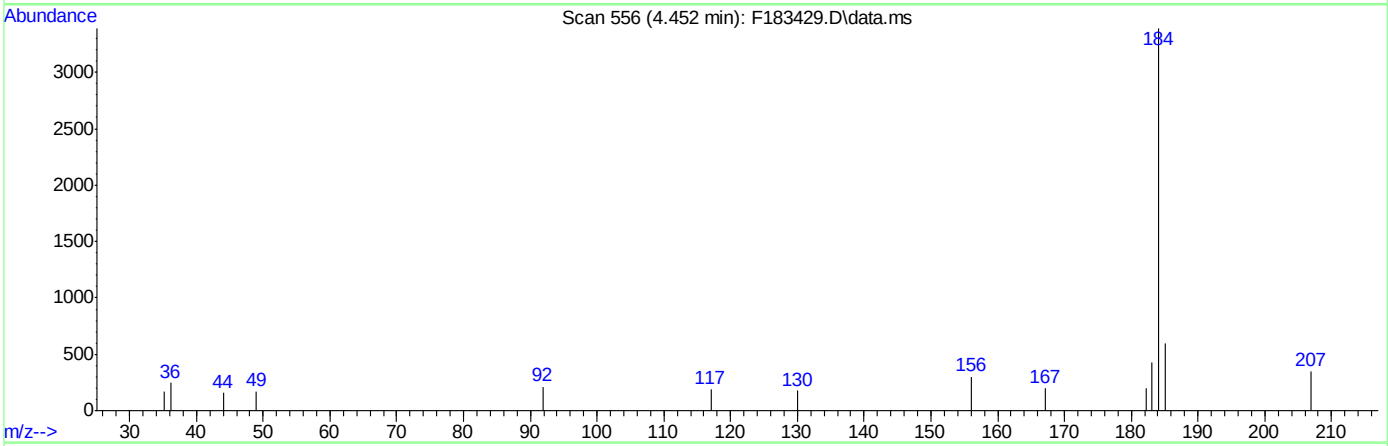
Ion	Exp%	Act%
184.00	100	0.00
183.00	11.10	0.00
185.00	14.30	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\MSDCHEM\1\DATA\EF7873\
Data File : F183429.D
Acq On : 25 Mar 2019 7:01 pm
Operator : kristis
Sample : dftpp
Misc : op18378,ef7874,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 25 19:07:50 2019
Quant Method : C:\MSDCHEM\1\METHODS\DFTPPF.M
Quant Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
QLast Update : Wed Feb 13 13:11:05 2019
Response via : Initial Calibration





TIC: F183429.D\data.ms

(3) ddt (t)

4.450min (-4.450) 0.00ppb

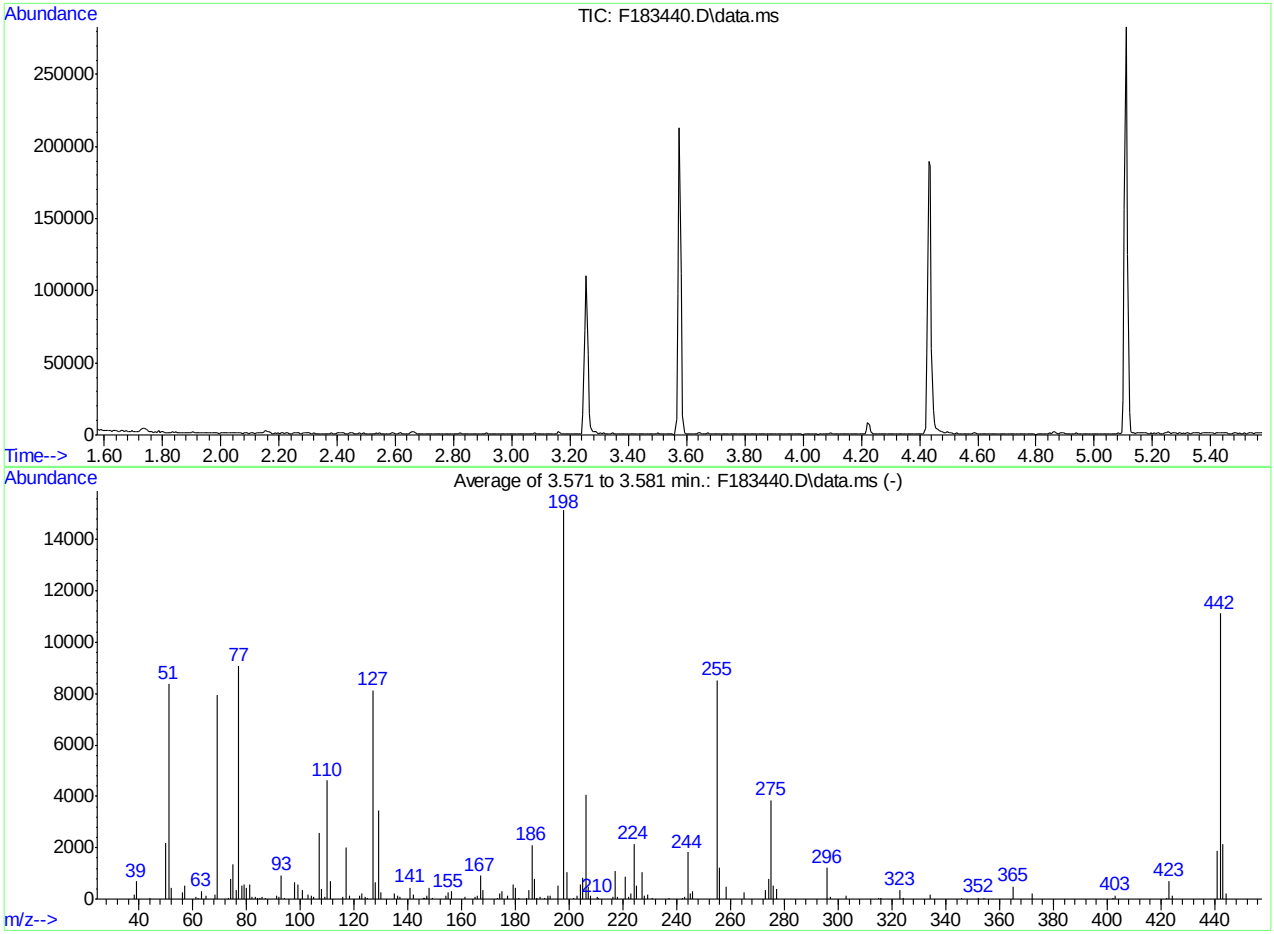
response 0

Ion	Exp%	Act%
235.00	100	0.00
237.00	63.50	0.00#
165.00	54.60	0.00#
0.00	0.00	0.00

DFTPP

Data File : C:\MSDCHEM\1\DATA\EF7873\F183440.D Vial: 1
Acq On : 25 Mar 2019 11:36 pm Operator: kristis
Sample : dftpp Inst : GCMSF
Misc : op18378,ef7875,1000,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\DFTPPF.M (RTE Integrator)
Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um



AutoFind: Scans 391, 392, 393; Background Corrected with Scan 387

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	55.3	8366	PASS
68	69	0.00	2	2.0	156	PASS
69	198	0.00	100	52.4	7926	PASS
70	69	0.00	2	0.0	0	PASS
127	198	40	60	53.7	8117	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	15127	PASS
199	198	5	9	6.9	1040	PASS
275	198	10	30	25.5	3850	PASS
365	198	1	100	3.3	495	PASS
441	443	0.10	100	89.4	1899	PASS
442	198	40	100	73.5	11115	PASS
443	442	17	23	19.1	2124	PASS

F183440.D DFTPPF.M Tue Mar 26 13:41:55 2019

Average of 3.571 to 3.581 min.: F183440.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
38.10	168	65.10	151	81.00	579	98.05	638
39.10	695	68.20	156	82.00	93	99.00	584
44.00	50	69.00	7926	83.10	108	101.00	337
50.10	2175	73.10	58	84.10	50	102.95	156
51.10	8366	74.10	796	85.00	51	104.00	133
52.10	429	75.10	1336	86.00	97	105.10	94
56.05	276	76.05	372	87.00	54	107.05	2577
57.00	523	77.10	9070	91.05	134	108.05	405
61.00	81	78.10	525	92.00	95	109.05	107
62.00	53	79.00	552	93.00	934	110.05	4607
63.10	321	80.05	452	94.00	52	111.10	715

Average of 3.571 to 3.581 min.: F183440.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
116.00	71	130.00	276	149.00	61	175.10	315
117.05	1989	134.95	202	154.00	112	176.95	147
118.10	131	136.05	136	155.00	268	179.00	578
122.00	135	137.00	85	156.05	319	180.00	446
123.05	204	141.00	441	161.10	82	181.10	61
124.10	110	142.00	155	165.00	70	184.10	50
124.80	50	145.80	55	166.00	130	185.00	341
125.10	61	146.10	59	167.05	905	186.05	2097
127.10	8117	146.90	53	168.05	335	187.05	780
128.05	646	147.10	141	173.10	62	188.00	57
129.00	3465	148.00	439	174.00	206	189.00	87

Average of 3.571 to 3.581 min.: F183440.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
190.90	56	207.05	500	225.05	522	255.00	8528
192.00	133	208.00	147	227.00	1037	256.00	1226
193.05	149	210.40	73	228.05	131	258.10	492
195.95	510	210.90	53	229.05	188	265.00	244
198.00	15127	216.10	74	231.00	52	273.05	356
199.00	1040	216.95	1111	236.90	62	274.05	790
201.70	64	218.00	87	242.00	62	275.00	3850
202.95	116	221.00	881	243.00	103	276.00	535
204.00	566	222.00	107	244.05	1822	277.00	399
205.05	823	223.05	201	245.05	218	296.00	1205
206.10	4048	224.05	2140	246.00	292	297.00	101

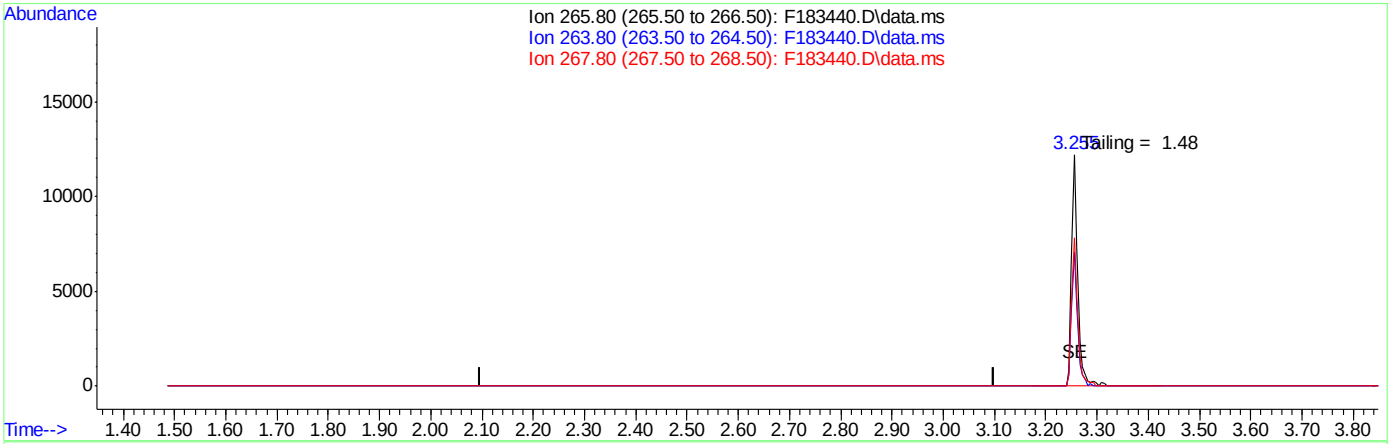
Average of 3.571 to 3.581 min.: F183440.D\data.ms
dftpp
Modified:subtracted

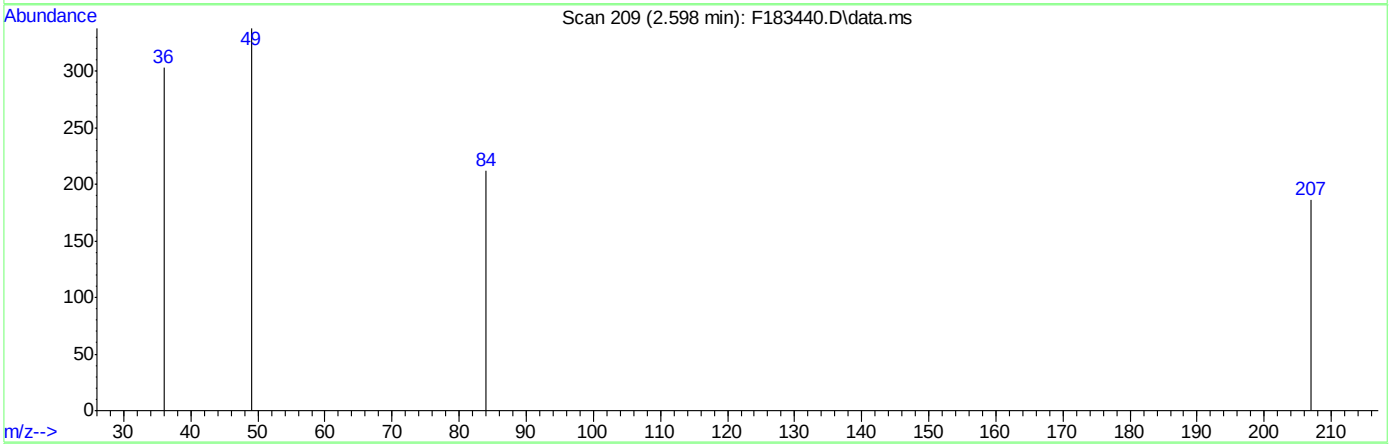
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
303.05	130	402.00	55				
315.00	59	402.95	131				
316.00	55	421.90	56				
322.95	368	422.95	707				
324.00	57	423.95	137				
334.00	193	441.00	1899				
346.00	53	442.00	11115				
352.10	56	443.00	2124				
354.10	56	444.00	221				
365.00	495						
372.00	229						

Quantitation Report (Qedit)

Data Path : C:\MSDCHEM\1\DATA\EF7873\
Data File : F183440.D
Acq On : 25 Mar 2019 11:36 pm
Operator : kristis
Sample : dftpp
Misc : op18378,ef7875,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 25 23:42:32 2019
Quant Method : C:\MSDCHEM\1\METHODS\DFTPPF.M
Quant Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
QLast Update : Wed Feb 13 13:11:05 2019
Response via : Initial Calibration





TIC: F183440.D\data.ms

(1) Pentachlorophenol (t)

2.599min (-2.599) 0.00ppb

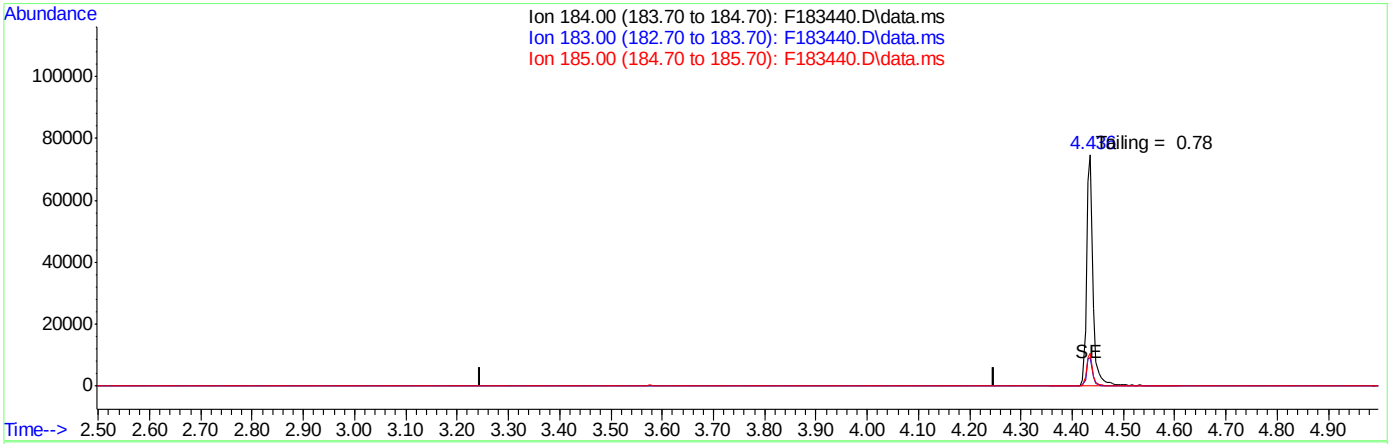
response 0

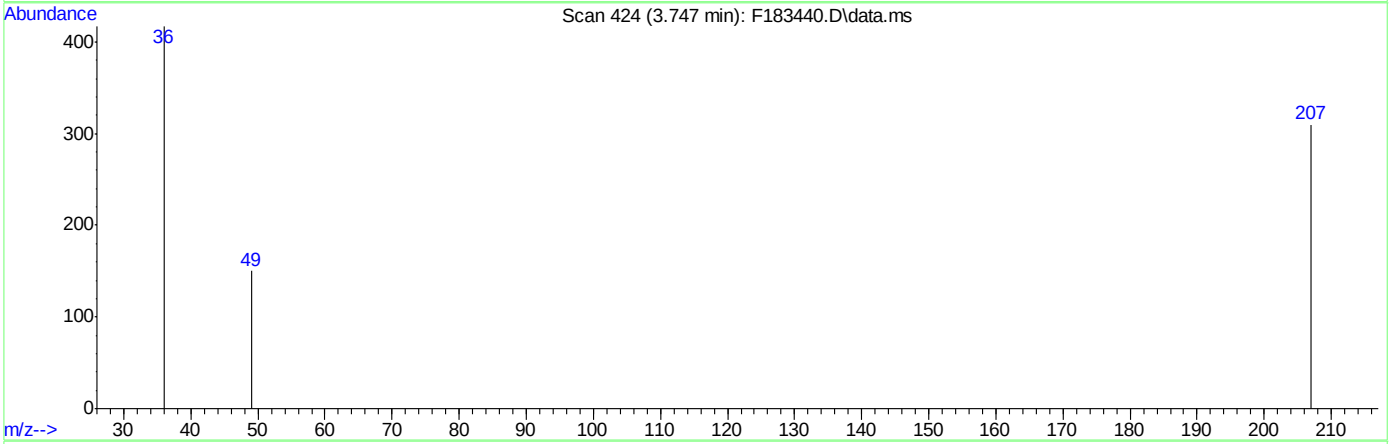
Ion	Exp%	Act%
265.80	100	0.00
263.80	64.10	0.00#
267.80	62.50	0.00#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\MSDCHEM\1\DATA\EF7873\
Data File : F183440.D
Acq On : 25 Mar 2019 11:36 pm
Operator : kristis
Sample : dftpp
Misc : op18378,ef7875,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 25 23:42:32 2019
Quant Method : C:\MSDCHEM\1\METHODS\DFTPPF.M
Quant Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
QLast Update : Wed Feb 13 13:11:05 2019
Response via : Initial Calibration





TIC: F183440.D\data.ms

(2) Benzidine (t)

3.747min (-3.747) 0.00ppb

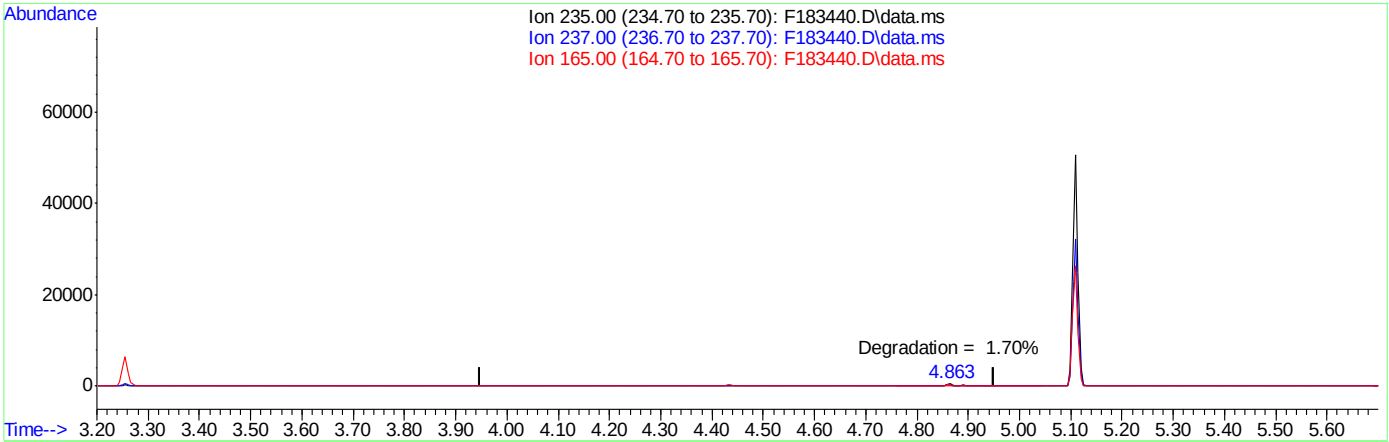
response 0

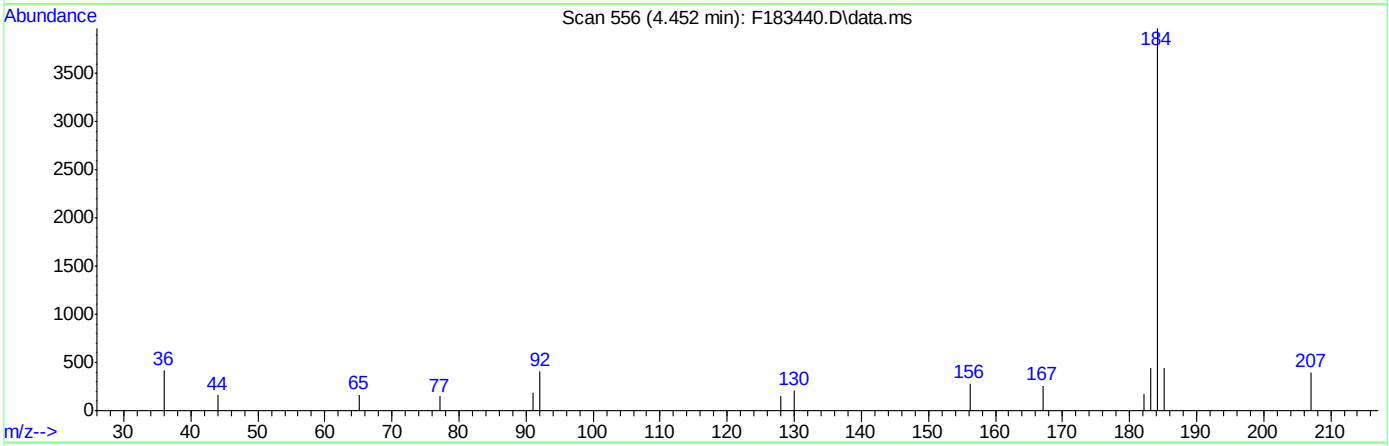
Ion	Exp%	Act%
184.00	100	0.00
183.00	11.10	0.00
185.00	14.30	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\MSDCHEM\1\DATA\EF7873\
Data File : F183440.D
Acq On : 25 Mar 2019 11:36 pm
Operator : kristis
Sample : dftpp
Misc : op18378,ef7875,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 25 23:42:32 2019
Quant Method : C:\MSDCHEM\1\METHODS\DFTPPF.M
Quant Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
QLast Update : Wed Feb 13 13:11:05 2019
Response via : Initial Calibration





TIC: F183440.D\data.ms

(3) ddt (t)

4.450min (-4.450) 0.00ppb

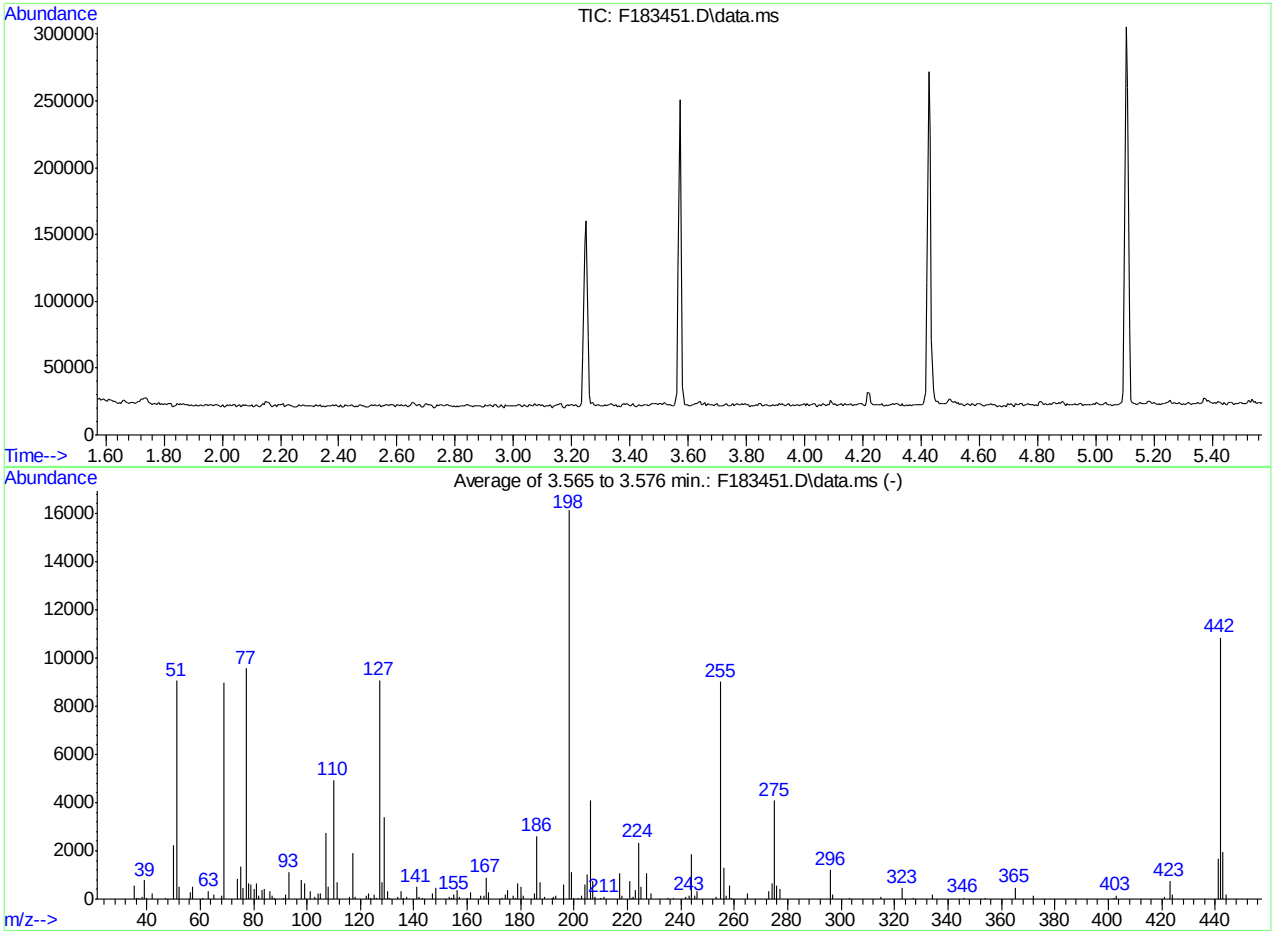
response 0

Ion	Exp%	Act%
235.00	100	0.00
237.00	63.50	0.00#
165.00	54.60	0.00#
0.00	0.00	0.00

DFTPP

Data File : C:\MSDCHEM\1\DATA\EF7876\F183451.D Vial: 1
Acq On : 26 Mar 2019 4:44 pm Operator: angelar
Sample : dftpp Inst : GCMSF
Misc : op18378,ef7876,1000,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\DFTPPF.M (RTE Integrator)
Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um



AutoFind: Scans 390, 391, 392; Background Corrected with Scan 386

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	56.1	9045	PASS
68	69	0.00	2	1.5	135	PASS
69	198	0.00	100	55.7	8978	PASS
70	69	0.00	2	0.0	0	PASS
127	198	40	60	56.3	9066	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	16113	PASS
199	198	5	9	6.8	1102	PASS
275	198	10	30	25.3	4071	PASS
365	198	1	100	2.9	472	PASS
441	443	0.10	100	87.0	1690	PASS
442	198	40	100	67.2	10834	PASS
443	442	17	23	17.9	1942	PASS

F183451.D DFTPPF.M Wed Mar 27 18:20:14 2019

Average of 3.565 to 3.576 min.: F183451.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
35.10	566	56.10	287	78.10	651	92.10	181
36.00	36	57.10	534	79.05	602	93.10	1125
37.00	66	61.10	55	80.05	438	98.00	789
38.05	100	63.05	340	81.05	634	99.00	636
39.10	771	65.05	182	82.05	147	101.05	321
40.00	55	68.00	135	82.95	369	103.00	72
42.05	212	69.00	8978	84.00	440	104.00	216
47.00	33	74.10	823	86.00	320	105.10	218
50.10	2224	75.05	1330	87.00	120	107.05	2738
51.10	9045	76.10	461	87.95	38	108.00	503
52.05	520	77.10	9555	91.00	57	110.00	4937

Average of 3.565 to 3.576 min.: F183451.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
111.05	703	129.00	3397	148.00	452	167.00	896
116.00	76	130.00	310	153.05	109	167.90	102
117.05	1910	131.10	50	154.00	62	168.05	293
118.00	97	134.00	74	154.90	71	173.00	57
122.00	144	135.00	318	155.05	201	174.05	194
123.05	214	135.90	59	156.10	386	175.00	358
123.90	67	137.10	73	156.90	74	177.00	157
125.05	173	141.00	503	160.10	54	178.00	61
125.90	50	141.90	90	161.05	270	179.00	674
127.05	9066	143.00	64	165.00	129	180.00	529
128.10	698	147.05	217	166.15	135	181.10	150

Average of 3.565 to 3.576 min.: F183451.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
185.00	256	201.60	53	221.00	765	243.15	141
186.10	2613	202.95	132	221.80	61	244.05	1847
187.05	689	204.05	614	222.20	88	245.00	120
189.00	98	205.05	1021	223.00	351	246.00	344
191.90	63	206.10	4111	224.10	2344	253.10	72
192.10	105	207.10	765	225.05	516	255.00	9006
193.00	157	208.00	110	227.00	1077	256.00	1308
196.00	594	210.10	55	228.95	244	257.00	125
198.00	16113	211.20	73	235.00	51	258.10	564
198.95	1102	217.00	1091	237.10	58	259.00	57
200.00	70	217.95	121	242.00	79	265.00	222

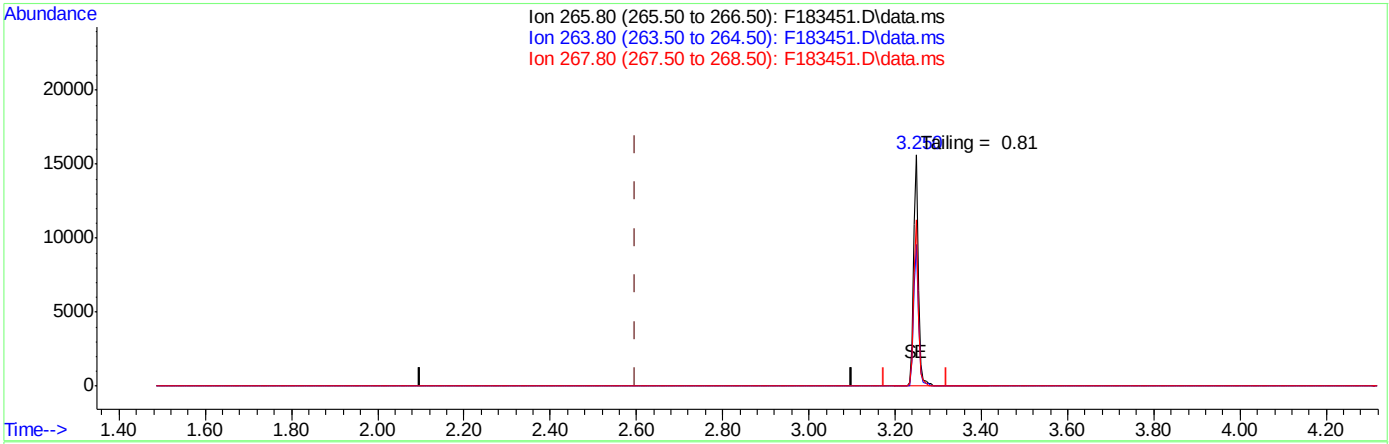
Average of 3.565 to 3.576 min.: F183451.D\data.ms
dftpp
Modified:subtracted

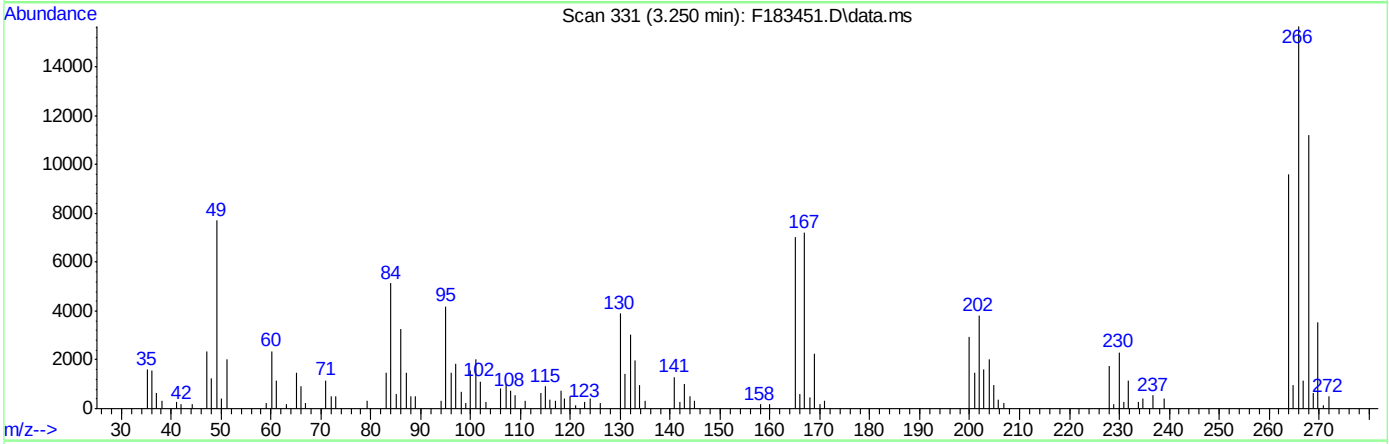
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
273.05	331	334.05	189	442.00	10834		
274.05	663	345.90	60	443.00	1942		
275.00	4071	354.00	56	443.95	177		
276.00	555	365.00	472				
277.05	413	372.05	133				
296.00	1202	402.00	60				
296.95	180	402.95	154				
303.00	66	421.00	73				
315.00	106	422.95	748				
323.00	449	424.05	166				
327.00	63	441.00	1690				

Quantitation Report (Qedit)

Data Path : C:\MSDCHEM\1\DATA\EF7876\
Data File : F183451.D
Acq On : 26 Mar 2019 4:44 pm
Operator : angelar
Sample : dftpp
Misc : op18378,ef7876,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 27 10:16:51 2019
Quant Method : C:\MSDCHEM\1\METHODS\DFTPPF.M
Quant Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
QLast Update : Wed Feb 13 13:11:05 2019
Response via : Initial Calibration





TIC: F183451.D\data.ms

(1) Pentachlorophenol (t)

3.250min (+0.651) 9.87ppb m

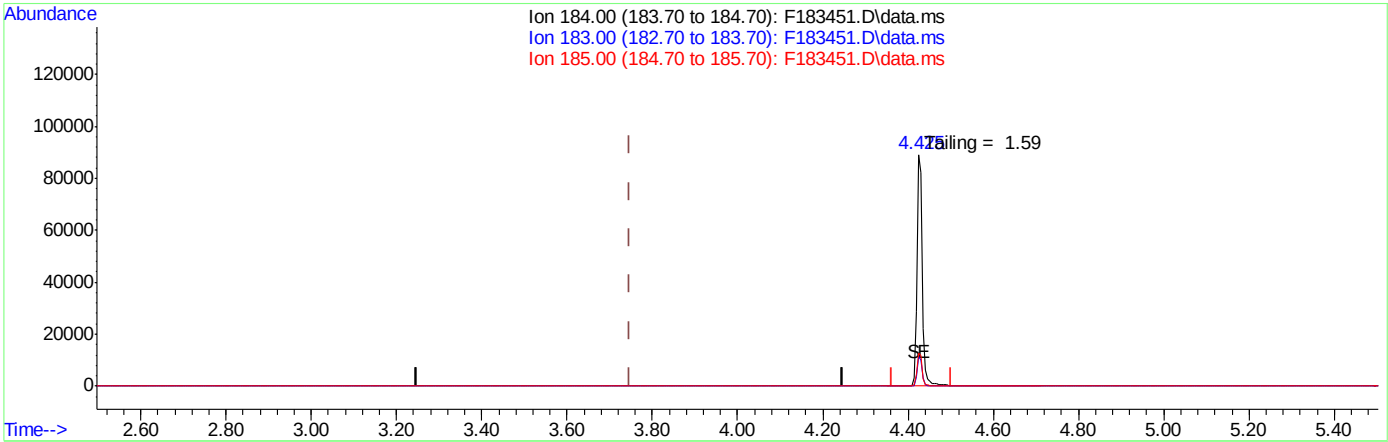
response 12367

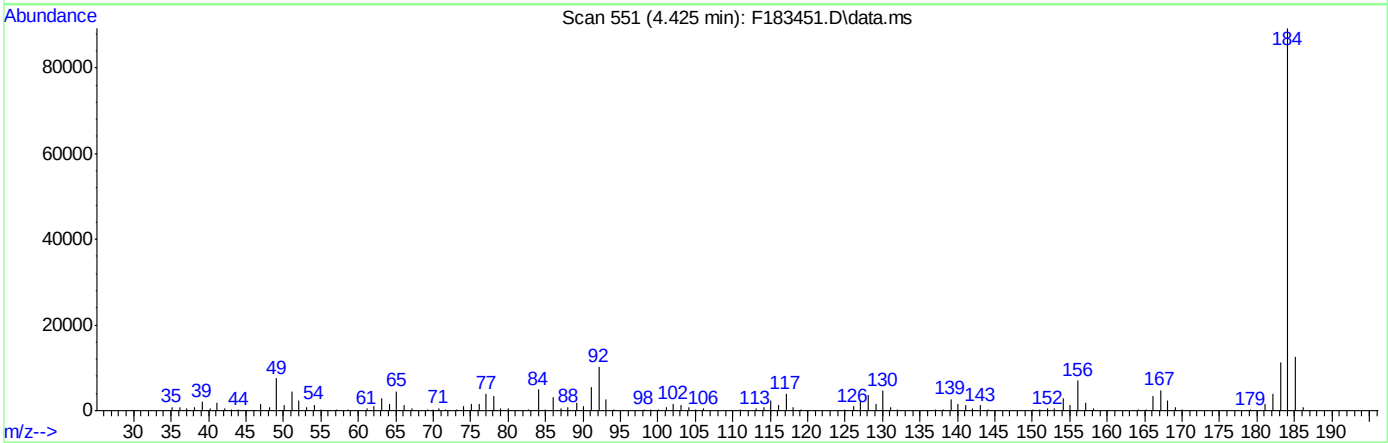
Ion	Exp%	Act%
265.80	100	100
263.80	64.10	61.37
267.80	62.50	71.59
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\MSDCHEM\1\DATA\EF7876\
Data File : F183451.D
Acq On : 26 Mar 2019 4:44 pm
Operator : angelar
Sample : dftpp
Misc : op18378,ef7876,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 27 10:16:51 2019
Quant Method : C:\MSDCHEM\1\METHODS\DFTPPF.M
Quant Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
QLast Update : Wed Feb 13 13:11:05 2019
Response via : Initial Calibration





TIC: F183451.D\data.ms

(2) Benzidine (t)

4.425min (+0.678) 6.57ppb m

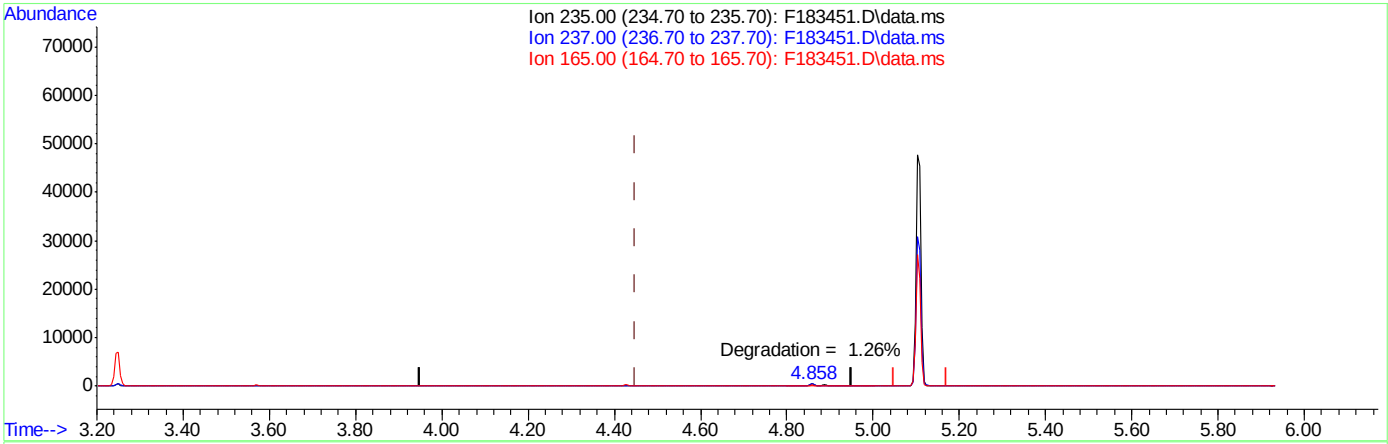
response 77785

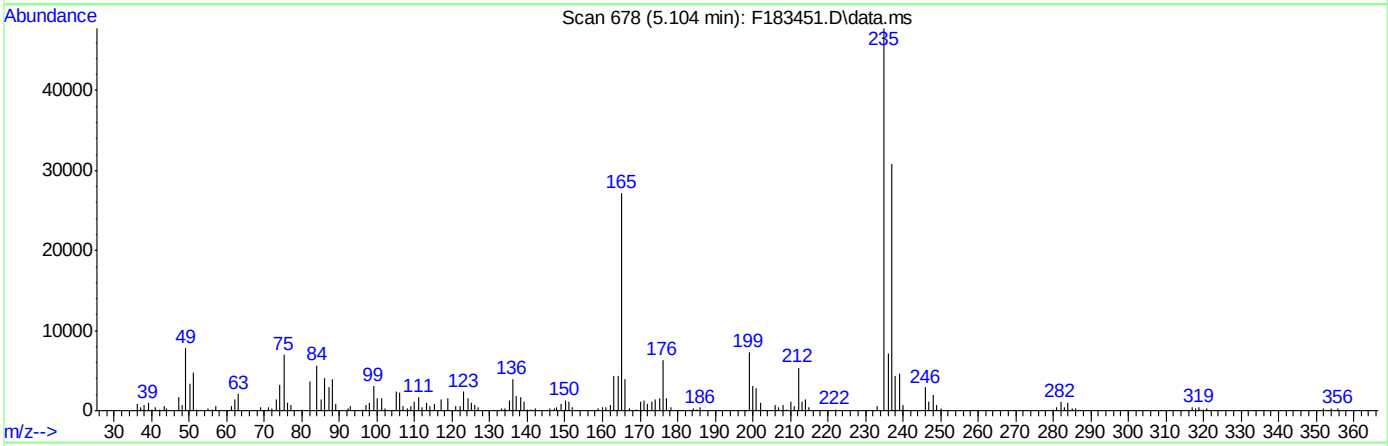
Ion	Exp%	Act%
184.00	100	100
183.00	11.10	0.00
185.00	14.30	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\MSDCHEM\1\DATA\EF7876\
Data File : F183451.D
Acq On : 26 Mar 2019 4:44 pm
Operator : angelar
Sample : dftpp
Misc : op18378,ef7876,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 27 10:16:51 2019
Quant Method : C:\MSDCHEM\1\METHODS\DFTPPF.M
Quant Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
QLast Update : Wed Feb 13 13:11:05 2019
Response via : Initial Calibration





TIC: F183451.D\data.ms

(3) ddt (t)

5.104min (+0.654) 4.46ppb m

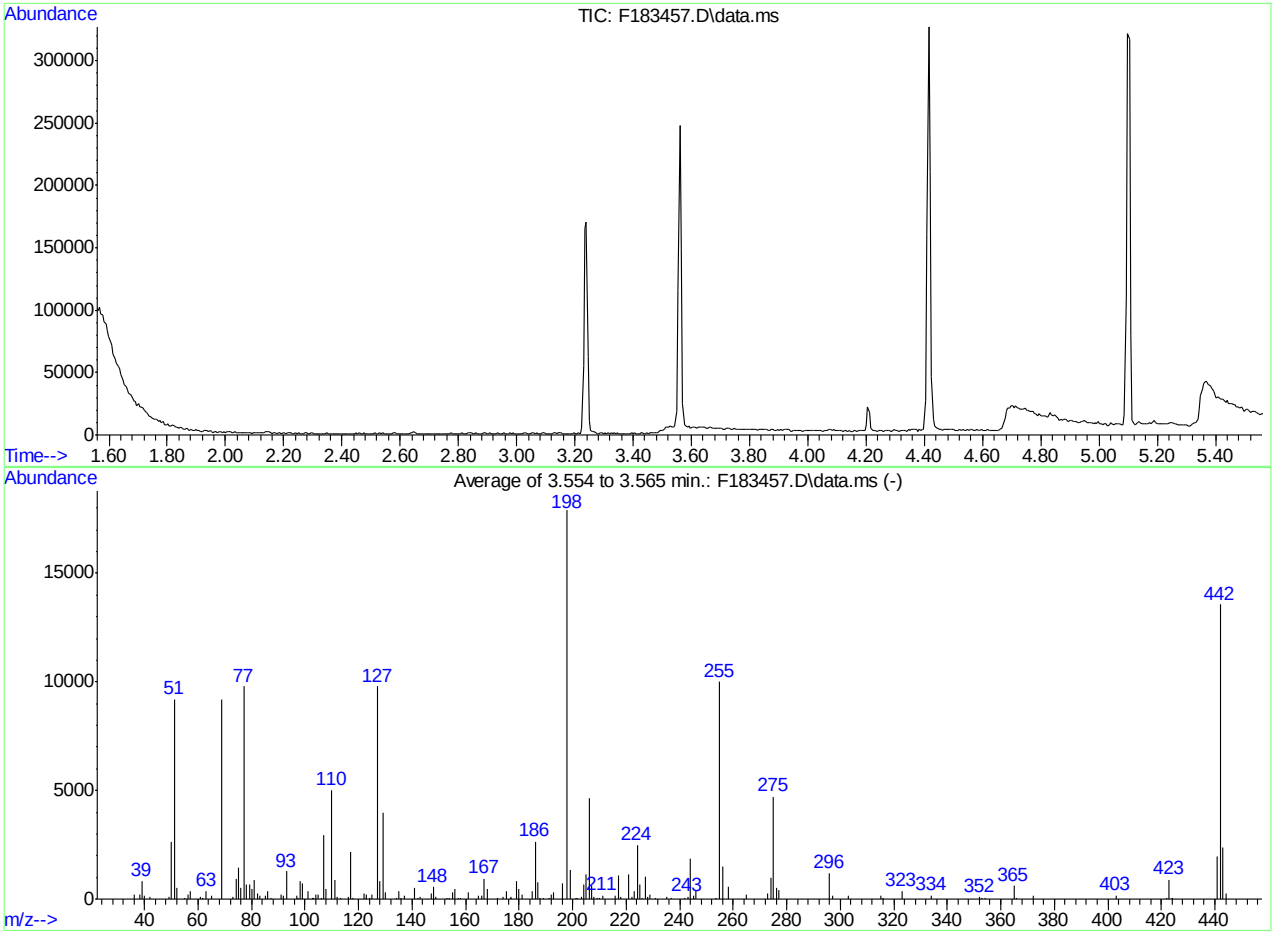
response 38590

Ion	Exp%	Act%
235.00	100	100
237.00	63.50	0.00#
165.00	54.60	0.00#
0.00	0.00	0.00

DFTPP

Data File : C:\MSDCHEM\1\DATA\EF7877\F183457.D Vial: 1
Acq On : 27 Mar 2019 11:19 am Operator: angelar
Sample : dftpp Inst : GCMSF
Misc : op18378,ef7877,1000,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\DFTPPF.M (RTE Integrator)
Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um



AutoFind: Scans 388, 389, 390; Background Corrected with Scan 384

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	51.5	9207	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	51.2	9168	PASS
70	69	0.00	2	0.0	0	PASS
127	198	40	60	54.8	9804	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	17890	PASS
199	198	5	9	7.6	1356	PASS
275	198	10	30	26.3	4698	PASS
365	198	1	100	3.4	608	PASS
441	443	0.10	100	83.1	1981	PASS
442	198	40	100	75.8	13553	PASS
443	442	17	23	17.6	2385	PASS

F183457.D DFTPPF.M Wed Mar 27 18:11:07 2019

Average of 3.554 to 3.565 min.: F183457.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	199	57.10	386	78.10	660	93.00	1267
38.05	197	61.00	90	79.10	660	97.05	139
39.10	838	61.90	57	80.05	483	97.30	55
40.05	142	63.10	365	81.00	883	98.05	812
42.10	120	65.05	152	82.05	284	99.05	748
49.00	100	69.00	9168	83.05	176	100.95	343
50.10	2611	73.05	100	85.10	171	102.80	64
51.10	9207	74.10	931	86.00	338	103.00	63
52.10	522	75.05	1450	87.10	53	103.95	207
55.10	72	76.15	516	91.05	231	105.00	189
56.10	224	77.10	9783	92.05	158	106.10	54

Average of 3.554 to 3.565 min.: F183457.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
107.05	2928	123.05	213	141.05	497	158.00	63
108.00	462	124.00	59	142.10	73	161.05	289
110.00	5016	125.10	199	143.10	82	164.95	170
111.05	860	127.10	9804	147.05	264	166.05	175
112.10	87	128.05	819	148.00	551	167.05	933
113.10	50	129.05	3952	149.00	95	168.00	455
116.00	96	130.05	300	153.10	67	171.90	52
117.00	2184	134.10	51	154.00	51	174.10	110
117.90	73	135.05	369	155.05	303	175.05	353
122.00	238	136.00	66	156.00	450	176.80	100
122.90	66	137.05	172	157.10	58	177.10	77

Average of 3.554 to 3.565 min.: F183457.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
179.00	842	196.10	746	209.10	52	226.00	57
180.00	487	198.00	17890	210.10	53	227.05	1018
181.00	221	199.00	1356	211.15	177	228.00	124
185.05	359	201.40	73	216.05	140	229.05	225
186.00	2647	201.70	61	216.95	1105	231.10	64
187.05	761	203.10	90	217.90	129	235.00	112
187.90	59	204.05	679	221.05	1125	237.00	57
189.10	70	205.00	1122	222.00	84	241.90	50
191.00	56	206.10	4660	223.05	347	242.90	123
192.05	211	207.05	641	224.05	2493	244.10	1872
193.00	305	208.00	100	225.10	682	245.10	165

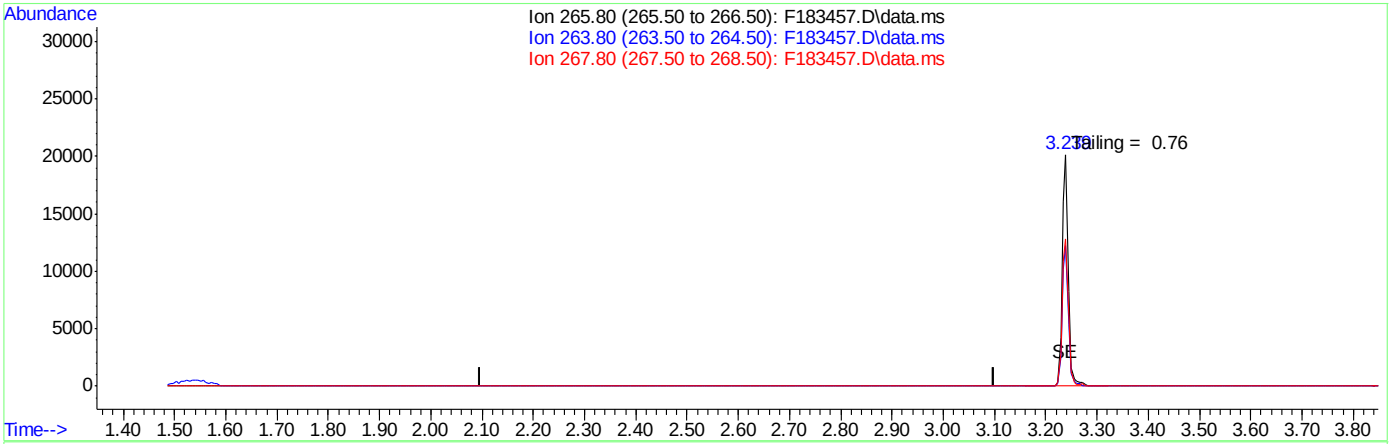
Average of 3.554 to 3.565 min.: F183457.D\data.ms
dftpp
Modified:subtracted

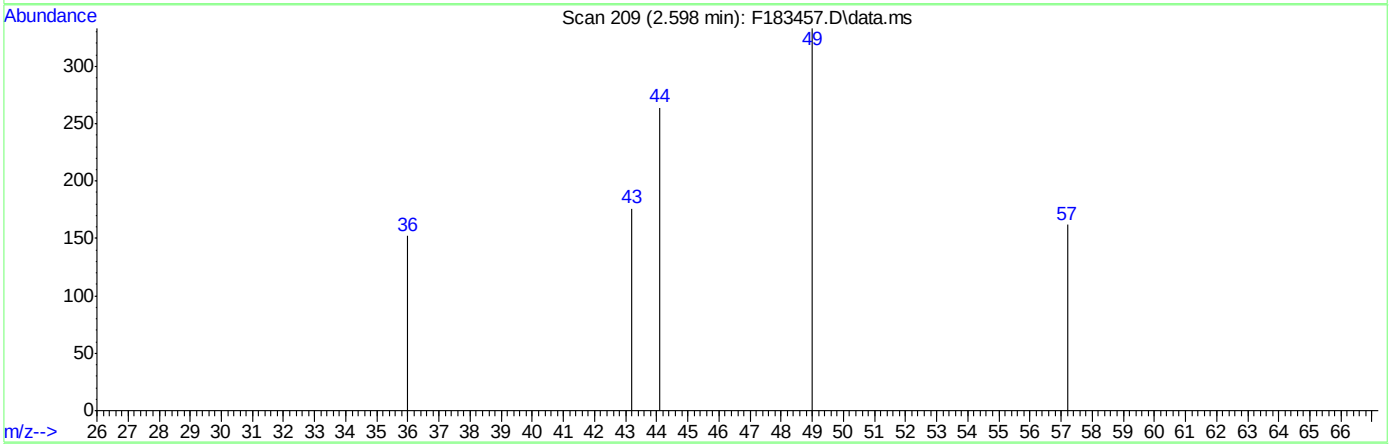
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
245.30	53	277.05	405	364.95	608	444.00	270
245.95	401	296.00	1206	365.90	53		
253.60	71	297.05	178	372.05	161		
255.00	10008	303.00	147	402.95	162		
256.05	1504	314.95	142	422.00	52		
258.05	575	316.10	55	423.00	885		
264.95	191	323.05	387	423.90	69		
273.00	248	334.05	170	424.10	77		
274.00	965	352.10	83	441.00	1981		
275.00	4698	352.80	64	442.00	13553		
276.05	531	354.10	72	443.00	2385		

Quantitation Report (Qedit)

Data Path : C:\MSDCHEM\1\DATA\EF7877\
Data File : F183457.D
Acq On : 27 Mar 2019 11:19 am
Operator : angelar
Sample : dftpp
Misc : op18378,ef7877,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 27 11:25:15 2019
Quant Method : C:\MSDCHEM\1\METHODS\DFTPPF.M
Quant Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
QLast Update : Wed Feb 13 13:11:05 2019
Response via : Initial Calibration





TIC: F183457.D\data.ms

(1) Pentachlorophenol (t)

2.599min (-2.599) 0.00ppb

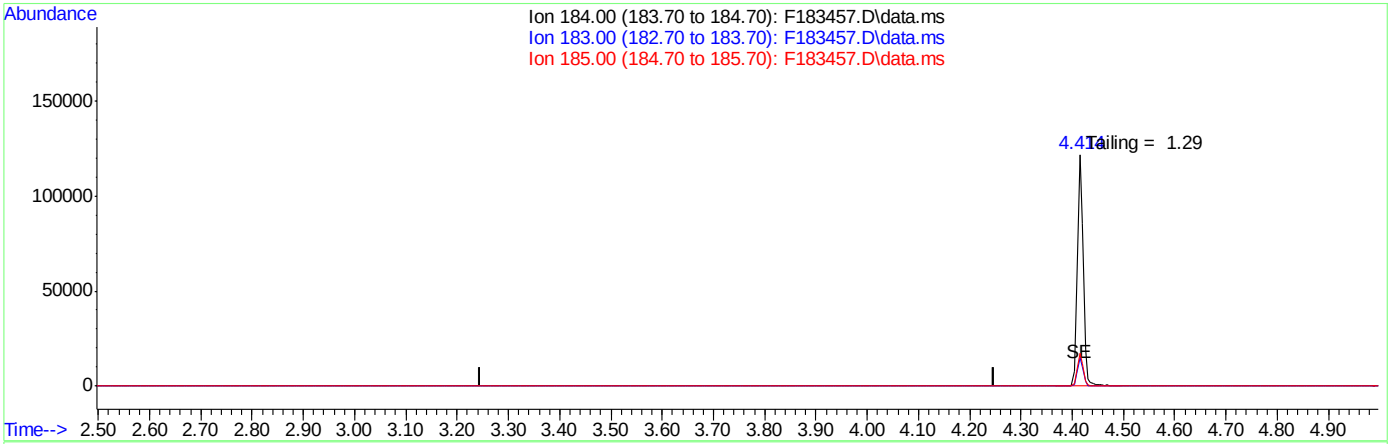
response 0

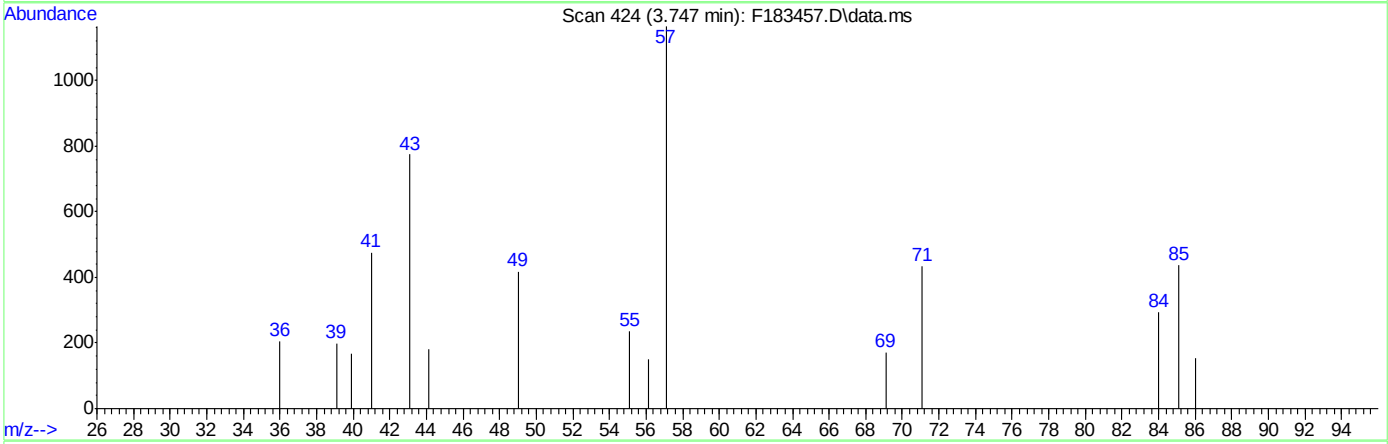
Ion	Exp%	Act%
265.80	100	0.00
263.80	64.10	0.00#
267.80	62.50	0.00#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\MSDCHEM\1\DATA\EF7877\
Data File : F183457.D
Acq On : 27 Mar 2019 11:19 am
Operator : angelar
Sample : dftpp
Misc : op18378,ef7877,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 27 11:25:15 2019
Quant Method : C:\MSDCHEM\1\METHODS\DFTPPF.M
Quant Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
QLast Update : Wed Feb 13 13:11:05 2019
Response via : Initial Calibration





TIC: F183457.D\data.ms

(2) Benzidine (t)

3.747min (-3.747) 0.00ppb

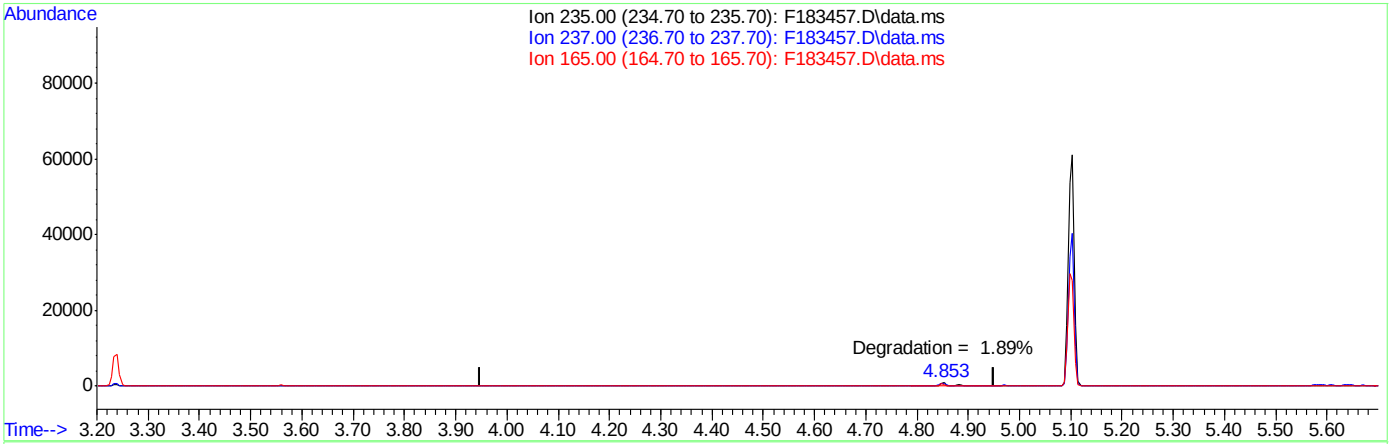
response 0

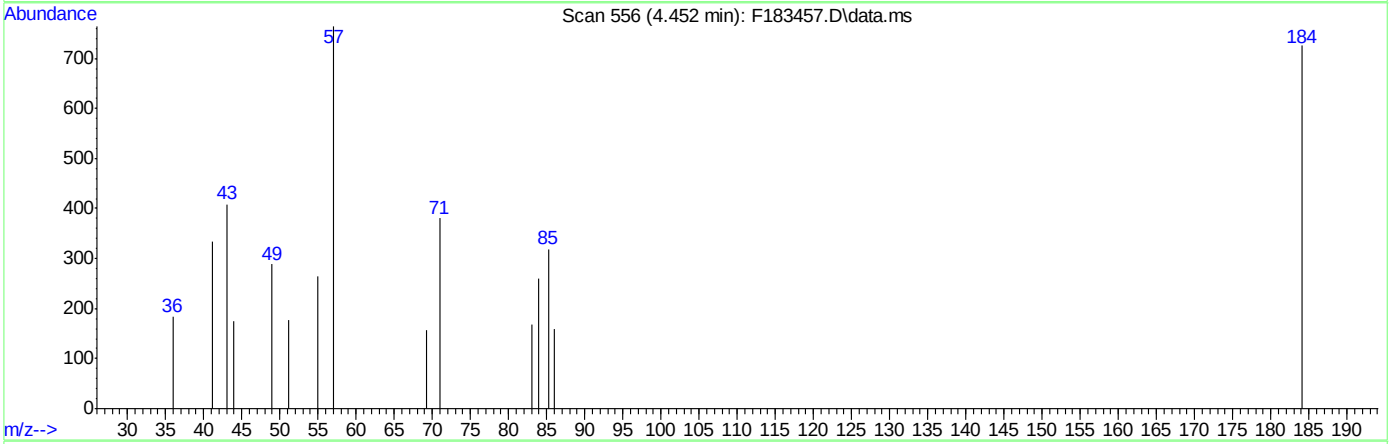
Ion	Exp%	Act%
184.00	100	0.00
183.00	11.10	0.00
185.00	14.30	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\MSDCHEM\1\DATA\EF7877\
Data File : F183457.D
Acq On : 27 Mar 2019 11:19 am
Operator : angelar
Sample : dftpp
Misc : op18378,ef7877,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 27 11:25:15 2019
Quant Method : C:\MSDCHEM\1\METHODS\DFTPPF.M
Quant Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
QLast Update : Wed Feb 13 13:11:05 2019
Response via : Initial Calibration





TIC: F183457.D\data.ms

(3) ddt (t)

4.450min (-4.450) 0.00ppb

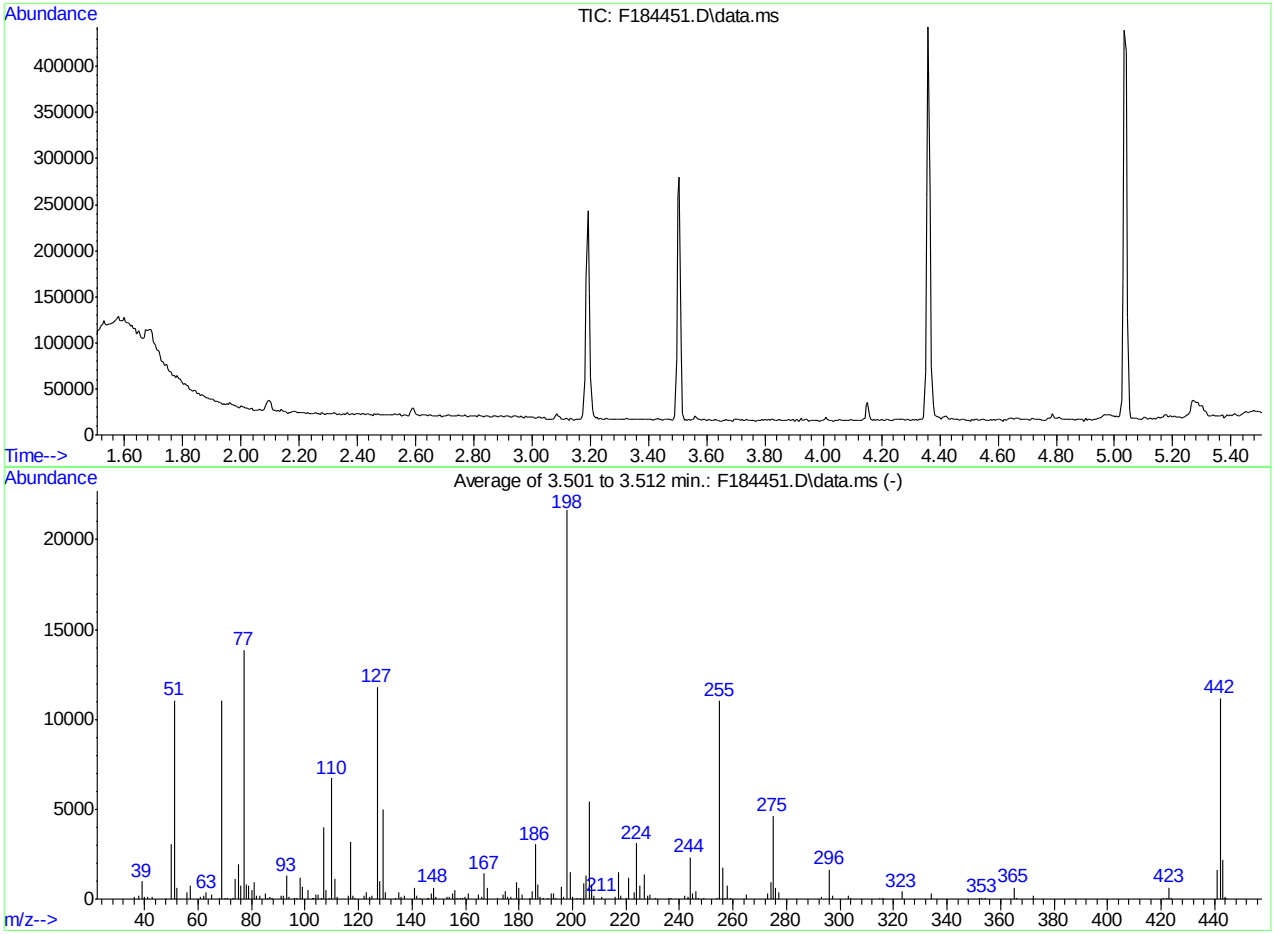
response 0

Ion	Exp%	Act%
235.00	100	0.00
237.00	63.50	0.00#
165.00	54.60	0.00#
0.00	0.00	0.00

DFTPP

Data File : C:\MSDCHEM\1\DATA\EF7923\F184451.D Vial: 1
Acq On : 6 May 2019 9:19 am Operator: angelar
Sample : dftpp Inst : GCMSF
Misc : op18378,ef7923,1000,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\DFTPPF.M (RTE Integrator)
Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um



AutoFind: Scans 378, 379, 380; Background Corrected with Scan 373

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	51.2	11072	PASS
68	69	0.00	2	0.7	78	PASS
69	198	0.00	100	51.0	11031	PASS
70	69	0.00	2	0.5	51	PASS
127	198	40	60	54.6	11799	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	21626	PASS
199	198	5	9	6.8	1473	PASS
275	198	10	30	21.4	4632	PASS
365	198	1	100	3.0	648	PASS
441	443	0.10	100	72.8	1604	PASS
442	198	40	100	51.7	11184	PASS
443	442	17	23	19.7	2202	PASS

F184451.D DFTPPF.M Mon May 06 11:14:22 2019

Average of 3.501 to 3.512 min.: F184451.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	116	57.00	736	75.00	1951	87.05	138
38.00	173	61.05	156	76.10	739	87.90	43
39.10	989	62.05	180	77.10	13872	91.00	186
40.10	128	63.05	355	78.05	842	92.00	184
41.00	124	65.00	235	79.00	763	93.00	1301
43.05	115	68.00	78	80.00	522	93.95	135
48.00	27	69.00	11031	81.00	963	96.10	50
50.00	3033	70.00	51	82.00	217	97.10	73
51.05	11072	71.00	69	83.00	161	98.00	1168
52.10	607	73.00	50	85.05	345	99.00	708
56.00	368	74.00	1150	85.95	74	101.00	517

Average of 3.501 to 3.512 min.: F184451.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
102.90	65	116.00	216	130.00	361	147.95	640
103.10	55	117.00	3194	134.00	83	149.00	139
103.95	270	117.95	159	135.00	385	152.95	156
105.00	267	118.90	50	136.00	128	153.95	121
106.10	76	122.00	168	137.00	208	155.00	295
107.00	3993	123.00	395	141.00	613	156.00	509
108.00	486	123.95	144	141.90	171	156.90	67
109.00	57	125.05	171	143.00	75	158.00	53
110.00	6735	127.00	11799	145.90	54	159.10	54
111.00	1135	128.00	999	146.10	71	159.95	136
112.00	136	129.00	4980	147.00	334	161.00	338

Average of 3.501 to 3.512 min.: F184451.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
164.95	224	181.05	242	196.00	671	208.00	195
165.90	144	184.00	50	196.60	145	211.00	136
167.00	1414	185.00	427	198.00	21626	215.95	139
168.00	596	186.00	3036	198.95	1473	217.00	1477
172.00	53	187.00	783	199.95	139	218.00	216
174.05	227	188.00	142	201.60	64	220.00	54
175.00	444	189.00	72	203.00	73	221.00	1217
175.90	128	190.80	51	204.00	851	223.00	386
176.95	150	192.00	285	205.00	1304	224.00	3105
178.90	912	193.00	290	206.10	5411	225.05	733
180.00	620	193.90	66	207.05	784	227.00	1359

Average of 3.501 to 3.512 min.: F184451.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
228.05	165	247.00	55	275.00	4632	334.05	307
228.95	276	248.90	63	276.00	617	352.00	59
231.10	55	253.90	62	277.00	375	353.10	69
235.90	51	255.00	11015	292.95	113	354.00	63
237.00	55	256.00	1763	296.00	1643	364.90	648
242.00	171	257.00	50	297.00	220	366.00	54
243.00	103	258.00	728	302.95	167	372.00	196
243.20	88	259.00	55	304.00	64	420.90	67
244.00	2336	265.00	259	314.90	66	421.90	57
245.00	330	273.00	312	316.10	54	423.00	646
246.00	431	274.00	938	323.10	432	423.90	82

Average of 3.501 to 3.512 min.: F184451.D\data.ms
dftpp
Modified:subtracted

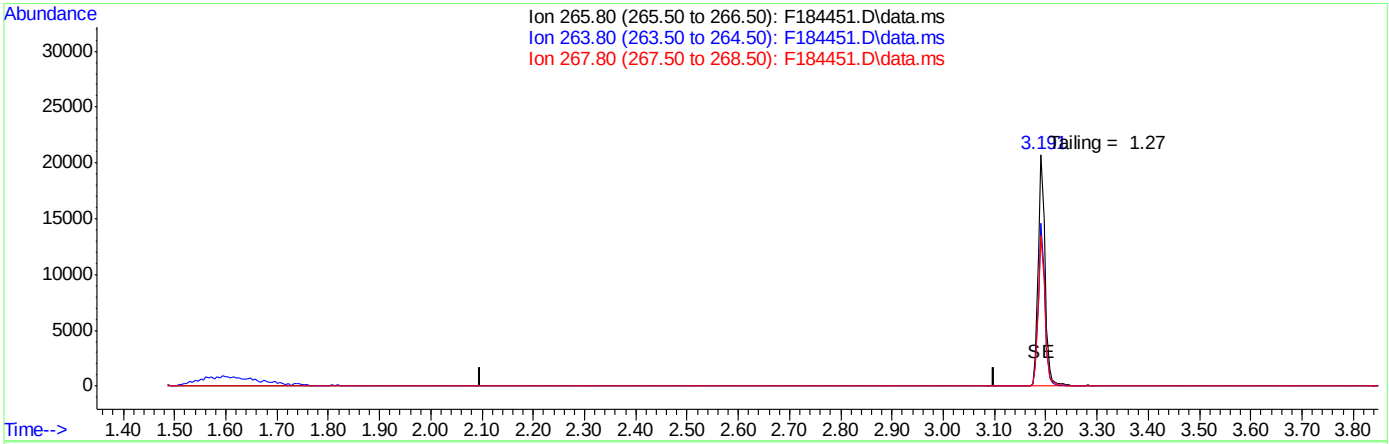
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
441.00	1604						
442.00	11184						
443.00	2202						
443.90	124						

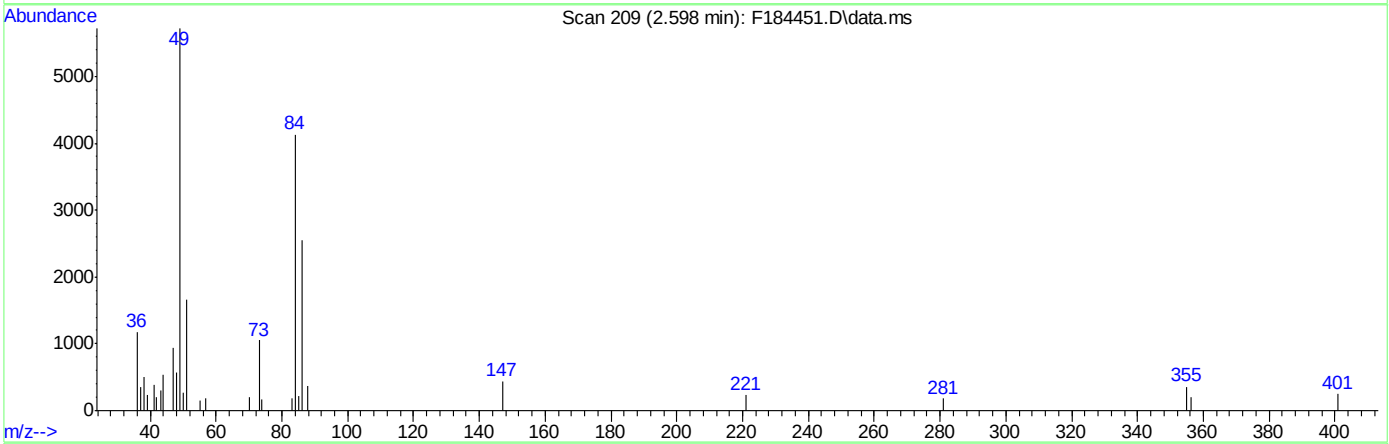
444.10 73

Quantitation Report (Qedit)

Data Path : C:\MSDCHEM\1\DATA\EF7923\
Data File : F184451.D
Acq On : 6 May 2019 9:19 am
Operator : angelar
Sample : dftpp
Misc : op18378,ef7923,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 06 09:25:05 2019
Quant Method : C:\MSDCHEM\1\METHODS\DFTPPF.M
Quant Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
QLast Update : Wed Feb 13 13:11:05 2019
Response via : Initial Calibration





TIC: F184451.D\data.ms

(1) Pentachlorophenol (t)

2.599min (-2.599) 0.00ppb

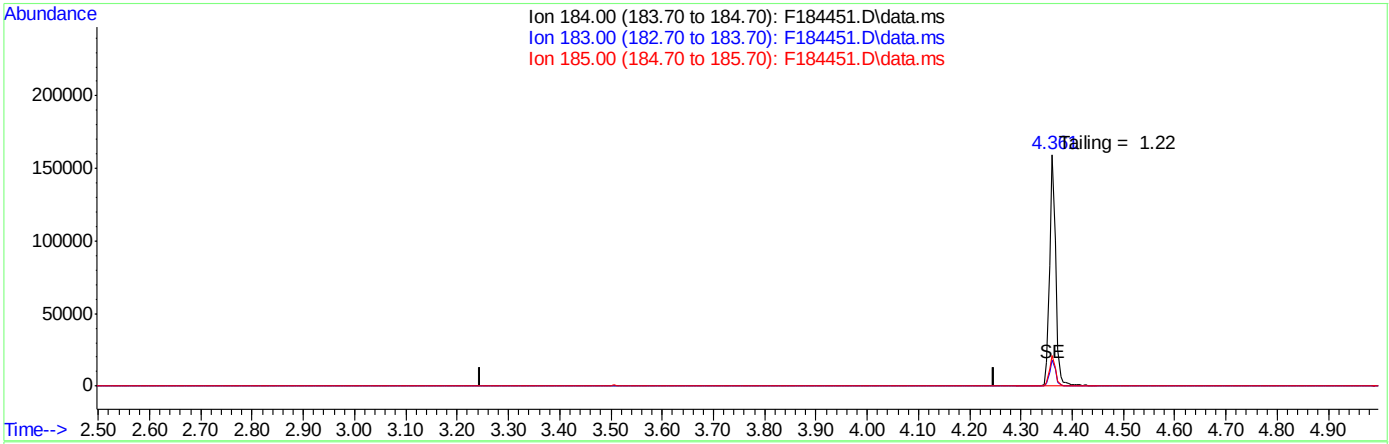
response 0

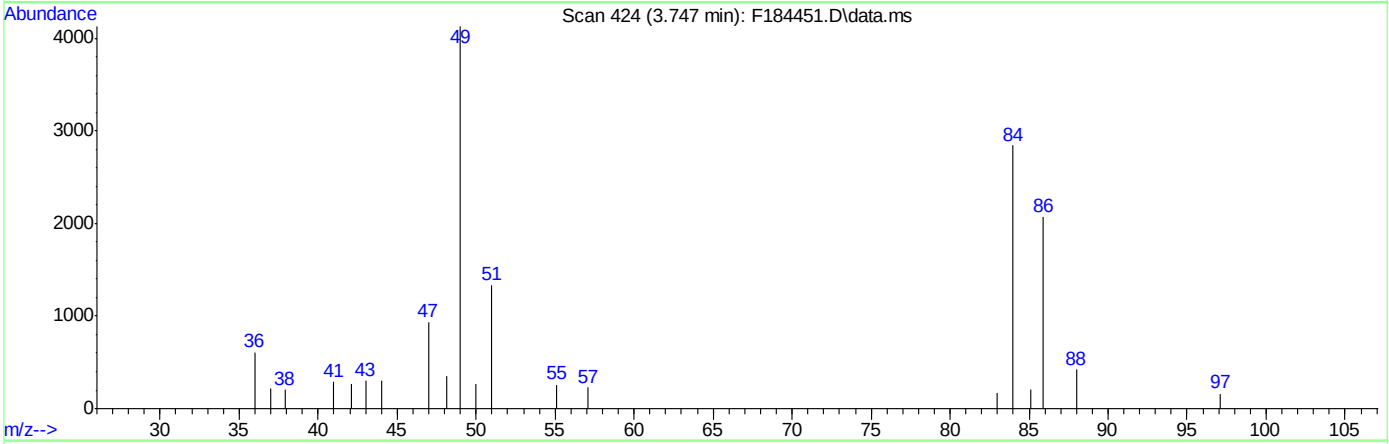
Ion	Exp%	Act%
265.80	100	0.00
263.80	64.10	0.00#
267.80	62.50	0.00#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\MSDCHEM\1\DATA\EF7923\
Data File : F184451.D
Acq On : 6 May 2019 9:19 am
Operator : angelar
Sample : dftpp
Misc : op18378,ef7923,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 06 09:25:05 2019
Quant Method : C:\MSDCHEM\1\METHODS\DFTPPF.M
Quant Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
QLast Update : Wed Feb 13 13:11:05 2019
Response via : Initial Calibration





TIC: F184451.D\data.ms

(2) Benzidine (t)

3.747min (-3.747) 0.00ppb

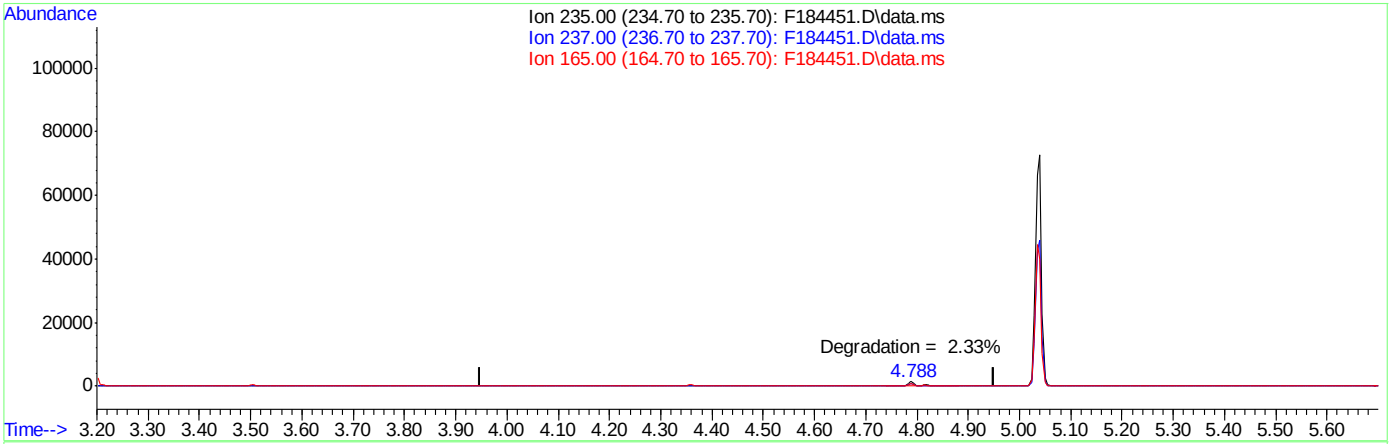
response 0

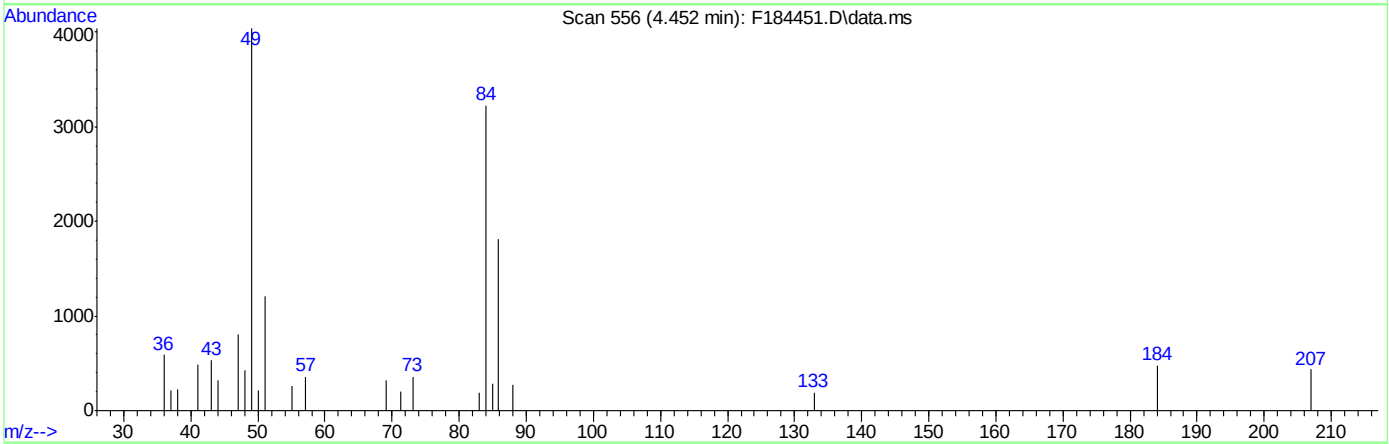
Ion	Exp%	Act%
184.00	100	0.00
183.00	11.10	0.00
185.00	14.30	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\MSDCHEM\1\DATA\EF7923\
Data File : F184451.D
Acq On : 6 May 2019 9:19 am
Operator : angelar
Sample : dftpp
Misc : op18378,ef7923,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 06 09:25:05 2019
Quant Method : C:\MSDCHEM\1\METHODS\DFTPPF.M
Quant Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
QLast Update : Wed Feb 13 13:11:05 2019
Response via : Initial Calibration





TIC: F184451.D\data.ms

(3) ddt (t)

4.450min (-4.450) 0.00ppb

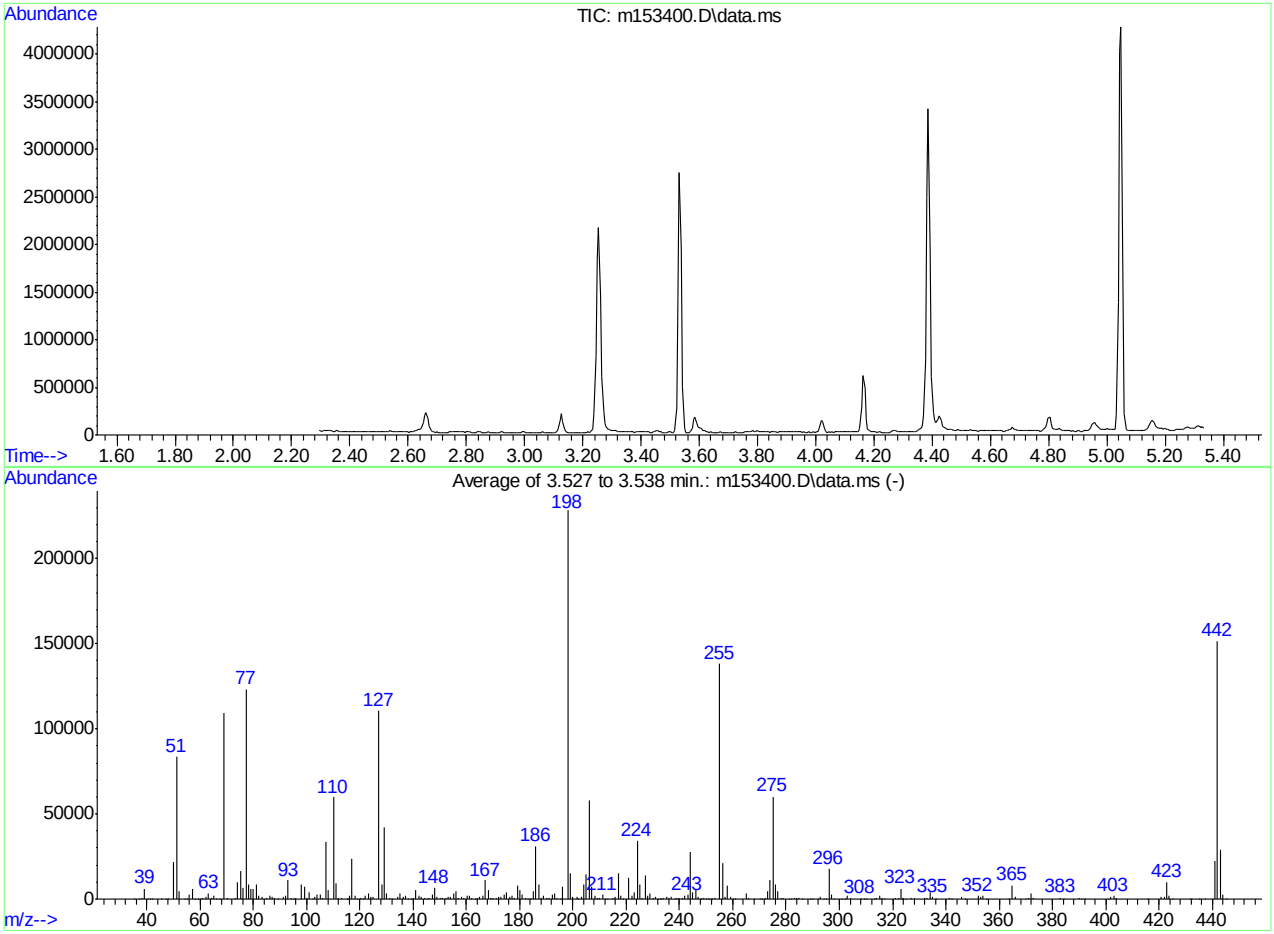
response 0

Ion	Exp%	Act%
235.00	100	0.00
237.00	63.50	0.00#
165.00	54.60	0.00#
0.00	0.00	0.00

DFTPPR

Data File : C:\msdchem\1\DATA\EM6556\m153400.D Vial: 1
Acq On : 12 Apr 2019 4:58 pm Operator: christc2
Sample : DFTPP Inst : MSM
Misc : op17006,em6556,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\DFTPPM.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS rxi-5silms 30mSat Nov 03 03:21:13 2018



AutoFind: Scans 232, 233, 234; Background Corrected with Scan 227

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	36.5	83353	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	47.9	109417	PASS
70	69	0.00	2	0.5	587	PASS
127	198	40	60	48.3	110333	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	228245	PASS
199	198	5	9	6.7	15342	PASS
275	198	10	30	26.3	60088	PASS
365	198	1	100	3.5	7944	PASS
441	443	0.10	100	76.7	22441	PASS
442	198	40	100	66.4	151640	PASS
443	442	17	23	19.3	29258	PASS

m153400.D DFTPPM.M Mon Apr 15 10:09:48 2019

Average of 3.527 to 3.538 min.: m153400.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
35.05	145	51.10	83353	63.10	3596	77.15	123209
37.10	209	52.15	4307	64.10	625	78.15	8467
38.05	897	54.05	87	65.15	2129	79.05	6159
39.15	6253	55.15	232	66.15	73	80.05	5853
40.10	195	56.05	2688	67.25	67	81.05	8537
41.10	120	57.10	5718	69.05	109417	82.05	2132
42.10	208	58.05	177	70.10	587	83.05	1534
45.15	195	59.10	164	73.15	628	85.10	720
47.05	84	60.25	76	74.15	10167	86.00	2187
48.05	35	61.10	999	75.05	16325	87.10	1201
50.10	21429	62.10	1285	76.15	6286	88.00	403

Average of 3.527 to 3.538 min.: m153400.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
88.90	187	102.05	27	115.15	89	125.05	1325
91.05	1664	103.05	1155	115.35	80	127.05	110333
92.05	2036	104.05	2618	116.10	1891	128.05	8651
93.05	11119	105.05	2668	117.05	24037	129.05	42210
94.10	847	106.05	577	118.05	1706	130.05	3478
95.05	66	107.05	33346	119.05	243	131.05	599
96.05	472	108.05	5277	120.05	485	132.10	350
98.05	8449	110.05	59730	121.05	83	134.00	1116
99.05	7050	111.05	9373	122.05	1973	135.05	3321
100.05	488	112.00	1011	123.05	3147	136.10	1328
101.00	4263	113.10	394	124.05	1393	137.10	1798

Average of 3.527 to 3.538 min.: m153400.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
138.10	290	149.05	1241	160.05	1874	171.00	474
139.00	164	150.10	368	161.00	2310	172.00	1168
140.05	637	151.10	927	162.10	764	173.05	1392
141.05	5052	152.05	420	163.05	306	174.05	2424
142.05	1814	153.05	1518	164.00	402	175.05	4285
143.05	1255	154.05	1495	165.00	1548	176.05	1345
144.05	426	155.05	3367	166.05	1862	177.05	2049
145.10	258	156.05	4406	167.00	10980	178.05	797
146.00	993	157.00	731	168.05	5142	179.00	8027
147.05	2537	158.05	1066	169.05	828	180.05	5622
148.05	6361	159.05	821	170.10	369	181.05	2868

Average of 3.527 to 3.538 min.: m153400.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
182.00	648	193.05	3156	205.05	14674	217.00	15393
182.85	239	194.05	685	206.05	58202	218.05	2071
184.10	798	195.10	323	207.05	7007	218.95	243
185.05	4312	196.05	7412	208.05	2262	221.05	12676
186.05	31280	198.05	228245	209.05	834	222.05	1753
187.05	8815	199.05	15342	210.05	550	223.05	3874
188.05	825	200.00	1360	211.05	2390	224.05	34048
189.05	1776	201.50	1132	212.15	132	225.05	8703
190.10	440	202.05	125	213.05	114	226.05	787
191.00	857	203.00	1463	215.00	687	227.05	13699
192.05	2666	204.05	8600	216.00	1389	228.00	1864

Average of 3.527 to 3.538 min.: m153400.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
229.00	3009	239.00	645	249.00	980	259.00	1289
230.00	543	240.00	459	250.00	238	260.05	243
231.05	1290	241.00	798	250.90	214	261.05	247
231.95	88	242.05	1723	251.15	124	265.05	3210

232.85	67	243.05	2595	251.85	192	265.90	369
233.05	224	244.05	27525	252.05	175	267.95	218
234.05	941	245.05	3763	253.10	830	269.90	199
235.05	1105	246.00	5027	255.05	138016	271.00	331
235.95	727	247.00	1057	256.05	20895	272.10	371
237.00	1179	247.85	74	257.00	1533	273.00	4347
237.95	151	248.10	315	258.05	7770	274.05	11288

Average of 3.527 to 3.538 min.: m153400.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
275.05	60088	288.95	243	303.00	2082	322.10	448
276.05	8382	289.95	90	304.05	497	323.05	5936
277.00	4694	292.00	274	308.00	262	323.75	151
278.05	974	293.00	1257	309.05	87	324.10	877
278.95	369	294.00	282	310.05	107	324.75	67
281.00	108	294.95	260	313.05	167	326.95	998
282.05	150	296.05	17684	314.05	770	328.00	485
283.05	650	297.00	2329	315.00	2071	332.05	479
284.05	377	297.95	152	315.95	997	333.00	704
285.05	933	300.95	176	316.95	103	334.00	4003
285.95	106	302.10	273	321.00	603	335.05	1055

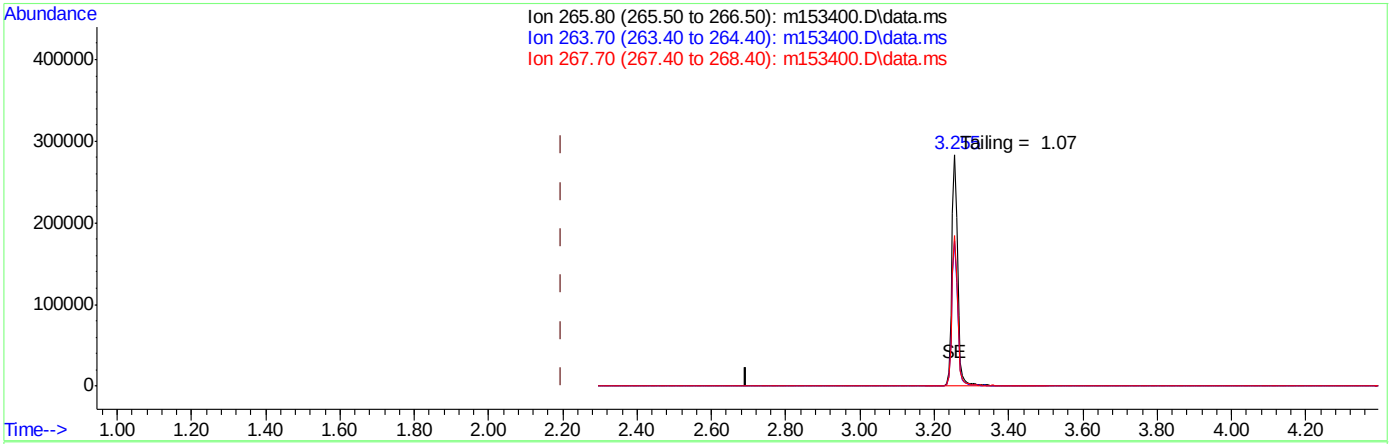
Average of 3.527 to 3.538 min.: m153400.D\data.ms
DFTPP
Modified:subtracted

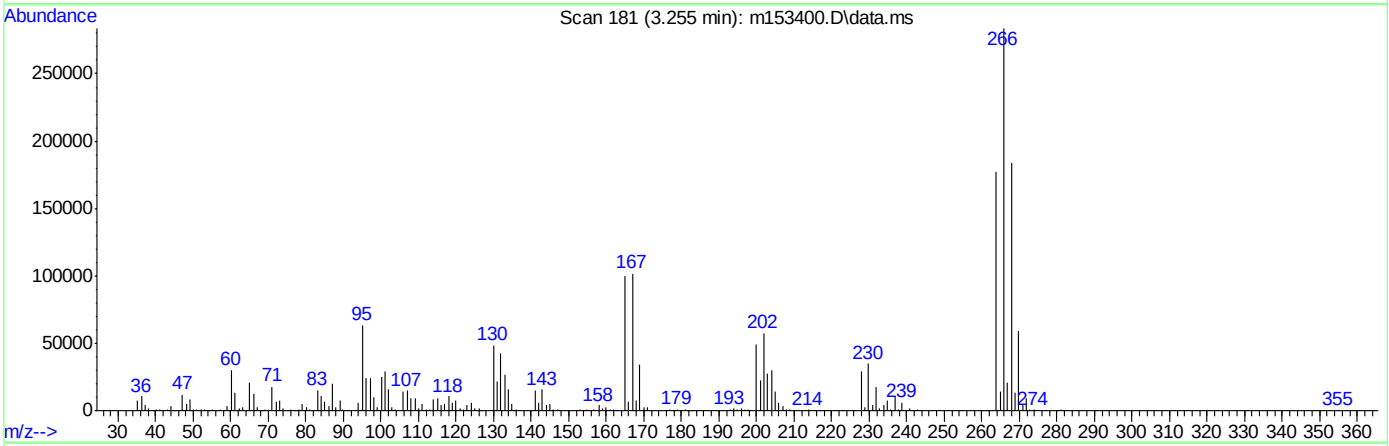
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
336.00	158	366.00	1213	402.00	1403	435.15	76
341.05	758	369.95	83	403.00	1720	437.35	68
342.05	113	370.95	450	404.05	694	441.05	22441
345.90	1329	372.05	3189	415.85	75	442.05	151640
347.00	309	373.00	932	421.00	1660	443.05	29258
352.05	1697	383.05	897	422.05	1409	444.05	2810
353.05	1382	384.05	131	423.05	10152	445.05	96
354.05	1721	390.05	411	423.95	1897		
355.10	287	390.95	241	425.10	175		
363.75	104	392.05	178	431.65	69		
364.95	7944	400.95	239	432.05	120		

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EM6556\
Data File : m153400.D
Acq On : 12 Apr 2019 4:58 pm
Operator : christc2
Sample : DFTPP
Misc : op17006,em6556,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 12 17:03:44 2019
Quant Method : C:\MSDCHEM\1\METHODS\DFTPPM.M
Quant Title : Semi Volatile Extractables by GC/MS rxi-5silms 30mSat Nov 03 03:21:13 2018
QLast Update : Sat Nov 03 03:21:13 2018
Response via : Continuing Cal File:





TIC: m153400.D\data.ms

(1) Pentachlorophenol (MC)

3.255min (+1.059) 0.00ppm m

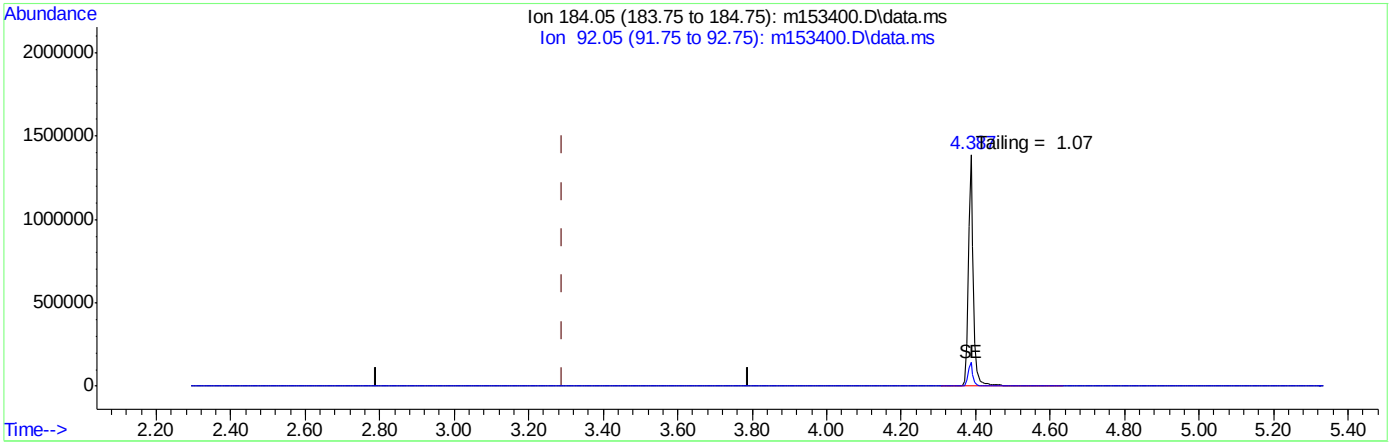
response 314549

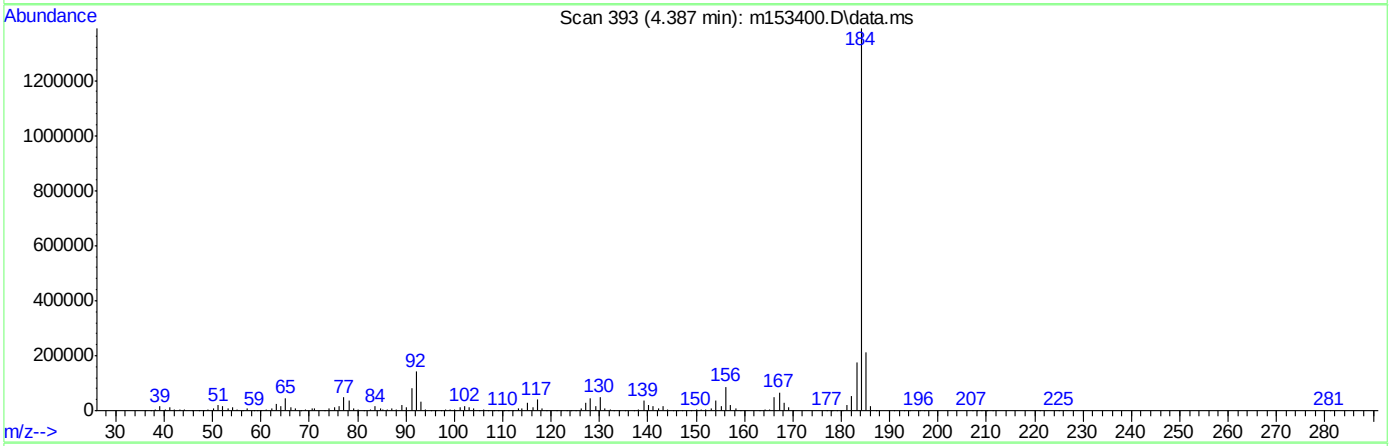
Ion	Exp%	Act%
265.80	100	100
263.70	68.00	62.39
267.70	67.90	64.91
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EM6556\
Data File : m153400.D
Acq On : 12 Apr 2019 4:58 pm
Operator : christc2
Sample : DFTPP
Misc : op17006,em6556,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 12 17:03:44 2019
Quant Method : C:\MSDCHEM\1\METHODS\DFTPPM.M
Quant Title : Semi Volatile Extractables by GC/MS rxi-5silms 30mSat Nov 03 03:21:13 2018
QLast Update : Sat Nov 03 03:21:13 2018
Response via : Continuing Cal File:





TIC: m153400.D\data.ms

(2) Benzidine (M)

4.387min (+1.096) 0.00ppm m

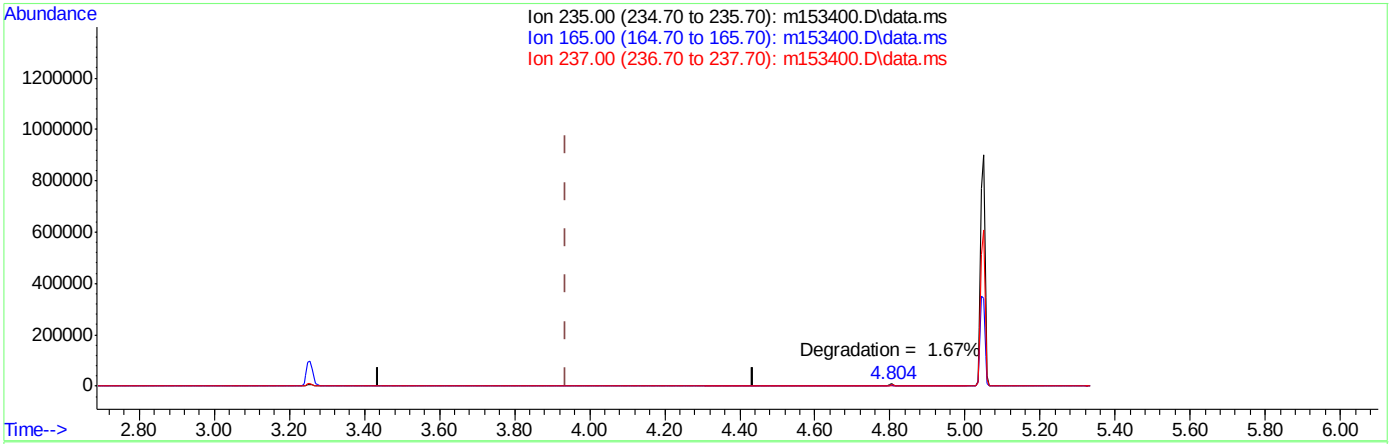
response 1290999

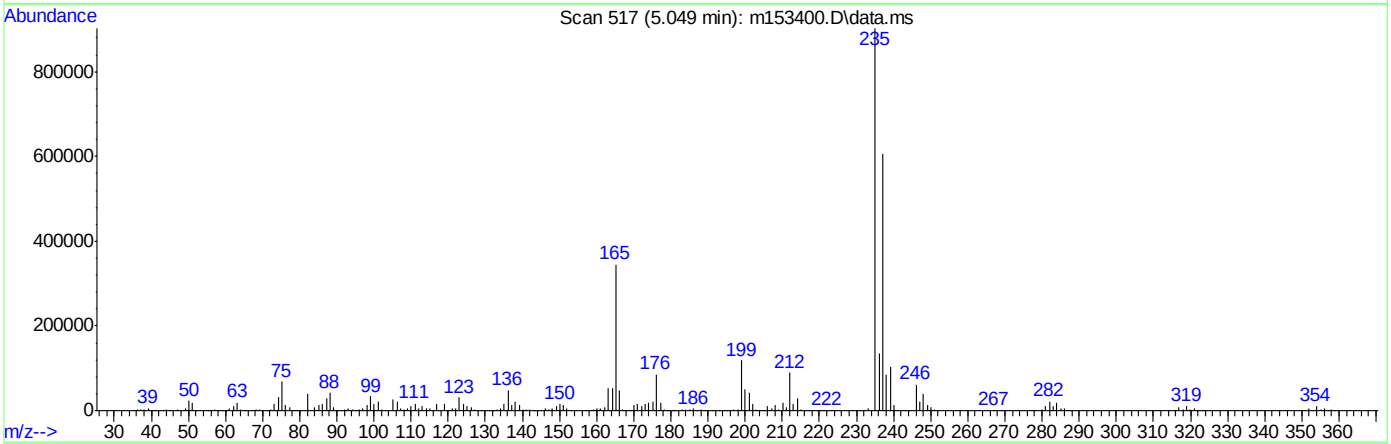
Ion	Exp%	Act%
184.05	100	100
92.05	7.00	10.16#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EM6556\
Data File : m153400.D
Acq On : 12 Apr 2019 4:58 pm
Operator : christc2
Sample : DFTPP
Misc : op17006,em6556,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 12 17:03:44 2019
Quant Method : C:\MSDCHEM\1\METHODS\DFTPPM.M
Quant Title : Semi Volatile Extractables by GC/MS rxi-5silms 30mSat Nov 03 03:21:13 2018
QLast Update : Sat Nov 03 03:21:13 2018
Response via : Continuing Cal File:





TIC: m153400.D\data.ms

(3) PP-DDT (MC)

5.049min (+1.112) 0.00ppm m

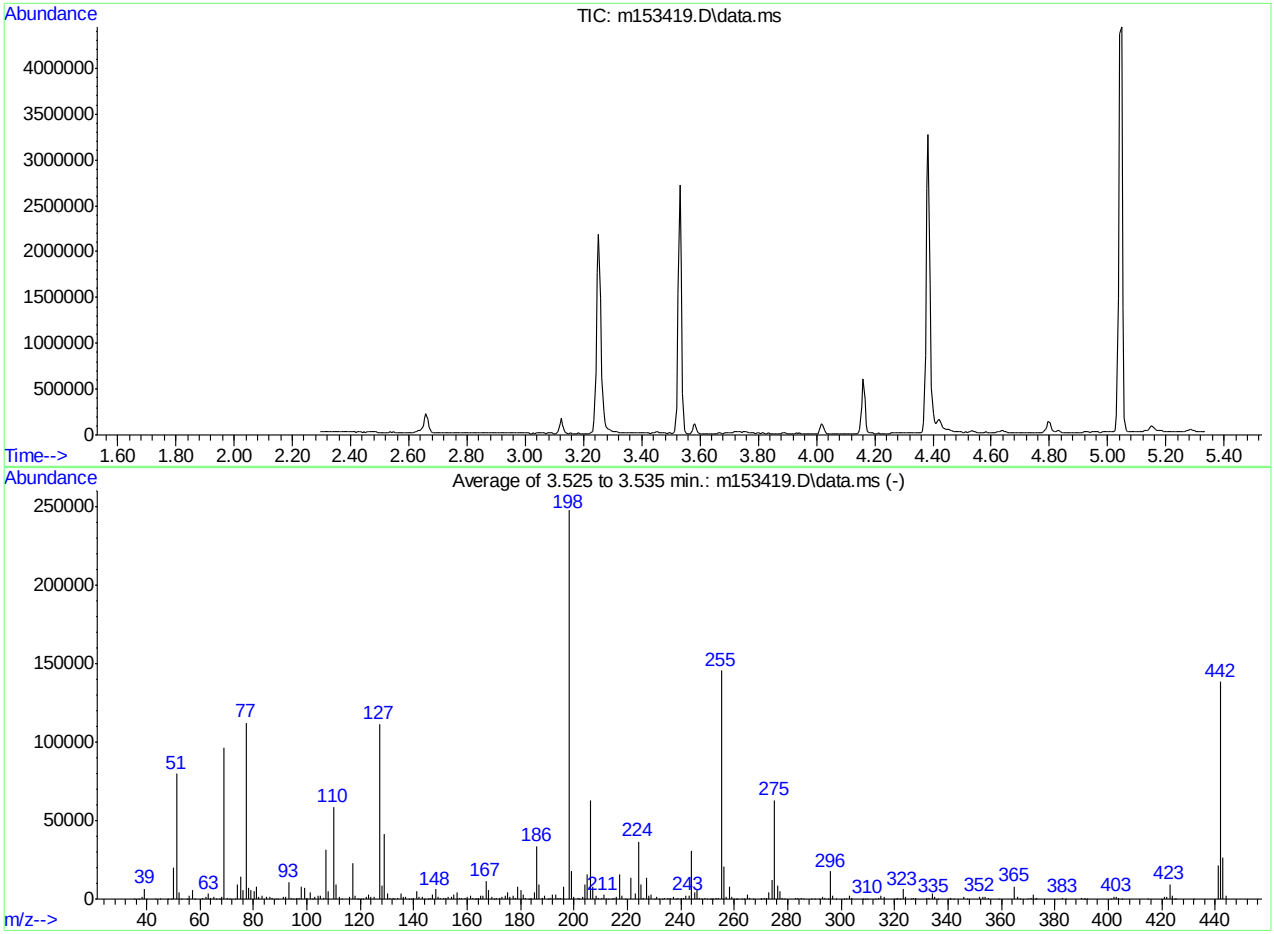
response 741987

Ion	Exp%	Act%
235.00	100	100
165.00	61.30	38.16#
237.00	66.90	67.26
0.00	0.00	0.00

DFTPPR

Data File : C:\msdchem\1\DATA\EM6557\m153419.D Vial: 1
Acq On : 13 Apr 2019 1:19 am Operator: chriss2
Sample : DFTPP Inst : MSM
Misc : op17006,em6557,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\DFTPPM.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS rxi-5silms 30mSat Nov 03 03:21:13 2018



AutoFind: Scans 231, 232, 233; Background Corrected with Scan 226

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	32.2	79824	PASS
68	69	0.00	2	1.4	1315	PASS
69	198	0.00	100	39.1	96837	PASS
70	69	0.00	2	0.5	513	PASS
127	198	40	60	45.1	111752	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	247893	PASS
199	198	5	9	7.1	17598	PASS
275	198	10	30	25.5	63149	PASS
365	198	1	100	3.3	8195	PASS
441	443	0.10	100	80.5	21483	PASS
442	198	40	100	55.9	138565	PASS
443	442	17	23	19.3	26703	PASS

m153419.D DFTPPM.M Mon Apr 15 12:14:59 2019

Average of 3.525 to 3.535 min.: m153419.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
35.15	193	52.15	3977	66.10	158	78.15	7432
37.10	285	53.15	174	67.25	81	79.05	5986
38.15	1157	55.10	229	68.10	1315	80.05	5150
39.15	6629	56.05	2387	69.05	96837	81.05	7646
40.05	302	57.05	5636	70.15	513	82.05	1465
43.15	41	58.05	272	71.10	275	83.05	1816
45.10	188	61.10	897	73.05	271	85.05	1363
48.05	123	62.05	1289	74.05	9374	86.05	1470
49.05	372	63.15	3298	75.05	14679	87.05	967
50.15	20225	64.05	433	76.15	5453	88.05	194
51.10	79824	65.15	1755	77.15	112440	88.95	101

Average of 3.525 to 3.535 min.: m153419.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
91.05	1589	102.00	165	116.05	1615	127.05	111752
92.10	1670	103.05	1321	117.05	22864	128.05	8605
93.05	10868	104.05	2167	118.05	1829	129.05	41613
94.05	858	105.10	2382	119.00	274	130.05	3279
95.05	15	106.10	449	119.25	84	131.05	755
96.10	493	107.05	31480	120.10	350	132.10	394
97.10	401	108.05	5240	121.05	68	132.85	67
98.05	7546	110.05	58845	122.05	1741	134.05	928
99.05	7176	111.05	9347	123.05	2726	135.05	3606
100.05	675	112.05	1202	124.05	1425	136.05	1312
101.05	4091	113.05	338	125.05	1144	137.05	1632

Average of 3.525 to 3.535 min.: m153419.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
138.00	376	149.05	1486	160.05	1663	170.10	259
139.05	117	150.05	389	161.05	2307	171.00	473
140.00	436	151.10	907	162.05	767	172.00	1035
141.05	4895	152.00	461	162.95	75	173.05	1224
142.05	1553	153.00	1813	163.15	95	174.05	2357
143.00	1396	154.10	1209	164.00	405	175.05	4039
144.00	251	155.05	3183	165.05	2112	176.05	1252
145.10	253	156.05	4262	166.05	1844	177.05	1888
146.05	799	157.10	766	167.05	11530	178.05	844
147.00	2586	158.05	783	168.05	5833	179.00	8239
148.05	6261	159.00	835	169.05	1199	180.05	5972

Average of 3.525 to 3.535 min.: m153419.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
181.05	2717	192.00	2860	204.05	9075	215.00	640
182.00	495	193.00	2830	205.05	15542	216.00	1593
183.00	307	194.10	804	206.05	62842	217.00	15595
184.05	682	195.00	453	207.05	7890	218.00	2287
185.05	4024	196.05	8130	208.05	2387	219.00	214
186.05	33794	198.05	247893	209.05	794	221.05	13950
187.05	9482	199.00	17598	210.20	686	223.00	3633
188.00	944	200.00	1561	211.05	2578	224.05	36498
189.00	1878	201.50	1082	212.05	329	225.05	9028
190.05	240	201.95	58	213.00	169	226.00	890
191.00	1095	203.00	1718	213.95	78	227.05	13846

Average of 3.525 to 3.535 min.: m153419.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
228.00	2076	239.00	537	249.90	351	259.95	92
229.00	2752	240.00	613	250.90	289	260.85	91
229.90	181	241.00	937	251.65	71	261.15	122
231.05	1253	242.00	2116	252.05	325	262.95	80

231.95	302	243.05	2410	253.00	785	263.85	123
233.05	217	244.05	30928	253.95	384	265.00	3138
234.00	939	245.05	4208	255.05	145861	265.85	570
235.00	927	246.00	5673	256.05	21114	267.05	101
236.00	795	247.00	815	257.00	1676	269.85	195
237.00	1231	247.85	69	258.00	7741	270.05	103
237.95	169	249.00	965	259.00	1212	271.00	391

Average of 3.525 to 3.535 min.: m153419.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
272.05	493	286.05	123	302.00	223	320.85	90
273.00	4649	288.95	158	303.00	2148	321.00	632
274.05	12184	289.95	239	304.05	481	321.95	118
275.05	63149	291.90	333	308.05	83	323.05	6148
276.05	8481	293.00	1366	309.05	113	324.00	1379
277.00	5064	294.05	406	309.95	123	326.00	141
278.00	869	295.05	381	312.95	77	326.90	909
278.95	177	296.00	17858	314.00	793	328.00	468
283.00	631	297.00	2470	315.00	1942	332.00	627
283.95	416	298.05	124	316.00	1184	333.00	566
285.00	942	300.95	193	320.05	86	334.00	3776

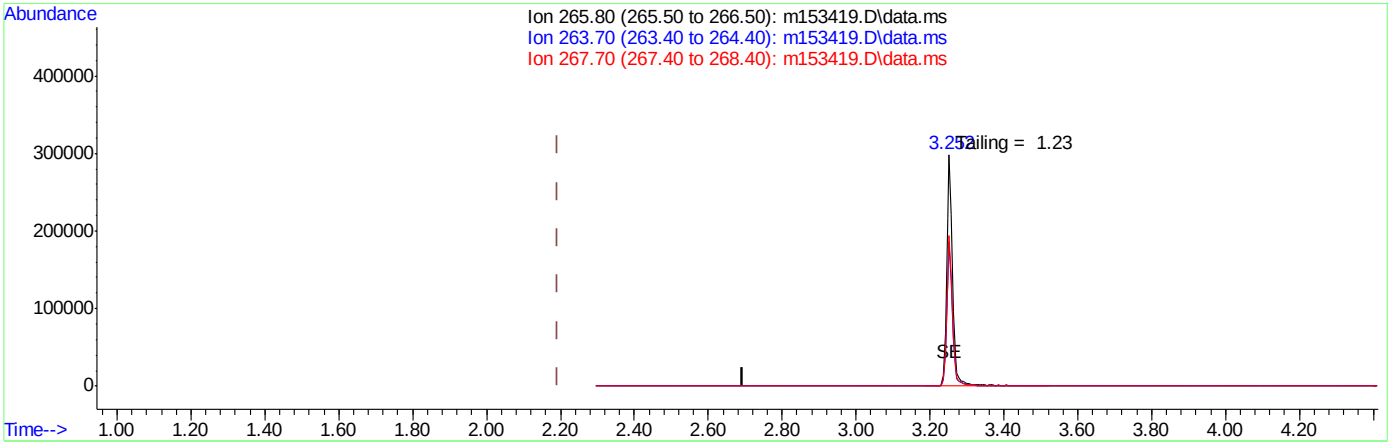
Average of 3.525 to 3.535 min.: m153419.D\data.ms
DFTPP
Modified:subtracted

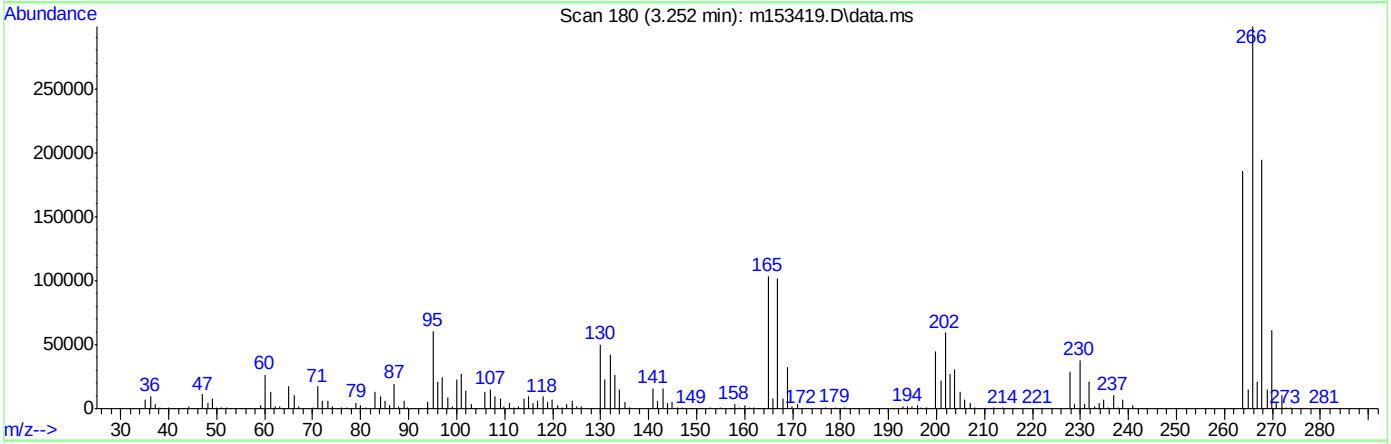
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
335.00	1152	355.00	394	384.05	255	421.00	1512
336.05	67	358.95	86	390.00	555	422.00	1371
340.05	68	364.95	8195	390.85	121	423.05	9346
340.85	180	365.90	1231	391.05	81	424.00	1930
341.05	510	366.95	97	391.90	207	424.95	97
342.05	78	370.00	202	400.95	106	425.15	87
345.95	1174	371.00	446	401.95	1208	432.05	77
347.00	238	372.05	3059	403.00	1644	441.00	21483
351.95	1730	372.85	123	403.90	653	442.05	138565
353.00	1450	373.05	605	404.95	89	443.05	26703
354.05	1729	382.95	754	414.85	75	443.95	2465

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EM6557\
Data File : m153419.D
Acq On : 13 Apr 2019 1:19 am
Operator : chriss2
Sample : DFTPP
Misc : op17006,em6557,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 13 01:24:24 2019
Quant Method : C:\MSDCHEM\1\METHODS\DFTPPM.M
Quant Title : Semi Volatile Extractables by GC/MS rxi-5silms 30mSat Nov 03 03:21:13 2018
QLast Update : Sat Nov 03 03:21:13 2018
Response via : Continuing Cal File:





TIC: m153419.D\data.ms

(1) Pentachlorophenol (MC)

3.252min (+1.057) 0.00ppm m

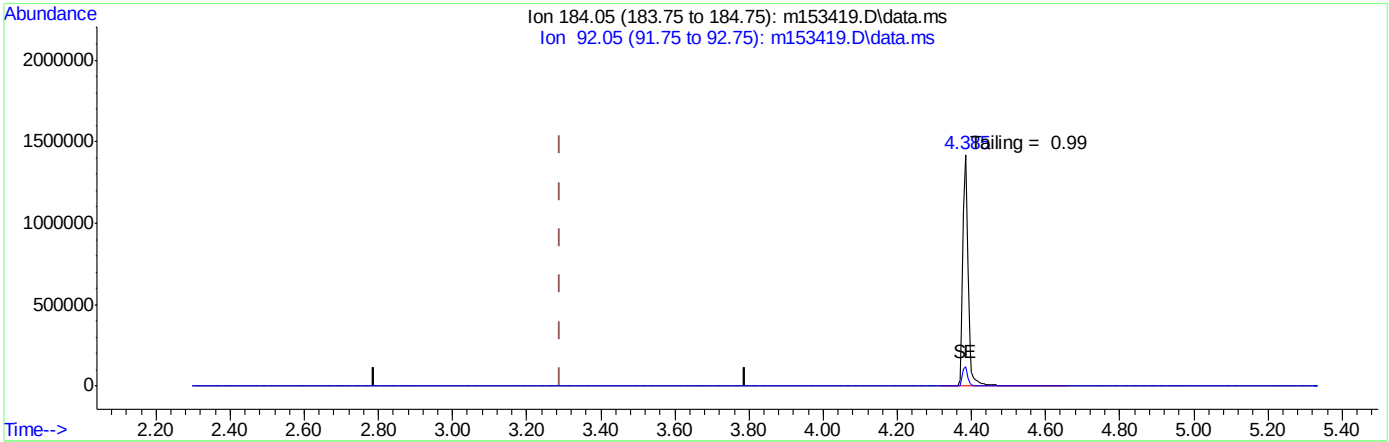
response 330705

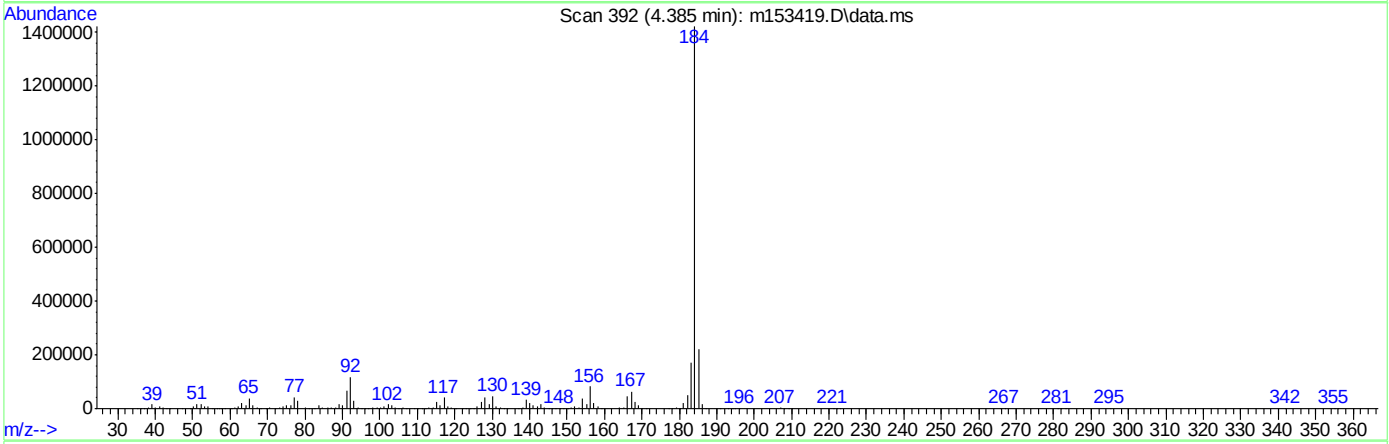
Ion	Exp%	Act%
265.80	100	100
263.70	68.00	62.19
267.70	67.90	65.22
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EM6557\
Data File : m153419.D
Acq On : 13 Apr 2019 1:19 am
Operator : chriss2
Sample : DFTPP
Misc : op17006,em6557,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 13 01:24:24 2019
Quant Method : C:\MSDCHEM\1\METHODS\DFTPPM.M
Quant Title : Semi Volatile Extractables by GC/MS rxi-5silms 30mSat Nov 03 03:21:13 2018
QLast Update : Sat Nov 03 03:21:13 2018
Response via : Continuing Cal File:





TIC: m153419.D\data.ms

(2) Benzidine (M)

4.385min (+1.094) 0.00ppm m

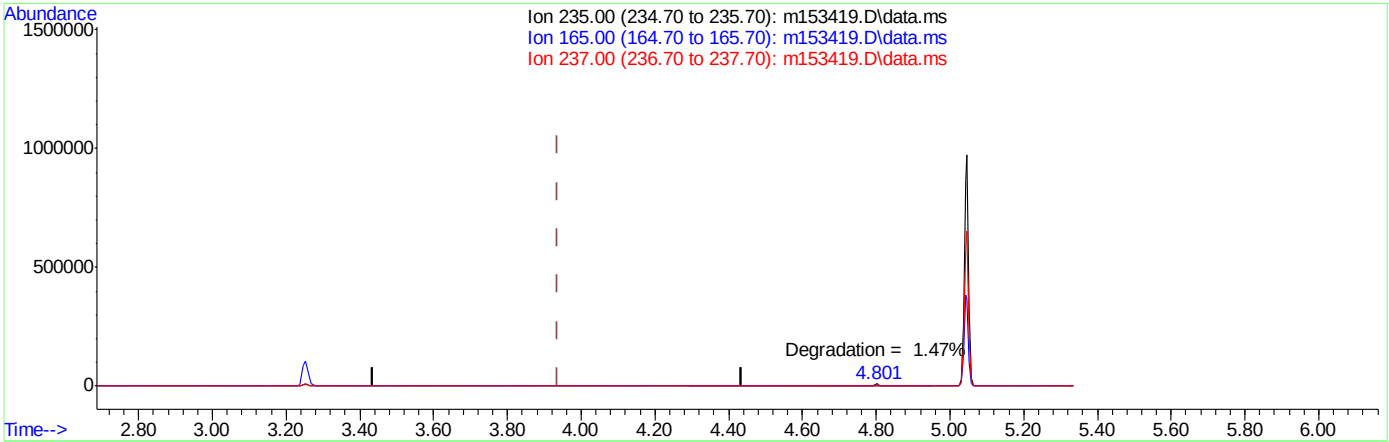
response 1335399

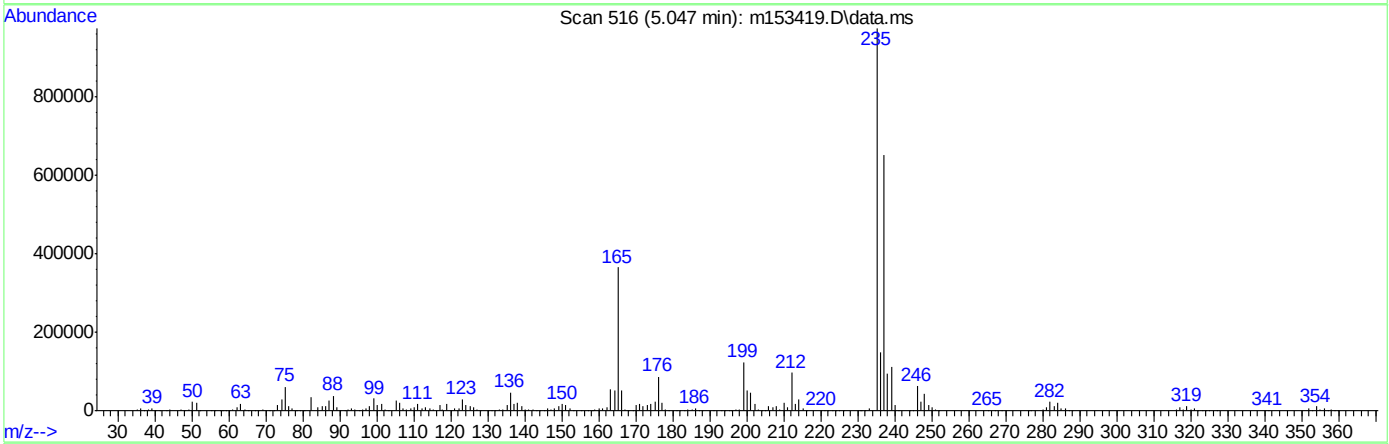
Ion	Exp%	Act%
184.05	100	100
92.05	7.00	8.35
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EM6557\
Data File : m153419.D
Acq On : 13 Apr 2019 1:19 am
Operator : chriss2
Sample : DFTPP
Misc : op17006,em6557,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 13 01:24:24 2019
Quant Method : C:\MSDCHEM\1\METHODS\DFTPPM.M
Quant Title : Semi Volatile Extractables by GC/MS rxi-5silms 30mSat Nov 03 03:21:13 2018
QLast Update : Sat Nov 03 03:21:13 2018
Response via : Continuing Cal File:





TIC: m153419.D\data.ms

(3) PP-DDT (MC)

5.047min (+1.110) 0.00ppm m

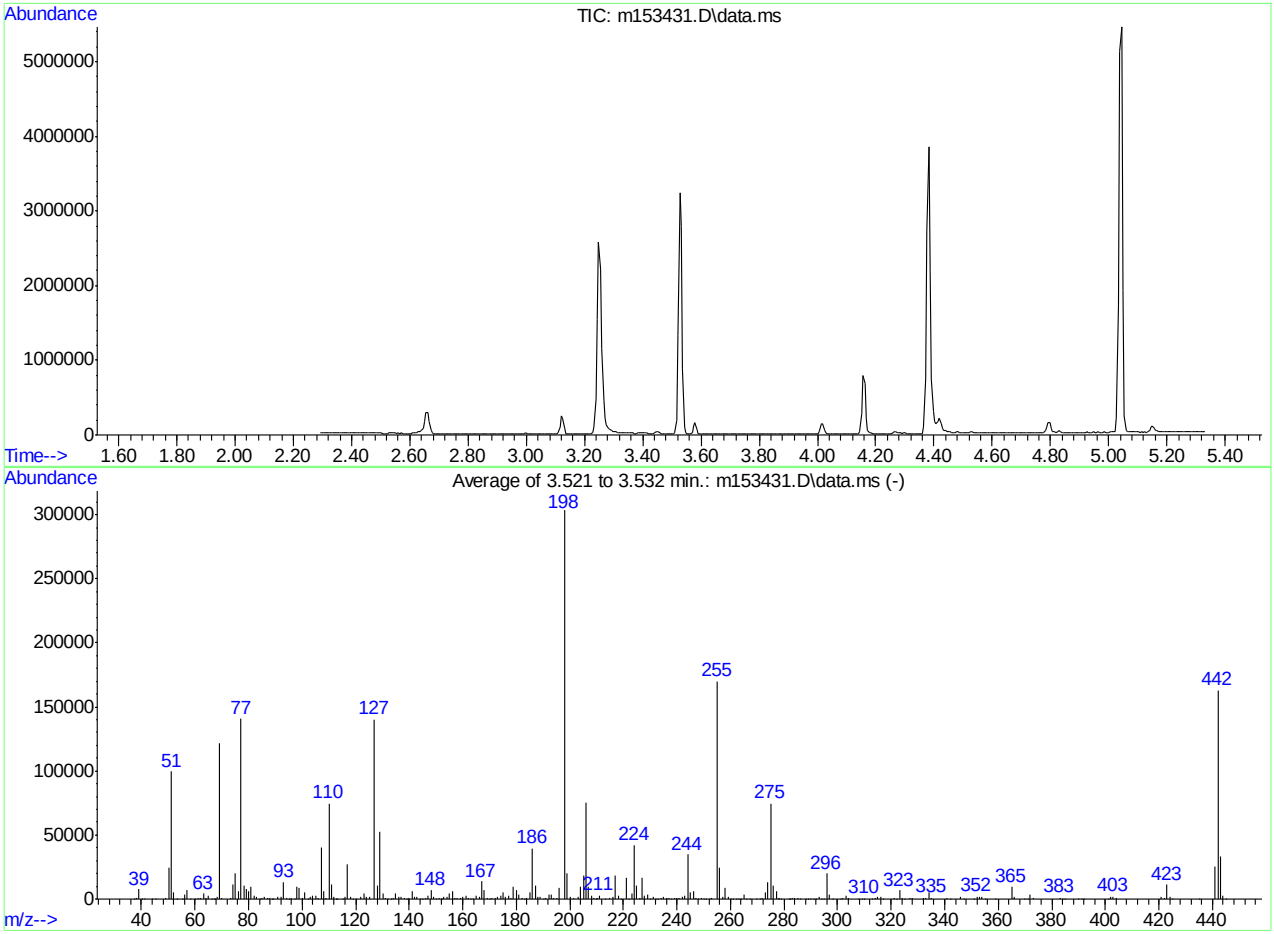
response 800686

Ion	Exp%	Act%
235.00	100	100
165.00	61.30	37.44#
237.00	66.90	66.98
0.00	0.00	0.00

DFTPPR

Data File : C:\msdchem\1\DATA\EM6557\m153431.D Vial: 1
Acq On : 14 Apr 2019 2:31 pm Operator: chriss2
Sample : DFTPP Inst : MSM
Misc : op17006,em6558,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\DFTPPM.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS rxi-5silms 30mSat Nov 03 03:21:13 2018



AutoFind: Scans 231, 232, 233; Background Corrected with Scan 226

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	32.8	99360	PASS
68	69	0.00	2	1.6	1999	PASS
69	198	0.00	100	40.2	121985	PASS
70	69	0.00	2	0.6	727	PASS
127	198	40	60	46.2	139984	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	303253	PASS
199	198	5	9	6.8	20557	PASS
275	198	10	30	24.5	74381	PASS
365	198	1	100	3.0	9225	PASS
441	443	0.10	100	75.9	24993	PASS
442	198	40	100	53.7	162856	PASS
443	442	17	23	20.2	32909	PASS

m153431.D DFTPPM.M Mon Apr 15 13:13:17 2019

Average of 3.521 to 3.532 min.: m153431.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
37.10	398	53.10	338	66.05	86	78.15	10220
38.10	1298	55.10	41	67.00	150	79.05	8132
39.15	7601	56.05	3206	67.25	86	80.05	5980
40.05	259	57.05	6702	68.10	1999	81.05	9416
41.10	70	58.10	434	69.05	121985	82.05	2241
44.10	134	60.05	79	70.10	727	83.05	2172
45.15	227	61.05	1041	73.10	789	84.00	178
49.05	598	62.10	1339	74.10	11176	85.05	1295
50.15	24760	63.10	4206	75.00	19830	86.05	2102
51.15	99360	64.05	688	76.15	6484	87.05	1160
52.15	5234	65.10	2592	77.10	140523	88.05	546

Average of 3.521 to 3.532 min.: m153431.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
88.95	86	100.00	818	111.05	11776	123.05	4016
89.15	102	101.05	5075	112.00	1463	124.00	1859
91.05	2110	102.00	392	112.85	72	125.05	1764
92.05	2219	103.05	1572	113.05	237	127.05	139984
93.05	13235	104.05	2772	115.05	110	128.05	10446
94.05	1173	105.05	2905	116.05	1991	129.05	52821
95.05	165	106.05	930	117.05	27530	130.05	4377
96.10	596	107.05	40237	118.05	2076	131.00	828
97.10	463	108.05	5953	119.05	421	132.10	360
98.05	9454	109.10	1155	120.05	407	133.00	230
99.05	8770	110.05	74805	122.05	2212	134.00	1235

Average of 3.521 to 3.532 min.: m153431.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
135.05	4115	146.00	1198	156.05	5765	167.05	13822
136.05	1791	147.05	3063	157.05	1179	168.05	6877
137.05	1969	148.05	7280	158.00	1004	169.05	943
138.00	514	149.05	1779	159.00	904	170.05	424
139.00	367	150.05	479	160.00	2028	171.00	603
140.05	507	151.10	858	161.05	3052	172.00	1280
141.05	6023	151.95	226	162.05	974	173.05	1657
142.05	2131	152.15	188	163.00	479	174.05	2911
143.00	1562	153.05	2044	163.95	341	175.05	5440
144.05	418	154.05	1565	165.00	2446	176.05	1799
145.00	362	155.05	4051	166.05	2053	177.05	2334

Average of 3.521 to 3.532 min.: m153431.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
177.95	784	189.00	1885	201.45	1330	212.95	241
179.00	9935	190.00	417	203.00	2185	215.00	762
180.05	7300	190.95	798	204.05	10010	216.00	1556
181.00	3493	192.05	3316	205.05	18016	216.95	18422
182.05	614	193.05	3747	206.05	75304	218.00	2536
183.10	213	194.05	732	207.00	10024	219.05	179
184.00	787	195.10	497	208.05	2296	221.05	17058
185.05	4854	196.05	9021	209.00	877	221.95	381
186.05	39656	197.95	303253	209.95	172	223.00	4531
187.05	10866	199.00	20557	210.15	556	224.05	42005
188.05	1366	200.00	1707	211.00	2941	225.05	10171

Average of 3.521 to 3.532 min.: m153431.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
226.05	933	237.05	1286	247.90	232	260.00	284
227.05	16604	237.95	315	249.00	1239	260.95	323
228.00	2741	239.00	714	249.95	174	262.05	69
229.00	3320	240.05	496	251.00	250	262.95	149

229.85	325	240.95	915	252.00	393	263.75	78
231.00	1598	242.05	2157	253.05	819	265.00	3870
232.00	273	243.05	2460	255.05	169738	265.85	100
232.95	215	244.05	34728	256.05	24767	266.95	249
234.00	1021	245.05	5260	256.95	2023	269.85	93
235.05	1490	246.05	6372	257.95	8949	271.00	261
236.00	929	247.00	1017	259.00	1597	271.95	511

Average of 3.521 to 3.532 min.: m153431.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
273.05	5297	284.00	499	296.05	20103	314.00	907
274.05	13499	285.05	1089	297.00	3199	314.95	2021
275.05	74381	285.95	92	297.95	211	316.00	1387
276.05	10104	288.05	84	300.95	241	317.00	191
277.00	5791	288.95	300	302.00	584	321.00	584
277.85	87	289.90	167	303.05	2502	322.05	308
278.05	842	291.10	164	304.00	552	323.05	6967
279.00	163	292.05	386	307.90	255	324.00	1261
281.85	112	293.00	1470	308.95	166	324.95	179
282.05	114	293.95	271	309.95	305	326.90	1289
283.00	856	294.95	242	312.85	72	328.00	778

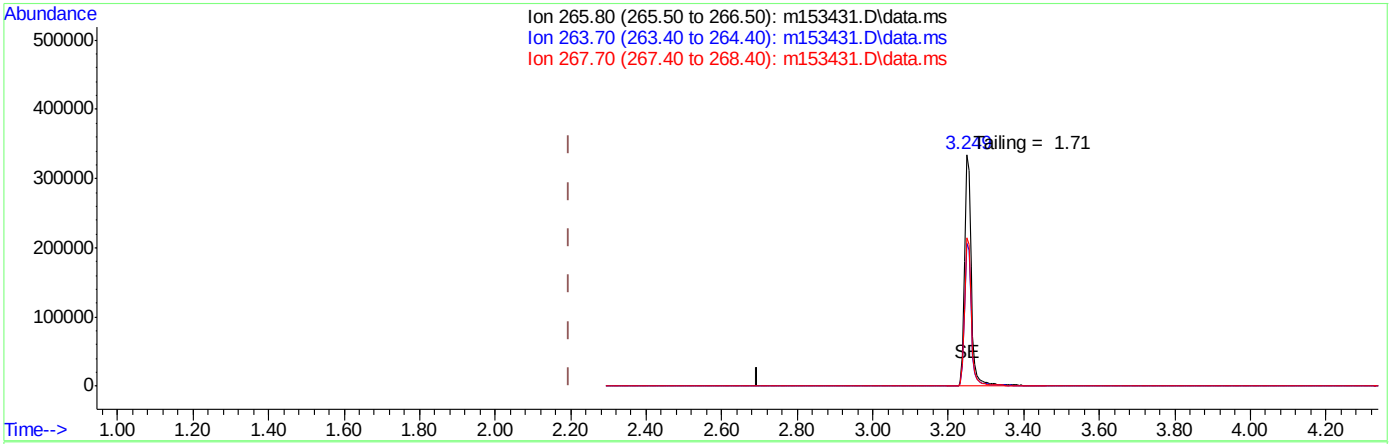
Average of 3.521 to 3.532 min.: m153431.D\data.ms
DFTPP
Modified:subtracted

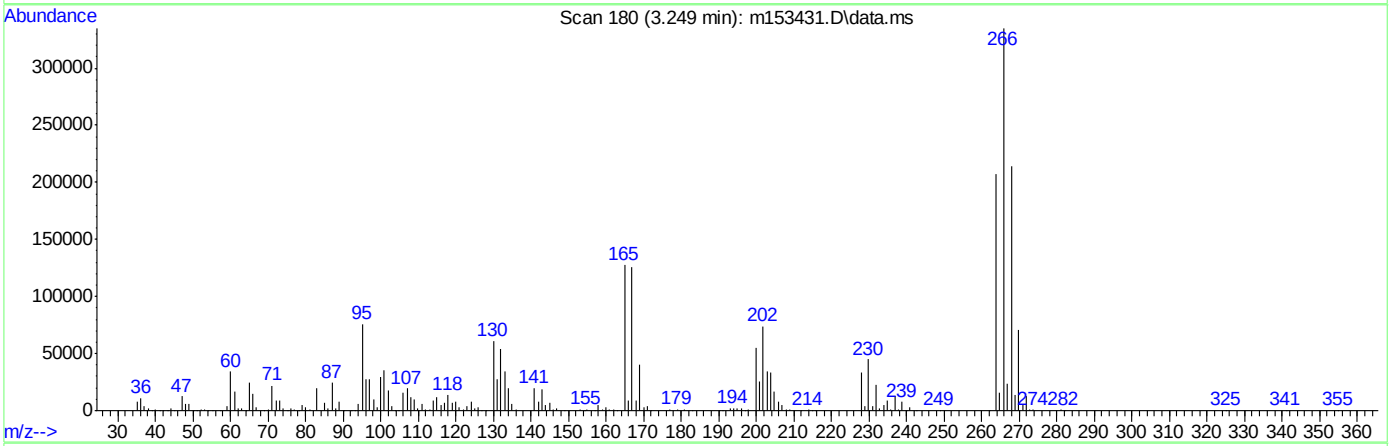
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
332.00	570	354.00	2175	384.95	82	424.00	2183
332.95	610	355.00	476	389.95	444	425.00	272
334.05	5090	358.95	69	391.10	316	435.25	79
335.00	1180	364.95	9225	392.00	205	441.00	24993
341.00	667	365.95	1460	400.95	214	442.05	162856
342.00	238	369.90	168	401.95	1384	443.05	32909
345.95	1447	371.00	384	403.00	2194	444.00	2798
346.95	300	372.00	3641	403.90	684	444.95	195
351.05	80	373.00	883	421.00	1541		
352.05	2071	383.00	892	421.95	1249		
352.95	1486	384.00	238	422.95	11345		

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EM6557\
Data File : m153431.D
Acq On : 14 Apr 2019 2:31 pm
Operator : chriss2
Sample : DFTPP
Misc : op17006,em6558,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 15 13:08:16 2019
Quant Method : C:\MSDCHEM\1\METHODS\DFTPPM.M
Quant Title : Semi Volatile Extractables by GC/MS rxi-5silms 30mSat Nov 03 03:21:13 2018
QLast Update : Sat Nov 03 03:21:13 2018
Response via : Continuing Cal File:





TIC: m153431.D\data.ms

(1) Pentachlorophenol (MC)

3.249min (+1.053) 0.00ppm m

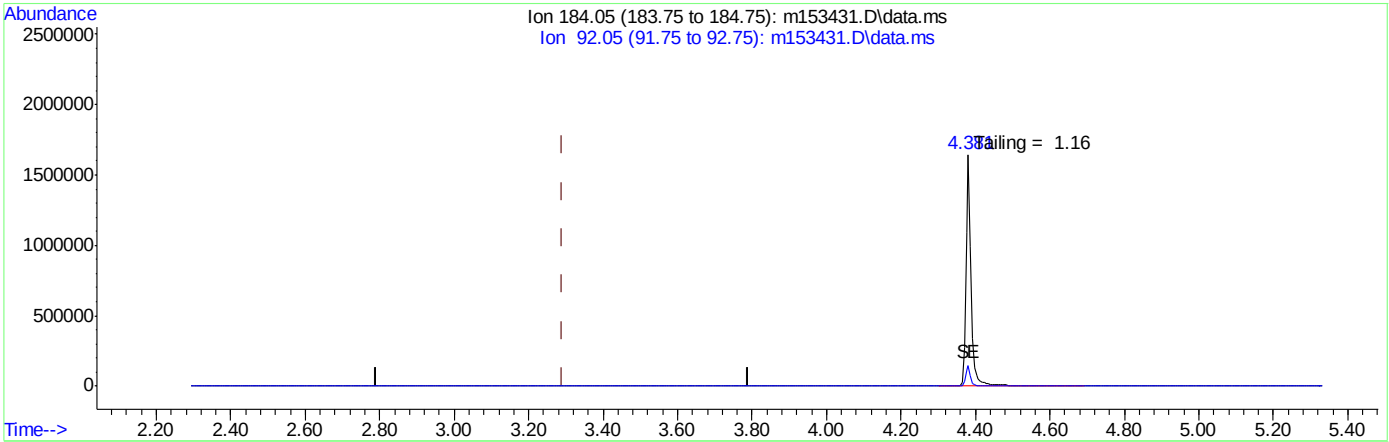
response 394185

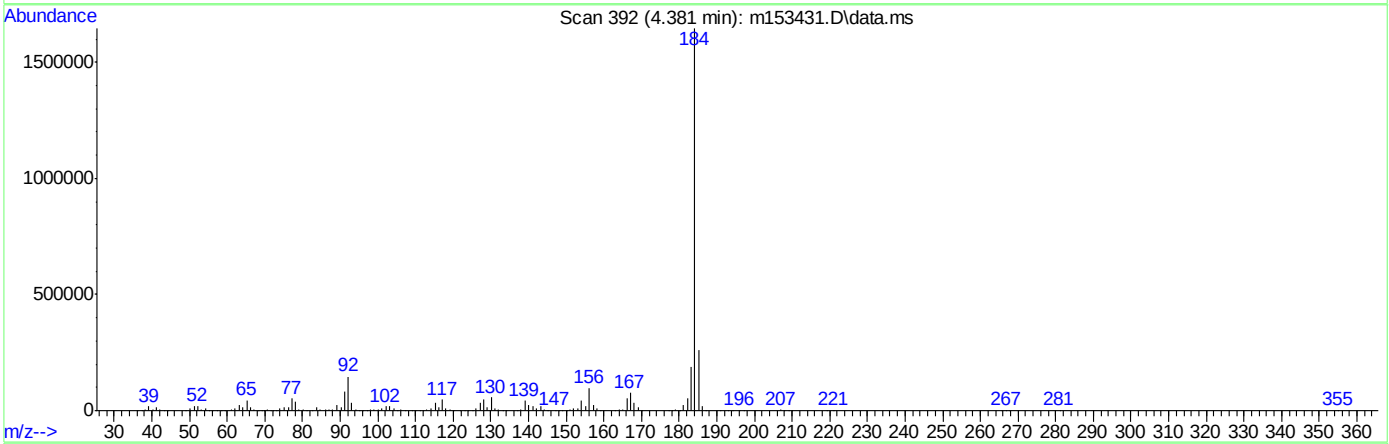
Ion	Exp%	Act%
265.80	100	100
263.70	68.00	61.77
267.70	67.90	63.84
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EM6557\
Data File : m153431.D
Acq On : 14 Apr 2019 2:31 pm
Operator : chriss2
Sample : DFTPP
Misc : op17006,em6558,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 15 13:08:16 2019
Quant Method : C:\MSDCHEM\1\METHODS\DFTPPM.M
Quant Title : Semi Volatile Extractables by GC/MS rxi-5silms 30mSat Nov 03 03:21:13 2018
QLast Update : Sat Nov 03 03:21:13 2018
Response via : Continuing Cal File:





TIC: m153431.D\data.ms

(2) Benzidine (M)

4.381min (+1.091) 0.00ppm m

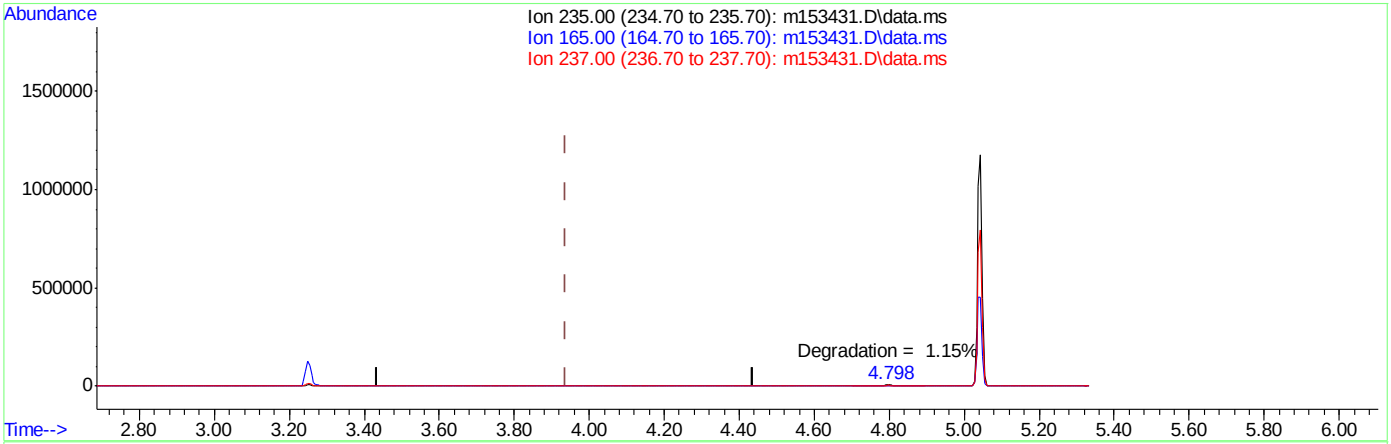
response 1550554

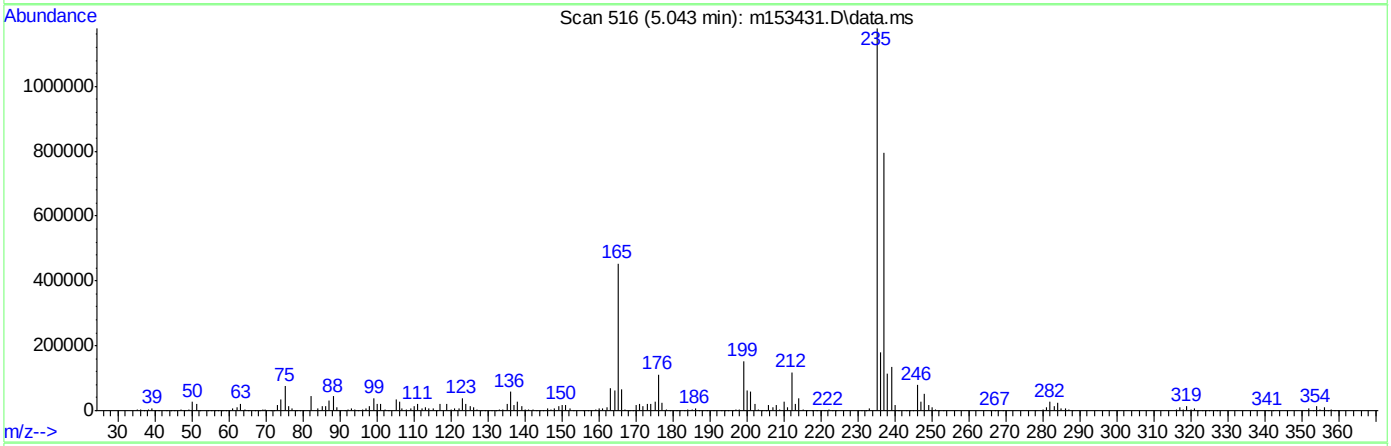
Ion	Exp%	Act%
184.05	100	100
92.05	7.00	8.89
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EM6557\
Data File : m153431.D
Acq On : 14 Apr 2019 2:31 pm
Operator : chriss2
Sample : DFTPP
Misc : op17006,em6558,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 15 13:08:16 2019
Quant Method : C:\MSDCHEM\1\METHODS\DFTPPM.M
Quant Title : Semi Volatile Extractables by GC/MS rxi-5silms 30mSat Nov 03 03:21:13 2018
QLast Update : Sat Nov 03 03:21:13 2018
Response via : Continuing Cal File:





TIC: m153431.D\data.ms

(3) PP-DDT (MC)

5.043min (+1.107) 0.00ppm m

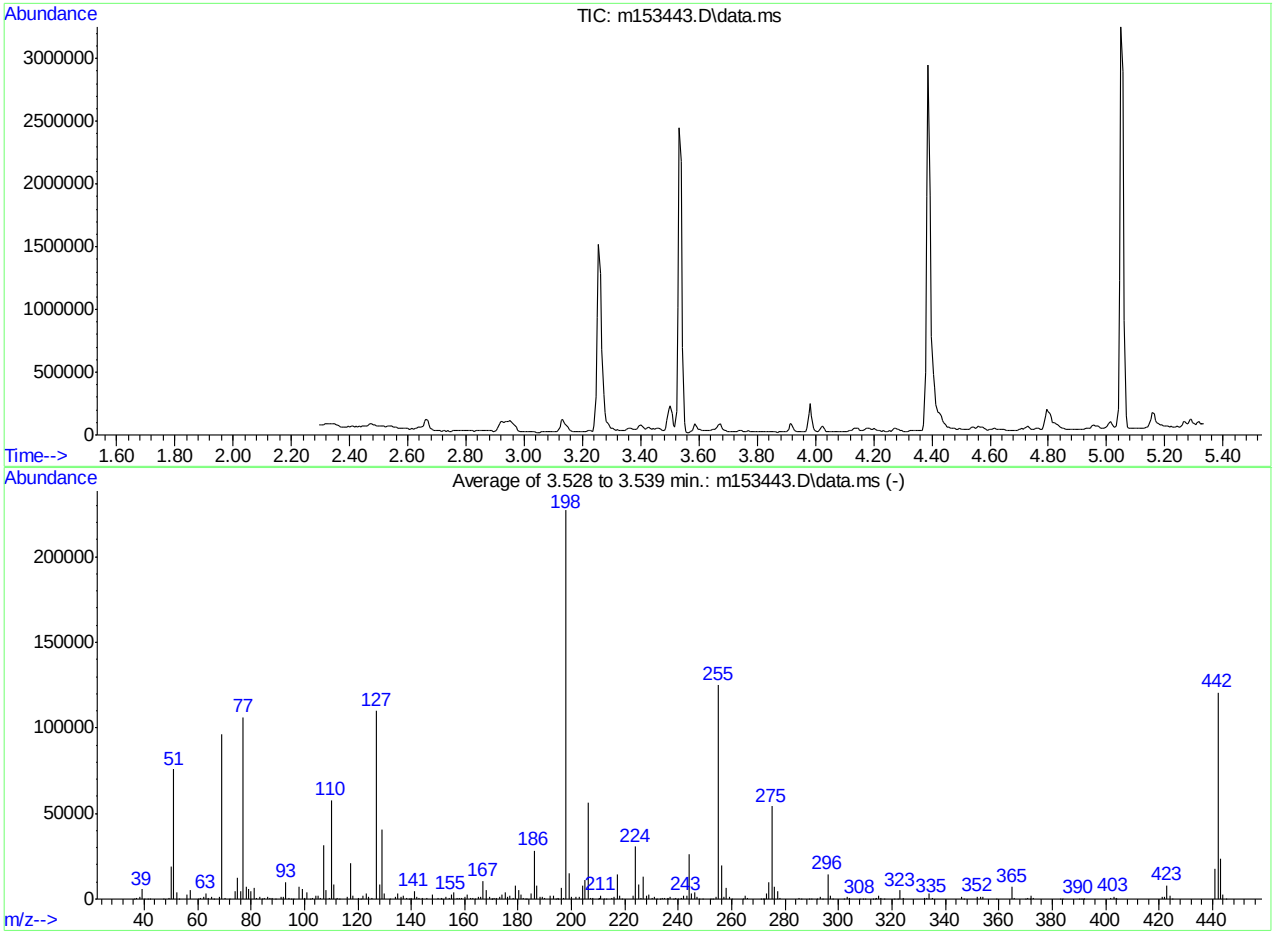
response 970552

Ion	Exp%	Act%
235.00	100	100
165.00	61.30	38.55#
237.00	66.90	67.38
0.00	0.00	0.00

DFTPPR

Data File : C:\msdchem\1\DATA\EM6559\m153443.D Vial: 1
Acq On : 15 Apr 2019 1:54 pm Operator: christc2
Sample : DFTPP Inst : MSM
Misc : op17006,em6559,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\DFTPPM.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS rxi-5silms 30mSat Nov 03 03:21:13 2018



AutoFind: Scans 232, 233, 234; Background Corrected with Scan 227

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	33.3	75686	PASS
68	69	0.00	2	1.2	1135	PASS
69	198	0.00	100	42.4	96290	PASS
70	69	0.00	2	0.5	481	PASS
127	198	40	60	48.4	109790	PASS
197	198	0.00	1	0.2	521	PASS
198	198	100	100	100.0	227010	PASS
199	198	5	9	6.8	15330	PASS
275	198	10	30	23.9	54288	PASS
365	198	1	100	3.1	6995	PASS
441	443	0.10	100	73.0	17393	PASS
442	198	40	100	53.2	120749	PASS
443	442	17	23	19.7	23826	PASS

m153443.D DFTPPM.M Mon Apr 15 14:50:53 2019

Average of 3.528 to 3.539 min.: m153443.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.05	69	52.10	3815	68.10	1135	81.05	6792
37.10	431	53.10	265	69.00	96290	82.10	992
38.15	1103	56.10	2472	70.05	481	83.05	1617
39.15	5667	57.10	5312	72.10	186	84.05	152
40.05	199	60.05	67	74.10	4745	85.10	626
41.15	182	61.05	1005	75.00	12273	86.00	1341
42.10	1	62.10	1104	76.05	4561	87.05	504
47.05	118	63.10	3409	77.10	106422	88.05	378
49.05	517	64.10	524	78.15	7379	89.05	288
50.15	18749	65.15	1468	79.05	6168	91.05	1499
51.10	75686	66.10	319	80.05	4876	92.05	1153

Average of 3.528 to 3.539 min.: m153443.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
93.05	10066	105.00	1915	118.05	1684	132.00	202
94.10	910	106.10	793	120.00	470	134.05	1090
95.05	37	107.00	31271	121.05	189	135.05	3007
96.05	290	108.05	4938	122.05	1880	136.05	1148
98.05	7369	109.10	353	123.05	3023	137.05	1799
99.05	6043	110.05	57754	124.05	1472	138.10	523
100.10	725	111.05	8673	125.05	920	139.05	302
101.05	4031	112.05	914	127.00	109790	140.05	493
101.95	264	113.05	291	128.05	8253	141.00	4708
103.00	971	116.05	1440	129.05	40373	142.05	1481
104.05	2236	117.05	20778	130.05	3392	143.05	998

Average of 3.528 to 3.539 min.: m153443.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
144.05	355	158.00	847	169.10	1119	179.00	7762
146.00	882	159.00	743	170.00	325	180.05	5345
148.00	2802	160.00	1627	170.35	74	181.05	2540
150.00	368	161.05	2528	171.05	545	182.00	425
151.15	585	162.05	709	172.00	846	182.95	79
151.45	141	163.00	379	173.00	1404	183.15	73
153.00	1552	163.95	182	174.00	2486	185.05	3038
154.00	897	164.95	1645	175.05	4253	186.05	28210
155.05	2806	166.00	1601	176.00	1135	187.05	7784
156.05	4221	167.00	10672	177.05	2077	188.05	1072
157.05	954	168.05	5167	178.00	720	189.05	1629

Average of 3.528 to 3.539 min.: m153443.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
189.95	356	201.50	1126	213.05	109	228.00	1718
192.00	2289	202.95	1177	215.00	592	228.95	2573
193.05	2261	204.05	7771	216.00	1063	230.00	440
193.95	290	205.05	11485	217.00	14279	231.00	1183
194.95	94	206.05	56466	218.00	1698	232.00	299
195.10	364	207.05	980	218.95	155	232.95	266
196.05	6356	208.05	534	223.00	2206	233.95	743
196.85	521	210.00	291	224.00	30559	235.00	842
197.95	227010	210.45	522	225.05	8549	235.85	77
198.95	15330	211.00	2170	226.05	829	236.00	596
200.05	1132	212.00	242	227.00	13004	237.00	1063

Average of 3.528 to 3.539 min.: m153443.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
238.05	81	248.95	138	265.00	1709	285.00	939
239.05	562	252.00	224	265.90	394	285.95	167
240.00	326	252.95	76	271.00	315	289.05	238
241.00	732	254.00	1074	271.85	118	289.95	71

242.05	1789	255.05	124837	272.15	288	291.95	238
243.00	1975	256.00	19407	273.05	3425	293.00	1241
244.05	26131	256.95	1410	274.00	9925	294.00	217
245.05	3408	258.00	6568	275.05	54288	296.00	14475
246.00	4263	258.95	1081	276.05	7532	296.95	1897
247.00	1044	260.00	172	277.00	4730	297.90	203
248.00	246	264.05	133	278.05	747	302.00	219

Average of 3.528 to 3.539 min.: m153443.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
303.05	1595	321.05	349	353.00	1058	383.90	262
304.00	451	321.95	67	354.00	1410	390.05	302
307.95	255	323.05	5083	359.05	83	390.85	91
308.95	104	324.00	917	364.95	6995	391.65	89
309.95	188	332.00	552	365.95	923	392.00	204
312.90	148	333.00	482	369.95	84	401.90	771
313.85	104	334.05	3301	370.95	393	403.00	1345
314.05	546	335.00	790	371.85	201	403.85	102
314.95	1766	345.95	1066	372.05	2266	404.00	450
316.00	859	347.00	155	372.95	653	421.05	1291
317.00	238	352.05	1581	382.95	185	421.95	1202

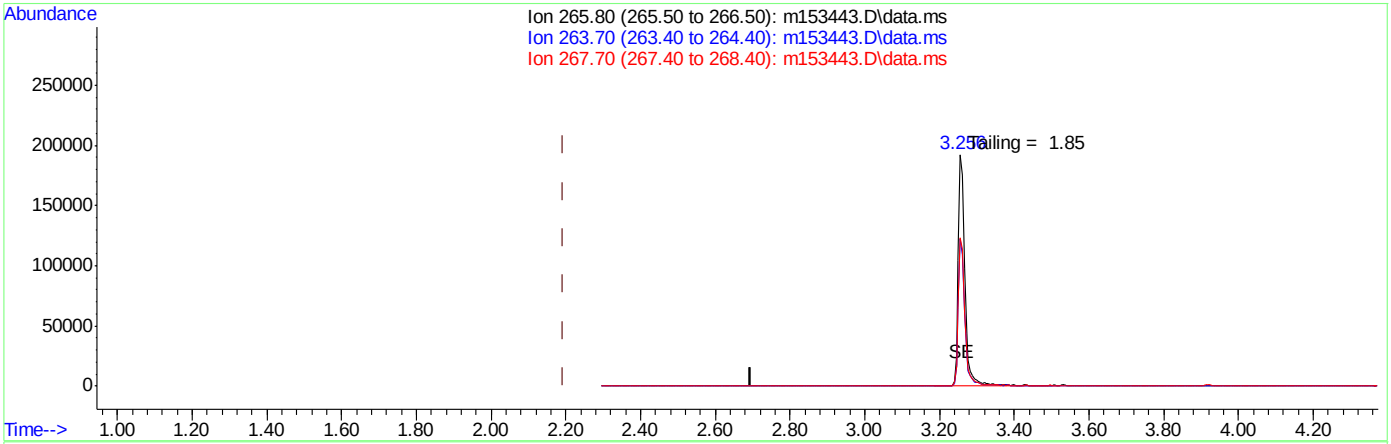
Average of 3.528 to 3.539 min.: m153443.D\data.ms
DFTPP
Modified:subtracted

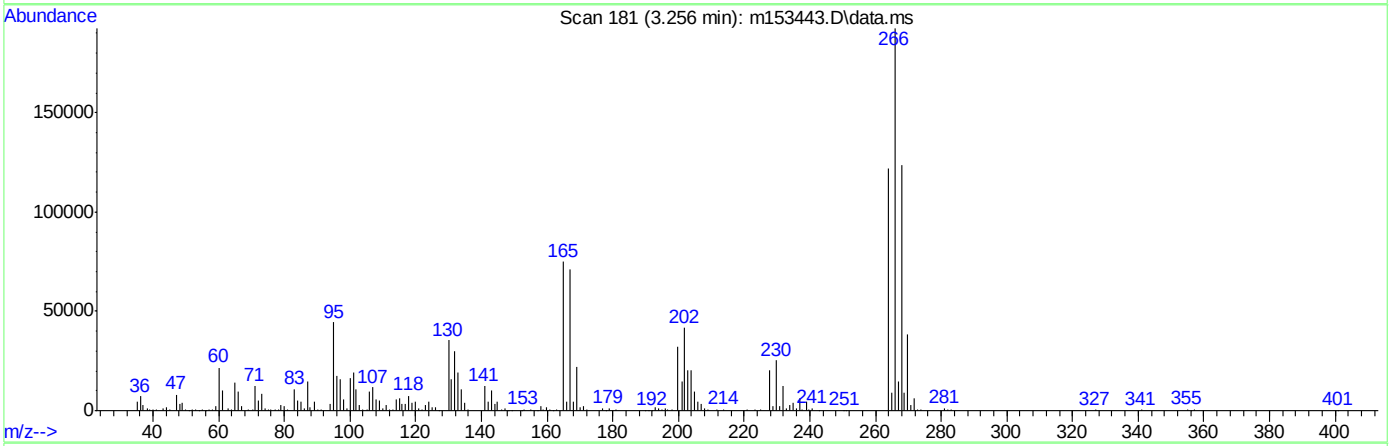
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
422.95	8040						
423.95	1668						
425.00	243						
441.00	17393						
442.05	120749						
443.00	23826						
444.00	2377						
444.95	77						

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EM6559\
Data File : m153443.D
Acq On : 15 Apr 2019 1:54 pm
Operator : christc2
Sample : DFTPP
Misc : op17006,em6559,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 15 14:00:17 2019
Quant Method : C:\MSDCHEM\1\METHODS\DFTPPM.M
Quant Title : Semi Volatile Extractables by GC/MS rxi-5silms 30mSat Nov 03 03:21:13 2018
QLast Update : Sat Nov 03 03:21:13 2018
Response via : Continuing Cal File:





TIC: m153443.D\data.ms

(1) Pentachlorophenol (MC)

3.256min (+1.060) 0.00ppm m

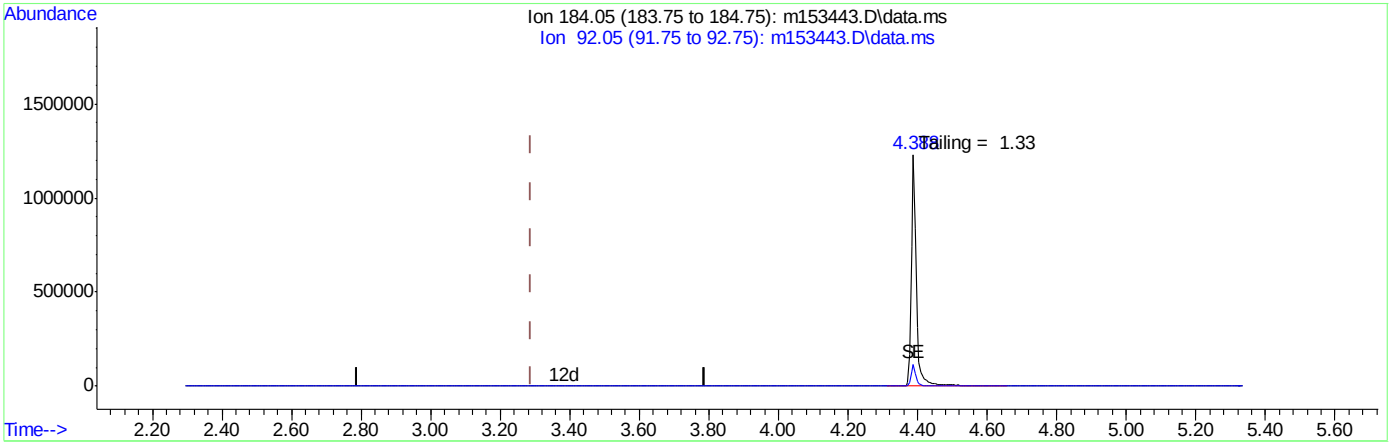
response 233348

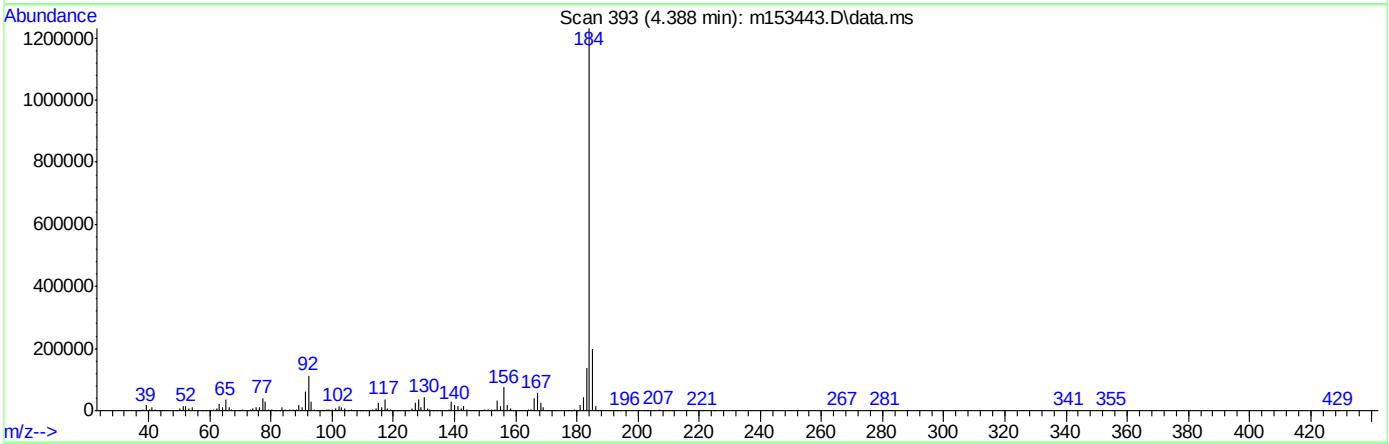
Ion	Exp%	Act%
265.80	100	100
263.70	68.00	63.39
267.70	67.90	64.16
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EM6559\
Data File : m153443.D
Acq On : 15 Apr 2019 1:54 pm
Operator : christc2
Sample : DFTPP
Misc : op17006,em6559,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 15 14:00:17 2019
Quant Method : C:\MSDCHEM\1\METHODS\DFTPPM.M
Quant Title : Semi Volatile Extractables by GC/MS rxi-5silms 30mSat Nov 03 03:21:13 2018
QLast Update : Sat Nov 03 03:21:13 2018
Response via : Continuing Cal File:





TIC: m153443.D\data.ms

(2) Benzidine (M)

4.388min (+1.097) 0.00ppm m

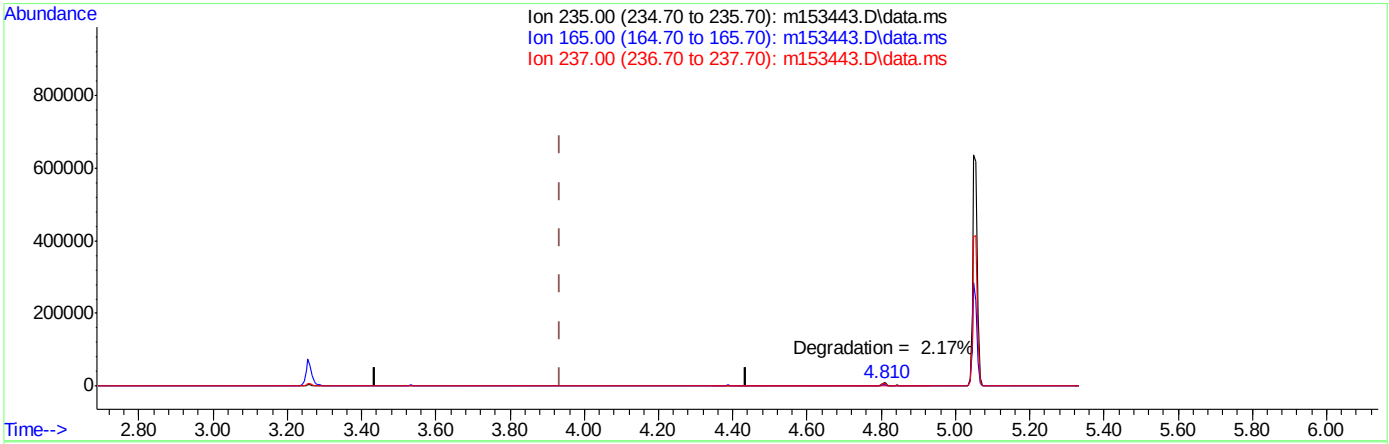
response 1246674

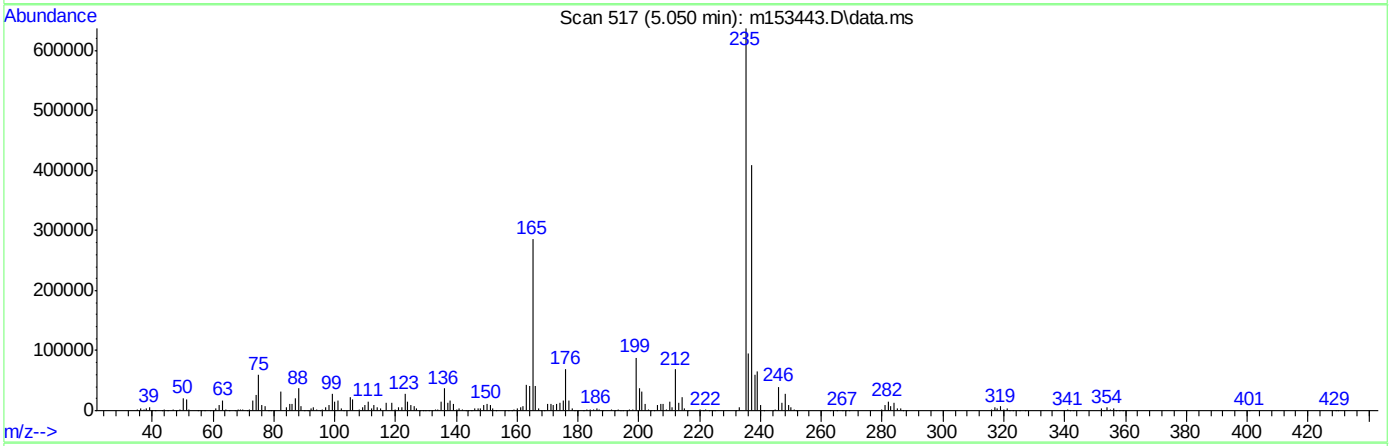
Ion	Exp%	Act%
184.05	100	100
92.05	7.00	9.25#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EM6559\
Data File : m153443.D
Acq On : 15 Apr 2019 1:54 pm
Operator : christc2
Sample : DFTPP
Misc : op17006,em6559,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 15 14:00:17 2019
Quant Method : C:\MSDCHEM\1\METHODS\DFTPPM.M
Quant Title : Semi Volatile Extractables by GC/MS rxi-5silms 30mSat Nov 03 03:21:13 2018
QLast Update : Sat Nov 03 03:21:13 2018
Response via : Continuing Cal File:





TIC: m153443.D\data.ms

(3) PP-DDT (MC)

5.050min (+1.113) 0.00ppm m

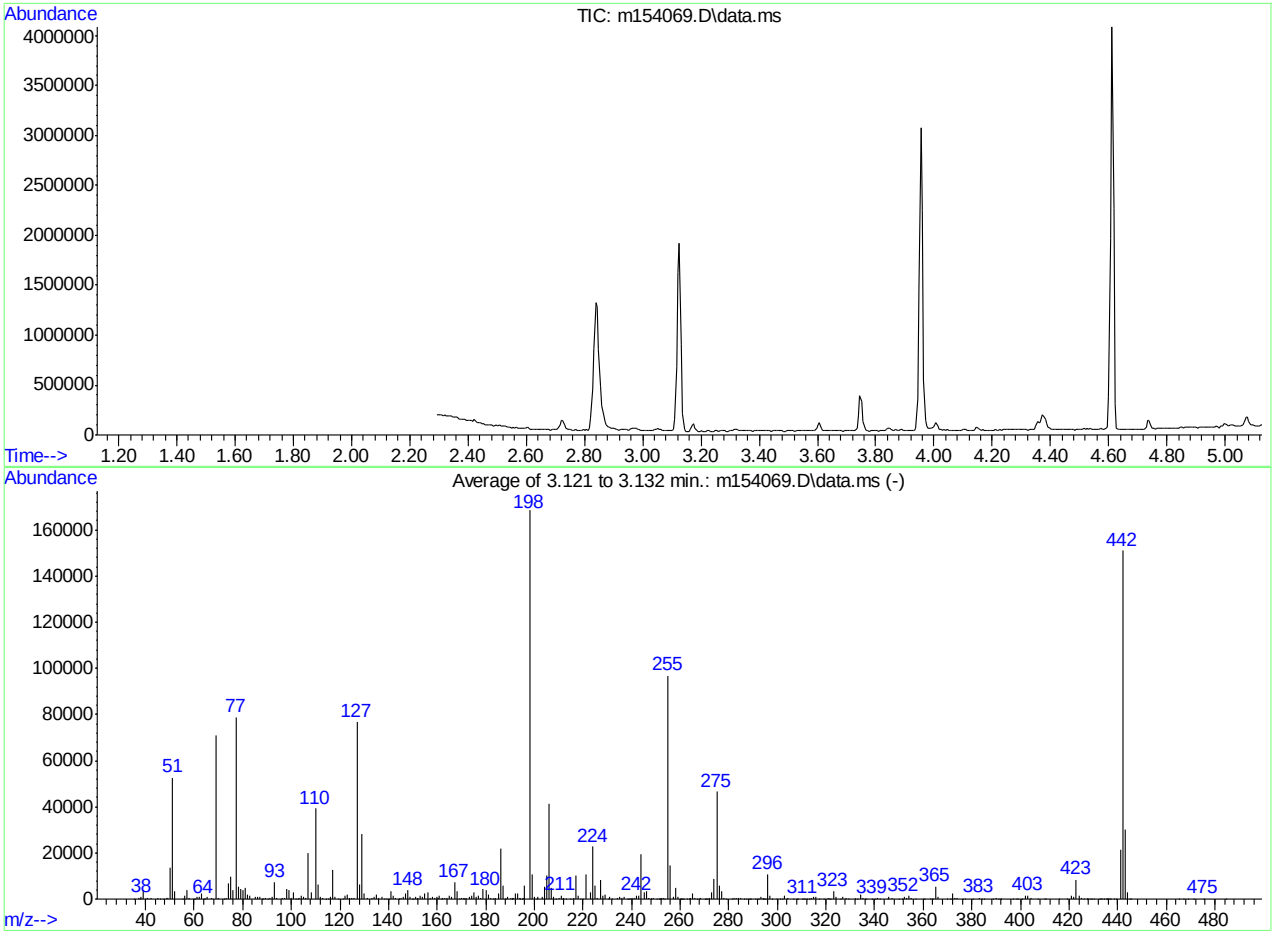
response 547854

Ion	Exp%	Act%
235.00	100	100
165.00	61.30	44.89
237.00	66.90	64.29
0.00	0.00	0.00

DFTPPR

Data File : C:\msdchem\1\DATA\EM6583\m154069.D Vial: 1
Acq On : 5 May 2019 9:44 pm Operator: carolb
Sample : DFTPP Inst : MSM
Misc : op17006,em6583,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\DFTPPM.M (RTE Integrator)
Title : Semi Volatile Extractables by GC/MS rxi-5silms 30mSat May 04 11:03:10 2019



AutoFind: Scans 156, 157, 158; Background Corrected with Scan 149

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	31.2	52570	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	42.1	70911	PASS
70	69	0.00	2	0.5	362	PASS
127	198	40	60	45.5	76655	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	168397	PASS
199	198	5	9	6.4	10853	PASS
275	198	10	30	27.6	46490	PASS
365	198	1	100	3.2	5398	PASS
441	443	0.10	100	72.0	21537	PASS
442	198	40	100	89.6	150898	PASS
443	442	17	23	19.8	29900	PASS

m154069.D DFTPPM.M Mon May 06 08:04:40 2019

Average of 3.121 to 3.132 min.: m154069.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
35.15	90	48.95	274	61.15	922	74.10	6865
37.10	374	49.20	399	62.10	1114	75.00	9964
37.65	113	50.15	13377	63.15	2452	76.15	4075
38.15	775	51.15	52570	63.95	212	77.15	78861
39.15	4125	52.10	3199	64.25	183	78.15	5251
40.05	108	55.10	168	65.15	1127	79.05	4152
41.10	378	56.05	1523	67.10	353	80.10	4062
42.30	385	57.05	3955	69.00	70911	81.10	4872
45.15	333	58.10	295	70.15	362	82.10	1757
45.95	183	59.85	85	72.15	82	83.05	1576
47.15	88	60.05	38	73.15	549	85.10	797

Average of 3.121 to 3.132 min.: m154069.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
86.00	1166	97.15	304	107.05	19990	119.10	127
87.05	839	98.05	4479	108.10	2970	121.15	231
87.95	126	99.05	4028	110.05	39343	122.10	1272
88.25	147	100.00	411	111.05	6159	123.05	1943
89.10	326	101.05	2743	112.10	898	124.00	602
90.15	90	102.00	22	113.05	348	125.05	726
91.10	653	102.85	142	114.15	94	125.85	338
92.05	982	103.10	415	114.95	8	127.05	76655
93.05	7375	104.05	1462	116.15	1051	128.05	6233
94.15	678	105.05	1087	117.05	12865	129.05	28419
96.15	376	106.05	395	118.05	1149	130.05	2299

Average of 3.121 to 3.132 min.: m154069.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
131.15	603	143.00	737	151.55	89	161.05	1585
133.00	351	144.05	166	152.05	432	161.75	176
134.05	932	144.25	164	153.00	1255	162.10	336
135.05	2145	145.20	543	153.95	895	163.05	537
136.10	649	146.05	917	155.05	2287	164.05	345
137.10	1225	147.05	2255	156.05	3069	165.05	1508
138.05	99	148.05	4124	157.15	719	166.05	1216
139.20	255	149.00	1078	158.00	797	167.05	7451
140.05	186	149.75	87	159.10	297	168.05	3419
141.00	3554	150.10	92	159.95	837	168.95	98
142.05	1236	150.95	789	160.15	295	169.95	366

Average of 3.121 to 3.132 min.: m154069.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
170.95	257	181.00	2004	190.85	77	199.00	10853
171.15	295	182.00	443	191.10	514	200.10	956
172.00	668	183.10	263	191.30	465	201.05	98
173.05	953	184.05	445	192.10	2218	201.45	1166
174.05	1537	185.05	2671	193.05	2287	203.05	1166
175.05	3072	186.00	21674	193.85	476	204.05	5179
176.05	925	187.05	5688	194.05	200	205.05	10141
177.05	1237	187.85	144	195.05	219	206.05	41397
178.05	692	188.15	40	195.35	316	207.05	4686
179.00	4320	189.05	1053	196.05	6071	208.05	1205
180.10	3900	190.15	373	198.05	168397	208.95	261

Average of 3.121 to 3.132 min.: m154069.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
210.40	607	221.05	10778	234.00	677	244.05	19400
211.10	1615	223.05	2862	234.95	746	245.10	2736
211.65	178	224.05	22635	236.05	489	246.05	3549
212.05	341	225.05	5701	237.05	761	246.90	487

213.10	198	226.05	693	238.10	206	248.05	154
215.00	144	227.05	8493	238.85	77	248.20	166
216.05	578	228.00	1550	239.15	251	249.05	400
217.00	10343	229.05	2042	239.95	334	250.20	225
218.05	1628	230.35	100	241.05	581	251.00	201
219.10	184	231.05	875	242.05	1615	251.55	72
219.95	92	232.05	122	243.05	1468	252.05	283

Average of 3.121 to 3.132 min.: m154069.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
252.35	95	260.95	67	270.75	68	282.10	302
253.15	616	261.25	163	271.15	258	282.90	340
253.65	250	262.55	99	272.05	476	284.00	366
255.05	96776	263.55	124	273.05	2996	285.10	623
256.05	14506	264.00	489	274.05	8657	286.15	92
257.00	1151	265.05	2360	275.05	46490	287.05	71
258.05	4828	265.85	322	276.05	6075	288.05	68
259.00	841	267.05	123	277.05	3614	288.75	111
260.05	166	267.65	143	278.00	703	289.05	143
260.25	73	268.10	313	279.00	184	291.05	66
260.55	68	270.05	134	281.00	7	291.75	185

Average of 3.121 to 3.132 min.: m154069.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
292.15	70	302.05	233	314.00	713	327.00	753
293.10	966	303.00	1394	314.95	1029	328.05	481
293.95	88	304.05	351	316.00	1032	329.15	98
294.20	347	306.35	84	317.05	124	331.90	195
294.65	84	308.05	150	319.05	78	332.15	100
294.95	199	308.35	118	320.95	394	332.90	241
296.05	10724	310.15	84	321.15	155	334.05	2122
297.05	1379	310.65	149	321.85	225	335.00	590
297.95	88	311.15	76	323.05	3660	336.05	105
299.75	71	312.25	93	324.05	876	336.75	85
301.15	192	312.95	71	325.85	91	338.90	228

Average of 3.121 to 3.132 min.: m154069.D\data.ms
DFTPP
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
340.30	205	355.05	309	372.05	2624	391.05	238
341.05	610	356.95	81	373.00	634	391.75	69
341.95	101	360.05	102	373.95	297	392.05	155
345.25	67	360.65	71	376.05	92	397.05	103
345.95	1033	362.95	71	377.00	193	398.55	79
346.95	461	363.65	152	380.25	69	398.85	167
350.15	67	364.00	192	383.00	615	400.90	163
351.15	168	364.95	5398	384.10	178	402.05	1430
352.05	1070	366.05	866	385.15	143	403.00	1654
353.05	322	369.80	202	388.85	75	404.15	456
354.00	1274	370.95	172	389.95	300	407.05	95

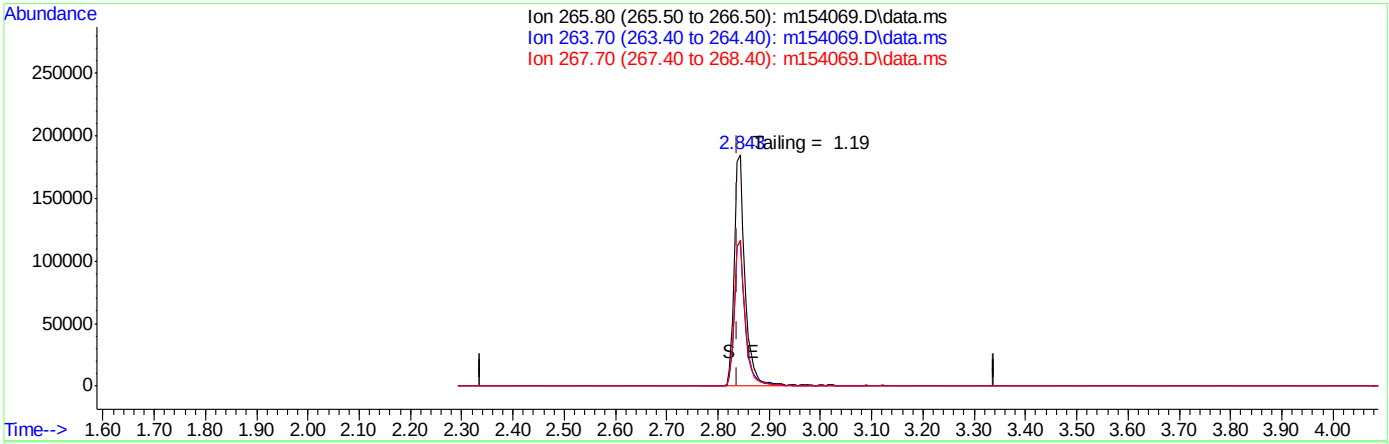
Average of 3.121 to 3.132 min.: m154069.D\data.ms
DFTPP
Modified:subtracted

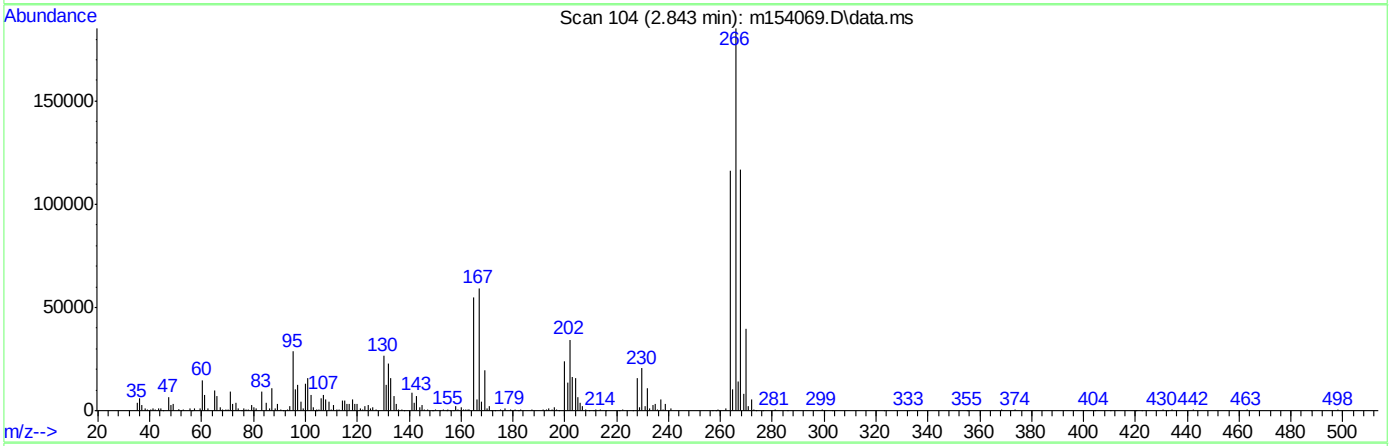
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
409.85	75	427.65	77	435.85	83	445.25	76
410.45	101	428.05	166	436.25	72	465.25	69
415.95	82	428.65	99	436.55	105	467.15	74
419.05	117	429.05	83	437.25	72	468.95	70
421.00	1448	430.10	213	438.35	159	471.15	85
422.00	950	432.50	155	439.55	126	475.35	101
423.00	8491	432.95	102	441.05	21537	484.45	73
424.05	1554	433.25	166	442.05	150898		
425.05	266	434.15	116	443.05	29900		
425.95	94	435.35	108	444.05	3011		
427.35	91	435.55	70	444.95	177		

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EM6583\
Data File : m154069.D
Acq On : 5 May 2019 9:44 pm
Operator : carolb
Sample : DFTPP
Misc : op17006,em6583,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 05 21:50:17 2019
Quant Method : C:\MSDCHEM\1\METHODS\DFTPPM.M
Quant Title : Semi Volatile Extractables by GC/MS rxi-5silms 30mSat May 04 11:03:10 2019
QLast Update : Sat May 04 11:03:10 2019
Response via : Continuing Cal File:





TIC: m154069.D\data.ms

(1) Pentachlorophenol (MC)

2.843min (+0.005) 0.00ppm

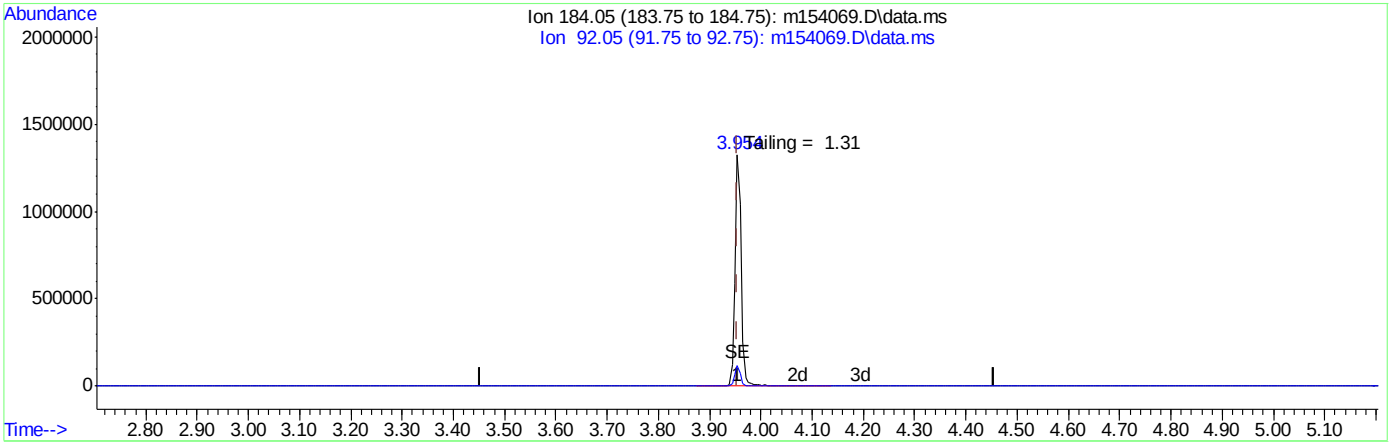
response 271907

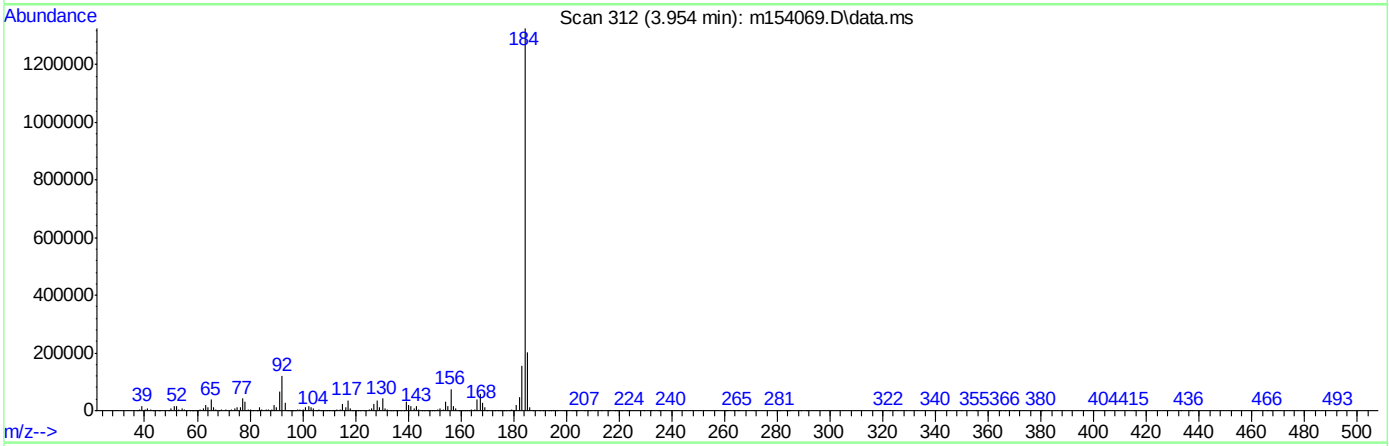
Ion	Exp%	Act%
265.80	100	100
263.70	64.00	62.68
267.70	67.40	62.89
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EM6583\
Data File : m154069.D
Acq On : 5 May 2019 9:44 pm
Operator : carolb
Sample : DFTPP
Misc : op17006,em6583,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 05 21:50:17 2019
Quant Method : C:\MSDCHEM\1\METHODS\DFTPPM.M
Quant Title : Semi Volatile Extractables by GC/MS rxi-5silms 30mSat May 04 11:03:10 2019
QLast Update : Sat May 04 11:03:10 2019
Response via : Continuing Cal File:





TIC: m154069.D\data.ms

(2) Benzidine (M)

3.954min (-0.000) 0.00ppm

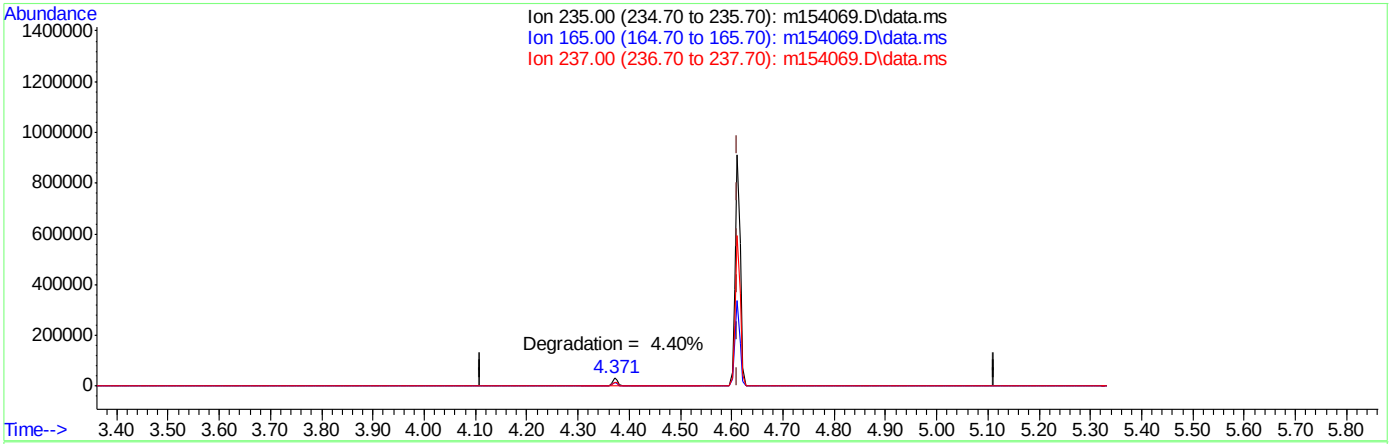
response 1117879

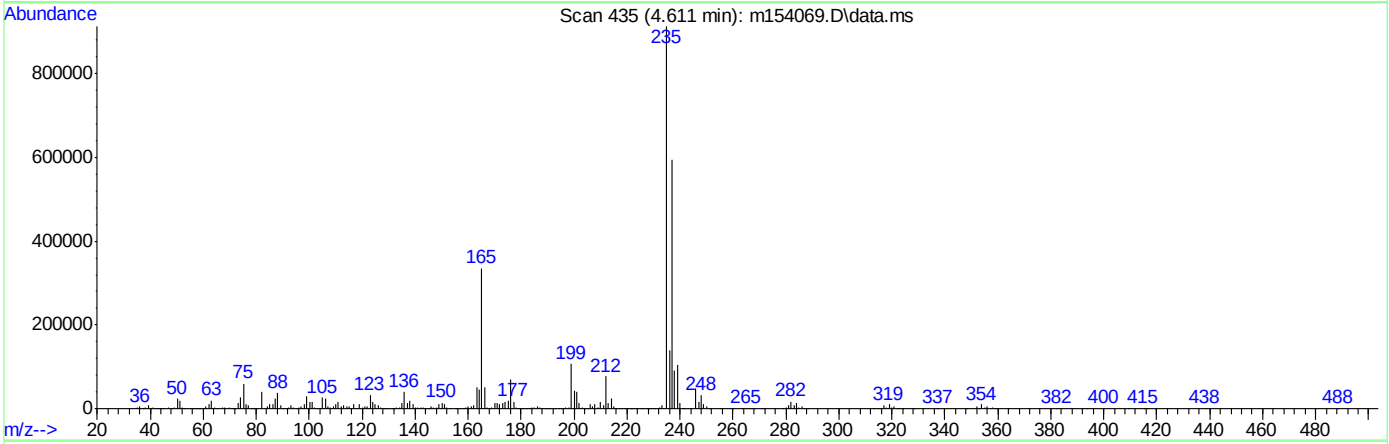
Ion	Exp%	Act%
184.05	100	100
92.05	8.10	9.08
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EM6583\
Data File : m154069.D
Acq On : 5 May 2019 9:44 pm
Operator : carolb
Sample : DFTPP
Misc : op17006,em6583,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 05 21:50:17 2019
Quant Method : C:\MSDCHEM\1\METHODS\DFTPPM.M
Quant Title : Semi Volatile Extractables by GC/MS rxi-5silms 30mSat May 04 11:03:10 2019
QLast Update : Sat May 04 11:03:10 2019
Response via : Continuing Cal File:





TIC: m154069.D\data.ms

(3) PP-DDT (MC)

4.611min (-0.000) 0.00ppm

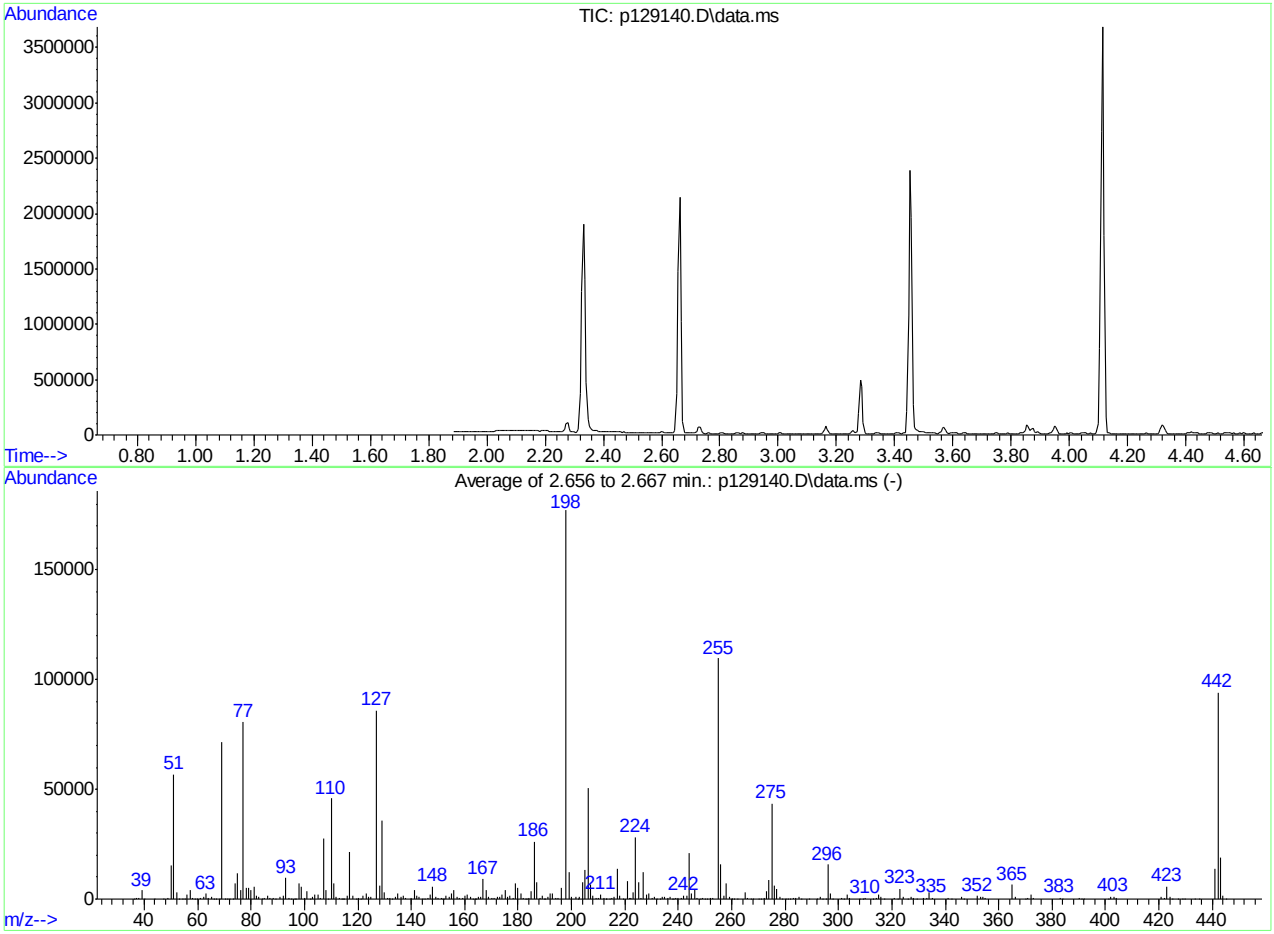
response 638058

Ion	Exp%	Act%
235.00	100	100
165.00	34.90	36.76
237.00	66.20	65.19
0.00	0.00	0.00

DFTPP

Data File : C:\msdchem\1\DATA\EP5844\p129140.D Vial: 1
Acq On : 23 Apr 2019 10:58 pm Operator: chriss2
Sample : dftpp Inst : MSVOAMSP
Misc : op13894,ep5844,1000,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\DFTPPP.M (RTE Integrator)
Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um



AutoFind: Scans 145, 146, 147; Background Corrected with Scan 140

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	32.1	56915	PASS
68	69	0.00	2	0.3	179	PASS
69	198	0.00	100	40.4	71554	PASS
70	69	0.00	2	0.1	52	PASS
127	198	40	60	48.5	85866	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	177125	PASS
199	198	5	9	7.0	12424	PASS
275	198	10	30	24.5	43450	PASS
365	198	1	100	3.7	6536	PASS
441	443	0.10	100	72.9	13691	PASS
442	198	40	100	53.1	94040	PASS
443	442	17	23	20.0	18788	PASS

p129140.D DFTPPP.M Wed Apr 24 10:08:37 2019 ACLIMS

Average of 2.656 to 2.667 min.: p129140.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.05	118	53.00	49	64.05	451	75.05	11848
37.10	289	54.15	151	65.10	1232	76.10	4127
38.05	574	55.00	202	66.20	193	77.05	80600
39.05	3880	56.05	1900	67.00	36	78.10	5083
40.00	18	57.05	3941	68.10	179	79.00	4885
44.00	169	58.00	300	69.00	71554	80.00	4016
47.00	56	59.10	55	70.10	52	81.05	5436
49.00	292	59.90	58	70.90	90	82.00	1393
50.10	15375	61.10	757	71.90	66	83.05	1170
51.05	56915	62.10	941	73.05	40	83.95	52
52.10	3027	63.10	2330	74.10	7092	85.00	753

Average of 2.656 to 2.667 min.: p129140.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
86.05	1737	98.00	7374	109.00	94	119.20	237
87.00	678	99.00	5477	110.00	45973	120.00	338
88.10	426	100.00	456	111.00	7145	121.10	122
89.00	151	101.00	3578	111.95	910	122.00	1645
91.00	1073	102.05	3	113.00	370	123.00	2577
92.05	1381	103.00	995	114.00	62	124.00	1282
93.05	9650	104.00	2001	114.30	55	125.00	1285
94.00	710	105.05	1927	114.95	21	127.00	85866
95.00	24	106.05	422	116.10	1331	128.05	6351
96.10	76	107.00	27826	117.00	21490	129.00	35544
96.60	59	108.05	3894	118.00	1397	130.00	3030

Average of 2.656 to 2.667 min.: p129140.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
130.95	593	142.95	788	153.00	1340	163.80	87
132.05	330	144.00	98	154.10	1032	164.10	95
133.00	209	145.05	230	155.10	2509	165.00	1158
134.05	1111	146.05	733	156.00	3938	166.00	1158
135.00	2571	147.10	2280	157.05	944	167.00	8974
136.00	1234	148.00	5868	157.95	616	168.00	4233
137.05	1398	149.00	1272	159.05	731	169.10	869
137.95	347	150.05	335	160.00	1467	170.05	342
140.00	444	151.10	756	161.00	2225	171.00	562
141.00	4222	151.70	164	162.05	802	172.10	831
142.00	1530	152.05	215	163.05	215	173.00	1129

Average of 2.656 to 2.667 min.: p129140.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
174.05	2103	184.00	658	194.05	677	206.10	50800
175.10	4198	185.05	3632	194.95	473	207.00	6844
176.05	1288	186.10	26305	196.00	5335	208.00	1560
177.00	1642	187.05	7857	198.00	177125	209.05	712
178.00	668	188.10	767	199.00	12424	210.15	527
179.00	7078	189.00	1675	200.00	1286	211.00	2083
180.00	5267	189.80	72	201.50	898	212.00	314
181.00	2355	190.05	205	202.30	72	212.90	74
182.05	447	191.05	952	203.05	1239	213.15	154
182.95	241	192.00	2528	204.05	7565	214.20	57
183.20	77	193.00	2817	205.05	13435	215.00	502

Average of 2.656 to 2.667 min.: p129140.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
216.00	1204	227.00	12483	237.80	57	248.05	196
217.00	13937	228.05	2143	238.00	65	249.05	696
218.05	1759	229.00	2659	239.00	592	250.00	242
219.10	234	230.00	395	240.05	474	250.95	190

221.05	8264	231.05	1195	241.00	733	251.95	308
221.80	444	232.00	253	242.10	1634	253.05	781
222.10	338	233.10	213	243.10	1593	255.00	109840
223.05	3296	234.10	792	244.10	21221	256.00	16072
224.10	28322	235.00	1049	245.05	2755	257.05	1433
225.10	7489	236.00	541	246.00	4531	258.00	7127
226.10	752	237.00	848	246.95	712	259.00	1265

Average of 2.656 to 2.667 min.: p129140.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
259.90	82	273.05	3640	284.00	446	301.05	305
260.10	67	274.00	8840	285.00	931	302.10	241
260.95	184	275.00	43450	286.00	52	303.05	2010
262.00	53	276.05	6106	288.95	207	304.10	417
265.05	2878	277.00	4725	292.05	171	308.05	231
265.95	434	278.00	899	293.05	1177	309.10	69
267.00	61	278.90	106	293.90	204	310.10	373
267.90	93	280.20	51	295.10	189	313.00	70
270.05	115	281.10	103	296.00	15809	314.05	728
271.05	267	282.00	166	297.00	2325	315.00	1823
272.05	465	283.05	580	298.00	105	316.05	958

Average of 2.656 to 2.667 min.: p129140.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
316.95	178	334.05	3048	366.05	924	402.05	1110
320.95	444	335.05	726	370.10	153	403.00	1156
322.00	185	341.05	442	371.00	414	404.05	383
323.05	4672	342.10	75	372.05	2209	421.00	1030
324.05	847	345.95	940	373.05	692	422.05	720
326.00	70	346.95	132	383.00	703	423.00	5804
327.00	1006	352.05	1402	384.05	250	424.00	1224
328.00	537	353.05	1166	390.05	281	425.00	70
329.30	60	354.05	1222	390.95	184	427.10	55
331.95	344	354.95	285	391.90	121	428.95	109
333.00	451	365.00	6536	400.95	151	429.50	54

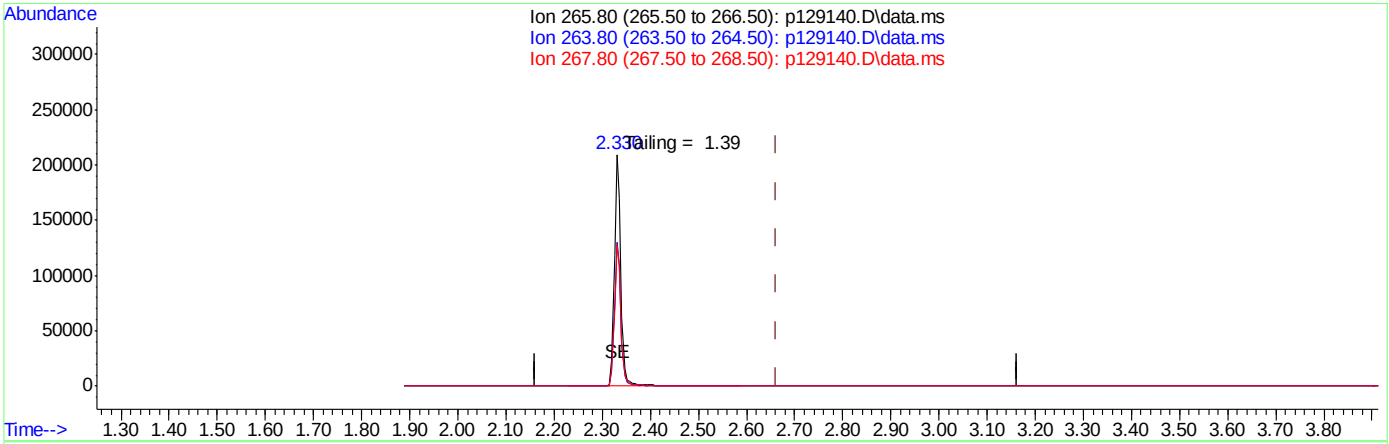
Average of 2.656 to 2.667 min.: p129140.D\data.ms
dftpp
Modified:subtracted

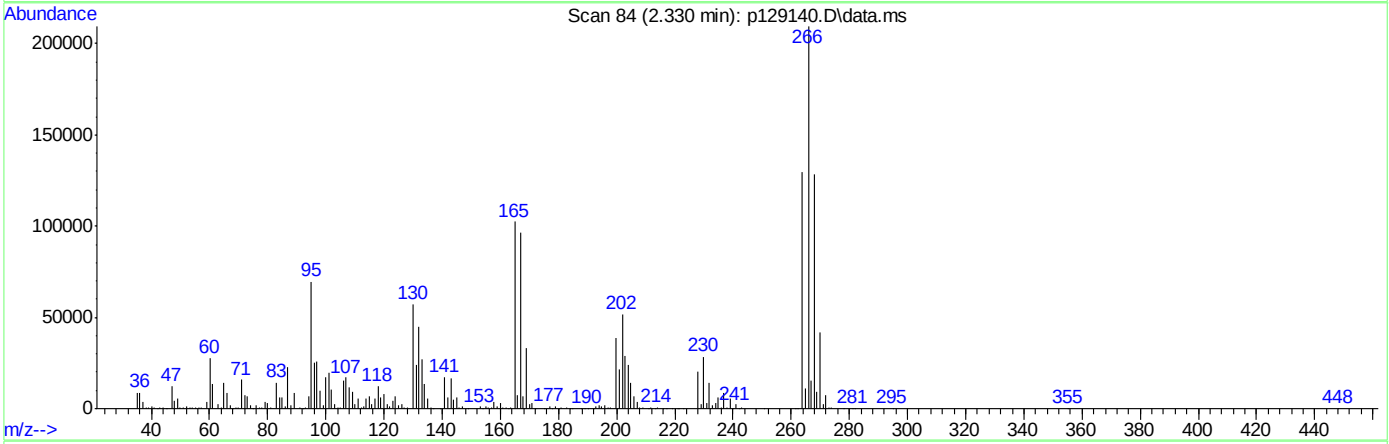
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
433.30	71						
435.00	89						
441.05	13691						
442.10	94040						
443.10	18788						
444.05	1688						
445.00	117						

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EP5844\
Data File : p129140.D
Acq On : 23 Apr 2019 10:58 pm
Operator : chriss2
Sample : dftpp
Misc : op13894,ep5844,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 23 23:04:41 2019
Quant Method : C:\MSDCHEM\1\METHODS\DFTPPP.M
Quant Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
QLast Update : Tue Dec 11 00:35:57 2018
Response via : Initial Calibration





TIC: p129140.D\data.ms

(1) Pentachlorophenol (t)

2.330min (-0.332) 159.05ppb m

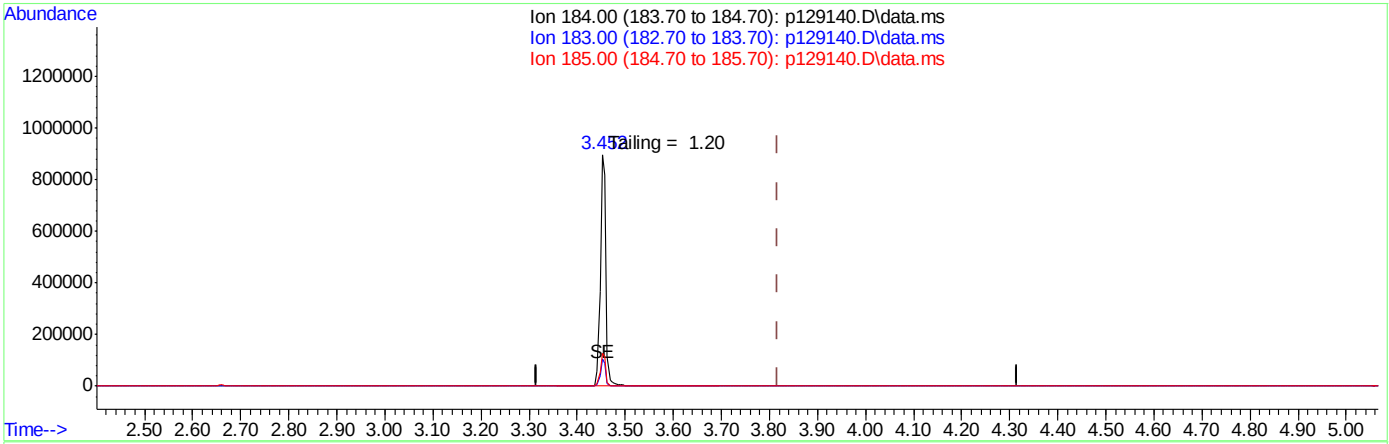
response 203495

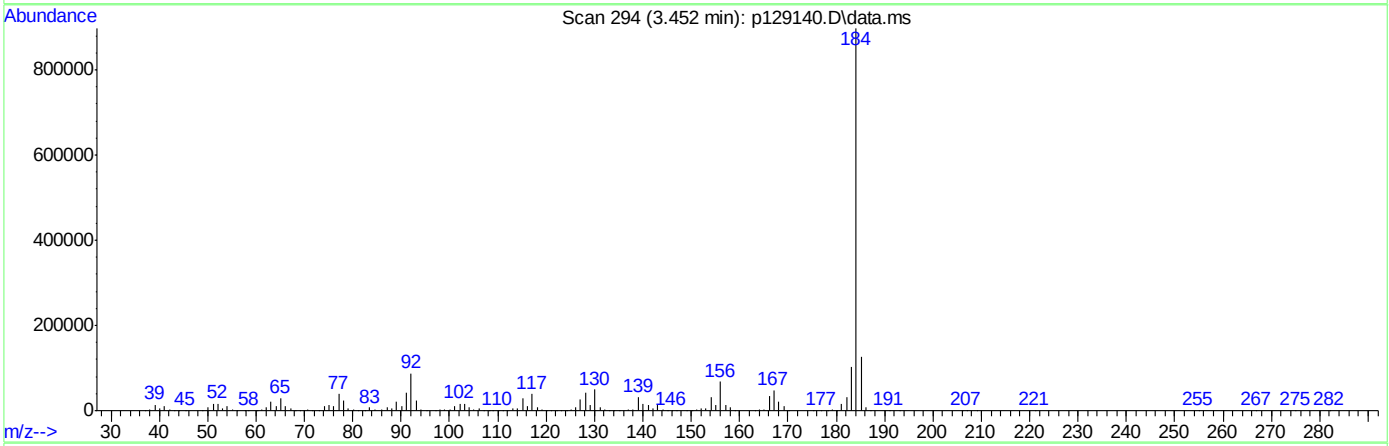
Ion	Exp%	Act%
265.80	100	100
263.80	63.90	61.95
267.80	66.90	61.19
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EP5844\
Data File : p129140.D
Acq On : 23 Apr 2019 10:58 pm
Operator : chriss2
Sample : dftpp
Misc : op13894,ep5844,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 23 23:04:41 2019
Quant Method : C:\MSDCHEM\1\METHODS\DFTPPP.M
Quant Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
QLast Update : Tue Dec 11 00:35:57 2018
Response via : Initial Calibration





TIC: p129140.D\data.ms

(2) Benzidine (t)

3.452min (-0.364) 46.08ppb m

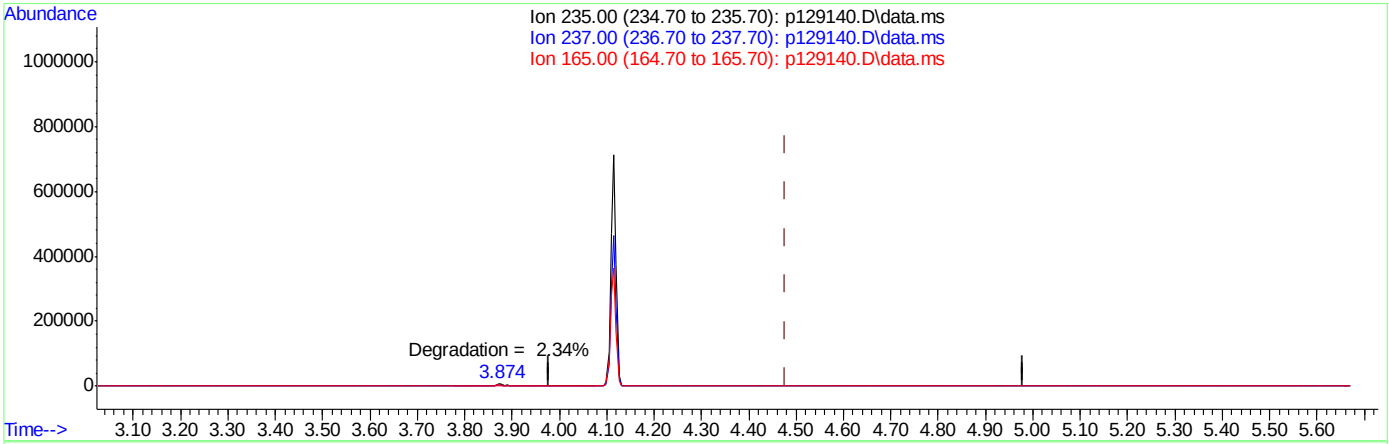
response 761757

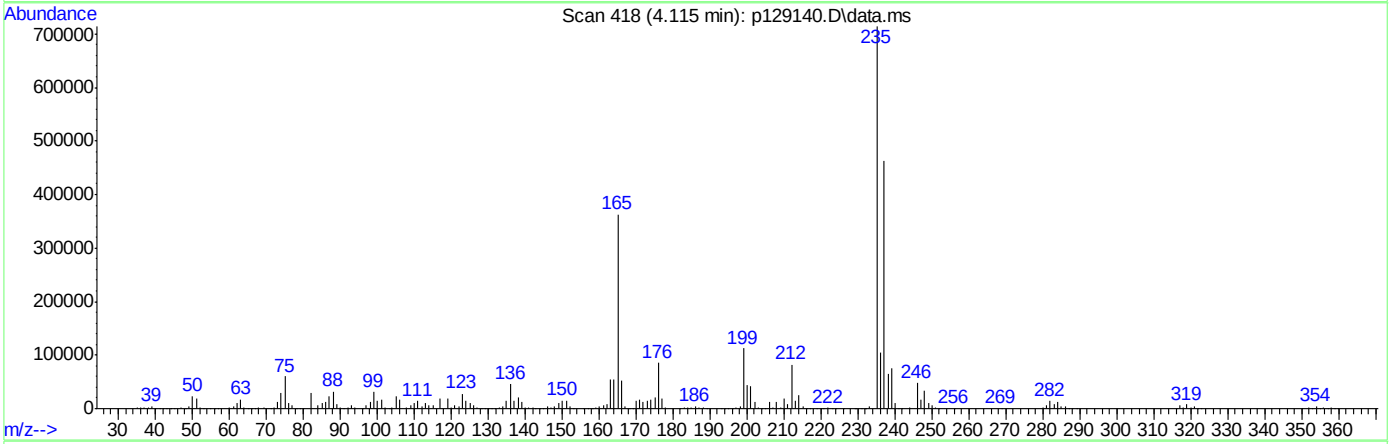
Ion	Exp%	Act%
184.00	100	100
183.00	11.70	0.00
185.00	14.30	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EP5844\
Data File : p129140.D
Acq On : 23 Apr 2019 10:58 pm
Operator : chriss2
Sample : dftpp
Misc : op13894,ep5844,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 23 23:04:41 2019
Quant Method : C:\MSDCHEM\1\METHODS\DFTPPP.M
Quant Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
QLast Update : Tue Dec 11 00:35:57 2018
Response via : Initial Calibration





TIC: p129140.D\data.ms

(3) ddt

4.115min (-0.364) 74.14ppb m

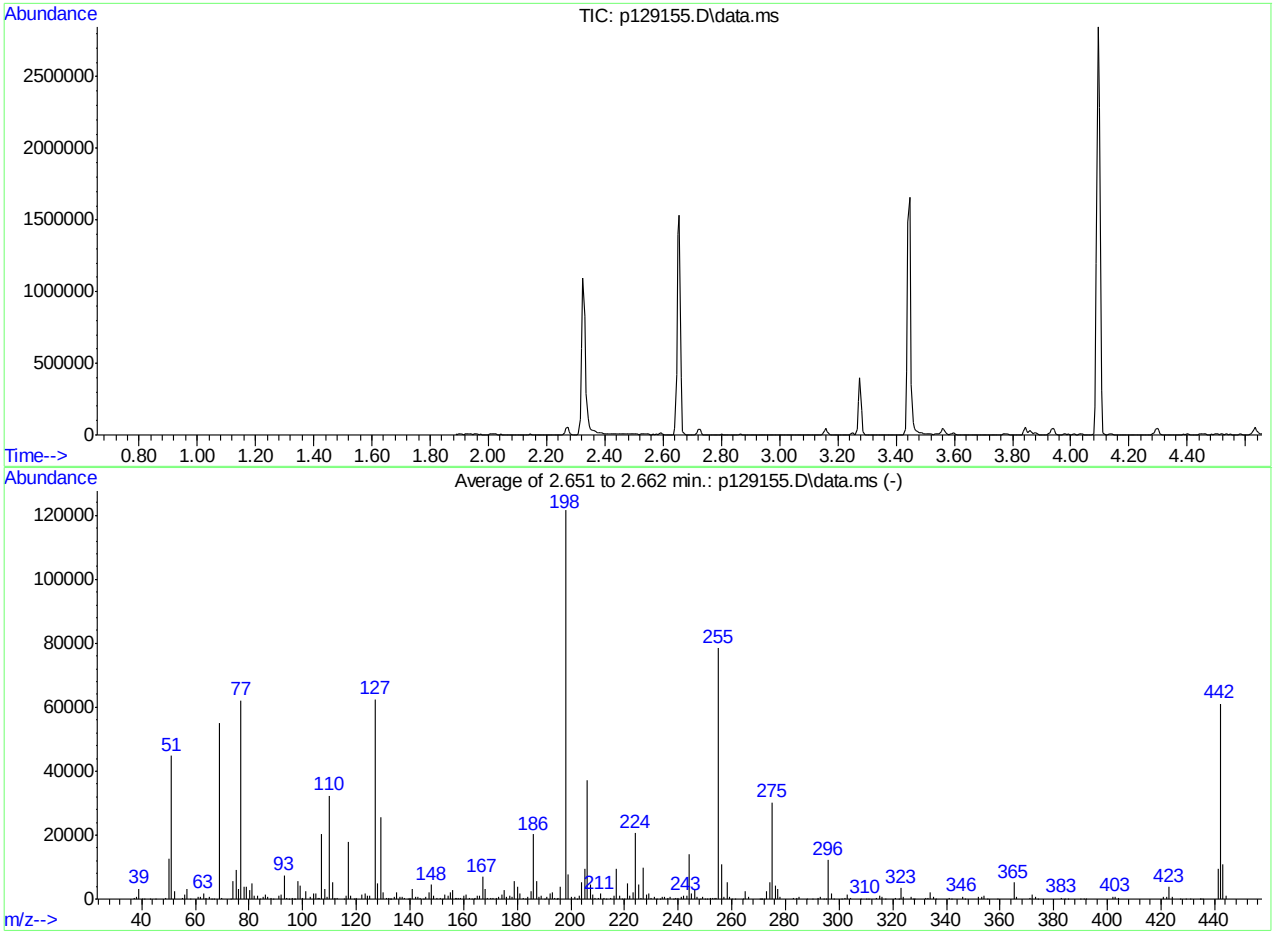
response 549755

Ion	Exp%	Act%
235.00	100	100
237.00	64.10	0.00#
165.00	38.80	0.00#
0.00	0.00	0.00

DFTPP

Data File : C:\msdchem\1\DATA\EP5844\p129155.D Vial: 1
Acq On : 24 Apr 2019 8:17 am Operator: chriss2
Sample : dftpp Inst : MSVOAMSP
Misc : op13894,ep5845,1000,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\DFTPPP.M (RTE Integrator)
Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um



AutoFind: Scans 144, 145, 146; Background Corrected with Scan 139

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	36.9	44871	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	45.3	55085	PASS
70	69	0.00	2	0.4	231	PASS
127	198	40	60	51.4	62498	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	121520	PASS
199	198	5	9	6.2	7568	PASS
275	198	10	30	24.9	30287	PASS
365	198	1	100	4.3	5190	PASS
441	443	0.10	100	86.3	9479	PASS
442	198	40	100	50.2	61008	PASS
443	442	17	23	18.0	10978	PASS

p129155.D DFTPPP.M Wed Apr 24 13:03:40 2019 ACLIMS

Average of 2.651 to 2.662 min.: p129155.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
37.05	221	55.10	516	69.00	55085	82.05	1023
38.05	629	56.10	1454	70.00	231	83.05	1029
39.10	3221	57.05	3305	73.10	121	84.10	83
40.10	141	58.00	123	74.10	5633	85.10	856
41.15	118	61.05	564	75.10	8968	86.10	1336
42.90	74	62.05	549	76.15	2992	87.05	618
45.10	54	63.10	1934	77.10	62161	88.10	229
49.05	399	64.10	255	78.10	3969	89.05	145
50.10	12541	65.10	707	79.10	3833	91.05	1096
51.10	44871	66.00	94	80.10	2929	92.10	1281
52.10	2459	67.00	126	81.10	4868	93.10	7488

Average of 2.651 to 2.662 min.: p129155.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
94.05	497	105.10	1613	116.05	966	129.10	25695
95.00	92	105.95	319	117.05	17947	130.00	2109
96.05	403	106.20	343	118.05	1138	131.05	478
96.90	72	107.10	20410	119.05	153	132.00	264
97.10	78	108.10	3075	120.05	281	132.60	62
98.10	5724	109.00	595	122.10	1292	132.90	56
99.10	4269	110.05	32347	123.10	1849	134.05	768
100.05	457	111.05	5140	124.00	906	135.00	2103
101.05	2535	112.05	505	125.05	960	136.10	856
103.00	862	113.00	257	127.10	62498	137.05	839
104.05	1647	115.20	59	128.10	5078	138.00	258

Average of 2.651 to 2.662 min.: p129155.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
139.05	151	150.10	241	160.00	1003	170.05	279
140.10	324	151.10	502	161.10	1544	171.00	309
141.00	3212	152.00	115	162.05	464	172.00	527
142.05	834	153.10	1273	163.05	136	173.05	857
143.00	649	154.05	896	163.90	85	174.10	1262
143.95	258	155.05	2085	164.15	189	175.10	2799
144.95	128	156.10	2839	164.95	1028	176.05	872
146.00	591	157.00	327	166.10	1090	177.05	1189
147.00	2004	157.15	302	167.10	6906	178.05	551
148.05	4456	158.00	432	168.05	3322	179.00	5476
149.00	949	159.00	473	169.05	477	180.05	3929

Average of 2.651 to 2.662 min.: p129155.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
181.10	1912	192.10	1701	203.05	976	215.00	421
182.15	329	193.05	2195	204.10	5256	216.05	930
183.00	150	193.95	296	205.10	9527	217.00	9581
184.00	608	194.60	68	206.10	37218	218.00	1097
185.10	2552	195.00	284	207.10	4675	219.10	70
186.10	20278	196.10	3729	208.05	1339	219.90	67
187.10	5574	198.00	121520	209.00	536	221.00	5010
188.05	669	199.00	7568	210.05	488	222.00	1200
189.00	1179	200.05	801	211.00	1625	223.05	2053
190.05	138	201.55	837	212.15	256	224.10	20603
191.00	622	202.10	111	213.10	109	225.10	4671

Average of 2.651 to 2.662 min.: p129155.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
226.10	405	237.05	648	248.05	132	258.10	5329
227.05	9697	238.10	99	249.05	613	259.05	698
228.00	1355	239.00	318	249.90	111	260.10	88
229.00	1813	240.05	208	250.95	176	261.00	113

230.00	304	241.10	553	252.10	244	264.10	124
231.05	631	242.10	1120	253.00	418	265.10	2494
231.90	59	243.10	1178	253.70	217	266.05	652
233.10	124	244.10	13997	254.00	423	270.20	68
234.05	642	245.10	1602	255.10	78381	270.95	166
235.00	733	246.00	3207	256.10	10849	271.40	74
235.95	471	247.00	856	257.05	860	271.95	176

Average of 2.651 to 2.662 min.: p129155.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
273.10	2490	292.00	208	307.90	123	327.00	571
274.05	5415	293.05	794	310.05	162	327.80	106
275.10	30287	294.10	170	311.00	79	328.10	183
276.05	4167	294.90	89	314.05	533	332.05	273
277.05	3032	296.05	12248	315.00	1156	333.10	336
278.05	571	297.05	1795	315.95	652	334.10	2110
283.10	429	297.90	83	317.10	68	335.05	582
284.05	242	300.90	121	321.05	386	336.00	57
285.10	673	302.05	238	322.10	149	341.05	407
287.90	54	303.10	1350	323.10	3350	342.00	69
290.10	70	304.05	419	324.05	618	346.00	850

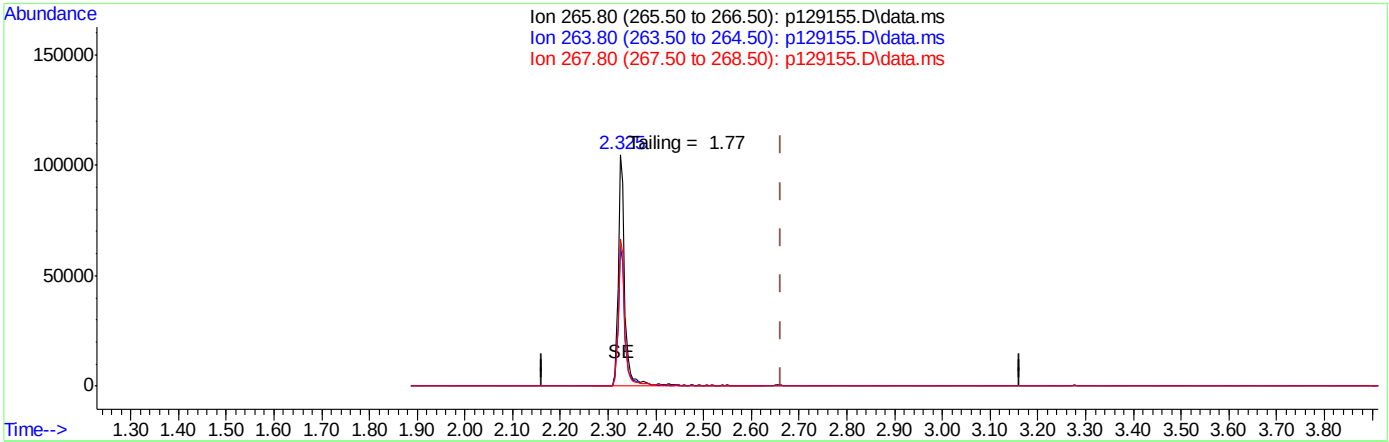
Average of 2.651 to 2.662 min.: p129155.D\data.ms
dftpp
Modified:subtracted

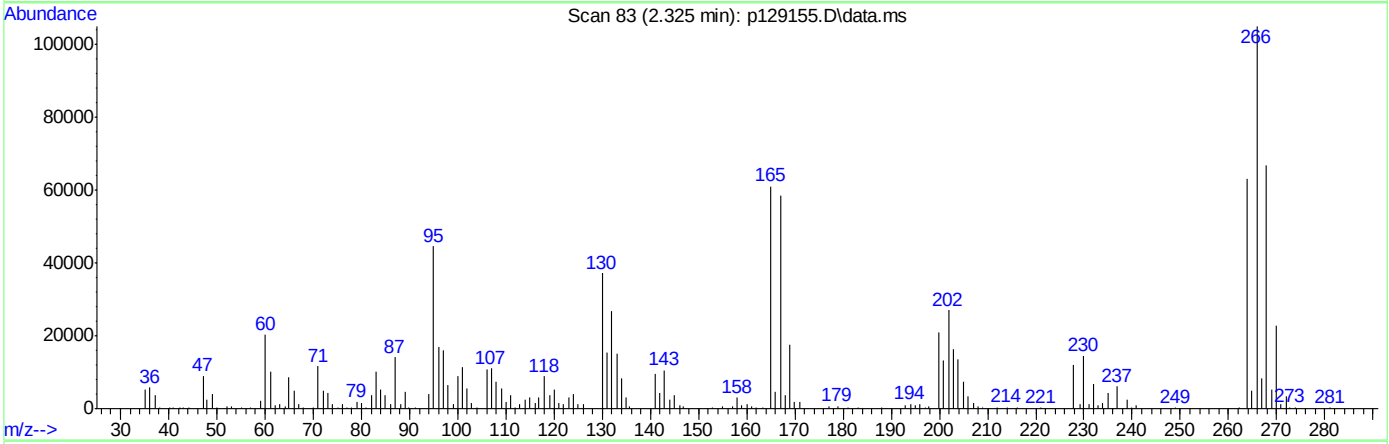
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
346.90	67	374.00	64	422.05	583	443.10	10978
352.05	804	383.00	454	423.05	3782	444.05	1221
353.05	707	384.00	67	424.10	699		
354.05	990	385.10	55	427.10	58		
355.10	85	389.95	173	429.00	88		
359.10	62	391.10	118	430.80	50		
365.05	5190	392.10	89	434.40	54		
366.00	854	402.05	717	434.70	50		
371.05	213	403.00	793	435.60	70		
372.00	1407	404.05	358	441.10	9479		
373.10	580	421.00	567	442.10	61008		

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EP5844\
Data File : p129155.D
Acq On : 24 Apr 2019 8:17 am
Operator : chriss2
Sample : dftpp
Misc : op13894,ep5845,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 24 08:23:21 2019
Quant Method : C:\MSDCHEM\1\METHODS\DFTPPP.M
Quant Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
QLast Update : Tue Dec 11 00:35:57 2018
Response via : Initial Calibration





TIC: p129155.D\data.ms

(1) Pentachlorophenol (t)

2.325min (-0.338) 85.77ppb m

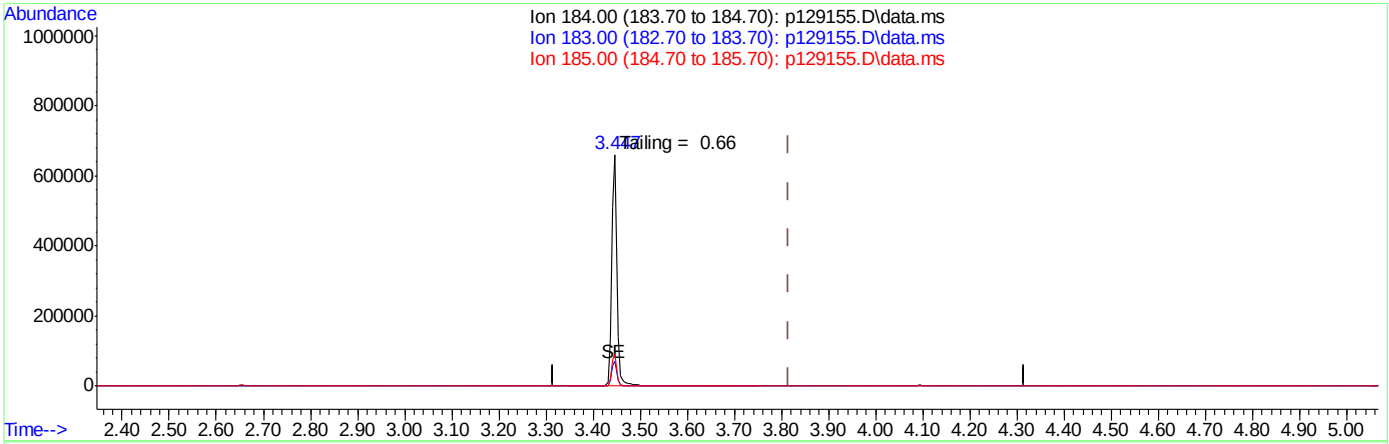
response 109739

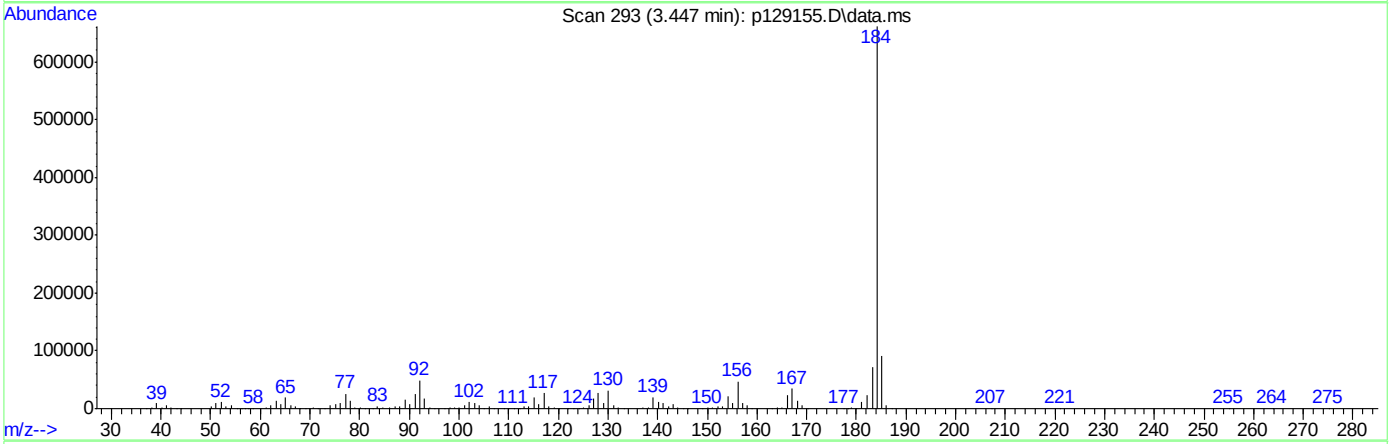
Ion	Exp%	Act%
265.80	100	100
263.80	63.90	60.00
267.80	66.90	63.53
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EP5844\
Data File : p129155.D
Acq On : 24 Apr 2019 8:17 am
Operator : chriss2
Sample : dftpp
Misc : op13894,ep5845,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 24 08:23:21 2019
Quant Method : C:\MSDCHEM\1\METHODS\DFTPPP.M
Quant Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
QLast Update : Tue Dec 11 00:35:57 2018
Response via : Initial Calibration





TIC: p129155.D\data.ms

(2) Benzidine (t)

3.447min (-0.370) 30.57ppb m

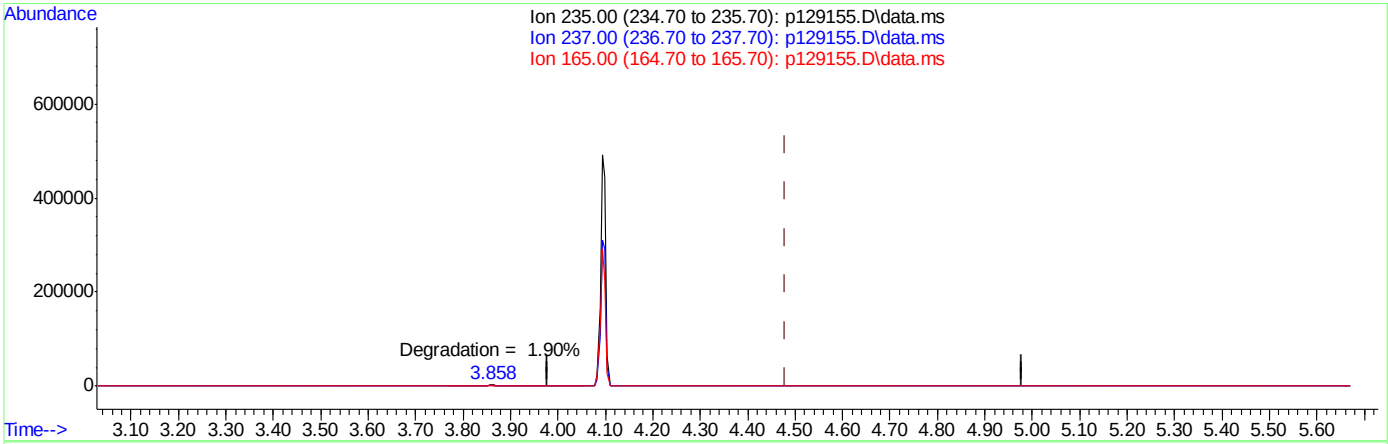
response 505348

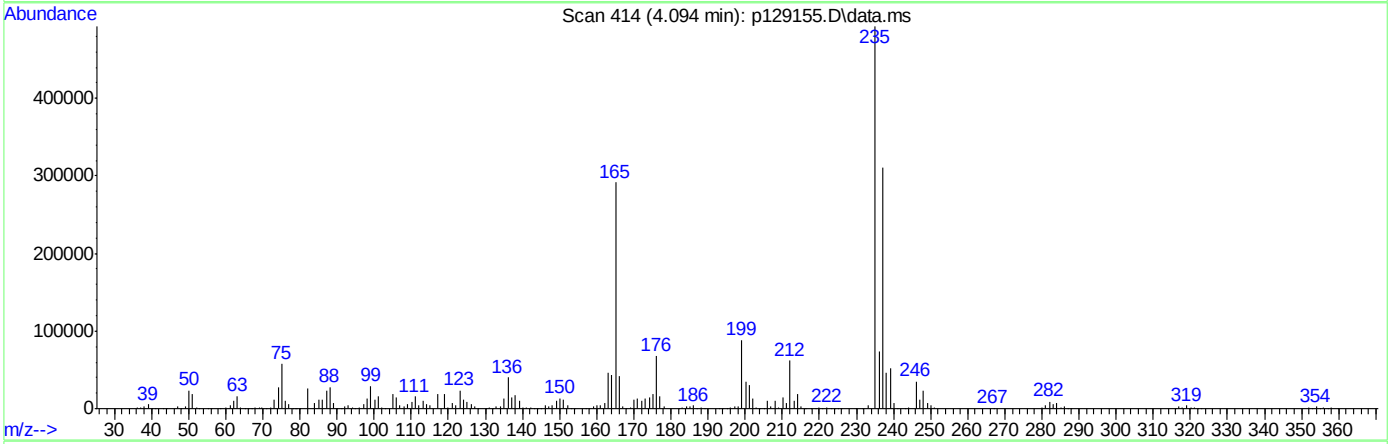
Ion	Exp%	Act%
184.00	100	100
183.00	11.70	0.00
185.00	14.30	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EP5844\
Data File : p129155.D
Acq On : 24 Apr 2019 8:17 am
Operator : chriss2
Sample : dftpp
Misc : op13894,ep5845,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 24 08:23:21 2019
Quant Method : C:\MSDCHEM\1\METHODS\DFTPPP.M
Quant Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
QLast Update : Tue Dec 11 00:35:57 2018
Response via : Initial Calibration





TIC: p129155.D\data.ms

(3) ddt

4.094min (-0.386) 51.78ppb m

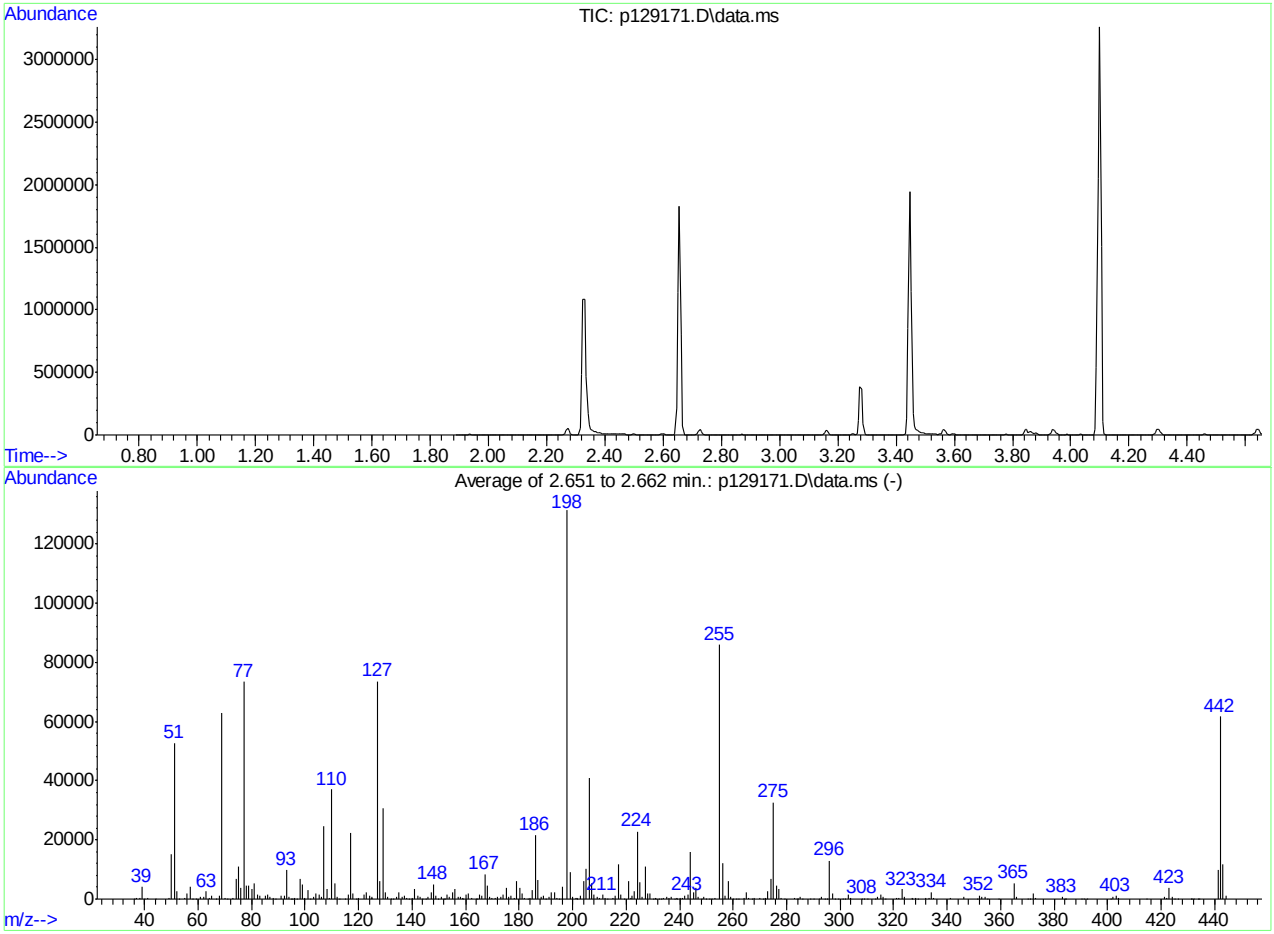
response 383904

Ion	Exp%	Act%
235.00	100	100
237.00	64.10	0.00#
165.00	38.80	0.00#
0.00	0.00	0.00

DFTPP

Data File : C:\msdchem\1\DATA\EP5844\p129171.D Vial: 1
Acq On : 24 Apr 2019 3:00 pm Operator: chriss2
Sample : dftpp Inst : MSVOAMSP
Misc : op13894,ep5846,1000,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\DFTPPP.M (RTE Integrator)
Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um



AutoFind: Scans 144, 145, 146; Background Corrected with Scan 139

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	40.1	52650	PASS
68	69	0.00	2	1.8	1163	PASS
69	198	0.00	100	47.9	62917	PASS
70	69	0.00	2	0.5	336	PASS
127	198	40	60	56.0	73506	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	131282	PASS
199	198	5	9	7.0	9203	PASS
275	198	10	30	25.0	32757	PASS
365	198	1	100	4.1	5447	PASS
441	443	0.10	100	83.0	9758	PASS
442	198	40	100	46.9	61629	PASS
443	442	17	23	19.1	11757	PASS

p129171.D DFTPPP.M Thu Apr 25 07:51:18 2019 ACLIMS

Average of 2.651 to 2.662 min.: p129171.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	50	53.00	76	66.90	58	79.05	4498
37.10	212	55.10	385	68.10	1163	80.05	3561
38.10	535	56.05	1732	69.05	62917	81.10	5396
39.10	4029	57.10	4174	70.10	336	82.05	1351
40.05	151	58.00	134	71.00	52	83.10	1204
41.10	272	59.00	56	73.15	578	85.05	998
44.10	98	61.05	596	74.10	6681	86.10	1609
49.10	476	62.05	947	75.10	11145	87.05	737
50.10	15079	63.10	2525	76.10	3632	88.15	317
51.10	52650	64.10	274	77.10	73296	88.90	125
52.10	2600	65.10	1217	78.10	4724	91.10	1115

Average of 2.651 to 2.662 min.: p129171.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
92.10	1188	102.00	95	112.95	194	125.10	714
93.05	9751	103.00	915	115.00	51	127.10	73506
94.10	617	104.00	1885	116.05	1406	128.10	5922
95.00	196	105.10	1670	117.10	22356	129.05	30704
95.20	68	106.10	684	118.00	1785	130.05	2456
96.05	391	107.10	24615	119.05	166	131.00	605
96.95	189	108.10	3449	120.00	335	131.95	172
98.10	6886	109.10	328	122.05	1348	133.00	68
99.05	4790	110.05	37048	123.05	2334	134.05	888
100.05	443	111.10	5349	124.00	1037	135.00	2440
101.05	3189	112.05	681	124.90	292	136.10	918

Average of 2.651 to 2.662 min.: p129171.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
137.10	1324	148.00	5024	158.05	642	168.05	4539
138.00	243	149.05	994	158.80	126	169.10	639
138.80	62	149.90	127	159.05	370	169.95	310
140.00	305	151.10	586	160.10	1381	171.00	411
141.00	3612	151.75	138	161.05	1787	172.00	654
142.10	985	152.05	158	162.10	535	173.05	813
143.00	878	153.10	1398	164.00	104	174.05	1627
144.00	159	154.05	723	164.20	90	175.10	3656
145.05	170	155.05	2167	165.05	1403	176.05	863
146.00	734	156.10	3360	166.05	993	177.05	1171
147.10	2117	157.10	671	167.10	8420	178.00	459

Average of 2.651 to 2.662 min.: p129171.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
179.00	6018	190.05	201	201.55	435	212.05	409
180.10	3881	191.05	678	201.80	121	213.00	74
181.10	2087	192.05	2315	203.05	1289	214.95	485
182.10	240	193.10	2248	204.10	5948	216.10	1077
183.20	84	194.10	452	205.10	10125	217.00	11747
184.05	560	195.00	167	206.10	40781	218.00	1564
185.10	3038	196.00	4109	207.05	5161	219.10	160
186.10	21649	198.00	131282	208.05	1489	221.00	5916
187.10	6299	199.00	9203	209.10	709	221.80	404
188.05	625	200.05	655	210.15	314	222.10	1163
189.10	1135	201.20	488	211.10	1464	223.05	2600

Average of 2.651 to 2.662 min.: p129171.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
224.10	22805	234.00	480	244.10	16103	256.10	12293
225.10	5634	235.00	694	245.10	2201	257.05	1001
226.05	611	235.95	452	246.05	3756	258.10	6189
227.10	11139	237.05	780	247.00	748	259.00	903

228.05	1759	238.00	63	248.00	150	260.00	64
229.05	2051	238.90	141	248.95	610	261.05	198
229.95	177	239.10	342	250.00	141	262.00	60
230.90	192	240.00	287	251.00	70	263.95	295
231.05	498	241.05	440	252.10	115	265.05	2271
232.10	64	242.05	1058	253.00	545	265.90	216
233.00	160	243.10	1491	255.05	85872	267.20	56

Average of 2.651 to 2.662 min.: p129171.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
267.90	236	279.05	135	295.10	98	310.10	58
270.00	232	283.05	418	296.05	12949	313.00	71
271.00	94	283.90	70	297.05	1730	314.05	619
271.90	59	284.10	191	298.00	56	315.00	1533
272.15	238	285.05	621	299.10	63	316.10	692
273.00	2833	285.95	125	300.95	159	316.90	54
274.05	6737	289.00	123	301.95	172	321.00	267
275.10	32757	290.10	51	303.00	1452	322.05	271
276.05	4473	292.15	161	304.05	342	323.05	3292
277.10	3355	293.05	730	308.10	174	324.10	660
278.05	515	294.05	203	309.00	105	326.90	103

Average of 2.651 to 2.662 min.: p129171.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
327.05	458	353.00	665	384.00	62	422.10	559
328.10	457	354.05	752	384.20	66	423.00	3785
329.10	50	355.00	190	390.10	155	424.05	793
332.05	349	359.00	57	391.10	58	425.10	106
333.10	367	365.05	5447	392.10	51	426.40	70
334.10	2298	366.05	947	401.00	60	431.05	143
335.05	549	370.05	135	402.05	781	431.30	58
341.00	403	371.00	181	403.00	1018	432.10	80
346.00	769	372.10	1748	404.00	446	433.60	55
351.20	69	373.05	353	414.40	54	434.20	65
352.05	1267	383.05	629	421.00	765	441.10	9758

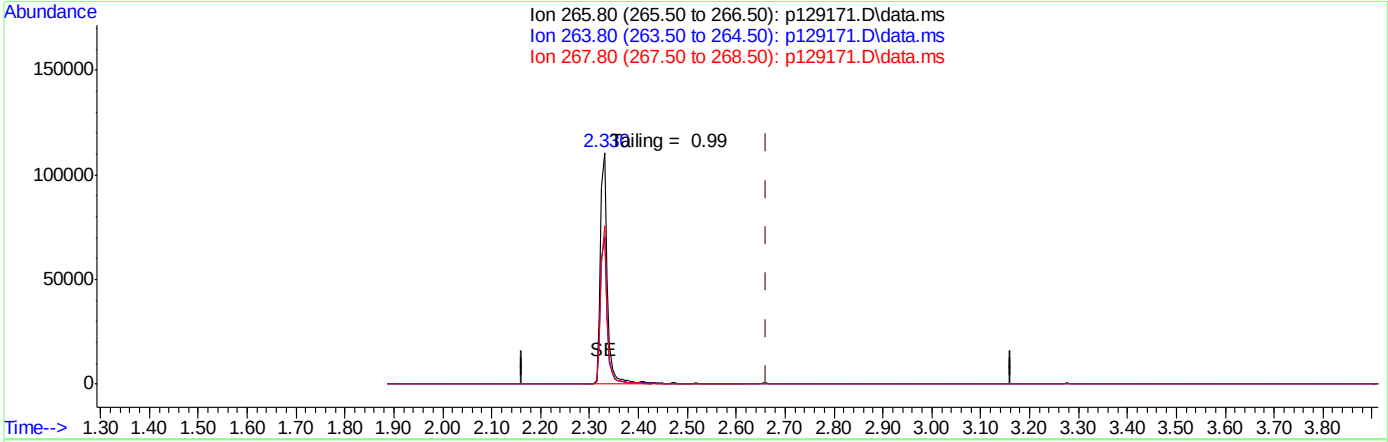
Average of 2.651 to 2.662 min.: p129171.D\data.ms
dftpp
Modified:subtracted

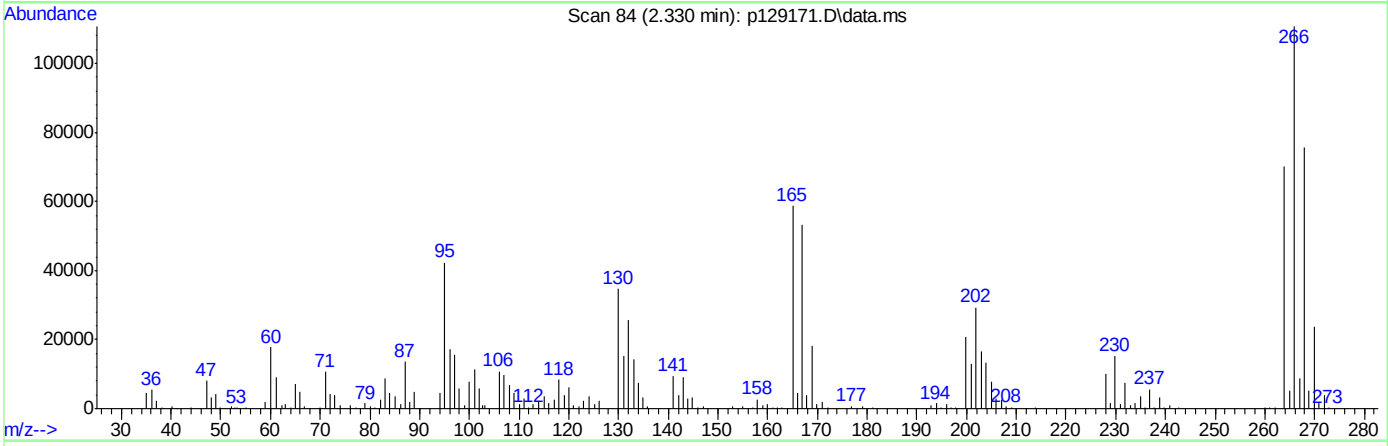
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
442.10	61629						
443.10	11757						
444.05	1183						

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EP5844\
Data File : p129171.D
Acq On : 24 Apr 2019 3:00 pm
Operator : chriss2
Sample : dftpp
Misc : op13894,ep5846,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 24 15:06:40 2019
Quant Method : C:\MSDCHEM\1\METHODS\DFTPPP.M
Quant Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
QLast Update : Tue Dec 11 00:35:57 2018
Response via : Initial Calibration





TIC: p129171.D\data.ms

(1) Pentachlorophenol (t)

2.330min (-0.333) 86.41ppb m

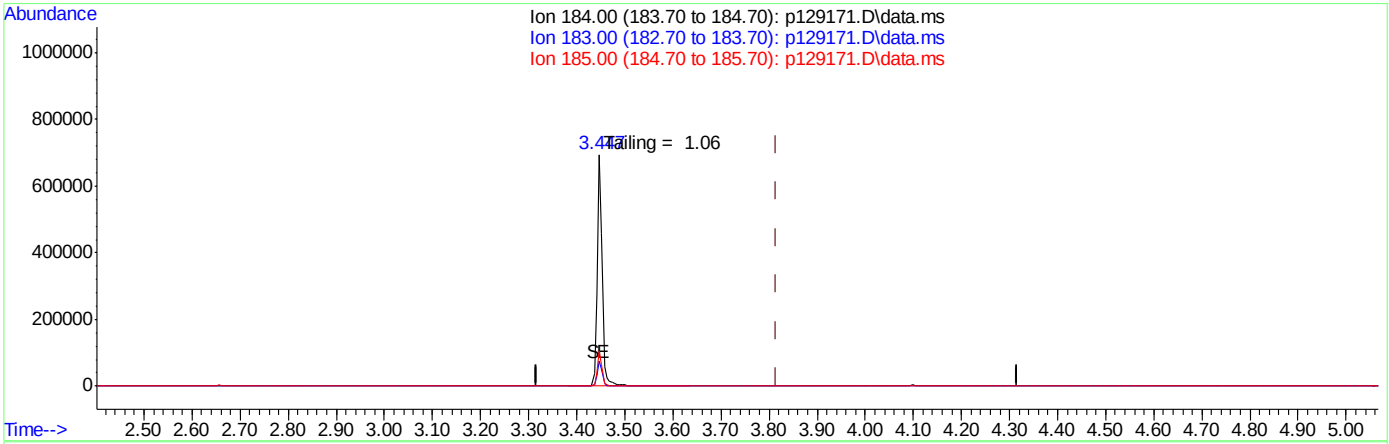
response 110554

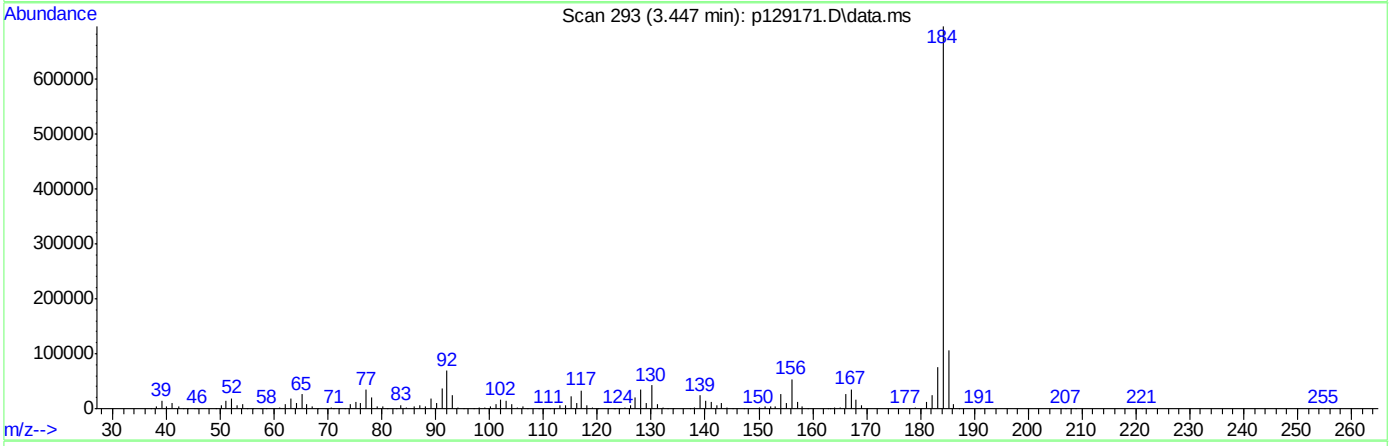
Ion	Exp%	Act%
265.80	100	100
263.80	63.90	63.33
267.80	66.90	68.45
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EP5844\
Data File : p129171.D
Acq On : 24 Apr 2019 3:00 pm
Operator : chriss2
Sample : dftpp
Misc : op13894,ep5846,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 24 15:06:40 2019
Quant Method : C:\MSDCHEM\1\METHODS\DFTPPP.M
Quant Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
QLast Update : Tue Dec 11 00:35:57 2018
Response via : Initial Calibration





TIC: p129171.D\data.ms

(2) Benzidine (t)

3.447min (-0.370) 31.77ppb m

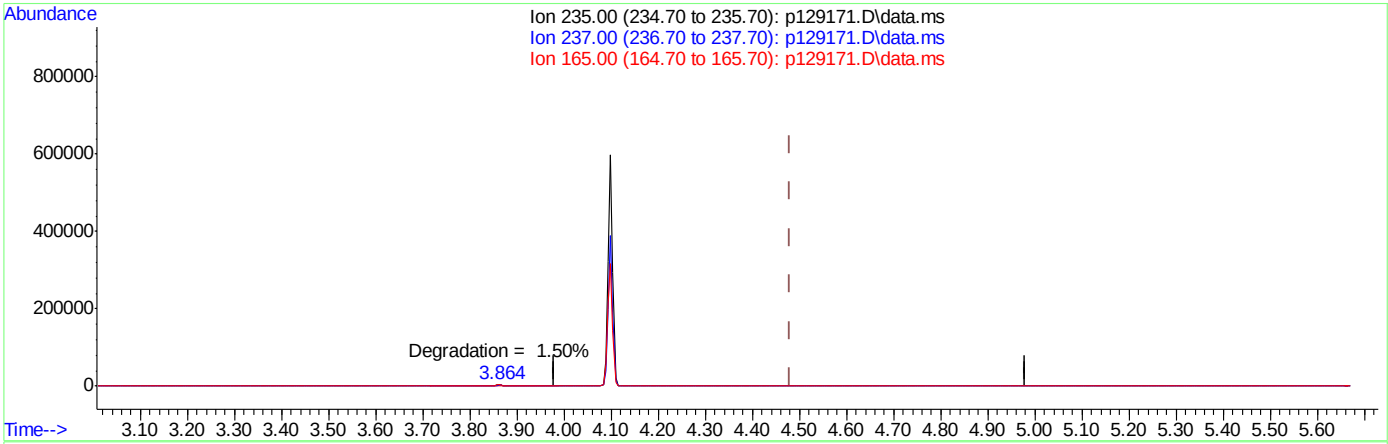
response 525148

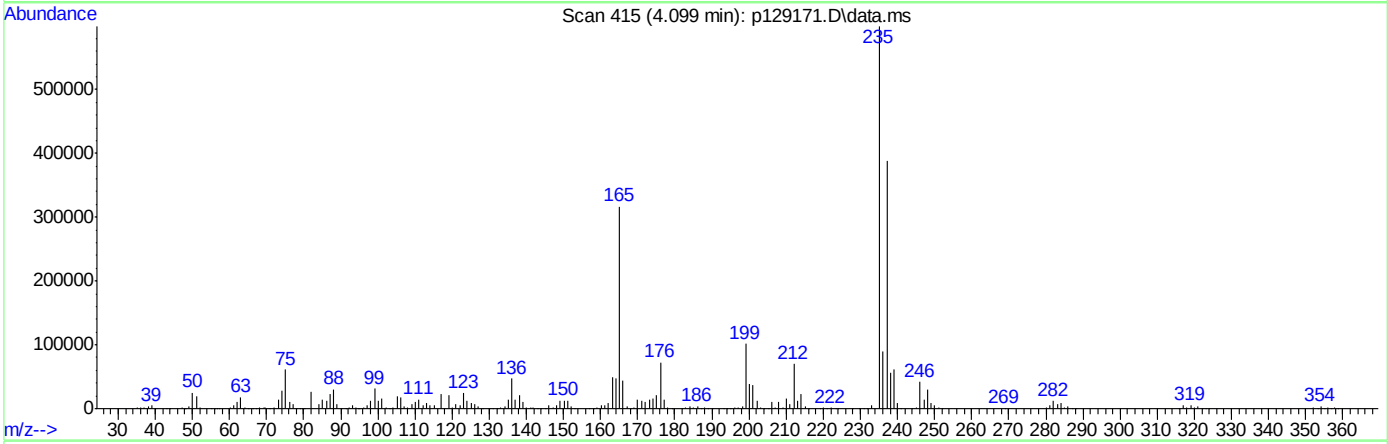
Ion	Exp%	Act%
184.00	100	100
183.00	11.70	0.00
185.00	14.30	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EP5844\
Data File : p129171.D
Acq On : 24 Apr 2019 3:00 pm
Operator : chriss2
Sample : dftpp
Misc : op13894,ep5846,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Apr 24 15:06:40 2019
Quant Method : C:\MSDCHEM\1\METHODS\DFTPPP.M
Quant Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
QLast Update : Tue Dec 11 00:35:57 2018
Response via : Initial Calibration





TIC: p129171.D\data.ms

(3) ddt

4.099min (-0.381) 56.78ppb m

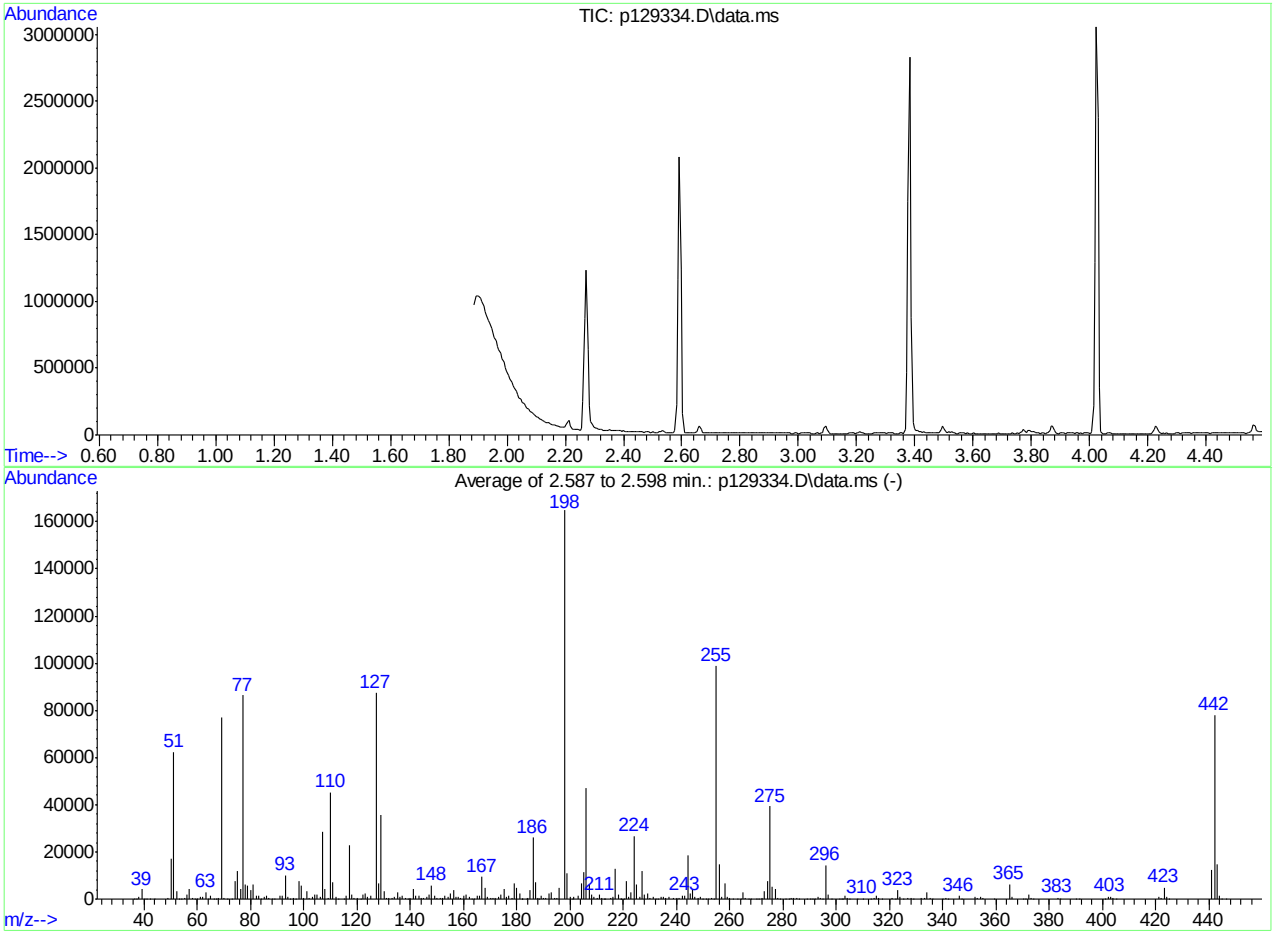
response 421040

Ion	Exp%	Act%
235.00	100	100
237.00	64.10	0.00#
165.00	38.80	0.00#
0.00	0.00	0.00

DFTPP

Data File : C:\msdchem\1\DATA\EP5854\p129334.D Vial: 1
Acq On : 6 May 2019 7:31 am Operator: chriss2
Sample : dftpp Inst : MSVOAMSP
Misc : op13894,ep5854,1000,,,1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\DFTPPP.M (RTE Integrator)
Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um



AutoFind: Scans 132, 133, 134; Background Corrected with Scan 127

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	37.8	62298	PASS
68	69	0.00	2	0.4	338	PASS
69	198	0.00	100	46.8	77098	PASS
70	69	0.00	2	0.8	592	PASS
127	198	40	60	53.0	87309	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	164773	PASS
199	198	5	9	6.8	11163	PASS
275	198	10	30	23.9	39346	PASS
365	198	1	100	3.8	6296	PASS
441	443	0.10	100	81.6	12164	PASS
442	198	40	100	47.3	77986	PASS
443	442	17	23	19.1	14916	PASS

p129334.D DFTPPP.M Mon May 06 09:50:42 2019 ACLIMS

Average of 2.587 to 2.598 min.: p129334.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.10	54	52.10	3221	63.05	2864	75.10	11813
37.05	210	53.10	58	64.10	218	76.10	4168
38.15	938	54.10	87	65.10	1344	77.05	86401
39.10	4263	55.10	316	66.00	133	78.05	6033
40.00	147	56.10	1721	67.05	193	79.00	5511
41.10	30	57.00	4106	68.05	338	80.00	4009
42.05	109	58.05	307	69.00	77098	81.00	6209
44.00	17	59.10	54	70.00	592	82.00	1277
49.05	328	59.80	53	71.05	114	83.00	1394
50.10	16889	61.05	780	73.05	175	84.00	24
51.10	62298	62.10	1044	74.10	7418	85.10	876

Average of 2.587 to 2.598 min.: p129334.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
86.00	1340	98.00	7471	109.10	404	121.15	120
87.00	716	99.00	5776	110.00	45349	122.00	1746
88.00	182	100.05	529	111.00	6939	123.00	2613
89.05	146	101.10	3529	112.05	922	123.95	995
91.00	1580	102.05	265	113.00	89	125.05	1228
92.05	1434	103.10	1163	114.90	98	127.05	87309
93.00	10089	104.00	1951	116.05	1464	128.05	6880
94.05	834	105.05	1913	117.00	22955	129.00	35517
94.95	56	106.05	735	118.10	1768	130.05	3172
96.00	643	107.00	28432	119.00	327	131.00	705
97.00	170	108.05	4503	119.95	381	132.00	381

Average of 2.587 to 2.598 min.: p129334.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
133.05	293	144.05	386	155.00	2608	166.05	1393
134.00	1073	145.05	338	156.10	3834	166.95	9338
135.05	2761	146.05	913	157.05	843	168.05	4589
136.05	861	147.00	1965	158.05	741	169.05	1031
137.05	1519	148.00	5725	158.95	600	170.05	309
138.05	282	148.95	1281	160.00	1221	171.00	406
139.10	193	150.05	298	161.05	2140	172.00	684
140.00	368	151.15	542	162.00	755	173.05	1098
141.00	4244	152.00	348	163.15	209	174.00	1863
142.05	1411	153.05	1380	164.05	168	175.10	4082
143.05	1295	154.00	864	164.95	1528	176.05	1054

Average of 2.587 to 2.598 min.: p129334.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
177.00	1399	187.05	7134	198.00	164773	209.05	777
178.10	683	188.00	615	199.00	11163	210.05	607
179.00	6661	188.20	229	200.05	1104	211.05	1871
180.05	4589	189.00	1586	200.80	82	212.05	359
181.05	2186	189.95	301	201.45	939	212.80	56
181.90	220	191.00	596	202.95	1356	213.00	162
182.10	131	192.05	2396	204.10	6844	215.05	590
183.50	51	193.05	2949	205.05	11505	216.00	1173
184.05	659	194.00	619	206.10	47242	217.00	13068
185.05	3726	195.10	356	207.05	6345	218.00	1702
186.10	26120	196.00	4905	208.10	1933	219.00	65

Average of 2.587 to 2.598 min.: p129334.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
219.20	50	230.00	469	242.00	1384	253.05	443
220.10	101	231.05	1145	243.05	1612	254.10	250
221.00	7411	232.00	138	244.10	18723	255.00	98789
222.00	1195	233.05	243	245.10	2446	256.00	14622

223.00	2861	234.00	810	246.00	4209	257.05	1056
224.10	26770	235.05	800	247.00	771	258.00	6719
225.05	6205	236.00	549	247.95	266	259.00	1061
226.05	787	236.95	776	249.05	824	260.05	335
227.00	12099	239.00	561	249.90	55	261.05	201
228.00	1763	240.05	257	251.00	235	262.90	55
229.05	2359	241.05	657	252.05	246	263.90	51

Average of 2.587 to 2.598 min.: p129334.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
265.00	3006	277.00	4073	291.00	68	303.05	1484
265.90	476	278.05	695	292.05	141	304.10	514
267.10	67	279.00	70	293.05	942	305.00	63
267.85	73	280.95	226	294.05	301	308.05	162
270.05	170	282.00	186	295.00	206	309.95	196
271.00	174	283.05	596	296.00	14356	312.95	160
272.05	427	284.00	380	297.00	1965	314.05	724
273.00	3208	285.05	700	298.00	100	315.00	1666
274.00	7758	286.00	97	301.00	155	316.00	623
275.05	39346	289.00	90	302.00	169	317.00	90
276.00	5041	290.00	196	302.20	86	321.00	524

Average of 2.587 to 2.598 min.: p129334.D\data.ms
dftpp
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
322.05	188	336.10	73	365.00	6296	401.00	85
323.10	4025	339.90	60	366.00	1045	402.05	869
324.05	781	341.05	488	370.00	105	403.00	1033
325.00	61	342.00	134	371.05	224	404.05	292
326.95	714	346.00	1212	372.10	2062	405.00	56
327.95	340	347.00	77	373.05	526	421.00	867
329.10	62	352.00	1053	373.80	60	421.95	664
332.05	355	353.00	680	383.05	576	423.10	4884
332.95	300	354.05	927	384.00	147	424.05	936
334.05	2659	355.05	328	390.05	164	425.05	103
335.05	671	359.10	51	391.10	193	441.10	12164

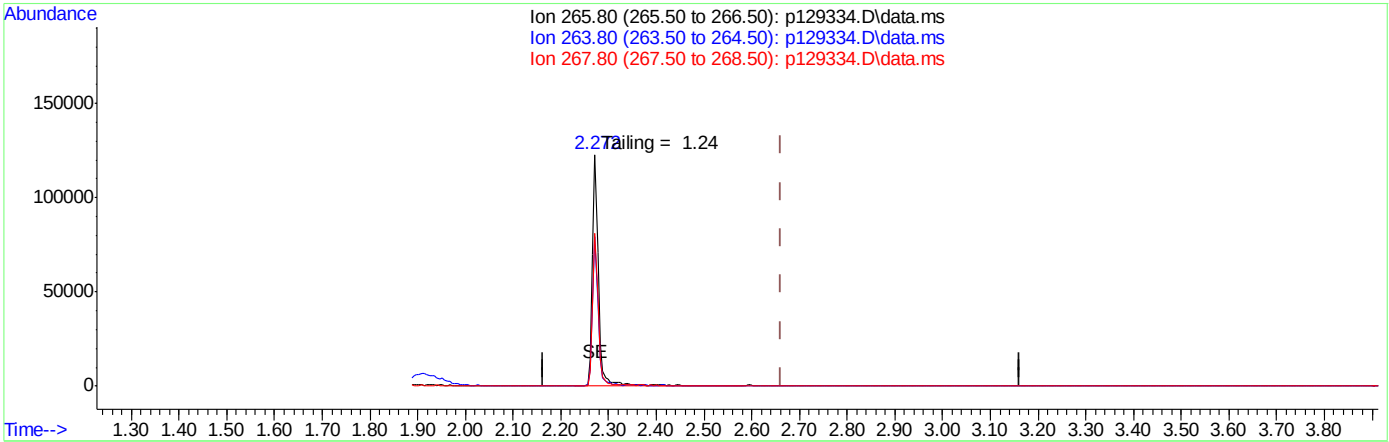
Average of 2.587 to 2.598 min.: p129334.D\data.ms
dftpp
Modified:subtracted

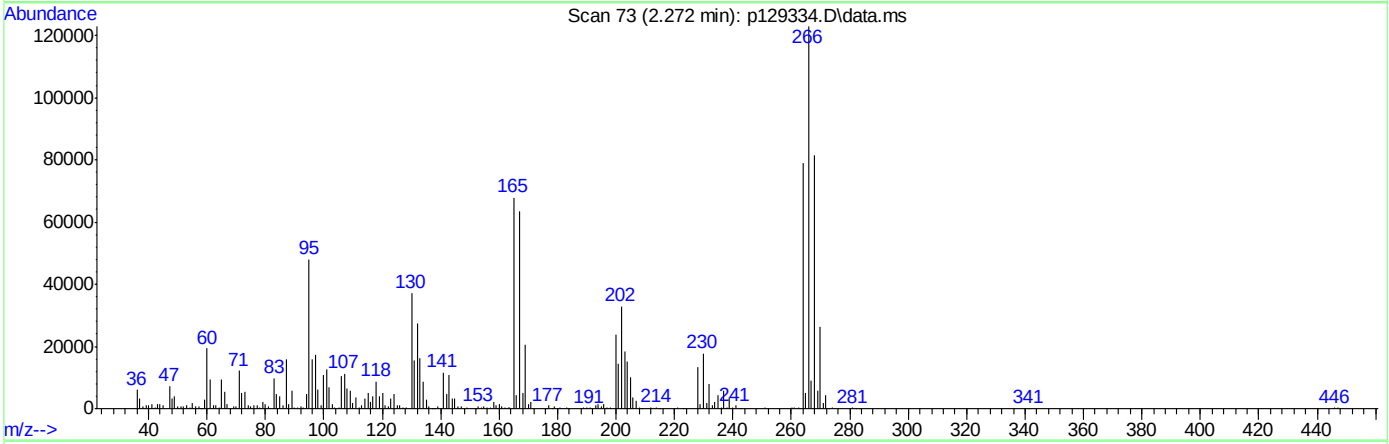
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
442.10	77986						
443.10	14916						
444.05	1496						
444.90	70						
446.25	122						

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EP5854\
Data File : p129334.D
Acq On : 6 May 2019 7:31 am
Operator : chriss2
Sample : dftpp
Misc : op13894,ep5854,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 06 07:36:43 2019
Quant Method : C:\MSDCHEM\1\METHODS\DFTPPP.M
Quant Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
QLast Update : Tue Dec 11 00:35:57 2018
Response via : Initial Calibration





TIC: p129334.D\data.ms

(1) Pentachlorophenol (t)

2.272min (-0.391) 89.57ppb m

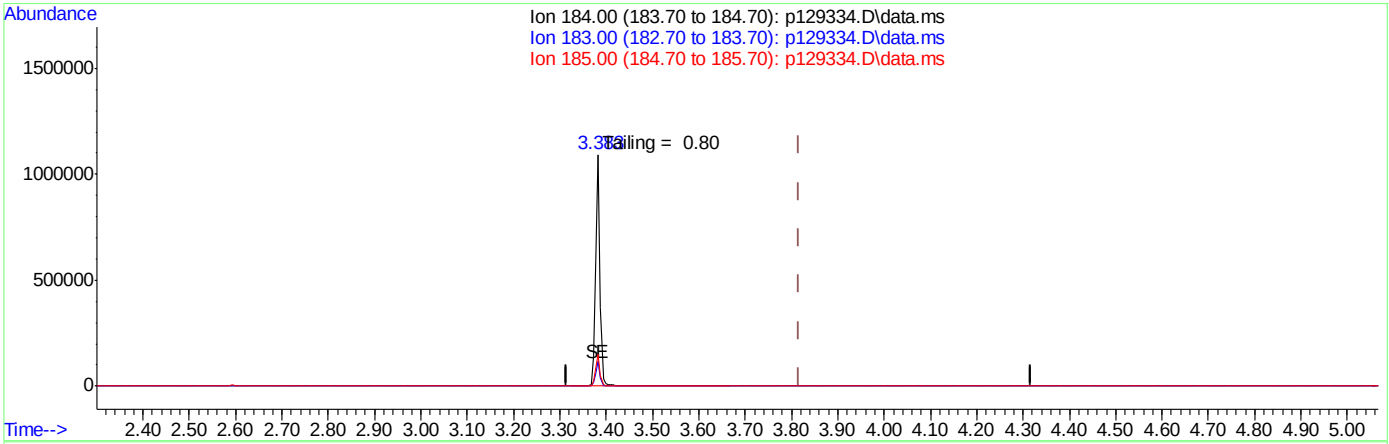
response 114596

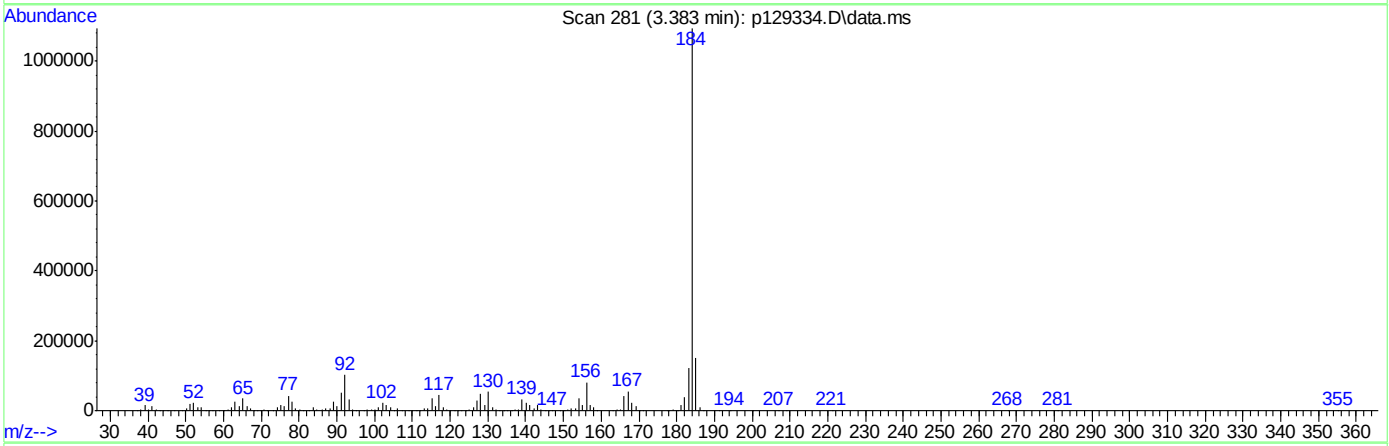
Ion	Exp%	Act%
265.80	100	100
263.80	63.90	64.37
267.80	66.90	66.16
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EP5854\
Data File : p129334.D
Acq On : 6 May 2019 7:31 am
Operator : chriss2
Sample : dftpp
Misc : op13894,ep5854,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 06 07:36:43 2019
Quant Method : C:\MSDCHEM\1\METHODS\DFTPPP.M
Quant Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
QLast Update : Tue Dec 11 00:35:57 2018
Response via : Initial Calibration





TIC: p129334.D\data.ms

(2) Benzidine (t)

3.383min (-0.434) 45.06ppb m

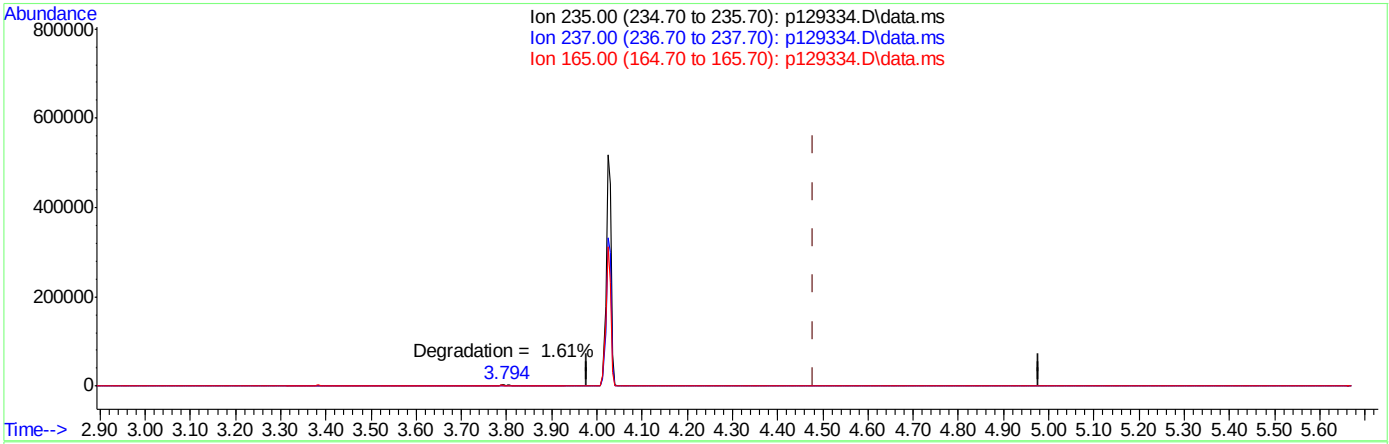
response 744898

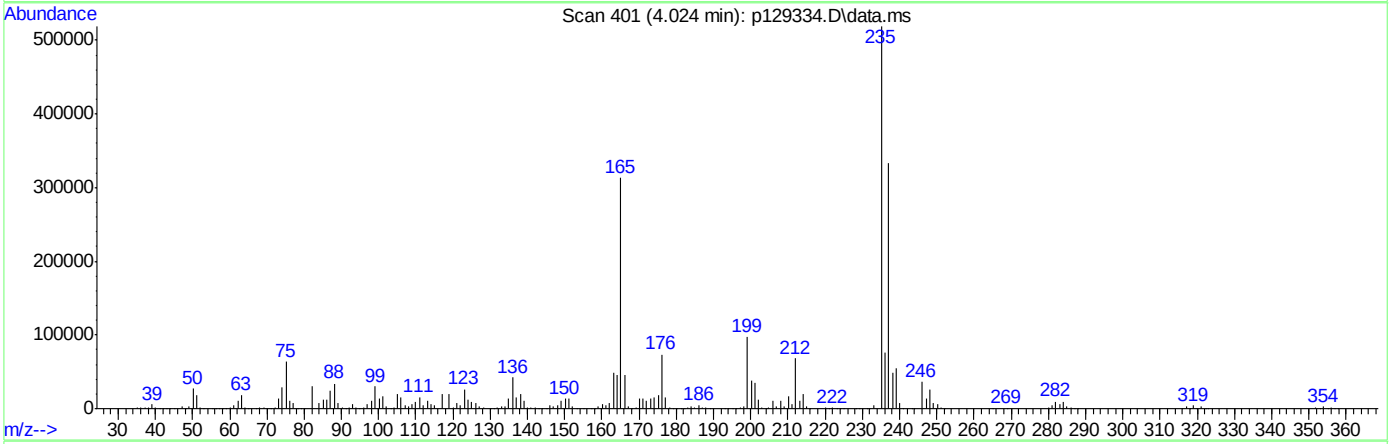
Ion	Exp%	Act%
184.00	100	100
183.00	11.70	0.00
185.00	14.30	0.21
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EP5854\
Data File : p129334.D
Acq On : 6 May 2019 7:31 am
Operator : chriss2
Sample : dftpp
Misc : op13894,ep5854,1000,,,1,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 06 07:36:43 2019
Quant Method : C:\MSDCHEM\1\METHODS\DFTPPP.M
Quant Title : Semi Volatile GC/MS, ZB-5MSi 30m x .25mm x .25um
QLast Update : Tue Dec 11 00:35:57 2018
Response via : Initial Calibration





TIC: p129334.D\data.ms

(3) ddt

4.024min (-0.455) 54.23ppb m

response 402130

Ion	Exp%	Act%
235.00	100	100
237.00	64.10	0.00#
165.00	38.80	0.00#
0.00	0.00	0.00

Manual Integrations APPROVED (compounds with "m" flag)
Nina Pandya
03/28/19 17:01

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7873\
Data File : F183414.D
Acq On : 25 Mar 2019 12:08 pm
Operator : kristis
Sample : ic7873-1
Misc : op18378,ef7873,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 25 14:36:45 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF7873.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 25 14:34:37 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.643	152	37968	40.00	ppm	-0.21
24) Naphthalene-d8	5.567	136	151354	40.00	ppm	-0.21
47) Acenaphthene-d10	6.972	164	94605	40.00	ppm	-0.28
69) Phenanthrene-d10	8.816	188	163554	40.00	ppm	-0.37
83) Chrysene-d12	14.024	240	126797	40.00	ppm	-0.48
91) Perylene-d12	17.064	264	136174	40.00	ppm	-0.49
101) 1,4-Dichlorobenzene-d4A	4.643	152	37968	40.00	ppm	-0.21
111) Naphthalene-d8A	5.567	136	151354	40.00	ppm	-0.21
120) Acenaphthene-d10A	6.972	164	94605	40.00	ppm	-0.28
131) Phenanthrene-d10A	8.816	188	163554	40.00	ppm	-0.37
146) Chrysene-d12A	14.024	240	126797	40.00	ppm	-0.48
153) Perylene-d12A	17.064	264	136174	40.00	ppm	-0.49
156) 1,4-Dichlorobenzene-d4b	4.643	152	37968	40.00	ppm	-0.21
158) Phenanthrene-d10b	8.816	188	163554	40.00	ppm	0.00
160) Chrysene-d12b	14.024	240	126797	40.00	ppm	0.00
162) Naphthalene-d8b	5.567	136	151354	40.00	ppm	-0.21
164) Acenaphthene-d10b	6.972	164	94605	40.00	ppm	-0.28
166) Naphthalene-d8c	5.567	136	151354	40.00	ppm	-0.21
171) 1,4-Dichlorobenzene-d4c	4.643	152	37968	40.00	ppm	-0.21
173) Chrysene-d12c	14.024	240	126797	40.00	ppm	0.00
175) Chrysene-d12d	14.024	240	126797	40.00	ppm	0.00
177) Naphthalene-d8d	5.567	136	151354	40.00	ppm	-0.21
179) Chrysene-d12B	14.024	240	126797	40.00	ppm	-0.52
181) Perylene-d12b	17.064	264	136174	40.00	ppm	-0.49
System Monitoring Compounds						
5) 2-Fluorophenol	3.650	112	1340	1.02	ppm	-0.23
Spiked Amount 50.000			Recovery = 2.04%			
8) Phenol-d5	4.371	99	1596	0.96	ppm	-0.21
Spiked Amount 50.000			Recovery = 1.92%			
25) Nitrobenzene-d5	5.044	82	1519	0.95	ppm	-0.21
Spiked Amount 50.000			Recovery = 1.90%			
51) 2-Fluorobiphenyl	6.363	172	3425	1.02	ppm	-0.24
Spiked Amount 50.000			Recovery = 2.04%			
73) 2,4,6-Tribromophenol	7.843	330	308	0.75	ppm	-0.32
Spiked Amount 50.000			Recovery = 1.50%			
85) Terphenyl-d14	11.829	244	2542	0.92	ppm	-0.44
Spiked Amount 50.000			Recovery = 1.84%			
Target Compounds						Qvalue
2) 1,4-Dioxane	2.186	88	736	1.20	ppm	92
3) Pyridine	2.544	79	1106	0.71	ppm	90
4) N-Nitrosodimethylamine	2.474	42	1031	1.27	ppm	77
6) Indene	4.830	116	2144	0.96	ppm	96
7) Cumene	4.050	105	3154	0.97	ppm	94
9) Phenol	4.382	94	1997	1.04	ppm	93
10) Aniline	4.398	93	2143	1.00	ppm	87
11) bis(2-Chloroethyl)ether	4.446	93	1454	1.04	ppm	98
12) 2-Chlorophenol	4.488	128	1277	0.92	ppm	99

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7873\
Data File : F183414.D
Acq On : 25 Mar 2019 12:08 pm
Operator : kristis
Sample : ic7873-1
Misc : op18378,ef7873,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 25 14:36:45 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF7873.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 25 14:34:37 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
13) Decane	4.531	43	1669	0.99	ppm		97
14) 1,3-Dichlorobenzene	4.601	146	1483	0.96	ppm		86
15) 1,4-Dichlorobenzene	4.654	146	1613	1.04	ppm		87
16) Benzyl alcohol	4.739	108	773	0.90	ppm		90
17) 1,2-Dichlorobenzene	4.766	146	1443	0.97	ppm		96
18) Acetophenone	4.932	105	2005	1.03	ppm		89
19) 2-Methylphenol	4.825	108	1186	0.92	ppm		95
20) 2,2'-oxybis(1-Chloropr...	4.846	121	185	0.49	ppm	#	76
21) 3&4-Methylphenol	4.937	108	1081	0.81	ppm		84
22) n-Nitroso-di-n-propyla...	4.937	70	1031	0.95	ppm		98
23) Hexachloroethane	5.017	201	532	1.00	ppm		93
26) Nitrobenzene	5.060	77	1612	1.01	ppm		93
27) Quinoline	5.819	129	2512	0.95	ppm		92
28) Isophorone	5.231	82	2658	0.99	ppm		94
29) 2-Nitrophenol	5.290	139	704	1.09	ppm		85
30) 2,4-Dimethylphenol	5.322	107	1172	0.90	ppm		94
32) bis(2-Chloroethoxy)met...	5.386	93	1621	0.98	ppm		88
33) 2,4-Dichlorophenol	5.466	162	1071	0.97	ppm		80
34) 2,6-Dichlorophenol	5.626	162	839	0.76	ppm		84
35) 1,3,5-Trichlorobenzene	5.300	180	1431	1.09	ppm		92
36) 1,2,4-Trichlorobenzene	5.525	180	1425	1.16	ppm		98
37) 1,2,3-Trichlorobenzene	5.690	180	1190	0.96	ppm		94
38) Naphthalene	5.583	128	4056	0.97	ppm		94
39) 4-Chloroaniline	5.616	127	1395	0.83	ppm		95
40) 2,3-Dichloroaniline	6.299	161	1581	1.14	ppm		93
41) Caprolactam	5.845	55	721	1.07	ppm		80
42) Hexachlorobutadiene	5.680	225	680	1.01	ppm		94
43) 4-Chloro-3-methylphenol	5.968	107	1203	1.02	ppm		86
44) 2-Methylnaphthalene	6.086	141	2563	1.18	ppm		97
45) 1-Methylnaphthalene	6.160	142	3300	1.17	ppm		97
46) Dimethylnaphthalene	6.582	156	2545	1.07	ppm		91
48) Hexachlorocyclopentadiene	6.209	237	1302	1.70	ppm		92
49) 2,4,6-Trichlorophenol	6.299	196	928	1.08	ppm		97
50) 2,4,5-Trichlorophenol	6.337	196	840m	0.95	ppm		
52) 2-Chloronaphthalene	6.465	162	2796	0.98	ppm		97
53) Biphenyl	6.449	154	3837	1.02	ppm		99
54) 2-Nitroaniline	6.545	65	960	1.15	ppm	#	71
55) Dimethylphthalate	6.705	163	3269	1.04	ppm		96
56) Acenaphthylene	6.834	152	4572	1.02	ppm		98
57) 2,6-Dinitrotoluene	6.759	165	578	0.99	ppm		92
58) 3-Nitroaniline	6.919	138	705	0.92	ppm		81
59) Acenaphthene	7.005	153	3186	1.03	ppm		85
61) 4-Nitrophenol	7.101	109	348	0.88	ppm	#	53
62) Dibenzofuran	7.175	168	3969	0.98	ppm		92
63) 2,4-Dinitrotoluene	7.149	165	875	1.10	ppm		75
64) 2,3,4,6-Tetrachlorophenol	7.309	232	562	0.83	ppm		94
65) Diethylphthalate	7.421	149	3170	1.00	ppm		90
66) Fluorene	7.555	166	2932	0.94	ppm		98
67) 4-Chlorophenyl-phenyle...	7.555	204	1409	0.98	ppm		92
68) 4-Nitroaniline	7.565	138	683	0.84	ppm		96

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7873\
Data File : F183414.D
Acq On : 25 Mar 2019 12:08 pm
Operator : kristis
Sample : ic7873-1
Misc : op18378,ef7873,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 25 14:36:45 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF7873.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 25 14:34:37 2019
Response via : Initial Calibration

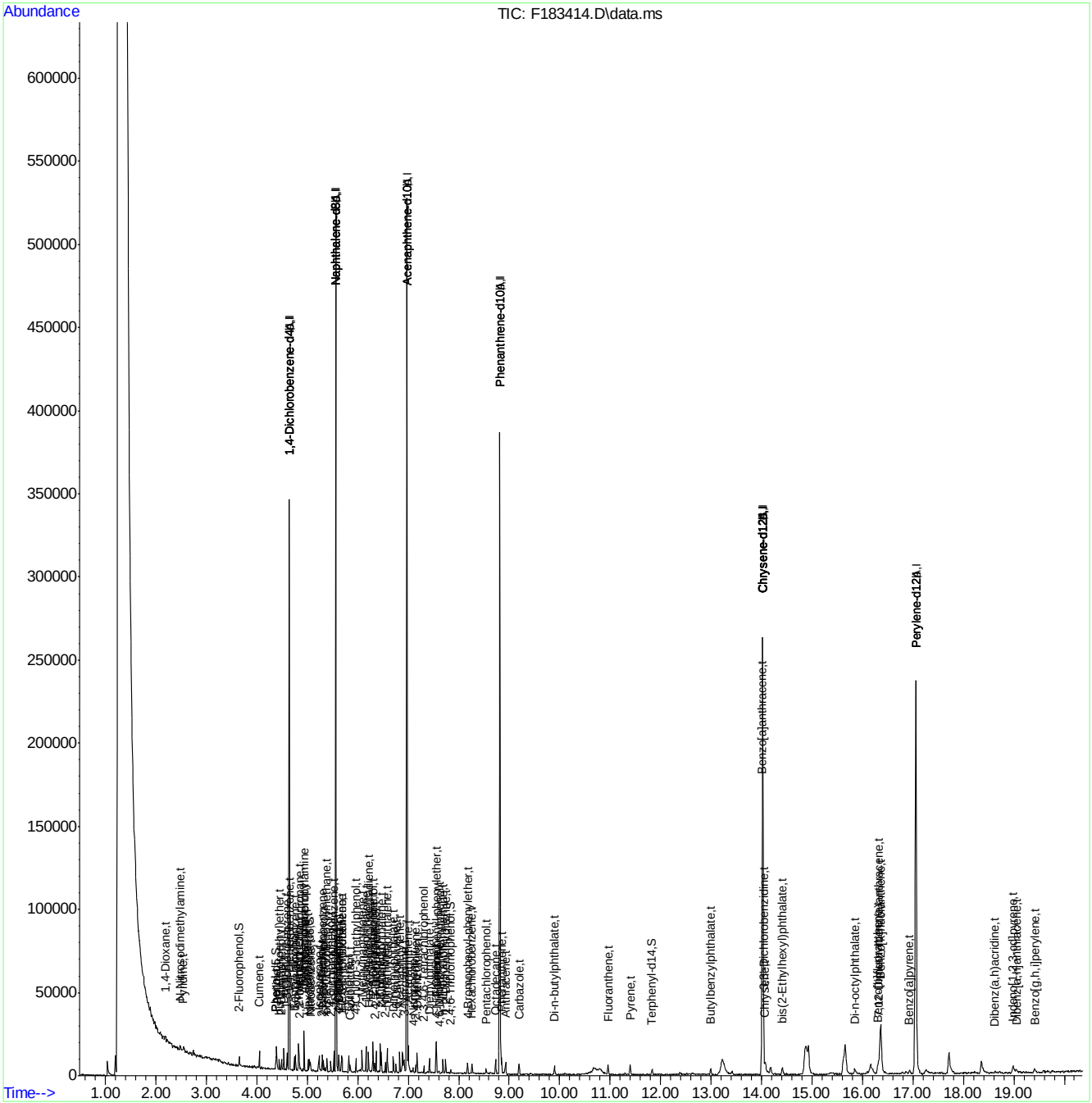
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
70) 4,6-Dinitro-2-methylph...	7.608	198	210	0.62	ppm	#	41
71) n-Nitrosodiphenylamine	7.688	169	2299	1.00	ppm		96
72) 1,2-Diphenylhydrazine	7.742	77	3760	1.00	ppm		93
74) 4-Bromophenyl-phenylether	8.174	248	847	1.05	ppm		82
75) Hexachlorobenzene	8.260	284	1107	1.22	ppm		93
76) Pentachlorophenol	8.543	266	746	1.71	ppm		87
77) Phenanthrene	8.848	178	4304	0.92	ppm		99
78) Anthracene	8.928	178	3733	0.79	ppm		94
79) Carbazole	9.195	167	3701	0.85	ppm		97
80) Di-n-butylphthalate	9.895	149	4189	0.77	ppm		94
81) Fluoranthene	10.963	202	4086	0.90	ppm		90
82) Octadecane	8.730	57	2365	1.01	ppm		95
84) Pyrene	11.396	202	4108	0.92	ppm		98
86) Butylbenzylphthalate	12.993	149	1978	1.07	ppm		92
87) Benzo[a]anthracene	14.014	228	4156	1.05	ppm		98
88) 3,3'-Dichlorobenzidine	14.046	252	1006	0.79	ppm		75
89) Chrysene	14.072	228	3863	0.97	ppm		86
90) bis(2-Ethylhexyl)phtha...	14.409	149	2529	1.04	ppm		86
92) Di-n-octylphthalate	15.846	149	3970	1.07	ppm		90
93) Benzo[b]fluoranthene	16.300	252	3862	1.14	ppm		91
94) Benzo[k]fluoranthene	16.359	252	4444	1.13	ppm		82
95) Benzo[a]pyrene	16.930	252	2415	0.77	ppm		96
96) Indeno[1,2,3-cd]pyrene	18.977	276	1795	0.72	ppm		67
97) Dibenz(a,h)acridine	18.624	279	1347	0.58	ppm		53
98) Dibenz[a,h]anthracene	19.057	278	1957	0.70	ppm		87
99) 7,12-Dimethylbenz(a)an...	16.321	256	1414	0.93	ppm		77
100) Benzo[g,h,i]perylene	19.415	276	2541	0.82	ppm		94

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7873\
Data File : F183414.D
Acq On : 25 Mar 2019 12:08 pm
Operator : kristis
Sample : ic7873-1
Misc : op18378,ef7873,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 25 14:36:45 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF7873.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 25 14:34:37 2019
Response via : Initial Calibration



Manual Integration Approval Summary

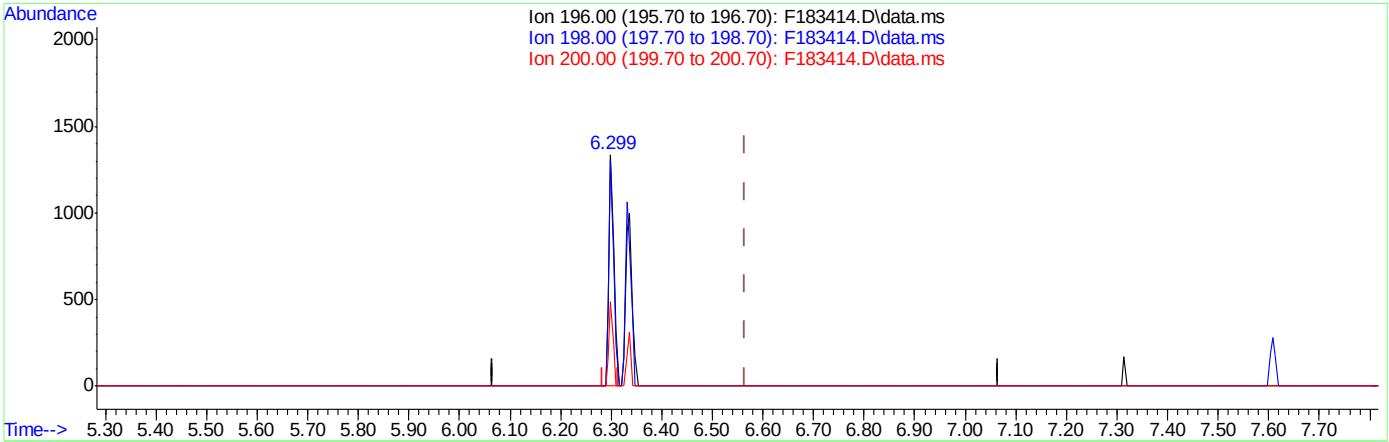
Sample Number:	EF7873-IC7873	**Method:**	SW846 8270D
Lab FileID:	F183414.D	**Analyst approved:**	03/27/19 18:40 Kristi Schollenberger
Injection Time:	03/25/19 12:08	**Supervisor approved:**	03/28/19 17:01 Nina Pandya

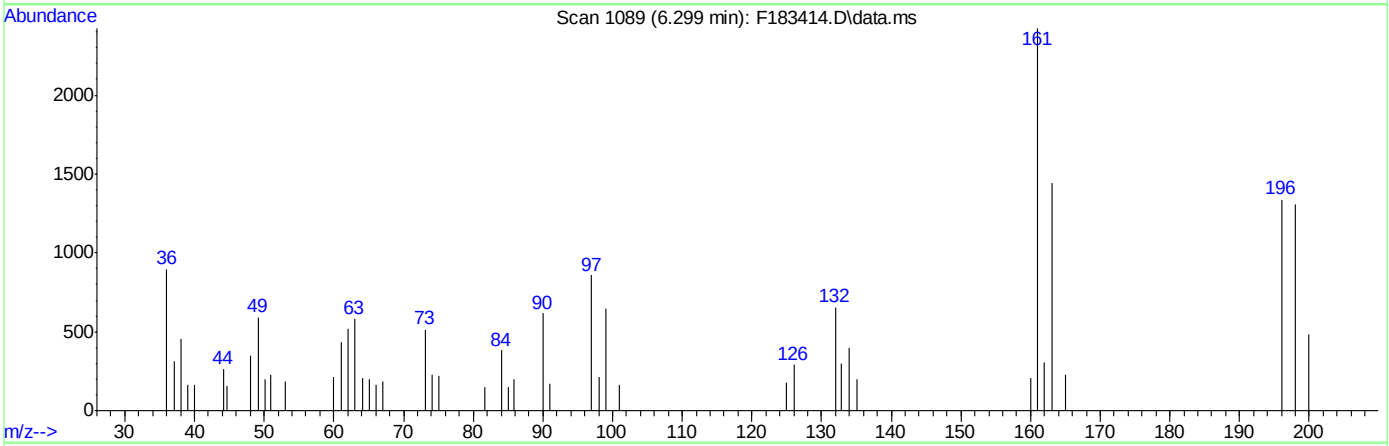
Parameter	CAS	Sig#	R.T. (min.)	Reason
2,4,5-Trichlorophenol	95-95-4		6.34	Poor instrument integration

Quantitation Report (Qedit)

Data Path : C:\MSDCHEM\1\DATA\EF7873\
Data File : F183414.D
Acq On : 25 Mar 2019 12:08 pm
Operator : kristis
Sample : ic7873-1
Misc : op18378,ef7873,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 25 14:34:39 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF7873.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 25 14:34:37 2019
Response via : Initial Calibration





TIC: F183414.D\data.ms

(50) 2,4,5-Trichlorophenol (t)

6.299min (-0.267) 1.05ppm

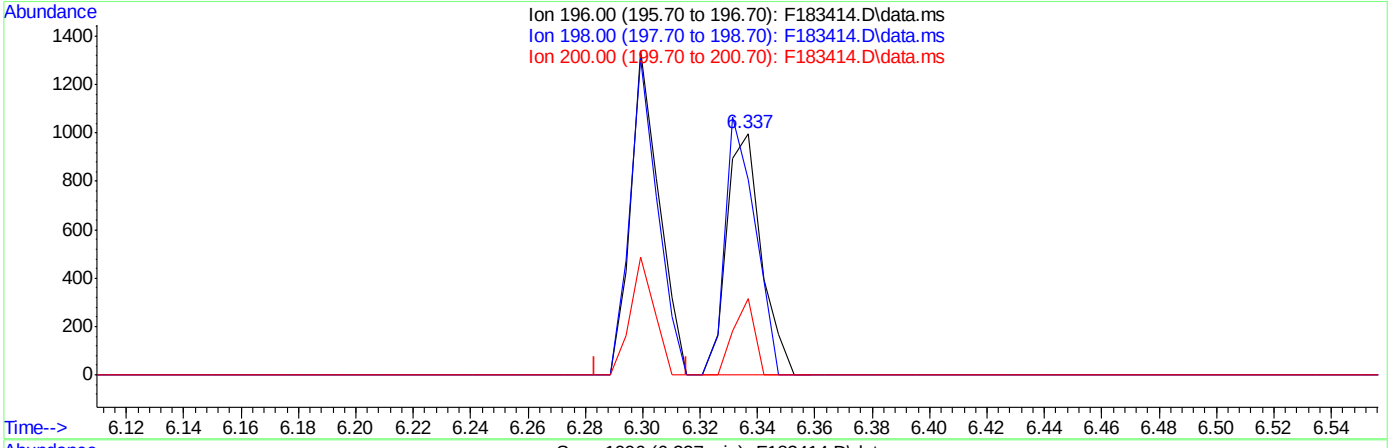
response 928

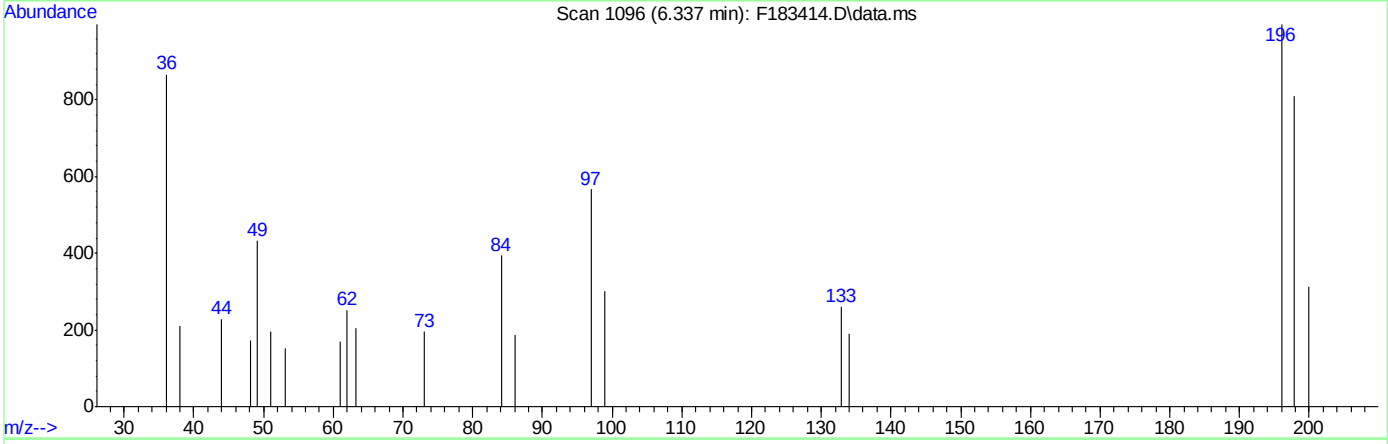
Ion	Exp%	Act%
196.00	100	100
198.00	90.50	97.53
200.00	29.00	36.32
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\MSDCHEM\1\DATA\EF7873\
Data File : F183414.D
Acq On : 25 Mar 2019 12:08 pm
Operator : kristis
Sample : ic7873-1
Misc : op18378,ef7873,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 25 14:34:39 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF7873.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 25 14:34:37 2019
Response via : Initial Calibration





TIC: F183414.D\data.ms

(50) 2,4,5-Trichlorophenol (t)

6.337min (-0.230) 0.95ppm m

response 840

Ion	Exp%	Act%
196.00	100	100
198.00	90.50	81.14
200.00	29.00	31.49
0.00	0.00	0.00

Manual Integrations APPROVED (compounds with "m" flag)
Nina Pandya
03/28/19 17:01

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7873\
Data File : F183415.D
Acq On : 25 Mar 2019 12:51 pm
Operator : kristis
Sample : ic7873-100
Misc : op18378,ef7873,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 25 14:39:15 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF7873.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 25 14:34:37 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.643	152	26317	40.00	ppm	-0.21
24) Naphthalene-d8	5.573	136	104033	40.00	ppm	-0.21
47) Acenaphthene-d10	6.978	164	57129	40.00	ppm	-0.27
69) Phenanthrene-d10	8.826	188	103526	40.00	ppm	-0.36
83) Chrysene-d12	14.040	240	98565	40.00	ppm	-0.46
91) Perylene-d12	17.069	264	122953	40.00	ppm	-0.49
101) 1,4-Dichlorobenzene-d4A	4.643	152	26317	40.00	ppm	-0.21
111) Naphthalene-d8A	5.573	136	104033	40.00	ppm	-0.21
120) Acenaphthene-d10A	6.978	164	57129	40.00	ppm	-0.27
131) Phenanthrene-d10A	8.826	188	103526	40.00	ppm	-0.36
146) Chrysene-d12A	14.040	240	98565	40.00	ppm	-0.46
153) Perylene-d12A	17.069	264	122953	40.00	ppm	-0.49
156) 1,4-Dichlorobenzene-d4b	4.643	152	26317	40.00	ppm	-0.21
158) Phenanthrene-d10b	8.826	188	103526	40.00	ppm	0.02
160) Chrysene-d12b	14.040	240	98565	40.00	ppm	0.02
162) Naphthalene-d8b	5.573	136	104033	40.00	ppm	-0.21
164) Acenaphthene-d10b	6.978	164	57129	40.00	ppm	-0.27
166) Naphthalene-d8c	5.573	136	104033	40.00	ppm	-0.21
171) 1,4-Dichlorobenzene-d4c	4.643	152	26317	40.00	ppm	-0.21
173) Chrysene-d12c	14.040	240	98565	40.00	ppm	0.02
175) Chrysene-d12d	14.040	240	98565	40.00	ppm	0.02
177) Naphthalene-d8d	5.573	136	104033	40.00	ppm	-0.21
179) Chrysene-d12B	14.040	240	98565	40.00	ppm	-0.50
181) Perylene-d12b	17.069	264	122953	40.00	ppm	-0.49
System Monitoring Compounds						
5) 2-Fluorophenol	3.655	112	91900	100.77	ppm	-0.22
Spiked Amount 50.000			Recovery = 201.54%			
8) Phenol-d5	4.382	99	114428	99.35	ppm	-0.20
Spiked Amount 50.000			Recovery = 198.70%			
25) Nitrobenzene-d5	5.049	82	112575	102.54	ppm	-0.21
Spiked Amount 50.000			Recovery = 205.08%			
51) 2-Fluorobiphenyl	6.374	172	200183	98.24	ppm	-0.23
Spiked Amount 50.000			Recovery = 196.48%			
73) 2,4,6-Tribromophenol	7.854	330	32073	123.61	ppm	-0.31
Spiked Amount 50.000			Recovery = 247.22%			
85) Terphenyl-d14	11.845	244	221524	102.74	ppm	-0.42
Spiked Amount 50.000			Recovery = 205.48%			
Target Compounds						Qvalue
2) 1,4-Dioxane	2.170	88	40284	94.62	ppm	94
3) Pyridine	2.496	79	115592	107.25	ppm	97
4) N-Nitrosodimethylamine	2.458	42	58223	103.87	ppm	84
6) Indene	4.836	116	141388	91.18	ppm	98
7) Cumene	4.050	105	217174	95.93	ppm	97
9) Phenol	4.392	94	134554	101.13	ppm	77
10) Aniline	4.398	93	124657	84.02	ppm	73
11) bis(2-Chloroethyl)ether	4.451	93	89600	92.14	ppm	98
12) 2-Chlorophenol	4.494	128	90151	93.67	ppm	95

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7873\
Data File : F183415.D
Acq On : 25 Mar 2019 12:51 pm
Operator : kristis
Sample : ic7873-100
Misc : op18378,ef7873,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 25 14:39:15 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF7873.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 25 14:34:37 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
13) Decane	4.536	43	110512	94.53	ppm		99
14) 1,3-Dichlorobenzene	4.606	146	102313	95.87	ppm		99
15) 1,4-Dichlorobenzene	4.659	146	107231	99.78	ppm		99
16) Benzyl alcohol	4.750	108	57826	96.87	ppm		90
17) 1,2-Dichlorobenzene	4.771	146	99346	96.18	ppm		98
18) Acetophenone	4.942	105	130847	97.41	ppm		81
19) 2-Methylphenol	4.836	108	83840	94.18	ppm		97
20) 2,2'-oxybis(1-Chloropr...	4.846	121	24127	91.51	ppm	#	80
21) 3&4-Methylphenol	4.942	108	87186	93.87	ppm		96
22) n-Nitroso-di-n-propyla...	4.948	70	74972	99.17	ppm		96
23) Hexachloroethane	5.023	201	36851	99.89	ppm		92
26) Nitrobenzene	5.065	77	116660	106.67	ppm		95
27) Quinoline	5.835	129	181853	99.90	ppm		97
28) Isophorone	5.242	82	185982	100.70	ppm		98
29) 2-Nitrophenol	5.295	139	50214	113.33	ppm		85
30) 2,4-Dimethylphenol	5.327	107	99676	110.82	ppm		93
31) Benzoic acid	5.439	105	67847m	147.81	ppm		
32) bis(2-Chloroethoxy)met...	5.391	93	113351	100.18	ppm		98
33) 2,4-Dichlorophenol	5.471	162	79561	105.15	ppm		97
34) 2,6-Dichlorophenol	5.632	162	76926	101.12	ppm		97
35) 1,3,5-Trichlorobenzene	5.306	180	89940	99.54	ppm		98
36) 1,2,4-Trichlorobenzene	5.530	180	87898	104.32	ppm		98
37) 1,2,3-Trichlorobenzene	5.696	180	87976	102.84	ppm		99
38) Naphthalene	5.589	128	261908	91.51	ppm		100
39) 4-Chloroaniline	5.626	127	105910	91.96	ppm		95
40) 2,3-Dichloroaniline	6.305	161	93400	98.41	ppm		98
41) Caprolactam	5.899	55	52134	112.17	ppm		93
42) Hexachlorobutadiene	5.680	225	50471	108.94	ppm		97
43) 4-Chloro-3-methylphenol	5.979	107	86357	106.21	ppm		97
44) 2-Methylnaphthalene	6.091	141	147872	98.65	ppm		98
45) 1-Methylnaphthalene	6.166	142	184028	95.15	ppm		98
46) Dimethylnaphthalene	6.593	156	159976	98.09	ppm		96
48) Hexachlorocyclopentadiene	6.214	237	109637	237.61	ppm		99
49) 2,4,6-Trichlorophenol	6.310	196	54197	104.58	ppm		96
50) 2,4,5-Trichlorophenol	6.342	196	59027m	110.92	ppm		
52) 2-Chloronaphthalene	6.476	162	170189	98.61	ppm		97
53) Biphenyl	6.460	154	220797	96.81	ppm		100
54) 2-Nitroaniline	6.561	65	62061	122.62	ppm		91
55) Dimethylphthalate	6.716	163	198145	104.88	ppm		99
56) Acenaphthylene	6.844	152	275977	101.84	ppm		99
57) 2,6-Dinitrotoluene	6.769	165	44476	126.65	ppm		94
58) 3-Nitroaniline	6.935	138	51418	111.71	ppm		97
59) Acenaphthene	7.010	153	181187	97.38	ppm		95
60) 2,4-Dinitrophenol	7.031	184	48722	259.13	ppm	#	51
61) 4-Nitrophenol	7.101	109	32979	138.39	ppm		90
62) Dibenzofuran	7.186	168	235374	95.99	ppm		97
63) 2,4-Dinitrotoluene	7.165	165	59527	123.81	ppm		77
64) 2,3,4,6-Tetrachlorophenol	7.320	232	49235	119.83	ppm		98
65) Diethylphthalate	7.437	149	202546	105.88	ppm		100
66) Fluorene	7.565	166	191701	101.90	ppm		97

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7873\
Data File : F183415.D
Acq On : 25 Mar 2019 12:51 pm
Operator : kristis
Sample : ic7873-100
Misc : op18378,ef7873,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 25 14:39:15 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF7873.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 25 14:34:37 2019
Response via : Initial Calibration

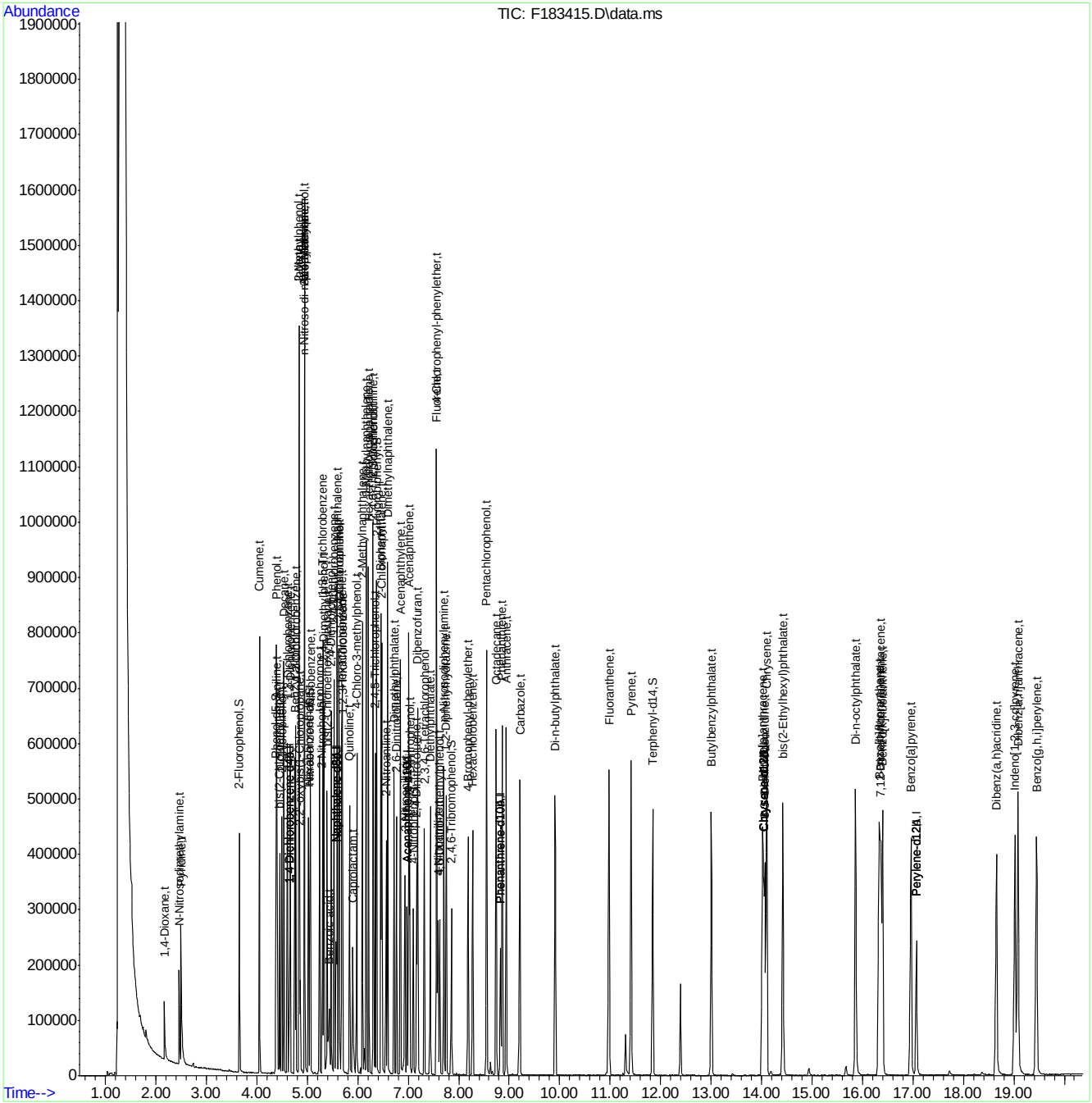
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
67)	4-Chlorophenyl-phenyle...	7.560	204	87173	100.85	ppm	88
68)	4-Nitroaniline	7.592	138	54406	110.94	ppm	93
70)	4,6-Dinitro-2-methylph...	7.624	198	32898	153.68	ppm	87
71)	n-Nitrosodiphenylamine	7.704	169	133176	91.97	ppm	97
72)	1,2-Diphenylhydrazine	7.752	77	231199	97.32	ppm	95
74)	4-Bromophenyl-phenylether	8.185	248	51828	101.92	ppm	97
75)	Hexachlorobenzene	8.276	284	61051	106.05	ppm	97
76)	Pentachlorophenol	8.554	266	79047	286.20	ppm	97
77)	Phenanthrene	8.864	178	289392	97.48	ppm	100
78)	Anthracene	8.944	178	292657	97.86	ppm	99
79)	Carbazole	9.211	167	273557	99.73	ppm	98
80)	Di-n-butylphthalate	9.911	149	368796	106.40	ppm	99
81)	Fluoranthene	10.979	202	319964	111.77	ppm	95
82)	Octadecane	8.741	57	151004	101.94	ppm	96
84)	Pyrene	11.417	202	343522	98.96	ppm	95
86)	Butylbenzylphthalate	13.004	149	189795	131.93	ppm	98
87)	Benzo[a]anthracene	14.024	228	311648	101.64	ppm	99
88)	3,3'-Dichlorobenzidine	14.067	252	115923	116.68	ppm	99
89)	Chrysene	14.104	228	333776	107.49	ppm	99
90)	bis(2-Ethylhexyl)phtha...	14.425	149	247327	131.16	ppm	96
92)	Di-n-octylphthalate	15.862	149	454202	135.68	ppm	99
93)	Benzo[b]fluoranthene	16.332	252	340429	111.59	ppm	98
94)	Benzo[k]fluoranthene	16.402	252	311363	87.56	ppm	98
95)	Benzo[a]pyrene	16.962	252	285057	100.85	ppm	97
96)	Indeno[1,2,3-cd]pyrene	19.025	276	312446	139.08	ppm	95
97)	Dibenz(a,h)acridine	18.656	279	283767	135.32	ppm	99
98)	Dibenz[a,h]anthracene	19.083	278	338972	133.70	ppm	98
99)	7,12-Dimethylbenz(a)an...	16.359	256	145345	106.18	ppm	98
100)	Benzo[g,h,i]perylene	19.452	276	319599	114.84	ppm	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7873\
Data File : F183415.D
Acq On : 25 Mar 2019 12:51 pm
Operator : kristis
Sample : ic7873-100
Misc : op18378,ef7873,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 25 14:39:15 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF7873.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 25 14:34:37 2019
Response via : Initial Calibration



Manual Integration Approval Summary

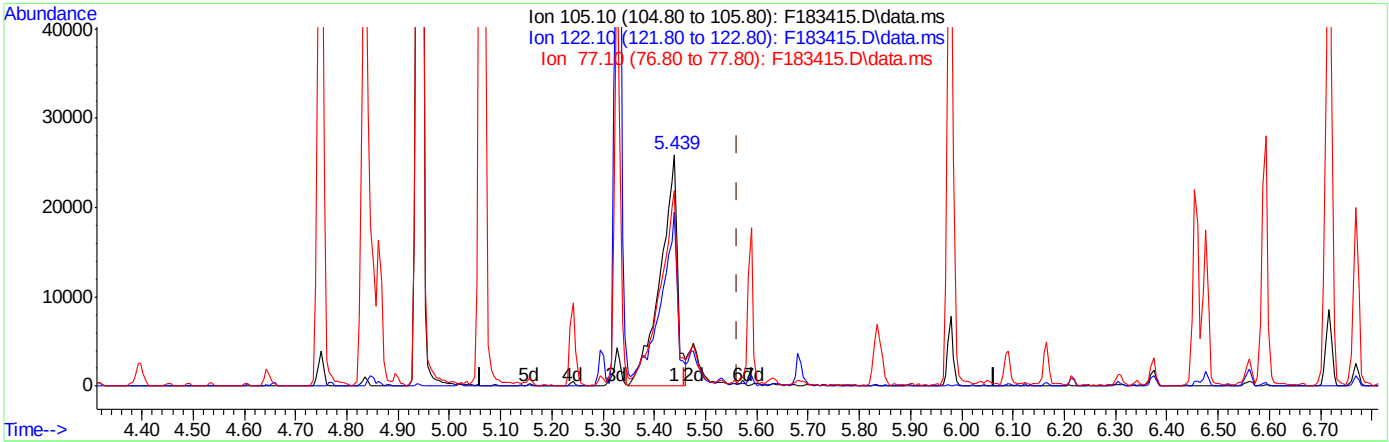
Sample Number:	EF7873-IC7873	**Method:**	SW846 8270D
Lab FileID:	F183415.D	**Analyst approved:**	03/27/19 18:40 Kristi Schollenberger
Injection Time:	03/25/19 12:51	**Supervisor approved:**	03/28/19 17:01 Nina Pandya

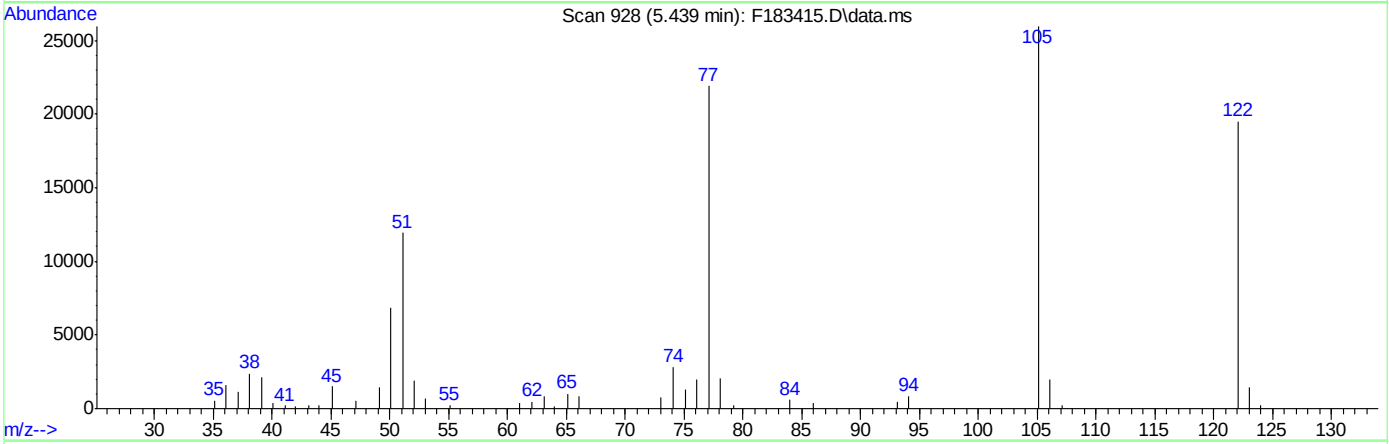
Parameter	CAS	Sig#	R.T. (min.)	Reason
Benzoic Acid	65-85-0		5.44	Split peak
2,4,5-Trichlorophenol	95-95-4		6.34	Poor instrument integration

Quantitation Report (Qedit)

Data Path : C:\MSDCHEM\1\DATA\EF7873\
Data File : F183415.D
Acq On : 25 Mar 2019 12:51 pm
Operator : kristis
Sample : ic7873-100
Misc : op18378,ef7873,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 25 14:37:00 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF7873.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 25 14:34:37 2019
Response via : Initial Calibration





TIC: F183415.D\data.ms

(31) Benzoic acid (t)

5.439min (-0.123) 131.22ppm

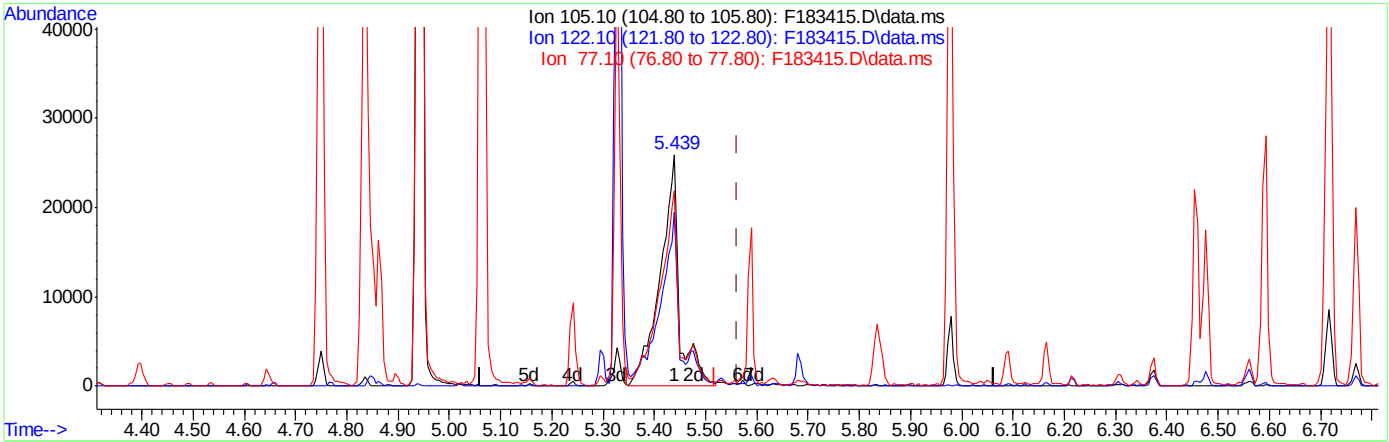
response 60236

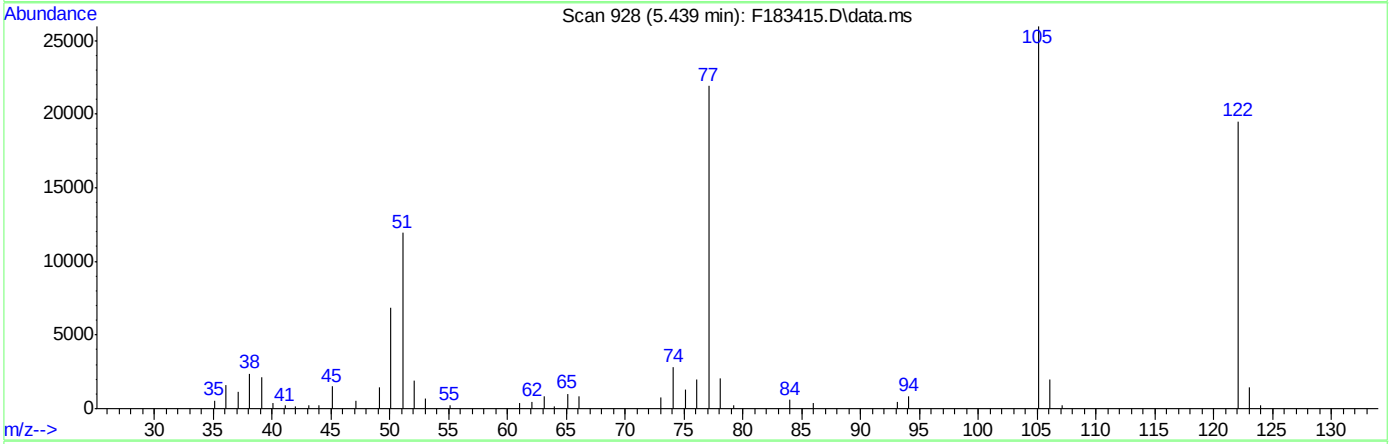
Ion	Exp%	Act%
105.10	100	100
122.10	76.20	71.93
77.10	81.80	81.38
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\MSDCHEM\1\DATA\EF7873\
Data File : F183415.D
Acq On : 25 Mar 2019 12:51 pm
Operator : kristis
Sample : ic7873-100
Misc : op18378,ef7873,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 25 14:37:00 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF7873.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 25 14:34:37 2019
Response via : Initial Calibration





TIC: F183415.D\data.ms

(31) Benzoic acid (t)

5.439min (-0.123) 147.81ppm m

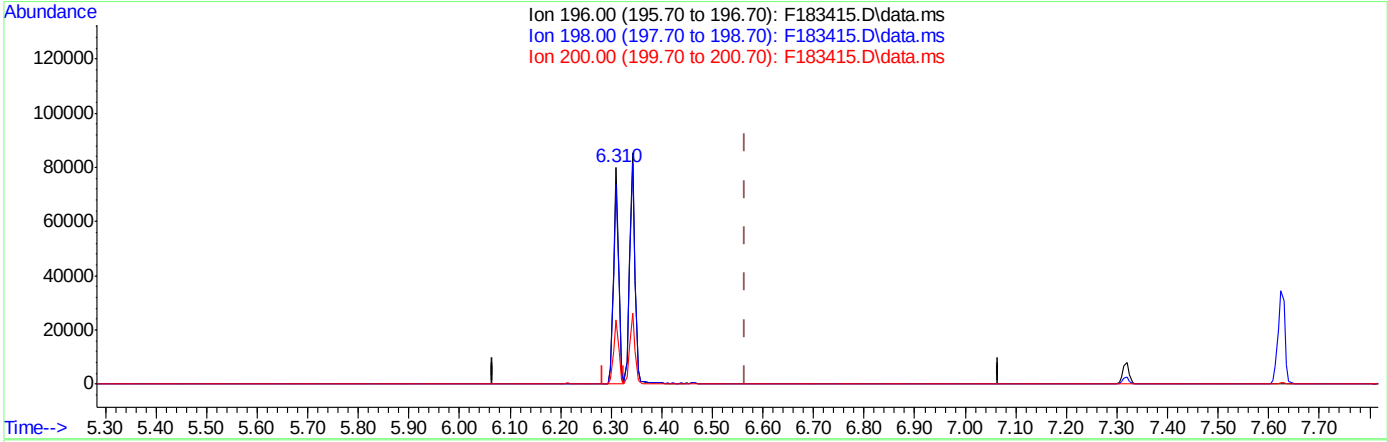
response 67847

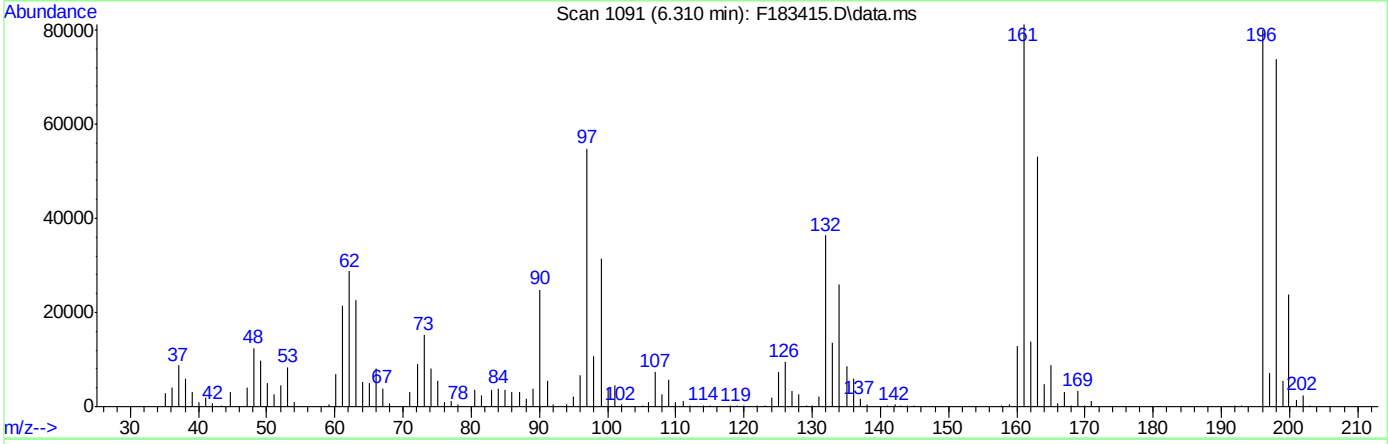
Ion	Exp%	Act%
105.10	100	100
122.10	76.20	75.22
77.10	81.80	84.37
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\MSDCHEM\1\DATA\EF7873\
Data File : F183415.D
Acq On : 25 Mar 2019 12:51 pm
Operator : kristis
Sample : ic7873-100
Misc : op18378,ef7873,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 25 14:37:00 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF7873.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 25 14:34:37 2019
Response via : Initial Calibration





TIC: F183415.D\data.ms

(50) 2,4,5-Trichlorophenol (t)

6.310min (-0.257) 101.85ppm

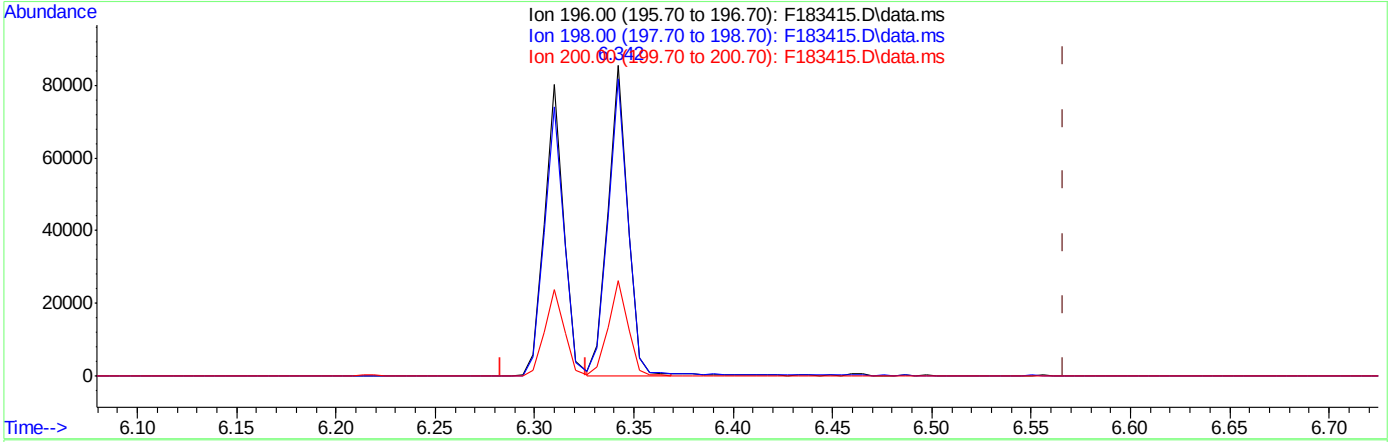
response 54197

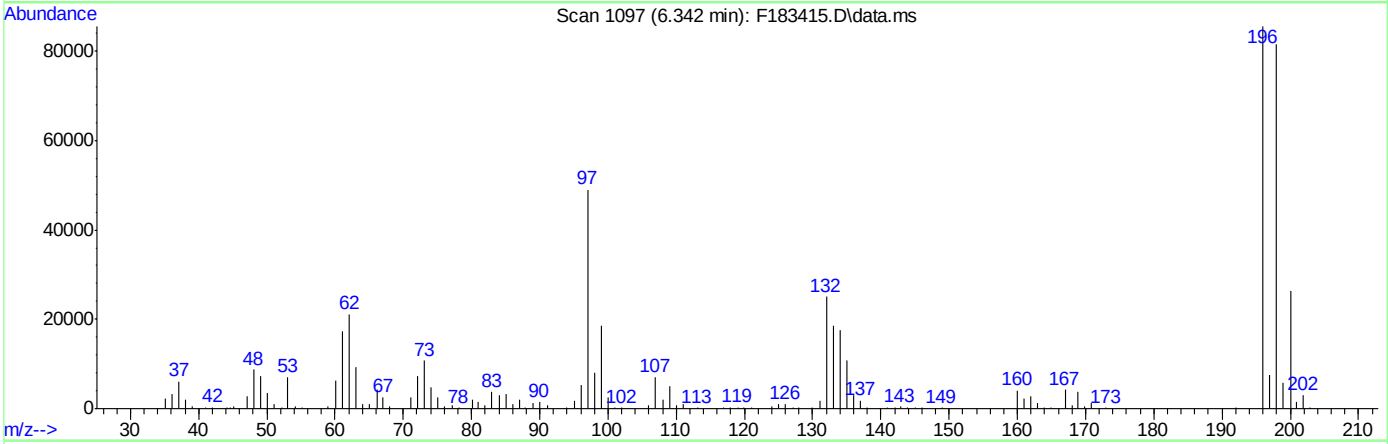
Ion	Exp%	Act%
196.00	100	100
198.00	90.50	92.23
200.00	29.00	29.89
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\MSDCHEM\1\DATA\EF7873\
Data File : F183415.D
Acq On : 25 Mar 2019 12:51 pm
Operator : kristis
Sample : ic7873-100
Misc : op18378,ef7873,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 25 14:37:00 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF7873.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 25 14:34:37 2019
Response via : Initial Calibration





TIC: F183415.D\data.ms

(50) 2,4,5-Trichlorophenol (t)

6.342min (-0.225) 110.92ppm m

response 59027

Ion	Exp%	Act%
196.00	100	100
198.00	90.50	95.42
200.00	29.00	30.86
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7873\
Data File : F183416.D
Acq On : 25 Mar 2019 1:18 pm
Operator : kristis
Sample : ic7873-2
Misc : op18378,ef7873,1000,,,1,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 25 14:42:23 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF7873.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 25 14:40:22 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.643	152	37072	40.00	ppm	0.00
24) Naphthalene-d8	5.568	136	140845	40.00	ppm	0.00
47) Acenaphthene-d10	6.973	164	86483	40.00	ppm	0.00
69) Phenanthrene-d10	8.816	188	136163	40.00	ppm	-0.01
83) Chrysene-d12	14.024	240	119699	40.00	ppm	-0.02
91) Perylene-d12	17.059	264	149480	40.00	ppm	-0.01
101) 1,4-Dichlorobenzene-d4A	4.643	152	37072	40.00	ppm	0.00
111) Naphthalene-d8A	5.568	136	140845	40.00	ppm	0.00
120) Acenaphthene-d10A	6.973	164	86483	40.00	ppm	0.00
131) Phenanthrene-d10A	8.816	188	136163	40.00	ppm	-0.01
146) Chrysene-d12A	14.024	240	119699	40.00	ppm	-0.02
153) Perylene-d12A	17.059	264	149480	40.00	ppm	-0.01
156) 1,4-Dichlorobenzene-d4b	4.643	152	37072	40.00	ppm	0.00
158) Phenanthrene-d10b	8.816	188	136163	40.00	ppm	-0.01
160) Chrysene-d12b	14.024	240	119699	40.00	ppm	-0.02
162) Naphthalene-d8b	5.568	136	140845	40.00	ppm	0.00
164) Acenaphthene-d10b	6.973	164	86483	40.00	ppm	0.00
166) Naphthalene-d8c	5.568	136	140845	40.00	ppm	0.00
171) 1,4-Dichlorobenzene-d4c	4.643	152	37072	40.00	ppm	0.00
173) Chrysene-d12c	14.024	240	119699	40.00	ppm	-0.02
175) Chrysene-d12d	14.024	240	119699	40.00	ppm	-0.02
177) Naphthalene-d8d	5.568	136	140845	40.00	ppm	0.00
179) Chrysene-d12B	14.024	240	119699	40.00	ppm	0.00
181) Perylene-d12b	17.059	264	149480	40.00	ppm	-0.01
System Monitoring Compounds						
5) 2-Fluorophenol	3.650	112	2224	1.73	ppm	0.00
Spiked Amount 50.000			Recovery = 3.46%			
8) Phenol-d5	4.371	99	3551	2.20	ppm	-0.01
Spiked Amount 50.000			Recovery = 4.40%			
25) Nitrobenzene-d5	5.044	82	2791	1.85	ppm	0.00
Spiked Amount 50.000			Recovery = 3.70%			
51) 2-Fluorobiphenyl	6.369	172	6338	2.06	ppm	0.00
Spiked Amount 50.000			Recovery = 4.12%			
73) 2,4,6-Tribromophenol	7.843	330	703	2.04	ppm	-0.01
Spiked Amount 50.000			Recovery = 4.08%			
85) Terphenyl-d14	11.829	244	5655	2.16	ppm	-0.02
Spiked Amount 50.000			Recovery = 4.32%			
Target Compounds						Qvalue
2) 1,4-Dioxane	2.186	88	1021	1.70	ppm	92
3) Pyridine	2.533	79	2719	1.80	ppm	97
4) N-Nitrosodimethylamine	2.469	42	1501	1.88	ppm	98
6) Indene	4.830	116	3863	1.78	ppm	94
7) Cumene	4.050	105	6228	1.94	ppm	99
9) Phenol	4.382	94	3882	2.08	ppm	90
10) Aniline	4.398	93	3931	1.89	ppm	90
11) bis(2-Chloroethyl)ether	4.446	93	2533	1.85	ppm	88
12) 2-Chlorophenol	4.488	128	2448	1.82	ppm	93

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7873\
Data File : F183416.D
Acq On : 25 Mar 2019 1:18 pm
Operator : kristis
Sample : ic7873-2
Misc : op18378,ef7873,1000,,,1,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 25 14:42:23 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF7873.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 25 14:40:22 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
13) Decane	4.531	43	3144	1.90	ppm		95
14) 1,3-Dichlorobenzene	4.601	146	2937	1.96	ppm		98
15) 1,4-Dichlorobenzene	4.654	146	2848	1.87	ppm		93
16) Benzyl alcohol	4.740	108	1636	1.97	ppm		93
17) 1,2-Dichlorobenzene	4.766	146	3108	2.14	ppm		96
18) Acetophenone	4.932	105	3523	1.85	ppm		80
19) 2-Methylphenol	4.825	108	2239	1.80	ppm		95
20) 2,2'-oxybis(1-Chloropr...	4.841	121	657	1.79	ppm	#	91
21) 3&4-Methylphenol	4.937	108	2461	1.89	ppm		95
22) n-Nitroso-di-n-propyla...	4.937	70	1962	1.83	ppm		96
23) Hexachloroethane	5.017	201	920	1.77	ppm		90
26) Nitrobenzene	5.055	77	3043	2.03	ppm		92
27) Quinoline	5.819	129	4869	1.97	ppm		93
28) Isophorone	5.231	82	5383	2.14	ppm		93
29) 2-Nitrophenol	5.290	139	1290	2.12	ppm		90
30) 2,4-Dimethylphenol	5.322	107	2222	1.80	ppm		97
31) Benzoic acid	5.359	105	792	1.22	ppm		92
32) bis(2-Chloroethoxy)met...	5.386	93	3231	2.10	ppm		98
33) 2,4-Dichlorophenol	5.466	162	1823	1.77	ppm		94
34) 2,6-Dichlorophenol	5.626	162	2140	2.07	ppm		96
35) 1,3,5-Trichlorobenzene	5.300	180	2416	1.97	ppm		96
36) 1,2,4-Trichlorobenzene	5.525	180	2585	2.25	ppm		94
37) 1,2,3-Trichlorobenzene	5.685	180	2129	1.83	ppm		98
38) Naphthalene	5.584	128	7528	1.94	ppm		97
39) 4-Chloroaniline	5.616	127	3316	2.13	ppm		91
40) 2,3-Dichloroaniline	6.299	161	3208	2.49	ppm		95
41) Caprolactam	5.845	55	1326	2.08	ppm		93
42) Hexachlorobutadiene	5.680	225	1403	2.21	ppm		87
43) 4-Chloro-3-methylphenol	5.963	107	2152	1.94	ppm		92
44) 2-Methylnaphthalene	6.080	141	3911	1.92	ppm		95
45) 1-Methylnaphthalene	6.161	142	5298	2.02	ppm		93
46) Dimethylnaphthalene	6.583	156	4310	1.95	ppm		94
48) Hexachlorocyclopentadiene	6.209	237	2279	3.22	ppm		96
49) 2,4,6-Trichlorophenol	6.299	196	1649	2.10	ppm		90
50) 2,4,5-Trichlorophenol	6.337	196	1831	2.26	ppm		92
52) 2-Chloronaphthalene	6.470	162	4651	1.78	ppm		97
53) Biphenyl	6.449	154	6086	1.77	ppm		98
54) 2-Nitroaniline	6.545	65	1565	1.99	ppm	#	66
55) Dimethylphthalate	6.705	163	5329	1.85	ppm		99
56) Acenaphthylene	6.834	152	8701	2.12	ppm		100
57) 2,6-Dinitrotoluene	6.759	165	1260	2.32	ppm		85
58) 3-Nitroaniline	6.919	138	1270	1.81	ppm	#	62
59) Acenaphthene	6.999	153	5647	2.00	ppm		93
60) 2,4-Dinitrophenol	7.021	184	666	1.54	ppm	#	43
61) 4-Nitrophenol	7.090	109	516	1.38	ppm	#	79
62) Dibenzofuran	7.176	168	6741	1.81	ppm		96
63) 2,4-Dinitrotoluene	7.149	165	1331	1.80	ppm		98
64) 2,3,4,6-Tetrachlorophenol	7.309	232	1208	1.92	ppm		91
65) Diethylphthalate	7.416	149	5448	1.86	ppm		95
66) Fluorene	7.555	166	5601	1.96	ppm		96

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7873\
Data File : F183416.D
Acq On : 25 Mar 2019 1:18 pm
Operator : kristis
Sample : ic7873-2
Misc : op18378,ef7873,1000,,,1,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 25 14:42:23 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF7873.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 25 14:40:22 2019
Response via : Initial Calibration

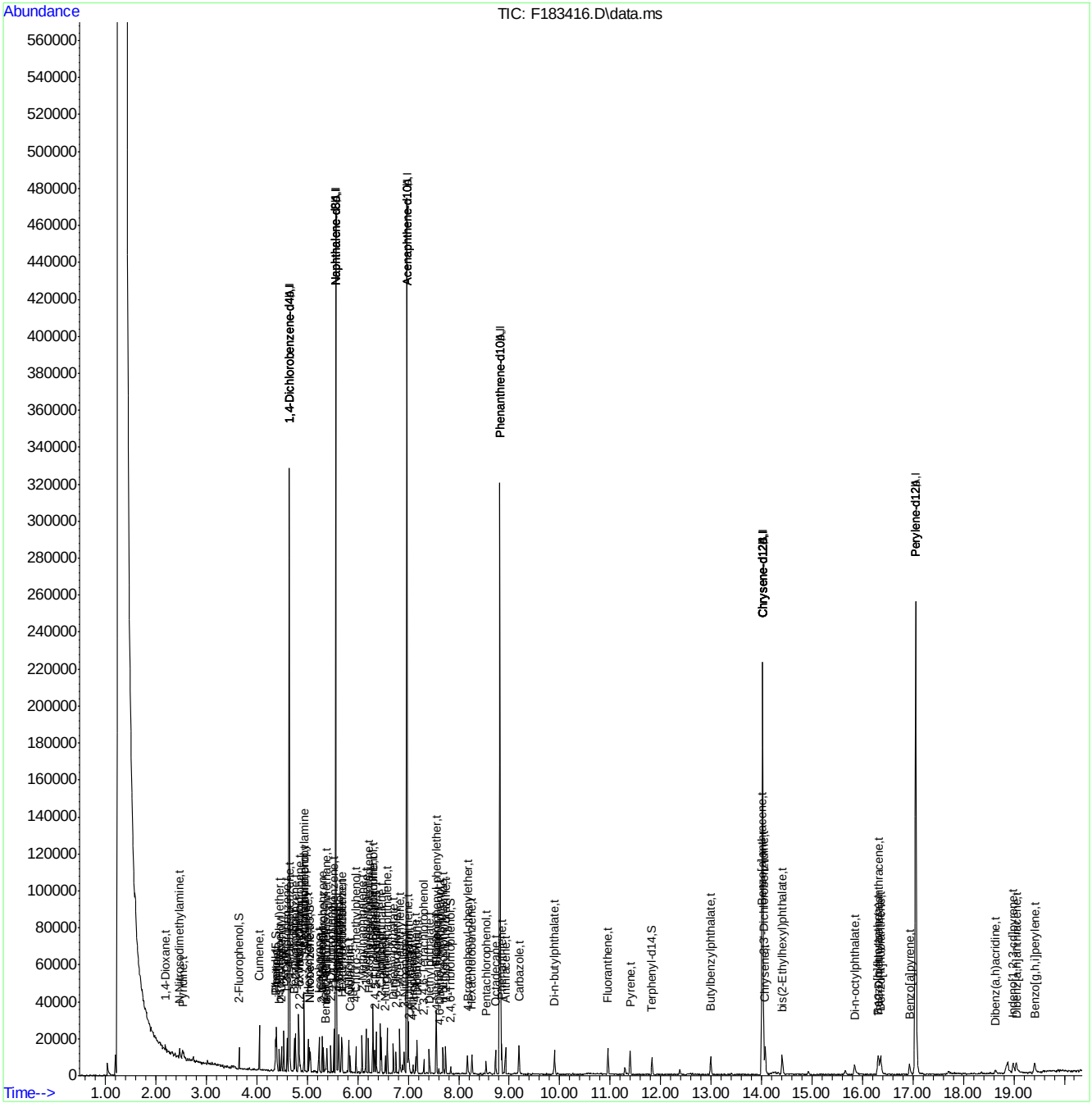
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
67) 4-Chlorophenyl-phenyle...	7.555	204	2581	1.97	ppm		86
68) 4-Nitroaniline	7.566	138	1264	1.69	ppm		81
70) 4,6-Dinitro-2-methylph...	7.608	198	496	1.70	ppm	#	68
71) n-Nitrosodiphenylamine	7.688	169	3729	1.97	ppm		96
72) 1,2-Diphenylhydrazine	7.742	77	6416	2.05	ppm		96
74) 4-Bromophenyl-phenylether	8.175	248	1502	2.25	ppm		82
75) Hexachlorobenzene	8.260	284	1828	2.41	ppm		88
76) Pentachlorophenol	8.543	266	1265	3.45	ppm		93
77) Phenanthrene	8.848	178	7790	1.99	ppm		94
78) Anthracene	8.928	178	7794	1.98	ppm		94
79) Carbazole	9.195	167	8220	2.28	ppm		97
80) Di-n-butylphthalate	9.895	149	9369	2.03	ppm		97
81) Fluoranthene	10.958	202	8468	2.21	ppm		95
82) Octadecane	8.730	57	3563	1.83	ppm		98
84) Pyrene	11.396	202	8946	2.12	ppm		92
86) Butylbenzylphthalate	12.993	149	4121	2.31	ppm		96
87) Benzo[a]anthracene	14.003	228	9364	2.52	ppm		99
88) 3,3'-Dichlorobenzidine	14.040	252	2377	1.98	ppm		85
89) Chrysene	14.072	228	9545	2.51	ppm		98
90) bis(2-Ethylhexyl)phtha...	14.414	149	6079	2.63	ppm		97
92) Di-n-octylphthalate	15.846	149	7819	1.91	ppm		86
93) Benzo[b]fluoranthene	16.300	252	6075	1.64	ppm		83
94) Benzo[k]fluoranthene	16.359	252	8258	1.93	ppm		94
95) Benzo[a]pyrene	16.936	252	5394	1.60	ppm		94
96) Indeno[1,2,3-cd]pyrene	18.987	276	3985	1.45	ppm		90
97) Dibenz(a,h)acridine	18.629	279	2976	1.18	ppm		72
98) Dibenz[a,h]anthracene	19.046	278	4695	1.52	ppm		98
99) 7,12-Dimethylbenz(a)an...	16.327	256	2573	1.57	ppm		95
100) Benzo[g,h,i]perylene	19.409	276	5710	1.69	ppm		95

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7873\
Data File : F183416.D
Acq On : 25 Mar 2019 1:18 pm
Operator : kristis
Sample : ic7873-2
Misc : op18378,ef7873,1000,,,1,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 25 14:42:23 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF7873.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 25 14:40:22 2019
Response via : Initial Calibration



Manual Integrations APPROVED (compounds with "m" flag)
Nina Pandya
03/28/19 17:01

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7873\
Data File : F183417.D
Acq On : 25 Mar 2019 1:44 pm
Operator : kristis
Sample : ic7873-80
Misc : op18378,ef7873,1000,,,1,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 25 14:44:23 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF7873.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 25 14:40:22 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.643	152	30284	40.00	ppm	0.00
24) Naphthalene-d8	5.567	136	118398	40.00	ppm	0.00
47) Acenaphthene-d10	6.973	164	67308	40.00	ppm	0.00
69) Phenanthrene-d10	8.821	188	116832	40.00	ppm	0.00
83) Chrysene-d12	14.035	240	103229	40.00	ppm	0.00
91) Perylene-d12	17.059	264	110851	40.00	ppm	-0.01
101) 1,4-Dichlorobenzene-d4A	4.643	152	30284	40.00	ppm	0.00
111) Naphthalene-d8A	5.567	136	118398	40.00	ppm	0.00
120) Acenaphthene-d10A	6.973	164	67308	40.00	ppm	0.00
131) Phenanthrene-d10A	8.821	188	116832	40.00	ppm	0.00
146) Chrysene-d12A	14.035	240	103229	40.00	ppm	0.00
153) Perylene-d12A	17.059	264	110851	40.00	ppm	-0.01
156) 1,4-Dichlorobenzene-d4b	4.643	152	30284	40.00	ppm	0.00
158) Phenanthrene-d10b	8.821	188	116832	40.00	ppm	0.00
160) Chrysene-d12b	14.035	240	103229	40.00	ppm	0.00
162) Naphthalene-d8b	5.567	136	118398	40.00	ppm	0.00
164) Acenaphthene-d10b	6.973	164	67308	40.00	ppm	0.00
166) Naphthalene-d8c	5.567	136	118398	40.00	ppm	0.00
171) 1,4-Dichlorobenzene-d4c	4.643	152	30284	40.00	ppm	0.00
173) Chrysene-d12c	14.035	240	103229	40.00	ppm	0.00
175) Chrysene-d12d	14.035	240	103229	40.00	ppm	0.00
177) Naphthalene-d8d	5.567	136	118398	40.00	ppm	0.00
179) Chrysene-d12B	14.035	240	103229	40.00	ppm	0.01
181) Perylene-d12b	17.059	264	110851	40.00	ppm	-0.01
System Monitoring Compounds						
5) 2-Fluorophenol	3.655	112	79566	75.85	ppm	0.00
Spiked Amount 50.000			Recovery = 151.70%			
8) Phenol-d5	4.376	99	103933	78.97	ppm	0.00
Spiked Amount 50.000			Recovery = 157.94%			
25) Nitrobenzene-d5	5.049	82	104560	82.31	ppm	0.00
Spiked Amount 50.000			Recovery = 164.62%			
51) 2-Fluorobiphenyl	6.369	172	213024	88.75	ppm	0.00
Spiked Amount 50.000			Recovery = 177.50%			
73) 2,4,6-Tribromophenol	7.849	330	29398	99.26	ppm	0.00
Spiked Amount 50.000			Recovery = 198.52%			
85) Terphenyl-d14	11.839	244	189830	84.07	ppm	0.00
Spiked Amount 50.000			Recovery = 168.14%			
Target Compounds						Qvalue
2) 1,4-Dioxane	2.175	88	32207	65.48	ppm	95
3) Pyridine	2.496	79	93616	75.82	ppm	99
4) N-Nitrosodimethylamine	2.458	42	47252	72.46	ppm	83
6) Indene	4.836	116	133212	74.95	ppm	97
7) Cumene	4.050	105	196147	74.90	ppm	97
9) Phenol	4.387	94	124062	81.52	ppm	86
10) Aniline	4.398	93	117047	68.77	ppm	90
11) bis(2-Chloroethyl)ether	4.446	93	83400	74.37	ppm	95
12) 2-Chlorophenol	4.488	128	84158	76.77	ppm	92

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7873\
Data File : F183417.D
Acq On : 25 Mar 2019 1:44 pm
Operator : kristis
Sample : ic7873-80
Misc : op18378,ef7873,1000,,,1,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 25 14:44:23 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF7873.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 25 14:40:22 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
13) Decane	4.531	43	100053	74.06	ppm		95
14) 1,3-Dichlorobenzene	4.601	146	95197	77.63	ppm		100
15) 1,4-Dichlorobenzene	4.654	146	100143	80.36	ppm		98
16) Benzyl alcohol	4.745	108	53741	79.11	ppm		90
17) 1,2-Dichlorobenzene	4.771	146	91088	76.66	ppm		99
18) Acetophenone	4.942	105	120945	77.90	ppm	#	72
19) 2-Methylphenol	4.830	108	77466	76.24	ppm		98
20) 2,2'-oxybis(1-Chloropr...	4.846	121	23328	77.74	ppm		93
21) 3&4-Methylphenol	4.942	108	82762	77.84	ppm		99
22) n-Nitroso-di-n-propyla...	4.942	70	68399	77.89	ppm		93
23) Hexachloroethane	5.017	201	34606	81.53	ppm		94
26) Nitrobenzene	5.065	77	110438	87.56	ppm		99
27) Quinoline	5.829	129	170891	82.41	ppm		97
28) Isophorone	5.236	82	172860	81.66	ppm		96
29) 2-Nitrophenol	5.295	139	47201	92.15	ppm		93
30) 2,4-Dimethylphenol	5.327	107	92101	88.99	ppm		96
31) Benzoic acid	5.434	105	57560m	105.90	ppm		
32) bis(2-Chloroethoxy)met...	5.391	93	106140	82.22	ppm		99
33) 2,4-Dichlorophenol	5.471	162	73726	85.22	ppm		99
34) 2,6-Dichlorophenol	5.632	162	71666	82.32	ppm		99
35) 1,3,5-Trichlorobenzene	5.306	180	84058	81.42	ppm		99
36) 1,2,4-Trichlorobenzene	5.530	180	81729	84.63	ppm		99
37) 1,2,3-Trichlorobenzene	5.690	180	82164	83.91	ppm		99
38) Naphthalene	5.584	128	248280	76.30	ppm		99
39) 4-Chloroaniline	5.621	127	102125	78.13	ppm		91
40) 2,3-Dichloroaniline	6.305	161	89776	82.77	ppm		100
41) Caprolactam	5.893	55	49989	93.25	ppm		97
42) Hexachlorobutadiene	5.680	225	46793	87.65	ppm		97
43) 4-Chloro-3-methylphenol	5.973	107	80352	85.98	ppm		94
44) 2-Methylnaphthalene	6.086	141	136978	80.17	ppm		97
45) 1-Methylnaphthalene	6.160	142	172243	78.19	ppm		97
46) Dimethylnaphthalene	6.588	156	153448	82.68	ppm		95
48) Hexachlorocyclopentadiene	6.214	237	100491	182.30	ppm		98
49) 2,4,6-Trichlorophenol	6.305	196	50972	83.27	ppm		97
50) 2,4,5-Trichlorophenol	6.337	196	64194	101.91	ppm		97
52) 2-Chloronaphthalene	6.470	162	162786	80.17	ppm		95
53) Biphenyl	6.454	154	210540	78.57	ppm		99
54) 2-Nitroaniline	6.556	65	58851	96.37	ppm		88
55) Dimethylphthalate	6.716	163	183036	81.57	ppm		99
56) Acenaphthylene	6.839	152	273367	85.55	ppm		100
57) 2,6-Dinitrotoluene	6.769	165	41397	97.74	ppm		92
58) 3-Nitroaniline	6.930	138	47438	86.85	ppm		96
59) Acenaphthene	7.010	153	175052	79.65	ppm		96
60) 2,4-Dinitrophenol	7.031	184	45085	174.29	ppm	#	57
61) 4-Nitrophenol	7.095	109	30491	105.03	ppm		86
62) Dibenzofuran	7.181	168	224364	77.56	ppm		93
63) 2,4-Dinitrotoluene	7.159	165	56286	97.53	ppm		71
64) 2,3,4,6-Tetrachlorophenol	7.314	232	46165	94.21	ppm		96
65) Diethylphthalate	7.432	149	202887	89.06	ppm		100
66) Fluorene	7.560	166	182913	82.13	ppm		99

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7873\
Data File : F183417.D
Acq On : 25 Mar 2019 1:44 pm
Operator : kristis
Sample : ic7873-80
Misc : op18378,ef7873,1000,,,1,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 25 14:44:23 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF7873.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 25 14:40:22 2019
Response via : Initial Calibration

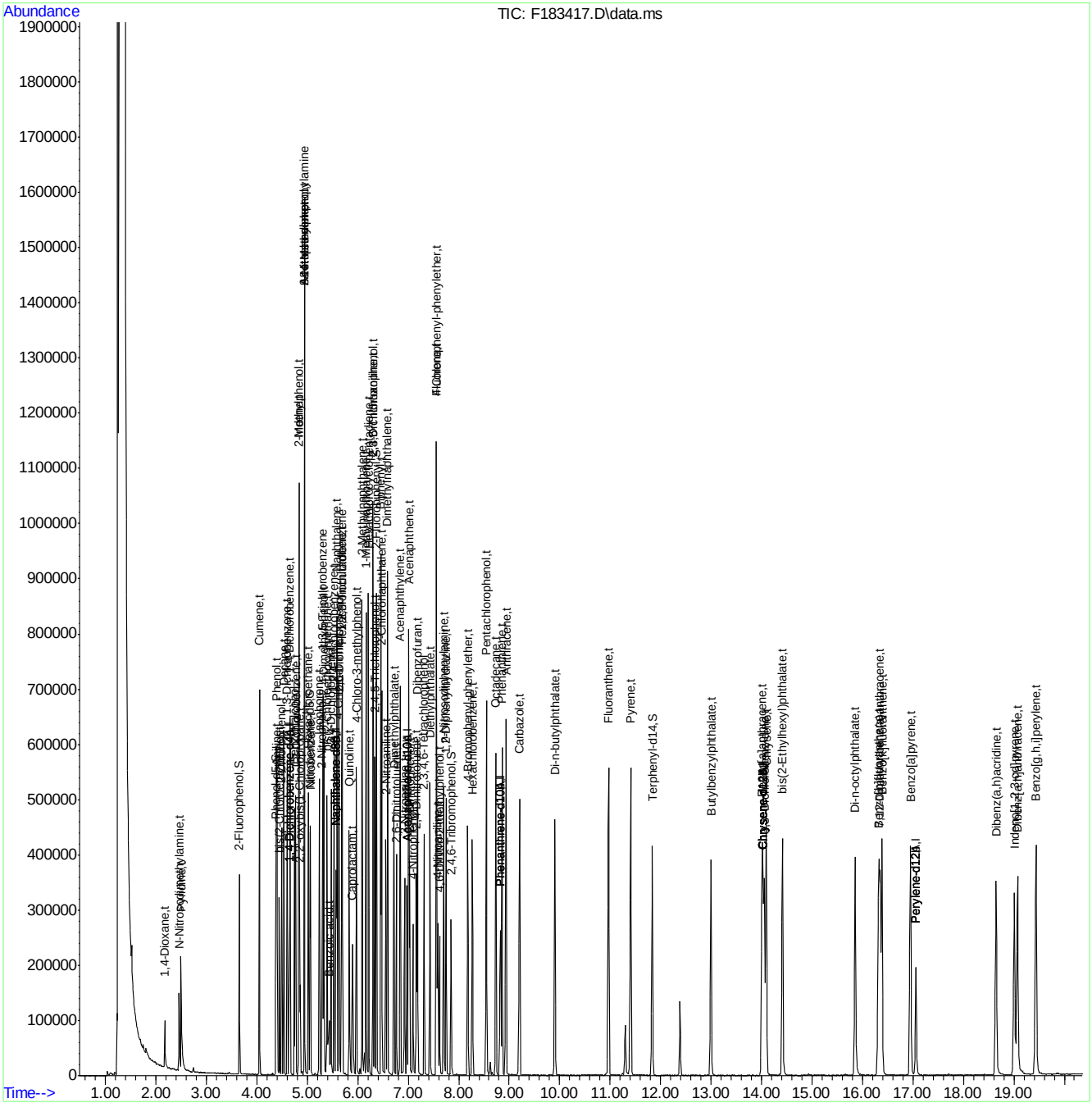
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
67)	4-Chlorophenyl-phenyle...	7.560	204	83825	82.06	ppm	98
68)	4-Nitroaniline	7.587	138	50753	87.13	ppm	91
70)	4,6-Dinitro-2-methylph...	7.619	198	30066	119.95	ppm	97
71)	n-Nitrosodiphenylamine	7.699	169	128148	78.99	ppm	98
72)	1,2-Diphenylhydrazine	7.752	77	221749	82.52	ppm	97
74)	4-Bromophenyl-phenylether	8.180	248	55555	97.20	ppm	94
75)	Hexachlorobenzene	8.271	284	61171	93.90	ppm	94
76)	Pentachlorophenol	8.548	266	69433	220.42	ppm	98
77)	Phenanthrene	8.858	178	281738	84.04	ppm	99
78)	Anthracene	8.938	178	308374	91.45	ppm	98
79)	Carbazole	9.206	167	249521	80.54	ppm	98
80)	Di-n-butylphthalate	9.905	149	330906	83.72	ppm	99
81)	Fluoranthene	10.968	202	324521	98.78	ppm	100
82)	Octadecane	8.735	57	139302	83.23	ppm	98
84)	Pyrene	11.407	202	333056	91.71	ppm	99
86)	Butylbenzylphthalate	12.999	149	151664	98.48	ppm	98
87)	Benzo[a]anthracene	14.014	228	268144	83.67	ppm	99
88)	3,3'-Dichlorobenzidine	14.056	252	100406	97.04	ppm	96
89)	Chrysene	14.094	228	272700	83.23	ppm	100
90)	bis(2-Ethylhexyl)phtha...	14.414	149	210960	105.90	ppm	95
92)	Di-n-octylphthalate	15.857	149	358125	118.15	ppm	99
93)	Benzo[b]fluoranthene	16.321	252	274273	99.78	ppm	97
94)	Benzo[k]fluoranthene	16.391	252	270531	85.31	ppm	99
95)	Benzo[a]pyrene	16.952	252	269522	107.88	ppm	97
96)	Indeno[1,2,3-cd]pyrene	19.014	276	239050	117.39	ppm	97
97)	Dibenz(a,h)acridine	18.651	279	236851	126.80	ppm	99
98)	Dibenz[a,h]anthracene	19.073	278	249463	108.92	ppm	99
99)	7,12-Dimethylbenz(a)an...	16.348	256	122860	100.84	ppm	98
100)	Benzo[g,h,i]perylene	19.441	276	288744	115.19	ppm	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7873\
Data File : F183417.D
Acq On : 25 Mar 2019 1:44 pm
Operator : kristis
Sample : ic7873-80
Misc : op18378,ef7873,1000,,,1,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 25 14:44:23 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF7873.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 25 14:40:22 2019
Response via : Initial Calibration



Manual Integration Approval Summary

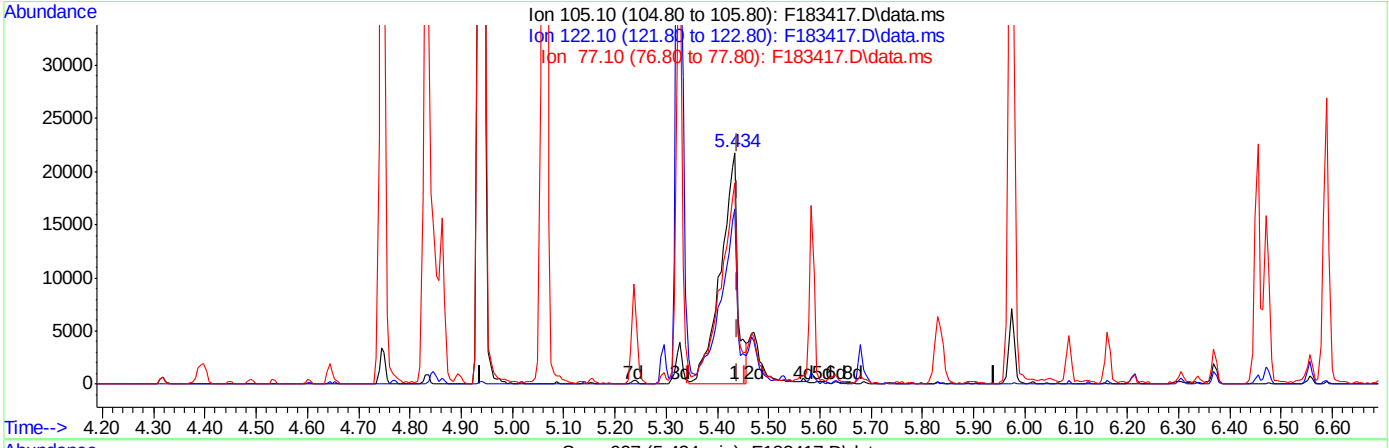
Sample Number:	EF7873-IC7873	**Method:**	SW846 8270D
Lab FileID:	F183417.D	**Analyst approved:**	03/27/19 18:40 Kristi Schollenberger
Injection Time:	03/25/19 13:44	**Supervisor approved:**	03/28/19 17:01 Nina Pandya

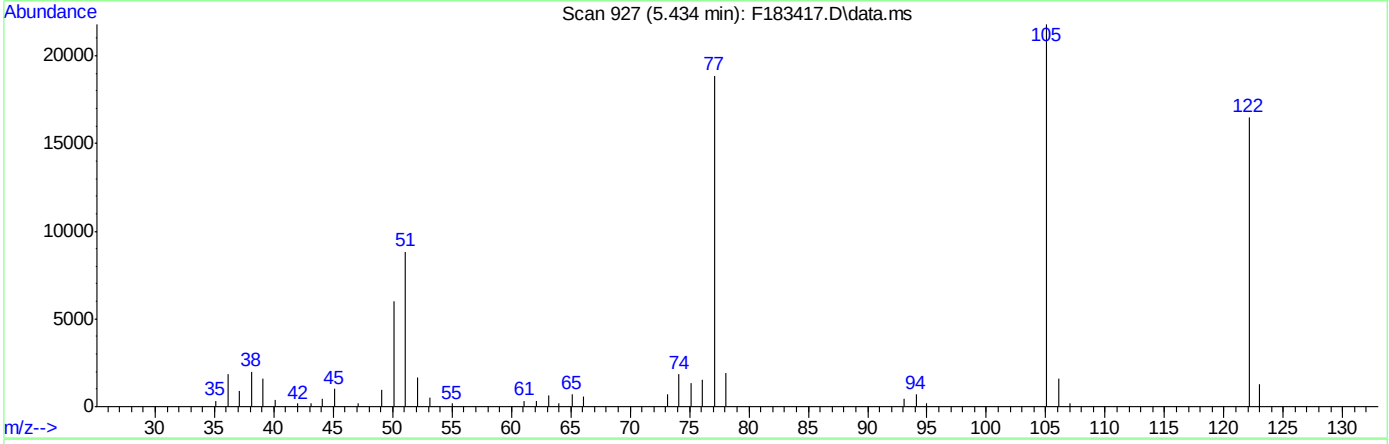
Parameter	CAS	Sig#	R.T. (min.)	Reason
Benzoic Acid	65-85-0		5.43	Split peak

Quantitation Report (Qedit)

Data Path : C:\MSDCHEM\1\DATA\EF7873\
Data File : F183417.D
Acq On : 25 Mar 2019 1:44 pm
Operator : kristis
Sample : ic7873-80
Misc : op18378,ef7873,1000,,,1,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 25 14:42:36 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF7873.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 25 14:40:22 2019
Response via : Initial Calibration





TIC: F183417.D\data.ms

(31) Benzoic acid (t)

5.434min (-0.005) 91.85ppm

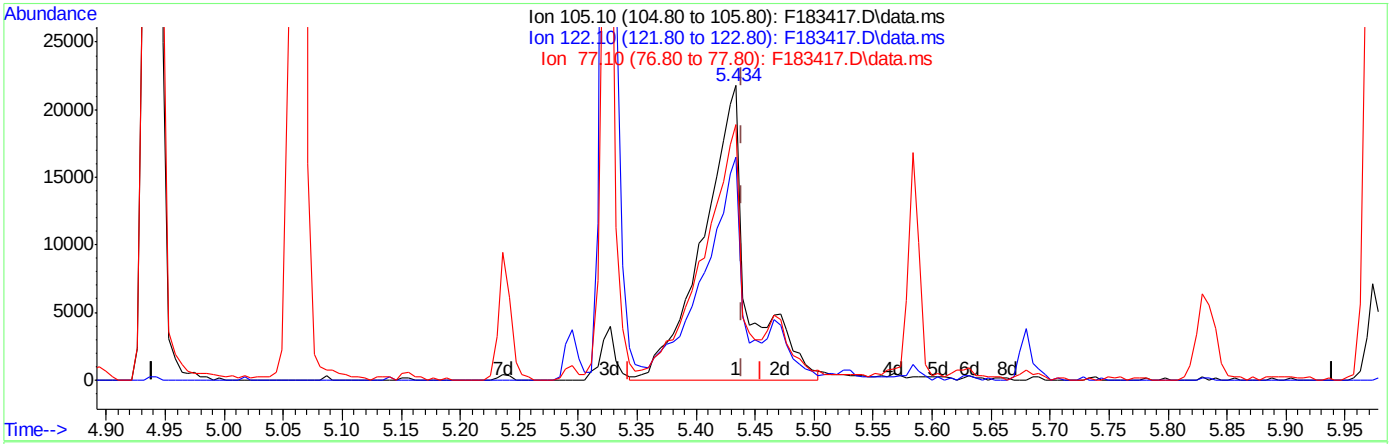
response 49921

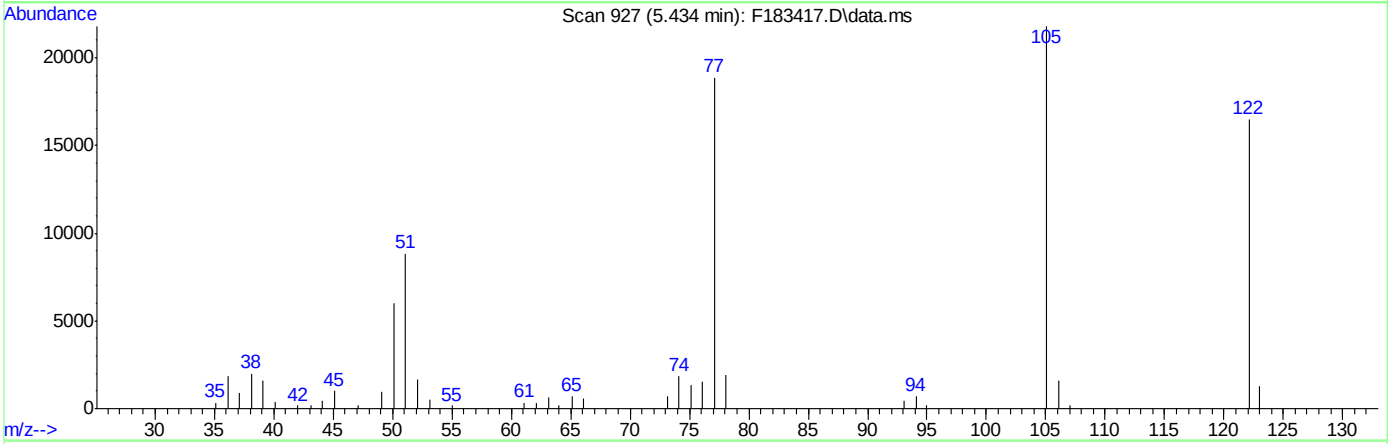
Ion	Exp%	Act%
105.10	100	100
122.10	76.20	70.74
77.10	81.80	85.11
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\MSDCHEM\1\DATA\EF7873\
Data File : F183417.D
Acq On : 25 Mar 2019 1:44 pm
Operator : kristis
Sample : ic7873-80
Misc : op18378,ef7873,1000,,,1,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 25 14:42:36 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF7873.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 25 14:40:22 2019
Response via : Initial Calibration





TIC: F183417.D\data.ms

(31) Benzoic acid (t)

5.434min (-0.005) 105.90ppm m

response 57560

Ion	Exp%	Act%
105.10	100	100
122.10	76.20	75.77
77.10	81.80	86.64
0.00	0.00	0.00

Manual Integrations APPROVED (compounds with "m" flag)
Nina Pandya
03/28/19 17:01

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7873\
Data File : F183418.D
Acq On : 25 Mar 2019 2:11 pm
Operator : kristis
Sample : ic7873-5
Misc : op18378,ef7873,1000,,,1,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 25 14:46:20 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF7873.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 25 14:40:22 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.643	152	33517	40.00	ppm	0.00
24) Naphthalene-d8	5.568	136	127213	40.00	ppm	0.00
47) Acenaphthene-d10	6.973	164	70450	40.00	ppm	0.00
69) Phenanthrene-d10	8.816	188	128604	40.00	ppm	-0.01
83) Chrysene-d12	14.024	240	112610	40.00	ppm	-0.02
91) Perylene-d12	17.053	264	122969	40.00	ppm	-0.02
101) 1,4-Dichlorobenzene-d4A	4.643	152	33517	40.00	ppm	0.00
111) Naphthalene-d8A	5.568	136	127213	40.00	ppm	0.00
120) Acenaphthene-d10A	6.973	164	70450	40.00	ppm	0.00
131) Phenanthrene-d10A	8.816	188	128604	40.00	ppm	-0.01
146) Chrysene-d12A	14.024	240	112610	40.00	ppm	-0.02
153) Perylene-d12A	17.053	264	122969	40.00	ppm	-0.02
156) 1,4-Dichlorobenzene-d4b	4.643	152	33517	40.00	ppm	0.00
158) Phenanthrene-d10b	8.816	188	128604	40.00	ppm	-0.01
160) Chrysene-d12b	14.024	240	112610	40.00	ppm	-0.02
162) Naphthalene-d8b	5.568	136	127213	40.00	ppm	0.00
164) Acenaphthene-d10b	6.973	164	70450	40.00	ppm	0.00
166) Naphthalene-d8c	5.568	136	127213	40.00	ppm	0.00
171) 1,4-Dichlorobenzene-d4c	4.643	152	33517	40.00	ppm	0.00
173) Chrysene-d12c	14.024	240	112610	40.00	ppm	-0.02
175) Chrysene-d12d	14.024	240	112610	40.00	ppm	-0.02
177) Naphthalene-d8d	5.568	136	127213	40.00	ppm	0.00
179) Chrysene-d12B	14.024	240	112610	40.00	ppm	0.00
181) Perylene-d12b	17.053	264	122969	40.00	ppm	-0.02
System Monitoring Compounds						
5) 2-Fluorophenol	3.650	112	5508	4.74	ppm	0.00
Spiked Amount 50.000			Recovery = 9.48%			
8) Phenol-d5	4.371	99	6898	4.74	ppm	-0.01
Spiked Amount 50.000			Recovery = 9.48%			
25) Nitrobenzene-d5	5.044	82	6734	4.93	ppm	0.00
Spiked Amount 50.000			Recovery = 9.86%			
51) 2-Fluorobiphenyl	6.369	172	12760	5.08	ppm	0.00
Spiked Amount 50.000			Recovery = 10.16%			
73) 2,4,6-Tribromophenol	7.843	330	1720	5.28	ppm	-0.01
Spiked Amount 50.000			Recovery = 10.56%			
85) Terphenyl-d14	11.823	244	12149	4.93	ppm	-0.02
Spiked Amount 50.000			Recovery = 9.86%			
Target Compounds						Qvalue
2) 1,4-Dioxane	2.181	88	2166m	3.98	ppm	
3) Pyridine	2.517	79	6332	4.63	ppm	89
4) N-Nitrosodimethylamine	2.469	42	3725	5.16	ppm	89
6) Indene	4.830	116	9343	4.75	ppm	93
7) Cumene	4.050	105	13993	4.83	ppm	98
9) Phenol	4.382	94	8114	4.82	ppm	94
10) Aniline	4.398	93	9148	4.86	ppm	95
11) bis(2-Chloroethyl)ether	4.446	93	5748	4.63	ppm	98
12) 2-Chlorophenol	4.489	128	5816	4.79	ppm	97

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7873\
Data File : F183418.D
Acq On : 25 Mar 2019 2:11 pm
Operator : kristis
Sample : ic7873-5
Misc : op18378,ef7873,1000,,,1,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 25 14:46:20 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF7873.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 25 14:40:22 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
13) Decane	4.531	43	7205	4.82	ppm		94
14) 1,3-Dichlorobenzene	4.601	146	6823	5.03	ppm		98
15) 1,4-Dichlorobenzene	4.654	146	6739	4.89	ppm		98
16) Benzyl alcohol	4.740	108	3304	4.39	ppm		80
17) 1,2-Dichlorobenzene	4.766	146	6450	4.90	ppm		97
18) Acetophenone	4.932	105	8150	4.74	ppm		78
19) 2-Methylphenol	4.825	108	4956	4.41	ppm		97
20) 2,2'-oxybis(1-Chloropr...	4.841	121	1446	4.35	ppm	#	71
21) 3&4-Methylphenol	4.937	108	5343	4.54	ppm		96
22) n-Nitroso-di-n-propyla...	4.937	70	4583	4.72	ppm		94
23) Hexachloroethane	5.017	201	2419	5.15	ppm		89
26) Nitrobenzene	5.055	77	7069	5.22	ppm		93
27) Quinoline	5.819	129	10766	4.83	ppm		95
28) Isophorone	5.231	82	12058	5.30	ppm		98
29) 2-Nitrophenol	5.290	139	2807	5.10	ppm		86
30) 2,4-Dimethylphenol	5.322	107	4982	4.48	ppm		97
31) Benzoic acid	5.365	105	2081	3.56	ppm		81
32) bis(2-Chloroethoxy)met...	5.386	93	7486	5.40	ppm		95
33) 2,4-Dichlorophenol	5.466	162	4447	4.78	ppm		100
34) 2,6-Dichlorophenol	5.626	162	4313	4.61	ppm		96
35) 1,3,5-Trichlorobenzene	5.301	180	5629	5.07	ppm		95
36) 1,2,4-Trichlorobenzene	5.525	180	5485	5.29	ppm		97
37) 1,2,3-Trichlorobenzene	5.685	180	5225	4.97	ppm		93
38) Naphthalene	5.584	128	16970	4.85	ppm		98
39) 4-Chloroaniline	5.616	127	6620	4.71	ppm		92
40) 2,3-Dichloroaniline	6.300	161	5566	4.78	ppm		87
41) Caprolactam	5.851	55	2900	5.03	ppm		92
42) Hexachlorobutadiene	5.680	225	2947	5.14	ppm		96
43) 4-Chloro-3-methylphenol	5.963	107	5098	5.08	ppm		95
44) 2-Methylnaphthalene	6.086	141	9432	5.14	ppm		96
45) 1-Methylnaphthalene	6.161	142	11599	4.90	ppm		94
46) Dimethylnaphthalene	6.583	156	10432	5.23	ppm		98
48) Hexachlorocyclopentadiene	6.209	237	5809	10.07	ppm		93
49) 2,4,6-Trichlorophenol	6.300	196	2965	4.63	ppm		97
50) 2,4,5-Trichlorophenol	6.332	196	3353	5.09	ppm		92
52) 2-Chloronaphthalene	6.465	162	10167	4.78	ppm		93
53) Biphenyl	6.449	154	13627	4.86	ppm		99
54) 2-Nitroaniline	6.545	65	3290	5.15	ppm		99
55) Dimethylphthalate	6.706	163	12270	5.22	ppm		100
56) Acenaphthylene	6.834	152	16837	5.03	ppm		99
57) 2,6-Dinitrotoluene	6.759	165	2493	5.62	ppm		92
58) 3-Nitroaniline	6.919	138	3005	5.26	ppm		96
59) Acenaphthene	7.005	153	11527	5.01	ppm		90
60) 2,4-Dinitrophenol	7.021	184	1826	11.30	ppm	#	41
61) 4-Nitrophenol	7.085	109	1579	5.20	ppm	#	82
62) Dibenzofuran	7.176	168	14747	4.87	ppm		99
63) 2,4-Dinitrotoluene	7.149	165	3113	5.15	ppm		80
64) 2,3,4,6-Tetrachlorophenol	7.309	232	2596	5.06	ppm		89
65) Diethylphthalate	7.421	149	12479	5.23	ppm		94
66) Fluorene	7.555	166	11919	5.11	ppm		96

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7873\
Data File : F183418.D
Acq On : 25 Mar 2019 2:11 pm
Operator : kristis
Sample : ic7873-5
Misc : op18378,ef7873,1000,,,1,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 25 14:46:20 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF7873.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 25 14:40:22 2019
Response via : Initial Calibration

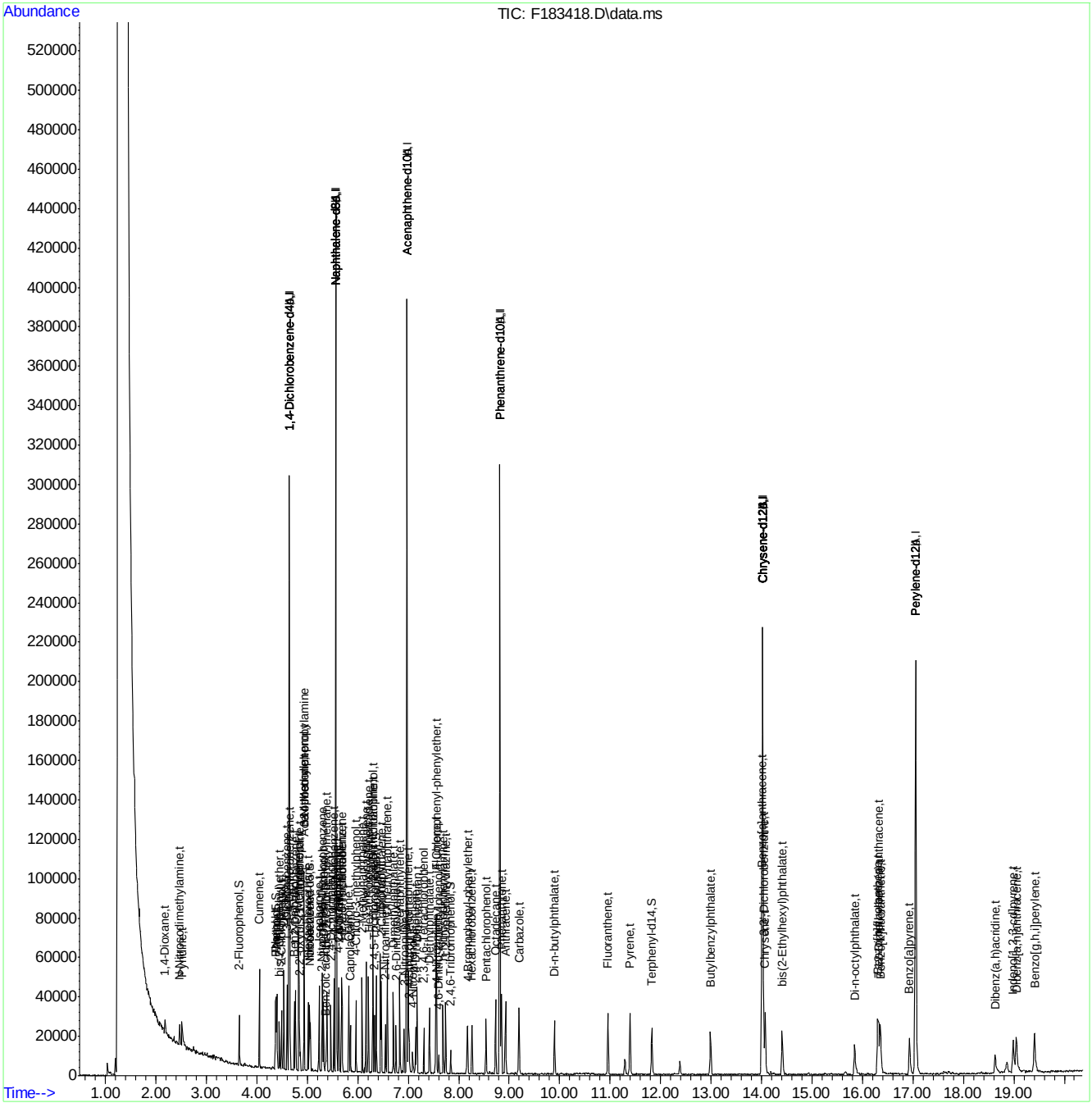
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
67) 4-Chlorophenyl-phenyle...	7.555	204	5566	5.21	ppm	100
68) 4-Nitroaniline	7.566	138	3039	4.98	ppm	92
70) 4,6-Dinitro-2-methylph...	7.603	198	1199	4.35	ppm	94
71) n-Nitrosodiphenylamine	7.689	169	8153	4.57	ppm	98
72) 1,2-Diphenylhydrazine	7.742	77	15022	5.08	ppm	96
74) 4-Bromophenyl-phenylether	8.175	248	3217	5.11	ppm	97
75) Hexachlorobenzene	8.260	284	3983	5.55	ppm	95
76) Pentachlorophenol	8.543	266	3309	9.54	ppm	94
77) Phenanthrene	8.848	178	18034	4.89	ppm	98
78) Anthracene	8.928	178	18190	4.90	ppm	99
79) Carbazole	9.195	167	16378	4.80	ppm	98
80) Di-n-butylphthalate	9.895	149	20812	4.78	ppm	98
81) Fluoranthene	10.958	202	18355	5.08	ppm	93
82) Octadecane	8.730	57	9270	5.03	ppm	98
84) Pyrene	11.391	202	19602	4.95	ppm	98
86) Butylbenzylphthalate	12.988	149	9359	5.57	ppm	99
87) Benzo[a]anthracene	14.003	228	18159	5.19	ppm	99
88) 3,3'-Dichlorobenzidine	14.040	252	6158	5.46	ppm	96
89) Chrysene	14.072	228	19088	5.34	ppm	98
90) bis(2-Ethylhexyl)phtha...	14.409	149	12088	5.56	ppm	98
92) Di-n-octylphthalate	15.846	149	18828	5.60	ppm	96
93) Benzo[b]fluoranthene	16.300	252	17390	5.70	ppm	98
94) Benzo[k]fluoranthene	16.354	252	18664	5.31	ppm	97
95) Benzo[a]pyrene	16.931	252	15632	5.64	ppm	94
96) Indeno[1,2,3-cd]pyrene	18.982	276	12261	5.43	ppm	97
97) Dibenz(a,h)acridine	18.629	279	10705	5.17	ppm	86
98) Dibenz[a,h]anthracene	19.051	278	15136	5.96	ppm	97
99) 7,12-Dimethylbenz(a)an...	16.322	256	6903	5.11	ppm	96
100) Benzo[g,h,i]perylene	19.409	276	15854	5.70	ppm	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7873\
Data File : F183418.D
Acq On : 25 Mar 2019 2:11 pm
Operator : kristis
Sample : ic7873-5
Misc : op18378,ef7873,1000,,,1,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 25 14:46:20 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF7873.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 25 14:40:22 2019
Response via : Initial Calibration



Manual Integration Approval Summary

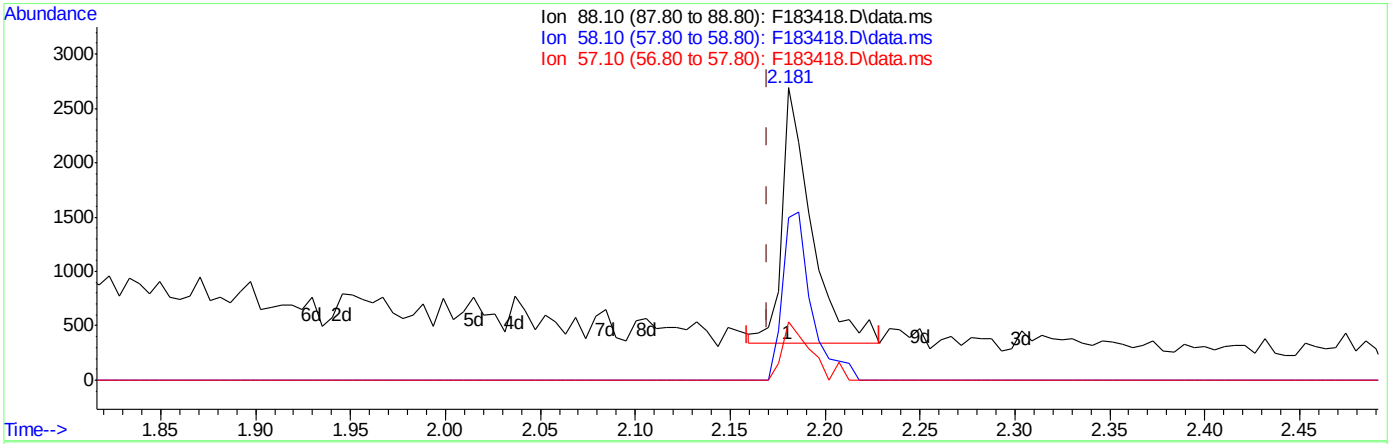
Sample Number:	EF7873-IC7873	**Method:**	SW846 8270D
Lab FileID:	F183418.D	**Analyst approved:**	03/27/19 18:40 Kristi Schollenberger
Injection Time:	03/25/19 14:11	**Supervisor approved:**	03/28/19 17:01 Nina Pandya

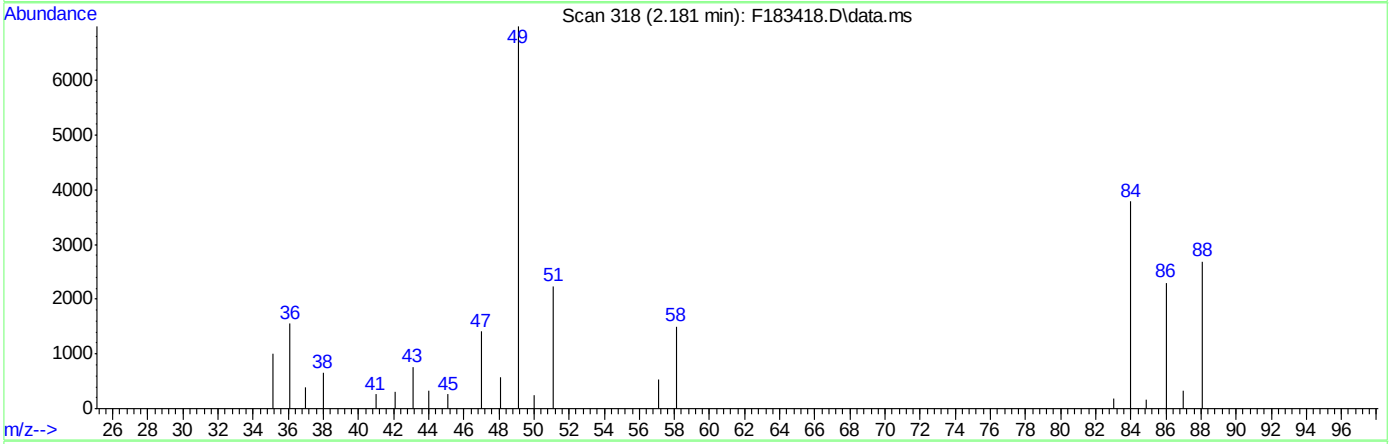
Parameter	CAS	Sig#	R.T. (min.)	Reason
1,4-Dioxane	123-91-1		2.18	Poor instrument integration

Quantitation Report (Qedit)

Data Path : C:\MSDCHEM\1\DATA\EF7873\
Data File : F183418.D
Acq On : 25 Mar 2019 2:11 pm
Operator : kristis
Sample : ic7873-5
Misc : op18378,ef7873,1000,,,1,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 25 14:44:36 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF7873.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 25 14:40:22 2019
Response via : Initial Calibration





TIC: F183418.D\data.ms

(2) 1,4-Dioxane (t)

2.181min (+0.011) 4.70ppm

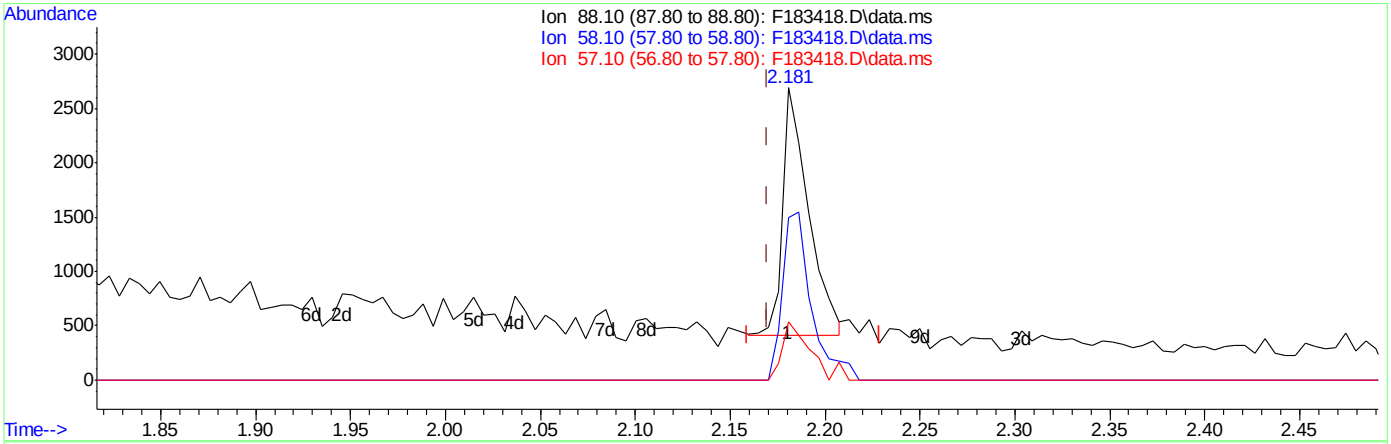
response 2557

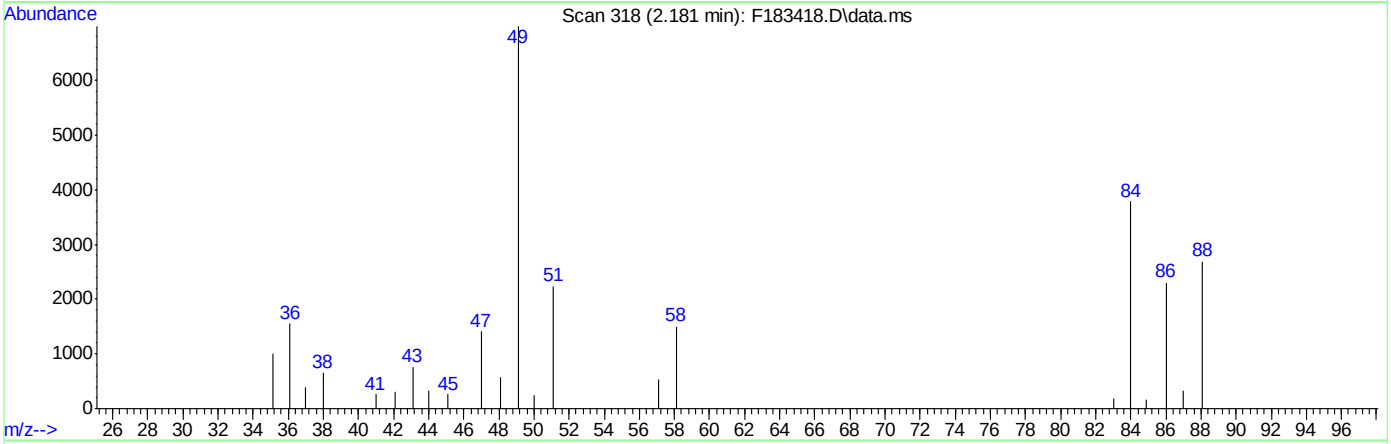
Ion	Exp%	Act%
88.10	100	100
58.10	72.70	64.88
57.10	25.50	23.31
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\MSDCHEM\1\DATA\EF7873\
Data File : F183418.D
Acq On : 25 Mar 2019 2:11 pm
Operator : kristis
Sample : ic7873-5
Misc : op18378,ef7873,1000,,,1,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 25 14:44:36 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF7873.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 25 14:40:22 2019
Response via : Initial Calibration





TIC: F183418.D\data.ms

(2) 1,4-Dioxane (t)

2.181min (+0.011) 3.98ppm m

response 2166

Ion	Exp%	Act%
88.10	100	100
58.10	72.70	55.76
57.10	25.50	20.04
0.00	0.00	0.00

Manual Integrations APPROVED (compounds with "m" flag)
Nina Pandya
03/28/19 17:01

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7873\
Data File : F183419.D
Acq On : 25 Mar 2019 2:38 pm
Operator : kristis
Sample : icc7873-50
Misc : op18378,ef7873,1000,,,1,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 25 15:03:28 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF7873.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 25 14:47:36 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.643	152	30426	40.00	ppm	0.00
24) Naphthalene-d8	5.567	136	121631	40.00	ppm	0.00
47) Acenaphthene-d10	6.972	164	66492	40.00	ppm	0.00
69) Phenanthrene-d10	8.816	188	118937	40.00	ppm	0.00
83) Chrysene-d12	14.030	240	105749	40.00	ppm	0.00
91) Perylene-d12	17.059	264	112294	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4A	4.643	152	30426	40.00	ppm	0.00
111) Naphthalene-d8A	5.567	136	121631	40.00	ppm	0.00
120) Acenaphthene-d10A	6.972	164	66492	40.00	ppm	0.00
131) Phenanthrene-d10A	8.816	188	118937	40.00	ppm	0.00
146) Chrysene-d12A	14.030	240	105749	40.00	ppm	0.00
153) Perylene-d12A	17.059	264	112294	40.00	ppm	0.00
156) 1,4-Dichlorobenzene-d4b	4.643	152	30426	40.00	ppm	0.00
158) Phenanthrene-d10b	8.816	188	118937	40.00	ppm	0.00
160) Chrysene-d12b	14.030	240	105749	40.00	ppm	0.00
162) Naphthalene-d8b	5.567	136	121631	40.00	ppm	0.00
164) Acenaphthene-d10b	6.972	164	66492	40.00	ppm	0.00
166) Naphthalene-d8c	5.567	136	121631	40.00	ppm	0.00
171) 1,4-Dichlorobenzene-d4c	4.643	152	30426	40.00	ppm	0.00
173) Chrysene-d12c	14.030	240	105749	40.00	ppm	0.00
175) Chrysene-d12d	14.030	240	105749	40.00	ppm	0.00
177) Naphthalene-d8d	5.567	136	121631	40.00	ppm	0.00
179) Chrysene-d12B	14.030	240	105749	40.00	ppm	0.00
181) Perylene-d12b	17.059	264	112294	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	3.650	112	52342	51.84	ppm	0.00
Spiked Amount 50.000			Recovery = 103.68%			
8) Phenol-d5	4.376	99	66878	50.54	ppm	0.00
Spiked Amount 50.000			Recovery = 101.08%			
25) Nitrobenzene-d5	5.049	82	67236	52.76	ppm	0.00
Spiked Amount 50.000			Recovery = 105.52%			
51) 2-Fluorobiphenyl	6.369	172	139557	57.14	ppm	0.00
Spiked Amount 50.000			Recovery = 114.28%			
73) 2,4,6-Tribromophenol	7.849	330	21800	68.48	ppm	0.00
Spiked Amount 50.000			Recovery = 136.96%			
85) Terphenyl-d14	11.834	244	120631	51.52	ppm	0.01
Spiked Amount 50.000			Recovery = 103.04%			
Target Compounds						Qvalue
2) 1,4-Dioxane	2.175	88	21699	47.75	ppm	96
3) Pyridine	2.496	79	57925	51.14	ppm	99
4) N-Nitrosodimethylamine	2.458	42	31307	46.24	ppm	79
6) Indene	4.836	116	84958	51.14	ppm	97
7) Cumene	4.050	105	131221	52.08	ppm	98
9) Phenol	4.387	94	80906	52.00	ppm	88
10) Aniline	4.397	93	75829	47.98	ppm	99
11) bis(2-Chloroethyl)ether	4.446	93	52447	49.19	ppm	93
12) 2-Chlorophenol	4.488	128	54306	52.39	ppm	94

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7873\
Data File : F183419.D
Acq On : 25 Mar 2019 2:38 pm
Operator : kristis
Sample : icc7873-50
Misc : op18378,ef7873,1000,,,1,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 25 15:03:28 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF7873.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 25 14:47:36 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
13) Decane	4.531	43	69087	53.39	ppm		93
14) 1,3-Dichlorobenzene	4.600	146	61024	50.76	ppm		99
15) 1,4-Dichlorobenzene	4.654	146	61771	49.96	ppm		98
16) Benzyl alcohol	4.745	108	34489	53.32	ppm		92
17) 1,2-Dichlorobenzene	4.766	146	59422	50.40	ppm		99
18) Acetophenone	4.937	105	78010	51.57	ppm		78
19) 2-Methylphenol	4.830	108	49286	52.31	ppm		97
20) 2,2'-oxybis(1-Chloropr...	4.846	121	14841	59.26	ppm		93
21) 3&4-Methylphenol	4.942	108	52038	53.17	ppm		99
22) n-Nitroso-di-n-propyla...	4.942	70	43791	52.27	ppm		96
23) Hexachloroethane	5.017	201	21730	51.65	ppm		96
26) Nitrobenzene	5.060	77	69565	51.58	ppm		93
27) Quinoline	5.829	129	108170	51.51	ppm		99
28) Isophorone	5.236	82	113166	50.70	ppm		99
29) 2-Nitrophenol	5.295	139	32107	56.27	ppm		97
30) 2,4-Dimethylphenol	5.322	107	57259	55.04	ppm		92
31) Benzoic acid	5.418	105	35188m	61.94	ppm		
32) bis(2-Chloroethoxy)met...	5.391	93	69258	50.79	ppm		99
33) 2,4-Dichlorophenol	5.466	162	47152	53.89	ppm		95
34) 2,6-Dichlorophenol	5.632	162	47276	55.71	ppm		97
35) 1,3,5-Trichlorobenzene	5.306	180	54556	50.51	ppm		99
36) 1,2,4-Trichlorobenzene	5.530	180	52507	48.73	ppm		99
37) 1,2,3-Trichlorobenzene	5.690	180	52683	53.12	ppm		97
38) Naphthalene	5.583	128	159842	49.93	ppm		100
39) 4-Chloroaniline	5.621	127	65526	51.45	ppm		91
40) 2,3-Dichloroaniline	6.305	161	57604	48.29	ppm		98
41) Caprolactam	5.883	55	31887	53.90	ppm		93
42) Hexachlorobutadiene	5.680	225	30279	52.08	ppm		96
43) 4-Chloro-3-methylphenol	5.973	107	51706	52.63	ppm		99
44) 2-Methylnaphthalene	6.086	141	89260	49.37	ppm		97
45) 1-Methylnaphthalene	6.160	142	111525	48.40	ppm		97
46) Dimethylnaphthalene	6.588	156	97740	50.16	ppm		96
48) Hexachlorocyclopentadiene	6.214	237	64898	120.08	ppm		98
49) 2,4,6-Trichlorophenol	6.305	196	32131	51.72	ppm		97
50) 2,4,5-Trichlorophenol	6.337	196	35278	51.77	ppm		93
52) 2-Chloronaphthalene	6.470	162	105374	54.52	ppm		96
53) Biphenyl	6.454	154	138596	54.23	ppm		99
54) 2-Nitroaniline	6.550	65	37641	56.24	ppm		80
55) Dimethylphthalate	6.711	163	118021	52.55	ppm		99
56) Acenaphthylene	6.839	152	166835	51.10	ppm		98
57) 2,6-Dinitrotoluene	6.764	165	25971	54.33	ppm		95
58) 3-Nitroaniline	6.924	138	31159	56.96	ppm		99
59) Acenaphthene	7.004	153	113176	52.12	ppm		95
60) 2,4-Dinitrophenol	7.026	184	27776	128.85	ppm	#	56
61) 4-Nitrophenol	7.090	109	19603	65.28	ppm		90
62) Dibenzofuran	7.181	168	144263	52.75	ppm		96
63) 2,4-Dinitrotoluene	7.159	165	35814	57.72	ppm		83
64) 2,3,4,6-Tetrachlorophenol	7.314	232	28847	57.87	ppm		97
65) Diethylphthalate	7.427	149	123058	53.31	ppm		98
66) Fluorene	7.560	166	113819	51.95	ppm		99

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7873\
Data File : F183419.D
Acq On : 25 Mar 2019 2:38 pm
Operator : kristis
Sample : icc7873-50
Misc : op18378,ef7873,1000,,,1,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 25 15:03:28 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF7873.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 25 14:47:36 2019
Response via : Initial Calibration

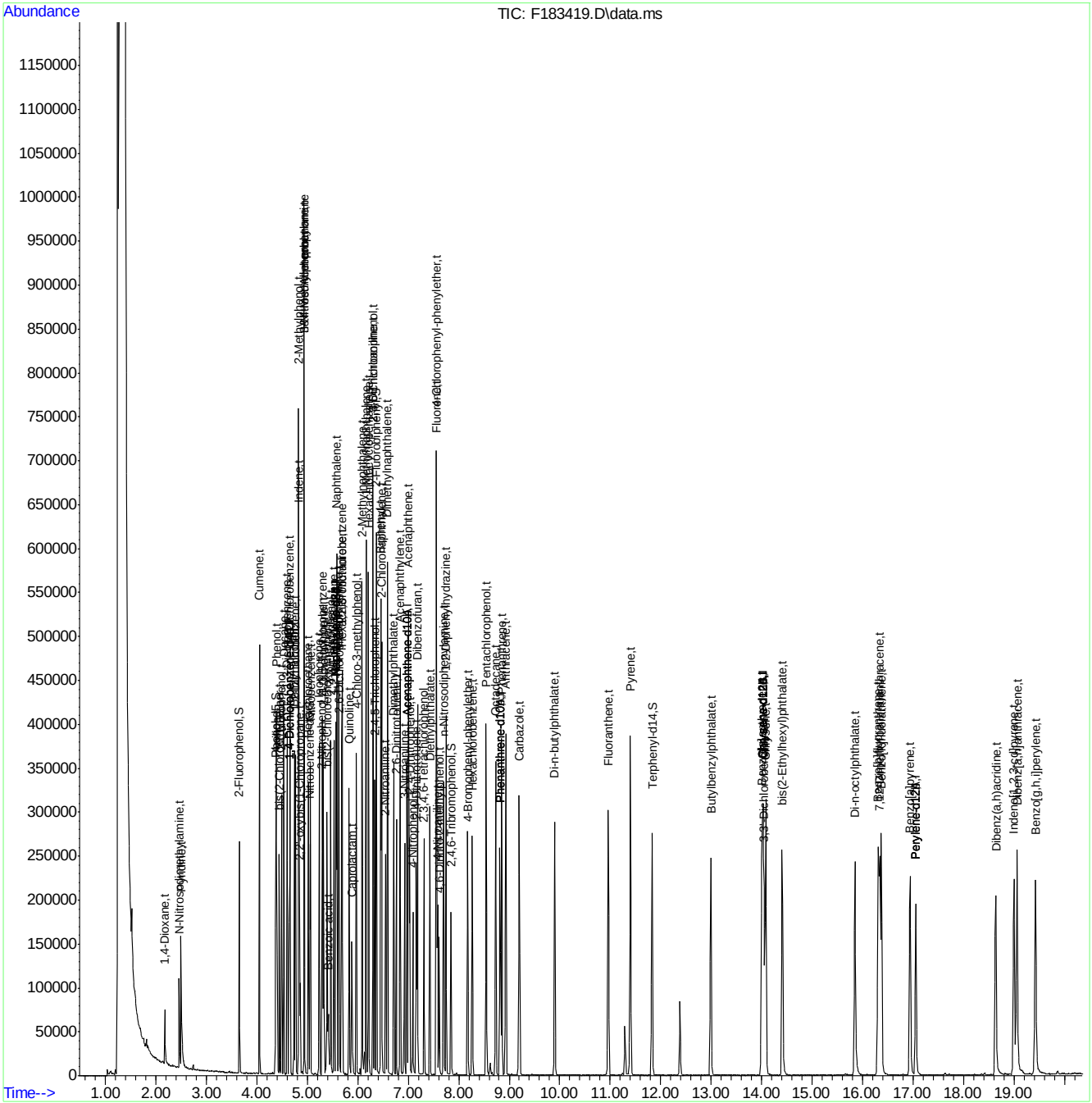
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
67)	4-Chlorophenyl-phenyle...	7.555	204	52249	51.40	ppm	94
68)	4-Nitroaniline	7.581	138	32392	57.85	ppm	93
70)	4,6-Dinitro-2-methylph...	7.614	198	18047	66.76	ppm	89
71)	n-Nitrosodiphenylamine	7.699	169	81849	51.35	ppm	98
72)	1,2-Diphenylhydrazine	7.747	77	172095	62.39	ppm	96
74)	4-Bromophenyl-phenylether	8.180	248	31778	50.13	ppm	97
75)	Hexachlorobenzene	8.265	284	37477	49.05	ppm	97
76)	Pentachlorophenol	8.548	266	41855	119.63	ppm	94
77)	Phenanthrene	8.853	178	176166	52.50	ppm	99
78)	Anthracene	8.933	178	178388	53.19	ppm	98
79)	Carbazole	9.205	167	162937	52.13	ppm	99
80)	Di-n-butylphthalate	9.900	149	210489	54.15	ppm	99
81)	Fluoranthene	10.963	202	182059	50.94	ppm	96
82)	Octadecane	8.735	57	92340	54.33	ppm	97
84)	Pyrene	11.401	202	209936	55.22	ppm	100
86)	Butylbenzylphthalate	12.998	149	95370	51.80	ppm	98
87)	Benzo[a]anthracene	14.008	228	171694	48.26	ppm	99
88)	3,3'-Dichlorobenzidine	14.051	252	63010	56.51	ppm	96
89)	Chrysene	14.088	228	174001	48.08	ppm	99
90)	bis(2-Ethylhexyl)phtha...	14.409	149	133715	53.83	ppm	95
92)	Di-n-octylphthalate	15.851	149	225568	61.52	ppm	100
93)	Benzo[b]fluoranthene	16.311	252	174890	57.44	ppm	97
94)	Benzo[k]fluoranthene	16.375	252	174322	53.00	ppm	97
95)	Benzo[a]pyrene	16.946	252	153139	59.41	ppm	98
96)	Indeno[1,2,3-cd]pyrene	19.003	276	150491	67.81	ppm	93
97)	Dibenz(a,h)acridine	18.645	279	144375	73.85	ppm	99
98)	Dibenz[a,h]anthracene	19.062	278	160956	64.92	ppm	97
99)	7,12-Dimethylbenz(a)an...	16.343	256	75900	60.46	ppm	97
100)	Benzo[g,h,i]perylene	19.431	276	166095	60.57	ppm	94

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7873\
Data File : F183419.D
Acq On : 25 Mar 2019 2:38 pm
Operator : kristis
Sample : icc7873-50
Misc : op18378,ef7873,1000,,,1,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 25 15:03:28 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF7873.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 25 14:47:36 2019
Response via : Initial Calibration



Manual Integration Approval Summary

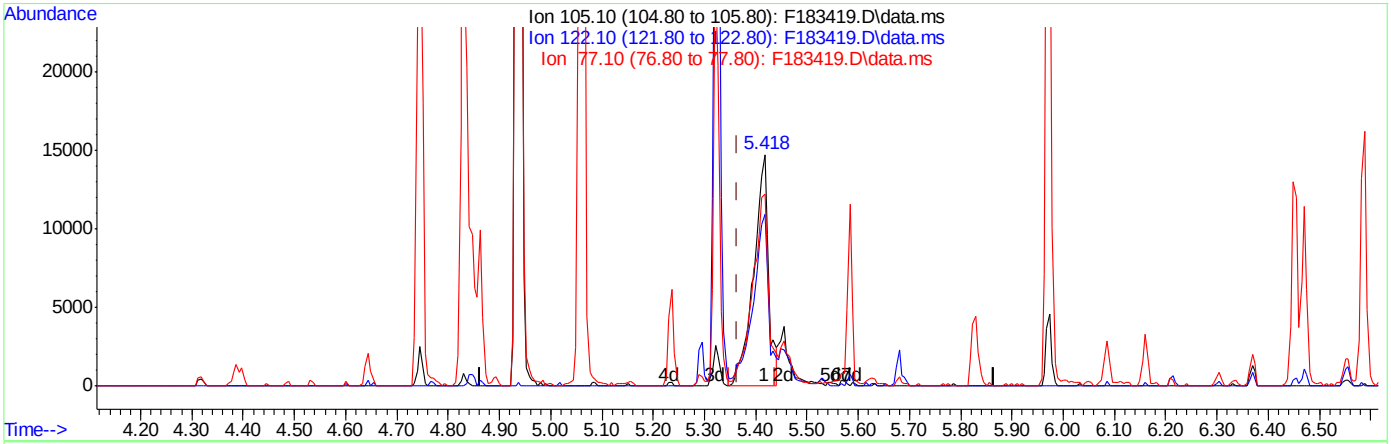
Sample Number:	EF7873-ICC7873	**Method:**	SW846 8270D
Lab FileID:	F183419.D	**Analyst approved:**	03/27/19 18:40 Kristi Schollenberger
Injection Time:	03/25/19 14:38	**Supervisor approved:**	03/28/19 17:01 Nina Pandya

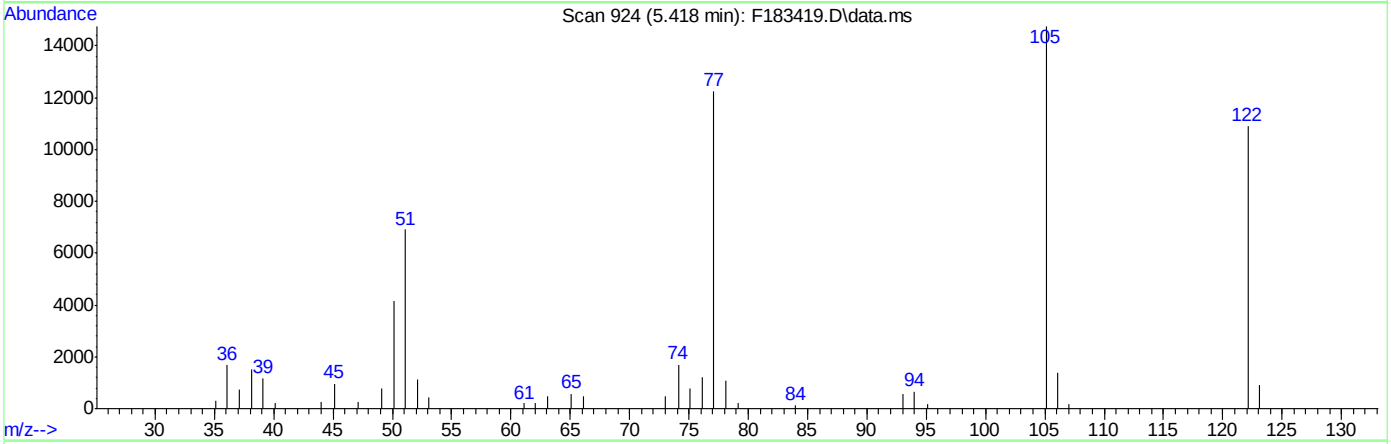
Parameter	CAS	Sig#	R.T. (min.)	Reason
Benzoic Acid	65-85-0		5.42	Split peak

Quantitation Report (Qedit)

Data Path : C:\MSDCHEM\1\DATA\EF7873\
Data File : F183419.D
Acq On : 25 Mar 2019 2:38 pm
Operator : kristis
Sample : icc7873-50
Misc : op18378,ef7873,1000,,,1,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 25 14:58:43 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF7873.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 25 14:47:36 2019
Response via : Initial Calibration





TIC: F183419.D\data.ms

(31) Benzoic acid (t)

5.418min (+0.053) 52.62ppm

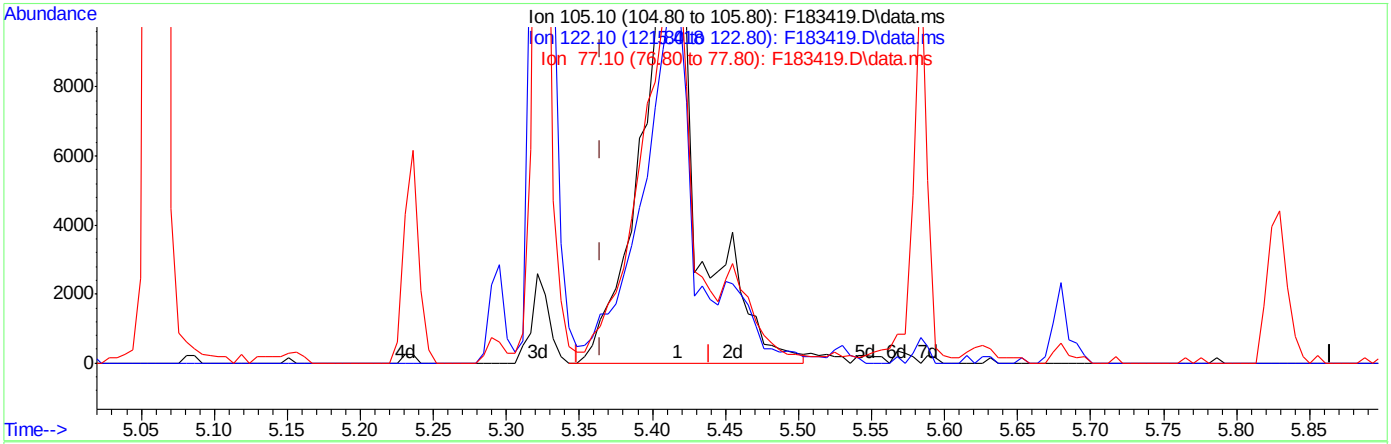
response 29894

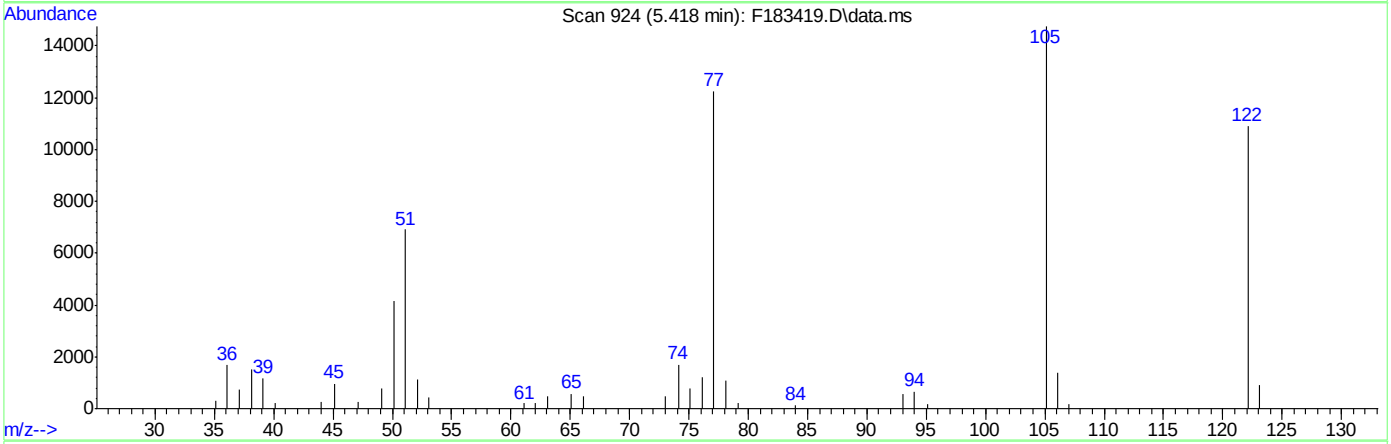
Ion	Exp%	Act%
105.10	100	100
122.10	76.20	72.26
77.10	81.80	81.64
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\MSDCHEM\1\DATA\EF7873\
Data File : F183419.D
Acq On : 25 Mar 2019 2:38 pm
Operator : kristis
Sample : icc7873-50
Misc : op18378,ef7873,1000,,,1,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 25 14:58:43 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF7873.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 25 14:47:36 2019
Response via : Initial Calibration





TIC: F183419.D\data.ms

(31) Benzoic acid (t)

5.418min (+0.053) 61.94ppm m

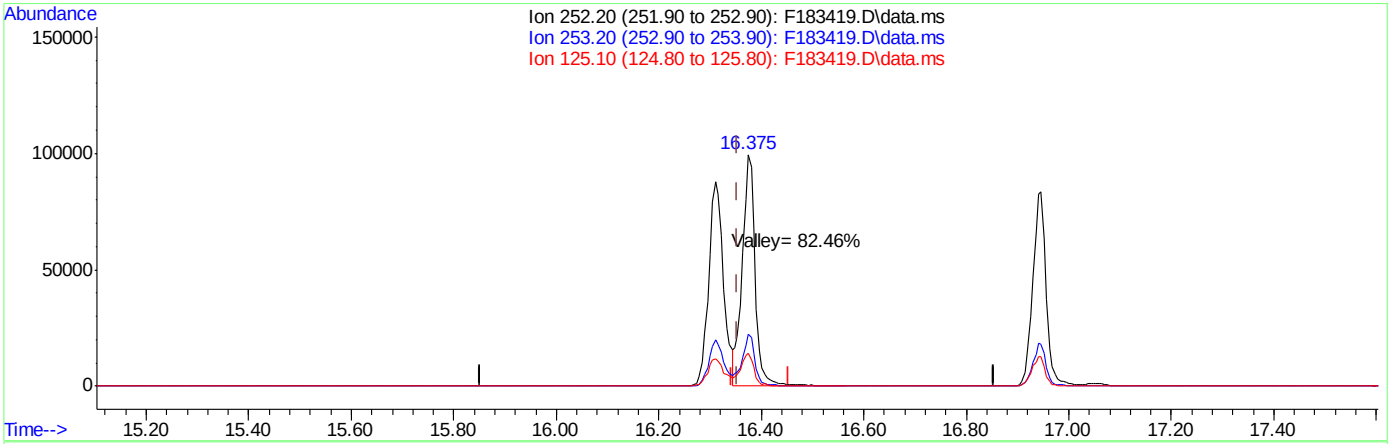
response 35188

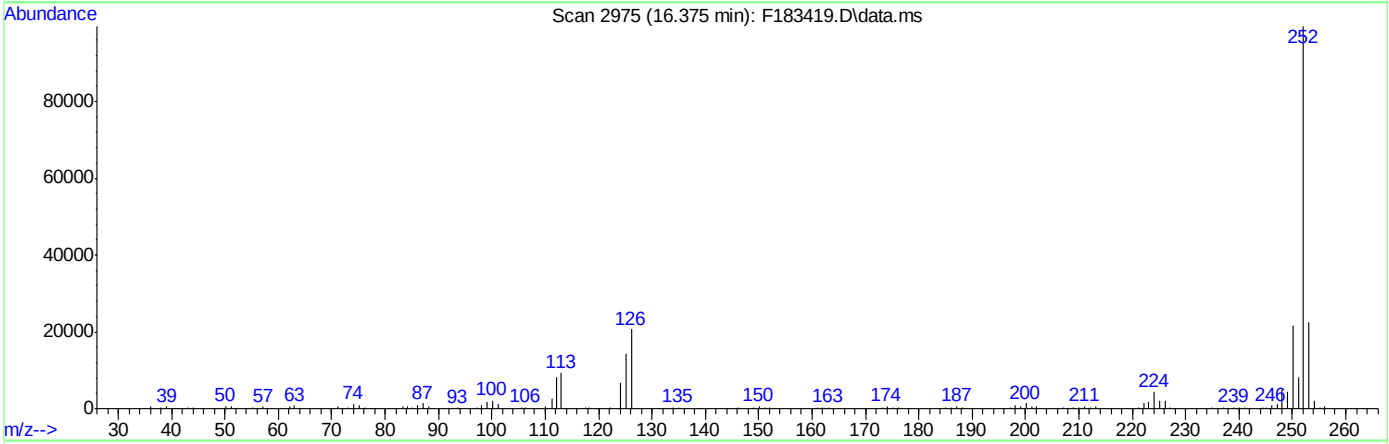
Ion	Exp%	Act%
105.10	100	100
122.10	76.20	74.01
77.10	81.80	83.07
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\MSDCHEM\1\DATA\EF7873\
Data File : F183419.D
Acq On : 25 Mar 2019 2:38 pm
Operator : kristis
Sample : icc7873-50
Misc : op18378,ef7873,1000,,,1,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 25 14:58:43 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF7873.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 25 14:47:36 2019
Response via : Initial Calibration





TIC: F183419.D\data.ms

(94) Benzo[k]fluoranthene (t)

16.375min (+0.021) 53.00ppm

response 174322

Ion	Exp%	Act%
252.20	100	100
253.20	20.00	22.12
125.10	13.00	13.57
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7873\
Data File : F183420.D
Acq On : 25 Mar 2019 3:04 pm
Operator : kristis
Sample : ic7873-10
Misc : op18378,ef7873,1000,,,1,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 25 15:33:19 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF7873.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 25 15:03:38 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.643	152	30293	40.00	ppm	0.00
24) Naphthalene-d8	5.568	136	128709	40.00	ppm	0.00
47) Acenaphthene-d10	6.973	164	69234	40.00	ppm	0.00
69) Phenanthrene-d10	8.816	188	125145	40.00	ppm	0.00
83) Chrysene-d12	14.024	240	105599	40.00	ppm	0.00
91) Perylene-d12	17.053	264	133226	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4A	4.643	152	30293	40.00	ppm	0.00
111) Naphthalene-d8A	5.568	136	128709	40.00	ppm	0.00
120) Acenaphthene-d10A	6.973	164	69234	40.00	ppm	0.00
131) Phenanthrene-d10A	8.816	188	125145	40.00	ppm	0.00
146) Chrysene-d12A	14.024	240	105599	40.00	ppm	0.00
153) Perylene-d12A	17.053	264	133226	40.00	ppm	0.00
156) 1,4-Dichlorobenzene-d4b	4.643	152	30293	40.00	ppm	0.00
158) Phenanthrene-d10b	8.816	188	125145	40.00	ppm	0.00
160) Chrysene-d12b	14.024	240	105599	40.00	ppm	0.00
162) Naphthalene-d8b	5.568	136	128709	40.00	ppm	0.00
164) Acenaphthene-d10b	6.973	164	69234	40.00	ppm	0.00
166) Naphthalene-d8c	5.568	136	128709	40.00	ppm	0.00
171) 1,4-Dichlorobenzene-d4c	4.643	152	30293	40.00	ppm	0.00
173) Chrysene-d12c	14.024	240	105599	40.00	ppm	0.00
175) Chrysene-d12d	14.024	240	105599	40.00	ppm	0.00
177) Naphthalene-d8d	5.568	136	128709	40.00	ppm	0.00
179) Chrysene-d12B	14.024	240	105599	40.00	ppm	0.00
181) Perylene-d12b	17.053	264	133226	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	3.650	112	9489	9.38	ppm	0.00
Spiked Amount 50.000			Recovery = 18.76%			
8) Phenol-d5	4.371	99	13190	9.99	ppm	0.00
Spiked Amount 50.000			Recovery = 19.98%			
25) Nitrobenzene-d5	5.044	82	13848	10.17	ppm	0.00
Spiked Amount 50.000			Recovery = 20.34%			
51) 2-Fluorobiphenyl	6.369	172	24861	9.55	ppm	0.00
Spiked Amount 50.000			Recovery = 19.10%			
73) 2,4,6-Tribromophenol	7.843	330	3283	9.23	ppm	0.00
Spiked Amount 50.000			Recovery = 18.46%			
85) Terphenyl-d14	11.829	244	23705	10.09	ppm	0.00
Spiked Amount 50.000			Recovery = 20.18%			
Target Compounds						Qvalue
2) 1,4-Dioxane	2.181	88	4203	9.36	ppm	88
3) Pyridine	2.512	79	11523	10.18	ppm	94
4) N-Nitrosodimethylamine	2.469	42	6518	9.79	ppm	90
6) Indene	4.830	116	17659	10.64	ppm	97
7) Cumene	4.050	105	24934	9.87	ppm	98
9) Phenol	4.382	94	15378	9.86	ppm	92
10) Aniline	4.398	93	16327	10.45	ppm	86
11) bis(2-Chloroethyl)ether	4.446	93	10038	9.48	ppm	91
12) 2-Chlorophenol	4.488	128	10483	10.08	ppm	96

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7873\
Data File : F183420.D
Acq On : 25 Mar 2019 3:04 pm
Operator : kristis
Sample : ic7873-10
Misc : op18378,ef7873,1000,,,1,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 25 15:33:19 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF7873.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 25 15:03:38 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
13) Decane	4.531	43	13494	10.36	ppm		93
14) 1,3-Dichlorobenzene	4.601	146	12226	10.19	ppm		99
15) 1,4-Dichlorobenzene	4.654	146	12794	10.39	ppm		95
16) Benzyl alcohol	4.739	108	7041	10.81	ppm		90
17) 1,2-Dichlorobenzene	4.766	146	12674	10.78	ppm		93
18) Acetophenone	4.932	105	16477	10.88	ppm		84
19) 2-Methylphenol	4.825	108	9747	10.31	ppm		95
20) 2,2'-oxybis(1-Chloropr...	4.846	121	2887	11.23	ppm	#	91
21) 3&4-Methylphenol	4.937	108	10200	10.36	ppm		98
22) n-Nitroso-di-n-propyla...	4.937	70	9027	10.74	ppm		93
23) Hexachloroethane	5.017	201	4426	10.51	ppm		92
26) Nitrobenzene	5.060	77	14564	10.15	ppm		98
27) Quinoline	5.819	129	22304	9.99	ppm		97
28) Isophorone	5.231	82	25137	10.62	ppm		97
29) 2-Nitrophenol	5.290	139	5628	9.13	ppm		84
30) 2,4-Dimethylphenol	5.322	107	10619	9.49	ppm		95
31) Benzoic acid	5.375	105	5094	8.09	ppm		87
32) bis(2-Chloroethoxy)met...	5.386	93	14060	9.72	ppm		98
33) 2,4-Dichlorophenol	5.466	162	9570	10.20	ppm		97
34) 2,6-Dichlorophenol	5.626	162	9537	10.42	ppm		94
35) 1,3,5-Trichlorobenzene	5.300	180	11043	9.65	ppm		98
36) 1,2,4-Trichlorobenzene	5.525	180	10857	9.56	ppm		98
37) 1,2,3-Trichlorobenzene	5.690	180	10540	9.94	ppm		94
38) Naphthalene	5.584	128	33650	9.94	ppm		100
39) 4-Chloroaniline	5.616	127	13561	10.01	ppm		92
40) 2,3-Dichloroaniline	6.299	161	11865	9.45	ppm		95
41) Caprolactam	5.856	55	6459	10.19	ppm		94
42) Hexachlorobutadiene	5.680	225	6266	10.12	ppm		92
43) 4-Chloro-3-methylphenol	5.968	107	10246	9.77	ppm		97
44) 2-Methylnaphthalene	6.086	141	18224	9.55	ppm		94
45) 1-Methylnaphthalene	6.161	142	24166	9.96	ppm		97
46) Dimethylnaphthalene	6.583	156	19980	9.69	ppm		98
48) Hexachlorocyclopentadiene	6.214	237	12368	21.27	ppm		99
49) 2,4,6-Trichlorophenol	6.299	196	6640	10.21	ppm		92
50) 2,4,5-Trichlorophenol	6.331	196	6972	9.77	ppm		96
52) 2-Chloronaphthalene	6.470	162	20607	10.09	ppm		98
53) Biphenyl	6.449	154	27687	10.26	ppm		100
54) 2-Nitroaniline	6.545	65	7237	10.17	ppm		81
55) Dimethylphthalate	6.705	163	23645	10.03	ppm		98
56) Acenaphthylene	6.834	152	33370	9.78	ppm		98
57) 2,6-Dinitrotoluene	6.759	165	4811	9.53	ppm		98
58) 3-Nitroaniline	6.919	138	6090	10.45	ppm		98
59) Acenaphthene	7.005	153	23133	10.16	ppm		92
60) 2,4-Dinitrophenol	7.015	184	3986	16.79	ppm	#	59
61) 4-Nitrophenol	7.085	109	3235	9.85	ppm		87
62) Dibenzofuran	7.176	168	28820	10.03	ppm		98
63) 2,4-Dinitrotoluene	7.154	165	6404	9.66	ppm		84
64) 2,3,4,6-Tetrachlorophenol	7.309	232	5210	9.78	ppm		96
65) Diethylphthalate	7.421	149	24488	10.08	ppm		98
66) Fluorene	7.555	166	23638	10.30	ppm		96

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7873\
Data File : F183420.D
Acq On : 25 Mar 2019 3:04 pm
Operator : kristis
Sample : ic7873-10
Misc : op18378,ef7873,1000,,,1,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 25 15:33:19 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF7873.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 25 15:03:38 2019
Response via : Initial Calibration

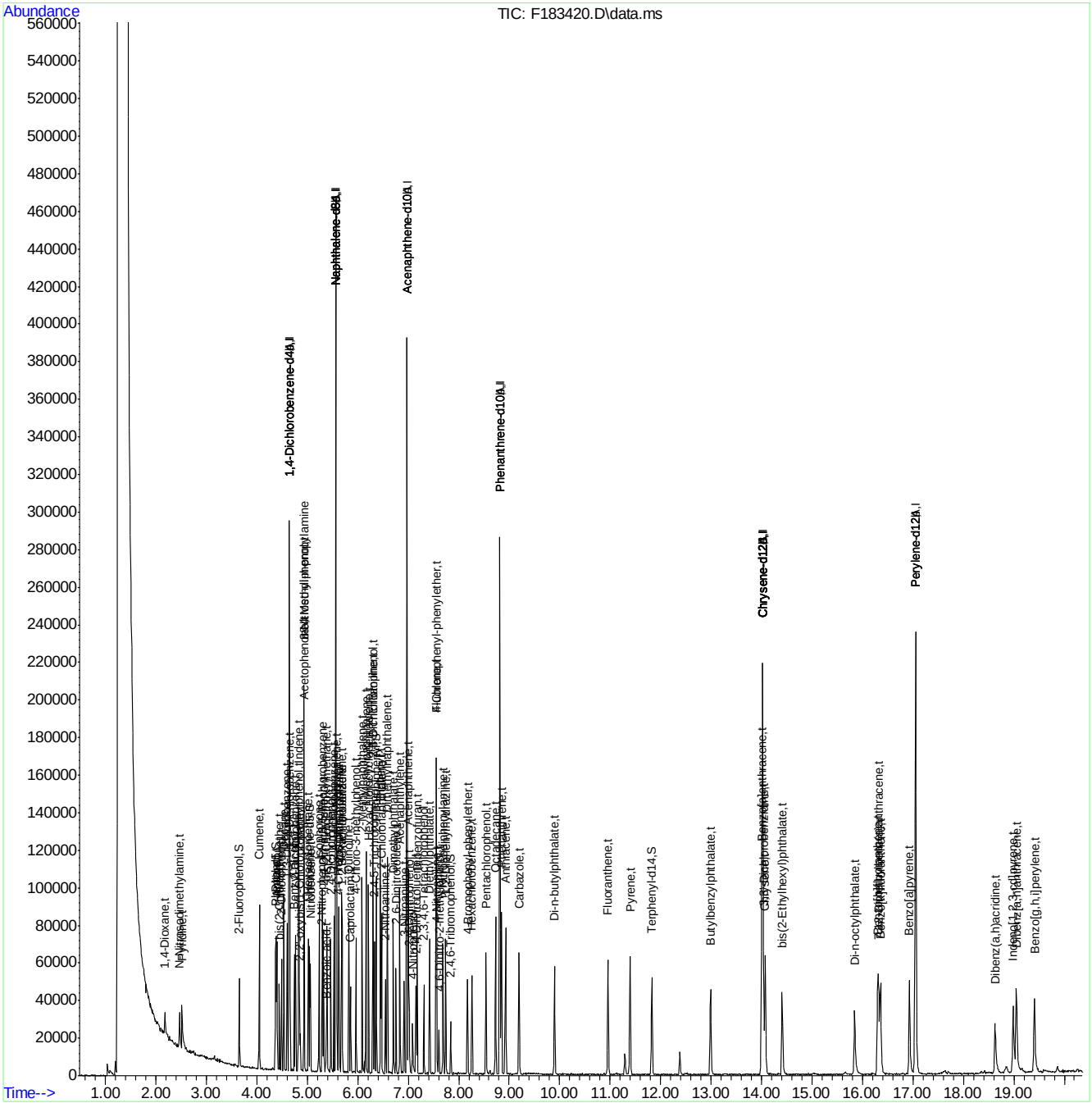
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
67) 4-Chlorophenyl-phenyle...	7.555	204	10851	10.20	ppm	97
68) 4-Nitroaniline	7.566	138	6432	10.75	ppm	89
70) 4,6-Dinitro-2-methylph...	7.608	198	2650	8.82	ppm	98
71) n-Nitrosodiphenylamine	7.688	169	16434	9.76	ppm	97
72) 1,2-Diphenylhydrazine	7.742	77	29433	9.74	ppm	95
74) 4-Bromophenyl-phenylether	8.175	248	6463	9.69	ppm	90
75) Hexachlorobenzene	8.260	284	7801	9.74	ppm	94
76) Pentachlorophenol	8.538	266	6931	18.23	ppm	97
77) Phenanthrene	8.848	178	35102	9.86	ppm	99
78) Anthracene	8.928	178	35484	9.95	ppm	97
79) Carbazole	9.195	167	31608	9.54	ppm	97
80) Di-n-butylphthalate	9.895	149	41669	10.05	ppm	100
81) Fluoranthene	10.958	202	35170	9.32	ppm	96
82) Octadecane	8.730	57	18606	10.26	ppm	97
84) Pyrene	11.396	202	37576	9.73	ppm	95
86) Butylbenzylphthalate	12.993	149	17196	9.30	ppm	96
87) Benzo[a]anthracene	14.003	228	33143	9.38	ppm	98
88) 3,3'-Dichlorobenzidine	14.040	252	11187	9.83	ppm	94
89) Chrysene	14.072	228	34883	9.71	ppm	97
90) bis(2-Ethylhexyl)phtha...	14.409	149	23411	9.32	ppm	94
92) Di-n-octylphthalate	15.846	149	37030	8.20	ppm	93
93) Benzo[b]fluoranthene	16.300	252	32530	8.79	ppm	98
94) Benzo[k]fluoranthene	16.359	252	34011	8.63	ppm	97
95) Benzo[a]pyrene	16.930	252	33513	10.62	ppm	95
96) Indeno[1,2,3-cd]pyrene	18.982	276	24982	8.96	ppm	98
97) Dibenz(a,h)acridine	18.629	279	22799	9.11	ppm	98
98) Dibenz[a,h]anthracene	19.051	278	31716	10.27	ppm	98
99) 7,12-Dimethylbenz(a)an...	16.321	256	13142	8.53	ppm	98
100) Benzo[g,h,i]perylene	19.409	276	29465	8.75	ppm	95

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7873\
Data File : F183420.D
Acq On : 25 Mar 2019 3:04 pm
Operator : kristis
Sample : ic7873-10
Misc : op18378,ef7873,1000,,,1,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 25 15:33:19 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF7873.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 25 15:03:38 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7873\
Data File : F183422.D
Acq On : 25 Mar 2019 3:58 pm
Operator : kristis
Sample : ic7873-25
Misc : op18378,ef7873,1000,,,1,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 25 16:29:14 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF7873.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 25 15:33:27 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.643	152	27314	40.00	ppm	0.00
24) Naphthalene-d8	5.567	136	111363	40.00	ppm	0.00
47) Acenaphthene-d10	6.972	164	60015	40.00	ppm	0.00
69) Phenanthrene-d10	8.816	188	103772	40.00	ppm	0.00
83) Chrysene-d12	14.030	240	91884	40.00	ppm	0.00
91) Perylene-d12	17.059	264	97917	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4A	4.643	152	27314	40.00	ppm	0.00
111) Naphthalene-d8A	5.567	136	111363	40.00	ppm	0.00
120) Acenaphthene-d10A	6.972	164	60015	40.00	ppm	0.00
131) Phenanthrene-d10A	8.816	188	103772	40.00	ppm	0.00
146) Chrysene-d12A	14.030	240	91884	40.00	ppm	0.00
153) Perylene-d12A	17.059	264	97917	40.00	ppm	0.00
156) 1,4-Dichlorobenzene-d4b	4.643	152	27314	40.00	ppm	0.00
158) Phenanthrene-d10b	8.816	188	103772	40.00	ppm	0.00
160) Chrysene-d12b	14.030	240	91884	40.00	ppm	0.00
162) Naphthalene-d8b	5.567	136	111363	40.00	ppm	0.00
164) Acenaphthene-d10b	6.972	164	60015	40.00	ppm	0.00
166) Naphthalene-d8c	5.567	136	111363	40.00	ppm	0.00
171) 1,4-Dichlorobenzene-d4c	4.643	152	27314	40.00	ppm	0.00
173) Chrysene-d12c	14.030	240	91884	40.00	ppm	0.00
175) Chrysene-d12d	14.030	240	91884	40.00	ppm	0.00
177) Naphthalene-d8d	5.567	136	111363	40.00	ppm	0.00
179) Chrysene-d12B	14.030	240	91884	40.00	ppm	0.00
181) Perylene-d12b	17.059	264	97917	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	3.650	112	22562	24.96	ppm	0.00
Spiked Amount 50.000			Recovery = 49.92%			
8) Phenol-d5	4.371	99	29386	24.69	ppm	0.00
Spiked Amount 50.000			Recovery = 49.38%			
25) Nitrobenzene-d5	5.044	82	30341	25.70	ppm	0.00
Spiked Amount 50.000			Recovery = 51.40%			
51) 2-Fluorobiphenyl	6.369	172	53797	23.99	ppm	0.00
Spiked Amount 50.000			Recovery = 47.98%			
73) 2,4,6-Tribromophenol	7.843	330	7919	27.15	ppm	0.00
Spiked Amount 50.000			Recovery = 54.30%			
85) Terphenyl-d14	11.829	244	50456	24.64	ppm	0.00
Spiked Amount 50.000			Recovery = 49.28%			
Target Compounds						Qvalue
2) 1,4-Dioxane	2.175	88	9297	23.17	ppm	92
3) Pyridine	2.501	79	26379	25.78	ppm	97
4) N-Nitrosodimethylamine	2.458	42	13592	22.72	ppm	84
6) Indene	4.830	116	40504	26.81	ppm	95
7) Cumene	4.050	105	57241	25.18	ppm	98
9) Phenol	4.381	94	34891	24.86	ppm	87
10) Aniline	4.397	93	35344	24.92	ppm	96
11) bis(2-Chloroethyl)ether	4.446	93	23299	24.59	ppm	96
12) 2-Chlorophenol	4.488	128	24081	25.64	ppm	99

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7873\
Data File : F183422.D
Acq On : 25 Mar 2019 3:58 pm
Operator : kristis
Sample : ic7873-25
Misc : op18378,ef7873,1000,,,1,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 25 16:29:14 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF7873.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 25 15:33:27 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
13) Decane	4.531	43	30162	25.54	ppm		94
14) 1,3-Dichlorobenzene	4.601	146	27409	25.26	ppm		97
15) 1,4-Dichlorobenzene	4.654	146	27634	24.76	ppm		98
16) Benzyl alcohol	4.739	108	15677	26.40	ppm		86
17) 1,2-Dichlorobenzene	4.766	146	27675	25.82	ppm		98
18) Acetophenone	4.937	105	36401	26.33	ppm	#	75
19) 2-Methylphenol	4.830	108	22893	26.74	ppm		99
20) 2,2'-oxybis(1-Chloropr...	4.841	121	6653	28.21	ppm	#	83
21) 3&4-Methylphenol	4.937	108	23581	26.42	ppm		97
22) n-Nitroso-di-n-propyla...	4.937	70	20934	27.33	ppm		93
23) Hexachloroethane	5.017	201	9733	25.44	ppm		90
26) Nitrobenzene	5.060	77	32459	26.09	ppm		97
27) Quinoline	5.824	129	47799	24.74	ppm		99
28) Isophorone	5.231	82	50352	24.37	ppm		96
29) 2-Nitrophenol	5.290	139	12637	23.99	ppm		89
30) 2,4-Dimethylphenol	5.322	107	24862	25.86	ppm		95
31) Benzoic acid	5.391	105	11437	21.68	ppm		91
32) bis(2-Chloroethoxy)met...	5.386	93	30685	24.61	ppm		99
33) 2,4-Dichlorophenol	5.466	162	20200	24.82	ppm		92
34) 2,6-Dichlorophenol	5.626	162	20616	25.88	ppm		99
35) 1,3,5-Trichlorobenzene	5.300	180	24724	25.09	ppm		96
36) 1,2,4-Trichlorobenzene	5.525	180	23938	24.52	ppm		96
37) 1,2,3-Trichlorobenzene	5.690	180	23349	25.47	ppm		99
38) Naphthalene	5.583	128	72555	24.78	ppm		99
39) 4-Chloroaniline	5.621	127	29542	25.21	ppm		97
40) 2,3-Dichloroaniline	6.299	161	25251	23.43	ppm		97
41) Caprolactam	5.867	55	13532	24.60	ppm		96
42) Hexachlorobutadiene	5.680	225	13391	24.94	ppm		98
43) 4-Chloro-3-methylphenol	5.968	107	22400	24.77	ppm		95
44) 2-Methylnaphthalene	6.086	141	40289	24.55	ppm		97
45) 1-Methylnaphthalene	6.160	142	49903	23.79	ppm		97
46) Dimethylnaphthalene	6.582	156	43479	24.47	ppm		98
48) Hexachlorocyclopentadiene	6.214	237	26660	52.41	ppm		97
49) 2,4,6-Trichlorophenol	6.305	196	14188	25.09	ppm		96
50) 2,4,5-Trichlorophenol	6.331	196	15394	24.97	ppm		98
52) 2-Chloronaphthalene	6.470	162	46015	25.95	ppm		97
53) Biphenyl	6.449	154	59577	25.37	ppm		100
54) 2-Nitroaniline	6.550	65	15844	25.63	ppm		96
55) Dimethylphthalate	6.711	163	51375	25.12	ppm		97
56) Acenaphthylene	6.834	152	72949	24.74	ppm		98
57) 2,6-Dinitrotoluene	6.759	165	11057	25.43	ppm		92
58) 3-Nitroaniline	6.919	138	13008	25.58	ppm		90
59) Acenaphthene	7.005	153	50153	25.35	ppm		93
60) 2,4-Dinitrophenol	7.021	184	9359	46.73	ppm	#	60
61) 4-Nitrophenol	7.085	109	8009	28.18	ppm		93
62) Dibenzofuran	7.175	168	64127	25.73	ppm		96
63) 2,4-Dinitrotoluene	7.154	165	14830	25.94	ppm		97
64) 2,3,4,6-Tetrachlorophenol	7.309	232	11570	25.14	ppm		95
65) Diethylphthalate	7.421	149	53538	25.39	ppm		99
66) Fluorene	7.555	166	50160	25.10	ppm		98

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7873\
Data File : F183422.D
Acq On : 25 Mar 2019 3:58 pm
Operator : kristis
Sample : ic7873-25
Misc : op18378,ef7873,1000,,,1,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 25 16:29:14 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF7873.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 25 15:33:27 2019
Response via : Initial Calibration

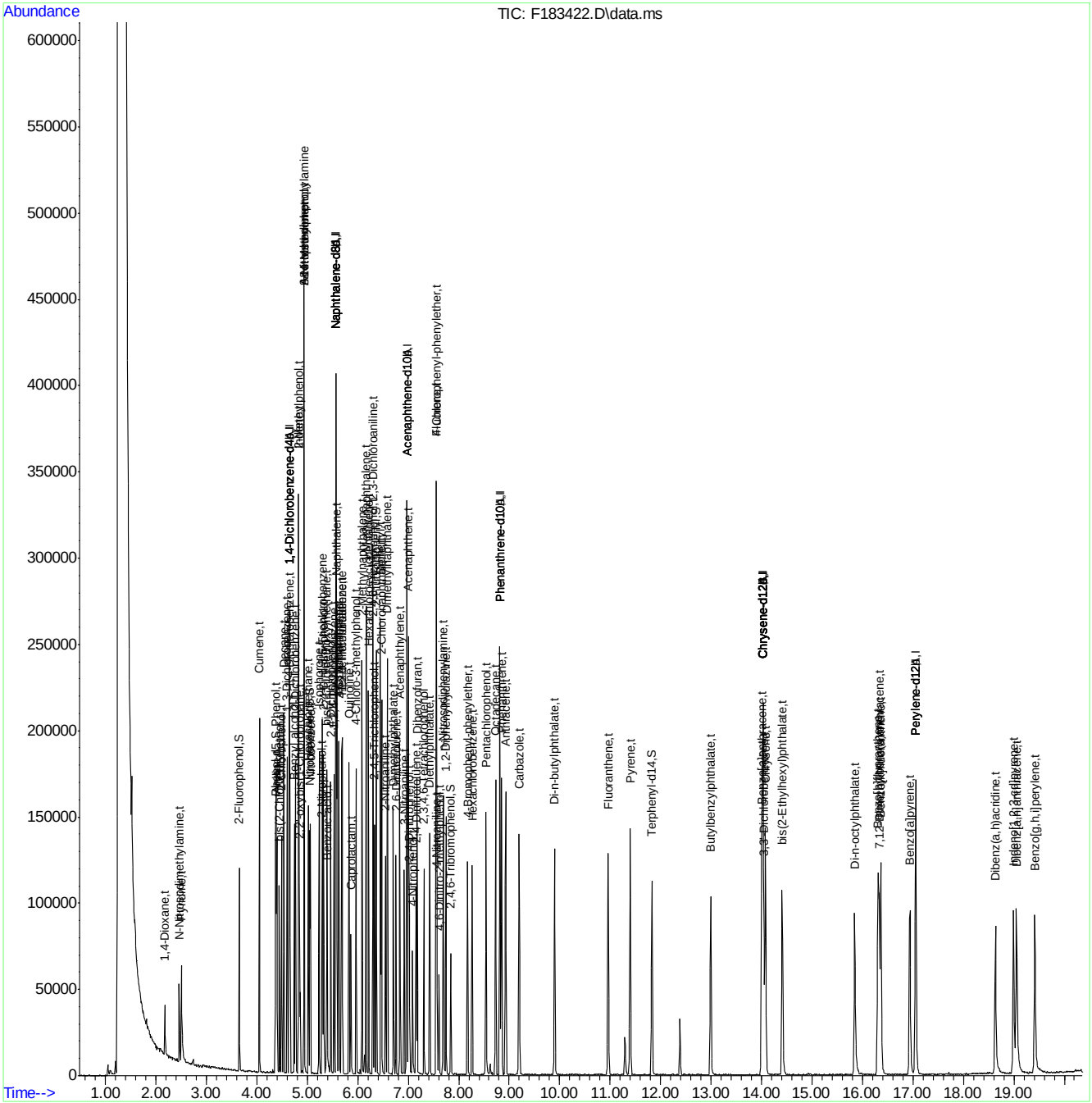
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
67)	4-Chlorophenyl-phenyle...	7.555	204	23224	25.12	ppm	92
68)	4-Nitroaniline	7.571	138	14160	27.01	ppm	85
70)	4,6-Dinitro-2-methylph...	7.608	198	6319	25.81	ppm	91
71)	n-Nitrosodiphenylamine	7.694	169	34979	25.13	ppm	97
72)	1,2-Diphenylhydrazine	7.747	77	63319	25.36	ppm	98
74)	4-Bromophenyl-phenylether	8.174	248	13934	25.30	ppm	94
75)	Hexachlorobenzene	8.265	284	15906	24.03	ppm	93
76)	Pentachlorophenol	8.543	266	15855	50.94	ppm	93
77)	Phenanthrene	8.853	178	76786	26.06	ppm	97
78)	Anthracene	8.928	178	77414	26.20	ppm	99
79)	Carbazole	9.195	167	69580	25.50	ppm	98
80)	Di-n-butylphthalate	9.900	149	91638	26.63	ppm	99
81)	Fluoranthene	10.963	202	75214	24.28	ppm	93
82)	Octadecane	8.730	57	41259	27.33	ppm	97
84)	Pyrene	11.396	202	80853	24.15	ppm	100
86)	Butylbenzylphthalate	12.993	149	38334	24.06	ppm	91
87)	Benzo[a]anthracene	14.003	228	71675	23.53	ppm	99
88)	3,3'-Dichlorobenzidine	14.046	252	24824	25.14	ppm	98
89)	Chrysene	14.078	228	73593	23.65	ppm	100
90)	bis(2-Ethylhexyl)phtha...	14.409	149	54247	25.06	ppm	97
92)	Di-n-octylphthalate	15.846	149	85556	26.45	ppm	95
93)	Benzo[b]fluoranthene	16.305	252	72066	26.95	ppm	97
94)	Benzo[k]fluoranthene	16.364	252	74067	26.08	ppm	99
95)	Benzo[a]pyrene	16.941	252	66472	28.42	ppm	96
96)	Indeno[1,2,3-cd]pyrene	18.993	276	58351	28.89	ppm	97
97)	Dibenz(a,h)acridine	18.635	279	58454	32.18	ppm	98
98)	Dibenz[a,h]anthracene	19.057	278	63554	27.90	ppm	98
99)	7,12-Dimethylbenz(a)an...	16.332	256	30830	27.80	ppm	98
100)	Benzo[g,h,i]perylene	19.415	276	65075	26.77	ppm	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7873\
Data File : F183422.D
Acq On : 25 Mar 2019 3:58 pm
Operator : kristis
Sample : ic7873-25
Misc : op18378,ef7873,1000,,,1,1
ALS Vial : 9 Sample Multiplier: 1

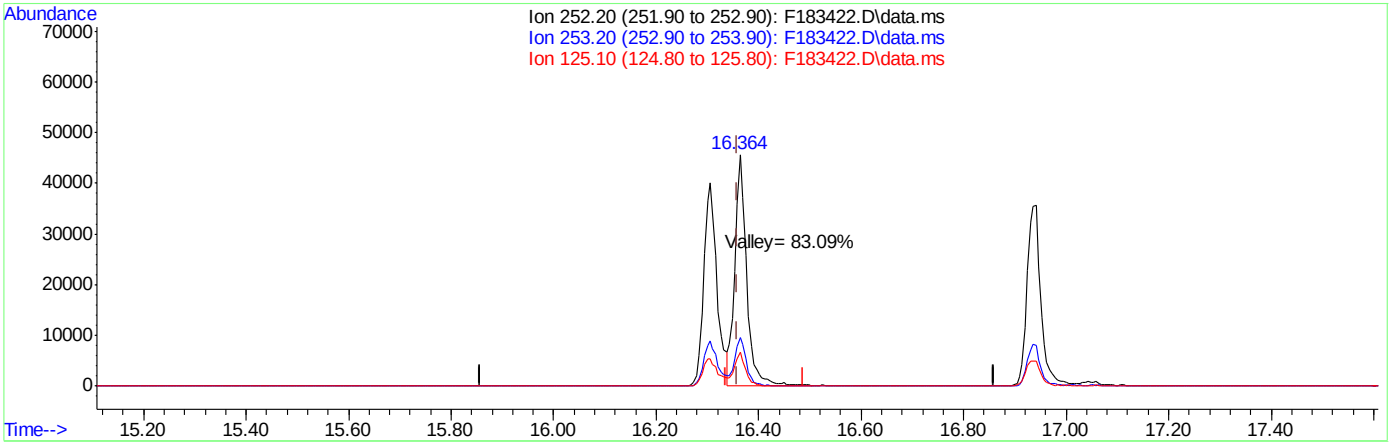
Quant Time: Mar 25 16:29:14 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF7873.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 25 15:33:27 2019
Response via : Initial Calibration

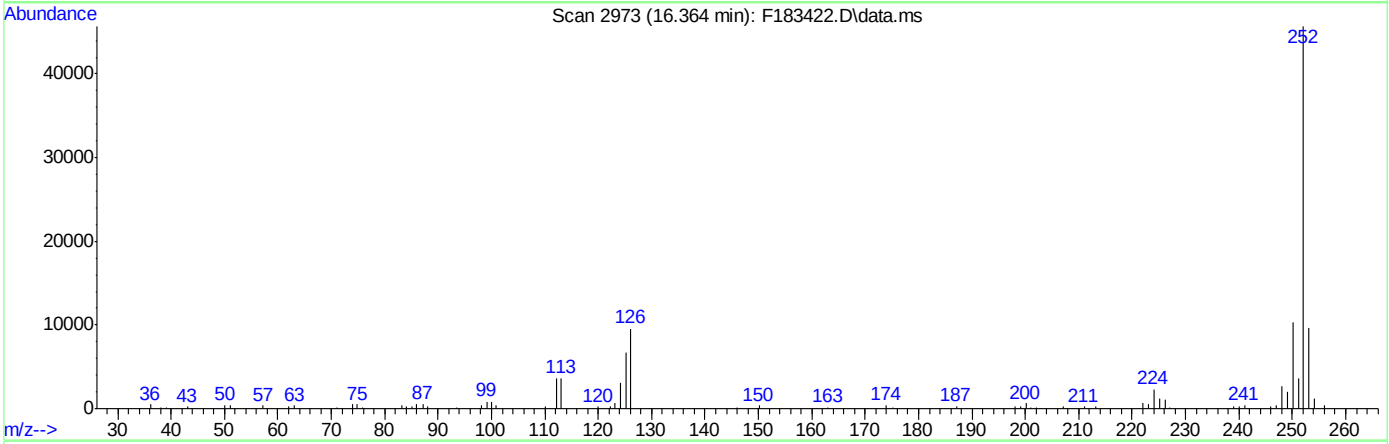


Quantitation Report (Qedit)

Data Path : C:\MSDCHEM\1\DATA\EF7873\
Data File : F183422.D
Acq On : 25 Mar 2019 3:58 pm
Operator : kristis
Sample : ic7873-25
Misc : op18378,ef7873,1000,,,1,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 25 16:18:53 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF7873.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 25 15:33:27 2019
Response via : Initial Calibration





TIC: F183422.D\data.ms

(94) Benzo[k]fluoranthene (t)

16.364min (+0.005) 26.08ppm

response 74067

Ion	Exp%	Act%
252.20	100	100
253.20	20.00	20.41
125.10	13.00	13.96
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7873\
Data File : F183424.D
Acq On : 25 Mar 2019 4:51 pm
Operator : kristis
Sample : icv7873-50
Misc : op18378,ef7873,1000,,,1,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 27 18:16:31 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF7873.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Mar 26 13:56:40 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.643	152	40321	40.00	ppm	0.00
24) Naphthalene-d8	5.567	136	163095	40.00	ppm	0.00
47) Acenaphthene-d10	6.972	164	76681	40.00	ppm	0.00
69) Phenanthrene-d10	8.816	188	146353	40.00	ppm	0.00
83) Chrysene-d12	14.019	240	126105	40.00	ppm	-0.01
91) Perylene-d12	17.053	264	101832	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4A	4.643	152	40321	40.00	ppm	0.00
111) Naphthalene-d8A	5.567	136	163095	40.00	ppm	0.00
120) Acenaphthene-d10A	6.972	164	76681	40.00	ppm	0.00
131) Phenanthrene-d10A	8.816	188	146353	40.00	ppm	0.00
146) Chrysene-d12A	14.019	240	126105	40.00	ppm	-0.01
153) Perylene-d12A	17.053	264	101832	40.00	ppm	0.00
156) 1,4-Dichlorobenzene-d4b	4.643	152	40321	40.00	ppm	0.00
158) Phenanthrene-d10b	8.816	188	146353	40.00	ppm	0.00
160) Chrysene-d12b	14.019	240	126105	40.00	ppm	0.00
162) Naphthalene-d8b	5.567	136	163095	40.00	ppm	0.00
164) Acenaphthene-d10b	6.972	164	76681	40.00	ppm	0.00
166) Naphthalene-d8c	5.567	136	163095	40.00	ppm	0.00
171) 1,4-Dichlorobenzene-d4c	4.643	152	40321	40.00	ppm	0.00
173) Chrysene-d12c	14.019	240	126105	40.00	ppm	-0.01
175) Chrysene-d12d	14.019	240	126105	40.00	ppm	-0.01
177) Naphthalene-d8d	5.567	136	163095	40.00	ppm	0.00
179) Chrysene-d12B	14.019	240	126105	40.00	ppm	0.00
181) Perylene-d12b	17.053	264	101832	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
Target Compounds						Qvalue
6) Indene	4.830	116	122248	54.32	ppm	95
7) Cumene	4.050	105	154869	46.11	ppm	99
13) Decane	4.531	43	74876	42.84	ppm	97
27) Quinoline	5.819	129	129226	45.73	ppm	98
40) 2,3-Dichloroaniline	6.299	161	64825	41.40	ppm	96
46) Dimethylnaphthalene	6.588	156	116292	44.81	ppm	99
48) Hexachlorocyclopentadiene	6.214	237	33793	51.68	ppm	94
82) Octadecane	8.730	57	100508	46.66	ppm	98

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7873\
Data File : F183424.D
Acq On : 25 Mar 2019 4:51 pm
Operator : kristis
Sample : icv7873-50
Misc : op18378,ef7873,1000,,,1,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 27 18:16:31 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF7873.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Mar 26 13:56:40 2019
Response via : Initial Calibration

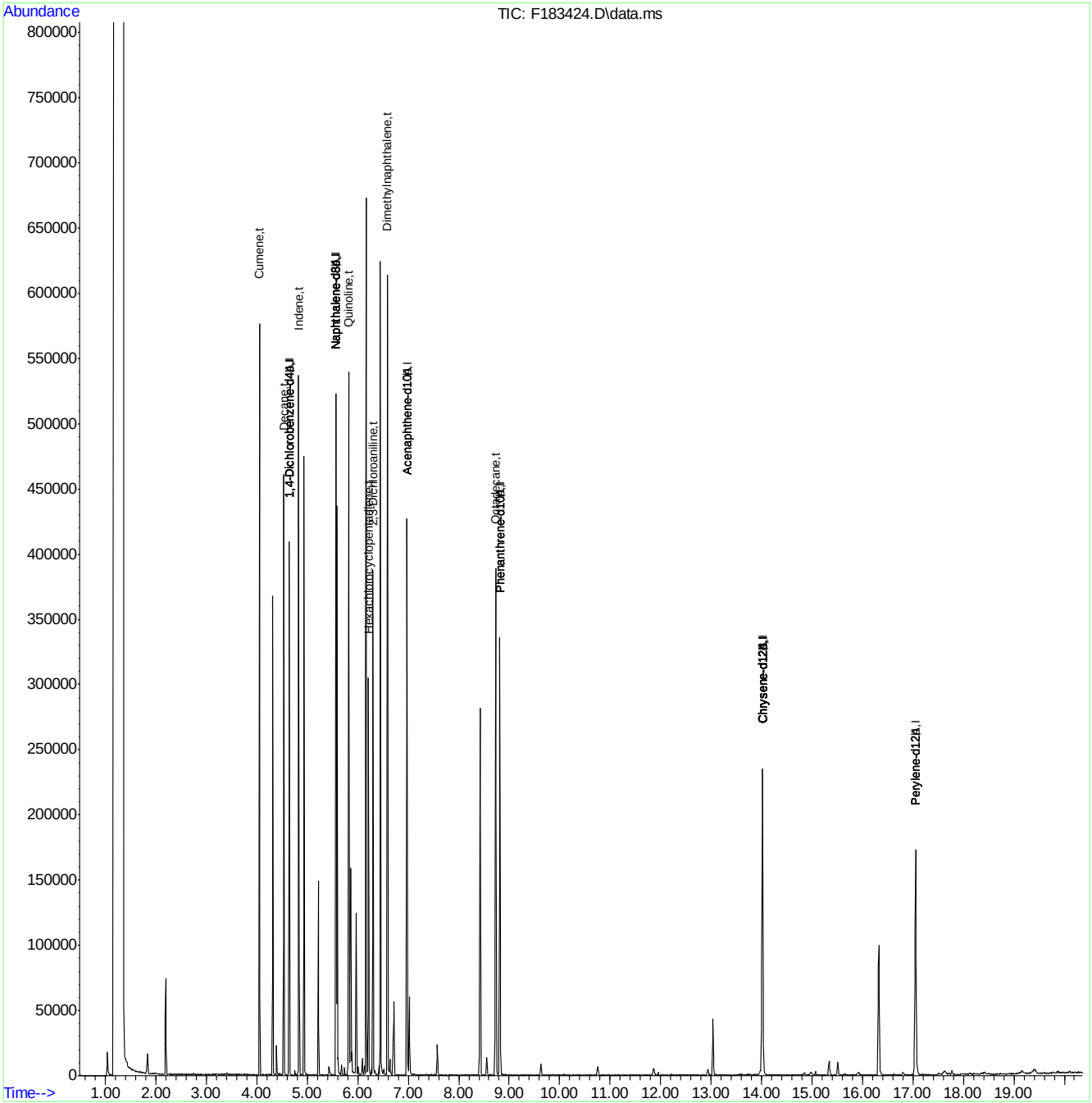
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7873\
Data File : F183424.D
Acq On : 25 Mar 2019 4:51 pm
Operator : kristis
Sample : icv7873-50
Misc : op18378,ef7873,1000,,,1,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 27 18:16:31 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF7873.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Mar 26 13:56:40 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7873\
Data File : F183428.D
Acq On : 25 Mar 2019 6:38 pm
Operator : kristis
Sample : icv7873-50
Misc : op18378,ef7873,1000,,,1,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Mar 26 12:55:24 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF7873.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 25 16:38:29 2019
Response via : Initial Calibration

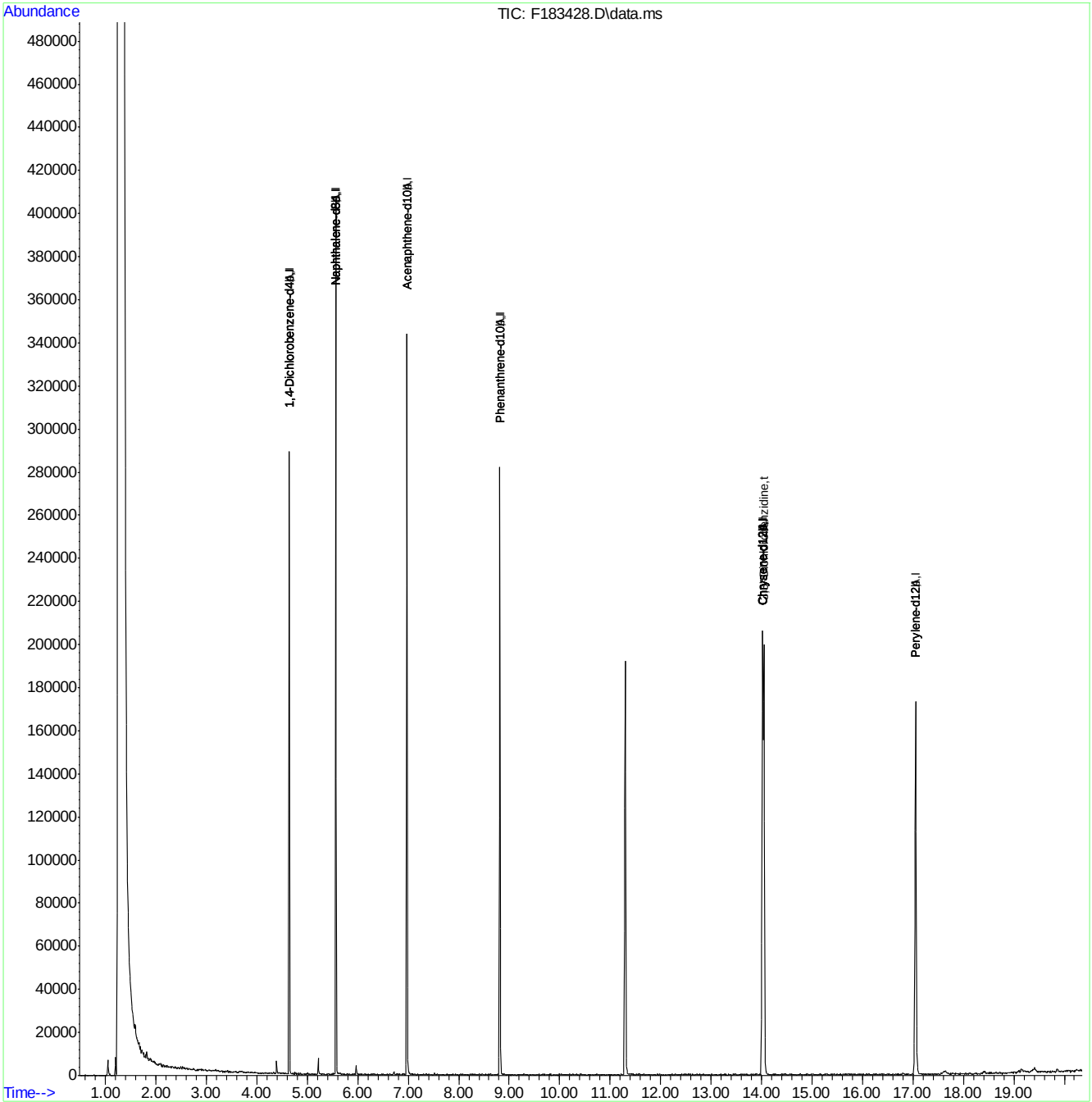
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.643	152	30313	40.00	ppm	0.00
24) Naphthalene-d8	5.567	136	115259	40.00	ppm	0.00
47) Acenaphthene-d10	6.972	164	61633	40.00	ppm	0.00
69) Phenanthrene-d10	8.816	188	117564	40.00	ppm	0.00
83) Chrysene-d12	14.019	240	106741	40.00	ppm	-0.01
91) Perylene-d12	17.053	264	105937	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4A	4.643	152	30313	40.00	ppm	0.00
111) Naphthalene-d8A	5.567	136	115259	40.00	ppm	0.00
120) Acenaphthene-d10A	6.972	164	61633	40.00	ppm	0.00
131) Phenanthrene-d10A	8.816	188	117564	40.00	ppm	0.00
146) Chrysene-d12A	14.019	240	106741	40.00	ppm	-0.01
153) Perylene-d12A	17.053	264	105937	40.00	ppm	0.00
156) 1,4-Dichlorobenzene-d4b	4.643	152	30313	40.00	ppm	0.00
158) Phenanthrene-d10b	8.816	188	117564	40.00	ppm	0.00
160) Chrysene-d12b	14.019	240	106741	40.00	ppm	-0.01
162) Naphthalene-d8b	5.567	136	115259	40.00	ppm	0.00
164) Acenaphthene-d10b	6.972	164	61633	40.00	ppm	0.00
166) Naphthalene-d8c	5.567	136	115259	40.00	ppm	0.00
171) 1,4-Dichlorobenzene-d4c	4.643	152	30313	40.00	ppm	0.00
173) Chrysene-d12c	14.019	240	106741	40.00	ppm	-0.01
175) Chrysene-d12d	14.019	240	106741	40.00	ppm	-0.01
177) Naphthalene-d8d	5.567	136	115259	40.00	ppm	0.00
179) Chrysene-d12B	14.019	240	106741	40.00	ppm	0.00
181) Perylene-d12b	17.053	264	105937	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
Target Compounds						Qvalue
88) 3,3'-Dichlorobenzidine	14.046	252	59745	52.04	ppm	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7873\
Data File : F183428.D
Acq On : 25 Mar 2019 6:38 pm
Operator : kristis
Sample : icv7873-50
Misc : op18378,ef7873,1000,,,1,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Mar 26 12:55:24 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF7873.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Mar 25 16:38:29 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7873\
Data File : F183430.D
Acq On : 25 Mar 2019 7:13 pm
Operator : kristis
Sample : ic7874-100
Misc : op18378,ef7874,1000,,,1,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Mar 26 12:58:01 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF7873.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Mar 26 12:57:29 2019
Response via : Initial Calibration

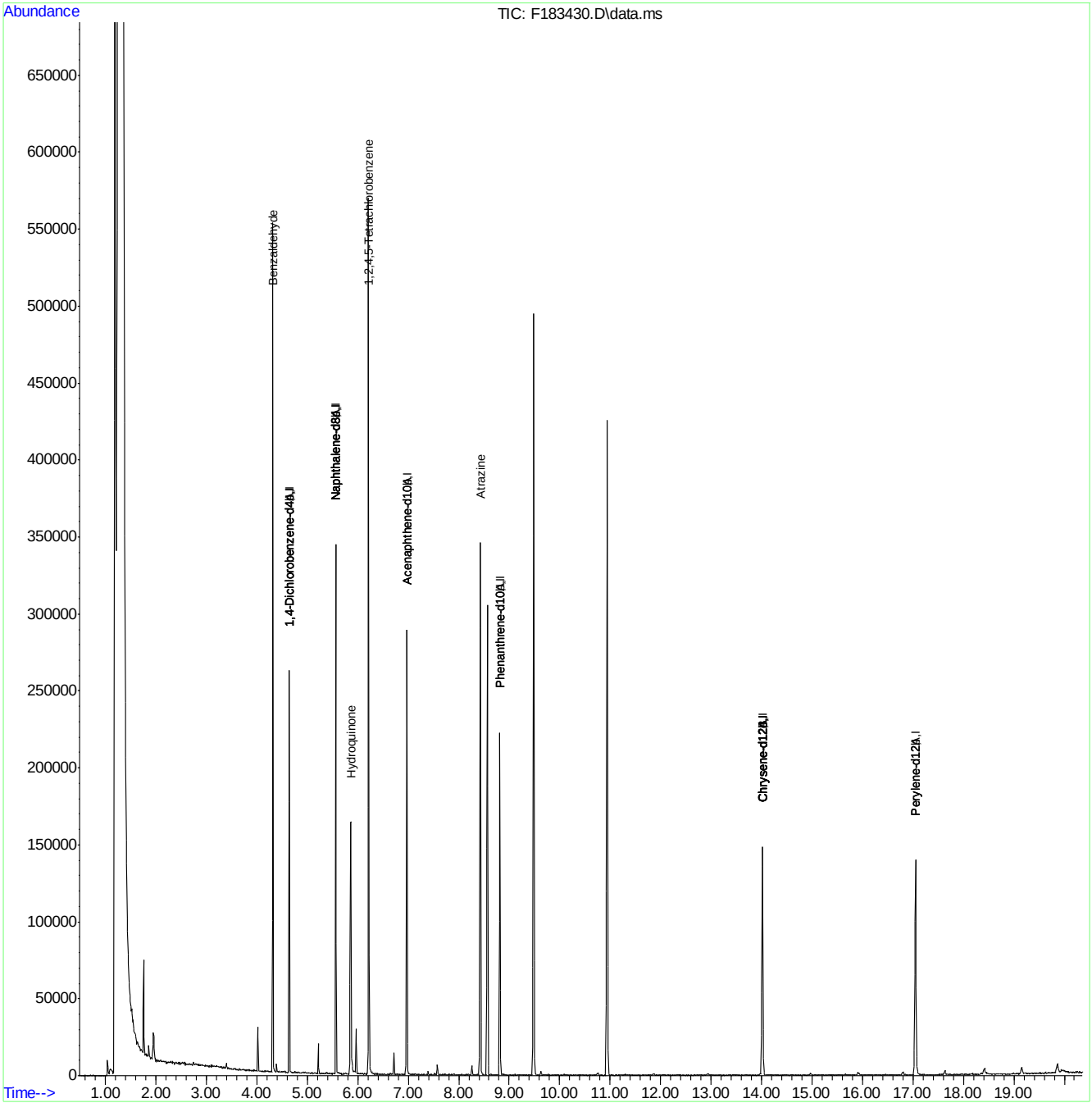
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.643	152	26677	40.00	ppm	0.00
24) Naphthalene-d8	5.568	136	98744	40.00	ppm	0.00
47) Acenaphthene-d10	6.973	164	52396	40.00	ppm	0.00
69) Phenanthrene-d10	8.816	188	93379	40.00	ppm	0.00
83) Chrysene-d12	14.019	240	75093	40.00	ppm	-0.01
91) Perylene-d12	17.053	264	80777	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4A	4.643	152	26677	40.00	ppm	0.00
111) Naphthalene-d8A	5.568	136	98744	40.00	ppm	0.00
120) Acenaphthene-d10A	6.973	164	52396	40.00	ppm	0.00
131) Phenanthrene-d10A	8.816	188	93379	40.00	ppm	0.00
146) Chrysene-d12A	14.019	240	75093	40.00	ppm	-0.01
153) Perylene-d12A	17.053	264	80777	40.00	ppm	0.00
156) 1,4-Dichlorobenzene-d4b	4.643	152	26677	40.00	ppm	0.00
158) Phenanthrene-d10b	8.816	188	93379	40.00	ppm	0.00
160) Chrysene-d12b	14.019	240	75093	40.00	ppm	0.00
162) Naphthalene-d8b	5.568	136	98744	40.00	ppm	0.00
164) Acenaphthene-d10b	6.973	164	52396	40.00	ppm	0.00
166) Naphthalene-d8c	5.568	136	98744	40.00	ppm	0.00
171) 1,4-Dichlorobenzene-d4c	4.643	152	26677	40.00	ppm	0.00
173) Chrysene-d12c	14.019	240	75093	40.00	ppm	-0.01
175) Chrysene-d12d	14.019	240	75093	40.00	ppm	-0.01
177) Naphthalene-d8d	5.568	136	98744	40.00	ppm	0.00
179) Chrysene-d12B	14.019	240	75093	40.00	ppm	0.00
181) Perylene-d12b	17.053	264	80777	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
Target Compounds						Qvalue
157) Benzaldehyde	4.317	105	73443	100.00	ppm	100
159) Atrazine	8.431	200	46384	100.02	ppm	100
163) Hydroquinone	5.861	110	77197	100.00	ppm	100
165) 1,2,4,5-Tetrachloroben...	6.214	216	74526	99.55	ppm	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7873\
Data File : F183430.D
Acq On : 25 Mar 2019 7:13 pm
Operator : kristis
Sample : ic7874-100
Misc : op18378,ef7874,1000,,,1,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Mar 26 12:58:01 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF7873.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Mar 26 12:57:29 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7873\
Data File : F183431.D
Acq On : 25 Mar 2019 7:40 pm
Operator : kristis
Sample : ic7874-80
Misc : op18378,ef7874,1000,,,1,1
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Mar 26 13:11:18 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF7873.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Mar 26 12:57:29 2019
Response via : Initial Calibration

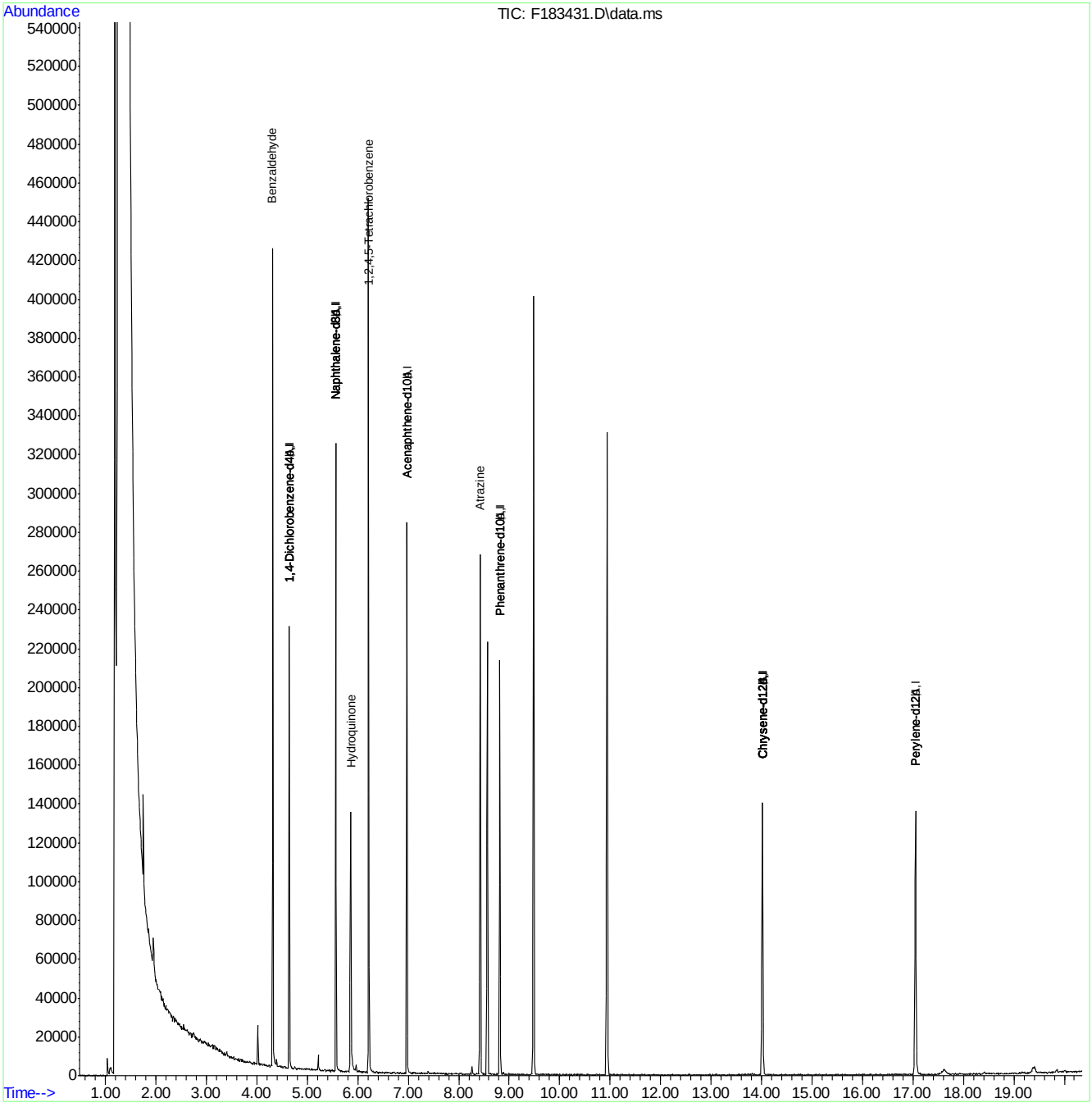
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.643	152	25127	40.00	ppm	0.00
24) Naphthalene-d8	5.567	136	93636	40.00	ppm	0.00
47) Acenaphthene-d10	6.972	164	50050	40.00	ppm	0.00
69) Phenanthrene-d10	8.816	188	88742	40.00	ppm	0.00
83) Chrysene-d12	14.019	240	72648	40.00	ppm	-0.01
91) Perylene-d12	17.053	264	79242	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4A	4.643	152	25127	40.00	ppm	0.00
111) Naphthalene-d8A	5.567	136	93636	40.00	ppm	0.00
120) Acenaphthene-d10A	6.972	164	50050	40.00	ppm	0.00
131) Phenanthrene-d10A	8.816	188	88742	40.00	ppm	0.00
146) Chrysene-d12A	14.019	240	72648	40.00	ppm	-0.01
153) Perylene-d12A	17.053	264	79242	40.00	ppm	0.00
156) 1,4-Dichlorobenzene-d4b	4.643	152	25127	40.00	ppm	0.00
158) Phenanthrene-d10b	8.816	188	88742	40.00	ppm	0.00
160) Chrysene-d12b	14.019	240	72648	40.00	ppm	0.00
162) Naphthalene-d8b	5.567	136	93636	40.00	ppm	0.00
164) Acenaphthene-d10b	6.972	164	50050	40.00	ppm	0.00
166) Naphthalene-d8c	5.567	136	93636	40.00	ppm	0.00
171) 1,4-Dichlorobenzene-d4c	4.643	152	25127	40.00	ppm	0.00
173) Chrysene-d12c	14.019	240	72648	40.00	ppm	-0.01
175) Chrysene-d12d	14.019	240	72648	40.00	ppm	-0.01
177) Naphthalene-d8d	5.567	136	93636	40.00	ppm	0.00
179) Chrysene-d12B	14.019	240	72648	40.00	ppm	0.00
181) Perylene-d12b	17.053	264	79242	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
Target Compounds						Qvalue
157) Benzaldehyde	4.312	105	55319	79.97	ppm	90
159) Atrazine	8.426	200	35295	80.09	ppm	93
163) Hydroquinone	5.861	110	59237	80.92	ppm	99
165) 1,2,4,5-Tetrachloroben...	6.214	216	56749	79.36	ppm	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7873\
Data File : F183431.D
Acq On : 25 Mar 2019 7:40 pm
Operator : kristis
Sample : ic7874-80
Misc : op18378,ef7874,1000,,,1,1
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Mar 26 13:11:18 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF7873.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Mar 26 12:57:29 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7873\
Data File : F183432.D
Acq On : 25 Mar 2019 8:07 pm
Operator : kristis
Sample : icc7874-50
Misc : op18378,ef7874,1000,,,1,1
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Mar 26 13:12:07 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF7873.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Mar 26 12:57:29 2019
Response via : Initial Calibration

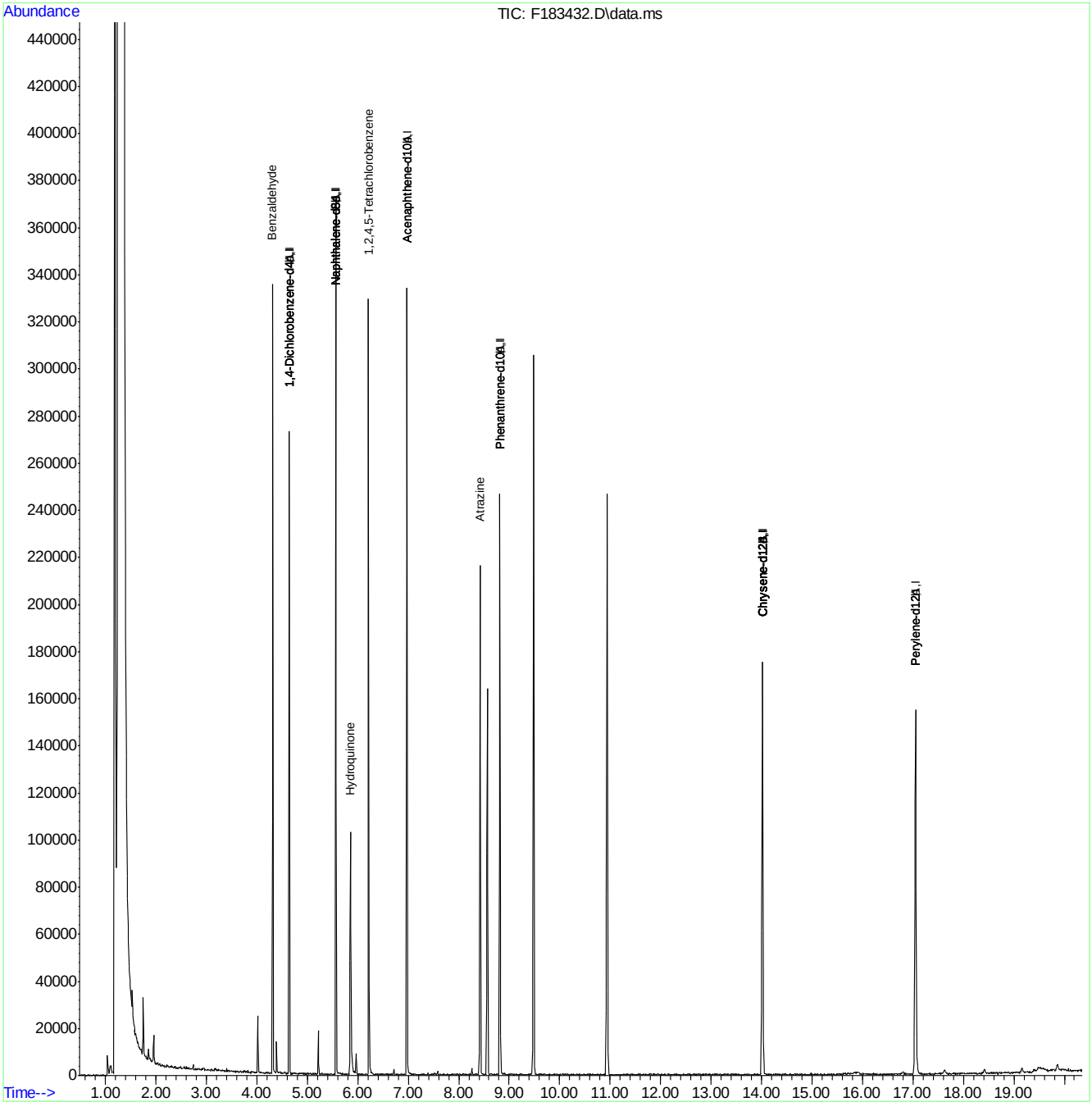
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.643	152	27619	40.00	ppm	0.00
24) Naphthalene-d8	5.568	136	105966	40.00	ppm	0.00
47) Acenaphthene-d10	6.973	164	58275	40.00	ppm	0.00
69) Phenanthrene-d10	8.816	188	102233	40.00	ppm	0.00
83) Chrysene-d12	14.019	240	85329	40.00	ppm	-0.01
91) Perylene-d12	17.053	264	94770	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4A	4.643	152	27619	40.00	ppm	0.00
111) Naphthalene-d8A	5.568	136	105966	40.00	ppm	0.00
120) Acenaphthene-d10A	6.973	164	58275	40.00	ppm	0.00
131) Phenanthrene-d10A	8.816	188	102233	40.00	ppm	0.00
146) Chrysene-d12A	14.019	240	85329	40.00	ppm	-0.01
153) Perylene-d12A	17.053	264	94770	40.00	ppm	0.00
156) 1,4-Dichlorobenzene-d4b	4.643	152	27619	40.00	ppm	0.00
158) Phenanthrene-d10b	8.816	188	102233	40.00	ppm	0.00
160) Chrysene-d12b	14.019	240	85329	40.00	ppm	0.00
162) Naphthalene-d8b	5.568	136	105966	40.00	ppm	0.00
164) Acenaphthene-d10b	6.973	164	58275	40.00	ppm	0.00
166) Naphthalene-d8c	5.568	136	105966	40.00	ppm	0.00
171) 1,4-Dichlorobenzene-d4c	4.643	152	27619	40.00	ppm	0.00
173) Chrysene-d12c	14.019	240	85329	40.00	ppm	-0.01
175) Chrysene-d12d	14.019	240	85329	40.00	ppm	-0.01
177) Naphthalene-d8d	5.568	136	105966	40.00	ppm	0.00
179) Chrysene-d12B	14.019	240	85329	40.00	ppm	0.00
181) Perylene-d12b	17.053	264	94770	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
Target Compounds						Qvalue
157) Benzaldehyde	4.312	105	40109	52.75	ppm	90
159) Atrazine	8.426	200	25799	50.81	ppm	95
163) Hydroquinone	5.856	110	41597	50.21	ppm	99
165) 1,2,4,5-Tetrachloroben...	6.214	216	41641	50.01	ppm	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7873\
Data File : F183432.D
Acq On : 25 Mar 2019 8:07 pm
Operator : kristis
Sample : icc7874-50
Misc : op18378,ef7874,1000,,,1,1
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Mar 26 13:12:07 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF7873.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Mar 26 12:57:29 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7873\
Data File : F183433.D
Acq On : 25 Mar 2019 8:33 pm
Operator : kristis
Sample : ic7874-25
Misc : op18378,ef7874,1000,,,1,1
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Mar 26 13:12:47 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF7873.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Mar 26 12:57:29 2019
Response via : Initial Calibration

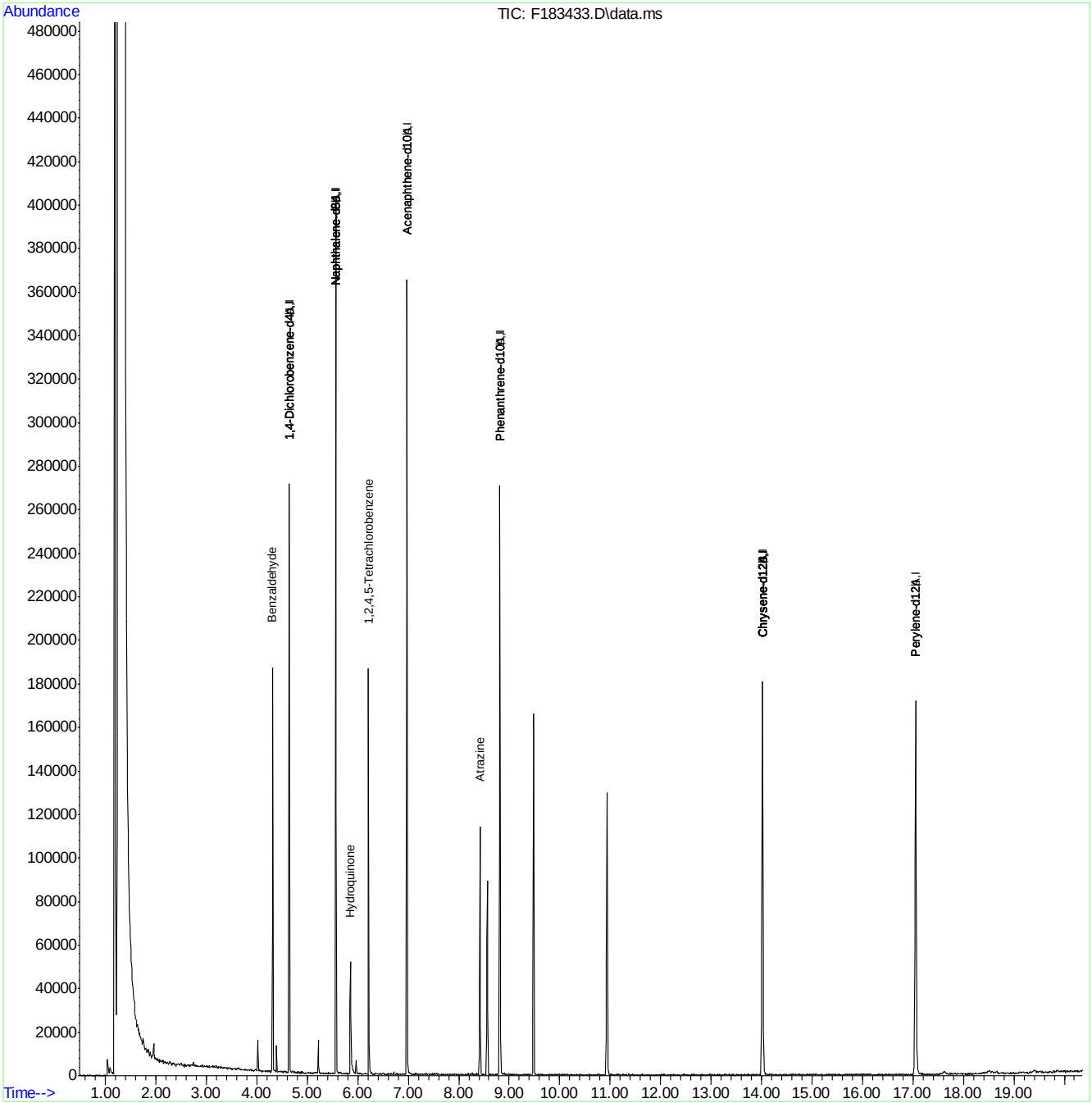
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.643	152	29372	40.00	ppm	0.00
24) Naphthalene-d8	5.568	136	114915	40.00	ppm	0.00
47) Acenaphthene-d10	6.973	164	62772	40.00	ppm	0.00
69) Phenanthrene-d10	8.816	188	109994	40.00	ppm	0.00
83) Chrysene-d12	14.019	240	95148	40.00	ppm	-0.01
91) Perylene-d12	17.059	264	102646	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4A	4.643	152	29372	40.00	ppm	0.00
111) Naphthalene-d8A	5.568	136	114915	40.00	ppm	0.00
120) Acenaphthene-d10A	6.973	164	62772	40.00	ppm	0.00
131) Phenanthrene-d10A	8.816	188	109994	40.00	ppm	0.00
146) Chrysene-d12A	14.019	240	95148	40.00	ppm	-0.01
153) Perylene-d12A	17.059	264	102646	40.00	ppm	0.00
156) 1,4-Dichlorobenzene-d4b	4.643	152	29372	40.00	ppm	0.00
158) Phenanthrene-d10b	8.816	188	109994	40.00	ppm	0.00
160) Chrysene-d12b	14.019	240	95148	40.00	ppm	0.00
162) Naphthalene-d8b	5.568	136	114915	40.00	ppm	0.00
164) Acenaphthene-d10b	6.973	164	62772	40.00	ppm	0.00
166) Naphthalene-d8c	5.568	136	114915	40.00	ppm	0.00
171) 1,4-Dichlorobenzene-d4c	4.643	152	29372	40.00	ppm	0.00
173) Chrysene-d12c	14.019	240	95148	40.00	ppm	-0.01
175) Chrysene-d12d	14.019	240	95148	40.00	ppm	-0.01
177) Naphthalene-d8d	5.568	136	114915	40.00	ppm	0.00
179) Chrysene-d12B	14.019	240	95148	40.00	ppm	0.00
181) Perylene-d12b	17.059	264	102646	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
Target Compounds						Qvalue
157) Benzaldehyde	4.312	105	22164	27.41	ppm	98
159) Atrazine	8.420	200	13309	24.36	ppm	92
163) Hydroquinone	5.851	110	22179	24.69	ppm	97
165) 1,2,4,5-Tetrachloroben...	6.214	216	21862	24.38	ppm	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7873\
Data File : F183433.D
Acq On : 25 Mar 2019 8:33 pm
Operator : kristis
Sample : ic7874-25
Misc : op18378,ef7874,1000,,,1,1
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Mar 26 13:12:47 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF7873.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Mar 26 12:57:29 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7873\
Data File : F183434.D
Acq On : 25 Mar 2019 9:00 pm
Operator : kristis
Sample : ic7874-10
Misc : op18378,ef7874,1000,,,1,1
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Mar 26 13:13:33 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF7873.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Mar 26 12:57:29 2019
Response via : Initial Calibration

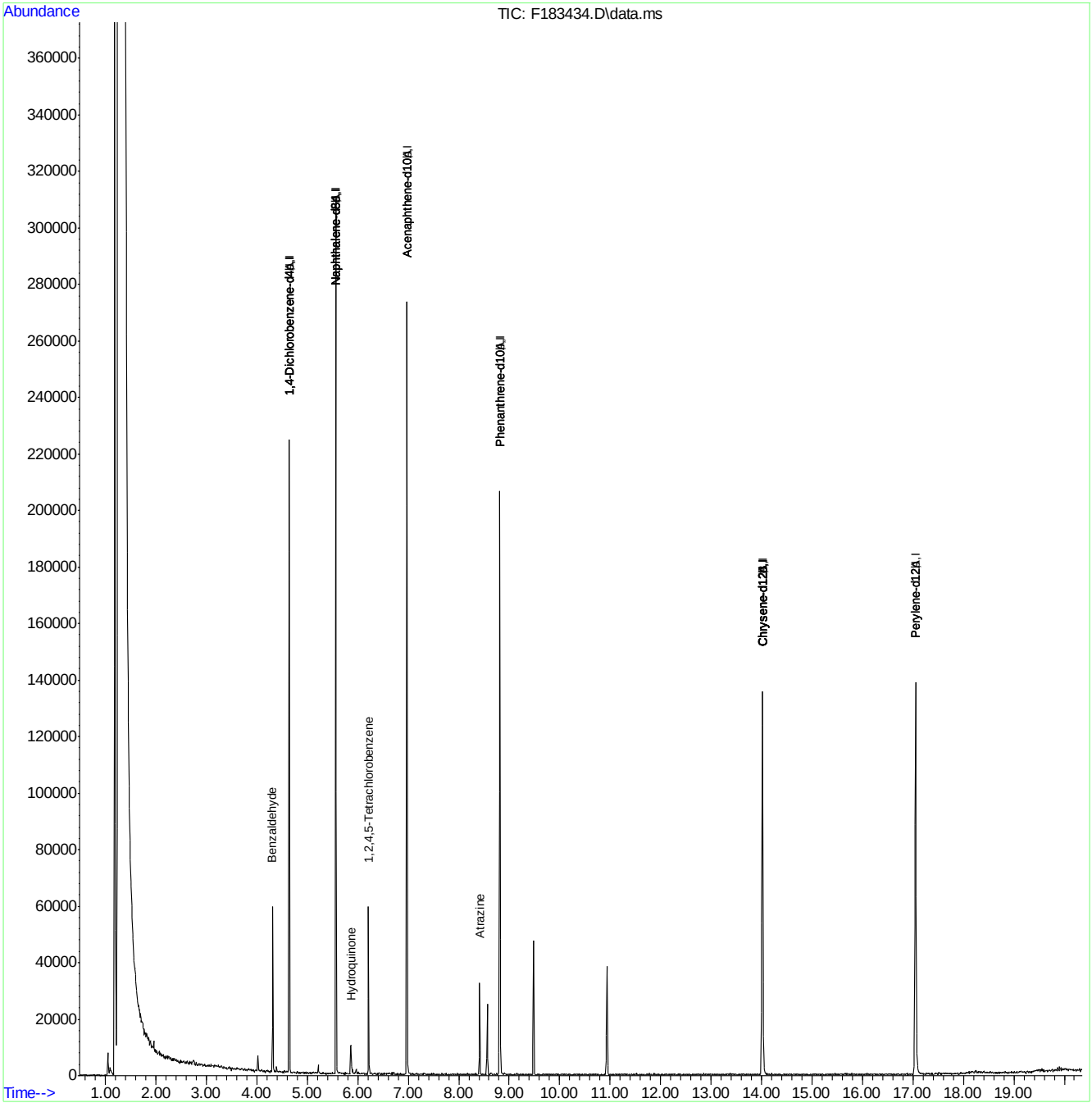
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.643	152	24161	40.00	ppm	0.00
24) Naphthalene-d8	5.567	136	88412	40.00	ppm	0.00
47) Acenaphthene-d10	6.972	164	49554	40.00	ppm	0.00
69) Phenanthrene-d10	8.816	188	87532	40.00	ppm	0.00
83) Chrysene-d12	14.019	240	71214	40.00	ppm	-0.01
91) Perylene-d12	17.053	264	75757	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4A	4.643	152	24161	40.00	ppm	0.00
111) Naphthalene-d8A	5.567	136	88412	40.00	ppm	0.00
120) Acenaphthene-d10A	6.972	164	49554	40.00	ppm	0.00
131) Phenanthrene-d10A	8.816	188	87532	40.00	ppm	0.00
146) Chrysene-d12A	14.019	240	71214	40.00	ppm	-0.01
153) Perylene-d12A	17.053	264	75757	40.00	ppm	0.00
156) 1,4-Dichlorobenzene-d4b	4.643	152	24161	40.00	ppm	0.00
158) Phenanthrene-d10b	8.816	188	87532	40.00	ppm	0.00
160) Chrysene-d12b	14.019	240	71214	40.00	ppm	0.00
162) Naphthalene-d8b	5.567	136	88412	40.00	ppm	0.00
164) Acenaphthene-d10b	6.972	164	49554	40.00	ppm	0.00
166) Naphthalene-d8c	5.567	136	88412	40.00	ppm	0.00
171) 1,4-Dichlorobenzene-d4c	4.643	152	24161	40.00	ppm	0.00
173) Chrysene-d12c	14.019	240	71214	40.00	ppm	-0.01
175) Chrysene-d12d	14.019	240	71214	40.00	ppm	-0.01
177) Naphthalene-d8d	5.567	136	88412	40.00	ppm	0.00
179) Chrysene-d12B	14.019	240	71214	40.00	ppm	0.00
181) Perylene-d12b	17.053	264	75757	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
Target Compounds						Qvalue
157) Benzaldehyde	4.312	105	7099	10.67	ppm	96
159) Atrazine	8.415	200	3856	8.87	ppm	85
163) Hydroquinone	5.861	110	5609	8.11	ppm	96
165) 1,2,4,5-Tetrachloroben...	6.214	216	7041	9.94	ppm	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7873\
Data File : F183434.D
Acq On : 25 Mar 2019 9:00 pm
Operator : kristis
Sample : ic7874-10
Misc : op18378,ef7874,1000,,,1,1
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Mar 26 13:13:33 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF7873.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Mar 26 12:57:29 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7873\
Data File : F183435.D
Acq On : 25 Mar 2019 9:27 pm
Operator : kristis
Sample : ic7874-5
Misc : op18378,ef7874,1000,,,1,1
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Mar 26 13:14:10 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF7873.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Mar 26 12:57:29 2019
Response via : Initial Calibration

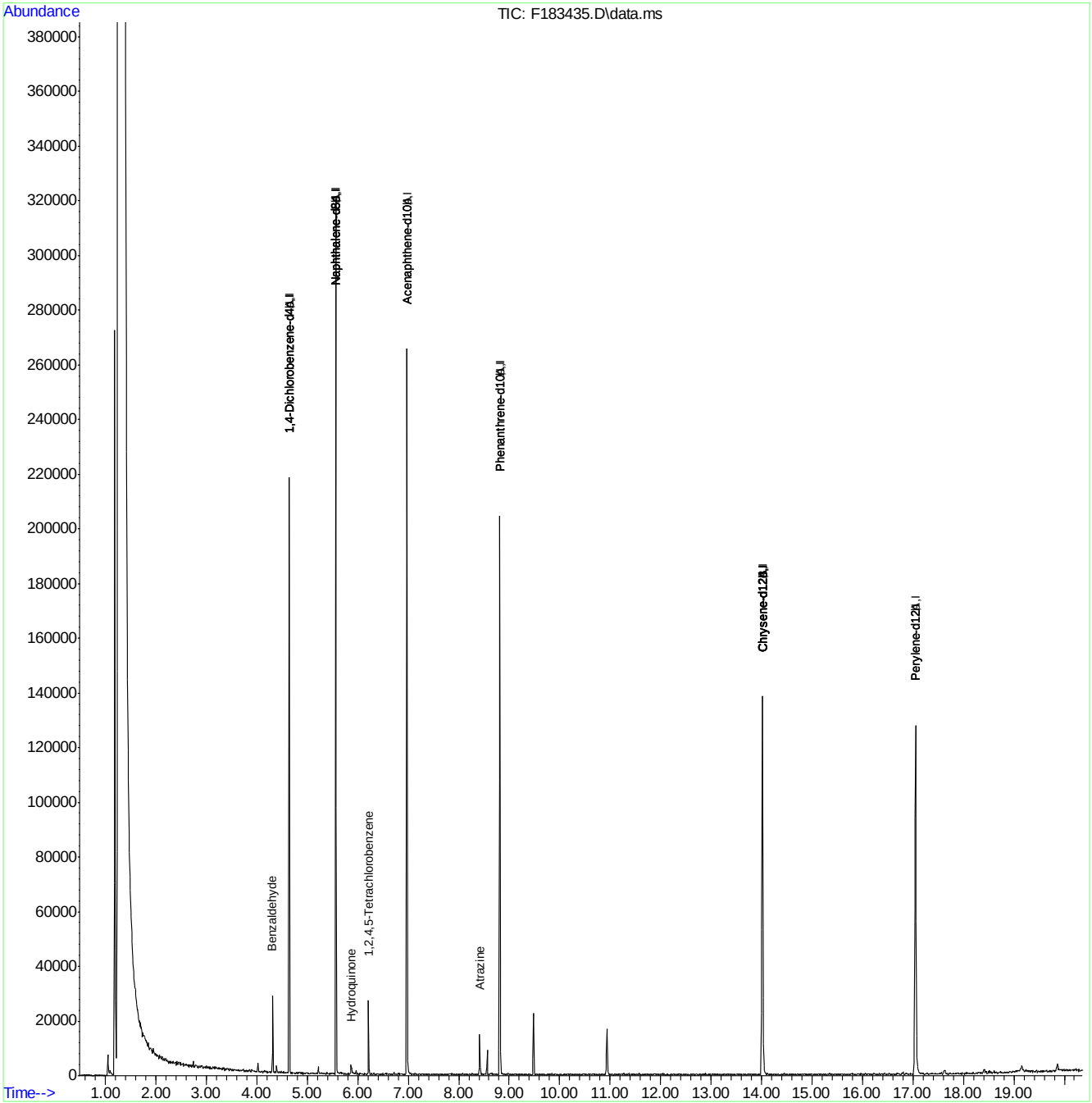
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.643	152	24162	40.00	ppm	0.00
24) Naphthalene-d8	5.567	136	88912	40.00	ppm	0.00
47) Acenaphthene-d10	6.972	164	47855	40.00	ppm	0.00
69) Phenanthrene-d10	8.816	188	87273	40.00	ppm	0.00
83) Chrysene-d12	14.019	240	71536	40.00	ppm	-0.01
91) Perylene-d12	17.053	264	76679	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4A	4.643	152	24162	40.00	ppm	0.00
111) Naphthalene-d8A	5.567	136	88912	40.00	ppm	0.00
120) Acenaphthene-d10A	6.972	164	47855	40.00	ppm	0.00
131) Phenanthrene-d10A	8.816	188	87273	40.00	ppm	0.00
146) Chrysene-d12A	14.019	240	71536	40.00	ppm	-0.01
153) Perylene-d12A	17.053	264	76679	40.00	ppm	0.00
156) 1,4-Dichlorobenzene-d4b	4.643	152	24162	40.00	ppm	0.00
158) Phenanthrene-d10b	8.816	188	87273	40.00	ppm	0.00
160) Chrysene-d12b	14.019	240	71536	40.00	ppm	0.00
162) Naphthalene-d8b	5.567	136	88912	40.00	ppm	0.00
164) Acenaphthene-d10b	6.972	164	47855	40.00	ppm	0.00
166) Naphthalene-d8c	5.567	136	88912	40.00	ppm	0.00
171) 1,4-Dichlorobenzene-d4c	4.643	152	24162	40.00	ppm	0.00
173) Chrysene-d12c	14.019	240	71536	40.00	ppm	-0.01
175) Chrysene-d12d	14.019	240	71536	40.00	ppm	-0.01
177) Naphthalene-d8d	5.567	136	88912	40.00	ppm	0.00
179) Chrysene-d12B	14.019	240	71536	40.00	ppm	0.00
181) Perylene-d12b	17.053	264	76679	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
Target Compounds						Qvalue
157) Benzaldehyde	4.312	105	3338	5.02	ppm	89
159) Atrazine	8.415	200	1707	3.94	ppm	91
163) Hydroquinone	5.867	110	2610	3.75	ppm	85
165) 1,2,4,5-Tetrachloroben...	6.214	216	3040	4.45	ppm	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7873\
Data File : F183435.D
Acq On : 25 Mar 2019 9:27 pm
Operator : kristis
Sample : ic7874-5
Misc : op18378,ef7874,1000,,,1,1
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Mar 26 13:14:10 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF7873.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Mar 26 12:57:29 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7873\
Data File : F183436.D
Acq On : 25 Mar 2019 9:53 pm
Operator : kristis
Sample : ic7874-2
Misc : op18378,ef7874,1000,,,1,1
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Mar 26 13:14:49 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF7873.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Mar 26 12:57:29 2019
Response via : Initial Calibration

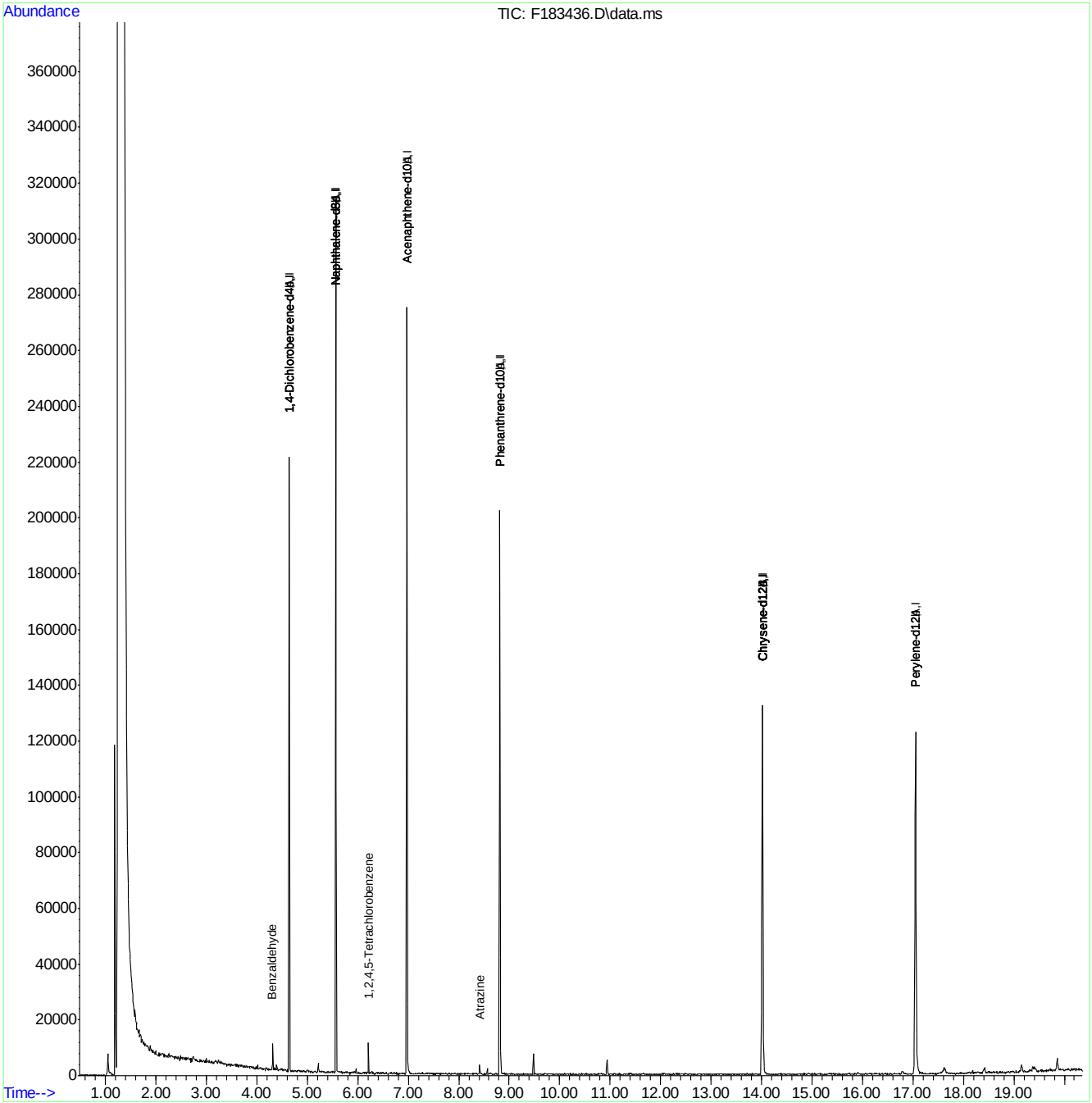
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.643	152	23981	40.00	ppm	0.00
24) Naphthalene-d8	5.568	136	89349	40.00	ppm	0.00
47) Acenaphthene-d10	6.973	164	48727	40.00	ppm	0.00
69) Phenanthrene-d10	8.816	188	86040	40.00	ppm	0.00
83) Chrysene-d12	14.019	240	70532	40.00	ppm	-0.01
91) Perylene-d12	17.053	264	73063	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4A	4.643	152	23981	40.00	ppm	0.00
111) Naphthalene-d8A	5.568	136	89349	40.00	ppm	0.00
120) Acenaphthene-d10A	6.973	164	48727	40.00	ppm	0.00
131) Phenanthrene-d10A	8.816	188	86040	40.00	ppm	0.00
146) Chrysene-d12A	14.019	240	70532	40.00	ppm	-0.01
153) Perylene-d12A	17.053	264	73063	40.00	ppm	0.00
156) 1,4-Dichlorobenzene-d4b	4.643	152	23981	40.00	ppm	0.00
158) Phenanthrene-d10b	8.816	188	86040	40.00	ppm	0.00
160) Chrysene-d12b	14.019	240	70532	40.00	ppm	0.00
162) Naphthalene-d8b	5.568	136	89349	40.00	ppm	0.00
164) Acenaphthene-d10b	6.973	164	48727	40.00	ppm	0.00
166) Naphthalene-d8c	5.568	136	89349	40.00	ppm	0.00
171) 1,4-Dichlorobenzene-d4c	4.643	152	23981	40.00	ppm	0.00
173) Chrysene-d12c	14.019	240	70532	40.00	ppm	-0.01
175) Chrysene-d12d	14.019	240	70532	40.00	ppm	-0.01
177) Naphthalene-d8d	5.568	136	89349	40.00	ppm	0.00
179) Chrysene-d12B	14.019	240	70532	40.00	ppm	0.00
181) Perylene-d12b	17.053	264	73063	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
Target Compounds						Qvalue
157) Benzaldehyde	4.312	105	1348	2.04	ppm	84
159) Atrazine	8.415	200	624	1.46	ppm	91
165) 1,2,4,5-Tetrachloroben...	6.214	216	1257	1.81	ppm	90

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7873\
Data File : F183436.D
Acq On : 25 Mar 2019 9:53 pm
Operator : kristis
Sample : ic7874-2
Misc : op18378,ef7874,1000,,,1,1
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Mar 26 13:14:49 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF7873.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Mar 26 12:57:29 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7873\
Data File : F183437.D
Acq On : 25 Mar 2019 10:20 pm
Operator : kristis
Sample : ic7874-1
Misc : op18378,ef7874,1000,,,1,1
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Mar 26 13:15:21 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF7873.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Mar 26 12:57:29 2019
Response via : Initial Calibration

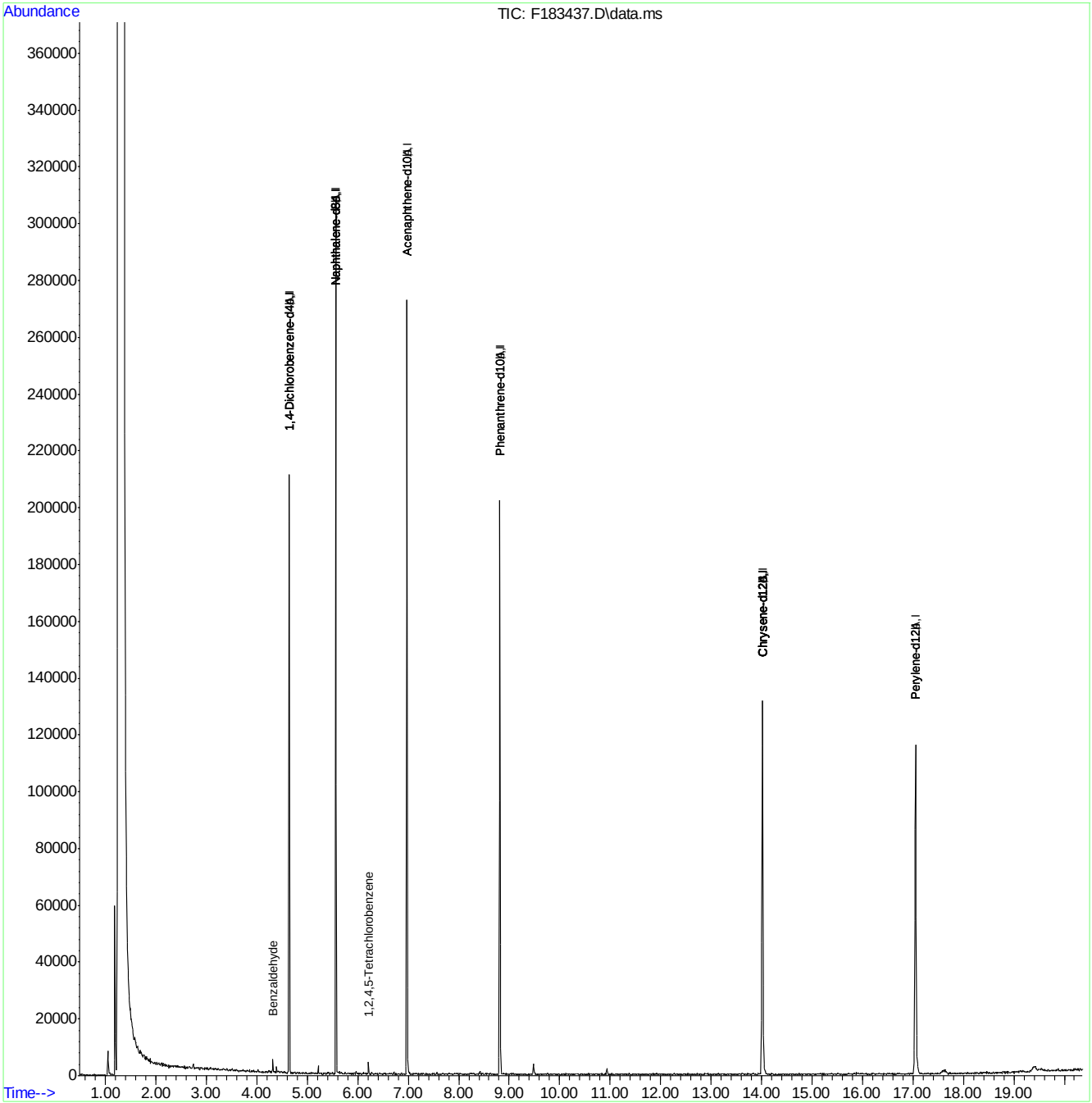
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.643	152	22834	40.00	ppm	0.00
24) Naphthalene-d8	5.568	136	87067	40.00	ppm	0.00
47) Acenaphthene-d10	6.973	164	48317	40.00	ppm	0.00
69) Phenanthrene-d10	8.816	188	84087	40.00	ppm	0.00
83) Chrysene-d12	14.019	240	67250	40.00	ppm	-0.01
91) Perylene-d12	17.053	264	70114	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4A	4.643	152	22834	40.00	ppm	0.00
111) Naphthalene-d8A	5.568	136	87067	40.00	ppm	0.00
120) Acenaphthene-d10A	6.973	164	48317	40.00	ppm	0.00
131) Phenanthrene-d10A	8.816	188	84087	40.00	ppm	0.00
146) Chrysene-d12A	14.019	240	67250	40.00	ppm	-0.01
153) Perylene-d12A	17.053	264	70114	40.00	ppm	0.00
156) 1,4-Dichlorobenzene-d4b	4.643	152	22834	40.00	ppm	0.00
158) Phenanthrene-d10b	8.816	188	84087	40.00	ppm	0.00
160) Chrysene-d12b	14.019	240	67250	40.00	ppm	0.00
162) Naphthalene-d8b	5.568	136	87067	40.00	ppm	0.00
164) Acenaphthene-d10b	6.973	164	48317	40.00	ppm	0.00
166) Naphthalene-d8c	5.568	136	87067	40.00	ppm	0.00
171) 1,4-Dichlorobenzene-d4c	4.643	152	22834	40.00	ppm	0.00
173) Chrysene-d12c	14.019	240	67250	40.00	ppm	-0.01
175) Chrysene-d12d	14.019	240	67250	40.00	ppm	-0.01
177) Naphthalene-d8d	5.568	136	87067	40.00	ppm	0.00
179) Chrysene-d12B	14.019	240	67250	40.00	ppm	0.00
181) Perylene-d12b	17.053	264	70114	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
Target Compounds						Qvalue
157) Benzaldehyde	4.318	105	642	1.02	ppm	89
165) 1,2,4,5-Tetrachloroben...	6.214	216	585	0.85	ppm	89

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7873\
Data File : F183437.D
Acq On : 25 Mar 2019 10:20 pm
Operator : kristis
Sample : ic7874-1
Misc : op18378,ef7874,1000,,,1,1
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Mar 26 13:15:21 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF7873.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Mar 26 12:57:29 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7873\
Data File : F183438.D
Acq On : 25 Mar 2019 10:46 pm
Operator : kristis
Sample : icv7874-50
Misc : op18378,ef7874,1000,,,1,1
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Mar 26 13:22:30 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF7873.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Mar 26 13:21:05 2019
Response via : Initial Calibration

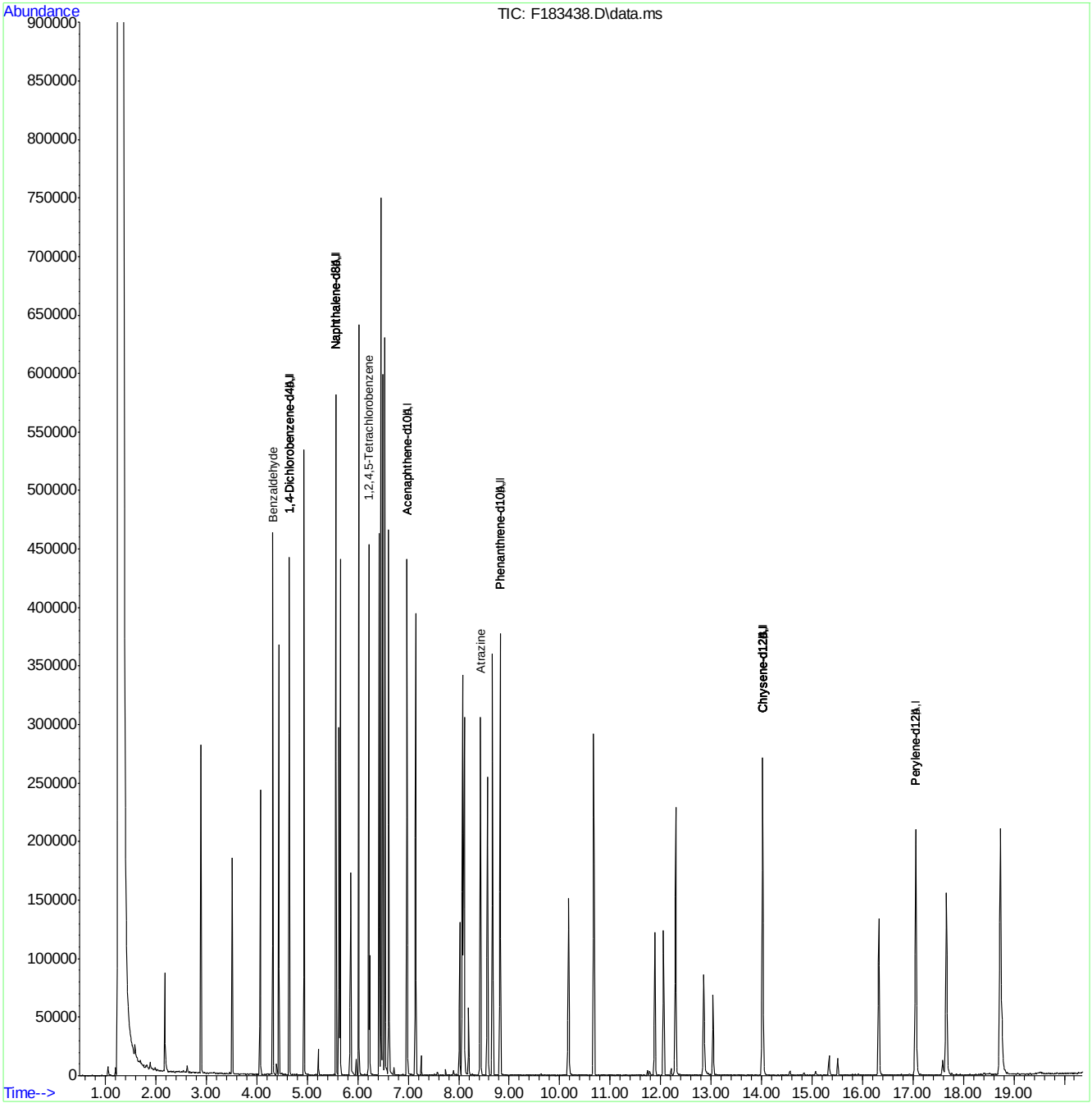
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.643	152	42187	40.00	ppm	0.00
24) Naphthalene-d8	5.567	136	160768	40.00	ppm	0.00
47) Acenaphthene-d10	6.972	164	80169	40.00	ppm	0.00
69) Phenanthrene-d10	8.821	188	159532	40.00	ppm	0.00
83) Chrysene-d12	14.024	240	140626	40.00	ppm	0.00
91) Perylene-d12	17.059	264	130844	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4A	4.643	152	42187	40.00	ppm	0.00
111) Naphthalene-d8A	5.567	136	160768	40.00	ppm	0.00
120) Acenaphthene-d10A	6.972	164	80169	40.00	ppm	0.00
131) Phenanthrene-d10A	8.821	188	159532	40.00	ppm	0.00
146) Chrysene-d12A	14.024	240	140626	40.00	ppm	0.00
153) Perylene-d12A	17.059	264	130844	40.00	ppm	0.00
156) 1,4-Dichlorobenzene-d4b	4.643	152	42187	40.00	ppm	0.00
158) Phenanthrene-d10b	8.821	188	159532	40.00	ppm	0.00
160) Chrysene-d12b	14.024	240	140626	40.00	ppm	0.00
162) Naphthalene-d8b	5.567	136	160768	40.00	ppm	0.00
164) Acenaphthene-d10b	6.972	164	80169	40.00	ppm	0.00
166) Naphthalene-d8c	5.567	136	160768	40.00	ppm	0.00
171) 1,4-Dichlorobenzene-d4c	4.643	152	42187	40.00	ppm	0.00
173) Chrysene-d12c	14.024	240	140626	40.00	ppm	0.00
175) Chrysene-d12d	14.024	240	140626	40.00	ppm	0.00
177) Naphthalene-d8d	5.567	136	160768	40.00	ppm	0.00
179) Chrysene-d12B	14.024	240	140626	40.00	ppm	0.00
181) Perylene-d12b	17.059	264	130844	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
51) 2-Fluorobiphenyl	0.000	172	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
Target Compounds						Qvalue
157) Benzaldehyde	4.317	105	62804	52.35	ppm	97
159) Atrazine	8.431	200	39951	55.18	ppm	90
165) 1,2,4,5-Tetrachloroben...	6.219	216	58371	53.67	ppm	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7873\
Data File : F183438.D
Acq On : 25 Mar 2019 10:46 pm
Operator : kristis
Sample : icv7874-50
Misc : op18378,ef7874,1000,,,1,1
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Mar 26 13:22:30 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF7873.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Mar 26 13:21:05 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7873\
Data File : F183439.D
Acq On : 25 Mar 2019 11:13 pm
Operator : kristis
Sample : icv7874-50
Misc : op18378,ef7874,1000,,,1,1
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Mar 26 13:23:11 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF7873.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Mar 26 13:21:05 2019
Response via : Initial Calibration

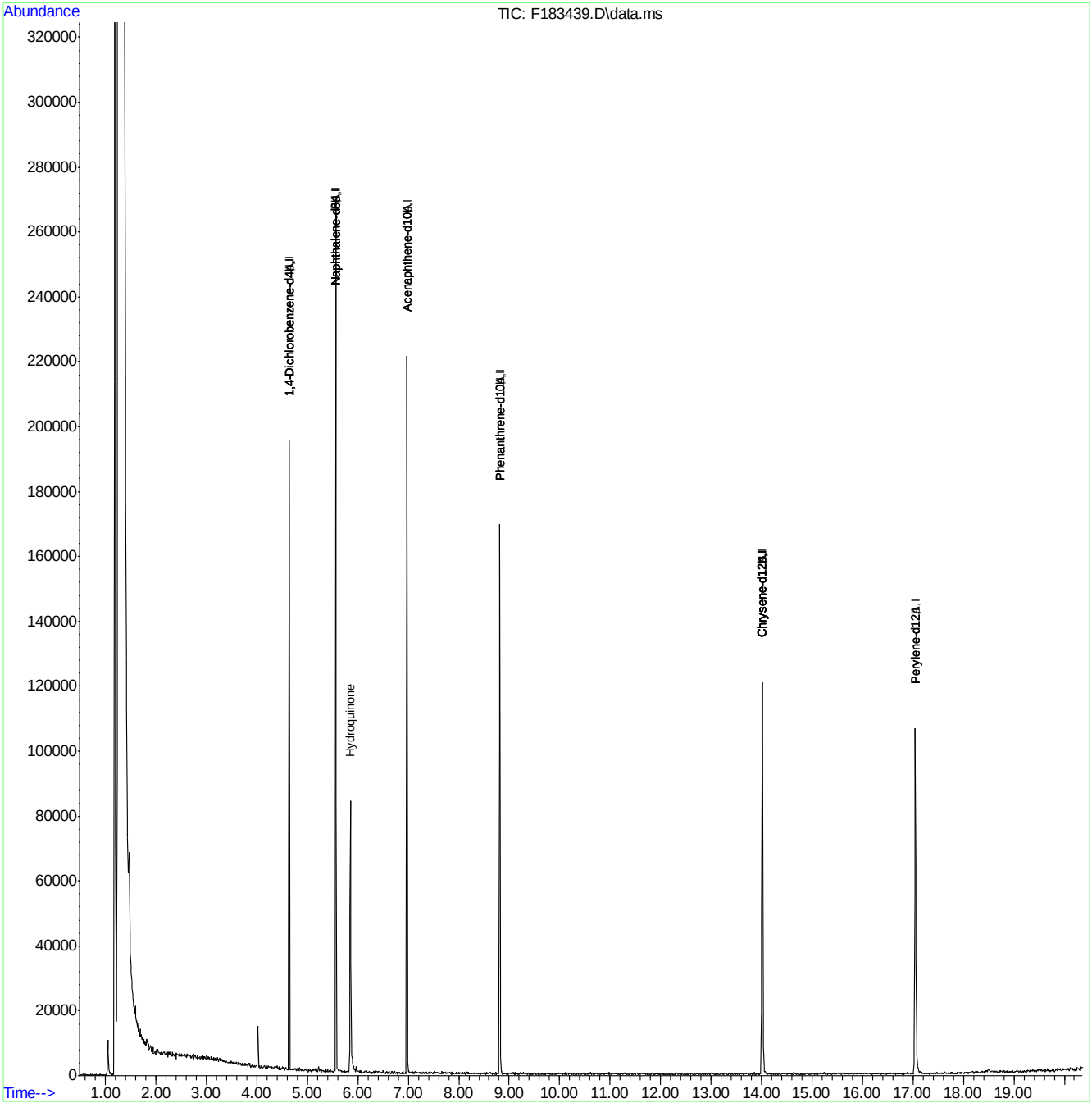
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.643	152	19764	40.00	ppm	0.00
24) Naphthalene-d8	5.568	136	75990	40.00	ppm	0.00
47) Acenaphthene-d10	6.973	164	37054	40.00	ppm	0.00
69) Phenanthrene-d10	8.816	188	74965	40.00	ppm	0.00
83) Chrysene-d12	14.014	240	62377	40.00	ppm	-0.02
91) Perylene-d12	17.048	264	59864	40.00	ppm	-0.01
101) 1,4-Dichlorobenzene-d4A	4.643	152	19764	40.00	ppm	0.00
111) Naphthalene-d8A	5.568	136	75990	40.00	ppm	0.00
120) Acenaphthene-d10A	6.973	164	37054	40.00	ppm	0.00
131) Phenanthrene-d10A	8.816	188	74965	40.00	ppm	0.00
146) Chrysene-d12A	14.014	240	62377	40.00	ppm	-0.02
153) Perylene-d12A	17.048	264	59864	40.00	ppm	-0.01
156) 1,4-Dichlorobenzene-d4b	4.643	152	19764	40.00	ppm	0.00
158) Phenanthrene-d10b	8.816	188	74965	40.00	ppm	0.00
160) Chrysene-d12b	14.014	240	62377	40.00	ppm	0.00
162) Naphthalene-d8b	5.568	136	75990	40.00	ppm	0.00
164) Acenaphthene-d10b	6.973	164	37054	40.00	ppm	0.00
166) Naphthalene-d8c	5.568	136	75990	40.00	ppm	0.00
171) 1,4-Dichlorobenzene-d4c	4.643	152	19764	40.00	ppm	0.00
173) Chrysene-d12c	14.014	240	62377	40.00	ppm	-0.02
175) Chrysene-d12d	14.014	240	62377	40.00	ppm	-0.02
177) Naphthalene-d8d	5.568	136	75990	40.00	ppm	0.00
179) Chrysene-d12B	14.014	240	62377	40.00	ppm	0.00
181) Perylene-d12b	17.048	264	59864	40.00	ppm	-0.01
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
Target Compounds						Qvalue
163) Hydroquinone	5.851	110	30273	54.93	ppm	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7873\
Data File : F183439.D
Acq On : 25 Mar 2019 11:13 pm
Operator : kristis
Sample : icv7874-50
Misc : op18378,ef7874,1000,,,1,1
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Mar 26 13:23:11 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF7873.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Mar 26 13:21:05 2019
Response via : Initial Calibration



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Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7873\
Data File : F183441.D
Acq On : 25 Mar 2019 11:48 pm
Operator : kristis
Sample : ic7875-100
Misc : op18378,ef7875,1000,,,1,1
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Mar 26 13:43:24 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF7873.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Mar 26 13:43:01 2019
Response via : Initial Calibration

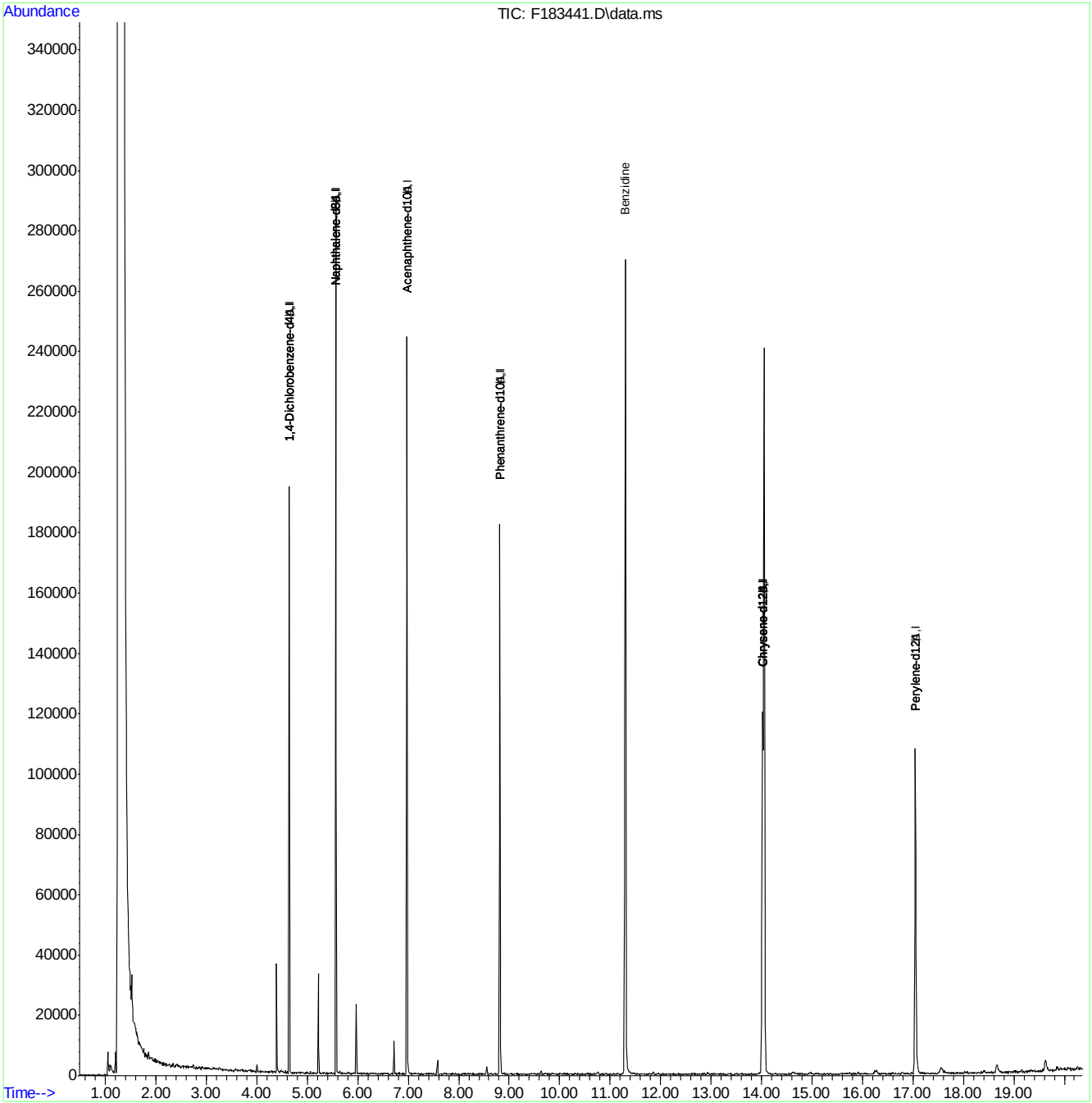
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.643	152	21011	40.00	ppm	0.00
24) Naphthalene-d8	5.568	136	80296	40.00	ppm	0.00
47) Acenaphthene-d10	6.973	164	43038	40.00	ppm	0.00
69) Phenanthrene-d10	8.816	188	73814	40.00	ppm	0.00
83) Chrysene-d12	14.019	240	59934	40.00	ppm	-0.01
91) Perylene-d12	17.053	264	62925	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4A	4.643	152	21011	40.00	ppm	0.00
111) Naphthalene-d8A	5.568	136	80296	40.00	ppm	0.00
120) Acenaphthene-d10A	6.973	164	43038	40.00	ppm	0.00
131) Phenanthrene-d10A	8.816	188	73814	40.00	ppm	0.00
146) Chrysene-d12A	14.019	240	59934	40.00	ppm	-0.01
153) Perylene-d12A	17.053	264	62925	40.00	ppm	0.00
156) 1,4-Dichlorobenzene-d4b	4.643	152	21011	40.00	ppm	0.00
158) Phenanthrene-d10b	8.816	188	73814	40.00	ppm	0.00
160) Chrysene-d12b	14.019	240	59934	40.00	ppm	0.00
162) Naphthalene-d8b	5.568	136	80296	40.00	ppm	0.00
164) Acenaphthene-d10b	6.973	164	43038	40.00	ppm	0.00
166) Naphthalene-d8c	5.568	136	80296	40.00	ppm	0.00
171) 1,4-Dichlorobenzene-d4c	4.643	152	21011	40.00	ppm	0.00
173) Chrysene-d12c	14.019	240	59934	40.00	ppm	-0.01
175) Chrysene-d12d	14.019	240	59934	40.00	ppm	-0.01
177) Naphthalene-d8d	5.568	136	80296	40.00	ppm	0.00
179) Chrysene-d12B	14.019	240	59934	40.00	ppm	0.00
181) Perylene-d12b	17.053	264	62925	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
Target Compounds						Qvalue
161) Benzidine	11.305	184	146927	99.28	ppm	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7873\
Data File : F183441.D
Acq On : 25 Mar 2019 11:48 pm
Operator : kristis
Sample : ic7875-100
Misc : op18378,ef7875,1000,,,1,1
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Mar 26 13:43:24 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF7873.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Mar 26 13:43:01 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7873\
Data File : F183442.D
Acq On : 26 Mar 2019 12:14 am
Operator : kristis
Sample : ic7875-80
Misc : op18378,ef7875,1000,,,1,1
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Mar 26 13:44:03 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF7873.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Mar 26 13:43:01 2019
Response via : Initial Calibration

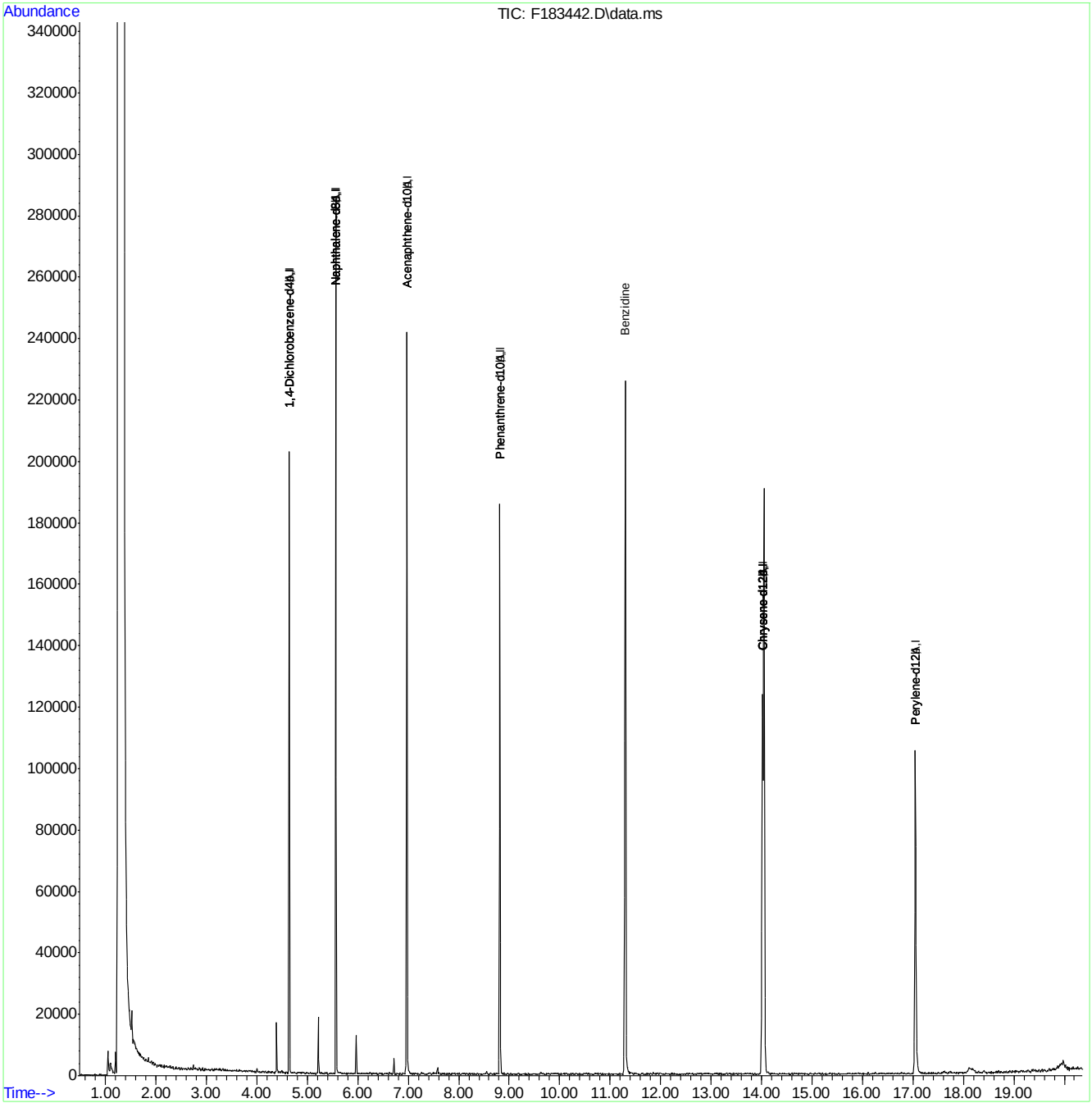
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.643	152	21393	40.00	ppm	0.00
24) Naphthalene-d8	5.568	136	78864	40.00	ppm	0.00
47) Acenaphthene-d10	6.973	164	42798	40.00	ppm	0.00
69) Phenanthrene-d10	8.816	188	74652	40.00	ppm	0.00
83) Chrysene-d12	14.019	240	60410	40.00	ppm	-0.01
91) Perylene-d12	17.053	264	62647	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4A	4.643	152	21393	40.00	ppm	0.00
111) Naphthalene-d8A	5.568	136	78864	40.00	ppm	0.00
120) Acenaphthene-d10A	6.973	164	42798	40.00	ppm	0.00
131) Phenanthrene-d10A	8.816	188	74652	40.00	ppm	0.00
146) Chrysene-d12A	14.019	240	60410	40.00	ppm	-0.01
153) Perylene-d12A	17.053	264	62647	40.00	ppm	0.00
156) 1,4-Dichlorobenzene-d4b	4.643	152	21393	40.00	ppm	0.00
158) Phenanthrene-d10b	8.816	188	74652	40.00	ppm	0.00
160) Chrysene-d12b	14.019	240	60410	40.00	ppm	0.00
162) Naphthalene-d8b	5.568	136	78864	40.00	ppm	0.00
164) Acenaphthene-d10b	6.973	164	42798	40.00	ppm	0.00
166) Naphthalene-d8c	5.568	136	78864	40.00	ppm	0.00
171) 1,4-Dichlorobenzene-d4c	4.643	152	21393	40.00	ppm	0.00
173) Chrysene-d12c	14.019	240	60410	40.00	ppm	-0.01
175) Chrysene-d12d	14.019	240	60410	40.00	ppm	-0.01
177) Naphthalene-d8d	5.568	136	78864	40.00	ppm	0.00
179) Chrysene-d12B	14.019	240	60410	40.00	ppm	0.00
181) Perylene-d12b	17.053	264	62647	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
Target Compounds						Qvalue
161) Benzidine	11.300	184	118016	79.11	ppm	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7873\
Data File : F183442.D
Acq On : 26 Mar 2019 12:14 am
Operator : kristis
Sample : ic7875-80
Misc : op18378,ef7875,1000,,,1,1
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Mar 26 13:44:03 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF7873.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Mar 26 13:43:01 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7873\
Data File : F183443.D
Acq On : 26 Mar 2019 12:41 am
Operator : kristis
Sample : icc7875-50
Misc : op18378,ef7875,1000,,,1,1
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Mar 26 13:44:46 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF7873.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Mar 26 13:43:01 2019
Response via : Initial Calibration

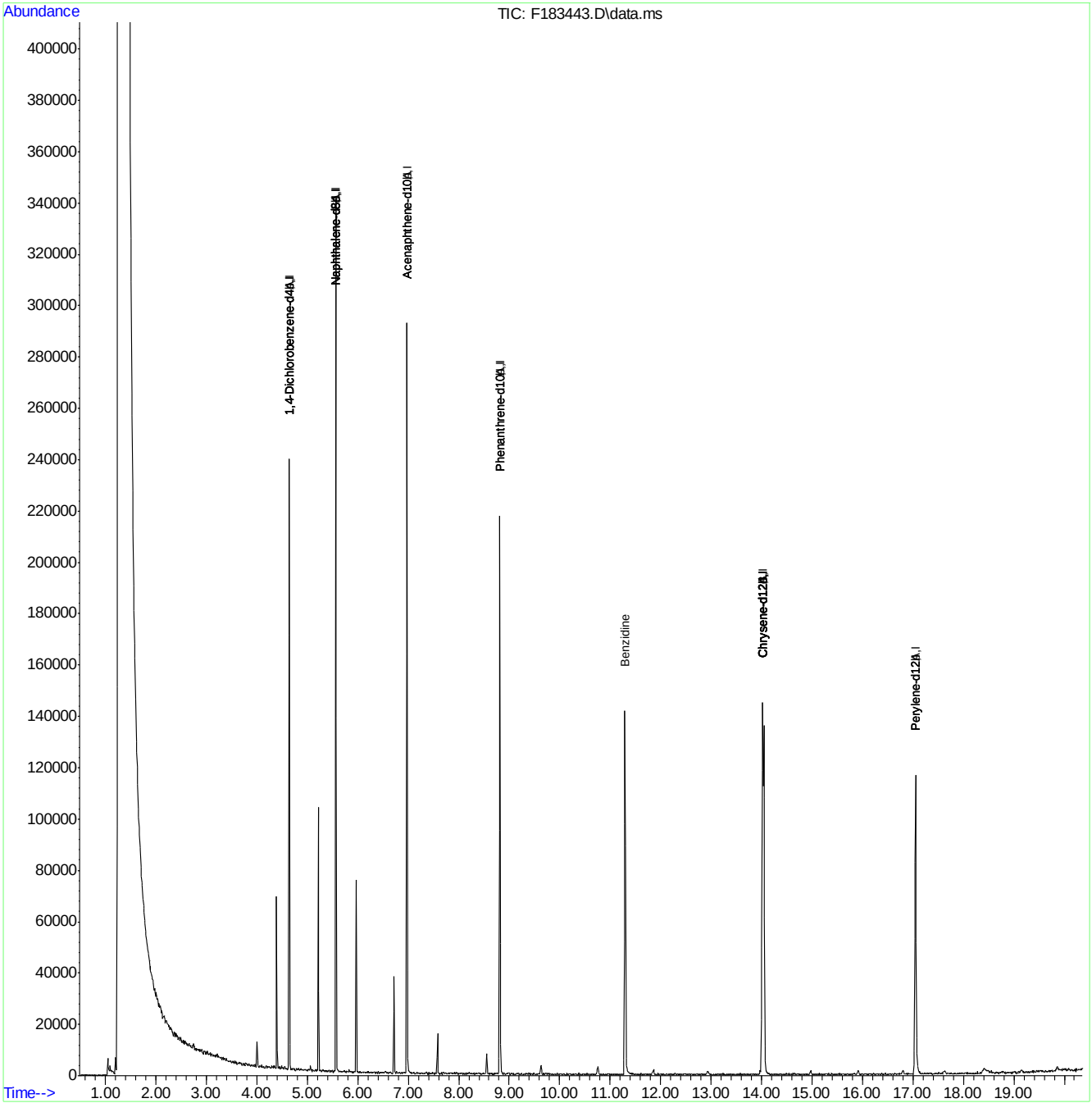
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.643	152	24863	40.00	ppm	0.00
24) Naphthalene-d8	5.567	136	94061	40.00	ppm	0.00
47) Acenaphthene-d10	6.973	164	50225	40.00	ppm	0.00
69) Phenanthrene-d10	8.816	188	88009	40.00	ppm	0.00
83) Chrysene-d12	14.019	240	68871	40.00	ppm	-0.01
91) Perylene-d12	17.053	264	67914	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4A	4.643	152	24863	40.00	ppm	0.00
111) Naphthalene-d8A	5.567	136	94061	40.00	ppm	0.00
120) Acenaphthene-d10A	6.973	164	50225	40.00	ppm	0.00
131) Phenanthrene-d10A	8.816	188	88009	40.00	ppm	0.00
146) Chrysene-d12A	14.019	240	68871	40.00	ppm	-0.01
153) Perylene-d12A	17.053	264	67914	40.00	ppm	0.00
156) 1,4-Dichlorobenzene-d4b	4.643	152	24863	40.00	ppm	0.00
158) Phenanthrene-d10b	8.816	188	88009	40.00	ppm	0.00
160) Chrysene-d12b	14.019	240	68871	40.00	ppm	0.00
162) Naphthalene-d8b	5.567	136	94061	40.00	ppm	0.00
164) Acenaphthene-d10b	6.973	164	50225	40.00	ppm	0.00
166) Naphthalene-d8c	5.567	136	94061	40.00	ppm	0.00
171) 1,4-Dichlorobenzene-d4c	4.643	152	24863	40.00	ppm	0.00
173) Chrysene-d12c	14.019	240	68871	40.00	ppm	-0.01
175) Chrysene-d12d	14.019	240	68871	40.00	ppm	-0.01
177) Naphthalene-d8d	5.567	136	94061	40.00	ppm	0.00
179) Chrysene-d12B	14.019	240	68871	40.00	ppm	0.00
181) Perylene-d12b	17.053	264	67914	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
Target Compounds						Qvalue
161) Benzidine	11.300	184	75577	44.44	ppm	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7873\
Data File : F183443.D
Acq On : 26 Mar 2019 12:41 am
Operator : kristis
Sample : icc7875-50
Misc : op18378,ef7875,1000,,,1,1
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Mar 26 13:44:46 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF7873.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Mar 26 13:43:01 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7873\
Data File : F183444.D
Acq On : 26 Mar 2019 1:07 am
Operator : kristis
Sample : ic7875-25
Misc : op18378,ef7875,1000,,,1,1
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Mar 26 13:45:17 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF7873.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Mar 26 13:43:01 2019
Response via : Initial Calibration

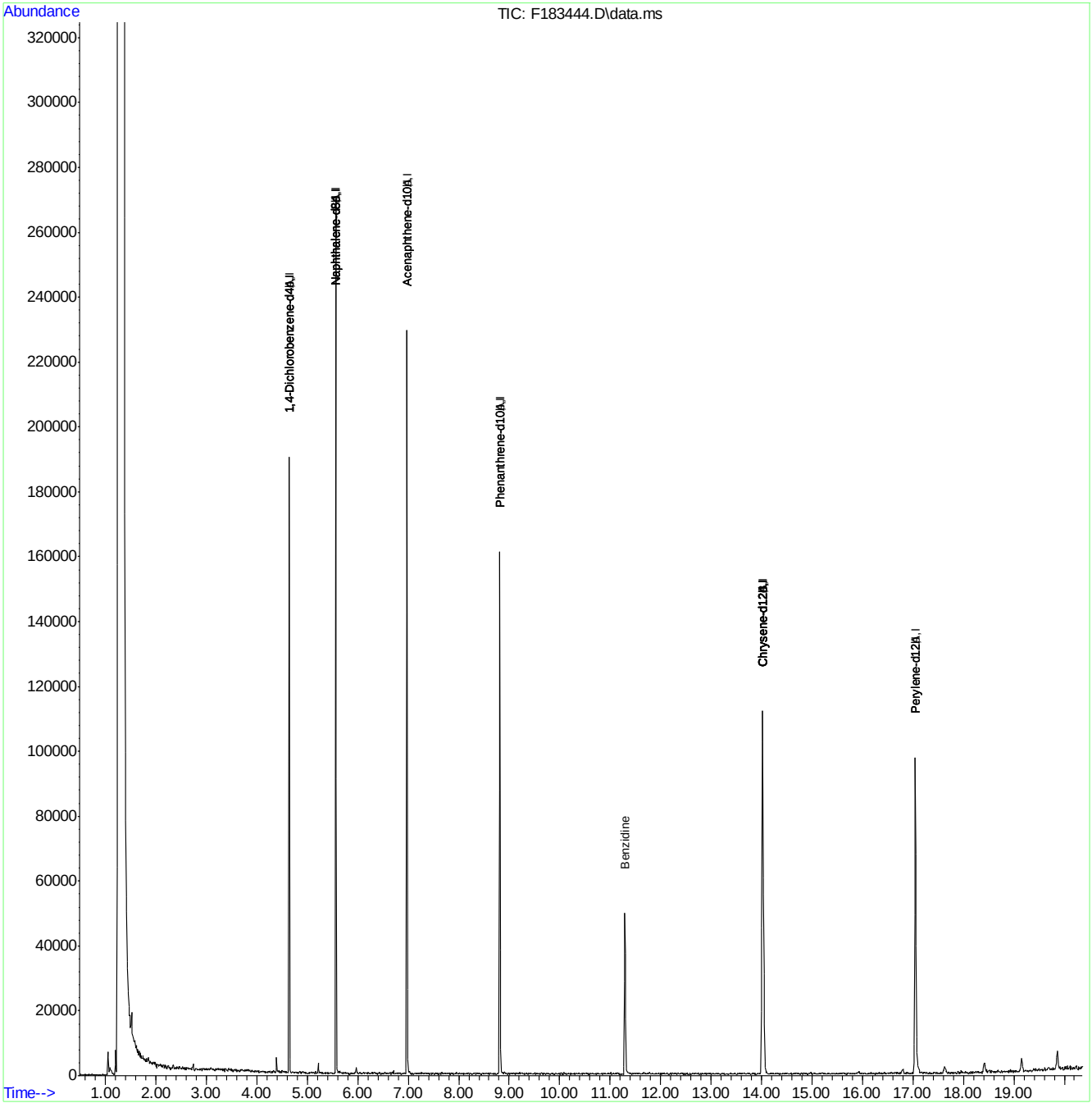
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.643	152	19702	40.00	ppm	0.00
24) Naphthalene-d8	5.568	136	75910	40.00	ppm	0.00
47) Acenaphthene-d10	6.973	164	39331	40.00	ppm	0.00
69) Phenanthrene-d10	8.816	188	69809	40.00	ppm	0.00
83) Chrysene-d12	14.019	240	55441	40.00	ppm	-0.01
91) Perylene-d12	17.048	264	58805	40.00	ppm	-0.01
101) 1,4-Dichlorobenzene-d4A	4.643	152	19702	40.00	ppm	0.00
111) Naphthalene-d8A	5.568	136	75910	40.00	ppm	0.00
120) Acenaphthene-d10A	6.973	164	39331	40.00	ppm	0.00
131) Phenanthrene-d10A	8.816	188	69809	40.00	ppm	0.00
146) Chrysene-d12A	14.019	240	55441	40.00	ppm	-0.01
153) Perylene-d12A	17.048	264	58805	40.00	ppm	-0.01
156) 1,4-Dichlorobenzene-d4b	4.643	152	19702	40.00	ppm	0.00
158) Phenanthrene-d10b	8.816	188	69809	40.00	ppm	0.00
160) Chrysene-d12b	14.019	240	55441	40.00	ppm	0.00
162) Naphthalene-d8b	5.568	136	75910	40.00	ppm	0.00
164) Acenaphthene-d10b	6.973	164	39331	40.00	ppm	0.00
166) Naphthalene-d8c	5.568	136	75910	40.00	ppm	0.00
171) 1,4-Dichlorobenzene-d4c	4.643	152	19702	40.00	ppm	0.00
173) Chrysene-d12c	14.019	240	55441	40.00	ppm	-0.01
175) Chrysene-d12d	14.019	240	55441	40.00	ppm	-0.01
177) Naphthalene-d8d	5.568	136	75910	40.00	ppm	0.00
179) Chrysene-d12B	14.019	240	55441	40.00	ppm	0.00
181) Perylene-d12b	17.048	264	58805	40.00	ppm	-0.01
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
Target Compounds						Qvalue
161) Benzidine	11.294	184	27944	20.41	ppm	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7873\
Data File : F183444.D
Acq On : 26 Mar 2019 1:07 am
Operator : kristis
Sample : ic7875-25
Misc : op18378,ef7875,1000,,,1,1
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Mar 26 13:45:17 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF7873.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Mar 26 13:43:01 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7873\
Data File : F183445.D
Acq On : 26 Mar 2019 1:34 am
Operator : kristis
Sample : ic7875-10
Misc : op18378,ef7875,1000,,,1,1
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Mar 26 13:45:50 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF7873.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Mar 26 13:43:01 2019
Response via : Initial Calibration

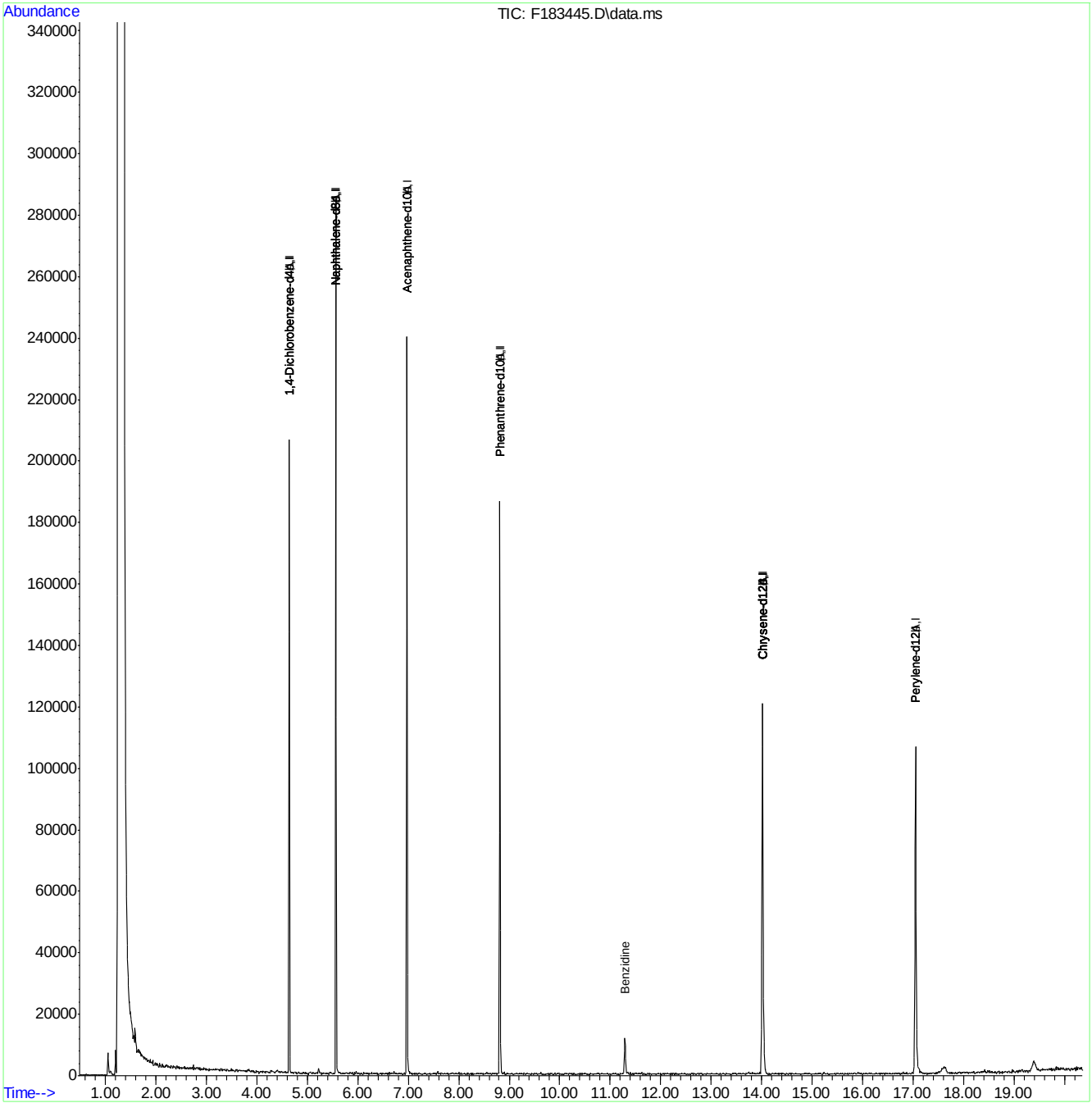
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.643	152	20581	40.00	ppm	0.00
24) Naphthalene-d8	5.567	136	79693	40.00	ppm	0.00
47) Acenaphthene-d10	6.972	164	42814	40.00	ppm	0.00
69) Phenanthrene-d10	8.816	188	76018	40.00	ppm	0.00
83) Chrysene-d12	14.019	240	59858	40.00	ppm	-0.01
91) Perylene-d12	17.053	264	62521	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4A	4.643	152	20581	40.00	ppm	0.00
111) Naphthalene-d8A	5.567	136	79693	40.00	ppm	0.00
120) Acenaphthene-d10A	6.972	164	42814	40.00	ppm	0.00
131) Phenanthrene-d10A	8.816	188	76018	40.00	ppm	0.00
146) Chrysene-d12A	14.019	240	59858	40.00	ppm	-0.01
153) Perylene-d12A	17.053	264	62521	40.00	ppm	0.00
156) 1,4-Dichlorobenzene-d4b	4.643	152	20581	40.00	ppm	0.00
158) Phenanthrene-d10b	8.816	188	76018	40.00	ppm	0.00
160) Chrysene-d12b	14.019	240	59858	40.00	ppm	0.00
162) Naphthalene-d8b	5.567	136	79693	40.00	ppm	0.00
164) Acenaphthene-d10b	6.972	164	42814	40.00	ppm	0.00
166) Naphthalene-d8c	5.567	136	79693	40.00	ppm	0.00
171) 1,4-Dichlorobenzene-d4c	4.643	152	20581	40.00	ppm	0.00
173) Chrysene-d12c	14.019	240	59858	40.00	ppm	-0.01
175) Chrysene-d12d	14.019	240	59858	40.00	ppm	-0.01
177) Naphthalene-d8d	5.567	136	79693	40.00	ppm	0.00
179) Chrysene-d12B	14.019	240	59858	40.00	ppm	0.00
181) Perylene-d12b	17.053	264	62521	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
Target Compounds						Qvalue
161) Benzidine	11.294	184	8814	5.96	ppm	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7873\
Data File : F183445.D
Acq On : 26 Mar 2019 1:34 am
Operator : kristis
Sample : ic7875-10
Misc : op18378,ef7875,1000,,,1,1
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Mar 26 13:45:50 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF7873.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Mar 26 13:43:01 2019
Response via : Initial Calibration



SGS JC87363

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7873\
Data File : F183446.D
Acq On : 26 Mar 2019 2:01 am
Operator : kristis
Sample : ic7875-5
Misc : op18378,ef7875,1000,,,1,1
ALS Vial : 31 Sample Multiplier: 1

Quant Time: Mar 26 13:46:22 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF7873.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Mar 26 13:43:01 2019
Response via : Initial Calibration

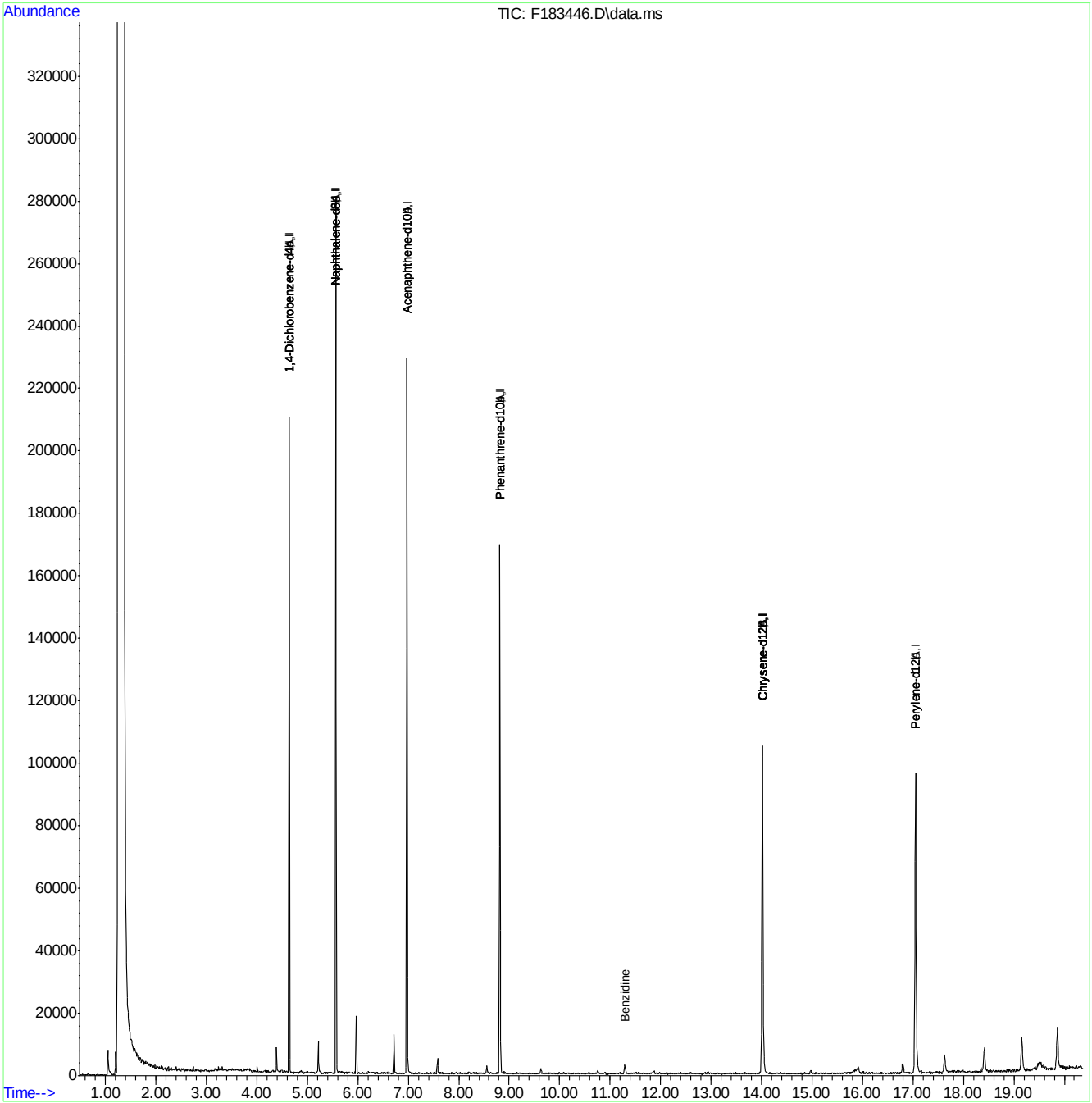
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.643	152	20134	40.00	ppm	0.00
24) Naphthalene-d8	5.568	136	77731	40.00	ppm	0.00
47) Acenaphthene-d10	6.973	164	40703	40.00	ppm	0.00
69) Phenanthrene-d10	8.816	188	70240	40.00	ppm	0.00
83) Chrysene-d12	14.019	240	54656	40.00	ppm	-0.01
91) Perylene-d12	17.053	264	57352	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4A	4.643	152	20134	40.00	ppm	0.00
111) Naphthalene-d8A	5.568	136	77731	40.00	ppm	0.00
120) Acenaphthene-d10A	6.973	164	40703	40.00	ppm	0.00
131) Phenanthrene-d10A	8.816	188	70240	40.00	ppm	0.00
146) Chrysene-d12A	14.019	240	54656	40.00	ppm	-0.01
153) Perylene-d12A	17.053	264	57352	40.00	ppm	0.00
156) 1,4-Dichlorobenzene-d4b	4.643	152	20134	40.00	ppm	0.00
158) Phenanthrene-d10b	8.816	188	70240	40.00	ppm	0.00
160) Chrysene-d12b	14.019	240	54656	40.00	ppm	0.00
162) Naphthalene-d8b	5.568	136	77731	40.00	ppm	0.00
164) Acenaphthene-d10b	6.973	164	40703	40.00	ppm	0.00
166) Naphthalene-d8c	5.568	136	77731	40.00	ppm	0.00
171) 1,4-Dichlorobenzene-d4c	4.643	152	20134	40.00	ppm	0.00
173) Chrysene-d12c	14.019	240	54656	40.00	ppm	-0.01
175) Chrysene-d12d	14.019	240	54656	40.00	ppm	-0.01
177) Naphthalene-d8d	5.568	136	77731	40.00	ppm	0.00
179) Chrysene-d12B	14.019	240	54656	40.00	ppm	0.00
181) Perylene-d12b	17.053	264	57352	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
Target Compounds						Qvalue
161) Benzidine	11.294	184	3154	2.34	ppm	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7873\
Data File : F183446.D
Acq On : 26 Mar 2019 2:01 am
Operator : kristis
Sample : ic7875-5
Misc : op18378,ef7875,1000,,,1,1
ALS Vial : 31 Sample Multiplier: 1

Quant Time: Mar 26 13:46:22 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF7873.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Mar 26 13:43:01 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7873\
Data File : F183447.D
Acq On : 26 Mar 2019 2:27 am
Operator : kristis
Sample : ic7875-2
Misc : op18378,ef7875,1000,,,1,1
ALS Vial : 32 Sample Multiplier: 1

Quant Time: Mar 26 13:47:01 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF7873.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Mar 26 13:43:01 2019
Response via : Initial Calibration

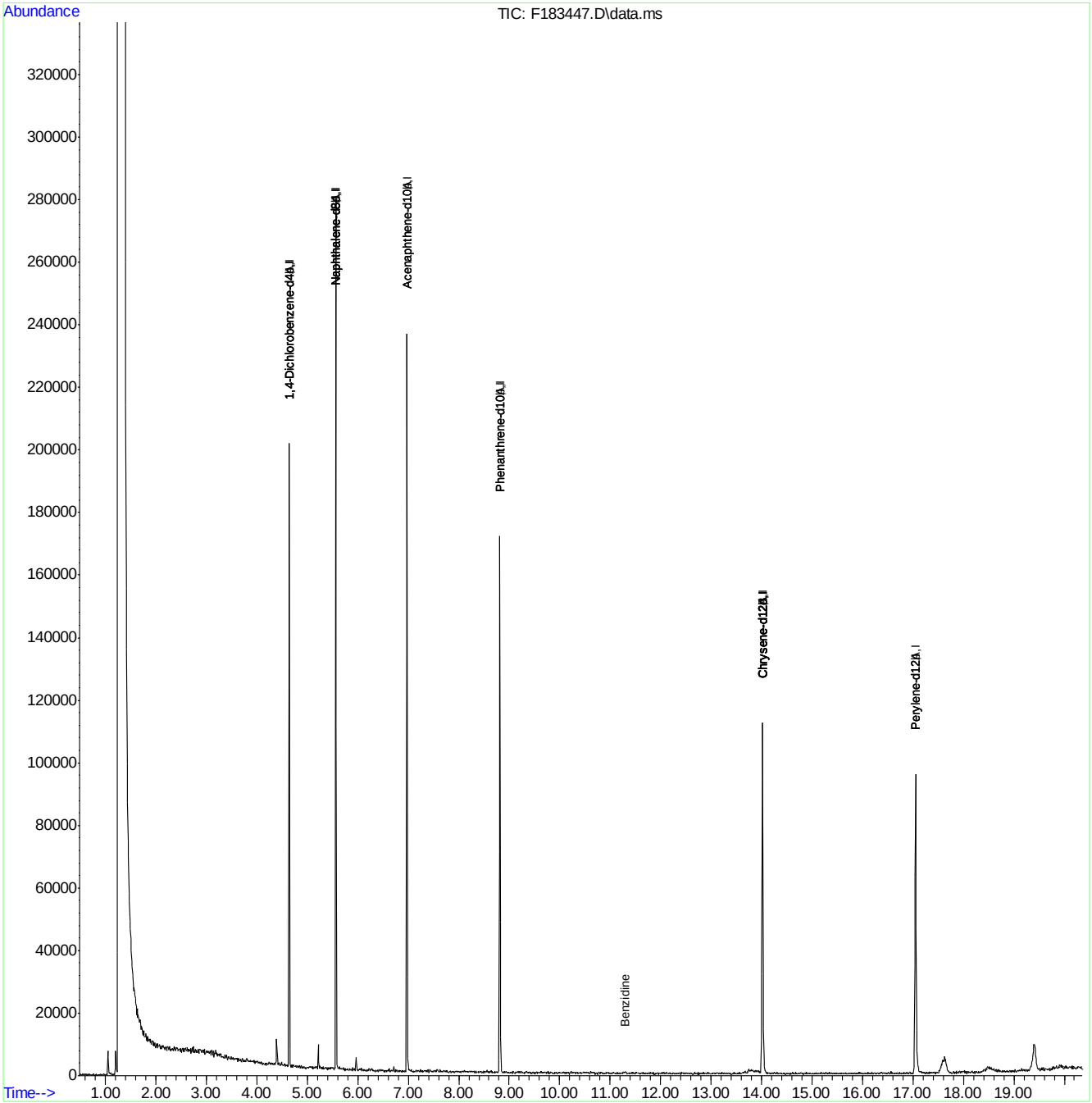
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.643	152	20006	40.00	ppm	0.00
24) Naphthalene-d8	5.568	136	76430	40.00	ppm	0.00
47) Acenaphthene-d10	6.973	164	40039	40.00	ppm	0.00
69) Phenanthrene-d10	8.816	188	70343	40.00	ppm	0.00
83) Chrysene-d12	14.019	240	54497	40.00	ppm	-0.01
91) Perylene-d12	17.053	264	56234	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4A	4.643	152	20006	40.00	ppm	0.00
111) Naphthalene-d8A	5.568	136	76430	40.00	ppm	0.00
120) Acenaphthene-d10A	6.973	164	40039	40.00	ppm	0.00
131) Phenanthrene-d10A	8.816	188	70343	40.00	ppm	0.00
146) Chrysene-d12A	14.019	240	54497	40.00	ppm	-0.01
153) Perylene-d12A	17.053	264	56234	40.00	ppm	0.00
156) 1,4-Dichlorobenzene-d4b	4.643	152	20006	40.00	ppm	0.00
158) Phenanthrene-d10b	8.816	188	70343	40.00	ppm	0.00
160) Chrysene-d12b	14.019	240	54497	40.00	ppm	0.00
162) Naphthalene-d8b	5.568	136	76430	40.00	ppm	0.00
164) Acenaphthene-d10b	6.973	164	40039	40.00	ppm	0.00
166) Naphthalene-d8c	5.568	136	76430	40.00	ppm	0.00
171) 1,4-Dichlorobenzene-d4c	4.643	152	20006	40.00	ppm	0.00
173) Chrysene-d12c	14.019	240	54497	40.00	ppm	-0.01
175) Chrysene-d12d	14.019	240	54497	40.00	ppm	-0.01
177) Naphthalene-d8d	5.568	136	76430	40.00	ppm	0.00
179) Chrysene-d12B	14.019	240	54497	40.00	ppm	0.00
181) Perylene-d12b	17.053	264	56234	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
Target Compounds						Qvalue
161) Benzidine	11.289	184	630	0.47	ppm	# 100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7873\
Data File : F183447.D
Acq On : 26 Mar 2019 2:27 am
Operator : kristis
Sample : ic7875-2
Misc : op18378,ef7875,1000,,,1,1
ALS Vial : 32 Sample Multiplier: 1

Quant Time: Mar 26 13:47:01 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF7873.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Mar 26 13:43:01 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7873\
Data File : F183449.D
Acq On : 26 Mar 2019 3:20 am
Operator : kristis
Sample : icv7875-50
Misc : op18378,ef7875,1000,,,1,1
ALS Vial : 34 Sample Multiplier: 1

Quant Time: Mar 26 13:59:25 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF7873.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Mar 26 13:56:40 2019
Response via : Initial Calibration

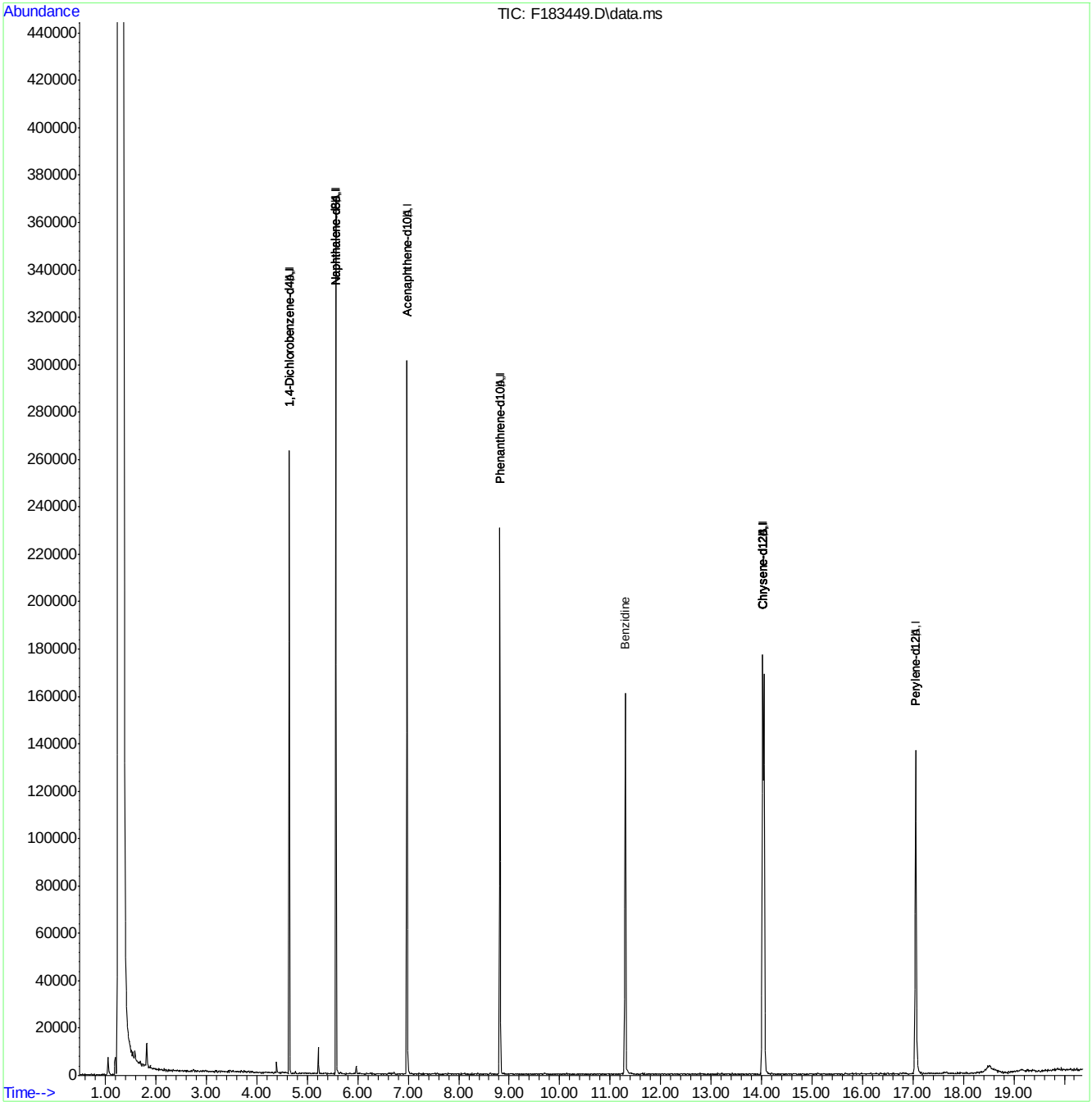
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.643	152	26015	40.00	ppm	0.00
24) Naphthalene-d8	5.568	136	101606	40.00	ppm	0.00
47) Acenaphthene-d10	6.973	164	51895	40.00	ppm	0.00
69) Phenanthrene-d10	8.816	188	97790	40.00	ppm	0.00
83) Chrysene-d12	14.024	240	86294	40.00	ppm	0.00
91) Perylene-d12	17.059	264	82501	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4A	4.643	152	26015	40.00	ppm	0.00
111) Naphthalene-d8A	5.568	136	101606	40.00	ppm	0.00
120) Acenaphthene-d10A	6.973	164	51895	40.00	ppm	0.00
131) Phenanthrene-d10A	8.816	188	97790	40.00	ppm	0.00
146) Chrysene-d12A	14.024	240	86294	40.00	ppm	0.00
153) Perylene-d12A	17.059	264	82501	40.00	ppm	0.00
156) 1,4-Dichlorobenzene-d4b	4.643	152	26015	40.00	ppm	0.00
158) Phenanthrene-d10b	8.816	188	97790	40.00	ppm	0.00
160) Chrysene-d12b	14.024	240	86294	40.00	ppm	0.00
162) Naphthalene-d8b	5.568	136	101606	40.00	ppm	0.00
164) Acenaphthene-d10b	6.973	164	51895	40.00	ppm	0.00
166) Naphthalene-d8c	5.568	136	101606	40.00	ppm	0.00
171) 1,4-Dichlorobenzene-d4c	4.643	152	26015	40.00	ppm	0.00
173) Chrysene-d12c	14.024	240	86294	40.00	ppm	0.00
175) Chrysene-d12d	14.024	240	86294	40.00	ppm	0.00
177) Naphthalene-d8d	5.568	136	101606	40.00	ppm	0.00
179) Chrysene-d12B	14.024	240	86294	40.00	ppm	0.00
181) Perylene-d12b	17.059	264	82501	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
Target Compounds						Qvalue
161) Benzidine	11.300	184	79647	42.11	ppm	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7873\
Data File : F183449.D
Acq On : 26 Mar 2019 3:20 am
Operator : kristis
Sample : icv7875-50
Misc : op18378,ef7875,1000,,,1,1
ALS Vial : 34 Sample Multiplier: 1

Quant Time: Mar 26 13:59:25 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF7873.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Mar 26 13:56:40 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7876\
Data File : F183455.D
Acq On : 26 Mar 2019 6:16 pm
Operator : angelar
Sample : icv7873-50
Misc : op18378,ef7876,1000,,,1,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 27 10:39:48 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF7873.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Mar 26 13:56:40 2019
Response via : Initial Calibration

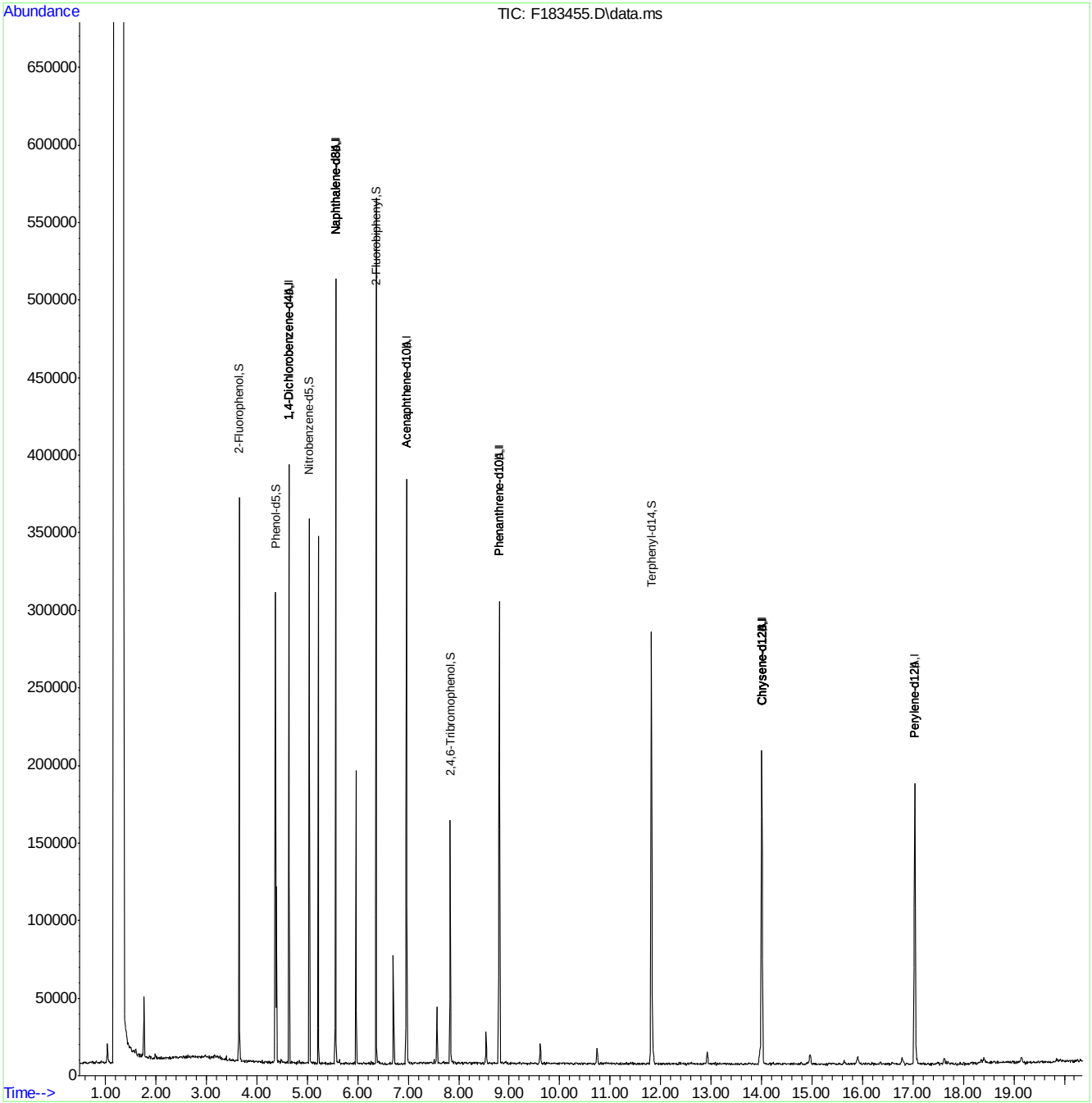
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.638	152	36759	40.00	ppm	0.00
24) Naphthalene-d8	5.562	136	140094	40.00	ppm	0.00
47) Acenaphthene-d10	6.967	164	73663	40.00	ppm	0.00
69) Phenanthrene-d10	8.805	188	128849	40.00	ppm	-0.01
83) Chrysene-d12	14.003	240	110612	40.00	ppm	-0.03
91) Perylene-d12	17.037	264	103596	40.00	ppm	-0.02
101) 1,4-Dichlorobenzene-d4A	4.638	152	36759	40.00	ppm	0.00
111) Naphthalene-d8A	5.562	136	140094	40.00	ppm	0.00
120) Acenaphthene-d10A	6.967	164	73663	40.00	ppm	0.00
131) Phenanthrene-d10A	8.805	188	128849	40.00	ppm	-0.01
146) Chrysene-d12A	14.003	240	110612	40.00	ppm	-0.03
153) Perylene-d12A	17.037	264	103596	40.00	ppm	-0.02
156) 1,4-Dichlorobenzene-d4b	4.638	152	36759	40.00	ppm	0.00
158) Phenanthrene-d10b	8.805	188	128849	40.00	ppm	-0.01
160) Chrysene-d12b	14.003	240	110612	40.00	ppm	-0.02
162) Naphthalene-d8b	5.562	136	140094	40.00	ppm	0.00
164) Acenaphthene-d10b	6.967	164	73663	40.00	ppm	0.00
166) Naphthalene-d8c	5.562	136	140094	40.00	ppm	0.00
171) 1,4-Dichlorobenzene-d4c	4.638	152	36759	40.00	ppm	0.00
173) Chrysene-d12c	14.003	240	110612	40.00	ppm	-0.03
175) Chrysene-d12d	14.003	240	110612	40.00	ppm	-0.03
177) Naphthalene-d8d	5.562	136	140094	40.00	ppm	0.00
179) Chrysene-d12B	14.003	240	110612	40.00	ppm	-0.02
181) Perylene-d12b	17.037	264	103596	40.00	ppm	-0.02
System Monitoring Compounds						
5) 2-Fluorophenol	3.650	112	62552	51.43	ppm	0.00
Spiked Amount 50.000			Recovery = 102.86%			
8) Phenol-d5	4.371	99	77010	48.16	ppm	0.00
Spiked Amount 50.000			Recovery = 96.32%			
25) Nitrobenzene-d5	5.039	82	75159	50.43	ppm	0.00
Spiked Amount 50.000			Recovery = 100.86%			
51) 2-Fluorobiphenyl	6.363	172	131941	48.18	ppm	0.00
Spiked Amount 50.000			Recovery = 96.36%			
73) 2,4,6-Tribromophenol	7.833	330	18165	47.35	ppm	-0.01
Spiked Amount 50.000			Recovery = 94.70%			
85) Terphenyl-d14	11.818	244	130909	53.21	ppm	-0.01
Spiked Amount 50.000			Recovery = 106.42%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7876\
Data File : F183455.D
Acq On : 26 Mar 2019 6:16 pm
Operator : angelar
Sample : icv7873-50
Misc : op18378,ef7876,1000,,,1,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 27 10:39:48 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF7873.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Mar 26 13:56:40 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7876\
Data File : F183456.D
Acq On : 26 Mar 2019 6:42 pm
Operator : angelar
Sample : icv7873-50
Misc : op18378,ef7876,1000,,,1,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 27 18:21:01 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF7873.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Mar 26 13:56:40 2019
Response via : Initial Calibration

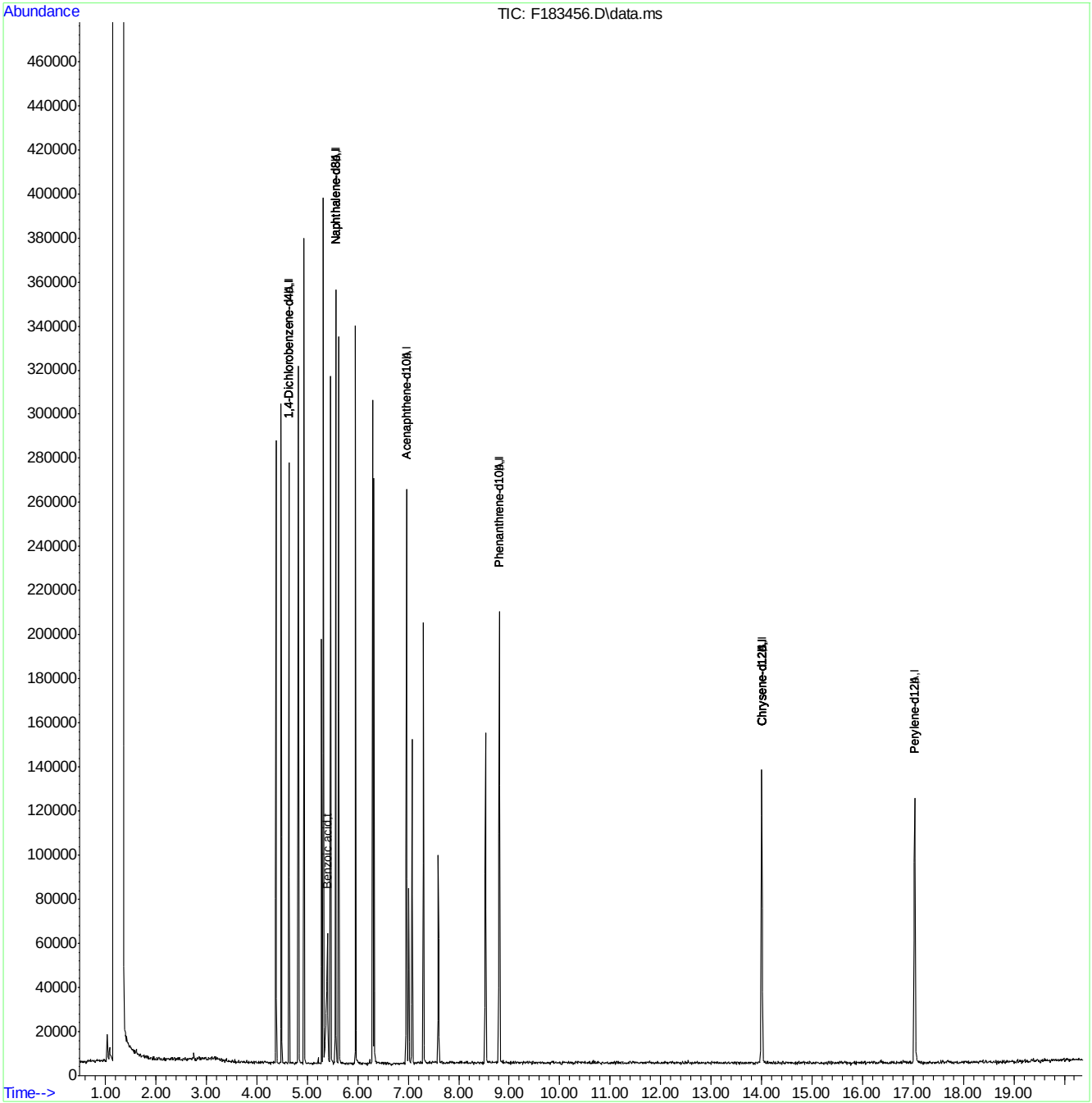
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.638	152	26684	40.00	ppm	0.00
24) Naphthalene-d8	5.562	136	96972	40.00	ppm	0.00
47) Acenaphthene-d10	6.967	164	52098	40.00	ppm	0.00
69) Phenanthrene-d10	8.805	188	87425	40.00	ppm	-0.01
83) Chrysene-d12	14.003	240	69407	40.00	ppm	-0.03
91) Perylene-d12	17.032	264	69969	40.00	ppm	-0.03
101) 1,4-Dichlorobenzene-d4A	4.638	152	26684	40.00	ppm	0.00
111) Naphthalene-d8A	5.562	136	96972	40.00	ppm	0.00
120) Acenaphthene-d10A	6.967	164	52098	40.00	ppm	0.00
131) Phenanthrene-d10A	8.805	188	87425	40.00	ppm	-0.01
146) Chrysene-d12A	14.003	240	69407	40.00	ppm	-0.03
153) Perylene-d12A	17.032	264	69969	40.00	ppm	-0.03
156) 1,4-Dichlorobenzene-d4b	4.638	152	26684	40.00	ppm	0.00
158) Phenanthrene-d10b	8.805	188	87425	40.00	ppm	-0.01
160) Chrysene-d12b	14.003	240	69407	40.00	ppm	-0.02
162) Naphthalene-d8b	5.562	136	96972	40.00	ppm	0.00
164) Acenaphthene-d10b	6.967	164	52098	40.00	ppm	0.00
166) Naphthalene-d8c	5.562	136	96972	40.00	ppm	0.00
171) 1,4-Dichlorobenzene-d4c	4.638	152	26684	40.00	ppm	0.00
173) Chrysene-d12c	14.003	240	69407	40.00	ppm	-0.03
175) Chrysene-d12d	14.003	240	69407	40.00	ppm	-0.03
177) Naphthalene-d8d	5.562	136	96972	40.00	ppm	0.00
179) Chrysene-d12B	14.003	240	69407	40.00	ppm	-0.02
181) Perylene-d12b	17.032	264	69969	40.00	ppm	-0.03
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
Target Compounds						Qvalue
31) Benzoic acid	5.402	105	26018	49.11	ppm	94

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7876\
Data File : F183456.D
Acq On : 26 Mar 2019 6:42 pm
Operator : angelar
Sample : icv7873-50
Misc : op18378,ef7876,1000,,,1,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 27 18:21:01 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF7873.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Mar 26 13:56:40 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7877\
Data File : F183458.D
Acq On : 27 Mar 2019 11:47 am
Operator : angelar
Sample : icv7873-50
Misc : op18378,ef7877,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 27 18:13:06 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF7873.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Mar 26 13:56:40 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.622	152	25653	40.00	ppm	-0.02
24) Naphthalene-d8	5.552	136	93293	40.00	ppm	-0.02
47) Acenaphthene-d10	6.951	164	49481	40.00	ppm	-0.02
69) Phenanthrene-d10	8.784	188	84262	40.00	ppm	-0.03
83) Chrysene-d12	13.982	240	69003	40.00	ppm	-0.05
91) Perylene-d12	17.005	264	74569	40.00	ppm	-0.05
101) 1,4-Dichlorobenzene-d4A	4.622	152	25653	40.00	ppm	-0.02
111) Naphthalene-d8A	5.552	136	93293	40.00	ppm	-0.02
120) Acenaphthene-d10A	6.951	164	49481	40.00	ppm	-0.02
131) Phenanthrene-d10A	8.784	188	84262	40.00	ppm	-0.03
146) Chrysene-d12A	13.982	240	69003	40.00	ppm	-0.05
153) Perylene-d12A	17.005	264	74569	40.00	ppm	-0.05
156) 1,4-Dichlorobenzene-d4b	4.622	152	25653	40.00	ppm	-0.02
158) Phenanthrene-d10b	8.784	188	84262	40.00	ppm	-0.03
160) Chrysene-d12b	13.982	240	69003	40.00	ppm	-0.04
162) Naphthalene-d8b	5.552	136	93293	40.00	ppm	-0.02
164) Acenaphthene-d10b	6.951	164	49481	40.00	ppm	-0.02
166) Naphthalene-d8c	5.552	136	93293	40.00	ppm	-0.02
171) 1,4-Dichlorobenzene-d4c	4.622	152	25653	40.00	ppm	-0.02
173) Chrysene-d12c	13.982	240	69003	40.00	ppm	-0.05
175) Chrysene-d12d	13.982	240	69003	40.00	ppm	-0.05
177) Naphthalene-d8d	5.552	136	93293	40.00	ppm	-0.02
179) Chrysene-d12B	13.982	240	69003	40.00	ppm	-0.04
181) Perylene-d12b	17.005	264	74569	40.00	ppm	-0.05
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
Target Compounds						Qvalue
3) Pyridine	2.469	79	49135	50.92	ppm	98
4) N-Nitrosodimethylamine	2.437	42	27826	50.09	ppm	94
9) Phenol	4.366	94	61981	47.06	ppm	98
10) Aniline	4.376	93	70011	52.58	ppm	98
11) bis(2-Chloroethyl)ether	4.424	93	43904	49.44	ppm	93
12) 2-Chlorophenol	4.467	128	43043	48.65	ppm	91
14) 1,3-Dichlorobenzene	4.585	146	49274	48.30	ppm	96
15) 1,4-Dichlorobenzene	4.638	146	50419	48.16	ppm	96
16) Benzyl alcohol	4.724	108	28766	51.21	ppm	97

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7877\
Data File : F183458.D
Acq On : 27 Mar 2019 11:47 am
Operator : angelar
Sample : icv7873-50
Misc : op18378,ef7877,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 27 18:13:06 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF7873.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Mar 26 13:56:40 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
17) 1,2-Dichlorobenzene	4.750	146	47422	46.92	ppm		98
19) 2-Methylphenol	4.809	108	39293	48.45	ppm		99
20) 2,2'-oxybis(1-Chloropr...	4.825	121	12795	53.45	ppm	#	92
21) 3&4-Methylphenol	4.921	108	41083	48.67	ppm		86
22) n-Nitroso-di-n-propyla...	4.921	70	33984	46.70	ppm		98
23) Hexachloroethane	5.001	201	17148	47.62	ppm		86
26) Nitrobenzene	5.039	77	52696	50.29	ppm		95
28) Isophorone	5.215	82	88726	51.42	ppm		97
29) 2-Nitrophenol	5.274	139	21938	49.97	ppm		87
30) 2,4-Dimethylphenol	5.306	107	44657	55.21	ppm		97
32) bis(2-Chloroethoxy)met...	5.370	93	51802	49.70	ppm		99
33) 2,4-Dichlorophenol	5.450	162	34599	50.79	ppm		93
36) 1,2,4-Trichlorobenzene	5.509	180	40209	49.28	ppm		94
38) Naphthalene	5.568	128	123561	50.44	ppm		98
39) 4-Chloroaniline	5.600	127	48302	49.14	ppm		96
42) Hexachlorobutadiene	5.658	225	22862	50.85	ppm		97
43) 4-Chloro-3-methylphenol	5.947	107	37328	49.32	ppm		98
44) 2-Methylnaphthalene	6.064	141	71682	52.26	ppm		99
45) 1-Methylnaphthalene	6.139	142	78872	45.16	ppm		98
49) 2,4,6-Trichlorophenol	6.284	196	23817	51.05	ppm		98
50) 2,4,5-Trichlorophenol	6.310	196	25790	50.74	ppm		95
52) 2-Chloronaphthalene	6.449	162	73755	50.22	ppm		98
54) 2-Nitroaniline	6.529	65	25213	49.31	ppm		98
55) Dimethylphthalate	6.690	163	81909	48.55	ppm		96
56) Acenaphthylene	6.812	152	119222	49.11	ppm		99
57) 2,6-Dinitrotoluene	6.738	165	18356	51.10	ppm		96
58) 3-Nitroaniline	6.898	138	20608	49.02	ppm		94
59) Acenaphthene	6.983	153	74835	45.80	ppm		97
60) 2,4-Dinitrophenol	6.994	184	8066	44.87	ppm		92
61) 4-Nitrophenol	7.058	109	12417	47.31	ppm		94
62) Dibenzofuran	7.154	168	101541	49.24	ppm		100
63) 2,4-Dinitrotoluene	7.133	165	23362	49.33	ppm		90
64) 2,3,4,6-Tetrachlorophenol	7.283	232	20907	55.05	ppm		97
65) Diethylphthalate	7.400	149	83983	48.21	ppm		99
66) Fluorene	7.528	166	79804	48.41	ppm		99
67) 4-Chlorophenyl-phenyle...	7.528	204	37078	48.61	ppm		98
68) 4-Nitroaniline	7.550	138	21281	48.75	ppm		94
70) 4,6-Dinitro-2-methylph...	7.582	198	10892	43.83	ppm		89
71) n-Nitrosodiphenylamine	7.667	169	65769	58.15	ppm		98
72) 1,2-Diphenylhydrazine	7.721	77	100495	49.48	ppm		98
74) 4-Bromophenyl-phenylether	8.148	248	22082	49.30	ppm		90
75) Hexachlorobenzene	8.233	284	25282	47.27	ppm		89
76) Pentachlorophenol	8.511	266	14298	52.29	ppm		93
77) Phenanthrene	8.816	178	120309	50.02	ppm		98
78) Anthracene	8.896	178	120805	50.04	ppm		98
79) Carbazole	9.163	167	105283	47.40	ppm		98
80) Di-n-butylphthalate	9.868	149	136315	48.40	ppm		99
81) Fluoranthene	10.921	202	118999	47.48	ppm		97
84) Pyrene	11.359	202	123191	49.21	ppm		92
86) Butylbenzylphthalate	12.956	149	60911	51.15	ppm		93

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7877\
Data File : F183458.D
Acq On : 27 Mar 2019 11:47 am
Operator : angelar
Sample : icv7873-50
Misc : op18378,ef7877,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 27 18:13:06 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF7873.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Mar 26 13:56:40 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
87) Benzo[a]anthracene	13.966	228	112589	49.58	ppm	99
89) Chrysene	14.040	228	108935	46.93	ppm	98
90) bis(2-Ethylhexyl)phtha...	14.372	149	84215	51.79	ppm	96
92) Di-n-octylphthalate	15.803	149	143844	48.45	ppm	98
93) Benzo[b]fluoranthene	16.257	252	103164	50.17	ppm	97
94) Benzo[k]fluoranthene	16.316	252	108156	49.74	ppm	97
95) Benzo[a]pyrene	16.893	252	105171	50.51	ppm	96
96) Indeno[1,2,3-cd]pyrene	18.945	276	100623	50.89	ppm	96
98) Dibenz[a,h]anthracene	19.009	278	101492	48.42	ppm	98
100) Benzo[g,h,i]perylene	19.377	276	109564	49.95	ppm	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

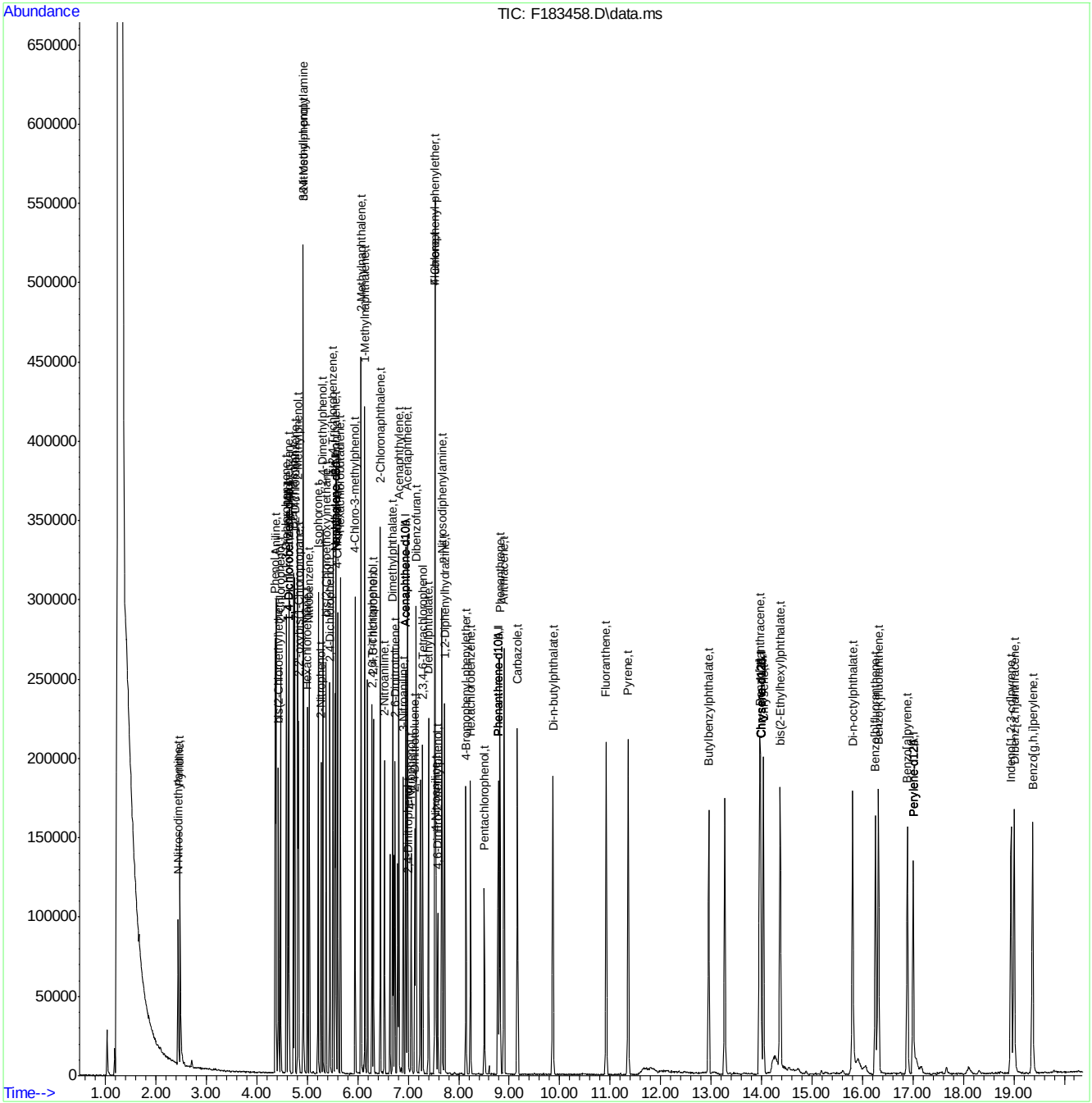
9.6.31

9

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7877\
Data File : F183458.D
Acq On : 27 Mar 2019 11:47 am
Operator : angelar
Sample : icv7873-50
Misc : op18378,ef7877,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 27 18:13:06 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF7873.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Mar 26 13:56:40 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7877\
Data File : F183459.D
Acq On : 27 Mar 2019 12:13 pm
Operator : angelar
Sample : icv7873-50
Misc : op18378,ef7877,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 27 18:09:11 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF7873.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Mar 26 13:56:40 2019
Response via : Initial Calibration

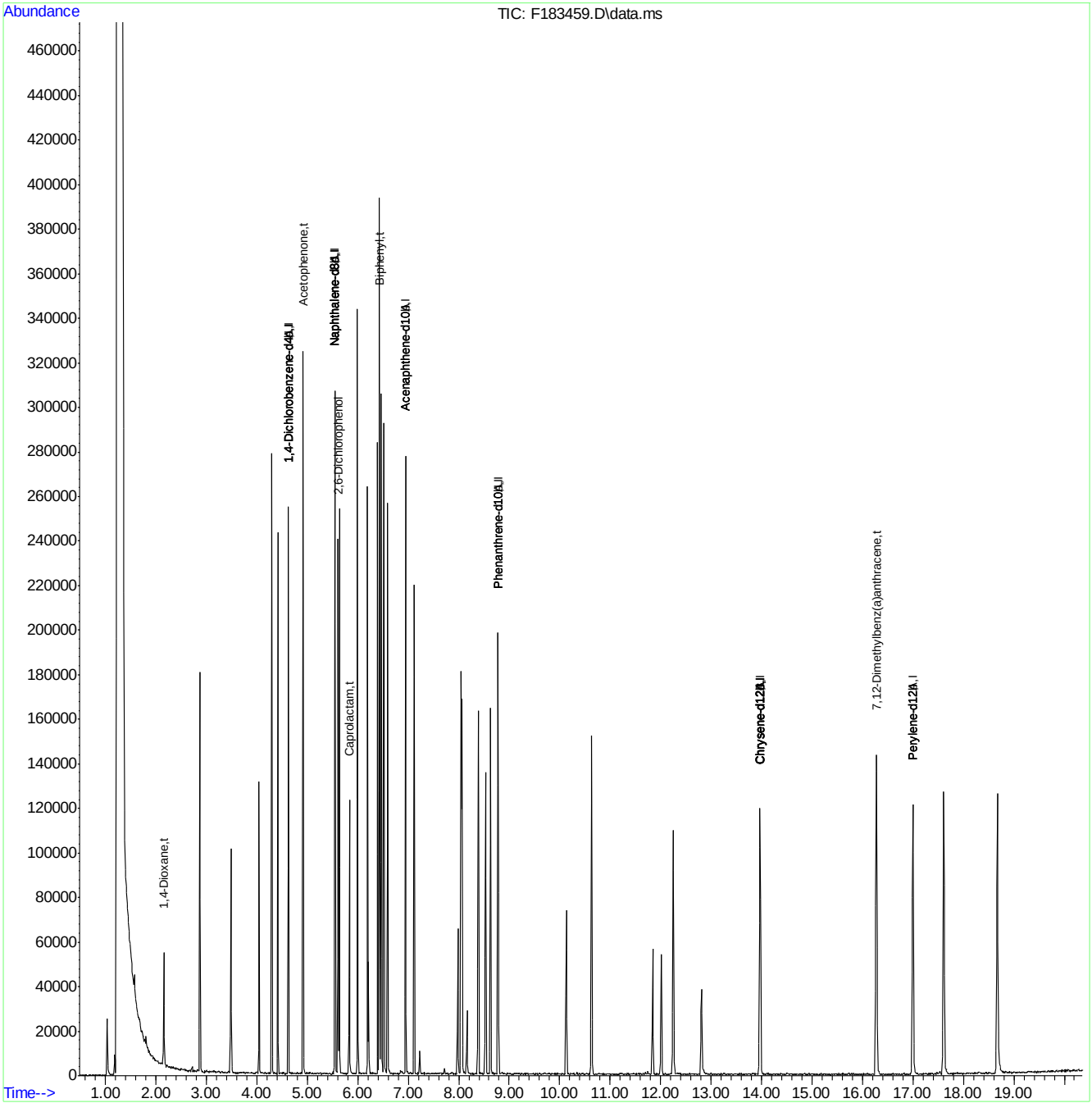
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.622	152	24066	40.00	ppm	-0.02
24) Naphthalene-d8	5.546	136	89567	40.00	ppm	-0.02
47) Acenaphthene-d10	6.946	164	47332	40.00	ppm	-0.03
69) Phenanthrene-d10	8.778	188	82060	40.00	ppm	-0.04
83) Chrysene-d12	13.971	240	63842	40.00	ppm	-0.06
91) Perylene-d12	17.000	264	68784	40.00	ppm	-0.06
101) 1,4-Dichlorobenzene-d4A	4.622	152	24066	40.00	ppm	-0.02
111) Naphthalene-d8A	5.546	136	89567	40.00	ppm	-0.02
120) Acenaphthene-d10A	6.946	164	47332	40.00	ppm	-0.03
131) Phenanthrene-d10A	8.778	188	82060	40.00	ppm	-0.04
146) Chrysene-d12A	13.971	240	63842	40.00	ppm	-0.06
153) Perylene-d12A	17.000	264	68784	40.00	ppm	-0.06
156) 1,4-Dichlorobenzene-d4b	4.622	152	24066	40.00	ppm	-0.02
158) Phenanthrene-d10b	8.778	188	82060	40.00	ppm	-0.04
160) Chrysene-d12b	13.971	240	63842	40.00	ppm	-0.05
162) Naphthalene-d8b	5.546	136	89567	40.00	ppm	-0.02
164) Acenaphthene-d10b	6.946	164	47332	40.00	ppm	-0.03
166) Naphthalene-d8c	5.546	136	89567	40.00	ppm	-0.02
171) 1,4-Dichlorobenzene-d4c	4.622	152	24066	40.00	ppm	-0.02
173) Chrysene-d12c	13.971	240	63842	40.00	ppm	-0.06
175) Chrysene-d12d	13.971	240	63842	40.00	ppm	-0.06
177) Naphthalene-d8d	5.546	136	89567	40.00	ppm	-0.02
179) Chrysene-d12B	13.971	240	63842	40.00	ppm	-0.05
181) Perylene-d12b	17.000	264	68784	40.00	ppm	-0.06
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
Target Compounds						Qvalue
2) 1,4-Dioxane	2.154	88	17074	48.75	ppm	96
18) Acetophenone	4.916	105	58742	47.91	ppm #	75
34) 2,6-Dichlorophenol	5.605	162	31825	49.46	ppm	98
41) Caprolactam	5.835	55	20272	45.91	ppm	97
53) Biphenyl	6.428	154	92962	50.11	ppm	99
99) 7,12-Dimethylbenz(a)an...	16.279	256	45994	55.05	ppm	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7877\
Data File : F183459.D
Acq On : 27 Mar 2019 12:13 pm
Operator : angelar
Sample : icv7873-50
Misc : op18378,ef7877,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 27 18:09:11 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF7873.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Tue Mar 26 13:56:40 2019
Response via : Initial Calibration



MF7873.M Wed Mar 27 18:40:18 2019 Page: 2

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7923\
Data File : F184453.D
Acq On : 6 May 2019 9:57 am
Operator : angelar
Sample : cc7873-50
Misc : op18378,ef7923,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: May 06 11:16:48 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF7873.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Apr 22 12:39:29 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4	4.456	152	39507	40.00	ppm		-0.03
24) Naphthalene-d8	5.380	136	155084	40.00	ppm		-0.03
47) Acenaphthene-d10	6.721	164	81994	40.00	ppm		-0.04
69) Phenanthrene-d10	8.474	188	130858	40.00	ppm		-0.05
83) Chrysene-d12	13.586	240	110837	40.00	ppm		-0.06
91) Perylene-d12	16.594	264	116359	40.00	ppm		-0.08
101) 1,4-Dichlorobenzene-d4b	4.456	152	39507	40.00	ppm		-0.03
103) Phenanthrene-d10b	8.474	188	130858	40.00	ppm		-0.05
105) Chrysene-d12b	13.586	240	110837	40.00	ppm		-0.06
107) Naphthalene-d8b	5.380	136	155084	40.00	ppm		-0.03
109) Acenaphthene-d10b	6.721	164	81994	40.00	ppm		-0.04
System Monitoring Compounds							
5) 2-Fluorophenol	3.495	112	72492	55.46	ppm		-0.03
Spiked Amount 50.000			Recovery = 110.92%				
8) Phenol-d5	4.226	99	94616	55.05	ppm		0.00
Spiked Amount 50.000			Recovery = 110.10%				
25) Nitrobenzene-d5	4.862	82	89062	53.98	ppm		-0.04
Spiked Amount 50.000			Recovery = 107.96%				
51) 2-Fluorobiphenyl	6.155	172	148605	48.75	ppm		-0.02
Spiked Amount 50.000			Recovery = 97.50%				
73) 2,4,6-Tribromophenol	7.555	330	19376	49.73	ppm		-0.03
Spiked Amount 50.000			Recovery = 99.46%				
85) Terphenyl-d14	11.422	244	126093	51.15	ppm		-0.09
Spiked Amount 50.000			Recovery = 102.30%				
Target Compounds							Qvalue
2) 1,4-Dioxane	1.935	88	32178	55.96	ppm		95
3) Pyridine	2.282	79	86529	58.23	ppm		93
4) N-Nitrosodimethylamine	2.239	42	41702	48.74	ppm		87
6) Indene	4.643	116	118707	53.84	ppm		97
7) Cumene	3.858	105	176820	53.73	ppm		98
9) Phenol	4.237	94	113309	55.86	ppm		92
10) Aniline	4.216	93	105738	51.57	ppm		98
11) bis(2-Chloroethyl)ether	4.264	93	75976	55.55	ppm		98
12) 2-Chlorophenol	4.312	128	73961	54.28	ppm		92
13) Decane	4.349	43	91524	53.44	ppm		96
14) 1,3-Dichlorobenzene	4.413	146	80373	51.15	ppm		97
15) 1,4-Dichlorobenzene	4.467	146	82749	51.32	ppm		98
16) Benzyl alcohol	4.568	108	46702	53.99	ppm		96
17) 1,2-Dichlorobenzene	4.579	146	76149	48.92	ppm		95
18) Acetophenone	4.755	105	106372	52.85	ppm	#	74
19) 2-Methylphenol	4.670	108	70945	56.80	ppm		93
20) 2,2'-oxybis(1-Chloropr...	4.665	121	20191	54.77	ppm	#	54
21) 3&4-Methylphenol	4.782	108	75172	57.82	ppm		94
22) n-Nitroso-di-n-propyla...	4.761	70	59547	53.14	ppm		94
23) Hexachloroethane	4.825	201	27168	48.99	ppm		89
26) Nitrobenzene	4.878	77	91633	52.61	ppm		95
27) Quinoline	5.642	129	144094	53.62	ppm		99

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7923\
Data File : F184453.D
Acq On : 6 May 2019 9:57 am
Operator : angelar
Sample : cc7873-50
Misc : op18378,ef7923,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: May 06 11:16:48 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF7873.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Apr 22 12:39:29 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
28) Isophorone	5.049	82	149771	52.21	ppm	98
29) 2-Nitrophenol	5.108	139	40455	55.44	ppm	88
30) 2,4-Dimethylphenol	5.156	107	72756	54.11	ppm	93
31) Benzoic acid	5.263	105	64171	69.95	ppm	93
32) bis(2-Chloroethoxy)met...	5.204	93	91056	52.55	ppm	100
33) 2,4-Dichlorophenol	5.295	162	60994	53.86	ppm	92
34) 2,6-Dichlorophenol	5.445	162	60199	54.03	ppm	96
35) 1,3,5-Trichlorobenzene	5.113	180	64571	47.03	ppm	97
36) 1,2,4-Trichlorobenzene	5.338	180	60452	44.57	ppm	97
37) 1,2,3-Trichlorobenzene	5.498	180	62092	48.53	ppm	97
38) Naphthalene	5.391	128	211463	51.92	ppm	99
39) 4-Chloroaniline	5.439	127	81078	49.62	ppm	97
40) 2,3-Dichloroaniline	6.096	161	72017	48.37	ppm	98
41) Caprolactam	5.696	55	39496	51.66	ppm	96
42) Hexachlorobutadiene	5.487	225	33668	45.05	ppm	95
43) 4-Chloro-3-methylphenol	5.802	107	65554	52.11	ppm	98
44) 2-Methylnaphthalene	5.888	141	112136	49.18	ppm	98
45) 1-Methylnaphthalene	5.957	142	142507	49.09	ppm	99
46) Dimethylnaphthalene	6.363	156	119948	48.60	ppm	99
48) Hexachlorocyclopentadiene	6.005	237	76409	109.28	ppm	98
49) 2,4,6-Trichlorophenol	6.102	196	40242	52.06	ppm	98
50) 2,4,5-Trichlorophenol	6.144	196	42285	50.20	ppm	97
52) 2-Chloronaphthalene	6.251	162	130019	53.42	ppm	99
53) Biphenyl	6.235	154	163092	50.75	ppm	98
54) 2-Nitroaniline	6.337	65	61022	72.02	ppm	92
55) Dimethylphthalate	6.486	163	140657	50.31	ppm	97
56) Acenaphthylene	6.593	152	201469	50.08	ppm	100
57) 2,6-Dinitrotoluene	6.534	165	32380	54.40	ppm	94
58) 3-Nitroaniline	6.689	138	37959	54.49	ppm	92
59) Acenaphthene	6.753	153	133730	49.39	ppm	96
60) 2,4-Dinitrophenol	6.785	184	37294	112.95	ppm	90
61) 4-Nitrophenol	6.887	109	23941	55.05	ppm	97
62) Dibenzofuran	6.919	168	177498	51.94	ppm	92
63) 2,4-Dinitrotoluene	6.908	165	43786	55.80	ppm	85
64) 2,3,4,6-Tetrachlorophenol	7.053	232	34295	54.50	ppm	96
65) Diethylphthalate	7.159	149	141716	49.10	ppm	99
66) Fluorene	7.277	166	143968	52.70	ppm	97
67) 4-Chlorophenyl-phenyle...	7.277	204	60858	48.15	ppm	97
68) 4-Nitroaniline	7.314	138	37975	52.50	ppm	86
70) 4,6-Dinitro-2-methylph...	7.341	198	25367	63.34	ppm	99
71) n-Nitrosodiphenylamine	7.416	169	98701	56.19	ppm	99
72) 1,2-Diphenylhydrazine	7.459	77	179063	56.77	ppm	96
74) 4-Bromophenyl-phenylether	7.865	248	34825	50.06	ppm	92
75) Hexachlorobenzene	7.950	284	39039	47.00	ppm	95
76) Pentachlorophenol	8.228	266	49866	108.68	ppm	94
77) Phenanthrene	8.511	178	194435	52.06	ppm	97
78) Anthracene	8.586	178	198210	52.87	ppm	98
79) Carbazole	8.858	167	192162	55.71	ppm	98
80) Di-n-butylphthalate	9.537	149	245981	56.23	ppm	99
81) Fluoranthene	10.562	202	197930	50.85	ppm	93

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7923\
Data File : F184453.D
Acq On : 6 May 2019 9:57 am
Operator : angelar
Sample : cc7873-50
Misc : op18378,ef7923,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: May 06 11:16:48 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF7873.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Apr 22 12:39:29 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
82) Octadecane	8.399	57	112686	58.51	ppm	98
84) Pyrene	10.990	202	214786	53.41	ppm	96
86) Butylbenzylphthalate	12.582	149	109078	57.02	ppm	97
87) Benzo[a]anthracene	13.570	228	176138	48.29	ppm	99
88) 3,3'-Dichlorobenzidine	13.624	252	67016	56.22	ppm	98
89) Chrysene	13.645	228	189284	50.77	ppm	99
90) bis(2-Ethylhexyl)phtha...	13.992	149	151767	58.11	ppm	97
92) Di-n-octylphthalate	15.424	149	248702	53.87	ppm	97
93) Benzo[b]fluoranthene	15.857	252	181622	56.61	ppm	97
94) Benzo[k]fluoranthene	15.921	252	194217	57.24	ppm	99
95) Benzo[a]pyrene	16.482	252	162425	50.05	ppm	96
96) Indeno[1,2,3-cd]pyrene	18.533	276	135064	43.76	ppm	88
97) Dibenz(a,h)acridine	18.175	279	126542	48.73	ppm	97
98) Dibenz[a,h]anthracene	18.597	278	148062	45.27	ppm	96
99) 7,12-Dimethylbenz(a)an...	15.883	256	83293	58.93	ppm	95
100) Benzo[g,h,i]perylene	18.955	276	150443	44.80	ppm	94

(#) = qualifier out of range (m) = manual integration (+) = signals summed

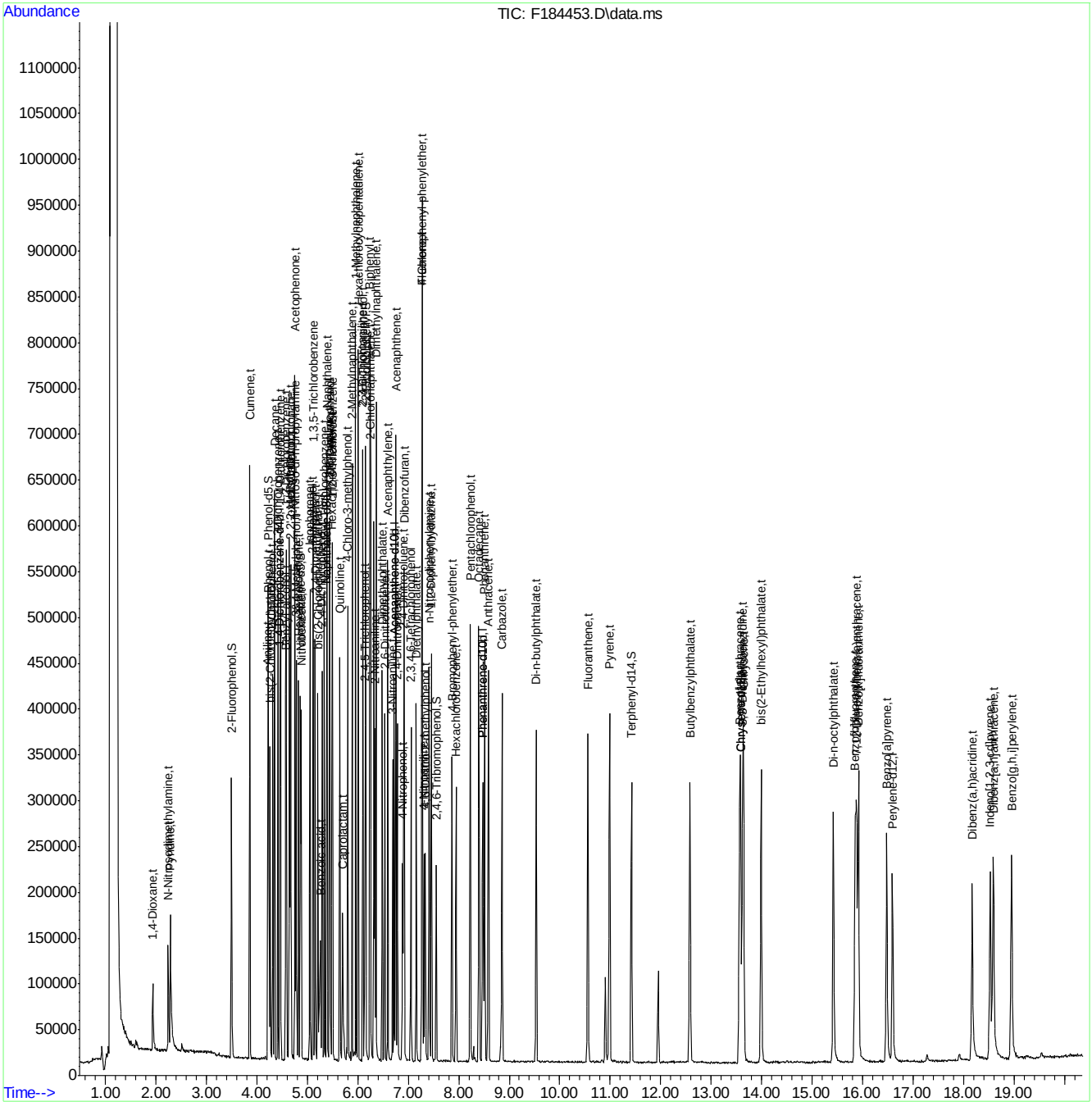
9.6.33

9

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7923\
Data File : F184453.D
Acq On : 6 May 2019 9:57 am
Operator : angelar
Sample : cc7873-50
Misc : op18378,ef7923,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: May 06 11:16:48 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF7873.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Apr 22 12:39:29 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7923\
Data File : F184454.D
Acq On : 6 May 2019 10:24 am
Operator : angelar
Sample : cc7874-50
Misc : op18378,ef7923,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: May 06 11:20:53 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF7873.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Apr 22 12:39:29 2019
Response via : Initial Calibration

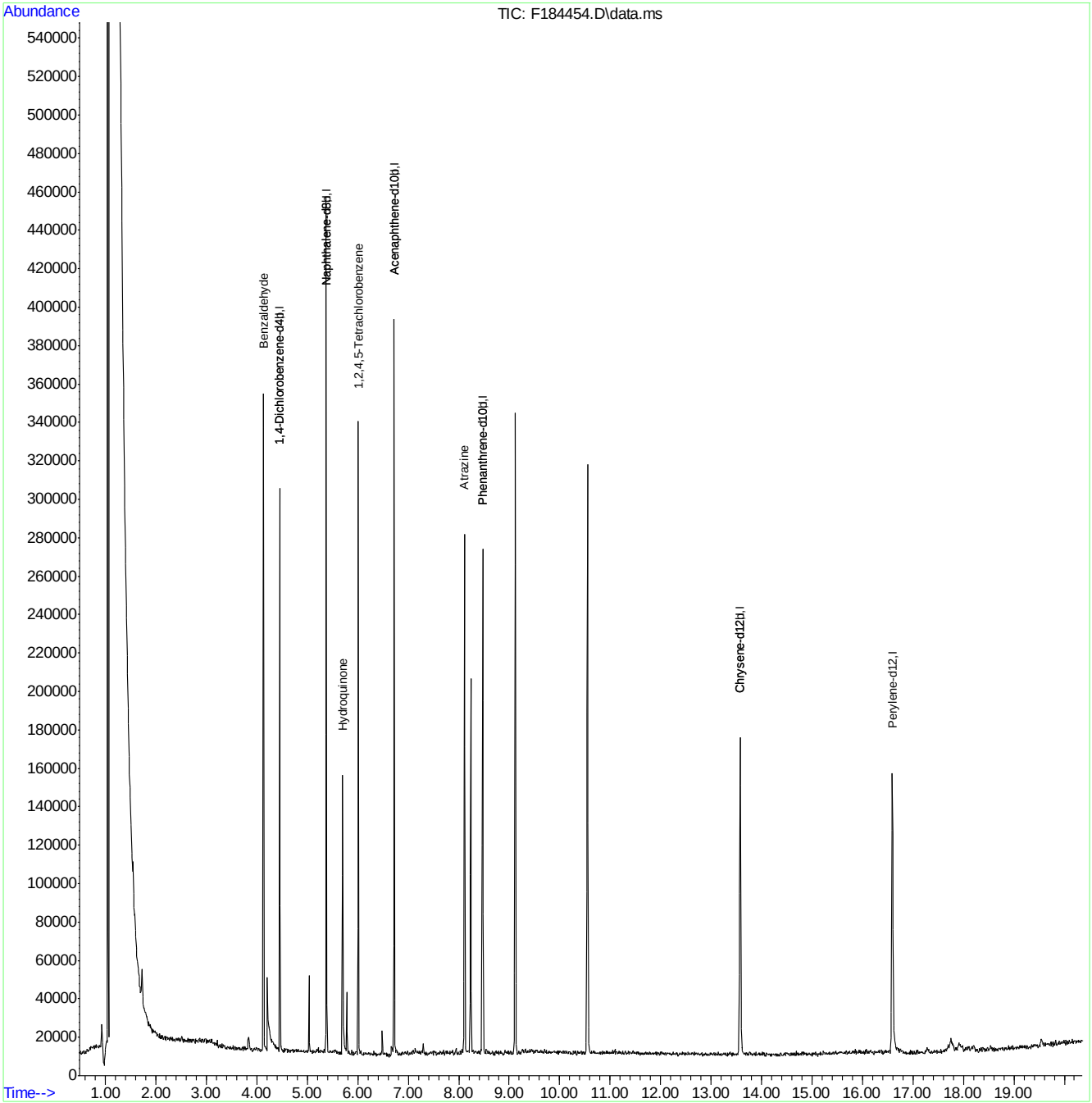
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.456	152	31486	40.00	ppm	-0.03
24) Naphthalene-d8	5.375	136	126459	40.00	ppm	-0.03
47) Acenaphthene-d10	6.722	164	64322	40.00	ppm	-0.04
69) Phenanthrene-d10	8.474	188	105737	40.00	ppm	-0.05
83) Chrysene-d12	13.576	240	81274	40.00	ppm	-0.07
91) Perylene-d12	16.594	264	90445	40.00	ppm	-0.07
101) 1,4-Dichlorobenzene-d4b	4.456	152	31486	40.00	ppm	-0.03
103) Phenanthrene-d10b	8.474	188	105737	40.00	ppm	-0.05
105) Chrysene-d12b	13.576	240	81274	40.00	ppm	-0.07
107) Naphthalene-d8b	5.375	136	126459	40.00	ppm	-0.03
109) Acenaphthene-d10b	6.722	164	64322	40.00	ppm	-0.04
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
Target Compounds						Qvalue
102) Benzaldehyde	4.131	105	51690	57.73	ppm	94
104) Atrazine	8.116	200	28782	59.98	ppm	87
108) Hydroquinone	5.696	110	57107	62.27	ppm	96
110) 1,2,4,5-Tetrachloroben...	6.011	216	44711	51.23	ppm	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7923\
Data File : F184454.D
Acq On : 6 May 2019 10:24 am
Operator : angelar
Sample : cc7874-50
Misc : op18378,ef7923,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: May 06 11:20:53 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF7873.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Apr 22 12:39:29 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7923\
Data File : F184455.D
Acq On : 6 May 2019 10:52 am
Operator : angelar
Sample : cc7875-50
Misc : op18378,ef7923,1000,,,1,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: May 06 11:21:42 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF7873.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Apr 22 12:39:29 2019
Response via : Initial Calibration

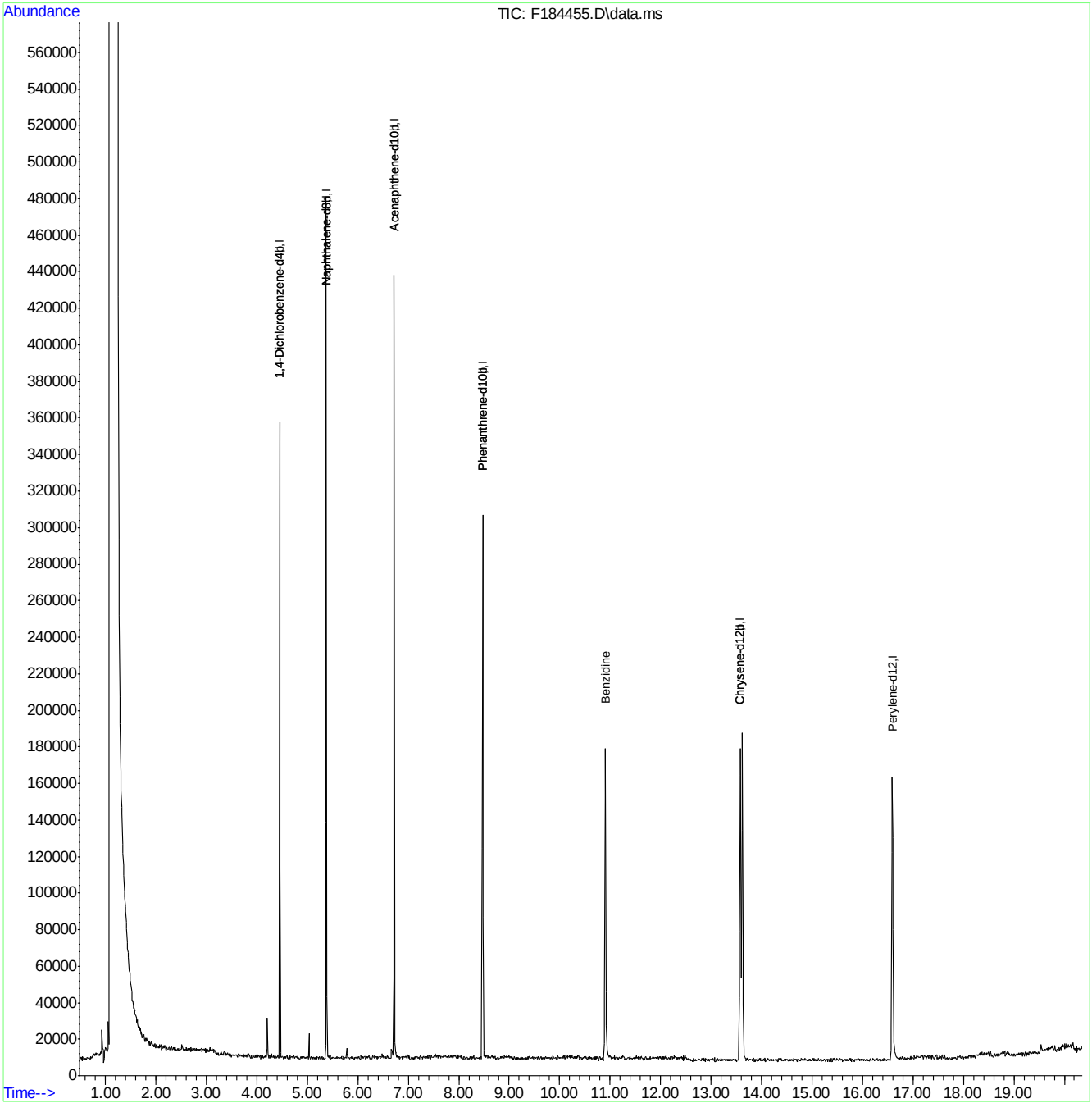
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.456	152	34361	40.00	ppm	-0.03
24) Naphthalene-d8	5.375	136	134909	40.00	ppm	-0.03
47) Acenaphthene-d10	6.722	164	73978	40.00	ppm	-0.04
69) Phenanthrene-d10	8.474	188	111946	40.00	ppm	-0.05
83) Chrysene-d12	13.581	240	85609	40.00	ppm	-0.07
91) Perylene-d12	16.594	264	88789	40.00	ppm	-0.07
101) 1,4-Dichlorobenzene-d4b	4.456	152	34361	40.00	ppm	-0.03
103) Phenanthrene-d10b	8.474	188	111946	40.00	ppm	-0.05
105) Chrysene-d12b	13.581	240	85609	40.00	ppm	-0.07
107) Naphthalene-d8b	5.375	136	134909	40.00	ppm	-0.03
109) Acenaphthene-d10b	6.722	164	73978	40.00	ppm	-0.04
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
Target Compounds						Qvalue
106) Benzidine	10.905	184	90983	47.68	ppm	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\EF7923\
Data File : F184455.D
Acq On : 6 May 2019 10:52 am
Operator : angelar
Sample : cc7875-50
Misc : op18378,ef7923,1000,,,1,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: May 06 11:21:42 2019
Quant Method : C:\MSDCHEM\1\METHODS\MF7873.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon Apr 22 12:39:29 2019
Response via : Initial Calibration



Manual Integrations APPROVED
(compounds with "m" flag)
Nina Pandya
04/16/19 10:44

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6556\
Data File : m153401a.D
Acq On : 12 Apr 2019 5:56 pm
Operator : christc2
Sample : ic6556-100
Misc : op17006,em6556,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 15 10:17:02 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6556.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon Apr 15 10:14:08 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.588	152	209799	40.00	ppm	0.00
24) Naphthalene-d8	5.699	136	772072	40.00	ppm	0.00
47) Acenaphthene-d10	7.996	164	456258	40.00	ppm	0.00
69) Phenanthrene-d10	10.581	188	962273	40.00	ppm	0.00
83) Chrysene-d12	15.713	240	751600	40.00	ppm	0.00
91) Perylene-d12	18.309	264	938114	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.588	152	209799	40.00	ppm	0.00
103) Acenaphthene-d10a	7.996	164	456258	40.00	ppm	0.00
106) Chrysene-d12a	15.713	240	751600	40.00	ppm	0.00
108) Chrysene-d12b	15.713	240	751600	40.00	ppm	0.00
110) Phenanthrene-d10a	10.581	188	962273	40.00	ppm	0.00
113) Naphthalene-d8a	5.699	136	772072	40.00	ppm	0.00
115) Chrysene-d12c	15.713	240	751600	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	3.605	112	861150	96.77	ppm	0.00
Spiked Amount 50.000			Recovery =	193.54%		
8) Phenol-d5	4.332	99	1016962	94.70	ppm	0.00
Spiked Amount 50.000			Recovery =	189.40%		
25) Nitrobenzene-d5	5.031	82	793175	96.11	ppm	0.00
Spiked Amount 50.000			Recovery =	192.22%		
51) 2-Fluorobiphenyl	7.008	172	1465098	93.29	ppm	0.00
Spiked Amount 50.000			Recovery =	186.58%		
73) 2,4,6-Tribromophenol	9.331	330	322547	90.84	ppm	0.00
Spiked Amount 50.000			Recovery =	181.68%		
85) Terphenyl-d14	13.743	244	2066039	99.57	ppm	0.00
Spiked Amount 50.000			Recovery =	199.14%		
109) 1-chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
111) o-terphenyl	0.000	230	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
Target Compounds						Qvalue
2) 1,4-Dioxane	2.120	88	460644	105.26	ppm	98
3) Pyridine	2.441	79	1091159	104.74	ppm	99
4) N-Nitrosodimethylamine	2.409	42	392524	103.03	ppm	99
6) Indene	4.791	116	983600	91.81	ppm	99
7) Cumene	3.995	105	1784695	91.79	ppm	99
9) Phenol	4.342	94	947265	89.09	ppm	81
10) Aniline	4.348	93	813831	88.85	ppm	93
11) bis(2-Chloroethyl)ether	4.396	93	683763	95.37	ppm	99
12) 2-Chlorophenol	4.438	128	692304	93.29	ppm	98
13) Decane	4.481	43	465485	89.48	ppm	97
14) 1,3-Dichlorobenzene	4.545	146	746108	89.90	ppm	97
15) 1,4-Dichlorobenzene	4.604	146	706031	92.10	ppm	98
16) Benzyl alcohol	4.700	108	449881	96.66	ppm	99
17) 1,2-Dichlorobenzene	4.722	146	676103	88.77	ppm	99
18) Acetophenone	4.909	105	848333	92.65	ppm	97
19) 2-Methylphenol	4.796	108	550039	91.48	ppm	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6556\
Data File : m153401a.D
Acq On : 12 Apr 2019 5:56 pm
Operator : christc2
Sample : ic6556-100
Misc : op17006,em6556,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 15 10:17:02 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6556.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon Apr 15 10:14:08 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
20) 2,2'-oxybis(1-Chloropr...	4.807	121	175370	93.95	ppm		95
21) 3&4-Methylphenol	4.914	108	551887	90.48	ppm	#	84
22) n-Nitroso-di-n-propyla...	4.919	70	406599	90.62	ppm		100
23) Hexachloroethane	4.994	201	301890	91.63	ppm		89
26) Nitrobenzene	5.053	77	727144	92.49	ppm		95
27) Quinoline	6.094	129	1401789	93.50	ppm		98
28) Isophorone	5.261	82	1372049	91.69	ppm		97
29) 2-Nitrophenol	5.330	139	370281	88.87	ppm		96
30) 2,4-Dimethylphenol	5.373	107	660434	98.24	ppm		97
31) Benzoic acid	5.523	105	494490	86.46	ppm		98
32) bis(2-Chloroethoxy)met...	5.459	93	834296	94.81	ppm		99
33) 2,4-Dichlorophenol	5.560	162	585406	89.44	ppm		99
34) 2,6-Dichlorophenol	5.790	162	534178	91.20	ppm		98
35) 1,3,5-Trichlorobenzene	5.346	180	657712	87.30	ppm		99
36) 1,2,4-Trichlorobenzene	5.646	180	671871	89.26	ppm		98
37) 1,2,3-Trichlorobenzene	5.875	180	608659	89.96	ppm		99
38) Naphthalene	5.720	128	1682052	91.21	ppm		99
39) 4-Chloroaniline	5.779	127	739698	88.40	ppm		98
40) 2,3-Dichloroaniline	6.879	161	732442	90.75	ppm		98
41) Caprolactam	6.196	55	314353m	98.30	ppm		
42) Hexachlorobutadiene	5.865	225	410798	91.11	ppm		99
43) 4-Chloro-3-methylphenol	6.345	107	664854	92.63	ppm		99
44) 2-Methylnaphthalene	6.511	141	1060287	89.46	ppm		99
45) 1-Methylnaphthalene	6.634	142	1332258	89.87	ppm		98
46) Dimethylnaphthalene	7.371	156	1163933	89.71	ppm		100
48) Hexachlorocyclopentadiene	6.730	237	875753	185.52	ppm		99
49) 2,4,6-Trichlorophenol	6.890	196	445550	91.61	ppm		98
50) 2,4,5-Trichlorophenol	6.938	196	494836	93.18	ppm		96
52) 2-Chloronaphthalene	7.162	162	1170343	92.62	ppm		98
53) Biphenyl	7.146	154	1603724	92.63	ppm		99
54) 2-Nitroaniline	7.317	65	427892	100.22	ppm		97
55) Dimethylphthalate	7.622	163	1578760	94.05	ppm		99
56) Acenaphthylene	7.766	152	1956395	92.74	ppm		99
57) 2,6-Dinitrotoluene	7.697	165	349646	92.84	ppm		95
58) 3-Nitroaniline	7.953	138	420081	97.90	ppm		97
59) Acenaphthene	8.049	153	1233364	94.71	ppm		97
60) 2,4-Dinitrophenol	8.124	184	369947	193.40	ppm		94
61) 4-Nitrophenol	8.279	109	241544	101.27	ppm		95
62) Dibenzofuran	8.332	168	1739892	93.20	ppm		94
63) 2,4-Dinitrotoluene	8.343	165	433917	95.59	ppm		93
64) 2,3,4,6-Tetrachlorophenol	8.556	232	490611	93.25	ppm		99
65) Diethylphthalate	8.807	149	1574142	94.34	ppm		99
66) Fluorene	8.909	166	1486101	93.26	ppm		99
67) 4-Chlorophenyl-phenyle...	8.946	204	737051	92.38	ppm		100
68) 4-Nitroaniline	8.989	138	380339	99.61	ppm		99
70) 4,6-Dinitro-2-methylph...	9.042	198	285701	93.98	ppm		98
71) n-Nitrosodiphenylamine	9.160	169	1117447	91.37	ppm		99
72) 1,2-Diphenylhydrazine	9.219	77	1579035	94.81	ppm		98
74) 4-Bromophenyl-phenylether	9.812	248	583579	90.05	ppm		95
75) Hexachlorobenzene	9.892	284	610907	90.10	ppm		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6556\
Data File : m153401a.D
Acq On : 12 Apr 2019 5:56 pm
Operator : christc2
Sample : ic6556-100
Misc : op17006,em6556,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 15 10:17:02 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6556.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon Apr 15 10:14:08 2019
Response via : Initial Calibration

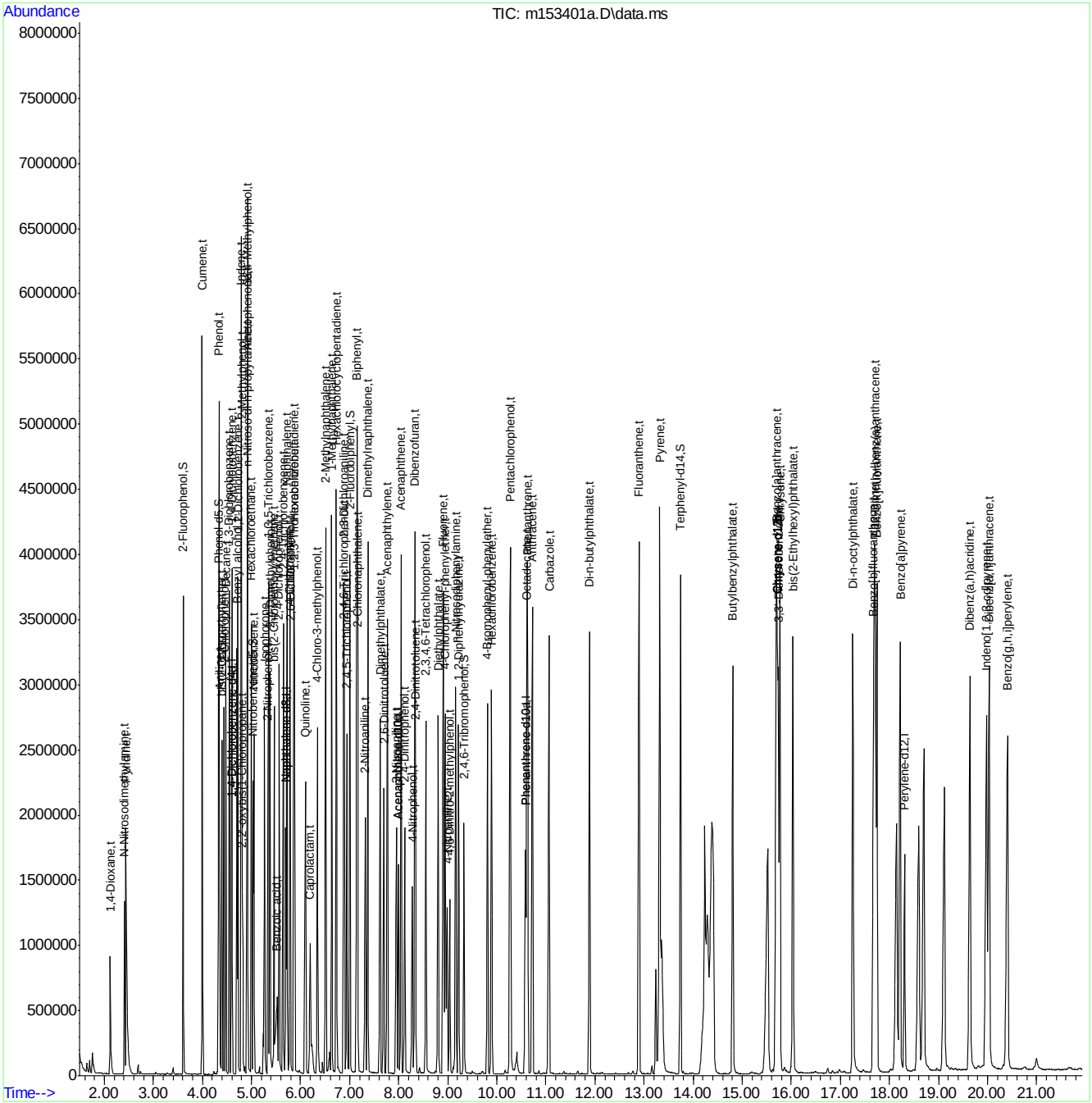
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
76) Pentachlorophenol	10.271	266	807802	180.41	ppm	100
77) Phenanthrene	10.629	178	2000630	91.13	ppm	99
78) Anthracene	10.725	178	2194380	90.91	ppm	99
79) Carbazole	11.067	167	2158130	90.94	ppm	99
80) Di-n-butylphthalate	11.889	149	2809220	91.66	ppm	99
81) Fluoranthene	12.899	202	2777400	89.99	ppm	99
82) Octadecane	10.607	57	706040	93.66	ppm	99
84) Pyrene	13.321	202	2672983	96.76	ppm	98
86) Butylbenzylphthalate	14.806	149	1260057	99.97	ppm	99
87) Benzo[a]anthracene	15.697	228	2555041	92.93	ppm	99
88) 3,3'-Dichlorobenzidine	15.735	252	987333	101.83	ppm	97
89) Chrysene	15.772	228	2324355	101.70	ppm	99
90) bis(2-Ethylhexyl)phtha...	16.034	149	1663302	104.23	ppm	100
92) Di-n-octylphthalate	17.252	149	3068911	96.73	ppm	99
93) Benzo[b]fluoranthene	17.679	252	2938717	94.75	ppm	98
94) Benzo[k]fluoranthene	17.743	252	2487206	91.95	ppm	97
95) Benzo[a]pyrene	18.224	252	2429933	86.34	ppm	100
96) Indeno[1,2,3-cd]pyrene	19.981	276	2517133	97.55	ppm	100
97) Dibenz(a,h)acridine	19.645	279	2440916	93.82	ppm	85
98) Dibenz[a,h]anthracene	20.034	278	2501423	96.26	ppm	99
99) 7,12-Dimethylbenz(a)an...	17.706	256	1251747	98.43	ppm	98
100) Benzo[g,h,i]perylene	20.408	276	2507626	95.95	ppm	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6556\
Data File : m153401a.D
Acq On : 12 Apr 2019 5:56 pm
Operator : christc2
Sample : ic6556-100
Misc : op17006,em6556,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 15 10:17:02 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6556.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon Apr 15 10:14:08 2019
Response via : Initial Calibration



JC87363

Manual Integration Approval Summary

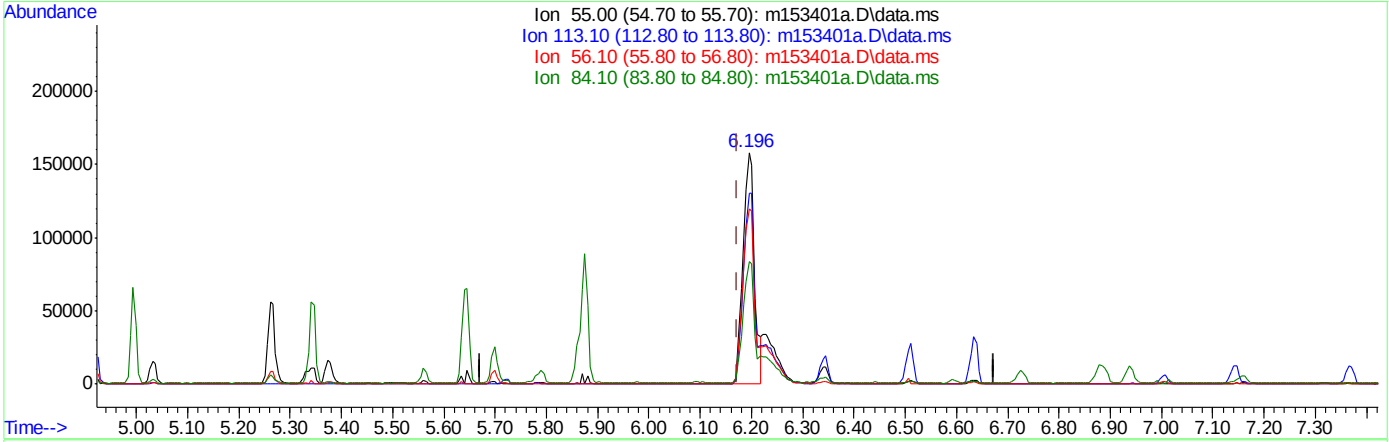
Sample Number:	EM6556-IC6556	**Method:**	SW846 8270D
Lab FileID:	M153401A.D	**Analyst approved:**	04/15/19 12:08 Ying Li
Injection Time:	04/12/19 17:56	**Supervisor approved:**	04/16/19 10:44 Nina Pandya

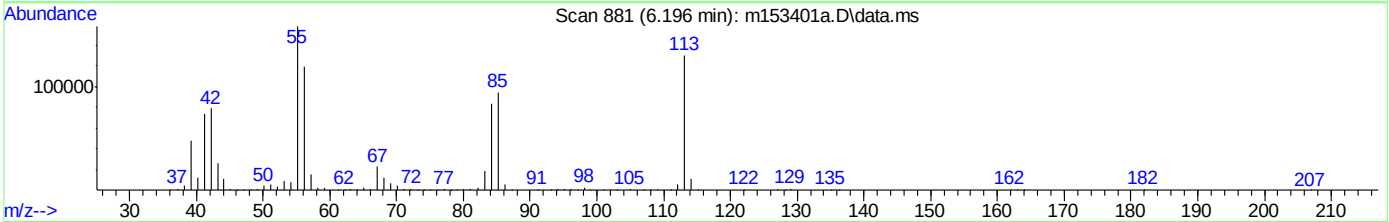
Parameter	CAS	Sig#	R.T. (min.)	Reason
Caprolactam	105-60-2		6.20	Split peak

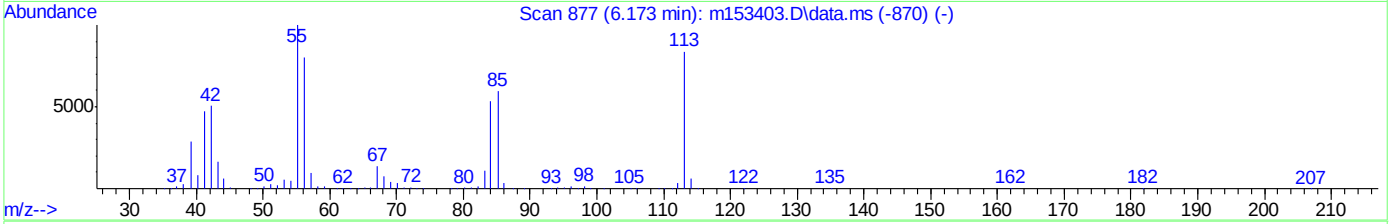
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EM6556\
Data File : m153401a.D
Acq On : 12 Apr 2019 5:56 pm
Operator : christc2
Sample : ic6556-100
Misc : op17006,em6556,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 15 10:15:07 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6556.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon Apr 15 10:14:08 2019
Response via : Initial Calibration







TIC: m153401a.D\data.ms

(41) Caprolactam (t)

6.196min (+0.023) 76.33ppm

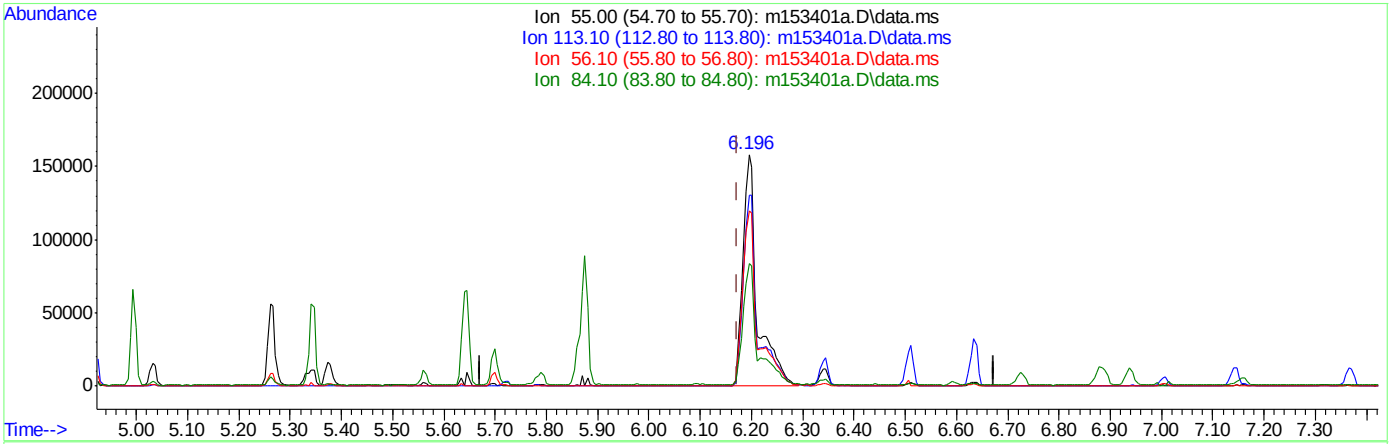
response 244082

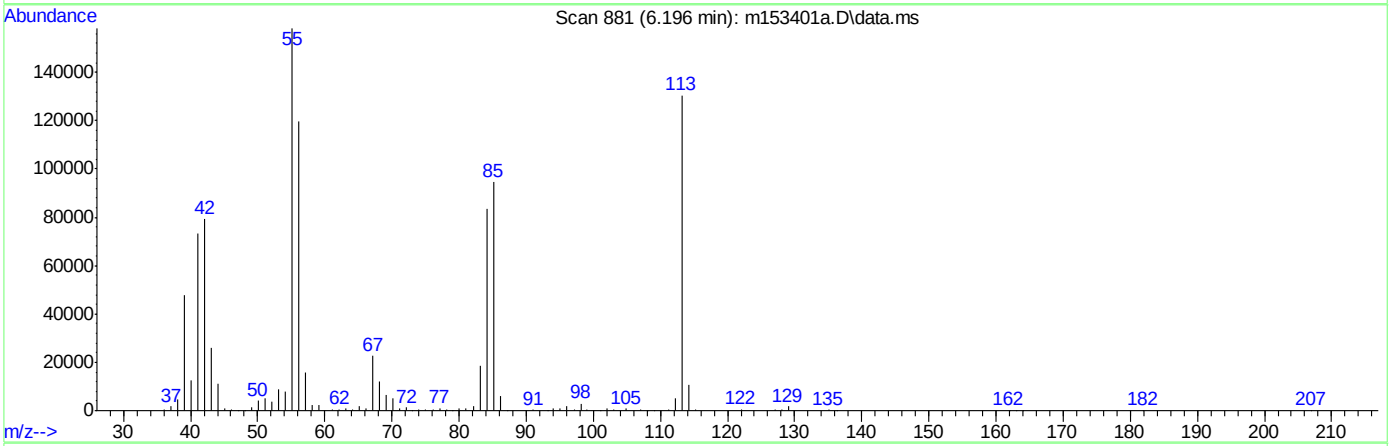
Ion	Exp%	Act%
55.00	100	100
113.10	83.80	82.69
56.10	80.40	75.39
84.10	53.50	51.72

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EM6556\
Data File : m153401a.D
Acq On : 12 Apr 2019 5:56 pm
Operator : christc2
Sample : ic6556-100
Misc : op17006,em6556,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 15 10:17:02 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6556.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon Apr 15 10:14:08 2019
Response via : Initial Calibration





TIC: m153401a.D\data.ms

(41) Caprolactam (t)

6.196min (+0.023) 98.30ppm m

response 314353

Ion	Exp%	Act%
55.00	100	100
113.10	83.80	82.45
56.10	80.40	75.72
84.10	53.50	52.79

9.6.36.3

9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6556\
Data File : m153402.D
Acq On : 12 Apr 2019 6:24 pm
Operator : christc2
Sample : ic6556-80
Misc : op17006,em6556,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 15 10:19:09 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6556.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon Apr 15 10:14:08 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4	4.592	152	225155	40.00	ppm		0.00
24) Naphthalene-d8	5.697	136	803489	40.00	ppm		0.00
47) Acenaphthene-d10	7.994	164	479679	40.00	ppm		0.00
69) Phenanthrene-d10	10.579	188	997619	40.00	ppm		0.00
83) Chrysene-d12	15.712	240	851028	40.00	ppm		0.00
91) Perylene-d12	18.307	264	999499	40.00	ppm		0.00
101) 1,4-Dichlorobenzene-d4a	4.592	152	225155	40.00	ppm		0.00
103) Acenaphthene-d10a	7.994	164	479679	40.00	ppm		0.00
106) Chrysene-d12a	15.712	240	851028	40.00	ppm		0.00
108) Chrysene-d12b	15.712	240	851028	40.00	ppm		0.00
110) Phenanthrene-d10a	10.579	188	997619	40.00	ppm		0.00
113) Naphthalene-d8a	5.697	136	803489	40.00	ppm		0.00
115) Chrysene-d12c	15.712	240	851028	40.00	ppm		0.00
System Monitoring Compounds							
5) 2-Fluorophenol	3.603	112	732085	76.66	ppm		0.00
Spiked Amount 50.000			Recovery = 153.32%				
8) Phenol-d5	4.330	99	867447	75.27	ppm		0.00
Spiked Amount 50.000			Recovery = 150.54%				
25) Nitrobenzene-d5	5.030	82	660145	76.87	ppm		0.00
Spiked Amount 50.000			Recovery = 153.74%				
51) 2-Fluorobiphenyl	7.006	172	1258043	76.20	ppm		0.00
Spiked Amount 50.000			Recovery = 152.40%				
73) 2,4,6-Tribromophenol	9.329	330	281508	76.48	ppm		0.00
Spiked Amount 50.000			Recovery = 152.96%				
85) Terphenyl-d14	13.741	244	1823182	77.60	ppm		0.00
Spiked Amount 50.000			Recovery = 155.20%				
109) 1-chlorooctadecane	0.000	57	0d	0.00	ppm		
Spiked Amount 50.000			Recovery = 0.00%				
111) o-terphenyl	0.000	230	0	0.00	ppm		
Spiked Amount 50.000			Recovery = 0.00%				
Target Compounds							Qvalue
2) 1,4-Dioxane	2.119	88	377230	80.32	ppm		99
3) Pyridine	2.444	79	908435	81.25	ppm		97
4) N-Nitrosodimethylamine	2.407	42	320590	78.41	ppm		98
6) Indene	4.789	116	846091	73.59	ppm		100
7) Cumene	3.993	105	1544937	74.04	ppm		98
9) Phenol	4.341	94	826435	72.42	ppm		82
10) Aniline	4.346	93	722357	73.49	ppm		97
11) bis(2-Chloroethyl)ether	4.394	93	581395	75.56	ppm		99
12) 2-Chlorophenol	4.437	128	595646	74.79	ppm		98
13) Decane	4.479	43	406911	72.88	ppm		99
14) 1,3-Dichlorobenzene	4.549	146	646405	72.57	ppm		98
15) 1,4-Dichlorobenzene	4.602	146	622280	75.64	ppm		99
16) Benzyl alcohol	4.698	108	376577	75.39	ppm		97
17) 1,2-Dichlorobenzene	4.720	146	596046	72.92	ppm		99
18) Acetophenone	4.907	105	732580	74.55	ppm	#	60
19) 2-Methylphenol	4.795	108	473535	73.38	ppm		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6556\
Data File : m153402.D
Acq On : 12 Apr 2019 6:24 pm
Operator : christc2
Sample : ic6556-80
Misc : op17006,em6556,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 15 10:19:09 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6556.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon Apr 15 10:14:08 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
20) 2,2'-oxybis(1-Chloropr...	4.805	121	151063	75.41	ppm		100
21) 3&4-Methylphenol	4.912	108	488132	74.57	ppm	#	81
22) n-Nitroso-di-n-propyla...	4.912	70	350213	72.73	ppm		95
23) Hexachloroethane	4.998	201	265594	75.12	ppm		100
26) Nitrobenzene	5.051	77	618972	75.65	ppm		95
27) Quinoline	6.092	129	1187613	76.12	ppm		99
28) Isophorone	5.259	82	1171099	75.20	ppm		97
29) 2-Nitrophenol	5.329	139	329749	76.05	ppm		98
30) 2,4-Dimethylphenol	5.371	107	558209	79.78	ppm		97
31) Benzoic acid	5.510	105	469499	78.88	ppm		96
32) bis(2-Chloroethoxy)met...	5.457	93	704348	76.92	ppm		100
33) 2,4-Dichlorophenol	5.564	162	511255	75.06	ppm		97
34) 2,6-Dichlorophenol	5.788	162	457218	75.01	ppm		98
35) 1,3,5-Trichlorobenzene	5.345	180	570920	72.82	ppm		98
36) 1,2,4-Trichlorobenzene	5.644	180	584453	74.61	ppm		99
37) 1,2,3-Trichlorobenzene	5.873	180	527854	74.97	ppm		100
38) Naphthalene	5.724	128	1445690	75.33	ppm		100
39) 4-Chloroaniline	5.777	127	641760	73.70	ppm		98
40) 2,3-Dichloroaniline	6.878	161	635130	75.61	ppm		98
41) Caprolactam	6.189	55	263983	79.32	ppm		99
42) Hexachlorobutadiene	5.863	225	353936	75.43	ppm		99
43) 4-Chloro-3-methylphenol	6.338	107	565483	75.70	ppm		97
44) 2-Methylnaphthalene	6.509	141	923318	74.86	ppm		99
45) 1-Methylnaphthalene	6.637	142	1146353	74.30	ppm		99
46) Dimethylnaphthalene	7.369	156	1002140	74.22	ppm		99
48) Hexachlorocyclopentadiene	6.728	237	762663	153.67	ppm		99
49) 2,4,6-Trichlorophenol	6.888	196	387941	75.87	ppm		98
50) 2,4,5-Trichlorophenol	6.936	196	439278	78.68	ppm		97
52) 2-Chloronaphthalene	7.161	162	1010850	76.09	ppm		99
53) Biphenyl	7.145	154	1372802	75.42	ppm		99
54) 2-Nitroaniline	7.316	65	355954	79.30	ppm		94
55) Dimethylphthalate	7.620	163	1350998	76.55	ppm		99
56) Acenaphthylene	7.770	152	1679865	75.75	ppm		100
57) 2,6-Dinitrotoluene	7.695	165	301047	76.03	ppm		100
58) 3-Nitroaniline	7.951	138	356271	78.97	ppm		98
59) Acenaphthene	8.047	153	1066647	77.91	ppm		99
60) 2,4-Dinitrophenol	8.117	184	325259	161.74	ppm		92
61) 4-Nitrophenol	8.272	109	197042	78.58	ppm		99
62) Dibenzofuran	8.330	168	1490794	75.96	ppm		99
63) 2,4-Dinitrotoluene	8.341	165	365850	76.66	ppm		85
64) 2,3,4,6-Tetrachlorophenol	8.555	232	423476	76.56	ppm		98
65) Diethylphthalate	8.806	149	1341665	76.48	ppm		100
66) Fluorene	8.907	166	1276678	76.21	ppm		100
67) 4-Chlorophenyl-phenyle...	8.945	204	639241	76.21	ppm		100
68) 4-Nitroaniline	8.982	138	314723	78.40	ppm		98
70) 4,6-Dinitro-2-methylph...	9.035	198	253467	80.42	ppm		99
71) n-Nitrosodiphenylamine	9.158	169	955792	75.38	ppm		99
72) 1,2-Diphenylhydrazine	9.217	77	1332214	77.16	ppm		99
74) 4-Bromophenyl-phenylether	9.810	248	506124	75.33	ppm		97
75) Hexachlorobenzene	9.890	284	527735	75.08	ppm		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6556\
Data File : m153402.D
Acq On : 12 Apr 2019 6:24 pm
Operator : christc2
Sample : ic6556-80
Misc : op17006,em6556,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 15 10:19:09 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6556.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon Apr 15 10:14:08 2019
Response via : Initial Calibration

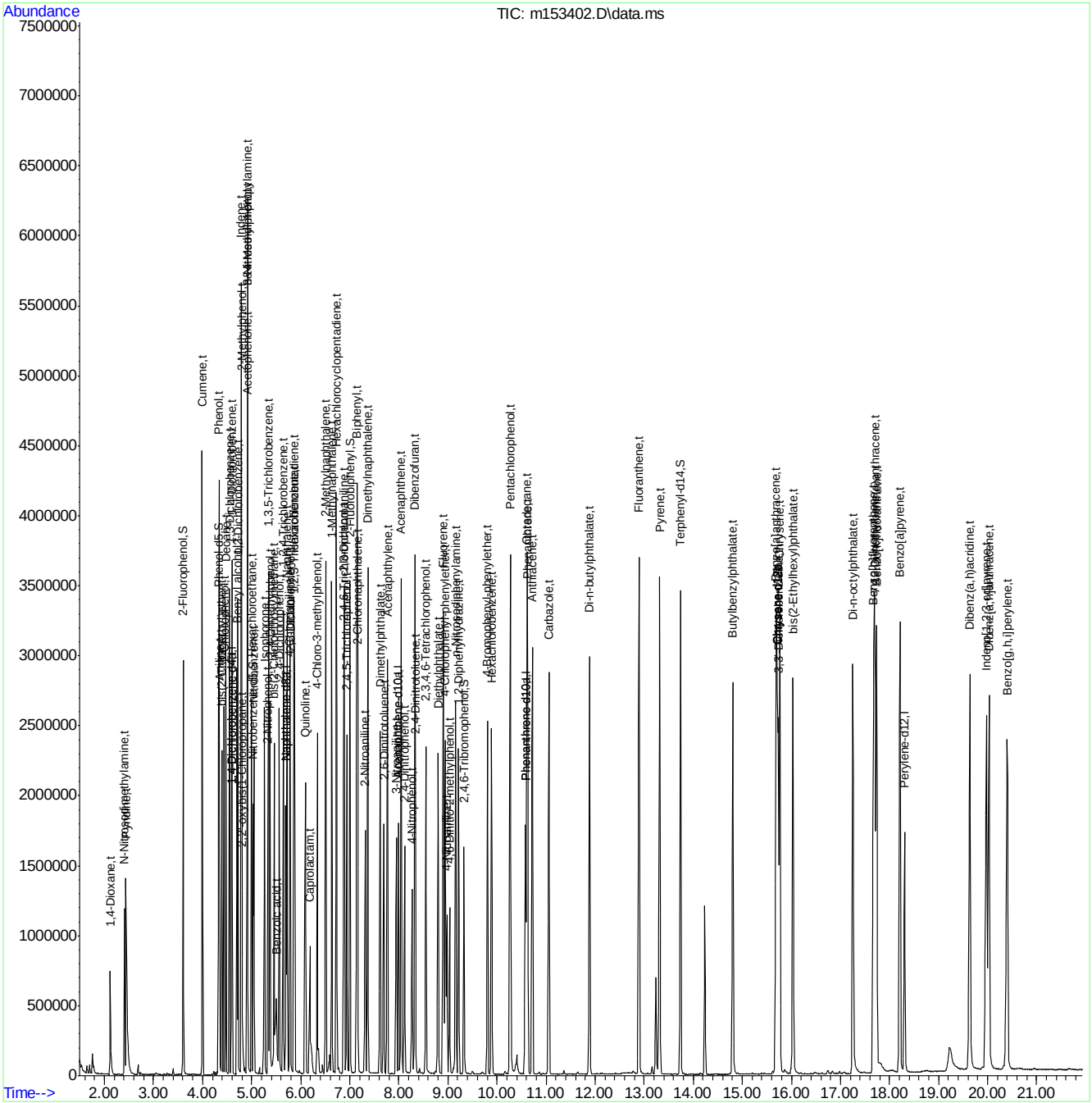
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
76) Pentachlorophenol	10.269	266	697346	150.22	ppm	100
77) Phenanthrene	10.627	178	1718325	75.50	ppm	100
78) Anthracene	10.723	178	1877702	75.03	ppm	99
79) Carbazole	11.065	167	1850995	75.24	ppm	100
80) Di-n-butylphthalate	11.887	149	2405373	75.70	ppm	99
81) Fluoranthene	12.897	202	2395875	74.88	ppm	99
82) Octadecane	10.611	57	606517	77.61	ppm	99
84) Pyrene	13.319	202	2365428	75.62	ppm	98
86) Butylbenzylphthalate	14.809	149	1116335	78.22	ppm	100
87) Benzo[a]anthracene	15.690	228	2395645	76.95	ppm	100
88) 3,3'-Dichlorobenzidine	15.733	252	866134	78.89	ppm	97
89) Chrysene	15.765	228	2002818	77.40	ppm	99
90) bis(2-Ethylhexyl)phtha...	16.032	149	1398864	77.41	ppm	99
92) Di-n-octylphthalate	17.250	149	2615480	77.37	ppm	99
93) Benzo[b]fluoranthene	17.677	252	2563740	77.59	ppm	99
94) Benzo[k]fluoranthene	17.741	252	2126801	73.80	ppm	99
95) Benzo[a]pyrene	18.217	252	2293521	76.49	ppm	100
96) Indeno[1,2,3-cd]pyrene	19.979	276	2136134	77.70	ppm	99
97) Dibenz(a,h)acridine	19.643	279	2110895	76.16	ppm	99
98) Dibenz[a,h]anthracene	20.027	278	2137844	77.22	ppm	99
99) 7,12-Dimethylbenz(a)an...	17.704	256	1049442	77.46	ppm	99
100) Benzo[g,h,i]perylene	20.401	276	2143558	76.98	ppm	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6556\
Data File : m153402.D
Acq On : 12 Apr 2019 6:24 pm
Operator : christc2
Sample : ic6556-80
Misc : op17006,em6556,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 15 10:19:09 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6556.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon Apr 15 10:14:08 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6556\
Data File : m153403.D
Acq On : 12 Apr 2019 6:53 pm
Operator : christc2
Sample : icc6556-50
Misc : op17006,em6556,1000,,,1,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 15 10:14:47 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6556.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon Apr 15 10:14:08 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.592	152	263272	40.00	ppm	0.00
24) Naphthalene-d8	5.698	136	947451	40.00	ppm	0.00
47) Acenaphthene-d10	7.994	164	577166	40.00	ppm	0.00
69) Phenanthrene-d10	10.579	188	1186859	40.00	ppm	0.00
83) Chrysene-d12	15.712	240	1034026	40.00	ppm	0.00
91) Perylene-d12	18.308	264	1197275	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.592	152	263272	40.00	ppm	0.00
103) Acenaphthene-d10a	7.994	164	577166	40.00	ppm	0.00
106) Chrysene-d12a	15.712	240	1034026	40.00	ppm	0.00
108) Chrysene-d12b	15.712	240	1034026	40.00	ppm	0.00
110) Phenanthrene-d10a	10.579	188	1186859	40.00	ppm	0.00
113) Naphthalene-d8a	5.698	136	947451	40.00	ppm	0.00
115) Chrysene-d12c	15.712	240	1034026	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	3.604	112	558336	50.00	ppm	0.00
Spiked Amount 50.000			Recovery =	100.00%		
8) Phenol-d5	4.325	99	673801	50.00	ppm	0.00
Spiked Amount 50.000			Recovery =	100.00%		
25) Nitrobenzene-d5	5.030	82	506356	50.00	ppm	0.00
Spiked Amount 50.000			Recovery =	100.00%		
51) 2-Fluorobiphenyl	7.006	172	993283	50.00	ppm	0.00
Spiked Amount 50.000			Recovery =	100.00%		
73) 2,4,6-Tribromophenol	9.324	330	218961	50.00	ppm	0.00
Spiked Amount 50.000			Recovery =	100.00%		
85) Terphenyl-d14	13.741	244	1427344	50.00	ppm	0.00
Spiked Amount 50.000			Recovery =	100.00%		
109) 1-chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
111) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
Target Compounds						Qvalue
2) 1,4-Dioxane	2.119	88	274573	50.00	ppm	100
3) Pyridine	2.445	79	653638	50.00	ppm	100
4) N-Nitrosodimethylamine	2.407	42	239053	50.00	ppm	100
6) Indene	4.790	116	672209	50.00	ppm	100
7) Cumene	3.999	105	1219950	50.00	ppm	100
9) Phenol	4.336	94	667164	50.00	ppm	100
10) Aniline	4.346	93	574687	50.00	ppm	100
11) bis(2-Chloroethyl)ether	4.394	93	449859	50.00	ppm	100
12) 2-Chlorophenol	4.437	128	465621	50.00	ppm	100
13) Decane	4.480	43	326411	50.00	ppm	100
14) 1,3-Dichlorobenzene	4.549	146	520746	50.00	ppm	100
15) 1,4-Dichlorobenzene	4.603	146	480987	50.00	ppm	100
16) Benzyl alcohol	4.699	108	292025	50.00	ppm	100
17) 1,2-Dichlorobenzene	4.720	146	477859	50.00	ppm	100
18) Acetophenone	4.907	105	574482	50.00	ppm	100
19) 2-Methylphenol	4.790	108	379257	50.26	ppm	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6556\
Data File : m153403.D
Acq On : 12 Apr 2019 6:53 pm
Operator : christc2
Sample : icc6556-50
Misc : op17006,em6556,1000,,,1,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 15 10:14:47 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6556.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon Apr 15 10:14:08 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
20) 2,2'-oxybis(1-Chloropr...	4.806	121	117124	50.00	ppm	100
21) 3&4-Methylphenol	4.912	108	386192	50.46	ppm	100
22) n-Nitroso-di-n-propyla...	4.912	70	281513	50.00	ppm	100
23) Hexachloroethane	4.998	201	206713	50.00	ppm	100
26) Nitrobenzene	5.046	77	482380	50.00	ppm	100
27) Quinoline	6.087	129	919860	50.00	ppm	100
28) Isophorone	5.260	82	918158	50.00	ppm	100
29) 2-Nitrophenol	5.329	139	255650	50.00	ppm	100
30) 2,4-Dimethylphenol	5.372	107	412499	50.00	ppm	100
31) Benzoic acid	5.495	105	351227	50.05	ppm	100
32) bis(2-Chloroethoxy)met...	5.457	93	539901	50.00	ppm	100
33) 2,4-Dichlorophenol	5.559	162	401597	50.00	ppm	100
34) 2,6-Dichlorophenol	5.788	162	359394	50.00	ppm	100
35) 1,3,5-Trichlorobenzene	5.345	180	462244	50.00	ppm	100
36) 1,2,4-Trichlorobenzene	5.644	180	461860	50.00	ppm	100
37) 1,2,3-Trichlorobenzene	5.874	180	415127	50.00	ppm	100
38) Naphthalene	5.719	128	1131562	50.00	ppm	100
39) 4-Chloroaniline	5.778	127	513415	50.00	ppm	100
40) 2,3-Dichloroaniline	6.878	161	495228	50.00	ppm	100
41) Caprolactam	6.173	55	196213	50.00	ppm	100
42) Hexachlorobutadiene	5.863	225	276656	50.00	ppm	100
43) 4-Chloro-3-methylphenol	6.338	107	440399	50.00	ppm	100
44) 2-Methylnaphthalene	6.509	141	727215	50.00	ppm	100
45) 1-Methylnaphthalene	6.632	142	909009	49.97	ppm	100
46) Dimethylnaphthalene	7.364	156	796076	50.00	ppm	100
48) Hexachlorocyclopentadiene	6.728	237	597151	100.00	ppm	100
49) 2,4,6-Trichlorophenol	6.889	196	307631	50.00	ppm	100
50) 2,4,5-Trichlorophenol	6.937	196	335791	49.99	ppm	100
52) 2-Chloronaphthalene	7.156	162	799205	50.00	ppm	100
53) Biphenyl	7.140	154	1095071	50.00	ppm	100
54) 2-Nitroaniline	7.316	65	270060	50.00	ppm	100
55) Dimethylphthalate	7.615	163	1061699	50.00	ppm	100
56) Acenaphthylene	7.765	152	1334232	50.00	ppm	100
57) 2,6-Dinitrotoluene	7.690	165	238205	50.00	ppm	100
58) 3-Nitroaniline	7.946	138	271410	50.00	ppm	100
59) Acenaphthene	8.048	153	823702	50.00	ppm	100
60) 2,4-Dinitrophenol	8.117	184	241976	100.00	ppm	100
61) 4-Nitrophenol	8.267	109	150862	50.00	ppm	100
62) Dibenzofuran	8.325	168	1180805	50.00	ppm	100
63) 2,4-Dinitrotoluene	8.336	165	287128	50.00	ppm	100
64) 2,3,4,6-Tetrachlorophenol	8.550	232	332782	50.00	ppm	100
65) Diethylphthalate	8.801	149	1055379	50.00	ppm	100
66) Fluorene	8.902	166	1007892	50.00	ppm	100
67) 4-Chlorophenyl-phenyle...	8.940	204	504648	50.00	ppm	100
68) 4-Nitroaniline	8.972	138	241517	50.00	ppm	100
70) 4,6-Dinitro-2-methylph...	9.030	198	187472	50.00	ppm	100
71) n-Nitrosodiphenylamine	9.153	169	754210	50.00	ppm	100
72) 1,2-Diphenylhydrazine	9.217	77	1027051	50.00	ppm	100
74) 4-Bromophenyl-phenylether	9.810	248	399649	50.00	ppm	100
75) Hexachlorobenzene	9.890	284	418128	50.00	ppm	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6556\
Data File : m153403.D
Acq On : 12 Apr 2019 6:53 pm
Operator : christc2
Sample : icc6556-50
Misc : op17006,em6556,1000,,,1,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 15 10:14:47 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6556.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon Apr 15 10:14:08 2019
Response via : Initial Calibration

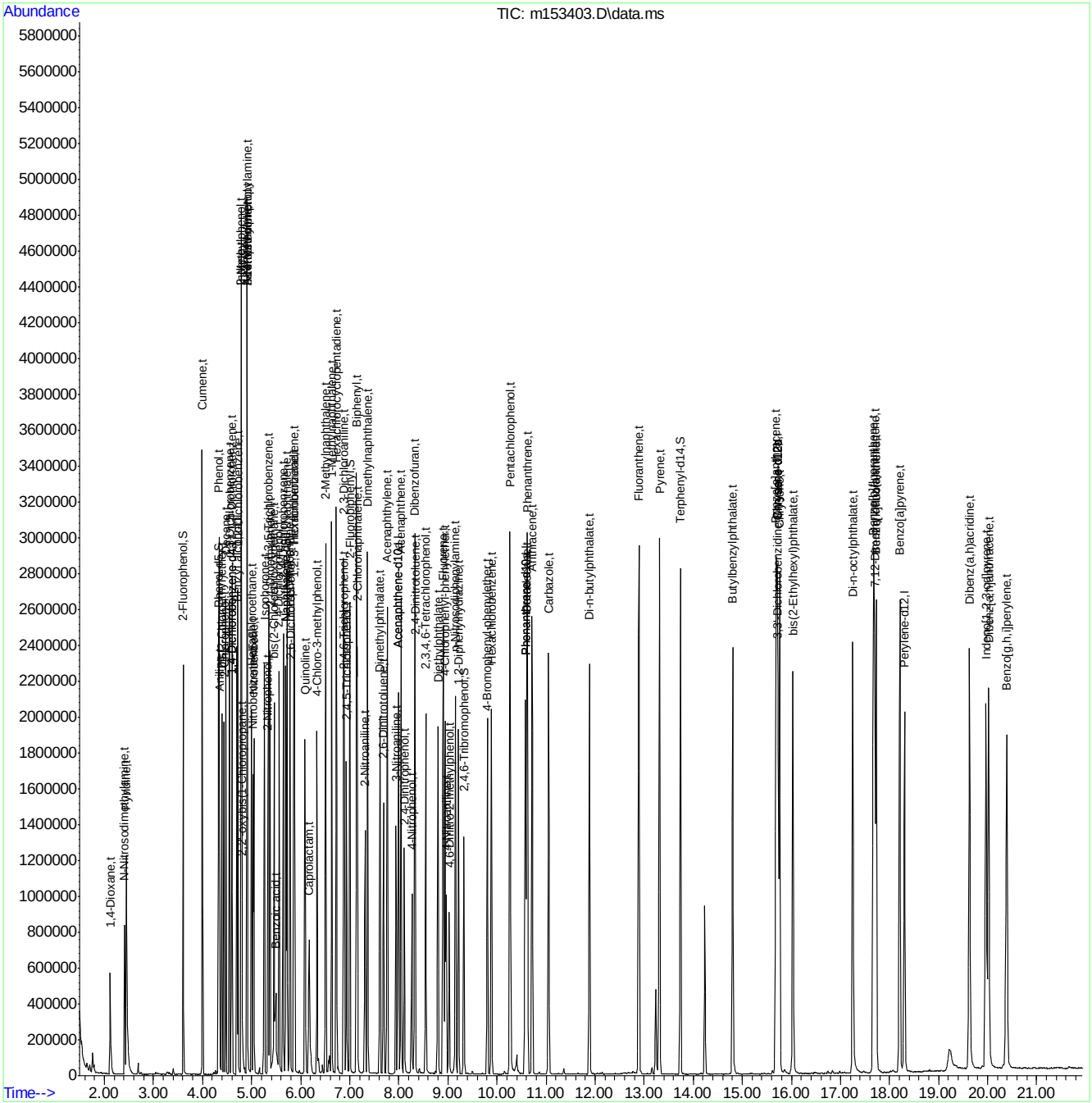
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
76) Pentachlorophenol	10.264	266	552267	100.00	ppm	100
77) Phenanthrene	10.622	178	1353903	50.00	ppm	100
78) Anthracene	10.718	178	1488565	50.00	ppm	100
79) Carbazole	11.060	167	1463436	50.00	ppm	100
80) Di-n-butylphthalate	11.883	149	1890098	50.00	ppm	100
81) Fluoranthene	12.892	202	1903264	50.00	ppm	100
82) Octadecane	10.606	57	464873	50.00	ppm	100
84) Pyrene	13.314	202	1900281	50.00	ppm	100
86) Butylbenzylphthalate	14.804	149	867014	50.00	ppm	100
87) Benzo[a]anthracene	15.691	228	1891375	50.00	ppm	100
88) 3,3'-Dichlorobenzidine	15.728	252	666968	50.00	ppm	100
89) Chrysene	15.760	228	1572083	50.00	ppm	100
90) bis(2-Ethylhexyl)phtha...	16.032	149	1097762	50.00	ppm	100
92) Di-n-octylphthalate	17.250	149	2024578	50.00	ppm	100
93) Benzo[b]fluoranthene	17.672	252	1979106	50.00	ppm	100
94) Benzo[k]fluoranthene	17.731	252	1726096	50.00	ppm	100
95) Benzo[a]pyrene	18.212	252	1795877	50.00	ppm	100
96) Indeno[1,2,3-cd]pyrene	19.969	276	1646538	50.00	ppm	100
97) Dibenz(a,h)acridine	19.632	279	1660151	50.00	ppm	100
98) Dibenz[a,h]anthracene	20.022	278	1657997	49.99	ppm	100
99) 7,12-Dimethylbenz(a)an...	17.699	256	811481	50.00	ppm	100
100) Benzo[g,h,i]perylene	20.391	276	1673654	50.18	ppm	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6556\
Data File : m153403.D
Acq On : 12 Apr 2019 6:53 pm
Operator : christc2
Sample : icc6556-50
Misc : op17006,em6556,1000,,,1,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 15 10:14:47 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6556.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon Apr 15 10:14:08 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6556\
Data File : m153404.D
Acq On : 12 Apr 2019 7:21 pm
Operator : christc2
Sample : ic6556-25
Misc : op17006,em6556,1000,,,1,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 15 10:20:59 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6556.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon Apr 15 10:14:08 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.588	152	277562	40.00	ppm	0.00
24) Naphthalene-d8	5.699	136	964004	40.00	ppm	0.00
47) Acenaphthene-d10	7.991	164	582129	40.00	ppm	0.00
69) Phenanthrene-d10	10.576	188	1169573	40.00	ppm	0.00
83) Chrysene-d12	15.708	240	1084540	40.00	ppm	0.00
91) Perylene-d12	18.304	264	1211388	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.588	152	277562	40.00	ppm	0.00
103) Acenaphthene-d10a	7.991	164	582129	40.00	ppm	0.00
106) Chrysene-d12a	15.708	240	1084540	40.00	ppm	0.00
108) Chrysene-d12b	15.708	240	1084540	40.00	ppm	0.00
110) Phenanthrene-d10a	10.576	188	1169573	40.00	ppm	0.00
113) Naphthalene-d8a	5.699	136	964004	40.00	ppm	0.00
115) Chrysene-d12c	15.708	240	1084540	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	3.606	112	286882	24.37	ppm	0.00
Spiked Amount 50.000			Recovery =	48.74%		
8) Phenol-d5	4.321	99	346438	24.38	ppm	0.00
Spiked Amount 50.000			Recovery =	48.76%		
25) Nitrobenzene-d5	5.026	82	262596	25.48	ppm	0.00
Spiked Amount 50.000			Recovery =	50.96%		
51) 2-Fluorobiphenyl	7.002	172	529165	26.41	ppm	0.00
Spiked Amount 50.000			Recovery =	52.82%		
73) 2,4,6-Tribromophenol	9.320	330	108513	25.15	ppm	0.00
Spiked Amount 50.000			Recovery =	50.30%		
85) Terphenyl-d14	13.738	244	744115	24.85	ppm	0.00
Spiked Amount 50.000			Recovery =	49.70%		
109) 1-chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
111) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
Target Compounds						Qvalue
2) 1,4-Dioxane	2.121	88	139830	24.15	ppm	98
3) Pyridine	2.447	79	349580	25.36	ppm	99
4) N-Nitrosodimethylamine	2.409	42	123459	24.49	ppm	99
6) Indene	4.791	116	360998	25.47	ppm	97
7) Cumene	3.995	105	668535	25.99	ppm	97
9) Phenol	4.332	94	366361	26.04	ppm	95
10) Aniline	4.343	93	332962	27.48	ppm	99
11) bis(2-Chloroethyl)ether	4.391	93	243495	25.67	ppm	98
12) 2-Chlorophenol	4.433	128	248181	25.28	ppm	96
13) Decane	4.476	43	184365	26.79	ppm	95
14) 1,3-Dichlorobenzene	4.546	146	282526	25.73	ppm	98
15) 1,4-Dichlorobenzene	4.599	146	258610	25.50	ppm	97
16) Benzyl alcohol	4.695	108	145414	23.62	ppm	97
17) 1,2-Dichlorobenzene	4.722	146	256741	25.48	ppm	99
18) Acetophenone	4.903	105	316389	26.12	ppm	98
19) 2-Methylphenol	4.786	108	208524	26.21	ppm	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6556\
Data File : m153404.D
Acq On : 12 Apr 2019 7:21 pm
Operator : christc2
Sample : ic6556-25
Misc : op17006,em6556,1000,,,1,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 15 10:20:59 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6556.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon Apr 15 10:14:08 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
20) 2,2'-oxybis(1-Chloropr...	4.802	121	62030	25.12	ppm	99
21) 3&4-Methylphenol	4.909	108	209562	25.97	ppm	96
22) n-Nitroso-di-n-propyla...	4.909	70	158725	26.74	ppm	99
23) Hexachloroethane	4.994	201	110479	25.35	ppm	93
26) Nitrobenzene	5.042	77	253131	25.79	ppm	100
27) Quinoline	6.078	129	465379	24.86	ppm	99
28) Isophorone	5.256	82	482683	25.83	ppm	99
29) 2-Nitrophenol	5.325	139	130292	25.04	ppm	98
30) 2,4-Dimethylphenol	5.368	107	211484	25.19	ppm	96
31) Benzoic acid	5.470	105	158009	22.13	ppm	97
32) bis(2-Chloroethoxy)met...	5.454	93	278968	25.39	ppm	98
33) 2,4-Dichlorophenol	5.555	162	209733	25.66	ppm	97
34) 2,6-Dichlorophenol	5.785	162	187836	25.68	ppm	97
35) 1,3,5-Trichlorobenzene	5.341	180	253752	26.98	ppm	97
36) 1,2,4-Trichlorobenzene	5.640	180	246007	26.17	ppm	98
37) 1,2,3-Trichlorobenzene	5.870	180	225633	26.71	ppm	97
38) Naphthalene	5.721	128	595618	25.87	ppm	99
39) 4-Chloroaniline	5.774	127	265565	25.42	ppm	99
40) 2,3-Dichloroaniline	6.874	161	262704	26.07	ppm	98
41) Caprolactam	6.148	55	95863	24.01	ppm	97
42) Hexachlorobutadiene	5.859	225	147872	26.27	ppm	98
43) 4-Chloro-3-methylphenol	6.329	107	220877	24.65	ppm	99
44) 2-Methylnaphthalene	6.506	141	384085	25.95	ppm	98
45) 1-Methylnaphthalene	6.629	142	478793	25.87	ppm	100
46) Dimethylnaphthalene	7.360	156	420932	25.98	ppm	99
48) Hexachlorocyclopentadiene	6.725	237	302109	50.16	ppm	98
49) 2,4,6-Trichlorophenol	6.885	196	162550	26.19	ppm	97
50) 2,4,5-Trichlorophenol	6.928	196	170063	25.10	ppm	98
52) 2-Chloronaphthalene	7.152	162	434162	26.93	ppm	100
53) Biphenyl	7.136	154	583857	26.43	ppm	99
54) 2-Nitroaniline	7.307	65	129397	23.75	ppm	99
55) Dimethylphthalate	7.611	163	545123	25.45	ppm	100
56) Acenaphthylene	7.761	152	706715	26.26	ppm	99
57) 2,6-Dinitrotoluene	7.681	165	116586	24.26	ppm	98
58) 3-Nitroaniline	7.937	138	133122	24.32	ppm	98
59) Acenaphthene	8.044	153	428194	25.77	ppm	98
60) 2,4-Dinitrophenol	8.108	184	96805	39.66	ppm	99
61) 4-Nitrophenol	8.252	109	71256	23.41	ppm	96
62) Dibenzofuran	8.322	168	631593	26.52	ppm	100
63) 2,4-Dinitrotoluene	8.327	165	144447	24.94	ppm	90
64) 2,3,4,6-Tetrachlorophenol	8.546	232	167139	24.90	ppm	97
65) Diethylphthalate	8.792	149	541553	25.44	ppm	99
66) Fluorene	8.899	166	523316	25.74	ppm	100
67) 4-Chlorophenyl-phenyle...	8.936	204	273734	26.89	ppm	98
68) 4-Nitroaniline	8.957	138	121698	24.98	ppm	96
70) 4,6-Dinitro-2-methylph...	9.021	198	78819	21.33	ppm	99
71) n-Nitrosodiphenylamine	9.150	169	390300	26.26	ppm	99
72) 1,2-Diphenylhydrazine	9.214	77	537626	26.56	ppm	99
74) 4-Bromophenyl-phenylether	9.807	248	201222	25.55	ppm	99
75) Hexachlorobenzene	9.887	284	218898	26.56	ppm	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6556\
Data File : m153404.D
Acq On : 12 Apr 2019 7:21 pm
Operator : christc2
Sample : ic6556-25
Misc : op17006,em6556,1000,,,1,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 15 10:20:59 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6556.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon Apr 15 10:14:08 2019
Response via : Initial Calibration

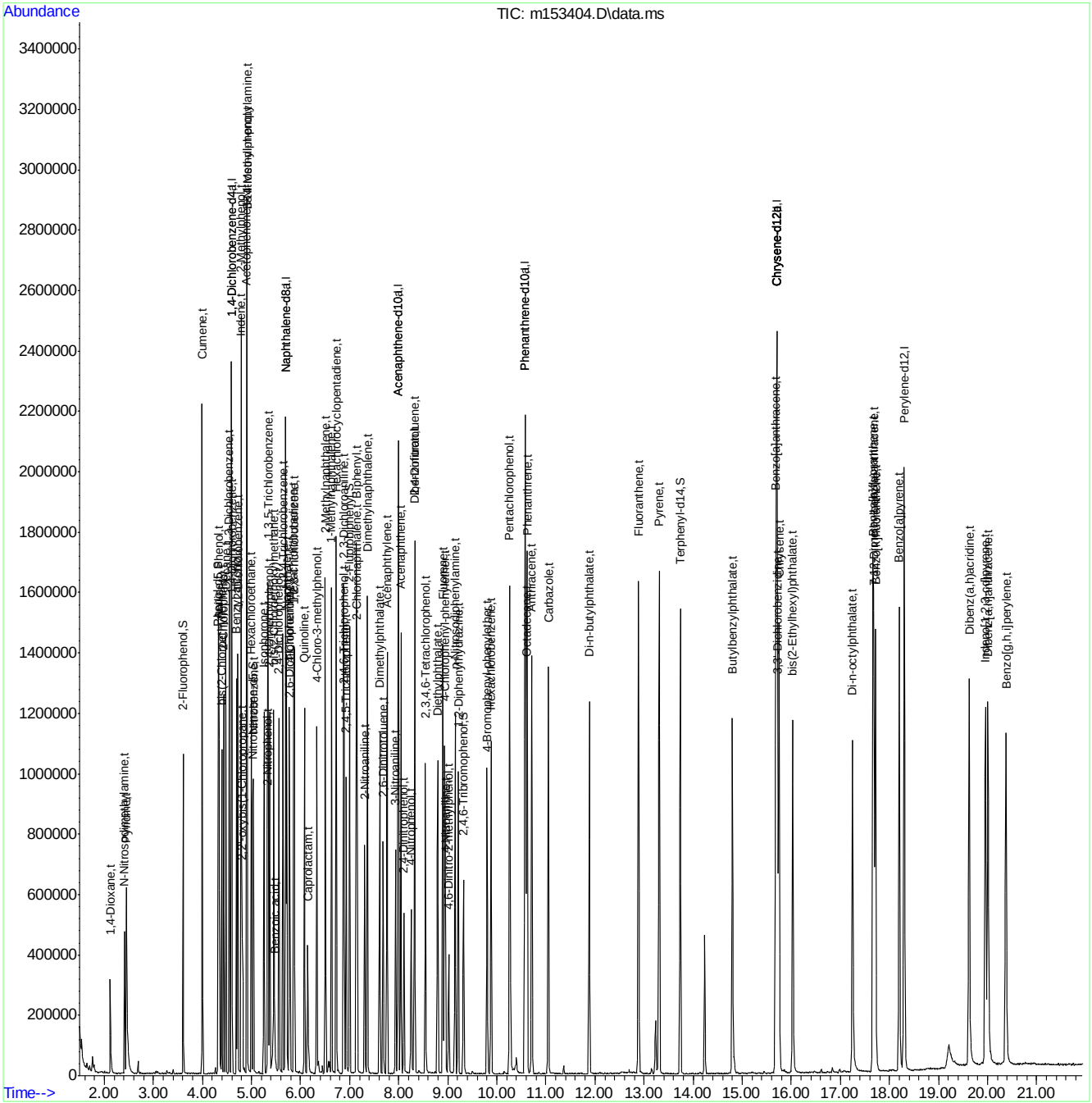
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
76) Pentachlorophenol	10.261	266	275158	50.56	ppm	99
77) Phenanthrene	10.618	178	712495	26.70	ppm	100
78) Anthracene	10.709	178	771837	26.31	ppm	99
79) Carbazole	11.051	167	758535	26.30	ppm	99
80) Di-n-butylphthalate	11.884	149	965711	25.92	ppm	99
81) Fluoranthene	12.888	202	995951	26.55	ppm	99
82) Octadecane	10.602	57	241476	26.36	ppm	99
84) Pyrene	13.310	202	999023	25.06	ppm	99
86) Butylbenzylphthalate	14.800	149	432256	23.77	ppm	97
87) Benzo[a]anthracene	15.687	228	962166	24.25	ppm	99
88) 3,3'-Dichlorobenzidine	15.724	252	330743	23.64	ppm	99
89) Chrysene	15.756	228	810822	24.59	ppm	99
90) bis(2-Ethylhexyl)phtha...	16.029	149	539079	23.41	ppm	99
92) Di-n-octylphthalate	17.247	149	978451	23.88	ppm	99
93) Benzo[b]fluoranthene	17.663	252	1027165	25.65	ppm	100
94) Benzo[k]fluoranthene	17.717	252	914510	26.18	ppm	99
95) Benzo[a]pyrene	18.203	252	922796	25.39	ppm	100
96) Indeno[1,2,3-cd]pyrene	19.960	276	847552	25.44	ppm	99
97) Dibenz(a,h)acridine	19.629	279	856264	25.49	ppm	97
98) Dibenz[a,h]anthracene	20.008	278	854704	25.47	ppm	99
99) 7,12-Dimethylbenz(a)an...	17.685	256	413338	25.17	ppm	99
100) Benzo[g,h,i]perylene	20.376	276	873483	25.88	ppm	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6556\
Data File : m153404.D
Acq On : 12 Apr 2019 7:21 pm
Operator : christc2
Sample : ic6556-25
Misc : op17006,em6556,1000,,,1,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 15 10:20:59 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6556.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon Apr 15 10:14:08 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6556\
Data File : m153405.D
Acq On : 12 Apr 2019 7:49 pm
Operator : christc2
Sample : ic6556-10
Misc : op17006,em6556,1000,,,1,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 15 10:26:18 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6556.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon Apr 15 10:14:08 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.591	152	354996	40.00	ppm	0.00
24) Naphthalene-d8	5.696	136	1212660	40.00	ppm	0.00
47) Acenaphthene-d10	7.993	164	726523	40.00	ppm	0.00
69) Phenanthrene-d10	10.578	188	1444095	40.00	ppm	0.00
83) Chrysene-d12	15.705	240	1398894	40.00	ppm	0.00
91) Perylene-d12	18.307	264	1524103	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.591	152	354996	40.00	ppm	0.00
103) Acenaphthene-d10a	7.993	164	726523	40.00	ppm	0.00
106) Chrysene-d12a	15.705	240	1398894	40.00	ppm	0.00
108) Chrysene-d12b	15.705	240	1398894	40.00	ppm	0.00
110) Phenanthrene-d10a	10.578	188	1444095	40.00	ppm	0.00
113) Naphthalene-d8a	5.696	136	1212660	40.00	ppm	0.00
115) Chrysene-d12c	15.705	240	1398894	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	3.603	112	142571	9.47	ppm	0.00
Spiked Amount 50.000			Recovery =	18.94%		
8) Phenol-d5	4.318	99	179461	9.88	ppm	0.00
Spiked Amount 50.000			Recovery =	19.76%		
25) Nitrobenzene-d5	5.029	82	136646	10.54	ppm	0.00
Spiked Amount 50.000			Recovery =	21.08%		
51) 2-Fluorobiphenyl	7.000	172	286720	11.47	ppm	0.00
Spiked Amount 50.000			Recovery =	22.94%		
73) 2,4,6-Tribromophenol	9.318	330	53310	10.00	ppm	0.00
Spiked Amount 50.000			Recovery =	20.00%		
85) Terphenyl-d14	13.735	244	388476	10.06	ppm	0.00
Spiked Amount 50.000			Recovery =	20.12%		
109) 1-chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
111) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
Target Compounds						Qvalue
2) 1,4-Dioxane	2.123	88	68242	9.22	ppm	96
3) Pyridine	2.454	79	171196	9.71	ppm	99
4) N-Nitrosodimethylamine	2.412	42	58566	9.08	ppm	93
6) Indene	4.788	116	199320	11.00	ppm	99
7) Cumene	3.998	105	354334	10.77	ppm	99
9) Phenol	4.329	94	195300	10.85	ppm	93
10) Aniline	4.345	93	193331	12.47	ppm	93
11) bis(2-Chloroethyl)ether	4.393	93	131108	10.81	ppm	96
12) 2-Chlorophenol	4.431	128	132507	10.55	ppm	92
13) Decane	4.479	43	102662	11.66	ppm	98
14) 1,3-Dichlorobenzene	4.548	146	149260	10.63	ppm	99
15) 1,4-Dichlorobenzene	4.601	146	136059	10.49	ppm	98
16) Benzyl alcohol	4.692	108	73456	9.33	ppm	92
17) 1,2-Dichlorobenzene	4.719	146	137712	10.69	ppm	98
18) Acetophenone	4.901	105	173973	11.23	ppm	98
19) 2-Methylphenol	4.783	108	112191	11.03	ppm	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6556\
Data File : m153405.D
Acq On : 12 Apr 2019 7:49 pm
Operator : christc2
Sample : ic6556-10
Misc : op17006,em6556,1000,,,1,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 15 10:26:18 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6556.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon Apr 15 10:14:08 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
20) 2,2'-oxybis(1-Chloropr...	4.804	121	32853	10.40	ppm		90
21) 3&4-Methylphenol	4.906	108	113940	11.04	ppm	#	84
22) n-Nitroso-di-n-propyla...	4.906	70	89723	11.82	ppm		96
23) Hexachloroethane	4.997	201	57135	10.25	ppm		96
26) Nitrobenzene	5.045	77	136346	11.04	ppm		94
27) Quinoline	6.076	129	242840	10.31	ppm		99
28) Isophorone	5.253	82	250383	10.65	ppm		98
29) 2-Nitrophenol	5.328	139	65246	9.97	ppm		93
30) 2,4-Dimethylphenol	5.365	107	97255	9.21	ppm		94
31) Benzoic acid	5.445	105	72328	8.05	ppm		94
32) bis(2-Chloroethoxy)met...	5.451	93	147970	10.71	ppm		99
33) 2,4-Dichlorophenol	5.557	162	106062	10.32	ppm		97
34) 2,6-Dichlorophenol	5.782	162	98096	10.66	ppm		98
35) 1,3,5-Trichlorobenzene	5.338	180	136442	11.53	ppm		98
36) 1,2,4-Trichlorobenzene	5.643	180	131241	11.10	ppm		98
37) 1,2,3-Trichlorobenzene	5.873	180	121904	11.47	ppm		97
38) Naphthalene	5.718	128	311293	10.75	ppm		99
39) 4-Chloroaniline	5.771	127	141463	10.76	ppm		98
40) 2,3-Dichloroaniline	6.871	161	138949	10.96	ppm		97
41) Caprolactam	6.134	55	50065	9.97	ppm		96
42) Hexachlorobutadiene	5.862	225	78782	11.12	ppm		99
43) 4-Chloro-3-methylphenol	6.327	107	111891	9.93	ppm		98
44) 2-Methylnaphthalene	6.503	141	202399	10.87	ppm		99
45) 1-Methylnaphthalene	6.631	142	253283	10.88	ppm		99
46) Dimethylnaphthalene	7.357	156	226014	11.09	ppm		99
48) Hexachlorocyclopentadiene	6.727	237	152262	20.26	ppm		97
49) 2,4,6-Trichlorophenol	6.882	196	86106	11.12	ppm		98
50) 2,4,5-Trichlorophenol	6.925	196	92540	10.94	ppm		96
52) 2-Chloronaphthalene	7.149	162	237187	11.79	ppm		99
53) Biphenyl	7.133	154	312413	11.33	ppm		99
54) 2-Nitroaniline	7.304	65	65215	9.59	ppm		98
55) Dimethylphthalate	7.608	163	289710	10.84	ppm		98
56) Acenaphthylene	7.758	152	377514	11.24	ppm		98
57) 2,6-Dinitrotoluene	7.678	165	55885	9.32	ppm		90
58) 3-Nitroaniline	7.934	138	66595	9.75	ppm		94
59) Acenaphthene	8.041	153	221964	10.70	ppm		96
60) 2,4-Dinitrophenol	8.100	184	36774	12.07	ppm		94
61) 4-Nitrophenol	8.249	109	33300	8.77	ppm		99
62) Dibenzofuran	8.324	168	338793	11.40	ppm		98
63) 2,4-Dinitrotoluene	8.324	165	72549	10.04	ppm		85
64) 2,3,4,6-Tetrachlorophenol	8.543	232	83290	9.94	ppm		95
65) Diethylphthalate	8.789	149	279571	10.52	ppm		99
66) Fluorene	8.896	166	277441	10.93	ppm		97
67) 4-Chlorophenyl-phenyle...	8.938	204	145069	11.42	ppm		99
68) 4-Nitroaniline	8.949	138	61446	10.11	ppm		99
70) 4,6-Dinitro-2-methylph...	9.013	198	32862	7.20	ppm		96
71) n-Nitrosodiphenylamine	9.147	169	207178	11.29	ppm		97
72) 1,2-Diphenylhydrazine	9.211	77	285601	11.43	ppm		98
74) 4-Bromophenyl-phenylether	9.798	248	106153	10.92	ppm		93
75) Hexachlorobenzene	9.884	284	116490	11.45	ppm		97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6556\
Data File : m153405.D
Acq On : 12 Apr 2019 7:49 pm
Operator : christc2
Sample : ic6556-10
Misc : op17006,em6556,1000,,,1,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 15 10:26:18 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6556.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon Apr 15 10:14:08 2019
Response via : Initial Calibration

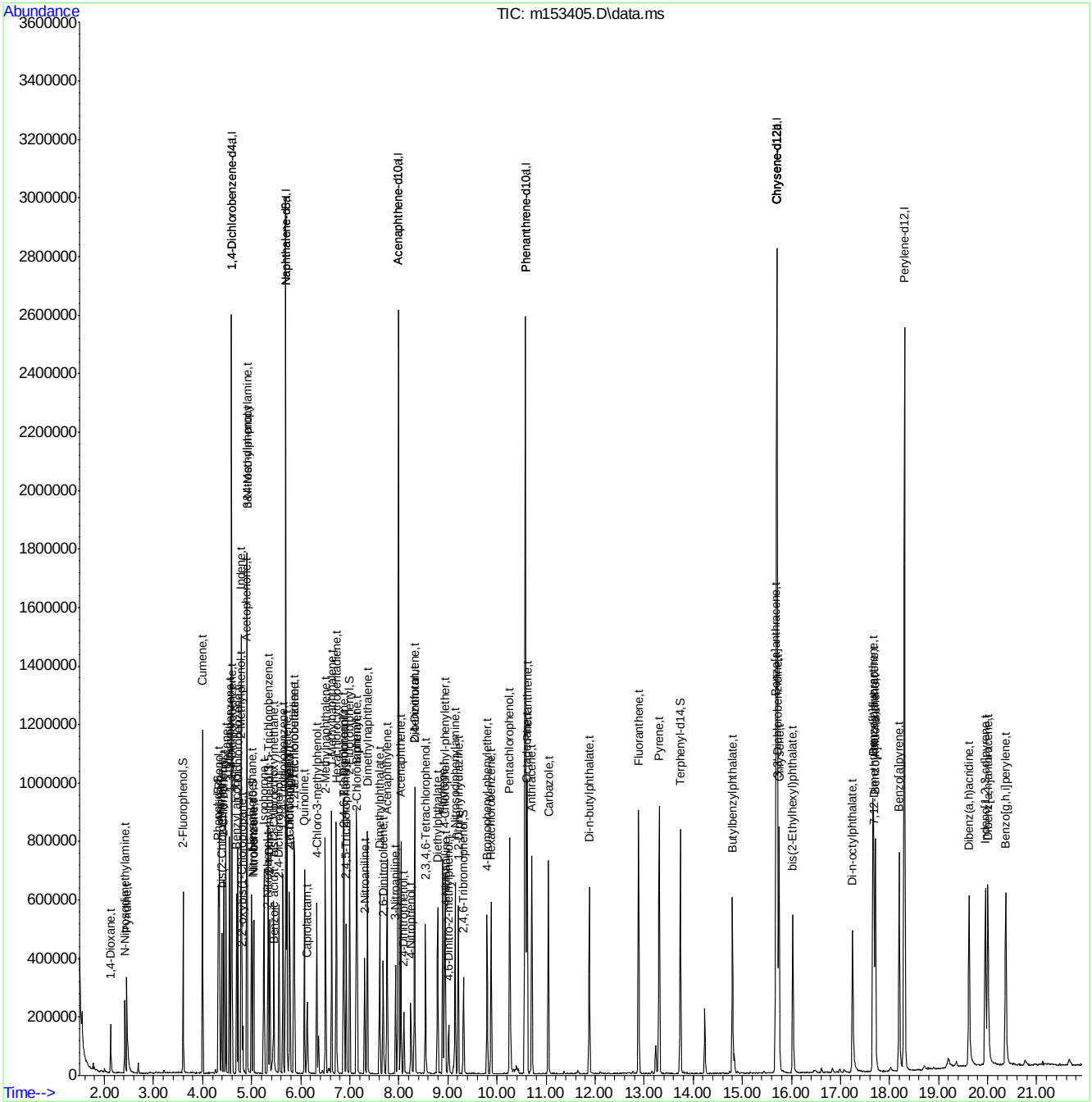
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
76) Pentachlorophenol	10.258	266	133443	19.86	ppm	98
77) Phenanthrene	10.615	178	378895	11.50	ppm	98
78) Anthracene	10.706	178	409530	11.31	ppm	99
79) Carbazole	11.048	167	393565	11.05	ppm	99
80) Di-n-butylphthalate	11.881	149	487217	10.59	ppm	98
81) Fluoranthene	12.885	202	520091	11.23	ppm	98
82) Octadecane	10.605	57	124800	11.03	ppm	97
84) Pyrene	13.307	202	536799	10.44	ppm	99
86) Butylbenzylphthalate	14.798	149	213025	9.08	ppm	94
87) Benzo[a]anthracene	15.684	228	489844	9.57	ppm	99
88) 3,3'-Dichlorobenzidine	15.722	252	159967	8.86	ppm	100
89) Chrysene	15.748	228	428205	10.07	ppm	98
90) bis(2-Ethylhexyl)phtha...	16.026	149	257248	8.66	ppm	99
92) Di-n-octylphthalate	17.244	149	458672	8.90	ppm	99
93) Benzo[b]fluoranthene	17.660	252	536283	10.64	ppm	99
94) Benzo[k]fluoranthene	17.708	252	493811	11.24	ppm	99
95) Benzo[a]pyrene	18.200	252	474301	10.37	ppm	98
96) Indeno[1,2,3-cd]pyrene	19.952	276	418872	9.99	ppm	98
97) Dibenz(a,h)acridine	19.621	279	417188	9.87	ppm	85
98) Dibenz[a,h]anthracene	20.005	278	446655	10.58	ppm	99
99) 7,12-Dimethylbenz(a)an...	17.682	256	186797	9.04	ppm	99
100) Benzo[g,h,i]perylene	20.368	276	449372	10.58	ppm	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6556\
Data File : m153405.D
Acq On : 12 Apr 2019 7:49 pm
Operator : christc2
Sample : ic6556-10
Misc : op17006,em6556,1000,,,1,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 15 10:26:18 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6556.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon Apr 15 10:14:08 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6556\
Data File : m153406.D
Acq On : 12 Apr 2019 8:18 pm
Operator : christc2
Sample : ic6556-5
Misc : op17006,em6556,1000,,,1,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 15 10:29:22 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6556.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon Apr 15 10:27:56 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.591	152	362931	40.00	ppm	0.00
24) Naphthalene-d8	5.697	136	1246004	40.00	ppm	0.00
47) Acenaphthene-d10	7.988	164	740803	40.00	ppm	0.00
69) Phenanthrene-d10	10.573	188	1448565	40.00	ppm	0.00
83) Chrysene-d12	15.706	240	1422398	40.00	ppm	0.00
91) Perylene-d12	18.307	264	1538825	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.591	152	362931	40.00	ppm	0.00
103) Acenaphthene-d10a	7.988	164	740803	40.00	ppm	0.00
106) Chrysene-d12a	15.706	240	1422398	40.00	ppm	0.00
108) Chrysene-d12b	15.706	240	1422398	40.00	ppm	0.00
110) Phenanthrene-d10a	10.573	188	1448565	40.00	ppm	0.00
113) Naphthalene-d8a	5.697	136	1246004	40.00	ppm	0.00
115) Chrysene-d12c	15.706	240	1422398	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	3.603	112	70644	4.59	ppm	0.00
Spiked Amount 50.000			Recovery =	9.18%		
8) Phenol-d5	4.319	99	88665	4.77	ppm	0.00
Spiked Amount 50.000			Recovery =	9.54%		
25) Nitrobenzene-d5	5.029	82	70282	5.28	ppm	0.00
Spiked Amount 50.000			Recovery =	10.56%		
51) 2-Fluorobiphenyl	7.000	172	148985	5.84	ppm	0.00
Spiked Amount 50.000			Recovery =	11.68%		
73) 2,4,6-Tribromophenol	9.318	330	25439	4.76	ppm	0.00
Spiked Amount 50.000			Recovery =	9.52%		
85) Terphenyl-d14	13.735	244	191984	4.89	ppm	0.00
Spiked Amount 50.000			Recovery =	9.78%		
109) 1-chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
111) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
Target Compounds						Qvalue
2) 1,4-Dioxane	2.129	88	33693	4.45	ppm	96
3) Pyridine	2.465	79	86154	4.78	ppm	97
4) N-Nitrosodimethylamine	2.417	42	29834	4.53	ppm	91
6) Indene	4.789	116	103122	5.56	ppm	96
7) Cumene	3.998	105	178887	5.32	ppm	97
9) Phenol	4.329	94	97959	5.33	ppm	93
10) Aniline	4.340	93	104277	6.58	ppm	96
11) bis(2-Chloroethyl)ether	4.393	93	68122	5.49	ppm	96
12) 2-Chlorophenol	4.431	128	68286	5.32	ppm	93
13) Decane	4.479	43	53401	5.93	ppm	97
14) 1,3-Dichlorobenzene	4.548	146	79026	5.50	ppm	98
15) 1,4-Dichlorobenzene	4.602	146	69316	5.23	ppm	97
16) Benzyl alcohol	4.692	108	36952	4.59	ppm	95
17) 1,2-Dichlorobenzene	4.719	146	69919	5.31	ppm	96
18) Acetophenone	4.901	105	90244	5.70	ppm	97
19) 2-Methylphenol	4.783	108	58474	5.62	ppm	96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6556\
Data File : m153406.D
Acq On : 12 Apr 2019 8:18 pm
Operator : christc2
Sample : ic6556-5
Misc : op17006,em6556,1000,,,1,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 15 10:29:22 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6556.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon Apr 15 10:27:56 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
20) 2,2'-oxybis(1-Chloropr...	4.805	121	17308	5.36	ppm		97
21) 3&4-Methylphenol	4.906	108	56842	5.39	ppm	#	82
22) n-Nitroso-di-n-propyla...	4.906	70	46968	6.05	ppm		97
23) Hexachloroethane	4.997	201	29612	5.20	ppm		97
26) Nitrobenzene	5.045	77	68536	5.40	ppm		96
27) Quinoline	6.076	129	122244	5.05	ppm		99
28) Isophorone	5.253	82	125513	5.20	ppm		99
29) 2-Nitrophenol	5.328	139	29393	4.37	ppm		95
30) 2,4-Dimethylphenol	5.365	107	48293	4.45	ppm		93
31) Benzoic acid	5.429	105	26139	2.83	ppm		95
32) bis(2-Chloroethoxy)met...	5.451	93	77057	5.43	ppm		99
33) 2,4-Dichlorophenol	5.552	162	55157	5.22	ppm		98
34) 2,6-Dichlorophenol	5.782	162	51151	5.41	ppm		96
35) 1,3,5-Trichlorobenzene	5.339	180	70750	5.82	ppm		99
36) 1,2,4-Trichlorobenzene	5.638	180	68256	5.62	ppm		94
37) 1,2,3-Trichlorobenzene	5.873	180	63064	5.78	ppm		96
38) Naphthalene	5.718	128	162154	5.45	ppm		98
39) 4-Chloroaniline	5.771	127	72570	5.37	ppm		99
40) 2,3-Dichloroaniline	6.872	161	71480	5.49	ppm		99
41) Caprolactam	6.124	55	24890	4.82	ppm		95
42) Hexachlorobutadiene	5.862	225	40703	5.59	ppm		99
43) 4-Chloro-3-methylphenol	6.327	107	55171	4.76	ppm		98
44) 2-Methylnaphthalene	6.503	141	103175	5.39	ppm		95
45) 1-Methylnaphthalene	6.631	142	130708	5.46	ppm		97
46) Dimethylnaphthalene	7.358	156	116566	5.57	ppm		98
48) Hexachlorocyclopentadiene	6.722	237	74016	9.66	ppm		99
49) 2,4,6-Trichlorophenol	6.882	196	42257	5.35	ppm		96
50) 2,4,5-Trichlorophenol	6.925	196	43620	5.06	ppm		97
52) 2-Chloronaphthalene	7.149	162	126157	6.15	ppm		99
53) Biphenyl	7.133	154	158517	5.64	ppm		97
54) 2-Nitroaniline	7.304	65	30403	4.39	ppm		92
55) Dimethylphthalate	7.609	163	145142	5.33	ppm		98
56) Acenaphthylene	7.758	152	192037	5.61	ppm		98
57) 2,6-Dinitrotoluene	7.678	165	25057	4.10	ppm		95
58) 3-Nitroaniline	7.929	138	30026	4.31	ppm		91
59) Acenaphthene	8.041	153	113242	5.36	ppm		96
60) 2,4-Dinitrophenol	8.100	184	12104	3.90	ppm		89
61) 4-Nitrophenol	8.244	109	13988	3.61	ppm		94
62) Dibenzofuran	8.319	168	176984	5.84	ppm		95
63) 2,4-Dinitrotoluene	8.324	165	31453	4.27	ppm		78
64) 2,3,4,6-Tetrachlorophenol	8.543	232	40001	4.68	ppm		97
65) Diethylphthalate	8.789	149	139896	5.16	ppm		98
66) Fluorene	8.896	166	141985	5.49	ppm		99
67) 4-Chlorophenyl-phenyle...	8.939	204	75706	5.84	ppm		93
68) 4-Nitroaniline	8.944	138	30140	4.86	ppm		97
70) 4,6-Dinitro-2-methylph...	9.013	198	11641	2.54	ppm		88
71) n-Nitrosodiphenylamine	9.147	169	105291	5.72	ppm		99
72) 1,2-Diphenylhydrazine	9.206	77	141494	5.64	ppm		95
74) 4-Bromophenyl-phenylether	9.804	248	52386	5.37	ppm		98
75) Hexachlorobenzene	9.884	284	58771	5.76	ppm		95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6556\
Data File : m153406.D
Acq On : 12 Apr 2019 8:18 pm
Operator : christc2
Sample : ic6556-5
Misc : op17006,em6556,1000,,,1,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 15 10:29:22 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6556.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon Apr 15 10:27:56 2019
Response via : Initial Calibration

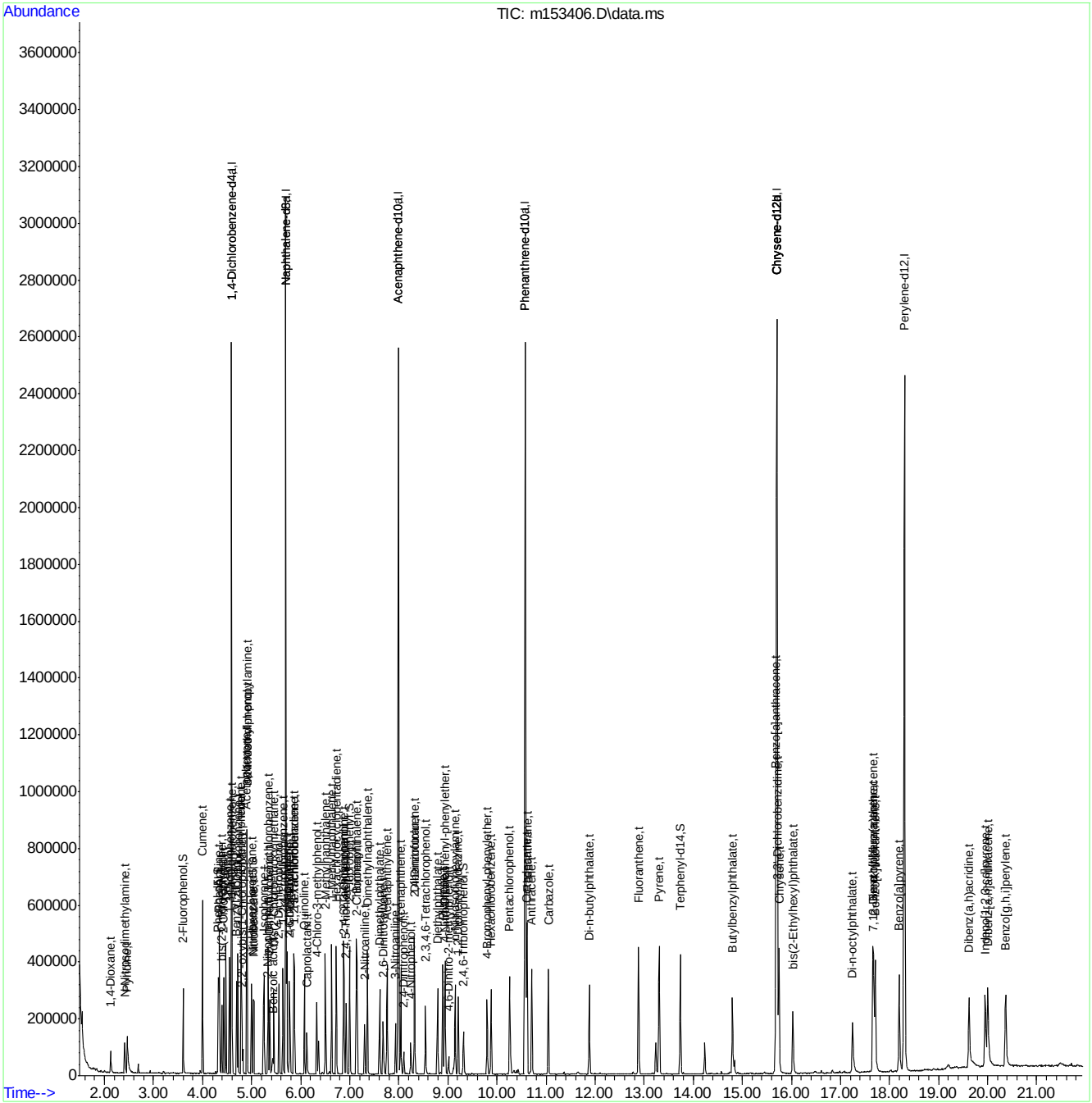
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
76) Pentachlorophenol	10.258	266	60539	8.98	ppm	96
77) Phenanthrene	10.616	178	194160	5.87	ppm	97
78) Anthracene	10.706	178	205982	5.67	ppm	99
79) Carbazole	11.048	167	198330	5.55	ppm	99
80) Di-n-butylphthalate	11.881	149	229812	4.98	ppm	99
81) Fluoranthene	12.886	202	258142	5.56	ppm	98
82) Octadecane	10.605	57	61435	5.41	ppm	98
84) Pyrene	13.302	202	270696	5.18	ppm	98
86) Butylbenzylphthalate	14.798	149	96861	4.06	ppm	98
87) Benzo[a]anthracene	15.684	228	241117	4.63	ppm	97
88) 3,3'-Dichlorobenzidine	15.722	252	74185	4.04	ppm	97
89) Chrysene	15.748	228	218513	5.05	ppm	99
90) bis(2-Ethylhexyl)phtha...	16.031	149	114005	3.77	ppm	96
92) Di-n-octylphthalate	17.244	149	180377	3.47	ppm	98
93) Benzo[b]fluoranthene	17.661	252	258950	5.09	ppm	99
94) Benzo[k]fluoranthene	17.709	252	249484	5.62	ppm	99
95) Benzo[a]pyrene	18.195	252	223126	4.83	ppm	98
96) Indeno[1,2,3-cd]pyrene	19.952	276	180234	4.26	ppm	97
97) Dibenz(a,h)acridine	19.621	279	182514	4.28	ppm	98
98) Dibenz[a,h]anthracene	20.005	278	207861	4.88	ppm	97
99) 7,12-Dimethylbenz(a)an...	17.677	256	76015	3.64	ppm	98
100) Benzo[g,h,i]perylene	20.368	276	206161	4.81	ppm	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6556\
Data File : m153406.D
Acq On : 12 Apr 2019 8:18 pm
Operator : christc2
Sample : ic6556-5
Misc : op17006,em6556,1000,,,1,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 15 10:29:22 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6556.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon Apr 15 10:27:56 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6556\
Data File : m153407.D
Acq On : 12 Apr 2019 8:46 pm
Operator : christc2
Sample : ic6556-2
Misc : op17006,em6556,1000,,,1,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Apr 15 12:01:23 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6556.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon Apr 15 10:27:56 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.586	152	321302	40.00	ppm	0.00
24) Naphthalene-d8	5.697	136	1086613	40.00	ppm	0.00
47) Acenaphthene-d10	7.989	164	624876	40.00	ppm	0.00
69) Phenanthrene-d10	10.574	188	1221213	40.00	ppm	0.00
83) Chrysene-d12	15.701	240	1187922	40.00	ppm	-0.01
91) Perylene-d12	18.302	264	1279525	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.586	152	321302	40.00	ppm	0.00
103) Acenaphthene-d10a	7.989	164	624876	40.00	ppm	0.00
106) Chrysene-d12a	15.701	240	1187922	40.00	ppm	-0.01
108) Chrysene-d12b	15.701	240	1187922	40.00	ppm	-0.01
110) Phenanthrene-d10a	10.574	188	1221213	40.00	ppm	0.00
113) Naphthalene-d8a	5.697	136	1086613	40.00	ppm	0.00
115) Chrysene-d12c	15.701	240	1187922	40.00	ppm	-0.01
System Monitoring Compounds						
5) 2-Fluorophenol	3.604	112	22357	1.64	ppm	0.00
Spiked Amount 50.000			Recovery =	3.28%		
8) Phenol-d5	4.319	99	28291	1.72	ppm	0.00
Spiked Amount 50.000			Recovery =	3.44%		
25) Nitrobenzene-d5	5.030	82	21979	1.89	ppm	0.00
Spiked Amount 50.000			Recovery =	3.78%		
51) 2-Fluorobiphenyl	7.001	172	51123	2.38	ppm	0.00
Spiked Amount 50.000			Recovery =	4.76%		
73) 2,4,6-Tribromophenol	9.313	330	6411	1.42	ppm	-0.01
Spiked Amount 50.000			Recovery =	2.84%		
85) Terphenyl-d14	13.736	244	60854	1.86	ppm	0.00
Spiked Amount 50.000			Recovery =	3.72%		
109) 1-chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
111) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
Target Compounds						Qvalue
2) 1,4-Dioxane	2.130	88	11381	1.70	ppm	90
3) Pyridine	2.482	79	27623	1.73	ppm	97
4) N-Nitrosodimethylamine	2.418	42	9815	1.68	ppm	93
6) Indene	4.789	116	35295	2.15	ppm	94
7) Cumene	3.999	105	60597	2.04	ppm	96
9) Phenol	4.330	94	32262	1.98	ppm	97
10) Aniline	4.341	93	35832	2.55	ppm	96
11) bis(2-Chloroethyl)ether	4.389	93	23172	2.11	ppm	94
12) 2-Chlorophenol	4.432	128	21560	1.90	ppm	92
13) Decane	4.480	43	18451	2.32	ppm	96
14) 1,3-Dichlorobenzene	4.549	146	27382	2.15	ppm	99
15) 1,4-Dichlorobenzene	4.602	146	24815	2.11	ppm	96
16) Benzyl alcohol	4.693	108	11499	1.61	ppm	97
17) 1,2-Dichlorobenzene	4.720	146	23744	2.04	ppm	98
18) Acetophenone	4.902	105	30620	2.18	ppm	97
19) 2-Methylphenol	4.784	108	18590	2.02	ppm	94

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6556\
Data File : m153407.D
Acq On : 12 Apr 2019 8:46 pm
Operator : christc2
Sample : ic6556-2
Misc : op17006,em6556,1000,,,1,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Apr 15 12:01:23 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6556.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon Apr 15 10:27:56 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
20) 2,2'-oxybis(1-Chloropr...	4.805	121	5582	1.95	ppm		97
21) 3&4-Methylphenol	4.907	108	18888	2.02	ppm		85
22) n-Nitroso-di-n-propyla...	4.907	70	15794	2.30	ppm		93
23) Hexachloroethane	4.998	201	9876	1.96	ppm		92
26) Nitrobenzene	5.040	77	22994	2.08	ppm		97
27) Quinoline	6.077	129	39477	1.87	ppm		99
28) Isophorone	5.254	82	41790	1.98	ppm		96
29) 2-Nitrophenol	5.329	139	8483	1.45	ppm		93
30) 2,4-Dimethylphenol	5.366	107	14556	1.54	ppm		98
32) bis(2-Chloroethoxy)met...	5.452	93	25887	2.09	ppm		99
33) 2,4-Dichlorophenol	5.553	162	17282	1.88	ppm		98
34) 2,6-Dichlorophenol	5.783	162	16133	1.96	ppm		99
35) 1,3,5-Trichlorobenzene	5.340	180	24781	2.34	ppm		96
36) 1,2,4-Trichlorobenzene	5.639	180	23847	2.25	ppm		93
37) 1,2,3-Trichlorobenzene	5.874	180	21881	2.30	ppm		95
38) Naphthalene	5.719	128	53779	2.07	ppm		96
39) 4-Chloroaniline	5.772	127	24490	2.08	ppm		99
40) 2,3-Dichloroaniline	6.872	161	23482	2.07	ppm		98
41) Caprolactam	6.119	55	7211	1.60	ppm		86
42) Hexachlorobutadiene	5.858	225	13305	2.10	ppm		97
43) 4-Chloro-3-methylphenol	6.322	107	16880	1.67	ppm		92
44) 2-Methylnaphthalene	6.504	141	33355	2.00	ppm		98
45) 1-Methylnaphthalene	6.627	142	44650	2.14	ppm		95
46) Dimethylnaphthalene	7.358	156	38554	2.11	ppm		99
48) Hexachlorocyclopentadiene	6.723	237	21743	3.36	ppm		93
49) 2,4,6-Trichlorophenol	6.878	196	13988	2.10	ppm		93
50) 2,4,5-Trichlorophenol	6.920	196	14693	2.02	ppm		89
52) 2-Chloronaphthalene	7.150	162	43258	2.50	ppm		98
53) Biphenyl	7.134	154	53685	2.26	ppm		98
54) 2-Nitroaniline	7.300	65	7430	1.27	ppm		92
55) Dimethylphthalate	7.604	163	47572	2.07	ppm		99
56) Acenaphthylene	7.759	152	62856	2.18	ppm		97
57) 2,6-Dinitrotoluene	7.679	165	6502	1.26	ppm		97
58) 3-Nitroaniline	7.930	138	8052	1.37	ppm		75
59) Acenaphthene	8.037	153	36991	2.07	ppm		96
60) 2,4-Dinitrophenol	8.101	184	2307	0.88	ppm		86
62) Dibenzofuran	8.320	168	59165	2.31	ppm		97
63) 2,4-Dinitrotoluene	8.320	165	7001	1.13	ppm	#	48
64) 2,3,4,6-Tetrachlorophenol	8.544	232	11072	1.54	ppm		96
65) Diethylphthalate	8.785	149	44675	1.95	ppm		96
66) Fluorene	8.897	166	47360	2.17	ppm		98
67) 4-Chlorophenyl-phenyle...	8.934	204	25071	2.29	ppm		94
68) 4-Nitroaniline	8.945	138	8066	1.54	ppm		94
70) 4,6-Dinitro-2-methylph...	9.014	198	2444	0.63	ppm		97
71) n-Nitrosodiphenylamine	9.142	169	33425	2.15	ppm		97
72) 1,2-Diphenylhydrazine	9.206	77	45557	2.16	ppm		99
74) 4-Bromophenyl-phenylether	9.799	248	16693	2.03	ppm		91
75) Hexachlorobenzene	9.879	284	20541	2.39	ppm		90
76) Pentachlorophenol	10.259	266	13876	2.44	ppm		97
77) Phenanthrene	10.611	178	66733	2.40	ppm		97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6556\
Data File : m153407.D
Acq On : 12 Apr 2019 8:46 pm
Operator : christc2
Sample : ic6556-2
Misc : op17006,em6556,1000,,,1,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Apr 15 12:01:23 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6556.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon Apr 15 10:27:56 2019
Response via : Initial Calibration

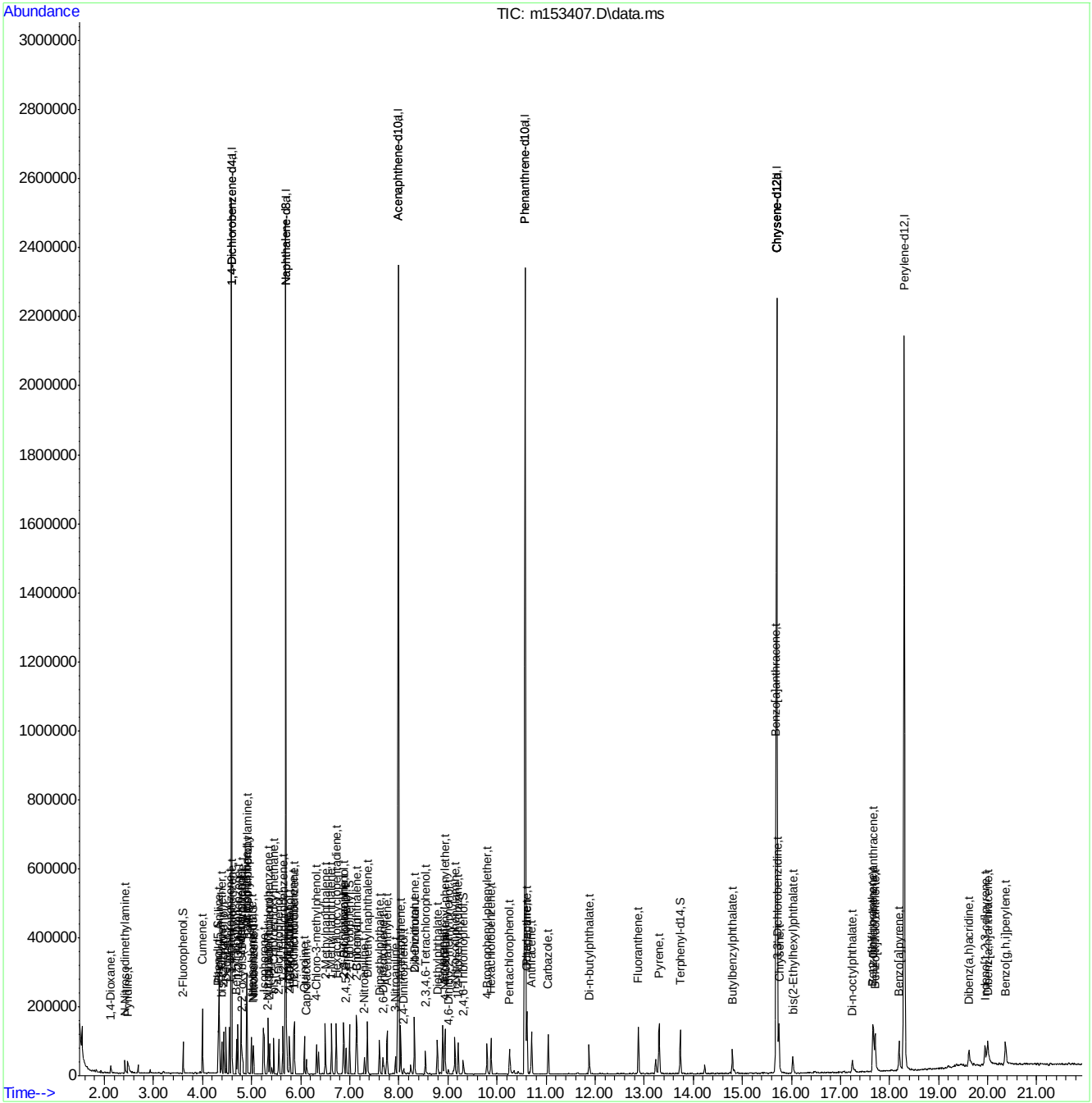
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
78) Anthracene	10.707	178	66921	2.18	ppm	98
79) Carbazole	11.044	167	61545	2.04	ppm	99
80) Di-n-butylphthalate	11.877	149	64886	1.67	ppm	98
81) Fluoranthene	12.881	202	79743	2.04	ppm	97
82) Octadecane	10.606	57	19409	2.03	ppm	93
84) Pyrene	13.303	202	86090	1.97	ppm	97
86) Butylbenzylphthalate	14.799	149	25053	1.26	ppm	91
87) Benzo[a]anthracene	15.685	228	73939	1.70	ppm	97
88) 3,3'-Dichlorobenzidine	15.723	252	19312	1.26	ppm	96
89) Chrysene	15.749	228	72902	2.02	ppm	98
90) bis(2-Ethylhexyl)phtha...	16.032	149	25473	1.01	ppm	97
92) Di-n-octylphthalate	17.239	149	37963	0.88	ppm	97
93) Benzo[b]fluoranthene	17.656	252	71309	1.69	ppm	97
94) Benzo[k]fluoranthene	17.704	252	81842	2.22	ppm	98
95) Benzo[a]pyrene	18.195	252	61108	1.59	ppm	96
96) Indeno[1,2,3-cd]pyrene	19.947	276	44478	1.26	ppm	98
97) Dibenz(a,h)acridine	19.622	279	45973	1.30	ppm	80
98) Dibenz[a,h]anthracene	20.001	278	52605	1.48	ppm	98
99) 7,12-Dimethylbenz(a)an...	17.672	256	22406	1.29	ppm	99
100) Benzo[g,h,i]perylene	20.364	276	56491	1.58	ppm	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6556\
Data File : m153407.D
Acq On : 12 Apr 2019 8:46 pm
Operator : christc2
Sample : ic6556-2
Misc : op17006,em6556,1000,,,1,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Apr 15 12:01:23 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6556.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon Apr 15 10:27:56 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6556\
Data File : m153408.D
Acq On : 12 Apr 2019 9:15 pm
Operator : christc2
Sample : ic6556-1
Misc : op17006,em6556,1000,,,1,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Apr 15 12:02:52 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6556.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon Apr 15 10:27:56 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.588	152	361595	40.00	ppm	0.00
24) Naphthalene-d8	5.694	136	1234210	40.00	ppm	0.00
47) Acenaphthene-d10	7.991	164	719774	40.00	ppm	0.00
69) Phenanthrene-d10	10.576	188	1399253	40.00	ppm	0.00
83) Chrysene-d12	15.703	240	1374109	40.00	ppm	0.00
91) Perylene-d12	18.304	264	1498240	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.588	152	361595	40.00	ppm	0.00
103) Acenaphthene-d10a	7.991	164	719774	40.00	ppm	0.00
106) Chrysene-d12a	15.703	240	1374109	40.00	ppm	0.00
108) Chrysene-d12b	15.703	240	1374109	40.00	ppm	0.00
110) Phenanthrene-d10a	10.576	188	1399253	40.00	ppm	0.00
113) Naphthalene-d8a	5.694	136	1234210	40.00	ppm	0.00
115) Chrysene-d12c	15.703	240	1374109	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	3.606	112	12086	0.79	ppm	0.00
Spiked Amount 50.000			Recovery =	1.58%		
8) Phenol-d5	4.321	99	16302	0.88	ppm	0.00
Spiked Amount 50.000			Recovery =	1.76%		
25) Nitrobenzene-d5	5.026	82	13024	0.99	ppm	0.00
Spiked Amount 50.000			Recovery =	1.98%		
51) 2-Fluorobiphenyl	6.997	172	29626	1.20	ppm	0.00
Spiked Amount 50.000			Recovery =	2.40%		
73) 2,4,6-Tribromophenol	9.321	330	3925	0.76	ppm	0.00
Spiked Amount 50.000			Recovery =	1.52%		
85) Terphenyl-d14	13.732	244	35772	0.94	ppm	0.00
Spiked Amount 50.000			Recovery =	1.88%		
109) 1-chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
111) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
Target Compounds						Qvalue
2) 1,4-Dioxane	2.137	88	6820	0.90	ppm	93
3) Pyridine	2.489	79	14453	0.80	ppm	97
4) N-Nitrosodimethylamine	2.425	42	5387	0.82	ppm	95
6) Indene	4.791	116	21025	1.14	ppm	94
7) Cumene	3.995	105	34265	1.02	ppm	99
9) Phenol	4.332	94	18877	1.03	ppm	95
10) Aniline	4.343	93	20382	1.29	ppm	95
11) bis(2-Chloroethyl)ether	4.391	93	13058	1.06	ppm	98
12) 2-Chlorophenol	4.433	128	11977	0.94	ppm	94
13) Decane	4.476	43	10763	1.20	ppm	96
14) 1,3-Dichlorobenzene	4.546	146	15906	1.11	ppm	97
15) 1,4-Dichlorobenzene	4.599	146	13381	1.01	ppm	94
16) Benzyl alcohol	4.695	108	7183	0.90	ppm	88
17) 1,2-Dichlorobenzene	4.722	146	13810	1.05	ppm	99
18) Acetophenone	4.903	105	18563	1.18	ppm	97
19) 2-Methylphenol	4.786	108	11075	1.07	ppm	88

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6556\
Data File : m153408.D
Acq On : 12 Apr 2019 9:15 pm
Operator : christc2
Sample : ic6556-1
Misc : op17006,em6556,1000,,,1,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Apr 15 12:02:52 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6556.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon Apr 15 10:27:56 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
20) 2,2'-oxybis(1-Chloropr...	4.802	121	3806	1.18	ppm		95
21) 3&4-Methylphenol	4.903	108	10956	1.04	ppm	#	58
22) n-Nitroso-di-n-propyla...	4.903	70	8960	1.16	ppm		88
23) Hexachloroethane	4.994	201	5686	1.00	ppm		89
26) Nitrobenzene	5.042	77	12725	1.01	ppm		99
27) Quinoline	6.073	129	22674	0.95	ppm		93
28) Isophorone	5.251	82	23667	0.99	ppm		96
29) 2-Nitrophenol	5.325	139	4443	0.67	ppm		98
30) 2,4-Dimethylphenol	5.368	107	7754	0.72	ppm		85
32) bis(2-Chloroethoxy)met...	5.454	93	15522	1.10	ppm		99
33) 2,4-Dichlorophenol	5.555	162	10227	0.98	ppm		94
34) 2,6-Dichlorophenol	5.785	162	8877	0.95	ppm		96
35) 1,3,5-Trichlorobenzene	5.341	180	14638	1.22	ppm		90
36) 1,2,4-Trichlorobenzene	5.641	180	13384	1.11	ppm		94
37) 1,2,3-Trichlorobenzene	5.870	180	13641	1.26	ppm		90
38) Naphthalene	5.715	128	32776	1.11	ppm		97
39) 4-Chloroaniline	5.769	127	13320	1.00	ppm		94
40) 2,3-Dichloroaniline	6.874	161	12827	0.99	ppm		99
41) Caprolactam	6.116	55	3769	0.74	ppm		84
42) Hexachlorobutadiene	5.860	225	8056	1.12	ppm		94
43) 4-Chloro-3-methylphenol	6.324	107	8832	0.77	ppm		97
44) 2-Methylnaphthalene	6.506	141	20018	1.06	ppm		96
45) 1-Methylnaphthalene	6.629	142	26361	1.11	ppm		96
46) Dimethylnaphthalene	7.360	156	21537	1.04	ppm		94
48) Hexachlorocyclopentadiene	6.725	237	12043	1.62	ppm		95
49) 2,4,6-Trichlorophenol	6.880	196	7522	0.98	ppm		88
50) 2,4,5-Trichlorophenol	6.928	196	7962	0.95	ppm		80
52) 2-Chloronaphthalene	7.152	162	25386	1.27	ppm		94
53) Biphenyl	7.136	154	31420	1.15	ppm		95
54) 2-Nitroaniline	7.302	65	4564	0.68	ppm		90
55) Dimethylphthalate	7.606	163	28427	1.07	ppm		98
56) Acenaphthylene	7.761	152	36620	1.10	ppm		98
57) 2,6-Dinitrotoluene	7.681	165	3512	0.59	ppm		85
59) Acenaphthene	8.039	153	21927	1.07	ppm		94
62) Dibenzofuran	8.322	168	33666	1.14	ppm		97
63) 2,4-Dinitrotoluene	8.322	165	4112	0.57	ppm	#	48
64) 2,3,4,6-Tetrachlorophenol	8.541	232	5257	0.63	ppm		94
65) Diethylphthalate	8.786	149	25405	0.97	ppm		98
66) Fluorene	8.899	166	28200	1.12	ppm		96
67) 4-Chlorophenyl-phenyle...	8.936	204	15259	1.21	ppm		97
68) 4-Nitroaniline	8.941	138	4000	0.66	ppm		92
71) n-Nitrosodiphenylamine	9.144	169	19772	1.11	ppm		97
72) 1,2-Diphenylhydrazine	9.208	77	26698	1.10	ppm		83
74) 4-Bromophenyl-phenylether	9.801	248	10051	1.07	ppm		96
75) Hexachlorobenzene	9.881	284	12007	1.22	ppm		90
77) Phenanthrene	10.613	178	39852	1.25	ppm		99
78) Anthracene	10.709	178	37676	1.07	ppm		98
79) Carbazole	11.046	167	34716	1.01	ppm		94
80) Di-n-butylphthalate	11.879	149	35987	0.81	ppm		94
81) Fluoranthene	12.883	202	46006	1.03	ppm		96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6556\
Data File : m153408.D
Acq On : 12 Apr 2019 9:15 pm
Operator : christc2
Sample : ic6556-1
Misc : op17006,em6556,1000,,,1,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Apr 15 12:02:52 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6556.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon Apr 15 10:27:56 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
82) Octadecane	10.602	57	11357	1.04	ppm	89
84) Pyrene	13.305	202	49946	0.99	ppm	96
87) Benzo[a]anthracene	15.687	228	44818	0.89	ppm	98
89) Chrysene	15.746	228	42317	1.01	ppm	99
93) Benzo[b]fluoranthene	17.658	252	37401	0.76	ppm	99
94) Benzo[k]fluoranthene	17.706	252	46383	1.07	ppm	99
95) Benzo[a]pyrene	18.197	252	33232	0.74	ppm	98
96) Indeno[1,2,3-cd]pyrene	19.944	276	22073	0.54	ppm	84
98) Dibenz[a,h]anthracene	19.997	278	26530	0.64	ppm	87
100) Benzo[g,h,i]perylene	20.366	276	31660	0.76	ppm	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

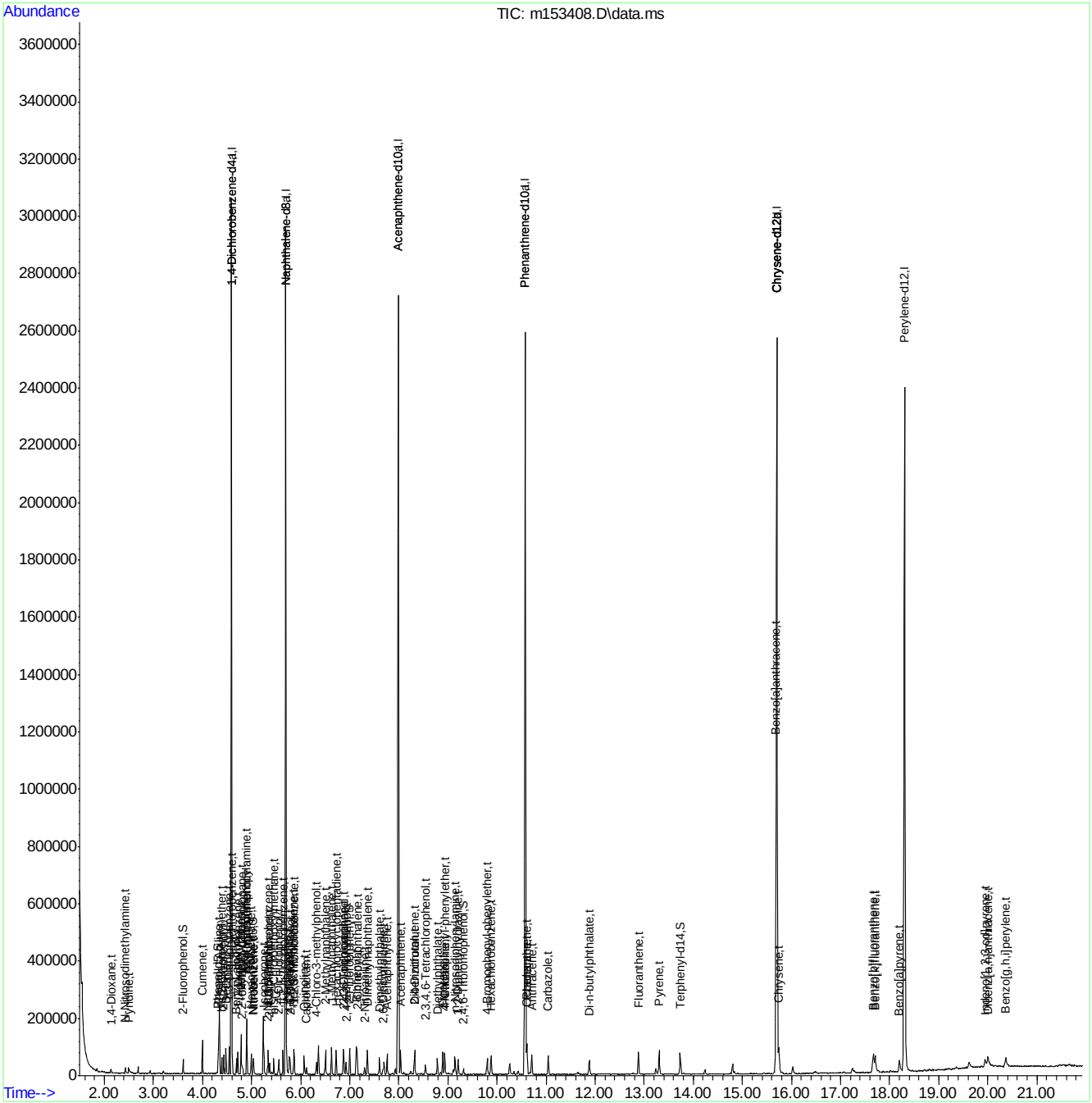
9.6.43

9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6556\
Data File : m153408.D
Acq On : 12 Apr 2019 9:15 pm
Operator : christc2
Sample : ic6556-1
Misc : op17006,em6556,1000,,,1,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Apr 15 12:02:52 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6556.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon Apr 15 10:27:56 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6556\
Data File : m153409.D
Acq On : 12 Apr 2019 9:43 pm
Operator : christc2
Sample : icv6556-50
Misc : op17006,em6556,1000,,,1,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Apr 15 11:54:31 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6556.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon Apr 15 11:19:20 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.590	152	255989	40.00	ppm	0.00
24) Naphthalene-d8	5.696	136	854763	40.00	ppm	0.00
47) Acenaphthene-d10	7.993	164	517248	40.00	ppm	0.00
69) Phenanthrene-d10	10.572	188	1007716	40.00	ppm	0.00
83) Chrysene-d12	15.705	240	815608	40.00	ppm	0.00
91) Perylene-d12	18.301	264	903170	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.590	152	255989	40.00	ppm	0.00
103) Acenaphthene-d10a	7.993	164	517248	40.00	ppm	0.00
106) Chrysene-d12a	15.705	240	815608	40.00	ppm	0.00
108) Chrysene-d12b	15.705	240	815608	40.00	ppm	0.00
110) Phenanthrene-d10a	10.572	188	1007716	40.00	ppm	0.00
113) Naphthalene-d8a	5.696	136	854763	40.00	ppm	0.00
115) Chrysene-d12c	15.705	240	815608	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
109) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
111) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
Target Compounds						Qvalue
4) N-Nitrosodimethylamine	2.422	42	180752	41.67	ppm	95
11) bis(2-Chloroethyl)ether	4.393	93	459749	51.17	ppm	96
14) 1,3-Dichlorobenzene	4.548	146	485227	46.81	ppm	99
15) 1,4-Dichlorobenzene	4.601	146	442586	47.02	ppm	98
17) 1,2-Dichlorobenzene	4.719	146	431561	46.33	ppm	98
20) 2,2'-oxybis(1-Chloropr...	4.804	121	128350	55.26	ppm	96
22) n-Nitroso-di-n-propyla...	4.906	70	301654	51.35	ppm	97
23) Hexachloroethane	4.996	201	179100	45.04	ppm	97
26) Nitrobenzene	5.044	77	398131	44.97	ppm	96
28) Isophorone	5.253	82	755092	45.71	ppm	100
32) bis(2-Chloroethoxy)met...	5.456	93	489120	48.81	ppm	100
36) 1,2,4-Trichlorobenzene	5.643	180	410184	47.19	ppm	98
38) Naphthalene	5.717	128	989343	47.27	ppm	100
42) Hexachlorobutadiene	5.862	225	249878	48.24	ppm	99
48) Hexachlorocyclopentadiene	6.727	237	243786	48.47	ppm	100
52) 2-Chloronaphthalene	7.154	162	760150	47.77	ppm	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6556\
Data File : m153409.D
Acq On : 12 Apr 2019 9:43 pm
Operator : christc2
Sample : icv6556-50
Misc : op17006,em6556,1000,,,1,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Apr 15 11:54:31 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6556.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon Apr 15 11:19:20 2019
Response via : Initial Calibration

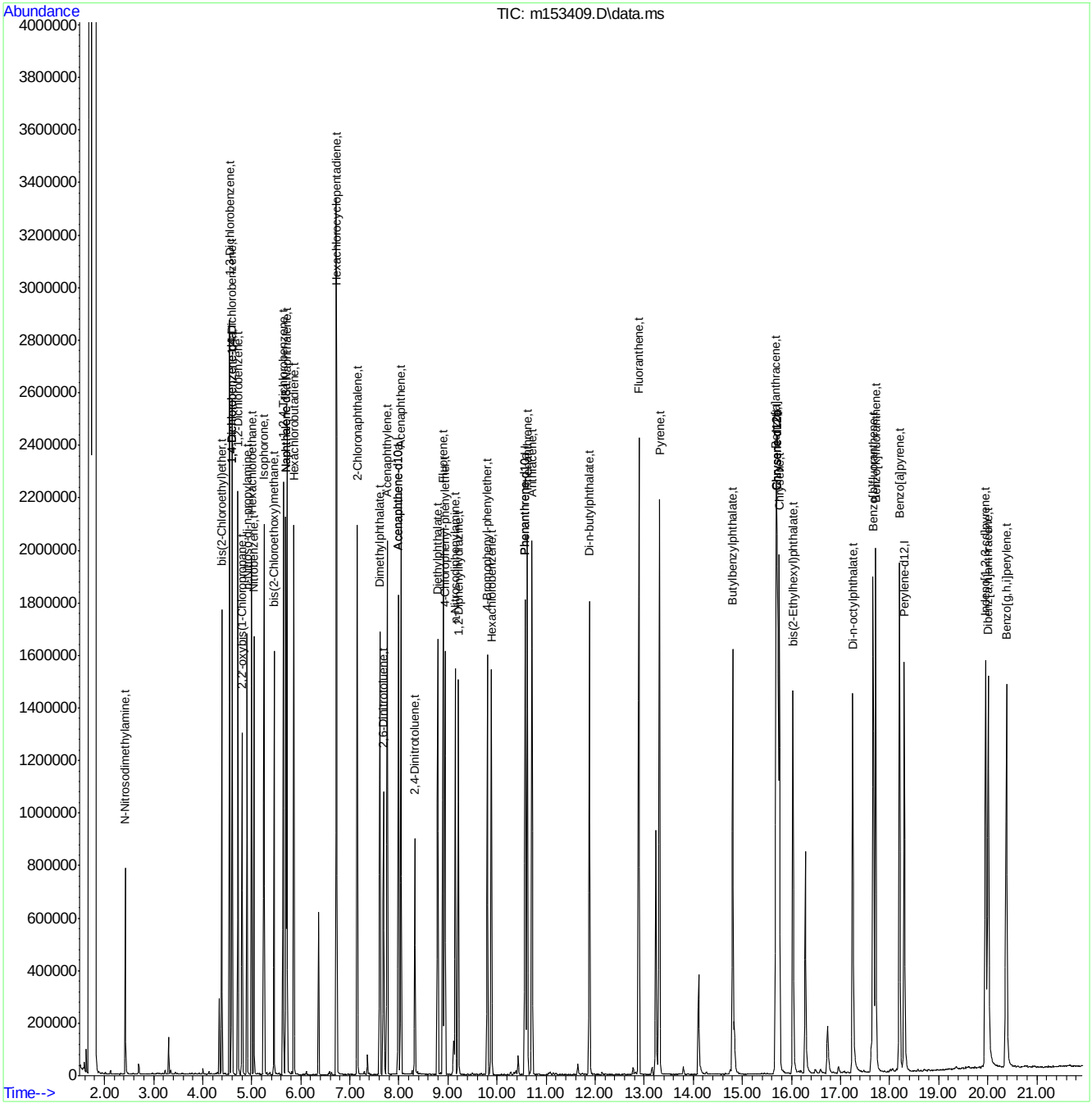
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
55) Dimethylphthalate	7.613	163	861945	44.34	ppm	99
56) Acenaphthylene	7.763	152	1066980	42.70	ppm	99
57) 2,6-Dinitrotoluene	7.683	165	158034	43.40	ppm	93
59) Acenaphthene	8.041	153	642939	42.50	ppm	96
63) 2,4-Dinitrotoluene	8.329	165	196523	38.32	ppm	89
65) Diethylphthalate	8.794	149	829797	44.17	ppm	99
66) Fluorene	8.901	166	816843	43.52	ppm	99
67) 4-Chlorophenyl-phenyle...	8.938	204	406549	41.70	ppm	98
71) n-Nitrosodiphenylamine	9.152	169	560669	41.85	ppm	98
72) 1,2-Diphenylhydrazine	9.210	77	798413	43.46	ppm	100
74) 4-Bromophenyl-phenylether	9.803	248	309156	44.93	ppm	94
75) Hexachlorobenzene	9.889	284	319865	41.86	ppm	99
77) Phenanthrene	10.621	178	1138336	45.56	ppm	99
78) Anthracene	10.711	178	1163645	44.21	ppm	99
80) Di-n-butylphthalate	11.881	149	1391234	45.65	ppm	100
81) Fluoranthene	12.890	202	1438085	43.54	ppm	98
84) Pyrene	13.312	202	1383124	46.31	ppm	99
86) Butylbenzylphthalate	14.803	149	607124	49.50	ppm	99
87) Benzo[a]anthracene	15.689	228	1317427	47.18	ppm	100
89) Chrysene	15.753	228	1110896	44.75	ppm	98
90) bis(2-Ethylhexyl)phtha...	16.031	149	750962	45.23	ppm	99
92) Di-n-octylphthalate	17.249	149	1325247	44.04	ppm	100
93) Benzo[b]fluoranthene	17.665	252	1307739	45.96	ppm	98
94) Benzo[k]fluoranthene	17.719	252	1275584	47.10	ppm	99
95) Benzo[a]pyrene	18.205	252	1254031	50.21	ppm	99
96) Indeno[1,2,3-cd]pyrene	19.957	276	1156959	46.70	ppm	99
98) Dibenz[a,h]anthracene	20.015	278	1088531	47.29	ppm	98
100) Benzo[g,h,i]perylene	20.384	276	1210960	51.12	ppm	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6556\
Data File : m153409.D
Acq On : 12 Apr 2019 9:43 pm
Operator : christc2
Sample : icv6556-50
Misc : op17006,em6556,1000,,,1,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Apr 15 11:54:31 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6556.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon Apr 15 11:19:20 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6556\
Data File : m153410.D
Acq On : 12 Apr 2019 10:12 pm
Operator : christc2
Sample : icv6556-50
Misc : op17006,em6556,1000,,,1,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Apr 15 11:34:08 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6556.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon Apr 15 11:20:55 2019
Response via : Initial Calibration

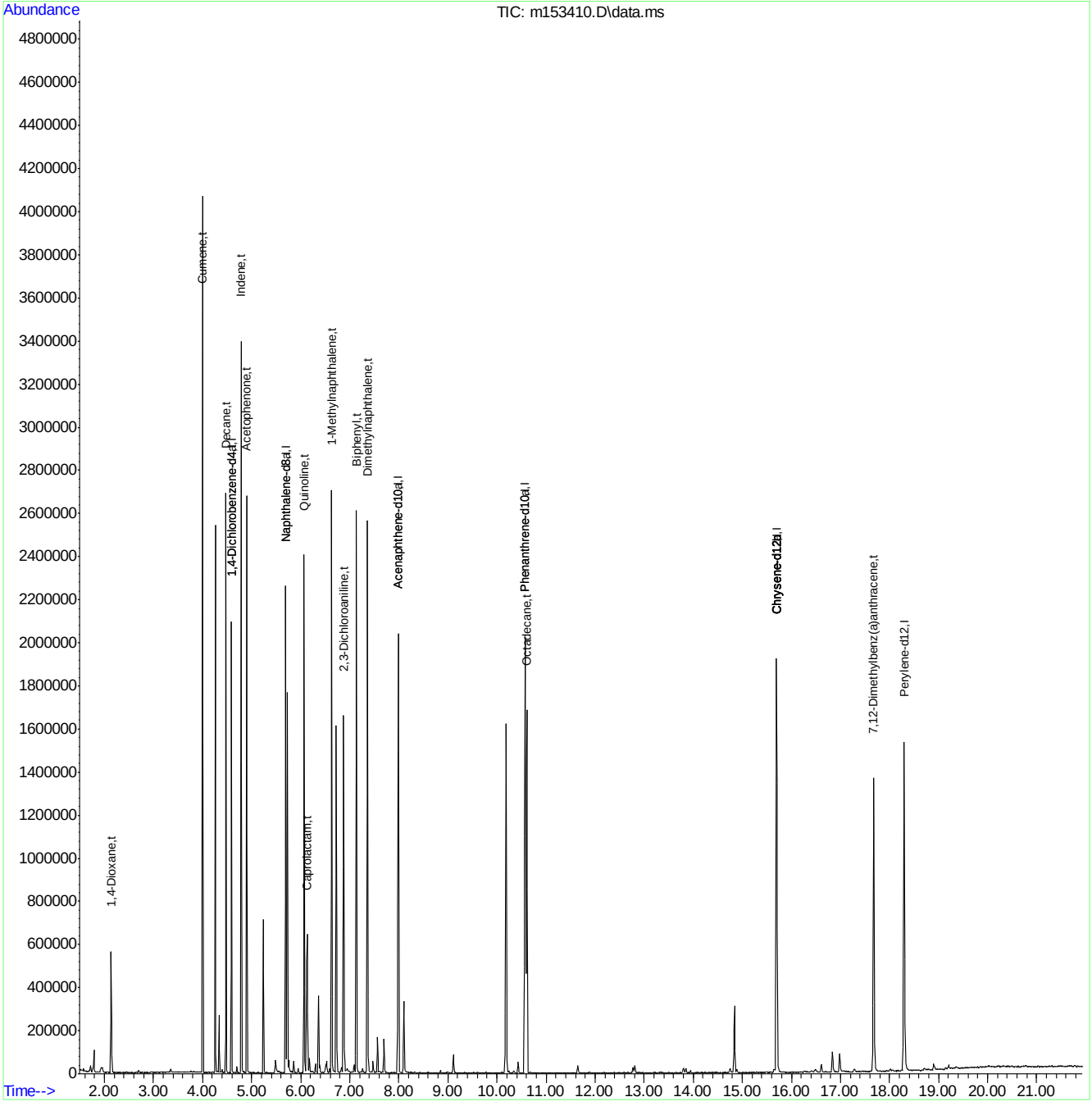
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.587	152	272197	40.00	ppm	0.00
24) Naphthalene-d8	5.698	136	1002860	40.00	ppm	0.00
47) Acenaphthene-d10	7.989	164	520748	40.00	ppm	0.00
69) Phenanthrene-d10	10.574	188	1073176	40.00	ppm	0.00
83) Chrysene-d12	15.696	240	1083311	40.00	ppm	-0.02
91) Perylene-d12	18.303	264	923549	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.587	152	272197	40.00	ppm	0.00
103) Acenaphthene-d10a	7.989	164	520748	40.00	ppm	0.00
106) Chrysene-d12a	15.696	240	1083311	40.00	ppm	-0.02
108) Chrysene-d12b	15.696	240	1083311	40.00	ppm	-0.02
110) Phenanthrene-d10a	10.574	188	1073176	40.00	ppm	0.00
113) Naphthalene-d8a	5.698	136	1002860	40.00	ppm	0.00
115) Chrysene-d12c	15.696	240	1083311	40.00	ppm	-0.02
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
109) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
111) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
Target Compounds						Qvalue
2) 1,4-Dioxane	2.135	88	227785	42.30	ppm	98
6) Indene	4.790	116	764954	53.15	ppm	97
7) Cumene	3.999	105	1126025	44.28	ppm	99
13) Decane	4.480	43	312181	43.08	ppm	98
18) Acetophenone	4.902	105	581613	46.44	ppm	88
27) Quinoline	6.072	129	812753	42.78	ppm	99
40) 2,3-Dichloroaniline	6.873	161	409589	38.51	ppm	97
41) Caprolactam	6.136	55	144688	37.48	ppm	97
45) 1-Methylnaphthalene	6.632	142	799685	40.40	ppm	99
46) Dimethylnaphthalene	7.364	156	722174	41.91	ppm	99
53) Biphenyl	7.134	154	980730	46.88	ppm	99
82) Octadecane	10.606	57	421400	48.92	ppm	99
99) 7,12-Dimethylbenz(a)an...	17.678	256	447153	40.08	ppm	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6556\
Data File : m153410.D
Acq On : 12 Apr 2019 10:12 pm
Operator : christc2
Sample : icv6556-50
Misc : op17006,em6556,1000,,,1,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Apr 15 11:34:08 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6556.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon Apr 15 11:20:55 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6556\
Data File : m153411.D
Acq On : 12 Apr 2019 10:40 pm
Operator : christc2
Sample : icv6556-50
Misc : op17006,em6556,1000,,,1,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Apr 15 11:40:43 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6556.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon Apr 15 11:38:00 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.586	152	264730	40.00	ppm	0.00
24) Naphthalene-d8	5.697	136	863210	40.00	ppm	0.00
47) Acenaphthene-d10	7.989	164	533118	40.00	ppm	0.00
69) Phenanthrene-d10	10.574	188	960221	40.00	ppm	0.00
83) Chrysene-d12	15.696	240	910115	40.00	ppm	-0.02
91) Perylene-d12	18.297	264	931035	40.00	ppm	-0.01
101) 1,4-Dichlorobenzene-d4a	4.586	152	264730	40.00	ppm	0.00
103) Acenaphthene-d10a	7.989	164	533118	40.00	ppm	0.00
106) Chrysene-d12a	15.696	240	910115	40.00	ppm	-0.02
108) Chrysene-d12b	15.696	240	910115	40.00	ppm	-0.02
110) Phenanthrene-d10a	10.574	188	960221	40.00	ppm	0.00
113) Naphthalene-d8a	5.697	136	863210	40.00	ppm	0.00
115) Chrysene-d12c	15.696	240	910115	40.00	ppm	-0.02
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
109) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
111) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
Target Compounds						Qvalue
9) Phenol	4.335	94	657793	48.97	ppm	89
12) 2-Chlorophenol	4.432	128	463052	50.18	ppm	94
19) 2-Methylphenol	4.784	108	409886	52.76	ppm	98
21) 3&4-Methylphenol	4.907	108	421160	53.92	ppm	98
29) 2-Nitrophenol	5.329	139	230378	55.70	ppm	92
30) 2,4-Dimethylphenol	5.366	107	401819	58.67	ppm	98
31) Benzoic acid	5.478	105	259004	47.58	ppm	97
33) 2,4-Dichlorophenol	5.553	162	354984	49.43	ppm	97
34) 2,6-Dichlorophenol	5.783	162	349388	53.67	ppm	98
43) 4-Chloro-3-methylphenol	6.322	107	374639	50.41	ppm	99
49) 2,4,6-Trichlorophenol	6.883	196	311464	53.97	ppm	99
50) 2,4,5-Trichlorophenol	6.926	196	297762	48.07	ppm	95
60) 2,4-Dinitrophenol	8.101	184	73751	37.76	ppm	89
61) 4-Nitrophenol	8.250	109	114332	44.50	ppm	97
64) 2,3,4,6-Tetrachlorophenol	8.544	232	267965	48.31	ppm	95
70) 4,6-Dinitro-2-methylph...	9.014	198	140324	46.69	ppm	95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6556\
Data File : m153411.D
Acq On : 12 Apr 2019 10:40 pm
Operator : christc2
Sample : icv6556-50
Misc : op17006,em6556,1000,,,1,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Apr 15 11:40:43 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6556.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon Apr 15 11:38:00 2019
Response via : Initial Calibration

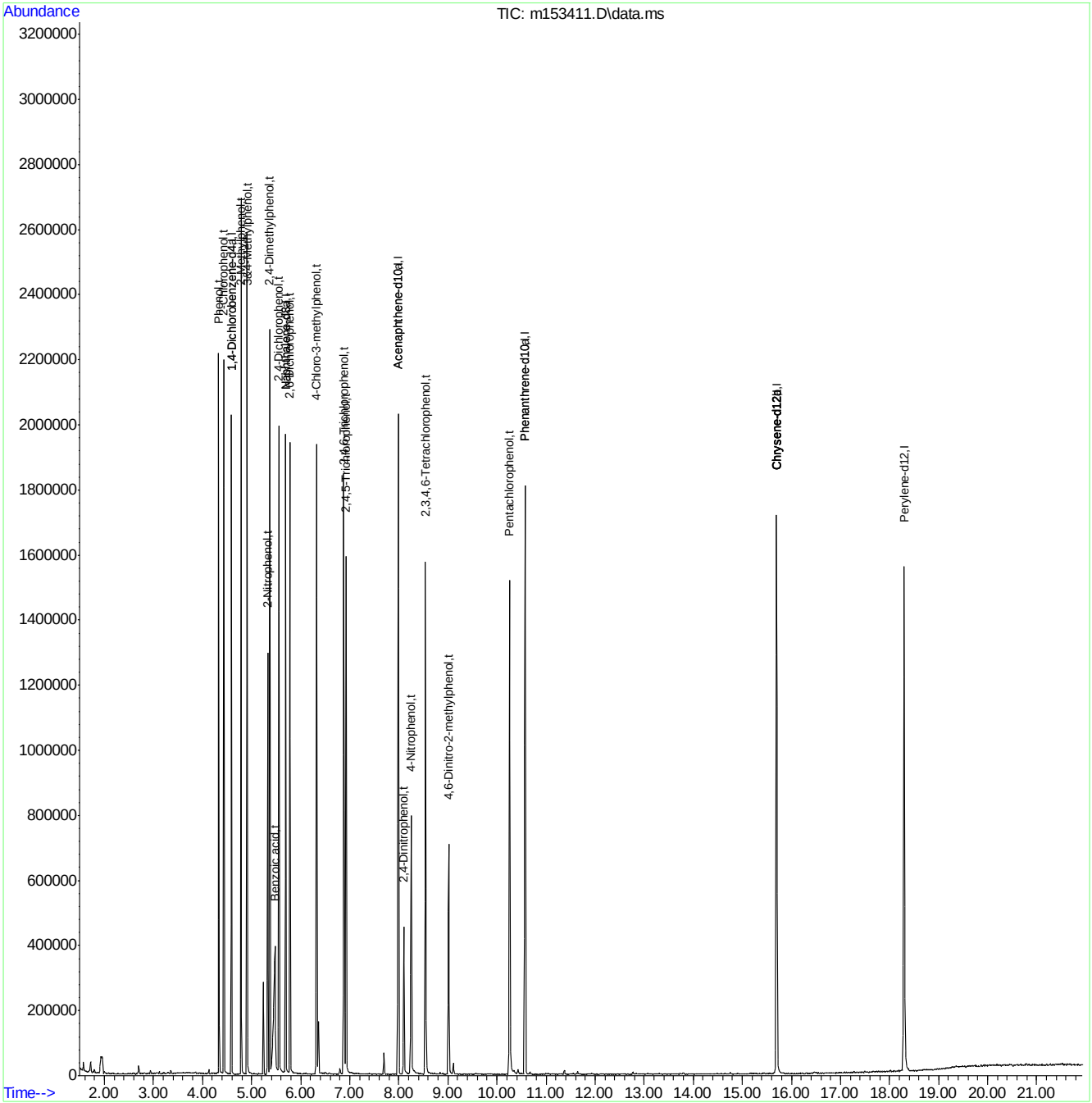
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
76) Pentachlorophenol	10.259	266	259692	64.03	ppm	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6556\
Data File : m153411.D
Acq On : 12 Apr 2019 10:40 pm
Operator : christc2
Sample : icv6556-50
Misc : op17006,em6556,1000,,,1,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Apr 15 11:40:43 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6556.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon Apr 15 11:38:00 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6556\
Data File : m153413.D
Acq On : 12 Apr 2019 11:37 pm
Operator : christc2
Sample : icv6556-50
Misc : op17006,em6556,1000,,,1,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Apr 15 11:55:44 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6556.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon Apr 15 11:48:45 2019
Response via : Initial Calibration

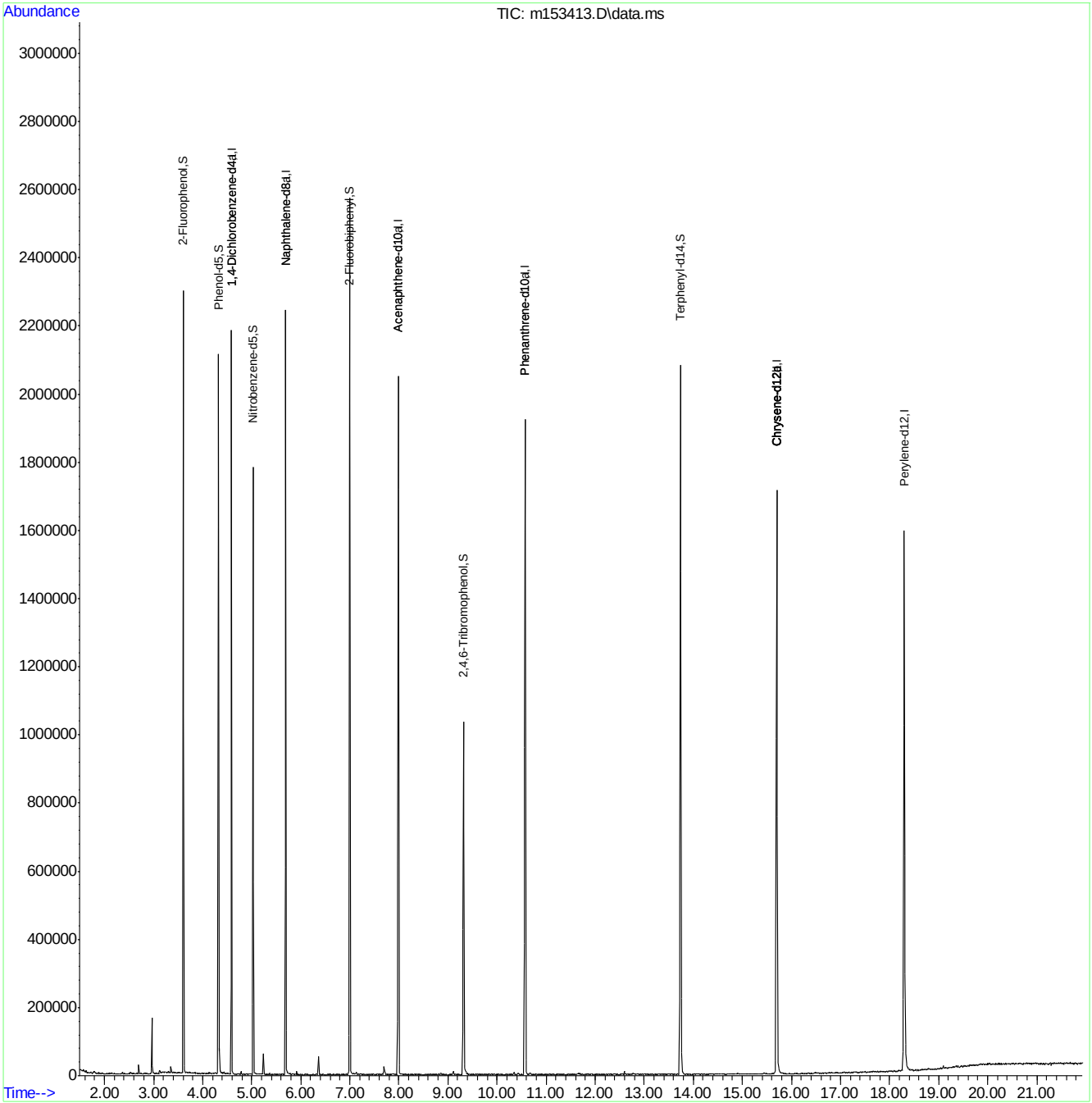
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.591	152	281722	40.00	ppm	0.00
24) Naphthalene-d8	5.696	136	960107	40.00	ppm	0.00
47) Acenaphthene-d10	7.987	164	539229	40.00	ppm	0.00
69) Phenanthrene-d10	10.573	188	1006489	40.00	ppm	0.00
83) Chrysene-d12	15.700	240	882944	40.00	ppm	-0.01
91) Perylene-d12	18.301	264	919162	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.591	152	281722	40.00	ppm	0.00
103) Acenaphthene-d10a	7.987	164	539229	40.00	ppm	0.00
106) Chrysene-d12a	15.700	240	882944	40.00	ppm	-0.01
108) Chrysene-d12b	15.700	240	882944	40.00	ppm	-0.01
110) Phenanthrene-d10a	10.573	188	1006489	40.00	ppm	0.00
113) Naphthalene-d8a	5.696	136	960107	40.00	ppm	0.00
115) Chrysene-d12c	15.700	240	882944	40.00	ppm	-0.01
System Monitoring Compounds						
5) 2-Fluorophenol	3.608	112	474038	43.04	ppm	0.00
Spiked Amount 50.000			Recovery = 86.08%			
8) Phenol-d5	4.324	99	566883	41.67	ppm	0.00
Spiked Amount 50.000			Recovery = 83.34%			
25) Nitrobenzene-d5	5.029	82	458825	44.80	ppm	0.00
Spiked Amount 50.000			Recovery = 89.60%			
51) 2-Fluorobiphenyl	6.999	172	916400	45.71	ppm	0.00
Spiked Amount 50.000			Recovery = 91.42%			
73) 2,4,6-Tribromophenol	9.317	330	171091	50.53	ppm	0.00
Spiked Amount 50.000			Recovery = 101.06%			
85) Terphenyl-d14	13.740	244	1147831	48.21	ppm	0.00
Spiked Amount 50.000			Recovery = 96.42%			
109) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
111) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6556\
Data File : m153413.D
Acq On : 12 Apr 2019 11:37 pm
Operator : christc2
Sample : icv6556-50
Misc : op17006,em6556,1000,,,1,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Apr 15 11:55:44 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6556.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon Apr 15 11:48:45 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6556\
Data File : m153414.D
Acq On : 13 Apr 2019 12:06 am
Operator : christc2
Sample : icv6556-50
Misc : op17006,em6556,1000,,,1,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Apr 15 11:58:50 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6556.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon Apr 15 11:48:45 2019
Response via : Initial Calibration

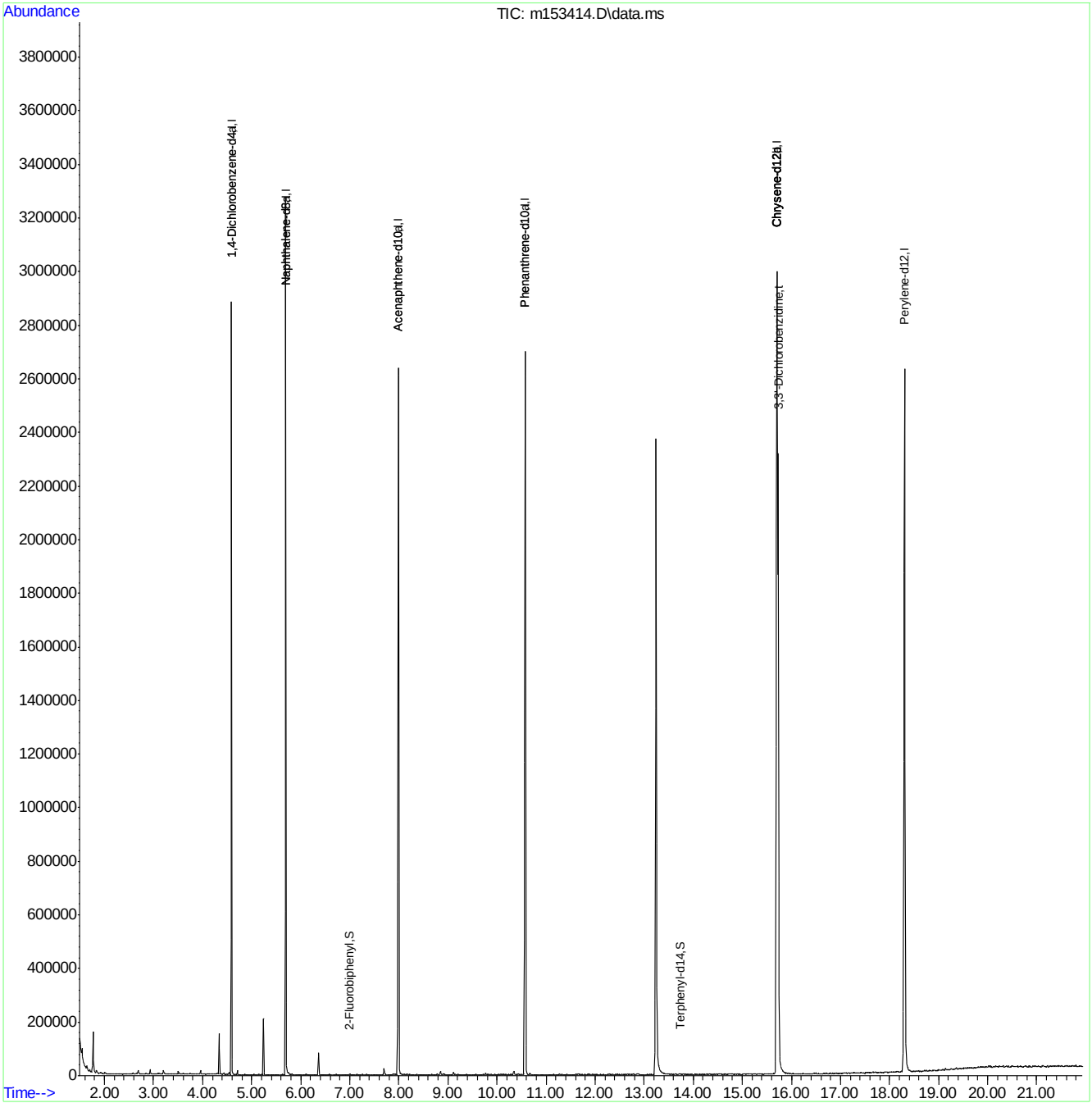
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.591	152	391476	40.00	ppm	0.00
24) Naphthalene-d8	5.696	136	1323791	40.00	ppm	0.00
47) Acenaphthene-d10	7.988	164	755879	40.00	ppm	0.00
69) Phenanthrene-d10	10.573	188	1530539	40.00	ppm	0.00
83) Chrysene-d12	15.705	240	1602158	40.00	ppm	0.00
91) Perylene-d12	18.307	264	1647623	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.591	152	391476	40.00	ppm	0.00
103) Acenaphthene-d10a	7.988	164	755879	40.00	ppm	0.00
106) Chrysene-d12a	15.705	240	1602158	40.00	ppm	0.00
108) Chrysene-d12b	15.705	240	1602158	40.00	ppm	0.00
110) Phenanthrene-d10a	10.573	188	1530539	40.00	ppm	0.00
113) Naphthalene-d8a	5.696	136	1323791	40.00	ppm	0.00
115) Chrysene-d12c	15.705	240	1602158	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	7.000	172	894	0.03	ppm	0.00
Spiked Amount 50.000			Recovery =	0.06%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	13.735	244	1429	0.03	ppm	0.00
Spiked Amount 50.000			Recovery =	0.06%		
109) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
111) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
Target Compounds						Qvalue
88) 3,3'-Dichlorobenzidine	15.732	252	857087	46.26	ppm	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6556\
Data File : m153414.D
Acq On : 13 Apr 2019 12:06 am
Operator : christc2
Sample : icv6556-50
Misc : op17006,em6556,1000,,,1,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Apr 15 11:58:50 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6556.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon Apr 15 11:48:45 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6557\
Data File : m153420.D
Acq On : 13 Apr 2019 1:52 am
Operator : chriss2
Sample : ic6557-100
Misc : op17006,em6557,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 15 12:26:55 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6556.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon Apr 15 12:23:22 2019
Response via : Initial Calibration

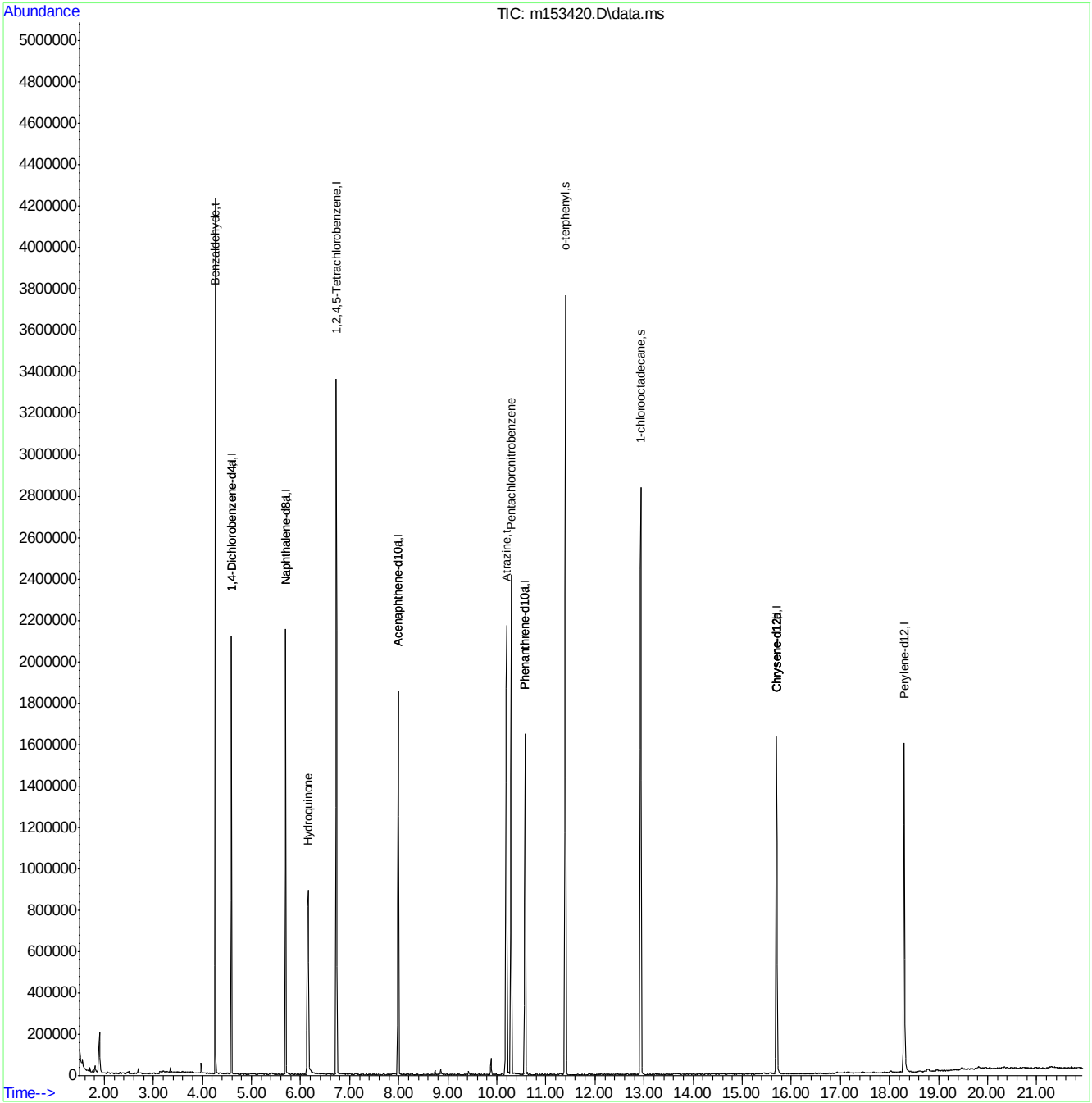
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.588	152	248991	40.00	ppm	0.00
24) Naphthalene-d8	5.694	136	888990	40.00	ppm	0.00
47) Acenaphthene-d10	7.990	164	494865	40.00	ppm	0.00
69) Phenanthrene-d10	10.575	188	860239	40.00	ppm	0.00
83) Chrysene-d12	15.697	240	867470	40.00	ppm	-0.01
91) Perylene-d12	18.304	264	944528	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.588	152	248991	40.00	ppm	0.00
103) Acenaphthene-d10a	7.990	164	494865	40.00	ppm	0.00
106) Chrysene-d12a	15.697	240	867470	40.00	ppm	0.00
108) Chrysene-d12b	15.697	240	867470	40.00	ppm	0.00
110) Phenanthrene-d10a	10.575	188	860239	40.00	ppm	0.00
113) Naphthalene-d8a	5.694	136	888990	40.00	ppm	0.00
115) Chrysene-d12c	15.697	240	867470	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
85) Terphenyl-d14	0.000	244	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
109) 1-chlorooctadecane	12.931	57	519520	90.45	ppm	0.00
Spiked Amount 50.000			Recovery = 180.90%			
111) o-terphenyl	11.398	230	1185509	90.52	ppm	0.00
Spiked Amount 50.000			Recovery = 181.04%			
Target Compounds						Qvalue
102) Benzaldehyde	4.262	105	632656	91.41	ppm	98
104) 1,2,4,5-Tetrachloroben...	6.730	216	721687	89.16	ppm	99
105) Atrazine	10.196	215	242842	92.28	ppm	99
112) Pentachloronitrobenzene	10.292	295	110807	95.49	ppm	97
114) Hydroquinone	6.153	110	784835	100.57	ppm	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6557\
Data File : m153420.D
Acq On : 13 Apr 2019 1:52 am
Operator : chriss2
Sample : ic6557-100
Misc : op17006,em6557,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 15 12:26:55 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6556.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon Apr 15 12:23:22 2019
Response via : Initial Calibration



MM6556.M Mon Apr 15 12:27:07 2019 Page: 2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6557\
Data File : m153421.D
Acq On : 13 Apr 2019 2:20 am
Operator : chriss2
Sample : ic6557-80
Misc : op17006,em6557,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 15 12:28:26 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6556.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon Apr 15 12:23:22 2019
Response via : Initial Calibration

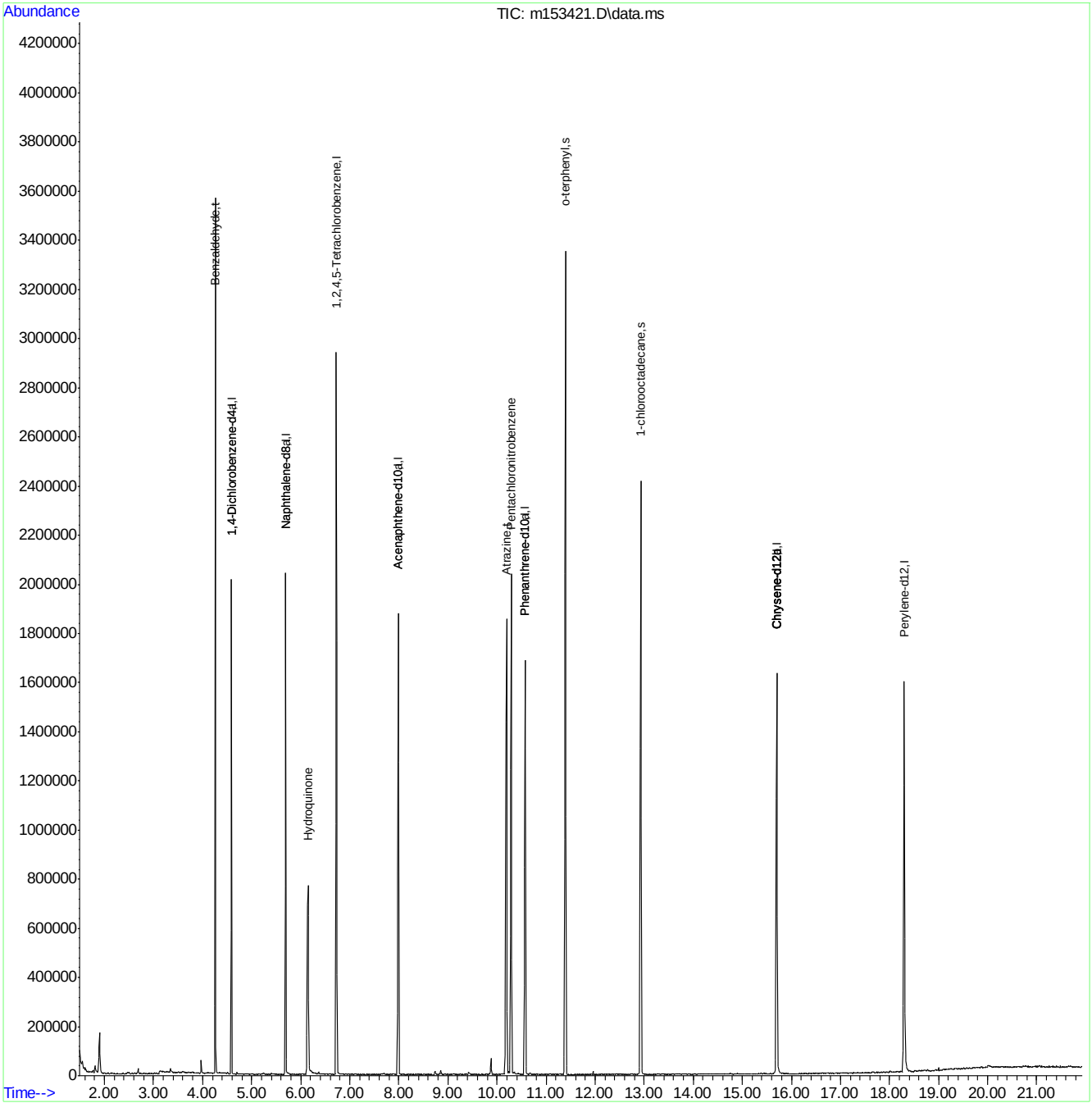
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.586	152	243035	40.00	ppm	0.00
24) Naphthalene-d8	5.692	136	874501	40.00	ppm	0.00
47) Acenaphthene-d10	7.989	164	498260	40.00	ppm	0.00
69) Phenanthrene-d10	10.574	188	871711	40.00	ppm	0.00
83) Chrysene-d12	15.701	240	870140	40.00	ppm	-0.01
91) Perylene-d12	18.302	264	935216	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.586	152	243035	40.00	ppm	0.00
103) Acenaphthene-d10a	7.989	164	498260	40.00	ppm	0.00
106) Chrysene-d12a	15.701	240	870140	40.00	ppm	0.00
108) Chrysene-d12b	15.701	240	870140	40.00	ppm	0.00
110) Phenanthrene-d10a	10.574	188	871711	40.00	ppm	0.00
113) Naphthalene-d8a	5.692	136	874501	40.00	ppm	0.00
115) Chrysene-d12c	15.701	240	870140	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
109) 1-chlorooctadecane	12.929	57	428342	74.35	ppm	0.00
Spiked Amount 50.000			Recovery =	148.70%		
111) o-terphenyl	11.396	230	997159	75.14	ppm	0.00
Spiked Amount 50.000			Recovery =	150.28%		
Target Compounds						Qvalue
102) Benzaldehyde	4.261	105	523047	77.43	ppm	98
104) 1,2,4,5-Tetrachloroben...	6.728	216	608164	74.62	ppm	99
105) Atrazine	10.194	215	201735	76.14	ppm	96
112) Pentachloronitrobenzene	10.291	295	91963	78.21	ppm	99
114) Hydroquinone	6.151	110	623099	81.16	ppm	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6557\
Data File : m153421.D
Acq On : 13 Apr 2019 2:20 am
Operator : chriss2
Sample : ic6557-80
Misc : op17006,em6557,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 15 12:28:26 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6556.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon Apr 15 12:23:22 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6557\
Data File : m153422.D
Acq On : 13 Apr 2019 2:49 am
Operator : chriss2
Sample : icc6557-50
Misc : op17006,em6557,1000,,,1,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 15 12:24:51 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6556.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon Apr 15 12:23:22 2019
Response via : Initial Calibration

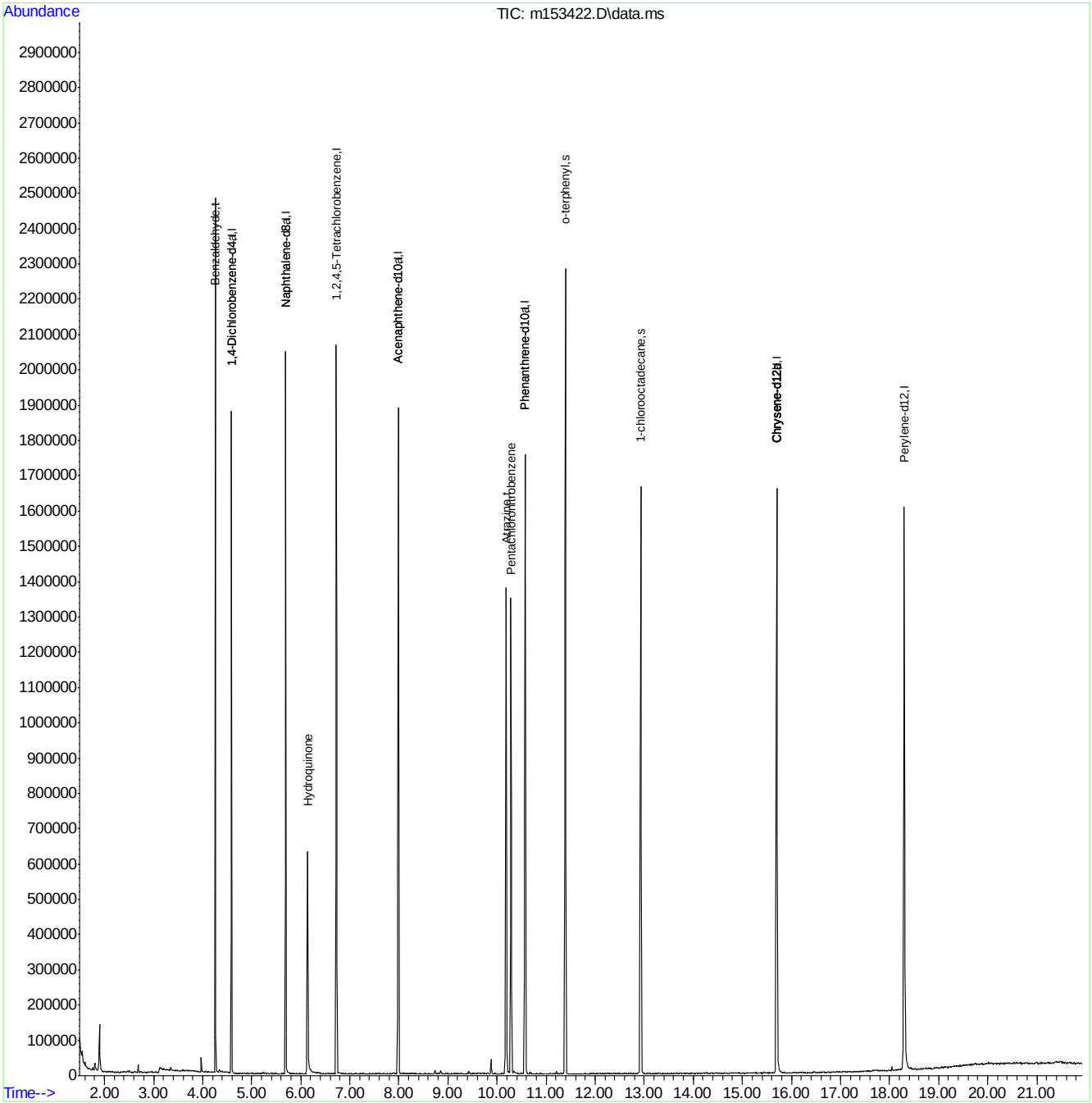
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.585	152	248621	40.00	ppm	0.00
24) Naphthalene-d8	5.696	136	869958	40.00	ppm	0.00
47) Acenaphthene-d10	7.987	164	497180	40.00	ppm	0.00
69) Phenanthrene-d10	10.573	188	887279	40.00	ppm	0.00
83) Chrysene-d12	15.700	240	868264	40.00	ppm	-0.01
91) Perylene-d12	18.301	264	936185	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.585	152	248621	40.00	ppm	0.00
103) Acenaphthene-d10a	7.987	164	497180	40.00	ppm	0.00
106) Chrysene-d12a	15.700	240	868264	40.00	ppm	0.00
108) Chrysene-d12b	15.700	240	868264	40.00	ppm	0.00
110) Phenanthrene-d10a	10.573	188	887279	40.00	ppm	0.00
113) Naphthalene-d8a	5.696	136	869958	40.00	ppm	0.00
115) Chrysene-d12c	15.700	240	868264	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
85) Terphenyl-d14	0.000	244	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
109) 1-chlorooctadecane	12.928	57	287441	50.00	ppm	0.00
Spiked Amount 50.000			Recovery = 100.00%			
111) o-terphenyl	11.395	230	675395	50.00	ppm	0.00
Spiked Amount 50.000			Recovery = 100.00%			
Target Compounds						Qvalue
102) Benzaldehyde	4.259	105	345534	50.00	ppm	100
104) 1,2,4,5-Tetrachloroben...	6.727	216	406621	50.00	ppm	100
105) Atrazine	10.188	215	132189	50.00	ppm	100
112) Pentachloronitrobenzene	10.289	295	59841	50.00	ppm	100
114) Hydroquinone	6.139	110	381857	50.00	ppm	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6557\
Data File : m153422.D
Acq On : 13 Apr 2019 2:49 am
Operator : chriss2
Sample : icc6557-50
Misc : op17006,em6557,1000,,,1,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 15 12:24:51 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6556.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon Apr 15 12:23:22 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6557\
Data File : m153423.D
Acq On : 13 Apr 2019 3:17 am
Operator : chriss2
Sample : ic6557-25
Misc : op17006,em6557,1000,,,1,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 15 12:29:52 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6556.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon Apr 15 12:23:22 2019
Response via : Initial Calibration

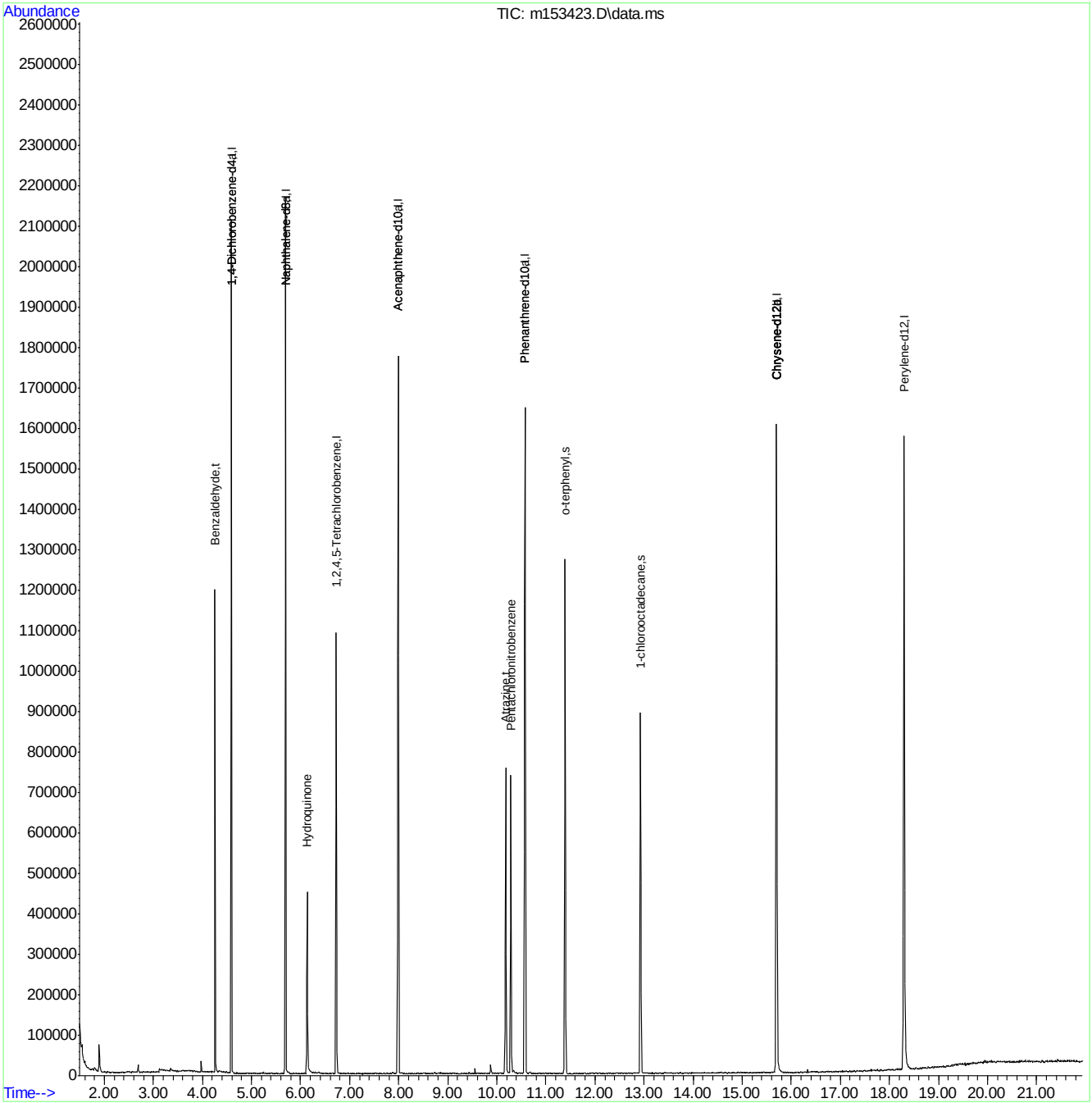
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.588	152	248183	40.00	ppm	0.00
24) Naphthalene-d8	5.694	136	874946	40.00	ppm	0.00
47) Acenaphthene-d10	7.990	164	491195	40.00	ppm	0.00
69) Phenanthrene-d10	10.570	188	882243	40.00	ppm	0.00
83) Chrysene-d12	15.698	240	849067	40.00	ppm	-0.01
91) Perylene-d12	18.299	264	910419	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.588	152	248183	40.00	ppm	0.00
103) Acenaphthene-d10a	7.990	164	491195	40.00	ppm	0.00
106) Chrysene-d12a	15.698	240	849067	40.00	ppm	0.00
108) Chrysene-d12b	15.698	240	849067	40.00	ppm	0.00
110) Phenanthrene-d10a	10.570	188	882243	40.00	ppm	0.00
113) Naphthalene-d8a	5.694	136	874946	40.00	ppm	0.00
115) Chrysene-d12c	15.698	240	849067	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
109) 1-chlorooctadecane	12.926	57	148373	26.39	ppm	0.00
Spiked Amount 50.000			Recovery =	52.78%		
111) o-terphenyl	11.393	230	364283	27.12	ppm	0.00
Spiked Amount 50.000			Recovery =	54.24%		
Target Compounds						Qvalue
102) Benzaldehyde	4.257	105	185136	26.84	ppm	96
104) 1,2,4,5-Tetrachloroben...	6.725	216	220531	27.45	ppm	98
105) Atrazine	10.180	215	65573	25.10	ppm	96
112) Pentachloronitrobenzene	10.287	295	28170	23.67	ppm	96
114) Hydroquinone	6.132	110	179238	23.34	ppm	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6557\
Data File : m153423.D
Acq On : 13 Apr 2019 3:17 am
Operator : chriss2
Sample : ic6557-25
Misc : op17006,em6557,1000,,,1,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 15 12:29:52 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6556.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon Apr 15 12:23:22 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6557\
Data File : m153424.D
Acq On : 13 Apr 2019 3:46 am
Operator : chriss2
Sample : ic6557-10
Misc : op17006,em6557,1000,,,1,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 15 12:31:19 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6556.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon Apr 15 12:23:22 2019
Response via : Initial Calibration

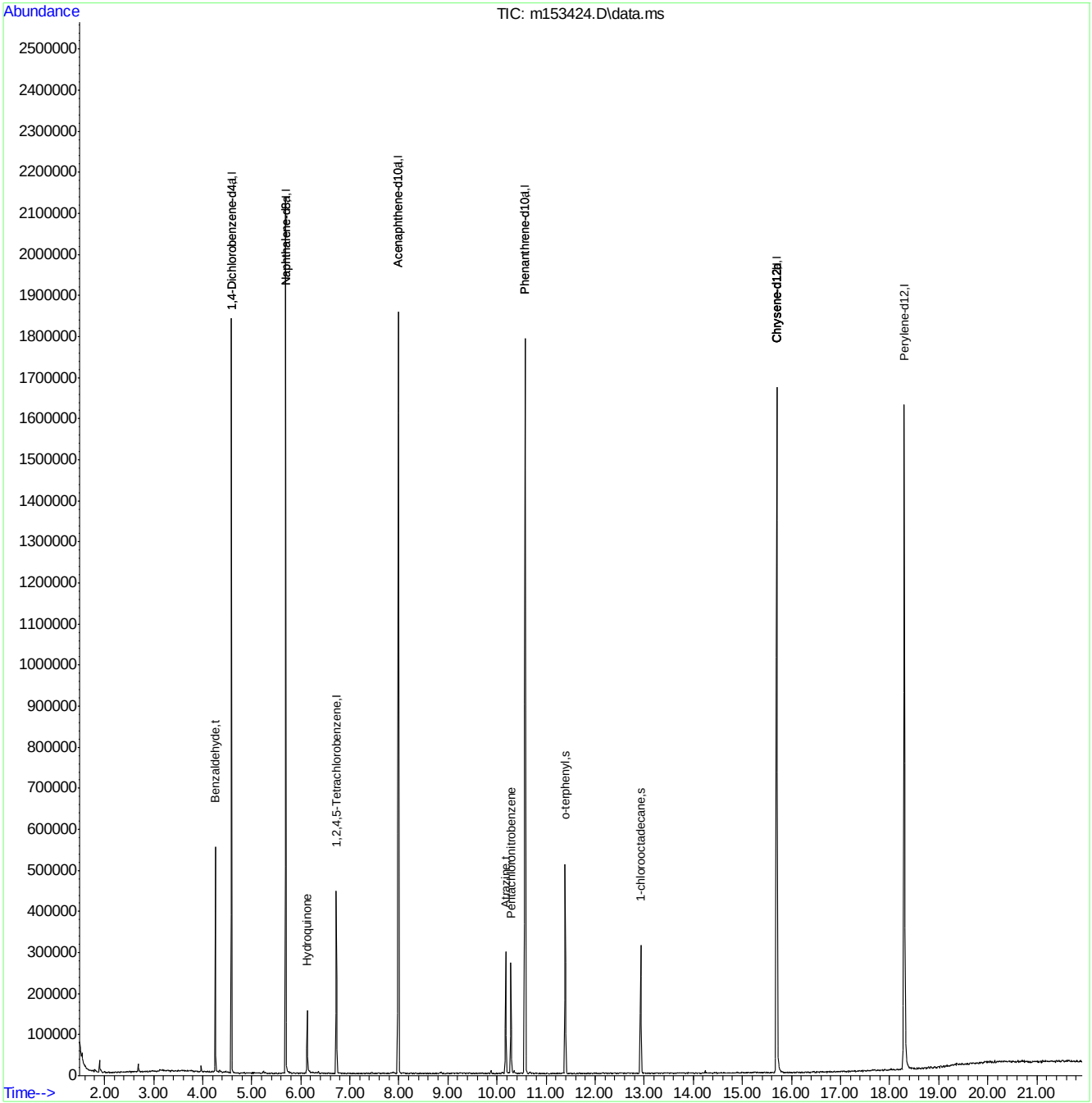
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.591	152	255818	40.00	ppm	0.00
24) Naphthalene-d8	5.696	136	892243	40.00	ppm	0.00
47) Acenaphthene-d10	7.987	164	505258	40.00	ppm	0.00
69) Phenanthrene-d10	10.573	188	938579	40.00	ppm	0.00
83) Chrysene-d12	15.700	240	874604	40.00	ppm	-0.01
91) Perylene-d12	18.301	264	921494	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.591	152	255818	40.00	ppm	0.00
103) Acenaphthene-d10a	7.987	164	505258	40.00	ppm	0.00
106) Chrysene-d12a	15.700	240	874604	40.00	ppm	0.00
108) Chrysene-d12b	15.700	240	874604	40.00	ppm	0.00
110) Phenanthrene-d10a	10.573	188	938579	40.00	ppm	0.00
113) Naphthalene-d8a	5.696	136	892243	40.00	ppm	0.00
115) Chrysene-d12c	15.700	240	874604	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
109) 1-chlorooctadecane	12.928	57	52058	8.99	ppm	0.00
Spiked Amount 50.000			Recovery =	17.98%		
111) o-terphenyl	11.390	230	142404	9.97	ppm	0.00
Spiked Amount 50.000			Recovery =	19.94%		
Target Compounds						Qvalue
102) Benzaldehyde	4.259	105	71952	10.12	ppm	96
104) 1,2,4,5-Tetrachloroben...	6.727	216	89089	10.78	ppm	98
105) Atrazine	10.177	215	23507	8.75	ppm	93
112) Pentachloronitrobenzene	10.284	295	9630	7.61	ppm	97
114) Hydroquinone	6.129	110	53620	6.85	ppm	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6557\
Data File : m153424.D
Acq On : 13 Apr 2019 3:46 am
Operator : chriss2
Sample : ic6557-10
Misc : op17006,em6557,1000,,,1,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 15 12:31:19 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6556.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon Apr 15 12:23:22 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6557\
Data File : m153425.D
Acq On : 13 Apr 2019 4:14 am
Operator : chriss2
Sample : ic6557-5
Misc : op17006,em6557,1000,,,1,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 15 12:32:34 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6556.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon Apr 15 12:23:22 2019
Response via : Initial Calibration

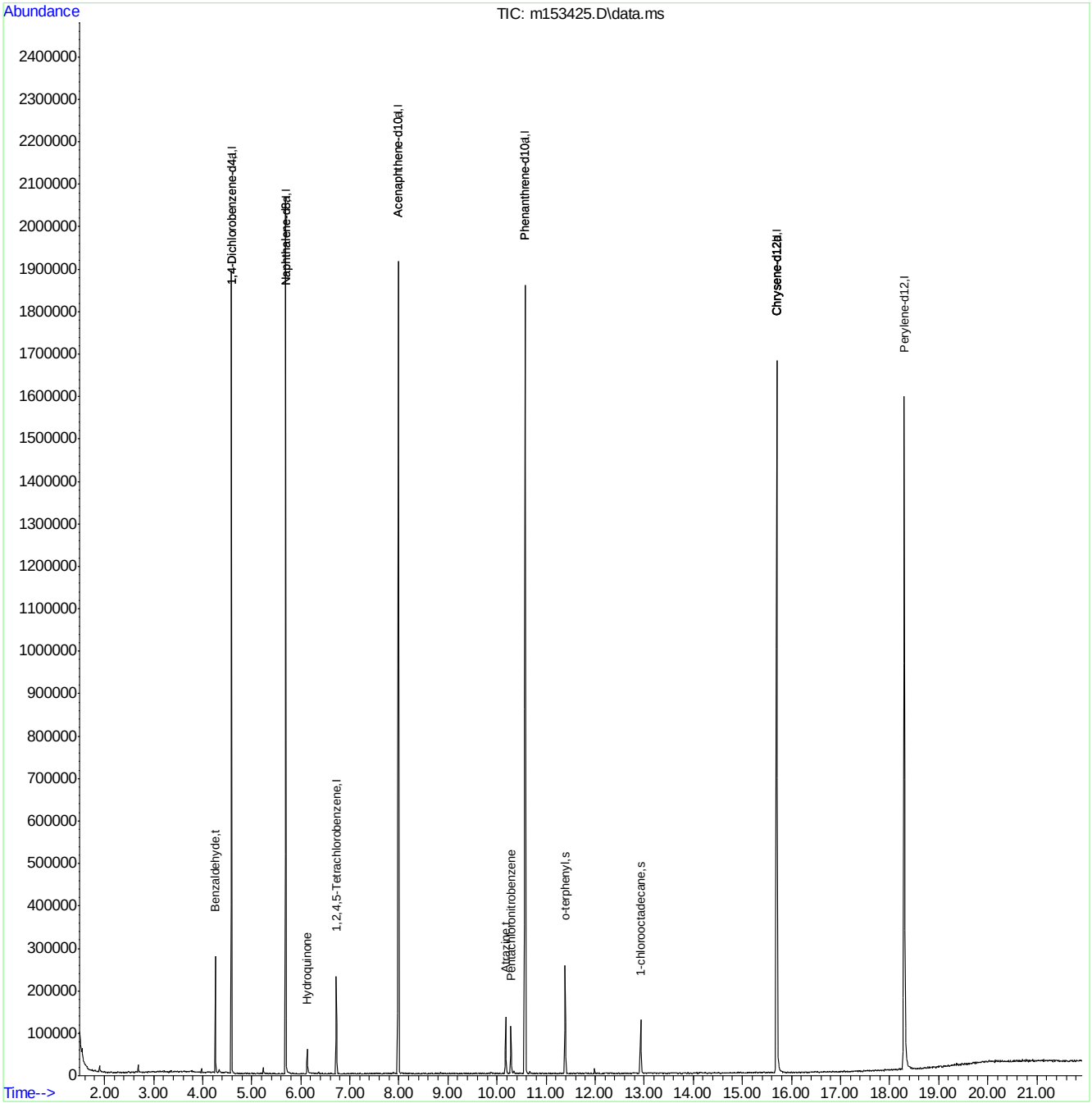
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.591	152	260557	40.00	ppm	0.00
24) Naphthalene-d8	5.696	136	872990	40.00	ppm	0.00
47) Acenaphthene-d10	7.987	164	500483	40.00	ppm	0.00
69) Phenanthrene-d10	10.573	188	936387	40.00	ppm	0.00
83) Chrysene-d12	15.700	240	866791	40.00	ppm	-0.01
91) Perylene-d12	18.301	264	913024	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.591	152	260557	40.00	ppm	0.00
103) Acenaphthene-d10a	7.987	164	500483	40.00	ppm	0.00
106) Chrysene-d12a	15.700	240	866791	40.00	ppm	0.00
108) Chrysene-d12b	15.700	240	866791	40.00	ppm	0.00
110) Phenanthrene-d10a	10.573	188	936387	40.00	ppm	0.00
113) Naphthalene-d8a	5.696	136	872990	40.00	ppm	0.00
115) Chrysene-d12c	15.700	240	866791	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
109) 1-chlorooctadecane	12.928	57	22583	3.93	ppm	0.00
Spiked Amount 50.000			Recovery =	7.86%		
111) o-terphenyl	11.390	230	70987	4.98	ppm	0.00
Spiked Amount 50.000			Recovery =	9.96%		
Target Compounds						Qvalue
102) Benzaldehyde	4.259	105	37284	5.15	ppm	97
104) 1,2,4,5-Tetrachloroben...	6.727	216	45863	5.60	ppm	99
105) Atrazine	10.177	215	10172	3.82	ppm	93
112) Pentachloronitrobenzene	10.284	295	3820	3.02	ppm	85
114) Hydroquinone	6.129	110	22627	2.95	ppm	94

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6557\
Data File : m153425.D
Acq On : 13 Apr 2019 4:14 am
Operator : chriss2
Sample : ic6557-5
Misc : op17006,em6557,1000,,,1,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 15 12:32:34 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6556.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon Apr 15 12:23:22 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6557\
Data File : m153426.D
Acq On : 13 Apr 2019 4:42 am
Operator : chriss2
Sample : ic6557-2
Misc : op17006,em6557,1000,,,1,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Apr 15 12:33:57 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6556.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon Apr 15 12:23:22 2019
Response via : Initial Calibration

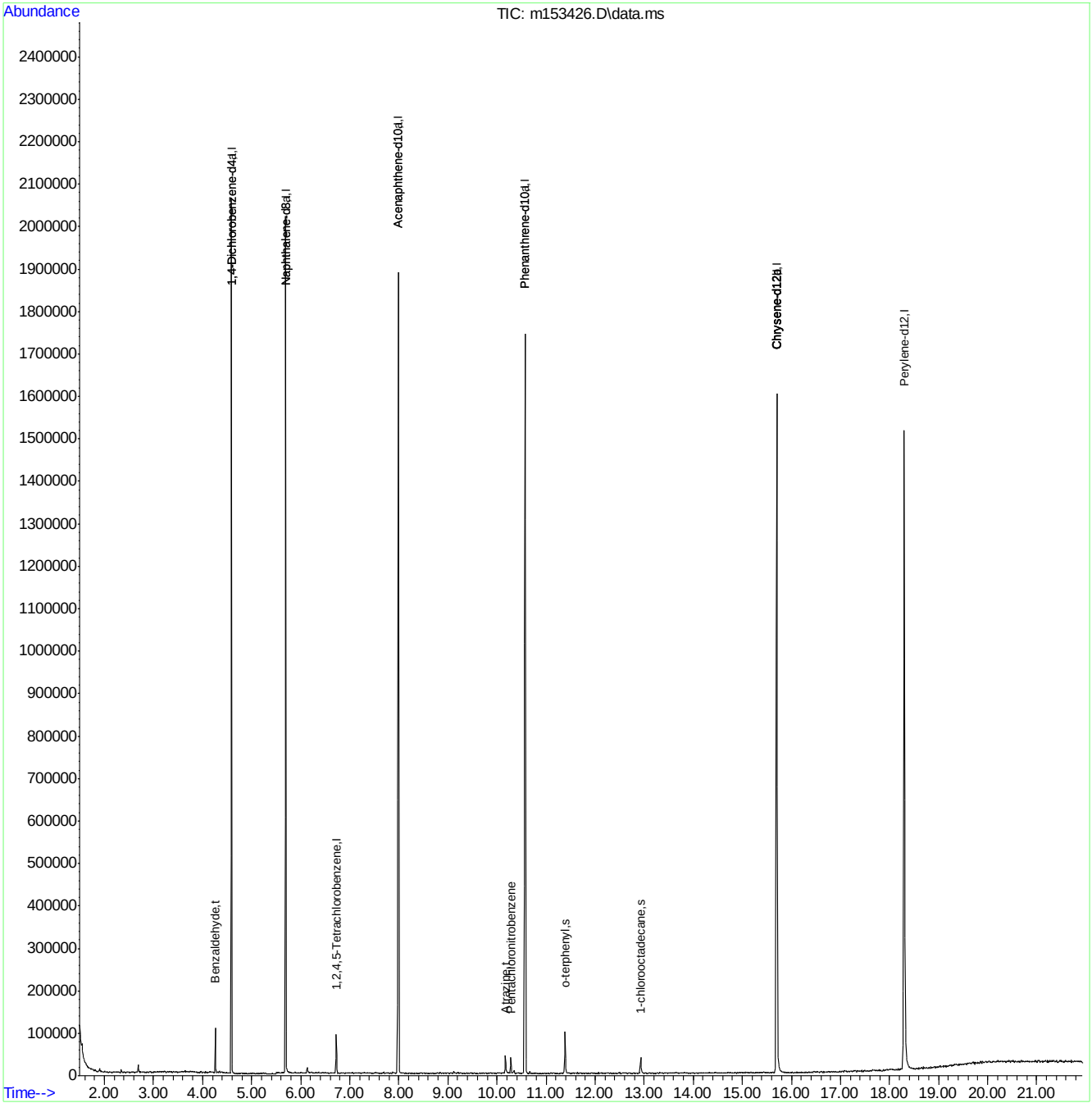
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4	4.586	152	261346	40.00	ppm		0.00
24) Naphthalene-d8	5.697	136	879739	40.00	ppm		0.00
47) Acenaphthene-d10	7.988	164	502520	40.00	ppm		0.00
69) Phenanthrene-d10	10.573	188	929939	40.00	ppm		0.00
83) Chrysene-d12	15.701	240	849953	40.00	ppm		-0.01
91) Perylene-d12	18.302	264	882871	40.00	ppm		0.00
101) 1,4-Dichlorobenzene-d4a	4.586	152	261346	40.00	ppm		0.00
103) Acenaphthene-d10a	7.988	164	502520	40.00	ppm		0.00
106) Chrysene-d12a	15.701	240	849953	40.00	ppm		0.00
108) Chrysene-d12b	15.701	240	849953	40.00	ppm		0.00
110) Phenanthrene-d10a	10.573	188	929939	40.00	ppm		0.00
113) Naphthalene-d8a	5.697	136	879739	40.00	ppm		0.00
115) Chrysene-d12c	15.701	240	849953	40.00	ppm		0.00
System Monitoring Compounds							
5) 2-Fluorophenol	0.000	112	0	0.00	ppm		
Spiked Amount 50.000			Recovery =	0.00%			
8) Phenol-d5	0.000	99	0	0.00	ppm		
Spiked Amount 50.000			Recovery =	0.00%			
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm		
Spiked Amount 50.000			Recovery =	0.00%			
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm		
Spiked Amount 50.000			Recovery =	0.00%			
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm		
Spiked Amount 50.000			Recovery =	0.00%			
85) Terphenyl-d14	0.000	244	0d	0.00	ppm		
Spiked Amount 50.000			Recovery =	0.00%			
109) 1-chlorooctadecane	12.929	57	7346	1.31	ppm		0.00
Spiked Amount 50.000			Recovery =	2.62%			
111) o-terphenyl	11.391	230	26782	1.89	ppm		0.00
Spiked Amount 50.000			Recovery =	3.78%			
Target Compounds							Qvalue
102) Benzaldehyde	4.260	105	15043	2.07	ppm		94
104) 1,2,4,5-Tetrachloroben...	6.728	216	17824	2.17	ppm		94
105) Atrazine	10.178	215	3463	1.30	ppm	#	84
112) Pentachloronitrobenzene	10.285	295	1148	0.92	ppm	#	80

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6557\
Data File : m153426.D
Acq On : 13 Apr 2019 4:42 am
Operator : chriss2
Sample : ic6557-2
Misc : op17006,em6557,1000,,,1,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Apr 15 12:33:57 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6556.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon Apr 15 12:23:22 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6557\
Data File : m153427.D
Acq On : 13 Apr 2019 5:11 am
Operator : chriss2
Sample : ic6557-1
Misc : op17006,em6557,1000,,,1,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Apr 15 12:35:13 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6556.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Thu Apr 11 08:18:08 2019
Response via : Initial Calibration

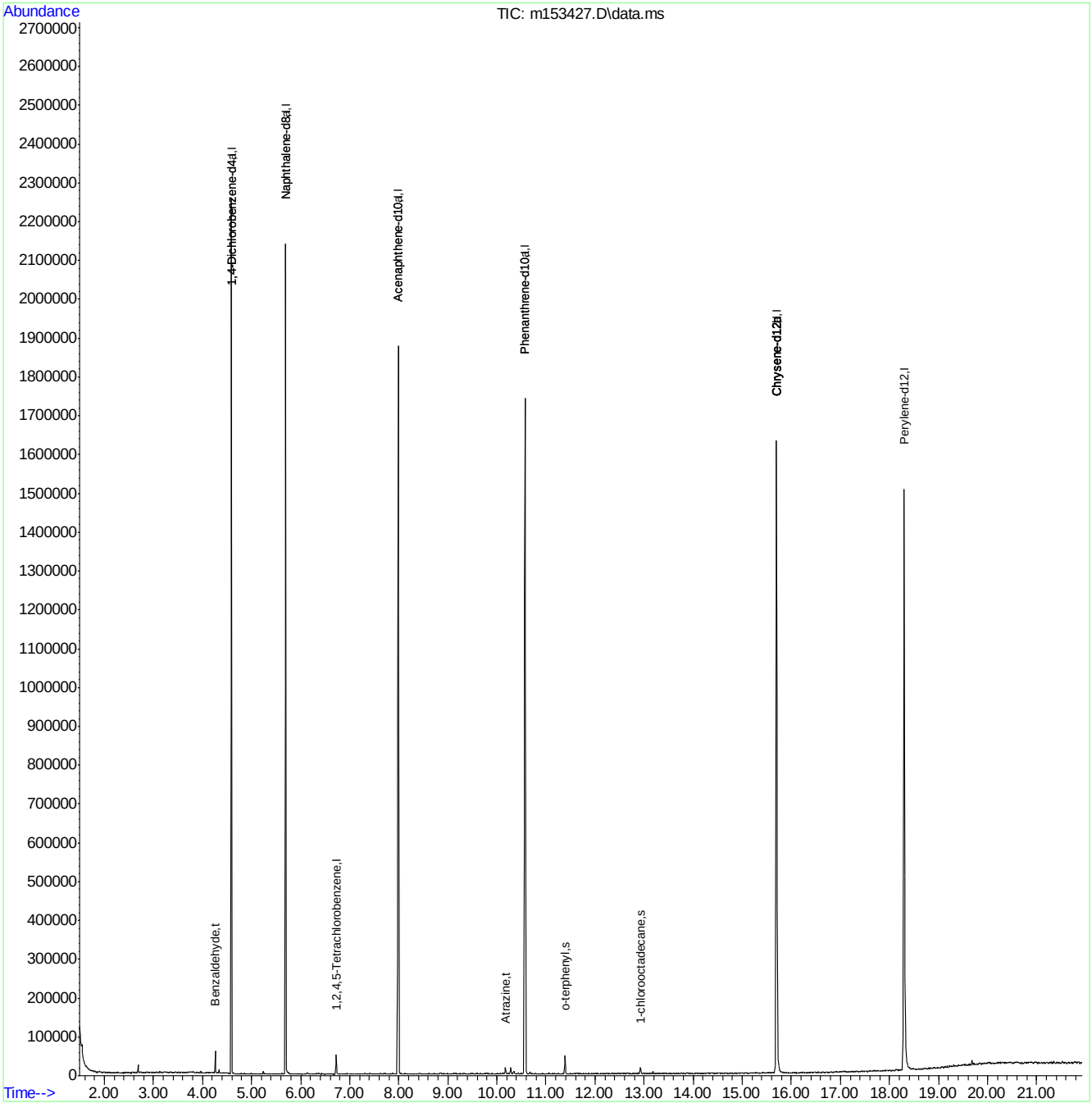
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.587	152	264413	40.00	ppm	-0.02
24) Naphthalene-d8	5.693	136	880440	40.00	ppm	-0.03
47) Acenaphthene-d10	7.990	164	506899	40.00	ppm	-0.04
69) Phenanthrene-d10	10.569	188	938033	40.00	ppm	-0.05
83) Chrysene-d12	15.697	240	843931	40.00	ppm	-0.06
91) Perylene-d12	18.298	264	885109	40.00	ppm	-0.05
101) 1,4-Dichlorobenzene-d4a	4.587	152	264413	40.00	ppm	-0.02
103) Acenaphthene-d10a	7.990	164	506899	40.00	ppm	-0.04
106) Chrysene-d12a	15.697	240	843931	40.00	ppm	-0.04
108) Chrysene-d12b	15.697	240	843931	40.00	ppm	-0.05
110) Phenanthrene-d10a	10.569	188	938033	40.00	ppm	-0.05
113) Naphthalene-d8a	5.693	136	880440	40.00	ppm	-0.03
115) Chrysene-d12c	15.697	240	843931	40.00	ppm	-0.05
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
109) 1-chlorooctadecane	12.925	57	3140	0.54	ppm	-0.05
Spiked Amount 50.000			Recovery =	1.08%		
111) o-terphenyl	11.392	230	13314	0.98	ppm	-0.05
Spiked Amount 50.000			Recovery =	1.96%		
Target Compounds						Qvalue
102) Benzaldehyde	4.262	105	7675	1.00	ppm	90
104) 1,2,4,5-Tetrachloroben...	6.724	216	9523	1.32	ppm	90
105) Atrazine	10.174	215	1573	0.70	ppm	85

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6557\
Data File : m153427.D
Acq On : 13 Apr 2019 5:11 am
Operator : chriss2
Sample : ic6557-1
Misc : op17006,em6557,1000,,,1,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Apr 15 12:35:13 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6556.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Thu Apr 11 08:18:08 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6557\
Data File : m153432.D
Acq On : 14 Apr 2019 2:42 pm
Operator : chriss2
Sample : ic6558-100
Misc : op17006,em6558,1000,,,1,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Apr 15 13:19:05 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6556.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon Apr 15 13:16:34 2019
Response via : Initial Calibration

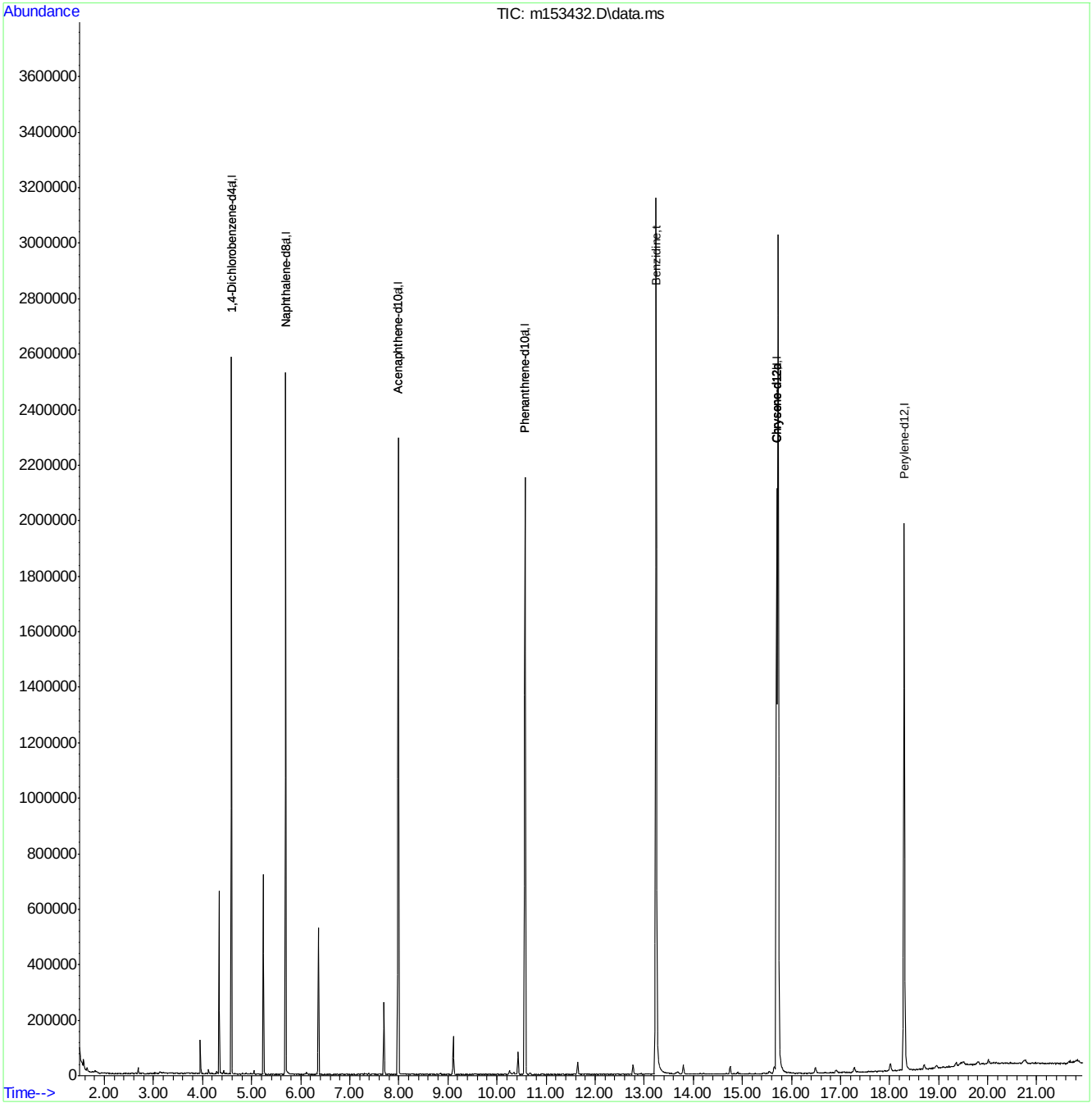
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.586	152	313386	40.00	ppm	0.00
24) Naphthalene-d8	5.692	136	1062812	40.00	ppm	0.00
47) Acenaphthene-d10	7.989	164	612603	40.00	ppm	0.00
69) Phenanthrene-d10	10.574	188	1146736	40.00	ppm	0.00
83) Chrysene-d12	15.701	240	1065828	40.00	ppm	-0.01
91) Perylene-d12	18.302	264	1175787	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.586	152	313386	40.00	ppm	0.00
103) Acenaphthene-d10a	7.989	164	612603	40.00	ppm	0.00
106) Chrysene-d12a	15.701	240	1065828	40.00	ppm	0.00
108) Chrysene-d12b	15.701	240	1065828	40.00	ppm	0.00
110) Phenanthrene-d10a	10.574	188	1146736	40.00	ppm	0.00
113) Naphthalene-d8a	5.692	136	1062812	40.00	ppm	0.00
115) Chrysene-d12c	15.701	240	1065828	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
109) 1-chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
111) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
Target Compounds						Qvalue
107) Benzidine	13.250	184	2194106	99.15	ppm	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6557\
Data File : m153432.D
Acq On : 14 Apr 2019 2:42 pm
Operator : chriss2
Sample : ic6558-100
Misc : op17006,em6558,1000,,,1,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Apr 15 13:19:05 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6556.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon Apr 15 13:16:34 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6557\
Data File : m153433.D
Acq On : 14 Apr 2019 3:11 pm
Operator : chriss2
Sample : ic6558-80
Misc : op17006,em6558,1000,,,1,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Apr 15 13:20:13 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6556.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon Apr 15 13:16:34 2019
Response via : Initial Calibration

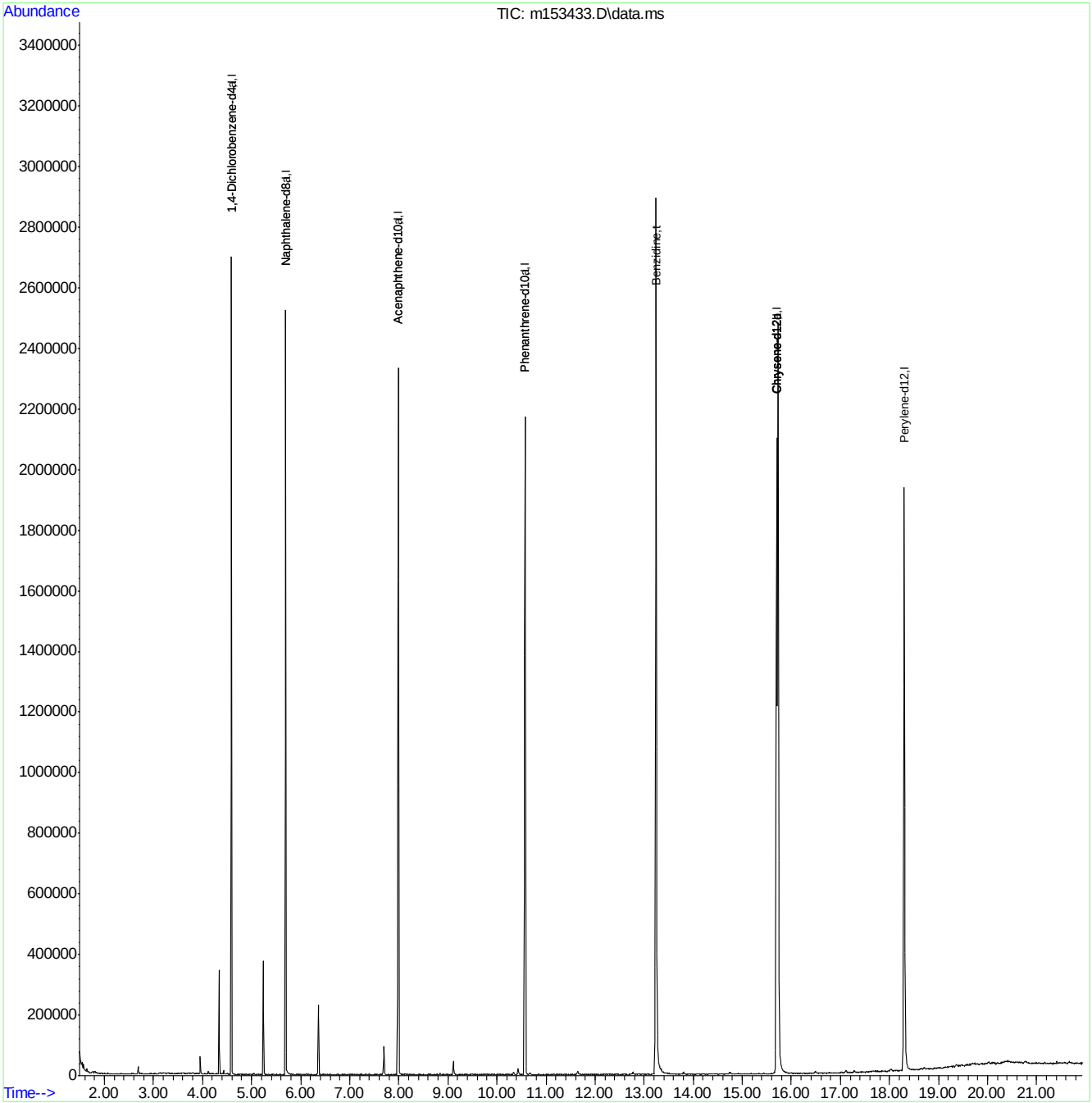
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.587	152	324199	40.00	ppm	0.00
24) Naphthalene-d8	5.693	136	1093390	40.00	ppm	0.00
47) Acenaphthene-d10	7.989	164	619798	40.00	ppm	0.00
69) Phenanthrene-d10	10.574	188	1158756	40.00	ppm	0.00
83) Chrysene-d12	15.702	240	1064854	40.00	ppm	-0.01
91) Perylene-d12	18.303	264	1146936	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.587	152	324199	40.00	ppm	0.00
103) Acenaphthene-d10a	7.989	164	619798	40.00	ppm	0.00
106) Chrysene-d12a	15.702	240	1064854	40.00	ppm	0.00
108) Chrysene-d12b	15.702	240	1064854	40.00	ppm	0.00
110) Phenanthrene-d10a	10.574	188	1158756	40.00	ppm	0.00
113) Naphthalene-d8a	5.693	136	1093390	40.00	ppm	0.00
115) Chrysene-d12c	15.702	240	1064854	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
109) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
111) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
Target Compounds						Qvalue
107) Benzidine	13.245	184	1823706	82.49	ppm	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6557\
Data File : m153433.D
Acq On : 14 Apr 2019 3:11 pm
Operator : chriss2
Sample : ic6558-80
Misc : op17006,em6558,1000,,,1,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Apr 15 13:20:13 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6556.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon Apr 15 13:16:34 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6557\
Data File : m153434.D
Acq On : 14 Apr 2019 3:39 pm
Operator : chriss2
Sample : ic6558-50
Misc : op17006,em6558,1000,,,1,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Apr 15 13:17:35 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6556.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon Apr 15 13:16:34 2019
Response via : Initial Calibration

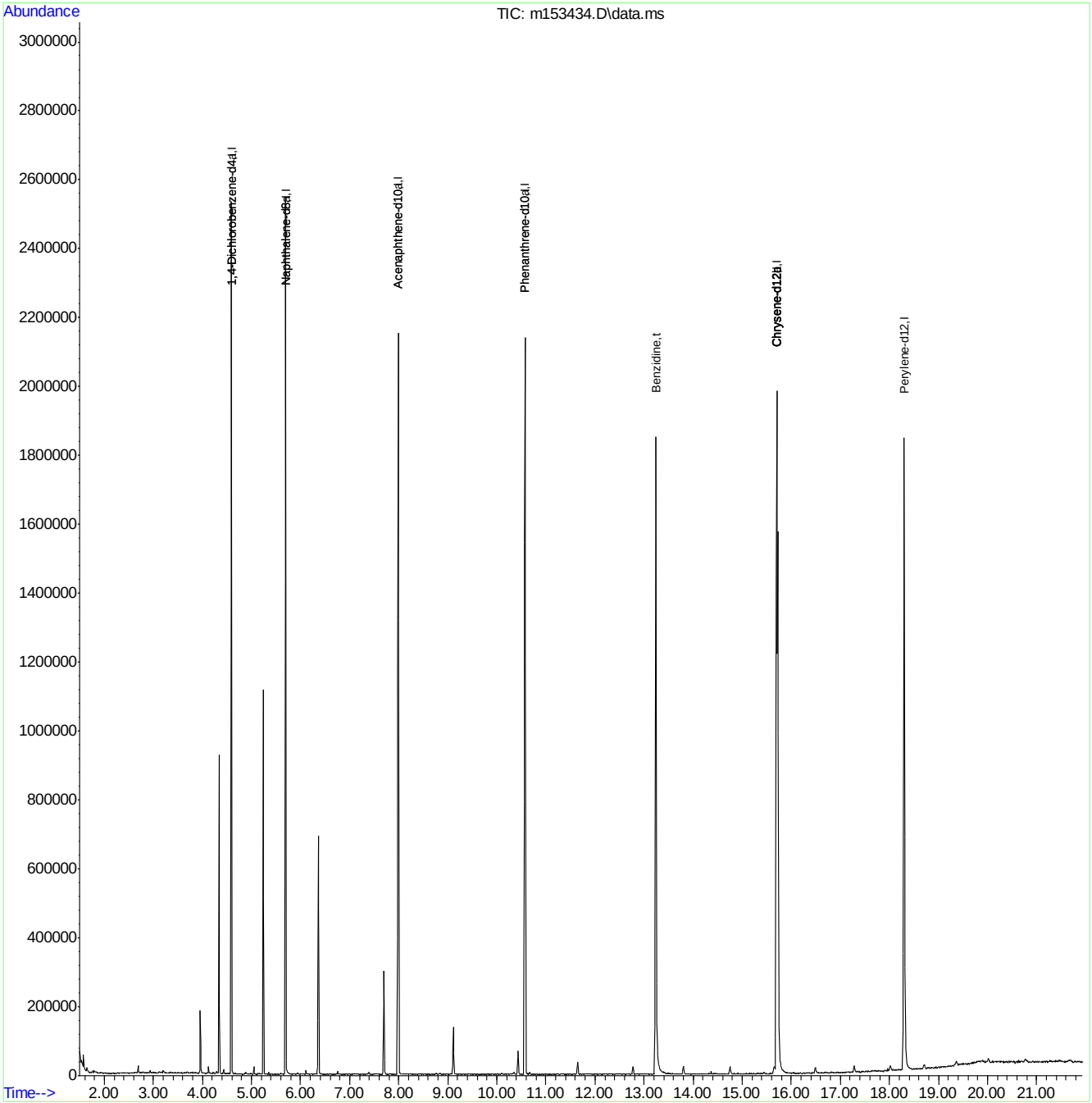
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.588	152	307606	40.00	ppm	0.00
24) Naphthalene-d8	5.694	136	1043268	40.00	ppm	0.00
47) Acenaphthene-d10	7.990	164	595733	40.00	ppm	0.00
69) Phenanthrene-d10	10.570	188	1134616	40.00	ppm	0.00
83) Chrysene-d12	15.703	240	1037708	40.00	ppm	0.00
91) Perylene-d12	18.304	264	1128772	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.588	152	307606	40.00	ppm	0.00
103) Acenaphthene-d10a	7.990	164	595733	40.00	ppm	0.00
106) Chrysene-d12a	15.703	240	1037708	40.00	ppm	0.00
108) Chrysene-d12b	15.703	240	1037708	40.00	ppm	0.00
110) Phenanthrene-d10a	10.570	188	1134616	40.00	ppm	0.00
113) Naphthalene-d8a	5.694	136	1043268	40.00	ppm	0.00
115) Chrysene-d12c	15.703	240	1037708	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
109) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
111) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
Target Compounds						Qvalue
107) Benzidine	13.241	184	1077281	50.00	ppm	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6557\
Data File : m153434.D
Acq On : 14 Apr 2019 3:39 pm
Operator : chriss2
Sample : ic6558-50
Misc : op17006,em6558,1000,,,1,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Apr 15 13:17:35 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6556.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon Apr 15 13:16:34 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6557\
Data File : m153435.D
Acq On : 14 Apr 2019 4:08 pm
Operator : chriss2
Sample : ic6558-25
Misc : op17006,em6558,1000,,,1,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Apr 15 13:21:41 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6556.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon Apr 15 13:16:34 2019
Response via : Initial Calibration

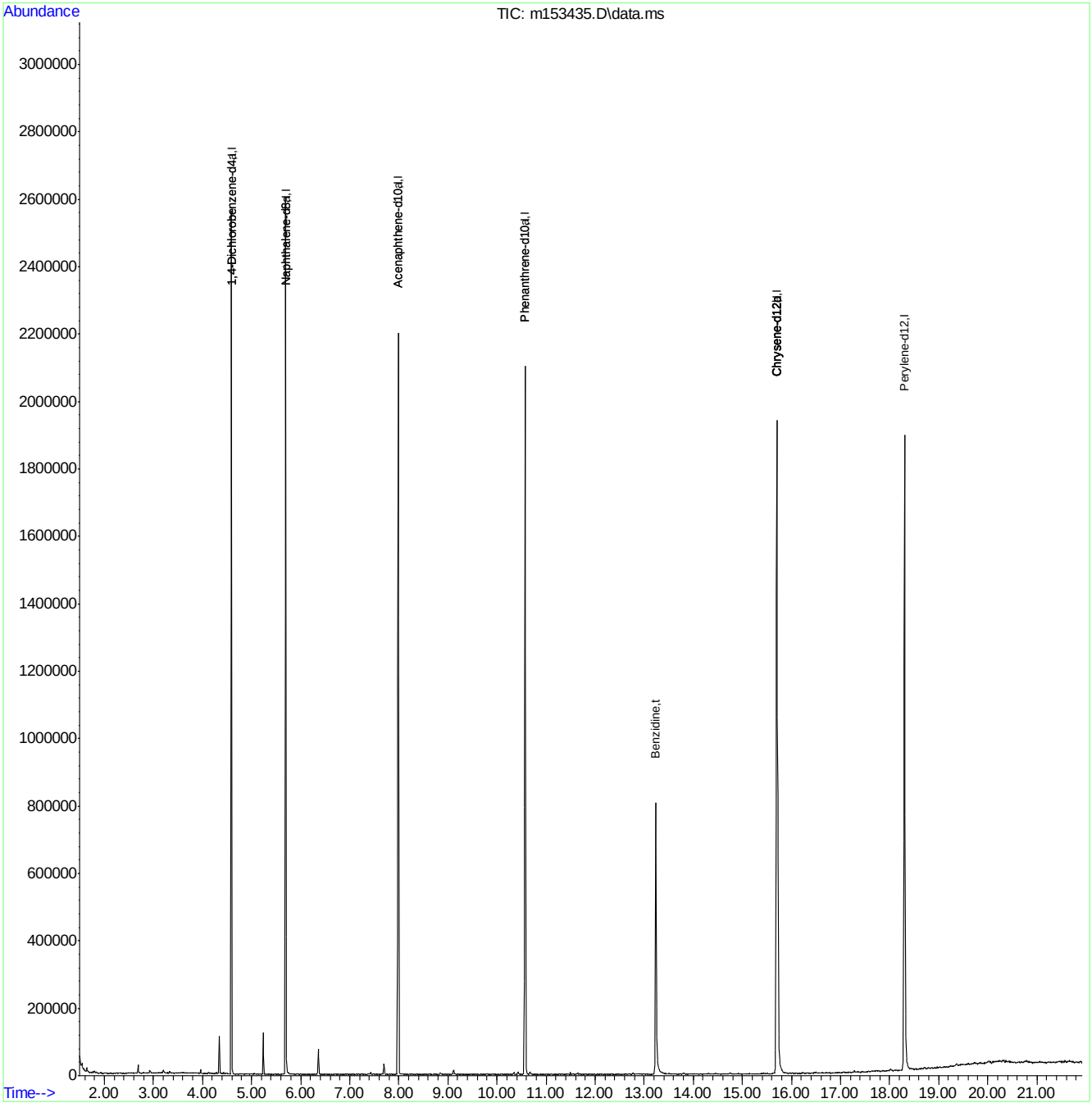
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.589	152	315538	40.00	ppm	0.00
24) Naphthalene-d8	5.694	136	1068152	40.00	ppm	0.00
47) Acenaphthene-d10	7.991	164	611960	40.00	ppm	0.00
69) Phenanthrene-d10	10.571	188	1134129	40.00	ppm	0.00
83) Chrysene-d12	15.704	240	1042016	40.00	ppm	0.00
91) Perylene-d12	18.305	264	1101514	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.589	152	315538	40.00	ppm	0.00
103) Acenaphthene-d10a	7.991	164	611960	40.00	ppm	0.00
106) Chrysene-d12a	15.704	240	1042016	40.00	ppm	0.00
108) Chrysene-d12b	15.704	240	1042016	40.00	ppm	0.00
110) Phenanthrene-d10a	10.571	188	1134129	40.00	ppm	0.00
113) Naphthalene-d8a	5.694	136	1068152	40.00	ppm	0.00
115) Chrysene-d12c	15.704	240	1042016	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
109) 1-chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
111) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
Target Compounds						Qvalue
107) Benzidine	13.236	184	486413	22.48	ppm	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6557\
Data File : m153435.D
Acq On : 14 Apr 2019 4:08 pm
Operator : chriss2
Sample : ic6558-25
Misc : op17006,em6558,1000,,,1,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Apr 15 13:21:41 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6556.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon Apr 15 13:16:34 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6557\
Data File : m153436.D
Acq On : 14 Apr 2019 4:37 pm
Operator : chriss2
Sample : ic6558-10
Misc : op17006,em6558,1000,,,1,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Apr 15 13:23:22 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6556.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon Apr 15 13:16:34 2019
Response via : Initial Calibration

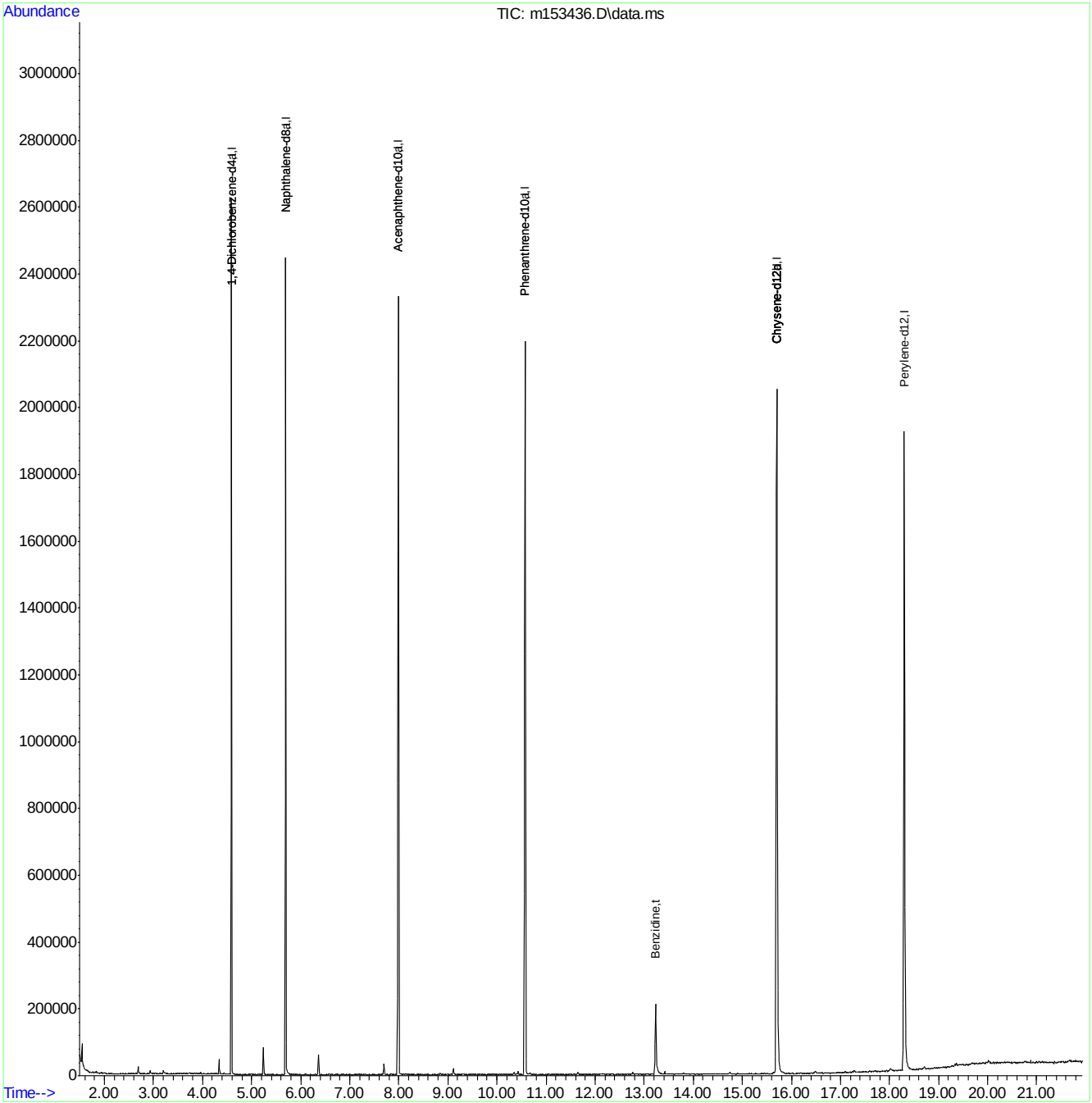
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.587	152	332083	40.00	ppm	0.00
24) Naphthalene-d8	5.698	136	1089459	40.00	ppm	0.00
47) Acenaphthene-d10	7.989	164	630875	40.00	ppm	0.00
69) Phenanthrene-d10	10.574	188	1179104	40.00	ppm	0.00
83) Chrysene-d12	15.702	240	1076531	40.00	ppm	-0.01
91) Perylene-d12	18.303	264	1152693	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.587	152	332083	40.00	ppm	0.00
103) Acenaphthene-d10a	7.989	164	630875	40.00	ppm	0.00
106) Chrysene-d12a	15.702	240	1076531	40.00	ppm	0.00
108) Chrysene-d12b	15.702	240	1076531	40.00	ppm	0.00
110) Phenanthrene-d10a	10.574	188	1179104	40.00	ppm	0.00
113) Naphthalene-d8a	5.698	136	1089459	40.00	ppm	0.00
115) Chrysene-d12c	15.702	240	1076531	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
109) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
111) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
Target Compounds						Qvalue
107) Benzidine	13.234	184	139701	6.25	ppm	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6557\
Data File : m153436.D
Acq On : 14 Apr 2019 4:37 pm
Operator : chriss2
Sample : ic6558-10
Misc : op17006,em6558,1000,,,1,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Apr 15 13:23:22 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6556.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon Apr 15 13:16:34 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6557\
Data File : m153437.D
Acq On : 14 Apr 2019 5:05 pm
Operator : chriss2
Sample : ic6558-5
Misc : op17006,em6558,1000,,,1,1
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Apr 15 13:24:37 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6556.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon Apr 15 13:16:34 2019
Response via : Initial Calibration

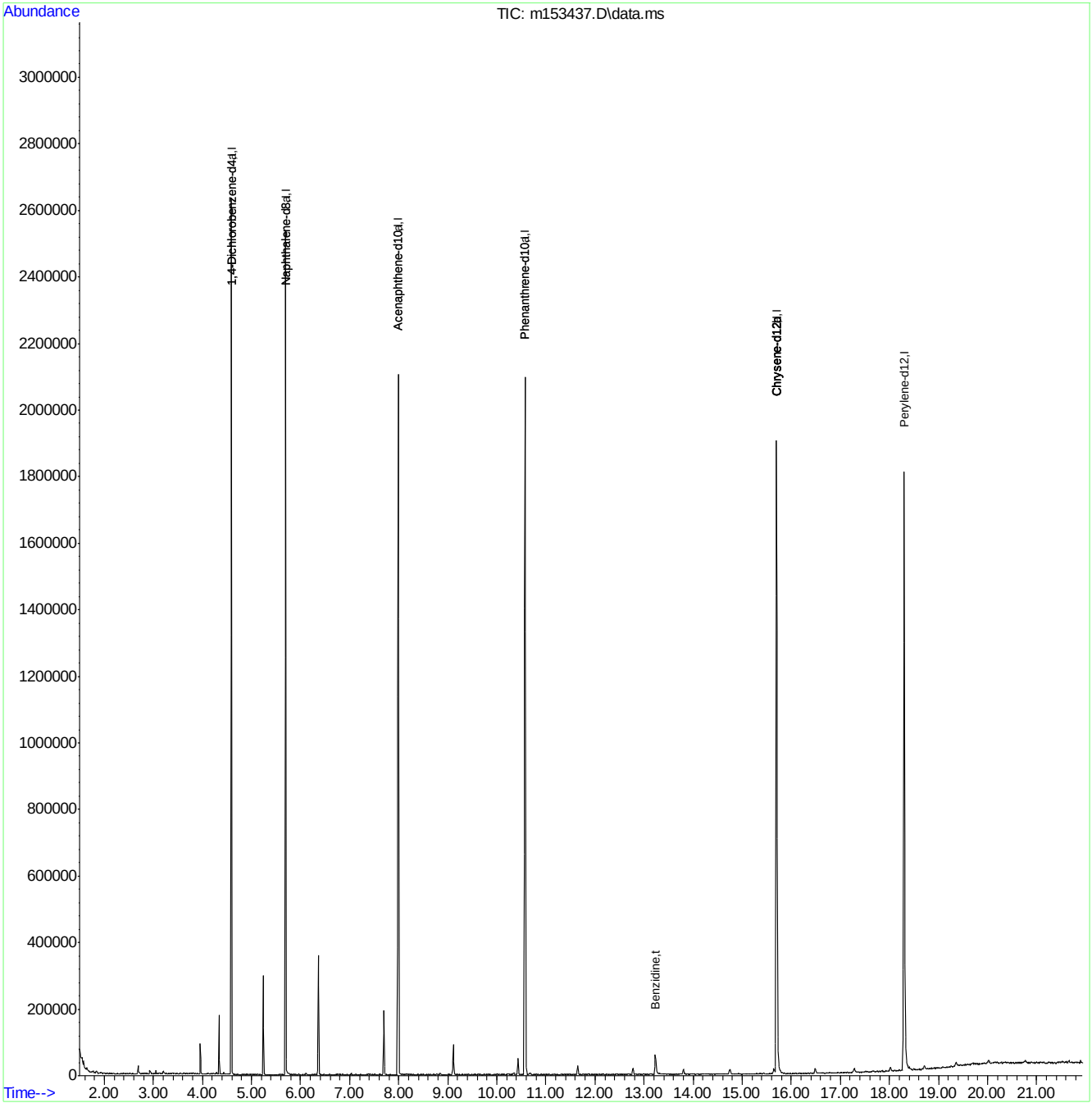
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.588	152	309123	40.00	ppm	0.00
24) Naphthalene-d8	5.694	136	1049965	40.00	ppm	0.00
47) Acenaphthene-d10	7.990	164	590536	40.00	ppm	0.00
69) Phenanthrene-d10	10.570	188	1122568	40.00	ppm	0.00
83) Chrysene-d12	15.698	240	1035150	40.00	ppm	-0.01
91) Perylene-d12	18.304	264	1090811	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.588	152	309123	40.00	ppm	0.00
103) Acenaphthene-d10a	7.990	164	590536	40.00	ppm	0.00
106) Chrysene-d12a	15.698	240	1035150	40.00	ppm	0.00
108) Chrysene-d12b	15.698	240	1035150	40.00	ppm	0.00
110) Phenanthrene-d10a	10.570	188	1122568	40.00	ppm	0.00
113) Naphthalene-d8a	5.694	136	1049965	40.00	ppm	0.00
115) Chrysene-d12c	15.698	240	1035150	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
109) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
111) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
Target Compounds						Qvalue
107) Benzidine	13.230	184	43034	2.00	ppm	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6557\
Data File : m153437.D
Acq On : 14 Apr 2019 5:05 pm
Operator : chriss2
Sample : ic6558-5
Misc : op17006,em6558,1000,,,1,1
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Apr 15 13:24:37 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6556.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon Apr 15 13:16:34 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6557\
Data File : m153438.D
Acq On : 14 Apr 2019 5:34 pm
Operator : chriss2
Sample : ic6558-2
Misc : op17006,em6558,1000,,,1,1
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Apr 15 13:25:57 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6556.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon Apr 15 13:16:34 2019
Response via : Initial Calibration

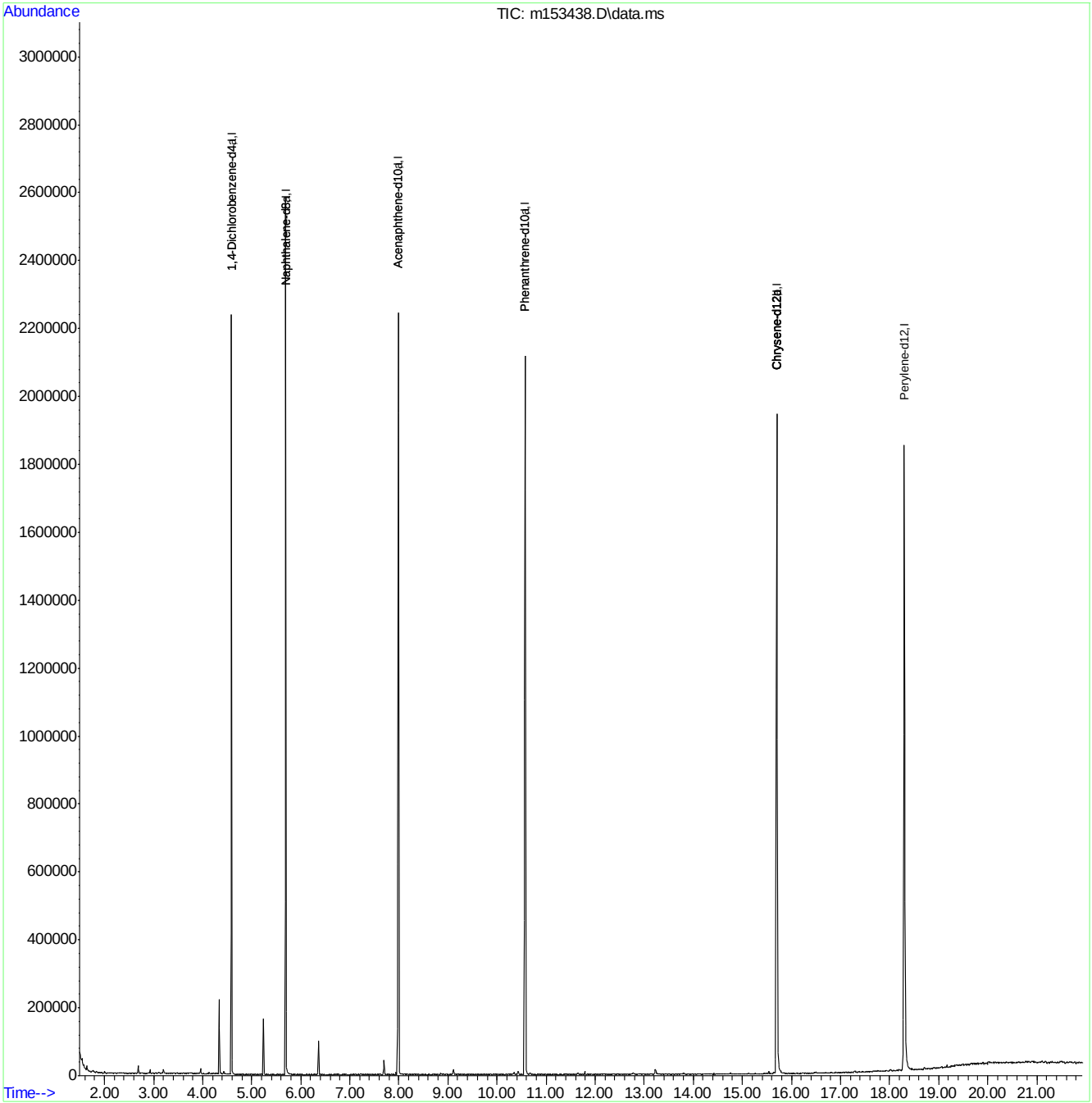
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.591	152	316006	40.00	ppm	0.00
24) Naphthalene-d8	5.696	136	1055335	40.00	ppm	0.00
47) Acenaphthene-d10	7.987	164	607511	40.00	ppm	0.00
69) Phenanthrene-d10	10.573	188	1123107	40.00	ppm	0.00
83) Chrysene-d12	15.700	240	1040904	40.00	ppm	-0.01
91) Perylene-d12	18.301	264	1090284	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.591	152	316006	40.00	ppm	0.00
103) Acenaphthene-d10a	7.987	164	607511	40.00	ppm	0.00
106) Chrysene-d12a	15.700	240	1040904	40.00	ppm	0.00
108) Chrysene-d12b	15.700	240	1040904	40.00	ppm	0.00
110) Phenanthrene-d10a	10.573	188	1123107	40.00	ppm	0.00
113) Naphthalene-d8a	5.696	136	1055335	40.00	ppm	0.00
115) Chrysene-d12c	15.700	240	1040904	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
109) 1-chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
111) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6557\
Data File : m153438.D
Acq On : 14 Apr 2019 5:34 pm
Operator : chriss2
Sample : ic6558-2
Misc : op17006,em6558,1000,,,1,1
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Apr 15 13:25:57 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6556.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon Apr 15 13:16:34 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6557\
Data File : m153439.D
Acq On : 14 Apr 2019 6:02 pm
Operator : chriss2
Sample : ic6558-1
Misc : op17006,em6558,1000,,,1,1
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Apr 15 13:27:06 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6556.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon Apr 15 13:16:34 2019
Response via : Initial Calibration

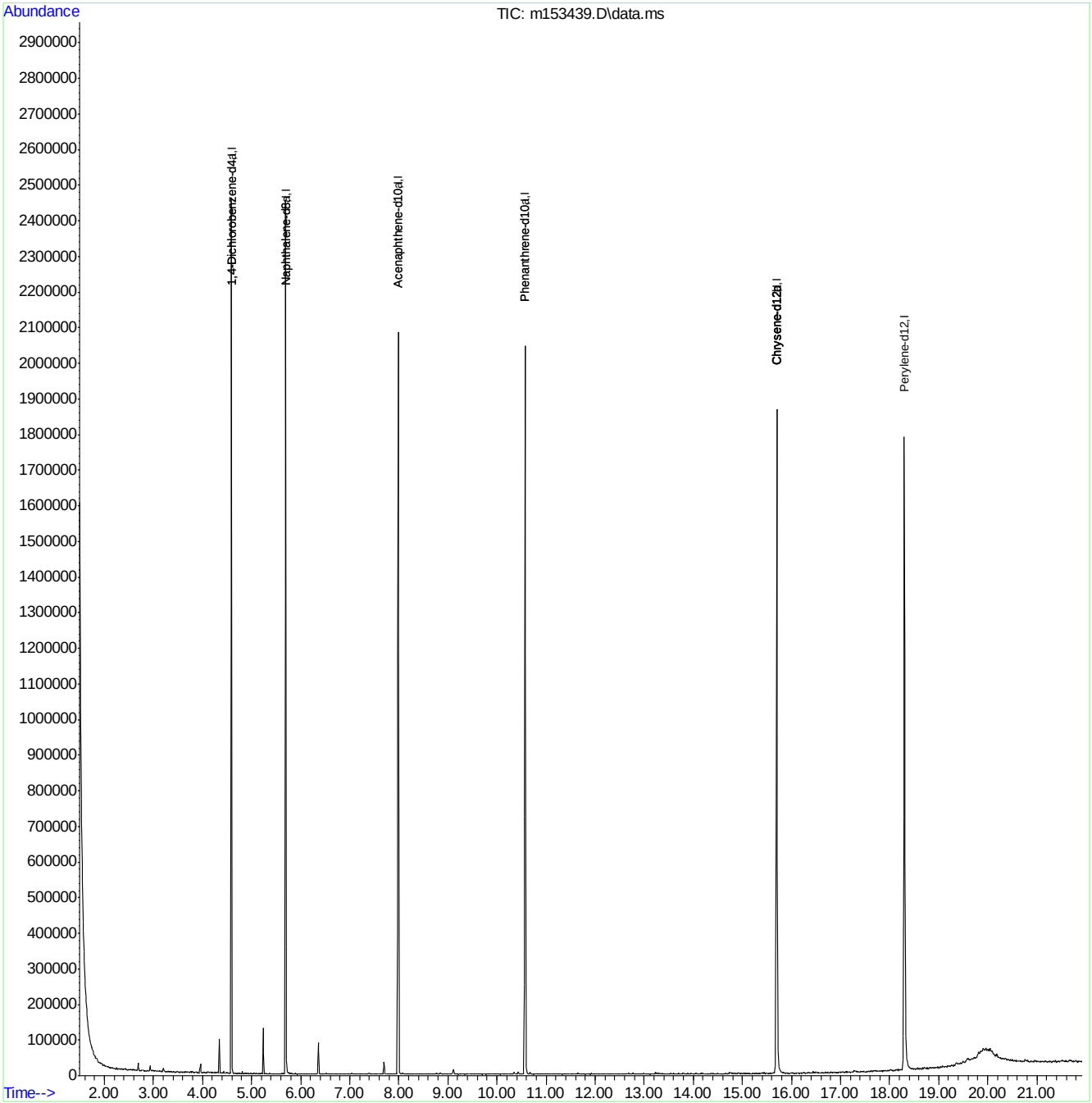
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.589	152	295192	40.00	ppm	0.00
24) Naphthalene-d8	5.694	136	994476	40.00	ppm	0.00
47) Acenaphthene-d10	7.991	164	581752	40.00	ppm	0.00
69) Phenanthrene-d10	10.571	188	1086350	40.00	ppm	0.00
83) Chrysene-d12	15.704	240	999624	40.00	ppm	0.00
91) Perylene-d12	18.299	264	1040638	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.589	152	295192	40.00	ppm	0.00
103) Acenaphthene-d10a	7.991	164	581752	40.00	ppm	0.00
106) Chrysene-d12a	15.704	240	999624	40.00	ppm	0.00
108) Chrysene-d12b	15.704	240	999624	40.00	ppm	0.00
110) Phenanthrene-d10a	10.571	188	1086350	40.00	ppm	0.00
113) Naphthalene-d8a	5.694	136	994476	40.00	ppm	0.00
115) Chrysene-d12c	15.704	240	999624	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
109) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
111) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6557\
Data File : m153439.D
Acq On : 14 Apr 2019 6:02 pm
Operator : chriss2
Sample : ic6558-1
Misc : op17006,em6558,1000,,,1,1
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Apr 15 13:27:06 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6556.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon Apr 15 13:16:34 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6557\
Data File : m153440.D
Acq On : 14 Apr 2019 6:31 pm
Operator : chriss2
Sample : icv6558-50
Misc : op17006,em6558,1000,,,1,1
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Apr 15 13:38:25 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6556.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon Apr 15 13:37:21 2019
Response via : Initial Calibration

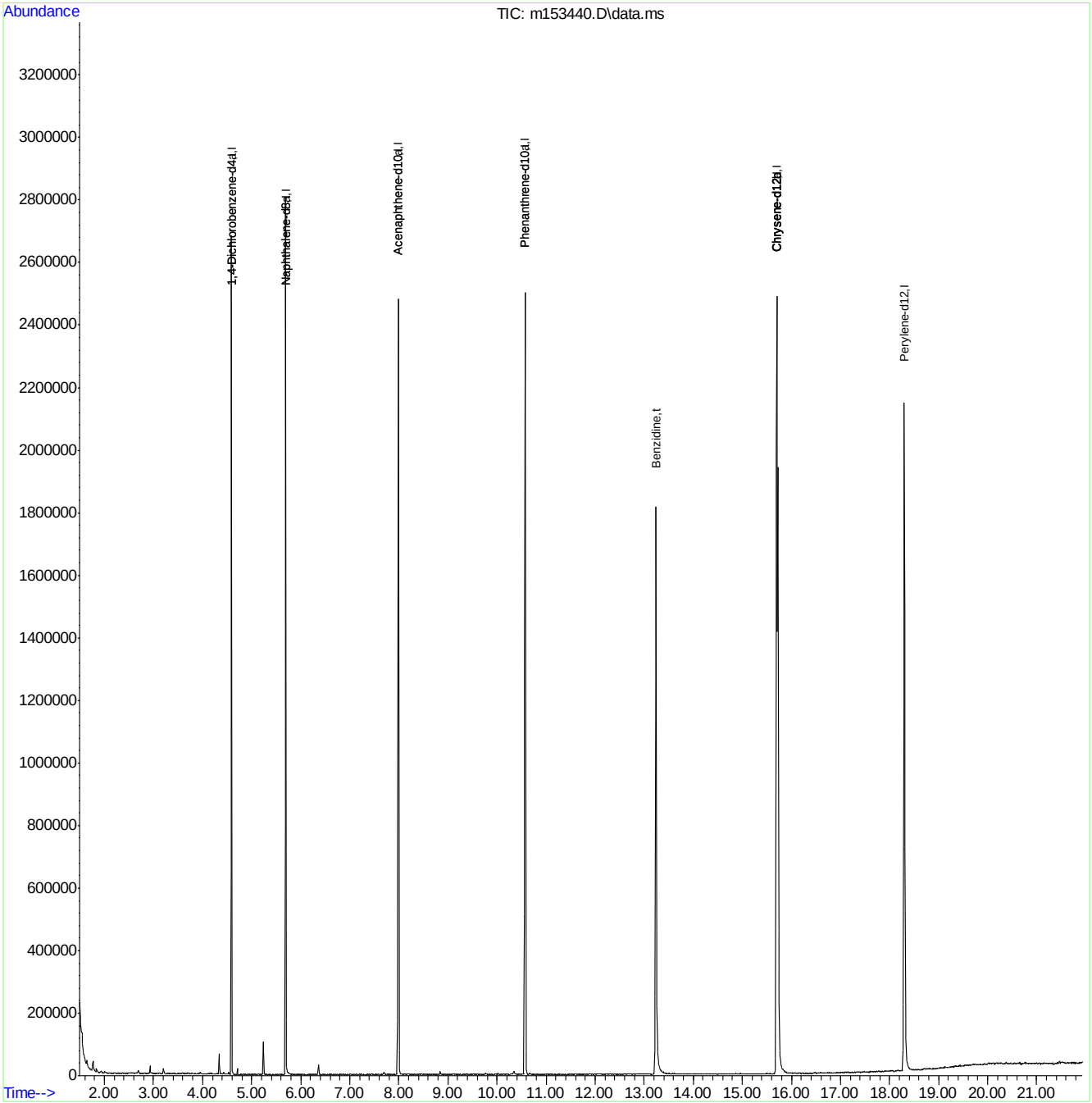
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.586	152	355387	40.00	ppm	0.00
24) Naphthalene-d8	5.697	136	1210601	40.00	ppm	0.00
47) Acenaphthene-d10	7.988	164	679943	40.00	ppm	0.00
69) Phenanthrene-d10	10.573	188	1358609	40.00	ppm	0.00
83) Chrysene-d12	15.701	240	1370467	40.00	ppm	-0.01
91) Perylene-d12	18.307	264	1380199	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.586	152	355387	40.00	ppm	0.00
103) Acenaphthene-d10a	7.988	164	679943	40.00	ppm	0.00
106) Chrysene-d12a	15.701	240	1370467	40.00	ppm	0.00
108) Chrysene-d12b	15.701	240	1370467	40.00	ppm	0.00
110) Phenanthrene-d10a	10.573	188	1358609	40.00	ppm	0.00
113) Naphthalene-d8a	5.697	136	1210601	40.00	ppm	0.00
115) Chrysene-d12c	15.701	240	1370467	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
109) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
111) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
Target Compounds						Qvalue
107) Benzidine	13.244	184	1124510	43.46	ppm	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6557\
Data File : m153440.D
Acq On : 14 Apr 2019 6:31 pm
Operator : chriss2
Sample : icv6558-50
Misc : op17006,em6558,1000,,,1,1
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Apr 15 13:38:25 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6556.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon Apr 15 13:37:21 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6557\
Data File : m153441.D
Acq On : 14 Apr 2019 7:00 pm
Operator : chriss2
Sample : icv6557-50
Misc : op17006,em6557,1000,,,1,1
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Apr 15 12:54:11 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6556.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon Apr 15 12:52:14 2019
Response via : Initial Calibration

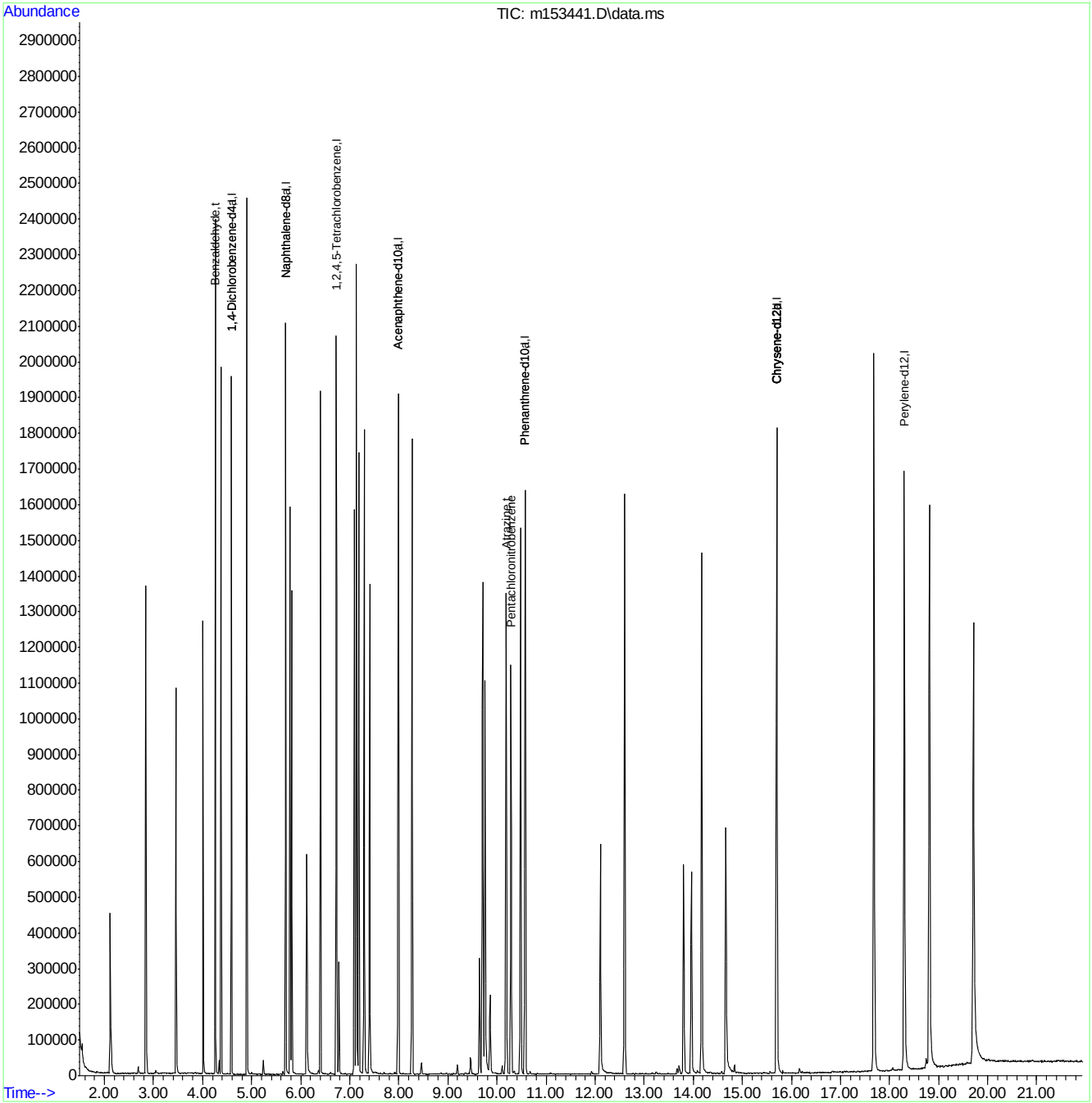
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.586	152	251302	40.00	ppm	0.00
24) Naphthalene-d8	5.697	136	913631	40.00	ppm	0.00
47) Acenaphthene-d10	7.988	164	510965	40.00	ppm	0.00
69) Phenanthrene-d10	10.574	188	883153	40.00	ppm	0.00
83) Chrysene-d12	15.701	240	924351	40.00	ppm	-0.01
91) Perylene-d12	18.302	264	979351	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.586	152	251302	40.00	ppm	0.00
103) Acenaphthene-d10a	7.988	164	510965	40.00	ppm	0.00
106) Chrysene-d12a	15.701	240	924351	40.00	ppm	0.00
108) Chrysene-d12b	15.701	240	924351	40.00	ppm	0.00
110) Phenanthrene-d10a	10.574	188	883153	40.00	ppm	0.00
113) Naphthalene-d8a	5.697	136	913631	40.00	ppm	0.00
115) Chrysene-d12c	15.701	240	924351	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
109) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
111) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
Target Compounds						Qvalue
102) Benzaldehyde	4.260	105	340363	48.26	ppm	98
104) 1,2,4,5-Tetrachloroben...	6.728	216	409726	46.95	ppm	98
105) Atrazine	10.189	215	131085	54.77	ppm	95
112) Pentachloronitrobenzene	10.290	295	51722	49.67	ppm	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6557\
Data File : m153441.D
Acq On : 14 Apr 2019 7:00 pm
Operator : chriss2
Sample : icv6557-50
Misc : op17006,em6557,1000,,,1,1
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Apr 15 12:54:11 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6556.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon Apr 15 12:52:14 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6557\
Data File : m153442.D
Acq On : 14 Apr 2019 7:28 pm
Operator : chriss2
Sample : icv6557-50
Misc : op17006,em6557,1000,,,1,1
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Apr 15 12:55:38 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6556.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon Apr 15 12:52:14 2019
Response via : Initial Calibration

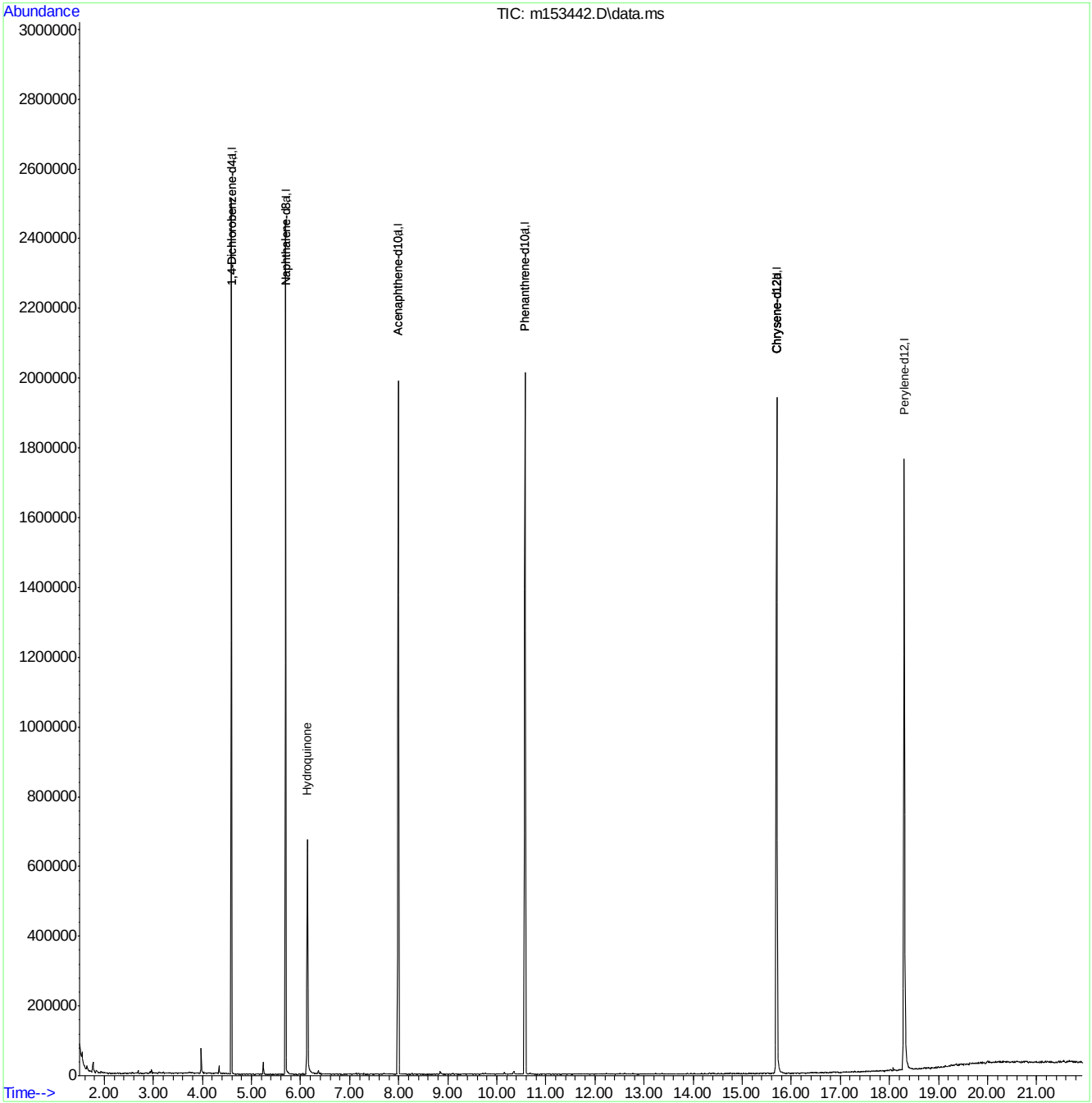
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.588	152	292219	40.00	ppm	0.00
24) Naphthalene-d8	5.694	136	1010964	40.00	ppm	0.00
47) Acenaphthene-d10	7.991	164	537966	40.00	ppm	0.00
69) Phenanthrene-d10	10.576	188	1106091	40.00	ppm	0.00
83) Chrysene-d12	15.703	240	1089749	40.00	ppm	0.00
91) Perylene-d12	18.304	264	1043981	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4a	4.588	152	292219	40.00	ppm	0.00
103) Acenaphthene-d10a	7.991	164	537966	40.00	ppm	0.00
106) Chrysene-d12a	15.703	240	1089749	40.00	ppm	0.00
108) Chrysene-d12b	15.703	240	1089749	40.00	ppm	0.00
110) Phenanthrene-d10a	10.576	188	1106091	40.00	ppm	0.00
113) Naphthalene-d8a	5.694	136	1010964	40.00	ppm	0.00
115) Chrysene-d12c	15.703	240	1089749	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
109) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
111) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
Target Compounds						Qvalue
114) Hydroquinone	6.137	110	384489	46.70	ppm	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6557\
Data File : m153442.D
Acq On : 14 Apr 2019 7:28 pm
Operator : chriss2
Sample : icv6557-50
Misc : op17006,em6557,1000,,,1,1
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Apr 15 12:55:38 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6556.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon Apr 15 12:52:14 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6559\
Data File : m153444.D
Acq On : 15 Apr 2019 2:05 pm
Operator : christc2
Sample : ic6556-50
Misc : op17006,em6559,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 15 14:53:41 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6556.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon Apr 15 13:37:21 2019
Response via : Initial Calibration

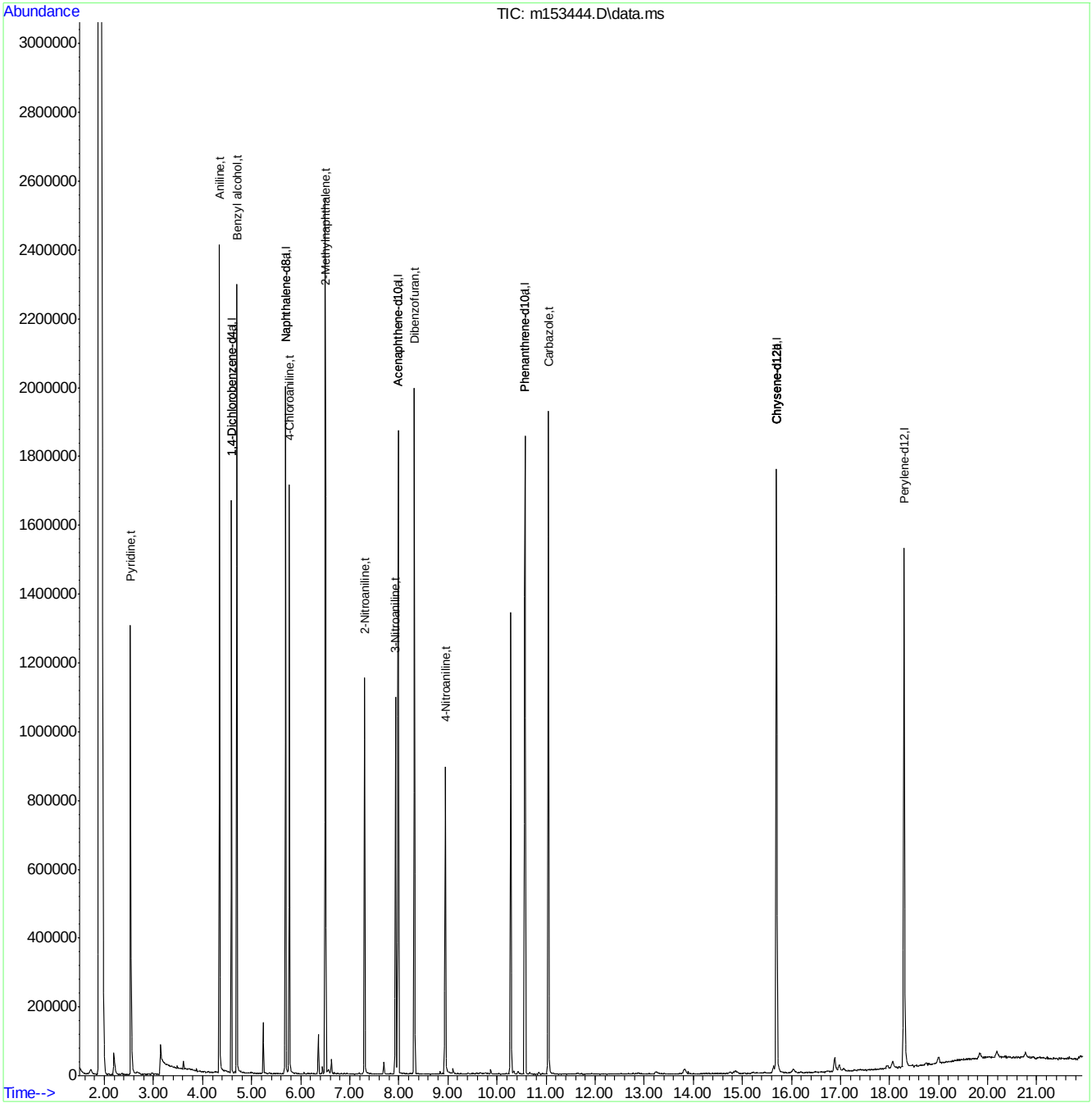
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.591	152	259492	40.00	ppm	0.00
24) Naphthalene-d8	5.692	136	951960	40.00	ppm	0.00
47) Acenaphthene-d10	7.988	164	516788	40.00	ppm	0.00
69) Phenanthrene-d10	10.568	188	984216	40.00	ppm	-0.01
83) Chrysene-d12	15.695	240	882663	40.00	ppm	-0.02
91) Perylene-d12	18.296	264	888272	40.00	ppm	-0.01
101) 1,4-Dichlorobenzene-d4a	4.591	152	259492	40.00	ppm	0.00
103) Acenaphthene-d10a	7.988	164	516788	40.00	ppm	0.00
106) Chrysene-d12a	15.695	240	882663	40.00	ppm	0.00
108) Chrysene-d12b	15.695	240	882663	40.00	ppm	0.00
110) Phenanthrene-d10a	10.568	188	984216	40.00	ppm	0.00
113) Naphthalene-d8a	5.692	136	951960	40.00	ppm	0.00
115) Chrysene-d12c	15.695	240	882663	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
8) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
109) 1-chlorooctadecane	0.000	57	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
111) o-terphenyl	0.000	230	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
Target Compounds						Qvalue
3) Pyridine	2.530	79	533530	43.16	ppm	99
10) Aniline	4.346	93	729119	55.28	ppm	98
16) Benzyl alcohol	4.698	108	277294	52.03	ppm	96
39) 4-Chloroaniline	5.772	127	480601	46.53	ppm	99
44) 2-Methylnaphthalene	6.503	141	626814	42.41	ppm	98
54) 2-Nitroaniline	7.305	65	202466	47.22	ppm	96
58) 3-Nitroaniline	7.935	138	212033	47.27	ppm	96
62) Dibenzofuran	8.319	168	1046488	46.31	ppm	98
68) 4-Nitroaniline	8.950	138	204471	51.16	ppm	97
79) Carbazole	11.049	167	1158275	46.87	ppm	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6559\
Data File : m153444.D
Acq On : 15 Apr 2019 2:05 pm
Operator : christc2
Sample : ic6556-50
Misc : op17006,em6559,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 15 14:53:41 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6556.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon Apr 15 13:37:21 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\EM6583\
Data File : m154070.D
Acq On : 5 May 2019 10:02 pm
Operator : carolb
Sample : cc6556-25
Misc : op17006,em6583,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: May 06 08:15:40 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6556.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon May 06 08:15:34 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.373	152	245076	40.00	ppm	-0.02
24) Naphthalene-d8	5.425	136	847601	40.00	ppm	-0.03
47) Acenaphthene-d10	7.626	164	507309	40.00	ppm	-0.04
69) Phenanthrene-d10	10.168	188	972539	40.00	ppm	-0.04
83) Chrysene-d12	15.274	240	858562	40.00	ppm	-0.18
91) Perylene-d12	17.865	264	990552	40.00	ppm	-0.18
101) 1,4-Dichlorobenzene-d4a	4.373	152	245076	40.00	ppm	-0.02
103) Acenaphthene-d10a	7.626	164	507309	40.00	ppm	-0.04
106) Chrysene-d12a	15.274	240	858562	40.00	ppm	-0.19
108) Chrysene-d12b	15.274	240	858562	40.00	ppm	-0.19
110) Phenanthrene-d10a	10.168	188	972539	40.00	ppm	-0.14
113) Naphthalene-d8a	5.425	136	847601	40.00	ppm	-0.03
115) Chrysene-d12c	15.274	240	858562	40.00	ppm	-0.19
System Monitoring Compounds						
5) 2-Fluorophenol	3.396	112	199091	20.78	ppm	-0.05
Spiked Amount 50.000			Recovery = 41.56%			
8) Phenol-d5	4.133	99	255678	21.61	ppm	0.00
Spiked Amount 50.000			Recovery = 43.22%			
25) Nitrobenzene-d5	4.795	82	190953	21.12	ppm	-0.02
Spiked Amount 50.000			Recovery = 42.24%			
51) 2-Fluorobiphenyl	6.675	172	447708	23.74	ppm	-0.04
Spiked Amount 50.000			Recovery = 47.48%			
73) 2,4,6-Tribromophenol	8.940	330	99656	30.46	ppm	-0.05
Spiked Amount 50.000			Recovery = 60.92%			
85) Terphenyl-d14	13.319	244	569140	24.58	ppm	-0.19
Spiked Amount 50.000			Recovery = 49.16%			
109) 1-chlorooctadecane	12.582	57	270	0.05	ppm	-0.15
Spiked Amount 50.000			Recovery = 0.10%			
111) o-terphenyl	11.172	230	593	0.04	ppm	0.06
Spiked Amount 50.000			Recovery = 0.08%			
Target Compounds						Qvalue
2) 1,4-Dioxane	1.836	88	95122	19.62	ppm	95
3) Pyridine	2.189	79	218791	18.74	ppm	98
4) N-Nitrosodimethylamine	2.141	42	80627	19.41	ppm	99
6) Indene	4.565	116	310006	23.92	ppm	97
7) Cumene	3.775	105	466794	20.39	ppm	98
9) Phenol	4.138	94	264994	21.31	ppm	84
10) Aniline	4.133	93	288000	23.12	ppm	96
11) bis(2-Chloroethyl)ether	4.186	93	177593	20.65	ppm	98
12) 2-Chlorophenol	4.224	128	208520	24.41	ppm	96
13) Decane	4.266	43	153128	23.47	ppm	89
14) 1,3-Dichlorobenzene	4.330	146	237563	23.94	ppm	95
15) 1,4-Dichlorobenzene	4.384	146	221109	24.54	ppm	94
16) Benzyl alcohol	4.485	108	119894	23.82	ppm	86
17) 1,2-Dichlorobenzene	4.496	146	219968	24.67	ppm	96
18) Acetophenone	4.678	105	259467	23.01	ppm	100
19) 2-Methylphenol	4.581	108	174544	24.27	ppm	93

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\EM6583\
Data File : m154070.D
Acq On : 5 May 2019 10:02 pm
Operator : carolb
Sample : cc6556-25
Misc : op17006,em6583,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: May 06 08:15:40 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6556.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon May 06 08:15:34 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
20) 2,2'-oxybis(1-Chloropr...	4.581	121	50528	22.72	ppm	#	86
21) 3&4-Methylphenol	4.699	108	178589	24.70	ppm	#	85
22) n-Nitroso-di-n-propyla...	4.683	70	134143	23.85	ppm		95
23) Hexachloroethane	4.758	201	88611	23.28	ppm		96
26) Nitrobenzene	4.811	77	189540	21.59	ppm		87
27) Quinoline	5.788	129	392627	24.45	ppm		94
28) Isophorone	5.009	82	354815	21.66	ppm		99
29) 2-Nitrophenol	5.078	139	122618	30.19	ppm		87
30) 2,4-Dimethylphenol	5.132	107	158448	23.56	ppm		86
31) Benzoic acid	5.238	105	157511	29.47	ppm		95
32) bis(2-Chloroethoxy)met...	5.201	93	223791	22.52	ppm		98
33) 2,4-Dichlorophenol	5.302	162	180483	25.60	ppm		94
34) 2,6-Dichlorophenol	5.516	162	171377	26.81	ppm		97
35) 1,3,5-Trichlorobenzene	5.089	180	215872	24.38	ppm		97
36) 1,2,4-Trichlorobenzene	5.372	180	207571	24.08	ppm		99
37) 1,2,3-Trichlorobenzene	5.591	180	195203	24.40	ppm		98
38) Naphthalene	5.441	128	518636	24.99	ppm		98
39) 4-Chloroaniline	5.505	127	238436	25.93	ppm		95
40) 2,3-Dichloroaniline	6.552	161	231648	25.77	ppm		95
41) Caprolactam	5.874	55	77069	23.62	ppm		96
42) Hexachlorobutadiene	5.580	225	112497	21.90	ppm		97
43) 4-Chloro-3-methylphenol	6.056	107	164976	22.61	ppm		84
44) 2-Methylnaphthalene	6.194	141	316051	24.02	ppm		97
45) 1-Methylnaphthalene	6.312	142	405490	24.24	ppm		96
46) Dimethylnaphthalene	7.022	156	353616	24.28	ppm		93
48) Hexachlorocyclopentadiene	6.403	237	247330	50.14	ppm		98
49) 2,4,6-Trichlorophenol	6.568	196	142944	26.03	ppm		99
50) 2,4,5-Trichlorophenol	6.622	196	155343	26.36	ppm		99
52) 2-Chloronaphthalene	6.819	162	382309	24.50	ppm		94
53) Biphenyl	6.803	154	502793	24.67	ppm		98
54) 2-Nitroaniline	6.974	65	111857	26.58	ppm		92
55) Dimethylphthalate	7.273	163	445023	23.34	ppm		98
56) Acenaphthylene	7.407	152	619497	25.28	ppm		99
57) 2,6-Dinitrotoluene	7.343	165	103825	29.07	ppm		94
58) 3-Nitroaniline	7.594	138	119838	27.22	ppm		83
59) Acenaphthene	7.674	153	370164	24.95	ppm		95
60) 2,4-Dinitrophenol	7.765	184	117579	58.93	ppm		88
61) 4-Nitrophenol	7.946	109	45861	18.76	ppm	#	1
62) Dibenzofuran	7.952	168	558705	25.19	ppm		96
63) 2,4-Dinitrotoluene	7.978	165	137614	27.28	ppm		81
64) 2,3,4,6-Tetrachlorophenol	8.187	232	142587	27.02	ppm		95
65) Diethylphthalate	8.427	149	434463	23.58	ppm		100
66) Fluorene	8.518	166	456252	24.78	ppm		99
67) 4-Chlorophenyl-phenyle...	8.560	204	222644	23.29	ppm		93
68) 4-Nitroaniline	8.593	138	107210	27.32	ppm		79
70) 4,6-Dinitro-2-methylph...	8.662	198	90670	30.26	ppm		92
71) n-Nitrosodiphenylamine	8.774	169	329952	25.52	ppm		98
72) 1,2-Diphenylhydrazine	8.828	77	401418	22.64	ppm		99
74) 4-Bromophenyl-phenylether	9.410	248	159077	23.96	ppm		98
75) Hexachlorobenzene	9.490	284	188988	25.63	ppm		94

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\EM6583\
Data File : m154070.D
Acq On : 5 May 2019 10:02 pm
Operator : carolb
Sample : cc6556-25
Misc : op17006,em6583,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: May 06 08:15:40 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6556.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon May 06 08:15:34 2019
Response via : Initial Calibration

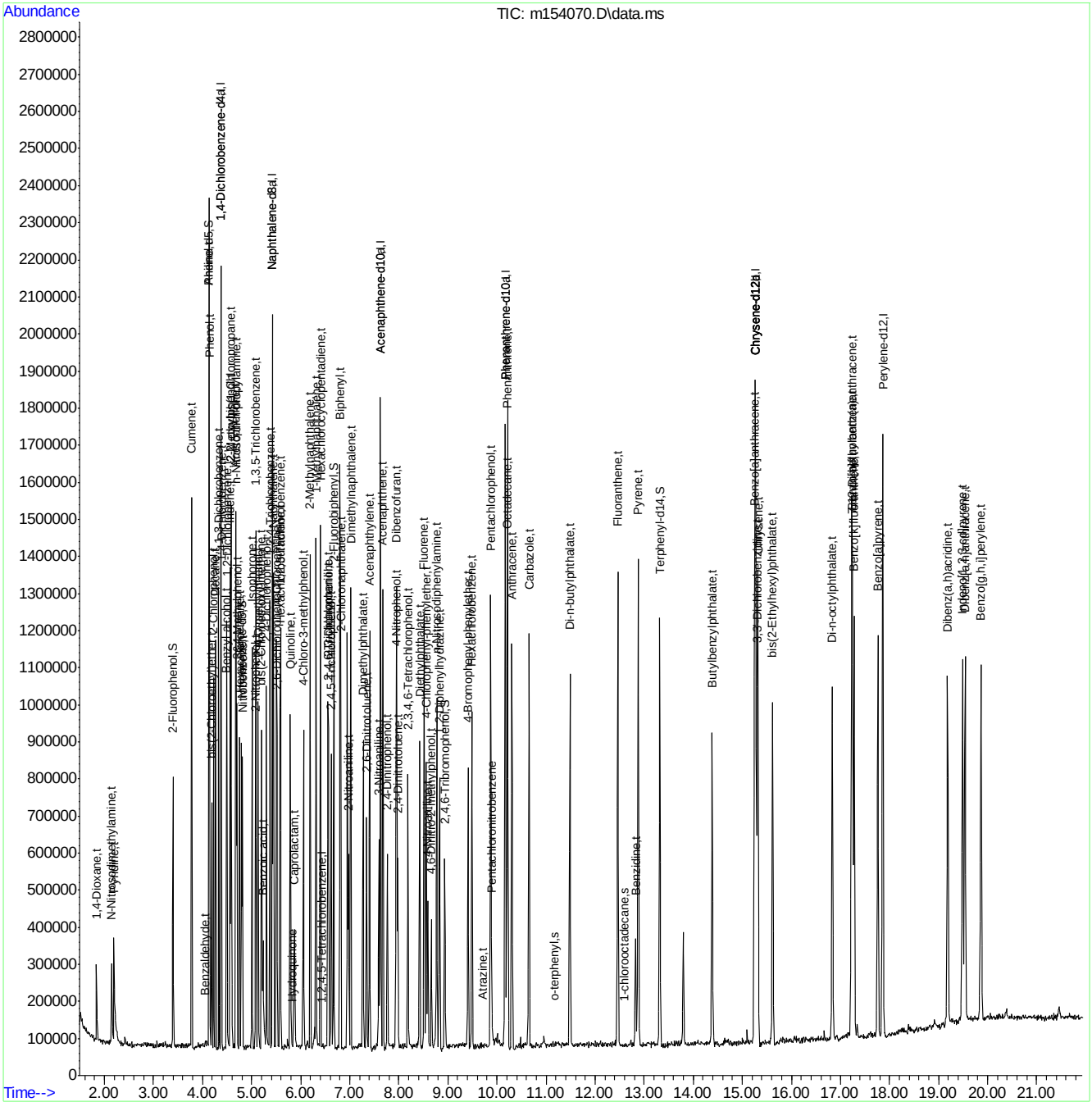
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
76) Pentachlorophenol	9.874	266	245095	59.67	ppm		99
77) Phenanthrene	10.211	178	651926	27.04	ppm		97
78) Anthracene	10.307	178	657632	25.89	ppm		99
79) Carbazole	10.654	167	651502	26.68	ppm		98
80) Di-n-butylphthalate	11.487	149	800545	27.22	ppm		98
81) Fluoranthene	12.465	202	782300	24.54	ppm		96
82) Octadecane	10.222	57	198136	25.38	ppm		100
84) Pyrene	12.881	202	800300	25.46	ppm		99
86) Butylbenzylphthalate	14.388	149	348235	26.97	ppm		99
87) Benzo[a]anthracene	15.253	228	747750	25.44	ppm		99
88) 3,3'-Dichlorobenzidine	15.301	252	284941	28.70	ppm		98
89) Chrysene	15.322	228	656532	25.13	ppm		97
90) bis(2-Ethylhexyl)phtha...	15.616	149	463170	27.33	ppm		98
92) Di-n-octylphthalate	16.834	149	813145	24.97	ppm		99
93) Benzo[b]fluoranthene	17.229	252	784856	25.15	ppm		97
94) Benzo[k]fluoranthene	17.282	252	678274	22.83	ppm		98
95) Benzo[a]pyrene	17.763	252	692802	25.29	ppm		97
96) Indeno[1,2,3-cd]pyrene	19.494	276	657363	24.14	ppm		96
97) Dibenz(a,h)acridine	19.189	279	624884	24.88	ppm		87
98) Dibenz[a,h]anthracene	19.542	278	657769	26.05	ppm		98
99) 7,12-Dimethylbenz(a)an...	17.245	256	326431	27.28	ppm		97
100) Benzo[g,h,i]perylene	19.868	276	653891	25.17	ppm		97
102) Benzaldehyde	4.053	105	3332	0.48	ppm	#	70
104) 1,2,4,5-Tetrachloroben...	6.424	216	232	0.03	ppm	#	18
105) Atrazine	9.714	215	409	0.17	ppm	#	1
107) Benzidine	12.828	184	197253	12.17	ppm		96
112) Pentachloronitrobenzene	9.890	295	154	0.13	ppm	#	14
114) Hydroquinone	5.837	110	118	0.02	ppm		82

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\EM6583\
Data File : m154070.D
Acq On : 5 May 2019 10:02 pm
Operator : carolb
Sample : cc6556-25
Misc : op17006,em6583,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: May 06 08:15:40 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6556.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Mon May 06 08:15:34 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6583\
Data File : m154071.D
Acq On : 5 May 2019 10:30 pm
Operator : carolb
Sample : cc6557-25
Misc : op17006,em6583,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: May 06 08:10:59 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6556.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Fri May 03 08:21:24 2019
Response via : Initial Calibration

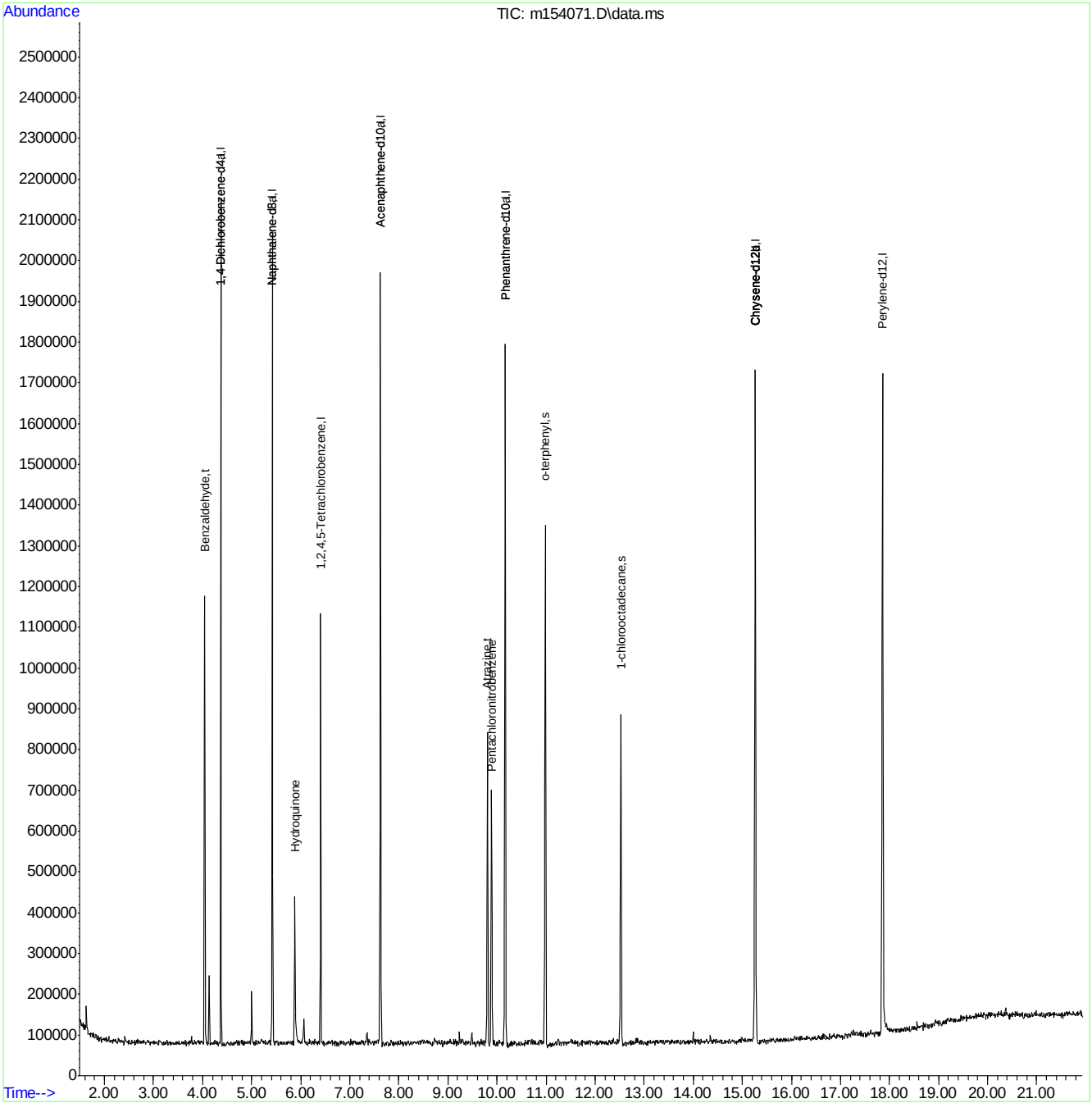
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.372	152	250079	40.00	ppm	-0.02
24) Naphthalene-d8	5.419	136	869098	40.00	ppm	-0.03
47) Acenaphthene-d10	7.625	164	517517	40.00	ppm	-0.04
69) Phenanthrene-d10	10.167	188	954947	40.00	ppm	-0.04
83) Chrysene-d12	15.268	240	876159	40.00	ppm	-0.19
91) Perylene-d12	17.859	264	993041	40.00	ppm	-0.19
101) 1,4-Dichlorobenzene-d4a	4.372	152	250079	40.00	ppm	-0.02
103) Acenaphthene-d10a	7.625	164	517517	40.00	ppm	-0.04
106) Chrysene-d12a	15.268	240	876557	40.00	ppm	-0.19
108) Chrysene-d12b	15.268	240	876710	40.00	ppm	-0.19
110) Phenanthrene-d10a	10.167	188	954947	40.00	ppm	-0.14
113) Naphthalene-d8a	5.419	136	869098	40.00	ppm	-0.03
115) Chrysene-d12c	15.268	240	876557	40.00	ppm	-0.19
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
109) 1-chlorooctadecane	12.528	57	157543	29.21	ppm	-0.20
Spiked Amount 50.000			Recovery =	58.42%		
111) o-terphenyl	10.985	230	375499	26.49	ppm	-0.12
Spiked Amount 50.000			Recovery =	52.98%		
Target Compounds						Qvalue
102) Benzaldehyde	4.047	105	159840	22.78	ppm	99
104) 1,2,4,5-Tetrachloroben...	6.407	216	217167	24.57	ppm	98
105) Atrazine	9.810	215	77311	31.89	ppm	83
112) Pentachloronitrobenzene	9.895	295	34613	30.74	ppm	90
114) Hydroquinone	5.879	110	199234	28.15	ppm	94

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6583\
Data File : m154071.D
Acq On : 5 May 2019 10:30 pm
Operator : carolb
Sample : cc6557-25
Misc : op17006,em6583,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: May 06 08:10:59 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6556.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Fri May 03 08:21:24 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6583\
Data File : m154072.D
Acq On : 5 May 2019 10:59 pm
Operator : carolb
Sample : cc6558-25
Misc : op17006,em6583,1000,,,1,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: May 06 08:12:04 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6556.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Fri May 03 08:21:24 2019
Response via : Initial Calibration

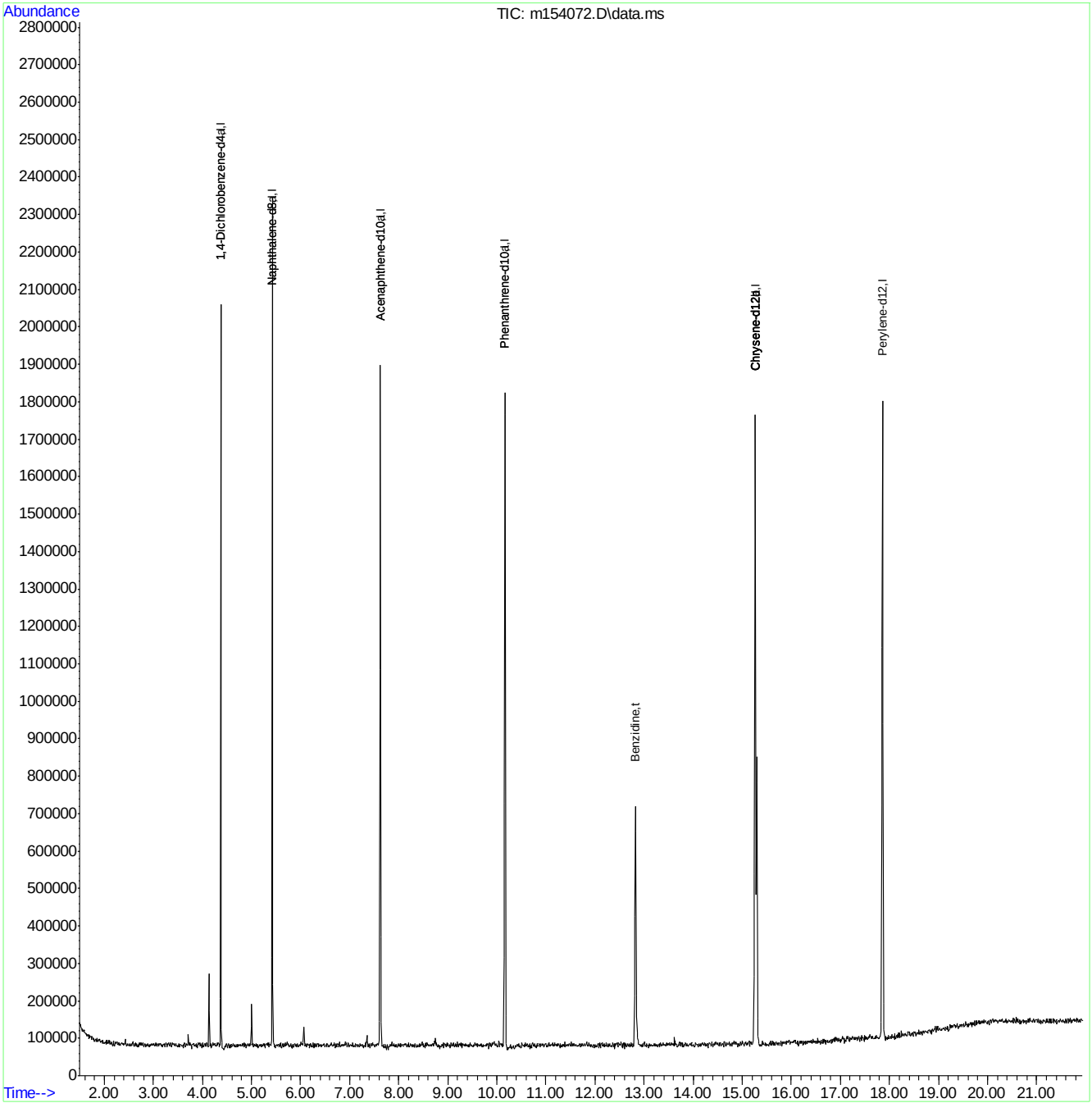
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	4.375	152	259870	40.00	ppm	-0.02
24) Naphthalene-d8	5.422	136	886491	40.00	ppm	-0.03
47) Acenaphthene-d10	7.628	164	530087	40.00	ppm	-0.04
69) Phenanthrene-d10	10.165	188	1005249	40.00	ppm	-0.04
83) Chrysene-d12	15.265	240	915535	40.00	ppm	-0.19
91) Perylene-d12	17.861	264	1033888	40.00	ppm	-0.18
101) 1,4-Dichlorobenzene-d4a	4.375	152	259870	40.00	ppm	-0.02
103) Acenaphthene-d10a	7.628	164	530087	40.00	ppm	-0.04
106) Chrysene-d12a	15.265	240	915535	40.00	ppm	-0.19
108) Chrysene-d12b	15.265	240	915535	40.00	ppm	-0.19
110) Phenanthrene-d10a	10.165	188	1005249	40.00	ppm	-0.14
113) Naphthalene-d8a	5.422	136	886491	40.00	ppm	-0.03
115) Chrysene-d12c	15.265	240	915535	40.00	ppm	-0.19
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
109) 1-chlorooctadecane	0.000	57	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
111) o-terphenyl	0.000	230	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
Target Compounds						Qvalue
107) Benzidine	12.824	184	496114	28.70	ppm	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EM6583\
Data File : m154072.D
Acq On : 5 May 2019 10:59 pm
Operator : carolb
Sample : cc6558-25
Misc : op17006,em6583,1000,,,1,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: May 06 08:12:04 2019
Quant Method : C:\MSDCHEM\1\METHODS\MM6556.M
Quant Title : Semi Volatile GC/MS, rtx-5ms 30mx0.25mmx0.25um
QLast Update : Fri May 03 08:21:24 2019
Response via : Initial Calibration



Manual Integrations APPROVED
(compounds with "m" flag)
Kristi Schollenberger
04/30/19 18:25

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5844\
Data File : p129141a.D
Acq On : 24 Apr 2019 2:03 am
Operator : chriss2
Sample : ic5844-100
Misc : op13894,ep5844,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 26 11:22:01 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5844.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Apr 26 11:15:43 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.844	152	191052	40.00	ppm	0.00
24) Naphthalene-d8	4.779	136	704654	40.00	ppm	0.00
47) Acenaphthene-d10	6.023	164	494907	40.00	ppm	0.00
69) Phenanthrene-d10	7.471	188	831444	40.00	ppm	0.00
83) Chrysene-d12	12.199	240	860081	40.00	ppm	0.03
91) Perylene-d12	15.132	264	968307	40.00	ppm	0.02
101) 1,4-Dichlorobenzene-d4A	3.844	152	191052	40.00	ppm	0.00
111) Naphthalene-d8A	4.779	136	704654	40.00	ppm	0.00
120) Acenaphthene-d10A	6.023	164	494907	40.00	ppm	0.00
131) Phenanthrene-d10A	7.471	188	831444	40.00	ppm	0.00
146) Chrysene-d12A	12.199	240	860081	40.00	ppm	0.03
153) Perylene-d12A	15.132	264	968307	40.00	ppm	0.02
157) 1,4-Dichlorobenzene-d4b	3.844	152	191052	40.00	ppm	0.00
159) Phenanthrene-d10b	7.471	188	831444	40.00	ppm	0.00
161) Chrysene-d12b	12.199	240	860081	40.00	ppm	0.03
163) Naphthalene-d8b	4.779	136	704654	40.00	ppm	0.00
165) Acenaphthene-d10b	6.023	164	494907	40.00	ppm	0.00
167) Naphthalene-d8c	4.779	136	704654	40.00	ppm	0.00
172) 1,4-Dichlorobenzene-d4c	3.844	152	191052	40.00	ppm	0.00
174) Chrysene-d12c	12.199	240	860081	40.00	ppm	0.03
176) Chrysene-d12d	12.199	240	860081	40.00	ppm	0.03
178) Naphthalene-d8d	4.779	136	704654	40.00	ppm	0.00
180) Chrysene-d12D	12.199	240	860081	40.00	ppm	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	2.845	112	738478	102.29	ppm	0.00
Spiked Amount 50.000			Recovery = 204.58%			
8) Phenol-d5	3.657	99	806372	91.05	ppm	0.00
Spiked Amount 50.000			Recovery = 182.10%			
25) Nitrobenzene-d5	4.276	82	716479	91.95	ppm	0.01
Spiked Amount 50.000			Recovery = 183.90%			
51) 2-Fluorobiphenyl	5.559	172	1303863	81.49	ppm	0.00
Spiked Amount 50.000			Recovery = 162.98%			
73) 2,4,6-Tribromophenol	6.718	330	329089	110.16	ppm	0.01
Spiked Amount 50.000			Recovery = 220.32%			
85) Terphenyl-d14	10.142	244	2080648	99.30	ppm	0.02
Spiked Amount 50.000			Recovery = 198.60%			
Target Compounds						Qvalue
2) 1,4-Dioxane	1.205	88	323431	101.12	ppm	97
3) Pyridine	1.461	79	668102	122.49	ppm	98
4) N-Nitrosodimethylamine	1.424	42	349141	104.42	ppm	97
6) Indene	4.036	116	951380	89.47	ppm	98
7) Cumene	3.208	105	1532779	88.17	ppm	97
9) Phenol	3.673	94	834990	89.36	ppm	83
10) Aniline	3.614	93	487326	146.02	ppm	97
11) bis(2-Chloroethyl)ether	3.662	93	645165	84.24	ppm	93
12) 2-Chlorophenol	3.710	128	659212	96.05	ppm	96
13) Decane	3.753	43	385520	84.77	ppm	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5844\
Data File : p129141a.D
Acq On : 24 Apr 2019 2:03 am
Operator : chriss2
Sample : ic5844-100
Misc : op13894,ep5844,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 26 11:22:01 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5844.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Apr 26 11:15:43 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
14) 1,3-Dichlorobenzene	3.801	146	704623	91.41	ppm		97
15) 1,4-Dichlorobenzene	3.854	146	690861	90.32	ppm		98
16) Benzyl alcohol	3.999	108	378129	104.76	ppm		93
17) 1,2-Dichlorobenzene	3.967	146	710732	93.60	ppm		100
18) Acetophenone	4.164	105	929649	95.94	ppm		98
19) 2-Methylphenol	4.111	108	606344	97.62	ppm		98
20) 2,2'-oxybis(1-Chloropr...	4.079	121	157775	96.73	ppm	#	86
21) 3&4-Methylphenol	4.228	108	602763	97.16	ppm		98
22) n-Nitroso-di-n-propyla...	4.196	70	417770	93.04	ppm		94
23) Hexachloroethane	4.212	201	285811	92.41	ppm		98
26) Nitrobenzene	4.287	77	688279	91.76	ppm		98
27) Quinoline	5.088	129	1397927	101.75	ppm		98
28) Isophorone	4.479	82	1240381	91.62	ppm		97
29) 2-Nitrophenol	4.522	139	337539	85.89	ppm		89
30) 2,4-Dimethylphenol	4.597	107	673750	95.13	ppm		93
31) Benzoic acid	4.816	105	530432m	98.57	ppm		
32) bis(2-Chloroethoxy)met...	4.640	93	729395	90.78	ppm		98
33) 2,4-Dichlorophenol	4.720	162	646381	100.20	ppm		97
34) 2,6-Dichlorophenol	4.864	162	574813	93.00	ppm		97
35) 1,3,5-Trichlorobenzene	4.522	180	633849	86.75	ppm		98
36) 1,2,4-Trichlorobenzene	4.747	180	641020	92.79	ppm		99
37) 1,2,3-Trichlorobenzene	4.907	180	568028	87.26	ppm		99
38) Naphthalene	4.800	128	1617241	89.03	ppm		99
39) 4-Chloroaniline	4.864	127	589201	91.26	ppm		98
40) 2,3-Dichloroaniline	5.500	161	762640	97.00	ppm		98
41) Caprolactam	5.190	55	214924	75.60	ppm		97
42) Hexachlorobutadiene	4.896	225	368094	85.40	ppm		98
43) 4-Chloro-3-methylphenol	5.259	107	628357	92.83	ppm		96
44) 2-Methylnaphthalene	5.291	141	897762	87.43	ppm		98
45) 1-Methylnaphthalene	5.361	142	1212177	92.42	ppm		98
46) Dimethylnaphthalene	5.740	156	1097275	90.80	ppm		97
48) Hexachlorocyclopentadiene	5.409	237	776571	178.10	ppm		97
49) 2,4,6-Trichlorophenol	5.521	196	485225	94.62	ppm		99
50) 2,4,5-Trichlorophenol	5.564	196	463339	86.94	ppm		95
52) 2-Chloronaphthalene	5.639	162	1105914	79.95	ppm		97
53) Biphenyl	5.628	154	1373104	79.00	ppm		100
54) 2-Nitroaniline	5.735	65	334609	76.16	ppm		98
55) Dimethylphthalate	5.863	163	1640498	91.74	ppm		99
56) Acenaphthylene	5.922	152	1941271	90.33	ppm		100
57) 2,6-Dinitrotoluene	5.906	165	361252	92.13	ppm		97
58) 3-Nitroaniline	6.034	138	378617	94.55	ppm		98
59) Acenaphthene	6.055	153	1153648	84.84	ppm		97
60) 2,4-Dinitrophenol	6.120	184	518293	215.00	ppm		88
61) 4-Nitrophenol	6.221	109	283878	96.98	ppm		95
62) Dibenzofuran	6.189	168	1896993	92.39	ppm		97
63) 2,4-Dinitrotoluene	6.210	165	497082	97.89	ppm		95
64) 2,3,4,6-Tetrachlorophenol	6.317	232	489792	100.43	ppm		96
65) Diethylphthalate	6.419	149	1635679	90.78	ppm		99
66) Fluorene	6.483	166	1391201	83.71	ppm		99
67) 4-Chlorophenyl-phenyle...	6.488	204	713663	86.73	ppm		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5844\
Data File : p129141a.D
Acq On : 24 Apr 2019 2:03 am
Operator : chriss2
Sample : ic5844-100
Misc : op13894,ep5844,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 26 11:22:01 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5844.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Apr 26 11:15:43 2019
Response via : Initial Calibration

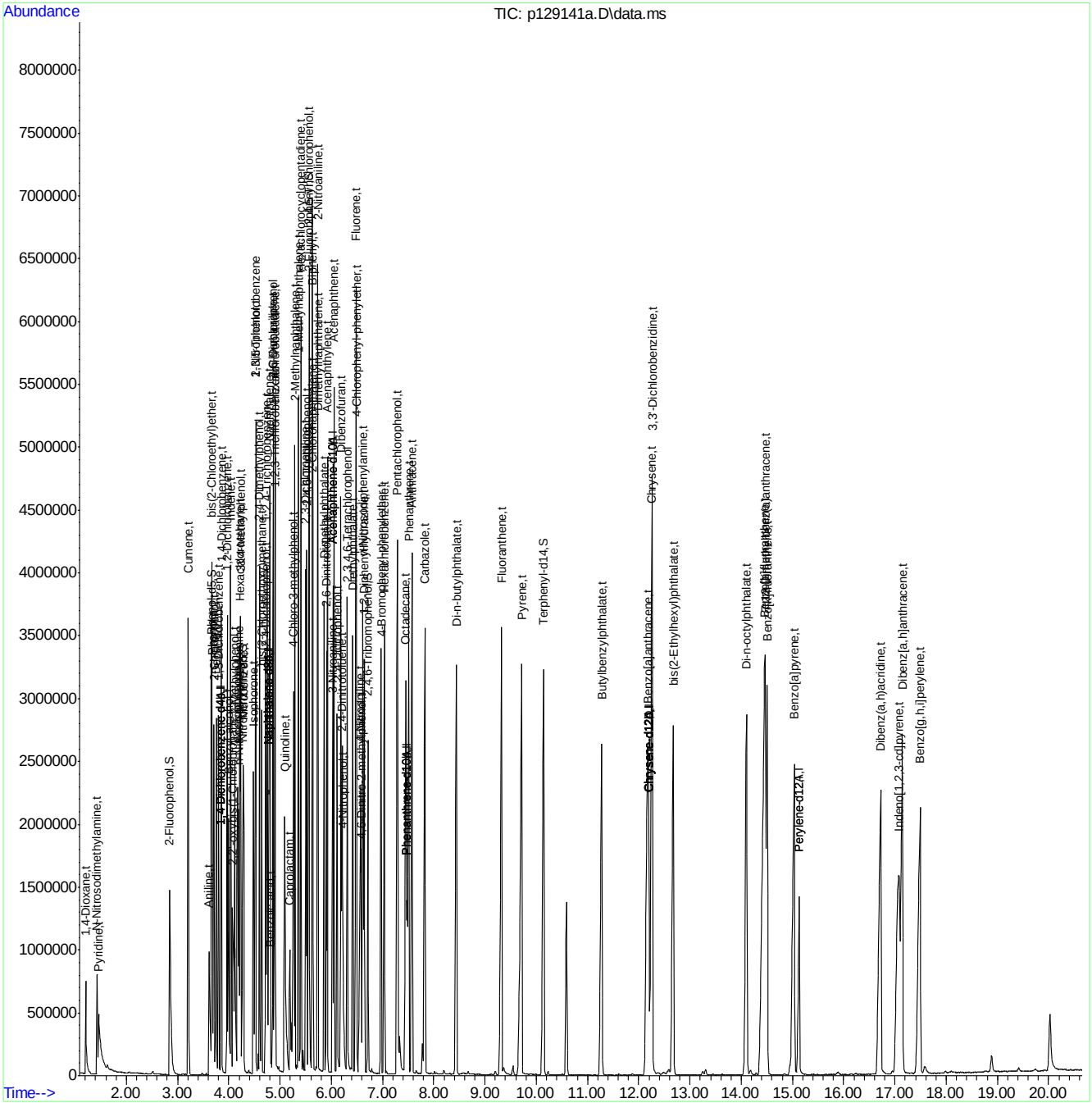
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68) 4-Nitroaniline	6.568	138	383029	97.72	ppm	95
70) 4,6-Dinitro-2-methylph...	6.584	198	351509	104.85	ppm	91
71) n-Nitrosodiphenylamine	6.616	169	1112237	97.10	ppm	97
72) 1,2-Diphenylhydrazine	6.643	77	1519598	92.32	ppm	98
74) 4-Bromophenyl-phenylether	6.974	248	561083	99.92	ppm	96
75) Hexachlorobenzene	7.038	284	622782	99.80	ppm	89
76) Pentachlorophenol	7.289	266	825530	209.58	ppm	99
77) Phenanthrene	7.508	178	2220378	95.88	ppm	98
78) Anthracene	7.578	178	2314869	97.38	ppm	100
79) Carbazole	7.829	167	2296459	99.42	ppm	99
80) Di-n-butylphthalate	8.443	149	3145285	93.69	ppm	99
81) Fluoranthene	9.325	202	2876338	98.59	ppm	98
82) Octadecane	7.450	57	725090	84.60	ppm	99
84) Pyrene	9.715	202	2908955	92.19	ppm	99
86) Butylbenzylphthalate	11.280	149	1488905	91.63	ppm	93
87) Benzo[a]anthracene	12.172	228	2898140	98.80	ppm	99
88) 3,3'-Dichlorobenzidine	12.263	252	1064716	100.66	ppm	97
89) Chrysene	12.252	228	2574365	96.63	ppm	98
90) bis(2-Ethylhexyl)phtha...	12.674	149	2035563	91.45	ppm	96
92) Di-n-octylphthalate	14.101	149	3691873	86.03	ppm	99
93) Benzo[b]fluoranthene	14.459	252	3549654	107.40	ppm	97
94) Benzo[k]fluoranthene	14.512	252	2199190m	84.70	ppm	
95) Benzo[a]pyrene	15.036	252	2687614	98.36	ppm	99
96) Indeno[1,2,3-cd]pyrene	17.076	276	2660586	105.37	ppm	99
97) Dibenz(a,h)acridine	16.724	279	2552314	103.02	ppm	100
98) Dibenz[a,h]anthracene	17.146	278	2758710	108.79	ppm	100
99) 7,12-Dimethylbenz(a)an...	14.469	256	1335464	98.93	ppm	97
100) Benzo[g,h,i]perylene	17.493	276	2601007	104.64	ppm	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5844\
Data File : p129141a.D
Acq On : 24 Apr 2019 2:03 am
Operator : chriss2
Sample : ic5844-100
Misc : op13894,ep5844,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 26 11:22:01 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5844.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Apr 26 11:15:43 2019
Response via : Initial Calibration



Manual Integration Approval Summary

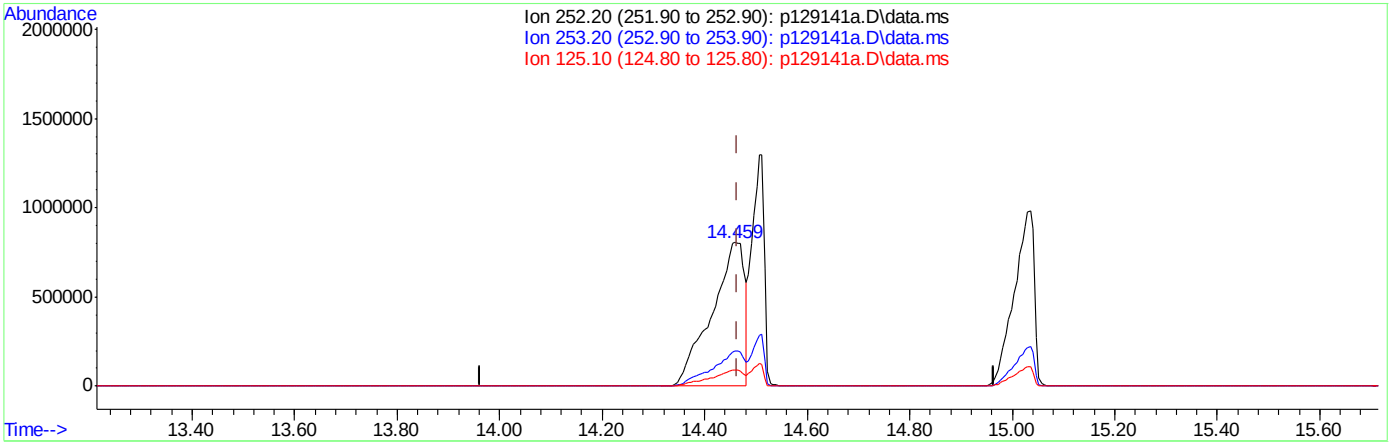
Sample Number:	EP5844-IC5844	**Method:**	SW846 8270D
Lab FileID:	P129141A.D	**Analyst approved:**	04/26/19 12:39 Ying Li
Injection Time:	04/24/19 02:03	**Supervisor approved:**	04/30/19 18:25 Kristi Schollenberger

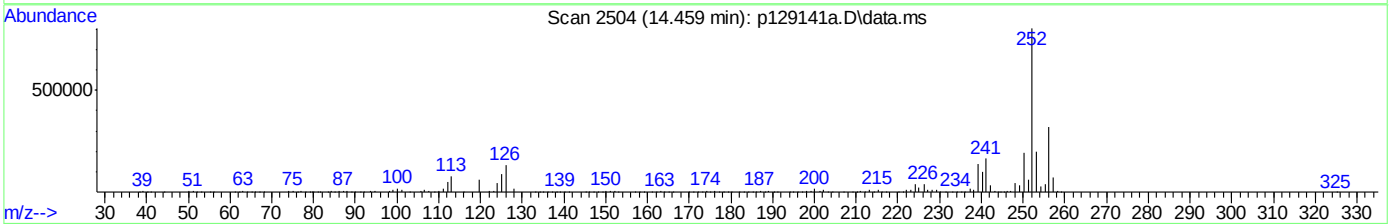
Parameter	CAS	Sig#	R.T. (min.)	Reason
Benzoic acid	65-85-0		4.82	Split peak
Benzo(k)fluoranthene	207-08-9		14.51	Overlapping peak

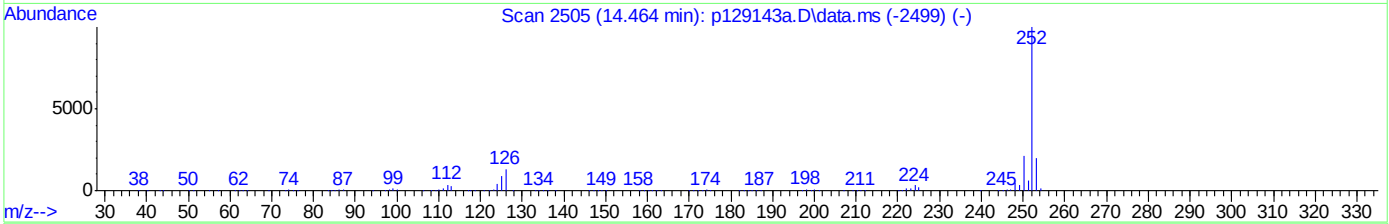
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EP5844\
Data File : p129141a.D
Acq On : 24 Apr 2019 2:03 am
Operator : chriss2
Sample : ic5844-100
Misc : op13894,ep5844,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 24 10:33:16 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5844.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed Apr 24 10:30:27 2019
Response via : Initial Calibration







TIC: p129141a.D\data.ms

(94) Benzo[k]fluoranthene (t)

14.459min (-0.005) 136.71ppm

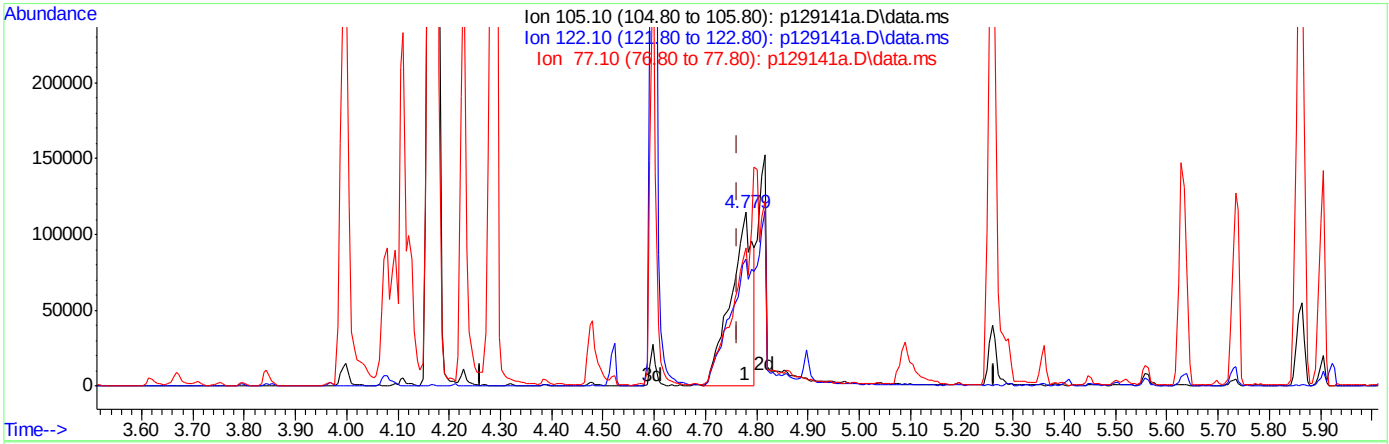
response 3549654

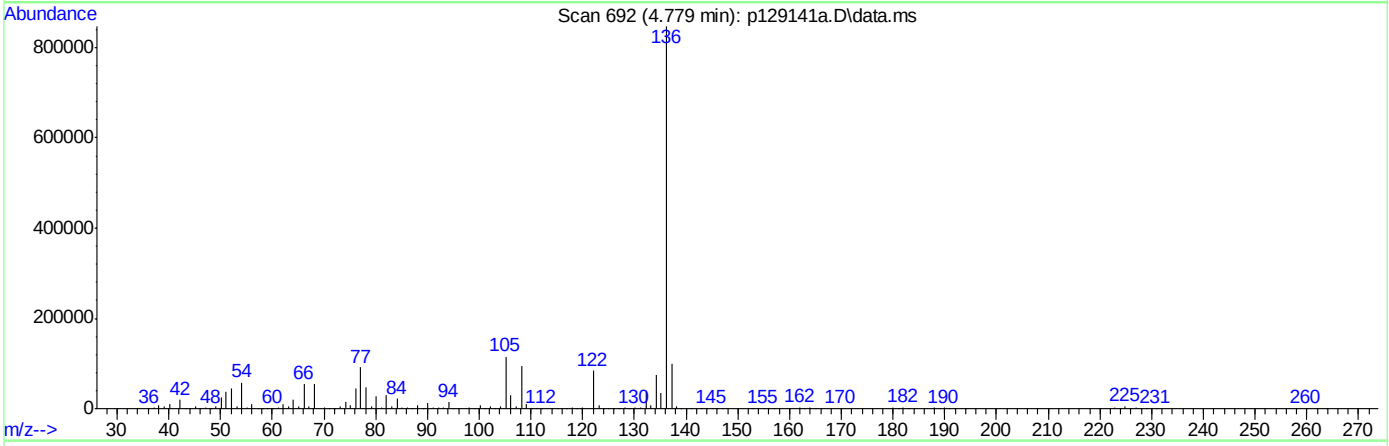
Ion	Exp%	Act%
252.20	100	100
253.20	20.80	25.16
125.10	9.70	11.52
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EP5844\
Data File : p129141a.D
Acq On : 24 Apr 2019 2:03 am
Operator : chriss2
Sample : ic5844-100
Misc : op13894,ep5844,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 24 10:40:21 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5844.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed Apr 24 10:37:10 2019
Response via : Initial Calibration





TIC: p129141a.D\data.ms

(31) Benzoic acid (t)

4.779min (+0.016) 62.92ppm

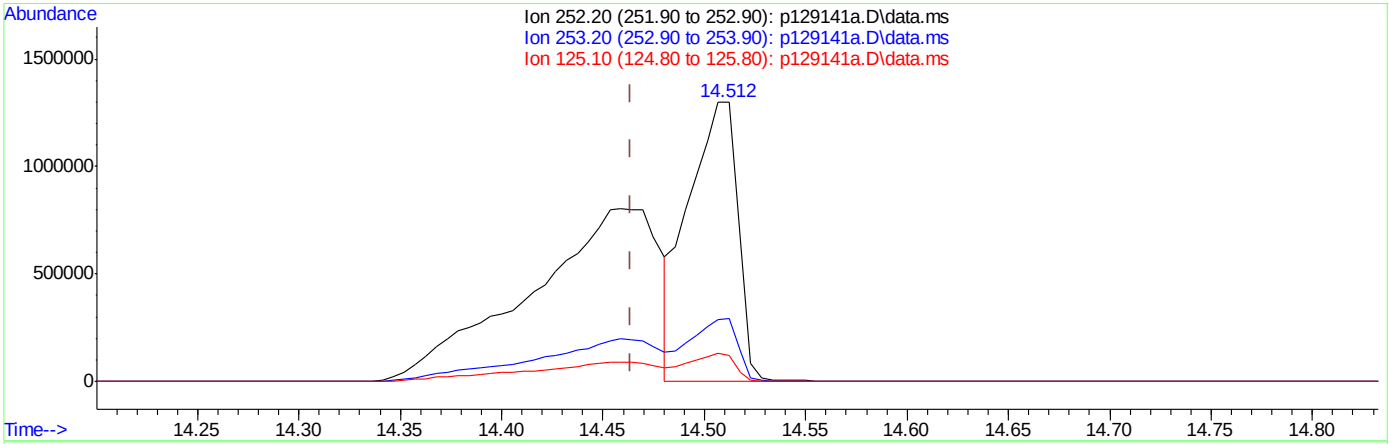
response 338588

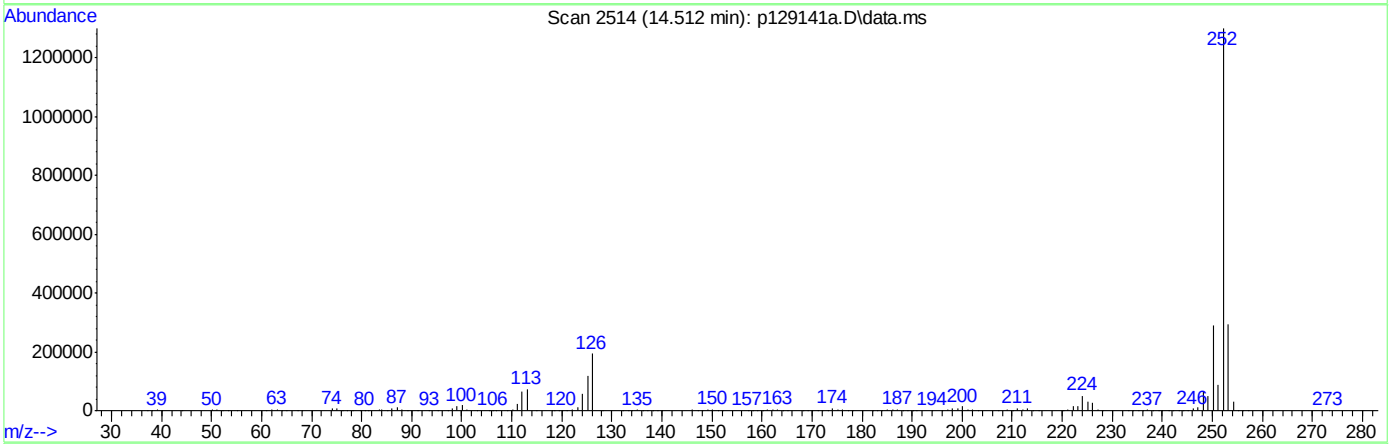
Ion	Exp%	Act%
105.10	100	100
122.10	67.60	65.69
77.10	76.90	26.59#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EP5844\
Data File : p129141a.D
Acq On : 24 Apr 2019 2:03 am
Operator : chriss2
Sample : ic5844-100
Misc : op13894,ep5844,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 26 11:17:50 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5844.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Apr 26 11:15:43 2019
Response via : Initial Calibration





TIC: p129141a.D\data.ms

(94) Benzo[k]fluoranthene (t)

14.512min (+0.048) 84.70ppm m

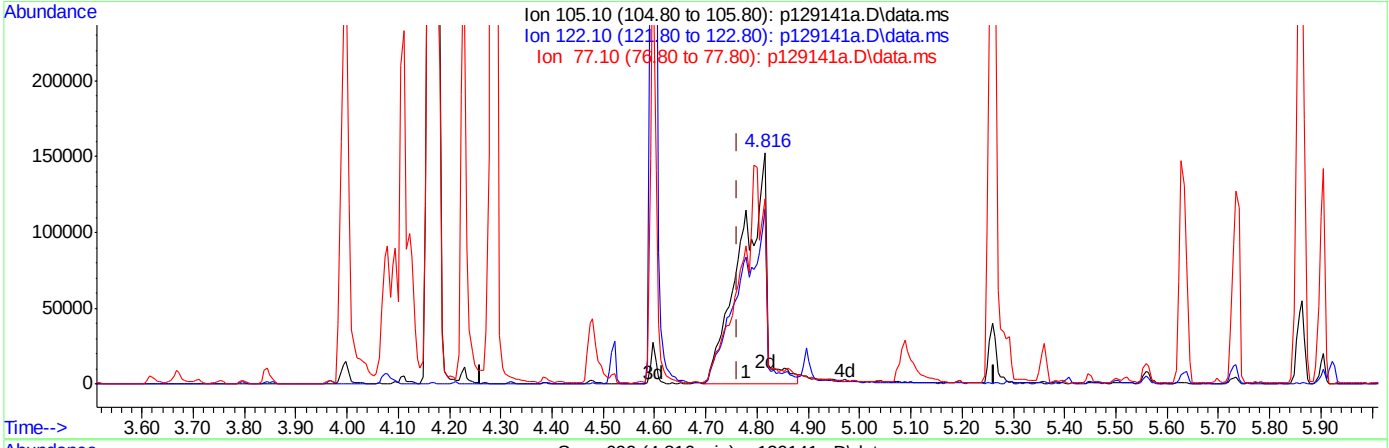
response 2199190

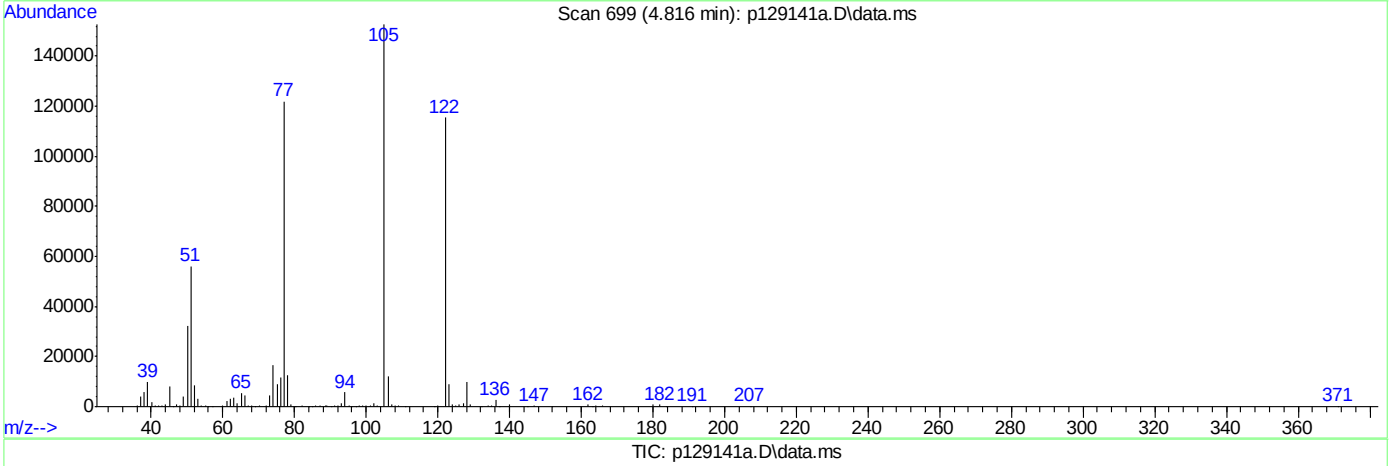
Ion	Exp%	Act%
252.20	100	100
253.20	20.80	22.63
125.10	9.70	9.16
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EP5844\
Data File : p129141a.D
Acq On : 24 Apr 2019 2:03 am
Operator : chriss2
Sample : ic5844-100
Misc : op13894,ep5844,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 26 11:20:36 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5844.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Apr 26 11:15:43 2019
Response via : Initial Calibration





TIC: p129141a.D\data.ms

(31) Benzoic acid (t)

4.816min (+0.054) 98.57ppm m

response 530432

Ion	Exp%	Act%
105.10	100	100
122.10	67.60	75.54
77.10	76.90	79.82
0.00	0.00	0.00

Manual Integrations APPROVED (compounds with "m" flag)
Kristi Schollenberger 04/30/19 18:25

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5844\
Data File : p129142a.D
Acq On : 24 Apr 2019 2:30 am
Operator : chriss2
Sample : ic5844-80
Misc : op13894,ep5844,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 26 11:24:18 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5844.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Apr 26 11:15:43 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.844	152	200840	40.00	ppm	0.00
24) Naphthalene-d8	4.779	136	715801	40.00	ppm	0.00
47) Acenaphthene-d10	6.023	164	477015	40.00	ppm	0.00
69) Phenanthrene-d10	7.471	188	798369	40.00	ppm	0.00
83) Chrysene-d12	12.188	240	766927	40.00	ppm	0.02
91) Perylene-d12	15.121	264	789531	40.00	ppm	0.01
101) 1,4-Dichlorobenzene-d4A	3.844	152	200840	40.00	ppm	0.00
111) Naphthalene-d8A	4.779	136	715801	40.00	ppm	0.00
120) Acenaphthene-d10A	6.023	164	477015	40.00	ppm	0.00
131) Phenanthrene-d10A	7.471	188	798369	40.00	ppm	0.00
146) Chrysene-d12A	12.188	240	766927	40.00	ppm	0.02
153) Perylene-d12A	15.121	264	789531	40.00	ppm	0.01
157) 1,4-Dichlorobenzene-d4b	3.844	152	200840	40.00	ppm	0.00
159) Phenanthrene-d10b	7.471	188	798369	40.00	ppm	0.00
161) Chrysene-d12b	12.188	240	766927	40.00	ppm	0.02
163) Naphthalene-d8b	4.779	136	715801	40.00	ppm	0.00
165) Acenaphthene-d10b	6.023	164	477015	40.00	ppm	0.00
167) Naphthalene-d8c	4.779	136	715801	40.00	ppm	0.00
172) 1,4-Dichlorobenzene-d4c	3.844	152	200840	40.00	ppm	0.00
174) Chrysene-d12c	12.188	240	766927	40.00	ppm	0.02
176) Chrysene-d12d	12.188	240	766927	40.00	ppm	0.02
178) Naphthalene-d8d	4.779	136	715801	40.00	ppm	0.00
180) Chrysene-d12D	12.188	240	766927	40.00	ppm	-0.01
System Monitoring Compounds						
5) 2-Fluorophenol	2.850	112	611606	80.59	ppm	0.00
Spiked Amount 50.000			Recovery = 161.18%			
8) Phenol-d5	3.657	99	676229	72.63	ppm	0.00
Spiked Amount 50.000			Recovery = 145.26%			
25) Nitrobenzene-d5	4.271	82	594084	75.06	ppm	0.00
Spiked Amount 50.000			Recovery = 150.12%			
51) 2-Fluorobiphenyl	5.559	172	1093470	70.91	ppm	0.00
Spiked Amount 50.000			Recovery = 141.82%			
73) 2,4,6-Tribromophenol	6.713	330	250545	87.34	ppm	0.00
Spiked Amount 50.000			Recovery = 174.68%			
85) Terphenyl-d14	10.137	244	1570255	84.04	ppm	0.01
Spiked Amount 50.000			Recovery = 168.08%			
Target Compounds						Qvalue
2) 1,4-Dioxane	1.210	88	278772	82.91	ppm	99
3) Pyridine	1.461	79	486544	84.85	ppm	98
4) N-Nitrosodimethylamine	1.429	42	279889	79.63	ppm	97
6) Indene	4.036	116	822624	73.59	ppm	99
7) Cumene	3.208	105	1361450	74.50	ppm	97
9) Phenol	3.667	94	719098	73.21	ppm	89
10) Aniline	3.614	93	395011	112.59	ppm	97
11) bis(2-Chloroethyl)ether	3.662	93	554204	68.84	ppm	96
12) 2-Chlorophenol	3.710	128	544885	75.52	ppm	95
13) Decane	3.753	43	349553	73.12	ppm	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5844\
Data File : p129142a.D
Acq On : 24 Apr 2019 2:30 am
Operator : chriss2
Sample : ic5844-80
Misc : op13894,ep5844,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 26 11:24:18 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5844.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Apr 26 11:15:43 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
14) 1,3-Dichlorobenzene	3.796	146	616250	76.05	ppm	99
15) 1,4-Dichlorobenzene	3.854	146	603302	75.03	ppm	98
16) Benzyl alcohol	3.993	108	306753	80.84	ppm	95
17) 1,2-Dichlorobenzene	3.967	146	618945	77.54	ppm	99
18) Acetophenone	4.164	105	763535	74.95	ppm	100
19) 2-Methylphenol	4.106	108	498918	76.41	ppm	99
20) 2,2'-oxybis(1-Chloropr...	4.074	121	132809	77.46	ppm	97
21) 3&4-Methylphenol	4.223	108	493541	75.68	ppm	100
22) n-Nitroso-di-n-propyla...	4.191	70	346107	73.32	ppm	96
23) Hexachloroethane	4.212	201	249754	76.82	ppm	98
26) Nitrobenzene	4.287	77	564115	74.04	ppm	99
27) Quinoline	5.083	129	1114260	79.84	ppm	98
28) Isophorone	4.474	82	1031712	75.02	ppm	97
29) 2-Nitrophenol	4.517	139	278683	69.81	ppm	96
30) 2,4-Dimethylphenol	4.597	107	560463	77.90	ppm	92
31) Benzoic acid	4.795	105	431248m	78.89	ppm	
32) bis(2-Chloroethoxy)met...	4.634	93	627413	76.87	ppm	99
33) 2,4-Dichlorophenol	4.715	162	524955	80.11	ppm	99
34) 2,6-Dichlorophenol	4.864	162	468060	74.55	ppm	97
35) 1,3,5-Trichlorobenzene	4.522	180	554075	74.65	ppm	98
36) 1,2,4-Trichlorobenzene	4.747	180	531351	75.72	ppm	98
37) 1,2,3-Trichlorobenzene	4.907	180	494941	74.85	ppm	97
38) Naphthalene	4.795	128	1351734	73.25	ppm	99
39) 4-Chloroaniline	4.864	127	508832	77.58	ppm	98
40) 2,3-Dichloroaniline	5.500	161	611337	76.55	ppm	96
41) Caprolactam	5.179	55	204900	70.95	ppm	94
42) Hexachlorobutadiene	4.896	225	313764	71.66	ppm	98
43) 4-Chloro-3-methylphenol	5.259	107	519159	75.50	ppm	96
44) 2-Methylnaphthalene	5.292	141	765431	73.38	ppm	97
45) 1-Methylnaphthalene	5.361	142	1013016	76.04	ppm	98
46) Dimethylnaphthalene	5.735	156	888496	72.38	ppm	97
48) Hexachlorocyclopentadiene	5.409	237	659921	157.03	ppm	97
49) 2,4,6-Trichlorophenol	5.516	196	391514	79.21	ppm	99
50) 2,4,5-Trichlorophenol	5.559	196	383070	74.58	ppm	98
52) 2-Chloronaphthalene	5.633	162	964723	72.36	ppm	98
53) Biphenyl	5.628	154	1151718	68.75	ppm	100
54) 2-Nitroaniline	5.730	65	277208	65.46	ppm	99
55) Dimethylphthalate	5.858	163	1333434	77.37	ppm	99
56) Acenaphthylene	5.922	152	1519868	73.38	ppm	100
57) 2,6-Dinitrotoluene	5.901	165	288304	76.28	ppm	100
58) 3-Nitroaniline	6.029	138	295605	76.59	ppm	97
59) Acenaphthene	6.050	153	995135	75.93	ppm	95
60) 2,4-Dinitrophenol	6.114	184	400907	172.55	ppm	79
61) 4-Nitrophenol	6.216	109	222729	78.95	ppm	96
62) Dibenzofuran	6.189	168	1518247	76.72	ppm	100
63) 2,4-Dinitrotoluene	6.205	165	383218	78.30	ppm	94
64) 2,3,4,6-Tetrachlorophenol	6.312	232	376242	80.04	ppm	98
65) Diethylphthalate	6.419	149	1314293	75.68	ppm	99
66) Fluorene	6.478	166	1164643	72.70	ppm	99
67) 4-Chlorophenyl-phenyle...	6.488	204	592774	74.74	ppm	96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5844\
Data File : p129142a.D
Acq On : 24 Apr 2019 2:30 am
Operator : chriss2
Sample : ic5844-80
Misc : op13894,ep5844,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 26 11:24:18 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5844.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Apr 26 11:15:43 2019
Response via : Initial Calibration

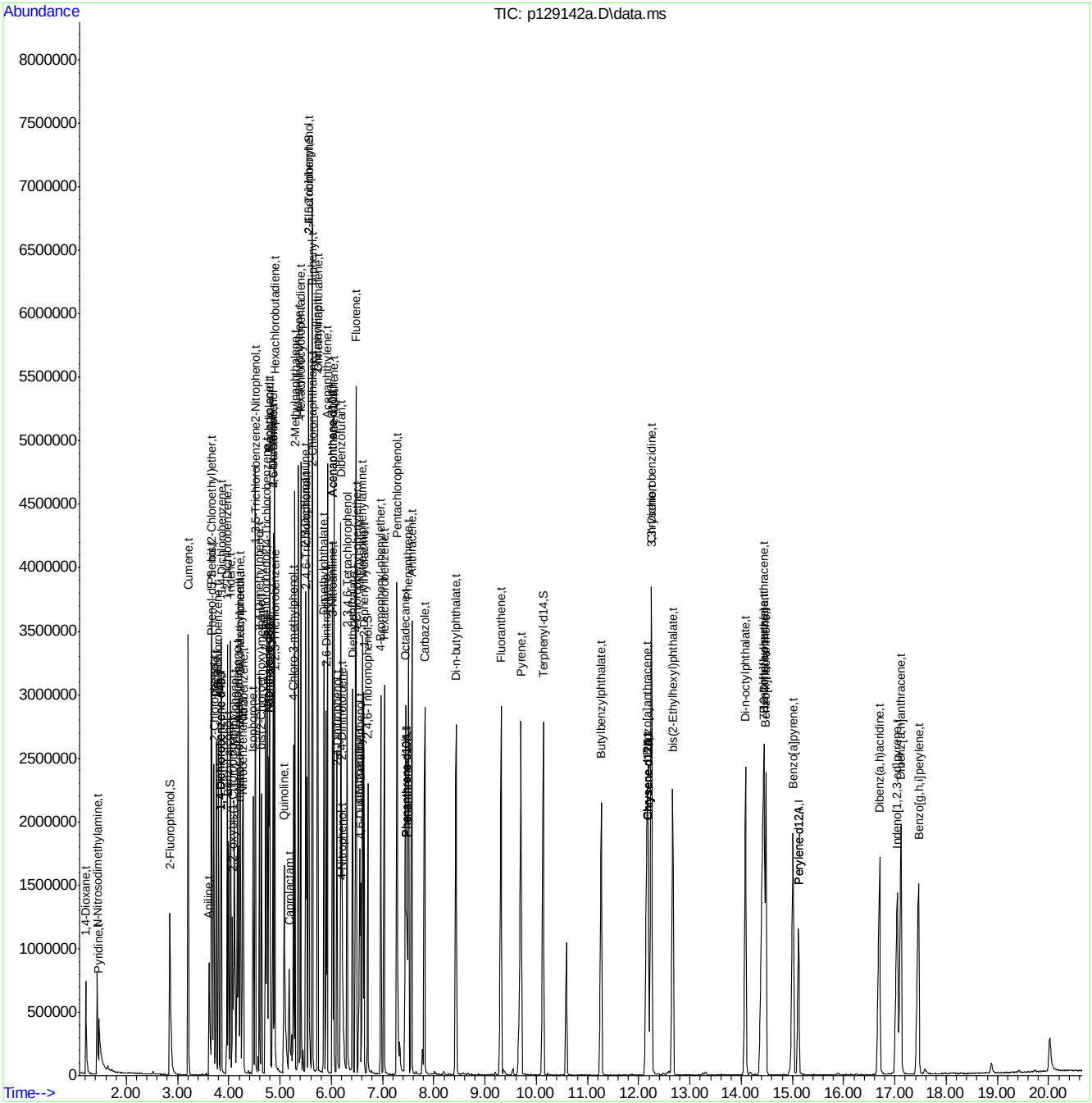
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68)	4-Nitroaniline	6.558	138	293797	77.76	ppm	98
70)	4,6-Dinitro-2-methylph...	6.574	198	265807	82.57	ppm	96
71)	n-Nitrosodiphenylamine	6.611	169	876371	79.68	ppm	99
72)	1,2-Diphenylhydrazine	6.638	77	1247025	78.90	ppm	99
74)	4-Bromophenyl-phenylether	6.969	248	449893	83.44	ppm	98
75)	Hexachlorobenzene	7.033	284	487393	81.34	ppm	91
76)	Pentachlorophenol	7.284	266	632404	167.20	ppm	99
77)	Phenanthrene	7.503	178	1751109	78.75	ppm	99
78)	Anthracene	7.573	178	1813832	79.46	ppm	99
79)	Carbazole	7.824	167	1747469	78.79	ppm	99
80)	Di-n-butylphthalate	8.433	149	2493183	77.34	ppm	99
81)	Fluoranthene	9.320	202	2213484	79.01	ppm	96
82)	Octadecane	7.450	57	609345	74.04	ppm	98
84)	Pyrene	9.704	202	2210000	78.55	ppm	99
86)	Butylbenzylphthalate	11.270	149	1142220	78.83	ppm	96
87)	Benzo[a]anthracene	12.162	228	2083351	79.65	ppm	98
88)	3,3'-Dichlorobenzidine	12.252	252	761116	80.70	ppm	99
89)	Chrysene	12.247	228	1893611	79.71	ppm	99
90)	bis(2-Ethylhexyl)phtha...	12.669	149	1571888	79.19	ppm	99
92)	Di-n-octylphthalate	14.085	149	2773506	79.27	ppm	100
93)	Benzo[b]fluoranthene	14.437	252	2316387	85.95	ppm	98
94)	Benzo[k]fluoranthene	14.486	252	1564816	73.91	ppm	98
95)	Benzo[a]pyrene	15.014	252	1781071	79.94	ppm	97
96)	Indeno[1,2,3-cd]pyrene	17.050	276	1634854	79.41	ppm	99
97)	Dibenz(a,h)acridine	16.703	279	1623485	80.37	ppm	100
98)	Dibenz[a,h]anthracene	17.119	278	1679661	81.24	ppm	100
99)	7,12-Dimethylbenz(a)an...	14.448	256	916553	83.27	ppm	96
100)	Benzo[g,h,i]perylene	17.467	276	1573169	77.62	ppm	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5844\
Data File : p129142a.D
Acq On : 24 Apr 2019 2:30 am
Operator : chriss2
Sample : ic5844-80
Misc : op13894,ep5844,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 26 11:24:18 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5844.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Apr 26 11:15:43 2019
Response via : Initial Calibration



Manual Integration Approval Summary

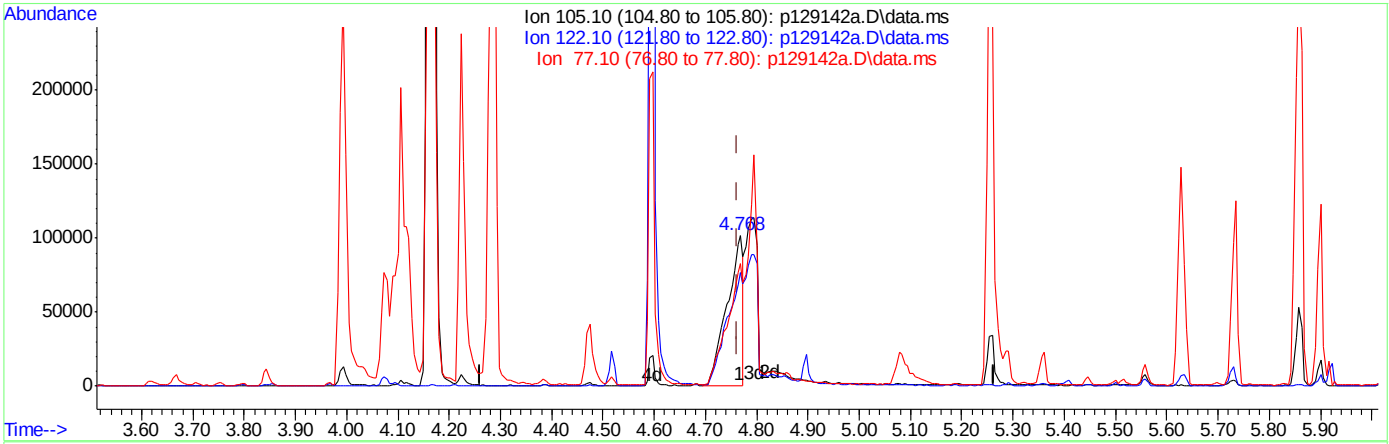
Sample Number:	EP5844-IC5844	**Method:**	SW846 8270D
Lab FileID:	P129142A.D	**Analyst approved:**	04/26/19 12:39 Ying Li
Injection Time:	04/24/19 02:30	**Supervisor approved:**	04/30/19 18:25 Kristi Schollenberger

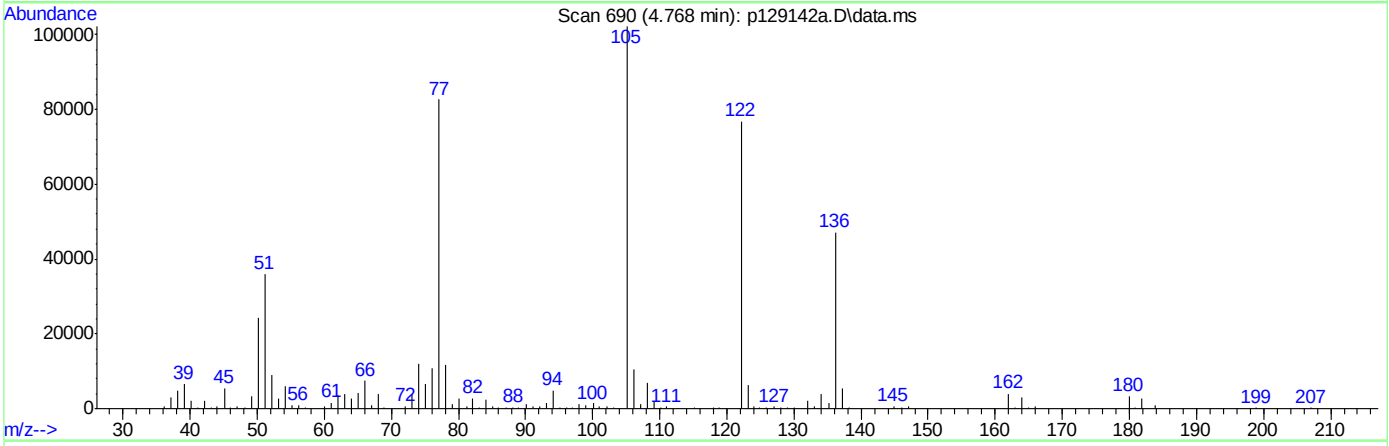
Parameter	CAS	Sig#	R.T. (min.)	Reason
Benzoic acid	65-85-0		4.79	Split peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EP5844\
Data File : p129142a.D
Acq On : 24 Apr 2019 2:30 am
Operator : chriss2
Sample : ic5844-80
Misc : op13894,ep5844,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 24 10:40:41 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5844.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed Apr 24 10:37:10 2019
Response via : Initial Calibration





TIC: p129142a.D\data.ms

(31) Benzoic acid (t)

4.768min (+0.005) 40.62ppm

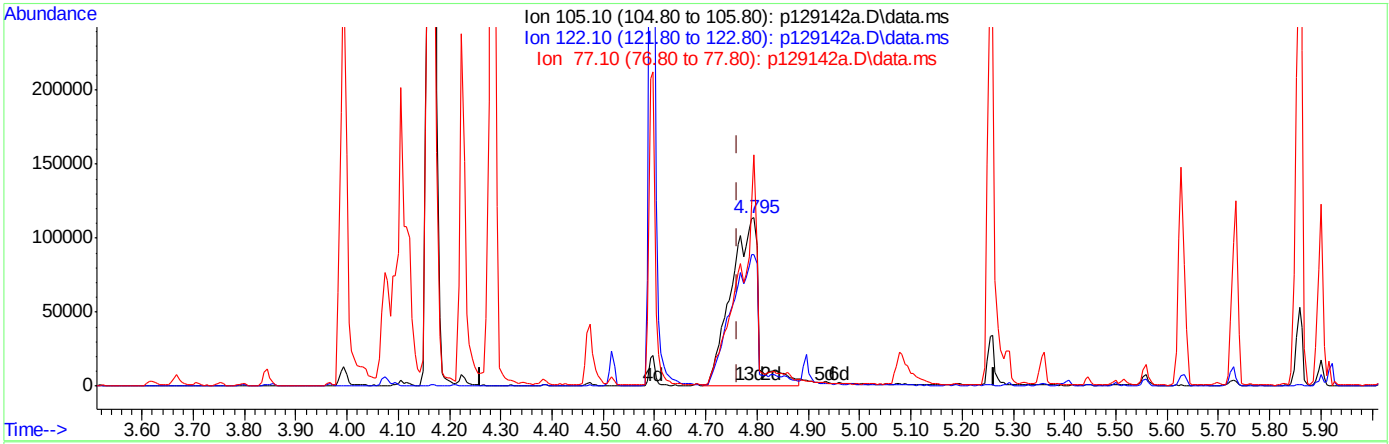
response 222046

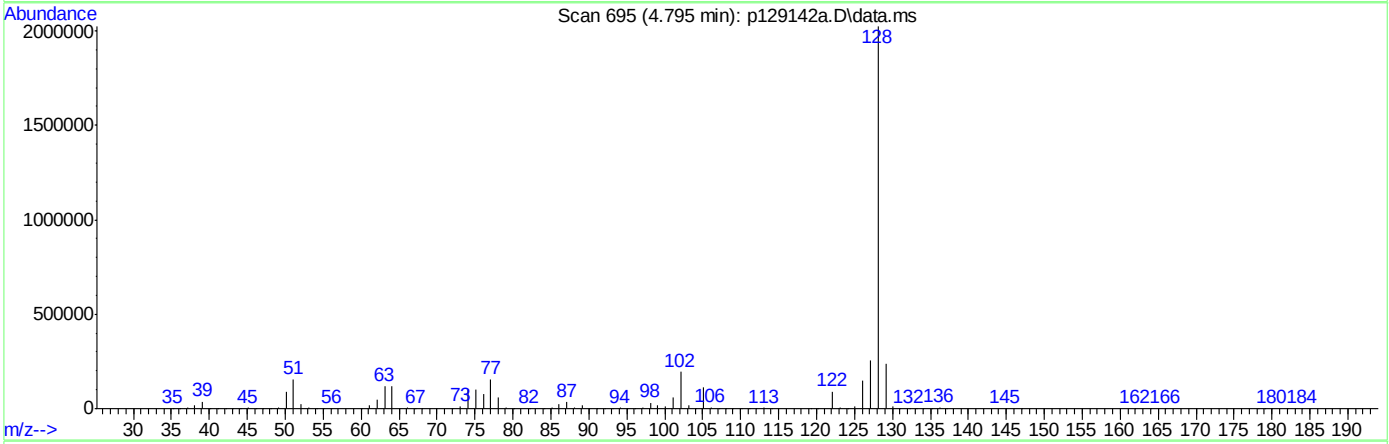
Ion	Exp%	Act%
105.10	100	100
122.10	67.60	71.39
77.10	76.90	80.57
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EP5844\
Data File : p129142a.D
Acq On : 24 Apr 2019 2:30 am
Operator : chriss2
Sample : ic5844-80
Misc : op13894,ep5844,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 26 11:22:47 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5844.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Apr 26 11:15:43 2019
Response via : Initial Calibration





TIC: p129142a.D\data.ms

(31) Benzoic acid (t)

4.795min (+0.033) 78.89ppm m

response 431248

Ion	Exp%	Act%
105.10	100	100
122.10	67.60	78.45
77.10	76.90	137.61#
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5844\
Data File : p129143a.D
Acq On : 24 Apr 2019 2:57 am
Operator : chriss2
Sample : icc5844-50
Misc : op13894,ep5844,1000,,,1,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 26 11:17:06 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5844.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Apr 26 11:15:43 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.838	152	172694	40.00	ppm	0.00
24) Naphthalene-d8	4.779	136	626042	40.00	ppm	0.00
47) Acenaphthene-d10	6.023	164	418345	40.00	ppm	0.00
69) Phenanthrene-d10	7.466	188	714817	40.00	ppm	0.00
83) Chrysene-d12	12.172	240	703644	40.00	ppm	0.00
91) Perylene-d12	15.111	264	732175	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4A	3.838	152	172694	40.00	ppm	0.00
111) Naphthalene-d8A	4.779	136	626042	40.00	ppm	0.00
120) Acenaphthene-d10A	6.023	164	418345	40.00	ppm	0.00
131) Phenanthrene-d10A	7.466	188	714817	40.00	ppm	0.00
146) Chrysene-d12A	12.172	240	703644	40.00	ppm	0.00
153) Perylene-d12A	15.111	264	732175	40.00	ppm	0.00
157) 1,4-Dichlorobenzene-d4b	3.838	152	172694	40.00	ppm	0.00
159) Phenanthrene-d10b	7.466	188	714817	40.00	ppm	0.00
161) Chrysene-d12b	12.172	240	703644	40.00	ppm	0.00
163) Naphthalene-d8b	4.779	136	626042	40.00	ppm	0.00
165) Acenaphthene-d10b	6.023	164	418345	40.00	ppm	0.00
167) Naphthalene-d8c	4.779	136	626042	40.00	ppm	0.00
172) 1,4-Dichlorobenzene-d4c	3.838	152	172694	40.00	ppm	0.00
174) Chrysene-d12c	12.172	240	703644	40.00	ppm	0.00
176) Chrysene-d12d	12.172	240	703644	40.00	ppm	0.00
178) Naphthalene-d8d	4.779	136	626042	40.00	ppm	0.00
180) Chrysene-d12D	12.172	240	703644	40.00	ppm	-0.03
System Monitoring Compounds						
5) 2-Fluorophenol	2.850	112	326284	50.00	ppm	0.00
Spiked Amount 50.000			Recovery = 100.00%			
8) Phenol-d5	3.651	99	400276	50.00	ppm	0.00
Spiked Amount 50.000			Recovery = 100.00%			
25) Nitrobenzene-d5	4.266	82	346137	50.00	ppm	0.00
Spiked Amount 50.000			Recovery = 100.00%			
51) 2-Fluorobiphenyl	5.553	172	676221	50.00	ppm	0.00
Spiked Amount 50.000			Recovery = 100.00%			
73) 2,4,6-Tribromophenol	6.707	330	128421	50.00	ppm	0.00
Spiked Amount 50.000			Recovery = 100.00%			
85) Terphenyl-d14	10.126	244	857119	50.00	ppm	0.00
Spiked Amount 50.000			Recovery = 100.00%			
Target Compounds						Qvalue
2) 1,4-Dioxane	1.210	88	144554	50.00	ppm	100
3) Pyridine	1.482	79	246518	50.00	ppm	100
4) N-Nitrosodimethylamine	1.424	42	151118	50.00	ppm	100
6) Indene	4.031	116	480602	50.00	ppm	100
7) Cumene	3.208	105	785725	50.00	ppm	100
9) Phenol	3.662	94	426332	50.48	ppm	100
10) Aniline	3.619	93	150839	50.00	ppm	100
11) bis(2-Chloroethyl)ether	3.662	93	350410	50.62	ppm	100
12) 2-Chlorophenol	3.705	128	310198	50.00	ppm	100
13) Decane	3.753	43	205542	50.00	ppm	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5844\
Data File : p129143a.D
Acq On : 24 Apr 2019 2:57 am
Operator : chriss2
Sample : icc5844-50
Misc : op13894,ep5844,1000,,,1,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 26 11:17:06 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5844.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Apr 26 11:15:43 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
14) 1,3-Dichlorobenzene	3.796	146	348379	50.00	ppm	100
15) 1,4-Dichlorobenzene	3.854	146	345696	50.00	ppm	100
16) Benzyl alcohol	3.988	108	163138	50.00	ppm	100
17) 1,2-Dichlorobenzene	3.967	146	343166	50.00	ppm	100
18) Acetophenone	4.159	105	437954	50.00	ppm	100
19) 2-Methylphenol	4.105	108	280734	50.00	ppm	100
20) 2,2'-oxybis(1-Chloropr...	4.073	121	73715	50.00	ppm	100
21) 3&4-Methylphenol	4.218	108	280374	50.00	ppm	100
22) n-Nitroso-di-n-propyla...	4.180	70	202943	50.00	ppm	100
23) Hexachloroethane	4.212	201	139777	50.00	ppm	100
26) Nitrobenzene	4.282	77	333889	50.10	ppm	100
27) Quinoline	5.062	129	610329	50.00	ppm	100
28) Isophorone	4.463	82	601377	50.00	ppm	100
29) 2-Nitrophenol	4.511	139	174582	50.00	ppm	100
30) 2,4-Dimethylphenol	4.586	107	314804	50.03	ppm	100
31) Benzoic acid	4.763	105	239052	50.00	ppm	100
32) bis(2-Chloroethoxy)met...	4.634	93	356859	49.99	ppm	100
33) 2,4-Dichlorophenol	4.715	162	286557	50.00	ppm	100
34) 2,6-Dichlorophenol	4.859	162	274563	50.00	ppm	100
35) 1,3,5-Trichlorobenzene	4.517	180	324582	50.00	ppm	100
36) 1,2,4-Trichlorobenzene	4.741	180	306876	50.00	ppm	100
37) 1,2,3-Trichlorobenzene	4.901	180	289178	50.00	ppm	100
38) Naphthalene	4.795	128	806937	50.00	ppm	100
39) 4-Chloroaniline	4.859	127	286811	50.00	ppm	100
40) 2,3-Dichloroaniline	5.494	161	349246	50.00	ppm	100
41) Caprolactam	5.147	55	126291	50.00	ppm	100
42) Hexachlorobutadiene	4.896	225	191466	50.00	ppm	100
43) 4-Chloro-3-methylphenol	5.249	107	300703	50.00	ppm	100
44) 2-Methylnaphthalene	5.286	141	456130	50.00	ppm	100
45) 1-Methylnaphthalene	5.356	142	587149	50.39	ppm	100
46) Dimethylnaphthalene	5.730	156	536838	50.00	ppm	100
48) Hexachlorocyclopentadiene	5.404	237	368567	100.00	ppm	100
49) 2,4,6-Trichlorophenol	5.511	196	216751	50.00	ppm	100
50) 2,4,5-Trichlorophenol	5.553	196	228079	50.63	ppm	100
52) 2-Chloronaphthalene	5.628	162	584641	50.00	ppm	100
53) Biphenyl	5.623	154	734585	50.00	ppm	100
54) 2-Nitroaniline	5.724	65	185695	50.00	ppm	100
55) Dimethylphthalate	5.852	163	755769	50.00	ppm	100
56) Acenaphthylene	5.917	152	908286	50.00	ppm	100
57) 2,6-Dinitrotoluene	5.895	165	165726	50.00	ppm	100
58) 3-Nitroaniline	6.018	138	169454	50.06	ppm	100
59) Acenaphthene	6.045	153	574701	50.00	ppm	100
60) 2,4-Dinitrophenol	6.103	184	203769	100.00	ppm	100
61) 4-Nitrophenol	6.210	109	125136	50.58	ppm	100
62) Dibenzofuran	6.184	168	867769	50.00	ppm	100
63) 2,4-Dinitrotoluene	6.200	165	214613	50.00	ppm	100
64) 2,3,4,6-Tetrachlorophenol	6.306	232	206125	50.00	ppm	100
65) Diethylphthalate	6.408	149	761530	50.00	ppm	100
66) Fluorene	6.472	166	702441	50.00	ppm	100
67) 4-Chlorophenyl-phenyle...	6.483	204	347769	50.00	ppm	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5844\
Data File : p129143a.D
Acq On : 24 Apr 2019 2:57 am
Operator : chriss2
Sample : icc5844-50
Misc : op13894,ep5844,1000,,,1,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 26 11:17:06 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5844.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Apr 26 11:15:43 2019
Response via : Initial Calibration

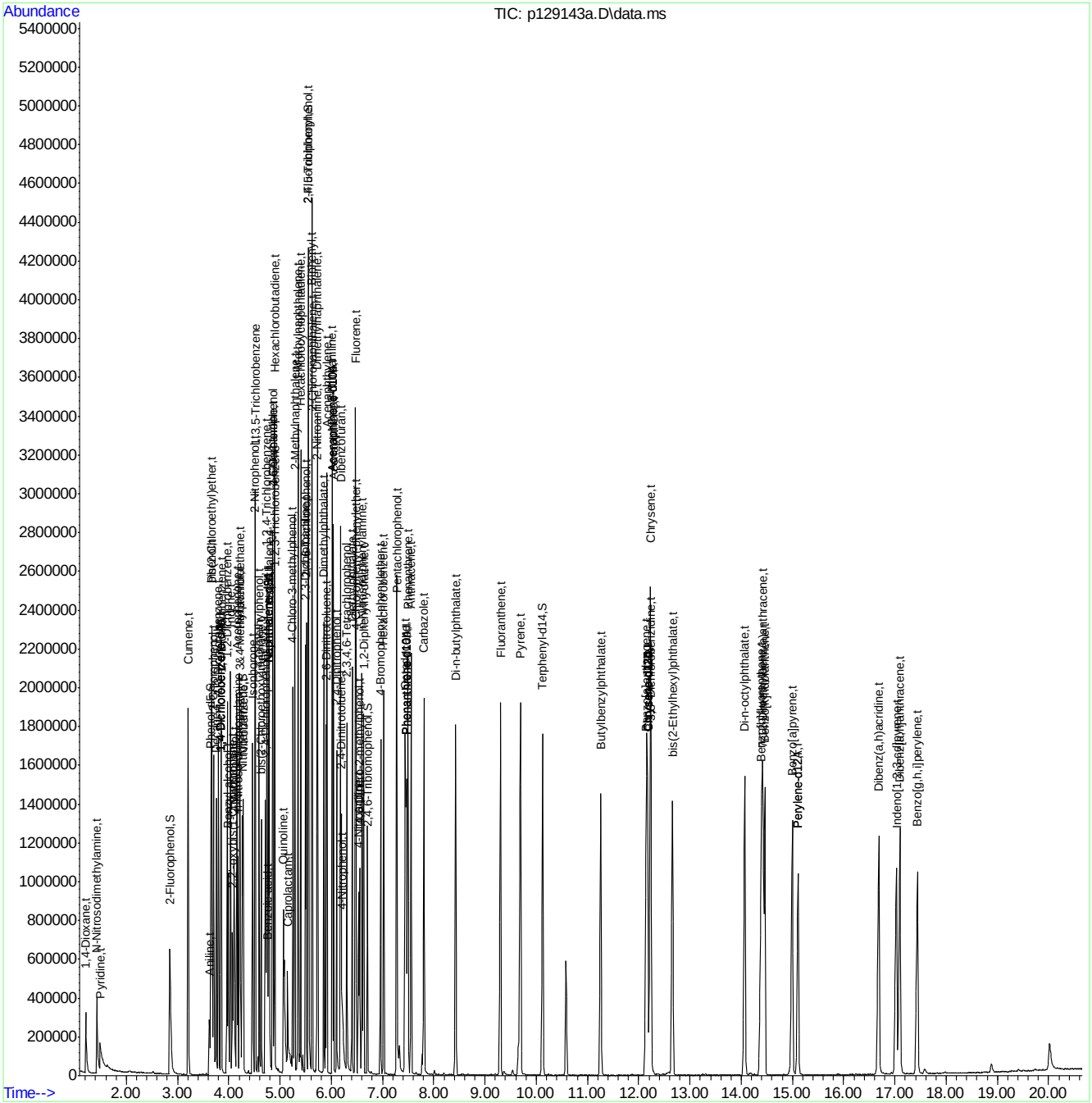
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68) 4-Nitroaniline	6.536	138	165669	50.00	ppm	100
70) 4,6-Dinitro-2-methylph...	6.558	198	144111	50.00	ppm	100
71) n-Nitrosodiphenylamine	6.600	169	492407	50.00	ppm	100
72) 1,2-Diphenylhydrazine	6.632	77	708995	50.10	ppm	100
74) 4-Bromophenyl-phenylether	6.964	248	241387	50.00	ppm	100
75) Hexachlorobenzene	7.022	284	268245	50.00	ppm	100
76) Pentachlorophenol	7.279	266	338651	100.00	ppm	100
77) Phenanthrene	7.498	178	995471	50.00	ppm	100
78) Anthracene	7.562	178	1021855	50.00	ppm	100
79) Carbazole	7.813	167	992906	50.00	ppm	100
80) Di-n-butylphthalate	8.427	149	1443071	50.00	ppm	100
81) Fluoranthene	9.303	202	1254145	50.00	ppm	100
82) Octadecane	7.444	57	368446	50.00	ppm	100
84) Pyrene	9.693	202	1290684	50.00	ppm	100
86) Butylbenzylphthalate	11.259	149	664678	50.00	ppm	100
87) Benzo[a]anthracene	12.151	228	1199857	50.00	ppm	100
88) 3,3'-Dichlorobenzidine	12.242	252	432683	50.00	ppm	100
89) Chrysene	12.231	228	1089839	50.00	ppm	100
90) bis(2-Ethylhexyl)phtha...	12.658	149	910528	50.00	ppm	100
92) Di-n-octylphthalate	14.069	149	1622375	50.00	ppm	100
93) Benzo[b]fluoranthene	14.395	252	1249586	50.00	ppm	100
94) Benzo[k]fluoranthene	14.464	252	981629	50.00	ppm	100
95) Benzo[a]pyrene	14.998	252	1033049	50.00	ppm	100
96) Indeno[1,2,3-cd]pyrene	17.034	276	954579	50.00	ppm	100
97) Dibenz(a,h)acridine	16.686	279	936675	50.00	ppm	100
98) Dibenz[a,h]anthracene	17.098	278	963311	50.24	ppm	100
99) 7,12-Dimethylbenz(a)an...	14.421	256	510356	50.00	ppm	100
100) Benzo[g,h,i]perylene	17.445	276	935242	49.76	ppm	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5844\
Data File : p129143a.D
Acq On : 24 Apr 2019 2:57 am
Operator : chriss2
Sample : icc5844-50
Misc : op13894,ep5844,1000,,,1,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 26 11:17:06 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5844.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Apr 26 11:15:43 2019
Response via : Initial Calibration



Manual Integrations APPROVED (compounds with "m" flag)
Kristi Schollenberger 04/30/19 18:25

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5844\
Data File : p129144a.D
Acq On : 24 Apr 2019 3:24 am
Operator : chriss2
Sample : ic5844-25
Misc : op13894,ep5844,1000,,,1,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 26 11:26:57 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5844.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Apr 26 11:15:43 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.838	152	244244	40.00	ppm	0.00
24) Naphthalene-d8	4.779	136	876767	40.00	ppm	0.00
47) Acenaphthene-d10	6.023	164	548162	40.00	ppm	0.00
69) Phenanthrene-d10	7.460	188	962861	40.00	ppm	0.00
83) Chrysene-d12	12.172	240	903620	40.00	ppm	0.00
91) Perylene-d12	15.110	264	932161	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4A	3.838	152	244244	40.00	ppm	0.00
111) Naphthalene-d8A	4.779	136	876767	40.00	ppm	0.00
120) Acenaphthene-d10A	6.023	164	548162	40.00	ppm	0.00
131) Phenanthrene-d10A	7.460	188	962861	40.00	ppm	0.00
146) Chrysene-d12A	12.172	240	903620	40.00	ppm	0.00
153) Perylene-d12A	15.110	264	932161	40.00	ppm	0.00
157) 1,4-Dichlorobenzene-d4b	3.838	152	244244	40.00	ppm	0.00
159) Phenanthrene-d10b	7.460	188	962861	40.00	ppm	0.00
161) Chrysene-d12b	12.172	240	903620	40.00	ppm	0.00
163) Naphthalene-d8b	4.779	136	876767	40.00	ppm	0.00
165) Acenaphthene-d10b	6.023	164	548162	40.00	ppm	0.00
167) Naphthalene-d8c	4.779	136	876767	40.00	ppm	0.00
172) 1,4-Dichlorobenzene-d4c	3.838	152	244244	40.00	ppm	0.00
174) Chrysene-d12c	12.172	240	903620	40.00	ppm	0.00
176) Chrysene-d12d	12.172	240	903620	40.00	ppm	0.00
178) Naphthalene-d8d	4.779	136	876767	40.00	ppm	0.00
180) Chrysene-d12D	12.172	240	903620	40.00	ppm	-0.03
System Monitoring Compounds						
5) 2-Fluorophenol	2.845	112	214544	23.25	ppm	0.00
Spiked Amount 50.000			Recovery = 46.50%			
8) Phenol-d5	3.651	99	266748	23.56	ppm	0.00
Spiked Amount 50.000			Recovery = 47.12%			
25) Nitrobenzene-d5	4.266	82	234363	24.17	ppm	0.00
Spiked Amount 50.000			Recovery = 48.34%			
51) 2-Fluorobiphenyl	5.553	172	467440	26.38	ppm	0.00
Spiked Amount 50.000			Recovery = 52.76%			
73) 2,4,6-Tribromophenol	6.702	330	82624	23.88	ppm	0.00
Spiked Amount 50.000			Recovery = 47.76%			
85) Terphenyl-d14	10.121	244	536551	24.37	ppm	0.00
Spiked Amount 50.000			Recovery = 48.74%			
Target Compounds						Qvalue
2) 1,4-Dioxane	1.215	88	100781	24.65	ppm	98
3) Pyridine	1.472	79	180051	25.82	ppm	97
4) N-Nitrosodimethylamine	1.429	42	110988	25.96	ppm	100
6) Indene	4.031	116	325693	23.96	ppm	97
7) Cumene	3.208	105	549129	24.71	ppm	99
9) Phenol	3.657	94	287197	24.04	ppm	95
10) Aniline	3.614	93	128527	30.12	ppm	95
11) bis(2-Chloroethyl)ether	3.662	93	239035	24.41	ppm	95
12) 2-Chlorophenol	3.705	128	208479	23.76	ppm	99
13) Decane	3.748	43	154359	26.55	ppm	92

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5844\
Data File : p129144a.D
Acq On : 24 Apr 2019 3:24 am
Operator : chriss2
Sample : ic5844-25
Misc : op13894,ep5844,1000,,,1,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 26 11:26:57 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5844.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Apr 26 11:15:43 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
14) 1,3-Dichlorobenzene	3.796	146	246456	25.01	ppm	99
15) 1,4-Dichlorobenzene	3.854	146	233481	23.88	ppm	97
16) Benzyl alcohol	3.983	108	105308	22.82	ppm	97
17) 1,2-Dichlorobenzene	3.967	146	239853	24.71	ppm	98
18) Acetophenone	4.159	105	296523	23.94	ppm	97
19) 2-Methylphenol	4.100	108	194993	24.56	ppm	97
20) 2,2'-oxybis(1-Chloropr...	4.073	121	50513	24.23	ppm	96
21) 3&4-Methylphenol	4.218	108	187290	23.62	ppm	100
22) n-Nitroso-di-n-propyla...	4.175	70	137038	23.87	ppm	99
23) Hexachloroethane	4.212	201	96274	24.35	ppm	96
26) Nitrobenzene	4.276	77	234783	25.16	ppm	94
27) Quinoline	5.051	129	398233m	23.29	ppm	
28) Isophorone	4.458	82	420054	24.94	ppm	97
29) 2-Nitrophenol	4.511	139	119448	24.43	ppm	93
30) 2,4-Dimethylphenol	4.586	107	203524	23.10	ppm	97
31) Benzoic acid	4.741	105	153085	22.86	ppm	91
32) bis(2-Chloroethoxy)met...	4.629	93	239628	23.97	ppm	100
33) 2,4-Dichlorophenol	4.714	162	189431	23.60	ppm	98
34) 2,6-Dichlorophenol	4.859	162	184735	24.02	ppm	99
35) 1,3,5-Trichlorobenzene	4.517	180	223305	24.56	ppm	99
36) 1,2,4-Trichlorobenzene	4.741	180	211641	24.62	ppm	98
37) 1,2,3-Trichlorobenzene	4.896	180	199413	24.62	ppm	97
38) Naphthalene	4.789	128	527115	23.32	ppm	100
39) 4-Chloroaniline	4.853	127	196489	24.46	ppm	93
40) 2,3-Dichloroaniline	5.494	161	227790	23.29	ppm	98
41) Caprolactam	5.131	55	84169	23.79	ppm	97
42) Hexachlorobutadiene	4.891	225	131496	24.52	ppm	98
43) 4-Chloro-3-methylphenol	5.243	107	197676	23.47	ppm	98
44) 2-Methylnaphthalene	5.286	141	312688	24.47	ppm	100
45) 1-Methylnaphthalene	5.356	142	403046	24.70	ppm	99
46) Dimethylnaphthalene	5.730	156	356734	23.72	ppm	98
48) Hexachlorocyclopentadiene	5.404	237	236943	49.06	ppm	97
49) 2,4,6-Trichlorophenol	5.510	196	144727	25.48	ppm	99
50) 2,4,5-Trichlorophenol	5.553	196	153091	25.94	ppm	98
52) 2-Chloronaphthalene	5.628	162	391444	25.55	ppm	98
53) Biphenyl	5.623	154	503514	26.16	ppm	98
54) 2-Nitroaniline	5.719	65	128477	26.40	ppm	85
55) Dimethylphthalate	5.852	163	492719	24.88	ppm	98
56) Acenaphthylene	5.916	152	604132	25.38	ppm	98
57) 2,6-Dinitrotoluene	5.890	165	103592	23.85	ppm	86
58) 3-Nitroaniline	6.013	138	112121	25.28	ppm	90
59) Acenaphthene	6.045	153	370899	24.63	ppm	98
60) 2,4-Dinitrophenol	6.098	184	120792	45.24	ppm	93
61) 4-Nitrophenol	6.210	109	78453	24.20	ppm	83
62) Dibenzofuran	6.178	168	572434	25.17	ppm	97
63) 2,4-Dinitrotoluene	6.194	165	139036	24.72	ppm	92
64) 2,3,4,6-Tetrachlorophenol	6.301	232	126428	23.40	ppm	92
65) Diethylphthalate	6.403	149	501132	25.11	ppm	98
66) Fluorene	6.467	166	464305	25.22	ppm	100
67) 4-Chlorophenyl-phenyle...	6.477	204	229745	25.21	ppm	95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5844\
Data File : p129144a.D
Acq On : 24 Apr 2019 3:24 am
Operator : chriss2
Sample : ic5844-25
Misc : op13894,ep5844,1000,,,1,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 26 11:26:57 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5844.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Apr 26 11:15:43 2019
Response via : Initial Calibration

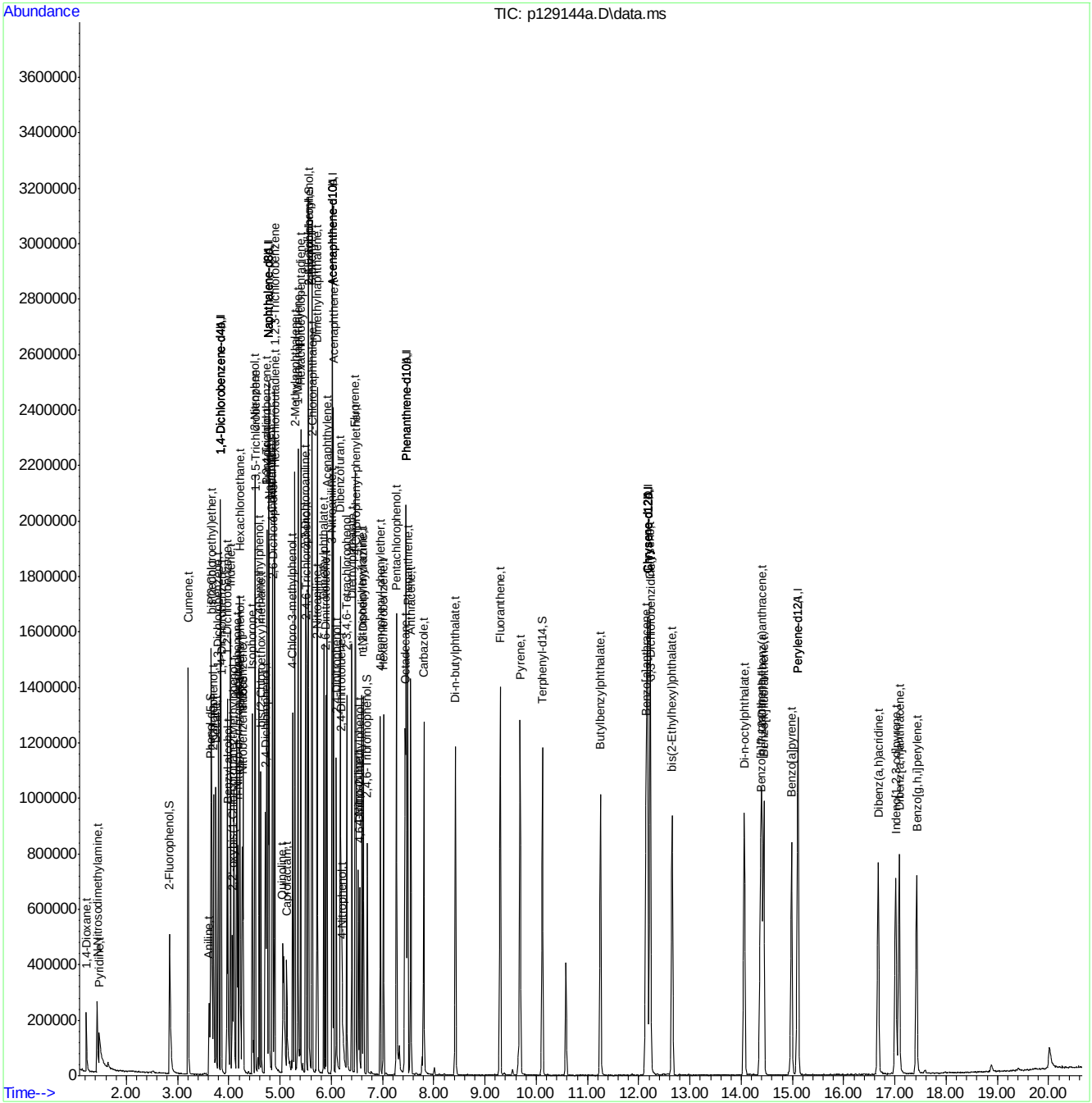
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68) 4-Nitroaniline	6.526	138	101892	23.47	ppm	95
70) 4,6-Dinitro-2-methylph...	6.552	198	90380	23.28	ppm	98
71) n-Nitrosodiphenylamine	6.600	169	321495	24.24	ppm	99
72) 1,2-Diphenylhydrazine	6.627	77	476957	25.02	ppm	96
74) 4-Bromophenyl-phenylether	6.958	248	151870	23.35	ppm	95
75) Hexachlorobenzene	7.017	284	170393	23.58	ppm	93
76) Pentachlorophenol	7.273	266	206844	45.34	ppm	98
77) Phenanthrene	7.492	178	634119	23.65	ppm	99
78) Anthracene	7.557	178	666530	24.21	ppm	99
79) Carbazole	7.808	167	642078	24.00	ppm	100
80) Di-n-butylphthalate	8.422	149	942924	24.25	ppm	98
81) Fluoranthene	9.298	202	802257	23.74	ppm	99
82) Octadecane	7.439	57	252541	25.44	ppm	98
84) Pyrene	9.688	202	817288	24.65	ppm	98
86) Butylbenzylphthalate	11.253	149	425754	24.94	ppm	98
87) Benzo[a]anthracene	12.146	228	744181	24.15	ppm	98
88) 3,3'-Dichlorobenzidine	12.231	252	263197	23.68	ppm	99
89) Chrysene	12.220	228	679462	24.27	ppm	99
90) bis(2-Ethylhexyl)phtha...	12.653	149	579828	24.79	ppm	100
92) Di-n-octylphthalate	14.058	149	1019397	24.68	ppm	97
93) Benzo[b]fluoranthene	14.379	252	722534	22.71	ppm	97
94) Benzo[k]fluoranthene	14.443	252	653444	26.14	ppm	98
95) Benzo[a]pyrene	14.988	252	624465	23.74	ppm	97
96) Indeno[1,2,3-cd]pyrene	17.018	276	575966	23.70	ppm	95
97) Dibenz(a,h)acridine	16.676	279	563919	23.64	ppm	97
98) Dibenz[a,h]anthracene	17.087	278	580465	23.78	ppm	99
99) 7,12-Dimethylbenz(a)an...	14.400	256	286526	22.05	ppm	98
100) Benzo[g,h,i]perylene	17.429	276	572820	23.94	ppm	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5844\
Data File : p129144a.D
Acq On : 24 Apr 2019 3:24 am
Operator : chriss2
Sample : ic5844-25
Misc : op13894,ep5844,1000,,,1,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 26 11:26:57 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5844.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Apr 26 11:15:43 2019
Response via : Initial Calibration



Manual Integration Approval Summary

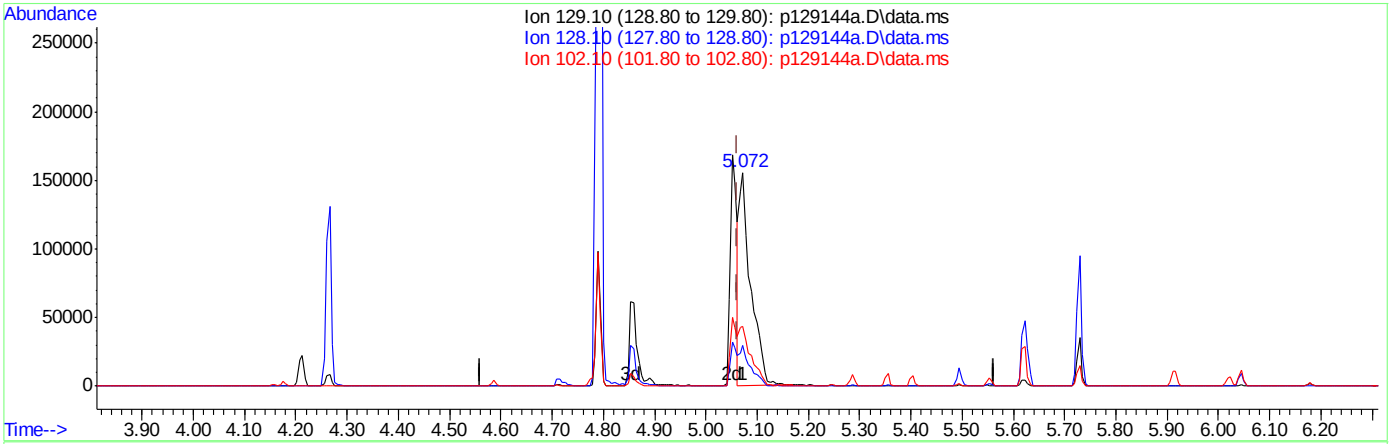
Sample Number:	EP5844-IC5844	**Method:**	SW846 8270D
Lab FileID:	P129144A.D	**Analyst approved:**	04/26/19 12:39 Ying Li
Injection Time:	04/24/19 03:24	**Supervisor approved:**	04/30/19 18:25 Kristi Schollenberger

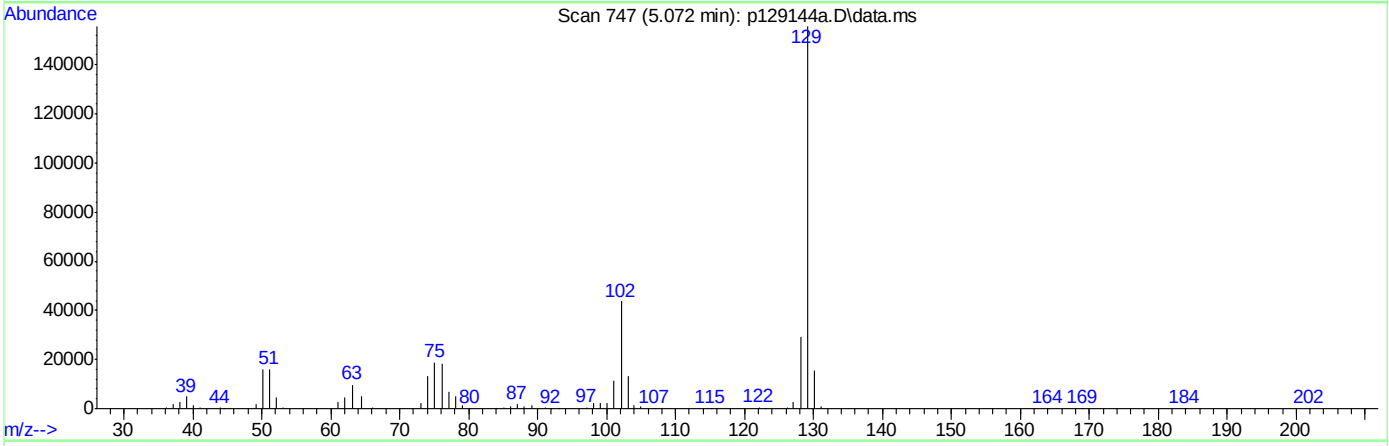
Parameter	CAS	Sig#	R.T. (min.)	Reason
Quinoline	91-22-5		5.05	Split peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EP5844\
Data File : p129144a.D
Acq On : 24 Apr 2019 3:24 am
Operator : chriss2
Sample : ic5844-25
Misc : op13894,ep5844,1000,,,1,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 24 10:43:36 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5844.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed Apr 24 10:37:10 2019
Response via : Initial Calibration





TIC: p129144a.D\data.ms

(27) Quinoline (t)

5.072min (+0.011) 13.78ppm

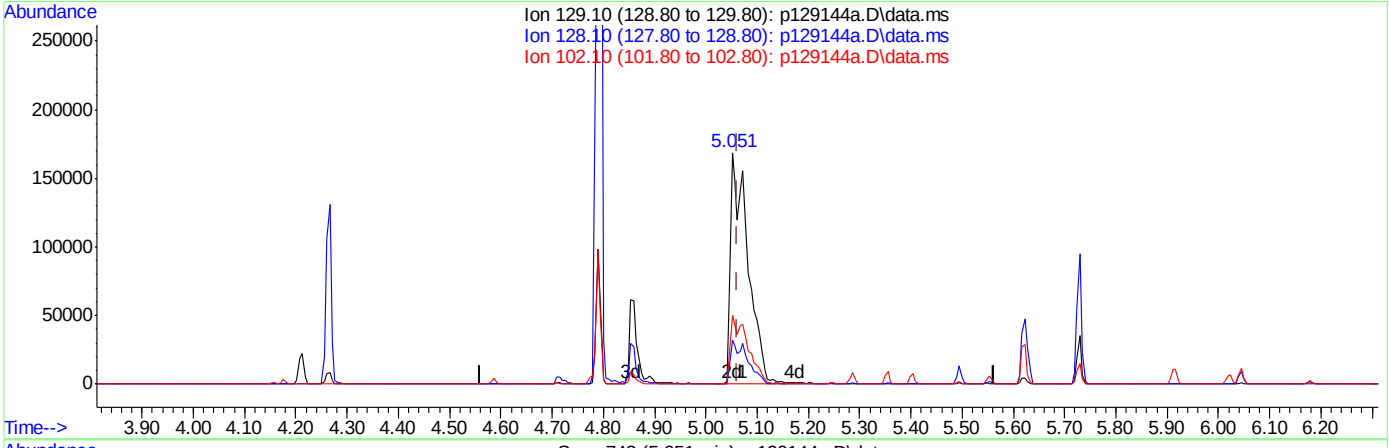
response 235617

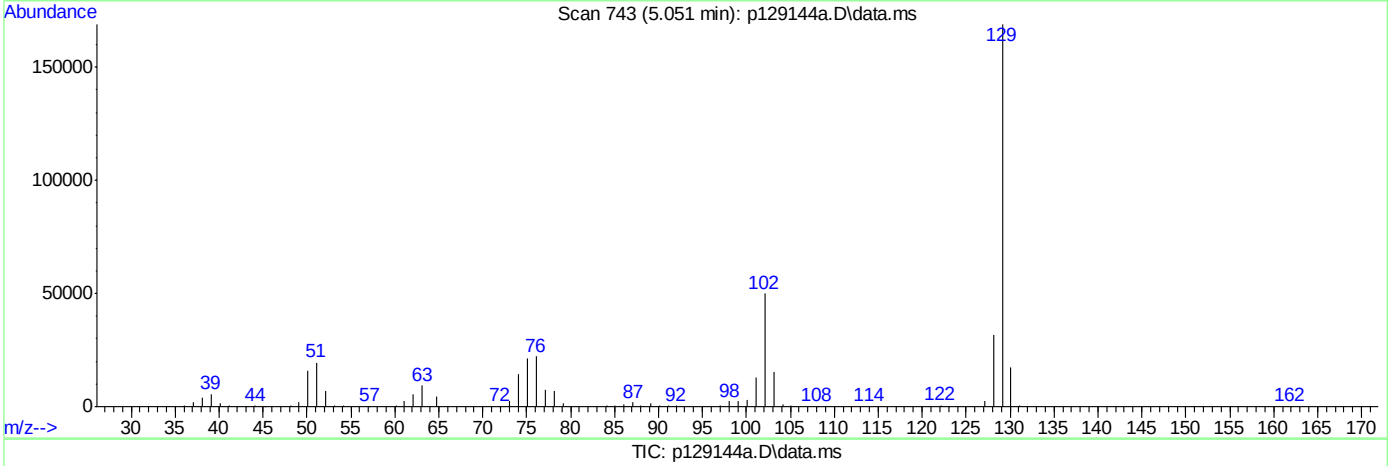
Ion	Exp%	Act%
129.10	100	100
128.10	17.80	19.10
102.10	29.70	26.80
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EP5844\
Data File : p129144a.D
Acq On : 24 Apr 2019 3:24 am
Operator : chriss2
Sample : ic5844-25
Misc : op13894,ep5844,1000,,,1,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 26 11:24:51 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5844.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Apr 26 11:15:43 2019
Response via : Initial Calibration





TIC: p129144a.D\data.ms

(27) Quinoline (t)

5.051min (-0.011) 23.29ppm m

response 398233

Ion	Exp%	Act%
129.10	100	100
128.10	17.80	18.88
102.10	29.70	29.50
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5844\
Data File : p129145a.D
Acq On : 24 Apr 2019 3:51 am
Operator : chriss2
Sample : ic5844-10
Misc : op13894,ep5844,1000,,,1,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 26 11:30:04 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5844.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Apr 26 11:15:43 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.838	152	246850	40.00	ppm	0.00
24) Naphthalene-d8	4.773	136	914688	40.00	ppm	0.00
47) Acenaphthene-d10	6.018	164	569912	40.00	ppm	0.00
69) Phenanthrene-d10	7.460	188	1047583	40.00	ppm	0.00
83) Chrysene-d12	12.167	240	1052978	40.00	ppm	0.00
91) Perylene-d12	15.111	264	1138537	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4A	3.838	152	246850	40.00	ppm	0.00
111) Naphthalene-d8A	4.773	136	914688	40.00	ppm	0.00
120) Acenaphthene-d10A	6.018	164	569912	40.00	ppm	0.00
131) Phenanthrene-d10A	7.460	188	1047583	40.00	ppm	0.00
146) Chrysene-d12A	12.167	240	1052978	40.00	ppm	0.00
153) Perylene-d12A	15.111	264	1138537	40.00	ppm	0.00
157) 1,4-Dichlorobenzene-d4b	3.838	152	246850	40.00	ppm	0.00
159) Phenanthrene-d10b	7.460	188	1047583	40.00	ppm	0.00
161) Chrysene-d12b	12.167	240	1052978	40.00	ppm	0.00
163) Naphthalene-d8b	4.773	136	914688	40.00	ppm	0.00
165) Acenaphthene-d10b	6.018	164	569912	40.00	ppm	0.00
167) Naphthalene-d8c	4.773	136	914688	40.00	ppm	0.00
172) 1,4-Dichlorobenzene-d4c	3.838	152	246850	40.00	ppm	0.00
174) Chrysene-d12c	12.167	240	1052978	40.00	ppm	0.00
176) Chrysene-d12d	12.167	240	1052978	40.00	ppm	0.00
178) Naphthalene-d8d	4.773	136	914688	40.00	ppm	0.00
180) Chrysene-d12D	12.167	240	1052978	40.00	ppm	-0.03
System Monitoring Compounds						
5) 2-Fluorophenol	2.839	112	77746	8.33	ppm	-0.01
Spiked Amount 50.000			Recovery = 16.66%			
8) Phenol-d5	3.646	99	105705	9.24	ppm	0.00
Spiked Amount 50.000			Recovery = 18.48%			
25) Nitrobenzene-d5	4.260	82	103296	10.21	ppm	0.00
Spiked Amount 50.000			Recovery = 20.42%			
51) 2-Fluorobiphenyl	5.553	172	195015	10.58	ppm	0.00
Spiked Amount 50.000			Recovery = 21.16%			
73) 2,4,6-Tribromophenol	6.697	330	32886	8.74	ppm	-0.01
Spiked Amount 50.000			Recovery = 17.48%			
85) Terphenyl-d14	10.116	244	230688	8.99	ppm	-0.01
Spiked Amount 50.000			Recovery = 17.98%			
Target Compounds						Qvalue
2) 1,4-Dioxane	1.210	88	39603	9.58	ppm	91
3) Pyridine	1.445	79	87135	12.36	ppm	95
4) N-Nitrosodimethylamine	1.429	42	42503	9.84	ppm	94
6) Indene	4.031	116	131264	9.55	ppm	96
7) Cumene	3.208	105	217416	9.68	ppm	97
9) Phenol	3.657	94	113537	9.40	ppm	94
10) Aniline	3.603	93	109312	25.35	ppm	94
11) bis(2-Chloroethyl)ether	3.662	93	90185	9.11	ppm	86
12) 2-Chlorophenol	3.700	128	83636	9.43	ppm	96
13) Decane	3.748	43	63120	10.74	ppm	95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5844\
Data File : p129145a.D
Acq On : 24 Apr 2019 3:51 am
Operator : chriss2
Sample : ic5844-10
Misc : op13894,ep5844,1000,,,1,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 26 11:30:04 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5844.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Apr 26 11:15:43 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
14) 1,3-Dichlorobenzene	3.790	146	99885	10.03	ppm		98
15) 1,4-Dichlorobenzene	3.849	146	94564	9.57	ppm		98
16) Benzyl alcohol	3.977	108	44697	9.58	ppm		93
17) 1,2-Dichlorobenzene	3.967	146	94111	9.59	ppm		96
18) Acetophenone	4.154	105	123229	9.84	ppm		94
19) 2-Methylphenol	4.095	108	79067	9.85	ppm		99
20) 2,2'-oxybis(1-Chloropr...	4.068	121	21290	10.10	ppm		94
21) 3&4-Methylphenol	4.212	108	81282	10.14	ppm		96
22) n-Nitroso-di-n-propyla...	4.170	70	59334	10.23	ppm		100
23) Hexachloroethane	4.212	201	39192	9.81	ppm		97
26) Nitrobenzene	4.271	77	103366	10.62	ppm		90
27) Quinoline	5.035	129	162720	9.12	ppm		99
28) Isophorone	4.453	82	177084	10.08	ppm		95
29) 2-Nitrophenol	4.512	139	47402	9.29	ppm		76
30) 2,4-Dimethylphenol	4.581	107	68728	7.48	ppm		99
31) Benzoic acid	4.704	105	38600	5.53	ppm		94
32) bis(2-Chloroethoxy)met...	4.629	93	103010	9.88	ppm		100
33) 2,4-Dichlorophenol	4.709	162	76757	9.17	ppm		97
34) 2,6-Dichlorophenol	4.853	162	73454	9.16	ppm		97
35) 1,3,5-Trichlorobenzene	4.512	180	89964	9.49	ppm		98
36) 1,2,4-Trichlorobenzene	4.741	180	86695	9.67	ppm		99
37) 1,2,3-Trichlorobenzene	4.896	180	81965	9.70	ppm		97
38) Naphthalene	4.789	128	220487	9.35	ppm		100
39) 4-Chloroaniline	4.853	127	92808	11.07	ppm		97
40) 2,3-Dichloroaniline	5.495	161	95278	9.34	ppm		98
41) Caprolactam	5.105	55	36584	9.91	ppm		97
42) Hexachlorobutadiene	4.891	225	53493	9.56	ppm		98
43) 4-Chloro-3-methylphenol	5.238	107	80606	9.17	ppm		98
44) 2-Methylnaphthalene	5.286	141	127014	9.53	ppm		95
45) 1-Methylnaphthalene	5.350	142	163314	9.59	ppm		94
46) Dimethylnaphthalene	5.724	156	148966	9.50	ppm		93
48) Hexachlorocyclopentadiene	5.404	237	77564	15.45	ppm		97
49) 2,4,6-Trichlorophenol	5.505	196	57626	9.76	ppm		97
50) 2,4,5-Trichlorophenol	5.548	196	60227	9.81	ppm		94
52) 2-Chloronaphthalene	5.623	162	164152	10.31	ppm		95
53) Biphenyl	5.617	154	203886	10.19	ppm		97
54) 2-Nitroaniline	5.714	65	58142	11.49	ppm	#	74
55) Dimethylphthalate	5.847	163	205848	10.00	ppm		99
56) Acenaphthylene	5.911	152	257676	10.41	ppm		99
57) 2,6-Dinitrotoluene	5.885	165	43043	9.53	ppm		76
58) 3-Nitroaniline	6.013	138	48283	10.47	ppm		96
59) Acenaphthene	6.039	153	155382	9.92	ppm		97
60) 2,4-Dinitrophenol	6.093	184	39410	14.20	ppm		76
61) 4-Nitrophenol	6.210	109	32049	9.51	ppm		96
62) Dibenzofuran	6.178	168	236758	10.01	ppm		95
63) 2,4-Dinitrotoluene	6.189	165	60408	10.33	ppm		80
64) 2,3,4,6-Tetrachlorophenol	6.301	232	51260	9.13	ppm		92
65) Diethylphthalate	6.397	149	215361	10.38	ppm		97
66) Fluorene	6.467	166	194772	10.18	ppm		96
67) 4-Chlorophenyl-phenyle...	6.478	204	93535	9.87	ppm		93

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5844\
Data File : p129145a.D
Acq On : 24 Apr 2019 3:51 am
Operator : chriss2
Sample : ic5844-10
Misc : op13894,ep5844,1000,,,1,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 26 11:30:04 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5844.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Apr 26 11:15:43 2019
Response via : Initial Calibration

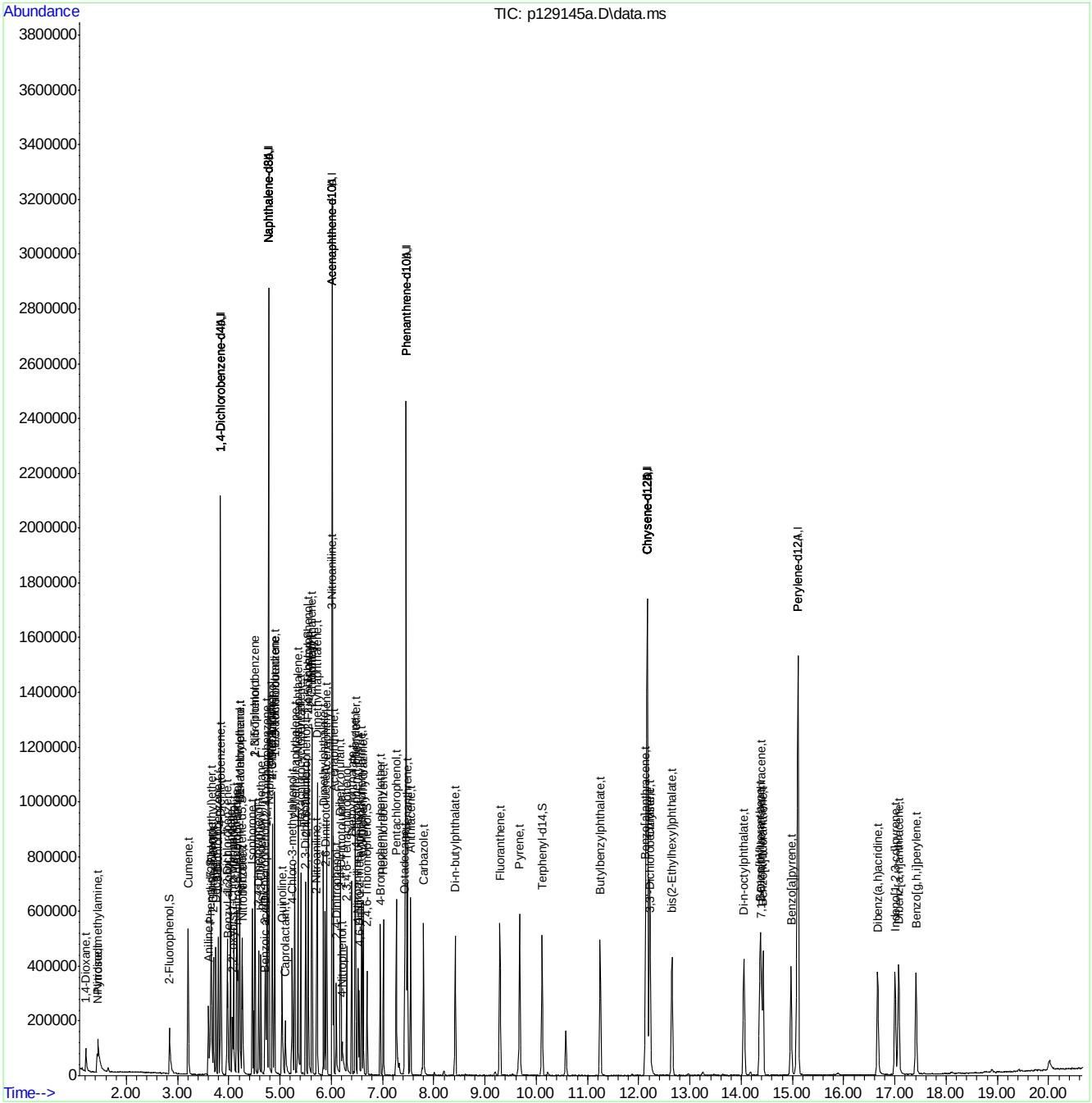
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68)	4-Nitroaniline	6.515	138	45200	10.01	ppm	91
70)	4,6-Dinitro-2-methylph...	6.542	198	34535	8.18	ppm	76
71)	n-Nitrosodiphenylamine	6.590	169	132598	9.19	ppm	97
72)	1,2-Diphenylhydrazine	6.622	77	220519	10.63	ppm	89
74)	4-Bromophenyl-phenylether	6.958	248	61627	8.71	ppm	94
75)	Hexachlorobenzene	7.017	284	70748	9.00	ppm	98
76)	Pentachlorophenol	7.268	266	71665	14.44	ppm	98
77)	Phenanthrene	7.487	178	268795	9.21	ppm	99
78)	Anthracene	7.546	178	279918	9.35	ppm	99
79)	Carbazole	7.802	167	275950	9.48	ppm	100
80)	Di-n-butylphthalate	8.422	149	396345	9.37	ppm	99
81)	Fluoranthene	9.293	202	342659	9.32	ppm	97
82)	Octadecane	7.434	57	111315	10.31	ppm	95
84)	Pyrene	9.678	202	358665	9.28	ppm	99
86)	Butylbenzylphthalate	11.248	149	191063	9.60	ppm	99
87)	Benzo[a]anthracene	12.135	228	335336	9.34	ppm	98
88)	3,3'-Dichlorobenzidine	12.226	252	114223	8.82	ppm	97
89)	Chrysene	12.210	228	297788	9.13	ppm	98
90)	bis(2-Ethylhexyl)phtha...	12.648	149	253691	9.31	ppm	100
92)	Di-n-octylphthalate	14.053	149	452507	8.97	ppm	98
93)	Benzo[b]fluoranthene	14.368	252	334514	8.61	ppm	98
94)	Benzo[k]fluoranthene	14.427	252	299498	9.81	ppm	98
95)	Benzo[a]pyrene	14.977	252	288405	8.98	ppm	99
96)	Indeno[1,2,3-cd]pyrene	17.007	276	272702	9.19	ppm	95
97)	Dibenz(a,h)acridine	16.665	279	261469	8.98	ppm	97
98)	Dibenz[a,h]anthracene	17.077	278	268436	9.00	ppm	99
99)	7,12-Dimethylbenz(a)an...	14.389	256	106728	6.72	ppm	97
100)	Benzo[g,h,i]perylene	17.413	276	273714	9.37	ppm	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5844\
Data File : p129145a.D
Acq On : 24 Apr 2019 3:51 am
Operator : chriss2
Sample : ic5844-10
Misc : op13894,ep5844,1000,,,1,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 26 11:30:04 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5844.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Apr 26 11:15:43 2019
Response via : Initial Calibration



Manual Integrations APPROVED (compounds with "m" flag)
Kristi Schollenberger 04/30/19 18:25

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5844\
Data File : p129146a.D
Acq On : 24 Apr 2019 4:18 am
Operator : chriss2
Sample : ic5844-5
Misc : op13894,ep5844,1000,,,1,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 26 11:35:16 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5844.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Apr 26 11:33:45 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.839	152	233437	40.00	ppm	0.00
24) Naphthalene-d8	4.774	136	863051	40.00	ppm	0.00
47) Acenaphthene-d10	6.018	164	540608	40.00	ppm	0.00
69) Phenanthrene-d10	7.461	188	1004865	40.00	ppm	0.00
83) Chrysene-d12	12.167	240	993848	40.00	ppm	0.00
91) Perylene-d12	15.111	264	1118417	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4A	3.839	152	233437	40.00	ppm	0.00
111) Naphthalene-d8A	4.774	136	863051	40.00	ppm	0.00
120) Acenaphthene-d10A	6.018	164	540608	40.00	ppm	0.00
131) Phenanthrene-d10A	7.461	188	1004865	40.00	ppm	0.00
146) Chrysene-d12A	12.167	240	993848	40.00	ppm	0.00
153) Perylene-d12A	15.111	264	1118417	40.00	ppm	0.00
157) 1,4-Dichlorobenzene-d4b	3.839	152	233437	40.00	ppm	0.00
159) Phenanthrene-d10b	7.461	188	1004865	40.00	ppm	0.00
161) Chrysene-d12b	12.167	240	993848	40.00	ppm	0.00
163) Naphthalene-d8b	4.774	136	863051	40.00	ppm	0.00
165) Acenaphthene-d10b	6.018	164	540608	40.00	ppm	0.00
167) Naphthalene-d8c	4.774	136	863051	40.00	ppm	0.00
172) 1,4-Dichlorobenzene-d4c	3.839	152	233437	40.00	ppm	0.00
174) Chrysene-d12c	12.167	240	993848	40.00	ppm	0.00
176) Chrysene-d12d	12.167	240	993848	40.00	ppm	0.00
178) Naphthalene-d8d	4.774	136	863051	40.00	ppm	0.00
180) Chrysene-d12D	12.167	240	993848	40.00	ppm	-0.03
System Monitoring Compounds						
5) 2-Fluorophenol	2.845	112	32624	3.70	ppm	0.00
Spiked Amount 50.000			Recovery = 7.40%			
8) Phenol-d5	3.646	99	46471	4.29	ppm	0.00
Spiked Amount 50.000			Recovery = 8.58%			
25) Nitrobenzene-d5	4.261	82	47032	4.93	ppm	0.00
Spiked Amount 50.000			Recovery = 9.86%			
51) 2-Fluorobiphenyl	5.548	172	89418	5.12	ppm	0.00
Spiked Amount 50.000			Recovery = 10.24%			
73) 2,4,6-Tribromophenol	6.697	330	13825	3.83	ppm	-0.01
Spiked Amount 50.000			Recovery = 7.66%			
85) Terphenyl-d14	10.116	244	102133	4.22	ppm	-0.01
Spiked Amount 50.000			Recovery = 8.44%			
Target Compounds						Qvalue
2) 1,4-Dioxane	1.210	88	16715	4.28	ppm	94
3) Pyridine	1.445	79	41868	6.28	ppm	99
4) N-Nitrosodimethylamine	1.429	42	16811	4.11	ppm	97
6) Indene	4.031	116	60850	4.68	ppm	97
7) Cumene	3.203	105	98222	4.62	ppm	98
9) Phenol	3.657	94	50230	4.40	ppm	93
10) Aniline	3.604	93	55655	13.65	ppm	92
11) bis(2-Chloroethyl)ether	3.662	93	37349	3.99	ppm	95
12) 2-Chlorophenol	3.700	128	37875	4.52	ppm	90
13) Decane	3.748	43	30296	5.45	ppm	92

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5844\
Data File : p129146a.D
Acq On : 24 Apr 2019 4:18 am
Operator : chriss2
Sample : ic5844-5
Misc : op13894,ep5844,1000,,,1,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 26 11:35:16 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5844.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Apr 26 11:33:45 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
14) 1,3-Dichlorobenzene	3.791	146	47766	5.07	ppm		99
15) 1,4-Dichlorobenzene	3.849	146	44143	4.72	ppm		95
16) Benzyl alcohol	3.978	108	18501	4.19	ppm		85
17) 1,2-Dichlorobenzene	3.967	146	42763	4.61	ppm		99
18) Acetophenone	4.154	105	57821	4.88	ppm		89
19) 2-Methylphenol	4.095	108	33445	4.41	ppm		94
20) 2,2'-oxybis(1-Chloropr...	4.068	121	9294	4.66	ppm	#	82
21) 3&4-Methylphenol	4.213	108	34213	4.51	ppm		98
22) n-Nitroso-di-n-propyla...	4.165	70	28007	5.10	ppm		92
23) Hexachloroethane	4.207	201	17989	4.76	ppm		83
26) Nitrobenzene	4.271	77	49909	5.43	ppm		87
27) Quinoline	5.035	129	74002	4.40	ppm		97
28) Isophorone	4.453	82	80284	4.84	ppm		98
29) 2-Nitrophenol	4.512	139	22271	4.63	ppm	#	74
30) 2,4-Dimethylphenol	4.581	107	26795	3.09	ppm		99
31) Benzoic acid	4.693	105	11273m	1.71	ppm		
32) bis(2-Chloroethoxy)met...	4.624	93	47320	4.81	ppm		97
33) 2,4-Dichlorophenol	4.715	162	34261	4.34	ppm		96
34) 2,6-Dichlorophenol	4.854	162	33883	4.48	ppm		96
35) 1,3,5-Trichlorobenzene	4.512	180	40662	4.54	ppm		97
36) 1,2,4-Trichlorobenzene	4.742	180	38975	4.61	ppm		100
37) 1,2,3-Trichlorobenzene	4.896	180	38832	4.87	ppm		98
38) Naphthalene	4.790	128	99792	4.49	ppm		99
39) 4-Chloroaniline	4.848	127	44281	5.60	ppm		89
40) 2,3-Dichloroaniline	5.495	161	44290	4.60	ppm		95
41) Caprolactam	5.094	55	16989	4.88	ppm		97
42) Hexachlorobutadiene	4.891	225	24233	4.59	ppm		98
43) 4-Chloro-3-methylphenol	5.238	107	36319	4.38	ppm		93
44) 2-Methylnaphthalene	5.286	141	59988	4.77	ppm		95
45) 1-Methylnaphthalene	5.351	142	76231	4.75	ppm		96
46) Dimethylnaphthalene	5.724	156	68161	4.61	ppm		94
48) Hexachlorocyclopentadiene	5.404	237	27599	5.79	ppm		98
49) 2,4,6-Trichlorophenol	5.505	196	26352	4.70	ppm		97
50) 2,4,5-Trichlorophenol	5.554	196	25018	4.30	ppm		97
52) 2-Chloronaphthalene	5.623	162	77413	5.12	ppm		96
53) Biphenyl	5.618	154	92102	4.85	ppm		98
54) 2-Nitroaniline	5.714	65	26644	5.55	ppm		81
55) Dimethylphthalate	5.847	163	93871	4.81	ppm		98
56) Acenaphthylene	5.911	152	118824	5.06	ppm		99
57) 2,6-Dinitrotoluene	5.885	165	19441	4.54	ppm		84
58) 3-Nitroaniline	6.008	138	20181	4.61	ppm	#	66
59) Acenaphthene	6.040	153	71451	4.81	ppm		96
60) 2,4-Dinitrophenol	6.098	184	13775	5.23	ppm	#	61
61) 4-Nitrophenol	6.227	109	12456	3.90	ppm		96
62) Dibenzofuran	6.179	168	106205	4.74	ppm		92
63) 2,4-Dinitrotoluene	6.189	165	27544	4.97	ppm		85
64) 2,3,4,6-Tetrachlorophenol	6.301	232	21327	4.00	ppm		93
65) Diethylphthalate	6.392	149	98820	5.02	ppm		97
66) Fluorene	6.462	166	88011	4.85	ppm		99
67) 4-Chlorophenyl-phenyle...	6.478	204	43508	4.84	ppm		93

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5844\
Data File : p129146a.D
Acq On : 24 Apr 2019 4:18 am
Operator : chriss2
Sample : ic5844-5
Misc : op13894,ep5844,1000,,,1,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 26 11:35:16 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5844.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Apr 26 11:33:45 2019
Response via : Initial Calibration

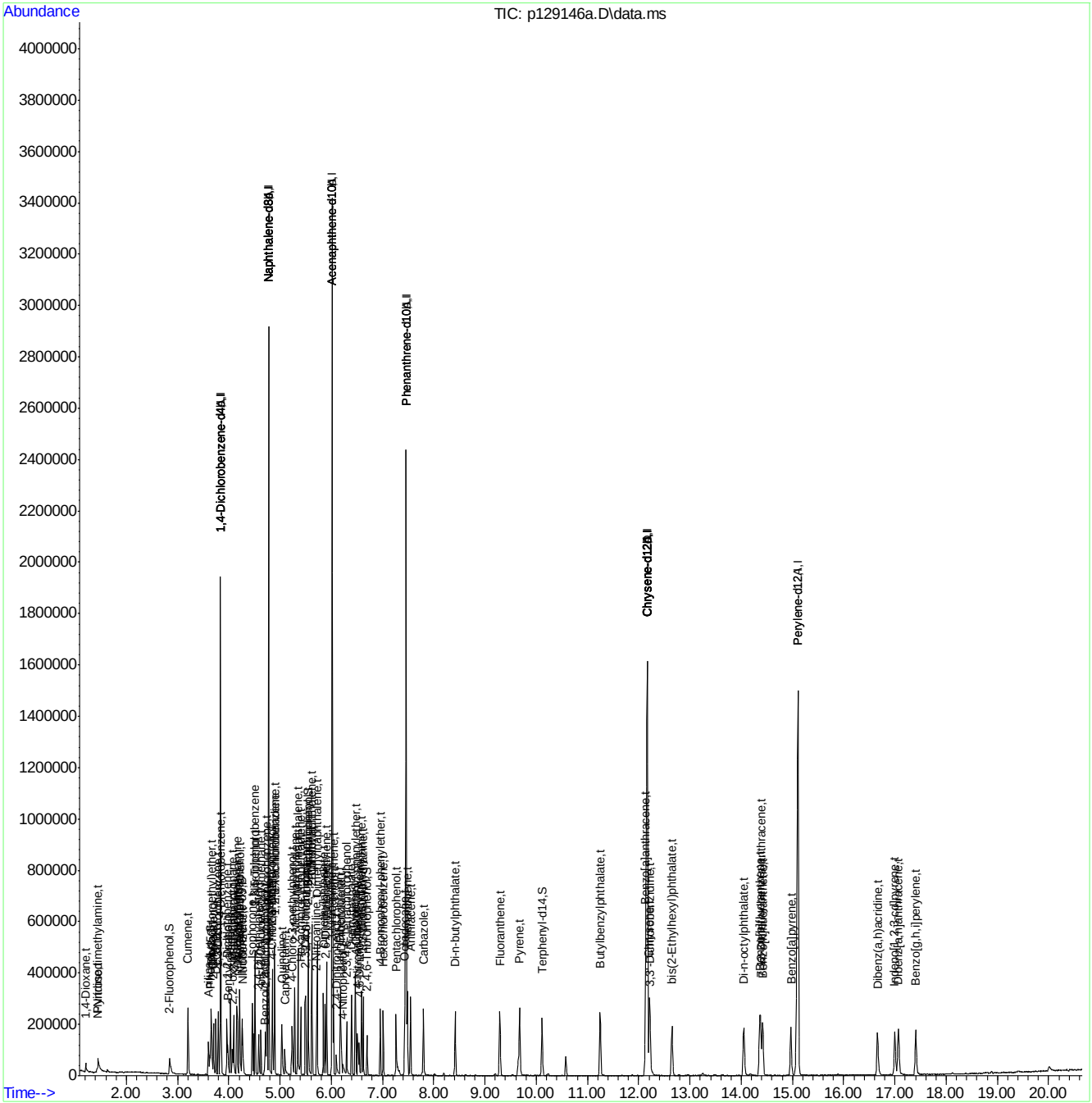
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68) 4-Nitroaniline	6.510	138	19989	4.67	ppm	80
70) 4,6-Dinitro-2-methylph...	6.542	198	15112	3.73	ppm	88
71) n-Nitrosodiphenylamine	6.590	169	61491	4.44	ppm	96
72) 1,2-Diphenylhydrazine	6.622	77	102725	5.16	ppm	91
74) 4-Bromophenyl-phenylether	6.953	248	27024	3.98	ppm	80
75) Hexachlorobenzene	7.017	284	31416	4.17	ppm	95
76) Pentachlorophenol	7.268	266	28877	6.07	ppm	95
77) Phenanthrene	7.482	178	123229	4.40	ppm	99
78) Anthracene	7.546	178	132112	4.60	ppm	99
79) Carbazole	7.797	167	128199	4.59	ppm	98
80) Di-n-butylphthalate	8.417	149	181070	4.46	ppm	99
81) Fluoranthene	9.288	202	152264	4.32	ppm	98
82) Octadecane	7.434	57	50787	4.90	ppm	93
84) Pyrene	9.678	202	164102	4.50	ppm	97
86) Butylbenzylphthalate	11.248	149	84120	4.48	ppm	89
87) Benzo[a]anthracene	12.135	228	157299	4.64	ppm	100
88) 3,3'-Dichlorobenzidine	12.226	252	50462	4.13	ppm	95
89) Chrysene	12.205	228	137715	4.47	ppm	97
90) bis(2-Ethylhexyl)phtha...	12.643	149	114374	4.45	ppm	98
92) Di-n-octylphthalate	14.048	149	202862	4.09	ppm	96
93) Benzo[b]fluoranthene	14.363	252	148561	3.89	ppm	95
94) Benzo[k]fluoranthene	14.416	252	146190	4.87	ppm	98
95) Benzo[a]pyrene	14.972	252	135091	4.28	ppm	95
96) Indeno[1,2,3-cd]pyrene	16.997	276	125836	4.31	ppm	90
97) Dibenz(a,h)acridine	16.660	279	115360	4.03	ppm	98
98) Dibenz[a,h]anthracene	17.066	278	127839	4.36	ppm	96
99) 7,12-Dimethylbenz(a)an...	14.379	256	39989	2.56	ppm	96
100) Benzo[g,h,i]perylene	17.408	276	129013	4.49	ppm	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5844\
Data File : p129146a.D
Acq On : 24 Apr 2019 4:18 am
Operator : chriss2
Sample : ic5844-5
Misc : op13894,ep5844,1000,,,1,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 26 11:35:16 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5844.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Apr 26 11:33:45 2019
Response via : Initial Calibration



Manual Integration Approval Summary

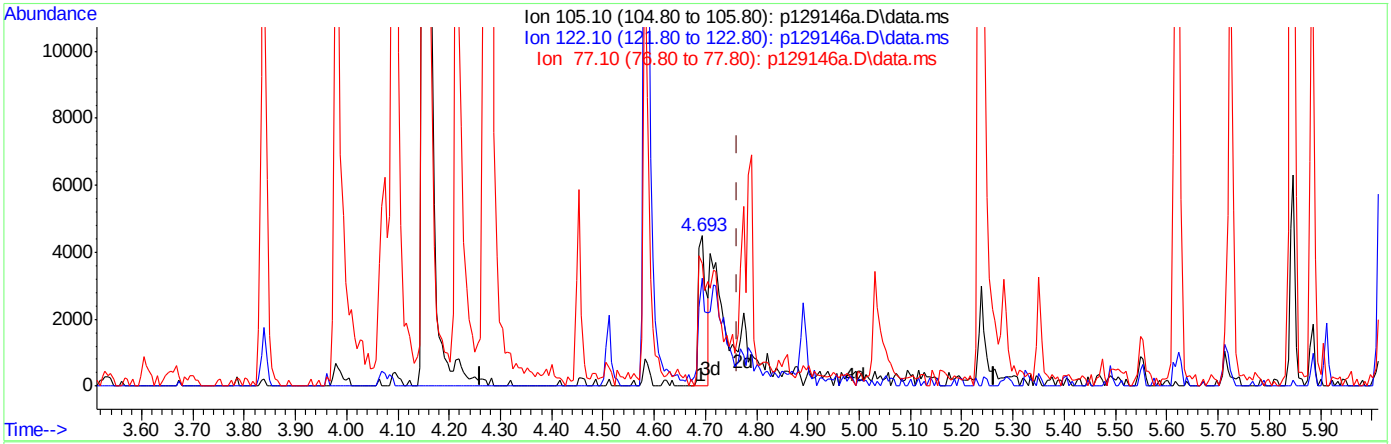
Sample Number:	EP5844-IC5844	**Method:**	SW846 8270D
Lab FileID:	P129146A.D	**Analyst approved:**	04/26/19 12:39 Ying Li
Injection Time:	04/24/19 04:18	**Supervisor approved:**	04/30/19 18:25 Kristi Schollenberger

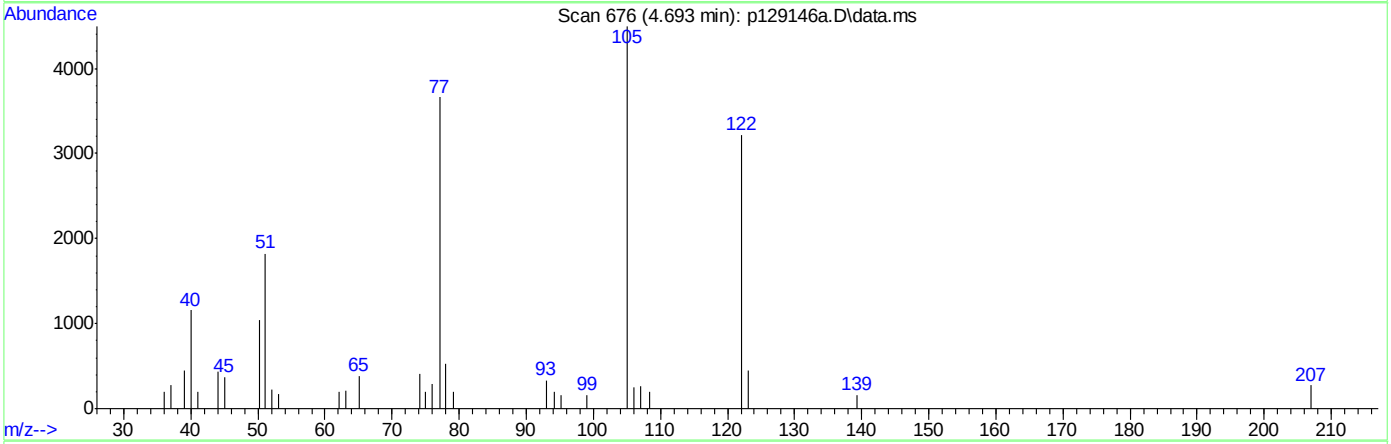
Parameter	CAS	Sig#	R.T. (min.)	Reason
Benzoic acid	65-85-0		4.69	Split peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EP5844\
Data File : p129146a.D
Acq On : 24 Apr 2019 4:18 am
Operator : chriss2
Sample : ic5844-5
Misc : op13894,ep5844,1000,,,1,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 24 11:21:22 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5844.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed Apr 24 11:19:50 2019
Response via : Initial Calibration





TIC: p129146a.D\data.ms

(31) Benzoic acid (t)

4.693min (-0.069) 0.70ppm

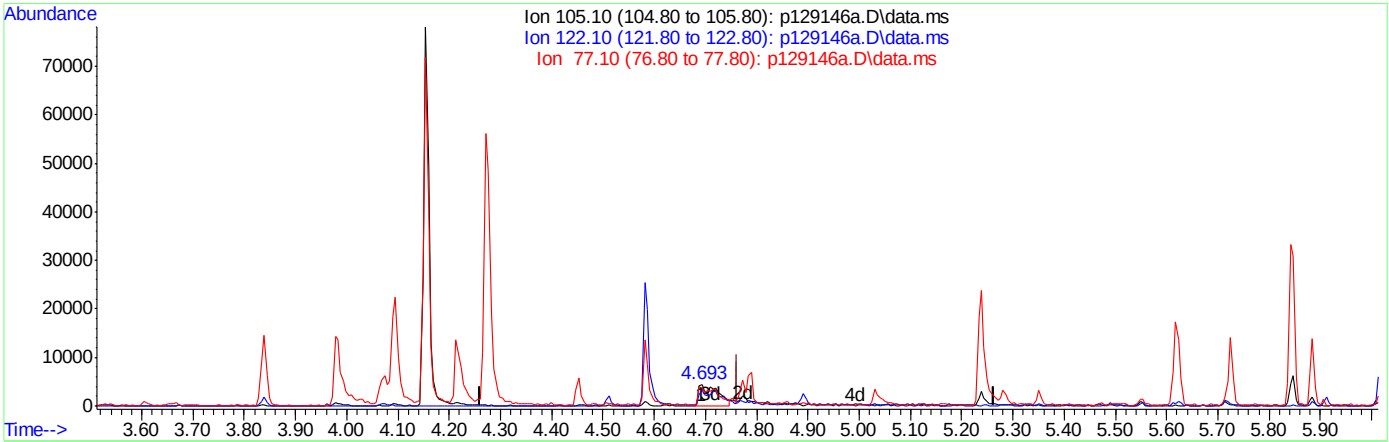
response 4620

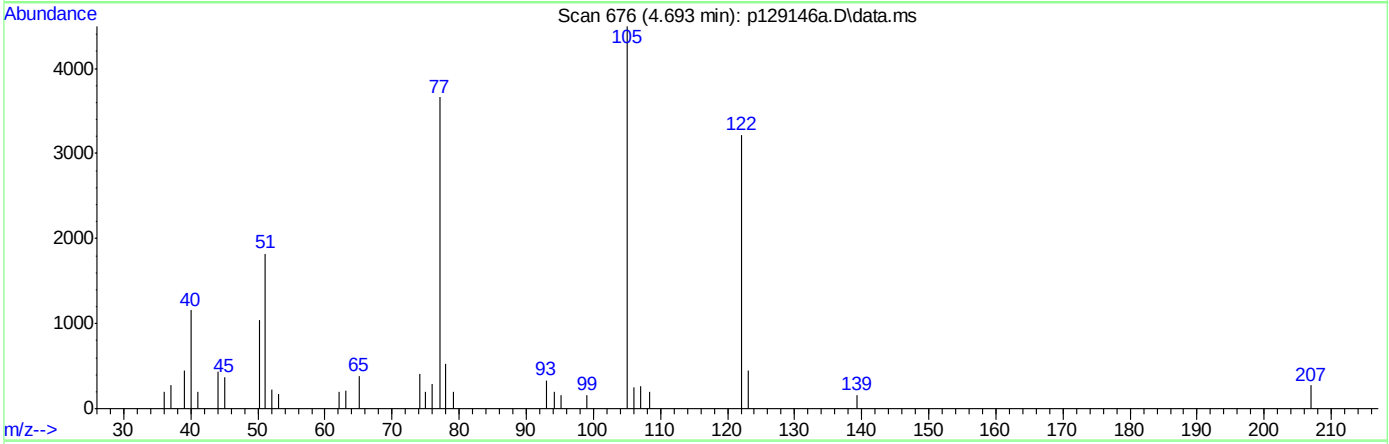
Ion	Exp%	Act%
105.10	100	100
122.10	67.60	64.36
77.10	76.90	62.38
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EP5844\
Data File : p129146a.D
Acq On : 24 Apr 2019 4:18 am
Operator : chriss2
Sample : ic5844-5
Misc : op13894,ep5844,1000,,,1,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Apr 24 11:21:22 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5844.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed Apr 24 11:19:50 2019
Response via : Initial Calibration





TIC: p129146a.D\data.ms

(31) Benzoic acid (t)

4.693min (-0.069) 1.71ppm m

response 11273

Ion	Exp%	Act%
105.10	100	100
122.10	67.60	71.62
77.10	76.90	81.47
0.00	0.00	0.00

P129147.D

Manual Integrations APPROVED (compounds with "m" flag)

Kristi Schollenberger 04/30/19 18:25

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5844\
Data File : p129147.D
Acq On : 24 Apr 2019 4:45 am
Operator : chriss2
Sample : ic5844-2
Misc : op13894,ep5844,1000,,,1,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Apr 26 11:45:44 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5844.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Apr 26 11:33:45 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.838	152	215705	40.00	ppm	0.00
24) Naphthalene-d8	4.773	136	819276	40.00	ppm	0.00
47) Acenaphthene-d10	6.018	164	500270	40.00	ppm	0.00
69) Phenanthrene-d10	7.460	188	930794	40.00	ppm	0.00
83) Chrysene-d12	12.162	240	898814	40.00	ppm	-0.01
91) Perylene-d12	15.110	264	1003108	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4A	3.838	152	215705	40.00	ppm	0.00
111) Naphthalene-d8A	4.773	136	819276	40.00	ppm	0.00
120) Acenaphthene-d10A	6.018	164	500270	40.00	ppm	0.00
131) Phenanthrene-d10A	7.460	188	930794	40.00	ppm	0.00
146) Chrysene-d12A	12.162	240	898814	40.00	ppm	-0.01
153) Perylene-d12A	15.110	264	1003108	40.00	ppm	0.00
157) 1,4-Dichlorobenzene-d4b	3.838	152	215705	40.00	ppm	0.00
159) Phenanthrene-d10b	7.460	188	930794	40.00	ppm	0.00
161) Chrysene-d12b	12.162	240	898814	40.00	ppm	-0.01
163) Naphthalene-d8b	4.773	136	819276	40.00	ppm	0.00
165) Acenaphthene-d10b	6.018	164	500270	40.00	ppm	0.00
167) Naphthalene-d8c	4.773	136	819276	40.00	ppm	0.00
172) 1,4-Dichlorobenzene-d4c	3.838	152	215705	40.00	ppm	0.00
174) Chrysene-d12c	12.162	240	898814	40.00	ppm	-0.01
176) Chrysene-d12d	12.162	240	898814	40.00	ppm	-0.01
178) Naphthalene-d8d	4.773	136	819276	40.00	ppm	0.00
180) Chrysene-d12D	12.162	240	898814	40.00	ppm	-0.04
System Monitoring Compounds						
5) 2-Fluorophenol	2.855	112	10975	1.35	ppm	0.00
Spiked Amount 50.000			Recovery = 2.70%			
8) Phenol-d5	3.651	99	15488	1.55	ppm	0.00
Spiked Amount 50.000			Recovery = 3.10%			
25) Nitrobenzene-d5	4.260	82	17764	1.96	ppm	0.00
Spiked Amount 50.000			Recovery = 3.92%			
51) 2-Fluorobiphenyl	5.553	172	32757	2.03	ppm	0.00
Spiked Amount 50.000			Recovery = 4.06%			
73) 2,4,6-Tribromophenol	6.696	330	4645	1.39	ppm	-0.01
Spiked Amount 50.000			Recovery = 2.78%			
85) Terphenyl-d14	10.110	244	35974	1.64	ppm	-0.02
Spiked Amount 50.000			Recovery = 3.28%			
Target Compounds						Qvalue
2) 1,4-Dioxane	1.215	88	6569	1.82	ppm	88
3) Pyridine	1.461	79	12254	1.99	ppm	96
4) N-Nitrosodimethylamine	1.440	42	5615	1.49	ppm	81
6) Indene	4.031	116	22248	1.85	ppm	90
7) Cumene	3.208	105	35218	1.79	ppm	98
9) Phenol	3.662	94	17986	1.70	ppm	88
10) Aniline	3.609	93	19458	5.16	ppm	96
11) bis(2-Chloroethyl)ether	3.667	93	14251	1.65	ppm	97
12) 2-Chlorophenol	3.705	128	14177	1.83	ppm	92
13) Decane	3.747	43	11903	2.32	ppm	89

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5844\
Data File : p129147.D
Acq On : 24 Apr 2019 4:45 am
Operator : chriss2
Sample : ic5844-2
Misc : op13894,ep5844,1000,,,1,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Apr 26 11:45:44 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5844.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Apr 26 11:33:45 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
14) 1,3-Dichlorobenzene	3.796	146	16937	1.95	ppm		91
15) 1,4-Dichlorobenzene	3.849	146	16173	1.87	ppm		93
16) Benzyl alcohol	3.988	108	5744	1.41	ppm		90
17) 1,2-Dichlorobenzene	3.966	146	16571	1.93	ppm		93
18) Acetophenone	4.159	105	21588	1.97	ppm		96
19) 2-Methylphenol	4.095	108	12304	1.75	ppm		87
20) 2,2'-oxybis(1-Chloropr...	4.073	121	3250	1.76	ppm	#	80
21) 3&4-Methylphenol	4.223	108	13301	1.90	ppm		97
22) n-Nitroso-di-n-propyla...	4.170	70	10458	2.06	ppm	#	87
23) Hexachloroethane	4.212	201	6877	1.97	ppm		94
26) Nitrobenzene	4.276	77	18982	2.18	ppm		90
27) Quinoline	5.035	129	26631	1.67	ppm		99
28) Isophorone	4.453	82	30370	1.93	ppm		93
29) 2-Nitrophenol	4.511	139	6853	1.50	ppm	#	47
32) bis(2-Chloroethoxy)met...	4.629	93	16683	1.79	ppm		98
33) 2,4-Dichlorophenol	4.720	162	10397	1.39	ppm		93
34) 2,6-Dichlorophenol	4.853	162	12366	1.72	ppm		98
35) 1,3,5-Trichlorobenzene	4.511	180	14793	1.74	ppm		94
36) 1,2,4-Trichlorobenzene	4.741	180	14604	1.82	ppm		98
37) 1,2,3-Trichlorobenzene	4.896	180	14012	1.85	ppm		89
38) Naphthalene	4.789	128	39755	1.88	ppm		98
39) 4-Chloroaniline	4.853	127	15136	2.02	ppm		87
40) 2,3-Dichloroaniline	5.494	161	15849	1.73	ppm		96
41) Caprolactam	5.094	55	5986	1.81	ppm		88
42) Hexachlorobutadiene	4.891	225	9330	1.86	ppm		92
43) 4-Chloro-3-methylphenol	5.238	107	13370	1.70	ppm		80
44) 2-Methylnaphthalene	5.286	141	22328	1.87	ppm		99
45) 1-Methylnaphthalene	5.350	142	28216	1.85	ppm		92
46) Dimethylnaphthalene	5.724	156	24933	1.77	ppm		91
49) 2,4,6-Trichlorophenol	5.505	196	9321	1.80	ppm		94
50) 2,4,5-Trichlorophenol	5.558	196	9535	1.77	ppm		96
52) 2-Chloronaphthalene	5.623	162	28204	2.02	ppm		89
53) Biphenyl	5.617	154	34314	1.95	ppm		97
54) 2-Nitroaniline	5.719	65	10279	2.31	ppm	#	77
55) Dimethylphthalate	5.847	163	34470	1.91	ppm		98
56) Acenaphthylene	5.911	152	43232	1.99	ppm		98
57) 2,6-Dinitrotoluene	5.884	165	6947	1.75	ppm		67
58) 3-Nitroaniline	6.013	138	7726	1.91	ppm	#	26
59) Acenaphthene	6.039	153	26410	1.92	ppm		98
60) 2,4-Dinitrophenol	6.109	184	1813	0.74	ppm	#	62
61) 4-Nitrophenol	6.242	109	4911m	1.66	ppm		
62) Dibenzofuran	6.178	168	38630	1.86	ppm		90
63) 2,4-Dinitrotoluene	6.189	165	9031	1.76	ppm		70
64) 2,3,4,6-Tetrachlorophenol	6.301	232	7588	1.54	ppm		96
65) Diethylphthalate	6.392	149	34891	1.92	ppm		94
66) Fluorene	6.461	166	31895	1.90	ppm		99
67) 4-Chlorophenyl-phenyle...	6.477	204	15699	1.89	ppm		89
68) 4-Nitroaniline	6.520	138	6162	1.56	ppm		91
71) n-Nitrosodiphenylamine	6.590	169	22328	1.74	ppm		96
72) 1,2-Diphenylhydrazine	6.622	77	39201	2.13	ppm		93

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5844\
Data File : p129147.D
Acq On : 24 Apr 2019 4:45 am
Operator : chriss2
Sample : ic5844-2
Misc : op13894,ep5844,1000,,,1,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Apr 26 11:45:44 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5844.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Apr 26 11:33:45 2019
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
74)	4-Bromophenyl-phenylether	6.953	248	9507	1.51	ppm	85
75)	Hexachlorobenzene	7.012	284	11869	1.70	ppm	83
76)	Pentachlorophenol	7.268	266	6976	1.58	ppm	91
77)	Phenanthrene	7.482	178	46301	1.79	ppm	97
78)	Anthracene	7.546	178	48383	1.82	ppm	97
79)	Carbazole	7.802	167	45530	1.76	ppm	98
80)	Di-n-butylphthalate	8.417	149	63740	1.70	ppm	99
81)	Fluoranthene	9.287	202	54128	1.66	ppm	99
82)	Octadecane	7.434	57	19366	2.02	ppm	93
84)	Pyrene	9.677	202	59922	1.82	ppm	97
86)	Butylbenzylphthalate	11.243	149	29175	1.72	ppm	91
87)	Benzo[a]anthracene	12.140	228	56355	1.84	ppm	95
88)	3,3'-Dichlorobenzidine	12.226	252	16449	1.49	ppm	97
89)	Chrysene	12.204	228	48245	1.73	ppm	98
90)	bis(2-Ethylhexyl)phtha...	12.648	149	38063	1.64	ppm	94
92)	Di-n-octylphthalate	14.053	149	64640	1.45	ppm	93
93)	Benzo[b]fluoranthene	14.363	252	51674	1.51	ppm	97
94)	Benzo[k]fluoranthene	14.416	252	50092	1.86	ppm	96
95)	Benzo[a]pyrene	14.972	252	47243	1.67	ppm	99
96)	Indeno[1,2,3-cd]pyrene	16.996	276	40559	1.55	ppm	91
97)	Dibenz(a,h)acridine	16.660	279	38961	1.52	ppm	94
98)	Dibenz[a,h]anthracene	17.071	278	42944	1.63	ppm	97
99)	7,12-Dimethylbenz(a)an...	14.379	256	13204	0.94	ppm	94
100)	Benzo[g,h,i]perylene	17.413	276	43770	1.70	ppm	93

(#) = qualifier out of range (m) = manual integration (+) = signals summed

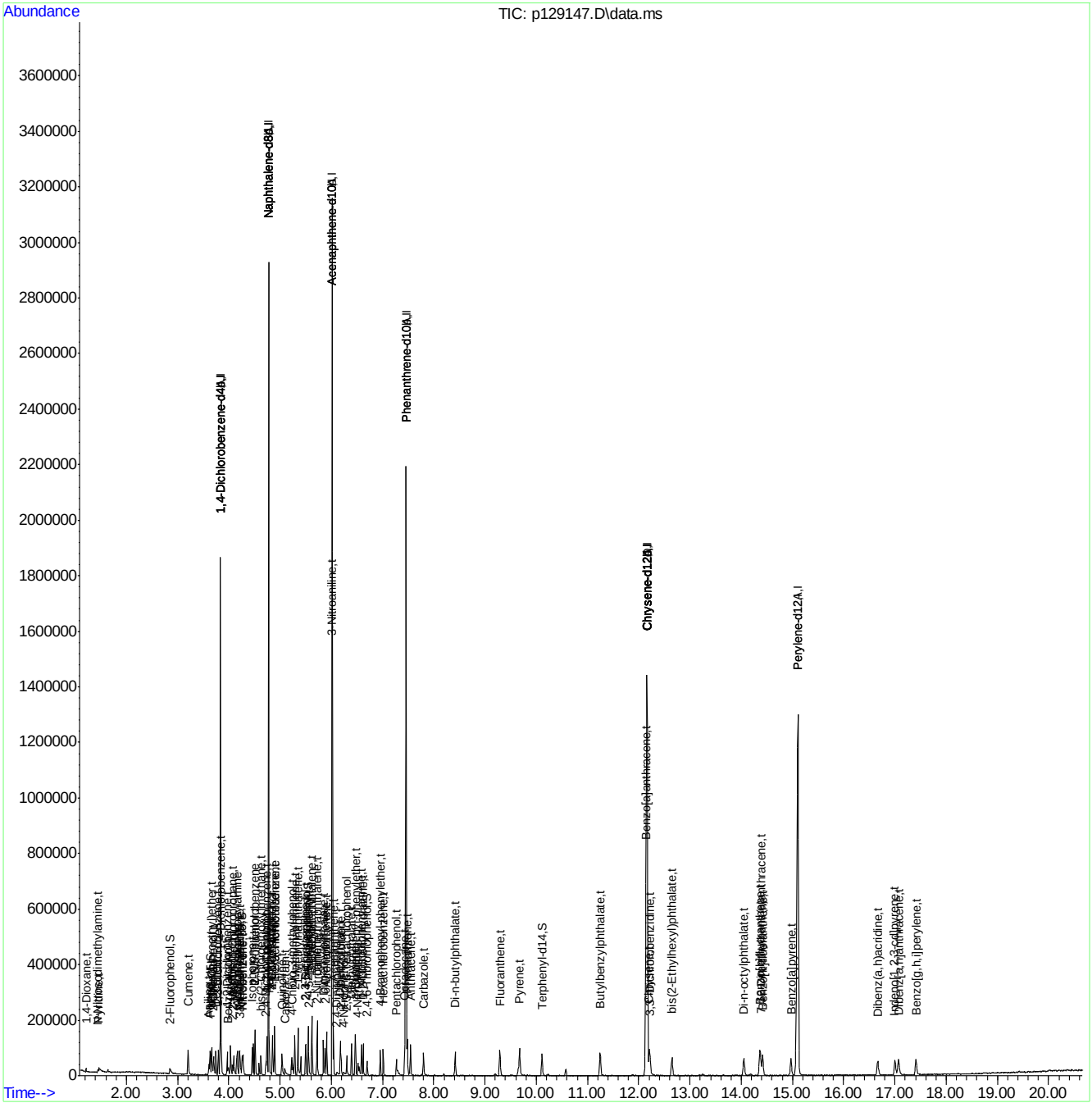
9.6.78

6

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5844\
Data File : p129147.D
Acq On : 24 Apr 2019 4:45 am
Operator : chriss2
Sample : ic5844-2
Misc : op13894,ep5844,1000,,,1,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Apr 26 11:45:44 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5844.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Apr 26 11:33:45 2019
Response via : Initial Calibration



Manual Integration Approval Summary

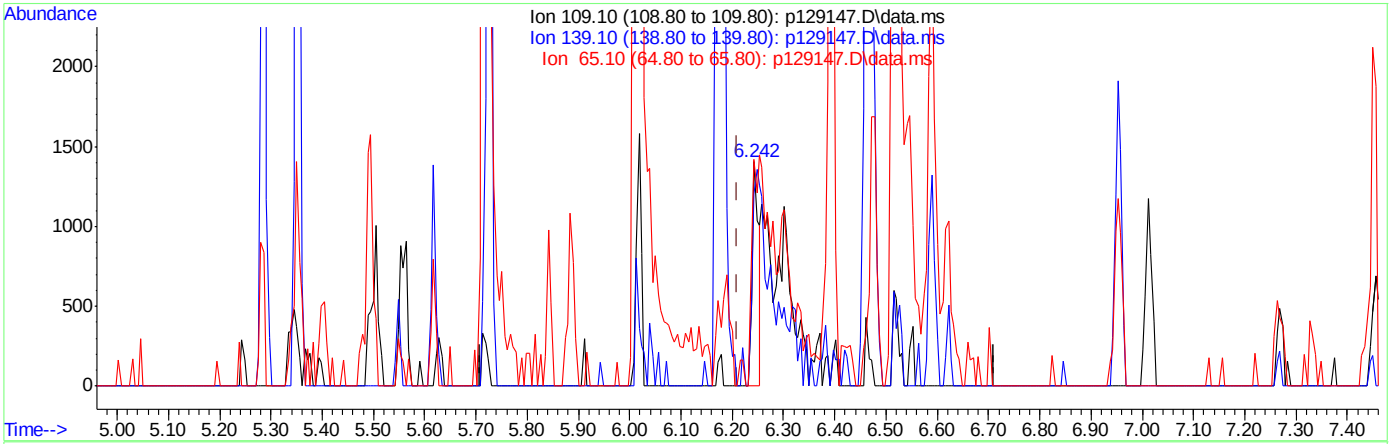
Sample Number:	EP5844-IC5844	**Method:**	SW846 8270D
Lab FileID:	P129147.D	**Analyst approved:**	04/26/19 12:39 Ying Li
Injection Time:	04/24/19 04:45	**Supervisor approved:**	04/30/19 18:25 Kristi Schollenberger

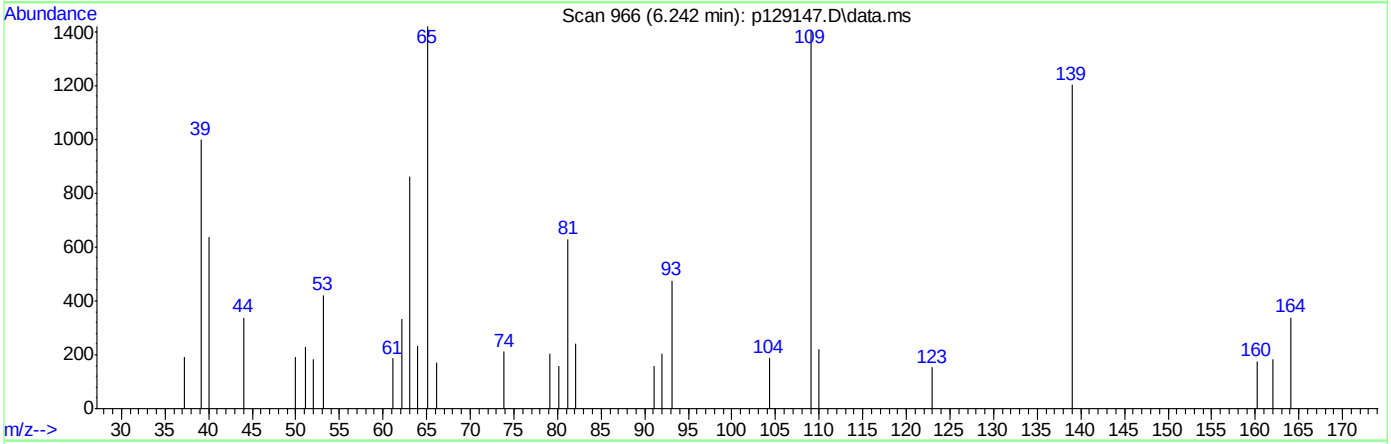
Parameter	CAS	Sig#	R.T. (min.)	Reason
4-Nitrophenol	100-02-7		6.24	Split peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EP5844\
Data File : p129147.D
Acq On : 24 Apr 2019 4:45 am
Operator : chriss2
Sample : ic5844-2
Misc : op13894,ep5844,1000,,,1,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Apr 24 11:25:33 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5844.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed Apr 24 11:23:42 2019
Response via : Initial Calibration





TIC: p129147.D\data.ms

(61) 4-Nitrophenol (t)

6.242min (+0.032) 0.43ppm

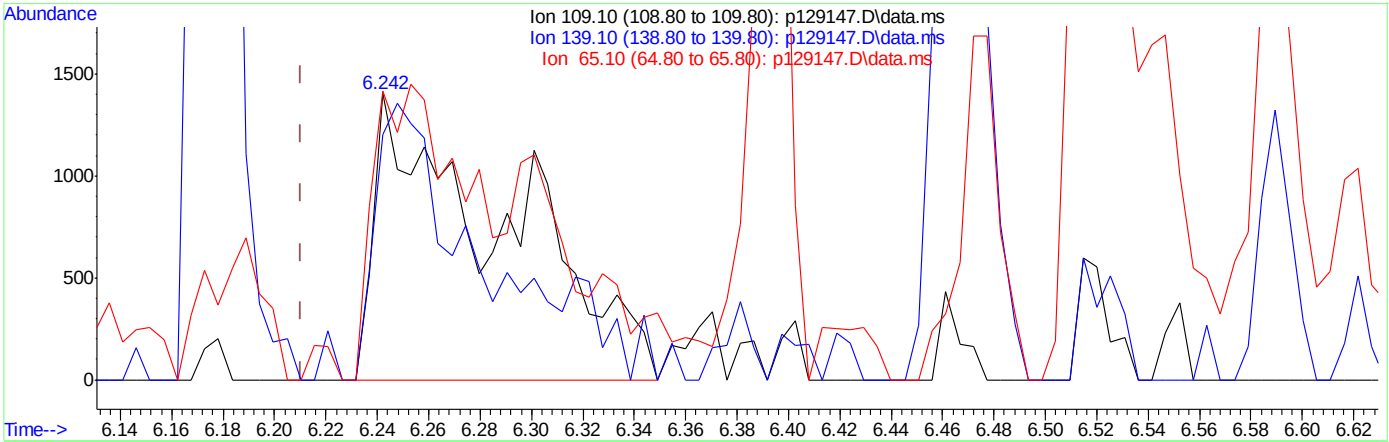
response 1270

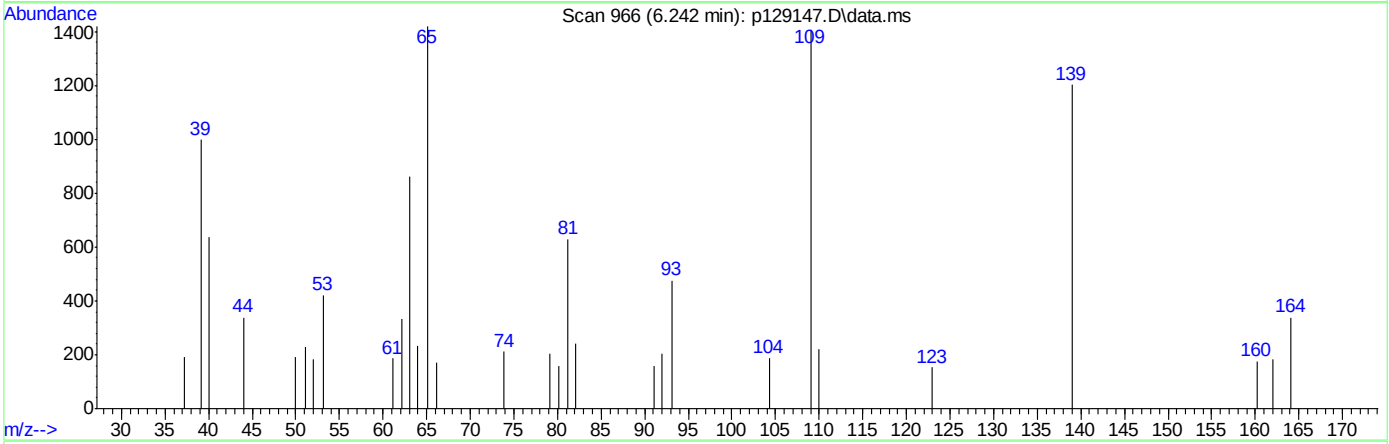
Ion	Exp%	Act%
109.10	100	100
139.10	99.10	63.38#
65.10	97.00	76.90
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EP5844\
Data File : p129147.D
Acq On : 24 Apr 2019 4:45 am
Operator : chriss2
Sample : ic5844-2
Misc : op13894,ep5844,1000,,,1,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Apr 24 11:25:33 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5844.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed Apr 24 11:23:42 2019
Response via : Initial Calibration





TIC: p129147.D\data.ms

(61) 4-Nitrophenol (t)

6.242min (+0.032) 1.66ppm m

response 4911

Ion	Exp%	Act%
109.10	100	100
139.10	99.10	85.55
65.10	97.00	101.00
0.00	0.00	0.00

Manual Integrations APPROVED (compounds with "m" flag)
Kristi Schollenberger 04/30/19 18:25

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5844\
Data File : p129148.D
Acq On : 24 Apr 2019 5:12 am
Operator : chriss2
Sample : ic5844-1
Misc : op13894,ep5844,1000,,,1,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Apr 26 11:52:45 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5844.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Apr 26 11:33:45 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.839	152	241163	40.00	ppm	0.00
24) Naphthalene-d8	4.774	136	884401	40.00	ppm	0.00
47) Acenaphthene-d10	6.018	164	528405	40.00	ppm	0.00
69) Phenanthrene-d10	7.461	188	939189	40.00	ppm	0.00
83) Chrysene-d12	12.162	240	840981	40.00	ppm	-0.01
91) Perylene-d12	15.105	264	894276	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4A	3.839	152	241163	40.00	ppm	0.00
111) Naphthalene-d8A	4.774	136	884401	40.00	ppm	0.00
120) Acenaphthene-d10A	6.018	164	528405	40.00	ppm	0.00
131) Phenanthrene-d10A	7.461	188	939189	40.00	ppm	0.00
146) Chrysene-d12A	12.162	240	840981	40.00	ppm	-0.01
153) Perylene-d12A	15.105	264	894276	40.00	ppm	0.00
157) 1,4-Dichlorobenzene-d4b	3.839	152	241163	40.00	ppm	0.00
159) Phenanthrene-d10b	7.461	188	939189	40.00	ppm	0.00
161) Chrysene-d12b	12.162	240	840981	40.00	ppm	-0.01
163) Naphthalene-d8b	4.774	136	884401	40.00	ppm	0.00
165) Acenaphthene-d10b	6.018	164	528405	40.00	ppm	0.00
167) Naphthalene-d8c	4.774	136	884401	40.00	ppm	0.00
172) 1,4-Dichlorobenzene-d4c	3.839	152	241163	40.00	ppm	0.00
174) Chrysene-d12c	12.162	240	840981	40.00	ppm	-0.01
176) Chrysene-d12d	12.162	240	840981	40.00	ppm	-0.01
178) Naphthalene-d8d	4.774	136	884401	40.00	ppm	0.00
180) Chrysene-d12D	12.162	240	840981	40.00	ppm	-0.04
System Monitoring Compounds						
5) 2-Fluorophenol	2.861	112	5426	0.60	ppm	0.01
Spiked Amount 50.000			Recovery =	1.20%		
8) Phenol-d5	3.662	99	8085	0.72	ppm	0.01
Spiked Amount 50.000			Recovery =	1.44%		
25) Nitrobenzene-d5	4.266	82	9390	0.96	ppm	0.00
Spiked Amount 50.000			Recovery =	1.92%		
51) 2-Fluorobiphenyl	5.553	172	16917	0.99	ppm	0.00
Spiked Amount 50.000			Recovery =	1.98%		
73) 2,4,6-Tribromophenol	0.000	330	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	10.116	244	17565	0.86	ppm	-0.01
Spiked Amount 50.000			Recovery =	1.72%		
Target Compounds						Qvalue
2) 1,4-Dioxane	1.221	88	4003	0.99	ppm	99
3) Pyridine	1.477	79	5544m	0.81	ppm	
4) N-Nitrosodimethylamine	1.456	42	3564	0.84	ppm #	60
6) Indene	4.031	116	12547	0.93	ppm	88
7) Cumene	3.208	105	20290	0.92	ppm	92
9) Phenol	3.668	94	9662	0.82	ppm	89
10) Aniline	3.609	93	11120	2.64	ppm	97
11) bis(2-Chloroethyl)ether	3.668	93	7783	0.81	ppm	89
12) 2-Chlorophenol	3.710	128	7332	0.85	ppm	84
13) Decane	3.748	43	6617	1.15	ppm	96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5844\
Data File : p129148.D
Acq On : 24 Apr 2019 5:12 am
Operator : chriss2
Sample : ic5844-1
Misc : op13894,ep5844,1000,,,1,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Apr 26 11:52:45 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5844.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Apr 26 11:33:45 2019
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
14)	1,3-Dichlorobenzene	3.796	146	9332	0.96	ppm		96
15)	1,4-Dichlorobenzene	3.849	146	9603	0.99	ppm		97
16)	Benzyl alcohol	3.999	108	2023	0.44	ppm		79
17)	1,2-Dichlorobenzene	3.967	146	8979	0.94	ppm		98
18)	Acetophenone	4.159	105	11359	0.93	ppm		99
19)	2-Methylphenol	4.100	108	7797	0.99	ppm		92
20)	2,2'-oxybis(1-Chloropr...	4.074	121	1954	0.95	ppm	#	84
21)	3&4-Methylphenol	4.223	108	6043	0.77	ppm		95
22)	n-Nitroso-di-n-propyla...	4.170	70	5933	1.05	ppm		92
23)	Hexachloroethane	4.213	201	3683	0.94	ppm		98
26)	Nitrobenzene	4.277	77	10193	1.08	ppm		88
27)	Quinoline	5.041	129	14907	0.86	ppm		96
28)	Isophorone	4.453	82	16635	0.98	ppm		95
29)	2-Nitrophenol	4.517	139	3689	0.75	ppm	#	68
32)	bis(2-Chloroethoxy)met...	4.629	93	9226	0.91	ppm		95
33)	2,4-Dichlorophenol	4.731	162	6177	0.76	ppm		82
34)	2,6-Dichlorophenol	4.859	162	6455	0.83	ppm		97
35)	1,3,5-Trichlorobenzene	4.517	180	8771	0.96	ppm		99
36)	1,2,4-Trichlorobenzene	4.741	180	7698	0.89	ppm		94
37)	1,2,3-Trichlorobenzene	4.896	180	7350	0.90	ppm		94
38)	Naphthalene	4.790	128	20475	0.90	ppm		97
39)	4-Chloroaniline	4.859	127	8294	1.02	ppm		83
40)	2,3-Dichloroaniline	5.495	161	8386	0.85	ppm		99
41)	Caprolactam	5.099	55	2459	0.69	ppm		72
42)	Hexachlorobutadiene	4.891	225	5089	0.94	ppm		93
43)	4-Chloro-3-methylphenol	5.244	107	6391	0.75	ppm		83
44)	2-Methylnaphthalene	5.286	141	11630	0.90	ppm		90
45)	1-Methylnaphthalene	5.350	142	15105	0.92	ppm		92
46)	Dimethylnaphthalene	5.724	156	13274	0.88	ppm		94
49)	2,4,6-Trichlorophenol	5.505	196	4826	0.88	ppm		89
50)	2,4,5-Trichlorophenol	5.564	196	4072	0.72	ppm		94
52)	2-Chloronaphthalene	5.623	162	14306	0.97	ppm		90
53)	Biphenyl	5.618	154	18873	1.02	ppm		97
54)	2-Nitroaniline	5.719	65	4691	1.00	ppm	#	78
55)	Dimethylphthalate	5.847	163	18007	0.94	ppm		98
56)	Acenaphthylene	5.911	152	22910	1.00	ppm		96
57)	2,6-Dinitrotoluene	5.885	165	3455	0.83	ppm	#	65
58)	3-Nitroaniline	6.018	138	3164	0.74	ppm	#	1
59)	Acenaphthene	6.040	153	13938	0.96	ppm		94
62)	Dibenzofuran	6.178	168	20205	0.92	ppm		93
63)	2,4-Dinitrotoluene	6.195	165	4037	0.74	ppm		79
64)	2,3,4,6-Tetrachlorophenol	6.301	232	2925	0.56	ppm	#	70
65)	Diethylphthalate	6.392	149	18421	0.96	ppm		94
66)	Fluorene	6.462	166	16379	0.92	ppm		90
67)	4-Chlorophenyl-phenyle...	6.478	204	7881	0.90	ppm		89
68)	4-Nitroaniline	6.526	138	3338	0.80	ppm		89
71)	n-Nitrosodiphenylamine	6.590	169	11802	0.91	ppm		98
72)	1,2-Diphenylhydrazine	6.622	77	20719	1.11	ppm		88
74)	4-Bromophenyl-phenylether	6.958	248	5081	0.80	ppm		91
75)	Hexachlorobenzene	7.012	284	5997	0.85	ppm		91

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5844\
Data File : p129148.D
Acq On : 24 Apr 2019 5:12 am
Operator : chriss2
Sample : ic5844-1
Misc : op13894,ep5844,1000,,,1,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Apr 26 11:52:45 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5844.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Apr 26 11:33:45 2019
Response via : Initial Calibration

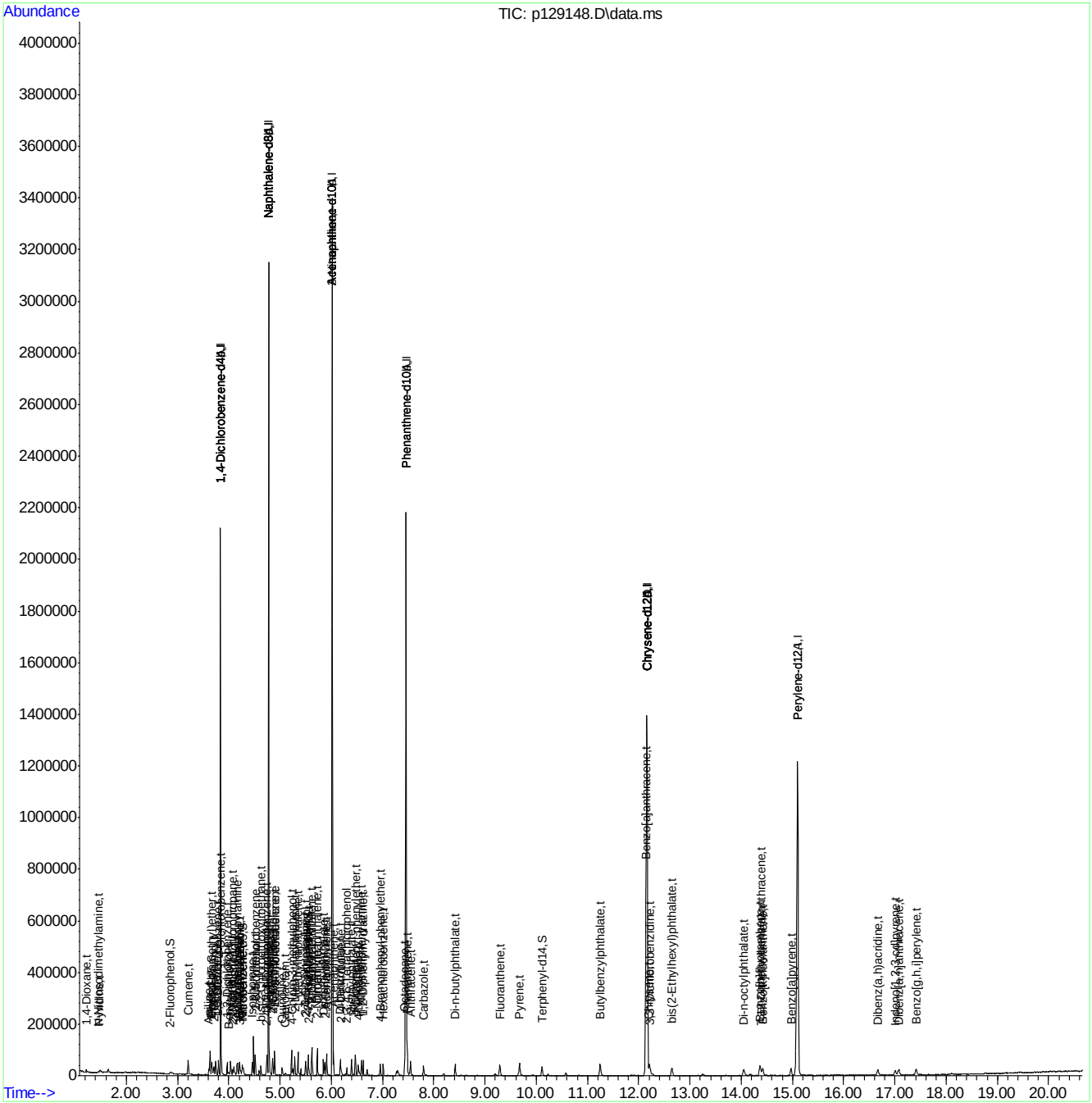
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
77) Phenanthrene	7.482	178	23582	0.90	ppm	98
78) Anthracene	7.546	178	24669	0.92	ppm	97
79) Carbazole	7.803	167	23077	0.88	ppm	95
80) Di-n-butylphthalate	8.417	149	31887	0.84	ppm	99
81) Fluoranthene	9.288	202	25731	0.78	ppm	99
82) Octadecane	7.434	57	10692	1.10	ppm	92
84) Pyrene	9.678	202	28471	0.92	ppm	96
86) Butylbenzylphthalate	11.248	149	14720	0.93	ppm	95
87) Benzo[a]anthracene	12.140	228	28736	1.00	ppm	93
88) 3,3'-Dichlorobenzidine	12.226	252	6591	0.64	ppm	90
89) Chrysene	12.199	228	23198	0.89	ppm	99
90) bis(2-Ethylhexyl)phtha...	12.648	149	18012	0.83	ppm	92
92) Di-n-octylphthalate	14.048	149	27657	0.70	ppm	95
93) Benzo[b]fluoranthene	14.363	252	21174	0.69	ppm	95
94) Benzo[k]fluoranthene	14.422	252	22709	0.95	ppm	94
95) Benzo[a]pyrene	14.977	252	19860	0.79	ppm	92
96) Indeno[1,2,3-cd]pyrene	17.007	276	15795	0.68	ppm	89
97) Dibenz(a,h)acridine	16.665	279	15042	0.66	ppm	94
98) Dibenz[a,h]anthracene	17.077	278	16106	0.69	ppm	91
99) 7,12-Dimethylbenz(a)an...	14.384	256	5567	0.45	ppm	81
100) Benzo[g,h,i]perylene	17.413	276	17155	0.75	ppm	93

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5844\
Data File : p129148.D
Acq On : 24 Apr 2019 5:12 am
Operator : chriss2
Sample : ic5844-1
Misc : op13894,ep5844,1000,,,1,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Apr 26 11:52:45 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5844.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Apr 26 11:33:45 2019
Response via : Initial Calibration



Manual Integration Approval Summary

Sample Number:	EP5844-IC5844	**Method:**	SW846 8270D
Lab FileID:	P129148.D	**Analyst approved:**	04/26/19 12:39 Ying Li
Injection Time:	04/24/19 05:12	**Supervisor approved:**	04/30/19 18:25 Kristi Schollenberger

Parameter	CAS	Sig#	R.T. (min.)	Reason
Pyridine	110-86-1		1.48	Poor instrument integration

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5844\
Data File : p129149.D
Acq On : 24 Apr 2019 5:39 am
Operator : chriss2
Sample : icv5844-50
Misc : op13894,ep5844,1000,,,1,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Apr 26 12:04:12 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5844.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Apr 26 11:57:54 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.844	152	197414	40.00	ppm	0.00
24) Naphthalene-d8	4.773	136	677399	40.00	ppm	0.00
47) Acenaphthene-d10	6.018	164	409543	40.00	ppm	0.00
69) Phenanthrene-d10	7.455	188	735116	40.00	ppm	-0.01
83) Chrysene-d12	12.167	240	598043	40.00	ppm	0.00
91) Perylene-d12	15.100	264	609662	40.00	ppm	-0.01
101) 1,4-Dichlorobenzene-d4A	3.844	152	197306	40.00	ppm	0.00
111) Naphthalene-d8A	4.773	136	677399	40.00	ppm	0.00
120) Acenaphthene-d10A	6.018	164	409543	40.00	ppm	0.00
131) Phenanthrene-d10A	7.455	188	735116	40.00	ppm	-0.01
146) Chrysene-d12A	12.167	240	598043	40.00	ppm	0.00
153) Perylene-d12A	15.100	264	609662	40.00	ppm	-0.01
157) 1,4-Dichlorobenzene-d4b	3.844	152	197414	40.00	ppm	0.00
159) Phenanthrene-d10b	7.455	188	735116	40.00	ppm	-0.01
161) Chrysene-d12b	12.167	240	598043	40.00	ppm	0.00
163) Naphthalene-d8b	4.773	136	677399	40.00	ppm	0.00
165) Acenaphthene-d10b	6.018	164	409543	40.00	ppm	0.00
167) Naphthalene-d8c	4.773	136	677399	40.00	ppm	0.00
172) 1,4-Dichlorobenzene-d4c	3.844	152	197414	40.00	ppm	0.00
174) Chrysene-d12c	12.167	240	598043	40.00	ppm	0.00
176) Chrysene-d12d	12.167	240	598043	40.00	ppm	0.00
178) Naphthalene-d8d	4.773	136	677399	40.00	ppm	0.00
180) Chrysene-d12D	12.167	240	598043	40.00	ppm	-0.03
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
Target Compounds						Qvalue
4) N-Nitrosodimethylamine	1.466	42	161109	49.92	ppm	99
11) bis(2-Chloroethyl)ether	3.662	93	335510	48.24	ppm	91
14) 1,3-Dichlorobenzene	3.796	146	395076	50.78	ppm	100
15) 1,4-Dichlorobenzene	3.854	146	376835	50.00	ppm	99
17) 1,2-Dichlorobenzene	3.966	146	359873	47.79	ppm	100
20) 2,2'-oxybis(1-Chloropr...	4.073	121	91205	56.38	ppm	96
22) n-Nitroso-di-n-propyla...	4.170	70	224287	48.81	ppm	98
23) Hexachloroethane	4.212	201	144800	46.96	ppm	98
26) Nitrobenzene	4.276	77	348901	47.38	ppm	99
28) Isophorone	4.453	82	638237	50.48	ppm	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5844\
Data File : p129149.D
Acq On : 24 Apr 2019 5:39 am
Operator : chriss2
Sample : icv5844-50
Misc : op13894,ep5844,1000,,,1,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Apr 26 12:04:12 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5844.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Apr 26 11:57:54 2019
Response via : Initial Calibration

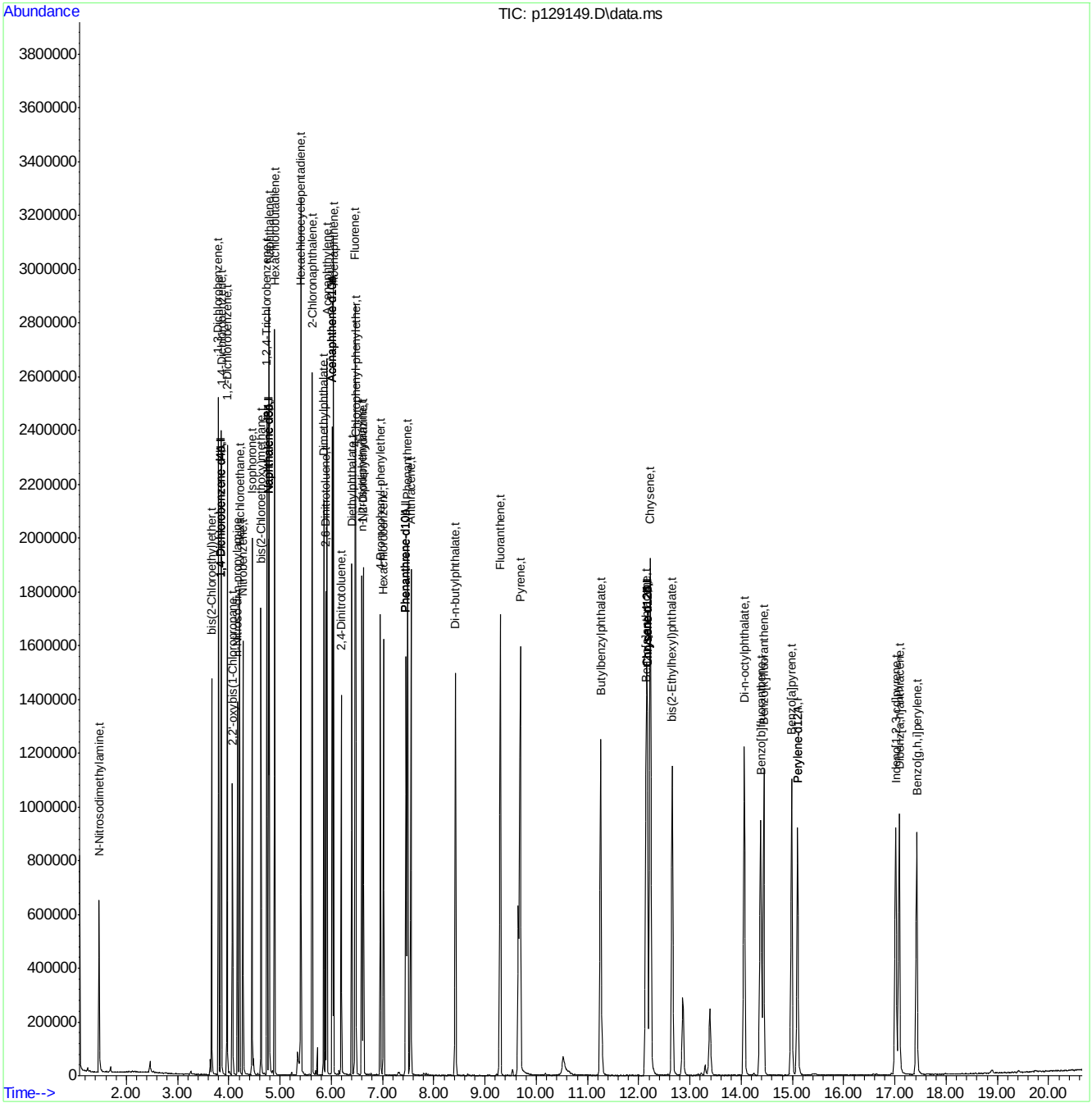
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
32)	bis(2-Chloroethoxy)met...	4.629	93	387929	52.98	ppm	99
36)	1,2,4-Trichlorobenzene	4.741	180	325674	52.00	ppm	99
38)	Naphthalene	4.789	128	825463	51.03	ppm	99
42)	Hexachlorobutadiene	4.891	225	205265	53.01	ppm	98
48)	Hexachlorocyclopentadiene	5.404	237	178344	56.98	ppm	99
52)	2-Chloronaphthalene	5.628	162	616445	55.53	ppm	97
55)	Dimethylphthalate	5.852	163	697717	48.75	ppm	99
56)	Acenaphthylene	5.916	152	868839	49.58	ppm	100
57)	2,6-Dinitrotoluene	5.890	165	142938	47.68	ppm	89
59)	Acenaphthene	6.045	153	526535	48.88	ppm	97
63)	2,4-Dinitrotoluene	6.194	165	192417	48.22	ppm	93
65)	Diethylphthalate	6.403	149	707669	48.58	ppm	98
66)	Fluorene	6.467	166	651025	49.73	ppm	98
67)	4-Chlorophenyl-phenyle...	6.477	204	309950	47.88	ppm	94
71)	n-Nitrosodiphenylamine	6.595	169	430567	45.19	ppm	99
72)	1,2-Diphenylhydrazine	6.627	77	667694	44.84	ppm	96
74)	4-Bromophenyl-phenylether	6.958	248	210302	47.06	ppm	96
75)	Hexachlorobenzene	7.022	284	225647	44.27	ppm	97
77)	Phenanthrene	7.487	178	895306	46.73	ppm	100
78)	Anthracene	7.556	178	909814	45.46	ppm	99
80)	Di-n-butylphthalate	8.422	149	1206426	43.99	ppm	99
81)	Fluoranthene	9.298	202	1067015	45.16	ppm	100
84)	Pyrene	9.688	202	1032449	49.86	ppm	99
86)	Butylbenzylphthalate	11.259	149	537876	50.50	ppm	99
87)	Benzo[a]anthracene	12.145	228	937297	47.54	ppm	98
89)	Chrysene	12.220	228	857725	49.40	ppm	99
90)	bis(2-Ethylhexyl)phtha...	12.653	149	716584	50.31	ppm	100
92)	Di-n-octylphthalate	14.058	149	1239245	52.58	ppm	99
93)	Benzo[b]fluoranthene	14.379	252	843973	45.42	ppm	99
94)	Benzo[k]fluoranthene	14.443	252	800892	51.23	ppm	97
95)	Benzo[a]pyrene	14.988	252	801519	51.00	ppm	99
96)	Indeno[1,2,3-cd]pyrene	17.018	276	736143	51.25	ppm	94
98)	Dibenz[a,h]anthracene	17.087	278	698638	47.71	ppm	98
100)	Benzo[g,h,i]perylene	17.434	276	734122	50.70	ppm	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5844\
Data File : p129149.D
Acq On : 24 Apr 2019 5:39 am
Operator : chriss2
Sample : icv5844-50
Misc : op13894,ep5844,1000,,,1,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Apr 26 12:04:12 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5844.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Apr 26 11:57:54 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5844\
Data File : p129150.D
Acq On : 24 Apr 2019 6:06 am
Operator : chriss2
Sample : icv5844-50
Misc : op13894,ep5844,1000,,,1,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Apr 26 12:26:46 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5844.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Apr 26 11:57:54 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.838	152	199016	40.00	ppm	0.00
24) Naphthalene-d8	4.773	136	748336	40.00	ppm	0.00
47) Acenaphthene-d10	6.018	164	422054	40.00	ppm	0.00
69) Phenanthrene-d10	7.455	188	712748	40.00	ppm	-0.01
83) Chrysene-d12	12.151	240	664621	40.00	ppm	-0.02
91) Perylene-d12	15.094	264	657654	40.00	ppm	-0.02
101) 1,4-Dichlorobenzene-d4A	3.838	152	199016	40.00	ppm	0.00
111) Naphthalene-d8A	4.773	136	748336	40.00	ppm	0.00
120) Acenaphthene-d10A	6.018	164	422054	40.00	ppm	0.00
131) Phenanthrene-d10A	7.455	188	712748	40.00	ppm	-0.01
146) Chrysene-d12A	12.151	240	664621	40.00	ppm	-0.02
153) Perylene-d12A	15.094	264	657654	40.00	ppm	-0.02
157) 1,4-Dichlorobenzene-d4b	3.838	152	199016	40.00	ppm	0.00
159) Phenanthrene-d10b	7.455	188	712748	40.00	ppm	-0.01
161) Chrysene-d12b	12.151	240	664621	40.00	ppm	-0.02
163) Naphthalene-d8b	4.773	136	748336	40.00	ppm	0.00
165) Acenaphthene-d10b	6.018	164	422054	40.00	ppm	0.00
167) Naphthalene-d8c	4.773	136	748336	40.00	ppm	0.00
172) 1,4-Dichlorobenzene-d4c	3.838	152	199016	40.00	ppm	0.00
174) Chrysene-d12c	12.151	240	664621	40.00	ppm	-0.02
176) Chrysene-d12d	12.151	240	664621	40.00	ppm	-0.02
178) Naphthalene-d8d	4.773	136	748336	40.00	ppm	0.00
180) Chrysene-d12D	12.151	240	664621	40.00	ppm	-0.05
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
Target Compounds						Qvalue
2) 1,4-Dioxane	1.253	88	148167	45.92	ppm	99
6) Indene	4.031	116	563511	54.07	ppm	98
7) Cumene	3.213	105	812723	47.77	ppm	99
13) Decane	3.753	43	235244	47.86	ppm	98
18) Acetophenone	4.154	105	455621	46.71	ppm	97
27) Quinoline	5.030	129	590732	43.55	ppm	99
40) 2,3-Dichloroaniline	5.494	161	295910	38.17	ppm	97
41) Caprolactam	5.110	55	112540	41.67	ppm	98
45) 1-Methylnaphthalene	5.356	142	580960	43.78	ppm	99
46) Dimethylnaphthalene	5.729	156	532476	44.89	ppm	97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5844\
Data File : p129150.D
Acq On : 24 Apr 2019 6:06 am
Operator : chriss2
Sample : icv5844-50
Misc : op13894,ep5844,1000,,,1,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Apr 26 12:26:46 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5844.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Apr 26 11:57:54 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
53) Biphenyl	5.617	154	717475	50.44	ppm	98
82) Octadecane	7.439	57	350428	48.21	ppm	99
99) 7,12-Dimethylbenz(a)an...	14.389	256	347878	38.46	ppm	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

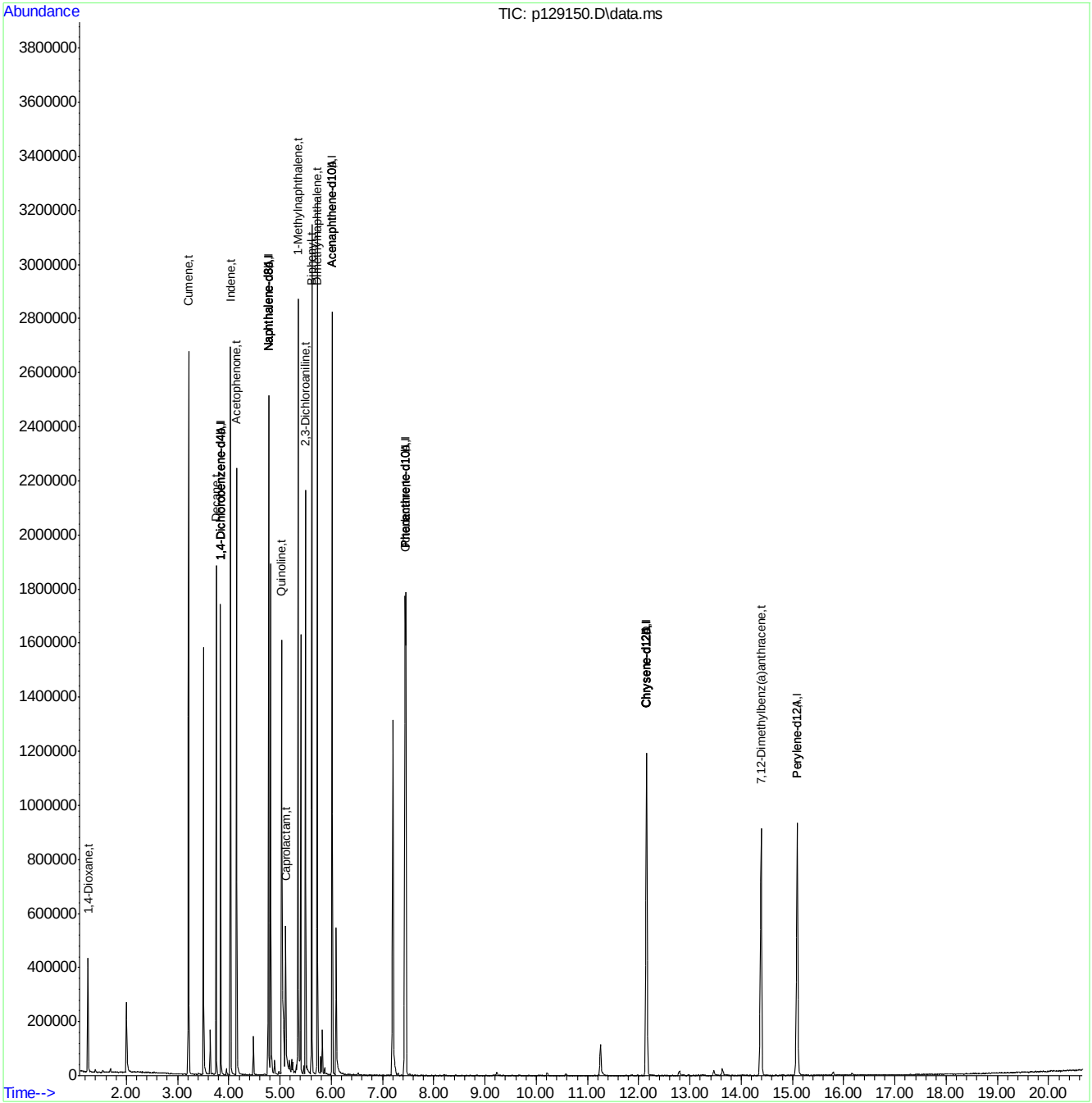
9.6.81

6

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5844\
Data File : p129150.D
Acq On : 24 Apr 2019 6:06 am
Operator : chriss2
Sample : icv5844-50
Misc : op13894,ep5844,1000,,,1,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Apr 26 12:26:46 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5844.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Apr 26 11:57:54 2019
Response via : Initial Calibration



Manual Integrations APPROVED (compounds with "m" flag)
Kristi Schollenberger 04/30/19 18:33

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5844\
Data File : p129151.D
Acq On : 24 Apr 2019 6:33 am
Operator : chriss2
Sample : icv5844-50
Misc : op13894,ep5844,1000,,,1,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Apr 26 12:30:38 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5844.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Apr 26 11:57:54 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.844	152	136563	40.00	ppm	0.00
24) Naphthalene-d8	4.773	136	568014	40.00	ppm	0.00
47) Acenaphthene-d10	6.018	164	357371	40.00	ppm	0.00
69) Phenanthrene-d10	7.455	188	669301	40.00	ppm	-0.01
83) Chrysene-d12	12.151	240	645461	40.00	ppm	-0.02
91) Perylene-d12	15.095	264	705503	40.00	ppm	-0.02
101) 1,4-Dichlorobenzene-d4A	3.844	152	136563	40.00	ppm	0.00
111) Naphthalene-d8A	4.773	136	568014	40.00	ppm	0.00
120) Acenaphthene-d10A	6.018	164	357371	40.00	ppm	0.00
131) Phenanthrene-d10A	7.455	188	669301	40.00	ppm	-0.01
146) Chrysene-d12A	12.151	240	645461	40.00	ppm	-0.02
153) Perylene-d12A	15.095	264	705503	40.00	ppm	-0.02
157) 1,4-Dichlorobenzene-d4b	3.844	152	136563	40.00	ppm	0.00
159) Phenanthrene-d10b	7.455	188	669301	40.00	ppm	-0.01
161) Chrysene-d12b	12.151	240	645461	40.00	ppm	-0.02
163) Naphthalene-d8b	4.773	136	568014	40.00	ppm	0.00
165) Acenaphthene-d10b	6.018	164	357371	40.00	ppm	0.00
167) Naphthalene-d8c	4.773	136	568014	40.00	ppm	0.00
172) 1,4-Dichlorobenzene-d4c	3.844	152	136563	40.00	ppm	0.00
174) Chrysene-d12c	12.151	240	645461	40.00	ppm	-0.02
176) Chrysene-d12d	12.151	240	645461	40.00	ppm	-0.02
178) Naphthalene-d8d	4.773	136	568014	40.00	ppm	0.00
180) Chrysene-d12D	12.151	240	645461	40.00	ppm	-0.05
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
Target Compounds						Qvalue
3) Pyridine	1.621	79	205130m	48.88	ppm	
10) Aniline	3.625	93	234846	75.17	ppm	91
16) Benzyl alcohol	3.988	108	161795	62.80	ppm	92
39) 4-Chloroaniline	4.853	127	248144	46.98	ppm	95
44) 2-Methylnaphthalene	5.286	141	389336	50.07	ppm	98
54) 2-Nitroaniline	5.719	65	169511	53.08	ppm	89
58) 3-Nitroaniline	6.013	138	143401	52.34	ppm	94
62) Dibenzofuran	6.178	168	705226	49.48	ppm	96
68) 4-Nitroaniline	6.520	138	147086	56.19	ppm	92
79) Carbazole	7.808	167	855677	48.63	ppm	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5844\
Data File : p129151.D
Acq On : 24 Apr 2019 6:33 am
Operator : chriss2
Sample : icv5844-50
Misc : op13894,ep5844,1000,,,1,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Apr 26 12:30:38 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5844.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Apr 26 11:57:54 2019
Response via : Initial Calibration

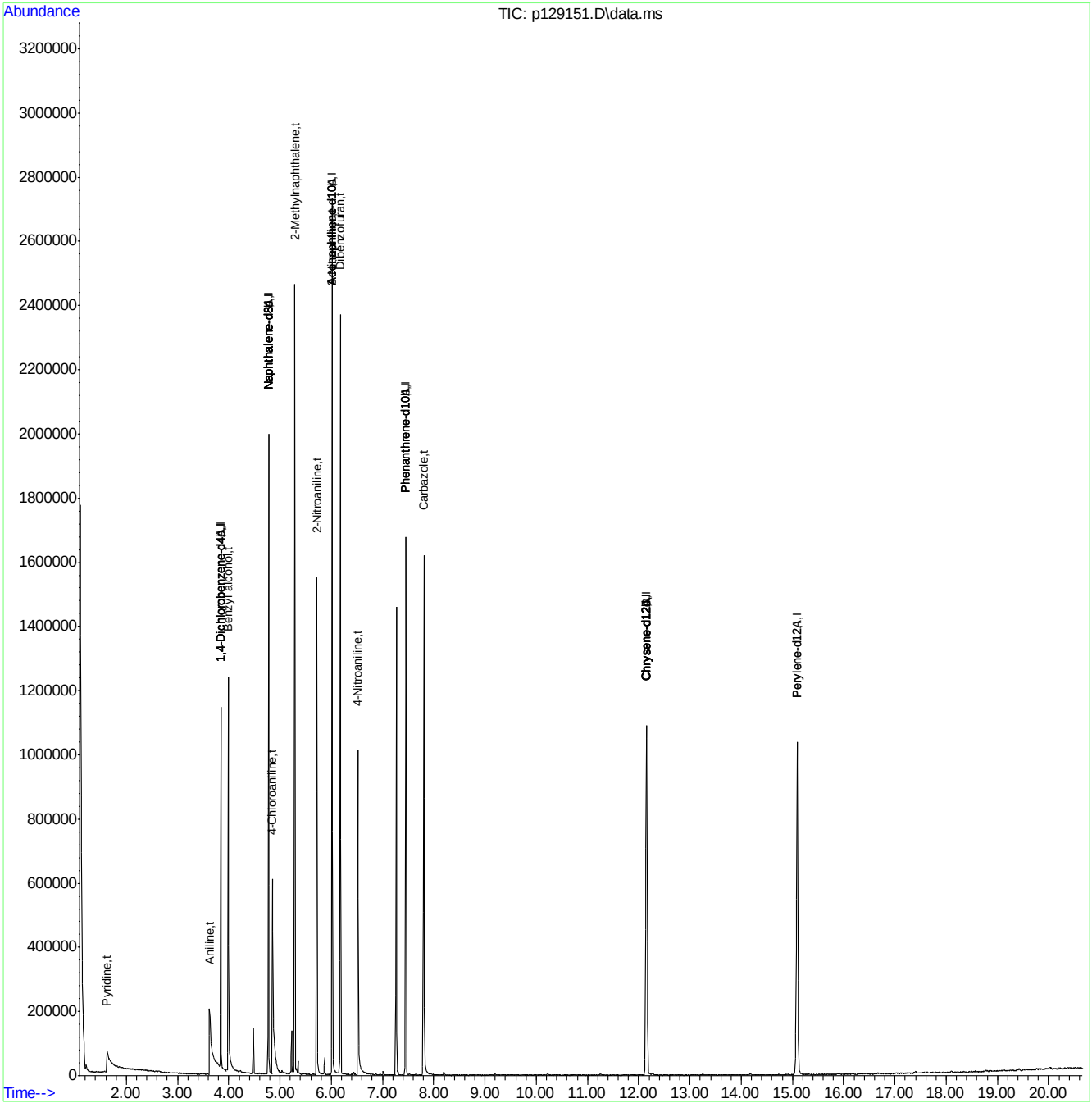
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5844\
Data File : p129151.D
Acq On : 24 Apr 2019 6:33 am
Operator : chriss2
Sample : icv5844-50
Misc : op13894,ep5844,1000,,,1,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Apr 26 12:30:38 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5844.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Apr 26 11:57:54 2019
Response via : Initial Calibration



JC87363

Manual Integration Approval Summary

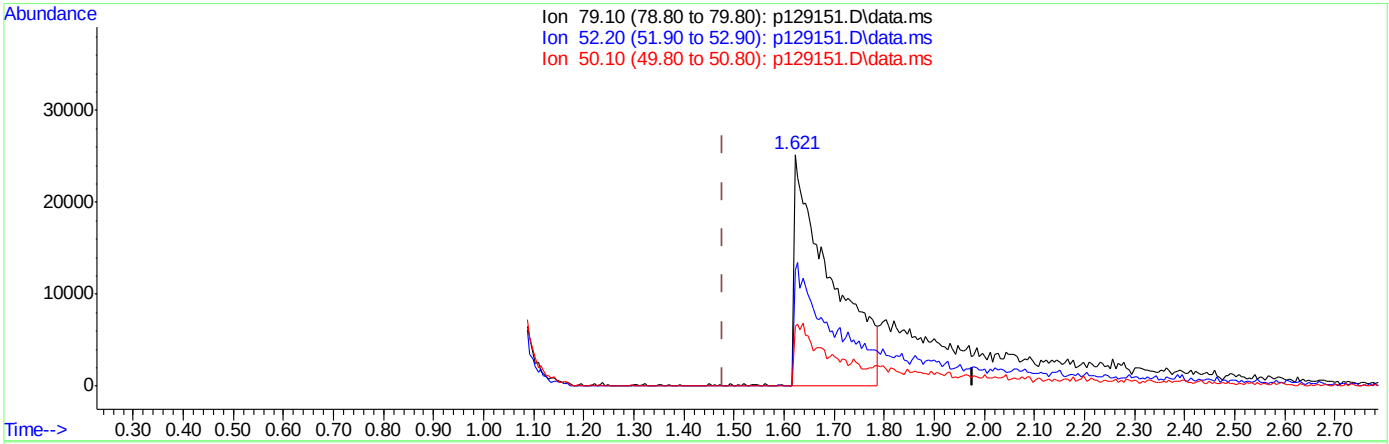
Sample Number:	EP5844-ICV5844	**Method:**	SW846 8270D
Lab FileID:	P129151.D	**Analyst approved:**	04/26/19 12:39 Ying Li
Injection Time:	04/24/19 06:33	**Supervisor approved:**	04/30/19 18:33 Kristi Schollenberger

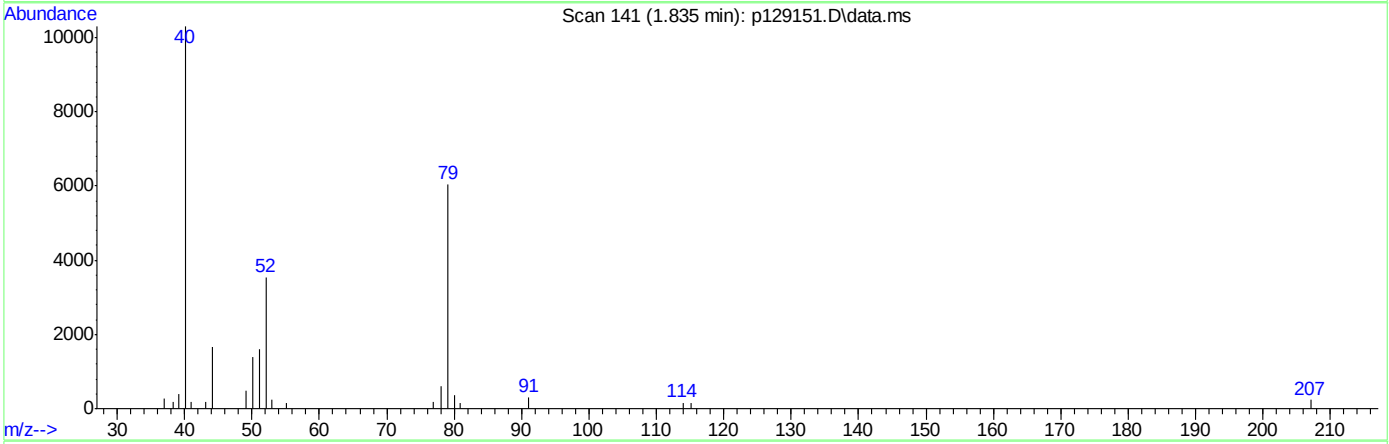
Parameter	CAS	Sig#	R.T. (min.)	Reason
Pyridine	110-86-1		1.62	Poor instrument integration

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EP5844\
Data File : p129151.D
Acq On : 24 Apr 2019 6:33 am
Operator : chriss2
Sample : icv5844-50
Misc : op13894,ep5844,1000,,,1,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Apr 24 12:04:44 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5844.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed Apr 24 11:46:30 2019
Response via : Initial Calibration





TIC: p129151.D\data.ms

(3) Pyridine (t)

1.621min (+0.144) 30.54ppm

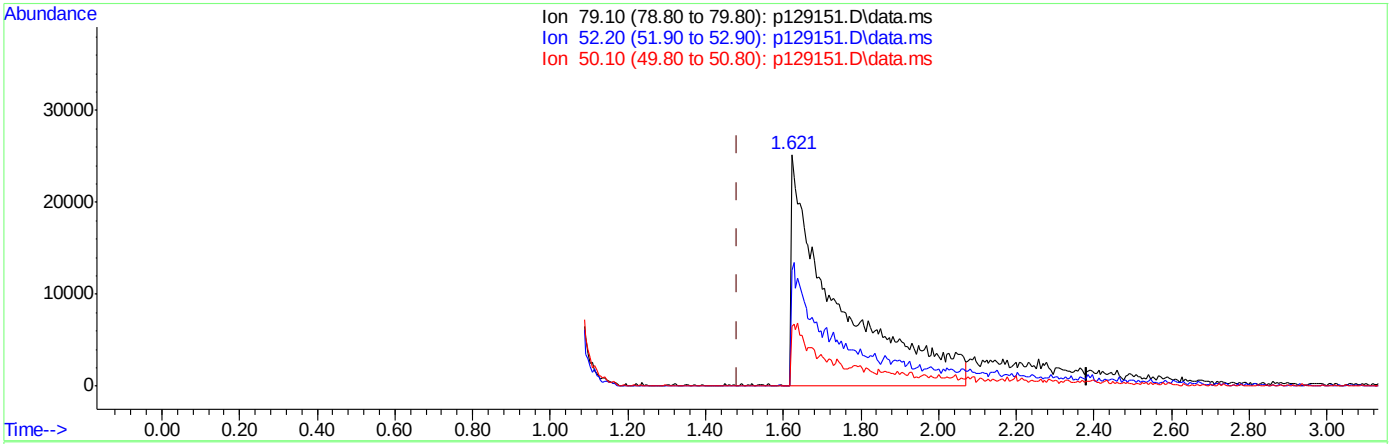
response 128164

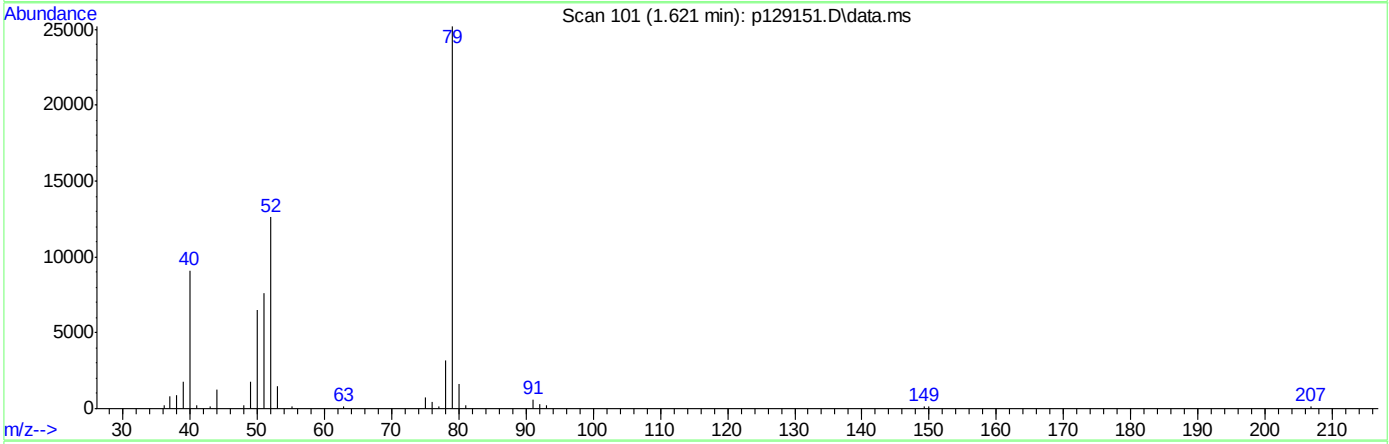
Ion	Exp%	Act%
79.10	100	100
52.20	52.70	48.94
50.10	28.10	24.53
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EP5844\
Data File : p129151.D
Acq On : 24 Apr 2019 6:33 am
Operator : chriss2
Sample : icv5844-50
Misc : op13894,ep5844,1000,,,1,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Apr 26 12:08:04 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5844.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Apr 26 11:57:54 2019
Response via : Initial Calibration





TIC: p129151.D\data.ms

(3) Pyridine (t)

1.621min (+0.139) 48.88ppm m

response 205130

Ion	Exp%	Act%
79.10	100	100
52.20	52.70	50.11
50.10	28.10	25.76
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5844\
Data File : p129152.D
Acq On : 24 Apr 2019 7:00 am
Operator : chriss2
Sample : icv5844-50
Misc : op13894,ep5844,1000,,,1,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Apr 26 12:15:05 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5844.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Apr 26 11:57:54 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.839	152	195738	40.00	ppm	0.00
24) Naphthalene-d8	4.774	136	640309	40.00	ppm	0.00
47) Acenaphthene-d10	6.018	164	414776	40.00	ppm	0.00
69) Phenanthrene-d10	7.455	188	706105	40.00	ppm	-0.01
83) Chrysene-d12	12.151	240	612362	40.00	ppm	-0.02
91) Perylene-d12	15.095	264	610953	40.00	ppm	-0.02
101) 1,4-Dichlorobenzene-d4A	3.839	152	195738	40.00	ppm	0.00
111) Naphthalene-d8A	4.774	136	640309	40.00	ppm	0.00
120) Acenaphthene-d10A	6.018	164	414776	40.00	ppm	0.00
131) Phenanthrene-d10A	7.455	188	706105	40.00	ppm	-0.01
146) Chrysene-d12A	12.151	240	612362	40.00	ppm	-0.02
153) Perylene-d12A	15.095	264	610953	40.00	ppm	-0.02
157) 1,4-Dichlorobenzene-d4b	3.839	152	195738	40.00	ppm	0.00
159) Phenanthrene-d10b	7.455	188	706105	40.00	ppm	-0.01
161) Chrysene-d12b	12.151	240	612362	40.00	ppm	-0.02
163) Naphthalene-d8b	4.774	136	640309	40.00	ppm	0.00
165) Acenaphthene-d10b	6.018	164	414776	40.00	ppm	0.00
167) Naphthalene-d8c	4.774	136	640309	40.00	ppm	0.00
172) 1,4-Dichlorobenzene-d4c	3.839	152	195738	40.00	ppm	0.00
174) Chrysene-d12c	12.151	240	612362	40.00	ppm	-0.02
176) Chrysene-d12d	12.151	240	612362	40.00	ppm	-0.02
178) Naphthalene-d8d	4.774	136	640309	40.00	ppm	0.00
180) Chrysene-d12D	12.151	240	612362	40.00	ppm	-0.05
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
25) Nitrobenzene-d5	0.000	82	0d	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery = 0.00%			
Target Compounds						Qvalue
9) Phenol	3.657	94	456539	52.46	ppm	83
12) 2-Chlorophenol	3.700	128	344446	52.51	ppm	99
19) 2-Methylphenol	4.090	108	327560	53.82	ppm	99
21) 3&4-Methylphenol	4.213	108	330651	55.49	ppm	96
29) 2-Nitrophenol	4.512	139	190058	60.30	ppm	77
30) 2,4-Dimethylphenol	4.581	107	335637	60.00	ppm	96
31) Benzoic acid	4.752	105	227810	47.29	ppm	96
33) 2,4-Dichlorophenol	4.704	162	293364	55.71	ppm	98
34) 2,6-Dichlorophenol	4.854	162	287021	55.81	ppm	98
43) 4-Chloro-3-methylphenol	5.228	107	305223	55.09	ppm	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5844\
Data File : p129152.D
Acq On : 24 Apr 2019 7:00 am
Operator : chriss2
Sample : icv5844-50
Misc : op13894,ep5844,1000,,,1,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Apr 26 12:15:05 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5844.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Apr 26 11:57:54 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
49) 2,4,6-Trichlorophenol	5.505	196	245936	59.82	ppm	98
50) 2,4,5-Trichlorophenol	5.537	196	229948	56.47	ppm	99
60) 2,4-Dinitrophenol	6.093	184	89410	47.75	ppm	84
61) 4-Nitrophenol	6.200	109	122523	53.82	ppm	96
64) 2,3,4,6-Tetrachlorophenol	6.296	232	190599	53.40	ppm	90
70) 4,6-Dinitro-2-methylph...	6.542	198	138364	52.30	ppm	94
76) Pentachlorophenol	7.268	266	174036	55.00	ppm	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

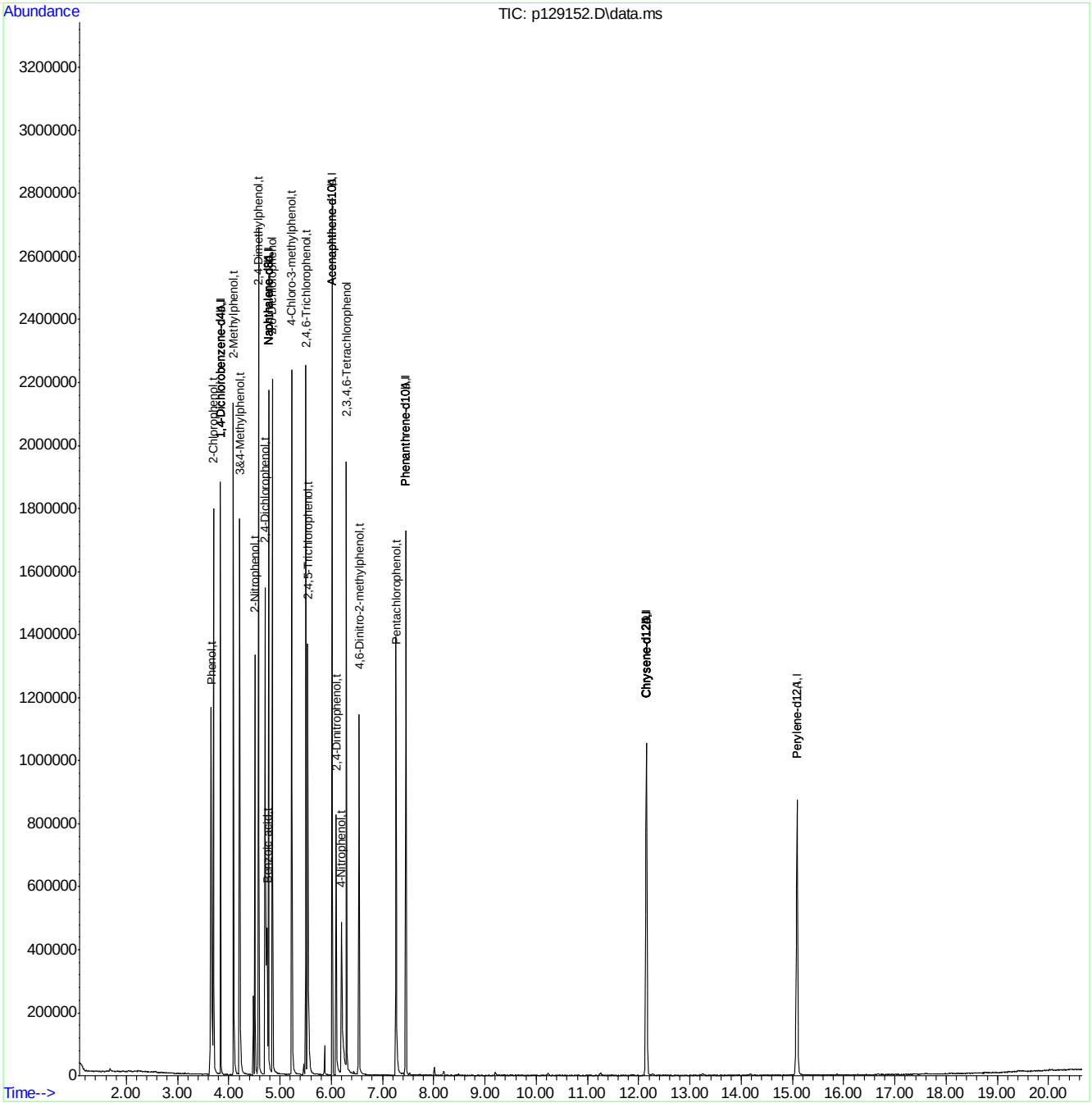
9.6.83

6

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5844\
Data File : p129152.D
Acq On : 24 Apr 2019 7:00 am
Operator : chriss2
Sample : icv5844-50
Misc : op13894,ep5844,1000,,,1,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Apr 26 12:15:05 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5844.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Apr 26 11:57:54 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5844\
Data File : p129153.D
Acq On : 24 Apr 2019 7:27 am
Operator : chriss2
Sample : icv5844-50
Misc : op13894,ep5844,1000,,,1,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Apr 24 12:22:40 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5844.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed Apr 24 12:16:58 2019
Response via : Initial Calibration

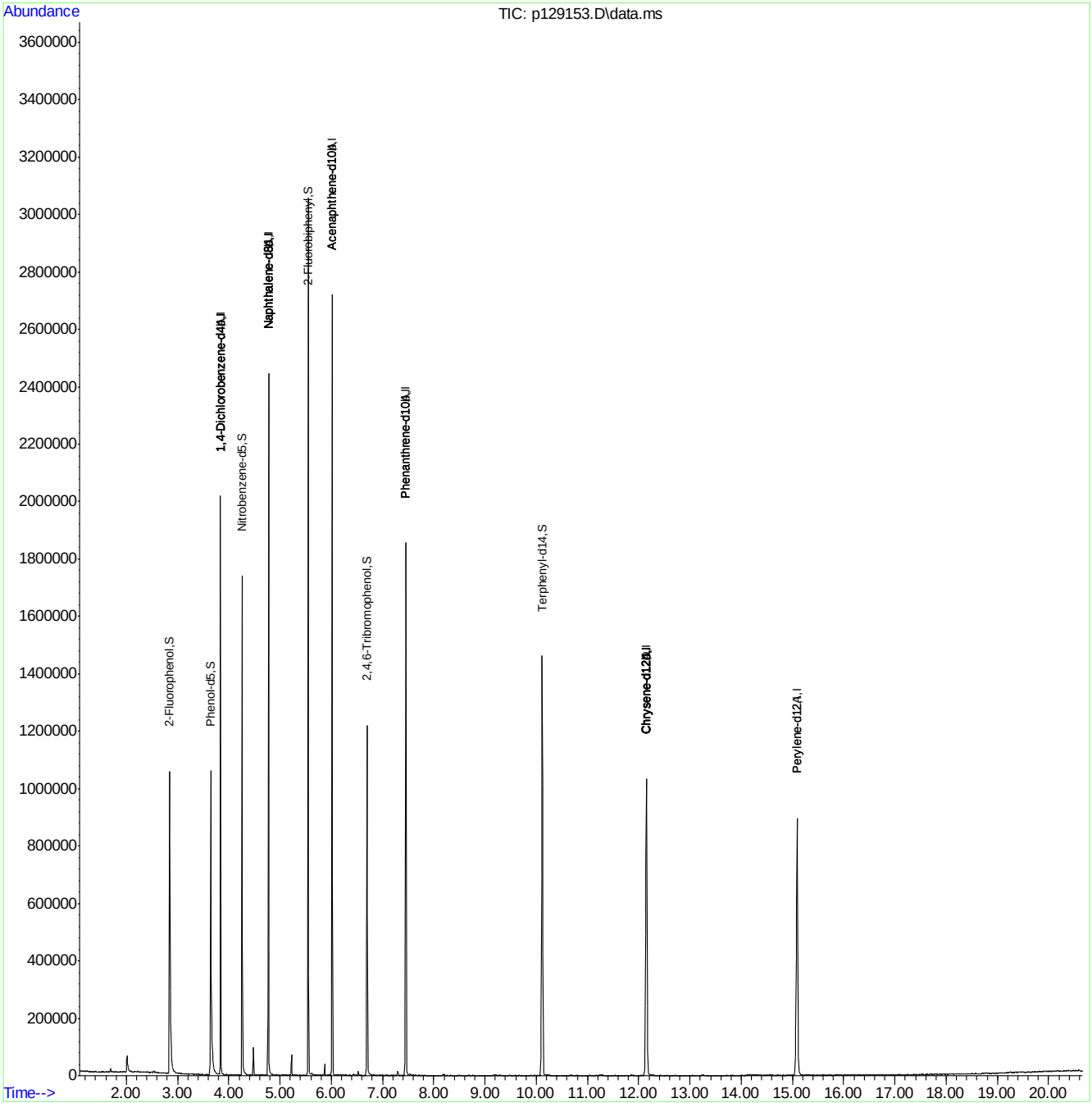
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.838	152	203642	40.00	ppm	0.00
24) Naphthalene-d8	4.773	136	749585	40.00	ppm	0.00
47) Acenaphthene-d10	6.018	164	428649	40.00	ppm	0.00
69) Phenanthrene-d10	7.455	188	730561	40.00	ppm	0.00
83) Chrysene-d12	12.151	240	595442	40.00	ppm	-0.01
91) Perylene-d12	15.094	264	622547	40.00	ppm	-0.01
101) 1,4-Dichlorobenzene-d4A	3.838	152	203642	40.00	ppm	0.00
111) Naphthalene-d8A	4.773	136	749585	40.00	ppm	0.00
120) Acenaphthene-d10A	6.018	164	428649	40.00	ppm	0.00
131) Phenanthrene-d10A	7.455	188	730561	40.00	ppm	0.00
146) Chrysene-d12A	12.151	240	595442	40.00	ppm	-0.01
153) Perylene-d12A	15.094	264	622547	40.00	ppm	-0.01
157) 1,4-Dichlorobenzene-d4b	3.838	152	203642	40.00	ppm	0.00
159) Phenanthrene-d10b	7.455	188	730561	40.00	ppm	0.00
161) Chrysene-d12b	12.151	240	595442	40.00	ppm	-0.01
163) Naphthalene-d8b	4.773	136	749585	40.00	ppm	0.00
165) Acenaphthene-d10b	6.018	164	428649	40.00	ppm	0.00
167) Naphthalene-d8c	4.773	136	749585	40.00	ppm	0.00
172) 1,4-Dichlorobenzene-d4c	3.838	152	203642	40.00	ppm	0.00
174) Chrysene-d12c	12.151	240	595442	40.00	ppm	-0.01
176) Chrysene-d12d	12.151	240	595442	40.00	ppm	-0.01
178) Naphthalene-d8d	4.773	136	749585	40.00	ppm	0.00
180) Chrysene-d12D	12.151	240	595442	40.00	ppm	-0.05
System Monitoring Compounds						
5) 2-Fluorophenol	2.845	112	327387	50.04	ppm	-0.02
Spiked Amount 50.000			Recovery = 100.08%			
8) Phenol-d5	3.646	99	406658	48.94	ppm	-0.02
Spiked Amount 50.000			Recovery = 97.88%			
25) Nitrobenzene-d5	4.260	82	392186	48.72	ppm	0.00
Spiked Amount 50.000			Recovery = 97.44%			
51) 2-Fluorobiphenyl	5.553	172	712111	52.43	ppm	0.00
Spiked Amount 50.000			Recovery = 104.86%			
73) 2,4,6-Tribromophenol	6.696	330	114314	47.02	ppm	0.00
Spiked Amount 50.000			Recovery = 94.04%			
85) Terphenyl-d14	10.121	244	756816	56.10	ppm	0.00
Spiked Amount 50.000			Recovery = 112.20%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5844\
Data File : p129153.D
Acq On : 24 Apr 2019 7:27 am
Operator : chriss2
Sample : icv5844-50
Misc : op13894,ep5844,1000,,,1,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Apr 24 12:22:40 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5844.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed Apr 24 12:16:58 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5844\
Data File : p129154.D
Acq On : 24 Apr 2019 7:54 am
Operator : chriss2
Sample : icv5844-50
Misc : op13894,ep5844,1000,,,1,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Apr 24 12:24:24 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5844.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed Apr 24 12:16:58 2019
Response via : Initial Calibration

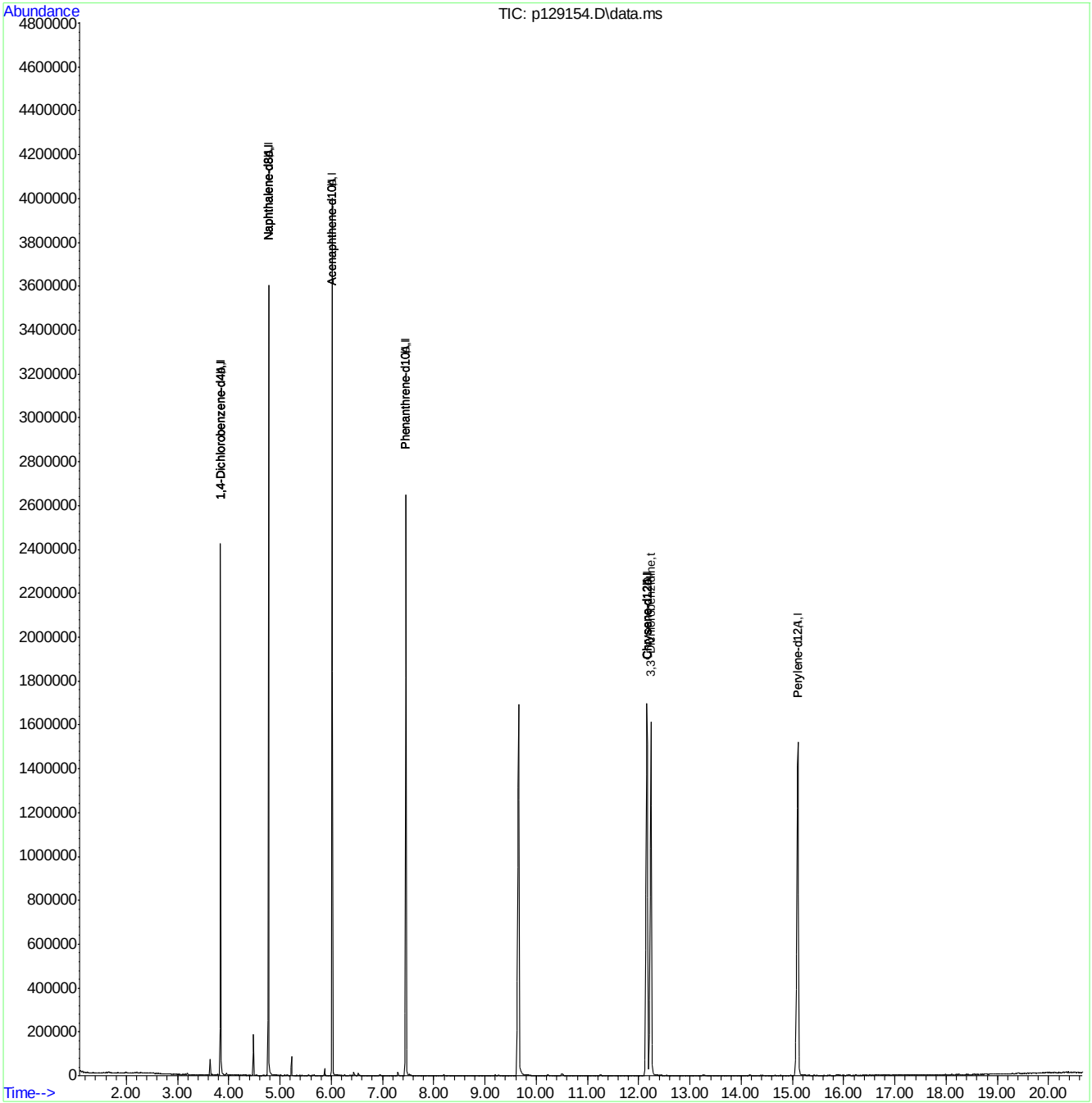
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.838	152	285496	40.00	ppm	0.00
24) Naphthalene-d8	4.773	136	1073380	40.00	ppm	0.00
47) Acenaphthene-d10	6.018	164	630304	40.00	ppm	0.00
69) Phenanthrene-d10	7.455	188	1183192	40.00	ppm	0.00
83) Chrysene-d12	12.162	240	1153020	40.00	ppm	0.00
91) Perylene-d12	15.105	264	1153296	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4A	3.838	152	285496	40.00	ppm	0.00
111) Naphthalene-d8A	4.773	136	1073380	40.00	ppm	0.00
120) Acenaphthene-d10A	6.018	164	630304	40.00	ppm	0.00
131) Phenanthrene-d10A	7.455	188	1183192	40.00	ppm	0.00
146) Chrysene-d12A	12.162	240	1153020	40.00	ppm	0.00
153) Perylene-d12A	15.105	264	1153296	40.00	ppm	0.00
157) 1,4-Dichlorobenzene-d4b	3.838	152	285496	40.00	ppm	0.00
159) Phenanthrene-d10b	7.455	188	1183192	40.00	ppm	0.00
161) Chrysene-d12b	12.162	240	1153020	40.00	ppm	0.00
163) Naphthalene-d8b	4.773	136	1073380	40.00	ppm	0.00
165) Acenaphthene-d10b	6.018	164	630304	40.00	ppm	0.00
167) Naphthalene-d8c	4.773	136	1073380	40.00	ppm	0.00
172) 1,4-Dichlorobenzene-d4c	3.838	152	285496	40.00	ppm	0.00
174) Chrysene-d12c	12.162	240	1153020	40.00	ppm	0.00
176) Chrysene-d12d	12.162	240	1153020	40.00	ppm	0.00
178) Naphthalene-d8d	4.773	136	1073380	40.00	ppm	0.00
180) Chrysene-d12D	12.162	240	1153020	40.00	ppm	-0.04
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
Target Compounds						Qvalue
88) 3,3'-Dichlorobenzidine	12.242	252	662094	52.97	ppm	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5844\
Data File : p129154.D
Acq On : 24 Apr 2019 7:54 am
Operator : chriss2
Sample : icv5844-50
Misc : op13894,ep5844,1000,,,1,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Apr 24 12:24:24 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5844.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed Apr 24 12:16:58 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5844\
Data File : p129156.D
Acq On : 24 Apr 2019 8:30 am
Operator : chriss2
Sample : ic5845-100
Misc : op13894,ep5845,1000,,,1,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Apr 24 13:10:48 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5844.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed Apr 24 13:07:00 2019
Response via : Initial Calibration

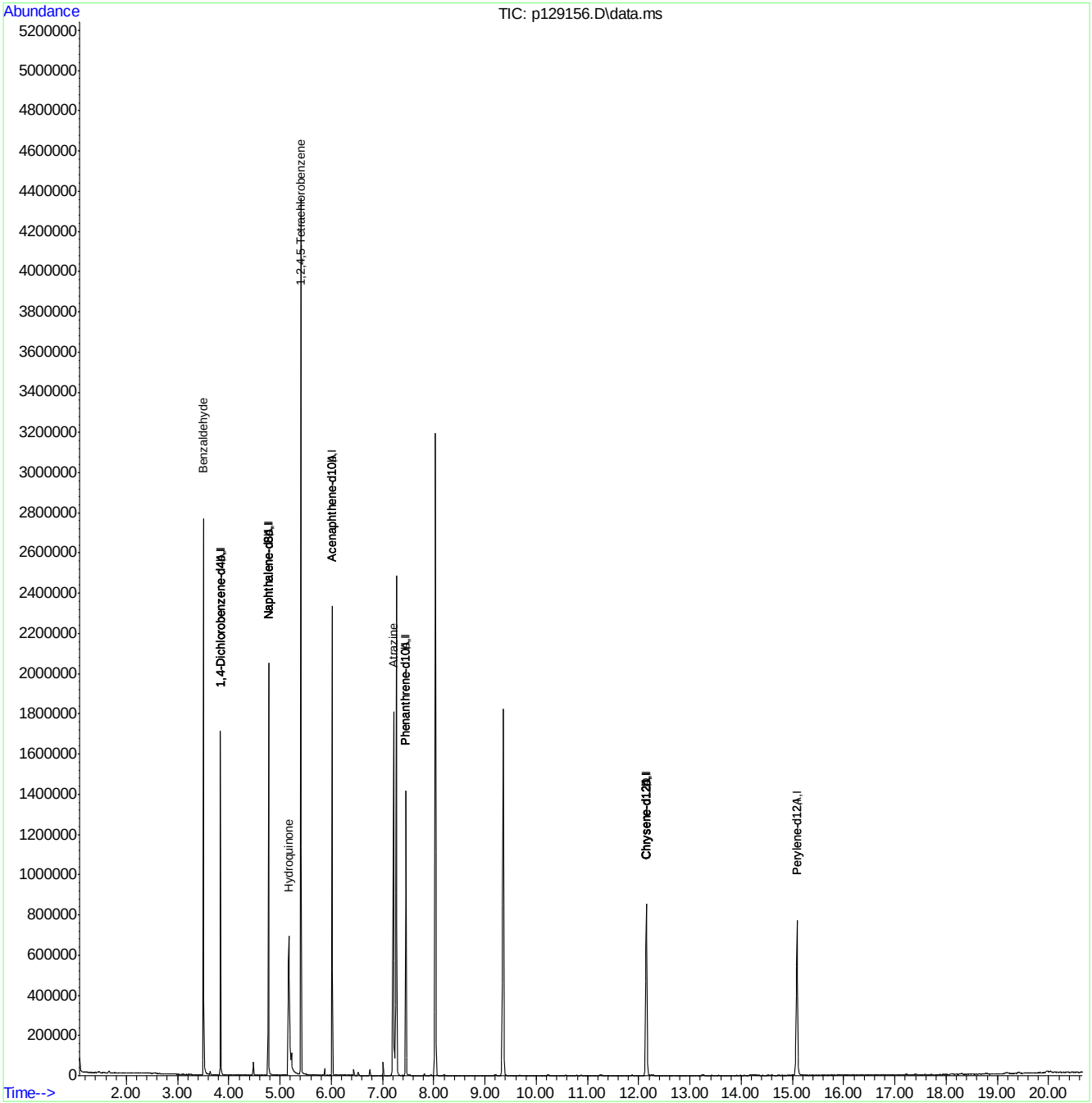
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.838	152	171215	40.00	ppm	0.00
24) Naphthalene-d8	4.773	136	642717	40.00	ppm	0.00
47) Acenaphthene-d10	6.018	164	354974	40.00	ppm	0.00
69) Phenanthrene-d10	7.455	188	562977	40.00	ppm	0.00
83) Chrysene-d12	12.151	240	481919	40.00	ppm	-0.01
91) Perylene-d12	15.089	264	505956	40.00	ppm	-0.02
101) 1,4-Dichlorobenzene-d4A	3.838	152	171215	40.00	ppm	0.00
111) Naphthalene-d8A	4.773	136	642717	40.00	ppm	0.00
120) Acenaphthene-d10A	6.018	164	354974	40.00	ppm	0.00
131) Phenanthrene-d10A	7.455	188	562977	40.00	ppm	0.00
146) Chrysene-d12A	12.151	240	481919	40.00	ppm	-0.01
153) Perylene-d12A	15.089	264	505956	40.00	ppm	-0.02
157) 1,4-Dichlorobenzene-d4b	3.838	152	171215	40.00	ppm	0.00
159) Phenanthrene-d10b	7.455	188	562977	40.00	ppm	0.00
161) Chrysene-d12b	12.151	240	481919	40.00	ppm	0.00
163) Naphthalene-d8b	4.773	136	642717	40.00	ppm	0.00
165) Acenaphthene-d10b	6.018	164	354974	40.00	ppm	0.00
167) Naphthalene-d8c	4.773	136	642717	40.00	ppm	0.00
172) 1,4-Dichlorobenzene-d4c	3.838	152	171215	40.00	ppm	0.00
174) Chrysene-d12c	12.151	240	481919	40.00	ppm	0.00
176) Chrysene-d12d	12.151	240	481919	40.00	ppm	0.00
178) Naphthalene-d8d	4.773	136	642717	40.00	ppm	0.00
180) Chrysene-d12D	12.151	240	481919	40.00	ppm	-0.05
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
Target Compounds						Qvalue
158) Benzaldehyde	3.502	105	464882	97.19	ppm	95
160) Atrazine	7.215	200	323993	102.78	ppm	93
164) Hydroquinone	5.168	110	452342	104.09	ppm	99
166) 1,2,4,5-Tetrachloroben...	5.409	216	555369	98.51	ppm	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5844\
Data File : p129156.D
Acq On : 24 Apr 2019 8:30 am
Operator : chriss2
Sample : ic5845-100
Misc : op13894,ep5845,1000,,,1,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Apr 24 13:10:48 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5844.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed Apr 24 13:07:00 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5844\
Data File : p129157.D
Acq On : 24 Apr 2019 8:57 am
Operator : chriss2
Sample : ic5845-80
Misc : op13894,ep5845,1000,,,1,1
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Apr 24 13:16:15 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5844.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed Apr 24 13:07:00 2019
Response via : Initial Calibration

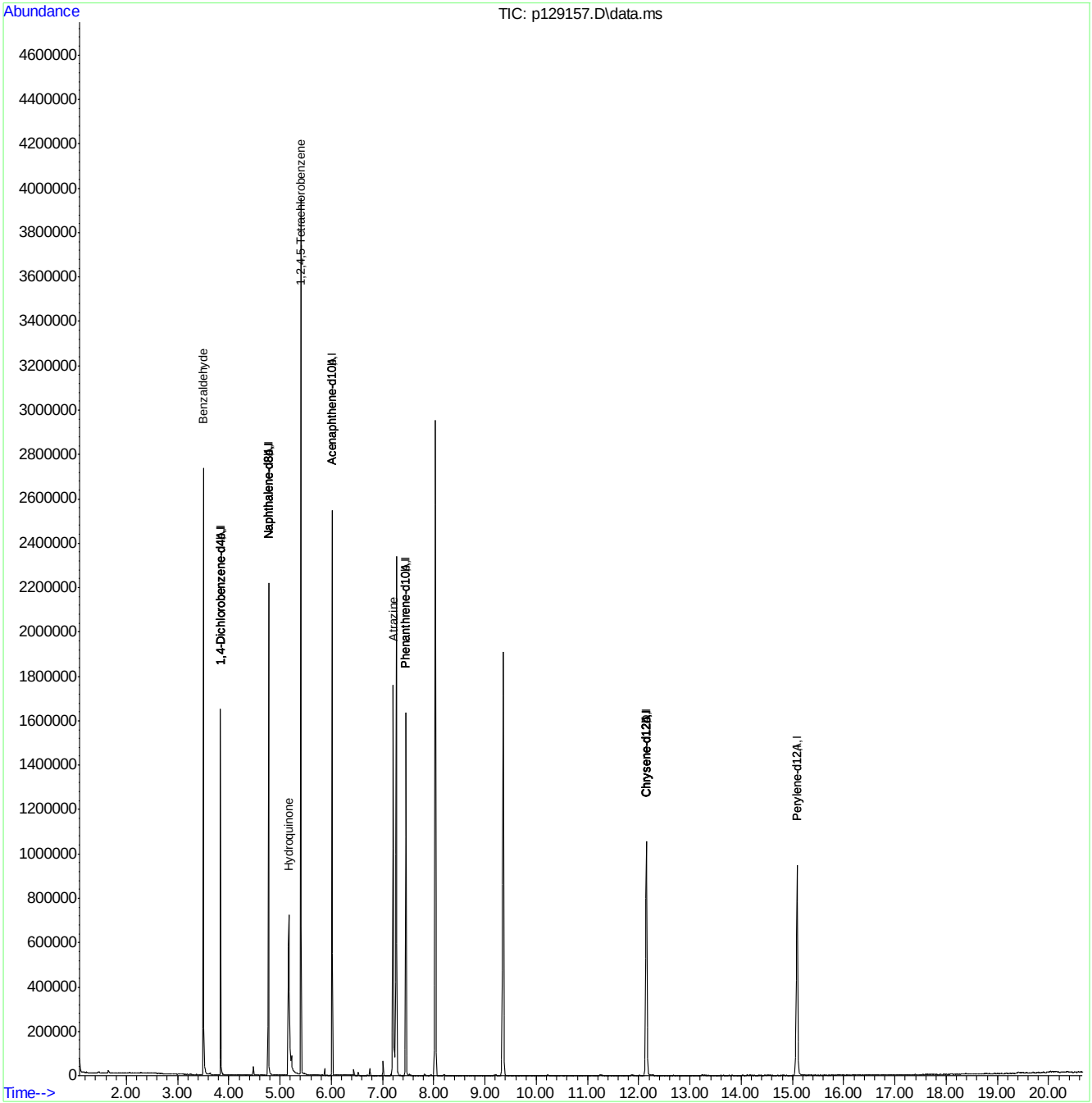
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.838	152	177371	40.00	ppm	0.00
24) Naphthalene-d8	4.773	136	684705	40.00	ppm	0.00
47) Acenaphthene-d10	6.018	164	395958	40.00	ppm	0.00
69) Phenanthrene-d10	7.455	188	654368	40.00	ppm	0.00
83) Chrysene-d12	12.151	240	605474	40.00	ppm	-0.01
91) Perylene-d12	15.094	264	642486	40.00	ppm	-0.01
101) 1,4-Dichlorobenzene-d4A	3.838	152	177371	40.00	ppm	0.00
111) Naphthalene-d8A	4.773	136	684705	40.00	ppm	0.00
120) Acenaphthene-d10A	6.018	164	395958	40.00	ppm	0.00
131) Phenanthrene-d10A	7.455	188	654368	40.00	ppm	0.00
146) Chrysene-d12A	12.151	240	605474	40.00	ppm	-0.01
153) Perylene-d12A	15.094	264	642486	40.00	ppm	-0.01
157) 1,4-Dichlorobenzene-d4b	3.838	152	177371	40.00	ppm	0.00
159) Phenanthrene-d10b	7.455	188	654368	40.00	ppm	0.00
161) Chrysene-d12b	12.151	240	605474	40.00	ppm	0.00
163) Naphthalene-d8b	4.773	136	684705	40.00	ppm	0.00
165) Acenaphthene-d10b	6.018	164	395958	40.00	ppm	0.00
167) Naphthalene-d8c	4.773	136	684705	40.00	ppm	0.00
172) 1,4-Dichlorobenzene-d4c	3.838	152	177371	40.00	ppm	0.00
174) Chrysene-d12c	12.151	240	605474	40.00	ppm	0.00
176) Chrysene-d12d	12.151	240	605474	40.00	ppm	0.00
178) Naphthalene-d8d	4.773	136	684705	40.00	ppm	0.00
180) Chrysene-d12D	12.151	240	605474	40.00	ppm	-0.05
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
Target Compounds						Qvalue
158) Benzaldehyde	3.502	105	396692	80.06	ppm	99
160) Atrazine	7.209	200	310587	84.76	ppm	99
164) Hydroquinone	5.168	110	423582	91.50	ppm	98
166) 1,2,4,5-Tetrachloroben...	5.409	216	486565	77.37	ppm	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5844\
Data File : p129157.D
Acq On : 24 Apr 2019 8:57 am
Operator : chriss2
Sample : ic5845-80
Misc : op13894,ep5845,1000,,,1,1
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Apr 24 13:16:15 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5844.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed Apr 24 13:07:00 2019
Response via : Initial Calibration



MP5844.M Wed Apr 24 13:16:20 2019 ACLIMS Page: 2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5844\
Data File : p129158.D
Acq On : 24 Apr 2019 9:24 am
Operator : chriss2
Sample : icc5845-50
Misc : op13894,ep5845,1000,,,1,1
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Apr 24 13:08:48 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5844.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed Apr 24 13:07:00 2019
Response via : Initial Calibration

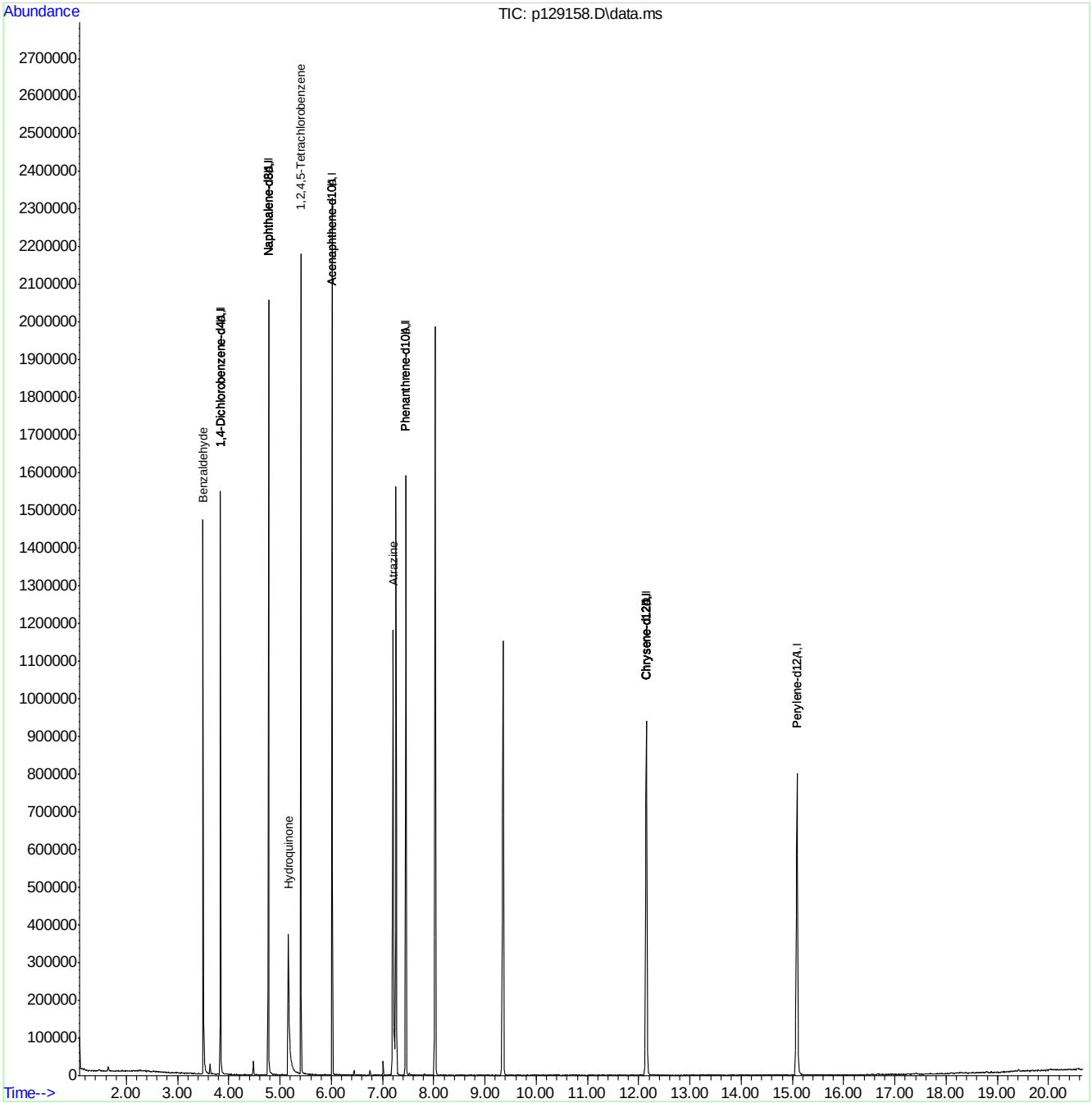
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.838	152	177030	40.00	ppm	0.00
24) Naphthalene-d8	4.773	136	674318	40.00	ppm	0.00
47) Acenaphthene-d10	6.018	164	385184	40.00	ppm	0.00
69) Phenanthrene-d10	7.455	188	622561	40.00	ppm	0.00
83) Chrysene-d12	12.145	240	538051	40.00	ppm	-0.02
91) Perylene-d12	15.094	264	559568	40.00	ppm	-0.01
101) 1,4-Dichlorobenzene-d4A	3.838	152	177030	40.00	ppm	0.00
111) Naphthalene-d8A	4.773	136	674318	40.00	ppm	0.00
120) Acenaphthene-d10A	6.018	164	385184	40.00	ppm	0.00
131) Phenanthrene-d10A	7.455	188	622561	40.00	ppm	0.00
146) Chrysene-d12A	12.145	240	538051	40.00	ppm	-0.02
153) Perylene-d12A	15.094	264	559568	40.00	ppm	-0.01
157) 1,4-Dichlorobenzene-d4b	3.838	152	177030	40.00	ppm	0.00
159) Phenanthrene-d10b	7.455	188	622561	40.00	ppm	0.00
161) Chrysene-d12b	12.145	240	538051	40.00	ppm	0.00
163) Naphthalene-d8b	4.773	136	674318	40.00	ppm	0.00
165) Acenaphthene-d10b	6.018	164	385184	40.00	ppm	0.00
167) Naphthalene-d8c	4.773	136	674318	40.00	ppm	0.00
172) 1,4-Dichlorobenzene-d4c	3.838	152	177030	40.00	ppm	0.00
174) Chrysene-d12c	12.145	240	538051	40.00	ppm	0.00
176) Chrysene-d12d	12.145	240	538051	40.00	ppm	0.00
178) Naphthalene-d8d	4.773	136	674318	40.00	ppm	0.00
180) Chrysene-d12D	12.145	240	538051	40.00	ppm	-0.05
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
Target Compounds						Qvalue
158) Benzaldehyde	3.502	105	247278	50.00	ppm	100
160) Atrazine	7.204	200	174303	50.00	ppm	100
164) Hydroquinone	5.163	110	227962	50.00	ppm	100
166) 1,2,4,5-Tetrachloroben...	5.409	216	305883	50.00	ppm	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5844\
Data File : p129158.D
Acq On : 24 Apr 2019 9:24 am
Operator : chriss2
Sample : icc5845-50
Misc : op13894,ep5845,1000,,,1,1
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Apr 24 13:08:48 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5844.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed Apr 24 13:07:00 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5844\
Data File : p129159.D
Acq On : 24 Apr 2019 9:51 am
Operator : chriss2
Sample : ic5845-25
Misc : op13894,ep5845,1000,,,1,1
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Apr 24 13:17:48 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5844.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed Apr 24 13:07:00 2019
Response via : Initial Calibration

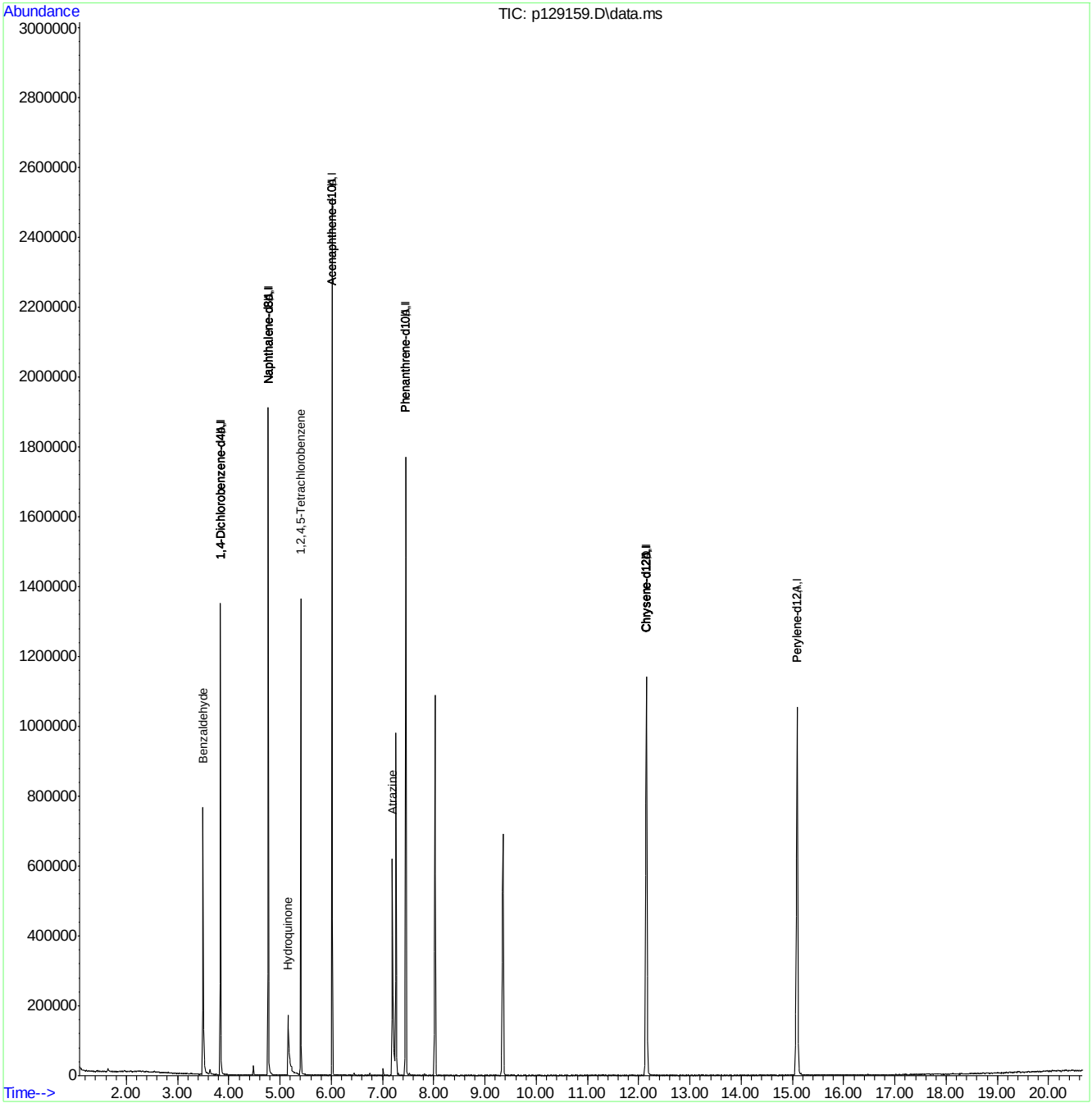
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.838	152	177933	40.00	ppm	0.00
24) Naphthalene-d8	4.773	136	670390	40.00	ppm	0.00
47) Acenaphthene-d10	6.018	164	415737	40.00	ppm	0.00
69) Phenanthrene-d10	7.455	188	711622	40.00	ppm	0.00
83) Chrysene-d12	12.151	240	655781	40.00	ppm	-0.01
91) Perylene-d12	15.095	264	737857	40.00	ppm	-0.01
101) 1,4-Dichlorobenzene-d4A	3.838	152	177933	40.00	ppm	0.00
111) Naphthalene-d8A	4.773	136	670390	40.00	ppm	0.00
120) Acenaphthene-d10A	6.018	164	415737	40.00	ppm	0.00
131) Phenanthrene-d10A	7.455	188	711622	40.00	ppm	0.00
146) Chrysene-d12A	12.151	240	655781	40.00	ppm	-0.01
153) Perylene-d12A	15.095	264	737857	40.00	ppm	-0.01
157) 1,4-Dichlorobenzene-d4b	3.838	152	177933	40.00	ppm	0.00
159) Phenanthrene-d10b	7.455	188	711622	40.00	ppm	0.00
161) Chrysene-d12b	12.151	240	655781	40.00	ppm	0.00
163) Naphthalene-d8b	4.773	136	670390	40.00	ppm	0.00
165) Acenaphthene-d10b	6.018	164	415737	40.00	ppm	0.00
167) Naphthalene-d8c	4.773	136	670390	40.00	ppm	0.00
172) 1,4-Dichlorobenzene-d4c	3.838	152	177933	40.00	ppm	0.00
174) Chrysene-d12c	12.151	240	655781	40.00	ppm	0.00
176) Chrysene-d12d	12.151	240	655781	40.00	ppm	0.00
178) Naphthalene-d8d	4.773	136	670390	40.00	ppm	0.00
180) Chrysene-d12D	12.151	240	655781	40.00	ppm	-0.05
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
Target Compounds						Qvalue
158) Benzaldehyde	3.497	105	132271	26.61	ppm	92
160) Atrazine	7.193	200	104008	26.10	ppm	93
164) Hydroquinone	5.158	110	111008	24.49	ppm	96
166) 1,2,4,5-Tetrachloroben...	5.404	216	159653	24.18	ppm	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5844\
Data File : p129159.D
Acq On : 24 Apr 2019 9:51 am
Operator : chriss2
Sample : ic5845-25
Misc : op13894,ep5845,1000,,,1,1
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Apr 24 13:17:48 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5844.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed Apr 24 13:07:00 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5844\
Data File : p129160.D
Acq On : 24 Apr 2019 10:18 am
Operator : chriss2
Sample : ic5845-10
Misc : op13894,ep5845,1000,,,1,1
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Apr 24 13:19:36 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5844.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed Apr 24 13:07:00 2019
Response via : Initial Calibration

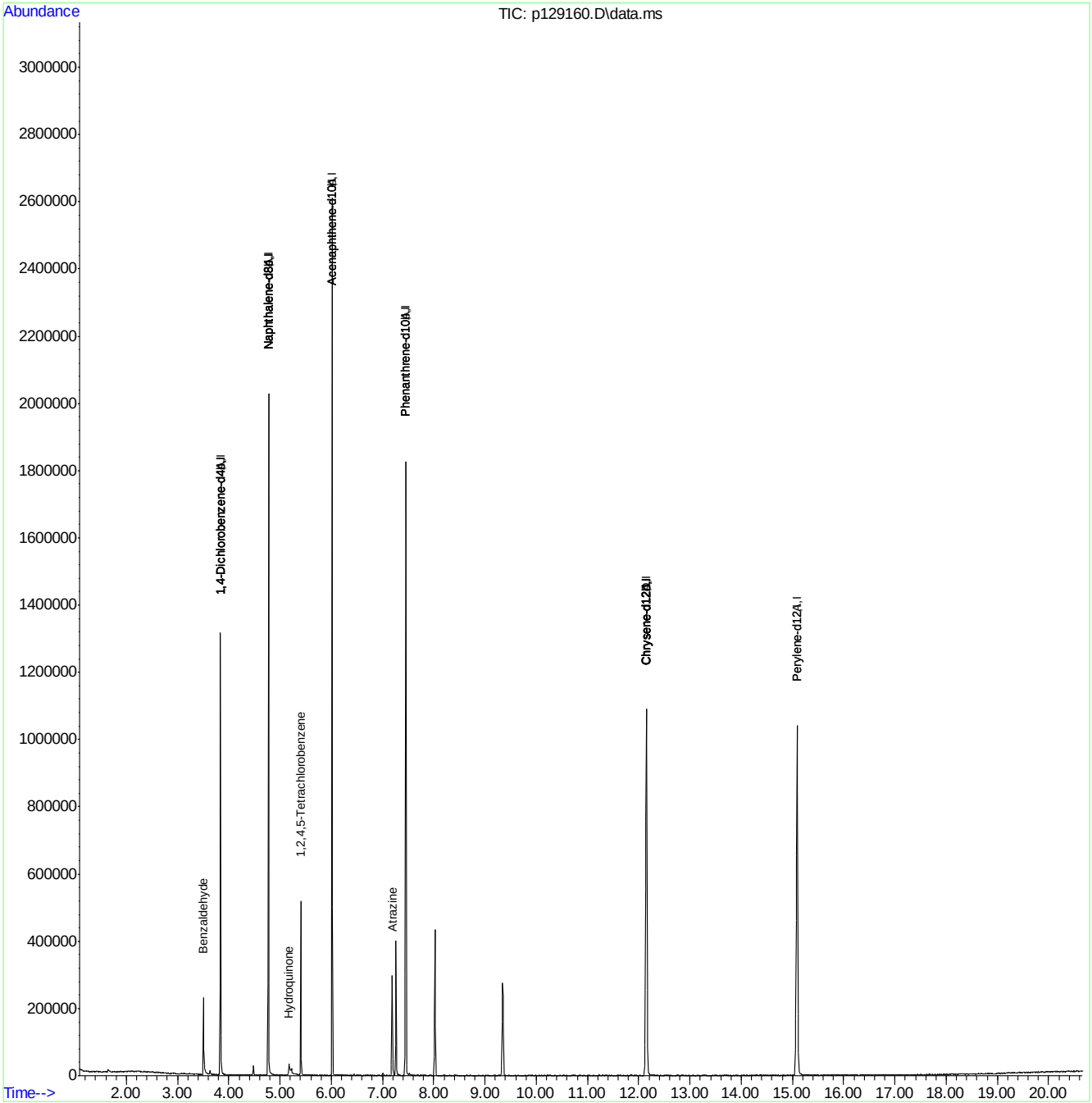
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.838	152	175127	40.00	ppm	0.00
24) Naphthalene-d8	4.773	136	689176	40.00	ppm	0.00
47) Acenaphthene-d10	6.018	164	415652	40.00	ppm	0.00
69) Phenanthrene-d10	7.455	188	714239	40.00	ppm	0.00
83) Chrysene-d12	12.151	240	637339	40.00	ppm	-0.01
91) Perylene-d12	15.094	264	702480	40.00	ppm	-0.01
101) 1,4-Dichlorobenzene-d4A	3.838	152	175127	40.00	ppm	0.00
111) Naphthalene-d8A	4.773	136	689176	40.00	ppm	0.00
120) Acenaphthene-d10A	6.018	164	415652	40.00	ppm	0.00
131) Phenanthrene-d10A	7.455	188	714239	40.00	ppm	0.00
146) Chrysene-d12A	12.151	240	637339	40.00	ppm	-0.01
153) Perylene-d12A	15.094	264	702480	40.00	ppm	-0.01
157) 1,4-Dichlorobenzene-d4b	3.838	152	175127	40.00	ppm	0.00
159) Phenanthrene-d10b	7.455	188	714239	40.00	ppm	0.00
161) Chrysene-d12b	12.151	240	637339	40.00	ppm	0.00
163) Naphthalene-d8b	4.773	136	689176	40.00	ppm	0.00
165) Acenaphthene-d10b	6.018	164	415652	40.00	ppm	0.00
167) Naphthalene-d8c	4.773	136	689176	40.00	ppm	0.00
172) 1,4-Dichlorobenzene-d4c	3.838	152	175127	40.00	ppm	0.00
174) Chrysene-d12c	12.151	240	637339	40.00	ppm	0.00
176) Chrysene-d12d	12.151	240	637339	40.00	ppm	0.00
178) Naphthalene-d8d	4.773	136	689176	40.00	ppm	0.00
180) Chrysene-d12D	12.151	240	637339	40.00	ppm	-0.05
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
Target Compounds						Qvalue
158) Benzaldehyde	3.502	105	46103	9.42	ppm	96
160) Atrazine	7.188	200	37204	9.30	ppm	98
164) Hydroquinone	5.168	110	35833	7.69	ppm	96
166) 1,2,4,5-Tetrachloroben...	5.404	216	59211	8.97	ppm	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5844\
Data File : p129160.D
Acq On : 24 Apr 2019 10:18 am
Operator : chriss2
Sample : ic5845-10
Misc : op13894,ep5845,1000,,,1,1
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Apr 24 13:19:36 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5844.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed Apr 24 13:07:00 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5844\
Data File : p129161.D
Acq On : 24 Apr 2019 10:45 am
Operator : chriss2
Sample : ic5845-5
Misc : op13894,ep5845,1000,,,1,1
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Apr 24 13:21:10 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5844.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed Apr 24 13:07:00 2019
Response via : Initial Calibration

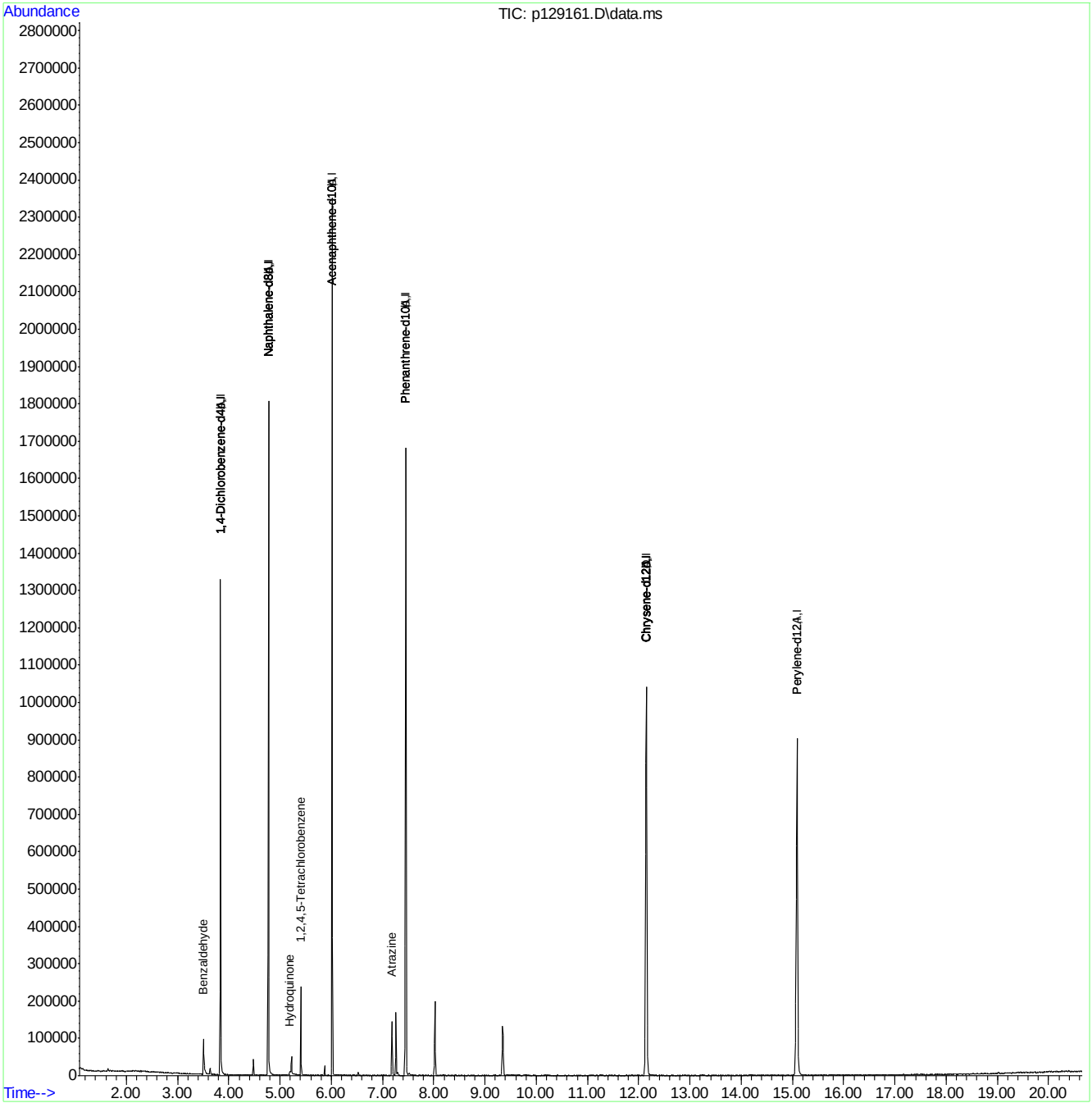
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.838	152	172727	40.00	ppm	0.00
24) Naphthalene-d8	4.773	136	645801	40.00	ppm	0.00
47) Acenaphthene-d10	6.018	164	392062	40.00	ppm	0.00
69) Phenanthrene-d10	7.455	188	661073	40.00	ppm	0.00
83) Chrysene-d12	12.151	240	581322	40.00	ppm	-0.01
91) Perylene-d12	15.089	264	629717	40.00	ppm	-0.02
101) 1,4-Dichlorobenzene-d4A	3.838	152	172727	40.00	ppm	0.00
111) Naphthalene-d8A	4.773	136	645801	40.00	ppm	0.00
120) Acenaphthene-d10A	6.018	164	392062	40.00	ppm	0.00
131) Phenanthrene-d10A	7.455	188	661073	40.00	ppm	0.00
146) Chrysene-d12A	12.151	240	581322	40.00	ppm	-0.01
153) Perylene-d12A	15.089	264	629717	40.00	ppm	-0.02
157) 1,4-Dichlorobenzene-d4b	3.838	152	172727	40.00	ppm	0.00
159) Phenanthrene-d10b	7.455	188	661073	40.00	ppm	0.00
161) Chrysene-d12b	12.151	240	581322	40.00	ppm	0.00
163) Naphthalene-d8b	4.773	136	645801	40.00	ppm	0.00
165) Acenaphthene-d10b	6.018	164	392062	40.00	ppm	0.00
167) Naphthalene-d8c	4.773	136	645801	40.00	ppm	0.00
172) 1,4-Dichlorobenzene-d4c	3.838	152	172727	40.00	ppm	0.00
174) Chrysene-d12c	12.151	240	581322	40.00	ppm	0.00
176) Chrysene-d12d	12.151	240	581322	40.00	ppm	0.00
178) Naphthalene-d8d	4.773	136	645801	40.00	ppm	0.00
180) Chrysene-d12D	12.151	240	581322	40.00	ppm	-0.05
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
Target Compounds						Qvalue
158) Benzaldehyde	3.507	105	22878	4.74	ppm	90
160) Atrazine	7.183	200	16932	4.57	ppm	93
164) Hydroquinone	5.190	110	12691	2.91	ppm	87
166) 1,2,4,5-Tetrachloroben...	5.404	216	28113	4.51	ppm	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5844\
Data File : p129161.D
Acq On : 24 Apr 2019 10:45 am
Operator : chriss2
Sample : ic5845-5
Misc : op13894,ep5845,1000,,,1,1
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Apr 24 13:21:10 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5844.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed Apr 24 13:07:00 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5844\
Data File : p129162.D
Acq On : 24 Apr 2019 11:12 am
Operator : chriss2
Sample : ic5845-2
Misc : op13894,ep5845,1000,,,1,1
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Apr 24 13:22:26 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5844.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed Apr 24 13:07:00 2019
Response via : Initial Calibration

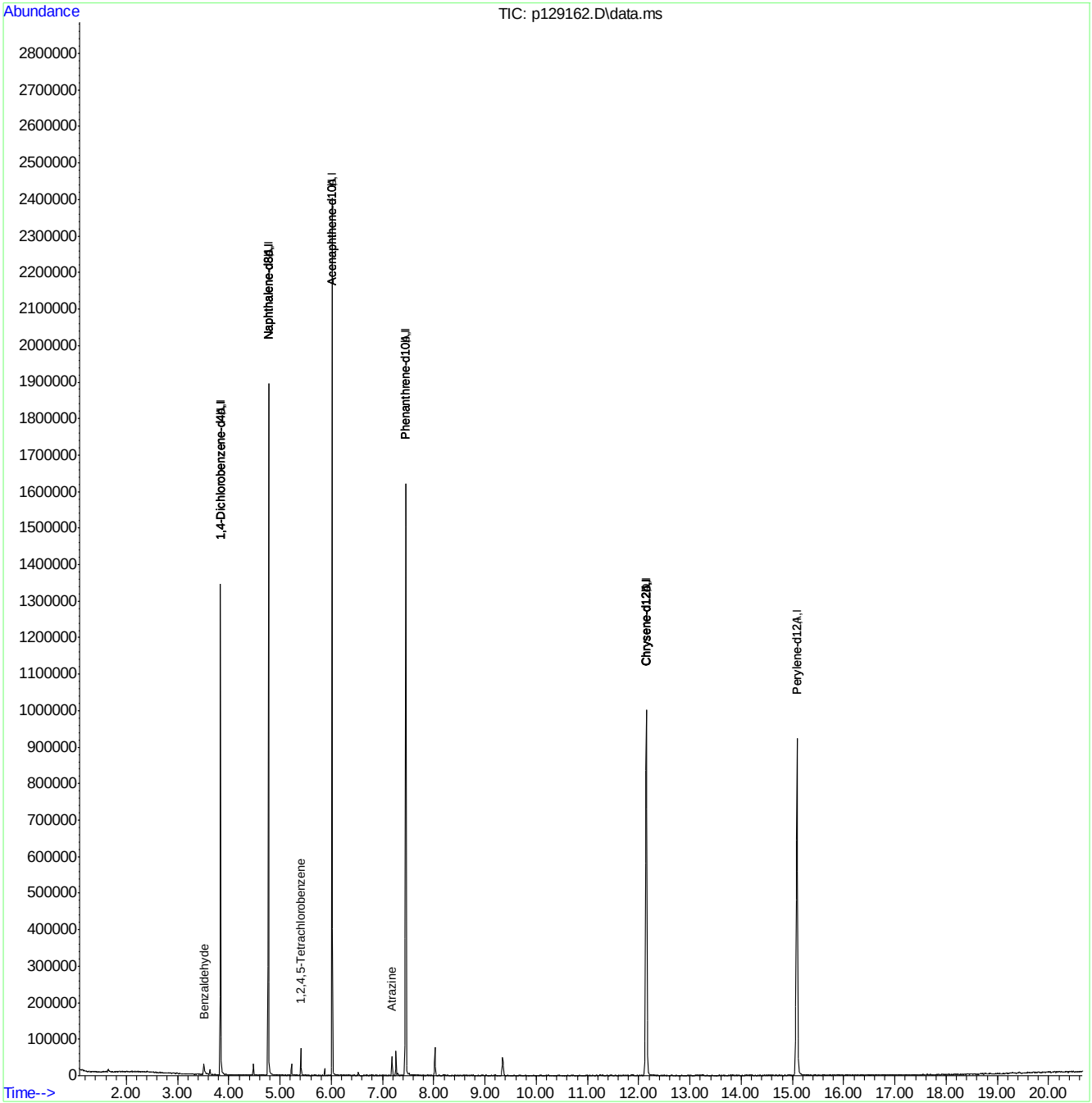
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.838	152	177629	40.00	ppm	0.00
24) Naphthalene-d8	4.773	136	645534	40.00	ppm	0.00
47) Acenaphthene-d10	6.018	164	384470	40.00	ppm	0.00
69) Phenanthrene-d10	7.455	188	663057	40.00	ppm	0.00
83) Chrysene-d12	12.151	240	569249	40.00	ppm	-0.01
91) Perylene-d12	15.089	264	612119	40.00	ppm	-0.02
101) 1,4-Dichlorobenzene-d4A	3.838	152	177629	40.00	ppm	0.00
111) Naphthalene-d8A	4.773	136	645534	40.00	ppm	0.00
120) Acenaphthene-d10A	6.018	164	384470	40.00	ppm	0.00
131) Phenanthrene-d10A	7.455	188	663057	40.00	ppm	0.00
146) Chrysene-d12A	12.151	240	569249	40.00	ppm	-0.01
153) Perylene-d12A	15.089	264	612119	40.00	ppm	-0.02
157) 1,4-Dichlorobenzene-d4b	3.838	152	177629	40.00	ppm	0.00
159) Phenanthrene-d10b	7.455	188	663057	40.00	ppm	0.00
161) Chrysene-d12b	12.151	240	569249	40.00	ppm	0.00
163) Naphthalene-d8b	4.773	136	645534	40.00	ppm	0.00
165) Acenaphthene-d10b	6.018	164	384470	40.00	ppm	0.00
167) Naphthalene-d8c	4.773	136	645534	40.00	ppm	0.00
172) 1,4-Dichlorobenzene-d4c	3.838	152	177629	40.00	ppm	0.00
174) Chrysene-d12c	12.151	240	569249	40.00	ppm	0.00
176) Chrysene-d12d	12.151	240	569249	40.00	ppm	0.00
178) Naphthalene-d8d	4.773	136	645534	40.00	ppm	0.00
180) Chrysene-d12D	12.151	240	569249	40.00	ppm	-0.05
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
Target Compounds						Qvalue
158) Benzaldehyde	3.512	105	8241	1.66	ppm	88
160) Atrazine	7.183	200	6428	1.73	ppm	83
166) 1,2,4,5-Tetrachloroben...	5.409	216	10652	1.74	ppm	92

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5844\
Data File : p129162.D
Acq On : 24 Apr 2019 11:12 am
Operator : chriss2
Sample : ic5845-2
Misc : op13894,ep5845,1000,,,1,1
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Apr 24 13:22:26 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5844.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed Apr 24 13:07:00 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5844\
Data File : p129163.D
Acq On : 24 Apr 2019 11:39 am
Operator : chriss2
Sample : ic5845-1
Misc : op13894,ep5845,1000,,,1,1
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Apr 24 13:24:34 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5844.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed Apr 24 13:07:00 2019
Response via : Initial Calibration

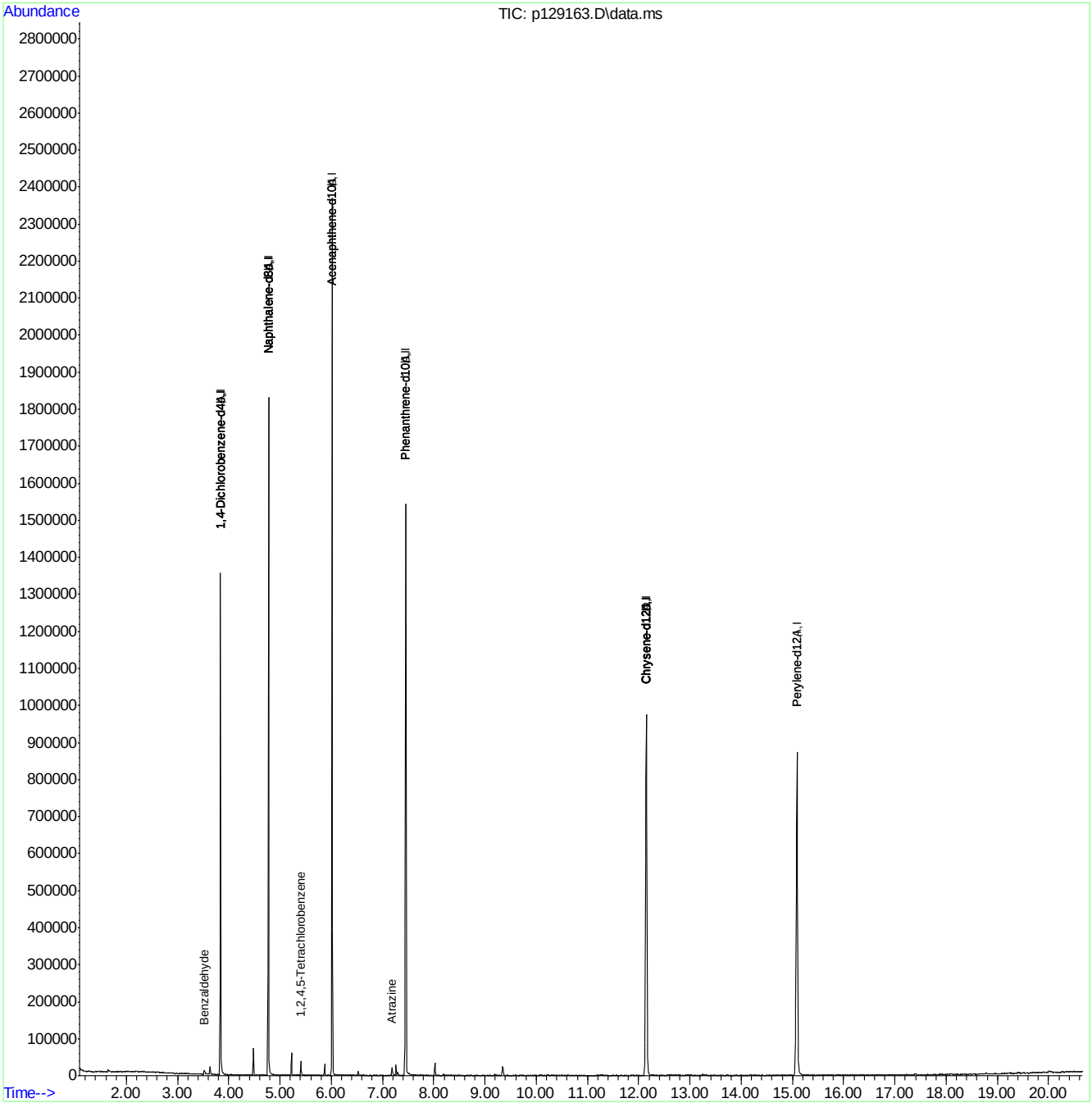
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.838	152	174523	40.00	ppm	0.00
24) Naphthalene-d8	4.773	136	641673	40.00	ppm	0.00
47) Acenaphthene-d10	6.018	164	385568	40.00	ppm	0.00
69) Phenanthrene-d10	7.450	188	655614	40.00	ppm	-0.01
83) Chrysene-d12	12.146	240	549928	40.00	ppm	-0.02
91) Perylene-d12	15.089	264	588132	40.00	ppm	-0.02
101) 1,4-Dichlorobenzene-d4A	3.838	152	174523	40.00	ppm	0.00
111) Naphthalene-d8A	4.773	136	641673	40.00	ppm	0.00
120) Acenaphthene-d10A	6.018	164	385568	40.00	ppm	0.00
131) Phenanthrene-d10A	7.450	188	655614	40.00	ppm	-0.01
146) Chrysene-d12A	12.146	240	549928	40.00	ppm	-0.02
153) Perylene-d12A	15.089	264	588132	40.00	ppm	-0.02
157) 1,4-Dichlorobenzene-d4b	3.838	152	174523	40.00	ppm	0.00
159) Phenanthrene-d10b	7.450	188	655614	40.00	ppm	0.00
161) Chrysene-d12b	12.146	240	549928	40.00	ppm	0.00
163) Naphthalene-d8b	4.773	136	641673	40.00	ppm	0.00
165) Acenaphthene-d10b	6.018	164	385568	40.00	ppm	0.00
167) Naphthalene-d8c	4.773	136	641673	40.00	ppm	0.00
172) 1,4-Dichlorobenzene-d4c	3.838	152	174523	40.00	ppm	0.00
174) Chrysene-d12c	12.146	240	549928	40.00	ppm	0.00
176) Chrysene-d12d	12.146	240	549928	40.00	ppm	0.00
178) Naphthalene-d8d	4.773	136	641673	40.00	ppm	0.00
180) Chrysene-d12D	12.146	240	549928	40.00	ppm	-0.05
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
Target Compounds						Qvalue
158) Benzaldehyde	3.518	105	3502	0.72	ppm	81
160) Atrazine	7.183	200	3085	0.84	ppm	84
166) 1,2,4,5-Tetrachloroben...	5.409	216	5002	0.82	ppm	91

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5844\
Data File : p129163.D
Acq On : 24 Apr 2019 11:39 am
Operator : chriss2
Sample : ic5845-1
Misc : op13894,ep5845,1000,,,1,1
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Apr 24 13:24:34 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5844.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed Apr 24 13:07:00 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5844\
Data File : p129164.D
Acq On : 24 Apr 2019 12:07 pm
Operator : chriss2
Sample : icv5845-50
Misc : op13894,ep5845,1000,,,1,1
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Apr 24 13:40:56 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5844.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed Apr 24 13:36:52 2019
Response via : Initial Calibration

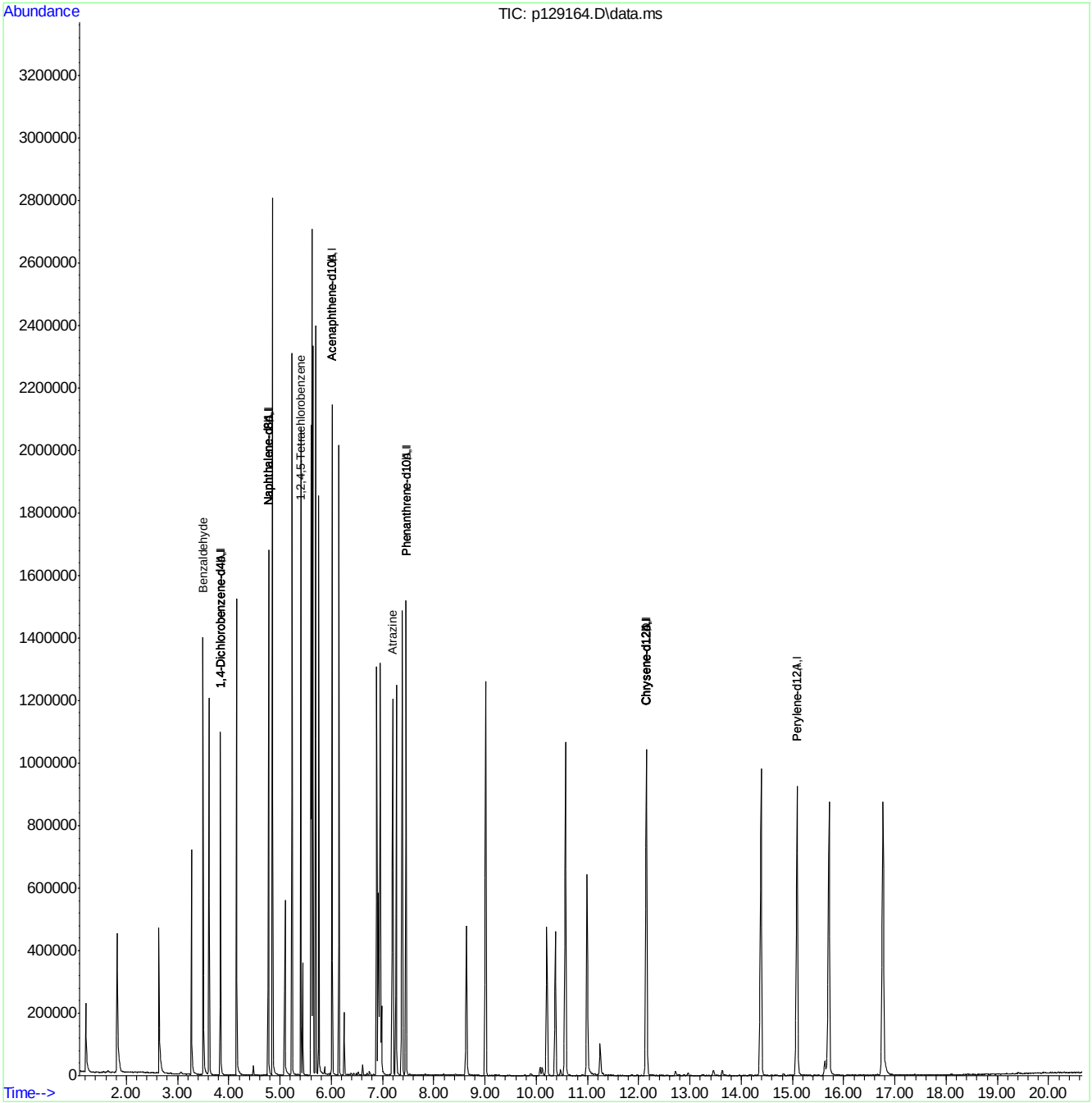
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.838	152	148014	40.00	ppm	0.00
24) Naphthalene-d8	4.773	136	587196	40.00	ppm	0.00
47) Acenaphthene-d10	6.018	164	347389	40.00	ppm	0.00
69) Phenanthrene-d10	7.460	188	579149	40.00	ppm	0.00
83) Chrysene-d12	12.151	240	571152	40.00	ppm	-0.01
91) Perylene-d12	15.094	264	626300	40.00	ppm	-0.01
101) 1,4-Dichlorobenzene-d4A	3.838	152	148014	40.00	ppm	0.00
111) Naphthalene-d8A	4.773	136	587196	40.00	ppm	0.00
120) Acenaphthene-d10A	6.018	164	347389	40.00	ppm	0.00
131) Phenanthrene-d10A	7.460	188	579149	40.00	ppm	0.00
146) Chrysene-d12A	12.151	240	571152	40.00	ppm	-0.01
153) Perylene-d12A	15.094	264	626300	40.00	ppm	-0.01
157) 1,4-Dichlorobenzene-d4b	3.838	152	148014	40.00	ppm	0.00
159) Phenanthrene-d10b	7.460	188	579149	40.00	ppm	0.01
161) Chrysene-d12b	12.151	240	571152	40.00	ppm	0.00
163) Naphthalene-d8b	4.773	136	587196	40.00	ppm	0.00
165) Acenaphthene-d10b	6.018	164	347389	40.00	ppm	0.00
167) Naphthalene-d8c	4.773	136	587196	40.00	ppm	0.00
172) 1,4-Dichlorobenzene-d4c	3.838	152	148014	40.00	ppm	0.00
174) Chrysene-d12c	12.151	240	571152	40.00	ppm	0.00
176) Chrysene-d12d	12.151	240	571152	40.00	ppm	0.00
178) Naphthalene-d8d	4.773	136	587196	40.00	ppm	0.00
180) Chrysene-d12D	12.151	240	571152	40.00	ppm	-0.05
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
Target Compounds						Qvalue
158) Benzaldehyde	3.496	105	219733	56.86	ppm	95
160) Atrazine	7.199	200	172212	55.30	ppm	96
166) 1,2,4,5-Tetrachloroben...	5.409	216	266906	52.24	ppm	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5844\
Data File : p129164.D
Acq On : 24 Apr 2019 12:07 pm
Operator : chriss2
Sample : icv5845-50
Misc : op13894,ep5845,1000,,,1,1
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Apr 24 13:40:56 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5844.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed Apr 24 13:36:52 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5844\
Data File : p129165.D
Acq On : 24 Apr 2019 12:34 pm
Operator : chriss2
Sample : icv5845-50
Misc : op13894,ep5845,1000,,,1,1
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Apr 24 13:38:41 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5844.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed Apr 24 13:36:52 2019
Response via : Initial Calibration

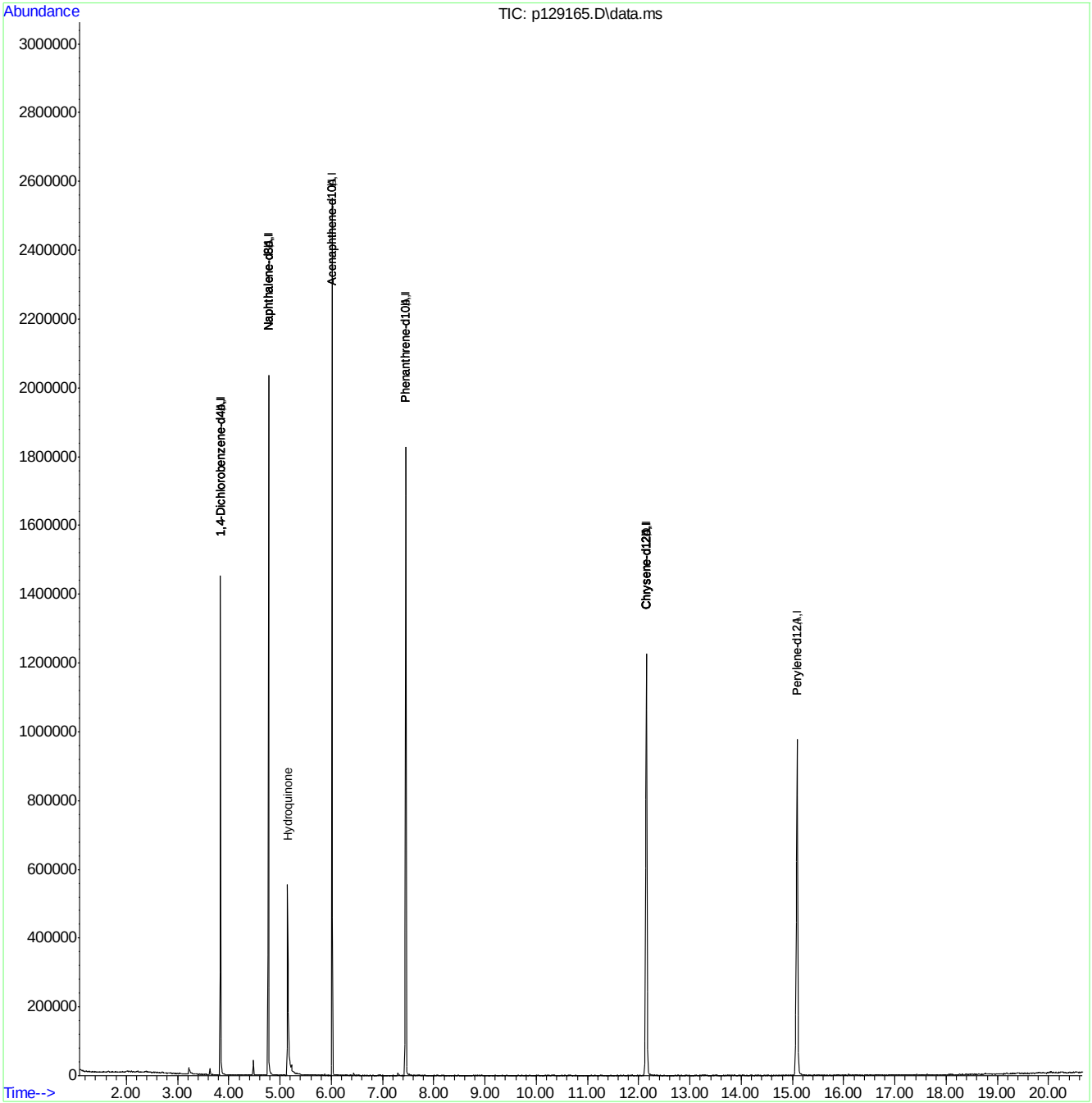
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.838	152	190781	40.00	ppm	0.00
24) Naphthalene-d8	4.773	136	716565	40.00	ppm	0.00
47) Acenaphthene-d10	6.018	164	393484	40.00	ppm	0.00
69) Phenanthrene-d10	7.455	188	750925	40.00	ppm	0.00
83) Chrysene-d12	12.151	240	709061	40.00	ppm	-0.01
91) Perylene-d12	15.095	264	686144	40.00	ppm	-0.01
101) 1,4-Dichlorobenzene-d4A	3.838	152	190781	40.00	ppm	0.00
111) Naphthalene-d8A	4.773	136	716565	40.00	ppm	0.00
120) Acenaphthene-d10A	6.018	164	393484	40.00	ppm	0.00
131) Phenanthrene-d10A	7.455	188	750925	40.00	ppm	0.00
146) Chrysene-d12A	12.151	240	709061	40.00	ppm	-0.01
153) Perylene-d12A	15.095	264	686144	40.00	ppm	-0.01
157) 1,4-Dichlorobenzene-d4b	3.838	152	190781	40.00	ppm	0.00
159) Phenanthrene-d10b	7.455	188	750925	40.00	ppm	0.00
161) Chrysene-d12b	12.151	240	709061	40.00	ppm	0.00
163) Naphthalene-d8b	4.773	136	716565	40.00	ppm	0.00
165) Acenaphthene-d10b	6.018	164	393484	40.00	ppm	0.00
167) Naphthalene-d8c	4.773	136	716565	40.00	ppm	0.00
172) 1,4-Dichlorobenzene-d4c	3.838	152	190781	40.00	ppm	0.00
174) Chrysene-d12c	12.151	240	709061	40.00	ppm	0.00
176) Chrysene-d12d	12.151	240	709061	40.00	ppm	0.00
178) Naphthalene-d8d	4.773	136	716565	40.00	ppm	0.00
180) Chrysene-d12D	12.151	240	709061	40.00	ppm	-0.05
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
Target Compounds						Qvalue
164) Hydroquinone	5.147	110	287569	60.16	ppm	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5844\
Data File : p129165.D
Acq On : 24 Apr 2019 12:34 pm
Operator : chriss2
Sample : icv5845-50
Misc : op13894,ep5845,1000,,,1,1
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Apr 24 13:38:41 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5844.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Wed Apr 24 13:36:52 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5844\
Data File : p129172.D
Acq On : 24 Apr 2019 4:08 pm
Operator : chriss2
Sample : ic5846-100
Misc : op13894,ep5846,1000,,,1,1
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Apr 25 07:56:14 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5844.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu Apr 25 07:54:09 2019
Response via : Initial Calibration

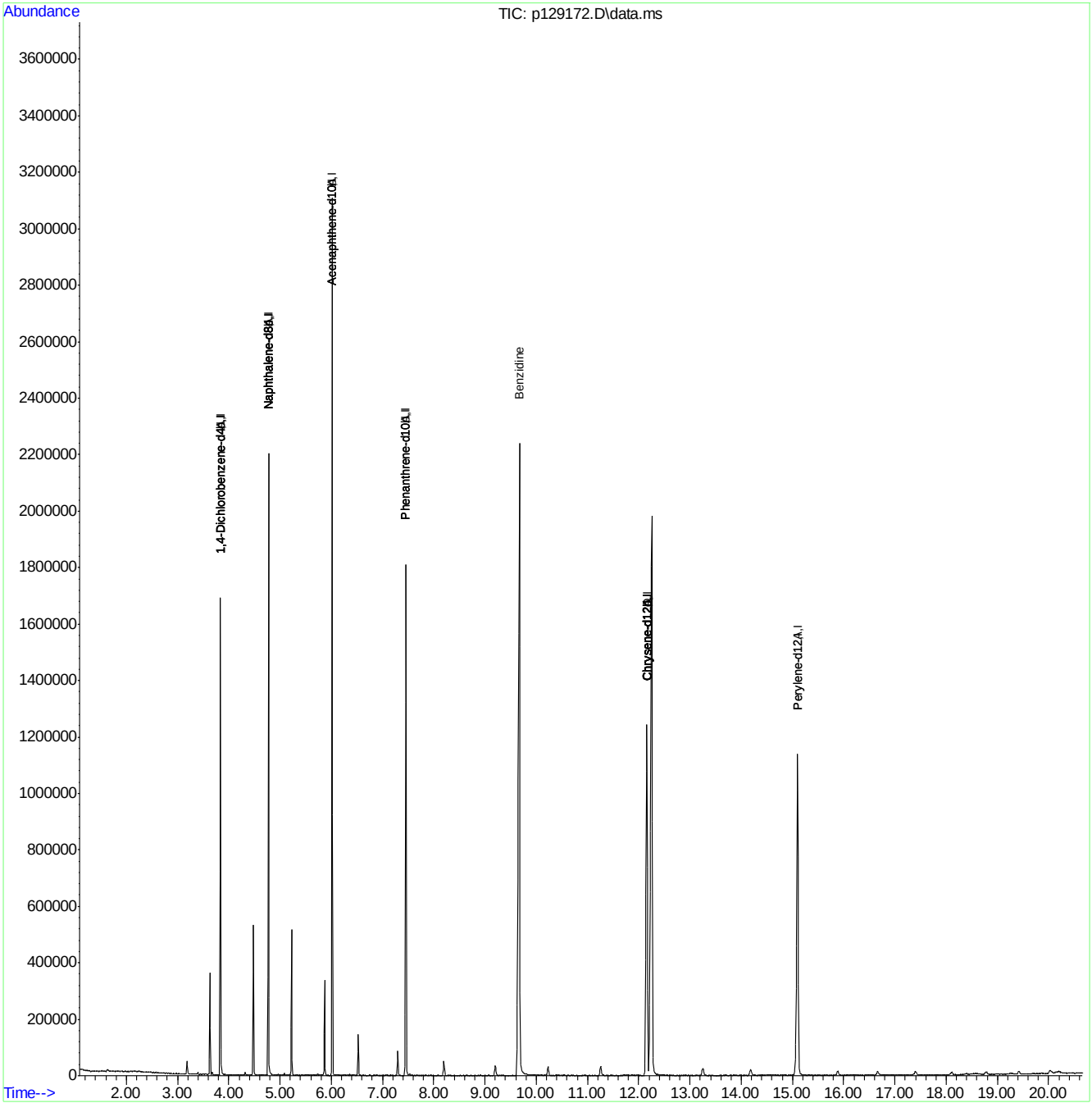
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.833	152	199530	40.00	ppm	0.00
24) Naphthalene-d8	4.773	136	745138	40.00	ppm	0.00
47) Acenaphthene-d10	6.018	164	443806	40.00	ppm	0.00
69) Phenanthrene-d10	7.455	188	792679	40.00	ppm	0.00
83) Chrysene-d12	12.156	240	723836	40.00	ppm	0.00
91) Perylene-d12	15.100	264	803486	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4A	3.833	152	199530	40.00	ppm	0.00
111) Naphthalene-d8A	4.773	136	745138	40.00	ppm	0.00
120) Acenaphthene-d10A	6.018	164	443806	40.00	ppm	0.00
131) Phenanthrene-d10A	7.455	188	792679	40.00	ppm	0.00
146) Chrysene-d12A	12.156	240	723836	40.00	ppm	0.00
153) Perylene-d12A	15.100	264	803486	40.00	ppm	0.00
157) 1,4-Dichlorobenzene-d4b	3.833	152	199530	40.00	ppm	0.00
159) Phenanthrene-d10b	7.455	188	792679	40.00	ppm	0.00
161) Chrysene-d12b	12.156	240	723836	40.00	ppm	0.00
163) Naphthalene-d8b	4.773	136	745138	40.00	ppm	0.00
165) Acenaphthene-d10b	6.018	164	443806	40.00	ppm	0.00
167) Naphthalene-d8c	4.773	136	745138	40.00	ppm	0.00
172) 1,4-Dichlorobenzene-d4c	3.833	152	199530	40.00	ppm	0.00
174) Chrysene-d12c	12.156	240	723836	40.00	ppm	0.01
176) Chrysene-d12d	12.156	240	723836	40.00	ppm	0.01
178) Naphthalene-d8d	4.773	136	745138	40.00	ppm	0.00
180) Chrysene-d12D	12.156	240	723836	40.00	ppm	-0.04
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
Target Compounds						Qvalue
162) Benzidine	9.672	184	1691840	106.22	ppm	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5844\
Data File : p129172.D
Acq On : 24 Apr 2019 4:08 pm
Operator : chriss2
Sample : ic5846-100
Misc : op13894,ep5846,1000,,,1,1
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Apr 25 07:56:14 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5844.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu Apr 25 07:54:09 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5844\
Data File : p129173.D
Acq On : 24 Apr 2019 4:35 pm
Operator : chriss2
Sample : ic5846-80
Misc : op13894,ep5846,1000,,,1,1
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Apr 25 07:57:20 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5844.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu Apr 25 07:54:09 2019
Response via : Initial Calibration

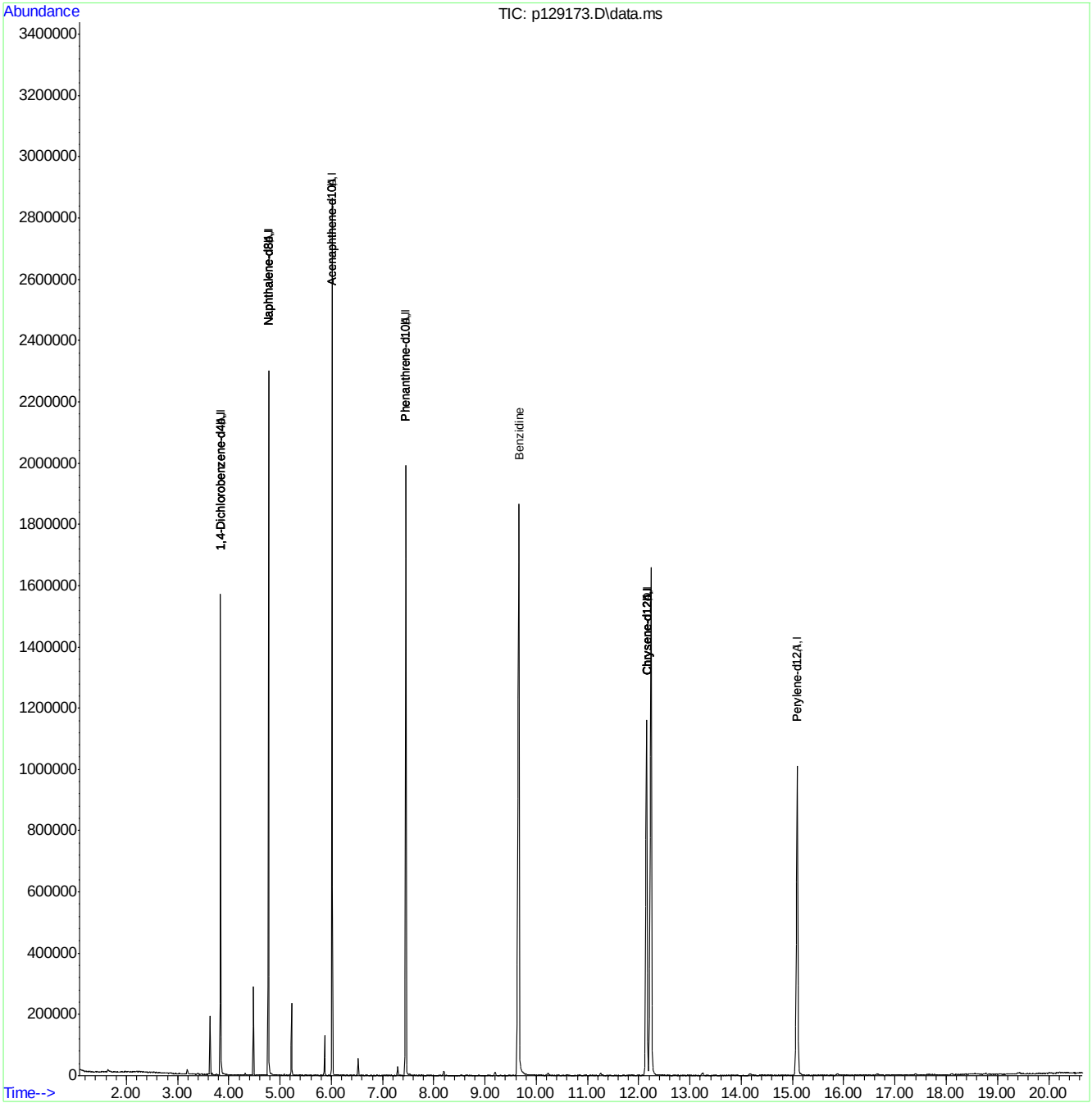
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.838	152	196743	40.00	ppm	0.00
24) Naphthalene-d8	4.773	136	747002	40.00	ppm	0.00
47) Acenaphthene-d10	6.018	164	447513	40.00	ppm	0.00
69) Phenanthrene-d10	7.455	188	776326	40.00	ppm	0.00
83) Chrysene-d12	12.156	240	683340	40.00	ppm	0.00
91) Perylene-d12	15.094	264	732599	40.00	ppm	-0.01
101) 1,4-Dichlorobenzene-d4A	3.838	152	196743	40.00	ppm	0.00
111) Naphthalene-d8A	4.773	136	747002	40.00	ppm	0.00
120) Acenaphthene-d10A	6.018	164	447513	40.00	ppm	0.00
131) Phenanthrene-d10A	7.455	188	776326	40.00	ppm	0.00
146) Chrysene-d12A	12.156	240	683340	40.00	ppm	0.00
153) Perylene-d12A	15.094	264	732599	40.00	ppm	-0.01
157) 1,4-Dichlorobenzene-d4b	3.838	152	196743	40.00	ppm	0.00
159) Phenanthrene-d10b	7.455	188	776326	40.00	ppm	0.00
161) Chrysene-d12b	12.156	240	683340	40.00	ppm	0.00
163) Naphthalene-d8b	4.773	136	747002	40.00	ppm	0.00
165) Acenaphthene-d10b	6.018	164	447513	40.00	ppm	0.00
167) Naphthalene-d8c	4.773	136	747002	40.00	ppm	0.00
172) 1,4-Dichlorobenzene-d4c	3.838	152	196743	40.00	ppm	0.00
174) Chrysene-d12c	12.156	240	683340	40.00	ppm	0.01
176) Chrysene-d12d	12.156	240	683340	40.00	ppm	0.01
178) Naphthalene-d8d	4.773	136	747002	40.00	ppm	0.00
180) Chrysene-d12D	12.156	240	683340	40.00	ppm	-0.04
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
Target Compounds						Qvalue
162) Benzidine	9.661	184	1287825	85.64	ppm	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5844\
Data File : p129173.D
Acq On : 24 Apr 2019 4:35 pm
Operator : chriss2
Sample : ic5846-80
Misc : op13894,ep5846,1000,,,1,1
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Apr 25 07:57:20 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5844.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu Apr 25 07:54:09 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5844\
Data File : p129174.D
Acq On : 24 Apr 2019 5:02 pm
Operator : chriss2
Sample : icc5846-50
Misc : op13894,ep5846,1000,,,1,1
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Apr 25 07:55:08 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5844.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu Apr 25 07:54:09 2019
Response via : Initial Calibration

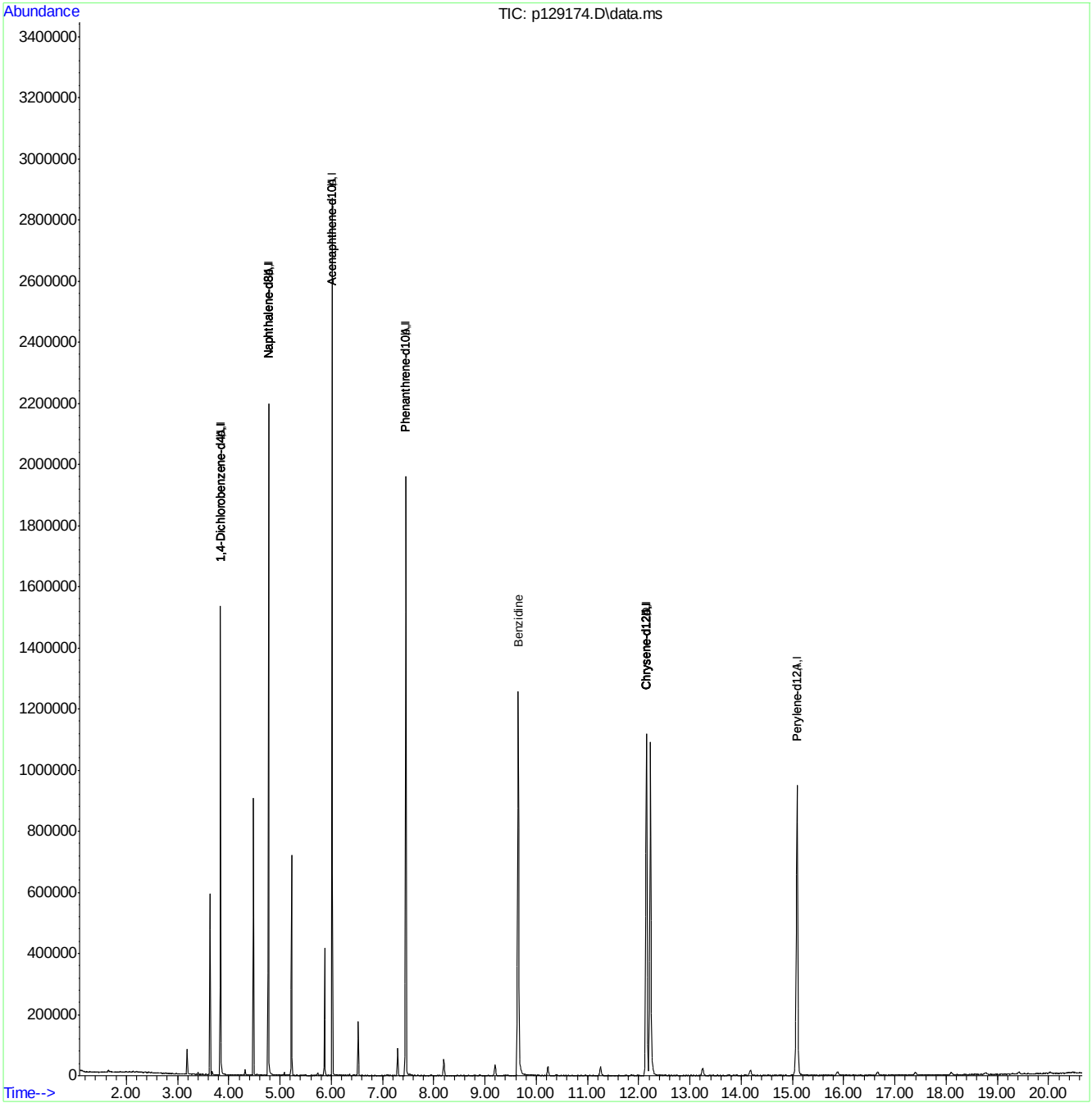
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.838	152	199758	40.00	ppm	0.00
24) Naphthalene-d8	4.773	136	746315	40.00	ppm	0.00
47) Acenaphthene-d10	6.018	164	439818	40.00	ppm	0.00
69) Phenanthrene-d10	7.455	188	755112	40.00	ppm	0.00
83) Chrysene-d12	12.151	240	652306	40.00	ppm	-0.01
91) Perylene-d12	15.094	264	690944	40.00	ppm	-0.01
101) 1,4-Dichlorobenzene-d4A	3.838	152	199758	40.00	ppm	0.00
111) Naphthalene-d8A	4.773	136	746315	40.00	ppm	0.00
120) Acenaphthene-d10A	6.018	164	439818	40.00	ppm	0.00
131) Phenanthrene-d10A	7.455	188	755112	40.00	ppm	0.00
146) Chrysene-d12A	12.151	240	652306	40.00	ppm	-0.01
153) Perylene-d12A	15.094	264	690944	40.00	ppm	-0.01
157) 1,4-Dichlorobenzene-d4b	3.838	152	199758	40.00	ppm	0.00
159) Phenanthrene-d10b	7.455	188	755112	40.00	ppm	0.00
161) Chrysene-d12b	12.151	240	652306	40.00	ppm	0.00
163) Naphthalene-d8b	4.773	136	746315	40.00	ppm	0.00
165) Acenaphthene-d10b	6.018	164	439818	40.00	ppm	0.00
167) Naphthalene-d8c	4.773	136	746315	40.00	ppm	0.00
172) 1,4-Dichlorobenzene-d4c	3.838	152	199758	40.00	ppm	0.00
174) Chrysene-d12c	12.151	240	652306	40.00	ppm	0.00
176) Chrysene-d12d	12.151	240	652306	40.00	ppm	0.00
178) Naphthalene-d8d	4.773	136	746315	40.00	ppm	0.00
180) Chrysene-d12D	12.151	240	652306	40.00	ppm	-0.05
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
Target Compounds						Qvalue
162) Benzidine	9.651	184	717717	50.00	ppm	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5844\
Data File : p129174.D
Acq On : 24 Apr 2019 5:02 pm
Operator : chriss2
Sample : icc5846-50
Misc : op13894,ep5846,1000,,,1,1
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Apr 25 07:55:08 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5844.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu Apr 25 07:54:09 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5844\
Data File : p129175.D
Acq On : 24 Apr 2019 5:29 pm
Operator : chriss2
Sample : ic5846-25
Misc : op13894,ep5846,1000,,,1,1
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Apr 25 07:58:40 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5844.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu Apr 25 07:54:09 2019
Response via : Initial Calibration

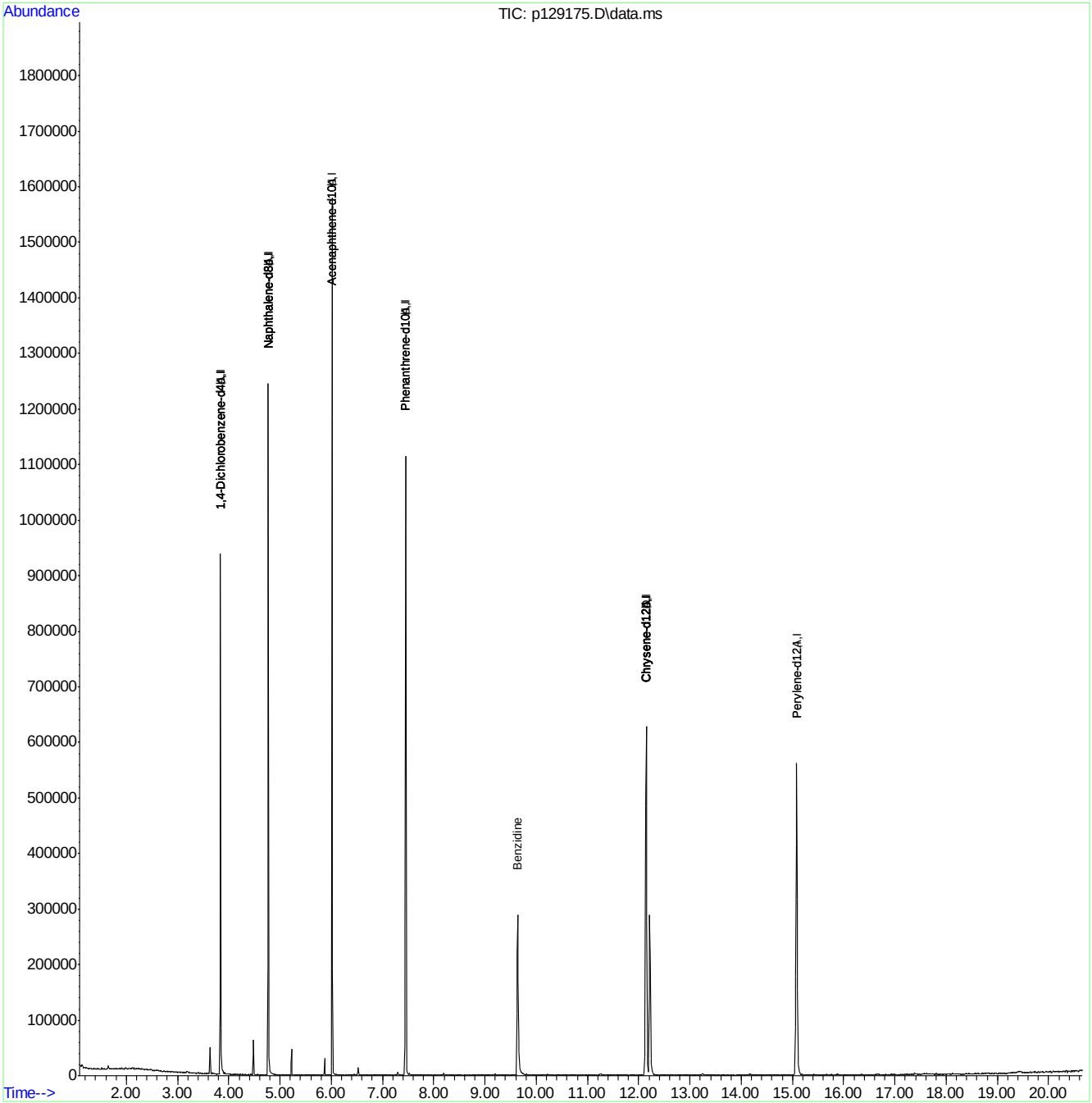
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.838	152	117597	40.00	ppm	0.00
24) Naphthalene-d8	4.773	136	435154	40.00	ppm	0.00
47) Acenaphthene-d10	6.013	164	254064	40.00	ppm	0.00
69) Phenanthrene-d10	7.450	188	430054	40.00	ppm	-0.01
83) Chrysene-d12	12.145	240	349157	40.00	ppm	-0.02
91) Perylene-d12	15.084	264	355744	40.00	ppm	-0.02
101) 1,4-Dichlorobenzene-d4A	3.838	152	117597	40.00	ppm	0.00
111) Naphthalene-d8A	4.773	136	435154	40.00	ppm	0.00
120) Acenaphthene-d10A	6.013	164	254064	40.00	ppm	0.00
131) Phenanthrene-d10A	7.450	188	430054	40.00	ppm	-0.01
146) Chrysene-d12A	12.145	240	349157	40.00	ppm	-0.02
153) Perylene-d12A	15.084	264	355744	40.00	ppm	-0.02
157) 1,4-Dichlorobenzene-d4b	3.838	152	117597	40.00	ppm	0.00
159) Phenanthrene-d10b	7.450	188	430054	40.00	ppm	0.00
161) Chrysene-d12b	12.145	240	349157	40.00	ppm	0.00
163) Naphthalene-d8b	4.773	136	435154	40.00	ppm	0.00
165) Acenaphthene-d10b	6.013	164	254064	40.00	ppm	0.00
167) Naphthalene-d8c	4.773	136	435154	40.00	ppm	0.00
172) 1,4-Dichlorobenzene-d4c	3.838	152	117597	40.00	ppm	0.00
174) Chrysene-d12c	12.145	240	349157	40.00	ppm	0.00
176) Chrysene-d12d	12.145	240	349157	40.00	ppm	0.00
178) Naphthalene-d8d	4.773	136	435154	40.00	ppm	0.00
180) Chrysene-d12D	12.145	240	349157	40.00	ppm	-0.05
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
Target Compounds						Qvalue
162) Benzidine	9.635	184	167053	21.74	ppm	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5844\
Data File : p129175.D
Acq On : 24 Apr 2019 5:29 pm
Operator : chriss2
Sample : ic5846-25
Misc : op13894,ep5846,1000,,,1,1
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Apr 25 07:58:40 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5844.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu Apr 25 07:54:09 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5844\
Data File : p129176.D
Acq On : 24 Apr 2019 5:56 pm
Operator : chriss2
Sample : ic5846-10
Misc : op13894,ep5846,1000,,,1,1
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Apr 25 07:59:34 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5844.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu Apr 25 07:54:09 2019
Response via : Initial Calibration

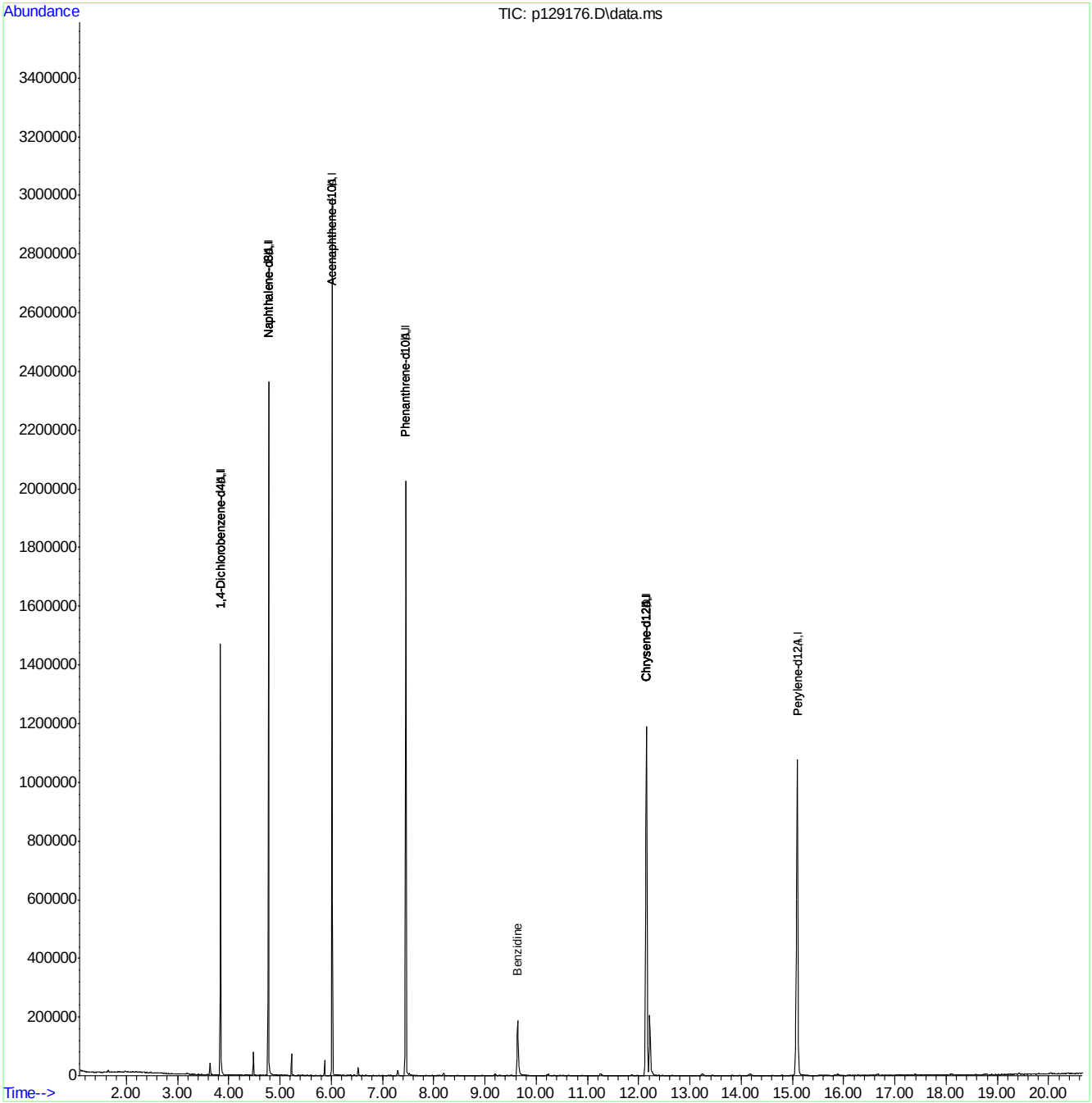
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.838	152	194019	40.00	ppm	0.00
24) Naphthalene-d8	4.773	136	742610	40.00	ppm	0.00
47) Acenaphthene-d10	6.018	164	456813	40.00	ppm	0.00
69) Phenanthrene-d10	7.455	188	793215	40.00	ppm	0.00
83) Chrysene-d12	12.151	240	692645	40.00	ppm	-0.01
91) Perylene-d12	15.100	264	761062	40.00	ppm	0.00
101) 1,4-Dichlorobenzene-d4A	3.838	152	194019	40.00	ppm	0.00
111) Naphthalene-d8A	4.773	136	742610	40.00	ppm	0.00
120) Acenaphthene-d10A	6.018	164	456813	40.00	ppm	0.00
131) Phenanthrene-d10A	7.455	188	793215	40.00	ppm	0.00
146) Chrysene-d12A	12.151	240	692645	40.00	ppm	-0.01
153) Perylene-d12A	15.100	264	761062	40.00	ppm	0.00
157) 1,4-Dichlorobenzene-d4b	3.838	152	194019	40.00	ppm	0.00
159) Phenanthrene-d10b	7.455	188	793215	40.00	ppm	0.00
161) Chrysene-d12b	12.151	240	692645	40.00	ppm	0.00
163) Naphthalene-d8b	4.773	136	742610	40.00	ppm	0.00
165) Acenaphthene-d10b	6.018	164	456813	40.00	ppm	0.00
167) Naphthalene-d8c	4.773	136	742610	40.00	ppm	0.00
172) 1,4-Dichlorobenzene-d4c	3.838	152	194019	40.00	ppm	0.00
174) Chrysene-d12c	12.151	240	692645	40.00	ppm	0.00
176) Chrysene-d12d	12.151	240	692645	40.00	ppm	0.00
178) Naphthalene-d8d	4.773	136	742610	40.00	ppm	0.00
180) Chrysene-d12D	12.151	240	692645	40.00	ppm	-0.05
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
Target Compounds						Qvalue
162) Benzidine	9.635	184	109903	7.21	ppm	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5844\
Data File : p129176.D
Acq On : 24 Apr 2019 5:56 pm
Operator : chriss2
Sample : ic5846-10
Misc : op13894,ep5846,1000,,,1,1
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Apr 25 07:59:34 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5844.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu Apr 25 07:54:09 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5844\
Data File : p129177.D
Acq On : 24 Apr 2019 6:23 pm
Operator : chriss2
Sample : ic5846-5
Misc : op13894,ep5846,1000,,,1,1
ALS Vial : 31 Sample Multiplier: 1

Quant Time: Apr 25 08:01:16 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5844.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu Apr 25 07:54:09 2019
Response via : Initial Calibration

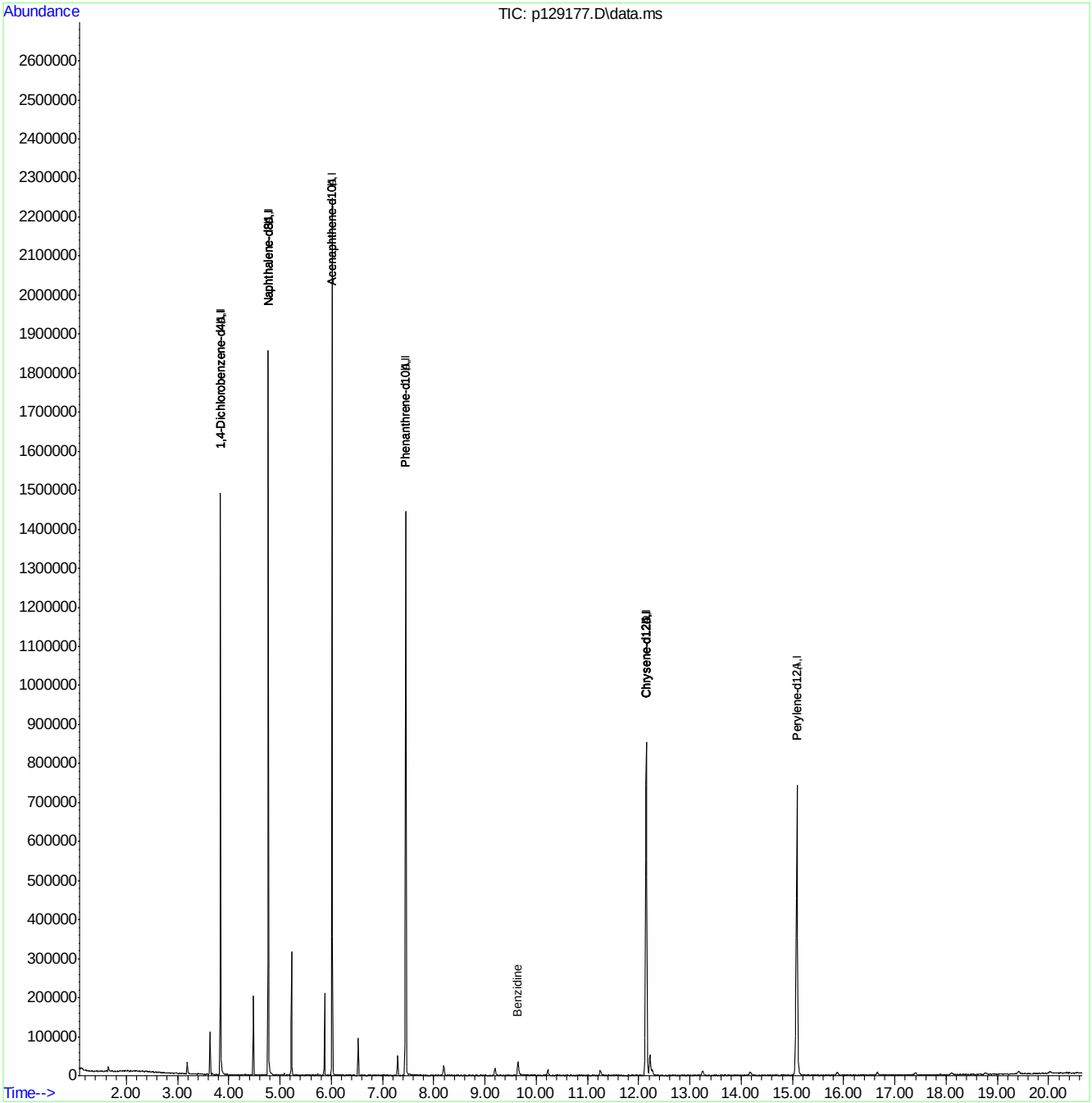
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.838	152	180802	40.00	ppm	0.00
24) Naphthalene-d8	4.773	136	655300	40.00	ppm	0.00
47) Acenaphthene-d10	6.018	164	357322	40.00	ppm	0.00
69) Phenanthrene-d10	7.450	188	581257	40.00	ppm	-0.01
83) Chrysene-d12	12.145	240	463542	40.00	ppm	-0.02
91) Perylene-d12	15.089	264	500839	40.00	ppm	-0.02
101) 1,4-Dichlorobenzene-d4A	3.838	152	180802	40.00	ppm	0.00
111) Naphthalene-d8A	4.773	136	655300	40.00	ppm	0.00
120) Acenaphthene-d10A	6.018	164	357322	40.00	ppm	0.00
131) Phenanthrene-d10A	7.450	188	581257	40.00	ppm	-0.01
146) Chrysene-d12A	12.145	240	463542	40.00	ppm	-0.02
153) Perylene-d12A	15.089	264	500839	40.00	ppm	-0.02
157) 1,4-Dichlorobenzene-d4b	3.838	152	180802	40.00	ppm	0.00
159) Phenanthrene-d10b	7.450	188	581257	40.00	ppm	0.00
161) Chrysene-d12b	12.145	240	463542	40.00	ppm	0.00
163) Naphthalene-d8b	4.773	136	655300	40.00	ppm	0.00
165) Acenaphthene-d10b	6.018	164	357322	40.00	ppm	0.00
167) Naphthalene-d8c	4.773	136	655300	40.00	ppm	0.00
172) 1,4-Dichlorobenzene-d4c	3.838	152	180802	40.00	ppm	0.00
174) Chrysene-d12c	12.145	240	463542	40.00	ppm	0.00
176) Chrysene-d12d	12.145	240	463542	40.00	ppm	0.00
178) Naphthalene-d8d	4.773	136	655300	40.00	ppm	0.00
180) Chrysene-d12D	12.145	240	463542	40.00	ppm	-0.05
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
Target Compounds						Qvalue
162) Benzidine	9.640	184	25229	2.47	ppm	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5844\
Data File : p129177.D
Acq On : 24 Apr 2019 6:23 pm
Operator : chriss2
Sample : ic5846-5
Misc : op13894,ep5846,1000,,,1,1
ALS Vial : 31 Sample Multiplier: 1

Quant Time: Apr 25 08:01:16 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5844.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu Apr 25 07:54:09 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5844\
Data File : p129178.D
Acq On : 24 Apr 2019 6:50 pm
Operator : chriss2
Sample : ic5846-2
Misc : op13894,ep5846,1000,,,1,1
ALS Vial : 32 Sample Multiplier: 1

Quant Time: Apr 25 08:02:33 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5844.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu Apr 25 07:54:09 2019
Response via : Initial Calibration

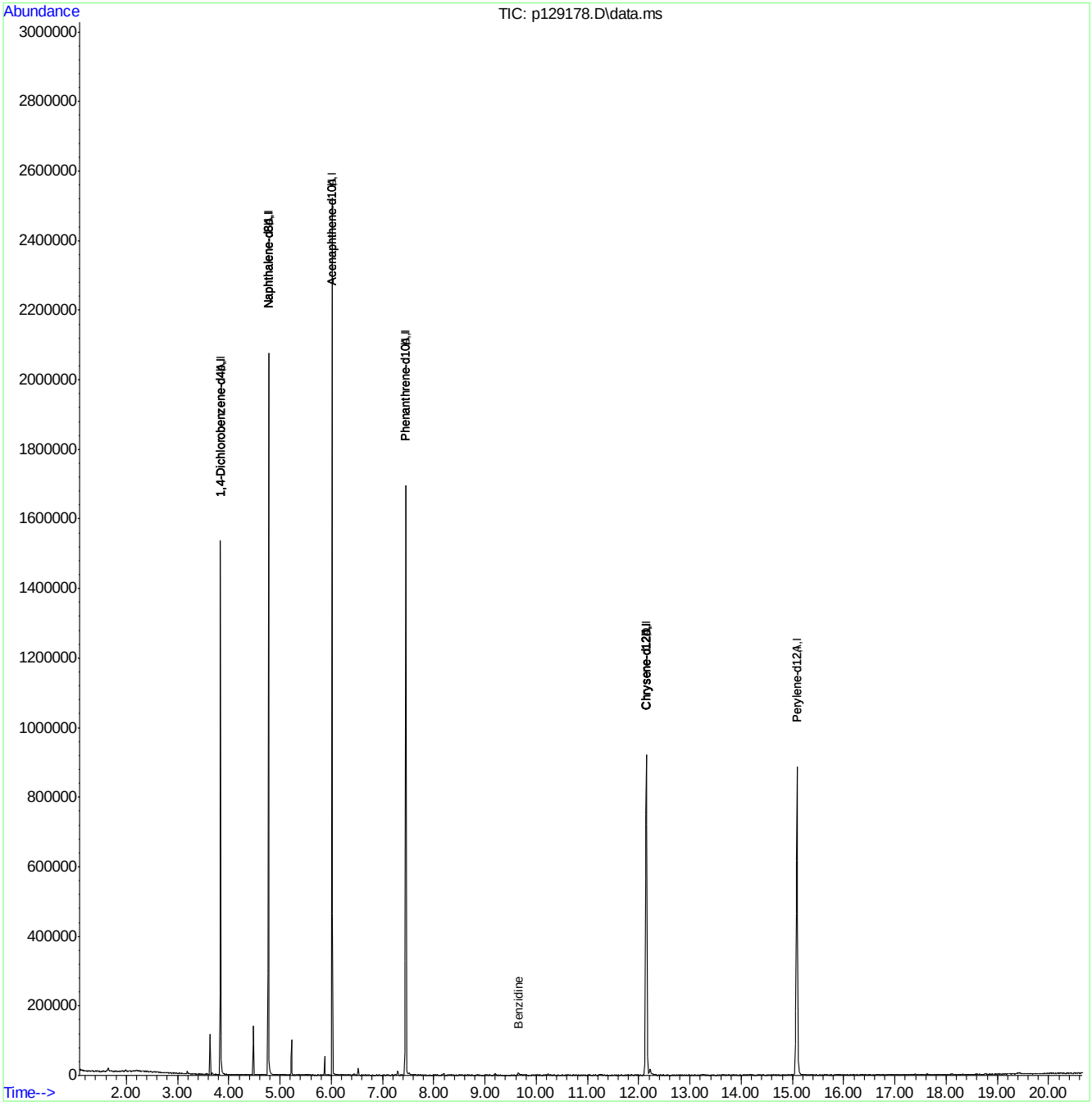
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.838	152	190990	40.00	ppm	0.00
24) Naphthalene-d8	4.773	136	689395	40.00	ppm	0.00
47) Acenaphthene-d10	6.018	164	399680	40.00	ppm	0.00
69) Phenanthrene-d10	7.455	188	661786	40.00	ppm	0.00
83) Chrysene-d12	12.151	240	532931	40.00	ppm	-0.01
91) Perylene-d12	15.089	264	560074	40.00	ppm	-0.02
101) 1,4-Dichlorobenzene-d4A	3.838	152	190990	40.00	ppm	0.00
111) Naphthalene-d8A	4.773	136	689395	40.00	ppm	0.00
120) Acenaphthene-d10A	6.018	164	399680	40.00	ppm	0.00
131) Phenanthrene-d10A	7.455	188	661786	40.00	ppm	0.00
146) Chrysene-d12A	12.151	240	532931	40.00	ppm	-0.01
153) Perylene-d12A	15.089	264	560074	40.00	ppm	-0.02
157) 1,4-Dichlorobenzene-d4b	3.838	152	190990	40.00	ppm	0.00
159) Phenanthrene-d10b	7.455	188	661786	40.00	ppm	0.00
161) Chrysene-d12b	12.151	240	532931	40.00	ppm	0.00
163) Naphthalene-d8b	4.773	136	689395	40.00	ppm	0.00
165) Acenaphthene-d10b	6.018	164	399680	40.00	ppm	0.00
167) Naphthalene-d8c	4.773	136	689395	40.00	ppm	0.00
172) 1,4-Dichlorobenzene-d4c	3.838	152	190990	40.00	ppm	0.00
174) Chrysene-d12c	12.151	240	532931	40.00	ppm	0.00
176) Chrysene-d12d	12.151	240	532931	40.00	ppm	0.00
178) Naphthalene-d8d	4.773	136	689395	40.00	ppm	0.00
180) Chrysene-d12D	12.151	240	532931	40.00	ppm	-0.05
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
Target Compounds						Qvalue
162) Benzidine	9.651	184	6692	0.57	ppm	# 67

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5844\
Data File : p129178.D
Acq On : 24 Apr 2019 6:50 pm
Operator : chriss2
Sample : ic5846-2
Misc : op13894,ep5846,1000,,,1,1
ALS Vial : 32 Sample Multiplier: 1

Quant Time: Apr 25 08:02:33 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5844.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu Apr 25 07:54:09 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5844\
Data File : p129180.D
Acq On : 24 Apr 2019 7:44 pm
Operator : chriss2
Sample : icv5846-50
Misc : op13894,ep5846,1000,,,1,1
ALS Vial : 34 Sample Multiplier: 1

Quant Time: Apr 25 08:19:26 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5844.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu Apr 25 08:18:41 2019
Response via : Initial Calibration

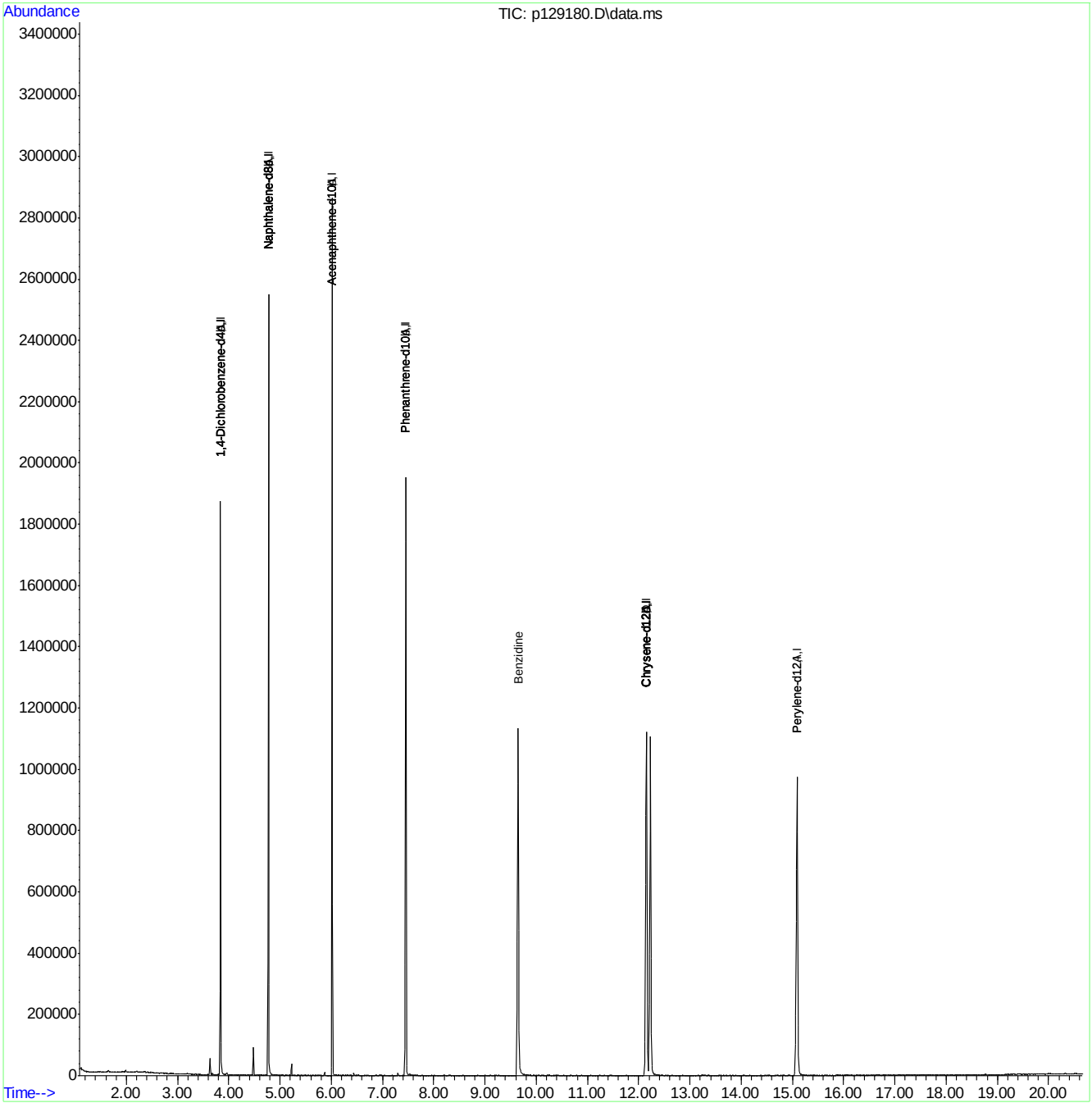
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.838	152	226660	40.00	ppm	0.00
24) Naphthalene-d8	4.773	136	820068	40.00	ppm	0.00
47) Acenaphthene-d10	6.018	164	441879	40.00	ppm	0.00
69) Phenanthrene-d10	7.455	188	776768	40.00	ppm	0.00
83) Chrysene-d12	12.151	240	686164	40.00	ppm	-0.01
91) Perylene-d12	15.094	264	682983	40.00	ppm	-0.01
101) 1,4-Dichlorobenzene-d4A	3.838	152	226660	40.00	ppm	0.00
111) Naphthalene-d8A	4.773	136	820068	40.00	ppm	0.00
120) Acenaphthene-d10A	6.018	164	441879	40.00	ppm	0.00
131) Phenanthrene-d10A	7.455	188	776768	40.00	ppm	0.00
146) Chrysene-d12A	12.151	240	686164	40.00	ppm	-0.01
153) Perylene-d12A	15.094	264	682983	40.00	ppm	-0.01
157) 1,4-Dichlorobenzene-d4b	3.838	152	226660	40.00	ppm	0.00
159) Phenanthrene-d10b	7.455	188	776768	40.00	ppm	0.00
161) Chrysene-d12b	12.151	240	686164	40.00	ppm	0.00
163) Naphthalene-d8b	4.773	136	820068	40.00	ppm	0.00
165) Acenaphthene-d10b	6.018	164	441879	40.00	ppm	0.00
167) Naphthalene-d8c	4.773	136	820068	40.00	ppm	0.00
172) 1,4-Dichlorobenzene-d4c	3.838	152	226660	40.00	ppm	0.00
174) Chrysene-d12c	12.151	240	686164	40.00	ppm	0.00
176) Chrysene-d12d	12.151	240	686164	40.00	ppm	0.00
178) Naphthalene-d8d	4.773	136	820068	40.00	ppm	0.00
180) Chrysene-d12D	12.151	240	686164	40.00	ppm	-0.05
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
Target Compounds						Qvalue
162) Benzidine	9.645	184	629582	44.14	ppm	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5844\
Data File : p129180.D
Acq On : 24 Apr 2019 7:44 pm
Operator : chriss2
Sample : icv5846-50
Misc : op13894,ep5846,1000,,,1,1
ALS Vial : 34 Sample Multiplier: 1

Quant Time: Apr 25 08:19:26 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5844.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Thu Apr 25 08:18:41 2019
Response via : Initial Calibration



Manual Integrations APPROVED (compounds with "m" flag)
Kristi Schollenberger 05/06/19 14:22

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5854\
Data File : p129335.D
Acq On : 6 May 2019 7:44 am
Operator : chriss2
Sample : cc5844-25
Misc : op13894,ep5854,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: May 06 09:58:59 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5844.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon May 06 09:56:01 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.780	152	169402	40.00	ppm	-0.06
24) Naphthalene-d8	4.715	136	579886	40.00	ppm	-0.06
47) Acenaphthene-d10	5.954	164	333115	40.00	ppm	-0.07
69) Phenanthrene-d10	7.359	188	612891	40.00	ppm	-0.11
83) Chrysene-d12	12.007	240	633139	40.00	ppm	-0.17
91) Perylene-d12	14.934	264	631167	40.00	ppm	-0.18
101) 1,4-Dichlorobenzene-d4b	3.780	152	169402	40.00	ppm	-0.06
103) Phenanthrene-d10b	7.359	188	612891	40.00	ppm	-0.09
105) Chrysene-d12b	12.007	240	633139	40.00	ppm	-0.14
107) Naphthalene-d8b	4.715	136	579886	40.00	ppm	-0.06
109) Acenaphthene-d10b	5.954	164	333115	40.00	ppm	-0.06
111) Chrysene-d12d	12.007	240	633139	40.00	ppm	-0.17
System Monitoring Compounds						
5) 2-Fluorophenol	2.829	112	148720	27.33	ppm	0.18
Spiked Amount 50.000			Recovery = 54.66%			
8) Phenol-d5	3.652	99	201684	29.18	ppm	0.00
Spiked Amount 50.000			Recovery = 58.36%			
25) Nitrobenzene-d5	4.202	82	193525	31.07	ppm	-0.06
Spiked Amount 50.000			Recovery = 62.14%			
51) 2-Fluorobiphenyl	5.495	172	343576	32.55	ppm	-0.06
Spiked Amount 50.000			Recovery = 65.10%			
73) 2,4,6-Tribromophenol	6.627	330	47696	23.39	ppm	-0.08
Spiked Amount 50.000			Recovery = 46.78%			
85) Terphenyl-d14	9.982	244	401724	28.00	ppm	-0.14
Spiked Amount 50.000			Recovery = 56.00%			
Target Compounds						Qvalue
2) 1,4-Dioxane	1.157	88	78741	28.67	ppm	97
3) Pyridine	1.370	79	191638	36.81	ppm	97
4) N-Nitrosodimethylamine	1.360	42	75310	27.19	ppm	100
9) Phenol	3.662	94	177814	23.61	ppm	93
10) Aniline	3.550	93	216982	60.12	ppm	98
11) bis(2-Chloroethyl)ether	3.604	93	139578	23.39	ppm	93
12) 2-Chlorophenol	3.668	128	137427	24.21	ppm	96
13) Decane	3.689	43	104901	25.07	ppm	91
14) 1,3-Dichlorobenzene	3.732	146	154660	23.17	ppm	98
15) 1,4-Dichlorobenzene	3.791	146	149814	23.16	ppm	98
16) Benzyl alcohol	3.935	108	88826	29.16	ppm	89
17) 1,2-Dichlorobenzene	3.903	146	149815	23.19	ppm	97
18) Acetophenone	4.095	105	193785	23.34	ppm	88
19) 2-Methylphenol	4.079	108	131544	24.97	ppm	100
20) 2,2'-oxybis(1-Chloropr...	4.015	121	37593	27.08	ppm #	82
21) 3&4-Methylphenol	4.207	108	133623	25.91	ppm	85
22) n-Nitroso-di-n-propyla...	4.111	70	93556	23.72	ppm	97
23) Hexachloroethane	4.148	201	64152	24.24	ppm	87
26) Nitrobenzene	4.218	77	211478	33.55	ppm	89
28) Isophorone	4.400	82	297090	27.45	ppm	97
29) 2-Nitrophenol	4.453	139	71645	25.10	ppm	82

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5854\
Data File : p129335.D
Acq On : 6 May 2019 7:44 am
Operator : chriss2
Sample : cc5844-25
Misc : op13894,ep5854,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: May 06 09:58:59 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5844.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon May 06 09:56:01 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
30) 2,4-Dimethylphenol	4.554	107	154985	30.59	ppm		98
32) bis(2-Chloroethoxy)met...	4.576	93	169944	27.11	ppm		99
33) 2,4-Dichlorophenol	4.683	162	120677	25.30	ppm		96
34) 2,6-Dichlorophenol	4.811	162	102783	22.07	ppm		99
36) 1,2,4-Trichlorobenzene	4.683	180	137795	25.70	ppm		98
38) Naphthalene	4.731	128	348960	25.20	ppm		100
39) 4-Chloroaniline	4.800	127	135658	25.16	ppm		92
41) Caprolactam	5.046	55	55997	26.76	ppm		99
42) Hexachlorobutadiene	4.832	225	76243	23.00	ppm		97
43) 4-Chloro-3-methylphenol	5.217	107	125471	25.01	ppm		89
44) 2-Methylnaphthalene	5.228	141	218219	27.49	ppm		94
45) 1-Methylnaphthalene	5.292	142	237320	23.08	ppm		97
48) Hexachlorocyclopentadiene	5.345	237	71952	28.26	ppm		97
49) 2,4,6-Trichlorophenol	5.463	196	88798	26.89	ppm		96
50) 2,4,5-Trichlorophenol	5.521	196	86992	26.60	ppm		98
52) 2-Chloronaphthalene	5.569	162	283176m	31.36	ppm		
53) Biphenyl	5.559	154	291482	25.96	ppm		99
54) 2-Nitroaniline	5.666	65	82001	27.55	ppm	#	69
55) Dimethylphthalate	5.794	163	285187	24.50	ppm		98
56) Acenaphthylene	5.853	152	366317	25.70	ppm		99
57) 2,6-Dinitrotoluene	5.831	165	60996	25.01	ppm		77
58) 3-Nitroaniline	5.965	138	64703	25.34	ppm		95
59) Acenaphthene	5.981	153	220587	25.18	ppm		96
60) 2,4-Dinitrophenol	6.040	184	24758	19.93	ppm		71
61) 4-Nitrophenol	6.211	109	56948	31.15	ppm		74
62) Dibenzofuran	6.109	168	340560	25.63	ppm		91
63) 2,4-Dinitrotoluene	6.125	165	79140	24.38	ppm		69
64) 2,3,4,6-Tetrachlorophenol	6.243	232	75279	26.26	ppm		89
65) Diethylphthalate	6.328	149	303052	25.58	ppm		97
66) Fluorene	6.392	166	269711	25.33	ppm		98
67) 4-Chlorophenyl-phenyle...	6.403	204	127366	24.19	ppm		87
68) 4-Nitroaniline	6.462	138	64454	26.42	ppm		84
70) 4,6-Dinitro-2-methylph...	6.472	198	43019	18.73	ppm	#	63
71) n-Nitrosodiphenylamine	6.520	169	226126	28.47	ppm		98
72) 1,2-Diphenylhydrazine	6.547	77	356183	28.69	ppm		91
74) 4-Bromophenyl-phenylether	6.873	248	83509	22.41	ppm		94
75) Hexachlorobenzene	6.926	284	91025	21.42	ppm		92
76) Pentachlorophenol	7.194	266	41132	18.22	ppm		96
77) Phenanthrene	7.386	178	379942	23.79	ppm		99
78) Anthracene	7.450	178	410995	24.63	ppm		99
79) Carbazole	7.712	167	387694	24.06	ppm		99
80) Di-n-butylphthalate	8.310	149	547526	23.94	ppm		99
81) Fluoranthene	9.165	202	467112	23.71	ppm		98
82) Octadecane	7.343	57	157295	25.17	ppm		95
84) Pyrene	9.544	202	480228	21.91	ppm		98
86) Butylbenzylphthalate	11.115	149	247844	21.98	ppm		92
87) Benzo[a]anthracene	11.991	228	416865	19.97	ppm		100
88) 3,3'-Dichlorobenzidine	12.087	252	149492	21.78	ppm		98
89) Chrysene	12.055	228	383233	20.85	ppm		98
90) bis(2-Ethylhexyl)phtha...	12.509	149	341536	22.65	ppm		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5854\
Data File : p129335.D
Acq On : 6 May 2019 7:44 am
Operator : chriss2
Sample : cc5844-25
Misc : op13894,ep5854,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: May 06 09:58:59 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5844.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon May 06 09:56:01 2019
Response via : Initial Calibration

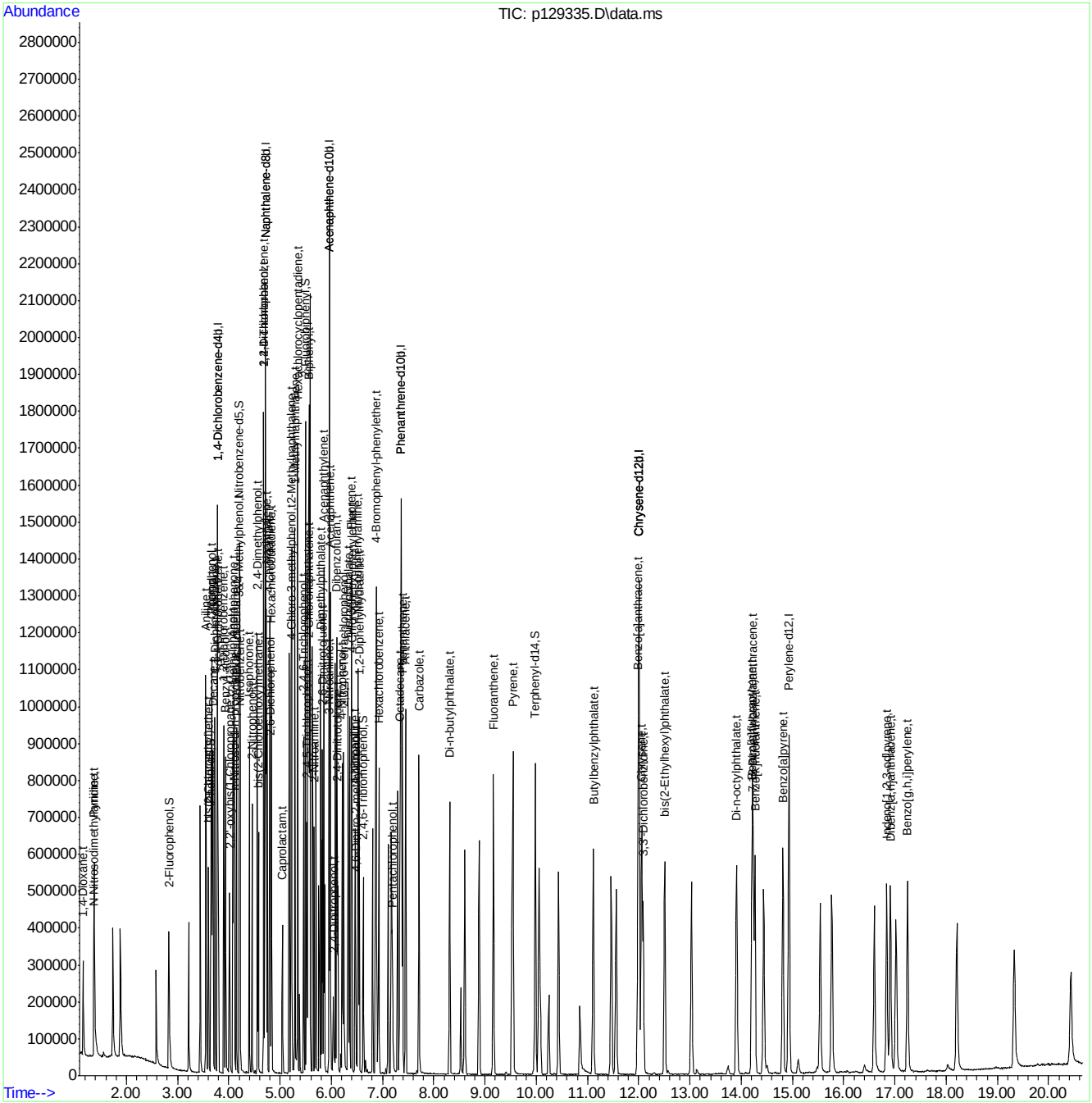
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
92) Di-n-octylphthalate	13.909	149	593593	24.33	ppm	98
93) Benzo[b]fluoranthene	14.213	252	425679	22.13	ppm	96
94) Benzo[k]fluoranthene	14.272	252	387295	23.93	ppm	98
95) Benzo[a]pyrene	14.817	252	400402	24.61	ppm	98
96) Indeno[1,2,3-cd]pyrene	16.842	276	371239	24.96	ppm	92
98) Dibenz[a,h]anthracene	16.911	278	352040	23.22	ppm	97
99) 7,12-Dimethylbenz(a)an...	14.235	256	191564	22.89	ppm	99
100) Benzo[g,h,i]perylene	17.248	276	384684	25.66	ppm	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5854\
Data File : p129335.D
Acq On : 6 May 2019 7:44 am
Operator : chriss2
Sample : cc5844-25
Misc : op13894,ep5854,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: May 06 09:58:59 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5844.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon May 06 09:56:01 2019
Response via : Initial Calibration



Manual Integration Approval Summary

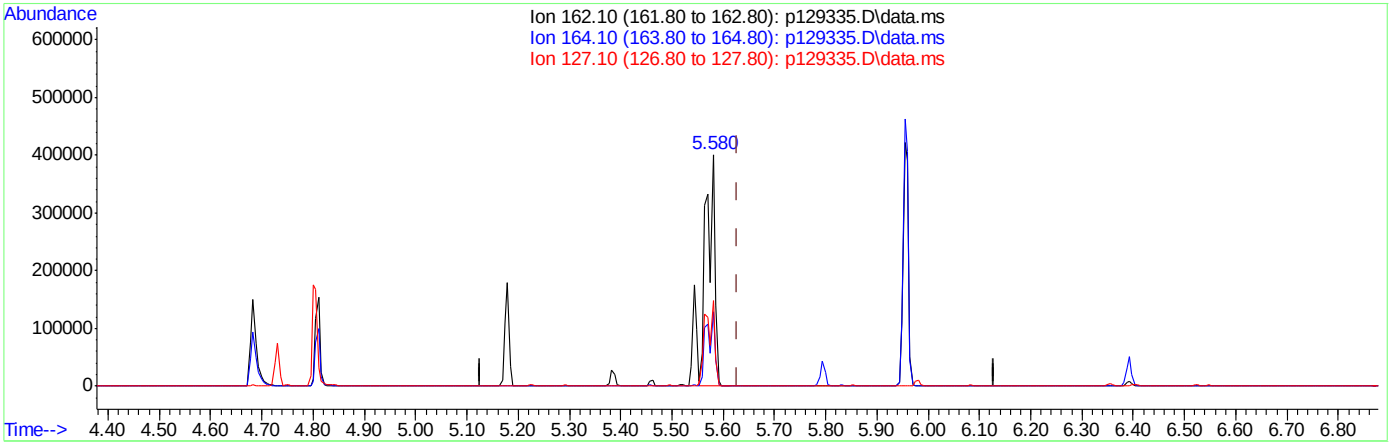
Sample Number:	EP5854-CC5844	**Method:**	SW846 8270D
Lab FileID:	P129335.D	**Analyst approved:**	05/06/19 10:18 Ying Li
Injection Time:	05/06/19 07:44	**Supervisor approved:**	05/06/19 14:22 Kristi Schollenberger

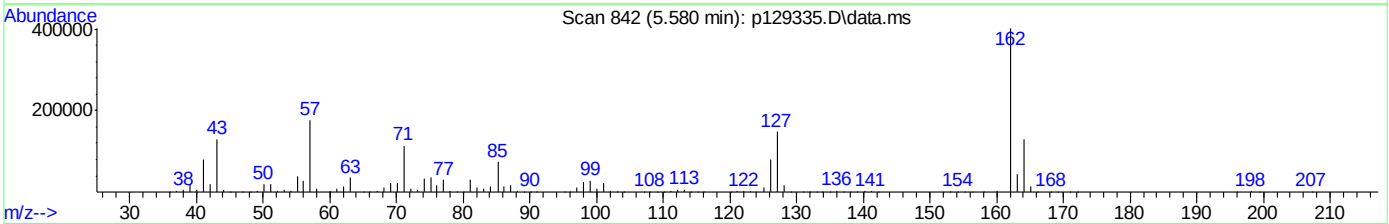
Parameter	CAS	Sig#	R.T. (min.)	Reason
2-Chloronaphthalene	91-58-7		5.57	Overlapping peak

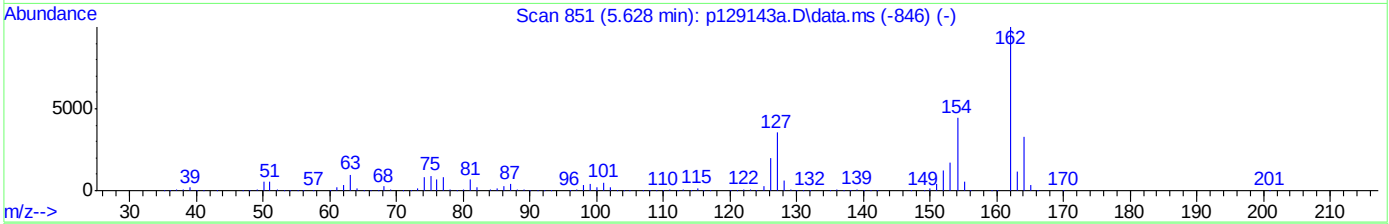
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EP5854\
Data File : p129335.D
Acq On : 6 May 2019 7:44 am
Operator : chriss2
Sample : cc5844-25
Misc : op13894,ep5854,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: May 06 09:56:06 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5844.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon May 06 09:56:01 2019
Response via : Initial Calibration







TIC: p129335.D\data.ms

(52) 2-Chloronaphthalene (t)

5.580min (-0.048) 50.76ppm

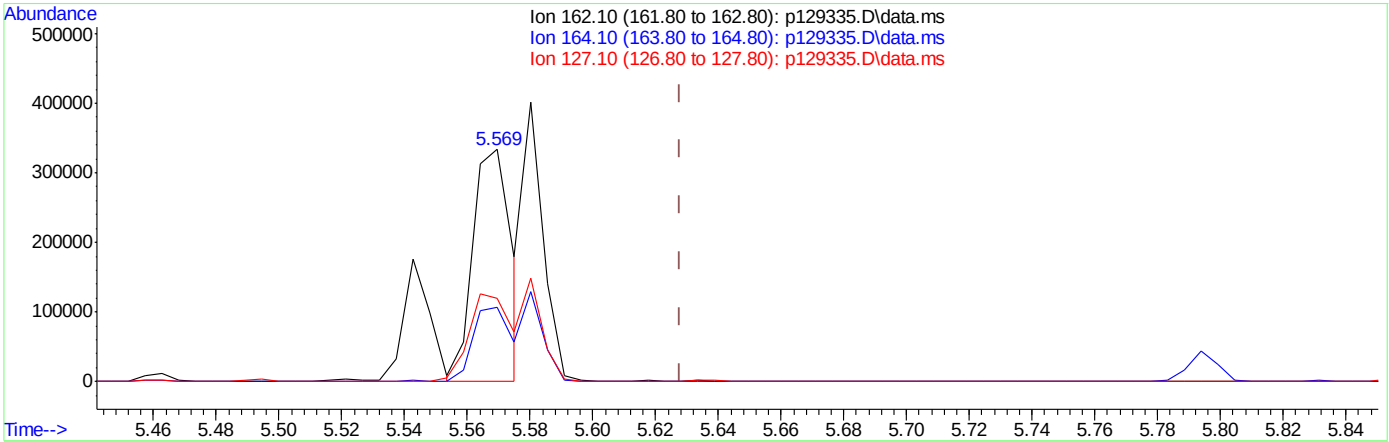
response 458334

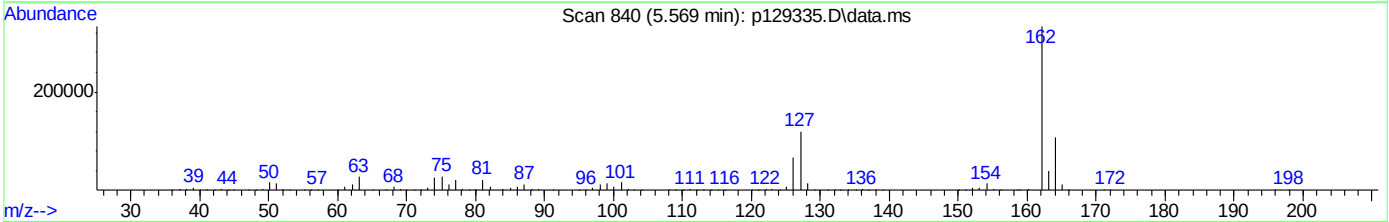
Ion	Exp%	Act%
162.10	100	100
164.10	32.80	32.44
127.10	35.60	36.57
0.00	0.00	0.00

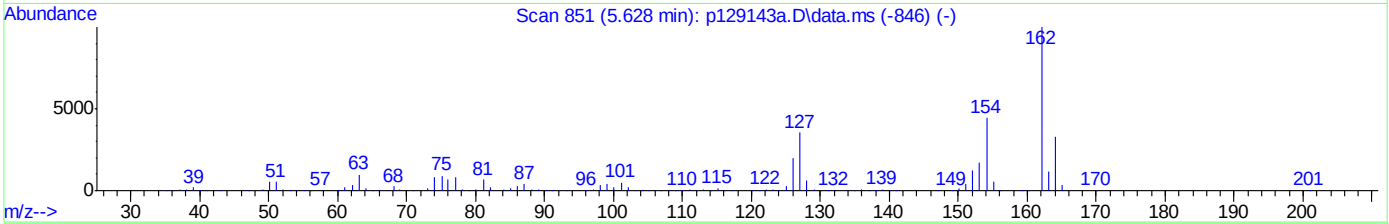
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\EP5854\
Data File : p129335.D
Acq On : 6 May 2019 7:44 am
Operator : chriss2
Sample : cc5844-25
Misc : op13894,ep5854,1000,,,1,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: May 06 09:56:06 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5844.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Mon May 06 09:56:01 2019
Response via : Initial Calibration







TIC: p129335.D\data.ms

(52) 2-Chloronaphthalene (t)

5.569min (-0.059) 31.36ppm m

response 283176

Ion	Exp%	Act%
162.10	100	100
164.10	32.80	32.05
127.10	35.60	35.66
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5854\
Data File : p129336.D
Acq On : 6 May 2019 8:11 am
Operator : chriss2
Sample : cc5845-25
Misc : op13894,ep5854,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: May 06 10:01:06 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5844.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Apr 26 12:50:52 2019
Response via : Initial Calibration

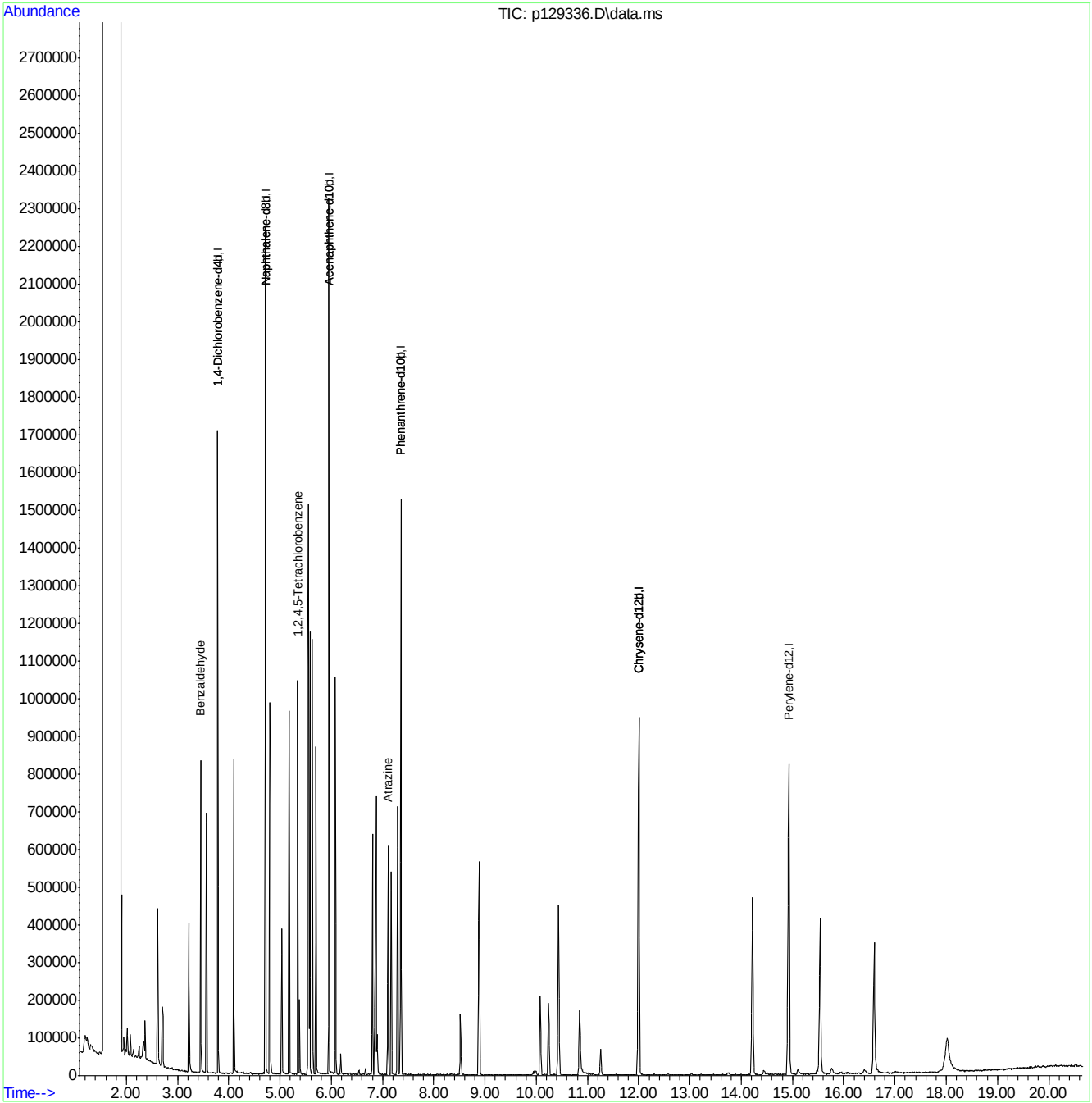
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.785	152	170173	40.00	ppm	-0.05
24) Naphthalene-d8	4.714	136	605115	40.00	ppm	-0.06
47) Acenaphthene-d10	5.954	164	323738	40.00	ppm	-0.07
69) Phenanthrene-d10	7.359	188	580547	40.00	ppm	-0.11
83) Chrysene-d12	12.001	240	554870	40.00	ppm	-0.17
91) Perylene-d12	14.929	264	542078	40.00	ppm	-0.18
101) 1,4-Dichlorobenzene-d4b	3.785	152	170173	40.00	ppm	-0.05
103) Phenanthrene-d10b	7.359	188	580547	40.00	ppm	-0.09
105) Chrysene-d12b	12.001	240	554870	40.00	ppm	-0.14
107) Naphthalene-d8b	4.714	136	605115	40.00	ppm	-0.06
109) Acenaphthene-d10b	5.954	164	323738	40.00	ppm	-0.06
111) Chrysene-d12d	12.001	240	554870	40.00	ppm	-0.17
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
Target Compounds						Qvalue
102) Benzaldehyde	3.448	105	117286	26.40	ppm	97
104) Atrazine	7.108	200	71884	23.03	ppm	91
110) 1,2,4,5-Tetrachloroben...	5.345	216	129006	27.09	ppm	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5854\
Data File : p129336.D
Acq On : 6 May 2019 8:11 am
Operator : chriss2
Sample : cc5845-25
Misc : op13894,ep5854,1000,,,1,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: May 06 10:01:06 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5844.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Apr 26 12:50:52 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5854\
Data File : p129337.D
Acq On : 6 May 2019 8:38 am
Operator : chriss2
Sample : cc5846-25
Misc : op13894,ep5854,1000,,,1,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: May 06 10:10:31 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5844.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Apr 26 12:50:52 2019
Response via : Initial Calibration

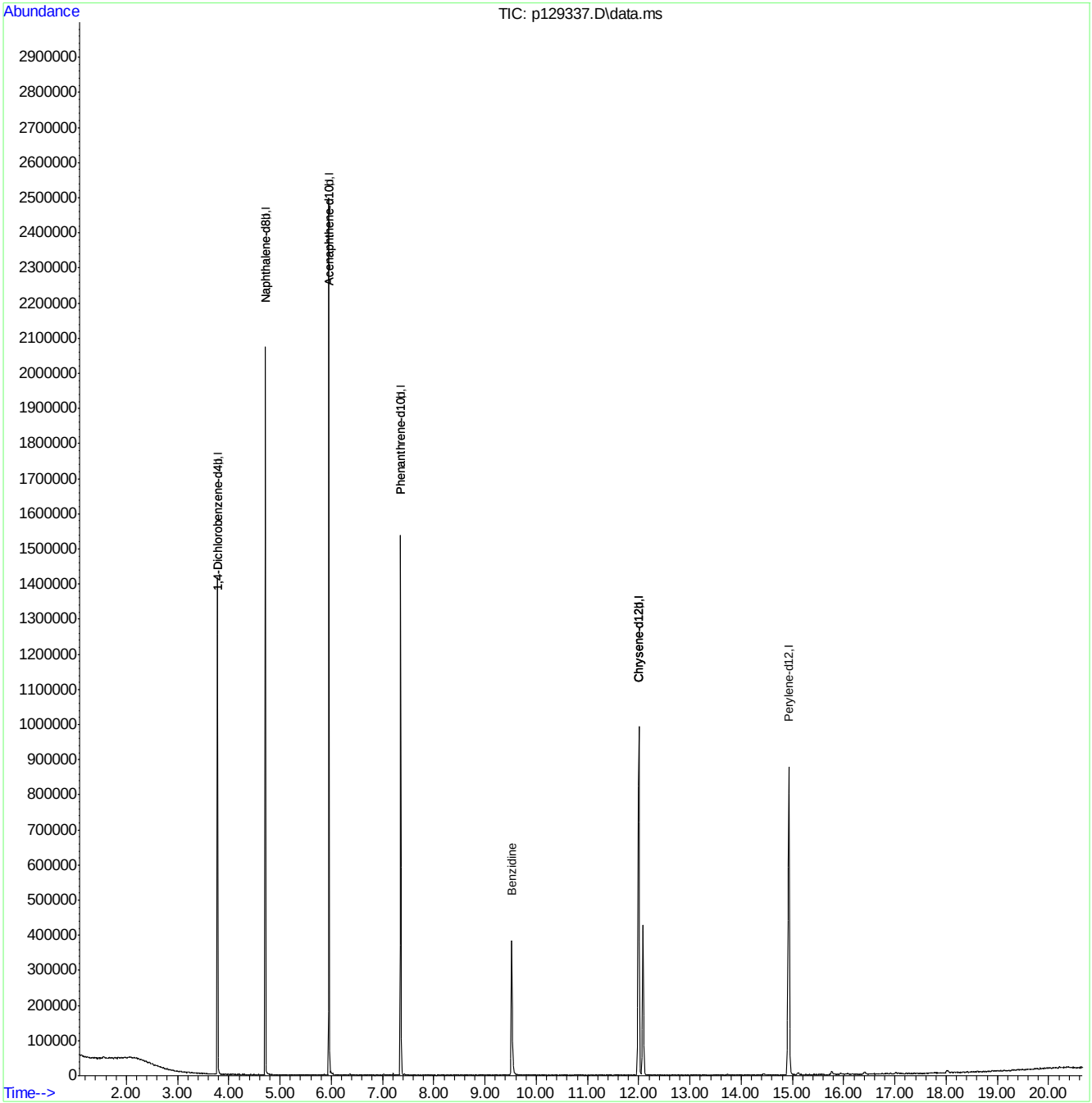
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	3.780	152	171282	40.00	ppm	-0.06
24) Naphthalene-d8	4.715	136	606254	40.00	ppm	-0.06
47) Acenaphthene-d10	5.954	164	342339	40.00	ppm	-0.07
69) Phenanthrene-d10	7.359	188	617417	40.00	ppm	-0.11
83) Chrysene-d12	12.001	240	581372	40.00	ppm	-0.17
91) Perylene-d12	14.929	264	581047	40.00	ppm	-0.18
101) 1,4-Dichlorobenzene-d4b	3.780	152	171282	40.00	ppm	-0.06
103) Phenanthrene-d10b	7.359	188	617417	40.00	ppm	-0.09
105) Chrysene-d12b	12.001	240	581372	40.00	ppm	-0.14
107) Naphthalene-d8b	4.715	136	606254	40.00	ppm	-0.06
109) Acenaphthene-d10b	5.954	164	342339	40.00	ppm	-0.06
111) Chrysene-d12d	12.001	240	581372	40.00	ppm	-0.17
System Monitoring Compounds						
5) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
8) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
25) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
51) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
73) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
85) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000			Recovery =	0.00%		
Target Compounds						Qvalue
106) Benzidine	9.523	184	237472	19.65	ppm	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\EP5854\
Data File : p129337.D
Acq On : 6 May 2019 8:38 am
Operator : chriss2
Sample : cc5846-25
Misc : op13894,ep5854,1000,,,1,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: May 06 10:10:31 2019
Quant Method : C:\MSDCHEM\1\METHODS\MP5844.M
Quant Title : Semi Volatile Extractables by GC/MS
QLast Update : Fri Apr 26 12:50:52 2019
Response via : Initial Calibration



GCMS Semi Volatile Run Log

Instrument ID: GCMSF

Standard / Reagent	Lot #	Concentration	Standard / Reagent	Lot #	Concentration
DFTPP	sv182535-77	50ppm	ISTD	A0144955	4000ppm
bna	sv18-2535-96a	100ppm	DCM/fisher	189496	---
bna	sv18-2535-96b	80ppm	bna	sv18-2535-96i	1ppm
bna	sv18-2535-96c	50ppm			
bna	sv18-2535-96d	25ppm			
bna	sv18-2535-96e	10ppm			
bna	sv18-2535-96g	5ppm			
bna	sv18-2535-96h	2ppm			

Column	i5silms30mx.25mmx.25u	Initial Calib Date	3-19-19	Sequence Loaded By:	kristis	Quant Method/s	MF7873
Batch ID	EF7873	Analysis Date	3/26/2019	Data Processed By:	kristis	Injection Volume	1uL
Approved By:	NINAP	Approved Date	28/2019 5:56:42 F				

☑ SW846 8270 D
☑ EPA 625

Data File		Sample ID	OP Batch ID	Test	MTX	ALS	Dil	L+	Surr OK?	IS OK?	Data OK?	Comment
F	183413	DFTPP				1					ok	11:35am
F	183414	IC7873-1				2					ok	
F	183415	IC7873-100				3					ok	
F	183416	IC7873-2				4					ok	
F	183417	IC7873-80				5					ok	
F	183418	IC7873-5				6					ok	
F	183419	IC7873-50				7					ok	
F	183420	IC7873-10				8					ok	
F	183421	IC7873-25				9					not using	bad injection
F	183422	IC7873-25				9					ok	

GCMS Semi Volatile Run Log

Data File		Sample ID	OP Batch ID	Test	MTX	ALS	Dil	L+	Surr OK?	IS OK?	Data OK?	Comment
F	183423	ICV7873-50		BN1		10					not using	op192336-51 bias low-reinject
F	183424	ICV7873-50		BN2		11					ok	op182160-30
F	183425	ICV7873-50		ANILINE		12					not using	op192336-39 bias low-reinject
F	183426	ICV7873-50		ABN SURR		13					not using	op182160-194 bias low-reinject
F	183427	ICV7873-50		ACID		14					not using	op192336-47 bias low-reinject
F	183428	ICV7873-50		BZD 3rd		15					ok	sv182490-113 6:38pm

GCMS Semi Volatile Run Log

Instrument ID: GCMSF

Standard / Reagent	Lot #	Concentration	Standard / Reagent	Lot #	Concentration
DFTPP	sv182535-77	50ppm	ISTD	A0144955	4000ppm
			DCM/fisher	189496	---

Column	i5silms30mx.25mmx.25u	Initial Calib Date	3-19-19	Sequence Loaded By:	christc2	Quant Method/s	MF7873
Batch ID	EF7874	Analysis Date	3/25/2019	Data Processed By:	kristis	Injection Volume	1uL
Approved By:	NINAP	Approved Date	28/2019 5:56:59 F				

☑ SW846 8270 D
☑ EPA 625

Data File		Sample ID	OP Batch ID	Test	MTX	ALS	Dil	L+	Surr OK?	IS OK?	Data OK?	Comment
F	183429	DFTPP				1					ok	7:01pm
F	183430	IC7874-100		tcl42		16					ok	sv182535-50a
F	183431	IC7874-80				17					ok	sv182535-50b
F	183432	ICC7874-50				18					ok	sv182535-50c
F	183433	IC7874-25				19					ok	sv182535-50d
F	183434	IC7874-10				20					ok	sv182535-50e
F	183435	IC7874-5				21					ok	sv182535-50g
F	183436	IC7874-2				22					ok	sv182535-50h
F	183437	IC7874-1				23					ok	sv182535-50i
F	183438	ICV7874-50		ap9 mix 2		24					ok	sv182490-65

GCMS Semi Volatile Run Log

Data File		Sample ID	OP Batch ID	Test	MTX	A L S	Dil	L+	Surr OK?	IS OK?	Data OK?	Comment
F	183439	ICV7874-50		hq		25					ok	sv182490-103b 11:13pm

GCMS Semi Volatile Run Log

Instrument ID: GCMSF

Standard / Reagent	Lot #	Concentration	Standard / Reagent	Lot #	Concentration
DFTPP	sv182535-77	50ppm	ISTD	A0144955	4000ppm
			DCM/fisher	189496	---

Column	i5silms30mx.25mmx.25u	Initial Calib Date	3-19-19	Sequence Loaded By:	christc2	Quant Method/s	MF7873
Batch ID	EF7875	Analysis Date	3/25/2019	Data Processed By:	kristis	Injection Volume	1uL
Approved By:	NINAP	Approved Date	28/2019 5:57:17 F				

☑ SW846 8270 D
☑ EPA 625

Data File		Sample ID	OP Batch ID	Test	MTX	ALS	Dil	L+	Surr OK?	IS OK?	Data OK?	Comment
F	183440	DFTPP				1					ok	11:36pm
F	183441	IC7875-100		bzd		26					ok	sv182535-70a
F	183442	IC7875-80				27					ok	sv182535-70b
F	183443	ICC7875-50				28					ok	sv182535-70c
F	183444	IC7875-25				29					ok	sv182535-70d
F	183445	IC7875-10				30					ok	sv182535-106
F	183446	IC7875-5				31					ok	sv182535-70g
F	183447	IC7875-2				32					ok	sv182535-70h
F	183448	IC7875-1				33					not needed	sv182535-70i
F	183449	ICV7875-50		bzd 3rd		34					ok	sv182490-113 3:20am

GCMS Semi Volatile Run Log

Instrument ID: GCMSF

Standard / Reagent	Lot #	Concentration	Standard / Reagent	Lot #	Concentration
DFTPP	sv182535-77	50ppm	ISTD	A0144955	4000ppm
			DCM/fisher	189496	---

Column	i5silms30mx.25mmx.25u	Initial Calib Date	3-19-19	Sequence Loaded By:	christc2	Quant Method/s	MF7873
Batch ID	EF7876	Analysis Date	3/26/2019	Data Processed By:	kristis	Injection Volume	1uL
Approved By:	NINAP	Approved Date	28/2019 5:57:32 F				

☑ SW846 8270 D
☑ EPA 625

Data File		Sample ID	OP Batch ID	Test	MTX	ALS	Dil	L+	Surr OK?	IS OK?	Data OK?	Comment
F	183450	DFTPP				1					not using	127 high, rr
F	183451	DFTPP				1					ok	4:44pm
F	183452	ICV7873-50		bn1		2					not using	op192336-51 bias low- run third source
F	183453	ICV7873-50		bn2		3					not using	op182160-30 bias low-run third source
F	183454	ICV7873-50		aniline		4					not using	op192336-39 bias low-run third source
F	183455	ICV7873-50		abn surr		5					ok	op182231-194
F	183456	ICV7873-50		acid		6					ok	op192336-47 6:42pm

GCMS Semi Volatile Run Log

Instrument ID: GCMSF

Standard / Reagent	Lot #	Concentration	Standard / Reagent	Lot #	Concentration
DFTPP	sv182535-77	50ppm	ISTD	A0144955	4000ppm
			DCM/fisher	190729	---

Column	i5silms30mx.25mmx.25u	Initial Calib Date	3-19-19	Sequence Loaded By:	angelar	Quant Method/s	MF7873
Batch ID	EF7877	Analysis Date	3/27/2019	Data Processed By:	kristis	Injection Volume	1uL
Approved By:	NINAP	Approved Date	28/2019 5:57:46 F				

☑ SW846 8270 D
☑ EPA 625

Data File		Sample ID	OP Batch ID	Test	MTX	A L S	Dil	L+	Surr OK?	IS OK?	Data OK?	Comment
F	183457	DFTPP				1					ok	11:19am
F	183458	ICV7873-50		Megamix		2					ok	sv182535-73
F	183459	ICV7873-50		AP9 Mix #2		3					ok	sv182490-78 12:13pm

GCMS Semi Volatile Run Log

Instrument ID: GCMSF

Standard / Reagent	Lot #	Concentration	Standard / Reagent	Lot #	Concentration
DFTPP	sv182535-77	50ppm	ISTD	CL13166	4000ppm
bna 625.1	sv192573-29a	50ppm	DCM/fisher	191109	---
tcl42	sv182535-120c	50ppm			
bzd	sv182535-71c	50ppm			

Column	i5silms30mx.25mmx.25u	Initial Calib Date	3-19-19	Sequence Loaded By:	angelar	Quant Method/s	MF7873
Batch ID	EF7923	Analysis Date	5/6/2019	Data Processed By:	DP/michellc	Injection Volume	1uL
Approved By:	KRISTIS	Approved Date	10/2019 6:26:11 F				

☑ SW846 8270 D
☐ EPA 625

Data File		Sample ID	OP Batch ID	Test	MTX	ALS	Dil	L+	Surr OK?	IS OK?	Data OK?	Comment
F	184451	DFTPP				1					ok	9:19am
F	184452	CC7873-50		bna 625.1		2					not using	not good for 625, run 8270 checks
F	184453	CC7873-50		bna		2					ok	sv182535-121d
F	184454	CC7874-50		tcl42		3					ok	
F	184455	CC7875-50		bzd		4					ok	
F	184456	OP19637-MB2	OP19637	B8270HQ	AQ	5			x	x	ok	
F	184457	JC80787-1E	OP19637	B8270HQ	AQ	6			x	x	ok/rx	BS4 high rec
F	184458	JC80787-1E	OP19637	B8270HQ	AQ	7			x	x	ok/rx	BS5 high rec
F	184459	JC80787-1E	OP19637	B8270HQ	AQ	8			x	x	ok/rx	BS6 high rec
	184460	OP20153-MB1	OP20153	AB8270STD,B8270PAH,B8270SL	SO	9			x	x	ok	

GCMS Semi Volatile Run Log

	Data File	Sample ID	OP Batch ID	Test	MTX	ALS	Dil	L+	Surr OK?	IS OK?	Data OK?	Comment
	184461	OP20158-MB	OP20158	AB8270STD,AB8270TCL20+,B8270PAH	SO	10		X	x	x	ok	
F	184462	JC87355-4	OP20158	AB8270TCL20+	SO	11		X	x	x	ok	
F	184463	JC87355-5	OP20158	AB8270TCL20+	SO	12		X	X	X	ok	
F	184464	JC87414-10	OP20158	AB8270PPTCL20+	SO	13		X	Y	Y	OK	
F	184465	JC87414-5	OP20158	AB8270PPTCL20+	SO	14		X	Y	Y	OK	
F	184466	JC87414-15	OP20158	AB8270PPTCL20+	SO	15		X	Y	Y	OK	
F	184467	JC87363-3	OP20158	AB8270STD	SO	16			Y	Y	OK	
F	184468	JC87266-3	OP20153	AB8270STD	SO	17			Y	Y	OK	443 PM

GCMS Semi Volatile Run Log

Instrument ID: GCMSM

Standard / Reagent	Lot #	Concentration	Standard / Reagent	Lot #	Concentration
DFTPP	sv182535-77	50ppm	ISTD	A0144955	4000ppm
			DCM/fisher	190729	

Column	i5silms30mx.25mmx.25u	Initial Calib Date	4/12/2019	Sequence Loaded By:	christc2	Quant Method/s	MM6556
Batch ID	EM6556	Analysis Date	4/12/2019	Data Processed By:	ying li	Injection Volume	1uL
Approved By:	KRISTIS	Approved Date	24/2019 5:48:51 F				

☑ SW846 8270 D
☑ EPA 625

Data File		Sample ID	OP Batch ID	Test	MTX	ALS	Dil	L+	Surr OK?	IS OK?	Data OK?	Comment
M	153397	DFTPP				1						
M	153398	DFTPP				1						
M	153399	DFTPP				1						
M	153400	DFTPP				1					ok	4:58pm
M	153401	IC6556-100				2					ok	sv182535-96a
M	153402	IC6556-80				3					ok	sv182535-96b
M	153403	ICC6556-50				4					ok	sv182535-96c
M	153404	IC6556-25				5					ok	sv182535-96d
M	153405	IC6556-10				6					ok	sv182535-96e
M	153406	IC6556-5				7					ok	sv182535-96g

GCMS Semi Volatile Run Log

Data File		Sample ID	OP Batch ID	Test	MTX	ALS	Dil	L+	Surr OK?	IS OK?	Data OK?	Comment
M	153407	IC6556-2				8					ok	sv182535-96h
M	153408	IC6556-1				9					ok	sv182535-96i
M	153409	ICV6556-50		bn1		10					ok	op182336-51
M	153410	ICV6556-50		bn2		11					ok	op182160-30
M	153411	ICV6556-50		acid		12					ok	op192336-47
M	153412	ICV6556-50		aniline		13					ng	op192336-72 10#/68# high
M	153413	ICV6556-50		abn surr		14					ok	op192336-76
M	153414	ICV6556-50		bzd 3rd		15					ok	sv182490-113 12:06am

GCMS Semi Volatile Run Log

Instrument ID: GCMSM

Standard / Reagent	Lot #	Concentration	Standard / Reagent	Lot #	Concentration
DFTPP	sv182535-77	50ppm	ISTD	A0144955	4000ppm
			DCM/fisher	190729	

Column	i5silms30mx.25mmx.25u	Initial Calib Date	4/12/2019	Sequence Loaded By:	chriss2	Quant Method/s	MM6556
Batch ID	EM6557	Analysis Date	4/13/2019	Data Processed By:	ying li	Injection Volume	1uL
Approved By:	KRISTIS	Approved Date	24/2019 5:49:14 F				

☑ SW846 8270 D
☑ EPA 625

Data File		Sample ID	OP Batch ID	Test	MTX	ALS	Dil	L+	Surr OK?	IS OK?	Data OK?	Comment
M	153415	DFTPP				1						51 low, up flow
M	153416	DFTPP				1						51 low, rerun
M	153417	DFTPP				1						51 low, drop flow
M	153418	DFTPP				1						51 low, drop repeller
M	153419	DFTPP				1					ok	1:19am
M	153420	IC6557-100		TCL42		2					ok	sv192573-9a
M	153421	IC6557-80				3					ok	sv192573-9b
M	153422	ICC6557-50				4					ok	sv192573-9c
M	153423	IC6557-25				5					ok	sv192573-9d
M	153424	IC6557-10				6					ok	sv192573-9e

GCMS Semi Volatile Run Log

Data File		Sample ID	OP Batch ID	Test	MTX	A L S	Dil	L+	Surr OK?	IS OK?	Data OK?	Comment
M	153425	IC6557-5				7					ok	sv192573-9g
M	153426	IC6557-2				8					ok	sv192573-9h
M	153427	IC6557-1				9					ok	sv192573-9i 5:11am
M	153428	ICV6557-50		AP9 Mix#2		10					nr	sv192573-8
M	153429	ICV6557-50		HQ 2nd		11					nr	sv18490-103b

GCMS Semi Volatile Run Log

Instrument ID: GCMSM

Standard / Reagent	Lot #	Concentration	Standard / Reagent	Lot #	Concentration
DFTPP	sv182535-77	50ppm	ISTD	A0144955	4000ppm
			DCM/fisher	190729	

Column	i5silms30mx.25mmx.25u	Initial Calib Date	4/12/2019	Sequence Loaded By:	chriss2	Quant Method/s	MM6556
Batch ID	EM6558	Analysis Date	4/13/2019	Data Processed By:	ying li	Injection Volume	1uL
Approved By:	KRISTIS	Approved Date	24/2019 5:49:29 F				

☐ SW846 8270 D

☐ EPA 625

Data File		Sample ID	OP Batch ID	Test	MTX	ALS	Dil	L+	Surr OK?	IS OK?	Data OK?	Comment
M	153431	DFTPP				1					ok	2:31pm
M	153432	IC6558-100		Bzd		12					ok	sv182535-70a
M	153433	IC6558-80				13					ok	sv182535-70b
M	153434	ICC6558-50				14					ok	sv182535-70c
M	153435	IC6558-25				15					ok	sv182535-70d
M	153436	IC6558-10				16					ok	sv182535-101
M	153437	IC6558-5				17					ok	sv182535-70g
M	153438	IC6558-2				18					ok	sv182535-70h
M	153439	IC6558-1				19					ok	sv182535-70i
M	153440	ICV6558-50		Bzd 3rd		20					ok	sv182490-113

GCMS Semi Volatile Run Log

Data File		Sample ID	OP Batch ID	Test	MTX	A L S	Dil	L+	Surr OK?	IS OK?	Data OK?	Comment
M	153441	ICV6557-50		AP9MIX#2		1					ok	sv192573-8
M	153442	ICV5667-50		HQ2nd		2					ok	sv18490-103b 7:28pm

GCMS Semi Volatile Run Log

Instrument ID: GCMSM

Standard / Reagent	Lot #	Concentration	Standard / Reagent	Lot #	Concentration
DFTPP	sv182535-77	50ppm	ISTD	A0144955	4000ppm
bna	sv182535-121b	50ppm	DCM/fisher	190729	
tcl42	sv182535-120b	50ppm			
bzd	sv182535-71b	50ppm			
bna verf	sv182535-10t	2ppm			

Column	i5silms30mx.25mmx.25u	Initial Calib Date	4/12/2019	Sequence Loaded By:	christc2	Quant Method/s	MM6556
Batch ID	EM6559	Analysis Date	4/15/2019	Data Processed By:	aimeel	Injection Volume	1uL
Approved By:	KRISTIS	Approved Date	24/2019 5:50:30 F				

☑ SW846 8270 D
☐ EPA 625

Data File		Sample ID	OP Batch ID	Test	MTX	ALS	Dil	L+	Surr OK?	IS OK?	Data OK?	Comment
M	153443	DFTPP				1					ok	1:54pm
M	153444	ICV6556-50		aniline		2					ok	op192336-85
M	153445	CC6556-50		bna		3					ok	Low 31,60
M	153446	CC6557-50		tcl42		4					OK	
M	153447	CC6558-50		bzd		5					OK	
M	153448	BNA 2PPM VERF				6					OK	Verified
M	153449	OP19637-MB1	OP19637	B8270HQ	AQ	7						
M	153450	JC80385A-2I	OP19637	B8270HQ	AQ	8						bs1
M	153451	JC80385A-2I	OP19637	B8270HQ	AQ	9						bs2
M	153452	JC80385A-2I	OP19637	B8270HQ	AQ	10						bs3

GCMS Semi Volatile Run Log

	Data File	Sample ID	OP Batch ID	Test	MTX	ALS	Dil	L+	Surr OK?	IS OK?	Data OK?	Comment
	153453	OP19732-MB1	OP19732		SO	11		X	y	y	OK	Hit 53
	153454	OP19732-BS1	OP19732		SO	12		X	y	y	OK	
	153455	OP19732-BSD	OP19732		SO	13		X	y	y	OK	
	153456	JC86060-8F	OP19680	B8270TICS+	AQ	14		X	y	y	OK	
	153457	JC86060-8	OP19680	B8270TICS+	AQ	15		X	y	y	OK	
M	153458	JC86229-5	OP19732	AB8270TCL20+	SO	16		X	y	y	OK	
M	153459	JC86222-1	OP19732	AB8270PPTCL20+	SO	17		X	y	y	OK	
M	153460	JC86204-7	OP19732	AB8270TCL20	SO	18			y	y	OK	
	153461	OP19732-MS	OP19732		SO	19		X	y	y	OK	
	153462	OP19732-MSD	OP19732		SO	20		X	y	y	OK	
M	153463	JC86204-8	OP19732	AB8270TCL20	SO	21			y	y	OK	
M	153464	JC86204-14	OP19732	AB8270TCL20	SO	22			y	y	OK	
M	153465	JC86204-10	OP19732	AB8270TCL20	SO	23			y	y	OK	
M	153466	JC86204-9	OP19732	AB8270TCL20	SO	24			y	y	OK	
M	153467	JC86204-13	OP19732	AB8270TCL20	SO	25			y	y	OK	
M	153468	JC86204-12	OP19732	AB8270TCL20	SO	26			y	y	N	Needs Dilution
M	153469	JC86204-4	OP19732	AB8270TCL20	SO	27			y	y	OK	1:50am

GCMS Semi Volatile Run Log

Instrument ID: GCMSM

Standard / Reagent	Lot #	Concentration	Standard / Reagent	Lot #	Concentration
DFTPP	sv182535-77	50ppm	ISTD	CL13166	4000ppm
bna	sv182535-120f	25ppm	DCM/fisher	191532	
tcl42	sv182535-121f	25ppm			
bzb	sv192573-70c	25ppm			
bna verif	sv182535-10u	2ppm			
bna veri	sv182535-10o	5ppm			

Column	i5silms30mx.25mmx.25u	Initial Calib Date	4/12/2019	Sequence Loaded By:	carolb	Quant Method/s	MM6556
Batch ID	EM6583	Analysis Date	5/5/2019	Data Processed By:	ying li	Injection Volume	1uL
Approved By:	KRISTIS	Approved Date	10/2019 6:26:33 F				

☑ SW846 8270 D
☐ EPA 625

Data File		Sample ID	OP Batch ID	Test	MTX	A L S	Dil	L+	Surr OK?	IS OK?	Data OK?	Comment
M	154069	DFTPP				1					ok	9:44pm
M	154070	CC6556-25		bna		2					ok	
M	154071	CC6567-25		tcl42		3					ok	
M	154072	CC6568-25		bzb		4					ok	
M	154073	BNA VERIF 2PPM		bna		5					ok	
M	154074	BNA VERIF 5PPM		bna		6					ok	
	154075	OP20153-MB1	OP20153	AB8270STD,B8270PAH,B8270SL	SO	7			y	y	ok	
M	154076	OP20158-MB	OP20158	AB8270STD,AB8270TCL20+,B8270PAH	SO	16		X	y	y	ok	
	154077	OP20153-BS1	OP20153	AB8270STD,B8270PAH,B8270SL	SO	9			y	y	ok	
	154078	OP20158-BS	OP20158	AB8270STD,AB8270TCL20+,B8270PAH	SO	10		X	y	y	ok	

GCMS Semi Volatile Run Log

Data File		Sample ID	OP Batch ID	Test	MTX	ALS	Dil	L+	Surr OK?	IS OK?	Data OK?	Comment
M	154079	JC87266-4	OP20153	AB8270STD	SO	11			y	y	ok	
M	154080	JC87266-5	OP20153	AB8270STD	SO	12			y	y	ok	
M	154081	JC87266-6	OP20153	AB8270STD	SO	13			y	y	ok	
M	154082	JC87266-7	OP20153	AB8270STD	SO	14			y	y	ok	
M	154083	JC87266-8	OP20153	AB8270STD	SO	15			y	y	ok	
M	154084	JC87266-9	OP20153	AB8270STD	SO	16			y	y	ok	
M	154085	JC87361-5	OP20158	B8270PAH	SO	17			y	y	ok	
M	154086	OP20158-MS	OP20158	AB8270STD,AB8270TCL20+,B8270PAH	SO	18		X	y	y	ok	
M	154087	OP20158-MSD	OP20158	AB8270STD,AB8270TCL20+,B8270PAH	SO	19		X	y	y	ok	
M	154088	JC87355-1	OP20158	AB8270TCL20+	SO	20		X	y	y	ok	
M	154089	JC87355-2	OP20158	AB8270TCL20+	SO	21		X	y	y	ok	
M	154090	JC87355-3	OP20158	AB8270TCL20+	SO	22		X	y	y	ok	
M	154091	JC87355-4	OP20158	AB8270TCL20+	SO	23		X			nr	cut
M	154092	JC87355-5	OP20158	AB8270TCL20+	SO	24		X			nr	cut
M	154093	JC87361-11	OP20158	B8270PAH	SO	25			y	y	ok	
M	154094	JC87433-2	OP20158	B8270PAH	SO	26			y	y	ok	9:28am
M	154095	JC87361-7	OP20158	B8270PAH	SO	27					nr	out of clock
M	154096	JC87361-6	OP20158	B8270PAH	SO	28					nr	
M	154097	JC87361-10	OP20158	B8270PAH	SO	29					nr	

GCMS Semi Volatile Run Log

Data File		Sample ID	OP Batch ID	Test	MTX	ALS	Dil	L+	Surr OK?	IS OK?	Data OK?	Comment
M	154098	JC87363-3	OP20158	AB8270STD	SO	30					nr	
M	154099	JC87361-8	OP20158	B8270PAH	SO	31					nr	
M	154100	JC87361-9	OP20158	B8270PAH	SO	32					nr	
M	154101	JC87266-3	OP20153	AB8270STD	SO	33					nr	
M	154102	JC87414-5	OP20158	AB8270PPTCL20+	SO	34		X			nr	
M	154103	JC87414-10	OP20158	AB8270PPTCL20+	SO	35		X			nr	
M	154104	JC87414-15	OP20158	AB8270PPTCL20+	SO	36		X			nr	
M	154105	JC87433-1	OP20158	B8270PAH	SO	37					nr	
M	154106	JC87436-1	OP20158	B8270PAH	SO	38					nr	
M	154107	JC87436-2	OP20158	B8270PAH	SO	39					nr	

GCMS Semi Volatile Run Log

Instrument ID: GCMSP

Standard / Reagent	Lot #	Concentration	Standard / Reagent	Lot #	Concentration
DFTPP	sv182535-77	50ppm	int std	A0144955	4000ppm
			dcm-fisher	191108	---

Column	ssilms30mx0.25mmx0.25	Initial Calib Date	4-23-19	Sequence Loaded By:	chriss2	Quant Method/s	MP5844
Batch ID	EP5844	Analysis Date	4/23/2019	Data Processed By:	ying li	Injection Volume	1.0ul
Approved By:	KRISTIS	Approved Date	1/2019 10:45:46 A				

☑ SW846 8270 D
☑ EPA 625

Data File		Sample ID	OP Batch ID	Test	MTX	ALS	Dil	L+	Surr OK?	IS OK?	Data OK?	Comment
P	129140	DFTPP				1					ok	10:58pm
P	129141a	IC5844-100		BNA		2					ok	sv182535-96a, solvent delay too long, adjust/rerun as "A" file
P	129142a	IC5844-80				3					ok	sv182535-96b, solvent delay too long, adjust/rerun as "A" file
P	129143a	ICC5844-50				4					ok	sv182535-96c, solvent delay too long, adjust/rerun as "A" file
P	129144a	IC5844-25				5					ok	sv182535-96d, solvent delay too long, adjust/rerun as "A" file
P	129145a	IC5844-10				6					ok	sv182535-96e, solvent delay too long, adjust/rerun as "A" file
P	129146a	IC5844-5				7					ok	sv182535-96g, solvent delay too long, adjust/rerun as "A" file
P	129147	IC5844-2				8					ok	sv182535-96h
P	129148	IC5844-1				9					ok	sv182535-96i
P	129149	ICV5844-50		BN1		10					ok	op192336-51

GCMS Semi Volatile Run Log

Data File		Sample ID	OP Batch ID	Test	MTX	A L S	Dil	L+	Surr OK?	IS OK?	Data OK?	Comment
P	129150	ICV5844-50		BN2		11					ok	op192336-72
P	129151	ICV5844-50		Aniline		12					ok	op192336-85
P	129152	ICV5844-50		Acid		13					ok	op192336-47
P	129153	ICV5844-50		ABN Surrogate		14					ok	op192336-76
P	129154	ICV5844-50		Bzd 3rd		15					ok	sv182490-113 7:54am

GCMS Semi Volatile Run Log

Instrument ID: GCMSP

Standard / Reagent	Lot #	Concentration	Standard / Reagent	Lot #	Concentration
DFTPP	sv182535-77	50ppm	int std	A0144955	4000ppm
			dcm-fisher	191108	---

Column	6silms30mx0.25mmx0.25	Initial Calib Date	4-23-19	Sequence Loaded By:	chriss2	Quant Method/s	MP5844
Batch ID	EP5845	Analysis Date	4/24/2019	Data Processed By:	ying li	Injection Volume	1.0ul
Approved By:	KRISTIS	Approved Date	1/2019 10:46:02 A				

☑ SW846 8270 D
☑ EPA 625

Data File		Sample ID	OP Batch ID	Test	MTX	ALS	Dil	L+	Surr OK?	IS OK?	Data OK?	Comment
P	129155	DFTPP				1					ok	8:17am
P	129156	IC5845-100		TCL42		16					ok	sv192573-9a
P	129157	IC5845-80				17					ok	sv192573-9b
P	129158	ICC5845-50				18					ok	sv192573-9c
P	129159	IC5845-25				19					ok	sv192573-9d
P	129160	IC5845-10				20					ok	sv192573-9e
P	129161	IC5845-5				21					ok	sv192573-9g
P	129162	IC5845-2				22					ok	sv192573-9h
P	129163	IC5845-1				23					ok	sv192573-9i
P	129164	ICV5845-50		AP9 Mix #2		24					ok	sv182490-78

GCMS Semi Volatile Run Log

Data File		Sample ID	OP Batch ID	Test	MTX	A L S	Dil	L+	Surr OK?	IS OK?	Data OK?	Comment
P	129165	ICV5845-50		HQ 2nd		25					ok	sv182490-103a 12:34pm

GCMS Semi Volatile Run Log

Instrument ID: GCMSP

Standard / Reagent	Lot #	Concentration	Standard / Reagent	Lot #	Concentration
DFTPP	sv182535-77	50ppm	int std	A0144955	4000ppm
			dcm-fisher	191108	---

Column	ssilms30mx0.25mmx0.25	Initial Calib Date	4-23-19	Sequence Loaded By:	chriss2	Quant Method/s	MP5844
Batch ID	EP5846	Analysis Date	4/24/2019	Data Processed By:	ying li	Injection Volume	1.0ul
Approved By:	KRISTIS	Approved Date	1/2019 10:46:19 A				

☑ SW846 8270 D
☑ EPA 625

Data File		Sample ID	OP Batch ID	Test	MTX	ALS	Dil	L+	Surr OK?	IS OK?	Data OK?	Comment
P	129166	DFTPP				1					not using	442 low, rr
P	129167	IC5846-100		Bzd		26					not using	sv182535-70a; tune failed, rr
P	129168	IC5846-80				27					not using	sv182535-70b; tune failed, rr
P	129169	ICC5846-50				28					not using	sv182535-70c; tune failed, rr
P	129170	IC5846-25				29					not using	sv182535-70d; tune failed, rr
P	129171	DFTPP				1					ok	3:00pm
P	129172	IC5846-100				26					ok	sv182535-70a
P	129173	IC5846-80				27					ok	sv182535-70b
P	129174	ICC5846-50				28					ok	sv182535-70c
P	129175	IC5846-25				29					ok	sv182535-70d

GCMS Semi Volatile Run Log

Data File		Sample ID	OP Batch ID	Test	MTX	A L S	Dil	L+	Surr OK?	IS OK?	Data OK?	Comment
P	129176	IC5846-10				30					ok	sv182535-101
P	129177	IC5846-5				31					ok	sv182535-70g
P	129178	IC5846-2				32					ok	sv182535-70h
P	129179	IC5846-1				33					ok	sv182535-70i
P	129180	ICV5846-50		Bzd 3rd		34					ok	sv182490-113 7:44pm

GCMS Semi Volatile Run Log

Instrument ID: GCMSP

Standard / Reagent	Lot #	Concentration	Standard / Reagent	Lot #	Concentration
DFTPP	sv182535-77	50ppm	int std	CL13166	4000ppm
bna 625.1	sv192573-34e	25ppm	dcm-fisher	191532	---
tcl42 625.1	sv192573-37b	25ppm			
bzd 625.1	sv192573-28f	25ppm			
bna verif	sv182535-10s	1ppm			
bna verif	sv182535-10u	2ppm			

Column	ssilms30mx0.25mmx0.25	Initial Calib Date	4-23-19	Sequence Loaded By:	chriss2	Quant Method/s	MP5844
Batch ID	EP5854	Analysis Date	5/6/2019	Data Processed By:	MICHELLC	Injection Volume	1.0ul
Approved By:	KRISTIS	Approved Date	10/2019 6:26:59 F				

☑ SW846 8270 D
☑ EPA 625

Data File		Sample ID	OP Batch ID	Test	MTX	ALS	Dil	L+	Surr OK?	IS OK?	Data OK?	Comment
P	129334	DFTPP				1					ok	7:31am
P	129335	CC5844-25				2					ok	
P	129336	CC5845-25				3					ok	
P	129337	CC5846-25				4					ok	
P	129338	BNA VERIF-1PPM				5					ok	60#/70# not good
P	129339	BNA REFERENCE				6					R/O	sv192573-29e
P	129340	TCDD REFERENCE				7					R/O	sv182535-13
P	129341	BNA VERIF-2PPM				8					ok	
P	129342	OP20158-MB	OP20158	AB8270STD,AB8270TCL20+,B8270PAH	SO	9		X	y	y	ok	
P	129343	JC87433-2	OP20158	B8270PAH	SO	10			y	y	ok	

GCMS Semi Volatile Run Log

Data File		Sample ID	OP Batch ID	Test	MTX	ALS	Dil	L+	Surr OK?	IS OK?	Data OK?	Comment
P	129344	JC87361-7	OP20158	B8270PAH	SO	11			y	y	ok	
P	129345	JC87361-6	OP20158	B8270PAH	SO	12			y	y	ok	
P	129346	JC87361-10	OP20158	B8270PAH	SO	13			y	y	ok	
P	129347	JC87361-8	OP20158	B8270PAH	SO	14			y	y	ok	
P	129348	JC87361-9	OP20158	B8270PAH	SO	15			y	y	ok	rr 1:5
P	129349	JC87433-1	OP20158	B8270PAH	SO	16			y	y	ok	
P	129350	JC87436-1	OP20158	B8270PAH	SO	17			y	y	OK	
P	129351	JC87436-2	OP20158	B8270PAH	SO	18			y	y	OK	
P	129352	JC86757-1	OP19901	A625SL	AQ	19			high	y	ok	ran after p129342
	129353	OP20149-MB	OP20149		AQ	20		X	y	y	ok	ran before p129352
	129354	JC87342-1A	OP20149		AQ	21		X	y	y	ok	ran after p129353
	129355	JC87342-3	OP20149	B625PYRENE,BMS+ANTH,BMS+FLUORENE,BMS+PHENAN	AQ	22		X	y	y	ok	ran after p129353
P	129356	JC87342-4	OP20149	B625PYRENE,BMS+ANTH,BMS+FLUORENE,BMS+PHENAN	AQ	23	5	X	y	y	ok	diluted for visc. ran after p129353
P	129357	JC86757-1	OP19901	A625SL	AQ	24	10		y	y	ok	ran after p129344
	129358	OP20149-BS	OP20149		AQ	25		X	y	y	ok	ran after p129344
	129359	OP20149-BSD	OP20149		AQ	26		X	y	y	ok	ran after p129344
P	129360	JC87361-9	OP20158	B8270PAH	SO	27	5		y	y	OK	713 PM

LOGBOOK ID:

ABN Extraction Log - Solids

Date started: 5/5/19 Time started: 9:30
Date finished: 5/5/19 Time finished: 16:30

Extract Method (CHECK OFF "√" /DO NOT CIRCLE):
Microwave SW3546 √ Sonication SW3550C _____
Waste Dil. SW3580A _____ Soxhlet SW3540C _____

BATCH # MSOP20158	RACK# R-46
Weighed by:	SH
Extracted by:	SA/SH/LS
Concentrated by:	SA
Final Vol. Top-up:	
Vialed by:	SA
Supervisor Review:	aj 5/6/19

Special Client Spike Instructions					
QC ID# for Special Spike	Amt to Spike	Spike ID	Lot #	Conc.	Amt. Spiked

WITNESS SIGN: SPIKE SIGN:
Manager/Supervisor/Team Lead Approval:

Equipment/ Range	ID	Observed Temp (°C)	Correction Factor (°C)	Corrected Temp (°C)	Pressure/ Flowrate
Buchi (65-71°C)					
Buchi Chiller					
Waterbath (70-80°C)	10,11		-1.0		PR
Waterbath Chiller (GPM)	V3,V4		-	-	0.8
NEVAP (32-38°C, LPM)	2		+0.1		1.0
Balance	B-28	N/A	N/A	N/A	N/A

SURROGATE	LOT #	CONC (ppm)	AMT (mL)
ABN	OP192336107	50	1.0
ABN DOD SIM			

WITNESS SIGN: SA SPIKE SIGN: SH

MATRIX SPIKE	LOT #	CONC (ppm)	AMT (mL)
Acid	OP192336104	50	Acid: 1.0
Acid (for SIM)			A(SIM):
Base #1	OP192336087	50	1.0
Base #2	OP192336106	50	1.0
Aniline	OP192336109	50	1.0
BSIM			

WITNESS SIGN: SPIKE SIGN:

SOLVENT	LOT #	BRAND	AMT (mL)
1:1 METH CHLOR/ ACETONE	191109 / 188038	FISHER	30.0
METH CHLOR			

REAGENT	LOT #	BAKE BATCH #	BRAND
HYDROMATRIX	16435092	4-29-19A	AGILENT
SODIUM SULFATE	180473	4-29-19A	FISHER
FILTER PAPER	16819760		FISHER

MATRIX	LOT #	BAKE BATCH #	BRAND
SAND	98A1801030A	3-5-19	FISHER

SPECIAL PROCESSING INSTRUCTIONS
Rx Reason:
Spiking:
Weights/Volumes:
Required MS/MSD:
Final Volume:
Other: HT 5/14 DD 5/6

SGS
Form: OP019A-10
Rev Date: 8/2/17

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	Sample #	Analysis Type	Sample Bottle #	Sample Description	Sample Wet Wt. (g) Oil (g) Liq (mL)	Decant Y	Decant N	Sonicator ID	Microwave ID	Final Extract Color	Final Extract Vol(mL)	GPC Cleanup	Comments
	MB1	abn		Sand	30.0				12	Clear	1.0		
	BS1			Sand	30.6				12	yellow	1.0		
	JC87361-5 MS		1	Clay	30.2		-		12	yellow	1.0		
	MSD		1	Clay	30.9		-		12	yellow	1.0		
	BS												
	MS												
	MSD												
	BS												
	MS												
	MSD												
1	JC87355-1	abn	1	Sand	30.5		-		12	yellow	1.0		
2	-2		1	Sand	32.2		-		12	yellow	1.0		
3	-3		1	Sand	30.9		-		12	yellow	1.0		
4	-4		1	Sand	31.8		-		12	yellow	1.0		
5	-5		1	Sand	32.6		-		12	yellow	1.0		
6	JC87361-5		1	Clay	30.5		-		12	yellow	1.0		
7	-6		1	wet Soil	32.2		-		12	brown	1.0		
8	-7		1	Clay	30.3		-		12	brown	1.0		
9	-8		1	Soil	30.6		-		12	yellow	1.0		
10	-9		1	Soil	30.1		-		12	brown	1.0		
11	-10		1	Soil	30.3		-		12	brown			
12	-11		1	Soil	31.1		-		12	yellow	1.0		
13	JC87363-3		1	Soil	30.3		-		12	brown	1.0		
14	JC87414-5		2	Soil	32.1		-		12	brown	1.0		
15	-10		2	Soil	31.6		-		12	brown	1.0		
16	-15		2	Soil	30.4		-		12	brown	1.0		
17	JC87433-1		1	Soil	30.2		-		12	brown	1.0		
18	-2		1	Soil	31.1		-		12	brown	1.0		
19	JC87436-1		1	Soil	30.4		-		12	brown	1.0		
20	-2		1	Soil	31.4		-		12	brown	1.0		

Comments: QC Samples (MS, MSD, LINK and/or DUP, Link) Confirmed by:

GC/LC Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- GC Identification Summaries (Hits)
- Surrogate Recovery Summaries
- GC Surrogate Retention Time Summaries
- Initial and Continuing Calibration Summaries

Method Blank Summary

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP20179-MB1	EF189651.D	1	05/07/19	TR	05/05/19	OP20179	GEF6439

The QC reported here applies to the following samples: **Method:** SW846 8082A

JC87363-3

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	33	16	ug/kg	
11104-28-2	Aroclor 1221	ND	33	17	ug/kg	
11141-16-5	Aroclor 1232	ND	33	26	ug/kg	
53469-21-9	Aroclor 1242	ND	33	14	ug/kg	
12672-29-6	Aroclor 1248	ND	33	30	ug/kg	
11097-69-1	Aroclor 1254	ND	33	18	ug/kg	
11096-82-5	Aroclor 1260	ND	33	14	ug/kg	
11100-14-4	Aroclor 1268	ND	33	14	ug/kg	
37324-23-5	Aroclor 1262	ND	33	22	ug/kg	

CAS No.	Surrogate Recoveries		Limits
877-09-8	Tetrachloro-m-xylene	92%	31-146%
877-09-8	Tetrachloro-m-xylene	86%	31-146%
2051-24-3	Decachlorobiphenyl	90%	17-164%
2051-24-3	Decachlorobiphenyl	91%	17-164%

Blank Spike Summary

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP20179-BS1	EF189652.D	1	05/07/19	TR	05/05/19	OP20179	GEF6439

The QC reported here applies to the following samples: **Method:** SW846 8082A

JC87363-3

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
12674-11-2	Aroclor 1016	133	114	85	67-157
11104-28-2	Aroclor 1221		ND		70-130
11141-16-5	Aroclor 1232		ND		70-130
53469-21-9	Aroclor 1242		ND		70-130
12672-29-6	Aroclor 1248		ND		70-130
11097-69-1	Aroclor 1254		ND		70-130
11096-82-5	Aroclor 1260	133	109	82	63-155
11100-14-4	Aroclor 1268		ND		50-150 [a]
37324-23-5	Aroclor 1262		ND		50-150 [a]

CAS No.	Surrogate Recoveries	BSP	Limits
877-09-8	Tetrachloro-m-xylene	96%	31-146%
877-09-8	Tetrachloro-m-xylene	94%	31-146%
2051-24-3	Decachlorobiphenyl	95%	17-164%
2051-24-3	Decachlorobiphenyl	110%	17-164%

(a) Advisory control limits.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP20179-MS	EF189654.D	1	05/07/19	TR	05/05/19	OP20179	GEF6439
OP20179-MSD	EF189655.D	1	05/07/19	TR	05/05/19	OP20179	GEF6439
JC87280-6	EF189653.D	1	05/07/19	TR	05/05/19	OP20179	GEF6439

The QC reported here applies to the following samples: **Method:** SW846 8082A

JC87363-3

CAS No.	Compound	JC87280-6 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	Spike ug/kg	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
12674-11-2	Aroclor 1016	ND		143	142	99	145	150	104	5	36-191/60
11104-28-2	Aroclor 1221	ND			ND			ND		nc	70-130/50
11141-16-5	Aroclor 1232	ND			ND			ND		nc	70-130/1
53469-21-9	Aroclor 1242	ND			ND			ND		nc	70-130/6
12672-29-6	Aroclor 1248	ND			ND			ND		nc	70-130/33
11097-69-1	Aroclor 1254	ND			ND			ND		nc	70-130/38
11096-82-5	Aroclor 1260	ND		143	158	111	145	170	118	7	15-200/68
11100-14-4	Aroclor 1268	ND			ND			ND		nc	-/50
37324-23-5	Aroclor 1262	ND			ND			ND		nc	-/17

CAS No.	Surrogate Recoveries	MS	MSD	JC87280-6	Limits
877-09-8	Tetrachloro-m-xylene	83%	85%	85%	31-146%
877-09-8	Tetrachloro-m-xylene	82%	83%	83%	31-146%
2051-24-3	Decachlorobiphenyl	83%	84%	85%	17-164%
2051-24-3	Decachlorobiphenyl	88%	90%	83%	17-164%

* = Outside of Control Limits.

GC Identification Summary

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Check Std:	GEF6439-CC6434	**Injection Date:**	05/07/19
Lab File ID:	EF189647.D	**Injection Time:**	09:27
Instrument ID:	GCEF	**Method:**	SW846 8082A

Sample ID:	OP20179-BS1	**Injection Date:**	05/07/19
Lab File ID:	EF189652.D	**Injection Time:**	11:30
Client ID:	Blank Spike		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Aroclor 1016	1			124		ug/kg	8.4
Aroclor 1016	2 [a]			114		ug/kg	
AR1016-A	1	4.06	4.05	123		ug/kg	
AR1016-A	2	5.10	5.09	116		ug/kg	
AR1016-B	1	4.64	4.63	117		ug/kg	
AR1016-B	2	5.90	5.89	113		ug/kg	
AR1016-C	1	5.47	5.45	123		ug/kg	
AR1016-C	2	6.84	6.82	124		ug/kg	
AR1016-D	1	5.72	5.70	125		ug/kg	
AR1016-D	2	7.13	7.11	103		ug/kg	
AR1016-E	1	6.49	6.48	130		ug/kg	
AR1016-E	2	8.12	8.11	115		ug/kg	
Aroclor 1260	1			144		ug/kg	27.7
Aroclor 1260	2 [a]			109		ug/kg	
AR1260-A	1	10.19	10.18	147		ug/kg	
AR1260-A	2	12.22	12.20	130		ug/kg	
AR1260-B	1	10.44	10.44	146		ug/kg	
AR1260-B	2	12.40	12.40	95.2		ug/kg	
AR1260-C	1	10.98	10.97	169		ug/kg	
AR1260-C	2	13.09	13.08	102		ug/kg	
AR1260-D	1	11.67	11.65	147		ug/kg	
AR1260-D	2	13.66	13.65	105		ug/kg	
AR1260-E	1	12.29	12.28	113		ug/kg	
AR1260-E	2	14.52	14.50	111		ug/kg	

(a) QC results reported from this column.

GC Identification Summary

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Check Std:	GEF6439-CC6434	**Injection Date:**	05/07/19
Lab File ID:	EF189647.D	**Injection Time:**	09:27
Instrument ID:	GCEF	**Method:**	SW846 8082A

Sample ID:	OP20179-MS	**Injection Date:**	05/07/19
Lab File ID:	EF189654.D	**Injection Time:**	12:20
Client ID:	Matrix Spike		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Aroclor 1016	1 [a]			142		ug/kg	1.4
Aroclor 1016	2			144		ug/kg	
AR1016-A	1	4.06	4.05	133		ug/kg	
AR1016-A	2	5.10	5.09	116		ug/kg	
AR1016-B	1	4.64	4.63	131		ug/kg	
AR1016-B	2	5.90	5.89	124		ug/kg	
AR1016-C	1	5.48	5.45	144		ug/kg	
AR1016-C	2	6.84	6.82	136		ug/kg	
AR1016-D	1	5.72	5.70	151		ug/kg	
AR1016-D	2	7.13	7.11	154		ug/kg	
AR1016-E	1	6.49	6.48	151		ug/kg	
AR1016-E	2	8.13	8.11	190		ug/kg	
Aroclor 1260	1 [a]			158		ug/kg	47.3
Aroclor 1260	2			97.6		ug/kg	
AR1260-A	1	10.20	10.18	136		ug/kg	
AR1260-A	2	12.22	12.20	80.6		ug/kg	
AR1260-B	1	10.44	10.44	127		ug/kg	
AR1260-B	2	12.40	12.40	65.5		ug/kg	
AR1260-C	1	10.98	10.97	216		ug/kg	
AR1260-C	2	13.09	13.08	115		ug/kg	
AR1260-D	1	11.67	11.65	176		ug/kg	
AR1260-D	2	13.66	13.65	114		ug/kg	
AR1260-E	1	12.30	12.28	134		ug/kg	
AR1260-E	2	14.52	14.50	112		ug/kg	

(a) QC results reported from this column.

GC Identification Summary

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Check Std:	GEF6439-CC6434	**Injection Date:**	05/07/19
Lab File ID:	EF189647.D	**Injection Time:**	09:27
Instrument ID:	GCEF	**Method:**	SW846 8082A

Sample ID:	OP20179-MSD	**Injection Date:**	05/07/19
Lab File ID:	EF189655.D	**Injection Time:**	12:45
Client ID:	Matrix Spike Duplicate		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Aroclor 1016	1 [a]			150		ug/kg	11.3
Aroclor 1016	2			134		ug/kg	
AR1016-A	1	4.07	4.05	144		ug/kg	
AR1016-A	2	5.10	5.09	134		ug/kg	
AR1016-B	1	4.65	4.63	142		ug/kg	
AR1016-B	2	5.91	5.89	136		ug/kg	
AR1016-C	1	5.48	5.45	153		ug/kg	
AR1016-C	2	6.85	6.82	131		ug/kg	
AR1016-D	1	5.73	5.70	142		ug/kg	
AR1016-D	2	7.14	7.11	119		ug/kg	
AR1016-E	1	6.50	6.48	168		ug/kg	
AR1016-E	2	8.13	8.11	153		ug/kg	
Aroclor 1260	1 [a]			170		ug/kg	42.0
Aroclor 1260	2			111		ug/kg	
AR1260-A	1	10.21	10.18	182		ug/kg	
AR1260-A	2	12.23	12.20	80.1		ug/kg	
AR1260-B	1	10.45	10.44	177		ug/kg	
AR1260-B	2	12.41	12.40	96.0		ug/kg	
AR1260-C	1	10.99	10.97	229		ug/kg	
AR1260-C	2	13.10	13.08	138		ug/kg	
AR1260-D	1	11.68	11.65	133		ug/kg	
AR1260-D	2	13.67	13.65	124		ug/kg	
AR1260-E	1	12.31	12.28	129		ug/kg	
AR1260-E	2	14.53	14.50	115		ug/kg	

(a) QC results reported from this column.

Surrogate Recovery Summary

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Method: SW846 8082A **Matrix:** SO

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 [a]	S1 [b]	S2 [a]	S2 [b]
JC87363-3	EF189670.D	89	96	88	92
OP20179-BS1	EF189652.D	96	94	95	110
OP20179-MB1	EF189651.D	92	86	90	91
OP20179-MS	EF189654.D	83	82	83	88
OP20179-MSD	EF189655.D	85	83	84	90

Surrogate Compounds	Recovery Limits
S1 = Tetrachloro-m-xylene	31-146%
S2 = Decachlorobiphenyl	17-164%

(a) Recovery from GC signal #1
(b) Recovery from GC signal #2

GC Surrogate Retention Time Summary

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Check Std:	GEF6439-CC6434	**Injection Date:**	05/07/19
Lab File ID:	EF189647.D	**Injection Time:**	09:27
Instrument ID:	GCEF	**Method:**	SW846 8082A

	S1 [a] RT	S1 [b] RT	S2 [a] RT	S2 [b] RT
Check Std	3.50	4.16	14.75	17.17

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT	S2 [a] RT	S2 [b] RT
OP20113-MB1	EF189649.D	05/07/19	10:15	3.51	4.17	14.75	17.17
ZZZZZZ	EF189650.D	05/07/19	10:40	3.51	4.16	14.75	17.18
OP20179-MB1	EF189651.D	05/07/19	11:05	3.51	4.17	14.75	17.18
OP20179-BS1	EF189652.D	05/07/19	11:30	3.51	4.17	14.75	17.17
JC87280-6	EF189653.D	05/07/19	11:55	3.50	4.16	14.75	17.17
OP20179-MS	EF189654.D	05/07/19	12:20	3.51	4.17	14.75	17.18
OP20179-MSD	EF189655.D	05/07/19	12:45	3.51	4.17	14.76	17.19
ZZZZZZ	EF189656.D	05/07/19	13:10	3.51	4.16	14.75	17.18
ZZZZZZ	EF189657.D	05/07/19	13:35	3.51	4.17	14.75	17.17

Surrogate Compounds

S1 = Tetrachloro-m-xylene
S2 = Decachlorobiphenyl

(a) Retention time from GC signal #1
(b) Retention time from GC signal #2

GC Surrogate Retention Time Summary

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Check Std:	GEF6439-CC6434	**Injection Date:**	05/07/19
Lab File ID:	EF189668.D	**Injection Time:**	18:42
Instrument ID:	GCEF	**Method:**	SW846 8082A

	S1 [a] RT	S1 [b] RT	S2 [a] RT	S2 [b] RT
Check Std	3.51	4.17	14.76	17.18

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT	S2 [a] RT	S2 [b] RT
JC87363-3	EF189670.D	05/07/19	19:32	3.51	4.17	14.76	17.18
ZZZZZZ	EF189671.D	05/08/19	00:46	3.53	4.18	14.78	17.19
ZZZZZZ	EF189672.D	05/08/19	01:11	3.52	4.18	14.77	17.19
ZZZZZZ	EF189673.D	05/08/19	01:36	3.52	4.18	14.77	17.20
ZZZZZZ	EF189674.D	05/08/19	02:01	3.52	4.18	14.77	17.19
ZZZZZZ	EF189675.D	05/08/19	02:26	3.52	4.18	14.77	17.19

Surrogate Compounds

S1 = Tetrachloro-m-xylene
S2 = Decachlorobiphenyl

(a) Retention time from GC signal #1
(b) Retention time from GC signal #2

Initial Calibration Summary

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample: GEF6434-ICC6434
Lab FileID: EF189488.D

Response Factor Report gcef

Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Thu May 02 08:24:03 2019
Response via : Initial Calibration

Calibration Files
3000=EF189490.D 2000=EF189489.D 1000=EF189488.D 500 =EF189487.D
250 =EF189486.D 50 =EF189485.D

	Compound	3000	2000	1000	500	250	50	Avg	%RSD
1) S	Tetrachloro-m-xylen	1.363	1.350	1.343	1.320	1.314	1.302	1.332 E4	1.78
2)	AR1221-A			1.510				1.510 E2	0.00
3)	AR1221-B			2.009				2.009 E2	0.00
4)	AR1221-C			6.537				6.537 E2	0.00
5)	AR1221-D			9.577				9.577 E1	0.00
6)	AR1221-E			1.379				1.379 E2	0.00
7)	AR1232-A			4.835				4.835 E2	0.00
8)	AR1232-B			2.929				2.929 E2	0.00
9)	AR1232-C			6.681				6.681 E2	0.00
10)	AR1232-D			2.436				2.436 E2	0.00
11)	AR1232-E			2.199				2.199 E2	0.00
12)	AR1242-A			5.323				5.323 E2	0.00
13)	AR1242-B			1.222				1.222 E3	0.00
14)	AR1242-C			4.539				4.539 E2	0.00
15)	AR1242-D			4.533				4.533 E2	0.00
16)	AR1242-E			5.726				5.726 E2	0.00
17)	AR1248-A			2.663				2.663 E2	0.00
18)	AR1248-B			7.937				7.937 E2	0.00
19)	AR1248-C			6.972				6.972 E2	0.00
20)	AR1248-D			6.562				6.562 E2	0.00
21)	AR1248-E			3.287				3.287 E2	0.00
22)	AR1248-F			7.829				7.829 E2	0.00
23)	AR1248-G			1.106				1.106 E3	0.00
24)	AR1254-A			6.112				6.112 E2	0.00
25)	AR1254-B			7.647				7.647 E2	0.00
26)	AR1254-C			5.603				5.603 E2	0.00
27)	AR1254-D			1.025				1.025 E3	0.00
28)	AR1254-E			8.721				8.721 E2	0.00
29)	AR1254-F			8.174				8.174 E2	0.00
30)	AR1254-G			9.909				9.909 E2	0.00
31)	AR1262-A			7.898				7.898 E2	0.00
32)	AR1262-B			1.214				1.214 E3	0.00
33)	AR1262-C			8.733				8.733 E2	0.00
34)	AR1262-D			2.257				2.257 E3	0.00
35)	AR1262-E			2.603				2.603 E3	0.00
36)	AR1268-A			2.227				2.227 E3	0.00
37)	AR1268-B			2.639				2.639 E3	0.00
38)	AR1268-C			1.970				1.970 E3	0.00
39)	AR1268-D			8.943				8.943 E2	0.00
40)	AR1268-E			5.469				5.469 E3	0.00
41)	AR1016-A	3.410	3.532	3.777	3.851	4.002	4.180	3.792 E2	7.57
42)	AR1016-B	5.572	5.801	6.258	6.557	6.878	7.688	6.459 E2	11.90
43)	AR1016-C	1.266	1.327	1.444	1.532	1.614	1.675	1.476 E3	10.87
44)	AR1016-D	4.744	4.957	5.358	5.617	5.776	5.833	5.381 E2	8.32
45)	AR1016-E	4.863	5.064	5.403	5.584	5.569	5.666	5.358 E2	6.04
46)	AR1260-A	1.066	1.106	1.181	1.214	1.256	1.343	1.194 E3	8.45
47)	AR1260-B	6.886	7.258	7.992	8.518	9.000	9.604	8.210 E2	12.62

Initial Calibration Summary

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY
Sample: GEF6434-ICC6434
Lab FileID: EF189488.D

48)		AR1260-C	5.865	6.112	6.586	6.852	7.205	7.511	6.689 E2	9.43
49)		AR1260-D	1.690	1.759	1.883	1.948	2.026	2.107	1.902 E3	8.33
50)		AR1260-E	1.734	1.756	1.878	1.926	1.917	1.912	1.854 E3	4.64
51)	S	Decachlorobiphenyl	1.390	1.460	1.598	1.675	1.714	1.899	1.623 E4	11.32

Signal #2

1)	S	Tetrachloro-m-xylen	1.637	1.624	1.627	1.596	1.606	1.645	1.623 E4	1.14
2)		AR1221-A			1.582				1.582 E2	0.00
3)		AR1221-B			2.316				2.316 E2	0.00
4)		AR1221-C			6.325				6.325 E2	0.00
5)		AR1221-D			9.967				9.967 E1	0.00
6)		AR1221-E			9.152				9.152 E1	0.00
7)		AR1232-A			5.038				5.038 E2	0.00
8)		AR1232-B			3.511				3.511 E2	0.00
9)		AR1232-C			7.390				7.390 E2	0.00
10)		AR1232-D			3.318				3.318 E2	0.00
11)		AR1232-E			1.830				1.830 E2	0.00
12)		AR1242-A			6.338				6.338 E2	0.00
13)		AR1242-B			1.371				1.371 E3	0.00
14)		AR1242-C			6.310				6.310 E2	0.00
15)		AR1242-D			3.769				3.769 E2	0.00
16)		AR1242-E			6.678				6.678 E2	0.00
17)		AR1248-A			3.155				3.155 E2	0.00
18)		AR1248-B			8.238				8.238 E2	0.00
19)		AR1248-C			4.633				4.633 E2	0.00
20)		AR1248-D			5.635				5.635 E2	0.00
21)		AR1248-E			7.178				7.178 E2	0.00
22)		AR1248-F			9.640				9.640 E2	0.00
23)		AR1248-G			9.831				9.831 E2	0.00
24)		AR1254-A			1.176				1.176 E3	0.00
25)		AR1254-B			9.031				9.031 E2	0.00
26)		AR1254-C			6.192				6.192 E2	0.00
27)		AR1254-D			1.326				1.326 E3	0.00
28)		AR1254-E			1.002				1.002 E3	0.00
29)		AR1254-F			8.150				8.150 E2	0.00
30)		AR1254-G			1.327				1.327 E3	0.00
31)		AR1262-A			1.172				1.172 E3	0.00
32)		AR1262-B			1.714				1.714 E3	0.00
33)		AR1262-C			1.251				1.251 E3	0.00
34)		AR1262-D			2.775				2.775 E3	0.00
35)		AR1262-E			3.259				3.259 E3	0.00
36)		AR1268-A			2.982				2.982 E3	0.00
37)		AR1268-B			3.464				3.464 E3	0.00
38)		AR1268-C			2.538				2.538 E3	0.00
39)		AR1268-D			1.022				1.022 E3	0.00
40)		AR1268-E			6.877				6.877 E3	0.00
41)		AR1016-A	3.681	3.782	4.006	4.126	4.244	4.271	4.018 E2	6.06
42)		AR1016-B	6.858	7.035	7.470	7.715	7.924	7.136	7.356 E2	5.65
43)		AR1016-C	1.448	1.508	1.627	1.695	1.758	1.972	1.668 E3	11.27
44)		AR1016-D	6.626	6.870	7.355	7.462	7.727	9.057	7.516 E2	11.38
45)		AR1016-E	4.112	4.244	4.555	4.663	4.867	6.301	4.790 E2	16.49
46)		AR1260-A	1.515	1.541	1.586	1.561	1.558	1.470	1.539 E3	2.67
47)		AR1260-B	1.070	1.104	1.170	1.192	1.226	1.267	1.171 E3	6.32
48)		AR1260-C	9.182	9.351	9.748	9.741	9.941	9.841	9.634 E2	3.10
49)		AR1260-D	2.282	2.320	2.400	2.392	2.396	2.280	2.345 E3	2.47
50)		AR1260-E	2.249	2.274	2.317	2.288	2.304	2.279	2.285 E3	1.05
51)	S	Decachlorobiphenyl	1.637	1.665	1.781	1.828	1.930	2.282	1.854 E4	12.71

(#) = Out of Range

Initial Calibration Summary

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample: GEF6434-ICC6434
Lab FileID: EF189488.D

PCB6434.M Thu May 02 09:31:34 2019 GCEF

Initial Calibration Verification

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY
Sample: GEF6434-ICV6434
Lab FileID: EF189495.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6434\EF189495.D\ECD1A.CH Vial: 13
Signal #2 : C:\HPCHEM\1\DATA\GEF6434\EF189495.D\ECD2B.CH
Acq On : 1 May 2019 4:22 pm Operator: tianweir
Sample : icv6434-1000 Inst : gcef
Misc : op20033,GEF6434,10.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E

Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Thu May 02 08:24:03 2019
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1	S	Tetrachloro-m-xylene	13.319	14.429 E3	-8.3	107	0.00	3.43- 3.68
2		AR1221-A		----------NA----------				
3		AR1221-B		----------NA----------				
4		AR1221-C		----------NA----------				
5		AR1221-D		----------NA----------				
6		AR1221-E		----------NA----------				
7		AR1232-A		----------NA----------				
8		AR1232-B		----------NA----------				
9		AR1232-C		----------NA----------				
10		AR1232-D		----------NA----------				
11		AR1232-E		----------NA----------				
12		AR1242-A		----------NA----------				
13		AR1242-B		----------NA----------				
14		AR1242-C		----------NA----------				
15		AR1242-D		----------NA----------				
16		AR1242-E		----------NA----------				
17		AR1248-A		----------NA----------				
18		AR1248-B		----------NA----------				
19		AR1248-C		----------NA----------				
20		AR1248-D		----------NA----------				
21		AR1248-E		----------NA----------				
22		AR1248-F		----------NA----------				
23		AR1248-G		----------NA----------				
24		AR1254-A		----------NA----------				
25		AR1254-B		----------NA----------				
26		AR1254-C		----------NA----------				
27		AR1254-D		----------NA----------				
28		AR1254-E		----------NA----------				
29		AR1254-F		----------NA----------				
30		AR1254-G		----------NA----------				
31		AR1262-A		----------NA----------				
32		AR1262-B		----------NA----------				
33		AR1262-C		----------NA----------				
34		AR1262-D		----------NA----------				
35		AR1262-E		----------NA----------				
36		AR1268-A		----------NA----------				
37		AR1268-B		----------NA----------				
38		AR1268-C		----------NA----------				
39		AR1268-D		----------NA----------				
40		AR1268-E		----------NA----------				
41		AR1016-A	379.175	383.364	-1.1	102	0.00	4.01- 4.20

10.7.2 10

Initial Calibration Verification

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample: GEF6434-ICV6434
Lab FileID: EF189495.D

42		AR1016-B	645.892	642.272		0.6	103	0.00	4.63- 4.75
43		AR1016-C	1.476	1.476	E3	0.0	102	0.00	5.48- 5.55
44		AR1016-D	538.105	553.567		-2.9	103	0.00	5.74- 5.80
45		AR1016-E	535.812	548.479		-2.4	102	0.00	6.52- 6.58
46		AR1260-A	1.194	1.220	E3	-2.2	103	0.00	10.19-10.33
47		AR1260-B	820.964	838.741		-2.2	105	0.00	10.44-10.57
48		AR1260-C	668.862	679.066		-1.5	103	0.00	10.97-11.11
49		AR1260-D	1.902	1.982	E3	-4.2	105	0.00	11.67-11.80
50		AR1260-E	1.854	1.894	E3	-2.2	101	0.00	12.36-12.50
51	S	Decachlorobiphenyl	16.226	17.870	E3	-10.1	112	0.00	14.75-14.89
*****		Signal #2 *****							
1	S	Tetrachloro-m-xylene	16.227	17.090	E3	-5.3	105	0.00	4.10- 4.31
2		AR1221-A		----------NA----------					
3		AR1221-B		----------NA----------					
4		AR1221-C		----------NA----------					
5		AR1221-D		----------NA----------					
6		AR1221-E		----------NA----------					
7		AR1232-A		----------NA----------					
8		AR1232-B		----------NA----------					
9		AR1232-C		----------NA----------					
10		AR1232-D		----------NA----------					
11		AR1232-E		----------NA----------					
12		AR1242-A		----------NA----------					
13		AR1242-B		----------NA----------					
14		AR1242-C		----------NA----------					
15		AR1242-D		----------NA----------					
16		AR1242-E		----------NA----------					
17		AR1248-A		----------NA----------					
18		AR1248-B		----------NA----------					
19		AR1248-C		----------NA----------					
20		AR1248-D		----------NA----------					
21		AR1248-E		----------NA----------					
22		AR1248-F		----------NA----------					
23		AR1248-G		----------NA----------					
24		AR1254-A		----------NA----------					
25		AR1254-B		----------NA----------					
26		AR1254-C		----------NA----------					
27		AR1254-D		----------NA----------					
28		AR1254-E		----------NA----------					
29		AR1254-F		----------NA----------					
30		AR1254-G		----------NA----------					
31		AR1262-A		----------NA----------					
32		AR1262-B		----------NA----------					
33		AR1262-C		----------NA----------					
34		AR1262-D		----------NA----------					
35		AR1262-E		----------NA----------					
36		AR1268-A		----------NA----------					
37		AR1268-B		----------NA----------					
38		AR1268-C		----------NA----------					
39		AR1268-D		----------NA----------					
40		AR1268-E		----------NA----------					
41		AR1016-A	401.825	402.143		-0.1	100	0.00	5.07- 5.20
42		AR1016-B	735.620	754.390		-2.6	101	0.00	5.91- 5.97
43		AR1016-C	1.668	1.622	E3	2.8	100	0.00	6.85- 6.91
44		AR1016-D	751.627	749.126		0.3	102	0.00	7.14- 7.20
45		AR1016-E	479.034	449.222		6.2	99	0.00	8.13- 8.20
46		AR1260-A	1.539	1.605	E3	-4.3	101	0.00	12.20-12.33
47		AR1260-B	1.171	1.236	E3	-5.6	106	0.00	12.39-12.51

Initial Calibration Verification

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample: GEF6434-ICV6434
Lab FileID: EF189495.D

48		AR1260-C	963.385	995.614		-3.3	102	0.00	13.07-13.20
49		AR1260-D	2.345	2.464	E3	-5.1	103	0.00	13.65-13.78
50		AR1260-E	2.285	2.323	E3	-1.7	100	0.04	14.55-14.67
51	S	Decachlorobiphenyl	18.537	19.519	E3	-5.3	110	0.00	17.17-17.29

(#) = Out of Range SPCC's out = 0 CCC's out = 0

EF189488.D PCB6434.M Thu May 02 09:30:37 2019 GCEF

Initial Calibration Verification

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample: GEF6434-ICV6434
Lab FileID: EF189497.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6434\EF189497.D\ECD1A.CH Vial: 15
Signal #2 : C:\HPCHEM\1\DATA\GEF6434\EF189497.D\ECD2B.CH
Acq On : 1 May 2019 5:12 pm Operator: tianweir
Sample : icv6434-1000 Inst : gcef
Misc : op20033,GEF6434,10.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E

Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Thu May 02 08:24:03 2019
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1 S	Tetrachloro-m-xylene	13.319	16.633 E3	-24.9#	124	0.00	3.42- 3.67
2	AR1221-A		----------NA----------				
3	AR1221-B		----------NA----------				
4	AR1221-C		----------NA----------				
5	AR1221-D		----------NA----------				
6	AR1221-E		----------NA----------				
7	AR1232-A	483.546	490.587	-1.5	101	0.00	4.00- 4.20
8	AR1232-B	292.934	299.152	-2.1	102	0.00	4.59- 4.79
9	AR1232-C	668.088	681.244	-2.0	102	0.00	5.42- 5.62
10	AR1232-D	243.610	248.928	-2.2	102	0.00	5.68- 5.88
11	AR1232-E	219.923	225.133	-2.4	102	0.00	6.45- 6.65
12	AR1242-A		----------NA----------				
13	AR1242-B		----------NA----------				
14	AR1242-C		----------NA----------				
15	AR1242-D		----------NA----------				
16	AR1242-E		----------NA----------				
17	AR1248-A		----------NA----------				
18	AR1248-B		----------NA----------				
19	AR1248-C		----------NA----------				
20	AR1248-D		----------NA----------				
21	AR1248-E		----------NA----------				
22	AR1248-F		----------NA----------				
23	AR1248-G		----------NA----------				
24	AR1254-A		----------NA----------				
25	AR1254-B		----------NA----------				
26	AR1254-C		----------NA----------				
27	AR1254-D		----------NA----------				
28	AR1254-E		----------NA----------				
29	AR1254-F		----------NA----------				
30	AR1254-G		----------NA----------				
31	AR1262-A	789.771	760.376	3.7	96	0.00	9.55- 9.75
32	AR1262-B	1.214	1.183 E3	2.6	97	0.00	10.40-10.60
33	AR1262-C	873.327	848.530	2.8	97	0.00	10.94-11.14
34	AR1262-D	2.257	2.197 E3	2.7	97	0.00	11.63-11.83
35	AR1262-E	2.603	2.506 E3	3.7	96	0.00	12.33-12.53
36	AR1268-A		----------NA----------				
37	AR1268-B		----------NA----------				
38	AR1268-C		----------NA----------				
39	AR1268-D		----------NA----------				
40	AR1268-E		----------NA----------				
41	AR1016-A		----------NA----------				

Initial Calibration Verification

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample: GEF6434-ICV6434
Lab FileID: EF189497.D

42		AR1016-B			----------NA----------				
43		AR1016-C			----------NA----------				
44		AR1016-D			----------NA----------				
45		AR1016-E			----------NA----------				
46		AR1260-A			----------NA----------				
47		AR1260-B			----------NA----------				
48		AR1260-C			----------NA----------				
49		AR1260-D			----------NA----------				
50		AR1260-E			----------NA----------				
51	S	Decachlorobiphenyl	16.226	19.692	E3 -21.4#	123	0.00	14.75-14.89	
*****		Signal #2 *****							
1	S	Tetrachloro-m-xylene	16.227	19.351	E3 -19.3	119	0.00	4.09- 4.31	
2		AR1221-A			----------NA----------				
3		AR1221-B			----------NA----------				
4		AR1221-C			----------NA----------				
5		AR1221-D			----------NA----------				
6		AR1221-E			----------NA----------				
7		AR1232-A	503.810	503.862	-0.0	100	0.00	5.03- 5.23	
8		AR1232-B	351.133	357.675	-1.9	102	0.00	5.84- 6.04	
9		AR1232-C	738.953	739.880	-0.1	100	0.00	6.78- 6.98	
10		AR1232-D	331.801	336.057	-1.3	101	0.00	7.07- 7.27	
11		AR1232-E	183.015	185.686	-1.5	101	0.00	8.07- 8.27	
12		AR1242-A			----------NA----------				
13		AR1242-B			----------NA----------				
14		AR1242-C			----------NA----------				
15		AR1242-D			----------NA----------				
16		AR1242-E			----------NA----------				
17		AR1248-A			----------NA----------				
18		AR1248-B			----------NA----------				
19		AR1248-C			----------NA----------				
20		AR1248-D			----------NA----------				
21		AR1248-E			----------NA----------				
22		AR1248-F			----------NA----------				
23		AR1248-G			----------NA----------				
24		AR1254-A			----------NA----------				
25		AR1254-B			----------NA----------				
26		AR1254-C			----------NA----------				
27		AR1254-D			----------NA----------				
28		AR1254-E			----------NA----------				
29		AR1254-F			----------NA----------				
30		AR1254-G			----------NA----------				
31		AR1262-A	1.172	1.136	E3 3.1	97	0.00	11.34-11.54	
32		AR1262-B	1.714	1.650	E3 3.7	96	0.00	12.35-12.55	
33		AR1262-C	1.251	1.207	E3 3.5	97	0.00	13.03-13.23	
34		AR1262-D	2.775	2.653	E3 4.4	96	0.00	13.62-13.82	
35		AR1262-E	3.259	3.132	E3 3.9	96	0.00	14.42-14.62	
36		AR1268-A			----------NA----------				
37		AR1268-B			----------NA----------				
38		AR1268-C			----------NA----------				
39		AR1268-D			----------NA----------				
40		AR1268-E			----------NA----------				
41		AR1016-A			----------NA----------				
42		AR1016-B			----------NA----------				
43		AR1016-C			----------NA----------				
44		AR1016-D			----------NA----------				
45		AR1016-E			----------NA----------				
46		AR1260-A			----------NA----------				
47		AR1260-B			----------NA----------				

48		AR1260-C			----------NA----------				
49		AR1260-D			----------NA----------				
50		AR1260-E			----------NA----------				
51	S	Decachlorobiphenyl	18.537	21.164 E3	-14.2	119	0.00	17.17-17.29	

(#) = Out of Range SPCC's out = 0 CCC's out = 0
EF189488.D PCB6434.M Thu May 02 09:30:39 2019 GCEF

Initial Calibration Verification

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample: GEF6434-ICV6434
Lab FileID: EF189498.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6434\EF189498.D\ECD1A.CH Vial: 16
Signal #2 : C:\HPCHEM\1\DATA\GEF6434\EF189498.D\ECD2B.CH
Acq On : 1 May 2019 5:37 pm Operator: tianweir
Sample : icv6434-1000 Inst : gcef
Misc : op20033,GEF6434,10.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E

Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Thu May 02 08:24:03 2019
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1 S	Tetrachloro-m-xylene	13.319	15.706 E3	-17.9	117	0.00	3.42- 3.67
2	AR1221-A		----------NA----------				
3	AR1221-B		----------NA----------				
4	AR1221-C		----------NA----------				
5	AR1221-D		----------NA----------				
6	AR1221-E		----------NA----------				
7	AR1232-A		----------NA----------				
8	AR1232-B		----------NA----------				
9	AR1232-C		----------NA----------				
10	AR1232-D		----------NA----------				
11	AR1232-E		----------NA----------				
12	AR1242-A	532.321	517.925	2.7	97	0.00	4.59- 4.79
13	AR1242-B	1.222	1.186 E3	2.9	97	0.00	5.42- 5.62
14	AR1242-C	453.944	439.960	3.1	97	0.00	5.67- 5.87
15	AR1242-D	453.306	441.438	2.6	97	0.00	6.44- 6.64
16	AR1242-E	572.587	558.610	2.4	98	0.00	7.37- 7.57
17	AR1248-A		----------NA----------				
18	AR1248-B		----------NA----------				
19	AR1248-C		----------NA----------				
20	AR1248-D		----------NA----------				
21	AR1248-E		----------NA----------				
22	AR1248-F		----------NA----------				
23	AR1248-G		----------NA----------				
24	AR1254-A		----------NA----------				
25	AR1254-B		----------NA----------				
26	AR1254-C		----------NA----------				
27	AR1254-D		----------NA----------				
28	AR1254-E		----------NA----------				
29	AR1254-F		----------NA----------				
30	AR1254-G		----------NA----------				
31	AR1262-A		----------NA----------				
32	AR1262-B		----------NA----------				
33	AR1262-C		----------NA----------				
34	AR1262-D		----------NA----------				
35	AR1262-E		----------NA----------				
36	AR1268-A	2.227	2.143 E3	3.8	96	0.00	12.33-12.53
37	AR1268-B	2.639	2.579 E3	2.3	98	0.00	12.42-12.62
38	AR1268-C	1.970	1.904 E3	3.4	97	0.00	12.85-13.05
39	AR1268-D	894.257	851.899	4.7	95	0.00	13.66-13.86
40	AR1268-E	5.469	5.334 E3	2.5	98	0.00	14.29-14.49
41	AR1016-A		----------NA----------				

Initial Calibration Verification

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample: GEF6434-ICV6434
Lab FileID: EF189498.D

42		AR1016-B			----------NA----------				
43		AR1016-C			----------NA----------				
44		AR1016-D			----------NA----------				
45		AR1016-E			----------NA----------				
46		AR1260-A			----------NA----------				
47		AR1260-B			----------NA----------				
48		AR1260-C			----------NA----------				
49		AR1260-D			----------NA----------				
50		AR1260-E			----------NA----------				
51	S	Decachlorobiphenyl	16.226	47.951	E3 -195.5#	300#	0.00	14.74-14.88	
*****		Signal #2 *****							
1	S	Tetrachloro-m-xylene	16.227	18.998	E3 -17.1	117	0.00	4.09- 4.31	
2		AR1221-A			----------NA----------				
3		AR1221-B			----------NA----------				
4		AR1221-C			----------NA----------				
5		AR1221-D			----------NA----------				
6		AR1221-E			----------NA----------				
7		AR1232-A			----------NA----------				
8		AR1232-B			----------NA----------				
9		AR1232-C			----------NA----------				
10		AR1232-D			----------NA----------				
11		AR1232-E			----------NA----------				
12		AR1242-A	633.761	613.457	3.2	97	0.00	5.84- 6.04	
13		AR1242-B	1.371	1.299	E3 5.3	95	0.00	6.78- 6.98	
14		AR1242-C	631.035	604.374	4.2	96	0.00	7.07- 7.27	
15		AR1242-D	376.931	355.645	5.6	94	0.00	8.07- 8.27	
16		AR1242-E	667.765	616.479	7.7	92	0.00	9.03- 9.23	
17		AR1248-A			----------NA----------				
18		AR1248-B			----------NA----------				
19		AR1248-C			----------NA----------				
20		AR1248-D			----------NA----------				
21		AR1248-E			----------NA----------				
22		AR1248-F			----------NA----------				
23		AR1248-G			----------NA----------				
24		AR1254-A			----------NA----------				
25		AR1254-B			----------NA----------				
26		AR1254-C			----------NA----------				
27		AR1254-D			----------NA----------				
28		AR1254-E			----------NA----------				
29		AR1254-F			----------NA----------				
30		AR1254-G			----------NA----------				
31		AR1262-A			----------NA----------				
32		AR1262-B			----------NA----------				
33		AR1262-C			----------NA----------				
34		AR1262-D			----------NA----------				
35		AR1262-E			----------NA----------				
36		AR1268-A	2.982	2.857	E3 4.2	96	0.00	14.41-14.61	
37		AR1268-B	3.464	3.389	E3 2.2	98	0.00	14.52-14.72	
38		AR1268-C	2.538	2.458	E3 3.2	97	0.00	15.10-15.30	
39		AR1268-D	1.022	0.989	E3 3.2	97	0.00	15.79-15.99	
40		AR1268-E	6.877	6.682	E3 2.8	97	0.00	16.52-16.72	
41		AR1016-A			----------NA----------				
42		AR1016-B			----------NA----------				
43		AR1016-C			----------NA----------				
44		AR1016-D			----------NA----------				
45		AR1016-E			----------NA----------				
46		AR1260-A			----------NA----------				
47		AR1260-B			----------NA----------				

Initial Calibration Verification

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample: GEF6434-ICV6434
Lab FileID: EF189498.D

48		AR1260-C			----------NA----------			
49		AR1260-D			----------NA----------			
50		AR1260-E			----------NA----------			
51	S	Decachlorobiphenyl	18.537	55.073 E3	-197.1#	309#	0.00	17.15-17.28

(#) = Out of Range SPCC's out = 0 CCC's out = 0
EF189488.D PCB6434.M Thu May 02 09:30:41 2019 GCEF

Initial Calibration Verification

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY
Sample: GEF6434-ICV6434
Lab FileID: EF189499.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6434\EF189499.D\ECD1A.CH Vial: 17
Signal #2 : C:\HPCHEM\1\DATA\GEF6434\EF189499.D\ECD2B.CH
Acq On : 1 May 2019 6:02 pm Operator: tianweir
Sample : icv6434-1000 Inst : gcef
Misc : op20033,GEF6434,10.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E

Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Thu May 02 08:24:03 2019
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1 S	Tetrachloro-m-xylene	13.319	15.667 E3	-17.6	117	0.00	3.42- 3.67
2	AR1221-A		----------NA----------				
3	AR1221-B		----------NA----------				
4	AR1221-C		----------NA----------				
5	AR1221-D		----------NA----------				
6	AR1221-E		----------NA----------				
7	AR1232-A		----------NA----------				
8	AR1232-B		----------NA----------				
9	AR1232-C		----------NA----------				
10	AR1232-D		----------NA----------				
11	AR1232-E		----------NA----------				
12	AR1242-A		----------NA----------				
13	AR1242-B		----------NA----------				
14	AR1242-C		----------NA----------				
15	AR1242-D		----------NA----------				
16	AR1242-E		----------NA----------				
17	AR1248-A	266.269	247.711	7.0	93	0.00	4.58- 4.78
18	AR1248-B	793.725	780.889	1.6	98	0.00	5.42- 5.62
19	AR1248-C	697.244	742.206	-6.4	106	0.00	6.04- 6.24
20	AR1248-D	656.199	689.646	-5.1	105	0.00	6.43- 6.63
21	AR1248-E	328.686	372.487	-13.3	113	-0.01	6.61- 6.81
22	AR1248-F	782.933	846.883	-8.2	108	0.00	7.35- 7.55
23	AR1248-G	1.106	1.198 E3	-8.3	108	0.00	7.74- 7.94
24	AR1254-A		----------NA----------				
25	AR1254-B		----------NA----------				
26	AR1254-C		----------NA----------				
27	AR1254-D		----------NA----------				
28	AR1254-E		----------NA----------				
29	AR1254-F		----------NA----------				
30	AR1254-G		----------NA----------				
31	AR1262-A		----------NA----------				
32	AR1262-B		----------NA----------				
33	AR1262-C		----------NA----------				
34	AR1262-D		----------NA----------				
35	AR1262-E		----------NA----------				
36	AR1268-A		----------NA----------				
37	AR1268-B		----------NA----------				
38	AR1268-C		----------NA----------				
39	AR1268-D		----------NA----------				
40	AR1268-E		----------NA----------				
41	AR1016-A		----------NA----------				

Initial Calibration Verification

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample: GEF6434-ICV6434
Lab FileID: EF189499.D

42		AR1016-B			----------NA----------				
43		AR1016-C			----------NA----------				
44		AR1016-D			----------NA----------				
45		AR1016-E			----------NA----------				
46		AR1260-A			----------NA----------				
47		AR1260-B			----------NA----------				
48		AR1260-C			----------NA----------				
49		AR1260-D			----------NA----------				
50		AR1260-E			----------NA----------				
51	S	Decachlorobiphenyl	16.226	20.175	E3 -24.3#	126	0.00	14.75-14.89	
*****		Signal #2 *****							
1	S	Tetrachloro-m-xylene	16.227	19.912	E3 -22.7#	122	0.00	4.09- 4.30	
2		AR1221-A			----------NA----------				
3		AR1221-B			----------NA----------				
4		AR1221-C			----------NA----------				
5		AR1221-D			----------NA----------				
6		AR1221-E			----------NA----------				
7		AR1232-A			----------NA----------				
8		AR1232-B			----------NA----------				
9		AR1232-C			----------NA----------				
10		AR1232-D			----------NA----------				
11		AR1232-E			----------NA----------				
12		AR1242-A			----------NA----------				
13		AR1242-B			----------NA----------				
14		AR1242-C			----------NA----------				
15		AR1242-D			----------NA----------				
16		AR1242-E			----------NA----------				
17		AR1248-A	315.539	293.905	6.9	93	0.00	5.82- 6.02	
18		AR1248-B	823.847	790.327	4.1	96	0.00	6.78- 6.98	
19		AR1248-C	463.306	472.259	-1.9	102	0.00	7.47- 7.67	
20		AR1248-D	563.511	573.299	-1.7	102	0.00	8.06- 8.26	
21		AR1248-E	717.787	748.910	-4.3	104	0.00	8.33- 8.53	
22		AR1248-F	963.962	1014.963	-5.3	105	0.00	9.01- 9.21	
23		AR1248-G	983.069	1044.569	-6.3	106	0.00	9.53- 9.73	
24		AR1254-A			----------NA----------				
25		AR1254-B			----------NA----------				
26		AR1254-C			----------NA----------				
27		AR1254-D			----------NA----------				
28		AR1254-E			----------NA----------				
29		AR1254-F			----------NA----------				
30		AR1254-G			----------NA----------				
31		AR1262-A			----------NA----------				
32		AR1262-B			----------NA----------				
33		AR1262-C			----------NA----------				
34		AR1262-D			----------NA----------				
35		AR1262-E			----------NA----------				
36		AR1268-A			----------NA----------				
37		AR1268-B			----------NA----------				
38		AR1268-C			----------NA----------				
39		AR1268-D			----------NA----------				
40		AR1268-E			----------NA----------				
41		AR1016-A			----------NA----------				
42		AR1016-B			----------NA----------				
43		AR1016-C			----------NA----------				
44		AR1016-D			----------NA----------				
45		AR1016-E			----------NA----------				
46		AR1260-A			----------NA----------				
47		AR1260-B			----------NA----------				

Initial Calibration Verification

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample: GEF6434-ICV6434
Lab FileID: EF189499.D

48		AR1260-C			----------NA----------				
49		AR1260-D			----------NA----------				
50		AR1260-E			----------NA----------				
51	S	Decachlorobiphenyl	18.537	22.048	E3	-18.9	124	0.00	17.16-17.29

(#) = Out of Range SPCC's out = 0 CCC's out = 0
EF189488.D PCB6434.M Thu May 02 09:30:42 2019 GCEF

Initial Calibration Verification

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY
Sample: GEF6434-ICV6434
Lab FileID: EF189501.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6434\EF189501.D\ECD1A.CH Vial: 14
Signal #2 : C:\HPCHEM\1\DATA\GEF6434\EF189501.D\ECD2B.CH
Acq On : 2 May 2019 8:49 am Operator: tianweir
Sample : icv6434-1000 Inst : gcef
Misc : op20033,GEF6434,10.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E

Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Thu May 02 08:24:03 2019
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF		%Dev	Area%	Dev(min)	RT Window
1 S	Tetrachloro-m-xylene	13.319	18.343	E3	-37.7#	137	0.00	3.42- 3.67
2	AR1221-A	150.998	152.372		-0.9	101	0.00	2.75- 2.95
3	AR1221-B	200.897	185.454		7.7	92	0.00	3.71- 3.91
4	AR1221-C	653.691	598.135		8.5	92	0.00	3.99- 4.19
5	AR1221-D	95.771	78.598		17.9	82	0.00	4.58- 4.78
6	AR1221-E	137.856	118.509		14.0	86	-0.04	4.87- 5.07
7	AR1232-A		----------NA----------					
8	AR1232-B		----------NA----------					
9	AR1232-C		----------NA----------					
10	AR1232-D		----------NA----------					
11	AR1232-E		----------NA----------					
12	AR1242-A		----------NA----------					
13	AR1242-B		----------NA----------					
14	AR1242-C		----------NA----------					
15	AR1242-D		----------NA----------					
16	AR1242-E		----------NA----------					
17	AR1248-A		----------NA----------					
18	AR1248-B		----------NA----------					
19	AR1248-C		----------NA----------					
20	AR1248-D		----------NA----------					
21	AR1248-E		----------NA----------					
22	AR1248-F		----------NA----------					
23	AR1248-G		----------NA----------					
24	AR1254-A	611.178	630.187		-3.1	103	0.00	7.19- 7.39
25	AR1254-B	764.710	782.325		-2.3	102	0.00	7.73- 7.93
26	AR1254-C	560.266	564.616		-0.8	101	0.00	8.30- 8.50
27	AR1254-D	1.025	1.049	E3	-2.3	102	0.00	8.56- 8.76
28	AR1254-E	872.093	876.813		-0.5	101	0.00	9.18- 9.38
29	AR1254-F	817.395	836.241		-2.3	102	0.00	9.55- 9.75
30	AR1254-G	990.911	1018.731		-2.8	103	0.00	10.15-10.35
31	AR1262-A		----------NA----------					
32	AR1262-B		----------NA----------					
33	AR1262-C		----------NA----------					
34	AR1262-D		----------NA----------					
35	AR1262-E		----------NA----------					
36	AR1268-A		----------NA----------					
37	AR1268-B		----------NA----------					
38	AR1268-C		----------NA----------					
39	AR1268-D		----------NA----------					
40	AR1268-E		----------NA----------					
41	AR1016-A		----------NA----------					

10.7.6 10

Initial Calibration Verification

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample: GEF6434-ICV6434
Lab FileID: EF189501.D

42		AR1016-B			----------NA----------				
43		AR1016-C			----------NA----------				
44		AR1016-D			----------NA----------				
45		AR1016-E			----------NA----------				
46		AR1260-A			----------NA----------				
47		AR1260-B			----------NA----------				
48		AR1260-C			----------NA----------				
49		AR1260-D			----------NA----------				
50		AR1260-E			----------NA----------				
51	S	Decachlorobiphenyl	16.226	21.224	E3 -30.8#	133	0.00	14.75-14.89	
*****		Signal #2 *****							
1	S	Tetrachloro-m-xylene	16.227	21.786	E3 -34.3#	134	0.00	4.09- 4.31	
2		AR1221-A	158.249	165.296	-4.5	104	0.00	3.35- 3.55	
3		AR1221-B	231.604	216.977	6.3	94	0.00	4.64- 4.84	
4		AR1221-C	632.527	611.034	3.4	97	0.00	5.03- 5.23	
5		AR1221-D	99.667	83.121	16.6	83	0.00	5.84- 6.04	
6		AR1221-E	91.520	88.117	3.7	96	0.00	6.02- 6.22	
7		AR1232-A			----------NA----------				
8		AR1232-B			----------NA----------				
9		AR1232-C			----------NA----------				
10		AR1232-D			----------NA----------				
11		AR1232-E			----------NA----------				
12		AR1242-A			----------NA----------				
13		AR1242-B			----------NA----------				
14		AR1242-C			----------NA----------				
15		AR1242-D			----------NA----------				
16		AR1242-E			----------NA----------				
17		AR1248-A			----------NA----------				
18		AR1248-B			----------NA----------				
19		AR1248-C			----------NA----------				
20		AR1248-D			----------NA----------				
21		AR1248-E			----------NA----------				
22		AR1248-F			----------NA----------				
23		AR1248-G			----------NA----------				
24		AR1254-A	1.176	1.226	E3 -4.3	104	0.00	8.98- 9.18	
25		AR1254-B	903.104	931.160	-3.1	103	0.00	9.39- 9.59	
26		AR1254-C	619.160	636.696	-2.8	103	0.00	10.18-10.38	
27		AR1254-D	1.326	1.376	E3 -3.8	104	0.00	10.44-10.64	
28		AR1254-E	1.002	1.041	E3 -3.9	104	0.00	10.98-11.18	
29		AR1254-F	814.969	853.175	-4.7	105	0.00	11.69-11.89	
30		AR1254-G	1.327	1.394	E3 -5.0	105	0.00	12.17-12.37	
31		AR1262-A			----------NA----------				
32		AR1262-B			----------NA----------				
33		AR1262-C			----------NA----------				
34		AR1262-D			----------NA----------				
35		AR1262-E			----------NA----------				
36		AR1268-A			----------NA----------				
37		AR1268-B			----------NA----------				
38		AR1268-C			----------NA----------				
39		AR1268-D			----------NA----------				
40		AR1268-E			----------NA----------				
41		AR1016-A			----------NA----------				
42		AR1016-B			----------NA----------				
43		AR1016-C			----------NA----------				
44		AR1016-D			----------NA----------				
45		AR1016-E			----------NA----------				
46		AR1260-A			----------NA----------				
47		AR1260-B			----------NA----------				

Initial Calibration Verification

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample: GEF6434-ICV6434
Lab FileID: EF189501.D

48		AR1260-C				----------NA----------			
49		AR1260-D				----------NA----------			
50		AR1260-E				----------NA----------			
51	S	Decachlorobiphenyl	18.537	24.498	E3	-32.2#	138	0.00	17.17-17.29

(#) = Out of Range SPCC's out = 0 CCC's out = 0
EF189488.D PCB6434.M Thu May 02 09:30:44 2019 GCEF

10.7.6 10

Continuing Calibration Summary

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample: GEF6439-CC6434
Lab FileID: EF189647.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6439\EF189647.D\ECD1A.CH Vial: 31
Signal #2 : C:\HPCHEM\1\DATA\GEF6439\EF189647.D\ECD2B.CH
Acq On : 7 May 2019 9:27 am Operator: tianweir
Sample : cc6434-1000 Inst : gcef
Misc : op20179,GEF6439,16.4,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E

Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue May 07 09:47:58 2019
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1	S	Tetrachloro-m-xylene	13.319	13.456 E3	-1.0	100	0.00	3.38- 3.63
2		AR1221-A		----------NA----------				
3		AR1221-B		----------NA----------				
4		AR1221-C		----------NA----------				
5		AR1221-D		----------NA----------				
6		AR1221-E		----------NA----------				
7		AR1232-A		----------NA----------				
8		AR1232-B		----------NA----------				
9		AR1232-C		----------NA----------				
10		AR1232-D		----------NA----------				
11		AR1232-E		----------NA----------				
12		AR1242-A		----------NA----------				
13		AR1242-B		----------NA----------				
14		AR1242-C		----------NA----------				
15		AR1242-D		----------NA----------				
16		AR1242-E		----------NA----------				
17		AR1248-A		----------NA----------				
18		AR1248-B		----------NA----------				
19		AR1248-C		----------NA----------				
20		AR1248-D		----------NA----------				
21		AR1248-E		----------NA----------				
22		AR1248-F		----------NA----------				
23		AR1248-G		----------NA----------				
24		AR1254-A		----------NA----------				
25		AR1254-B		----------NA----------				
26		AR1254-C		----------NA----------				
27		AR1254-D		----------NA----------				
28		AR1254-E		----------NA----------				
29		AR1254-F		----------NA----------				
30		AR1254-G		----------NA----------				
31		AR1262-A		----------NA----------				
32		AR1262-B		----------NA----------				
33		AR1262-C		----------NA----------				
34		AR1262-D		----------NA----------				
35		AR1262-E		----------NA----------				
36		AR1268-A		----------NA----------				
37		AR1268-B		----------NA----------				
38		AR1268-C		----------NA----------				
39		AR1268-D		----------NA----------				
40		AR1268-E		----------NA----------				
41		AR1016-A	379.175	357.494	5.7	95	0.00	3.96- 4.14

Continuing Calibration Summary

Job Number: JC87363 **Sample:** GEF6439-CC6434
Account: TCMAW Tantara Corporation **Lab FileID:** EF189647.D
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

42		AR1016-B	645.892	614.274		4.9	98	0.00	4.57- 4.70
43		AR1016-C	1.476	1.457	E3	1.3	101	0.00	5.42- 5.49
44		AR1016-D	538.105	539.936		-0.3	101	0.00	5.67- 5.73
45		AR1016-E	535.812	552.185		-3.1	102	0.00	6.45- 6.51
46		AR1260-A	1.194	1.314	E3	-10.1	111	0.00	10.11-10.25
47		AR1260-B	820.964	845.132		-2.9	106	0.00	10.37-10.50
48		AR1260-C	668.862	743.308		-11.1	113	0.00	10.90-11.04
49		AR1260-D	1.902	1.762	E3	7.4	94	0.00	11.59-11.72
50		AR1260-E	1.854	1.933	E3	-4.3	103	0.00	12.21-12.35
51	S	Decachlorobiphenyl	16.226	16.162	E3	0.4	101	0.00	14.68-14.82
*****		Signal #2 *****							
1	S	Tetrachloro-m-xylene	16.227	15.332	E3	5.5	94	0.00	4.05- 4.27
2		AR1221-A		----------NA----------					
3		AR1221-B		----------NA----------					
4		AR1221-C		----------NA----------					
5		AR1221-D		----------NA----------					
6		AR1221-E		----------NA----------					
7		AR1232-A		----------NA----------					
8		AR1232-B		----------NA----------					
9		AR1232-C		----------NA----------					
10		AR1232-D		----------NA----------					
11		AR1232-E		----------NA----------					
12		AR1242-A		----------NA----------					
13		AR1242-B		----------NA----------					
14		AR1242-C		----------NA----------					
15		AR1242-D		----------NA----------					
16		AR1242-E		----------NA----------					
17		AR1248-A		----------NA----------					
18		AR1248-B		----------NA----------					
19		AR1248-C		----------NA----------					
20		AR1248-D		----------NA----------					
21		AR1248-E		----------NA----------					
22		AR1248-F		----------NA----------					
23		AR1248-G		----------NA----------					
24		AR1254-A		----------NA----------					
25		AR1254-B		----------NA----------					
26		AR1254-C		----------NA----------					
27		AR1254-D		----------NA----------					
28		AR1254-E		----------NA----------					
29		AR1254-F		----------NA----------					
30		AR1254-G		----------NA----------					
31		AR1262-A		----------NA----------					
32		AR1262-B		----------NA----------					
33		AR1262-C		----------NA----------					
34		AR1262-D		----------NA----------					
35		AR1262-E		----------NA----------					
36		AR1268-A		----------NA----------					
37		AR1268-B		----------NA----------					
38		AR1268-C		----------NA----------					
39		AR1268-D		----------NA----------					
40		AR1268-E		----------NA----------					
41		AR1016-A	401.825	345.811		13.9	86	0.00	5.02- 5.15
42		AR1016-B	735.620	720.568		2.0	96	0.00	5.86- 5.92
43		AR1016-C	1.668	1.563	E3	6.3	96	0.00	6.79- 6.85
44		AR1016-D	751.627	678.107		9.8	92	0.00	7.08- 7.14
45		AR1016-E	479.034	429.074		10.4	94	0.00	8.08- 8.15
46		AR1260-A	1.539	1.576	E3	-2.4	99	0.00	12.14-12.27
47		AR1260-B	1.171	1.120	E3	4.4	96	0.00	12.34-12.46

Continuing Calibration Summary

Job Number: JC87363 **Sample:** GEF6439-CC6434
Account: TCMAW Tantara Corporation **Lab FileID:** EF189647.D
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

48		AR1260-C	963.385	999.223		-3.7	103	0.00	13.02-13.14
49		AR1260-D	2.345	2.435	E3	-3.8	101	0.00	13.58-13.71
50		AR1260-E	2.285	2.343	E3	-2.5	101	0.00	14.44-14.56
51	S	Decachlorobiphenyl	18.537	17.849	E3	3.7	100	0.00	17.11-17.23

(#) = Out of Range SPCC's out = 0 CCC's out = 0
EF189647.D PCB6434.M Tue May 07 11:02:49 2019 GCEF

Continuing Calibration Summary

Job Number: JC87363 **Sample:** GEF6439-CC6434
Account: TCMAW Tantara Corporation **Lab FileID:** EF189658.D
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6439\EF189658.D\ECD1A.CH Vial: 12
Signal #2 : C:\HPCHEM\1\DATA\GEF6439\EF189658.D\ECD2B.CH
Acq On : 7 May 2019 2:00 pm Operator: tianweir
Sample : cc6434-500 Inst : gcef
Misc : op20179,GEF6439,5.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E

Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue May 07 09:47:58 2019
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1	S	Tetrachloro-m-xylene	13.319	15.476 E3	-16.2	117	0.00	3.38- 3.63
2		AR1221-A		----------NA----------				
3		AR1221-B		----------NA----------				
4		AR1221-C		----------NA----------				
5		AR1221-D		----------NA----------				
6		AR1221-E		----------NA----------				
7		AR1232-A		----------NA----------				
8		AR1232-B		----------NA----------				
9		AR1232-C		----------NA----------				
10		AR1232-D		----------NA----------				
11		AR1232-E		----------NA----------				
12		AR1242-A		----------NA----------				
13		AR1242-B		----------NA----------				
14		AR1242-C		----------NA----------				
15		AR1242-D		----------NA----------				
16		AR1242-E		----------NA----------				
17		AR1248-A		----------NA----------				
18		AR1248-B		----------NA----------				
19		AR1248-C		----------NA----------				
20		AR1248-D		----------NA----------				
21		AR1248-E		----------NA----------				
22		AR1248-F		----------NA----------				
23		AR1248-G		----------NA----------				
24		AR1254-A		----------NA----------				
25		AR1254-B		----------NA----------				
26		AR1254-C		----------NA----------				
27		AR1254-D		----------NA----------				
28		AR1254-E		----------NA----------				
29		AR1254-F		----------NA----------				
30		AR1254-G		----------NA----------				
31		AR1262-A		----------NA----------				
32		AR1262-B		----------NA----------				
33		AR1262-C		----------NA----------				
34		AR1262-D		----------NA----------				
35		AR1262-E		----------NA----------				
36		AR1268-A		----------NA----------				
37		AR1268-B		----------NA----------				
38		AR1268-C		----------NA----------				
39		AR1268-D		----------NA----------				
40		AR1268-E		----------NA----------				
41		AR1016-A	379.175	451.425	-19.1	117	0.01	3.97- 4.15

10.7.8 10

Continuing Calibration Summary

Job Number: JC87363 **Sample:** GEF6439-CC6434
Account: TCMAW Tantara Corporation **Lab FileID:** EF189658.D
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

42		AR1016-B	645.892	778.038		-20.5#	119	0.00	4.58- 4.70
43		AR1016-C	1.476	1.812	E3	-22.8#	118	0.02	5.44- 5.51
44		AR1016-D	538.105	674.218		-25.3#	120	0.03	5.69- 5.75
45		AR1016-E	535.812	679.059		-26.7#	122	0.02	6.46- 6.52
46		AR1260-A	1.194	1.484	E3	-24.3#	122	0.02	10.13-10.27
47		AR1260-B	820.964	994.992		-21.2#	117	0.02	10.38-10.52
48		AR1260-C	668.862	840.053		-25.6#	123	0.02	10.92-11.05
49		AR1260-D	1.902	2.236	E3	-17.6	115	0.02	11.61-11.74
50		AR1260-E	1.854	2.181	E3	-17.6	113	0.03	12.24-12.37
51	S	Decachlorobiphenyl	16.226	17.798	E3	-9.7	106	0.01	14.69-14.83
*****		Signal #2 *****							
1	S	Tetrachloro-m-xylene	16.227	17.143	E3	-5.6	107	0.00	4.06- 4.28
2		AR1221-A		----------NA----------					
3		AR1221-B		----------NA----------					
4		AR1221-C		----------NA----------					
5		AR1221-D		----------NA----------					
6		AR1221-E		----------NA----------					
7		AR1232-A		----------NA----------					
8		AR1232-B		----------NA----------					
9		AR1232-C		----------NA----------					
10		AR1232-D		----------NA----------					
11		AR1232-E		----------NA----------					
12		AR1242-A		----------NA----------					
13		AR1242-B		----------NA----------					
14		AR1242-C		----------NA----------					
15		AR1242-D		----------NA----------					
16		AR1242-E		----------NA----------					
17		AR1248-A		----------NA----------					
18		AR1248-B		----------NA----------					
19		AR1248-C		----------NA----------					
20		AR1248-D		----------NA----------					
21		AR1248-E		----------NA----------					
22		AR1248-F		----------NA----------					
23		AR1248-G		----------NA----------					
24		AR1254-A		----------NA----------					
25		AR1254-B		----------NA----------					
26		AR1254-C		----------NA----------					
27		AR1254-D		----------NA----------					
28		AR1254-E		----------NA----------					
29		AR1254-F		----------NA----------					
30		AR1254-G		----------NA----------					
31		AR1262-A		----------NA----------					
32		AR1262-B		----------NA----------					
33		AR1262-C		----------NA----------					
34		AR1262-D		----------NA----------					
35		AR1262-E		----------NA----------					
36		AR1268-A		----------NA----------					
37		AR1268-B		----------NA----------					
38		AR1268-C		----------NA----------					
39		AR1268-D		----------NA----------					
40		AR1268-E		----------NA----------					
41		AR1016-A	401.825	445.657		-10.9	108	0.01	5.04- 5.16
42		AR1016-B	735.620	850.988		-15.7	110	0.01	5.87- 5.93
43		AR1016-C	1.668	1.815	E3	-8.8	107	0.02	6.81- 6.87
44		AR1016-D	751.627	812.883		-8.1	109	0.02	7.10- 7.16
45		AR1016-E	479.034	512.899		-7.1	110	0.02	8.10- 8.17
46		AR1260-A	1.539	1.749	E3	-13.6	112	0.02	12.16-12.29
47		AR1260-B	1.171	1.286	E3	-9.8	108	0.01	12.35-12.47

Continuing Calibration Summary

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample: GEF6439-CC6434
Lab FileID: EF189658.D

48		AR1260-C	963.385	1071.659		-11.2	110	0.02	13.03-13.16
49		AR1260-D	2.345	2.571	E3	-9.6	107	0.03	13.61-13.74
50		AR1260-E	2.285	2.394	E3	-4.8	105	0.04	14.47-14.60
51	S	Decachlorobiphenyl	18.537	18.545	E3	-0.0	101	0.02	17.13-17.25

(#) = Out of Range SPCC's out = 0 CCC's out = 0
EF189487.D PCB6434.M Tue May 07 14:21:33 2019 GCEF

Continuing Calibration Summary

Job Number: JC87363 **Sample:** GEF6439-CC6434
Account: TCMAW Tantara Corporation **Lab FileID:** EF189668.D
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6439\EF189668.D\ECD1A.CH Vial: 19
Signal #2 : C:\HPCHEM\1\DATA\GEF6439\EF189668.D\ECD2B.CH
Acq On : 7 May 2019 6:42 pm Operator: tianweir
Sample : cc6434-1000 Inst : gcef
Misc : op20179,GEF6439,15.4,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E

Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed May 08 08:21:33 2019
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1	S	Tetrachloro-m-xylene	13.319	16.371 E3	-22.9#	122	0.00	3.39- 3.64
2		AR1221-A		----------NA----------				
3		AR1221-B		----------NA----------				
4		AR1221-C		----------NA----------				
5		AR1221-D		----------NA----------				
6		AR1221-E		----------NA----------				
7		AR1232-A		----------NA----------				
8		AR1232-B		----------NA----------				
9		AR1232-C		----------NA----------				
10		AR1232-D		----------NA----------				
11		AR1232-E		----------NA----------				
12		AR1242-A		----------NA----------				
13		AR1242-B		----------NA----------				
14		AR1242-C		----------NA----------				
15		AR1242-D		----------NA----------				
16		AR1242-E		----------NA----------				
17		AR1248-A		----------NA----------				
18		AR1248-B		----------NA----------				
19		AR1248-C		----------NA----------				
20		AR1248-D		----------NA----------				
21		AR1248-E		----------NA----------				
22		AR1248-F		----------NA----------				
23		AR1248-G		----------NA----------				
24		AR1254-A		----------NA----------				
25		AR1254-B		----------NA----------				
26		AR1254-C		----------NA----------				
27		AR1254-D		----------NA----------				
28		AR1254-E		----------NA----------				
29		AR1254-F		----------NA----------				
30		AR1254-G		----------NA----------				
31		AR1262-A		----------NA----------				
32		AR1262-B		----------NA----------				
33		AR1262-C		----------NA----------				
34		AR1262-D		----------NA----------				
35		AR1262-E		----------NA----------				
36		AR1268-A		----------NA----------				
37		AR1268-B		----------NA----------				
38		AR1268-C		----------NA----------				
39		AR1268-D		----------NA----------				
40		AR1268-E		----------NA----------				
41		AR1016-A	379.175	451.452	-19.1	120	0.00	3.97- 4.16

10.7.9 10

Continuing Calibration Summary

Job Number: JC87363 **Sample:** GEF6439-CC6434
Account: TCMAW Tantara Corporation **Lab FileID:** EF189668.D
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

42		AR1016-B	645.892	759.223		-17.5	121	0.00	4.58- 4.71
43		AR1016-C	1.476	1.750	E3	-18.6	121	0.00	5.44- 5.51
44		AR1016-D	538.105	663.077		-23.2#	124	0.00	5.69- 5.75
45		AR1016-E	535.812	670.769		-25.2#	124	0.00	6.46- 6.52
46		AR1260-A	1.194	1.460	E3	-22.3#	124	0.00	10.13-10.27
47		AR1260-B	820.964	976.809		-19.0	122	0.00	10.38-10.52
48		AR1260-C	668.862	818.316		-22.3#	124	0.00	10.91-11.05
49		AR1260-D	1.902	2.264	E3	-19.0	120	0.00	11.61-11.73
50		AR1260-E	1.854	2.241	E3	-20.9#	119	0.00	12.23-12.37
51	S	Decachlorobiphenyl	16.226	18.249	E3	-12.5	114	0.00	14.69-14.83
*****		Signal #2 *****							
1	S	Tetrachloro-m-xylene	16.227	17.818	E3	-9.8	109	0.00	4.06- 4.28
2		AR1221-A		----------NA----------					
3		AR1221-B		----------NA----------					
4		AR1221-C		----------NA----------					
5		AR1221-D		----------NA----------					
6		AR1221-E		----------NA----------					
7		AR1232-A		----------NA----------					
8		AR1232-B		----------NA----------					
9		AR1232-C		----------NA----------					
10		AR1232-D		----------NA----------					
11		AR1232-E		----------NA----------					
12		AR1242-A		----------NA----------					
13		AR1242-B		----------NA----------					
14		AR1242-C		----------NA----------					
15		AR1242-D		----------NA----------					
16		AR1242-E		----------NA----------					
17		AR1248-A		----------NA----------					
18		AR1248-B		----------NA----------					
19		AR1248-C		----------NA----------					
20		AR1248-D		----------NA----------					
21		AR1248-E		----------NA----------					
22		AR1248-F		----------NA----------					
23		AR1248-G		----------NA----------					
24		AR1254-A		----------NA----------					
25		AR1254-B		----------NA----------					
26		AR1254-C		----------NA----------					
27		AR1254-D		----------NA----------					
28		AR1254-E		----------NA----------					
29		AR1254-F		----------NA----------					
30		AR1254-G		----------NA----------					
31		AR1262-A		----------NA----------					
32		AR1262-B		----------NA----------					
33		AR1262-C		----------NA----------					
34		AR1262-D		----------NA----------					
35		AR1262-E		----------NA----------					
36		AR1268-A		----------NA----------					
37		AR1268-B		----------NA----------					
38		AR1268-C		----------NA----------					
39		AR1268-D		----------NA----------					
40		AR1268-E		----------NA----------					
41		AR1016-A	401.825	441.250		-9.8	110	0.00	5.04- 5.16
42		AR1016-B	735.620	832.870		-13.2	111	0.00	5.87- 5.93
43		AR1016-C	1.668	1.763	E3	-5.7	108	0.00	6.82- 6.88
44		AR1016-D	751.627	826.771		-10.0	112	0.00	7.10- 7.16
45		AR1016-E	479.034	507.788		-6.0	111	0.00	8.10- 8.17
46		AR1260-A	1.539	1.776	E3	-15.4	112	0.00	12.16-12.28
47		AR1260-B	1.171	1.314	E3	-12.2	112	0.00	12.35-12.47

Continuing Calibration Summary

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample: GEF6439-CC6434
Lab FileID: EF189668.D

48		AR1260-C	963.385	1100.181		-14.2	113	0.00	13.03-13.16
49		AR1260-D	2.345	2.668	E3	-13.8	111	0.00	13.61-13.73
50		AR1260-E	2.285	2.585	E3	-13.1	112	0.00	14.47-14.60
51	S	Decachlorobiphenyl	18.537	18.766	E3	-1.2	105	0.00	17.12-17.25

(#) = Out of Range SPCC's out = 0 CCC's out = 0
EF189668.D PCB6434.M Wed May 08 08:57:16 2019 GCEF

10.7.9 10

Continuing Calibration Summary

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample: GEF6439-CC6434
Lab FileID: EF189679.D

Evaluate Continuing Calibration Report

```
Signal #1 : C:\HPCHEM\1\DATA\GEF6439\EF189679.D\ECD1A.CH Vial: 26
Signal #2 : C:\HPCHEM\1\DATA\GEF6439\EF189679.D\ECD2B.CH
Acq On    :  8 May 2019   4:06 am                    Operator: tianweir
Sample    : cc6434-500                               Inst    : gcef
Misc      : op20179,GEF6439,15.4,,,10,1              Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E     IntFile Signal #2: .E

Method       : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title        : GC/ECD- PCB
Last Update  : Wed May 08 08:21:33 2019
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.10min
Max. RRF Dev :  20%     Max. Rel. Area : 150%
```

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1 S	Tetrachloro-m-xylene	13.319	16.545 E3	-24.2#	125	0.01	3.40- 3.65
2	AR1221-A			----------NA----------			
3	AR1221-B			----------NA----------			
4	AR1221-C			----------NA----------			
5	AR1221-D			----------NA----------			
6	AR1221-E			----------NA----------			
7	AR1232-A			----------NA----------			
8	AR1232-B			----------NA----------			
9	AR1232-C			----------NA----------			
10	AR1232-D			----------NA----------			
11	AR1232-E			----------NA----------			
12	AR1242-A			----------NA----------			
13	AR1242-B			----------NA----------			
14	AR1242-C			----------NA----------			
15	AR1242-D			----------NA----------			
16	AR1242-E			----------NA----------			
17	AR1248-A			----------NA----------			
18	AR1248-B			----------NA----------			
19	AR1248-C			----------NA----------			
20	AR1248-D			----------NA----------			
21	AR1248-E			----------NA----------			
22	AR1248-F			----------NA----------			
23	AR1248-G			----------NA----------			
24	AR1254-A			----------NA----------			
25	AR1254-B			----------NA----------			
26	AR1254-C			----------NA----------			
27	AR1254-D			----------NA----------			
28	AR1254-E			----------NA----------			
29	AR1254-F			----------NA----------			
30	AR1254-G			----------NA----------			
31	AR1262-A			----------NA----------			
32	AR1262-B			----------NA----------			
33	AR1262-C			----------NA----------			
34	AR1262-D			----------NA----------			
35	AR1262-E			----------NA----------			
36	AR1268-A			----------NA----------			
37	AR1268-B			----------NA----------			
38	AR1268-C			----------NA----------			
39	AR1268-D			----------NA----------			
40	AR1268-E			----------NA----------			
41	AR1016-A	379.175	483.726	-27.6#	126	0.02	3.99- 4.18

Continuing Calibration Summary

Job Number: JC87363 **Sample:** GEF6439-CC6434
Account: TCMAW Tantara Corporation **Lab FileID:** EF189679.D
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

42		AR1016-B	645.892	831.453		-28.7#	127	0.02	4.60- 4.72
43		AR1016-C	1.476	1.905	E3	-29.1#	124	0.02	5.46- 5.53
44		AR1016-D	538.105	718.872		-33.6#	128	0.02	5.72- 5.78
45		AR1016-E	535.812	721.304		-34.6#	129	0.02	6.48- 6.54
46		AR1260-A	1.194	1.549	E3	-29.7#	128	0.02	10.15-10.29
47		AR1260-B	820.964	1072.739		-30.7#	126	0.02	10.39-10.53
48		AR1260-C	668.862	877.624		-31.2#	128	0.01	10.93-11.07
49		AR1260-D	1.902	2.413	E3	-26.9#	124	0.02	11.63-11.75
50		AR1260-E	1.854	2.376	E3	-28.2#	123	0.08	12.32-12.46
51	S	Decachlorobiphenyl	16.226	19.691	E3	-21.4#	118	0.01	14.70-14.84
*****		Signal #2 *****							
1	S	Tetrachloro-m-xylene	16.227	17.612	E3	-8.5	110	0.01	4.08- 4.29
2		AR1221-A		----------NA----------					
3		AR1221-B		----------NA----------					
4		AR1221-C		----------NA----------					
5		AR1221-D		----------NA----------					
6		AR1221-E		----------NA----------					
7		AR1232-A		----------NA----------					
8		AR1232-B		----------NA----------					
9		AR1232-C		----------NA----------					
10		AR1232-D		----------NA----------					
11		AR1232-E		----------NA----------					
12		AR1242-A		----------NA----------					
13		AR1242-B		----------NA----------					
14		AR1242-C		----------NA----------					
15		AR1242-D		----------NA----------					
16		AR1242-E		----------NA----------					
17		AR1248-A		----------NA----------					
18		AR1248-B		----------NA----------					
19		AR1248-C		----------NA----------					
20		AR1248-D		----------NA----------					
21		AR1248-E		----------NA----------					
22		AR1248-F		----------NA----------					
23		AR1248-G		----------NA----------					
24		AR1254-A		----------NA----------					
25		AR1254-B		----------NA----------					
26		AR1254-C		----------NA----------					
27		AR1254-D		----------NA----------					
28		AR1254-E		----------NA----------					
29		AR1254-F		----------NA----------					
30		AR1254-G		----------NA----------					
31		AR1262-A		----------NA----------					
32		AR1262-B		----------NA----------					
33		AR1262-C		----------NA----------					
34		AR1262-D		----------NA----------					
35		AR1262-E		----------NA----------					
36		AR1268-A		----------NA----------					
37		AR1268-B		----------NA----------					
38		AR1268-C		----------NA----------					
39		AR1268-D		----------NA----------					
40		AR1268-E		----------NA----------					
41		AR1016-A	401.825	463.582		-15.4	112	0.02	5.06- 5.18
42		AR1016-B	735.620	898.902		-22.2#	117	0.02	5.89- 5.95
43		AR1016-C	1.668	1.840	E3	-10.3	109	0.02	6.84- 6.90
44		AR1016-D	751.627	889.481		-18.3	119	0.02	7.12- 7.18
45		AR1016-E	479.034	532.536		-11.2	114	0.02	8.11- 8.18
46		AR1260-A	1.539	1.763	E3	-14.6	113	0.02	12.18-12.31
47		AR1260-B	1.171	1.395	E3	-19.1	117	0.02	12.36-12.49

Continuing Calibration Summary

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample: GEF6439-CC6434
Lab FileID: EF189679.D

48		AR1260-C	963.385	1126.855	-17.0	116	0.02	13.05-13.17
49		AR1260-D	2.345	2.660 E3	-13.4	111	0.02	13.63-13.75
50		AR1260-E	2.285	2.573 E3	-12.6	112	0.05	14.53-14.65
51	S	Decachlorobiphenyl	18.537	19.030 E3	-2.7	104	0.01	17.14-17.26

(#) = Out of Range SPCC's out = 0 CCC's out = 0
EF189487.D PCB6434.M Wed May 08 08:57:00 2019 GCEF

10.7.10 10

GC/LC Semi-volatiles

Raw Data

Manual Integrations APPROVED
(compounds with "m" flag)
Gwendolyn Burns
05/08/19 09:59

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\GEF6439\EF189670.D\ECD1A.CH Vial: 20
Signal #2 : C:\HPCHEM\1\DATA\GEF6439\EF189670.D\ECD2B.CH
Acq On : 7 May 2019 7:32 pm Operator: tianweir
Sample : jc87363-3 Inst : gcef
Misc : op20179,GEF6439,15.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 8 8:19 2019 Quant Results File: PCB6434.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue May 07 09:47:58 2019
Response via : Initial Calibration
DataAcq Meth : PCB6434.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
System Monitoring Compounds						
1) S Tetrachloro-m-xy	3.51	4.17	475837	623409	35.725m	38.418m
Spiked Amount 40.000			Recovery	=	89.31%	96.05%
51) S Decachlorobiphen	14.76	17.18	568137	685361	35.014	36.972m
Spiked Amount 40.000			Recovery	=	87.54%	92.43%
Target Compounds						

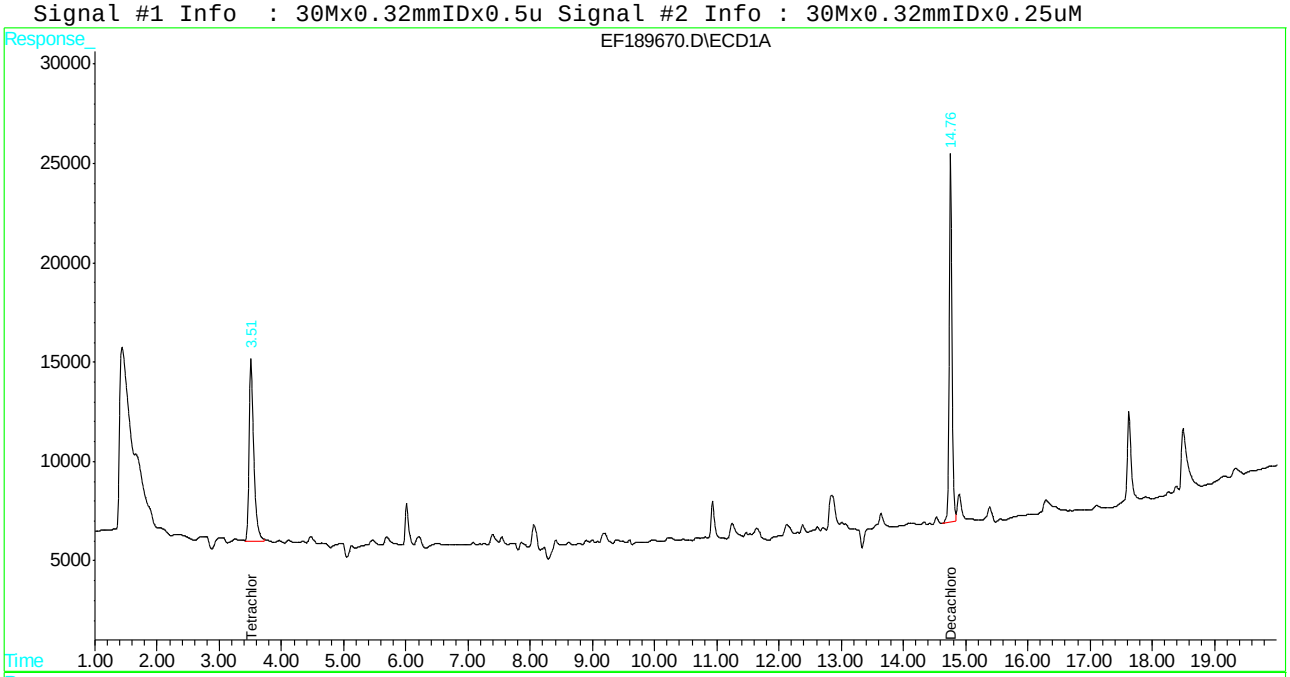
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
EF189670.D PCB6434.M Wed May 08 08:19:32 2019 GCEF Page 1

Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6439\EF189670.D\ECD1A.CH Vial: 20
Signal #2 : C:\HPCHEM\1\DATA\GEF6439\EF189670.D\ECD2B.CH
Acq On : 7 May 2019 7:32 pm Operator: tianweir
Sample : jc87363-3 Inst : gcef
Misc : op20179,GEF6439,15.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 8 8:19 2019 Quant Results File: PCB6434.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue May 07 09:47:58 2019
Response via : Multiple Level Calibration
DataAcq Meth : PCB6434.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM



Manual Integration Approval Summary

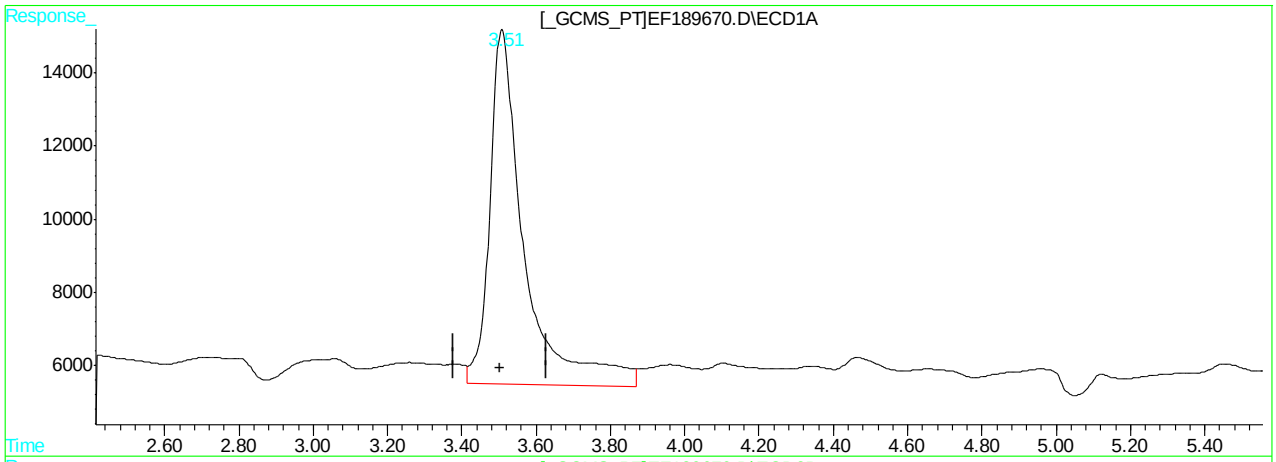
Sample Number: JC87363-3
Lab FileID: EF189670.D
Injection Time: 05/07/19 19:32
Method: SW846 8082A
Analyst approved: 05/08/19 09:11 Tianwei Ruan
Supervisor approved: 05/08/19 09:59 Gwendolyn Burns

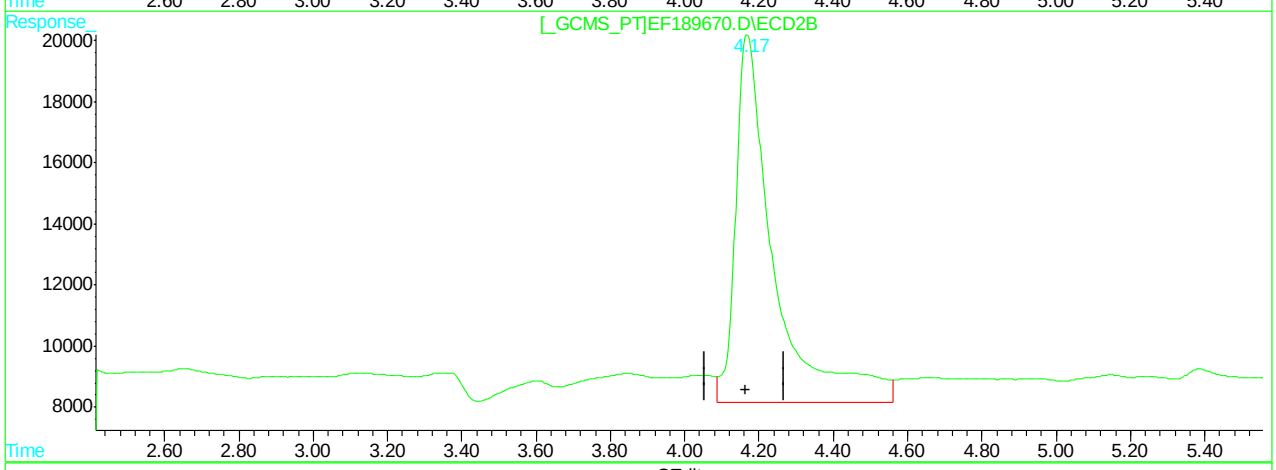
Parameter	CAS	Sig#	R.T. (min.)	Reason
Tetrachloro-m-xylene	877-09-8	1	3.51	Poorly defined baseline
Tetrachloro-m-xylene	877-09-8	2	4.17	Poorly defined baseline
Decachlorobiphenyl	2051-24-3	2	17.18	Poorly defined baseline

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6439\EF189670.D\ECD1A.CH Vial: 20
Signal #2 : C:\HPCHEM\1\DATA\GEF6439\EF189670.D\ECD2B.CH
Acq On : 7 May 2019 7:32 pm Operator: tianweir
Sample : jc87363-3 Inst : gcef
Misc : op20179,GEF6439,15.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 8 8:18 2019 Quant Results File: PCB6434.RES

Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue May 07 09:47:58 2019
Response via : Multiple Level Calibration





QEdit

(1) Tetrachloro-m-xylene (S)

3.51min 47.071PPB

response 626947

(1) Tetrachloro-m-xylene #2 (S)

4.17min 53.103PPB

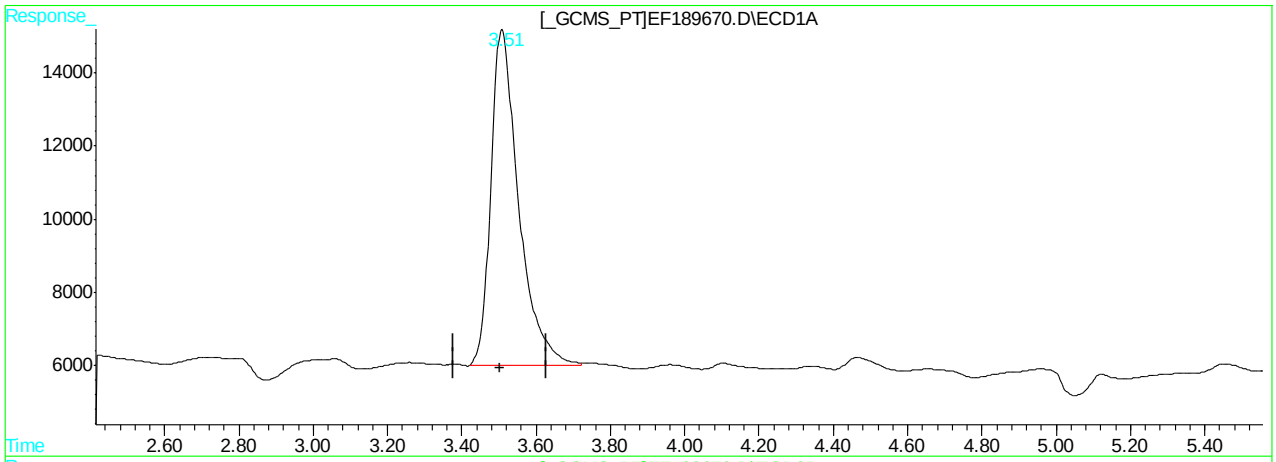
response 861693

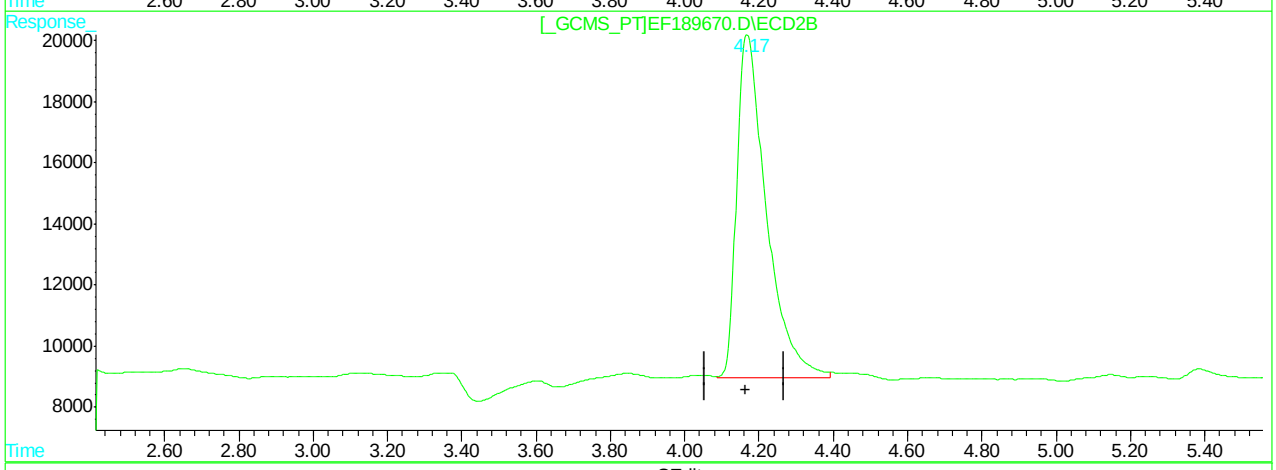
(+) = Expected Retention Time
EF189670.D PCB6434.M Wed May 08 08:19:10 2019 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6439\EF189670.D\ECD1A.CH Vial: 20
Signal #2 : C:\HPCHEM\1\DATA\GEF6439\EF189670.D\ECD2B.CH
Acq On : 7 May 2019 7:32 pm Operator: tianweir
Sample : jc87363-3 Inst : gcef
Misc : op20179,GEF6439,15.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 8 8:18 2019 Quant Results File: PCB6434.RES

Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue May 07 09:47:58 2019
Response via : Multiple Level Calibration





QEdit

(1) Tetrachloro-m-xylene (S)

3.51min 35.725PPB m

response 475837

(1) Tetrachloro-m-xylene #2 (S)

4.17min 38.418PPB m

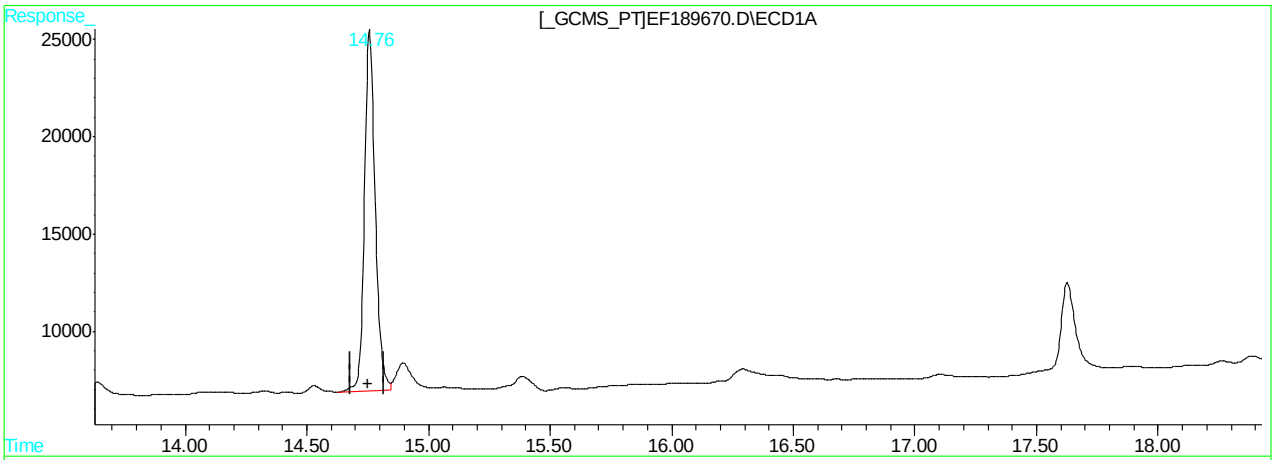
response 623409

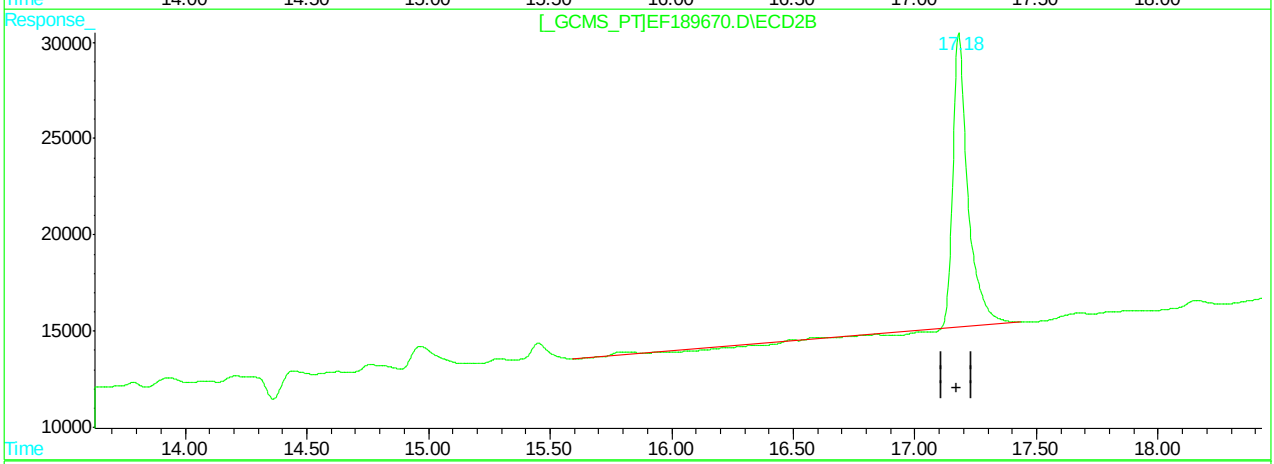
(+) = Expected Retention Time
EF189670.D PCB6434.M Wed May 08 08:19:17 2019 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6439\EF189670.D\ECD1A.CH Vial: 20
Signal #2 : C:\HPCHEM\1\DATA\GEF6439\EF189670.D\ECD2B.CH
Acq On : 7 May 2019 7:32 pm Operator: tianweir
Sample : jc87363-3 Inst : gcef
Misc : op20179,GEF6439,15.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 8 8:18 2019 Quant Results File: PCB6434.RES

Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue May 07 09:47:58 2019
Response via : Multiple Level Calibration





QEdit

(51) Decachlorobiphenyl (S)

14.76min 35.014PPB

response 568137

(51) Decachlorobiphenyl #2 (S)

17.18min 33.826PPB

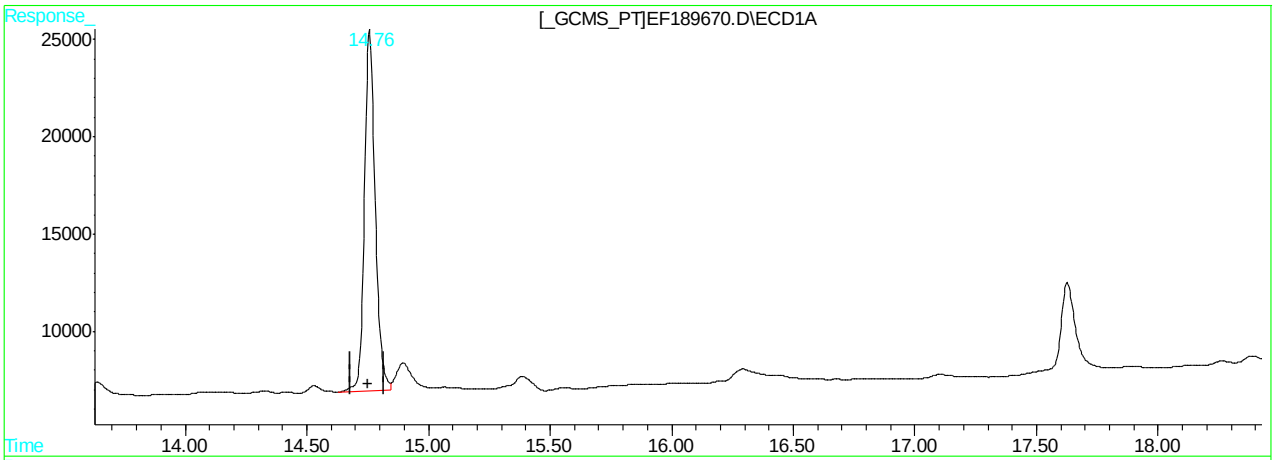
response 627042

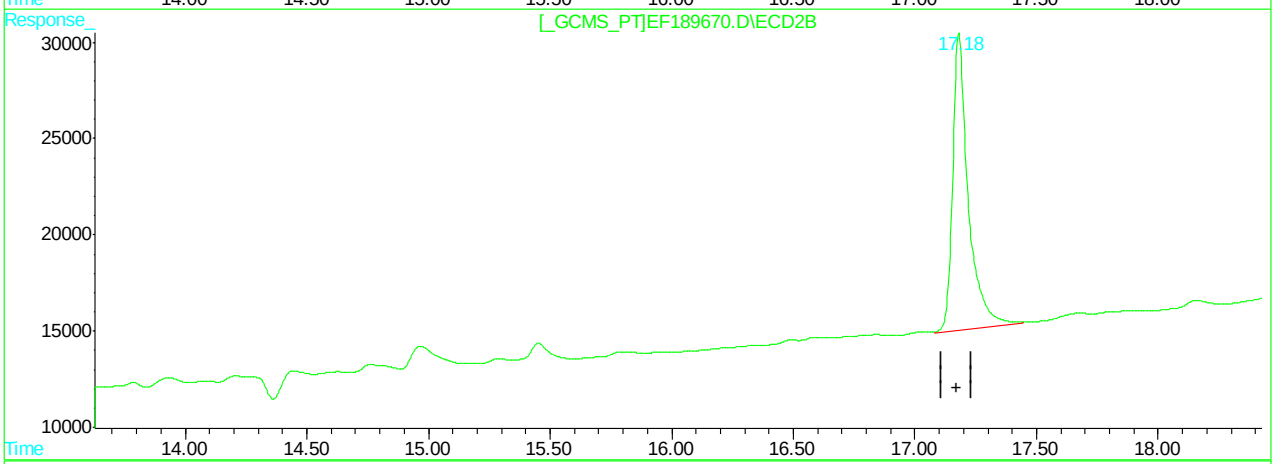
(+) = Expected Retention Time
EF189670.D PCB6434.M Wed May 08 08:19:20 2019 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6439\EF189670.D\ECD1A.CH Vial: 20
Signal #2 : C:\HPCHEM\1\DATA\GEF6439\EF189670.D\ECD2B.CH
Acq On : 7 May 2019 7:32 pm Operator: tianweir
Sample : jc87363-3 Inst : gcef
Misc : op20179,GEF6439,15.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 8 8:18 2019 Quant Results File: PCB6434.RES

Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue May 07 09:47:58 2019
Response via : Multiple Level Calibration





QEdit

(51) Decachlorobiphenyl (S)

14.76min 35.014PPB

response 568137

(51) Decachlorobiphenyl #2 (S)

17.18min 36.972PPB m

response 685361

(+) = Expected Retention Time
EF189670.D PCB6434.M Wed May 08 08:19:25 2019 GCEF

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 05/07/19 14:51

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\GEF6439\EF189651.D\ECD1A.CH Vial: 5
Signal #2 : C:\HPCHEM\1\DATA\GEF6439\EF189651.D\ECD2B.CH
Acq On : 7 May 2019 11:05 am Operator: tianweir
Sample : op20179-mb1 Inst : gcef
Misc : op20179,GEF6439,15.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 7 11:53 2019 Quant Results File: PCB6434.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Thu May 02 08:24:03 2019
Response via : Initial Calibration
DataAcq Meth : PCB6434.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1) S	Tetrachloro-m-xy	3.51	4.17	490098	555283	36.796	34.220
	Spiked Amount 40.000			Recovery	=	91.99%	85.55%
51) S	Decachlorobiphen	14.75f	17.18f	582439	672425	35.895m	36.274
	Spiked Amount 40.000			Recovery	=	89.74%	90.69%
	Target Compounds						

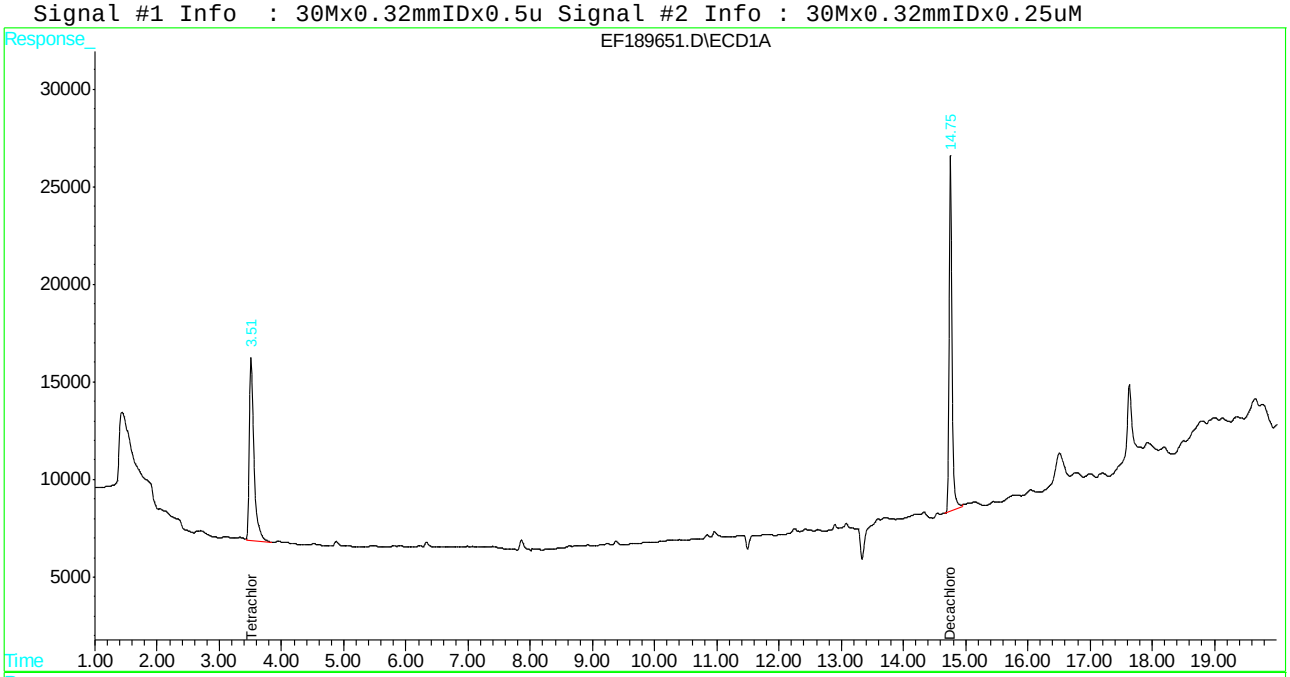
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
EF189651.D PCB6434.M Tue May 07 11:53:59 2019 GCEF Page 1

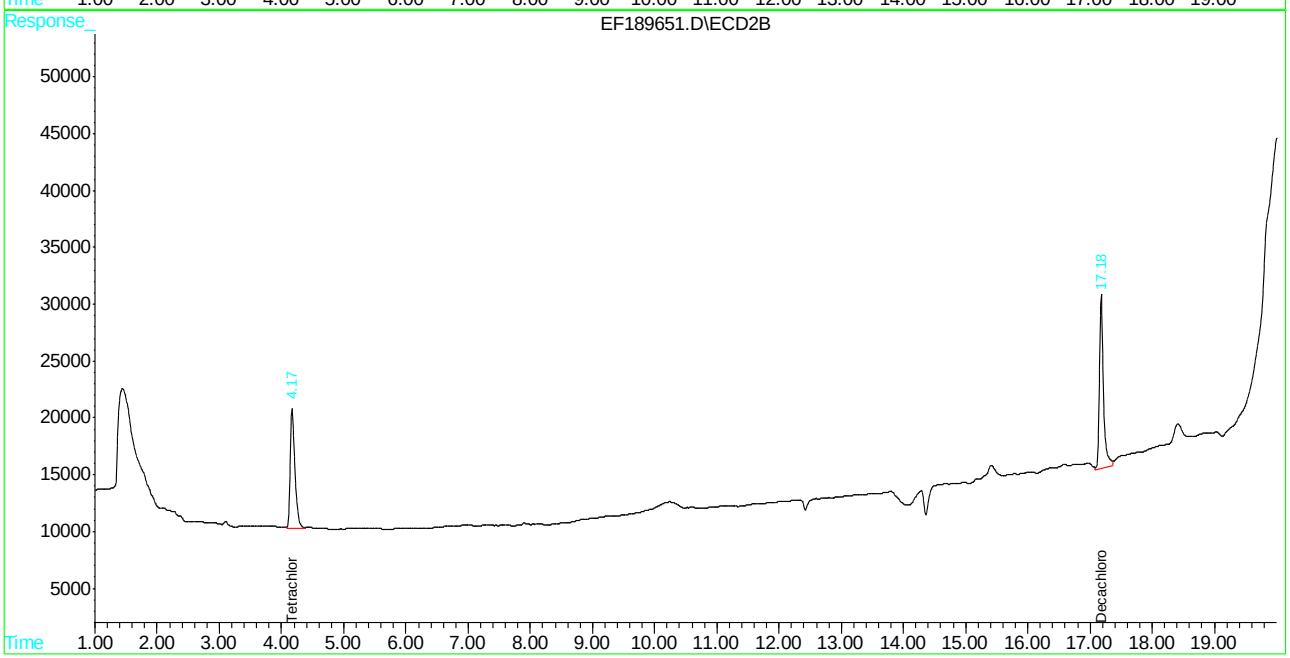
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6439\EF189651.D\ECD1A.CH Vial: 5
Signal #2 : C:\HPCHEM\1\DATA\GEF6439\EF189651.D\ECD2B.CH
Acq On : 7 May 2019 11:05 am Operator: tianweir
Sample : op20179-mb1 Inst : gcef
Misc : op20179,GEF6439,15.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 7 11:53 2019 Quant Results File: PCB6434.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Thu May 02 08:24:03 2019
Response via : Multiple Level Calibration
DataAcq Meth : PCB6434.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM





EF189651.D PCB6434.M Tue May 07 11:53:59 2019 GCEF Page 2

11.2.1 11

Manual Integration Approval Summary

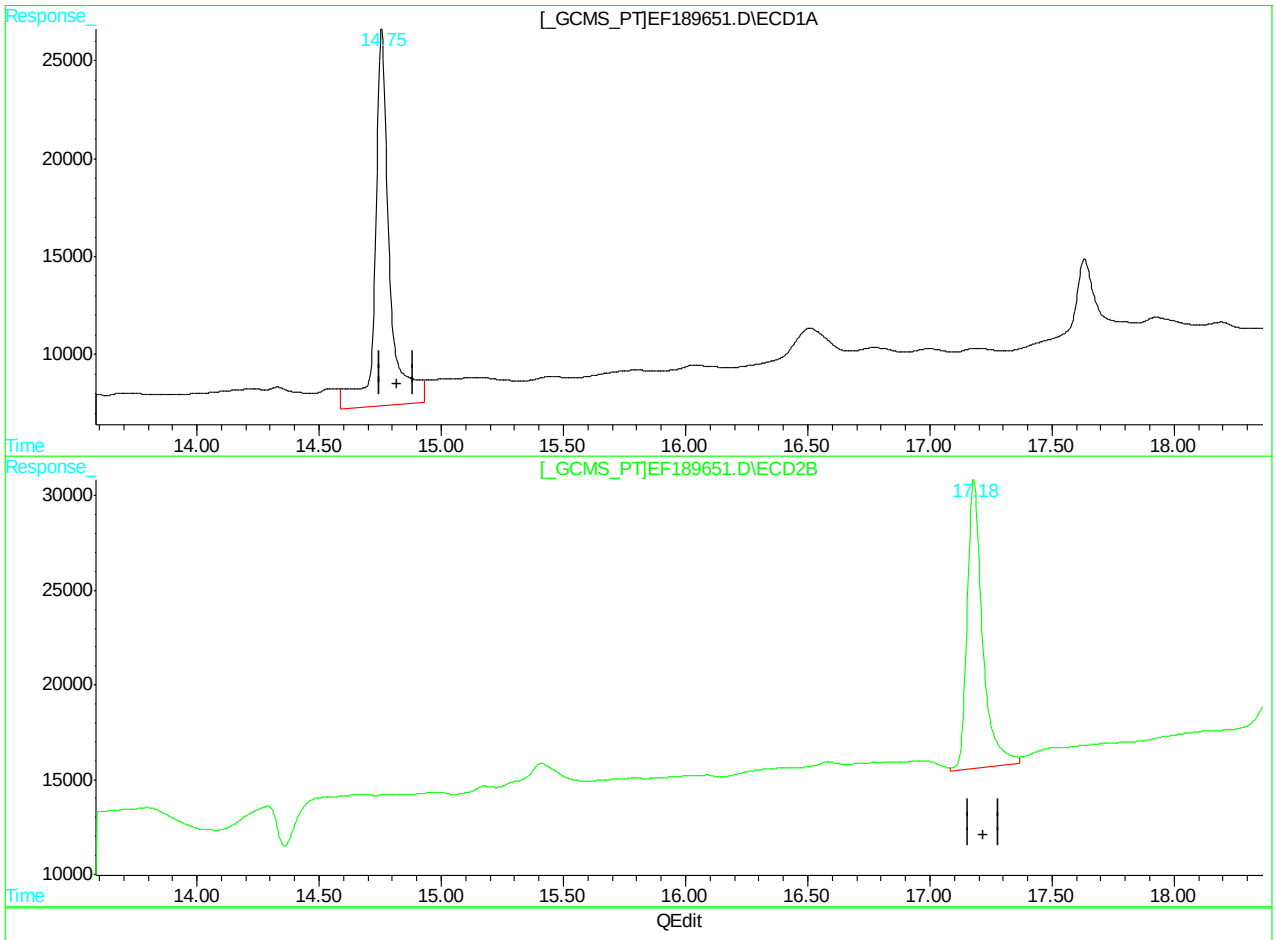
Sample Number:	OP20179-MB1	**Method:**	SW846 8082A
Lab FileID:	EF189651.D	**Analyst approved:**	05/07/19 14:28 Tianwei Ruan
Injection Time:	05/07/19 11:05	**Supervisor approved:**	05/07/19 14:51 Gwendolyn Burns

Parameter	CAS	Sig#	R.T. (min.)	Reason
Decachlorobiphenyl	2051-24-3	1	14.75	Poorly defined baseline

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6439\EF189651.D\ECD1A.CH Vial: 5
Signal #2 : C:\HPCHEM\1\DATA\GEF6439\EF189651.D\ECD2B.CH
Acq On : 7 May 2019 11:05 am Operator: tianweir
Sample : op20179-mb1 Inst : gcef
Misc : op20179,GEF6439,15.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 7 11:26 2019 Quant Results File: PCB6434.RES

Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue May 07 09:47:58 2019
Response via : Multiple Level Calibration



(51) Decachlorobiphenyl (S)

14.76min 48.829PPB

response 792300

(51) Decachlorobiphenyl #2 (S)

17.18min 36.274PPB

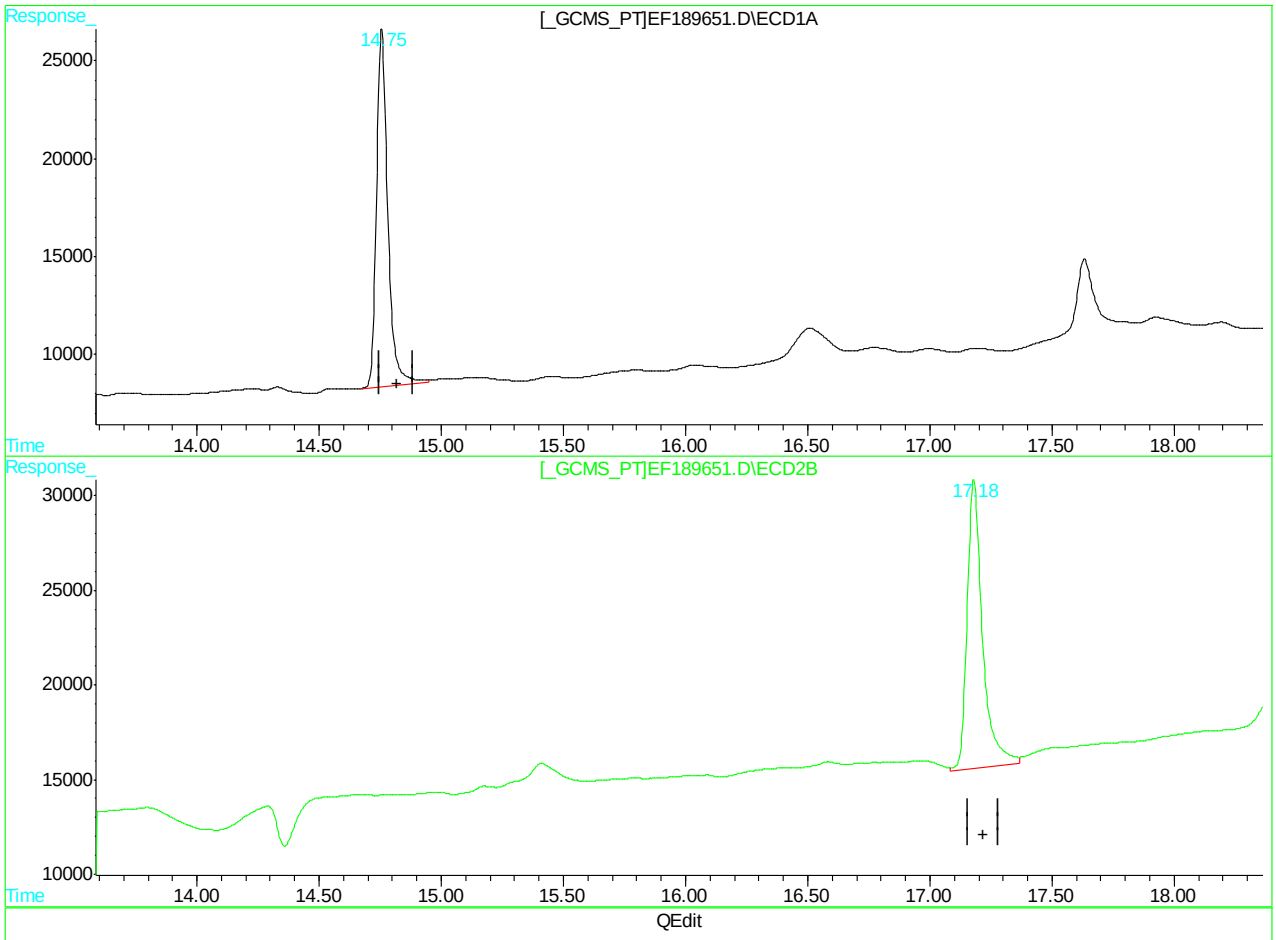
response 672425

(+) = Expected Retention Time
EF189651.D PCB6434.M Tue May 07 11:53:49 2019 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6439\EF189651.D\ECD1A.CH Vial: 5
Signal #2 : C:\HPCHEM\1\DATA\GEF6439\EF189651.D\ECD2B.CH
Acq On : 7 May 2019 11:05 am Operator: tianweir
Sample : op20179-mb1 Inst : gcef
Misc : op20179,GEF6439,15.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 7 11:26 2019 Quant Results File: PCB6434.RES

Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue May 07 09:47:58 2019
Response via : Multiple Level Calibration



QEdit

(51) Decachlorobiphenyl (S)

14.75min 35.895PPB m

response 582439

(51) Decachlorobiphenyl #2 (S)

17.18min 36.274PPB

response 672425

(+) = Expected Retention Time
EF189651.D PCB6434.M Tue May 07 11:53:52 2019 GCEF

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 05/07/19 14:51

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\GEF6439\EF189652.D\ECD1A.CH Vial: 6
Signal #2 : C:\HPCHEM\1\DATA\GEF6439\EF189652.D\ECD2B.CH
Acq On : 7 May 2019 11:30 am Operator: tianweir
Sample : op20179-bs1 Inst : gcef
Misc : op20179,GEF6439,15.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 7 11:54 2019 Quant Results File: PCB6434.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue May 07 09:47:58 2019
Response via : Initial Calibration
DataAcq Meth : PCB6434.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1) S	Tetrachloro-m-xy	3.51	4.17	510751	612933	38.347	37.773
	Spiked Amount 40.000			Recovery =		95.87%	94.43%
51) S	Decachlorobiphen	14.75	17.17	616384	816526	37.988	44.048
	Spiked Amount 40.000			Recovery =		94.97%	110.12%
	Target Compounds						
41)	AR1016-A	4.06	5.10	69886	70217	184.311	174.744
42)	AR1016-B	4.64	5.90	113731	124618	176.083	169.405
43)	AR1016-C	5.47f	6.84f	272310	309680	184.447	185.673
44)	AR1016-D	5.72f	7.13f	100579	116065	186.913	154.418
45)	AR1016-E	6.49	8.12	104383	82622	194.813	172.477
46)	AR1260-A	10.19	12.22	262570	300355	219.827	195.223
47)	AR1260-B	10.44	12.40	179367	167251	218.484	142.788 #
48)	AR1260-C	10.98	13.09	169449	147336	253.339	152.935 #
49)	AR1260-D	11.67	13.66	419980	369608	220.789	157.614 #
50)	AR1260-E	12.29	14.52	313021	379669	168.859m	166.141m

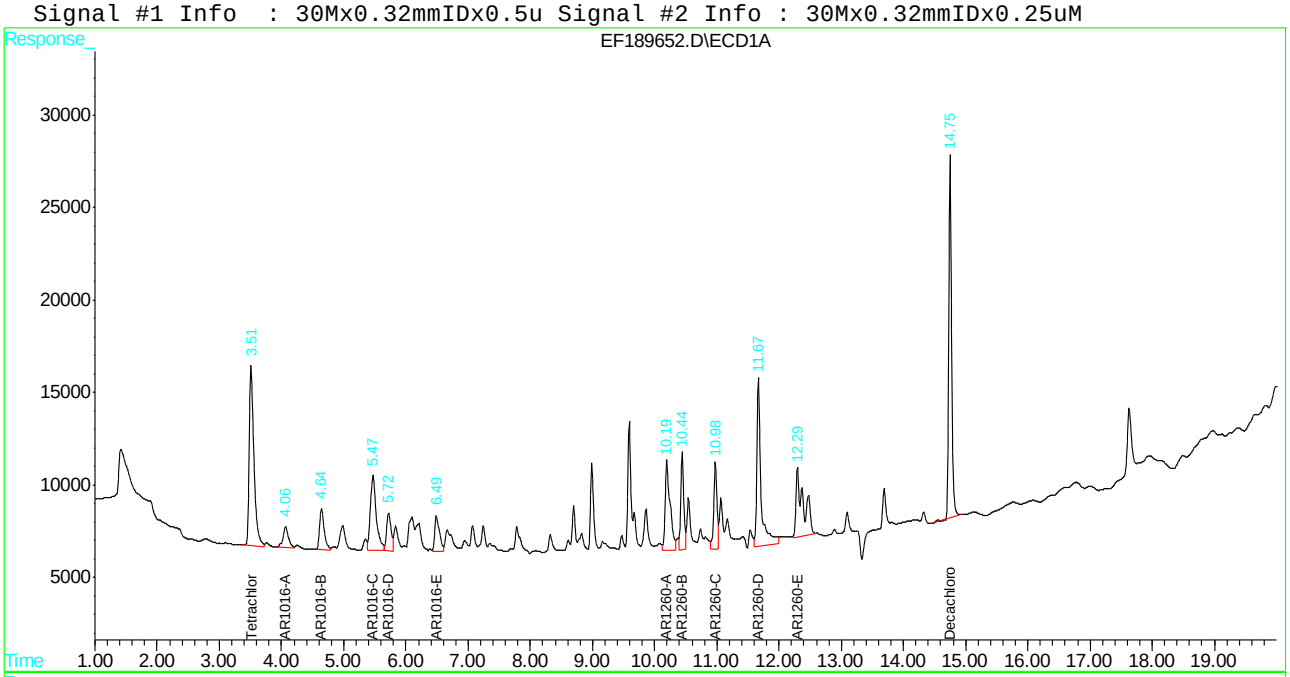
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
EF189652.D PCB6434.M Tue May 07 11:54:40 2019 GCEF Page 1

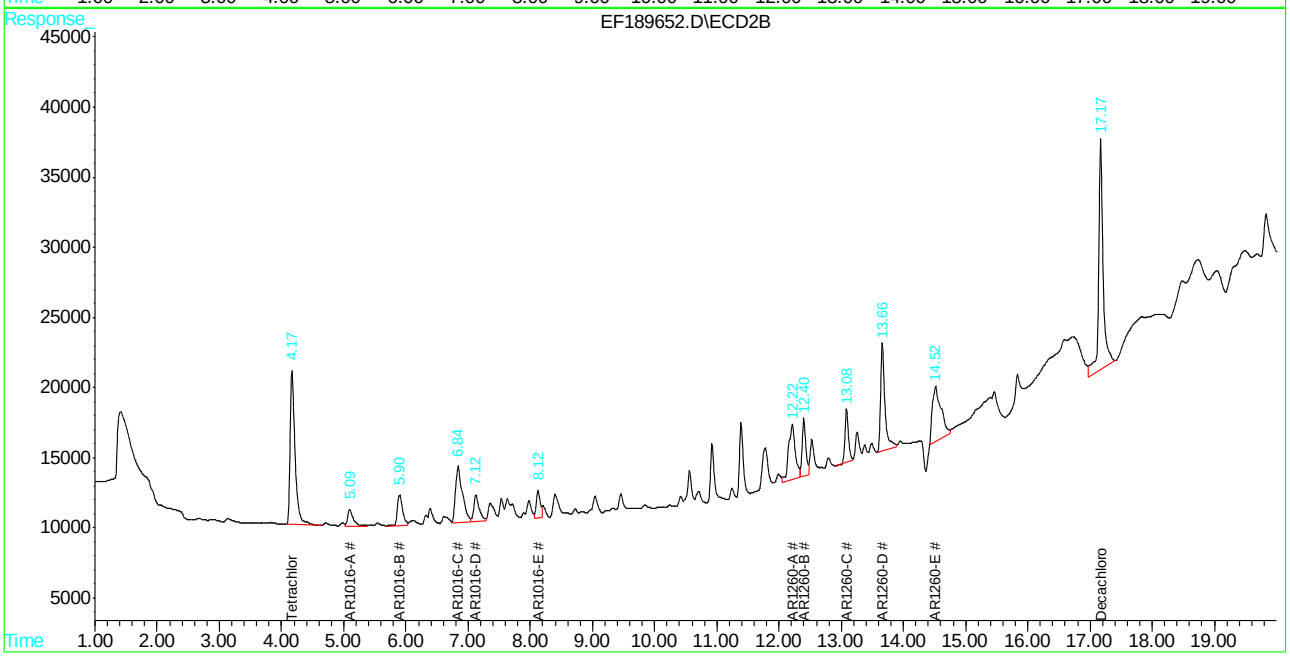
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6439\EF189652.D\ECD1A.CH Vial: 6
Signal #2 : C:\HPCHEM\1\DATA\GEF6439\EF189652.D\ECD2B.CH
Acq On : 7 May 2019 11:30 am Operator: tianweir
Sample : op20179-bs1 Inst : gcef
Misc : op20179,GEF6439,15.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 7 11:54 2019 Quant Results File: PCB6434.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue May 07 09:47:58 2019
Response via : Multiple Level Calibration
DataAcq Meth : PCB6434.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM





Manual Integration Approval Summary

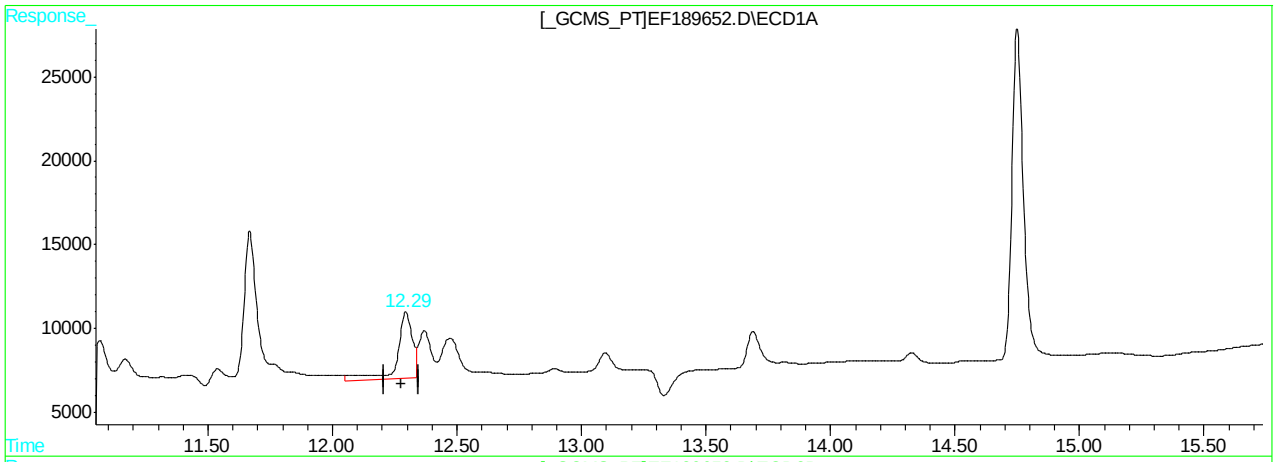
Sample Number:	OP20179-BS1	**Method:**	SW846 8082A
Lab FileID:	EF189652.D	**Analyst approved:**	05/07/19 14:28 Tianwei Ruan
Injection Time:	05/07/19 11:30	**Supervisor approved:**	05/07/19 14:51 Gwendolyn Burns

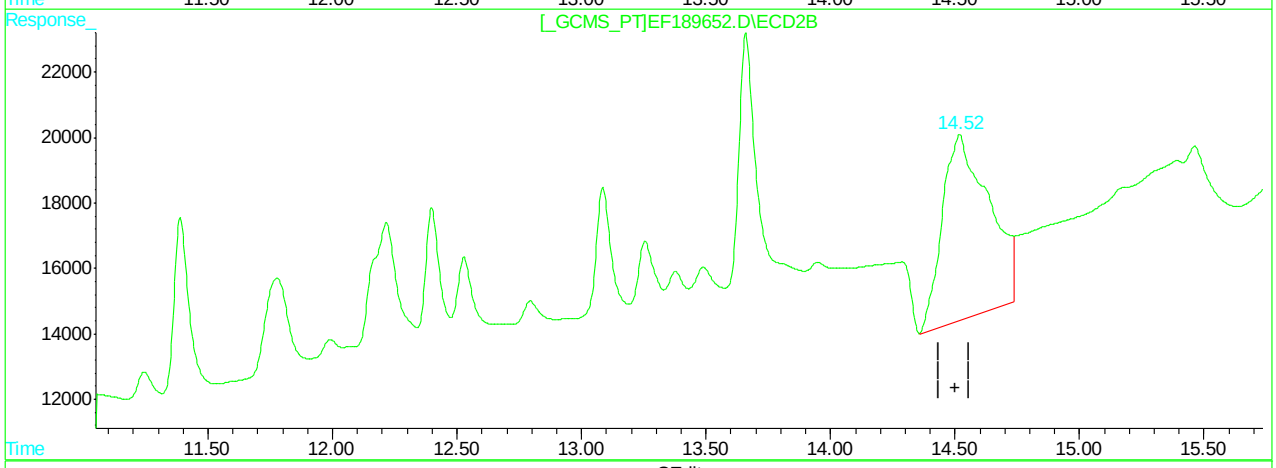
Parameter	CAS	Sig#	R.T. (min.)	Reason
AR1260-E		1	12.29	Split peak
AR1260-E		2	14.52	Split peak

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6439\EF189652.D\ECD1A.CH Vial: 6
Signal #2 : C:\HPCHEM\1\DATA\GEF6439\EF189652.D\ECD2B.CH
Acq On : 7 May 2019 11:30 am Operator: tianweir
Sample : op20179-bs1 Inst : gcef
Misc : op20179,GEF6439,15.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 7 11:53 2019 Quant Results File: PCB6434.RES

Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue May 07 09:47:58 2019
Response via : Multiple Level Calibration





QEdit

(50) AR1260-E

12.30min 89.638PPB

response 166165

(50) AR1260-E #2

14.52min 320.733PPB

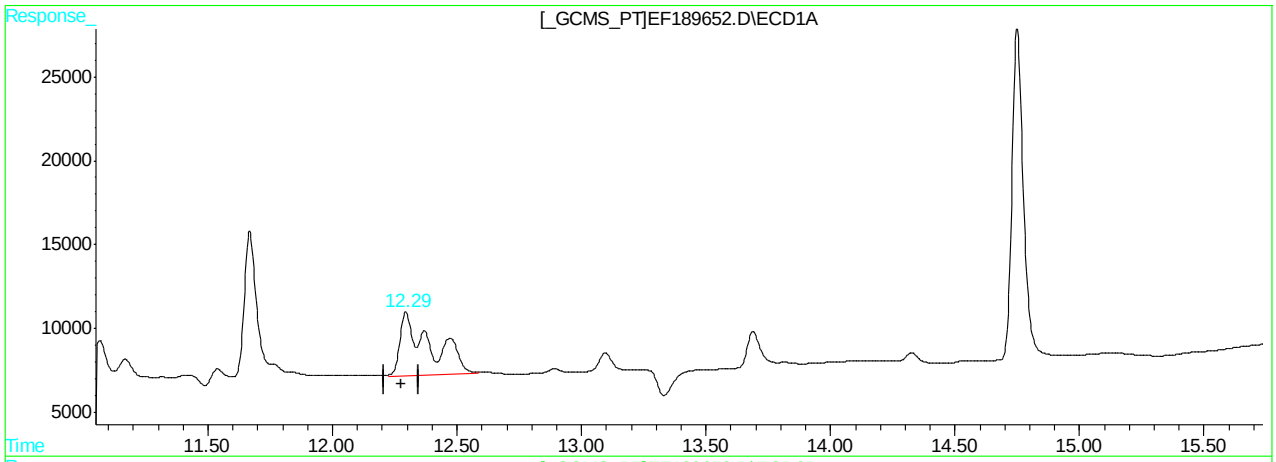
response 732945

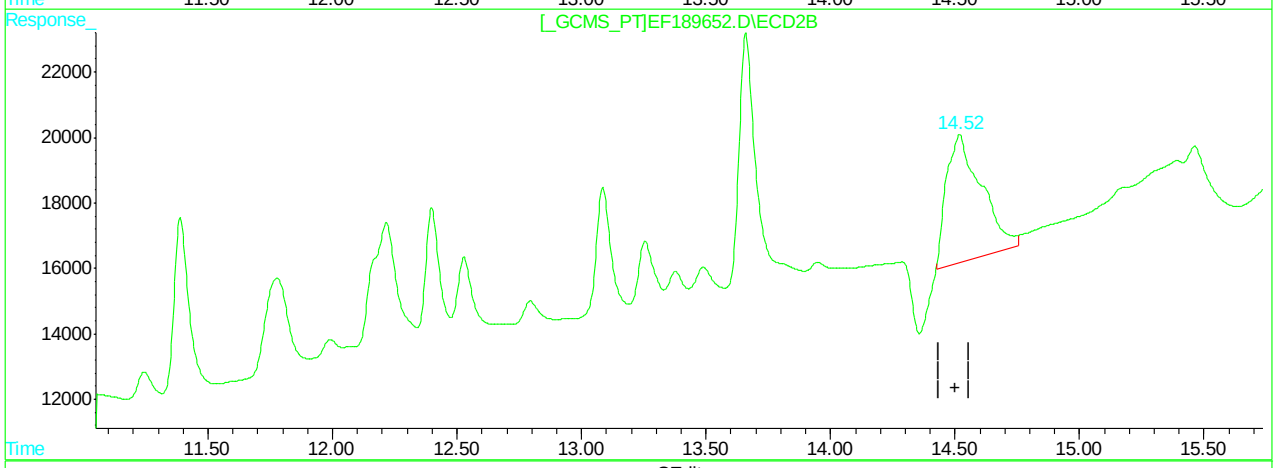
(+) = Expected Retention Time
EF189652.D PCB6434.M Tue May 07 11:54:19 2019 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6439\EF189652.D\ECD1A.CH Vial: 6
Signal #2 : C:\HPCHEM\1\DATA\GEF6439\EF189652.D\ECD2B.CH
Acq On : 7 May 2019 11:30 am Operator: tianweir
Sample : op20179-bs1 Inst : gcef
Misc : op20179,GEF6439,15.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 7 11:53 2019 Quant Results File: PCB6434.RES

Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue May 07 09:47:58 2019
Response via : Multiple Level Calibration





QEdit

(50) AR1260-E

12.29min 168.859PPB m

response 313021

(50) AR1260-E #2

14.52min 166.141PPB m

response 379669

(+) = Expected Retention Time
EF189652.D PCB6434.M Tue May 07 11:54:33 2019 GCEF

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 05/09/19 09:30

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\GEF6439\EF189654.D\ECD1A.CH Vial: 8
Signal #2 : C:\HPCHEM\1\DATA\GEF6439\EF189654.D\ECD2B.CH
Acq On : 7 May 2019 12:20 pm Operator: tianweir
Sample : op20179-ms Inst : gcef
Misc : op20179,GEF6439,16.7,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 7 12:57 2019 Quant Results File: PCB6434.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue May 07 09:47:58 2019
Response via : Initial Calibration
DataAcq Meth : PCB6434.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1) S	Tetrachloro-m-xy	3.51	4.17	444613	529059	33.381	32.604
	Spiked Amount 40.000			Recovery =		83.45%	81.51%
51) S	Decachlorobiphen	14.75	17.18	540580	654474	33.316	35.306
	Spiked Amount 40.000			Recovery =		83.29%	88.26%
	Target Compounds						
41)	AR1016-A	4.06	5.10	70463	65109	185.832	162.033
42)	AR1016-B	4.64	5.90	118165	128158	182.949	174.218
43)	AR1016-C	5.48f	6.84f	298157	317985	201.954	190.653
44)	AR1016-D	5.72f	7.13f	113823	162261	211.525m	215.879
45)	AR1016-E	6.49	8.13	113430	127340	211.697m	265.827 #
46)	AR1260-A	10.20	12.22	227422	173464	190.401m	112.747 #
47)	AR1260-B	10.44	12.40	146285	107403	178.187m	91.694 #
48)	AR1260-C	10.98	13.09	201958	155504	301.943	161.414 #
49)	AR1260-D	11.67	13.66	468176	374567	246.127	159.729 #
50)	AR1260-E	12.30	14.52	348481	359280	187.989m	157.219m

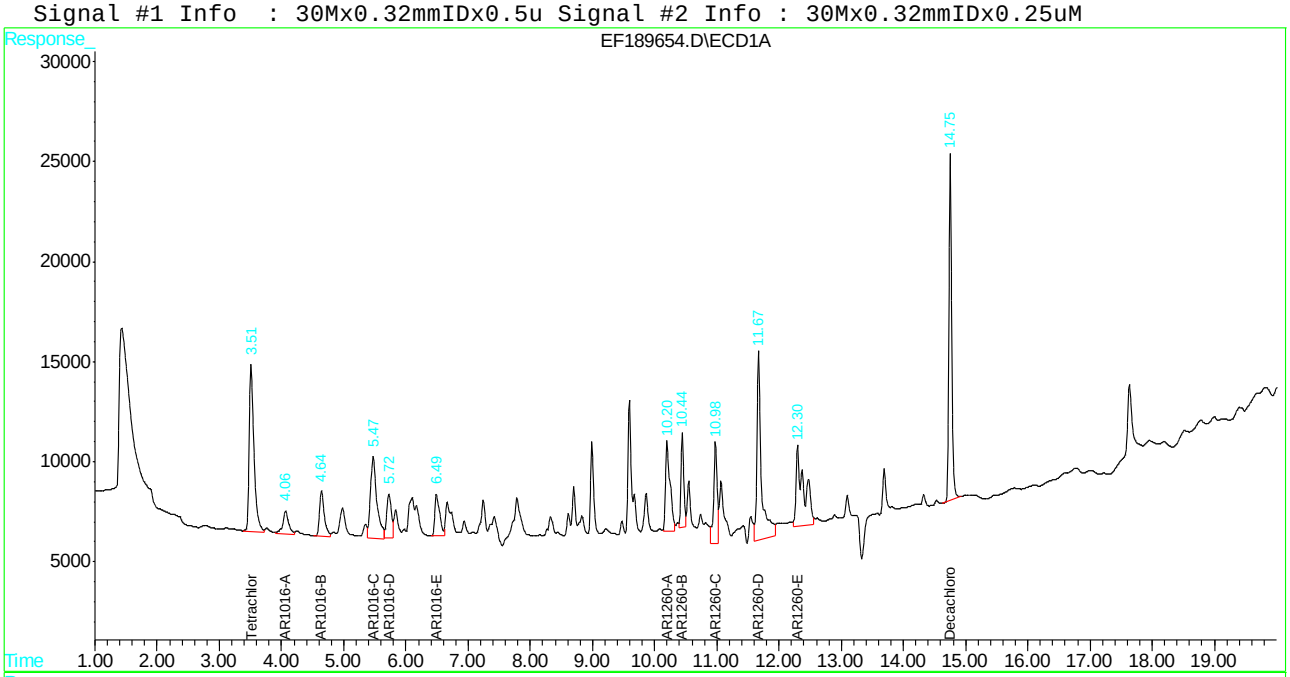
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

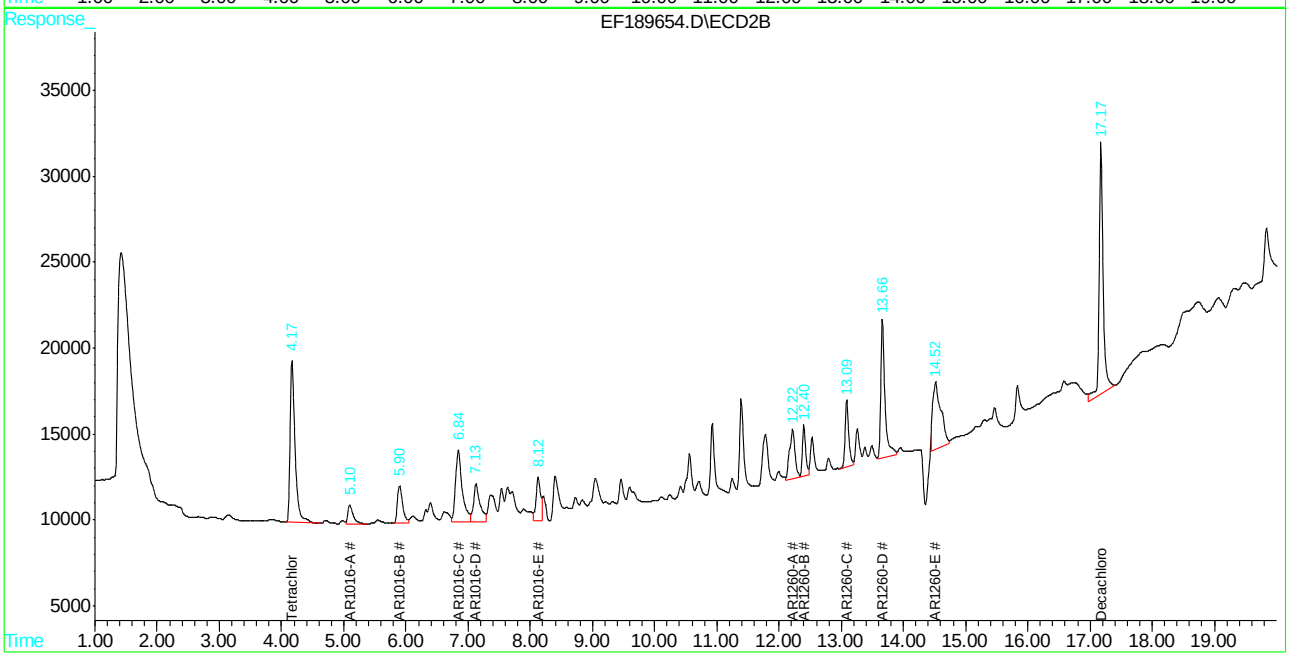
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6439\EF189654.D\ECD1A.CH Vial: 8
Signal #2 : C:\HPCHEM\1\DATA\GEF6439\EF189654.D\ECD2B.CH
Acq On : 7 May 2019 12:20 pm Operator: tianweir
Sample : op20179-ms Inst : gcef
Misc : op20179,GEF6439,16.7,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 7 12:57 2019 Quant Results File: PCB6434.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue May 07 09:47:58 2019
Response via : Multiple Level Calibration
DataAcq Meth : PCB6434.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM





JC87363

Manual Integration Approval Summary

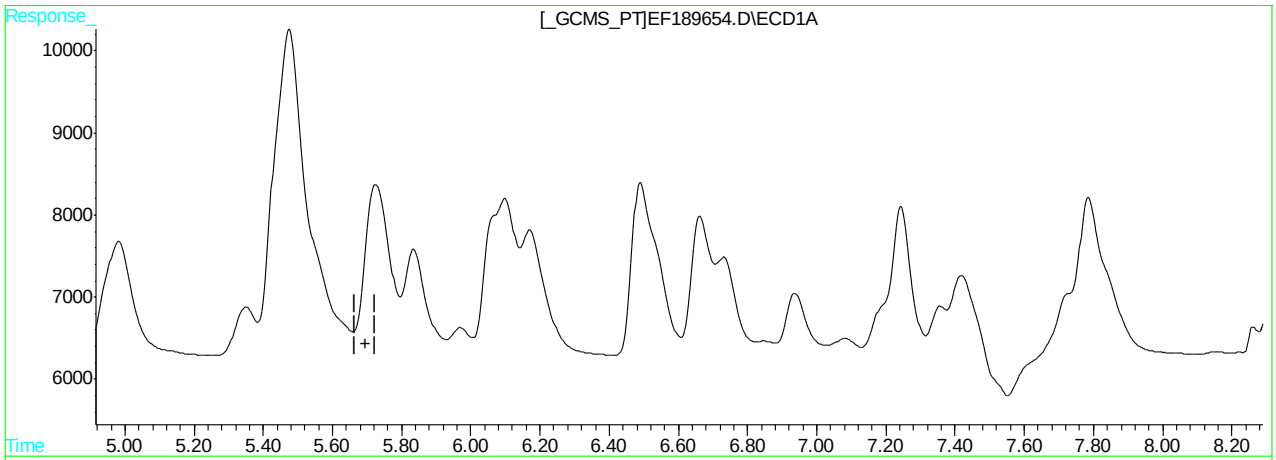
Sample Number:	OP20179-MS	**Method:**	SW846 8082A
Lab FileID:	EF189654.D	**Analyst approved:**	05/09/19 09:26 Gwendolyn Burns
Injection Time:	05/07/19 12:20	**Supervisor approved:**	05/09/19 09:30 Gwendolyn Burns

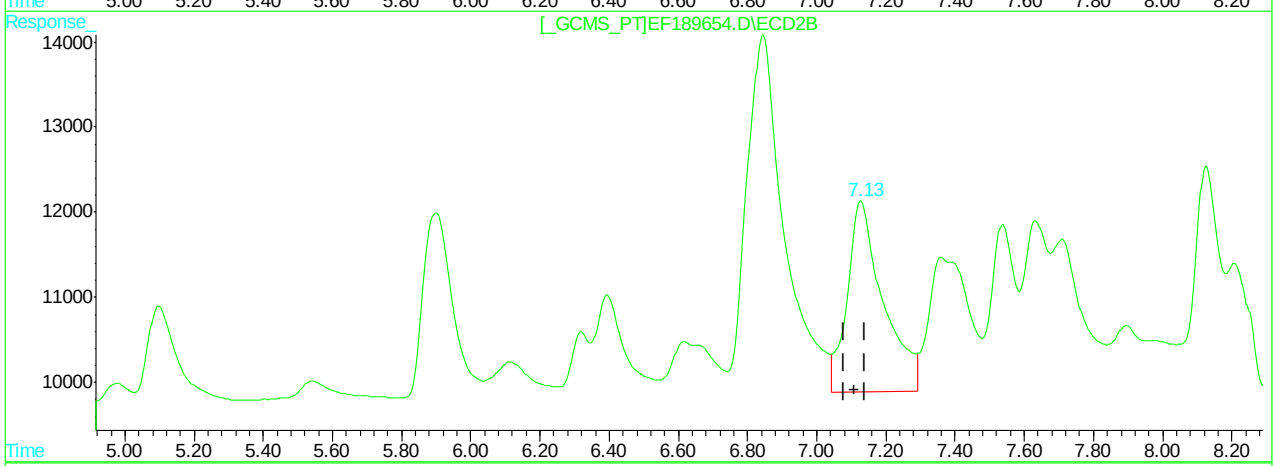
Parameter	CAS	Sig#	R.T. (min.)	Reason
AR1016-D		1	5.72	Poorly defined baseline
AR1016-E		1	6.49	Poorly defined baseline
AR1260-A		1	10.20	Poorly defined baseline
AR1260-B		1	10.44	Poorly defined baseline
AR1260-E		1	12.30	Poorly defined baseline
AR1260-E		2	14.52	Poorly defined baseline

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6439\EF189654.D\ECD1A.CH Vial: 8
Signal #2 : C:\HPCHEM\1\DATA\GEF6439\EF189654.D\ECD2B.CH
Acq On : 7 May 2019 12:20 pm Operator: tianweir
Sample : op20179-ms Inst : gcef
Misc : op20179,GEF6439,16.7,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 7 12:56 2019 Quant Results File: PCB6434.RES

Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue May 07 09:47:58 2019
Response via : Multiple Level Calibration





QEdit

(44) AR1016-D

0.00min 0.000PPB

response 0

(44) AR1016-D #2

7.13min 215.879PPB

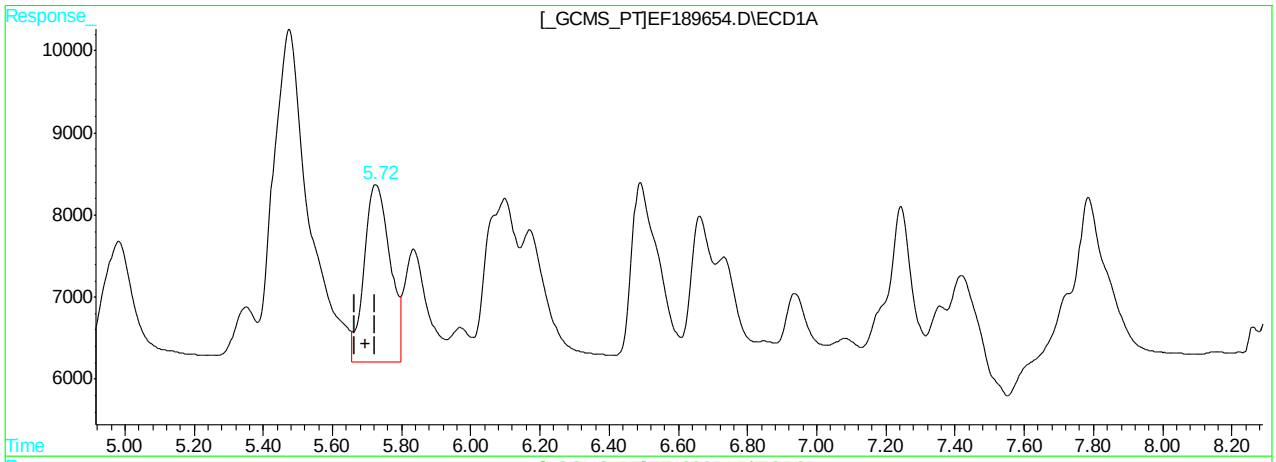
response 162261

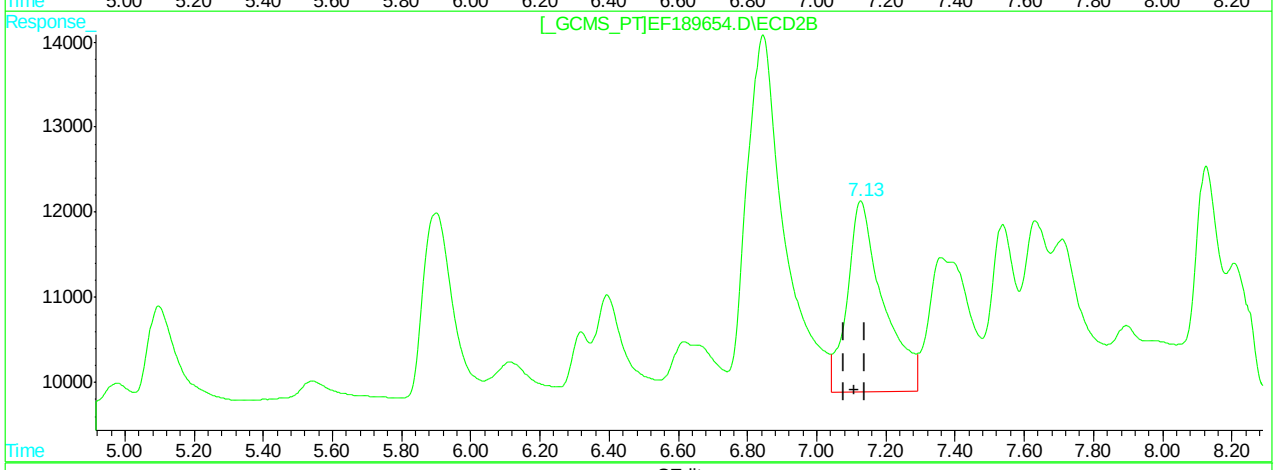
(+) = Expected Retention Time
EF189654.D PCB6434.M Tue May 07 12:56:44 2019 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6439\EF189654.D\ECD1A.CH Vial: 8
Signal #2 : C:\HPCHEM\1\DATA\GEF6439\EF189654.D\ECD2B.CH
Acq On : 7 May 2019 12:20 pm Operator: tianweir
Sample : op20179-ms Inst : gcef
Misc : op20179,GEF6439,16.7,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 7 12:56 2019 Quant Results File: PCB6434.RES

Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue May 07 09:47:58 2019
Response via : Multiple Level Calibration





QEdit

(44) AR1016-D

5.72min 211.525PPB m

response 113823

(44) AR1016-D #2

7.13min 215.879PPB

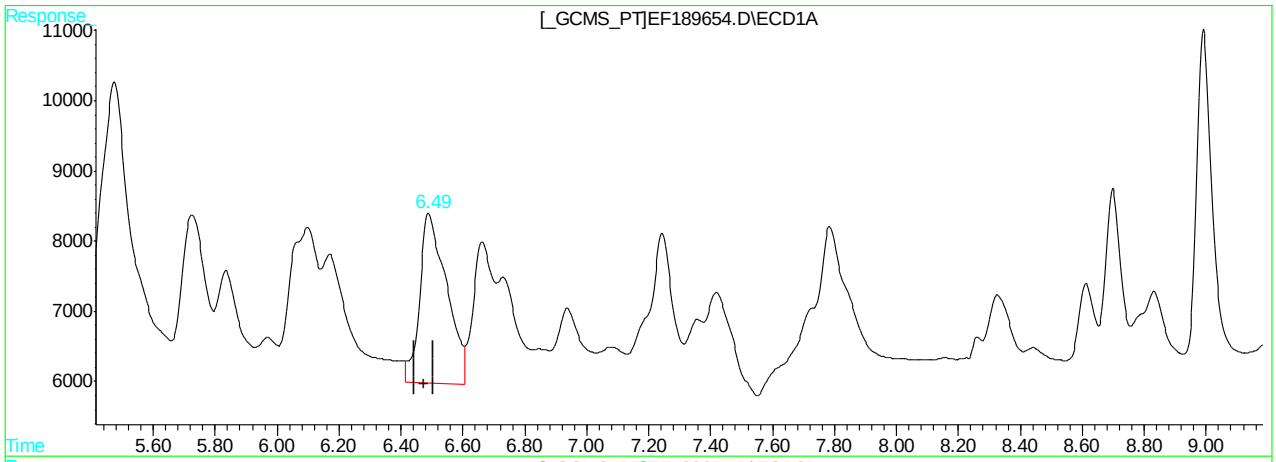
response 162261

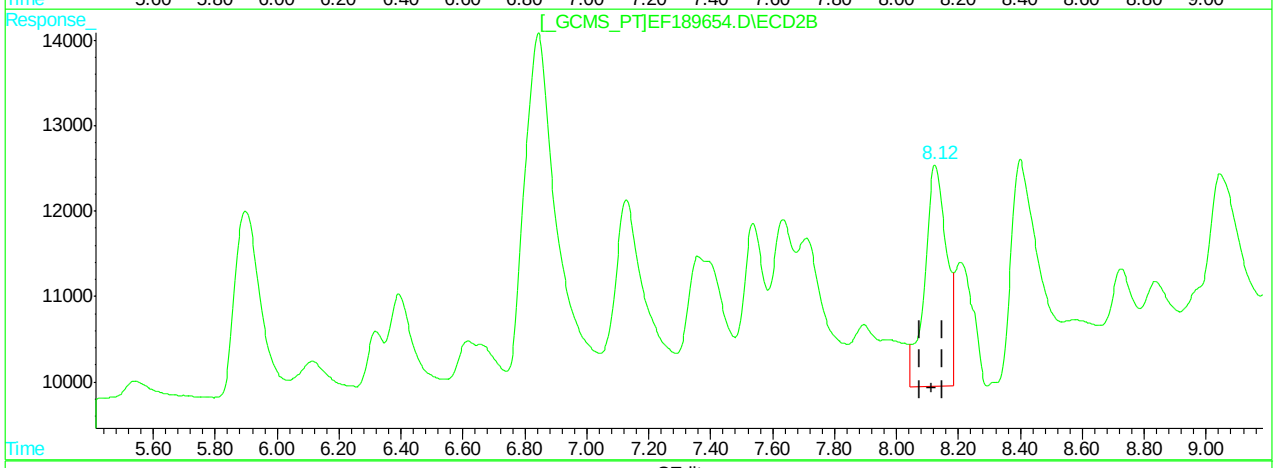
(+) = Expected Retention Time
EF189654.D PCB6434.M Tue May 07 12:56:47 2019 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6439\EF189654.D\ECD1A.CH Vial: 8
Signal #2 : C:\HPCHEM\1\DATA\GEF6439\EF189654.D\ECD2B.CH
Acq On : 7 May 2019 12:20 pm Operator: tianweir
Sample : op20179-ms Inst : gcef
Misc : op20179,GEF6439,16.7,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 7 12:56 2019 Quant Results File: PCB6434.RES

Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue May 07 09:47:58 2019
Response via : Multiple Level Calibration





QEdit

(45) AR1016-E

6.49min 272.207PPB

response 145852

(45) AR1016-E #2

8.13min 265.827PPB

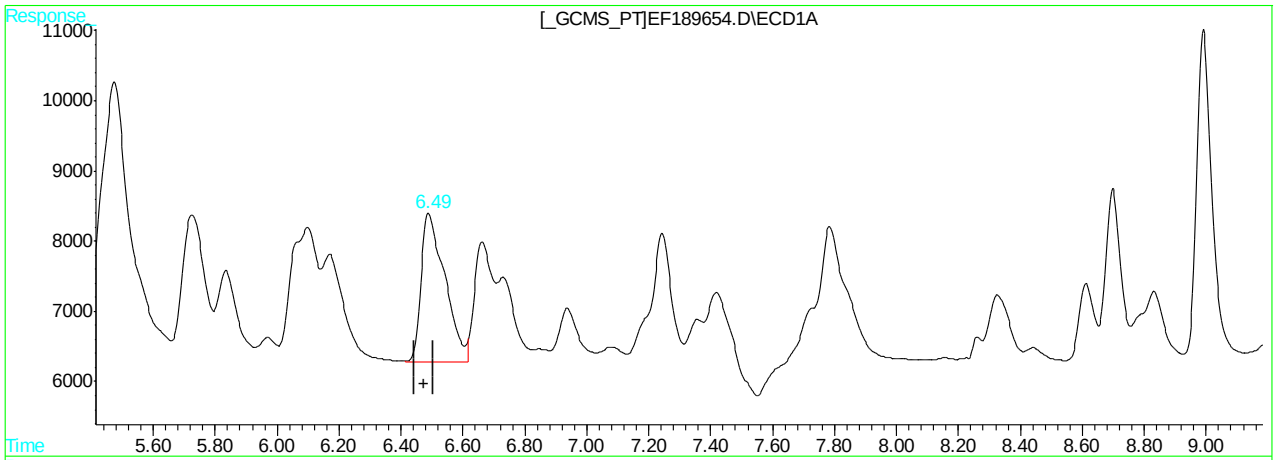
response 127340

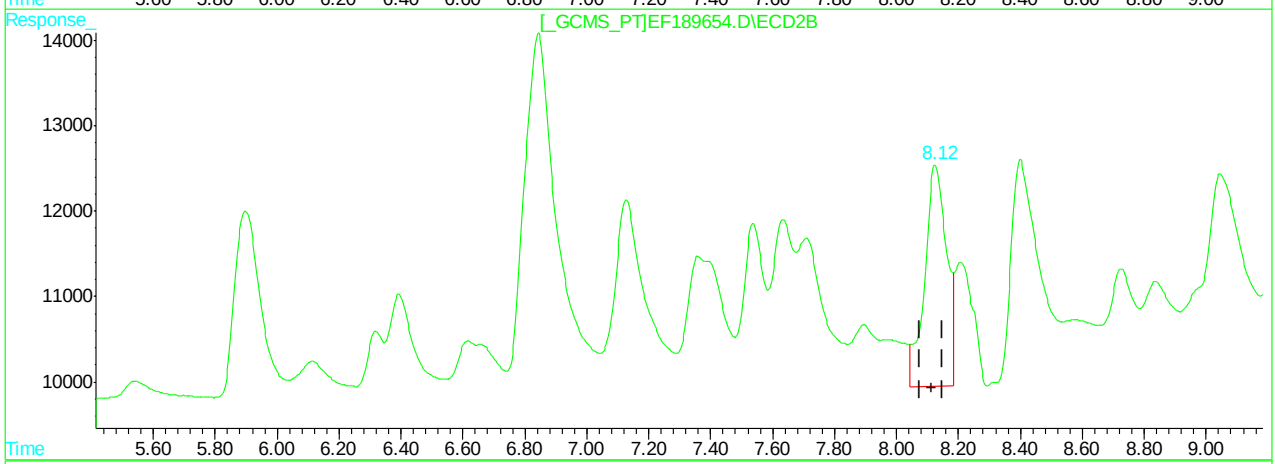
(+) = Expected Retention Time
EF189654.D PCB6434.M Tue May 07 12:56:51 2019 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6439\EF189654.D\ECD1A.CH Vial: 8
Signal #2 : C:\HPCHEM\1\DATA\GEF6439\EF189654.D\ECD2B.CH
Acq On : 7 May 2019 12:20 pm Operator: tianweir
Sample : op20179-ms Inst : gcef
Misc : op20179,GEF6439,16.7,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 7 12:56 2019 Quant Results File: PCB6434.RES

Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue May 07 09:47:58 2019
Response via : Multiple Level Calibration





QEdit

(45) AR1016-E

6.49min 211.697PPB m

response 113430

(45) AR1016-E #2

8.13min 265.827PPB

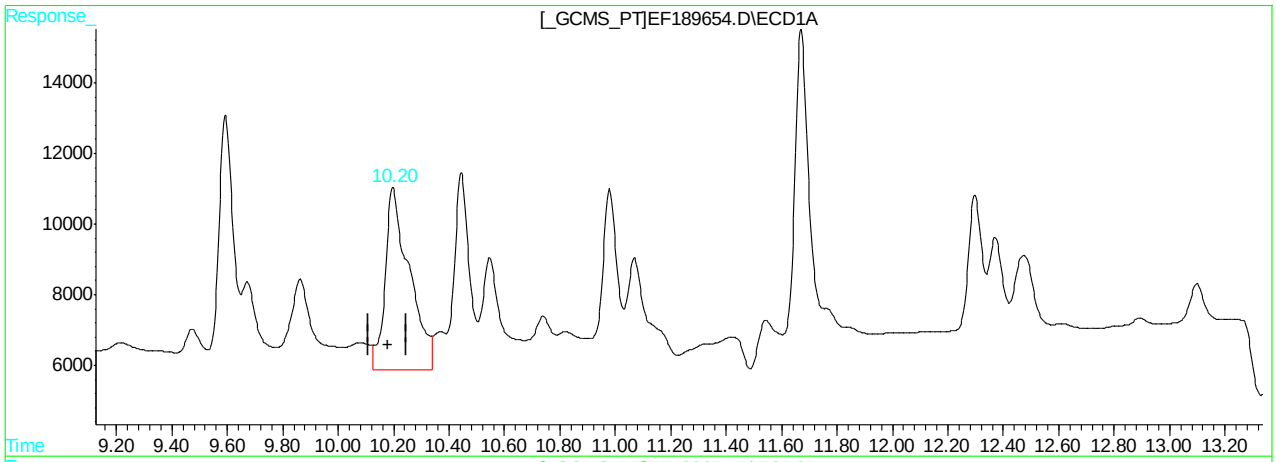
response 127340

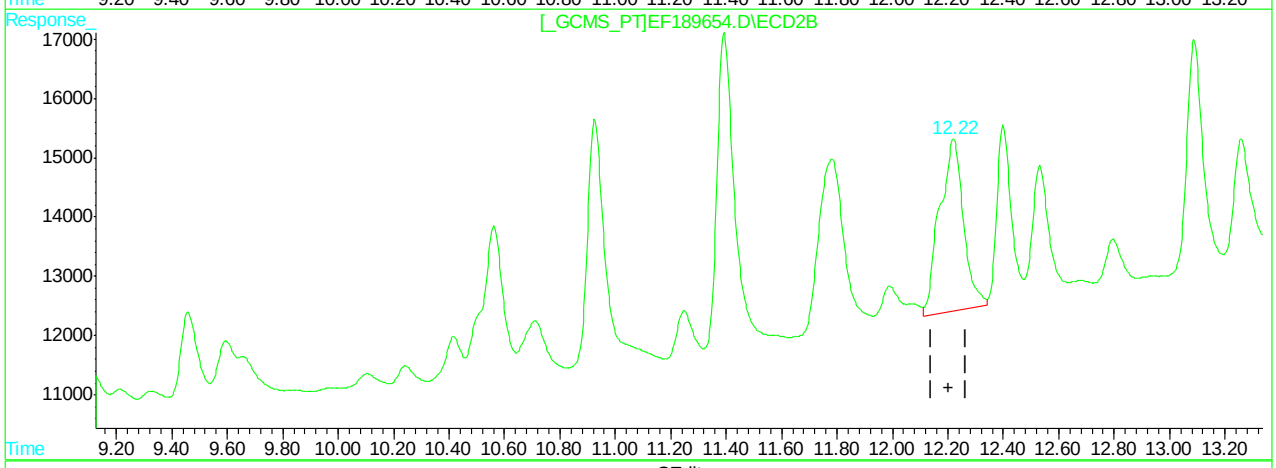
(+) = Expected Retention Time
EF189654.D PCB6434.M Tue May 07 12:56:54 2019 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6439\EF189654.D\ECD1A.CH Vial: 8
Signal #2 : C:\HPCHEM\1\DATA\GEF6439\EF189654.D\ECD2B.CH
Acq On : 7 May 2019 12:20 pm Operator: tianweir
Sample : op20179-ms Inst : gcef
Misc : op20179,GEF6439,16.7,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 7 12:56 2019 Quant Results File: PCB6434.RES

Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue May 07 09:47:58 2019
Response via : Multiple Level Calibration





QEdit

(46) AR1260-A

10.20min 262.775PPB

response 313868

(46) AR1260-A #2

12.22min 112.747PPB

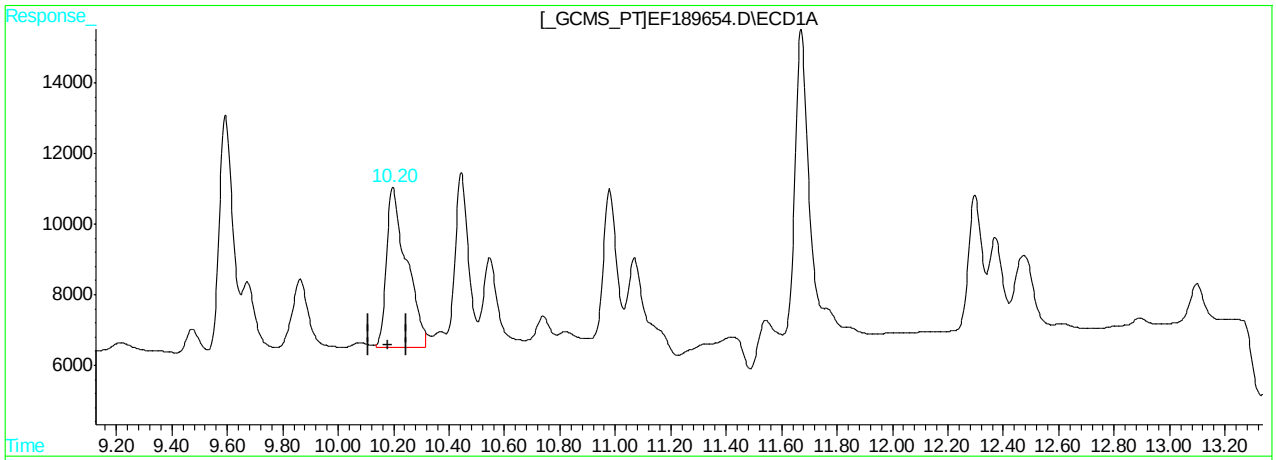
response 173464

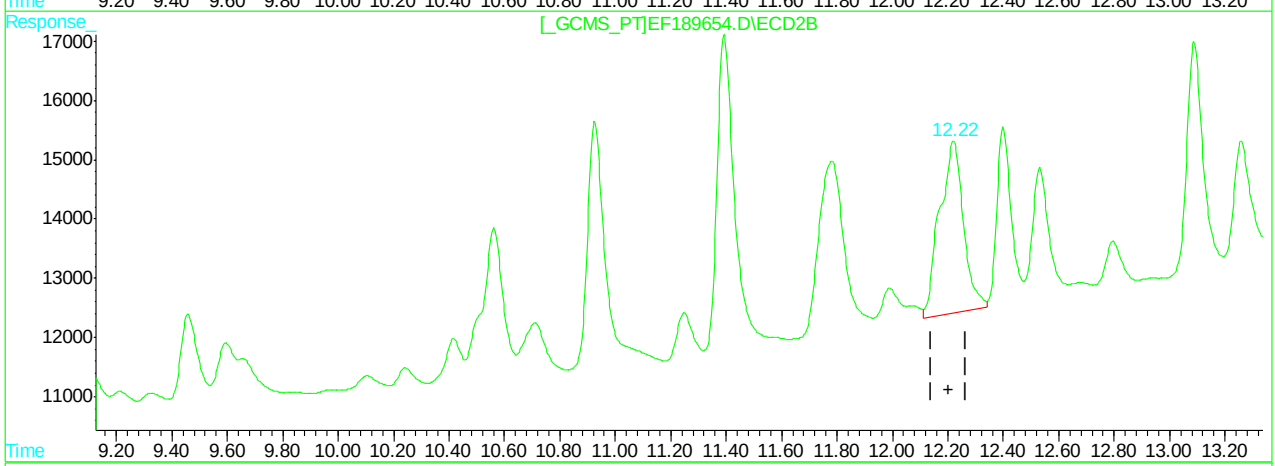
(+) = Expected Retention Time
EF189654.D PCB6434.M Tue May 07 12:56:59 2019 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6439\EF189654.D\ECD1A.CH Vial: 8
Signal #2 : C:\HPCHEM\1\DATA\GEF6439\EF189654.D\ECD2B.CH
Acq On : 7 May 2019 12:20 pm Operator: tianweir
Sample : op20179-ms Inst : gcef
Misc : op20179,GEF6439,16.7,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 7 12:56 2019 Quant Results File: PCB6434.RES

Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue May 07 09:47:58 2019
Response via : Multiple Level Calibration





QEdit

(46) AR1260-A

10.20min 190.401PPB m

response 227422

(46) AR1260-A #2

12.22min 112.747PPB

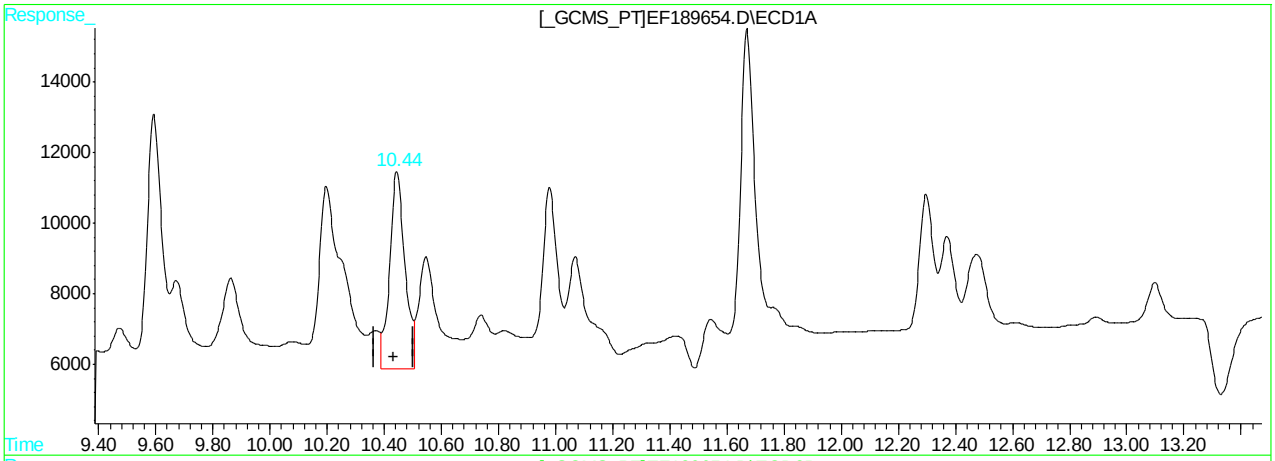
response 173464

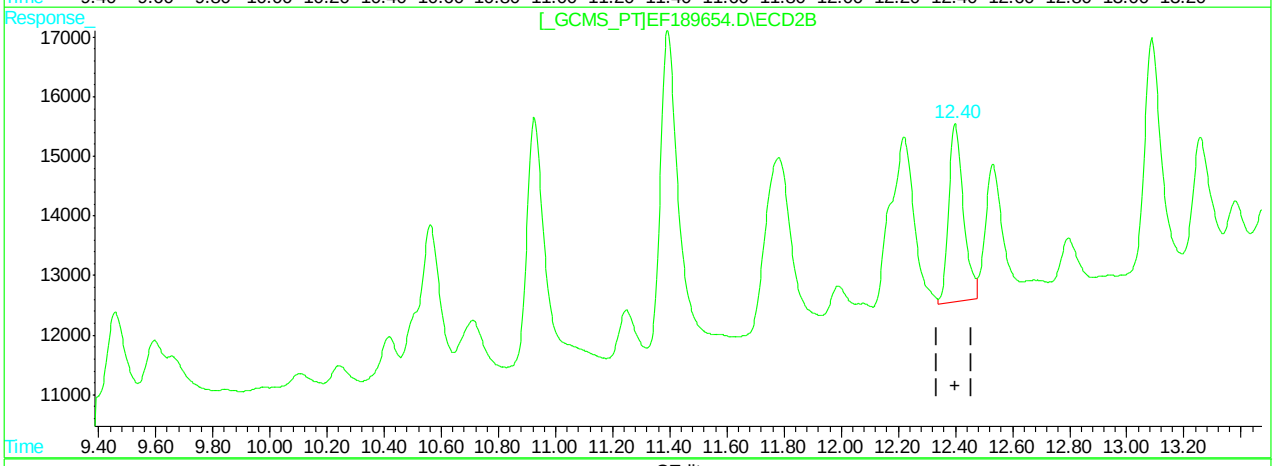
(+) = Expected Retention Time
EF189654.D PCB6434.M Tue May 07 12:57:02 2019 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6439\EF189654.D\ECD1A.CH Vial: 8
Signal #2 : C:\HPCHEM\1\DATA\GEF6439\EF189654.D\ECD2B.CH
Acq On : 7 May 2019 12:20 pm Operator: tianweir
Sample : op20179-ms Inst : gcef
Misc : op20179,GEF6439,16.7,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 7 12:56 2019 Quant Results File: PCB6434.RES

Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue May 07 09:47:58 2019
Response via : Multiple Level Calibration





QEdit

(47) AR1260-B

10.44min 254.026PPB

response 208546

(47) AR1260-B #2

12.40min 91.694PPB

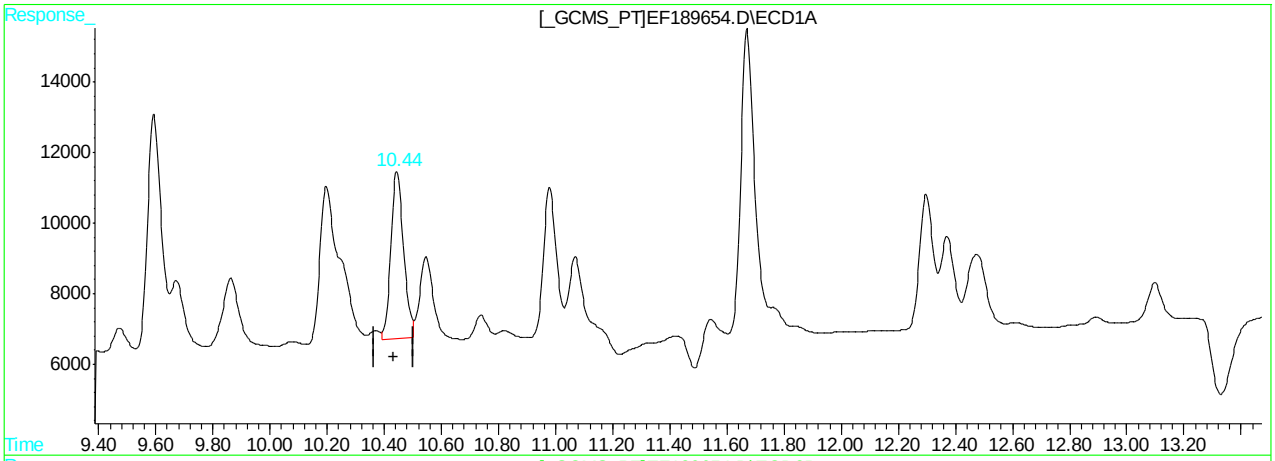
response 107403

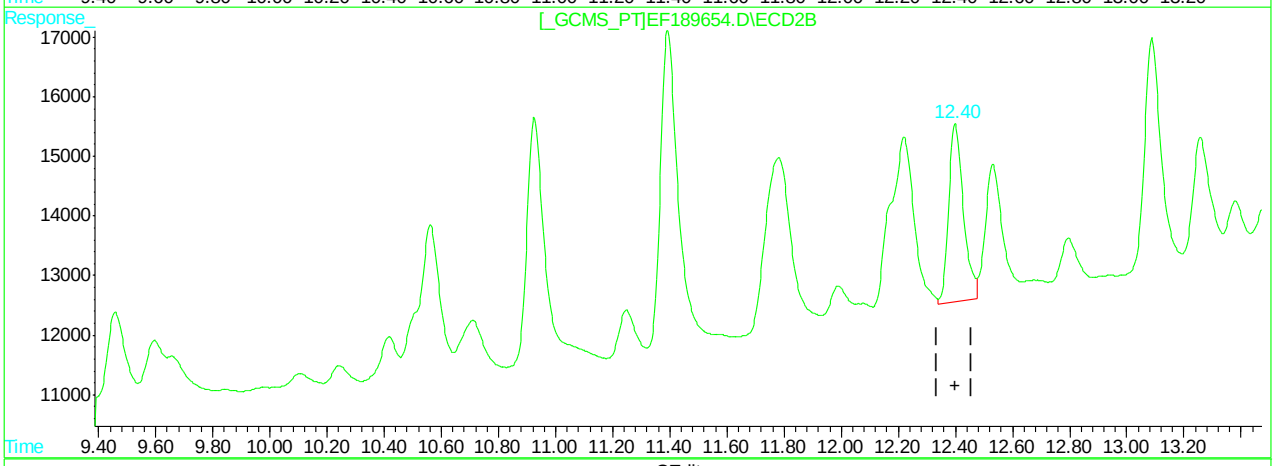
(+) = Expected Retention Time
EF189654.D PCB6434.M Tue May 07 12:57:05 2019 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6439\EF189654.D\ECD1A.CH Vial: 8
Signal #2 : C:\HPCHEM\1\DATA\GEF6439\EF189654.D\ECD2B.CH
Acq On : 7 May 2019 12:20 pm Operator: tianweir
Sample : op20179-ms Inst : gcef
Misc : op20179,GEF6439,16.7,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 7 12:56 2019 Quant Results File: PCB6434.RES

Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue May 07 09:47:58 2019
Response via : Multiple Level Calibration





QEdit

(47) AR1260-B

10.44min 178.187PPB m

response 146285

(47) AR1260-B #2

12.40min 91.694PPB

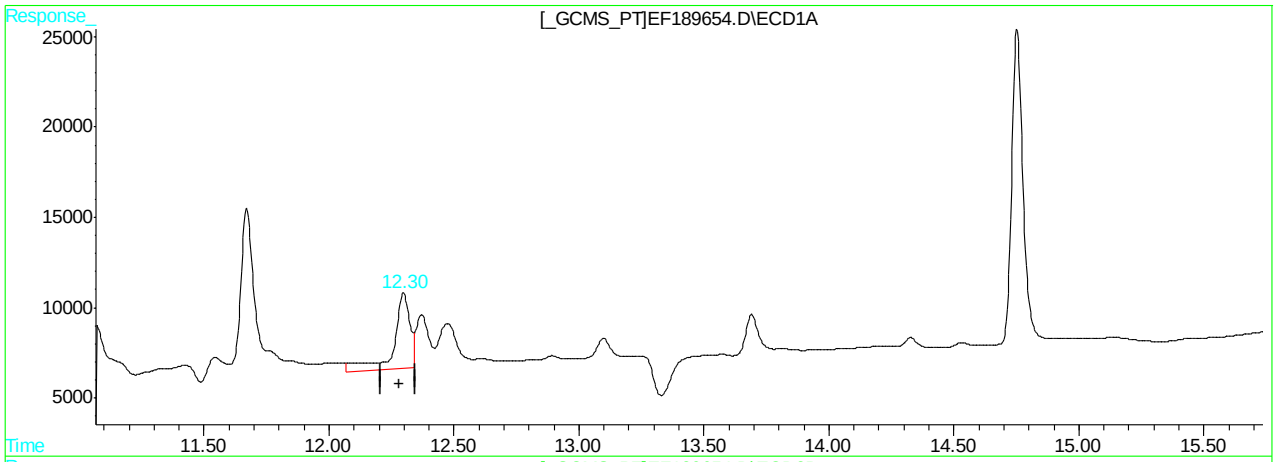
response 107403

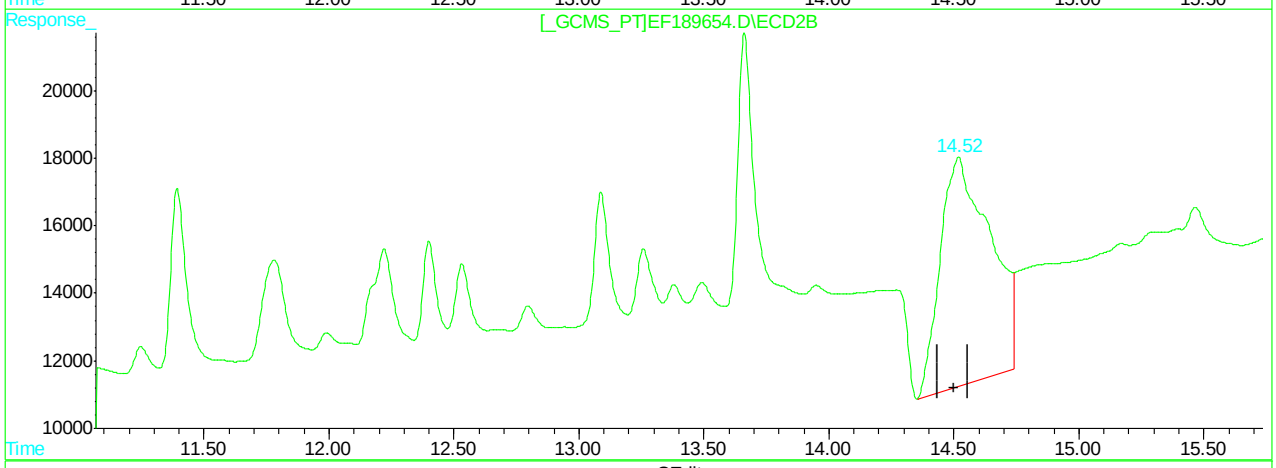
(+) = Expected Retention Time
EF189654.D PCB6434.M Tue May 07 12:57:09 2019 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6439\EF189654.D\ECD1A.CH Vial: 8
Signal #2 : C:\HPCHEM\1\DATA\GEF6439\EF189654.D\ECD2B.CH
Acq On : 7 May 2019 12:20 pm Operator: tianweir
Sample : op20179-ms Inst : gcef
Misc : op20179,GEF6439,16.7,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 7 12:56 2019 Quant Results File: PCB6434.RES

Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue May 07 09:47:58 2019
Response via : Multiple Level Calibration





QEdit

(50) AR1260-E

12.30min 104.420PPB

response 193567

(50) AR1260-E #2

14.52min 409.653PPB

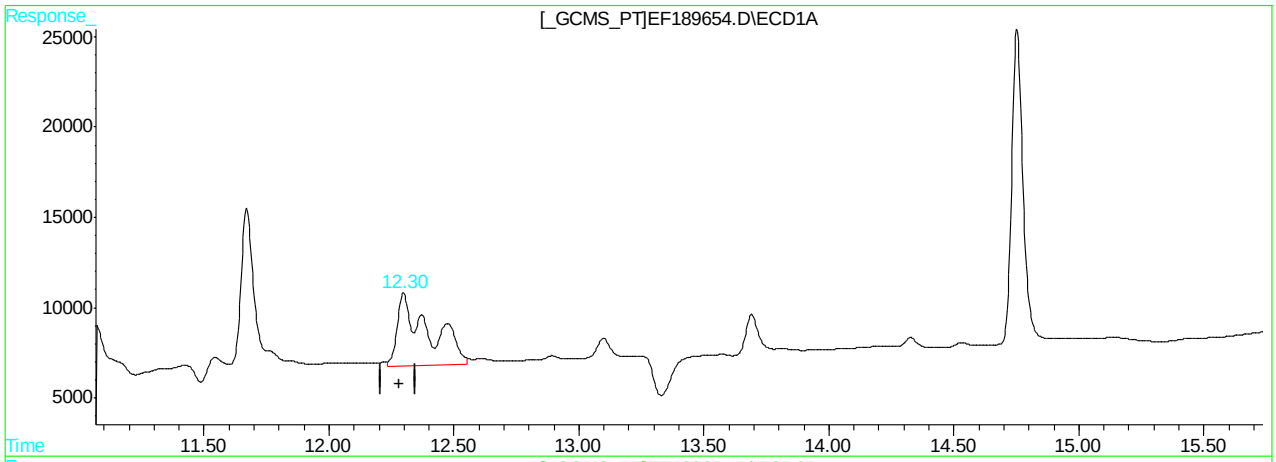
response 936147

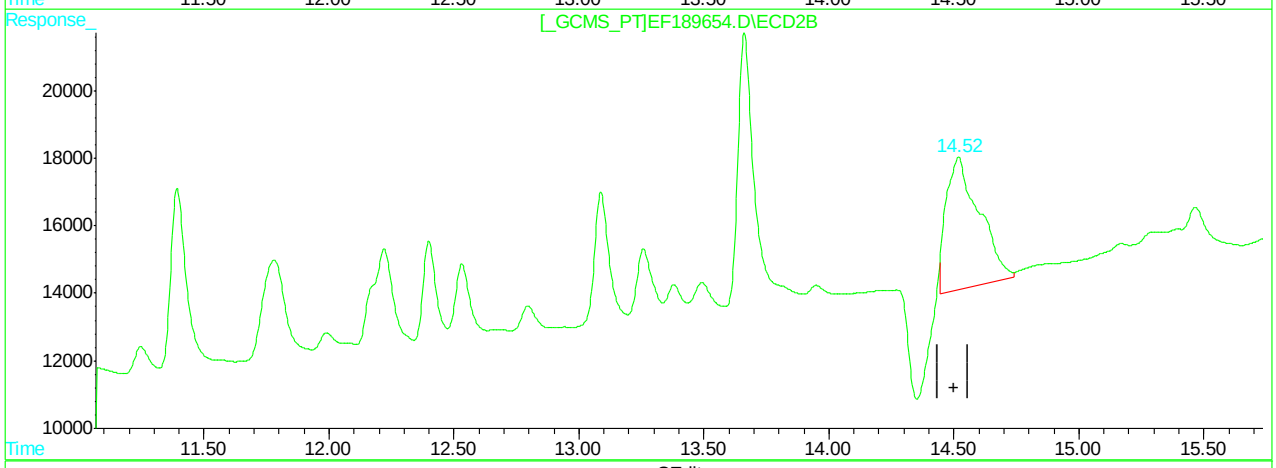
(+) = Expected Retention Time
EF189654.D PCB6434.M Tue May 07 12:57:20 2019 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6439\EF189654.D\ECD1A.CH Vial: 8
Signal #2 : C:\HPCHEM\1\DATA\GEF6439\EF189654.D\ECD2B.CH
Acq On : 7 May 2019 12:20 pm Operator: tianweir
Sample : op20179-ms Inst : gcef
Misc : op20179,GEF6439,16.7,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 7 12:56 2019 Quant Results File: PCB6434.RES

Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue May 07 09:47:58 2019
Response via : Multiple Level Calibration





QEdit

(50) AR1260-E

12.30min 187.989PPB m

response 348481

(50) AR1260-E #2

14.52min 157.219PPB m

response 359280

(+) = Expected Retention Time
EF189654.D PCB6434.M Tue May 07 12:57:26 2019 GCEF

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 05/09/19 09:30

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\GEF6439\EF189655.D\ECD1A.CH Vial: 9
Signal #2 : C:\HPCHEM\1\DATA\GEF6439\EF189655.D\ECD2B.CH
Acq On : 7 May 2019 12:45 pm Operator: tianweir
Sample : op20179-msd Inst : gcef
Misc : op20179,GEF6439,16.5,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 7 13:09 2019 Quant Results File: PCB6434.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue May 07 09:47:58 2019
Response via : Initial Calibration
DataAcq Meth : PCB6434.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1) S	Tetrachloro-m-xy	3.51	4.17	451308	536050	33.884	33.035
	Spiked Amount 40.000			Recovery =		84.71%	82.59%
51) S	Decachlorobiphen	14.76	17.19	543561	666241	33.499	35.941
	Spiked Amount 40.000			Recovery =		83.75%	89.85%
	Target Compounds						
41)	AR1016-A	4.07	5.10	75466	74216	199.026	184.698
42)	AR1016-B	4.65	5.91	126587	138006	195.989	187.605
43)	AR1016-C	5.48f	6.85f	312572	301078	211.718	180.516m
44)	AR1016-D	5.73f	7.14f	105648	123994	196.334m	164.968m
45)	AR1016-E	6.50f	8.13f	124100	101213	231.612m	211.285m
46)	AR1260-A	10.21	12.23	300045	170390	251.201	110.749 #
47)	AR1260-B	10.45	12.41	201195	155467	245.072	132.728 #
48)	AR1260-C	10.99	13.10	211612	183453	316.376	190.426 #
49)	AR1260-D	11.68	13.67	350670	403648	184.352m	172.130
50)	AR1260-E	12.31	14.53	330566	364942	178.324m	159.697m

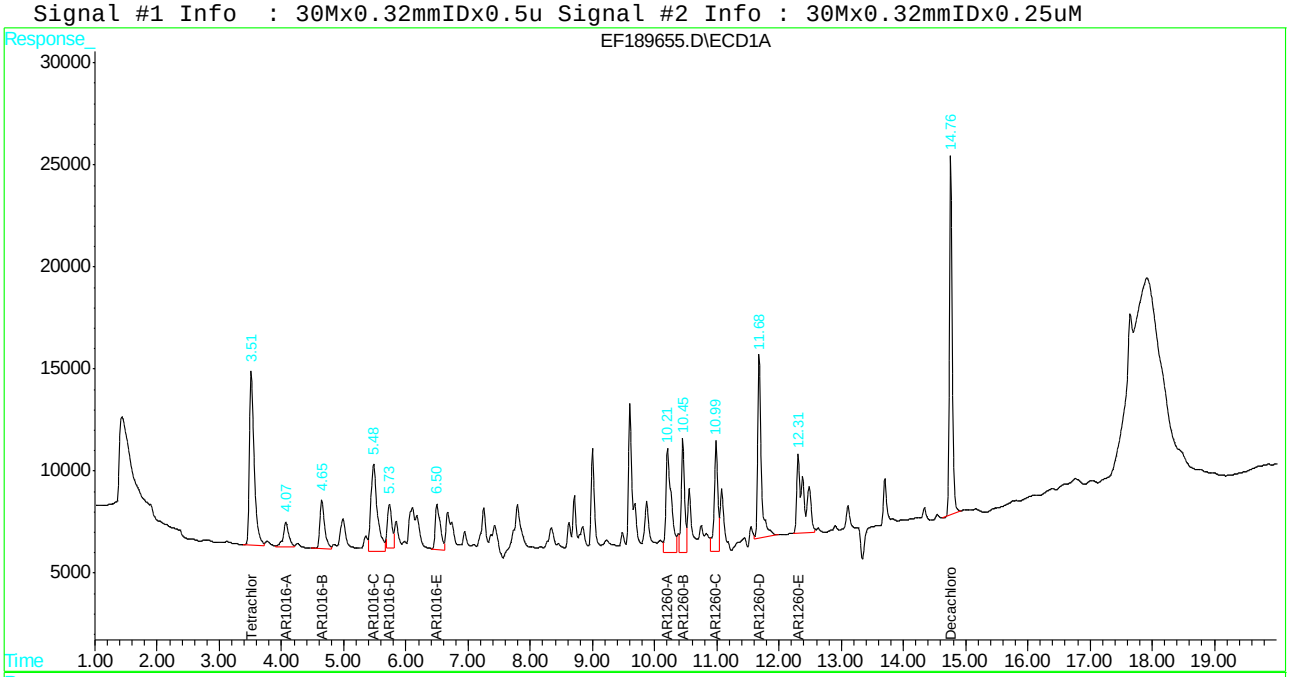
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
EF189655.D PCB6434.M Tue May 07 13:09:57 2019 GCEF Page 1

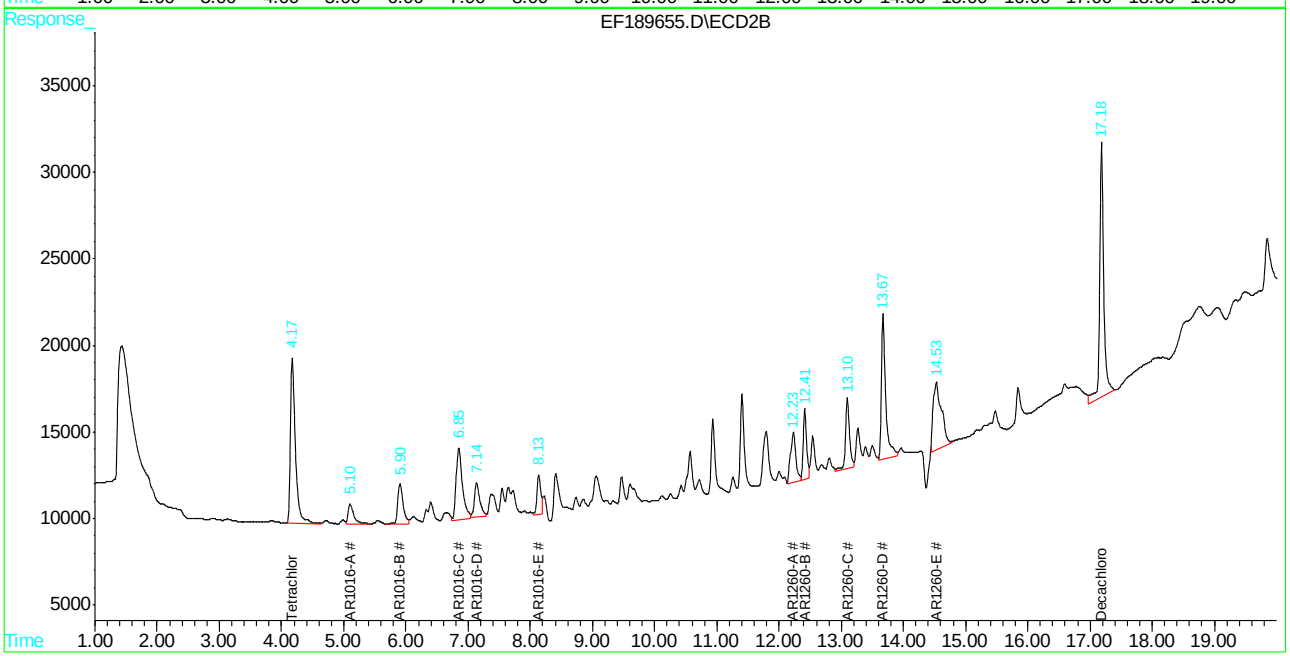
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6439\EF189655.D\ECD1A.CH Vial: 9
Signal #2 : C:\HPCHEM\1\DATA\GEF6439\EF189655.D\ECD2B.CH
Acq On : 7 May 2019 12:45 pm Operator: tianweir
Sample : op20179-msd Inst : gcef
Misc : op20179,GEF6439,16.5,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 7 13:09 2019 Quant Results File: PCB6434.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue May 07 09:47:58 2019
Response via : Multiple Level Calibration
DataAcq Meth : PCB6434.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM





Manual Integration Approval Summary

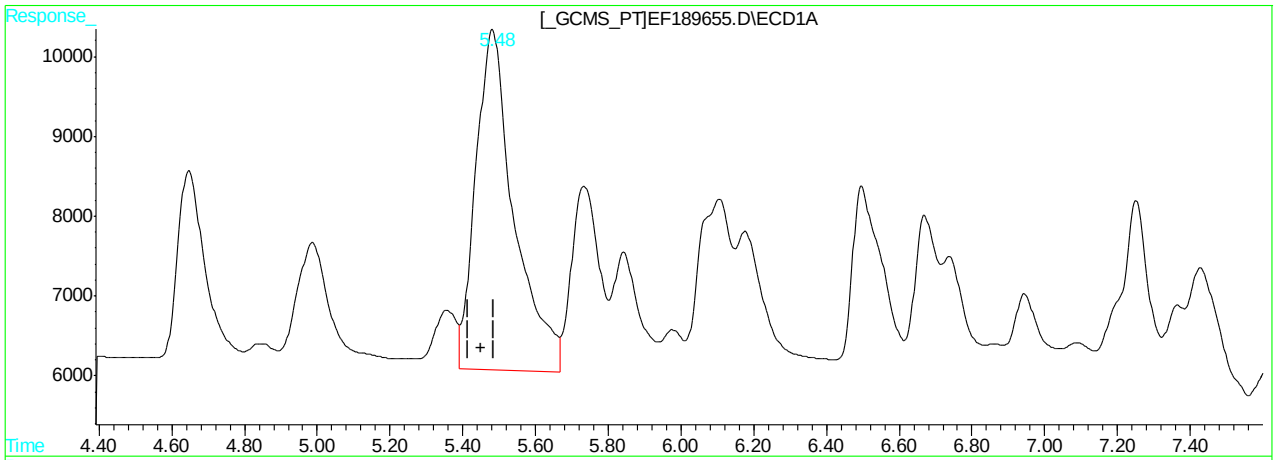
Sample Number: OP20179-MSD
Lab FileID: EF189655.D
Injection Time: 05/07/19 12:45
Method: SW846 8082A
Analyst approved: 05/09/19 09:26 Gwendolyn Burns
Supervisor approved: 05/09/19 09:30 Gwendolyn Burns

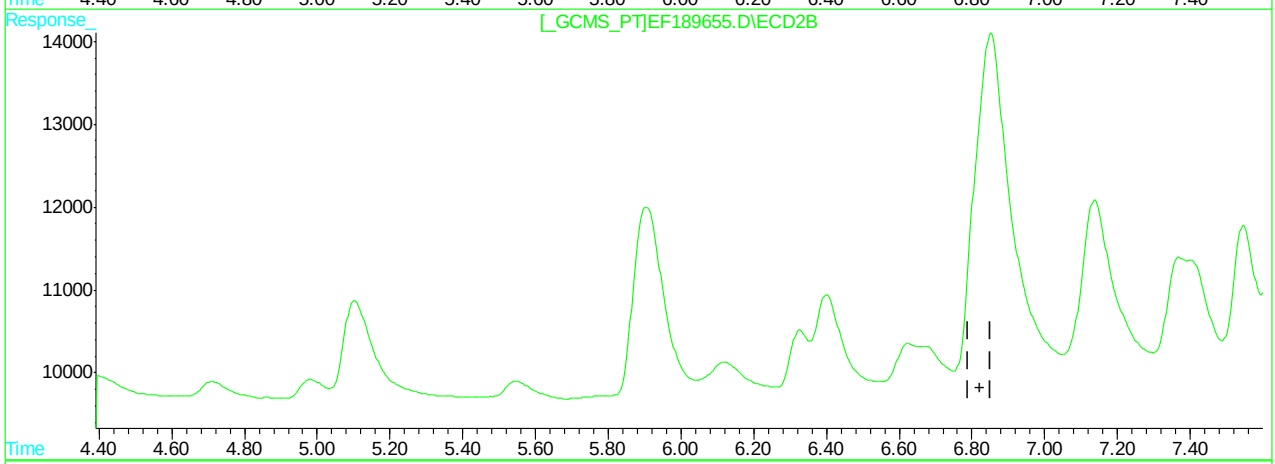
Parameter	CAS	Sig#	R.T. (min.)	Reason
AR1016-D		1	5.73	Poorly defined baseline
AR1016-E		1	6.50	Poorly defined baseline
AR1016-C		2	6.85	Poorly defined baseline
AR1016-D		2	7.14	Poorly defined baseline
AR1016-E		2	8.13	Poorly defined baseline
AR1260-D		1	11.68	Poorly defined baseline
AR1260-E		1	12.31	Poorly defined baseline
AR1260-E		2	14.53	Poorly defined baseline

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6439\EF189655.D\ECD1A.CH Vial: 9
Signal #2 : C:\HPCHEM\1\DATA\GEF6439\EF189655.D\ECD2B.CH
Acq On : 7 May 2019 12:45 pm Operator: tianweir
Sample : op20179-msd Inst : gcef
Misc : op20179,GEF6439,16.5,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 7 13:08 2019 Quant Results File: PCB6434.RES

Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue May 07 09:47:58 2019
Response via : Multiple Level Calibration





QEdit

(43) AR1016-C

5.48min 211.718PPB

response 312572

(43) AR1016-C #2

0.00min 0.000PPB

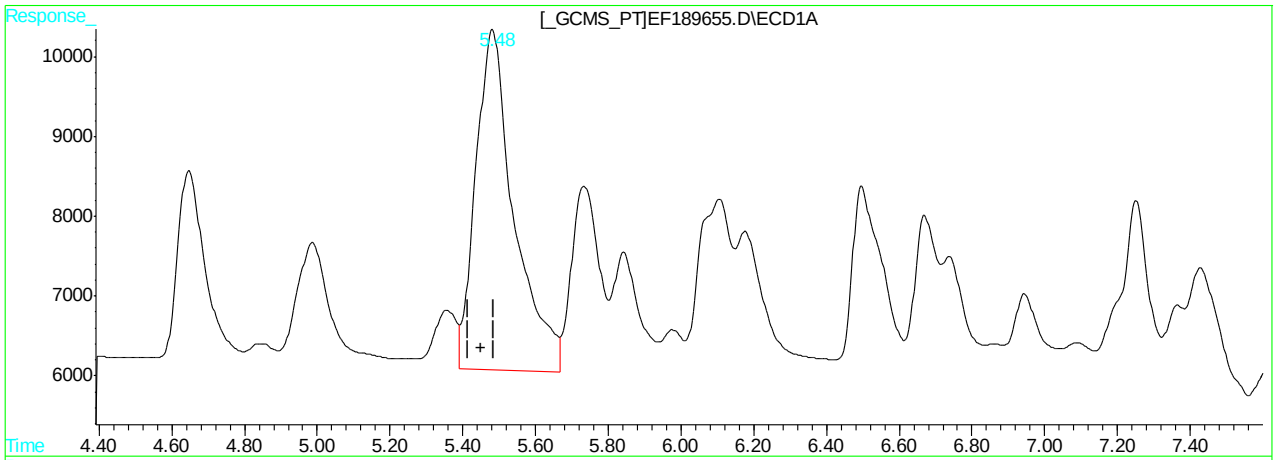
response 0

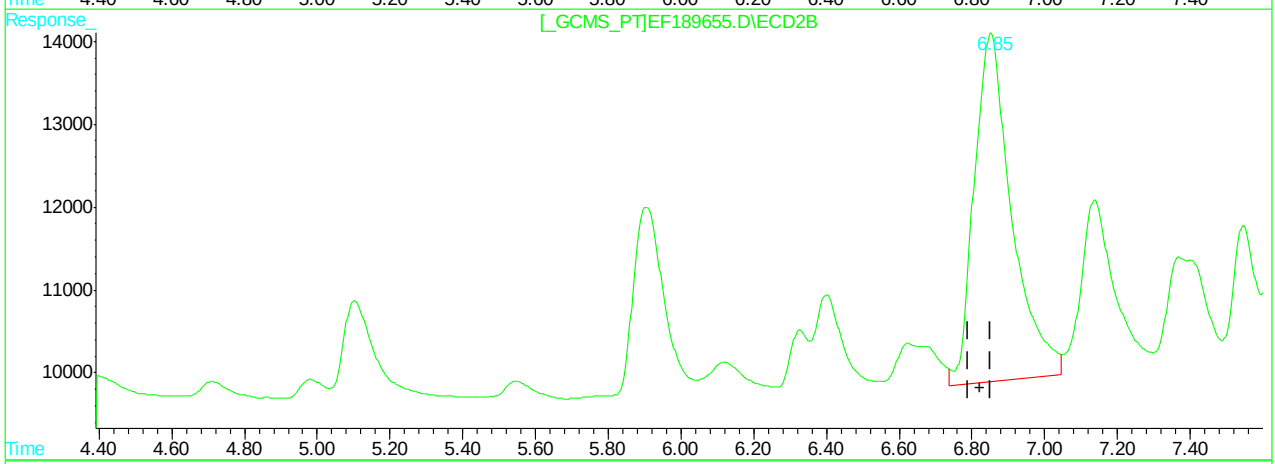
(+) = Expected Retention Time
EF189655.D PCB6434.M Tue May 07 13:08:20 2019 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6439\EF189655.D\ECD1A.CH Vial: 9
Signal #2 : C:\HPCHEM\1\DATA\GEF6439\EF189655.D\ECD2B.CH
Acq On : 7 May 2019 12:45 pm Operator: tianweir
Sample : op20179-msd Inst : gcef
Misc : op20179,GEF6439,16.5,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 7 13:08 2019 Quant Results File: PCB6434.RES

Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue May 07 09:47:58 2019
Response via : Multiple Level Calibration





QEdit

(43) AR1016-C

5.48min 211.718PPB

response 312572

(43) AR1016-C #2

6.85min 180.516PPB m

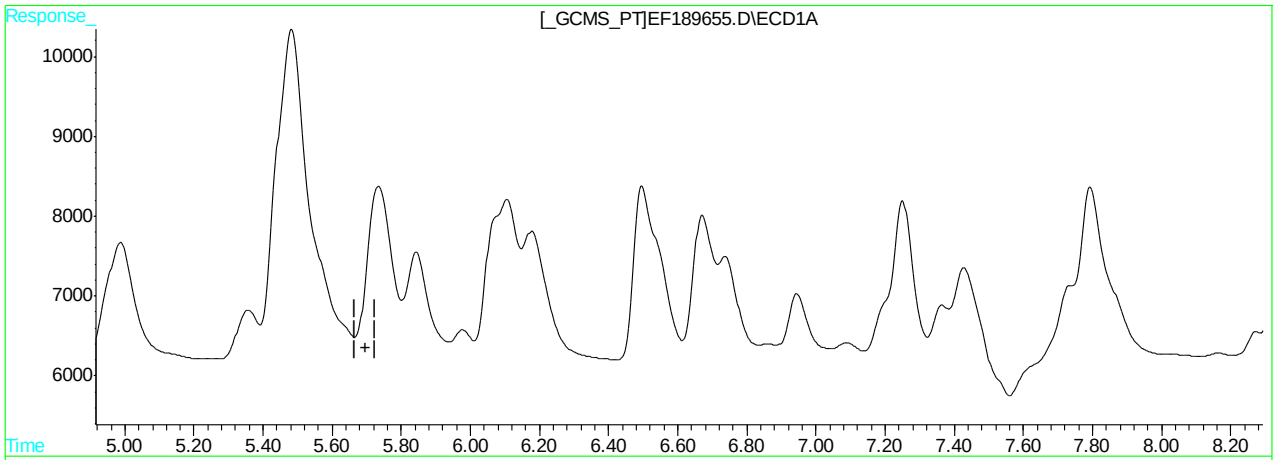
response 301078

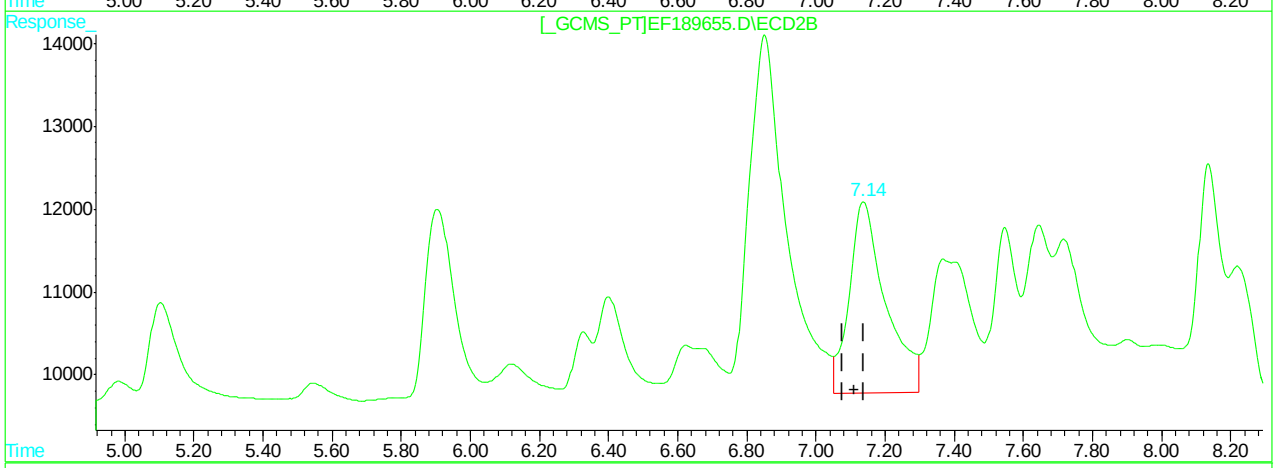
(+) = Expected Retention Time
EF189655.D PCB6434.M Tue May 07 13:08:23 2019 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6439\EF189655.D\ECD1A.CH Vial: 9
Signal #2 : C:\HPCHEM\1\DATA\GEF6439\EF189655.D\ECD2B.CH
Acq On : 7 May 2019 12:45 pm Operator: tianweir
Sample : op20179-msd Inst : gcef
Misc : op20179,GEF6439,16.5,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 7 13:08 2019 Quant Results File: PCB6434.RES

Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue May 07 09:47:58 2019
Response via : Multiple Level Calibration





QEdit

(44) AR1016-D

0.00min 0.000PPB

response 0

(44) AR1016-D #2

7.14min 221.894PPB

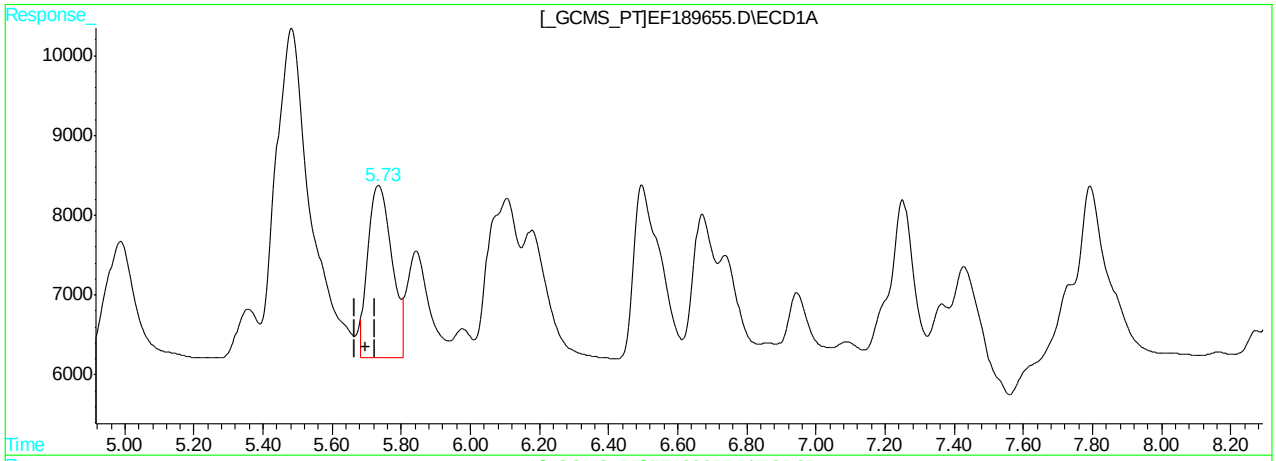
response 166781

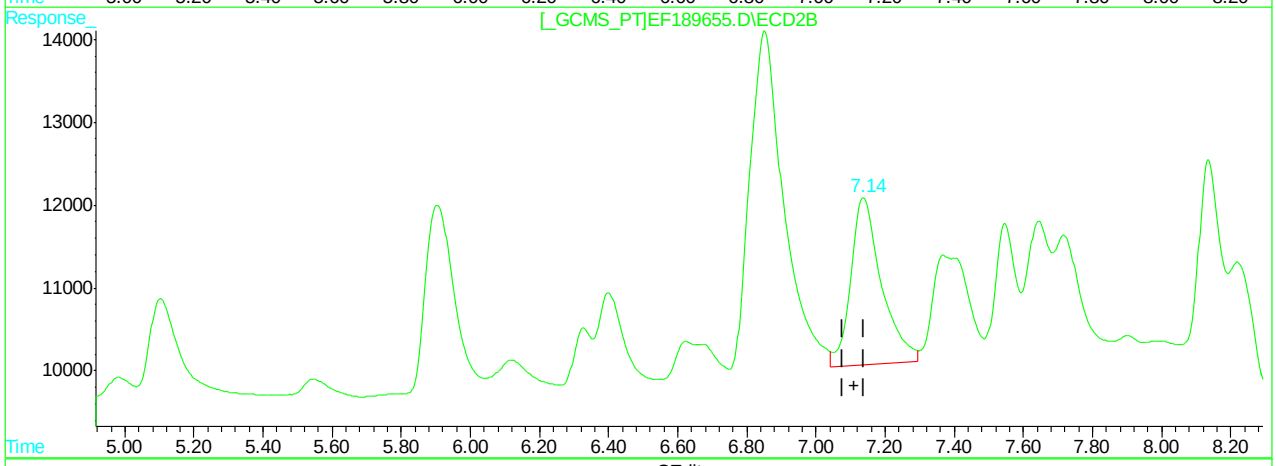
(+) = Expected Retention Time
EF189655.D PCB6434.M Tue May 07 13:08:26 2019 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6439\EF189655.D\ECD1A.CH Vial: 9
Signal #2 : C:\HPCHEM\1\DATA\GEF6439\EF189655.D\ECD2B.CH
Acq On : 7 May 2019 12:45 pm Operator: tianweir
Sample : op20179-msd Inst : gcef
Misc : op20179,GEF6439,16.5,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 7 13:08 2019 Quant Results File: PCB6434.RES

Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue May 07 09:47:58 2019
Response via : Multiple Level Calibration





QEdit

(44) AR1016-D

5.73min 196.334PPB m

response 105648

(44) AR1016-D #2

7.14min 164.968PPB m

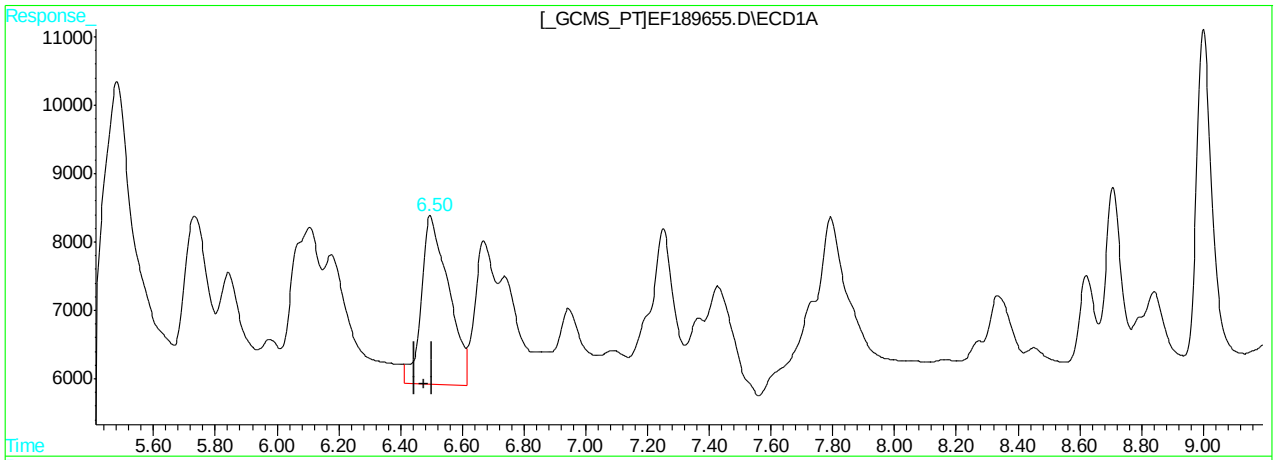
response 123994

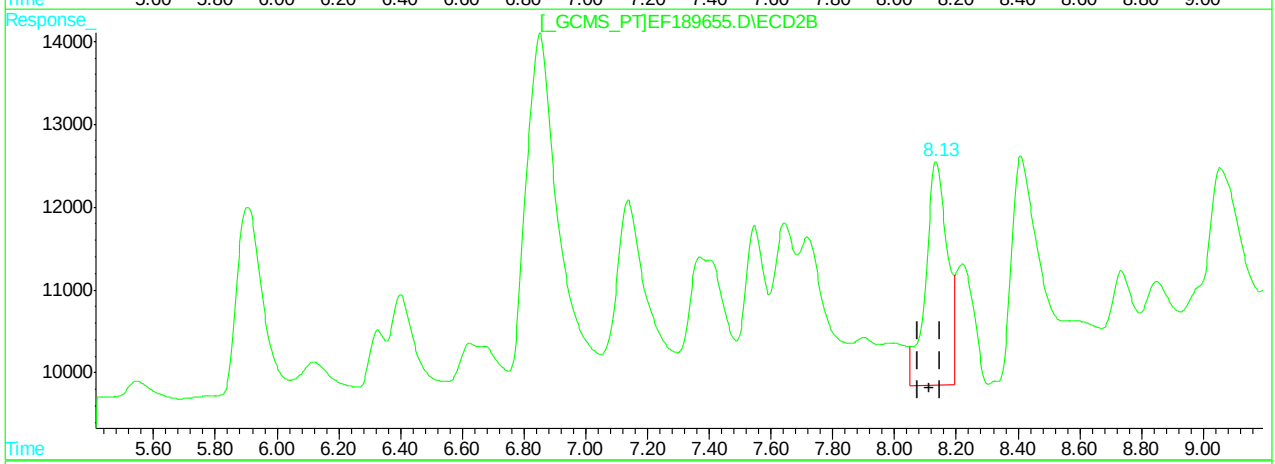
(+) = Expected Retention Time
EF189655.D PCB6434.M Tue May 07 13:08:33 2019 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6439\EF189655.D\ECD1A.CH Vial: 9
Signal #2 : C:\HPCHEM\1\DATA\GEF6439\EF189655.D\ECD2B.CH
Acq On : 7 May 2019 12:45 pm Operator: tianweir
Sample : op20179-msd Inst : gcef
Misc : op20179,GEF6439,16.5,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 7 13:08 2019 Quant Results File: PCB6434.RES

Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue May 07 09:47:58 2019
Response via : Multiple Level Calibration





QEdit

(45) AR1016-E

6.50min 281.221PPB

response 150681

(45) AR1016-E #2

8.14min 271.588PPB

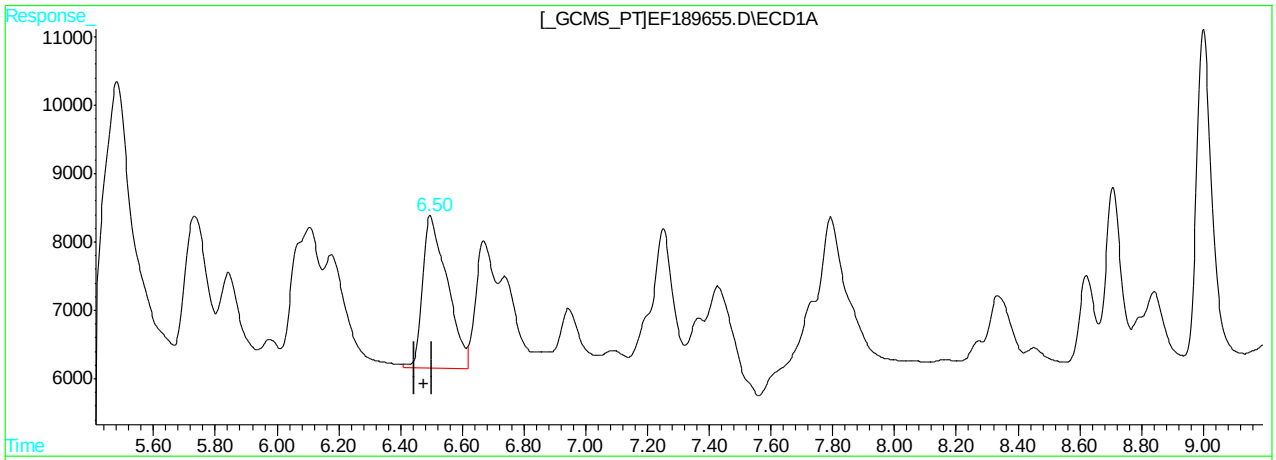
response 130100

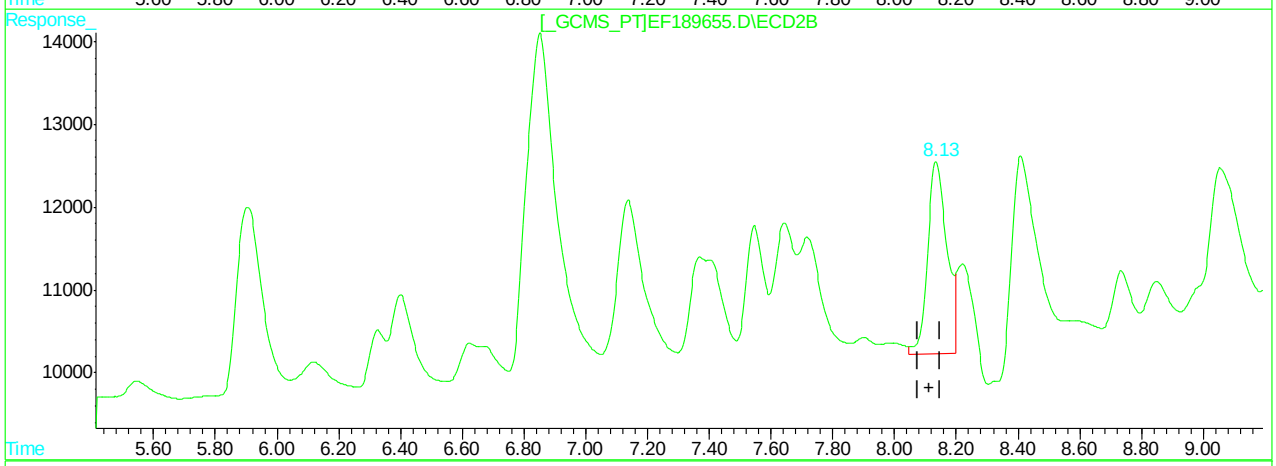
(+) = Expected Retention Time
EF189655.D PCB6434.M Tue May 07 13:08:36 2019 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6439\EF189655.D\ECD1A.CH Vial: 9
Signal #2 : C:\HPCHEM\1\DATA\GEF6439\EF189655.D\ECD2B.CH
Acq On : 7 May 2019 12:45 pm Operator: tianweir
Sample : op20179-msd Inst : gcef
Misc : op20179,GEF6439,16.5,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 7 13:08 2019 Quant Results File: PCB6434.RES

Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue May 07 09:47:58 2019
Response via : Multiple Level Calibration





QEdit

(45) AR1016-E

6.50min 231.612PPB m

response 124100

(45) AR1016-E #2

8.13min 211.285PPB m

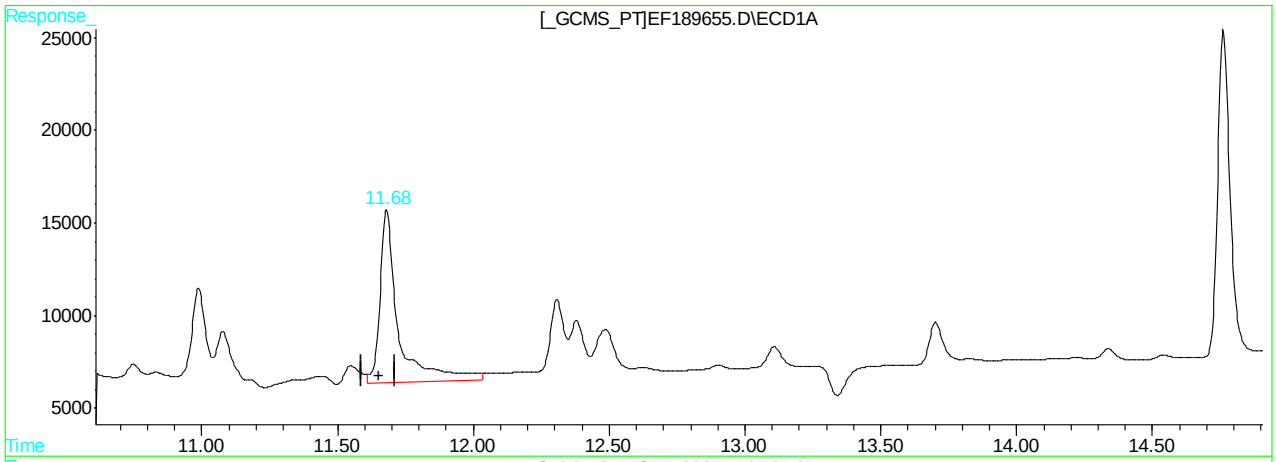
response 101213

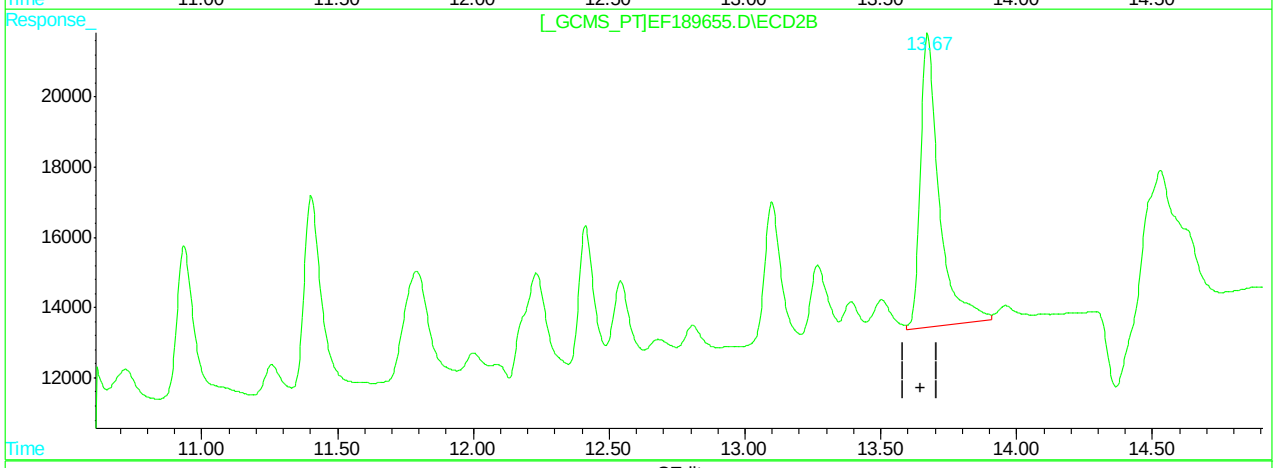
(+) = Expected Retention Time
EF189655.D PCB6434.M Tue May 07 13:08:42 2019 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6439\EF189655.D\ECD1A.CH Vial: 9
Signal #2 : C:\HPCHEM\1\DATA\GEF6439\EF189655.D\ECD2B.CH
Acq On : 7 May 2019 12:45 pm Operator: tianweir
Sample : op20179-msd Inst : gcef
Misc : op20179,GEF6439,16.5,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 7 13:08 2019 Quant Results File: PCB6434.RES

Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue May 07 09:47:58 2019
Response via : Multiple Level Calibration





QEdit

(49) AR1260-D

11.68min 232.636PPB

response 442515

(49) AR1260-D #2

13.67min 172.130PPB

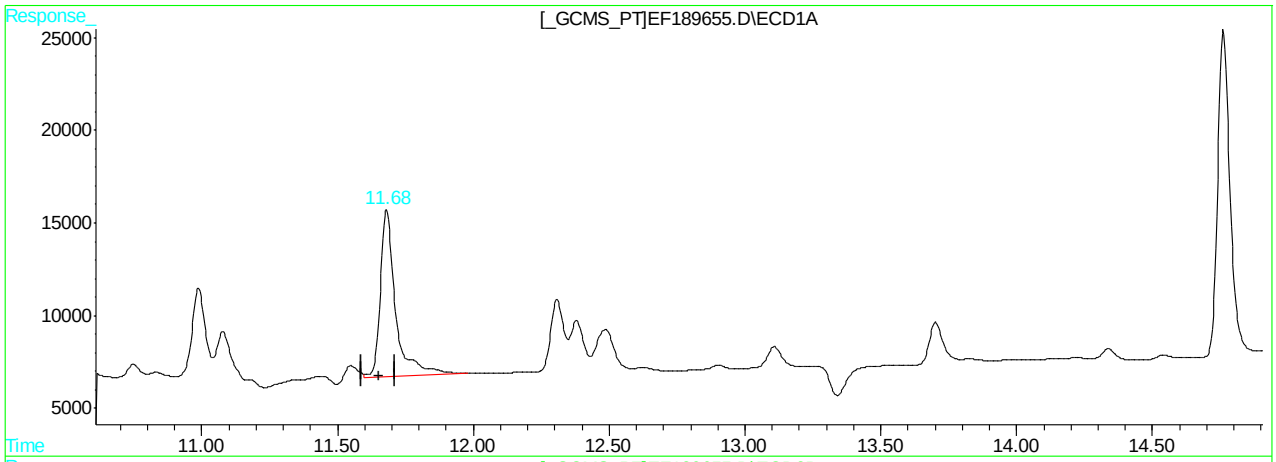
response 403648

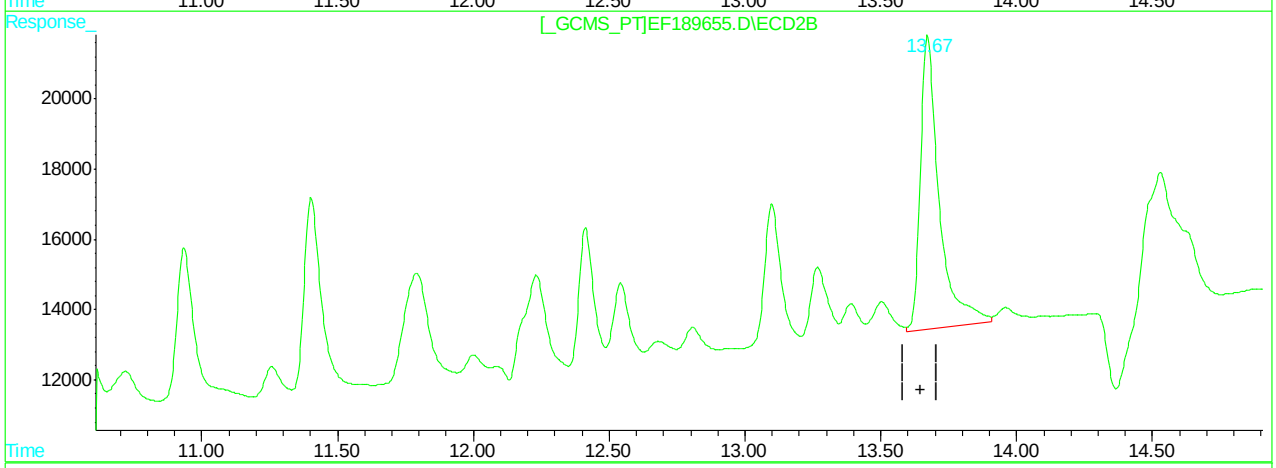
(+) = Expected Retention Time
EF189655.D PCB6434.M Tue May 07 13:08:48 2019 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6439\EF189655.D\ECD1A.CH Vial: 9
Signal #2 : C:\HPCHEM\1\DATA\GEF6439\EF189655.D\ECD2B.CH
Acq On : 7 May 2019 12:45 pm Operator: tianweir
Sample : op20179-msd Inst : gcef
Misc : op20179,GEF6439,16.5,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 7 13:08 2019 Quant Results File: PCB6434.RES

Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue May 07 09:47:58 2019
Response via : Multiple Level Calibration





QEdit

(49) AR1260-D

11.68min 184.352PPB m

response 350670

(49) AR1260-D #2

13.67min 172.130PPB

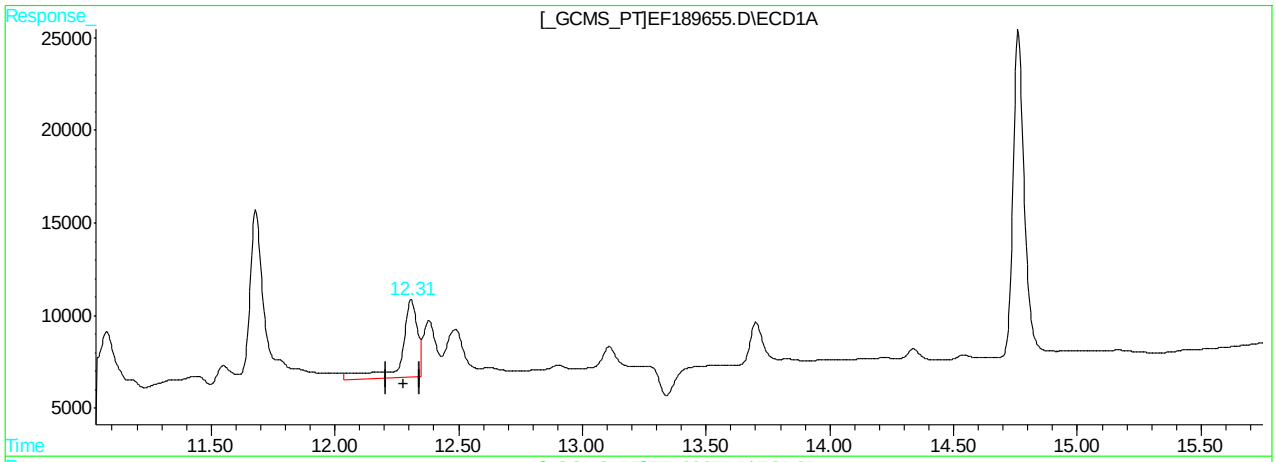
response 403648

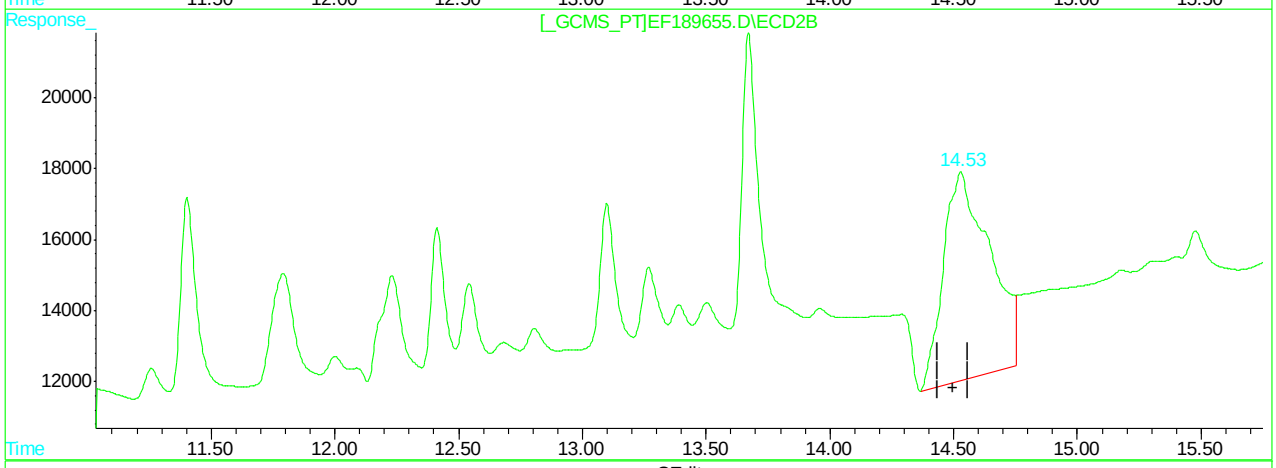
(+) = Expected Retention Time
EF189655.D PCB6434.M Tue May 07 13:08:55 2019 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6439\EF189655.D\ECD1A.CH Vial: 9
Signal #2 : C:\HPCHEM\1\DATA\GEF6439\EF189655.D\ECD2B.CH
Acq On : 7 May 2019 12:45 pm Operator: tianweir
Sample : op20179-msd Inst : gcef
Misc : op20179,GEF6439,16.5,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 7 13:08 2019 Quant Results File: PCB6434.RES

Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue May 07 09:47:58 2019
Response via : Multiple Level Calibration





QEdit

(50) AR1260-E

12.31min 99.731PPB

response 184874

(50) AR1260-E #2

14.53min 332.016PPB

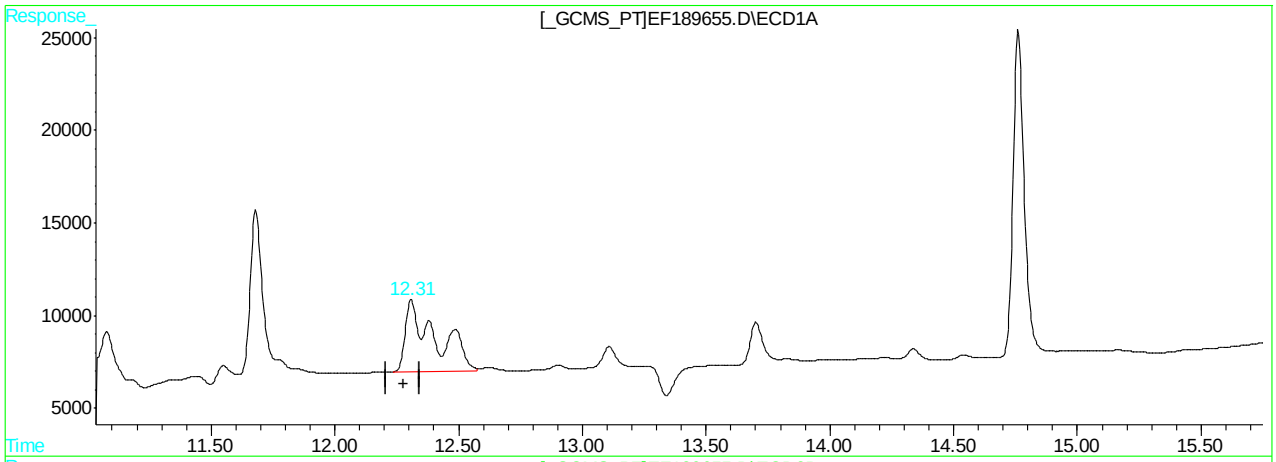
response 758729

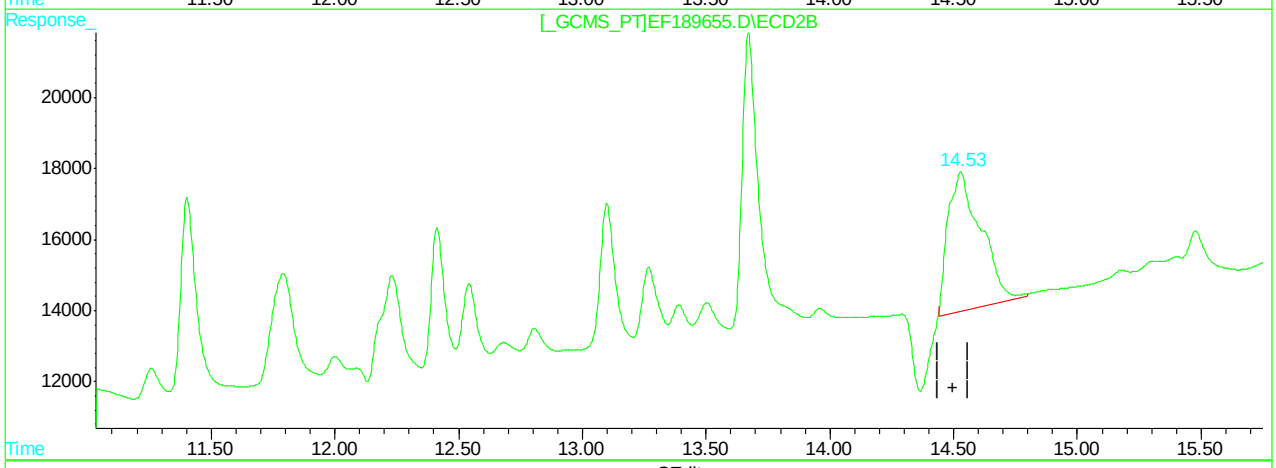
(+) = Expected Retention Time
EF189655.D PCB6434.M Tue May 07 13:08:57 2019 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6439\EF189655.D\ECD1A.CH Vial: 9
Signal #2 : C:\HPCHEM\1\DATA\GEF6439\EF189655.D\ECD2B.CH
Acq On : 7 May 2019 12:45 pm Operator: tianweir
Sample : op20179-msd Inst : gcef
Misc : op20179,GEF6439,16.5,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 7 13:08 2019 Quant Results File: PCB6434.RES

Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue May 07 09:47:58 2019
Response via : Multiple Level Calibration





QEdit

(50) AR1260-E

12.31min 178.324PPB m

response 330566

(50) AR1260-E #2

14.53min 159.697PPB m

response 364942

(+) = Expected Retention Time
EF189655.D PCB6434.M Tue May 07 13:09:51 2019 GCEF

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 05/03/19 11:16

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\GEF6434\EF189485.D\ECD1A.CH Vial: 3
Signal #2 : C:\HPCHEM\1\DATA\GEF6434\EF189485.D\ECD2B.CH
Acq On : 1 May 2019 12:13 pm Operator: tianweir
Sample : ic6434-50 Inst : gcef
Misc : op20033,GEF6434,10.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 1 13:27 2019 Quant Results File: PCB6434.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed May 01 12:57:45 2019
Response via : Initial Calibration
DataAcq Meth : PCB6434.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1) S	Tetrachloro-m-xy	3.55	4.20	26036	32906	1.779	1.851
	Spiked Amount 40.000			Recovery	=	4.45%	4.63%
51) S	Decachlorobiphen	14.84	17.25	37983	45631	2.129m	2.316m
	Spiked Amount 40.000			Recovery	=	5.32%	5.79%
	Target Compounds						
41)	AR1016-A	4.11	5.14	20898	21355	47.504	48.402m
42)	AR1016-B	4.69	5.94	38438	35678	53.201	42.413
43)	AR1016-C	5.54	6.90	83732	98584	50.046	53.558
44)	AR1016-D	5.79	7.19	29167	45287	46.607	56.371
45)	AR1016-E	6.56	8.18	28328	31507	44.105	59.236m#
46)	AR1260-A	10.29	12.30	67163	73484	47.958	37.479
47)	AR1260-B	10.52	12.47	48020	63345	53.328	45.853
48)	AR1260-C	11.06	13.16	37556	49203	44.266	42.613
49)	AR1260-D	11.77	13.76	105361	113981	51.490	41.710
50)	AR1260-E	12.45	14.64	95592	113963	46.429m	41.493m

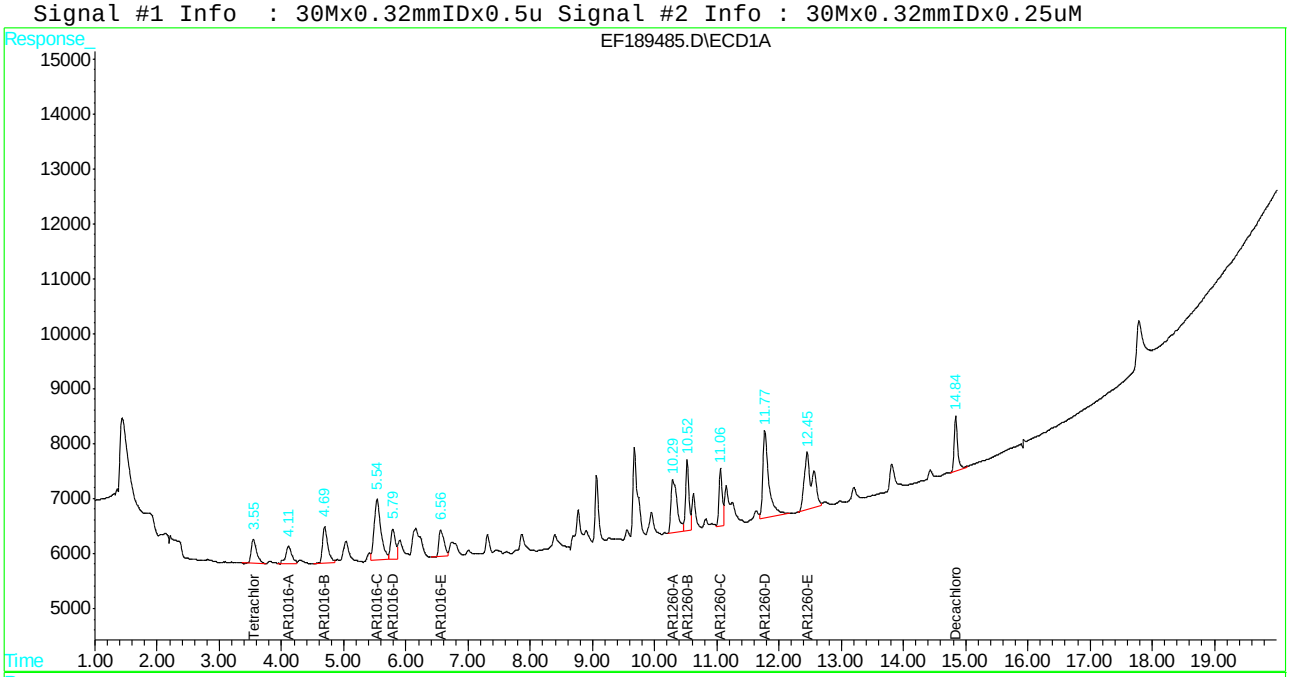
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
EF189485.D PCB6434.M Thu May 02 09:23:19 2019 GCEF Page 1

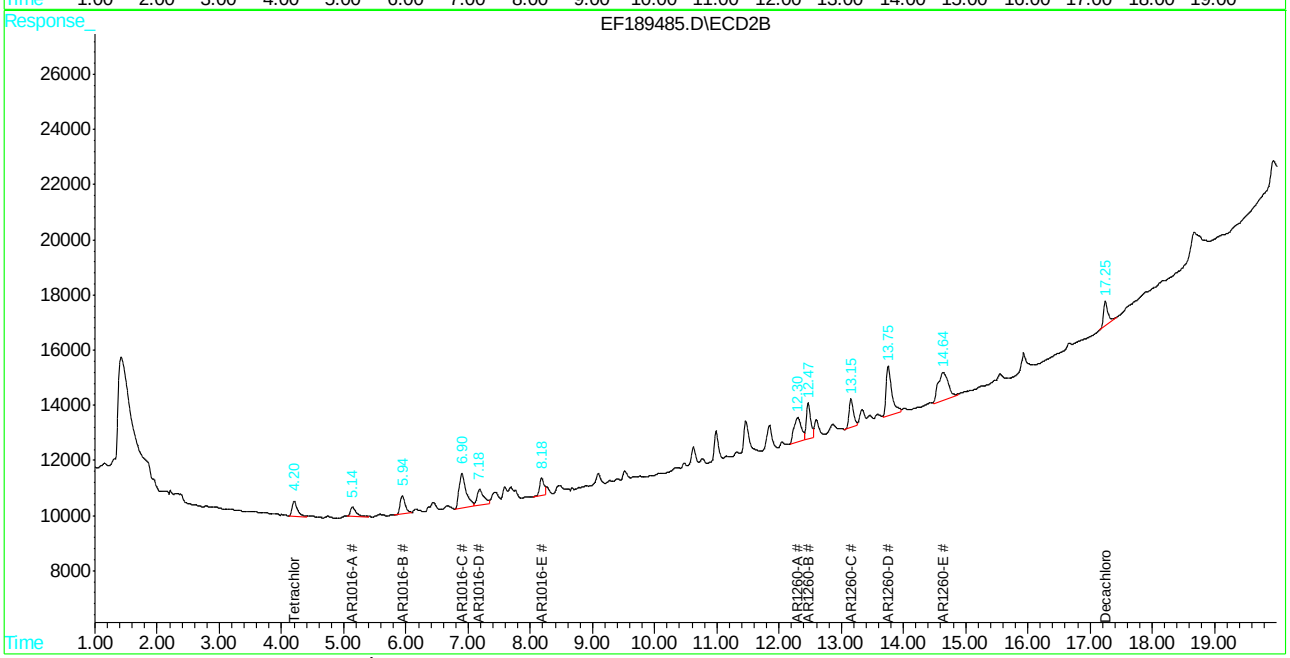
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6434\EF189485.D\ECD1A.CH Vial: 3
Signal #2 : C:\HPCHEM\1\DATA\GEF6434\EF189485.D\ECD2B.CH
Acq On : 1 May 2019 12:13 pm Operator: tianweir
Sample : ic6434-50 Inst : gcef
Misc : op20033,GEF6434,10.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 1 13:27 2019 Quant Results File: PCB6434.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed May 01 12:57:45 2019
Response via : Multiple Level Calibration
DataAcq Meth : PCB6434.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM





SGS JC87363

Manual Integration Approval Summary

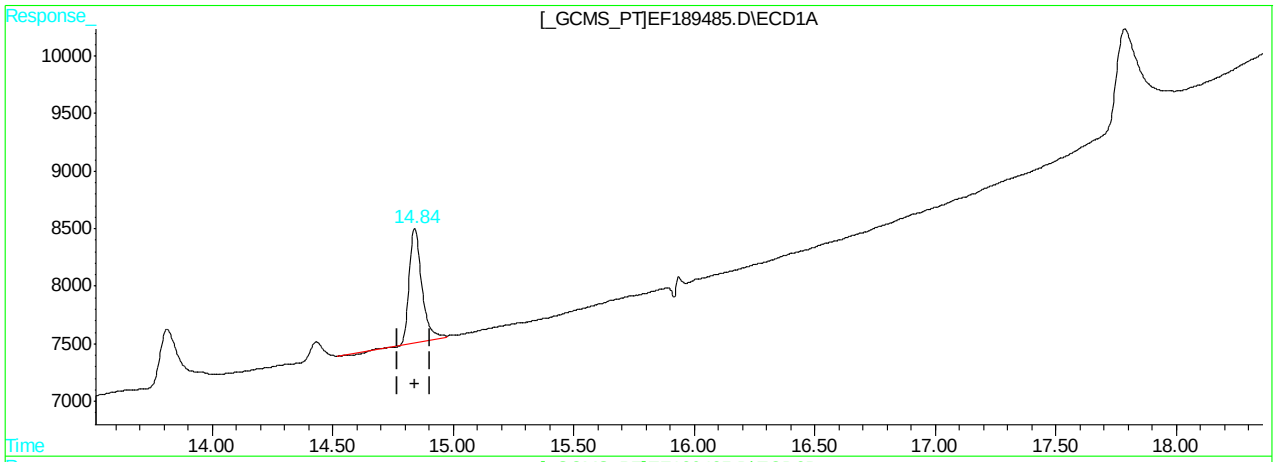
Sample Number: GEF6434-IC6434 **Method:** SW846 8082A
Lab FileID: EF189485.D **Analyst approved:** 05/02/19 09:37 Tianwei Ruan
Injection Time: 05/01/19 12:13 **Supervisor approved:** 05/03/19 11:16 Gwendolyn Burns

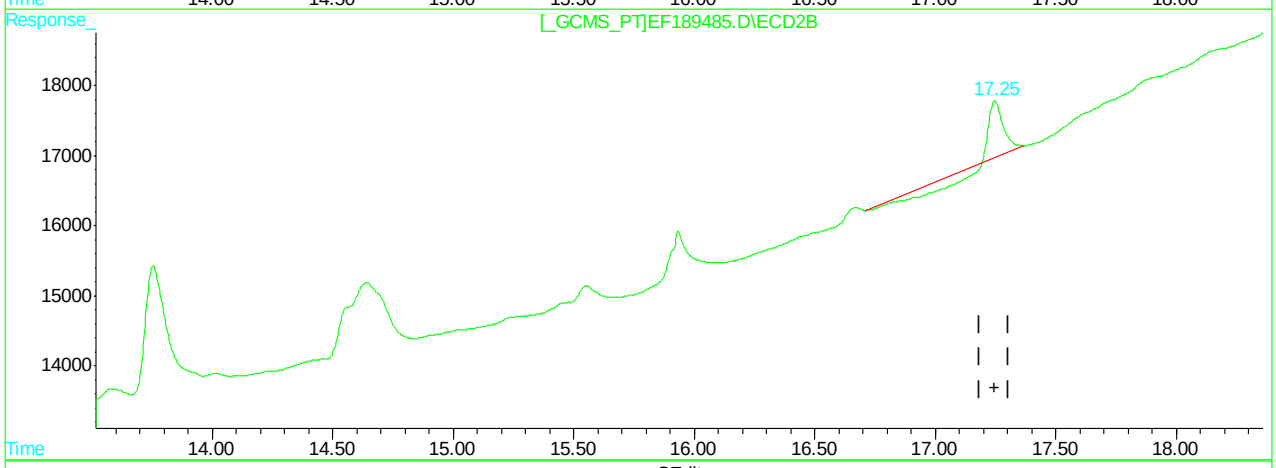
Parameter	CAS	Sig#	R.T. (min.)	Reason
AR1016-A		2	5.14	Split peak
AR1016-E		2	8.18	Split peak
AR1260-E		1	12.45	Split peak
AR1260-E		2	14.64	Split peak
Decachlorobiphenyl	2051-24-3	1	14.84	Poorly defined baseline
Decachlorobiphenyl	2051-24-3	2	17.25	Poorly defined baseline

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6434\EF189485.D\ECD1A.CH Vial: 3
Signal #2 : C:\HPCHEM\1\DATA\GEF6434\EF189485.D\ECD2B.CH
Acq On : 1 May 2019 12:13 pm Operator: tianweir
Sample : ic6434-50 Inst : gcef
Misc : op20033,GEF6434,10.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 1 12:57 2019 Quant Results File: PCB6434.RES

Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed May 01 12:57:45 2019
Response via : Multiple Level Calibration





QEdit

(51) Decachlorobiphenyl (S)

14.84min 1.954PPB

response 34858

(51) Decachlorobiphenyl #2 (S)

17.25min 0.308PPB

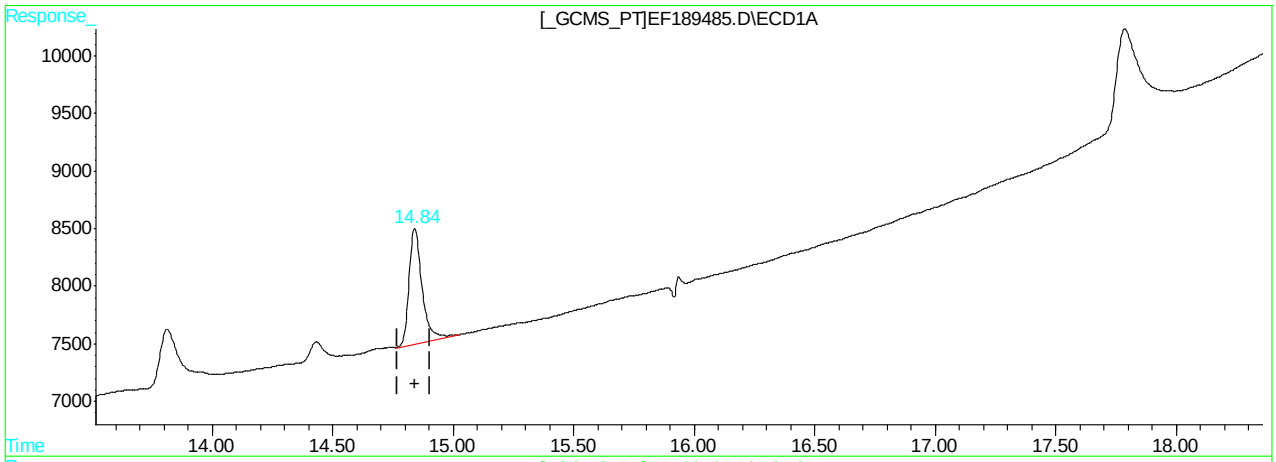
response 6076

(+) = Expected Retention Time
EF189485.D PCB6434.M Wed May 01 12:58:00 2019 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6434\EF189485.D\ECD1A.CH Vial: 3
Signal #2 : C:\HPCHEM\1\DATA\GEF6434\EF189485.D\ECD2B.CH
Acq On : 1 May 2019 12:13 pm Operator: tianweir
Sample : ic6434-50 Inst : gcef
Misc : op20033,GEF6434,10.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 1 12:57 2019 Quant Results File: PCB6434.RES

Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed May 01 12:57:45 2019
Response via : Multiple Level Calibration



(51) Decachlorobiphenyl (S)

14.84min 2.129PPB m

response 37983

(51) Decachlorobiphenyl #2 (S)

17.25min 2.316PPB m

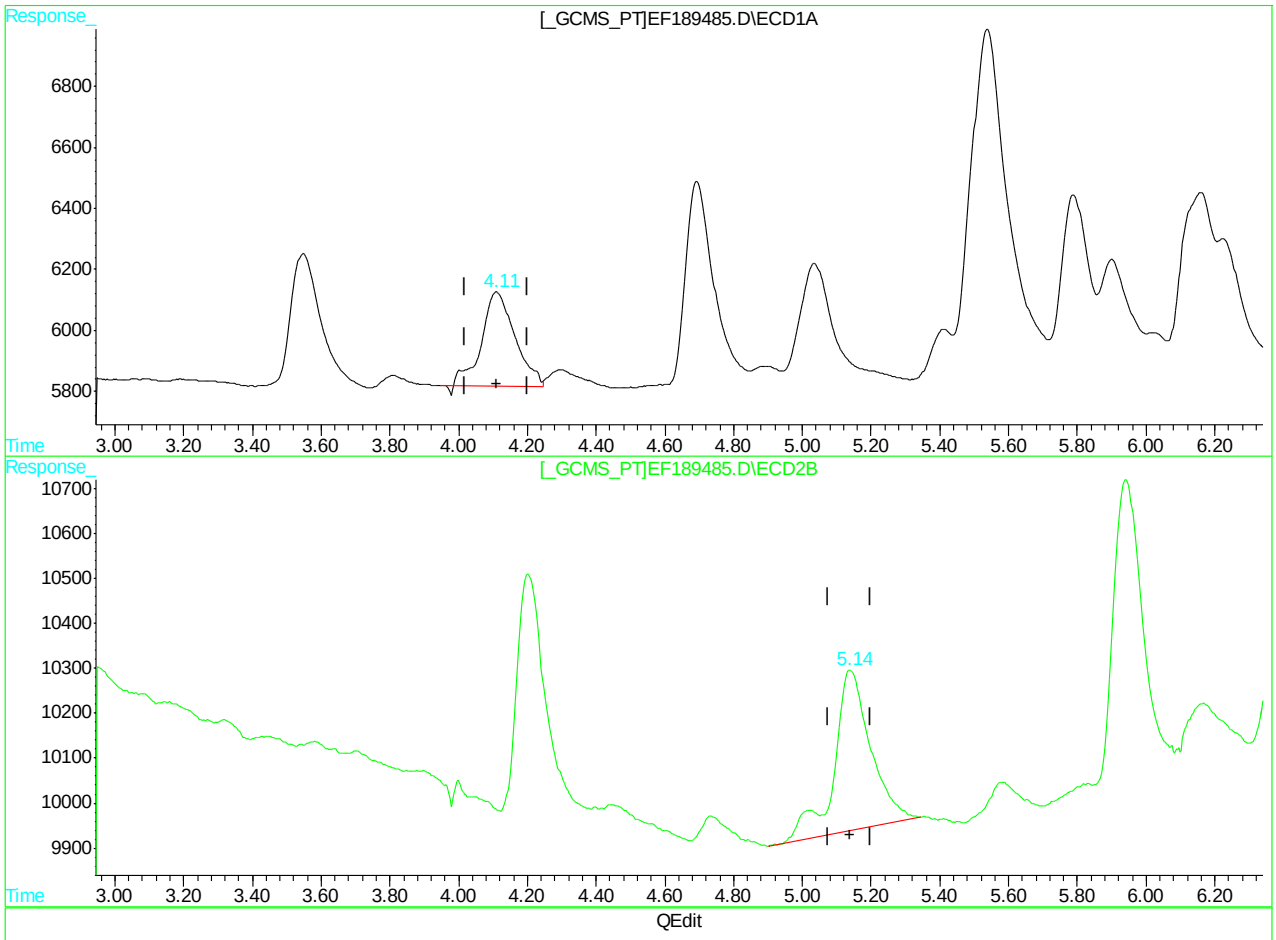
response 45631

(+) = Expected Retention Time
EF189485.D PCB6434.M Wed May 01 12:58:08 2019 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6434\EF189485.D\ECD1A.CH Vial: 3
Signal #2 : C:\HPCHEM\1\DATA\GEF6434\EF189485.D\ECD2B.CH
Acq On : 1 May 2019 12:13 pm Operator: tianweir
Sample : ic6434-50 Inst : gcef
Misc : op20033,GEF6434,10.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 1 12:57 2019 Quant Results File: PCB6434.RES

Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed May 01 12:57:45 2019
Response via : Multiple Level Calibration



(41) AR1016-A

4.11min 47.504PPB

response 20898

(41) AR1016-A #2

5.14min 60.532PPB

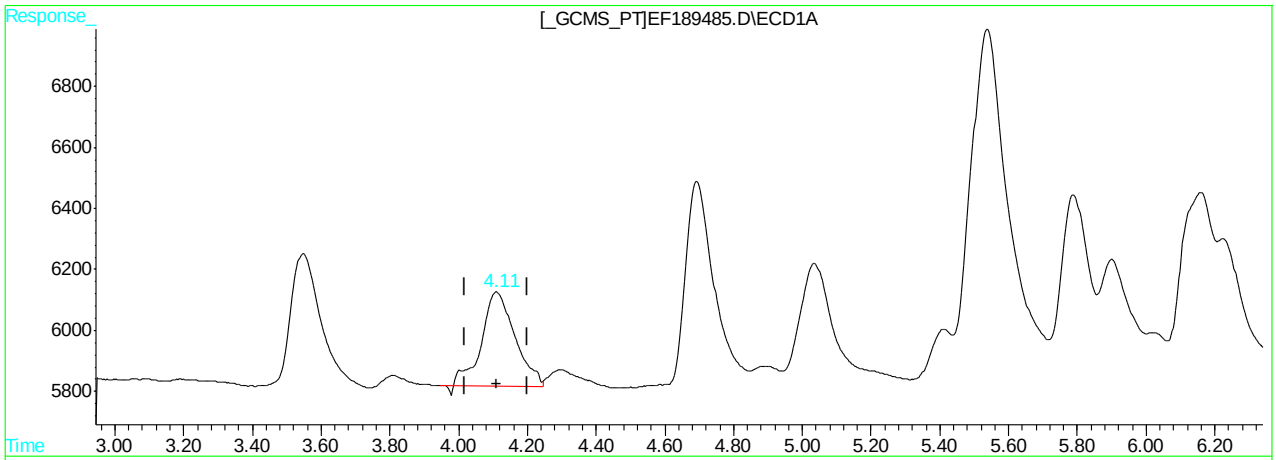
response 26707

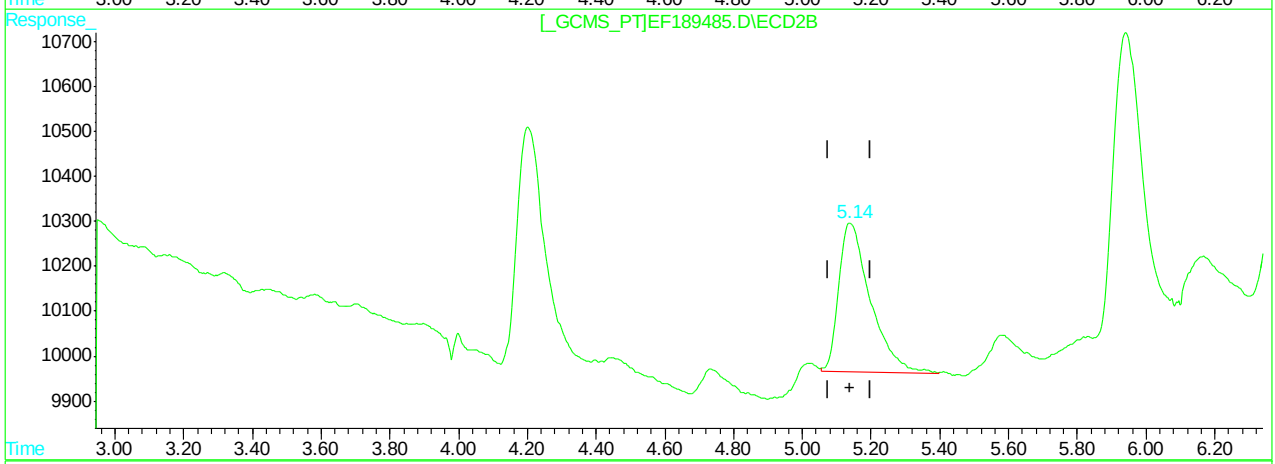
(+) = Expected Retention Time
EF189485.D PCB6434.M Wed May 01 12:58:17 2019 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6434\EF189485.D\ECD1A.CH Vial: 3
Signal #2 : C:\HPCHEM\1\DATA\GEF6434\EF189485.D\ECD2B.CH
Acq On : 1 May 2019 12:13 pm Operator: tianweir
Sample : ic6434-50 Inst : gcef
Misc : op20033,GEF6434,10.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 1 12:57 2019 Quant Results File: PCB6434.RES

Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed May 01 12:57:45 2019
Response via : Multiple Level Calibration





QEdit

(41) AR1016-A

4.11min 47.504PPB

response 20898

(41) AR1016-A #2

5.14min 48.402PPB m

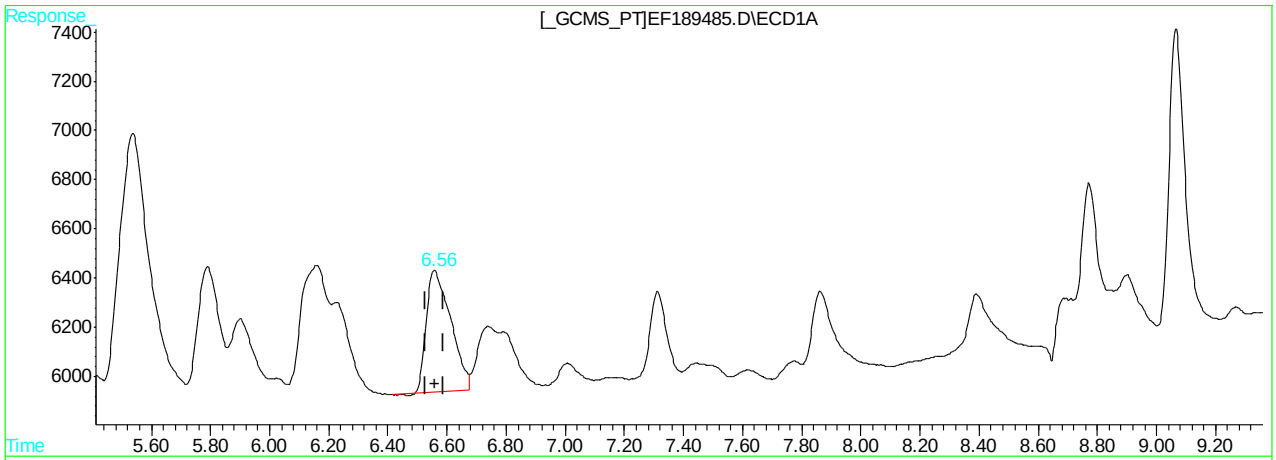
response 21355

(+) = Expected Retention Time
EF189485.D PCB6434.M Wed May 01 12:58:22 2019 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6434\EF189485.D\ECD1A.CH Vial: 3
Signal #2 : C:\HPCHEM\1\DATA\GEF6434\EF189485.D\ECD2B.CH
Acq On : 1 May 2019 12:13 pm Operator: tianweir
Sample : ic6434-50 Inst : gcef
Misc : op20033,GEF6434,10.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 1 12:57 2019 Quant Results File: PCB6434.RES

Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed May 01 12:57:45 2019
Response via : Multiple Level Calibration



(45) AR1016-E

6.56min 44.105PPB

response 28328

(45) AR1016-E #2

8.18min 83.162PPB

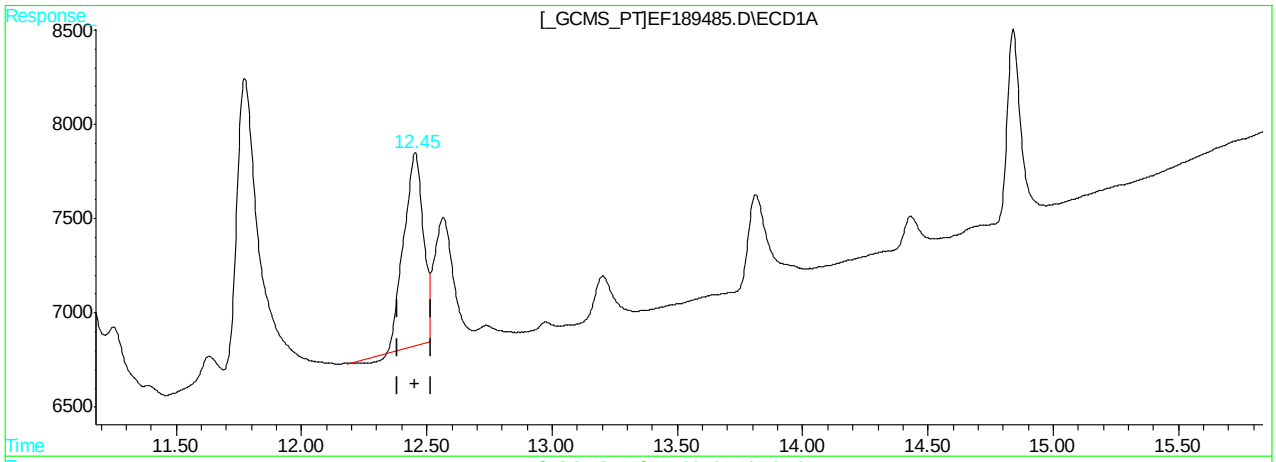
response 44233

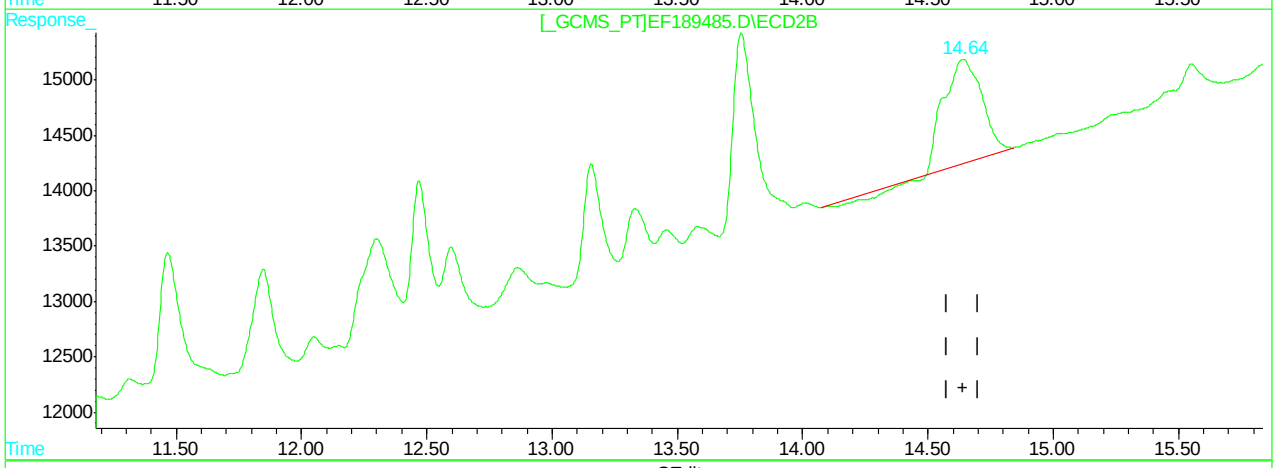
(+) = Expected Retention Time
EF189485.D PCB6434.M Wed May 01 12:58:29 2019 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6434\EF189485.D\ECD1A.CH Vial: 3
Signal #2 : C:\HPCHEM\1\DATA\GEF6434\EF189485.D\ECD2B.CH
Acq On : 1 May 2019 12:13 pm Operator: tianweir
Sample : ic6434-50 Inst : gcef
Misc : op20033,GEF6434,10.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 1 12:57 2019 Quant Results File: PCB6434.RES

Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed May 01 12:57:45 2019
Response via : Multiple Level Calibration





QEdit

(50) AR1260-E

12.45min 26.409PPB

response 54374

(50) AR1260-E #2

14.64min 34.544PPB

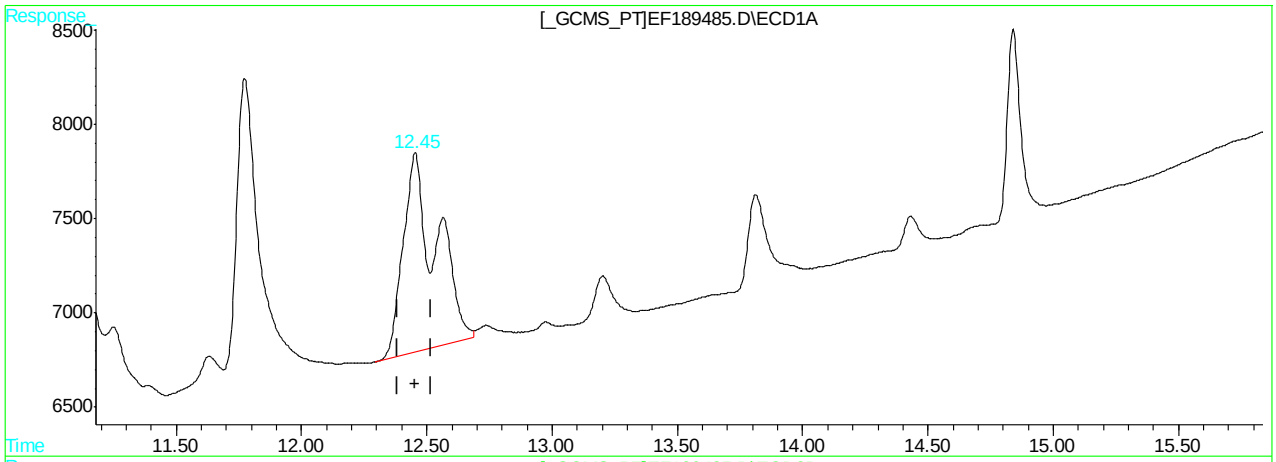
response 94878

(+) = Expected Retention Time
EF189485.D PCB6434.M Wed May 01 12:58:41 2019 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6434\EF189485.D\ECD1A.CH Vial: 3
Signal #2 : C:\HPCHEM\1\DATA\GEF6434\EF189485.D\ECD2B.CH
Acq On : 1 May 2019 12:13 pm Operator: tianweir
Sample : ic6434-50 Inst : gcef
Misc : op20033,GEF6434,10.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 1 12:57 2019 Quant Results File: PCB6434.RES

Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed May 01 12:57:45 2019
Response via : Multiple Level Calibration



(50) AR1260-E

12.45min 46.429PPB m

response 95592

(50) AR1260-E #2

14.64min 41.493PPB m

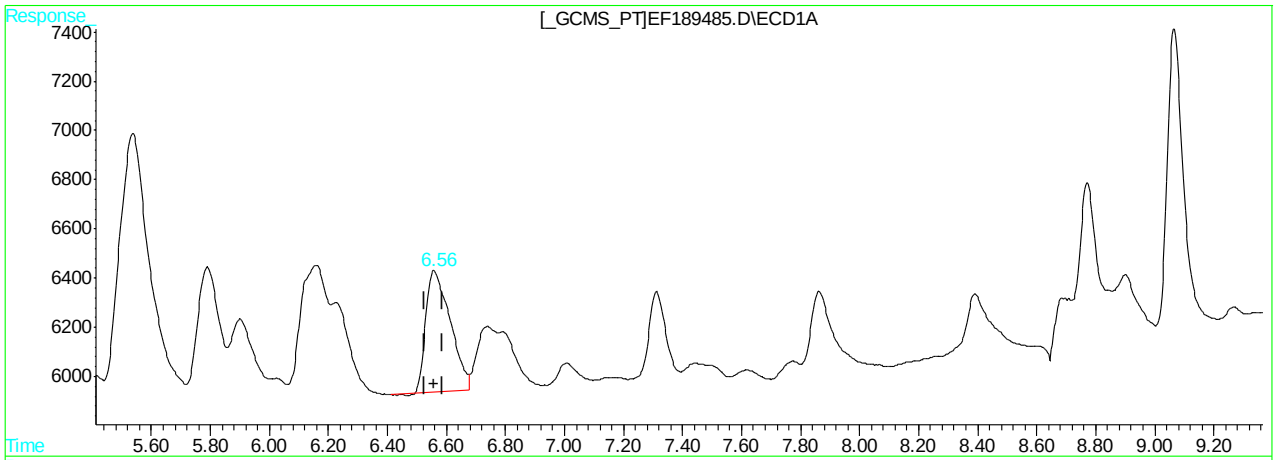
response 113963

(+) = Expected Retention Time
EF189485.D PCB6434.M Wed May 01 12:58:48 2019 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6434\EF189485.D\ECD1A.CH Vial: 3
Signal #2 : C:\HPCHEM\1\DATA\GEF6434\EF189485.D\ECD2B.CH
Acq On : 1 May 2019 12:13 pm Operator: tianweir
Sample : ic6434-50 Inst : gcef
Misc : op20033,GEF6434,10.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 1 12:58 2019 Quant Results File: PCB6434.RES

Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed May 01 13:26:40 2019
Response via : Multiple Level Calibration



(45) AR1016-E

6.56min 44.105PPB

response 28328

(45) AR1016-E #2

8.18min 59.236PPB m

response 31507

(+) = Expected Retention Time
EF189485.D PCB6434.M Wed May 01 13:27:36 2019 GCEF

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 05/03/19 11:16

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\GEF6434\EF189486.D\ECD1A.CH Vial: 4
Signal #2 : C:\HPCHEM\1\DATA\GEF6434\EF189486.D\ECD2B.CH
Acq On : 1 May 2019 12:38 pm Operator: tianweir
Sample : ic6434-250 Inst : gcef
Misc : op20033,GEF6434,10.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 1 13:24 2019 Quant Results File: PCB6434.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed May 01 12:57:45 2019
Response via : Initial Calibration
DataAcq Meth : PCB6434.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1) S	Tetrachloro-m-xy	3.54	4.20	131366	160596	8.977	9.036
	Spiked Amount 40.000			Recovery =		22.44%	22.59%
51) S	Decachlorobiphen	14.82	17.22	171370	193004	9.605	9.796m
	Spiked Amount 40.000			Recovery =		24.01%	24.49%
	Target Compounds						
41)	AR1016-A	4.10	5.13	100042	106090	227.407	240.454
42)	AR1016-B	4.69	5.93	171958	198095	238.004	235.486
43)	AR1016-C	5.52	6.88f	403557	439448	241.203	238.742
44)	AR1016-D	5.78	7.17	144407	193177	230.753	240.457
45)	AR1016-E	6.55	8.17	139215	121667	216.752	228.746
46)	AR1260-A	10.27	12.27	314065	389618	224.259	198.719
47)	AR1260-B	10.51	12.45	225003	306396	249.871	221.788
48)	AR1260-C	11.04	13.14	180122	248534	212.308	215.246
49)	AR1260-D	11.74	13.72	506522	599080	247.534	219.228
50)	AR1260-E	12.43	14.61f	479127	576091	232.711m	209.751

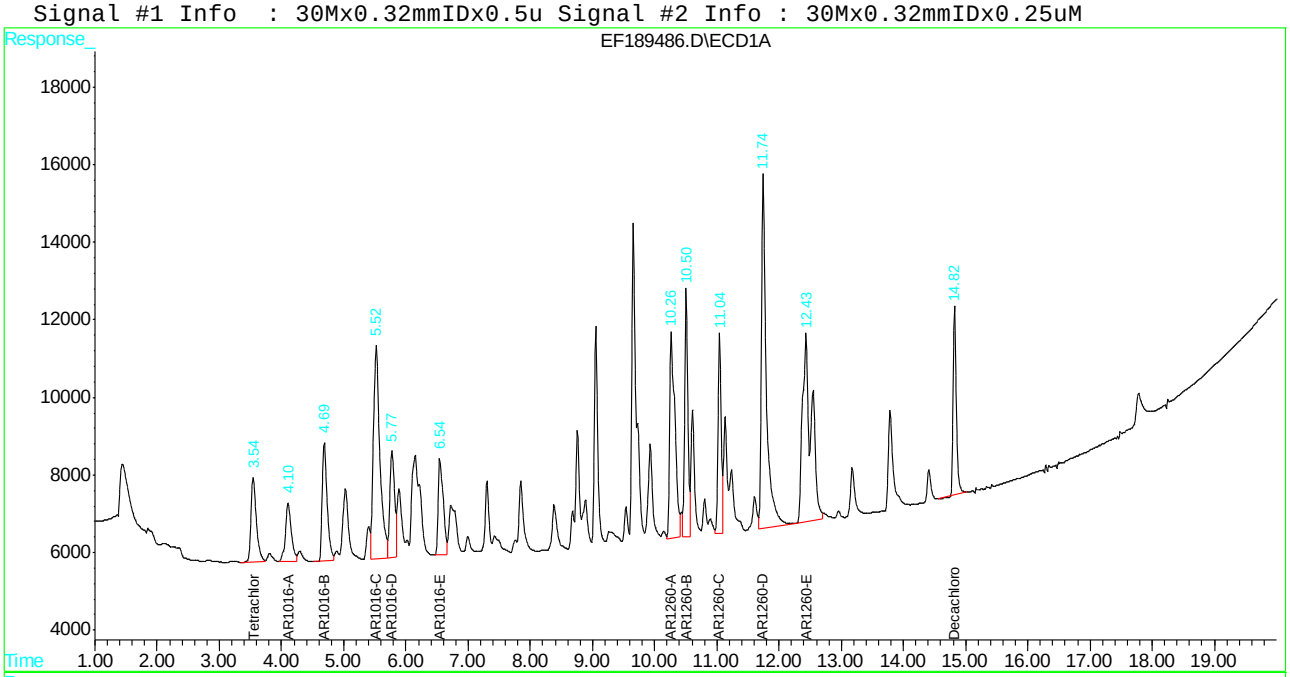
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
EF189486.D PCB6434.M Thu May 02 09:23:24 2019 GCEF Page 1

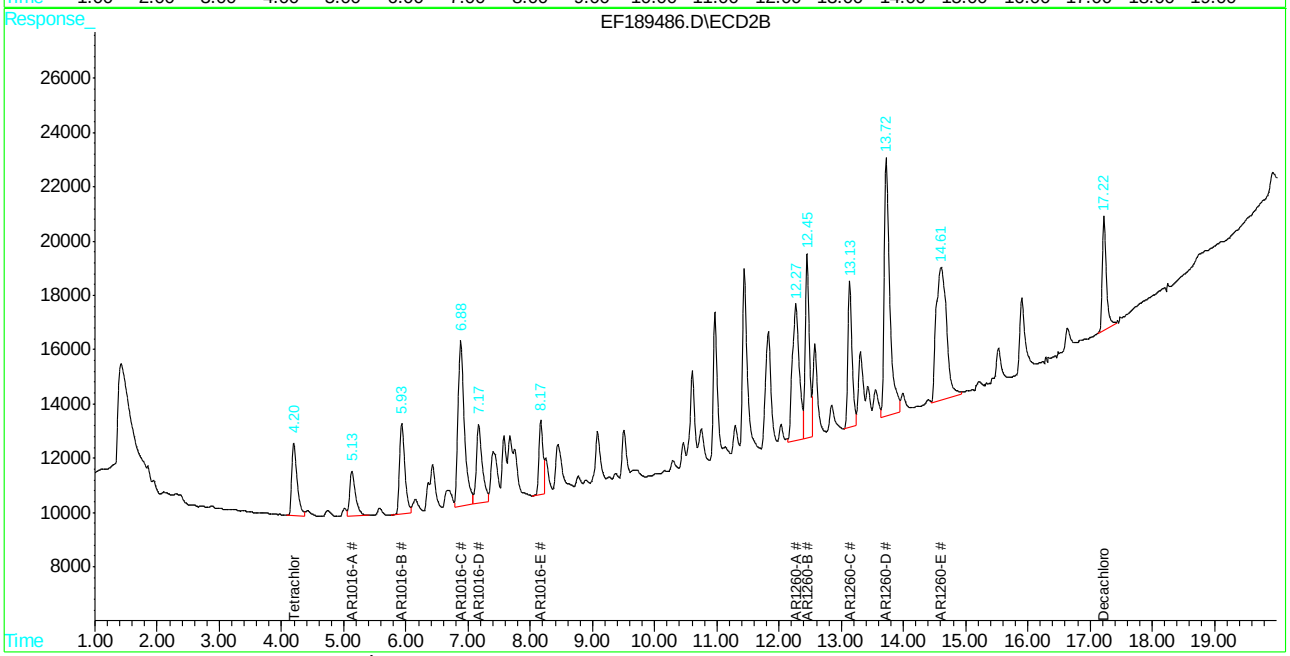
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6434\EF189486.D\ECD1A.CH Vial: 4
Signal #2 : C:\HPCHEM\1\DATA\GEF6434\EF189486.D\ECD2B.CH
Acq On : 1 May 2019 12:38 pm Operator: tianweir
Sample : ic6434-250 Inst : gcef
Misc : op20033,GEF6434,10.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 1 13:24 2019 Quant Results File: PCB6434.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed May 01 12:57:45 2019
Response via : Multiple Level Calibration
DataAcq Meth : PCB6434.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM





JC87363

Manual Integration Approval Summary

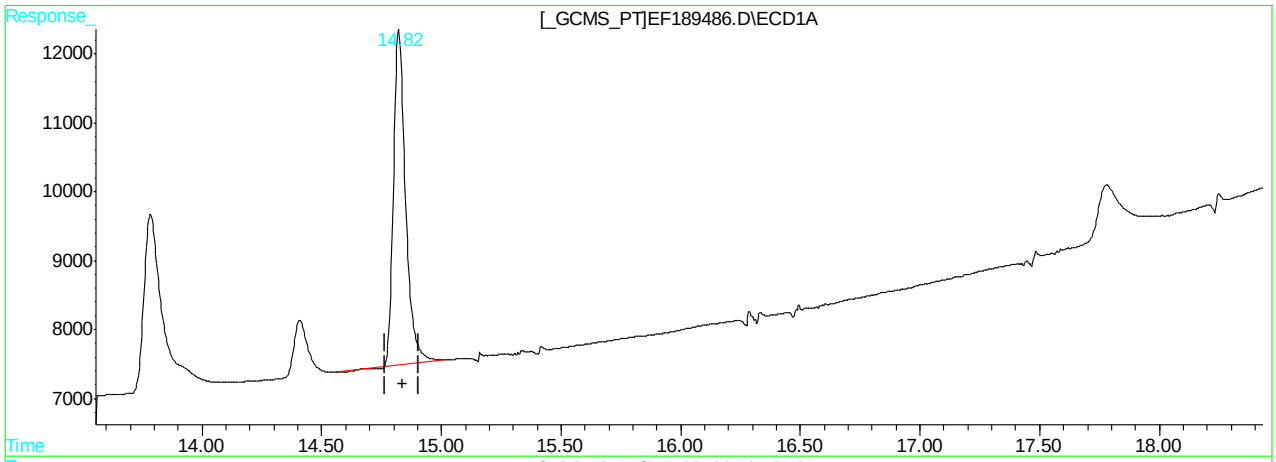
Sample Number:	GEF6434-IC6434	**Method:**	SW846 8082A
Lab FileID:	EF189486.D	**Analyst approved:**	05/02/19 09:37 Tianwei Ruan
Injection Time:	05/01/19 12:38	**Supervisor approved:**	05/03/19 11:16 Gwendolyn Burns

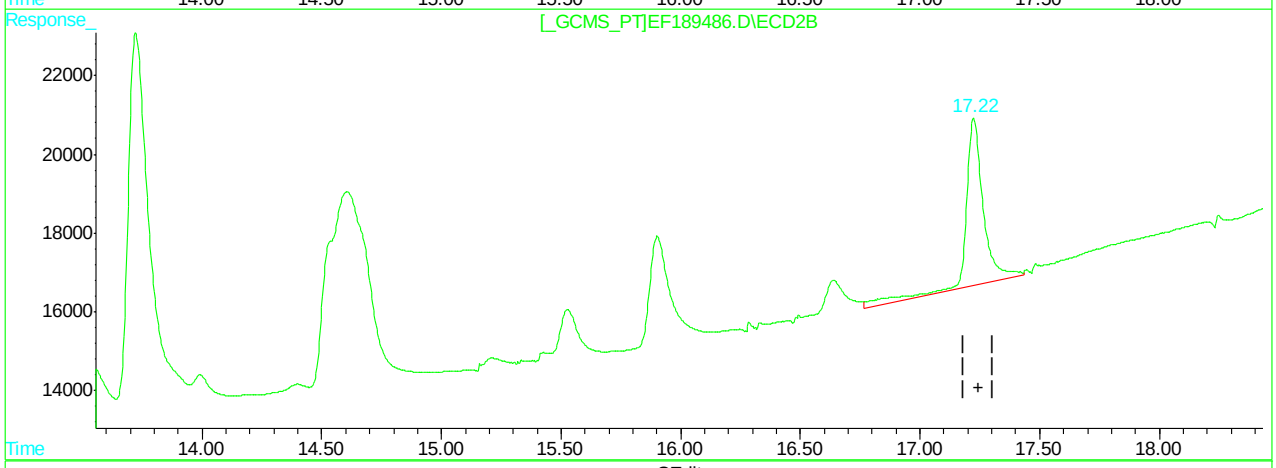
Parameter	CAS	Sig#	R.T. (min.)	Reason
AR1260-E		1	12.43	Split peak
Decachlorobiphenyl	2051-24-3	2	17.22	Poorly defined baseline

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6434\EF189486.D\ECD1A.CH Vial: 4
Signal #2 : C:\HPCHEM\1\DATA\GEF6434\EF189486.D\ECD2B.CH
Acq On : 1 May 2019 12:38 pm Operator: tianweir
Sample : ic6434-250 Inst : gcef
Misc : op20033,GEF6434,10.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 1 13:24 2019 Quant Results File: PCB6434.RES

Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed May 01 12:57:45 2019
Response via : Multiple Level Calibration





QEdit

(51) Decachlorobiphenyl (S)

14.82min 9.605PPB

response 171370

(51) Decachlorobiphenyl #2 (S)

17.23min 10.927PPB

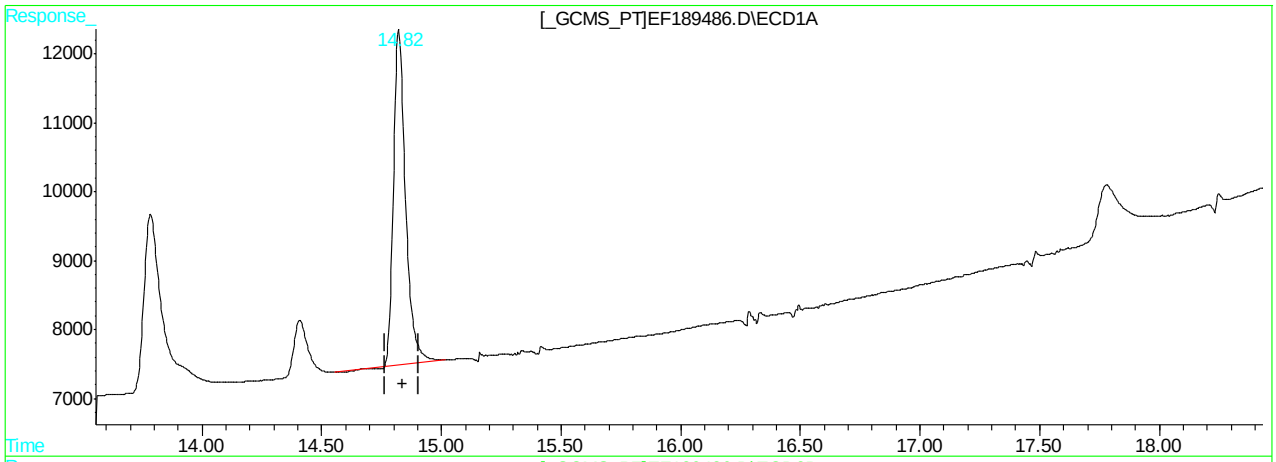
response 215290

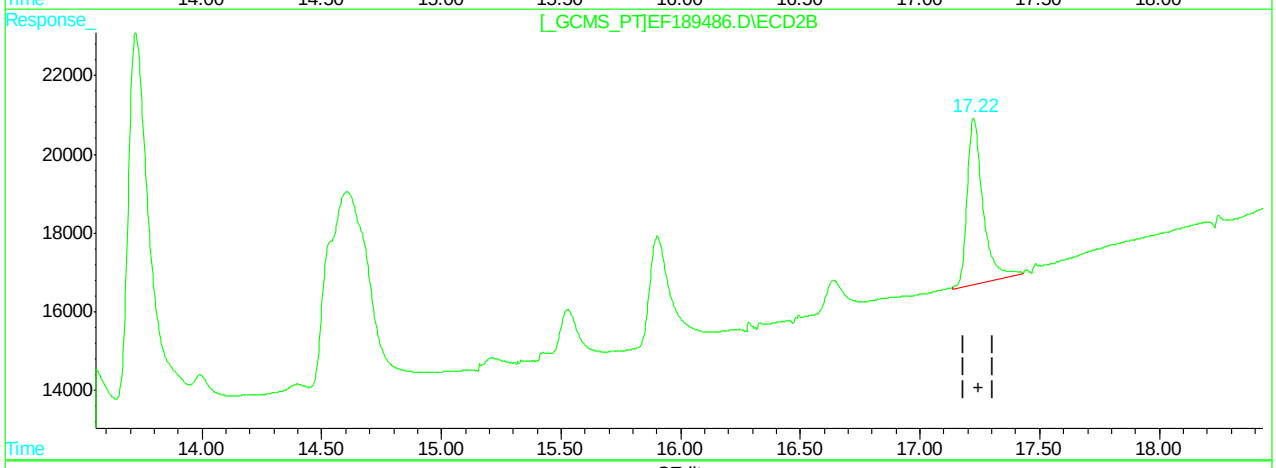
(+) = Expected Retention Time
EF189486.D PCB6434.M Wed May 01 13:24:18 2019 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6434\EF189486.D\ECD1A.CH Vial: 4
Signal #2 : C:\HPCHEM\1\DATA\GEF6434\EF189486.D\ECD2B.CH
Acq On : 1 May 2019 12:38 pm Operator: tianweir
Sample : ic6434-250 Inst : gcef
Misc : op20033,GEF6434,10.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 1 13:24 2019 Quant Results File: PCB6434.RES

Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed May 01 12:57:45 2019
Response via : Multiple Level Calibration





QEdit

(51) Decachlorobiphenyl (S)

14.82min 9.605PPB

response 171370

(51) Decachlorobiphenyl #2 (S)

17.22min 9.796PPB m

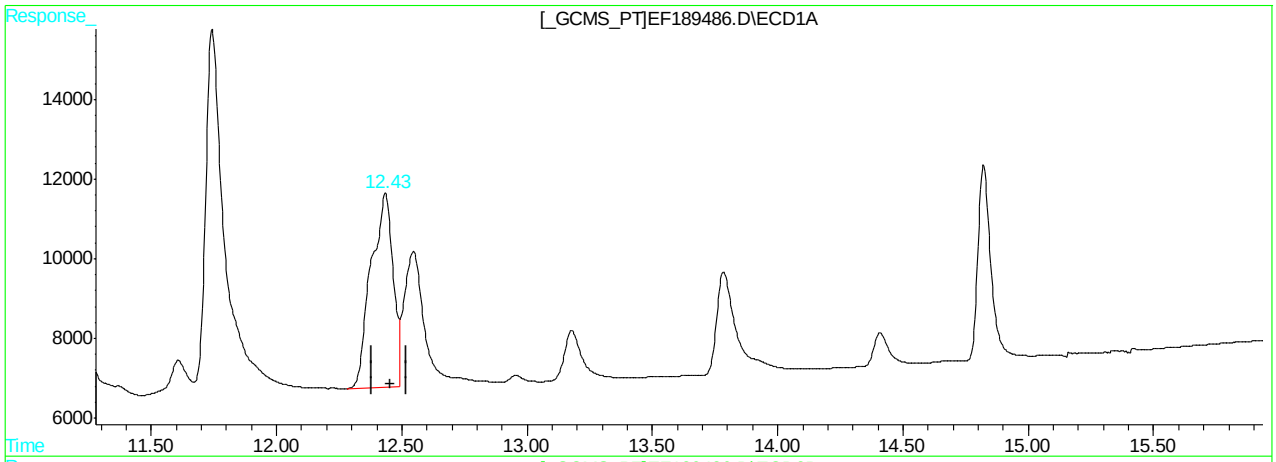
response 193004

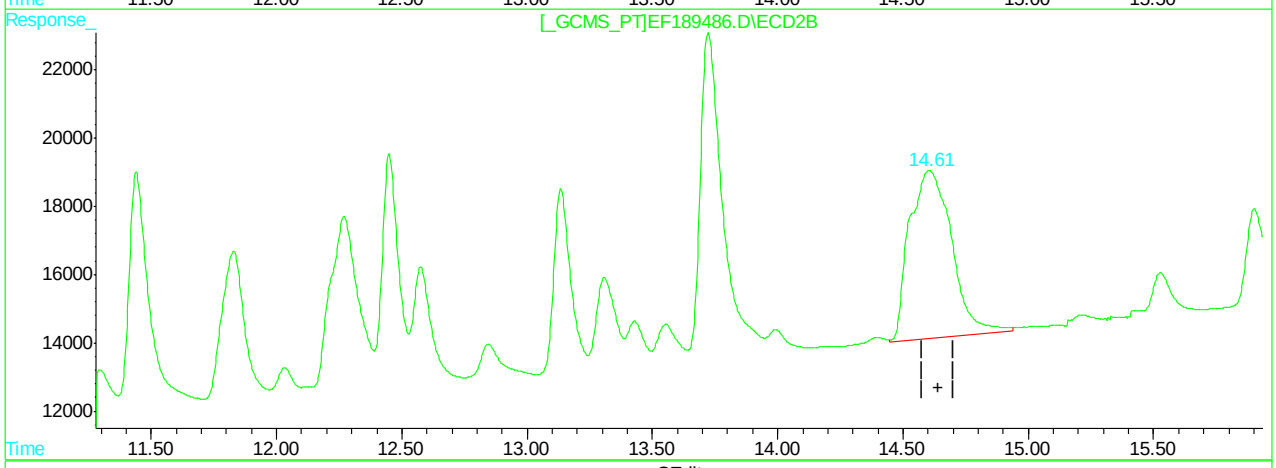
(+) = Expected Retention Time
EF189486.D PCB6434.M Wed May 01 13:24:24 2019 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6434\EF189486.D\ECD1A.CH Vial: 4
Signal #2 : C:\HPCHEM\1\DATA\GEF6434\EF189486.D\ECD2B.CH
Acq On : 1 May 2019 12:38 pm Operator: tianweir
Sample : ic6434-250 Inst : gcef
Misc : op20033,GEF6434,10.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 1 13:24 2019 Quant Results File: PCB6434.RES

Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed May 01 12:57:45 2019
Response via : Multiple Level Calibration





QEdit

(50) AR1260-E

12.44min 144.628PPB

response 297775

(50) AR1260-E #2

14.61min 209.751PPB

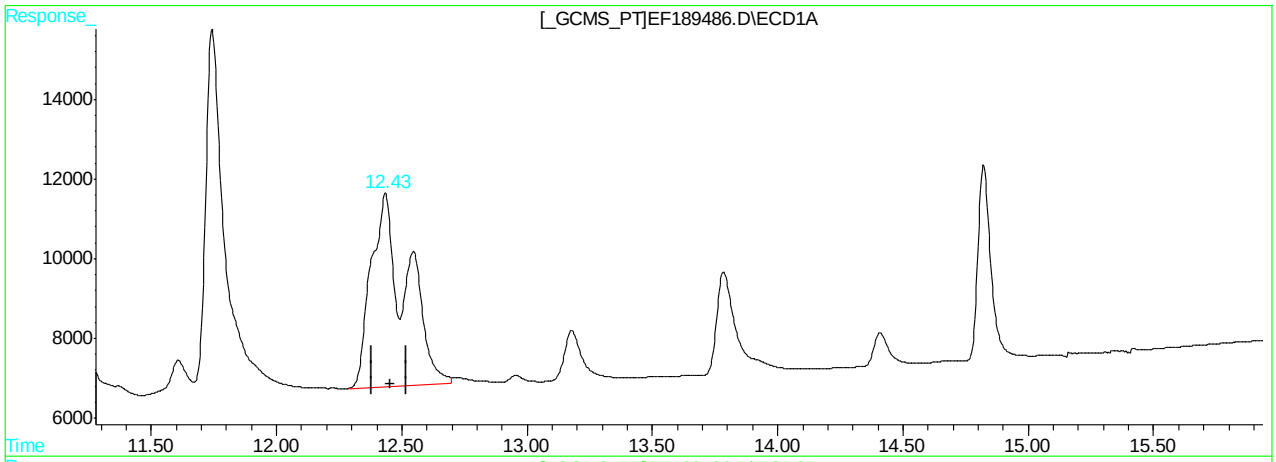
response 576091

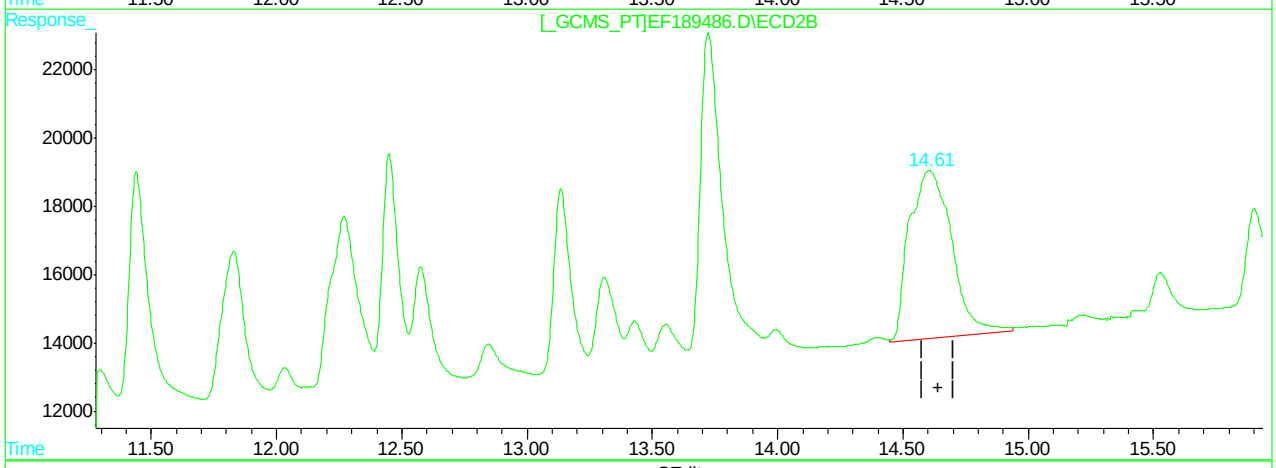
(+) = Expected Retention Time
EF189486.D PCB6434.M Wed May 01 13:24:44 2019 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6434\EF189486.D\ECD1A.CH Vial: 4
Signal #2 : C:\HPCHEM\1\DATA\GEF6434\EF189486.D\ECD2B.CH
Acq On : 1 May 2019 12:38 pm Operator: tianweir
Sample : ic6434-250 Inst : gcef
Misc : op20033,GEF6434,10.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 1 13:24 2019 Quant Results File: PCB6434.RES

Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed May 01 12:57:45 2019
Response via : Multiple Level Calibration





QEdit

(50) AR1260-E

12.43min 232.711PPB m

response 479127

(50) AR1260-E #2

14.61min 209.751PPB

response 576091

(+) = Expected Retention Time
EF189486.D PCB6434.M Wed May 01 13:24:52 2019 GCEF

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 05/03/19 11:16

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\GEF6434\EF189487.D\ECD1A.CH Vial: 5
Signal #2 : C:\HPCHEM\1\DATA\GEF6434\EF189487.D\ECD2B.CH
Acq On : 1 May 2019 1:03 pm Operator: tianweir
Sample : ic6434-500 Inst : gcef
Misc : op20033,GEF6434,10.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 1 13:26 2019 Quant Results File: PCB6434.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed May 01 12:57:45 2019
Response via : Initial Calibration
DataAcq Meth : PCB6434.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1) S	Tetrachloro-m-xy	3.55	4.20	263955	319285	18.038	17.965
	Spiked Amount 40.000			Recovery =		45.09%	44.91%
51) S	Decachlorobiphen	14.82	17.23	335020	365505	18.777m	18.551m
	Spiked Amount 40.000			Recovery =		46.94%	46.38%
	Target Compounds						
41)	AR1016-A	4.10	5.13	192532	206308	437.646	467.598
42)	AR1016-B	4.69	5.94	327846	385726	453.765	458.534
43)	AR1016-C	5.52f	6.88f	765881	847289	457.760	460.312
44)	AR1016-D	5.77	7.17f	280847	373094	448.774	464.409
45)	AR1016-E	6.55	8.17	279198	233173	434.698	438.391
46)	AR1260-A	10.27	12.27f	607084	780284	433.490	397.971
47)	AR1260-B	10.51	12.45	425907	596125	472.979m	431.511
48)	AR1260-C	11.04	13.14	342615	487038	403.837	421.806
49)	AR1260-D	11.74f	13.72f	973876	1196209	475.928	437.741
50)	AR1260-E	12.44	14.59f	962899	1144014	467.678m	416.528

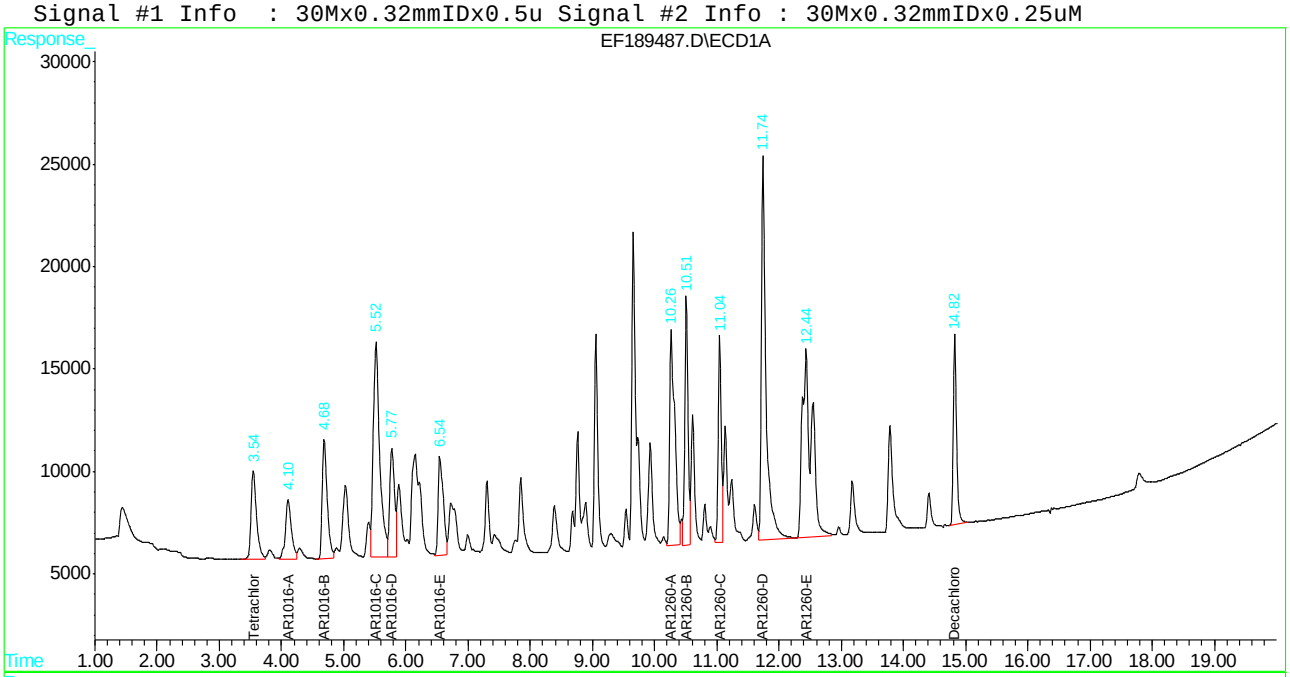
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
EF189487.D PCB6434.M Thu May 02 09:23:29 2019 GCEF Page 1

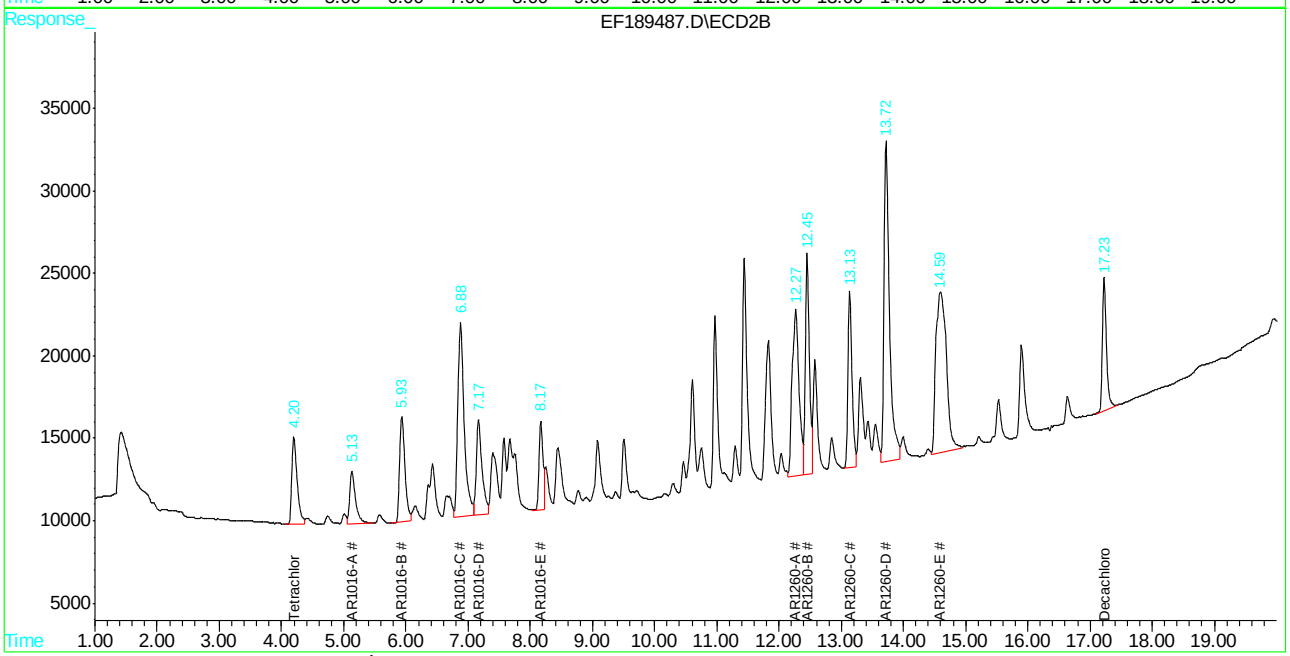
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6434\EF189487.D\ECD1A.CH Vial: 5
Signal #2 : C:\HPCHEM\1\DATA\GEF6434\EF189487.D\ECD2B.CH
Acq On : 1 May 2019 1:03 pm Operator: tianweir
Sample : ic6434-500 Inst : gcef
Misc : op20033,GEF6434,10.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 1 13:26 2019 Quant Results File: PCB6434.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed May 01 12:57:45 2019
Response via : Multiple Level Calibration
DataAcq Meth : PCB6434.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM





JC87363

Manual Integration Approval Summary

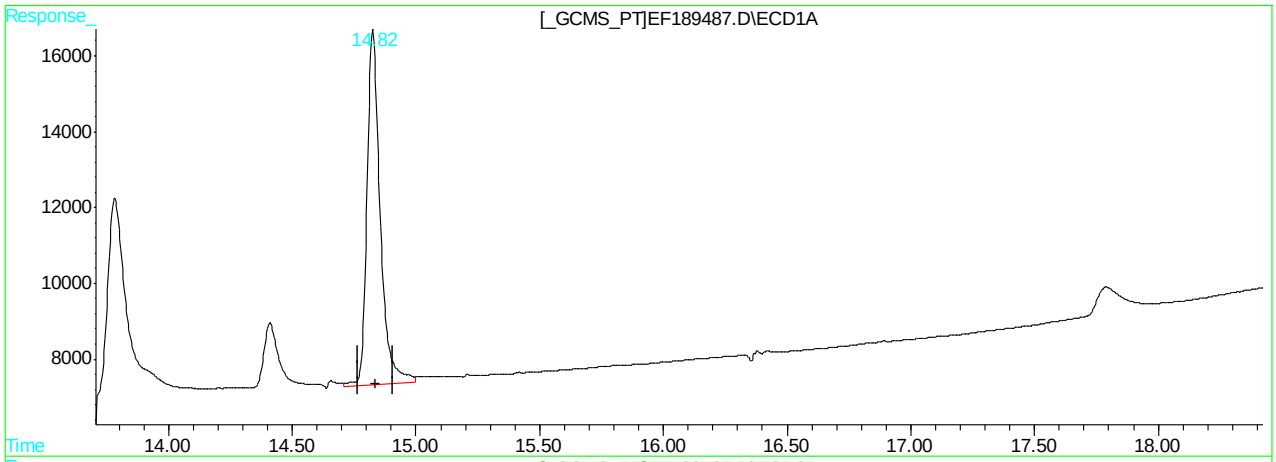
Sample Number: GEF6434-IC6434 **Method:** SW846 8082A
Lab FileID: EF189487.D **Analyst approved:** 05/02/19 09:37 Tianwei Ruan
Injection Time: 05/01/19 13:03 **Supervisor approved:** 05/03/19 11:16 Gwendolyn Burns

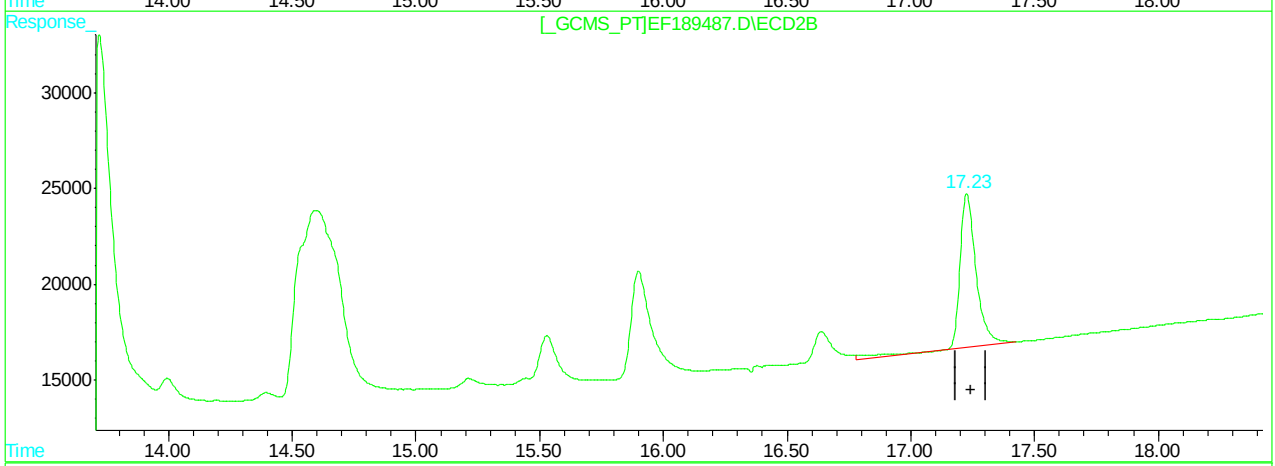
Parameter	CAS	Sig#	R.T. (min.)	Reason
AR1260-B		1	10.51	Split peak
AR1260-E		1	12.44	Split peak
Decachlorobiphenyl	2051-24-3	1	14.82	Poorly defined baseline
Decachlorobiphenyl	2051-24-3	2	17.23	Poorly defined baseline

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6434\EF189487.D\ECD1A.CH Vial: 5
Signal #2 : C:\HPCHEM\1\DATA\GEF6434\EF189487.D\ECD2B.CH
Acq On : 1 May 2019 1:03 pm Operator: tianweir
Sample : ic6434-500 Inst : gcef
Misc : op20033,GEF6434,10.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 1 13:25 2019 Quant Results File: PCB6434.RES

Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed May 01 12:57:45 2019
Response via : Multiple Level Calibration





QEdit

(51) Decachlorobiphenyl (S)

14.83min 19.689PPB

response 351294

(51) Decachlorobiphenyl #2 (S)

17.23min 18.711PPB

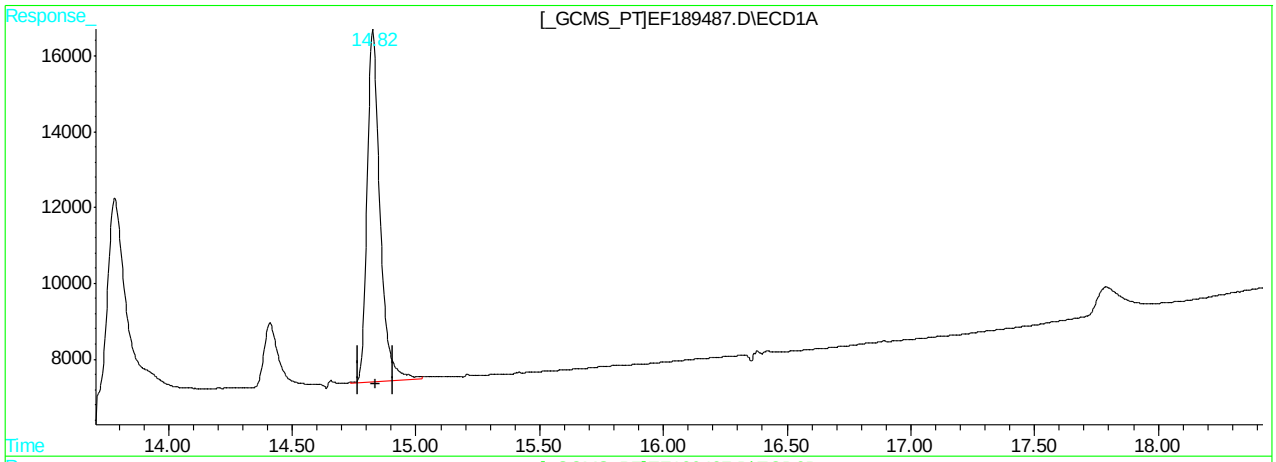
response 368661

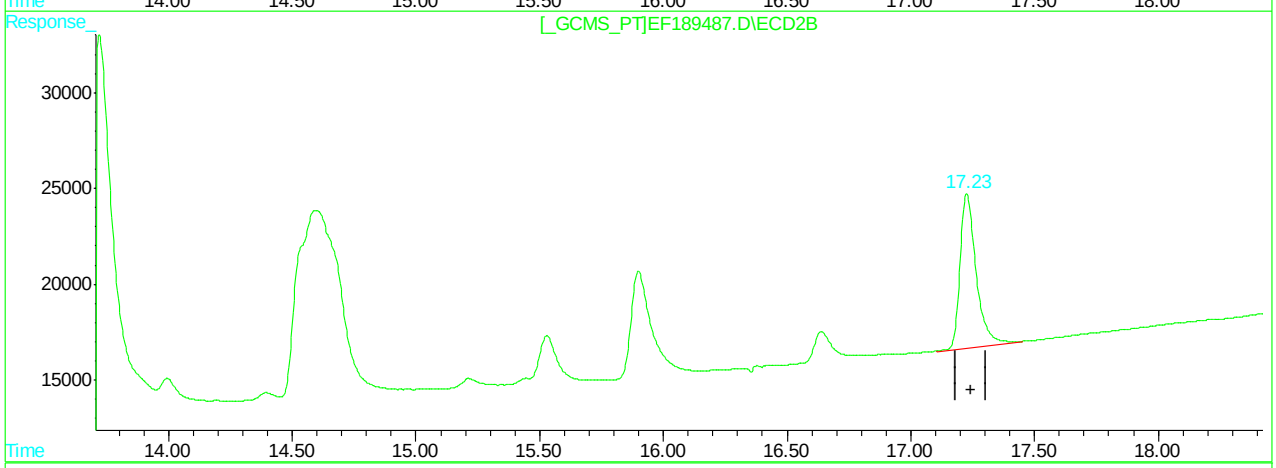
(+) = Expected Retention Time
EF189487.D PCB6434.M Wed May 01 13:25:28 2019 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6434\EF189487.D\ECD1A.CH Vial: 5
Signal #2 : C:\HPCHEM\1\DATA\GEF6434\EF189487.D\ECD2B.CH
Acq On : 1 May 2019 1:03 pm Operator: tianweir
Sample : ic6434-500 Inst : gcef
Misc : op20033,GEF6434,10.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 1 13:25 2019 Quant Results File: PCB6434.RES

Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed May 01 12:57:45 2019
Response via : Multiple Level Calibration





QEdit

(51) Decachlorobiphenyl (S)

14.82min 18.777PPB m

response 335020

(51) Decachlorobiphenyl #2 (S)

17.23min 18.551PPB m

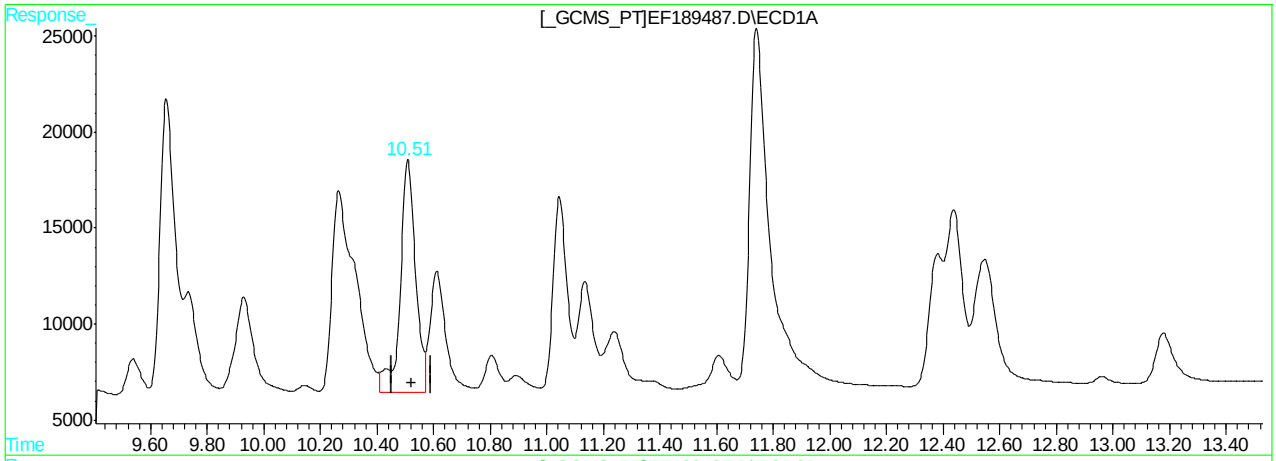
response 365505

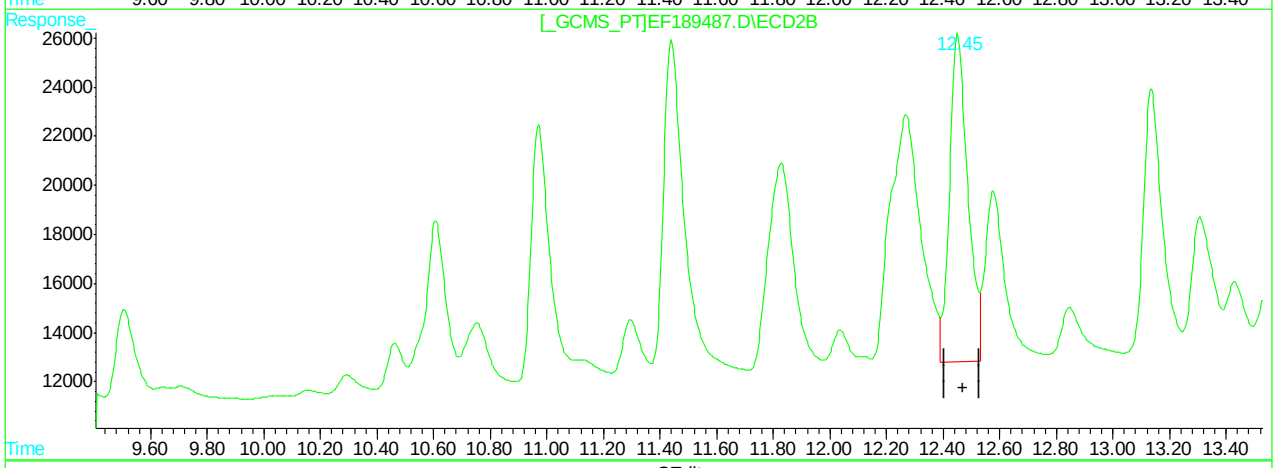
(+) = Expected Retention Time
EF189487.D PCB6434.M Wed May 01 13:25:36 2019 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6434\EF189487.D\ECD1A.CH Vial: 5
Signal #2 : C:\HPCHEM\1\DATA\GEF6434\EF189487.D\ECD2B.CH
Acq On : 1 May 2019 1:03 pm Operator: tianweir
Sample : ic6434-500 Inst : gcef
Misc : op20033,GEF6434,10.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 1 13:25 2019 Quant Results File: PCB6434.RES

Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed May 01 12:57:45 2019
Response via : Multiple Level Calibration





QEdit

(47) AR1260-B

10.51min 507.005PPB

response 456547

(47) AR1260-B #2

12.45min 431.511PPB

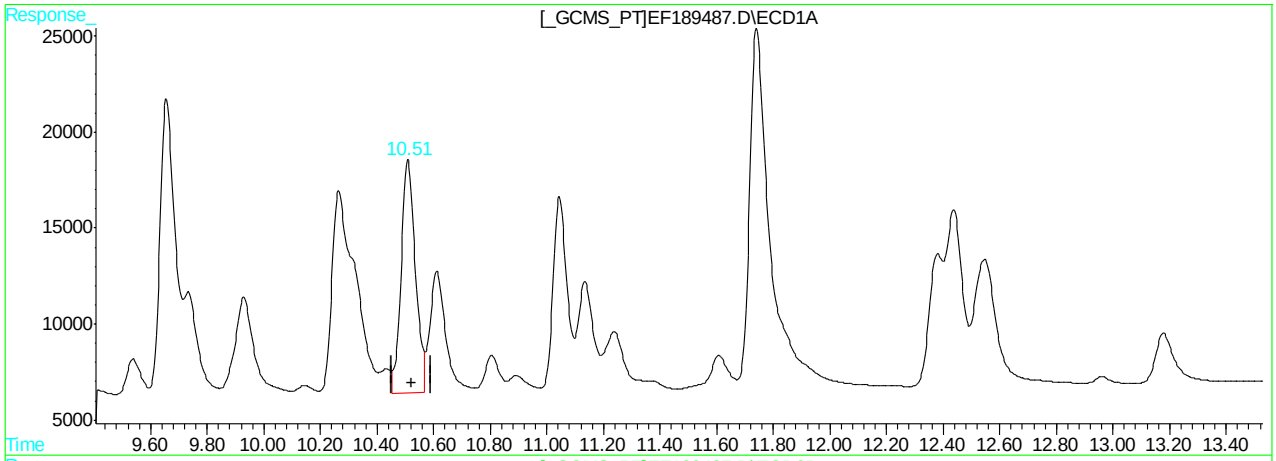
response 596125

(+) = Expected Retention Time
EF189487.D PCB6434.M Wed May 01 13:25:52 2019 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6434\EF189487.D\ECD1A.CH Vial: 5
Signal #2 : C:\HPCHEM\1\DATA\GEF6434\EF189487.D\ECD2B.CH
Acq On : 1 May 2019 1:03 pm Operator: tianweir
Sample : ic6434-500 Inst : gcef
Misc : op20033,GEF6434,10.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 1 13:25 2019 Quant Results File: PCB6434.RES

Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed May 01 12:57:45 2019
Response via : Multiple Level Calibration



(47) AR1260-B

10.51min 472.979PPB m

response 425907

(47) AR1260-B #2

12.45min 431.511PPB

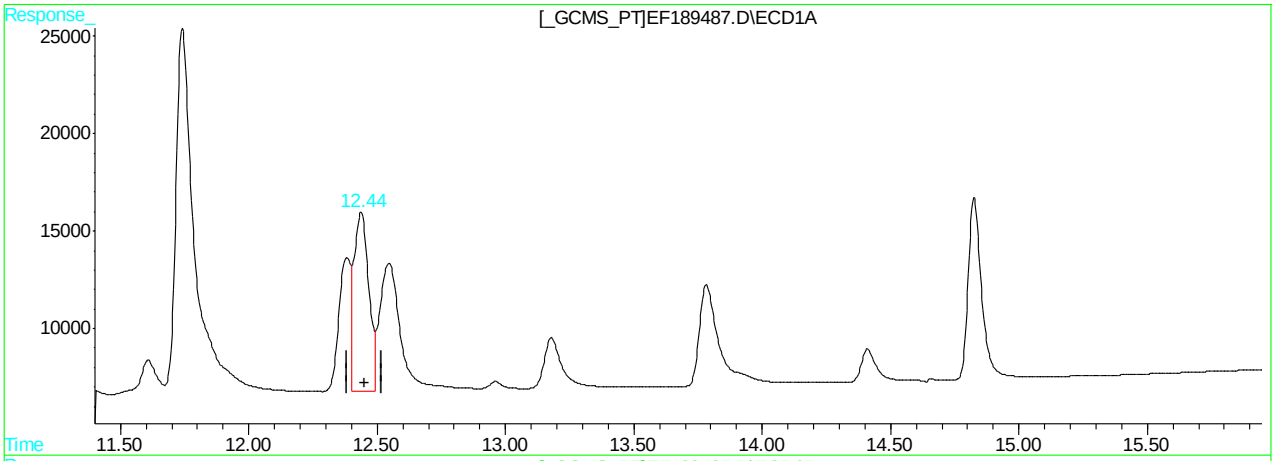
response 596125

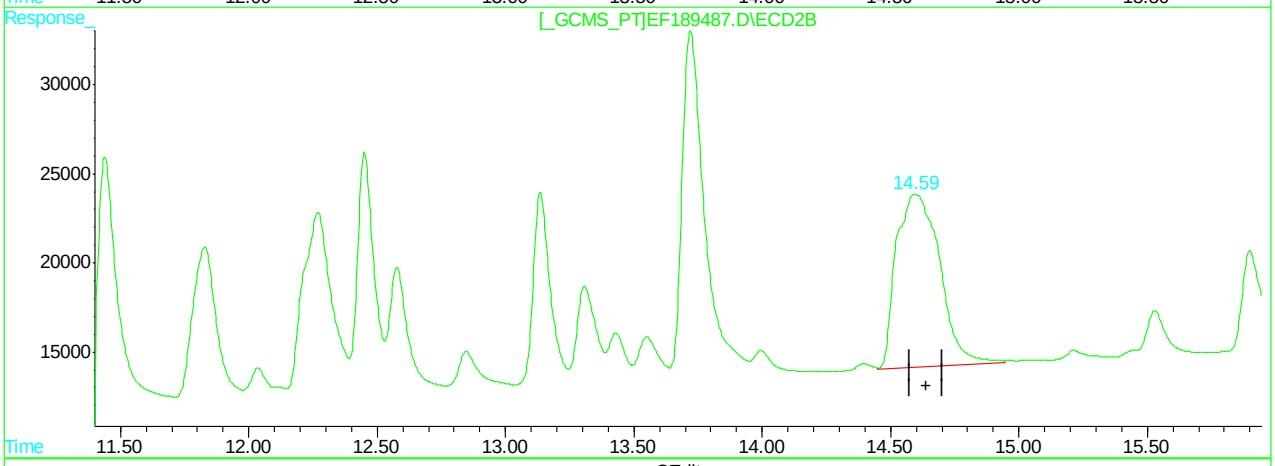
(+) = Expected Retention Time
EF189487.D PCB6434.M Wed May 01 13:25:58 2019 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6434\EF189487.D\ECD1A.CH Vial: 5
Signal #2 : C:\HPCHEM\1\DATA\GEF6434\EF189487.D\ECD2B.CH
Acq On : 1 May 2019 1:03 pm Operator: tianweir
Sample : ic6434-500 Inst : gcef
Misc : op20033,GEF6434,10.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 1 13:25 2019 Quant Results File: PCB6434.RES

Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed May 01 12:57:45 2019
Response via : Multiple Level Calibration





QEdit

(50) AR1260-E

12.44min 181.385PPB

response 373452

(50) AR1260-E #2

14.59min 416.528PPB

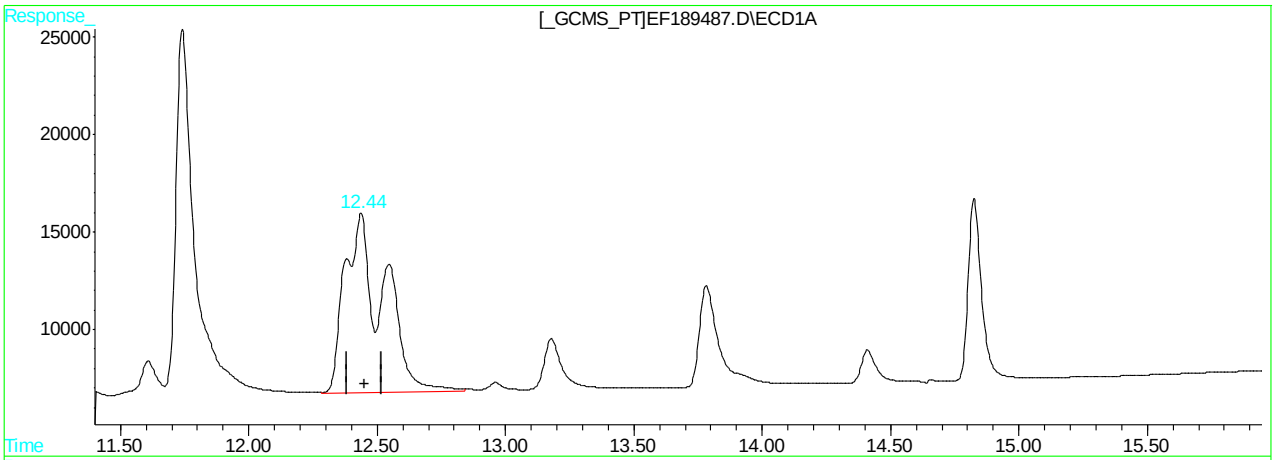
response 1144014

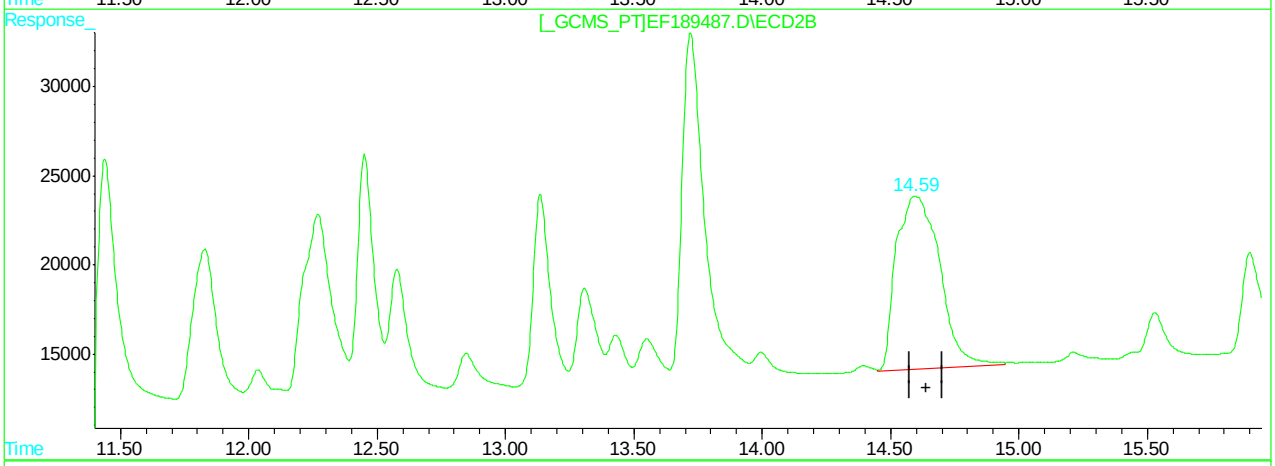
(+) = Expected Retention Time
EF189487.D PCB6434.M Wed May 01 13:26:02 2019 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6434\EF189487.D\ECD1A.CH Vial: 5
Signal #2 : C:\HPCHEM\1\DATA\GEF6434\EF189487.D\ECD2B.CH
Acq On : 1 May 2019 1:03 pm Operator: tianweir
Sample : ic6434-500 Inst : gcef
Misc : op20033,GEF6434,10.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 1 13:25 2019 Quant Results File: PCB6434.RES

Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed May 01 12:57:45 2019
Response via : Multiple Level Calibration





QEdit

(50) AR1260-E

12.44min 467.678PPB m

response 962899

(50) AR1260-E #2

14.59min 416.528PPB

response 1144014

(+) = Expected Retention Time
EF189487.D PCB6434.M Wed May 01 13:26:07 2019 GCEF

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 05/03/19 11:16

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\GEF6434\EF189488.D\ECD1A.CH Vial: 6
Signal #2 : C:\HPCHEM\1\DATA\GEF6434\EF189488.D\ECD2B.CH
Acq On : 1 May 2019 1:28 pm Operator: tianweir
Sample : icc6434-1000 Inst : gcef
Misc : op20033,GEF6434,10.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 1 15:13 2019 Quant Results File: PCB6434.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed May 01 13:27:47 2019
Response via : Initial Calibration
DataAcq Meth : PCB6434.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1)	S Tetrachloro-m-xy	3.54	4.20	537326	650957	38.339	37.960
	Spiked Amount 40.000			Recovery =		95.85%	94.90%
51)	S Decachlorobiphen	14.82	17.22	639028	712449	37.310	36.621m
	Spiked Amount 40.000			Recovery =		93.28%	91.55%
	Target Compounds						
41)	AR1016-A	4.10	5.13	377654	400607	949.834	962.857
42)	AR1016-B	4.68	5.93	625811	747030	919.042	958.058
43)	AR1016-C	5.51f	6.87f	1444179	1627027	931.657	935.159
44)	AR1016-D	5.77f	7.16f	535850	735529	937.303	939.856
45)	AR1016-E	6.54f	8.16	540312	455461	939.413	882.216
46)	AR1260-A	10.25f	12.26f	1181353	1586300	922.933	934.573
47)	AR1260-B	10.50	12.44	799157	1169555	933.126	924.459
48)	AR1260-C	11.04	13.13	658634	974750	903.600	929.388
49)	AR1260-D	11.73f	13.71f	1883249	2399529	950.509	953.562
50)	AR1260-E	12.43	14.57f	1878488	2316983	957.344m	935.941m

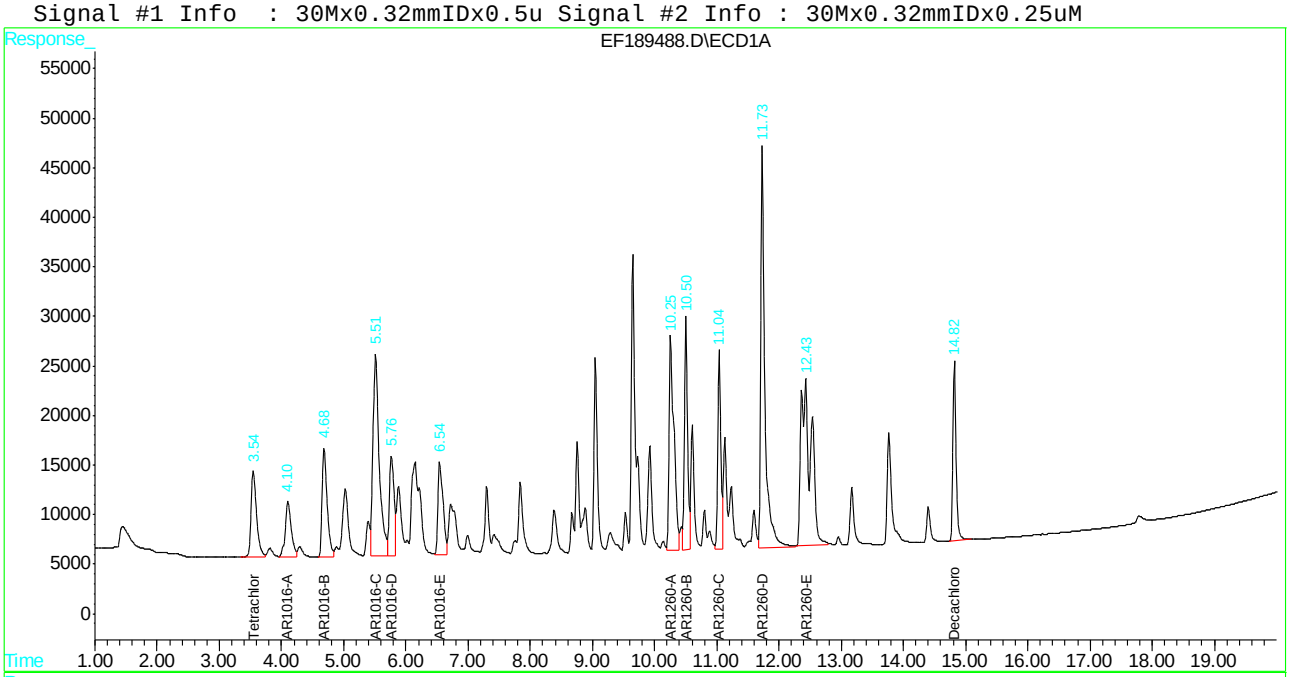
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
EF189488.D PCB6434.M Thu May 02 09:23:33 2019 GCEF Page 1

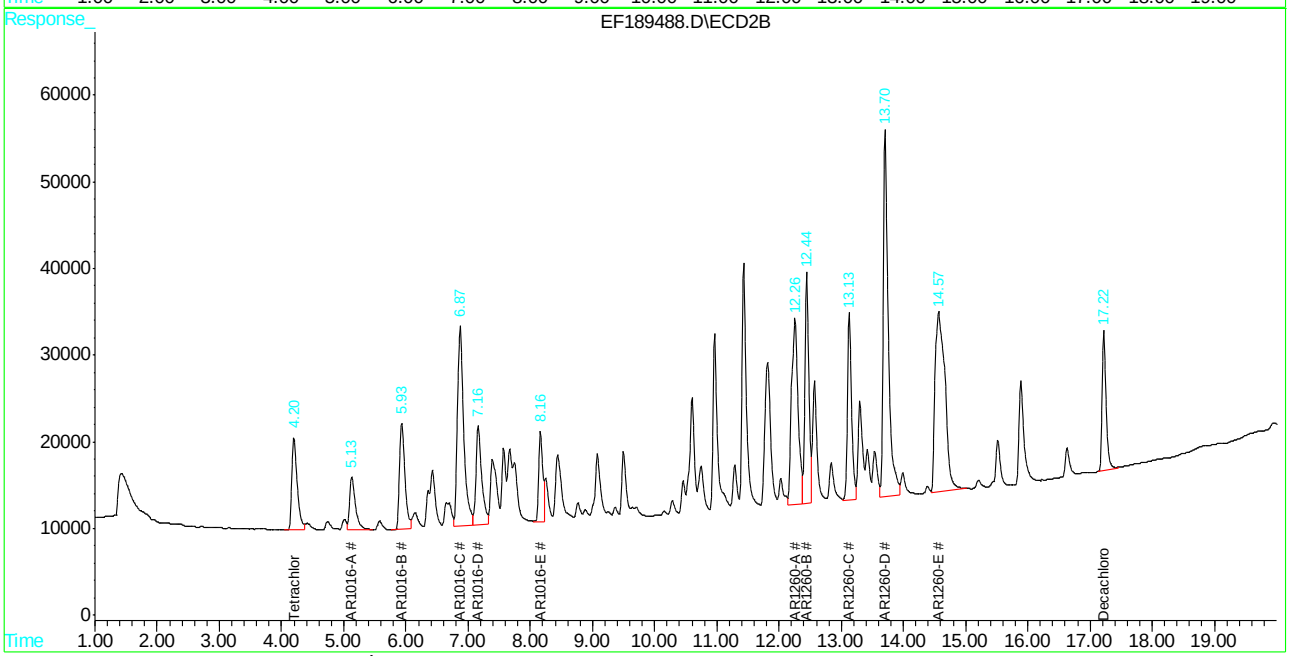
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6434\EF189488.D\ECD1A.CH Vial: 6
Signal #2 : C:\HPCHEM\1\DATA\GEF6434\EF189488.D\ECD2B.CH
Acq On : 1 May 2019 1:28 pm Operator: tianweir
Sample : icc6434-1000 Inst : gcef
Misc : op20033,GEF6434,10.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 1 15:13 2019 Quant Results File: PCB6434.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed May 01 13:27:47 2019
Response via : Multiple Level Calibration
DataAcq Meth : PCB6434.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM





JC87363

Manual Integration Approval Summary

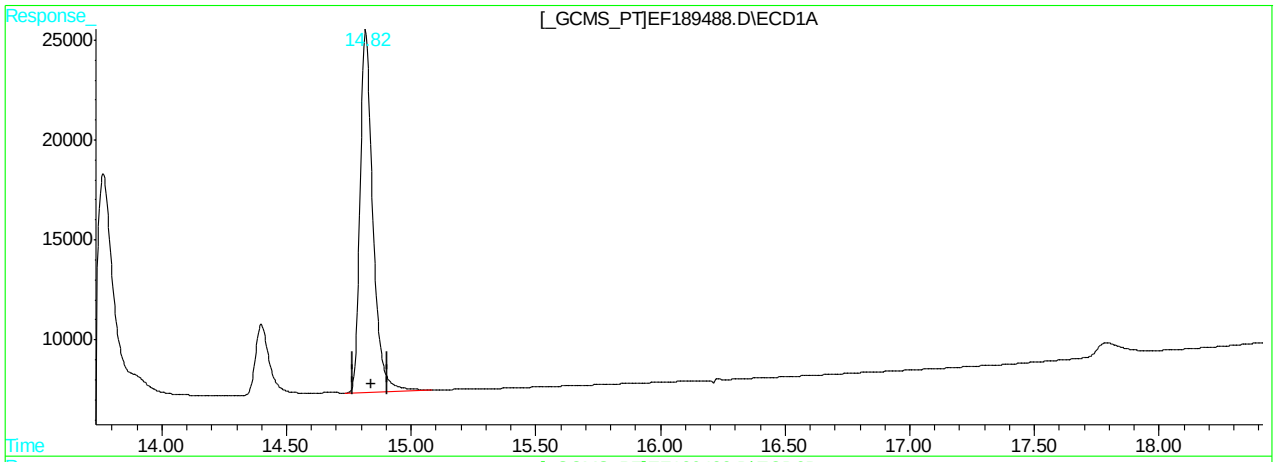
Sample Number:	GEF6434-ICC6434	**Method:**	SW846 8082A
Lab FileID:	EF189488.D	**Analyst approved:**	05/02/19 09:37 Tianwei Ruan
Injection Time:	05/01/19 13:28	**Supervisor approved:**	05/03/19 11:16 Gwendolyn Burns

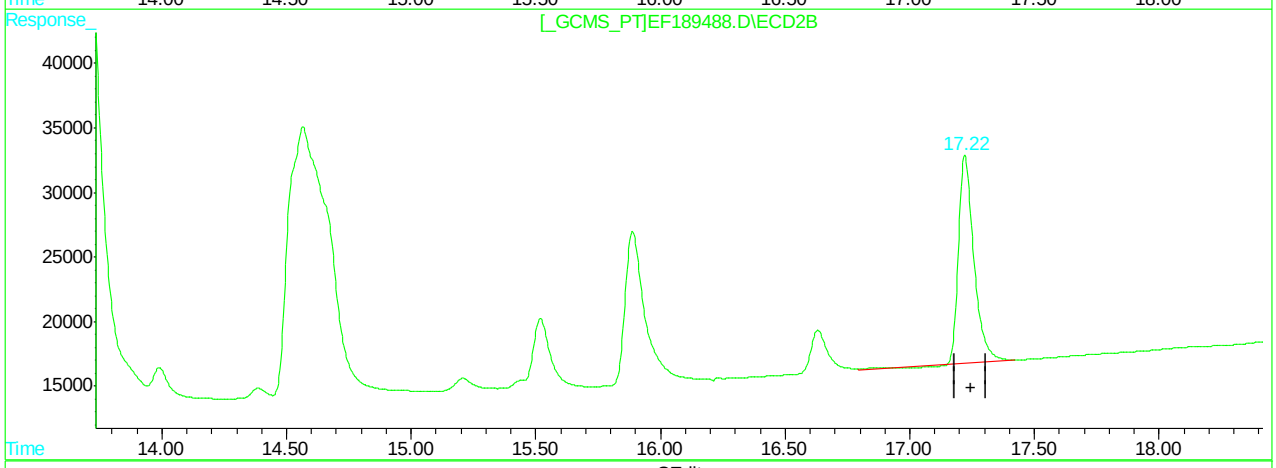
Parameter	CAS	Sig#	R.T. (min.)	Reason
AR1260-E		1	12.43	Split peak
AR1260-E		2	14.57	Split peak
Decachlorobiphenyl	2051-24-3	2	17.22	Poorly defined baseline

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6434\EF189488.D\ECD1A.CH Vial: 6
Signal #2 : C:\HPCHEM\1\DATA\GEF6434\EF189488.D\ECD2B.CH
Acq On : 1 May 2019 1:28 pm Operator: tianweir
Sample : icc6434-1000 Inst : gcef
Misc : op20033,GEF6434,10.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 1 15:13 2019 Quant Results File: PCB6434.RES

Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed May 01 13:27:47 2019
Response via : Multiple Level Calibration





QEdit

(51) Decachlorobiphenyl (S)

14.82min 37.310PPB

response 639028

(51) Decachlorobiphenyl #2 (S)

17.22min 35.602PPB

response 692627

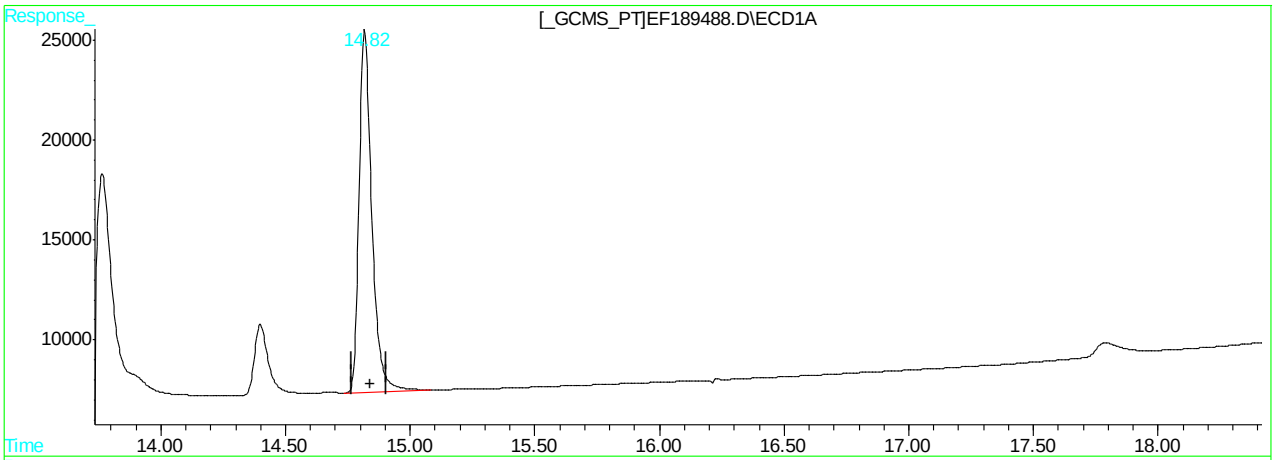
(+) = Expected Retention Time
EF189488.D PCB6434.M Wed May 01 15:13:21 2019 GCEF

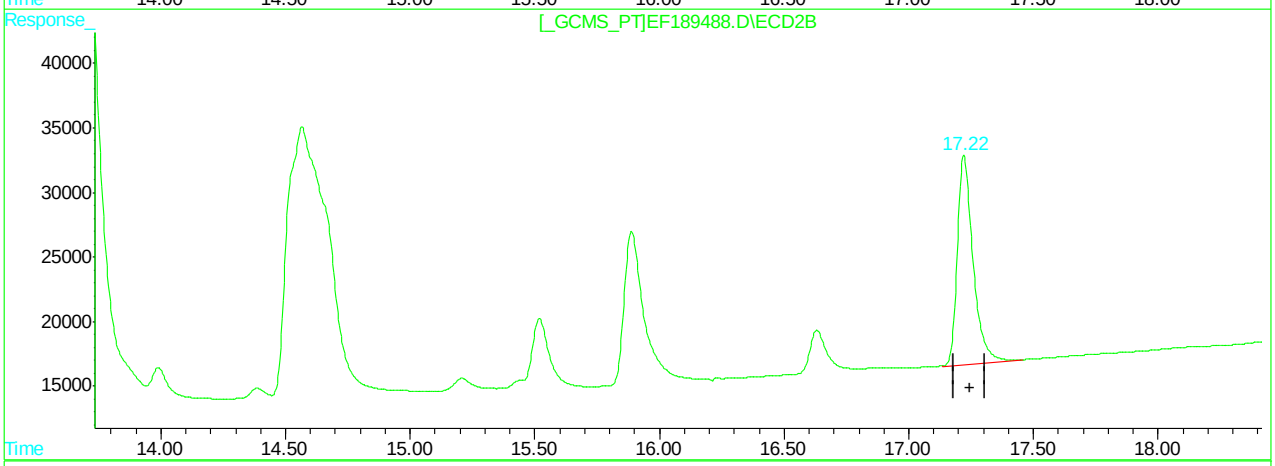
11.5.4.2 11

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6434\EF189488.D\ECD1A.CH Vial: 6
Signal #2 : C:\HPCHEM\1\DATA\GEF6434\EF189488.D\ECD2B.CH
Acq On : 1 May 2019 1:28 pm Operator: tianweir
Sample : icc6434-1000 Inst : gcef
Misc : op20033,GEF6434,10.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 1 15:13 2019 Quant Results File: PCB6434.RES

Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed May 01 13:27:47 2019
Response via : Multiple Level Calibration





QEdit

(51) Decachlorobiphenyl (S)

14.82min 37.310PPB

response 639028

(51) Decachlorobiphenyl #2 (S)

17.22min 36.621PPB m

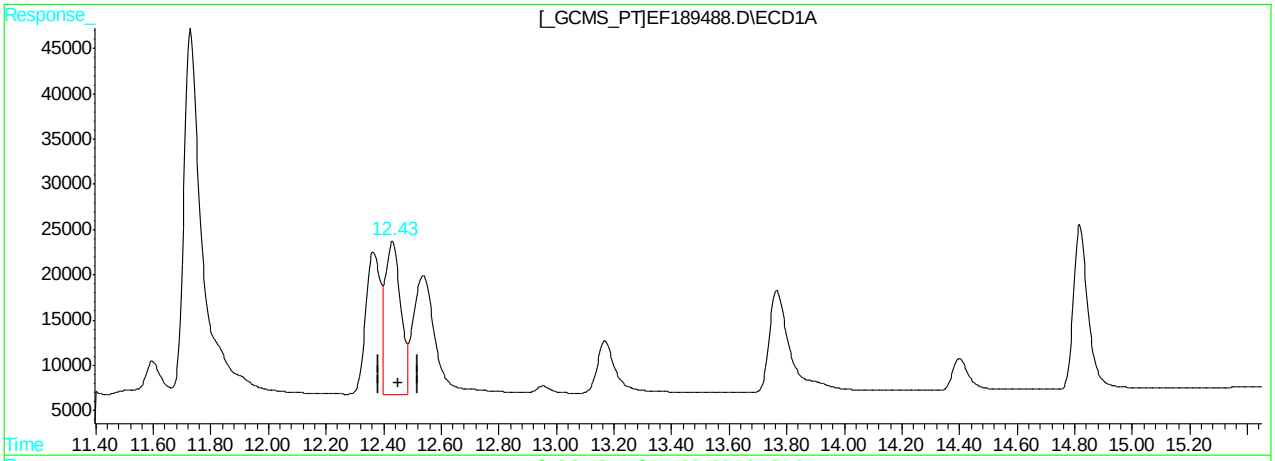
response 712449

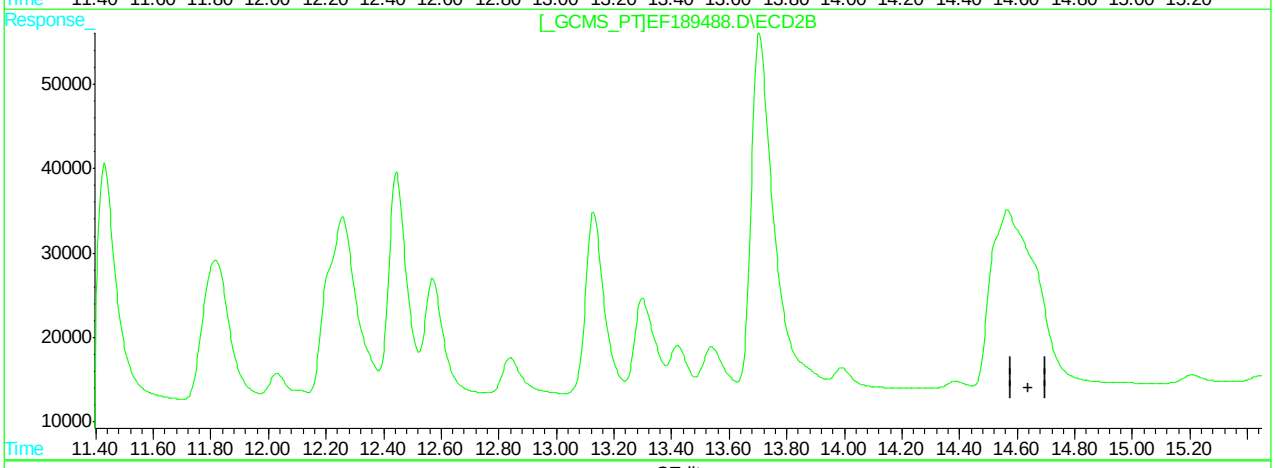
(+) = Expected Retention Time
EF189488.D PCB6434.M Wed May 01 15:13:27 2019 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6434\EF189488.D\ECD1A.CH Vial: 6
Signal #2 : C:\HPCHEM\1\DATA\GEF6434\EF189488.D\ECD2B.CH
Acq On : 1 May 2019 1:28 pm Operator: tianweir
Sample : icc6434-1000 Inst : gcef
Misc : op20033,GEF6434,10.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 1 15:13 2019 Quant Results File: PCB6434.RES

Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed May 01 13:27:47 2019
Response via : Multiple Level Calibration





QEdit

(50) AR1260-E

12.43min 325.230PPB

response 638163

(50) AR1260-E #2

0.00min 0.000PPB

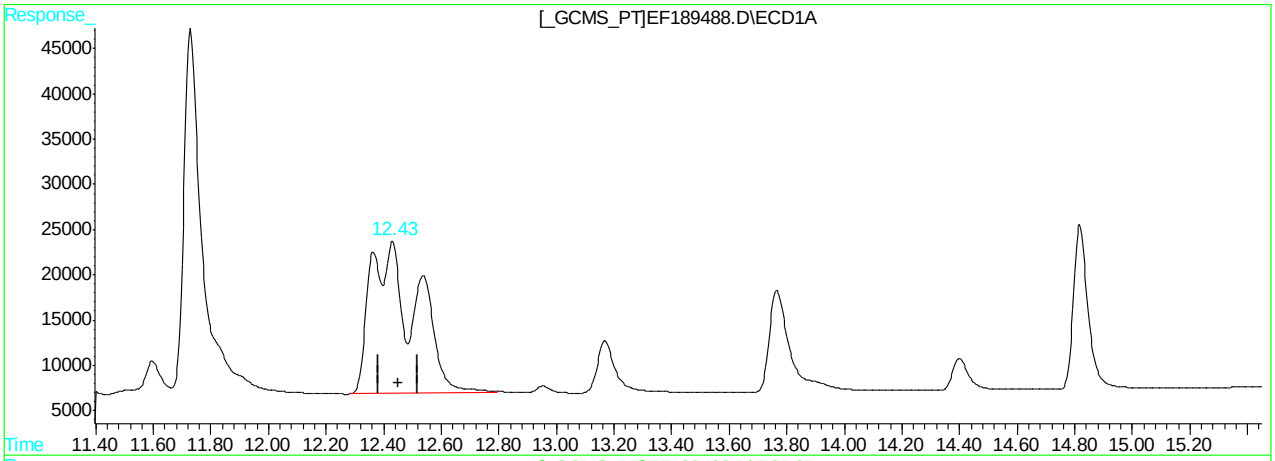
response 0

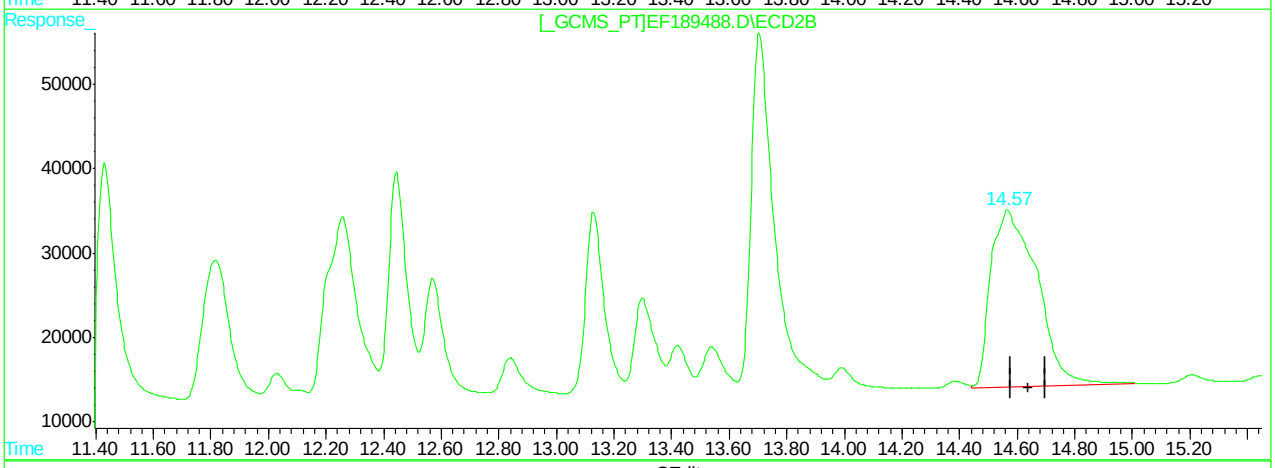
(+) = Expected Retention Time
EF189488.D PCB6434.M Wed May 01 15:13:46 2019 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6434\EF189488.D\ECD1A.CH Vial: 6
Signal #2 : C:\HPCHEM\1\DATA\GEF6434\EF189488.D\ECD2B.CH
Acq On : 1 May 2019 1:28 pm Operator: tianweir
Sample : icc6434-1000 Inst : gcef
Misc : op20033,GEF6434,10.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 1 15:13 2019 Quant Results File: PCB6434.RES

Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed May 01 13:27:47 2019
Response via : Multiple Level Calibration





QEdit

(50) AR1260-E

12.43min 957.344PPB m

response 1878488

(50) AR1260-E #2

14.57min 935.941PPB m

response 2316983

(+) = Expected Retention Time
EF189488.D PCB6434.M Wed May 01 15:13:55 2019 GCEF

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 05/03/19 11:16

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\GEF6434\EF189489.D\ECD1A.CH Vial: 7
Signal #2 : C:\HPCHEM\1\DATA\GEF6434\EF189489.D\ECD2B.CH
Acq On : 1 May 2019 1:53 pm Operator: tianweir
Sample : ic6434-2000 Inst : gcef
Misc : op20033,GEF6434,10.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 1 15:18 2019 Quant Results File: PCB6434.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed May 01 15:15:32 2019
Response via : Initial Calibration
DataAcq Meth : PCB6434.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1) S	Tetrachloro-m-xy	3.54	4.20	1079801	1299302	77.045	75.767
	Spiked Amount 40.000			Recovery =		192.61%	189.42%
51) S	Decachlorobiphen	14.82	17.22	1168142	1332252	68.202	68.480
	Spiked Amount 40.000			Recovery =		170.51%	171.20%
	Target Compounds						
41)	AR1016-A	4.10	5.13	706426	756317	1776.725	1817.805
42)	AR1016-B	4.68	5.93	1160198	1406933	1703.822	1804.376
43)	AR1016-C	5.51	6.87	2654129	3016248	1712.210	1733.634
44)	AR1016-D	5.76	7.16	991461	1373995	1734.255	1755.684
45)	AR1016-E	6.54	8.16	1012832	848810	1760.959	1644.124
46)	AR1260-A	10.25	12.25	2211679	3081377	1727.876	1815.402
47)	AR1260-B	10.50	12.44	1451558	2207212	1694.894	1744.660
48)	AR1260-C	11.04	13.13	1222419	1870119	1677.073	1783.087
49)	AR1260-D	11.72	13.70	3517412	4640398	1775.300	1844.074
50)	AR1260-E	12.36	14.56	3512123	4547596	1789.903m	1836.993

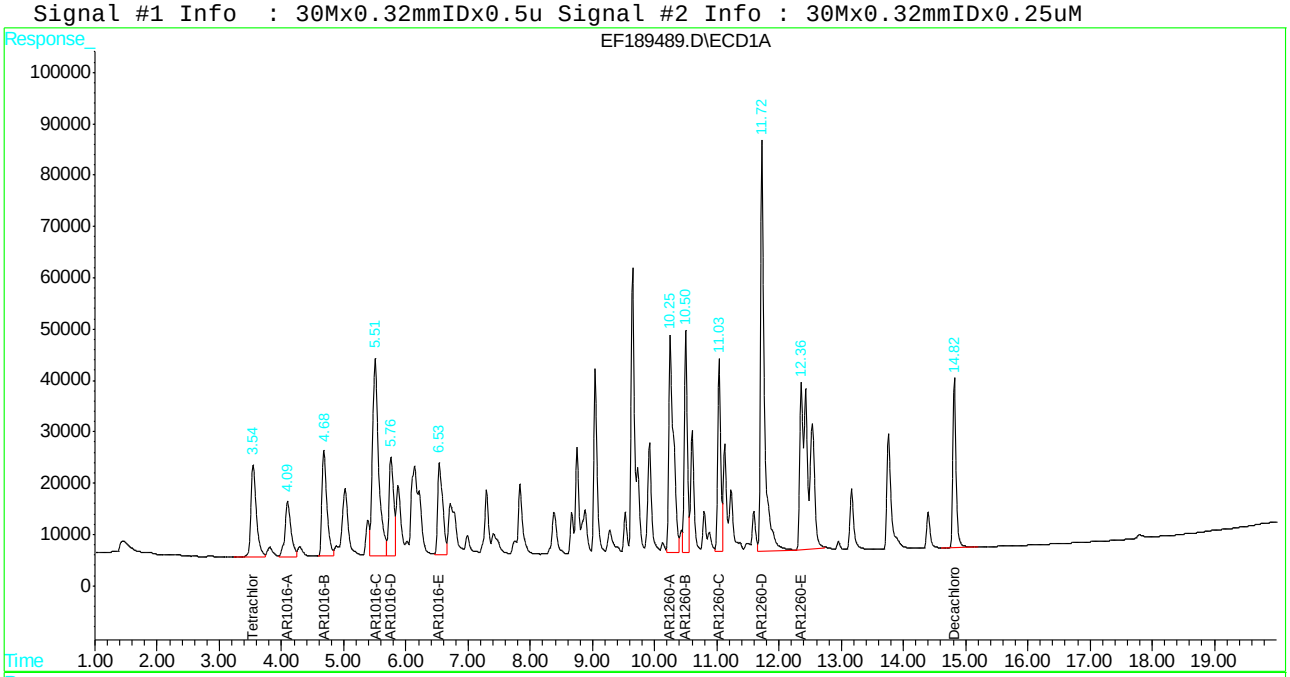
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
EF189489.D PCB6434.M Thu May 02 09:23:38 2019 GCEF Page 1

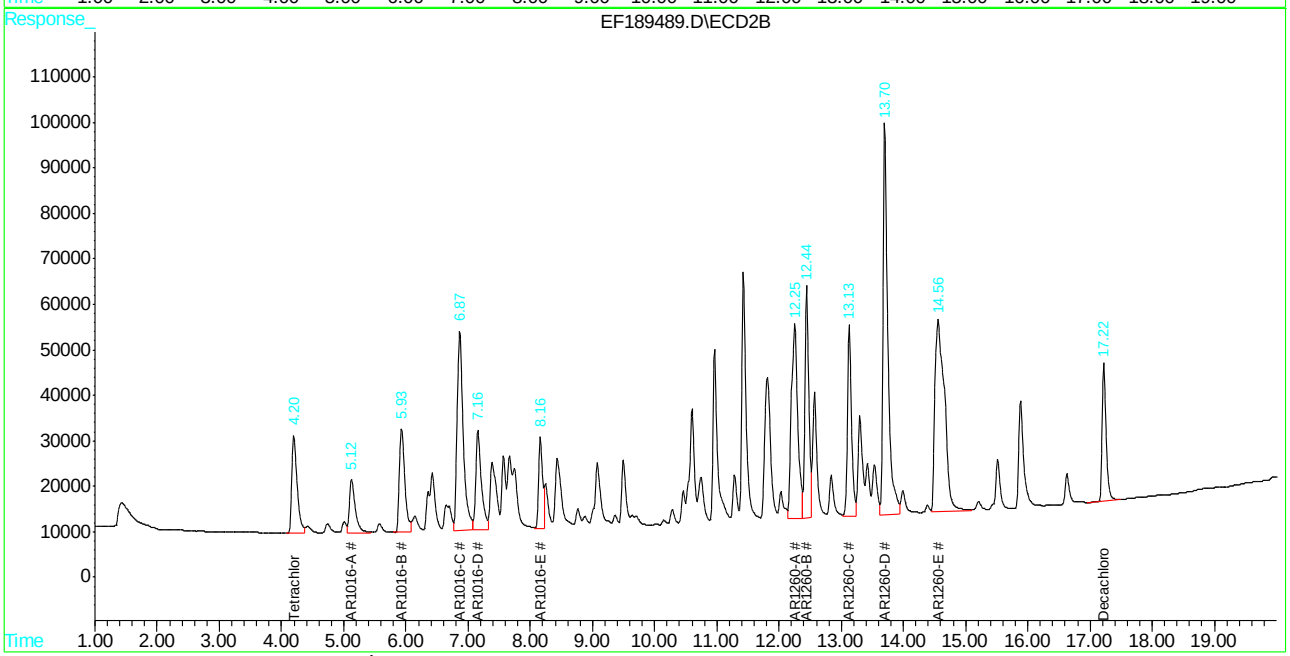
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6434\EF189489.D\ECD1A.CH Vial: 7
Signal #2 : C:\HPCHEM\1\DATA\GEF6434\EF189489.D\ECD2B.CH
Acq On : 1 May 2019 1:53 pm Operator: tianweir
Sample : ic6434-2000 Inst : gcef
Misc : op20033,GEF6434,10.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 1 15:18 2019 Quant Results File: PCB6434.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed May 01 15:15:32 2019
Response via : Multiple Level Calibration
DataAcq Meth : PCB6434.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM





JC87363

Manual Integration Approval Summary

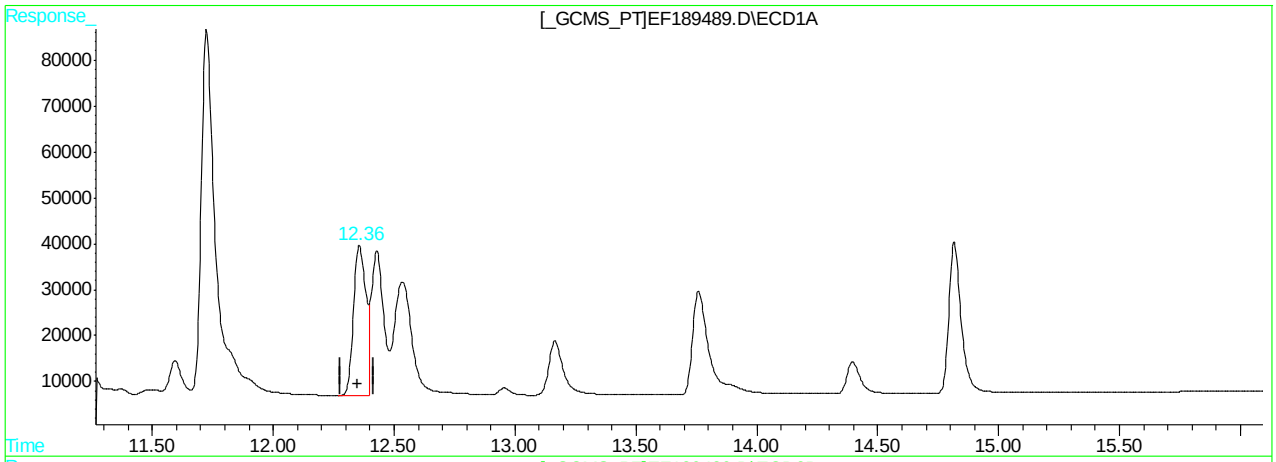
Sample Number:	GEF6434-IC6434	**Method:**	SW846 8082A
Lab FileID:	EF189489.D	**Analyst approved:**	05/02/19 09:37 Tianwei Ruan
Injection Time:	05/01/19 13:53	**Supervisor approved:**	05/03/19 11:16 Gwendolyn Burns

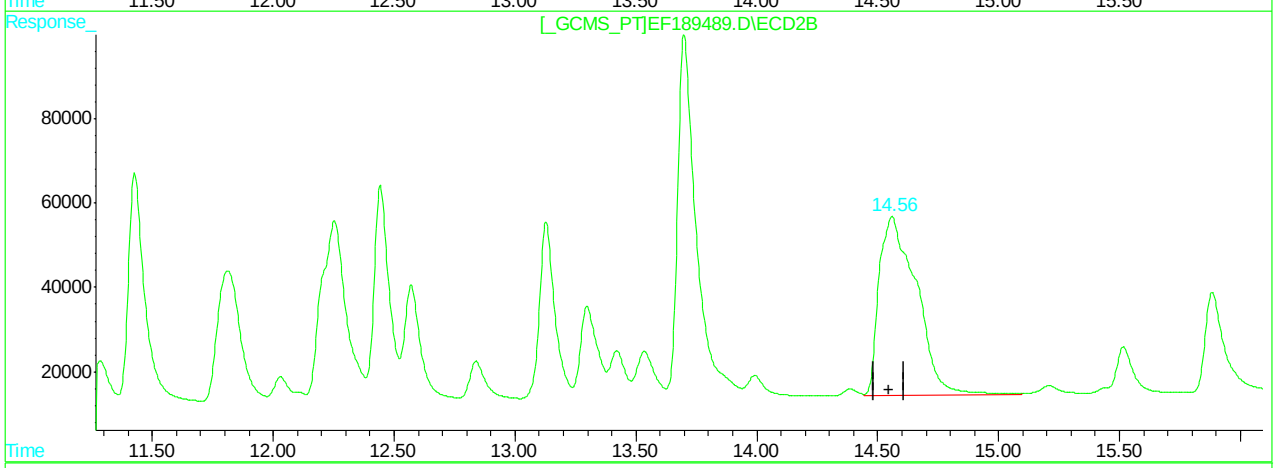
Parameter	CAS	Sig#	R.T. (min.)	Reason
AR1260-E		1	12.36	Split peak

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6434\EF189489.D\ECD1A.CH Vial: 7
Signal #2 : C:\HPCHEM\1\DATA\GEF6434\EF189489.D\ECD2B.CH
Acq On : 1 May 2019 1:53 pm Operator: tianweir
Sample : ic6434-2000 Inst : gcef
Misc : op20033,GEF6434,10.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 1 15:16 2019 Quant Results File: PCB6434.RES

Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed May 01 15:15:32 2019
Response via : Multiple Level Calibration





QEdit

(50) AR1260-E

12.36min 587.368PPB

response 1152525

(50) AR1260-E #2

14.56min 1836.993PPB

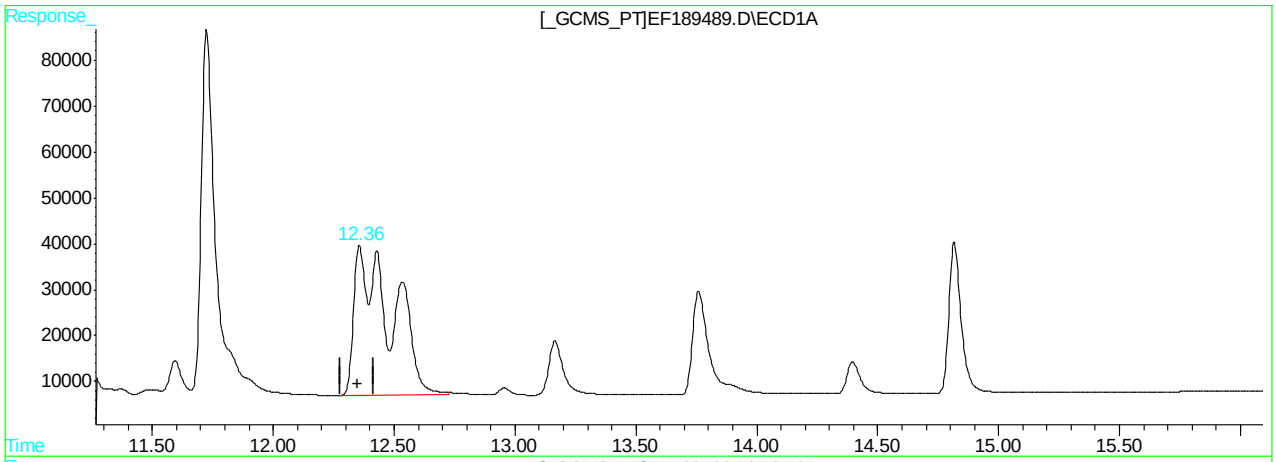
response 4547596

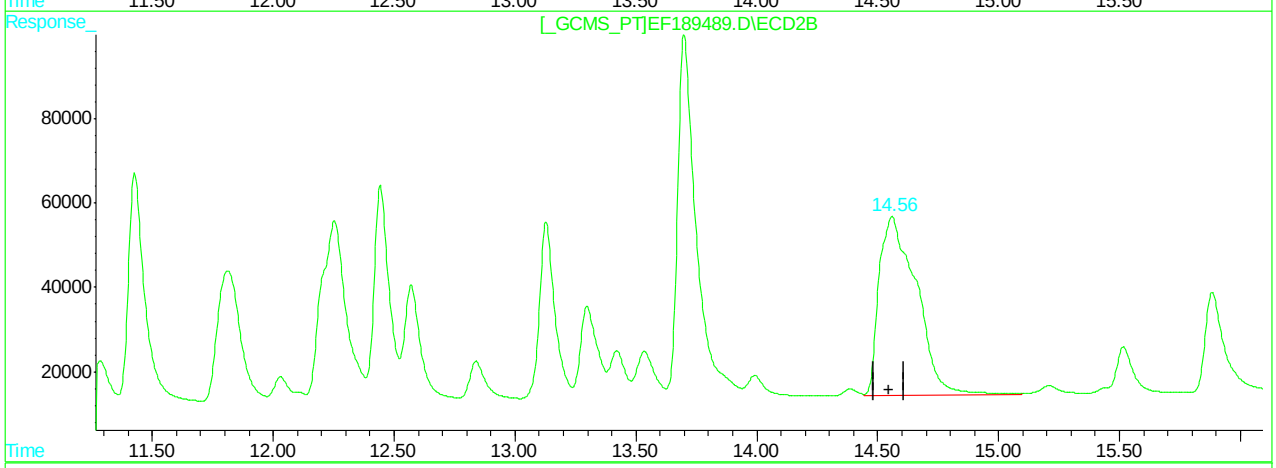
(+) = Expected Retention Time
EF189489.D PCB6434.M Wed May 01 15:18:05 2019 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6434\EF189489.D\ECD1A.CH Vial: 7
Signal #2 : C:\HPCHEM\1\DATA\GEF6434\EF189489.D\ECD2B.CH
Acq On : 1 May 2019 1:53 pm Operator: tianweir
Sample : ic6434-2000 Inst : gcef
Misc : op20033,GEF6434,10.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 1 15:16 2019 Quant Results File: PCB6434.RES

Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed May 01 15:15:32 2019
Response via : Multiple Level Calibration





QEdit

(50) AR1260-E

12.36min 1789.903PPB m

response 3512123

(50) AR1260-E #2

14.56min 1836.993PPB

response 4547596

(+) = Expected Retention Time
EF189489.D PCB6434.M Wed May 01 15:18:11 2019 GCEF

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 05/03/19 11:16

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\GEF6434\EF189490.D\ECD1A.CH Vial: 8
Signal #2 : C:\HPCHEM\1\DATA\GEF6434\EF189490.D\ECD2B.CH
Acq On : 1 May 2019 2:17 pm Operator: tianweir
Sample : ic6434-3000 Inst : gcef
Misc : op20033,GEF6434,10.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 1 15:16 2019 Quant Results File: PCB6434.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed May 01 15:15:32 2019
Response via : Initial Calibration
DataAcq Meth : PCB6434.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1) S	Tetrachloro-m-xy	3.54	4.20	1635885	1964333	116.723	114.548
	Spiked Amount 40.000			Recovery =		291.81%	286.37%
51) S	Decachlorobiphen	14.81	17.22	1667862	1964196	97.378	100.964
	Spiked Amount 40.000			Recovery =		243.44%	252.41%
	Target Compounds						
41)	AR1016-A	4.10	5.13	1022946	1104303	2572.802	2654.186
42)	AR1016-B	4.68	5.93	1671451	2057477	2454.628	2638.692
43)	AR1016-C	5.51	6.87	3798857	4344171	2450.687	2496.879
44)	AR1016-D	5.76	7.16	1423155	1987795	2489.370	2539.996
45)	AR1016-E	6.54	8.16	1458998	1233594	2536.685	2389.442
46)	AR1260-A	10.25	12.25	3197265	4546228	2497.866	2678.423
47)	AR1260-B	10.50	12.44	2065824	3210024	2412.134	2537.319
48)	AR1260-C	11.03	13.12	1759510	2754688	2413.924	2626.491
49)	AR1260-D	11.72	13.69	5070118	6846000	2558.978	2720.571
50)	AR1260-E	12.35	14.55	5201127	6746624	2650.679m	2725.286

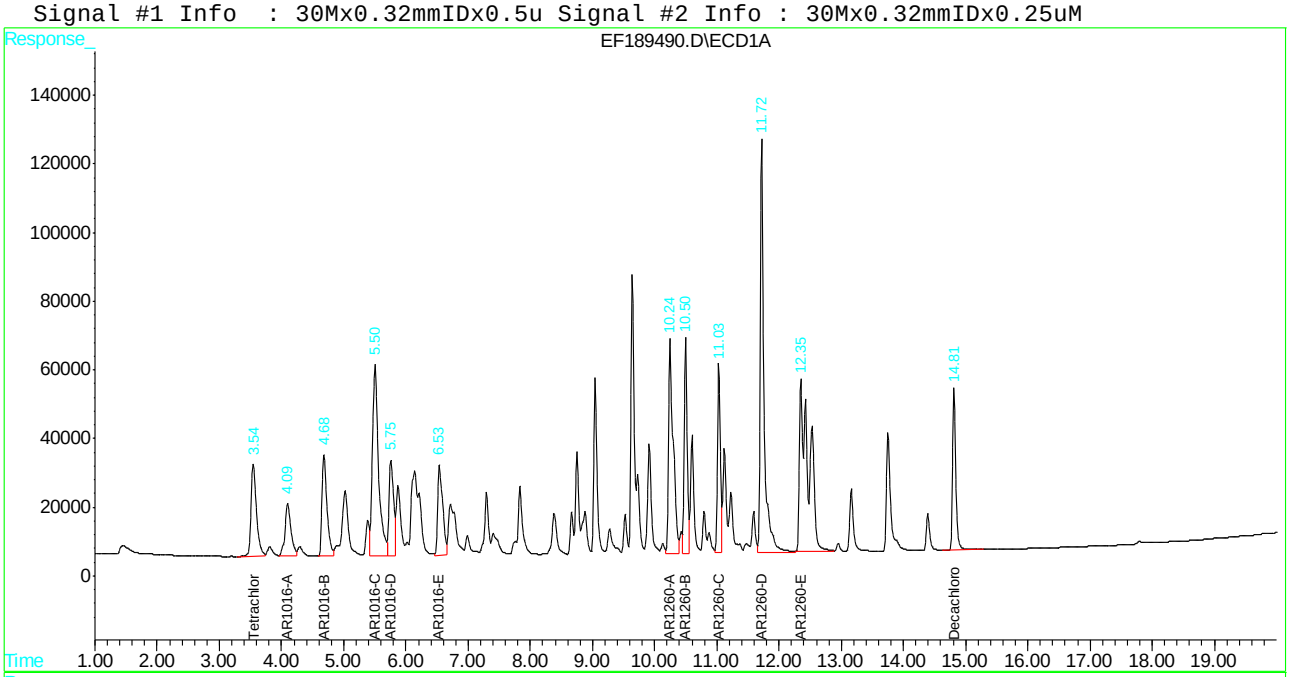
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
EF189490.D PCB6434.M Thu May 02 09:23:44 2019 GCEF Page 1

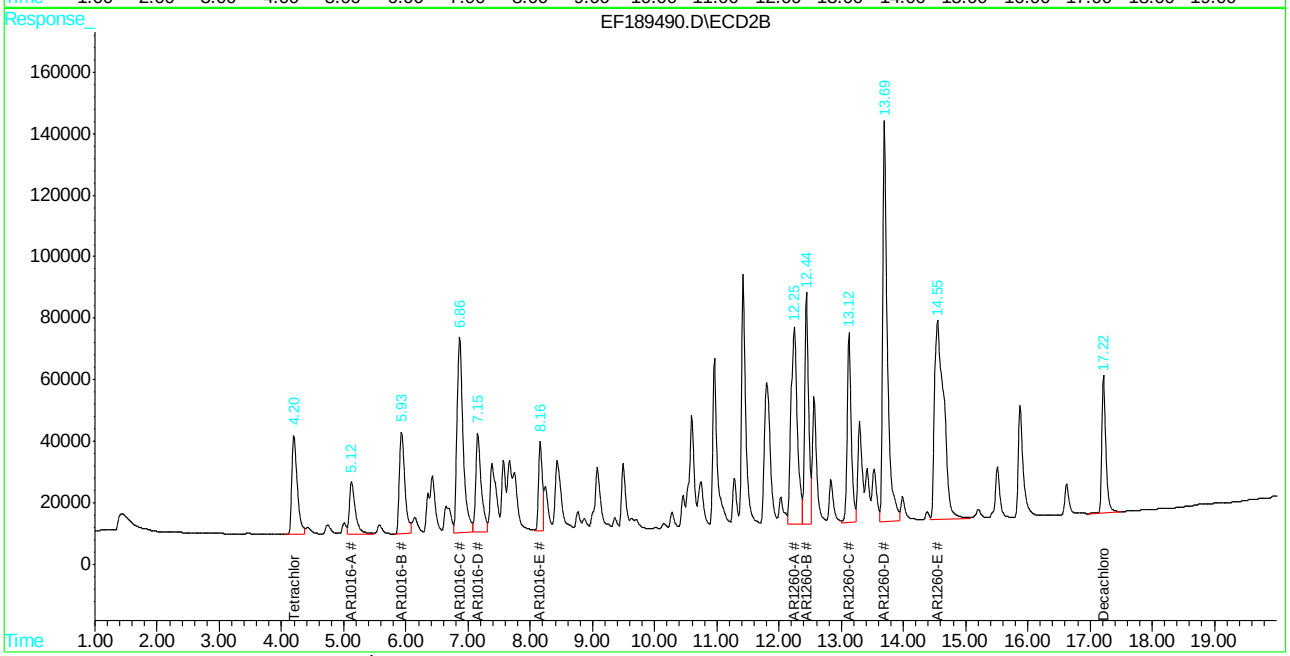
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6434\EF189490.D\ECD1A.CH Vial: 8
Signal #2 : C:\HPCHEM\1\DATA\GEF6434\EF189490.D\ECD2B.CH
Acq On : 1 May 2019 2:17 pm Operator: tianweir
Sample : ic6434-3000 Inst : gcef
Misc : op20033,GEF6434,10.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 1 15:16 2019 Quant Results File: PCB6434.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed May 01 15:15:32 2019
Response via : Multiple Level Calibration
DataAcq Meth : PCB6434.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM





SGS JC87363

Manual Integration Approval Summary

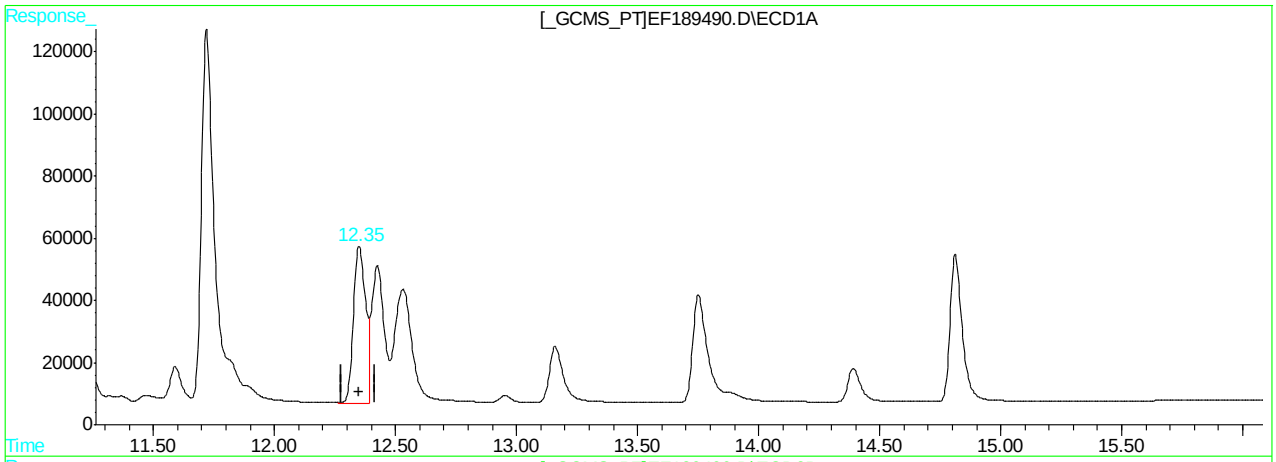
Sample Number:	GEF6434-IC6434	**Method:**	SW846 8082A
Lab FileID:	EF189490.D	**Analyst approved:**	05/02/19 09:37 Tianwei Ruan
Injection Time:	05/01/19 14:17	**Supervisor approved:**	05/03/19 11:16 Gwendolyn Burns

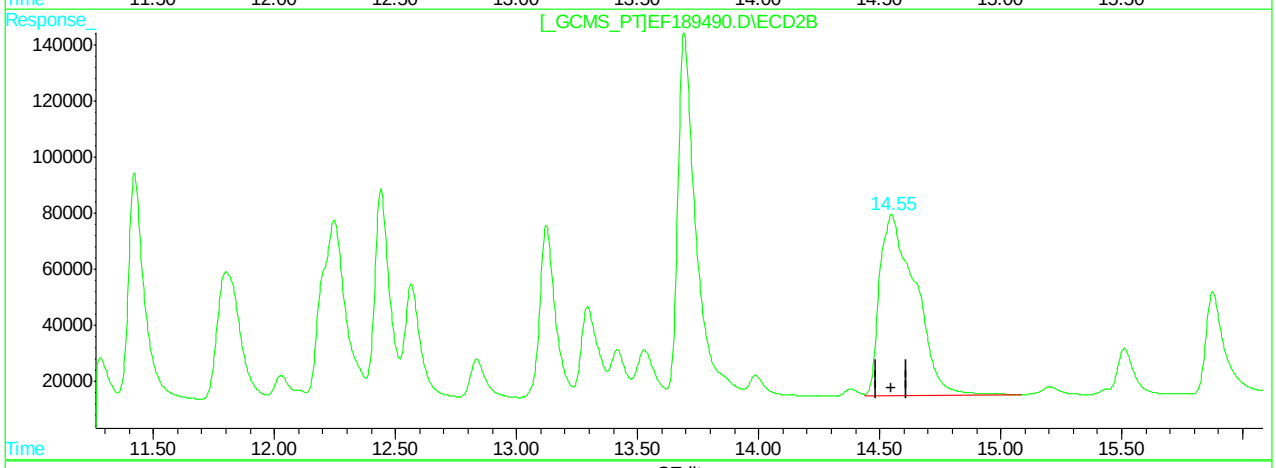
Parameter	CAS	Sig#	R.T. (min.)	Reason
AR1260-E		1	12.35	Split peak

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6434\EF189490.D\ECD1A.CH Vial: 8
Signal #2 : C:\HPCHEM\1\DATA\GEF6434\EF189490.D\ECD2B.CH
Acq On : 1 May 2019 2:17 pm Operator: tianweir
Sample : ic6434-3000 Inst : gcef
Misc : op20033,GEF6434,10.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 1 15:15 2019 Quant Results File: PCB6434.RES

Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed May 01 15:15:32 2019
Response via : Multiple Level Calibration





QEdit

(50) AR1260-E

12.35min 888.692PPB

response 1743779

(50) AR1260-E #2

14.55min 2725.286PPB

response 6746624

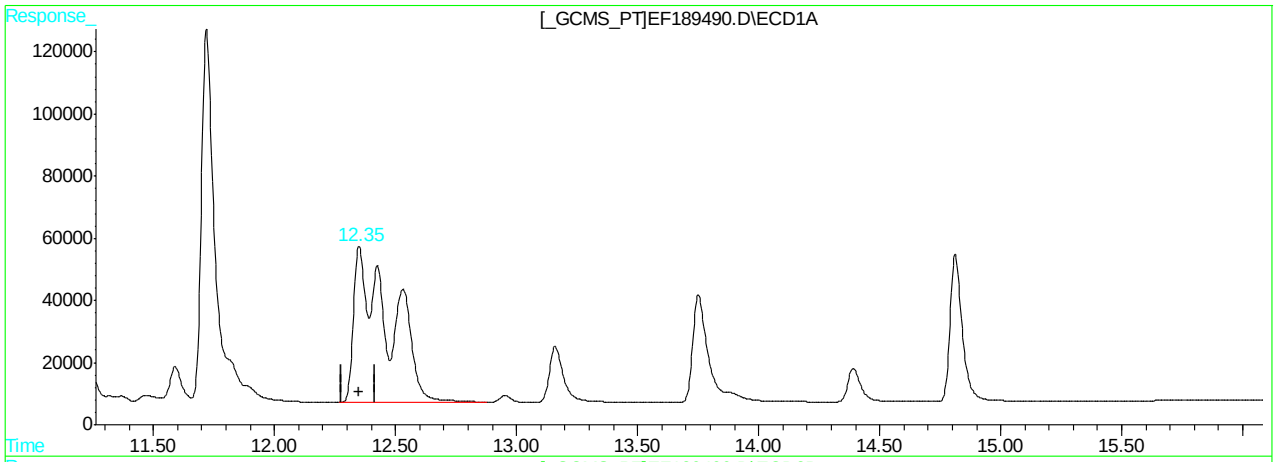
(+) = Expected Retention Time
EF189490.D PCB6434.M Wed May 01 15:16:01 2019 GCEF

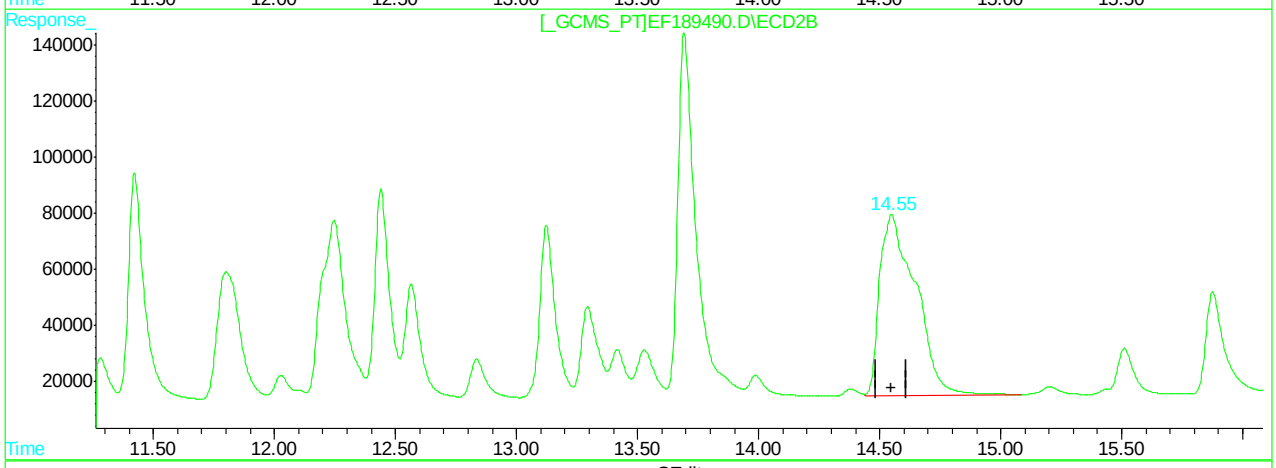
11.5.6.2 11

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6434\EF189490.D\ECD1A.CH Vial: 8
Signal #2 : C:\HPCHEM\1\DATA\GEF6434\EF189490.D\ECD2B.CH
Acq On : 1 May 2019 2:17 pm Operator: tianweir
Sample : ic6434-3000 Inst : gcef
Misc : op20033,GEF6434,10.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 1 15:15 2019 Quant Results File: PCB6434.RES

Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed May 01 15:15:32 2019
Response via : Multiple Level Calibration





QEdit

(50) AR1260-E

12.35min 2650.679PPB m

response 5201127

(50) AR1260-E #2

14.55min 2725.286PPB

response 6746624

(+) = Expected Retention Time
EF189490.D PCB6434.M Wed May 01 15:16:13 2019 GCEF

EF189491.D

Manual Integrations APPROVED (compounds with "m" flag)

Gwendolyn Burns 05/03/19 11:16

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\GEF6434\EF189491.D\ECD1A.CH Vial: 9
Signal #2 : C:\HPCHEM\1\DATA\GEF6434\EF189491.D\ECD2B.CH
Acq On : 1 May 2019 2:42 pm Operator: tianweir
Sample : ic6434-1000 Inst : gcef
Misc : op20033,GEF6434,10.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 2 8:23 2019 Quant Results File: PCB6434.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed May 01 15:25:32 2019
Response via : Initial Calibration
DataAcq Meth : PCB6434.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1) S	Tetrachloro-m-xy	3.55	4.20	669079	759021	50.234	46.775
	Spiked Amount 40.000			Recovery =		125.59%	116.94%
51) S	Decachlorobiphen	14.82	17.23	751105	858436	46.290	46.309m
	Spiked Amount 40.000			Recovery =		115.72%	115.77%
	Target Compounds						
2)	AR1221-A	2.86	3.45	150998	158249	943.426	1019.784
3)	AR1221-B	3.81	4.74	200897	231604	890.851	858.086
4)	AR1221-C	4.10	5.13	653691	632527	899.342	864.856
5)	AR1221-D	4.69	5.94	95771	99667	800.013m	811.672m
6)	AR1221-E	5.02	6.12	137856	91520	1575.518	890.867 #
24)	AR1254-A	7.30	9.08	611178	1176432	859.789	1119.050 #
25)	AR1254-B	7.84	9.50	764710	903104	851.623	853.439
26)	AR1254-C	8.41	10.28	560266	619160	869.463	849.129
27)	AR1254-D	8.67	10.55	1024640	1325968	992.269	835.761
28)	AR1254-E	9.29	11.09	872093	1002216	880.064	742.232
29)	AR1254-F	9.65	11.80	817395	814969	906.121	756.767m
30)	AR1254-G	10.26	12.27	990911	1326935	864.151	842.292

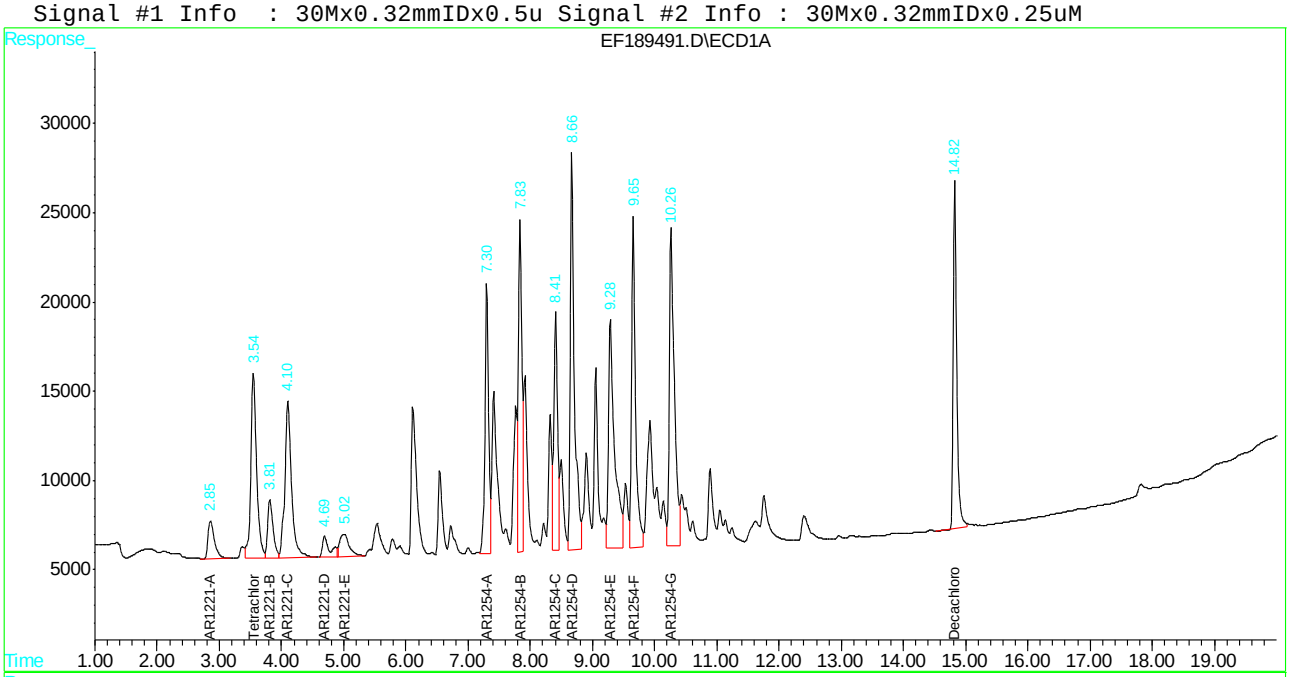
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

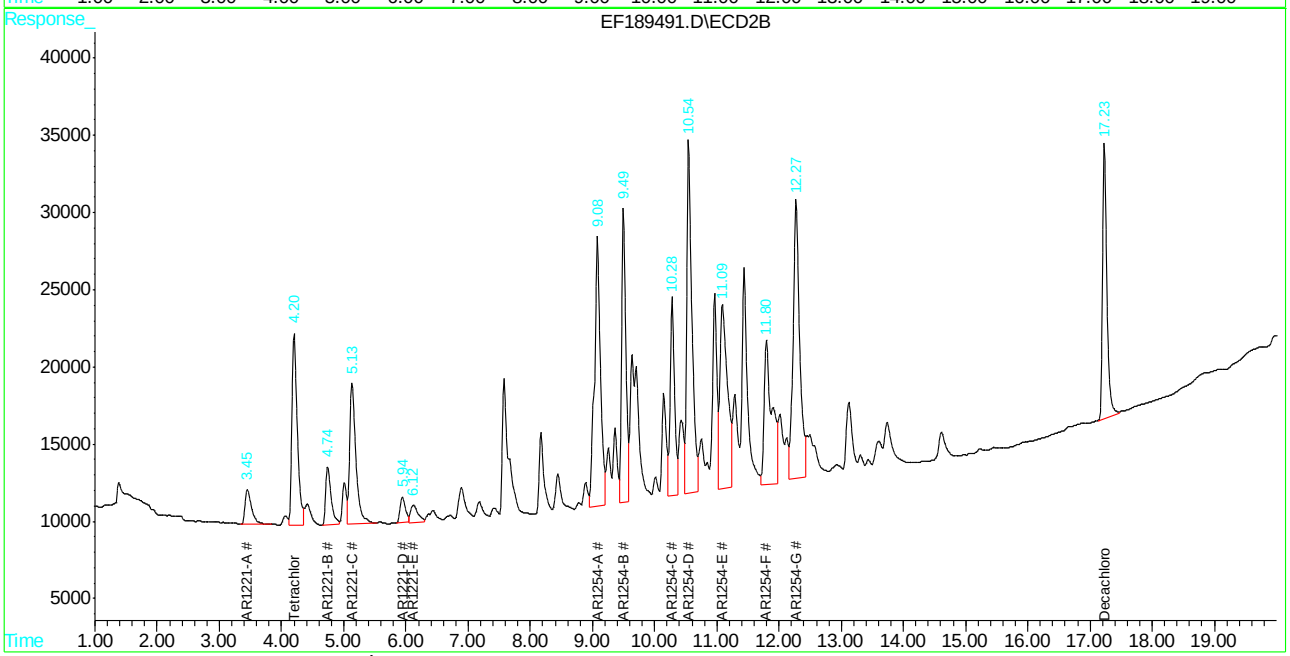
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6434\EF189491.D\ECD1A.CH Vial: 9
Signal #2 : C:\HPCHEM\1\DATA\GEF6434\EF189491.D\ECD2B.CH
Acq On : 1 May 2019 2:42 pm Operator: tianweir
Sample : ic6434-1000 Inst : gcef
Misc : op20033,GEF6434,10.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 2 8:23 2019 Quant Results File: PCB6434.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed May 01 15:25:32 2019
Response via : Multiple Level Calibration
DataAcq Meth : PCB6434.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM





JC87363

Manual Integration Approval Summary

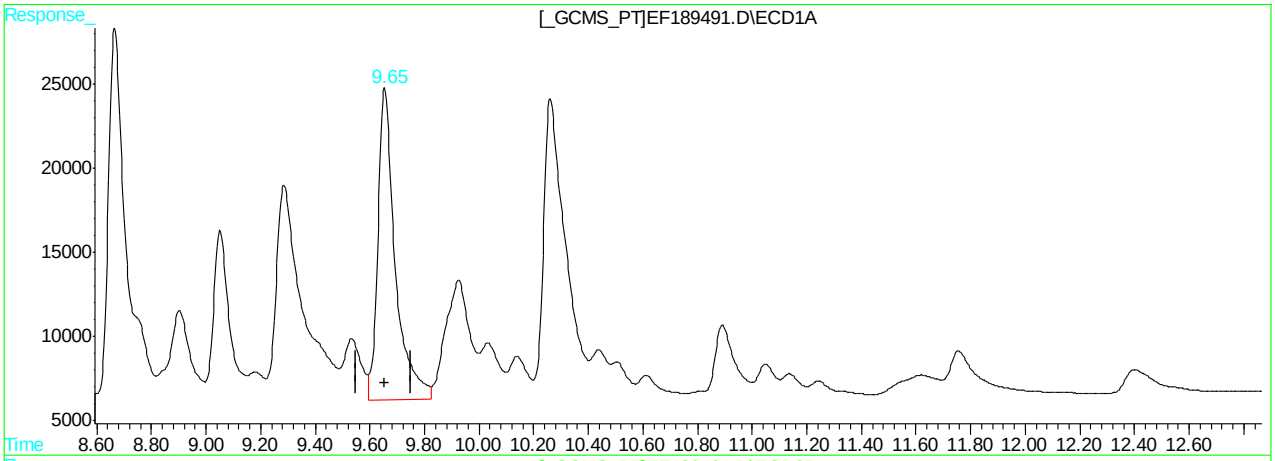
Sample Number:	GEF6434-IC6434	**Method:**	SW846 8082A
Lab FileID:	EF189491.D	**Analyst approved:**	05/02/19 09:37 Tianwei Ruan
Injection Time:	05/01/19 14:42	**Supervisor approved:**	05/03/19 11:16 Gwendolyn Burns

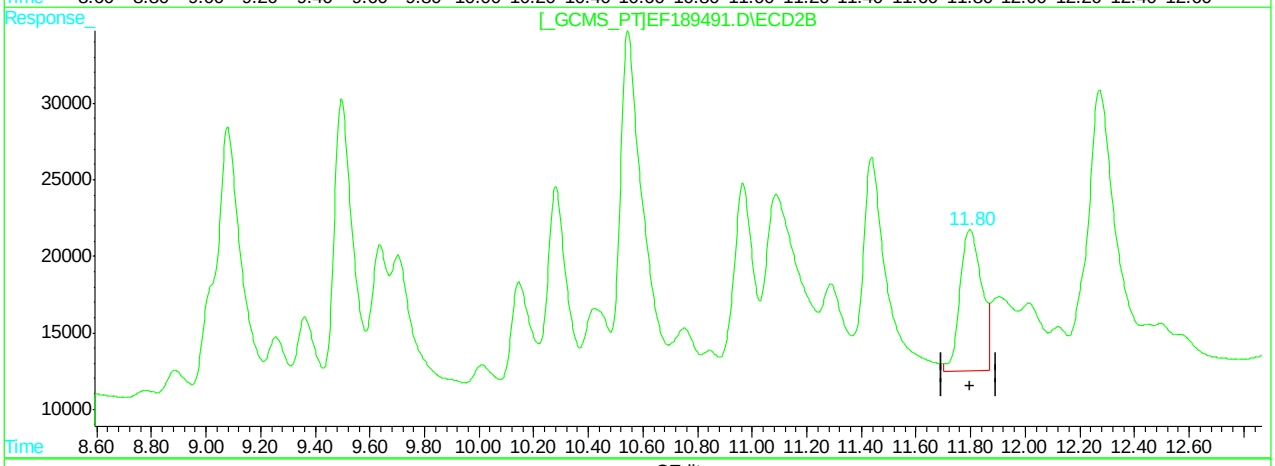
Parameter	CAS	Sig#	R.T. (min.)	Reason
AR1221-D		1	4.69	Split peak
AR1221-D		2	5.94	Split peak
AR1254-F		2	11.80	Split peak
Decachlorobiphenyl	2051-24-3	2	17.23	Poorly defined baseline

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6434\EF189491.D\ECD1A.CH Vial: 9
Signal #2 : C:\HPCHEM\1\DATA\GEF6434\EF189491.D\ECD2B.CH
Acq On : 1 May 2019 2:42 pm Operator: tianweir
Sample : ic6434-1000 Inst : gcef
Misc : op20033,GEF6434,10.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 1 15:25 2019 Quant Results File: PCB6434.RES

Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed May 01 15:25:32 2019
Response via : Single Level Calibration





QEdit

(29) AR1254-F

9.65min 906.121PPB

response 817395

(29) AR1254-F #2

11.80min 476.456PPB

response 513099

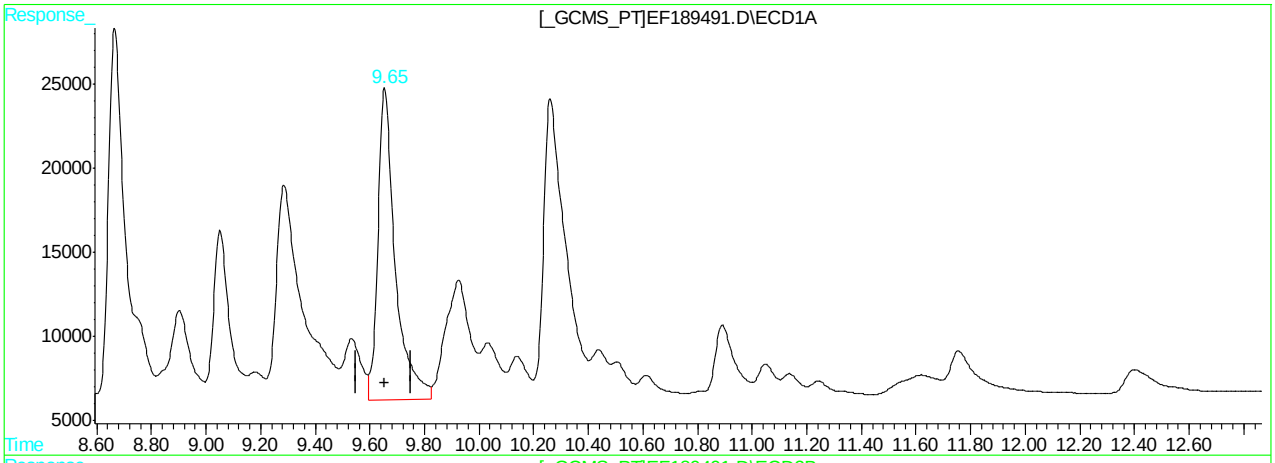
(+) = Expected Retention Time
EF189491.D PCB6434.M Wed May 01 15:26:11 2019 GCEF

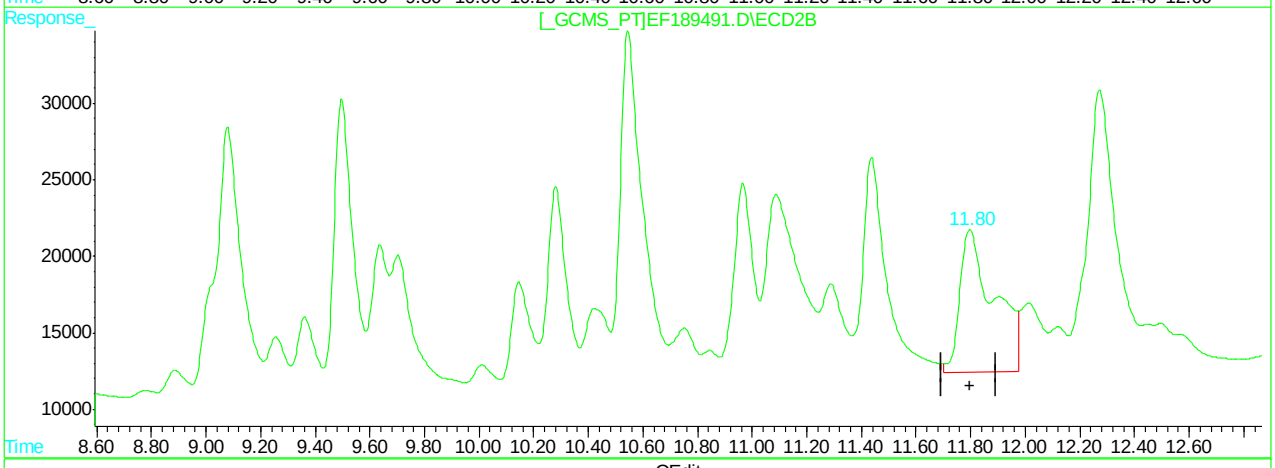
11.5.7.2 11

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6434\EF189491.D\ECD1A.CH Vial: 9
Signal #2 : C:\HPCHEM\1\DATA\GEF6434\EF189491.D\ECD2B.CH
Acq On : 1 May 2019 2:42 pm Operator: tianweir
Sample : ic6434-1000 Inst : gcef
Misc : op20033,GEF6434,10.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 1 15:25 2019 Quant Results File: PCB6434.RES

Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed May 01 15:25:32 2019
Response via : Single Level Calibration





QEdit

(29) AR1254-F

9.65min 906.121PPB

response 817395

(29) AR1254-F #2

11.80min 756.767PPB m

response 814969

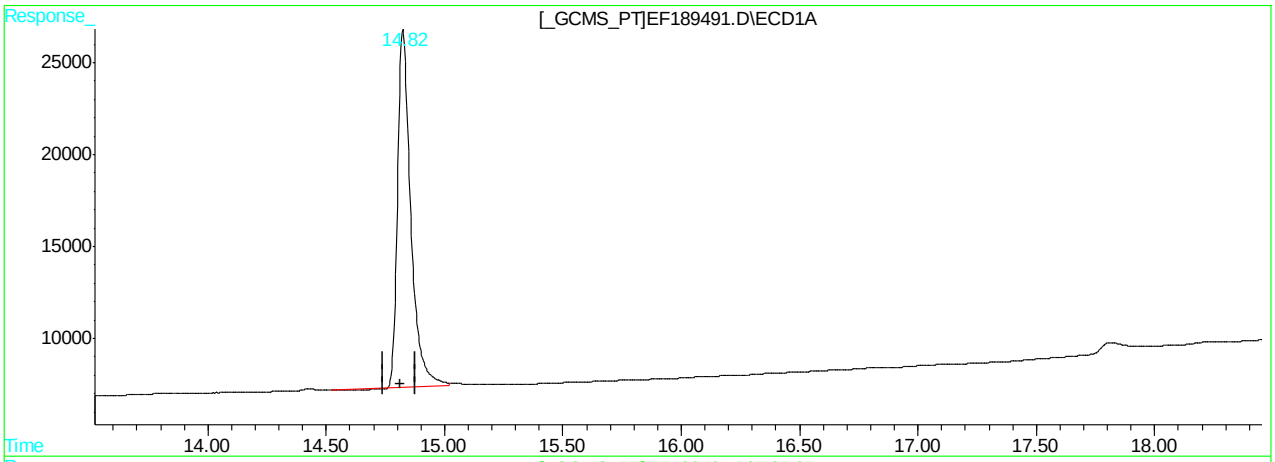
(+) = Expected Retention Time
EF189491.D PCB6434.M Wed May 01 15:26:16 2019 GCEF

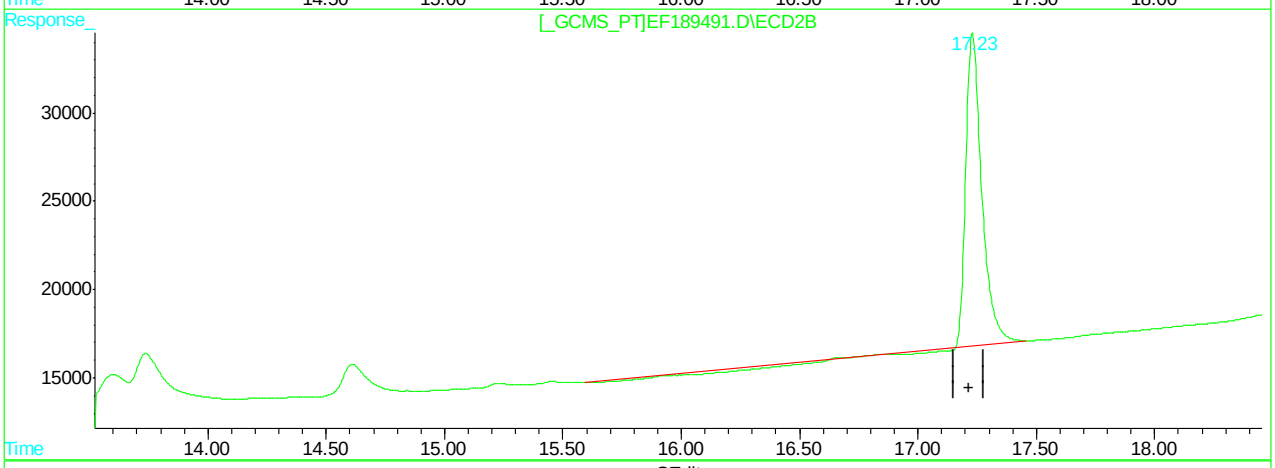
11.5.7.3 11

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6434\EF189491.D\ECD1A.CH Vial: 9
Signal #2 : C:\HPCHEM\1\DATA\GEF6434\EF189491.D\ECD2B.CH
Acq On : 1 May 2019 2:42 pm Operator: tianweir
Sample : ic6434-1000 Inst : gcef
Misc : op20033,GEF6434,10.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 1 15:25 2019 Quant Results File: PCB6434.RES

Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed May 01 15:25:32 2019
Response via : Multiple Level Calibration





QEdit

(51) Decachlorobiphenyl (S)

14.82min 46.290PPB

response 751105

(51) Decachlorobiphenyl #2 (S)

17.23min 40.115PPB

response 743630

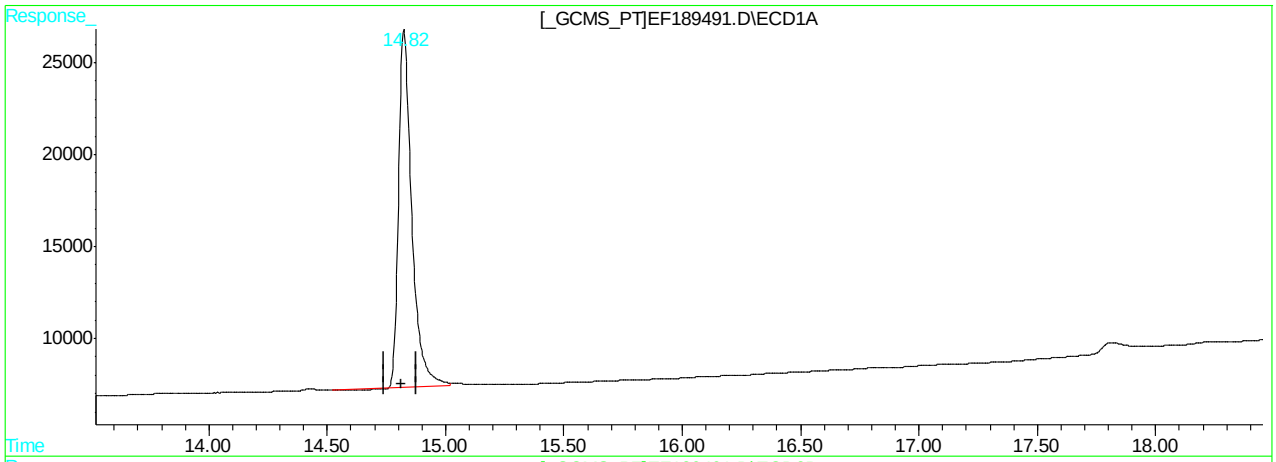
(+) = Expected Retention Time
EF189491.D PCB6434.M Wed May 01 15:26:21 2019 GCEF

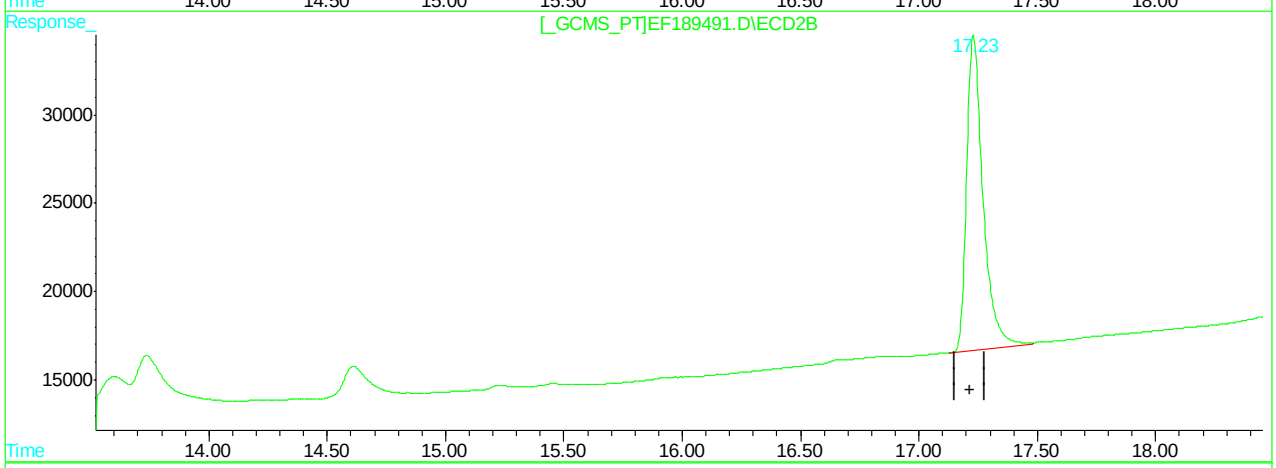
11.5.7.4 11

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6434\EF189491.D\ECD1A.CH Vial: 9
Signal #2 : C:\HPCHEM\1\DATA\GEF6434\EF189491.D\ECD2B.CH
Acq On : 1 May 2019 2:42 pm Operator: tianweir
Sample : ic6434-1000 Inst : gcef
Misc : op20033,GEF6434,10.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 1 15:25 2019 Quant Results File: PCB6434.RES

Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed May 01 15:25:32 2019
Response via : Multiple Level Calibration





QEdit

(51) Decachlorobiphenyl (S)

14.82min 46.290PPB

response 751105

(51) Decachlorobiphenyl #2 (S)

17.23min 46.309PPB m

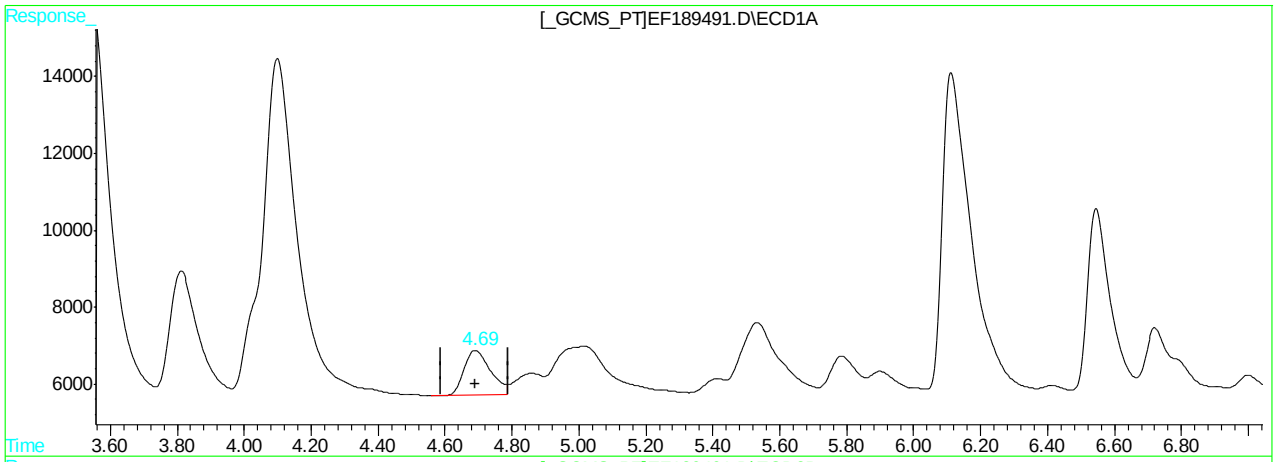
response 858436

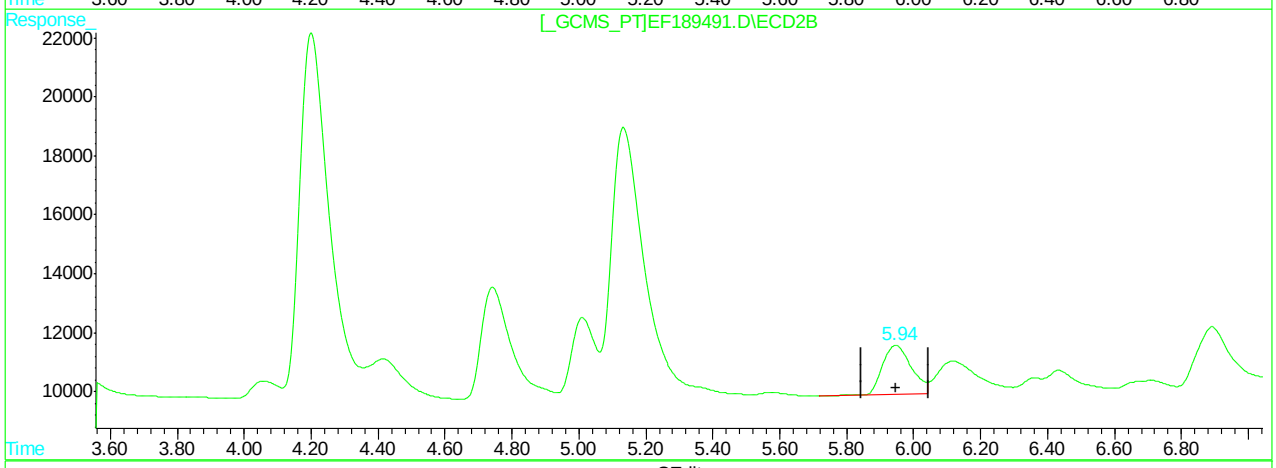
(+) = Expected Retention Time
EF189491.D PCB6434.M Wed May 01 15:26:26 2019 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6434\EF189491.D\ECD1A.CH Vial: 9
Signal #2 : C:\HPCHEM\1\DATA\GEF6434\EF189491.D\ECD2B.CH
Acq On : 1 May 2019 2:42 pm Operator: tianweir
Sample : ic6434-1000 Inst : gcef
Misc : op20033,GEF6434,10.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 1 15:26 2019 Quant Results File: PCB6434.RES

Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed May 01 16:22:53 2019
Response via : Single Level Calibration





QEdit

(5) AR1221-D

4.69min 533.456PPB

response 63861

(5) AR1221-D #2

5.95min 833.268PPB

response 102319

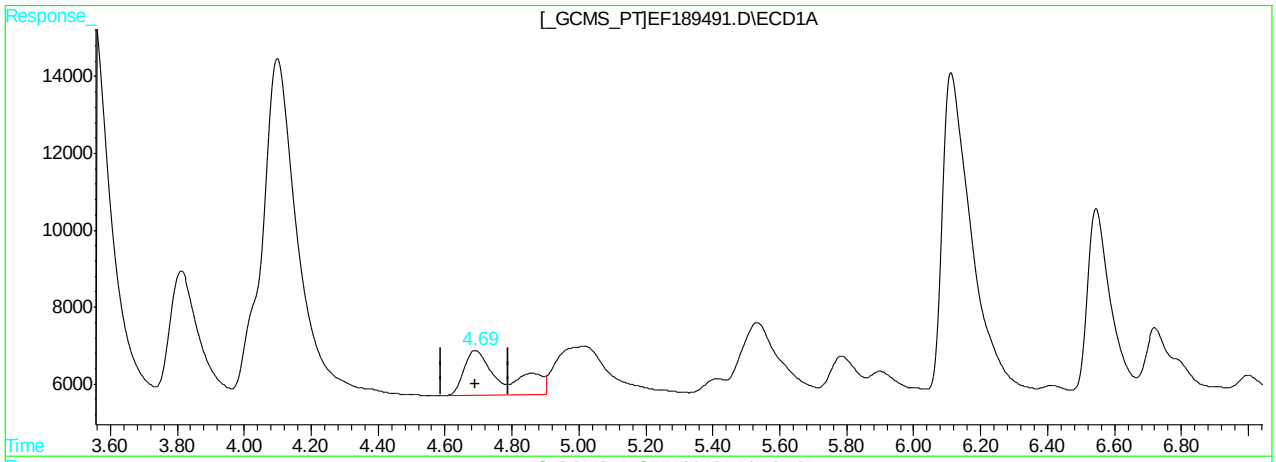
(+) = Expected Retention Time
EF189491.D PCB6434.M Thu May 02 08:23:12 2019 GCEF

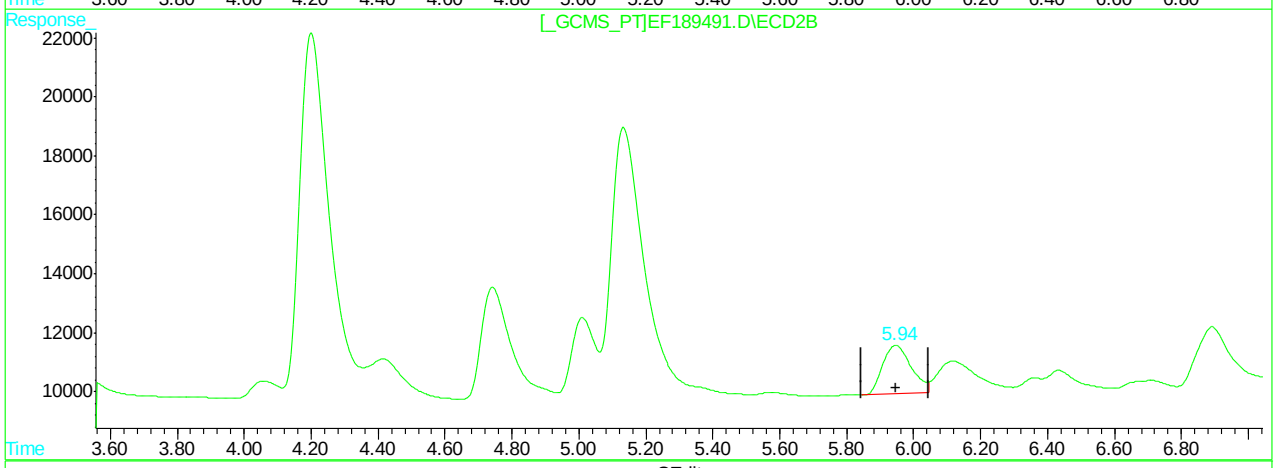
11.5.7.6 11

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6434\EF189491.D\ECD1A.CH Vial: 9
Signal #2 : C:\HPCHEM\1\DATA\GEF6434\EF189491.D\ECD2B.CH
Acq On : 1 May 2019 2:42 pm Operator: tianweir
Sample : ic6434-1000 Inst : gcef
Misc : op20033,GEF6434,10.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 1 15:26 2019 Quant Results File: PCB6434.RES

Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed May 01 16:22:53 2019
Response via : Single Level Calibration





QEdit

(5) AR1221-D

4.69min 800.013PPB m

response 95771

(5) AR1221-D #2

5.94min 811.672PPB m

response 99667

(+) = Expected Retention Time
EF189491.D PCB6434.M Thu May 02 08:23:48 2019 GCEF

11.5.7.7 11

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 05/03/19 11:16

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\GEF6434\EF189492.D\ECD1A.CH Vial: 10
Signal #2 : C:\HPCHEM\1\DATA\GEF6434\EF189492.D\ECD2B.CH
Acq On : 1 May 2019 3:07 pm Operator: tianweir
Sample : ic6434-1000 Inst : gcef
Misc : op20033,GEF6434,10.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 1 15:34 2019 Quant Results File: PCB6434.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed May 01 15:33:49 2019
Response via : Initial Calibration
DataAcq Meth : PCB6434.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1) S	Tetrachloro-m-xy	3.54	4.20	585756	680901	43.978	41.961
	Spiked Amount 40.000			Recovery =		109.95%	104.90%
51) S	Decachlorobiphen	14.82	17.22	701653	762339	43.243	41.125
	Spiked Amount 40.000			Recovery =		108.11%	102.81%
	Target Compounds						
7)	AR1232-A	4.10	5.13	483546	503810	842.672	864.692
8)	AR1232-B	4.69	5.94	292934	351133	789.674	828.659
9)	AR1232-C	5.52	6.88	668088	738953	828.636	825.249
10)	AR1232-D	5.78	7.17	243610	331801	810.402	840.954
11)	AR1232-E	6.55	8.17	219923	183015	776.890	613.361
31)	AR1262-A	9.65	11.44	789771	1172031	850.616	851.038
32)	AR1262-B	10.50	12.45	1214085	1713532	914.644	850.521
33)	AR1262-C	11.04	13.13	873327	1250543	874.142	838.024
34)	AR1262-D	11.73	13.71	2257423	2774831	909.199	850.202
35)	AR1262-E	12.43	14.52	2602889	3259364	907.109m	840.404m

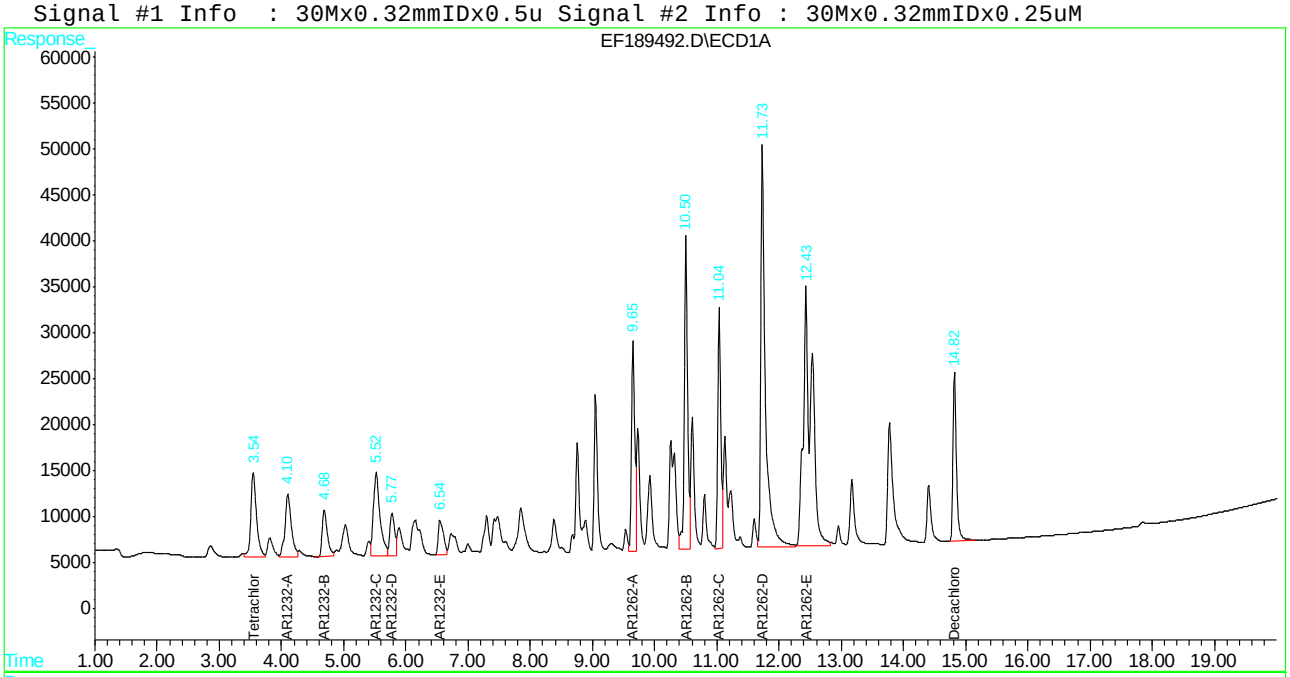
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
EF189492.D PCB6434.M Thu May 02 09:23:53 2019 GCEF Page 1

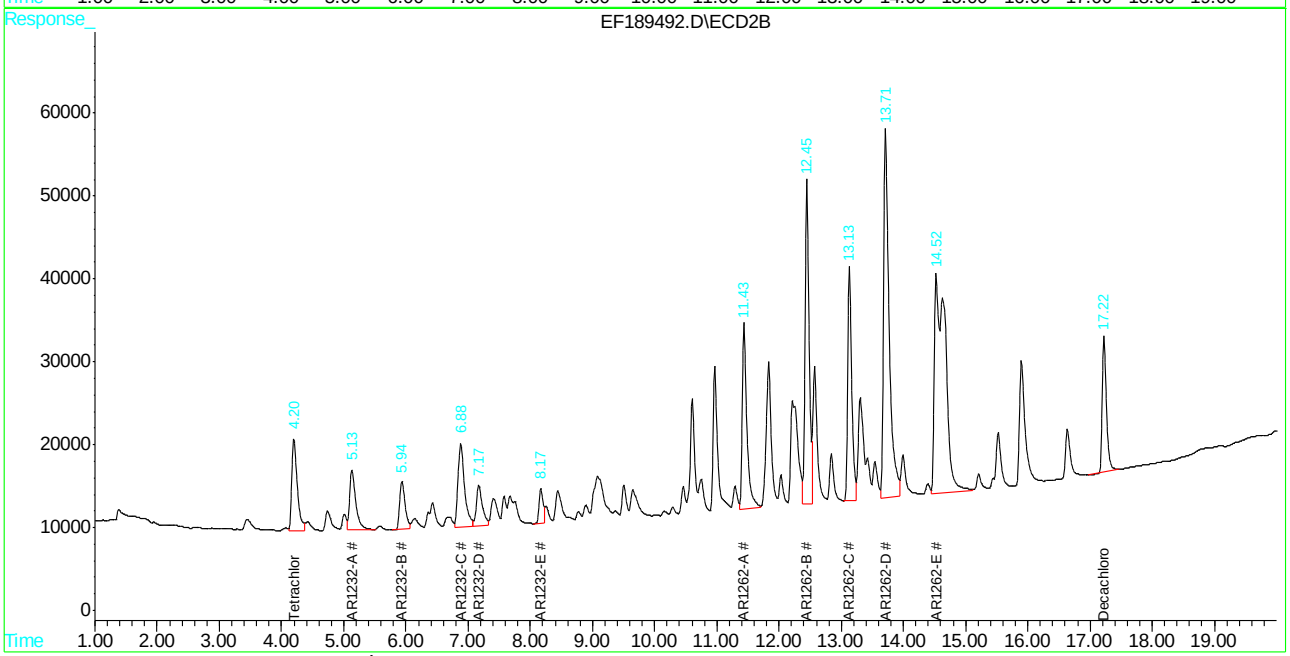
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6434\EF189492.D\ECD1A.CH Vial: 10
Signal #2 : C:\HPCHEM\1\DATA\GEF6434\EF189492.D\ECD2B.CH
Acq On : 1 May 2019 3:07 pm Operator: tianweir
Sample : ic6434-1000 Inst : gcef
Misc : op20033,GEF6434,10.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 1 15:34 2019 Quant Results File: PCB6434.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed May 01 15:33:49 2019
Response via : Multiple Level Calibration
DataAcq Meth : PCB6434.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM





JC87363

Manual Integration Approval Summary

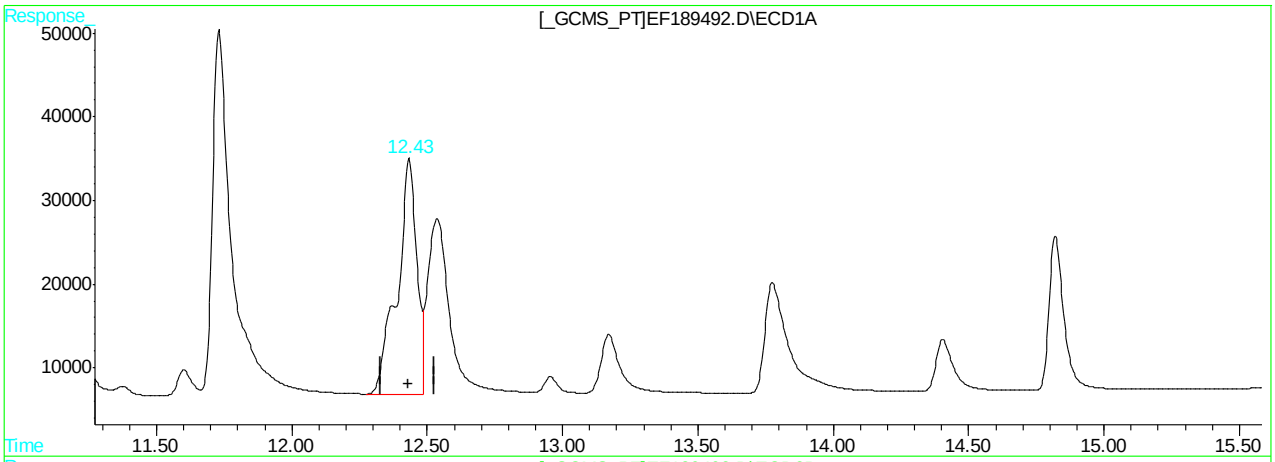
Sample Number:	GEF6434-IC6434	**Method:**	SW846 8082A
Lab FileID:	EF189492.D	**Analyst approved:**	05/02/19 09:37 Tianwei Ruan
Injection Time:	05/01/19 15:07	**Supervisor approved:**	05/03/19 11:16 Gwendolyn Burns

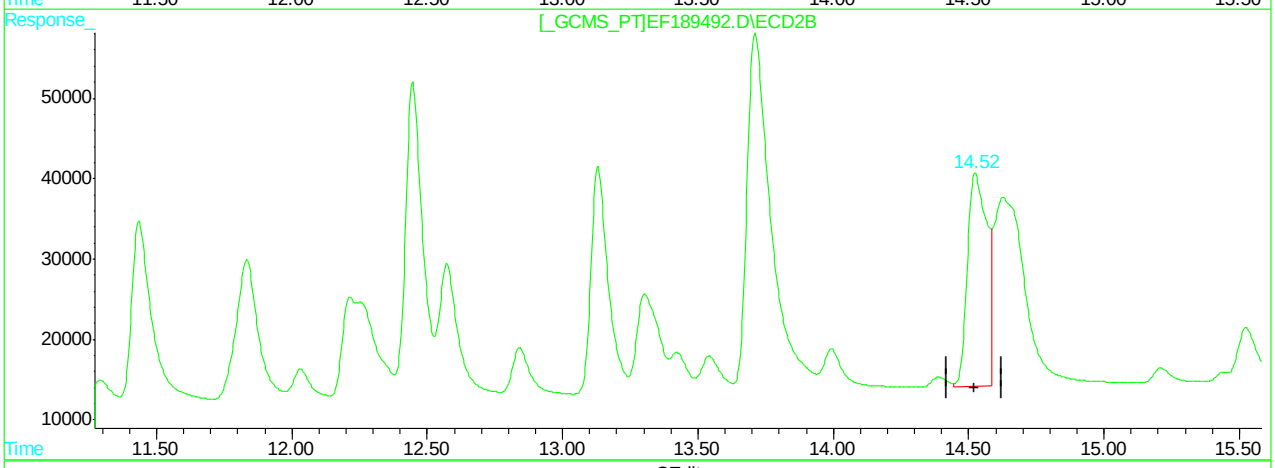
Parameter	CAS	Sig#	R.T. (min.)	Reason
AR1262-E		1	12.43	Split peak
AR1262-E		2	14.52	Split peak

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6434\EF189492.D\ECD1A.CH Vial: 10
Signal #2 : C:\HPCHEM\1\DATA\GEF6434\EF189492.D\ECD2B.CH
Acq On : 1 May 2019 3:07 pm Operator: tianweir
Sample : ic6434-1000 Inst : gcef
Misc : op20033,GEF6434,10.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 1 15:33 2019 Quant Results File: PCB6434.RES

Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed May 01 15:33:49 2019
Response via : Single Level Calibration





QEdit

(35) AR1262-E

12.43min 494.236PPB

response 1418178

(35) AR1262-E #2

14.52min 340.387PPB

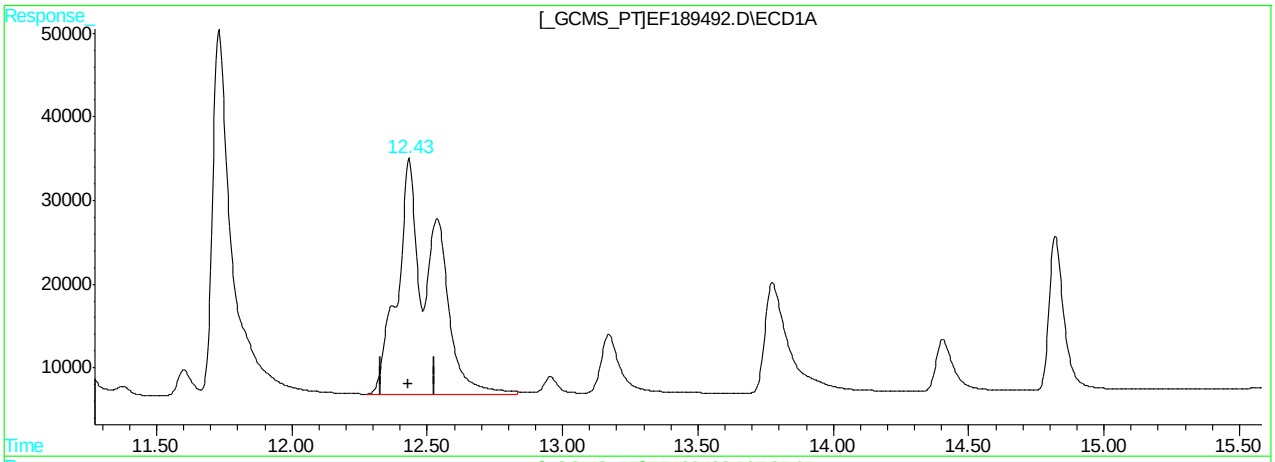
response 1320135

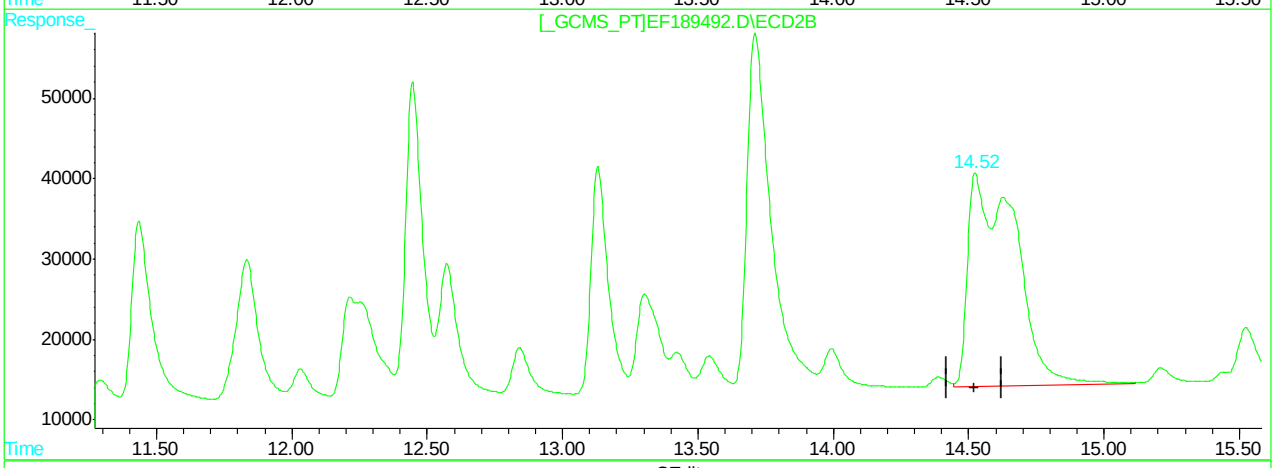
(+) = Expected Retention Time
EF189492.D PCB6434.M Wed May 01 15:34:24 2019 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6434\EF189492.D\ECD1A.CH Vial: 10
Signal #2 : C:\HPCHEM\1\DATA\GEF6434\EF189492.D\ECD2B.CH
Acq On : 1 May 2019 3:07 pm Operator: tianweir
Sample : ic6434-1000 Inst : gcef
Misc : op20033,GEF6434,10.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 1 15:33 2019 Quant Results File: PCB6434.RES

Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed May 01 15:33:49 2019
Response via : Single Level Calibration





QEdit

(35) AR1262-E

12.43min 907.109PPB m

response 2602889

(35) AR1262-E #2

14.52min 840.404PPB m

response 3259364

(+) = Expected Retention Time
EF189492.D PCB6434.M Wed May 01 15:34:31 2019 GCEF

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\GEF6434\EF189493.D\ECD1A.CH Vial: 11
Signal #2 : C:\HPCHEM\1\DATA\GEF6434\EF189493.D\ECD2B.CH
Acq On : 1 May 2019 3:32 pm Operator: tianweir
Sample : ic6434-1000 Inst : gcef
Misc : op20033,GEF6434,10.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 1 15:56 2019 Quant Results File: PCB6434.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed May 01 15:56:05 2019
Response via : Initial Calibration
DataAcq Meth : PCB6434.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1) S	Tetrachloro-m-xy	3.55	4.20	753726	924892	55.745	56.563
	Spiked Amount 40.000			Recovery =		139.36%	141.41%
51) S	Decachlorobiphen	14.81	17.22	2096260	2418364	127.147	129.013
	Spiked Amount 40.000			Recovery =		317.87%	322.53%
	Target Compounds						
12)	AR1242-A	4.69	5.94	532321	633761	940.652	921.811
13)	AR1242-B	5.52	6.88	1222074	1371150	954.359	971.997
14)	AR1242-C	5.78	7.17	453944	631035	938.341	991.923
15)	AR1242-D	6.55	8.17	453306	376931	889.439	896.999
16)	AR1242-E	7.47	9.13	572587	667765	1037.519	1074.622
36)	AR1268-A	12.43	14.52	2227187	2981816	896.116	863.133
37)	AR1268-B	12.52	14.63	2638784	3464162	902.342	865.600
38)	AR1268-C	12.95	15.21	1970283	2538202	897.169	842.093
39)	AR1268-D	13.76	15.89	894257	1021721	910.415	846.690
40)	AR1268-E	14.39	16.63	5469055	6877409	887.885	888.919

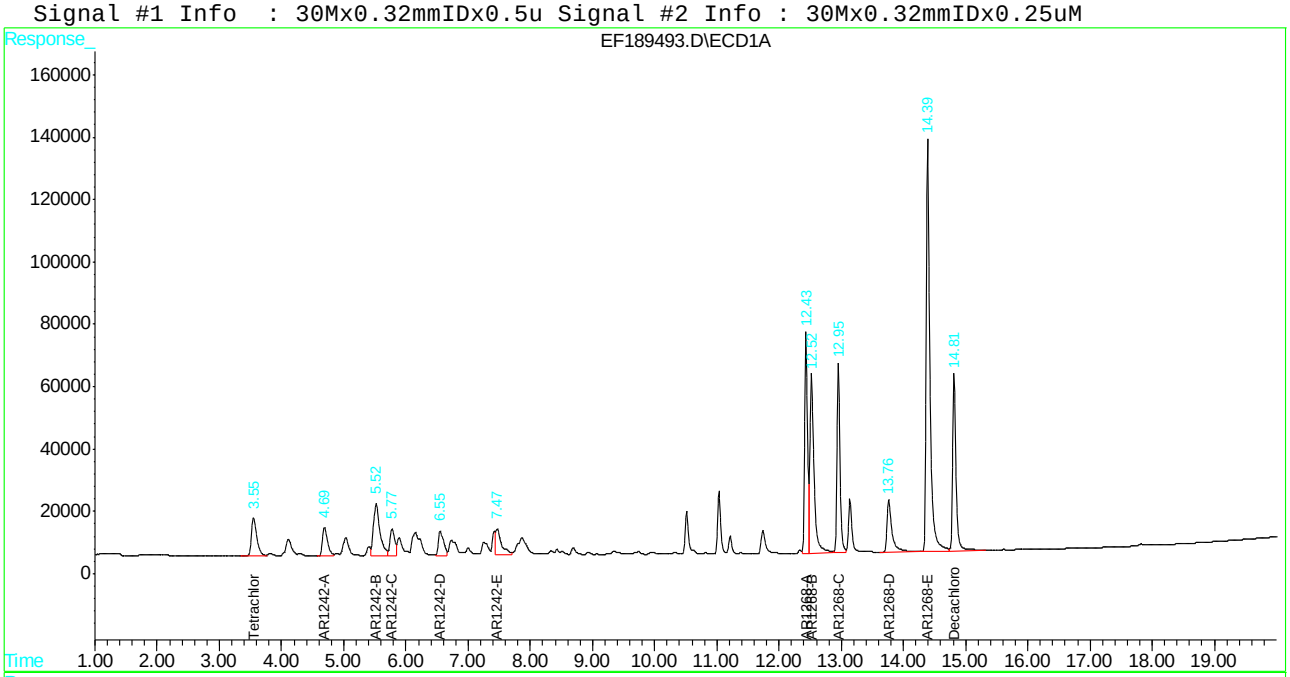
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
EF189493.D PCB6434.M Thu May 02 09:23:58 2019 GCEF Page 1

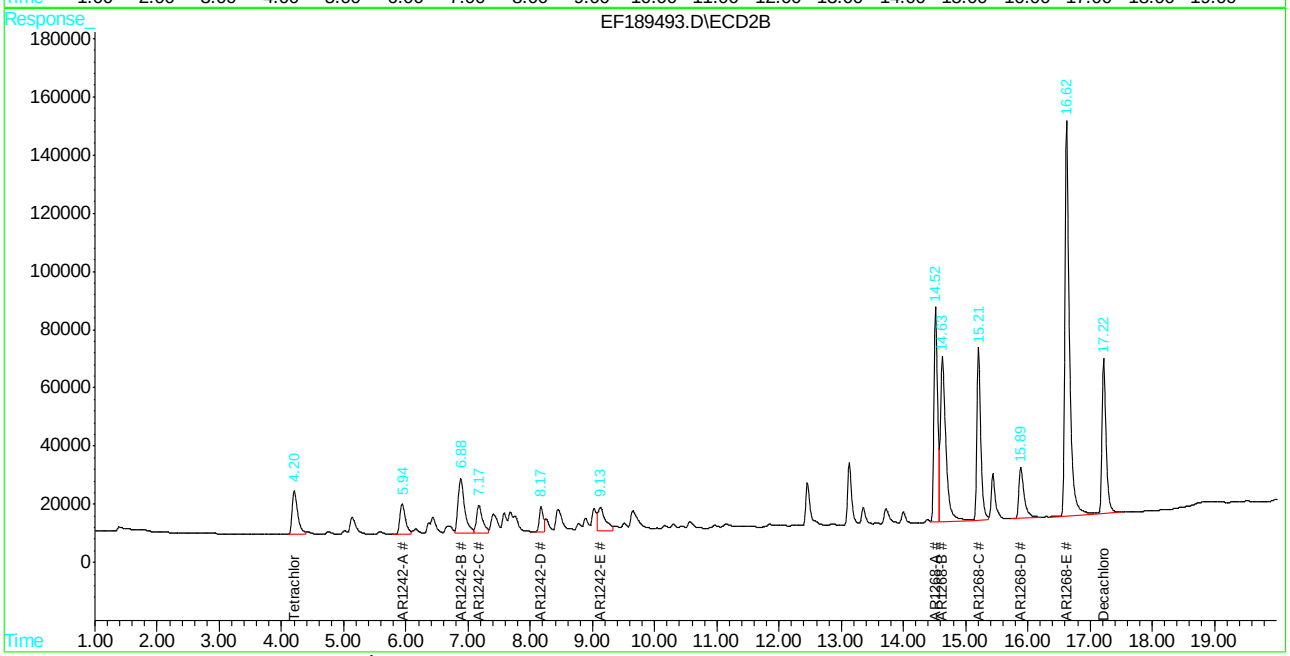
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6434\EF189493.D\ECD1A.CH Vial: 11
Signal #2 : C:\HPCHEM\1\DATA\GEF6434\EF189493.D\ECD2B.CH
Acq On : 1 May 2019 3:32 pm Operator: tianweir
Sample : ic6434-1000 Inst : gcef
Misc : op20033,GEF6434,10.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 1 15:56 2019 Quant Results File: PCB6434.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed May 01 15:56:05 2019
Response via : Multiple Level Calibration
DataAcq Meth : PCB6434.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM





SGS JC87363

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 05/03/19 11:16

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\GEF6434\EF189494.D\ECD1A.CH Vial: 12
Signal #2 : C:\HPCHEM\1\DATA\GEF6434\EF189494.D\ECD2B.CH
Acq On : 1 May 2019 3:57 pm Operator: tianweir
Sample : ic6434-1000 Inst : gcef
Misc : op20033,GEF6434,10.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 1 16:21 2019 Quant Results File: PCB6434.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed May 01 16:20:49 2019
Response via : Initial Calibration
DataAcq Meth : PCB6434.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1) S	Tetrachloro-m-xy	3.55	4.20	569339	741348	42.108	45.338
	Spiked Amount 40.000			Recovery =		105.27%	113.35%
51) S	Decachlorobiphen	14.83	17.24	750580	870903	45.526	46.460
	Spiked Amount 40.000			Recovery =		113.82%	116.15%
	Target Compounds						
17)	AR1248-A	4.69	5.93	266269	315539	848.477	847.105
18)	AR1248-B	5.52	6.88	793725	823847	857.381	853.146
19)	AR1248-C	6.14	7.58	697244	463306	821.960m	840.609
20)	AR1248-D	6.54	8.17	656199	563511	832.794	827.547
21)	AR1248-E	6.72	8.44	328686	717787	829.118	905.179
22)	AR1248-F	7.46	9.11	782933	963962	909.840	880.946
23)	AR1248-G	7.85	9.64	1106354	983069	1226.657	833.787 #

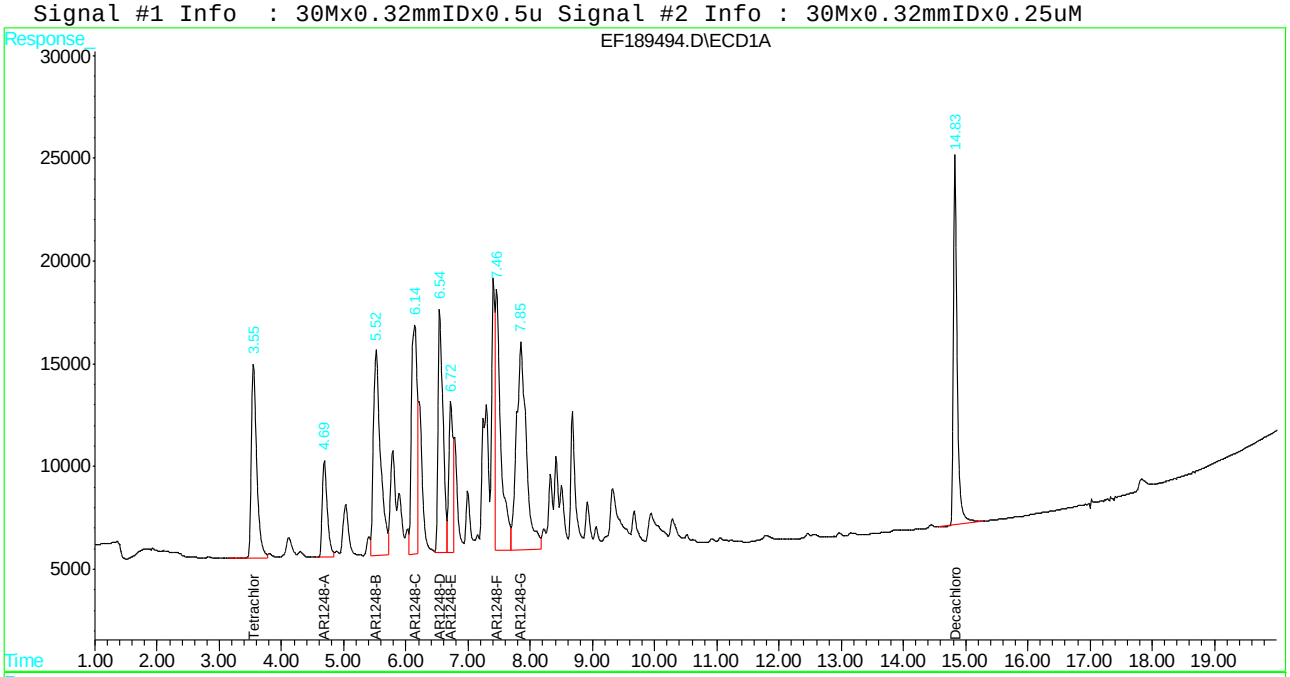
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
EF189494.D PCB6434.M Thu May 02 09:24:03 2019 GCEF

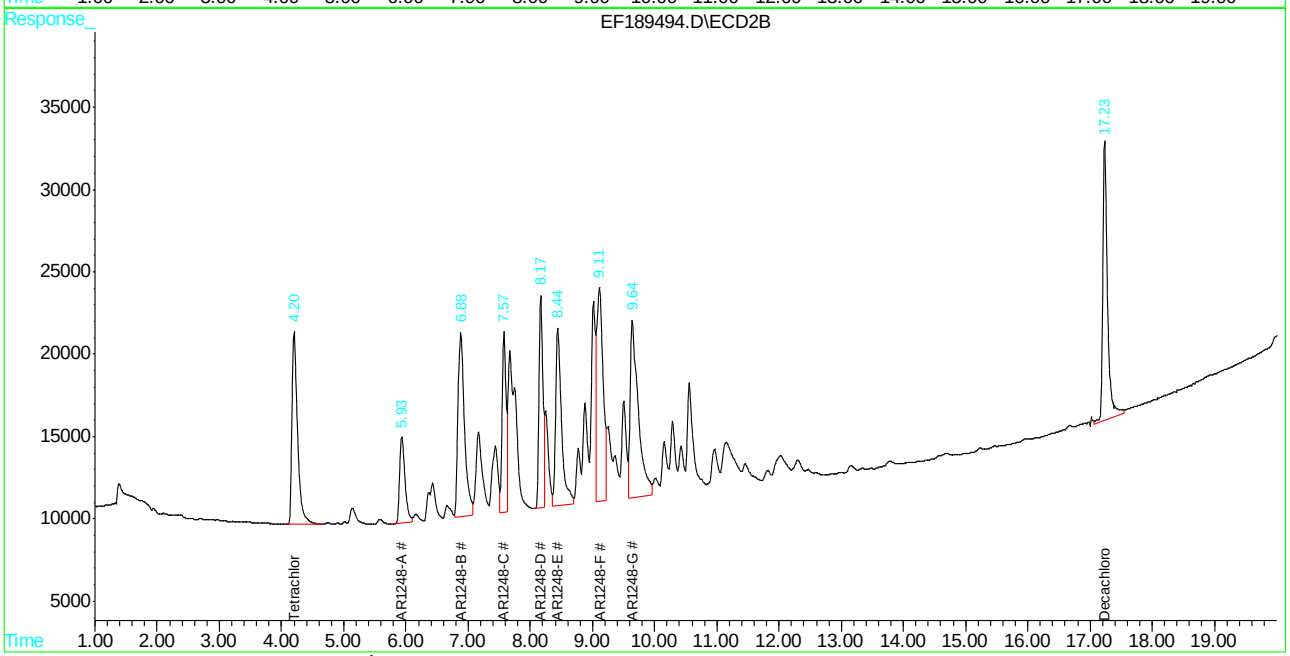
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6434\EF189494.D\ECD1A.CH Vial: 12
Signal #2 : C:\HPCHEM\1\DATA\GEF6434\EF189494.D\ECD2B.CH
Acq On : 1 May 2019 3:57 pm Operator: tianweir
Sample : ic6434-1000 Inst : gcef
Misc : op20033,GEF6434,10.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 1 16:21 2019 Quant Results File: PCB6434.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed May 01 16:20:49 2019
Response via : Multiple Level Calibration
DataAcq Meth : PCB6434.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM





SGS JC87363

Manual Integration Approval Summary

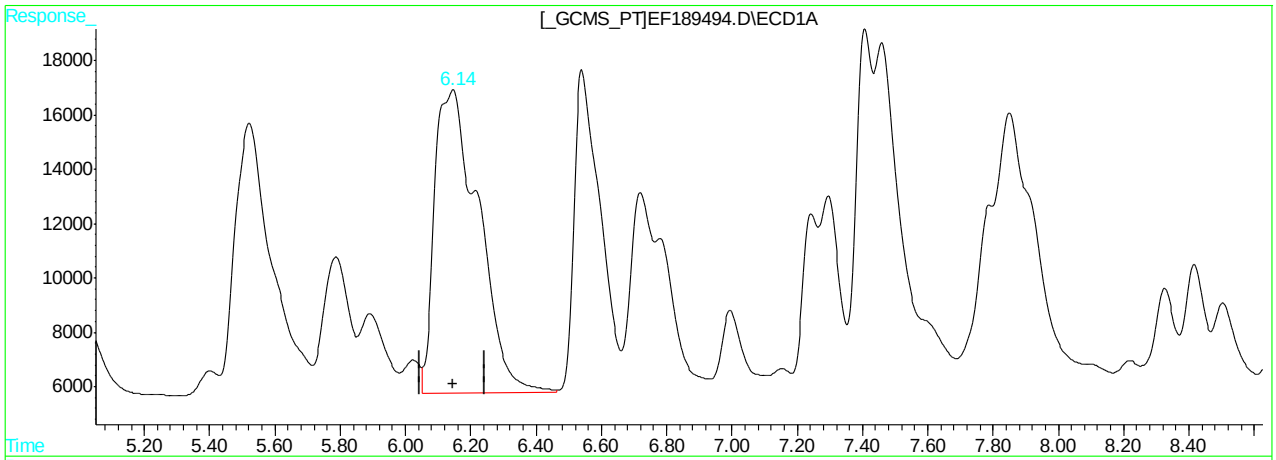
Sample Number:	GEF6434-IC6434	**Method:**	SW846 8082A
Lab FileID:	EF189494.D	**Analyst approved:**	05/02/19 09:37 Tianwei Ruan
Injection Time:	05/01/19 15:57	**Supervisor approved:**	05/03/19 11:16 Gwendolyn Burns

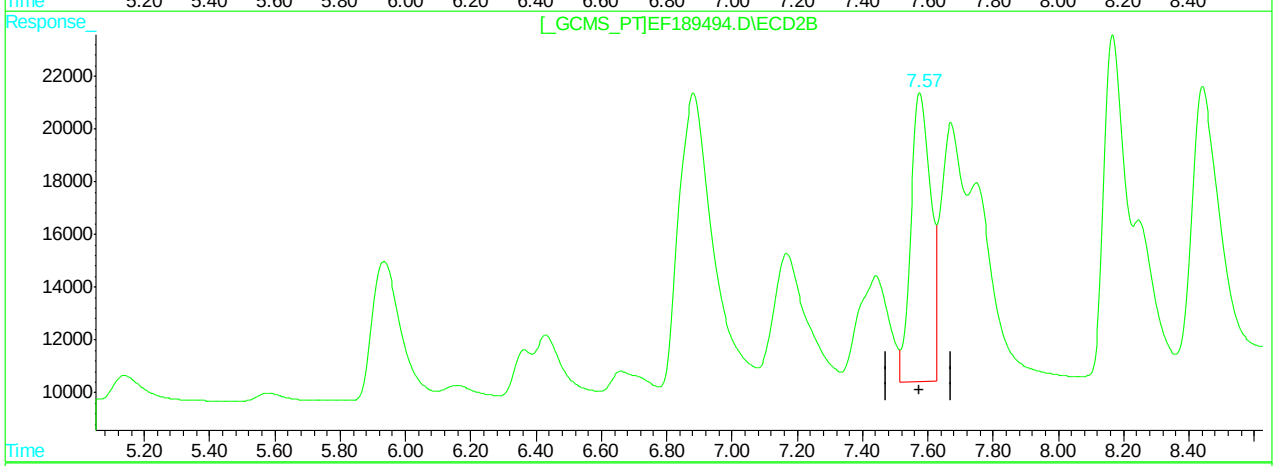
Parameter	CAS	Sig#	R.T. (min.)	Reason
AR1248-C		1	6.14	Split peak

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6434\EF189494.D\ECD1A.CH Vial: 12
Signal #2 : C:\HPCHEM\1\DATA\GEF6434\EF189494.D\ECD2B.CH
Acq On : 1 May 2019 3:57 pm Operator: tianweir
Sample : ic6434-1000 Inst : gcef
Misc : op20033,GEF6434,10.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 1 16:20 2019 Quant Results File: PCB6434.RES

Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed May 01 16:20:49 2019
Response via : Single Level Calibration





QEdit

(19) AR1248-C

6.15min 1225.116PPB

response 1039228

(19) AR1248-C #2

7.58min 840.609PPB

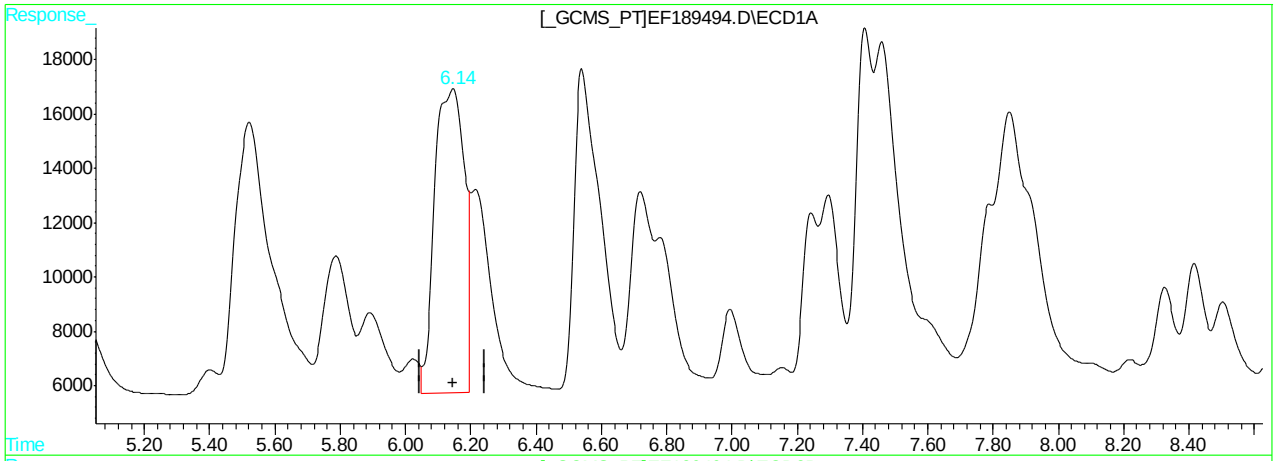
response 463306

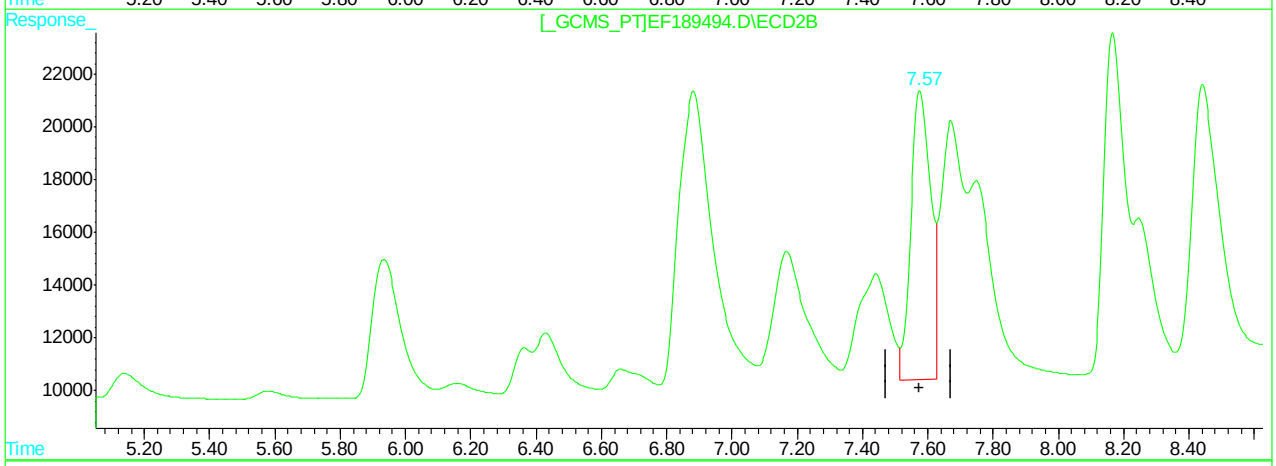
(+) = Expected Retention Time
EF189494.D PCB6434.M Wed May 01 16:21:21 2019 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6434\EF189494.D\ECD1A.CH Vial: 12
Signal #2 : C:\HPCHEM\1\DATA\GEF6434\EF189494.D\ECD2B.CH
Acq On : 1 May 2019 3:57 pm Operator: tianweir
Sample : ic6434-1000 Inst : gcef
Misc : op20033,GEF6434,10.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 1 16:20 2019 Quant Results File: PCB6434.RES

Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed May 01 16:20:49 2019
Response via : Single Level Calibration





QEdit

(19) AR1248-C

6.14min 821.960PPB m

response 697244

(19) AR1248-C #2

7.58min 840.609PPB

response 463306

(+) = Expected Retention Time
EF189494.D PCB6434.M Wed May 01 16:21:31 2019 GCEF

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 05/03/19 11:16

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\GEF6434\EF189495.D\ECD1A.CH Vial: 13
Signal #2 : C:\HPCHEM\1\DATA\GEF6434\EF189495.D\ECD2B.CH
Acq On : 1 May 2019 4:22 pm Operator: tianweir
Sample : icv6434-1000 Inst : gcef
Misc : op20033,GEF6434,10.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 2 8:29 2019 Quant Results File: PCB6434.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Thu May 02 08:24:03 2019
Response via : Initial Calibration
DataAcq Meth : PCB6434.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1) S	Tetrachloro-m-xy	3.55	4.20	577167	683610	43.333	42.128
	Spiked Amount 40.000			Recovery =		108.33%	105.32%
51) S	Decachlorobiphen	14.82	17.23	714819	780759	44.054	42.118
	Spiked Amount 40.000			Recovery =		110.14%	105.30%
	Target Compounds						
41)	AR1016-A	4.11	5.13	383364	402143	1011.048	1000.791
42)	AR1016-B	4.69	5.94	642272	754390	994.395	1025.516
43)	AR1016-C	5.52	6.88	1475982	1622376	999.744	972.720
44)	AR1016-D	5.77	7.17	553567	749126	1028.734	996.673
45)	AR1016-E	6.55	8.17	548479	449222	1023.641	937.765
46)	AR1260-A	10.26	12.26	1220464	1604887	1021.787	1043.136
47)	AR1260-B	10.50	12.45	838741	1235835	1021.654	1055.081
48)	AR1260-C	11.04	13.14	679066	995614	1015.256	1033.454
49)	AR1260-D	11.73	13.72	1982048	2463575	1041.989	1050.559
50)	AR1260-E	12.43	14.61f	1894040	2323117	1021.743m	1016.584

11.5.11

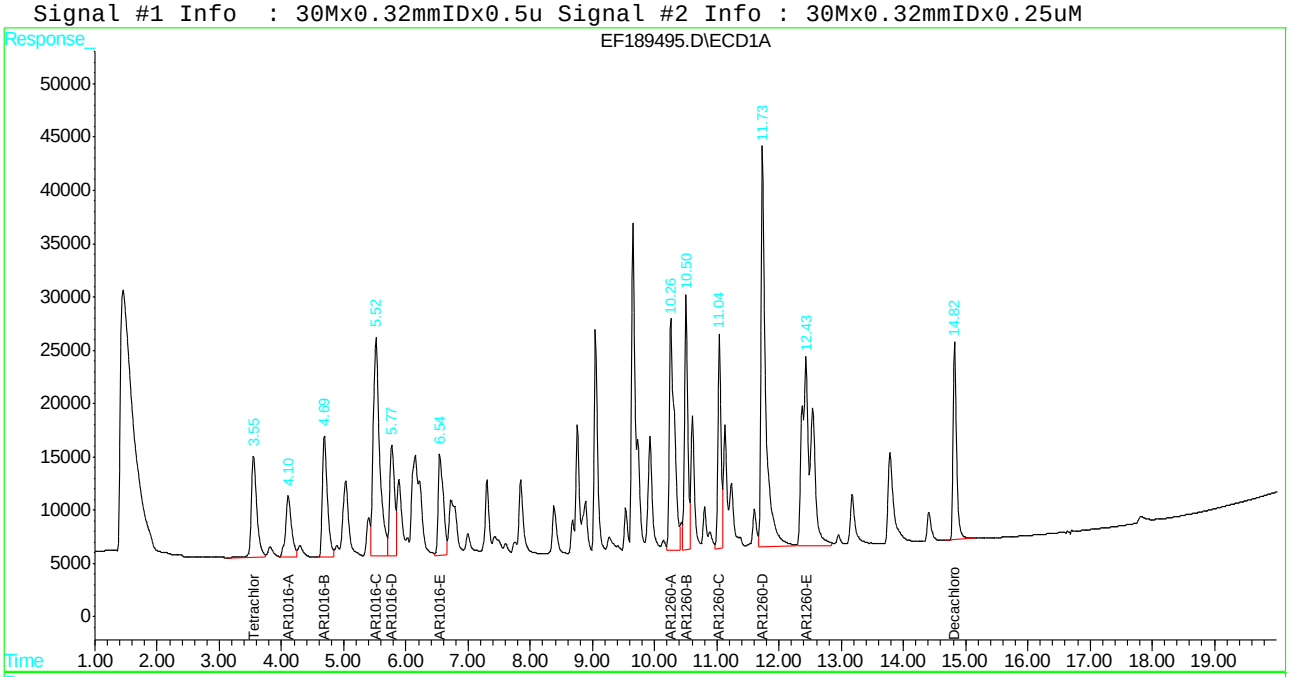
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
EF189495.D PCB6434.M Thu May 02 09:24:06 2019 GCEF Page 1

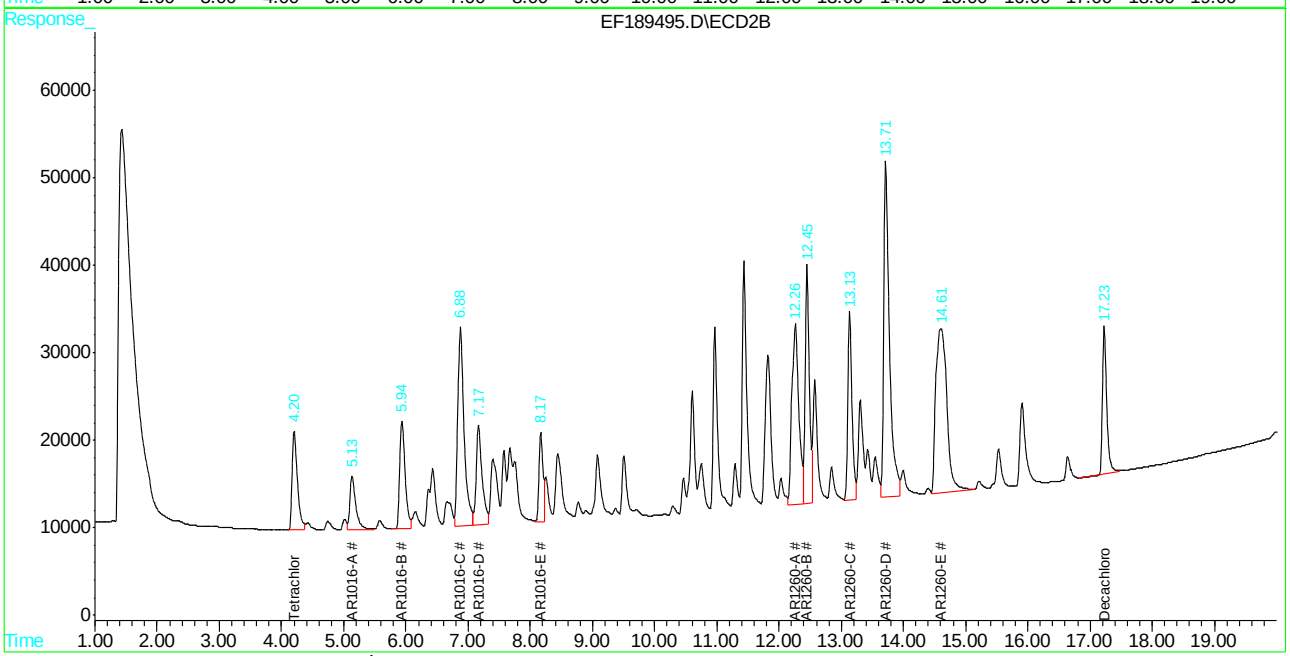
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6434\EF189495.D\ECD1A.CH Vial: 13
Signal #2 : C:\HPCHEM\1\DATA\GEF6434\EF189495.D\ECD2B.CH
Acq On : 1 May 2019 4:22 pm Operator: tianweir
Sample : icv6434-1000 Inst : gcef
Misc : op20033,GEF6434,10.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 2 8:29 2019 Quant Results File: PCB6434.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Thu May 02 08:24:03 2019
Response via : Multiple Level Calibration
DataAcq Meth : PCB6434.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM





JC87363

Manual Integration Approval Summary

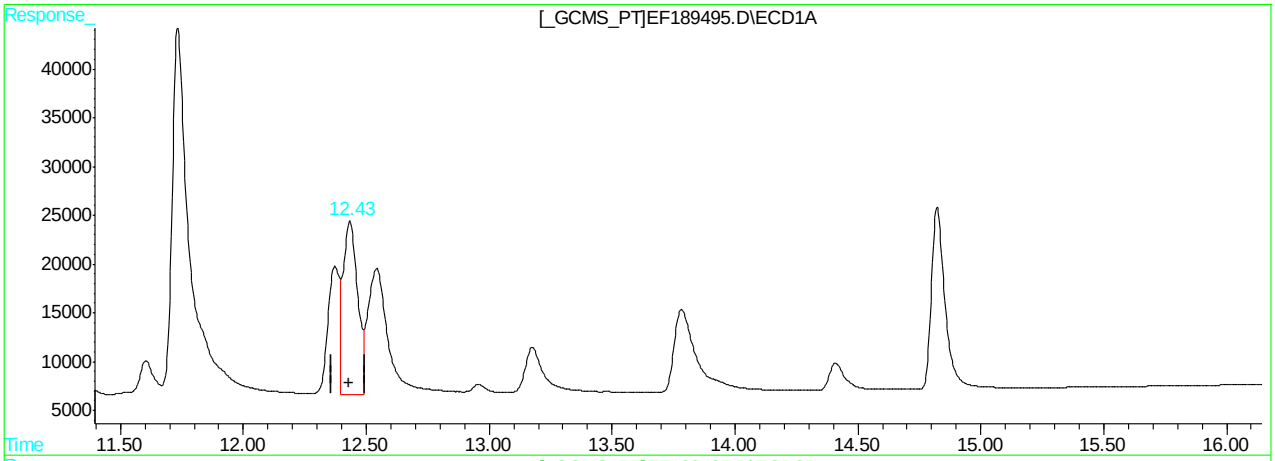
Sample Number:	GEF6434-ICV6434	**Method:**	SW846 8082A
Lab FileID:	EF189495.D	**Analyst approved:**	05/02/19 09:37 Tianwei Ruan
Injection Time:	05/01/19 16:22	**Supervisor approved:**	05/03/19 11:16 Gwendolyn Burns

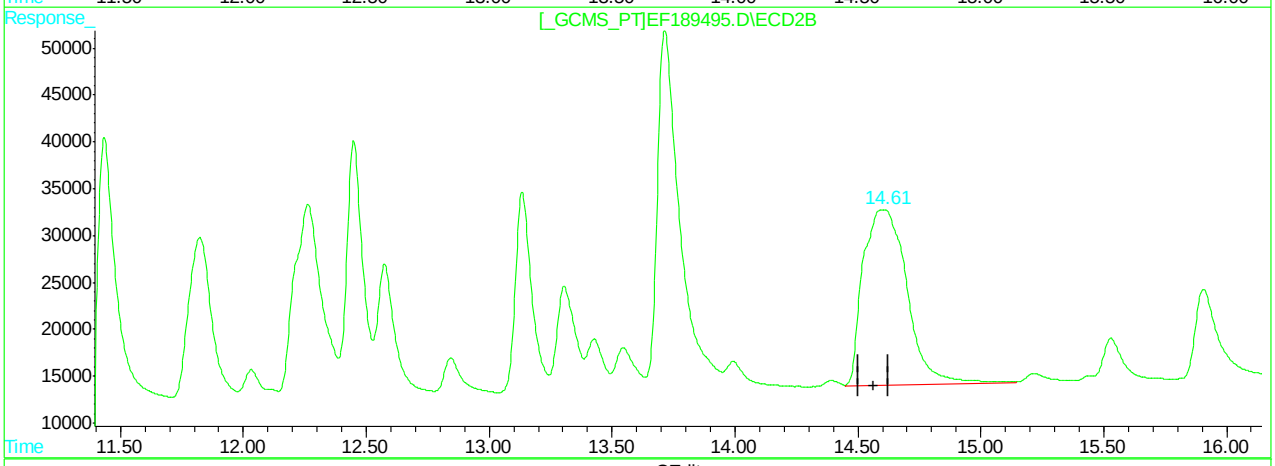
Parameter	CAS	Sig#	R.T. (min.)	Reason
AR1260-E		1	12.43	Split peak

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6434\EF189495.D\ECD1A.CH Vial: 13
Signal #2 : C:\HPCHEM\1\DATA\GEF6434\EF189495.D\ECD2B.CH
Acq On : 1 May 2019 4:22 pm Operator: tianweir
Sample : icv6434-1000 Inst : gcef
Misc : op20033,GEF6434,10.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 2 8:28 2019 Quant Results File: PCB6434.RES

Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Thu May 02 08:24:03 2019
Response via : Multiple Level Calibration





QEdit

(50) AR1260-E

12.43min 392.654PPB

response 727877

(50) AR1260-E #2

14.61min 1016.584PPB

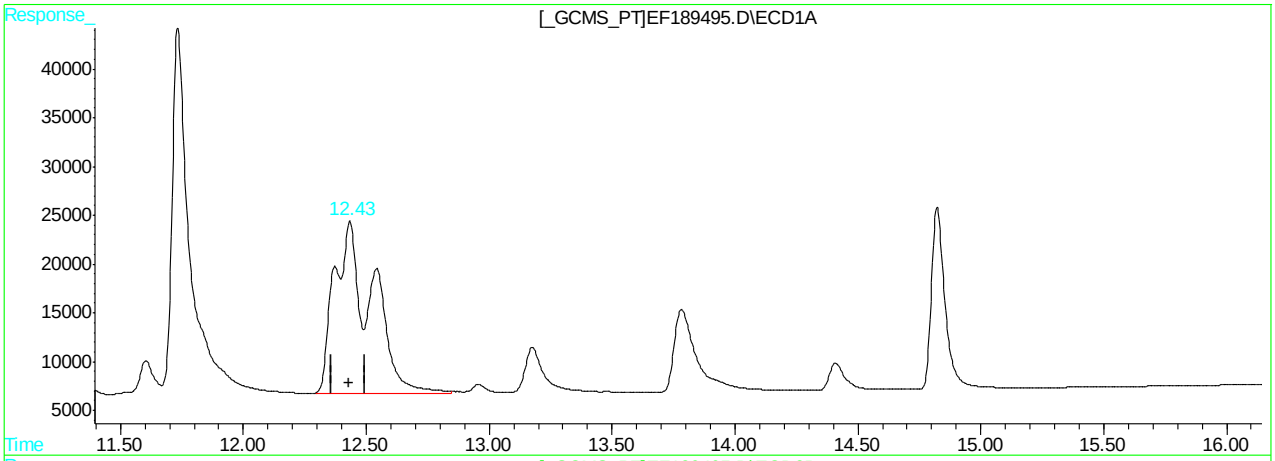
response 2323117

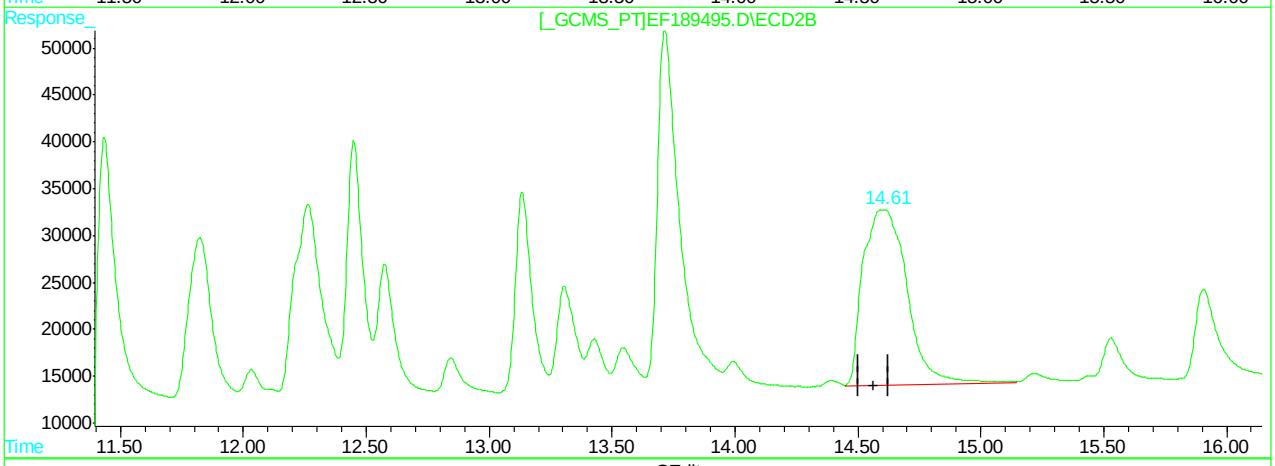
(+) = Expected Retention Time
EF189495.D PCB6434.M Thu May 02 08:29:31 2019 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6434\EF189495.D\ECD1A.CH Vial: 13
Signal #2 : C:\HPCHEM\1\DATA\GEF6434\EF189495.D\ECD2B.CH
Acq On : 1 May 2019 4:22 pm Operator: tianweir
Sample : icv6434-1000 Inst : gcef
Misc : op20033,GEF6434,10.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 2 8:28 2019 Quant Results File: PCB6434.RES

Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Thu May 02 08:24:03 2019
Response via : Multiple Level Calibration





QEdit

(50) AR1260-E

12.43min 1021.743PPB m

response 1894040

(50) AR1260-E #2

14.61min 1016.584PPB

response 2323117

(+) = Expected Retention Time
EF189495.D PCB6434.M Thu May 02 08:29:35 2019 GCEF

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 05/03/19 11:16

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\GEF6434\EF189497.D\ECD1A.CH Vial: 15
Signal #2 : C:\HPCHEM\1\DATA\GEF6434\EF189497.D\ECD2B.CH
Acq On : 1 May 2019 5:12 pm Operator: tianweir
Sample : icv6434-1000 Inst : gcef
Misc : op20033,GEF6434,10.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 2 8:30 2019 Quant Results File: PCB6434.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Thu May 02 08:24:03 2019
Response via : Initial Calibration
DataAcq Meth : PCB6434.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1) S	Tetrachloro-m-xy	3.54	4.20	665329	774051	49.952	47.702
	Spiked Amount 40.000			Recovery =		124.88%	119.26%
51) S	Decachlorobiphen	14.82	17.23	787699	846558	48.546	45.668
	Spiked Amount 40.000			Recovery =		121.36%	114.17%
	Target Compounds						
7)	AR1232-A	4.10	5.13	490587	503862	1014.561	1000.104
8)	AR1232-B	4.69	5.94	299152	357675	1021.227	1018.633
9)	AR1232-C	5.52	6.88	681244	739880	1019.692	1001.255
10)	AR1232-D	5.78	7.17	248928	336057	1021.828	1012.828
11)	AR1232-E	6.55	8.17	225133	185686	1023.690	1014.594
31)	AR1262-A	9.65	11.44	760376	1136213	962.780	969.440
32)	AR1262-B	10.50	12.45	1182511	1649833	973.994	962.826
33)	AR1262-C	11.04	13.13	848530	1206915	971.606	965.113
34)	AR1262-D	11.73	13.72	2197457	2653372	973.436	956.228
35)	AR1262-E	12.43	14.52	2505692	3131851	962.658m	960.878m

11.5.12 11

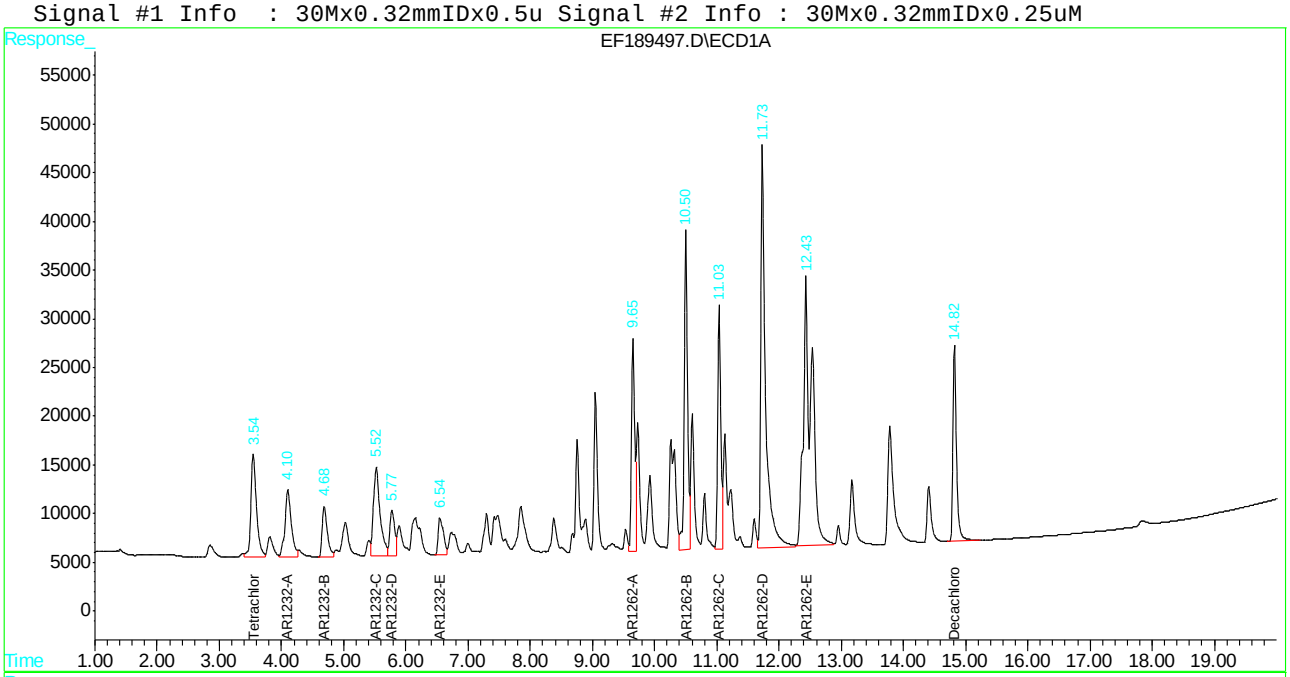
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
EF189497.D PCB6434.M Thu May 02 09:24:11 2019 GCEF Page 1

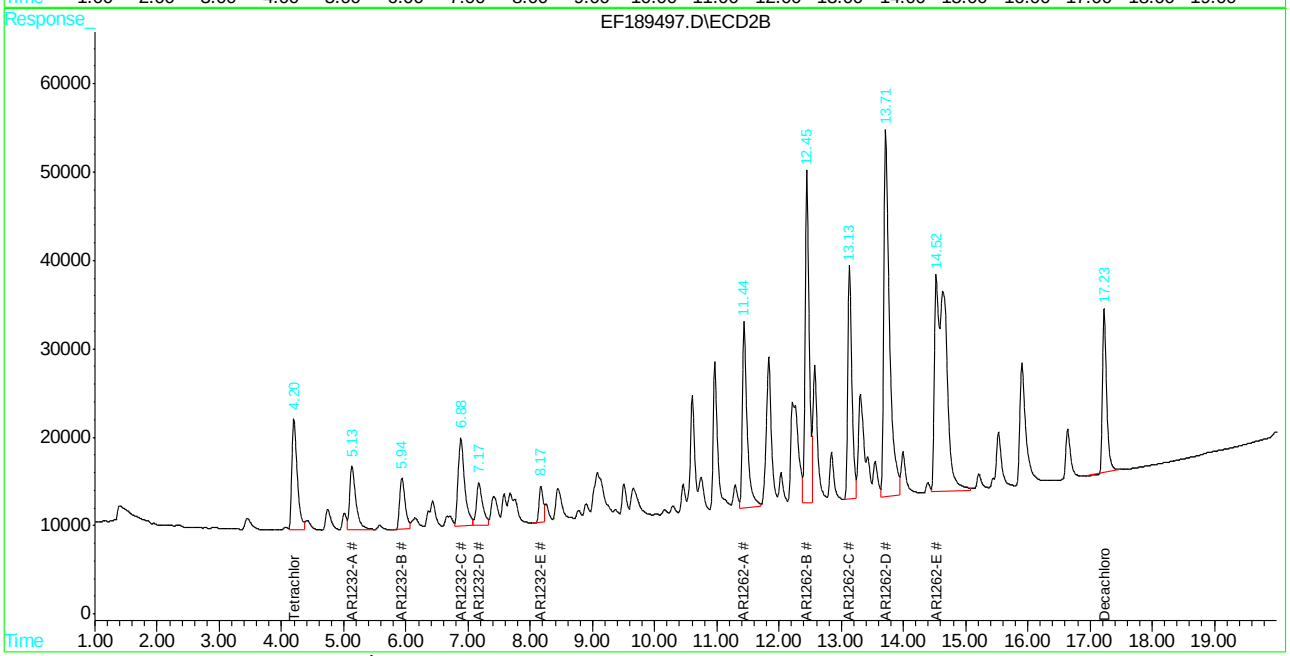
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6434\EF189497.D\ECD1A.CH Vial: 15
Signal #2 : C:\HPCHEM\1\DATA\GEF6434\EF189497.D\ECD2B.CH
Acq On : 1 May 2019 5:12 pm Operator: tianweir
Sample : icv6434-1000 Inst : gcef
Misc : op20033,GEF6434,10.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 2 8:30 2019 Quant Results File: PCB6434.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Thu May 02 08:24:03 2019
Response via : Multiple Level Calibration
DataAcq Meth : PCB6434.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM





JC87363

Manual Integration Approval Summary

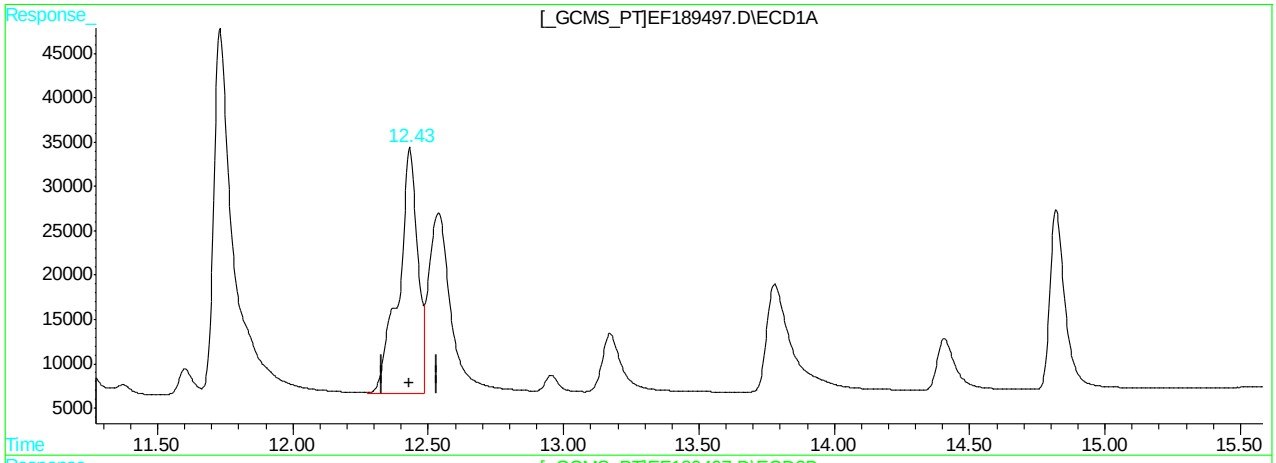
Sample Number:	GEF6434-ICV6434	**Method:**	SW846 8082A
Lab FileID:	EF189497.D	**Analyst approved:**	05/02/19 09:37 Tianwei Ruan
Injection Time:	05/01/19 17:12	**Supervisor approved:**	05/03/19 11:16 Gwendolyn Burns

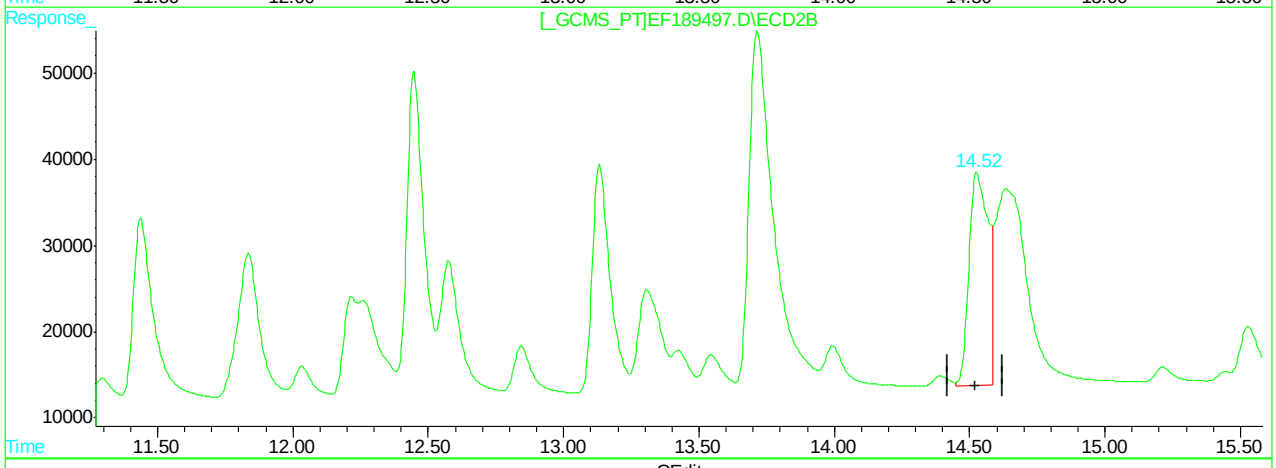
Parameter	CAS	Sig#	R.T. (min.)	Reason
AR1262-E		1	12.43	Split peak
AR1262-E		2	14.52	Split peak

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6434\EF189497.D\ECD1A.CH Vial: 15
Signal #2 : C:\HPCHEM\1\DATA\GEF6434\EF189497.D\ECD2B.CH
Acq On : 1 May 2019 5:12 pm Operator: tianweir
Sample : icv6434-1000 Inst : gcef
Misc : op20033,GEF6434,10.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 2 8:29 2019 Quant Results File: PCB6434.RES

Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Thu May 02 08:24:03 2019
Response via : Single Level Calibration





QEdit

(35) AR1262-E

12.43min 521.577PPB

response 1357606

(35) AR1262-E #2

14.53min 369.279PPB

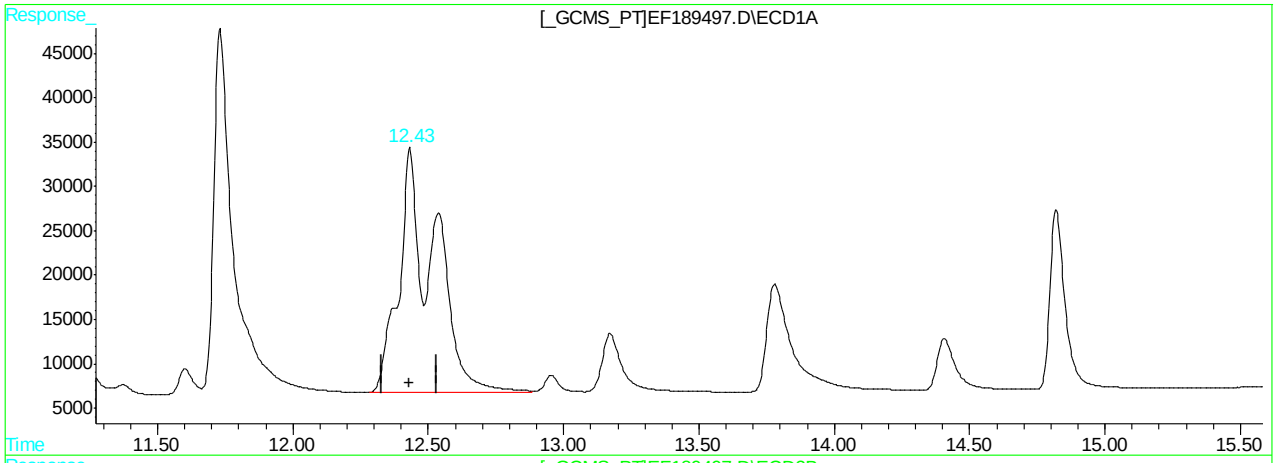
response 1203616

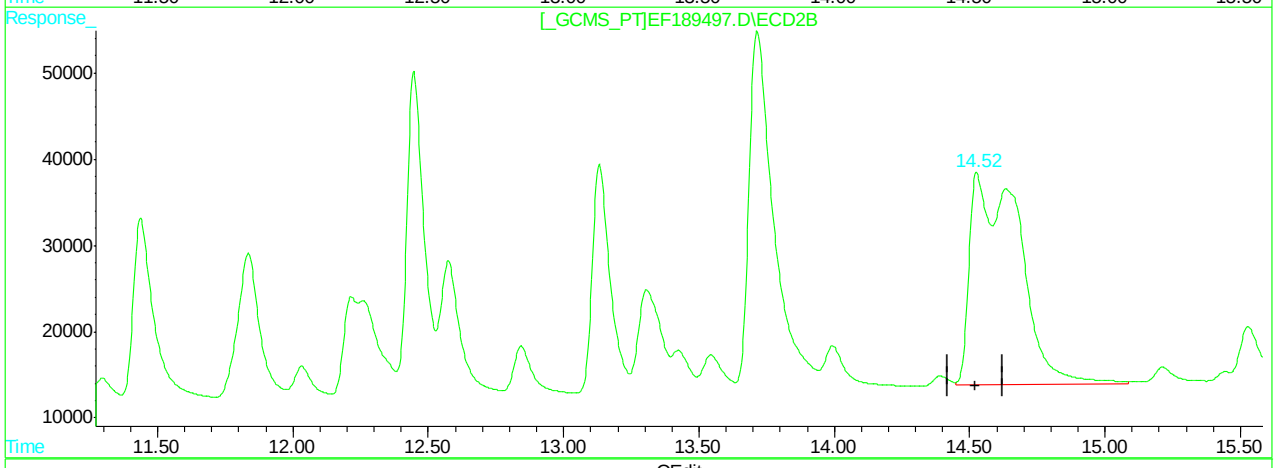
(+) = Expected Retention Time
EF189497.D PCB6434.M Thu May 02 08:30:19 2019 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6434\EF189497.D\ECD1A.CH Vial: 15
Signal #2 : C:\HPCHEM\1\DATA\GEF6434\EF189497.D\ECD2B.CH
Acq On : 1 May 2019 5:12 pm Operator: tianweir
Sample : icv6434-1000 Inst : gcef
Misc : op20033,GEF6434,10.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 2 8:29 2019 Quant Results File: PCB6434.RES

Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Thu May 02 08:24:03 2019
Response via : Single Level Calibration





QEdit

(35) AR1262-E

12.43min 962.658PPB m

response 2505692

(35) AR1262-E #2

14.52min 960.878PPB m

response 3131851

(+) = Expected Retention Time
EF189497.D PCB6434.M Thu May 02 08:30:28 2019 GCEF

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\GEF6434\EF189498.D\ECD1A.CH Vial: 16
Signal #2 : C:\HPCHEM\1\DATA\GEF6434\EF189498.D\ECD2B.CH
Acq On : 1 May 2019 5:37 pm Operator: tianweir
Sample : icv6434-1000 Inst : gcef
Misc : op20033,GEF6434,10.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 2 8:30 2019 Quant Results File: PCB6434.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Thu May 02 08:24:03 2019
Response via : Initial Calibration
DataAcq Meth : PCB6434.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1) S	Tetrachloro-m-xy	3.55	4.20	628224	759909	47.167	46.830
	Spiked Amount 40.000			Recovery =		117.92%	117.07%
51) S	Decachlorobiphen	14.81	17.21	1918028	2202913	118.207	118.837
	Spiked Amount 40.000			Recovery =		295.52%	297.09%
	Target Compounds						
12)	AR1242-A	4.69	5.94	517925	613457	972.956	967.962
13)	AR1242-B	5.52	6.88	1185527	1299144	970.094	947.485
14)	AR1242-C	5.77	7.17	439960	604374	969.195	957.751
15)	AR1242-D	6.54	8.17	441438	355645	973.818	943.526
16)	AR1242-E	7.47	9.13	558610	616479	975.590	923.197
36)	AR1268-A	12.43	14.51	2142559	2856789	962.002	958.070
37)	AR1268-B	12.52	14.62	2578584	3389354	977.186	978.405
38)	AR1268-C	12.95	15.20	1904118	2457643	966.418	968.261
39)	AR1268-D	13.76	15.89	851899	988577	952.632	967.560
40)	AR1268-E	14.39	16.62	5333648	6682204	975.241	971.617

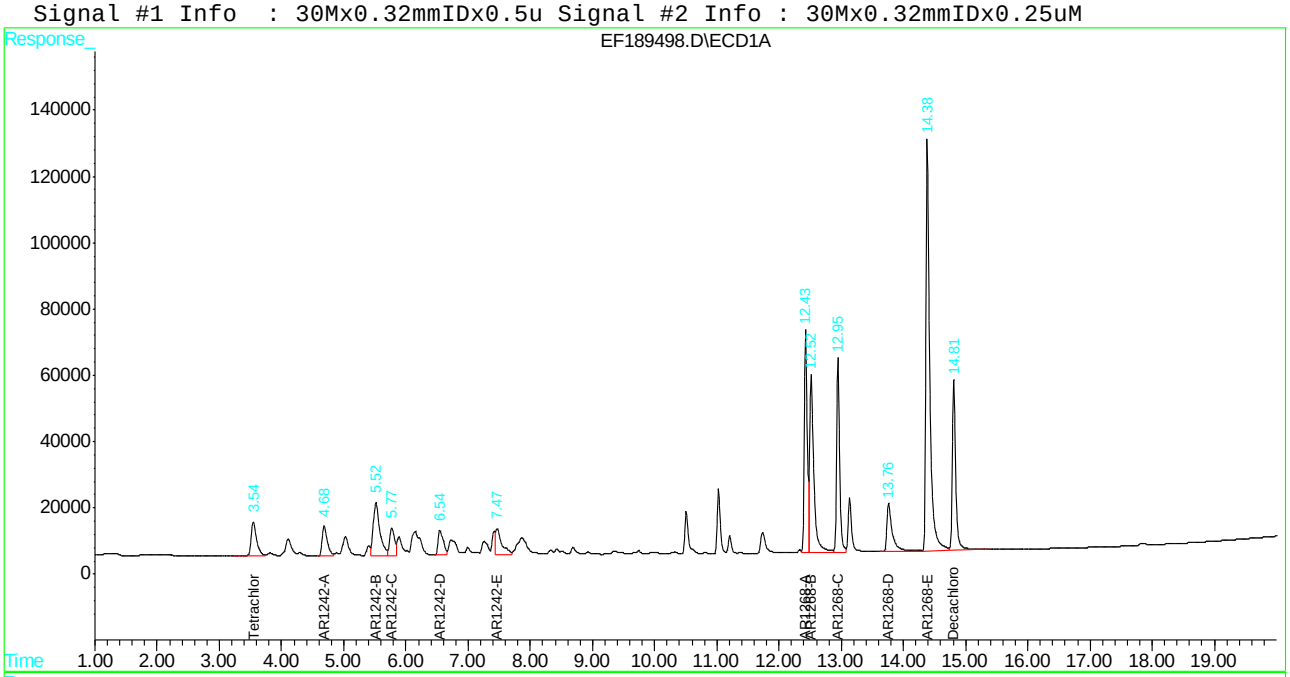
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
EF189498.D PCB6434.M Thu May 02 09:24:16 2019 GCEF Page 1

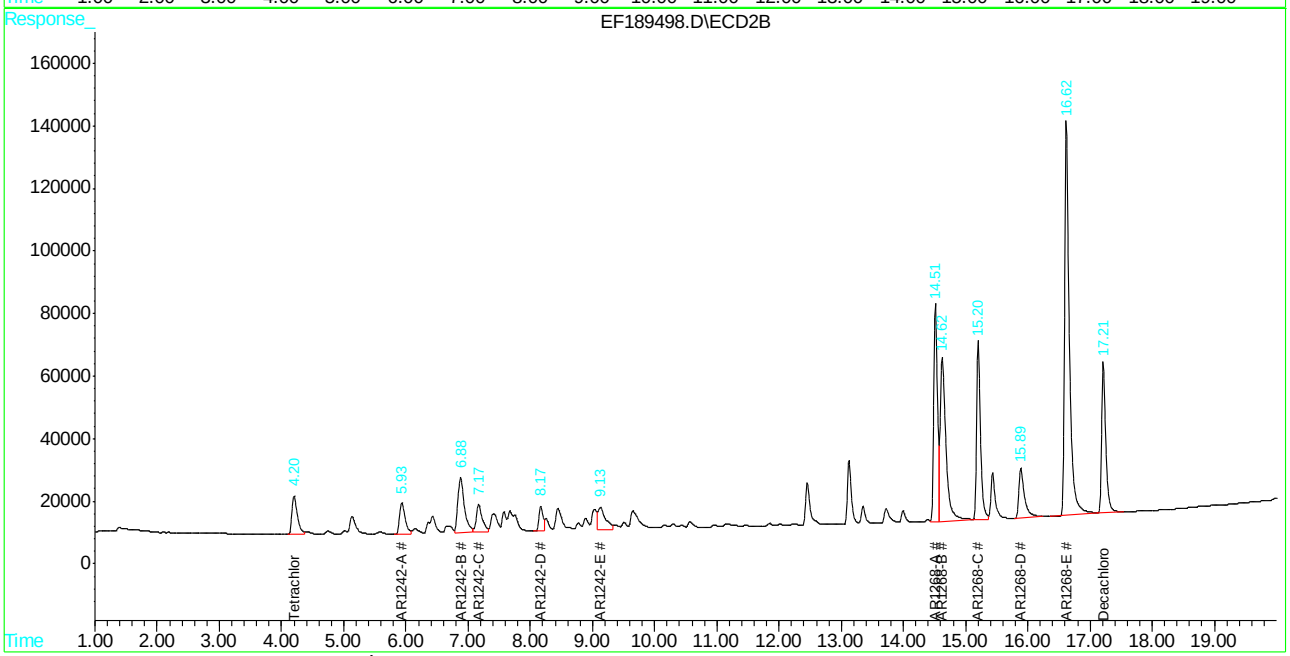
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6434\EF189498.D\ECD1A.CH Vial: 16
Signal #2 : C:\HPCHEM\1\DATA\GEF6434\EF189498.D\ECD2B.CH
Acq On : 1 May 2019 5:37 pm Operator: tianweir
Sample : icv6434-1000 Inst : gcef
Misc : op20033,GEF6434,10.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 2 8:30 2019 Quant Results File: PCB6434.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Thu May 02 08:24:03 2019
Response via : Multiple Level Calibration
DataAcq Meth : PCB6434.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM





SGS JC87363

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 05/03/19 11:16

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\GEF6434\EF189499.D\ECD1A.CH Vial: 17
Signal #2 : C:\HPCHEM\1\DATA\GEF6434\EF189499.D\ECD2B.CH
Acq On : 1 May 2019 6:02 pm Operator: tianweir
Sample : icv6434-1000 Inst : gcef
Misc : op20033,GEF6434,10.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 2 8:31 2019 Quant Results File: PCB6434.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Thu May 02 08:24:03 2019
Response via : Initial Calibration
DataAcq Meth : PCB6434.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1) S	Tetrachloro-m-xy	3.54	4.19	626695	796482	47.052	49.084
	Spiked Amount 40.000			Recovery =		117.63%	122.71%
51) S	Decachlorobiphen	14.82	17.22	806998	881926	49.735	47.576m
	Spiked Amount 40.000			Recovery =		124.34%	118.94%
	Target Compounds						
17)	AR1248-A	4.68	5.92	247711	293905	930.303	931.437
18)	AR1248-B	5.52	6.88	780889	790327	983.828	959.313
19)	AR1248-C	6.14	7.57	742206	472259	1064.486	1019.325
20)	AR1248-D	6.53	8.16	689646	573299	1050.971	1017.371
21)	AR1248-E	6.71	8.43	372487	748910	1133.262m	1043.360
22)	AR1248-F	7.45	9.11	846883	1014963	1081.679	1052.908
23)	AR1248-G	7.84	9.63	1197651	1044569	1082.521	1062.559

11.5.14 11

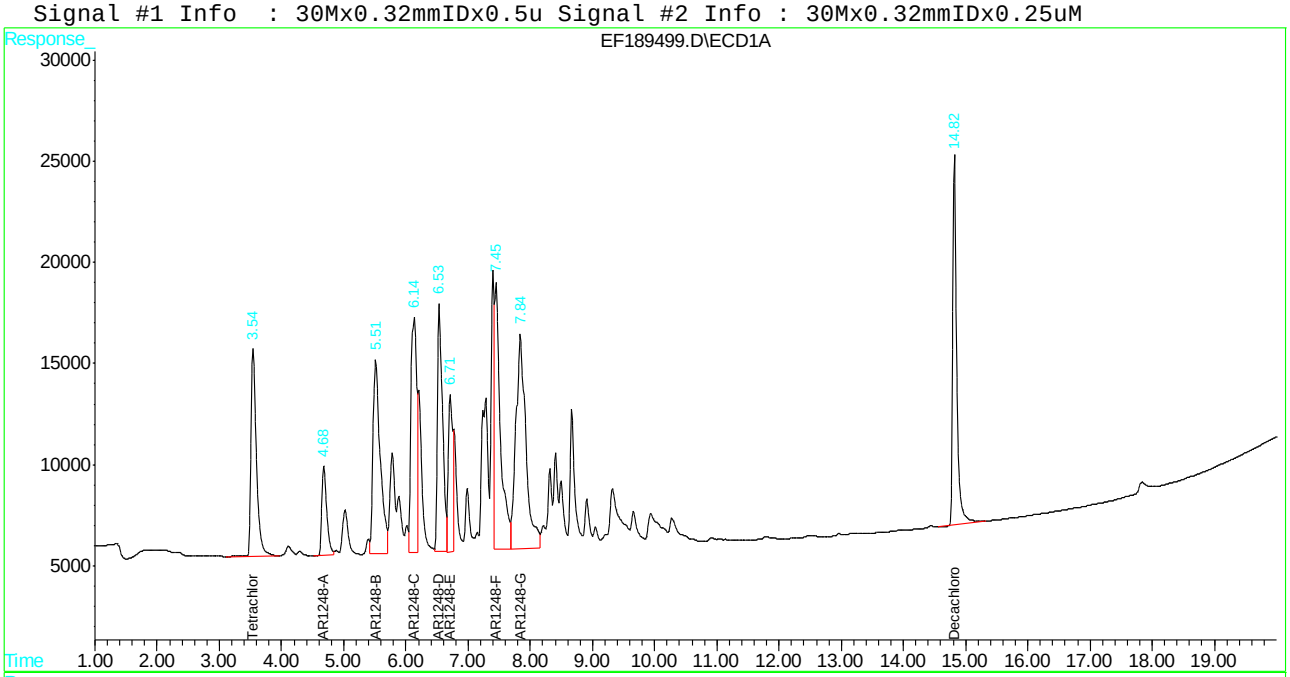
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
EF189499.D PCB6434.M Thu May 02 09:24:21 2019 GCEF Page 1

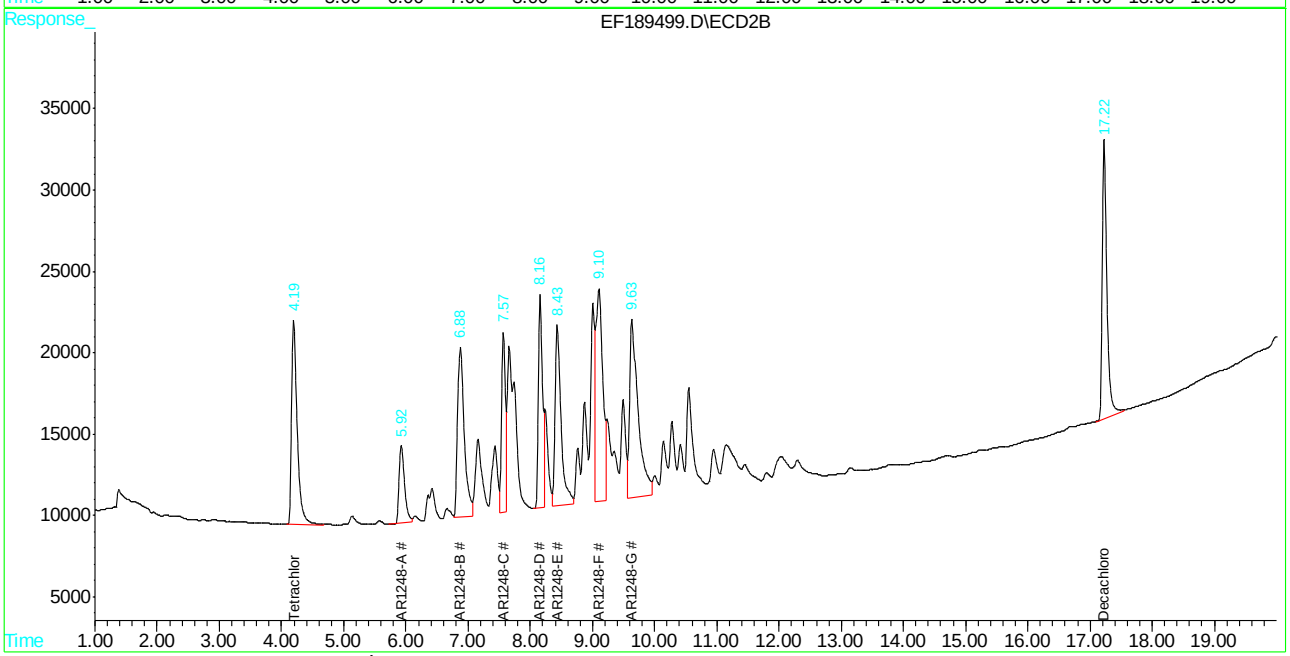
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6434\EF189499.D\ECD1A.CH Vial: 17
Signal #2 : C:\HPCHEM\1\DATA\GEF6434\EF189499.D\ECD2B.CH
Acq On : 1 May 2019 6:02 pm Operator: tianweir
Sample : icv6434-1000 Inst : gcef
Misc : op20033,GEF6434,10.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 2 8:31 2019 Quant Results File: PCB6434.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Thu May 02 08:24:03 2019
Response via : Multiple Level Calibration
DataAcq Meth : PCB6434.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM





SGS JC87363

Manual Integration Approval Summary

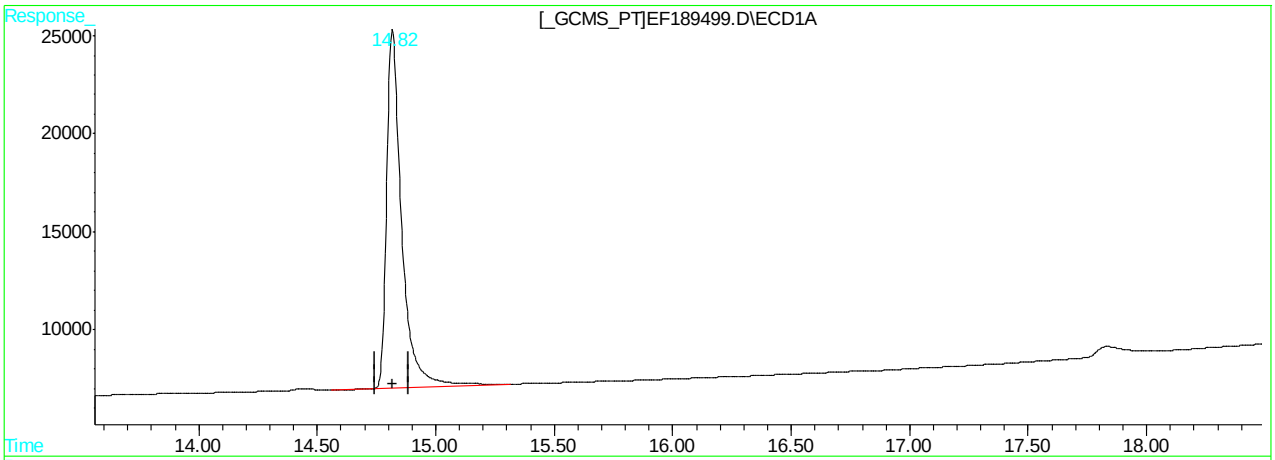
Sample Number:	GEF6434-ICV6434	**Method:**	SW846 8082A
Lab FileID:	EF189499.D	**Analyst approved:**	05/02/19 09:37 Tianwei Ruan
Injection Time:	05/01/19 18:02	**Supervisor approved:**	05/03/19 11:16 Gwendolyn Burns

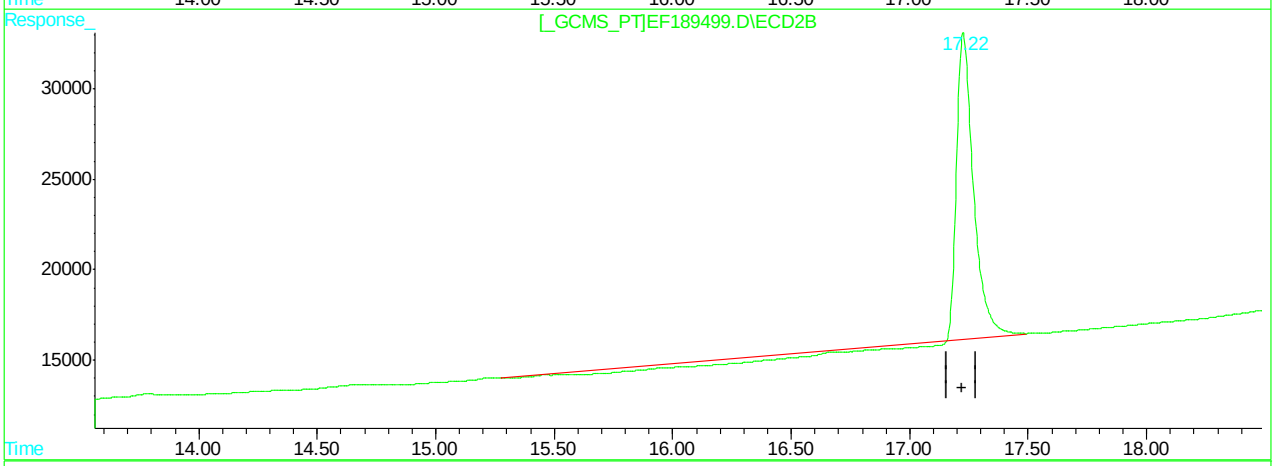
Parameter	CAS	Sig#	R.T. (min.)	Reason
AR1248-E		1	6.71	Split peak
Decachlorobiphenyl	2051-24-3	2	17.22	Poorly defined baseline

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6434\EF189499.D\ECD1A.CH Vial: 17
Signal #2 : C:\HPCHEM\1\DATA\GEF6434\EF189499.D\ECD2B.CH
Acq On : 1 May 2019 6:02 pm Operator: tianweir
Sample : icv6434-1000 Inst : gcef
Misc : op20033,GEF6434,10.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 2 8:31 2019 Quant Results File: PCB6434.RES

Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Thu May 02 08:24:03 2019
Response via : Multiple Level Calibration





QEdit

(51) Decachlorobiphenyl (S)

14.82min 49.735PPB

response 806998

(51) Decachlorobiphenyl #2 (S)

17.23min 34.200PPB

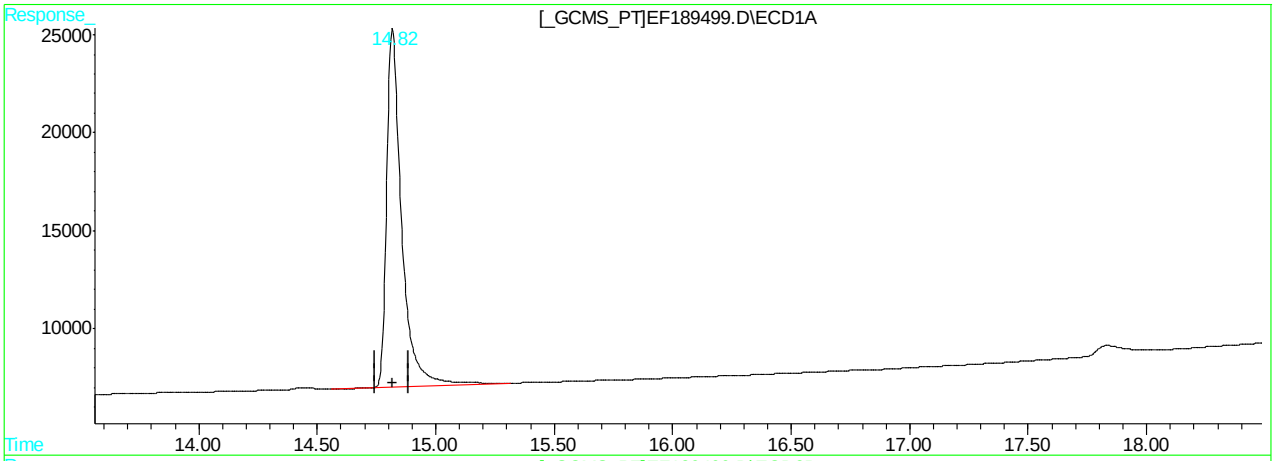
response 633983

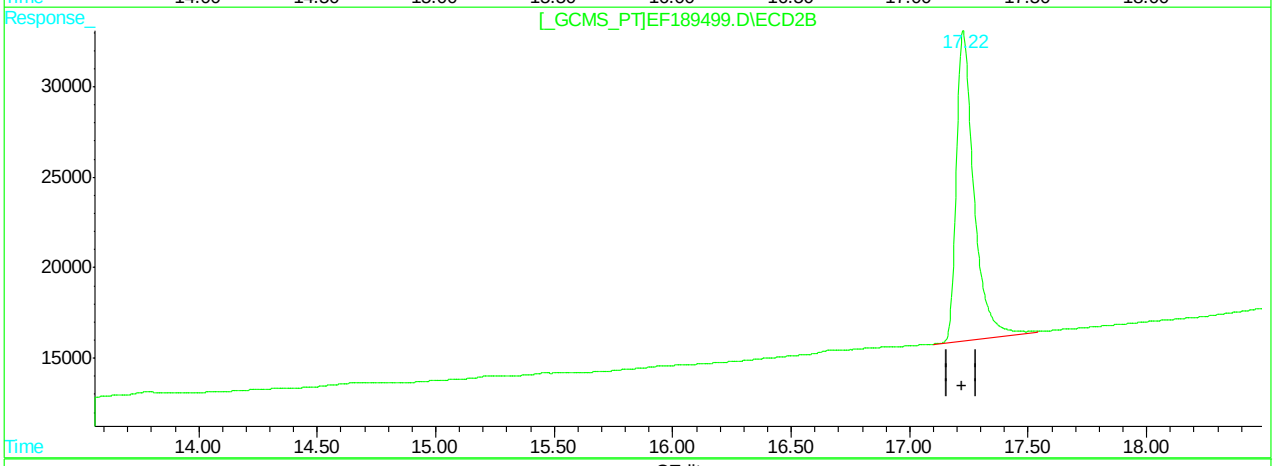
(+) = Expected Retention Time
EF189499.D PCB6434.M Thu May 02 08:31:31 2019 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6434\EF189499.D\ECD1A.CH Vial: 17
Signal #2 : C:\HPCHEM\1\DATA\GEF6434\EF189499.D\ECD2B.CH
Acq On : 1 May 2019 6:02 pm Operator: tianweir
Sample : icv6434-1000 Inst : gcef
Misc : op20033,GEF6434,10.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 2 8:31 2019 Quant Results File: PCB6434.RES

Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Thu May 02 08:24:03 2019
Response via : Multiple Level Calibration





QEdit

(51) Decachlorobiphenyl (S)

14.82min 49.735PPB

response 806998

(51) Decachlorobiphenyl #2 (S)

17.22min 47.576PPB m

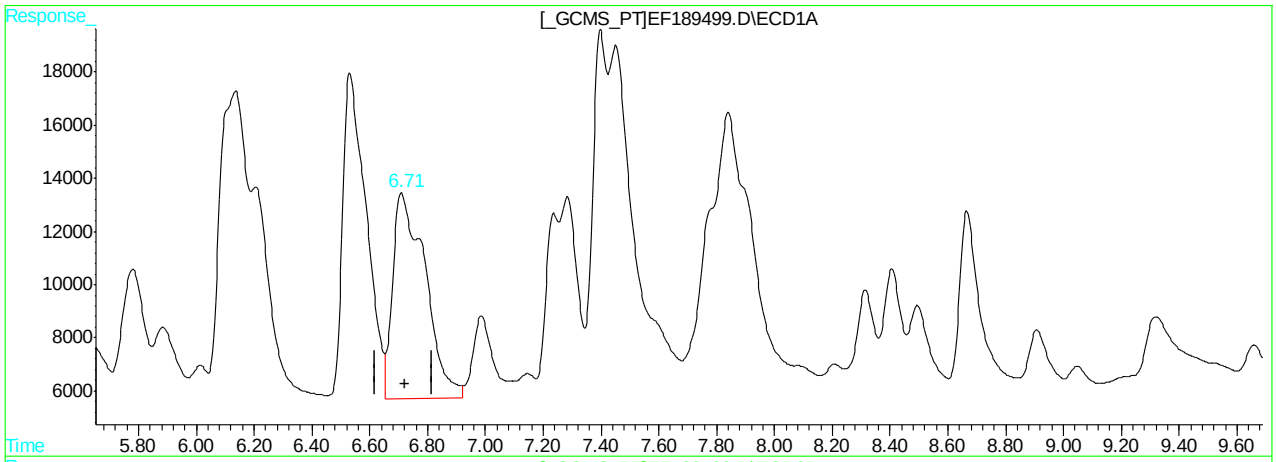
response 881926

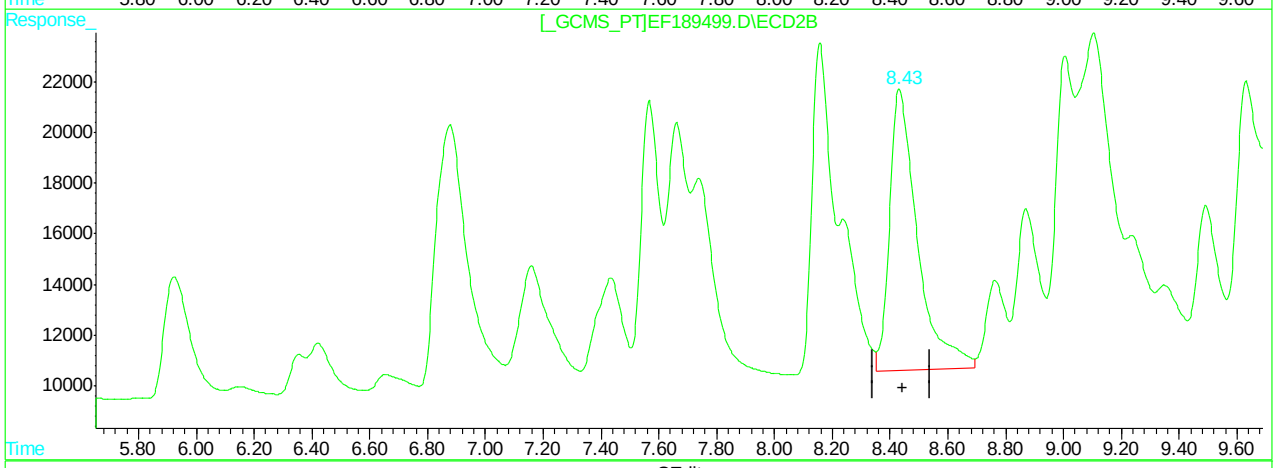
(+) = Expected Retention Time
EF189499.D PCB6434.M Thu May 02 08:31:35 2019 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6434\EF189499.D\ECD1A.CH Vial: 17
Signal #2 : C:\HPCHEM\1\DATA\GEF6434\EF189499.D\ECD2B.CH
Acq On : 1 May 2019 6:02 pm Operator: tianweir
Sample : icv6434-1000 Inst : gcef
Misc : op20033,GEF6434,10.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 2 8:31 2019 Quant Results File: PCB6434.RES

Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Thu May 02 08:24:03 2019
Response via : Single Level Calibration





QEdit

(21) AR1248-E

6.71min 1830.455PPB

response 601645

(21) AR1248-E #2

8.43min 1043.360PPB

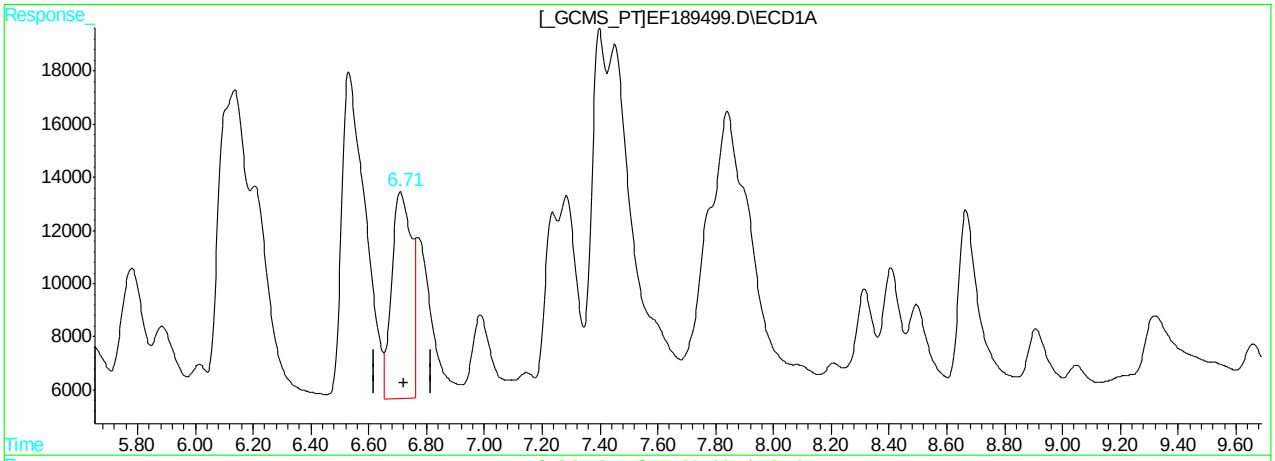
response 748910

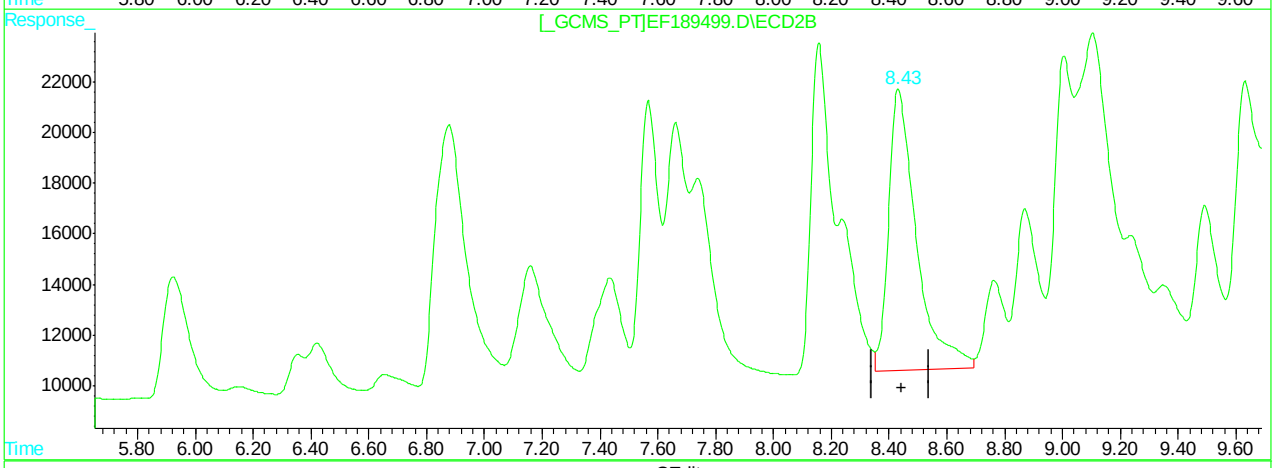
(+) = Expected Retention Time
EF189499.D PCB6434.M Thu May 02 08:31:47 2019 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6434\EF189499.D\ECD1A.CH Vial: 17
Signal #2 : C:\HPCHEM\1\DATA\GEF6434\EF189499.D\ECD2B.CH
Acq On : 1 May 2019 6:02 pm Operator: tianweir
Sample : icv6434-1000 Inst : gcef
Misc : op20033,GEF6434,10.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 2 8:31 2019 Quant Results File: PCB6434.RES

Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Thu May 02 08:24:03 2019
Response via : Single Level Calibration





QEdit

(21) AR1248-E

6.71min 1133.262PPB m

response 372487

(21) AR1248-E #2

8.43min 1043.360PPB

response 748910

(+) = Expected Retention Time
EF189499.D PCB6434.M Thu May 02 08:31:53 2019 GCEF

Manual Integrations APPROVED
(compounds with "m" flag)
Gwendolyn Burns
05/03/19 11:16

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\GEF6434\EF189501.D\ECD1A.CH Vial: 14
Signal #2 : C:\HPCHEM\1\DATA\GEF6434\EF189501.D\ECD2B.CH
Acq On : 2 May 2019 8:49 am Operator: tianweir
Sample : icv6434-1000 Inst : gcef
Misc : op20033,GEF6434,10.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 2 9:22 2019 Quant Results File: PCB6434.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Thu May 02 08:24:03 2019
Response via : Initial Calibration
DataAcq Meth : PCB6434.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1) S	Tetrachloro-m-xy	3.54	4.20	733738	871451	55.088	53.704
	Spiked Amount 40.000			Recovery =		137.72%	134.26%
51) S	Decachlorobiphen	14.82	17.23	848978	979919	52.322	52.862m
	Spiked Amount 40.000			Recovery =		130.81%	132.16%
	Target Compounds						
2)	AR1221-A	2.85	3.45	152372	165296	1009.094	1044.533
3)	AR1221-B	3.81	4.74	185454	216977	923.133	936.844
4)	AR1221-C	4.09	5.13	598135	611034	915.012	966.021
5)	AR1221-D	4.68	5.94	78598	83121	820.693m	833.993
6)	AR1221-E	4.97	6.12	118509	88117	859.652	962.816
24)	AR1254-A	7.29	9.08	630187	1225876	1031.103	1042.029
25)	AR1254-B	7.83	9.49	782325	931160	1023.036	1031.066
26)	AR1254-C	8.40	10.28	564616	636696	1007.763	1028.323
27)	AR1254-D	8.66	10.54	1049200	1375773	1023.969	1037.561
28)	AR1254-E	9.28	11.08	876813	1041033	1005.412	1038.731
29)	AR1254-F	9.65	11.79	836241	853175	1023.057	1046.879m
30)	AR1254-G	10.25	12.27	1018731	1393752	1028.076	1050.355

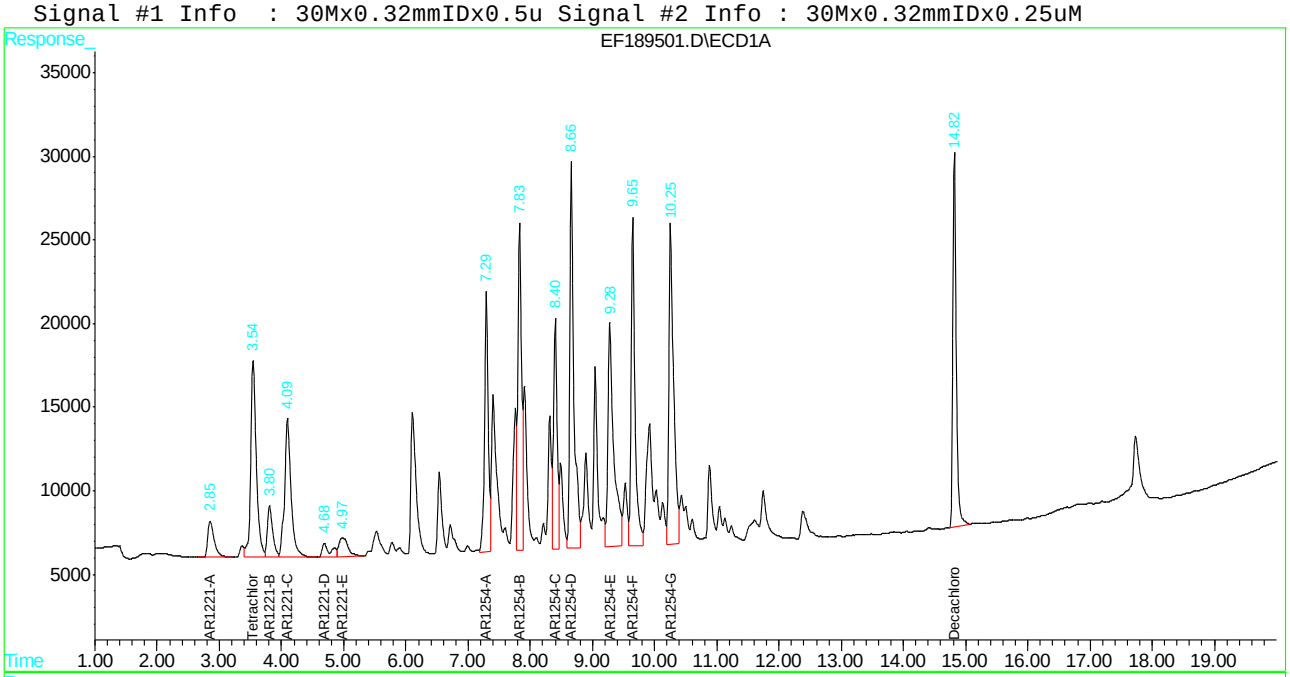
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
EF189501.D PCB6434.M Thu May 02 09:24:38 2019 GCEF Page 1

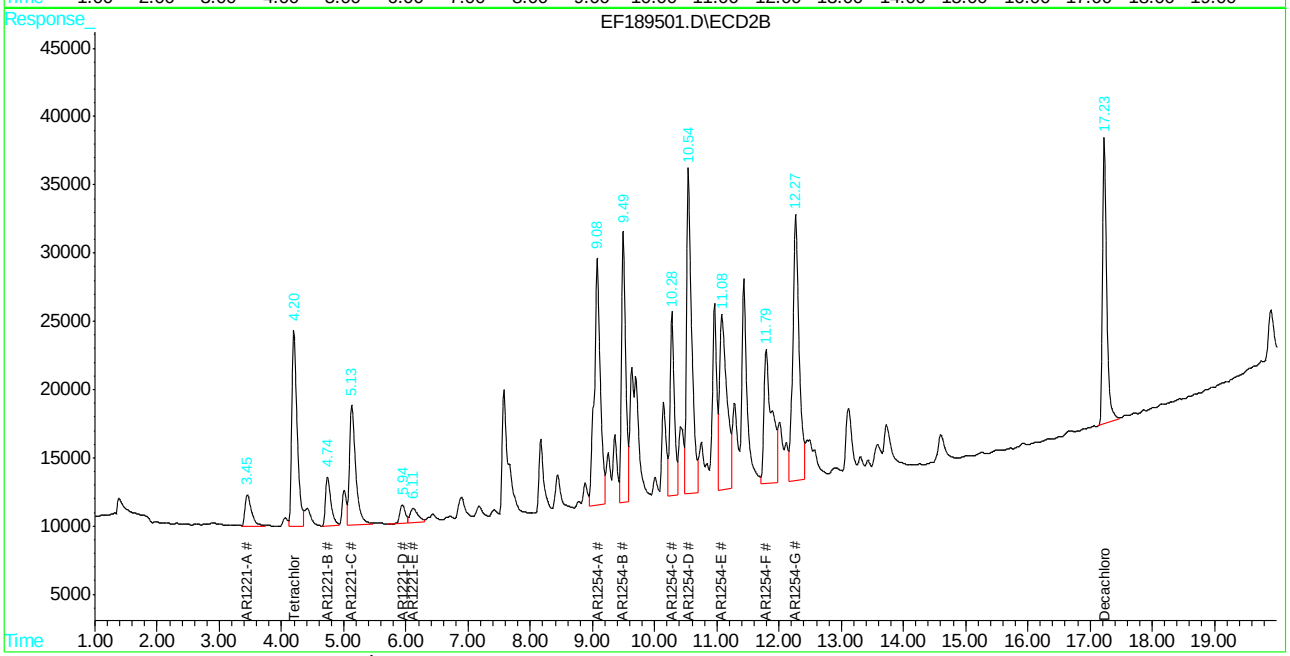
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6434\EF189501.D\ECD1A.CH Vial: 14
Signal #2 : C:\HPCHEM\1\DATA\GEF6434\EF189501.D\ECD2B.CH
Acq On : 2 May 2019 8:49 am Operator: tianweir
Sample : icv6434-1000 Inst : gcef
Misc : op20033,GEF6434,10.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 2 9:22 2019 Quant Results File: PCB6434.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Thu May 02 08:24:03 2019
Response via : Multiple Level Calibration
DataAcq Meth : PCB6434.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM





Manual Integration Approval Summary

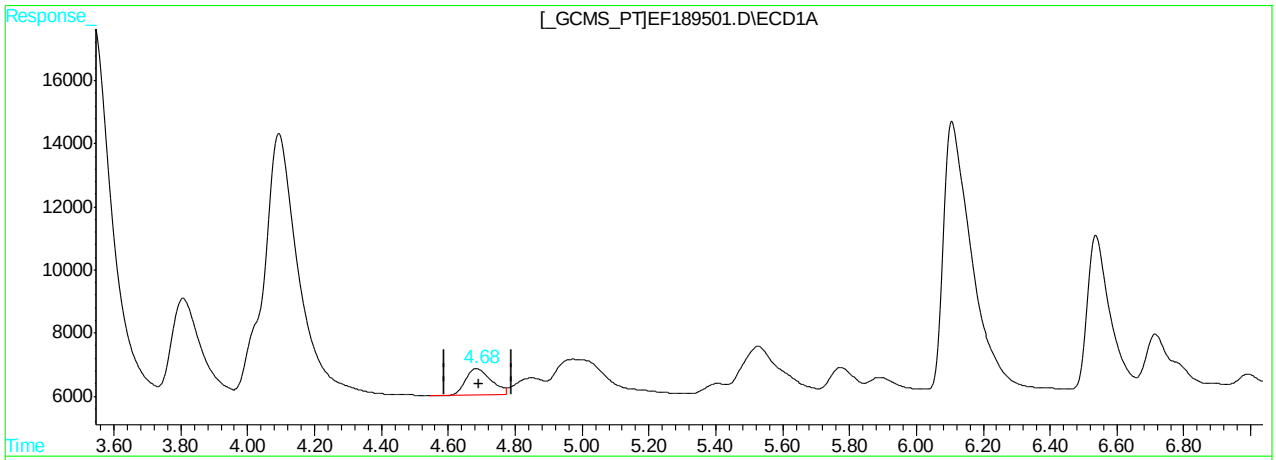
Sample Number:	GEF6434-ICV6434	**Method:**	SW846 8082A
Lab FileID:	EF189501.D	**Analyst approved:**	05/02/19 09:37 Tianwei Ruan
Injection Time:	05/02/19 08:49	**Supervisor approved:**	05/03/19 11:16 Gwendolyn Burns

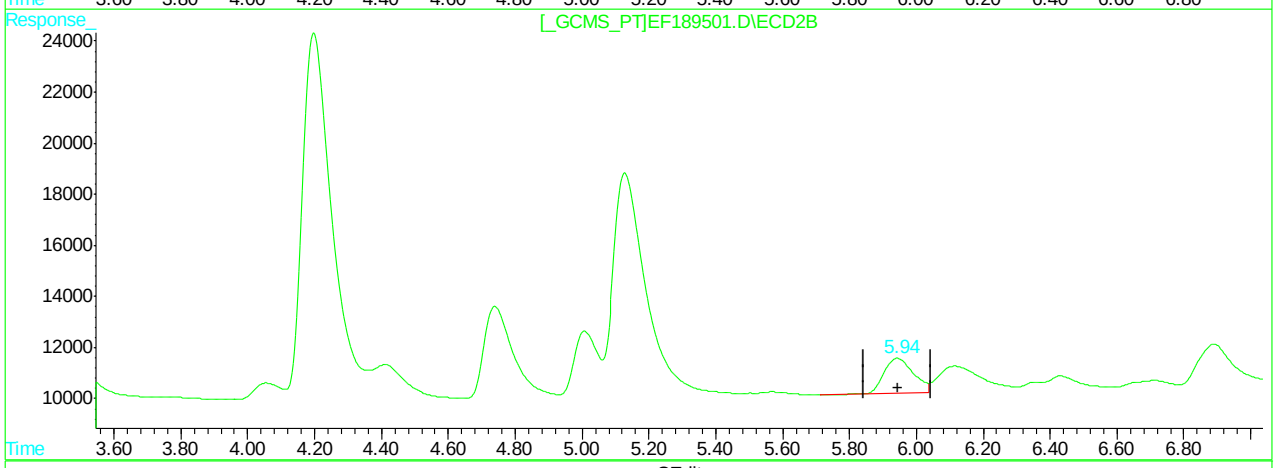
Parameter	CAS	Sig#	R.T. (min.)	Reason
AR1221-D		1	4.68	Split peak
AR1254-F		2	11.79	Split peak
Decachlorobiphenyl	2051-24-3	2	17.23	Poorly defined baseline

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6434\EF189501.D\ECD1A.CH Vial: 14
Signal #2 : C:\HPCHEM\1\DATA\GEF6434\EF189501.D\ECD2B.CH
Acq On : 2 May 2019 8:49 am Operator: tianweir
Sample : icv6434-1000 Inst : gcef
Misc : op20033,GEF6434,10.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 2 9:11 2019 Quant Results File: PCB6434.RES

Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Thu May 02 08:24:03 2019
Response via : Single Level Calibration





QEdit

(5) AR1221-D

4.69min 470.699PPB

response 45079

(5) AR1221-D #2

5.94min 833.993PPB

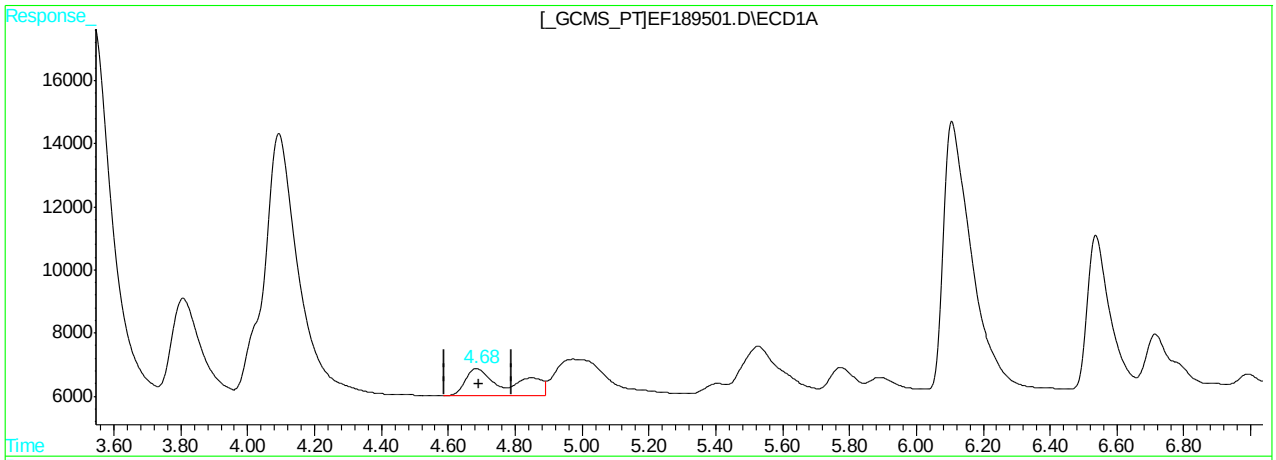
response 83121

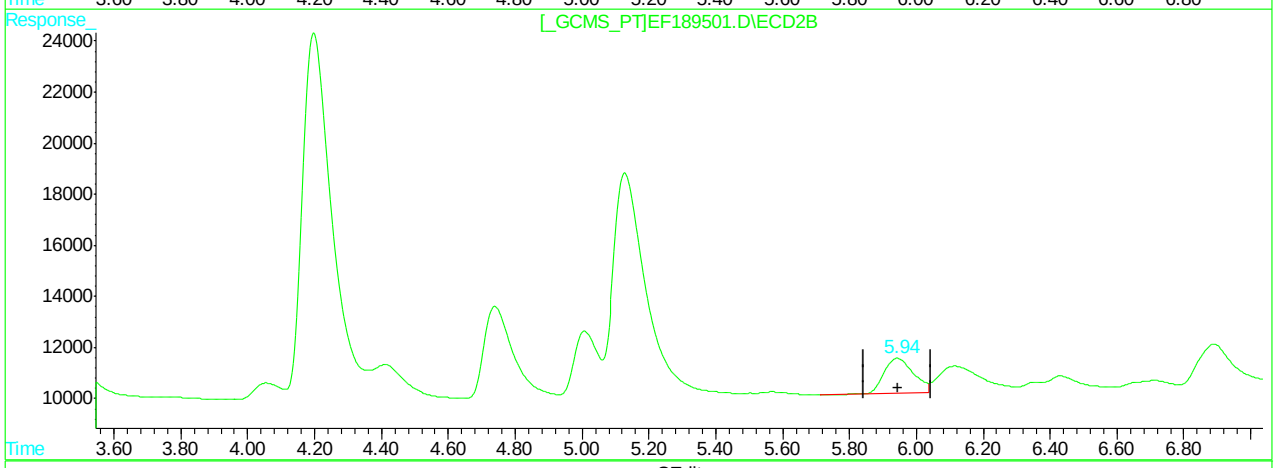
(+) = Expected Retention Time
EF189501.D PCB6434.M Thu May 02 09:21:55 2019 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6434\EF189501.D\ECD1A.CH Vial: 14
Signal #2 : C:\HPCHEM\1\DATA\GEF6434\EF189501.D\ECD2B.CH
Acq On : 2 May 2019 8:49 am Operator: tianweir
Sample : icv6434-1000 Inst : gcef
Misc : op20033,GEF6434,10.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 2 9:11 2019 Quant Results File: PCB6434.RES

Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Thu May 02 08:24:03 2019
Response via : Single Level Calibration





QEdit

(5) AR1221-D

4.68min 820.693PPB m

response 78598

(5) AR1221-D #2

5.94min 833.993PPB

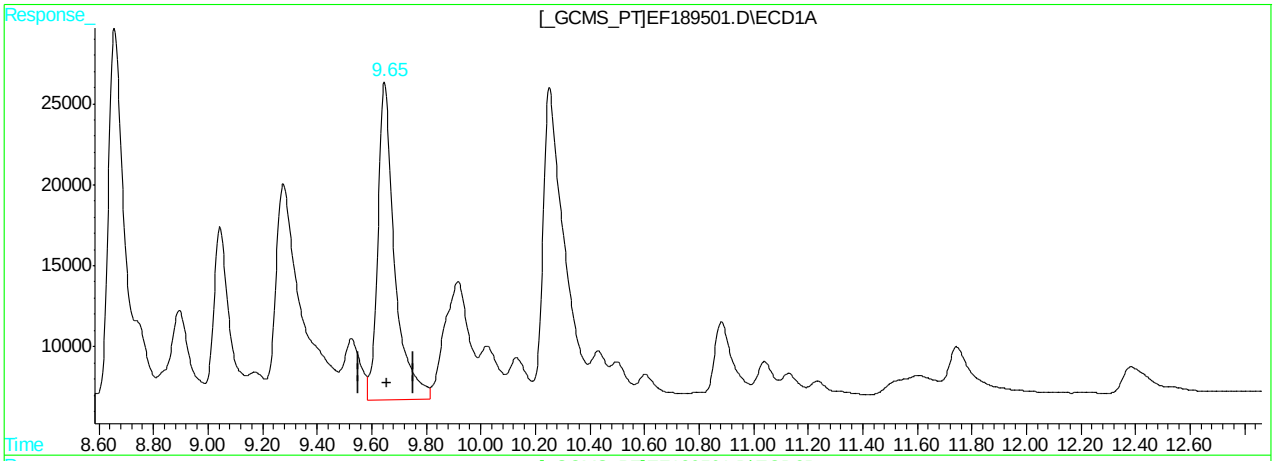
response 83121

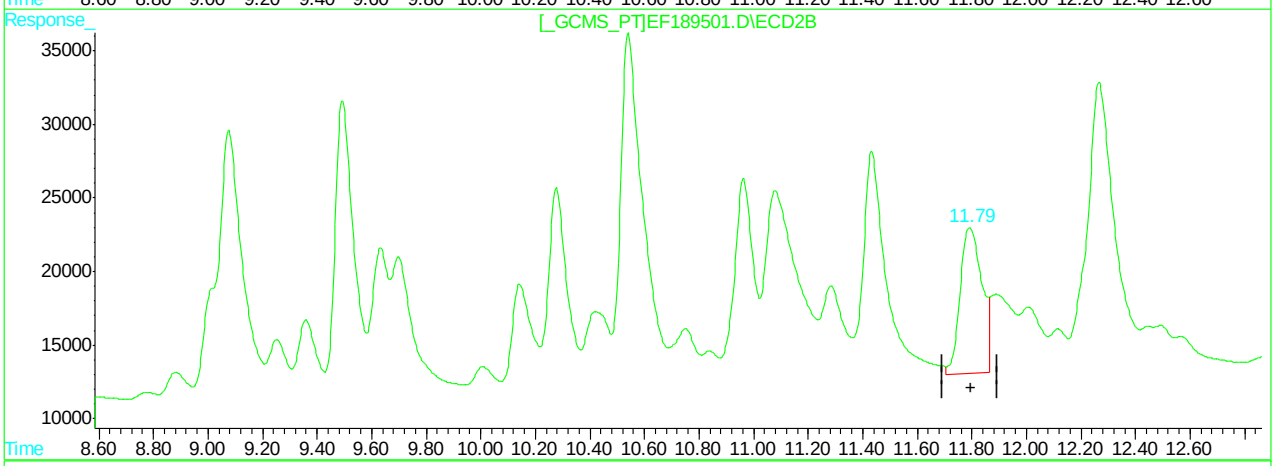
(+) = Expected Retention Time
EF189501.D PCB6434.M Thu May 02 09:22:02 2019 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6434\EF189501.D\ECD1A.CH Vial: 14
Signal #2 : C:\HPCHEM\1\DATA\GEF6434\EF189501.D\ECD2B.CH
Acq On : 2 May 2019 8:49 am Operator: tianweir
Sample : icv6434-1000 Inst : gcef
Misc : op20033,GEF6434,10.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 2 9:11 2019 Quant Results File: PCB6434.RES

Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Thu May 02 08:24:03 2019
Response via : Single Level Calibration





QEdit

(29) AR1254-F

9.65min 1023.057PPB

response 836241

(29) AR1254-F #2

11.79min 674.908PPB

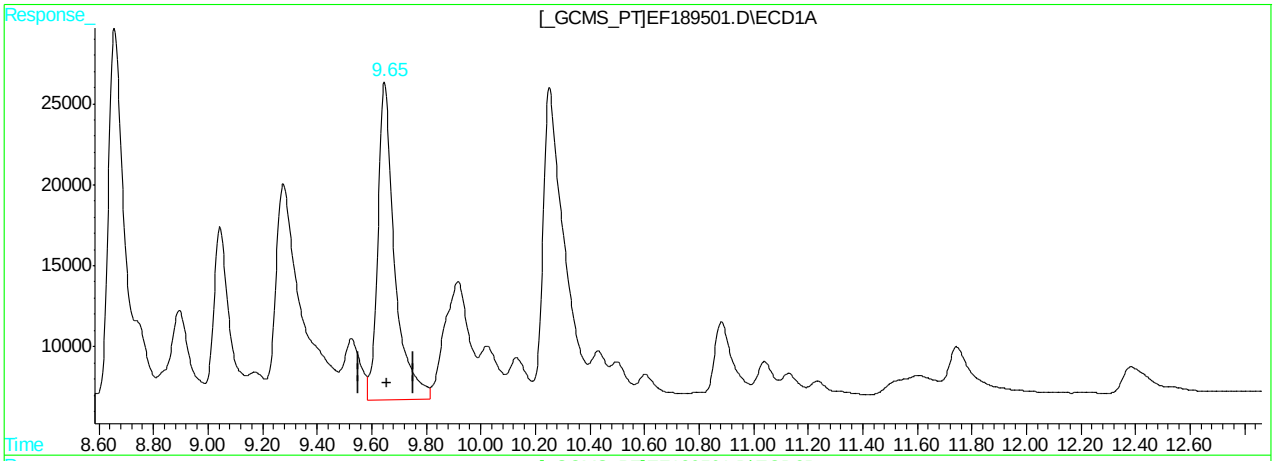
response 550029

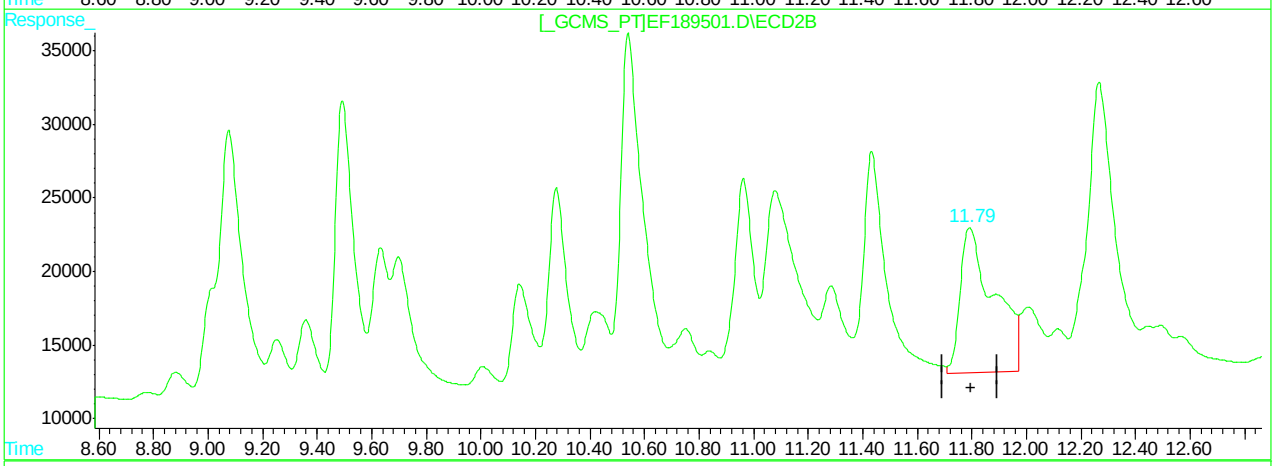
(+) = Expected Retention Time
EF189501.D PCB6434.M Thu May 02 09:22:12 2019 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6434\EF189501.D\ECD1A.CH Vial: 14
Signal #2 : C:\HPCHEM\1\DATA\GEF6434\EF189501.D\ECD2B.CH
Acq On : 2 May 2019 8:49 am Operator: tianweir
Sample : icv6434-1000 Inst : gcef
Misc : op20033,GEF6434,10.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 2 9:11 2019 Quant Results File: PCB6434.RES

Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Thu May 02 08:24:03 2019
Response via : Single Level Calibration





QEdit

(29) AR1254-F

9.65min 1023.057PPB

response 836241

(29) AR1254-F #2

11.79min 1046.879PPB m

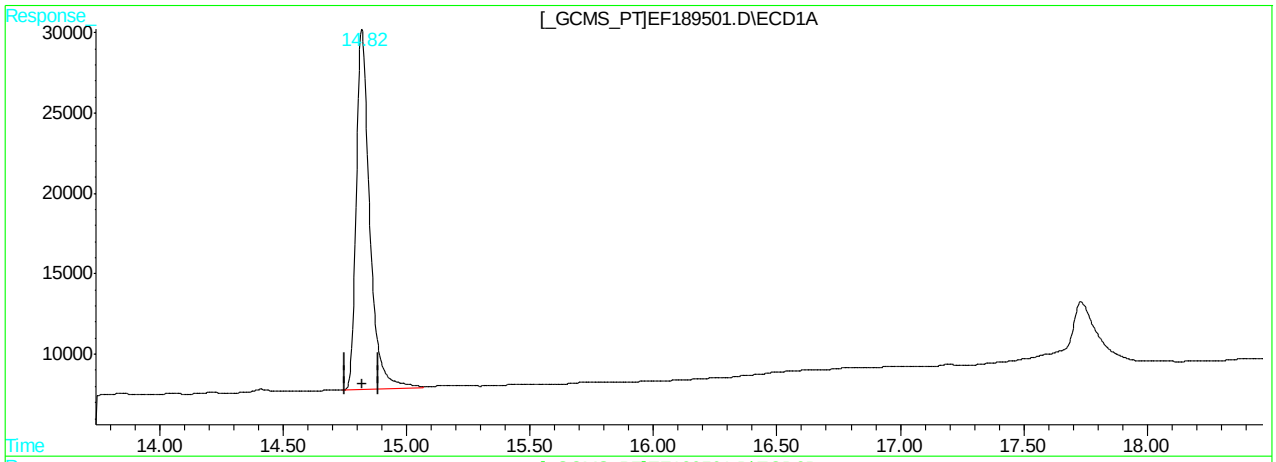
response 853175

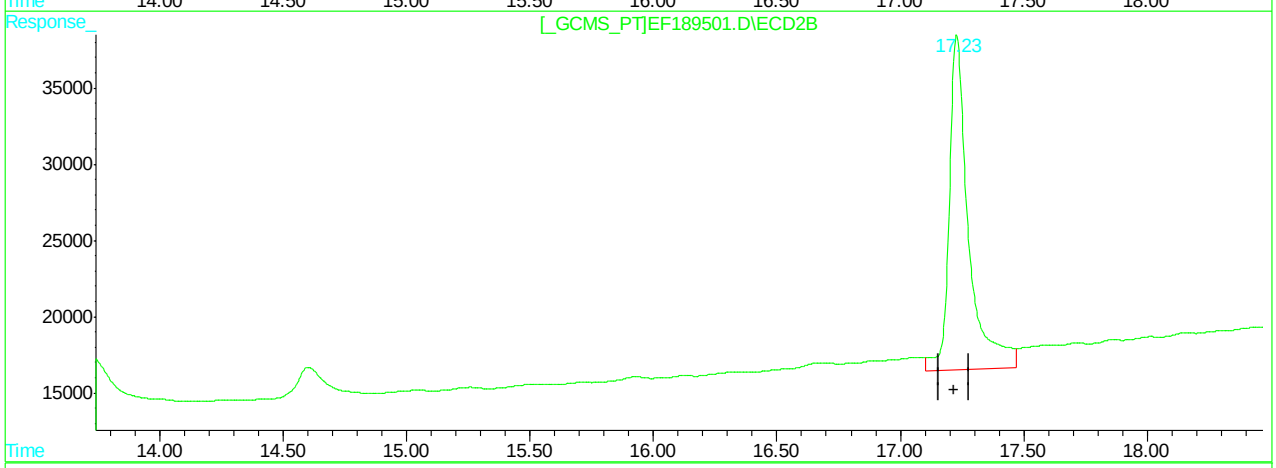
(+) = Expected Retention Time
EF189501.D PCB6434.M Thu May 02 09:22:17 2019 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6434\EF189501.D\ECD1A.CH Vial: 14
Signal #2 : C:\HPCHEM\1\DATA\GEF6434\EF189501.D\ECD2B.CH
Acq On : 2 May 2019 8:49 am Operator: tianweir
Sample : icv6434-1000 Inst : gcef
Misc : op20033,GEF6434,10.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 2 9:11 2019 Quant Results File: PCB6434.RES

Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Thu May 02 08:24:03 2019
Response via : Multiple Level Calibration





QEdit

(51) Decachlorobiphenyl (S)

14.82min 52.322PPB

response 848978

(51) Decachlorobiphenyl #2 (S)

17.23min 64.830PPB

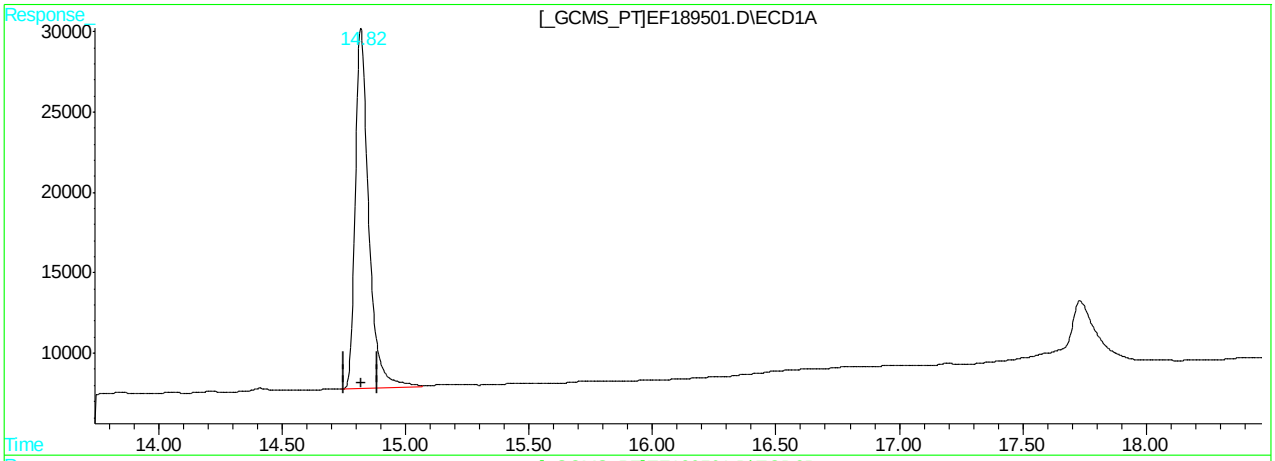
response 1201765

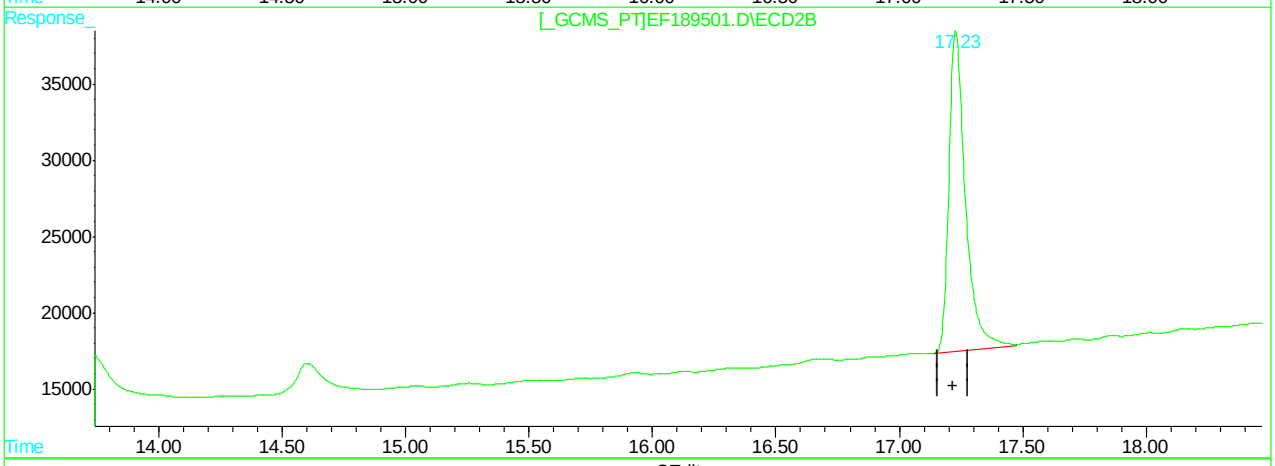
(+) = Expected Retention Time
EF189501.D PCB6434.M Thu May 02 09:22:22 2019 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6434\EF189501.D\ECD1A.CH Vial: 14
Signal #2 : C:\HPCHEM\1\DATA\GEF6434\EF189501.D\ECD2B.CH
Acq On : 2 May 2019 8:49 am Operator: tianweir
Sample : icv6434-1000 Inst : gcef
Misc : op20033,GEF6434,10.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 2 9:11 2019 Quant Results File: PCB6434.RES

Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Thu May 02 08:24:03 2019
Response via : Multiple Level Calibration





QEdit

(51) Decachlorobiphenyl (S)

14.82min 52.322PPB

response 848978

(51) Decachlorobiphenyl #2 (S)

17.23min 52.862PPB m

response 979919

(+) = Expected Retention Time
EF189501.D PCB6434.M Thu May 02 09:22:27 2019 GCEF

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 05/07/19 14:51

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\GEF6439\EF189647.D\ECD1A.CH Vial: 31
Signal #2 : C:\HPCHEM\1\DATA\GEF6439\EF189647.D\ECD2B.CH
Acq On : 7 May 2019 9:27 am Operator: tianweir
Sample : cc6434-1000 Inst : gcef
Misc : op20179,GEF6439,16.4,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 7 9:48 2019 Quant Results File: PCB6434.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue May 07 09:47:58 2019
Response via : Initial Calibration
DataAcq Meth : PCB6434.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1) S	Tetrachloro-m-xy	3.50	4.16	538228	613281	40.410	37.794
	Spiked Amount 40.000			Recovery =		101.02%	94.48%
51) S	Decachlorobiphen	14.75	17.17	646475	713963	39.842	38.515
	Spiked Amount 40.000			Recovery =		99.61%	96.29%
	Target Compounds						
41)	AR1016-A	4.05	5.09	357494	345811	942.821	860.602
42)	AR1016-B	4.63	5.89	614274	720568	951.047	979.539
43)	AR1016-C	5.45	6.82	1456936	1563187	986.843	937.233
44)	AR1016-D	5.70	7.11	539936	678107	1003.404	902.187
45)	AR1016-E	6.48	8.11	552185	429074	1030.557	895.705
46)	AR1260-A	10.18	12.20	1313911	1576179	1100.023	1024.477
47)	AR1260-B	10.44	12.40	845132	1120376	1029.439	956.508
48)	AR1260-C	10.97	13.08	743308	999223	1111.302	1037.200
49)	AR1260-D	11.65	13.65	1762293	2435304	926.461	1038.503
50)	AR1260-E	12.28	14.50	1933304	2342743	1042.924m	1025.172

11.5.16
11

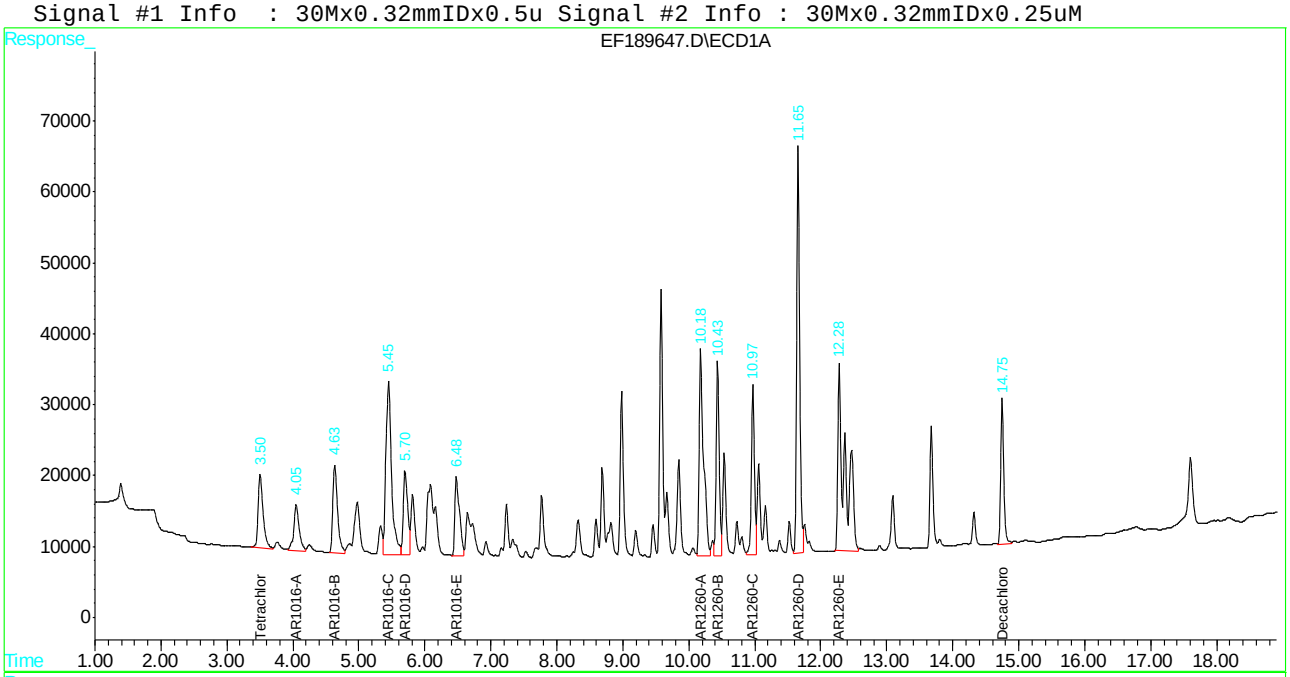
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
EF189647.D PCB6434.M Tue May 07 09:48:27 2019 GCEF Page 1

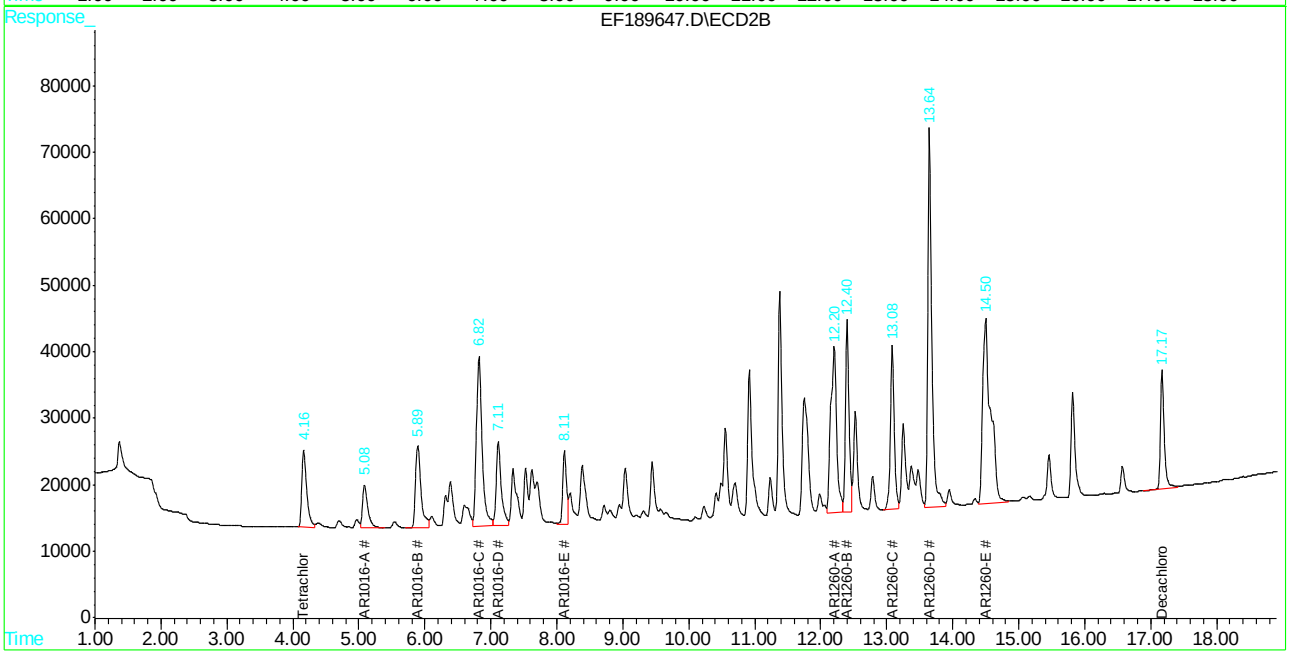
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6439\EF189647.D\ECD1A.CH Vial: 31
Signal #2 : C:\HPCHEM\1\DATA\GEF6439\EF189647.D\ECD2B.CH
Acq On : 7 May 2019 9:27 am Operator: tianweir
Sample : cc6434-1000 Inst : gcef
Misc : op20179,GEF6439,16.4,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 7 9:48 2019 Quant Results File: PCB6434.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue May 07 09:47:58 2019
Response via : Multiple Level Calibration
DataAcq Meth : PCB6434.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM





JC87363

Manual Integration Approval Summary

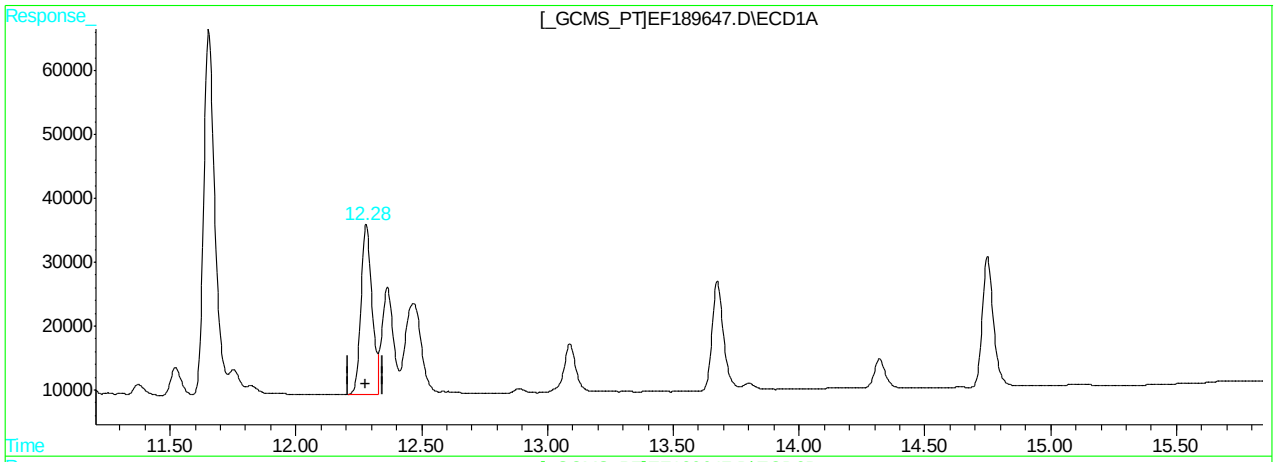
Sample Number:	GEF6439-CC6434	**Method:**	SW846 8082A
Lab FileID:	EF189647.D	**Analyst approved:**	05/07/19 11:06 Tianwei Ruan
Injection Time:	05/07/19 09:27	**Supervisor approved:**	05/07/19 14:51 Gwendolyn Burns

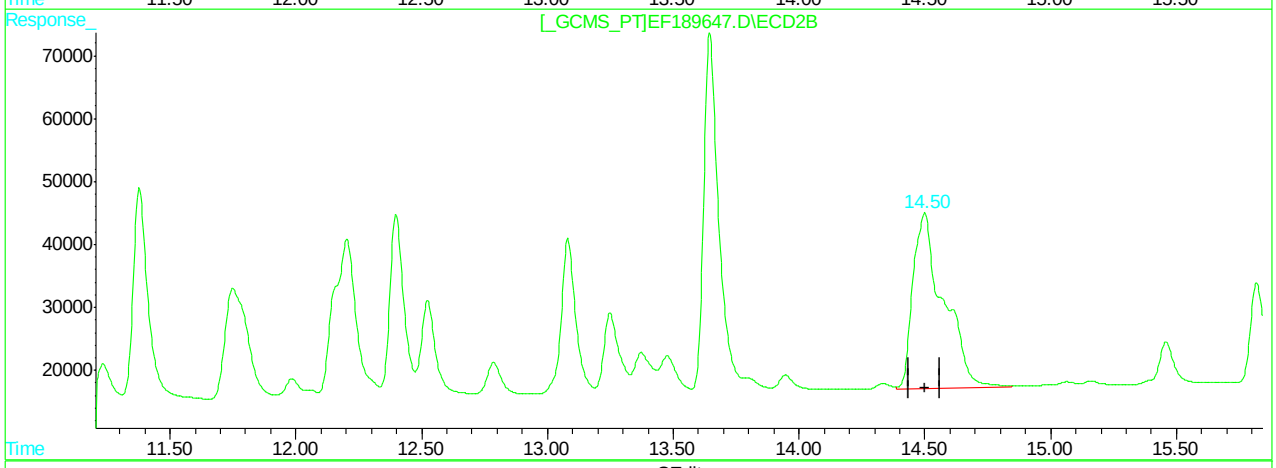
Parameter	CAS	Sig#	R.T. (min.)	Reason
AR1260-E		1	12.28	Split peak

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6439\EF189647.D\ECD1A.CH Vial: 31
Signal #2 : C:\HPCHEM\1\DATA\GEF6439\EF189647.D\ECD2B.CH
Acq On : 7 May 2019 9:27 am Operator: tianweir
Sample : cc6434-1000 Inst : gcef
Misc : op20179,GEF6439,16.4,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 7 9:48 2019 Quant Results File: PCB6434.RES

Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue May 07 09:47:58 2019
Response via : Multiple Level Calibration





QEdit

(50) AR1260-E

12.28min 433.961PPB

response 804448

(50) AR1260-E #2

14.50min 1025.172PPB

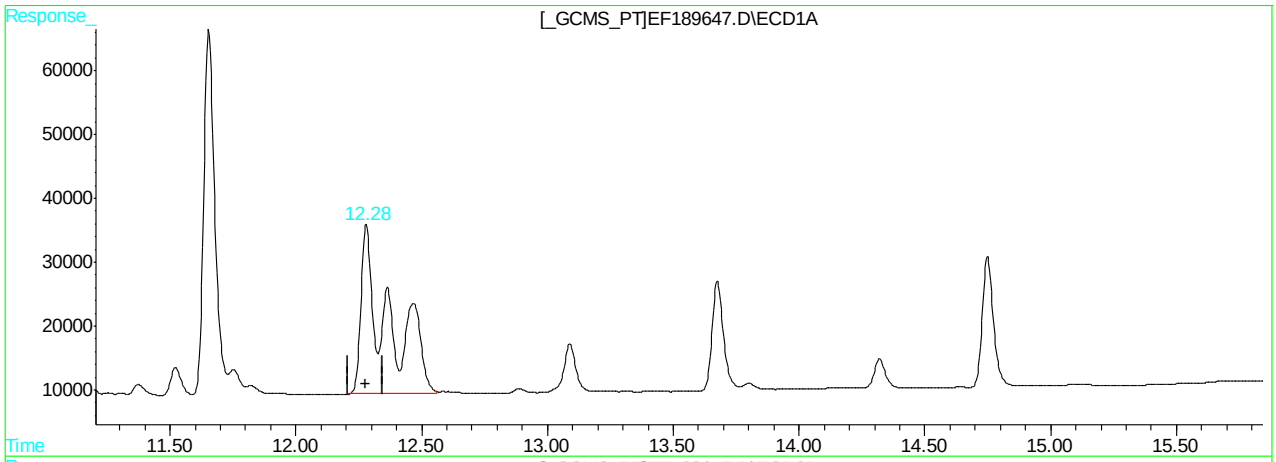
response 2342743

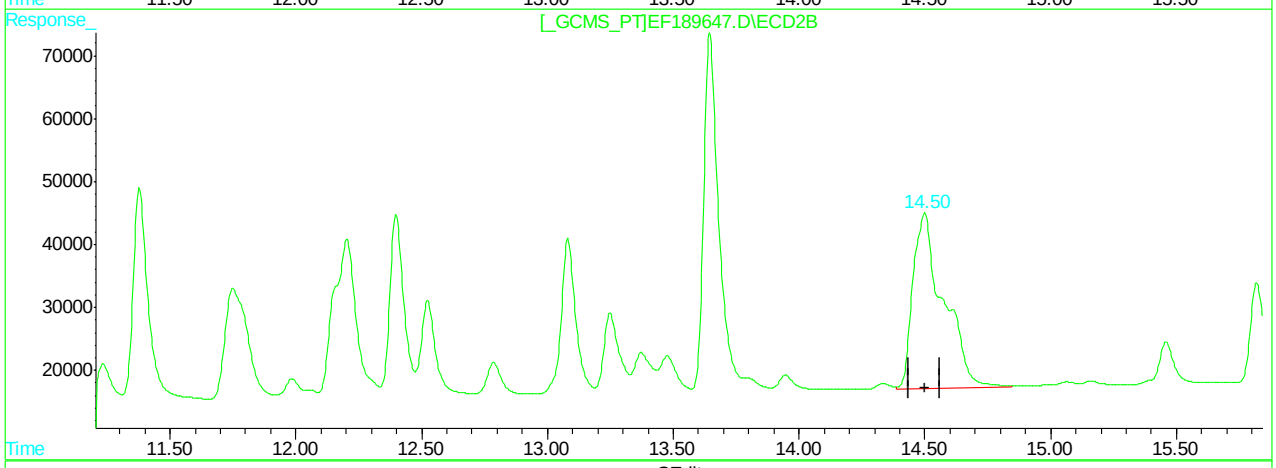
(+) = Expected Retention Time
EF189647.D PCB6434.M Tue May 07 09:48:18 2019 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6439\EF189647.D\ECD1A.CH Vial: 31
Signal #2 : C:\HPCHEM\1\DATA\GEF6439\EF189647.D\ECD2B.CH
Acq On : 7 May 2019 9:27 am Operator: tianweir
Sample : cc6434-1000 Inst : gcef
Misc : op20179,GEF6439,16.4,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 7 9:48 2019 Quant Results File: PCB6434.RES

Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue May 07 09:47:58 2019
Response via : Multiple Level Calibration





QEdit

(50) AR1260-E

12.28min 1042.924PPB m

response 1933304

(50) AR1260-E #2

14.50min 1025.172PPB

response 2342743

(+) = Expected Retention Time
EF189647.D PCB6434.M Tue May 07 09:48:22 2019 GCEF

11.5.16.3 11

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 05/07/19 14:51

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\GEF6439\EF189658.D\ECD1A.CH Vial: 12
Signal #2 : C:\HPCHEM\1\DATA\GEF6439\EF189658.D\ECD2B.CH
Acq On : 7 May 2019 2:00 pm Operator: tianweir
Sample : cc6434-500 Inst : gcef
Misc : op20179,GEF6439,5.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 7 14:21 2019 Quant Results File: PCB6434.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue May 07 09:47:58 2019
Response via : Initial Calibration
DataAcq Meth : PCB6434.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1) S	Tetrachloro-m-xy	3.51	4.17	309526	342869	23.239	21.130
	Spiked Amount 40.000			Recovery =		58.10%	52.83%
51) S	Decachlorobiphen	14.76	17.19	355953	370901	21.937	20.008
	Spiked Amount 40.000			Recovery =		54.84%	50.02%
	Target Compounds						
41)	AR1016-A	4.06	5.10	225712	222828	595.272	554.540
42)	AR1016-B	4.64	5.90	389019	425494	602.298	578.416
43)	AR1016-C	5.47f	6.84f	906192	907256	613.802	543.959
44)	AR1016-D	5.72f	7.13f	337109	406442	626.475	540.749
45)	AR1016-E	6.49	8.13	339529	256449	633.673	535.346
46)	AR1260-A	10.20	12.23	741784	874474	621.031	568.386
47)	AR1260-B	10.45	12.41	497496	643048	605.991	548.996
48)	AR1260-C	10.98	13.10	420027	535830	627.972	556.195
49)	AR1260-D	11.68	13.67	1117848	1285380	587.668	548.133
50)	AR1260-E	12.31	14.54f	1090505	1197032	588.275m	523.815

11.5.17 11

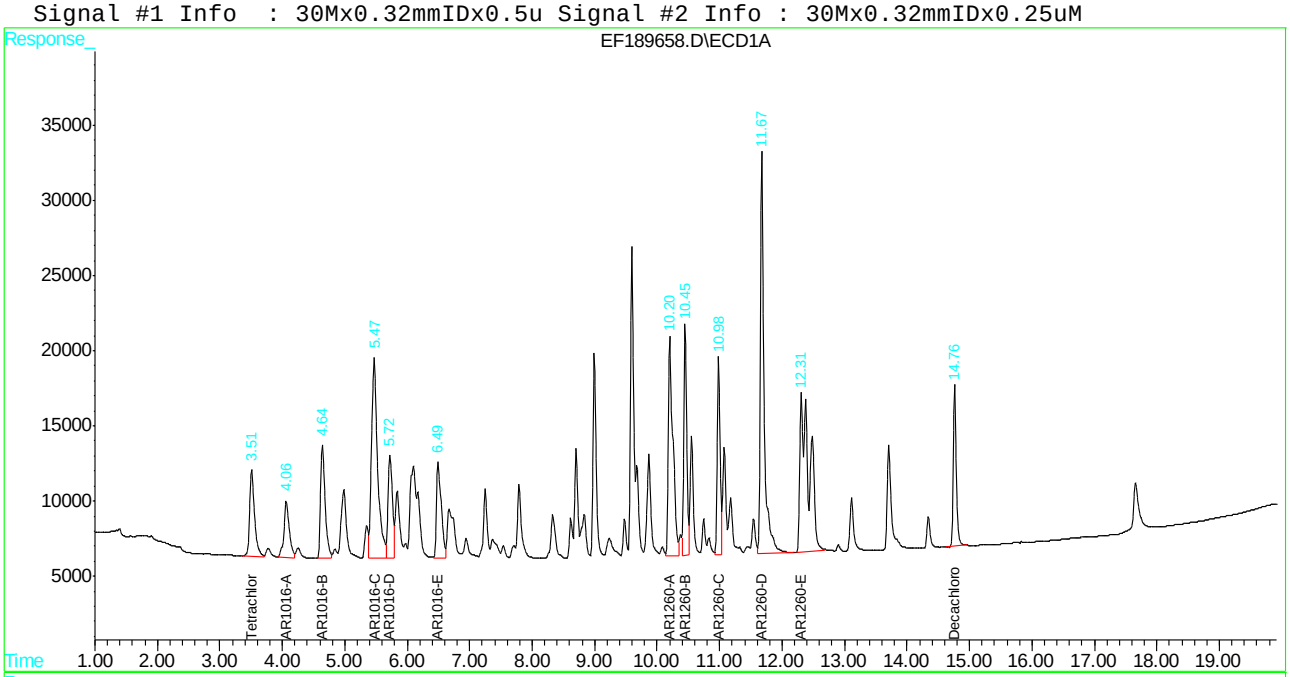
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
EF189658.D PCB6434.M Tue May 07 14:21:18 2019 GCEF Page 1

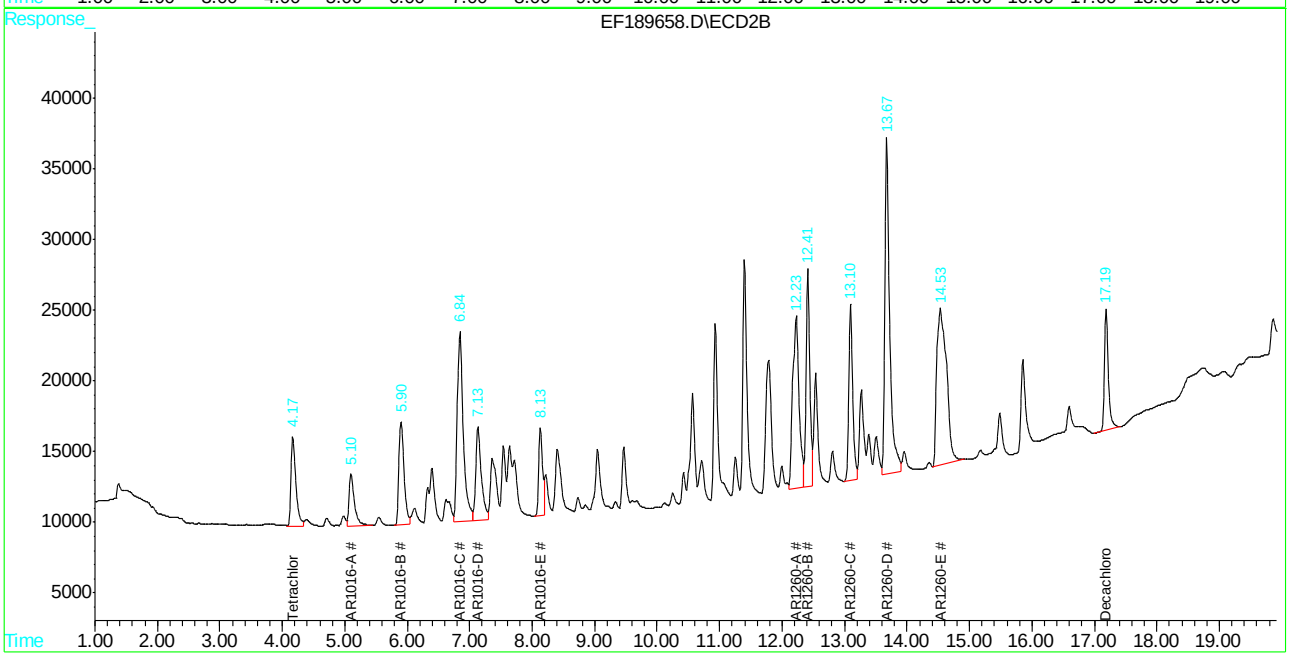
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6439\EF189658.D\ECD1A.CH Vial: 12
Signal #2 : C:\HPCHEM\1\DATA\GEF6439\EF189658.D\ECD2B.CH
Acq On : 7 May 2019 2:00 pm Operator: tianweir
Sample : cc6434-500 Inst : gcef
Misc : op20179,GEF6439,5.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 7 14:21 2019 Quant Results File: PCB6434.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue May 07 09:47:58 2019
Response via : Multiple Level Calibration
DataAcq Meth : PCB6434.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM





JC87363

Manual Integration Approval Summary

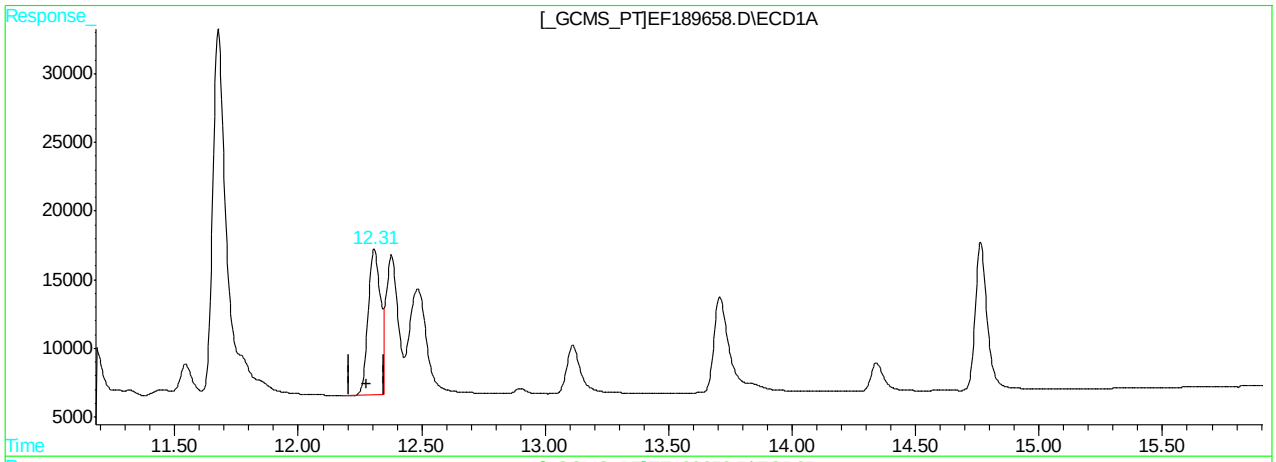
Sample Number:	GEF6439-CC6434	**Method:**	SW846 8082A
Lab FileID:	EF189658.D	**Analyst approved:**	05/07/19 14:28 Tianwei Ruan
Injection Time:	05/07/19 14:00	**Supervisor approved:**	05/07/19 14:51 Gwendolyn Burns

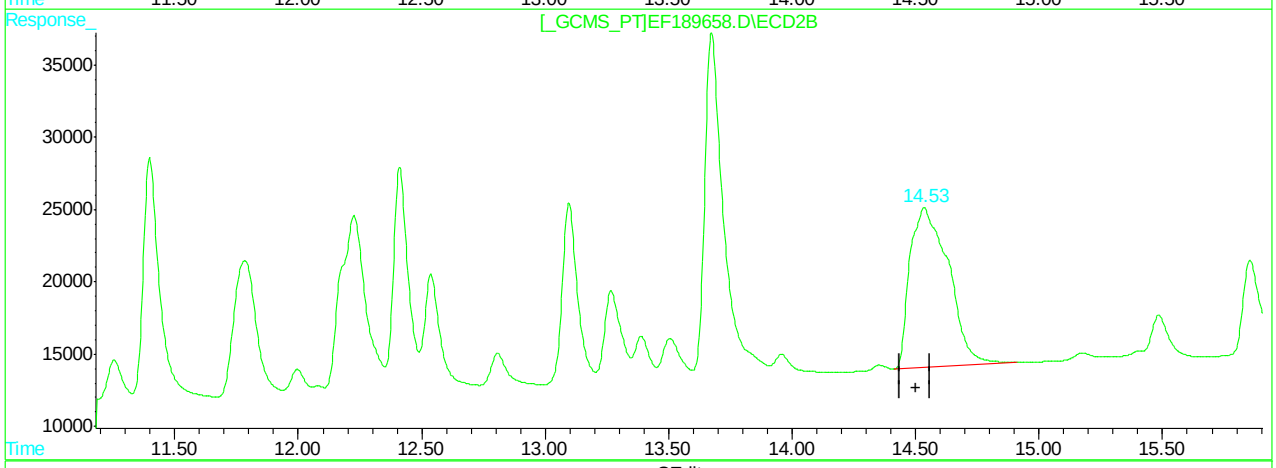
Parameter	CAS	Sig#	R.T. (min.)	Reason
AR1260-E		1	12.31	Split peak

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6439\EF189658.D\ECD1A.CH Vial: 12
Signal #2 : C:\HPCHEM\1\DATA\GEF6439\EF189658.D\ECD2B.CH
Acq On : 7 May 2019 2:00 pm Operator: tianweir
Sample : cc6434-500 Inst : gcef
Misc : op20179,GEF6439,5.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 7 14:20 2019 Quant Results File: PCB6434.RES

Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue May 07 09:47:58 2019
Response via : Multiple Level Calibration





QEdit

(50) AR1260-E

12.31min 195.267PPB

response 361973

(50) AR1260-E #2

14.54min 523.815PPB

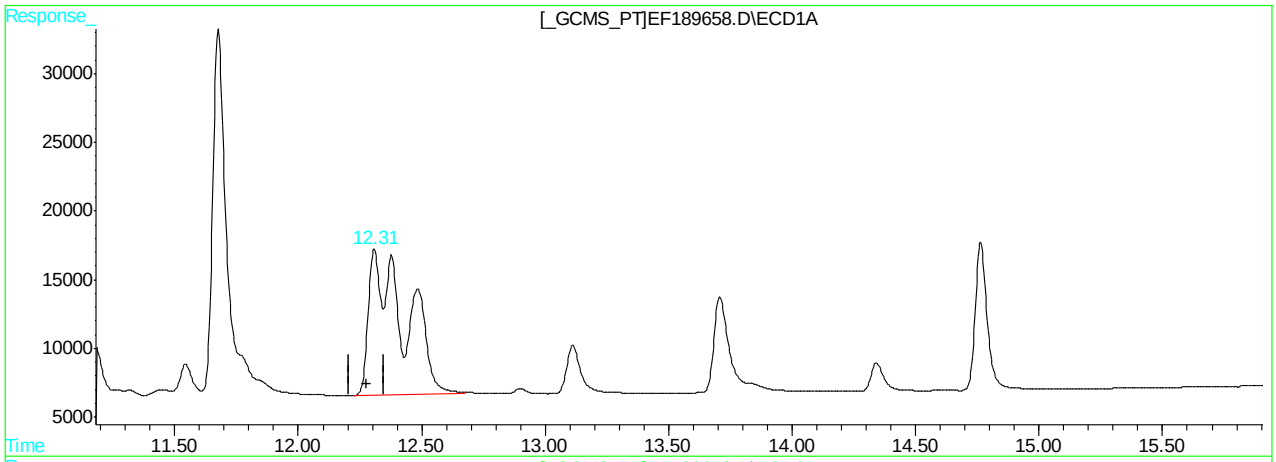
response 1197032

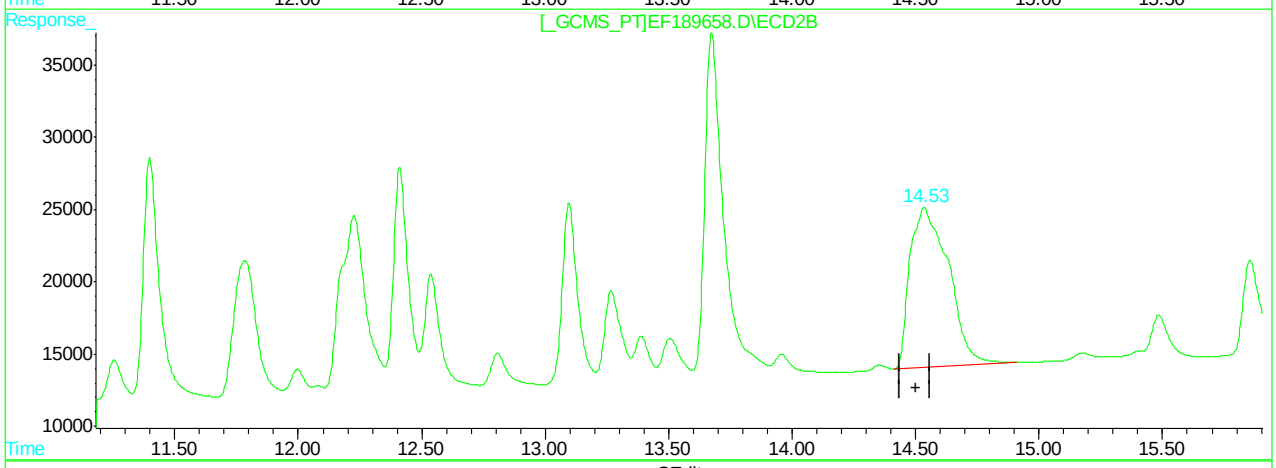
(+) = Expected Retention Time
EF189658.D PCB6434.M Tue May 07 14:21:10 2019 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6439\EF189658.D\ECD1A.CH Vial: 12
Signal #2 : C:\HPCHEM\1\DATA\GEF6439\EF189658.D\ECD2B.CH
Acq On : 7 May 2019 2:00 pm Operator: tianweir
Sample : cc6434-500 Inst : gcef
Misc : op20179,GEF6439,5.0,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 7 14:20 2019 Quant Results File: PCB6434.RES

Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue May 07 09:47:58 2019
Response via : Multiple Level Calibration





QEdit

(50) AR1260-E

12.31min 588.275PPB m

response 1090505

(50) AR1260-E #2

14.54min 523.815PPB

response 1197032

(+) = Expected Retention Time
EF189658.D PCB6434.M Tue May 07 14:21:14 2019 GCEF

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 05/08/19 09:59

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\GEF6439\EF189668.D\ECD1A.CH Vial: 19
Signal #2 : C:\HPCHEM\1\DATA\GEF6439\EF189668.D\ECD2B.CH
Acq On : 7 May 2019 6:42 pm Operator: tianweir
Sample : cc6434-1000 Inst : gcef
Misc : op20179,GEF6439,15.4,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 8 8:15 2019 Quant Results File: PCB6434.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue May 07 09:47:58 2019
Response via : Initial Calibration
DataAcq Meth : PCB6434.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1) S	Tetrachloro-m-xy	3.51	4.17	654829	712717	49.164	43.922
	Spiked Amount 40.000			Recovery =		122.91%	109.80%
51) S	Decachlorobiphen	14.76	17.18	729978	750623	44.988	40.493
	Spiked Amount 40.000			Recovery =		112.47%	101.23%
	Target Compounds						
41)	AR1016-A	4.07	5.10	451452	441250	1190.618	1098.115
42)	AR1016-B	4.64	5.90	759223	832870	1175.465	1132.201
43)	AR1016-C	5.47f	6.85f	1749791	1762590	1185.206	1056.788
44)	AR1016-D	5.72f	7.13f	663077	826771	1232.246	1099.975
45)	AR1016-E	6.49f	8.13f	670769	507788	1251.874	1060.024
46)	AR1260-A	10.20	12.22	1460152	1775519	1222.458	1154.042
47)	AR1260-B	10.45	12.41	976809	1314265	1189.833	1122.039
48)	AR1260-C	10.98	13.09	818316	1100181	1223.444	1141.996
49)	AR1260-D	11.67	13.67	2263526	2667624	1189.966	1137.573
50)	AR1260-E	12.30	14.53f	2240567	2585012	1208.678m	1131.188

11.5.18 11

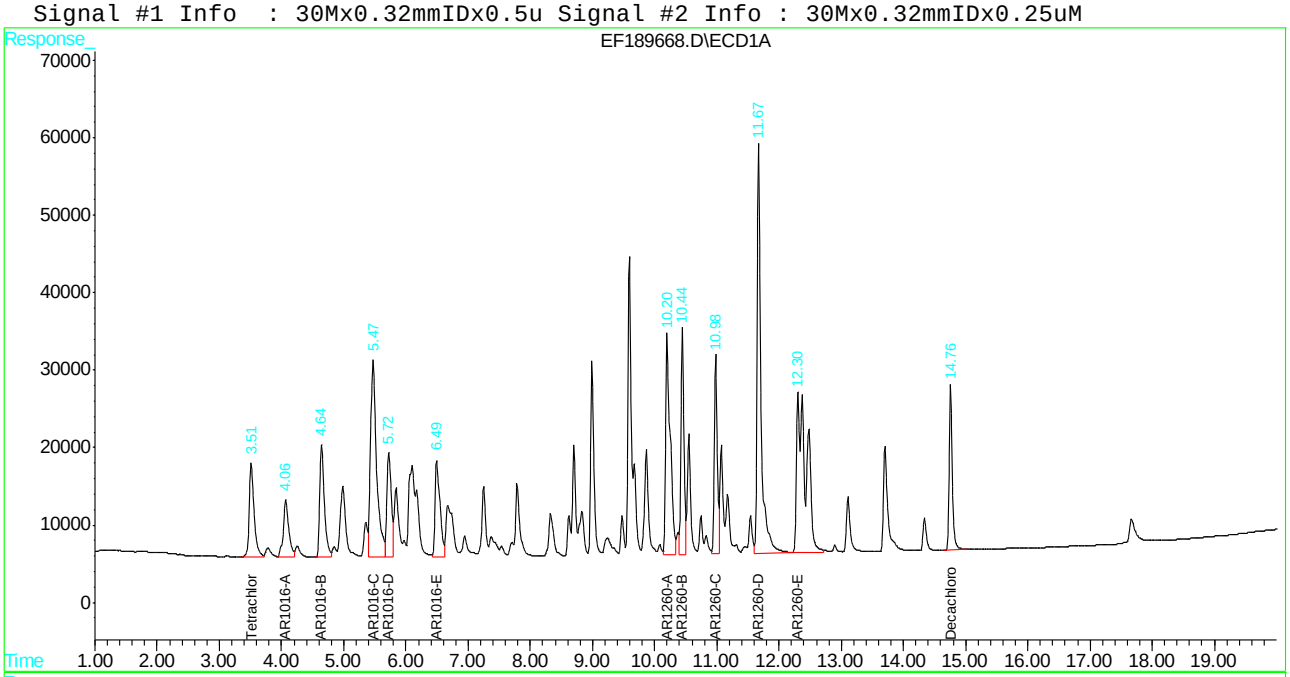
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
EF189668.D PCB6434.M Wed May 08 08:15:09 2019 GCEF Page 1

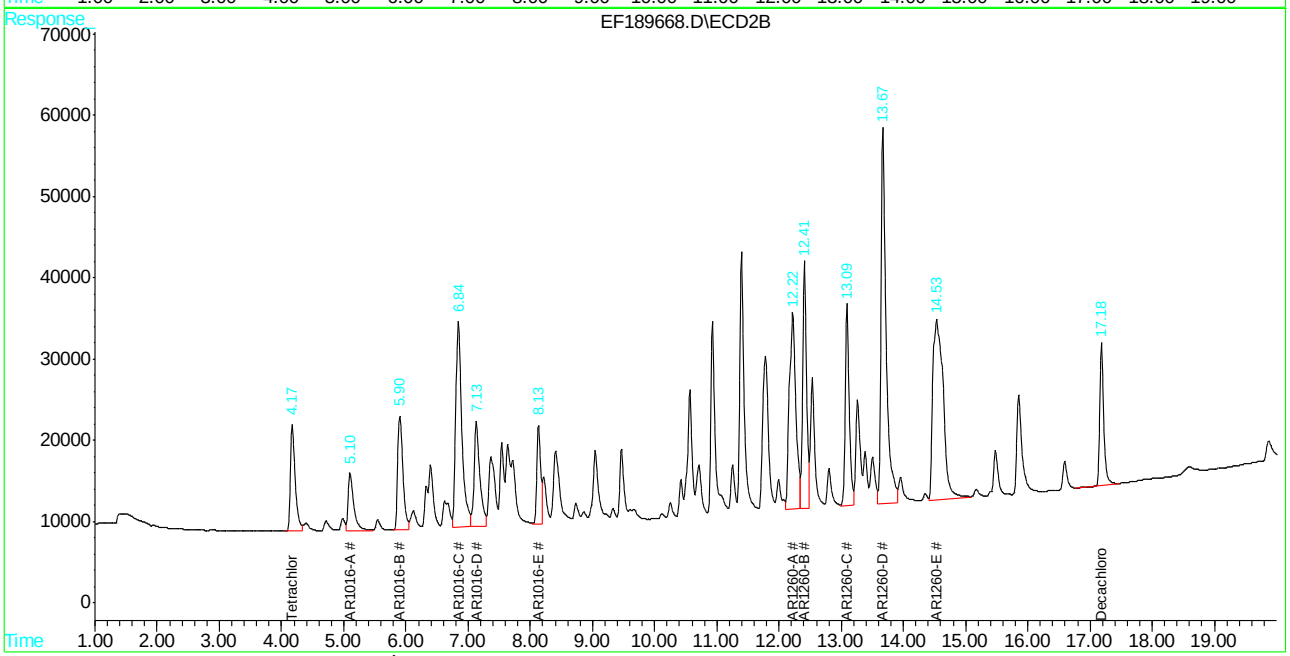
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6439\EF189668.D\ECD1A.CH Vial: 19
Signal #2 : C:\HPCHEM\1\DATA\GEF6439\EF189668.D\ECD2B.CH
Acq On : 7 May 2019 6:42 pm Operator: tianweir
Sample : cc6434-1000 Inst : gcef
Misc : op20179,GEF6439,15.4,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 8 8:15 2019 Quant Results File: PCB6434.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue May 07 09:47:58 2019
Response via : Multiple Level Calibration
DataAcq Meth : PCB6434.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM





SGS JC87363

Manual Integration Approval Summary

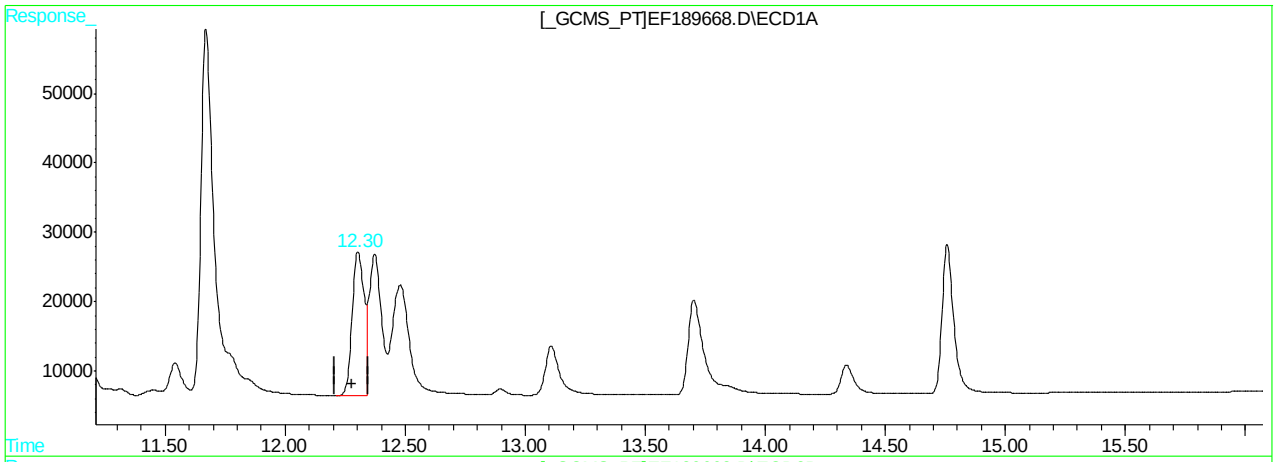
Sample Number:	GEF6439-CC6434	**Method:**	SW846 8082A
Lab FileID:	EF189668.D	**Analyst approved:**	05/08/19 09:11 Tianwei Ruan
Injection Time:	05/07/19 18:42	**Supervisor approved:**	05/08/19 09:59 Gwendolyn Burns

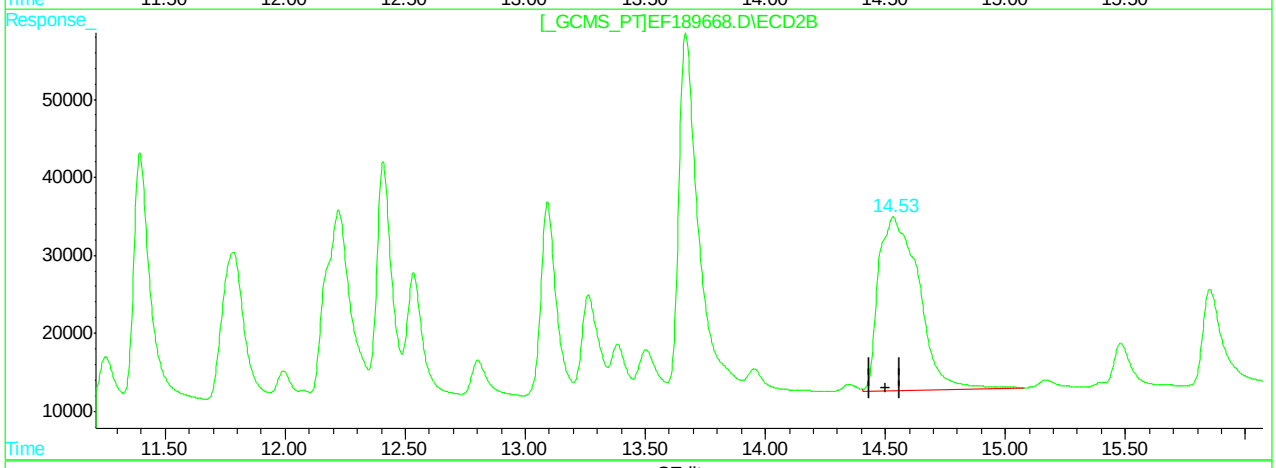
Parameter	CAS	Sig#	R.T. (min.)	Reason
AR1260-E		1	12.30	Split peak

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6439\EF189668.D\ECD1A.CH Vial: 19
Signal #2 : C:\HPCHEM\1\DATA\GEF6439\EF189668.D\ECD2B.CH
Acq On : 7 May 2019 6:42 pm Operator: tianweir
Sample : cc6434-1000 Inst : gcef
Misc : op20179,GEF6439,15.4,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 8 8:14 2019 Quant Results File: PCB6434.RES

Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue May 07 09:47:58 2019
Response via : Multiple Level Calibration





QEdit

(50) AR1260-E

12.30min 383.035PPB

response 710046

(50) AR1260-E #2

14.53min 1131.188PPB

response 2585012

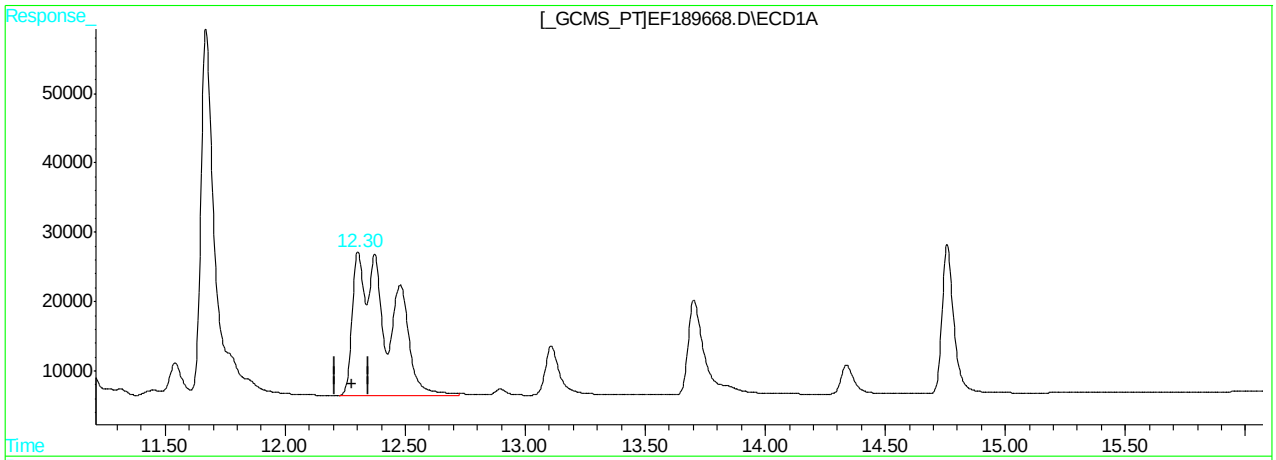
(+) = Expected Retention Time
EF189668.D PCB6434.M Wed May 08 08:15:00 2019 GCEF

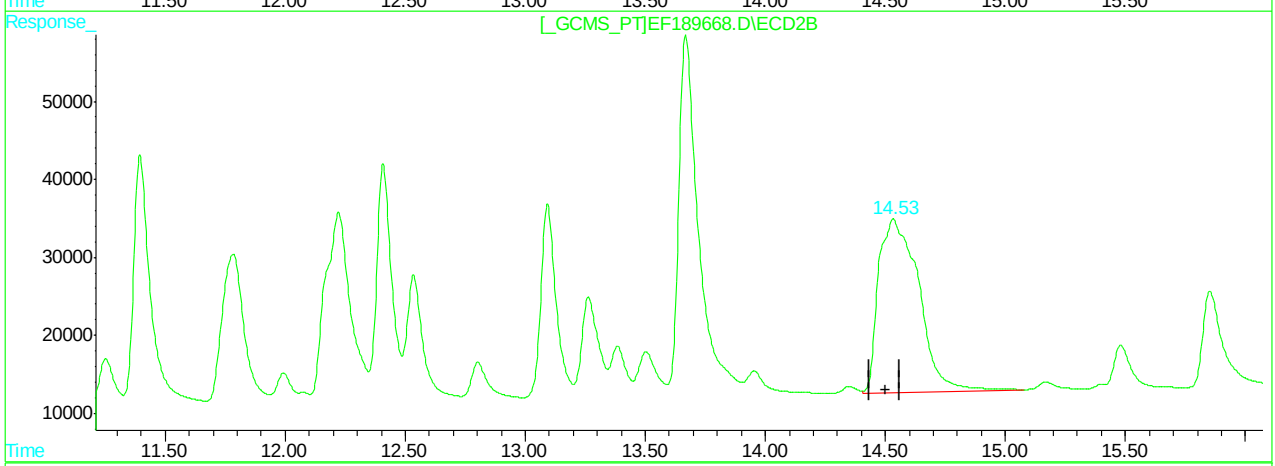
11.5.18.2

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6439\EF189668.D\ECD1A.CH Vial: 19
Signal #2 : C:\HPCHEM\1\DATA\GEF6439\EF189668.D\ECD2B.CH
Acq On : 7 May 2019 6:42 pm Operator: tianweir
Sample : cc6434-1000 Inst : gcef
Misc : op20179,GEF6439,15.4,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 8 8:14 2019 Quant Results File: PCB6434.RES

Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Tue May 07 09:47:58 2019
Response via : Multiple Level Calibration





QEdit

(50) AR1260-E

12.30min 1208.678PPB m

response 2240567

(50) AR1260-E #2

14.53min 1131.188PPB

response 2585012

(+) = Expected Retention Time
EF189668.D PCB6434.M Wed May 08 08:15:04 2019 GCEF

Manual Integrations APPROVED (compounds with "m" flag)
Gwendolyn Burns 05/08/19 09:59

Quantitation Report (QT Reviewed)

Signal #1 : C:\HPCHEM\1\DATA\GEF6439\EF189679.D\ECD1A.CH Vial: 26
Signal #2 : C:\HPCHEM\1\DATA\GEF6439\EF189679.D\ECD2B.CH
Acq On : 8 May 2019 4:06 am Operator: tianweir
Sample : cc6434-500 Inst : gcef
Misc : op20179,GEF6439,15.4,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 8 8:22 2019 Quant Results File: PCB6434.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed May 08 08:21:33 2019
Response via : Initial Calibration
DataAcq Meth : PCB6434.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1) S	Tetrachloro-m-xy	3.52	4.18	330908	352238	24.844	21.707
	Spiked Amount 40.000			Recovery =		62.11%	54.27%
51) S	Decachlorobiphen	14.77	17.20	393826	380605	24.271	20.532
	Spiked Amount 40.000			Recovery =		60.68%	51.33%
	Target Compounds						
41)	AR1016-A	4.08	5.12	241863	231791	637.867	576.846
42)	AR1016-B	4.66f	5.92f	415726	449451	643.647	610.982
43)	AR1016-C	5.49f	6.87f	952747	920097	645.335	551.658
44)	AR1016-D	5.75f	7.15f	359436	444741	667.967	591.704
45)	AR1016-E	6.51	8.15	360652	266268	673.094	555.844
46)	AR1260-A	10.22	12.24	774566	881435	648.476	572.910
47)	AR1260-B	10.46	12.43	536369	697588	653.341	595.558
48)	AR1260-C	11.00	13.11	438812	563428	656.057	584.842
49)	AR1260-D	11.69	13.69	1206308	1329943	634.172	567.136
50)	AR1260-E	12.39f	14.59f	1188234	1286700	640.995m	563.053

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
EF189679.D PCB6434.M Wed May 08 08:23:33 2019 GCEF Page 1

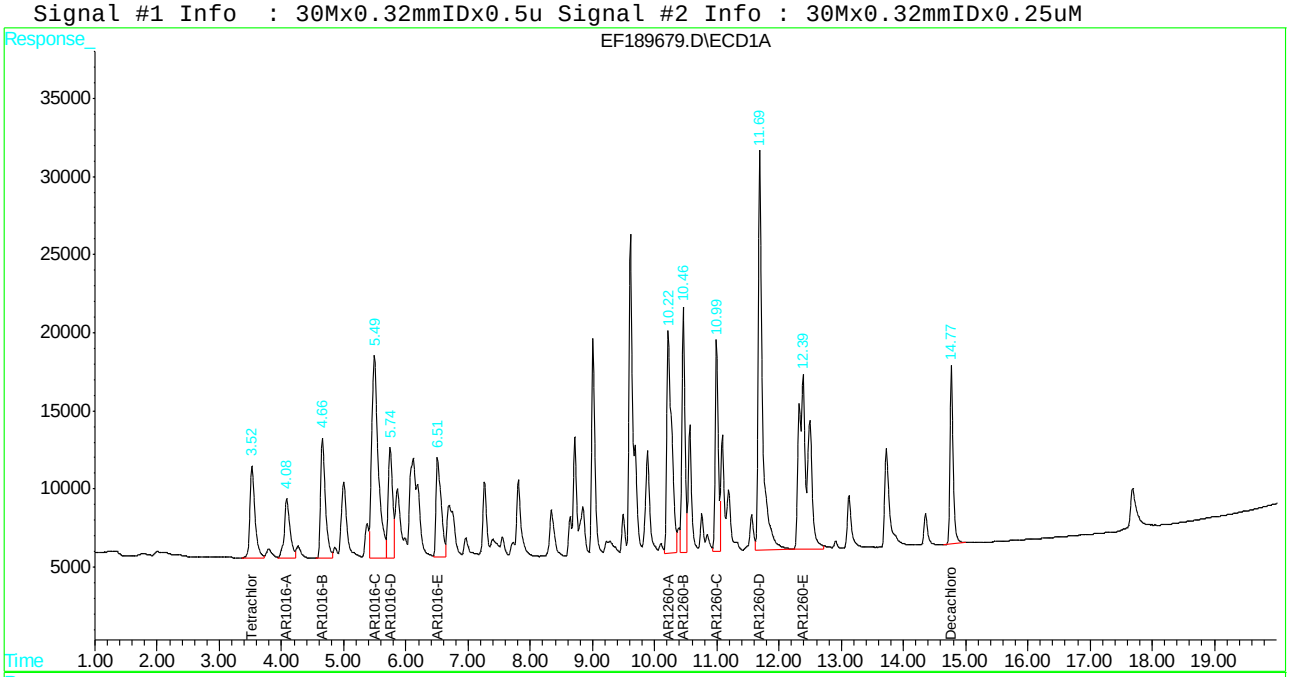
11.5.19 11

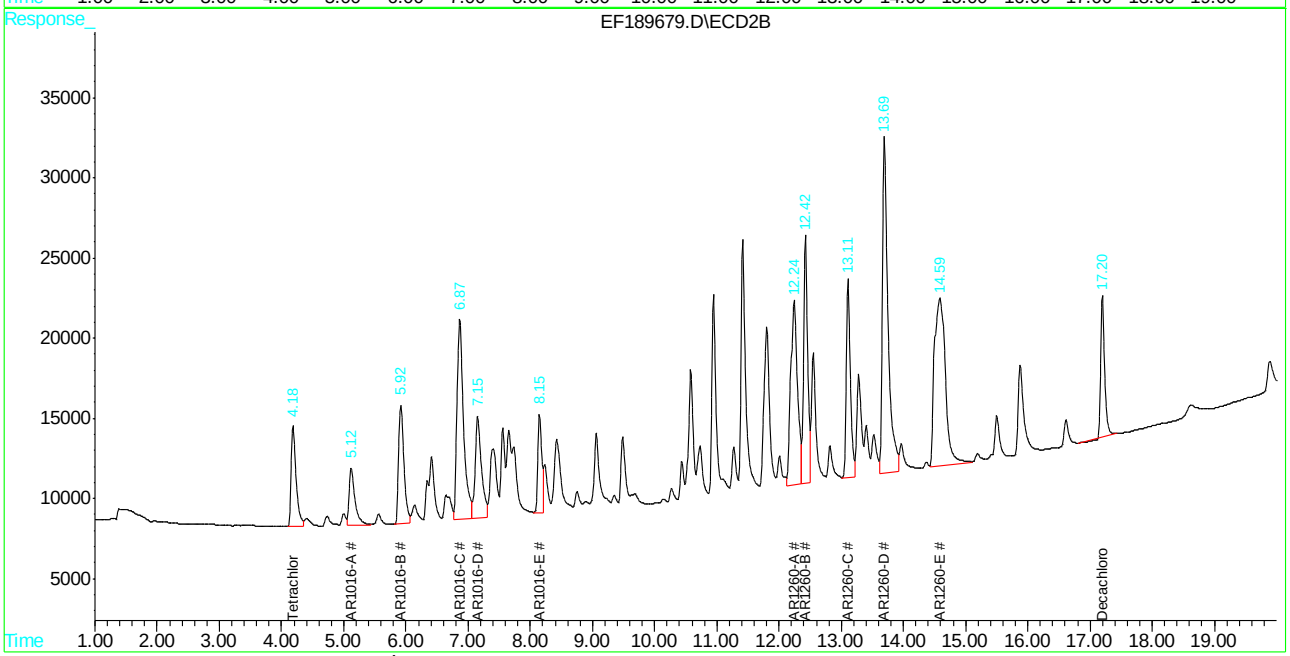
Quantitation Report

Signal #1 : C:\HPCHEM\1\DATA\GEF6439\EF189679.D\ECD1A.CH Vial: 26
Signal #2 : C:\HPCHEM\1\DATA\GEF6439\EF189679.D\ECD2B.CH
Acq On : 8 May 2019 4:06 am Operator: tianweir
Sample : cc6434-500 Inst : gcef
Misc : op20179,GEF6439,15.4,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 8 8:22 2019 Quant Results File: PCB6434.RES

Quant Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed May 08 08:21:33 2019
Response via : Multiple Level Calibration
DataAcq Meth : PCB6434.M

Volume Inj. : 1UL/COLUMN
Signal #1 Phase : RTX-CLP1 Signal #2 Phase: RTX-CLP2
Signal #1 Info : 30Mx0.32mmIDx0.5u Signal #2 Info : 30Mx0.32mmIDx0.25uM





SGS JC87363

Manual Integration Approval Summary

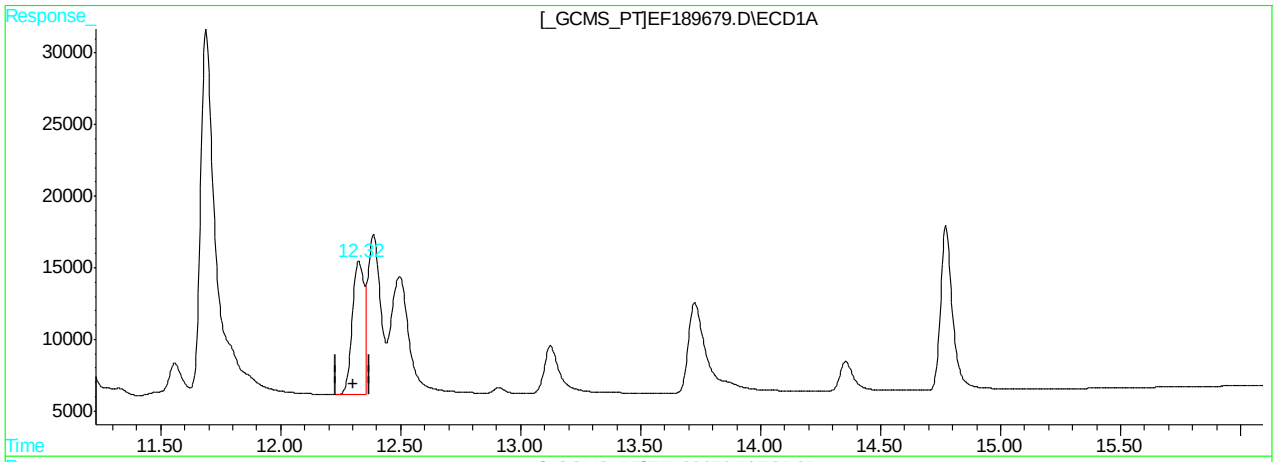
Sample Number:	GEF6439-CC6434	**Method:**	SW846 8082A
Lab FileID:	EF189679.D	**Analyst approved:**	05/08/19 09:11 Tianwei Ruan
Injection Time:	05/08/19 04:06	**Supervisor approved:**	05/08/19 09:59 Gwendolyn Burns

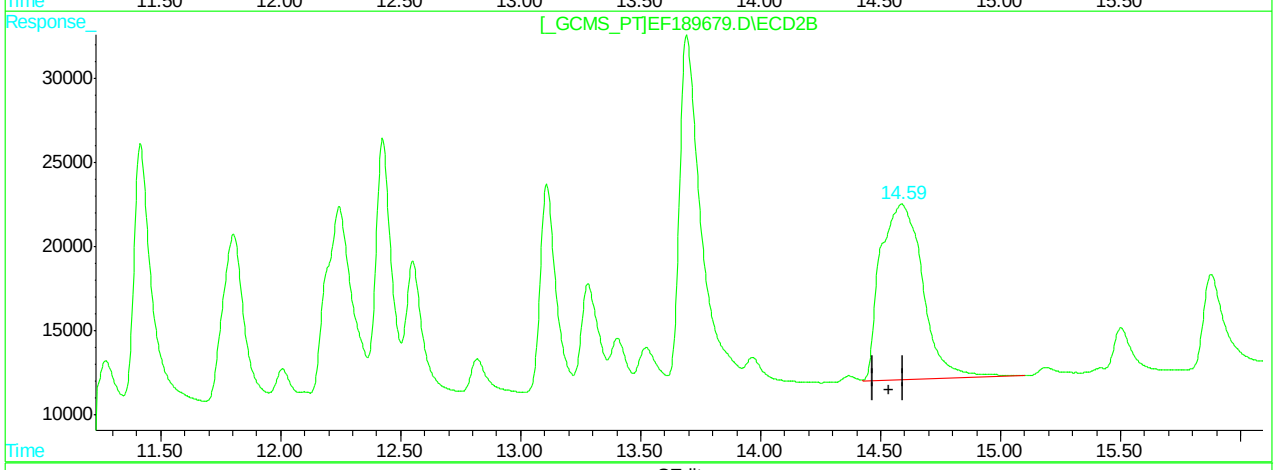
Parameter	CAS	Sig#	R.T. (min.)	Reason
AR1260-E		1	12.39	Split peak

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6439\EF189679.D\ECD1A.CH Vial: 26
Signal #2 : C:\HPCHEM\1\DATA\GEF6439\EF189679.D\ECD2B.CH
Acq On : 8 May 2019 4:06 am Operator: tianweir
Sample : cc6434-500 Inst : gcef
Misc : op20179,GEF6439,15.4,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 8 8:21 2019 Quant Results File: PCB6434.RES

Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed May 08 08:21:33 2019
Response via : Multiple Level Calibration





QEdit

(50) AR1260-E

12.33min 168.438PPB

response 312240

(50) AR1260-E #2

14.59min 563.053PPB

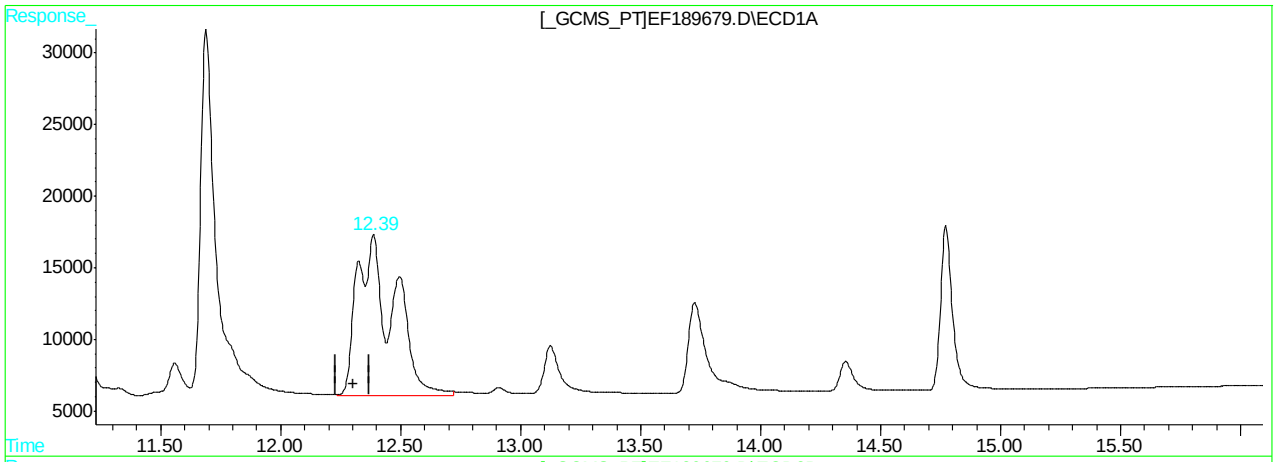
response 1286700

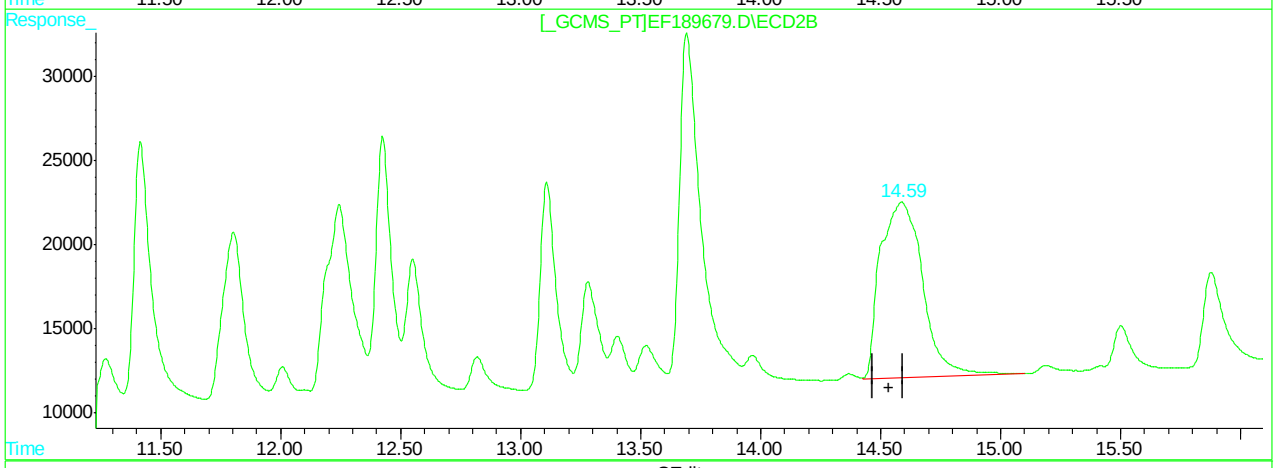
(+) = Expected Retention Time
EF189679.D PCB6434.M Wed May 08 08:21:59 2019 GCEF

Quantitation Report (Qedit)

Signal #1 : C:\HPCHEM\1\DATA\GEF6439\EF189679.D\ECD1A.CH Vial: 26
Signal #2 : C:\HPCHEM\1\DATA\GEF6439\EF189679.D\ECD2B.CH
Acq On : 8 May 2019 4:06 am Operator: tianweir
Sample : cc6434-500 Inst : gcef
Misc : op20179,GEF6439,15.4,,,10,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: .E
Quant Time: May 8 8:21 2019 Quant Results File: PCB6434.RES

Method : C:\HPCHEM\1\METHODS\PCB6434.M (Chemstation Integrator)
Title : GC/ECD- PCB
Last Update : Wed May 08 08:21:33 2019
Response via : Multiple Level Calibration





QEdit

(50) AR1260-E

12.39min 640.995PPB m

response 1188234

(50) AR1260-E #2

14.59min 563.053PPB

response 1286700

(+) = Expected Retention Time
EF189679.D PCB6434.M Wed May 08 08:22:05 2019 GCEF

SEMIVOLATILE by GC ANALYSIS LOG

Batch ID: GEF6434

Print Analyst Name: TianWei Zhang

Date: 5/1/19

Analyst Signature: TR

Columns: ZBCLPI / ZBCLP2

Method 8082

Initial Cal. Method IcGB6434

Injection Volume: 1.0 uL

Date Archived:

Standard Data

Lot #	Description	Conc.
SV 192581-08	AR1221/1254	1000 ppb
-09	AR1232/1262	
-10	AR1242/1268	
-11	AR1248	
SV 18-2534-1468	Pest Mix	50 ppb

Standard Data

Lot #	Description	Conc.
18-2584-88A	AR1016/1260	50 ppb
88B		250 ppb
88C		500 ppb
88D		1000 ppb
88E		2000 ppb
88F		3000 ppb
26	ZAB	20 ppb

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: Date: 5/3/19

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	IS	SU	Status (Data)	Comments
	GEF89484	IB				2				On	
	485	IC6434-50	1016/1260	1st		3				On	
	486	-250				4				On	
	487	-500				5				On	
	488	IC6434-1000				6				On	
	489	IC6434-2000				7				On	
	490	-3000				8				On	
	491	-1000	1221/1254			9				On	
	492	-1000	1232/1262			10				On	
	493	-1000	1242/1268			11				On	
	494	-1000	1248			12				On	
	495	ICV6434-1000	1016/1260	2nd		13				On	@SV19-2584-34 1000ppb
	496	-1000	1221/1254			14				NOT USED	Reinject or Recal?
	497	-1000	1232/1262			15				On	@SV19-2581-13 @1000ppb
	498	-1000	1242/1268			16				On	SV19-2581-14 @1000ppb
	499	-1000	1248			17				On	SV19-2581-15 @1000ppb
	500	Post Mix				18				On	~~SV19-2581~~ TR 5/2
R	501	ICV6434-1000	1221/1254	↓		14				On	@SV19-2581-12 1000 ppb

MTX = Matrix . Designate W for water, S for soil, O for oil.. IS = Internal Standard Area. (if used) SU = Surrogate.
Sample volume/weight refer to extraction log.
All strikeouts must be initialed, dated, and reason applied if not transcription error

TR 5/2

175

Form: OR016-09
Rev. Date: 5/25/17

VOA

SEMIVOLATILE by GC ANALYSIS LOG

Batch ID: GEF6439 (6439) RKS 5/7/19

Print Analyst Name: Rebecca Krug

Date: 5/7/19

Analyst Signature: RK

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
SV 190851-051	Ar1016/1260	500ppb
0BB	Ar1016/1260	1000ppb
23	IB	20ppb
190683	hexane (Fisher)	—

Columns: ZBCLPI / ZBCLPII

Method 8082

Initial Cal. Method PCB6434

Injection Volume: 1.0 µL

Date Archived:

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [signature] Date: 5/9/19

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	IS	SU	Status (Data)	Comments
	EF189647	CC6434-1000				31				OK	
	648	IB				2				OK	
	649	OP20113-MB1	20113	8082	SO	3				OK	
	650	JC87190-1				4				OK	
	651	OP20179-MB1	20179	8082	S	5				OK	
	652	-BS1				6				OK	
	653	JC87280-6				7				OK	
	654	OP20179-MS				8				OK	
	655	-MSD				9				OK	
	656	JC87242-1				10				OK	
	657	JC87243-1				11				OK	
	658	CC6434-500				12				OK	1016 B,C,D,E,1260 ABC 1st
	659	IB				2				OK	
	660	JC87244-1	20179	8082	S	13				OK	
	661	JC87245-1				14				OK	
	662	JC87246-1				15				OK	
	663	JC87247-1				16				OK	
	664	JC87436-1				17				OK	
	665	-2				18				OK	

MTX = Matrix, Designate W for water, S for soil, O for oil.. IS = Internal Standard Area. (If used) SU = Surrogate.

Sample volume/weight refer to extraction log.

All strikeouts must be initialed, dated, and reason applied if not transcription error

Form OR016-09

Rev. Date: 5/25/17

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JUJ

SEMIVOLATILE by GC ANALYSIS LOG

Batch ID: GEF6439

Print Analyst Name: Tianwei Ruan

Date: 5/7/19

Analyst Signature: TR

Columns: ZB624/ZB624U

Method 8082

Initial Cal. Method PCB6434

Injection Volume: 1.0 µL

Date Archived:

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
190681-05A	AR1016/1260	500ppb
05B	"	1000ppb
23	IB	20ppb
190683	Hexane(Fisher)	—

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: Date: 5/9/19

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	IS	SU	Status (Data)	Comments
	EF1896.TR017										
	666/667	hexane				100				OK	
	668	cc6434-1000				19				OK	TCMX, 1016AE, 1260AC 1st
	669	IB				2				OK	
	670	Jc87863-3	20179	BSV	J	20				OK	N.D
	671	Jc87271-1				21				OK	N.D
	672	Jc87267-8				22				OK	N.D
	673	-9				23				OK	N.D
	674	-10				24				OK	N.D
	675	Jc87280-4				25				OK	N.D
	676/677/678	hexane				100				OK	
	679	cc6434-500				26				OK	1st ↑, 1016 2nd
	680	IB				2				OK	
	681	Jc87280-5				27				OK	N.D
	682	-2				28				OK	N.D
	683	-3				29				OK	N.D
	684	Jc86881-9R				30				OK	N.D
	685	-12R				31				OK	N.D
	686	Jc86807-1	20113	BSV	JUX	32				OK	
	687/688/689	hexane				100				OK	

MTX = Matrix . Designate W for water, S for soil, O for oil.. IS = Internal Standard Area. (if used) SU = Surrogate.
Sample volume/weight refer to extraction log.
All strikeouts must be initialed, dated, and reason applied if not transcription error

Form: OR016-09
Rev. Date: 5/25/17

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SEMIVOLATILE by GC ANALYSIS LOG

Batch ID: GEF6439

Print Analyst Name: Tammie Rice

Date: 5/7/19

Analyst Signature: TR

Columns: ZB-CLP1 / ZB-CLP2

Method 8081A

Initial Cal. Method PCB6434

Injection Volume: 1.0 µL

Date Archived:

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
19 8V18.2581.05A	AR1016/1260	500ppb
-05B	↓	1000ppb
-23	1B	200ppb
190683	Hexane (Fisher)	—

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [signature] Date: 5/9/19

R	Data File	Sample ID	Ext. Batch	Test	MTX	ALS #	Dilution	IS	SU	Status (Data)	Comments
	BF189690	CC6434-1000				33					TCMX, 1016ADE, 1260AC ↑ ISTD
	691	1B				2					
	692	JC86807-2	20113	50W 50X		74					
	693	-3				35					
	694	-4				36					
	695	JC86804-4				1					
	695/696/697	hexane				100				NOTRUN	cut from Sequence
	698	CC6434-500				37				↓	↓
	699	1B				2					
W	696	JC86807-1				32				NOT USING	RR w/ backup concentrated
	697	hexane				100					
	698	CC6434-500				37				NOTRUN	cut from Seq
	699	1B				2				↓	↓
W	700	JC86807-1	20113			38					BACKUP
	701	-1				39	5				
	702	hexane				100					
	703	CC6434-1000				37					ISTD
	704	1B				2					

MTX = Matrix. Designate W for water, S for soil, O for oil.. IS = Internal Standard Area. (if used) SU = Surrogate.
Sample volume/weight refer to extraction log.
All strikeouts must be initialed, dated, and reason applied if not transcription error

Form: OR016-09
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LOGBOOK ID: 9-2392

Pest / PCB Extraction Log - Soils

Date Started: 5/5/19 Time Started: 9:00
Date Finished: 5/6/19 Time Finished: 15:30

Extract Method (CHECK OFF "√" /DO NOT CIRCLE):
Microwave SW3546 √ Sonication SW3550C _____
Waste Dilution SW3580A _____ Soxhlet SW3540 _____

BATCH # GC 20179 RACK# GE 52

Weighed by:	SH
Extracted by:	SH SA LT
Concentrated by:	SH SA LT
Final Vol. Top-up:	LT
Vialed by:	LT
Supervisor Review:	aj 5/6/19

Equipment/ Range	ID	Observed Temp (°C)	Correction Factor (°C)	Corrected Temp (°C)	Pressure/ Flowrate
Buchi (65-71°C)	1.4	65	–	–	OK
Buchi Chiller	B1,B4		–	–	OK
Waterbath (70-80°C)					
Waterbath Chiller (GPM)					
NEVAP (32-39°C, LPM)					
Balance	1335	N/A	N/A	N/A	N/A

SURROGATE	LOT #	CONC (ppb)	AMT (mL)
PCB	OP19233610S	400	1.0
PCB LL			
WITNESS SIGN: SA	SPIKE SIGN: SH		

MATRIX SPIKE	LOT #	CONC	AMT (mL)
PEST			1
PEST LL			
PCB	OP19233637	2 ppm	1.0
PCB LL			
WITNESS SIGN: SA	SPIKE SIGN: SH		

SOLVENT	LOT #	BRAND	AMT (mL)
2:1 HEXANE/ ACETONE	190683 / 186143	FISHER	30.0
1:1 METH CHLOR/ ACETONE			
HEXANE			

REAGENT	LOT #	BAKE BATCH #	BRAND
HYDROMATRIX	6435097	4-26-19A	AGILENT
SODIUM SULFATE	180973	4-26-19A	FISHER
FILTER PAPER	16819760		FISHER
FLORISIL			
1:1 SULFURIC ACID	2806558		RICCA
COPPER	OP18223112O	9-1-18	ALDRICH
PERMANG(KMnO4)			
HYDROXYLAMINE			
MATRIX	LOT #	BAKE BATCH #	BRAND

Special Client Spike Instructions

QC ID# for Special Spike	Amt to Spike	Spike ID	Lot #	Conc.	Amt. Spiked

WITNESS SIGN: SPIKE SIGN:
Manager/Supervisor/Team Lead Approval:

SPECIAL PROCESSING INSTRUCTIONS

Rx Reason:

Spiking:

Weights/Volumes:

Required MS/MSD:
JC87280-6

Final Volume: due 5/7

Other:

	Sample #	Analysis Type	Sample Bottle #	Sample Description	Sample Wet Wt. (g) Oil (g) Liq (mL)	Decant Y	Decant N	Sonicator ID	Microwave ID	Final Extract Color	Final Extract Vol (mL)	Extract Cleanup H2SO4	Florisil	Cu	KMnO4	GPC	Comment
	MB1	PCB		sand	15.0			1S		Clear	10.0	X		X			
	BS1			sand	15.0			1S		Clear	10.0	X		X			
	JC87280-6 MS		1	wet soil	16.4	–		1S		clear	10.0	X		X			
	MSD		1	wet soil	16.5	–		1S		Clear	10.0	X		X			
	BS																
	MS																
	MSD																
1	JC87242-1	PCB	1	gravel	15.5	–		1S		Clear	10.0	Y		X			
2	JC87243-1		1	rocks	5.0	–		1S		Clear	10.0	X		X			Δ
3	JC87244-1		1	soil	16.8	–		1S		Clear	10.0	X		X			
4	JC87245-1		1	rocks	5.0	–		1S		Clear	10.0	X		X			Δ
5	JC87246-1		1	rocks	1.0	–		1S		Clear	10.0	X		X			Δ
6	JC87247-1		1	soil	15.8	–		1S		Clear	10.0	X		X			
7	JC87267-8		1	soil	15.2	–		1S		Clear	10.0	X		X			
8	-9		1	soil	15.2	–		1S		Clear	10.0	X		X			
9	-10		1	soil	15.8	–		1S		Clear	10.0	X		X			
10	JC87271-1		4	~~gravel~~	15.6	–		1S		Yellow	10.0	X		X			O
11	JC87280-2		4	~~gravel~~	15.6	–		1S		Yellow	10.0	X		X			*
12	-3		1	wet soil	15.3	–		1S		Yellow	10.0	X		X			
13	-4		1	soil	15.2	–		1S		Clear	10.0	X		X			
14	-5		1	soil	16.4	–		1S		Clear	10.0	X		X			
15	-6		1	wet soil	15.0	–		1S		Clear	10.0	X		X			
16	JC87363-3		1	clay	15.0	–		1S		Yellow	10.0	X		X			
17	JC87436-1		1	soil	15.3	–		1S		Yellow	10.0	X		X			
18	-2		1	soil	15.4	–		1S		Yellow	10.0	X		X			
19	JC86881-9R		1	gravel	15.0	–		1S		Clear	10.0	X		X			
20	-12R		1	soil	15.2	–		1x		Yellow	10.0	X		X			

Comments: QC Samples (MS, MSD, LINK and/or DUP, Link) Confirmed by:

*JC87280-2: sample description is wet soil.
ΔJC87243-1, JC87245-1, JC87246-1: sample weight reduced due to low density & limited volume.
OJC87271-1: sample description is gravel.

SGS
Form: OP018A-09
Rev Date: 8/2/17

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Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Instrument Runlogs
- Initial and Continuing Calibration Blanks
- Initial and Continuing Calibration Checks
- High and Low Check Standards
- Interfering Element Check Standards
- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries
- IDL and Linear Range Summaries

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: H8050319S1.CSV Date Analyzed: 05/03/19 Methods: SW846 7471B
Analyst: EAL Run ID: MA46645
Parameters: Hg

Time	Sample Description	Dilution Factor	PS Recov	Comments
11:44	MA46645-STD1	1		B=1.1687E-004, C=1.8204E-002, RHO=0.9997545
11:45	MA46645-STD2	1		STDB
11:46	MA46645-STD3	1		STDC
11:48	MA46645-STD4	1		STDD
11:49	MA46645-STD5	1		STDE
11:51	MA46645-STD6	1		STDF
11:56	MA46645-ICV1	1		
11:57	MA46645-ICB1	1		
11:59	MA46645-CCV1	1		
12:00	MA46645-CCB1	1		
12:02	MA46645-CRI1	1		
12:04	MA46645-CCV2	1		
12:05	MA46645-CCB2	1		
12:10	MP14782-MB1	1		
12:11	MP14782-B1	1		
12:13	ZZZZZZ	1		
12:15	MP14782-S2	1		
12:16	JC87361-1	1		(sample used for QC only; not part of login JC87363)
12:18	ZZZZZZ	1		
12:20	ZZZZZZ	1		
12:22	ZZZZZZ	1		
12:24	ZZZZZZ	1		
12:25	MA46645-CCV3	1		
12:27	MA46645-CCB3	1		
12:29	ZZZZZZ	1		
12:30	ZZZZZZ	1		
12:32	ZZZZZZ	1		
12:33	ZZZZZZ	1		
12:35	ZZZZZZ	1		
12:38	ZZZZZZ	1		
12:39	ZZZZZZ	1		
12:41	ZZZZZZ	1		
12:42	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: H8050319S1.CSV Date Analyzed: 05/03/19 Methods: SW846 7471B
Analyst: EAL Run ID: MA46645
Parameters: Hg

Time	Sample Description	Dilution Factor	PS Recov	Comments
12:43	MA46645-CCV4	1		
12:45	MA46645-CCB4	1		
12:47	ZZZZZZ	1		
12:48	ZZZZZZ	1		
12:49	ZZZZZZ	1		
12:51	ZZZZZZ	1		
12:52	ZZZZZZ	1		
12:54	ZZZZZZ	1		
12:55	MP14783-MB1	1		
12:57	MP14783-B1	1		
12:58	MP14783-S1	1		
13:00	MA46645-CCV5	1		
13:02	MA46645-CCB5	1		
13:03	MP14783-S2	1		
13:05	JC87323-1	1		(sample used for QC only; not part of login JC87363)
13:07	ZZZZZZ	1		
13:08	ZZZZZZ	1		
13:09	ZZZZZZ	1		
13:11	ZZZZZZ	1		
13:12	ZZZZZZ	1		
13:13	ZZZZZZ	1		
13:15	ZZZZZZ	1		
13:16	MA46645-CCV6	1		
13:18	MA46645-CCB6	1		
13:19	ZZZZZZ	1		
13:21	JC87363-3	1		
---------->	Last reportable sample/prep for job JC87363			
13:22	ZZZZZZ	1		
13:24	MP14782-S1	1		
13:25	ZZZZZZ	1		
13:30	ZZZZZZ	5		
13:31	ZZZZZZ	2		
13:33	ZZZZZZ	2		
13:35	MA46645-CRI2	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: H8050319S1.CSV Date Analyzed: 05/03/19 Methods: SW846 7471B
Analyst: EAL Run ID: MA46645
Parameters: Hg

Time	Sample Description	Dilution Factor	PS Recov	Comments
13:37	MA46645-CCV7	1		
13:38	MA46645-CCB7	1		
---------->	Last reportable CCB for job JC87363			
	Refer to raw data for calibration curve and standards.			

REPORTED ELEMENTS SUMMARY

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: H8050319S1.CSV Date Analyzed: 05/03/19 Methods: SW846 7471B
Analyst: EAL Run ID: MA46645
Parameters: Hg

Time	Sample Description	Element: Dilution	Hg	
11:56	MA46645-ICV1	1	X	
11:57	MA46645-ICB1	1	X	
11:59	MA46645-CCV1	1	X	
12:00	MA46645-CCB1	1	X	
12:02	MA46645-CRI1	1	X	
12:04	MA46645-CCV2	1	X	
12:05	MA46645-CCB2	1	X	
12:10	MP14782-MB1	1	X	
12:11	MP14782-B1	1	X	
12:13	ZZZZZZ	1		
12:15	MP14782-S2	1	X	
12:16	JC87361-1	1	X	(a)
12:18	ZZZZZZ	1		
12:20	ZZZZZZ	1		
12:22	ZZZZZZ	1		
12:24	ZZZZZZ	1		
12:25	MA46645-CCV3	1	X	
12:27	MA46645-CCB3	1	X	
12:29	ZZZZZZ	1		
12:30	ZZZZZZ	1		
12:32	ZZZZZZ	1		
12:33	ZZZZZZ	1		
12:35	ZZZZZZ	1		
12:38	ZZZZZZ	1		
12:39	ZZZZZZ	1		
12:41	ZZZZZZ	1		
12:42	ZZZZZZ	1		
12:43	MA46645-CCV4	1	X	
12:45	MA46645-CCB4	1	X	
12:47	ZZZZZZ	1		
12:48	ZZZZZZ	1		
12:49	ZZZZZZ	1		
12:51	ZZZZZZ	1		
		Element:	Hg	

REPORTED ELEMENTS SUMMARY

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: H8050319S1.CSV Date Analyzed: 05/03/19 Methods: SW846 7471B
Analyst: EAL Run ID: MA46645
Parameters: Hg

Time	Sample Description	Element: Dilution	Hg	
12:52	ZZZZZZ	1		
12:54	ZZZZZZ	1		
12:55	MP14783-MB1	1	X	
12:57	MP14783-B1	1	X	
12:58	MP14783-S1	1	X	
13:00	MA46645-CCV5	1	X	
13:02	MA46645-CCB5	1	X	
13:03	MP14783-S2	1	X	
13:05	JC87323-1	1	X	(a)
13:07	ZZZZZZ	1		
13:08	ZZZZZZ	1		
13:09	ZZZZZZ	1		
13:11	ZZZZZZ	1		
13:12	ZZZZZZ	1		
13:13	ZZZZZZ	1		
13:15	ZZZZZZ	1		
13:16	MA46645-CCV6	1	X	
13:18	MA46645-CCB6	1	X	
13:19	ZZZZZZ	1		
13:21	JC87363-3	1	X	
13:22	ZZZZZZ	1		
13:24	MP14782-S1	1	X	
13:25	ZZZZZZ	1		
13:30	ZZZZZZ	5		
13:31	ZZZZZZ	2		
13:33	ZZZZZZ	2		
13:35	MA46645-CRI2	1	X	
13:37	MA46645-CCV7	1	X	
13:38	MA46645-CCB7	1	X	

(a) Sample used for QC only; not part of login JC87363.

	Element:	Hg

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: H8050319S1.CSV Date Analyzed: 05/03/19 Methods: SW846 7471B
QC Limits: result < RL Run ID: MA46645 Units: ug/l

Time:			11:57		12:00		12:05		12:27	
Sample ID:			ICB1		CCB1		CCB2		CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Mercury	0.20	.014	0.0353	<0.20	0.0366	<0.20	0.0337	<0.20	0.0240	<0.20

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: H8050319S1.CSV Date Analyzed: 05/03/19 Methods: SW846 7471B
QC Limits: result < RL Run ID: MA46645 Units: ug/l

Time:			12:45		13:02		13:18		13:38	
Sample ID:			CCB4		CCB5		CCB6		CCB7	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Mercury	0.20	.014	0.0251	<0.20	0.0255	<0.20	0.0253	<0.20	0.0308	<0.20

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: H8050319S1.CSV Date Analyzed: 05/03/19 Methods: SW846 7471B
QC Limits: 90 to 110 % Recovery Run ID: MA46645 Units: ug/l

Time:		11:56			11:59			12:04	
Sample ID:	ICV	ICV1		CCV	CCV1		CCV	CCV2	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Mercury	3	3.17	105.7	2.5	2.50	100.0	2.5	2.46	98.4

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: H8050319S1.CSV Date Analyzed: 05/03/19 Methods: SW846 7471B
QC Limits: 90 to 110 % Recovery Run ID: MA46645 Units: ug/l

Time:		12:25			12:43			13:00	
Sample ID:	CCV	CCV3		CCV	CCV4		CCV	CCV5	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Mercury	2.5	2.39	95.6	2.5	2.35	94.0	2.5	2.35	94.0

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: H8050319S1.CSV Date Analyzed: 05/03/19 Methods: SW846 7471B
QC Limits: 90 to 110 % Recovery Run ID: MA46645 Units: ug/l

Time:		13:16			13:37	
Sample ID:	CCV	CCV6		CCV	CCV7	
Metal	True	Results	% Rec	True	Results	% Rec
Mercury	2.5	2.36	94.4	2.5	2.43	97.2

(*) Outside of QC limits
(anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: H8050319S1.CSV Date Analyzed: 05/03/19 Methods: SW846 7471B
QC Limits: 70 to 130 % Recovery Run ID: MA46645 Units: ug/l

Time:			12:02		13:35	
Sample ID:	CRI	CRIA	CRI1		CRI2	
Metal	True	True	Results	% Rec	Results	% Rec
Mercury	0.20		0.206	103.0	0.168	84.0

(*) Outside of QC limits
(anr) Analyte not requested

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: SC050319M1.ICP Date Analyzed: 05/03/19 Methods: EPA 200.7, SW846 6010D
Analyst: MET Run ID: MA46646
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Dilution Factor	PS Recov	Comments
11:23	MA46646-STD1	1		STDA
11:28	MA46646-STD2	1		STDB
11:34	ZZZZZZ	1		
11:39	ZZZZZZ	1		
11:44	MA46646-ICV1	1		
11:50	MA46646-ICB1	1		
11:58	MA46646-ICCV1	1		
12:05	MA46646-CCB1	1		
12:13	MA46646-CRI1	1		
12:18	MA46646-CRID1	1		See rerun
12:23	MA46646-ICSA1	1		
12:28	MA46646-ICSAB1	1		
12:34	MA46646-HSTD1	1		
12:40	MA46646-HSTD2	1		
12:45	ZZZZZZ	1		
12:51	ZZZZZZ	1		
12:56	MA46646-CRID2	1		
13:01	ZZZZZZ	1		
13:06	MA46646-CCV1	1		
13:11	MA46646-CCB2	1		
13:16	ZZZZZZ	1		
13:21	ZZZZZZ	1		
13:27	ZZZZZZ	1		
13:32	ZZZZZZ	2		
13:37	ZZZZZZ	2		
13:42	ZZZZZZ	1		
13:47	ZZZZZZ	2		
13:53	ZZZZZZ	2		
13:58	ZZZZZZ	2		
14:03	MA46646-CCV2	1		
14:08	MA46646-CCB3	1		
14:13	ZZZZZZ	1		
14:18	ZZZZZZ	2		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: SC050319M1.ICP Date Analyzed: 05/03/19 Methods: EPA 200.7, SW846 6010D
Analyst: MET Run ID: MA46646
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Dilution Factor	PS Recov	Comments
14:23	ZZZZZZ	2		
14:28	ZZZZZZ	1		
14:33	ZZZZZZ	2		
14:38	ZZZZZZ	2		
14:43	MP14646-SD1	5		
14:48	MP14646-S1	2		
14:54	MP14646-S2	2		
14:59	MA46646-CCV3	1		
15:04	MA46646-CCB4	1		
15:09	JC87116-1	2		(sample used for QC only; not part of login JC87363)
15:14	MP14646-SD1	10		
15:19	ZZZZZZ	1		
15:24	ZZZZZZ	2		
15:30	MP14684-B1	1		
15:34	ZZZZZZ	2		
15:40	ZZZZZZ	2		
15:45	ZZZZZZ	1		
15:50	ZZZZZZ	2		
15:55	MA46646-CCV4	1		
16:00	MA46646-CCB5	1		
16:05	MP14776-MB1	1		
16:11	MP14776-B1	1		
16:16	ZZZZZZ	1		
16:21	MP14772-B1	1		
16:26	MP14772-MB1	1		
16:31	MA46646-ICSA2	1		
16:36	MA46646-ICSAB2	1		
16:42	ZZZZZZ	1		
16:47	MA46646-CCV5	1		
16:52	MA46646-CCB6	1		
16:57	MP14772-S1	1		Need PS for Sb
17:02	MP14772-S2	1		Need PS for Sb
17:08	JC87361-3	1		(sample used for QC only; not part of login JC87363)

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: SC050319M1.ICP Date Analyzed: 05/03/19 Methods: EPA 200.7, SW846 6010D
Analyst: MET Run ID: MA46646
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Dilution Factor	PS Recov	Comments
17:13	MP14772-SD1	5		
17:18	ZZZZZZ	1		
17:23	ZZZZZZ	1		
17:28	ZZZZZZ	1		
17:34	ZZZZZZ	1		
17:39	ZZZZZZ	1		
17:44	MA46646-CCV6	1		
17:49	MA46646-CCB7	1		
17:54	ZZZZZZ	1		
18:00	ZZZZZZ	1		
18:05	ZZZZZZ	1		
18:11	ZZZZZZ	1		
18:16	ZZZZZZ	1		
18:21	MP14771-B1	5		
18:26	MP14771-MB1	5		
18:31	ZZZZZZ	5		
18:37	MA46646-CCV7	1		
18:42	MA46646-CCB8	1		
18:47	ZZZZZZ	5		
18:52	ZZZZZZ	5		
18:57	ZZZZZZ	5		
19:03	ZZZZZZ	5		
19:08	ZZZZZZ	5		
19:13	ZZZZZZ	5		
19:18	MP14771-S1	5		
19:23	MP14771-S2	5		
19:28	JC87206-2	5		(sample used for QC only; not part of login JC87363)
19:34	MA46646-CCV8	1		
19:39	MA46646-CCB9	1		
19:44	ZZZZZZ	1		
19:49	ZZZZZZ	1		
19:54	ZZZZZZ	1		
20:00	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: SC050319M1.ICP Date Analyzed: 05/03/19 Methods: EPA 200.7, SW846 6010D
Analyst: MET Run ID: MA46646
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Dilution Factor	PS Recov	Comments
20:05	ZZZZZZ	1		
20:10	ZZZZZZ	1		
20:15	ZZZZZZ	1		
20:20	ZZZZZZ	1		
20:26	ZZZZZZ	1		
20:31	ZZZZZZ	1		
20:36	ZZZZZZ	1		
20:41	ZZZZZZ	1		
20:46	MA46646-CCV9	1		
20:51	MA46646-CCB10	1		
20:57	ZZZZZZ	3		
21:02	ZZZZZZ	3		
21:07	ZZZZZZ	2		
21:12	ZZZZZZ	1		
21:17	ZZZZZZ	2		
21:22	ZZZZZZ	5		
21:28	ZZZZZZ	3		
21:33	ZZZZZZ	2		
21:38	ZZZZZZ	1		
21:43	ZZZZZZ	10		
21:48	MA46646-CCV10	1		
21:54	MA46646-CCB11	1		
21:59	ZZZZZZ	2		
22:04	MP14771-SD1	25		
22:09	ZZZZZZ	5		
22:14	ZZZZZZ	5		
22:19	ZZZZZZ	5		
22:25	ZZZZZZ	5		
22:30	ZZZZZZ	5		
22:35	ZZZZZZ	1		
22:40	MP14677-PS1	1		
22:45	ZZZZZZ	2		
22:50	MA46646-CCV11	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: SC050319M1.ICP Date Analyzed: 05/03/19 Methods: EPA 200.7, SW846 6010D
Analyst: MET Run ID: MA46646
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Dilution Factor	PS Recov	Comments
22:55	MA46646-CCB12	1		
23:01	ZZZZZZ	2		
23:06	ZZZZZZ	2		
23:11	ZZZZZZ	2		
23:16	ZZZZZZ	1		
23:21	ZZZZZZ	1		
23:26	ZZZZZZ	1		
23:31	MP14724-S1	5		
23:36	MP14724-S2	5		
23:41	JC87131-2	5		(sample used for QC only; not part of login JC87363)
23:46	MP14724-SD1	25		
23:51	MA46646-CCV12	1		
23:56	MA46646-CCB13	1		
00:01	MP14724-S3	5		
00:06	MP14724-S4	5		
00:11	JC87131-2F	5		(sample used for QC only; not part of login JC87363)
00:16	MP14724-SD2	25		
00:21	ZZZZZZ	1		
00:27	ZZZZZZ	1		
00:32	ZZZZZZ	1		
00:38	ZZZZZZ	1		
00:43	ZZZZZZ	1		
00:49	ZZZZZZ	1		
00:54	MA46646-CCV13	1		
00:59	MA46646-CCB14	1		
01:04	ZZZZZZ	1		
01:10	ZZZZZZ	1		
01:15	ZZZZZZ	1		
01:20	MP14776-S1	1		Needs PS for Sb
01:25	MP14776-S2	1		Needs PS for Sb
01:30	JC87355-1	1		(sample used for QC only; not part of login JC87363)
01:35	MP14776-SD1	5		
01:41	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: SC050319M1.ICP Date Analyzed: 05/03/19 Methods: EPA 200.7, SW846 6010D
Analyst: MET Run ID: MA46646
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Dilution Factor	PS Recov	Comments
01:46	ZZZZZZ	1		
01:51	ZZZZZZ	1		
01:56	MA46646-CCV14	1		
02:01	MA46646-CCB15	1		
02:06	ZZZZZZ	1		
02:11	ZZZZZZ	1		
02:17	ZZZZZZ	1		
02:22	ZZZZZZ	1		
02:27	ZZZZZZ	1		
02:33	ZZZZZZ	1		
02:38	ZZZZZZ	1		
02:43	ZZZZZZ	1		
02:48	ZZZZZZ	1		
02:53	ZZZZZZ	1		
02:59	MA46646-CCV15	1		
03:04	MA46646-CCB16	1		
03:09	ZZZZZZ	1		
03:14	ZZZZZZ	1		
03:20	ZZZZZZ	1		
03:25	ZZZZZZ	1		
03:30	JC87363-3	1		
---------->	Last reportable sample/prep for job JC87363			
03:36	MP14763-B1	1		
03:41	ZZZZZZ	1		
03:46	MP14763-MB1	1		
03:51	MP14763-S1	1		Very high Na and Ca. In out
03:56	MP14763-S2	1		Very high Na and Ca. In out
04:01	MA46646-CCV16	1		
04:06	MA46646-CCB17	1		
---------->	Last reportable CCB for job JC87363			
04:11	JC87289-1	1		(sample used for QC only; not part of login JC87363)
04:17	MP14763-SD1	5		Very high Na and Ca. In out
04:22	ZZZZZZ	1		
04:28	ZZZZZZ	1		
04:33	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: SC050319M1.ICP Date Analyzed: 05/03/19 Methods: EPA 200.7, SW846 6010D
Analyst: MET Run ID: MA46646
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Dilution Factor	PS Recov	Comments
04:39	ZZZZZZ	1		
04:44	ZZZZZZ	1		
04:49	ZZZZZZ	1		
04:54	ZZZZZZ	1		
04:59	MA46646-CCV17	1		
05:04	MA46646-CCB18	1		
05:09	ZZZZZZ	1		
05:14	ZZZZZZ	1		
05:20	ZZZZZZ	1		
05:25	ZZZZZZ	1		
05:30	ZZZZZZ	1		
05:35	ZZZZZZ	1		
05:40	ZZZZZZ	1		
05:45	ZZZZZZ	1		
05:50	ZZZZZZ	1		
05:55	MA46646-CCV18	1		
06:00	MA46646-CCB19	1		
06:06	MP14767-MB1	1		
06:11	MP14767-B1	1		
06:16	MP14767-S1	1		FE=300ppm
06:21	MP14767-S2	1		FE=300ppm
06:26	JC87239-4	1		(sample used for QC only; not part of login JC87363)
06:32	MP14767-SD1	5		FE=300ppm
06:37	ZZZZZZ	1		
06:42	ZZZZZZ	1		
06:47	ZZZZZZ	1		
06:53	MA46646-CCV19	1		Y3600 saturation
06:58	MA46646-CCB20	1		
07:03	ZZZZZZ	1		
07:08	ZZZZZZ	1		
07:14	ZZZZZZ	1		
07:19	ZZZZZZ	1		
07:24	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: SC050319M1.ICP Date Analyzed: 05/03/19 Methods: EPA 200.7, SW846 6010D
Analyst: MET Run ID: MA46646
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Dilution Factor	PS Recov	Comments
07:30	ZZZZZZ	1		
07:35	ZZZZZZ	1		
07:40	ZZZZZZ	1		
07:46	ZZZZZZ	1		
07:51	MA46646-CCV20	1		
07:56	MA46646-CCB21	1		
08:01	ZZZZZZ	1		
08:06	ZZZZZZ	1		
08:12	ZZZZZZ	1		
08:17	ZZZZZZ	1		
08:22	ZZZZZZ	1		
08:27	ZZZZZZ	1		
08:32	ZZZZZZ	1		
08:38	ZZZZZZ	1		
08:43	ZZZZZZ	1		
08:48	MA46646-CCV21	1		
08:53	MA46646-CCB22	1		

Refer to raw data for calibration curve and standards.

REPORTED ELEMENTS SUMMARY

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: SC050319M1.ICP Date Analyzed: 05/03/19 Methods: EPA 200.7, SW846 6010D
Analyst: MET Run ID: MA46646
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Element: Dilution	As	Ba	Cd	Cr	Pb	Se	Ag
11:34	ZZZZZZ	1							
11:39	ZZZZZZ	1							
11:44	MA46646-ICV1	1	X	X	X	X	X	X	X
11:50	MA46646-ICB1	1	X	X	X	X	X	X	X
11:58	MA46646-ICCV1	1	X	X	X	X	X	X	X
12:05	MA46646-CCB1	1	X	X	X	X	X	X	X
12:13	MA46646-CRI1	1	X	X	X	X	X	X	X
12:18	MA46646-CRID1	1	See	rerun					
12:23	MA46646-ICSA1	1	X	X	X	X	X	X	X
12:28	MA46646-ICSAB1	1	X	X	X	X	X	X	X
12:34	MA46646-HSTD1	1	X	X	X	X	X	X	X
12:40	MA46646-HSTD2	1							
12:45	ZZZZZZ	1							
12:51	ZZZZZZ	1							
12:56	MA46646-CRID2	1	X	X	X	X	X	X	X
13:01	ZZZZZZ	1							
13:06	MA46646-CCV1	1	X	X	X	X	X	X	X
13:11	MA46646-CCB2	1	X	X	X	X	X	X	X
13:16	ZZZZZZ	1							
13:21	ZZZZZZ	1							
13:27	ZZZZZZ	1							
13:32	ZZZZZZ	2							
13:37	ZZZZZZ	2							
13:42	ZZZZZZ	1							
13:47	ZZZZZZ	2							
13:53	ZZZZZZ	2							
13:58	ZZZZZZ	2							
14:03	MA46646-CCV2	1	X	X	X	X	X	X	X
14:08	MA46646-CCB3	1	X	X	X	X	X	X	X
14:13	ZZZZZZ	1							
14:18	ZZZZZZ	2							
14:23	ZZZZZZ	2							
14:28	ZZZZZZ	1							
		Element:	As	Ba	Cd	Cr	Pb	Se	Ag

REPORTED ELEMENTS SUMMARY

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: SC050319M1.ICP Date Analyzed: 05/03/19 Methods: EPA 200.7, SW846 6010D
Analyst: MET Run ID: MA46646
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Element: Dilution	As	Ba	Cd	Cr	Pb	Se	Ag	
14:33	ZZZZZZ	2								
14:38	ZZZZZZ	2								
14:43	MP14646-SD1	5	X							
14:48	MP14646-S1	2					X			
14:54	MP14646-S2	2					X			
14:59	MA46646-CCV3	1	X	X	X	X	X	X	X	
15:04	MA46646-CCB4	1	X	X	X	X	X	X	X	
15:09	JC87116-1	2								(a)
15:14	MP14646-SD1	10					X			
15:19	ZZZZZZ	1								
15:24	ZZZZZZ	2								
15:30	MP14684-B1	1				X			X	
15:34	ZZZZZZ	2								
15:40	ZZZZZZ	2								
15:45	ZZZZZZ	1								
15:50	ZZZZZZ	2								
15:55	MA46646-CCV4	1	X	X	X	X	X	X	X	
16:00	MA46646-CCB5	1	X	X	X	X	X	X	X	
16:05	MP14776-MB1	1	X	X	X	X	X	X	X	
16:11	MP14776-B1	1	X	X	X	X	X	X	X	
16:16	ZZZZZZ	1								
16:21	MP14772-B1	1	X	X	X	X	X	X	X	
16:26	MP14772-MB1	1	X	X	X	X	X	X	X	
16:31	MA46646-ICSA2	1	X	X	X	X	X	X	X	
16:36	MA46646-ICSAB2	1	X	X	X	X	X	X	X	
16:42	ZZZZZZ	1								
16:47	MA46646-CCV5	1	X	X	X	X	X	X	X	
16:52	MA46646-CCB6	1	X	X	X	X	X	X	X	
16:57	MP14772-S1	1	X	X	X	X	X	X	X	
17:02	MP14772-S2	1	X	X	X	X	X	X	X	
17:08	JC87361-3	1	X	X	X	X	X	X	X	(a)
17:13	MP14772-SD1	5	X	X	X	X	X	X	X	
17:18	ZZZZZZ	1								
		Element:	As	Ba	Cd	Cr	Pb	Se	Ag	

REPORTED ELEMENTS SUMMARY

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: SC050319M1.ICP Date Analyzed: 05/03/19 Methods: EPA 200.7, SW846 6010D
Analyst: MET Run ID: MA46646
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Element: Dilution	As	Ba	Cd	Cr	Pb	Se	Ag	
17:23	ZZZZZZ	1								
17:28	ZZZZZZ	1								
17:34	ZZZZZZ	1								
17:39	ZZZZZZ	1								
17:44	MA46646-CCV6	1	X	X	X	X	X	X	X	
17:49	MA46646-CCB7	1	X	X	X	X	X	X	X	
17:54	ZZZZZZ	1								
18:00	ZZZZZZ	1								
18:05	ZZZZZZ	1								
18:11	ZZZZZZ	1								
18:16	ZZZZZZ	1								
18:21	MP14771-B1	5	X	X	X	X	X	X	X	
18:26	MP14771-MB1	5	X	X	X	X	X	X	X	
18:31	ZZZZZZ	5								
18:37	MA46646-CCV7	1	X	X	X	X	X	X	X	
18:42	MA46646-CCB8	1	X	X	X	X	X	X	X	
18:47	ZZZZZZ	5								
18:52	ZZZZZZ	5								
18:57	ZZZZZZ	5								
19:03	ZZZZZZ	5								
19:08	ZZZZZZ	5								
19:13	ZZZZZZ	5								
19:18	MP14771-S1	5	X	X	X	X	X	X	X	
19:23	MP14771-S2	5	X	X	X	X	X	X	X	
19:28	JC87206-2	5	X	X	X	X	X	X	X	(a)
19:34	MA46646-CCV8	1	X	X	X	X	X	X	X	
19:39	MA46646-CCB9	1	X	X	X	X	X	X	X	
19:44	ZZZZZZ	1								
19:49	ZZZZZZ	1								
19:54	ZZZZZZ	1								
20:00	ZZZZZZ	1								
20:05	ZZZZZZ	1								
20:10	ZZZZZZ	1								
		Element:	As	Ba	Cd	Cr	Pb	Se	Ag	

REPORTED ELEMENTS SUMMARY

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: SC050319M1.ICP Date Analyzed: 05/03/19 Methods: EPA 200.7, SW846 6010D
Analyst: MET Run ID: MA46646
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Element: Dilution	As	Ba	Cd	Cr	Pb	Se	Ag
20:15	ZZZZZZ	1							
20:20	ZZZZZZ	1							
20:26	ZZZZZZ	1							
20:31	ZZZZZZ	1							
20:36	ZZZZZZ	1							
20:41	ZZZZZZ	1							
20:46	MA46646-CCV9	1	X	X	X	X	X	X	X
20:51	MA46646-CCB10	1	X	X	X	X	X	X	X
20:57	ZZZZZZ	3							
21:02	ZZZZZZ	3							
21:07	ZZZZZZ	2							
21:12	ZZZZZZ	1							
21:17	ZZZZZZ	2							
21:22	ZZZZZZ	5							
21:28	ZZZZZZ	3							
21:33	ZZZZZZ	2							
21:38	ZZZZZZ	1							
21:43	ZZZZZZ	10							
21:48	MA46646-CCV10	1	X	X	X	X	X	X	X
21:54	MA46646-CCB11	1	X	X	X	X	X	X	X
21:59	ZZZZZZ	2							
22:04	MP14771-SD1	25	X	X	X	X	X	X	X
22:09	ZZZZZZ	5							
22:14	ZZZZZZ	5							
22:19	ZZZZZZ	5							
22:25	ZZZZZZ	5							
22:30	ZZZZZZ	5							
22:35	ZZZZZZ	1							
22:40	MP14677-PS1	1							
22:45	ZZZZZZ	2							
22:50	MA46646-CCV11	1	X	X	X	X	X	X	X
22:55	MA46646-CCB12	1	X	X	X	X	X	X	X
23:01	ZZZZZZ	2							
		Element:	As	Ba	Cd	Cr	Pb	Se	Ag

REPORTED ELEMENTS SUMMARY

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: SC050319M1.ICP Date Analyzed: 05/03/19 Methods: EPA 200.7, SW846 6010D
Analyst: MET Run ID: MA46646
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Element: Dilution	As	Ba	Cd	Cr	Pb	Se	Ag	
23:06	ZZZZZZ	2								
23:11	ZZZZZZ	2								
23:16	ZZZZZZ	1								
23:21	ZZZZZZ	1								
23:26	ZZZZZZ	1								
23:31	MP14724-S1	5								
23:36	MP14724-S2	5								
23:41	JC87131-2	5								(a)
23:46	MP14724-SD1	25								
23:51	MA46646-CCV12	1	X	X	X	X	X	X	X	
23:56	MA46646-CCB13	1	X	X	X	X	X	X	X	
00:01	MP14724-S3	5								
00:06	MP14724-S4	5								
00:11	JC87131-2F	5								(a)
00:16	MP14724-SD2	25								
00:21	ZZZZZZ	1								
00:27	ZZZZZZ	1								
00:32	ZZZZZZ	1								
00:38	ZZZZZZ	1								
00:43	ZZZZZZ	1								
00:49	ZZZZZZ	1								
00:54	MA46646-CCV13	1	X	X	X	X	X	X	X	
00:59	MA46646-CCB14	1	X	X	X	X	X	X	X	
01:04	ZZZZZZ	1								
01:10	ZZZZZZ	1								
01:15	ZZZZZZ	1								
01:20	MP14776-S1	1	X	X	X	X	X			
01:25	MP14776-S2	1	X	X	X	X	X			
01:30	JC87355-1	1	X	X	X	X	X			(a)
01:35	MP14776-SD1	5	X	X	X	X	X			
01:41	ZZZZZZ	1								
01:46	ZZZZZZ	1								
01:51	ZZZZZZ	1								
		Element:	As	Ba	Cd	Cr	Pb	Se	Ag	

REPORTED ELEMENTS SUMMARY

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: SC050319M1.ICP Date Analyzed: 05/03/19 Methods: EPA 200.7, SW846 6010D
Analyst: MET Run ID: MA46646
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Dilution	Element: As	Ba	Cd	Cr	Pb	Se	Ag	
01:56	MA46646-CCV14	1	X	X	X	X	X	X	X	
02:01	MA46646-CCB15	1	X	X	X	X	X	X	X	
02:06	ZZZZZZ	1								
02:11	ZZZZZZ	1								
02:17	ZZZZZZ	1								
02:22	ZZZZZZ	1								
02:27	ZZZZZZ	1								
02:33	ZZZZZZ	1								
02:38	ZZZZZZ	1								
02:43	ZZZZZZ	1								
02:48	ZZZZZZ	1								
02:53	ZZZZZZ	1								
02:59	MA46646-CCV15	1	X	X	X	X	X	X	X	
03:04	MA46646-CCB16	1	X	X	X	X	X	X	X	
03:09	ZZZZZZ	1								
03:14	ZZZZZZ	1								
03:20	ZZZZZZ	1								
03:25	ZZZZZZ	1								
03:30	JC87363-3	1	X	X	X	X	X	X	X	
03:36	MP14763-B1	1	X	X	X	X	X	X	X	
03:41	ZZZZZZ	1								
03:46	MP14763-MB1	1	X	X	X	X	X	X	X	
03:51	MP14763-S1	1		X	X	X			X	
03:56	MP14763-S2	1		X	X	X			X	
04:01	MA46646-CCV16	1	X	X	X	X	X	X	X	
04:06	MA46646-CCB17	1	X	X	X	X	X	X	X	
04:11	JC87289-1	1		X	X	X			X	(a)
04:17	MP14763-SD1	5		X	X	X			X	
04:22	ZZZZZZ	1								
04:28	ZZZZZZ	1								
04:33	ZZZZZZ	1								
04:39	ZZZZZZ	1								
04:44	ZZZZZZ	1								
		Element:	As	Ba	Cd	Cr	Pb	Se	Ag	

REPORTED ELEMENTS SUMMARY

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: SC050319M1.ICP Date Analyzed: 05/03/19 Methods: EPA 200.7, SW846 6010D
Analyst: MET Run ID: MA46646
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Dilution	Element: As	Ba	Cd	Cr	Pb	Se	Ag
04:49	ZZZZZZ	1							
04:54	ZZZZZZ	1							
04:59	MA46646-CCV17	1	X	X	X	X	X	X	X
05:04	MA46646-CCB18	1	X	X	X	X	X	X	X
05:09	ZZZZZZ	1							
05:14	ZZZZZZ	1							
05:20	ZZZZZZ	1							
05:25	ZZZZZZ	1							
05:30	ZZZZZZ	1							
05:35	ZZZZZZ	1							
05:40	ZZZZZZ	1							
05:45	ZZZZZZ	1							
05:50	ZZZZZZ	1							
05:55	MA46646-CCV18	1	X	X	X	X	X	X	X
06:00	MA46646-CCB19	1	X	X	X	X	X	X	X
06:06	MP14767-MB1	1	X						
06:11	MP14767-B1	1	X						
06:16	MP14767-S1	1	FE=300ppm						
06:21	MP14767-S2	1	FE=300ppm						
06:26	JC87239-4	1	FE=300ppm						
06:32	MP14767-SD1	5	FE=300ppm						
06:37	ZZZZZZ	1							
06:42	ZZZZZZ	1							
06:47	ZZZZZZ	1							
06:53	MA46646-CCV19	1	X	X	X	X	X	X	X
06:58	MA46646-CCB20	1	X	X	X	X	X	X	X
07:03	ZZZZZZ	1							
07:08	ZZZZZZ	1							
07:14	ZZZZZZ	1							
07:19	ZZZZZZ	1							
07:24	ZZZZZZ	1							
07:30	ZZZZZZ	1							
07:35	ZZZZZZ	1							
		Element:	As	Ba	Cd	Cr	Pb	Se	Ag

REPORTED ELEMENTS SUMMARY

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: SC050319M1.ICP Date Analyzed: 05/03/19 Methods: EPA 200.7, SW846 6010D
Analyst: MET Run ID: MA46646
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Element: Dilution	As	Ba	Cd	Cr	Pb	Se	Ag
07:40	ZZZZZZ	1							
07:46	ZZZZZZ	1							
07:51	MA46646-CCV20	1	X	X	X	X	X	X	X
07:56	MA46646-CCB21	1	X	X	X	X	X	X	X
08:01	ZZZZZZ	1							
08:06	ZZZZZZ	1							
08:12	ZZZZZZ	1							
08:17	ZZZZZZ	1							
08:22	ZZZZZZ	1							
08:27	ZZZZZZ	1							
08:32	ZZZZZZ	1							
08:38	ZZZZZZ	1							
08:43	ZZZZZZ	1							
08:48	MA46646-CCV21	1	X	X	X	X	X	X	X
08:53	MA46646-CCB22	1	X	X	X	X	X	X	X

(a) Sample used for QC only; not part of login JC87363.

Element:	As	Ba	Cd	Cr	Pb	Se	Ag

INTERNAL STANDARD SUMMARY

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: SC050319M1.ICP Date Analyzed: 05/03/19 Methods: EPA 200.7, SW846 6010D
Analyst: MET Run ID: MA46646
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
11:23	MA46646-STD1	6461 R	151250 R	27805 R	10109 R
11:28	MA46646-STD2	6115	140810	27371	9005
11:34	ZZZZZZ	6258	144990	27492	9219
11:39	ZZZZZZ	6520	152870	27774	10168
11:44	MA46646-ICV1	6239	143770	27470	9192
11:50	MA46646-ICB1	6489	151100	27561	10119
11:58	MA46646-ICCV1	6229	143600	27442	9159
12:05	MA46646-CCB1	6491	151860	27825	10093
12:13	MA46646-CRI1	6304	146820	27365	9638
12:18	MA46646-CRID1	No results reported for the elements associated with this internal standard.			
12:23	MA46646-ICSA1	5834	131160	26451	8360
12:28	MA46646-ICSAB1	5825	131390	26569	8381
12:34	MA46646-HSTD1	6230	147530	27632	9743
12:40	MA46646-HSTD2	5862	133410	26571	8356
12:45	ZZZZZZ	6394	149040	27494	10032
12:51	ZZZZZZ	6278	152070	27773	10022
12:56	MA46646-CRID2	6474	151650	27903	10019
13:01	ZZZZZZ	6516	152380	27904	10118
13:06	MA46646-CCV1	6211	143970	27218	9112
13:11	MA46646-CCB2	6474	151490	27605	10058
13:16	ZZZZZZ	6623	152550	28138	10247
13:21	ZZZZZZ	6669	153120	29459	9582
13:27	ZZZZZZ	6508	152300	27999	10109
13:32	ZZZZZZ	6564	150910	28778	9686
13:37	ZZZZZZ	6614	152560	29040	9603
13:42	ZZZZZZ	6543	152060	28918	9665
13:47	ZZZZZZ	6700	152920	29046	9612
13:53	ZZZZZZ	6445	148350	28025	9784
13:58	ZZZZZZ	6815	154940	30028	9454
14:03	MA46646-CCV2	6220	142340	27141	9087
14:08	MA46646-CCB3	6442	150500	27383	9989
14:13	ZZZZZZ	6650	153980	29080	9635
14:18	ZZZZZZ	6479	147680	28271	9582

INTERNAL STANDARD SUMMARY

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: SC050319M1.ICP Date Analyzed: 05/03/19 Methods: EPA 200.7, SW846 6010D
Analyst: MET Run ID: MA46646
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
14:23	ZZZZZZ	6542	149230	28479	9563
14:28	ZZZZZZ	6535	149490	28591	9453
14:33	ZZZZZZ	6469	148290	28299	9469
14:38	ZZZZZZ	6502	147110	28255	9503
14:43	MP14646-SD1	6342	147440	27997	9337
14:48	MP14646-S1	6162	141130	27509	8836
14:54	MP14646-S2	6170	141780	27638	8816
14:59	MA46646-CCV3	6179	143330	27318	9015
15:04	MA46646-CCB4	6438	152130	27852	9950
15:09	JC87116-1	6136	142010	27678	8868
15:14	MP14646-SD1	6485	148300	28073	9693
15:19	ZZZZZZ	6545	152980	28194	10235
15:24	ZZZZZZ	6584	151920	28154	9819
15:30	MP14684-B1	6332	147090	27980	9279
15:34	ZZZZZZ	6238	144310	28241	9137
15:40	ZZZZZZ	6278	145070	27731	9183
15:45	ZZZZZZ	6551	153220	28353	10089
15:50	ZZZZZZ	6473	148890	28178	9451
15:55	MA46646-CCV4	6153	143960	27393	8970
16:00	MA46646-CCB5	6472	151670	27748	9976
16:05	MP14776-MB1	6517	151920	28016	10032
16:11	MP14776-B1	6352	146840	27894	9303
16:16	ZZZZZZ	No results reported for the elements associated with this internal standard.			
16:21	MP14772-B1	6324	145670	27578	9269
16:26	MP14772-MB1	6505	153180	28199	10027
16:31	MA46646-ICSA2	5825	131170	26501	8277
16:36	MA46646-ICSAB2	5781	132580	26671	8268
16:42	ZZZZZZ	6724	154720	29501	9351
16:47	MA46646-CCV5	6201	143770	27568	9037
16:52	MA46646-CCB6	6496	150760	27667	10028
16:57	MP14772-S1	6418	146510	28634	9108
17:02	MP14772-S2	6410	146020	28634	9085
17:08	JC87361-3	6519	148750	28976	9339

INTERNAL STANDARD SUMMARY

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: SC050319M1.ICP Date Analyzed: 05/03/19 Methods: EPA 200.7, SW846 6010D
Analyst: MET Run ID: MA46646
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
17:13	MP14772-SD1	6443	149510	27989	9635
17:18	ZZZZZZ	6174	142120	28673	8546
17:23	ZZZZZZ	6323	149170	29064	9250
17:28	ZZZZZZ	5936	137670	27595	8275
17:34	ZZZZZZ	6218	143660	28873	8515
17:39	ZZZZZZ	No results reported for the elements associated with this internal standard.			
17:44	MA46646-CCV6	6189	142120	27450	9014
17:49	MA46646-CCB7	6366	149690	27460	9827
17:54	ZZZZZZ	6075	139480	28066	8276
18:00	ZZZZZZ	6197	144230	28382	9224
18:05	ZZZZZZ	6237	145720	28402	8653
18:11	ZZZZZZ	No results reported for the elements associated with this internal standard.			
18:16	ZZZZZZ	6078	140970	27758	8471
18:21	MP14771-B1	6153	141600	27690	8728
18:26	MP14771-MB1	6087	139410	27472	8728
18:31	ZZZZZZ	6132	141320	27819	8749
18:37	MA46646-CCV7	6212	142150	27462	9003
18:42	MA46646-CCB8	6476	151230	27769	9946
18:47	ZZZZZZ	6111	139980	27349	8721
18:52	ZZZZZZ	5897	136340	27002	8427
18:57	ZZZZZZ	6142	140920	27681	8775
19:03	ZZZZZZ	6070	140260	27707	8632
19:08	ZZZZZZ	6125	139630	27555	8696
19:13	ZZZZZZ	6118	140530	27557	8744
19:18	MP14771-S1	6104	140280	27682	8770
19:23	MP14771-S2	6111	139840	27624	8779
19:28	JC87206-2	6099	135890	27484	8776
19:34	MA46646-CCV8	6187	142480	27311	8978
19:39	MA46646-CCB9	6435	150910	27921	9900
19:44	ZZZZZZ	6442	150560	27881	9870
19:49	ZZZZZZ	6412	150330	27680	9838
19:54	ZZZZZZ	6393	150610	27826	9854
20:00	ZZZZZZ	6438	152890	27943	9877

INTERNAL STANDARD SUMMARY

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: SC050319M1.ICP Date Analyzed: 05/03/19 Methods: EPA 200.7, SW846 6010D
Analyst: MET Run ID: MA46646
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
20:05	ZZZZZZ	6494	151040	27889	9926
20:10	ZZZZZZ	6427	150790	27605	9848
20:15	ZZZZZZ	6428	150230	27655	9876
20:20	ZZZZZZ	6428	150660	27769	9971
20:26	ZZZZZZ	6512	136540	28331	8956
20:31	ZZZZZZ	5905	136950	27080	8549
20:36	ZZZZZZ	6488	151210	27850	9958
20:41	ZZZZZZ	6440	148960	27677	9897
20:46	MA46646-CCV9	6188	142390	27121	8975
20:51	MA46646-CCB10	6381	151110	27253	9825
20:57	ZZZZZZ	No results reported for the elements associated with this internal standard.			
21:02	ZZZZZZ	No results reported for the elements associated with this internal standard.			
21:07	ZZZZZZ	No results reported for the elements associated with this internal standard.			
21:12	ZZZZZZ	6173	143020	28858	8556
21:17	ZZZZZZ	No results reported for the elements associated with this internal standard.			
21:22	ZZZZZZ	No results reported for the elements associated with this internal standard.			
21:28	ZZZZZZ	6291	145660	27871	9332
21:33	ZZZZZZ	No results reported for the elements associated with this internal standard.			
21:38	ZZZZZZ	6184	142170	28920	8547
21:43	ZZZZZZ	No results reported for the elements associated with this internal standard.			
21:48	MA46646-CCV10	6172	141390	27203	8941
21:54	MA46646-CCB11	6410	151140	27631	9853
21:59	ZZZZZZ	No results reported for the elements associated with this internal standard.			
22:04	MP14771-SD1	6324	144830	27280	9375
22:09	ZZZZZZ	6068	138930	27297	8670
22:14	ZZZZZZ	6118	140950	27679	8774
22:19	ZZZZZZ	6104	138870	27506	8663
22:25	ZZZZZZ	6049	138730	27394	8588
22:30	ZZZZZZ	6141	141210	27787	8773
22:35	ZZZZZZ	6501	152460	28108	9953
22:40	MP14677-PS1	6407	146630	28468	9164
22:45	ZZZZZZ	6528	151130	28372	9601
22:50	MA46646-CCV11	6204	141960	27371	8987

INTERNAL STANDARD SUMMARY

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: SC050319M1.ICP Date Analyzed: 05/03/19 Methods: EPA 200.7, SW846 6010D
Analyst: MET Run ID: MA46646
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
22:55	MA46646-CCB12	6438	150990	27672	9885
23:01	ZZZZZZ	6480	999999 !a	28029	9498
23:06	ZZZZZZ	6478	148680	28120	9499
23:11	ZZZZZZ	No results reported for the elements associated with this internal standard.			
23:16	ZZZZZZ	6510	152890	28055	9975
23:21	ZZZZZZ	6527	152870	28152	9989
23:26	ZZZZZZ	6319	146520	27975	9225
23:31	MP14724-S1	6193	143900	27461	8999
23:36	MP14724-S2	6217	144240	27571	9034
23:41	JC87131-2	6220	144670	27484	9084
23:46	MP14724-SD1	6350	146150	27256	9537
23:51	MA46646-CCV12	6190	142230	27076	8950
23:56	MA46646-CCB13	6425	150060	27487	9851
00:01	MP14724-S3	6183	143270	27331	8993
00:06	MP14724-S4	6199	143290	27376	9014
00:11	JC87131-2F	6208	144180	27340	9073
00:16	MP14724-SD2	6327	147870	27387	9518
00:21	ZZZZZZ	6134	138390	28030	8213
00:27	ZZZZZZ	6037	139400	28318	8131
00:32	ZZZZZZ	6513	149870	30260	8712
00:38	ZZZZZZ	6678	148640	29937	9206
00:43	ZZZZZZ	7129	158670	31633	9047
00:49	ZZZZZZ	6526	150890	29634	8961
00:54	MA46646-CCV13	6159	141080	27076	8922
00:59	MA46646-CCB14	6431	152170	27548	9876
01:04	ZZZZZZ	6775	153130	29156	9509
01:10	ZZZZZZ	6528	153680	28199	9965
01:15	ZZZZZZ	6318	146260	27949	9184
01:20	MP14776-S1	6371	147050	28428	9084
01:25	MP14776-S2	6374	147830	28650	9117
01:30	JC87355-1	6418	149010	29089	8933
01:35	MP14776-SD1	6425	148130	27676	9428
01:41	ZZZZZZ	6571	151970	29017	9213

INTERNAL STANDARD SUMMARY

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: SC050319M1.ICP Date Analyzed: 05/03/19 Methods: EPA 200.7, SW846 6010D
Analyst: MET Run ID: MA46646
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	
01:46	ZZZZZZ	6417	148310	28069	9299	
01:51	ZZZZZZ	6582	149970	28811	9248	
01:56	MA46646-CCV14	6173	143160	27101	8902	
02:01	MA46646-CCB15	6401	150020	27362	9784	
02:06	ZZZZZZ	6595	150350	28406	9364	
02:11	ZZZZZZ	6599	150600	28926	9192	
02:17	ZZZZZZ	6505	150220	28433	9282	
02:22	ZZZZZZ	6584	152760	29115	9269	
02:27	ZZZZZZ	6529	149750	28811	9120	
02:33	ZZZZZZ	6612	151090	28789	9252	
02:38	ZZZZZZ	6545	150520	28559	9290	
02:43	ZZZZZZ	6619	152070	29211	9127	
02:48	ZZZZZZ	6635	151330	29221	9200	
02:53	ZZZZZZ	6561	151490	28763	9212	
02:59	MA46646-CCV15	6150	141920	27014	8851	
03:04	MA46646-CCB16	6402	150100	27549	9769	
03:09	ZZZZZZ	6495	150600	28970	9363	
03:14	ZZZZZZ	6575	150320	28888	9401	
03:20	ZZZZZZ	6449	149060	28495	9295	
03:25	ZZZZZZ	6303	148290	28607	9089	
03:30	JC87363-3	6379	146790	28780	8584	
03:36	MP14763-B1	6301	146030	27806	9133	
03:41	ZZZZZZ	6352	150310	27613	9704	
03:46	MP14763-MB1	6484	151850	27929	9869	
03:51	MP14763-S1	4928	116340	25037	6942	!a
03:56	MP14763-S2	4930	117090	25350	6935	!a
04:01	MA46646-CCV16	6141	138110	27002	8818	
04:06	MA46646-CCB17	6484	151590	27697	9853	
04:11	JC87289-1	4949	116590	25416	6922	!a
04:17	MP14763-SD1	5695	131980	26599	7967	
04:22	ZZZZZZ	5321	125430	26266	7325	
04:28	ZZZZZZ	5330	124160	26300	7339	
04:33	ZZZZZZ	5455	126360	26530	7514	

INTERNAL STANDARD SUMMARY

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: SC050319M1.ICP Date Analyzed: 05/03/19 Methods: EPA 200.7, SW846 6010D
Analyst: MET Run ID: MA46646
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
04:39	ZZZZZZ	6338	147470	27936	9220
04:44	ZZZZZZ	6201	143200	28011	8996
04:49	ZZZZZZ	6312	148630	27675	9150
04:54	ZZZZZZ	6345	148200	27584	9401
04:59	MA46646-CCV17	6158	141000	27194	8825
05:04	MA46646-CCB18	6404	150220	27576	9746
05:09	ZZZZZZ	6160	144470	27656	8872
05:14	ZZZZZZ	6151	144960	27664	8879
05:20	ZZZZZZ	6276	146450	27771	9107
05:25	ZZZZZZ	6244	145920	27622	9007
05:30	ZZZZZZ	6340	148850	27927	9251
05:35	ZZZZZZ	6120	142520	27417	8712
05:40	ZZZZZZ	6327	147270	28015	9183
05:45	ZZZZZZ	6208	145080	27481	8983
05:50	ZZZZZZ	6522	153330	28081	9893
05:55	MA46646-CCV18	6138	141170	26975	8821
06:00	MA46646-CCB19	6405	150410	27364	9745
06:06	MP14767-MB1	6482	152210	27927	9871
06:11	MP14767-B1	6260	146470	27535	9085
06:16	MP14767-S1	No results reported for the elements associated with this internal standard.			
06:21	MP14767-S2	No results reported for the elements associated with this internal standard.			
06:26	JC87239-4	No results reported for the elements associated with this internal standard.			
06:32	MP14767-SD1	No results reported for the elements associated with this internal standard.			
06:37	ZZZZZZ	No results reported for the elements associated with this internal standard.			
06:42	ZZZZZZ	No results reported for the elements associated with this internal standard.			
06:47	ZZZZZZ	No results reported for the elements associated with this internal standard.			
06:53	MA46646-CCV19	6216	143300	27491	8925
06:58	MA46646-CCB20	6403	999999 !a	27427	9760
07:03	ZZZZZZ	No results reported for the elements associated with this internal standard.			
07:08	ZZZZZZ	No results reported for the elements associated with this internal standard.			
07:14	ZZZZZZ	No results reported for the elements associated with this internal standard.			
07:19	ZZZZZZ	No results reported for the elements associated with this internal standard.			
07:24	ZZZZZZ	No results reported for the elements associated with this internal standard.			

INTERNAL STANDARD SUMMARY

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: SC050319M1.ICP Date Analyzed: 05/03/19 Methods: EPA 200.7, SW846 6010D
Analyst: MET Run ID: MA46646
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
07:30	ZZZZZZ	No results reported for the elements associated with this internal standard.			
07:35	ZZZZZZ	No results reported for the elements associated with this internal standard.			
07:40	ZZZZZZ	No results reported for the elements associated with this internal standard.			
07:46	ZZZZZZ	No results reported for the elements associated with this internal standard.			
07:51	MA46646-CCV20	6098	141180	26903	8769
07:56	MA46646-CCB21	6412	150640	27568	9752
08:01	ZZZZZZ	No results reported for the elements associated with this internal standard.			
08:06	ZZZZZZ	No results reported for the elements associated with this internal standard.			
08:12	ZZZZZZ	No results reported for the elements associated with this internal standard.			
08:17	ZZZZZZ	No results reported for the elements associated with this internal standard.			
08:22	ZZZZZZ	6822	153830	29729	9239
08:27	ZZZZZZ	7544	168140	32826	9284
08:32	ZZZZZZ	No results reported for the elements associated with this internal standard.			
08:38	ZZZZZZ	6815	154680	29834	9186
08:43	ZZZZZZ	6667	154010	29453	9141
08:48	MA46646-CCV21	6123	141500	27019	8801
08:53	MA46646-CCB22	6361	149240	27656	9691

R = Reference for ISTD limits. ! = Outside limits.

LEGEND:

Istd#	Parameter	Limits
Istd#1	Yttrium (2243)	70-130 %
Istd#2	Yttrium (3600)	70-130 %
Istd#3	Yttrium (3710)	70-130 %
Istd#4	Indium	70-130 %

(a) No samples reported for the elements associated with this internal standard.

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: SC050319M1.ICP Date Analyzed: 05/03/19 Methods: EPA 200.7, SW846 6010D
QC Limits: result < RL Run ID: MA46646 Units: ug/l

Time:			11:50		12:05		13:11		14:08	
Sample ID:			ICB1		CCB1		CCB2		CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	14	anr							
Antimony	6.0	1.4	anr							
Arsenic	3.0	1.5	0.800	<3.0	0.300	<3.0	1.00	<3.0	0.100	<3.0
Barium	200	.5	0.100	<200	0.700	<200	0.400	<200	0.200	<200
Beryllium	1.0	.1	anr							
Bismuth	20	1.8								
Boron	100	.8	anr							
Cadmium	3.0	.3	0.100	<3.0	0.600	<3.0	0.300	<3.0	0.300	<3.0
Calcium	5000	3.9	anr							
Chromium	10	.3	0.100	<10	0.700	<10	0.500	<10	0.200	<10
Cobalt	50	.3	anr							
Copper	10	.6	anr							
Iron	100	2.6	anr							
Lead	3.0	1.6	0.600	<3.0	0.100	<3.0	-0.400	<3.0	0.00	<3.0
Lithium	50	2.1								
Magnesium	5000	16	anr							
Manganese	15	.1	anr							
Molybdenum	20	.4								
Nickel	10	.5	anr							
Phosphorus	50	1.9								
Potassium	10000	79	anr							
Selenium	10	3	0.500	<10	1.10	<10	1.30	<10	1.20	<10
Silicon	200	1.2								
Silver	10	.5	-0.100	<10	0.00	<10	-0.300	<10	-0.100	<10
Sodium	10000	9.9	anr							
Strontium	10	.3								
Sulfur	50	3.5								
Thallium	10	1.3	anr							
Tin	10	.7	anr							
Titanium	10	.5								
Tungsten	50	1.7								
Vanadium	50	.5	anr							
Zinc	20	.2	anr							

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: SC050319M1.ICP Date Analyzed: 05/03/19 Methods: EPA 200.7, SW846 6010D
QC Limits: result < RL Run ID: MA46646 Units: ug/l

Time:			11:50		12:05		13:11		14:08	
Sample ID:			ICB1		CCB1		CCB2		CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Zirconium	10	.3								

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: SC050319M1.ICP Date Analyzed: 05/03/19 Methods: EPA 200.7, SW846 6010D
QC Limits: result < RL Run ID: MA46646 Units: ug/l

Time:			15:04		16:00		16:52		17:49	
Sample ID:			CCB4		CCB5		CCB6		CCB7	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	14	anr							
Antimony	6.0	1.4	anr							
Arsenic	3.0	1.5	0.500	<3.0	-0.700	<3.0	0.100	<3.0	-1.30	<3.0
Barium	200	.5	0.200	<200	0.200	<200	0.100	<200	0.100	<200
Beryllium	1.0	.1	anr							
Bismuth	20	1.8								
Boron	100	.8	anr							
Cadmium	3.0	.3	0.300	<3.0	0.500	<3.0	0.00	<3.0	0.100	<3.0
Calcium	5000	3.9	anr							
Chromium	10	.3	0.300	<10	0.400	<10	0.200	<10	0.100	<10
Cobalt	50	.3	anr							
Copper	10	.6	anr							
Iron	100	2.6	anr							
Lead	3.0	1.6	0.300	<3.0	0.500	<3.0	-0.900	<3.0	-0.400	<3.0
Lithium	50	2.1								
Magnesium	5000	16	anr							
Manganese	15	.1	anr							
Molybdenum	20	.4								
Nickel	10	.5	anr							
Phosphorus	50	1.9								
Potassium	10000	79	anr							
Selenium	10	3	1.60	<10	1.00	<10	0.00	<10	2.10	<10
Silicon	200	1.2								
Silver	10	.5	0.00	<10	0.00	<10	-0.100	<10	-0.100	<10
Sodium	10000	9.9	anr							
Strontium	10	.3								
Sulfur	50	3.5								
Thallium	10	1.3	anr							
Tin	10	.7	anr							
Titanium	10	.5								
Tungsten	50	1.7								
Vanadium	50	.5	anr							
Zinc	20	.2	anr							

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: SC050319M1.ICP Date Analyzed: 05/03/19 Methods: EPA 200.7, SW846 6010D
QC Limits: result < RL Run ID: MA46646 Units: ug/l

Time:			15:04		16:00		16:52		17:49	
Sample ID:			CCB4		CCB5		CCB6		CCB7	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Zirconium	10	.3								

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: SC050319M1.ICP Date Analyzed: 05/03/19 Methods: EPA 200.7, SW846 6010D
QC Limits: result < RL Run ID: MA46646 Units: ug/l

Time:			18:42		19:39		20:51		21:54	
Sample ID:			CCB8		CCB9		CCB10		CCB11	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	14	anr							
Antimony	6.0	1.4	anr							
Arsenic	3.0	1.5	-0.400	<3.0	-0.400	<3.0	0.300	<3.0	0.100	<3.0
Barium	200	.5	0.200	<200	0.00	<200	0.600	<200	0.200	<200
Beryllium	1.0	.1	anr							
Bismuth	20	1.8								
Boron	100	.8	anr							
Cadmium	3.0	.3	0.500	<3.0	0.200	<3.0	0.300	<3.0	0.600	<3.0
Calcium	5000	3.9	anr							
Chromium	10	.3	0.600	<10	0.00	<10	0.100	<10	0.600	<10
Cobalt	50	.3	anr							
Copper	10	.6	anr							
Iron	100	2.6	anr							
Lead	3.0	1.6	-0.200	<3.0	-0.500	<3.0	0.300	<3.0	0.100	<3.0
Lithium	50	2.1								
Magnesium	5000	16	anr							
Manganese	15	.1	anr							
Molybdenum	20	.4								
Nickel	10	.5	anr							
Phosphorus	50	1.9								
Potassium	10000	79	anr							
Selenium	10	3	1.10	<10	0.800	<10	0.500	<10	0.900	<10
Silicon	200	1.2								
Silver	10	.5	-0.300	<10	0.100	<10	-0.300	<10	-0.100	<10
Sodium	10000	9.9	anr							
Strontium	10	.3								
Sulfur	50	3.5								
Thallium	10	1.3	anr							
Tin	10	.7	anr							
Titanium	10	.5								
Tungsten	50	1.7								
Vanadium	50	.5	anr							
Zinc	20	.2	anr							

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: SC050319M1.ICP Date Analyzed: 05/03/19 Methods: EPA 200.7, SW846 6010D
QC Limits: result < RL Run ID: MA46646 Units: ug/l

Time:			18:42		19:39		20:51		21:54	
Sample ID:			CCB8		CCB9		CCB10		CCB11	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Zirconium	10	.3								

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: SC050319M1.ICP Date Analyzed: 05/03/19 Methods: EPA 200.7, SW846 6010D
QC Limits: result < RL Run ID: MA46646 Units: ug/l

Time:			22:55		23:56		00:59		02:01	
Sample ID:			CCB12		CCB13		CCB14		CCB15	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	14	anr							
Antimony	6.0	1.4	anr							
Arsenic	3.0	1.5	0.600	<3.0	-0.700	<3.0	0.00	<3.0	-0.200	<3.0
Barium	200	.5	0.200	<200	0.00	<200	0.200	<200	0.100	<200
Beryllium	1.0	.1	anr							
Bismuth	20	1.8								
Boron	100	.8	anr							
Cadmium	3.0	.3	0.200	<3.0	0.200	<3.0	0.200	<3.0	0.200	<3.0
Calcium	5000	3.9	anr							
Chromium	10	.3	0.400	<10	0.00	<10	0.00	<10	0.200	<10
Cobalt	50	.3	anr							
Copper	10	.6	anr							
Iron	100	2.6	anr							
Lead	3.0	1.6	-0.100	<3.0	-0.200	<3.0	-0.900	<3.0	-0.900	<3.0
Lithium	50	2.1								
Magnesium	5000	16	anr							
Manganese	15	.1	anr							
Molybdenum	20	.4								
Nickel	10	.5	anr							
Phosphorus	50	1.9								
Potassium	10000	79	anr							
Selenium	10	3	2.60	<10	0.800	<10	0.300	<10	2.40	<10
Silicon	200	1.2								
Silver	10	.5	0.00	<10	-0.300	<10	-0.200	<10	-0.300	<10
Sodium	10000	9.9	anr							
Strontium	10	.3								
Sulfur	50	3.5								
Thallium	10	1.3	anr							
Tin	10	.7	anr							
Titanium	10	.5								
Tungsten	50	1.7								
Vanadium	50	.5	anr							
Zinc	20	.2	anr							

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: SC050319M1.ICP Date Analyzed: 05/03/19 Methods: EPA 200.7, SW846 6010D
QC Limits: result < RL Run ID: MA46646 Units: ug/l

Time:			22:55		23:56		00:59		02:01	
Sample ID:			CCB12		CCB13		CCB14		CCB15	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Zirconium	10	.3								

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: SC050319M1.ICP Date Analyzed: 05/03/19 Methods: EPA 200.7, SW846 6010D
QC Limits: result < RL Run ID: MA46646 Units: ug/l

Time:			03:04		04:06	
Sample ID:			CCB16		CCB17	
Metal	RL	IDL	raw	final	raw	final
Aluminum	200	14	anr			
Antimony	6.0	1.4	anr			
Arsenic	3.0	1.5	-0.700	<3.0	0.100	<3.0
Barium	200	.5	0.100	<200	-0.100	<200
Beryllium	1.0	.1	anr			
Bismuth	20	1.8				
Boron	100	.8	anr			
Cadmium	3.0	.3	0.100	<3.0	0.100	<3.0
Calcium	5000	3.9	anr			
Chromium	10	.3	0.200	<10	0.00	<10
Cobalt	50	.3	anr			
Copper	10	.6	anr			
Iron	100	2.6	anr			
Lead	3.0	1.6	-0.300	<3.0	-0.600	<3.0
Lithium	50	2.1				
Magnesium	5000	16	anr			
Manganese	15	.1	anr			
Molybdenum	20	.4				
Nickel	10	.5	anr			
Phosphorus	50	1.9				
Potassium	10000	79	anr			
Selenium	10	3	3.10	<10	0.900	<10
Silicon	200	1.2				
Silver	10	.5	-0.200	<10	-0.200	<10
Sodium	10000	9.9	anr			
Strontium	10	.3				
Sulfur	50	3.5				
Thallium	10	1.3	anr			
Tin	10	.7	anr			
Titanium	10	.5				
Tungsten	50	1.7				
Vanadium	50	.5	anr			
Zinc	20	.2	anr			

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: SC050319M1.ICP Date Analyzed: 05/03/19 Methods: EPA 200.7, SW846 6010D
QC Limits: result < RL Run ID: MA46646 Units: ug/l

Time:			03:04		04:06	
Sample ID:			CCB16		CCB17	
Metal	RL	IDL	raw	final	raw	final
Zirconium	10	.3				

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial Continuing Calibration Check

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: SC050319M1.ICP Date Analyzed: 05/03/19 Methods: EPA 200.7, SW846 6010D
QC Limits: to % Recovery Run ID: MA46646 Units: ug/l

Time:		11:58	
Sample ID:	ICCV	ICCV1	
Metal	True	Results	% Rec
Aluminum	anr		
Antimony	anr		
Arsenic	2000	1980	99.0
Barium	2000	1980	99.0
Beryllium	anr		
Bismuth			
Boron	anr		
Cadmium	2000	2000	100.0
Calcium	anr		
Chromium	2000	2000	100.0
Cobalt	anr		
Copper	anr		
Iron	anr		
Lead	2000	2020	101.0
Lithium			
Magnesium	anr		
Manganese	anr		
Molybdenum			
Nickel	anr		
Phosphorus			
Potassium	anr		
Selenium	2000	2000	100.0
Silicon			
Silver	250	247	98.8
Sodium	anr		
Strontium			
Sulfur			
Thallium	anr		
Tin	anr		
Titanium			
Tungsten			
Vanadium	anr		
Zinc	anr		

CALIBRATION CHECK STANDARDS SUMMARY
Initial Continuing Calibration Check

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: SC050319M1.ICP Date Analyzed: 05/03/19 Methods: EPA 200.7, SW846 6010D
QC Limits: to % Recovery Run ID: MA46646 Units: ug/l

Time:		11:58	
Sample ID:	ICCV	ICCV1	
Metal	True	Results	% Rec
Zirconium			

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: SC050319M1.ICP Date Analyzed: 05/03/19 Methods: EPA 200.7, SW846 6010D
QC Limits: 95 to 105 % Recovery Run ID: MA46646 Units: ug/l

Time:		11:44			13:06			14:03	
Sample ID:	ICV	ICV1		CCV	CCV1		CCV	CCV2	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	2000	1950	97.5	2000	1980	99.0	2000	2000	100.0
Barium	2000	1980	99.0	2000	1980	99.0	2000	2010	100.5
Beryllium	anr								
Bismuth									
Boron	anr								
Cadmium	2000	1990	99.5	2000	2000	100.0	2000	2010	100.5
Calcium	anr								
Chromium	2000	1970	98.5	2000	1990	99.5	2000	2020	101.0
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	2000	1990	99.5	2000	2020	101.0	2000	2040	102.0
Lithium									
Magnesium	anr								
Manganese	anr								
Molybdenum									
Nickel	anr								
Phosphorus									
Potassium	anr								
Selenium	2000	1970	98.5	2000	1990	99.5	2000	2020	101.0
Silicon									
Silver	250	240	96.0	250	246	98.4	250	250	100.0
Sodium	anr								
Strontium									
Sulfur									
Thallium	anr								
Tin	anr								
Titanium									
Tungsten									
Vanadium	anr								
Zinc	anr								

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: SC050319M1.ICP Date Analyzed: 05/03/19 Methods: EPA 200.7, SW846 6010D
QC Limits: 95 to 105 % Recovery Run ID: MA46646 Units: ug/l

Time:		11:44			13:06			14:03	
Sample ID:	ICV	ICV1		CCV	CCV1		CCV	CCV2	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Zirconium									

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: SC050319M1.ICP Date Analyzed: 05/03/19 Methods: EPA 200.7, SW846 6010D
QC Limits: 95 to 105 % Recovery Run ID: MA46646 Units: ug/l

Time:		14:59			15:55			16:47	
Sample ID:	CCV	CCV3		CCV	CCV4		CCV	CCV5	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	2000	2020	101.0	2000	2020	101.0	2000	1980	99.0
Barium	2000	2030	101.5	2000	2000	100.0	2000	1990	99.5
Beryllium	anr								
Bismuth									
Boron	anr								
Cadmium	2000	2030	101.5	2000	2020	101.0	2000	2000	100.0
Calcium	anr								
Chromium	2000	2020	101.0	2000	2000	100.0	2000	1990	99.5
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	2000	2050	102.5	2000	2050	102.5	2000	2030	101.5
Lithium									
Magnesium	anr								
Manganese	anr								
Molybdenum									
Nickel	anr								
Phosphorus									
Potassium	anr								
Selenium	2000	2040	102.0	2000	2040	102.0	2000	2010	100.5
Silicon									
Silver	250	251	100.4	250	248	99.2	250	246	98.4
Sodium	anr								
Strontium									
Sulfur									
Thallium	anr								
Tin	anr								
Titanium									
Tungsten									
Vanadium	anr								
Zinc	anr								

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: SC050319M1.ICP Date Analyzed: 05/03/19 Methods: EPA 200.7, SW846 6010D
QC Limits: 95 to 105 % Recovery Run ID: MA46646 Units: ug/l

Time:		14:59			15:55			16:47	
Sample ID:	CCV	CCV3		CCV	CCV4		CCV	CCV5	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Zirconium									

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: SC050319M1.ICP Date Analyzed: 05/03/19 Methods: EPA 200.7, SW846 6010D
QC Limits: 95 to 105 % Recovery Run ID: MA46646 Units: ug/l

Time:		17:44			18:37			19:34	
Sample ID:	CCV	CCV6		CCV	CCV7		CCV	CCV8	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	2000	1990	99.5	2000	2010	100.5	2000	2020	101.0
Barium	2000	2020	101.0	2000	2040	102.0	2000	2040	102.0
Beryllium	anr								
Bismuth									
Boron	anr								
Cadmium	2000	2000	100.0	2000	2010	100.5	2000	2020	101.0
Calcium	anr								
Chromium	2000	2010	100.5	2000	2040	102.0	2000	2030	101.5
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	2000	2040	102.0	2000	2050	102.5	2000	2050	102.5
Lithium									
Magnesium	anr								
Manganese	anr								
Molybdenum									
Nickel	anr								
Phosphorus									
Potassium	anr								
Selenium	2000	2020	101.0	2000	2040	102.0	2000	2050	102.5
Silicon									
Silver	250	249	99.6	250	253	101.2	250	252	100.8
Sodium	anr								
Strontium									
Sulfur									
Thallium	anr								
Tin	anr								
Titanium									
Tungsten									
Vanadium	anr								
Zinc	anr								

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: SC050319M1.ICP Date Analyzed: 05/03/19 Methods: EPA 200.7, SW846 6010D
QC Limits: 95 to 105 % Recovery Run ID: MA46646 Units: ug/l

Time:		17:44			18:37			19:34	
Sample ID:	CCV	CCV6		CCV	CCV7		CCV	CCV8	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Zirconium									

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: SC050319M1.ICP Date Analyzed: 05/03/19 Methods: EPA 200.7, SW846 6010D
QC Limits: 95 to 105 % Recovery Run ID: MA46646 Units: ug/l

Time:		20:46			21:48			22:50	
Sample ID:	CCV	CCV9		CCV	CCV10		CCV	CCV11	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	2000	2030	101.5	2000	2020	101.0	2000	2000	100.0
Barium	2000	2040	102.0	2000	2060	103.0	2000	2010	100.5
Beryllium	anr								
Bismuth									
Boron	anr								
Cadmium	2000	2020	101.0	2000	2020	101.0	2000	1990	99.5
Calcium	anr								
Chromium	2000	2030	101.5	2000	2040	102.0	2000	2010	100.5
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	2000	2060	103.0	2000	2060	103.0	2000	2030	101.5
Lithium									
Magnesium	anr								
Manganese	anr								
Molybdenum									
Nickel	anr								
Phosphorus									
Potassium	anr								
Selenium	2000	2050	102.5	2000	2050	102.5	2000	2030	101.5
Silicon									
Silver	250	251	100.4	250	254	101.6	250	250	100.0
Sodium	anr								
Strontium									
Sulfur									
Thallium	anr								
Tin	anr								
Titanium									
Tungsten									
Vanadium	anr								
Zinc	anr								

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: SC050319M1.ICP Date Analyzed: 05/03/19 Methods: EPA 200.7, SW846 6010D
QC Limits: 95 to 105 % Recovery Run ID: MA46646 Units: ug/l

Time:		20:46			21:48			22:50	
Sample ID:	CCV	CCV9		CCV	CCV10		CCV	CCV11	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Zirconium									

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: SC050319M1.ICP Date Analyzed: 05/03/19 Methods: EPA 200.7, SW846 6010D
QC Limits: 95 to 105 % Recovery Run ID: MA46646 Units: ug/l

Time:		23:51			00:54			01:56	
Sample ID:	CCV	CCV12		CCV	CCV13		CCV	CCV14	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	2000	2000	100.0	2000	2000	100.0	2000	2000	100.0
Barium	2000	2040	102.0	2000	2040	102.0	2000	2060	103.0
Beryllium	anr								
Bismuth									
Boron	anr								
Cadmium	2000	2000	100.0	2000	2010	100.5	2000	2000	100.0
Calcium	anr								
Chromium	2000	2020	101.0	2000	2030	101.5	2000	2000	100.0
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	2000	2040	102.0	2000	2040	102.0	2000	2040	102.0
Lithium									
Magnesium	anr								
Manganese	anr								
Molybdenum									
Nickel	anr								
Phosphorus									
Potassium	anr								
Selenium	2000	2030	101.5	2000	2040	102.0	2000	2040	102.0
Silicon									
Silver	250	250	100.0	250	253	101.2	250	250	100.0
Sodium	anr								
Strontium									
Sulfur									
Thallium	anr								
Tin	anr								
Titanium									
Tungsten									
Vanadium	anr								
Zinc	anr								

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: SC050319M1.ICP Date Analyzed: 05/03/19 Methods: EPA 200.7, SW846 6010D
QC Limits: 95 to 105 % Recovery Run ID: MA46646 Units: ug/l

Time:		23:51			00:54			01:56	
Sample ID:	CCV	CCV12		CCV	CCV13		CCV	CCV14	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Zirconium									

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: SC050319M1.ICP Date Analyzed: 05/03/19 Methods: EPA 200.7, SW846 6010D
QC Limits: 95 to 105 % Recovery Run ID: MA46646 Units: ug/l

Time:		02:59			04:01	
Sample ID:	CCV	CCV15		CCV	CCV16	
Metal	True	Results	% Rec	True	Results	% Rec
Aluminum	anr					
Antimony	anr					
Arsenic	2000	2010	100.5	2000	2010	100.5
Barium	2000	2070	103.5	2000	2080	104.0
Beryllium	anr					
Bismuth						
Boron	anr					
Cadmium	2000	2010	100.5	2000	2000	100.0
Calcium	anr					
Chromium	2000	2030	101.5	2000	2080	104.0
Cobalt	anr					
Copper	anr					
Iron	anr					
Lead	2000	2060	103.0	2000	2050	102.5
Lithium						
Magnesium	anr					
Manganese	anr					
Molybdenum						
Nickel	anr					
Phosphorus						
Potassium	anr					
Selenium	2000	2050	102.5	2000	2050	102.5
Silicon						
Silver	250	253	101.2	250	259	103.6
Sodium	anr					
Strontium						
Sulfur						
Thallium	anr					
Tin	anr					
Titanium						
Tungsten						
Vanadium	anr					
Zinc	anr					

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: SC050319M1.ICP Date Analyzed: 05/03/19 Methods: EPA 200.7, SW846 6010D
QC Limits: 95 to 105 % Recovery Run ID: MA46646 Units: ug/l

Time:		02:59			04:01	
Sample ID:	CCV	CCV15		CCV	CCV16	
Metal	True	Results	% Rec	True	Results	% Rec
Zirconium						

(*) Outside of QC limits
(anr) Analyte not requested

HIGH STANDARD CHECK SUMMARY

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: SC050319M1.ICP Date Analyzed: 05/03/19 Methods: EPA 200.7, SW846 6010D
QC Limits: 90 to 110 % Recovery Run ID: MA46646 Units: ug/l

Time:		12:34			12:40	
Sample ID:	HSTD	HSTD1		HSTD	HSTD2	
Metal	True	Results	% Rec	True	Results	% Rec
Aluminum						
Antimony	anr					
Arsenic	8000	8020	100.3			
Barium	8000	7930	99.1			
Beryllium	anr					
Bismuth						
Boron	anr					
Cadmium	8000	7980	99.8			
Calcium						
Chromium	8000	8130	101.6			
Cobalt	anr					
Copper	anr					
Iron						
Lead	8000	8100	101.3			
Lithium						
Magnesium						
Manganese	anr					
Molybdenum						
Nickel	anr					
Phosphorus						
Potassium						
Selenium	8000	8070	100.9			
Silicon						
Silver	625	626	100.2			
Sodium						
Strontium						
Sulfur						
Thallium	anr					
Tin	anr					
Titanium						
Tungsten						
Vanadium	anr					
Zinc	anr					

HIGH STANDARD CHECK SUMMARY

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: SC050319M1.ICP Date Analyzed: 05/03/19 Methods: EPA 200.7, SW846 6010D
QC Limits: 90 to 110 % Recovery Run ID: MA46646 Units: ug/l

Time:		12:34			12:40	
Sample ID:	HSTD	HSTD1		HSTD	HSTD2	
Metal	True	Results	% Rec	True	Results	% Rec
Zirconium						

(*) Outside of QC limits
(anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: SC050319M1.ICP Date Analyzed: 05/03/19 Methods: EPA 200.7, SW846 6010D
QC Limits: CRI 80-120% CRIA 80-120% Run ID: MA46646 Units: ug/l

Time:				12:13		12:56	
Sample ID:	CRI	CRIA	CRID	CRI1		CRID2	
Metal	True	True	True	Results	% Rec	Results	% Rec
Aluminum	200	500	100	anr			
Antimony	6.0	20	3.0	anr			
Arsenic	8.0	20	3.0	7.90	98.8	3.00	100.0
Barium	200		4.0	203	101.5	4.10	102.5
Beryllium	2.0		1.0	anr			
Bismuth	20						
Boron	100		10	anr			
Cadmium	3.0		1.0	3.10	103.3	1.00	100.0
Calcium	5000	2000	1000	anr			
Chromium	10		2.0	10.7	107.0	2.50	125.0*(a
Cobalt	50		3.0	anr			
Copper	10		2.0	anr			
Iron	100	500		anr			
Lead	3.0	20	2.5	2.50	83.3	0.00U	0.0* (a)
Lithium	50						
Magnesium	5000	2000	100	anr			
Manganese	15		3.0	anr			
Molybdenum	20						
Nickel	10		4.0	anr			
Phosphorus	50						
Potassium	5000		2000	anr			
Selenium	10	20	5.0	9.00	90.0	3.60	72.0*(a)
Silicon	200						
Silver	5.0		2.0	4.90	98.0	-0.100U	0.0* (a)
Sodium	5000		1000	anr			
Strontium	10						
Sulfur	50						
Thallium	10		2.0	anr			
Tin	10			anr			
Titanium	10						
Tungsten	50						
Vanadium	50		2.0	anr			
Zinc	20		10	anr			

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: SC050319M1.ICP Date Analyzed: 05/03/19 Methods: EPA 200.7, SW846 6010D
QC Limits: CRI 80-120% CRIA 80-120% Run ID: MA46646 Units: ug/l

Time:				12:13		12:56	
Sample ID:	CRI	CRIA	CRID	CRI1		CRID2	
Metal	True	True	True	Results	% Rec	Results	% Rec
Zirconium	10						

(*) Outside of QC limits
(anr) Analyte not requested
(a) No samples reported for this element at this RL in the area bracketed by this QC.

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: SC050319M1.ICP Date Analyzed: 05/03/19 Methods: EPA 200.7, SW846 6010D
QC Limits: 80 to 120 % Recovery Run ID: MA46646 Units: ug/l

Time:			12:23		12:28		16:31		16:36	
Sample ID:	ICSA	ICSAB	ICSA1		ICSAB1		ICSA2		ICSAB2	
Metal	True	True	Results	% Rec	Results	% Rec	Results	% Rec	Results	% Rec
Aluminum	500000	500000	509000	101.8	503000	100.6	509000	101.8	499000	99.8
Antimony		1000	1.00		1050	105.0	0.400		1060	106.0
Arsenic		1000	-2.60		1050	105.0	-0.400		1060	106.0
Barium		500	0.800		507	101.4	0.700		511	102.2
Beryllium		500	0.100		498	99.6	0.00		498	99.6
Bismuth		500	-1.70		505	101.0	-2.90		514	102.8
Boron		500	0.100		484	96.8	0.400		492	98.4
Cadmium		1000	0.00		1010	101.0	-0.100		1010	101.0
Calcium	400000	400000	381000	95.3	380000	95.0	386000	96.5	382000	95.5
Chromium		500	-0.300		490	98.0	-0.100		489	97.8
Cobalt		500	1.50		493	98.6	1.40		493	98.6
Copper		500	-4.50		504	100.8	-3.60		505	101.0
Iron	200000	200000	192000	96.0	199000	99.5	192000	96.0	197000	98.5
Lead		1000	1.90		959	95.9	2.30		963	96.3
Lithium		500	-7.60		522	104.4	-5.90		510	102.0
Magnesium	500000	500000	501000	100.2	503000	100.6	496000	99.2	502000	100.4
Manganese		500	1.90		520	104.0	1.60		518	103.6
Molybdenum		500	0.900		473	94.6	0.700		479	95.8
Nickel		1000	-0.300		977	97.7	-0.200		985	98.5
Phosphorus		500	24.8		543	108.6	30.7		543	108.6
Potassium			323		285		428		369	
Selenium		1000	-0.800		1050	105.0	-4.00		1050	105.0
Silicon		500	0.400		505	101.0	2.10		506	101.2
Silver		1000	2.20		1070	107.0	0.500		1070	107.0
Sodium			116		130		191		184	
Strontium		500	-0.300		524	104.8	-0.200		533	106.6
Sulfur		500	-1.30		501	100.2	0.100		503	100.6
Thallium		1000	-0.400		981	98.1	-2.00		981	98.1
Tin		500	-4.60		459	91.8	-4.40		454	90.8
Titanium		500	-1.10		492	98.4	-1.10		496	99.2
Tungsten		500	-1.20		460	92.0	3.50		471	94.2
Vanadium		500	-2.00		494	98.8	-2.10		493	98.6
Zinc		1000	-1.90		951	95.1	-2.00		945	94.5

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: SC050319M1.ICP Date Analyzed: 05/03/19 Methods: EPA 200.7, SW846 6010D
QC Limits: 80 to 120 % Recovery Run ID: MA46646 Units: ug/l

Time:			12:23		12:28		16:31		16:36	
Sample ID:	ICSA	ICSAB	ICSA1		ICSAB1		ICSA2		ICSAB2	
Metal	True	True	Results	% Rec	Results	% Rec	Results	% Rec	Results	% Rec
Zirconium		500	0.600		479	95.8	0.700		481	96.2

(*) Outside of QC limits
(anr) Analyte not requested

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: SC050619M1.ICP Date Analyzed: 05/06/19 Methods: EPA 200.7, SW846 6010D
Analyst: ND Run ID: MA46655
Parameters: Se,Ag

Time	Sample Description	Dilution Factor	PS Recov	Comments
10:53	MA46655-STD1	1		STDA
10:59	MA46655-STD2	1		STDB
11:04	ZZZZZZ	1		
11:09	ZZZZZZ	1		
11:15	MA46655-ICV1	1		
11:21	MA46655-ICB1	1		
11:26	MA46655-ICCV1	1		
11:45	MA46655-CCB1	1		
11:50	MA46655-CRI1	1		
11:55	MA46655-CRID1	1		
12:01	MA46655-ICSA1	1		
12:06	MA46655-ICSAB1	1		
12:11	MA46655-HSTD1	1		
12:17	MA46655-HSTD2	1		
12:23	ZZZZZZ	1		
12:28	ZZZZZZ	1		
12:34	ZZZZZZ	1		
12:39	MA46655-CCV1	1		
12:44	MA46655-CCB2	1		
12:49	ZZZZZZ	25		
12:54	ZZZZZZ	1		
13:00	ZZZZZZ	1		
13:05	ZZZZZZ	3		
13:10	ZZZZZZ	1		
13:15	MP14776-S1	2		
13:21	MP14776-S2	2		
13:26	JC87355-1	2		(sample used for QC only; not part of login JC87363)
13:31	MP14776-SD1	10		
13:36	MA46655-CCV2	1		
13:41	MA46655-CCB3	1		
13:47	MP14776-PS1	1		
---------->	Last reportable sample/prep for job JC87363			
13:52	ZZZZZZ	2		
13:57	ZZZZZZ	2		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: SC050619M1.ICP Date Analyzed: 05/06/19 Methods: EPA 200.7, SW846 6010D
Analyst: ND Run ID: MA46655
Parameters: Se,Ag

Time	Sample Description	Dilution Factor	PS Recov	Comments
14:02	ZZZZZZ	2		
14:08	ZZZZZZ	2		
14:13	ZZZZZZ	2		
14:18	ZZZZZZ	2		
14:24	ZZZZZZ	1		
14:29	ZZZZZZ	2		
14:34	MA46655-CCV3	1		
14:39	MA46655-CCB4	1		
14:45	ZZZZZZ	2		
14:50	ZZZZZZ	3		
14:55	MP14772-PS1	1		
15:00	ZZZZZZ	5		
15:06	ZZZZZZ	2		
15:11	ZZZZZZ	2		
15:16	MP14784-MB1	1		
15:22	MP14784-B1	1		
15:27	ZZZZZZ	1		
15:32	MA46655-CCV4	1		
15:37	MA46655-CCB5	1		
15:42	ZZZZZZ	1		
15:48	MA46655-ICSA2	1		
15:53	MA46655-ICSAB2	1		
15:58	MP14770-MB1	1		
16:03	ZZZZZZ	1		
16:09	ZZZZZZ	1		
16:14	ZZZZZZ	1		
16:19	ZZZZZZ	1		
16:24	MA46655-CCV5	1		
16:30	MA46655-CCB6	1		
---------->	Last reportable CCB for job JC87363			
16:35	MP14648-S1	2		Need PS for Sb
16:40	MP14648-S2	2		Need PS for Sb
16:46	JC86972-2	2		(sample used for QC only; not part of login JC87363)
16:51	MP14648-SD1	10		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: SC050619M1.ICP Date Analyzed: 05/06/19 Methods: EPA 200.7, SW846 6010D
Analyst: ND Run ID: MA46655
Parameters: Se,Ag

Time	Sample Description	Dilution Factor	PS Recov	Comments
16:56	ZZZZZZ	1		
17:01	ZZZZZZ	5		
17:07	ZZZZZZ	2		
17:12	ZZZZZZ	5		
17:17	ZZZZZZ	2		
17:23	MA46655-CCV6	1		
17:28	MA46655-CCB7	1		
17:33	ZZZZZZ	5		
17:38	ZZZZZZ	3		
17:43	ZZZZZZ	2		
17:49	ZZZZZZ	5		
17:54	ZZZZZZ	2		
17:59	ZZZZZZ	2		
18:05	ZZZZZZ	2		
18:10	ZZZZZZ	5		
18:15	ZZZZZZ	3		
18:21	MA46655-CCV7	1		
18:26	MA46655-CCB8	1		
18:31	ZZZZZZ	5		
18:36	ZZZZZZ	2		
18:41	ZZZZZZ	3		
18:46	ZZZZZZ	1		
18:51	MP14770-MB2	1		
18:56	MP14770-MB3	1		
19:02	MP14770-B1	1		
19:07	MP14770-B2	1		
19:12	MP14770-B3	1		
19:17	MP14770-S1	1		Ca and Na high
19:22	MA46655-CCV8	1		
19:32	MA46655-CCB9	1		
19:37	ZZZZZZ	1		
19:42	ZZZZZZ	1		
19:48	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: SC050619M1.ICP Date Analyzed: 05/06/19 Methods: EPA 200.7, SW846 6010D
Analyst: ND Run ID: MA46655
Parameters: Se,Ag

Time	Sample Description	Dilution Factor	PS Recov	Comments
19:53	ZZZZZZ	1		
19:58	ZZZZZZ	1		
20:04	ZZZZZZ	1		
20:09	ZZZZZZ	1		
20:14	ZZZZZZ	1		
20:20	ZZZZZZ	1		
20:25	ZZZZZZ	1		
20:30	ZZZZZZ	1		
20:35	ZZZZZZ	1		
20:41	MA46655-CCV9	1		
20:46	MA46655-CCB10	1		
20:51	MP14770-S2	1		Ca and Na high
20:56	JC87135-3	1		(sample used for QC only; not part of login JC87363)
21:02	MP14770-SD1	5		To confirm Zn. Ca and Na high
21:07	ZZZZZZ	1		
21:13	ZZZZZZ	1		
21:18	ZZZZZZ	1		
21:23	ZZZZZZ	1		
21:28	ZZZZZZ	1		
21:33	ZZZZZZ	1		
21:39	ZZZZZZ	1		
21:44	MA46655-CCV10	1		
21:49	MA46655-CCB11	1		
21:54	ZZZZZZ	1		
22:00	ZZZZZZ	1		
22:05	ZZZZZZ	1		
22:10	ZZZZZZ	1		
22:16	ZZZZZZ	1		
22:21	ZZZZZZ	1		
22:26	ZZZZZZ	1		
22:32	ZZZZZZ	1		
22:37	ZZZZZZ	1		
22:43	MA46655-CCV11	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: SC050619M1.ICP Date Analyzed: 05/06/19 Methods: EPA 200.7, SW846 6010D
Analyst: ND Run ID: MA46655
Parameters: Se,Ag

Time	Sample Description	Dilution Factor	PS Recov	Comments
22:48	MA46655-CCB12	1		
22:53	ZZZZZZ	1		
22:59	ZZZZZZ	1		
23:04	ZZZZZZ	1		
23:09	MP14784-S1	1		High elements
23:14	MP14784-S2	1		High elements
23:20	JC87409-1	1		(sample used for QC only; not part of login JC87363)
23:25	MP14784-SD1	5		High elements
23:30	ZZZZZZ	1		
23:35	ZZZZZZ	1		
23:40	MA46655-CCV12	1		
23:45	MA46655-CCB13	1		
23:51	ZZZZZZ	1		
23:56	ZZZZZZ	1		
00:01	ZZZZZZ	1		
00:06	ZZZZZZ	1		
00:11	ZZZZZZ	1		
00:17	MP14804-MB1	1		
00:22	MP14804-B1	1		
00:27	MP14804-S1	1		
00:32	MP14804-S2	1		
00:37	MA46655-CCV13	1		
00:42	MA46655-CCB14	1		
00:47	JC87317-1	1		(sample used for QC only; not part of login JC87363)
00:52	MP14804-SD1	5		
00:58	ZZZZZZ	1		
01:03	ZZZZZZ	1		
01:08	ZZZZZZ	1		
01:13	ZZZZZZ	1		
01:18	ZZZZZZ	1		
01:23	ZZZZZZ	5		
01:28	ZZZZZZ	5		
01:33	MA46655-CCV14	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: SC050619M1.ICP Date Analyzed: 05/06/19 Methods: EPA 200.7, SW846 6010D
Analyst: ND Run ID: MA46655
Parameters: Se,Ag

Time	Sample Description	Dilution Factor	PS Recov	Comments
01:38	MA46655-CCB15	1		
01:44	ZZZZZZ	5		
01:49	ZZZZZZ	5		
01:54	ZZZZZZ	5		
01:59	ZZZZZZ	5		
02:05	ZZZZZZ	5		
02:10	ZZZZZZ	5		
02:15	ZZZZZZ	5		
02:20	ZZZZZZ	5		
02:25	JC87242-1	5		(sample used for QC only; not part of login JC87363)
02:31	MA46655-CCV15	1		
02:36	MA46655-CCB16	1		
02:41	ZZZZZZ	5		
02:46	ZZZZZZ	5		
02:51	ZZZZZZ	5		
02:57	ZZZZZZ	5		
03:02	ZZZZZZ	5		
03:07	ZZZZZZ	5		
03:12	MA46655-CCV16	1		
03:17	MA46655-CCB17	1		

Refer to raw data for calibration curve and standards.

REPORTED ELEMENTS SUMMARY

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: SC050619M1.ICP Date Analyzed: 05/06/19 Methods: EPA 200.7, SW846 6010D
Analyst: ND Run ID: MA46655
Parameters: Se,Ag

Time	Sample Description	Element: Dilution	Se	Ag	
11:04	ZZZZZZ	1			
11:09	ZZZZZZ	1			
11:15	MA46655-ICV1	1	X	X	
11:21	MA46655-ICB1	1	X	X	
11:26	MA46655-ICCV1	1	X	X	
11:45	MA46655-CCB1	1	X	X	
11:50	MA46655-CRI1	1	X	X	
11:55	MA46655-CRID1	1	X	X	
12:01	MA46655-ICSA1	1	X	X	
12:06	MA46655-ICSAB1	1	X	X	
12:11	MA46655-HSTD1	1	X	X	
12:17	MA46655-HSTD2	1			
12:23	ZZZZZZ	1			
12:28	ZZZZZZ	1			
12:34	ZZZZZZ	1			
12:39	MA46655-CCV1	1	X	X	
12:44	MA46655-CCB2	1	X	X	
12:49	ZZZZZZ	25			
12:54	ZZZZZZ	1			
13:00	ZZZZZZ	1			
13:05	ZZZZZZ	3			
13:10	ZZZZZZ	1			
13:15	MP14776-S1	2	X	X	
13:21	MP14776-S2	2	X	X	
13:26	JC87355-1	2	X	X	(a)
13:31	MP14776-SD1	10	X	X	
13:36	MA46655-CCV2	1	X	X	
13:41	MA46655-CCB3	1	X	X	
13:47	MP14776-PS1	1			
13:52	ZZZZZZ	2			
13:57	ZZZZZZ	2			
14:02	ZZZZZZ	2			
14:08	ZZZZZZ	2			
		Element:	Se	Ag	

REPORTED ELEMENTS SUMMARY

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: SC050619M1.ICP Date Analyzed: 05/06/19 Methods: EPA 200.7, SW846 6010D
Analyst: ND Run ID: MA46655
Parameters: Se,Ag

Time	Sample Description	Element: Dilution	Se	Ag	
14:13	ZZZZZZ	2			
14:18	ZZZZZZ	2			
14:24	ZZZZZZ	1			
14:29	ZZZZZZ	2			
14:34	MA46655-CCV3	1	X	X	
14:39	MA46655-CCB4	1	X	X	
14:45	ZZZZZZ	2			
14:50	ZZZZZZ	3			
14:55	MP14772-PS1	1			
15:00	ZZZZZZ	5			
15:06	ZZZZZZ	2			
15:11	ZZZZZZ	2			
15:16	MP14784-MB1	1	X	X	
15:22	MP14784-B1	1	X	X	
15:27	ZZZZZZ	1			
15:32	MA46655-CCV4	1	X	X	
15:37	MA46655-CCB5	1	X	X	
15:42	ZZZZZZ	1			
15:48	MA46655-ICSA2	1	X	X	
15:53	MA46655-ICSAB2	1	X	X	
15:58	MP14770-MB1	1	X	X	
16:03	ZZZZZZ	1			
16:09	ZZZZZZ	1			
16:14	ZZZZZZ	1			
16:19	ZZZZZZ	1			
16:24	MA46655-CCV5	1	X	X	
16:30	MA46655-CCB6	1	X	X	
16:35	MP14648-S1	2	X	X	
16:40	MP14648-S2	2	X	X	
16:46	JC86972-2	2	X	X	(a)
16:51	MP14648-SD1	10	X	X	
16:56	ZZZZZZ	1			
17:01	ZZZZZZ	5			
		Element:	Se	Ag	

REPORTED ELEMENTS SUMMARY

Login Number: JC87363
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Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: SC050619M1.ICP Date Analyzed: 05/06/19 Methods: EPA 200.7, SW846 6010D
Analyst: ND Run ID: MA46655
Parameters: Se,Ag

Time	Sample Description	Element: Dilution	Se	Ag
17:07	ZZZZZZ	2		
17:12	ZZZZZZ	5		
17:17	ZZZZZZ	2		
17:23	MA46655-CCV6	1	X	X
17:28	MA46655-CCB7	1	X	X
17:33	ZZZZZZ	5		
17:38	ZZZZZZ	3		
17:43	ZZZZZZ	2		
17:49	ZZZZZZ	5		
17:54	ZZZZZZ	2		
17:59	ZZZZZZ	2		
18:05	ZZZZZZ	2		
18:10	ZZZZZZ	5		
18:15	ZZZZZZ	3		
18:21	MA46655-CCV7	1	X	X
18:26	MA46655-CCB8	1	X	X
18:31	ZZZZZZ	5		
18:36	ZZZZZZ	2		
18:41	ZZZZZZ	3		
18:46	ZZZZZZ	1		
18:51	MP14770-MB2	1	X	X
18:56	MP14770-MB3	1	X	X
19:02	MP14770-B1	1	X	X
19:07	MP14770-B2	1	X	X
19:12	MP14770-B3	1	X	X
19:17	MP14770-S1	1	X	X
19:22	MA46655-CCV8	1	X	X
19:32	MA46655-CCB9	1	X	X
19:37	ZZZZZZ	1		
19:42	ZZZZZZ	1		
19:48	ZZZZZZ	1		
19:53	ZZZZZZ	1		
19:58	ZZZZZZ	1		
		Element:	Se	Ag

REPORTED ELEMENTS SUMMARY

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: SC050619M1.ICP Date Analyzed: 05/06/19 Methods: EPA 200.7, SW846 6010D
Analyst: ND Run ID: MA46655
Parameters: Se,Ag

Time	Sample Description	Element: Dilution	Se	Ag	
20:04	ZZZZZZ	1			
20:09	ZZZZZZ	1			
20:14	ZZZZZZ	1			
20:20	ZZZZZZ	1			
20:25	ZZZZZZ	1			
20:30	ZZZZZZ	1			
20:35	ZZZZZZ	1			
20:41	MA46655-CCV9	1	X	X	
20:46	MA46655-CCB10	1	X	X	
20:51	MP14770-S2	1	X	X	
20:56	JC87135-3	1	X	X	(a)
21:02	MP14770-SD1	5	X	X	
21:07	ZZZZZZ	1			
21:13	ZZZZZZ	1			
21:18	ZZZZZZ	1			
21:23	ZZZZZZ	1			
21:28	ZZZZZZ	1			
21:33	ZZZZZZ	1			
21:39	ZZZZZZ	1			
21:44	MA46655-CCV10	1	X	X	
21:49	MA46655-CCB11	1	X	X	
21:54	ZZZZZZ	1			
22:00	ZZZZZZ	1			
22:05	ZZZZZZ	1			
22:10	ZZZZZZ	1			
22:16	ZZZZZZ	1			
22:21	ZZZZZZ	1			
22:26	ZZZZZZ	1			
22:32	ZZZZZZ	1			
22:37	ZZZZZZ	1			
22:43	MA46655-CCV11	1	X	X	
22:48	MA46655-CCB12	1	X	X	
22:53	ZZZZZZ	1			
		Element:	Se	Ag	

REPORTED ELEMENTS SUMMARY

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: SC050619M1.ICP Date Analyzed: 05/06/19 Methods: EPA 200.7, SW846 6010D
Analyst: ND Run ID: MA46655
Parameters: Se,Ag

Time	Sample Description	Dilution	Se	Ag	
22:59	ZZZZZZ	1			
23:04	ZZZZZZ	1			
23:09	MP14784-S1	1	X	X	
23:14	MP14784-S2	1	X	X	
23:20	JC87409-1	1			(a)
23:25	MP14784-SD1	5	X	X	
23:30	ZZZZZZ	1			
23:35	ZZZZZZ	1			
23:40	MA46655-CCV12	1	X	X	
23:45	MA46655-CCB13	1	X	X	
23:51	ZZZZZZ	1			
23:56	ZZZZZZ	1			
00:01	ZZZZZZ	1			
00:06	ZZZZZZ	1			
00:11	ZZZZZZ	1			
00:17	MP14804-MB1	1	X	X	
00:22	MP14804-B1	1	X	X	
00:27	MP14804-S1	1	X	X	
00:32	MP14804-S2	1	X	X	
00:37	MA46655-CCV13	1	X	X	
00:42	MA46655-CCB14	1	X	X	
00:47	JC87317-1	1	X	X	(a)
00:52	MP14804-SD1	5	X	X	
00:58	ZZZZZZ	1			
01:03	ZZZZZZ	1			
01:08	ZZZZZZ	1			
01:13	ZZZZZZ	1			
01:18	ZZZZZZ	1			
01:23	ZZZZZZ	5			
01:28	ZZZZZZ	5			
01:33	MA46655-CCV14	1	X	X	
01:38	MA46655-CCB15	1	X	X	
01:44	ZZZZZZ	5			

Element:	Se	Ag

REPORTED ELEMENTS SUMMARY

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: SC050619M1.ICP Date Analyzed: 05/06/19 Methods: EPA 200.7, SW846 6010D
Analyst: ND Run ID: MA46655
Parameters: Se,Ag

Time	Sample Description	Element: Dilution	S e	A g	
01:49	ZZZZZZ	5			
01:54	ZZZZZZ	5			
01:59	ZZZZZZ	5			
02:05	ZZZZZZ	5			
02:10	ZZZZZZ	5			
02:15	ZZZZZZ	5			
02:20	ZZZZZZ	5			
02:25	JC87242-1	5	X	X	(a)
02:31	MA46655-CCV15	1	X	X	
02:36	MA46655-CCB16	1	X	X	
02:41	ZZZZZZ	5			
02:46	ZZZZZZ	5			
02:51	ZZZZZZ	5			
02:57	ZZZZZZ	5			
03:02	ZZZZZZ	5			
03:07	ZZZZZZ	5			
03:12	MA46655-CCV16	1	X	X	
03:17	MA46655-CCB17	1	X	X	

(a) Sample used for QC only; not part of login JC87363.

Element:	S e	A g

INTERNAL STANDARD SUMMARY

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: SC050619M1.ICP Date Analyzed: 05/06/19 Methods: EPA 200.7, SW846 6010D
Analyst: ND Run ID: MA46655
Parameters: Se,Ag

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
10:53	MA46655-STD1	8771 R	204850 R	36857 R	12709 R
10:59	MA46655-STD2	8355	193730	37133	11240
11:04	ZZZZZZ	8766	205560	37552	12318
11:09	ZZZZZZ	8752	205500	37537	12645
11:15	MA46655-ICV1	8489	195000	36552	11519
11:21	MA46655-ICB1	8767	206000	37663	12686
11:26	MA46655-ICCV1	8450	195380	36841	11478
11:45	MA46655-CCB1	8707	206620	37192	12628
11:50	MA46655-CRI1	8358	196480	35898	11947
11:55	MA46655-CRID1	8685	202750	37052	12579
12:01	MA46655-ICSA1	7666	175570	35403	10134
12:06	MA46655-ICSAB1	7757	178820	35525	10262
12:11	MA46655-HSTD1	8410	199280	37130	12106
12:17	MA46655-HSTD2	7699	179060	35014	10087
12:23	ZZZZZZ	8514	199280	36607	12330
12:28	ZZZZZZ	8385	202000	36489	12350
12:34	ZZZZZZ	8617	201590	36559	12445
12:39	MA46655-CCV1	8295	192350	35904	11233
12:44	MA46655-CCB2	8596	202290	36487	12416
12:49	ZZZZZZ	8324	197600	36039	11880
12:54	ZZZZZZ	8570	201480	36545	12613
13:00	ZZZZZZ	8570	199750	36788	12597
13:05	ZZZZZZ	8479	195370	37212	11411
13:10	ZZZZZZ	8353	195830	36303	11464
13:15	MP14776-S1	8392	193820	36568	11444
13:21	MP14776-S2	8388	194990	36635	11472
13:26	JC87355-1	8389	196880	36408	11400
13:31	MP14776-SD1	8480	199370	36255	11890
13:36	MA46655-CCV2	8267	191340	35922	11173
13:41	MA46655-CCB3	8503	198490	35986	12257
13:47	MP14776-PS1	8285	195460	37311	10914
13:52	ZZZZZZ	8535	196190	36930	11632
13:57	ZZZZZZ	8630	199900	36804	11662

INTERNAL STANDARD SUMMARY

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: SC050619M1.ICP Date Analyzed: 05/06/19 Methods: EPA 200.7, SW846 6010D
Analyst: ND Run ID: MA46655
Parameters: Se,Ag

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
14:02	ZZZZZZ	8545	200510	37060	11801
14:08	ZZZZZZ	8597	198680	36946	11854
14:13	ZZZZZZ	8555	198860	36738	11821
14:18	ZZZZZZ	8488	198780	36877	11710
14:24	ZZZZZZ	8580	201860	37135	12351
14:29	ZZZZZZ	8584	198160	36753	11802
14:34	MA46655-CCV3	8156	189330	35391	11029
14:39	MA46655-CCB4	8478	199840	36108	12215
14:45	ZZZZZZ	8504	205070	36714	11706
14:50	ZZZZZZ	8583	199130	36428	11908
14:55	MP14772-PS1	8374	192230	36770	11112
15:00	ZZZZZZ	8248	192360	36048	11067
15:06	ZZZZZZ	8751	197540	37867	11258
15:11	ZZZZZZ	8400	193810	36527	11201
15:16	MP14784-MB1	8561	200300	36598	12481
15:22	MP14784-B1	8357	195590	35923	11475
15:27	ZZZZZZ	8110	188280	36203	10852
15:32	MA46655-CCV4	8104	188790	35463	10992
15:37	MA46655-CCB5	8392	197700	35703	12166
15:42	ZZZZZZ	999999 !	171640	34218	999999 !
15:48	MA46655-ICSA2	7528	173020	34320	9889
15:53	MA46655-ICSAB2	7540	170300	34116	9922
15:58	MP14770-MB1	8553	198470	36586	12341
16:03	ZZZZZZ	8539	199250	36577	12273
16:09	ZZZZZZ	8491	199090	36043	12250
16:14	ZZZZZZ	8536	200500	36849	12300
16:19	ZZZZZZ	8247	192020	35843	11274
16:24	MA46655-CCV5	8126	188360	35330	11008
16:30	MA46655-CCB6	8428	198440	35958	12187
16:35	MP14648-S1	8373	193230	36598	11219
16:40	MP14648-S2	8400	193400	36889	11255
16:46	JC86972-2	8528	195470	37235	11544
16:51	MP14648-SD1	8583	200250	36486	12036

INTERNAL STANDARD SUMMARY

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: SC050619M1.ICP Date Analyzed: 05/06/19 Methods: EPA 200.7, SW846 6010D
Analyst: ND Run ID: MA46655
Parameters: Se,Ag

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
16:56	ZZZZZZ	8379	190830	36051	12138
17:01	ZZZZZZ	8112	188330	35635	11033
17:07	ZZZZZZ	8486	197220	36923	11554
17:12	ZZZZZZ	8118	190350	35790	11007
17:17	ZZZZZZ	8471	196370	36991	11384
17:23	MA46655-CCV6	8155	186160	35004	11069
17:28	MA46655-CCB7	8443	197930	36179	12201
17:33	ZZZZZZ	8200	191770	35974	11091
17:38	ZZZZZZ	8206	191300	36296	11056
17:43	ZZZZZZ	8390	193560	36772	11219
17:49	ZZZZZZ	8031	187190	35332	10778
17:54	ZZZZZZ	8534	195310	37124	11376
17:59	ZZZZZZ	8466	196190	36541	11524
18:05	ZZZZZZ	8371	193000	36633	11153
18:10	ZZZZZZ	8365	193370	35392	11540
18:15	ZZZZZZ	8271	192570	36080	11367
18:21	MA46655-CCV7	8224	188360	35269	11134
18:26	MA46655-CCB8	8467	197070	35704	12216
18:31	ZZZZZZ	8375	195050	35903	11694
18:36	ZZZZZZ	8426	195120	36647	11378
18:41	ZZZZZZ	8281	187130	35806	11375
18:46	ZZZZZZ	8399	197260	36051	12132
18:51	MP14770-MB2	8384	201420	36132	12122
18:56	MP14770-MB3	8478	200820	36390	12255
19:02	MP14770-B1	8207	191720	35816	11274
19:07	MP14770-B2	8266	190460	36093	11373
19:12	MP14770-B3	8278	194660	36768	11394
19:17	MP14770-S1	7498	175320	35051	9754
19:22	MA46655-CCV8	8139	187930	35272	11075
19:32	MA46655-CCB9	8455	199320	36496	12259
19:37	ZZZZZZ	8439	198100	36424	12220
19:42	ZZZZZZ	8449	198400	36627	12230
19:48	ZZZZZZ	8459	197340	36429	12267

INTERNAL STANDARD SUMMARY

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: SC050619M1.ICP Date Analyzed: 05/06/19 Methods: EPA 200.7, SW846 6010D
Analyst: ND Run ID: MA46655
Parameters: Se,Ag

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
19:53	ZZZZZZ	8438	197830	36197	12280
19:58	ZZZZZZ	8385	198570	36310	12205
20:04	ZZZZZZ	8389	196740	36129	12179
20:09	ZZZZZZ	8388	198470	36113	12219
20:14	ZZZZZZ	8443	201450	36474	12381
20:20	ZZZZZZ	8549	183260	37159	11097
20:25	ZZZZZZ	7760	182780	35547	10627
20:30	ZZZZZZ	8568	199140	36655	12468
20:35	ZZZZZZ	8418	195450	36538	12267
20:41	MA46655-CCV9	8104	188770	35470	11105
20:46	MA46655-CCB10	8354	195580	36205	12204
20:51	MP14770-S2	7463	174770	35514	9802
20:56	JC87135-3	7475	175220	35497	9910
21:02	MP14770-SD1	8069	187940	36087	11041
21:07	ZZZZZZ	7909	184860	36293	10654
21:13	ZZZZZZ	8238	193040	36827	11397
21:18	ZZZZZZ	8532	198530	37266	12446
21:23	ZZZZZZ	7621	173870	36378	9688
21:28	ZZZZZZ	7644	175580	36295	9891
21:33	ZZZZZZ	7749	181670	36427	10269
21:39	ZZZZZZ	8011	188080	37012	10862
21:44	MA46655-CCV10	8170	189770	36211	11230
21:49	MA46655-CCB11	8471	197670	37153	12386
21:54	ZZZZZZ	7905	184300	36548	10637
22:00	ZZZZZZ	8194	193220	37195	11283
22:05	ZZZZZZ	7473	175450	35747	9964
22:10	ZZZZZZ	7611	173930	36326	9728
22:16	ZZZZZZ	7613	174340	36061	9877
22:21	ZZZZZZ	7747	181420	36170	10275
22:26	ZZZZZZ	7923	184440	36732	10711
22:32	ZZZZZZ	6752	171890	35735	9806
22:37	ZZZZZZ	7427	172740	35876	9758
22:43	MA46655-CCV11	8125	189000	36236	11218

INTERNAL STANDARD SUMMARY

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: SC050619M1.ICP Date Analyzed: 05/06/19 Methods: EPA 200.7, SW846 6010D
Analyst: ND Run ID: MA46655
Parameters: Se,Ag

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
22:48	MA46655-CCB12	8373	199480	36679	12299
22:53	ZZZZZZ	6739	171280	35739	9821
22:59	ZZZZZZ	7396	170830	35591	9711
23:04	ZZZZZZ	7824	182140	36175	10630
23:09	MP14784-S1	7477	174990	35945	9978
23:14	MP14784-S2	7351	172190	36223	9842
23:20	JC87409-1	7401	173220	35558	9897
23:25	MP14784-SD1	7858	185200	35883	10869
23:30	ZZZZZZ	8205	192510	36518	11575
23:35	ZZZZZZ	7874	187610	36051	10706
23:40	MA46655-CCV12	8078	188760	35904	11164
23:45	MA46655-CCB13	8384	197670	36105	12325
23:51	ZZZZZZ	7922	183990	36336	10767
23:56	ZZZZZZ	7979	186150	36791	10934
00:01	ZZZZZZ	8009	999999 !a	36541	11043
00:06	ZZZZZZ	7999	187300	36322	10995
00:11	ZZZZZZ	7997	190980	36545	11025
00:17	MP14804-MB1	8441	197440	37054	12422
00:22	MP14804-B1	8219	194120	36548	11485
00:27	MP14804-S1	8020	185740	35345	11204
00:32	MP14804-S2	8023	187560	35232	11213
00:37	MA46655-CCV13	8140	189180	36364	11242
00:42	MA46655-CCB14	8404	199310	36798	12347
00:47	JC87317-1	8268	194470	35902	12195
00:52	MP14804-SD1	8426	197200	36802	12412
00:58	ZZZZZZ	8157	194030	35744	12022
01:03	ZZZZZZ	8320	195200	36127	12265
01:08	ZZZZZZ	8246	192520	35677	12123
01:13	ZZZZZZ	8210	193480	35442	12065
01:18	ZZZZZZ	8277	195250	35683	12208
01:23	ZZZZZZ	8009	187730	36529	10972
01:28	ZZZZZZ	8031	186740	36344	10897
01:33	MA46655-CCV14	8080	189770	36256	11184

INTERNAL STANDARD SUMMARY

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: SC050619M1.ICP Date Analyzed: 05/06/19 Methods: EPA 200.7, SW846 6010D
Analyst: ND Run ID: MA46655
Parameters: Se,Ag

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
01:38	MA46655-CCB15	8442	198840	36834	12399
01:44	ZZZZZZ	8081	187700	36671	11063
01:49	ZZZZZZ	7987	188250	36504	10919
01:54	ZZZZZZ	8061	187480	36190	10984
01:59	ZZZZZZ	8022	186420	36096	10960
02:05	ZZZZZZ	7800	183580	35775	10623
02:10	ZZZZZZ	7956	184670	35948	10863
02:15	ZZZZZZ	7930	185020	35915	10776
02:20	ZZZZZZ	7970	185380	35723	10866
02:25	JC87242-1	7926	187250	35707	10876
02:31	MA46655-CCV15	8083	188030	35701	11180
02:36	MA46655-CCB16	8404	197380	36127	12355
02:41	ZZZZZZ	7936	186320	35820	11337
02:46	ZZZZZZ	7926	186620	35540	10856
02:51	ZZZZZZ	7963	185890	35730	11416
02:57	ZZZZZZ	8042	187100	35794	11446
03:02	ZZZZZZ	7967	185100	36004	10890
03:07	ZZZZZZ	7862	183940	35487	10676
03:12	MA46655-CCV16	8084	188190	35489	11176
03:17	MA46655-CCB17	8349	197690	36099	12274

R = Reference for ISTD limits. ! = Outside limits.

LEGEND:

Istd#	Parameter	Limits
Istd#1	Yttrium (2243)	70-130 %
Istd#2	Yttrium (3600)	70-130 %
Istd#3	Yttrium (3710)	70-130 %
Istd#4	Indium	70-130 %

(a) No samples reported for the elements associated with this internal standard.

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: SC050619M1.ICP Date Analyzed: 05/06/19 Methods: EPA 200.7, SW846 6010D
QC Limits: result < RL Run ID: MA46655 Units: ug/l

Time:			11:21		11:45		12:44		13:41	
Sample ID:			ICB1		CCB1		CCB2		CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	14	anr							
Antimony	6.0	1.4	anr							
Arsenic	3.0	1.5	anr							
Barium	200	.5	anr							
Beryllium	1.0	.1	anr							
Bismuth	20	1.8								
Boron	100	.8								
Cadmium	3.0	.3	anr							
Calcium	5000	3.9	anr							
Chromium	10	.3	anr							
Cobalt	50	.3	anr							
Copper	10	.6	anr							
Iron	100	2.6	anr							
Lead	3.0	1.6	anr							
Lithium	50	2.1								
Magnesium	5000	16	anr							
Manganese	15	.1	anr							
Molybdenum	20	.4								
Nickel	10	.5	anr							
Phosphorus	50	1.9								
Potassium	10000	79	anr							
Selenium	10	3	-1.60	<10	-0.400	<10	-0.700	<10	-1.10	<10
Silicon	200	1.2								
Silver	10	.5	-0.200	<10	-0.100	<10	-0.600	<10	-0.600	<10
Sodium	10000	9.9	anr							
Strontium	10	.3								
Sulfur	50	3.5								
Thallium	10	1.3	anr							
Tin	10	.7								
Titanium	10	.5								
Tungsten	50	1.7								
Vanadium	50	.5	anr							
Zinc	20	.2	anr							

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: SC050619M1.ICP Date Analyzed: 05/06/19 Methods: EPA 200.7, SW846 6010D
QC Limits: result < RL Run ID: MA46655 Units: ug/l

Time:			11:21		11:45		12:44		13:41	
Sample ID:			ICB1		CCB1		CCB2		CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Zirconium	10	.3								

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: SC050619M1.ICP Date Analyzed: 05/06/19 Methods: EPA 200.7, SW846 6010D
QC Limits: result < RL Run ID: MA46655 Units: ug/l

Time:			14:39		15:37		16:30	
Sample ID:			CCB4		CCB5		CCB6	
Metal	RL	IDL	raw	final	raw	final	raw	final
Aluminum	200	14	anr					
Antimony	6.0	1.4	anr					
Arsenic	3.0	1.5	anr					
Barium	200	.5	anr					
Beryllium	1.0	.1	anr					
Bismuth	20	1.8						
Boron	100	.8						
Cadmium	3.0	.3	anr					
Calcium	5000	3.9	anr					
Chromium	10	.3	anr					
Cobalt	50	.3	anr					
Copper	10	.6	anr					
Iron	100	2.6	anr					
Lead	3.0	1.6	anr					
Lithium	50	2.1						
Magnesium	5000	16	anr					
Manganese	15	.1	anr					
Molybdenum	20	.4						
Nickel	10	.5	anr					
Phosphorus	50	1.9						
Potassium	10000	79	anr					
Selenium	10	3	-1.60	<10	-0.200	<10	-1.30	<10
Silicon	200	1.2						
Silver	10	.5	-0.800	<10	-0.500	<10	-0.500	<10
Sodium	10000	9.9	anr					
Strontium	10	.3						
Sulfur	50	3.5						
Thallium	10	1.3	anr					
Tin	10	.7						
Titanium	10	.5						
Tungsten	50	1.7						
Vanadium	50	.5	anr					
Zinc	20	.2	anr					

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: SC050619M1.ICP Date Analyzed: 05/06/19 Methods: EPA 200.7, SW846 6010D
QC Limits: result < RL Run ID: MA46655 Units: ug/l

Time:			14:39		15:37		16:30	
Sample ID:			CCB4		CCB5		CCB6	
Metal	RL	IDL	raw	final	raw	final	raw	final
Zirconium	10	.3						

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial Continuing Calibration Check

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: SC050619M1.ICP Date Analyzed: 05/06/19 Methods: EPA 200.7, SW846 6010D
QC Limits: to % Recovery Run ID: MA46655 Units: ug/l

Time:		11:26	
Sample ID:	ICCV	ICCV1	
Metal	True	Results	% Rec
Aluminum	anr		
Antimony	anr		
Arsenic	anr		
Barium	anr		
Beryllium	anr		
Bismuth			
Boron			
Cadmium	anr		
Calcium	anr		
Chromium	anr		
Cobalt	anr		
Copper	anr		
Iron	anr		
Lead	anr		
Lithium			
Magnesium	anr		
Manganese	anr		
Molybdenum			
Nickel	anr		
Phosphorus			
Potassium	anr		
Selenium	2000	2010	100.5
Silicon			
Silver	250	250	100.0
Sodium	anr		
Strontium			
Sulfur			
Thallium	anr		
Tin			
Titanium			
Tungsten			
Vanadium	anr		
Zinc	anr		

CALIBRATION CHECK STANDARDS SUMMARY
Initial Continuing Calibration Check

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: SC050619M1.ICP Date Analyzed: 05/06/19 Methods: EPA 200.7, SW846 6010D
QC Limits: to % Recovery Run ID: MA46655 Units: ug/l

Time:		11:26	
Sample ID:	ICCV	ICCV1	
Metal	True	Results	% Rec
Zirconium			

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: SC050619M1.ICP Date Analyzed: 05/06/19 Methods: EPA 200.7, SW846 6010D
QC Limits: 95 to 105 % Recovery Run ID: MA46655 Units: ug/l

Time:		11:15			12:39			13:36	
Sample ID:	ICV	ICV1		CCV	CCV1		CCV	CCV2	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	anr								
Barium	anr								
Beryllium	anr								
Bismuth									
Boron									
Cadmium	anr								
Calcium	anr								
Chromium	anr								
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	anr								
Lithium									
Magnesium	anr								
Manganese	anr								
Molybdenum									
Nickel	anr								
Phosphorus									
Potassium	anr								
Selenium	2000	1970	98.5	2000	2060	103.0	2000	2090	104.5
Silicon									
Silver	250	243	97.2	250	253	101.2	250	254	101.6
Sodium	anr								
Strontium									
Sulfur									
Thallium	anr								
Tin									
Titanium									
Tungsten									
Vanadium	anr								
Zinc	anr								

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: SC050619M1.ICP Date Analyzed: 05/06/19 Methods: EPA 200.7, SW846 6010D
QC Limits: 95 to 105 % Recovery Run ID: MA46655 Units: ug/l

Time:		11:15			12:39			13:36	
Sample ID:	ICV	ICV1		CCV	CCV1		CCV	CCV2	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Zirconium									

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: SC050619M1.ICP Date Analyzed: 05/06/19 Methods: EPA 200.7, SW846 6010D
QC Limits: 95 to 105 % Recovery Run ID: MA46655 Units: ug/l

Time:		14:34			15:32			16:24	
Sample ID:	CCV	CCV3		CCV	CCV4		CCV	CCV5	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	anr								
Barium	anr								
Beryllium	anr								
Bismuth									
Boron									
Cadmium	anr								
Calcium	anr								
Chromium	anr								
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	anr								
Lithium									
Magnesium	anr								
Manganese	anr								
Molybdenum									
Nickel	anr								
Phosphorus									
Potassium	anr								
Selenium	2000	2100	105.0	2000	2100	105.0	2000	2100	105.0
Silicon									
Silver	250	258	103.2	250	260	104.0	250	259	103.6
Sodium	anr								
Strontium									
Sulfur									
Thallium	anr								
Tin									
Titanium									
Tungsten									
Vanadium	anr								
Zinc	anr								

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: SC050619M1.ICP Date Analyzed: 05/06/19 Methods: EPA 200.7, SW846 6010D
QC Limits: 95 to 105 % Recovery Run ID: MA46655 Units: ug/l

Time:		14:34			15:32			16:24	
Sample ID:	CCV	CCV3		CCV	CCV4		CCV	CCV5	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Zirconium									

(*) Outside of QC limits
(anr) Analyte not requested

HIGH STANDARD CHECK SUMMARY

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: SC050619M1.ICP Date Analyzed: 05/06/19 Methods: EPA 200.7, SW846 6010D
QC Limits: 90 to 110 % Recovery Run ID: MA46655 Units: ug/l

Time:		12:11			12:17	
Sample ID:	HSTD	HSTD1		HSTD	HSTD2	
Metal	True	Results	% Rec	True	Results	% Rec
Aluminum						
Antimony	anr					
Arsenic	anr					
Barium	anr					
Beryllium	anr					
Bismuth						
Boron						
Cadmium	anr					
Calcium						
Chromium	anr					
Cobalt	anr					
Copper	anr					
Iron						
Lead	anr					
Lithium						
Magnesium						
Manganese	anr					
Molybdenum						
Nickel	anr					
Phosphorus						
Potassium						
Selenium	8000	8250	103.1			
Silicon						
Silver	625	647	103.5			
Sodium						
Strontium						
Sulfur						
Thallium	anr					
Tin						
Titanium						
Tungsten						
Vanadium	anr					
Zinc	anr					

HIGH STANDARD CHECK SUMMARY

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: SC050619M1.ICP Date Analyzed: 05/06/19 Methods: EPA 200.7, SW846 6010D
QC Limits: 90 to 110 % Recovery Run ID: MA46655 Units: ug/l

Time:		12:11			12:17	
Sample ID:	HSTD	HSTD1		HSTD	HSTD2	
Metal	True	Results	% Rec	True	Results	% Rec
Zirconium						

(*) Outside of QC limits
(anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: SC050619M1.ICP Date Analyzed: 05/06/19 Methods: EPA 200.7, SW846 6010D
QC Limits: CRI 80-120% CRIA 80-120% Run ID: MA46655 Units: ug/l

Time:				11:50		11:55	
Sample ID:	CRI	CRIA	CRID	CRI1		CRID1	
Metal	True	True	True	Results	% Rec	Results	% Rec
Aluminum	200	500	100	anr			
Antimony	6.0	20	3.0	anr			
Arsenic	8.0	20	3.0	anr			
Barium	200		4.0	anr			
Beryllium	2.0		1.0	anr			
Bismuth	20						
Boron	100		10				
Cadmium	3.0		1.0	anr			
Calcium	5000	2000	1000	anr			
Chromium	10		2.0	anr			
Cobalt	50		3.0	anr			
Copper	10		2.0	anr			
Iron	100	500		anr			
Lead	3.0	20	2.5	anr			
Lithium	50						
Magnesium	5000	2000	100	anr			
Manganese	15		3.0	anr			
Molybdenum	20						
Nickel	10		4.0	anr			
Phosphorus	50						
Potassium	5000		2000	anr			
Selenium	10	20	5.0	10.4	104.0	5.30	106.0
Silicon	200						
Silver	5.0		2.0	4.80	96.0	-0.200U	0.0* (a)
Sodium	5000		1000	anr			
Strontium	10						
Sulfur	50						
Thallium	10		2.0	anr			
Tin	10						
Titanium	10						
Tungsten	50						
Vanadium	50		2.0	anr			
Zinc	20		10	anr			

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: SC050619M1.ICP Date Analyzed: 05/06/19 Methods: EPA 200.7, SW846 6010D
QC Limits: CRI 80-120% CRIA 80-120% Run ID: MA46655 Units: ug/l

Time:				11:50		11:55	
Sample ID:	CRI	CRIA	CRID	CRI1		CRID1	
Metal	True	True	True	Results	% Rec	Results	% Rec
Zirconium	10						

(*) Outside of QC limits
(anr) Analyte not requested
(a) No samples reported for this element at this RL in the area bracketed by this QC.

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: SC050619M1.ICP Date Analyzed: 05/06/19 Methods: EPA 200.7, SW846 6010D
QC Limits: 80 to 120 % Recovery Run ID: MA46655 Units: ug/l

Time:			12:01		12:06		15:48		15:53	
Sample ID:	ICSA	ICSAB	ICSA1		ICSAB1		ICSA2		ICSAB2	
Metal	True	True	Results	% Rec	Results	% Rec	Results	% Rec	Results	% Rec
Aluminum	500000	500000	522000	104.4	514000	102.8	544000	108.8	544000	108.8
Antimony		1000	-0.900		1100	110.0	-1.90		1130	113.0
Arsenic		1000	0.100		1100	110.0	2.10		1140	114.0
Barium		500	1.00		532	106.4	1.30		561	112.2
Beryllium		500	0.200		513	102.6	0.200		532	106.4
Bismuth		500	-5.60		507	101.4	-5.30		526	105.2
Boron		500	-0.400		496	99.2	-0.300		515	103.0
Cadmium		1000	0.100		1040	104.0	-0.300		1070	107.0
Calcium	400000	400000	398000	99.5	392000	98.0	408000	102.0	405000	101.3
Chromium		500	-0.200		501	100.2	-0.400		525	105.0
Cobalt		500	1.50		507	101.4	1.30		519	103.8
Copper		500	-2.90		512	102.4	-0.400		543	108.6
Iron	200000	200000	196000	98.0	202000	101.0	202000	101.0	211000	105.5
Lead		1000	-1.30		982	98.2	2.00		1020	102.0
Lithium		500	5.10		558	111.6	8.90		593	118.6
Magnesium	500000	500000	516000	103.2	517000	103.4	536000	107.2	546000	109.2
Manganese		500	1.00		522	104.4	0.900		541	108.2
Molybdenum		500	1.00		497	99.4	1.00		518	103.6
Nickel		1000	-0.300		1000	100.0	-0.800		1030	103.0
Phosphorus		500	33.6		540	108.0	60.0*(a)		518	103.6
Potassium			383		303		421		361	
Selenium		1000	6.20		1080	108.0	4.10		1120	112.0
Silicon		500	3.50		526	105.2	7.50		545	109.0
Silver		1000	0.600		1090	109.0	-0.700		1140	114.0
Sodium			117		122		122		102	
Strontium		500	-0.500		526	105.2	-0.400		552	110.4
Sulfur		500	10.5		528	105.6	20.1		542	108.4
Thallium		1000	-0.900		1020	102.0	0.500		1030	103.0
Tin		500	-2.40		486	97.2	-2.40		508	101.6
Titanium		500	-1.60		512	102.4	-1.20		538	107.6
Tungsten		500	1.00		487	97.4	3.80		507	101.4
Vanadium		500	-0.500		512	102.4	0.500		532	106.4
Zinc		1000	-2.10		985	98.5	-1.20		1010	101.0

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: SC050619M1.ICP Date Analyzed: 05/06/19 Methods: EPA 200.7, SW846 6010D
QC Limits: 80 to 120 % Recovery Run ID: MA46655 Units: ug/l

Time:			12:01		12:06		15:48		15:53	
Sample ID:	ICSA	ICSAB	ICSA1		ICSAB1		ICSA2		ICSAB2	
Metal	True	True	Results	% Rec	Results	% Rec	Results	% Rec	Results	% Rec
Zirconium		500	-0.300		502	100.4	-0.300		521	104.2

(*) Outside of QC limits
(anr) Analyte not requested
(a) No samples reported for this element in the area bracketed by this QC.

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA050619M2.CSV Date Analyzed: 05/06/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA46658
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Dilution Factor	PS Recov	Comments
11:00	MA46658-STD1	1		STDA
11:05	MA46658-STD2	1		STDA
11:10	MA46658-STD3	1		STDA
11:15	MA46658-STD4	1		STDB
11:20	MA46658-STD5	1		STDC
11:25	MA46658-STD6	1		STDD
11:30	MA46658-STD7	1		STDE
11:36	MA46658-STD8	1		STDF
11:41	MA46658-STD9	1		STDG
11:46	MA46658-STD10	1		STDH
11:51	MA46658-STD11	1		STDI
11:56	MA46658-STD12	1		STDJ
12:01	MA46658-ICVA1	1		
12:06	MA46658-ICV1	1		
12:11	MA46658-ICB1	1		
12:16	MA46658-CCVA1	1		
12:21	MA46658-CCB1	1		
12:26	MA46658-CRI1	1		
12:36	MA46658-ICSA1	1		
12:41	MA46658-ICSAB1	1		
12:46	ZZZZZZ	1		
12:51	MA46658-CCVA2	1		
12:56	MA46658-CCB2	1		
13:01	ZZZZZZ	5		
13:06	ZZZZZZ	1		
13:11	ZZZZZZ	2		
13:16	ZZZZZZ	2		
13:21	MP14785-MB1	1		
13:26	MP14785-B1	1		
13:31	MP14785-S1	1		
13:36	ZZZZZZ	1		
13:42	MA46658-CCVA3	1		
13:48	MA46658-CCB3	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA050619M2.CSV Date Analyzed: 05/06/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA46658
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Dilution Factor	PS Recov	Comments
13:53	MP14785-S2	1		
13:58	JC87279-1	1		(sample used for QC only; not part of login JC87363)
14:03	ZZZZZZ	1		
14:08	ZZZZZZ	1		
14:13	ZZZZZZ	1		
14:18	ZZZZZZ	1		
14:23	ZZZZZZ	1		
14:28	MA46658-CCVA4	1		
14:33	MA46658-CCB4	1		
14:38	MP14786-MB1	2		
14:43	MP14786-B2	2		
14:48	MP14786-S5	2		
14:53	MP14786-S6	2		
14:58	JC87418-1	2		(sample used for QC only; not part of login JC87363)
15:03	MP14786-SD1	10		
15:08	MA46658-CCVA5	1		
15:13	MA46658-CCB5	1		
15:18	MP14786-S7	2		
15:23	MP14786-S8	2		
15:28	JC87418-1F	2		(sample used for QC only; not part of login JC87363)
15:33	MP14786-SD2	10		
15:38	ZZZZZZ	2		
15:43	ZZZZZZ	2		
15:48	ZZZZZZ	2		
15:53	MA46658-CCVA6	1		
15:58	MA46658-CCB6	1		
16:03	ZZZZZZ	2		
16:08	MP14818A-MB1	2		
16:13	MP14818A-B2	2		
16:18	ZZZZZZ	2		
16:24	ZZZZZZ	2		
16:28	ZZZZZZ	1		
16:34	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA050619M2.CSV Date Analyzed: 05/06/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA46658
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Dilution Factor	PS Recov	Comments
16:39	MA46658-CCVA7	1		
16:44	MA46658-CCB7	1		
16:49	ZZZZZZ	2		
16:54	ZZZZZZ	2		
16:59	ZZZZZZ	2		
17:04	ZZZZZZ	1		
17:09	ZZZZZZ	2		
17:14	ZZZZZZ	2		
17:19	ZZZZZZ	1		
17:24	ZZZZZZ	2		
17:29	ZZZZZZ	2		
17:34	MA46658-CCVA8	1		
17:39	MA46658-CCB8	1		
17:44	ZZZZZZ	2		
17:49	ZZZZZZ	2		
17:54	ZZZZZZ	1		
17:59	JC87363-1	2		
18:04	ZZZZZZ	1		
18:09	MA46658-CCVA9	1		
18:14	MA46658-CCB9	1		
18:19	JC87363-2	2		
---------->	Last reportable sample/prep for job JC87363			
18:24	ZZZZZZ	2		
18:29	ZZZZZZ	1		
18:34	ZZZZZZ	2		
18:39	ZZZZZZ	1		
18:44	MA46658-CCVA10	1		
18:49	MA46658-CCB10	1		
---------->	Last reportable CCB for job JC87363			
18:54	ZZZZZZ	1		
18:59	ZZZZZZ	1		
19:04	ZZZZZZ	1		
19:09	ZZZZZZ	1		

Refer to raw data for calibration curve and standards.

REPORTED ELEMENTS SUMMARY

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA050619M2.CSV Date Analyzed: 05/06/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA46658
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Element: Dilution	Al	As	Ba	Cd	Fe	Pb	
12:01	MA46658-ICVA1	1	X	X	X	X	X	X	
12:06	MA46658-ICV1	1	X	X	X	X	X	X	
12:11	MA46658-ICB1	1	X	X	X	X	X	X	
12:16	MA46658-CCVA1	1	X	X	X	X	X	X	
12:21	MA46658-CCB1	1	X	X	X	X	X	X	
12:26	MA46658-CRI1	1	X	X	X	X	X	X	
12:36	MA46658-ICSA1	1	X	X	X	X	X	X	
12:41	MA46658-ICSAB1	1	X	X	X	X	X	X	
12:46	ZZZZZZ	1							
12:51	MA46658-CCVA2	1	X	X	X	X	X	X	
12:56	MA46658-CCB2	1	X	X	X	X	X	X	
13:01	ZZZZZZ	5							
13:06	ZZZZZZ	1							
13:11	ZZZZZZ	2							
13:16	ZZZZZZ	2							
13:21	MP14785-MB1	1		X			X		
13:26	MP14785-B1	1		X			X		
13:31	MP14785-S1	1		X			X		
13:36	ZZZZZZ	1							
13:42	MA46658-CCVA3	1	X	X	X	X	X	X	
13:48	MA46658-CCB3	1	X	X	X	X	X	X	
13:53	MP14785-S2	1		X			X		
13:58	JC87279-1	1							(a)
14:03	ZZZZZZ	1							
14:08	ZZZZZZ	1							
14:13	ZZZZZZ	1							
14:18	ZZZZZZ	1							
14:23	ZZZZZZ	1							
14:28	MA46658-CCVA4	1	X	X	X	X	X	X	
14:33	MA46658-CCB4	1	X	X	X	X	X	X	
14:38	MP14786-MB1	2	X	X	X	X	X	X	
14:43	MP14786-B2	2	X	X	X	X	X	X	
14:48	MP14786-S5	2	X	X	X	X	X	X	
		Element:	Al	As	Ba	Cd	Fe	Pb	

REPORTED ELEMENTS SUMMARY

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA050619M2.CSV Date Analyzed: 05/06/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA46658
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Element: Dilution	Al	As	Ba	Cd	Fe	Pb	
14:53	MP14786-S6	2	X	X	X	X	X	X	
14:58	JC87418-1	2		X					(a)
15:03	MP14786-SD1	10	X	X	X	X	X	X	
15:08	MA46658-CCVA5	1	X	X	X	X	X	X	
15:13	MA46658-CCB5	1	X	X	X	X	X	X	
15:18	MP14786-S7	2	X	X	X	X	X	X	
15:23	MP14786-S8	2	X	X	X	X	X	X	
15:28	JC87418-1F	2		X					(a)
15:33	MP14786-SD2	10	X	X	X	X	X	X	
15:38	ZZZZZZ	2							
15:43	ZZZZZZ	2							
15:48	ZZZZZZ	2							
15:53	MA46658-CCVA6	1	X	X	X	X	X	X	
15:58	MA46658-CCB6	1	X	X	X	X	X	X	
16:03	ZZZZZZ	2							
16:08	MP14818A-MB1	2		X					
16:13	MP14818A-B2	2		X					
16:18	ZZZZZZ	2							
16:24	ZZZZZZ	2							
16:28	ZZZZZZ	1							
16:34	ZZZZZZ	1							
16:39	MA46658-CCVA7	1	X	X	X	X	X	X	
16:44	MA46658-CCB7	1	X	X	X	X	X	X	
16:49	ZZZZZZ	2							
16:54	ZZZZZZ	2							
16:59	ZZZZZZ	2							
17:04	ZZZZZZ	1							
17:09	ZZZZZZ	2							
17:14	ZZZZZZ	2							
17:19	ZZZZZZ	1							
17:24	ZZZZZZ	2							
17:29	ZZZZZZ	2							
17:34	MA46658-CCVA8	1	X	X	X	X	X	X	
		Element:	Al	As	Ba	Cd	Fe	Pb	

REPORTED ELEMENTS SUMMARY

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA050619M2.CSV Date Analyzed: 05/06/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA46658
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Element: Dilution	Al	As	Ba	Cd	Fe	Pb
17:39	MA46658-CCB8	1	X	X	X	X	X	X
17:44	ZZZZZZ	2						
17:49	ZZZZZZ	2						
17:54	ZZZZZZ	1						
17:59	JC87363-1	2	X	X	X	X	X	X
18:04	ZZZZZZ	1						
18:09	MA46658-CCVA9	1	X	X	X	X	X	X
18:14	MA46658-CCB9	1	X	X	X	X	X	X
18:19	JC87363-2	2	X	X	X	X	X	X
18:24	ZZZZZZ	2						
18:29	ZZZZZZ	1						
18:34	ZZZZZZ	2						
18:39	ZZZZZZ	1						
18:44	MA46658-CCVA10	1	X	X	X	X	X	X
18:49	MA46658-CCB10	1	X	X	X	X	X	X
18:54	ZZZZZZ	1						
18:59	ZZZZZZ	1						
19:04	ZZZZZZ	1						
19:09	ZZZZZZ	1						

(a) Sample used for QC only; not part of login JC87363.

Element:	Al	As	Ba	Cd	Fe	Pb

INTERNAL STANDARD SUMMARY

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA050619M2.CSV Date Analyzed: 05/06/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA46658
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8
11:00	MA46658-STD1	100	100	100	100	100	100	100	100
11:05	MA46658-STD2	100	100	100	100	100	100	100	100
11:10	MA46658-STD3	100	100	100	100	100	100	100	100
11:15	MA46658-STD4	100.742	100.117	100.1	100.601	101.223	101.809	100.924	100.706
11:20	MA46658-STD5	100.894	100.138	100.529	101.002	100.663	100.662	100.146	100.655
11:25	MA46658-STD6	101.822	100.546	101.288	100.31	101.043	102.221	99.844	100.252
11:30	MA46658-STD7	100.551	100.265	101.143	101.718	101.646	102.827	100.661	101.186
11:36	MA46658-STD8	100.626	100.056	101.44	100.707	101.23	101.622	99.652	100.946
11:41	MA46658-STD9	100.497	99.698	101.177	100.779	100.396	102.039	99.622	100.228
11:46	MA46658-STD10	100.346	100.151	101.524	100.809	100.132	101.586	99.618	100.675
11:51	MA46658-STD11	99.377	99.068	101.467	100.14	99.631	100.953	99.361	98.883
11:56	MA46658-STD12	97.738	98.697	101.643	100.016	99.446	101.064	98.703	98.723
12:01	MA46658-ICVA1	98.702	100.713	103.228	100.242	101.74	102.837	101.057	102.06
12:06	MA46658-ICV1	100.335	101.616	103.099	102.452	101.932	105.463	103.266	101.604
12:11	MA46658-ICB1	102.477	103.876	106.859	105.924	104.022	106.499	103.189	103.421
12:16	MA46658-CCVA1	102.076	104.37	106.934	103.944	103.863	107.038	103.029	104.492
12:21	MA46658-CCB1	102.871	103.771	106.843	105.091	104.445	107.323	105.641	104.484
12:26	MA46658-CRI1	104.055	105.093	108.763	107.356	105.306	108.051	106.241	104.32
12:36	MA46658-ICSA1	90.081	94.242	100.557	96.785	95.403	99.782	95.389	92.434
12:41	MA46658-ICSAB1	87.673	94.916	97.345	97.573	96.737	99.677	97.166	94.029
12:46	ZZZZZZ	88.635	94.457	95.674	98.107	98.355	102.207	98.95	98.701
12:51	MA46658-CCVA2	88.51	94.477	97.47	99.483	98.666	101.673	98.955	98.597
12:56	MA46658-CCB2	90.058	96.197	99.347	100.615	99.21	103.271	102.578	99.022
13:01	ZZZZZZ	85.493	94.186	97.507	94.051	91.191	94.319	89.443	90.49
13:06	ZZZZZZ	91.04	93.188	95.903	95.88	96.196	99.976	98.964	95.422
13:11	ZZZZZZ	84.128	86.907	87.899	92.865	93.611	94.001	97.093	93.113
13:16	ZZZZZZ	83.42	87.177	89.379	94.388	91.9	93.223	95.67	91.437
13:21	MP14785-MB1	90.457	94.915	98.287	98.909	99.057	101.646	100.631	98.894
13:26	MP14785-B1	91.934	97.435	100.775	100.368	99.747	102.689	99.737	100.427
13:31	MP14785-S1	88.374	100.76	106.397	102.875	97.613	104.166	98.088	96.867
13:36	ZZZZZZ	95.403	100.083	102.556	101.586	103.63	106.29	101.814	102.552
13:42	MA46658-CCVA3	91.862	98.054	101.815	100.998	101.1	104.748	100.675	100.975
13:48	MA46658-CCB3	93.309	98.036	101.806	103.292	101.209	107.105	103.968	100.998

INTERNAL STANDARD SUMMARY

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA050619M2.CSV Date Analyzed: 05/06/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA46658
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8
13:53	MP14785-S2	90.927	103.794	109.318	106.301	100.912	106.242	100.309	99.971
13:58	JC87279-1	93.946	106.943	112.11	108.58	102.409	109.761	103.2	101.859
14:03	ZZZZZZ	96.53	109.435	114.232	110.728	105.115	111.568	106.844	104.598
14:08	ZZZZZZ	98.544	112.479	116.587	114.104	106.469	111.852	107.158	106.453
14:13	ZZZZZZ	99.476	112.14	118.676	112.798	106.057	112.844	107.35	105.816
14:18	ZZZZZZ	99.843	108.789	110.476	109.11	106.873	111.398	106.908	107.686
14:23	ZZZZZZ	92.828	101.407	103.607	105.606	102.523	107.569	103.088	102.241
14:28	MA46658-CCVA4	89.803	97.751	99.15	103.579	101.685	105.733	103.63	101.002
14:33	MA46658-CCB4	91.08	98.294	101.731	105.018	102.388	106.846	106.43	101.762
14:38	MP14786-MB1	87.958	94.526	93.375	101.095	101.426	102.587	105.261	100.591
14:43	MP14786-B2	86.195	93.101	93.987	103.2	99.489	100.752	103.689	99.795
14:48	MP14786-S5	83.23	92.508	93.777	101.607	98.089	100.417	103.477	97.144
14:53	MP14786-S6	82.955	92.719	92.866	101.359	98.376	99.389	103.973	98.41
14:58	JC87418-1	84.74	92.32	93.393	100.125	99.604	99.294	103.948	98.302
15:03	MP14786-SD1	89.013	97.388	100.197	102.283	101.559	106.722	103.665	101.968
15:08	MA46658-CCVA5	87.714	95.753	98.062	101.057	99.866	104.367	102.001	99.951
15:13	MA46658-CCB5	89.054	96.819	99.797	102.925	100.963	105.735	102.875	101.418
15:18	MP14786-S7	83.291	92.551	94.076	100.892	97.863	99.92	101.992	97.703
15:23	MP14786-S8	82.114	91.848	91.495	99.34	97.372	99.488	101.756	96.956
15:28	JC87418-1F	81.666	90.599	90.72	100.004	97.237	98.424	102.777	96.077
15:33	MP14786-SD2	87.309	94.962	98.051	100.626	99.865	103.679	101.301	98.694
15:38	ZZZZZZ	83.117	89.847	90.533	99.535	95.896	96.799	103.358	95.235
15:43	ZZZZZZ	84.541	90.697	94.055	102.271	99.109	101.843	105.65	97.481
15:48	ZZZZZZ	85.901	92.842	94.883	103.257	99.975	102.699	106.746	98.716
15:53	MA46658-CCVA6	87.648	95.38	98.789	101.049	98.75	103.138	101.466	99.752
15:58	MA46658-CCB6	87.883	95.153	98.497	100.293	98.83	103.07	101.402	99.125
16:03	ZZZZZZ	85.006	91.127	92.587	99.885	98.861	100.9	104.154	98.234
16:08	MP14818A-MB1	83.73	90.589	92.383	99.909	97.818	100.448	102.56	97.547
16:13	MP14818A-B2	84.206	91.149	93.635	101.168	97.373	99.187	102.722	97.276
16:18	ZZZZZZ	83.496	92.328	95.459	102.221	99.642	102.027	104.399	98.406
16:24	ZZZZZZ	84.636	93.475	96.056	101.183	101.179	102.381	104.792	98.94
16:28	ZZZZZZ	89.496	96.174	99.482	99.577	100.562	105.393	100.135	100.113
16:34	ZZZZZZ	88.811	94.633	96.913	95.823	97.533	100.49	98.097	97.725

INTERNAL STANDARD SUMMARY

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA050619M2.CSV Date Analyzed: 05/06/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA46658
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8
16:39	MA46658-CCVA7	85.378	93.153	96.465	96.938	96.055	100.325	97.218	96.169
16:44	MA46658-CCB7	87.01	93.833	96.945	98.049	97.172	103.431	99.343	96.643
16:49	ZZZZZZ	79.815	89.507	90.303	94.51	91.812	96.118	96.198	92.199
16:54	ZZZZZZ	78.592	88.803	89.165	93.519	92.89	95.204	94.949	92.075
16:59	ZZZZZZ	80.661	88.513	89.059	94.241	94.335	97.1	98.001	93.486
17:04	ZZZZZZ	85.81	92.501	95.195	96.033	96.159	100.778	97.006	95.894
17:09	ZZZZZZ	79.602	87.482	87.743	94.26	92.562	95.058	97.061	92.173
17:14	ZZZZZZ	78.296	87.634	89.158	92.216	91.162	93.708	92.962	90.48
17:19	ZZZZZZ	87.232	92.95	96.886	96.702	96.722	101.654	97.214	96.144
17:24	ZZZZZZ	78.421	87.394	89.247	92.225	90.569	93.284	93.804	90.179
17:29	ZZZZZZ	79.476	87.604	87.649	94.998	94.175	96.416	98.423	94.358
17:34	MA46658-CCVA8	83.391	90.097	93.196	93.17	93.177	97.636	94.968	93.904
17:39	MA46658-CCB8	84.26	90.167	93.848	93.652	93.619	98.751	95.476	93.277
17:44	ZZZZZZ	77.707	84.574	86.121	91.766	90.327	92.29	94.428	90.056
17:49	ZZZZZZ	79.833	85.344	87.493	94.196	94.644	95.973	100.092	93.136
17:54	ZZZZZZ	84.742	90.609	94.414	93.955	94.355	98.737	95.192	93.728
17:59	JC87363-1	79.618	85.689	86.935	94.593	93.754	96.113	97.234	92.503
18:04	ZZZZZZ	85.353	91.086	93.759	94.045	95.277	100.63	95.299	94.791
18:09	MA46658-CCVA9	83.432	88.796	92.884	92.932	91.945	98.664	93.356	93.296
18:14	MA46658-CCB9	83.864	89.738	92.287	94.082	93.699	98.593	94.97	93.567
18:19	JC87363-2	79.271	84.863	86.1	92.895	92.688	96.072	98.172	92.184
18:24	ZZZZZZ	78.387	85.801	86.792	93.2	91.555	93.955	96.96	91.038
18:29	ZZZZZZ	84.428	90.648	93.014	94.185	94.559	99.702	94.826	94.275
18:34	ZZZZZZ	77.697	85.507	86.559	92.297	90.99	93.584	96.74	90.565
18:39	ZZZZZZ	84.738	90.483	93.935	94.568	94.998	99.658	97.079	95.292
18:44	MA46658-CCVA10	83.055	89.352	93.196	94.267	92.916	95.963	94.4074	92.978
18:49	MA46658-CCB10	83.803	89.873	92.151	92.719	93.193	96.794	94.03	93.944
18:54	ZZZZZZ	84.514	90.497	93.209	94.38	93.667	98.858	95.242	93.259
18:59	ZZZZZZ	84.202	89.993	94.222	94.342	93.107	98.242	95.672	93.036
19:04	ZZZZZZ	85.181	90.646	93.303	93.412	94.153	99.091	95.697	94.176
19:09	ZZZZZZ	85.392	90.87	94.336	94.256	95.19	98.875	95.222	93.756

! = Outside limits.

LEGEND:			CCV/CCB
Istd#	Parameter	Limits	Limits
Istd#1	Lithium	60-125 %	60-125 %

INTERNAL STANDARD SUMMARY

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA050619M2.CSV Date Analyzed: 05/06/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA46658
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8
Istd#8	Scandium (45-1)		60-125 %	60-125 %					
Istd#3	Scandium (45-2)		60-125 %	60-125 %					
Istd#4	Scandium (45-3)		60-125 %	60-125 %					
Istd#5	Germanium (72-1)		60-125 %	60-125 %					
Istd#6	Germanium (72-2)		60-125 %	60-125 %					
Istd#7	Germanium (72-3)		60-125 %	60-125 %					
Istd#8	Germanium (74-1)		60-125 %	60-125 %					

INTERNAL STANDARD SUMMARY

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA050619M2.CSV Date Analyzed: 05/06/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA46658
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16
11:00	MA46658-STD1	100	100	100	100	100	100	100	100
11:05	MA46658-STD2	100	100	100	100	100	100	100	100
11:10	MA46658-STD3	100	100	100	100	100	100	100	100
11:15	MA46658-STD4	100.258	100.46	100.162	99.929	100.482	99.748	100.597	99.554
11:20	MA46658-STD5	101.856	100.287	100.237	100.336	100.485	100.377	100.655	100.526
11:25	MA46658-STD6	102.015	100.107	98.865	100.347	100.543	100.312	100.058	99.784
11:30	MA46658-STD7	101.626	100.787	99.474	100.52	100.606	100.961	100.443	100.939
11:36	MA46658-STD8	101.231	100.853	99.646	99.556	99.891	100.281	100.236	100.02
11:41	MA46658-STD9	101.601	101.291	98.731	100.307	100.904	99.897	101.403	100.13
11:46	MA46658-STD10	102.132	101.13	98.74	99.543	99.637	100.549	101.293	100.513
11:51	MA46658-STD11	100.885	99.656	97.011	97.807	98.791	98.276	99.789	99.306
11:56	MA46658-STD12	101.199	98.99	95.861	97.558	96.959	97.904	100.4	98.844
12:01	MA46658-ICVA1	103.665	101.057	97.603	98.816	99.152	99.574	101.966	100.845
12:06	MA46658-ICV1	104.083	103.328	100.645	102.03	101.858	101.603	103.925	101.041
12:11	MA46658-ICB1	106.009	104.241	102.176	103.68	104.001	103.208	105.436	100.899
12:16	MA46658-CCVA1	104.956	102.775	100.34	100.903	100.301	101.849	104.164	101.135
12:21	MA46658-CCB1	106.541	104.684	102.624	103.698	104.555	103.278	105.418	101.427
12:26	MA46658-CRI1	109.482	105.755	103.502	104.711	104.977	104.592	105.867	101.832
12:36	MA46658-ICSA1	97.634	93.995	85.653	88.725	87.718	90.624	93.827	93.633
12:41	MA46658-ICSAB1	97.025	94.741	87.345	87.92	88.382	92.117	92.916	94.543
12:46	ZZZZZZ	101.05	100.333	99.4	99.761	101.721	101.704	101.611	101.939
12:51	MA46658-CCVA2	101.249	99.175	96.772	97.628	99.721	99.44	100.488	101.178
12:56	MA46658-CCB2	103.261	102.565	99.689	101.201	102.704	101.832	103.814	102.055
13:01	ZZZZZZ	95.152	89.314	84.088	84.391	83.846	89.023	93.184	91.975
13:06	ZZZZZZ	100.224	96.65	96.963	98.77	99.163	98.251	101.876	98.179
13:11	ZZZZZZ	95.244	96.733	93.442	94.575	97.354	94.915	95.563	98.511
13:16	ZZZZZZ	93.627	96.519	91.618	93.931	97.248	95.089	94.674	98.9
13:21	MP14785-MB1	103.096	100.765	99.681	100.772	101.097	100.692	104.348	100.706
13:26	MP14785-B1	103.342	100.437	99.212	99.571	100.399	100.234	103.109	101.641
13:31	MP14785-S1	101.877	98.508	88.385	90.905	89.761	94.619	99.862	96.238
13:36	ZZZZZZ	107.253	102.894	102.674	102.547	102.056	102.524	106.526	101.367
13:42	MA46658-CCVA3	104.21	101.257	98.483	98.935	99.945	100.748	103.171	101.757
13:48	MA46658-CCB3	106.324	103.629	101.871	102.634	103.039	102.499	105.614	102.102

INTERNAL STANDARD SUMMARY

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA050619M2.CSV Date Analyzed: 05/06/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA46658
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16
13:53	MP14785-S2	107.105	101.356	91.871	92.851	91.676	97.065	101.808	99.03
13:58	JC87279-1	110.105	104.143	92.753	94.66	93.627	98.733	102.901	99.207
14:03	ZZZZZZ	109.982	106.393	94.477	94.735	94.803	99.995	104.277	100.314
14:08	ZZZZZZ	111.909	106.883	96.503	95.583	95.528	100.595	104.359	100.926
14:13	ZZZZZZ	111.548	106.45	95.526	95.086	93.954	100.609	104.429	100.117
14:18	ZZZZZZ	111.011	105.601	100.221	99.065	98.686	104.525	105.97	103.776
14:23	ZZZZZZ	106.722	103.107	96.859	96.358	97.035	102.256	102.624	102.714
14:28	MA46658-CCVA4	104.82	104.374	99.18	99.331	100.772	102.457	102.09	103.363
14:33	MA46658-CCB4	107.028	106.444	101.682	103.583	104.865	103.919	104.454	103.693
14:38	MP14786-MB1	102.294	105.673	99.395	98.687	103.505	101.582	98.303	103.548
14:43	MP14786-B2	100.024	104.949	98.377	98.26	102.475	101.408	97.542	103.959
14:48	MP14786-S5	101.028	103.133	91.947	91.464	95.613	96.73	94.427	102.227
14:53	MP14786-S6	99.851	102.749	91.713	91.173	95.764	97.549	93.234	101.415
14:58	JC87418-1	100.147	103.095	93.522	91.565	95.857	98.03	94.295	101.371
15:03	MP14786-SD1	104.513	103.754	99.796	99.274	99.779	102.876	102.888	103.152
15:08	MA46658-CCVA5	104.608	102.253	97.603	98.434	99.358	100.962	101.31	102.612
15:13	MA46658-CCB5	104.349	103.027	100.695	100.681	102.951	102.907	102.438	101.875
15:18	MP14786-S7	99.504	103.352	91.137	91.086	94.598	97.161	93.327	101.419
15:23	MP14786-S8	98.655	102.678	91.031	90.024	94.022	96.551	92.89	100.333
15:28	JC87418-1F	99.031	103.499	89.556	89.944	94.529	95.708	92.496	100.006
15:33	MP14786-SD2	103.112	101.201	96.58	96.862	97.683	100.669	101.805	100.895
15:38	ZZZZZZ	98.844	103.03	95.52	94.628	100.635	98.224	94.724	101.557
15:43	ZZZZZZ	101.099	105.283	96.355	96.973	102.171	98.875	97.245	100.065
15:48	ZZZZZZ	102.787	106.853	97.385	98.624	103.048	100.167	98.08	102.031
15:53	MA46658-CCVA6	102.652	102.02	97.199	97.185	98.023	100.301	100.767	102.257
15:58	MA46658-CCB6	103.883	101.114	98.623	98.984	100.995	100.568	102.556	100.366
16:03	ZZZZZZ	100.537	104.659	97.042	96.601	101.65	99.013	96.289	101.543
16:08	MP14818A-MB1	98.947	103.623	96.054	96.717	101.302	98.312	96.932	102.204
16:13	MP14818A-B2	99.233	103.287	95.862	96.565	100.19	98.887	95.875	101.567
16:18	ZZZZZZ	101.64	104.386	92.757	93.225	96.1	98.362	95.73	101.651
16:24	ZZZZZZ	102.711	104.875	92.703	93.418	96.675	99.046	96.394	102.096
16:28	ZZZZZZ	104.4	99.967	100.542	100.136	100.262	101.685	102.904	100.821
16:34	ZZZZZZ	102.853	98.26	97.74	97.636	97.878	99.365	100.438	98.875

INTERNAL STANDARD SUMMARY

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA050619M2.CSV Date Analyzed: 05/06/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA46658
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16
16:39	MA46658-CCVA7	100.906	98.005	94.125	95.245	95.739	96.496	98.643	97.937
16:44	MA46658-CCB7	101.824	99.571	96.923	98.073	98.979	99.1	100.486	98.069
16:49	ZZZZZZ	95.16	95.512	84.782	84.413	86.904	90.558	89.61	94.886
16:54	ZZZZZZ	94.672	95.426	84.781	83.856	86.566	90.224	89.822	94.482
16:59	ZZZZZZ	96.465	96.829	87.812	88.082	91.205	92.905	91.801	97.185
17:04	ZZZZZZ	100.959	97.089	94.887	96.916	97.94	97.531	100.471	97.699
17:09	ZZZZZZ	96.073	97.169	86.251	86.977	90.28	92.089	91.261	96.323
17:14	ZZZZZZ	93.244	93.905	83.535	83.138	85.977	88.912	88.539	93.566
17:19	ZZZZZZ	101.347	97.045	96.193	96.572	97.492	98.068	100.758	97.954
17:24	ZZZZZZ	92.607	93.588	83.101	82.857	85.122	88.955	88.351	92.703
17:29	ZZZZZZ	96.684	98.509	86.734	86.763	89.957	92.262	91.074	96.115
17:34	MA46658-CCVA8	98.427	94.134	92.168	93.952	93.581	95.184	97.168	96.95
17:39	MA46658-CCB8	98.016	95.281	93.971	94.885	96.06	96.262	98.581	96.08
17:44	ZZZZZZ	91.815	95.257	84.628	85.434	88.326	90.022	89.288	94.872
17:49	ZZZZZZ	97.632	100.315	92.107	91.844	96.667	93.632	93.177	96.889
17:54	ZZZZZZ	98.436	95.649	93.858	95.435	96.695	96.433	98.258	97.022
17:59	JC87363-1	97.057	98.219	89.248	89.093	93.123	93.807	92.011	97.546
18:04	ZZZZZZ	100.081	96.582	95.065	95.745	96.47	96.897	99.349	96.655
18:09	MA46658-CCVA9	97.327	94.422	90.509	92.428	93.059	94.346	95.713	95.992
18:14	MA46658-CCB9	97.015	94.173	93.013	94.734	95.916	95.794	97.54	96.012
18:19	JC87363-2	96.205	98.638	88.663	88.726	93.83	93.469	91.99	97.041
18:24	ZZZZZZ	93.588	96.61	85.426	85.603	89.624	90.989	89.469	95.872
18:29	ZZZZZZ	99.512	96.278	95.051	95.239	96.581	96.572	99.191	96.599
18:34	ZZZZZZ	93.289	95.795	85.334	85.114	89.295	90.397	89.213	95.575
18:39	ZZZZZZ	100.345	96.171	94.686	95.328	96.726	97.186	98.728	96.912
18:44	MA46658-CCVA10	96.286	94.788	92.086	92.77	93.944	94.609	96.533	96.442
18:49	MA46658-CCB10	98.135	94.59	93.755	94.679	95.913	95.496	97.486	96.362
18:54	ZZZZZZ	98.568	95.089	93.534	95.194	95.993	95.56	97.725	95.254
18:59	ZZZZZZ	98.098	95.588	93.502	94.798	96.714	95.59	98.909	95.053
19:04	ZZZZZZ	99.026	96.13	94.567	95.127	96.517	95.573	98.191	95.884
19:09	ZZZZZZ	98.243	95.544	94.809	94.714	96.041	96.941	98.63	96.137

! = Outside limits.

LEGEND:			CCV/CCB
Istd#	Parameter	Limits	Limits
Istd#9	Germanium (74-2)	60-125 %	60-125 %

INTERNAL STANDARD SUMMARY

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA050619M2.CSV Date Analyzed: 05/06/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA46658
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16

Istd#16 Germanium (74-3)	60-125 % 60-125 %
Istd#11 Rhodium (103-1)	60-125 % 60-125 %
Istd#12 Rhodium (103-2)	60-125 % 60-125 %
Istd#13 Rhodium (103-3)	60-125 % 60-125 %
Istd#14 Indium (115-1)	60-125 % 60-125 %
Istd#15 Indium (115-2)	60-125 % 60-125 %
Istd#16 Terbium (159-1)	60-125 % 60-125 %

INTERNAL STANDARD SUMMARY

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA050619M2.CSV Date Analyzed: 05/06/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA46658
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Istd#17	Istd#18	Istd#19	Istd#20	Istd#21	Istd#22
11:00	MA46658-STD1	100	100	100	100	100	100
11:05	MA46658-STD2	100	100	100	100	100	100
11:10	MA46658-STD3	100	100	100	100	100	100
11:15	MA46658-STD4	100.506	100.659	100.599	100.777	101.233	99.938
11:20	MA46658-STD5	100.882	101.116	99.992	101.052	101.108	100.239
11:25	MA46658-STD6	100.359	101.284	99.938	100.322	100.998	100.207
11:30	MA46658-STD7	101.341	100.849	101.646	101.401	102.405	101.032
11:36	MA46658-STD8	100.86	100.722	100.878	100.196	102.394	100.258
11:41	MA46658-STD9	101.817	101.162	100.241	101.828	101.545	100.714
11:46	MA46658-STD10	100.996	101.489	100.274	101.985	101.426	100.675
11:51	MA46658-STD11	99.812	100.96	100.495	100.431	98.787	98.261
11:56	MA46658-STD12	101.385	100.401	99.087	101.271	97.048	96.803
12:01	MA46658-ICVA1	101.076	101.18	100.781	100.715	99.067	98.296
12:06	MA46658-ICV1	102.717	102.022	100.641	102.333	102.146	101.469
12:11	MA46658-ICB1	103.034	103.219	100.695	103.178	102.024	102.416
12:16	MA46658-CCVA1	103.051	101.406	101.784	103.186	100.666	99.803
12:21	MA46658-CCB1	103.348	102.974	101.22	103.041	103.008	102.292
12:26	MA46658-CRI1	103.316	103.908	101.914	102.881	102.283	102.051
12:36	MA46658-ICSA1	95.676	93.15	93.457	96.42	87.62	87.976
12:41	MA46658-ICSAB1	95.205	94.142	95.117	94.875	88.877	87.261
12:46	ZZZZZZ	102.041	102.541	101.973	102.263	103.154	101.286
12:51	MA46658-CCVA2	102.532	101.921	101.519	102.596	100.213	99.768
12:56	MA46658-CCB2	102.274	102.35	101.622	102.825	102.354	101.214
13:01	ZZZZZZ	93.907	92.406	93.112	94.542	84.641	84.503
13:06	ZZZZZZ	101.191	100.591	98.915	101.004	99.704	100.211
13:11	ZZZZZZ	98.809	100.18	99.272	99.711	108.031	105
13:16	ZZZZZZ	98.819	101.404	98.672	99.355	101.704	99.044
13:21	MP14785-MB1	102.403	101.176	99.888	102.891	102.902	102.979
13:26	MP14785-B1	102.415	101.906	101.16	102.455	101.527	100.814
13:31	MP14785-S1	99.335	97.068	96.961	100.645	88.056	88.577
13:36	ZZZZZZ	103.708	102.289	101.938	104.031	102.161	102.728
13:42	MA46658-CCVA3	102.409	101.734	102.24	102.258	99.675	99.322
13:48	MA46658-CCB3	101.99	102.724	102.456	102.941	102.776	101.627

INTERNAL STANDARD SUMMARY

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA050619M2.CSV Date Analyzed: 05/06/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA46658
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Istd#17	Istd#18	Istd#19	Istd#20	Istd#21	Istd#22
13:53	MP14785-S2	100.422	98.611	99.036	100.852	89.646	89.571
13:58	JC87279-1	100.074	99.229	100.368	101.09	89.751	89.674
14:03	ZZZZZZ	100.735	99.562	100.591	101.602	89.271	89.354
14:08	ZZZZZZ	100.834	100.272	101.052	100.976	90.435	89.322
14:13	ZZZZZZ	100.397	98.393	100.091	100.159	88.975	88.014
14:18	ZZZZZZ	102.82	102.223	104.087	102.87	97.991	95.775
14:23	ZZZZZZ	101.582	101.578	102.541	103.106	97.465	95.33
14:28	MA46658-CCVA4	101.318	102.352	103.81	101.902	101.561	98.824
14:33	MA46658-CCB4	102.135	103.359	103.142	103.291	104.596	101.472
14:38	MP14786-MB1	100.073	104.35	104.679	101.409	107.822	102.185
14:43	MP14786-B2	99.039	104.022	104.19	100.345	104.15	99.373
14:48	MP14786-S5	97.879	100.969	102.844	99.395	96.3	91.617
14:53	MP14786-S6	97.487	101.743	101.951	98.499	96.637	90.968
14:58	JC87418-1	97.311	101.714	102.697	97.938	96.605	90.914
15:03	MP14786-SD1	101.851	101.779	102.551	101.862	102.955	99.589
15:08	MA46658-CCVA5	100.054	101.379	102.897	101.002	101.026	97.633
15:13	MA46658-CCB5	100.847	101.711	101.541	101.554	103.153	100.652
15:18	MP14786-S7	96.747	100.823	101.959	97.809	97.123	91.698
15:23	MP14786-S8	96.35	100.369	101.027	97.37	96.277	90.905
15:28	JC87418-1F	95.749	100.331	101.058	97.126	96.536	90.812
15:33	MP14786-SD2	99.434	100.757	102.169	100.427	102.213	98.31
15:38	ZZZZZZ	96.277	101.311	101.849	97.275	102.756	96.973
15:43	ZZZZZZ	98.53	102.613	100.626	99.487	102.34	98.3
15:48	ZZZZZZ	98.738	102.846	102.868	99.152	103.512	98.55
15:53	MA46658-CCVA6	100.179	100.538	102.543	101.249	100.508	96.462
15:58	MA46658-CCB6	99.53	100.973	100.226	100.963	100.738	99.015
16:03	ZZZZZZ	97.905	102.332	101.224	98.89	104.462	98.693
16:08	MP14818A-MB1	98.549	101.592	102.378	99.019	103.12	97.675
16:13	MP14818A-B2	97.838	102.553	101.921	99.09	102.045	97.032
16:18	ZZZZZZ	98.804	101.143	102.318	100.482	96.732	92.852
16:24	ZZZZZZ	98.224	102.253	102.23	99.556	97.303	92.702
16:28	ZZZZZZ	99.976	100.168	100.984	100.87	100.826	99.033
16:34	ZZZZZZ	97.803	97.992	98.632	98.568	97.87	97.069

INTERNAL STANDARD SUMMARY

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA050619M2.CSV Date Analyzed: 05/06/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA46658
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Istd#17	Istd#18	Istd#19	Istd#20	Istd#21	Istd#22
16:39	MA46658-CCVA7	98.097	98.664	98.713	98.059	95.905	95.032
16:44	MA46658-CCB7	98.123	99.279	98.043	98.955	98.248	97.293
16:49	ZZZZZZ	92.311	94.679	95.008	93.631	88.291	84.407
16:54	ZZZZZZ	92.39	94.015	95.452	93.154	86.649	83.758
16:59	ZZZZZZ	95.183	97.477	97.301	96.042	92.184	89.017
17:04	ZZZZZZ	97.681	98.325	97.433	97.816	97.783	96.727
17:09	ZZZZZZ	93.376	96.616	96.744	94.225	92.123	88.406
17:14	ZZZZZZ	90.908	93.562	94.779	91.699	86.25	83.116
17:19	ZZZZZZ	98.091	97.64	97.597	99.11	97.535	97.095
17:24	ZZZZZZ	90.968	92.999	92.976	91.479	85.603	82.656
17:29	ZZZZZZ	94.794	97.815	97.588	95.109	91.248	88.58
17:34	MA46658-CCVA8	97.486	97.508	98.179	99.301	95.24	95.218
17:39	MA46658-CCB8	97.201	97.768	96.372	98.453	97.452	96.946
17:44	ZZZZZZ	92.951	95.438	95.82	94.409	90.692	88.097
17:49	ZZZZZZ	95.205	99.361	97.858	95.812	99.18	95.639
17:54	ZZZZZZ	97.108	97.335	97.355	97.262	97.206	96.146
17:59	JC87363-1	94.945	98.339	97.94	95.317	96.382	93.275
18:04	ZZZZZZ	97.176	98.03	97.523	97.707	97.214	96.101
18:09	MA46658-CCVA9	96.59	96.74	96.11	97.513	94.789	93.769
18:14	MA46658-CCB9	96.402	96.766	96.823	96.745	97.064	95.352
18:19	JC87363-2	94.431	98.686	96.772	95.687	98.366	93.74
18:24	ZZZZZZ	92.75	96.338	96.673	94.113	91.887	88.051
18:29	ZZZZZZ	97.658	97.838	96.255	98.371	98.538	96.718
18:34	ZZZZZZ	93.413	95.78	96.437	94.6	91.15	87.578
18:39	ZZZZZZ	96.548	98.056	96.848	97.429	97.424	95.972
18:44	MA46658-CCVA10	96.9	97.974	97.916	97.789	95.638	94.077
18:49	MA46658-CCB10	96.047	96.963	96.374	96.579	97.006	95.258
18:54	ZZZZZZ	96.105	97.065	96.13	97.342	97.19	96.026
18:59	ZZZZZZ	96.332	98.192	95.067	97.078	95.886	95.381
19:04	ZZZZZZ	96.293	97.739	95.562	97.3	96.93	95.565
19:09	ZZZZZZ	96.33	97.229	96.597	97.18	97.003	95.475

! = Outside limits.

LEGEND:			CCV/CCB
Istd#	Parameter	Limits	Limits
Istd#17	Terbium (159-2)	60-125 %	60-125 %

INTERNAL STANDARD SUMMARY

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA050619M2.CSV Date Analyzed: 05/06/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA46658
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Istd#17	Istd#18	Istd#19	Istd#20	Istd#21	Istd#22
Istd#22 Terbium (159-3)			60-125 %	60-125 %			
Istd#19 Holmium (165-1)			60-125 %	60-125 %			
Istd#20 Holmium (165-2)			60-125 %	60-125 %			
Istd#21 Bismuth (209-1)			60-125 %	60-125 %			
Istd#22 Bismuth (209-2)			60-125 %	60-125 %			

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA050619M2.CSV Date Analyzed: 05/06/19 Methods: EPA 200.8, SW846 6020B
QC Limits: result < RL Run ID: MA46658 Units: ug/l

Time:			12:11		12:21		12:56		13:48	
Sample ID:			ICB1		CCB1		CCB2		CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	25	.28	-0.0422	<25	0.443	<25	6.75	<25	3.37	<50
Antimony	2.0	.094								
Arsenic	0.50	.013	0.0107	<0.50	0.00746	<0.50	0.0122	<0.50	0.0205	<1.0
Barium	1.0	.008	-0.00599	<1.0	0.00507	<1.0	0.00834	<1.0	0.0118	<1.0
Beryllium	0.50	.004								
Boron	25	.65								
Cadmium	0.50	.004	0.00455	<0.50	0.00453	<0.50	0.0233	<0.50	0.0110	<0.50
Calcium	250	6.1								
Chromium	1.0	.014	anr							
Cobalt	0.50	.002								
Copper	2.0	.021	anr							
Iron	25	.43	0.369	<25	0.964	<25	5.20	<25	1.06	<50
Lead	0.50	.009	0.00880	<0.50	0.0208	<0.50	0.0164	<0.50	0.0182	<0.50
Magnesium	250	.15								
Manganese	1.0	.007	anr							
Molybdenum	1.0	.015								
Nickel	1.0	.017	anr							
Potassium	250	.71								
Selenium	0.50	.072								
Silver	0.50	.004								
Sodium	250	1								
Strontium	5.0	.003								
Thallium	0.50	.004	anr							
Tin	5.0	.071								
Titanium	1.0	.035								
Vanadium	1.0	.009								
Zinc	5.0	.029								

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA050619M2.CSV Date Analyzed: 05/06/19 Methods: EPA 200.8, SW846 6020B
QC Limits: result < RL Run ID: MA46658 Units: ug/l

Time: / Sample ID:			14:33 CCB4		15:13 CCB5		15:58 CCB6		16:44 CCB7	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	25	.28	3.40	<50	3.46	<25	3.44	<25	8.37	<25
Antimony	2.0	.094								
Arsenic	0.50	.013	0.0180	<1.0	0.0213	<0.50	0.00914	<0.50	0.00537	<0.50
Barium	1.0	.008	0.0170	<1.0	0.0233	<1.0	0.00989	<1.0	0.00869	<1.0
Beryllium	0.50	.004								
Boron	25	.65								
Cadmium	0.50	.004	0.0101	<0.50	0.00605	<0.50	0.00162	<0.50	0.00636	<0.50
Calcium	250	6.1								
Chromium	1.0	.014	anr							
Cobalt	0.50	.002								
Copper	2.0	.021	anr							
Iron	25	.43	1.22	<50	1.24	<25	1.18	<25	1.55	<25
Lead	0.50	.009	0.0161	<0.50	0.0186	<0.50	0.0150	<0.50	0.0210	<0.50
Magnesium	250	.15								
Manganese	1.0	.007	anr							
Molybdenum	1.0	.015								
Nickel	1.0	.017	anr							
Potassium	250	.71								
Selenium	0.50	.072								
Silver	0.50	.004								
Sodium	250	1								
Strontium	5.0	.003								
Thallium	0.50	.004	anr							
Tin	5.0	.071								
Titanium	1.0	.035								
Vanadium	1.0	.009								
Zinc	5.0	.029								

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA050619M2.CSV Date Analyzed: 05/06/19 Methods: EPA 200.8, SW846 6020B
QC Limits: result < RL Run ID: MA46658 Units: ug/l

Time:			17:39		18:14		18:49	
Sample ID:			CCB8		CCB9		CCB10	
Metal	RL	IDL	raw	final	raw	final	raw	final
Aluminum	25	.28	8.57	<25	8.56	<25	8.48	<25
Antimony	2.0	.094						
Arsenic	0.50	.013	0.0339	<0.50	0.00309	<0.50	0.00950	<0.50
Barium	1.0	.008	0.0147	<1.0	0.0197	<1.0	0.0141	<1.0
Beryllium	0.50	.004						
Boron	25	.65						
Cadmium	0.50	.004	0.00893	<0.50	0.00917	<0.50	-0.00134	<0.50
Calcium	250	6.1						
Chromium	1.0	.014	anr					
Cobalt	0.50	.002						
Copper	2.0	.021	anr					
Iron	25	.43	1.62	<25	1.77	<25	1.84	<25
Lead	0.50	.009	0.0147	<0.50	0.0163	<0.50	0.0172	<0.50
Magnesium	250	.15						
Manganese	1.0	.007	anr					
Molybdenum	1.0	.015						
Nickel	1.0	.017	anr					
Potassium	250	.71						
Selenium	0.50	.072						
Silver	0.50	.004						
Sodium	250	1						
Strontium	5.0	.003						
Thallium	0.50	.004	anr					
Tin	5.0	.071						
Titanium	1.0	.035						
Vanadium	1.0	.009						
Zinc	5.0	.029						

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA050619M2.CSV Date Analyzed: 05/06/19 Methods: EPA 200.8, SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA46658 Units: ug/l

Time:		12:01			12:06			12:16	
Sample ID:	ICVA	ICVA1		ICV	ICV1		CCVA	CCVA1	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	5500	5560	101.1	60	64.8	108.0	5000	5000	100.0
Antimony									
Arsenic	60	57.1	95.2	60	0.0208	0.0*	50	46.6	93.2
Barium	60	59.2	98.7	60	0.00570U	0.0*	50	48.9	97.8
Beryllium									
Boron									
Cadmium	60	57.7	96.2	60	0.0113	0.0*	50	47.3	94.6
Calcium									
Chromium	anr								
Cobalt									
Copper	anr								
Iron	5500	5620	102.2	440	2.41	0.5*	5000	5150	103.0
Lead	60	59.3	98.8	60	0.0266	0.0*	50	48.7	97.4
Magnesium									
Manganese	anr								
Molybdenum									
Nickel	anr								
Potassium									
Selenium									
Silver									
Sodium									
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium									
Zinc									

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA050619M2.CSV Date Analyzed: 05/06/19 Methods: EPA 200.8, SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA46658 Units: ug/l

Time:		12:51			13:42			14:28	
Sample ID:	CCVA	CCVA2		CCVA	CCVA3		CCVA	CCVA4	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	5000	4840	96.8	5000	4800	96.0	5000	4770	95.4
Antimony									
Arsenic	50	47.9	95.8	50	47.4	94.8	50	49.1	98.2
Barium	50	48.0	96.0	50	48.1	96.2	50	48.2	96.4
Beryllium									
Boron									
Cadmium	50	47.5	95.0	50	46.6	93.2	50	47.2	94.4
Calcium									
Chromium	anr								
Cobalt									
Copper	anr								
Iron	5000	5110	102.2	5000	4990	99.8	5000	5100	102.0
Lead	50	48.5	97.0	50	48.3	96.6	50	48.4	96.8
Magnesium									
Manganese	anr								
Molybdenum									
Nickel	anr								
Potassium									
Selenium									
Silver									
Sodium									
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium									
Zinc									

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA050619M2.CSV Date Analyzed: 05/06/19 Methods: EPA 200.8, SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA46658 Units: ug/l

Time:		15:08			15:53			16:39	
Sample ID:	CCVA	CCVA5		CCVA	CCVA6		CCVA	CCVA7	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	5000	4770	95.4	5000	4760	95.2	5000	4800	96.0
Antimony									
Arsenic	50	49.2	98.4	50	47.9	95.8	50	48.2	96.4
Barium	50	47.7	95.4	50	47.7	95.4	50	47.7	95.4
Beryllium									
Boron									
Cadmium	50	46.9	93.8	50	46.4	92.8	50	46.6	93.2
Calcium									
Chromium	anr								
Cobalt									
Copper	anr								
Iron	5000	5080	101.6	5000	5020	100.4	5000	5110	102.2
Lead	50	48.0	96.0	50	47.8	95.6	50	48.2	96.4
Magnesium									
Manganese	anr								
Molybdenum									
Nickel	anr								
Potassium									
Selenium									
Silver									
Sodium									
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium									
Zinc									

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA050619M2.CSV Date Analyzed: 05/06/19 Methods: EPA 200.8, SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA46658 Units: ug/l

Time:		17:34			18:09			18:44	
Sample ID:	CCVA	CCVA8		CCVA	CCVA9		CCVA	CCVA10	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	5000	4810	96.2	5000	4830	96.6	5000	4820	96.4
Antimony									
Arsenic	50	48.4	96.8	50	48.5	97.0	50	47.5	95.0
Barium	50	47.8	95.6	50	47.6	95.2	50	48.5	97.0
Beryllium									
Boron									
Cadmium	50	47.1	94.2	50	47.0	94.0	50	46.6	93.2
Calcium									
Chromium	anr								
Cobalt									
Copper	anr								
Iron	5000	5180	103.6	5000	5120	102.4	5000	5160	103.2
Lead	50	48.5	97.0	50	48.4	96.8	50	48.2	96.4
Magnesium									
Manganese	anr								
Molybdenum									
Nickel	anr								
Potassium									
Selenium									
Silver									
Sodium									
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium									
Zinc									

(*) Outside of QC limits
(anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA050619M2.CSV Date Analyzed: 05/06/19 Methods: EPA 200.8, SW846 6020B
QC Limits: 80 to 120 % Recovery Run ID: MA46658 Units: ug/l

Time:			12:26	
Sample ID:	CRI	CRIA	CRI1	
Metal	True	True	Results	% Rec
Aluminum	25	25	23.6	94.4
Antimony	2.0	0.25		
Arsenic	0.50	0.50	0.497	99.4
Barium	1.0	0.50	0.991	99.1
Beryllium	0.50	0.25		
Boron	25	2.5		
Cadmium	0.50	0.25	0.465	93.0
Calcium	250	125		
Chromium	1.0	2.0	anr	
Cobalt	0.50	0.25		
Copper	2.0	2.0	anr	
Iron	25	25	25.7	102.8
Lead	0.50	0.25	0.506	101.2
Magnesium	250	125		
Manganese	1.0	0.25	anr	
Molybdenum	1.0	0.50		
Nickel	1.0	2.0	anr	
Potassium	250	125		
Selenium	0.50	0.50		
Silver	0.50	1.0		
Sodium	250	125		
Strontium	5.0	0.50		
Thallium	0.50	0.25	anr	
Tin	5.0	0.50		
Titanium	1.0	0.50		
Vanadium	1.0	2.0		
Zinc	5.0	2.0		

(*) Outside of QC limits
(anr) Analyte not requested

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XA050619M2.CSV Date Analyzed: 05/06/19 Methods: EPA 200.8, SW846 6020B
QC Limits: 80 to 120 % Recovery Run ID: MA46658 Units: ug/l

Time:			12:36		12:41	
Sample ID:	ICSA	ICSAB	ICSA1		ICSAB1	
Metal	True	True	Results	% Rec	Results	% Rec
Aluminum	100000	100000	96700	96.7	100000	100.0
Antimony			0.244		0.217	
Arsenic		20	0.0826		18.4	92.0
Barium			0.218		0.268	
Beryllium			-0.000617		0.00142	
Boron		50	3.79		54.9	109.8
Cadmium		20	-0.402		17.6	88.0
Calcium	100000	100000	97200	97.2	99100	99.1
Chromium		20	0.286		19.7	98.5
Cobalt		20	0.296		19.1	95.5
Copper		20	0.362		18.0	90.0
Iron	100000	100000	91800	91.8	96600	96.6
Lead			0.0840		0.0825	
Magnesium	100000	100000	93000	93.0	96700	96.7
Manganese		20	0.347		19.4	97.0
Molybdenum	2000	2000	1980	99.0	2040	102.0
Nickel		20	0.637		18.6	93.0
Potassium	100000	100000	98700	98.7	102000	102.0
Selenium		20	0.0809		18.9	94.5
Silver		20	0.0260		19.4	97.0
Sodium	100000	100000	91400	91.4	94800	94.8
Strontium	2000	2000	1970	98.5	2180	109.0
Thallium			0.00129		0.000912	
Tin	2000	2000	1820	91.0	1930	96.5
Titanium	2000	2000	1730	86.5	1800	90.0
Vanadium		20	0.0142		20.9	104.5
Zinc		20	0.0270		16.6	83.0

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

QC Batch ID: MP14776
Matrix Type: SOLID

Methods: SW846 6010D
Units: mg/kg

Prep Date: 05/03/19

Metal	RL	IDL	MDL	MB raw	final
Aluminum	51	1.4	8.1		
Antimony	2.0	.14	.41		
Arsenic	2.0	.15	.28	0.0	<2.0
Barium	20	.051	1.9	0.040	<20
Beryllium	0.20	.01	.081		
Bismuth	2.0	.18	.53		
Boron	10	.081	1.5		
Cadmium	0.51	.03	.071	0.0	<0.51
Calcium	510	.39	45		
Chromium	1.0	.03	.37	0.13	<1.0
Cobalt	5.1	.03	.28		
Copper	2.5	.061	.85		
Iron	51	.26	19		
Lead	2.0	.16	.41	-0.030	<2.0
Lithium	5.1	.21	.93		
Magnesium	510	1.6	14		
Manganese	1.5	.01	.41		
Molybdenum	2.0	.04	.32		
Nickel	4.0	.051	.35		
Phosphorus	20	.19	3.3		
Potassium	1000	8	32		
Selenium	2.0	.3	.66	0.061	<2.0
Silicon	20	.12	11		
Silver	0.51	.051	.17	-0.051	<0.51
Sodium	1000	1	79		
Strontium	5.1	.03	.18		
Sulfur	10	.35	9.5		
Thallium	1.0	.13	.59		
Tin	20	.071	3.9		
Titanium	1.0	.051	.34		
Tungsten	5.1	.17	1.8		
Vanadium	5.1	.051	.19		
Zinc	5.1	.02	2.3		

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

QC Batch ID: MP14776 Methods: SW846 6010D
Matrix Type: SOLID Units: mg/kg

Prep Date: 05/03/19

Metal	RL	IDL	MDL	MB raw	final
Zirconium	2.0	.03	.23		

Associated samples MP14776: JC87363-3

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

QC Batch ID: MP14776
Matrix Type: SOLID

Methods: SW846 6010D
Units: mg/kg

Prep Date: 05/03/19

Metal	JC87355-1 Original	MS	Spikelot MPSPK2	% Rec	QC Limits
Aluminum	anr				
Antimony	anr				
Arsenic	12.9	223	219	95.8	75-125
Barium	25.3	248	219	101.5	75-125
Beryllium	anr				
Bismuth					
Boron					
Cadmium	0.062	209	219	95.3	75-125
Calcium	anr				
Chromium	7.5	218	219	96.0	75-125
Cobalt	anr				
Copper	anr				
Iron	anr				
Lead	14.1	224	219	95.7	75-125
Lithium					
Magnesium	anr				
Manganese	anr				
Molybdenum					
Nickel	anr				
Phosphorus					
Potassium	anr				
Selenium	0.0	216	219	98.5	75-125
Silicon					
Silver	0.0	27.4	27.4	99.9	75-125
Sodium	anr				
Strontium					
Sulfur					
Thallium	anr				
Tin					
Titanium					
Tungsten					
Vanadium	anr				
Zinc	anr				

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

QC Batch ID: MP14776 Methods: SW846 6010D
Matrix Type: SOLID Units: mg/kg

Prep Date: 05/03/19

Metal	JC87355-1 Original MS	Spikelot MPSPK2	% Rec	QC Limits
Zirconium				

Associated samples MP14776: JC87363-3

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

QC Batch ID: MP14776
Matrix Type: SOLID

Methods: SW846 6010D
Units: mg/kg

Prep Date: 05/03/19

Metal	JC87355-1 Original	MSD	Spikelot MPSPK2	% Rec	MSD RPD	QC Limit
Aluminum	anr					
Antimony	anr					
Arsenic	12.9	220	215	96.4	1.4	20
Barium	25.3	238	215	99.0	4.1	20
Beryllium	anr					
Bismuth						
Boron						
Cadmium	0.062	207	215	96.3	1.0	20
Calcium	anr					
Chromium	7.5	214	215	96.1	1.9	20
Cobalt	anr					
Copper	anr					
Iron	anr					
Lead	14.1	223	215	97.2	0.4	20
Lithium						
Magnesium	anr					
Manganese	anr					
Molybdenum						
Nickel	anr					
Phosphorus						
Potassium	anr					
Selenium	0.0	215	215	100.0	0.5	20
Silicon						
Silver	0.0	27.2	26.9	101.2	0.7	20
Sodium	anr					
Strontium						
Sulfur						
Thallium	anr					
Tin						
Titanium						
Tungsten						
Vanadium	anr					
Zinc	anr					

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

QC Batch ID: MP14776 Methods: SW846 6010D
Matrix Type: SOLID Units: mg/kg

Prep Date: 05/03/19

Metal	JC87355-1 Original	MSD	Spikelot MPSPK2	% Rec	MSD RPD	QC Limit
Zirconium						

Associated samples MP14776: JC87363-3

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

QC Batch ID: MP14776
Matrix Type: SOLID

Methods: SW846 6010D
Units: mg/kg

Prep Date: 05/03/19

Metal	BSP Result	Spikelot MPSPK2	% Rec	QC Limits
Aluminum	anr			
Antimony	anr			
Arsenic	201	206	97.5	80-120
Barium	204	206	98.9	80-120
Beryllium	anr			
Bismuth				
Boron				
Cadmium	202	206	98.0	80-120
Calcium	anr			
Chromium	203	206	98.5	80-120
Cobalt	anr			
Copper	anr			
Iron	anr			
Lead	207	206	100.4	80-120
Lithium				
Magnesium	anr			
Manganese	anr			
Molybdenum				
Nickel	anr			
Phosphorus				
Potassium	anr			
Selenium	203	206	98.5	80-120
Silicon				
Silver	25.2	25.8	97.8	80-120
Sodium	anr			
Strontium				
Sulfur				
Thallium	anr			
Tin				
Titanium				
Tungsten				
Vanadium	anr			
Zinc	anr			

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

QC Batch ID: MP14776
Matrix Type: SOLID

Methods: SW846 6010D
Units: mg/kg

Prep Date: 05/03/19

Metal	BSP Result	Spikelot MPSPK2	% Rec	QC Limits
Zirconium				

Associated samples MP14776: JC87363-3

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

QC Batch ID: MP14776
Matrix Type: SOLID

Methods: SW846 6010D
Units: ug/l

Prep Date: 05/03/19

Metal	JC87355-1 Original	SDL 1:5	%DIF	QC Limits
Aluminum	anr			
Antimony	anr			
Arsenic	125	131	4.6	0-10
Barium	245	255	4.4	0-10
Beryllium	anr			
Bismuth				
Boron				
Cadmium	0.600	0.00	100.0(a)	0-10
Calcium	anr			
Chromium	72.5	78.1	7.7	0-10
Cobalt	anr			
Copper	anr			
Iron	anr			
Lead	137	137	0.5	0-10
Lithium				
Magnesium	anr			
Manganese	anr			
Molybdenum				
Nickel	anr			
Phosphorus				
Potassium	anr			
Selenium	0.00	0.00	NC	0-10
Silicon				
Silver	0.00	0.00	NC	0-10
Sodium	anr			
Strontium				
Sulfur				
Thallium	anr			
Tin				
Titanium				
Tungsten				
Vanadium	anr			
Zinc	anr			

SERIAL DILUTION RESULTS SUMMARY

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

QC Batch ID: MP14776
Matrix Type: SOLID

Methods: SW846 6010D
Units: ug/l

Prep Date: 05/03/19

Metal	JC87355-1 Original SDL 1:5	%DIF	QC Limits
Zirconium			

Associated samples MP14776: JC87363-3

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested
(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

POST DIGESTATE SPIKE SUMMARY

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

QC Batch ID: MP14776
Matrix Type: SOLID

Methods: SW846 6010D
Units: ug/l

Prep Date: 05/03/19

Metal	Sample ml	Final ml	JC87355-1 Raw	Corr.**	PS ug/l	Spike ml	Spike ug/ml	Spike ug/l	% Rec	QC Limits
Aluminum										
Antimony										
Arsenic										
Barium										
Beryllium										
Bismuth										
Boron										
Cadmium										
Calcium										
Chromium										
Cobalt										
Copper										
Iron										
Lead										
Lithium										
Magnesium										
Manganese										
Molybdenum										
Nickel										
Phosphorus										
Potassium										
Selenium										
Silicon										
Silver										
Sodium										
Strontium										
Sulfur										
Thallium										
Tin										
Titanium										
Tungsten										
Vanadium										
Zinc										

POST DIGESTATE SPIKE SUMMARY

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

QC Batch ID: MP14776
Matrix Type: SOLID

Methods: SW846 6010D
Units: ug/l

Prep Date: 05/03/19

Metal	Sample ml	Final ml	JC87355-1 Raw	Corr.**	PS ug/l	Spike ml	Spike ug/ml	Spike ug/l	% Rec	QC Limits
Zirconium										

Associated samples MP14776: JC87363-3

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(**) Corr. sample result = Raw * (sample volume / final volume)
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

QC Batch ID: MP14783 Methods: SW846 7471B
Matrix Type: SOLID Units: mg/kg

Prep Date: 05/03/19

Metal	RL	IDL	MDL	MB raw	MB final
Mercury	0.033	.0023	.015	0.0059	<0.033

Associated samples MP14783: JC87363-3

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

QC Batch ID: MP14783
Matrix Type: SOLID

Methods: SW846 7471B
Units: mg/kg

Prep Date: 05/03/19

Metal	JC87323-1 Original	MS	Spikelot HGPWS1	% Rec	QC Limits
Mercury	0.020	0.31	0.313	92.7	80-120

Associated samples MP14783: JC87363-3

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

QC Batch ID: MP14783 Methods: SW846 7471B
Matrix Type: SOLID Units: mg/kg

Prep Date: 05/03/19

Metal	JC87323-1 Original	MSD	Spikelot HGPWS1	% Rec	MSD RPD	QC Limit
Mercury	0.020	0.32	0.311	96.4	3.2	20

Associated samples MP14783: JC87363-3

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

QC Batch ID: MP14783
Matrix Type: SOLID

Methods: SW846 7471B
Units: mg/kg

Prep Date: 05/03/19

Metal	BSP Result	Spikelot HGPWS1	% Rec	QC Limits
Mercury	0.35	0.333	105.0	80-120

Associated samples MP14783: JC87363-3

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

QC Batch ID: MP14786
Matrix Type: AQUEOUS

Methods: SW846 6020B
Units: ug/l

Prep Date: 05/03/19

Metal	RL	IDL	MDL	MB raw	final
Aluminum	50	.55	32	-0.076	<50
Antimony	4.0	.19	1.7		
Arsenic	1.0	.026	.94	0.19	<1.0
Barium	2.0	.016	.73	0.045	<2.0
Beryllium	1.0	.008	.15		
Boron	50	1.3	14		
Cadmium	1.0	.008	.17	0.0088	<1.0
Calcium	500	12	64		
Chromium	2.0	.028	.62		
Cobalt	1.0	.004	.17		
Copper	4.0	.042	1.9		
Iron	50	.86	19	5.3	<50
Lead	1.0	.018	.52	0.043	<1.0
Magnesium	500	.3	46		
Manganese	2.0	.014	.63		
Molybdenum	2.0	.03	.45		
Nickel	2.0	.034	.95		
Potassium	500	1.4	68		
Selenium	1.0	.14	.55		
Silver	1.0	.008	.16		
Sodium	500	2.1	140		
Strontium	10	.006	2.4		
Thallium	1.0	.008	.17		
Tin	10	.14	2.6		
Titanium	2.0	.07	1.6		
Vanadium	2.0	.018	1.8		
Zinc	10	.058	5.4		

Associated samples MP14786: JC87363-1, JC87363-2

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

QC Batch ID: MP14786
Matrix Type: AQUEOUS

Methods: SW846 6020B
Units: ug/l

Prep Date: 05/03/19

Metal	JC87418-1 Original	MS	Spikelot MP6020AQ3%	Rec	QC Limits
Aluminum	21.5	3700	4000	92.0	75-125
Antimony					
Arsenic	0.54	70.2	80	87.1	75-125
Barium	74.2	148	80	92.3	75-125
Beryllium					
Boron					
Cadmium	0.17	70.4	80	87.8	75-125
Calcium					
Chromium					
Cobalt					
Copper					
Iron	1240	5290	4000	101.3	75-125
Lead	0.21	77.2	80	96.2	75-125
Magnesium					
Manganese					
Molybdenum					
Nickel					
Potassium					
Selenium					
Silver					
Sodium					
Strontium					
Thallium	anr				
Tin					
Titanium					
Vanadium					
Zinc					

Associated samples MP14786: JC87363-1, JC87363-2

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

QC Batch ID: MP14786
Matrix Type: AQUEOUS

Methods: SW846 6020B
Units: ug/l

Prep Date: 05/03/19

Metal	JC87418-1 Original	MSD	Spikelot MP6020AQ3%	Rec	MSD RPD	QC Limit
Aluminum	21.5	3700	4000	92.0	0.0	20
Antimony						
Arsenic	0.54	70.0	80	86.8	0.3	20
Barium	74.2	152	80	97.3	2.7	20
Beryllium						
Boron						
Cadmium	0.17	70.5	80	87.9	0.1	20
Calcium						
Chromium						
Cobalt						
Copper						
Iron	1240	5310	4000	101.8	0.4	20
Lead	0.21	78.1	80	97.4	1.2	20
Magnesium						
Manganese						
Molybdenum						
Nickel						
Potassium						
Selenium						
Silver						
Sodium						
Strontium						
Thallium	anr					
Tin						
Titanium						
Vanadium						
Zinc						

Associated samples MP14786: JC87363-1, JC87363-2

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

QC Batch ID: MP14786
Matrix Type: AQUEOUS

Methods: SW846 6020B
Units: ug/l

Prep Date: 05/03/19

Metal	BSP Result	Spikelot MP6020AQ3%	Rec	QC Limits
Aluminum	3610	4000	90.3	80-120
Antimony				
Arsenic	69.2	80	86.5	80-120
Barium	73.5	80	91.9	80-120
Beryllium				
Boron				
Cadmium	71.8	80	89.8	80-120
Calcium				
Chromium				
Cobalt				
Copper				
Iron	4020	4000	100.5	80-120
Lead	74.0	80	92.5	80-120
Magnesium				
Manganese				
Molybdenum				
Nickel				
Potassium				
Selenium				
Silver				
Sodium				
Strontium				
Thallium	anr			
Tin				
Titanium				
Vanadium				
Zinc				

Associated samples MP14786: JC87363-1, JC87363-2

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

QC Batch ID: MP14786
Matrix Type: AQUEOUS

Methods: SW846 6020B
Units: ug/l

Prep Date:			05/03/19				05/03/19	
Metal	JC87418-1 Original	SDL 2:10	%DIF	QC Limits	JC87418-1F Original	SDL 2:10	%DIF	QC Limits
Aluminum	21.5	18.9	12.2 (a)	0-10	5.26	0.00	100.0(a)	0-10
Antimony								
Arsenic	0.543	0.591	8.8	0-10	0.380	0.691	82.1 (a)	0-10
Barium	74.2	74.6	0.5	0-10	72.2	73.1	1.2	0-10
Beryllium								
Boron								
Cadmium	0.166	0.214	28.8 (a)	0-10	0.124	0.0944	23.6 (a)	0-10
Calcium								
Chromium								
Cobalt								
Copper								
Iron	1240	1260	1.6	0-10	178	179	0.6	0-10
Lead	0.213	0.359	68.4 (a)	0-10	0.102	0.109	6.2	0-10
Magnesium								
Manganese								
Molybdenum								
Nickel								
Potassium								
Selenium								
Silver								
Sodium								
Strontium								
Thallium	anr							
Tin								
Titanium								
Vanadium								
Zinc								

Associated samples MP14786: JC87363-1, JC87363-2

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested
(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

Instrument Detection Limits

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Instrument ID: AGICPMS1 **Effective Date:** 01/31/19

Analyte	IDL ug/l
Aluminum	.045
Aluminum	.276
Antimony	.094
Arsenic	.12
Arsenic	.013
Barium	.008
Beryllium	.004
Boron	.648
Cadmium	.007
Cadmium	.004
Calcium	6.11
Chromium	.036
Chromium	.014
Cobalt	.0041
Cobalt	.002
Copper	.1044
Copper	.021
Iron	1.21
Iron	.432
Lead	.009
Magnesium	.033
Magnesium	.152
Manganese	.006
Manganese	.007
Molybdenum	.015
Nickel	.046
Nickel	.017
Potassium	.506
Potassium	.707
Selenium	.503
Selenium	.072
Silver	.004
Sodium	.357
Sodium	1.037
Strontium	.003
Thallium	.004
Tin	.025
Tin	.071
Titanium	.035
Titanium	.035
Vanadium	.112
Vanadium	.009
Zinc	.041
Zinc	.029

Instrument Detection Limits

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Instrument ID: AGICPMS1 **Effective Date:** 01/31/19

Analyte	IDL ug/l

The above applies to the following instrument runs:
MA46658

Instrument Detection Limits

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Instrument ID: LEEMANHG8 **Effective Date:** 05/02/19

Analyte	IDL ug/l
Mercury	.0137

The above applies to the following instrument runs:
MA46645

Instrument Detection Limits

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Instrument ID: SSTRACE3 **Effective Date:** 02/18/19

Analyte	IDL ug/l
Aluminum	14.3
Antimony	1.4
Arsenic	1.5
Barium	.5
Beryllium	.1
Bismuth	1.8
Boron	.8
Cadmium	.3
Calcium	3.9
Chromium	.3
Cobalt	.3
Copper	.6
Iron	2.6
Lead	1.6
Lithium	2.1
Magnesium	16.3
Manganese	.1
Molybdenum	.4
Nickel	.5
Phosphorus	1.9
Potassium	79
Selenium	3
Silicon	1.2
Silver	.5
Sodium	9.9
Sulfur	3.5
Strontium	.3
Thallium	1.3
Tin	.7
Titanium	.5
Tungsten	1.7
Vanadium	.5
Yttrium	5
Zinc	.2
Zirconium	.3

The above applies to the following instrument runs:
MA46646,MA46655

Instrument Linear Ranges

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Instrument ID: AGICPMS1 **Effective Date:** 09/10/18

Analyte	Linear Range ug/l
Aluminum	10000
Aluminum	10000
Antimony	100
Arsenic	100
Arsenic	100
Barium	100
Beryllium	100
Boron	200
Cadmium	100
Cadmium	100
Calcium	10000
Chromium	100
Chromium	100
Cobalt	100
Cobalt	100
Copper	100
Copper	100
Iron	10000
Iron	10000
Lithium	100
Lead	100
Magnesium	10000
Magnesium	10000
Manganese	100
Manganese	100
Molybdenum	100
Nickel	100
Nickel	100
Potassium	10000
Potassium	10000
Selenium	400
Selenium	400
Silver	100
Sodium	10000
Sodium	10000
Strontium	100
Thallium	100
Tin	100
Tin	100
Titanium	100
Titanium	100
Tungsten	100
Uranium	100
Vanadium	100
Vanadium	100
Zinc	100

Instrument Linear Ranges

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Instrument ID: AGICPMS1 **Effective Date:** 09/10/18

Analyte	Linear Range ug/l
Zinc	100

The above applies to the following instrument runs:
MA46658

Instrument Linear Ranges

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Instrument ID: LEEMANHG8 **Effective Date:** 03/10/17

Analyte	Linear Range ug/l
Mercury	5

The above applies to the following instrument runs:
MA46645

Instrument Linear Ranges

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Instrument ID: SSTRACE3 **Effective Date:** 07/16/18

Analyte	Linear Range ug/l
Aluminum	300000
Antimony	8000
Arsenic	8000
Barium	8000
Beryllium	8000
Bismuth	8000
Boron	8000
Cadmium	8000
Calcium	200000
Chromium	8000
Cobalt	8000
Copper	8000
Iron	200000
Lead	8000
Lithium	8000
Magnesium	300000
Manganese	8000
Molybdenum	8000
Nickel	8000
Palladium	8000
Phosphorus	8000
Potassium	200000
Selenium	8000
Silicon	25000
Silver	625
Sodium	200000
Sulfur	100000
Strontium	8000
Thallium	8000
Tin	8000
Titanium	8000
Tungsten	8000
Vanadium	8000
Zinc	8000
Zirconium	8000

The above applies to the following instrument runs:
MA46646,MA46655

Metals Analysis

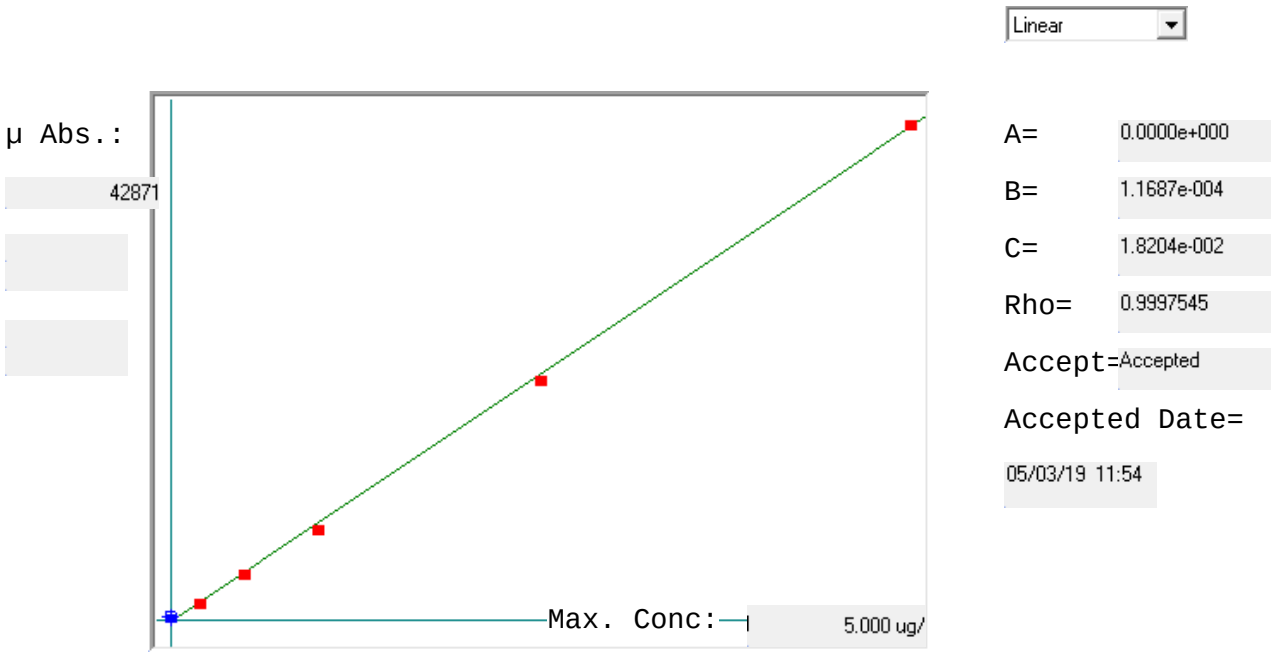
Raw Data

MA46645

Method: ACCUTEST Operator: Admin Date of Analysis: 03 May 2019 11:08:47

Sample ID	Date	Type	Units	Conc.	µ Abs.	Wt.	Vol.
STDA - 1	03 May 2019 11:44:11	Std	ug/l	-	389	1.000	1.000
STDB - 1	03 May 2019 11:45:30	Std	ug/l	-	1579	1.000	1.000
STDC - 1	03 May 2019 11:46:51	Std	ug/l	-	4084	1.000	1.000
STDD - 1	03 May 2019 11:48:17	Std	ug/l	-	7967	1.000	1.000
STDE - 1	03 May 2019 11:49:52	Std	ug/l	-	20895	1.000	1.000
STDF - 1	03 May 2019 11:51:31	Std	ug/l	-	42871	1.000	1.000
ICV - 1	03 May 2019 11:56:00	CK STND	ug/l	105.7% 3.1697	26966	1.000	1.000
ICB - 1	03 May 2019 11:57:16	CK STND	ug/l	0.0353	146	1.000	1.000
CCV - 1	03 May 2019 11:59:06	CK STND	ug/l	99.9% 2.4968	21208	1.000	1.000
CCB - 1	03 May 2019 12:00:26	CK STND	ug/l	0.0366	157	1.000	1.000
CRI - 1	03 May 2019 12:02:14	CK STND	ug/l	103.1% 0.2061	1608	1.000	1.000
CCV - 1	03 May 2019 12:04:06	CK STND	ug/l	98.5% 2.4627	20916	1.000	1.000
CCB - 1	03 May 2019 12:05:25	CK STND	ug/l	0.0337	133	1.000	1.000
MP14782-MB1 - 1	03 May 2019 12:10:28	SMPL	ug/l	0.0688	433	1.000	1.000
MP14782-B1 - 1	03 May 2019 12:11:44	SMPL	ug/l	2.1456	18203	1.000	1.000
SAMPLECONF - 1	03 May 2019 12:13:41	SMPL	ug/l	3.1305	26630	1.000	1.000
MP14782-S2 - 1	03 May 2019 12:15:00	SMPL	ug/l	2.3282	19765	1.000	1.000
JC87361-1 - 1	03 May 2019 12:16:57	SMPL	ug/l	0.2772	2216	1.000	1.000
JC87361-2 - 1	03 May 2019 12:18:49	SMPL	ug/l	16.2596	138969	1.000	1.000
JC87361-3 - 1	03 May 2019 12:20:19	SMPL	ug/l	0.4537	3726	1.000	1.000
JC87361-4 - 1	03 May 2019 12:22:47	SMPL	ug/l	1.0056	8449	1.000	1.000
JC87361-5 - 1	03 May 2019 12:24:19	SMPL	ug/l	0.1268	929	1.000	1.000
CCV - 1	03 May 2019 12:25:58	CK STND	ug/l	95.4% 2.3855	20256	1.000	1.000
CCB - 1	03 May 2019 12:27:22	CK STND	ug/l	0.0240	50	1.000	1.000
JC87361-6 - 1	03 May 2019 12:29:09	SMPL	ug/l	1.4749	12464	1.000	1.000
JC87361-7 - 1	03 May 2019 12:30:29	SMPL	ug/l	0.4360	3575	1.000	1.000
JC87361-8 - 1	03 May 2019 12:32:14	SMPL	ug/l	5.1341	43774	1.000	1.000
JC87361-9 - 1	03 May 2019 12:33:46	SMPL	ug/l	7.2937	62253	1.000	1.000
JC87361-10 - 1	03 May 2019 12:35:52	SMPL	ug/l	1.7876	15140	1.000	1.000
JC87361-11 - 1	03 May 2019 12:38:00	SMPL	ug/l	0.1561	1180	1.000	1.000
JC87355-1 - 1	03 May 2019 12:39:47	SMPL	ug/l	0.1172	847	1.000	1.000
JC87355-2 - 1	03 May 2019 12:41:13	SMPL	ug/l	0.0939	648	1.000	1.000
JC87355-3 - 1	03 May 2019 12:42:34	SMPL	ug/l	0.1696	1295	1.000	1.000
CCV - 1	03 May 2019 12:43:55	CK STND	ug/l	93.9% 2.3474	19930	1.000	1.000
CCB - 1	03 May 2019 12:45:21	CK STND	ug/l	0.0251	59	1.000	1.000
JC87355-4 - 1	03 May 2019 12:47:09	SMPL	ug/l	0.2314	1824	1.000	1.000
JC87355-5 - 1	03 May 2019 12:48:29	SMPL	ug/l	0.1360	1008	1.000	1.000
JC87318-2 - 1	03 May 2019 12:49:57	SMPL	ug/l	0.2141	1676	1.000	1.000
JC87321-1 - 1	03 May 2019 12:51:21	SMPL	ug/l	0.1188	861	1.000	1.000
JC87321-2 - 1	03 May 2019 12:52:47	SMPL	ug/l	0.6749	5619	1.000	1.000
JC87321-3 - 1	03 May 2019 12:54:11	SMPL	ug/l	0.1759	1349	1.000	1.000
MP14783-MB1 - 1	03 May 2019 12:55:48	SMPL	ug/l	0.0352	145	1.000	1.000
MP14783-B1 - 1	03 May 2019 12:57:13	SMPL	ug/l	2.1144	17936	1.000	1.000
MP14783-S1 - 1	03 May 2019 12:58:33	SMPL	ug/l	1.9815	16799	1.000	1.000
CCV - 1	03 May 2019 13:00:19	CK STND	ug/l	94.1% 2.3518	19967	1.000	1.000
CCB - 1	03 May 2019 13:02:07	CK STND	ug/l	0.0255	62	1.000	1.000
MP14783-S2 - 1	03 May 2019 13:03:54	SMPL	ug/l	2.0576	17450	1.000	1.000
JC87323-1 - 1	03 May 2019 13:05:14	SMPL	ug/l	0.1279	939	1.000	1.000
JC87323-2 - 1	03 May 2019 13:07:01	SMPL	ug/l	0.1099	785	1.000	1.000
JC87323-3 - 1	03 May 2019 13:08:25	SMPL	ug/l	0.1077	766	1.000	1.000
JC87323-4 - 1	03 May 2019 13:09:46	SMPL	ug/l	0.2152	1686	1.000	1.000
JC87324-1 - 1	03 May 2019 13:11:10	SMPL	ug/l	0.0292	94	1.000	1.000
JC87324-2 - 1	03 May 2019 13:12:37	SMPL	ug/l	0.1466	1099	1.000	1.000
JC87324-3 - 1	03 May 2019 13:13:57	SMPL	ug/l	0.1170	845	1.000	1.000
JC87324-4 - 1	03 May 2019 13:15:21	SMPL	ug/l	0.0519	288	1.000	1.000
CCV - 1	03 May 2019 13:16:44	CK STND	ug/l	94.5% 2.3618	20053	1.000	1.000
CCB - 1	03 May 2019 13:18:04	CK STND	ug/l	0.0253	61	1.000	1.000
JC87324-5 - 1	03 May 2019 13:19:53	SMPL	ug/l	0.1575	1192	1.000	1.000
JC87363-3 - 1	03 May 2019 13:21:13	SMPL	ug/l	0.2088	1631	1.000	1.000
JC87271-1 - 1	03 May 2019 13:22:37	SMPL	ug/l	0.5629	4661	1.000	1.000
MP14782-S1 - 1	03 May 2019 13:24:03	SMPL	ug/l	2.3416	19880	1.000	1.000
JC87361-3 - 1	03 May 2019 13:25:39	SMPL	ug/l	0.4913	4048	1.000	1.000
JC87361-2 - 1	03 May 2019 13:30:15	SMPL	ug/l	16.8877	28744	1.000	5.000
JC87361-8 - 1	03 May 2019 13:31:32	SMPL	ug/l	6.1431	26126	1.000	2.000
JC87361-9 - 1	03 May 2019 13:33:24	SMPL	ug/l	7.3282	31196	1.000	2.000
CRI - 1	03 May 2019 13:35:25	CK STND	ug/l	84.1% 0.1681	1283	1.000	1.000
CCV - 1	03 May 2019 13:37:20	CK STND	ug/l	97.3% 2.4324	20657	1.000	1.000
CCB - 1	03 May 2019 13:38:49	CK STND	ug/l	0.0308	108	1.000	1.000

ACCUTEST



Std ID	Conc.	Calc.	Dev.	Mean	SD or %RSD	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
STDA	0.000	0.064	0.064	389	0.000	389				
STDB	0.200	0.203	0.003	1579	0.0 %	1579				
STDC	0.500	0.496	-0.004	4084	0.0 %	4084				
STDD	1.000	0.949	-0.051	7967	0.0 %	7967				
STDE	2.500	2.460	-0.040	20895	0.0 %	20895				
STDF	5.000	5.029	0.029	42871	0.0 %	42871				

Zoom In ▶ Zoom Out

Sample Name: STDA Acquired: 5/3/2019 11:23:52 Type: Cal
Method: SGS 3 NO Valve(v337) Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0125**	**-.0007**	**.0004**	**-.0000**	**-.0001**	**.0025**	**.0001**	**-.0001**	**-.0003**
Stddev	.0002	.0000	.0001	.0001	.0000	.0001	.0000	.0001	.0001
%RSD	1.383	6.219	30.35	598.1	26.62	2.657	67.40	94.42	25.92
#1	.0127	-.0007	.0004	-.0000	-.0001	.0025	.0000	-.0002	-.0003
#2	.0124	-.0008	.0006	-.0001	-.0001	.0025	.0001	-.0000	-.0002
#3	.0125	-.0007	.0003	.0001	-.0001	.0026	.0001	-.0001	-.0003

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0004**	**.0000**	**-.0001**	**-.0002**	**.0005**	**-.0000**	**.0006**	**.0005**	**.0085**
Stddev	.0000	.0001	.0001	.0001	.0002	.0001	.0000	.0004	.0002
%RSD	11.73	269.3	106.5	31.58	37.55	135.0	4.552	75.74	2.666
#1	.0003	.0000	-.0001	-.0002	.0003	-.0001	.0005	.0001	.0087
#2	.0004	-.0001	-.0001	-.0001	.0006	.0000	.0006	.0005	.0082
#3	.0004	.0002	.0000	-.0003	.0006	-.0001	.0006	.0009	.0086

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0001**	**-.0000**	**.0014**	**-.0142**	**.0007**	**-.0005**	**.0031**	**.0005**	**-.0016**
Stddev	.0000	.0001	.0011	.0007	.0001	.0002	.0003	.0002	.0003
%RSD	25.61	1396.	75.12	5.237	16.59	36.90	10.19	36.23	20.60
#1	.0001	.0000	.0002	-.0151	.0007	-.0007	.0031	.0004	-.0018
#2	.0001	.0001	.0017	-.0138	.0006	-.0004	.0034	.0007	-.0012
#3	.0001	-.0001	.0023	-.0137	.0008	-.0004	.0028	.0004	-.0016

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0001**	**.0005**	**-.0005**	**.0000**	**-.0001**	**-.0030**	**-.0054**
Stddev	.0001	.0005	.0001	.0001	.0003	.0006	.0001
%RSD	152.4	91.35	11.38	235.9	547.6	20.03	1.114
#1	-.0000	.0008	-.0005	.0001	.0000	-.0034	-.0054
#2	.0001	-.0000	-.0006	.0000	-.0004	-.0034	-.0054
#3	.0001	.0008	-.0004	-.0001	.0002	-.0023	-.0055

◀ Zoom In ▶ Zoom Out

Sample Name: STDA Acquired: 5/3/2019 11:23:52 Type: Cal
Method: SGS 3 NO Valve(v337) Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**151250.**	**27805.**	**6461.1**	**10109.**
Stddev	1254.	234.	41.5	55.
%RSD	.82887	.83997	.64192	.54224
#1	150320.	27664.	6450.4	10100.
#2	152680.	28075.	6426.0	10059.
#3	150750.	27676.	6506.9	10168.

◀ Zoom In ▶ Zoom Out

Sample Name: STDb Acquired: 5/3/2019 11:28:56 Type: Cal
Method: SGS 3 NO Valve(v337) Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**7.676**	**11.62**	**4.629**	**2.953**	**.6500**	**1.050**	**3.504**	**2.394**	**.0787**
Stddev	.029	.34	.009	.002	.0004	.006	.026	.002	.0004
%RSD	.3720	2.956	.2001	.0699	.0605	.6181	.7440	.0796	.5060
#1	7.652	11.31	4.628	2.954	.6502	1.049	3.475	2.395	.0787
#2	7.670	11.55	4.620	2.955	.6501	1.056	3.510	2.395	.0791
#3	7.708	11.99	4.638	2.951	.6495	1.043	3.526	2.392	.0783

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.9071**	**6.837**	**.4955**	**.3079**	**1.070**	**.3697**	**.6513**	**3.518**	**8.248**
Stddev	.0011	.035	.0007	.0009	.003	.0013	.0016	.003	.014
%RSD	.1208	.5074	.1398	.3069	.2399	.3601	.2398	.0897	.1703
#1	.9070	6.875	.4962	.3089	1.072	.3710	.6502	3.521	8.248
#2	.9083	6.829	.4948	.3072	1.070	.3683	.6506	3.517	8.262
#3	.9061	6.807	.4955	.3074	1.067	.3698	.6531	3.515	8.234

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5.042**	**.9115**	**1.762**	**6.485**	**.9858**	**3.072**	**2.198**	**.9533**	**13.49**
Stddev	.010	.0025	.006	.003	.0031	.009	.003	.0039	.35
%RSD	.1992	.2774	.3639	.0488	.3133	.3054	.1442	.4041	2.564
#1	5.042	.9105	1.759	6.485	.9843	3.082	2.197	.9576	13.10
#2	5.051	.9144	1.770	6.488	.9838	3.069	2.195	.9521	13.75
#3	5.031	.9097	1.758	6.481	.9894	3.064	2.201	.9501	13.62

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.7307**	**1.587**	**2.100**	**.2016**	**.6766**	**1.936**	**.1434**
Stddev	.0013	.004	.038	.0005	.0021	.005	.0008
%RSD	.1787	.2816	1.804	.2679	.3065	.2842	.5271
#1	.7299	1.591	2.082	.2022	.6749	1.937	.1439
#2	.7322	1.588	2.144	.2011	.6758	1.941	.1425
#3	.7300	1.583	2.075	.2015	.6789	1.930	.1438

◀ Zoom In ▶ Zoom Out

Sample Name: STDb Acquired: 5/3/2019 11:28:56 Type: Cal
Method: SGS 3 NO Valve(v337) Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**140810.**	**27371.**	**6114.6**	**9005.2**
Stddev	436.	190.	17.8	12.0
%RSD	.30966	.69494	.29144	.13363
#1	141210.	27588.	6094.8	8994.2
#2	140340.	27233.	6129.4	9018.0
#3	140870.	27293.	6119.8	9003.3

Zoom In Zoom Out

Sample Name: CCVCONF Acquired: 5/3/2019 11:34:47 Type: QC
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.968**	**2.005**	**1.989**	**2.013**	**1.991**	**1.964**	**2.014**	**2.015**	**.2438**
Stddev	.006	.006	.002	.002	.003	.008	.021	.002	.0013
%RSD	.2832	.2825	.1070	.0939	.1452	.3891	1.020	.0882	.5472
#1	1.970	2.010	1.987	2.014	1.991	1.972	2.005	2.016	.2450
#2	1.972	2.005	1.988	2.011	1.994	1.963	1.999	2.013	.2442
#3	1.961	1.999	1.991	2.015	1.989	1.957	2.037	2.017	.2424
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.981**	**2.007**	**1.967**	**2.067**	**2.007**	**1.990**	**1.972**	**39.66**	**40.11**
Stddev	.002	.006	.002	.007	.004	.001	.002	.10	.09
%RSD	.0856	.3066	.1194	.3190	.2199	.0552	.0862	.2420	.2359
#1	1.982	2.011	1.969	2.070	2.011	1.991	1.974	39.75	40.18
#2	1.982	2.011	1.967	2.060	2.002	1.989	1.972	39.68	40.14
#3	1.979	2.000	1.964	2.072	2.006	1.990	1.970	39.56	40.00
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**39.96**	**40.36**	**39.77**	**40.24**	**2.039**	**1.985**	**5.227**	**2.011**	**2.034**
Stddev	.07	.06	.11	.04	.003	.003	.010	.008	.004
%RSD	.1725	.1391	.2875	.0930	.1507	.1543	.1985	.3984	.2203
#1	40.02	40.41	39.79	40.25	2.037	1.987	5.228	2.018	2.037
#2	39.99	40.36	39.87	40.28	2.038	1.987	5.217	2.012	2.036
#3	39.88	40.30	39.64	40.20	2.043	1.982	5.237	2.002	2.029
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: CCVCONF Acquired: 5/3/2019 11:34:47 Type: QC
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.973**	**1.939**	**1.978**	**1.967**	**2.009**	**1.979**	**1.968**
Stddev	.002	.005	.001	.004	.003	.003	.006
%RSD	.0804	.2507	.0692	.1867	.1412	.1405	.2844
#1	1.973	1.943	1.976	1.966	2.011	1.981	1.974
#2	1.974	1.939	1.979	1.963	2.006	1.979	1.963
#3	1.971	1.934	1.978	1.971	2.011	1.976	1.966
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**144990.**	**27492.**	**6258.1**	**9219.2**
Stddev	828.	19.	9.8	7.1
%RSD	.57079	.07047	.15594	.07670
#1	144470.	27512.	6253.5	9222.0
#2	144550.	27473.	6251.4	9224.4
#3	145940.	27492.	6269.3	9211.1

Zoom In Zoom Out

Sample Name: CCBCONF Acquired: 5/3/2019 11:39:49 Type: QC
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	**.0001**	**.0002**	**.0002**	**.0001**	**.0002**	**.0002**	**.0003**	**.0001**
Stddev	.0003	.0001	.0004	.0000	.0004	.0003	.0001	.0000	.0002
%RSD	80.63	181.9	203.2	26.60	322.8	169.5	47.25	1.274	296.7
#1	.0003	-.0001	-.0000	.0001	.0005	.0004	.0002	.0003	.0002
#2	.0001	.0001	-.0000	.0002	.0000	-.0002	.0002	.0003	-.0002
#3	.0006	.0002	.0007	.0001	-.0002	.0004	.0001	.0003	.0002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0002**	**-.0002**	**.0001**	**.0008**	**-.0008**	**.0010**	**.0006**	**-.0028**	**-.0015**
Stddev	.0002	.0001	.0003	.0006	.0007	.0014	.0016	.0061	.0044
%RSD	161.7	56.82	311.1	71.51	93.86	140.1	249.9	222.2	303.5
#1	-.0000	-.0002	.0003	.0004	-.0010	.0005	.0010	-.0098	-.0065
#2	-.0004	-.0003	-.0002	.0015	-.0013	-.0001	-.0011	.0011	.0018
#3	.0000	-.0001	.0002	.0006	.0000	.0025	.0020	.0004	.0004
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0018**	**-.0013**	**.0837**	**.0339**	**.0060**	**.0004**	**.0008**	**-.0001**	**.0002**
Stddev	.0030	.0097	.0625	.0107	.0009	.0003	.0009	.0002	.0001
%RSD	167.9	723.9	74.61	31.62	14.82	79.73	106.3	194.7	75.85
#1	.0003	.0028	.0751	.0222	.0052	.0005	.0000	.0000	.0003
#2	-.0002	.0056	.0260	.0433	.0070	.0006	.0006	-.0004	.0000
#3	.0053	-.0124	.1500	.0363	.0057	.0000	.0017	-.0000	.0002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: CCBCONF Acquired: 5/3/2019 11:39:49 Type: QC
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	**-.0003**	**.0002**	**-.0015**	**-.0005**	**-.0008**	**.0054**
Stddev	.0003	.0004	.0001	.0006	.0009	.0009	.0021
%RSD	93.49	146.2	68.86	37.97	195.0	105.7	39.35
#1	.0006	.0002	.0000	-.0015	-.0013	-.0017	.0030
#2	.0002	-.0005	.0003	-.0021	.0005	-.0007	.0063
#3	.0001	-.0004	.0002	-.0009	-.0006	-.0000	.0070
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**152870.**	**27774.**	**6520.3**	**10168.**
Stddev	322.	237.	13.7	10.
%RSD	.21054	.85496	.20972	.09664
#1	152930.	27800.	6505.1	10157.
#2	153160.	27998.	6524.3	10171.
#3	152530.	27525.	6531.5	10176.

Zoom In Zoom Out

Sample Name: icv 1 Acquired: 5/3/2019 11:44:58 Type: QC
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.977**	**2.010**	**1.994**	**2.050**	**1.974**	**1.977**	**2.055**	**2.012**	**.2395**
Stddev	.002	.005	.004	.002	.004	.008	.049	.003	.0009
%RSD	.0850	.2281	.2231	.1073	.2237	.3903	2.375	.1308	.3713
#1	1.979	2.015	1.990	2.047	1.979	1.979	2.107	2.009	.2399
#2	1.975	2.006	1.998	2.051	1.973	1.983	2.010	2.012	.2402
#3	1.977	2.009	1.995	2.051	1.971	1.968	2.048	2.014	.2385
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.985**	**1.986**	**1.947**	**2.049**	**1.992**	**1.974**	**1.926**	**39.29**	**39.47**
Stddev	.005	.003	.004	.009	.002	.004	.005	.08	.05
%RSD	.2360	.1684	.1788	.4541	.0789	.2041	.2367	.2045	.1178
#1	1.991	1.983	1.943	2.039	1.990	1.970	1.921	39.39	39.52
#2	1.982	1.984	1.948	2.051	1.991	1.978	1.930	39.24	39.43
#3	1.984	1.989	1.949	2.057	1.993	1.976	1.927	39.25	39.46
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**39.82**	**40.00**	**39.49**	**39.99**	**2.028**	**1.943**	**5.111**	**1.962**	**2.043**
Stddev	.04	.03	.01	.02	.008	.003	.011	.003	.000
%RSD	.0899	.0797	.0159	.0504	.3739	.1315	.2163	.1716	.0168
#1	39.86	39.96	39.50	40.01	2.023	1.941	5.100	1.958	2.043
#2	39.79	40.02	39.49	40.00	2.037	1.942	5.122	1.962	2.042
#3	39.83	40.02	39.49	39.97	2.025	1.946	5.111	1.965	2.043
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: icv 1 Acquired: 5/3/2019 11:44:58 Type: QC
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.950**	F **1.898**	**1.937**	**1.961**	**2.007**	**1.987**	**2.000**
Stddev	.003	.002	.003	.010	.004	.003	.007
%RSD	.1757	.0848	.1473	.4916	.1841	.1673	.3747
#1	1.954	1.898	1.940	1.951	2.004	1.990	2.007
#2	1.948	1.899	1.937	1.961	2.011	1.984	2.001
#3	1.948	1.896	1.934	1.971	2.007	1.986	1.992
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value		2.000					
Range		-5.000%					

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**143770.**	**27470.**	**6238.6**	**9191.5**
Stddev	983.	41.	20.6	29.5
%RSD	.68392	.14924	.32946	.32074
#1	142830.	27516.	6258.1	9217.6
#2	144790.	27438.	6217.1	9159.5
#3	143690.	27456.	6240.6	9197.5

Zoom In Zoom Out

Sample Name: icb 7 Acquired: 5/3/2019 11:50:22 Type: QC
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0002**	**.0001**	**.0002**	**.0001**	**.0005**	**.0002**	**.0003**	**-.0001**
Stddev	.0002	.0000	.0001	.0001	.0002	.0002	.0001	.0003	.0001
%RSD	315.5	9.709	105.7	41.47	349.5	34.70	32.78	120.2	72.31
#1	.0002	.0002	.0001	.0002	.0003	.0003	.0002	.0001	-.0000
#2	.0002	.0001	.0000	.0001	-.0001	.0007	.0003	.0000	-.0001
#3	-.0002	.0002	.0002	.0003	-.0001	.0005	.0001	.0007	-.0002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**-.0002**	**.0008**	**.0004**	**.0006**	**.0005**	**.0005**	**-.0056**	**-.0024**
Stddev	.0002	.0001	.0005	.0001	.0009	.0003	.0019	.0065	.0026
%RSD	116.5	31.32	57.70	22.96	142.8	61.70	406.0	116.3	105.3
#1	.0002	-.0001	.0011	.0005	-.0002	.0009	.0021	-.0115	.0005
#2	.0004	-.0002	.0010	.0003	.0015	.0003	.0010	-.0067	-.0040
#3	-.0000	-.0003	.0003	.0004	.0005	.0003	-.0016	.0014	-.0038
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0017**	**.0053**	**.0926**	**.0212**	**.0046**	**.0003**	**.0014**	**-.0004**	**.0001**
Stddev	.0006	.0154	.0348	.0082	.0002	.0001	.0001	.0004	.0000
%RSD	38.37	292.4	37.60	38.51	5.306	35.14	6.679	108.2	32.77
#1	.0015	.0208	.0615	.0128	.0045	.0004	.0015	-.0006	.0001
#2	.0024	-.0100	.1302	.0217	.0048	.0004	.0014	-.0005	.0001
#3	.0011	.0049	.0860	.0291	.0044	.0002	.0013	.0001	.0002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: icb 7 Acquired: 5/3/2019 11:50:22 Type: QC
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004**	**.0013**	**.0003**	**-.0020**	**.0014**	**-.0000**	**.0053**
Stddev	.0003	.0007	.0000	.0011	.0012	.0010	.0015
%RSD	77.62	57.19	11.10	57.63	81.40	27080.	29.07
#1	.0002	.0004	.0003	-.0028	.0012	.0012	.0044
#2	.0002	.0016	.0003	-.0024	.0027	-.0007	.0070
#3	.0007	.0018	.0003	-.0007	.0004	-.0005	.0044
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**151100.**	**27561.**	**6489.0**	**10119.**
Stddev	567.	228.	13.4	27.
%RSD	.37547	.82722	.20684	.26471
#1	150850.	27521.	6473.5	10090.
#2	150700.	27355.	6496.8	10144.
#3	151750.	27806.	6496.7	10122.

Zoom In Zoom Out

Sample Name: iccv 1 Acquired: 5/3/2019 11:58:01 Type: QC
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.980**	**2.022**	**1.997**	**2.024**	**2.002**	**1.991**	**2.046**	**2.029**	**.2465**
Stddev	.005	.005	.004	.004	.002	.004	.018	.004	.0006
%RSD	.2469	.2611	.2252	.1768	.1054	.1981	.8901	.1870	.2620
#1	1.977	2.020	1.991	2.020	2.005	1.993	2.034	2.024	.2460
#2	1.988	2.030	2.002	2.028	2.001	1.987	2.037	2.033	.2464
#3	1.978	2.021	1.999	2.025	2.000	1.996	2.041	2.030	.2475
#4	1.979	2.018	1.998	2.024	2.003	1.990	2.073	2.030	.2463
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.991**	**2.014**	**1.977**	**2.072**	**2.021**	**1.995**	**1.979**	**39.93**	**40.42**
Stddev	.001	.004	.003	.003	.003	.006	.007	.07	.08
%RSD	.0520	.1866	.1745	.1507	.1683	.3263	.3331	.1861	.1978
#1	1.993	2.012	1.973	2.067	2.018	1.985	1.970	39.86	40.41
#2	1.991	2.015	1.980	2.074	2.025	1.998	1.986	40.03	40.54
#3	1.991	2.012	1.975	2.073	2.023	1.996	1.979	39.94	40.35
#4	1.991	2.020	1.979	2.073	2.019	2.000	1.979	39.89	40.39
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: iccv 1 Acquired: 5/3/2019 11:58:01 Type: QC
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**40.30**	**40.50**	**39.90**	**40.36**	**2.050**	**1.998**	**5.250**	**2.014**	**2.045**
Stddev	.08	.11	.08	.08	.005	.004	.015	.003	.002
%RSD	.2092	.2808	.2098	.1897	.2464	.1781	.2882	.1522	.1171
#1	40.31	40.54	39.95	40.40	2.043	1.993	5.228	2.012	2.045
#2	40.42	40.64	39.97	40.46	2.055	1.999	5.263	2.012	2.049
#3	40.25	40.41	39.78	40.30	2.053	2.000	5.256	2.014	2.044
#4	40.24	40.41	39.91	40.30	2.050	2.001	5.251	2.019	2.043
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.986**	**1.950**	**1.988**	**1.971**	**2.021**	**1.984**	**2.011**
Stddev	.001	.005	.001	.005	.006	.004	.011
%RSD	.0519	.2502	.0361	.2422	.2834	.1775	.5231
#1	1.987	1.944	1.988	1.964	2.014	1.983	2.006
#2	1.985	1.950	1.987	1.971	2.026	1.989	2.016
#3	1.986	1.952	1.987	1.975	2.026	1.984	2.022
#4	1.985	1.956	1.988	1.973	2.018	1.980	1.998
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Zoom In Zoom Out

Sample Name: iccv 1 Acquired: 5/3/2019 11:58:01 Type: QC
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**143600.**	**27442.**	**6229.0**	**9159.2**
Stddev	458.	139.	9.5	11.2
%RSD	.31877	.50684	.15283	.12201
#1	142920.	27318.	6235.3	9172.7
#2	143900.	27332.	6227.3	9145.5
#3	143810.	27599.	6237.2	9160.7
#4	143780.	27518.	6216.3	9157.9

Zoom In Zoom Out

Sample Name: ccb 7 Acquired: 5/3/2019 12:05:33 Type: QC
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0007**	**.0005**	**.0006**	**.0005**	**.0007**	**.0009**	**.0006**	**.0009**	**-.0000**
Stddev	.0001	.0000	.0001	.0001	.0003	.0001	.0000	.0001	.0003
%RSD	22.78	9.034	23.84	25.95	49.31	13.04	7.598	9.411	942.4
#1	.0006	.0005	.0005	.0006	.0008	.0008	.0007	.0008	-.0001
#2	.0005	.0005	.0005	.0006	.0003	.0010	.0007	.0009	.0003
#3	.0008	.0006	.0007	.0004	.0010	.0009	.0006	.0010	-.0002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0002**	**.0003**	**.0014**	**.0001**	**.0011**	**.0007**	**.0056**	**.0037**
Stddev	.0003	.0001	.0005	.0008	.0003	.0005	.0007	.0065	.0005
%RSD	164.8	32.12	151.2	58.97	232.5	46.26	92.22	116.3	13.57
#1	.0003	.0002	.0005	.0017	-.0000	.0007	.0002	.0071	.0041
#2	.0003	.0002	.0006	.0019	.0004	.0016	.0005	-.0015	.0031
#3	-.0001	.0003	-.0002	.0004	-.0001	.0008	.0014	.0112	.0037
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0105**	**.0187**	**.0927**	**.0413**	**.0046**	**.0008**	**.0021**	**-.0002**	**.0005**
Stddev	.0020	.0138	.0396	.0057	.0002	.0000	.0011	.0005	.0001
%RSD	19.15	73.89	42.76	13.84	3.902	5.664	53.48	228.5	19.12
#1	.0088	.0161	.0534	.0361	.0048	.0008	.0030	-.0004	.0004
#2	.0099	.0064	.1327	.0474	.0045	.0008	.0008	-.0007	.0004
#3	.0127	.0336	.0919	.0404	.0045	.0009	.0026	.0004	.0006
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: ccb 7 Acquired: 5/3/2019 12:05:33 Type: QC
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0006**	**.0005**	**.0005**	**-.0002**	**.0017**	**-.0012**	**.0051**
Stddev	.0002	.0009	.0001	.0023	.0007	.0008	.0026
%RSD	29.59	184.3	16.40	1226.	40.85	68.50	49.69
#1	.0007	-.0002	.0006	-.0022	.0010	-.0004	.0058
#2	.0007	.0014	.0006	-.0007	.0019	-.0020	.0073
#3	.0004	.0002	.0004	.0024	.0023	-.0013	.0023
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**151860.**	**27825.**	**6490.7**	**10093.**
Stddev	523.	44.	17.4	13.
%RSD	.34462	.15835	.26870	.13238
#1	151390.	27823.	6506.6	10107.
#2	151780.	27870.	6493.5	10092.
#3	152420.	27782.	6472.0	10080.

Zoom In Zoom Out

Sample Name: CRI Acquired: 5/3/2019 12:13:21 Type: QC
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2032**	**.0021**	**.0031**	**.0517**	**.0107**	**.0099**	**.0165**	**.0103**	**.0049**
Stddev	.0015	.0000	.0001	.0003	.0002	.0003	.0000	.0003	.0005
%RSD	.7503	1.280	2.804	.5822	2.327	2.683	.1661	3.170	10.95
#1	.2038	.0020	.0030	.0519	.0108	.0099	.0165	.0104	.0052
#2	.2044	.0021	.0032	.0519	.0109	.0101	.0166	.0105	.0052
#3	.2015	.0021	.0032	.0514	.0104	.0096	.0165	.0099	.0043
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0518**	**.0209**	**.0079**	**.0104**	**.0025**	**.0090**	**.0070**	**.2043**	**5.290**
Stddev	.0003	.0003	.0003	.0015	.0008	.0016	.0015	.0070	.033
%RSD	.6661	1.402	3.284	13.99	31.38	17.59	22.15	3.409	.6275
#1	.0519	.0210	.0077	.0120	.0026	.0072	.0081	.2003	5.310
#2	.0521	.0212	.0082	.0093	.0032	.0095	.0076	.2002	5.308
#3	.0515	.0206	.0078	.0098	.0017	.0103	.0052	.2123	5.252
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1096**	**5.409**	**5.248**	**5.402**	**.1061**	**.0211**	**.2176**	**.0112**	**.0105**
Stddev	.0007	.033	.035	.033	.0009	.0003	.0034	.0003	.0001
%RSD	.6542	.6106	.6676	.6186	.8565	1.224	1.577	2.588	1.400
#1	.1088	5.413	5.270	5.423	.1067	.0212	.2207	.0115	.0106
#2	.1101	5.439	5.267	5.419	.1066	.0214	.2182	.0109	.0104
#3	.1098	5.373	5.208	5.363	.1051	.0209	.2139	.0113	.0106
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: CRI Acquired: 5/3/2019 12:13:21 Type: QC
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0104**	**.0518**	**.0108**	**.0522**	**.0227**	**.0559**	**.0527**
Stddev	.0002	.0015	.0002	.0010	.0008	.0017	.0018
%RSD	1.789	2.970	2.154	1.967	3.632	2.994	3.439
#1	.0102	.0529	.0110	.0516	.0221	.0550	.0548
#2	.0104	.0524	.0106	.0518	.0224	.0578	.0520
#3	.0106	.0500	.0106	.0534	.0236	.0549	.0514
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**146820.**	**27365.**	**6304.1**	**9637.7**
Stddev	456.	163.	79.2	103.5
%RSD	.31066	.59629	1.2557	1.0743
#1	146300.	27202.	6269.4	9583.6
#2	147160.	27365.	6248.2	9572.3
#3	146990.	27528.	6394.6	9757.0

Zoom In Zoom Out

Sample Name: CRID Acquired: 5/3/2019 12:18:25 Type: QC
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0042**	**.0010**	**.0010**	**.0031**	F **.0024**	F **.0003**	**.0033**	**.0043**
Stddev	.0001	.0001	.0002	.0002	.0002	.0006	.0000	.0002
%RSD	2.465	5.422	15.46	6.390	9.852	188.9	1.247	3.629
#1	.0043	.0011	.0010	.0032	.0023	.0008	.0033	.0044
#2	.0041	.0010	.0009	.0032	.0027	.0003	.0032	.0044
#3	.0043	.0009	.0012	.0029	.0023	-.0003	.0033	.0041
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass
Value					.0020	.0020		
Range					20.00%	-20.00%		

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **.0001**	**.0018**	**.0103**	F **.0019**	F **.0032**	F **-.0008**	**.0047**	F **-.0005**
Stddev	.0005	.0001	.0001	.0002	.0012	.0002	.0010	.0008
%RSD	713.4	5.040	.9244	12.23	38.01	30.12	21.39	140.5
#1	.0006	.0018	.0102	.0018	.0026	-.0010	.0040	.0003
#2	-.0000	.0019	.0103	.0022	.0047	-.0009	.0058	-.0012
#3	-.0003	.0017	.0104	.0019	.0025	-.0005	.0043	-.0007
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Fail
Value	.0020			.0030	.0020	.0025		.0030
Range	-20.00%			-20.00%	20.00%	-20.00%		-20.00%

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0990**	**1.050**	**.0023**	**.1185**	**2.083**	**1.099**	**.0019**	**-.0000**
Stddev	.0053	.001	.0003	.0096	.018	.001	.0003	.0002
%RSD	5.404	.1360	13.98	8.127	.8533	.1181	13.35	777.9
#1	.1039	1.051	.0020	.1146	2.069	1.099	.0017	.0001
#2	.0933	1.049	.0026	.1295	2.103	1.101	.0019	-.0003
#3	.0998	1.049	.0023	.1115	2.077	1.098	.0022	.0002
Check ?	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	None	None
Value								
Range								

Zoom In Zoom Out

Sample Name: CRID Acquired: 5/3/2019 12:18:25 Type: QC
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0009**	**-.0011**	**.0001**	**.0006**	**-.0000**	**-.0000**	**-.0006**	**.0000**
Stddev	.0007	.0003	.0001	.0003	.0004	.0001	.0022	.0008
%RSD	73.69	25.42	77.37	57.02	2920.	401.9	357.5	2368.
#1	.0009	-.0011	.0000	.0002	.0004	-.0002	-.0032	.0002
#2	.0002	-.0015	.0002	.0008	-.0004	-.0000	.0010	-.0008
#3	.0016	-.0009	.0001	.0007	.0000	.0001	.0003	.0007
Check ?	None	None	None	None	None	None	None	None
Value								
Range								

Elem	Li6707	P_1774
Units	ppm	ppm
Avg	**-.0032**	**.0045**
Stddev	.0011	.0019
%RSD	33.97	41.91
#1	-.0028	.0031
#2	-.0045	.0066
#3	-.0024	.0037
Check ?	None	None
Value		
Range		

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**152360.**	**27716.**	**6504.4**	**10067.**
Stddev	226.	339.	25.3	32.
%RSD	.14839	1.2247	.38962	.31462
#1	152620.	27460.	6523.9	10085.
#2	152190.	27588.	6513.7	10086.
#3	152280.	28101.	6475.8	10031.

Zoom In Zoom Out

Sample Name: ICSA Acquired: 5/3/2019 12:23:33 Type: QC
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0008**	**.0001**	**.0000**	**.0015**	**-.0003**	**-.0045**	**.0019**	**-.0003**	**.0022**
Stddev	.0001	.0000	.0002	.0003	.0002	.0005	.0003	.0005	.0006
%RSD	12.33	47.56	5578.	20.40	64.68	11.42	13.61	144.7	24.74
#1	.0008	.0001	.0002	.0013	-.0003	-.0045	.0018	-.0007	.0022
#2	.0008	.0000	-.0002	.0018	-.0002	-.0050	.0016	-.0005	.0017
#3	.0010	.0001	.0000	.0013	-.0006	-.0039	.0022	.0002	.0028
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0020**	**-.0019**	**-.0026**	**-.0004**	**.0019**	**-.0008**	**.0010**	**508.9**	**381.2**
Stddev	.0004	.0003	.0011	.0004	.0029	.0018	.0017	3.2	1.5
%RSD	17.61	15.32	40.25	110.8	155.8	221.8	164.2	.6204	.3828
#1	-.0019	-.0018	-.0035	-.0006	.0025	-.0022	-.0009	510.2	382.8
#2	-.0018	-.0016	-.0015	.0001	-.0013	-.0013	.0022	505.3	380.3
#3	-.0024	-.0022	-.0029	-.0006	.0045	.0012	.0018	511.2	380.4
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**191.6**	**500.5**	**.3234**	**.1160**	**.0001**	**.0009**	**.0004**	**-.0046**	**-.0003**
Stddev	1.8	.9	.0081	.0107	.0004	.0005	.0007	.0011	.0001
%RSD	.9280	.1829	2.492	9.239	335.2	56.65	198.8	24.79	28.52
#1	191.4	500.8	.3192	.1102	-.0003	.0012	-.0003	-.0056	-.0002
#2	190.0	499.5	.3182	.1094	.0003	.0013	.0012	-.0049	-.0002
#3	193.5	501.3	.3327	.1284	.0004	.0003	.0003	-.0034	-.0003
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: ICSA Acquired: 5/3/2019 12:23:33 Type: QC
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0011**	**-.0012**	**.0006**	**-.0013**	**-.0017**	**-.0076**	**.0248**
Stddev	.0001	.0020	.0002	.0015	.0013	.0019	.0018
%RSD	13.37	166.4	27.28	115.0	77.36	24.45	7.391
#1	-.0012	.0000	.0007	-.0031	-.0005	-.0096	.0236
#2	-.0009	-.0001	.0004	-.0003	-.0016	-.0071	.0269
#3	-.0012	-.0035	.0008	-.0006	-.0031	-.0060	.0239
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**131160.**	**26451.**	**5833.8**	**8359.6**
Stddev	285.	178.	13.1	21.8
%RSD	.21751	.67396	.22477	.26120
#1	130850.	26391.	5831.8	8357.9
#2	131410.	26652.	5821.9	8338.6
#3	131210.	26311.	5847.9	8382.1

Zoom In Zoom Out

Sample Name: ICSAB Acquired: 5/3/2019 12:28:53 Type: QC
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5068**	**.4976**	**1.007**	**.4925**	**.4901**	**.5039**	**.5197**	**.9769**	**1.069**
Stddev	.0003	.0007	.000	.0011	.0017	.0014	.0009	.0014	.002
%RSD	.0544	.1336	.0212	.2135	.3439	.2764	.1764	.1481	.1555
#1	.5064	.4971	1.007	.4920	.4918	.5023	.5205	.9754	1.068
#2	.5069	.4983	1.007	.4919	.4899	.5047	.5199	.9770	1.071
#3	.5070	.4974	1.007	.4938	.4885	.5046	.5187	.9783	1.069
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4943**	**.9510**	**1.045**	**.9814**	**.9592**	**1.046**	**1.045**	**503.1**	**380.4**
Stddev	.0011	.0032	.002	.0004	.0031	.001	.001	2.7	7.2
%RSD	.2307	.3344	.2069	.0396	.3228	.0706	.0907	.5420	1.887
#1	.4947	.9524	1.047	.9817	.9558	1.047	1.045	505.4	377.0
#2	.4951	.9531	1.042	.9810	.9601	1.046	1.043	503.9	375.5
#3	.4930	.9473	1.045	.9816	.9617	1.046	1.045	500.1	388.6
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**199.4**	**503.1**	**.2846**	**.1301**	**.4838**	**.4733**	**.5053**	**.4589**	**.5242**
Stddev	2.4	.8	.0064	.0048	.0006	.0009	.0039	.0016	.0002
%RSD	1.217	.1497	2.231	3.691	.1223	.1975	.7676	.3394	.0322
#1	201.6	502.2	.2773	.1335	.4834	.4731	.5010	.4590	.5242
#2	196.8	503.7	.2877	.1323	.4835	.4743	.5063	.4605	.5243
#3	199.9	503.3	.2888	.1246	.4845	.4724	.5085	.4574	.5240
Check ?	Chk Pass	Chk Pass	None	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ICSAB Acquired: 5/3/2019 12:28:53 Type: QC
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4924**	**.4598**	**.4790**	**.5012**	**.5052**	**.5220**	**.5432**
Stddev	.0010	.0022	.0004	.0032	.0019	.0016	.0028
%RSD	.2091	.4785	.0810	.6307	.3857	.2982	.5089
#1	.4917	.4623	.4791	.5038	.5036	.5216	.5409
#2	.4935	.4581	.4792	.5021	.5046	.5206	.5463
#3	.4918	.4590	.4785	.4977	.5074	.5237	.5424
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**131390.**	**26569.**	**5824.6**	**8381.0**
Stddev	642.	229.	33.4	26.7
%RSD	.48895	.86048	.57387	.31848
#1	130800.	26830.	5808.2	8365.3
#2	131300.	26467.	5802.5	8365.8
#3	132080.	26408.	5863.0	8411.8

Zoom In Zoom Out

Sample Name: HSTD Acquired: 5/3/2019 12:34:12 Type: QC
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**7.927**	**8.045**	**7.976**	**7.960**	**8.132**	**7.897**	**8.116**	**8.000**	**.6255**
Stddev	.196	.043	.006	.003	.003	.052	.075	.003	.0016
%RSD	2.473	.5290	.0760	.0369	.0368	.6629	.9283	.0341	.2549
#1	7.739	8.007	7.970	7.963	8.133	7.911	8.147	8.003	.6267
#2	7.910	8.091	7.975	7.959	8.129	7.839	8.030	7.998	.6237
#3	8.130	8.038	7.982	7.957	8.135	7.941	8.170	7.999	.6260
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**7.995**	**8.216**	**8.021**	**8.230**	**8.102**	**8.069**	**8.125**	**.0937**	**.0044**
Stddev	.077	.005	.004	.018	.001	.011	.012	.0176	.0164
%RSD	.9632	.0612	.0505	.2141	.0071	.1325	.1455	18.82	370.1
#1	8.077	8.219	8.024	8.214	8.103	8.075	8.127	.0834	-.0057
#2	7.924	8.219	8.022	8.226	8.102	8.056	8.112	.0837	-.0043
#3	7.986	8.210	8.016	8.249	8.102	8.074	8.135	.1141	.0233
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0056**	**.0032**	**.5292**	**.1372**	**8.193**	**8.237**	**26.00**	**8.354**	**8.317**
Stddev	.0076	.0152	.0209	.0057	.017	.004	.04	.005	.040
%RSD	134.1	476.4	3.941	4.171	.2029	.0471	.1730	.0639	.4850
#1	-.0097	-.0021	.5316	.1338	8.202	8.236	25.99	8.357	8.346
#2	-.0103	-.0086	.5072	.1340	8.174	8.241	25.97	8.356	8.271
#3	.0031	.0204	.5487	.1438	8.204	8.233	26.05	8.347	8.334
Check ?	None	None	None	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: HSTD Acquired: 5/3/2019 12:34:12 Type: QC
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**8.067**	**8.365**	**7.870**	**95.95**	**8.453**	**7.945**	**8.100**
Stddev	.050	.008	.118	.10	.019	.035	.024
%RSD	.6189	.1005	1.494	.1063	.2197	.4364	.3002
#1	8.109	8.373	7.783	95.83	8.460	7.953	8.097
#2	8.012	8.366	7.823	96.00	8.432	7.974	8.077
#3	8.081	8.356	8.004	96.02	8.467	7.907	8.126
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**147530.**	**27632.**	**6230.2**	**9743.3**
Stddev	647.	105.	11.3	20.3
%RSD	.43840	.38112	.18078	.20846
#1	147340.	27536.	6233.1	9748.6
#2	148250.	27744.	6239.8	9760.4
#3	147000.	27615.	6217.8	9720.8

Zoom In Zoom Out

Sample Name: HSTD Acquired: 5/3/2019 12:40:15 Type: QC
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0008**	**.0007**	**.0003**	**.0016**	**-.0002**	**-.0034**	**.0024**	**.0003**	**.0024**
Stddev	.0001	.0001	.0002	.0001	.0001	.0005	.0003	.0003	.0009
%RSD	13.53	9.718	74.05	6.686	57.45	15.71	11.80	96.03	38.65
#1	.0007	.0008	.0006	.0016	-.0001	-.0032	.0025	.0004	.0027
#2	.0009	.0007	.0001	.0014	-.0004	-.0031	.0026	.0006	.0032
#3	.0008	.0006	.0003	.0016	-.0002	-.0040	.0021	-.0000	.0014
Check ?	None	None	None	None	None	None	None	None	None
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0025**	**-.0001**	**-.0014**	**-.0012**	**-.0011**	**.0006**	**.0015**	**308.9**	**203.0**
Stddev	.0002	.0002	.0010	.0009	.0017	.0017	.0009	4.3	1.6
%RSD	7.287	152.1	69.48	74.84	146.7	272.4	59.71	1.399	.7933
#1	-.0024	-.0002	-.0007	-.0005	-.0001	-.0011	.0007	310.0	202.6
#2	-.0028	-.0002	-.0026	-.0023	-.0003	.0022	.0025	312.6	204.8
#3	-.0025	.0001	-.0010	-.0009	-.0031	.0007	.0013	304.2	201.7
Check ?	None	None	None	None	None	None	None	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**198.6**	**305.8**	**201.5**	**201.3**	**.0082**	**.0013**	**.0109**	**-.0033**	**-.0001**
Stddev	2.4	1.4	.8	3.4	.0018	.0005	.0011	.0001	.0000
%RSD	1.200	.4721	.4103	1.675	21.46	41.59	9.856	2.291	41.85
#1	198.5	304.9	201.1	204.9	.0099	.0014	.0101	-.0034	-.0001
#2	201.0	307.4	202.4	200.9	.0083	.0018	.0121	-.0033	-.0001
#3	196.2	305.0	200.9	198.2	.0064	.0007	.0106	-.0032	-.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None	None	None	None
Value									
Range									

Zoom In Zoom Out

Sample Name: HSTD Acquired: 5/3/2019 12:40:15 Type: QC
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0003**	**-.0005**	**.0014**	**.0018**	**-.0015**	**.0031**	**.0164**
Stddev	.0003	.0007	.0001	.0025	.0015	.0009	.0017
%RSD	114.3	135.1	10.84	141.2	97.96	28.83	10.58
#1	-.0006	-.0013	.0015	.0046	-.0015	.0020	.0178
#2	-.0002	.0001	.0014	-.0003	-.0030	.0036	.0170
#3	.0000	-.0004	.0012	.0010	-.0000	.0036	.0145
Check ?	None	None	None	None	None	None	None
Value							
Range							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**133410.**	**26571.**	**5862.0**	**8356.0**
Stddev	453.	176.	6.2	10.2
%RSD	.33956	.66413	.10522	.12196
#1	133910.	26542.	5868.0	8362.3
#2	133030.	26410.	5862.4	8361.5
#3	133300.	26760.	5855.7	8344.3

Zoom In Zoom Out

Sample Name: FECONF Acquired: 5/3/2019 12:45:50 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0007**	**-.0000**	**-.0003**	**.0011**	**-.0006**	**-.0045**	**.0024**	**.0001**	**.0005**
Stddev	.0002	.0000	.0001	.0001	.0001	.0005	.0002	.0002	.0008
%RSD	37.10	226.4	27.59	8.991	17.92	11.29	8.672	421.7	158.6
#1	.0005	.0000	-.0002	.0012	-.0008	-.0050	.0023	.0003	.0003
#2	.0009	-.0000	-.0002	.0010	-.0006	-.0046	.0027	-.0000	.0013
#3	.0006	-.0000	-.0004	.0012	-.0006	-.0040	.0023	-.0001	-.0002

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0026**	**-.0014**	**-.0019**	**-.0010**	**-.0009**	**-.0049**	**-.0005**	**.0056**	**.0178**
Stddev	.0003	.0001	.0007	.0007	.0005	.0002	.0012	.0029	.0046
%RSD	13.07	8.571	35.78	70.29	50.82	3.602	245.0	52.26	25.79
#1	-.0027	-.0013	-.0023	-.0004	-.0007	-.0049	.0009	.0041	.0200
#2	-.0029	-.0013	-.0021	-.0008	-.0006	-.0050	-.0010	.0090	.0209
#3	-.0023	-.0015	-.0011	-.0018	-.0014	-.0047	-.0013	.0038	.0125

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**193.6**	**-.0155**	**.3277**	**.1587**	**.0049**	**.0001**	**.0050**	**-.0007**	**.0000**
Stddev	1.3	.0055	.0323	.0085	.0003	.0001	.0007	.0002	.0001
%RSD	.6885	35.42	9.852	5.380	6.905	66.79	14.31	31.58	236.6
#1	192.8	-.0203	.3547	.1651	.0050	.0001	.0046	-.0005	.0000
#2	195.2	-.0168	.2919	.1619	.0045	.0002	.0058	-.0007	.0002
#3	192.9	-.0095	.3364	.1490	.0051	.0000	.0045	-.0009	-.0001

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**-.0007**	**.0005**	**-.0050**	**.0039**	**-.0154**	**.0036**
Stddev	.0002	.0004	.0001	.0009	.0022	.0021	.0016
%RSD	123.9	53.49	21.36	18.67	55.45	13.97	43.98
#1	.0003	-.0003	.0006	-.0056	.0061	-.0178	.0053
#2	-.0001	-.0009	.0005	-.0039	.0018	-.0139	.0021
#3	.0003	-.0010	.0004	-.0054	.0039	-.0144	.0034

Zoom In Zoom Out

Sample Name: FECONF Acquired: 5/3/2019 12:45:50 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**149040.**	**27494.**	**6393.7**	**10032.**
Stddev	457.	38.	19.3	25.
%RSD	.30679	.14002	.30124	.24667
#1	149560.	27490.	6393.4	10018.
#2	148690.	27534.	6374.6	10018.
#3	148870.	27457.	6413.1	10061.

Zoom In Zoom Out

Sample Name: CRCONF Acquired: 5/3/2019 12:51:04 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**-.0001**	**-.0001**	**-.0008**	F **9.925**	**.0005**	**-.0014**	**.0002**	**-.0003**
Stddev	.0002	.0000	.0001	.0002	.066	.0002	.0000	.0001	.0002
%RSD	107.2	18.58	77.63	18.94	.6605	37.37	2.075	84.33	59.30
#1	.0000	-.0001	-.0002	-.0009	9.853	.0003	-.0014	.0000	-.0003
#2	.0003	-.0001	-.0002	-.0009	9.941	.0007	-.0014	.0002	-.0001
#3	.0001	-.0001	-.0000	-.0007	9.981	.0006	-.0014	.0003	-.0004

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0060**	**.0018**	**.0020**	**-.0003**	**-.0000**	**.0010**	**.0002**	**.0045**	**.0437**
Stddev	.0004	.0001	.0008	.0003	.0001	.0005	.0007	.0030	.0021
%RSD	7.371	6.992	41.51	100.3	324.4	54.00	325.6	66.47	4.900
#1	.0061	.0018	.0014	-.0003	-.0001	.0007	.0009	.0079	.0445
#2	.0055	.0019	.0029	.0000	.0001	.0007	-.0006	.0024	.0412
#3	.0063	.0016	.0016	-.0005	-.0001	.0016	.0004	.0031	.0453

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0096**	**.0096**	**.1253**	**.0894**	**.0051**	**.0005**	**.0113**	**-.0017**	**.0003**
Stddev	.0025	.0072	.0403	.0028	.0003	.0002	.0012	.0008	.0001
%RSD	26.37	75.15	32.19	3.104	6.706	32.56	10.61	43.88	32.21
#1	.0124	.0133	.1399	.0865	.0049	.0004	.0106	-.0024	.0003
#2	.0092	.0013	.0797	.0897	.0055	.0004	.0106	-.0009	.0003
#3	.0074	.0143	.1563	.0921	.0050	.0007	.0127	-.0019	.0002

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0025**	**.0041**	**.0026**	**.0005**	**.0007**	**.0017**	**-.0021**
Stddev	.0002	.0006	.0001	.0008	.0019	.0013	.0030
%RSD	7.386	15.68	2.757	186.6	281.6	75.60	142.9
#1	-.0023	.0038	.0026	.0009	-.0000	.0002	-.0030
#2	-.0025	.0036	.0025	.0009	-.0008	.0023	-.0046
#3	-.0027	.0048	.0026	-.0005	.0028	.0025	.0012

Zoom In Zoom Out

Sample Name: CRCONF Acquired: 5/3/2019 12:51:04 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	152070.	27773.	6277.8	10022.
Stddev	640.	68.	12.4	13.
%RSD	.42072	.24616	.19826	.13295
#1	152640.	27785.	6273.6	10022.
#2	151380.	27835.	6291.8	10036.
#3	152180.	27700.	6268.0	10009.

Zoom In Zoom Out

Sample Name: crid Acquired: 5/3/2019 12:56:20 Type: QC
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0041**	**.0009**	**.0010**	**.0029**	F **.0025**	F **.0006**	**.0032**	**.0045**
Stddev	.0002	.0000	.0001	.0001	.0001	.0004	.0000	.0001
%RSD	3.948	2.880	6.534	2.626	5.289	62.80	.4974	2.409
#1	.0039	.0009	.0010	.0030	.0026	.0004	.0032	.0044
#2	.0042	.0009	.0011	.0030	.0024	.0004	.0033	.0045
#3	.0040	.0009	.0010	.0028	.0026	.0010	.0032	.0046
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass
Value					.0020	.0020		
Range					20.00%	-20.00%		

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **-.0001**	F **.0015**	**.0102**	**.0030**	F **.0038**	F **-.0000**	F **.0036**	F **.0009**
Stddev	.0001	.0002	.0001	.0017	.0005	.0012	.0012	.0009
%RSD	142.4	12.80	.8813	56.69	12.31	2574.	33.94	93.65
#1	-.0003	.0016	.0102	.0038	.0042	-.0012	.0043	.0009
#2	-.0001	.0013	.0102	.0010	.0033	.0011	.0022	.0001
#3	.0000	.0016	.0104	.0041	.0040	.0001	.0043	.0019
Check ?	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Fail	Chk Fail
Value	.0020	.0020			.0020	.0025	.0050	.0030
Range	-20.00%	-20.00%			20.00%	-20.00%	-20.00%	-20.00%

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0945**	**1.035**	**.0035**	**.1095**	**2.115**	**1.127**	**.0042**	**.0002**
Stddev	.0011	.011	.0028	.0094	.042	.020	.0003	.0003
%RSD	1.120	1.011	79.80	8.583	1.963	1.774	6.981	188.3
#1	.0957	1.038	.0022	.1075	2.128	1.130	.0040	.0003
#2	.0938	1.044	.0016	.1197	2.148	1.146	.0041	.0003
#3	.0940	1.023	.0066	.1012	2.068	1.106	.0046	-.0002
Check ?	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	None	None
Value								
Range								

Zoom In Zoom Out

Sample Name: crid Acquired: 5/3/2019 12:56:20 Type: QC
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0014**	**-.0011**	**.0000**	**.0005**	**-.0005**	**.0000**	**.0012**	**.0001**
Stddev	.0003	.0005	.0001	.0002	.0006	.0001	.0020	.0012
%RSD	24.04	43.73	304.6	40.19	123.6	651.1	166.8	968.2
#1	.0016	-.0015	.0001	.0007	-.0008	-.0000	-.0011	-.0012
#2	.0010	-.0006	-.0001	.0004	.0002	.0001	.0025	.0006
#3	.0014	-.0012	.0001	.0004	-.0010	-.0000	.0021	.0010
Check ?	None	None	None	None	None	None	None	None
Value								
Range								

Elem	Li6707	P_1774
Units	ppm	ppm
Avg	**-.0007**	**.0007**
Stddev	.0007	.0007
%RSD	106.9	99.81
#1	-.0003	.0002
#2	-.0002	.0005
#3	-.0015	.0016
Check ?	None	None
Value		
Range		

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**151650.**	**27903.**	**6474.4**	**10019.**
Stddev	314.	274.	12.3	27.
%RSD	.20676	.98175	.19061	.26943
#1	151510.	27817.	6488.4	10049.
#2	152010.	27683.	6469.7	9996.7
#3	151430.	28210.	6465.1	10011.

Zoom In Zoom Out

Sample Name: ASCONF Acquired: 5/3/2019 13:01:28 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0000**	**-.0000**	**.0016**	**-.0001**	**.0003**	**.0005**	**.0000**	**.0001**	**-.0003**
Stddev	.0003	.0001	.0003	.0001	.0001	.0002	.0000	.0003	.0002
%RSD	1038.	345.4	17.93	77.05	27.00	49.36	39.31	343.1	76.40
#1	.0001	-.0001	.0013	-.0002	.0003	.0007	.0000	.0005	-.0000
#2	-.0004	.0000	.0016	-.0001	.0002	.0005	.0001	-.0000	-.0005
#3	.0002	.0000	.0019	-.0001	.0003	.0002	.0000	-.0002	-.0004

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**-.0001**	**5.140**	**.0002**	**-.0003**	**.0009**	**.0000**	**-.0103**	**-.0483**
Stddev	.0001	.0000	.002	.0008	.0005	.0019	.0005	.0084	.0005
%RSD	49.63	5.058	.0328	481.0	169.9	218.7	79260.	81.87	.9729
#1	-.0001	-.0001	5.139	-.0007	-.0008	.0010	-.0006	-.0148	-.0487
#2	-.0001	-.0001	5.141	.0003	-.0003	.0027	.0005	-.0155	-.0485
#3	-.0002	-.0001	5.138	.0009	.0002	-.0011	.0001	-.0006	-.0478

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0003**	**-.0011**	**.0499**	**.0443**	**.0025**	**-.0000**	**.0065**	**-.0009**	**.0000**
Stddev	.0005	.0072	.0334	.0122	.0003	.0001	.0010	.0002	.0000
%RSD	143.1	654.3	66.90	27.45	11.58	610.4	16.03	18.23	599.2
#1	-.0006	.0059	.0126	.0317	.0022	.0001	.0071	-.0007	-.0000
#2	-.0006	-.0007	.0771	.0453	.0026	-.0001	.0071	-.0010	.0001
#3	.0002	-.0085	.0601	.0559	.0028	-.0000	.0053	-.0010	-.0000

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**-.0010**	**.0001**	**.0019**	**-.0000**	**-.0004**	**.0059**
Stddev	.0002	.0006	.0001	.0010	.0011	.0012	.0014
%RSD	85.00	60.77	174.2	54.15	2432.	296.8	24.37
#1	.0003	-.0010	.0001	.0027	-.0011	.0010	.0073
#2	.0003	-.0004	.0002	.0022	.0010	-.0008	.0059
#3	.0000	-.0017	-.0001	.0007	-.0000	-.0014	.0045

Zoom In Zoom Out

Sample Name: ASCONF Acquired: 5/3/2019 13:01:28 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**152380.**	**27904.**	**6516.2**	**10118.**
Stddev	780.	208.	34.0	33.
%RSD	.51175	.74479	.52113	.32291
#1	152380.	27682.	6554.6	10156.
#2	151600.	27937.	6503.6	10101.
#3	153160.	28093.	6490.3	10098.

Zoom In Zoom Out

Sample Name: CCV Acquired: 5/3/2019 13:06:34 Type: QC
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.978**	**2.017**	**1.998**	**2.022**	**1.992**	**1.991**	**2.040**	**2.031**	**.2464**
Stddev	.002	.003	.001	.001	.002	.001	.018	.001	.0002
%RSD	.1180	.1421	.0653	.0512	.0884	.0550	.8897	.0432	.0970
#1	1.981	2.020	1.998	2.023	1.992	1.992	2.020	2.031	.2466
#2	1.976	2.014	1.999	2.021	1.991	1.990	2.047	2.030	.2465
#3	1.978	2.018	1.997	2.023	1.994	1.992	2.054	2.031	.2462
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.991**	**2.003**	**1.981**	**2.059**	**2.016**	**1.991**	**1.986**	**39.86**	**40.55**
Stddev	.002	.004	.002	.007	.001	.004	.004	.03	.05
%RSD	.1018	.1788	.1119	.3553	.0631	.2201	.1880	.0706	.1193
#1	1.989	2.007	1.983	2.062	2.017	1.987	1.983	39.88	40.60
#2	1.993	2.001	1.982	2.065	2.017	1.996	1.986	39.83	40.51
#3	1.990	2.001	1.979	2.051	2.015	1.990	1.990	39.86	40.52
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**40.61**	**40.60**	**39.87**	**40.63**	**2.061**	**1.999**	**5.253**	**2.002**	**2.057**
Stddev	.06	.03	.08	.03	.002	.002	.003	.003	.002
%RSD	.1434	.0798	.1978	.0628	.0731	.0937	.0602	.1522	.0855
#1	40.67	40.64	39.96	40.66	2.059	2.001	5.252	2.003	2.059
#2	40.55	40.60	39.82	40.61	2.061	1.999	5.257	2.004	2.056
#3	40.62	40.58	39.83	40.62	2.062	1.997	5.251	1.998	2.056
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: CCV Acquired: 5/3/2019 13:06:34 Type: QC
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.995**	**1.948**	**1.989**	**1.950**	**2.028**	**1.963**	**1.876**
Stddev	.002	.002	.001	.007	.001	.001	.004
%RSD	.0970	.0872	.0552	.3842	.0646	.0374	.2213
#1	1.993	1.949	1.988	1.953	2.027	1.963	1.878
#2	1.997	1.947	1.990	1.956	2.030	1.962	1.879
#3	1.996	1.950	1.989	1.942	2.028	1.964	1.872
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**143970.**	**27218.**	**6210.8**	**9111.5**
Stddev	178.	52.	12.1	15.8
%RSD	.12350	.19149	.19522	.17368
#1	144080.	27172.	6201.4	9105.9
#2	144060.	27209.	6206.5	9099.3
#3	143770.	27274.	6224.5	9129.4

Zoom In Zoom Out

Sample Name: CCB Acquired: 5/3/2019 13:11:36 Type: QC
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004**	**.0004**	**.0003**	**.0002**	**.0005**	**.0008**	**.0004**	**.0002**	**-.0003**
Stddev	.0002	.0000	.0001	.0002	.0001	.0002	.0000	.0001	.0003
%RSD	50.24	11.44	24.59	119.1	18.54	27.81	1.041	61.89	104.7
#1	.0005	.0004	.0004	.0004	.0006	.0011	.0004	.0003	.0000
#2	.0005	.0005	.0003	.0001	.0006	.0006	.0004	.0004	-.0003
#3	.0002	.0004	.0003	.0000	.0004	.0009	.0004	.0001	-.0006
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**-.0000**	**.0010**	**.0013**	**-.0004**	**.0013**	**.0005**	**-.0036**	**.0016**
Stddev	.0003	.0001	.0010	.0005	.0002	.0013	.0019	.0032	.0019
%RSD	144.9	312.7	102.8	40.29	39.36	97.11	352.7	89.09	120.0
#1	.0006	-.0001	.0020	.0014	-.0003	.0026	.0021	-.0058	-.0003
#2	.0001	-.0001	.0008	.0017	-.0004	.0012	.0011	.0001	.0035
#3	.0000	-.0001	.0001	.0007	-.0006	.0001	-.0016	-.0052	.0016
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0099**	**.0158**	**.0881**	**.0613**	**.0035**	**.0007**	**.0019**	**-.0003**	**.0005**
Stddev	.0009	.0024	.0314	.0122	.0004	.0001	.0014	.0001	.0001
%RSD	8.870	15.51	35.67	19.92	12.06	19.77	71.11	47.33	29.88
#1	.0109	.0164	.0652	.0736	.0032	.0006	.0010	-.0004	.0004
#2	.0098	.0179	.0753	.0611	.0033	.0008	.0035	-.0003	.0007
#3	.0091	.0131	.1240	.0492	.0040	.0006	.0013	-.0002	.0004
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: CCB Acquired: 5/3/2019 13:11:36 Type: QC
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004**	**-.0003**	**.0005**	**-.0011**	**-.0007**	**.0006**	**.0114**
Stddev	.0003	.0006	.0001	.0026	.0014	.0012	.0028
%RSD	74.97	207.1	11.93	235.6	204.8	211.2	24.56
#1	.0005	-.0008	.0005	-.0015	-.0019	-.0007	.0082
#2	.0000	.0003	.0005	.0017	-.0010	.0017	.0133
#3	.0005	-.0003	.0004	-.0035	.0009	.0006	.0126
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**151490.**	**27605.**	**6473.7**	**10058.**
Stddev	430.	115.	24.0	24.
%RSD	.28367	.41838	.37106	.23579
#1	151180.	27486.	6449.2	10031.
#2	151300.	27613.	6497.2	10075.
#3	151980.	27716.	6474.7	10069.

Zoom In Zoom Out

Sample Name: mp14736-m1conf Acquired: 5/3/2019 13:16:43 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**.0000**	**.0001**	**-.0001**	**.0012**	**.0015**	**.0003**	**.0005**	**-.0001**
Stddev	.0002	.0001	.0001	.0001	.0002	.0004	.0000	.0002	.0004
%RSD	211.2	13040.	144.0	54.07	15.82	27.57	12.62	31.27	290.5
#1	.0000	-.0000	.0003	-.0002	.0010	.0011	.0002	.0006	-.0002
#2	-.0003	.0001	.0000	-.0002	.0013	.0019	.0003	.0006	.0003
#3	.0000	-.0000	.0000	-.0001	.0013	.0016	.0003	.0003	-.0005

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0003**	**.0085**	**-.0002**	**.0006**	**.0001**	**.0015**	**.0007**	**.0001**	**.0480**
Stddev	.0001	.0003	.0002	.0006	.0005	.0005	.0004	.0061	.0018
%RSD	43.37	3.260	136.1	107.6	483.5	34.98	51.50	7642.	3.720
#1	-.0002	.0086	.0000	.0007	-.0003	.0021	.0005	.0022	.0460
#2	-.0002	.0087	-.0001	.0011	.0006	.0012	.0005	-.0067	.0492
#3	-.0004	.0082	-.0004	-.0001	-.0000	.0012	.0011	.0048	.0490

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0162**	**.0167**	**.0685**	**.1001**	**.0037**	**.0005**	**.0107**	**.0185**	**.0003**
Stddev	.0008	.0026	.0237	.0049	.0002	.0003	.0011	.0009	.0001
%RSD	4.758	15.90	34.57	4.932	4.579	64.61	9.909	4.866	24.51
#1	.0153	.0183	.0412	.0991	.0035	.0003	.0107	.0188	.0003
#2	.0165	.0136	.0838	.0957	.0038	.0009	.0118	.0192	.0003
#3	.0167	.0181	.0804	.1054	.0038	.0003	.0096	.0175	.0004

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0005**	**.0002**	**.0002**	**.0080**	**.0007**	**-.0001**	**.0294**
Stddev	.0003	.0006	.0002	.0024	.0009	.0012	.0021
%RSD	52.90	260.5	93.31	30.23	130.2	1309.	6.985
#1	.0003	.0006	.0004	.0105	.0018	.0002	.0271
#2	.0004	-.0004	.0003	.0076	.0002	-.0014	.0302
#3	.0008	.0005	-.0000	.0057	.0002	.0009	.0309

Zoom In Zoom Out

Sample Name: mp14736-m1conf Acquired: 5/3/2019 13:16:43 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**152550.**	**28138.**	**6622.5**	**10247.**
Stddev	410.	341.	174.2	230.
%RSD	.26867	1.2120	2.6309	2.2403
#1	152880.	28490.	6535.5	10137.
#2	152090.	28114.	6508.8	10092.
#3	152660.	27809.	6823.0	10511.

Zoom In Zoom Out

Sample Name: jc87123-14 7 Acquired: 5/3/2019 13:21:48 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3646**	**.0034**	**.0004**	**.0634**	**.1571**	**.1010**	**3.879**	**.1554**	**.0001**
Stddev	.0008	.0000	.0002	.0006	.0012	.0004	.033	.0006	.0010
%RSD	.2098	.7118	62.34	.8807	.7785	.4216	.8481	.3962	683.4
#1	.3641	.0034	.0006	.0635	.1584	.1009	3.891	.1551	.0001
#2	.3643	.0034	.0001	.0638	.1560	.1006	3.905	.1561	-.0008
#3	.3655	.0034	.0004	.0627	.1568	.1015	3.842	.1550	.0011

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1828**	**.3905**	**.0405**	**.0013**	**.0925**	**.0006**	**.0001**	**104.5**	**8.324**
Stddev	.0018	.0016	.0010	.0013	.0008	.0013	.0008	.2	.018
%RSD	.9759	.4080	2.574	101.3	.9014	206.5	812.9	.2108	.2185
#1	.1849	.3911	.0393	.0012	.0934	.0010	.0004	104.4	8.312
#2	.1818	.3917	.0407	.0025	.0917	-.0008	-.0009	104.4	8.317
#3	.1818	.3887	.0414	.0000	.0924	.0017	.0008	104.8	8.345

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**150.2**	**33.93**	**5.912**	**.5556**	**.0044**	**.0026**	**1.946**	**.0154**	**.0561**
Stddev	1.9	.08	.025	.0031	.0006	.0002	.003	.0004	.0002
%RSD	1.267	.2248	.4268	.5546	12.48	7.058	.1341	2.640	.3290
#1	149.1	33.87	5.886	.5526	.0039	.0029	1.949	.0150	.0560
#2	149.1	33.91	5.936	.5554	.0050	.0025	1.944	.0158	.0560
#3	152.4	34.02	5.913	.5587	.0045	.0026	1.944	.0155	.0563

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.272**	**-.0003**	**.0041**	**.9431**	**.1210**	**.1172**	**7.508**
Stddev	.026	.0011	.0001	.0027	.0024	.0022	.031
%RSD	.7897	386.4	2.118	.2892	2.016	1.870	.4106
#1	3.301	.0010	.0042	.9410	.1234	.1157	7.472
#2	3.253	-.0010	.0041	.9462	.1210	.1197	7.525
#3	3.260	-.0008	.0041	.9421	.1186	.1162	7.526

Zoom In Zoom Out

Sample Name: jc87123-14 7 Acquired: 5/3/2019 13:21:48 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**153120.**	**29459.**	**6668.5**	**9581.9**
Stddev	638.	85.	13.9	17.3
%RSD	.41691	.28967	.20821	.18022
#1	152630.	29552.	6653.7	9562.6
#2	153840.	29384.	6670.7	9587.0
#3	152880.	29441.	6681.2	9596.0

Zoom In Zoom Out

Sample Name: mp14721-mb1conf Acquired: 5/3/2019 13:27:02 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	**.0001**	**.0003**	**.0002**	**.0013**	**.0018**	**.0008**	**.0007**	**-.0001**
Stddev	.0003	.0001	.0001	.0001	.0001	.0002	.0000	.0002	.0003
%RSD	97.40	51.80	34.88	76.11	8.649	12.96	5.359	24.94	264.5
#1	-.0000	.0001	.0002	.0003	.0014	.0021	.0008	.0005	.0002
#2	.0005	.0001	.0003	.0002	.0012	.0016	.0007	.0008	-.0004
#3	.0004	.0002	.0004	.0000	.0013	.0017	.0007	.0007	-.0002

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0169**	**-.0002**	**.0017**	**.0001**	**.0004**	**.0013**	**.0058**	**.1664**
Stddev	.0002	.0001	.0003	.0004	.0009	.0017	.0014	.0073	.0015
%RSD	492.6	.7926	138.8	26.28	849.7	419.1	110.3	125.2	.9019
#1	-.0002	.0170	-.0006	.0012	.0003	-.0016	.0022	.0069	.1679
#2	.0001	.0170	.0001	.0017	-.0008	.0015	-.0004	.0125	.1649
#3	.0002	.0168	-.0003	.0021	.0009	.0013	.0020	-.0019	.1664

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0450**	**.0275**	**.0850**	**.1087**	**.0041**	**.0002**	**.0149**	**.0198**	**.0005**
Stddev	.0017	.0090	.0081	.0066	.0002	.0000	.0004	.0003	.0001
%RSD	3.671	32.76	9.525	6.029	4.039	17.99	2.649	1.431	19.64
#1	.0468	.0365	.0943	.1154	.0041	.0003	.0147	.0198	.0005
#2	.0447	.0276	.0793	.1083	.0042	.0002	.0153	.0201	.0004
#3	.0436	.0184	.0815	.1023	.0039	.0002	.0146	.0196	.0005

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0013**	**-.0006**	**.0002**	**.0141**	**.0012**	**-.0017**	**.0289**
Stddev	.0003	.0008	.0001	.0023	.0014	.0019	.0015
%RSD	23.70	127.2	65.98	16.47	115.6	112.8	5.286
#1	.0015	.0002	.0001	.0159	.0004	-.0019	.0278
#2	.0015	-.0014	.0001	.0149	.0004	.0003	.0282
#3	.0009	-.0006	.0003	.0115	.0028	-.0035	.0307

Zoom In Zoom Out

Sample Name: mp14721-mb1conf Acquired: 5/3/2019 13:27:02 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**152300.**	**27999.**	**6508.2**	**10109.**
Stddev	413.	54.	7.2	10.
%RSD	.27093	.19200	.11061	.09653
#1	152070.	28002.	6516.3	10120.
#2	152050.	27944.	6505.7	10107.
#3	152780.	28051.	6502.6	10101.

Zoom In Zoom Out

Sample Name: jc87093-1 Acquired: 5/3/2019 13:32:06 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.8311**	**.0051**	**.0111**	**.0736**	**.9291**	**.5285**	**4.452**	**.1583**	**.0058**
Stddev	.0014	.0001	.0003	.0004	.0024	.0011	.065	.0004	.0011
%RSD	.1646	1.466	2.651	.5936	.2629	.2136	1.450	.2675	18.84
#1	.8300	.0051	.0112	.0732	.9319	.5297	4.526	.1586	.0066
#2	.8327	.0051	.0114	.0741	.9282	.5275	4.417	.1578	.0046
#3	.8307	.0052	.0108	.0736	.9272	.5281	4.412	.1584	.0062

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1515**	**3.409**	**.2200**	**.0012**	**1.114**	**.0058**	**.0062**	**77.59**	**27.46**
Stddev	.0002	.005	.0022	.0018	.001	.0018	.0018	.08	.02
%RSD	.1185	.1520	1.014	143.5	.0409	31.49	28.22	.1079	.0802
#1	.1517	3.413	.2225	.0021	1.114	.0037	.0046	77.49	27.44
#2	.1515	3.411	.2184	.0024	1.115	.0067	.0059	77.65	27.48
#3	.1514	3.403	.2191	-.0008	1.114	.0070	.0081	77.61	27.45

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**246.8**	**24.13**	**9.692**	**1.100**	**.0402**	**.0085**	**2.451**	**.1715**	**.1615**
Stddev	3.5	.07	.027	.009	.0008	.0010	.029	.0006	.0002
%RSD	1.423	.2845	.2795	.8411	2.062	11.24	1.187	.3326	.1218
#1	249.9	24.17	9.674	1.105	.0397	.0096	2.471	.1717	.1614
#2	243.0	24.17	9.724	1.089	.0411	.0079	2.464	.1709	.1617
#3	247.6	24.05	9.679	1.106	.0396	.0080	2.417	.1720	.1613

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.158**	**-.0031**	**.0587**	**105.7**	**.0839**	**.0951**	**4.455**
Stddev	.003	.0016	.0002	.4	.0033	.0007	.004
%RSD	.1549	51.84	.4081	.3333	3.881	.6938	.0883
#1	2.158	-.0014	.0588	105.5	.0831	.0959	4.460
#2	2.162	-.0033	.0585	105.5	.0875	.0949	4.454
#3	2.155	-.0045	.0589	106.1	.0811	.0946	4.452

Zoom In Zoom Out

Sample Name: jc87093-1 Acquired: 5/3/2019 13:32:06 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**150910.**	**28778.**	**6563.8**	**9686.1**
Stddev	1029.	22.	12.0	11.6
%RSD	.68161	.07797	.18223	.11939
#1	149750.	28752.	6569.0	9694.8
#2	151270.	28795.	6550.1	9673.0
#3	151710.	28785.	6572.3	9690.5

Zoom In Zoom Out

Sample Name: jc87093-2 Acquired: 5/3/2019 13:37:17 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.425**	**.0087**	**.0153**	**.1551**	**1.439**	**1.025**	**6.177**	**.2538**	**.0115**
Stddev	.001	.0001	.0003	.0014	.004	.001	.045	.0003	.0003
%RSD	.0543	.7581	2.081	.9053	.2587	.1270	.7303	.1082	2.551
#1	1.424	.0086	.0155	.1564	1.437	1.023	6.221	.2537	.0111
#2	1.425	.0087	.0154	.1536	1.444	1.026	6.131	.2536	.0116
#3	1.425	.0087	.0149	.1552	1.437	1.025	6.180	.2541	.0117

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2316**	**5.535**	**.4138**	**.0042**	**2.003**	**.0095**	**.0043**	**124.0**	**25.80**
Stddev	.0010	.004	.0028	.0027	.006	.0027	.0024	.2	.03
%RSD	.4463	.0781	.6808	63.39	.3058	27.91	55.23	.1220	.1148
#1	.2316	5.534	.4159	.0072	2.007	.0083	.0065	123.8	25.76
#2	.2327	5.531	.4106	.0030	1.996	.0077	.0018	123.9	25.81
#3	.2306	5.539	.4148	.0024	2.006	.0126	.0045	124.1	25.82

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**268.2**	**28.12**	**12.81**	**2.077**	**.0411**	**.0077**	**1.881**	**.2513**	**.1690**
Stddev	2.8	.04	.09	.013	.0012	.0010	.009	.0000	.0001
%RSD	1.048	.1294	.6944	.6334	2.980	13.27	.4808	.0158	.0849
#1	264.9	28.08	12.73	2.078	.0407	.0071	1.889	.2513	.1691
#2	269.5	28.14	12.79	2.064	.0425	.0089	1.882	.2512	.1688
#3	270.0	28.14	12.91	2.090	.0402	.0071	1.871	.2513	.1690

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.388**	**-.0066**	**.0595**	**9.122**	**.0949**	**.1499**	**8.624**
Stddev	.005	.0025	.0002	.034	.0017	.0028	.005
%RSD	.2140	38.62	.3480	.3718	1.775	1.891	.0557
#1	2.387	-.0037	.0594	9.141	.0930	.1466	8.624
#2	2.393	-.0084	.0594	9.082	.0961	.1515	8.628
#3	2.383	-.0077	.0598	9.141	.0957	.1515	8.619

Zoom In Zoom Out

Sample Name: jc87093-2 Acquired: 5/3/2019 13:37:17 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**152560.**	**29040.**	**6614.3**	**9603.3**
Stddev	845.	243.	8.0	11.5
%RSD	.55369	.83526	.12112	.11947
#1	153040.	29318.	6623.4	9613.0
#2	151580.	28932.	6611.4	9606.2
#3	153050.	28871.	6608.2	9590.6

Zoom In Zoom Out

Sample Name: jc87093-3 Acquired: 5/3/2019 13:42:31 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4262**	**.0031**	**.0013**	**.0388**	**.2107**	**.2699**	**3.041**	**.1472**	**.0003**
Stddev	.0009	.0000	.0001	.0003	.0007	.0004	.048	.0014	.0002
%RSD	.2115	1.387	4.766	.8406	.3230	.1560	1.567	.9652	73.07
#1	.4256	.0031	.0014	.0387	.2111	.2694	3.023	.1465	.0005
#2	.4272	.0031	.0013	.0386	.2111	.2702	3.095	.1463	.0002
#3	.4257	.0032	.0013	.0392	.2099	.2700	3.005	.1489	.0001

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1093**	**.7422**	**.0377**	**.0003**	**.4176**	**.0003**	**.0023**	**34.15**	**24.15**
Stddev	.0005	.0065	.0009	.0011	.0036	.0025	.0001	.09	.06
%RSD	.4774	.8772	2.430	322.9	.8546	841.9	4.541	.2709	.2394
#1	.1087	.7384	.0384	-.0009	.4161	.0032	.0024	34.16	24.16
#2	.1097	.7386	.0379	.0012	.4149	-.0014	.0022	34.24	24.21
#3	.1094	.7498	.0366	.0007	.4216	-.0009	.0023	34.05	24.09

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**127.8**	**10.16**	**3.917**	**.9728**	**.0191**	**.0116**	**1.583**	**.0414**	**.2019**
Stddev	1.1	.03	.017	.0061	.0003	.0001	.020	.0002	.0004
%RSD	.8486	.3152	.4211	.6239	1.639	.9939	1.270	.4305	.1986
#1	128.9	10.17	3.913	.9786	.0194	.0117	1.570	.0413	.2015
#2	127.9	10.18	3.935	.9733	.0188	.0117	1.572	.0416	.2023
#3	126.7	10.12	3.903	.9665	.0192	.0115	1.606	.0413	.2019

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.655**	**-.0005**	**.0345**	**47.06**	**.0628**	**.0404**	**1.421**
Stddev	.003	.0012	.0001	.61	.0012	.0015	.020
%RSD	.1486	248.7	.2654	1.296	1.865	3.792	1.435
#1	1.655	.0006	.0345	46.79	.0641	.0405	1.405
#2	1.657	-.0017	.0345	46.62	.0618	.0419	1.414
#3	1.652	-.0003	.0344	47.75	.0626	.0389	1.444

Zoom In Zoom Out

Sample Name: jc87093-3 Acquired: 5/3/2019 13:42:31 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**152060.**	**28918.**	**6542.6**	**9664.5**
Stddev	1265.	211.	64.0	82.4
%RSD	.83190	.73010	.97836	.85255
#1	152750.	28690.	6568.4	9695.9
#2	150600.	28956.	6589.7	9726.5
#3	152840.	29107.	6469.7	9571.0

Zoom In Zoom Out

Sample Name: jc87093-4 Acquired: 5/3/2019 13:47:47 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.624**	**.0099**	**.0227**	**.1585**	**2.694**	**1.270**	**6.991**	**.2809**	**.0139**
Stddev	.011	.0000	.0003	.0003	.009	.003	.017	.0005	.0015
%RSD	.6792	.4552	1.287	.1795	.3496	.2448	.2443	.1633	10.97
#1	1.614	.0100	.0230	.1586	2.696	1.271	6.990	.2804	.0129
#2	1.622	.0099	.0224	.1588	2.702	1.273	7.008	.2811	.0132
#3	1.636	.0099	.0226	.1582	2.684	1.267	6.974	.2813	.0157

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2639**	**9.767**	**.8114**	**.0046**	**3.244**	**.0133**	**.0047**	**138.5**	**30.97**
Stddev	.0021	.013	.0036	.0016	.006	.0019	.0020	1.1	.22
%RSD	.7779	.1369	.4412	34.67	.1982	14.25	42.37	.7628	.6977
#1	.2636	9.762	.8078	.0061	3.237	.0126	.0045	137.6	30.82
#2	.2662	9.782	.8112	.0030	3.250	.0118	.0067	138.2	30.88
#3	.2621	9.757	.8150	.0047	3.245	.0154	.0028	139.7	31.22

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**243.8**	**30.84**	**13.81**	**2.119**	**.0483**	**.0083**	**2.076**	**.4298**	**.1833**
Stddev	6.0	.20	.08	.019	.0003	.0002	.007	.0026	.0010
%RSD	2.478	.6574	.5526	.8977	.5240	2.841	.3564	.5989	.5572
#1	239.0	30.70	13.74	2.111	.0480	.0084	2.085	.4270	.1825
#2	241.9	30.74	13.79	2.106	.0483	.0085	2.073	.4321	.1830
#3	250.6	31.07	13.89	2.141	.0485	.0080	2.071	.4303	.1844

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.513**	**-.0109**	**.0431**	**23.74**	**.1089**	**.1628**	**9.664**
Stddev	.004	.0024	.0003	.08	.0029	.0021	.030
%RSD	.1627	22.05	.6548	.3573	2.700	1.297	.3058
#1	2.517	-.0083	.0428	23.64	.1122	.1604	9.641
#2	2.514	-.0117	.0433	23.79	.1081	.1642	9.653
#3	2.509	-.0129	.0433	23.79	.1065	.1638	9.697

Zoom In Zoom Out

Sample Name: jc87093-4 Acquired: 5/3/2019 13:47:47 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**152920.**	**29046.**	**6699.9**	**9611.9**
Stddev	1375.	62.	3.7	8.1
%RSD	.89899	.21203	.05583	.08411
#1	152250.	29035.	6697.0	9618.1
#2	152020.	29113.	6704.1	9614.9
#3	154500.	28991.	6698.5	9602.8

Zoom In Zoom Out

Sample Name: jc87093-8 Acquired: 5/3/2019 13:53:00 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2111**	**.0135**	**.0074**	**.0696**	**.1624**	**2.319**	**3.190**	**.1512**	**.0009**
Stddev	.0011	.0000	.0001	.0005	.0016	.015	.027	.0009	.0021
%RSD	.5027	.3303	1.746	.7128	.9697	.6544	.8359	.5765	224.8
#1	.2116	.0135	.0074	.0693	.1629	2.311	3.184	.1503	.0028
#2	.2099	.0135	.0076	.0702	.1637	2.337	3.219	.1521	-.0014
#3	.2118	.0135	.0073	.0693	.1607	2.310	3.166	.1512	.0015

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1040**	**.9335**	**.0953**	**.0008**	**.6326**	**.0343**	**.0074**	**67.71**	**21.21**
Stddev	.0009	.0056	.0002	.0003	.0042	.0027	.0017	.17	.07
%RSD	.8693	.6044	.2530	41.64	.6560	7.979	22.75	.2476	.3138
#1	.1035	.9280	.0956	.0005	.6280	.0373	.0072	67.72	21.21
#2	.1050	.9393	.0953	.0012	.6359	.0320	.0058	67.54	21.15
#3	.1034	.9332	.0951	.0008	.6340	.0335	.0091	67.87	21.28

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**291.9**	**3.615**	**4.628**	**.6663**	**.0351**	**.0140**	**2.298**	**.0593**	**.1514**
Stddev	6.9	.028	.023	.0085	.0018	.0004	.006	.0011	.0005
%RSD	2.357	.7652	.4922	1.271	5.219	2.505	.2834	1.936	.3160
#1	295.2	3.632	4.630	.6620	.0350	.0139	2.302	.0580	.1516
#2	284.0	3.583	4.650	.6609	.0369	.0145	2.302	.0601	.1509
#3	296.6	3.629	4.604	.6761	.0332	.0138	2.291	.0598	.1518

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.7622**	**.0046**	**.0325**	**142.3**	**.0263**	**.0572**	**2.972**
Stddev	.0067	.0018	.0002	.8	.0039	.0036	.028
%RSD	.8789	39.97	.6866	.5753	14.99	6.212	.9519
#1	.7612	.0053	.0324	142.0	.0218	.0554	2.969
#2	.7693	.0059	.0324	143.2	.0291	.0613	3.002
#3	.7560	.0025	.0328	141.7	.0280	.0549	2.946

Zoom In Zoom Out

Sample Name: jc87093-8 Acquired: 5/3/2019 13:53:00 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**148350.**	**28025.**	**6445.2**	**9784.3**
Stddev	1020.	77.	22.6	35.7
%RSD	.68737	.27410	.34998	.36490
#1	148910.	28073.	6441.1	9781.1
#2	147180.	27936.	6425.0	9750.3
#3	148970.	28065.	6469.5	9821.5

Zoom In Zoom Out

Sample Name: jc87093-10 Acquired: 5/3/2019 13:58:08 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.447**	**.0265**	**.0005**	**.2366**	**.4818**	**.1620**	**3.017**	**1.251**	**-.0011**
Stddev	.005	.0002	.0001	.0004	.0007	.0009	.002	.002	.0013
%RSD	.3358	.7275	20.02	.1886	.1466	.5448	.0690	.1244	123.8
#1	1.442	.0265	.0006	.2366	.4812	.1628	3.014	1.249	-.0014
#2	1.447	.0263	.0004	.2370	.4826	.1622	3.018	1.252	.0004
#3	1.452	.0267	.0004	.2362	.4816	.1611	3.017	1.252	-.0022

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1387**	**2.038**	**.0472**	**-.0015**	**.1222**	**.0023**	**.0001**	**175.4**	**100.0**
Stddev	.0001	.003	.0010	.0036	.0017	.0025	.0018	.6	.3
%RSD	.0700	.1573	2.157	238.5	1.351	110.6	2878.	.3311	.3138
#1	.1388	2.035	.0463	-.0029	.1204	-.0006	-.0017	174.8	99.71
#2	.1386	2.041	.0483	.0026	.1236	.0041	.0019	175.4	100.1
#3	.1386	2.038	.0470	-.0043	.1227	.0032	-.0000	176.0	100.3

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**240.2**	**48.91**	**11.35**	**.8895**	**.0237**	**.0155**	**1.733**	**.0211**	**.8757**
Stddev	2.8	.17	.07	.0214	.0007	.0006	.004	.0006	.0016
%RSD	1.164	.3527	.5855	2.409	3.146	3.618	.2021	2.617	.1832
#1	238.7	48.79	11.28	.8899	.0241	.0156	1.729	.0213	.8741
#2	243.4	48.82	11.38	.8679	.0229	.0160	1.734	.0205	.8756
#3	238.5	49.11	11.40	.9107	.0242	.0149	1.736	.0216	.8774

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.781**	**.0004**	**.2338**	**121.7**	**.2170**	**.0161**	**2.108**
Stddev	.006	.0015	.0003	.2	.0038	.0029	.012
%RSD	.1020	335.0	.1483	.1343	1.774	17.94	.5782
#1	5.775	-.0004	.2335	121.6	.2127	.0160	2.099
#2	5.787	-.0004	.2336	121.5	.2202	.0132	2.104
#3	5.781	.0022	.2342	121.8	.2181	.0190	2.122

Zoom In Zoom Out

Sample Name: jc87093-10 Acquired: 5/3/2019 13:58:08 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**154940.**	**30028.**	**6815.4**	**9454.3**
Stddev	252.	107.	7.3	6.4
%RSD	.16274	.35644	.10692	.06724
#1	154740.	30050.	6819.0	9459.4
#2	154840.	30122.	6820.2	9456.3
#3	155220.	29911.	6807.0	9447.2

Zoom In Zoom Out

Sample Name: ccv Acquired: 5/3/2019 14:03:14 Type: QC
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.010**	**2.038**	**2.010**	**2.043**	**2.019**	**2.023**	**2.065**	**2.056**	**.2498**
Stddev	.002	.004	.002	.003	.002	.005	.018	.003	.0006
%RSD	.0847	.1994	.0752	.1507	.0741	.2474	.8529	.1587	.2426
#1	2.008	2.033	2.009	2.046	2.020	2.029	2.085	2.059	.2505
#2	2.011	2.039	2.012	2.042	2.020	2.020	2.051	2.054	.2496
#3	2.010	2.041	2.009	2.040	2.018	2.021	2.060	2.053	.2494
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.004**	**2.014**	**2.001**	**2.103**	**2.039**	**2.024**	**2.001**	**40.32**	**41.15**
Stddev	.002	.001	.002	.002	.003	.004	.003	.07	.06
%RSD	.0842	.0544	.0726	.1053	.1221	.1973	.1313	.1786	.1356
#1	2.002	2.015	1.999	2.101	2.041	2.022	1.998	40.25	41.09
#2	2.004	2.014	2.002	2.101	2.038	2.028	2.002	40.33	41.20
#3	2.005	2.013	2.001	2.105	2.037	2.020	2.003	40.39	41.16
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**41.12**	**40.80**	**40.39**	**41.05**	**2.075**	**2.024**	**5.301**	**2.013**	**2.086**
Stddev	.02	.03	.03	.04	.003	.002	.003	.004	.000
%RSD	.0593	.0754	.0769	.0886	.1645	.0820	.0497	.1893	.0196
#1	41.11	40.77	40.35	41.09	2.071	2.025	5.298	2.017	2.087
#2	41.15	40.80	40.42	41.04	2.078	2.025	5.303	2.014	2.087
#3	41.11	40.83	40.39	41.02	2.075	2.022	5.301	2.009	2.086
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ccv Acquired: 5/3/2019 14:03:14 Type: QC
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.022**	**1.971**	**2.006**	**1.996**	**2.061**	**1.969**	**2.007**
Stddev	.001	.002	.003	.004	.003	.001	.015
%RSD	.0583	.1126	.1559	.1792	.1382	.0594	.7244
#1	2.021	1.972	2.004	1.994	2.058	1.968	1.995
#2	2.022	1.972	2.004	2.000	2.063	1.971	2.004
#3	2.024	1.968	2.009	1.993	2.063	1.969	2.023
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**142340.**	**27141.**	**6220.3**	**9087.2**
Stddev	619.	56.	18.0	22.4
%RSD	.43497	.20702	.28875	.24601
#1	141920.	27205.	6241.0	9112.9
#2	142060.	27118.	6209.5	9077.3
#3	143050.	27100.	6210.3	9071.6

Zoom In Zoom Out

Sample Name: ccb Acquired: 5/3/2019 14:08:16 Type: QC
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0001**	**.0003**	**.0003**	**.0002**	**.0005**	**.0002**	**.0003**	**-.0001**
Stddev	.0003	.0000	.0001	.0003	.0003	.0003	.0000	.0003	.0004
%RSD	169.1	33.34	21.18	107.4	202.5	53.96	24.37	80.63	337.9
#1	-.0000	.0001	.0003	.0005	-.0002	.0006	.0002	.0000	.0001
#2	.0006	.0001	.0004	-.0001	.0005	.0002	.0002	.0004	-.0005
#3	.0001	.0001	.0003	.0004	.0002	.0007	.0001	.0006	.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0000**	**-.0001**	**.0001**	**.0008**	**.0000**	**.0012**	**.0011**	**-.0104**	**-.0036**
Stddev	.0003	.0000	.0005	.0009	.0003	.0013	.0004	.0036	.0004
%RSD	672.4	32.33	344.3	119.7	660.8	111.7	41.22	35.16	10.77
#1	.0001	-.0001	-.0003	.0007	.0003	.0026	.0013	-.0072	-.0037
#2	.0001	-.0002	.0006	.0017	-.0000	.0009	.0013	-.0096	-.0032
#3	-.0003	-.0001	.0001	-.0001	-.0002	.0000	.0006	-.0143	-.0040
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0022**	**.0009**	**.1225**	**.0463**	**.0022**	**.0003**	**.0008**	**-.0002**	**.0001**
Stddev	.0020	.0121	.0443	.0026	.0006	.0002	.0010	.0002	.0001
%RSD	91.47	1375.	36.16	5.586	24.74	53.72	126.2	77.83	69.98
#1	.0045	.0097	.1219	.0441	.0026	.0002	.0020	-.0003	.0000
#2	.0006	.0059	.1671	.0492	.0025	.0005	.0006	-.0000	.0002
#3	.0016	-.0130	.0785	.0457	.0016	.0002	-.0001	-.0003	.0002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: ccb Acquired: 5/3/2019 14:08:16 Type: QC
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0005**	**.0004**	**.0003**	**.0005**	**.0002**	**.0001**	**.0064**
Stddev	.0002	.0017	.0002	.0002	.0008	.0012	.0013
%RSD	45.83	470.0	83.70	42.71	340.4	1957.	19.75
#1	.0003	.0023	.0004	.0004	.0004	-.0010	.0069
#2	.0007	-.0004	.0003	.0008	.0009	-.0002	.0074
#3	.0005	-.0008	.0000	.0004	-.0006	.0013	.0050
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**150500.**	**27383.**	**6442.3**	**9989.1**
Stddev	362.	193.	16.6	25.4
%RSD	.24035	.70510	.25840	.25448
#1	150820.	27160.	6425.2	9969.4
#2	150570.	27484.	6443.4	9980.1
#3	150110.	27504.	6458.4	10018.

Zoom In Zoom Out

Sample Name: jc87093-11 Acquired: 5/3/2019 14:13:25 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5663**	**.0033**	**.0032**	**.0523**	**.4143**	**.2668**	**2.332**	**.1013**	**.0021**
Stddev	.0011	.0001	.0001	.0001	.0016	.0011	.021	.0004	.0002
%RSD	.1931	1.504	2.934	.1565	.3823	.3941	.9234	.4099	9.962
#1	.5671	.0034	.0032	.0522	.4126	.2656	2.309	.1009	.0020
#2	.5667	.0033	.0032	.0524	.4157	.2674	2.336	.1017	.0019
#3	.5650	.0034	.0033	.0523	.4145	.2674	2.351	.1014	.0023

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0976**	**1.378**	**.0826**	**.0022**	**.6820**	**.0002**	**.0025**	**53.16**	**15.10**
Stddev	.0004	.004	.0023	.0009	.0030	.0018	.0017	.10	.02
%RSD	.4129	.2992	2.790	38.49	.4460	808.9	68.05	.1955	.1098
#1	.0973	1.374	.0800	.0032	.6788	-.0013	.0012	53.24	15.12
#2	.0980	1.379	.0834	.0021	.6823	.0022	.0018	53.21	15.11
#3	.0975	1.382	.0844	.0015	.6848	-.0002	.0044	53.04	15.08

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**104.4**	**16.86**	**6.858**	**.9523**	**.0271**	**.0034**	**1.697**	**.0974**	**.0818**
Stddev	.1	.01	.011	.0075	.0002	.0002	.006	.0004	.0002
%RSD	.1272	.0497	.1633	.7823	.7083	5.548	.3612	.3745	.2553
#1	104.5	16.86	6.849	.9437	.0273	.0032	1.690	.0971	.0818
#2	104.5	16.86	6.870	.9567	.0269	.0034	1.701	.0979	.0819
#3	104.3	16.87	6.854	.9565	.0271	.0036	1.701	.0973	.0815

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.688**	**-.0025**	**.0376**	**8.994**	**.0614**	**.0823**	**3.436**
Stddev	.006	.0010	.0003	.051	.0016	.0013	.030
%RSD	.3446	40.49	.7730	.5641	2.616	1.606	.8706
#1	1.682	-.0013	.0374	8.936	.0596	.0838	3.402
#2	1.694	-.0031	.0379	9.026	.0619	.0814	3.446
#3	1.688	-.0031	.0374	9.022	.0627	.0816	3.460

Zoom In Zoom Out

Sample Name: jc87093-11 Acquired: 5/3/2019 14:13:25 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**153980.**	**29080.**	**6650.1**	**9634.7**
Stddev	784.	23.	32.4	37.2
%RSD	.50944	.07905	.48713	.38632
#1	154760.	29100.	6684.5	9675.4
#2	153190.	29055.	6645.6	9626.5
#3	153990.	29086.	6620.2	9602.3

Zoom In Zoom Out

Sample Name: jc87232-1 Acquired: 5/3/2019 14:18:33 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3547**	**.0094**	**.0007**	**.0698**	**.2598**	**.0432**	**.8108**	**.1654**	**-.0014**
Stddev	.0008	.0001	.0002	.0005	.0008	.0017	.0031	.0007	.0013
%RSD	.2121	.5372	29.13	.6451	.3071	3.850	.3803	.4335	90.98
#1	.3556	.0094	.0009	.0700	.2590	.0425	.8087	.1657	-.0013
#2	.3543	.0094	.0006	.0702	.2600	.0451	.8094	.1660	-.0002
#3	.3544	.0093	.0005	.0693	.2606	.0419	.8144	.1646	-.0027

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2699**	**.4770**	**.1307**	**-.0007**	**.0678**	**.0029**	**.0005**	**123.2**	**20.30**
Stddev	.0013	.0024	.0021	.0016	.0021	.0019	.0020	.3	.04
%RSD	.4994	.4952	1.602	223.2	3.089	65.10	385.6	.2410	.2020
#1	.2683	.4762	.1291	-.0020	.0683	.0023	-.0010	123.5	20.34
#2	.2704	.4797	.1331	-.0012	.0696	.0050	-.0003	123.0	20.27
#3	.2709	.4752	.1300	.0011	.0655	.0014	.0028	123.0	20.28

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**372.1**	**34.25**	**51.55**	**2.156**	**.3084**	**.0467**	**1.991**	**.0204**	**.1458**
Stddev	4.6	.06	.11	.008	.0005	.0007	.004	.0007	.0003
%RSD	1.232	.1826	.2067	.3711	.1781	1.506	.2045	3.579	.1881
#1	372.5	34.32	51.68	2.158	.3089	.0466	1.987	.0210	.1461
#2	376.4	34.20	51.49	2.147	.3085	.0475	1.992	.0206	.1460
#3	367.3	34.23	51.49	2.162	.3078	.0461	1.995	.0196	.1455

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.313**	**-.0024**	**.0659**	**77.56**	**.0450**	**.2648**	**4.114**
Stddev	.004	.0012	.0002	.43	.0017	.0053	.034
%RSD	.2772	48.85	.3233	.5494	3.754	2.012	.8209
#1	1.310	-.0035	.0659	77.31	.0435	.2661	4.076
#2	1.312	-.0012	.0661	78.06	.0446	.2589	4.137
#3	1.317	-.0025	.0657	77.32	.0468	.2693	4.131

Zoom In Zoom Out

Sample Name: jc87232-1 Acquired: 5/3/2019 14:18:33 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**147680.**	**28271.**	**6479.0**	**9581.8**
Stddev	876.	120.	16.4	19.7
%RSD	.59298	.42509	.25363	.20566
#1	147400.	28141.	6497.0	9602.1
#2	148660.	28295.	6464.8	9562.7
#3	146980.	28378.	6475.2	9580.7

Zoom In Zoom Out

Sample Name: jc87232-2 Acquired: 5/3/2019 14:23:40 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3360**	**.0104**	**.0011**	**.0919**	**.2682**	**.0501**	**.8152**	**.2069**	**.0003**
Stddev	.0005	.0001	.0001	.0002	.0017	.0003	.0023	.0011	.0008
%RSD	.1494	.7682	11.23	.2560	.6196	.5082	.2775	.5190	289.2
#1	.3357	.0105	.0012	.0921	.2686	.0503	.8167	.2057	.0012
#2	.3358	.0104	.0010	.0916	.2697	.0502	.8163	.2079	.0000
#3	.3366	.0104	.0012	.0920	.2664	.0498	.8126	.2070	-.0004

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2652**	**.5701**	**.1034**	**-.0020**	**.0662**	**.0014**	**.0013**	**112.0**	**18.83**
Stddev	.0008	.0003	.0030	.0015	.0014	.0027	.0013	.1	.04
%RSD	.2929	.0603	2.944	78.31	2.043	195.2	101.7	.1229	.2101
#1	.2657	.5699	.1049	-.0035	.0670	.0039	.0024	112.1	18.87
#2	.2656	.5705	.1054	-.0004	.0646	.0016	-.0001	111.8	18.79
#3	.2643	.5698	.0999	-.0019	.0669	-.0014	.0015	112.1	18.83

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**273.7**	**36.65**	**58.00**	**2.406**	**.3543**	**.0270**	**2.016**	**.0204**	**.1303**
Stddev	2.5	.12	.06	.013	.0028	.0002	.005	.0006	.0003
%RSD	.9273	.3333	.1018	.5492	.7917	.5655	.2739	2.819	.2020
#1	276.3	36.77	58.04	2.418	.3511	.0271	2.015	.0198	.1301
#2	271.2	36.65	58.03	2.392	.3554	.0269	2.011	.0207	.1303
#3	273.5	36.53	57.93	2.407	.3564	.0269	2.022	.0208	.1306

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.285**	**-.0034**	**.0802**	**66.03**	**.0396**	**.2550**	**3.820**
Stddev	.003	.0003	.0001	.20	.0023	.0013	.036
%RSD	.2282	8.779	.0656	.3039	5.928	.5042	.9317
#1	1.287	-.0035	.0802	66.21	.0371	.2560	3.850
#2	1.286	-.0037	.0802	66.07	.0399	.2535	3.829
#3	1.282	-.0031	.0801	65.81	.0418	.2554	3.780

Zoom In Zoom Out

Sample Name: jc87232-2 Acquired: 5/3/2019 14:23:40 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**149230.**	**28479.**	**6542.3**	**9563.3**
Stddev	1430.	231.	11.1	17.9
%RSD	.95844	.81018	.16987	.18747
#1	147770.	28245.	6540.8	9565.0
#2	149270.	28485.	6554.0	9580.3
#3	150630.	28707.	6532.0	9544.6

Zoom In Zoom Out

Sample Name: jc87232-4 Acquired: 5/3/2019 14:28:44 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2026**	**.0075**	**.0002**	**.0647**	**.2034**	**.0269**	**.6577**	**.1284**	**-.0007**
Stddev	.0002	.0001	.0002	.0003	.0007	.0007	.0008	.0001	.0007
%RSD	.1122	1.803	79.37	.4973	.3383	2.747	.1196	.0972	97.52
#1	.2024	.0073	.0004	.0645	.2027	.0273	.6570	.1286	-.0015
#2	.2025	.0075	.0001	.0651	.2034	.0274	.6585	.1284	-.0003
#3	.2029	.0076	.0002	.0645	.2041	.0261	.6574	.1284	-.0003

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2046**	**.4666**	**.0530**	**-.0008**	**.0411**	**-.0006**	**.0003**	**71.40**	**7.352**
Stddev	.0003	.0003	.0020	.0018	.0011	.0007	.0013	.11	.005
%RSD	.1644	.0628	3.750	218.3	2.790	121.6	389.5	.1501	.0708
#1	.2048	.4664	.0517	-.0010	.0418	-.0002	.0017	71.29	7.350
#2	.2043	.4669	.0553	.0010	.0398	-.0014	-.0000	71.43	7.348
#3	.2049	.4665	.0520	-.0025	.0418	-.0001	-.0007	71.50	7.358

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**180.1**	**26.38**	**44.00**	**2.128**	**.2912**	**.0086**	**1.899**	**.0206**	**.0572**
Stddev	2.3	.05	.05	.002	.0017	.0002	.006	.0007	.0001
%RSD	1.249	.1801	.1029	.1097	.5691	1.929	.3095	3.436	.1705
#1	177.9	26.41	43.95	2.126	.2916	.0086	1.892	.0199	.0573
#2	182.4	26.39	44.04	2.130	.2893	.0088	1.903	.0213	.0571
#3	179.9	26.32	44.01	2.130	.2925	.0085	1.900	.0206	.0573

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.429**	**-.0014**	**.0769**	**32.57**	**.0488**	**.1126**	**.8182**
Stddev	.003	.0010	.0002	.17	.0004	.0011	.0031
%RSD	.2175	68.59	.3020	.5180	.8400	.9874	.3741
#1	1.431	-.0008	.0766	32.39	.0484	.1114	.8180
#2	1.431	-.0025	.0770	32.61	.0492	.1128	.8152
#3	1.426	-.0009	.0770	32.71	.0489	.1136	.8213

Zoom In Zoom Out

Sample Name: jc87232-4 Acquired: 5/3/2019 14:28:44 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**149490.**	**28591.**	**6534.9**	**9452.9**
Stddev	715.	93.	13.5	27.6
%RSD	.47841	.32402	.20677	.29247
#1	150310.	28599.	6543.8	9475.0
#2	149020.	28679.	6541.6	9461.7
#3	149140.	28494.	6519.4	9421.9

Zoom In Zoom Out

Sample Name: jc87232-6 Acquired: 5/3/2019 14:33:48 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2742**	**.0094**	**.0010**	**.0860**	**.2482**	**.0419**	**.8224**	**.1970**	**-.0027**
Stddev	.0048	.0002	.0004	.0015	.0037	.0008	.0049	.0014	.0012
%RSD	1.753	2.122	41.16	1.752	1.472	1.932	.5961	.6880	43.85
#1	.2704	.0092	.0008	.0846	.2445	.0421	.8169	.1962	-.0021
#2	.2726	.0093	.0014	.0858	.2483	.0426	.8243	.1962	-.0019
#3	.2796	.0096	.0007	.0876	.2518	.0410	.8262	.1985	-.0041

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2600**	**.6132**	**.1078**	**-.0018**	**.0725**	**.0006**	**-.0000**	**99.17**	**11.51**
Stddev	.0014	.0042	.0005	.0012	.0004	.0037	.0012	1.57	.17
%RSD	.5298	.6771	.4636	65.98	.5310	642.0	3403.	1.583	1.518
#1	.2584	.6093	.1074	-.0022	.0721	.0006	-.0003	97.81	11.37
#2	.2607	.6127	.1084	-.0004	.0726	.0042	.0012	98.82	11.46
#3	.2608	.6176	.1077	-.0026	.0728	-.0031	-.0011	100.9	11.71

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**243.5**	**33.81**	**51.05**	**1.637**	**.3288**	**.0422**	**2.201**	**.0202**	**.0833**
Stddev	3.3	.56	.83	.016	.0043	.0007	.020	.0009	.0011
%RSD	1.335	1.658	1.636	.9995	1.306	1.542	.9100	4.553	1.290
#1	243.9	33.27	50.38	1.622	.3248	.0419	2.190	.0193	.0823
#2	246.6	33.76	50.79	1.633	.3284	.0418	2.188	.0211	.0831
#3	240.1	34.39	51.99	1.654	.3333	.0430	2.224	.0200	.0844

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.477**	**-.0009**	**.0854**	**70.02**	**.0537**	**.2079**	**1.323**
Stddev	.011	.0008	.0004	.78	.0042	.0017	.027
%RSD	.7552	89.01	.4634	1.108	7.902	.8110	2.021
#1	1.465	-.0008	.0850	69.29	.0516	.2062	1.296
#2	1.480	-.0018	.0855	69.93	.0509	.2080	1.322
#3	1.487	-.0002	.0857	70.84	.0586	.2096	1.349

Zoom In Zoom Out

Sample Name: jc87232-6 Acquired: 5/3/2019 14:33:48 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**148290.**	**28299.**	**6469.2**	**9468.7**
Stddev	485.	103.	23.3	29.9
%RSD	.32704	.36234	.35984	.31622
#1	148670.	28184.	6476.7	9474.0
#2	147750.	28382.	6487.9	9495.6
#3	148460.	28331.	6443.1	9436.4

Zoom In Zoom Out

Sample Name: jc87232-7 Acquired: 5/3/2019 14:38:48 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3303**	**.0101**	**.0008**	**.0847**	**.2704**	**.0507**	**.8826**	**.1947**	**-.0001**
Stddev	.0007	.0001	.0004	.0002	.0009	.0009	.0004	.0004	.0006
%RSD	.2220	1.426	47.40	.2644	.3508	1.741	.0441	.2064	889.4
#1	.3297	.0099	.0012	.0845	.2706	.0516	.8830	.1944	.0006
#2	.3300	.0102	.0005	.0849	.2713	.0506	.8825	.1945	-.0006
#3	.3311	.0102	.0007	.0847	.2694	.0498	.8822	.1952	-.0003

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2661**	**.5428**	**.1060**	**.0006**	**.0713**	**-.0016**	**.0028**	**111.1**	**18.60**
Stddev	.0005	.0004	.0007	.0016	.0016	.0057	.0052	.3	.05
%RSD	.1882	.0825	.6923	268.5	2.309	344.8	189.8	.2933	.2882
#1	.2662	.5432	.1061	-.0004	.0720	.0032	-.0015	110.9	18.56
#2	.2666	.5423	.1053	.0024	.0724	-.0079	.0086	111.0	18.59
#3	.2656	.5430	.1067	-.0002	.0694	-.0003	.0011	111.5	18.66

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**267.5**	**35.78**	**54.97**	**1.633**	**.3354**	**.0259**	**2.215**	**.0201**	**.1263**
Stddev	4.4	.04	.17	.008	.0022	.0004	.006	.0005	.0001
%RSD	1.634	.1003	.3131	.5052	.6529	1.579	.2565	2.709	.0834
#1	272.5	35.76	54.90	1.626	.3355	.0264	2.214	.0195	.1263
#2	264.2	35.76	54.84	1.642	.3331	.0260	2.210	.0206	.1261
#3	265.9	35.82	55.16	1.630	.3375	.0255	2.221	.0201	.1263

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.394**	**-.0000**	**.0790**	**68.20**	**.0456**	**.2602**	**3.196**
Stddev	.002	.0003	.0007	.56	.0012	.0037	.005
%RSD	.1652	1711.	.9059	.8272	2.736	1.441	.1701
#1	1.392	.0000	.0798	68.44	.0463	.2644	3.200
#2	1.397	.0003	.0785	67.56	.0464	.2572	3.190
#3	1.394	-.0004	.0786	68.61	.0442	.2590	3.197

Zoom In Zoom Out

Sample Name: jc87232-7 Acquired: 5/3/2019 14:38:48 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**147110.**	**28255.**	**6501.5**	**9503.4**
Stddev	543.	201.	2.7	8.6
%RSD	.36939	.71144	.04183	.09025
#1	147480.	28118.	6501.5	9495.9
#2	146480.	28162.	6498.7	9501.5
#3	147350.	28486.	6504.2	9512.7

Zoom In Zoom Out

Sample Name: mp14646-sd1 Acquired: 5/3/2019 14:43:54 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2342**	**.0003**	**-.0004**	**.0111**	**.6789**	**.0517**	**3.981**	**.0125**	**-.0019**
Stddev	.0022	.0003	.0003	.0006	.0051	.0017	.044	.0012	.0012
%RSD	.9233	83.26	79.86	5.848	.7554	3.343	1.110	9.644	67.06
#1	.2319	.0000	-.0007	.0118	.6781	.0498	3.966	.0117	-.0026
#2	.2345	.0005	-.0003	.0110	.6844	.0532	4.031	.0118	-.0026
#3	.2362	.0004	-.0001	.0105	.6742	.0521	3.947	.0138	-.0004

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0166**	**.0581**	**.0103**	**.0068**	**.2013**	**.0050**	**.0123**	**6.573**	**282.9**
Stddev	.0023	.0008	.0018	.0052	.0071	.0052	.0066	.073	.4
%RSD	13.75	1.341	17.91	75.49	3.542	104.4	53.62	1.108	.1416
#1	.0191	.0573	.0083	.0051	.2010	-.0005	.0154	6.537	282.5
#2	.0163	.0580	.0119	.0127	.1943	.0099	.0168	6.525	283.1
#3	.0145	.0588	.0107	.0028	.2086	.0055	.0047	6.657	283.3

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**56.26**	**70.52**	**57.64**	**126.4**	**.2222**	**.0323**	**29.86**	**-.0092**	**.5153**
Stddev	.08	.19	.26	.0	.0024	.0002	.32	.0000	.0005
%RSD	.1454	.2758	.4461	.0327	1.075	.6109	1.072	.4870	.0919
#1	56.16	70.38	57.44	126.4	.2238	.0324	29.58	-.0092	.5148
#2	56.32	70.45	57.55	126.5	.2195	.0321	29.80	-.0092	.5157
#3	56.29	70.74	57.93	126.4	.2234	.0325	30.21	-.0091	.5154

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2463**	**.0013**	**.0075**	**61.79**	**.0082**	**.4851**	**1.050**
Stddev	.0021	.0011	.0012	.66	.0074	.0025	.010
%RSD	.8416	83.22	16.25	1.063	90.10	.5212	.9796
#1	.2462	.0024	.0067	61.12	.0167	.4879	1.045
#2	.2484	.0014	.0089	61.82	.0040	.4830	1.044
#3	.2443	.0002	.0068	62.44	.0039	.4844	1.062

Zoom In Zoom Out

Sample Name: mp14646-sd1 Acquired: 5/3/2019 14:43:54 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**147440.**	**27997.**	**6341.5**	**9336.9**
Stddev	1839.	64.	74.8	95.2
%RSD	1.2470	.22798	1.1794	1.0199
#1	148840.	28056.	6403.7	9413.6
#2	145350.	28005.	6362.3	9366.7
#3	148120.	27929.	6258.5	9230.3

Zoom In Zoom Out

Sample Name: mp14646-s1 Acquired: 5/3/2019 14:48:57 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.176**	**1.979**	**1.906**	**1.944**	**2.558**	**1.971**	**5.709**	**1.961**	**.2467**
Stddev	.009	.007	.007	.004	.012	.006	.083	.005	.0020
%RSD	.4207	.3472	.3754	.2290	.4799	.3115	1.453	.2501	.8082
#1	2.185	1.986	1.913	1.947	2.570	1.975	5.774	1.966	.2490
#2	2.177	1.978	1.907	1.946	2.559	1.974	5.739	1.963	.2453
#3	2.167	1.973	1.899	1.939	2.545	1.964	5.616	1.956	.2458

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.913**	**1.916**	**1.884**	**1.969**	**2.096**	**1.919**	**1.834**	**35.09**	**296.7**
Stddev	.006	.003	.006	.008	.005	.004	.011	.19	2.5
%RSD	.3238	.1618	.3206	.4030	.2262	.1834	.5963	.5494	.8337
#1	1.921	1.918	1.888	1.973	2.099	1.923	1.845	35.30	299.1
#2	1.910	1.917	1.887	1.975	2.099	1.918	1.833	35.07	297.0
#3	1.910	1.912	1.877	1.960	2.090	1.916	1.823	34.92	294.1

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**74.57**	**92.22**	**82.64**	**147.0**	**2.152**	**1.899**	**39.42**	**1.825**	**2.507**
Stddev	.31	.42	.26	.6	.012	.006	.21	.003	.009
%RSD	.4092	.4585	.3110	.4134	.5375	.3156	.5257	.1783	.3423
#1	74.84	92.55	82.87	147.5	2.164	1.901	39.64	1.828	2.515
#2	74.63	92.37	82.68	147.1	2.153	1.903	39.39	1.825	2.507
#3	74.24	91.75	82.36	146.3	2.141	1.892	39.22	1.821	2.498

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.012**	**1.778**	**1.871**	**59.62**	**.1093**	**.4808**	**2.905**
Stddev	.009	.007	.006	.18	.0006	.0035	.007
%RSD	.4278	.4194	.3356	.2959	.5577	.7362	.2449
#1	2.020	1.779	1.877	59.78	.1086	.4827	2.910
#2	2.013	1.784	1.872	59.65	.1098	.4830	2.907
#3	2.003	1.769	1.864	59.43	.1094	.4767	2.897

Zoom In Zoom Out

Sample Name: mp14646-s1 Acquired: 5/3/2019 14:48:57 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**141130.**	**27509.**	**6162.1**	**8835.8**
Stddev	307.	175.	6.6	11.4
%RSD	.21753	.63500	.10725	.12952
#1	140790.	27427.	6165.5	8836.0
#2	141390.	27390.	6154.5	8824.2
#3	141220.	27709.	6166.2	8847.1

Zoom In Zoom Out

Sample Name: mp14646-s2 Acquired: 5/3/2019 14:54:05 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.216**	**2.018**	**1.925**	**1.963**	**2.584**	**1.993**	**5.805**	**1.984**	**.2504**
Stddev	.013	.012	.001	.004	.011	.009	.091	.003	.0007
%RSD	.5976	.5974	.0653	.2109	.4120	.4622	1.576	.1618	.2610
#1	2.227	2.027	1.926	1.967	2.596	2.003	5.907	1.988	.2501
#2	2.220	2.022	1.926	1.963	2.577	1.990	5.780	1.982	.2511
#3	2.202	2.004	1.924	1.959	2.578	1.985	5.729	1.982	.2499

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.934**	**1.934**	**1.895**	**1.986**	**2.121**	**1.933**	**1.875**	**35.97**	**306.2**
Stddev	.011	.001	.004	.006	.005	.005	.004	.22	2.0
%RSD	.5501	.0728	.2398	.3145	.2432	.2448	.2214	.6122	.6552
#1	1.944	1.935	1.901	1.990	2.126	1.938	1.880	36.15	305.4
#2	1.935	1.934	1.893	1.989	2.121	1.931	1.873	36.03	308.5
#3	1.922	1.932	1.893	1.979	2.116	1.929	1.872	35.72	304.7

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**79.55**	**94.41**	**84.69**	**150.4**	**2.174**	**1.912**	**34.17**	**1.834**	**2.566**
Stddev	.56	.54	.54	1.1	.003	.003	.07	.005	.017
%RSD	.7040	.5751	.6345	.7480	.1469	.1609	.2030	.2677	.6677
#1	79.99	94.72	85.15	151.4	2.177	1.915	34.23	1.838	2.581
#2	79.73	94.72	84.83	150.8	2.172	1.913	34.20	1.835	2.570
#3	78.92	93.78	84.10	149.2	2.172	1.909	34.09	1.829	2.547

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.101**	**1.818**	**1.892**	**60.29**	**.1127**	**.4949**	**2.973**
Stddev	.013	.002	.011	.27	.0017	.0050	.008
%RSD	.6105	.0860	.5727	.4497	1.530	1.006	.2675
#1	2.113	1.818	1.903	60.53	.1121	.5003	2.978
#2	2.102	1.820	1.893	60.34	.1114	.4938	2.977
#3	2.088	1.817	1.881	60.00	.1147	.4905	2.964

Zoom In Zoom Out

Sample Name: mp14646-s2 Acquired: 5/3/2019 14:54:05 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**141780.**	**27638.**	**6169.7**	**8815.9**
Stddev	75.	137.	12.6	10.8
%RSD	.05317	.49604	.20425	.12286
#1	141820.	27789.	6184.1	8828.3
#2	141820.	27522.	6164.5	8811.2
#3	141690.	27604.	6160.6	8808.2

Zoom In Zoom Out

Sample Name: ccv Acquired: 5/3/2019 14:59:15 Type: QC
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.025**	**2.051**	**2.025**	**2.056**	**2.017**	**2.034**	**2.071**	**2.075**	**.2509**
Stddev	.002	.001	.004	.004	.007	.008	.012	.005	.0010
%RSD	.0858	.0429	.1799	.2110	.3274	.4004	.5626	.2354	.3965
#1	2.025	2.050	2.028	2.056	2.024	2.042	2.075	2.074	.2515
#2	2.026	2.052	2.021	2.051	2.016	2.032	2.080	2.070	.2515
#3	2.023	2.052	2.024	2.060	2.010	2.026	2.057	2.080	.2498
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.005**	**2.023**	**2.022**	**2.117**	**2.050**	**2.042**	**2.019**	**40.57**	**41.44**
Stddev	.007	.004	.008	.009	.001	.005	.002	.03	.04
%RSD	.3667	.1857	.4067	.4348	.0651	.2627	.0883	.0792	.1085
#1	2.012	2.025	2.024	2.113	2.048	2.043	2.021	40.55	41.39
#2	2.005	2.019	2.013	2.111	2.049	2.036	2.018	40.61	41.48
#3	1.997	2.026	2.029	2.128	2.051	2.047	2.018	40.55	41.44
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**41.39**	**40.92**	**40.52**	**41.22**	**2.099**	**2.045**	**5.359**	**2.022**	**2.106**
Stddev	.05	.12	.07	.03	.007	.005	.013	.004	.003
%RSD	.1253	.2968	.1630	.0769	.3332	.2619	.2344	.1897	.1270
#1	41.34	40.80	40.46	41.18	2.106	2.046	5.370	2.022	2.105
#2	41.44	40.92	40.59	41.24	2.092	2.039	5.345	2.019	2.109
#3	41.41	41.04	40.52	41.23	2.099	2.050	5.361	2.026	2.105
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ccv Acquired: 5/3/2019 14:59:15 Type: QC
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.033**	**1.994**	**2.010**	**2.023**	**2.089**	**1.972**	**2.118**
Stddev	.009	.004	.007	.008	.003	.003	.025
%RSD	.4232	.2039	.3580	.3949	.1497	.1670	1.173
#1	2.041	1.992	2.017	2.019	2.092	1.969	2.104
#2	2.034	1.991	2.010	2.017	2.089	1.975	2.104
#3	2.024	1.999	2.003	2.032	2.086	1.972	2.147
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**143330.**	**27318.**	**6178.8**	**9015.1**
Stddev	770.	205.	12.1	12.1
%RSD	.53705	.74996	.19541	.13404
#1	142510.	27443.	6165.4	9003.0
#2	143440.	27428.	6182.0	9015.0
#3	144040.	27081.	6188.9	9027.2

Zoom In Zoom Out

Sample Name: ccb Acquired: 5/3/2019 15:04:17 Type: QC
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0001**	**.0003**	**.0001**	**.0003**	**.0007**	**.0003**	**.0002**	**.0000**
Stddev	.0002	.0001	.0001	.0001	.0002	.0001	.0001	.0003	.0004
%RSD	90.56	77.15	18.20	95.81	69.46	17.48	17.41	164.3	3052.
#1	.0001	.0001	.0003	.0002	.0002	.0008	.0003	-.0001	-.0004
#2	.0001	.0000	.0002	-.0000	.0001	.0006	.0003	.0004	.0005
#3	.0004	.0002	.0003	.0003	.0005	.0007	.0004	.0002	-.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**-.0001**	**.0005**	**.0007**	**.0003**	**.0016**	**.0002**	**-.0071**	**-.0023**
Stddev	.0002	.0001	.0022	.0007	.0006	.0007	.0013	.0057	.0011
%RSD	127.5	79.72	405.1	101.0	232.5	41.65	508.7	79.61	49.32
#1	-.0002	-.0000	-.0020	.0009	-.0003	.0012	-.0012	-.0090	-.0027
#2	-.0002	-.0002	.0017	-.0001	.0009	.0024	.0009	-.0117	-.0032
#3	.0001	-.0001	.0018	.0014	.0002	.0013	.0011	-.0008	-.0010
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0040**	**.0120**	**.1900**	**.0938**	**.0028**	**.0005**	**.0043**	**-.0006**	**.0002**
Stddev	.0019	.0074	.0288	.0080	.0002	.0001	.0006	.0003	.0001
%RSD	46.29	62.23	15.15	8.535	6.764	25.57	13.36	43.19	40.46
#1	.0061	.0185	.1856	.0875	.0027	.0004	.0037	-.0009	.0002
#2	.0031	.0136	.2207	.0912	.0027	.0006	.0047	-.0004	.0001
#3	.0027	.0039	.1636	.1028	.0030	.0004	.0046	-.0005	.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: ccb Acquired: 5/3/2019 15:04:17 Type: QC
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	**-.0005**	**.0002**	**-.0005**	**.0019**	**-.0004**	**.0054**
Stddev	.0003	.0008	.0000	.0027	.0014	.0018	.0028
%RSD	91.38	172.9	23.35	537.3	74.22	471.3	52.21
#1	.0000	-.0003	.0002	-.0036	.0013	-.0018	.0038
#2	.0006	-.0014	.0002	.0007	.0036	-.0008	.0086
#3	.0003	.0002	.0001	.0013	.0009	.0016	.0038
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**152130.**	**27852.**	**6437.8**	**9950.3**
Stddev	808.	150.	77.2	107.7
%RSD	.53122	.53991	1.1985	1.0824
#1	152560.	27838.	6480.0	10012.
#2	152630.	28009.	6484.7	10013.
#3	151200.	27709.	6348.7	9826.0

Zoom In Zoom Out

Sample Name: jc87116-1 Acquired: 5/3/2019 15:09:26 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2460**	**.0004**	**.0000**	**.0113**	**.6862**	**.0492**	**3.997**	**.0140**	**-.0000**
Stddev	.0030	.0001	.0004	.0003	.0069	.0015	.036	.0005	.0012
%RSD	1.206	36.08	3709.	2.656	1.007	3.037	.8927	3.627	3917.
#1	.2490	.0004	.0004	.0116	.6941	.0507	4.035	.0140	-.0005
#2	.2458	.0002	-.0003	.0113	.6825	.0477	3.993	.0144	-.0009
#3	.2431	.0005	-.0001	.0110	.6819	.0491	3.964	.0134	.0013

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0173**	**.0559**	**.0132**	**-.0018**	**.1916**	**.0020**	**.0090**	**6.896**	**292.8**
Stddev	.0006	.0003	.0018	.0010	.0010	.0030	.0004	.078	4.7
%RSD	3.275	.6184	13.35	54.62	.5014	145.0	4.848	1.125	1.606
#1	.0179	.0563	.0148	-.0022	.1921	-.0014	.0093	6.980	296.2
#2	.0170	.0558	.0135	-.0025	.1905	.0035	.0092	6.880	287.4
#3	.0168	.0556	.0113	-.0007	.1923	.0040	.0085	6.827	294.7

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**58.57**	**72.66**	**60.52**	**130.9**	**.2158**	**.0322**	**29.32**	**-.0036**	**.5385**
Stddev	.73	1.05	.73	1.7	.0025	.0002	.25	.0006	.0061
%RSD	1.242	1.450	1.209	1.265	1.145	.5916	.8371	15.49	1.134
#1	59.37	73.85	61.33	132.7	.2186	.0323	29.60	-.0038	.5450
#2	58.38	72.28	60.34	130.4	.2149	.0322	29.23	-.0040	.5375
#3	57.96	71.84	59.90	129.5	.2140	.0320	29.14	-.0029	.5329

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2524**	**.0024**	**.0075**	**61.36**	**.0087**	**.5112**	**1.044**
Stddev	.0025	.0010	.0002	.51	.0035	.0081	.012
%RSD	.9717	42.78	2.079	.8240	40.34	1.588	1.175
#1	.2548	.0013	.0077	61.87	.0050	.5200	1.058
#2	.2525	.0026	.0075	61.35	.0090	.5095	1.038
#3	.2499	.0034	.0074	60.85	.0120	.5040	1.036

Zoom In Zoom Out

Sample Name: jc87116-1 Acquired: 5/3/2019 15:09:26 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**142010.**	**27678.**	**6135.6**	**8867.6**
Stddev	65.	289.	15.0	14.4
%RSD	.04606	1.0424	.24456	.16207
#1	142090.	27345.	6152.4	8880.7
#2	141960.	27839.	6131.0	8869.8
#3	141990.	27850.	6123.5	8852.2

Zoom In Zoom Out

Sample Name: mp14646-sd1 Acquired: 5/3/2019 15:14:45 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 10.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2498**	**-.0004**	**-.0008**	**.0102**	**.6928**	**.0586**	**4.055**	**.0123**	**.0008**
Stddev	.0055	.0008	.0022	.0028	.0074	.0012	.055	.0018	.0028
%RSD	2.186	208.1	269.3	27.35	1.067	2.034	1.357	14.43	327.4
#1	.2553	.0004	-.0016	.0116	.6997	.0594	4.106	.0126	.0035
#2	.2497	-.0011	.0017	.0070	.6850	.0593	3.997	.0139	-.0021
#3	.2444	-.0004	-.0025	.0120	.6937	.0573	4.061	.0104	.0011

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0179**	**.0657**	**.0081**	**.0146**	**.1811**	**.0084**	**.0141**	**7.105**	**302.1**
Stddev	.0035	.0016	.0053	.0107	.0025	.0176	.0052	.111	3.7
%RSD	19.48	2.446	65.52	73.09	1.405	208.9	36.62	1.557	1.238
#1	.0169	.0669	.0121	.0178	.1782	.0179	.0173	7.229	305.8
#2	.0150	.0662	.0100	.0234	.1823	-.0119	.0168	7.069	302.2
#3	.0217	.0638	.0021	.0027	.1829	.0193	.0081	7.016	298.4

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**59.99**	**75.21**	**62.27**	**134.6**	**.2186**	**.0325**	**28.59**	**-.0201**	**.5480**
Stddev	.69	.97	.63	1.7	.0072	.0013	.72	.0060	.0060
%RSD	1.152	1.290	1.004	1.278	3.313	4.059	2.533	29.89	1.102
#1	60.62	76.23	62.83	136.3	.2245	.0339	29.41	-.0131	.5540
#2	60.10	75.09	62.38	134.5	.2207	.0324	28.35	-.0236	.5479
#3	59.25	74.30	61.60	132.9	.2105	.0313	28.02	-.0235	.5420

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2560**	**.0126**	**.0089**	**58.77**	**-.0020**	**.5183**	**1.052**
Stddev	.0056	.0138	.0013	1.48	.0168	.0060	.036
%RSD	2.180	109.4	15.00	2.523	855.1	1.153	3.423
#1	.2605	-.0010	.0079	60.39	-.0151	.5247	1.093
#2	.2498	.0122	.0104	58.45	.0169	.5175	1.038
#3	.2576	.0266	.0084	57.47	-.0077	.5128	1.025

Zoom In Zoom Out

Sample Name: mp14646-sd1 Acquired: 5/3/2019 15:14:45 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 10.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**148300.**	**28073.**	**6484.9**	**9692.6**
Stddev	1303.	105.	23.9	46.3
%RSD	.87874	.37376	.36826	.47741
#1	148640.	28158.	6467.9	9654.8
#2	149400.	27956.	6474.5	9678.6
#3	146860.	28106.	6512.2	9744.2

Zoom In Zoom Out

Sample Name: p2conf Acquired: 5/3/2019 15:19:50 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**-.0001**	**-.0002**	**.0000**	**-.0001**	**.0010**	**.0001**	**.0002**	**.0001**
Stddev	.0003	.0000	.0001	.0001	.0002	.0001	.0000	.0002	.0007
%RSD	531.1	49.91	75.60	285.7	247.9	13.94	30.86	91.39	819.9
#1	.0002	-.0001	-.0001	-.0001	-.0002	.0011	.0001	.0001	.0008
#2	-.0003	-.0000	-.0004	.0002	-.0002	.0011	.0002	.0004	-.0007
#3	-.0001	-.0001	-.0001	.0001	.0001	.0009	.0001	.0001	.0002

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0005**	**.0014**	**-.0001**	**.0006**	**-.0005**	**.0017**	**.0008**	**-.0142**	**.0738**
Stddev	.0003	.0000	.0004	.0008	.0004	.0019	.0011	.0059	.0013
%RSD	65.83	2.523	374.1	125.5	81.73	110.8	138.2	41.52	1.738
#1	-.0009	.0015	.0003	.0010	-.0006	.0007	.0011	-.0079	.0740
#2	-.0003	.0015	-.0005	.0012	-.0001	.0006	-.0004	-.0151	.0724
#3	-.0004	.0014	-.0001	-.0003	-.0009	.0039	.0017	-.0195	.0749

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0011**	**-.0009**	**.0528**	**.0353**	**.0008**	**-.0001**	**.0030**	**-.0018**	**.0002**
Stddev	.0008	.0033	.0198	.0082	.0005	.0002	.0006	.0002	.0000
%RSD	74.92	365.3	37.41	23.13	67.41	270.9	20.37	13.58	20.34
#1	.0009	.0029	.0341	.0263	.0008	.0002	.0023	-.0018	.0002
#2	.0019	-.0029	.0735	.0374	.0014	-.0003	.0032	-.0016	.0001
#3	.0003	-.0026	.0510	.0421	.0003	-.0002	.0035	-.0021	.0002

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**-.0008**	**-.0001**	**.0101**	**.0006**	**-.0042**	**.0126**
Stddev	.0000	.0011	.0001	.0022	.0022	.0004	.0002
%RSD	14.55	136.7	251.3	22.08	369.7	8.659	1.950
#1	.0002	-.0020	.0001	.0111	-.0005	-.0045	.0123
#2	.0002	-.0001	-.0002	.0117	-.0008	-.0043	.0128
#3	.0003	-.0002	-.0001	.0076	.0031	-.0038	.0126

Zoom In Zoom Out

Sample Name: p2conf Acquired: 5/3/2019 15:19:50 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**152980.**	**28194.**	**6544.9**	**10235.**
Stddev	668.	213.	17.7	23.
%RSD	.43650	.75641	.27098	.22317
#1	153700.	27948.	6564.3	10256.
#2	152840.	28310.	6540.9	10239.
#3	152390.	28325.	6529.5	10211.

Zoom In Zoom Out

Sample Name: jc87127-3 Acquired: 5/3/2019 15:24:57 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1146**	**.0006**	**.0000**	**.0240**	**.0385**	**.0532**	**1.371**	**.0526**	**-.0001**
Stddev	.0001	.0000	.0002	.0002	.0007	.0000	.002	.0004	.0014
%RSD	.1299	3.929	674.0	.8987	1.787	.0580	.1780	.7474	975.6
#1	.1146	.0006	.0003	.0241	.0378	.0532	1.372	.0531	-.0009
#2	.1144	.0006	-.0002	.0241	.0391	.0532	1.373	.0523	.0015
#3	.1147	.0006	.0000	.0237	.0388	.0532	1.368	.0526	-.0010

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0465**	**.0915**	**.0275**	**.0017**	**.0181**	**-.0015**	**.0065**	**22.10**	**8.001**
Stddev	.0001	.0006	.0018	.0004	.0012	.0010	.0037	.07	.042
%RSD	.2055	.7033	6.498	25.67	6.825	68.67	57.91	.3058	.5183
#1	.0465	.0922	.0281	.0015	.0167	-.0011	.0026	22.15	8.041
#2	.0464	.0910	.0255	.0014	.0186	-.0007	.0100	22.13	8.004
#3	.0466	.0913	.0289	.0022	.0190	-.0026	.0068	22.03	7.958

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**47.98**	**9.624**	**4.217**	**6.516**	**.0036**	**.0030**	**27.45**	**-.0065**	**.0536**
Stddev	.06	.039	.067	.026	.0017	.0005	.20	.0008	.0002
%RSD	.1245	.4098	1.587	.4019	47.06	16.33	.7182	11.86	.3260
#1	48.01	9.644	4.277	6.545	.0056	.0031	27.66	-.0074	.0537
#2	48.01	9.651	4.145	6.496	.0024	.0033	27.42	-.0060	.0537
#3	47.91	9.579	4.229	6.506	.0028	.0024	27.26	-.0062	.0534

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.9137**	**-.0020**	**.0052**	**.2476**	**.0291**	**.0276**	**1.561**
Stddev	.0015	.0007	.0005	.0049	.0032	.0013	.008
%RSD	.1696	33.70	10.47	1.976	11.10	4.674	.5061
#1	.9148	-.0018	.0052	.2532	.0264	.0285	1.570
#2	.9143	-.0014	.0058	.2451	.0327	.0262	1.556
#3	.9119	-.0027	.0047	.2445	.0282	.0283	1.556

Zoom In Zoom Out

Sample Name: jc87127-3 Acquired: 5/3/2019 15:24:57 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**151920.**	**28154.**	**6584.1**	**9819.1**
Stddev	581.	45.	58.2	68.8
%RSD	.38249	.16051	.88435	.70048
#1	151530.	28198.	6524.8	9754.1
#2	151650.	28156.	6586.2	9812.2
#3	152590.	28108.	6641.2	9891.1

Zoom In Zoom Out

Sample Name: mp14684-b1 Acquired: 5/3/2019 15:30:00 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.037**	**2.065**	**2.011**	**2.054**	**2.029**	**2.048**	**2.069**	**2.074**	**.2528**
Stddev	.003	.002	.032	.028	.005	.004	.032	.027	.0005
%RSD	.1636	.1048	1.582	1.357	.2253	.1790	1.530	1.290	.2093
#1	2.033	2.063	2.041	2.079	2.028	2.049	2.065	2.098	.2530
#2	2.038	2.066	1.977	2.024	2.026	2.045	2.039	2.045	.2523
#3	2.039	2.067	2.014	2.059	2.034	2.052	2.102	2.080	.2533

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.001**	**2.022**	**1.965**	**2.150**	**2.059**	**2.030**	**1.975**	**25.31**	**26.01**
Stddev	.002	.030	.028	.029	.027	.031	.031	.04	.05
%RSD	.0999	1.491	1.438	1.329	1.318	1.528	1.586	.1615	.1743
#1	2.001	2.045	1.991	2.177	2.082	2.057	2.006	25.27	25.96
#2	1.999	1.988	1.935	2.120	2.029	1.996	1.943	25.33	26.01
#3	2.003	2.034	1.970	2.154	2.065	2.036	1.977	25.34	26.05

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**26.03**	**25.55**	**25.31**	**25.85**	**2.044**	**2.028**	**.0024**	**1.995**	**2.115**
Stddev	.05	.04	.07	.04	.034	.030	.0029	.029	.003
%RSD	.2084	.1711	.2696	.1658	1.658	1.471	122.3	1.441	.1365
#1	25.97	25.50	25.26	25.81	2.076	2.051	.0047	2.019	2.111
#2	26.07	25.55	25.28	25.90	2.009	1.994	-.0009	1.963	2.116
#3	26.06	25.59	25.39	25.84	2.048	2.038	.0032	2.004	2.117

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.002**	**1.953**	**1.977**	**.0135**	**.1135**	**-.0019**	**1.999**
Stddev	.002	.028	.001	.0037	.0007	.0005	.032
%RSD	.1027	1.444	.0648	27.03	.5916	28.84	1.587
#1	2.004	1.977	1.978	.0177	.1132	-.0016	2.027
#2	2.000	1.922	1.976	.0108	.1131	-.0016	1.965
#3	2.002	1.960	1.978	.0121	.1143	-.0025	2.005

Zoom In Zoom Out

Sample Name: mp14684-b1 Acquired: 5/3/2019 15:30:00 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**147090.**	**27980.**	**6332.0**	**9278.9**
Stddev	790.	39.	79.1	104.2
%RSD	.53715	.14102	1.2487	1.1225
#1	146900.	28011.	6264.0	9184.0
#2	147950.	27994.	6418.8	9390.3
#3	146410.	27935.	6313.3	9262.4

Zoom In Zoom Out

Sample Name: jc87185-2f Acquired: 5/3/2019 15:34:59 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment: due

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1490**	**-.0002**	**-.0007**	**.0370**	**.0017**	**.0077**	**13.91**	**.0382**	**-.0013**
Stddev	.0014	.0000	.0004	.0003	.0006	.0000	.18	.0004	.0007
%RSD	.9524	9.050	53.07	.8712	38.59	.3477	1.283	.9529	52.07
#1	.1501	-.0002	-.0005	.0370	.0011	.0078	13.99	.0378	-.0006
#2	.1494	-.0002	-.0011	.0373	.0016	.0078	14.02	.0385	-.0020
#3	.1474	-.0002	-.0005	.0367	.0023	.0077	13.70	.0383	-.0014

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0058**	**.0113**	**-.0013**	**.0013**	**.0006**	**.0028**	**-.0001**	**.1377**	**41.49**
Stddev	.0007	.0002	.0008	.0030	.0012	.0011	.0025	.0132	.28
%RSD	11.45	1.857	62.63	226.4	200.1	38.92	4768.	9.601	.6799
#1	.0064	.0112	-.0004	.0041	.0016	.0039	.0012	.1508	41.76
#2	.0051	.0115	-.0018	.0015	-.0007	.0026	-.0029	.1244	41.50
#3	.0060	.0111	-.0018	-.0018	.0009	.0018	.0016	.1379	41.20

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**17.93**	**10.52**	**3.141**	**197.5**	**.0218**	**-.0002**	**5.736**	**-.0032**	**.2121**
Stddev	.10	.03	.024	3.7	.0011	.0003	.041	.0012	.0012
%RSD	.5423	.3298	.7686	1.873	4.947	141.9	.7148	36.62	.5602
#1	18.02	10.56	3.148	198.5	.0216	-.0002	5.772	-.0020	.2131
#2	17.95	10.50	3.114	200.6	.0230	-.0005	5.743	-.0043	.2124
#3	17.83	10.51	3.161	193.4	.0209	.0001	5.691	-.0034	.2108

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0051**	**.0015**	**.0009**	**29.09**	**-.0031**	**.0026**	**.1185**
Stddev	.0005	.0019	.0003	.17	.0016	.0023	.0041
%RSD	9.206	125.3	38.80	.6004	53.15	88.84	3.435
#1	.0048	.0033	.0011	29.29	-.0049	.0006	.1190
#2	.0049	.0018	.0011	29.04	-.0017	.0021	.1223
#3	.0057	-.0005	.0005	28.95	-.0027	.0052	.1142

Zoom In Zoom Out

Sample Name: jc87185-2f Acquired: 5/3/2019 15:34:59 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment: due

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**144310.**	**28241.**	**6238.2**	**9136.7**
Stddev	1419.	119.	16.2	21.2
%RSD	.98342	.42301	.26019	.23252
#1	145940.	28103.	6222.9	9113.1
#2	143370.	28314.	6236.5	9142.9
#3	143620.	28305.	6255.3	9154.2

Zoom In Zoom Out

Sample Name: jc87185-9f Acquired: 5/3/2019 15:40:20 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1468**	**-.0002**	**-.0004**	**.0364**	**.0020**	**.0075**	**13.81**	**.0372**	**-.0012**
Stddev	.0000	.0001	.0003	.0008	.0003	.0007	.19	.0005	.0006
%RSD	.0331	29.89	66.79	2.145	12.33	8.904	1.402	1.228	47.13
#1	.1468	-.0001	-.0001	.0366	.0023	.0069	13.60	.0376	-.0012
#2	.1468	-.0002	-.0005	.0356	.0019	.0082	13.84	.0373	-.0007
#3	.1467	-.0002	-.0006	.0371	.0019	.0072	13.98	.0367	-.0019

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0060**	**.0129**	**-.0016**	**.0039**	**.0020**	**-.0000**	**.0021**	**.1266**	**40.95**
Stddev	.0009	.0001	.0022	.0033	.0018	.0056	.0003	.0052	.07
%RSD	14.85	.5708	134.3	85.35	92.56	892000.	14.87	4.127	.1689
#1	.0051	.0129	-.0034	.0075	-.0001	-.0059	.0024	.1309	40.91
#2	.0061	.0128	-.0024	.0012	.0031	.0053	.0018	.1208	41.03
#3	.0068	.0130	.0008	.0028	.0030	.0006	.0021	.1281	40.91

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**17.68**	**10.37**	**3.158**	**194.1**	**.0193**	**-.0007**	**5.686**	**-.0029**	**.2087**
Stddev	.02	.03	.049	2.5	.0015	.0006	.029	.0008	.0004
%RSD	.1134	.3037	1.549	1.308	7.874	86.82	.5154	28.22	.2026
#1	17.67	10.40	3.109	195.8	.0199	-.0012	5.699	-.0020	.2083
#2	17.70	10.36	3.156	191.2	.0205	-.0010	5.653	-.0032	.2091
#3	17.66	10.34	3.207	195.4	.0176	-.0000	5.707	-.0036	.2085

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0048**	**-.0006**	**-.0000**	**28.32**	**.0011**	**.0055**	**.1123**
Stddev	.0006	.0031	.0003	.04	.0046	.0035	.0038
%RSD	12.12	549.8	585.1	.1552	413.4	64.19	3.401
#1	.0047	-.0005	-.0003	28.34	-.0028	.0072	.1095
#2	.0043	.0025	.0002	28.27	-.0001	.0014	.1167
#3	.0054	-.0038	.0001	28.36	.0063	.0078	.1108

Zoom In Zoom Out

Sample Name: jc87185-9f Acquired: 5/3/2019 15:40:20 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**145070.**	**27731.**	**6278.2**	**9182.8**
Stddev	430.	38.	22.3	33.4
%RSD	.29619	.13738	.35492	.36404
#1	145070.	27687.	6300.2	9213.8
#2	145500.	27756.	6278.8	9187.3
#3	144650.	27750.	6255.7	9147.4

Zoom In Zoom Out

Sample Name: mp14618-mb1conf Acquired: 5/3/2019 15:45:37 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**-.0000**	**.0001**	**-.0003**	**.0005**	**.0012**	**.0007**	**.0004**	**-.0003**
Stddev	.0002	.0000	.0001	.0001	.0002	.0003	.0000	.0001	.0005
%RSD	149.9	130.9	197.8	38.87	34.92	26.24	1.061	20.12	174.3
#1	.0004	.0000	-.0000	-.0004	.0004	.0014	.0007	.0005	-.0009
#2	-.0001	-.0000	.0002	-.0003	.0007	.0014	.0007	.0004	.0001
#3	.0001	-.0001	-.0000	-.0002	.0004	.0009	.0007	.0003	-.0001

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0004**	**.0080**	**-.0003**	**.0007**	**-.0004**	**.0012**	**.0014**	**.0073**	**.0370**
Stddev	.0004	.0000	.0012	.0003	.0004	.0004	.0018	.0079	.0039
%RSD	85.87	.2582	463.9	37.73	108.7	31.61	128.6	108.2	10.47
#1	-.0004	.0080	-.0004	.0007	.0000	.0008	-.0004	.0104	.0398
#2	-.0001	.0080	.0010	.0010	-.0004	.0013	.0032	.0133	.0325
#3	-.0008	.0080	-.0014	.0004	-.0008	.0016	.0013	-.0017	.0386

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0303**	**.0160**	**.1676**	**.1406**	**.0015**	**.0003**	**.0136**	**.0184**	**.0002**
Stddev	.0012	.0034	.0166	.0012	.0004	.0002	.0010	.0002	.0001
%RSD	4.012	21.04	9.895	.8210	25.41	52.50	7.707	1.008	37.62
#1	.0317	.0184	.1608	.1417	.0018	.0002	.0143	.0181	.0002
#2	.0297	.0121	.1865	.1394	.0011	.0003	.0124	.0185	.0002
#3	.0294	.0173	.1555	.1408	.0016	.0005	.0140	.0184	.0003

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0015**	**.0017**	**.0004**	**.0059**	**-.0008**	**.0001**	**.0286**
Stddev	.0004	.0011	.0001	.0005	.0012	.0011	.0038
%RSD	24.43	61.65	29.06	8.401	157.9	1665.	13.21
#1	.0019	.0018	.0002	.0062	-.0012	.0012	.0290
#2	.0012	.0006	.0004	.0053	.0006	-.0009	.0321
#3	.0015	.0028	.0004	.0062	-.0017	-.0001	.0246

Zoom In Zoom Out

Sample Name: mp14618-mb1conf Acquired: 5/3/2019 15:45:37 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**153220.**	**28353.**	**6551.0**	**10089.**
Stddev	1055.	71.	21.0	34.
%RSD	.68844	.25065	.32023	.33774
#1	154200.	28354.	6563.9	10107.
#2	152100.	28281.	6562.3	10109.
#3	153350.	28423.	6526.8	10049.

Zoom In Zoom Out

Sample Name: jc86994-23 Acquired: 5/3/2019 15:50:45 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3038**	**.0026**	**.0006**	**.1004**	**.3510**	**.3187**	**3.352**	**.2365**	**.0001**
Stddev	.0021	.0000	.0001	.0003	.0015	.0016	.007	.0007	.0012
%RSD	.6950	.8126	12.95	.2694	.4357	.5160	.1984	.2833	980.3
#1	.3015	.0025	.0006	.1002	.3493	.3171	3.345	.2370	-.0006
#2	.3046	.0026	.0005	.1007	.3521	.3204	3.353	.2357	.0016
#3	.3055	.0026	.0006	.1003	.3516	.3186	3.359	.2366	-.0006

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3767**	**1.160**	**.0508**	**.0023**	**.1185**	**-.0051**	**.0005**	**110.6**	**20.83**
Stddev	.0014	.001	.0006	.0022	.0006	.0018	.0002	.5	.09
%RSD	.3700	.1077	1.123	93.47	.4936	36.09	42.55	.4486	.4342
#1	.3751	1.159	.0514	.0015	.1188	-.0035	.0004	110.0	20.73
#2	.3772	1.159	.0502	.0007	.1189	-.0071	.0007	110.7	20.86
#3	.3777	1.161	.0509	.0048	.1178	-.0046	.0003	111.0	20.90

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**221.4**	**75.65**	**10.36**	**4.306**	**.1244**	**.0083**	**1.699**	**.0188**	**.0521**
Stddev	1.0	.40	.02	.029	.0012	.0004	.004	.0010	.0005
%RSD	.4471	.5338	.1684	.6755	.9701	5.241	.2297	5.455	.8850
#1	220.2	75.20	10.37	4.272	.1232	.0084	1.697	.0191	.0516
#2	221.7	75.81	10.37	4.321	.1256	.0079	1.704	.0196	.0524
#3	222.1	75.96	10.34	4.324	.1242	.0087	1.697	.0177	.0524

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.429**	**.0031**	**.0133**	**15.17**	**.2075**	**.1464**	**3.983**
Stddev	.015	.0017	.0004	.09	.0042	.0008	.021
%RSD	.2716	52.77	2.914	.6027	2.045	.5236	.5220
#1	5.415	.0039	.0130	15.08	.2094	.1458	3.997
#2	5.429	.0043	.0138	15.17	.2104	.1462	3.994
#3	5.445	.0012	.0131	15.26	.2026	.1472	3.959

Zoom In Zoom Out

Sample Name: jc86994-23 Acquired: 5/3/2019 15:50:45 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**148890.**	**28178.**	**6472.9**	**9450.7**
Stddev	214.	200.	12.6	8.7
%RSD	.14383	.71113	.19422	.09188
#1	149130.	27948.	6484.4	9457.0
#2	148830.	28310.	6459.5	9440.8
#3	148710.	28277.	6474.8	9454.4

Zoom In Zoom Out

Sample Name: ccv Acquired: 5/3/2019 15:55:46 Type: QC
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.997**	**2.022**	**2.023**	**2.052**	**2.001**	**2.011**	**2.047**	**2.075**	**.2480**
Stddev	.005	.004	.035	.035	.001	.001	.015	.034	.0005
%RSD	.2432	.1932	1.754	1.693	.0265	.0259	.7212	1.652	.1825
#1	1.993	2.019	2.003	2.034	2.002	2.011	2.036	2.057	.2482
#2	2.002	2.026	2.001	2.030	2.002	2.011	2.042	2.054	.2475
#3	1.997	2.021	2.064	2.092	2.001	2.012	2.064	2.115	.2484
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.984**	**2.022**	**2.020**	**2.113**	**2.052**	**2.043**	**2.015**	**40.05**	**41.04**
Stddev	.001	.034	.036	.031	.034	.036	.035	.11	.14
%RSD	.0393	1.677	1.799	1.483	1.649	1.767	1.716	.2642	.3422
#1	1.983	2.006	1.998	2.093	2.036	2.022	1.996	39.94	40.90
#2	1.983	2.000	2.001	2.096	2.029	2.021	1.995	40.15	41.18
#3	1.985	2.061	2.062	2.149	2.091	2.084	2.055	40.05	41.04
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**40.94**	**40.44**	**40.03**	**40.92**	**2.098**	**2.050**	**5.345**	**2.014**	**2.087**
Stddev	.09	.14	.16	.06	.038	.037	.097	.034	.003
%RSD	.2099	.3454	.3961	.1470	1.805	1.822	1.814	1.683	.1317
#1	40.85	40.30	39.87	40.85	2.075	2.030	5.287	1.994	2.084
#2	41.02	40.58	40.18	40.96	2.078	2.028	5.291	1.995	2.087
#3	40.95	40.44	40.03	40.94	2.142	2.093	5.457	2.054	2.089
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ccv Acquired: 5/3/2019 15:55:46 Type: QC
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.015**	**1.994**	**1.991**	**1.998**	**2.089**	**1.938**	**2.039**
Stddev	.001	.035	.000	.033	.035	.008	.035
%RSD	.0635	1.742	.0163	1.670	1.688	.4028	1.706
#1	2.016	1.975	1.990	1.976	2.070	1.930	2.021
#2	2.014	1.973	1.991	1.982	2.067	1.946	2.017
#3	2.016	2.034	1.991	2.037	2.129	1.938	2.079
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**143960.**	**27393.**	**6153.3**	**8969.9**
Stddev	23.	394.	80.0	107.0
%RSD	.01591	1.4386	1.3006	1.1925
#1	143960.	27729.	6192.2	9021.8
#2	143980.	26960.	6206.4	9041.0
#3	143940.	27492.	6061.2	8846.9

Zoom In Zoom Out

Sample Name: ccb Acquired: 5/3/2019 16:00:49 Type: QC
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0003**	**.0005**	**.0003**	**.0004**	**.0011**	**.0005**	**.0007**	**.0000**
Stddev	.0002	.0001	.0001	.0001	.0002	.0003	.0001	.0001	.0002
%RSD	116.0	35.86	32.06	14.78	51.66	22.96	17.05	16.63	1357.
#1	.0003	.0004	.0003	.0004	.0002	.0008	.0004	.0008	.0002
#2	-.0001	.0002	.0004	.0003	.0005	.0013	.0005	.0006	-.0002
#3	.0004	.0003	.0006	.0004	.0006	.0013	.0006	.0006	.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0002**	**.0003**	**-.0007**	**.0008**	**.0005**	**.0010**	**.0007**	**.0001**	**.0005**
Stddev	.0003	.0001	.0008	.0013	.0007	.0003	.0022	.0040	.0006
%RSD	145.3	24.17	118.5	148.1	134.6	32.79	317.4	5360.	126.5
#1	-.0006	.0004	-.0004	.0020	.0010	.0013	-.0007	-.0031	-.0001
#2	-.0003	.0003	-.0016	.0010	.0008	.0006	.0033	.0045	.0004
#3	.0001	.0003	-.0001	-.0005	-.0003	.0012	-.0005	-.0012	.0011
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0072**	**.0121**	**.1650**	**.0873**	**.0030**	**.0006**	**.0020**	**-.0006**	**.0004**
Stddev	.0013	.0046	.0279	.0132	.0004	.0002	.0006	.0005	.0000
%RSD	18.29	38.27	16.92	15.13	13.39	39.44	28.11	71.72	5.336
#1	.0064	.0082	.1947	.0983	.0026	.0003	.0015	-.0011	.0004
#2	.0088	.0108	.1392	.0726	.0034	.0007	.0020	-.0006	.0004
#3	.0065	.0172	.1612	.0908	.0029	.0007	.0026	-.0002	.0004
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: ccb Acquired: 5/3/2019 16:00:49 Type: QC
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0007**	**.0006**	**.0006**	**-.0003**	**.0011**	**-.0004**	**.0147**
Stddev	.0002	.0010	.0002	.0012	.0010	.0022	.0037
%RSD	24.40	173.5	33.67	365.5	86.68	519.1	24.97
#1	.0005	.0008	.0005	.0008	.0010	-.0011	.0183
#2	.0008	-.0005	.0004	-.0017	.0003	.0021	.0149
#3	.0008	.0014	.0008	-.0001	.0022	-.0022	.0109
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**151670.**	**27748.**	**6471.9**	**9976.2**
Stddev	497.	35.	6.6	10.2
%RSD	.32773	.12471	.10233	.10195
#1	152220.	27786.	6471.1	9982.6
#2	151520.	27738.	6465.8	9964.5
#3	151250.	27719.	6479.0	9981.5

Zoom In Zoom Out

Sample Name: mp14776-mb1 7 Acquired: 5/3/2019 16:05:58 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004**	**-.0000**	**.0000**	**-.0000**	**.0013**	**.0016**	**.0008**	**.0008**	**-.0005**
Stddev	.0000	.0001	.0001	.0001	.0005	.0001	.0000	.0000	.0002
%RSD	11.39	225.7	438.5	246.1	34.32	7.285	3.395	1.976	31.80
#1	.0004	.0001	-.0000	-.0000	.0010	.0016	.0008	.0008	-.0006
#2	.0004	-.0001	.0001	-.0001	.0011	.0015	.0008	.0008	-.0003
#3	.0003	-.0001	-.0001	.0000	.0019	.0017	.0008	.0008	-.0005

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0004**	**.0098**	**-.0000**	**.0013**	**-.0003**	**.0006**	**.0006**	**.0107**	**.1643**
Stddev	.0004	.0000	.0012	.0006	.0007	.0011	.0009	.0058	.0009
%RSD	82.00	.0966	2795.	46.97	224.5	182.6	157.0	53.99	.5341
#1	-.0002	.0098	-.0012	.0012	-.0005	-.0006	.0001	.0170	.1633
#2	-.0003	.0098	.0011	.0019	.0005	.0008	.0016	.0057	.1649
#3	-.0008	.0098	-.0001	.0007	-.0008	.0016	-.0000	.0094	.1647

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0304**	**.0276**	**.1623**	**.1768**	**.0015**	**.0005**	**.0085**	**.0180**	**.0006**
Stddev	.0018	.0205	.0040	.0082	.0007	.0002	.0003	.0003	.0001
%RSD	6.040	74.22	2.483	4.623	44.49	47.94	3.988	1.766	13.36
#1	.0316	.0075	.1669	.1677	.0021	.0002	.0087	.0181	.0005
#2	.0313	.0267	.1593	.1791	.0008	.0007	.0087	.0177	.0005
#3	.0283	.0484	.1606	.1836	.0016	.0005	.0081	.0183	.0007

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0015**	**.0008**	**.0004**	**.0158**	**.0014**	**-.0014**	**.0346**
Stddev	.0001	.0001	.0001	.0022	.0025	.0011	.0012
%RSD	9.695	10.70	23.63	13.75	183.4	82.62	3.454
#1	.0014	.0007	.0003	.0134	.0027	-.0008	.0336
#2	.0016	.0008	.0004	.0176	.0028	-.0027	.0360
#3	.0015	.0008	.0004	.0165	-.0015	-.0006	.0343

Zoom In Zoom Out

Sample Name: mp14776-mb1 7 Acquired: 5/3/2019 16:05:58 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**151920.**	**28016.**	**6516.9**	**10032.**
Stddev	646.	30.	8.5	13.
%RSD	.42492	.10640	.13094	.12673
#1	151330.	27991.	6507.5	10018.
#2	152610.	28049.	6519.2	10042.
#3	151810.	28010.	6524.1	10037.

Zoom In Zoom Out

Sample Name: mp14776-b1 Acquired: 5/3/2019 16:11:06 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.983**	**2.016**	**1.964**	**2.001**	**1.973**	**2.006**	**2.027**	**2.022**	**.2445**
Stddev	.006	.005	.002	.005	.010	.007	.018	.004	.0012
%RSD	.2828	.2627	.0782	.2303	.5258	.3506	.8762	.1952	.4746
#1	1.984	2.016	1.963	2.004	1.970	2.004	2.026	2.025	.2444
#2	1.976	2.011	1.963	1.996	1.985	2.013	2.046	2.018	.2458
#3	1.987	2.021	1.966	2.003	1.965	1.999	2.010	2.024	.2435

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.942**	**1.969**	**1.953**	**2.093**	**2.006**	**1.967**	**1.951**	**24.90**	**25.81**
Stddev	.006	.003	.004	.006	.004	.005	.002	.07	.08
%RSD	.2888	.1553	.1823	.2987	.2152	.2705	.0797	.2834	.3012
#1	1.943	1.966	1.952	2.090	2.008	1.967	1.951	24.91	25.83
#2	1.946	1.968	1.950	2.089	2.001	1.961	1.952	24.83	25.73
#3	1.935	1.972	1.957	2.100	2.009	1.972	1.949	24.97	25.88

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**25.67**	**25.14**	**24.96**	**25.63**	**1.960**	**1.991**	**-.0478**	**1.980**	**2.066**
Stddev	.04	.09	.11	.01	.001	.002	.0016	.006	.000
%RSD	.1735	.3485	.4277	.0302	.0336	.1191	3.367	.3147	.0144
#1	25.66	25.14	24.95	25.62	1.960	1.990	-.0476	1.974	2.066
#2	25.62	25.06	24.87	25.63	1.959	1.989	-.0494	1.978	2.065
#3	25.71	25.23	25.08	25.64	1.961	1.994	-.0462	1.986	2.066

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.986**	**1.626**	**1.952**	**.0326**	**.1089**	**-.0027**	**1.928**
Stddev	.006	.003	.006	.0010	.0007	.0015	.013
%RSD	.3293	.1962	.2848	2.927	.6820	57.00	.6917
#1	1.989	1.626	1.954	.0337	.1097	-.0033	1.915
#2	1.990	1.624	1.956	.0324	.1085	-.0010	1.927
#3	1.978	1.630	1.945	.0318	.1084	-.0039	1.942

Zoom In Zoom Out

Sample Name: mp14776-b1 Acquired: 5/3/2019 16:11:06 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**146840.**	**27894.**	**6351.8**	**9303.1**
Stddev	1036.	271.	24.3	20.1
%RSD	.70580	.97053	.38289	.21564
#1	147060.	27941.	6378.4	9323.3
#2	145710.	28137.	6330.6	9283.2
#3	147740.	27602.	6346.4	9302.6

Zoom In Zoom Out

Sample Name: jc87428-2 Acquired: 5/3/2019 16:16:07 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment: due

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4767**	**.0047**	**.0002**	**.0537**	**.1213**	**.0884**	**2.164**	**.2511**
Stddev	.0008	.0000	.0001	.0019	.0141	.0072	.241	.0006
%RSD	.1582	.7344	51.71	3.516	11.63	8.163	11.14	.2445
#1	.4767	.0047	.0002	.0528	.1137	.0928	2.032	.2508
#2	.4774	.0047	.0001	.0524	.1126	.0924	2.018	.2508
#3	.4759	.0047	.0003	.0559	.1376	.0801	2.443	.2518

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **-.0140**	**.1702**	**.3350**	**.0409**	**-.0017**	**.0817**	F **-.0104**	**.0008**
Stddev	.0234	.0182	.0005	.0014	.0051	.0073	.0194	.0026
%RSD	167.5	10.67	.1482	3.340	305.1	8.952	186.4	340.5
#1	-.0005	.1596	.3354	.0415	.0014	.0863	.0006	.0009
#2	-.0005	.1599	.3345	.0419	.0011	.0855	.0010	-.0019
#3	-.0410	.1912	.3351	.0393	-.0075	.0732	-.0328	.0033

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**115.6**	**14.88**	**125.3**	**21.05**	**5.364**	**.9451**	**.0454**	**.0024**
Stddev	.1	.02	.9	.05	.061	.0127	.0005	.0012
%RSD	.1168	.1641	.6828	.2242	1.130	1.340	1.048	50.48
#1	115.6	14.89	125.8	21.10	5.379	.9565	.0449	.0030
#2	115.7	14.89	125.8	21.06	5.416	.9315	.0458	.0033
#3	115.4	14.85	124.3	21.00	5.298	.9472	.0456	.0010

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.125**	**.0152**	**.1007**	**1.016**	**.0036**	**.0186**	**3.101**	**.0165**
Stddev	.036	.0009	.0002	.119	.0015	.0040	.009	.0263
%RSD	1.149	5.859	.1574	11.70	40.35	21.78	.2980	159.6
#1	3.128	.0160	.1007	.9470	.0026	.0211	3.110	.0304
#2	3.088	.0153	.1006	.9485	.0029	.0207	3.092	.0329
#3	3.160	.0143	.1009	1.154	.0053	.0139	3.102	-.0138

Zoom In Zoom Out

Sample Name: jc87428-2 Acquired: 5/3/2019 16:16:07 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment: due

Elem	Li6707	P_1774
Units	ppm	ppm
Avg	**.1167**	**3.566**
Stddev	.0072	.030
%RSD	6.209	.8290
#1	.1125	3.593
#2	.1124	3.571
#3	.1250	3.535

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	*****	**29921.**	**6890.9**	**9407.9**
Stddev	-----	196.	12.7	11.2
%RSD	-----	.65446	.18481	.11886
#1	155260.	29950.	6884.1	9404.8
#2	155500.	29713.	6883.1	9398.5
#3	-----	30101.	6905.6	9420.3

Zoom In Zoom Out

Sample Name: mp14772-b1 Acquired: 5/3/2019 16:21:24 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.990**	**2.020**	**1.985**	**2.016**	**1.989**	**2.022**	**2.036**	**2.037**	**.2462**
Stddev	.006	.007	.004	.002	.001	.002	.023	.001	.0002
%RSD	.3039	.3569	.1829	.0854	.0643	.1106	1.110	.0698	.0864
#1	1.987	2.017	1.989	2.018	1.988	2.020	2.053	2.038	.2463
#2	1.997	2.029	1.984	2.015	1.991	2.024	2.010	2.036	.2462
#3	1.987	2.016	1.982	2.014	1.990	2.021	2.044	2.038	.2459

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.946**	**1.984**	**1.964**	**2.119**	**2.024**	**1.986**	**1.963**	**24.95**	**25.75**
Stddev	.003	.002	.002	.011	.001	.004	.003	.11	.10
%RSD	.1262	.0863	.1194	.5095	.0327	.1984	.1515	.4471	.3988
#1	1.943	1.986	1.964	2.112	2.025	1.989	1.967	24.88	25.70
#2	1.946	1.983	1.966	2.132	2.024	1.988	1.962	25.08	25.87
#3	1.948	1.983	1.962	2.114	2.024	1.981	1.961	24.90	25.68

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**25.66**	**25.13**	**24.95**	**25.58**	**1.982**	**1.989**	**-.0406**	**1.992**	**2.071**
Stddev	.08	.07	.06	.07	.004	.001	.0009	.004	.004
%RSD	.3274	.2952	.2339	.2754	.2289	.0327	2.326	.1798	.2001
#1	25.64	25.10	24.90	25.59	1.987	1.989	-.0417	1.993	2.071
#2	25.76	25.21	25.01	25.64	1.979	1.989	-.0399	1.994	2.075
#3	25.60	25.07	24.95	25.50	1.980	1.988	-.0403	1.988	2.067

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.988**	**1.330**	**1.955**	**.0196**	**.1014**	**-.0023**	**1.976**
Stddev	.002	.001	.002	.0014	.0019	.0005	.016
%RSD	.1069	.0765	.1182	6.942	1.832	21.22	.8271
#1	1.986	1.330	1.952	.0199	.1007	-.0020	1.973
#2	1.989	1.329	1.957	.0207	.0999	-.0029	1.993
#3	1.990	1.331	1.955	.0181	.1035	-.0021	1.961

Zoom In Zoom Out

Sample Name: mp14772-b1 Acquired: 5/3/2019 16:21:24 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**145670.**	**27578.**	**6323.5**	**9268.8**
Stddev	409.	281.	4.9	6.4
%RSD	.28076	1.0177	.07741	.06852
#1	145640.	27747.	6318.7	9263.3
#2	146100.	27254.	6323.3	9267.4
#3	145280.	27734.	6328.5	9275.7

Zoom In Zoom Out

Sample Name: mp14772-mb1 Acquired: 5/3/2019 16:26:24 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment: new

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**-.0000**	**.0001**	**.0000**	**.0008**	**.0012**	**.0002**	**.0010**	**-.0001**
Stddev	.0002	.0000	.0001	.0001	.0003	.0003	.0001	.0002	.0005
%RSD	481.3	152.2	70.64	196.5	39.36	24.42	23.66	23.56	728.1
#1	.0002	-.0000	.0002	.0001	.0012	.0011	.0002	.0007	-.0003
#2	.0001	-.0000	.0001	.0000	.0008	.0010	.0003	.0011	-.0003
#3	-.0002	-.0001	.0001	-.0000	.0005	.0015	.0002	.0011	.0005

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**.0021**	**.0001**	**.0012**	**.0002**	**.0007**	**.0011**	**.0017**	**.0381**
Stddev	.0003	.0001	.0009	.0008	.0002	.0003	.0008	.0089	.0009
%RSD	422.0	4.982	1705.	65.11	143.4	38.33	70.09	524.4	2.245
#1	-.0003	.0020	.0011	.0020	-.0001	.0004	.0008	-.0083	.0371
#2	-.0001	.0022	-.0003	.0011	.0002	.0007	.0005	.0048	.0385
#3	.0002	.0021	-.0006	.0005	.0003	.0009	.0019	.0086	.0386

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0175**	**.0083**	**.1128**	**.1073**	**.0036**	**.0004**	**.0066**	**.0195**	**.0004**
Stddev	.0006	.0078	.0226	.0027	.0003	.0003	.0002	.0005	.0001
%RSD	3.228	95.06	20.04	2.542	9.462	59.42	3.513	2.527	17.63
#1	.0169	.0084	.1243	.1058	.0034	.0007	.0067	.0194	.0004
#2	.0177	.0160	.0868	.1057	.0033	.0002	.0063	.0200	.0005
#3	.0179	.0003	.1274	.1104	.0040	.0004	.0067	.0190	.0003

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0008**	**.0059**	**.0007**	**.0037**	**.0011**	**-.0030**	**.0303**
Stddev	.0002	.0006	.0002	.0006	.0004	.0004	.0022
%RSD	25.78	9.375	33.52	15.75	35.18	12.72	7.319
#1	.0006	.0061	.0008	.0043	.0016	-.0034	.0324
#2	.0009	.0063	.0009	.0035	.0009	-.0028	.0304
#3	.0010	.0053	.0004	.0032	.0009	-.0027	.0280

Zoom In Zoom Out

Sample Name: mp14772-mb1 Acquired: 5/3/2019 16:26:24 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment: new

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**153180.**	**28199.**	**6504.9**	**10027.**
Stddev	429.	138.	65.3	77.
%RSD	.27991	.49066	1.0046	.76764
#1	153520.	28068.	6549.6	10076.
#2	153320.	28185.	6429.9	9938.0
#3	152700.	28343.	6535.2	10066.

Zoom In Zoom Out

Sample Name: icsa Acquired: 5/3/2019 16:31:30 Type: QC
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0007**	**.0000**	**-.0001**	**.0014**	**-.0001**	**-.0036**	**.0016**	**-.0002**	**.0005**
Stddev	.0003	.0000	.0002	.0001	.0002	.0006	.0002	.0004	.0009
%RSD	39.86	300.0	333.3	5.904	181.5	17.37	12.78	242.3	185.5
#1	.0005	-.0000	.0002	.0014	-.0001	-.0042	.0014	-.0003	-.0004
#2	.0005	.0000	-.0002	.0013	.0001	-.0036	.0017	.0003	.0004
#3	.0010	.0000	-.0002	.0013	-.0003	-.0030	.0018	-.0005	.0015
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0021**	**-.0020**	**-.0004**	**-.0020**	**.0023**	**-.0040**	**.0004**	**508.5**	**385.7**
Stddev	.0003	.0004	.0014	.0014	.0010	.0005	.0013	5.3	5.7
%RSD	16.18	18.30	332.0	68.44	42.36	11.73	316.1	1.043	1.467
#1	-.0022	-.0016	.0012	-.0028	.0014	-.0036	-.0010	508.4	388.0
#2	-.0018	-.0023	-.0014	-.0027	.0034	-.0046	.0017	513.9	389.9
#3	-.0025	-.0020	-.0010	-.0004	.0022	-.0039	.0006	503.3	379.3
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**192.4**	**496.2**	**.4284**	**.1910**	**.0004**	**.0007**	**.0021**	**-.0044**	**-.0002**
Stddev	1.9	.3	.0199	.0146	.0008	.0003	.0017	.0004	.0001
%RSD	.9963	.0522	4.637	7.655	219.4	45.39	79.45	8.942	80.84
#1	190.3	496.2	.4440	.1743	.0014	.0010	.0033	-.0042	-.0002
#2	193.0	496.0	.4060	.2014	-.0001	.0009	.0002	-.0042	-.0003
#3	194.0	496.5	.4352	.1973	-.0001	.0004	.0028	-.0049	-.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: icsa Acquired: 5/3/2019 16:31:30 Type: QC
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0011**	**.0035**	**.0007**	**.0001**	**-.0029**	**-.0059**	**.0307**
Stddev	.0005	.0007	.0002	.0024	.0020	.0022	.0021
%RSD	42.79	19.91	21.85	3960.	68.74	37.80	6.803
#1	-.0011	.0033	.0007	-.0005	-.0015	-.0039	.0312
#2	-.0006	.0043	.0006	-.0020	-.0020	-.0055	.0285
#3	-.0015	.0029	.0009	.0027	-.0052	-.0083	.0326
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**131170.**	**26501.**	**5825.4**	**8276.5**
Stddev	722.	198.	6.3	5.3
%RSD	.55017	.74568	.10882	.06402
#1	130790.	26724.	5830.6	8280.8
#2	130720.	26348.	5818.3	8270.6
#3	132010.	26431.	5827.2	8278.0

Zoom In Zoom Out

Sample Name: ICSAB Acquired: 5/3/2019 16:36:53 Type: QC
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5112**	**.4978**	**1.012**	**.4931**	**.4893**	**.5051**	**.5178**	**.9852**	**1.068**
Stddev	.0001	.0011	.001	.0009	.0001	.0006	.0011	.0024	.001
%RSD	.0142	.2176	.1426	.1858	.0295	.1121	.2107	.2485	.1233
#1	.5112	.4970	1.013	.4933	.4892	.5055	.5170	.9874	1.069
#2	.5113	.4973	1.012	.4939	.4895	.5054	.5173	.9856	1.069
#3	.5112	.4990	1.010	.4921	.4893	.5045	.5190	.9825	1.067
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4929**	**.9445**	**1.056**	**.9812**	**.9631**	**1.054**	**1.055**	**499.3**	**381.6**
Stddev	.0005	.0005	.001	.0039	.0040	.003	.003	10.9	1.6
%RSD	.1096	.0491	.1271	.3974	.4103	.2834	.2459	2.189	.4258
#1	.4934	.9448	1.055	.9839	.9676	1.054	1.057	508.7	383.2
#2	.4923	.9448	1.058	.9830	.9602	1.058	1.057	487.3	380.0
#3	.4929	.9440	1.056	.9768	.9616	1.052	1.052	501.9	381.7
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**197.4**	**501.8**	**.3689**	**.1842**	**.4918**	**.4791**	**.5063**	**.4535**	**.5329**
Stddev	3.6	.2	.0284	.0024	.0013	.0014	.0029	.0006	.0003
%RSD	1.826	.0362	7.711	1.305	.2643	.2970	.5783	.1245	.0507
#1	193.4	501.7	.3637	.1870	.4928	.4794	.5095	.4535	.5327
#2	198.7	502.0	.3996	.1829	.4923	.4803	.5055	.4540	.5328
#3	200.3	501.7	.3434	.1828	.4904	.4775	.5039	.4529	.5332
Check ?	Chk Pass	Chk Pass	None	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ICSAB Acquired: 5/3/2019 16:36:53 Type: QC
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4959**	**.4706**	**.4807**	**.5033**	**.5138**	**.5104**	**.5425**
Stddev	.0013	.0030	.0001	.0054	.0021	.0012	.0050
%RSD	.2677	.6447	.0303	1.075	.4150	.2392	.9128
#1	.4974	.4691	.4806	.5072	.5153	.5114	.5481
#2	.4948	.4685	.4808	.5055	.5148	.5090	.5405
#3	.4955	.4741	.4808	.4971	.5114	.5106	.5388
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**132580.**	**26671.**	**5780.8**	**8268.0**
Stddev	707.	92.	8.5	6.8
%RSD	.53313	.34501	.14646	.08210
#1	132710.	26637.	5789.3	8272.1
#2	133210.	26601.	5772.4	8260.2
#3	131820.	26775.	5780.6	8271.8

Zoom In Zoom Out

Sample Name: jc87389-1 Acquired: 5/3/2019 16:42:10 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3334**	**.0038**	**.0005**	**.0469**	**.1949**	**.1594**	**1.400**	**.1508**	**-.0002**
Stddev	.0027	.0001	.0002	.0001	.0004	.0011	.001	.0003	.0006
%RSD	.7998	2.284	30.19	.2341	.1902	.6804	.1035	.2291	297.7
#1	.3349	.0038	.0006	.0468	.1953	.1596	1.401	.1506	.0004
#2	.3304	.0037	.0003	.0469	.1945	.1583	1.399	.1507	-.0008
#3	.3351	.0038	.0006	.0470	.1949	.1604	1.401	.1512	-.0003

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1578**	**.3407**	**.0294**	**.0010**	**.3257**	**-.0007**	**.0004**	**66.93**	**38.42**
Stddev	.0001	.0013	.0004	.0018	.0007	.0018	.0004	.54	.30
%RSD	.0407	.3943	1.420	178.8	.2029	256.3	111.7	.7995	.7846
#1	.1577	.3398	.0296	-.0008	.3251	.0004	.0003	67.23	38.60
#2	.1579	.3400	.0290	.0028	.3255	-.0028	.0000	66.31	38.08
#3	.1578	.3422	.0298	.0010	.3264	.0002	.0009	67.25	38.60

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**126.2**	**21.05**	**8.107**	**6.395**	**.0386**	**.0053**	**2.104**	**.0244**	**.2062**
Stddev	2.0	.15	.073	.040	.0004	.0001	.035	.0004	.0016
%RSD	1.598	.7111	.9015	.6207	1.111	1.663	1.661	1.590	.7545
#1	127.8	21.15	8.183	6.428	.0386	.0054	2.129	.0239	.2067
#2	123.9	20.88	8.037	6.351	.0382	.0053	2.119	.0245	.2044
#3	126.9	21.13	8.103	6.406	.0391	.0052	2.064	.0246	.2074

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.496**	**.0020**	**.0468**	**1.132**	**.0924**	**.0686**	**3.119**
Stddev	.006	.0013	.0003	.008	.0029	.0009	.035
%RSD	.2381	64.51	.7025	.6765	3.130	1.372	1.112
#1	2.501	.0031	.0471	1.127	.0895	.0685	3.094
#2	2.490	.0024	.0465	1.129	.0924	.0677	3.104
#3	2.498	.0006	.0469	1.141	.0953	.0696	3.159

Zoom In Zoom Out

Sample Name: jc87389-1 Acquired: 5/3/2019 16:42:10 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**154720.**	**29501.**	**6723.7**	**9350.9**
Stddev	429.	195.	26.2	28.5
%RSD	.27714	.66218	.38961	.30530
#1	154380.	29288.	6737.3	9362.6
#2	154570.	29671.	6740.2	9371.8
#3	155200.	29544.	6693.5	9318.4

Zoom In Zoom Out

Sample Name: ccv Acquired: 5/3/2019 16:47:19 Type: QC
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.992**	**2.015**	**1.995**	**2.023**	**1.993**	**1.993**	**2.016**	**2.042**	**.2457**
Stddev	.001	.002	.008	.004	.014	.011	.037	.006	.0012
%RSD	.0613	.1152	.3849	.2171	.6791	.5742	1.830	.2807	.4980
#1	1.992	2.016	1.987	2.018	1.977	1.981	1.983	2.036	.2443
#2	1.993	2.017	2.003	2.026	1.998	1.993	2.011	2.047	.2464
#3	1.991	2.013	1.994	2.024	2.002	2.004	2.056	2.043	.2464
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.971**	**1.993**	**1.983**	**2.075**	**2.028**	**2.006**	**1.990**	**39.86**	**40.71**
Stddev	.012	.004	.005	.010	.004	.006	.007	.06	.04
%RSD	.5969	.1781	.2715	.4696	.2229	.3029	.3460	.1411	.0860
#1	1.958	1.989	1.977	2.072	2.023	2.000	1.983	39.88	40.69
#2	1.976	1.996	1.988	2.086	2.032	2.012	1.997	39.91	40.75
#3	1.980	1.995	1.984	2.066	2.030	2.007	1.990	39.80	40.68
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**40.64**	**40.10**	**39.68**	**40.38**	**2.059**	**2.018**	**5.256**	**1.984**	**2.065**
Stddev	.06	.04	.06	.06	.009	.005	.020	.005	.003
%RSD	.1572	.1121	.1435	.1462	.4507	.2442	.3838	.2475	.1537
#1	40.63	40.06	39.62	40.39	2.050	2.014	5.237	1.979	2.066
#2	40.70	40.15	39.68	40.43	2.068	2.024	5.277	1.989	2.067
#3	40.57	40.10	39.73	40.31	2.058	2.018	5.255	1.985	2.061
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ccv Acquired: 5/3/2019 16:47:19 Type: QC
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.992**	**1.965**	**1.979**	**1.938**	**2.048**	**1.930**	**1.811**
Stddev	.010	.002	.012	.008	.009	.002	.017
%RSD	.5025	.1178	.5787	.3904	.4211	.1092	.9228
#1	1.981	1.962	1.967	1.935	2.040	1.933	1.823
#2	1.993	1.966	1.981	1.947	2.057	1.929	1.818
#3	2.001	1.966	1.990	1.933	2.047	1.929	1.792
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**143770.**	**27568.**	**6200.9**	**9037.4**
Stddev	961.	36.	30.2	46.9
%RSD	.66826	.13226	.48671	.51931
#1	144870.	27587.	6231.7	9080.2
#2	143120.	27590.	6171.3	8987.2
#3	143320.	27526.	6199.8	9044.8

Zoom In Zoom Out

Sample Name: ccb Acquired: 5/3/2019 16:52:22 Type: QC
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0001**	**.0000**	**-.0002**	**.0002**	**.0005**	**.0001**	**.0001**	**-.0001**
Stddev	.0001	.0000	.0001	.0001	.0003	.0001	.0000	.0002	.0002
%RSD	91.01	62.53	1494.	80.43	143.1	25.59	18.35	143.0	180.9
#1	.0003	.0000	-.0000	-.0001	-.0001	.0005	.0001	.0002	.0001
#2	.0001	.0000	.0001	-.0003	.0004	.0004	.0001	-.0001	-.0004
#3	.0000	.0001	-.0001	-.0001	.0004	.0007	.0001	.0003	-.0002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**-.0003**	**.0001**	**.0002**	**-.0009**	**.0000**	**.0004**	**-.0112**	**-.0052**
Stddev	.0002	.0001	.0001	.0007	.0004	.0020	.0011	.0061	.0036
%RSD	212.0	23.06	259.1	460.7	39.96	4656.	305.7	54.00	69.97
#1	.0000	-.0002	.0002	.0002	-.0006	.0023	.0005	-.0043	-.0070
#2	-.0003	-.0003	-.0001	.0009	-.0013	-.0012	.0014	-.0136	-.0076
#3	.0000	-.0004	.0001	-.0006	-.0009	-.0011	-.0008	-.0157	-.0010
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0014**	**.0039**	**.1140**	**.0657**	**.0022**	**.0001**	**.0003**	**-.0005**	**.0001**
Stddev	.0006	.0103	.0415	.0055	.0005	.0001	.0002	.0002	.0001
%RSD	41.80	265.6	36.38	8.379	23.90	58.21	63.33	45.57	72.45
#1	.0008	.0151	.0976	.0700	.0020	.0001	.0006	-.0008	.0001
#2	.0017	-.0054	.1611	.0595	.0028	.0002	.0002	-.0003	.0001
#3	.0019	.0020	.0832	.0674	.0019	.0000	.0002	-.0005	.0002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: ccb Acquired: 5/3/2019 16:52:22 Type: QC
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	**.0013**	**.0003**	**-.0004**	**.0010**	**-.0004**	**.0189**
Stddev	.0001	.0007	.0001	.0019	.0008	.0011	.0031
%RSD	56.11	49.80	18.49	532.1	79.10	281.6	16.14
#1	.0002	.0020	.0003	.0010	.0002	.0008	.0168
#2	.0002	.0014	.0004	.0005	.0019	-.0012	.0176
#3	.0004	.0006	.0003	-.0025	.0010	-.0007	.0224
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**150760.**	**27667.**	**6496.4**	**10028.**
Stddev	924.	299.	59.2	77.
%RSD	.61319	1.0800	.91200	.77206
#1	149750.	27541.	6464.8	9987.6
#2	151570.	27453.	6459.7	9980.1
#3	150950.	28008.	6564.8	10118.

Zoom In Zoom Out

Sample Name: mp14772-s1 Acquired: 5/3/2019 16:57:30 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.681**	**1.993**	**1.932**	**2.032**	**2.028**	**2.074**	**2.789**	**2.089**	**.2438**
Stddev	.037	.006	.001	.001	.003	.007	.028	.001	.0007
%RSD	1.019	.3017	.0511	.0629	.1257	.3564	1.020	.0517	.2866
#1	3.638	1.999	1.931	2.032	2.025	2.080	2.821	2.088	.2446
#2	3.698	1.987	1.933	2.034	2.030	2.075	2.770	2.090	.2433
#3	3.707	1.992	1.931	2.031	2.028	2.066	2.774	2.089	.2434

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.076**	**2.164**	**1.953**	**2.065**	**3.875**	**1.901**	**1.499**	**77.46**	**85.78**
Stddev	.001	.001	.003	.005	.004	.002	.001	.12	1.46
%RSD	.0491	.0260	.1569	.2210	.1078	.1100	.0554	.1559	1.703
#1	2.077	2.163	1.950	2.061	3.873	1.899	1.498	77.57	86.23
#2	2.075	2.164	1.956	2.070	3.880	1.903	1.499	77.33	86.96
#3	2.076	2.165	1.952	2.065	3.873	1.901	1.499	77.47	84.15

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**90.97**	**49.89**	**34.58**	**26.05**	**1.968**	**1.915**	**4.261**	**1.895**	**2.177**
Stddev	.16	.07	.07	.03	.002	.001	.009	.005	.001
%RSD	.1774	.1502	.1999	.1169	.0837	.0626	.2054	.2679	.0311
#1	91.10	49.96	34.60	26.03	1.966	1.914	4.252	1.896	2.177
#2	90.79	49.81	34.51	26.04	1.970	1.916	4.261	1.900	2.176
#3	91.02	49.89	34.64	26.08	1.969	1.916	4.270	1.889	2.178

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.393**	**1.123**	**1.783**	**16.76**	**.1521**	**.0557**	**4.933**
Stddev	.002	.002	.001	.06	.0012	.0022	.055
%RSD	.0470	.1998	.0737	.3683	.7869	3.980	1.115
#1	3.392	1.120	1.782	16.71	.1507	.0565	4.872
#2	3.395	1.125	1.782	16.83	.1527	.0573	4.949
#3	3.392	1.123	1.784	16.76	.1528	.0531	4.978

Zoom In Zoom Out

Sample Name: mp14772-s1 Acquired: 5/3/2019 16:57:30 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**146510.**	**28634.**	**6417.8**	**9108.3**
Stddev	488.	117.	6.5	6.6
%RSD	.33279	.40834	.10120	.07204
#1	146240.	28538.	6424.4	9115.9
#2	146220.	28764.	6417.5	9105.2
#3	147070.	28601.	6411.4	9104.0

Zoom In Zoom Out

Sample Name: mp14772-s2 Acquired: 5/3/2019 17:02:45 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.888**	**1.979**	**1.929**	**2.018**	**2.013**	**2.072**	**2.863**	**2.072**	**.2416**
Stddev	.090	.003	.005	.004	.003	.007	.041	.005	.0004
%RSD	1.529	.1485	.2775	.1932	.1704	.3398	1.424	.2306	.1524
#1	5.932	1.976	1.925	2.015	2.009	2.065	2.870	2.069	.2412
#2	5.948	1.981	1.927	2.016	2.015	2.079	2.900	2.069	.2418
#3	5.784	1.981	1.935	2.022	2.014	2.071	2.819	2.078	.2418

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.077**	**2.244**	**1.940**	**2.018**	**5.752**	**1.878**	**1.464**	**78.63**	**99.70**
Stddev	.003	.005	.007	.009	.015	.010	.003	.17	1.46
%RSD	.1341	.2160	.3715	.4556	.2610	.5174	.2035	.2195	1.469
#1	2.078	2.241	1.932	2.008	5.742	1.867	1.462	78.44	99.77
#2	2.080	2.241	1.940	2.027	5.745	1.881	1.462	78.78	101.1
#3	2.074	2.250	1.947	2.019	5.769	1.886	1.467	78.67	98.20

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**98.52**	**53.90**	**34.85**	**25.92**	**1.976**	**1.893**	**3.868**	**1.867**	**2.189**
Stddev	.19	.09	.07	.04	.004	.005	.019	.004	.004
%RSD	.1954	.1742	.1997	.1549	.1954	.2533	.5011	.2243	.1685
#1	98.30	53.79	34.77	25.89	1.973	1.889	3.889	1.862	2.185
#2	98.67	53.94	34.90	25.91	1.975	1.892	3.851	1.869	2.191
#3	98.58	53.97	34.89	25.97	1.981	1.898	3.864	1.870	2.191

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.341**	**1.085**	**1.761**	**19.32**	**.1491**	**.0569**	**4.918**
Stddev	.003	.002	.002	.09	.0009	.0006	.009
%RSD	.0820	.1887	.1104	.4621	.5716	1.120	.1749
#1	3.343	1.083	1.762	19.22	.1499	.0563	4.918
#2	3.340	1.086	1.759	19.38	.1492	.0575	4.927
#3	3.338	1.087	1.761	19.37	.1482	.0568	4.910

Zoom In Zoom Out

Sample Name: mp14772-s2 Acquired: 5/3/2019 17:02:45 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**146020.**	**28634.**	**6410.3**	**9084.9**
Stddev	937.	39.	8.7	8.5
%RSD	.64158	.13737	.13506	.09308
#1	146280.	28616.	6400.3	9075.2
#2	144980.	28606.	6415.7	9091.1
#3	146800.	28679.	6414.9	9088.3

Zoom In Zoom Out

Sample Name: jc87361-3 Acquired: 5/3/2019 17:08:00 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.174**	**.0025**	**.0018**	**.0351**	**.0668**	**.0811**	**.8797**	**.0702**	**.0004**
Stddev	.026	.0000	.0002	.0001	.0000	.0001	.0008	.0002	.0003
%RSD	.8142	1.670	8.596	.3934	.0714	.1029	.0936	.3319	67.96
#1	3.204	.0026	.0019	.0352	.0668	.0812	.8800	.0705	.0005
#2	3.159	.0026	.0016	.0349	.0669	.0812	.8802	.0700	.0001
#3	3.159	.0025	.0019	.0351	.0668	.0811	.8787	.0702	.0006

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1338**	**.3304**	**.0391**	**.0009**	**3.294**	**.0056**	**.0032**	**36.73**	**76.61**
Stddev	.0002	.0003	.0003	.0001	.004	.0010	.0005	.27	.61
%RSD	.1151	.0816	.6488	11.46	.1363	17.15	14.02	.7465	.8009
#1	.1340	.3303	.0388	.0009	3.290	.0067	.0032	36.88	77.04
#2	.1337	.3307	.0393	.0008	3.299	.0050	.0028	36.42	75.90
#3	.1338	.3302	.0391	.0009	3.293	.0050	.0037	36.90	76.87

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**70.20**	**26.54**	**6.774**	**.9199**	**.0815**	**.0110**	**1.878**	**.0359**	**.1486**
Stddev	.51	.20	.062	.0035	.0005	.0003	.022	.0004	.0010
%RSD	.7288	.7670	.9166	.3776	.6719	3.028	1.163	1.017	.6656
#1	70.53	26.67	6.796	.9215	.0816	.0107	1.903	.0363	.1489
#2	69.61	26.30	6.704	.9159	.0810	.0113	1.871	.0358	.1475
#3	70.46	26.65	6.823	.9222	.0820	.0111	1.861	.0356	.1495

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.9106**	**.0060**	**.0196**	**20.59**	**.0336**	**.0429**	**3.202**
Stddev	.0051	.0006	.0002	.04	.0010	.0020	.007
%RSD	.5553	10.30	1.005	.1998	3.070	4.551	.2132
#1	.9075	.0066	.0198	20.63	.0326	.0438	3.194
#2	.9164	.0053	.0197	20.59	.0346	.0407	3.207
#3	.9079	.0061	.0194	20.55	.0334	.0443	3.205

Zoom In Zoom Out

Sample Name: jc87361-3 Acquired: 5/3/2019 17:08:00 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**148750.**	**28976.**	**6519.4**	**9339.2**
Stddev	719.	303.	9.7	14.0
%RSD	.48340	1.0449	.14888	.15006
#1	149000.	28751.	6529.7	9354.8
#2	147940.	29320.	6510.4	9327.6
#3	149310.	28857.	6518.0	9335.3

Zoom In Zoom Out

Sample Name: mp14772-sd1 Acquired: 5/3/2019 17:13:01 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.215**	**.0024**	**.0014**	**.0346**	**.0667**	**.0851**	**.8820**	**.0705**	**-.0007**
Stddev	.012	.0004	.0008	.0014	.0015	.0014	.0014	.0012	.0014
%RSD	.3651	14.87	59.98	3.934	2.238	1.632	.1632	1.747	189.7
#1	3.225	.0024	.0021	.0355	.0665	.0848	.8835	.0719	.0007
#2	3.216	.0028	.0005	.0331	.0653	.0866	.8818	.0695	-.0020
#3	3.202	.0021	.0017	.0353	.0683	.0839	.8807	.0701	-.0009

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1345**	**.3419**	**.0401**	**.0013**	**3.293**	**.0048**	**.0058**	**37.02**	**78.10**
Stddev	.0018	.0057	.0055	.0046	.049	.0040	.0009	.16	.27
%RSD	1.348	1.662	13.60	354.8	1.497	83.55	14.81	.4205	.3407
#1	.1335	.3484	.0360	-.0035	3.350	.0013	.0057	37.17	78.28
#2	.1366	.3382	.0380	.0018	3.268	.0093	.0068	37.03	78.22
#3	.1334	.3391	.0463	.0056	3.261	.0039	.0051	36.86	77.79

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**71.32**	**27.31**	**7.450**	**1.177**	**.0910**	**.0120**	**1.882**	**.0330**	**.1502**
Stddev	.23	.01	.114	.053	.0010	.0009	.049	.0033	.0007
%RSD	.3192	.0449	1.531	4.486	1.142	7.543	2.580	10.11	.4440
#1	71.47	27.31	7.516	1.159	.0921	.0129	1.935	.0358	.1509
#2	71.44	27.32	7.319	1.236	.0911	.0121	1.840	.0293	.1496
#3	71.06	27.29	7.516	1.135	.0900	.0111	1.870	.0338	.1500

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.9005**	**.0206**	**.0207**	**20.56**	**.0336**	**.0323**	**3.184**
Stddev	.0055	.0013	.0005	.40	.0043	.0128	.051
%RSD	.6119	6.407	2.514	1.943	12.85	39.56	1.605
#1	.8954	.0191	.0206	20.99	.0371	.0276	3.241
#2	.9063	.0213	.0213	20.50	.0348	.0226	3.170
#3	.8998	.0214	.0203	20.19	.0288	.0468	3.142

Zoom In Zoom Out

Sample Name: mp14772-sd1 Acquired: 5/3/2019 17:13:01 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**149510.**	**27989.**	**6443.1**	**9634.9**
Stddev	669.	145.	113.4	144.0
%RSD	.44723	.51771	1.7592	1.4948
#1	148750.	28086.	6312.3	9468.7
#2	150030.	27823.	6511.9	9714.2
#3	149740.	28060.	6505.1	9721.9

Zoom In Zoom Out

Sample Name: jc87361-1 Acquired: 5/3/2019 17:18:03 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment: due

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4047**	**.0056**	**.0023**	**.0906**	**.1523**	**.3048**	**3.800**	**.2480**	**-.0008**
Stddev	.0027	.0001	.0002	.0001	.0005	.0012	.032	.0002	.0005
%RSD	.6707	1.182	6.810	.0920	.3288	.4076	.8316	.0916	67.99
#1	.4070	.0057	.0024	.0906	.1518	.3043	3.779	.2479	-.0003
#2	.4017	.0056	.0023	.0907	.1528	.3062	3.837	.2478	-.0013
#3	.4054	.0056	.0021	.0906	.1523	.3038	3.785	.2482	-.0007

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1832**	**.6365**	**.0649**	**.0020**	**.6350**	**.0038**	**.0017**	**83.89**	F **405.7**
Stddev	.0005	.0012	.0008	.0004	.0008	.0006	.0008	.43	7.0
%RSD	.2576	.1951	1.297	20.55	.1268	15.35	46.06	.5088	1.730
#1	.1831	.6354	.0654	.0024	.6346	.0043	.0015	84.30	413.7
#2	.1837	.6379	.0640	.0019	.6359	.0032	.0025	83.45	402.7
#3	.1828	.6363	.0654	.0016	.6344	.0040	.0010	83.93	400.6

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**198.6**	**216.5**	**24.49**	**1.518**	**.1815**	**.0416**	**2.993**	**.0265**	**.2462**
Stddev	1.8	.9	.15	.007	.0007	.0001	.017	.0005	.0008
%RSD	.8975	.3970	.6018	.4521	.3833	.3202	.5655	1.829	.3122
#1	199.7	217.3	24.63	1.526	.1808	.0417	2.973	.0260	.2467
#2	199.5	215.6	24.33	1.513	.1822	.0416	3.005	.0269	.2453
#3	196.5	216.6	24.50	1.516	.1815	.0415	3.000	.0266	.2464

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.9803**	**.0036**	**.1236**	**41.84**	**.0358**	**.1812**	**2.160**
Stddev	.0005	.0003	.0001	.30	.0007	.0015	.003
%RSD	.0492	8.967	.0697	.7262	1.984	.8406	.1449
#1	.9803	.0039	.1237	41.51	.0366	.1829	2.161
#2	.9808	.0037	.1235	41.90	.0354	.1802	2.162
#3	.9798	.0033	.1236	42.10	.0354	.1803	2.156

Zoom In Zoom Out

Sample Name: jc87361-1 Acquired: 5/3/2019 17:18:03 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment: due

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**142120.**	**28673.**	**6174.3**	**8545.8**
Stddev	585.	138.	8.8	8.2
%RSD	.41132	.48299	.14266	.09591
#1	142410.	28515.	6175.4	8551.5
#2	141440.	28729.	6165.0	8536.4
#3	142500.	28774.	6182.5	8549.5

Zoom In Zoom Out

Sample Name: jc87361-2 Acquired: 5/3/2019 17:23:25 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.160**	**.0057**	**.0090**	**.0455**	**5.334**	**.5848**	**1.965**	**.1413**	**.0040**
Stddev	.097	.0001	.0003	.0004	.040	.0051	.027	.0012	.0001
%RSD	2.339	1.066	2.856	.8089	.7465	.8655	1.396	.8539	2.679
#1	4.212	.0056	.0092	.0458	5.343	.5853	1.991	.1422	.0040
#2	4.048	.0057	.0087	.0451	5.291	.5794	1.936	.1400	.0040
#3	4.220	.0058	.0090	.0455	5.369	.5895	1.967	.1418	.0042

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1691**	**3.904**	**.1816**	**.0010**	**7.747**	**.0056**	**.0019**	**42.34**	**108.8**
Stddev	.0010	.038	.0011	.0014	.059	.0012	.0009	.10	1.9
%RSD	.5823	.9713	.6288	147.6	.7586	21.78	47.63	.2342	1.701
#1	.1689	3.935	.1829	-.0005	7.788	.0052	.0022	42.35	107.3
#2	.1683	3.862	.1809	.0024	7.680	.0046	.0009	42.23	108.2
#3	.1702	3.916	.1810	.0011	7.775	.0070	.0026	42.43	110.8

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**146.5**	**33.57**	**6.100**	**1.853**	**.1635**	**.0159**	**2.016**	**.2541**	**.5089**
Stddev	2.6	.11	.051	.004	.0023	.0001	.021	.0025	.0010
%RSD	1.782	.3262	.8377	.2229	1.434	.6114	1.022	.9874	.2044
#1	145.4	33.55	6.054	1.851	.1652	.0160	2.038	.2567	.5087
#2	144.6	33.47	6.090	1.850	.1608	.0158	1.997	.2517	.5080
#3	149.5	33.68	6.155	1.858	.1644	.0159	2.014	.2539	.5100

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.9615**	**.0017**	**.0145**	**5.102**	**.0402**	**.0362**	**7.473**
Stddev	.0083	.0002	.0002	.056	.0029	.0018	.154
%RSD	.8684	12.44	1.471	1.087	7.336	4.934	2.058
#1	.9597	.0018	.0144	5.153	.0379	.0344	7.647
#2	.9543	.0014	.0143	5.043	.0391	.0380	7.358
#3	.9707	.0018	.0147	5.111	.0435	.0361	7.413

Zoom In Zoom Out

Sample Name: jc87361-2 Acquired: 5/3/2019 17:23:25 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**149170.**	**29064.**	**6322.6**	**9249.8**
Stddev	627.	286.	49.9	53.5
%RSD	.42002	.98480	.78902	.57811
#1	149370.	29049.	6278.7	9209.2
#2	149670.	29358.	6376.8	9310.4
#3	148460.	28787.	6312.1	9229.8

Zoom In Zoom Out

Sample Name: jc87361-4 Acquired: 5/3/2019 17:28:55 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2088**	**.0015**	**.0015**	**.0244**	**.0429**	**.0790**	**1.789**	**.0499**	**-.0001**
Stddev	.0010	.0001	.0001	.0001	.0003	.0008	.016	.0003	.0004
%RSD	.4594	3.813	7.393	.4374	.8095	.9773	.8852	.6878	832.0
#1	.2096	.0014	.0016	.0243	.0427	.0792	1.796	.0502	.0004
#2	.2077	.0015	.0015	.0244	.0433	.0781	1.771	.0495	-.0002
#3	.2091	.0015	.0013	.0245	.0427	.0797	1.800	.0501	-.0004

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0707**	**.4366**	**.0439**	**.0002**	**.6688**	**.0023**	**.0223**	**18.80**	F **467.0**
Stddev	.0006	.0005	.0005	.0024	.0013	.0007	.0001	.10	2.5
%RSD	.8774	.1152	1.117	1016.	.2016	30.78	.2285	.5087	.5355
#1	.0712	.4372	.0434	-.0016	.6704	.0025	.0223	18.87	469.0
#2	.0700	.4362	.0444	.0030	.6680	.0015	.0222	18.69	464.2
#3	.0709	.4366	.0439	-.0007	.6680	.0029	.0223	18.85	467.9

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**62.14**	**246.8**	**4.237**	**1.600**	**.2107**	**.0050**	**2.345**	**.0386**	**.1967**
Stddev	.26	1.1	.007	.016	.0014	.0002	.047	.0004	.0009
%RSD	.4193	.4255	.1737	.9878	.6515	3.763	2.014	1.008	.4629
#1	62.30	247.3	4.231	1.603	.2096	.0051	2.400	.0384	.1974
#2	61.84	245.5	4.235	1.583	.2102	.0052	2.319	.0383	.1957
#3	62.28	247.4	4.245	1.614	.2122	.0048	2.316	.0390	.1971

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.8985**	**.0014**	**.0254**	**1.497**	**.0365**	**.0367**	**1.851**
Stddev	.0087	.0012	.0002	.009	.0021	.0007	.005
%RSD	.9633	86.18	.7914	.5832	5.871	1.845	.2742
#1	.9014	.0008	.0253	1.494	.0340	.0365	1.851
#2	.8888	.0006	.0256	1.491	.0379	.0375	1.845
#3	.9054	.0028	.0252	1.507	.0375	.0361	1.855

Zoom In Zoom Out

Sample Name: jc87361-4 Acquired: 5/3/2019 17:28:55 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**137670.**	**27595.**	**5935.9**	**8274.9**
Stddev	619.	232.	12.4	18.7
%RSD	.44968	.83980	.20855	.22601
#1	137350.	27650.	5931.5	8276.6
#2	138390.	27794.	5949.9	8292.8
#3	137280.	27341.	5926.3	8255.5

Zoom In Zoom Out

Sample Name: jc87361-5 Acquired: 5/3/2019 17:34:04 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5237**	**.0079**	**.0008**	**.1457**	**.2242**	**.2687**	**2.896**	**.3474**	**-.0012**
Stddev	.0017	.0001	.0002	.0021	.0021	.0016	.022	.0039	.0018
%RSD	.3269	.8746	24.36	1.442	.9566	.6061	.7690	1.129	148.9
#1	.5217	.0079	.0007	.1469	.2248	.2683	2.914	.3499	-.0029
#2	.5250	.0078	.0007	.1433	.2260	.2706	2.902	.3429	-.0012
#3	.5243	.0079	.0011	.1469	.2218	.2674	2.871	.3495	.0006

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2467**	**.4048**	**.1078**	**.0068**	**.1267**	**.0002**	**.0013**	**138.8**	F **326.5**
Stddev	.0027	.0039	.0015	.0012	.0014	.0005	.0008	.4	5.4
%RSD	1.078	.9721	1.355	18.12	1.089	288.2	64.09	.2650	1.654
#1	.2483	.4078	.1075	.0054	.1283	.0007	.0015	138.4	327.9
#2	.2481	.4004	.1065	.0076	.1257	.0000	.0020	139.1	320.5
#3	.2436	.4063	.1094	.0074	.1262	-.0002	.0004	139.0	331.0

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**166.2**	**184.8**	**41.39**	**2.117**	**.2242**	**.0312**	**2.646**	**.0180**	**.4311**
Stddev	4.5	.4	.17	.013	.0025	.0005	.054	.0001	.0002
%RSD	2.736	.2400	.4063	.6318	1.109	1.537	2.057	.7150	.0510
#1	161.0	184.3	41.19	2.101	.2264	.0313	2.678	.0181	.4309
#2	168.2	185.1	41.46	2.124	.2215	.0307	2.583	.0179	.4313
#3	169.4	185.0	41.50	2.125	.2247	.0316	2.677	.0180	.4310

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.107**	**.0036**	**.1583**	**7.261**	**.0383**	**.2931**	**1.808**
Stddev	.013	.0002	.0013	.074	.0012	.0005	.022
%RSD	1.156	5.640	.8458	1.020	3.234	.1872	1.245
#1	1.114	.0038	.1586	7.335	.0385	.2933	1.833
#2	1.115	.0037	.1595	7.186	.0394	.2935	1.788
#3	1.092	.0034	.1568	7.263	.0370	.2925	1.803

Zoom In Zoom Out

Sample Name: jc87361-5 Acquired: 5/3/2019 17:34:04 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**143660.**	**28873.**	**6217.9**	**8514.7**
Stddev	972.	165.	49.4	60.4
%RSD	.67691	.57209	.79454	.70949
#1	143200.	29061.	6170.5	8466.8
#2	143000.	28805.	6269.1	8582.6
#3	144780.	28752.	6214.1	8494.7

Zoom In Zoom Out

Sample Name: jc87361-6 Acquired: 5/3/2019 17:39:23 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3261**	**.0054**	**.0025**	**.0966**	**.1458**	**.3132**	**3.473**	**.2652**
Stddev	.0003	.0000	.0002	.0014	.0177	.0120	.428	.0007
%RSD	.0959	.3088	9.183	1.403	12.11	3.839	12.32	.2770
#1	.3263	.0054	.0026	.0963	.1359	.3063	3.232	.2657
#2	.3258	.0054	.0023	.0955	.1354	.3062	3.220	.2644
#3	.3263	.0054	.0027	.0981	.1662	.3271	3.967	.2656

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **-.0199**	**.1726**	**.5718**	**.1057**	**.0025**	**.3126**	F **-.0156**	**.0040**
Stddev	.0314	.0180	.0016	.0037	.0037	.0023	.0302	.0023
%RSD	157.3	10.45	.2770	3.471	147.5	.7348	193.8	57.31
#1	-.0022	.1626	.5736	.1060	.0043	.3130	.0025	.0020
#2	-.0014	.1618	.5713	.1092	.0051	.3146	.0012	.0034
#3	-.0561	.1934	.5705	.1019	-.0018	.3101	-.0505	.0064

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**74.12**	F **329.3**	**176.8**	**193.8**	**22.73**	**2.965**	**.1487**	**.0466**
Stddev	.08	5.3	2.6	.2	.06	.035	.0013	.0016
%RSD	.1118	1.609	1.458	.1234	.2530	1.181	.8464	3.391
#1	74.16	331.8	173.8	193.8	22.78	2.946	.1499	.0474
#2	74.03	323.2	177.9	193.6	22.75	2.943	.1474	.0476
#3	74.18	332.9	178.6	194.0	22.67	3.005	.1488	.0448

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.629**	**.0252**	**.2701**	**.7444**	**.0045**	**.1116**	**19.97**	**.0194**
Stddev	.025	.0012	.0034	.0903	.0040	.0050	.17	.0094
%RSD	.9553	4.851	1.243	12.13	87.68	4.438	.8523	48.57
#1	2.657	.0262	.2682	.6943	.0024	.1086	20.14	.0258
#2	2.608	.0256	.2681	.6902	.0021	.1088	19.97	.0240
#3	2.622	.0239	.2740	.8486	.0091	.1173	19.80	.0086

Zoom In Zoom Out

Sample Name: jc87361-6 Acquired: 5/3/2019 17:39:23 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Li6707	P_1774
Units	ppm	ppm
Avg	**.1664**	**2.763**
Stddev	.0151	.049
%RSD	9.088	1.772
#1	.1585	2.811
#2	.1569	2.763
#3	.1838	2.714

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	*****	**28190.**	**6146.3**	**8550.3**
Stddev	-----	274.	27.1	28.3
%RSD	-----	.97324	.44095	.33126
#1	140390.	28381.	6120.7	8524.4
#2	140930.	28313.	6143.4	8545.9
#3	-----	27876.	6174.7	8580.5

Zoom In Zoom Out

Sample Name: ccv Acquired: 5/3/2019 17:44:47 Type: QC
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.019**	**2.032**	**1.999**	**2.032**	**2.014**	**2.018**	**2.059**	**2.054**	**.2486**
Stddev	.002	.001	.002	.001	.001	.010	.013	.001	.0009
%RSD	.0833	.0466	.1152	.0557	.0541	.5029	.6476	.0564	.3480
#1	2.017	2.033	2.000	2.033	2.013	2.011	2.044	2.054	.2477
#2	2.020	2.033	2.001	2.032	2.015	2.013	2.063	2.054	.2488
#3	2.020	2.031	1.997	2.031	2.014	2.030	2.070	2.056	.2494
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.988**	**2.004**	**1.990**	**2.073**	**2.038**	**2.015**	**1.993**	**40.30**	**41.08**
Stddev	.005	.004	.004	.005	.002	.006	.005	.02	.04
%RSD	.2500	.2030	.1914	.2349	.0935	.2944	.2771	.0570	.0947
#1	1.985	1.999	1.987	2.070	2.037	2.011	1.998	40.27	41.10
#2	1.986	2.005	1.989	2.069	2.037	2.011	1.995	40.30	41.11
#3	1.994	2.006	1.994	2.078	2.040	2.022	1.987	40.32	41.04
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**41.00**	**40.38**	**40.14**	**40.84**	**2.066**	**2.029**	**5.277**	**1.986**	**2.090**
Stddev	.05	.06	.07	.03	.003	.005	.006	.005	.002
%RSD	.1243	.1606	.1665	.0797	.1483	.2588	.1093	.2301	.1108
#1	41.02	40.45	40.10	40.86	2.068	2.023	5.275	1.981	2.092
#2	41.04	40.39	40.22	40.85	2.068	2.030	5.283	1.986	2.090
#3	40.94	40.32	40.11	40.80	2.062	2.033	5.272	1.990	2.088
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ccv Acquired: 5/3/2019 17:44:47 Type: QC
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.010**	**1.974**	**1.996**	**1.929**	**2.057**	**1.948**	F **1.724**
Stddev	.004	.004	.003	.009	.005	.004	.013
%RSD	.2262	.2233	.1300	.4643	.2618	.1990	.7796
#1	2.007	1.970	1.994	1.920	2.056	1.944	1.716
#2	2.009	1.975	1.996	1.930	2.062	1.952	1.716
#3	2.016	1.978	1.999	1.938	2.052	1.948	1.739
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
Value							2.000
Range							-10.00%

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**142120.**	**27450.**	**6188.9**	**9014.4**
Stddev	392.	143.	7.1	14.2
%RSD	.27560	.52243	.11420	.15770
#1	142520.	27433.	6194.5	9007.2
#2	141730.	27316.	6191.2	9030.8
#3	142120.	27601.	6180.9	9005.2

Zoom In Zoom Out

Sample Name: ccb Acquired: 5/3/2019 17:49:50 Type: QC
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0000**	**.0001**	**.0001**	**.0001**	**.0005**	**.0001**	**.0004**	**-.0001**
Stddev	.0003	.0000	.0002	.0002	.0002	.0003	.0000	.0002	.0001
%RSD	212.5	153.6	157.8	155.3	208.6	53.87	36.59	47.64	61.14
#1	.0000	.0001	-.0001	-.0001	-.0001	.0005	.0001	.0002	-.0002
#2	-.0001	.0000	.0003	.0003	.0003	.0002	.0001	.0004	-.0001
#3	.0005	.0000	.0002	.0001	.0001	.0007	.0001	.0006	-.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**-.0003**	**-.0013**	**.0012**	**-.0004**	**.0021**	**.0024**	**-.0028**	**-.0030**
Stddev	.0003	.0002	.0010	.0007	.0010	.0009	.0009	.0076	.0015
%RSD	220.1	53.70	82.01	58.44	250.2	40.86	38.54	270.0	49.60
#1	-.0000	-.0004	-.0001	.0005	.0005	.0011	.0030	-.0113	-.0048
#2	.0001	-.0004	-.0017	.0019	-.0014	.0027	.0014	-.0005	-.0021
#3	-.0004	-.0001	-.0019	.0013	-.0002	.0025	.0029	.0033	-.0023
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0025**	**.0035**	**.1860**	**.0831**	**.0026**	**.0005**	**.0014**	**-.0010**	**.0002**
Stddev	.0005	.0054	.0095	.0094	.0001	.0001	.0002	.0002	.0001
%RSD	20.06	152.3	5.083	11.37	5.209	26.12	14.68	21.88	35.26
#1	.0028	-.0015	.1817	.0923	.0024	.0003	.0012	-.0013	.0002
#2	.0019	.0092	.1969	.0835	.0027	.0005	.0013	-.0008	.0003
#3	.0028	.0030	.1795	.0734	.0026	.0006	.0016	-.0010	.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: ccb Acquired: 5/3/2019 17:49:50 Type: QC
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0005**	**.0015**	**.0002**	**-.0008**	**.0009**	**-.0002**	F **.0221**
Stddev	.0003	.0010	.0002	.0012	.0009	.0011	.0003
%RSD	61.06	66.24	75.11	153.9	95.76	465.9	1.489
#1	.0002	.0024	.0002	.0005	.0013	.0010	.0217
#2	.0005	.0018	.0001	-.0018	-.0001	-.0006	.0223
#3	.0008	.0004	.0004	-.0010	.0015	-.0011	.0222

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit							.0200
Low Limit							-.0200

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**149690.**	**27460.**	**6366.2**	**9826.7**
Stddev	292.	271.	37.3	44.4
%RSD	.19529	.98795	.58570	.45192
#1	149970.	27708.	6398.2	9858.2
#2	149710.	27501.	6375.1	9846.0
#3	149390.	27170.	6325.2	9775.9

Zoom In Zoom Out

Sample Name: jc87361-7 Acquired: 5/3/2019 17:54:58 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3239**	**.0053**	**.0011**	**.0960**	**.1460**	**.2201**	**2.969**	**.2554**	**-.0002**
Stddev	.0014	.0000	.0001	.0005	.0009	.0022	.040	.0005	.0002
%RSD	.4341	.5670	11.13	.5269	.6165	1.019	1.359	.2046	131.4
#1	.3238	.0053	.0013	.0954	.1470	.2222	3.008	.2555	.0000
#2	.3225	.0053	.0010	.0962	.1452	.2177	2.928	.2559	-.0001
#3	.3253	.0054	.0011	.0964	.1459	.2204	2.973	.2549	-.0005

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1771**	**.4031**	**.0762**	**.0038**	**.2289**	**.0030**	**.0007**	**86.45**	F **605.7**
Stddev	.0012	.0016	.0011	.0010	.0018	.0003	.0019	.41	7.7
%RSD	.6762	.3871	1.457	27.01	.8027	9.784	282.0	.4725	1.267
#1	.1781	.4015	.0752	.0049	.2268	.0030	.0019	86.36	602.6
#2	.1758	.4032	.0760	.0033	.2303	.0027	-.0015	86.10	600.0
#3	.1775	.4047	.0774	.0030	.2296	.0033	.0016	86.90	614.4

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**160.7**	**247.4**	**27.45**	**2.707**	**.1722**	**.0266**	**2.009**	**.0181**	**1.705**
Stddev	1.8	.9	.10	.007	.0008	.0001	.023	.0005	.003
%RSD	1.144	.3545	.3811	.2531	.4567	.4662	1.139	2.915	.1975
#1	162.5	247.9	27.43	2.709	.1728	.0267	1.991	.0177	1.704
#2	158.8	246.4	27.36	2.700	.1725	.0265	2.035	.0187	1.703
#3	160.8	248.0	27.56	2.713	.1713	.0265	2.002	.0179	1.709

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.9439**	**.0042**	**.1154**	**23.15**	**.0360**	**.1952**	**2.693**
Stddev	.0067	.0006	.0010	.05	.0001	.0007	.003
%RSD	.7086	13.39	.8375	.2368	.3451	.3793	.1185
#1	.9503	.0042	.1163	23.10	.0360	.1950	2.696
#2	.9369	.0047	.1144	23.13	.0360	.1960	2.690
#3	.9444	.0036	.1156	23.21	.0362	.1945	2.694

Zoom In Zoom Out

Sample Name: jc87361-7 Acquired: 5/3/2019 17:54:58 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**139480.**	**28066.**	**6075.1**	**8275.7**
Stddev	701.	239.	31.0	28.9
%RSD	.50265	.85013	.50947	.34882
#1	138850.	27921.	6101.8	8304.3
#2	140230.	28341.	6082.2	8276.4
#3	139350.	27935.	6041.2	8246.6

Zoom In Zoom Out

Sample Name: jc87361-8 Acquired: 5/3/2019 18:00:21 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.670**	**.0070**	**.0225**	**.0533**	**.2183**	**1.676**	F **8.075**	**.1549**
Stddev	.005	.0000	.0004	.0007	.0008	.003	.049	.0020
%RSD	.1835	.3856	1.947	1.229	.3684	.1705	.6002	1.312
#1	2.675	.0070	.0226	.0536	.2183	1.679	8.044	.1563
#2	2.666	.0070	.0220	.0525	.2192	1.676	8.050	.1526
#3	2.670	.0070	.0228	.0538	.2176	1.673	8.131	.1558

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0016**	**.2984**	**4.715**	**.1295**	F **-.0025**	**6.588**	**-.0067**	**.0248**
Stddev	.0025	.0010	.063	.0028	.0011	.074	.0031	.0019
%RSD	153.3	.3459	1.329	2.137	41.68	1.126	46.94	7.664
#1	.0001	.2992	4.743	.1325	-.0028	6.621	-.0070	.0237
#2	-.0045	.2988	4.643	.1270	-.0034	6.502	-.0097	.0238
#3	-.0005	.2972	4.758	.1289	-.0014	6.639	-.0034	.0270

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**74.63**	F **234.1**	F **448.7**	**98.70**	**10.83**	**4.231**	**.2063**	**.0305**
Stddev	.16	1.2	8.3	.36	.02	.017	.0034	.0004
%RSD	.2170	.5302	1.855	.3659	.2170	.3910	1.662	1.387
#1	74.82	235.4	453.9	99.11	10.84	4.249	.2072	.0307
#2	74.53	234.0	439.1	98.45	10.80	4.216	.2026	.0300
#3	74.54	233.0	453.0	98.53	10.85	4.229	.2093	.0307

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.468**	**2.549**	**.6151**	**2.732**	**-.0018**	**.0908**	**9.197**	**.1184**
Stddev	.043	.035	.0016	.010	.0012	.0007	.129	.0016
%RSD	1.738	1.386	.2558	.3776	67.50	.7771	1.402	1.391
#1	2.495	2.568	.6169	2.739	-.0025	.0916	9.246	.1165
#2	2.418	2.509	.6138	2.738	-.0026	.0901	9.051	.1196
#3	2.490	2.572	.6148	2.721	-.0004	.0908	9.294	.1190

Zoom In Zoom Out

Sample Name: jc87361-8 Acquired: 5/3/2019 18:00:21 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Li6707	P_1774
Units	ppm	ppm
Avg	**.0414**	**5.847**
Stddev	.0002	.082
%RSD	.3734	1.402
#1	.0416	5.885
#2	.0413	5.753
#3	.0413	5.903

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**144230.**	**28382.**	**6196.7**	**9223.7**
Stddev	780.	190.	74.3	90.8
%RSD	.54059	.67012	1.1984	.98451
#1	143370.	28186.	6163.8	9182.2
#2	144400.	28566.	6281.8	9327.8
#3	144900.	28395.	6144.6	9161.0

Zoom In Zoom Out

Sample Name: jc87361-9 Acquired: 5/3/2019 18:05:41 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.176**	**.0052**	**.0136**	**.0533**	**.1840**	**.6029**	**2.093**	**.1398**	**.0030**
Stddev	.005	.0000	.0002	.0003	.0007	.0018	.017	.0002	.0001
%RSD	.2380	.9509	1.142	.5859	.4075	.2975	.7981	.1386	3.231
#1	2.174	.0052	.0136	.0534	.1833	.6030	2.080	.1400	.0030
#2	2.182	.0052	.0134	.0530	.1847	.6046	2.087	.1396	.0031
#3	2.173	.0053	.0138	.0536	.1841	.6010	2.112	.1399	.0029

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1769**	**5.691**	**.0784**	**.0027**	**4.961**	**.0046**	**.0094**	**50.14**	F **277.0**
Stddev	.0007	.008	.0010	.0008	.008	.0016	.0004	.12	1.7
%RSD	.3860	.1386	1.321	29.96	.1649	34.17	4.573	.2374	.6289
#1	.1762	5.682	.0787	.0019	4.951	.0060	.0092	50.09	275.4
#2	.1775	5.693	.0792	.0029	4.965	.0029	.0090	50.28	278.9
#3	.1771	5.697	.0772	.0035	4.965	.0049	.0099	50.06	276.7

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**133.1**	**152.0**	**9.455**	**1.754**	**.1377**	**.0164**	**2.451**	**.2745**	**.3327**
Stddev	1.1	.3	.024	.005	.0010	.0002	.009	.0010	.0005
%RSD	.8063	.1944	.2497	.2804	.7053	.9990	.3476	.3614	.1410
#1	132.6	151.9	9.481	1.753	.1382	.0163	2.445	.2735	.3323
#2	134.3	152.4	9.436	1.760	.1384	.0163	2.461	.2754	.3332
#3	132.4	151.9	9.446	1.751	.1366	.0166	2.447	.2748	.3326

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.197**	**-.0029**	**.0372**	**3.328**	**.0502**	**.0659**	**7.505**
Stddev	.002	.0008	.0001	.004	.0002	.0008	.082
%RSD	.1641	27.27	.4028	.1357	.3002	1.266	1.093
#1	1.195	-.0022	.0372	3.328	.0500	.0653	7.592
#2	1.198	-.0029	.0374	3.333	.0503	.0669	7.494
#3	1.198	-.0038	.0371	3.324	.0502	.0656	7.429

Zoom In Zoom Out

Sample Name: jc87361-9 Acquired: 5/3/2019 18:05:41 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**145720.**	**28402.**	**6237.3**	**8653.3**
Stddev	577.	203.	8.3	12.4
%RSD	.39616	.71312	.13359	.14330
#1	146350.	28540.	6228.2	8639.1
#2	145210.	28169.	6239.2	8659.1
#3	145610.	28495.	6244.6	8661.8

Zoom In Zoom Out

Sample Name: jc87361-10 Acquired: 5/3/2019 18:11:03 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.260**	**.0064**	**.0086**	**.0654**	**.1718**	**.6285**	**2.289**	**.2025**
Stddev	.083	.0002	.0008	.0024	.0010	.0270	.041	.0009
%RSD	2.537	2.387	8.887	3.678	.6051	4.294	1.786	.4681
#1	3.215	.0063	.0083	.0641	.1727	.6458	2.309	.2024
#2	3.208	.0063	.0080	.0639	.1721	.6423	2.316	.2017
#3	3.355	.0066	.0095	.0681	.1707	.5974	2.242	.2036

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **-.0132**	**.2117**	**2.573**	**.1487**	**-.0005**	**3.921**	F **-.0120**	**.0169**
Stddev	.0246	.0038	.006	.0029	.0059	.010	.0268	.0013
%RSD	187.0	1.808	.2346	1.974	1078.	.2517	222.3	7.617
#1	.0005	.2146	2.580	.1498	.0035	3.932	.0040	.0167
#2	.0016	.2132	2.569	.1508	.0021	3.914	.0028	.0157
#3	-.0416	.2074	2.571	.1453	-.0073	3.917	-.0429	.0183

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**90.63**	F **354.4**	**171.8**	**157.3**	**19.29**	**8.991**	**.1579**	**.0211**
Stddev	2.39	21.9	8.3	4.4	.44	.302	.0014	.0014
%RSD	2.638	6.190	4.851	2.802	2.305	3.361	.9146	6.480
#1	89.34	341.6	164.7	155.1	19.03	8.813	.1574	.0221
#2	89.17	342.0	169.6	154.5	19.04	8.821	.1568	.0215
#3	93.39	379.8	181.0	162.4	19.80	9.340	.1595	.0195

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.760**	**.1568**	**.3757**	**1.206**	**.0125**	**.0687**	**4.576**	**.0290**
Stddev	.024	.0009	.0136	.013	.0196	.0071	.018	.0334
%RSD	.8679	.6050	3.631	1.103	156.9	10.36	.3945	115.3
#1	2.785	.1578	.3680	1.215	.0015	.0727	4.580	.0489
#2	2.737	.1568	.3676	1.213	.0008	.0729	4.557	.0475
#3	2.758	.1559	.3914	1.191	.0351	.0604	4.592	-.0096

Zoom In Zoom Out

Sample Name: jc87361-10 Acquired: 5/3/2019 18:11:03 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Li6707	P_1774
Units	ppm	ppm
Avg	**.1173**	F **8.027**
Stddev	.0165	.110
%RSD	14.06	1.364
#1	.1089	8.153
#2	.1067	7.966
#3	.1363	7.961

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**141490.**	*****	**6157.4**	**8522.0**
Stddev	1720.	-----	18.9	21.5
%RSD	1.2153	-----	.30731	.25266
#1	140790.	28488.	6135.8	8497.2
#2	140240.	28665.	6165.7	8533.5
#3	143450.	-----	6170.8	8535.4

Zoom In Zoom Out

Sample Name: jc87361-11 Acquired: 5/3/2019 18:16:24 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1815**	**.0014**	**.0009**	**.0241**	**.0433**	**.0479**	**1.603**	**.0471**	**-.0005**
Stddev	.0006	.0000	.0002	.0005	.0006	.0006	.002	.0001	.0004
%RSD	.3426	2.375	28.87	1.891	1.382	1.322	.1204	.2896	69.77
#1	.1814	.0014	.0010	.0239	.0428	.0475	1.601	.0472	-.0009
#2	.1822	.0014	.0006	.0238	.0440	.0486	1.603	.0469	-.0005
#3	.1809	.0014	.0010	.0247	.0431	.0475	1.604	.0472	-.0002

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0828**	**.2729**	**.0264**	**.0020**	**.2240**	**.0006**	**.0011**	**21.80**	F **345.1**
Stddev	.0002	.0029	.0007	.0005	.0028	.0003	.0005	.05	5.9
%RSD	.2329	1.075	2.780	23.06	1.263	48.67	47.06	.2408	1.716
#1	.0829	.2728	.0269	.0025	.2228	.0004	.0013	21.75	340.2
#2	.0826	.2701	.0266	.0018	.2219	.0005	.0015	21.86	343.4
#3	.0829	.2759	.0255	.0017	.2272	.0009	.0005	21.79	351.7

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**51.66**	**163.5**	**3.481**	**1.958**	**.0285**	**.0037**	**2.364**	**.0200**	**.2008**
Stddev	.09	.2	.021	.004	.0005	.0005	.030	.0010	.0005
%RSD	.1747	.1495	.5905	.1898	1.657	13.46	1.262	4.935	.2271
#1	51.58	163.2	3.461	1.960	.0279	.0039	2.377	.0200	.2006
#2	51.76	163.6	3.480	1.953	.0287	.0041	2.330	.0191	.2014
#3	51.64	163.6	3.502	1.959	.0288	.0032	2.386	.0211	.2005

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.171**	**.0009**	**.0373**	**1.444**	**.0484**	**.0335**	**1.544**
Stddev	.001	.0002	.0002	.017	.0010	.0012	.016
%RSD	.1118	19.08	.5853	1.158	2.127	3.464	1.047
#1	1.170	.0008	.0373	1.448	.0476	.0346	1.552
#2	1.172	.0011	.0370	1.426	.0495	.0323	1.525
#3	1.172	.0008	.0375	1.458	.0480	.0337	1.553

Zoom In Zoom Out

Sample Name: jc87361-11 Acquired: 5/3/2019 18:16:24 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**140970.**	**27758.**	**6077.7**	**8471.4**
Stddev	270.	174.	64.5	76.3
%RSD	.19185	.62673	1.0608	.90078
#1	141000.	27938.	6090.8	8483.1
#2	140690.	27745.	6134.6	8541.2
#3	141230.	27591.	6007.7	8389.9

Zoom In Zoom Out

Sample Name: mp14771-b1 Acquired: 5/3/2019 18:21:35 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.951**	**1.987**	**1.977**	**2.061**	**1.975**	**1.888**	**2.035**	**2.098**	**.2434**
Stddev	.006	.006	.005	.004	.009	.011	.010	.004	.0024
%RSD	.3295	.3105	.2522	.1935	.4282	.5808	.5091	.1991	.9892
#1	1.944	1.980	1.974	2.059	1.984	1.900	2.047	2.096	.2409
#2	1.954	1.992	1.983	2.065	1.967	1.879	2.030	2.102	.2457
#3	1.956	1.989	1.975	2.058	1.973	1.885	2.029	2.095	.2435

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.950**	**2.047**	**1.983**	**2.061**	**2.045**	**2.047**	**1.955**	**24.45**	**25.28**
Stddev	.011	.003	.003	.009	.003	.012	.015	.07	.07
%RSD	.5689	.1227	.1507	.4632	.1537	.6049	.7719	.2715	.2777
#1	1.963	2.050	1.987	2.062	2.042	2.061	1.955	24.40	25.20
#2	1.944	2.045	1.981	2.069	2.045	2.043	1.970	24.53	25.34
#3	1.944	2.047	1.982	2.051	2.048	2.037	1.939	24.43	25.30

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**25.43**	**24.63**	**28.76**	F **1377.**	**2.028**	**2.019**	**.5893**	**1.953**	**2.031**
Stddev	.06	.14	.25	30.	.004	.002	.0071	.004	.004
%RSD	.2528	.5775	.8713	2.204	.1708	.0952	1.199	.2113	.1782
#1	25.36	24.58	28.48	1361.	2.032	2.021	.5838	1.952	2.027
#2	25.49	24.79	28.96	1412.	2.025	2.017	.5973	1.958	2.032
#3	25.44	24.52	28.85	1358.	2.027	2.018	.5867	1.950	2.035

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.970**	**1.902**	**1.945**	**.0971**	**.1092**	**.0162**	**2.034**
Stddev	.012	.004	.011	.0084	.0032	.0016	.016
%RSD	.6108	.2381	.5756	8.671	2.957	9.828	.7881
#1	1.984	1.897	1.958	.0898	.1074	.0152	2.039
#2	1.963	1.904	1.939	.0951	.1129	.0180	2.048
#3	1.964	1.905	1.939	.1063	.1073	.0153	2.017

Zoom In Zoom Out

Sample Name: mp14771-b1 Acquired: 5/3/2019 18:21:35 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**141600.**	**27690.**	**6152.5**	**8727.8**
Stddev	420.	297.	7.5	13.7
%RSD	.29689	1.0738	.12142	.15745
#1	141140.	27978.	6160.0	8743.6
#2	141970.	27384.	6152.4	8718.3
#3	141690.	27708.	6145.0	8721.6

Zoom In Zoom Out

Sample Name: mp14771-mb1 Acquired: 5/3/2019 18:26:35 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment: new

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0022**	**-.0004**	**-.0000**	**-.0005**	**.0018**	**.0062**	**.0013**	**.0075**	**-.0000**
Stddev	.0011	.0001	.0002	.0012	.0019	.0017	.0002	.0010	.0008
%RSD	49.01	27.36	463.0	257.2	109.2	28.16	12.24	13.39	2272.
#1	.0030	-.0004	-.0002	-.0019	-.0005	.0042	.0014	.0064	-.0009
#2	.0010	-.0005	-.0000	.0000	.0028	.0070	.0011	.0082	.0005
#3	.0026	-.0003	.0001	.0004	.0029	.0074	.0014	.0080	.0003

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0019**	**.0447**	**-.0015**	**.0043**	**-.0013**	**.0115**	**.0075**	**.0367**	**.3352**
Stddev	.0006	.0005	.0022	.0052	.0027	.0078	.0070	.0226	.0083
%RSD	32.91	1.145	145.5	121.8	218.9	67.67	93.78	61.70	2.468
#1	-.0022	.0445	.0005	.0034	.0004	.0117	.0036	.0166	.3447
#2	-.0022	.0453	-.0012	.0100	-.0044	.0191	.0032	.0612	.3317
#3	-.0012	.0443	-.0038	-.0004	.0003	.0036	.0155	.0322	.3293

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0273**	**-.0045**	**5.932**	F **1368.**	**.1032**	**.0003**	**.8323**	**-.0042**	**.0099**
Stddev	.0043	.0275	.143	8.	.0044	.0002	.0022	.0022	.0005
%RSD	15.70	608.7	2.406	.6022	4.296	67.65	.2689	52.57	5.323
#1	.0300	.0255	5.768	1359.	.1037	.0005	.8325	-.0066	.0096
#2	.0223	-.0106	6.028	1368.	.0986	.0001	.8300	-.0021	.0096
#3	.0294	-.0285	6.001	1376.	.1074	.0003	.8345	-.0040	.0105

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0028**	**.0110**	**.0022**	**.2972**	**.0003**	**.0217**	**.1074**
Stddev	.0010	.0055	.0007	.0032	.0049	.0054	.0074
%RSD	37.45	49.81	33.72	1.068	1510.	24.74	6.850
#1	.0032	.0070	.0030	.2944	-.0039	.0228	.1086
#2	.0036	.0172	.0021	.3007	-.0009	.0158	.0996
#3	.0016	.0088	.0016	.2964	.0057	.0264	.1141

Zoom In Zoom Out

Sample Name: mp14771-mb1 Acquired: 5/3/2019 18:26:35 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment: new

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**139410.**	**27472.**	**6086.7**	**8728.2**
Stddev	772.	175.	7.9	11.4
%RSD	.55344	.63691	.12958	.13101
#1	139560.	27643.	6086.9	8725.4
#2	140100.	27293.	6078.8	8718.4
#3	138580.	27478.	6094.5	8740.7

Zoom In Zoom Out

Sample Name: jc86768-1a Acquired: 5/3/2019 18:31:50 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment: due

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5140**	**.0000**	**.0016**	**.0224**	**.0045**	**.1085**	**.8478**	**.0522**	**-.0003**
Stddev	.0020	.0001	.0011	.0004	.0017	.0017	.0036	.0028	.0018
%RSD	.3971	2625.	70.83	1.790	37.24	1.528	.4243	5.411	687.5
#1	.5161	.0000	.0005	.0228	.0064	.1095	.8436	.0527	.0016
#2	.5120	-.0001	.0014	.0223	.0030	.1095	.8495	.0548	-.0020
#3	.5138	.0001	.0028	.0220	.0042	.1066	.8502	.0492	-.0004

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0008**	**.4941**	**.0033**	**.0006**	**.0496**	**.0014**	**.0113**	**.3528**	**70.13**
Stddev	.0021	.0015	.0046	.0082	.0008	.0113	.0077	.0183	.27
%RSD	246.5	.2998	138.0	1399.	1.581	796.9	67.68	5.186	.3785
#1	.0028	.4927	.0086	-.0088	.0491	.0108	.0034	.3366	70.43
#2	-.0014	.4956	.0008	.0057	.0493	-.0111	.0187	.3726	69.97
#3	.0011	.4938	.0006	.0049	.0505	.0045	.0119	.3493	69.98

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1673**	**5.853**	**11.98**	F **1263.**	**.4915**	**.0007**	**5.991**	**-.0066**	**.4264**
Stddev	.0006	.109	.08	16.	.0030	.0013	.022	.0007	.0008
%RSD	.3570	1.860	.7023	1.242	.6068	173.6	.3745	10.36	.1807
#1	.1667	5.978	12.06	1280.	.4895	-.0002	6.017	-.0060	.4273
#2	.1679	5.803	11.89	1260.	.4902	.0022	5.976	-.0065	.4258
#3	.1671	5.778	11.99	1249.	.4949	.0002	5.981	-.0074	.4263

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0092**	**.0041**	**.0013**	**3.912**	**.0019**	**.0280**	**.2513**
Stddev	.0008	.0033	.0006	.023	.0098	.0072	.0049
%RSD	8.392	80.28	47.50	.5817	525.1	25.86	1.958
#1	.0099	.0007	.0011	3.932	-.0093	.0197	.2534
#2	.0084	.0071	.0020	3.887	.0060	.0325	.2457
#3	.0092	.0043	.0008	3.916	.0089	.0319	.2548

Zoom In Zoom Out

Sample Name: jc86768-1a Acquired: 5/3/2019 18:31:50 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment: due

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**141320.**	**27819.**	**6131.7**	**8748.8**
Stddev	663.	216.	16.8	23.2
%RSD	.46928	.77540	.27356	.26520
#1	142070.	27655.	6135.3	8751.2
#2	140820.	27737.	6146.4	8770.7
#3	141080.	28063.	6113.4	8724.5

Zoom In Zoom Out

Sample Name: ccv Acquired: 5/3/2019 18:37:05 Type: QC
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.039**	**2.056**	**2.011**	**2.056**	**2.035**	**2.055**	**2.075**	**2.078**	**.2529**
Stddev	.002	.001	.009	.011	.004	.006	.004	.011	.0008
%RSD	.1161	.0645	.4443	.5139	.2031	.2703	.1731	.5293	.3341
#1	2.039	2.056	2.010	2.051	2.033	2.052	2.078	2.074	.2523
#2	2.037	2.054	2.003	2.049	2.032	2.053	2.071	2.070	.2525
#3	2.042	2.057	2.020	2.068	2.040	2.062	2.076	2.091	.2539
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.008**	**2.012**	**2.012**	**2.116**	**2.048**	**2.040**	**2.009**	**40.77**	**41.66**
Stddev	.004	.006	.010	.011	.012	.009	.011	.09	.07
%RSD	.1897	.3077	.5095	.5244	.5691	.4340	.5276	.2114	.1647
#1	2.005	2.010	2.011	2.112	2.042	2.042	2.007	40.80	41.72
#2	2.007	2.007	2.001	2.107	2.041	2.030	2.000	40.67	41.59
#3	2.012	2.019	2.022	2.128	2.061	2.047	2.021	40.84	41.67
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**41.49**	**40.70**	**40.57**	**40.95**	**2.091**	**2.048**	**5.337**	**2.005**	**2.123**
Stddev	.06	.12	.09	.06	.011	.010	.030	.009	.003
%RSD	.1519	.2991	.2256	.1575	.5034	.4950	.5681	.4491	.1433
#1	41.53	40.79	40.63	40.94	2.089	2.045	5.333	2.002	2.124
#2	41.42	40.56	40.47	40.89	2.082	2.040	5.309	1.997	2.120
#3	41.52	40.74	40.62	41.02	2.102	2.060	5.370	2.015	2.126
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ccv Acquired: 5/3/2019 18:37:05 Type: QC
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.050**	**1.993**	**2.016**	**1.995**	**2.090**	**1.957**	**2.017**
Stddev	.004	.009	.004	.013	.011	.003	.018
%RSD	.2013	.4653	.2199	.6361	.5153	.1660	.8698
#1	2.046	1.991	2.012	1.994	2.087	1.957	1.998
#2	2.050	1.985	2.014	1.984	2.081	1.954	2.018
#3	2.055	2.003	2.021	2.009	2.102	1.961	2.033
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**142150.**	**27462.**	**6211.6**	**9003.1**
Stddev	233.	196.	10.5	15.1
%RSD	.16369	.71486	.16892	.16792
#1	142140.	27292.	6202.0	8993.6
#2	142380.	27677.	6222.8	9020.5
#3	141910.	27418.	6210.1	8995.1

Zoom In Zoom Out

Sample Name: ccb Acquired: 5/3/2019 18:42:07 Type: QC
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0001**	**.0005**	**.0004**	**.0006**	**.0012**	**.0006**	**.0006**	**-.0003**
Stddev	.0002	.0000	.0003	.0002	.0004	.0002	.0002	.0002	.0005
%RSD	97.58	37.93	53.67	49.84	57.09	15.28	42.49	30.50	177.4
#1	.0002	.0002	.0009	.0007	.0002	.0011	.0003	.0007	-.0005
#2	.0004	.0001	.0005	.0004	.0009	.0010	.0007	.0006	-.0008
#3	-.0000	.0001	.0003	.0003	.0008	.0014	.0008	.0004	.0003
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0002**	**.0003**	**-.0004**	**.0004**	**-.0002**	**.0011**	**.0024**	**.0062**	**-.0015**
Stddev	.0004	.0001	.0004	.0005	.0014	.0004	.0012	.0112	.0025
%RSD	173.5	44.34	90.38	124.6	578.5	38.59	49.67	180.1	167.5
#1	-.0006	.0004	-.0003	.0011	.0011	.0009	.0034	.0068	-.0019
#2	-.0001	.0003	-.0008	.0001	-.0003	.0016	.0011	-.0053	.0012
#3	.0001	.0001	-.0001	.0001	-.0016	.0009	.0026	.0172	-.0038
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0017**	**.0093**	**.3068**	**.2025**	**.0030**	**.0008**	**.0021**	**-.0005**	**.0002**
Stddev	.0005	.0092	.0092	.0020	.0004	.0003	.0007	.0004	.0001
%RSD	29.40	98.79	3.004	1.005	12.03	33.00	32.03	75.97	55.08
#1	.0014	.0139	.3169	.2049	.0034	.0011	.0020	-.0001	.0002
#2	.0015	-.0013	.3047	.2017	.0029	.0007	.0028	-.0005	.0003
#3	.0023	.0153	.2989	.2011	.0028	.0006	.0014	-.0009	.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: ccb Acquired: 5/3/2019 18:42:07 Type: QC
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0008**	**.0008**	**.0005**	**.0010**	**.0005**	**.0001**	**.0138**
Stddev	.0004	.0005	.0001	.0012	.0022	.0025	.0012
%RSD	52.64	57.75	18.84	122.7	401.5	2305.	8.459
#1	.0005	.0005	.0005	.0021	.0008	.0002	.0144
#2	.0006	.0014	.0006	-.0003	.0026	.0026	.0124
#3	.0013	.0007	.0005	.0011	-.0018	-.0024	.0145
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**151230.**	**27769.**	**6476.4**	**9945.8**
Stddev	529.	92.	15.3	14.1
%RSD	.34996	.33070	.23548	.14214
#1	151750.	27871.	6465.4	9936.5
#2	151240.	27743.	6470.0	9938.8
#3	150690.	27693.	6493.8	9962.1

Zoom In Zoom Out

Sample Name: jc86768-2a Acquired: 5/3/2019 18:47:15 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4881**	**.0000**	**.0028**	**.0075**	**.0053**	**.0183**	**.3441**	**.0260**	**-.0018**
Stddev	.0013	.0003	.0005	.0007	.0011	.0008	.0003	.0021	.0022
%RSD	.2653	811.5	16.23	8.893	20.64	4.407	.0778	8.188	125.1
#1	.4895	.0004	.0026	.0068	.0064	.0186	.3444	.0254	-.0011
#2	.4870	-.0003	.0034	.0079	.0051	.0188	.3439	.0283	-.0042
#3	.4876	.0000	.0026	.0079	.0043	.0173	.3441	.0242	.0000

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0034**	**.6744**	**.0113**	**.0044**	**.0593**	**.0144**	**.0103**	**.2259**	**116.5**
Stddev	.0003	.0009	.0046	.0027	.0059	.0087	.0077	.0126	.3
%RSD	8.799	.1387	40.80	61.94	9.992	60.62	74.66	5.591	.2164
#1	.0037	.6734	.0110	.0074	.0634	.0047	.0143	.2270	116.7
#2	.0034	.6746	.0069	.0020	.0525	.0215	.0152	.2127	116.6
#3	.0031	.6752	.0161	.0038	.0621	.0169	.0014	.2379	116.2

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1506**	**6.388**	**10.04**	F **1296.**	**.4347**	**.0046**	**5.340**	**-.0055**	**.5953**
Stddev	.0056	.065	.12	37.	.0031	.0013	.021	.0034	.0015
%RSD	3.728	1.017	1.170	2.817	.7098	28.98	.3834	60.74	.2442
#1	.1530	6.433	9.947	1325.	.4335	.0035	5.351	-.0093	.5968
#2	.1442	6.314	10.01	1308.	.4324	.0043	5.316	-.0029	.5953
#3	.1546	6.418	10.17	1255.	.4382	.0061	5.352	-.0044	.5939

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0102**	**.0057**	**.0053**	**11.84**	**-.0018**	**.0500**	**1.638**
Stddev	.0017	.0020	.0004	.03	.0035	.0027	.018
%RSD	16.71	35.17	6.880	.2570	199.0	5.465	1.067
#1	.0104	.0069	.0053	11.82	.0006	.0485	1.632
#2	.0118	.0067	.0050	11.87	-.0058	.0531	1.657
#3	.0084	.0034	.0057	11.83	-.0001	.0484	1.624

Zoom In Zoom Out

Sample Name: jc86768-2a Acquired: 5/3/2019 18:47:15 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**139980.**	**27349.**	**6111.4**	**8721.4**
Stddev	634.	145.	11.7	14.2
%RSD	.45315	.52963	.19126	.16250
#1	140380.	27250.	6112.3	8724.4
#2	139250.	27281.	6099.3	8705.9
#3	140320.	27515.	6122.6	8733.7

Zoom In Zoom Out

Sample Name: jc86768-3a Acquired: 5/3/2019 18:52:28 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1814**	**.0002**	**.0202**	**.0110**	**.0057**	**.0230**	**.8325**	**.0366**	**-.0005**
Stddev	.0021	.0002	.0008	.0001	.0016	.0014	.0012	.0010	.0034
%RSD	1.181	104.7	3.943	.9586	28.84	5.951	.1405	2.845	734.1
#1	.1831	.0003	.0202	.0111	.0041	.0244	.8325	.0361	.0034
#2	.1790	-.0000	.0210	.0109	.0055	.0217	.8336	.0378	-.0016
#3	.1822	.0004	.0194	.0111	.0074	.0231	.8313	.0359	-.0031

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0009**	**1.142**	**-.0014**	**.0033**	**.0150**	**.0179**	**.0072**	**.1009**	**920.7**
Stddev	.0021	.002	.0060	.0070	.0059	.0049	.0038	.0313	10.4
%RSD	224.5	.1940	431.9	212.2	39.46	27.17	53.15	31.00	1.128
#1	-.0015	1.141	-.0037	.0089	.0096	.0174	.0094	.1209	908.7
#2	.0025	1.144	-.0059	.0055	.0213	.0230	.0093	.1169	926.8
#3	.0018	1.140	.0054	-.0045	.0141	.0133	.0028	.0648	926.6

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2272**	**9.749**	**15.21**	F **1300.**	**.5079**	**.0024**	**14.53**	**-.0092**	**4.378**
Stddev	.0028	.021	.13	13.	.0014	.0007	.03	.0016	.013
%RSD	1.251	.2117	.8390	.9624	.2732	28.26	.1893	17.74	.2846
#1	.2266	9.726	15.14	1289.	.5063	.0028	14.50	-.0088	4.378
#2	.2247	9.753	15.36	1314.	.5086	.0016	14.56	-.0077	4.365
#3	.2303	9.767	15.13	1298.	.5089	.0027	14.52	-.0109	4.390

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0016**	**.0062**	**.0014**	**188.6**	**.0048**	**.0908**	**.1483**
Stddev	.0015	.0064	.0007	.7	.0070	.0010	.0133
%RSD	94.95	103.8	51.02	.3570	144.7	1.147	8.967
#1	.0016	.0124	.0015	189.4	.0078	.0896	.1537
#2	.0031	-.0004	.0007	188.1	.0098	.0912	.1332
#3	.0001	.0066	.0021	188.3	-.0032	.0915	.1581

Zoom In Zoom Out

Sample Name: jc86768-3a Acquired: 5/3/2019 18:52:28 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**136340.**	**27002.**	**5896.7**	**8427.0**
Stddev	121.	101.	6.7	10.9
%RSD	.08844	.37371	.11349	.12915
#1	136290.	27117.	5903.8	8438.5
#2	136480.	26956.	5895.7	8425.6
#3	136260.	26931.	5890.6	8416.9

Zoom In Zoom Out

Sample Name: jc86768-4a Acquired: 5/3/2019 18:57:49 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.9159**	**.0005**	**.0020**	**.0429**	**.0063**	**.0182**	**1.596**	**.0869**	**.0007**
Stddev	.0017	.0002	.0006	.0004	.0015	.0013	.004	.0005	.0029
%RSD	.1849	35.53	30.72	1.043	23.46	7.242	.2633	.5788	415.6
#1	.9175	.0005	.0016	.0424	.0048	.0192	1.599	.0874	-.0006
#2	.9142	.0007	.0027	.0433	.0064	.0167	1.591	.0870	-.0013
#3	.9161	.0004	.0018	.0430	.0078	.0188	1.598	.0864	.0040

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0015**	**1.177**	**.0001**	**.0047**	**.3432**	**.0064**	**.0124**	**.6822**	**33.42**
Stddev	.0015	.005	.0058	.0038	.0029	.0076	.0044	.0394	.06
%RSD	100.9	.4580	5438.	81.79	.8351	118.2	35.34	5.773	.1807
#1	.0029	1.183	-.0065	.0066	.3423	.0073	.0127	.6487	33.49
#2	.0018	1.177	.0044	.0072	.3409	.0135	.0079	.6725	33.39
#3	-.0001	1.172	.0024	.0003	.3464	-.0016	.0166	.7256	33.38

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**19.80**	**2.055**	**9.435**	F **1255.**	**.2552**	**-.0004**	**3.296**	**-.0070**	**.2441**
Stddev	.02	.060	.172	14.	.0005	.0007	.030	.0021	.0009
%RSD	.0837	2.944	1.828	1.145	.2074	173.4	.9036	29.70	.3507
#1	19.82	1.985	9.272	1270.	.2547	.0003	3.320	-.0060	.2449
#2	19.78	2.094	9.416	1241.	.2558	-.0004	3.304	-.0093	.2432
#3	19.81	2.085	9.616	1252.	.2552	-.0012	3.262	-.0056	.2441

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0074**	**.0011**	**.0001**	**1.842**	**-.0015**	**.0395**	**.1088**
Stddev	.0021	.0072	.0012	.021	.0046	.0069	.0085
%RSD	28.72	685.7	905.8	1.169	310.3	17.35	7.825
#1	.0085	-.0003	.0008	1.866	.0011	.0316	.1062
#2	.0050	.0089	-.0013	1.839	-.0069	.0438	.1020
#3	.0087	-.0054	.0009	1.823	.0013	.0432	.1184

Zoom In Zoom Out

Sample Name: jc86768-4a Acquired: 5/3/2019 18:57:49 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**140920.**	**27681.**	**6142.0**	**8774.9**
Stddev	320.	198.	12.3	15.0
%RSD	.22681	.71355	.20003	.17100
#1	140550.	27548.	6134.3	8768.6
#2	141100.	27587.	6135.7	8764.0
#3	141100.	27908.	6156.2	8792.0

Zoom In Zoom Out

Sample Name: jc86768-5a Acquired: 5/3/2019 19:03:01 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.6151**	**.0002**	**.0012**	**.0305**	**.0031**	**.0207**	**2.294**	**.0313**	**-.0026**
Stddev	.0006	.0002	.0001	.0017	.0009	.0011	.002	.0018	.0027
%RSD	.1045	81.44	10.12	5.613	29.98	5.208	.0835	5.654	102.8
#1	.6145	.0002	.0011	.0315	.0040	.0212	2.293	.0306	-.0027
#2	.6157	.0003	.0012	.0314	.0030	.0194	2.293	.0333	-.0052
#3	.6150	.0000	.0014	.0285	.0021	.0214	2.296	.0300	.0001

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0037**	**.2035**	**.0116**	**.0015**	**.0615**	**.0060**	**.0100**	**.6356**	**153.6**
Stddev	.0017	.0033	.0044	.0104	.0023	.0068	.0066	.0303	.1
%RSD	46.73	1.636	37.68	676.1	3.753	113.2	65.68	4.764	.0396
#1	.0023	.2073	.0115	-.0027	.0641	.0061	.0175	.6369	153.6
#2	.0056	.2017	.0159	.0134	.0596	.0127	.0053	.6046	153.6
#3	.0032	.2014	.0072	-.0061	.0608	-.0008	.0072	.6651	153.7

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.6906**	**6.336**	**10.96**	F **1279.**	**.6684**	**.0018**	**7.581**	**-.0073**	**.6755**
Stddev	.0049	.071	.11	36.	.0088	.0007	.114	.0055	.0005
%RSD	.7108	1.119	1.018	2.777	1.310	39.50	1.502	75.93	.0691
#1	.6869	6.299	10.83	1310.	.6783	.0022	7.713	-.0059	.6753
#2	.6886	6.418	11.04	1287.	.6615	.0021	7.516	-.0133	.6761
#3	.6961	6.292	11.00	1240.	.6656	.0010	7.515	-.0025	.6752

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0117**	**.0059**	**.0020**	**3.800**	**-.0020**	**.0347**	**.1409**
Stddev	.0011	.0023	.0006	.064	.0042	.0060	.0015
%RSD	8.995	39.59	31.81	1.673	211.1	17.27	1.096
#1	.0105	.0044	.0018	3.870	-.0031	.0372	.1394
#2	.0126	.0047	.0027	3.785	.0027	.0278	.1408
#3	.0121	.0086	.0014	3.746	-.0056	.0390	.1425

Zoom In Zoom Out

Sample Name: jc86768-5a Acquired: 5/3/2019 19:03:01 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**140260.**	**27707.**	**6070.0**	**8631.6**
Stddev	395.	166.	94.4	118.6
%RSD	.28161	.59880	1.5554	1.3743
#1	140320.	27566.	5961.7	8495.2
#2	140620.	27890.	6135.0	8710.4
#3	139840.	27667.	6113.3	8689.3

Zoom In Zoom Out

Sample Name: jc86768-6a Acquired: 5/3/2019 19:08:12 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5671**	**.0007**	**.0016**	**.0332**	**.0048**	**.0382**	**1.535**	**.0536**	**.0000**
Stddev	.0023	.0004	.0002	.0012	.0005	.0023	.003	.0010	.0015
%RSD	.4020	54.35	15.11	3.674	10.48	6.023	.2208	1.891	6744.
#1	.5681	.0009	.0016	.0327	.0049	.0362	1.533	.0526	.0011
#2	.5645	.0008	.0018	.0324	.0053	.0377	1.534	.0547	-.0018
#3	.5686	.0002	.0013	.0346	.0043	.0407	1.539	.0535	.0008

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0019**	**.0894**	**.0075**	**-.0002**	**.0901**	**.0076**	**.0085**	**.5455**	**119.7**
Stddev	.0009	.0004	.0054	.0016	.0062	.0087	.0067	.0300	.3
%RSD	46.57	.4179	71.62	1044.	6.930	113.6	79.32	5.496	.2895
#1	.0009	.0897	.0124	.0002	.0898	.0149	.0132	.5216	119.9
#2	.0022	.0890	.0018	-.0019	.0840	-.0020	.0008	.5357	119.3
#3	.0026	.0894	.0083	.0012	.0965	.0100	.0114	.5791	119.9

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.334**	**7.685**	**9.858**	F **1307.**	**.4750**	**-.0001**	**9.346**	**-.0091**	**.4225**
Stddev	.003	.077	.170	9.	.0043	.0006	.016	.0013	.0013
%RSD	.1096	1.007	1.724	.7107	.9101	1054.	.1752	14.00	.2960
#1	2.331	7.756	9.735	1304.	.4710	-.0007	9.365	-.0096	.4239
#2	2.336	7.602	9.787	1317.	.4796	.0006	9.338	-.0100	.4215
#3	2.334	7.696	10.05	1299.	.4744	-.0001	9.335	-.0076	.4222

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0069**	**-.0014**	**.0001**	**3.690**	**-.0025**	**.0057**	**.1214**
Stddev	.0010	.0013	.0012	.029	.0057	.0074	.0107
%RSD	15.10	91.90	1106.	.7942	228.6	128.5	8.817
#1	.0061	-.0029	.0013	3.678	.0023	-.0005	.1295
#2	.0065	-.0007	.0001	3.723	-.0088	.0138	.1256
#3	.0081	-.0007	-.0011	3.668	-.0010	.0038	.1093

Zoom In Zoom Out

Sample Name: jc86768-6a Acquired: 5/3/2019 19:08:12 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**139630.**	**27555.**	**6124.6**	**8695.5**
Stddev	820.	156.	7.8	9.6
%RSD	.58753	.56568	.12763	.11055
#1	140290.	27638.	6118.8	8688.8
#2	139870.	27652.	6121.6	8691.2
#3	138710.	27375.	6133.5	8706.5

Zoom In Zoom Out

Sample Name: jc86768-7a Acquired: 5/3/2019 19:13:23 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2884**	**-.0000**	**.0008**	**.0003**	**.0038**	**.0088**	**.1971**	**.0092**	**-.0009**
Stddev	.0021	.0003	.0001	.0004	.0017	.0019	.0005	.0009	.0014
%RSD	.7265	858.0	11.92	124.2	44.62	21.47	.2549	9.389	150.1
#1	.2880	.0003	.0009	.0002	.0031	.0100	.1973	.0082	-.0009
#2	.2866	-.0004	.0007	.0008	.0026	.0098	.1976	.0095	.0005
#3	.2907	-.0000	.0008	.0000	.0057	.0066	.1966	.0099	-.0024

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0007**	**.0842**	**-.0038**	**.0043**	**.0070**	**.0023**	**.0084**	**.2199**	**46.79**
Stddev	.0007	.0006	.0036	.0090	.0057	.0031	.0025	.0626	.11
%RSD	100.3	.6698	92.90	207.8	81.11	134.1	29.70	28.47	.2323
#1	-.0000	.0847	-.0016	-.0024	.0075	.0042	.0112	.2906	46.79
#2	-.0014	.0842	-.0080	.0146	.0123	.0041	.0064	.1975	46.68
#3	-.0007	.0836	-.0020	.0008	.0011	-.0013	.0077	.1716	46.90

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1183**	**4.590**	**11.29**	F **1247.**	**.4193**	**-.0001**	**4.392**	**-.0075**	**.2743**
Stddev	.0060	.055	.18	8.	.0019	.0016	.043	.0034	.0002
%RSD	5.036	1.192	1.612	.6540	.4555	1084.	.9815	45.22	.0855
#1	.1200	4.595	11.13	1238.	.4202	.0009	4.355	-.0080	.2745
#2	.1232	4.533	11.26	1252.	.4207	.0006	4.381	-.0039	.2741
#3	.1116	4.643	11.49	1252.	.4171	-.0020	4.439	-.0106	.2741

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0071**	**.0025**	**.0009**	**2.629**	**-.0030**	**.0052**	**.1444**
Stddev	.0006	.0031	.0007	.005	.0005	.0026	.0013
%RSD	7.857	127.3	76.92	.2078	16.95	50.61	.9042
#1	.0067	-.0005	.0016	2.635	-.0028	.0022	.1430
#2	.0069	.0057	.0005	2.624	-.0035	.0071	.1456
#3	.0077	.0021	.0005	2.630	-.0026	.0062	.1444

Zoom In Zoom Out

Sample Name: jc86768-7a Acquired: 5/3/2019 19:13:23 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**140530.**	**27557.**	**6118.1**	**8744.4**
Stddev	311.	145.	19.6	22.6
%RSD	.22130	.52782	.31987	.25884
#1	140700.	27607.	6096.5	8719.0
#2	140170.	27672.	6134.5	8762.4
#3	140720.	27394.	6123.4	8751.7

Zoom In Zoom Out

Sample Name: mp14771-s1 Acquired: 5/3/2019 19:18:36 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.041**	**1.988**	**1.979**	**2.433**	**2.501**	**2.937**	**16.72**	**4.011**	**.2450**
Stddev	.007	.007	.001	.001	.007	.004	.18	.001	.0010
%RSD	.3247	.3331	.0682	.0441	.2822	.1447	1.104	.0359	.4047
#1	2.048	1.992	1.978	2.433	2.502	2.941	16.76	4.013	.2454
#2	2.038	1.992	1.981	2.433	2.507	2.937	16.52	4.010	.2458
#3	2.036	1.980	1.979	2.431	2.493	2.933	16.88	4.010	.2439

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.977**	**4.480**	**1.968**	**2.018**	**1.999**	**2.045**	**1.950**	**26.33**	**33.49**
Stddev	.005	.008	.013	.013	.001	.011	.008	.09	.15
%RSD	.2324	.1727	.6413	.6631	.0403	.5364	.4060	.3355	.4395
#1	1.982	4.475	1.955	2.012	1.998	2.038	1.953	26.43	33.64
#2	1.978	4.489	1.979	2.009	1.999	2.058	1.941	26.29	33.49
#3	1.972	4.476	1.971	2.034	2.000	2.040	1.956	26.27	33.35

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**61.59**	**26.08**	**29.06**	F **1355.**	**2.436**	**2.019**	**2.946**	**1.947**	**2.072**
Stddev	.18	.03	.17	7.	.004	.002	.029	.005	.004
%RSD	.2981	.1300	.5693	.4808	.1815	.1001	.9988	.2806	.1964
#1	61.78	26.10	29.22	1356.	2.432	2.017	2.955	1.943	2.076
#2	61.58	26.09	28.89	1348.	2.441	2.020	2.914	1.945	2.071
#3	61.42	26.04	29.09	1361.	2.434	2.020	2.971	1.953	2.068

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.974**	**1.763**	**1.927**	F **927.4**	**.1076**	**.0016**	**2.831**
Stddev	.003	.009	.003	1.8	.0008	.0104	.013
%RSD	.1257	.4854	.1455	.1946	.6971	649.7	.4477
#1	1.973	1.756	1.928	925.4	.1070	.0133	2.846
#2	1.972	1.773	1.929	927.8	.1085	-.0066	2.824
#3	1.977	1.761	1.924	929.0	.1074	-.0019	2.823

Zoom In Zoom Out

Sample Name: mp14771-s1 Acquired: 5/3/2019 19:18:36 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**140280.**	**27682.**	**6104.4**	**8769.9**
Stddev	336.	200.	8.9	3.6
%RSD	.23944	.72070	.14568	.04124
#1	139900.	27465.	6110.8	8770.9
#2	140470.	27858.	6094.3	8765.9
#3	140480.	27724.	6108.2	8773.0

Zoom In Zoom Out

Sample Name: mp14771-s2 Acquired: 5/3/2019 19:23:44 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.039**	**1.989**	**1.983**	**2.431**	**2.488**	**2.920**	**16.47**	**3.984**	**.2442**
Stddev	.012	.012	.004	.001	.005	.002	.08	.006	.0033
%RSD	.5989	.6080	.2153	.0301	.2055	.0824	.4869	.1612	1.364
#1	2.051	2.001	1.986	2.431	2.494	2.919	16.56	3.984	.2427
#2	2.027	1.977	1.979	2.431	2.487	2.923	16.41	3.977	.2480
#3	2.039	1.989	1.986	2.432	2.484	2.919	16.45	3.990	.2418

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.977**	**4.437**	**1.972**	**2.031**	**2.000**	**2.060**	**1.965**	**26.34**	**33.50**
Stddev	.006	.006	.003	.003	.007	.019	.012	.16	.19
%RSD	.2814	.1299	.1472	.1645	.3363	.9375	.6264	.6247	.5560
#1	1.982	4.437	1.970	2.033	2.002	2.082	1.961	26.51	33.70
#2	1.971	4.432	1.972	2.027	2.006	2.052	1.956	26.18	33.33
#3	1.977	4.443	1.976	2.032	1.993	2.045	1.979	26.32	33.47

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**60.98**	**26.10**	**28.99**	F **1315.**	**2.430**	**2.024**	**2.953**	**1.953**	**2.070**
Stddev	.33	.15	.15	7.	.009	.006	.015	.003	.011
%RSD	.5418	.5823	.5052	.5537	.3752	.3103	.5114	.1273	.5318
#1	61.32	26.27	29.13	1324.	2.427	2.026	2.958	1.954	2.081
#2	60.66	26.05	28.84	1311.	2.423	2.017	2.935	1.954	2.059
#3	60.97	25.98	28.99	1311.	2.441	2.028	2.964	1.950	2.071

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.977**	**1.749**	**1.928**	F **913.7**	**.1057**	**.0041**	**2.831**
Stddev	.005	.005	.003	.8	.0029	.0115	.018
%RSD	.2376	.2613	.1316	.0879	2.763	276.9	.6436
#1	1.982	1.749	1.931	913.5	.1048	.0172	2.834
#2	1.972	1.744	1.926	913.0	.1089	-.0007	2.812
#3	1.977	1.753	1.928	914.5	.1033	-.0041	2.848

Zoom In Zoom Out

Sample Name: mp14771-s2 Acquired: 5/3/2019 19:23:44 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**139840.**	**27624.**	**6110.8**	**8779.1**
Stddev	287.	25.	13.7	16.1
%RSD	.20543	.08904	.22439	.18345
#1	139880.	27596.	6112.0	8787.6
#2	140110.	27634.	6123.8	8789.3
#3	139540.	27643.	6096.5	8760.6

Zoom In Zoom Out

Sample Name: jc87206-2 Acquired: 5/3/2019 19:28:51 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0907**	**-.0002**	**.0032**	**.3911**	**.5352**	**1.031**	**15.28**	**1.936**
Stddev	.0008	.0001	.0005	.0008	.0267	.047	.74	.003
%RSD	.8455	38.90	16.85	.2093	4.996	4.593	4.856	.1451
#1	.0901	-.0001	.0036	.3908	.5204	1.003	14.88	1.932
#2	.0905	-.0003	.0035	.3920	.5192	1.004	14.83	1.937
#3	.0916	-.0002	.0026	.3904	.5661	1.085	16.14	1.937

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0037**	**.0173**	**2.445**	**-.0141**	F **-.0109**	**-.0096**	**.0260**	**.0079**
Stddev	.0030	.0008	.005	.0013	.0052	.0026	.0032	.0035
%RSD	81.10	4.591	.2220	9.406	47.67	27.01	12.45	44.69
#1	-.0023	.0168	2.440	-.0139	-.0067	-.0101	.0260	.0118
#2	-.0016	.0170	2.451	-.0156	-.0167	-.0118	.0228	.0069
#3	-.0071	.0182	2.444	-.0130	-.0092	-.0068	.0293	.0050

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.086**	**8.458**	**36.00**	**1.542**	**4.590**	F **1314.**	**.4331**	**.0176**
Stddev	.014	.029	.07	.047	.214	13.	.0045	.0011
%RSD	.6640	.3398	.1914	3.017	4.655	.9592	1.050	6.465
#1	2.071	8.491	36.08	1.490	4.349	1304.	.4278	.0170
#2	2.091	8.442	35.98	1.578	4.665	1309.	.4356	.0168
#3	2.097	8.440	35.95	1.559	4.757	1328.	.4358	.0189

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.294**	**-.0051**	**.0507**	**.0128**	**.0053**	**.0046**	F **923.1**	**.0032**
Stddev	.028	.0014	.0008	.0014	.0049	.0008	3.3	.0104
%RSD	1.234	28.22	1.654	10.85	91.49	16.57	.3567	325.9
#1	2.262	-.0036	.0502	.0122	.0099	.0050	919.7	-.0069
#2	2.305	-.0065	.0502	.0119	.0060	.0037	926.3	.0139
#3	2.315	-.0052	.0516	.0144	.0002	.0050	923.2	.0026

Zoom In Zoom Out

Sample Name: jc87206-2 Acquired: 5/3/2019 19:28:51 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Li6707	P_1774
Units	ppm	ppm
Avg	**.0006**	**.8200**
Stddev	.0053	.0063
%RSD	903.4	.7694
#1	-.0048	.8130
#2	.0059	.8217
#3	.0007	.8253

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**135890.**	**27484.**	**6099.1**	**8775.5**
Stddev	5721.	60.	10.7	13.4
%RSD	4.2098	.21917	.17522	.15306
#1	138970.	27427.	6105.4	8784.0
#2	139410.	27547.	6086.7	8760.0
#3	129290.	27477.	6105.1	8782.5

Zoom In Zoom Out

Sample Name: ccv Acquired: 5/3/2019 19:34:12 Type: QC
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.035**	**2.053**	**2.020**	**2.059**	**2.028**	**2.049**	**2.070**	**2.083**	**.2521**
Stddev	.004	.005	.053	.047	.003	.003	.016	.048	.0007
%RSD	.2181	.2373	2.647	2.299	.1699	.1348	.7692	2.319	.2839
#1	2.039	2.056	2.016	2.055	2.024	2.046	2.089	2.079	.2514
#2	2.036	2.056	1.970	2.014	2.029	2.048	2.064	2.036	.2528
#3	2.030	2.047	2.076	2.108	2.031	2.052	2.059	2.133	.2523
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.005**	**2.016**	**2.017**	**2.127**	**2.053**	**2.047**	**2.018**	**40.76**	**41.62**
Stddev	.001	.051	.055	.053	.045	.056	.054	.11	.12
%RSD	.0491	2.510	2.718	2.485	2.210	2.718	2.668	.2606	.2839
#1	2.003	2.011	2.012	2.123	2.053	2.043	2.011	40.83	41.73
#2	2.005	1.968	1.965	2.076	2.008	1.994	1.968	40.81	41.63
#3	2.005	2.069	2.074	2.181	2.099	2.105	2.075	40.63	41.50
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**41.41**	**40.66**	**40.54**	**40.54**	**2.099**	**2.055**	**5.357**	**2.009**	**2.119**
Stddev	.06	.10	.06	.08	.058	.053	.144	.054	.002
%RSD	.1346	.2415	.1393	.2003	2.765	2.588	2.691	2.688	.0883
#1	41.46	40.77	40.56	40.63	2.091	2.051	5.342	2.001	2.121
#2	41.41	40.62	40.58	40.47	2.045	2.004	5.220	1.960	2.119
#3	41.35	40.58	40.48	40.53	2.160	2.110	5.507	2.067	2.117
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ccv Acquired: 5/3/2019 19:34:12 Type: QC
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.042**	**1.998**	**2.014**	**2.073**	**2.099**	**1.952**	**2.071**
Stddev	.002	.049	.002	.057	.049	.008	.057
%RSD	.1179	2.469	.0913	2.757	2.321	.4128	2.771
#1	2.040	1.991	2.012	2.076	2.092	1.957	2.074
#2	2.044	1.953	2.015	2.015	2.054	1.955	2.012
#3	2.040	2.051	2.014	2.129	2.150	1.942	2.127
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**142480.**	**27311.**	**6186.5**	**8978.0**
Stddev	143.	218.	134.7	170.1
%RSD	.10015	.79917	2.1768	1.8945
#1	142570.	27074.	6206.1	8999.6
#2	142310.	27357.	6310.2	9136.3
#3	142550.	27503.	6043.0	8798.2

Zoom In Zoom Out

Sample Name: ccb Acquired: 5/3/2019 19:39:14 Type: QC
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0001**	**.0002**	**.0000**	**-.0000**	**.0006**	**.0002**	**.0003**	**.0001**
Stddev	.0002	.0001	.0001	.0000	.0000	.0001	.0000	.0002	.0002
%RSD	1615.	40.49	39.32	79.03	112.0	15.88	7.276	65.99	255.4
#1	-.0001	.0002	.0002	.0001	-.0000	.0006	.0001	.0004	.0003
#2	.0002	.0001	.0003	.0000	-.0000	.0006	.0002	.0001	.0001
#3	-.0000	.0001	.0002	.0000	.0000	.0005	.0002	.0004	-.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0003**	**-.0001**	**-.0004**	**.0006**	**-.0005**	**.0008**	**.0010**	**.0029**	**-.0008**
Stddev	.0003	.0001	.0010	.0005	.0004	.0023	.0003	.0017	.0003
%RSD	83.04	62.24	249.9	83.18	73.95	293.2	30.64	59.26	34.87
#1	-.0002	-.0001	.0003	.0003	-.0004	-.0019	.0010	.0047	-.0011
#2	-.0006	-.0001	-.0016	.0011	-.0002	.0024	.0007	.0013	-.0005
#3	-.0001	-.0002	.0001	.0003	-.0010	.0019	.0013	.0028	-.0008
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0034**	**.0027**	**.2862**	**.2895**	**.0018**	**.0005**	**.0007**	**-.0009**	**.0003**
Stddev	.0007	.0192	.0169	.0045	.0001	.0001	.0004	.0005	.0001
%RSD	20.31	721.6	5.916	1.561	4.564	20.44	50.18	54.60	30.38
#1	.0037	.0243	.2733	.2897	.0018	.0006	.0004	-.0006	.0003
#2	.0039	-.0040	.3053	.2939	.0018	.0004	.0011	-.0006	.0003
#3	.0026	-.0123	.2798	.2848	.0017	.0006	.0007	-.0015	.0002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: ccb Acquired: 5/3/2019 19:39:14 Type: QC
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0006**	**.0006**	**.0003**	**.0207**	**.0004**	**-.0029**	**.0093**
Stddev	.0002	.0002	.0000	.0017	.0007	.0009	.0041
%RSD	34.75	28.04	13.42	8.160	155.0	31.87	43.70
#1	.0006	.0006	.0003	.0226	.0011	-.0026	.0065
#2	.0009	.0004	.0004	.0202	-.0003	-.0022	.0075
#3	.0004	.0008	.0003	.0193	.0005	-.0040	.0140
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**150910.**	**27921.**	**6434.5**	**9900.1**
Stddev	653.	82.	5.4	11.0
%RSD	.43270	.29418	.08398	.11150
#1	150590.	27987.	6436.2	9911.0
#2	150490.	27829.	6428.4	9888.9
#3	151670.	27946.	6438.8	9900.3

Zoom In Zoom Out

Sample Name: TICONF Acquired: 5/3/2019 19:44:23 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**.0007**	**-.0000**	**-.0026**	**-.0003**	**.0005**	**.0001**	**.0004**	**-.0005**
Stddev	.0003	.0000	.0000	.0004	.0003	.0003	.0000	.0002	.0002
%RSD	405.1	3.905	194.1	13.85	75.94	60.60	38.90	60.99	32.98
#1	-.0002	.0008	-.0000	-.0026	-.0001	.0005	.0001	.0007	-.0003
#2	.0002	.0007	-.0000	-.0030	-.0006	.0002	.0001	.0002	-.0006
#3	-.0002	.0008	.0000	-.0023	-.0004	.0009	.0002	.0003	-.0005

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0000**	**.0005**	**-.0010**	**.0057**	**.0085**	**.0006**	**.0023**	**.0060**	**.0136**
Stddev	.0004	.0000	.0008	.0005	.0006	.0008	.0008	.0062	.0016
%RSD	820.4	7.175	72.35	8.980	7.557	135.6	36.40	102.4	12.04
#1	-.0004	.0004	-.0013	.0061	.0087	.0012	.0020	.0121	.0140
#2	-.0001	.0005	-.0016	.0051	.0090	.0010	.0033	.0062	.0150
#3	.0004	.0005	-.0002	.0058	.0077	-.0003	.0016	-.0002	.0118

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0088**	**-.0216**	**.2320**	**.2128**	**.0027**	**.0002**	**-.0042**	**-.0096**	**.0001**
Stddev	.0013	.0066	.0338	.0058	.0002	.0002	.0002	.0008	.0001
%RSD	14.27	30.40	14.59	2.729	6.089	81.80	4.123	8.436	75.24
#1	.0099	-.0141	.1930	.2193	.0027	.0002	-.0041	-.0097	.0002
#2	.0075	-.0249	.2486	.2081	.0028	.0004	-.0044	-.0088	.0000
#3	.0090	-.0259	.2543	.2111	.0025	.0001	-.0041	-.0104	.0001

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **10.27**	**-.0014**	**-.0010**	**.0149**	**.3814**	**-.0024**	**.1373**
Stddev	.04	.0011	.0001	.0010	.0020	.0005	.0028
%RSD	.3723	81.89	9.218	6.476	.5354	22.36	2.008
#1	10.27	-.0027	-.0010	.0156	.3790	-.0017	.1390
#2	10.23	-.0007	-.0010	.0152	.3828	-.0027	.1342
#3	10.31	-.0008	-.0011	.0138	.3822	-.0027	.1388

Zoom In Zoom Out

Sample Name: TICONF Acquired: 5/3/2019 19:44:23 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**150560.**	**27881.**	**6441.5**	**9869.7**
Stddev	753.	70.	61.2	81.5
%RSD	.50025	.25147	.95084	.82610
#1	151340.	27924.	6434.8	9870.9
#2	150500.	27800.	6505.9	9950.6
#3	149840.	27918.	6383.9	9787.5

Zoom In Zoom Out

Sample Name: vconf Acquired: 5/3/2019 19:49:40 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0006**	**-.0001**	**.0001**	**.0002**	**-.0002**	**-.0007**	**.0001**	**.0001**	**.0010**
Stddev	.0003	.0002	.0001	.0001	.0001	.0002	.0000	.0004	.0003
%RSD	56.88	291.1	102.7	68.76	41.18	20.81	77.53	375.3	27.81
#1	.0003	-.0000	.0003	.0000	-.0002	-.0006	.0001	-.0001	.0007
#2	.0005	-.0003	.0000	.0002	-.0001	-.0008	.0000	.0006	.0012
#3	.0010	.0001	.0001	.0003	-.0003	-.0008	.0001	-.0002	.0011

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **10.34**	**.0001**	**-.0002**	**-.0006**	**-.0015**	**.0021**	**.0016**	**.0128**	**.0079**
Stddev	.15	.0000	.0008	.0046	.0006	.0009	.0016	.0058	.0007
%RSD	1.417	32.07	524.0	808.7	43.76	44.58	102.0	45.03	8.482
#1	10.18	.0001	-.0003	-.0059	-.0021	.0032	-.0003	.0063	.0086
#2	10.48	.0001	-.0009	.0023	-.0015	.0017	.0023	.0149	.0072
#3	10.35	.0001	.0007	.0019	-.0008	.0015	.0028	.0171	.0079

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0045**	**.0093**	**.2009**	**.2174**	**.0007**	**-.0040**	**-.1620**	**-.0017**	**.0001**
Stddev	.0003	.0066	.0137	.0101	.0004	.0003	.0043	.0003	.0000
%RSD	6.772	71.13	6.845	4.655	61.20	6.456	2.666	18.37	56.68
#1	.0045	.0018	.2019	.2124	.0003	-.0040	-.1578	-.0018	.0001
#2	.0042	.0119	.1867	.2290	.0011	-.0042	-.1665	-.0013	.0000
#3	.0048	.0142	.2141	.2107	.0006	-.0037	-.1617	-.0019	.0001

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0025**	**.0027**	**.0022**	**.0047**	**.0012**	**-.0033**	**.0320**
Stddev	.0003	.0008	.0001	.0020	.0016	.0013	.0011
%RSD	11.01	28.55	6.148	43.74	131.9	38.57	3.448
#1	.0024	.0027	.0023	.0042	.0017	-.0018	.0309
#2	.0028	.0019	.0021	.0069	-.0006	-.0041	.0331
#3	.0023	.0034	.0021	.0029	.0025	-.0039	.0321

Zoom In Zoom Out

Sample Name: vconf Acquired: 5/3/2019 19:49:40 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**150330.**	**27680.**	**6411.8**	**9837.8**
Stddev	1349.	523.	15.8	22.5
%RSD	.89732	1.8881	.24614	.22888
#1	151720.	28259.	6394.7	9816.1
#2	149020.	27537.	6415.0	9836.3
#3	150270.	27243.	6425.8	9861.1

Zoom In Zoom Out

Sample Name: moconf Acquired: 5/3/2019 19:54:57 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0005**	**.0001**	**.0001**	**-.0001**	**-.0006**	**.0020**	**-.0003**	**.0000**	**.0001**
Stddev	.0001	.0000	.0001	.0002	.0002	.0003	.0000	.0004	.0001
%RSD	16.99	55.90	217.0	201.8	34.67	13.03	5.913	904.8	89.53
#1	-.0004	.0001	-.0001	.0001	-.0005	.0018	-.0003	.0000	.0003
#2	-.0005	.0001	.0001	-.0000	-.0009	.0019	-.0002	-.0004	.0002
#3	-.0004	.0000	.0002	-.0003	-.0005	.0023	-.0003	.0005	-.0000

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0009**	**-.0016**	**.0004**	**.0057**	**.0005**	**-.0003**	**.0010**	**.0471**	**.0110**
Stddev	.0001	.0001	.0006	.0013	.0007	.0012	.0020	.0055	.0005
%RSD	6.508	4.836	181.6	23.33	144.8	366.1	194.2	11.66	4.536
#1	-.0009	-.0016	.0007	.0070	.0014	-.0016	.0028	.0433	.0106
#2	-.0008	-.0016	.0008	.0058	.0001	.0007	.0015	.0446	.0115
#3	-.0009	-.0017	-.0004	.0043	.0001	-.0000	-.0011	.0534	.0108

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0036**	**-.0546**	**.2017**	**.2119**	**.0504**	F **10.66**	**-.0032**	**.0003**	**-.0000**
Stddev	.0007	.0068	.0395	.0037	.0023	.12	.0004	.0004	.0001
%RSD	19.95	12.50	19.57	1.732	4.541	1.119	11.95	124.4	332.5
#1	.0030	-.0611	.1890	.2090	.0482	10.57	-.0036	-.0001	.0000
#2	.0034	-.0475	.1701	.2106	.0527	10.80	-.0030	.0005	-.0001
#3	.0044	-.0552	.2459	.2160	.0504	10.62	-.0029	.0006	.0000

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0016**	**.0044**	**-.0003**	**.0629**	**-.0011**	**-.0021**	**.0345**
Stddev	.0001	.0007	.0002	.0030	.0011	.0017	.0008
%RSD	6.660	15.79	68.51	4.750	98.23	79.90	2.189
#1	-.0016	.0051	-.0001	.0605	-.0021	-.0021	.0343
#2	-.0016	.0042	-.0006	.0663	.0001	-.0004	.0339
#3	-.0014	.0038	-.0003	.0619	-.0014	-.0038	.0353

Zoom In Zoom Out

Sample Name: moconf Acquired: 5/3/2019 19:54:57 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**150610.**	**27826.**	**6393.2**	**9854.2**
Stddev	525.	154.	66.0	87.7
%RSD	.34886	.55503	1.0321	.89008
#1	151140.	27950.	6444.0	9923.4
#2	150600.	27653.	6318.6	9755.5
#3	150090.	27874.	6417.1	9883.6

Zoom In Zoom Out

Sample Name: snconf Acquired: 5/3/2019 20:00:02 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0002**	**-.0001**	**-.0002**	**.0000**	**.0002**	**.0007**	**.0001**	**.0000**	**.0001**
Stddev	.0002	.0000	.0001	.0002	.0002	.0005	.0001	.0002	.0002
%RSD	140.5	7.855	42.68	625.5	71.43	65.88	58.69	569.9	164.0
#1	-.0001	-.0001	-.0002	.0002	.0004	.0012	.0000	.0002	.0002
#2	-.0004	-.0001	-.0003	.0000	.0003	.0005	.0002	-.0001	.0002
#3	.0000	-.0001	-.0001	-.0001	.0001	.0004	.0001	-.0000	-.0001

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0004**	**.0008**	**-.0003**	**.0009**	**-.0001**	**.0011**	**.0021**	**-.0024**	**.0085**
Stddev	.0002	.0001	.0011	.0003	.0005	.0011	.0014	.0043	.0004
%RSD	62.46	17.51	432.1	36.41	983.9	101.4	68.57	178.2	4.834
#1	-.0004	.0007	-.0013	.0012	.0006	-.0001	.0010	-.0068	.0082
#2	-.0006	.0007	-.0003	.0008	-.0003	.0021	.0016	.0016	.0084
#3	-.0001	.0010	.0009	.0006	-.0004	.0013	.0037	-.0020	.0090

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0041**	**.0069**	**.2146**	**.1530**	**.0052**	**.0007**	**-.0107**	F **10.42**	**.0000**
Stddev	.0014	.0156	.0055	.0095	.0004	.0001	.0006	.01	.0000
%RSD	34.37	226.0	2.559	6.191	8.025	12.26	5.369	.0897	126.4
#1	.0029	-.0050	.2083	.1529	.0051	.0008	-.0108	10.43	-.0000
#2	.0037	.0245	.2173	.1436	.0056	.0006	-.0101	10.41	.0001
#3	.0056	.0011	.2183	.1626	.0048	.0007	-.0113	10.42	.0001

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0008**	**-.0138**	**.0005**	**.0016**	**.0003**	**-.0039**	**.0129**
Stddev	.0003	.0005	.0001	.0029	.0006	.0008	.0013
%RSD	40.88	3.524	17.61	175.1	188.4	20.95	10.15
#1	.0005	-.0137	.0004	.0049	.0009	-.0044	.0116
#2	.0012	-.0133	.0006	-.0006	.0003	-.0029	.0142
#3	.0007	-.0143	.0005	.0006	-.0003	-.0042	.0130

Zoom In Zoom Out

Sample Name: snconf Acquired: 5/3/2019 20:00:02 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**152890.**	**27943.**	**6437.8**	**9877.3**
Stddev	3992.	272.	10.1	15.6
%RSD	2.6112	.97350	.15722	.15750
#1	150560.	27760.	6432.5	9867.2
#2	150620.	27813.	6449.5	9895.2
#3	157500.	28256.	6431.4	9869.5

Zoom In Zoom Out

Sample Name: siconf Acquired: 5/3/2019 20:05:09 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**-.0001**	**.0001**	**-.0002**	**.0003**	**.0001**	**-.0001**	**.0000**	**-.0003**
Stddev	.0002	.0001	.0001	.0003	.0002	.0003	.0000	.0001	.0003
%RSD	249.1	52.98	188.9	103.4	62.65	286.9	40.52	1082.	89.83
#1	-.0001	-.0002	.0002	-.0003	.0001	.0003	-.0001	-.0000	-.0005
#2	.0001	-.0000	.0001	-.0005	.0004	-.0002	-.0001	-.0000	-.0004
#3	-.0002	-.0001	-.0001	.0000	.0005	.0002	-.0000	.0001	.0000

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0003**	**.0000**	**-.0016**	**-.0004**	**-.0007**	**.0005**	**.0016**	**-.0036**	**.0042**
Stddev	.0003	.0001	.0007	.0008	.0002	.0009	.0016	.0032	.0010
%RSD	106.2	316.9	41.85	203.3	23.83	171.9	95.42	90.07	25.01
#1	-.0003	-.0001	-.0022	-.0013	-.0005	.0001	.0019	-.0073	.0052
#2	.0000	.0001	-.0015	-.0001	-.0007	.0016	.0031	-.0015	.0031
#3	-.0006	.0001	-.0009	.0002	-.0008	-.0000	-.0000	-.0019	.0043

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0083**	**.0029**	**.2146**	**.1346**	**.0001**	**.0002**	**9.881**	**-.0018**	**-.0003**
Stddev	.0012	.0124	.0066	.0060	.0006	.0001	.020	.0005	.0001
%RSD	14.98	422.4	3.090	4.463	676.0	25.76	.1988	26.07	35.65
#1	-.0092	-.0041	.2077	.1307	.0003	.0003	9.884	-.0021	-.0004
#2	-.0089	.0173	.2154	.1315	-.0006	.0002	9.859	-.0020	-.0002
#3	-.0069	-.0044	.2209	.1415	.0006	.0002	9.898	-.0012	-.0003

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**-.0020**	**-.0002**	**.0030**	**-.0006**	**-.0023**	**.0315**
Stddev	.0002	.0004	.0001	.0012	.0014	.0024	.0012
%RSD	101.6	19.28	41.60	39.45	223.4	104.3	3.956
#1	.0004	-.0017	-.0003	.0027	-.0012	-.0038	.0325
#2	.0004	-.0024	-.0001	.0044	.0010	.0005	.0320
#3	-.0000	-.0020	-.0001	.0021	-.0016	-.0036	.0301

Zoom In Zoom Out

Sample Name: siconf Acquired: 5/3/2019 20:05:09 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**151040.**	**27889.**	**6494.0**	**9925.7**
Stddev	454.	64.	20.8	23.3
%RSD	.30064	.23040	.32039	.23494
#1	150560.	27961.	6475.0	9914.8
#2	151460.	27836.	6516.2	9952.5
#3	151090.	27870.	6490.8	9909.9

Zoom In Zoom Out

Sample Name: mnconf Acquired: 5/3/2019 20:10:18 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0000**	**-.0001**	**-.0005**	**.0000**	**.0010**	**.0005**	F **10.30**	**.0007**	**-.0009**
Stddev	.0002	.0000	.0002	.0001	.0003	.0004	.02	.0002	.0004
%RSD	696.0	24.48	37.28	646.7	32.88	81.29	.1828	27.21	44.21
#1	-.0002	-.0001	-.0005	.0001	.0007	.0003	10.29	.0006	-.0006
#2	.0000	-.0002	-.0003	.0001	.0008	.0003	10.30	.0005	-.0008
#3	.0001	-.0001	-.0007	-.0001	.0013	.0010	10.32	.0009	-.0013

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0027**	**.0008**	**-.0025**	**.0016**	**-.0010**	**.0022**	**-.0006**	**-.0031**	**.0024**
Stddev	.0005	.0001	.0005	.0011	.0005	.0020	.0003	.0046	.0012
%RSD	17.98	7.730	19.03	66.43	49.08	93.63	57.94	149.5	52.01
#1	-.0033	.0008	-.0031	.0004	-.0008	.0011	-.0003	.0019	.0014
#2	-.0024	.0008	-.0024	.0024	-.0006	.0045	-.0005	-.0039	.0038
#3	-.0024	.0007	-.0021	.0020	-.0016	.0009	-.0010	-.0072	.0020

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0016**	**-.0067**	**.2435**	**.1200**	**.0001**	**-.0007**	**.0060**	**-.0011**	**.0001**
Stddev	.0005	.0007	.0238	.0083	.0002	.0000	.0005	.0008	.0001
%RSD	34.11	11.08	9.768	6.935	256.6	1.926	7.788	66.33	63.36
#1	-.0020	-.0060	.2527	.1153	.0003	-.0007	.0060	-.0019	.0001
#2	-.0018	-.0066	.2613	.1296	-.0002	-.0007	.0064	-.0004	.0001
#3	-.0010	-.0075	.2165	.1151	.0002	-.0007	.0055	-.0011	.0000

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0005**	**.0006**	**.0001**	**.0101**	**.0009**	**-.0027**	**.0417**
Stddev	.0002	.0004	.0002	.0010	.0006	.0011	.0016
%RSD	42.10	62.05	243.5	9.906	68.51	41.44	3.863
#1	.0007	.0004	.0002	.0090	.0009	-.0024	.0399
#2	.0005	.0011	-.0001	.0103	.0016	-.0039	.0426
#3	.0003	.0005	.0001	.0110	.0003	-.0017	.0427

Zoom In Zoom Out

Sample Name: mnconf Acquired: 5/3/2019 20:10:18 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**150790.**	**27605.**	**6426.7**	**9847.7**
Stddev	740.	220.	32.1	27.0
%RSD	.49063	.79632	.49944	.27429
#1	150400.	27783.	6413.2	9839.1
#2	150340.	27359.	6403.6	9826.0
#3	151650.	27674.	6463.4	9877.9

Zoom In Zoom Out

Sample Name: srconf Acquired: 5/3/2019 20:15:35 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0000**	**-.0000**	**.0002**	**.0000**	**.0018**	**.0010**	**.0003**	**.0003**	**.0001**
Stddev	.0003	.0000	.0001	.0001	.0002	.0001	.0000	.0001	.0001
%RSD	9042.	95.98	59.10	167.2	11.41	9.373	7.332	42.99	95.93
#1	-.0004	.0000	.0002	.0000	.0020	.0010	.0003	.0002	.0001
#2	.0002	-.0000	.0003	-.0000	.0016	.0010	.0003	.0004	.0000
#3	.0001	-.0001	.0001	.0001	.0019	.0009	.0003	.0004	.0003

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0010**	**.0003**	**-.0006**	**.0004**	**.0001**	**-.0010**	**.0004**	**-.0067**	**-.0015**
Stddev	.0004	.0000	.0007	.0010	.0009	.0006	.0019	.0054	.0014
%RSD	41.13	4.622	117.7	257.3	1306.	56.49	422.8	79.60	91.64
#1	.0007	.0003	-.0001	-.0000	.0010	-.0011	.0022	-.0072	-.0000
#2	.0007	.0003	-.0003	-.0003	.0001	-.0014	-.0015	-.0012	-.0027
#3	.0014	.0003	-.0015	.0015	-.0009	-.0004	.0007	-.0118	-.0018

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0042**	**-.0045**	**.1672**	**.1241**	**-.0005**	**.0001**	**-.0014**	**-.0007**	F **12.07**
Stddev	.0007	.0059	.0286	.0019	.0003	.0001	.0011	.0003	.07
%RSD	16.83	131.0	17.10	1.534	71.24	120.2	79.59	36.69	.5452
#1	.0050	-.0067	.1347	.1219	-.0001	.0002	-.0002	-.0010	12.08
#2	.0038	.0022	.1784	.1256	-.0008	.0001	-.0023	-.0007	12.00
#3	.0037	-.0090	.1885	.1246	-.0005	-.0000	-.0018	-.0005	12.13

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0006**	**.0113**	**.0011**	**.0025**	**-.0001**	**-.0029**	**.0120**
Stddev	.0003	.0009	.0001	.0002	.0019	.0012	.0020
%RSD	50.91	7.852	11.69	8.350	1515.	40.14	16.91
#1	.0006	.0103	.0011	.0026	-.0016	-.0017	.0101
#2	.0008	.0118	.0013	.0026	-.0008	-.0040	.0141
#3	.0003	.0119	.0010	.0022	.0020	-.0028	.0117

Zoom In Zoom Out

Sample Name: srconf Acquired: 5/3/2019 20:15:35 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**150230.**	**27655.**	**6428.0**	**9876.4**
Stddev	545.	88.	8.3	12.2
%RSD	.36288	.31943	.12871	.12354
#1	149710.	27657.	6421.8	9865.9
#2	150190.	27566.	6437.4	9889.7
#3	150800.	27743.	6424.7	9873.5

Zoom In Zoom Out

Sample Name: coconf Acquired: 5/3/2019 20:20:52 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0002**	**.0001**	**.0009**	F **10.85**	**.0004**	**.0007**	**-.0000**	**-.0012**	**-.0002**
Stddev	.0001	.0001	.0001	.02	.0002	.0001	.0000	.0001	.0001
%RSD	35.96	63.49	12.52	.1607	62.52	8.555	757.7	5.918	52.20
#1	-.0003	.0002	.0008	10.85	.0003	.0006	-.0000	-.0013	-.0002
#2	-.0001	.0001	.0009	10.86	.0006	.0007	.0000	-.0012	-.0001
#3	-.0002	.0001	.0010	10.83	.0002	.0006	-.0000	-.0012	-.0004

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0004**	**-.0000**	**-.0006**	**.0048**	**-.0015**	**-.0004**	**.0026**	**-.0154**	**.0032**
Stddev	.0002	.0001	.0004	.0002	.0008	.0024	.0006	.0036	.0009
%RSD	42.01	186.8	59.37	3.957	54.24	586.1	21.52	23.06	27.95
#1	-.0003	.0000	-.0011	.0049	-.0015	.0003	.0026	-.0116	.0028
#2	-.0003	-.0001	-.0004	.0049	-.0023	.0016	.0031	-.0160	.0042
#3	-.0006	-.0000	-.0004	.0046	-.0007	-.0031	.0020	-.0186	.0026

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0005**	**-.0011**	**.1322**	**.1079**	**-.0007**	**.0001**	**.0012**	**-.0012**	**.0004**
Stddev	.0012	.0112	.0237	.0030	.0003	.0001	.0004	.0002	.0001
%RSD	254.5	1029.	17.91	2.754	40.47	59.97	35.68	17.94	29.12
#1	.0002	.0110	.1592	.1102	-.0009	.0001	.0016	-.0014	.0006
#2	-.0006	-.0033	.1152	.1089	-.0007	.0001	.0007	-.0012	.0004
#3	.0017	-.0110	.1221	.1045	-.0004	.0000	.0014	-.0010	.0003

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0091**	**.0001**	**.0007**	**.0024**	**-.0024**	**.0327**
Stddev	.0002	.0009	.0002	.0016	.0012	.0014	.0025
%RSD	104.4	9.388	120.4	223.2	48.14	57.05	7.612
#1	.0000	.0101	.0003	-.0011	.0011	-.0020	.0299
#2	.0003	.0086	.0001	.0018	.0026	-.0039	.0343
#3	.0001	.0087	-.0000	.0014	.0034	-.0012	.0340

Zoom In Zoom Out

Sample Name: coconf Acquired: 5/3/2019 20:20:52 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**150660.**	**27769.**	**6428.3**	**9970.7**
Stddev	436.	99.	3.3	4.5
%RSD	.28962	.35733	.05176	.04474
#1	150850.	27668.	6431.9	9965.6
#2	150970.	27866.	6425.4	9973.6
#3	150160.	27773.	6427.4	9973.0

Zoom In Zoom Out

Sample Name: alconf Acquired: 5/3/2019 20:26:00 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0003**	**-.0001**	**.0000**	**.0002**	**.0001**	**-.0008**	**-.0011**	**-.0000**	**.0026**
Stddev	.0002	.0001	.0001	.0001	.0003	.0002	.0001	.0003	.0007
%RSD	97.77	44.49	497.7	71.64	423.1	25.21	8.208	6580.	27.38
#1	-.0005	-.0001	-.0001	.0000	.0003	-.0010	-.0010	-.0003	.0032
#2	-.0002	-.0002	.0001	.0003	.0001	-.0006	-.0012	-.0000	.0018
#3	-.0000	-.0001	.0001	.0002	-.0002	-.0008	-.0012	.0003	.0028

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0009**	**.0026**	**-.0016**	**.0009**	**-.0007**	**-.0000**	**-.0027**	F **516.0**	**.0374**
Stddev	.0005	.0001	.0006	.0019	.0010	.0046	.0013	10.0	.0007
%RSD	55.07	2.568	38.70	219.7	145.4	38080.	46.72	1.934	1.863
#1	-.0010	.0027	-.0014	.0003	-.0010	.0031	-.0038	509.9	.0380
#2	-.0004	.0026	-.0022	.0030	-.0015	-.0053	-.0030	510.7	.0366
#3	-.0013	.0026	-.0010	-.0007	.0004	.0022	-.0013	527.5	.0374

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0058**	**.0110**	**.1329**	**.1817**	**-.0005**	**.0002**	**.0003**	**-.0035**	**.0001**
Stddev	.0004	.0092	.0159	.0087	.0008	.0002	.0008	.0002	.0001
%RSD	6.517	84.03	11.95	4.786	176.1	106.4	249.5	5.003	85.64
#1	.0059	.0140	.1202	.1824	-.0010	-.0000	.0009	-.0034	.0000
#2	.0062	.0006	.1278	.1900	-.0008	.0004	.0007	-.0037	.0002
#3	.0054	.0184	.1507	.1726	.0005	.0003	-.0006	-.0035	.0001

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0008**	**-.0016**	**.0001**	**.0153**	**-.0052**	**-.0013**	**.0192**
Stddev	.0003	.0017	.0002	.0021	.0007	.0014	.0005
%RSD	34.18	108.5	117.7	13.67	14.23	107.7	2.805
#1	.0005	.0001	-.0000	.0153	-.0047	-.0027	.0196
#2	.0008	-.0033	.0001	.0174	-.0061	-.0011	.0186
#3	.0010	-.0016	.0003	.0132	-.0050	.0000	.0195

Zoom In Zoom Out

Sample Name: alconf Acquired: 5/3/2019 20:26:00 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**136540.**	**28331.**	**6511.5**	**8956.3**
Stddev	563.	216.	110.1	123.0
%RSD	.41248	.76174	1.6902	1.3729
#1	136080.	28428.	6464.9	8905.6
#2	137170.	28481.	6637.2	9096.5
#3	136370.	28084.	6432.4	8866.8

Zoom In Zoom Out

Sample Name: caconf Acquired: 5/3/2019 20:31:11 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0000**	**.0000**	**-.0001**	**.0001**	**.0012**	**.0005**	**-.0001**	**.0001**
Stddev	.0002	.0001	.0000	.0002	.0003	.0001	.0000	.0003	.0005
%RSD	1614.	9996.	1821.	302.1	456.9	7.730	7.503	410.5	807.7
#1	.0002	.0001	.0001	-.0002	-.0003	.0013	.0004	.0001	.0003
#2	-.0002	-.0001	-.0000	-.0002	.0003	.0011	.0005	.0001	-.0005
#3	.0001	-.0000	-.0000	.0002	.0003	.0011	.0005	-.0004	.0003

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0002**	**.0006**	**-.0008**	**.0001**	**-.0002**	**.0018**	**.0001**	**.0247**	F **435.6**
Stddev	.0004	.0000	.0009	.0019	.0007	.0007	.0020	.0037	15.4
%RSD	149.7	6.561	117.9	2448.	313.9	38.62	2884.	14.93	3.546
#1	-.0006	.0006	-.0008	.0022	.0005	.0024	.0011	.0286	417.8
#2	-.0003	.0007	.0002	-.0015	-.0008	.0011	-.0023	.0244	442.7
#3	.0001	.0006	-.0017	-.0005	-.0004	.0019	.0013	.0213	446.2

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0034**	**.0144**	**.2285**	**.0913**	**-.0004**	**.0000**	**.0030**	**-.0016**	**-.0005**
Stddev	.0007	.0075	.0214	.0102	.0003	.0000	.0012	.0003	.0001
%RSD	20.22	52.14	9.371	11.20	76.77	107.4	39.77	19.59	17.61
#1	-.0031	.0208	.2170	.1009	-.0001	.0001	.0032	-.0020	-.0004
#2	-.0029	.0163	.2533	.0805	-.0006	.0000	.0017	-.0015	-.0006
#3	-.0042	.0061	.2154	.0924	-.0007	.0000	.0041	-.0014	-.0006

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0009**	**.0006**	**.0001**	**-.0054**	**.0034**	**.0089**	**.0224**
Stddev	.0002	.0006	.0000	.0006	.0005	.0004	.0009
%RSD	27.05	107.4	23.42	11.88	15.75	4.547	4.029
#1	-.0011	.0012	.0001	-.0060	.0038	.0088	.0226
#2	-.0009	-.0000	.0001	-.0056	.0035	.0085	.0232
#3	-.0006	.0006	.0001	-.0048	.0028	.0093	.0214

Zoom In Zoom Out

Sample Name: caconf Acquired: 5/3/2019 20:31:11 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**136950.**	**27080.**	**5905.4**	**8548.6**
Stddev	201.	455.	13.4	12.8
%RSD	.14646	1.6797	.22726	.14920
#1	136930.	27594.	5916.1	8557.0
#2	137160.	26727.	5890.3	8533.9
#3	136770.	26920.	5909.8	8554.9

Zoom In Zoom Out

Sample Name: siconf Acquired: 5/3/2019 20:36:28 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0002**	**-.0001**	**-.0000**	**-.0001**	**.0002**	**.0008**	**.0000**	**-.0000**	**-.0006**
Stddev	.0003	.0000	.0000	.0001	.0002	.0000	.0000	.0002	.0001
%RSD	135.0	59.21	10.26	79.29	116.0	4.626	69.04	836.1	21.41
#1	.0001	-.0000	-.0000	-.0000	.0004	.0008	.0001	.0001	-.0007
#2	-.0004	-.0001	-.0000	-.0001	-.0001	.0008	.0000	-.0002	-.0005
#3	-.0003	-.0001	-.0000	-.0002	.0003	.0008	.0000	.0001	-.0006

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0004**	**-.0000**	**-.0016**	**-.0011**	**-.0022**	**.0026**	**-.0001**	**-.0082**	**.0129**
Stddev	.0002	.0000	.0011	.0015	.0007	.0025	.0015	.0010	.0024
%RSD	49.71	108.6	67.26	136.4	31.56	96.38	1093.	11.54	18.45
#1	-.0002	-.0000	-.0021	-.0016	-.0015	.0042	-.0019	-.0080	.0157
#2	-.0004	-.0000	-.0004	.0006	-.0022	-.0003	.0010	-.0074	.0118
#3	-.0006	-.0001	-.0023	-.0024	-.0029	.0039	.0004	-.0093	.0113

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0017**	**-.0015**	**.1275**	**.0944**	**-.0003**	**.0000**	**.0027**	**-.0015**	**-.0000**
Stddev	.0006	.0065	.0460	.0039	.0004	.0002	.0004	.0007	.0000
%RSD	33.60	442.4	36.05	4.164	140.1	468.2	15.24	44.44	422.0
#1	.0019	-.0090	.1796	.0966	-.0007	-.0000	.0026	-.0020	-.0000
#2	.0022	.0019	.0924	.0966	.0001	-.0001	.0032	-.0008	-.0000
#3	.0011	.0027	.1105	.0898	-.0002	.0003	.0024	-.0017	.0000

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0008**	**-.0000**	**.0004**	**91.75**	**-.0009**	**-.0020**	**.0311**
Stddev	.0000	.0005	.0002	.13	.0013	.0011	.0020
%RSD	3.318	8795.	48.38	.1393	151.0	58.30	6.392
#1	.0009	-.0005	.0006	91.66	-.0024	-.0033	.0310
#2	.0008	.0005	.0004	91.89	-.0001	-.0013	.0332
#3	.0008	.0000	.0002	91.68	-.0001	-.0013	.0292

Zoom In Zoom Out

Sample Name: siconf Acquired: 5/3/2019 20:36:28 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**151210.**	**27850.**	**6488.0**	**9958.2**
Stddev	576.	84.	15.2	19.3
%RSD	.38061	.30180	.23468	.19395
#1	151850.	27821.	6499.8	9972.1
#2	150730.	27784.	6470.8	9936.1
#3	151040.	27945.	6493.3	9966.3

Zoom In Zoom Out

Sample Name: zrconf Acquired: 5/3/2019 20:41:35 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0000**	**-.0001**	**-.0001**	**-.0000**	**-.0006**	**.0020**	**.0002**	**-.0003**	**-.0027**
Stddev	.0003	.0001	.0000	.0001	.0003	.0004	.0000	.0002	.0016
%RSD	1627.	41.94	18.45	332.3	51.06	17.80	12.13	72.60	58.79
#1	-.0003	-.0001	-.0001	-.0001	-.0010	.0018	.0002	-.0001	-.0045
#2	.0000	-.0001	-.0001	.0000	-.0003	.0024	.0002	-.0005	-.0015
#3	.0002	-.0002	-.0001	-.0000	-.0005	.0018	.0002	-.0003	-.0021

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0007**	**-.0000**	**-.0011**	**.0002**	**.0005**	**.0020**	**.0029**	**.0282**	**-.0012**
Stddev	.0002	.0000	.0009	.0013	.0010	.0017	.0017	.0037	.0015
%RSD	22.97	296.1	88.06	601.5	192.9	87.49	59.87	12.94	132.9
#1	.0007	-.0001	-.0013	.0017	.0011	.0032	.0036	.0269	-.0018
#2	.0006	-.0000	-.0000	-.0001	-.0006	-.0000	.0009	.0255	-.0023
#3	.0009	.0000	-.0019	-.0009	.0011	.0027	.0043	.0324	.0006

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0006**	**.0072**	**.1709**	**.1065**	**-.0005**	**-.0005**	**-.0024**	**-.0002**	**.0002**
Stddev	.0007	.0119	.0153	.0029	.0005	.0001	.0004	.0003	.0001
%RSD	115.0	165.0	8.960	2.728	93.04	25.62	18.19	175.1	53.20
#1	.0012	-.0064	.1617	.1073	-.0006	-.0006	-.0024	-.0004	.0004
#2	-.0002	.0125	.1624	.1089	.0000	-.0005	-.0019	.0002	.0001
#3	.0009	.0155	.1885	.1033	-.0009	-.0003	-.0028	-.0003	.0002

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0009**	**-.0005**	F **11.04**	**.0124**	**-.0006**	**-.0016**	**.0145**
Stddev	.0002	.0005	.23	.0020	.0002	.0012	.0014
%RSD	23.13	118.5	2.097	15.91	43.05	74.51	9.363
#1	.0009	-.0011	11.30	.0142	-.0008	-.0022	.0158
#2	.0007	-.0002	10.86	.0128	-.0006	-.0002	.0131
#3	.0012	-.0001	10.95	.0103	-.0003	-.0024	.0145

Zoom In Zoom Out

Sample Name: zrconf Acquired: 5/3/2019 20:41:35 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**148960.**	**27677.**	**6439.9**	**9896.9**
Stddev	469.	153.	62.4	90.8
%RSD	.31510	.55136	.96828	.91790
#1	148420.	27761.	6506.1	9993.3
#2	149270.	27501.	6382.3	9812.9
#3	149190.	27770.	6431.2	9884.6

Zoom In Zoom Out

Sample Name: ccv Acquired: 5/3/2019 20:46:53 Type: QC
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.036**	**2.052**	**2.020**	**2.061**	**2.026**	**2.043**	**2.068**	**2.086**	**.2511**
Stddev	.006	.004	.011	.009	.005	.007	.007	.009	.0010
%RSD	.3057	.2088	.5262	.4282	.2534	.3362	.3378	.4557	.3783
#1	2.043	2.057	2.019	2.058	2.021	2.035	2.075	2.082	.2501
#2	2.032	2.049	2.011	2.055	2.026	2.044	2.068	2.080	.2520
#3	2.032	2.049	2.032	2.071	2.031	2.049	2.061	2.097	.2513
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.005**	**2.020**	**2.025**	**2.122**	**2.057**	**2.048**	**2.019**	**40.79**	**41.67**
Stddev	.004	.010	.011	.004	.007	.006	.012	.08	.09
%RSD	.2135	.4794	.5487	.2132	.3280	.2765	.5879	.1842	.2121
#1	2.000	2.019	2.021	2.117	2.052	2.044	2.015	40.87	41.75
#2	2.008	2.011	2.016	2.125	2.053	2.044	2.010	40.76	41.68
#3	2.007	2.030	2.037	2.124	2.064	2.054	2.033	40.73	41.57
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**41.50**	**40.82**	**40.63**	**41.49**	**2.100**	**2.058**	**5.353**	**2.009**	**2.127**
Stddev	.07	.05	.03	.05	.015	.010	.030	.008	.002
%RSD	.1652	.1140	.0860	.1311	.7189	.4667	.5552	.3950	.0836
#1	41.56	40.79	40.67	41.52	2.095	2.055	5.347	2.010	2.129
#2	41.50	40.87	40.62	41.53	2.089	2.051	5.327	2.001	2.126
#3	41.43	40.80	40.60	41.43	2.117	2.069	5.385	2.016	2.125
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ccv Acquired: 5/3/2019 20:46:53 Type: QC
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.044**	**2.002**	**2.016**	**2.004**	**2.098**	**1.947**	**1.988**
Stddev	.004	.009	.004	.007	.012	.004	.025
%RSD	.2126	.4663	.1859	.3421	.5714	.1983	1.282
#1	2.039	2.001	2.012	1.999	2.094	1.951	1.962
#2	2.047	1.993	2.017	2.001	2.089	1.947	1.988
#3	2.047	2.012	2.019	2.012	2.112	1.943	2.013
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**142390.**	**27121.**	**6187.9**	**8975.3**
Stddev	562.	96.	34.4	37.5
%RSD	.39471	.35398	.55582	.41748
#1	142280.	27125.	6183.3	8977.1
#2	141900.	27023.	6224.4	9011.9
#3	143000.	27215.	6156.1	8937.0

Zoom In Zoom Out

Sample Name: ccb Acquired: 5/3/2019 20:51:54 Type: QC
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0006**	**.0002**	**.0003**	**.0002**	**.0001**	**.0007**	**.0003**	**.0005**	**-.0003**
Stddev	.0002	.0000	.0001	.0001	.0001	.0001	.0001	.0001	.0003
%RSD	38.36	15.19	38.19	29.42	256.2	11.42	26.42	22.03	93.71
#1	.0007	.0002	.0003	.0003	.0000	.0008	.0002	.0004	-.0004
#2	.0006	.0002	.0004	.0002	.0002	.0007	.0004	.0006	.0000
#3	.0003	.0003	.0002	.0001	-.0001	.0007	.0003	.0004	-.0006
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0004**	**-.0000**	**.0003**	**.0017**	**.0003**	**.0005**	**.0025**	**-.0062**	**.0008**
Stddev	.0001	.0001	.0005	.0004	.0011	.0014	.0009	.0031	.0018
%RSD	15.58	799.1	186.4	20.71	337.5	280.1	33.74	49.66	218.8
#1	-.0005	-.0001	.0008	.0020	-.0009	.0008	.0035	-.0043	.0028
#2	-.0004	.0001	-.0002	.0013	.0014	.0017	.0020	-.0045	-.0004
#3	-.0004	-.0000	.0002	.0017	.0005	-.0010	.0021	-.0097	.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0058**	**.0164**	**.1886**	**.1238**	**.0014**	**.0005**	**.0011**	**-.0008**	**.0003**
Stddev	.0007	.0089	.0225	.0063	.0001	.0003	.0011	.0001	.0001
%RSD	12.19	54.36	11.90	5.056	8.609	56.74	93.86	17.83	34.75
#1	.0066	.0128	.1794	.1309	.0013	.0003	.0005	-.0007	.0002
#2	.0052	.0265	.2142	.1193	.0014	.0004	.0005	-.0009	.0004
#3	.0056	.0098	.1723	.1211	.0015	.0009	.0024	-.0007	.0004
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: ccb Acquired: 5/3/2019 20:51:54 Type: QC
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0009**	**.0002**	**.0004**	**.0032**	**.0005**	**-.0034**	**.0138**
Stddev	.0002	.0010	.0001	.0011	.0025	.0034	.0032
%RSD	28.31	458.7	17.41	34.29	535.1	102.0	23.18
#1	.0006	-.0010	.0004	.0020	-.0022	-.0013	.0109
#2	.0008	.0007	.0004	.0042	.0009	-.0015	.0133
#3	.0011	.0009	.0003	.0033	.0028	-.0073	.0173
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**151110.**	**27253.**	**6380.9**	**9824.7**
Stddev	2000.	302.	32.8	42.4
%RSD	1.3238	1.1099	.51440	.43142
#1	150140.	26923.	6409.0	9861.0
#2	149780.	27518.	6344.8	9778.1
#3	153410.	27319.	6388.9	9835.0

Zoom In Zoom Out

Sample Name: JC87361-1 Acquired: 5/3/2019 20:57:02 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 3.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4008**	**.0057**	**.0020**	**.0900**	**.1544**	**.3056**	**3.952**	**.2478**	**.0000**
Stddev	.0017	.0000	.0005	.0005	.0011	.0015	.022	.0011	.0004
%RSD	.4293	.6506	26.10	.5754	.7244	.4798	.5492	.4308	1107.
#1	.4005	.0057	.0019	.0903	.1531	.3043	3.937	.2477	-.0004
#2	.3992	.0056	.0026	.0902	.1550	.3072	3.977	.2489	.0001
#3	.4026	.0057	.0016	.0894	.1552	.3053	3.944	.2468	.0004

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1834**	**.6556**	**.0636**	**.0047**	**.6412**	**.0025**	**.0012**	**83.28**	**424.4**
Stddev	.0008	.0022	.0023	.0031	.0035	.0069	.0053	.26	1.4
%RSD	.4374	.3391	3.617	64.86	.5516	277.6	424.6	.3142	.3257
#1	.1826	.6570	.0633	.0014	.6394	.0065	.0069	83.05	423.3
#2	.1842	.6568	.0660	.0054	.6453	.0064	-.0035	83.24	425.9
#3	.1833	.6531	.0614	.0074	.6390	-.0055	.0003	83.57	424.0

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**206.1**	**219.4**	**24.43**	**1.760**	**.1846**	**.0425**	**2.604**	**.0235**	**.2470**
Stddev	.6	.5	.15	.028	.0014	.0005	.012	.0006	.0010
%RSD	.2875	.2317	.5950	1.569	.7369	1.097	.4652	2.535	.4169
#1	205.6	218.9	24.30	1.791	.1862	.0425	2.601	.0237	.2462
#2	206.1	219.4	24.41	1.750	.1837	.0421	2.594	.0239	.2467
#3	206.7	220.0	24.59	1.738	.1839	.0430	2.617	.0228	.2482

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.9791**	**-.0008**	**.1236**	**42.45**	**.0339**	**.1714**	**2.543**
Stddev	.0045	.0019	.0006	.20	.0014	.0064	.040
%RSD	.4629	224.4	.4643	.4606	4.164	3.707	1.568
#1	.9801	-.0002	.1230	42.58	.0355	.1667	2.588
#2	.9831	.0006	.1241	42.56	.0333	.1786	2.529
#3	.9742	-.0029	.1238	42.23	.0329	.1689	2.512

Zoom In Zoom Out

Sample Name: JC87361-1 Acquired: 5/3/2019 20:57:02 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 3.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**143770.**	**27773.**	**6250.3**	**8922.0**
Stddev	1199.	180.	23.3	32.7
%RSD	.83387	.64951	.37234	.36687
#1	144220.	27947.	6255.3	8932.5
#2	142410.	27785.	6224.9	8885.3
#3	144670.	27587.	6270.7	8948.2

Zoom In Zoom Out

Sample Name: JC87361-4 Acquired: 5/3/2019 21:02:09 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 3.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2096**	**.0015**	**.0013**	**.0246**	**.0433**	**.0819**	**1.838**	**.0506**	**.0010**
Stddev	.0010	.0001	.0006	.0003	.0007	.0008	.002	.0015	.0015
%RSD	.4647	9.199	44.38	1.143	1.508	1.016	.1085	3.053	144.2
#1	.2108	.0014	.0006	.0248	.0430	.0824	1.836	.0524	.0027
#2	.2092	.0015	.0016	.0246	.0440	.0823	1.837	.0498	.0007
#3	.2089	.0017	.0017	.0243	.0428	.0809	1.840	.0496	-.0002

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0710**	**.4524**	**.0454**	**.0024**	**.6776**	**-.0011**	**.0237**	**19.00**	**491.7**
Stddev	.0007	.0016	.0011	.0030	.0021	.0019	.0027	.03	3.0
%RSD	.9205	.3584	2.445	124.9	.3135	167.4	11.31	.1595	.6083
#1	.0703	.4534	.0460	-.0000	.6760	-.0003	.0250	19.03	491.8
#2	.0716	.4506	.0460	.0015	.6768	.0002	.0255	19.00	488.7
#3	.0712	.4534	.0441	.0057	.6800	-.0033	.0206	18.97	494.7

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**63.94**	**252.3**	**4.467**	**1.858**	**.2134**	**.0055**	**1.957**	**.0369**	**.1996**
Stddev	.11	.4	.095	.036	.0012	.0005	.008	.0013	.0006
%RSD	.1764	.1589	2.120	1.943	.5413	9.170	.4186	3.651	.3076
#1	64.01	252.6	4.570	1.892	.2123	.0058	1.963	.0358	.1999
#2	64.01	252.4	4.448	1.861	.2133	.0058	1.947	.0384	.2001
#3	63.81	251.8	4.384	1.820	.2146	.0049	1.959	.0365	.1989

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.9046**	**.0003**	**.0260**	**1.522**	**.0403**	**.0307**	**2.174**
Stddev	.0013	.0012	.0004	.006	.0018	.0016	.023
%RSD	.1387	462.2	1.363	.3786	4.571	5.270	1.051
#1	.9038	.0002	.0264	1.527	.0402	.0303	2.199
#2	.9060	-.0009	.0257	1.523	.0423	.0325	2.155
#3	.9039	.0014	.0259	1.516	.0386	.0293	2.169

Zoom In Zoom Out

Sample Name: JC87361-4 Acquired: 5/3/2019 21:02:09 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 3.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**141860.**	**27510.**	**6145.4**	**8850.1**
Stddev	148.	151.	24.4	25.1
%RSD	.10450	.54784	.39702	.28339
#1	141890.	27428.	6124.2	8824.1
#2	141990.	27684.	6172.0	8874.1
#3	141700.	27418.	6139.9	8852.3

Zoom In Zoom Out

Sample Name: JC87361-5 Acquired: 5/3/2019 21:07:18 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5339**	**.0080**	**.0003**	**.1489**	**.2325**	**.2795**	**3.067**	**.3569**	**.0004**
Stddev	.0001	.0001	.0001	.0021	.0004	.0015	.004	.0033	.0005
%RSD	.0193	.8382	42.38	1.432	.1589	.5257	.1398	.9216	114.6
#1	.5338	.0080	.0002	.1484	.2327	.2781	3.063	.3562	.0006
#2	.5340	.0079	.0005	.1472	.2321	.2810	3.066	.3540	.0008
#3	.5339	.0080	.0003	.1513	.2327	.2792	3.072	.3605	-.0001

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2548**	**.4264**	**.1102**	**.0070**	**.1311**	**.0012**	**.0015**	**141.8**	**344.2**
Stddev	.0004	.0051	.0038	.0009	.0020	.0011	.0011	.0	3.6
%RSD	.1661	1.191	3.452	12.86	1.531	92.22	74.59	.0065	1.050
#1	.2543	.4243	.1105	.0069	.1294	.0008	.0025	141.8	342.6
#2	.2550	.4228	.1063	.0079	.1305	.0004	.0016	141.8	348.4
#3	.2550	.4322	.1139	.0061	.1333	.0025	.0003	141.7	341.7

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**177.9**	**190.6**	**42.30**	**2.296**	**.2295**	**.0331**	**2.402**	**.0177**	**.4425**
Stddev	.0	.1	.03	.001	.0031	.0010	.036	.0013	.0004
%RSD	.0149	.0672	.0822	.0525	1.356	2.915	1.482	7.137	.0822
#1	177.9	190.5	42.32	2.296	.2294	.0322	2.396	.0164	.4430
#2	177.9	190.6	42.31	2.295	.2264	.0330	2.370	.0178	.4424
#3	177.9	190.7	42.26	2.298	.2326	.0341	2.441	.0189	.4423

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.141**	**.0002**	**.1630**	**7.624**	**.0391**	**.2902**	**2.220**
Stddev	.001	.0007	.0003	.079	.0015	.0005	.018
%RSD	.1082	302.7	.1681	1.036	3.937	.1553	.8304
#1	1.142	-.0001	.1631	7.603	.0409	.2899	2.221
#2	1.141	.0010	.1633	7.557	.0384	.2899	2.201
#3	1.140	-.0003	.1627	7.711	.0380	.2907	2.238

Zoom In Zoom Out

Sample Name: JC87361-5 Acquired: 5/3/2019 21:07:18 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**144160.**	**28454.**	**6245.5**	**8760.5**
Stddev	705.	91.	61.3	74.4
%RSD	.48879	.31871	.98189	.84885
#1	144610.	28424.	6273.2	8785.6
#2	144520.	28556.	6288.2	8819.1
#3	143350.	28383.	6175.3	8676.9

Zoom In Zoom Out

Sample Name: JC87361-6 Acquired: 5/3/2019 21:12:23 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3179**	**.0051**	**.0020**	**.0962**	**.1328**	**.3038**	**3.181**	**.2660**	**-.0007**
Stddev	.0049	.0001	.0003	.0005	.0006	.0004	.017	.0012	.0006
%RSD	1.549	1.792	16.96	.5211	.4612	.1352	.5368	.4469	90.54
#1	.3199	.0052	.0018	.0967	.1334	.3043	3.201	.2673	-.0012
#2	.3216	.0052	.0024	.0957	.1329	.3036	3.171	.2651	-.0000
#3	.3123	.0050	.0017	.0962	.1321	.3036	3.173	.2656	-.0008

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1591**	**.5695**	**.1071**	**.0045**	**.3118**	**.0019**	**.0007**	**72.12**	F **319.5**
Stddev	.0009	.0031	.0019	.0008	.0020	.0015	.0017	1.07	5.5
%RSD	.5420	.5384	1.789	16.81	.6282	77.55	228.4	1.489	1.716
#1	.1601	.5727	.1093	.0053	.3125	.0010	.0024	72.59	318.0
#2	.1589	.5692	.1059	.0043	.3096	.0011	-.0010	72.88	325.5
#3	.1584	.5665	.1061	.0039	.3133	.0036	.0008	70.90	314.9

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**176.4**	**187.6**	**22.19**	**2.927**	**.1477**	**.0473**	**2.365**	**.0250**	**.2624**
Stddev	2.1	2.7	.31	.041	.0006	.0003	.019	.0011	.0040
%RSD	1.201	1.428	1.389	1.386	.4382	.6743	.8117	4.467	1.509
#1	174.7	188.7	22.31	2.943	.1482	.0477	2.387	.0263	.2642
#2	178.8	189.5	22.42	2.958	.1480	.0472	2.359	.0244	.2651
#3	175.7	184.5	21.84	2.881	.1470	.0471	2.350	.0243	.2578

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.6843**	**.0014**	**.1074**	**20.66**	**.0264**	**.1509**	**3.215**
Stddev	.0052	.0007	.0006	.11	.0021	.0018	.006
%RSD	.7527	48.57	.5283	.5544	8.011	1.186	.2031
#1	.6894	.0010	.1080	20.79	.0253	.1529	3.221
#2	.6843	.0022	.1074	20.61	.0251	.1503	3.208
#3	.6791	.0010	.1068	20.57	.0289	.1495	3.217

Zoom In Zoom Out

Sample Name: JC87361-6 Acquired: 5/3/2019 21:12:23 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**143020.**	**28858.**	**6172.5**	**8556.3**
Stddev	429.	316.	29.7	25.5
%RSD	.30006	1.0951	.48110	.29847
#1	142780.	28924.	6143.8	8527.6
#2	142770.	28515.	6170.6	8564.9
#3	143520.	29136.	6203.1	8576.5

Zoom In Zoom Out

Sample Name: JC87361-6 Acquired: 5/3/2019 21:17:45 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3263**	**.0053**	**.0019**	**.0971**	**.1371**	**.3095**	**3.310**	**.2713**	**.0003**
Stddev	.0005	.0000	.0004	.0005	.0007	.0022	.018	.0008	.0008
%RSD	.1547	.3351	22.55	.5159	.4795	.7023	.5571	.3061	228.4
#1	.3259	.0053	.0016	.0974	.1365	.3073	3.293	.2715	.0012
#2	.3260	.0053	.0017	.0965	.1378	.3117	3.330	.2704	-.0003
#3	.3268	.0053	.0024	.0973	.1370	.3095	3.306	.2720	.0001

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1622**	**.5936**	**.1085**	**.0076**	**.3208**	**.0053**	**.0043**	**74.51**	**334.6**
Stddev	.0001	.0010	.0020	.0029	.0015	.0029	.0033	.13	.9
%RSD	.0633	.1751	1.814	37.86	.4671	55.66	76.90	.1796	.2772
#1	.1620	.5947	.1064	.0081	.3225	.0061	.0078	74.58	334.4
#2	.1622	.5927	.1090	.0045	.3198	.0020	.0038	74.36	333.8
#3	.1622	.5932	.1102	.0101	.3200	.0078	.0013	74.60	335.7

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**186.9**	**196.5**	**23.01**	**3.112**	**.1518**	**.0488**	**2.731**	**.0243**	**.2713**
Stddev	.2	.1	.01	.019	.0014	.0009	.049	.0005	.0002
%RSD	.1101	.0643	.0522	.5972	.8966	1.930	1.785	2.179	.0636
#1	186.9	196.6	23.02	3.095	.1509	.0492	2.785	.0238	.2714
#2	186.7	196.4	22.99	3.110	.1512	.0477	2.718	.0249	.2714
#3	187.1	196.4	23.01	3.132	.1534	.0495	2.690	.0242	.2711

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.7011**	**.0028**	**.1092**	**20.93**	**.0230**	**.1524**	**3.266**
Stddev	.0019	.0012	.0007	.04	.0020	.0057	.022
%RSD	.2706	44.54	.6072	.1971	8.489	3.713	.6698
#1	.6989	.0033	.1099	20.93	.0234	.1586	3.249
#2	.7026	.0037	.1092	20.90	.0209	.1510	3.259
#3	.7016	.0014	.1086	20.98	.0247	.1476	3.291

Zoom In Zoom Out

Sample Name: JC87361-6 Acquired: 5/3/2019 21:17:45 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**144250.**	**27930.**	**6236.8**	**8823.5**
Stddev	670.	150.	21.1	20.1
%RSD	.46444	.53541	.33871	.22793
#1	144580.	27764.	6212.5	8800.3
#2	143480.	28054.	6249.4	8836.8
#3	144690.	27973.	6248.6	8833.2

Zoom In Zoom Out

Sample Name: JC87361-7 Acquired: 5/3/2019 21:22:53 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3339**	**.0054**	**.0000**	**.0977**	**.1593**	**.2359**	**3.293**	**.2625**	**-.0012**
Stddev	.0023	.0004	.0009	.0022	.0073	.0077	.143	.0017	.0017
%RSD	.7029	6.599	4841.	2.224	4.604	3.279	4.339	.6601	136.8
#1	.3356	.0057	-.0008	.0995	.1678	.2448	3.457	.2642	-.0031
#2	.3312	.0055	-.0000	.0984	.1551	.2309	3.215	.2607	-.0009
#3	.3349	.0050	.0009	.0953	.1551	.2320	3.206	.2627	.0002

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1888**	**.4503**	**.0699**	**.0055**	**.2363**	**-.0016**	**.0047**	**89.05**	**676.7**
Stddev	.0096	.0047	.0020	.0071	.0018	.0042	.0087	.25	6.9
%RSD	5.084	1.049	2.804	127.7	.7796	269.0	183.7	.2839	1.020
#1	.1999	.4526	.0721	.0137	.2358	-.0063	.0106	89.15	674.9
#2	.1832	.4535	.0694	.0007	.2347	-.0004	.0089	88.76	670.9
#3	.1833	.4449	.0682	.0023	.2383	.0019	-.0053	89.23	684.3

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**174.2**	**264.0**	**28.51**	**3.253**	**.1820**	**.0282**	**4.309**	**.0156**	**1.764**
Stddev	.3	.4	.07	.044	.0078	.0010	4.119	.0005	.003
%RSD	.1626	.1355	.2464	1.351	4.300	3.567	95.59	2.977	.1393
#1	174.2	264.2	28.47	3.234	.1822	.0292	1.956	.0161	1.762
#2	173.9	263.6	28.46	3.222	.1898	.0283	9.066	.0155	1.762
#3	174.5	264.2	28.59	3.303	.1741	.0272	1.906	.0152	1.767

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.015**	**-.0001**	**.1225**	**24.16**	**.0430**	**.1781**	**3.045**
Stddev	.043	.0040	.0051	.24	.0061	.0049	.035
%RSD	4.196	7415.	4.177	1.006	14.29	2.736	1.137
#1	1.065	.0029	.1284	24.33	.0500	.1740	3.066
#2	.9904	.0015	.1200	24.27	.0386	.1768	3.065
#3	.9912	-.0046	.1192	23.88	.0403	.1835	3.005

Zoom In Zoom Out

Sample Name: JC87361-7 Acquired: 5/3/2019 21:22:53 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**140780.**	**27503.**	**6114.9**	**8805.6**
Stddev	5715.	216.	312.9	358.4
%RSD	4.0592	.78504	5.1167	4.0700
#1	134200.	27315.	6281.1	8999.0
#2	143680.	27739.	5754.0	8392.1
#3	144470.	27455.	6309.7	9025.8

Zoom In Zoom Out

Sample Name: JC87361-8 Acquired: 5/3/2019 21:28:02 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 3.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.635**	**.0067**	**.0224**	**.0551**	**.2222**	**1.632**	**8.539**	**.1626**	**.0022**
Stddev	.005	.0002	.0003	.0007	.0014	.004	.108	.0013	.0029
%RSD	.2029	2.451	1.367	1.309	.6297	.2322	1.264	.8056	135.8
#1	2.641	.0068	.0224	.0549	.2236	1.635	8.632	.1622	.0009
#2	2.631	.0067	.0221	.0545	.2223	1.632	8.564	.1615	.0055
#3	2.633	.0065	.0228	.0559	.2208	1.628	8.421	.1640	.0000

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3036**	**4.902**	**.1267**	**-.0011**	**6.800**	**.0001**	**.0300**	**73.58**	**239.5**
Stddev	.0014	.002	.0029	.0010	.003	.0090	.0028	.14	3.2
%RSD	.4450	.0407	2.312	93.24	.0505	7203.	9.278	.1923	1.353
#1	.3050	4.899	.1241	-.0021	6.796	-.0058	.0299	73.73	240.7
#2	.3023	4.903	.1299	-.0010	6.803	.0105	.0328	73.55	235.9
#3	.3035	4.903	.1259	-.0001	6.802	-.0043	.0273	73.45	242.0

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**466.5**	**100.8**	**10.88**	**4.377**	**.2080**	**.0311**	**2.351**	**2.660**	**.6084**
Stddev	7.9	.1	.07	.030	.0008	.0004	.021	.001	.0002
%RSD	1.696	.0972	.6315	.6902	.3801	1.194	.8909	.0353	.0410
#1	468.4	100.8	10.83	4.349	.2072	.0310	2.373	2.659	.6087
#2	473.3	100.9	10.96	4.409	.2080	.0307	2.348	2.661	.6082
#3	457.8	100.8	10.85	4.372	.2088	.0315	2.332	2.659	.6083

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.737**	**-.0054**	**.0912**	**9.300**	**.1143**	**.0286**	**6.415**
Stddev	.009	.0029	.0006	.003	.0017	.0022	.034
%RSD	.3299	53.40	.6247	.0281	1.457	7.802	.5352
#1	2.747	-.0047	.0916	9.299	.1159	.0282	6.428
#2	2.737	-.0087	.0914	9.299	.1144	.0266	6.376
#3	2.728	-.0030	.0905	9.303	.1126	.0310	6.441

Zoom In Zoom Out

Sample Name: JC87361-8 Acquired: 5/3/2019 21:28:02 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 3.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**145660.**	**27871.**	**6290.8**	**9331.8**
Stddev	884.	133.	3.8	5.8
%RSD	.60706	.47591	.06093	.06248
#1	145020.	27900.	6292.6	9336.1
#2	145280.	27726.	6293.5	9334.1
#3	146670.	27986.	6286.4	9325.2

Zoom In Zoom Out

Sample Name: JC87361-9 Acquired: 5/3/2019 21:33:22 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.216**	**.0052**	**.0137**	**.0541**	**.1909**	**.6225**	**2.217**	**.1417**	**.0028**
Stddev	.004	.0000	.0003	.0002	.0002	.0024	.001	.0004	.0009
%RSD	.1753	.5814	2.176	.4591	.1250	.3775	.0640	.3131	31.51
#1	2.212	.0052	.0136	.0538	.1907	.6198	2.218	.1422	.0037
#2	2.216	.0052	.0135	.0542	.1908	.6240	2.218	.1417	.0019
#3	2.220	.0051	.0140	.0542	.1911	.6236	2.215	.1413	.0030

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1832**	**5.956**	**.0792**	**.0017**	**5.001**	**.0036**	**.0116**	**50.86**	**289.6**
Stddev	.0002	.004	.0013	.0018	.004	.0028	.0029	.12	5.0
%RSD	.1327	.0627	1.690	104.5	.0798	77.95	25.36	.2265	1.737
#1	.1833	5.960	.0781	.0002	5.006	.0050	.0114	50.73	284.1
#2	.1830	5.953	.0807	.0012	4.999	.0004	.0087	50.93	291.0
#3	.1835	5.954	.0790	.0036	4.999	.0055	.0145	50.93	293.8

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**139.4**	**156.9**	**9.616**	**1.877**	**.1393**	**.0174**	**2.318**	**.2838**	**.3401**
Stddev	.3	.4	.109	.012	.0017	.0000	.010	.0006	.0005
%RSD	.1930	.2372	1.134	.6401	1.186	.1579	.4155	.1950	.1558
#1	139.1	156.5	9.498	1.868	.1377	.0173	2.318	.2836	.3395
#2	139.4	157.2	9.713	1.873	.1410	.0174	2.328	.2834	.3405
#3	139.6	157.1	9.636	1.891	.1394	.0174	2.309	.2844	.3402

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.234**	**-.0046**	**.0386**	**3.411**	**.0532**	**.0625**	**8.514**
Stddev	.002	.0042	.0010	.004	.0025	.0032	.081
%RSD	.1911	92.97	2.589	.1139	4.719	5.149	.9486
#1	1.234	-.0037	.0395	3.410	.0529	.0662	8.556
#2	1.236	-.0092	.0375	3.415	.0559	.0608	8.565
#3	1.231	-.0008	.0386	3.408	.0509	.0604	8.421

Zoom In Zoom Out

Sample Name: JC87361-9 Acquired: 5/3/2019 21:33:22 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**143450.**	**27708.**	**6223.4**	**8843.3**
Stddev	792.	158.	10.3	13.1
%RSD	.55201	.56859	.16593	.14861
#1	144210.	27890.	6223.9	8846.8
#2	142630.	27619.	6212.9	8828.8
#3	143490.	27615.	6233.5	8854.4

Zoom In Zoom Out

Sample Name: JC87361-10 Acquired: 5/3/2019 21:38:29 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.092**	**.0061**	**.0082**	**.0637**	**.1699**	**.6348**	**2.269**	**.2006**	**.0017**
Stddev	.144	.0002	.0002	.0004	.0014	.0047	.036	.0006	.0027
%RSD	4.664	4.001	2.063	.6067	.8120	.7361	1.583	.2774	160.1
#1	3.165	.0063	.0082	.0638	.1698	.6381	2.279	.2011	.0024
#2	2.926	.0058	.0080	.0640	.1714	.6367	2.299	.2007	-.0013
#3	3.186	.0063	.0083	.0633	.1686	.6294	2.229	.2000	.0040

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2096**	**2.553**	**.1487**	**.0013**	**3.885**	**.0024**	**.0172**	**85.91**	F **337.8**
Stddev	.0023	.005	.0007	.0014	.008	.0015	.0012	3.99	19.0
%RSD	1.116	.1898	.4877	108.2	.2117	61.73	7.089	4.647	5.624
#1	.2099	2.557	.1494	.0026	3.892	.0041	.0185	87.88	341.7
#2	.2118	2.554	.1480	-.0002	3.887	.0012	.0161	81.31	317.1
#3	.2072	2.548	.1486	.0016	3.876	.0020	.0170	88.52	354.5

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**165.8**	**149.1**	**18.36**	**8.546**	**.1548**	**.0213**	**2.450**	**.1559**	**.3545**
Stddev	7.7	6.6	.79	.360	.0007	.0004	.019	.0004	.0164
%RSD	4.665	4.451	4.279	4.210	.4600	1.782	.7792	.2546	4.619
#1	169.8	152.5	18.74	8.747	.1541	.0216	2.462	.1554	.3633
#2	156.9	141.5	17.45	8.131	.1555	.0213	2.459	.1561	.3357
#3	170.7	153.4	18.88	8.761	.1550	.0208	2.428	.1561	.3647

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.195**	**-.0005**	**.0717**	**4.623**	**.0485**	**.1018**	F **8.865**
Stddev	.009	.0009	.0006	.016	.0031	.0042	.074
%RSD	.7240	181.6	.9054	.3358	6.304	4.092	.8341
#1	1.198	.0005	.0724	4.620	.0482	.1035	8.861
#2	1.203	-.0007	.0713	4.639	.0517	.0970	8.941
#3	1.186	-.0013	.0713	4.609	.0456	.1048	8.794

Zoom In Zoom Out

Sample Name: JC87361-10 Acquired: 5/3/2019 21:38:29 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**142170.**	**28920.**	**6183.9**	**8547.1**
Stddev	1496.	1072.	8.1	12.5
%RSD	1.0524	3.7078	.13124	.14651
#1	141680.	28387.	6174.8	8533.5
#2	140980.	30155.	6190.5	8549.7
#3	143850.	28219.	6186.3	8558.1

Zoom In Zoom Out

Sample Name: JC87361-10 Acquired: 5/3/2019 21:43:50 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 10.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**16.18**	**.0320**	**.0400**	**.3235**	**.8752**	**3.162**	**11.92**	**1.027**	**.0156**
Stddev	.03	.0003	.0011	.0024	.0003	.006	.03	.004	.0035
%RSD	.1862	.8215	2.781	.7495	.0381	.2010	.2519	.4305	22.50
#1	16.15	.0320	.0399	.3221	.8755	3.169	11.93	1.022	.0171
#2	16.18	.0323	.0390	.3222	.8748	3.157	11.89	1.030	.0181
#3	16.21	.0318	.0412	.3263	.8753	3.161	11.94	1.030	.0116

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.079**	**13.34**	**.7596**	**.0173**	**19.86**	**.0216**	**.0778**	**448.6**	**1813.**
Stddev	.005	.08	.0186	.0074	.09	.0106	.0078	.7	10.
%RSD	.5107	.5634	2.443	42.98	.4646	49.09	10.02	.1599	.5729
#1	1.081	13.26	.7391	.0087	19.75	.0270	.0833	447.9	1824.
#2	1.073	13.38	.7753	.0214	19.88	.0284	.0812	448.4	1812.
#3	1.084	13.39	.7643	.0217	19.93	.0094	.0688	449.3	1803.

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**888.3**	**792.4**	**95.78**	**45.03**	**.7947**	**.1106**	**12.97**	**.8127**	**1.856**
Stddev	2.1	2.0	.24	.12	.0028	.0025	.11	.0011	.004
%RSD	.2385	.2560	.2536	.2664	.3561	2.233	.8226	.1372	.2426
#1	886.3	791.1	95.78	44.95	.7916	.1082	13.00	.8117	1.853
#2	888.1	791.4	95.54	44.99	.7956	.1105	12.85	.8126	1.854
#3	890.6	794.8	96.02	45.17	.7971	.1131	13.06	.8139	1.861

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**6.093**	**-.0037**	**.3725**	**23.56**	**.2410**	**.5073**	**46.60**
Stddev	.021	.0056	.0007	.18	.0116	.0054	.49
%RSD	.3444	150.6	.1921	.7687	4.814	1.066	1.062
#1	6.097	-.0013	.3730	23.36	.2513	.5133	46.03
#2	6.070	.0003	.3716	23.64	.2433	.5029	46.93
#3	6.111	-.0102	.3728	23.69	.2284	.5056	46.84

Zoom In Zoom Out

Sample Name: JC87361-10 Acquired: 5/3/2019 21:43:50 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 10.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**143460.**	**28026.**	**6237.5**	**8817.3**
Stddev	274.	139.	25.2	32.7
%RSD	.19102	.49559	.40409	.37124
#1	143150.	27999.	6266.6	8852.3
#2	143680.	27903.	6222.8	8811.9
#3	143540.	28177.	6223.2	8787.5

Zoom In Zoom Out

Sample Name: CCV Acquired: 5/3/2019 21:48:59 Type: QC
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.060**	**2.064**	**2.020**	**2.061**	**2.042**	**2.064**	**2.094**	**2.085**	**.2535**
Stddev	.007	.009	.018	.018	.004	.002	.028	.018	.0000
%RSD	.3411	.4135	.8768	.8656	.2186	.0728	1.318	.8378	.0163
#1	2.067	2.073	2.029	2.070	2.037	2.063	2.089	2.094	.2535
#2	2.059	2.062	2.031	2.072	2.043	2.064	2.070	2.096	.2535
#3	2.053	2.056	1.999	2.040	2.045	2.066	2.124	2.065	.2534
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.018**	**2.016**	**2.020**	**2.126**	**2.058**	**2.047**	**2.017**	**41.06**	**41.95**
Stddev	.003	.020	.017	.022	.018	.020	.016	.16	.19
%RSD	.1671	.9952	.8437	1.035	.8717	.9614	.8103	.3897	.4457
#1	2.014	2.029	2.028	2.131	2.066	2.057	2.027	41.23	42.14
#2	2.019	2.026	2.031	2.144	2.070	2.060	2.025	41.04	41.94
#3	2.021	1.993	2.000	2.101	2.037	2.025	1.998	40.91	41.77
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**41.78**	**40.90**	**40.87**	**41.73**	**2.099**	**2.058**	**5.352**	**2.008**	**2.142**
Stddev	.16	.24	.18	.17	.016	.023	.048	.019	.005
%RSD	.3910	.5864	.4434	.4003	.7580	1.105	.8966	.9353	.2509
#1	41.95	41.14	41.05	41.89	2.107	2.070	5.376	2.019	2.147
#2	41.77	40.89	40.88	41.74	2.110	2.071	5.383	2.019	2.142
#3	41.62	40.66	40.69	41.56	2.081	2.031	5.297	1.986	2.137
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: CCV Acquired: 5/3/2019 21:48:59 Type: QC
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.059**	**2.001**	**2.026**	**2.013**	**2.101**	**1.960**	**2.103**
Stddev	.003	.020	.002	.020	.018	.008	.009
%RSD	.1645	.9931	.0912	1.004	.8606	.3889	.4091
#1	2.057	2.014	2.024	2.017	2.110	1.968	2.103
#2	2.058	2.010	2.027	2.031	2.112	1.961	2.111
#3	2.063	1.978	2.027	1.991	2.080	1.953	2.094
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**141390.**	**27203.**	**6171.6**	**8941.3**
Stddev	424.	333.	47.4	58.8
%RSD	.29994	1.2240	.76792	.65800
#1	141810.	26918.	6133.4	8895.9
#2	141400.	27123.	6156.7	8920.2
#3	140960.	27569.	6224.6	9007.7

Zoom In Zoom Out

Sample Name: CCB Acquired: 5/3/2019 21:54:00 Type: QC
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0003**	**.0006**	**.0004**	**.0006**	**.0010**	**.0004**	**.0006**	**-.0001**
Stddev	.0002	.0001	.0000	.0002	.0004	.0002	.0000	.0002	.0004
%RSD	77.44	23.27	6.155	38.57	69.65	22.51	6.525	43.51	287.6
#1	.0003	.0002	.0006	.0003	.0001	.0008	.0004	.0005	-.0003
#2	.0003	.0003	.0006	.0006	.0009	.0012	.0004	.0003	.0003
#3	.0000	.0003	.0005	.0004	.0006	.0009	.0005	.0008	-.0003
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0003**	**.0002**	**.0001**	**.0018**	**.0001**	**.0009**	**.0018**	**.0046**	**.0030**
Stddev	.0002	.0001	.0005	.0009	.0008	.0015	.0004	.0107	.0021
%RSD	52.85	55.16	638.8	49.00	1460.	176.0	20.15	235.0	70.39
#1	-.0005	.0003	-.0005	.0014	-.0008	.0019	.0015	-.0062	.0011
#2	-.0003	.0003	.0001	.0012	.0009	.0016	.0022	.0153	.0052
#3	-.0002	.0001	.0006	.0028	.0000	-.0009	.0019	.0046	.0026
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0087**	**.0061**	**.1883**	**.1149**	**.0023**	**.0008**	**.0014**	**-.0011**	**.0004**
Stddev	.0005	.0140	.0070	.0065	.0001	.0003	.0002	.0002	.0001
%RSD	5.297	231.7	3.718	5.618	3.828	34.06	14.77	18.14	27.10
#1	.0083	-.0097	.1922	.1096	.0022	.0006	.0012	-.0009	.0003
#2	.0088	.0171	.1802	.1221	.0024	.0011	.0014	-.0012	.0005
#3	.0092	.0107	.1925	.1131	.0023	.0006	.0017	-.0013	.0004
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: CCB Acquired: 5/3/2019 21:54:00 Type: QC
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0007**	**.0010**	**.0006**	**.0005**	**.0011**	**-.0036**	**.0109**
Stddev	.0001	.0007	.0001	.0017	.0009	.0016	.0005
%RSD	15.91	77.12	12.86	347.6	81.80	45.33	4.868
#1	.0008	.0018	.0006	.0003	.0001	-.0032	.0113
#2	.0008	.0007	.0006	-.0011	.0018	-.0022	.0110
#3	.0006	.0004	.0005	.0023	.0014	-.0053	.0103
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**151140.**	**27631.**	**6410.4**	**9853.2**
Stddev	219.	168.	18.7	24.1
%RSD	.14485	.60694	.29135	.24498
#1	150980.	27473.	6389.0	9825.5
#2	151040.	27612.	6418.6	9864.3
#3	151390.	27807.	6423.5	9869.9

Zoom In Zoom Out

Sample Name: JC87361-11 Acquired: 5/3/2019 21:59:09 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1802**	**.0015**	**.0008**	**.0236**	**.0470**	**.0511**	**1.725**	**.0468**	**-.0012**
Stddev	.0004	.0002	.0001	.0011	.0028	.0030	.101	.0007	.0003
%RSD	.2491	12.81	6.492	4.637	5.911	5.933	5.844	1.508	22.85
#1	.1807	.0017	.0008	.0243	.0447	.0486	1.642	.0464	-.0011
#2	.1798	.0014	.0008	.0224	.0501	.0545	1.837	.0476	-.0015
#3	.1803	.0014	.0009	.0242	.0462	.0502	1.695	.0463	-.0010

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0882**	**.2780**	**.0273**	**.0025**	**.2217**	**.0016**	**.0024**	**21.74**	**355.6**
Stddev	.0059	.0007	.0012	.0011	.0006	.0018	.0010	.02	6.3
%RSD	6.706	.2637	4.295	43.74	.2632	111.7	41.95	.0765	1.770
#1	.0829	.2787	.0268	.0013	.2223	.0016	.0012	21.75	350.5
#2	.0946	.2782	.0286	.0033	.2212	-.0002	.0029	21.75	362.7
#3	.0871	.2772	.0264	.0031	.2214	.0033	.0029	21.72	353.8

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**52.20**	**165.4**	**3.567**	**2.033**	**.0283**	**.0038**	**2.190**	**.0192**	**.2017**
Stddev	.05	.2	.046	.012	.0007	.0008	.041	.0003	.0005
%RSD	.0956	.1292	1.287	.6109	2.470	20.74	1.880	1.650	.2356
#1	52.14	165.3	3.614	2.041	.0285	.0036	2.238	.0190	.2014
#2	52.23	165.7	3.566	2.019	.0289	.0047	2.162	.0195	.2014
#3	52.22	165.4	3.522	2.039	.0275	.0032	2.172	.0190	.2023

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.246**	**.0038**	**.0416**	**1.415**	**.0524**	**.0308**	**1.616**
Stddev	.072	.0022	.0024	.005	.0087	.0028	.009
%RSD	5.786	58.68	5.759	.3469	16.58	8.954	.5739
#1	1.187	.0030	.0393	1.418	.0466	.0335	1.623
#2	1.326	.0063	.0440	1.417	.0624	.0280	1.606
#3	1.224	.0021	.0414	1.409	.0482	.0311	1.619

Zoom In Zoom Out

Sample Name: JC87361-11 Acquired: 5/3/2019 21:59:09 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**135890.**	**27497.**	**6193.1**	**8836.3**
Stddev	7047.	139.	12.5	14.5
%RSD	5.1855	.50395	.20174	.16368
#1	141780.	27632.	6191.8	8828.7
#2	128080.	27355.	6181.3	8827.3
#3	137810.	27504.	6206.1	8853.0

Zoom In Zoom Out

Sample Name: mp14771-sd1 Acquired: 5/3/2019 22:04:21 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 25.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0883**	**-.0022**	**.0041**	**.3798**	**.5188**	**1.013**	**15.01**	**1.883**	**-.0083**
Stddev	.0040	.0009	.0007	.0043	.0007	.011	.05	.029	.0044
%RSD	4.551	39.20	18.31	1.131	.1395	1.103	.3485	1.512	52.65
#1	.0892	-.0032	.0033	.3812	.5179	1.004	14.96	1.899	-.0106
#2	.0840	-.0022	.0048	.3831	.5193	1.026	15.03	1.900	-.0110
#3	.0919	-.0014	.0041	.3749	.5191	1.010	15.06	1.850	-.0032

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0212**	**2.430**	**-.0274**	**-.0077**	**-.0020**	**.0103**	**-.0001**	**2.407**	**14.68**
Stddev	.0086	.037	.0148	.0118	.0286	.0146	.0571	.044	.09
%RSD	40.64	1.538	53.93	153.2	1445.	141.0	40430.	1.834	.6025
#1	.0296	2.453	-.0168	-.0179	-.0163	.0052	.0581	2.411	14.76
#2	.0124	2.450	-.0442	.0053	.0309	-.0010	-.0024	2.361	14.69
#3	.0217	2.387	-.0211	-.0105	-.0206	.0268	-.0561	2.449	14.58

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**36.30**	**1.822**	**6.175**	**1422.**	**.4442**	**.0189**	**2.831**	**-.0185**	**.0580**
Stddev	.18	.154	.944	7.	.0181	.0020	.100	.0027	.0028
%RSD	.4854	8.427	15.29	.4707	4.080	10.40	3.513	14.78	4.870
#1	36.45	1.875	5.499	1429.	.4652	.0166	2.865	-.0155	.0613
#2	36.11	1.941	7.254	1415.	.4335	.0198	2.910	-.0193	.0562
#3	36.33	1.648	5.772	1421.	.4341	.0203	2.719	-.0208	.0565

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0238**	**.0186**	**.0073**	**902.0**	**.0141**	**-.0840**	**1.154**
Stddev	.0021	.0154	.0020	18.1	.0152	.0369	.066
%RSD	8.922	82.75	26.71	2.007	107.9	43.91	5.719
#1	.0253	.0275	.0080	907.9	.0104	-.1026	1.194
#2	.0214	.0008	.0089	916.5	.0010	-.1078	1.190
#3	.0247	.0275	.0051	881.7	.0307	-.0415	1.078

Zoom In Zoom Out

Sample Name: mp14771-sd1 Acquired: 5/3/2019 22:04:21 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 25.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**144830.**	**27280.**	**6323.8**	**9374.6**
Stddev	485.	208.	95.9	123.5
%RSD	.33493	.76294	1.5164	1.3175
#1	145210.	27048.	6267.2	9302.3
#2	145000.	27339.	6269.8	9304.3
#3	144290.	27452.	6434.6	9517.2

Zoom In Zoom Out

Sample Name: jc86597-6 Acquired: 5/3/2019 22:09:24 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1402**	**.0003**	**.4930**	**.0008**	**.2198**	**.2720**	**.1420**	**.1423**	**.0010**
Stddev	.0003	.0000	.0014	.0004	.0023	.0008	.0004	.0025	.0004
%RSD	.1901	8.409	.2792	53.20	1.024	.2947	.2530	1.774	43.73
#1	.1400	.0003	.4918	.0010	.2173	.2727	.1422	.1439	.0005
#2	.1405	.0004	.4928	.0003	.2202	.2711	.1421	.1394	.0011
#3	.1401	.0004	.4945	.0012	.2217	.2723	.1416	.1435	.0013

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0004**	**1.786**	**.0019**	**-.0051**	**.0058**	**.0010**	**.0037**	**3.170**	**6.505**
Stddev	.0007	.004	.0022	.0040	.0042	.0044	.0042	.025	.012
%RSD	151.5	.2133	112.3	77.71	72.03	436.7	111.6	.7759	.1765
#1	.0003	1.785	.0044	-.0096	.0079	.0043	.0071	3.149	6.503
#2	-.0007	1.790	.0005	-.0032	.0085	-.0040	-.0009	3.197	6.495
#3	-.0009	1.783	.0009	-.0024	.0010	.0027	.0050	3.165	6.517

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.6773**	**82.23**	**15.30**	F **1361.**	**.3091**	**.0044**	**1.437**	**-.0045**	**.1567**
Stddev	.0085	.04	.17	14.	.0023	.0012	.007	.0006	.0007
%RSD	1.259	.0462	1.116	1.001	.7373	28.17	.4837	14.24	.4550
#1	.6674	82.24	15.11	1345.	.3073	.0036	1.436	-.0039	.1571
#2	.6828	82.26	15.39	1369.	.3117	.0037	1.445	-.0045	.1571
#3	.6815	82.19	15.41	1368.	.3085	.0058	1.431	-.0051	.1558

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0016**	**.0106**	**.0109**	**40.72**	**.0058**	**.0203**	**.3029**
Stddev	.0020	.0011	.0002	.12	.0092	.0027	.0070
%RSD	127.8	10.57	2.205	.3011	159.5	13.37	2.311
#1	.0017	.0094	.0109	40.58	.0031	.0203	.2948
#2	-.0005	.0110	.0107	40.80	-.0018	.0230	.3065
#3	.0034	.0115	.0112	40.78	.0160	.0175	.3073

Zoom In Zoom Out

Sample Name: jc86597-6 Acquired: 5/3/2019 22:09:24 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**138930.**	**27297.**	**6068.3**	**8669.9**
Stddev	597.	179.	13.0	11.0
%RSD	.42943	.65422	.21479	.12670
#1	139400.	27472.	6073.9	8677.5
#2	138260.	27306.	6053.4	8657.3
#3	139140.	27115.	6077.6	8674.9

Zoom In Zoom Out

Sample Name: jc86629-6 Acquired: 5/3/2019 22:14:35 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.966**	**.0001**	**.0179**	**.0022**	**1.037**	**.0147**	**1.085**	**.0394**	**-.0017**
Stddev	.020	.0002	.0007	.0009	.002	.0028	.002	.0002	.0023
%RSD	.4915	250.3	4.069	41.73	.2084	18.76	.1601	.5280	137.0
#1	3.948	.0003	.0177	.0030	1.038	.0175	1.087	.0396	-.0040
#2	3.986	.0001	.0187	.0012	1.034	.0120	1.084	.0394	-.0016
#3	3.964	-.0002	.0173	.0024	1.038	.0147	1.085	.0391	.0006

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0005**	**.5895**	**-.0025**	**.0031**	**.0082**	**.0097**	**.0053**	**.2314**	**15.35**
Stddev	.0025	.0026	.0010	.0020	.0031	.0046	.0030	.0873	.06
%RSD	508.9	.4486	41.78	63.11	37.46	47.19	57.39	37.74	.3750
#1	-.0011	.5925	-.0035	.0037	.0117	.0149	.0084	.2990	15.33
#2	.0034	.5874	-.0015	.0009	.0070	.0066	.0023	.1328	15.41
#3	-.0008	.5886	-.0025	.0046	.0060	.0075	.0052	.2624	15.30

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.909**	**2.650**	**6.697**	F **1229.**	**.4062**	**.0074**	**2.112**	**-.0062**	**.6150**
Stddev	.013	.024	.105	13.	.0039	.0007	.007	.0012	.0022
%RSD	.6764	.8904	1.562	1.044	.9487	9.660	.3387	19.26	.3499
#1	1.897	2.655	6.816	1218.	.4084	.0066	2.120	-.0070	.6132
#2	1.922	2.671	6.654	1226.	.4084	.0079	2.106	-.0067	.6174
#3	1.907	2.625	6.620	1243.	.4017	.0078	2.109	-.0048	.6143

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0048**	**.0032**	**.0010**	**2.660**	**.0123**	**.0085**	**.1484**
Stddev	.0003	.0020	.0007	.003	.0080	.0051	.0190
%RSD	7.203	61.53	72.68	.0989	65.49	59.62	12.79
#1	.0045	.0052	.0002	2.657	.0048	.0071	.1478
#2	.0047	.0012	.0016	2.662	.0113	.0043	.1297
#3	.0052	.0033	.0011	2.659	.0208	.0142	.1676

Zoom In Zoom Out

Sample Name: jc86629-6 Acquired: 5/3/2019 22:14:35 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**140950.**	**27679.**	**6117.8**	**8773.8**
Stddev	309.	42.	20.5	17.8
%RSD	.21916	.15300	.33562	.20250
#1	140710.	27710.	6094.4	8753.8
#2	140850.	27631.	6126.5	8780.2
#3	141300.	27696.	6132.7	8787.6

Zoom In Zoom Out

Sample Name: jc86877-1 Acquired: 5/3/2019 22:19:48 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3496**	**.0003**	**.0016**	**.0204**	**.0047**	**.0166**	**3.594**	**.0242**	**.0004**
Stddev	.0018	.0003	.0003	.0009	.0016	.0013	.010	.0002	.0009
%RSD	.5067	96.91	20.31	4.287	34.76	7.804	.2698	.7380	247.3
#1	.3513	.0005	.0014	.0210	.0052	.0168	3.599	.0244	-.0005
#2	.3498	-.0000	.0014	.0209	.0028	.0178	3.583	.0241	.0013
#3	.3478	.0003	.0020	.0194	.0059	.0152	3.601	.0242	.0002

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0058**	**.0700**	**.0029**	**.0028**	**.0036**	**-.0079**	**.0091**	**.5200**	**153.8**
Stddev	.0008	.0003	.0027	.0020	.0008	.0060	.0024	.0428	.2
%RSD	14.14	.3615	93.82	73.28	22.25	75.79	26.62	8.235	.1380
#1	.0053	.0698	-.0001	.0032	.0027	-.0087	.0063	.5550	154.0
#2	.0053	.0698	.0036	.0046	.0041	-.0134	.0103	.5328	153.6
#3	.0067	.0703	.0051	.0006	.0041	-.0015	.0107	.4723	153.7

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1261**	**13.80**	**8.218**	F **1328.**	**.4641**	**.0004**	**10.58**	**-.0088**	**.5766**
Stddev	.0017	.03	.244	17.	.0003	.0011	.02	.0022	.0006
%RSD	1.350	.2413	2.968	1.260	.0683	274.3	.2329	24.58	.0984
#1	.1242	13.83	8.005	1348.	.4638	-.0007	10.55	-.0090	.5772
#2	.1275	13.77	8.166	1317.	.4641	.0005	10.60	-.0065	.5765
#3	.1266	13.79	8.484	1321.	.4644	.0015	10.59	-.0108	.5761

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0060**	**.0086**	**-.0005**	**3.214**	**-.0010**	**.0263**	**.1352**
Stddev	.0015	.0068	.0006	.012	.0046	.0067	.0138
%RSD	25.39	78.91	118.4	.3846	450.6	25.53	10.24
#1	.0050	.0011	.0002	3.206	-.0063	.0227	.1303
#2	.0052	.0143	-.0010	3.206	.0014	.0222	.1509
#3	.0077	.0104	-.0007	3.228	.0018	.0341	.1246

Zoom In Zoom Out

Sample Name: jc86877-1 Acquired: 5/3/2019 22:19:48 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**138870.**	**27506.**	**6103.9**	**8663.4**
Stddev	874.	56.	23.0	30.8
%RSD	.62919	.20396	.37689	.35507
#1	138230.	27547.	6130.3	8698.8
#2	139870.	27443.	6088.5	8647.9
#3	138510.	27530.	6092.7	8643.4

Zoom In Zoom Out

Sample Name: jc87143-2a Acquired: 5/3/2019 22:25:01 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2391**	**.0002**	**.0002**	**.0104**	**.0040**	**.0087**	**.8656**	**.0205**	**-.0007**
Stddev	.0017	.0003	.0003	.0007	.0006	.0012	.0019	.0005	.0010
%RSD	.7278	187.0	138.3	6.926	15.05	13.69	.2233	2.274	130.0
#1	.2381	-.0002	-.0001	.0103	.0047	.0099	.8662	.0208	.0002
#2	.2411	.0005	.0004	.0097	.0039	.0075	.8634	.0207	-.0007
#3	.2381	.0003	.0002	.0112	.0035	.0088	.8671	.0199	-.0017

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0006**	**.2580**	**.0004**	**.0064**	**.0852**	**-.0028**	**.0080**	**.2977**	**275.6**
Stddev	.0008	.0003	.0058	.0039	.0061	.0071	.0089	.0120	.2
%RSD	134.9	.1063	1344.	60.71	7.202	256.8	110.8	4.022	.0887
#1	.0005	.2576	.0029	.0057	.0922	.0029	.0145	.2908	275.5
#2	.0015	.2581	.0046	.0029	.0828	-.0005	-.0021	.3115	275.9
#3	-.0002	.2581	-.0062	.0105	.0807	-.0108	.0116	.2907	275.5

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.130**	**57.98**	**17.73**	F **1335.**	**.4081**	**.0015**	**4.191**	**-.0063**	**.4540**
Stddev	.013	.15	.11	32.	.0046	.0014	.016	.0029	.0007
%RSD	.3045	.2654	.6370	2.364	1.131	95.60	.3762	45.00	.1645
#1	4.143	57.88	17.62	1371.	.4086	.0003	4.203	-.0030	.4535
#2	4.118	57.90	17.85	1325.	.4032	.0011	4.197	-.0080	.4537
#3	4.128	58.15	17.71	1310.	.4124	.0031	4.173	-.0080	.4549

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0016**	**.0059**	**.0010**	**2.200**	**-.0027**	**.0178**	**.1185**
Stddev	.0016	.0039	.0006	.011	.0047	.0038	.0024
%RSD	102.9	66.56	63.11	.4960	175.1	21.57	2.055
#1	-.0000	.0074	.0016	2.197	-.0061	.0166	.1212
#2	.0015	.0088	.0003	2.190	-.0047	.0221	.1179
#3	.0032	.0014	.0011	2.212	.0027	.0147	.1165

Zoom In Zoom Out

Sample Name: jc87143-2a Acquired: 5/3/2019 22:25:01 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**138730.**	**27394.**	**6048.6**	**8588.0**
Stddev	851.	8.	11.1	4.4
%RSD	.61360	.03072	.18374	.05178
#1	138810.	27399.	6037.7	8584.7
#2	139540.	27385.	6048.3	8593.1
#3	137850.	27399.	6059.9	8586.3

Zoom In Zoom Out

Sample Name: jc87229-1 Acquired: 5/3/2019 22:30:12 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.156**	**-.0001**	**-.0005**	**.0241**	**.0357**	**.0102**	**5.357**	**.1659**	**.0012**
Stddev	.004	.0002	.0004	.0013	.0006	.0012	.021	.0031	.0017
%RSD	.3761	178.2	94.12	5.217	1.565	11.28	.3982	1.848	142.0
#1	1.157	.0001	.0000	.0252	.0363	.0101	5.374	.1683	.0025
#2	1.161	-.0001	-.0008	.0227	.0353	.0114	5.364	.1669	-.0007
#3	1.152	-.0003	-.0007	.0245	.0354	.0091	5.333	.1624	.0017

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0101**	**.7410**	**.0022**	**.0022**	**.0003**	**.0070**	**.0200**	**.5848**	**99.21**
Stddev	.0032	.0019	.0051	.0072	.0060	.0058	.0037	.0464	.25
%RSD	31.55	.2517	234.1	327.9	2346.	82.86	18.29	7.939	.2555
#1	.0064	.7419	.0057	.0023	-.0066	.0131	.0238	.5429	99.35
#2	.0120	.7388	.0044	.0094	.0034	.0064	.0198	.6347	99.35
#3	.0120	.7422	-.0037	-.0050	.0040	.0015	.0165	.5768	98.91

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**43.79**	**11.58**	**11.75**	F **1143.**	**1.107**	**.0199**	**5.977**	**-.0068**	**.9224**
Stddev	.09	.05	.21	35.	.006	.0010	.005	.0014	.0019
%RSD	.2072	.3902	1.827	3.087	.5023	4.778	.0821	19.96	.2051
#1	43.79	11.62	11.57	1174.	1.106	.0207	5.977	-.0069	.9230
#2	43.88	11.53	11.68	1105.	1.102	.0189	5.972	-.0081	.9240
#3	43.70	11.59	11.99	1149.	1.113	.0201	5.982	-.0054	.9203

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0071**	**.0036**	**.0019**	**5.374**	**-.0024**	**.0156**	**13.90**
Stddev	.0020	.0022	.0008	.008	.0066	.0082	.06
%RSD	28.64	59.32	41.62	.1559	274.7	52.94	.3988
#1	.0077	.0061	.0019	5.365	-.0036	.0078	13.84
#2	.0048	.0021	.0011	5.382	.0047	.0147	13.92
#3	.0087	.0027	.0026	5.374	-.0083	.0242	13.95

Zoom In Zoom Out

Sample Name: jc87229-1 Acquired: 5/3/2019 22:30:12 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**141210.**	**27787.**	**6141.4**	**8773.2**
Stddev	451.	191.	7.4	6.7
%RSD	.31908	.68860	.12066	.07583
#1	140780.	27592.	6141.3	8775.3
#2	141170.	27974.	6148.8	8778.5
#3	141680.	27795.	6134.0	8765.7

Zoom In Zoom Out

Sample Name: mp14677-mb1conf Acquired: 5/3/2019 22:35:20 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0000**	**-.0001**	**-.0000**	**-.0001**	**.0008**	**.0013**	**.0004**	**.0004**	**-.0001**
Stddev	.0002	.0001	.0001	.0002	.0004	.0003	.0000	.0003	.0003
%RSD	459.3	127.3	598.0	168.9	56.58	22.97	8.813	82.13	199.3
#1	.0001	-.0002	.0001	-.0002	.0007	.0010	.0004	.0000	-.0004
#2	-.0001	.0000	-.0000	-.0002	.0012	.0015	.0004	.0007	.0000
#3	-.0002	-.0001	-.0001	.0001	.0004	.0015	.0004	.0006	.0000

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0006**	**.0081**	**-.0011**	**-.0007**	**-.0011**	**-.0002**	**.0020**	**.0001**	**.0569**
Stddev	.0001	.0001	.0007	.0010	.0004	.0022	.0003	.0026	.0017
%RSD	14.82	.7246	64.00	146.2	39.29	1074.	14.73	2364.	2.946
#1	-.0007	.0082	-.0003	-.0017	-.0016	-.0005	.0017	.0017	.0552
#2	-.0005	.0081	-.0018	-.0006	-.0010	-.0023	.0020	-.0029	.0570
#3	-.0006	.0081	-.0013	.0002	-.0008	.0021	.0023	.0016	.0586

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0158**	**.0203**	**.2612**	**.3261**	**.0009**	**.0006**	**.0156**	**.0172**	**.0003**
Stddev	.0003	.0036	.0121	.0128	.0005	.0001	.0004	.0002	.0001
%RSD	1.796	17.94	4.627	3.912	55.51	9.307	2.818	1.325	22.93
#1	.0158	.0161	.2733	.3328	.0009	.0006	.0153	.0173	.0002
#2	.0161	.0228	.2491	.3340	.0004	.0007	.0154	.0173	.0003
#3	.0155	.0220	.2612	.3114	.0014	.0006	.0161	.0169	.0004

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0009**	**.0004**	**.0002**	**.0081**	**-.0006**	**-.0037**	**.0312**
Stddev	.0003	.0010	.0002	.0011	.0025	.0018	.0010
%RSD	30.32	232.5	93.83	13.77	437.2	50.04	3.054
#1	.0006	.0010	-.0000	.0094	.0010	-.0042	.0310
#2	.0011	.0010	.0004	.0073	-.0034	-.0016	.0304
#3	.0011	-.0007	.0003	.0076	.0007	-.0051	.0323

Zoom In Zoom Out

Sample Name: mp14677-mb1conf Acquired: 5/3/2019 22:35:20 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**152460.**	**28108.**	**6501.4**	**9953.3**
Stddev	368.	83.	27.5	30.6
%RSD	.24166	.29547	.42362	.30741
#1	152390.	28129.	6471.8	9924.3
#2	152130.	28017.	6506.2	9950.2
#3	152850.	28179.	6526.2	9985.3

Zoom In Zoom Out

Sample Name: mp14677-ps1 Acquired: 5/3/2019 22:40:27 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.272**	**2.062**	**2.036**	**2.132**	**2.135**	**2.177**	**6.028**	**2.238**	**.2484**
Stddev	.006	.006	.059	.056	.017	.016	.032	.058	.0014
%RSD	.2586	.2869	2.873	2.611	.8067	.7158	.5229	2.608	.5655
#1	2.274	2.064	2.079	2.171	2.138	2.181	5.993	2.280	.2485
#2	2.277	2.066	2.059	2.156	2.117	2.160	6.037	2.261	.2470
#3	2.266	2.055	1.969	2.068	2.152	2.190	6.055	2.171	.2498

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.126**	**2.214**	**2.098**	**2.165**	**2.111**	**2.061**	**2.035**	**80.36**	**35.76**
Stddev	.015	.064	.059	.052	.053	.057	.063	.22	.08
%RSD	.7264	2.877	2.818	2.385	2.494	2.757	3.085	.2703	.2302
#1	2.125	2.259	2.138	2.194	2.147	2.098	2.082	80.45	35.78
#2	2.111	2.241	2.126	2.195	2.136	2.089	2.059	80.51	35.83
#3	2.141	2.141	2.030	2.105	2.051	1.995	1.964	80.11	35.67

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**131.5**	**54.48**	**30.38**	**30.52**	**2.088**	**2.020**	**1.698**	**2.027**	**2.204**
Stddev	1.6	.16	.06	.08	.062	.058	.057	.058	.004
%RSD	1.193	.2952	.1898	.2550	2.954	2.874	3.367	2.870	.1889
#1	129.7	54.55	30.42	30.58	2.135	2.061	1.737	2.068	2.207
#2	132.5	54.59	30.42	30.55	2.110	2.045	1.725	2.053	2.205
#3	132.2	54.29	30.32	30.43	2.018	1.953	1.632	1.961	2.199

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.541**	**1.869**	**2.062**	**.2780**	**.2178**	**.0889**	**4.865**
Stddev	.034	.049	.012	.0084	.0051	.0004	.115
%RSD	.7573	2.639	.5802	3.035	2.364	.4532	2.362
#1	4.537	1.906	2.063	.2847	.2170	.0892	4.923
#2	4.509	1.887	2.050	.2807	.2131	.0884	4.940
#3	4.577	1.813	2.074	.2685	.2233	.0891	4.733

Zoom In Zoom Out

Sample Name: mp14677-ps1 Acquired: 5/3/2019 22:40:27 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**146630.**	**28468.**	**6407.1**	**9164.4**
Stddev	1189.	103.	159.8	202.6
%RSD	.81065	.36107	2.4946	2.2103
#1	146900.	28463.	6293.7	9021.6
#2	147660.	28367.	6337.7	9075.3
#3	145330.	28572.	6589.9	9396.2

Zoom In Zoom Out

Sample Name: jc86994-6 Acquired: 5/3/2019 22:45:36 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3568**	**.0015**	**.0003**	**.0968**	**.0837**	**.0643**	**13.24**	**.1505**	**-.0010**
Stddev	.0013	.0001	.0001	.0003	.0005	.0004	.03	.0001	.0015
%RSD	.3770	5.741	33.24	.2692	.5965	.6755	.2013	.0701	157.9
#1	.3567	.0015	.0002	.0966	.0833	.0638	13.24	.1506	-.0021
#2	.3556	.0015	.0005	.0967	.0842	.0646	13.22	.1505	-.0016
#3	.3583	.0016	.0003	.0971	.0835	.0646	13.27	.1504	.0008

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0991**	**.1958**	**.0212**	**.0018**	**.0273**	**-.0011**	**-.0007**	**47.20**	**9.093**
Stddev	.0002	.0002	.0012	.0040	.0023	.0024	.0019	.05	.009
%RSD	.1914	.1211	5.815	221.3	8.468	211.7	262.1	.0987	.1011
#1	.0991	.1958	.0199	.0061	.0293	-.0029	.0013	47.15	9.083
#2	.0989	.1955	.0215	.0011	.0277	.0016	-.0009	47.25	9.096
#3	.0992	.1960	.0223	-.0018	.0248	-.0020	-.0025	47.19	9.101

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**99.55**	**23.65**	**4.341**	**1.295**	**.0050**	**.0092**	**1.869**	**.0186**	**.0500**
Stddev	.14	.04	.026	.014	.0006	.0007	.003	.0003	.0002
%RSD	.1457	.1551	.6085	1.102	12.81	7.646	.1704	1.555	.3973
#1	99.52	23.61	4.347	1.304	.0051	.0099	1.865	.0186	.0497
#2	99.70	23.69	4.312	1.301	.0056	.0091	1.871	.0182	.0500
#3	99.41	23.66	4.364	1.278	.0043	.0085	1.869	.0188	.0501

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.127**	**.0348**	**.0265**	**.1139**	**.0805**	**.0697**	**2.209**
Stddev	.005	.0047	.0001	.0040	.0014	.0022	.005
%RSD	.2187	13.56	.2264	3.511	1.797	3.124	.2174
#1	2.124	.0400	.0265	.1130	.0803	.0704	2.205
#2	2.124	.0309	.0266	.1104	.0792	.0714	2.214
#3	2.132	.0335	.0265	.1183	.0821	.0672	2.207

Zoom In Zoom Out

Sample Name: jc86994-6 Acquired: 5/3/2019 22:45:36 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**151130.**	**28372.**	**6528.2**	**9600.6**
Stddev	684.	85.	15.2	22.3
%RSD	.45269	.29901	.23358	.23241
#1	151700.	28461.	6519.0	9588.5
#2	151310.	28364.	6545.8	9626.3
#3	150370.	28292.	6519.8	9586.9

Zoom In Zoom Out

Sample Name: ccv Acquired: 5/3/2019 22:50:50 Type: QC
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.010**	**2.017**	**1.994**	**2.033**	**2.006**	**2.028**	**2.056**	**2.057**	**.2499**
Stddev	.003	.002	.004	.001	.009	.007	.017	.002	.0010
%RSD	.1483	.0827	.1930	.0533	.4611	.3387	.8039	.1047	.4147
#1	2.006	2.015	1.998	2.034	2.009	2.031	2.059	2.060	.2493
#2	2.011	2.018	1.994	2.032	1.995	2.021	2.039	2.056	.2493
#3	2.011	2.018	1.990	2.033	2.012	2.034	2.071	2.056	.2511
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.982**	**1.987**	**1.995**	**2.105**	**2.028**	**2.029**	**1.994**	**40.15**	**41.00**
Stddev	.008	.003	.003	.003	.001	.003	.004	.02	.04
%RSD	.4025	.1236	.1228	.1382	.0230	.1477	.1933	.0411	.1089
#1	1.988	1.989	1.998	2.108	2.028	2.030	1.997	40.13	40.96
#2	1.973	1.987	1.994	2.102	2.028	2.026	1.996	40.16	40.98
#3	1.985	1.984	1.993	2.104	2.029	2.031	1.990	40.15	41.05
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**40.82**	**40.03**	**40.01**	**40.63**	**2.078**	**2.031**	**5.291**	**1.979**	**2.095**
Stddev	.02	.03	.06	.02	.005	.001	.005	.003	.002
%RSD	.0491	.0734	.1391	.0534	.2484	.0412	.1014	.1560	.0723
#1	40.80	40.05	39.94	40.65	2.083	2.032	5.297	1.982	2.095
#2	40.82	40.00	40.05	40.61	2.077	2.030	5.290	1.977	2.097
#3	40.84	40.03	40.03	40.64	2.073	2.031	5.286	1.977	2.094
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ccv Acquired: 5/3/2019 22:50:50 Type: QC
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.022**	**1.978**	**1.990**	**1.980**	**2.077**	**1.916**	**1.983**
Stddev	.008	.003	.007	.002	.002	.003	.008
%RSD	.3890	.1675	.3304	.1206	.1087	.1650	.4098
#1	2.030	1.981	1.995	1.982	2.078	1.912	1.986
#2	2.014	1.979	1.983	1.978	2.079	1.918	1.974
#3	2.023	1.974	1.993	1.980	2.075	1.917	1.989
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**141960.**	**27371.**	**6204.0**	**8986.9**
Stddev	935.	212.	18.5	18.1
%RSD	.65834	.77569	.29883	.20164
#1	141450.	27242.	6190.7	8971.7
#2	143040.	27616.	6196.1	8982.1
#3	141390.	27255.	6225.2	9006.9

Zoom In Zoom Out

Sample Name: ccb Acquired: 5/3/2019 22:55:51 Type: QC
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0001**	**.0002**	**.0002**	**.0004**	**.0008**	**.0003**	**.0005**	**.0000**
Stddev	.0002	.0000	.0002	.0004	.0002	.0003	.0000	.0003	.0005
%RSD	114.9	35.64	98.52	171.1	58.66	42.19	13.34	59.21	1018.
#1	-.0001	.0001	.0002	.0006	.0006	.0004	.0003	.0008	-.0004
#2	.0003	.0002	.0003	-.0001	.0001	.0009	.0004	.0002	.0005
#3	.0004	.0001	-.0000	.0001	.0005	.0010	.0003	.0004	.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0003**	**-.0002**	**.0006**	**-.0006**	**-.0001**	**.0026**	**.0033**	**.0006**	**-.0013**
Stddev	.0002	.0001	.0007	.0006	.0004	.0008	.0005	.0041	.0003
%RSD	50.23	49.41	120.8	108.1	278.5	29.16	14.81	663.2	22.72
#1	-.0005	-.0003	-.0002	.0000	-.0006	.0020	.0027	-.0040	-.0010
#2	-.0003	-.0001	.0007	-.0013	.0002	.0024	.0036	.0021	-.0016
#3	-.0002	-.0003	.0012	-.0006	-.0000	.0035	.0035	.0037	-.0013
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0051**	**.0090**	**.1987**	**.1665**	**.0025**	**.0012**	**-.0000**	**-.0012**	**.0003**
Stddev	.0010	.0087	.0226	.0094	.0008	.0002	.0002	.0002	.0001
%RSD	19.80	96.40	11.37	5.623	31.61	17.90	1062.	19.05	28.11
#1	.0059	.0185	.1727	.1727	.0020	.0014	-.0003	-.0010	.0003
#2	.0040	.0069	.2137	.1557	.0021	.0011	.0001	-.0014	.0002
#3	.0054	.0015	.2096	.1711	.0034	.0010	.0001	-.0010	.0004
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: ccb Acquired: 5/3/2019 22:55:51 Type: QC
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0008**	F **.0053**	**.0004**	**-.0011**	**.0005**	**-.0010**	**.0134**
Stddev	.0004	.0011	.0001	.0014	.0011	.0007	.0006
%RSD	53.25	20.98	17.20	120.6	208.8	68.64	4.789
#1	.0010	.0063	.0004	-.0022	.0015	-.0013	.0130
#2	.0011	.0041	.0004	-.0016	-.0007	-.0002	.0142
#3	.0003	.0056	.0003	.0004	.0007	-.0016	.0132
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		.0050					
Low Limit		-.0050					

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**150990.**	**27672.**	**6437.6**	**9884.9**
Stddev	401.	277.	8.2	5.0
%RSD	.26568	1.0012	.12797	.05036
#1	151060.	27977.	6446.9	9887.6
#2	150560.	27602.	6434.6	9888.0
#3	151350.	27436.	6431.3	9879.2

Zoom In Zoom Out

Sample Name: jc86994-11 Acquired: 5/3/2019 23:01:00 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.6098**	**.0013**	**.0002**	**.0962**	**.1358**	**.0494**	**11.06**	**.2320**
Stddev	.0184	.0004	.0002	.0016	.0071	.0111	.36	.0110
%RSD	3.023	31.53	111.7	1.662	5.243	22.53	3.291	4.738
#1	.5910	.0008	.0003	.0951	.1439	.0367	11.45	.2198
#2	.6106	.0016	-.0001	.0955	.1305	.0540	10.73	.2352
#3	.6278	.0016	.0004	.0981	.1331	.0574	11.00	.2410

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **-.0130**	**.1271**	**.2481**	**.0253**	**.0069**	**.0323**	**-.0136**	**.0037**
Stddev	.0156	.0102	.0121	.0033	.0043	.0043	.0144	.0038
%RSD	120.1	8.061	4.871	12.99	61.56	13.35	105.8	102.9
#1	-.0310	.1154	.2348	.0216	.0118	.0273	-.0302	.0076
#2	-.0034	.1320	.2514	.0263	.0039	.0347	-.0056	.0001
#3	-.0045	.1341	.2582	.0280	.0051	.0348	-.0050	.0033

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**48.51**	**8.145**	**101.5**	**31.07**	**4.528**	**.7347**	**.0023**	**.0051**
Stddev	1.47	.236	3.1	.94	.158	.0082	.0006	.0007
%RSD	3.034	2.903	3.065	3.012	3.492	1.120	27.08	13.83
#1	47.00	7.907	98.39	30.12	4.366	.7278	.0025	.0043
#2	48.60	8.149	101.6	31.10	4.537	.7326	.0027	.0053
#3	49.94	8.380	104.6	31.99	4.682	.7438	.0016	.0057

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.786**	**.0145**	**.0393**	**2.868**	**.0070**	**.0215**	**.1300**	**.0388**
Stddev	.065	.0042	.0010	.121	.0023	.0032	.0177	.1044
%RSD	3.641	29.11	2.452	4.220	33.07	15.08	13.65	268.9
#1	1.714	.0096	.0384	3.004	.0096	.0178	.1502	-.0817
#2	1.802	.0172	.0392	2.770	.0052	.0229	.1171	.1005
#3	1.841	.0168	.0403	2.831	.0062	.0238	.1226	.0976

Zoom In Zoom Out

Sample Name: jc86994-11 Acquired: 5/3/2019 23:01:00 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Li6707	P_1774
Units	ppm	ppm
Avg	**.0759**	**2.797**
Stddev	.0037	.177
%RSD	4.919	6.321
#1	.0786	2.598
#2	.0716	2.861
#3	.0774	2.934

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	*****	**28029.**	**6479.5**	**9498.1**
Stddev	-----	29.	33.0	48.4
%RSD	-----	.10339	.50947	.51004
#1	-----	28012.	6509.7	9549.2
#2	149020.	28063.	6444.3	9452.8
#3	150310.	28013.	6484.4	9492.5

Zoom In Zoom Out

Sample Name: jc86994-13 Acquired: 5/3/2019 23:06:12 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4499**	**.0019**	**.0001**	**.0716**	**.1190**	**.0777**	**8.857**	**.1775**	**-.0016**
Stddev	.0070	.0002	.0002	.0005	.0006	.0016	.128	.0027	.0007
%RSD	1.545	9.322	164.6	.6375	.4799	2.011	1.441	1.541	46.99
#1	.4419	.0017	.0000	.0713	.1183	.0768	8.714	.1744	-.0022
#2	.4539	.0019	-.0000	.0721	.1193	.0769	8.957	.1787	-.0007
#3	.4539	.0021	.0003	.0713	.1193	.0796	8.901	.1795	-.0018

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1530**	**.2639**	**.0294**	**.0021**	**.0320**	**-.0053**	**-.0001**	**63.68**	**11.43**
Stddev	.0017	.0042	.0011	.0005	.0011	.0042	.0011	.97	.16
%RSD	1.132	1.574	3.819	25.71	3.585	78.59	1088.	1.516	1.416
#1	.1510	.2594	.0291	.0020	.0318	-.0089	.0012	62.56	11.24
#2	.1542	.2648	.0307	.0027	.0310	-.0065	-.0009	64.18	11.51
#3	.1537	.2675	.0286	.0017	.0332	-.0007	-.0006	64.28	11.53

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**135.5**	**35.81**	**6.684**	**1.450**	**.0032**	**.0048**	**2.210**	**.0154**	**.0533**
Stddev	2.1	.59	.125	.027	.0004	.0003	.022	.0004	.0008
%RSD	1.549	1.649	1.874	1.891	13.99	5.918	1.000	2.442	1.469
#1	133.1	35.13	6.540	1.427	.0037	.0047	2.186	.0151	.0524
#2	136.7	36.14	6.748	1.480	.0029	.0046	2.213	.0158	.0536
#3	136.7	36.16	6.765	1.442	.0029	.0051	2.230	.0152	.0538

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.373**	**.0047**	**.0285**	**.2688**	**.1293**	**.0780**	**2.908**
Stddev	.029	.0010	.0004	.0025	.0033	.0031	.036
%RSD	.8749	21.49	1.356	.9266	2.521	4.018	1.223
#1	3.339	.0045	.0285	.2662	.1259	.0746	2.870
#2	3.388	.0058	.0281	.2711	.1324	.0789	2.913
#3	3.392	.0038	.0289	.2690	.1294	.0807	2.941

Zoom In Zoom Out

Sample Name: jc86994-13 Acquired: 5/3/2019 23:06:12 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**148680.**	**28120.**	**6478.0**	**9499.0**
Stddev	1454.	78.	31.5	35.5
%RSD	.97816	.27863	.48605	.37330
#1	150360.	28036.	6510.9	9535.6
#2	147940.	28191.	6474.8	9496.6
#3	147750.	28132.	6448.2	9464.8

Zoom In Zoom Out

Sample Name: jc86994-14 Acquired: 5/3/2019 23:11:24 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2692**	**.0013**	**.0006**	**.0721**	**.0816**	**.0551**	F **16.02**	**.1840**	**-.0029**
Stddev	.0057	.0001	.0004	.0010	.0013	.0006	.43	.0018	.0004
%RSD	2.129	6.920	68.96	1.351	1.637	1.058	2.663	.9768	14.37
#1	.2638	.0014	.0005	.0732	.0802	.0545	15.59	.1860	-.0024
#2	.2685	.0013	.0003	.0714	.0820	.0555	16.01	.1825	-.0030
#3	.2752	.0012	.0010	.0717	.0827	.0554	16.45	.1835	-.0033

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0939**	**.2152**	**.0237**	**.0049**	**.0251**	**-.0026**	**.0003**	**44.64**	**7.362**
Stddev	.0023	.0023	.0009	.0012	.0029	.0007	.0010	.93	.160
%RSD	2.430	1.050	3.831	23.78	11.70	27.69	328.1	2.088	2.178
#1	.0919	.2178	.0226	.0048	.0227	-.0020	.0013	43.72	7.206
#2	.0935	.2136	.0242	.0038	.0242	-.0033	.0001	44.61	7.354
#3	.0964	.2142	.0241	.0061	.0283	-.0024	-.0006	45.58	7.526

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**97.20**	**22.31**	**3.710**	**.7719**	**.0014**	**.0045**	**1.857**	**.0177**	**.0381**
Stddev	2.03	.49	.084	.0244	.0007	.0001	.028	.0011	.0007
%RSD	2.094	2.211	2.268	3.167	51.14	1.157	1.484	5.944	1.779
#1	95.22	21.83	3.661	.7448	.0009	.0045	1.887	.0189	.0374
#2	97.08	22.27	3.662	.7923	.0022	.0045	1.834	.0172	.0382
#3	99.28	22.82	3.807	.7787	.0011	.0044	1.848	.0169	.0388

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.812**	**.0016**	**.0251**	**.1851**	**.0660**	**.0612**	**2.490**
Stddev	.035	.0017	.0005	.0080	.0021	.0021	.007
%RSD	1.927	107.0	1.810	4.311	3.184	3.438	.2937
#1	1.776	.0032	.0252	.1942	.0636	.0594	2.496
#2	1.814	-.0002	.0246	.1791	.0673	.0607	2.482
#3	1.845	.0018	.0255	.1820	.0671	.0635	2.491

Zoom In Zoom Out

Sample Name: jc86994-14 Acquired: 5/3/2019 23:11:24 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**150130.**	**27924.**	**6428.4**	**9464.9**
Stddev	408.	94.	95.6	123.7
%RSD	.27143	.33627	1.4877	1.3074
#1	150150.	27920.	6318.3	9322.2
#2	149720.	27833.	6475.6	9529.6
#3	150530.	28021.	6491.3	9542.8

Zoom In Zoom Out

Sample Name: mp14684-mb1conf Acquired: 5/3/2019 23:16:36 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**-.0001**	**-.0001**	**-.0000**	**.0000**	**.0008**	**.0002**	**.0001**	**.0002**
Stddev	.0002	.0000	.0001	.0001	.0003	.0001	.0000	.0001	.0001
%RSD	169.9	25.50	66.86	286.7	593.3	13.33	22.94	48.11	41.34
#1	.0003	-.0001	-.0000	.0001	-.0003	.0008	.0002	.0001	.0002
#2	.0000	-.0001	-.0002	-.0001	.0002	.0009	.0002	.0001	.0002
#3	-.0000	-.0001	-.0001	-.0001	.0002	.0007	.0001	.0002	.0001

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0002**	**.0007**	**-.0006**	**.0004**	**-.0007**	**.0020**	**.0016**	**-.0006**	**-.0039**
Stddev	.0001	.0000	.0004	.0016	.0011	.0012	.0010	.0092	.0019
%RSD	47.57	5.600	69.80	378.9	148.5	60.97	61.42	1425.	47.77
#1	-.0001	.0006	-.0011	.0019	-.0004	.0006	.0028	.0060	-.0039
#2	-.0003	.0007	-.0005	-.0013	-.0019	.0027	.0011	.0032	-.0058
#3	-.0002	.0007	-.0003	.0007	.0001	.0025	.0010	-.0111	-.0021

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0034**	**.0094**	**.1472**	**.1055**	**.0008**	**.0004**	**.0063**	**-.0012**	**.0001**
Stddev	.0009	.0034	.0153	.0047	.0002	.0001	.0003	.0005	.0000
%RSD	27.01	36.53	10.42	4.499	24.35	29.96	5.130	42.88	79.52
#1	.0028	.0066	.1643	.1064	.0009	.0003	.0066	-.0006	.0000
#2	.0029	.0083	.1346	.1098	.0009	.0004	.0060	-.0016	.0000
#3	.0045	.0132	.1428	.1004	.0005	.0005	.0061	-.0014	.0001

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004**	**.0018**	**.0004**	**.0015**	**-.0007**	**-.0024**	**.0145**
Stddev	.0002	.0008	.0002	.0014	.0007	.0007	.0013
%RSD	35.88	45.09	58.78	92.30	93.51	27.31	8.653
#1	.0003	.0026	.0006	.0029	-.0008	-.0021	.0154
#2	.0006	.0010	.0004	.0001	-.0013	-.0019	.0131
#3	.0004	.0017	.0002	.0016	-.0000	-.0031	.0150

Zoom In Zoom Out

Sample Name: mp14684-mb1conf Acquired: 5/3/2019 23:16:36 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**152890.**	**28055.**	**6509.5**	**9975.2**
Stddev	341.	76.	27.1	31.5
%RSD	.22296	.27000	.41628	.31532
#1	153040.	28057.	6483.7	9942.0
#2	152500.	27979.	6507.1	9979.1
#3	153140.	28130.	6537.7	10005.

Zoom In Zoom Out

Sample Name: mp14724-mb1conf Acquired: 5/3/2019 23:21:42 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0002**	**-.0001**	**.0000**	**-.0000**	**.0003**	**.0008**	**.0000**	**.0001**	**.0000**
Stddev	.0002	.0000	.0002	.0000	.0002	.0003	.0000	.0003	.0004
%RSD	66.55	60.48	905.7	65.42	60.36	42.06	55.57	202.7	747.7
#1	-.0004	-.0000	-.0001	-.0001	.0002	.0012	.0000	.0001	-.0001
#2	-.0003	-.0001	.0002	-.0001	.0002	.0005	.0000	.0004	-.0002
#3	-.0001	-.0001	-.0000	-.0000	.0005	.0007	.0001	-.0001	.0005

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0004**	**.0008**	**-.0005**	**.0007**	**-.0009**	**.0006**	**.0007**	**-.0037**	**-.0021**
Stddev	.0002	.0001	.0008	.0009	.0005	.0011	.0005	.0030	.0009
%RSD	43.15	7.734	156.5	140.9	50.87	189.2	61.81	81.82	41.15
#1	-.0005	.0009	-.0002	-.0002	-.0006	-.0004	.0003	-.0072	-.0014
#2	-.0005	.0008	.0001	.0005	-.0015	.0017	.0007	-.0024	-.0018
#3	-.0002	.0008	-.0014	.0017	-.0008	.0003	.0012	-.0015	-.0031

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0029**	**.0024**	**.1157**	**.0946**	**.0005**	**.0005**	**.0074**	**-.0015**	**-.0001**
Stddev	.0017	.0144	.0248	.0106	.0011	.0002	.0002	.0002	.0001
%RSD	60.31	602.2	21.42	11.16	224.6	41.34	3.303	12.07	84.96
#1	.0031	.0179	.0877	.0850	.0014	.0007	.0077	-.0016	-.0001
#2	.0045	-.0105	.1247	.1059	-.0008	.0006	.0072	-.0013	-.0000
#3	.0010	-.0002	.1347	.0929	.0009	.0003	.0073	-.0016	-.0001

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0030**	**.0005**	**.0036**	**.0005**	**-.0014**	**.0134**
Stddev	.0004	.0013	.0000	.0025	.0018	.0009	.0006
%RSD	177.0	43.74	6.794	68.33	336.0	63.57	4.556
#1	.0005	.0045	.0005	.0018	.0026	-.0022	.0128
#2	-.0002	.0026	.0004	.0064	-.0010	-.0014	.0140
#3	.0003	.0020	.0005	.0026	.0000	-.0005	.0133

Zoom In Zoom Out

Sample Name: mp14724-mb1conf Acquired: 5/3/2019 23:21:42 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**152870.**	**28152.**	**6526.8**	**9989.4**
Stddev	471.	47.	19.1	25.3
%RSD	.30843	.16785	.29339	.25280
#1	152320.	28099.	6509.6	9967.9
#2	153130.	28168.	6547.4	10017.
#3	153150.	28189.	6523.2	9983.0

Zoom In Zoom Out

Sample Name: mp14724-b1conf Acquired: 5/3/2019 23:26:49 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.071**	**2.086**	**2.044**	**2.087**	**2.043**	**2.088**	**2.103**	**2.111**	**.2590**
Stddev	.008	.006	.001	.001	.006	.006	.022	.000	.0007
%RSD	.4000	.2786	.0327	.0247	.2780	.2859	1.057	.0103	.2649
#1	2.063	2.081	2.044	2.087	2.043	2.087	2.114	2.111	.2595
#2	2.080	2.093	2.044	2.087	2.037	2.082	2.078	2.111	.2582
#3	2.070	2.085	2.045	2.086	2.049	2.094	2.119	2.111	.2594

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.017**	**2.036**	**2.004**	**2.185**	**2.086**	**2.066**	**2.019**	**25.61**	**26.30**
Stddev	.005	.001	.002	.004	.002	.002	.002	.09	.08
%RSD	.2384	.0643	.0845	.1855	.0832	.0805	.0847	.3523	.2925
#1	2.018	2.038	2.005	2.187	2.085	2.066	2.018	25.52	26.22
#2	2.012	2.035	2.002	2.180	2.088	2.065	2.018	25.70	26.38
#3	2.021	2.036	2.005	2.188	2.086	2.068	2.021	25.61	26.29

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**26.26**	**25.55**	**25.54**	**26.22**	**2.087**	**2.069**	**.0181**	**2.014**	**2.159**
Stddev	.07	.03	.11	.07	.002	.002	.0009	.002	.006
%RSD	.2489	.1032	.4264	.2679	.1119	.0945	5.028	.1210	.2912
#1	26.21	25.53	25.42	26.14	2.088	2.069	.0188	2.015	2.153
#2	26.33	25.58	25.63	26.27	2.085	2.067	.0186	2.011	2.165
#3	26.24	25.56	25.57	26.25	2.089	2.071	.0171	2.015	2.158

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.037**	**1.920**	**1.998**	**.0157**	**.1165**	**-.0034**	**2.077**
Stddev	.005	.001	.004	.0004	.0007	.0018	.017
%RSD	.2608	.0357	.1966	2.264	.5694	51.95	.7937
#1	2.040	1.920	1.999	.0160	.1171	-.0017	2.091
#2	2.031	1.920	1.994	.0153	.1165	-.0033	2.059
#3	2.039	1.921	2.002	.0158	.1158	-.0052	2.081

Zoom In Zoom Out

Sample Name: mp14724-b1conf Acquired: 5/3/2019 23:26:49 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**146520.**	**27975.**	**6319.4**	**9225.2**
Stddev	454.	50.	12.6	17.1
%RSD	.30954	.17718	.19925	.18544
#1	146380.	28032.	6306.5	9210.6
#2	147030.	27942.	6319.9	9221.0
#3	146150.	27952.	6331.7	9244.0

Zoom In Zoom Out

Sample Name: mp14724-s1 Acquired: 5/3/2019 23:31:49 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.193**	**2.110**	**2.120**	**2.165**	**2.097**	**2.042**	**2.485**	**2.197**	**.2627**
Stddev	.007	.004	.011	.012	.003	.006	.004	.013	.0018
%RSD	.3191	.1957	.5077	.5493	.1275	.3029	.1537	.5959	.6750
#1	2.188	2.108	2.113	2.158	2.097	2.042	2.481	2.191	.2648
#2	2.201	2.115	2.116	2.157	2.100	2.048	2.484	2.187	.2619
#3	2.191	2.107	2.133	2.178	2.095	2.036	2.489	2.211	.2615

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.074**	**2.133**	**2.076**	**2.252**	**2.157**	**2.141**	**2.087**	**25.99**	**182.3**
Stddev	.005	.014	.018	.011	.012	.026	.008	.06	.4
%RSD	.2445	.6427	.8445	.4709	.5513	1.214	.4009	.2279	.2243
#1	2.068	2.125	2.066	2.241	2.155	2.128	2.078	25.92	182.0
#2	2.074	2.125	2.066	2.254	2.146	2.124	2.088	26.04	182.8
#3	2.078	2.149	2.096	2.262	2.170	2.171	2.095	26.01	182.2

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**29.97**	**56.91**	**30.75**	**356.5**	**2.233**	**2.153**	**5.554**	**2.076**	**2.762**
Stddev	.05	.19	.11	.5	.013	.014	.032	.010	.004
%RSD	.1812	.3309	.3534	.1337	.6001	.6397	.5695	.4842	.1412
#1	29.91	56.71	30.71	356.0	2.228	2.144	5.538	2.072	2.758
#2	30.00	57.09	30.87	356.6	2.222	2.146	5.534	2.068	2.764
#3	30.00	56.93	30.66	356.9	2.248	2.169	5.590	2.087	2.764

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.074**	**2.057**	**2.031**	**10.21**	**.1213**	**-.0090**	**2.215**
Stddev	.003	.009	.002	.10	.0074	.0037	.044
%RSD	.1619	.4155	.1029	1.022	6.092	41.55	1.997
#1	2.071	2.050	2.030	10.10	.1220	-.0070	2.171
#2	2.075	2.055	2.034	10.24	.1136	-.0067	2.215
#3	2.077	2.067	2.031	10.30	.1283	-.0133	2.259

Zoom In Zoom Out

Sample Name: mp14724-s1 Acquired: 5/3/2019 23:31:49 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**143900.**	**27461.**	**6192.5**	**8999.0**
Stddev	751.	110.	25.8	34.0
%RSD	.52209	.40103	.41593	.37745
#1	144730.	27540.	6197.4	8997.9
#2	143700.	27335.	6215.4	9033.4
#3	143270.	27507.	6164.6	8965.5

Zoom In Zoom Out

Sample Name: mp14724-s2 Acquired: 5/3/2019 23:36:42 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.207**	**2.129**	**2.117**	**2.163**	**2.105**	**2.053**	**2.497**	**2.194**	**.2656**
Stddev	.007	.006	.006	.003	.007	.002	.005	.005	.0004
%RSD	.3250	.3047	.2928	.1166	.3313	.0764	.2035	.2092	.1457
#1	2.210	2.133	2.112	2.161	2.101	2.053	2.494	2.199	.2655
#2	2.213	2.133	2.114	2.165	2.113	2.055	2.503	2.190	.2660
#3	2.199	2.122	2.124	2.165	2.101	2.052	2.493	2.193	.2652

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.085**	**2.135**	**2.066**	**2.240**	**2.161**	**2.132**	**2.081**	**26.13**	**181.7**
Stddev	.005	.006	.005	.016	.004	.014	.005	.05	.5
%RSD	.2359	.2732	.2363	.7177	.1781	.6404	.2554	.1892	.2706
#1	2.081	2.133	2.061	2.228	2.164	2.126	2.087	26.14	181.8
#2	2.090	2.129	2.068	2.233	2.156	2.122	2.077	26.18	182.2
#3	2.084	2.141	2.070	2.258	2.162	2.148	2.078	26.08	181.2

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**30.06**	**57.05**	**31.02**	**354.2**	**2.223**	**2.147**	**5.448**	**2.073**	**2.774**
Stddev	.09	.12	.20	.7	.005	.003	.009	.001	.007
%RSD	.2997	.2039	.6373	.2020	.2189	.1583	.1584	.0334	.2636
#1	30.08	57.08	31.13	354.1	2.221	2.146	5.444	2.074	2.774
#2	30.13	57.15	31.14	354.9	2.220	2.144	5.442	2.073	2.780
#3	29.96	56.92	30.79	353.5	2.229	2.150	5.458	2.073	2.766

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.086**	**2.026**	**2.040**	**9.983**	**.1117**	**.0012**	**2.224**
Stddev	.003	.001	.003	.039	.0034	.0038	.008
%RSD	.1566	.0433	.1350	.3948	3.035	302.9	.3447
#1	2.083	2.027	2.037	9.963	.1087	-.0013	2.217
#2	2.087	2.025	2.043	9.957	.1110	-.0006	2.222
#3	2.089	2.027	2.040	10.03	.1154	.0056	2.232

Zoom In Zoom Out

Sample Name: mp14724-s2 Acquired: 5/3/2019 23:36:42 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**144240.**	**27571.**	**6217.0**	**9034.4**
Stddev	948.	144.	11.2	12.6
%RSD	.65699	.52204	.17991	.13897
#1	144740.	27597.	6225.1	9046.2
#2	143150.	27416.	6221.7	9035.7
#3	144830.	27701.	6204.2	9021.2

Zoom In Zoom Out

Sample Name: jc87131-2 Acquired: 5/3/2019 23:41:34 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1092**	**-.0004**	**-.0000**	**-.0003**	**.0006**	**.0048**	**.3221**	**.0011**	**-.0009**
Stddev	.0003	.0002	.0006	.0014	.0013	.0006	.0004	.0014	.0024
%RSD	.2622	51.46	1501.	407.3	213.1	12.61	.1381	128.6	268.9
#1	.1089	-.0002	-.0007	-.0019	.0005	.0042	.3218	-.0005	.0014
#2	.1094	-.0004	.0000	.0006	-.0006	.0051	.3226	.0019	-.0034
#3	.1094	-.0006	.0005	.0003	.0019	.0053	.3219	.0019	-.0007

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0017**	**.0019**	**.0013**	**.0015**	**-.0018**	**-.0012**	**.0046**	**.0251**	**157.9**
Stddev	.0018	.0004	.0082	.0058	.0039	.0026	.0013	.0259	.1
%RSD	102.8	18.56	608.6	382.2	220.1	219.4	27.90	103.5	.0534
#1	-.0023	.0020	.0073	.0002	-.0022	.0016	.0031	.0416	158.0
#2	.0003	.0022	-.0080	.0078	.0023	-.0035	.0050	.0384	158.0
#3	-.0031	.0015	.0048	-.0035	-.0055	-.0016	.0056	-.0048	157.8

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.176**	**31.51**	**5.044**	**334.8**	**.0635**	**.0021**	**5.494**	**-.0090**	**.5971**
Stddev	.006	.21	.039	.1	.0028	.0013	.005	.0002	.0006
%RSD	.1820	.6660	.7740	.0245	4.406	62.19	.0916	2.440	.1048
#1	3.178	31.28	5.058	334.7	.0664	.0015	5.498	-.0091	.5971
#2	3.181	31.68	4.999	334.7	.0631	.0035	5.495	-.0091	.5964
#3	3.170	31.58	5.073	334.9	.0608	.0011	5.488	-.0087	.5976

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0013**	**.0168**	**.0013**	**10.20**	**-.0104**	**.0011**	**.0935**
Stddev	.0011	.0021	.0005	.05	.0050	.0029	.0105
%RSD	81.11	12.41	37.18	.4502	48.29	258.8	11.21
#1	.0003	.0185	.0017	10.24	-.0126	.0034	.0946
#2	.0025	.0174	.0008	10.22	-.0139	.0020	.0825
#3	.0012	.0144	.0016	10.15	-.0046	-.0021	.1034

Zoom In Zoom Out

Sample Name: jc87131-2 Acquired: 5/3/2019 23:41:34 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**144670.**	**27484.**	**6219.8**	**9084.1**
Stddev	473.	173.	12.8	17.1
%RSD	.32701	.62903	.20528	.18787
#1	144130.	27544.	6205.8	9066.7
#2	144900.	27289.	6222.6	9084.6
#3	144990.	27619.	6230.9	9100.9

Zoom In Zoom Out

Sample Name: mp14724-sd1 Acquired: 5/3/2019 23:46:38 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 25.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1104**	**-.0014**	**-.0016**	**-.0066**	**.0010**	**.0234**	**.3266**	**.0022**	**.0028**
Stddev	.0096	.0010	.0052	.0042	.0017	.0024	.0005	.0070	.0110
%RSD	8.689	72.29	327.9	63.10	163.2	10.38	.1485	323.8	395.0
#1	.0996	-.0009	.0026	-.0060	-.0007	.0250	.3261	.0027	-.0078
#2	.1135	-.0025	.0001	-.0027	.0026	.0206	.3269	-.0051	.0020
#3	.1180	-.0007	-.0074	-.0110	.0011	.0245	.3269	.0089	.0141

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0126**	**.0113**	**-.0193**	**.0251**	**.0080**	**-.0006**	**.0019**	**.0774**	**159.1**
Stddev	.0037	.0016	.0300	.0163	.0366	.0408	.0045	.1767	1.4
%RSD	29.48	14.01	155.5	64.89	456.9	7008.	233.2	228.4	.8944
#1	-.0167	.0127	-.0035	.0334	-.0222	.0322	.0002	-.0129	158.3
#2	-.0116	.0096	-.0539	.0063	-.0025	.0123	.0070	.2809	158.4
#3	-.0095	.0115	-.0005	.0356	.0487	-.0463	-.0015	-.0359	160.8

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.197**	**31.85**	**8.510**	**345.6**	**.0807**	**.0051**	**5.577**	**-.0178**	**.6068**
Stddev	.028	.22	.491	2.6	.0128	.0052	.064	.0040	.0032
%RSD	.8587	.6790	5.775	.7396	15.90	101.6	1.153	22.44	.5293
#1	3.196	31.88	8.804	343.7	.0923	.0037	5.652	-.0222	.6053
#2	3.170	32.05	8.783	344.7	.0827	.0109	5.537	-.0145	.6047
#3	3.225	31.62	7.943	348.5	.0669	.0008	5.543	-.0165	.6105

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0134**	**.0443**	**.0032**	**9.963**	**-.0197**	**-.0226**	**.3882**
Stddev	.0031	.0163	.0002	.063	.0237	.0420	.0179
%RSD	23.11	36.76	4.757	.6351	120.5	185.9	4.602
#1	.0156	.0623	.0033	10.03	-.0009	.0091	.3754
#2	.0148	.0305	.0031	9.903	-.0463	-.0702	.4086
#3	.0099	.0400	.0034	9.956	-.0118	-.0067	.3805

Zoom In Zoom Out

Sample Name: mp14724-sd1 Acquired: 5/3/2019 23:46:38 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 25.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**146150.**	**27256.**	**6349.5**	**9537.2**
Stddev	893.	195.	65.8	83.3
%RSD	.61137	.71654	1.0369	.87350
#1	147140.	27317.	6293.1	9461.1
#2	145410.	27415.	6421.9	9626.2
#3	145880.	27038.	6333.5	9524.2

Zoom In Zoom Out

Sample Name: ccv Acquired: 5/3/2019 23:51:45 Type: QC
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.042**	**2.044**	**2.000**	**2.042**	**2.018**	**2.042**	**2.049**	**2.068**	**.2503**
Stddev	.036	.036	.007	.007	.006	.005	.012	.008	.0009
%RSD	1.758	1.765	.3773	.3233	.2990	.2590	.5686	.3925	.3722
#1	2.034	2.034	2.007	2.047	2.025	2.048	2.041	2.074	.2513
#2	2.081	2.083	1.992	2.034	2.018	2.038	2.044	2.059	.2495
#3	2.010	2.013	2.001	2.044	2.013	2.039	2.063	2.072	.2501
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.986**	**1.996**	**1.998**	**2.113**	**2.039**	**2.031**	**1.998**	**40.69**	**41.60**
Stddev	.005	.008	.008	.008	.004	.006	.008	.73	.70
%RSD	.2498	.3882	.3975	.3615	.2107	.2908	.3948	1.785	1.683
#1	1.992	2.004	2.005	2.119	2.043	2.037	2.005	40.53	41.47
#2	1.983	1.989	1.989	2.104	2.034	2.025	1.989	41.49	42.36
#3	1.983	1.994	1.998	2.114	2.039	2.032	1.999	40.06	40.98
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**41.30**	**40.39**	**40.48**	**41.07**	**2.081**	**2.042**	**5.305**	**1.984**	**2.116**
Stddev	.72	.75	.61	.69	.007	.007	.019	.008	.036
%RSD	1.733	1.862	1.506	1.675	.3565	.3545	.3598	.3877	1.691
#1	41.15	40.23	40.35	40.93	2.088	2.049	5.324	1.993	2.108
#2	42.08	41.21	41.14	41.82	2.074	2.035	5.286	1.978	2.155
#3	40.68	39.73	39.94	40.46	2.082	2.043	5.304	1.982	2.085
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ccv Acquired: 5/3/2019 23:51:45 Type: QC
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.029**	**1.982**	**1.995**	**1.990**	**2.086**	**1.942**	**2.023**
Stddev	.005	.008	.005	.008	.008	.033	.002
%RSD	.2678	.3866	.2706	.4179	.3758	1.683	.0941
#1	2.035	1.989	2.001	2.000	2.092	1.934	2.025
#2	2.028	1.974	1.993	1.986	2.078	1.977	2.022
#3	2.024	1.983	1.991	1.984	2.089	1.913	2.023
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**142230.**	**27076.**	**6189.8**	**8950.0**
Stddev	575.	414.	20.8	21.0
%RSD	.40436	1.5278	.33675	.23471
#1	141670.	27132.	6167.5	8926.9
#2	142210.	26638.	6193.2	8955.2
#3	142820.	27459.	6208.7	8967.9

Zoom In Zoom Out

Sample Name: ccb Acquired: 5/3/2019 23:56:46 Type: QC
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0002**	**.0002**	**.0002**	**.0000**	**.0008**	**.0002**	**.0002**	**-.0003**
Stddev	.0003	.0000	.0002	.0002	.0002	.0001	.0000	.0004	.0000
%RSD	996.2	19.32	102.3	100.9	6139.	13.77	11.13	153.9	18.75
#1	.0001	.0002	-.0000	.0000	-.0001	.0009	.0002	.0003	-.0002
#2	-.0003	.0001	.0003	.0005	.0003	.0009	.0002	.0006	-.0003
#3	.0003	.0001	.0002	.0002	-.0001	.0007	.0002	-.0001	-.0003
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0000**	**-.0002**	**-.0007**	**.0020**	**-.0002**	**.0008**	**.0014**	**-.0025**	**-.0001**
Stddev	.0004	.0000	.0008	.0011	.0004	.0013	.0011	.0015	.0012
%RSD	1302.	20.17	108.4	57.59	184.9	177.0	76.28	60.09	1034.
#1	-.0001	-.0002	-.0000	.0029	.0002	.0021	.0023	-.0021	-.0001
#2	-.0004	-.0003	-.0006	.0023	-.0006	.0007	.0002	-.0043	-.0013
#3	.0004	-.0002	-.0016	.0007	-.0003	-.0005	.0018	-.0013	.0010
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0043**	**.0082**	**.1898**	**.1310**	**.0024**	**.0004**	**.0002**	**-.0007**	**.0003**
Stddev	.0016	.0089	.0460	.0051	.0005	.0003	.0009	.0003	.0001
%RSD	38.68	107.9	24.25	3.890	20.29	63.09	569.7	41.92	24.31
#1	.0060	.0142	.1444	.1268	.0020	.0004	.0012	-.0004	.0002
#2	.0040	-.0020	.2364	.1294	.0029	.0002	-.0004	-.0008	.0003
#3	.0027	.0125	.1885	.1366	.0021	.0007	-.0004	-.0009	.0004
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: ccb Acquired: 5/3/2019 23:56:46 Type: QC
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0007**	**.0011**	**.0005**	**.0003**	**.0012**	**-.0018**	**.0135**
Stddev	.0002	.0005	.0002	.0032	.0007	.0020	.0021
%RSD	33.88	46.41	33.53	1179.	54.90	110.2	15.30
#1	.0009	.0007	.0004	-.0010	.0020	.0004	.0150
#2	.0004	.0017	.0005	.0039	.0006	-.0035	.0144
#3	.0009	.0009	.0007	-.0021	.0011	-.0022	.0112
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**150060.**	**27487.**	**6425.0**	**9850.9**
Stddev	1143.	122.	11.9	17.2
%RSD	.76140	.44396	.18578	.17440
#1	151270.	27625.	6435.5	9868.0
#2	149900.	27393.	6412.0	9833.7
#3	149000.	27444.	6427.6	9851.1

Zoom In Zoom Out

Sample Name: mp14724-s3 Acquired: 5/4/2019 0:01:55 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.204**	**2.120**	**2.109**	**2.155**	**2.097**	**2.045**	**2.484**	**2.187**	**.2629**
Stddev	.003	.002	.007	.007	.001	.004	.004	.006	.0013
%RSD	.1554	.1038	.3506	.3101	.0504	.1912	.1631	.2836	.4983
#1	2.204	2.118	2.106	2.156	2.099	2.041	2.486	2.187	.2616
#2	2.208	2.122	2.105	2.148	2.096	2.044	2.480	2.181	.2630
#3	2.201	2.120	2.118	2.162	2.097	2.049	2.488	2.194	.2642

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.073**	**2.127**	**2.056**	**2.233**	**2.148**	**2.127**	**2.076**	**26.08**	**181.4**
Stddev	.003	.007	.013	.014	.009	.007	.004	.01	.2
%RSD	.1555	.3244	.6231	.6141	.4008	.3205	.1688	.0384	.0867
#1	2.072	2.124	2.047	2.227	2.147	2.122	2.072	26.09	181.3
#2	2.070	2.123	2.051	2.224	2.140	2.125	2.076	26.07	181.6
#3	2.076	2.135	2.071	2.249	2.157	2.135	2.079	26.07	181.3

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**28.89**	**56.87**	**30.88**	**354.7**	**2.219**	**2.144**	**5.308**	**2.062**	**2.774**
Stddev	.04	.09	.20	.4	.010	.008	.019	.009	.002
%RSD	.1325	.1602	.6634	.1020	.4306	.3782	.3579	.4629	.0774
#1	28.85	56.93	31.07	355.0	2.209	2.138	5.303	2.055	2.775
#2	28.92	56.92	30.66	354.7	2.219	2.141	5.292	2.059	2.775
#3	28.91	56.77	30.91	354.3	2.228	2.153	5.329	2.073	2.771

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.072**	**2.005**	**2.029**	**9.968**	**.1210**	**-.0097**	**2.209**
Stddev	.004	.008	.003	.076	.0018	.0148	.006
%RSD	.2018	.4077	.1210	.7606	1.512	153.0	.2679
#1	2.069	2.000	2.028	9.932	.1227	-.0266	2.211
#2	2.070	2.002	2.027	9.917	.1191	.0002	2.202
#3	2.077	2.015	2.032	10.06	.1211	-.0025	2.214

Zoom In Zoom Out

Sample Name: mp14724-s3 Acquired: 5/4/2019 0:01:55 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**143270.**	**27331.**	**6183.3**	**8992.7**
Stddev	458.	24.	17.5	18.2
%RSD	.31954	.08903	.28226	.20222
#1	142910.	27308.	6203.1	9007.6
#2	143790.	27357.	6176.6	8998.0
#3	143120.	27330.	6170.3	8972.4

Zoom In Zoom Out

Sample Name: mp14724-s4 Acquired: 5/4/2019 0:06:46 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.214**	**2.129**	**2.105**	**2.150**	**2.105**	**2.051**	**2.486**	**2.182**	**.2646**
Stddev	.004	.003	.002	.001	.002	.006	.002	.004	.0016
%RSD	.1646	.1230	.0804	.0462	.1126	.2916	.0949	.1652	.6178
#1	2.218	2.131	2.107	2.151	2.103	2.051	2.484	2.183	.2628
#2	2.211	2.126	2.104	2.149	2.104	2.044	2.486	2.178	.2654
#3	2.212	2.130	2.106	2.151	2.107	2.056	2.488	2.185	.2657

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.075**	**2.122**	**2.069**	**2.235**	**2.148**	**2.126**	**2.070**	**26.27**	**182.3**
Stddev	.006	.001	.007	.011	.001	.005	.002	.02	.3
%RSD	.2731	.0532	.3377	.4676	.0561	.2409	.1040	.0803	.1906
#1	2.070	2.120	2.068	2.246	2.147	2.129	2.073	26.29	182.7
#2	2.076	2.121	2.063	2.225	2.149	2.129	2.068	26.25	182.1
#3	2.081	2.123	2.077	2.236	2.149	2.120	2.071	26.26	182.1

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**29.07**	**57.04**	**31.07**	**354.5**	**2.215**	**2.144**	**5.355**	**2.069**	**2.780**
Stddev	.06	.15	.05	.4	.002	.001	.006	.004	.003
%RSD	.1975	.2595	.1556	.1042	.0675	.0397	.1155	.1987	.0888
#1	29.14	57.20	31.09	354.9	2.213	2.143	5.359	2.072	2.782
#2	29.05	56.92	31.10	354.5	2.216	2.143	5.358	2.065	2.777
#3	29.03	57.00	31.01	354.2	2.216	2.145	5.348	2.071	2.780

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.077**	**2.007**	**2.036**	**10.02**	**.1203**	**-.0054**	**2.216**
Stddev	.001	.004	.004	.05	.0040	.0026	.008
%RSD	.0491	.1792	.1706	.4614	3.295	47.77	.3626
#1	2.078	2.010	2.033	10.05	.1163	-.0025	2.224
#2	2.076	2.007	2.035	9.968	.1243	-.0073	2.217
#3	2.077	2.003	2.039	10.05	.1204	-.0065	2.208

Zoom In Zoom Out

Sample Name: mp14724-s4 Acquired: 5/4/2019 0:06:46 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**143290.**	**27376.**	**6198.7**	**9013.5**
Stddev	319.	231.	5.9	5.2
%RSD	.22244	.84320	.09461	.05737
#1	143610.	27122.	6202.3	9014.7
#2	142970.	27435.	6201.8	9017.9
#3	143300.	27572.	6191.9	9007.8

Zoom In Zoom Out

Sample Name: jc86131-2f Acquired: 5/4/2019 0:11:37 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1118**	**-.0001**	**-.0006**	**-.0009**	**.0006**	**.0049**	**.3231**	**.0011**	**-.0005**
Stddev	.0013	.0002	.0003	.0009	.0023	.0029	.0002	.0002	.0027
%RSD	1.170	189.4	43.32	107.8	376.6	59.03	.0729	19.13	545.9
#1	.1132	.0001	-.0009	-.0005	.0024	.0051	.3234	.0009	-.0028
#2	.1113	-.0001	-.0004	-.0019	.0014	.0077	.3230	.0013	-.0011
#3	.1108	-.0003	-.0005	-.0002	-.0020	.0019	.3229	.0012	.0025

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0025**	**.0069**	**-.0027**	**.0040**	**-.0028**	**.0020**	**.0066**	**.0178**	**158.0**
Stddev	.0015	.0003	.0057	.0083	.0008	.0124	.0013	.0227	.4
%RSD	58.48	3.798	214.3	208.7	28.91	631.5	19.34	127.5	.2848
#1	-.0021	.0068	-.0016	-.0056	-.0036	.0013	.0068	.0205	158.0
#2	-.0041	.0072	.0024	.0088	-.0028	.0147	.0052	-.0061	158.4
#3	-.0013	.0067	-.0088	.0087	-.0020	-.0101	.0078	.0390	157.5

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.062**	**31.47**	**5.024**	**334.5**	**.0633**	**.0017**	**5.415**	**-.0090**	**.6020**
Stddev	.005	.04	.207	.7	.0019	.0006	.007	.0017	.0010
%RSD	.2517	.1147	4.119	.2206	3.002	35.64	.1237	19.07	.1712
#1	2.063	31.49	5.010	334.9	.0640	.0013	5.420	-.0109	.6031
#2	2.067	31.49	5.238	334.9	.0648	.0015	5.407	-.0088	.6020
#3	2.056	31.43	4.825	333.6	.0612	.0024	5.418	-.0075	.6010

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0019**	**.0091**	**.0021**	**10.22**	**-.0021**	**.0026**	**.0724**
Stddev	.0011	.0023	.0011	.03	.0089	.0008	.0102
%RSD	60.38	25.46	52.35	.2976	419.4	30.37	14.02
#1	.0006	.0110	.0034	10.19	.0045	.0020	.0616
#2	.0026	.0098	.0014	10.25	.0014	.0023	.0741
#3	.0025	.0065	.0015	10.21	-.0122	.0035	.0817

Zoom In Zoom Out

Sample Name: jc86131-2f Acquired: 5/4/2019 0:11:37 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**144180.**	**27340.**	**6208.2**	**9072.8**
Stddev	437.	210.	20.2	22.4
%RSD	.30292	.76794	.32461	.24666
#1	144680.	27476.	6225.3	9095.0
#2	143960.	27098.	6213.4	9073.0
#3	143890.	27446.	6186.0	9050.3

Zoom In Zoom Out

Sample Name: mp14724-sd2 Acquired: 5/4/2019 0:16:39 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 25.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1057**	**-.0019**	**.0003**	**-.0043**	**.0011**	**.0311**	**.3217**	**.0081**	**-.0107**
Stddev	.0076	.0003	.0012	.0055	.0085	.0023	.0005	.0032	.0075
%RSD	7.168	17.54	354.1	129.8	740.2	7.524	.1484	39.26	70.70
#1	.1079	-.0022	-.0005	-.0041	-.0085	.0337	.3223	.0060	-.0158
#2	.0972	-.0015	-.0002	-.0099	.0047	.0293	.3214	.0065	-.0020
#3	.1119	-.0019	.0017	.0012	.0072	.0303	.3215	.0117	-.0141

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0092**	**.0747**	**-.0308**	**-.0039**	**-.0152**	**.0043**	**.0145**	**.1023**	**155.3**
Stddev	.0050	.0005	.0107	.0224	.0040	.0472	.0438	.1360	.7
%RSD	54.46	.6119	34.64	568.5	26.48	1105.	302.6	132.9	.4636
#1	-.0034	.0743	-.0215	.0219	-.0105	-.0495	-.0338	.2234	156.0
#2	-.0120	.0745	-.0424	-.0154	-.0178	.0386	.0517	.1283	154.6
#3	-.0121	.0752	-.0285	-.0183	-.0171	.0236	.0255	-.0448	155.1

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.059**	**31.19**	**8.136**	**336.7**	**.0611**	**.0034**	**5.469**	**-.0323**	**.5952**
Stddev	.021	.11	.626	1.3	.0046	.0082	.042	.0057	.0034
%RSD	.9980	.3502	7.689	.3899	7.537	236.7	.7714	17.58	.5725
#1	2.073	31.10	8.041	338.2	.0660	-.0003	5.438	-.0272	.5987
#2	2.069	31.16	7.564	335.7	.0569	.0128	5.517	-.0385	.5950
#3	2.036	31.31	8.804	336.3	.0604	-.0021	5.452	-.0313	.5918

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0174**	**.0298**	**.0044**	**9.868**	**-.0120**	**-.0205**	**.3241**
Stddev	.0064	.0345	.0032	.053	.0487	.0083	.0394
%RSD	36.93	116.0	72.64	.5370	405.9	40.49	12.16
#1	.0189	.0428	.0024	9.815	-.0488	-.0135	.3506
#2	.0103	-.0094	.0082	9.870	-.0304	-.0297	.3429
#3	.0229	.0559	.0028	9.921	.0432	-.0183	.2788

Zoom In Zoom Out

Sample Name: mp14724-sd2 Acquired: 5/4/2019 0:16:39 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 25.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**147870.**	**27387.**	**6327.4**	**9518.1**
Stddev	214.	217.	10.6	10.8
%RSD	.14454	.79254	.16725	.11339
#1	148090.	27297.	6328.6	9523.7
#2	147860.	27634.	6337.4	9524.9
#3	147660.	27230.	6316.3	9505.6

Zoom In Zoom Out

Sample Name: jc87271-1 Acquired: 5/4/2019 0:21:45 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment: mp14772

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4938**	**.0037**	**.0035**	**.0953**	**.1112**	**.3997**	**1.827**	**.0852**	**-.0006**
Stddev	.0008	.0000	.0001	.0003	.0005	.0006	.019	.0002	.0005
%RSD	.1680	.4696	2.629	.2838	.4571	.1432	1.058	.2184	83.54
#1	.4944	.0037	.0034	.0951	.1112	.4000	1.807	.0854	-.0009
#2	.4942	.0037	.0036	.0956	.1117	.4001	1.845	.0851	-.0009
#3	.4929	.0037	.0036	.0952	.1107	.3991	1.828	.0851	-.0000

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5603**	**.3623**	**2.111**	**.0009**	**.2933**	**.0071**	**.0066**	**109.0**	F **817.0**
Stddev	.0012	.0004	.002	.0021	.0010	.0010	.0006	.1	10.5
%RSD	.2112	.1108	.1001	240.5	.3579	14.77	9.543	.1203	1.285
#1	.5590	.3623	2.109	.0026	.2932	.0059	.0059	109.2	816.2
#2	.5608	.3628	2.113	.0014	.2944	.0076	.0070	109.1	827.8
#3	.5612	.3620	2.111	-.0014	.2923	.0077	.0069	108.9	806.9

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**120.4**	**43.42**	**6.750**	**5.885**	**.3763**	**.0033**	**.8953**	**.0224**	**5.567**
Stddev	.1	.06	.033	.006	.0022	.0002	.0004	.0001	.086
%RSD	.0953	.1454	.4908	.1022	.5783	5.116	.0464	.4032	1.549
#1	120.4	43.44	6.756	5.892	.3760	.0033	.8949	.0225	5.609
#2	120.4	43.46	6.779	5.881	.3787	.0031	.8958	.0223	5.625
#3	120.2	43.34	6.714	5.883	.3743	.0034	.8953	.0224	5.468

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.511**	**.1175**	**.1419**	**20.45**	**.2430**	**.0842**	**3.856**
Stddev	.005	.0008	.0000	.01	.0018	.0008	.009
%RSD	.1001	.6797	.0135	.0727	.7431	.9179	.2278
#1	5.505	.1167	.1419	20.45	.2416	.0846	3.858
#2	5.515	.1183	.1419	20.46	.2450	.0833	3.847
#3	5.514	.1175	.1420	20.43	.2423	.0846	3.864

Zoom In Zoom Out

Sample Name: jc87271-1 Acquired: 5/4/2019 0:21:45 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment: mp14772

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**138390.**	**28030.**	**6134.3**	**8213.2**
Stddev	368.	133.	3.5	3.7
%RSD	.26593	.47458	.05771	.04447
#1	138810.	28110.	6136.9	8212.3
#2	138170.	27876.	6135.6	8217.2
#3	138180.	28103.	6130.3	8210.1

Zoom In Zoom Out

Sample Name: jc87275-1 Acquired: 5/4/2019 0:27:03 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.909**	**.0102**	**.0009**	**.1307**	**.2863**	**.2270**	**4.330**	**.2051**	**-.0040**
Stddev	.007	.0000	.0002	.0006	.0018	.0005	.038	.0012	.0012
%RSD	.3920	.3010	23.33	.4671	.6445	.2108	.8752	.5767	30.96
#1	1.903	.0103	.0007	.1301	.2865	.2266	4.320	.2038	-.0045
#2	1.908	.0102	.0011	.1307	.2844	.2268	4.297	.2053	-.0026
#3	1.918	.0102	.0008	.1313	.2880	.2275	4.371	.2062	-.0049

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5360**	**.8626**	**.0260**	**.0003**	**1.408**	**-.0049**	**-.0014**	**291.4**	F **625.9**
Stddev	.0020	.0027	.0009	.0021	.003	.0020	.0019	6.8	2.3
%RSD	.3774	.3139	3.632	711.2	.2381	40.17	139.6	2.338	.3601
#1	.5360	.8596	.0253	.0026	1.405	-.0059	-.0035	299.2	625.5
#2	.5339	.8649	.0271	-.0015	1.409	-.0061	.0003	288.3	623.8
#3	.5380	.8634	.0257	-.0001	1.411	-.0026	-.0010	286.6	628.3

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **272.2**	F **421.0**	**19.89**	**1.489**	**.0192**	**.0044**	**1.422**	**.0246**	**.2627**
Stddev	2.1	1.2	.08	.005	.0005	.0002	.004	.0008	.0007
%RSD	.7667	.2861	.4262	.3546	2.812	3.642	.2826	3.373	.2668
#1	270.9	420.5	19.81	1.483	.0197	.0043	1.426	.0253	.2620
#2	274.6	420.2	19.89	1.493	.0194	.0043	1.422	.0248	.2626
#3	271.2	422.4	19.98	1.492	.0186	.0046	1.418	.0237	.2634

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**6.624**	**.0035**	**.0382**	**1.467**	**.2882**	**.1695**	**5.347**
Stddev	.014	.0011	.0001	.003	.0009	.0006	.039
%RSD	.2117	32.23	.2802	.2174	.3034	.3379	.7376
#1	6.617	.0026	.0383	1.467	.2890	.1696	5.322
#2	6.616	.0047	.0382	1.470	.2873	.1700	5.326
#3	6.640	.0031	.0381	1.464	.2883	.1689	5.392

Zoom In Zoom Out

Sample Name: jc87275-1 Acquired: 5/4/2019 0:27:03 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**139400.**	**28318.**	**6037.0**	**8130.9**
Stddev	1152.	259.	23.6	25.3
%RSD	.82604	.91522	.39099	.31145
#1	139650.	28116.	6059.7	8159.4
#2	140410.	28610.	6012.6	8111.2
#3	138150.	28228.	6038.6	8122.0

Zoom In Zoom Out

Sample Name: jc87275-2 Acquired: 5/4/2019 0:32:31 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.746**	**.0136**	**.0001**	**.1893**	**.3780**	**.2185**	**5.717**	**.2845**
Stddev	.009	.0001	.0001	.0058	.0008	.0014	.027	.0085
%RSD	.5063	.8091	81.37	3.037	.2008	.6349	.4700	2.993
#1	1.750	.0137	.0001	.1855	.3772	.2195	5.731	.2786
#2	1.752	.0136	.0002	.1959	.3785	.2169	5.686	.2942
#3	1.736	.0135	.0000	.1865	.3784	.2191	5.734	.2806

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **-.0062**	**.6793**	**.6951**	**.0219**	**.0012**	**.0822**	**-.0091**	**-.0026**
Stddev	.0010	.0004	.0250	.0007	.0018	.0027	.0038	.0018
%RSD	16.42	.0630	3.590	3.175	147.1	3.307	41.39	70.93
#1	-.0050	.6794	.6780	.0219	.0032	.0815	-.0071	-.0026
#2	-.0067	.6789	.7237	.0225	-.0004	.0852	-.0135	-.0008
#3	-.0069	.6797	.6835	.0212	.0009	.0800	-.0067	-.0044

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **383.4**	**161.3**	F **329.5**	**143.9**	**24.86**	**1.360**	**.0107**	**.0052**
Stddev	1.3	2.7	4.0	.6	.09	.012	.0014	.0000
%RSD	.3297	1.697	1.202	.4168	.3801	.8727	12.98	.6759
#1	384.5	163.4	334.1	144.5	24.96	1.355	.0109	.0052
#2	382.0	158.2	327.3	144.0	24.84	1.374	.0120	.0052
#3	383.8	162.4	327.1	143.3	24.78	1.352	.0092	.0052

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.667**	**.0148**	**.1117**	F **10.47**	**.0087**	**.0404**	**.7796**	**.4244**
Stddev	.071	.0010	.0005	.11	.0011	.0003	.0252	.0147
%RSD	4.245	6.807	.4919	1.012	12.50	.7128	3.227	3.474
#1	1.623	.0136	.1120	10.39	.0097	.0406	.7610	.4251
#2	1.749	.0153	.1119	10.44	.0090	.0401	.8082	.4094
#3	1.630	.0154	.1110	10.59	.0076	.0404	.7695	.4389

Zoom In Zoom Out

Sample Name: jc87275-2 Acquired: 5/4/2019 0:32:31 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Li6707	P_1774
Units	ppm	ppm
Avg	**.1739**	**6.777**
Stddev	.0020	.238
%RSD	1.168	3.508
#1	.1738	6.603
#2	.1760	7.048
#3	.1720	6.680

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**149870.**	**30260.**	**6512.9**	**8711.9**
Stddev	465.	239.	202.8	217.8
%RSD	.30998	.79082	3.1144	2.4995
#1	149460.	29984.	6651.0	8854.9
#2	149780.	30406.	6280.0	8461.3
#3	150380.	30391.	6607.5	8819.5

Zoom In Zoom Out

Sample Name: jc87275-3 Acquired: 5/4/2019 0:38:08 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.859**	**.0153**	**.0001**	**.1781**	**.3195**	**.1919**	**6.402**	**.2340**
Stddev	.006	.0001	.0001	.0011	.0036	.0008	.047	.0005
%RSD	.3380	.6976	123.3	.5929	1.122	.4426	.7260	.2029
#1	1.862	.0153	.0000	.1785	.3163	.1913	6.423	.2338
#2	1.852	.0154	-.0000	.1769	.3234	.1915	6.349	.2337
#3	1.864	.0152	.0002	.1789	.3189	.1929	6.435	.2346

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	*****	**.7403**	**.8086**	**.0385**	F **-.0022**	**.1349**	F **-.0140**	F **-.0037**
Stddev	-----	.0065	.0013	.0016	.0007	.0018	.0044	.0023
%RSD	-----	.8797	.1597	4.031	31.60	1.331	31.27	62.95
#1	-----	.7343	.8087	.0370	-.0015	.1363	-.0109	-.0037
#2	-----	.7473	.8072	.0385	-.0022	.1357	-.0190	-.0014
#3	-----	.7394	.8098	.0401	-.0029	.1329	-.0120	-.0060

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **400.9**	**49.46**	F **457.9**	**74.53**	**21.42**	**.9487**	**.0058**	**.0053**
Stddev	5.1	.11	5.6	.18	.10	.0073	.0007	.0002
%RSD	1.274	.2305	1.219	.2441	.4498	.7699	12.65	3.615
#1	406.7	49.50	458.6	74.56	21.44	.9464	.0051	.0051
#2	399.4	49.33	452.0	74.34	21.32	.9429	.0066	.0053
#3	396.8	49.54	463.1	74.70	21.51	.9569	.0059	.0055

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.555**	**.0157**	**.0898**	**7.954**	**.0006**	**.0273**	**.3839**	**.3337**
Stddev	.016	.0001	.0002	.135	.0002	.0005	.0013	.0115
%RSD	1.018	.7793	.2335	1.692	30.77	1.816	.3320	3.433
#1	1.543	.0158	.0896	7.914	.0007	.0273	.3836	.3294
#2	1.549	.0157	.0897	8.104	.0008	.0267	.3853	.3467
#3	1.573	.0156	.0900	7.844	.0004	.0277	.3828	.3250

Zoom In Zoom Out

Sample Name: jc87275-3 Acquired: 5/4/2019 0:38:08 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Li6707	P_1774
Units	ppm	ppm
Avg	**.1047**	**7.435**
Stddev	.0015	.035
%RSD	1.410	.4709
#1	.1058	7.437
#2	.1053	7.399
#3	.1031	7.469

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**148640.**	**29937.**	**6678.2**	**9205.8**
Stddev	1180.	94.	1.2	8.0
%RSD	.79377	.31432	.01849	.08740
#1	149720.	29838.	6678.2	9208.5
#2	147380.	30025.	6679.5	9212.2
#3	148830.	29947.	6677.0	9196.8

Zoom In Zoom Out

Sample Name: jc87321-1 Acquired: 5/4/2019 0:43:35 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5482**	**.0159**	**.0008**	**.0915**	**.5944**	**.4810**	**2.114**	**.1604**
Stddev	.0030	.0001	.0003	.0004	.0030	.0024	.005	.0012
%RSD	.5560	.7417	31.93	.4562	.5006	.4938	.2422	.7426
#1	.5447	.0158	.0010	.0915	.5931	.4789	2.115	.1604
#2	.5494	.0159	.0009	.0918	.5923	.4806	2.109	.1617
#3	.5504	.0160	.0005	.0910	.5978	.4836	2.119	.1593

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0048**	**.8501**	**.8564**	**.0619**	**.0008**	**.2173**	**.0014**	F **-.0059**
Stddev	.0017	.0043	.0045	.0012	.0027	.0012	.0014	.0008
%RSD	36.14	.5088	.5229	1.868	346.6	.5404	100.6	12.80
#1	-.0058	.8486	.8568	.0630	.0003	.2164	-.0000	-.0064
#2	-.0028	.8467	.8606	.0619	-.0016	.2186	.0014	-.0050
#3	-.0059	.8550	.8517	.0607	.0037	.2169	.0028	-.0063

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **310.2**	**48.17**	F **285.9**	**66.16**	**36.46**	**7.880**	**.0130**	**.0275**
Stddev	11.0	.30	4.8	.56	.21	.069	.0004	.0005
%RSD	3.539	.6181	1.666	.8392	.5800	.8750	2.704	1.761
#1	302.1	47.84	281.5	65.54	36.23	7.809	.0128	.0274
#2	322.7	48.28	290.9	66.30	36.51	7.885	.0134	.0280
#3	305.9	48.40	285.3	66.62	36.65	7.947	.0129	.0271

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.319**	**.0207**	**.1426**	F **8.929**	**-.0020**	**.0285**	**1.161**	**.3572**
Stddev	.008	.0006	.0011	.089	.0008	.0003	.012	.0058
%RSD	.5741	2.670	.7540	1.001	41.07	1.095	1.045	1.622
#1	1.327	.0209	.1415	8.830	-.0011	.0283	1.151	.3521
#2	1.318	.0200	.1428	8.952	-.0022	.0288	1.174	.3562
#3	1.312	.0211	.1436	9.004	-.0026	.0283	1.156	.3635

Zoom In Zoom Out

Sample Name: jc87321-1 Acquired: 5/4/2019 0:43:35 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Li6707	P_1774
Units	ppm	ppm
Avg	**.2919**	**1.718**
Stddev	.0012	.009
%RSD	.4258	.5098
#1	.2912	1.721
#2	.2912	1.724
#3	.2933	1.708

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**158670.**	**31633.**	**7129.2**	**9047.1**
Stddev	1046.	212.	37.8	35.5
%RSD	.65906	.67013	.53011	.39293
#1	159060.	31828.	7112.7	9044.1
#2	159470.	31407.	7102.5	9013.1
#3	157490.	31664.	7172.4	9084.0

Zoom In Zoom Out

Sample Name: jc87321-2 Acquired: 5/4/2019 0:49:03 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.421**	**.0101**	**.0006**	**.1571**	**.4055**	**.3678**	**5.798**	**.3356**	**-.0041**
Stddev	.008	.0001	.0001	.0024	.0019	.0026	.025	.0042	.0001
%RSD	.5426	1.001	10.06	1.539	.4682	.7166	.4319	1.248	2.926
#1	1.425	.0102	.0006	.1599	.4034	.3651	5.785	.3404	-.0040
#2	1.412	.0101	.0005	.1559	.4067	.3704	5.827	.3325	-.0042
#3	1.425	.0100	.0006	.1556	.4066	.3679	5.782	.3339	-.0040

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4168**	**.9900**	**.0153**	**.0047**	**.2946**	**-.0051**	**-.0015**	**219.1**	**18.94**
Stddev	.0010	.0142	.0006	.0005	.0031	.0022	.0014	1.8	.08
%RSD	.2472	1.433	4.189	10.40	1.053	42.70	89.00	.8023	.4228
#1	.4156	1.006	.0146	.0052	.2981	-.0071	-.0014	218.7	19.01
#2	.4176	.9819	.0155	.0044	.2933	-.0028	-.0003	221.0	18.85
#3	.4172	.9817	.0158	.0043	.2924	-.0056	-.0030	217.6	18.97

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **282.0**	**85.63**	**82.94**	**2.891**	**.0091**	**.0044**	**1.208**	**.0229**	**.1298**
Stddev	2.9	.44	.36	.012	.0007	.0001	.019	.0002	.0007
%RSD	1.043	.5175	.4311	.4133	7.425	1.997	1.566	1.075	.5163
#1	278.7	86.06	83.20	2.897	.0099	.0043	1.229	.0230	.1303
#2	283.9	85.17	82.53	2.877	.0089	.0044	1.199	.0231	.1290
#3	283.6	85.66	83.09	2.899	.0086	.0045	1.195	.0227	.1299

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **17.81**	**-.0020**	**.0222**	**1.489**	**.5934**	**.2061**	**4.497**
Stddev	.11	.0006	.0002	.025	.0033	.0027	.040
%RSD	.5926	32.58	.6984	1.687	.5514	1.320	.8938
#1	17.92	-.0013	.0221	1.517	.5930	.2085	4.540
#2	17.79	-.0025	.0224	1.468	.5968	.2032	4.460
#3	17.71	-.0022	.0223	1.481	.5903	.2065	4.489

Zoom In Zoom Out

Sample Name: jc87321-2 Acquired: 5/4/2019 0:49:03 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**150890.**	**29634.**	**6525.8**	**8961.4**
Stddev	230.	20.	90.1	102.7
%RSD	.15215	.06869	1.3809	1.1457
#1	150920.	29634.	6421.8	8843.1
#2	151100.	29613.	6577.1	9014.4
#3	150640.	29654.	6578.6	9026.7

Zoom In Zoom Out

Sample Name: ccv Acquired: 5/4/2019 0:54:34 Type: QC
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.037**	**2.035**	**2.009**	**2.045**	**2.028**	**2.058**	**2.083**	**2.071**	**.2527**
Stddev	.019	.018	.013	.010	.014	.011	.013	.011	.0012
%RSD	.9527	.8836	.6476	.4868	.6639	.5154	.6109	.5319	.4765
#1	2.060	2.056	2.009	2.043	2.037	2.062	2.070	2.068	.2538
#2	2.026	2.025	2.022	2.056	2.035	2.066	2.083	2.084	.2528
#3	2.026	2.025	1.996	2.036	2.013	2.046	2.095	2.063	.2514
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.996**	**1.997**	**2.004**	**2.123**	**2.041**	**2.037**	**2.005**	**40.55**	**41.45**
Stddev	.013	.013	.010	.009	.010	.011	.010	.36	.38
%RSD	.6684	.6515	.4878	.4298	.4899	.5137	.4984	.8767	.9126
#1	2.006	1.997	2.006	2.127	2.036	2.036	2.005	40.96	41.89
#2	2.001	2.011	2.013	2.129	2.053	2.047	2.015	40.35	41.22
#3	1.981	1.985	1.994	2.112	2.035	2.026	1.995	40.34	41.24
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**41.27**	**40.29**	**40.41**	**41.03**	**2.085**	**2.051**	**5.321**	**1.990**	**2.113**
Stddev	.37	.36	.34	.35	.015	.013	.031	.012	.018
%RSD	.8999	.8986	.8536	.8454	.7095	.6535	.5815	.6173	.8343
#1	41.70	40.70	40.81	41.43	2.085	2.053	5.315	1.988	2.133
#2	41.05	40.15	40.25	40.87	2.099	2.064	5.355	2.003	2.104
#3	41.06	40.02	40.17	40.79	2.070	2.037	5.294	1.978	2.101
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ccv Acquired: 5/4/2019 0:54:34 Type: QC
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.041**	**1.989**	**2.008**	**1.986**	**2.098**	**1.933**	**1.995**
Stddev	.014	.014	.013	.013	.012	.019	.009
%RSD	.6684	.7195	.6542	.6499	.5635	.9602	.4725
#1	2.052	1.989	2.017	1.995	2.097	1.954	1.991
#2	2.046	2.003	2.015	1.993	2.110	1.923	2.005
#3	2.026	1.975	1.993	1.971	2.086	1.921	1.988
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**141080.**	**27076.**	**6158.7**	**8922.1**
Stddev	727.	163.	45.7	50.2
%RSD	.51522	.60254	.74157	.56305
#1	140630.	26898.	6153.5	8923.9
#2	140690.	27219.	6115.9	8871.0
#3	141910.	27109.	6206.8	8971.5

Zoom In Zoom Out

Sample Name: ccb Acquired: 5/4/2019 0:59:36 Type: QC
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0001**	**.0002**	**.0000**	**.0000**	**.0005**	**.0003**	**.0003**	**-.0002**
Stddev	.0001	.0000	.0002	.0003	.0001	.0002	.0000	.0002	.0004
%RSD	29.11	36.66	63.55	723.2	155.1	48.93	12.20	58.16	166.3
#1	.0002	.0001	.0002	.0003	.0000	.0003	.0004	.0005	-.0003
#2	.0002	.0001	.0001	.0002	.0001	.0005	.0003	.0002	.0002
#3	.0001	.0002	.0004	-.0003	-.0000	.0007	.0003	.0002	-.0006
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**-.0002**	**-.0000**	**.0014**	**-.0009**	**.0003**	**.0024**	**-.0083**	**-.0019**
Stddev	.0004	.0001	.0010	.0004	.0011	.0024	.0023	.0051	.0021
%RSD	517.5	40.11	7448.	31.86	119.9	760.1	92.43	61.66	108.5
#1	-.0002	-.0002	.0010	.0017	-.0011	-.0021	.0049	-.0082	-.0027
#2	.0005	-.0001	-.0010	.0016	.0003	.0027	.0005	-.0033	-.0034
#3	.0000	-.0003	.0000	.0009	-.0019	.0003	.0019	-.0136	.0004
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0050**	**.0145**	**.2168**	**.1055**	**.0012**	**.0004**	**.0004**	**-.0012**	**.0002**
Stddev	.0020	.0119	.0401	.0051	.0007	.0002	.0015	.0003	.0001
%RSD	40.91	81.91	18.51	4.831	59.73	40.95	412.5	26.29	56.91
#1	.0054	.0101	.2598	.1012	.0017	.0003	.0016	-.0011	.0001
#2	.0028	.0279	.2103	.1111	.0004	.0006	-.0013	-.0009	.0002
#3	.0068	.0054	.1803	.1040	.0015	.0004	.0008	-.0016	.0003
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: ccb Acquired: 5/4/2019 0:59:36 Type: QC
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0006**	**-.0005**	**.0004**	**-.0008**	**.0020**	**.0008**	**.0159**
Stddev	.0002	.0006	.0001	.0006	.0008	.0007	.0014
%RSD	34.89	121.4	25.07	75.49	39.62	90.57	9.071
#1	.0005	.0002	.0004	-.0002	.0027	.0005	.0170
#2	.0008	-.0009	.0005	-.0014	.0011	.0002	.0142
#3	.0004	-.0006	.0003	-.0008	.0020	.0016	.0164
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**152170.**	**27548.**	**6431.1**	**9876.0**
Stddev	1628.	194.	13.5	14.3
%RSD	1.0700	.70294	.20928	.14477
#1	153660.	27478.	6438.7	9885.6
#2	152410.	27767.	6415.6	9859.6
#3	150430.	27399.	6439.1	9882.9

Zoom In Zoom Out

Sample Name: jc87321-3 Acquired: 5/4/2019 1:04:44 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3345**	**.0041**	**-.0000**	**.0876**	**.1834**	**.2136**	**4.554**	**.0435**
Stddev	.0026	.0001	.0002	.0019	.0014	.0019	.035	.0011
%RSD	.7803	1.500	476.3	2.220	.7470	.8882	.7733	2.488
#1	.3334	.0041	-.0003	.0888	.1839	.2145	4.594	.0442
#2	.3327	.0041	.0001	.0886	.1845	.2148	4.529	.0441
#3	.3375	.0042	.0001	.0854	.1819	.2114	4.539	.0423

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0014**	**.2507**	**.1243**	**.0244**	**.0026**	**.2134**	**-.0002**	F **-.0036**
Stddev	.0004	.0015	.0033	.0014	.0013	.0041	.0028	.0011
%RSD	31.00	.6006	2.664	5.825	51.24	1.933	1242.	31.60
#1	-.0016	.2515	.1268	.0251	.0018	.2170	-.0028	-.0023
#2	-.0018	.2517	.1256	.0227	.0019	.2143	-.0007	-.0042
#3	-.0009	.2490	.1205	.0252	.0041	.2089	.0028	-.0044

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**92.65**	**8.353**	**146.8**	**5.142**	**4.079**	**1.730**	**.0096**	**.0040**
Stddev	.57	.054	1.0	.032	.024	.003	.0004	.0003
%RSD	.6193	.6450	.7130	.6156	.5759	.1910	4.657	6.949
#1	92.31	8.309	148.0	5.117	4.096	1.727	.0097	.0038
#2	92.33	8.337	146.5	5.131	4.087	1.733	.0099	.0043
#3	93.31	8.413	146.0	5.178	4.052	1.732	.0091	.0040

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.880**	**.0207**	**.1203**	**1.487**	**.0019**	**.0362**	**.6623**	**.0491**
Stddev	.073	.0006	.0008	.010	.0004	.0004	.0213	.0021
%RSD	3.901	2.910	.6540	.6600	19.61	.9861	3.214	4.356
#1	1.937	.0207	.1198	1.493	.0016	.0364	.6801	.0479
#2	1.906	.0214	.1198	1.492	.0019	.0364	.6681	.0478
#3	1.797	.0202	.1212	1.476	.0023	.0358	.6387	.0516

Zoom In Zoom Out

Sample Name: jc87321-3 Acquired: 5/4/2019 1:04:44 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Li6707	P_1774
Units	ppm	ppm
Avg	**.0300**	**1.869**
Stddev	.0011	.056
%RSD	3.633	2.997
#1	.0313	1.912
#2	.0294	1.889
#3	.0294	1.806

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**153130.**	**29156.**	**6775.4**	**9508.7**
Stddev	559.	132.	157.2	197.0
%RSD	.36536	.45387	2.3197	2.0718
#1	152500.	29294.	6638.1	9342.0
#2	153570.	29145.	6741.3	9457.9
#3	153320.	29030.	6946.8	9726.1

Zoom In Zoom Out

Sample Name: mp14646-mb1conf Acquired: 5/4/2019 1:10:01 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0002**	**-.0001**	**.0000**	**-.0002**	**.0002**	**.0008**	**.0002**	**.0002**	**-.0002**
Stddev	.0001	.0000	.0001	.0003	.0001	.0006	.0000	.0002	.0004
%RSD	37.29	40.83	732.2	122.9	62.08	68.17	18.40	85.21	166.6
#1	-.0003	-.0001	.0002	-.0005	.0002	.0010	.0002	.0005	.0001
#2	-.0002	-.0002	-.0000	-.0001	.0001	.0002	.0002	.0001	-.0007
#3	-.0001	-.0001	-.0001	-.0000	.0004	.0013	.0002	.0002	-.0001

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0004**	**.0015**	**-.0008**	**-.0003**	**-.0007**	**.0020**	**.0020**	**-.0012**	**.0057**
Stddev	.0000	.0000	.0002	.0008	.0006	.0005	.0007	.0055	.0025
%RSD	4.478	1.433	23.15	325.7	89.43	23.02	33.62	468.7	43.39
#1	-.0004	.0015	-.0007	.0007	-.0014	.0020	.0027	-.0048	.0082
#2	-.0004	.0015	-.0010	-.0009	-.0001	.0015	.0020	.0052	.0033
#3	-.0005	.0016	-.0006	-.0005	-.0006	.0024	.0014	-.0039	.0055

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0091**	**-.0005**	**.1319**	**.0823**	**.0010**	**.0003**	**.0076**	**-.0014**	**.0001**
Stddev	.0014	.0065	.0185	.0122	.0002	.0001	.0006	.0005	.0001
%RSD	14.91	1437.	14.02	14.79	17.91	34.71	8.203	33.61	77.88
#1	.0106	-.0060	.1222	.0856	.0008	.0002	.0083	-.0014	.0001
#2	.0079	.0067	.1204	.0924	.0011	.0003	.0070	-.0019	.0000
#3	.0087	-.0020	.1533	.0688	.0011	.0003	.0076	-.0009	.0002

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0008**	**.0008**	**.0006**	**.0023**	**.0003**	**-.0017**	**.0121**
Stddev	.0002	.0004	.0000	.0011	.0006	.0003	.0005
%RSD	23.06	59.19	6.258	45.17	204.8	19.96	4.075
#1	.0007	.0010	.0006	.0035	-.0003	-.0018	.0119
#2	.0010	.0010	.0007	.0019	.0002	-.0014	.0118
#3	.0007	.0002	.0007	.0015	.0010	-.0021	.0127

Zoom In Zoom Out

Sample Name: mp14646-mb1conf Acquired: 5/4/2019 1:10:01 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**153680.**	**28199.**	**6527.7**	**9965.1**
Stddev	232.	37.	19.4	18.4
%RSD	.15129	.13116	.29727	.18437
#1	153780.	28241.	6531.9	9969.9
#2	153410.	28189.	6506.6	9944.8
#3	153840.	28169.	6544.7	9980.5

Zoom In Zoom Out

Sample Name: mp14646-b1conf Acquired: 5/4/2019 1:15:07 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.079**	**2.080**	**2.033**	**2.081**	**2.045**	**2.097**	**2.098**	**2.109**	**.2604**
Stddev	.004	.003	.003	.004	.002	.004	.013	.003	.0005
%RSD	.1800	.1587	.1341	.1722	.0727	.2161	.5982	.1440	.1731
#1	2.083	2.083	2.032	2.078	2.046	2.102	2.091	2.107	.2605
#2	2.078	2.080	2.031	2.079	2.046	2.094	2.090	2.107	.2608
#3	2.076	2.077	2.036	2.085	2.044	2.095	2.112	2.112	.2599

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.011**	**2.021**	**1.991**	**2.181**	**2.083**	**2.059**	**2.007**	**25.69**	**26.49**
Stddev	.001	.005	.004	.006	.005	.003	.002	.04	.03
%RSD	.0529	.2422	.2022	.2931	.2389	.1309	.0933	.1719	.1301
#1	2.012	2.019	1.990	2.177	2.080	2.060	2.008	25.74	26.52
#2	2.010	2.018	1.988	2.176	2.081	2.056	2.005	25.68	26.49
#3	2.012	2.027	1.996	2.188	2.089	2.062	2.008	25.65	26.45

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**26.44**	**25.53**	**25.67**	**26.28**	**2.083**	**2.065**	**.0186**	**1.997**	**2.161**
Stddev	.05	.07	.03	.04	.004	.005	.0009	.005	.003
%RSD	.1728	.2896	.0991	.1626	.1772	.2514	4.889	.2323	.1536
#1	26.49	25.56	25.70	26.33	2.084	2.065	.0189	1.999	2.164
#2	26.45	25.59	25.66	26.26	2.078	2.060	.0193	1.992	2.161
#3	26.39	25.45	25.66	26.25	2.086	2.070	.0176	2.001	2.157

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.035**	**1.944**	**1.992**	**.0236**	**.1174**	**-.0034**	**2.053**
Stddev	.001	.003	.002	.0014	.0012	.0017	.003
%RSD	.0625	.1719	.0807	5.859	1.013	51.08	.1416
#1	2.037	1.946	1.994	.0241	.1166	-.0053	2.053
#2	2.034	1.940	1.991	.0246	.1169	-.0023	2.056
#3	2.035	1.945	1.992	.0220	.1188	-.0024	2.051

Zoom In Zoom Out

Sample Name: mp14646-b1conf Acquired: 5/4/2019 1:15:07 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**146260.**	**27949.**	**6318.2**	**9183.6**
Stddev	43.	71.	23.2	36.8
%RSD	.02949	.25416	.36694	.40043
#1	146300.	27905.	6326.8	9201.9
#2	146220.	27912.	6335.8	9207.6
#3	146250.	28031.	6291.9	9141.3

Zoom In Zoom Out

Sample Name: mp14776-s1 Acquired: 5/4/2019 1:20:07 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.262**	**1.943**	**1.905**	**1.992**	**1.990**	**2.126**	**6.042**	**2.120**	**.2386**
Stddev	.029	.026	.007	.006	.007	.007	.040	.007	.0015
%RSD	1.302	1.315	.3616	.2991	.3579	.3499	.6589	.3411	.6430
#1	2.295	1.972	1.904	1.991	1.998	2.135	6.085	2.119	.2403
#2	2.239	1.924	1.913	1.999	1.988	2.122	6.007	2.128	.2373
#3	2.254	1.933	1.899	1.987	1.985	2.122	6.033	2.114	.2383

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.004**	**2.563**	**2.034**	**1.989**	**2.042**	**1.887**	**1.389**	**100.7**	**109.6**
Stddev	.005	.008	.007	.004	.005	.008	.009	1.4	2.6
%RSD	.2307	.3001	.3423	.1826	.2282	.4136	.6652	1.358	2.353
#1	2.009	2.562	2.033	1.991	2.041	1.883	1.384	102.3	112.5
#2	2.003	2.571	2.041	1.991	2.046	1.896	1.400	99.62	107.6
#3	2.000	2.556	2.028	1.985	2.037	1.882	1.383	100.3	108.6

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **258.0**	**49.16**	**36.54**	**25.64**	**1.876**	**1.896**	**5.072**	**1.808**	**2.199**
Stddev	5.1	.70	.45	.35	.008	.007	.038	.004	.030
%RSD	1.966	1.415	1.232	1.349	.4266	.3754	.7432	.2238	1.371
#1	262.7	49.93	37.04	26.02	1.873	1.894	5.074	1.808	2.233
#2	252.7	48.58	36.18	25.35	1.885	1.904	5.108	1.812	2.175
#3	258.6	48.95	36.38	25.54	1.869	1.890	5.033	1.804	2.189

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.355**	**1.085**	**1.925**	**3.824**	**.1134**	**.1145**	**5.051**
Stddev	.004	.004	.004	.016	.0010	.0008	.034
%RSD	.1653	.4063	.1823	.4170	.8388	.7275	.6687
#1	2.358	1.083	1.929	3.825	.1124	.1154	5.012
#2	2.351	1.090	1.924	3.839	.1141	.1144	5.069
#3	2.355	1.081	1.922	3.807	.1139	.1137	5.072

Zoom In Zoom Out

Sample Name: mp14776-s1 Acquired: 5/4/2019 1:20:07 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**147050.**	**28428.**	**6370.6**	**9083.8**
Stddev	674.	331.	12.2	10.8
%RSD	.45848	1.1656	.19149	.11900
#1	146290.	28103.	6379.1	9094.2
#2	147570.	28766.	6356.6	9072.7
#3	147280.	28415.	6376.1	9084.5

Zoom In Zoom Out

Sample Name: mp14776-s2 Acquired: 5/4/2019 1:25:24 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.215**	**1.949**	**1.922**	**1.999**	**1.989**	**2.149**	**4.889**	**2.104**	**.2397**
Stddev	.009	.008	.003	.003	.009	.008	.025	.003	.0017
%RSD	.3855	.4251	.1284	.1701	.4779	.3600	.5205	.1501	.7026
#1	2.224	1.957	1.920	1.995	1.981	2.141	4.882	2.101	.2385
#2	2.216	1.950	1.922	2.000	2.000	2.157	4.917	2.104	.2416
#3	2.207	1.941	1.925	2.002	1.988	2.148	4.867	2.107	.2389

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.978**	**2.579**	**2.050**	**2.015**	**2.071**	**1.903**	**1.460**	**90.30**	**78.06**
Stddev	.007	.002	.001	.005	.003	.003	.003	.46	.83
%RSD	.3623	.0891	.0451	.2450	.1431	.1301	.2130	.5064	1.064
#1	1.971	2.577	2.049	2.015	2.068	1.902	1.457	90.73	78.68
#2	1.985	2.580	2.051	2.009	2.071	1.901	1.463	90.36	78.38
#3	1.979	2.581	2.049	2.019	2.074	1.906	1.461	89.82	77.11

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **226.9**	**41.79**	**34.86**	**25.51**	**1.899**	**1.929**	**5.785**	**1.840**	**2.167**
Stddev	2.6	.15	.14	.13	.005	.002	.042	.001	.010
%RSD	1.156	.3645	.4061	.5225	.2523	.0995	.7236	.0704	.4561
#1	224.9	41.94	34.99	25.64	1.893	1.927	5.746	1.839	2.176
#2	229.8	41.79	34.87	25.52	1.900	1.928	5.780	1.841	2.167
#3	225.9	41.64	34.71	25.37	1.903	1.931	5.829	1.841	2.157

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.211**	**1.169**	**1.936**	**2.486**	**.1086**	**.0924**	**4.404**
Stddev	.011	.005	.008	.006	.0016	.0008	.006
%RSD	.5119	.4017	.3932	.2584	1.464	.8449	.1316
#1	2.199	1.164	1.929	2.488	.1068	.0927	4.398
#2	2.222	1.169	1.944	2.478	.1098	.0916	4.402
#3	2.212	1.174	1.937	2.490	.1092	.0931	4.410

Zoom In Zoom Out

Sample Name: mp14776-s2 Acquired: 5/4/2019 1:25:24 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**147830.**	**28650.**	**6373.9**	**9117.4**
Stddev	773.	146.	6.1	13.1
%RSD	.52300	.51064	.09499	.14396
#1	148070.	28508.	6380.9	9132.3
#2	146960.	28642.	6371.2	9112.2
#3	148440.	28800.	6369.7	9107.7

Zoom In Zoom Out

Sample Name: jc87355-1 Acquired: 5/4/2019 1:30:35 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2446**	**.0031**	**.0006**	**.0531**	**.0725**	**.1248**	**4.068**	**.1432**	**-.0027**
Stddev	.0030	.0000	.0001	.0004	.0004	.0006	.029	.0003	.0008
%RSD	1.234	1.606	8.917	.7237	.5923	.4744	.7170	.2328	27.99
#1	.2467	.0031	.0007	.0529	.0729	.1251	4.060	.1433	-.0032
#2	.2411	.0030	.0006	.0535	.0725	.1241	4.044	.1434	-.0031
#3	.2460	.0031	.0006	.0528	.0721	.1251	4.100	.1428	-.0018

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0984**	**.7243**	**.1253**	**.0008**	**.1366**	**-.0047**	**-.0004**	**43.96**	**199.2**
Stddev	.0006	.0024	.0007	.0020	.0018	.0024	.0006	.51	2.5
%RSD	.5873	.3312	.5237	234.0	1.328	50.82	138.8	1.163	1.250
#1	.0991	.7260	.1247	.0003	.1345	-.0062	.0002	44.31	199.3
#2	.0981	.7254	.1260	-.0008	.1373	-.0060	-.0010	43.38	196.8
#3	.0980	.7216	.1252	.0030	.1378	-.0019	-.0005	44.20	201.7

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **202.5**	**82.96**	**7.307**	**.6157**	**.0244**	**.0095**	**2.821**	**.0159**	**.1886**
Stddev	4.1	.88	.061	.0097	.0005	.0006	.046	.0004	.0022
%RSD	2.003	1.066	.8301	1.572	1.904	6.025	1.634	2.435	1.171
#1	201.5	83.63	7.331	.6114	.0249	.0097	2.839	.0161	.1901
#2	199.1	81.95	7.238	.6089	.0242	.0089	2.855	.0155	.1860
#3	207.0	83.29	7.353	.6268	.0240	.0100	2.769	.0162	.1896

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3744**	**.0086**	**.0503**	**2.872**	**.0120**	**.0756**	**4.661**
Stddev	.0004	.0007	.0005	.010	.0028	.0016	.020
%RSD	.1006	8.308	.9973	.3542	23.64	2.162	.4279
#1	.3741	.0093	.0509	2.868	.0102	.0774	4.658
#2	.3743	.0085	.0500	2.884	.0153	.0745	4.643
#3	.3748	.0079	.0500	2.865	.0106	.0748	4.683

Zoom In Zoom Out

Sample Name: jc87355-1 Acquired: 5/4/2019 1:30:35 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**149010.**	**29089.**	**6417.9**	**8932.5**
Stddev	1295.	230.	22.7	20.2
%RSD	.86899	.79062	.35310	.22661
#1	147570.	28846.	6400.4	8915.1
#2	149410.	29303.	6409.8	8927.6
#3	150060.	29118.	6443.5	8954.7

Zoom In Zoom Out

Sample Name: mp14776-sd1 Acquired: 5/4/2019 1:35:58 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2554**	**.0030**	**.0009**	**.0531**	**.0781**	**.1338**	**4.461**	**.1446**	**-.0007**
Stddev	.0009	.0003	.0009	.0017	.0004	.0010	.016	.0039	.0036
%RSD	.3495	10.27	93.32	3.156	.5535	.7507	.3510	2.713	491.1
#1	.2561	.0027	-.0001	.0517	.0778	.1340	4.468	.1402	-.0047
#2	.2544	.0031	.0012	.0550	.0786	.1327	4.472	.1459	.0023
#3	.2558	.0033	.0016	.0526	.0779	.1346	4.443	.1477	.0002

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1047**	**.7743**	**.1311**	**-.0013**	**.1373**	**-.0016**	**.0031**	**46.43**	**216.7**
Stddev	.0007	.0205	.0013	.0022	.0043	.0046	.0064	.01	.2
%RSD	.6337	2.649	.9997	162.0	3.166	290.9	205.7	.0290	.0732
#1	.1042	.7506	.1316	-.0010	.1323	.0014	-.0042	46.44	216.6
#2	.1055	.7860	.1322	.0006	.1393	.0007	.0076	46.41	216.7
#3	.1044	.7863	.1297	-.0037	.1402	-.0068	.0059	46.43	216.9

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**223.8**	**90.68**	**8.233**	**1.053**	**.0351**	**.0108**	**2.984**	**.0096**	**.2006**
Stddev	.2	.26	.137	.022	.0015	.0013	.053	.0014	.0002
%RSD	.1057	.2866	1.663	2.123	4.168	12.53	1.777	14.89	.0902
#1	223.5	90.38	8.374	1.078	.0337	.0098	2.929	.0089	.2008
#2	223.8	90.85	8.100	1.037	.0366	.0123	2.988	.0112	.2006
#3	224.0	90.80	8.224	1.043	.0352	.0102	3.035	.0087	.2004

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3994**	**.0197**	**.0538**	**2.890**	**.0047**	**.0717**	**4.899**
Stddev	.0104	.0043	.0004	.080	.0060	.0033	.121
%RSD	2.598	21.94	.8247	2.752	127.3	4.543	2.460
#1	.3876	.0174	.0534	2.798	.0104	.0724	4.763
#2	.4071	.0171	.0543	2.931	.0055	.0681	4.993
#3	.4035	.0247	.0538	2.940	-.0016	.0745	4.940

Zoom In Zoom Out

Sample Name: mp14776-sd1 Acquired: 5/4/2019 1:35:58 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**148130.**	**27676.**	**6425.4**	**9428.0**
Stddev	830.	28.	148.9	187.3
%RSD	.56043	.09946	2.3175	1.9865
#1	148090.	27673.	6597.3	9644.0
#2	147320.	27705.	6337.8	9311.2
#3	148980.	27650.	6341.1	9328.7

Zoom In Zoom Out

Sample Name: jc87266-1 Acquired: 5/4/2019 1:41:02 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2843**	**.0038**	**.0004**	**.0688**	**.1621**	**.1254**	**3.144**	**.1790**	**-.0011**
Stddev	.0018	.0000	.0001	.0009	.0010	.0005	.008	.0017	.0006
%RSD	.6504	.8255	40.39	1.344	.6472	.3865	.2668	.9224	56.93
#1	.2857	.0037	.0002	.0683	.1623	.1259	3.134	.1782	-.0012
#2	.2849	.0037	.0005	.0699	.1631	.1253	3.147	.1808	-.0017
#3	.2822	.0038	.0004	.0682	.1610	.1250	3.150	.1778	-.0004

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1911**	**.3574**	**.0355**	**.0008**	**.0517**	**-.0030**	**-.0009**	**89.99**	**16.00**
Stddev	.0007	.0043	.0002	.0008	.0009	.0015	.0000	.73	.12
%RSD	.3806	1.203	.6767	96.24	1.778	48.41	3.467	.8086	.7732
#1	.1907	.3551	.0357	.0012	.0516	-.0037	-.0009	90.62	16.11
#2	.1919	.3623	.0352	-.0001	.0526	-.0040	-.0009	90.15	16.03
#3	.1907	.3546	.0355	.0013	.0508	-.0013	-.0010	89.19	15.86

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**153.0**	**39.53**	**10.28**	**.9437**	**.0040**	**.0031**	**2.479**	**.0160**	**.0972**
Stddev	1.2	.30	.09	.0142	.0008	.0003	.023	.0004	.0008
%RSD	.7586	.7491	.8941	1.510	20.80	10.68	.9334	2.258	.8683
#1	153.8	39.79	10.35	.9556	.0031	.0033	2.484	.0161	.0979
#2	151.7	39.59	10.30	.9475	.0042	.0033	2.499	.0155	.0974
#3	153.6	39.21	10.17	.9279	.0048	.0027	2.454	.0162	.0962

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.264**	**.0034**	**.0361**	**.2005**	**.2155**	**.1211**	**4.737**
Stddev	.023	.0009	.0001	.0033	.0022	.0015	.058
%RSD	.4425	26.34	.4046	1.662	1.003	1.222	1.219
#1	5.264	.0039	.0360	.1983	.2177	.1213	4.746
#2	5.288	.0038	.0361	.2043	.2153	.1224	4.790
#3	5.241	.0023	.0363	.1988	.2134	.1195	4.676

Zoom In Zoom Out

Sample Name: jc87266-1 Acquired: 5/4/2019 1:41:02 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**151970.**	**29017.**	**6571.3**	**9213.1**
Stddev	223.	67.	71.3	79.4
%RSD	.14679	.23206	1.0843	.86230
#1	152220.	28940.	6625.1	9273.0
#2	151840.	29068.	6490.5	9123.0
#3	151840.	29042.	6598.2	9243.3

Zoom In Zoom Out

Sample Name: jc87266-2 Acquired: 5/4/2019 1:46:21 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1239**	**.0017**	**.0001**	**.0579**	**.1206**	**.0501**	**1.665**	**.1252**	**-.0008**
Stddev	.0006	.0001	.0001	.0004	.0006	.0002	.007	.0010	.0002
%RSD	.4561	5.069	143.8	.7703	.4665	.3953	.4426	.7732	27.01
#1	.1244	.0017	-.0000	.0584	.1202	.0500	1.657	.1262	-.0006
#2	.1233	.0016	.0002	.0576	.1203	.0499	1.665	.1243	-.0009
#3	.1238	.0018	.0001	.0577	.1213	.0503	1.672	.1250	-.0010

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1314**	**.2126**	**.0394**	**.0004**	**.0349**	**-.0034**	**.0003**	**52.77**	**11.18**
Stddev	.0008	.0015	.0019	.0011	.0014	.0009	.0018	.13	.02
%RSD	.6117	.7110	4.882	267.4	4.126	27.37	606.9	.2406	.1828
#1	.1304	.2143	.0415	.0016	.0364	-.0039	.0024	52.82	11.19
#2	.1320	.2118	.0379	.0003	.0349	-.0023	-.0005	52.62	11.15
#3	.1317	.2116	.0387	-.0006	.0335	-.0040	-.0010	52.86	11.19

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**119.5**	**27.38**	**5.041**	**.8929**	**.0023**	**.0050**	**2.088**	**.0177**	**.0813**
Stddev	.2	.02	.046	.0053	.0005	.0004	.029	.0006	.0001
%RSD	.1443	.0616	.9078	.5935	23.90	7.450	1.369	3.435	.1415
#1	119.6	27.40	4.989	.8875	.0028	.0054	2.108	.0171	.0814
#2	119.3	27.37	5.062	.8932	.0017	.0047	2.100	.0183	.0812
#3	119.6	27.39	5.073	.8981	.0023	.0050	2.055	.0177	.0814

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.885**	**.0021**	**.0298**	**.0713**	**.1144**	**.0763**	**2.537**
Stddev	.012	.0010	.0002	.0043	.0019	.0010	.028
%RSD	.4267	47.87	.5248	6.078	1.689	1.320	1.087
#1	2.872	.0031	.0299	.0762	.1126	.0766	2.568
#2	2.886	.0022	.0296	.0696	.1142	.0771	2.527
#3	2.896	.0011	.0297	.0680	.1165	.0752	2.516

Zoom In Zoom Out

Sample Name: jc87266-2 Acquired: 5/4/2019 1:46:21 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**148310.**	**28069.**	**6417.1**	**9298.5**
Stddev	421.	93.	57.5	78.6
%RSD	.28364	.33136	.89639	.84493
#1	148650.	28064.	6352.4	9210.1
#2	148440.	27978.	6436.5	9324.9
#3	147840.	28164.	6462.4	9360.4

Zoom In Zoom Out

Sample Name: jc87266-3 Acquired: 5/4/2019 1:51:23 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3371**	**.0044**	**.0007**	**.0915**	**.2126**	**.1696**	**4.529**	**.2153**	**-.0019**
Stddev	.0003	.0000	.0001	.0003	.0007	.0001	.023	.0003	.0008
%RSD	.1016	.2800	17.29	.2842	.3294	.0861	.5088	.1305	43.12
#1	.3367	.0044	.0008	.0917	.2127	.1698	4.549	.2152	-.0017
#2	.3373	.0044	.0007	.0917	.2132	.1695	4.534	.2157	-.0028
#3	.3372	.0044	.0006	.0912	.2118	.1695	4.504	.2151	-.0012

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2398**	**.6971**	**.0512**	**.0017**	**.0943**	**-.0046**	**-.0011**	**134.0**	**11.08**
Stddev	.0009	.0019	.0006	.0005	.0012	.0010	.0006	.1	.01
%RSD	.3585	.2689	1.240	27.93	1.251	20.71	56.62	.1003	.0529
#1	.2400	.6950	.0505	.0012	.0955	-.0035	-.0008	133.8	11.07
#2	.2406	.6980	.0515	.0021	.0942	-.0050	-.0007	134.0	11.08
#3	.2389	.6985	.0518	.0018	.0931	-.0053	-.0018	134.0	11.08

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **206.5**	**49.17**	**11.25**	**.9447**	**.0064**	**.0052**	**2.437**	**.0148**	**.0707**
Stddev	2.1	.07	.03	.0120	.0007	.0003	.021	.0006	.0001
%RSD	1.022	.1488	.2390	1.274	11.12	5.730	.8622	3.877	.0917
#1	206.6	49.14	11.23	.9316	.0056	.0051	2.447	.0146	.0706
#2	204.4	49.25	11.24	.9552	.0070	.0055	2.451	.0155	.0707
#3	208.6	49.11	11.28	.9475	.0066	.0049	2.413	.0144	.0707

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.167**	**.0011**	**.0135**	**1.515**	**.2149**	**.1531**	**7.846**
Stddev	.022	.0015	.0001	.005	.0040	.0012	.052
%RSD	.4225	131.4	.7063	.3575	1.863	.7808	.6586
#1	5.172	.0000	.0136	1.509	.2180	.1541	7.790
#2	5.186	.0028	.0134	1.516	.2163	.1534	7.857
#3	5.144	.0005	.0134	1.520	.2104	.1518	7.891

Zoom In Zoom Out

Sample Name: jc87266-3 Acquired: 5/4/2019 1:51:23 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**149970.**	**28811.**	**6582.3**	**9247.9**
Stddev	652.	19.	30.1	33.9
%RSD	.43472	.06667	.45794	.36690
#1	149920.	28822.	6615.6	9285.7
#2	149350.	28789.	6574.2	9238.0
#3	150650.	28822.	6556.9	9220.1

Zoom In Zoom Out

Sample Name: ccv Acquired: 5/4/2019 1:56:40 Type: QC
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.056**	**2.045**	**2.000**	**2.041**	**2.004**	**2.044**	**2.031**	**2.074**	**.2498**
Stddev	.006	.006	.068	.061	.027	.029	.017	.062	.0036
%RSD	.2935	.3005	3.397	2.973	1.364	1.425	.8336	2.987	1.430
#1	2.059	2.046	1.924	1.973	2.029	2.070	2.049	2.005	.2529
#2	2.049	2.038	2.056	2.090	1.975	2.012	2.030	2.125	.2459
#3	2.061	2.050	2.020	2.059	2.007	2.049	2.015	2.092	.2505
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.967**	**1.987**	**2.001**	**2.116**	**2.044**	**2.036**	**2.003**	**40.79**	**41.85**
Stddev	.023	.069	.066	.048	.058	.066	.073	.13	.15
%RSD	1.181	3.444	3.286	2.267	2.843	3.236	3.665	.3202	.3558
#1	1.990	1.912	1.927	2.061	1.979	1.963	1.922	40.82	41.89
#2	1.943	2.045	2.053	2.152	2.091	2.091	2.065	40.64	41.69
#3	1.968	2.005	2.022	2.134	2.061	2.054	2.024	40.90	41.98
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**41.51**	**40.22**	**40.52**	**41.34**	**2.085**	**2.057**	**5.307**	**1.974**	**2.130**
Stddev	.13	.14	.16	.11	.073	.072	.186	.065	.006
%RSD	.3176	.3449	.3992	.2727	3.499	3.485	3.509	3.271	.2685
#1	41.56	40.25	40.58	41.41	2.003	1.978	5.099	1.902	2.134
#2	41.36	40.07	40.34	41.21	2.143	2.118	5.459	2.027	2.123
#3	41.61	40.34	40.64	41.40	2.109	2.076	5.362	1.992	2.133
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ccv Acquired: 5/4/2019 1:56:40 Type: QC
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.023**	**1.995**	**1.986**	**1.983**	**2.101**	**1.933**	**2.040**
Stddev	.022	.071	.023	.058	.065	.007	.077
%RSD	1.081	3.573	1.168	2.898	3.106	.3676	3.775
#1	2.044	1.915	2.008	1.918	2.029	1.934	1.952
#2	2.000	2.053	1.962	2.027	2.157	1.925	2.098
#3	2.025	2.016	1.988	2.004	2.116	1.939	2.070
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**143160.**	**27101.**	**6172.6**	**8901.7**
Stddev	1395.	190.	185.3	221.1
%RSD	.97439	.70103	3.0027	2.4842
#1	141660.	27048.	6375.9	9145.0
#2	144410.	27312.	6013.0	8713.0
#3	143420.	26944.	6128.8	8847.1

Zoom In Zoom Out

Sample Name: ccb Acquired: 5/4/2019 2:01:42 Type: QC
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0001**	**.0002**	**.0004**	**.0002**	**.0009**	**.0003**	**.0003**	**-.0003**
Stddev	.0002	.0001	.0001	.0001	.0001	.0003	.0001	.0001	.0004
%RSD	168.1	91.52	34.74	37.89	43.76	33.22	15.11	41.60	127.9
#1	.0004	-.0000	.0001	.0005	.0002	.0007	.0003	.0002	-.0006
#2	-.0000	.0002	.0002	.0002	.0003	.0008	.0003	.0004	.0002
#3	.0000	.0001	.0001	.0004	.0002	.0013	.0004	.0002	-.0005
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**-.0002**	**-.0002**	**.0002**	**-.0009**	**.0024**	**.0017**	**-.0026**	**-.0014**
Stddev	.0004	.0001	.0009	.0003	.0012	.0005	.0013	.0081	.0027
%RSD	288.1	33.77	381.7	174.8	124.7	21.52	74.74	311.4	199.3
#1	-.0006	-.0001	-.0009	.0000	-.0000	.0023	.0009	-.0019	-.0043
#2	.0002	-.0002	-.0005	-.0000	-.0023	.0019	.0011	.0051	-.0007
#3	-.0001	-.0002	.0007	.0005	-.0005	.0029	.0031	-.0111	.0009
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0063**	**.0001**	**.1739**	**.1003**	**.0022**	**.0006**	**.0006**	**-.0009**	**.0003**
Stddev	.0016	.0077	.0168	.0092	.0001	.0002	.0004	.0005	.0001
%RSD	24.79	8516.	9.679	9.199	4.972	34.59	67.65	59.12	24.95
#1	.0045	.0010	.1628	.0979	.0021	.0007	.0011	-.0007	.0004
#2	.0074	.0073	.1933	.1105	.0022	.0006	.0004	-.0004	.0002
#3	.0070	-.0081	.1656	.0925	.0023	.0003	.0004	-.0014	.0004
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: ccb Acquired: 5/4/2019 2:01:42 Type: QC
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0010**	**.0013**	**.0006**	**.0030**	**-.0008**	**-.0011**	**.0158**
Stddev	.0004	.0004	.0002	.0015	.0008	.0002	.0003
%RSD	41.16	28.40	33.48	50.47	96.82	20.56	1.621
#1	.0013	.0016	.0007	.0024	.0000	-.0011	.0159
#2	.0005	.0014	.0007	.0047	-.0016	-.0008	.0160
#3	.0010	.0009	.0004	.0019	-.0009	-.0013	.0155
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**150020.**	**27362.**	**6400.8**	**9784.4**
Stddev	705.	103.	6.2	11.1
%RSD	.47024	.37691	.09675	.11315
#1	149260.	27257.	6406.9	9791.9
#2	150140.	27463.	6400.8	9789.6
#3	150650.	27367.	6394.5	9771.7

Zoom In Zoom Out

Sample Name: jc87266-4 Acquired: 5/4/2019 2:06:51 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1652**	**.0018**	**-.0000**	**.0718**	**.0857**	**.0569**	**1.196**	**.1033**	**-.0012**
Stddev	.0013	.0000	.0002	.0002	.0020	.0008	.024	.0003	.0003
%RSD	.7640	2.240	367.2	.2473	2.360	1.383	1.990	.2765	26.03
#1	.1666	.0018	-.0001	.0720	.0844	.0564	1.183	.1035	-.0009
#2	.1645	.0018	-.0002	.0717	.0846	.0564	1.182	.1030	-.0012
#3	.1643	.0018	.0002	.0718	.0880	.0578	1.224	.1033	-.0015

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0948**	**.1904**	**.0194**	**.0018**	**.0231**	**-.0009**	**.0003**	**46.73**	**7.556**
Stddev	.0021	.0005	.0005	.0014	.0010	.0004	.0014	.17	.025
%RSD	2.167	.2837	2.818	77.12	4.180	42.40	407.7	.3713	.3253
#1	.0937	.1909	.0189	.0018	.0239	-.0012	.0013	46.93	7.584
#2	.0936	.1898	.0194	.0031	.0220	-.0011	.0010	46.64	7.540
#3	.0972	.1905	.0200	.0004	.0235	-.0005	-.0013	46.63	7.543

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**72.41**	**22.62**	**5.553**	**1.456**	**.0036**	**.0027**	**1.854**	**.0154**	**.0406**
Stddev	.21	.04	.043	.007	.0003	.0001	.025	.0002	.0001
%RSD	.2926	.1584	.7695	.5151	6.946	3.562	1.349	1.477	.1257
#1	72.65	22.65	5.602	1.457	.0034	.0028	1.883	.0153	.0406
#2	72.25	22.58	5.531	1.463	.0035	.0026	1.836	.0152	.0405
#3	72.34	22.63	5.526	1.448	.0039	.0027	1.843	.0157	.0406

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.825**	**.0018**	**.0217**	**.1051**	**.1202**	**.0660**	**1.949**
Stddev	.055	.0006	.0003	.0020	.0036	.0023	.014
%RSD	1.943	31.65	1.379	1.927	3.034	3.522	.7272
#1	2.794	.0021	.0214	.1035	.1186	.0684	1.944
#2	2.792	.0011	.0216	.1045	.1176	.0657	1.939
#3	2.888	.0020	.0220	.1074	.1244	.0637	1.965

Zoom In Zoom Out

Sample Name: jc87266-4 Acquired: 5/4/2019 2:06:51 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**150350.**	**28406.**	**6595.2**	**9364.2**
Stddev	3013.	22.	17.2	23.9
%RSD	2.0043	.07649	.26152	.25485
#1	152210.	28404.	6584.2	9350.4
#2	151960.	28429.	6615.1	9391.8
#3	146870.	28386.	6586.3	9350.5

Zoom In Zoom Out

Sample Name: jc87266-5 Acquired: 5/4/2019 2:11:54 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5560**	**.0049**	**.0007**	**.0702**	**.1971**	**.1374**	**2.877**	**.1998**	**-.0019**
Stddev	.0014	.0000	.0001	.0005	.0006	.0007	.026	.0009	.0004
%RSD	.2537	.5062	14.21	.6749	.3081	.4964	.9178	.4484	18.79
#1	.5571	.0049	.0006	.0703	.1964	.1367	2.901	.1998	-.0015
#2	.5565	.0049	.0008	.0706	.1974	.1374	2.849	.2007	-.0021
#3	.5545	.0049	.0008	.0697	.1975	.1381	2.880	.1989	-.0021

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2144**	**.4566**	**.0361**	**.0008**	**.1023**	**-.0025**	**-.0018**	**129.1**	**11.84**
Stddev	.0009	.0014	.0005	.0022	.0008	.0005	.0012	.4	.03
%RSD	.4036	.3047	1.491	293.4	.8225	19.36	65.07	.2951	.2493
#1	.2138	.4565	.0362	-.0015	.1029	-.0019	-.0029	129.4	11.86
#2	.2154	.4580	.0367	.0029	.1026	-.0028	-.0005	129.3	11.86
#3	.2140	.4552	.0356	.0008	.1013	-.0027	-.0021	128.7	11.81

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**172.4**	**43.91**	**9.536**	**.9287**	**.0062**	**.0032**	**2.341**	**.0143**	**.1037**
Stddev	1.7	.10	.020	.0087	.0007	.0003	.009	.0002	.0002
%RSD	.9718	.2276	.2127	.9420	11.27	9.026	.3675	1.358	.2063
#1	173.2	43.93	9.532	.9279	.0058	.0031	2.350	.0142	.1039
#2	170.5	44.00	9.558	.9379	.0070	.0030	2.333	.0142	.1037
#3	173.6	43.80	9.518	.9204	.0058	.0035	2.339	.0146	.1035

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.901**	**.0037**	**.0091**	**.9362**	**.2096**	**.1392**	**7.010**
Stddev	.007	.0004	.0002	.0052	.0003	.0016	.011
%RSD	.1448	10.97	2.261	.5587	.1337	1.163	.1497
#1	4.893	.0041	.0090	.9350	.2093	.1387	7.021
#2	4.903	.0033	.0094	.9420	.2096	.1410	7.007
#3	4.907	.0037	.0090	.9317	.2099	.1379	7.001

Zoom In Zoom Out

Sample Name: jc87266-5 Acquired: 5/4/2019 2:11:54 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**150600.**	**28926.**	**6599.3**	**9192.4**
Stddev	442.	160.	13.0	24.6
%RSD	.29327	.55311	.19627	.26809
#1	151070.	28995.	6601.7	9201.2
#2	150200.	28743.	6585.3	9164.5
#3	150540.	29040.	6610.9	9211.4

Zoom In Zoom Out

Sample Name: jc87266-6 Acquired: 5/4/2019 2:17:11 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3496**	**.0025**	**.0004**	**.0863**	**.1678**	**.1572**	**6.413**	**.2726**	**-.0021**
Stddev	.0024	.0000	.0002	.0003	.0002	.0011	.009	.0006	.0005
%RSD	.6724	1.291	40.80	.3297	.1460	.7256	.1334	.2058	21.52
#1	.3484	.0026	.0003	.0860	.1675	.1559	6.423	.2733	-.0018
#2	.3523	.0025	.0006	.0865	.1680	.1580	6.408	.2722	-.0027
#3	.3481	.0025	.0004	.0865	.1679	.1577	6.407	.2723	-.0019

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1623**	**.3081**	**.0340**	**.0020**	**.0513**	**-.0034**	**-.0024**	**72.74**	**9.869**
Stddev	.0007	.0002	.0001	.0008	.0009	.0010	.0004	.53	.072
%RSD	.4008	.0516	.3308	39.48	1.681	29.05	18.24	.7271	.7252
#1	.1630	.3083	.0341	.0025	.0503	-.0043	-.0029	72.53	9.836
#2	.1622	.3080	.0338	.0025	.0517	-.0024	-.0023	73.35	9.951
#3	.1617	.3081	.0340	.0011	.0519	-.0034	-.0020	72.36	9.820

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**169.8**	**40.66**	**10.50**	**.5905**	**.0018**	**.0033**	**1.892**	**.0152**	**.0512**
Stddev	1.3	.31	.06	.0032	.0007	.0000	.012	.0002	.0005
%RSD	.7721	.7536	.5241	.5486	35.40	.7435	.6208	1.533	.8837
#1	170.0	40.54	10.48	.5903	.0020	.0033	1.879	.0152	.0511
#2	168.3	41.01	10.56	.5938	.0011	.0033	1.902	.0150	.0517
#3	170.9	40.43	10.46	.5873	.0024	.0034	1.896	.0155	.0508

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.598**	**.0008**	**.0203**	**.2138**	**.1527**	**.0887**	**3.088**
Stddev	.010	.0003	.0001	.0026	.0008	.0041	.013
%RSD	.2823	37.66	.5879	1.215	.5128	4.582	.4043
#1	3.602	.0009	.0203	.2111	.1529	.0853	3.074
#2	3.605	.0010	.0202	.2140	.1519	.0932	3.094
#3	3.586	.0004	.0204	.2163	.1534	.0877	3.097

Zoom In Zoom Out

Sample Name: jc87266-6 Acquired: 5/4/2019 2:17:11 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**150220.**	**28433.**	**6504.5**	**9281.9**
Stddev	685.	40.	16.1	15.2
%RSD	.45576	.14164	.24811	.16387
#1	150630.	28396.	6489.1	9266.9
#2	149430.	28429.	6503.0	9281.4
#3	150610.	28476.	6521.3	9297.3

Zoom In Zoom Out

Sample Name: jc87266-7 Acquired: 5/4/2019 2:22:28 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2888**	**.0027**	**.0001**	**.0747**	**.1571**	**.1334**	**3.948**	**.2058**	**-.0032**
Stddev	.0014	.0001	.0000	.0003	.0006	.0007	.023	.0001	.0005
%RSD	.4987	2.964	49.27	.4602	.3926	.5602	.5882	.0671	16.33
#1	.2896	.0027	.0001	.0743	.1572	.1342	3.973	.2056	-.0028
#2	.2896	.0027	.0001	.0750	.1564	.1331	3.927	.2057	-.0031
#3	.2871	.0026	.0000	.0748	.1576	.1328	3.943	.2059	-.0038

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1828**	**.2985**	**.0365**	**.0019**	**.0493**	**-.0050**	**-.0022**	**82.15**	**15.02**
Stddev	.0005	.0003	.0003	.0014	.0008	.0013	.0006	.52	.10
%RSD	.2762	.1085	.7965	72.69	1.528	25.06	29.41	.6366	.6792
#1	.1833	.2983	.0362	.0022	.0501	-.0037	-.0016	82.38	15.06
#2	.1824	.2988	.0365	.0032	.0488	-.0052	-.0029	82.53	15.09
#3	.1826	.2983	.0368	.0004	.0489	-.0062	-.0021	81.56	14.90

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**166.0**	**38.42**	**9.109**	**.9068**	**.0026**	**.0034**	**2.048**	**.0146**	**.0674**
Stddev	2.5	.30	.071	.0070	.0006	.0003	.030	.0004	.0004
%RSD	1.533	.7782	.7780	.7698	24.82	8.454	1.445	2.694	.5250
#1	168.9	38.53	9.120	.9015	.0026	.0037	2.077	.0147	.0676
#2	165.4	38.66	9.174	.9147	.0032	.0034	2.050	.0142	.0676
#3	163.9	38.09	9.034	.9042	.0019	.0032	2.018	.0150	.0670

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.519**	**.0005**	**.0272**	**.2261**	**.1783**	**.0971**	**4.120**
Stddev	.012	.0002	.0002	.0010	.0019	.0010	.038
%RSD	.2619	43.19	.7934	.4331	1.074	.9979	.9237
#1	4.516	.0004	.0274	.2256	.1774	.0969	4.153
#2	4.508	.0004	.0271	.2255	.1770	.0981	4.130
#3	4.532	.0008	.0270	.2272	.1805	.0962	4.078

Zoom In Zoom Out

Sample Name: jc87266-7 Acquired: 5/4/2019 2:22:28 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**152760.**	**29115.**	**6583.5**	**9268.9**
Stddev	386.	325.	4.4	11.2
%RSD	.25236	1.1149	.06675	.12066
#1	153180.	28951.	6578.5	9259.1
#2	152670.	28906.	6585.9	9266.5
#3	152420.	29489.	6586.2	9281.1

Zoom In Zoom Out

Sample Name: jc87266-8 Acquired: 5/4/2019 2:27:45 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2980**	**.0032**	**.0000**	**.0671**	**.1956**	**.1182**	**3.559**	**.1743**	**-.0021**
Stddev	.0019	.0001	.0002	.0002	.0005	.0002	.025	.0003	.0004
%RSD	.6391	1.631	6244.	.2997	.2566	.1564	.7143	.1527	20.33
#1	.2983	.0032	.0002	.0672	.1956	.1184	3.553	.1745	-.0017
#2	.2997	.0032	-.0001	.0672	.1951	.1182	3.538	.1742	-.0025
#3	.2960	.0031	-.0001	.0669	.1961	.1181	3.587	.1740	-.0021

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1703**	**.3177**	**.0331**	**.0025**	**.0584**	**-.0050**	**-.0011**	**91.50**	**45.13**
Stddev	.0001	.0006	.0006	.0006	.0012	.0003	.0014	.61	.26
%RSD	.0718	.1780	1.919	22.30	2.080	5.794	122.6	.6713	.5749
#1	.1704	.3184	.0334	.0031	.0576	-.0050	-.0003	91.55	45.15
#2	.1703	.3174	.0336	.0020	.0597	-.0052	-.0004	92.08	45.38
#3	.1702	.3174	.0324	.0024	.0577	-.0047	-.0027	90.86	44.86

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**152.3**	**39.99**	**8.369**	**.7820**	**.0038**	**.0122**	**2.761**	**.0146**	**.1563**
Stddev	1.7	.22	.058	.0049	.0004	.0002	.022	.0008	.0009
%RSD	1.107	.5406	.6938	.6282	9.282	1.301	.8153	5.308	.5857
#1	154.2	40.07	8.368	.7875	.0041	.0122	2.786	.0154	.1562
#2	151.3	40.16	8.428	.7801	.0040	.0120	2.755	.0138	.1572
#3	151.3	39.75	8.312	.7783	.0034	.0123	2.742	.0146	.1554

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.527**	**.0022**	**.0366**	**1.091**	**.1918**	**.1122**	**3.964**
Stddev	.004	.0002	.0002	.005	.0008	.0006	.009
%RSD	.0926	9.963	.6451	.4546	.4074	.5033	.2256
#1	4.531	.0020	.0368	1.096	.1911	.1120	3.975
#2	4.523	.0022	.0364	1.092	.1926	.1118	3.959
#3	4.526	.0024	.0365	1.086	.1915	.1129	3.959

Zoom In Zoom Out

Sample Name: jc87266-8 Acquired: 5/4/2019 2:27:45 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**149750.**	**28811.**	**6528.9**	**9120.0**
Stddev	841.	71.	12.2	9.0
%RSD	.56130	.24585	.18708	.09852
#1	150670.	28730.	6515.4	9109.9
#2	149530.	28841.	6539.1	9127.2
#3	149040.	28861.	6532.3	9122.9

Zoom In Zoom Out

Sample Name: jc87266-9 Acquired: 5/4/2019 2:33:02 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3141**	**.0035**	**.0001**	**.0620**	**.1580**	**.1419**	**2.951**	**.1662**	**-.0020**
Stddev	.0008	.0000	.0001	.0007	.0009	.0001	.022	.0024	.0002
%RSD	.2550	.3398	77.02	1.091	.5742	.0632	.7524	1.417	10.17
#1	.3144	.0034	.0001	.0624	.1586	.1418	2.974	.1672	-.0023
#2	.3131	.0035	.0003	.0624	.1583	.1420	2.949	.1679	-.0019
#3	.3146	.0035	.0000	.0612	.1569	.1420	2.930	.1635	-.0019

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1832**	**.3582**	**.0326**	**.0016**	**.0656**	**-.0028**	**-.0018**	**93.76**	**11.86**
Stddev	.0002	.0044	.0005	.0008	.0008	.0006	.0018	.28	.02
%RSD	.1076	1.234	1.548	49.20	1.213	21.43	99.42	.2975	.1951
#1	.1833	.3604	.0327	.0010	.0650	-.0026	-.0025	93.79	11.85
#2	.1834	.3612	.0330	.0013	.0665	-.0024	-.0031	93.47	11.85
#3	.1830	.3532	.0321	.0025	.0654	-.0035	.0002	94.03	11.89

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**149.8**	**36.36**	**8.298**	**.7939**	**.0025**	**.0050**	**2.428**	**.0150**	**.0754**
Stddev	.9	.10	.014	.0126	.0004	.0003	.043	.0007	.0004
%RSD	.6229	.2833	.1668	1.585	14.36	6.226	1.775	4.343	.5479
#1	148.9	36.31	8.283	.8030	.0026	.0050	2.462	.0156	.0756
#2	149.9	36.29	8.310	.7795	.0021	.0053	2.443	.0143	.0750
#3	150.7	36.48	8.301	.7991	.0027	.0047	2.380	.0152	.0757

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.514**	**.0026**	**.0110**	**.4759**	**.1928**	**.1118**	**4.268**
Stddev	.006	.0005	.0002	.0078	.0021	.0007	.046
%RSD	.1333	19.33	1.383	1.640	1.108	.5838	1.081
#1	4.521	.0021	.0112	.4793	.1914	.1117	4.284
#2	4.509	.0026	.0111	.4815	.1917	.1112	4.304
#3	4.513	.0031	.0109	.4670	.1952	.1125	4.216

Zoom In Zoom Out

Sample Name: jc87266-9 Acquired: 5/4/2019 2:33:02 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**151090.**	**28789.**	**6612.0**	**9251.7**
Stddev	305.	177.	68.7	79.7
%RSD	.20187	.61589	1.0394	.86123
#1	151040.	28940.	6575.0	9212.1
#2	150820.	28594.	6569.8	9199.5
#3	151420.	28832.	6691.3	9343.4

Zoom In Zoom Out

Sample Name: jc87266-10 Acquired: 5/4/2019 2:38:20 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1831**	**.0023**	**-.0001**	**.0382**	**.1242**	**.0895**	**1.075**	**.1137**	**-.0008**
Stddev	.0003	.0001	.0002	.0004	.0009	.0004	.007	.0010	.0005
%RSD	.1524	3.174	370.9	1.154	.7277	.4435	.6867	.8746	65.77
#1	.1834	.0024	.0002	.0383	.1251	.0899	1.080	.1129	-.0005
#2	.1828	.0023	-.0001	.0385	.1243	.0894	1.079	.1148	-.0013
#3	.1830	.0022	-.0002	.0377	.1233	.0891	1.067	.1133	-.0005

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1354**	**.2446**	**.0204**	**.0013**	**.0298**	**-.0037**	**-.0009**	**61.33**	**12.79**
Stddev	.0008	.0015	.0006	.0011	.0006	.0003	.0007	.03	.03
%RSD	.6158	.6211	3.169	84.49	1.944	8.374	78.70	.0467	.2172
#1	.1360	.2435	.0197	.0001	.0296	-.0034	-.0001	61.36	12.82
#2	.1357	.2463	.0205	.0022	.0304	-.0040	-.0010	61.33	12.79
#3	.1345	.2441	.0210	.0015	.0293	-.0038	-.0015	61.31	12.77

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**93.99**	**29.91**	**6.546**	**3.186**	**.0020**	**.0016**	**2.309**	**.0162**	**.0727**
Stddev	.16	.09	.007	.010	.0003	.0000	.033	.0005	.0001
%RSD	.1736	.2928	.1088	.3010	17.08	1.236	1.426	3.090	.1951
#1	94.09	29.93	6.547	3.176	.0023	.0016	2.306	.0159	.0726
#2	94.07	29.99	6.538	3.195	.0016	.0016	2.343	.0168	.0729
#3	93.80	29.82	6.552	3.187	.0022	.0016	2.278	.0160	.0727

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.645**	**.0017**	**.0367**	**.1148**	**.1538**	**.1027**	**2.795**
Stddev	.025	.0013	.0003	.0022	.0006	.0003	.013
%RSD	.6782	76.22	.6900	1.929	.4113	.2990	.4486
#1	3.663	.0010	.0370	.1140	.1543	.1029	2.781
#2	3.656	.0009	.0367	.1173	.1540	.1028	2.806
#3	3.617	.0032	.0365	.1132	.1531	.1023	2.796

Zoom In Zoom Out

Sample Name: jc87266-10 Acquired: 5/4/2019 2:38:20 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**150520.**	**28559.**	**6544.6**	**9289.8**
Stddev	938.	64.	49.1	60.6
%RSD	.62335	.22500	.75090	.65180
#1	149720.	28607.	6592.0	9350.2
#2	150290.	28486.	6493.9	9229.1
#3	151550.	28583.	6547.9	9290.1

Zoom In Zoom Out

Sample Name: jc87266-11 Acquired: 5/4/2019 2:43:23 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5349**	**.0048**	**.0004**	**.0884**	**.2348**	**.2481**	**4.120**	**.2270**
Stddev	.0017	.0000	.0001	.0002	.0028	.0026	.074	.0003
%RSD	.3174	.4046	14.51	.2272	1.212	1.043	1.799	.1379
#1	.5333	.0048	.0004	.0882	.2377	.2504	4.205	.2270
#2	.5348	.0048	.0004	.0883	.2347	.2487	4.087	.2273
#3	.5367	.0048	.0005	.0886	.2321	.2453	4.068	.2267

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0023**	**.2524**	**.6553**	**.0414**	**.0015**	**.0935**	**-.0042**	F **-.0046**
Stddev	.0010	.0031	.0004	.0010	.0003	.0008	.0011	.0006
%RSD	42.91	1.244	.0596	2.487	19.68	.9028	25.39	13.83
#1	-.0035	.2557	.6558	.0414	.0018	.0925	-.0054	-.0052
#2	-.0018	.2521	.6552	.0423	.0012	.0942	-.0038	-.0047
#3	-.0017	.2494	.6550	.0403	.0014	.0937	-.0034	-.0039

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**147.1**	**13.84**	F **202.7**	**54.18**	**11.24**	**1.608**	**.0052**	**.0043**
Stddev	.5	.04	2.0	.22	.04	.020	.0014	.0002
%RSD	.3209	.3004	.9754	.3983	.3340	1.246	26.37	4.203
#1	146.7	13.81	201.2	54.00	11.19	1.596	.0050	.0045
#2	147.1	13.83	205.0	54.11	11.25	1.597	.0066	.0043
#3	147.7	13.89	202.0	54.42	11.26	1.631	.0039	.0042

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.545**	**.0141**	**.0921**	**5.708**	**.0027**	**.0142**	**1.148**	**.2434**
Stddev	.008	.0003	.0004	.071	.0003	.0003	.004	.0064
%RSD	.3060	2.293	.4594	1.246	12.00	2.135	.3876	2.637
#1	2.540	.0141	.0918	5.776	.0030	.0142	1.144	.2506
#2	2.554	.0144	.0919	5.712	.0029	.0145	1.148	.2412
#3	2.541	.0137	.0926	5.634	.0024	.0139	1.153	.2383

Zoom In Zoom Out

Sample Name: jc87266-11 Acquired: 5/4/2019 2:43:23 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Li6707	P_1774
Units	ppm	ppm
Avg	**.1612**	**6.284**
Stddev	.0009	.042
%RSD	.5639	.6705
#1	.1605	6.256
#2	.1609	6.263
#3	.1622	6.333

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**152070.**	**29211.**	**6618.5**	**9127.0**
Stddev	1870.	209.	6.5	4.6
%RSD	1.2296	.71399	.09864	.05025
#1	150040.	29133.	6612.6	9121.7
#2	152450.	29053.	6625.5	9129.4
#3	153720.	29447.	6617.4	9129.9

Zoom In Zoom Out

Sample Name: jc87266-17 Acquired: 5/4/2019 2:48:38 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4123**	**.0042**	**.0003**	**.0711**	**.1863**	**.1399**	**2.367**	**.1883**
Stddev	.0016	.0000	.0001	.0004	.0003	.0005	.004	.0001
%RSD	.3789	.3978	40.43	.5125	.1413	.3543	.1621	.0383
#1	.4105	.0042	.0004	.0707	.1864	.1393	2.367	.1883
#2	.4135	.0042	.0002	.0711	.1860	.1403	2.372	.1883
#3	.4129	.0042	.0002	.0714	.1865	.1401	2.364	.1884

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0020**	**.2087**	**.4621**	**.0361**	**.0001**	**.0987**	**-.0031**	F **-.0038**
Stddev	.0007	.0009	.0009	.0014	.0012	.0009	.0022	.0021
%RSD	33.27	.4286	.1976	3.822	805.0	.9470	71.75	54.10
#1	-.0023	.2089	.4613	.0351	-.0011	.0996	-.0021	-.0044
#2	-.0013	.2077	.4620	.0355	.0003	.0978	-.0016	-.0016
#3	-.0025	.2094	.4631	.0377	.0012	.0988	-.0056	-.0056

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**118.6**	**13.69**	**157.4**	**41.97**	**9.544**	**1.015**	**.0041**	**.0038**
Stddev	.5	.06	2.7	.25	.024	.003	.0005	.0005
%RSD	.3859	.4566	1.710	.5904	.2468	.2940	12.17	13.59
#1	118.2	13.65	155.0	41.81	9.523	1.013	.0042	.0040
#2	119.1	13.76	160.3	42.26	9.569	1.014	.0036	.0042
#3	118.6	13.67	157.0	41.85	9.538	1.018	.0046	.0032

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.411**	**.0155**	**.1011**	**5.162**	**.0011**	**.0103**	**1.431**	**.2218**
Stddev	.008	.0003	.0004	.014	.0025	.0001	.004	.0034
%RSD	.3280	1.974	.4381	.2776	224.1	.6960	.2826	1.522
#1	2.417	.0156	.1008	5.163	.0010	.0103	1.433	.2242
#2	2.415	.0158	.1016	5.147	-.0013	.0102	1.427	.2179
#3	2.402	.0152	.1009	5.175	.0037	.0102	1.434	.2232

Zoom In Zoom Out

Sample Name: jc87266-17 Acquired: 5/4/2019 2:48:38 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Li6707	P_1774
Units	ppm	ppm
Avg	**.1333**	**7.174**
Stddev	.0019	.060
%RSD	1.390	.8381
#1	.1324	7.116
#2	.1321	7.171
#3	.1354	7.236

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**151330.**	**29221.**	**6635.2**	**9199.7**
Stddev	431.	207.	7.8	9.2
%RSD	.28499	.70760	.11735	.09947
#1	150840.	29322.	6639.8	9205.7
#2	151660.	28983.	6639.6	9204.3
#3	151490.	29358.	6626.2	9189.2

Zoom In Zoom Out

Sample Name: jc87266-18 Acquired: 5/4/2019 2:53:53 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2806**	**.0031**	**-.0002**	**.0736**	**.1606**	**.2332**	**3.031**	**.1789**	**-.0021**
Stddev	.0007	.0001	.0003	.0005	.0015	.0022	.070	.0003	.0006
%RSD	.2489	2.699	213.1	.6754	.9453	.9302	2.316	.1556	29.03
#1	.2812	.0031	.0002	.0731	.1623	.2345	3.024	.1786	-.0027
#2	.2799	.0030	-.0001	.0740	.1593	.2307	2.964	.1792	-.0015
#3	.2807	.0030	-.0005	.0737	.1603	.2344	3.104	.1788	-.0022

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1830**	**.4001**	**.0505**	**.0024**	**.0560**	**-.0050**	**-.0021**	**90.76**	**15.36**
Stddev	.0016	.0012	.0008	.0006	.0005	.0015	.0014	.39	.07
%RSD	.8686	.2952	1.529	24.87	.9546	30.30	69.62	.4336	.4644
#1	.1841	.4005	.0499	.0024	.0559	-.0065	-.0037	91.11	15.42
#2	.1812	.4010	.0503	.0030	.0556	-.0035	-.0016	90.34	15.28
#3	.1838	.3988	.0514	.0018	.0566	-.0050	-.0009	90.84	15.38

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**164.6**	**41.72**	**9.580**	**.8670**	**.0022**	**.0038**	**1.965**	**.0226**	**.0841**
Stddev	.3	.18	.050	.0067	.0003	.0002	.009	.0005	.0003
%RSD	.1775	.4354	.5168	.7687	12.17	6.173	.4576	2.206	.3975
#1	164.3	41.86	9.617	.8738	.0020	.0038	1.975	.0230	.0843
#2	164.9	41.51	9.524	.8605	.0025	.0040	1.961	.0226	.0837
#3	164.6	41.79	9.599	.8668	.0021	.0035	1.958	.0220	.0843

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.509**	**.0014**	**.0329**	**.2323**	**.1891**	**.1217**	**4.507**
Stddev	.033	.0011	.0002	.0005	.0049	.0011	.044
%RSD	.7243	75.67	.4980	.1963	2.593	.8794	.9790
#1	4.538	.0002	.0327	.2327	.1911	.1228	4.468
#2	4.473	.0023	.0328	.2323	.1836	.1218	4.498
#3	4.516	.0017	.0330	.2318	.1928	.1206	4.555

Zoom In Zoom Out

Sample Name: jc87266-18 Acquired: 5/4/2019 2:53:53 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**151490.**	**28763.**	**6560.8**	**9211.5**
Stddev	1176.	109.	26.6	23.7
%RSD	.77639	.37939	.40538	.25689
#1	150770.	28828.	6534.9	9190.3
#2	152850.	28823.	6559.5	9207.0
#3	150860.	28637.	6588.1	9237.0

Zoom In Zoom Out

Sample Name: ccv Acquired: 5/4/2019 2:59:12 Type: QC
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.070**	**2.050**	**2.009**	**2.050**	**2.029**	**2.071**	**2.050**	**2.089**	**.2525**
Stddev	.007	.006	.001	.001	.006	.007	.032	.000	.0004
%RSD	.3382	.2843	.0349	.0380	.3150	.3538	1.549	.0174	.1403
#1	2.062	2.043	2.009	2.050	2.022	2.063	2.016	2.089	.2523
#2	2.072	2.051	2.009	2.051	2.035	2.078	2.055	2.089	.2529
#3	2.076	2.055	2.008	2.049	2.030	2.072	2.079	2.089	.2523
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.983**	**1.993**	**2.013**	**2.120**	**2.057**	**2.046**	**2.014**	**41.00**	**42.13**
Stddev	.007	.001	.004	.002	.002	.003	.001	.11	.12
%RSD	.3644	.0453	.1925	.0990	.0863	.1324	.0595	.2772	.2748
#1	1.977	1.994	2.010	2.122	2.056	2.047	2.013	40.89	42.01
#2	1.991	1.993	2.017	2.121	2.055	2.043	2.014	40.99	42.13
#3	1.982	1.992	2.010	2.118	2.059	2.049	2.015	41.12	42.24
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**41.73**	**40.32**	**40.68**	**41.80**	**2.101**	**2.075**	**5.338**	**1.973**	**2.151**
Stddev	.07	.08	.15	.06	.001	.001	.002	.001	.003
%RSD	.1777	.2078	.3716	.1426	.0276	.0628	.0304	.0362	.1400
#1	41.66	40.29	40.52	41.76	2.101	2.076	5.337	1.973	2.148
#2	41.72	40.26	40.72	41.77	2.102	2.076	5.340	1.973	2.152
#3	41.81	40.42	40.81	41.87	2.101	2.074	5.337	1.974	2.154
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ccv Acquired: 5/4/2019 2:59:12 Type: QC
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.051**	**2.007**	**2.008**	**1.982**	**2.117**	**1.934**	**2.049**
Stddev	.009	.001	.008	.008	.003	.008	.006
%RSD	.4157	.0544	.3957	.3838	.1456	.4222	.2773
#1	2.042	2.007	2.000	1.979	2.118	1.926	2.053
#2	2.059	2.007	2.016	1.991	2.114	1.935	2.052
#3	2.050	2.009	2.007	1.977	2.119	1.942	2.043
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**141920.**	**27014.**	**6149.9**	**8851.4**
Stddev	312.	129.	11.5	15.9
%RSD	.21959	.47678	.18664	.17940
#1	142280.	27039.	6137.1	8833.2
#2	141740.	27128.	6153.3	8858.6
#3	141750.	26874.	6159.3	8862.3

Zoom In Zoom Out

Sample Name: ccb Acquired: 5/4/2019 3:04:13 Type: QC
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0000**	**.0001**	**.0000**	**.0002**	**.0005**	**.0001**	**.0003**	**-.0002**
Stddev	.0003	.0000	.0002	.0001	.0002	.0004	.0000	.0001	.0002
%RSD	334.1	13.71	296.9	1621.	80.25	70.00	20.86	47.54	103.9
#1	-.0000	.0000	.0000	-.0001	.0003	.0007	.0001	.0001	-.0004
#2	.0004	.0000	.0003	.0001	.0003	.0001	.0001	.0003	-.0002
#3	-.0001	.0000	-.0001	.0001	.0000	.0007	.0001	.0004	-.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0003**	**-.0003**	**-.0007**	**.0012**	**-.0003**	**.0031**	**.0013**	**-.0119**	**-.0035**
Stddev	.0003	.0001	.0012	.0012	.0009	.0004	.0016	.0060	.0006
%RSD	86.64	32.05	177.8	96.17	264.2	13.23	121.2	50.29	18.69
#1	-.0006	-.0003	-.0002	.0022	.0007	.0029	.0015	-.0183	-.0028
#2	-.0004	-.0003	-.0020	-.0001	-.0007	.0028	.0028	-.0066	-.0036
#3	-.0000	-.0005	.0002	.0016	-.0011	.0035	-.0004	-.0107	-.0040
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0036**	**.0026**	**.1789**	**.0737**	**.0015**	**.0004**	**.0005**	**-.0014**	**.0002**
Stddev	.0011	.0112	.0176	.0029	.0006	.0001	.0010	.0003	.0000
%RSD	31.63	434.2	9.840	3.907	43.31	39.06	180.8	21.01	6.579
#1	.0023	.0151	.1991	.0740	.0015	.0004	.0015	-.0017	.0002
#2	.0044	-.0006	.1664	.0707	.0021	.0005	-.0004	-.0012	.0002
#3	.0040	-.0067	.1714	.0765	.0008	.0002	.0006	-.0012	.0002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: ccb Acquired: 5/4/2019 3:04:13 Type: QC
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004**	**-.0001**	**.0003**	**.0011**	**.0012**	**-.0014**	**.0192**
Stddev	.0003	.0007	.0002	.0021	.0022	.0013	.0012
%RSD	82.92	587.4	80.60	190.6	176.7	89.55	6.067
#1	.0003	.0002	.0002	.0015	-.0012	-.0028	.0194
#2	.0001	-.0009	.0001	.0030	.0021	-.0012	.0179
#3	.0008	.0004	.0005	-.0012	.0028	-.0003	.0202
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**150100.**	**27549.**	**6401.7**	**9768.6**
Stddev	946.	357.	15.9	17.5
%RSD	.63023	1.2964	.24765	.17892
#1	149190.	27684.	6393.8	9755.3
#2	150040.	27144.	6391.4	9762.2
#3	151080.	27819.	6419.9	9788.4

Zoom In Zoom Out

Sample Name: jc87355-2 Acquired: 5/4/2019 3:09:22 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2691**	**.0041**	**.0009**	**.0841**	**.0675**	**.1561**	**4.948**	**.1752**
Stddev	.0005	.0001	.0001	.0002	.0006	.0018	.021	.0005
%RSD	.1711	1.415	17.36	.1918	.8835	1.183	.4286	.3132
#1	.2697	.0041	.0010	.0842	.0682	.1576	4.936	.1757
#2	.2690	.0040	.0008	.0842	.0671	.1567	4.935	.1753
#3	.2688	.0041	.0008	.0839	.0672	.1540	4.972	.1746

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **-.0067**	**.1040**	**.9916**	**.2809**	F **-.0023**	**.2335**	F **-.0122**	**.0010**
Stddev	.0005	.0003	.0005	.0005	.0003	.0008	.0020	.0014
%RSD	7.203	.2456	.0512	.1696	12.76	.3278	16.87	138.7
#1	-.0062	.1042	.9917	.2814	-.0020	.2343	-.0104	.0026
#2	-.0072	.1037	.9921	.2807	-.0024	.2328	-.0116	-.0000
#3	-.0066	.1040	.9911	.2805	-.0025	.2333	-.0144	.0005

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**39.24**	**85.39**	F **323.1**	**22.24**	**6.568**	**.5437**	**.0182**	**.0165**
Stddev	.13	1.48	3.8	.09	.014	.0108	.0007	.0003
%RSD	.3298	1.738	1.190	.3911	.2090	1.985	3.820	1.570
#1	39.39	86.79	327.6	22.34	6.582	.5521	.0182	.0163
#2	39.16	83.83	320.9	22.21	6.569	.5474	.0188	.0164
#3	39.18	85.55	321.0	22.17	6.554	.5315	.0174	.0168

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.126**	**.0166**	**.1406**	**.4523**	**.0000**	**.0508**	**3.809**	**.0137**
Stddev	.006	.0002	.0006	.0035	.0004	.0005	.010	.0020
%RSD	.2933	1.108	.4570	.7717	1642.	1.077	.2565	14.57
#1	2.120	.0166	.1413	.4559	-.0004	.0515	3.808	.0130
#2	2.127	.0164	.1406	.4520	.0002	.0505	3.819	.0159
#3	2.132	.0168	.1400	.4489	.0003	.0506	3.799	.0121

Zoom In Zoom Out

Sample Name: jc87355-2 Acquired: 5/4/2019 3:09:22 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Li6707	P_1774
Units	ppm	ppm
Avg	**.0510**	**4.231**
Stddev	.0008	.009
%RSD	1.494	.2189
#1	.0501	4.235
#2	.0515	4.238
#3	.0513	4.220

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**150600.**	**28970.**	**6494.7**	**9363.3**
Stddev	590.	235.	18.7	23.2
%RSD	.39200	.81276	.28808	.24727
#1	149920.	28718.	6486.8	9360.5
#2	150910.	29184.	6481.1	9341.6
#3	150970.	29007.	6516.0	9387.7

Zoom In Zoom Out

Sample Name: jc87355-3 Acquired: 5/4/2019 3:14:46 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2576**	**.0030**	**.0006**	**.0545**	**.0687**	**.1440**	**4.724**	**.1375**	**-.0035**
Stddev	.0004	.0000	.0001	.0001	.0007	.0011	.036	.0003	.0009
%RSD	.1683	1.534	18.03	.2056	1.036	.7577	.7643	.2018	24.69
#1	.2581	.0030	.0006	.0547	.0686	.1437	4.704	.1377	-.0029
#2	.2572	.0031	.0005	.0545	.0681	.1432	4.703	.1375	-.0030
#3	.2576	.0030	.0007	.0545	.0695	.1453	4.766	.1372	-.0044

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0950**	**.7239**	**.1227**	**-.0003**	**.1243**	**-.0074**	**-.0003**	**40.90**	**52.84**
Stddev	.0006	.0002	.0015	.0006	.0006	.0016	.0014	.08	.11
%RSD	.6550	.0240	1.258	185.1	.4484	21.46	471.0	.1999	.2075
#1	.0946	.7240	.1232	.0001	.1239	-.0086	.0005	40.98	52.95
#2	.0946	.7239	.1240	-.0010	.1250	-.0056	-.0019	40.82	52.73
#3	.0957	.7237	.1210	-.0001	.1241	-.0080	.0005	40.91	52.84

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **244.8**	**20.29**	**6.587**	**.5367**	**.0175**	**.0084**	**2.498**	**.0176**	**.1004**
Stddev	.5	.10	.012	.0041	.0008	.0003	.018	.0002	.0004
%RSD	.2146	.4839	.1810	.7574	4.465	3.986	.7213	1.346	.4057
#1	245.4	20.33	6.578	.5323	.0171	.0084	2.517	.0176	.1008
#2	244.4	20.17	6.600	.5376	.0184	.0081	2.494	.0178	.1000
#3	244.8	20.35	6.582	.5403	.0171	.0088	2.482	.0173	.1004

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3772**	**-.0013**	**.0491**	**2.328**	**.0057**	**.0578**	**3.492**
Stddev	.0056	.0010	.0004	.006	.0031	.0006	.018
%RSD	1.487	74.49	.8725	.2760	54.04	1.124	.5288
#1	.3730	-.0016	.0488	2.334	.0058	.0577	3.488
#2	.3751	-.0002	.0488	2.322	.0026	.0572	3.475
#3	.3836	-.0021	.0495	2.328	.0088	.0585	3.512

Zoom In Zoom Out

Sample Name: jc87355-3 Acquired: 5/4/2019 3:14:46 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**150320.**	**28888.**	**6575.3**	**9401.2**
Stddev	1841.	105.	12.4	7.3
%RSD	1.2249	.36238	.18800	.07794
#1	151150.	28853.	6583.3	9403.2
#2	151590.	29006.	6561.1	9393.0
#3	148210.	28805.	6581.6	9407.2

Zoom In Zoom Out

Sample Name: jc87355-4 Acquired: 5/4/2019 3:20:02 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2457**	**.0031**	**.0003**	**.0602**	**.0701**	**.1813**	**3.485**	**.1331**	**-.0026**
Stddev	.0006	.0001	.0001	.0017	.0001	.0008	.041	.0040	.0009
%RSD	.2293	1.710	46.91	2.763	.0804	.4301	1.182	3.037	34.31
#1	.2461	.0031	.0003	.0590	.0700	.1820	3.448	.1306	-.0016
#2	.2451	.0030	.0004	.0595	.0701	.1805	3.477	.1309	-.0034
#3	.2461	.0031	.0001	.0621	.0701	.1816	3.530	.1377	-.0028

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0867**	**.6525**	**.1260**	**-.0015**	**.1210**	**-.0056**	**-.0010**	**43.02**	**40.54**
Stddev	.0005	.0218	.0055	.0005	.0033	.0030	.0001	.07	.06
%RSD	.6257	3.341	4.403	31.45	2.717	53.02	13.37	.1684	.1566
#1	.0864	.6373	.1217	-.0017	.1183	-.0022	-.0009	43.08	40.58
#2	.0864	.6428	.1241	-.0019	.1202	-.0070	-.0009	42.94	40.46
#3	.0873	.6775	.1322	-.0010	.1247	-.0076	-.0012	43.03	40.57

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **215.1**	**20.19**	**6.560**	**.4674**	**.0169**	**.0074**	**2.189**	**.0179**	**.0939**
Stddev	2.0	.02	.027	.0118	.0010	.0005	.080	.0008	.0001
%RSD	.9427	.1104	.4131	2.514	5.629	6.927	3.645	4.534	.1325
#1	216.8	20.17	6.591	.4541	.0165	.0071	2.149	.0174	.0938
#2	212.8	20.18	6.539	.4764	.0163	.0071	2.137	.0175	.0940
#3	215.6	20.21	6.550	.4718	.0180	.0080	2.281	.0189	.0939

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3939**	**-.0002**	**.0442**	**4.823**	**.0081**	**.0713**	**3.029**
Stddev	.0033	.0005	.0002	.164	.0000	.0010	.103
%RSD	.8419	250.2	.5346	3.391	.5427	1.400	3.410
#1	.3913	.0003	.0444	4.701	.0081	.0706	2.945
#2	.3927	-.0006	.0439	4.759	.0082	.0724	2.998
#3	.3976	-.0003	.0443	5.009	.0081	.0709	3.144

Zoom In Zoom Out

Sample Name: jc87355-4 Acquired: 5/4/2019 3:20:02 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**149060.**	**28495.**	**6448.7**	**9295.1**
Stddev	1317.	120.	181.5	213.9
%RSD	.88323	.42032	2.8139	2.3007
#1	150510.	28394.	6582.6	9450.6
#2	148750.	28628.	6521.3	9383.4
#3	147930.	28464.	6242.2	9051.2

Zoom In Zoom Out

Sample Name: jc87355-5 Acquired: 5/4/2019 3:25:18 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2838**	**.0034**	**.0009**	**.0599**	**.0588**	**.1149**	**6.285**	**.1577**	**-.0038**
Stddev	.0029	.0002	.0002	.0017	.0004	.0007	.034	.0043	.0009
%RSD	1.008	4.676	19.10	2.843	.6973	.5801	.5388	2.732	23.38
#1	.2830	.0032	.0011	.0589	.0584	.1144	6.274	.1552	-.0031
#2	.2815	.0034	.0009	.0619	.0592	.1156	6.323	.1627	-.0048
#3	.2870	.0036	.0007	.0589	.0588	.1146	6.258	.1553	-.0035

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0945**	**1.053**	**.1705**	**-.0006**	**.1953**	**-.0099**	**-.0013**	**39.47**	**106.7**
Stddev	.0009	.033	.0058	.0011	.0050	.0025	.0015	.37	1.5
%RSD	.9808	3.164	3.381	196.2	2.570	24.99	111.0	.9296	1.392
#1	.0940	1.034	.1674	-.0003	.1931	-.0073	-.0030	39.36	107.9
#2	.0955	1.092	.1771	-.0018	.2011	-.0123	-.0005	39.17	105.0
#3	.0939	1.034	.1669	.0004	.1918	-.0101	-.0004	39.88	107.1

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **286.5**	**25.85**	**5.880**	**.9262**	**.0185**	**.0085**	**2.356**	**.0175**	**.1669**
Stddev	1.7	.23	.082	.0104	.0010	.0001	.083	.0007	.0016
%RSD	.5962	.9082	1.395	1.119	5.524	1.654	3.513	3.771	.9552
#1	287.4	25.77	5.829	.9215	.0175	.0084	2.298	.0172	.1661
#2	287.5	25.67	5.837	.9190	.0195	.0084	2.451	.0182	.1658
#3	284.5	26.12	5.975	.9380	.0185	.0086	2.320	.0169	.1687

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5790**	**-.0008**	**.0412**	**3.317**	**.0201**	**.0513**	**3.213**
Stddev	.0075	.0008	.0001	.094	.0012	.0015	.092
%RSD	1.300	103.3	.1531	2.843	5.895	2.982	2.865
#1	.5704	.0000	.0413	3.262	.0188	.0514	3.147
#2	.5824	-.0008	.0412	3.426	.0212	.0497	3.318
#3	.5843	-.0017	.0412	3.263	.0202	.0528	3.174

Zoom In Zoom Out

Sample Name: jc87355-5 Acquired: 5/4/2019 3:25:18 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**148290.**	**28607.**	**6302.6**	**9089.1**
Stddev	1132.	160.	170.8	203.8
%RSD	.76303	.55911	2.7103	2.2428
#1	149010.	28513.	6391.0	9194.8
#2	146990.	28792.	6105.7	8854.1
#3	148880.	28517.	6411.1	9218.4

Zoom In Zoom Out

Sample Name: jc87363-3 Acquired: 5/4/2019 3:30:43 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4797**	**.0059**	**.0025**	**.0718**	**.2197**	**.2141**	**5.224**	**.2332**	**-.0024**
Stddev	.0008	.0000	.0000	.0008	.0012	.0021	.051	.0011	.0007
%RSD	.1680	.6921	1.937	1.132	.5302	.9646	.9717	.4920	28.13
#1	.4789	.0059	.0025	.0726	.2209	.2150	5.281	.2344	-.0031
#2	.4805	.0060	.0026	.0710	.2196	.2156	5.203	.2321	-.0018
#3	.4798	.0059	.0025	.0719	.2186	.2118	5.186	.2332	-.0024

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1719**	**.6957**	**.0524**	**.0020**	**.2315**	**.0036**	**-.0007**	**94.93**	F **318.0**
Stddev	.0002	.0037	.0005	.0022	.0001	.0014	.0008	.12	.9
%RSD	.0918	.5322	.9505	105.8	.0578	37.92	113.4	.1220	.2861
#1	.1719	.6989	.0530	-.0002	.2316	.0024	-.0002	94.84	318.0
#2	.1720	.6916	.0521	.0022	.2314	.0051	-.0016	95.06	318.9
#3	.1717	.6967	.0521	.0041	.2316	.0033	-.0002	94.90	317.1

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**159.1**	**68.27**	**14.71**	**1.216**	**.0963**	**.0217**	**3.004**	**.0178**	**.4106**
Stddev	2.9	.15	.01	.011	.0012	.0003	.018	.0006	.0007
%RSD	1.842	.2247	.0638	.8859	1.250	1.592	.6154	3.550	.1746
#1	158.2	68.20	14.72	1.224	.0969	.0213	2.992	.0185	.4100
#2	162.3	68.44	14.71	1.221	.0970	.0217	2.996	.0177	.4114
#3	156.7	68.16	14.71	1.204	.0949	.0220	3.026	.0173	.4105

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.027**	**.0006**	**.0673**	**6.756**	**.0423**	**.1423**	**3.027**
Stddev	.003	.0006	.0001	.036	.0018	.0009	.023
%RSD	.2590	112.3	.1336	.5325	4.286	.6449	.7515
#1	1.029	.0009	.0674	6.784	.0426	.1413	3.016
#2	1.028	.0009	.0673	6.715	.0440	.1431	3.012
#3	1.024	-.0002	.0672	6.769	.0404	.1424	3.053

Zoom In Zoom Out

Sample Name: jc87363-3 Acquired: 5/4/2019 3:30:43 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**146790.**	**28780.**	**6378.9**	**8583.9**
Stddev	973.	263.	26.7	31.5
%RSD	.66306	.91287	.41860	.36671
#1	146020.	28888.	6359.3	8560.8
#2	146470.	28480.	6409.3	8619.7
#3	147880.	28971.	6368.0	8571.2

Zoom In Zoom Out

Sample Name: mp14763-b1 Acquired: 5/4/2019 3:36:06 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.086**	**2.070**	**2.005**	**2.053**	**2.027**	**2.083**	**2.047**	**2.088**	**.2532**
Stddev	.002	.000	.005	.004	.003	.007	.030	.004	.0005
%RSD	.1058	.0154	.2331	.2081	.1229	.3293	1.455	.1678	.2166
#1	2.087	2.070	2.009	2.055	2.029	2.090	2.078	2.090	.2532
#2	2.087	2.070	2.000	2.048	2.026	2.082	2.018	2.084	.2537
#3	2.083	2.070	2.005	2.055	2.024	2.077	2.046	2.089	.2526

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.982**	**1.990**	**1.998**	**2.161**	**2.062**	**2.038**	**2.013**	**25.75**	**26.53**
Stddev	.001	.006	.005	.009	.005	.004	.004	.02	.02
%RSD	.0456	.2916	.2392	.4072	.2664	.1998	.2147	.0650	.0571
#1	1.981	1.995	2.002	2.171	2.065	2.040	2.016	25.77	26.52
#2	1.983	1.984	1.993	2.154	2.056	2.033	2.008	25.73	26.53
#3	1.982	1.993	2.000	2.157	2.065	2.041	2.016	25.75	26.55

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**26.37**	**25.29**	**25.55**	**26.35**	**2.059**	**2.084**	**.0585**	**1.991**	**2.160**
Stddev	.02	.07	.03	.05	.005	.006	.0005	.003	.002
%RSD	.0613	.2775	.1255	.1739	.2471	.2991	.8869	.1279	.0803
#1	26.36	25.26	25.52	26.32	2.062	2.090	.0581	1.993	2.161
#2	26.36	25.24	25.58	26.32	2.053	2.077	.0591	1.989	2.158
#3	26.38	25.37	25.54	26.40	2.062	2.086	.0584	1.990	2.162

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.047**	**1.972**	**2.003**	**.0230**	**.1223**	**-.0015**	**2.027**
Stddev	.003	.004	.002	.0010	.0028	.0005	.010
%RSD	.1545	.1881	.0998	4.303	2.252	34.97	.5069
#1	2.043	1.976	2.002	.0239	.1226	-.0017	2.019
#2	2.049	1.968	2.006	.0219	.1248	-.0009	2.023
#3	2.047	1.972	2.003	.0232	.1194	-.0018	2.039

Zoom In Zoom Out

Sample Name: mp14763-b1 Acquired: 5/4/2019 3:36:06 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**146030.**	**27806.**	**6301.1**	**9132.6**
Stddev	115.	109.	17.9	22.0
%RSD	.07863	.39197	.28349	.24115
#1	145950.	27896.	6280.6	9107.4
#2	145980.	27838.	6312.6	9147.7
#3	146160.	27685.	6310.2	9142.8

Zoom In Zoom Out

Sample Name: mbconf Acquired: 5/4/2019 3:41:06 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**-.0001**	**.0000**	**-.0000**	**-.0000**	**.0005**	**.0000**	**.0004**	**-.0005**
Stddev	.0002	.0000	.0001	.0002	.0002	.0002	.0001	.0003	.0003
%RSD	119.2	47.81	658.5	394.4	949.9	39.82	145.3	80.78	62.59
#1	.0004	-.0002	-.0001	.0000	-.0001	.0006	-.0000	.0007	-.0003
#2	-.0000	-.0001	.0001	.0001	.0002	.0003	.0000	.0001	-.0003
#3	.0002	-.0001	.0000	-.0002	-.0002	.0007	.0001	.0004	-.0008

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0002**	**-.0001**	**-.0006**	**.0004**	**-.0008**	**.0016**	**-.0007**	**-.0047**	**-.0035**
Stddev	.0002	.0000	.0012	.0012	.0005	.0024	.0003	.0054	.0015
%RSD	85.90	38.94	199.6	272.8	62.21	153.0	43.00	113.2	42.80
#1	-.0002	-.0001	-.0002	.0018	-.0013	-.0000	-.0008	-.0109	-.0050
#2	-.0004	-.0001	.0003	.0001	-.0003	.0004	-.0008	-.0022	-.0037
#3	-.0000	-.0001	-.0019	-.0006	-.0009	.0044	-.0003	-.0011	-.0020

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0013**	**.0070**	**.1372**	**.0635**	**.0019**	**.0003**	**.0032**	**-.0013**	**.0001**
Stddev	.0012	.0107	.0251	.0101	.0001	.0000	.0010	.0003	.0001
%RSD	89.11	152.4	18.27	15.96	4.624	8.964	30.89	22.34	89.76
#1	.0000	-.0049	.1254	.0559	.0018	.0003	.0041	-.0011	-.0000
#2	.0023	.0102	.1659	.0750	.0019	.0003	.0022	-.0011	.0001
#3	.0015	.0157	.1202	.0596	.0019	.0003	.0033	-.0016	.0002

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0007**	**.0044**	**.0004**	**.0034**	**.0006**	**-.0035**	**.0157**
Stddev	.0001	.0011	.0001	.0022	.0020	.0011	.0005
%RSD	18.51	26.31	26.42	65.73	315.5	30.95	3.481
#1	.0006	.0057	.0005	.0033	.0017	-.0043	.0160
#2	.0006	.0035	.0005	.0012	-.0016	-.0023	.0159
#3	.0008	.0039	.0003	.0057	.0018	-.0038	.0150

Zoom In Zoom Out

Sample Name: mbconf Acquired: 5/4/2019 3:41:06 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**150310.**	**27613.**	**6351.9**	**9703.5**
Stddev	312.	243.	154.9	211.0
%RSD	.20775	.87967	2.4390	2.1750
#1	150670.	27427.	6446.3	9839.7
#2	150110.	27888.	6436.3	9810.3
#3	150140.	27523.	6173.1	9460.4

Zoom In Zoom Out

Sample Name: mp14763-mb1 Acquired: 5/4/2019 3:46:13 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment: new AQ

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0002**	**-.0001**	**.0000**	**-.0001**	**.0002**	**.0006**	**.0001**	**.0000**	**-.0006**
Stddev	.0001	.0001	.0001	.0002	.0002	.0002	.0000	.0002	.0005
%RSD	57.01	120.7	360.2	145.1	96.34	26.03	36.75	1846.	89.77
#1	-.0001	.0000	.0001	-.0003	.0001	.0008	.0001	-.0001	-.0010
#2	-.0003	-.0001	.0001	.0001	.0004	.0004	.0001	-.0001	-.0008
#3	-.0001	-.0001	-.0001	-.0002	.0000	.0006	.0001	.0003	.0000

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0003**	**.0011**	**-.0011**	**-.0002**	**-.0007**	**.0007**	**.0004**	**.0009**	**.0056**
Stddev	.0002	.0000	.0005	.0002	.0002	.0003	.0006	.0084	.0022
%RSD	72.86	3.273	46.64	70.48	23.09	47.56	159.7	908.3	39.70
#1	-.0003	.0011	-.0015	-.0003	-.0008	.0011	.0001	.0075	.0059
#2	-.0006	.0011	-.0005	-.0004	-.0005	.0006	-.0000	.0037	.0077
#3	-.0001	.0010	-.0012	-.0001	-.0008	.0005	.0011	-.0085	.0032

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0058**	**.0095**	**.1157**	**.0629**	**.0012**	**.0002**	**.0089**	**-.0014**	**.0002**
Stddev	.0006	.0061	.0466	.0042	.0003	.0001	.0005	.0002	.0000
%RSD	10.87	64.15	40.29	6.670	22.71	34.23	5.692	10.70	16.07
#1	.0058	.0090	.0665	.0634	.0009	.0003	.0095	-.0016	.0002
#2	.0052	.0159	.1213	.0585	.0015	.0002	.0085	-.0013	.0001
#3	.0065	.0037	.1592	.0669	.0011	.0002	.0088	-.0014	.0002

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0006**	**.0031**	**.0008**	**.0053**	**-.0006**	**-.0028**	**.0212**
Stddev	.0004	.0004	.0001	.0019	.0006	.0008	.0017
%RSD	68.58	13.20	11.37	35.48	99.66	29.56	7.885
#1	.0010	.0035	.0008	.0031	-.0011	-.0037	.0203
#2	.0002	.0028	.0007	.0065	.0000	-.0023	.0231
#3	.0006	.0029	.0008	.0061	-.0007	-.0023	.0201

Zoom In Zoom Out

Sample Name: mp14763-mb1 Acquired: 5/4/2019 3:46:13 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment: new AQ

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**151850.**	**27929.**	**6483.6**	**9868.8**
Stddev	302.	140.	10.4	17.1
%RSD	.19861	.50183	.15983	.17318
#1	151730.	28080.	6483.5	9873.2
#2	152190.	27803.	6473.3	9850.0
#3	151630.	27903.	6494.0	9883.3

Zoom In Zoom Out

Sample Name: mp14763-s1 Acquired: 5/4/2019 3:51:20 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.410**	**2.033**	**2.273**	**2.028**	**1.984**	**2.157**	**2.060**	**2.060**
Stddev	.017	.009	.015	.013	.007	.010	.008	.012
%RSD	.5056	.4288	.6769	.6380	.3338	.4779	.3693	.5979
#1	3.429	2.041	2.279	2.032	1.976	2.145	2.051	2.065
#2	3.408	2.033	2.256	2.013	1.988	2.163	2.065	2.046
#3	3.394	2.024	2.285	2.038	1.986	2.163	2.064	2.069

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2895**	**1.996**	**1.972**	**2.323**	**1.857**	**1.972**	**2.301**	**2.239**
Stddev	.0014	.008	.014	.015	.015	.012	.013	.017
%RSD	.4773	.3877	.6836	.6603	.7819	.6279	.5748	.7391
#1	.2879	1.987	1.977	2.325	1.852	1.975	2.300	2.245
#2	.2904	2.001	1.957	2.306	1.846	1.958	2.289	2.220
#3	.2903	2.000	1.983	2.336	1.874	1.982	2.315	2.251

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**26.72**	*****	**25.55**	**32.04**	**121.6**	F **1198.**	**2.252**	**2.101**
Stddev	.13	-----	.11	.14	.6	26.	.014	.016
%RSD	.4904	-----	.4204	.4496	.5116	2.164	.6106	.7571
#1	26.87	-----	25.67	32.19	122.3	1227.	2.255	2.107
#2	26.69	-----	25.52	32.02	121.4	1185.	2.237	2.083
#3	26.61	-----	25.46	31.90	121.1	1181.	2.264	2.113

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**6.086**	**1.881**	F **15.79**	**2.047**	**2.009**	**2.034**	**7.478**	F **-.0517**
Stddev	.043	.011	.21	.008	.013	.009	.045	.0019
%RSD	.7072	.6063	1.300	.3696	.6507	.4220	.6022	3.603
#1	6.098	1.883	15.97	2.038	2.011	2.024	7.474	-.0537
#2	6.039	1.869	15.84	2.052	1.994	2.040	7.435	-.0516
#3	6.122	1.891	15.57	2.050	2.020	2.039	7.525	-.0499

Zoom In Zoom Out

Sample Name: mp14763-s1 Acquired: 5/4/2019 3:51:20 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Li6707	P_1774
Units	ppm	ppm
Avg	**.7463**	**2.170**
Stddev	.0016	.016
%RSD	.2207	.7339
#1	.7445	2.165
#2	.7477	2.157
#3	.7468	2.187

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**116340.**	**25037.**	**4927.8**	**6941.5**
Stddev	519.	205.	30.7	38.4
%RSD	.44636	.81745	.62378	.55262
#1	116880.	24801.	4913.2	6925.8
#2	115840.	25143.	4963.1	6985.2
#3	116310.	25167.	4907.1	6913.5

Zoom In Zoom Out

Sample Name: mp14763-s2 Acquired: 5/4/2019 3:56:30 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.385**	**2.002**	**2.249**	**2.007**	**1.956**	**2.130**	**2.047**	**2.039**
Stddev	.006	.003	.002	.003	.010	.006	.006	.004
%RSD	.1744	.1500	.0725	.1344	.5231	.3060	.3130	.1935
#1	3.385	2.002	2.248	2.010	1.963	2.135	2.051	2.043
#2	3.390	2.005	2.247	2.005	1.944	2.123	2.040	2.037
#3	3.379	1.999	2.250	2.006	1.960	2.132	2.051	2.037

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2857**	**1.962**	**1.950**	**2.298**	**1.835**	**1.954**	**2.271**	**2.215**
Stddev	.0004	.005	.002	.004	.005	.003	.004	.004
%RSD	.1551	.2387	.1127	.1968	.2564	.1462	.1817	.2019
#1	.2858	1.965	1.952	2.295	1.836	1.956	2.271	2.218
#2	.2853	1.957	1.949	2.296	1.830	1.955	2.267	2.210
#3	.2862	1.966	1.948	2.304	1.840	1.951	2.276	2.217

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**26.35**	*****	**25.22**	**32.88**	**121.8**	F **1116.**	**2.237**	**2.080**
Stddev	.05	-----	.04	.03	.1	12.	.003	.002
%RSD	.1908	-----	.1689	.0815	.0714	1.061	.1340	.1005
#1	26.36	-----	25.24	32.89	121.7	1103.	2.239	2.082
#2	26.40	-----	25.24	32.90	121.8	1121.	2.233	2.078
#3	26.30	-----	25.17	32.85	121.9	1125.	2.238	2.079

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**6.670**	**1.856**	F **15.65**	**2.015**	**1.991**	**2.001**	**7.475**	F **-.0533**
Stddev	.005	.002	.15	.006	.004	.005	.013	.0014
%RSD	.0775	.1192	.9482	.2755	.2285	.2517	.1733	2.692
#1	6.672	1.853	15.48	2.018	1.992	2.004	7.463	-.0536
#2	6.664	1.856	15.71	2.009	1.986	1.996	7.474	-.0517
#3	6.674	1.858	15.75	2.019	1.995	2.004	7.489	-.0545

Zoom In Zoom Out

Sample Name: mp14763-s2 Acquired: 5/4/2019 3:56:30 Type: Unk
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Li6707	P_1774
Units	ppm	ppm
Avg	**.7712**	**2.147**
Stddev	.0023	.006
%RSD	.3039	.2849
#1	.7692	2.147
#2	.7738	2.141
#3	.7706	2.153

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**117090.**	**25350.**	**4930.3**	**6935.1**
Stddev	469.	38.	5.8	12.9
%RSD	.40028	.14918	.11827	.18608
#1	116700.	25308.	4932.7	6932.0
#2	117610.	25381.	4923.7	6924.0
#3	116950.	25360.	4934.6	6949.3

Zoom In Zoom Out

Sample Name: ccv Acquired: 5/4/2019 4:01:43 Type: QC
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.076**	**2.050**	**2.001**	**2.043**	**2.081**	**2.122**	**2.073**	**2.085**	**.2585**
Stddev	.002	.002	.001	.001	.093	.097	.067	.001	.0109
%RSD	.0920	.1095	.0275	.0521	4.458	4.546	3.218	.0446	4.209
#1	2.078	2.052	2.001	2.042	2.022	2.060	2.017	2.085	.2517
#2	2.075	2.047	2.001	2.044	2.188	2.233	2.147	2.086	.2711
#3	2.074	2.050	2.000	2.043	2.034	2.073	2.054	2.085	.2528
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.029**	**1.986**	**2.012**	**2.125**	**2.052**	**2.050**	**2.007**	**41.03**	**42.39**
Stddev	.089	.003	.002	.008	.000	.004	.000	.07	.04
%RSD	4.386	.1359	.0851	.3617	.0189	.1855	.0207	.1660	.0882
#1	1.974	1.987	2.012	2.127	2.053	2.047	2.007	41.10	42.43
#2	2.132	1.989	2.013	2.116	2.052	2.049	2.006	40.97	42.35
#3	1.982	1.984	2.010	2.132	2.052	2.054	2.007	41.03	42.40
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**41.89**	**40.25**	**41.35**	**40.50**	**2.097**	**2.076**	**5.320**	**1.967**	**2.152**
Stddev	.10	.04	.04	.08	.003	.001	.000	.001	.002
%RSD	.2338	.0882	.0884	.2048	.1248	.0475	.0063	.0697	.0967
#1	41.86	40.22	41.33	40.41	2.094	2.076	5.321	1.968	2.153
#2	41.99	40.29	41.33	40.53	2.098	2.077	5.320	1.967	2.150
#3	41.80	40.24	41.39	40.57	2.099	2.075	5.320	1.965	2.153
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ccv Acquired: 5/4/2019 4:01:43 Type: QC
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.100**	**2.009**	**2.051**	**1.987**	**2.120**	**1.968**	**2.023**
Stddev	.092	.002	.090	.007	.009	.003	.011
%RSD	4.402	.1118	4.375	.3340	.4143	.1402	.5522
#1	2.043	2.006	1.996	1.991	2.116	1.969	2.036
#2	2.206	2.010	2.155	1.979	2.130	1.970	2.019
#3	2.049	2.010	2.002	1.990	2.113	1.965	2.015
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**138110.**	**27002.**	**6141.3**	**8817.7**
Stddev	5404.	166.	17.6	16.6
%RSD	3.9125	.61548	.28693	.18773
#1	141700.	26920.	6132.9	8808.1
#2	131900.	27193.	6129.5	8808.1
#3	140740.	26893.	6161.6	8836.8

Zoom In Zoom Out

Sample Name: ccb Acquired: 5/4/2019 4:06:44 Type: QC
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**.0000**	**.0001**	**.0001**	**.0000**	**.0007**	**.0001**	**.0002**	**-.0002**
Stddev	.0003	.0000	.0001	.0001	.0002	.0001	.0001	.0003	.0002
%RSD	371.8	81.09	151.9	133.0	1318.	10.26	54.67	154.8	108.5
#1	.0002	.0001	.0002	.0003	.0000	.0007	.0001	.0001	-.0005
#2	-.0001	.0000	.0000	.0001	-.0002	.0007	.0002	.0005	-.0002
#3	-.0003	.0000	-.0000	-.0000	.0002	.0008	.0001	-.0000	-.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0004**	**-.0003**	**.0001**	**.0006**	**-.0006**	**.0009**	**.0013**	**-.0060**	**.0004**
Stddev	.0001	.0000	.0006	.0004	.0003	.0002	.0009	.0070	.0024
%RSD	31.83	15.91	637.3	60.17	57.95	27.43	67.99	115.8	616.6
#1	-.0003	-.0002	-.0006	.0004	-.0003	.0007	.0021	-.0011	-.0023
#2	-.0004	-.0003	.0004	.0004	-.0005	.0008	.0003	-.0030	.0015
#3	-.0006	-.0003	.0004	.0011	-.0009	.0012	.0016	-.0140	.0020
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0038**	**-.0041**	F **.7195**	**.5843**	**.0034**	**.0005**	**-.0006**	**-.0012**	**.0003**
Stddev	.0010	.0072	.0191	.0177	.0002	.0001	.0011	.0004	.0000
%RSD	27.00	175.6	2.660	3.031	5.141	22.87	174.6	34.35	12.12
#1	.0028	.0033	.7346	.6019	.0035	.0007	.0007	-.0011	.0003
#2	.0049	-.0045	.7260	.5846	.0034	.0005	-.0012	-.0017	.0003
#3	.0037	-.0110	.6980	.5665	.0032	.0005	-.0014	-.0009	.0003
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit			.5000						
Low Limit			-.5000						

Zoom In Zoom Out

Sample Name: ccb Acquired: 5/4/2019 4:06:44 Type: QC
Method: SGS 3 NO Valve(v337) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0007**	**.0023**	**.0003**	**.0044**	**.0011**	**.0028**	**.0198**
Stddev	.0003	.0010	.0001	.0031	.0022	.0018	.0015
%RSD	37.66	41.10	40.67	70.20	199.3	63.29	7.578
#1	.0009	.0035	.0002	.0040	.0010	.0043	.0208
#2	.0008	.0017	.0004	.0076	.0033	.0033	.0181
#3	.0004	.0019	.0005	.0015	-.0010	.0009	.0205
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**151590.**	**27697.**	**6483.6**	**9852.6**
Stddev	419.	79.	28.9	31.9
%RSD	.27642	.28388	.44580	.32343
#1	151110.	27631.	6515.6	9889.4
#2	151790.	27784.	6475.7	9834.5
#3	151870.	27676.	6459.5	9834.0

NOTE: The remaining raw data for this batch is not relevant to this job. As such it has been omitted.

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
Ba 455.403 { 74}	☒	1	Zr	0.001245	0.000000	No
Be 313.042 {108}	☒	6	V	0.001276	0.000000	No
			Mo	-0.000047	0.000000	No
			Ti	-0.000331	0.000000	No
			Mn	0.000010	0.000000	No
			Cu	0.000014	0.000000	No
			Bi	0.000060	0.000000	No
Cd 228.802 {448}	☒	11	As	0.010200	0.000000	No
			Ni	-0.000628	0.000000	No
			Fe	-0.000003	0.000000	No
			V	0.000091	0.000000	No
			Ba	0.000064	0.000000	No
			Co	-0.001130	0.000000	No
			Sr	-0.000020	0.000000	No
			Mn	0.000050	0.000000	No
			Cu	-0.000026	0.000000	No
			Zn	-0.000018	0.000000	No
			W	-0.000482	0.000000	No
Co 228.616 {448}	☒	7	Fe	0.000009	0.000000	No
			Mo	-0.000790	0.000000	No
			Ni	0.000091	0.000000	No
			Ti	0.002192	0.000000	No
			Ba	0.000140	0.000000	No
			W	0.000327	0.000000	No
			Cd	-0.000510	0.000000	No
Cr 267.716 {126}	☒	9	Mn	0.000348	0.000000	No
			V	0.000090	0.000000	No
			Mo	-0.000082	0.000000	No
			Fe	-0.000005	0.000000	No
			Ti	0.000060	0.000000	No
			Ba	0.000045	0.000000	No
			Cu	0.000100	0.000000	No
			Sr	-0.000100	0.000000	No
			W	0.000404	0.000000	No
Cu 324.754 {104}2	☒	13	Cr	-0.000004	0.000000	No
			V	-0.000397	0.000000	No
			Mo	0.000544	0.000000	No
			Ti	-0.000208	0.000000	No
			Fe	-0.000226	0.000000	No
			Zn	-0.000041	0.000000	No
			Co	-0.001373	0.000000	No
			Si	0.000016	0.000000	No
			Mn	0.000003	0.000000	No
			Se	0.000050	0.000000	No
			Sb	0.000069	0.000000	No
			W	0.000000	0.000000	No
			Al	0.000004	0.000000	No
Mn 257.610 {131}	☒	4	Fe	-0.000107	0.000000	No
			Si	0.000010	0.000000	No
			Ba	0.000004	0.000000	No
			Ni	0.000028	0.000000	No
Ni 231.604 {446}	☒	8	Fe	0.000008	0.000000	No
			Zn	-0.000013	0.000000	No
			Be	0.000213	0.000000	No
			Co	-0.000220	0.000000	No
			Tl	0.000209	0.000000	No
			Mo	0.000026	0.000000	No

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
			Cu	0.000050	0.000000	No
			Se	0.000100	0.000000	No
Ag 328.068 {103}	☒	14	Mn	0.000252	0.000000	No
			Mo	0.000012	-0.000003	No
			Ti	-0.000090	0.000000	No
			Fe	-0.000255	0.000000	No
			Zn	-0.000120	0.000000	No
			Ca	-0.000001	0.000000	No
			Zr	0.007615	0.000000	No
			Sr	-0.000020	0.000000	No
			Mg	0.000000	0.000000	No
			Ba	0.000071	0.000000	No
			Cr	0.000022	0.000000	No
			V	-0.003500	0.000000	No
			Al	-0.000006	0.000000	No
			W	0.000000	0.000000	No
V 292.402 {115}	☒	6	Ti	0.000689	0.000000	No
			Mo	-0.000304	0.000000	No
			Fe	0.000029	0.000000	No
			Sr	-0.000100	0.000000	No
			Cr	-0.007536	0.000000	No
			Mn	-0.002777	0.000000	No
Zn 206.200 {464}	☒	9	Cr	-0.000850	0.000000	No
			Fe	0.000011	0.000000	No
			Si	0.000015	0.000000	No
			Mn	-0.000045	0.000000	No
			Ba	-0.000060	0.000000	No
			Sn	-0.000023	0.000000	No
			Cu	0.000148	0.000000	No
			As	0.000055	0.000000	No
			Be	0.000058	0.000000	No
As 189.042 {478}	☒	18	Al	0.000008	0.000000	No
			Fe	-0.000037	0.000000	No
			Ca	0.000001	0.000000	No
			Mo	0.002250	0.000000	No
			Cr	0.000100	0.000000	No
			Ba	-0.000114	0.000000	No
			Sn	-0.000130	0.000000	No
			Cd	-0.000328	0.000000	No
			Si	0.000024	0.000000	No
			Zn	-0.000082	0.000000	No
			Sr	-0.000045	0.000000	No
			W	0.010000	0.000000	No
			Cu	-0.000058	0.000000	No
			Co	-0.000045	0.000000	No
			Zr	0.000036	0.000000	No
			Mn	0.000022	0.000000	No
			S	0.000010	0.000000	No
			Ti	0.000100	0.000000	No
Tl 190.856 {477}	☒	24	Cr	0.000315	0.000000	No
			Mo	-0.009500	0.000000	No
			Al	-0.000003	0.000000	No
			Fe	-0.000032	0.000000	No
			V	-0.028288	0.000000	No
			Mn	0.001890	0.000000	No
			Si	-0.000018	0.000000	No
			Ca	0.000000	0.000000	No

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
			Ti	-0.002790	0.000000	No
			Mg	0.000000	0.000000	No
			Co	0.004280	0.000000	No
			Sr	0.000010	0.000000	No
			B	-0.000003	0.000000	No
			Ba	0.000034	0.000000	No
			Zn	-0.000053	0.000000	No
			As	0.000068	0.000000	No
			W	-0.007000	0.000000	No
			Cu	0.000142	0.000000	No
			Pb	-0.000020	0.000000	No
			S	0.000010	0.000000	No
			Sn	-0.000086	0.000000	No
			Li	0.000000	0.000000	No
			K	0.000000	0.000000	No
			Zr	0.000000	0.000000	No
Pb 220.353 {453}	☒	20	Al	-0.000143	0.000000	No
			Fe	0.000039	0.000000	No
			Ca	0.000000	0.000000	No
			Mn	0.000154	0.000000	No
			Mo	-0.001500	0.000000	No
			Cu	0.000154	0.000000	No
			Co	0.000264	0.000000	No
			Ti	-0.000900	0.000000	No
			Si	-0.000067	0.000000	No
			Ba	-0.000022	0.000000	No
			Sb	-0.000084	0.000000	No
			Sr	-0.000033	0.000000	No
			W	0.000000	0.000000	No
			Mg	0.000004	0.000000	No
			Cd	0.000012	0.000000	No
			Cr	-0.000031	0.000000	No
			Zr	-0.000281	0.000000	No
			Ni	0.000371	0.000000	No
			S	0.000010	0.000000	No
			Zn	-0.000106	0.000000	No
Se 196.090 {472}	☒	23	Al	-0.000002	0.000000	No
			Ca	-0.000007	0.000000	No
			Mn	0.000594	0.000000	No
			Mo	0.000400	0.000000	No
			Fe	-0.000272	0.000000	No
			Co	-0.000182	0.000000	No
			Sr	-0.000011	0.000000	No
			Cu	-0.000087	0.000000	No
			W	0.000000	0.000000	No
			Si	0.000054	0.000000	No
			Be	-0.000347	0.000000	No
			Zn	0.000050	0.000000	No
			B	0.000028	0.000000	No
			Ti	-0.000020	0.000000	No
			Cd	0.000090	0.000000	No
			Zr	-0.000297	0.000000	No
			Ba	-0.000046	0.000000	No
			Mg	-0.000000	0.000000	No
			Pb	-0.000078	0.000000	No
			Ni	-0.000100	0.000000	No
			Cr	-0.000024	0.000000	No

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
			S	-0.000014	0.000000	No
			V	0.000188	0.000000	No
Sb 206.833 {463}	☒	17	Fe	0.000005	0.000000	No
			Al	0.000015	0.000000	No
			Ca	0.000001	0.000000	No
			Ni	-0.000716	0.000000	No
			Cr	0.022200	0.000000	No
			V	-0.003422	0.000000	No
			Zn	-0.000115	0.000000	No
			Mo	0.000589	0.000000	No
			Ti	0.000630	0.000000	No
			Sn	-0.010725	0.000000	No
			Mg	-0.000003	0.000000	No
			Zr	-0.000463	0.000000	No
			Sr	0.000031	0.000000	No
			B	-0.000100	0.000000	No
			Co	-0.000251	0.000000	No
			W	0.000000	0.000000	No
			Si	-0.000170	0.000000	No
Al 396.152 { 85}	☒	5	Si	0.000652	0.000000	No
			Ca	0.000018	0.000000	No
			Mo	0.043916	0.000000	No
			Zr	0.005268	0.000000	No
			Ti	-0.000583	0.000000	No
Ca 317.933 {106}	☒	14	Fe	0.000012	0.000000	No
			W	0.003960	0.000000	No
			Tl	-0.000152	0.000000	No
			Be	0.001840	0.000000	No
			Ba	-0.001224	0.000000	No
			Cu	-0.000822	0.000000	No
			Cd	-0.007593	0.000000	No
			Ni	0.000667	0.000000	No
			B	-0.000210	0.000000	No
			Se	0.000923	0.000000	No
			Co	-0.000408	0.000000	No
			Cr	0.000640	0.000000	No
			Al	-0.000000	0.000000	No
			As	0.010000	0.000000	No
Fe 259.940 {130}	☒	10	Si	0.000819	0.000000	No
			Tl	-0.000051	0.000000	No
			Cr	0.000310	0.000000	No
			Mn	-0.000196	0.000000	No
			V	-0.000064	0.000000	No
			Cu	-0.000015	0.000000	No
			Zn	0.000046	0.000000	No
			Ti	-0.000631	0.000000	No
			Ca	0.000020	0.000000	No
			Ba	0.001000	0.000000	No
Mg 279.079 {121}	☒	3	Mo	-0.013702	0.000000	No
			W	-0.006578	0.000000	No
			Mn	-0.002445	0.000000	No
K 766.490 { 44}	☒	11	Fe	-0.000440	0.000000	No
			Al	0.000077	0.000000	No
			Ca	-0.000121	0.000000	No
			Mn	-0.007074	0.000000	No
			Si	-0.003000	0.000000	No
			V	-0.002000	0.000000	No

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
			Sn	-0.004700	0.000000	No
			Ba	-0.010574	0.000000	No
			Mo	-0.000850	0.000000	No
			Cu	-0.011483	0.000000	No
			Ni	-0.010000	0.000000	No
Na 589.592 { 57}	☒	4	K	-0.000560	0.000000	No
			Ba	0.000900	0.000000	No
			Ca	0.000180	0.000000	No
			V	-0.005000	0.000000	No
B 208.959 {462}	☒	1	Mo	0.038137	0.000000	No
Mo 202.030 {467}	☒	2	Al	-0.000004	0.000000	No
			Fe	-0.000010	0.000000	No
Si 212.412 {459}	☒	12	Sr	0.000366	0.000000	No
			Ni	0.002092	0.000000	No
			Mo	0.034932	0.000000	No
			V	0.036950	0.000000	No
			Ti	0.004593	0.000000	No
			Al	-0.000010	0.000000	No
			Cd	0.001043	0.000000	No
			Ba	0.001987	0.000000	No
			Sn	0.007500	0.000000	No
			Zn	0.000385	0.000000	No
			Be	-0.000048	0.000000	No
			W	0.000000	0.000000	No
Sn 189.989 {478}	☒	4	Ti	-0.001964	0.000000	No
			Fe	0.000004	0.000000	No
			Si	0.000131	0.000000	No
			Zr	0.000908	0.000000	No
Sr 407.771 { 83}	☒	2	Ca	0.000018	0.000000	No
			Si	0.000033	0.000000	No
Ti 334.904 {101}	☒	3	Cr	0.000189	0.000000	No
			Mo	0.001351	0.000000	No
			Si	0.000035	0.000000	No
Y 360.073 { 94}*	☒	None				
Y 371.030 { 91}*	☒	None				
Y 224.306 {451}*	☒	None				
In 230.606 {446}*	☒	None				
W 207.911 {462}	☒	20	Si	0.000105	0.000000	No
			As	0.000100	0.000000	No
			Mn	0.000066	0.000000	No
			Mo	-0.000300	0.000000	No
			Ti	0.000080	0.000000	No
			Sr	-0.000850	0.000000	No
			V	-0.000140	0.000000	No
			Cd	-0.000650	0.000000	No
			Cr	-0.000390	0.000000	No
			Zn	0.013026	0.000000	No
			Sn	0.001300	0.000000	No
			Zr	0.000061	0.000000	No
			B	0.000009	0.000000	No
			Sb	-0.000300	0.000000	No
			Co	-0.001000	0.000000	No
			Ni	-0.003000	0.000000	No
			Be	-0.000185	0.000000	No
			Se	-0.000105	0.000000	No
			Cu	-0.000138	0.000000	No
			Tl	-0.000220	0.000000	No

	Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
	Zr 339.198 { 99}	☒	6	Mo	0.001069	0.000000	No
				Ti	0.000203	0.000000	No
				Fe	-0.000070	0.000000	No
				Si	0.000074	0.000000	No
				S	-0.000002	0.000000	No
				Cr	-0.000700	0.000000	No
	S 182.034 {485}	☒	7	Mo	-0.004201	0.000000	No
				Al	-0.000034	0.000000	No
				Fe	0.000002	0.000000	No
				Mn	0.004620	0.000000	No
				W	-0.032564	0.000000	No
				Ca	0.000032	0.000000	No
				Mg	0.000005	0.000000	No
	Bi 223.061 {451}	☒	9	Ti	-0.072020	0.000000	No
				V	-0.000704	0.000000	No
				Co	-0.002380	0.000000	No
				Ca	-0.000002	0.000000	No
				Mg	-0.000000	0.000000	No
				Fe	0.000187	0.000000	No
				Cr	0.001595	0.000000	No
				Cu	-0.001148	0.000000	No
				W	-0.020000	0.000000	No
	Li 670.784 { 50}	☒	2	Ca	0.000023	0.000000	No
				Fe	0.000081	0.000000	No
	P 177.495 {490}	☒	9	Mn	-0.006184	0.000000	No
				Al	-0.000060	0.000000	No
				V	-0.001953	0.000000	No
				Si	-0.001622	0.000000	No
				Ti	0.000000	-0.001185	No
				Mo	-0.001880	0.000000	No
				S	-0.000189	0.000000	No
				Co	-0.002198	0.000000	No
				Cu	-0.023500	0.000000	No

Element, Wavelength and Order	Date of Fit	Date of Cal.	Type of Fit	Weighting	A0	A1	A2	n (Exponent)
Ba 455.403 { 74}	5/6/2019 8:38:12	5/3/2019 11:34:40	Linear	None	0.012547	1.913584	0.000000	1.000000
Be 313.042 {108}	5/6/2019 8:38:12	5/3/2019 11:34:40	Linear	None	-0.000721	2.901440	0.000000	1.000000
Cd 228.802 {448}	5/6/2019 8:38:12	5/3/2019 11:34:40	Linear	None	0.000443	1.147886	0.000000	1.000000
Co 228.616 {448}	5/6/2019 8:38:12	5/3/2019 11:34:40	Linear	None	-0.000017	0.737075	0.000000	1.000000
Cr 267.716 {126}	5/6/2019 8:38:12	5/3/2019 11:34:40	Linear	None	-0.000089	0.162386	0.000000	1.000000
Cu 324.754 {104}2	5/6/2019 8:38:12	5/3/2019 11:34:40	Linear	None	0.002508	0.263279	0.000000	1.000000
Mn 257.610 {131}	5/6/2019 8:38:12	5/3/2019 11:34:40	Linear	None	0.000056	0.877777	0.000000	1.000000
Ni 231.604 {446}	5/6/2019 8:38:12	5/3/2019 11:34:40	Linear	None	-0.000090	0.598180	0.000000	1.000000
Ag 328.068 {103}	5/6/2019 8:38:12	5/3/2019 11:34:40	Linear	None	-0.000277	0.159321	0.000000	1.000000
V 292.402 {115}	5/6/2019 8:38:12	5/3/2019 11:34:40	Linear	None	0.000361	0.228860	0.000000	1.000000
Zn 206.200 {464}	5/6/2019 8:38:12	5/3/2019 11:34:40	Linear	None	0.000044	1.710053	0.000000	1.000000
As 189.042 {478}	5/6/2019 8:38:12	5/3/2019 11:34:40	Linear	None	-0.000082	0.122521	0.000000	1.000000
Tl 190.856 {477}	5/6/2019 8:38:12	5/3/2019 11:34:40	Linear	None	-0.000221	0.080375	0.000000	1.000000
Pb 220.353 {453}	5/6/2019 8:38:12	5/3/2019 11:34:40	Linear	None	0.000482	0.268440	0.000000	1.000000
Se 196.090 {472}	5/6/2019 8:38:12	5/3/2019 11:34:40	Linear	None	-0.000047	0.092931	0.000000	1.000000
Sb 206.833 {463}	5/6/2019 8:38:12	5/3/2019 11:34:40	Linear	None	0.000560	0.161453	0.000000	1.000000
Al 396.152 { 85}	5/6/2019 8:38:12	5/3/2019 11:34:40	Linear	None	0.000521	0.043853	0.000000	1.000000
Ca 317.933 {106}	5/6/2019 8:38:12	5/3/2019 11:34:40	Linear	None	0.008489	0.102955	0.000000	1.000000
Fe 259.940 {130}	5/6/2019 8:38:12	5/3/2019 11:34:40	Linear	None	0.000086	0.063009	0.000000	1.000000
Mg 279.079 {121}	5/6/2019 8:38:12	5/3/2019 11:34:40	Linear	None	-0.000009	0.011407	0.000000	1.000000
K 766.490 { 44}	5/6/2019 8:38:12	5/3/2019 11:34:41	Linear	None	0.001440	0.022080	0.000000	1.000000
Na 589.592 { 57}	5/6/2019 8:38:12	5/3/2019 11:34:41	Linear	None	-0.014223	0.081285	0.000000	1.000000
B 208.959 {462}	5/6/2019 8:38:12	5/3/2019 11:34:41	Linear	None	0.000680	0.237241	0.000000	1.000000
Mo 202.030 {467}	5/6/2019 8:38:12	5/3/2019 11:34:41	Linear	None	-0.000476	0.768256	0.000000	1.000000
Si 212.412 {459}	5/6/2019 8:38:12	5/3/2019 11:34:41	Linear	None	0.003105	0.211849	0.000000	1.000000
Sn 189.989 {478}	5/6/2019 8:38:12	5/3/2019 11:34:41	Linear	None	0.000483	0.238349	0.000000	1.000000
Sr 407.771 { 83}	5/6/2019 8:38:12	5/3/2019 11:34:41	Linear	None	-0.001561	3.371524	0.000000	1.000000
Ti 334.904 {101}	5/6/2019 8:38:12	5/3/2019 11:34:41	Linear	None	0.000056	0.182370	0.000000	1.000000
Y 360.073 { 94}*	5/6/2019 8:38:12	12/23/2009 10:44:16	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
Y 371.030 { 91}*	5/6/2019 8:38:12	12/23/2009 10:44:16	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
Y 224.306 {451}*	5/6/2019 8:38:12	12/23/2009 10:44:16	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
In 230.606 {446}*	5/6/2019 8:38:12	12/23/2009 10:44:16	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
W 207.911 {462}	5/6/2019 8:38:12	5/3/2019 11:34:41	Linear	None	0.000530	0.393722	0.000000	1.000000
Zr 339.198 { 99}	5/6/2019 8:38:12	5/3/2019 11:34:41	Linear	None	-0.000492	0.525492	0.000000	1.000000
S 182.034 {485}	5/6/2019 8:38:12	5/3/2019 11:34:41	Linear	None	0.000037	0.052056	0.000000	1.000000
Bi 223.061 {451}	5/6/2019 8:38:12	5/3/2019 11:34:41	Linear	None	-0.000054	0.186077	0.000000	1.000000
Li 670.784 { 50}	5/6/2019 8:38:12	5/3/2019 11:34:41	Linear	None	-0.003043	0.483801	0.000000	1.000000
P 177.495 {490}	5/6/2019 8:38:12	5/3/2019 11:34:41	Linear	1/Conc	-0.005406	0.038994	0.000000	1.000000

	Element, Wavelength and Order	Correlation	Std Error of Est	Predicted MDL	Predicted MQL	Status	Reslope		QC Norm	
							Slope	Y-int	Slope factor	Offset
	Ba 455.403 { 74}	1.000000	0.000000	0.000256	0.000854	OK.	1.000000	0.000000	1	0
	Be 313.042 {108}	1.000000	0.000000	0.000063	0.000212	OK.	1.000000	0.000000	1	0
	Cd 228.802 {448}	1.000000	0.000000	0.000195	0.000651	OK.	1.000000	0.000000	1	0
	Co 228.616 {448}	1.000000	0.000000	0.000233	0.000776	OK.	1.000000	0.000000	1	0
	Cr 267.716 {126}	1.000000	0.000000	0.000304	0.001013	OK.	1.000000	0.000000	1	0
	Cu 324.754 {104}2	1.000000	0.000000	0.000428	0.001425	OK.	1.000000	0.000000	1	0
	Mn 257.610 {131}	1.000000	0.000000	0.000050	0.000167	OK.	1.000000	0.000000	1	0
	Ni 231.604 {446}	1.000000	0.000000	0.000329	0.001095	OK.	1.000000	0.000000	1	0
	Ag 328.068 {103}	1.000000	0.000000	0.000463	0.001542	OK.	1.000000	0.000000	1	0
	V 292.402 {115}	1.000000	0.000000	0.000362	0.001208	OK.	1.000000	0.000000	1	0
	Zn 206.200 {464}	1.000000	0.000000	0.000109	0.000363	OK.	1.000000	0.000000	1	0
	As 189.042 {478}	1.000000	0.000000	0.001132	0.003773	OK.	1.000000	0.000000	1	0
	Tl 190.856 {477}	1.000000	0.000000	0.001313	0.004378	OK.	1.000000	0.000000	1	0
	Pb 220.353 {453}	1.000000	0.000000	0.001039	0.003465	OK.	1.000000	0.000000	1	0
	Se 196.090 {472}	1.000000	0.000000	0.002050	0.006835	OK.	1.000000	0.000000	1	0
	Sb 206.833 {463}	1.000000	0.000000	0.001528	0.005094	OK.	1.000000	0.000000	1	0
	Al 396.152 { 85}	1.000000	0.000000	0.009310	0.031035	OK.	1.000000	0.000000	1	0
	Ca 317.933 {106}	1.000000	0.000000	0.002231	0.007437	OK.	1.000000	0.000000	1	0
	Fe 259.940 {130}	1.000000	0.000000	0.001840	0.006132	OK.	1.000000	0.000000	1	0
	Mg 279.079 {121}	1.000000	0.000000	0.012875	0.042916	OK.	1.000000	0.000000	1	0
	K 766.490 { 44}	1.000000	0.000000	0.032860	0.109532	OK.	1.000000	0.000000	1	0
	Na 589.592 { 57}	1.000000	0.000000	0.009493	0.031644	OK.	1.000000	0.000000	1	0
	B 208.959 {462}	1.000000	0.000000	0.000719	0.002397	OK.	1.000000	0.000000	1	0
	Mo 202.030 {467}	1.000000	0.000000	0.000277	0.000922	OK.	1.000000	0.000000	1	0
	Si 212.412 {459}	1.000000	0.000000	0.001159	0.003864	OK.	1.000000	0.000000	1	0
	Sn 189.989 {478}	1.000000	0.000000	0.000579	0.001928	OK.	1.000000	0.000000	1	0
	Sr 407.771 { 83}	1.000000	0.000000	0.000100	0.000332	OK.	1.000000	0.000000	1	0
	Ti 334.904 {101}	1.000000	0.000000	0.000359	0.001196	OK.	1.000000	0.000000	1	0
	Y 360.073 { 94}*	0.000000	0.000000	-1.000000	-1.000000	Warnin	1.000000	0.000000	1	0
	Y 371.030 { 91}*	0.000000	0.000000	-1.000000	-1.000000	Warnin	1.000000	0.000000	1	0
	Y 224.306 {451}*	0.000000	0.000000	-1.000000	-1.000000	Warnin	1.000000	0.000000	1	0
	In 230.606 {446}*	0.000000	0.000000	-1.000000	-1.000000	Warnin	1.000000	0.000000	1	0
	W 207.911 {462}	1.000000	0.000000	0.001076	0.003587	OK.	1.000000	0.000000	1	0
	Zr 339.198 { 99}	1.000000	0.000000	0.000177	0.000589	OK.	1.000000	0.000000	1	0
	S 182.034 {485}	1.000000	0.000000	0.002478	0.008262	OK.	1.000000	0.000000	1	0
	Bi 223.061 {451}	1.000000	0.000000	0.001782	0.005940	OK.	1.000000	0.000000	1	0
	Li 670.784 { 50}	1.000000	0.000000	0.001618	0.005394	OK.	1.000000	0.000000	1	0
	P 177.495 {490}	1.000000	0.000000	0.002932	0.009773	OK.	1.000000	0.000000	1	0

Zoom In ▶ Zoom Out

Sample Name: STDA Acquired: 5/6/2019 10:53:58 Type: Cal
Method: SGS 3 NO Valve(v343) Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0101**	**-.0013**	**.0003**	**.0001**	**-.0000**	**.0023**	**.0001**	**-.0001**	**-.0003**
Stddev	.0001	.0001	.0001	.0001	.0000	.0001	.0000	.0002	.0000
%RSD	1.279	6.192	32.88	169.1	130.7	3.741	16.39	321.0	12.71
#1	.0102	-.0013	.0002	-.0000	-.0000	.0022	.0001	-.0003	-.0004
#2	.0099	-.0013	.0004	.0000	-.0000	.0024	.0001	.0001	-.0003
#3	.0100	-.0014	.0002	.0001	.0000	.0024	.0000	.0000	-.0003

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0002**	**.0003**	**-.0001**	**-.0001**	**.0003**	**.0000**	**.0006**	**.0005**	**.0085**
Stddev	.0001	.0000	.0001	.0000	.0002	.0001	.0001	.0002	.0000
%RSD	44.84	13.37	94.71	54.90	76.32	521.9	13.15	36.81	.2895
#1	.0002	.0003	-.0001	-.0001	.0000	.0002	.0005	.0006	.0085
#2	.0003	.0003	-.0001	-.0000	.0004	-.0001	.0006	.0005	.0085
#3	.0001	.0003	.0000	-.0001	.0004	-.0000	.0006	.0003	.0085

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0001**	**-.0001**	**.0039**	**-.0030**	**.0005**	**-.0003**	**.0020**	**.0004**	**-.0009**
Stddev	.0000	.0000	.0007	.0006	.0000	.0002	.0001	.0000	.0002
%RSD	26.99	48.64	18.17	19.45	4.360	52.94	4.478	6.925	19.64
#1	.0001	-.0001	.0044	-.0023	.0005	-.0004	.0019	.0004	-.0009
#2	.0001	-.0001	.0031	-.0033	.0005	-.0001	.0019	.0004	-.0008
#3	.0001	-.0001	.0042	-.0033	.0005	-.0004	.0021	.0004	-.0011

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0001**	**.0006**	**-.0003**	**.0004**	**-.0001**	**-.0081**	**-.0043**
Stddev	.0000	.0001	.0000	.0001	.0001	.0003	.0000
%RSD	31.72	8.923	7.844	21.05	106.3	3.793	.1785
#1	.0001	.0006	-.0004	.0004	-.0001	-.0085	-.0043
#2	.0001	.0006	-.0003	.0005	.0000	-.0081	-.0043
#3	.0001	.0007	-.0003	.0003	-.0001	-.0079	-.0043

◀ Zoom In ▶ Zoom Out

Sample Name: STDA Acquired: 5/6/2019 10:53:58 Type: Cal
Method: SGS 3 NO Valve(v343) Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**204850.**	**36857.**	**8771.2**	**12709.**
Stddev	623.	59.	16.4	25.
%RSD	.30424	.16133	.18713	.20036
#1	205380.	36793.	8753.9	12681.
#2	205000.	36910.	8786.6	12730.
#3	204170.	36868.	8773.0	12715.

◀ Zoom In ▶ Zoom Out

Sample Name: STDb Acquired: 5/6/2019 10:59:11 Type: Cal
Method: SGS 3 NO Valve(v343) Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5.466**	**7.960**	**3.138**	**2.150**	**.4412**	**.7371**	**2.404**	**1.781**	**.0541**
Stddev	.013	.171	.000	.000	.0035	.0057	.019	.000	.0004
%RSD	.2302	2.147	.0137	.0144	.7967	.7751	.7988	.0227	.7639
#1	5.452	8.129	3.138	2.150	.4387	.7344	2.392	1.780	.0539
#2	5.476	7.964	3.138	2.150	.4396	.7333	2.394	1.781	.0539
#3	5.470	7.787	3.138	2.150	.4452	.7437	2.427	1.781	.0546

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.6059**	**4.525**	**.3306**	**.2218**	**.7819**	**.2535**	**.4367**	**2.412**	**5.791**
Stddev	.0052	.008	.0006	.0007	.0002	.0002	.0003	.005	.013
%RSD	.8535	.1769	.1669	.3068	.0223	.0822	.0754	.2043	.2209
#1	.6026	4.522	.3313	.2225	.7818	.2537	.4367	2.415	5.800
#2	.6033	4.519	.3302	.2215	.7817	.2533	.4363	2.407	5.777
#3	.6119	4.534	.3305	.2213	.7821	.2535	.4370	2.416	5.798

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3.537**	**.6250**	**1.226**	**4.564**	**.6832**	**2.104**	**1.476**	**.6124**	**9.754**
Stddev	.005	.0013	.002	.004	.0004	.001	.000	.0009	.056
%RSD	.1461	.2043	.1827	.0906	.0563	.0633	.0225	.1546	.5778
#1	3.541	.6262	1.228	4.569	.6829	2.105	1.476	.6130	9.764
#2	3.531	.6237	1.224	4.563	.6831	2.103	1.476	.6113	9.693
#3	3.539	.6252	1.227	4.561	.6837	2.103	1.476	.6130	9.805

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.4970**	**1.096**	**1.402**	**.1292**	**.4855**	**1.281**	**.0794**
Stddev	.0041	.002	.007	.0006	.0005	.002	.0009
%RSD	.8337	.1446	.5005	.4619	.0957	.1816	1.171
#1	.4947	1.096	1.400	.1299	.4851	1.281	.0802
#2	.4945	1.094	1.410	.1290	.4855	1.278	.0794
#3	.5018	1.097	1.396	.1288	.4860	1.283	.0784

◀ Zoom In ▶ Zoom Out

Sample Name: STDb Acquired: 5/6/2019 10:59:11 Type: Cal
Method: SGS 3 NO Valve(v343) Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**193730.**	**37133.**	**8354.9**	**11240.**
Stddev	1671.	147.	22.0	20.
%RSD	.86244	.39604	.26385	.17967
#1	195420.	36990.	8363.6	11248.
#2	193700.	37284.	8371.2	11254.
#3	192080.	37127.	8329.8	11217.

Zoom In Zoom Out

Sample Name: CCVCONF Acquired: 5/6/2019 11:04:48 Type: QC
Method: SGS 3 NO Valve(v343) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **.3204**	F **.3155**	F **.3097**	F **.3103**	F **.3072**	F **.2929**	F **.3154**	F **.3053**	F **.0367**
Stddev	.0015	.0009	.0009	.0017	.0011	.0011	.0008	.0013	.0004
%RSD	.4730	.2919	.2890	.5343	.3663	.3758	.2675	.4187	1.062
#1	.3213	.3164	.3108	.3120	.3069	.2929	.3151	.3065	.0368
#2	.3214	.3156	.3094	.3102	.3085	.2940	.3163	.3053	.0363
#3	.3187	.3145	.3091	.3087	.3063	.2918	.3147	.3040	.0371
Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Fail	Chk Fail	Chk Fail	Chk Fail	Chk Fail	Chk Fail
Value	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	.2500
Range	-10.00%	-10.00%	-10.00%	-10.00%	-10.00%	-10.00%	-10.00%	-10.00%	-10.00%

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **.3062**	F **.3100**	F **.3009**	F **.3165**	F **.3063**	F **.3015**	F **.3029**	F **6.279**	F **6.310**
Stddev	.0012	.0016	.0028	.0022	.0021	.0007	.0023	.007	.019
%RSD	.3771	.5082	.9392	.6872	.6751	.2329	.7643	.1197	.3010
#1	.3050	.3118	.3017	.3152	.3081	.3021	.3045	6.285	6.329
#2	.3074	.3096	.3032	.3190	.3067	.3007	.3039	6.280	6.310
#3	.3061	.3087	.2978	.3153	.3040	.3017	.3002	6.271	6.291
Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Fail	Chk Fail	Chk Fail	Chk Fail	Chk Fail	Chk Fail
Value	2.000	2.000	2.000	2.000	2.000	2.000	2.000	40.00	40.00
Range	-10.00%	-10.00%	-10.00%	-10.00%	-10.00%	-10.00%	-10.00%	-10.00%	-10.00%

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **6.381**	F **6.495**	F **6.368**	F **6.464**	F **.3136**	F **.3107**	F **.8063**	F **.3142**	F **.3176**
Stddev	.022	.023	.032	.017	.0014	.0012	.0021	.0015	.0011
%RSD	.3401	.3570	.5021	.2609	.4536	.3771	.2624	.4733	.3607
#1	6.402	6.505	6.405	6.479	.3151	.3117	.8087	.3156	.3183
#2	6.382	6.511	6.351	6.469	.3132	.3110	.8046	.3142	.3182
#3	6.359	6.469	6.349	6.446	.3124	.3094	.8057	.3126	.3163
Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Fail	Chk Fail	Chk Fail	Chk Fail	Chk Fail	Chk Fail
Value	40.00	40.00	40.00	40.00	2.000	2.000	5.000	2.000	2.000
Range	-10.00%	-10.00%	-10.00%	-10.00%	-10.00%	-10.00%	-10.00%	-10.00%	-10.00%

Zoom In Zoom Out

Sample Name: CCVCONF Acquired: 5/6/2019 11:04:48 Type: QC
Method: SGS 3 NO Valve(v343) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **.3061**	F **.3001**	F **.3025**	F **.2976**	F **.3125**	F **.3305**	F **.3075**
Stddev	.0003	.0017	.0007	.0018	.0017	.0015	.0013
%RSD	.1129	.5608	.2327	.6027	.5466	.4478	.4266
#1	.3064	.3015	.3021	.2963	.3133	.3293	.3086
#2	.3060	.3007	.3033	.2996	.3105	.3299	.3079
#3	.3058	.2982	.3021	.2969	.3136	.3321	.3060
Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Fail	Chk Fail	Chk Fail	Chk Fail
Value	2.000	2.000	2.000	2.000	2.000	2.000	2.000
Range	-10.00%	-10.00%	-10.00%	-10.00%	-10.00%	-10.00%	-10.00%

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**205560.**	**37552.**	**8765.7**	**12318.**
Stddev	1523.	243.	29.8	34.
%RSD	.74097	.64600	.33991	.27409
#1	206630.	37273.	8768.8	12329.
#2	203820.	37672.	8793.9	12345.
#3	206230.	37711.	8734.5	12280.

Zoom In Zoom Out

Sample Name: CCBCONF Acquired: 5/6/2019 11:09:54 Type: QC
Method: SGS 3 NO Valve(v343) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**.0001**	**-.0000**	**-.0001**	**-.0004**	**-.0000**	**.0001**	**.0003**	**-.0003**
Stddev	.0001	.0000	.0001	.0002	.0003	.0001	.0000	.0002	.0004
%RSD	204.3	89.82	316.3	126.1	71.93	508.0	46.16	87.96	116.7
#1	-.0002	.0001	.0001	.0000	-.0002	-.0001	.0000	.0005	-.0004
#2	.0001	-.0000	-.0002	-.0003	-.0003	.0001	.0001	.0002	.0001
#3	-.0001	.0001	-.0000	-.0001	-.0008	-.0000	.0001	.0001	-.0006
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0002**	**-.0004**	**-.0006**	**-.0012**	**.0005**	**.0003**	**.0021**	**-.0023**	**-.0087**
Stddev	.0006	.0001	.0001	.0005	.0003	.0010	.0006	.0091	.0028
%RSD	335.8	21.97	11.70	42.39	67.25	298.2	27.89	389.3	32.72
#1	.0003	-.0003	-.0007	-.0013	.0007	-.0002	.0024	-.0044	-.0113
#2	-.0007	-.0004	-.0005	-.0017	.0005	.0015	.0025	.0076	-.0056
#3	-.0001	-.0004	-.0006	-.0007	.0001	-.0003	.0015	-.0102	-.0092
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0005**	**.0020**	**.0746**	**.0427**	**.0014**	**.0002**	**-.0001**	**-.0008**	**.0000**
Stddev	.0020	.0090	.0288	.0029	.0007	.0001	.0009	.0004	.0000
%RSD	406.6	444.4	38.59	6.719	52.76	34.92	1546.	49.05	244.1
#1	-.0016	.0009	.0675	.0417	.0015	.0001	.0001	-.0006	.0000
#2	.0008	.0115	.1063	.0459	.0006	.0003	.0007	-.0006	-.0000
#3	.0023	-.0063	.0501	.0405	.0021	.0002	-.0011	-.0012	.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: CCBCONF Acquired: 5/6/2019 11:09:54 Type: QC
Method: SGS 3 NO Valve(v343) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004**	**-.0002**	**.0003**	**-.0044**	**.0011**	**.0023**	**.0036**
Stddev	.0001	.0003	.0002	.0019	.0003	.0009	.0013
%RSD	36.19	109.1	69.90	43.16	29.52	40.09	35.52
#1	.0005	-.0004	.0003	-.0026	.0009	.0028	.0046
#2	.0004	-.0004	.0005	-.0042	.0015	.0012	.0022
#3	.0002	.0001	.0001	-.0064	.0009	.0028	.0041
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**205500.**	**37537.**	**8752.3**	**12645.**
Stddev	1906.	315.	92.7	120.
%RSD	.92743	.83819	1.0595	.95034
#1	205120.	37204.	8646.9	12507.
#2	207570.	37829.	8788.7	12701.
#3	203810.	37577.	8821.3	12727.

Zoom In Zoom Out

Sample Name: icv 1 Acquired: 5/6/2019 11:15:44 Type: QC
Method: SGS 3 NO Valve(v343) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.069**	**2.038**	**1.989**	**2.025**	**2.004**	**1.999**	**2.011**	**1.987**	**.2429**
Stddev	.004	.004	.001	.002	.014	.013	.036	.002	.0017
%RSD	.1683	.1894	.0605	.0762	.6744	.6569	1.778	.0794	.7021
#1	2.070	2.041	1.988	2.026	1.990	1.984	1.976	1.989	.2412
#2	2.065	2.034	1.990	2.026	2.005	2.001	2.008	1.986	.2431
#3	2.071	2.040	1.989	2.023	2.017	2.010	2.048	1.987	.2446
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.017**	**1.979**	**1.989**	**2.022**	**1.972**	**1.965**	**1.972**	**40.36**	**40.35**
Stddev	.015	.001	.003	.007	.001	.003	.001	.09	.08
%RSD	.7546	.0593	.1248	.3342	.0542	.1417	.0547	.2198	.1957
#1	2.001	1.978	1.986	2.024	1.973	1.968	1.971	40.34	40.32
#2	2.018	1.980	1.991	2.014	1.972	1.962	1.972	40.29	40.28
#3	2.031	1.977	1.990	2.027	1.971	1.965	1.973	40.46	40.44
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**40.68**	**40.96**	**40.58**	**40.88**	**2.024**	**1.991**	F **5.285**	**2.009**	**2.043**
Stddev	.09	.04	.08	.08	.004	.001	.005	.004	.003
%RSD	.2190	.1065	.1940	.2016	.1912	.0539	.0956	.1865	.1547
#1	40.71	40.99	40.58	40.94	2.020	1.990	5.281	2.007	2.046
#2	40.58	40.91	40.51	40.78	2.026	1.991	5.291	2.013	2.039
#3	40.75	40.98	40.66	40.90	2.026	1.992	5.284	2.005	2.043
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
Value							5.000		
Range							5.000%		

Zoom In Zoom Out

Sample Name: icv 1 Acquired: 5/6/2019 11:15:44 Type: QC
Method: SGS 3 NO Valve(v343) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.036**	**1.949**	**2.019**	**1.995**	**1.967**	**2.061**	**2.017**
Stddev	.016	.001	.016	.004	.004	.006	.010
%RSD	.7636	.0665	.7865	.2123	.2066	.2787	.4820
#1	2.019	1.950	2.002	2.000	1.962	2.057	2.013
#2	2.041	1.948	2.024	1.992	1.970	2.058	2.010
#3	2.049	1.950	2.033	1.994	1.968	2.067	2.028
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**195000.**	**36552.**	**8488.9**	**11519.**
Stddev	1437.	68.	23.0	30.
%RSD	.73684	.18551	.27121	.26371
#1	196260.	36549.	8502.5	11527.
#2	195310.	36621.	8462.3	11485.
#3	193440.	36485.	8501.9	11544.

Zoom In Zoom Out

Sample Name: icb 7 Acquired: 5/6/2019 11:21:01 Type: QC
Method: SGS 3 NO Valve(v343) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0001**	**-.0000**	**-.0001**	**-.0003**	**-.0004**	**.0000**	**-.0001**	**-.0002**
Stddev	.0003	.0000	.0000	.0001	.0003	.0005	.0001	.0003	.0001
%RSD	568.0	78.52	85.53	61.44	77.87	111.1	228.0	279.1	74.91
#1	.0002	.0001	-.0000	-.0000	-.0006	-.0005	-.0001	-.0004	-.0001
#2	.0003	.0001	-.0001	-.0001	-.0004	-.0008	.0001	-.0002	-.0001
#3	-.0003	.0000	-.0000	-.0002	-.0001	.0001	.0000	.0002	-.0003
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**-.0005**	**-.0002**	**-.0005**	**-.0004**	**-.0016**	**-.0007**	**-.0089**	**-.0095**
Stddev	.0001	.0002	.0006	.0010	.0012	.0022	.0007	.0085	.0018
%RSD	163.0	29.39	286.7	220.9	296.4	136.1	108.9	95.83	18.90
#1	.0000	-.0004	-.0006	-.0005	.0007	-.0025	.0000	-.0167	-.0108
#2	-.0000	-.0006	-.0006	-.0014	-.0002	.0009	-.0006	-.0100	-.0074
#3	-.0002	-.0006	.0005	.0006	-.0017	-.0032	-.0014	.0001	-.0102
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0006**	**-.0044**	**.0614**	**.0297**	**.0021**	**.0002**	**.0007**	**-.0007**	**-.0000**
Stddev	.0010	.0057	.0282	.0078	.0002	.0002	.0011	.0003	.0000
%RSD	168.6	128.0	45.99	26.09	10.94	99.99	148.9	38.29	6659.
#1	-.0000	-.0020	.0892	.0364	.0023	.0002	.0017	-.0004	-.0000
#2	.0018	-.0109	.0327	.0212	.0021	-.0000	-.0004	-.0010	-.0000
#3	.0000	-.0004	.0623	.0316	.0019	.0003	.0009	-.0008	.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: icb 7 Acquired: 5/6/2019 11:21:01 Type: QC
Method: SGS 3 NO Valve(v343) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0000**	**.0017**	**.0003**	**.0002**	**-.0000**	F **.0041**	**.0069**
Stddev	.0005	.0003	.0001	.0037	.0014	.0001	.0026
%RSD	2491.	19.45	44.52	1728.	3175.	1.288	36.91
#1	.0004	.0013	.0004	.0031	.0014	.0041	.0098
#2	-.0005	.0017	.0002	.0015	-.0014	.0041	.0052
#3	.0001	.0020	.0004	-.0040	-.0002	.0040	.0058
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						.0040	
Low Limit						-.0040	

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**206000.**	**37663.**	**8767.0**	**12686.**
Stddev	1619.	49.	6.0	16.
%RSD	.78593	.12996	.06875	.12329
#1	205220.	37709.	8761.3	12680.
#2	207870.	37668.	8773.3	12675.
#3	204920.	37612.	8766.5	12704.

Zoom In Zoom Out

Sample Name: iccv 1 Acquired: 5/6/2019 11:26:45 Type: QC
Method: SGS 3 NO Valve(v343) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.077**	**2.053**	**2.024**	**2.036**	**2.040**	**2.019**	**2.061**	**2.037**	**.2501**
Stddev	.004	.001	.002	.001	.011	.005	.033	.001	.0008
%RSD	.1739	.0447	.1155	.0712	.5605	.2539	1.580	.0479	.3241
#1	2.079	2.053	2.025	2.037	2.055	2.027	2.064	2.039	.2506
#2	2.078	2.052	2.022	2.035	2.042	2.019	2.093	2.037	.2502
#3	2.072	2.054	2.021	2.038	2.030	2.017	2.015	2.038	.2489
#4	2.080	2.052	2.026	2.036	2.033	2.015	2.069	2.037	.2506
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.036**	**2.048**	**2.026**	**2.070**	**2.035**	**2.014**	**2.030**	**40.24**	**40.73**
Stddev	.010	.004	.004	.006	.001	.005	.004	.05	.04
%RSD	.4772	.2082	.1773	.2801	.0677	.2320	.1750	.1206	.1094
#1	2.048	2.047	2.021	2.064	2.034	2.008	2.033	40.18	40.72
#2	2.038	2.050	2.026	2.069	2.036	2.018	2.025	40.23	40.71
#3	2.024	2.042	2.026	2.078	2.035	2.014	2.028	40.30	40.80
#4	2.033	2.052	2.029	2.069	2.033	2.017	2.033	40.26	40.70
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: iccv 1 Acquired: 5/6/2019 11:26:45 Type: QC
Method: SGS 3 NO Valve(v343) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**40.79**	**40.86**	**40.37**	**40.90**	**2.043**	**2.053**	**5.213**	**2.073**	**2.057**
Stddev	.02	.07	.04	.03	.003	.003	.008	.004	.002
%RSD	.0535	.1758	.1094	.0664	.1569	.1315	.1506	.1799	.0865
#1	40.79	40.93	40.36	40.94	2.044	2.054	5.218	2.071	2.059
#2	40.78	40.87	40.31	40.88	2.045	2.052	5.210	2.071	2.058
#3	40.82	40.86	40.41	40.88	2.038	2.050	5.202	2.073	2.055
#4	40.77	40.76	40.41	40.91	2.044	2.057	5.219	2.079	2.057
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.050**	**2.014**	**2.050**	**1.992**	**2.037**	**2.059**	**2.018**
Stddev	.010	.004	.011	.005	.005	.004	.006
%RSD	.4712	.2003	.5262	.2731	.2517	.1901	.2958
#1	2.061	2.010	2.065	1.987	2.041	2.057	2.010
#2	2.053	2.012	2.051	1.987	2.036	2.056	2.018
#3	2.038	2.013	2.039	1.998	2.030	2.063	2.024
#4	2.048	2.020	2.046	1.995	2.040	2.062	2.020
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Zoom In Zoom Out

Sample Name: iccv 1 Acquired: 5/6/2019 11:26:45 Type: QC
Method: SGS 3 NO Valve(v343) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**195380.**	**36841.**	**8450.3**	**11478.**
Stddev	1315.	253.	32.2	22.
%RSD	.67318	.68713	.38104	.19335
#1	194950.	36897.	8455.8	11482.
#2	193900.	36963.	8432.5	11463.
#3	197030.	36471.	8493.2	11509.
#4	195650.	37034.	8419.9	11461.

Zoom In Zoom Out

Sample Name: ccb 7 Acquired: 5/6/2019 11:45:10 Type: QC
Method: SGS 3 NO Valve(v343) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0000**	**.0002**	**.0002**	**-.0001**	**-.0004**	**-.0004**	**.0002**	**.0001**	**-.0001**
Stddev	.0004	.0000	.0000	.0001	.0004	.0005	.0001	.0004	.0005
%RSD	2733.	6.664	17.23	88.91	97.99	120.4	38.20	517.2	377.0
#1	.0003	.0002	.0002	-.0002	.0000	-.0009	.0003	.0001	-.0004
#2	.0001	.0002	.0002	.0000	-.0005	.0001	.0002	-.0003	.0005
#3	-.0005	.0003	.0001	-.0002	-.0007	-.0004	.0001	.0004	-.0005
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**-.0004**	**-.0003**	**-.0006**	**.0000**	**-.0004**	**.0011**	**-.0017**	**-.0058**
Stddev	.0001	.0001	.0005	.0015	.0003	.0019	.0019	.0110	.0051
%RSD	91.02	19.40	178.6	250.4	691.1	546.6	172.8	640.6	87.93
#1	.0002	-.0004	-.0006	-.0023	-.0003	.0012	.0033	.0091	-.0038
#2	.0002	-.0003	.0003	.0003	.0003	.0002	-.0005	-.0129	-.0020
#3	-.0000	-.0004	-.0006	.0002	.0001	-.0025	.0005	-.0014	-.0116
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0053**	**.0780**	**.0508**	**.0030**	**.0001**	**.0010**	**-.0007**	**.0001**
Stddev	.0009	.0114	.0244	.0075	.0012	.0003	.0004	.0003	.0001
%RSD	403.7	213.1	31.32	14.69	39.56	184.3	39.21	35.26	78.36
#1	.0010	-.0053	.0563	.0580	.0036	.0004	.0006	-.0004	.0001
#2	-.0007	.0040	.1044	.0431	.0016	-.0001	.0012	-.0008	.0002
#3	.0003	.0173	.0733	.0512	.0037	.0000	.0013	-.0009	.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: ccb 7 Acquired: 5/6/2019 11:45:10 Type: QC
Method: SGS 3 NO Valve(v343) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004**	**.0007**	**.0002**	**-.0002**	**-.0003**	**.0038**	**.0015**
Stddev	.0005	.0007	.0001	.0025	.0018	.0009	.0042
%RSD	143.1	105.7	30.11	1540.	604.6	24.81	283.1
#1	.0006	.0015	.0002	.0011	-.0004	.0048	-.0013
#2	.0007	.0003	.0001	-.0030	.0015	.0029	.0064
#3	-.0002	.0002	.0002	.0014	-.0020	.0037	-.0005
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**206620.**	**37192.**	**8707.4**	**12628.**
Stddev	1725.	159.	29.8	32.
%RSD	.83468	.42777	.34249	.25726
#1	208120.	37293.	8720.3	12649.
#2	207000.	37009.	8728.6	12645.
#3	204730.	37275.	8673.3	12591.

Zoom In Zoom Out

Sample Name: CRI Acquired: 5/6/2019 11:50:30 Type: QC
Method: SGS 3 NO Valve(v343) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2159**	**.0023**	**.0033**	**.0526**	**.0110**	**.0098**	**.0168**	**.0106**	**.0048**
Stddev	.0005	.0000	.0001	.0002	.0001	.0003	.0002	.0003	.0001
%RSD	.2105	1.958	2.385	.3077	.6445	3.220	1.181	2.446	2.052
#1	.2156	.0023	.0033	.0527	.0110	.0099	.0168	.0105	.0047
#2	.2157	.0022	.0032	.0524	.0110	.0101	.0170	.0109	.0049
#3	.2164	.0023	.0034	.0526	.0109	.0095	.0166	.0104	.0049
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0541**	**.0218**	**.0072**	**.0091**	**.0028**	**.0104**	**.0070**	**.2161**	**5.499**
Stddev	.0005	.0001	.0009	.0008	.0006	.0019	.0013	.0016	.027
%RSD	.9438	.6206	12.28	9.343	20.15	18.05	18.86	.7417	.4831
#1	.0543	.0216	.0063	.0096	.0022	.0085	.0065	.2143	5.481
#2	.0545	.0219	.0072	.0095	.0032	.0104	.0085	.2166	5.487
#3	.0536	.0217	.0081	.0081	.0031	.0122	.0060	.2174	5.530
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1116**	**5.634**	**5.624**	**5.593**	**.1086**	**.0222**	**.2282**	**.0114**	**.0107**
Stddev	.0004	.018	.031	.016	.0005	.0002	.0006	.0007	.0001
%RSD	.3776	.3124	.5433	.2794	.4431	.6960	.2462	5.821	.6918
#1	.1111	5.621	5.641	5.590	.1091	.0224	.2277	.0117	.0106
#2	.1119	5.627	5.589	5.579	.1085	.0220	.2288	.0119	.0107
#3	.1118	5.654	5.643	5.609	.1081	.0222	.2280	.0107	.0107
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: CRI Acquired: 5/6/2019 11:50:30 Type: QC
Method: SGS 3 NO Valve(v343) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0111**	**.0555**	**.0116**	**.0550**	**.0224**	F **.0681**	**.0592**
Stddev	.0006	.0008	.0001	.0007	.0014	.0005	.0014
%RSD	5.167	1.519	1.192	1.280	6.340	.7331	2.444
#1	.0106	.0553	.0118	.0558	.0218	.0676	.0592
#2	.0111	.0548	.0116	.0545	.0240	.0686	.0578
#3	.0117	.0564	.0115	.0547	.0214	.0681	.0607
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
Value						.0500	
Range						20.00%	

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**196480.**	**35898.**	**8358.4**	**11947.**
Stddev	1394.	125.	19.6	28.
%RSD	.70942	.34772	.23508	.23154
#1	196200.	35970.	8377.2	11963.
#2	195250.	35969.	8360.0	11963.
#3	197990.	35754.	8338.0	11915.

Zoom In Zoom Out

Sample Name: CRID Acquired: 5/6/2019 11:55:43 Type: QC
Method: SGS 3 NO Valve(v343) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0043**	**.0010**	**.0010**	**.0028**	**.0021**	F **-.0003**	**.0032**	**.0040**
Stddev	.0002	.0000	.0001	.0002	.0003	.0005	.0000	.0001
%RSD	5.116	1.570	10.25	5.487	13.57	141.0	1.218	3.225
#1	.0042	.0010	.0010	.0029	.0021	-.0004	.0032	.0039
#2	.0041	.0010	.0009	.0028	.0018	.0002	.0032	.0040
#3	.0046	.0010	.0010	.0026	.0023	-.0008	.0032	.0042
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
Value						.0020		
Range						-20.00%		

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **-.0002**	**.0022**	**.0112**	**.0034**	F **.0012**	F **-.0000**	**.0053**	F **.0007**
Stddev	.0002	.0004	.0001	.0006	.0008	.0006	.0009	.0008
%RSD	129.1	19.32	.9508	17.60	67.46	3050.	17.56	107.8
#1	-.0003	.0019	.0110	.0039	.0006	.0002	.0060	.0017
#2	-.0004	.0027	.0113	.0036	.0021	.0004	.0042	.0003
#3	.0001	.0022	.0112	.0027	.0009	-.0007	.0057	.0003
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Fail
Value	.0020				.0020	.0025		.0030
Range	-20.00%				-20.00%	-20.00%		-20.00%

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0944**	**1.042**	**.0013**	**.1114**	**2.091**	**1.059**	**.0018**	**.0001**
Stddev	.0065	.002	.0010	.0202	.016	.009	.0004	.0001
%RSD	6.867	.2094	78.54	18.11	.7423	.8909	21.35	179.6
#1	.0883	1.042	.0014	.1022	2.080	1.049	.0014	.0001
#2	.0938	1.040	.0022	.0975	2.109	1.068	.0022	.0002
#3	.1012	1.045	.0002	.1346	2.085	1.062	.0018	-.0001
Check ?	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	None	None
Value								
Range								

Zoom In Zoom Out

Sample Name: CRID Acquired: 5/6/2019 11:55:43 Type: QC
Method: SGS 3 NO Valve(v343) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0009**	**.0001**	**-.0001**	**.0002**	**-.0001**	**-.0002**	**-.0014**	**.0002**
Stddev	.0012	.0004	.0001	.0003	.0006	.0002	.0028	.0022
%RSD	133.7	378.8	143.5	185.9	735.4	108.1	200.5	1099.
#1	.0002	-.0001	.0000	-.0000	-.0005	.0000	.0017	-.0015
#2	.0024	-.0002	-.0001	.0005	-.0004	-.0004	-.0039	.0027
#3	.0002	.0006	-.0001	.0000	.0006	-.0003	-.0020	-.0006
Check ?	None	None	None	None	None	None	None	None
Value								
Range								

Elem	Li6707	P_1774
Units	ppm	ppm
Avg	**.0046**	**.0131**
Stddev	.0021	.0017
%RSD	45.71	13.19
#1	.0063	.0143
#2	.0022	.0138
#3	.0053	.0111
Check ?	None	None
Value		
Range		

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**202750.**	**37052.**	**8685.2**	**12579.**
Stddev	613.	74.	25.8	25.
%RSD	.30241	.20003	.29693	.19978
#1	202050.	37029.	8669.8	12559.
#2	202990.	36992.	8670.9	12572.
#3	203210.	37135.	8715.0	12608.

Zoom In Zoom Out

Sample Name: ICSA Acquired: 5/6/2019 12:01:01 Type: QC
Method: SGS 3 NO Valve(v343) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0010**	**.0002**	**.0001**	**.0015**	**-.0002**	**-.0029**	**.0010**	**-.0003**	**.0006**
Stddev	.0004	.0001	.0005	.0002	.0001	.0004	.0002	.0003	.0008
%RSD	34.98	45.56	727.7	15.29	41.38	14.42	20.30	97.12	120.3
#1	.0008	.0001	-.0002	.0017	-.0002	-.0033	.0008	.0000	.0002
#2	.0009	.0002	.0006	.0015	-.0003	-.0026	.0010	-.0005	.0001
#3	.0014	.0002	-.0003	.0013	-.0002	-.0027	.0013	-.0005	.0015
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0005**	**-.0021**	**.0001**	**-.0009**	**-.0013**	**.0062**	**-.0009**	**522.1**	**398.4**
Stddev	.0005	.0001	.0019	.0013	.0055	.0003	.0012	22.0	11.9
%RSD	112.2	6.842	1373.	142.4	409.9	4.378	134.7	4.208	2.984
#1	.0001	-.0022	-.0020	-.0001	-.0018	.0059	-.0023	516.5	391.1
#2	-.0005	-.0022	.0007	-.0025	-.0066	.0061	-.0007	503.5	392.0
#3	-.0010	-.0019	.0017	-.0002	.0044	.0065	.0002	546.3	412.1
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**196.2**	**515.9**	**.3829**	**.1172**	**-.0004**	**.0010**	**.0035**	**-.0024**	**-.0005**
Stddev	2.8	11.7	.0549	.0030	.0009	.0004	.0013	.0004	.0001
%RSD	1.423	2.274	14.34	2.551	213.0	43.67	36.63	17.33	28.65
#1	193.6	509.3	.3249	.1185	-.0014	.0012	.0044	-.0028	-.0004
#2	195.7	509.0	.3898	.1193	-.0002	.0005	.0041	-.0020	-.0004
#3	199.2	529.5	.4341	.1138	.0003	.0013	.0020	-.0025	-.0007
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: ICSA Acquired: 5/6/2019 12:01:01 Type: QC
Method: SGS 3 NO Valve(v343) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0016**	**.0010**	**-.0003**	**.0105**	**-.0056**	**.0051**	**.0336**
Stddev	.0003	.0009	.0000	.0033	.0013	.0023	.0042
%RSD	21.67	88.69	14.35	31.03	22.87	44.65	12.57
#1	-.0020	.0018	-.0003	.0137	-.0052	.0068	.0296
#2	-.0013	.0001	-.0003	.0072	-.0071	.0059	.0332
#3	-.0015	.0010	-.0002	.0106	-.0046	.0025	.0380
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**175570.**	**35403.**	**7665.6**	**10134.**
Stddev	632.	740.	36.0	41.
%RSD	.36017	2.0894	.46915	.40909
#1	176280.	35839.	7627.6	10089.
#2	175340.	35822.	7699.2	10171.
#3	175080.	34549.	7670.1	10141.

Zoom In Zoom Out

Sample Name: ICSAB Acquired: 5/6/2019 12:06:23 Type: QC
Method: SGS 3 NO Valve(v343) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5319**	**.5131**	**1.042**	**.5069**	**.5014**	**.5121**	**.5215**	**1.001**	**1.086**
Stddev	.0004	.0005	.002	.0007	.0017	.0012	.0006	.001	.002
%RSD	.0671	.1004	.1505	.1407	.3436	.2290	.1206	.0959	.1592
#1	.5321	.5132	1.041	.5069	.5001	.5114	.5217	.9994	1.084
#2	.5315	.5136	1.041	.5077	.5034	.5134	.5220	1.001	1.088
#3	.5322	.5126	1.044	.5062	.5008	.5115	.5208	1.001	1.085
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5122**	**.9851**	**1.099**	**1.016**	**.9815**	**1.081**	**1.100**	**513.8**	**391.8**
Stddev	.0007	.0001	.003	.002	.0029	.005	.004	5.9	5.3
%RSD	.1391	.0140	.2680	.2404	.2913	.5106	.3283	1.153	1.358
#1	.5129	.9851	1.098	1.016	.9782	1.076	1.098	520.2	388.7
#2	.5123	.9852	1.098	1.019	.9826	1.079	1.098	512.7	398.0
#3	.5114	.9849	1.103	1.014	.9835	1.087	1.105	508.5	388.7
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**202.4**	**516.8**	**.3034**	**.1221**	**.4960**	**.4966**	**.5262**	**.4861**	**.5255**
Stddev	1.2	.5	.0277	.0157	.0030	.0001	.0029	.0019	.0007
%RSD	.5748	.0976	9.117	12.83	.6015	.0242	.5422	.3849	.1294
#1	202.9	516.5	.3038	.1100	.4934	.4965	.5271	.4851	.5248
#2	203.3	516.7	.3309	.1164	.4953	.4966	.5230	.4850	.5261
#3	201.1	517.4	.2756	.1398	.4992	.4967	.5285	.4883	.5258
Check ?	Chk Pass	Chk Pass	None	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ICSAB Acquired: 5/6/2019 12:06:23 Type: QC
Method: SGS 3 NO Valve(v343) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5122**	**.4870**	**.5017**	**.5281**	**.5068**	**.5581**	**.5401**
Stddev	.0006	.0008	.0006	.0018	.0010	.0023	.0072
%RSD	.1115	.1613	.1108	.3441	.1902	.4069	1.327
#1	.5125	.4872	.5013	.5269	.5073	.5573	.5424
#2	.5126	.4862	.5024	.5301	.5057	.5607	.5459
#3	.5116	.4877	.5015	.5272	.5074	.5564	.5321
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**178820.**	**35525.**	**7756.9**	**10262.**
Stddev	118.	63.	27.2	25.
%RSD	.06596	.17818	.35121	.24760
#1	178700.	35533.	7771.0	10280.
#2	178810.	35584.	7774.2	10274.
#3	178940.	35458.	7725.5	10233.

Zoom In Zoom Out

Sample Name: HSTD Acquired: 5/6/2019 12:11:43 Type: QC
Method: SGS 3 NO Valve(v343) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**8.275**	**8.288**	**8.189**	**8.143**	**8.383**	**8.101**	**8.240**	**8.142**	**.6471**
Stddev	.081	.075	.004	.005	.037	.086	.070	.004	.0031
%RSD	.9815	.9041	.0553	.0561	.4442	1.066	.8518	.0519	.4809
#1	8.262	8.210	8.191	8.143	8.353	8.053	8.308	8.139	.6447
#2	8.200	8.360	8.183	8.148	8.370	8.049	8.168	8.146	.6460
#3	8.361	8.294	8.192	8.139	8.424	8.201	8.244	8.140	.6506
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**8.307**	**8.457**	**8.403**	**8.407**	**8.292**	**8.249**	**8.544**	**.0636**	**-.0421**
Stddev	.048	.013	.012	.019	.006	.019	.004	.0049	.0018
%RSD	.5774	.1576	.1452	.2296	.0703	.2297	.0499	7.647	4.389
#1	8.277	8.471	8.393	8.399	8.295	8.235	8.545	.0688	-.0401
#2	8.281	8.455	8.401	8.393	8.296	8.241	8.548	.0591	-.0424
#3	8.362	8.445	8.417	8.429	8.285	8.270	8.539	.0629	-.0437
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0257**	**.0285**	**.5128**	**.0840**	**8.373**	**8.620**	**27.15**	F **8.813**	**8.232**
Stddev	.0019	.0064	.0090	.0066	.006	.008	.03	.011	.150
%RSD	7.381	22.35	1.762	7.826	.0782	.0876	.1139	.1225	1.825
#1	-.0236	.0335	.5210	.0764	8.367	8.616	27.12	8.808	8.265
#2	-.0273	.0308	.5031	.0884	8.373	8.616	27.15	8.806	8.068
#3	-.0261	.0213	.5144	.0871	8.380	8.629	27.18	8.826	8.364
Check ?	None	None	None	None	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
Value								8.000	
Range								10.00%	

Zoom In Zoom Out

Sample Name: HSTD Acquired: 5/6/2019 12:11:43 Type: QC
Method: SGS 3 NO Valve(v343) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**8.442**	**8.793**	**8.316**	**98.48**	**8.554**	**8.405**	**8.018**
Stddev	.068	.006	.090	.31	.007	.009	.042
%RSD	.7994	.0673	1.087	.3125	.0808	.1104	.5180
#1	8.366	8.789	8.277	98.35	8.546	8.414	8.000
#2	8.464	8.800	8.251	98.25	8.557	8.405	7.989
#3	8.496	8.792	8.419	98.83	8.559	8.396	8.066
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**199280.**	**37130.**	**8410.3**	**12106.**
Stddev	337.	128.	29.0	36.
%RSD	.16887	.34394	.34477	.29661
#1	199050.	36983.	8377.4	12065.
#2	199670.	37204.	8421.3	12118.
#3	199130.	37204.	8432.1	12134.

Zoom In Zoom Out

Sample Name: HSTD Acquired: 5/6/2019 12:17:44 Type: QC
Method: SGS 3 NO Valve(v343) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0010**	**.0008**	**.0001**	**.0017**	**-.0006**	**.0004**	**.0019**	**-.0001**	**.0018**
Stddev	.0002	.0001	.0001	.0001	.0003	.0006	.0004	.0002	.0006
%RSD	16.15	6.432	143.0	3.858	54.04	160.5	20.26	384.6	32.31
#1	.0008	.0009	-.0000	.0018	-.0009	-.0002	.0017	-.0001	.0013
#2	.0011	.0009	.0001	.0017	-.0003	.0011	.0023	.0002	.0024
#3	.0010	.0008	.0001	.0017	-.0006	.0004	.0016	-.0002	.0016
Check ?	None	None	None	None	None	None	None	None	None
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0003**	**-.0012**	**.0031**	**.0006**	**.0011**	**.0044**	**-.0004**	**327.1**	**209.5**
Stddev	.0002	.0002	.0013	.0013	.0009	.0036	.0026	1.4	3.4
%RSD	88.96	18.01	42.50	201.4	89.01	80.73	704.3	.4373	1.647
#1	-.0003	-.0011	.0046	.0001	.0021	.0073	-.0025	326.5	211.3
#2	-.0005	-.0015	.0025	.0021	.0003	.0004	.0026	328.7	211.6
#3	-.0000	-.0011	.0022	-.0003	.0007	.0055	-.0012	326.1	205.5
Check ?	None	None	None	None	None	None	None	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**208.3**	**320.1**	**211.5**	**211.7**	**.0041**	**.0011**	**.0135**	**-.0010**	**-.0002**
Stddev	3.9	.6	.5	2.5	.0002	.0004	.0007	.0006	.0001
%RSD	1.893	.1978	.2508	1.174	6.120	36.43	5.092	59.69	37.13
#1	206.0	320.4	211.9	214.5	.0038	.0012	.0134	-.0017	-.0002
#2	212.8	320.6	211.8	210.8	.0043	.0007	.0142	-.0005	-.0003
#3	206.0	319.4	210.9	209.8	.0040	.0015	.0129	-.0009	-.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None	None	None	None
Value									
Range									

Zoom In Zoom Out

Sample Name: HSTD Acquired: 5/6/2019 12:17:44 Type: QC
Method: SGS 3 NO Valve(v343) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0008**	**.0008**	**.0008**	**.0198**	**-.0059**	**.0116**	**.0266**
Stddev	.0002	.0018	.0004	.0101	.0025	.0020	.0067
%RSD	25.21	233.2	56.34	50.88	41.84	17.67	25.40
#1	-.0006	-.0001	.0005	.0314	-.0062	.0106	.0327
#2	-.0009	.0028	.0012	.0145	-.0083	.0102	.0193
#3	-.0009	-.0004	.0005	.0135	-.0034	.0139	.0277
Check ?	None	None	None	None	None	None	None
Value							
Range							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**179060.**	**35014.**	**7699.0**	**10087.**
Stddev	198.	184.	49.0	68.
%RSD	.11062	.52498	.63696	.67814
#1	178940.	35065.	7643.2	10009.
#2	178960.	34811.	7718.6	10112.
#3	179290.	35167.	7735.3	10139.

Zoom In Zoom Out

Sample Name: FECONF Acquired: 5/6/2019 12:23:21 Type: Unk
Method: SGS 3 NO Valve(v343) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0008**	**.0000**	**-.0002**	**.0013**	**-.0006**	**-.0009**	**.0019**	**-.0001**	**-.0002**
Stddev	.0002	.0000	.0002	.0001	.0003	.0007	.0006	.0004	.0015
%RSD	23.06	110.5	72.38	4.051	53.15	70.36	32.40	393.6	980.0
#1	.0006	-.0000	-.0004	.0013	-.0008	-.0015	.0016	.0001	-.0007
#2	.0008	.0001	-.0002	.0013	-.0007	-.0002	.0026	.0002	.0015
#3	.0010	.0001	-.0001	.0012	-.0002	-.0011	.0015	-.0006	-.0013

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**-.0004**	**.0007**	**-.0003**	**.0003**	**-.0001**	**-.0017**	**-.0020**	**.0187**
Stddev	.0004	.0001	.0011	.0002	.0016	.0015	.0006	.0011	.0039
%RSD	804.8	22.51	174.3	79.14	510.1	1173.	38.38	56.51	21.03
#1	-.0004	-.0003	-.0006	-.0002	.0019	-.0012	-.0024	-.0024	.0207
#2	.0004	-.0004	.0011	-.0006	-.0013	.0016	-.0012	-.0007	.0213
#3	.0001	-.0004	.0015	-.0002	.0003	-.0008	-.0015	-.0029	.0142

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **201.2**	**.0107**	**.3198**	**.1226**	**.0014**	**.0006**	**.0050**	**-.0013**	**-.0001**
Stddev	3.5	.0168	.0160	.0080	.0001	.0001	.0009	.0005	.0001
%RSD	1.755	157.1	5.013	6.539	9.295	10.11	16.91	37.80	84.86
#1	198.4	.0144	.3368	.1315	.0016	.0006	.0056	-.0016	-.0001
#2	205.2	.0253	.3175	.1158	.0013	.0007	.0041	-.0016	-.0001
#3	200.0	-.0077	.3050	.1206	.0014	.0006	.0055	-.0007	-.0000

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004**	**-.0001**	**-.0002**	**-.0031**	**-.0029**	**-.0062**	**.0023**
Stddev	.0003	.0005	.0006	.0014	.0013	.0010	.0026
%RSD	76.70	416.0	351.4	45.72	44.53	16.43	113.8
#1	.0006	.0001	-.0004	-.0016	-.0034	-.0065	.0027
#2	.0001	-.0007	.0005	-.0045	-.0015	-.0050	-.0005
#3	.0004	.0002	-.0006	-.0033	-.0040	-.0070	.0047

Zoom In Zoom Out

Sample Name: FECONF Acquired: 5/6/2019 12:23:21 Type: Unk
Method: SGS 3 NO Valve(v343) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**199280.**	**36607.**	**8513.9**	**12330.**
Stddev	1777.	330.	8.2	2.
%RSD	.89167	.90125	.09684	.01846
#1	199880.	36811.	8508.9	12330.
#2	200670.	36226.	8523.4	12332.
#3	197280.	36783.	8509.4	12327.

Zoom In Zoom Out

Sample Name: CRCONF Acquired: 5/6/2019 12:28:45 Type: Unk
Method: SGS 3 NO Valve(v343) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0005**	**.0000**	**.0000**	**-.0011**	F **10.30**	**-.0003**	**-.0014**	**.0002**	**-.0006**
Stddev	.0003	.0000	.0003	.0001	.10	.0003	.0000	.0002	.0005
%RSD	65.77	83.36	1517.	7.246	.9587	82.23	1.861	86.89	91.32
#1	.0004	.0001	.0002	-.0011	10.42	-.0002	-.0014	.0002	-.0008
#2	.0002	.0000	-.0003	-.0012	10.26	-.0006	-.0014	.0000	-.0009
#3	.0008	.0000	.0002	-.0010	10.23	-.0002	-.0014	.0003	.0000

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0004**	**.0015**	**.0159**	**-.0015**	**.0008**	**-.0009**	**.0021**	**-.0041**	**-.0060**
Stddev	.0001	.0002	.0011	.0014	.0004	.0022	.0038	.0012	.0016
%RSD	37.03	11.86	6.808	94.44	54.21	228.4	176.9	28.48	27.14
#1	-.0004	.0017	.0162	-.0032	.0008	.0005	-.0022	-.0028	-.0046
#2	-.0005	.0014	.0147	-.0004	.0012	-.0034	.0043	-.0050	-.0077
#3	-.0002	.0014	.0167	-.0010	.0004	.0001	.0043	-.0046	-.0056

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0013**	**.0024**	**.1257**	**.0593**	**.0027**	**.0006**	**.0131**	**-.0003**	**.0000**
Stddev	.0020	.0101	.0199	.0193	.0003	.0004	.0003	.0006	.0001
%RSD	149.5	428.8	15.80	32.52	10.11	63.75	1.981	204.1	5049.
#1	.0032	.0108	.1482	.0813	.0027	.0002	.0129	.0002	.0001
#2	-.0007	.0052	.1181	.0505	.0030	.0006	.0134	-.0001	.0000
#3	.0014	-.0089	.1107	.0459	.0025	.0010	.0129	-.0010	-.0001

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0024**	**.0029**	**.0015**	**-.0009**	**.0020**	**.0067**	**-.0023**
Stddev	.0003	.0003	.0001	.0018	.0012	.0016	.0014
%RSD	13.48	9.686	7.623	197.2	61.26	23.57	61.33
#1	-.0021	.0032	.0017	-.0004	.0016	.0062	-.0040
#2	-.0028	.0029	.0015	.0006	.0034	.0055	-.0016
#3	-.0024	.0026	.0014	-.0029	.0011	.0085	-.0014

Zoom In Zoom Out

Sample Name: CRCONF Acquired: 5/6/2019 12:28:45 Type: Unk
Method: SGS 3 NO Valve(v343) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**202000.**	**36489.**	**8385.0**	**12350.**
Stddev	1436.	14.	64.8	91.
%RSD	.71066	.03811	.77283	.73874
#1	200900.	36487.	8427.2	12402.
#2	201480.	36476.	8310.4	12244.
#3	203630.	36504.	8417.5	12403.

Zoom In Zoom Out

Sample Name: ASCONF Acquired: 5/6/2019 12:34:10 Type: Unk
Method: SGS 3 NO Valve(v343) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	**.0000**	**.0011**	**-.0004**	**-.0002**	**-.0003**	**-.0000**	**-.0001**	**-.0006**
Stddev	.0002	.0001	.0003	.0002	.0002	.0006	.0001	.0002	.0006
%RSD	51.75	173.8	28.05	52.27	77.69	242.6	386.7	192.5	97.18
#1	.0003	-.0000	.0014	-.0002	-.0000	-.0005	-.0001	-.0002	.0001
#2	.0005	.0001	.0009	-.0005	-.0003	.0005	.0000	.0001	-.0009
#3	.0001	.0000	.0009	-.0006	-.0003	-.0007	.0000	-.0003	-.0010

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**-.0005**	**5.483**	**-.0012**	**-.0001**	**-.0016**	**.0003**	**-.0119**	**-.0620**
Stddev	.0002	.0001	.013	.0009	.0007	.0003	.0010	.0091	.0030
%RSD	113.5	22.76	.2329	71.75	537.2	19.99	325.1	76.94	4.856
#1	.0002	-.0004	5.472	-.0022	-.0002	-.0015	-.0002	-.0014	-.0632
#2	.0003	-.0004	5.480	-.0004	.0006	-.0014	-.0004	-.0158	-.0642
#3	-.0000	-.0006	5.497	-.0011	-.0008	-.0020	.0015	-.0184	-.0586

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0011**	**-.0018**	**.0897**	**.0159**	**.0009**	**.0000**	**.0043**	**-.0003**	**-.0000**
Stddev	.0016	.0159	.0143	.0106	.0003	.0001	.0002	.0003	.0001
%RSD	142.4	907.5	15.98	66.61	38.28	260.5	4.936	76.14	203.8
#1	.0028	.0136	.0837	.0268	.0009	-.0001	.0041	-.0005	-.0001
#2	-.0003	-.0183	.1061	.0057	.0012	.0001	.0043	-.0000	-.0001
#3	.0008	-.0006	.0794	.0152	.0005	.0001	.0046	-.0004	.0001

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0008**	**-.0012**	**.0002**	**-.0027**	**-.0009**	**.0062**	**.0006**
Stddev	.0002	.0006	.0002	.0017	.0016	.0012	.0027
%RSD	26.80	50.50	82.69	64.77	172.8	18.43	422.5
#1	.0008	-.0013	.0001	-.0038	.0007	.0065	-.0006
#2	.0006	-.0017	.0001	-.0007	-.0009	.0072	.0038
#3	.0010	-.0005	.0004	-.0036	-.0026	.0050	-.0012

Zoom In Zoom Out

Sample Name: ASCONF Acquired: 5/6/2019 12:34:10 Type: Unk
Method: SGS 3 NO Valve(v343) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**201590.**	**36559.**	**8617.3**	**12445.**
Stddev	1138.	186.	18.7	20.
%RSD	.56434	.50819	.21738	.15939
#1	202180.	36536.	8612.1	12436.
#2	202310.	36386.	8601.7	12432.
#3	200280.	36755.	8638.1	12468.

Zoom In Zoom Out

Sample Name: CCV Acquired: 5/6/2019 12:39:24 Type: QC
Method: SGS 3 NO Valve(v343) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.114**	**2.090**	**2.044**	**2.064**	**2.062**	**2.053**	**2.074**	**2.071**	**.2529**
Stddev	.004	.001	.003	.001	.006	.014	.025	.002	.0021
%RSD	.2067	.0529	.1307	.0486	.2843	.6779	1.210	.1133	.8332
#1	2.117	2.089	2.043	2.064	2.062	2.056	2.086	2.070	.2533
#2	2.117	2.091	2.042	2.063	2.067	2.065	2.091	2.070	.2548
#3	2.109	2.090	2.047	2.065	2.056	2.038	2.045	2.074	.2506
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.047**	**2.077**	**2.059**	**2.139**	**2.060**	**2.060**	**2.050**	**41.11**	**41.72**
Stddev	.006	.005	.003	.004	.004	.003	.003	.04	.04
%RSD	.3060	.2214	.1235	.1650	.1975	.1257	.1300	.1092	.0974
#1	2.046	2.075	2.057	2.139	2.058	2.057	2.049	41.12	41.68
#2	2.054	2.075	2.062	2.142	2.058	2.062	2.049	41.14	41.76
#3	2.042	2.083	2.059	2.135	2.065	2.061	2.054	41.06	41.72
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**41.58**	**41.77**	**41.33**	**41.74**	**2.072**	**2.098**	**5.278**	**2.125**	**2.098**
Stddev	.03	.02	.09	.06	.001	.002	.005	.001	.003
%RSD	.0804	.0416	.2058	.1428	.0450	.0990	.1034	.0248	.1598
#1	41.58	41.78	41.25	41.78	2.071	2.096	5.272	2.125	2.098
#2	41.61	41.75	41.42	41.77	2.073	2.099	5.279	2.125	2.101
#3	41.54	41.78	41.33	41.67	2.071	2.099	5.283	2.124	2.095
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: CCV Acquired: 5/6/2019 12:39:24 Type: QC
Method: SGS 3 NO Valve(v343) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.080**	**2.050**	**2.063**	**2.052**	**2.074**	**2.115**	**2.183**
Stddev	.009	.004	.007	.004	.002	.004	.010
%RSD	.4173	.2061	.3414	.2079	.0823	.1841	.4546
#1	2.076	2.045	2.061	2.052	2.074	2.112	2.186
#2	2.090	2.050	2.071	2.056	2.076	2.120	2.191
#3	2.075	2.054	2.058	2.047	2.073	2.114	2.172
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**192350.**	**35904.**	**8295.3**	**11233.**
Stddev	517.	175.	20.5	29.
%RSD	.26858	.48628	.24769	.25713
#1	192440.	36081.	8290.2	11221.
#2	191800.	35898.	8318.0	11266.
#3	192820.	35732.	8277.8	11212.

Zoom In Zoom Out

Sample Name: CCB Acquired: 5/6/2019 12:44:29 Type: QC
Method: SGS 3 NO Valve(v343) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0005**	**.0000**	**.0001**	**-.0002**	**-.0005**	**-.0004**	**.0000**	**-.0001**	**-.0006**
Stddev	.0001	.0000	.0001	.0002	.0002	.0003	.0000	.0003	.0002
%RSD	25.58	92.24	130.9	68.87	40.79	78.39	148.4	511.8	36.26
#1	.0006	-.0000	-.0001	-.0002	-.0007	-.0002	-.0000	.0003	-.0006
#2	.0006	.0001	.0002	-.0001	-.0003	-.0003	.0001	-.0003	-.0007
#3	.0004	.0001	.0002	-.0004	-.0005	-.0008	.0000	-.0001	-.0003
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**-.0005**	**-.0005**	**-.0016**	**.0006**	**-.0007**	**-.0010**	**-.0071**	**-.0093**
Stddev	.0003	.0000	.0006	.0004	.0006	.0017	.0020	.0088	.0006
%RSD	184.0	.7841	115.0	22.46	93.45	226.1	203.6	123.7	6.827
#1	.0004	-.0005	-.0012	-.0016	.0009	.0011	-.0023	-.0171	-.0091
#2	.0004	-.0005	.0001	-.0013	-.0000	-.0011	-.0019	-.0036	-.0087
#3	-.0002	-.0005	-.0006	-.0020	.0010	-.0023	.0013	-.0006	-.0100
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0007**	**.0060**	**.1046**	**.0241**	**.0026**	**.0001**	**.0006**	**-.0007**	**.0000**
Stddev	.0016	.0067	.0184	.0186	.0008	.0002	.0010	.0002	.0000
%RSD	215.0	111.0	17.58	77.14	29.37	130.8	158.2	25.83	68.85
#1	.0005	.0011	.0846	.0256	.0035	-.0001	.0018	-.0005	.0000
#2	-.0002	.0136	.1086	.0048	.0020	.0002	-.0000	-.0006	.0000
#3	-.0025	.0033	.1207	.0419	.0024	.0003	.0001	-.0009	.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: CCB Acquired: 5/6/2019 12:44:29 Type: QC
Method: SGS 3 NO Valve(v343) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	**.0001**	**.0002**	**-.0012**	**.0001**	F **.0062**	**.0081**
Stddev	.0001	.0015	.0002	.0012	.0013	.0010	.0040
%RSD	26.73	1039.	92.70	95.77	1307.	15.51	49.09
#1	.0002	.0018	.0005	-.0013	.0013	.0068	.0113
#2	.0003	-.0009	.0000	-.0000	-.0013	.0051	.0094
#3	.0004	-.0004	.0002	-.0024	.0003	.0066	.0037
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						.0040	
Low Limit						-.0040	

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**202290.**	**36487.**	**8595.9**	**12416.**
Stddev	2046.	267.	19.0	31.
%RSD	1.0112	.73272	.22160	.24769
#1	201330.	36793.	8582.6	12391.
#2	204640.	36369.	8617.7	12450.
#3	200900.	36300.	8587.4	12406.

Zoom In Zoom Out

Sample Name: SAMPLECONF Acquired: 5/6/2019 12:49:47 Type: Unk
Method: SGS 3 NO Valve(v343) Mode: CONC Corr. Factor: 25.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.356**	**.0545**	**.0795**	**1.303**	**.2552**	**.2553**	**.4079**	**.2668**	**.1227**
Stddev	.027	.0019	.0037	.004	.0041	.0079	.0018	.0043	.0158
%RSD	.5007	3.455	4.698	.3040	1.596	3.095	.4522	1.628	12.85
#1	5.350	.0542	.0805	1.307	.2541	.2470	.4082	.2655	.1158
#2	5.386	.0565	.0827	1.300	.2597	.2627	.4060	.2716	.1407
#3	5.333	.0528	.0754	1.301	.2517	.2564	.4096	.2632	.1115

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.308**	**.5369**	**.1830**	**.1940**	**.0671**	**.2712**	**.2254**	**5.196**	**136.2**
Stddev	.002	.0009	.0238	.0079	.0273	.0175	.0400	.039	.6
%RSD	.1717	.1746	12.99	4.083	40.67	6.452	17.73	.7467	.4281
#1	1.305	.5375	.1796	.1850	.0748	.2822	.1975	5.167	136.3
#2	1.309	.5358	.1612	.1999	.0898	.2510	.2712	5.240	136.7
#3	1.309	.5374	.2083	.1971	.0368	.2803	.2076	5.182	135.5

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.766**	**140.1**	**136.9**	**138.4**	**2.686**	**.5563**	**5.921**	**.2801**	**.2626**
Stddev	.045	1.0	1.0	.6	.008	.0025	.020	.0097	.0005
%RSD	1.622	.7367	.7241	.4643	.2887	.4420	.3303	3.476	.1874
#1	2.757	139.6	136.2	138.8	2.680	.5556	5.929	.2728	.2620
#2	2.815	141.3	138.0	138.8	2.685	.5543	5.935	.2912	.2629
#3	2.726	139.4	136.4	137.7	2.695	.5591	5.899	.2764	.2629

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2791**	**1.347**	**.2823**	**1.365**	**.6017**	**1.684**	**1.681**
Stddev	.0095	.013	.0064	.003	.0630	.016	.105
%RSD	3.387	.9462	2.255	.1845	10.46	.9416	6.223
#1	.2682	1.345	.2876	1.363	.5414	1.674	1.741
#2	.2835	1.361	.2842	1.368	.6670	1.702	1.742
#3	.2855	1.336	.2752	1.364	.5968	1.675	1.560

Zoom In Zoom Out

Sample Name: SAMPLECONF Acquired: 5/6/2019 12:49:47 Type: Unk
Method: SGS 3 NO Valve(v343) Mode: CONC Corr. Factor: 25.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**197600.**	**36039.**	**8324.0**	**11880.**
Stddev	1569.	93.	10.3	18.
%RSD	.79420	.25673	.12416	.15521
#1	196290.	36054.	8327.7	11864.
#2	199340.	35940.	8312.3	11875.
#3	197180.	36123.	8331.9	11900.

Zoom In Zoom Out

Sample Name: p1conf Acquired: 5/6/2019 12:54:52 Type: Unk
Method: SGS 3 NO Valve(v343) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0007**	**.0000**	**-.0002**	**-.0001**	**-.0005**	**.0001**	**.0000**	**.0002**	**-.0001**
Stddev	.0002	.0000	.0000	.0001	.0001	.0001	.0000	.0002	.0003
%RSD	32.02	105.0	21.58	140.4	16.86	158.4	3411.	113.2	562.0
#1	.0008	.0000	-.0002	-.0002	-.0006	-.0000	.0000	.0004	-.0001
#2	.0004	.0000	-.0001	-.0001	-.0005	.0000	-.0001	.0000	-.0003
#3	.0008	-.0000	-.0002	.0000	-.0005	.0002	.0000	.0001	.0003

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0026**	**-.0002**	**-.0010**	**-.0001**	**-.0018**	**-.0008**	**-.0100**	**.0050**
Stddev	.0002	.0003	.0008	.0004	.0011	.0021	.0014	.0055	.0026
%RSD	430.7	10.68	499.7	36.05	1117.	119.0	178.5	54.92	51.93
#1	-.0001	.0029	-.0002	-.0012	.0011	.0007	-.0005	-.0097	.0080
#2	-.0001	.0026	-.0009	-.0006	-.0011	-.0029	.0005	-.0046	.0041
#3	.0003	.0023	.0007	-.0012	-.0003	-.0031	-.0022	-.0156	.0030

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0005**	**.0011**	**-.0139**	**-.0683**	**.0014**	**.0004**	**.0021**	**-.0013**	**-.0000**
Stddev	.0001	.0052	.0376	.0041	.0010	.0002	.0012	.0005	.0001
%RSD	18.01	479.5	269.9	5.989	72.33	51.88	57.93	34.99	249.6
#1	-.0005	.0041	-.0524	-.0636	.0019	.0007	.0008	-.0019	.0000
#2	-.0006	.0040	.0227	-.0701	.0021	.0004	.0024	-.0012	.0000
#3	-.0004	-.0049	-.0121	-.0712	.0002	.0002	.0031	-.0010	-.0001

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	**.0061**	**-.0000**	**.0089**	**.0007**	**.0035**	**.0085**
Stddev	.0002	.0009	.0001	.0009	.0018	.0007	.0001
%RSD	56.37	15.14	856.0	10.23	250.5	21.29	1.172
#1	.0005	.0065	.0000	.0083	.0008	.0043	.0085
#2	.0003	.0051	.0001	.0099	-.0011	.0030	.0086
#3	.0002	.0068	-.0001	.0084	.0025	.0031	.0084

Zoom In Zoom Out

Sample Name: p1conf Acquired: 5/6/2019 12:54:52 Type: Unk
Method: SGS 3 NO Valve(v343) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**201480.**	**36545.**	**8569.7**	**12613.**
Stddev	808.	256.	7.8	6.
%RSD	.40080	.70141	.09046	.04528
#1	200620.	36727.	8578.6	12617.
#2	202220.	36656.	8564.7	12607.
#3	201600.	36252.	8565.8	12616.

Zoom In Zoom Out

Sample Name: p2conf Acquired: 5/6/2019 13:00:09 Type: Unk
Method: SGS 3 NO Valve(v343) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0000**	**-.0000**	**-.0003**	**-.0005**	**-.0002**	**.0001**	**.0001**	**-.0004**
Stddev	.0002	.0001	.0002	.0001	.0001	.0000	.0000	.0002	.0002
%RSD	99.84	617.9	476.6	41.80	29.17	22.51	7.517	450.3	49.61
#1	.0004	.0001	-.0003	-.0003	-.0006	-.0002	.0001	.0003	-.0002
#2	-.0000	-.0000	.0002	-.0003	-.0004	-.0001	.0001	-.0001	-.0004
#3	.0002	-.0000	-.0000	-.0001	-.0004	-.0002	.0001	-.0001	-.0006

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**-.0000**	**-.0009**	**.0000**	**-.0010**	**-.0019**	**-.0002**	**-.0058**	**-.0064**
Stddev	.0003	.0001	.0013	.0007	.0002	.0011	.0010	.0057	.0021
%RSD	235.1	179.3	141.2	3314.	18.21	61.32	392.7	97.41	32.63
#1	.0001	-.0000	-.0012	.0002	-.0011	-.0020	-.0013	-.0016	-.0043
#2	-.0001	-.0002	-.0020	-.0008	-.0008	-.0030	.0006	-.0036	-.0065
#3	-.0004	.0000	.0005	.0006	-.0011	-.0007	-.0001	-.0123	-.0085

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0029**	**.0041**	**-.0227**	**-.0559**	**.0011**	**.0001**	**.0036**	**-.0015**	**.0013**
Stddev	.0004	.0184	.0336	.0084	.0008	.0001	.0019	.0004	.0001
%RSD	13.26	451.2	148.0	15.09	74.11	129.3	52.18	27.86	8.872
#1	.0027	-.0057	-.0493	-.0546	.0020	.0002	.0017	-.0014	.0012
#2	.0034	.0253	.0150	-.0482	.0006	.0002	.0055	-.0020	.0015
#3	.0028	-.0073	-.0337	-.0649	.0006	-.0000	.0035	-.0011	.0013

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0046**	**-.0000**	**.0079**	**-.0001**	**.0008**	**.0077**
Stddev	.0002	.0005	.0001	.0011	.0003	.0015	.0019
%RSD	74.79	11.21	803.3	13.87	256.7	189.2	24.51
#1	.0004	.0041	-.0001	.0090	-.0003	-.0002	.0073
#2	.0000	.0052	-.0001	.0080	-.0004	.0026	.0098
#3	.0004	.0047	.0001	.0068	.0003	.0000	.0061

Zoom In Zoom Out

Sample Name: p2conf Acquired: 5/6/2019 13:00:09 Type: Unk
Method: SGS 3 NO Valve(v343) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**199750.**	**36788.**	**8570.2**	**12597.**
Stddev	1022.	186.	17.2	20.
%RSD	.51174	.50615	.20035	.15788
#1	199510.	36638.	8587.9	12618.
#2	198870.	36996.	8553.7	12578.
#3	200870.	36728.	8569.0	12596.

Zoom In Zoom Out

Sample Name: jc86881-9 7 Acquired: 5/6/2019 13:05:26 Type: Unk
Method: SGS 3 NO Valve(v343) Mode: CONC Corr. Factor: 3.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.864**	**.0121**	**-.0007**	**.2019**	**.4997**	**.0382**	**11.74**	**.4305**	**-.0033**
Stddev	.002	.0002	.0003	.0020	.0017	.0023	.08	.0034	.0040
%RSD	.0677	1.545	47.52	.9696	.3303	6.137	.7178	.7875	121.4
#1	2.865	.0121	-.0009	.2041	.4988	.0376	11.83	.4344	-.0046
#2	2.861	.0119	-.0008	.2010	.5016	.0362	11.67	.4284	-.0066
#3	2.865	.0123	-.0003	.2005	.4986	.0408	11.72	.4286	.0012

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5971**	**2.198**	**.0313**	**.0015**	**.0303**	**.0070**	**-.0078**	**303.9**	**24.07**
Stddev	.0005	.028	.0032	.0013	.0046	.0026	.0051	.4	.03
%RSD	.0829	1.288	10.08	82.90	15.08	37.07	65.66	.1159	.1317
#1	.5971	2.231	.0342	.0028	.0356	.0041	-.0134	303.7	24.04
#2	.5975	2.182	.0280	.0003	.0270	.0092	-.0068	304.3	24.10
#3	.5965	2.181	.0318	.0015	.0285	.0076	-.0033	303.8	24.07

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**439.7**	**225.3**	**14.43**	**2.115**	**.0967**	**.0093**	**1.774**	**.0245**	**.1212**
Stddev	10.0	.4	.11	.034	.0012	.0008	.028	.0010	.0004
%RSD	2.264	.1798	.7881	1.599	1.267	8.064	1.550	4.180	.3138
#1	435.0	224.8	14.44	2.084	.0970	.0095	1.804	.0254	.1214
#2	433.0	225.6	14.31	2.109	.0977	.0085	1.769	.0246	.1214
#3	451.2	225.5	14.54	2.151	.0953	.0100	1.749	.0234	.1208

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3231**	**-.0037**	**.1423**	**.2728**	**-.0074**	**1.033**	**6.637**
Stddev	.0004	.0031	.0011	.0125	.0039	.005	.058
%RSD	.1335	83.93	.7490	4.594	53.23	.5365	.8785
#1	.3232	-.0071	.1414	.2637	-.0037	1.038	6.705
#2	.3234	-.0030	.1420	.2676	-.0070	1.033	6.602
#3	.3226	-.0010	.1434	.2871	-.0116	1.027	6.605

Zoom In Zoom Out

Sample Name: jc86881-9 7 Acquired: 5/6/2019 13:05:26 Type: Unk
Method: SGS 3 NO Valve(v343) Mode: CONC Corr. Factor: 3.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**195370.**	**37212.**	**8479.1**	**11411.**
Stddev	323.	320.	101.0	121.
%RSD	.16516	.86042	1.1913	1.0629
#1	195610.	37549.	8364.6	11272.
#2	195000.	37176.	8517.1	11464.
#3	195510.	36912.	8555.5	11497.

Zoom In Zoom Out

Sample Name: mp14776-b1conf Acquired: 5/6/2019 13:10:52 Type: Unk
Method: SGS 3 NO Valve(v343) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.115**	**2.093**	**2.042**	**2.049**	**2.052**	**2.055**	**2.078**	**2.057**	**.2517**
Stddev	.002	.003	.003	.002	.022	.022	.026	.001	.0021
%RSD	.0993	.1354	.1259	.0879	1.061	1.049	1.231	.0567	.8364
#1	2.113	2.094	2.042	2.050	2.043	2.046	2.083	2.056	.2503
#2	2.117	2.090	2.044	2.050	2.037	2.039	2.051	2.058	.2507
#3	2.115	2.095	2.039	2.047	2.077	2.079	2.101	2.056	.2541

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.030**	**2.084**	**2.073**	**2.167**	**2.053**	**2.044**	**2.070**	**26.06**	**26.66**
Stddev	.024	.005	.003	.001	.002	.005	.002	.02	.04
%RSD	1.204	.2234	.1526	.0372	.0772	.2362	.0780	.0808	.1520
#1	2.017	2.080	2.070	2.167	2.054	2.046	2.072	26.07	26.64
#2	2.015	2.089	2.076	2.167	2.054	2.048	2.069	26.03	26.64
#3	2.059	2.083	2.073	2.166	2.051	2.039	2.069	26.07	26.71

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**26.39**	**26.61**	**26.17**	**26.75**	**2.011**	**2.111**	**-.0421**	**2.177**	**2.090**
Stddev	.04	.07	.08	.04	.003	.005	.0010	.006	.002
%RSD	.1405	.2603	.3067	.1673	.1404	.2157	2.432	.2553	.0792
#1	26.35	26.60	26.11	26.70	2.008	2.107	-.0416	2.176	2.089
#2	26.39	26.54	26.15	26.78	2.014	2.116	-.0415	2.183	2.090
#3	26.42	26.68	26.26	26.78	2.011	2.110	-.0433	2.173	2.092

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.102**	**1.761**	**2.079**	**.0353**	**.1311**	**.0057**	**2.173**
Stddev	.024	.003	.025	.0028	.0018	.0019	.014
%RSD	1.140	.1550	1.200	7.869	1.338	33.81	.6619
#1	2.088	1.760	2.066	.0330	.1299	.0056	2.171
#2	2.089	1.759	2.064	.0384	.1302	.0076	2.189
#3	2.130	1.764	2.108	.0347	.1331	.0038	2.160

Zoom In Zoom Out

Sample Name: mp14776-b1conf Acquired: 5/6/2019 13:10:52 Type: Unk
Method: SGS 3 NO Valve(v343) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**195830.**	**36303.**	**8353.2**	**11464.**
Stddev	1199.	294.	32.6	37.
%RSD	.61203	.80957	.39001	.32145
#1	196550.	36539.	8371.1	11482.
#2	196500.	36396.	8315.6	11422.
#3	194450.	35974.	8372.9	11488.

Zoom In Zoom Out

Sample Name: mp14776-s1 Acquired: 5/6/2019 13:15:57 Type: Unk
Method: SGS 3 NO Valve(v343) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.388**	**2.039**	**2.001**	**2.064**	**2.123**	**2.173**	**6.471**	**2.177**	**.2496**
Stddev	.001	.005	.007	.005	.015	.012	.086	.008	.0021
%RSD	.0534	.2234	.3720	.2631	.6923	.5510	1.336	.3470	.8227
#1	2.388	2.043	2.009	2.070	2.138	2.181	6.564	2.185	.2517
#2	2.389	2.041	1.996	2.059	2.124	2.180	6.393	2.170	.2494
#3	2.387	2.034	1.997	2.062	2.109	2.160	6.457	2.175	.2476

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.145**	**2.798**	**2.168**	**2.123**	**2.125**	**1.970**	**1.469**	**105.1**	**115.5**
Stddev	.015	.007	.005	.006	.004	.007	.006	.1	.2
%RSD	.7120	.2679	.2396	.2913	.1916	.3401	.4357	.1398	.1667
#1	2.159	2.806	2.174	2.130	2.129	1.976	1.476	105.2	115.7
#2	2.148	2.798	2.166	2.117	2.121	1.971	1.464	105.1	115.6
#3	2.129	2.791	2.164	2.123	2.125	1.962	1.468	104.9	115.3

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**277.3**	**54.02**	**38.57**	**26.96**	**1.971**	**2.030**	**4.793**	**2.063**	**2.219**
Stddev	2.2	.10	.01	.03	.009	.009	.034	.002	.004
%RSD	.7816	.1923	.0374	.1269	.4503	.4398	.7146	.0962	.1560
#1	277.3	54.12	38.57	26.99	1.981	2.040	4.829	2.065	2.221
#2	279.4	54.02	38.55	26.97	1.965	2.022	4.788	2.063	2.220
#3	275.1	53.92	38.58	26.93	1.967	2.028	4.761	2.061	2.215

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.493**	**1.153**	**2.074**	**4.074**	**.1299**	**.1385**	**5.668**
Stddev	.019	.003	.014	.019	.0028	.0019	.030
%RSD	.7800	.2375	.6938	.4622	2.121	1.352	.5360
#1	2.507	1.157	2.086	4.075	.1330	.1367	5.659
#2	2.501	1.151	2.077	4.054	.1291	.1404	5.644
#3	2.471	1.153	2.058	4.092	.1277	.1385	5.702

Zoom In Zoom Out

Sample Name: mp14776-s1 Acquired: 5/6/2019 13:15:57 Type: Unk
Method: SGS 3 NO Valve(v343) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**193820.**	**36568.**	**8391.8**	**11444.**
Stddev	1322.	42.	34.0	35.
%RSD	.68196	.11416	.40469	.30761
#1	192540.	36558.	8389.9	11441.
#2	193730.	36614.	8358.8	11410.
#3	195180.	36532.	8426.7	11481.

Zoom In Zoom Out

Sample Name: mp14776-s2 Acquired: 5/6/2019 13:21:11 Type: Unk
Method: SGS 3 NO Valve(v343) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.376**	**2.070**	**2.035**	**2.081**	**2.145**	**2.213**	**5.263**	**2.173**	**.2528**
Stddev	.016	.013	.007	.004	.071	.071	.185	.005	.0052
%RSD	.6774	.6015	.3241	.2050	3.308	3.208	3.511	.2239	2.045
#1	2.394	2.084	2.032	2.079	2.104	2.172	5.169	2.169	.2508
#2	2.369	2.060	2.031	2.078	2.104	2.171	5.144	2.172	.2490
#3	2.365	2.066	2.043	2.086	2.227	2.295	5.476	2.178	.2587

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.142**	**2.825**	**2.212**	**2.146**	**2.171**	**2.005**	**1.561**	**95.27**	**82.94**
Stddev	.070	.002	.005	.009	.003	.007	.004	.63	.50
%RSD	3.263	.0550	.2179	.4366	.1273	.3334	.2377	.6605	.6039
#1	2.102	2.825	2.211	2.148	2.171	2.006	1.559	95.99	83.51
#2	2.102	2.825	2.208	2.135	2.169	1.998	1.559	94.85	82.60
#3	2.223	2.827	2.218	2.154	2.174	2.011	1.566	94.97	82.70

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**247.5**	**46.46**	**37.13**	**27.29**	**2.010**	**2.078**	**5.179**	**2.114**	**2.219**
Stddev	1.5	.23	.22	.16	.011	.004	.012	.002	.013
%RSD	.5917	.4978	.5830	.5758	.5670	.1686	.2390	.0806	.5688
#1	249.2	46.73	37.38	27.47	1.999	2.077	5.177	2.115	2.234
#2	246.5	46.34	37.04	27.20	2.009	2.076	5.167	2.112	2.211
#3	246.7	46.32	36.97	27.20	2.021	2.082	5.192	2.115	2.213

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.358**	**1.242**	**2.117**	**2.673**	**.1210**	**.1175**	**5.014**
Stddev	.075	.004	.067	.004	.0042	.0012	.047
%RSD	3.176	.3305	3.151	.1588	3.448	.9913	.9388
#1	2.318	1.237	2.079	2.674	.1204	.1179	4.971
#2	2.312	1.244	2.077	2.677	.1172	.1162	5.006
#3	2.445	1.245	2.194	2.668	.1255	.1184	5.065

Zoom In Zoom Out

Sample Name: mp14776-s2 Acquired: 5/6/2019 13:21:11 Type: Unk
Method: SGS 3 NO Valve(v343) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**194990.**	**36635.**	**8387.7**	**11472.**
Stddev	5317.	173.	26.5	40.
%RSD	2.7271	.47245	.31626	.35047
#1	198930.	36481.	8410.4	11509.
#2	197100.	36602.	8394.2	11479.
#3	188940.	36822.	8358.5	11429.

Zoom In Zoom Out

Sample Name: jc87355-1 Acquired: 5/6/2019 13:26:11 Type: Unk
Method: SGS 3 NO Valve(v343) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2638**	**.0035**	**.0003**	**.0537**	**.0761**	**.1325**	**4.356**	**.1440**	**-.0007**
Stddev	.0006	.0002	.0002	.0006	.0011	.0006	.004	.0006	.0006
%RSD	.2250	5.935	59.78	1.161	1.493	.4463	.1023	.4476	86.15
#1	.2632	.0033	.0005	.0543	.0773	.1329	4.352	.1445	-.0005
#2	.2643	.0037	.0002	.0537	.0758	.1327	4.354	.1444	-.0013
#3	.2641	.0036	.0002	.0530	.0751	.1318	4.361	.1433	-.0002

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1063**	**.8077**	**.1393**	**.0020**	**.1413**	**.0015**	**-.0040**	**46.74**	**218.1**
Stddev	.0000	.0006	.0040	.0020	.0012	.0011	.0017	.18	.6
%RSD	.0293	.0694	2.883	97.18	.8208	69.27	42.34	.3781	.2967
#1	.1063	.8081	.1356	.0038	.1406	.0003	-.0035	46.55	217.5
#2	.1063	.8079	.1387	-.0001	.1405	.0022	-.0058	46.90	218.8
#3	.1063	.8070	.1436	.0024	.1426	.0021	-.0026	46.76	218.1

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**222.2**	**93.65**	**7.698**	**.5542**	**.0245**	**.0101**	**2.030**	**.0178**	**.1954**
Stddev	.6	.28	.022	.0222	.0013	.0004	.008	.0009	.0004
%RSD	.2722	.2996	.2854	3.998	5.386	4.399	.4151	4.875	.2031
#1	221.7	93.45	7.685	.5686	.0254	.0106	2.033	.0186	.1953
#2	222.9	93.97	7.724	.5654	.0251	.0101	2.036	.0169	.1958
#3	222.1	93.52	7.686	.5287	.0230	.0097	2.020	.0177	.1951

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3670**	**.0079**	**.0542**	**3.063**	**.0084**	**.0954**	**5.240**
Stddev	.0001	.0011	.0005	.016	.0029	.0030	.021
%RSD	.0338	14.33	.9937	.5315	35.04	3.150	.4107
#1	.3671	.0091	.0537	3.058	.0051	.0922	5.245
#2	.3669	.0078	.0547	3.081	.0107	.0981	5.258
#3	.3670	.0069	.0543	3.050	.0094	.0960	5.216

Zoom In Zoom Out

Sample Name: jc87355-1 Acquired: 5/6/2019 13:26:11 Type: Unk
Method: SGS 3 NO Valve(v343) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**196880.**	**36408.**	**8389.1**	**11400.**
Stddev	1086.	185.	.8	10.
%RSD	.55173	.50944	.00961	.08585
#1	195710.	36613.	8388.2	11389.
#2	197060.	36252.	8389.2	11407.
#3	197860.	36358.	8389.8	11405.

Zoom In Zoom Out

Sample Name: mp14776-sd1 Acquired: 5/6/2019 13:31:29 Type: Unk
Method: SGS 3 NO Valve(v343) Mode: CONC Corr. Factor: 10.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2640**	**.0034**	**-.0003**	**.0511**	**.0751**	**.2234**	**4.439**	**.1876**	**-.0062**
Stddev	.0010	.0003	.0009	.0027	.0033	.0059	.050	.0011	.0045
%RSD	.3604	10.04	338.5	5.325	4.454	2.658	1.129	.5893	73.06
#1	.2639	.0033	-.0005	.0502	.0720	.2184	4.407	.1875	-.0091
#2	.2649	.0038	-.0010	.0490	.0786	.2300	4.497	.1887	-.0085
#3	.2630	.0032	.0007	.0542	.0746	.2219	4.414	.1865	-.0010

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1075**	**.8819**	**.1376**	**-.0057**	**.1469**	**-.0275**	**-.0004**	**45.91**	**217.4**
Stddev	.0012	.0012	.0071	.0036	.0051	.0050	.0067	.16	.7
%RSD	1.113	.1415	5.163	62.38	3.452	18.27	1829.	.3425	.3301
#1	.1064	.8823	.1448	-.0022	.1446	-.0329	-.0019	45.88	217.7
#2	.1088	.8805	.1306	-.0056	.1527	-.0265	-.0061	46.08	217.9
#3	.1074	.8830	.1375	-.0093	.1434	-.0230	.0070	45.77	216.6

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**221.3**	**94.62**	**8.154**	**.5126**	**.0383**	**.0106**	**2.024**	**.0107**	**.1951**
Stddev	.7	.71	.174	.0549	.0046	.0020	.032	.0010	.0006
%RSD	.3269	.7462	2.135	10.71	12.06	18.78	1.572	9.738	.3254
#1	221.7	94.82	7.956	.5465	.0430	.0121	2.021	.0100	.1955
#2	221.7	95.20	8.283	.5421	.0338	.0113	2.057	.0104	.1954
#3	220.4	93.83	8.222	.4492	.0381	.0083	1.993	.0119	.1944

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3762**	**.0229**	**.0539**	**3.065**	**.0057**	**.1127**	**5.194**
Stddev	.0115	.0121	.0027	.029	.0149	.0207	.042
%RSD	3.052	53.03	4.940	.9405	261.9	18.34	.8083
#1	.3885	.0283	.0519	3.053	-.0001	.0925	5.158
#2	.3743	.0314	.0528	3.044	.0226	.1118	5.184
#3	.3658	.0090	.0569	3.098	-.0055	.1338	5.240

Zoom In Zoom Out

Sample Name: mp14776-sd1 Acquired: 5/6/2019 13:31:29 Type: Unk
Method: SGS 3 NO Valve(v343) Mode: CONC Corr. Factor: 10.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**199370.**	**36255.**	**8480.4**	**11890.**
Stddev	2111.	47.	6.0	6.
%RSD	1.0590	.13053	.07084	.05020
#1	201470.	36247.	8476.4	11883.
#2	197250.	36213.	8477.6	11891.
#3	199390.	36306.	8487.3	11895.

Zoom In Zoom Out

Sample Name: ccv Acquired: 5/6/2019 13:36:42 Type: QC
Method: SGS 3 NO Valve(v343) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.157**	**2.114**	**2.066**	**2.088**	**2.073**	**2.064**	**2.081**	**2.102**	**.2538**
Stddev	.002	.004	.002	.002	.010	.016	.073	.001	.0017
%RSD	.0942	.1959	.1081	.0811	.4693	.7540	3.521	.0276	.6635
#1	2.155	2.117	2.068	2.090	2.082	2.081	2.151	2.103	.2557
#2	2.157	2.110	2.065	2.087	2.063	2.050	2.005	2.102	.2527
#3	2.159	2.116	2.064	2.088	2.076	2.061	2.089	2.101	.2529
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.055**	**2.102**	**2.091**	**2.166**	**2.088**	**2.088**	**2.080**	**41.76**	**42.44**
Stddev	.010	.000	.003	.001	.000	.003	.001	.09	.11
%RSD	.4924	.0170	.1631	.0633	.0181	.1436	.0674	.2180	.2545
#1	2.062	2.102	2.094	2.165	2.088	2.085	2.081	41.84	42.48
#2	2.043	2.101	2.091	2.168	2.088	2.088	2.079	41.66	42.31
#3	2.059	2.102	2.088	2.166	2.088	2.091	2.078	41.79	42.51
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**42.17**	**42.46**	**41.95**	**42.51**	**2.097**	**2.133**	**5.344**	**2.161**	**2.133**
Stddev	.08	.06	.16	.06	.001	.001	.006	.001	.003
%RSD	.1839	.1472	.3770	.1391	.0533	.0391	.1048	.0579	.1352
#1	42.18	42.46	41.95	42.52	2.097	2.132	5.346	2.162	2.133
#2	42.09	42.39	41.78	42.44	2.098	2.134	5.349	2.161	2.130
#3	42.24	42.52	42.10	42.56	2.096	2.133	5.338	2.159	2.136
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ccv Acquired: 5/6/2019 13:36:42 Type: QC
Method: SGS 3 NO Valve(v343) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.098**	**2.087**	**2.080**	**2.063**	**2.109**	**2.158**	**2.119**
Stddev	.011	.003	.012	.004	.007	.005	.009
%RSD	.5428	.1489	.5964	.1703	.3159	.2442	.3990
#1	2.106	2.085	2.089	2.062	2.115	2.158	2.128
#2	2.085	2.091	2.066	2.067	2.102	2.152	2.113
#3	2.102	2.087	2.084	2.061	2.111	2.163	2.114
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**191340.**	**35922.**	**8266.6**	**11173.**
Stddev	2907.	177.	11.0	10.
%RSD	1.5191	.49256	.13260	.08861
#1	188020.	35850.	8254.3	11161.
#2	192580.	36124.	8269.9	11179.
#3	193420.	35793.	8275.5	11178.

Zoom In Zoom Out

Sample Name: ccb Acquired: 5/6/2019 13:41:45 Type: QC
Method: SGS 3 NO Valve(v343) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0006**	**.0003**	**.0004**	**-.0001**	**.0001**	**-.0003**	**.0003**	**.0005**	**-.0006**
Stddev	.0003	.0000	.0000	.0001	.0003	.0005	.0000	.0003	.0005
%RSD	45.55	4.013	10.84	120.9	480.7	160.0	11.08	67.58	86.24
#1	.0006	.0003	.0004	-.0002	.0000	-.0003	.0004	.0002	-.0007
#2	.0009	.0003	.0003	-.0001	-.0002	.0002	.0003	.0009	-.0000
#3	.0003	.0003	.0004	.0000	.0004	-.0007	.0004	.0004	-.0011
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**-.0001**	**-.0009**	**-.0004**	**.0010**	**-.0011**	**-.0002**	**.0014**	**-.0036**
Stddev	.0003	.0001	.0004	.0009	.0001	.0014	.0006	.0034	.0009
%RSD	129.7	89.85	38.82	235.9	5.236	123.8	289.3	244.6	26.62
#1	.0003	-.0001	-.0006	-.0002	.0010	-.0010	-.0008	-.0024	-.0044
#2	-.0001	-.0000	-.0014	.0004	.0010	.0002	-.0001	.0043	-.0026
#3	.0004	-.0002	-.0008	-.0013	.0009	-.0026	.0003	.0023	-.0037
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0048**	**.0208**	**.0967**	**-.0049**	**.0028**	**.0005**	**.0016**	**.0006**	**.0001**
Stddev	.0003	.0091	.0254	.0053	.0008	.0003	.0005	.0005	.0001
%RSD	6.852	43.91	26.22	108.5	28.67	71.66	33.36	90.76	106.4
#1	.0046	.0185	.0722	-.0028	.0035	.0008	.0012	.0009	-.0000
#2	.0046	.0309	.0951	-.0009	.0019	.0004	.0014	-.0000	.0002
#3	.0052	.0130	.1229	-.0109	.0030	.0002	.0022	.0010	.0002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: ccb Acquired: 5/6/2019 13:41:45 Type: QC
Method: SGS 3 NO Valve(v343) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0007**	**.0014**	**.0003**	**.0007**	**.0017**	F **.0055**	**.0173**
Stddev	.0005	.0012	.0001	.0014	.0013	.0016	.0006
%RSD	63.66	84.68	16.09	205.9	74.94	29.70	3.294
#1	.0003	.0024	.0003	-.0008	.0004	.0059	.0179
#2	.0012	.0001	.0004	.0018	.0017	.0037	.0172
#3	.0007	.0016	.0003	.0010	.0030	.0068	.0167
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						.0040	
Low Limit						-.0040	

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**198490.**	**35986.**	**8502.5**	**12257.**
Stddev	1503.	65.	9.2	12.
%RSD	.75734	.18057	.10771	.09920
#1	198110.	36047.	8491.9	12243.
#2	200140.	35991.	8507.9	12263.
#3	197210.	35918.	8507.6	12265.

Zoom In Zoom Out

Sample Name: mp14776-ps1 Acquired: 5/6/2019 13:47:03 Type: Unk
Method: SGS 3 NO Valve(v343) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.415**	**2.116**	**2.116**	**2.158**	**2.135**	**2.246**	**5.979**	**2.254**	**.2601**
Stddev	.006	.001	.010	.013	.031	.030	.068	.013	.0035
%RSD	.2678	.0247	.4843	.5865	1.436	1.336	1.129	.5580	1.342
#1	2.410	2.116	2.128	2.170	2.131	2.242	5.957	2.267	.2593
#2	2.412	2.115	2.113	2.158	2.106	2.218	5.925	2.252	.2572
#3	2.422	2.116	2.108	2.145	2.167	2.278	6.055	2.242	.2640

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.149**	**2.794**	**2.332**	**2.170**	**2.223**	**2.114**	**2.156**	**70.19**	F **222.6**
Stddev	.031	.018	.008	.007	.014	.008	.010	.04	2.2
%RSD	1.437	.6527	.3483	.3289	.6495	.3934	.4606	.0511	.9751
#1	2.143	2.813	2.341	2.177	2.237	2.122	2.167	70.15	222.3
#2	2.121	2.792	2.329	2.171	2.224	2.113	2.153	70.21	224.9
#3	2.182	2.777	2.326	2.162	2.208	2.105	2.148	70.22	220.6

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **226.7**	**111.7**	**33.93**	**27.63**	**2.128**	**2.131**	**1.887**	**2.165**	**2.319**
Stddev	4.6	.1	.08	.03	.009	.011	.015	.013	.004
%RSD	2.048	.0921	.2288	.0989	.4269	.4947	.7932	.6141	.1682
#1	224.5	111.6	33.85	27.60	2.138	2.143	1.903	2.178	2.316
#2	223.5	111.8	33.93	27.63	2.121	2.128	1.875	2.167	2.318
#3	232.0	111.7	34.01	27.65	2.124	2.122	1.881	2.151	2.323

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.480**	**2.012**	**2.164**	**2.964**	**.1508**	**.0893**	**7.072**
Stddev	.038	.001	.032	.012	.0026	.0012	.023
%RSD	1.549	.0658	1.463	.3925	1.744	1.306	.3198
#1	2.473	2.013	2.160	2.977	.1519	.0897	7.091
#2	2.445	2.011	2.135	2.956	.1477	.0880	7.047
#3	2.521	2.011	2.198	2.958	.1526	.0902	7.079

Zoom In Zoom Out

Sample Name: mp14776-ps1 Acquired: 5/6/2019 13:47:03 Type: Unk
Method: SGS 3 NO Valve(v343) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**195460.**	**37311.**	**8284.8**	**10914.**
Stddev	2530.	216.	27.3	36.
%RSD	1.2946	.57877	.32920	.33208
#1	195170.	37455.	8254.7	10876.
#2	198120.	37063.	8291.6	10918.
#3	193090.	37415.	8308.0	10949.

Zoom In Zoom Out

Sample Name: jc87266-3 Acquired: 5/6/2019 13:52:23 Type: Unk
Method: SGS 3 NO Valve(v343) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3571**	**.0058**	**.0008**	**.0938**	**.2274**	**.1796**	**4.931**	**.2211**	**-.0014**
Stddev	.0008	.0001	.0001	.0004	.0025	.0020	.035	.0009	.0009
%RSD	.2379	1.721	17.46	.4293	1.088	1.113	.7080	.3878	62.49
#1	.3562	.0058	.0010	.0934	.2295	.1802	4.914	.2202	-.0023
#2	.3576	.0058	.0007	.0938	.2281	.1812	4.971	.2210	-.0012
#3	.3577	.0060	.0008	.0942	.2246	.1774	4.908	.2219	-.0006

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2616**	**.7769**	**.0598**	**.0024**	**.0934**	**.0019**	**-.0051**	**142.1**	**11.76**
Stddev	.0024	.0024	.0011	.0008	.0007	.0040	.0026	.6	.04
%RSD	.9227	.3034	1.847	32.34	.7730	217.2	51.85	.3995	.3326
#1	.2632	.7755	.0603	.0018	.0926	.0013	-.0040	141.6	11.73
#2	.2627	.7755	.0605	.0033	.0941	-.0019	-.0081	142.7	11.80
#3	.2588	.7796	.0585	.0022	.0934	.0062	-.0032	141.9	11.74

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**221.4**	**54.25**	**11.97**	**.9009**	**.0108**	**.0138**	**2.059**	**.0308**	**.0724**
Stddev	.7	.19	.08	.0209	.0008	.0007	.004	.0012	.0000
%RSD	.3150	.3442	.7068	2.323	7.249	5.086	.1901	3.927	.0201
#1	220.7	54.04	11.88	.9225	.0107	.0146	2.061	.0316	.0724
#2	222.1	54.38	12.04	.8995	.0101	.0134	2.055	.0313	.0724
#3	221.4	54.32	12.00	.8807	.0117	.0133	2.062	.0294	.0724

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.572**	**.0453**	**.0139**	**1.655**	**.2576**	**.1877**	**8.624**
Stddev	.056	.0042	.0002	.007	.0060	.0006	.023
%RSD	1.009	9.250	1.724	.4519	2.321	.3284	.2658
#1	5.611	.0491	.0141	1.664	.2633	.1882	8.602
#2	5.598	.0460	.0140	1.652	.2582	.1870	8.623
#3	5.508	.0408	.0137	1.650	.2514	.1878	8.648

Zoom In Zoom Out

Sample Name: jc87266-3 Acquired: 5/6/2019 13:52:23 Type: Unk
Method: SGS 3 NO Valve(v343) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**196190.**	**36930.**	**8535.3**	**11632.**
Stddev	1537.	347.	22.0	34.
%RSD	.78334	.94070	.25718	.29127
#1	195070.	37237.	8542.0	11644.
#2	195550.	36553.	8553.1	11658.
#3	197940.	37000.	8510.7	11593.

Zoom In Zoom Out

Sample Name: jc87266-11 Acquired: 5/6/2019 13:57:37 Type: Unk
Method: SGS 3 NO Valve(v343) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5477**	**.0059**	**.0001**	**.0904**	**.2497**	**.2548**	**4.356**	**.2314**	**-.0012**
Stddev	.0033	.0002	.0002	.0006	.0022	.0022	.097	.0008	.0006
%RSD	.5986	4.197	162.7	.6196	.8692	.8781	2.237	.3588	50.67
#1	.5442	.0057	.0002	.0905	.2472	.2525	4.248	.2305	-.0014
#2	.5483	.0062	-.0001	.0899	.2512	.2569	4.438	.2320	-.0006
#3	.5507	.0059	.0003	.0910	.2507	.2551	4.381	.2317	-.0018

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2725**	**.7344**	**.0489**	**.0014**	**.0909**	**.0040**	**-.0040**	**151.8**	**14.07**
Stddev	.0024	.0014	.0017	.0014	.0011	.0028	.0014	.6	.06
%RSD	.8720	.1884	3.469	99.85	1.183	70.05	35.74	.3864	.4451
#1	.2698	.7331	.0475	.0020	.0897	.0025	-.0044	151.1	14.00
#2	.2742	.7343	.0508	.0023	.0917	.0022	-.0024	152.1	14.10
#3	.2735	.7359	.0485	-.0002	.0914	.0072	-.0052	152.1	14.12

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**212.2**	**58.47**	**11.53**	**1.514**	**.0096**	**.0072**	**2.135**	**.0318**	**.0910**
Stddev	1.0	.26	.10	.019	.0007	.0006	.000	.0007	.0009
%RSD	.4514	.4421	.8233	1.257	7.402	8.747	.0198	2.302	.9480
#1	211.1	58.18	11.42	1.492	.0089	.0074	2.136	.0325	.0901
#2	212.8	58.56	11.59	1.527	.0103	.0077	2.135	.0310	.0913
#3	212.8	58.68	11.59	1.523	.0094	.0065	2.135	.0319	.0917

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**6.079**	**.0194**	**.0131**	**1.256**	**.2785**	**.1896**	**7.000**
Stddev	.048	.0009	.0004	.001	.0040	.0052	.065
%RSD	.7881	4.771	3.197	.0741	1.421	2.724	.9245
#1	6.024	.0198	.0135	1.256	.2742	.1854	6.925
#2	6.114	.0201	.0131	1.255	.2820	.1880	7.032
#3	6.099	.0184	.0126	1.257	.2794	.1953	7.042

Zoom In Zoom Out

Sample Name: jc87266-11 Acquired: 5/6/2019 13:57:37 Type: Unk
Method: SGS 3 NO Valve(v343) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**199900.**	**36804.**	**8629.8**	**11662.**
Stddev	1174.	234.	29.4	29.
%RSD	.58706	.63451	.34104	.25268
#1	200340.	36875.	8625.6	11659.
#2	198570.	36543.	8602.8	11634.
#3	200790.	36993.	8661.2	11693.

Zoom In Zoom Out

Sample Name: jc87355-2 Acquired: 5/6/2019 14:02:51 Type: Unk
Method: SGS 3 NO Valve(v343) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2816**	**.0044**	**.0012**	**.0879**	**.0720**	**.1637**	**5.346**	**.1820**	**-.0029**
Stddev	.0020	.0001	.0003	.0003	.0009	.0017	.050	.0003	.0014
%RSD	.6943	1.415	26.51	.3438	1.299	1.031	.9366	.1847	46.49
#1	.2795	.0044	.0013	.0882	.0729	.1643	5.389	.1822	-.0040
#2	.2819	.0044	.0015	.0876	.0710	.1618	5.291	.1822	-.0033
#3	.2833	.0045	.0008	.0879	.0721	.1650	5.358	.1816	-.0014

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1143**	**1.102**	**.3130**	**.0020**	**.2477**	**.0027**	**-.0020**	**40.77**	**89.20**
Stddev	.0012	.001	.0016	.0015	.0010	.0028	.0023	.33	.64
%RSD	1.014	.0812	.5086	75.77	.4051	102.8	116.2	.8192	.7154
#1	.1148	1.101	.3114	.0023	.2488	-.0003	.0007	40.41	88.55
#2	.1130	1.103	.3130	.0003	.2468	.0033	-.0035	40.82	89.21
#3	.1152	1.102	.3145	.0033	.2475	.0051	-.0030	41.07	89.83

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**347.7**	**24.53**	**6.763**	**.4472**	**.0204**	**.0193**	**2.143**	**.0195**	**.1408**
Stddev	5.2	.14	.087	.0139	.0011	.0006	.014	.0009	.0010
%RSD	1.493	.5784	1.286	3.118	5.494	3.284	.6706	4.743	.6816
#1	346.8	24.38	6.751	.4341	.0200	.0199	2.147	.0191	.1398
#2	343.1	24.58	6.683	.4619	.0216	.0186	2.155	.0205	.1409
#3	353.3	24.65	6.856	.4455	.0195	.0195	2.127	.0188	.1417

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4767**	**.0109**	**.0550**	**4.114**	**.0118**	**.0722**	**4.712**
Stddev	.0020	.0004	.0011	.013	.0011	.0041	.024
%RSD	.4095	3.891	2.089	.3115	8.991	5.691	.5101
#1	.4776	.0113	.0550	4.107	.0115	.0676	4.700
#2	.4745	.0110	.0539	4.106	.0130	.0752	4.697
#3	.4780	.0104	.0562	4.129	.0110	.0740	4.740

Zoom In Zoom Out

Sample Name: jc87355-2 Acquired: 5/6/2019 14:02:51 Type: Unk
Method: SGS 3 NO Valve(v343) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**200510.**	**37060.**	**8545.0**	**11801.**
Stddev	1825.	136.	13.6	24.
%RSD	.91026	.36715	.15884	.20255
#1	198720.	36906.	8540.4	11801.
#2	202370.	37109.	8534.4	11776.
#3	200430.	37165.	8560.3	11824.

Zoom In Zoom Out

Sample Name: jc87355-3 Acquired: 5/6/2019 14:08:16 Type: Unk
Method: SGS 3 NO Valve(v343) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2719**	**.0033**	**.0003**	**.0564**	**.0724**	**.1510**	**4.977**	**.1403**	**-.0021**
Stddev	.0004	.0001	.0005	.0003	.0010	.0021	.054	.0001	.0005
%RSD	.1600	3.338	155.0	.4809	1.395	1.393	1.093	.0506	21.24
#1	.2714	.0033	.0009	.0567	.0718	.1511	4.931	.1402	-.0016
#2	.2720	.0034	.0001	.0562	.0717	.1489	4.963	.1403	-.0023
#3	.2722	.0032	-.0001	.0564	.0735	.1531	5.037	.1402	-.0025

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1042**	**.7986**	**.1400**	**.0020**	**.1292**	**.0010**	**-.0016**	**42.72**	**55.37**
Stddev	.0012	.0013	.0022	.0028	.0036	.0026	.0028	.07	.05
%RSD	1.156	.1677	1.588	139.5	2.760	271.1	173.0	.1593	.0920
#1	.1038	.7986	.1397	.0051	.1262	-.0021	.0013	42.77	55.41
#2	.1032	.7999	.1379	.0010	.1332	.0025	-.0043	42.64	55.31
#3	.1055	.7973	.1423	-.0002	.1282	.0024	-.0018	42.74	55.38

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**259.6**	**22.41**	**6.937**	**.4464**	**.0193**	**.0105**	**2.232**	**.0221**	**.1014**
Stddev	.1	.02	.148	.0212	.0005	.0004	.004	.0009	.0000
%RSD	.0440	.0924	2.135	4.743	2.843	3.659	.2015	3.924	.0323
#1	259.6	22.41	7.108	.4269	.0198	.0108	2.228	.0228	.1014
#2	259.5	22.43	6.847	.4433	.0194	.0105	2.237	.0211	.1015
#3	259.8	22.39	6.857	.4689	.0187	.0101	2.231	.0223	.1014

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3888**	**.0102**	**.0519**	**2.499**	**.0035**	**.0799**	**3.886**
Stddev	.0038	.0022	.0005	.010	.0024	.0008	.022
%RSD	.9671	21.31	.9287	.3937	67.65	1.056	.5600
#1	.3880	.0125	.0514	2.504	.0055	.0793	3.862
#2	.3855	.0082	.0524	2.488	.0009	.0795	3.903
#3	.3929	.0099	.0519	2.506	.0041	.0809	3.894

Zoom In Zoom Out

Sample Name: jc87355-3 Acquired: 5/6/2019 14:08:16 Type: Unk
Method: SGS 3 NO Valve(v343) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**198680.**	**36946.**	**8597.2**	**11854.**
Stddev	2521.	222.	6.7	20.
%RSD	1.2689	.60063	.07740	.17032
#1	200590.	36821.	8603.4	11851.
#2	199640.	36815.	8598.0	11876.
#3	195820.	37203.	8590.2	11836.

Zoom In Zoom Out

Sample Name: jc87355-4 Acquired: 5/6/2019 14:13:34 Type: Unk
Method: SGS 3 NO Valve(v343) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2593**	**.0034**	**.0004**	**.0622**	**.0736**	**.1874**	**3.740**	**.1356**	**-.0013**
Stddev	.0003	.0001	.0003	.0004	.0011	.0020	.054	.0005	.0006
%RSD	.1186	3.622	77.11	.5722	1.538	1.065	1.440	.3999	50.18
#1	.2596	.0033	.0001	.0618	.0748	.1886	3.767	.1351	-.0018
#2	.2590	.0034	.0004	.0625	.0726	.1851	3.678	.1361	-.0006
#3	.2592	.0035	.0007	.0623	.0735	.1885	3.776	.1355	-.0015

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0939**	**.7131**	**.1363**	**.0023**	**.1267**	**-.0025**	**-.0033**	**45.02**	**42.41**
Stddev	.0012	.0018	.0014	.0006	.0024	.0008	.0016	.12	.08
%RSD	1.290	.2558	1.048	26.94	1.894	34.15	48.74	.2647	.1884
#1	.0943	.7114	.1376	.0030	.1263	-.0026	-.0051	44.90	42.33
#2	.0925	.7129	.1348	.0020	.1245	-.0015	-.0029	45.02	42.39
#3	.0948	.7150	.1366	.0019	.1292	-.0032	-.0019	45.13	42.49

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**227.2**	**22.36**	**6.897**	**.3954**	**.0183**	**.0089**	**2.059**	**.0215**	**.0952**
Stddev	.4	.01	.074	.0349	.0021	.0005	.013	.0004	.0002
%RSD	.1829	.0599	1.071	8.816	11.25	6.047	.6530	1.841	.1944
#1	226.8	22.35	6.820	.3676	.0180	.0083	2.045	.0219	.0951
#2	227.2	22.37	6.906	.4345	.0163	.0093	2.060	.0213	.0955
#3	227.6	22.37	6.967	.3841	.0204	.0091	2.072	.0212	.0952

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4145**	**.0065**	**.0467**	**5.167**	**.0088**	**.0875**	**3.366**
Stddev	.0069	.0007	.0004	.007	.0028	.0020	.018
%RSD	1.657	10.28	.8562	.1289	32.19	2.238	.5262
#1	.4152	.0071	.0471	5.160	.0061	.0869	3.346
#2	.4073	.0058	.0463	5.172	.0118	.0896	3.380
#3	.4210	.0067	.0467	5.169	.0086	.0859	3.371

Zoom In Zoom Out

Sample Name: jc87355-4 Acquired: 5/6/2019 14:13:34 Type: Unk
Method: SGS 3 NO Valve(v343) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**198860.**	**36738.**	**8555.3**	**11821.**
Stddev	3028.	193.	22.2	20.
%RSD	1.5228	.52546	.25982	.17147
#1	197010.	36520.	8536.9	11802.
#2	202350.	36888.	8580.0	11842.
#3	197220.	36807.	8549.1	11818.

Zoom In Zoom Out

Sample Name: jc87355-5 Acquired: 5/6/2019 14:18:45 Type: Unk
Method: SGS 3 NO Valve(v343) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3000**	**.0038**	**.0007**	**.0618**	**.0623**	**.1212**	**6.735**	**.1606**	**-.0029**
Stddev	.0004	.0001	.0004	.0005	.0003	.0011	.061	.0001	.0011
%RSD	.1441	3.708	59.84	.8645	.4968	.8820	.9066	.0609	36.63
#1	.3005	.0039	.0002	.0614	.0620	.1223	6.801	.1605	-.0028
#2	.2998	.0039	.0010	.0624	.0623	.1212	6.681	.1607	-.0019
#3	.2997	.0037	.0010	.0616	.0626	.1201	6.721	.1605	-.0040

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1054**	**1.153**	**.1902**	**.0026**	**.2016**	**-.0005**	**-.0045**	**41.50**	**114.1**
Stddev	.0003	.003	.0025	.0033	.0016	.0045	.0014	.00	.1
%RSD	.2989	.2245	1.317	126.6	.8047	916.8	29.87	.0116	.1113
#1	.1055	1.156	.1876	.0016	.2028	-.0013	-.0058	41.50	113.9
#2	.1050	1.153	.1903	.0063	.2023	.0044	-.0047	41.50	114.0
#3	.1056	1.151	.1926	-.0001	.1997	-.0045	-.0031	41.51	114.2

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**305.1**	**28.85**	**6.228**	**.8701**	**.0198**	**.0096**	**2.321**	**.0200**	**.1695**
Stddev	3.2	.04	.110	.0089	.0015	.0006	.008	.0008	.0000
%RSD	1.055	.1293	1.759	1.019	7.330	6.364	.3291	3.908	.0038
#1	307.2	28.89	6.340	.8676	.0186	.0102	2.328	.0193	.1695
#2	306.8	28.82	6.121	.8799	.0214	.0090	2.321	.0199	.1695
#3	301.4	28.85	6.222	.8627	.0194	.0097	2.313	.0208	.1694

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.6104**	**.0054**	**.0442**	**3.493**	**.0184**	**.0747**	**3.428**
Stddev	.0053	.0029	.0007	.009	.0044	.0028	.029
%RSD	.8706	53.15	1.484	.2484	24.02	3.694	.8348
#1	.6163	.0031	.0444	3.493	.0217	.0716	3.423
#2	.6087	.0086	.0448	3.484	.0200	.0754	3.403
#3	.6061	.0045	.0435	3.502	.0134	.0770	3.459

Zoom In Zoom Out

Sample Name: jc87355-5 Acquired: 5/6/2019 14:18:45 Type: Unk
Method: SGS 3 NO Valve(v343) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**198780.**	**36877.**	**8487.6**	**11710.**
Stddev	1819.	222.	17.4	24.
%RSD	.91489	.60108	.20460	.20288
#1	196820.	36625.	8489.7	11715.
#2	200410.	37040.	8503.8	11732.
#3	199110.	36966.	8469.2	11685.

Zoom In Zoom Out

Sample Name: mp14677-mb1conf Acquired: 5/6/2019 14:24:08 Type: Unk
Method: SGS 3 NO Valve(v343) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**-.0000**	**.0001**	**-.0002**	**.0002**	**.0000**	**.0004**	**.0005**
Stddev	.0002	.0001	.0001	.0002	.0001	.0006	.0000	.0003
%RSD	206.9	267.7	136.6	65.65	44.56	14560.	5.108	60.18
#1	-.0000	-.0000	.0001	-.0002	.0002	-.0005	.0004	.0005
#2	.0004	.0000	-.0000	-.0001	.0001	.0007	.0005	.0002
#3	-.0000	-.0001	.0000	-.0004	.0002	-.0002	.0004	.0009

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0005**	**.0000**	**.0105**	**-.0014**	F **-.0028**	**-.0001**	**-.0017**	**.0007**
Stddev	.0002	.0003	.0001	.0004	.0006	.0008	.0008	.0019
%RSD	51.33	1038.	.8775	29.23	22.09	543.4	45.17	276.9
#1	-.0004	.0003	.0106	-.0017	-.0023	-.0004	-.0015	-.0000
#2	-.0008	.0000	.0106	-.0015	-.0026	.0007	-.0026	-.0008
#3	-.0003	-.0003	.0104	-.0009	-.0035	-.0008	-.0011	.0028

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0055**	**.0567**	**.0174**	**.0216**	**.0019**	**.0329**	**.0016**	**.0009**
Stddev	.0054	.0011	.0011	.0090	.0081	.0081	.0005	.0002
%RSD	98.06	1.928	6.537	41.44	420.8	24.69	33.45	25.00
#1	.0084	.0579	.0175	.0319	.0082	.0294	.0020	.0011
#2	-.0007	.0565	.0184	.0175	-.0072	.0422	.0017	.0008
#3	.0088	.0557	.0162	.0154	.0048	.0272	.0010	.0007

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0106**	**.0201**	**.0002**	**.0010**	**.0036**	**.0011**	**.0038**	**-.0004**
Stddev	.0008	.0005	.0001	.0003	.0007	.0001	.0023	.0010
%RSD	7.079	2.672	62.17	26.22	19.70	7.151	60.59	234.5
#1	.0100	.0207	.0001	.0008	.0042	.0011	.0049	.0004
#2	.0114	.0197	.0002	.0013	.0028	.0010	.0011	-.0001
#3	.0103	.0199	.0003	.0010	.0038	.0010	.0053	-.0016

Zoom In Zoom Out

Sample Name: mp14677-mb1conf Acquired: 5/6/2019 14:24:08 Type: Unk
Method: SGS 3 NO Valve(v343) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Li6707	P_1774
Units	ppm	ppm
Avg	**.0041**	**.0430**
Stddev	.0019	.0007
%RSD	46.47	1.515
#1	.0031	.0436
#2	.0029	.0423
#3	.0063	.0430

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**201860.**	**37135.**	**8579.8**	**12351.**
Stddev	2603.	85.	2.3	7.
%RSD	1.2892	.22783	.02666	.05837
#1	200060.	37041.	8582.4	12355.
#2	200670.	37160.	8578.0	12356.
#3	204840.	37205.	8579.2	12343.

Zoom In Zoom Out

Sample Name: jc86994-8 7 Acquired: 5/6/2019 14:29:22 Type: Unk
Method: SGS 3 NO Valve(v343) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4363**	**.0032**	**.0009**	**.0759**	**.1893**	**.0809**	**5.756**	**.1964**	**-.0008**
Stddev	.0003	.0000	.0004	.0003	.0017	.0010	.072	.0011	.0009
%RSD	.0589	.8679	42.96	.3540	.8913	1.290	1.246	.5648	114.2
#1	.4363	.0033	.0012	.0762	.1905	.0820	5.776	.1975	-.0019
#2	.4366	.0032	.0005	.0756	.1874	.0808	5.677	.1965	-.0001
#3	.4360	.0032	.0011	.0760	.1901	.0799	5.816	.1953	-.0005

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1817**	**.2815**	**.0483**	**.0012**	**.0328**	**.0005**	**-.0027**	**78.55**	**7.960**
Stddev	.0011	.0010	.0012	.0019	.0010	.0020	.0029	.07	.015
%RSD	.6130	.3702	2.491	155.5	2.945	407.5	110.4	.0911	.1816
#1	.1825	.2827	.0476	.0034	.0338	-.0016	-.0021	78.58	7.972
#2	.1804	.2813	.0476	.0005	.0326	.0007	-.0000	78.59	7.965
#3	.1821	.2806	.0497	-.0002	.0319	.0024	-.0058	78.46	7.944

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**216.5**	**44.08**	**5.788**	**6.747**	**-.0002**	**.0054**	**2.154**	**.0265**	**.0486**
Stddev	.4	.17	.067	.013	.0006	.0005	.015	.0008	.0001
%RSD	.1651	.3868	1.163	.1976	275.2	8.320	.6884	3.018	.2495
#1	216.7	44.28	5.834	6.761	-.0006	.0050	2.169	.0265	.0487
#2	216.6	44.01	5.711	6.735	.0004	.0053	2.153	.0257	.0485
#3	216.1	43.97	5.820	6.746	-.0005	.0059	2.139	.0273	.0486

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.826**	**.0028**	**.0285**	**.2844**	**.1227**	**.1426**	**2.958**
Stddev	.025	.0013	.0002	.0014	.0046	.0062	.028
%RSD	.8697	44.87	.8106	.5041	3.732	4.335	.9467
#1	2.847	.0014	.0285	.2845	.1193	.1404	2.966
#2	2.799	.0035	.0287	.2858	.1208	.1379	2.980
#3	2.831	.0036	.0283	.2829	.1279	.1496	2.926

Zoom In Zoom Out

Sample Name: jc86994-8 7 Acquired: 5/6/2019 14:29:22 Type: Unk
Method: SGS 3 NO Valve(v343) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**198160.**	**36753.**	**8584.4**	**11802.**
Stddev	2155.	271.	31.2	29.
%RSD	1.0873	.73610	.36318	.24180
#1	196990.	36450.	8548.5	11770.
#2	200650.	36971.	8601.1	11815.
#3	196840.	36838.	8603.7	11822.

Zoom In Zoom Out

Sample Name: ccv Acquired: 5/6/2019 14:34:43 Type: QC
Method: SGS 3 NO Valve(v343) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.167**	**2.130**	**2.080**	**2.090**	**2.104**	**2.093**	**2.107**	**2.104**	**.2577**
Stddev	.006	.005	.006	.003	.003	.005	.011	.002	.0007
%RSD	.2841	.2143	.2850	.1275	.1535	.2431	.5340	.1108	.2816
#1	2.174	2.136	2.084	2.092	2.103	2.091	2.103	2.107	.2569
#2	2.166	2.129	2.083	2.090	2.101	2.089	2.099	2.103	.2578
#3	2.162	2.127	2.073	2.087	2.107	2.099	2.120	2.103	.2584
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.075**	**2.103**	**2.098**	**2.181**	**2.091**	**2.102**	**2.091**	**42.07**	**42.72**
Stddev	.003	.003	.010	.009	.001	.007	.007	.11	.12
%RSD	.1334	.1250	.4660	.4290	.0487	.3459	.3380	.2683	.2910
#1	2.075	2.103	2.102	2.183	2.092	2.105	2.096	42.20	42.87
#2	2.072	2.106	2.105	2.189	2.090	2.108	2.095	42.02	42.67
#3	2.078	2.101	2.087	2.170	2.091	2.094	2.083	41.98	42.63
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**42.43**	**42.74**	**42.33**	**42.84**	**2.116**	**2.140**	**5.381**	**2.167**	**2.146**
Stddev	.12	.18	.06	.11	.007	.005	.013	.007	.005
%RSD	.2729	.4325	.1423	.2579	.3274	.2168	.2437	.3226	.2165
#1	42.56	42.95	42.40	42.97	2.121	2.142	5.393	2.164	2.151
#2	42.35	42.63	42.30	42.78	2.120	2.144	5.383	2.175	2.144
#3	42.38	42.63	42.29	42.78	2.108	2.135	5.367	2.162	2.142
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ccv Acquired: 5/6/2019 14:34:43 Type: QC
Method: SGS 3 NO Valve(v343) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.117**	**2.095**	**2.094**	**2.079**	**2.129**	**2.180**	**2.082**
Stddev	.001	.002	.000	.013	.007	.009	.014
%RSD	.0607	.1065	.0171	.6387	.3221	.4346	.6639
#1	2.116	2.095	2.094	2.082	2.136	2.191	2.072
#2	2.117	2.097	2.094	2.091	2.129	2.176	2.097
#3	2.119	2.092	2.094	2.065	2.122	2.174	2.075
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**189330.**	**35391.**	**8155.9**	**11029.**
Stddev	229.	188.	10.8	18.
%RSD	.12102	.53143	.13300	.16614
#1	189590.	35176.	8168.3	11042.
#2	189180.	35467.	8148.5	11037.
#3	189210.	35528.	8150.8	11008.

Zoom In Zoom Out

Sample Name: ccb Acquired: 5/6/2019 14:39:46 Type: QC
Method: SGS 3 NO Valve(v343) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0008**	**.0003**	**.0004**	**.0001**	**.0000**	**.0003**	**.0004**	**.0004**	**-.0008**
Stddev	.0003	.0001	.0001	.0002	.0000	.0002	.0000	.0002	.0003
%RSD	43.10	23.29	21.88	362.5	36.74	64.58	6.405	49.88	41.02
#1	.0006	.0002	.0005	-.0001	.0000	.0004	.0004	.0006	-.0007
#2	.0006	.0003	.0004	-.0001	.0000	.0003	.0004	.0004	-.0012
#3	.0012	.0003	.0003	.0003	.0000	.0001	.0004	.0002	-.0006
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**-.0001**	**-.0010**	**-.0015**	**.0001**	**-.0016**	**.0003**	**.0027**	**-.0064**
Stddev	.0003	.0000	.0016	.0007	.0008	.0015	.0014	.0075	.0014
%RSD	119.2	47.79	168.6	47.87	619.7	96.76	432.4	272.0	21.49
#1	-.0001	-.0000	-.0019	-.0019	-.0003	-.0021	.0020	.0001	-.0055
#2	.0005	-.0001	-.0019	-.0019	.0010	.0001	-.0006	.0112	-.0057
#3	.0003	-.0001	.0009	-.0007	-.0003	-.0028	-.0004	-.0031	-.0080
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0033**	**.0030**	**.0552**	**-.0476**	**.0018**	**.0009**	**.0030**	**.0003**	**.0002**
Stddev	.0010	.0065	.0085	.0085	.0005	.0003	.0003	.0002	.0001
%RSD	30.24	212.4	15.38	17.92	28.46	34.57	10.84	74.30	67.24
#1	.0022	.0105	.0625	-.0519	.0020	.0012	.0030	.0006	.0003
#2	.0041	-.0004	.0459	-.0378	.0012	.0008	.0027	.0001	.0001
#3	.0037	-.0010	.0574	-.0531	.0021	.0007	.0033	.0003	.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: ccb Acquired: 5/6/2019 14:39:46 Type: QC
Method: SGS 3 NO Valve(v343) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0005**	**.0015**	**.0005**	**.0018**	**-.0009**	F **.0101**	F **.0271**
Stddev	.0001	.0008	.0001	.0002	.0014	.0006	.0024
%RSD	15.35	56.01	13.21	12.29	158.1	5.476	8.722
#1	.0005	.0022	.0005	.0017	-.0020	.0102	.0260
#2	.0005	.0017	.0005	.0017	.0007	.0106	.0298
#3	.0006	.0006	.0006	.0021	-.0013	.0095	.0255
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Fail
High Limit						.0040	.0200
Low Limit						-.0040	-.0200

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**199840.**	**36108.**	**8478.3**	**12215.**
Stddev	1704.	153.	19.0	24.
%RSD	.85287	.42300	.22362	.19659
#1	198300.	36282.	8492.9	12231.
#2	199550.	35994.	8485.1	12228.
#3	201670.	36048.	8456.9	12188.

Zoom In Zoom Out

Sample Name: jc86994-11 Acquired: 5/6/2019 14:45:04 Type: Unk
Method: SGS 3 NO Valve(v343) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.7589**	**.0025**	**-.0003**	**.0888**	**.1384**	**.0613**	**11.30**	**.2193**	**-.0011**
Stddev	.0008	.0000	.0002	.0018	.0041	.0022	.37	.0041	.0013
%RSD	.1064	1.143	67.47	2.061	2.986	3.616	3.253	1.865	114.0
#1	.7597	.0025	-.0001	.0879	.1414	.0629	11.58	.2169	-.0005
#2	.7591	.0026	-.0005	.0909	.1401	.0623	11.43	.2240	-.0026
#3	.7581	.0025	-.0004	.0876	.1336	.0588	10.88	.2170	-.0003

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1398**	**.2427**	**.0315**	**.0053**	**.0340**	**-.0011**	**-.0045**	**59.44**	**9.888**
Stddev	.0043	.0052	.0015	.0007	.0008	.0001	.0010	.02	.024
%RSD	3.079	2.158	4.838	12.89	2.403	11.67	21.88	.0291	.2406
#1	.1428	.2398	.0298	.0049	.0332	-.0011	-.0048	59.43	9.865
#2	.1419	.2488	.0317	.0061	.0348	-.0013	-.0034	59.46	9.913
#3	.1349	.2396	.0328	.0050	.0339	-.0011	-.0053	59.44	9.886

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**122.8**	**38.90**	**5.312**	**.4987**	**.0030**	**.0049**	**1.703**	**.0268**	**.0464**
Stddev	.1	.04	.059	.0174	.0005	.0002	.029	.0012	.0002
%RSD	.0662	.1154	1.102	3.492	15.01	4.737	1.701	4.362	.4379
#1	122.8	38.84	5.289	.5172	.0032	.0049	1.692	.0273	.0466
#2	122.9	38.92	5.379	.4827	.0034	.0052	1.736	.0277	.0463
#3	122.7	38.92	5.269	.4961	.0025	.0047	1.681	.0255	.0462

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.017**	**.0025**	**.0258**	**.1149**	**.1364**	**.1173**	**2.810**
Stddev	.087	.0011	.0006	.0076	.0049	.0014	.048
%RSD	2.876	44.49	2.199	6.605	3.617	1.227	1.723
#1	3.071	.0016	.0259	.1062	.1386	.1163	2.767
#2	3.063	.0038	.0262	.1201	.1399	.1190	2.863
#3	2.917	.0022	.0251	.1183	.1308	.1166	2.799

Zoom In Zoom Out

Sample Name: jc86994-11 Acquired: 5/6/2019 14:45:04 Type: Unk
Method: SGS 3 NO Valve(v343) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**205070.**	**36714.**	**8504.3**	**11706.**
Stddev	6364.	140.	147.8	181.
%RSD	3.1032	.38144	1.7377	1.5476
#1	200860.	36817.	8605.9	11819.
#2	201950.	36555.	8334.8	11497.
#3	212390.	36771.	8572.3	11802.

Zoom In Zoom Out

Sample Name: jc86994-14 Acquired: 5/6/2019 14:50:17 Type: Unk
Method: SGS 3 NO Valve(v343) Mode: CONC Corr. Factor: 3.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2989**	**.0018**	**.0007**	**.0701**	**.0834**	**.0603**	**16.94**	**.1790**	**-.0057**
Stddev	.0022	.0002	.0004	.0005	.0009	.0012	.33	.0017	.0011
%RSD	.7476	11.03	56.61	.7303	1.050	2.021	1.943	.9686	19.35
#1	.2983	.0016	.0008	.0696	.0829	.0617	16.94	.1770	-.0045
#2	.2970	.0019	.0011	.0700	.0829	.0598	16.60	.1799	-.0062
#3	.3013	.0020	.0003	.0706	.0844	.0594	17.26	.1800	-.0065

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1036**	**.2178**	**.0350**	**.0020**	**.0262**	**-.0009**	**.0012**	**48.51**	**7.967**
Stddev	.0018	.0021	.0024	.0020	.0011	.0041	.0030	.28	.035
%RSD	1.742	.9468	6.727	98.92	4.285	446.6	255.2	.5821	.4359
#1	.1031	.2160	.0377	.0030	.0249	-.0055	-.0014	48.29	7.945
#2	.1021	.2175	.0337	-.0003	.0271	.0004	.0045	48.42	7.949
#3	.1056	.2201	.0336	.0033	.0264	.0024	.0005	48.83	8.007

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**104.8**	**24.92**	**3.983**	**.5306**	**.0016**	**.0049**	**1.892**	**.0239**	**.0406**
Stddev	.5	.10	.070	.0145	.0002	.0011	.015	.0013	.0004
%RSD	.5127	.3962	1.762	2.741	13.27	23.39	.8139	5.604	.8735
#1	104.3	24.85	3.979	.5139	.0017	.0036	1.878	.0227	.0402
#2	104.7	24.87	3.916	.5369	.0014	.0059	1.890	.0253	.0405
#3	105.4	25.03	4.056	.5408	.0017	.0051	1.908	.0236	.0409

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.925**	**.0161**	**.0252**	**.1926**	**.0833**	**.0901**	**2.517**
Stddev	.018	.0015	.0005	.0011	.0056	.0070	.026
%RSD	.9550	9.325	2.155	.5877	6.701	7.785	1.024
#1	1.917	.0148	.0247	.1919	.0823	.0836	2.487
#2	1.912	.0156	.0250	.1920	.0893	.0892	2.529
#3	1.946	.0177	.0258	.1939	.0783	.0975	2.534

Zoom In Zoom Out

Sample Name: jc86994-14 Acquired: 5/6/2019 14:50:17 Type: Unk
Method: SGS 3 NO Valve(v343) Mode: CONC Corr. Factor: 3.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**199130.**	**36428.**	**8583.4**	**11908.**
Stddev	1461.	198.	30.3	37.
%RSD	.73365	.54402	.35256	.31203
#1	197740.	36243.	8590.5	11924.
#2	200660.	36637.	8609.5	11934.
#3	199000.	36404.	8550.3	11865.

Zoom In Zoom Out

Sample Name: mp14772-ps1 Acquired: 5/6/2019 14:55:37 Type: Unk
Method: SGS 3 NO Valve(v343) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.494**	**2.148**	**2.110**	**2.148**	**2.188**	**2.240**	**2.970**	**2.198**	**.2593**
Stddev	.115	.006	.002	.000	.013	.013	.027	.001	.0018
%RSD	2.087	.2723	.0887	.0209	.5918	.5611	.8969	.0412	.7051
#1	5.596	2.154	2.111	2.148	2.178	2.228	2.968	2.198	.2582
#2	5.370	2.145	2.108	2.147	2.203	2.253	2.998	2.198	.2614
#3	5.516	2.144	2.110	2.148	2.184	2.239	2.944	2.197	.2582

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.233**	**2.413**	**2.233**	**2.171**	**5.391**	**2.113**	**2.166**	**64.01**	**103.5**
Stddev	.013	.002	.005	.005	.003	.005	.002	.17	1.3
%RSD	.5703	.1006	.2099	.2457	.0549	.2183	.0946	.2712	1.277
#1	2.223	2.414	2.238	2.177	5.392	2.115	2.167	64.21	104.6
#2	2.248	2.414	2.229	2.167	5.394	2.107	2.168	63.88	102.0
#3	2.229	2.410	2.234	2.169	5.388	2.116	2.164	63.94	103.9

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**96.62**	**53.80**	**33.72**	**28.05**	**2.211**	**2.142**	**1.580**	**2.216**	**2.301**
Stddev	.30	.18	.06	.08	.002	.002	.001	.001	.006
%RSD	.3116	.3396	.1851	.2692	.0905	.1013	.0360	.0423	.2477
#1	96.96	54.01	33.79	28.14	2.210	2.141	1.581	2.216	2.307
#2	96.38	53.67	33.68	28.00	2.209	2.141	1.579	2.215	2.296
#3	96.52	53.71	33.69	28.02	2.213	2.145	1.580	2.216	2.300

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.114**	**2.007**	**2.183**	**21.26**	**.1846**	**.0508**	**5.164**
Stddev	.017	.006	.010	.09	.0014	.0014	.024
%RSD	.5392	.2868	.4703	.4200	.7819	2.845	.4701
#1	3.103	2.002	2.176	21.33	.1830	.0497	5.179
#2	3.133	2.006	2.195	21.16	.1858	.0524	5.178
#3	3.105	2.014	2.178	21.29	.1850	.0502	5.136

Zoom In Zoom Out

Sample Name: mp14772-ps1 Acquired: 5/6/2019 14:55:37 Type: Unk
Method: SGS 3 NO Valve(v343) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**192230.**	**36770.**	**8373.7**	**11112.**
Stddev	1426.	246.	13.0	13.
%RSD	.74175	.66765	.15565	.11657
#1	193610.	36568.	8362.3	11104.
#2	190770.	37043.	8370.8	11105.
#3	192310.	36700.	8387.9	11127.

Zoom In Zoom Out

Sample Name: jc87271-1 Acquired: 5/6/2019 15:00:55 Type: Unk
Method: SGS 3 NO Valve(v343) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5458**	**.0055**	**.0059**	**.0997**	**.1233**	**.4238**	**2.001**	**.0894**	**-.0037**
Stddev	.0004	.0002	.0005	.0013	.0002	.0016	.004	.0009	.0004
%RSD	.0686	3.920	8.889	1.278	.1827	.3836	.1859	1.026	11.12
#1	.5454	.0053	.0065	.1009	.1230	.4257	2.002	.0886	-.0041
#2	.5457	.0054	.0055	.0999	.1235	.4232	1.997	.0891	-.0034
#3	.5462	.0057	.0056	.0984	.1234	.4226	2.004	.0904	-.0034

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.6193**	**.4277**	**2.323**	**-.0084**	**.3165**	**.0089**	**.0044**	**119.1**	**958.0**
Stddev	.0024	.0010	.005	.0031	.0077	.0062	.0085	.3	22.0
%RSD	.3876	.2307	.2182	37.42	2.434	70.01	193.6	.2698	2.292
#1	.6184	.4288	2.323	-.0095	.3115	.0159	-.0024	119.5	963.6
#2	.6176	.4271	2.328	-.0108	.3126	.0068	.0016	119.2	976.7
#3	.6221	.4272	2.318	-.0048	.3254	.0040	.0140	118.8	933.8

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**135.1**	**51.73**	**7.546**	**6.244**	**.4252**	**.0244**	**1.228**	**.0393**	**6.063**
Stddev	.1	.02	.167	.017	.0063	.0015	.010	.0010	.007
%RSD	.0916	.0316	2.210	.2690	1.489	5.974	.7978	2.455	.1172
#1	135.2	51.73	7.364	6.229	.4213	.0257	1.237	.0404	6.070
#2	135.1	51.74	7.692	6.242	.4325	.0246	1.228	.0387	6.063
#3	134.9	51.71	7.582	6.262	.4217	.0228	1.218	.0388	6.056

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**6.007**	**.2560**	**.1562**	**22.01**	**.2887**	**.1160**	**4.040**
Stddev	.010	.0125	.0008	.08	.0087	.0009	.058
%RSD	.1736	4.889	.5368	.3836	3.007	.7703	1.441
#1	6.007	.2666	.1569	22.04	.2789	.1169	4.011
#2	5.997	.2591	.1553	21.91	.2955	.1151	4.002
#3	6.018	.2422	.1565	22.07	.2916	.1160	4.107

Zoom In Zoom Out

Sample Name: jc87271-1 Acquired: 5/6/2019 15:00:55 Type: Unk
Method: SGS 3 NO Valve(v343) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**192360.**	**36048.**	**8247.9**	**11067.**
Stddev	1606.	53.	17.0	10.
%RSD	.83488	.14775	.20671	.08763
#1	190850.	35998.	8232.9	11061.
#2	194050.	36041.	8244.5	11061.
#3	192190.	36104.	8266.5	11078.

Zoom In Zoom Out

Sample Name: jc87321-1 Acquired: 5/6/2019 15:06:02 Type: Unk
Method: SGS 3 NO Valve(v343) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.6258**	**.0200**	**.0008**	**.0937**	**.6811**	**.5329**	**2.391**	**.1662**
Stddev	.0001	.0001	.0002	.0009	.0064	.0027	.018	.0009
%RSD	.0236	.4220	19.02	.9369	.9444	.5065	.7702	.5122
#1	.6256	.0200	.0006	.0945	.6839	.5324	2.391	.1661
#2	.6258	.0201	.0009	.0928	.6857	.5358	2.410	.1654
#3	.6258	.0199	.0008	.0938	.6738	.5305	2.373	.1671

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0033**	**.9774**	**1.004**	**.0806**	**.0046**	**.2286**	**.0102**	F **-.0072**
Stddev	.0021	.0077	.002	.0018	.0006	.0021	.0059	.0023
%RSD	64.68	.7917	.1751	2.187	12.93	.9143	58.53	31.59
#1	-.0056	.9777	1.002	.0824	.0041	.2284	.0170	-.0091
#2	-.0014	.9851	1.005	.0806	.0044	.2266	.0071	-.0047
#3	-.0028	.9696	1.006	.0789	.0053	.2308	.0064	-.0078

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**356.7**	**54.75**	**332.4**	**78.03**	**41.78**	**8.871**	**.0175**	**.0345**
Stddev	.3	.04	5.9	.17	.10	.021	.0022	.0006
%RSD	.0864	.0687	1.771	.2187	.2309	.2382	12.80	1.680
#1	357.1	54.79	327.1	78.05	41.83	8.861	.0183	.0348
#2	356.5	54.72	338.8	78.18	41.67	8.895	.0150	.0348
#3	356.6	54.74	331.5	77.84	41.85	8.856	.0192	.0338

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.534**	**.0489**	**.1566**	**10.32**	**.0150**	**.0338**	**1.317**	**.4831**
Stddev	.008	.0005	.0003	.08	.0022	.0006	.005	.0056
%RSD	.5008	1.063	.2004	.8038	14.87	1.698	.3617	1.156
#1	1.542	.0488	.1569	10.33	.0162	.0336	1.313	.4811
#2	1.531	.0495	.1563	10.40	.0125	.0344	1.322	.4894
#3	1.527	.0485	.1565	10.24	.0165	.0333	1.315	.4788

Zoom In Zoom Out

Sample Name: jc87321-1 Acquired: 5/6/2019 15:06:02 Type: Unk
Method: SGS 3 NO Valve(v343) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Li6707	P_1774
Units	ppm	ppm
Avg	**.3633**	**1.857**
Stddev	.0024	.017
%RSD	.6721	.9221
#1	.3652	1.867
#2	.3643	1.866
#3	.3606	1.837

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**197540.**	**37867.**	**8750.6**	**11258.**
Stddev	826.	151.	22.7	26.
%RSD	.41804	.39944	.25885	.22850
#1	197970.	38020.	8765.1	11272.
#2	196590.	37717.	8724.5	11228.
#3	198060.	37864.	8762.1	11273.

Zoom In Zoom Out

Sample Name: jc87321-2 Acquired: 5/6/2019 15:11:20 Type: Unk
Method: SGS 3 NO Valve(v343) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.571**	**.0144**	**.0003**	**.1607**	**.4512**	**.4014**	**6.374**	**.3516**
Stddev	.014	.0003	.0001	.0010	.0063	.0049	.096	.0008
%RSD	.8968	1.920	47.89	.6344	1.404	1.210	1.513	.2318
#1	1.561	.0146	.0004	.1599	.4582	.4068	6.482	.3514
#2	1.565	.0141	.0003	.1619	.4459	.3973	6.296	.3525
#3	1.587	.0146	.0001	.1605	.4496	.4001	6.343	.3509

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0032**	**.4657**	**1.113**	**.0266**	**.0082**	**.2955**	**.0041**	F **-.0061**
Stddev	.0011	.0068	.002	.0031	.0039	.0008	.0018	.0047
%RSD	34.38	1.461	.1772	11.68	47.65	.2777	45.43	75.77
#1	-.0044	.4728	1.112	.0272	.0117	.2953	.0061	-.0035
#2	-.0023	.4593	1.115	.0294	.0089	.2963	.0025	-.0115
#3	-.0028	.4648	1.112	.0233	.0040	.2947	.0036	-.0034

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**242.3**	**20.61**	**315.4**	**96.79**	**91.25**	**2.997**	**.0123**	**.0066**
Stddev	2.2	.21	3.0	.74	1.15	.052	.0007	.0014
%RSD	.9111	.9963	.9529	.7607	1.263	1.745	5.320	21.05
#1	240.9	20.47	316.9	96.17	90.31	2.945	.0124	.0081
#2	241.3	20.52	312.0	96.59	90.91	2.996	.0129	.0058
#3	244.9	20.85	317.4	97.60	92.54	3.049	.0116	.0057

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.216**	**.0727**	**.1367**	F **20.09**	**.0124**	**.0243**	**1.630**	**.9485**
Stddev	.007	.0019	.0016	.35	.0007	.0001	.011	.0289
%RSD	.5418	2.667	1.145	1.731	5.810	.4320	.6580	3.048
#1	1.222	.0749	.1356	20.29	.0129	.0243	1.620	.9607
#2	1.217	.0714	.1361	19.68	.0127	.0245	1.641	.9155
#3	1.209	.0718	.1385	20.29	.0116	.0243	1.630	.9693

Zoom In Zoom Out

Sample Name: jc87321-2 Acquired: 5/6/2019 15:11:20 Type: Unk
Method: SGS 3 NO Valve(v343) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Li6707	P_1774
Units	ppm	ppm
Avg	**.2556**	**4.712**
Stddev	.0027	.033
%RSD	1.060	.6990
#1	.2536	4.678
#2	.2546	4.715
#3	.2587	4.743

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**193810.**	**36527.**	**8399.5**	**11201.**
Stddev	2702.	187.	9.2	13.
%RSD	1.3940	.51245	.10970	.11909
#1	190750.	36470.	8402.9	11216.
#2	195890.	36736.	8389.1	11191.
#3	194780.	36375.	8406.6	11196.

Zoom In Zoom Out

Sample Name: MP14784-MB1 1 Acquired: 5/6/2019 15:16:47 Type: Unk
Method: SGS 3 NO Valve(v343) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	**-.0001**	**.0000**	**-.0001**	**-.0005**	**.0003**	**.0001**	**.0003**	**-.0005**
Stddev	.0001	.0001	.0002	.0001	.0004	.0004	.0000	.0003	.0003
%RSD	46.56	164.6	2514.	119.6	76.27	171.4	61.31	103.8	73.63
#1	.0001	-.0001	-.0002	-.0001	-.0008	-.0002	.0001	.0000	-.0001
#2	.0004	.0000	.0002	-.0002	-.0001	.0007	.0000	.0002	-.0008
#3	.0004	-.0001	.0001	.0000	-.0005	.0002	.0001	.0007	-.0004

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0050**	**-.0007**	**-.0006**	**.0002**	**-.0016**	**.0003**	**-.0026**	**-.0016**
Stddev	.0003	.0000	.0021	.0006	.0005	.0011	.0013	.0037	.0001
%RSD	318.1	.3620	299.1	101.6	245.9	69.87	496.8	140.2	7.261
#1	-.0002	.0050	-.0027	-.0002	-.0001	-.0028	-.0005	.0005	-.0017
#2	.0004	.0050	-.0007	-.0012	.0008	-.0007	.0018	-.0067	-.0015
#3	.0001	.0050	.0014	-.0002	-.0000	-.0013	-.0005	-.0017	-.0016

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0083**	**.0065**	**-.0068**	**-.0759**	**.0003**	**.0004**	**.0020**	**-.0011**	**.0000**
Stddev	.0024	.0076	.0113	.0049	.0005	.0005	.0007	.0006	.0000
%RSD	29.14	116.5	165.5	6.461	163.7	104.0	33.93	60.61	137.5
#1	.0085	.0046	.0042	-.0810	.0007	.0000	.0027	-.0017	.0000
#2	.0107	.0148	-.0185	-.0755	.0005	.0004	.0013	-.0004	.0000
#3	.0058	.0000	-.0063	-.0712	-.0002	.0009	.0021	-.0011	-.0000

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0007**	**.0023**	**.0003**	**-.0001**	**.0002**	**.0025**	**.0217**
Stddev	.0002	.0004	.0001	.0033	.0012	.0012	.0043
%RSD	22.53	19.55	32.61	5383.	727.0	47.32	19.69
#1	.0007	.0020	.0002	-.0037	-.0012	.0012	.0178
#2	.0006	.0028	.0004	.0007	.0004	.0030	.0211
#3	.0009	.0020	.0003	.0028	.0013	.0035	.0262

Zoom In Zoom Out

Sample Name: MP14784-MB1 1 Acquired: 5/6/2019 15:16:47 Type: Unk
Method: SGS 3 NO Valve(v343) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**200300.**	**36598.**	**8561.1**	**12481.**
Stddev	1848.	142.	10.9	14.
%RSD	.92275	.38822	.12694	.11051
#1	201030.	36491.	8573.5	12497.
#2	198200.	36543.	8553.5	12472.
#3	201680.	36759.	8556.2	12473.

Zoom In Zoom Out

Sample Name: MP14784-B1 Acquired: 5/6/2019 15:22:04 Type: Unk
Method: SGS 3 NO Valve(v343) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.197**	**2.148**	**2.160**	**2.110**	**2.119**	**2.133**	**2.126**	**2.131**	**.0849**
Stddev	.005	.005	.002	.002	.004	.004	.014	.001	.0008
%RSD	.2505	.2293	.0679	.0792	.1926	.1862	.6659	.0551	.9750
#1	2.197	2.150	2.162	2.111	2.122	2.137	2.126	2.133	.0852
#2	2.203	2.152	2.160	2.111	2.114	2.129	2.111	2.131	.0840
#3	2.192	2.143	2.159	2.108	2.120	2.133	2.140	2.130	.0856

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.080**	**2.163**	**2.172**	**2.261**	**2.137**	**2.206**	**2.188**	**27.02**	**27.50**
Stddev	.001	.002	.001	.004	.000	.005	.003	.06	.07
%RSD	.0309	.0861	.0602	.1945	.0208	.2346	.1497	.2342	.2580
#1	2.080	2.165	2.173	2.265	2.138	2.208	2.191	27.03	27.54
#2	2.079	2.161	2.171	2.257	2.137	2.200	2.184	27.08	27.54
#3	2.081	2.163	2.171	2.261	2.137	2.210	2.188	26.95	27.42

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**27.26**	**27.67**	**27.19**	**27.73**	**2.197**	**2.177**	**-.0196**	**2.248**	**2.176**
Stddev	.07	.12	.07	.09	.002	.003	.0012	.002	.005
%RSD	.2746	.4297	.2650	.3326	.0897	.1261	6.180	.0952	.2239
#1	27.27	27.72	27.19	27.73	2.197	2.180	-.0183	2.248	2.177
#2	27.33	27.76	27.26	27.82	2.195	2.176	-.0205	2.245	2.180
#3	27.18	27.54	27.11	27.63	2.199	2.175	-.0202	2.249	2.171

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.146**	**2.032**	**2.116**	**.0224**	**.1393**	**-.0001**	**2.045**
Stddev	.002	.002	.000	.0036	.0009	.0007	.004
%RSD	.0926	.1051	.0175	16.25	.6372	541.5	.2144
#1	2.145	2.030	2.115	.0220	.1386	.0006	2.050
#2	2.144	2.034	2.115	.0190	.1403	-.0007	2.043
#3	2.148	2.032	2.116	.0262	.1389	-.0003	2.042

Zoom In Zoom Out

Sample Name: MP14784-B1 Acquired: 5/6/2019 15:22:04 Type: Unk
Method: SGS 3 NO Valve(v343) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**195590.**	**35923.**	**8356.8**	**11475.**
Stddev	395.	155.	5.1	5.
%RSD	.20194	.43092	.06114	.04228
#1	195160.	35988.	8361.5	11479.
#2	195950.	35746.	8357.6	11477.
#3	195650.	36034.	8351.4	11470.

Zoom In Zoom Out

Sample Name: JC87402-2 Acquired: 5/6/2019 15:27:04 Type: Unk
Method: SGS 3 NO Valve(v343) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1416**	**.0001**	**.0001**	**-.0000**	**.0144**	**.0057**	**.0123**	**.0083**	**-.0005**
Stddev	.0002	.0000	.0003	.0004	.0002	.0003	.0001	.0003	.0002
%RSD	.1101	29.69	269.3	1034.	1.084	5.354	.5076	3.132	34.90
#1	.1416	.0001	.0002	.0003	.0143	.0057	.0123	.0084	-.0005
#2	.1415	.0001	-.0002	.0001	.0146	.0055	.0123	.0080	-.0004
#3	.1418	.0001	.0003	-.0005	.0144	.0061	.0122	.0085	-.0007

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0020**	**.7999**	**.0006**	**-.0007**	**.0022**	**-.0033**	**.0037**	**.0124**	**78.17**
Stddev	.0003	.0101	.0005	.0007	.0010	.0012	.0001	.0072	.21
%RSD	13.45	1.266	76.54	100.9	47.52	36.53	3.264	58.47	.2657
#1	.0018	.7886	.0005	-.0014	.0013	-.0021	.0037	.0064	77.96
#2	.0023	.8082	.0011	-.0007	.0020	-.0034	.0038	.0103	78.18
#3	.0019	.8028	.0002	.0000	.0033	-.0046	.0036	.0204	78.38

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2532**	**21.91**	**15.62**	F **221.3**	**.0943**	**.0396**	**13.55**	**-.0033**	**.4489**
Stddev	.0013	.04	.03	3.4	.0011	.0006	.18	.0005	.0013
%RSD	.5052	.1815	.2004	1.517	1.216	1.492	1.348	14.21	.2821
#1	.2522	21.88	15.59	222.2	.0937	.0391	13.35	-.0033	.4475
#2	.2526	21.90	15.65	217.6	.0956	.0403	13.69	-.0037	.4492
#3	.2546	21.96	15.61	224.2	.0935	.0396	13.62	-.0028	.4500

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0000**	**.0035**	**-.0004**	**20.68**	**-.0016**	**.0139**	**4.897**
Stddev	.0002	.0010	.0001	.37	.0015	.0018	.170
%RSD	421.4	27.24	14.31	1.786	95.03	13.22	3.462
#1	-.0001	.0031	-.0003	20.27	-.0032	.0161	4.703
#2	-.0002	.0046	-.0003	20.98	-.0015	.0129	4.971
#3	.0002	.0028	-.0004	20.79	-.0002	.0129	5.017

Zoom In Zoom Out

Sample Name: JC87402-2 Acquired: 5/6/2019 15:27:04 Type: Unk
Method: SGS 3 NO Valve(v343) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**188280.**	**36203.**	**8109.5**	**10852.**
Stddev	763.	182.	85.7	101.
%RSD	.40528	.50277	1.0563	.92970
#1	187420.	35993.	8203.8	10963.
#2	188890.	36313.	8036.5	10765.
#3	188520.	36303.	8088.4	10829.

Zoom In Zoom Out

Sample Name: ccv 7 Acquired: 5/6/2019 15:32:15 Type: QC
Method: SGS 3 NO Valve(v343) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.173**	**2.149**	**2.102**	**2.100**	**2.110**	**2.112**	**2.108**	**2.112**	**.2595**
Stddev	.002	.002	.003	.001	.003	.004	.018	.000	.0001
%RSD	.0862	.1115	.1319	.0559	.1441	.2030	.8498	.0031	.0361
#1	2.174	2.151	2.100	2.100	2.107	2.110	2.098	2.112	.2595
#2	2.175	2.149	2.102	2.098	2.113	2.117	2.099	2.112	.2594
#3	2.171	2.147	2.105	2.100	2.109	2.109	2.129	2.112	.2596
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.088**	**2.113**	**2.107**	**2.147**	**2.104**	**2.100**	**2.114**	**42.31**	**42.91**
Stddev	.004	.002	.002	.007	.002	.003	.003	.04	.03
%RSD	.1955	.1027	.0909	.3268	.0854	.1214	.1483	.1021	.0687
#1	2.084	2.111	2.106	2.154	2.105	2.101	2.112	42.36	42.94
#2	2.092	2.113	2.109	2.146	2.102	2.101	2.113	42.30	42.89
#3	2.089	2.116	2.108	2.141	2.106	2.097	2.118	42.27	42.89
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**42.66**	**42.83**	**42.67**	**42.76**	**2.136**	**2.147**	**5.416**	**2.162**	**2.160**
Stddev	.06	.04	.05	.03	.002	.001	.004	.003	.002
%RSD	.1513	.1050	.1250	.0703	.0996	.0321	.0654	.1533	.0745
#1	42.73	42.88	42.73	42.78	2.133	2.148	5.414	2.161	2.162
#2	42.63	42.82	42.67	42.73	2.137	2.147	5.414	2.160	2.159
#3	42.61	42.80	42.62	42.77	2.136	2.147	5.420	2.166	2.159
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ccv 7 Acquired: 5/6/2019 15:32:15 Type: QC
Method: SGS 3 NO Valve(v343) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.122**	**2.107**	**2.109**	**2.089**	**2.135**	**2.197**	F **2.230**
Stddev	.004	.003	.004	.006	.002	.002	.038
%RSD	.1843	.1328	.2012	.3117	.0740	.0859	1.702
#1	2.118	2.109	2.105	2.081	2.136	2.199	2.197
#2	2.125	2.104	2.113	2.091	2.133	2.196	2.222
#3	2.124	2.109	2.110	2.093	2.136	2.196	2.272
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
Value							2.000
Range							10.00%

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**188790.**	**35463.**	**8104.3**	**10992.**
Stddev	331.	126.	19.7	20.
%RSD	.17518	.35578	.24363	.17955
#1	189170.	35395.	8127.1	11013.
#2	188590.	35609.	8092.3	10974.
#3	188610.	35385.	8093.6	10989.

Zoom In Zoom Out

Sample Name: ccb Acquired: 5/6/2019 15:37:18 Type: QC
Method: SGS 3 NO Valve(v343) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0005**	**.0002**	**.0003**	**-.0002**	**-.0001**	**.0000**	**.0003**	**-.0001**	**-.0005**
Stddev	.0001	.0000	.0002	.0001	.0002	.0006	.0001	.0002	.0003
%RSD	26.75	18.40	53.98	40.29	334.3	1314.	25.77	360.8	56.02
#1	.0004	.0002	.0005	-.0001	-.0003	-.0006	.0003	.0002	-.0002
#2	.0006	.0002	.0003	-.0002	.0001	.0005	.0003	-.0002	-.0006
#3	.0004	.0002	.0002	-.0002	.0000	.0002	.0002	-.0001	-.0007
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004**	**.0002**	**-.0003**	**-.0012**	**.0009**	**-.0002**	**.0007**	**.0001**	**-.0046**
Stddev	.0000	.0001	.0005	.0013	.0010	.0010	.0014	.0089	.0008
%RSD	11.19	29.78	147.6	102.6	116.3	456.2	214.0	9567.	16.92
#1	.0004	.0002	-.0004	-.0007	.0020	.0006	-.0005	-.0050	-.0049
#2	.0004	.0003	-.0009	-.0027	.0003	.0001	.0002	-.0051	-.0052
#3	.0005	.0002	.0002	-.0003	.0003	-.0013	.0023	.0104	-.0037
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0042**	**-.0034**	**.1687**	**.0633**	**.0028**	**.0010**	**.0037**	**-.0002**	**.0002**
Stddev	.0004	.0122	.0124	.0062	.0005	.0004	.0019	.0003	.0001
%RSD	10.49	356.1	7.334	9.839	19.53	42.75	53.13	142.5	38.40
#1	.0037	.0106	.1547	.0690	.0033	.0013	.0020	-.0001	.0003
#2	.0046	-.0118	.1728	.0641	.0022	.0005	.0058	-.0005	.0002
#3	.0044	-.0091	.1784	.0567	.0029	.0013	.0032	.0001	.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: ccb Acquired: 5/6/2019 15:37:18 Type: QC
Method: SGS 3 NO Valve(v343) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0027**	**.0003**	**.0039**	**-.0000**	F **.0060**	**.0010**
Stddev	.0005	.0003	.0000	.0017	.0011	.0021	.0060
%RSD	22390.	11.89	16.29	44.13	4682.	35.09	612.9
#1	-.0005	.0026	.0003	.0054	.0011	.0036	-.0044
#2	-.0000	.0031	.0003	.0020	-.0011	.0068	-.0002
#3	.0005	.0024	.0002	.0042	-.0001	.0077	.0075
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						.0040	
Low Limit						-.0040	

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**197700.**	**35703.**	**8392.3**	**12166.**
Stddev	2588.	101.	18.5	18.
%RSD	1.3090	.28343	.22070	.14473
#1	196660.	35759.	8399.3	12174.
#2	195790.	35764.	8406.4	12178.
#3	200640.	35586.	8371.4	12146.

Zoom In Zoom Out

Sample Name: SAMPLECONF Acquired: 5/6/2019 15:42:36 Type: QC
Method: SGS 3 NO Valve(v343) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	k **.0014**	k **.0001**	s **-.0002**	s **.0006**	k **-.0009**	kF **-.0155**	k **-.0064**	s **-.0002**
Stddev	.0002	.0000	.0003	.0018	.0005	.0244	.0122	.0014
%RSD	15.46	5.862	193.7	277.1	58.68	157.7	191.9	554.9
#1	.0015	.0001	-.0003	.0019	-.0007	-.0015	.0006	-.0003
#2	k .0014	k .0001	s -.0004	s .0015	k -.0015	k -.0437	k -.0205	s .0011
#3	.0011	.0001	.0002	-.0014	-.0005	-.0013	.0007	-.0016
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit						.0100		
Low Limit						-.0100		

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	kF **-.0198**	k **.0025**	s **-.0014**	sF **.0040**	s **.0028**	sF **.0095**	s **.0082**	s **-.0040**
Stddev	.0330	.0031	.0013	.0107	.0089	.0364	.0247	.0046
%RSD	166.6	122.9	95.58	264.6	315.0	383.4	301.6	116.1
#1	-.0005	.0011	-.0021	.0023	.0013	.0026	.0047	-.0025
#2	k -.0579	k .0061	s .0001	s -.0057	s -.0053	s -.0230	s -.0146	s -.0003
#3	-.0010	.0004	-.0023	.0154	.0124	.0489	.0345	-.0091
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit	.0050			.0030		.0030		
Low Limit	-.0050			-.0030		-.0030		

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	k **542.9**	k **405.0**	k **200.9**	k **531.9**	k **.4840**	k **.1622**	s **-.0002**	s **.0016**
Stddev	4.4	12.2	2.4	.5	.0535	.0448	.0004	.0024
%RSD	.8162	3.001	1.175	.0897	11.05	27.62	158.9	146.9
#1	543.4	418.3	199.7	532.4	.5121	.1434	-.0000	.0012
#2	k 547.0	k 402.1	k 203.6	k 531.7	k .4223	k .2133	s -.0000	s -.0005
#3	538.2	394.5	199.4	531.5	.5177	.1298	-.0007	.0042
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Zoom In Zoom Out

Sample Name: SAMPLECONF Acquired: 5/6/2019 15:42:36 Type: QC
Method: SGS 3 NO Valve(v343) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	s **.0047**	s **-.0018**	k **.0019**	k **-.0013**	s **.0028**	k **-.0051**	s **.0067**	s **-.0099**
Stddev	.0026	.0007	.0041	.0005	.0023	.0082	.0090	.0227
%RSD	54.55	36.97	219.7	40.73	82.16	161.7	133.9	230.0
#1	.0021	-.0011	-.0007	-.0016	.0048	-.0006	.0169	-.0077
#2	s .0072	s -.0019	k .0067	k -.0007	s .0032	k -.0145	s .0029	s .0117
#3	.0049	-.0025	-.0003	-.0017	.0003	-.0001	.0003	-.0336
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Li6707	P_1774
Units	ppm	ppm
Avg	k **.0185**	s **.0431**
Stddev	.0146	.0517
%RSD	78.69	120.1
#1	.0087	.0631
#2	k .0353	s -.0157
#3	.0117	.0818
Check ?	Chk Pass	Chk Pass
High Limit		
Low Limit		

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**171640.**	**34218.**	^ *****	^ *****
Stddev	708.	102.	-----	-----
%RSD	.41247	.29902	-----	-----
#1	170830.	34189.	7417.2	9799.7
#2	171900.	34133.	^ -----	^ -----
#3	172170.	34331.	16183.	21105.

Zoom In Zoom Out

Sample Name: icsa Acquired: 5/6/2019 15:48:01 Type: QC
Method: SGS 3 NO Valve(v343) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0013**	**.0002**	**-.0003**	**.0013**	**-.0004**	**-.0004**	**.0009**	**-.0008**	**-.0007**
Stddev	.0003	.0000	.0002	.0002	.0002	.0011	.0005	.0002	.0011
%RSD	24.43	14.40	84.28	13.29	63.15	247.6	58.27	28.57	147.2
#1	.0011	.0002	-.0003	.0015	-.0002	-.0017	.0003	-.0005	-.0019
#2	.0016	.0002	-.0000	.0012	-.0003	.0002	.0010	-.0009	-.0005
#3	.0011	.0002	-.0004	.0012	-.0007	.0002	.0014	-.0009	.0002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0005**	**-.0012**	**.0021**	**.0005**	**.0020**	**.0041**	**-.0019**	**543.6**	**407.5**
Stddev	.0002	.0001	.0014	.0002	.0006	.0002	.0024	2.4	8.3
%RSD	35.30	6.631	64.87	39.09	30.63	4.217	122.4	.4417	2.043
#1	.0007	-.0011	.0037	.0004	.0023	.0039	-.0046	546.3	406.4
#2	.0003	-.0012	.0016	.0007	.0025	.0041	-.0009	543.2	399.7
#3	.0006	-.0013	.0012	.0004	.0013	.0043	-.0003	541.5	416.3
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**201.8**	**535.9**	**.4205**	**.1218**	**-.0003**	**.0010**	**.0075**	**-.0024**	**-.0004**
Stddev	4.4	.7	.0239	.0092	.0005	.0004	.0004	.0002	.0002
%RSD	2.157	.1269	5.685	7.558	181.7	41.25	5.078	9.361	53.95
#1	197.0	535.7	.3929	.1113	-.0007	.0015	.0075	-.0026	-.0004
#2	202.9	535.5	.4332	.1286	-.0004	.0008	.0078	-.0024	-.0002
#3	205.5	536.7	.4353	.1253	.0003	.0007	.0071	-.0022	-.0007
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: icsa Acquired: 5/6/2019 15:48:01 Type: QC
Method: SGS 3 NO Valve(v343) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0012**	**.0038**	**-.0003**	**.0201**	**-.0053**	**.0089**	F **.0600**
Stddev	.0002	.0017	.0004	.0018	.0009	.0020	.0034
%RSD	19.87	44.47	125.2	9.076	17.36	21.98	5.697
#1	-.0010	.0057	-.0007	.0191	-.0063	.0096	.0627
#2	-.0015	.0025	-.0002	.0191	-.0048	.0104	.0562
#3	-.0011	.0031	-.0000	.0223	-.0047	.0067	.0611
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit							.0500
Low Limit							-.0500

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**173020.**	**34320.**	**7527.7**	**9888.8**
Stddev	497.	168.	13.3	14.7
%RSD	.28730	.48845	.17646	.14861
#1	172660.	34460.	7520.4	9875.2
#2	172810.	34365.	7519.6	9886.9
#3	173590.	34134.	7543.0	9904.4

Zoom In Zoom Out

Sample Name: ICSAB Acquired: 5/6/2019 15:53:23 Type: QC
Method: SGS 3 NO Valve(v343) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5610**	**.5315**	**1.072**	**.5192**	**.5250**	**.5426**	**.5412**	**1.032**	**1.141**
Stddev	.0034	.0031	.004	.0021	.0027	.0023	.0029	.004	.006
%RSD	.6121	.5848	.3465	.4060	.5179	.4263	.5295	.4335	.5316
#1	.5649	.5351	1.072	.5191	.5239	.5414	.5412	1.031	1.137
#2	.5585	.5298	1.069	.5171	.5281	.5453	.5440	1.029	1.148
#3	.5595	.5296	1.076	.5213	.5231	.5412	.5383	1.037	1.137
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5321**	**1.008**	**1.141**	**1.032**	**1.018**	**1.120**	**1.133**	**544.3**	**405.0**
Stddev	.0029	.004	.006	.005	.004	.006	.008	6.0	3.4
%RSD	.5506	.4101	.4988	.4639	.3498	.5749	.7052	1.111	.8477
#1	.5323	1.006	1.138	1.031	1.016	1.119	1.134	550.5	404.3
#2	.5349	1.005	1.138	1.027	1.015	1.114	1.125	538.4	402.0
#3	.5290	1.013	1.148	1.037	1.022	1.126	1.141	544.1	408.7
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**210.7**	**546.3**	**.3607**	**.1015**	**.5147**	**.5178**	**.5447**	**.5077**	**.5524**
Stddev	3.0	2.9	.0342	.0039	.0018	.0023	.0039	.0016	.0032
%RSD	1.439	.5381	9.475	3.886	.3537	.4358	.7193	.3199	.5806
#1	213.6	549.7	.3223	.0984	.5155	.5166	.5409	.5075	.5559
#2	211.1	544.3	.3716	.1059	.5126	.5163	.5443	.5062	.5495
#3	207.5	544.8	.3880	.1001	.5160	.5204	.5487	.5095	.5519
Check ?	Chk Pass	Chk Pass	None	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ICSAB Acquired: 5/6/2019 15:53:23 Type: QC
Method: SGS 3 NO Valve(v343) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5378**	**.5069**	**.5210**	**.5421**	**.5264**	**.5927**	**.5178**
Stddev	.0034	.0023	.0024	.0048	.0023	.0040	.0039
%RSD	.6344	.4450	.4529	.8900	.4324	.6699	.7499
#1	.5365	.5049	.5218	.5368	.5265	.5969	.5135
#2	.5416	.5065	.5229	.5433	.5240	.5891	.5188
#3	.5352	.5093	.5183	.5462	.5286	.5920	.5210
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**170300.**	**34116.**	**7539.6**	**9922.3**
Stddev	1569.	137.	18.1	20.9
%RSD	.92130	.40117	.24023	.21054
#1	171040.	34103.	7539.7	9915.9
#2	168500.	33985.	7557.6	9945.7
#3	171360.	34258.	7521.4	9905.4

Zoom In Zoom Out

Sample Name: mp14770-mb1 7 Acquired: 5/6/2019 15:58:41 Type: Unk
Method: SGS 3 NO Valve(v343) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0007**	**-.0001**	**.0001**	**-.0001**	**.0005**	**.0008**	**.0002**	**.0009**	**-.0007**
Stddev	.0001	.0000	.0001	.0001	.0001	.0004	.0000	.0002	.0003
%RSD	20.45	75.54	142.6	171.6	18.45	56.17	17.98	21.56	48.93
#1	.0005	-.0000	.0000	-.0002	.0004	.0004	.0002	.0010	-.0003
#2	.0007	-.0001	.0000	-.0001	.0006	.0012	.0002	.0007	-.0010
#3	.0008	-.0000	.0002	.0001	.0004	.0006	.0002	.0010	-.0008

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	**.0082**	**-.0007**	**-.0000**	**-.0000**	**-.0012**	**.0001**	**.0090**	**.0451**
Stddev	.0003	.0001	.0004	.0004	.0007	.0030	.0019	.0092	.0020
%RSD	98.62	1.283	57.01	890.2	14670.	250.6	2766.	102.6	4.492
#1	.0006	.0081	-.0011	-.0003	.0004	.0017	.0017	.0105	.0474
#2	-.0000	.0082	-.0004	-.0002	.0005	-.0042	-.0020	.0173	.0436
#3	.0004	.0083	-.0006	.0004	-.0008	-.0011	.0004	-.0009	.0443

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0204**	**.0198**	**.0050**	**.0130**	**.0008**	**.0004**	**.0060**	**.0223**	**.0002**
Stddev	.0008	.0067	.0155	.0042	.0003	.0003	.0006	.0007	.0001
%RSD	4.112	33.78	308.1	32.54	35.97	79.81	10.08	3.368	48.04
#1	.0205	.0246	-.0048	.0090	.0005	.0007	.0066	.0224	.0002
#2	.0195	.0122	.0228	.0174	.0008	.0002	.0055	.0214	.0001
#3	.0212	.0227	-.0030	.0127	.0011	.0002	.0057	.0229	.0002

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004**	**.0009**	**.0016**	**.0055**	**.0000**	**.0052**	**.0545**
Stddev	.0004	.0003	.0002	.0012	.0016	.0004	.0035
%RSD	121.3	34.09	9.925	21.89	5646.	7.826	6.403
#1	-.0001	.0012	.0017	.0049	.0014	.0057	.0530
#2	.0004	.0010	.0014	.0047	-.0018	.0051	.0585
#3	.0008	.0006	.0015	.0069	.0004	.0049	.0520

Zoom In Zoom Out

Sample Name: mp14770-mb1 7 Acquired: 5/6/2019 15:58:41 Type: Unk
Method: SGS 3 NO Valve(v343) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**198470.**	**36586.**	**8553.2**	**12341.**
Stddev	1168.	237.	.8	11.
%RSD	.58849	.64774	.00964	.08845
#1	199040.	36330.	8553.9	12353.
#2	197130.	36631.	8552.3	12333.
#3	199250.	36798.	8553.5	12336.

Zoom In Zoom Out

Sample Name: mp14576-mb1conf Acquired: 5/6/2019 16:03:57 Type: Unk
Method: SGS 3 NO Valve(v343) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0006**	**.0000**	**.0002**	**-.0003**	**.0003**	**.0007**	**.0004**	**.0001**	**-.0006**
Stddev	.0002	.0000	.0001	.0002	.0001	.0003	.0000	.0002	.0002
%RSD	38.38	34090.	72.44	64.85	34.27	38.45	11.21	270.5	31.81
#1	.0007	-.0000	.0000	-.0004	.0004	.0004	.0004	.0002	-.0006
#2	.0003	.0000	.0003	-.0004	.0004	.0008	.0004	-.0002	-.0005
#3	.0008	.0000	.0002	-.0001	.0002	.0010	.0005	.0002	-.0009

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0107**	**-.0016**	**-.0014**	**-.0003**	**-.0012**	**-.0008**	**-.0034**	**.0568**
Stddev	.0001	.0001	.0002	.0013	.0011	.0016	.0004	.0102	.0007
%RSD	65.62	.5179	9.740	91.89	380.8	137.4	47.20	301.7	1.265
#1	.0001	.0107	-.0016	-.0001	-.0013	.0007	-.0007	.0026	.0575
#2	.0002	.0107	-.0015	-.0026	.0008	-.0020	-.0012	-.0152	.0561
#3	.0003	.0106	-.0018	-.0015	-.0003	-.0022	-.0004	.0025	.0568

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0147**	**.0052**	**.0588**	**.0576**	**.0008**	**.0008**	**.0084**	**.0198**	**.0003**
Stddev	.0008	.0107	.0276	.0124	.0006	.0002	.0003	.0008	.0001
%RSD	5.104	206.7	46.92	21.54	67.30	27.87	2.976	3.861	18.53
#1	.0152	-.0069	.0846	.0717	.0002	.0007	.0085	.0205	.0003
#2	.0152	.0135	.0298	.0530	.0012	.0011	.0087	.0200	.0004
#3	.0139	.0090	.0619	.0482	.0011	.0007	.0082	.0190	.0002

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0012**	**.0038**	**.0011**	**.0063**	**-.0008**	**.0055**	**.0400**
Stddev	.0002	.0009	.0003	.0025	.0001	.0016	.0019
%RSD	18.68	22.60	28.84	40.56	7.841	28.17	4.815
#1	.0013	.0047	.0009	.0067	-.0008	.0053	.0412
#2	.0009	.0030	.0009	.0086	-.0009	.0041	.0378
#3	.0013	.0037	.0014	.0035	-.0008	.0072	.0411

Zoom In Zoom Out

Sample Name: mp14576-mb1conf Acquired: 5/6/2019 16:03:57 Type: Unk
Method: SGS 3 NO Valve(v343) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**199250.**	**36577.**	**8539.2**	**12273.**
Stddev	5449.	325.	22.6	19.
%RSD	2.7348	.88900	.26507	.15150
#1	200510.	36208.	8557.1	12290.
#2	203960.	36823.	8513.8	12253.
#3	193280.	36700.	8546.8	12276.

Zoom In Zoom Out

Sample Name: mp14776-mb1conf Acquired: 5/6/2019 16:09:10 Type: Unk
Method: SGS 3 NO Valve(v343) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0005**	**.0000**	**.0000**	**-.0000**	**.0007**	**.0007**	**.0004**	**.0005**	**-.0001**
Stddev	.0000	.0001	.0001	.0001	.0003	.0003	.0001	.0001	.0003
%RSD	2.366	981.1	259.6	455.5	40.95	38.84	19.35	21.55	230.7
#1	.0005	-.0001	.0001	.0000	.0010	.0008	.0004	.0006	-.0005
#2	.0005	.0000	.0000	.0001	.0008	.0004	.0005	.0005	-.0000
#3	.0005	.0001	-.0000	-.0001	.0004	.0009	.0004	.0004	.0001

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**.0146**	**-.0018**	**-.0007**	**-.0001**	**-.0003**	**-.0008**	**-.0038**	**.1447**
Stddev	.0002	.0001	.0010	.0005	.0007	.0018	.0016	.0041	.0012
%RSD	135.9	.6078	55.97	74.55	934.4	580.3	205.7	109.0	.8224
#1	-.0003	.0147	-.0018	-.0007	.0007	.0009	-.0011	-.0061	.1454
#2	-.0002	.0145	-.0008	-.0002	-.0007	-.0024	-.0021	-.0062	.1433
#3	.0001	.0145	-.0028	-.0013	-.0003	.0005	.0010	.0010	.1453

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0147**	**.0241**	**.0744**	**.1048**	**.0005**	**.0006**	**.0078**	**.0203**	**.0003**
Stddev	.0014	.0046	.0424	.0114	.0007	.0001	.0008	.0002	.0001
%RSD	9.279	19.02	57.05	10.84	148.9	9.014	10.87	.9969	17.08
#1	.0133	.0225	.0265	.0958	.0013	.0006	.0087	.0202	.0004
#2	.0160	.0292	.1074	.1010	.0002	.0007	.0071	.0206	.0004
#3	.0149	.0205	.0892	.1175	-.0001	.0006	.0076	.0203	.0003

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0010**	**.0014**	**.0005**	**.0122**	**-.0005**	**.0009**	**.0288**
Stddev	.0003	.0009	.0000	.0013	.0009	.0000	.0063
%RSD	33.57	59.08	3.323	10.94	165.0	5.494	21.86
#1	.0013	.0005	.0005	.0107	-.0005	.0009	.0216
#2	.0010	.0017	.0005	.0128	.0004	.0008	.0316
#3	.0006	.0022	.0005	.0131	-.0014	.0009	.0332

Zoom In Zoom Out

Sample Name: mp14776-mb1conf Acquired: 5/6/2019 16:09:10 Type: Unk
Method: SGS 3 NO Valve(v343) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**199090.**	**36043.**	**8491.4**	**12250.**
Stddev	546.	112.	51.8	70.
%RSD	.27435	.30940	.61021	.57383
#1	199550.	36036.	8432.0	12171.
#2	198490.	35935.	8515.1	12273.
#3	199240.	36158.	8527.2	12306.

Zoom In Zoom Out

Sample Name: mp14648-mb1CONF Acquired: 5/6/2019 16:14:26 Type: Unk
Method: SGS 3 NO Valve(v343) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**200500.**	**36849.**	**8535.9**	**12300.**
Stddev	1215.	338.	19.5	22.
%RSD	.60584	.91653	.22886	.18223
#1	201350.	36464.	8528.4	12282.
#2	199110.	36987.	8521.2	12293.
#3	201040.	37096.	8558.0	12325.

Zoom In Zoom Out

Sample Name: mp14648-b1CONF Acquired: 5/6/2019 16:19:42 Type: Unk
Method: SGS 3 NO Valve(v343) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0000**	**.0000**	**-.0001**	**.0004**	**.0006**	**.0003**	**.0010**	**-.0004**
Stddev	.0002	.0000	.0001	.0001	.0002	.0002	.0000	.0001	.0003
%RSD	109.9	83.35	1939.	131.6	48.46	38.09	4.302	7.873	94.42
#1	.0004	.0000	-.0001	.0000	.0004	.0007	.0003	.0009	-.0000
#2	-.0000	.0000	.0001	-.0001	.0003	.0007	.0003	.0011	-.0007
#3	.0002	.0000	-.0000	-.0002	.0007	.0003	.0004	.0010	-.0003

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0003**	**.0085**	**-.0014**	**-.0008**	**-.0001**	**-.0011**	**-.0005**	**.0010**	**.0534**
Stddev	.0001	.0000	.0001	.0002	.0004	.0012	.0013	.0062	.0033
%RSD	24.49	.4911	7.918	22.70	443.3	106.2	243.6	606.0	6.186
#1	-.0004	.0086	-.0014	-.0009	-.0004	-.0024	.0008	-.0026	.0542
#2	-.0004	.0085	-.0014	-.0006	-.0001	-.0010	-.0019	.0082	.0498
#3	-.0003	.0085	-.0012	-.0009	.0003	-.0000	-.0005	-.0026	.0562

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0251**	**.0128**	**.0471**	**.0374**	**.0007**	**.0004**	**.0080**	**.0178**	**.0002**
Stddev	.0013	.0080	.0210	.0110	.0008	.0001	.0016	.0007	.0000
%RSD	5.170	62.45	44.69	29.41	102.8	33.54	19.27	3.852	19.05
#1	.0250	.0217	.0228	.0346	.0013	.0003	.0064	.0180	.0002
#2	.0239	.0103	.0592	.0496	-.0001	.0005	.0082	.0184	.0002
#3	.0265	.0063	.0592	.0281	.0011	.0006	.0095	.0171	.0003

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0009**	**.0003**	**.0004**	**.0045**	**.0001**	**.0046**	**.0516**
Stddev	.0006	.0009	.0000	.0017	.0019	.0012	.0014
%RSD	65.97	277.3	8.554	37.46	1930.	25.60	2.616
#1	.0008	.0013	.0005	.0026	-.0004	.0039	.0509
#2	.0015	.0001	.0004	.0059	.0022	.0040	.0532
#3	.0003	-.0004	.0004	.0049	-.0015	.0060	.0509

Zoom In Zoom Out

Sample Name: mp14648-b1CONF Acquired: 5/6/2019 16:19:42 Type: Unk
Method: SGS 3 NO Valve(v343) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.195**	**2.170**	**2.113**	**2.116**	**2.129**	**2.135**	**2.152**	**2.131**	**.2630**
Stddev	.022	.017	.005	.003	.019	.021	.020	.003	.0023
%RSD	1.015	.7778	.2409	.1388	.8715	.9747	.9296	.1562	.8930
#1	2.180	2.156	2.117	2.120	2.150	2.159	2.173	2.135	.2657
#2	2.220	2.189	2.107	2.114	2.122	2.126	2.148	2.128	.2620
#3	2.184	2.166	2.115	2.115	2.115	2.121	2.133	2.129	.2613

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.088**	**2.152**	**2.125**	**2.248**	**2.127**	**2.121**	**2.119**	**26.83**	**27.47**
Stddev	.015	.006	.004	.008	.004	.007	.004	.22	.20
%RSD	.7228	.2951	.1860	.3686	.1690	.3124	.1835	.8329	.7210
#1	2.106	2.160	2.130	2.239	2.130	2.122	2.123	26.65	27.31
#2	2.081	2.149	2.122	2.251	2.123	2.114	2.116	27.08	27.69
#3	2.078	2.149	2.124	2.255	2.126	2.127	2.119	26.76	27.40

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**27.22**	**27.42**	**27.10**	**27.60**	**2.109**	**2.153**	**-.0389**	**2.228**	**2.172**
Stddev	.24	.23	.21	.27	.006	.004	.0012	.004	.019
%RSD	.8681	.8248	.7732	.9799	.2937	.2074	3.007	.1591	.8840
#1	27.03	27.23	26.92	27.43	2.114	2.158	-.0388	2.232	2.157
#2	27.48	27.67	27.33	27.91	2.102	2.150	-.0378	2.226	2.193
#3	27.15	27.36	27.06	27.47	2.111	2.151	-.0401	2.227	2.165

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.141**	**1.607**	**2.111**	**.0276**	**.1321**	**.0043**	**1.994**
Stddev	.017	.004	.014	.0040	.0010	.0024	.016
%RSD	.7895	.2688	.6822	14.34	.7598	54.70	.7931
#1	2.161	1.612	2.128	.0322	.1330	.0035	1.976
#2	2.132	1.603	2.103	.0255	.1310	.0070	2.000
#3	2.131	1.605	2.103	.0252	.1323	.0024	2.006

Zoom In Zoom Out

Sample Name: mp14648-b1CONF Acquired: 5/6/2019 16:19:42 Type: Unk
Method: SGS 3 NO Valve(v343) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**192020.**	**35843.**	**8246.9**	**11274.**
Stddev	2341.	202.	32.7	33.
%RSD	1.2193	.56247	.39707	.29348
#1	189560.	35985.	8212.7	11241.
#2	192290.	35612.	8250.1	11272.
#3	194220.	35931.	8278.0	11307.

Zoom In Zoom Out

Sample Name: ccv Acquired: 5/6/2019 16:24:48 Type: QC
Method: SGS 3 NO Valve(v343) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.160**	**2.133**	**2.086**	**2.096**	**2.116**	**2.108**	**2.118**	**2.110**	**.2586**
Stddev	.001	.005	.000	.002	.020	.020	.017	.003	.0025
%RSD	.0611	.2203	.0170	.1082	.9540	.9231	.8092	.1190	.9825
#1	2.158	2.133	2.086	2.098	2.103	2.096	2.120	2.112	.2567
#2	2.160	2.138	2.087	2.096	2.139	2.130	2.134	2.110	.2615
#3	2.161	2.128	2.086	2.093	2.106	2.097	2.100	2.107	.2575
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.087**	**2.115**	**2.106**	**2.171**	**2.102**	**2.104**	**2.100**	**42.03**	**42.71**
Stddev	.020	.001	.002	.002	.004	.001	.003	.09	.12
%RSD	.9530	.0583	.1009	.0940	.1886	.0684	.1255	.2133	.2712
#1	2.078	2.114	2.104	2.173	2.106	2.105	2.101	42.03	42.71
#2	2.110	2.115	2.108	2.172	2.102	2.106	2.097	42.12	42.82
#3	2.074	2.116	2.107	2.169	2.098	2.103	2.102	41.94	42.59
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**42.39**	**42.63**	**42.24**	**42.68**	**2.121**	**2.141**	**5.388**	**2.170**	**2.140**
Stddev	.09	.08	.08	.03	.003	.001	.002	.002	.003
%RSD	.2036	.1860	.1923	.0818	.1244	.0668	.0326	.0682	.1345
#1	42.37	42.66	42.18	42.68	2.118	2.140	5.390	2.170	2.139
#2	42.49	42.69	42.33	42.71	2.122	2.143	5.387	2.172	2.143
#3	42.32	42.54	42.20	42.64	2.122	2.140	5.388	2.169	2.138
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ccv Acquired: 5/6/2019 16:24:48 Type: QC
Method: SGS 3 NO Valve(v343) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.127**	**2.103**	**2.109**	**2.048**	**2.128**	**2.178**	**1.926**
Stddev	.022	.005	.020	.005	.003	.007	.021
%RSD	1.046	.2409	.9572	.2672	.1211	.3342	1.069
#1	2.114	2.107	2.097	2.043	2.131	2.181	1.950
#2	2.153	2.097	2.132	2.054	2.129	2.183	1.918
#3	2.115	2.104	2.097	2.047	2.126	2.170	1.911
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**188360.**	**35330.**	**8125.8**	**11008.**
Stddev	1652.	122.	27.8	23.
%RSD	.87706	.34450	.34249	.20566
#1	189330.	35258.	8148.8	11026.
#2	186460.	35262.	8133.7	11016.
#3	189300.	35471.	8094.9	10983.

Zoom In Zoom Out

Sample Name: ccb Acquired: 5/6/2019 16:30:24 Type: QC
Method: SGS 3 NO Valve(v343) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0009**	**.0004**	F **.0009**	**.0005**	**.0002**	**.0004**	**.0005**	**.0006**	**-.0005**
Stddev	.0001	.0000	.0001	.0001	.0001	.0005	.0000	.0002	.0005
%RSD	10.70	6.305	11.35	19.39	87.55	128.3	5.381	31.78	112.2
#1	.0010	.0004	.0009	.0004	.0003	-.0002	.0005	.0004	-.0008
#2	.0008	.0005	.0010	.0005	.0001	.0009	.0004	.0008	-.0007
#3	.0009	.0004	.0008	.0006	.0001	.0005	.0005	.0007	.0001
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit			.0007						
Low Limit			-.0007						

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0008**	**.0008**	**.0002**	**-.0004**	**.0005**	**-.0013**	**.0004**	**-.0005**	**-.0004**
Stddev	.0003	.0001	.0003	.0003	.0009	.0008	.0007	.0100	.0037
%RSD	37.05	11.26	208.1	78.15	171.4	60.30	156.0	1985.	822.3
#1	.0009	.0008	.0003	-.0001	.0005	-.0008	-.0003	-.0120	-.0025
#2	.0004	.0007	-.0002	-.0007	.0015	-.0022	.0005	.0043	-.0026
#3	.0009	.0008	.0004	-.0005	-.0003	-.0009	.0011	.0062	.0038
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0089**	**.0019**	**.0551**	**-.0120**	**.0030**	**.0010**	**.0038**	**.0007**	**.0003**
Stddev	.0009	.0086	.0135	.0030	.0004	.0003	.0008	.0003	.0000
%RSD	10.09	450.9	24.57	25.28	11.95	32.36	20.89	44.96	3.905
#1	.0089	.0057	.0505	-.0103	.0034	.0009	.0030	.0003	.0003
#2	.0099	.0079	.0704	-.0103	.0029	.0014	.0038	.0007	.0003
#3	.0080	-.0079	.0446	-.0155	.0028	.0007	.0046	.0009	.0003
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In
Zoom Out

Sample Name: ccb Acquired: 5/6/2019 16:30:24 Type: QC
Method: SGS 3 NO Valve(v343) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0005**	**.0043**	**.0006**	**.0022**	**.0008**	F **.0080**	F **.0258**
Stddev	.0003	.0007	.0001	.0007	.0009	.0010	.0024
%RSD	50.35	16.80	12.64	30.97	101.5	12.85	9.097
#1	.0005	.0035	.0007	.0023	.0016	.0080	.0257
#2	.0008	.0048	.0005	.0015	-.0001	.0070	.0283
#3	.0003	.0047	.0006	.0029	.0010	.0091	.0236
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Fail
High Limit						.0040	.0200
Low Limit						-.0040	-.0200

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**198440.**	**35958.**	**8428.4**	**12187.**
Stddev	1659.	93.	19.7	25.
%RSD	.83609	.25805	.23327	.20777
#1	199620.	36055.	8444.3	12207.
#2	196540.	35949.	8434.4	12195.
#3	199140.	35871.	8406.4	12159.

NOTE: The remaining raw data for this batch is not relevant to this job. As such it has been omitted.

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
Ba 455.403 { 74}	☒	1	Zr	0.001245	0.000000	No
Be 313.042 {108}	☒	6	V	0.001380	0.000000	No
			Mo	-0.000047	0.000000	No
			Ti	-0.000451	0.000000	No
			Mn	0.000010	0.000000	No
			Cu	0.000014	0.000000	No
			Bi	0.000060	0.000000	No
Cd 228.802 {448}	☒	11	As	0.008200	0.000000	No
			Ni	-0.000628	0.000000	No
			Fe	-0.000003	0.000000	No
			V	0.000091	0.000000	No
			Ba	0.000064	0.000000	No
			Co	-0.001130	0.000000	No
			Sr	-0.000020	0.000000	No
			Mn	0.000050	0.000000	No
			Cu	-0.000026	0.000000	No
			Zn	-0.000018	0.000000	No
			W	-0.000482	0.000000	No
Co 228.616 {448}	☒	7	Fe	0.000009	0.000000	No
			Mo	-0.000790	0.000000	No
			Ni	0.000091	0.000000	No
			Ti	0.002192	0.000000	No
			Ba	0.000140	0.000000	No
			W	0.000327	0.000000	No
			Cd	-0.000510	0.000000	No
Cr 267.716 {126}	☒	9	Mn	0.000348	0.000000	No
			V	0.000090	0.000000	No
			Mo	-0.000082	0.000000	No
			Fe	-0.000005	0.000000	No
			Ti	0.000060	0.000000	No
			Ba	0.000045	0.000000	No
			Cu	0.000100	0.000000	No
			Sr	-0.000100	0.000000	No
			W	0.000404	0.000000	No
Cu 324.754 {104}2	☒	13	Cr	-0.000004	0.000000	No
			V	-0.000397	0.000000	No
			Mo	0.000544	0.000000	No
			Ti	-0.000208	0.000000	No
			Fe	-0.000226	0.000000	No
			Zn	-0.000041	0.000000	No
			Co	-0.001373	0.000000	No
			Si	0.000016	0.000000	No
			Mn	0.000003	0.000000	No
			Se	0.000050	0.000000	No
			Sb	0.000069	0.000000	No
			W	0.000000	0.000000	No
			Al	0.000004	0.000000	No
Mn 257.610 {131}	☒	4	Fe	-0.000107	0.000000	No
			Si	0.000010	0.000000	No
			Ba	0.000004	0.000000	No
			Ni	0.000028	0.000000	No
Ni 231.604 {446}	☒	8	Fe	0.000008	0.000000	No
			Zn	-0.000013	0.000000	No
			Be	0.000213	0.000000	No
			Co	-0.000220	0.000000	No
			Tl	0.000209	0.000000	No
			Mo	0.000026	0.000000	No

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
			Cu	0.000050	0.000000	No
			Se	0.000100	0.000000	No
Ag 328.068 {103}	☒	14	Mn	0.000252	0.000000	No
			Mo	0.000012	-0.000003	No
			Ti	-0.000090	0.000000	No
			Fe	-0.000270	0.000000	No
			Zn	-0.000120	0.000000	No
			Ca	-0.000001	0.000000	No
			Zr	0.006915	0.000000	No
			Sr	-0.000020	0.000000	No
			Mg	0.000000	0.000000	No
			Ba	0.000071	0.000000	No
			Cr	0.000022	0.000000	No
			V	-0.003000	0.000000	No
			Al	-0.000006	0.000000	No
			W	0.000000	0.000000	No
V 292.402 {115}	☒	6	Ti	0.000689	0.000000	No
			Mo	-0.000304	0.000000	No
			Fe	0.000029	0.000000	No
			Sr	-0.000100	0.000000	No
			Cr	-0.006036	0.000000	No
			Mn	-0.002777	0.000000	No
Zn 206.200 {464}	☒	9	Cr	-0.000850	0.000000	No
			Fe	0.000011	0.000000	No
			Si	0.000015	0.000000	No
			Mn	-0.000045	0.000000	No
			Ba	-0.000060	0.000000	No
			Sn	-0.000023	0.000000	No
			Cu	0.000148	0.000000	No
			As	0.000055	0.000000	No
			Be	0.000058	0.000000	No
As 189.042 {478}	☒	18	Al	0.000012	0.000000	No
			Fe	-0.000122	0.000000	No
			Ca	0.000001	0.000000	No
			Mo	0.002250	0.000000	No
			Cr	-0.000400	0.000000	No
			Ba	-0.000114	0.000000	No
			Sn	-0.000130	0.000000	No
			Cd	-0.000328	0.000000	No
			Si	0.000024	0.000000	No
			Zn	-0.000082	0.000000	No
			Sr	-0.000045	0.000000	No
			W	0.010000	0.000000	No
			Cu	-0.000058	0.000000	No
			Co	-0.000045	0.000000	No
			Zr	0.000036	0.000000	No
			Mn	-0.000378	0.000000	No
			S	0.000010	0.000000	No
			Ti	0.000100	0.000000	No
Tl 190.856 {477}	☒	24	Cr	0.000315	0.000000	No
			Mo	-0.009800	0.000000	No
			Al	-0.000003	0.000000	No
			Fe	-0.000052	0.000000	No
			V	-0.026200	0.000000	No
			Mn	0.001890	0.000000	No
			Si	-0.000018	0.000000	No
			Ca	0.000000	0.000000	No

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
			Ti	-0.002790	0.000000	No
			Mg	0.000000	0.000000	No
			Co	0.004280	0.000000	No
			Sr	0.000010	0.000000	No
			B	-0.000003	0.000000	No
			Ba	0.000034	0.000000	No
			Zn	-0.000053	0.000000	No
			As	0.000068	0.000000	No
			W	-0.007000	0.000000	No
			Cu	0.000142	0.000000	No
			Pb	-0.000020	0.000000	No
			S	0.000010	0.000000	No
			Sn	-0.000086	0.000000	No
			Li	0.000000	0.000000	No
			K	0.000000	0.000000	No
			Zr	0.000000	0.000000	No
Pb 220.353 {453}	☒	20	Al	-0.000125	0.000000	No
			Fe	0.000039	0.000000	No
			Ca	0.000000	0.000000	No
			Mn	0.000154	0.000000	No
			Mo	-0.001000	0.000000	No
			Cu	0.000154	0.000000	No
			Co	0.000264	0.000000	No
			Ti	-0.000600	0.000000	No
			Si	-0.000067	0.000000	No
			Ba	-0.000022	0.000000	No
			Sb	-0.000084	0.000000	No
			Sr	-0.000033	0.000000	No
			W	0.000000	0.000000	No
			Mg	0.000006	0.000000	No
			Cd	0.000012	0.000000	No
			Cr	-0.000031	0.000000	No
			Zr	-0.000281	0.000000	No
			Ni	0.000371	0.000000	No
			S	0.000010	0.000000	No
			Zn	-0.000106	0.000000	No
Se 196.090 {472}	☒	23	Al	-0.000008	0.000000	No
			Ca	-0.000007	0.000000	No
			Mn	0.000594	0.000000	No
			Mo	0.000400	0.000000	No
			Fe	-0.000172	0.000000	No
			Co	-0.000182	0.000000	No
			Sr	-0.000011	0.000000	No
			Cu	-0.000087	0.000000	No
			W	0.000000	0.000000	No
			Si	0.000054	0.000000	No
			Be	-0.000347	0.000000	No
			Zn	0.000050	0.000000	No
			B	0.000028	0.000000	No
			Ti	-0.000020	0.000000	No
			Cd	0.000090	0.000000	No
			Zr	-0.000297	0.000000	No
			Ba	-0.000046	0.000000	No
			Mg	-0.000000	0.000000	No
			Pb	-0.000078	0.000000	No
			Ni	-0.000100	0.000000	No
			Cr	-0.000024	0.000000	No

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
			S	-0.000014	0.000000	No
			V	0.000188	0.000000	No
Sb 206.833 {463}	☒	17	Fe	0.000005	0.000000	No
			Al	0.000015	0.000000	No
			Ca	0.000001	0.000000	No
			Ni	-0.000716	0.000000	No
			Cr	0.020200	0.000000	No
			V	-0.003422	0.000000	No
			Zn	-0.000115	0.000000	No
			Mo	0.000589	0.000000	No
			Ti	0.000630	0.000000	No
			Sn	-0.010020	0.000000	No
			Mg	-0.000003	0.000000	No
			Zr	-0.000463	0.000000	No
			Sr	0.000031	0.000000	No
			B	-0.000100	0.000000	No
			Co	-0.000251	0.000000	No
			W	0.000000	0.000000	No
			Si	-0.000170	0.000000	No
Al 396.152 { 85}	☒	5	Si	0.000652	0.000000	No
			Ca	0.000018	0.000000	No
			Mo	0.043916	0.000000	No
			Zr	0.005268	0.000000	No
			Ti	-0.000583	0.000000	No
Ca 317.933 {106}	☒	14	Fe	0.000012	0.000000	No
			W	0.003960	0.000000	No
			Tl	-0.000152	0.000000	No
			Be	0.001840	0.000000	No
			Ba	-0.001224	0.000000	No
			Cu	-0.000822	0.000000	No
			Cd	-0.007593	0.000000	No
			Ni	0.000667	0.000000	No
			B	-0.000210	0.000000	No
			Se	0.000923	0.000000	No
			Co	-0.000408	0.000000	No
			Cr	0.000640	0.000000	No
			Al	-0.000000	0.000000	No
			As	0.010000	0.000000	No
Fe 259.940 {130}	☒	10	Si	0.000819	0.000000	No
			Tl	-0.000051	0.000000	No
			Cr	0.000310	0.000000	No
			Mn	-0.000196	0.000000	No
			V	-0.000064	0.000000	No
			Cu	-0.000015	0.000000	No
			Zn	0.000046	0.000000	No
			Ti	-0.000631	0.000000	No
			Ca	0.000020	0.000000	No
			Ba	0.001000	0.000000	No
Mg 279.079 {121}	☒	3	Mo	-0.013702	0.000000	No
			W	-0.006578	0.000000	No
			Mn	-0.002445	0.000000	No
K 766.490 { 44}	☒	11	Fe	-0.000440	0.000000	No
			Al	0.000077	0.000000	No
			Ca	-0.000121	0.000000	No
			Mn	-0.007074	0.000000	No
			Si	-0.003000	0.000000	No
			V	-0.002000	0.000000	No

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
			Sn	-0.004700	0.000000	No
			Ba	-0.010574	0.000000	No
			Mo	-0.000850	0.000000	No
			Cu	-0.011483	0.000000	No
			Ni	-0.010000	0.000000	No
Na 589.592 { 57}	☒	4	K	-0.000560	0.000000	No
			Ba	0.000900	0.000000	No
			Ca	0.000180	0.000000	No
			V	-0.005000	0.000000	No
B 208.959 {462}	☒	1	Mo	0.038137	0.000000	No
Mo 202.030 {467}	☒	2	Al	-0.000004	0.000000	No
			Fe	-0.000010	0.000000	No
Si 212.412 {459}	☒	12	Sr	0.000366	0.000000	No
			Ni	0.002092	0.000000	No
			Mo	0.034932	0.000000	No
			V	0.036950	0.000000	No
			Ti	0.004593	0.000000	No
			Al	-0.000010	0.000000	No
			Cd	0.001043	0.000000	No
			Ba	0.001987	0.000000	No
			Sn	0.007500	0.000000	No
			Zn	0.000385	0.000000	No
			Be	-0.000048	0.000000	No
			W	0.000000	0.000000	No
Sn 189.989 {478}	☒	4	Ti	-0.001964	0.000000	No
			Fe	0.000004	0.000000	No
			Si	0.000131	0.000000	No
			Zr	0.000908	0.000000	No
Sr 407.771 { 83}	☒	2	Ca	0.000018	0.000000	No
			Si	0.000033	0.000000	No
Ti 334.904 {101}	☒	3	Cr	0.000189	0.000000	No
			Mo	0.001351	0.000000	No
			Si	0.000035	0.000000	No
Y 360.073 { 94}*	☒	None				
Y 371.030 { 91}*	☒	None				
Y 224.306 {451}*	☒	None				
In 230.606 {446}*	☒	None				
W 207.911 {462}	☒	20	Si	0.000105	0.000000	No
			As	0.000100	0.000000	No
			Mn	0.000066	0.000000	No
			Mo	-0.000300	0.000000	No
			Ti	0.000080	0.000000	No
			Sr	-0.000850	0.000000	No
			V	-0.000140	0.000000	No
			Cd	-0.000650	0.000000	No
			Cr	-0.000390	0.000000	No
			Zn	0.013026	0.000000	No
			Sn	0.001300	0.000000	No
			Zr	0.000061	0.000000	No
			B	0.000009	0.000000	No
			Sb	-0.000300	0.000000	No
			Co	-0.001000	0.000000	No
			Ni	-0.003000	0.000000	No
			Be	-0.000185	0.000000	No
			Se	-0.000105	0.000000	No
			Cu	-0.000138	0.000000	No
			Tl	-0.000220	0.000000	No

	Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
	Zr 339.198 { 99}	☒	6	Mo	0.001069	0.000000	No
				Ti	0.000203	0.000000	No
				Fe	-0.000070	0.000000	No
				Si	0.000074	0.000000	No
				S	-0.000002	0.000000	No
				Cr	-0.000700	0.000000	No
	S 182.034 {485}	☒	7	Mo	-0.004201	0.000000	No
				Al	-0.000034	0.000000	No
				Fe	0.000002	0.000000	No
				Mn	0.004620	0.000000	No
				W	-0.032564	0.000000	No
				Ca	0.000032	0.000000	No
				Mg	0.000005	0.000000	No
	Bi 223.061 {451}	☒	9	Ti	-0.072020	0.000000	No
				V	-0.000704	0.000000	No
				Co	-0.002380	0.000000	No
				Ca	-0.000002	0.000000	No
				Mg	-0.000000	0.000000	No
				Fe	0.000187	0.000000	No
				Cr	0.001595	0.000000	No
				Cu	-0.001148	0.000000	No
				W	-0.020000	0.000000	No
	Li 670.784 { 50}	☒	2	Ca	0.000023	0.000000	No
				Fe	0.000081	0.000000	No
	P 177.495 {490}	☒	9	Mn	-0.006184	0.000000	No
				Al	-0.000060	0.000000	No
				V	-0.001953	0.000000	No
				Si	-0.001622	0.000000	No
				Ti	0.000000	-0.001185	No
				Mo	-0.001880	0.000000	No
				S	-0.000189	0.000000	No
				Co	-0.002198	0.000000	No
				Cu	-0.023500	0.000000	No

Element, Wavelength and Order	Date of Fit	Date of Cal.	Type of Fit	Weighting	A0	A1	A2	n (Exponent)
Ba 455.403 { 74}	5/7/2019 8:17:32	5/6/2019 11:04:42	Linear	None	0.010062	1.362313	0.000000	1.000000
Be 313.042 {108}	5/7/2019 8:17:32	5/6/2019 11:04:42	Linear	None	-0.001300	1.988394	0.000000	1.000000
Cd 228.802 {448}	5/7/2019 8:17:32	5/6/2019 11:04:42	Linear	None	0.000282	0.779715	0.000000	1.000000
Co 228.616 {448}	5/7/2019 8:17:32	5/6/2019 11:04:42	Linear	None	0.000052	0.536601	0.000000	1.000000
Cr 267.716 {126}	5/7/2019 8:17:32	5/6/2019 11:04:42	Linear	None	-0.000017	0.110212	0.000000	1.000000
Cu 324.754 {104}2	5/7/2019 8:17:32	5/6/2019 11:04:42	Linear	None	0.002314	0.184768	0.000000	1.000000
Mn 257.610 {131}	5/7/2019 8:17:32	5/6/2019 11:04:42	Linear	None	0.000054	0.602334	0.000000	1.000000
Ni 231.604 {446}	5/7/2019 8:17:32	5/6/2019 11:04:42	Linear	None	-0.000055	0.444971	0.000000	1.000000
Ag 328.068 {103}	5/7/2019 8:17:32	5/6/2019 11:04:42	Linear	None	-0.000340	0.110245	0.000000	1.000000
V 292.402 {115}	5/7/2019 8:17:32	5/6/2019 11:04:42	Linear	None	0.000205	0.152646	0.000000	1.000000
Zn 206.200 {464}	5/7/2019 8:17:32	5/6/2019 11:04:42	Linear	None	0.000319	1.131675	0.000000	1.000000
As 189.042 {478}	5/7/2019 8:17:32	5/6/2019 11:04:42	Linear	None	-0.000062	0.081963	0.000000	1.000000
Tl 190.856 {477}	5/7/2019 8:17:32	5/6/2019 11:04:42	Linear	None	-0.000085	0.057795	0.000000	1.000000
Pb 220.353 {453}	5/7/2019 8:17:32	5/6/2019 11:04:42	Linear	None	0.000276	0.195977	0.000000	1.000000
Se 196.090 {472}	5/7/2019 8:17:32	5/6/2019 11:04:42	Linear	None	0.000027	0.063583	0.000000	1.000000
Sb 206.833 {463}	5/7/2019 8:17:32	5/6/2019 11:04:42	Linear	None	0.000562	0.108341	0.000000	1.000000
Al 396.152 { 85}	5/7/2019 8:17:32	5/6/2019 11:04:42	Linear	None	0.000477	0.030074	0.000000	1.000000
Ca 317.933 {106}	5/7/2019 8:17:32	5/6/2019 11:04:42	Linear	None	0.008471	0.072258	0.000000	1.000000
Fe 259.940 {130}	5/7/2019 8:17:32	5/6/2019 11:04:42	Linear	None	0.000111	0.044203	0.000000	1.000000
Mg 279.079 {121}	5/7/2019 8:17:32	5/6/2019 11:04:42	Linear	None	-0.000081	0.007823	0.000000	1.000000
K 766.490 { 44}	5/7/2019 8:17:32	5/6/2019 11:04:42	Linear	None	0.003894	0.015327	0.000000	1.000000
Na 589.592 { 57}	5/7/2019 8:17:32	5/6/2019 11:04:42	Linear	None	-0.002976	0.057126	0.000000	1.000000
B 208.959 {462}	5/7/2019 8:17:32	5/6/2019 11:04:42	Linear	None	0.000519	0.164408	0.000000	1.000000
Mo 202.030 {467}	5/7/2019 8:17:32	5/6/2019 11:04:42	Linear	None	-0.000311	0.526130	0.000000	1.000000
Si 212.412 {459}	5/7/2019 8:17:32	5/6/2019 11:04:42	Linear	None	0.001964	0.142292	0.000000	1.000000
Sn 189.989 {478}	5/7/2019 8:17:32	5/6/2019 11:04:42	Linear	None	0.000375	0.153110	0.000000	1.000000
Sr 407.771 { 83}	5/7/2019 8:17:32	5/6/2019 11:04:42	Linear	None	-0.000935	2.437666	0.000000	1.000000
Ti 334.904 {101}	5/7/2019 8:17:32	5/6/2019 11:04:42	Linear	None	0.000064	0.124032	0.000000	1.000000
Y 360.073 { 94}*	5/7/2019 8:17:32	12/23/2009 10:44:16	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
Y 371.030 { 91}*	5/7/2019 8:17:32	12/23/2009 10:44:16	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
Y 224.306 {451}*	5/7/2019 8:17:32	12/23/2009 10:44:16	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
In 230.606 {446}*	5/7/2019 8:17:32	12/23/2009 10:44:16	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
W 207.911 {462}	5/7/2019 8:17:32	5/6/2019 11:04:42	Linear	None	0.000612	0.271797	0.000000	1.000000
Zr 339.198 { 99}	5/7/2019 8:17:32	5/6/2019 11:04:42	Linear	None	-0.000328	0.350856	0.000000	1.000000
S 182.034 {485}	5/7/2019 8:17:32	5/6/2019 11:04:42	Linear	None	0.000369	0.033282	0.000000	1.000000
Bi 223.061 {451}	5/7/2019 8:17:32	5/6/2019 11:04:42	Linear	None	-0.000071	0.133551	0.000000	1.000000
Li 670.784 { 50}	5/7/2019 8:17:32	5/6/2019 11:04:42	Linear	None	-0.008136	0.321518	0.000000	1.000000
P 177.495 {490}	5/7/2019 8:17:32	5/6/2019 11:04:42	Linear	1/Conc	-0.004295	0.021920	0.000000	1.000000

Element, Wavelength and Order	Correlation	Std Error of Est	Predicted MDL	Predicted MQL	Status	Reslope		QC Norm	
						Slope	Y-int	Slope factor	Offset
Ba 455.403 { 74}	1.000000	0.000000	0.000276	0.000918	OK.	1.000000	0.000000	1	0
Be 313.042 {108}	1.000000	0.000000	0.000071	0.000237	OK.	1.000000	0.000000	1	0
Cd 228.802 {448}	1.000000	0.000000	0.000209	0.000696	OK.	1.000000	0.000000	1	0
Co 228.616 {448}	1.000000	0.000000	0.000247	0.000825	OK.	1.000000	0.000000	1	0
Cr 267.716 {126}	1.000000	0.000000	0.000326	0.001086	OK.	1.000000	0.000000	1	0
Cu 324.754 {104}2	1.000000	0.000000	0.000443	0.001476	OK.	1.000000	0.000000	1	0
Mn 257.610 {131}	1.000000	0.000000	0.000053	0.000178	OK.	1.000000	0.000000	1	0
Ni 231.604 {446}	1.000000	0.000000	0.000342	0.001139	OK.	1.000000	0.000000	1	0
Ag 328.068 {103}	1.000000	0.000000	0.000489	0.001632	OK.	1.000000	0.000000	1	0
V 292.402 {115}	1.000000	0.000000	0.000397	0.001325	OK.	1.000000	0.000000	1	0
Zn 206.200 {464}	1.000000	0.000000	0.000120	0.000400	OK.	1.000000	0.000000	1	0
As 189.042 {478}	1.000000	0.000000	0.001313	0.004378	OK.	1.000000	0.000000	1	0
Tl 190.856 {477}	1.000000	0.000000	0.001403	0.004677	OK.	1.000000	0.000000	1	0
Pb 220.353 {453}	1.000000	0.000000	0.001094	0.003648	OK.	1.000000	0.000000	1	0
Se 196.090 {472}	1.000000	0.000000	0.002175	0.007251	OK.	1.000000	0.000000	1	0
Sb 206.833 {463}	1.000000	0.000000	0.001655	0.005517	OK.	1.000000	0.000000	1	0
Al 396.152 { 85}	1.000000	0.000000	0.010213	0.034042	OK.	1.000000	0.000000	1	0
Ca 317.933 {106}	1.000000	0.000000	0.002394	0.007979	OK.	1.000000	0.000000	1	0
Fe 259.940 {130}	1.000000	0.000000	0.002000	0.006666	OK.	1.000000	0.000000	1	0
Mg 279.079 {121}	1.000000	0.000000	0.014291	0.047637	OK.	1.000000	0.000000	1	0
K 766.490 { 44}	1.000000	0.000000	0.036223	0.120744	OK.	1.000000	0.000000	1	0
Na 589.592 { 57}	1.000000	0.000000	0.010202	0.034006	OK.	1.000000	0.000000	1	0
B 208.959 {462}	1.000000	0.000000	0.000756	0.002520	OK.	1.000000	0.000000	1	0
Mo 202.030 {467}	1.000000	0.000000	0.000293	0.000978	OK.	1.000000	0.000000	1	0
Si 212.412 {459}	1.000000	0.000000	0.001258	0.004192	OK.	1.000000	0.000000	1	0
Sn 189.989 {478}	1.000000	0.000000	0.000652	0.002173	OK.	1.000000	0.000000	1	0
Sr 407.771 { 83}	1.000000	0.000000	0.000104	0.000347	OK.	1.000000	0.000000	1	0
Ti 334.904 {101}	1.000000	0.000000	0.000386	0.001285	OK.	1.000000	0.000000	1	0
Y 360.073 { 94}*	0.000000	0.000000	-1.000000	-1.000000	Warnin	1.000000	0.000000	1	0
Y 371.030 { 91}*	0.000000	0.000000	-1.000000	-1.000000	Warnin	1.000000	0.000000	1	0
Y 224.306 {451}*	0.000000	0.000000	-1.000000	-1.000000	Warnin	1.000000	0.000000	1	0
In 230.606 {446}*	0.000000	0.000000	-1.000000	-1.000000	Warnin	1.000000	0.000000	1	0
W 207.911 {462}	1.000000	0.000000	0.001135	0.003784	OK.	1.000000	0.000000	1	0
Zr 339.198 { 99}	1.000000	0.000000	0.000193	0.000644	OK.	1.000000	0.000000	1	0
S 182.034 {485}	1.000000	0.000000	0.002751	0.009169	OK.	1.000000	0.000000	1	0
Bi 223.061 {451}	1.000000	0.000000	0.001804	0.006014	OK.	1.000000	0.000000	1	0
Li 670.784 { 50}	1.000000	0.000000	0.001856	0.006187	OK.	1.000000	0.000000	1	0
P 177.495 {490}	1.000000	0.000000	0.003876	0.012919	OK.	1.000000	0.000000	1	0

Quantitation Report

File Name	001CALB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa050619m2.b
Method File	
Method Path	
Acq Time	5/6/2019 11:00
Sample Name	STDA 4
Sample Type	CalBlk
Comment	0
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/6/2019 12:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.000	ug/l	549.83	24.00	9.818E-06	Pulse	0.25	3
B			1	0.059	ug/l	43.47	3,184.83	1.299E-03	Pulse	0.15	3
Ca			1	-0.379	ug/l	-25.15	24,008.16	8.562E-03	Pulse	0.10	3
Sr			1	0.003	ug/l	10.10	573.36	1.751E-04	Pulse	0.10	3
Mo			1	-0.001	ug/l	-191.88	16.67	5.066E-06	Pulse	0.10	3
Ag			1	-0.002	ug/l	-54.10	10.00	2.882E-06	Pulse	0.10	3
Sn			1	0.332	ug/l	2.55	2,720.34	7.866E-04	Pulse	0.10	3
Sb			1	0.002	ug/l	167.55	163.34	3.806E-05	Pulse	0.10	3
Ba			1	-0.006	ug/l	-61.98	50.00	1.166E-05	Pulse	0.10	3
Tl			1	0.000	ug/l	3201.72	426.69	1.808E-04	Pulse	0.10	3
Pb			1	-0.001	ug/l	-224.28	180.01	7.638E-05	Pulse	0.10	3
Pb			1	-0.002	ug/l	-446.48	176.68	7.503E-05	Pulse	0.10	3
Pb			1	-0.002	ug/l	-76.32	733.37	3.111E-04	Pulse	0.10	3
Na			2	0.464	ug/l	27.40	9,712.85	1.165E-01	Pulse	0.30	3
Mg			2	0.039	ug/l	218.01	130.00	1.559E-03	Pulse	0.30	3
Al			2	0.037	ug/l	720.61	248.89	2.983E-03	Pulse	0.30	3
K			2	-1.347	ug/l	-68.00	9,924.15	1.190E-01	Pulse	0.30	3
Ca			2	2.383	ug/l	65.75	98.89	1.187E-03	Pulse	0.30	3
Ti			2	0.032	ug/l	58.06	4.44	5.340E-05	Pulse	0.30	3
V			2	0.011	ug/l	90.10	118.89	1.424E-03	Pulse	0.30	3
Cr			2	0.005	ug/l	130.11	392.23	4.703E-03	Pulse	0.30	3
Mn			2	-0.007	ug/l	-111.41	76.67	9.202E-04	Pulse	0.30	3
Fe			2	-0.046	ug/l	-63.81	2,649.14	3.177E-02	Pulse	0.30	3
Co			2	-0.001	ug/l	-352.24	66.67	7.983E-04	Pulse	0.30	3
Ni			2	0.011	ug/l	85.41	65.56	7.857E-04	Pulse	0.30	3
Cu			2	-0.033	ug/l	-17.94	985.59	1.182E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	0.357	ug/l	45.57	707.81	8.493E-03	Pulse	0.30	3
As			2	0.000	ug/l	-1452.40	8.33	9.978E-05	Pulse	1.00	3
Cd			2	-0.001	ug/l	-174.33	7.78	1.862E-05	Pulse	0.30	3
Sn			2	-0.016	ug/l	-68.40	423.34	1.014E-03	Pulse	0.30	3
Se			3	0.028	ug/l	48.96	6.67	9.184E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,451,407.11	0.47	100.0	Pulse	0.10	3
1	Sc		2,803,935.48	0.85	100.0	Pulse	0.10	3
1	Ge		499,964.56	1.17	100.0	Pulse	0.10	3
1	Ge		693,738.64	1.51	100.0	Pulse	0.10	3
1	Rh		3,274,032.87	1.06	100.0	Pulse	0.10	3
1	In		3,458,309.63	1.20	100.0	Pulse	0.10	3
1	Tb		4,292,405.98	0.64	100.0	Pulse	0.10	3
1	Ho		406,262.69	0.90	100.0	Pulse	0.10	3
1	Bi		2,358,491.79	0.86	100.0	Pulse	0.10	3
2	Sc		83,384.62	0.81	100.0	Pulse	0.30	3
2	Ge		44,176.28	1.31	100.0	Pulse	0.30	3
2	Ge		66,568.53	0.62	100.0	Pulse	0.30	3
2	Rh		1,245,349.32	1.16	100.0	Pulse	0.30	3
2	In		417,469.37	0.71	100.0	Pulse	0.30	3
2	Tb		1,487,809.63	0.52	100.0	Pulse	0.30	3
2	Ho		143,751.85	0.63	100.0	Pulse	0.30	3
2	Bi		958,550.52	0.39	100.0	Pulse	0.30	3
3	Sc		81,659.59	0.81	100.0	Pulse	0.30	3
3	Ge		48,344.63	0.58	100.0	Pulse	0.30	3
3	Ge		72,610.69	0.60	100.0	Pulse	0.30	3
3	Rh		798,334.67	0.54	100.0	Pulse	0.30	3
3	Tb		1,160,241.79	0.92	100.0	Pulse	0.30	3

Quantitation Report

File Name	002CALB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa050619m2.b
Method File	
Method Path	
Acq Time	5/6/2019 11:05
Sample Name	STDA
Sample Type	CalBlk
Comment	0
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/6/2019 12:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.002	ug/l	54.59	40.00	1.622E-05	Pulse	0.25	3
B			1	0.007	ug/l	354.09	2,909.22	1.179E-03	Pulse	0.15	3
Ca			1	-0.181	ug/l	-327.89	24,341.93	8.624E-03	Pulse	0.10	3
Sr			1	0.000	ug/l	302.66	473.36	1.445E-04	Pulse	0.10	3
Mo			1	0.003	ug/l	49.64	46.67	1.426E-05	Pulse	0.10	3
Ag			1	-0.001	ug/l	-23.58	16.67	4.826E-06	Pulse	0.10	3
Sn			1	0.334	ug/l	1.35	2,750.34	7.938E-04	Pulse	0.10	3
Sb			1	0.001	ug/l	195.99	153.34	3.560E-05	Pulse	0.10	3
Ba			1	-0.009	ug/l	-11.81	33.33	7.722E-06	Pulse	0.10	3
Tl			1	-0.001	ug/l	-348.46	396.69	1.678E-04	Pulse	0.10	3
Pb			1	-0.001	ug/l	-57.92	183.34	7.734E-05	Pulse	0.10	3
Pb			1	-0.002	ug/l	-222.74	170.01	7.189E-05	Pulse	0.10	3
Pb			1	-0.002	ug/l	-144.74	763.37	3.218E-04	Pulse	0.10	3
Na			2	0.417	ug/l	43.99	9,990.81	1.160E-01	Pulse	0.30	3
Mg			2	-0.004	ug/l	-1208.96	117.78	1.366E-03	Pulse	0.30	3
Al			2	-0.117	ug/l	-169.02	237.78	2.763E-03	Pulse	0.30	3
K			2	-1.578	ug/l	-53.90	10,195.42	1.184E-01	Pulse	0.30	3
Ca			2	1.339	ug/l	140.67	88.89	1.034E-03	Pulse	0.30	3
Ti			2	0.000	ug/l	9347.84	1.11	1.301E-05	Pulse	0.30	3
V			2	0.007	ug/l	72.98	107.78	1.253E-03	Pulse	0.30	3
Cr			2	-0.007	ug/l	-101.71	353.34	4.100E-03	Pulse	0.30	3
Mn			2	-0.005	ug/l	-78.39	83.34	9.668E-04	Pulse	0.30	3
Fe			2	-0.031	ug/l	-101.02	2,784.71	3.234E-02	Pulse	0.30	3
Co			2	-0.001	ug/l	-378.02	67.78	7.892E-04	Pulse	0.30	3
Ni			2	0.006	ug/l	116.06	56.67	6.592E-04	Pulse	0.30	3
Cu			2	-0.035	ug/l	-46.60	1,010.04	1.173E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	0.308	ug/l	20.40	698.91	8.113E-03	Pulse	0.30	3
As			2	-0.005	ug/l	-68.97	6.67	7.728E-05	Pulse	1.00	3
Cd			2	-0.002	ug/l	-142.97	6.67	1.568E-05	Pulse	0.30	3
Sn			2	0.012	ug/l	68.29	484.46	1.140E-03	Pulse	0.30	3
Se			3	0.045	ug/l	140.38	7.87	1.076E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,469,146.62	1.37	100.0	Pulse	0.10	3
1	Sc		2,822,768.40	0.27	100.0	Pulse	0.10	3
1	Ge		505,751.95	1.00	100.0	Pulse	0.10	3
1	Ge		697,181.03	1.08	100.0	Pulse	0.10	3
1	Rh		3,277,770.47	1.10	100.0	Pulse	0.10	3
1	In		3,464,105.01	1.48	100.0	Pulse	0.10	3
1	Tb		4,318,213.06	1.51	100.0	Pulse	0.10	3
1	Ho		405,669.20	2.22	100.0	Pulse	0.10	3
1	Bi		2,370,967.62	1.76	100.0	Pulse	0.10	3
2	Sc		86,129.84	1.31	100.0	Pulse	0.30	3
2	Ge		45,799.63	1.30	100.0	Pulse	0.30	3
2	Ge		68,686.01	0.62	100.0	Pulse	0.30	3
2	Rh		1,266,614.32	0.34	100.0	Pulse	0.30	3
2	In		425,085.98	0.54	100.0	Pulse	0.30	3
2	Tb		1,507,634.24	0.61	100.0	Pulse	0.30	3
2	Ho		145,698.51	0.23	100.0	Pulse	0.30	3
2	Bi		975,617.84	0.06	100.0	Pulse	0.30	3
3	Sc		82,947.31	0.77	100.0	Pulse	0.30	3
3	Ge		48,487.36	1.55	100.0	Pulse	0.30	3
3	Ge		73,092.90	0.22	100.0	Pulse	0.30	3
3	Rh		812,154.91	0.49	100.0	Pulse	0.30	3
3	Tb		1,178,004.05	0.35	100.0	Pulse	0.30	3

Quantitation Report

File Name	003CALB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa050619m2.b
Method File	
Method Path	
Acq Time	5/6/2019 11:10
Sample Name	STDA
Sample Type	CalBlk
Comment	0
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/6/2019 12:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.000	ug/l	-1627.10	20.00	8.041E-06	Pulse	0.25	3
B			1	0.000	ug/l	---	2,886.99	1.163E-03	Pulse	0.15	3
Ca			1	0.000	ug/l	---	24,505.42	8.680E-03	Pulse	0.10	3
Sr			1	0.000	ug/l	---	466.69	1.417E-04	Pulse	0.10	3
Mo			1	0.000	ug/l	384.10	26.67	8.056E-06	Pulse	0.10	3
Ag			1	0.000	ug/l	1913.05	43.33	1.257E-05	Pulse	0.10	3
Sn			1	0.324	ug/l	1.95	2,616.99	7.565E-04	Pulse	0.10	3
Sb			1	0.001	ug/l	732.65	143.34	3.294E-05	Pulse	0.10	3
Ba			1	0.000	ug/l	---	83.34	1.923E-05	Pulse	0.10	3
Tl			1	0.000	ug/l	---	426.69	1.797E-04	Pulse	0.10	3
Pb			1	0.003	ug/l	176.54	226.68	9.558E-05	Pulse	0.10	3
Pb			1	0.000	ug/l	-3239.92	190.01	8.002E-05	Pulse	0.10	3
Pb			1	0.000	ug/l	344.12	843.38	3.554E-04	Pulse	0.10	3
Na			2	0.000	ug/l	---	9,769.58	1.119E-01	Pulse	0.30	3
Mg			2	-0.022	ug/l	-367.16	112.23	1.286E-03	Pulse	0.30	3
Al			2	-0.225	ug/l	-214.06	227.78	2.610E-03	Pulse	0.30	3
K			2	-1.072	ug/l	-20.26	10,463.39	1.198E-01	Pulse	0.30	3
Ca			2	0.007	ug/l	4073.21	73.33	8.398E-04	Pulse	0.30	3
Ti			2	0.000	ug/l	---	1.11	1.277E-05	Pulse	0.30	3
V			2	0.000	ug/l	-6858.13	85.56	9.798E-04	Pulse	0.30	3
Cr			2	-0.003	ug/l	-587.36	374.46	4.290E-03	Pulse	0.30	3
Mn			2	0.000	ug/l	---	94.45	1.081E-03	Pulse	0.30	3
Fe			2	0.000	ug/l	---	2,929.21	3.354E-02	Pulse	0.30	3
Co			2	-0.001	ug/l	-320.30	67.78	7.760E-04	Pulse	0.30	3
Ni			2	0.000	ug/l	3903.76	46.67	5.342E-04	Pulse	0.30	3
Cu			2	-0.014	ug/l	-144.98	1,138.94	1.304E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	0.340	ug/l	20.16	730.02	8.359E-03	Pulse	0.30	3
As			2	0.000	ug/l	912.85	9.00	1.031E-04	Pulse	1.00	3
Cd			2	0.000	ug/l	-4225.81	8.89	2.048E-05	Pulse	0.30	3
Sn			2	0.014	ug/l	173.28	502.24	1.152E-03	Pulse	0.30	3
Se			3	-0.002	ug/l	-875.58	4.73	6.411E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,481,791.43	0.86	100.0	Pulse	0.10	3
1	Sc		2,823,327.77	1.86	100.0	Pulse	0.10	3
1	Ge		503,310.21	1.15	100.0	Pulse	0.10	3
1	Ge		700,950.93	1.22	100.0	Pulse	0.10	3
1	Rh		3,296,298.39	1.21	100.0	Pulse	0.10	3
1	In		3,458,632.00	1.28	100.0	Pulse	0.10	3
1	Tb		4,343,630.25	0.72	100.0	Pulse	0.10	3
1	Ho		412,461.67	0.81	100.0	Pulse	0.10	3
1	Bi		2,372,838.46	0.49	100.0	Pulse	0.10	3
2	Sc		87,330.46	0.40	100.0	Pulse	0.30	3
2	Ge		45,951.23	0.53	100.0	Pulse	0.30	3
2	Ge		69,268.29	0.10	100.0	Pulse	0.30	3
2	Rh		1,284,636.34	0.41	100.0	Pulse	0.30	3
2	In		436,005.99	0.84	100.0	Pulse	0.30	3
2	Tb		1,530,923.38	0.51	100.0	Pulse	0.30	3
2	Ho		147,957.59	0.53	100.0	Pulse	0.30	3
2	Bi		990,820.62	0.70	100.0	Pulse	0.30	3
3	Sc		83,113.48	0.38	100.0	Pulse	0.30	3
3	Ge		48,719.26	0.95	100.0	Pulse	0.30	3
3	Ge		73,827.04	0.45	100.0	Pulse	0.30	3
3	Rh		812,467.76	0.58	100.0	Pulse	0.30	3
3	Tb		1,180,258.04	0.34	100.0	Pulse	0.30	3

Quantitation Report

File Name	004CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\xa050619m2.b
Method File	
Method Path	
Acq Time	5/6/2019 11:15
Sample Name	STDB
Sample Type	CalStd
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/6/2019 12:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.517	ug/l	1.97	4,764.73	1.906E-03	Pulse	0.25	3
B			1	26.965	ug/l	1.14	157,747.17	6.310E-02	Pulse	0.15	3
Ca			1	260.310	ug/l	0.69	253,206.79	8.957E-02	Pulse	0.10	3
Sr			1	4.890	ug/l	1.41	208,187.25	6.305E-02	Pulse	0.10	3
Mo			1	0.887	ug/l	2.68	7,435.33	2.252E-03	Pulse	0.10	3
Ag			1	0.488	ug/l	1.13	9,176.32	2.660E-03	Pulse	0.10	3
Sn			1	5.161	ug/l	1.44	61,775.60	1.791E-02	Pulse	0.10	3
Sb			1	1.865	ug/l	3.58	25,291.07	5.849E-03	Pulse	0.10	3
Ba			1	0.991	ug/l	1.57	5,664.60	1.310E-03	Pulse	0.10	3
Tl			1	0.491	ug/l	4.13	15,084.88	6.281E-03	Pulse	0.10	3
Pb			1	0.471	ug/l	3.62	4,947.66	2.060E-03	Pulse	0.10	3
Pb			1	0.501	ug/l	5.46	4,634.22	1.929E-03	Pulse	0.10	3
Pb			1	0.493	ug/l	0.80	20,923.31	8.710E-03	Pulse	0.10	3
Na			2	258.595	ug/l	0.38	234,155.93	2.679E+00	Pulse	0.30	3
Mg			2	264.949	ug/l	0.46	104,345.11	1.194E+00	Pulse	0.30	3
Al			2	26.500	ug/l	7.01	3,561.53	4.075E-02	Pulse	0.30	3
K			2	258.010	ug/l	0.30	75,943.06	8.687E-01	Pulse	0.30	3
Ca			2	294.865	ug/l	4.72	3,840.48	4.392E-02	Pulse	0.30	3
Ti			2	0.974	ug/l	6.93	108.89	1.246E-03	Pulse	0.30	3
V			2	0.992	ug/l	2.00	3,529.31	4.038E-02	Pulse	0.30	3
Cr			2	1.005	ug/l	3.65	4,820.77	5.514E-02	Pulse	0.30	3
Mn			2	1.001	ug/l	6.93	2,227.96	2.548E-02	Pulse	0.30	3
Fe			2	26.159	ug/l	0.63	91,637.57	1.048E+00	Pulse	0.30	3
Co			2	0.510	ug/l	2.56	3,757.14	4.298E-02	Pulse	0.30	3
Ni			2	0.981	ug/l	1.34	1,999.03	2.287E-02	Pulse	0.30	3
Cu			2	1.963	ug/l	2.05	11,898.85	1.361E-01	Pulse	0.30	3
Zn			2	4.596	ug/l	1.55	3,614.88	4.135E-02	Pulse	0.30	3
As			2	0.477	ug/l	4.66	198.67	2.273E-03	Pulse	1.00	3
Cd			2	0.526	ug/l	2.57	526.30	1.200E-03	Pulse	0.30	3
Sn			2	4.772	ug/l	1.37	10,135.57	2.311E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	0.484	ug/l	19.41	37.73	5.093E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,500,206.19	0.85	100.7	Pulse	0.10	3
1	Sc		2,826,628.29	1.38	100.1	Pulse	0.10	3
1	Ge		509,468.00	1.60	101.2	Pulse	0.10	3
1	Ge		705,897.28	0.83	100.7	Pulse	0.10	3
1	Rh		3,301,627.97	0.73	100.2	Pulse	0.10	3
1	In		3,449,933.35	1.23	99.7	Pulse	0.10	3
1	Tb		4,324,276.29	1.11	99.6	Pulse	0.10	3
1	Ho		414,934.07	1.24	100.6	Pulse	0.10	3
1	Bi		2,402,097.93	0.76	101.2	Pulse	0.10	3
2	Sc		87,417.61	0.73	100.1	Pulse	0.30	3
2	Ge		46,782.36	0.74	101.8	Pulse	0.30	3
2	Ge		69,446.94	1.04	100.3	Pulse	0.30	3
2	Rh		1,283,727.14	0.60	99.9	Pulse	0.30	3
2	In		438,607.38	0.49	100.6	Pulse	0.30	3
2	Tb		1,538,665.74	0.68	100.5	Pulse	0.30	3
2	Ho		149,107.20	0.81	100.8	Pulse	0.30	3
2	Bi		990,207.29	0.26	99.9	Pulse	0.30	3
3	Sc		83,612.79	1.01	100.6	Pulse	0.30	3
3	Ge		49,169.32	1.01	100.9	Pulse	0.30	3
3	Ge		74,166.43	1.22	100.5	Pulse	0.30	3
3	Rh		816,380.87	0.32	100.5	Pulse	0.30	3
3	Tb		1,188,033.01	1.00	100.7	Pulse	0.30	3

Quantitation Report

File Name	005CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\xa050619m2.b
Method File	
Method Path	
Acq Time	5/6/2019 11:20
Sample Name	STDC
Sample Type	CalStd
Comment	5
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/6/2019 12:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	5.008	ug/l	0.65	46,025.82	1.838E-02	Pulse	0.25	3
B			1	5.223	ug/l	2.33	32,954.44	1.316E-02	Pulse	0.15	3
Ca			1	9.214	ug/l	9.21	32,636.22	1.154E-02	Pulse	0.10	3
Sr			1	4.977	ug/l	0.35	212,041.43	6.417E-02	Pulse	0.10	3
Mo			1	4.914	ug/l	3.69	41,133.76	1.245E-02	Pulse	0.10	3
Ag			1	5.009	ug/l	1.91	94,320.18	2.717E-02	Pulse	0.10	3
Sn			1	5.503	ug/l	1.21	66,390.92	1.912E-02	Pulse	0.10	3
Sb			1	5.149	ug/l	1.43	70,271.07	1.609E-02	Pulse	0.10	3
Ba			1	4.970	ug/l	1.33	28,350.20	6.492E-03	Pulse	0.10	3
Tl			1	4.961	ug/l	2.38	148,459.54	6.189E-02	Pulse	0.10	3
Pb			1	5.022	ug/l	1.44	50,784.88	2.117E-02	Pulse	0.10	3
Pb			1	5.020	ug/l	1.20	44,628.35	1.860E-02	Pulse	0.10	3
Pb			1	4.996	ug/l	0.96	204,024.65	8.505E-02	Pulse	0.10	3
Na			2	7.067	ug/l	6.80	15,979.87	1.820E-01	Pulse	0.30	3
Mg			2	5.436	ug/l	3.16	2,269.07	2.585E-02	Pulse	0.30	3
Al			2	5.706	ug/l	9.50	972.27	1.107E-02	Pulse	0.30	3
K			2	4.055	ug/l	15.90	11,819.83	1.346E-01	Pulse	0.30	3
Ca			2	31.679	ug/l	10.27	480.01	5.468E-03	Pulse	0.30	3
Ti			2	5.260	ug/l	3.21	585.57	6.670E-03	Pulse	0.30	3
V			2	5.061	ug/l	1.53	17,728.50	2.019E-01	Pulse	0.30	3
Cr			2	5.153	ug/l	0.99	23,208.61	2.644E-01	Pulse	0.30	3
Mn			2	5.116	ug/l	2.08	11,047.13	1.258E-01	Pulse	0.30	3
Fe			2	5.525	ug/l	1.30	21,758.90	2.478E-01	Pulse	0.30	3
Co			2	5.092	ug/l	1.48	36,985.92	4.213E-01	Pulse	0.30	3
Ni			2	5.072	ug/l	0.97	10,183.25	1.160E-01	Pulse	0.30	3
Cu			2	5.160	ug/l	0.91	29,427.52	3.352E-01	Pulse	0.30	3
Zn			2	4.749	ug/l	6.56	3,734.91	4.254E-02	Pulse	0.30	3
As			2	5.057	ug/l	2.13	2,029.47	2.312E-02	Pulse	1.00	3
Cd			2	4.881	ug/l	3.51	4,807.69	1.095E-02	Pulse	0.30	3
Sn			2	5.129	ug/l	0.70	10,863.87	2.475E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	5.021	ug/l	5.23	345.07	4.661E-03	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,503,986.82	0.95	100.9	Pulse	0.10	3
1	Sc		2,827,220.68	1.09	100.1	Pulse	0.10	3
1	Ge		506,647.06	1.04	100.7	Pulse	0.10	3
1	Ge		705,544.68	2.22	100.7	Pulse	0.10	3
1	Rh		3,304,108.70	1.63	100.2	Pulse	0.10	3
1	In		3,471,678.64	1.36	100.4	Pulse	0.10	3
1	Tb		4,366,492.96	1.11	100.5	Pulse	0.10	3
1	Ho		412,427.14	0.61	100.0	Pulse	0.10	3
1	Bi		2,399,120.96	0.93	101.1	Pulse	0.10	3
2	Sc		87,792.63	0.11	100.5	Pulse	0.30	3
2	Ge		46,255.32	0.52	100.7	Pulse	0.30	3
2	Ge		70,554.16	0.06	101.9	Pulse	0.30	3
2	Rh		1,288,947.90	0.68	100.3	Pulse	0.30	3
2	In		438,862.80	0.36	100.7	Pulse	0.30	3
2	Tb		1,544,431.92	0.62	100.9	Pulse	0.30	3
2	Ho		149,513.49	1.63	101.1	Pulse	0.30	3
2	Bi		993,193.40	0.45	100.2	Pulse	0.30	3
3	Sc		83,946.39	0.46	101.0	Pulse	0.30	3
3	Ge		48,790.32	1.08	100.1	Pulse	0.30	3
3	Ge		74,039.08	0.74	100.3	Pulse	0.30	3
3	Rh		816,406.51	0.63	100.5	Pulse	0.30	3
3	Tb		1,193,426.65	0.63	101.1	Pulse	0.30	3

Quantitation Report

File Name	006CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\xa050619m2.b
Method File	
Method Path	
Acq Time	5/6/2019 11:25
Sample Name	STDD
Sample Type	CalStd
Comment	25
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/6/2019 12:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	24.709	ug/l	0.50	229,098.93	9.066E-02	Pulse	0.25	3
B			1	24.514	ug/l	1.44	145,223.75	5.747E-02	Pulse	0.15	3
Ca			1	42.333	ug/l	1.81	61,979.75	2.184E-02	Pulse	0.10	3
Sr			1	24.913	ug/l	0.61	1,044,957.09	3.206E-01	Pulse	0.10	3
Mo			1	25.045	ug/l	0.57	206,683.15	6.342E-02	Pulse	0.10	3
Ag			1	24.729	ug/l	1.11	465,155.55	1.341E-01	Pulse	0.10	3
Sn			1	24.959	ug/l	1.44	305,676.31	8.811E-02	Pulse	0.10	3
Sb			1	24.976	ug/l	0.98	337,765.65	7.794E-02	Pulse	0.10	3
Ba			1	24.671	ug/l	1.60	139,354.77	3.215E-02	Pulse	0.10	3
Tl			1	24.767	ug/l	0.32	738,675.80	3.082E-01	Pulse	0.10	3
Pb			1	24.966	ug/l	0.44	251,426.62	1.049E-01	Pulse	0.10	3
Pb			1	25.092	ug/l	1.06	222,078.17	9.267E-02	Pulse	0.10	3
Pb			1	24.859	ug/l	0.46	1,010,865.98	4.218E-01	Pulse	0.10	3
Na			2	26.863	ug/l	0.26	33,480.83	3.785E-01	Pulse	0.30	3
Mg			2	26.368	ug/l	2.83	10,616.79	1.200E-01	Pulse	0.30	3
Al			2	32.440	ug/l	3.88	4,353.94	4.923E-02	Pulse	0.30	3
K			2	23.899	ug/l	4.47	16,983.19	1.920E-01	Pulse	0.30	3
Ca			2	162.948	ug/l	2.14	2,180.17	2.465E-02	Pulse	0.30	3
Ti			2	25.371	ug/l	5.37	2,841.39	3.212E-02	Pulse	0.30	3
V			2	25.004	ug/l	0.91	87,902.16	9.938E-01	Pulse	0.30	3
Cr			2	25.104	ug/l	0.48	112,406.45	1.271E+00	Pulse	0.30	3
Mn			2	25.053	ug/l	1.71	54,130.46	6.120E-01	Pulse	0.30	3
Fe			2	26.547	ug/l	0.73	94,054.42	1.063E+00	Pulse	0.30	3
Co			2	25.089	ug/l	0.95	183,298.98	2.072E+00	Pulse	0.30	3
Ni			2	25.171	ug/l	0.47	50,735.67	5.736E-01	Pulse	0.30	3
Cu			2	24.800	ug/l	0.41	137,823.12	1.558E+00	Pulse	0.30	3
Zn			2	25.515	ug/l	2.08	18,005.58	2.035E-01	Pulse	0.30	3
As			2	24.583	ug/l	1.97	9,904.69	1.120E-01	Pulse	1.00	3
Cd			2	25.246	ug/l	0.80	24,678.73	5.657E-02	Pulse	0.30	3
Sn			2	24.824	ug/l	0.62	50,450.46	1.156E-01	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	25.222	ug/l	0.63	1,711.02	2.315E-02	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,527,017.77	0.56	101.8	Pulse	0.10	3
1	Sc		2,838,753.19	1.47	100.5	Pulse	0.10	3
1	Ge		508,560.88	1.23	101.0	Pulse	0.10	3
1	Ge		702,718.11	1.33	100.3	Pulse	0.10	3
1	Rh		3,258,886.72	1.37	98.9	Pulse	0.10	3
1	In		3,469,431.73	1.68	100.3	Pulse	0.10	3
1	Tb		4,334,248.58	1.72	99.8	Pulse	0.10	3
1	Ho		412,204.69	1.83	99.9	Pulse	0.10	3
1	Bi		2,396,511.94	1.33	101.0	Pulse	0.10	3
2	Sc		88,455.27	0.59	101.3	Pulse	0.30	3
2	Ge		46,971.80	0.83	102.2	Pulse	0.30	3
2	Ge		70,664.22	0.80	102.0	Pulse	0.30	3
2	Rh		1,289,089.15	0.24	100.3	Pulse	0.30	3
2	In		436,257.84	0.47	100.1	Pulse	0.30	3
2	Tb		1,536,417.75	0.89	100.4	Pulse	0.30	3
2	Ho		148,433.61	0.62	100.3	Pulse	0.30	3
2	Bi		992,868.75	0.14	100.2	Pulse	0.30	3
3	Sc		83,371.42	0.08	100.3	Pulse	0.30	3
3	Ge		48,643.36	1.06	99.8	Pulse	0.30	3
3	Ge		73,906.34	1.23	100.1	Pulse	0.30	3
3	Rh		816,876.67	0.12	100.5	Pulse	0.30	3
3	Tb		1,195,412.38	0.34	101.3	Pulse	0.30	3

Quantitation Report

File Name	007CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\xa050619m2.b
Method File	
Method Path	
Acq Time	5/6/2019 11:30
Sample Name	STDE
Sample Type	CalStd
Comment	50
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/6/2019 12:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	49.832	ug/l	0.77	456,197.79	1.828E-01	Pulse	0.25	3
B			1	49.347	ug/l	2.34	285,683.58	1.145E-01	Pulse	0.15	3
Ca			1	74.745	ug/l	1.54	90,331.65	3.191E-02	Pulse	0.10	3
Sr			1	49.700	ug/l	1.06	2,097,073.30	6.395E-01	Pulse	0.10	3
Mo			1	49.377	ug/l	1.06	409,997.96	1.250E-01	Pulse	0.10	3
Ag			1	49.327	ug/l	0.80	933,868.45	2.674E-01	Pulse	0.10	3
Sn			1	49.109	ug/l	0.91	606,683.11	1.737E-01	Pulse	0.10	3
Sb			1	49.050	ug/l	0.58	670,969.81	1.530E-01	Pulse	0.10	3
Ba			1	49.603	ug/l	1.04	283,350.88	6.462E-02	Pulse	0.10	3
Tl			1	49.429	ug/l	1.23	1,494,203.83	6.150E-01	Pulse	0.10	3
Pb			1	50.010	ug/l	0.52	510,483.10	2.101E-01	Pulse	0.10	3
Pb			1	49.767	ug/l	0.68	446,394.32	1.837E-01	Pulse	0.10	3
Pb			1	49.736	ug/l	0.12	2,049,848.78	8.436E-01	Pulse	0.10	3
Na			2	53.220	ug/l	2.64	56,538.31	6.401E-01	Pulse	0.30	3
Mg			2	52.316	ug/l	1.62	20,916.42	2.368E-01	Pulse	0.30	3
Al			2	52.665	ug/l	3.73	6,897.05	7.809E-02	Pulse	0.30	3
K			2	49.986	ug/l	1.63	23,620.08	2.674E-01	Pulse	0.30	3
Ca			2	313.133	ug/l	4.27	4,115.01	4.659E-02	Pulse	0.30	3
Ti			2	50.162	ug/l	2.35	5,608.80	6.350E-02	Pulse	0.30	3
V			2	49.813	ug/l	0.78	174,785.33	1.979E+00	Pulse	0.30	3
Cr			2	49.850	ug/l	0.40	222,499.10	2.519E+00	Pulse	0.30	3
Mn			2	50.175	ug/l	0.47	108,166.96	1.225E+00	Pulse	0.30	3
Fe			2	53.233	ug/l	0.50	185,354.78	2.098E+00	Pulse	0.30	3
Co			2	49.965	ug/l	0.30	364,457.15	4.126E+00	Pulse	0.30	3
Ni			2	49.655	ug/l	0.63	99,898.88	1.131E+00	Pulse	0.30	3
Cu			2	50.774	ug/l	0.67	280,484.10	3.176E+00	Pulse	0.30	3
Zn			2	51.188	ug/l	1.15	35,559.78	4.026E-01	Pulse	0.30	3
As			2	49.446	ug/l	1.61	19,884.76	2.251E-01	Pulse	1.00	3
Cd			2	50.062	ug/l	0.72	49,118.45	1.122E-01	Pulse	0.30	3
Sn			2	49.127	ug/l	0.95	99,762.00	2.278E-01	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	50.053	ug/l	0.99	3,413.56	4.588E-02	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,495,467.25	1.43	100.6	Pulse	0.10	3
1	Sc		2,830,810.69	1.10	100.3	Pulse	0.10	3
1	Ge		511,595.70	1.82	101.6	Pulse	0.10	3
1	Ge		709,264.96	2.07	101.2	Pulse	0.10	3
1	Rh		3,278,944.74	1.61	99.5	Pulse	0.10	3
1	In		3,491,871.41	1.32	101.0	Pulse	0.10	3
1	Tb		4,384,434.52	0.52	100.9	Pulse	0.10	3
1	Ho		419,250.08	1.10	101.6	Pulse	0.10	3
1	Bi		2,429,913.61	1.49	102.4	Pulse	0.10	3
2	Sc		88,328.88	0.44	101.1	Pulse	0.30	3
2	Ge		47,250.35	1.52	102.8	Pulse	0.30	3
2	Ge		70,394.39	1.20	101.6	Pulse	0.30	3
2	Rh		1,291,321.20	0.82	100.5	Pulse	0.30	3
2	In		437,939.01	0.31	100.4	Pulse	0.30	3
2	Tb		1,551,458.58	0.27	101.3	Pulse	0.30	3
2	Ho		150,030.83	1.35	101.4	Pulse	0.30	3
2	Bi		1,001,046.28	0.60	101.0	Pulse	0.30	3
3	Sc		84,541.78	0.79	101.7	Pulse	0.30	3
3	Ge		49,041.14	0.27	100.7	Pulse	0.30	3
3	Ge		74,407.73	0.62	100.8	Pulse	0.30	3
3	Rh		817,393.42	0.48	100.6	Pulse	0.30	3
3	Tb		1,190,275.51	0.35	100.8	Pulse	0.30	3

Quantitation Report

File Name	008CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\xa050619m2.b
Method File	
Method Path	
Acq Time	5/6/2019 11:36
Sample Name	STDF
Sample Type	CalStd
Comment	100
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/6/2019 12:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	100.440	ug/l	0.81	920,250.54	3.685E-01	Pulse	0.25	3
B			1	99.414	ug/l	0.59	573,136.92	2.295E-01	Pulse	0.15	3
Ca			1	138.184	ug/l	0.21	145,827.00	5.162E-02	Pulse	0.10	3
Sr			1	100.177	ug/l	0.60	4,233,431.08	1.289E+00	Pulse	0.10	3
Mo			1	100.807	ug/l	0.50	838,452.41	2.553E-01	Pulse	0.10	3
Ag			1	100.968	ug/l	0.60	1,898,552.99	5.474E-01	Pulse	0.10	3
Sn			1	100.448	ug/l	0.67	1,233,999.25	3.558E-01	Pulse	0.10	3
Sb			1	101.002	ug/l	0.45	1,368,906.80	3.151E-01	Pulse	0.10	3
Ba			1	100.282	ug/l	0.28	567,525.86	1.306E-01	Pulse	0.10	3
Tl			1	100.346	ug/l	1.16	3,032,476.10	1.248E+00	Pulse	0.10	3
Pb			1	101.167	ug/l	1.11	1,032,178.14	4.249E-01	Pulse	0.10	3
Pb			1	100.814	ug/l	1.38	903,834.47	3.721E-01	Pulse	0.10	3
Pb			1	100.420	ug/l	0.74	4,136,948.51	1.703E+00	Pulse	0.10	3
Na			2	102.881	ug/l	1.74	100,366.54	1.133E+00	Pulse	0.30	3
Mg			2	103.251	ug/l	1.55	41,282.47	4.660E-01	Pulse	0.30	3
Al			2	101.233	ug/l	1.48	13,057.41	1.474E-01	Pulse	0.30	3
K			2	99.883	ug/l	3.20	36,464.13	4.116E-01	Pulse	0.30	3
Ca			2	594.518	ug/l	1.31	7,769.69	8.771E-02	Pulse	0.30	3
Ti			2	99.813	ug/l	2.18	11,191.64	1.263E-01	Pulse	0.30	3
V			2	100.132	ug/l	0.11	352,289.86	3.977E+00	Pulse	0.30	3
Cr			2	99.896	ug/l	0.25	446,788.49	5.043E+00	Pulse	0.30	3
Mn			2	99.893	ug/l	0.79	215,877.75	2.437E+00	Pulse	0.30	3
Fe			2	105.397	ug/l	0.76	365,145.67	4.122E+00	Pulse	0.30	3
Co			2	99.506	ug/l	0.84	727,850.42	8.216E+00	Pulse	0.30	3
Ni			2	100.125	ug/l	0.97	201,973.20	2.280E+00	Pulse	0.30	3
Cu			2	99.691	ug/l	0.43	551,146.61	6.222E+00	Pulse	0.30	3
Zn			2	101.797	ug/l	0.98	70,422.52	7.950E-01	Pulse	0.30	3
As			2	100.172	ug/l	0.44	40,394.32	4.560E-01	Pulse	1.00	3
Cd			2	99.792	ug/l	0.84	97,700.76	2.236E-01	Pulse	0.30	3
Sn			2	101.307	ug/l	1.44	204,781.11	4.686E-01	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	99.562	ug/l	1.00	6,789.67	9.119E-02	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,497,335.55	0.39	100.6	Pulse	0.10	3
1	Sc		2,824,922.25	0.71	100.1	Pulse	0.10	3
1	Ge		509,502.09	0.75	101.2	Pulse	0.10	3
1	Ge		707,584.15	0.48	100.9	Pulse	0.10	3
1	Rh		3,284,636.10	1.17	99.6	Pulse	0.10	3
1	In		3,468,348.15	0.96	100.3	Pulse	0.10	3
1	Tb		4,344,485.98	0.85	100.0	Pulse	0.10	3
1	Ho		416,084.41	0.76	100.9	Pulse	0.10	3
1	Bi		2,429,648.09	2.21	102.4	Pulse	0.10	3
2	Sc		88,587.63	0.48	101.4	Pulse	0.30	3
2	Ge		46,696.58	0.37	101.6	Pulse	0.30	3
2	Ge		70,120.86	0.19	101.2	Pulse	0.30	3
2	Rh		1,278,928.94	0.52	99.6	Pulse	0.30	3
2	In		437,033.05	0.64	100.2	Pulse	0.30	3
2	Tb		1,544,091.50	0.39	100.9	Pulse	0.30	3
2	Ho		148,247.43	0.77	100.2	Pulse	0.30	3
2	Bi		993,376.28	0.86	100.3	Pulse	0.30	3
3	Sc		83,700.81	0.89	100.7	Pulse	0.30	3
3	Ge		48,549.77	0.52	99.7	Pulse	0.30	3
3	Ge		74,456.59	0.05	100.9	Pulse	0.30	3
3	Rh		811,585.58	0.55	99.9	Pulse	0.30	3
3	Tb		1,188,781.27	0.33	100.7	Pulse	0.30	3

Quantitation Report

File Name	009CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\xa050619m2.b
Method File	
Method Path	
Acq Time	5/6/2019 11:41
Sample Name	STDG
Sample Type	CalStd
Comment	500MIN
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/6/2019 12:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.031	ug/l	1.71	301.34	1.208E-04	Pulse	0.25	3
B			1	200.266	ug/l	0.98	1,150,189.43	4.611E-01	Pulse	0.15	3
Ca			1	506.242	ug/l	0.87	467,213.43	1.660E-01	Pulse	0.10	3
Sr			1	0.039	ug/l	10.24	2,113.56	6.491E-04	Pulse	0.10	3
Mo			1	0.172	ug/l	3.73	1,440.12	4.426E-04	Pulse	0.10	3
Ag			1	0.042	ug/l	12.86	826.72	2.396E-04	Pulse	0.10	3
Sn			1	0.547	ug/l	4.32	5,347.78	1.547E-03	Pulse	0.10	3
Sb			1	0.974	ug/l	6.91	13,346.20	3.069E-03	Pulse	0.10	3
Ba			1	0.019	ug/l	44.51	193.34	4.436E-05	Pulse	0.10	3
Tl			1	0.054	ug/l	4.78	2,056.89	8.539E-04	Pulse	0.10	3
Pb			1	0.046	ug/l	36.88	663.38	2.757E-04	Pulse	0.10	3
Pb			1	0.058	ug/l	15.98	713.38	2.958E-04	Pulse	0.10	3
Pb			1	0.053	ug/l	7.91	2,990.24	1.241E-03	Pulse	0.10	3
Na			2	503.668	ug/l	1.07	451,562.76	5.111E+00	Pulse	0.30	3
Mg			2	511.619	ug/l	1.25	203,518.99	2.304E+00	Pulse	0.30	3
Al			2	509.976	ug/l	1.04	64,560.28	7.307E-01	Pulse	0.30	3
K			2	503.633	ug/l	0.86	139,487.32	1.579E+00	Pulse	0.30	3
Ca			2	501.467	ug/l	2.08	6,548.03	7.411E-02	Pulse	0.30	3
Ti			2	0.050	ug/l	60.62	6.67	7.565E-05	Pulse	0.30	3
V			2	0.027	ug/l	27.58	182.22	2.060E-03	Pulse	0.30	3
Cr			2	0.027	ug/l	47.37	510.02	5.774E-03	Pulse	0.30	3
Mn			2	0.027	ug/l	46.06	153.34	1.733E-03	Pulse	0.30	3
Fe			2	512.369	ug/l	0.51	1,759,013.06	1.991E+01	Pulse	0.30	3
Co			2	0.042	ug/l	5.51	386.68	4.375E-03	Pulse	0.30	3
Ni			2	0.025	ug/l	47.52	97.78	1.107E-03	Pulse	0.30	3
Cu			2	-0.010	ug/l	-157.34	1,171.17	1.325E-02	Pulse	0.30	3
Zn			2	-0.378	ug/l	-4.68	246.67	2.791E-03	Pulse	0.30	3
As			2	0.036	ug/l	39.96	23.67	2.673E-04	Pulse	1.00	3
Cd			2	0.030	ug/l	36.01	38.80	8.768E-05	Pulse	0.30	3
Sn			2	0.340	ug/l	2.42	1,174.50	2.657E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	197.636	ug/l	1.09	13,530.51	1.810E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,494,119.78	1.10	100.5	Pulse	0.10	3
1	Sc		2,814,807.25	1.77	99.7	Pulse	0.10	3
1	Ge		505,302.06	1.92	100.4	Pulse	0.10	3
1	Ge		702,547.25	0.90	100.2	Pulse	0.10	3
1	Rh		3,254,469.43	0.93	98.7	Pulse	0.10	3
1	In		3,455,060.99	1.87	99.9	Pulse	0.10	3
1	Tb		4,349,267.85	1.31	100.1	Pulse	0.10	3
1	Ho		413,456.78	0.42	100.2	Pulse	0.10	3
1	Bi		2,409,487.05	1.04	101.5	Pulse	0.10	3
2	Sc		88,357.91	1.25	101.2	Pulse	0.30	3
2	Ge		46,888.31	1.01	102.0	Pulse	0.30	3
2	Ge		70,377.59	0.64	101.6	Pulse	0.30	3
2	Rh		1,288,581.89	0.32	100.3	Pulse	0.30	3
2	In		442,122.17	0.54	101.4	Pulse	0.30	3
2	Tb		1,558,747.86	0.77	101.8	Pulse	0.30	3
2	Ho		150,662.13	0.58	101.8	Pulse	0.30	3
2	Bi		997,894.09	0.62	100.7	Pulse	0.30	3
3	Sc		83,761.19	0.93	100.8	Pulse	0.30	3
3	Ge		48,535.15	0.84	99.6	Pulse	0.30	3
3	Ge		74,780.37	1.28	101.3	Pulse	0.30	3
3	Rh		819,809.15	0.11	100.9	Pulse	0.30	3
3	Tb		1,193,978.39	0.68	101.2	Pulse	0.30	3

Quantitation Report

File Name	010CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\xa050619m2.b
Method File	
Method Path	
Acq Time	5/6/2019 11:46
Sample Name	STDH
Sample Type	CalStd
Comment	1000MIN
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/6/2019 12:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	-0.001	ug/l	-142.25	13.33	5.367E-06	Pulse	0.25	3
B			1	9.316	ug/l	1.67	56,181.66	2.256E-02	Pulse	0.15	3
Ca			1	991.640	ug/l	1.68	895,981.39	3.168E-01	Pulse	0.10	3
Sr			1	0.011	ug/l	26.39	940.06	2.892E-04	Pulse	0.10	3
Mo			1	0.035	ug/l	19.90	310.02	9.506E-05	Pulse	0.10	3
Ag			1	0.004	ug/l	66.81	123.34	3.534E-05	Pulse	0.10	3
Sn			1	0.411	ug/l	6.22	3,703.92	1.066E-03	Pulse	0.10	3
Sb			1	0.343	ug/l	7.75	4,804.24	1.100E-03	Pulse	0.10	3
Ba			1	-0.002	ug/l	-137.54	70.00	1.600E-05	Pulse	0.10	3
Tl			1	0.005	ug/l	28.38	583.37	2.425E-04	Pulse	0.10	3
Pb			1	0.012	ug/l	27.63	320.02	1.330E-04	Pulse	0.10	3
Pb			1	0.005	ug/l	94.73	236.68	9.848E-05	Pulse	0.10	3
Pb			1	0.010	ug/l	30.38	1,226.73	5.099E-04	Pulse	0.10	3
Na			2	983.429	ug/l	0.16	875,347.57	9.873E+00	Pulse	0.30	3
Mg			2	1000.096	ug/l	0.20	399,124.57	4.502E+00	Pulse	0.30	3
Al			2	995.396	ug/l	0.95	126,208.63	1.423E+00	Pulse	0.30	3
K			2	994.900	ug/l	0.92	265,875.72	2.999E+00	Pulse	0.30	3
Ca			2	983.620	ug/l	0.65	12,817.27	1.446E-01	Pulse	0.30	3
Ti			2	0.010	ug/l	177.09	2.22	2.498E-05	Pulse	0.30	3
V			2	0.002	ug/l	500.97	94.45	1.067E-03	Pulse	0.30	3
Cr			2	0.008	ug/l	149.99	428.90	4.837E-03	Pulse	0.30	3
Mn			2	0.054	ug/l	32.94	212.23	2.394E-03	Pulse	0.30	3
Fe			2	1001.141	ug/l	0.37	3,446,113.34	3.887E+01	Pulse	0.30	3
Co			2	0.042	ug/l	10.21	384.45	4.335E-03	Pulse	0.30	3
Ni			2	0.038	ug/l	30.80	123.34	1.390E-03	Pulse	0.30	3
Cu			2	-0.017	ug/l	-95.53	1,134.50	1.280E-02	Pulse	0.30	3
Zn			2	-0.259	ug/l	-27.19	328.89	3.711E-03	Pulse	0.30	3
As			2	0.028	ug/l	54.67	20.33	2.295E-04	Pulse	1.00	3
Cd			2	0.003	ug/l	67.36	12.20	2.763E-05	Pulse	0.30	3
Sn			2	0.104	ug/l	34.36	692.24	1.568E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	391.955	ug/l	1.59	26,784.89	3.588E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,490,381.03	0.60	100.3	Pulse	0.10	3
1	Sc		2,827,586.11	0.86	100.2	Pulse	0.10	3
1	Ge		503,972.60	1.43	100.1	Pulse	0.10	3
1	Ge		705,685.25	0.92	100.7	Pulse	0.10	3
1	Rh		3,254,779.64	1.66	98.7	Pulse	0.10	3
1	In		3,477,620.70	1.93	100.5	Pulse	0.10	3
1	Tb		4,365,901.08	1.46	100.5	Pulse	0.10	3
1	Ho		413,589.89	2.30	100.3	Pulse	0.10	3
1	Bi		2,406,681.27	1.41	101.4	Pulse	0.10	3
2	Sc		88,661.72	0.64	101.5	Pulse	0.30	3
2	Ge		46,679.88	0.43	101.6	Pulse	0.30	3
2	Ge		70,744.76	1.08	102.1	Pulse	0.30	3
2	Rh		1,278,759.92	0.50	99.5	Pulse	0.30	3
2	In		441,642.20	0.16	101.3	Pulse	0.30	3
2	Tb		1,546,176.57	0.38	101.0	Pulse	0.30	3
2	Ho		150,894.84	0.23	102.0	Pulse	0.30	3
2	Bi		997,512.77	0.21	100.7	Pulse	0.30	3
3	Sc		83,785.52	0.75	100.8	Pulse	0.30	3
3	Ge		48,533.04	0.96	99.6	Pulse	0.30	3
3	Ge		74,661.07	1.27	101.1	Pulse	0.30	3
3	Rh		809,516.60	0.32	99.6	Pulse	0.30	3
3	Tb		1,197,831.55	0.12	101.5	Pulse	0.30	3

Quantitation Report

File Name	011CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\xa050619m2.b
Method File	
Method Path	
Acq Time	5/6/2019 11:51
Sample Name	STDI
Sample Type	CalStd
Comment	5000MIN
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/6/2019 12:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.000	ug/l	-1.88	16.00	6.488E-06	Pulse	0.25	3
B			1	5.098	ug/l	1.32	31,747.80	1.287E-02	Pulse	0.15	3
Ca			1	5017.230	ug/l	0.24	4,385,305.45	1.568E+00	Pulse	0.10	3
Sr			1	0.038	ug/l	10.81	2,036.87	6.368E-04	Pulse	0.10	3
Mo			1	0.023	ug/l	39.38	210.01	6.556E-05	Pulse	0.10	3
Ag			1	0.001	ug/l	127.97	53.33	1.571E-05	Pulse	0.10	3
Sn			1	0.323	ug/l	4.13	2,560.32	7.534E-04	Pulse	0.10	3
Sb			1	0.195	ug/l	5.79	2,753.68	6.381E-04	Pulse	0.10	3
Ba			1	-0.001	ug/l	-109.77	76.67	1.779E-05	Pulse	0.10	3
Tl			1	0.003	ug/l	4.08	510.03	2.176E-04	Pulse	0.10	3
Pb			1	0.006	ug/l	101.19	250.01	1.066E-04	Pulse	0.10	3
Pb			1	0.002	ug/l	72.61	206.68	8.820E-05	Pulse	0.10	3
Pb			1	0.005	ug/l	20.50	1,013.39	4.324E-04	Pulse	0.10	3
Na			2	4935.136	ug/l	0.48	4,350,275.52	4.910E+01	Pulse	0.30	3
Mg			2	4995.870	ug/l	0.46	1,992,101.59	2.248E+01	Pulse	0.30	3
Al			2	4959.218	ug/l	0.15	627,393.48	7.080E+00	Pulse	0.30	3
K			2	4987.968	ug/l	0.30	1,288,525.16	1.454E+01	Pulse	0.30	3
Ca			2	5040.969	ug/l	0.55	65,340.62	7.374E-01	Pulse	0.30	3
Ti			2	0.040	ug/l	44.21	5.56	6.282E-05	Pulse	0.30	3
V			2	-0.005	ug/l	-25.30	67.78	7.648E-04	Pulse	0.30	3
Cr			2	0.031	ug/l	35.09	531.13	5.997E-03	Pulse	0.30	3
Mn			2	0.069	ug/l	26.26	244.45	2.755E-03	Pulse	0.30	3
Fe			2	5029.519	ug/l	0.70	17,291,045.42	1.951E+02	Analog	0.30	3
Co			2	0.234	ug/l	7.48	1,793.45	2.024E-02	Pulse	0.30	3
Ni			2	0.174	ug/l	17.31	398.90	4.498E-03	Pulse	0.30	3
Cu			2	-0.032	ug/l	-42.41	1,053.39	1.188E-02	Pulse	0.30	3
Zn			2	-0.324	ug/l	-16.56	284.45	3.208E-03	Pulse	0.30	3
As			2	0.041	ug/l	26.64	25.33	2.863E-04	Pulse	1.00	3
Cd			2	-0.001	ug/l	-347.08	7.76	1.782E-05	Pulse	0.30	3
Sn			2	0.002	ug/l	1396.87	476.68	1.095E-03	Pulse	0.30	3
Se			3	0.194	ug/l	7.37	17.93	2.438E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,466,321.70	0.50	99.4	Pulse	0.10	3
1	Sc		2,797,000.37	1.17	99.1	Pulse	0.10	3
1	Ge		501,450.98	1.54	99.6	Pulse	0.10	3

Quantitation Report

1	Ge		693,122.83	1.27	98.9	Pulse	0.10	3
1	Rh		3,197,771.83	0.74	97.0	Pulse	0.10	3
1	In		3,399,008.37	1.34	98.3	Pulse	0.10	3
1	Tb		4,313,497.43	1.78	99.3	Pulse	0.10	3
1	Ho		414,502.03	2.23	100.5	Pulse	0.10	3
1	Bi		2,344,044.44	0.71	98.8	Pulse	0.10	3
2	Sc		88,611.26	1.13	101.5	Pulse	0.30	3
2	Ge		46,389.01	0.39	101.0	Pulse	0.30	3
2	Ge		69,881.03	0.86	100.9	Pulse	0.30	3
2	Rh		1,256,464.08	1.57	97.8	Pulse	0.30	3
2	In		435,085.45	0.35	99.8	Pulse	0.30	3
2	Tb		1,528,041.64	0.45	99.8	Pulse	0.30	3
2	Ho		148,594.56	0.86	100.4	Pulse	0.30	3
2	Bi		973,587.71	0.84	98.3	Pulse	0.30	3
3	Sc		83,229.64	0.88	100.1	Pulse	0.30	3
3	Ge		48,408.19	1.16	99.4	Pulse	0.30	3
3	Ge		73,572.77	1.75	99.7	Pulse	0.30	3
3	Rh		802,645.12	0.27	98.8	Pulse	0.30	3
3	Tb		1,191,591.59	0.74	101.0	Pulse	0.30	3

Quantitation Report

File Name 012CALS.d
File Path C:\Agilent\ICPMH\1\DATA\xa050619m2.b
Method File
Method Path
Acq Time 5/6/2019 11:56
Sample Name STDJ
Sample Type CalStd
Comment 10000MIN
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 5/6/2019 12:34
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	-0.001	ug/l	-33.99	13.33	5.495E-06	Pulse	0.25	3
B			1	3.797	ug/l	2.02	23,972.83	9.883E-03	Pulse	0.15	3
Ca			1	9991.651	ug/l	1.64	8,676,698.21	3.114E+00	Analog	0.10	3
Sr			1	0.075	ug/l	1.76	3,507.18	1.110E-03	Pulse	0.10	3
Mo			1	0.019	ug/l	8.18	170.01	5.384E-05	Pulse	0.10	3
Ag			1	0.002	ug/l	44.74	80.00	2.364E-05	Pulse	0.10	3
Sn			1	0.308	ug/l	3.65	2,370.27	6.995E-04	Pulse	0.10	3
Sb			1	0.155	ug/l	11.56	2,213.58	5.151E-04	Pulse	0.10	3
Ba			1	0.001	ug/l	362.19	90.00	2.102E-05	Pulse	0.10	3
Tl			1	0.004	ug/l	15.98	516.70	2.245E-04	Pulse	0.10	3
Pb			1	0.014	ug/l	50.73	323.35	1.408E-04	Pulse	0.10	3
Pb			1	0.019	ug/l	27.84	343.35	1.492E-04	Pulse	0.10	3
Pb			1	0.015	ug/l	36.18	1,380.08	6.005E-04	Pulse	0.10	3
Na			2	10033.691	ug/l	1.21	8,849,578.54	9.970E+01	Analog	0.30	3
Mg			2	9978.645	ug/l	0.13	3,985,876.51	4.490E+01	Pulse	0.30	3
Al			2	10031.135	ug/l	0.55	1,270,962.59	1.432E+01	Pulse	0.30	3
K			2	10007.003	ug/l	0.56	2,578,609.55	2.905E+01	Pulse	0.30	3
Ca			2	10097.024	ug/l	1.23	131,032.39	1.476E+00	Pulse	0.30	3
Ti			2	0.039	ug/l	43.06	5.56	6.251E-05	Pulse	0.30	3
V			2	0.015	ug/l	35.05	138.89	1.565E-03	Pulse	0.30	3
Cr			2	0.062	ug/l	1.52	670.02	7.548E-03	Pulse	0.30	3
Mn			2	0.123	ug/l	11.37	361.12	4.069E-03	Pulse	0.30	3
Fe			2	9984.435	ug/l	0.79	34,381,787.52	3.873E+02	Analog	0.30	3
Co			2	0.458	ug/l	4.08	3,438.18	3.873E-02	Pulse	0.30	3
Ni			2	0.338	ug/l	5.42	730.03	8.223E-03	Pulse	0.30	3
Cu			2	0.024	ug/l	41.18	1,362.30	1.535E-02	Pulse	0.30	3
Zn			2	0.048	ug/l	24.59	541.13	6.096E-03	Pulse	0.30	3
As			2	0.036	ug/l	28.50	23.67	2.668E-04	Pulse	1.00	3
Cd			2	-0.002	ug/l	-461.21	7.77	1.773E-05	Pulse	0.30	3
Sn			2	-0.048	ug/l	-11.39	377.78	8.629E-04	Pulse	0.30	3
Se			3	0.064	ug/l	10.70	9.13	1.250E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,425,652.69	0.39	97.7	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,786,547.35	1.20	98.7	Pulse	0.10	3
1	Ge		500,520.44	2.01	99.4	Pulse	0.10	3
1	Ge		691,999.18	2.31	98.7	Pulse	0.10	3
1	Rh		3,159,880.79	2.30	95.9	Pulse	0.10	3
1	In		3,386,152.13	2.03	97.9	Pulse	0.10	3
1	Tb		4,293,411.08	1.39	98.8	Pulse	0.10	3
1	Ho		408,694.12	1.33	99.1	Pulse	0.10	3
1	Bi		2,302,792.78	2.17	97.0	Pulse	0.10	3
2	Sc		88,765.39	0.63	101.6	Pulse	0.30	3
2	Ge		46,440.36	0.42	101.1	Pulse	0.30	3
2	Ge		70,098.68	1.70	101.2	Pulse	0.30	3
2	Rh		1,253,271.51	0.44	97.6	Pulse	0.30	3
2	In		437,750.39	0.78	100.4	Pulse	0.30	3
2	Tb		1,552,120.22	0.64	101.4	Pulse	0.30	3
2	Ho		149,838.73	0.20	101.3	Pulse	0.30	3
2	Bi		959,148.05	0.44	96.8	Pulse	0.30	3
3	Sc		83,126.99	0.86	100.0	Pulse	0.30	3
3	Ge		48,087.27	0.41	98.7	Pulse	0.30	3
3	Ge		73,081.72	0.29	99.0	Pulse	0.30	3
3	Rh		787,761.38	0.24	97.0	Pulse	0.30	3
3	Tb		1,184,987.73	0.29	100.4	Pulse	0.30	3

Quantitation Report

File Name	013_ICV.d
File Path	C:\Agilent\ICPMH\1\DATA\xa050619m2.b
Method File	
Method Path	
Acq Time	5/6/2019 12:01
Sample Name	ICVA
Sample Type	ICV
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/6/2019 12:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	59.029	ug/l	1.09	530,480.77	2.166E-01	Pulse	0.25	3
B			1	125.333	ug/l	0.27	708,001.61	2.890E-01	Pulse	0.15	3
Ca			1	5546.272	ug/l	0.43	4,925,600.76	1.732E+00	Pulse	0.10	3
Sr			1	61.607	ug/l	1.28	2,550,095.12	7.927E-01	Pulse	0.10	3
Mo			1	56.645	ug/l	1.47	461,461.14	1.434E-01	Pulse	0.10	3
Ag			1	57.731	ug/l	0.23	1,077,972.20	3.130E-01	Pulse	0.10	3
Sn			1	57.093	ug/l	0.71	695,816.99	2.021E-01	Pulse	0.10	3
Sb			1	59.043	ug/l	1.04	806,795.35	1.842E-01	Pulse	0.10	3
Ba			1	59.165	ug/l	0.86	337,645.89	7.708E-02	Pulse	0.10	3
Tl			1	60.994	ug/l	0.83	1,783,766.90	7.588E-01	Pulse	0.10	3
Pb			1	61.073	ug/l	1.90	602,988.83	2.565E-01	Pulse	0.10	3
Pb			1	58.306	ug/l	0.82	505,891.19	2.152E-01	Pulse	0.10	3
Pb			1	59.288	ug/l	0.83	2,363,595.21	1.006E+00	Pulse	0.10	3
Na			2	5436.055	ug/l	0.70	4,874,088.28	5.407E+01	Pulse	0.30	3
Mg			2	5529.854	ug/l	0.81	2,243,319.70	2.488E+01	Pulse	0.30	3
Al			2	5559.191	ug/l	0.71	715,466.16	7.937E+00	Pulse	0.30	3
K			2	5515.947	ug/l	0.32	1,448,506.54	1.607E+01	Pulse	0.30	3
Ca			2	5899.398	ug/l	0.38	77,784.56	8.628E-01	Pulse	0.30	3
Ti			2	56.569	ug/l	1.08	6,455.77	7.161E-02	Pulse	0.30	3
V			2	58.467	ug/l	0.17	209,365.96	2.322E+00	Pulse	0.30	3
Cr			2	57.415	ug/l	0.49	261,489.81	2.901E+00	Pulse	0.30	3
Mn			2	58.238	ug/l	0.50	128,118.48	1.421E+00	Pulse	0.30	3
Fe			2	5620.607	ug/l	1.01	19,657,642.00	2.181E+02	Analog	0.30	3
Co			2	57.277	ug/l	0.43	426,389.37	4.730E+00	Pulse	0.30	3
Ni			2	57.515	ug/l	0.50	118,086.66	1.310E+00	Pulse	0.30	3
Cu			2	56.201	ug/l	0.70	316,745.53	3.514E+00	Pulse	0.30	3
Zn			2	57.427	ug/l	1.09	40,654.74	4.510E-01	Pulse	0.30	3
As			2	57.090	ug/l	0.17	23,431.76	2.599E-01	Pulse	1.00	3
Cd			2	57.696	ug/l	0.31	57,466.48	1.293E-01	Pulse	0.30	3
Sn			2	56.520	ug/l	0.57	116,437.67	2.619E-01	Pulse	0.30	3
Se			3	251.075	ug/l	0.72	17,149.08	2.299E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,449,576.44	0.89	98.7	Pulse	0.10	3
1	Sc		2,843,470.79	0.92	100.7	Pulse	0.10	3
1	Ge		512,069.25	1.35	101.7	Pulse	0.10	3

Quantitation Report

1	Ge		715,392.44	0.49	102.1	Pulse	0.10	3
1	Rh		3,217,273.60	1.37	97.6	Pulse	0.10	3
1	In		3,443,898.11	1.56	99.6	Pulse	0.10	3
1	Tb		4,380,354.00	1.36	100.8	Pulse	0.10	3
1	Ho		415,684.40	1.08	100.8	Pulse	0.10	3
1	Bi		2,350,688.45	1.16	99.1	Pulse	0.10	3
2	Sc		90,149.60	0.32	103.2	Pulse	0.30	3
2	Ge		47,254.96	1.31	102.8	Pulse	0.30	3
2	Ge		71,807.23	1.42	103.7	Pulse	0.30	3
2	Rh		1,269,429.67	0.43	98.8	Pulse	0.30	3
2	In		444,579.82	0.71	102.0	Pulse	0.30	3
2	Tb		1,547,402.72	0.55	101.1	Pulse	0.30	3
2	Ho		149,015.87	0.56	100.7	Pulse	0.30	3
2	Bi		973,933.08	0.31	98.3	Pulse	0.30	3
3	Sc		83,314.70	1.22	100.2	Pulse	0.30	3
3	Ge		49,234.04	0.77	101.1	Pulse	0.30	3
3	Ge		74,607.36	0.54	101.1	Pulse	0.30	3
3	Rh		805,580.45	0.24	99.2	Pulse	0.30	3
3	Tb		1,194,187.04	0.53	101.2	Pulse	0.30	3

Quantitation Report

File Name	014_ICV.d
File Path	C:\Agilent\ICPMH\1\DATA\xa050619m2.b
Method File	
Method Path	
Acq Time	5/6/2019 12:06
Sample Name	ICV
Sample Type	ICV
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/6/2019 12:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.050	ug/l	11.05	473.35	1.900E-04	Pulse	0.25	3
B			1	5.773	ug/l	2.64	35,911.66	1.442E-02	Pulse	0.15	3
Ca			1	3.395	ug/l	9.96	27,927.63	9.735E-03	Pulse	0.10	3
Sr			1	0.018	ug/l	17.01	1,216.77	3.669E-04	Pulse	0.10	3
Mo			1	0.073	ug/l	15.34	633.37	1.907E-04	Pulse	0.10	3
Ag			1	0.016	ug/l	12.19	356.68	1.015E-04	Pulse	0.10	3
Sn			1	0.448	ug/l	2.40	4,207.36	1.197E-03	Pulse	0.10	3
Sb			1	0.092	ug/l	16.12	1,396.79	3.179E-04	Pulse	0.10	3
Ba			1	0.006	ug/l	131.67	116.67	2.666E-05	Pulse	0.10	3
Tl			1	0.030	ug/l	14.94	1,353.45	5.580E-04	Pulse	0.10	3
Pb			1	0.032	ug/l	19.53	520.03	2.143E-04	Pulse	0.10	3
Pb			1	0.031	ug/l	25.63	470.03	1.942E-04	Pulse	0.10	3
Pb			1	0.027	ug/l	3.37	1,936.80	7.991E-04	Pulse	0.10	3
Na			2	0.698	ug/l	64.05	10,696.81	1.188E-01	Pulse	0.30	3
Mg			2	1.401	ug/l	9.29	692.25	7.688E-03	Pulse	0.30	3
Al			2	64.821	ug/l	2.63	8,592.26	9.544E-02	Pulse	0.30	3
K			2	-0.749	ug/l	-34.97	10,871.38	1.207E-01	Pulse	0.30	3
Ca			2	3.382	ug/l	34.56	120.01	1.333E-03	Pulse	0.30	3
Ti			2	0.029	ug/l	58.74	4.44	4.937E-05	Pulse	0.30	3
V			2	0.012	ug/l	39.21	132.23	1.469E-03	Pulse	0.30	3
Cr			2	0.058	ug/l	16.24	661.13	7.342E-03	Pulse	0.30	3
Mn			2	0.006	ug/l	70.33	110.00	1.222E-03	Pulse	0.30	3
Fe			2	2.414	ug/l	4.91	11,451.88	1.272E-01	Pulse	0.30	3
Co			2	0.009	ug/l	9.00	146.67	1.629E-03	Pulse	0.30	3
Ni			2	0.024	ug/l	81.92	96.67	1.072E-03	Pulse	0.30	3
Cu			2	0.002	ug/l	873.08	1,262.29	1.402E-02	Pulse	0.30	3
Zn			2	0.131	ug/l	25.52	606.68	6.739E-03	Pulse	0.30	3
As			2	0.021	ug/l	61.21	17.67	1.964E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	0.011	ug/l	66.38	21.06	4.643E-05	Pulse	0.30	3
Sn			2	0.133	ug/l	13.24	768.92	1.697E-03	Pulse	0.30	3
Se			3	0.140	ug/l	0.74	14.80	1.940E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,490,096.02	1.18	100.3	Pulse	0.10	3
1	Sc		2,868,940.58	1.45	101.6	Pulse	0.10	3
1	Ge		513,034.89	2.16	101.9	Pulse	0.10	3
1	Ge		712,193.04	1.02	101.6	Pulse	0.10	3
1	Rh		3,317,559.32	1.07	100.6	Pulse	0.10	3
1	In		3,514,072.15	0.65	101.6	Pulse	0.10	3
1	Tb		4,388,841.60	1.44	101.0	Pulse	0.10	3
1	Ho		415,105.09	2.16	100.6	Pulse	0.10	3
1	Bi		2,423,758.66	1.71	102.1	Pulse	0.10	3
2	Sc		90,036.86	0.53	103.1	Pulse	0.30	3
2	Ge		48,461.75	0.60	105.5	Pulse	0.30	3
2	Ge		72,096.22	1.27	104.1	Pulse	0.30	3
2	Rh		1,310,718.24	0.76	102.0	Pulse	0.30	3
2	In		453,117.90	0.53	103.9	Pulse	0.30	3
2	Tb		1,572,515.77	0.61	102.7	Pulse	0.30	3
2	Ho		151,409.69	0.33	102.3	Pulse	0.30	3
2	Bi		1,005,374.68	0.46	101.5	Pulse	0.30	3
3	Sc		85,151.31	0.91	102.5	Pulse	0.30	3
3	Ge		50,310.54	1.76	103.3	Pulse	0.30	3
3	Ge		76,283.88	0.49	103.3	Pulse	0.30	3
3	Rh		827,565.99	0.01	101.9	Pulse	0.30	3
3	Tb		1,204,119.60	0.21	102.0	Pulse	0.30	3

Quantitation Report

File Name	015_ICB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa050619m2.b
Method File	
Method Path	
Acq Time	5/6/2019 12:11
Sample Name	ICB
Sample Type	ICB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/6/2019 12:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.003	ug/l	50.22	45.33	1.783E-05	Pulse	0.25	3
B			1	3.923	ug/l	2.27	25,871.13	1.017E-02	Pulse	0.15	3
Ca			1	0.579	ug/l	78.77	25,984.46	8.860E-03	Pulse	0.10	3
Sr			1	0.004	ug/l	20.74	643.37	1.911E-04	Pulse	0.10	3
Mo			1	0.017	ug/l	11.79	166.68	4.952E-05	Pulse	0.10	3
Ag			1	0.006	ug/l	12.33	163.34	4.576E-05	Pulse	0.10	3
Sn			1	0.369	ug/l	3.12	3,277.14	9.180E-04	Pulse	0.10	3
Sb			1	0.058	ug/l	13.05	930.06	2.121E-04	Pulse	0.10	3
Ba			1	-0.006	ug/l	-30.93	50.00	1.143E-05	Pulse	0.10	3
Tl			1	0.008	ug/l	49.32	686.71	2.837E-04	Pulse	0.10	3
Pb			1	0.012	ug/l	45.48	320.02	1.323E-04	Pulse	0.10	3
Pb			1	0.007	ug/l	75.43	260.01	1.073E-04	Pulse	0.10	3
Pb			1	0.009	ug/l	14.25	1,203.40	4.972E-04	Pulse	0.10	3
Na			2	0.142	ug/l	270.26	10,568.94	1.133E-01	Pulse	0.30	3
Mg			2	0.243	ug/l	19.18	231.12	2.478E-03	Pulse	0.30	3
Al			2	-0.042	ug/l	-204.29	267.78	2.870E-03	Pulse	0.30	3
K			2	-2.303	ug/l	-63.70	10,846.94	1.163E-01	Pulse	0.30	3
Ca			2	0.453	ug/l	84.61	84.44	9.050E-04	Pulse	0.30	3
Ti			2	0.027	ug/l	57.96	4.44	4.749E-05	Pulse	0.30	3
V			2	0.016	ug/l	68.07	152.23	1.633E-03	Pulse	0.30	3
Cr			2	-0.013	ug/l	-109.48	351.12	3.756E-03	Pulse	0.30	3
Mn			2	-0.003	ug/l	-251.84	94.45	1.011E-03	Pulse	0.30	3
Fe			2	0.369	ug/l	5.62	4,465.11	4.785E-02	Pulse	0.30	3
Co			2	0.000	ug/l	588.73	85.56	9.159E-04	Pulse	0.30	3
Ni			2	0.003	ug/l	432.44	55.55	5.974E-04	Pulse	0.30	3
Cu			2	-0.019	ug/l	-117.06	1,184.50	1.268E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	0.262	ug/l	18.61	723.36	7.754E-03	Pulse	0.30	3
As			2	0.011	ug/l	167.07	14.00	1.503E-04	Pulse	1.00	3
Cd			2	0.005	ug/l	40.71	14.42	3.137E-05	Pulse	0.30	3
Sn			2	0.058	ug/l	51.55	621.13	1.351E-03	Pulse	0.30	3
Se			3	0.041	ug/l	2.17	8.00	1.040E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,543,275.97	0.20	102.5	Pulse	0.10	3
1	Sc		2,932,764.02	0.81	103.9	Pulse	0.10	3
1	Ge		523,551.88	1.81	104.0	Pulse	0.10	3
1	Ge		724,927.07	1.52	103.4	Pulse	0.10	3
1	Rh		3,368,011.83	1.81	102.2	Pulse	0.10	3
1	In		3,569,576.74	2.19	103.2	Pulse	0.10	3
1	Tb		4,382,659.93	1.21	100.9	Pulse	0.10	3
1	Ho		415,329.60	1.85	100.7	Pulse	0.10	3
1	Bi		2,420,872.10	0.98	102.0	Pulse	0.10	3
2	Sc		93,320.16	1.31	106.9	Pulse	0.30	3
2	Ge		48,937.54	0.61	106.5	Pulse	0.30	3
2	Ge		73,430.89	1.45	106.0	Pulse	0.30	3
2	Rh		1,331,908.97	0.38	103.7	Pulse	0.30	3
2	In		459,705.93	0.33	105.4	Pulse	0.30	3
2	Tb		1,577,377.61	1.18	103.0	Pulse	0.30	3
2	Ho		152,659.76	1.33	103.2	Pulse	0.30	3
2	Bi		1,014,755.34	1.35	102.4	Pulse	0.30	3
3	Sc		88,037.21	0.31	105.9	Pulse	0.30	3
3	Ge		50,272.78	0.41	103.2	Pulse	0.30	3
3	Ge		76,958.17	0.79	104.2	Pulse	0.30	3
3	Rh		844,972.14	0.91	104.0	Pulse	0.30	3
3	Tb		1,218,244.85	0.59	103.2	Pulse	0.30	3

Quantitation Report

File Name	016_CCV.d
File Path	C:\Agilent\ICPMH\1\DATA\xa050619m2.b
Method File	
Method Path	
Acq Time	5/6/2019 12:16
Sample Name	CCVA
Sample Type	CCV
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/6/2019 12:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	49.983	ug/l	0.64	464,572.68	1.834E-01	Pulse	0.25	3
B			1	103.128	ug/l	1.14	603,008.71	2.380E-01	Pulse	0.15	3
Ca			1	5051.015	ug/l	0.39	4,650,824.83	1.578E+00	Pulse	0.10	3
Sr			1	48.997	ug/l	0.37	2,085,222.52	6.305E-01	Pulse	0.10	3
Mo			1	47.897	ug/l	0.86	401,141.95	1.213E-01	Pulse	0.10	3
Ag			1	48.002	ug/l	1.59	916,546.21	2.603E-01	Pulse	0.10	3
Sn			1	46.729	ug/l	1.00	582,208.60	1.653E-01	Pulse	0.10	3
Sb			1	48.319	ug/l	0.74	662,179.79	1.508E-01	Pulse	0.10	3
Ba			1	48.929	ug/l	0.86	279,999.94	6.375E-02	Pulse	0.10	3
Tl			1	48.618	ug/l	1.19	1,444,664.04	6.049E-01	Pulse	0.10	3
Pb			1	49.243	ug/l	0.31	494,077.70	2.069E-01	Pulse	0.10	3
Pb			1	48.737	ug/l	1.03	429,686.43	1.799E-01	Pulse	0.10	3
Pb			1	48.697	ug/l	0.88	1,972,683.22	8.260E-01	Pulse	0.10	3
Na			2	4943.159	ug/l	0.52	4,592,332.18	4.918E+01	Pulse	0.30	3
Mg			2	5001.037	ug/l	0.35	2,101,692.69	2.251E+01	Pulse	0.30	3
Al			2	5000.231	ug/l	0.63	666,678.52	7.139E+00	Pulse	0.30	3
K			2	5017.225	ug/l	0.40	1,365,890.85	1.463E+01	Pulse	0.30	3
Ca			2	5302.455	ug/l	0.29	72,431.74	7.756E-01	Pulse	0.30	3
Ti			2	47.255	ug/l	2.39	5,586.56	5.982E-02	Pulse	0.30	3
V			2	48.185	ug/l	1.19	178,763.89	1.914E+00	Pulse	0.30	3
Cr			2	47.918	ug/l	0.97	226,144.27	2.422E+00	Pulse	0.30	3
Mn			2	48.476	ug/l	0.78	110,491.09	1.183E+00	Pulse	0.30	3
Fe			2	5154.992	ug/l	0.71	18,677,370.37	2.000E+02	Analog	0.30	3
Co			2	47.445	ug/l	0.52	365,892.53	3.918E+00	Pulse	0.30	3
Ni			2	47.329	ug/l	0.53	100,672.15	1.078E+00	Pulse	0.30	3
Cu			2	46.302	ug/l	0.59	270,544.96	2.897E+00	Pulse	0.30	3
Zn			2	47.416	ug/l	0.88	34,864.87	3.733E-01	Pulse	0.30	3
As			2	46.597	ug/l	0.42	19,812.99	2.122E-01	Pulse	1.00	3
Cd			2	47.309	ug/l	0.67	48,135.53	1.060E-01	Pulse	0.30	3
Sn			2	46.260	ug/l	1.41	97,435.98	2.146E-01	Pulse	0.30	3
Se			3	194.088	ug/l	1.26	13,482.73	1.777E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,533,324.50	0.98	102.1	Pulse	0.10	3
1	Sc		2,946,699.75	1.18	104.4	Pulse	0.10	3
1	Ge		522,755.23	1.15	103.9	Pulse	0.10	3

Quantitation Report

1	Ge		732,435.20	0.88	104.5	Pulse	0.10	3
1	Rh		3,307,490.99	1.15	100.3	Pulse	0.10	3
1	In		3,522,582.96	2.43	101.8	Pulse	0.10	3
1	Tb		4,392,913.58	2.02	101.1	Pulse	0.10	3
1	Ho		419,818.60	2.42	101.8	Pulse	0.10	3
1	Bi		2,388,631.89	2.15	100.7	Pulse	0.10	3
2	Sc		93,386.10	0.38	106.9	Pulse	0.30	3
2	Ge		49,185.10	0.45	107.0	Pulse	0.30	3
2	Ge		72,701.21	0.67	105.0	Pulse	0.30	3
2	Rh		1,296,233.18	0.78	100.9	Pulse	0.30	3
2	In		454,160.32	1.17	104.2	Pulse	0.30	3
2	Tb		1,577,637.79	0.74	103.1	Pulse	0.30	3
2	Ho		152,672.16	0.53	103.2	Pulse	0.30	3
2	Bi		988,872.84	0.38	99.8	Pulse	0.30	3
3	Sc		86,391.29	1.14	103.9	Pulse	0.30	3
3	Ge		50,194.76	0.55	103.0	Pulse	0.30	3
3	Ge		75,875.51	0.57	102.8	Pulse	0.30	3
3	Rh		814,911.50	0.72	100.3	Pulse	0.30	3
3	Tb		1,196,855.75	1.46	101.4	Pulse	0.30	3

Quantitation Report

File Name	017_CCB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa050619m2.b
Method File	
Method Path	
Acq Time	5/6/2019 12:21
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/6/2019 12:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.010	ug/l	11.99	112.00	4.388E-05	Pulse	0.25	3
B			1	5.462	ug/l	0.59	34,996.55	1.371E-02	Pulse	0.15	3
Ca			1	-0.044	ug/l	-779.20	25,390.06	8.666E-03	Pulse	0.10	3
Sr			1	0.010	ug/l	32.99	910.07	2.692E-04	Pulse	0.10	3
Mo			1	0.105	ug/l	8.47	926.73	2.739E-04	Pulse	0.10	3
Ag			1	0.015	ug/l	34.27	330.02	9.243E-05	Pulse	0.10	3
Sn			1	0.451	ug/l	2.14	4,320.77	1.209E-03	Pulse	0.10	3
Sb			1	0.407	ug/l	1.85	5,734.58	1.301E-03	Pulse	0.10	3
Ba			1	0.005	ug/l	129.33	113.34	2.584E-05	Pulse	0.10	3
Tl			1	0.012	ug/l	10.63	803.39	3.287E-04	Pulse	0.10	3
Pb			1	0.021	ug/l	17.10	410.02	1.678E-04	Pulse	0.10	3
Pb			1	0.016	ug/l	39.35	343.35	1.405E-04	Pulse	0.10	3
Pb			1	0.021	ug/l	26.90	1,713.44	7.013E-04	Pulse	0.10	3
Na			2	0.584	ug/l	33.63	10,979.22	1.177E-01	Pulse	0.30	3
Mg			2	0.561	ug/l	30.68	364.45	3.908E-03	Pulse	0.30	3
Al			2	0.443	ug/l	112.41	332.23	3.563E-03	Pulse	0.30	3
K			2	-1.788	ug/l	-27.86	10,985.93	1.177E-01	Pulse	0.30	3
Ca			2	1.520	ug/l	161.22	98.89	1.061E-03	Pulse	0.30	3
Ti			2	0.027	ug/l	58.44	4.44	4.754E-05	Pulse	0.30	3
V			2	0.014	ug/l	62.43	142.23	1.524E-03	Pulse	0.30	3
Cr			2	0.000	ug/l	-1325.28	412.23	4.418E-03	Pulse	0.30	3
Mn			2	0.004	ug/l	164.93	110.00	1.180E-03	Pulse	0.30	3
Fe			2	0.964	ug/l	5.56	6,619.18	7.094E-02	Pulse	0.30	3
Co			2	0.003	ug/l	116.68	102.22	1.096E-03	Pulse	0.30	3
Ni			2	0.013	ug/l	55.32	77.78	8.332E-04	Pulse	0.30	3
Cu			2	-0.017	ug/l	-43.42	1,197.83	1.284E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	0.360	ug/l	16.10	794.48	8.513E-03	Pulse	0.30	3
As			2	0.007	ug/l	16.53	12.67	1.357E-04	Pulse	1.00	3
Cd			2	0.005	ug/l	109.74	14.39	3.133E-05	Pulse	0.30	3
Sn			2	0.150	ug/l	27.24	816.70	1.777E-03	Pulse	0.30	3
Se			3	0.093	ug/l	9.09	11.67	1.509E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,553,052.20	0.66	102.9	Pulse	0.10	3
1	Sc		2,929,809.33	0.93	103.8	Pulse	0.10	3
1	Ge		525,681.32	1.64	104.4	Pulse	0.10	3
1	Ge		732,381.42	1.56	104.5	Pulse	0.10	3
1	Rh		3,382,787.24	1.28	102.6	Pulse	0.10	3
1	In		3,571,991.09	1.90	103.3	Pulse	0.10	3
1	Tb		4,405,614.00	2.07	101.4	Pulse	0.10	3
1	Ho		417,492.04	1.52	101.2	Pulse	0.10	3
1	Bi		2,444,222.00	0.43	103.0	Pulse	0.10	3
2	Sc		93,306.88	0.61	106.8	Pulse	0.30	3
2	Ge		49,316.46	0.78	107.3	Pulse	0.30	3
2	Ge		73,799.10	0.19	106.5	Pulse	0.30	3
2	Rh		1,332,136.44	0.89	103.7	Pulse	0.30	3
2	In		459,629.83	0.39	105.4	Pulse	0.30	3
2	Tb		1,582,182.47	0.16	103.3	Pulse	0.30	3
2	Ho		152,456.83	0.47	103.0	Pulse	0.30	3
2	Bi		1,013,530.69	0.28	102.3	Pulse	0.30	3
3	Sc		87,345.04	0.21	105.1	Pulse	0.30	3
3	Ge		51,467.39	0.71	105.6	Pulse	0.30	3
3	Ge		77,285.47	1.30	104.7	Pulse	0.30	3
3	Rh		849,471.65	1.53	104.6	Pulse	0.30	3
3	Tb		1,215,363.56	0.93	103.0	Pulse	0.30	3

Quantitation Report

File Name	018LCCV.d
File Path	C:\Agilent\ICPMH\1\DATA\xa050619m2.b
Method File	
Method Path	
Acq Time	5/6/2019 12:26
Sample Name	CRI
Sample Type	LLCCV
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/6/2019 12:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.495	ug/l	3.36	4,707.39	1.823E-03	Pulse	0.25	3
B			1	30.253	ug/l	0.98	182,444.88	7.065E-02	Pulse	0.15	3
Ca			1	258.601	ug/l	0.68	264,183.77	8.904E-02	Pulse	0.10	3
Sr			1	4.783	ug/l	0.46	210,436.37	6.168E-02	Pulse	0.10	3
Mo			1	0.893	ug/l	8.00	7,738.87	2.268E-03	Pulse	0.10	3
Ag			1	0.492	ug/l	3.99	9,699.98	2.681E-03	Pulse	0.10	3
Sn			1	5.040	ug/l	1.14	63,227.56	1.748E-02	Pulse	0.10	3
Sb			1	2.049	ug/l	2.32	28,413.30	6.423E-03	Pulse	0.10	3
Ba			1	0.991	ug/l	1.33	5,791.30	1.309E-03	Pulse	0.10	3
Tl			1	0.480	ug/l	3.82	14,918.02	6.146E-03	Pulse	0.10	3
Pb			1	0.517	ug/l	1.05	5,471.23	2.254E-03	Pulse	0.10	3
Pb			1	0.510	ug/l	3.76	4,767.58	1.964E-03	Pulse	0.10	3
Pb			1	0.506	ug/l	3.80	21,676.95	8.931E-03	Pulse	0.10	3
Na			2	250.097	ug/l	0.29	246,406.51	2.594E+00	Pulse	0.30	3
Mg			2	254.991	ug/l	0.89	109,116.50	1.149E+00	Pulse	0.30	3
Al			2	23.631	ug/l	3.39	3,481.51	3.665E-02	Pulse	0.30	3
K			2	253.163	ug/l	1.18	81,183.98	8.547E-01	Pulse	0.30	3
Ca			2	276.018	ug/l	4.70	3,910.50	4.117E-02	Pulse	0.30	3
Ti			2	0.895	ug/l	38.12	108.89	1.146E-03	Pulse	0.30	3
V			2	0.965	ug/l	5.58	3,732.69	3.930E-02	Pulse	0.30	3
Cr			2	0.943	ug/l	1.95	4,939.69	5.201E-02	Pulse	0.30	3
Mn			2	0.965	ug/l	4.15	2,337.98	2.461E-02	Pulse	0.30	3
Fe			2	25.740	ug/l	1.25	98,021.63	1.032E+00	Pulse	0.30	3
Co			2	0.493	ug/l	1.25	3,952.74	4.161E-02	Pulse	0.30	3
Ni			2	0.936	ug/l	7.41	2,074.61	2.184E-02	Pulse	0.30	3
Cu			2	1.857	ug/l	2.23	12,299.12	1.295E-01	Pulse	0.30	3
Zn			2	4.334	ug/l	0.83	3,734.91	3.932E-02	Pulse	0.30	3
As			2	0.497	ug/l	12.69	224.33	2.362E-03	Pulse	1.00	3
Cd			2	0.465	ug/l	9.58	490.73	1.063E-03	Pulse	0.30	3
Sn			2	4.767	ug/l	1.56	10,657.03	2.309E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	0.589	ug/l	2.67	47.27	6.054E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,582,432.47	0.35	104.1	Pulse	0.10	3
1	Sc		2,967,122.04	1.86	105.1	Pulse	0.10	3
1	Ge		530,014.84	1.25	105.3	Pulse	0.10	3
1	Ge		731,231.13	1.12	104.3	Pulse	0.10	3
1	Rh		3,411,749.95	0.12	103.5	Pulse	0.10	3
1	In		3,617,436.19	0.93	104.6	Pulse	0.10	3
1	Tb		4,423,192.02	1.06	101.8	Pulse	0.10	3
1	Ho		420,354.28	0.92	101.9	Pulse	0.10	3
1	Bi		2,427,007.46	0.60	102.3	Pulse	0.10	3
2	Sc		94,983.55	0.33	108.8	Pulse	0.30	3
2	Ge		49,650.74	0.90	108.1	Pulse	0.30	3
2	Ge		75,836.33	0.71	109.5	Pulse	0.30	3
2	Rh		1,345,151.86	0.44	104.7	Pulse	0.30	3
2	In		461,588.36	0.85	105.9	Pulse	0.30	3
2	Tb		1,581,684.17	0.15	103.3	Pulse	0.30	3
2	Ho		152,219.91	0.90	102.9	Pulse	0.30	3
2	Bi		1,011,140.52	0.78	102.1	Pulse	0.30	3
3	Sc		89,227.48	0.63	107.4	Pulse	0.30	3
3	Ge		51,759.68	0.43	106.2	Pulse	0.30	3
3	Ge		78,075.66	0.67	105.8	Pulse	0.30	3
3	Rh		852,903.99	0.70	105.0	Pulse	0.30	3
3	Tb		1,226,382.28	0.32	103.9	Pulse	0.30	3

Quantitation Report

File Name	019ICSA.d
File Path	C:\Agilent\ICPMH\1\DATA\xa050619m2.b
Method File	
Method Path	
Acq Time	5/6/2019 12:36
Sample Name	ICSA
Sample Type	ICSA
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/6/2019 12:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	-0.001	ug/l	-92.67	13.33	5.973E-06	Pulse	0.25	3
B			1	3.795	ug/l	2.06	22,085.87	9.878E-03	Pulse	0.15	3
Ca			1	97208.373	ug/l	1.01	80,404,087.13	3.022E+01	Analog	0.10	3
Sr			1	1969.182	ug/l	2.18	71,510,372.27	2.533E+01	Analog	0.10	3
Mo			1	1978.652	ug/l	0.63	14,144,366.04	5.010E+00	Analog	0.10	3
Ag			1	0.026	ug/l	7.76	480.03	1.532E-04	Pulse	0.10	3
Sn			1	1775.081	ug/l	0.53	19,725,799.29	6.294E+00	Analog	0.10	3
Sb			1	0.244	ug/l	6.21	3,230.45	7.938E-04	Pulse	0.10	3
Ba			1	0.218	ug/l	12.71	1,236.77	3.038E-04	Pulse	0.10	3
Tl			1	0.001	ug/l	126.35	406.69	1.957E-04	Pulse	0.10	3
Pb			1	0.091	ug/l	19.51	966.74	4.645E-04	Pulse	0.10	3
Pb			1	0.086	ug/l	19.08	826.72	3.971E-04	Pulse	0.10	3
Pb			1	0.084	ug/l	13.45	3,686.99	1.772E-03	Pulse	0.10	3
Na			2	91396.315	ug/l	2.37	79,666,956.83	9.073E+02	Analog	0.30	3
Mg			2	92985.635	ug/l	1.39	36,742,896.32	4.184E+02	Analog	0.30	3
Al			2	96689.321	ug/l	0.50	12,117,798.13	1.380E+02	Analog	0.30	3
K			2	98671.963	ug/l	0.19	25,059,041.78	2.854E+02	Analog	0.30	3
Ca			2	105681.901	ug/l	0.46	1,356,106.75	1.544E+01	Pulse	0.30	3
Ti			2	1726.538	ug/l	1.03	191,892.38	2.185E+00	Pulse	0.30	3
V			2	0.014	ug/l	33.84	135.56	1.544E-03	Pulse	0.30	3
Cr			2	0.286	ug/l	6.28	1,657.89	1.888E-02	Pulse	0.30	3
Mn			2	0.347	ug/l	8.88	837.81	9.543E-03	Pulse	0.30	3
Fe			2	91827.907	ug/l	0.57	312,807,063.12	3.562E+03	Analog	0.30	3
Co			2	0.296	ug/l	1.96	2,222.40	2.531E-02	Pulse	0.30	3
Ni			2	0.637	ug/l	8.16	1,320.07	1.503E-02	Pulse	0.30	3
Cu			2	0.362	ug/l	9.39	3,200.35	3.645E-02	Pulse	0.30	3
Zn			2	0.027	ug/l	341.99	521.13	5.931E-03	Pulse	0.30	3
As			2	0.083	ug/l	36.22	42.00	4.777E-04	Pulse	1.00	3
Cd			2	-0.402	ug/l	-11.33	-359.23	-8.783E-04	Pulse	0.30	3
Sn			2	1815.099	ug/l	0.06	3,427,127.30	8.377E+00	Pulse	0.30	3
Se			3	0.081	ug/l	55.54	9.73	1.401E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,235,628.71	0.86	90.1	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,660,754.65	2.02	94.2	Pulse	0.10	3
1	Ge		480,174.77	1.47	95.4	Pulse	0.10	3
1	Ge		647,914.47	1.64	92.4	Pulse	0.10	3
1	Rh		2,823,369.54	1.98	85.7	Pulse	0.10	3
1	In		3,134,341.89	1.97	90.6	Pulse	0.10	3
1	Tb		4,067,059.84	1.79	93.6	Pulse	0.10	3
1	Ho		385,473.59	1.90	93.5	Pulse	0.10	3
1	Bi		2,079,090.38	1.25	87.6	Pulse	0.10	3
2	Sc		87,817.16	0.61	100.6	Pulse	0.30	3
2	Ge		45,850.90	1.02	99.8	Pulse	0.30	3
2	Ge		67,629.43	0.71	97.6	Pulse	0.30	3
2	Rh		1,139,795.58	0.64	88.7	Pulse	0.30	3
2	In		409,092.97	0.46	93.8	Pulse	0.30	3
2	Tb		1,464,727.96	0.75	95.7	Pulse	0.30	3
2	Ho		142,660.46	0.63	96.4	Pulse	0.30	3
2	Bi		871,688.54	0.92	88.0	Pulse	0.30	3
3	Sc		80,441.64	0.71	96.8	Pulse	0.30	3
3	Ge		46,472.64	0.98	95.4	Pulse	0.30	3
3	Ge		69,393.59	1.13	94.0	Pulse	0.30	3
3	Rh		712,676.43	0.94	87.7	Pulse	0.30	3
3	Tb		1,099,416.03	0.55	93.2	Pulse	0.30	3

Quantitation Report

File Name	020ICSB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa050619m2.b
Method File	
Method Path	
Acq Time	5/6/2019 12:41
Sample Name	ICSAB
Sample Type	ICSB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/6/2019 12:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.001	ug/l	144.55	29.33	1.345E-05	Pulse	0.25	3
B			1	54.858	ug/l	1.77	276,660.61	1.272E-01	Pulse	0.15	3
Ca			1	99076.822	ug/l	1.43	82,517,980.43	3.080E+01	Analog	0.10	3
Sr			1	2182.862	ug/l	0.70	80,850,002.13	2.808E+01	Analog	0.10	3
Mo			1	2041.567	ug/l	0.50	14,884,036.86	5.169E+00	Analog	0.10	3
Ag			1	19.353	ug/l	0.79	334,350.41	1.049E-01	Pulse	0.10	3
Sn			1	1897.346	ug/l	0.91	21,431,997.18	6.727E+00	Analog	0.10	3
Sb			1	0.217	ug/l	5.75	2,910.38	7.085E-04	Pulse	0.10	3
Ba			1	0.268	ug/l	8.18	1,513.47	3.689E-04	Pulse	0.10	3
Tl			1	0.001	ug/l	208.69	403.35	1.911E-04	Pulse	0.10	3
Pb			1	0.081	ug/l	18.12	886.73	4.199E-04	Pulse	0.10	3
Pb			1	0.090	ug/l	19.80	873.39	4.138E-04	Pulse	0.10	3
Pb			1	0.082	ug/l	3.48	3,683.66	1.746E-03	Pulse	0.10	3
Na			2	94802.340	ug/l	2.03	79,980,587.93	9.411E+02	Analog	0.30	3
Mg			2	96741.976	ug/l	2.26	36,996,492.98	4.353E+02	Analog	0.30	3
Al			2	100076.854	ug/l	2.00	12,138,663.41	1.428E+02	Analog	0.30	3
K			2	101903.683	ug/l	2.00	25,045,914.56	2.947E+02	Analog	0.30	3
Ca			2	110379.384	ug/l	1.37	1,370,908.03	1.613E+01	Pulse	0.30	3
Ti			2	1801.346	ug/l	1.64	193,781.42	2.280E+00	Pulse	0.30	3
V			2	20.932	ug/l	2.46	70,713.94	8.321E-01	Pulse	0.30	3
Cr			2	19.704	ug/l	2.06	84,852.01	9.984E-01	Pulse	0.30	3
Mn			2	19.401	ug/l	1.13	40,303.59	4.742E-01	Pulse	0.30	3
Fe			2	96638.912	ug/l	1.31	318,631,569.56	3.749E+03	Analog	0.30	3
Co			2	19.060	ug/l	2.39	133,808.99	1.575E+00	Pulse	0.30	3
Ni			2	18.596	ug/l	1.84	36,025.99	4.239E-01	Pulse	0.30	3
Cu			2	17.950	ug/l	1.45	96,186.63	1.132E+00	Pulse	0.30	3
Zn			2	16.604	ug/l	2.31	11,427.43	1.345E-01	Pulse	0.30	3
As			2	18.384	ug/l	4.10	7,117.23	8.377E-02	Pulse	1.00	3
Cd			2	17.588	ug/l	1.87	15,967.45	3.942E-02	Pulse	0.30	3
Sn			2	1929.825	ug/l	0.18	3,608,344.58	8.907E+00	Pulse	0.30	3
Se			3	18.901	ug/l	3.00	1,214.38	1.737E-02	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,175,865.51	0.72	87.7	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,679,777.98	1.79	94.9	Pulse	0.10	3
1	Ge		486,886.15	2.02	96.7	Pulse	0.10	3
1	Ge		659,096.89	1.29	94.0	Pulse	0.10	3
1	Rh		2,879,167.77	0.92	87.3	Pulse	0.10	3
1	In		3,185,984.55	1.52	92.1	Pulse	0.10	3
1	Tb		4,106,580.88	1.93	94.5	Pulse	0.10	3
1	Ho		392,323.17	1.91	95.1	Pulse	0.10	3
1	Bi		2,108,913.72	1.30	88.9	Pulse	0.10	3
2	Sc		85,011.59	2.01	97.3	Pulse	0.30	3
2	Ge		45,802.93	0.42	99.7	Pulse	0.30	3
2	Ge		67,207.66	0.58	97.0	Pulse	0.30	3
2	Rh		1,129,450.03	1.08	87.9	Pulse	0.30	3
2	In		405,117.80	0.93	92.9	Pulse	0.30	3
2	Tb		1,457,510.88	0.85	95.2	Pulse	0.30	3
2	Ho		140,375.45	1.05	94.9	Pulse	0.30	3
2	Bi		864,597.41	1.10	87.3	Pulse	0.30	3
3	Sc		81,095.98	0.37	97.6	Pulse	0.30	3
3	Ge		47,338.53	1.58	97.2	Pulse	0.30	3
3	Ge		69,944.79	0.94	94.7	Pulse	0.30	3
3	Rh		718,076.17	0.43	88.4	Pulse	0.30	3
3	Tb		1,111,115.89	0.28	94.1	Pulse	0.30	3

Quantitation Report

File Name	021SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa050619m2.b
Method File	
Method Path	
Acq Time	5/6/2019 12:46
Sample Name	rinseconf
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/6/2019 12:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	-0.001	ug/l	-68.99	8.00	3.644E-06	Pulse	0.25	3
B			1	2.439	ug/l	1.50	14,880.14	6.764E-03	Pulse	0.15	3
Ca			1	14.464	ug/l	13.72	35,121.39	1.317E-02	Pulse	0.10	3
Sr			1	0.378	ug/l	5.37	16,402.24	5.008E-03	Pulse	0.10	3
Mo			1	1.028	ug/l	4.84	8,555.92	2.610E-03	Pulse	0.10	3
Ag			1	0.007	ug/l	33.26	183.34	5.216E-05	Pulse	0.10	3
Sn			1	0.815	ug/l	2.25	8,782.76	2.497E-03	Pulse	0.10	3
Sb			1	0.039	ug/l	7.01	676.71	1.529E-04	Pulse	0.10	3
Ba			1	-0.009	ug/l	-39.90	33.33	7.525E-06	Pulse	0.10	3
Tl			1	-0.002	ug/l	-102.88	393.35	1.608E-04	Pulse	0.10	3
Pb			1	0.002	ug/l	147.65	220.01	8.988E-05	Pulse	0.10	3
Pb			1	0.000	ug/l	-1215.53	193.34	7.894E-05	Pulse	0.10	3
Pb			1	-0.001	ug/l	-190.37	810.04	3.309E-04	Pulse	0.10	3
Na			2	16.112	ug/l	13.16	22,706.53	2.718E-01	Pulse	0.30	3
Mg			2	13.925	ug/l	7.75	5,350.91	6.405E-02	Pulse	0.30	3
Al			2	13.073	ug/l	9.11	1,803.45	2.159E-02	Pulse	0.30	3
K			2	10.851	ug/l	21.44	12,889.53	1.543E-01	Pulse	0.30	3
Ca			2	13.554	ug/l	27.21	235.56	2.819E-03	Pulse	0.30	3
Ti			2	0.662	ug/l	36.34	71.11	8.509E-04	Pulse	0.30	3
V			2	0.009	ug/l	23.24	111.12	1.330E-03	Pulse	0.30	3
Cr			2	-0.028	ug/l	-24.13	251.11	3.006E-03	Pulse	0.30	3
Mn			2	-0.013	ug/l	-39.91	64.44	7.715E-04	Pulse	0.30	3
Fe			2	17.238	ug/l	7.22	58,663.91	7.022E-01	Pulse	0.30	3
Co			2	0.004	ug/l	49.79	98.89	1.183E-03	Pulse	0.30	3
Ni			2	-0.002	ug/l	-231.38	41.11	4.922E-04	Pulse	0.30	3
Cu			2	0.085	ug/l	9.66	1,600.10	1.915E-02	Pulse	0.30	3
Zn			2	-0.397	ug/l	-7.63	221.11	2.647E-03	Pulse	0.30	3
As			2	0.012	ug/l	0.75	13.00	1.556E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	0.002	ug/l	427.78	11.77	2.652E-05	Pulse	0.30	3
Sn			2	0.472	ug/l	4.72	1,446.75	3.266E-03	Pulse	0.30	3
Se			3	0.069	ug/l	29.63	9.60	1.296E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,199,736.52	0.36	88.6	Pulse	0.10	3
1	Sc		2,666,838.19	1.43	94.5	Pulse	0.10	3
1	Ge		495,029.03	1.17	98.4	Pulse	0.10	3
1	Ge		691,848.82	1.50	98.7	Pulse	0.10	3
1	Rh		3,276,506.51	1.36	99.4	Pulse	0.10	3
1	In		3,517,577.21	0.91	101.7	Pulse	0.10	3
1	Tb		4,427,867.02	1.35	101.9	Pulse	0.10	3
1	Ho		420,600.59	1.28	102.0	Pulse	0.10	3
1	Bi		2,447,679.65	0.62	103.2	Pulse	0.10	3
2	Sc		83,552.25	0.26	95.7	Pulse	0.30	3
2	Ge		46,965.16	0.21	102.2	Pulse	0.30	3
2	Ge		69,995.91	0.54	101.1	Pulse	0.30	3
2	Rh		1,281,568.42	0.53	99.8	Pulse	0.30	3
2	In		443,030.45	0.49	101.6	Pulse	0.30	3
2	Tb		1,562,163.24	0.20	102.0	Pulse	0.30	3
2	Ho		151,305.19	0.20	102.3	Pulse	0.30	3
2	Bi		1,003,558.08	0.43	101.3	Pulse	0.30	3
3	Sc		81,540.35	0.96	98.1	Pulse	0.30	3
3	Ge		48,207.59	0.66	98.9	Pulse	0.30	3
3	Ge		74,072.66	0.97	100.3	Pulse	0.30	3
3	Rh		826,452.89	0.31	101.7	Pulse	0.30	3
3	Tb		1,210,253.15	1.04	102.5	Pulse	0.30	3

Quantitation Report

File Name	022_CCV.d
File Path	C:\Agilent\ICPMH\1\DATA\xa050619m2.b
Method File	
Method Path	
Acq Time	5/6/2019 12:51
Sample Name	CCVA
Sample Type	CCV
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/6/2019 12:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	48.273	ug/l	0.97	389,032.36	1.771E-01	Pulse	0.25	3
B			1	99.572	ug/l	0.78	504,922.65	2.299E-01	Pulse	0.15	3
Ca			1	5035.567	ug/l	0.21	4,197,165.56	1.574E+00	Pulse	0.10	3
Sr			1	49.020	ug/l	0.76	2,012,057.99	6.308E-01	Pulse	0.10	3
Mo			1	47.958	ug/l	1.17	387,423.29	1.214E-01	Pulse	0.10	3
Ag			1	47.529	ug/l	0.88	886,289.88	2.577E-01	Pulse	0.10	3
Sn			1	47.460	ug/l	0.47	577,434.81	1.679E-01	Pulse	0.10	3
Sb			1	47.392	ug/l	0.79	649,848.60	1.479E-01	Pulse	0.10	3
Ba			1	47.965	ug/l	0.48	274,633.21	6.249E-02	Pulse	0.10	3
Tl			1	48.347	ug/l	1.04	1,430,426.38	6.015E-01	Pulse	0.10	3
Pb			1	48.947	ug/l	0.75	488,938.60	2.056E-01	Pulse	0.10	3
Pb			1	48.852	ug/l	0.70	428,833.30	1.803E-01	Pulse	0.10	3
Pb			1	48.512	ug/l	0.37	1,956,596.49	8.228E-01	Pulse	0.10	3
Na			2	4714.925	ug/l	1.03	3,992,806.23	4.691E+01	Pulse	0.30	3
Mg			2	4783.508	ug/l	1.22	1,832,235.21	2.153E+01	Pulse	0.30	3
Al			2	4835.977	ug/l	1.04	587,682.48	6.904E+00	Pulse	0.30	3
K			2	4951.189	ug/l	1.12	1,228,690.02	1.444E+01	Pulse	0.30	3
Ca			2	5288.674	ug/l	1.53	65,846.97	7.736E-01	Pulse	0.30	3
Ti			2	46.673	ug/l	2.25	5,029.71	5.908E-02	Pulse	0.30	3
V			2	48.790	ug/l	0.55	164,979.19	1.938E+00	Pulse	0.30	3
Cr			2	47.936	ug/l	0.61	206,194.50	2.422E+00	Pulse	0.30	3
Mn			2	48.328	ug/l	0.43	100,406.71	1.180E+00	Pulse	0.30	3
Fe			2	5106.590	ug/l	1.29	16,863,553.22	1.981E+02	Analog	0.30	3
Co			2	47.945	ug/l	0.85	337,007.69	3.959E+00	Pulse	0.30	3
Ni			2	47.762	ug/l	0.91	92,597.83	1.088E+00	Pulse	0.30	3
Cu			2	47.170	ug/l	0.13	251,203.40	2.951E+00	Pulse	0.30	3
Zn			2	48.878	ug/l	0.82	32,742.79	3.847E-01	Pulse	0.30	3
As			2	47.887	ug/l	1.53	18,559.86	2.180E-01	Pulse	1.00	3
Cd			2	47.531	ug/l	0.75	46,654.98	1.065E-01	Pulse	0.30	3
Sn			2	47.551	ug/l	1.16	96,615.44	2.205E-01	Pulse	0.30	3
Se			3	195.221	ug/l	0.29	13,086.89	1.787E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,196,645.53	0.10	88.5	Pulse	0.10	3
1	Sc		2,667,386.00	1.07	94.5	Pulse	0.10	3
1	Ge		496,598.39	1.16	98.7	Pulse	0.10	3

Quantitation Report

1	Ge		691,114.55	1.56	98.6	Pulse	0.10	3
1	Rh		3,189,902.66	1.46	96.8	Pulse	0.10	3
1	In		3,439,260.03	1.27	99.4	Pulse	0.10	3
1	Tb		4,394,787.43	1.28	101.2	Pulse	0.10	3
1	Ho		418,728.89	1.59	101.5	Pulse	0.10	3
1	Bi		2,377,885.85	0.82	100.2	Pulse	0.10	3
2	Sc		85,121.37	0.83	97.5	Pulse	0.30	3
2	Ge		46,719.93	0.33	101.7	Pulse	0.30	3
2	Ge		70,133.31	0.66	101.2	Pulse	0.30	3
2	Rh		1,254,165.85	1.23	97.6	Pulse	0.30	3
2	In		438,132.64	0.57	100.5	Pulse	0.30	3
2	Tb		1,569,691.36	0.53	102.5	Pulse	0.30	3
2	Ho		151,797.89	1.27	102.6	Pulse	0.30	3
2	Bi		988,525.93	0.87	99.8	Pulse	0.30	3
3	Sc		82,683.48	0.81	99.5	Pulse	0.30	3
3	Ge		48,209.95	0.94	99.0	Pulse	0.30	3
3	Ge		73,217.78	0.69	99.2	Pulse	0.30	3
3	Rh		810,200.40	0.73	99.7	Pulse	0.30	3
3	Tb		1,202,930.30	0.51	101.9	Pulse	0.30	3

Quantitation Report

File Name	023_CCB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa050619m2.b
Method File	
Method Path	
Acq Time	5/6/2019 12:56
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/6/2019 12:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.013	ug/l	10.07	122.67	5.494E-05	Pulse	0.25	3
B			1	4.051	ug/l	6.46	23,392.04	1.047E-02	Pulse	0.15	3
Ca			1	2.487	ug/l	29.29	25,670.40	9.453E-03	Pulse	0.10	3
Sr			1	0.095	ug/l	1.36	4,497.47	1.369E-03	Pulse	0.10	3
Mo			1	0.240	ug/l	10.06	2,023.54	6.153E-04	Pulse	0.10	3
Ag			1	0.017	ug/l	9.88	363.35	1.030E-04	Pulse	0.10	3
Sn			1	0.584	ug/l	3.35	5,907.99	1.678E-03	Pulse	0.10	3
Sb			1	0.401	ug/l	3.08	5,687.88	1.284E-03	Pulse	0.10	3
Ba			1	0.008	ug/l	14.10	133.34	3.009E-05	Pulse	0.10	3
Tl			1	0.015	ug/l	5.97	900.06	3.706E-04	Pulse	0.10	3
Pb			1	0.020	ug/l	24.45	406.69	1.673E-04	Pulse	0.10	3
Pb			1	0.015	ug/l	30.37	326.68	1.347E-04	Pulse	0.10	3
Pb			1	0.016	ug/l	19.63	1,520.09	6.262E-04	Pulse	0.10	3
Na			2	4.157	ug/l	2.78	13,285.35	1.531E-01	Pulse	0.30	3
Mg			2	4.098	ug/l	9.91	1,720.11	1.983E-02	Pulse	0.30	3
Al			2	6.751	ug/l	4.41	1,090.05	1.256E-02	Pulse	0.30	3
K			2	-0.902	ug/l	-54.54	10,437.79	1.203E-01	Pulse	0.30	3
Ca			2	7.047	ug/l	40.58	162.23	1.868E-03	Pulse	0.30	3
Ti			2	0.273	ug/l	33.58	31.11	3.582E-04	Pulse	0.30	3
V			2	0.011	ug/l	47.27	123.34	1.421E-03	Pulse	0.30	3
Cr			2	0.007	ug/l	146.29	415.57	4.789E-03	Pulse	0.30	3
Mn			2	0.006	ug/l	138.52	106.67	1.230E-03	Pulse	0.30	3
Fe			2	5.201	ug/l	1.16	20,416.08	2.353E-01	Pulse	0.30	3
Co			2	0.002	ug/l	123.08	93.34	1.076E-03	Pulse	0.30	3
Ni			2	0.015	ug/l	52.64	76.67	8.826E-04	Pulse	0.30	3
Cu			2	0.026	ug/l	41.57	1,346.74	1.553E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	1.093	ug/l	11.66	1,231.17	1.420E-02	Pulse	0.30	3
As			2	0.012	ug/l	59.79	13.67	1.575E-04	Pulse	1.00	3
Cd			2	0.023	ug/l	51.35	33.21	7.345E-05	Pulse	0.30	3
Sn			2	0.278	ug/l	13.92	1,072.27	2.370E-03	Pulse	0.30	3
Se			3	0.082	ug/l	73.05	10.67	1.409E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,235,061.91	1.85	90.1	Pulse	0.10	3
1	Sc		2,715,969.23	1.12	96.2	Pulse	0.10	3
1	Ge		499,335.35	0.86	99.2	Pulse	0.10	3
1	Ge		694,094.63	2.30	99.0	Pulse	0.10	3
1	Rh		3,286,037.97	1.58	99.7	Pulse	0.10	3
1	In		3,521,991.71	2.48	101.8	Pulse	0.10	3
1	Tb		4,432,874.83	1.82	102.1	Pulse	0.10	3
1	Ho		419,152.38	1.88	101.6	Pulse	0.10	3
1	Bi		2,428,686.16	1.70	102.4	Pulse	0.10	3
2	Sc		86,760.59	0.87	99.3	Pulse	0.30	3
2	Ge		47,454.31	1.31	103.3	Pulse	0.30	3
2	Ge		71,526.97	0.86	103.3	Pulse	0.30	3
2	Rh		1,300,059.88	0.23	101.2	Pulse	0.30	3
2	In		452,634.66	0.53	103.8	Pulse	0.30	3
2	Tb		1,565,743.86	0.70	102.3	Pulse	0.30	3
2	Ho		152,136.66	0.84	102.8	Pulse	0.30	3
2	Bi		1,002,849.75	0.56	101.2	Pulse	0.30	3
3	Sc		83,625.01	1.14	100.6	Pulse	0.30	3
3	Ge		49,975.15	0.76	102.6	Pulse	0.30	3
3	Ge		75,720.35	1.56	102.6	Pulse	0.30	3
3	Rh		834,439.80	0.40	102.7	Pulse	0.30	3
3	Tb		1,207,999.95	0.65	102.4	Pulse	0.30	3

Quantitation Report

File Name	024SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa050619m2.b
Method File	
Method Path	
Acq Time	5/6/2019 13:01
Sample Name	jc85096-1 4
Sample Type	Sample
Comment	
Prep Dilution	5.000
Auto Dilution	N/A
Total Dilution	5.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/6/2019 12:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.074	ug/l	25.00	132.00	6.220E-05	Pulse	0.25	3
B			1	917.279	ug/l	1.04	896,483.68	4.225E-01	Pulse	0.15	3
Ca			1	148356.350	ug/l	1.13	24,541,962.97	9.229E+00	Analog	0.10	3
Sr			1	2345.739	ug/l	1.02	16,729,346.42	6.036E+00	Analog	0.10	3
Mo			1	2.857	ug/l	14.41	4,030.69	1.454E-03	Pulse	0.10	3
Ag			1	0.119	ug/l	26.40	433.36	1.407E-04	Pulse	0.10	3
Sn			1	4.365	ug/l	3.18	8,329.24	2.705E-03	Pulse	0.10	3
Sb			1	1.617	ug/l	1.80	4,154.04	1.040E-03	Pulse	0.10	3
Ba			1	6144.117	ug/l	1.22	6,393,370.32	1.600E+00	Analog	0.10	3
Tl			1	0.140	ug/l	7.27	1,060.08	5.278E-04	Pulse	0.10	3
Pb			1	1.549	ug/l	7.34	2,777.03	1.383E-03	Pulse	0.10	3
Pb			1	1.542	ug/l	8.22	2,446.96	1.218E-03	Pulse	0.10	3
Pb			1	1.521	ug/l	3.24	11,055.38	5.505E-03	Pulse	0.10	3
Na			2	1983604.422	ug/l	1.49	335,309,328.90	3.938E+03	Analog	0.30	3
Mg			2	269528.422	ug/l	0.69	20,655,838.07	2.426E+02	Analog	0.30	3
Al			2	600.356	ug/l	1.16	14,841.55	1.743E-01	Pulse	0.30	3
K			2	68508.898	ug/l	0.63	3,383,134.52	3.973E+01	Pulse	0.30	3
Ca			2	161419.417	ug/l	0.51	401,754.46	4.718E+00	Pulse	0.30	3
Ti			2	38.893	ug/l	56.96	839.81	9.858E-03	Pulse	0.30	3
V			2	3.136	ug/l	3.39	2,204.62	2.589E-02	Pulse	0.30	3
Cr			2	3.707	ug/l	2.14	3,562.66	4.184E-02	Pulse	0.30	3
Mn			2	286.610	ug/l	0.92	119,114.37	1.399E+00	Pulse	0.30	3
Fe			2	9374.148	ug/l	0.35	6,195,697.39	7.276E+01	Analog	0.30	3
Co			2	0.811	ug/l	8.27	1,215.61	1.427E-02	Pulse	0.30	3
Ni			2	7.306	ug/l	6.07	2,878.06	3.380E-02	Pulse	0.30	3
Cu			2	18.521	ug/l	0.44	20,823.31	2.445E-01	Pulse	0.30	3
Zn			2	16.062	ug/l	1.29	2,608.02	3.063E-02	Pulse	0.30	3
As			2	4.082	ug/l	4.56	325.00	3.817E-03	Pulse	1.00	3
Cd			2	0.092	ug/l	109.61	25.36	6.240E-05	Pulse	0.30	3
Sn			2	2.702	ug/l	2.12	1,454.53	3.580E-03	Pulse	0.30	3
Se			3	0.594	ug/l	24.09	11.53	1.748E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,121,767.39	0.29	85.5	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,659,192.67	1.24	94.2	Pulse	0.10	3
1	Ge		458,973.76	0.24	91.2	Pulse	0.10	3
1	Ge		634,292.35	0.94	90.5	Pulse	0.10	3
1	Rh		2,771,795.58	1.21	84.1	Pulse	0.10	3
1	In		3,078,967.31	1.21	89.0	Pulse	0.10	3
1	Tb		3,995,053.80	1.35	92.0	Pulse	0.10	3
1	Ho		384,053.23	1.86	93.1	Pulse	0.10	3
1	Bi		2,008,397.26	0.14	84.6	Pulse	0.10	3
2	Sc		85,153.45	0.51	97.5	Pulse	0.30	3
2	Ge		43,340.87	0.67	94.3	Pulse	0.30	3
2	Ge		65,910.24	1.43	95.2	Pulse	0.30	3
2	Rh		1,084,119.09	0.38	84.4	Pulse	0.30	3
2	In		406,289.52	0.70	93.2	Pulse	0.30	3
2	Tb		1,437,639.18	0.23	93.9	Pulse	0.30	3
2	Ho		139,882.70	0.35	94.5	Pulse	0.30	3
2	Bi		837,274.90	1.17	84.5	Pulse	0.30	3
3	Sc		78,168.67	0.49	94.1	Pulse	0.30	3
3	Ge		43,575.82	1.62	89.4	Pulse	0.30	3
3	Ge		65,938.17	0.99	89.3	Pulse	0.30	3
3	Rh		681,222.02	0.63	83.8	Pulse	0.30	3
3	Tb		1,090,631.52	0.29	92.4	Pulse	0.30	3

Quantitation Report

File Name	025SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa050619m2.b
Method File	
Method Path	
Acq Time	5/6/2019 13:06
Sample Name	rinseconf
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/6/2019 12:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	-0.001	ug/l	-121.18	12.00	5.307E-06	Pulse	0.25	3
B			1	5.030	ug/l	1.25	28,733.57	1.272E-02	Pulse	0.15	3
Ca			1	-2.796	ug/l	-37.68	20,540.10	7.811E-03	Pulse	0.10	3
Sr			1	0.076	ug/l	3.61	3,597.21	1.126E-03	Pulse	0.10	3
Mo			1	0.044	ug/l	25.02	376.69	1.176E-04	Pulse	0.10	3
Ag			1	0.005	ug/l	32.98	136.67	4.026E-05	Pulse	0.10	3
Sn			1	0.391	ug/l	5.40	3,380.50	9.942E-04	Pulse	0.10	3
Sb			1	0.061	ug/l	6.23	946.73	2.220E-04	Pulse	0.10	3
Ba			1	0.182	ug/l	0.88	1,093.42	2.564E-04	Pulse	0.10	3
Tl			1	-0.001	ug/l	-226.43	406.69	1.719E-04	Pulse	0.10	3
Pb			1	0.000	ug/l	-1410.59	190.01	8.042E-05	Pulse	0.10	3
Pb			1	-0.001	ug/l	-512.85	180.01	7.620E-05	Pulse	0.10	3
Pb			1	-0.002	ug/l	-58.85	743.37	3.143E-04	Pulse	0.10	3
Na			2	53.168	ug/l	10.50	53,591.52	6.396E-01	Pulse	0.30	3
Mg			2	6.261	ug/l	10.90	2,476.89	2.956E-02	Pulse	0.30	3
Al			2	-0.602	ug/l	-58.04	173.34	2.072E-03	Pulse	0.30	3
K			2	-1.612	ug/l	-58.56	9,905.26	1.183E-01	Pulse	0.30	3
Ca			2	3.809	ug/l	89.75	116.67	1.395E-03	Pulse	0.30	3
Ti			2	0.022	ug/l	147.05	3.33	4.002E-05	Pulse	0.30	3
V			2	0.029	ug/l	5.63	177.78	2.123E-03	Pulse	0.30	3
Cr			2	-0.027	ug/l	-24.25	256.67	3.063E-03	Pulse	0.30	3
Mn			2	-0.008	ug/l	-183.96	74.45	8.898E-04	Pulse	0.30	3
Fe			2	0.549	ug/l	6.87	4,591.81	5.482E-02	Pulse	0.30	3
Co			2	-0.004	ug/l	-63.91	46.67	5.570E-04	Pulse	0.30	3
Ni			2	-0.001	ug/l	-524.90	42.22	5.049E-04	Pulse	0.30	3
Cu			2	0.045	ug/l	43.78	1,398.97	1.670E-02	Pulse	0.30	3
Zn			2	-0.365	ug/l	-19.66	242.23	2.894E-03	Pulse	0.30	3
As			2	0.002	ug/l	262.92	9.33	1.116E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	0.006	ug/l	61.47	15.53	3.493E-05	Pulse	0.30	3
Sn			2	0.042	ug/l	122.36	567.80	1.277E-03	Pulse	0.30	3
Se			3	0.028	ug/l	74.27	6.53	9.156E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,259,430.03	0.86	91.0	Pulse	0.10	3
1	Sc		2,631,009.49	1.83	93.2	Pulse	0.10	3
1	Ge		484,162.65	1.92	96.2	Pulse	0.10	3
1	Ge		668,858.11	1.43	95.4	Pulse	0.10	3
1	Rh		3,196,202.04	1.35	97.0	Pulse	0.10	3
1	In		3,398,140.41	1.21	98.3	Pulse	0.10	3
1	Tb		4,264,527.75	1.54	98.2	Pulse	0.10	3
1	Ho		407,986.31	0.99	98.9	Pulse	0.10	3
1	Bi		2,365,826.01	0.88	99.7	Pulse	0.10	3
2	Sc		83,752.11	0.90	95.9	Pulse	0.30	3
2	Ge		45,940.14	1.70	100.0	Pulse	0.30	3
2	Ge		69,423.59	0.56	100.2	Pulse	0.30	3
2	Rh		1,268,832.80	0.61	98.8	Pulse	0.30	3
2	In		444,184.70	0.73	101.9	Pulse	0.30	3
2	Tb		1,549,152.99	0.44	101.2	Pulse	0.30	3
2	Ho		149,442.98	0.74	101.0	Pulse	0.30	3
2	Bi		992,916.11	0.24	100.2	Pulse	0.30	3
3	Sc		79,689.19	1.27	95.9	Pulse	0.30	3
3	Ge		48,214.45	1.16	99.0	Pulse	0.30	3
3	Ge		71,354.15	1.21	96.7	Pulse	0.30	3
3	Rh		805,665.12	0.24	99.2	Pulse	0.30	3
3	Tb		1,187,238.53	0.40	100.6	Pulse	0.30	3

Quantitation Report

File Name	026SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa050619m2.b
Method File	
Method Path	
Acq Time	5/6/2019 13:11
Sample Name	mp13696a-mb1conf
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/6/2019 12:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.011	ug/l	30.45	58.67	2.808E-05	Pulse	0.25	3
B			1	10.463	ug/l	24.59	27,522.44	1.318E-02	Pulse	0.15	3
Ca			1	54.559	ug/l	3.42	42,090.82	1.716E-02	Pulse	0.10	3
Sr			1	0.191	ug/l	6.56	4,224.05	1.371E-03	Pulse	0.10	3
Mo			1	0.160	ug/l	6.02	643.37	2.090E-04	Pulse	0.10	3
Ag			1	0.015	ug/l	20.94	176.68	5.369E-05	Pulse	0.10	3
Sn			1	2.213	ug/l	2.13	11,594.70	3.533E-03	Pulse	0.10	3
Sb			1	0.311	ug/l	7.12	2,210.24	5.164E-04	Pulse	0.10	3
Ba			1	0.876	ug/l	8.78	2,526.97	5.899E-04	Pulse	0.10	3
Tl			1	0.091	ug/l	13.47	1,903.54	7.431E-04	Pulse	0.10	3
Pb			1	0.338	ug/l	8.87	2,026.88	7.907E-04	Pulse	0.10	3
Pb			1	0.316	ug/l	8.99	1,700.17	6.632E-04	Pulse	0.10	3
Pb			1	0.320	ug/l	1.99	7,847.78	3.061E-03	Pulse	0.10	3
Na			2	83.352	ug/l	3.22	40,336.90	5.255E-01	Pulse	0.30	3
Mg			2	11.551	ug/l	0.64	2,101.27	2.737E-02	Pulse	0.30	3
Al			2	16.443	ug/l	6.26	1,125.61	1.466E-02	Pulse	0.30	3
K			2	-0.371	ug/l	-363.67	9,394.95	1.224E-01	Pulse	0.30	3
Ca			2	71.777	ug/l	4.29	466.68	6.083E-03	Pulse	0.30	3
Ti			2	0.301	ug/l	35.52	15.56	2.032E-04	Pulse	0.30	3
V			2	0.390	ug/l	4.61	670.02	8.723E-03	Pulse	0.30	3
Cr			2	0.617	ug/l	7.07	1,534.53	2.000E-02	Pulse	0.30	3
Mn			2	0.524	ug/l	10.72	574.46	7.473E-03	Pulse	0.30	3
Fe			2	15.522	ug/l	6.11	25,695.85	3.346E-01	Pulse	0.30	3
Co			2	0.026	ug/l	51.47	148.89	1.940E-03	Pulse	0.30	3
Ni			2	0.296	ug/l	12.30	298.90	3.900E-03	Pulse	0.30	3
Cu			2	10.504	ug/l	2.55	26,160.87	3.409E-01	Pulse	0.30	3
Zn			2	10.056	ug/l	5.35	3,431.52	4.470E-02	Pulse	0.30	3
As			2	0.113	ug/l	30.31	27.67	3.598E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	0.038	ug/l	86.11	26.63	6.414E-05	Pulse	0.30	3
Sn			2	1.700	ug/l	10.83	2,086.83	5.008E-03	Pulse	0.30	3
Se			3	0.296	ug/l	35.00	14.40	2.016E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,087,880.40	0.46	84.1	Pulse	0.10	3
1	Sc		2,453,681.63	1.80	86.9	Pulse	0.10	3
1	Ge		471,156.04	1.27	93.6	Pulse	0.10	3
1	Ge		652,675.06	1.29	93.1	Pulse	0.10	3
1	Rh		3,080,116.62	1.76	93.4	Pulse	0.10	3
1	In		3,282,762.29	2.21	94.9	Pulse	0.10	3
1	Tb		4,278,953.17	2.01	98.5	Pulse	0.10	3
1	Ho		409,459.77	2.14	99.3	Pulse	0.10	3
1	Bi		2,563,402.93	1.11	108.0	Pulse	0.10	3
2	Sc		76,762.43	2.30	87.9	Pulse	0.30	3
2	Ge		43,194.80	0.63	94.0	Pulse	0.30	3
2	Ge		65,973.91	0.77	95.2	Pulse	0.30	3
2	Rh		1,214,945.16	0.51	94.6	Pulse	0.30	3
2	In		416,658.54	1.15	95.6	Pulse	0.30	3
2	Tb		1,512,688.55	0.64	98.8	Pulse	0.30	3
2	Ho		147,530.65	0.19	99.7	Pulse	0.30	3
2	Bi		1,040,359.75	1.23	105.0	Pulse	0.30	3
3	Sc		77,183.13	0.96	92.9	Pulse	0.30	3
3	Ge		47,302.76	0.50	97.1	Pulse	0.30	3
3	Ge		71,415.47	0.17	96.7	Pulse	0.30	3
3	Rh		790,968.20	0.15	97.4	Pulse	0.30	3
3	Tb		1,182,385.89	0.17	100.2	Pulse	0.30	3

Quantitation Report

File Name	027SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa050619m2.b
Method File	
Method Path	
Acq Time	5/6/2019 13:16
Sample Name	mp13696a-b2conf
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/6/2019 12:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	73.638	ug/l	1.06	279,656.32	1.351E-01	Pulse	0.25	3
B			1	86.609	ug/l	0.81	208,328.64	1.006E-01	Pulse	0.15	3
Ca			1	4025.815	ug/l	0.39	1,561,009.56	6.342E-01	Pulse	0.10	3
Sr			1	77.139	ug/l	1.26	1,498,847.06	4.963E-01	Pulse	0.10	3
Mo			1	73.624	ug/l	1.46	281,492.07	9.322E-02	Pulse	0.10	3
Ag			1	71.518	ug/l	0.25	637,632.24	1.939E-01	Pulse	0.10	3
Sn			1	75.307	ug/l	0.86	437,808.99	1.331E-01	Pulse	0.10	3
Sb			1	73.688	ug/l	0.59	493,822.07	1.150E-01	Pulse	0.10	3
Ba			1	75.132	ug/l	0.83	210,264.07	4.895E-02	Pulse	0.10	3
Tl			1	74.758	ug/l	0.75	1,122,422.12	4.651E-01	Pulse	0.10	3
Pb			1	76.571	ug/l	0.93	388,170.33	1.608E-01	Pulse	0.10	3
Pb			1	76.180	ug/l	0.15	339,370.60	1.406E-01	Pulse	0.10	3
Pb			1	76.074	ug/l	0.34	1,557,140.76	6.452E-01	Pulse	0.10	3
Na			2	3798.892	ug/l	1.27	1,480,136.61	1.896E+01	Pulse	0.30	3
Mg			2	3868.946	ug/l	0.83	679,511.71	8.706E+00	Pulse	0.30	3
Al			2	3843.259	ug/l	1.30	214,262.80	2.745E+00	Pulse	0.30	3
K			2	3892.166	ug/l	1.61	448,636.72	5.748E+00	Pulse	0.30	3
Ca			2	4388.398	ug/l	2.69	25,084.59	3.214E-01	Pulse	0.30	3
Ti			2	73.384	ug/l	2.41	3,625.99	4.645E-02	Pulse	0.30	3
V			2	77.723	ug/l	1.94	120,496.28	1.544E+00	Pulse	0.30	3
Cr			2	77.752	ug/l	0.86	153,402.55	1.965E+00	Pulse	0.30	3
Mn			2	77.614	ug/l	0.41	73,944.19	9.474E-01	Pulse	0.30	3
Fe			2	4133.536	ug/l	1.15	6,259,807.53	8.020E+01	Analog	0.30	3
Co			2	77.392	ug/l	0.59	249,425.05	3.196E+00	Pulse	0.30	3
Ni			2	77.454	ug/l	0.88	68,855.07	8.822E-01	Pulse	0.30	3
Cu			2	81.763	ug/l	0.75	199,770.75	2.560E+00	Pulse	0.30	3
Zn			2	75.750	ug/l	1.45	23,366.74	2.994E-01	Pulse	0.30	3
As			2	70.788	ug/l	2.97	12,578.18	1.612E-01	Pulse	1.00	3
Cd			2	73.793	ug/l	0.68	34,124.90	8.267E-02	Pulse	0.30	3
Sn			2	76.226	ug/l	0.47	73,048.10	1.770E-01	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	330.778	ug/l	1.05	10,790.15	1.514E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,070,313.59	0.77	83.4	Pulse	0.10	3
1	Sc		2,461,292.36	1.43	87.2	Pulse	0.10	3
1	Ge		462,541.58	0.80	91.9	Pulse	0.10	3
1	Ge		640,925.33	2.02	91.4	Pulse	0.10	3
1	Rh		3,019,990.89	1.30	91.6	Pulse	0.10	3
1	In		3,288,784.62	1.10	95.1	Pulse	0.10	3
1	Tb		4,295,858.06	1.04	98.9	Pulse	0.10	3
1	Ho		406,983.64	2.55	98.7	Pulse	0.10	3
1	Bi		2,413,271.11	1.38	101.7	Pulse	0.10	3
2	Sc		78,054.70	1.30	89.4	Pulse	0.30	3
2	Ge		42,837.27	1.29	93.2	Pulse	0.30	3
2	Ge		64,853.73	1.25	93.6	Pulse	0.30	3
2	Rh		1,206,668.67	0.42	93.9	Pulse	0.30	3
2	In		412,784.38	0.86	94.7	Pulse	0.30	3
2	Tb		1,512,841.05	0.63	98.8	Pulse	0.30	3
2	Ho		147,002.57	1.05	99.4	Pulse	0.30	3
2	Bi		981,352.08	0.52	99.0	Pulse	0.30	3
3	Sc		78,448.93	0.49	94.4	Pulse	0.30	3
3	Ge		46,609.87	1.01	95.7	Pulse	0.30	3
3	Ge		71,256.97	1.11	96.5	Pulse	0.30	3
3	Rh		790,109.73	0.33	97.2	Pulse	0.30	3
3	Tb		1,196,833.42	0.58	101.4	Pulse	0.30	3

Quantitation Report

File Name	028SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa050619m2.b
Method File	
Method Path	
Acq Time	5/6/2019 13:21
Sample Name	mp14785-mb1 1
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/6/2019 12:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.007	ug/l	42.92	74.67	3.324E-05	Pulse	0.25	3
B			1	3.251	ug/l	2.35	19,371.49	8.630E-03	Pulse	0.15	3
Ca			1	11.655	ug/l	6.53	32,960.27	1.230E-02	Pulse	0.10	3
Sr			1	0.102	ug/l	3.24	4,787.58	1.457E-03	Pulse	0.10	3
Mo			1	0.053	ug/l	5.54	463.36	1.411E-04	Pulse	0.10	3
Ag			1	0.007	ug/l	46.73	176.67	5.084E-05	Pulse	0.10	3
Sn			1	0.294	ug/l	5.05	2,273.58	6.522E-04	Pulse	0.10	3
Sb			1	0.089	ug/l	14.97	1,343.45	3.076E-04	Pulse	0.10	3
Ba			1	0.031	ug/l	53.83	260.01	5.942E-05	Pulse	0.10	3
Tl			1	0.017	ug/l	6.73	950.07	3.891E-04	Pulse	0.10	3
Pb			1	0.021	ug/l	21.87	416.69	1.707E-04	Pulse	0.10	3
Pb			1	0.017	ug/l	54.64	346.68	1.418E-04	Pulse	0.10	3
Pb			1	0.024	ug/l	3.06	1,823.45	7.467E-04	Pulse	0.10	3
Na			2	9.593	ug/l	3.32	17,774.99	2.071E-01	Pulse	0.30	3
Mg			2	2.829	ug/l	13.45	1,211.17	1.411E-02	Pulse	0.30	3
Al			2	0.341	ug/l	87.44	293.34	3.418E-03	Pulse	0.30	3
K			2	-3.769	ug/l	-40.36	9,616.19	1.120E-01	Pulse	0.30	3
Ca			2	20.840	ug/l	4.00	333.34	3.884E-03	Pulse	0.30	3
Ti			2	0.174	ug/l	53.05	20.00	2.333E-04	Pulse	0.30	3
V			2	0.010	ug/l	77.76	120.00	1.397E-03	Pulse	0.30	3
Cr			2	0.034	ug/l	19.49	527.79	6.149E-03	Pulse	0.30	3
Mn			2	0.058	ug/l	39.29	214.45	2.497E-03	Pulse	0.30	3
Fe			2	1.724	ug/l	3.93	8,619.01	1.004E-01	Pulse	0.30	3
Co			2	0.005	ug/l	16.95	114.45	1.333E-03	Pulse	0.30	3
Ni			2	0.053	ug/l	29.31	148.89	1.733E-03	Pulse	0.30	3
Cu			2	0.140	ug/l	13.11	1,937.92	2.258E-02	Pulse	0.30	3
Zn			2	4.632	ug/l	3.80	3,573.76	4.163E-02	Pulse	0.30	3
As			2	0.034	ug/l	19.69	22.00	2.563E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	0.004	ug/l	180.15	13.30	2.917E-05	Pulse	0.30	3
Sn			2	-0.046	ug/l	-54.72	397.79	8.746E-04	Pulse	0.30	3
Se			3	0.112	ug/l	30.17	12.53	1.685E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,244,945.70	2.05	90.5	Pulse	0.10	3
1	Sc		2,679,753.81	1.70	94.9	Pulse	0.10	3
1	Ge		498,565.26	1.02	99.1	Pulse	0.10	3
1	Ge		693,200.64	1.29	98.9	Pulse	0.10	3
1	Rh		3,285,768.28	1.12	99.7	Pulse	0.10	3
1	In		3,482,548.88	1.81	100.7	Pulse	0.10	3
1	Tb		4,374,279.62	1.96	100.7	Pulse	0.10	3
1	Ho		411,999.17	1.32	99.9	Pulse	0.10	3
1	Bi		2,441,692.15	1.03	102.9	Pulse	0.10	3
2	Sc		85,834.75	0.64	98.3	Pulse	0.30	3
2	Ge		46,707.72	0.46	101.6	Pulse	0.30	3
2	Ge		71,413.17	0.45	103.1	Pulse	0.30	3
2	Rh		1,294,547.69	0.29	100.8	Pulse	0.30	3
2	In		454,962.62	0.81	104.3	Pulse	0.30	3
2	Tb		1,567,717.30	0.49	102.4	Pulse	0.30	3
2	Ho		152,235.53	0.53	102.9	Pulse	0.30	3
2	Bi		1,020,338.40	0.48	103.0	Pulse	0.30	3
3	Sc		82,206.69	0.63	98.9	Pulse	0.30	3
3	Ge		49,026.72	0.40	100.6	Pulse	0.30	3
3	Ge		74,392.08	1.26	100.8	Pulse	0.30	3
3	Rh		821,380.00	0.41	101.1	Pulse	0.30	3
3	Tb		1,194,139.74	0.41	101.2	Pulse	0.30	3

Quantitation Report

File Name	029SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa050619m2.b
Method File	
Method Path	
Acq Time	5/6/2019 13:26
Sample Name	mp14785-b1
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/6/2019 12:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	76.089	ug/l	0.74	636,912.81	2.792E-01	Pulse	0.25	3
B			1	76.186	ug/l	1.09	401,896.63	1.761E-01	Pulse	0.15	3
Ca			1	2046.815	ug/l	0.29	1,773,597.26	6.447E-01	Pulse	0.10	3
Sr			1	76.245	ug/l	0.69	3,207,908.28	9.810E-01	Pulse	0.10	3
Mo			1	72.932	ug/l	0.57	603,927.97	1.847E-01	Pulse	0.10	3
Ag			1	73.958	ug/l	0.21	1,390,056.44	4.010E-01	Pulse	0.10	3
Sn			1	71.863	ug/l	0.77	882,014.49	2.544E-01	Pulse	0.10	3
Sb			1	76.889	ug/l	0.47	1,058,958.27	2.399E-01	Pulse	0.10	3
Ba			1	75.650	ug/l	0.49	435,079.76	9.855E-02	Pulse	0.10	3
Tl			1	75.724	ug/l	0.84	2,269,384.08	9.420E-01	Pulse	0.10	3
Pb			1	76.609	ug/l	0.59	775,182.33	3.218E-01	Pulse	0.10	3
Pb			1	76.601	ug/l	0.75	681,083.56	2.827E-01	Pulse	0.10	3
Pb			1	76.163	ug/l	0.37	3,111,565.86	1.292E+00	Pulse	0.10	3
Na			2	1929.825	ug/l	0.66	1,695,526.84	1.927E+01	Pulse	0.30	3
Mg			2	1952.582	ug/l	0.74	773,358.18	8.788E+00	Pulse	0.30	3
Al			2	1976.128	ug/l	0.79	248,445.00	2.823E+00	Pulse	0.30	3
K			2	2002.208	ug/l	1.32	520,153.95	5.911E+00	Pulse	0.30	3
Ca			2	2405.793	ug/l	1.97	31,010.06	3.524E-01	Pulse	0.30	3
Ti			2	73.279	ug/l	0.79	8,163.20	9.276E-02	Pulse	0.30	3
V			2	76.203	ug/l	0.59	266,360.16	3.027E+00	Pulse	0.30	3
Cr			2	75.315	ug/l	0.78	334,732.77	3.804E+00	Pulse	0.30	3
Mn			2	75.313	ug/l	0.38	161,715.15	1.838E+00	Pulse	0.30	3
Fe			2	2068.838	ug/l	1.06	7,065,323.89	8.029E+01	Analog	0.30	3
Co			2	75.445	ug/l	0.17	548,260.83	6.230E+00	Pulse	0.30	3
Ni			2	74.837	ug/l	0.97	149,990.50	1.704E+00	Pulse	0.30	3
Cu			2	74.572	ug/l	0.45	409,880.18	4.657E+00	Pulse	0.30	3
Zn			2	86.046	ug/l	0.42	59,214.11	6.728E-01	Pulse	0.30	3
As			2	73.149	ug/l	1.15	29,305.49	3.330E-01	Pulse	1.00	3
Cd			2	75.459	ug/l	0.67	75,997.15	1.690E-01	Pulse	0.30	3
Sn			2	72.046	ug/l	0.69	149,951.15	3.336E-01	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	193.956	ug/l	0.79	13,167.28	1.776E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,281,618.03	0.38	91.9	Pulse	0.10	3
1	Sc		2,750,902.36	1.71	97.4	Pulse	0.10	3
1	Ge		502,034.43	0.88	99.7	Pulse	0.10	3
1	Ge		703,940.54	1.39	100.4	Pulse	0.10	3
1	Rh		3,270,316.20	2.01	99.2	Pulse	0.10	3
1	In		3,466,728.35	1.65	100.2	Pulse	0.10	3
1	Tb		4,414,890.98	1.15	101.6	Pulse	0.10	3
1	Ho		417,247.51	0.25	101.2	Pulse	0.10	3
1	Bi		2,409,061.63	0.94	101.5	Pulse	0.10	3
2	Sc		88,007.03	0.66	100.8	Pulse	0.30	3
2	Ge		47,186.86	0.17	102.7	Pulse	0.30	3
2	Ge		71,582.92	0.20	103.3	Pulse	0.30	3
2	Rh		1,279,124.01	0.51	99.6	Pulse	0.30	3
2	In		449,562.15	0.87	103.1	Pulse	0.30	3
2	Tb		1,567,896.88	0.54	102.4	Pulse	0.30	3
2	Ho		151,590.17	0.25	102.5	Pulse	0.30	3
2	Bi		998,885.41	0.26	100.8	Pulse	0.30	3
3	Sc		83,419.48	0.49	100.4	Pulse	0.30	3
3	Ge		48,590.89	1.50	99.7	Pulse	0.30	3
3	Ge		74,149.78	0.69	100.4	Pulse	0.30	3
3	Rh		815,706.60	0.02	100.4	Pulse	0.30	3
3	Tb		1,202,749.39	0.34	101.9	Pulse	0.30	3

Quantitation Report

File Name	030SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa050619m2.b
Method File	
Method Path	
Acq Time	5/6/2019 13:31
Sample Name	mp14785-s1
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/6/2019 12:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	75.241	ug/l	0.58	605,460.67	2.760E-01	Pulse	0.25	3
B			1	167.643	ug/l	0.91	847,083.23	3.862E-01	Pulse	0.15	3
Ca			1	42975.736	ug/l	0.48	38,018,850.27	1.336E+01	Analog	0.10	3
Sr			1	439.975	ug/l	0.96	16,492,459.34	5.660E+00	Analog	0.10	3
Mo			1	81.689	ug/l	1.04	602,639.95	2.069E-01	Pulse	0.10	3
Ag			1	68.712	ug/l	0.31	1,219,091.07	3.725E-01	Pulse	0.10	3
Sn			1	72.902	ug/l	0.19	844,649.78	2.581E-01	Pulse	0.10	3
Sb			1	75.682	ug/l	0.70	986,974.62	2.361E-01	Pulse	0.10	3
Ba			1	114.684	ug/l	1.08	624,538.04	1.494E-01	Pulse	0.10	3
Tl			1	77.680	ug/l	1.03	2,019,139.29	9.664E-01	Pulse	0.10	3
Pb			1	78.722	ug/l	1.09	690,830.82	3.306E-01	Pulse	0.10	3
Pb			1	78.448	ug/l	1.44	604,904.74	2.895E-01	Pulse	0.10	3
Pb			1	78.014	ug/l	0.82	2,764,157.78	1.323E+00	Pulse	0.10	3
Na			2	221427.971	ug/l	0.92	204,206,529.66	2.198E+03	Analog	0.30	3
Mg			2	28617.989	ug/l	0.65	11,965,271.47	1.288E+02	Analog	0.30	3
Al			2	1868.918	ug/l	1.18	248,073.22	2.670E+00	Pulse	0.30	3
K			2	65948.753	ug/l	1.11	17,723,319.30	1.908E+02	Analog	0.30	3
Ca			2	45165.287	ug/l	0.53	613,252.34	6.600E+00	Pulse	0.30	3
Ti			2	71.536	ug/l	1.07	8,414.46	9.055E-02	Pulse	0.30	3
V			2	89.737	ug/l	1.24	331,132.02	3.564E+00	Pulse	0.30	3
Cr			2	72.037	ug/l	1.10	338,019.30	3.638E+00	Pulse	0.30	3
Mn			2	4605.616	ug/l	2.28	10,433,383.47	1.123E+02	Analog	0.30	3
Fe			2	1885.083	ug/l	0.55	6,797,343.76	7.316E+01	Analog	0.30	3
Co			2	82.539	ug/l	0.92	633,222.49	6.815E+00	Pulse	0.30	3
Ni			2	69.953	ug/l	1.33	148,006.76	1.593E+00	Pulse	0.30	3
Cu			2	67.077	ug/l	1.24	389,354.15	4.191E+00	Pulse	0.30	3
Zn			2	72.147	ug/l	1.10	52,501.41	5.651E-01	Pulse	0.30	3
As			2	67.256	ug/l	1.48	28,447.31	3.062E-01	Pulse	1.00	3
Cd			2	67.131	ug/l	0.59	65,480.74	1.504E-01	Pulse	0.30	3
Sn			2	73.454	ug/l	1.43	148,061.36	3.401E-01	Pulse	0.30	3
Se			3	162.953	ug/l	0.40	10,851.05	1.492E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,193,252.89	1.35	88.4	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,844,774.12	1.65	100.8	Pulse	0.10	3
1	Ge		491,295.83	1.17	97.6	Pulse	0.10	3
1	Ge		678,990.95	1.84	96.9	Pulse	0.10	3
1	Rh		2,913,435.48	1.48	88.4	Pulse	0.10	3
1	In		3,272,507.07	2.02	94.6	Pulse	0.10	3
1	Tb		4,180,231.29	1.59	96.2	Pulse	0.10	3
1	Ho		399,928.45	1.18	97.0	Pulse	0.10	3
1	Bi		2,089,416.63	1.51	88.1	Pulse	0.10	3
2	Sc		92,916.90	1.23	106.4	Pulse	0.30	3
2	Ge		47,865.59	1.21	104.2	Pulse	0.30	3
2	Ge		70,568.53	1.19	101.9	Pulse	0.30	3
2	Rh		1,167,801.62	0.09	90.9	Pulse	0.30	3
2	In		435,406.35	0.38	99.9	Pulse	0.30	3
2	Tb		1,520,740.43	0.55	99.3	Pulse	0.30	3
2	Ho		148,911.56	0.42	100.6	Pulse	0.30	3
2	Bi		877,635.10	0.20	88.6	Pulse	0.30	3
3	Sc		85,503.36	0.43	102.9	Pulse	0.30	3
3	Ge		47,787.72	0.94	98.1	Pulse	0.30	3
3	Ge		72,725.60	0.56	98.5	Pulse	0.30	3
3	Rh		729,277.49	0.82	89.8	Pulse	0.30	3
3	Tb		1,145,647.80	0.50	97.1	Pulse	0.30	3

Quantitation Report

File Name	031SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa050619m2.b
Method File	
Method Path	
Acq Time	5/6/2019 13:36
Sample Name	rinseconf
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/6/2019 12:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.011	ug/l	12.47	117.33	4.954E-05	Pulse	0.25	3
B			1	5.750	ug/l	1.45	34,021.03	1.437E-02	Pulse	0.15	3
Ca			1	2.732	ug/l	31.88	26,925.70	9.529E-03	Pulse	0.10	3
Sr			1	0.076	ug/l	2.26	3,793.94	1.121E-03	Pulse	0.10	3
Mo			1	0.092	ug/l	7.85	813.39	2.404E-04	Pulse	0.10	3
Ag			1	0.023	ug/l	14.73	486.69	1.372E-04	Pulse	0.10	3
Sn			1	0.467	ug/l	2.47	4,487.48	1.266E-03	Pulse	0.10	3
Sb			1	0.115	ug/l	8.09	1,716.84	3.898E-04	Pulse	0.10	3
Ba			1	0.020	ug/l	21.92	200.01	4.541E-05	Pulse	0.10	3
Tl			1	0.033	ug/l	9.91	1,416.79	5.847E-04	Pulse	0.10	3
Pb			1	0.032	ug/l	12.04	523.36	2.159E-04	Pulse	0.10	3
Pb			1	0.030	ug/l	54.16	460.02	1.901E-04	Pulse	0.10	3
Pb			1	0.034	ug/l	13.82	2,250.16	9.287E-04	Pulse	0.10	3
Na			2	37.063	ug/l	9.32	42,981.24	4.797E-01	Pulse	0.30	3
Mg			2	3.971	ug/l	3.08	1,724.56	1.925E-02	Pulse	0.30	3
Al			2	-0.609	ug/l	-61.90	184.45	2.062E-03	Pulse	0.30	3
K			2	4.019	ug/l	28.39	12,050.00	1.345E-01	Pulse	0.30	3
Ca			2	5.889	ug/l	9.59	152.23	1.699E-03	Pulse	0.30	3
Ti			2	0.039	ug/l	115.27	5.56	6.180E-05	Pulse	0.30	3
V			2	0.020	ug/l	15.77	157.78	1.761E-03	Pulse	0.30	3
Cr			2	-0.007	ug/l	-111.24	363.34	4.059E-03	Pulse	0.30	3
Mn			2	0.585	ug/l	11.15	1,374.52	1.534E-02	Pulse	0.30	3
Fe			2	0.341	ug/l	10.60	4,189.47	4.677E-02	Pulse	0.30	3
Co			2	0.014	ug/l	9.44	181.11	2.022E-03	Pulse	0.30	3
Ni			2	0.004	ug/l	424.91	55.55	6.201E-04	Pulse	0.30	3
Cu			2	0.067	ug/l	15.68	1,616.76	1.805E-02	Pulse	0.30	3
Zn			2	-0.316	ug/l	-10.60	293.34	3.274E-03	Pulse	0.30	3
As			2	0.027	ug/l	86.63	20.33	2.269E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	0.013	ug/l	88.70	23.28	5.001E-05	Pulse	0.30	3
Sn			2	0.187	ug/l	19.36	904.48	1.948E-03	Pulse	0.30	3
Se			3	0.110	ug/l	27.34	12.67	1.667E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,367,703.52	0.59	95.4	Pulse	0.10	3
1	Sc		2,825,677.87	0.51	100.1	Pulse	0.10	3
1	Ge		521,578.60	1.09	103.6	Pulse	0.10	3
1	Ge		718,841.34	1.85	102.6	Pulse	0.10	3
1	Rh		3,384,430.26	1.07	102.7	Pulse	0.10	3
1	In		3,545,917.35	1.25	102.5	Pulse	0.10	3
1	Tb		4,402,998.06	1.03	101.4	Pulse	0.10	3
1	Ho		420,453.39	1.33	101.9	Pulse	0.10	3
1	Bi		2,424,119.44	0.91	102.2	Pulse	0.10	3
2	Sc		89,562.29	0.68	102.6	Pulse	0.30	3
2	Ge		48,841.71	1.56	106.3	Pulse	0.30	3
2	Ge		74,292.55	1.30	107.3	Pulse	0.30	3
2	Rh		1,317,350.36	0.43	102.5	Pulse	0.30	3
2	In		464,459.09	0.71	106.5	Pulse	0.30	3
2	Tb		1,587,694.69	0.68	103.7	Pulse	0.30	3
2	Ho		153,922.04	0.86	104.0	Pulse	0.30	3
2	Bi		1,017,845.83	0.55	102.7	Pulse	0.30	3
3	Sc		84,431.25	1.28	101.6	Pulse	0.30	3
3	Ge		49,602.99	0.26	101.8	Pulse	0.30	3
3	Ge		75,963.44	0.75	102.9	Pulse	0.30	3
3	Rh		829,172.53	0.81	102.1	Pulse	0.30	3
3	Tb		1,207,277.87	0.72	102.3	Pulse	0.30	3

Quantitation Report

File Name	032_CCV.d
File Path	C:\Agilent\ICPMH\1\DATA\xa050619m2.b
Method File	
Method Path	
Acq Time	5/6/2019 13:42
Sample Name	CCVA
Sample Type	CCV
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/6/2019 12:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	48.280	ug/l	1.36	403,816.08	1.771E-01	Pulse	0.25	3
B			1	99.784	ug/l	1.55	525,129.11	2.303E-01	Pulse	0.15	3
Ca			1	4985.904	ug/l	0.38	4,313,507.44	1.558E+00	Pulse	0.10	3
Sr			1	48.828	ug/l	0.25	2,039,619.09	6.283E-01	Pulse	0.10	3
Mo			1	47.224	ug/l	0.87	388,180.62	1.196E-01	Pulse	0.10	3
Ag			1	46.851	ug/l	1.36	884,980.72	2.540E-01	Pulse	0.10	3
Sn			1	46.635	ug/l	1.63	574,780.28	1.650E-01	Pulse	0.10	3
Sb			1	47.277	ug/l	0.19	651,951.47	1.475E-01	Pulse	0.10	3
Ba			1	48.106	ug/l	0.53	277,006.03	6.267E-02	Pulse	0.10	3
Tl			1	48.321	ug/l	0.40	1,421,886.70	6.012E-01	Pulse	0.10	3
Pb			1	48.675	ug/l	0.33	483,607.27	2.045E-01	Pulse	0.10	3
Pb			1	48.391	ug/l	0.88	422,475.26	1.786E-01	Pulse	0.10	3
Pb			1	48.290	ug/l	0.41	1,937,168.09	8.191E-01	Pulse	0.10	3
Na			2	4697.974	ug/l	0.58	4,155,988.45	4.674E+01	Pulse	0.30	3
Mg			2	4754.243	ug/l	0.62	1,902,295.48	2.139E+01	Pulse	0.30	3
Al			2	4801.258	ug/l	0.27	609,502.25	6.855E+00	Pulse	0.30	3
K			2	4907.924	ug/l	0.91	1,272,376.96	1.431E+01	Pulse	0.30	3
Ca			2	5218.362	ug/l	0.49	67,871.71	7.633E-01	Pulse	0.30	3
Ti			2	47.382	ug/l	3.80	5,333.14	5.998E-02	Pulse	0.30	3
V			2	47.875	ug/l	0.64	169,105.42	1.902E+00	Pulse	0.30	3
Cr			2	47.082	ug/l	0.17	211,563.26	2.379E+00	Pulse	0.30	3
Mn			2	47.711	ug/l	0.87	103,542.49	1.164E+00	Pulse	0.30	3
Fe			2	4986.505	ug/l	0.45	17,202,064.32	1.935E+02	Analog	0.30	3
Co			2	46.949	ug/l	0.37	344,728.15	3.877E+00	Pulse	0.30	3
Ni			2	46.274	ug/l	0.45	93,715.51	1.054E+00	Pulse	0.30	3
Cu			2	46.296	ug/l	0.42	257,558.67	2.897E+00	Pulse	0.30	3
Zn			2	46.874	ug/l	0.40	32,821.78	3.691E-01	Pulse	0.30	3
As			2	47.415	ug/l	0.93	19,195.60	2.159E-01	Pulse	1.00	3
Cd			2	46.606	ug/l	0.27	46,969.42	1.044E-01	Pulse	0.30	3
Sn			2	46.710	ug/l	0.96	97,447.15	2.166E-01	Pulse	0.30	3
Se			3	194.043	ug/l	0.71	13,280.77	1.777E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,279,828.47	0.41	91.9	Pulse	0.10	3
1	Sc		2,768,384.34	0.96	98.1	Pulse	0.10	3
1	Ge		508,848.87	0.98	101.1	Pulse	0.10	3

Quantitation Report

1	Ge		707,785.93	0.58	101.0	Pulse	0.10	3
1	Rh		3,246,289.22	0.96	98.5	Pulse	0.10	3
1	In		3,484,501.24	2.08	100.7	Pulse	0.10	3
1	Tb		4,419,937.64	1.72	101.8	Pulse	0.10	3
1	Ho		421,700.41	1.05	102.2	Pulse	0.10	3
1	Bi		2,365,117.67	0.92	99.7	Pulse	0.10	3
2	Sc		88,915.42	0.41	101.8	Pulse	0.30	3
2	Ge		48,132.95	0.98	104.7	Pulse	0.30	3
2	Ge		72,184.49	0.76	104.2	Pulse	0.30	3
2	Rh		1,270,951.06	0.37	98.9	Pulse	0.30	3
2	In		449,831.11	0.71	103.2	Pulse	0.30	3
2	Tb		1,567,804.25	1.24	102.4	Pulse	0.30	3
2	Ho		151,299.21	0.91	102.3	Pulse	0.30	3
2	Bi		984,106.38	0.65	99.3	Pulse	0.30	3
3	Sc		83,943.15	1.45	101.0	Pulse	0.30	3
3	Ge		49,047.90	0.74	100.7	Pulse	0.30	3
3	Ge		74,754.76	0.78	101.3	Pulse	0.30	3
3	Rh		812,021.89	0.42	99.9	Pulse	0.30	3
3	Tb		1,200,723.18	0.66	101.7	Pulse	0.30	3

Quantitation Report

File Name	033_CCB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa050619m2.b
Method File	
Method Path	
Acq Time	5/6/2019 13:48
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/6/2019 12:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.007	ug/l	38.03	82.67	3.571E-05	Pulse	0.25	3
B			1	5.615	ug/l	1.95	32,555.93	1.406E-02	Pulse	0.15	3
Ca			1	-1.001	ug/l	-30.27	23,163.62	8.369E-03	Pulse	0.10	3
Sr			1	0.017	ug/l	3.44	1,200.10	3.574E-04	Pulse	0.10	3
Mo			1	0.075	ug/l	10.44	660.04	1.965E-04	Pulse	0.10	3
Ag			1	0.014	ug/l	19.48	306.68	8.659E-05	Pulse	0.10	3
Sn			1	0.428	ug/l	2.68	3,997.35	1.128E-03	Pulse	0.10	3
Sb			1	0.288	ug/l	5.99	4,124.03	9.296E-04	Pulse	0.10	3
Ba			1	0.012	ug/l	26.69	153.34	3.463E-05	Pulse	0.10	3
Tl			1	0.010	ug/l	51.97	743.38	3.040E-04	Pulse	0.10	3
Pb			1	0.014	ug/l	77.35	336.68	1.387E-04	Pulse	0.10	3
Pb			1	0.023	ug/l	25.90	403.35	1.657E-04	Pulse	0.10	3
Pb			1	0.018	ug/l	39.25	1,596.76	6.565E-04	Pulse	0.10	3
Na			2	9.588	ug/l	5.38	18,404.59	2.070E-01	Pulse	0.30	3
Mg			2	0.972	ug/l	18.58	512.23	5.757E-03	Pulse	0.30	3
Al			2	3.367	ug/l	7.72	687.80	7.736E-03	Pulse	0.30	3
K			2	-1.698	ug/l	-10.96	10,491.16	1.180E-01	Pulse	0.30	3
Ca			2	1.798	ug/l	104.94	97.78	1.101E-03	Pulse	0.30	3
Ti			2	0.089	ug/l	51.44	11.11	1.251E-04	Pulse	0.30	3
V			2	0.008	ug/l	123.18	115.56	1.297E-03	Pulse	0.30	3
Cr			2	-0.007	ug/l	-57.35	362.23	4.073E-03	Pulse	0.30	3
Mn			2	0.071	ug/l	14.69	250.01	2.813E-03	Pulse	0.30	3
Fe			2	1.064	ug/l	7.49	6,650.31	7.481E-02	Pulse	0.30	3
Co			2	0.003	ug/l	68.34	100.00	1.124E-03	Pulse	0.30	3
Ni			2	0.024	ug/l	53.25	96.67	1.085E-03	Pulse	0.30	3
Cu			2	0.015	ug/l	76.26	1,315.63	1.480E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	1.265	ug/l	13.42	1,380.07	1.553E-02	Pulse	0.30	3
As			2	0.020	ug/l	34.08	17.33	1.949E-04	Pulse	1.00	3
Cd			2	0.011	ug/l	44.86	21.07	4.576E-05	Pulse	0.30	3
Sn			2	0.150	ug/l	30.33	817.81	1.776E-03	Pulse	0.30	3
Se			3	0.128	ug/l	1.93	14.00	1.830E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,315,737.38	0.68	93.3	Pulse	0.10	3
1	Sc		2,767,866.84	1.68	98.0	Pulse	0.10	3
1	Ge		509,393.51	2.16	101.2	Pulse	0.10	3
1	Ge		707,943.19	1.29	101.0	Pulse	0.10	3
1	Rh		3,357,968.81	1.82	101.9	Pulse	0.10	3
1	In		3,545,073.20	1.68	102.5	Pulse	0.10	3
1	Tb		4,434,953.79	2.02	102.1	Pulse	0.10	3
1	Ho		422,590.33	0.80	102.5	Pulse	0.10	3
1	Bi		2,438,709.08	2.10	102.8	Pulse	0.10	3
2	Sc		88,907.33	1.09	101.8	Pulse	0.30	3
2	Ge		49,216.17	0.95	107.1	Pulse	0.30	3
2	Ge		73,648.67	1.23	106.3	Pulse	0.30	3
2	Rh		1,318,472.97	0.79	102.6	Pulse	0.30	3
2	In		460,481.75	0.34	105.6	Pulse	0.30	3
2	Tb		1,561,389.84	0.67	102.0	Pulse	0.30	3
2	Ho		152,308.91	0.70	102.9	Pulse	0.30	3
2	Bi		1,006,946.14	0.50	101.6	Pulse	0.30	3
3	Sc		85,849.33	0.82	103.3	Pulse	0.30	3
3	Ge		50,652.60	0.56	104.0	Pulse	0.30	3
3	Ge		76,506.30	0.78	103.6	Pulse	0.30	3
3	Rh		837,155.19	0.39	103.0	Pulse	0.30	3
3	Tb		1,212,405.85	0.45	102.7	Pulse	0.30	3

Quantitation Report

File Name 034SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa050619m2.b
Method File
Method Path
Acq Time 5/6/2019 13:53
Sample Name mp14785-s2
Sample Type Sample
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 5/6/2019 12:34
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	74.055	ug/l	1.64	613,038.06	2.717E-01	Pulse	0.25	3
B			1	166.078	ug/l	0.90	863,367.15	3.826E-01	Pulse	0.15	3
Ca			1	41775.618	ug/l	0.66	38,067,146.10	1.299E+01	Analog	0.10	3
Sr			1	434.076	ug/l	0.56	16,911,904.75	5.584E+00	Analog	0.10	3
Mo			1	78.427	ug/l	1.00	601,420.94	1.986E-01	Pulse	0.10	3
Ag			1	67.767	ug/l	0.92	1,233,486.80	3.674E-01	Pulse	0.10	3
Sn			1	71.687	ug/l	0.89	852,050.90	2.538E-01	Pulse	0.10	3
Sb			1	74.196	ug/l	1.10	995,644.05	2.315E-01	Pulse	0.10	3
Ba			1	113.308	ug/l	0.86	634,871.10	1.476E-01	Pulse	0.10	3
Tl			1	76.366	ug/l	0.65	2,020,745.65	9.500E-01	Pulse	0.10	3
Pb			1	76.993	ug/l	0.81	687,893.01	3.234E-01	Pulse	0.10	3
Pb			1	77.079	ug/l	0.58	605,129.79	2.845E-01	Pulse	0.10	3
Pb			1	76.438	ug/l	0.36	2,757,330.54	1.296E+00	Pulse	0.10	3
Na			2	218318.407	ug/l	1.55	206,866,018.45	2.167E+03	Analog	0.30	3
Mg			2	28187.963	ug/l	0.60	12,109,220.91	1.268E+02	Analog	0.30	3
Al			2	1843.679	ug/l	0.85	251,460.00	2.634E+00	Pulse	0.30	3
K			2	65226.738	ug/l	0.35	18,012,139.84	1.887E+02	Analog	0.30	3
Ca			2	44461.559	ug/l	0.34	620,288.40	6.497E+00	Pulse	0.30	3
Ti			2	71.624	ug/l	0.54	8,655.69	9.066E-02	Pulse	0.30	3
V			2	88.488	ug/l	0.72	335,501.05	3.514E+00	Pulse	0.30	3
Cr			2	70.992	ug/l	1.43	342,272.53	3.585E+00	Pulse	0.30	3
Mn			2	4479.816	ug/l	1.27	10,428,940.97	1.092E+02	Analog	0.30	3
Fe			2	1836.068	ug/l	1.54	6,802,431.95	7.126E+01	Analog	0.30	3
Co			2	81.290	ug/l	0.92	640,796.64	6.712E+00	Pulse	0.30	3
Ni			2	69.083	ug/l	0.66	150,190.56	1.573E+00	Pulse	0.30	3
Cu			2	66.219	ug/l	0.17	394,971.73	4.137E+00	Pulse	0.30	3
Zn			2	72.093	ug/l	1.43	53,903.78	5.647E-01	Pulse	0.30	3
As			2	66.587	ug/l	1.02	28,939.17	3.031E-01	Pulse	1.00	3
Cd			2	65.364	ug/l	0.65	64,998.86	1.464E-01	Pulse	0.30	3
Sn			2	72.468	ug/l	0.83	148,925.94	3.355E-01	Pulse	0.30	3
Se			3	160.478	ug/l	0.93	10,994.35	1.469E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,256,610.13	1.51	90.9	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,930,441.10	1.13	103.8	Pulse	0.10	3
1	Ge		507,899.39	1.54	100.9	Pulse	0.10	3
1	Ge		700,745.98	1.70	100.0	Pulse	0.10	3
1	Rh		3,028,346.93	0.86	91.9	Pulse	0.10	3
1	In		3,357,134.08	0.60	97.1	Pulse	0.10	3
1	Tb		4,301,505.14	1.34	99.0	Pulse	0.10	3
1	Ho		408,486.08	1.22	99.0	Pulse	0.10	3
1	Bi		2,127,163.20	1.60	89.6	Pulse	0.10	3
2	Sc		95,467.58	0.72	109.3	Pulse	0.30	3
2	Ge		48,819.35	1.11	106.2	Pulse	0.30	3
2	Ge		74,189.71	1.08	107.1	Pulse	0.30	3
2	Rh		1,192,798.36	0.35	92.9	Pulse	0.30	3
2	In		443,890.53	0.74	101.8	Pulse	0.30	3
2	Tb		1,537,384.52	0.23	100.4	Pulse	0.30	3
2	Ho		149,218.02	0.88	100.9	Pulse	0.30	3
2	Bi		887,485.31	0.21	89.6	Pulse	0.30	3
3	Sc		88,350.26	0.93	106.3	Pulse	0.30	3
3	Ge		48,869.64	1.94	100.3	Pulse	0.30	3
3	Ge		74,828.34	1.88	101.4	Pulse	0.30	3
3	Rh		744,836.72	0.28	91.7	Pulse	0.30	3
3	Tb		1,163,859.68	0.23	98.6	Pulse	0.30	3

Quantitation Report

File Name	035SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa050619m2.b
Method File	
Method Path	
Acq Time	5/6/2019 13:58
Sample Name	jc87279-1
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/6/2019 12:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.018	ug/l	31.14	176.00	7.541E-05	Pulse	0.25	3
B			1	90.193	ug/l	2.19	485,677.83	2.083E-01	Pulse	0.15	3
Ca			1	39747.606	ug/l	1.16	37,317,062.78	1.236E+01	Analog	0.10	3
Sr			1	354.368	ug/l	0.18	13,939,030.21	4.559E+00	Analog	0.10	3
Mo			1	1.178	ug/l	4.15	9,142.97	2.990E-03	Pulse	0.10	3
Ag			1	0.037	ug/l	29.39	716.71	2.103E-04	Pulse	0.10	3
Sn			1	0.450	ug/l	5.92	4,114.01	1.205E-03	Pulse	0.10	3
Sb			1	0.477	ug/l	5.21	6,544.95	1.519E-03	Pulse	0.10	3
Ba			1	37.939	ug/l	1.29	213,001.01	4.943E-02	Pulse	0.10	3
Tl			1	0.084	ug/l	6.69	2,620.33	1.231E-03	Pulse	0.10	3
Pb			1	0.324	ug/l	5.80	3,067.10	1.440E-03	Pulse	0.10	3
Pb			1	0.315	ug/l	2.16	2,650.34	1.244E-03	Pulse	0.10	3
Pb			1	0.316	ug/l	3.15	12,145.78	5.702E-03	Pulse	0.10	3
Na			2	218493.413	ug/l	2.15	212,298,933.79	2.169E+03	Analog	0.30	3
Mg			2	26631.988	ug/l	1.48	11,731,772.87	1.198E+02	Analog	0.30	3
Al			2	17.941	ug/l	0.81	2,793.60	2.853E-02	Pulse	0.30	3
K			2	63839.136	ug/l	1.23	18,079,034.28	1.847E+02	Analog	0.30	3
Ca			2	42143.396	ug/l	0.94	602,926.43	6.159E+00	Pulse	0.30	3
Ti			2	0.455	ug/l	23.27	57.78	5.890E-04	Pulse	0.30	3
V			2	13.353	ug/l	1.43	52,001.20	5.312E-01	Pulse	0.30	3
Cr			2	0.162	ug/l	11.14	1,236.73	1.262E-02	Pulse	0.30	3
Mn			2	4407.251	ug/l	1.89	10,520,373.75	1.075E+02	Analog	0.30	3
Fe			2	3.149	ug/l	3.36	15,240.48	1.557E-01	Pulse	0.30	3
Co			2	12.939	ug/l	0.20	104,674.77	1.069E+00	Pulse	0.30	3
Ni			2	3.967	ug/l	2.27	8,892.50	9.084E-02	Pulse	0.30	3
Cu			2	2.187	ug/l	2.72	14,688.91	1.500E-01	Pulse	0.30	3
Zn			2	9.921	ug/l	2.70	8,092.08	8.264E-02	Pulse	0.30	3
As			2	1.764	ug/l	3.37	796.02	8.129E-03	Pulse	1.00	3
Cd			2	0.020	ug/l	33.50	29.56	6.590E-05	Pulse	0.30	3
Sn			2	0.101	ug/l	12.25	696.69	1.553E-03	Pulse	0.30	3
Se			3	2.269	ug/l	0.24	164.73	2.143E-03	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,331,548.60	0.70	93.9	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		3,019,356.52	2.40	106.9	Pulse	0.10	3
1	Ge		515,434.14	1.63	102.4	Pulse	0.10	3
1	Ge		713,982.80	1.73	101.9	Pulse	0.10	3
1	Rh		3,057,409.02	1.84	92.8	Pulse	0.10	3
1	In		3,414,813.54	1.19	98.7	Pulse	0.10	3
1	Tb		4,309,205.14	1.22	99.2	Pulse	0.10	3
1	Ho		413,979.87	1.20	100.4	Pulse	0.10	3
1	Bi		2,129,646.79	0.65	89.8	Pulse	0.10	3
2	Sc		97,906.29	1.24	112.1	Pulse	0.30	3
2	Ge		50,436.57	0.43	109.8	Pulse	0.30	3
2	Ge		76,268.09	0.62	110.1	Pulse	0.30	3
2	Rh		1,216,033.98	0.09	94.7	Pulse	0.30	3
2	In		448,655.26	0.24	102.9	Pulse	0.30	3
2	Tb		1,532,063.45	0.52	100.1	Pulse	0.30	3
2	Ho		149,570.09	0.42	101.1	Pulse	0.30	3
2	Bi		888,507.92	0.76	89.7	Pulse	0.30	3
3	Sc		90,244.54	0.93	108.6	Pulse	0.30	3
3	Ge		50,278.15	0.80	103.2	Pulse	0.30	3
3	Ge		76,885.51	0.89	104.1	Pulse	0.30	3
3	Rh		760,687.11	0.43	93.6	Pulse	0.30	3
3	Tb		1,171,163.18	0.49	99.2	Pulse	0.30	3

Quantitation Report

File Name	036SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa050619m2.b
Method File	
Method Path	
Acq Time	5/6/2019 14:03
Sample Name	jc87278-1
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/6/2019 12:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.011	ug/l	5.57	114.67	4.785E-05	Pulse	0.25	3
B			1	93.540	ug/l	0.98	517,504.09	2.160E-01	Pulse	0.15	3
Ca			1	41016.490	ug/l	0.37	39,407,661.91	1.275E+01	Analog	0.10	3
Sr			1	358.223	ug/l	1.87	14,351,463.95	4.609E+00	Analog	0.10	3
Mo			1	1.049	ug/l	1.81	8,289.14	2.662E-03	Pulse	0.10	3
Ag			1	0.014	ug/l	25.03	313.35	9.038E-05	Pulse	0.10	3
Sn			1	0.333	ug/l	5.90	2,723.67	7.884E-04	Pulse	0.10	3
Sb			1	0.351	ug/l	4.47	4,914.30	1.127E-03	Pulse	0.10	3
Ba			1	38.761	ug/l	0.92	220,056.41	5.050E-02	Pulse	0.10	3
Tl			1	0.052	ug/l	7.14	1,753.50	8.282E-04	Pulse	0.10	3
Pb			1	0.319	ug/l	7.63	3,010.43	1.422E-03	Pulse	0.10	3
Pb			1	0.312	ug/l	3.88	2,606.99	1.231E-03	Pulse	0.10	3
Pb			1	0.302	ug/l	2.50	11,568.84	5.461E-03	Pulse	0.10	3
Na			2	228037.998	ug/l	1.37	225,798,182.14	2.264E+03	Analog	0.30	3
Mg			2	27250.028	ug/l	0.51	12,232,439.79	1.226E+02	Analog	0.30	3
Al			2	12.844	ug/l	6.84	2,121.27	2.126E-02	Pulse	0.30	3
K			2	65565.115	ug/l	0.94	18,919,919.80	1.897E+02	Analog	0.30	3
Ca			2	43573.114	ug/l	0.68	635,207.16	6.368E+00	Pulse	0.30	3
Ti			2	0.219	ug/l	31.00	28.89	2.899E-04	Pulse	0.30	3
V			2	13.709	ug/l	0.41	54,399.06	5.453E-01	Pulse	0.30	3
Cr			2	0.209	ug/l	3.32	1,492.31	1.496E-02	Pulse	0.30	3
Mn			2	4538.661	ug/l	0.88	11,040,411.79	1.107E+02	Analog	0.30	3
Fe			2	2.581	ug/l	0.59	13,332.15	1.336E-01	Pulse	0.30	3
Co			2	13.144	ug/l	0.60	108,342.71	1.086E+00	Pulse	0.30	3
Ni			2	4.009	ug/l	1.33	9,159.30	9.181E-02	Pulse	0.30	3
Cu			2	2.130	ug/l	3.13	14,616.65	1.465E-01	Pulse	0.30	3
Zn			2	9.332	ug/l	3.84	7,787.48	7.807E-02	Pulse	0.30	3
As			2	1.735	ug/l	4.90	797.69	7.997E-03	Pulse	1.00	3
Cd			2	0.025	ug/l	45.50	35.18	7.731E-05	Pulse	0.30	3
Sn			2	0.012	ug/l	209.91	518.90	1.142E-03	Pulse	0.30	3
Se			3	2.061	ug/l	1.95	153.33	1.952E-03	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,395,666.83	0.99	96.5	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		3,089,722.25	2.00	109.4	Pulse	0.10	3
1	Ge		529,053.71	1.31	105.1	Pulse	0.10	3
1	Ge		733,181.52	1.85	104.6	Pulse	0.10	3
1	Rh		3,114,247.87	1.95	94.5	Pulse	0.10	3
1	In		3,458,442.39	1.91	100.0	Pulse	0.10	3
1	Tb		4,357,279.73	1.35	100.3	Pulse	0.10	3
1	Ho		414,899.97	1.08	100.6	Pulse	0.10	3
1	Bi		2,118,261.48	1.28	89.3	Pulse	0.10	3
2	Sc		99,759.45	0.71	114.2	Pulse	0.30	3
2	Ge		51,266.89	1.86	111.6	Pulse	0.30	3
2	Ge		76,182.45	1.34	110.0	Pulse	0.30	3
2	Rh		1,216,996.83	0.51	94.7	Pulse	0.30	3
2	In		454,654.82	0.70	104.3	Pulse	0.30	3
2	Tb		1,542,169.21	0.43	100.7	Pulse	0.30	3
2	Ho		150,327.83	0.98	101.6	Pulse	0.30	3
2	Bi		885,336.77	0.36	89.4	Pulse	0.30	3
3	Sc		92,029.88	0.68	110.7	Pulse	0.30	3
3	Ge		52,053.73	0.57	106.8	Pulse	0.30	3
3	Ge		78,546.74	0.28	106.4	Pulse	0.30	3
3	Rh		770,241.80	0.34	94.8	Pulse	0.30	3
3	Tb		1,175,085.51	0.33	99.6	Pulse	0.30	3

Quantitation Report

File Name	037SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa050619m2.b
Method File	
Method Path	
Acq Time	5/6/2019 14:08
Sample Name	jc87282-3
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/6/2019 12:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.008	ug/l	15.21	88.00	3.593E-05	Pulse	0.25	3
B			1	87.020	ug/l	0.91	491,613.35	2.010E-01	Pulse	0.15	3
Ca			1	40619.777	ug/l	1.15	40,108,171.90	1.263E+01	Analog	0.10	3
Sr			1	354.863	ug/l	1.23	14,520,153.12	4.565E+00	Analog	0.10	3
Mo			1	2.294	ug/l	3.28	18,504.69	5.815E-03	Pulse	0.10	3
Ag			1	0.018	ug/l	19.49	376.68	1.082E-04	Pulse	0.10	3
Sn			1	0.375	ug/l	3.92	3,267.12	9.397E-04	Pulse	0.10	3
Sb			1	0.385	ug/l	1.52	5,397.79	1.231E-03	Pulse	0.10	3
Ba			1	35.917	ug/l	0.37	205,157.15	4.680E-02	Pulse	0.10	3
Tl			1	0.059	ug/l	7.13	1,953.54	9.106E-04	Pulse	0.10	3
Pb			1	0.238	ug/l	7.90	2,323.61	1.082E-03	Pulse	0.10	3
Pb			1	0.237	ug/l	7.66	2,046.89	9.541E-04	Pulse	0.10	3
Pb			1	0.226	ug/l	2.89	8,964.71	4.177E-03	Pulse	0.10	3
Na			2	229480.808	ug/l	0.83	231,919,110.79	2.278E+03	Analog	0.30	3
Mg			2	27161.835	ug/l	0.80	12,444,242.84	1.222E+02	Analog	0.30	3
Al			2	10.388	ug/l	3.82	1,807.90	1.776E-02	Pulse	0.30	3
K			2	62217.442	ug/l	1.84	18,323,786.50	1.800E+02	Analog	0.30	3
Ca			2	43652.926	ug/l	0.67	649,507.77	6.379E+00	Pulse	0.30	3
Ti			2	0.404	ug/l	17.36	53.33	5.241E-04	Pulse	0.30	3
V			2	16.985	ug/l	1.03	68,763.94	6.754E-01	Pulse	0.30	3
Cr			2	0.326	ug/l	5.19	2,123.49	2.086E-02	Pulse	0.30	3
Mn			2	4408.919	ug/l	1.16	10,946,289.29	1.075E+02	Analog	0.30	3
Fe			2	3.498	ug/l	4.30	17,229.10	1.692E-01	Pulse	0.30	3
Co			2	17.809	ug/l	0.32	149,792.22	1.471E+00	Pulse	0.30	3
Ni			2	3.253	ug/l	0.57	7,595.16	7.460E-02	Pulse	0.30	3
Cu			2	1.743	ug/l	0.42	12,465.94	1.224E-01	Pulse	0.30	3
Zn			2	7.459	ug/l	3.49	6,471.34	6.355E-02	Pulse	0.30	3
As			2	1.401	ug/l	1.27	659.68	6.479E-03	Pulse	1.00	3
Cd			2	0.029	ug/l	11.44	39.16	8.606E-05	Pulse	0.30	3
Sn			2	0.025	ug/l	92.97	546.68	1.201E-03	Pulse	0.30	3
Se			3	2.199	ug/l	4.39	164.07	2.079E-03	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,445,657.85	1.98	98.5	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		3,175,640.06	1.89	112.5	Pulse	0.10	3
1	Ge		535,869.52	1.44	106.5	Pulse	0.10	3
1	Ge		746,180.12	1.92	106.5	Pulse	0.10	3
1	Rh		3,181,029.02	2.05	96.5	Pulse	0.10	3
1	In		3,479,199.29	2.06	100.6	Pulse	0.10	3
1	Tb		4,383,867.23	1.28	100.9	Pulse	0.10	3
1	Ho		416,801.01	1.54	101.1	Pulse	0.10	3
1	Bi		2,145,877.89	1.26	90.4	Pulse	0.10	3
2	Sc		101,815.84	0.45	116.6	Pulse	0.30	3
2	Ge		51,397.23	0.90	111.9	Pulse	0.30	3
2	Ge		77,517.31	0.42	111.9	Pulse	0.30	3
2	Rh		1,227,895.78	0.48	95.6	Pulse	0.30	3
2	In		455,010.83	0.08	104.4	Pulse	0.30	3
2	Tb		1,543,696.81	0.29	100.8	Pulse	0.30	3
2	Ho		149,402.02	0.64	101.0	Pulse	0.30	3
2	Bi		885,023.64	0.24	89.3	Pulse	0.30	3
3	Sc		94,835.58	0.35	114.1	Pulse	0.30	3
3	Ge		52,206.63	1.23	107.2	Pulse	0.30	3
3	Ge		78,908.63	1.17	106.9	Pulse	0.30	3
3	Rh		776,130.23	0.39	95.5	Pulse	0.30	3
3	Tb		1,183,467.28	0.44	100.3	Pulse	0.30	3

Quantitation Report

File Name 038SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa050619m2.b
Method File
Method Path
Acq Time 5/6/2019 14:13
Sample Name jc87399-1
Sample Type Sample
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 5/6/2019 12:34
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.002	ug/l	92.52	36.00	1.459E-05	Pulse	0.25	3
B			1	48.971	ug/l	1.02	280,553.58	1.136E-01	Pulse	0.15	3
Ca			1	67618.392	ug/l	0.47	66,558,250.67	2.102E+01	Analog	0.10	3
Sr			1	613.381	ug/l	0.88	24,845,170.46	7.891E+00	Analog	0.10	3
Mo			1	6.247	ug/l	0.87	49,832.22	1.583E-02	Pulse	0.10	3
Ag			1	0.012	ug/l	12.72	270.01	7.760E-05	Pulse	0.10	3
Sn			1	0.275	ug/l	5.06	2,033.53	5.850E-04	Pulse	0.10	3
Sb			1	0.963	ug/l	3.51	13,196.02	3.035E-03	Pulse	0.10	3
Ba			1	80.246	ug/l	0.51	454,603.80	1.045E-01	Pulse	0.10	3
Tl			1	0.005	ug/l	42.86	516.69	2.447E-04	Pulse	0.10	3
Pb			1	0.138	ug/l	8.27	1,393.46	6.599E-04	Pulse	0.10	3
Pb			1	0.112	ug/l	3.34	1,040.08	4.926E-04	Pulse	0.10	3
Pb			1	0.119	ug/l	5.43	5,010.52	2.373E-03	Pulse	0.10	3
Na			2	295983.996	ug/l	0.55	304,480,423.45	2.938E+03	Analog	0.30	3
Mg			2	17068.730	ug/l	0.65	7,960,402.46	7.681E+01	Analog	0.30	3
Al			2	3.596	ug/l	3.34	835.59	8.062E-03	Pulse	0.30	3
K			2	9836.925	ug/l	0.45	2,959,778.28	2.856E+01	Pulse	0.30	3
Ca			2	71088.607	ug/l	0.53	1,076,609.89	1.039E+01	Pulse	0.30	3
Ti			2	0.337	ug/l	28.13	45.56	4.393E-04	Pulse	0.30	3
V			2	4.199	ug/l	1.50	17,379.24	1.677E-01	Pulse	0.30	3
Cr			2	4.552	ug/l	1.39	24,255.70	2.340E-01	Pulse	0.30	3
Mn			2	5.464	ug/l	3.58	13,920.43	1.343E-01	Pulse	0.30	3
Fe			2	48.892	ug/l	0.72	200,037.78	1.930E+00	Pulse	0.30	3
Co			2	0.103	ug/l	4.62	976.71	9.424E-03	Pulse	0.30	3
Ni			2	13.665	ug/l	1.41	32,296.15	3.116E-01	Pulse	0.30	3
Cu			2	1.210	ug/l	2.92	9,246.03	8.921E-02	Pulse	0.30	3
Zn			2	37.740	ug/l	2.52	30,920.33	2.983E-01	Pulse	0.30	3
As			2	0.548	ug/l	3.79	269.00	2.595E-03	Pulse	1.00	3
Cd			2	0.140	ug/l	18.33	152.18	3.341E-04	Pulse	0.30	3
Sn			2	-0.057	ug/l	-37.85	374.45	8.223E-04	Pulse	0.30	3
Se			3	0.410	ug/l	22.82	34.67	4.410E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,468,782.09	0.35	99.5	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		3,166,081.62	1.15	112.1	Pulse	0.10	3
1	Ge		533,795.90	2.29	106.1	Pulse	0.10	3
1	Ge		741,715.64	1.95	105.8	Pulse	0.10	3
1	Rh		3,148,833.39	1.88	95.5	Pulse	0.10	3
1	In		3,479,691.94	2.35	100.6	Pulse	0.10	3
1	Tb		4,348,693.06	1.12	100.1	Pulse	0.10	3
1	Ho		412,836.19	1.08	100.1	Pulse	0.10	3
1	Bi		2,111,226.53	0.86	89.0	Pulse	0.10	3
2	Sc		103,640.01	0.36	118.7	Pulse	0.30	3
2	Ge		51,853.12	0.44	112.8	Pulse	0.30	3
2	Ge		77,267.42	1.45	111.5	Pulse	0.30	3
2	Rh		1,221,503.67	0.26	95.1	Pulse	0.30	3
2	In		455,315.45	0.83	104.4	Pulse	0.30	3
2	Tb		1,536,999.07	1.11	100.4	Pulse	0.30	3
2	Ho		148,193.08	0.85	100.2	Pulse	0.30	3
2	Bi		872,058.99	0.83	88.0	Pulse	0.30	3
3	Sc		93,750.43	1.09	112.8	Pulse	0.30	3
3	Ge		52,300.25	0.73	107.4	Pulse	0.30	3
3	Ge		78,589.19	0.20	106.5	Pulse	0.30	3
3	Rh		763,349.17	0.25	94.0	Pulse	0.30	3
3	Tb		1,161,289.22	0.41	98.4	Pulse	0.30	3

Quantitation Report

File Name	039SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa050619m2.b
Method File	
Method Path	
Acq Time	5/6/2019 14:18
Sample Name	jc87431-1
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/6/2019 12:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.005	ug/l	32.86	64.00	2.585E-05	Pulse	0.25	3
B			1	13.418	ug/l	1.20	79,245.85	3.198E-02	Pulse	0.15	3
Ca			1	94090.938	ug/l	1.32	89,821,138.66	2.925E+01	Analog	0.10	3
Sr			1	565.306	ug/l	1.83	24,020,459.64	7.273E+00	Analog	0.10	3
Mo			1	0.817	ug/l	1.66	6,855.08	2.075E-03	Pulse	0.10	3
Ag			1	0.026	ug/l	14.73	556.70	1.540E-04	Pulse	0.10	3
Sn			1	0.338	ug/l	1.30	2,913.71	8.060E-04	Pulse	0.10	3
Sb			1	0.099	ug/l	9.78	1,533.47	3.405E-04	Pulse	0.10	3
Ba			1	28.140	ug/l	1.05	165,296.27	3.667E-02	Pulse	0.10	3
Tl			1	0.004	ug/l	63.81	526.70	2.263E-04	Pulse	0.10	3
Pb			1	0.025	ug/l	18.97	433.36	1.864E-04	Pulse	0.10	3
Pb			1	0.024	ug/l	43.71	396.69	1.709E-04	Pulse	0.10	3
Pb			1	0.029	ug/l	19.50	1,963.47	8.446E-04	Pulse	0.10	3
Na			2	31126.813	ug/l	1.86	29,813,574.37	3.091E+02	Analog	0.30	3
Mg			2	12589.701	ug/l	0.63	5,465,712.01	5.665E+01	Analog	0.30	3
Al			2	1.964	ug/l	11.48	553.35	5.733E-03	Pulse	0.30	3
K			2	5978.513	ug/l	1.00	1,679,115.25	1.741E+01	Pulse	0.30	3
Ca			2	97406.219	ug/l	0.30	1,373,201.30	1.423E+01	Pulse	0.30	3
Ti			2	0.236	ug/l	11.57	30.00	3.109E-04	Pulse	0.30	3
V			2	0.106	ug/l	4.41	501.13	5.195E-03	Pulse	0.30	3
Cr			2	0.757	ug/l	3.30	4,112.78	4.263E-02	Pulse	0.30	3
Mn			2	48.836	ug/l	0.88	114,986.76	1.192E+00	Pulse	0.30	3
Fe			2	66.273	ug/l	0.89	251,260.54	2.604E+00	Pulse	0.30	3
Co			2	0.025	ug/l	13.96	281.12	2.914E-03	Pulse	0.30	3
Ni			2	0.666	ug/l	1.79	1,514.53	1.570E-02	Pulse	0.30	3
Cu			2	0.313	ug/l	3.93	3,218.13	3.335E-02	Pulse	0.30	3
Zn			2	17.531	ug/l	1.16	13,665.82	1.416E-01	Pulse	0.30	3
As			2	0.527	ug/l	1.24	241.33	2.501E-03	Pulse	1.00	3
Cd			2	-0.001	ug/l	-735.02	8.58	1.869E-05	Pulse	0.30	3
Sn			2	0.045	ug/l	6.79	597.80	1.294E-03	Pulse	0.30	3
Se			3	0.417	ug/l	8.19	34.87	4.473E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,477,897.27	0.68	99.8	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		3,071,475.79	2.11	108.8	Pulse	0.10	3
1	Ge		537,904.03	1.20	106.9	Pulse	0.10	3
1	Ge		754,824.96	1.34	107.7	Pulse	0.10	3
1	Rh		3,303,590.89	1.99	100.2	Pulse	0.10	3
1	In		3,615,132.26	0.71	104.5	Pulse	0.10	3
1	Tb		4,507,629.41	1.50	103.8	Pulse	0.10	3
1	Ho		429,318.08	1.60	104.1	Pulse	0.10	3
1	Bi		2,325,161.68	1.28	98.0	Pulse	0.10	3
2	Sc		96,479.07	1.24	110.5	Pulse	0.30	3
2	Ge		51,188.73	1.95	111.4	Pulse	0.30	3
2	Ge		76,895.46	1.11	111.0	Pulse	0.30	3
2	Rh		1,272,625.61	0.77	99.1	Pulse	0.30	3
2	In		462,034.04	0.93	106.0	Pulse	0.30	3
2	Tb		1,574,088.97	0.92	102.8	Pulse	0.30	3
2	Ho		152,203.34	1.07	102.9	Pulse	0.30	3
2	Bi		948,963.33	0.25	95.8	Pulse	0.30	3
3	Sc		90,684.91	0.68	109.1	Pulse	0.30	3
3	Ge		52,084.95	0.90	106.9	Pulse	0.30	3
3	Ge		77,961.83	0.49	105.6	Pulse	0.30	3
3	Rh		801,795.54	0.48	98.7	Pulse	0.30	3
3	Tb		1,206,499.60	0.48	102.2	Pulse	0.30	3

Quantitation Report

File Name	040SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa050619m2.b
Method File	
Method Path	
Acq Time	5/6/2019 14:23
Sample Name	jc87432-1
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/6/2019 12:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.007	ug/l	36.91	80.00	3.476E-05	Pulse	0.25	3
B			1	12.344	ug/l	1.48	67,997.77	2.951E-02	Pulse	0.15	3
Ca			1	95593.711	ug/l	1.45	85,070,602.07	2.972E+01	Analog	0.10	3
Sr			1	571.528	ug/l	1.13	23,477,103.82	7.353E+00	Analog	0.10	3
Mo			1	0.916	ug/l	0.46	7,428.64	2.327E-03	Pulse	0.10	3
Ag			1	0.030	ug/l	10.07	610.04	1.726E-04	Pulse	0.10	3
Sn			1	0.305	ug/l	5.08	2,440.29	6.898E-04	Pulse	0.10	3
Sb			1	0.090	ug/l	8.51	1,393.45	3.124E-04	Pulse	0.10	3
Ba			1	30.416	ug/l	1.25	176,808.09	3.963E-02	Pulse	0.10	3
Tl			1	0.003	ug/l	58.61	503.37	2.178E-04	Pulse	0.10	3
Pb			1	0.044	ug/l	10.28	613.37	2.651E-04	Pulse	0.10	3
Pb			1	0.036	ug/l	7.96	496.70	2.148E-04	Pulse	0.10	3
Pb			1	0.041	ug/l	3.71	2,406.83	1.041E-03	Pulse	0.10	3
Na			2	31466.061	ug/l	1.27	28,266,694.43	3.124E+02	Analog	0.30	3
Mg			2	12344.090	ug/l	2.97	5,024,950.49	5.555E+01	Mix	0.30	3
Al			2	4.365	ug/l	3.80	828.92	9.160E-03	Pulse	0.30	3
K			2	6078.191	ug/l	1.01	1,600,775.91	1.769E+01	Pulse	0.30	3
Ca			2	99748.942	ug/l	0.45	1,318,790.54	1.458E+01	Pulse	0.30	3
Ti			2	0.232	ug/l	25.12	27.78	3.065E-04	Pulse	0.30	3
V			2	0.153	ug/l	13.85	638.91	7.061E-03	Pulse	0.30	3
Cr			2	0.825	ug/l	2.92	4,165.02	4.604E-02	Pulse	0.30	3
Mn			2	200.140	ug/l	0.47	441,658.20	4.881E+00	Pulse	0.30	3
Fe			2	289.122	ug/l	0.18	1,017,779.12	1.125E+01	Pulse	0.30	3
Co			2	0.087	ug/l	6.00	733.36	8.108E-03	Pulse	0.30	3
Ni			2	0.952	ug/l	4.24	2,007.92	2.220E-02	Pulse	0.30	3
Cu			2	0.378	ug/l	5.84	3,387.05	3.744E-02	Pulse	0.30	3
Zn			2	20.148	ug/l	2.13	14,650.00	1.619E-01	Pulse	0.30	3
As			2	1.328	ug/l	7.53	555.68	6.144E-03	Pulse	1.00	3
Cd			2	0.001	ug/l	151.35	10.73	2.398E-05	Pulse	0.30	3
Sn			2	-0.040	ug/l	-37.70	403.35	9.015E-04	Pulse	0.30	3
Se			3	0.484	ug/l	3.65	38.73	5.090E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,303,807.71	0.78	92.8	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,863,052.98	1.51	101.4	Pulse	0.10	3
1	Ge		516,006.57	1.47	102.5	Pulse	0.10	3
1	Ge		716,662.57	2.30	102.2	Pulse	0.10	3
1	Rh		3,192,747.56	1.43	96.9	Pulse	0.10	3
1	In		3,536,647.33	1.51	102.3	Pulse	0.10	3
1	Tb		4,461,509.93	1.53	102.7	Pulse	0.10	3
1	Ho		422,943.77	1.81	102.5	Pulse	0.10	3
1	Bi		2,312,692.41	0.91	97.5	Pulse	0.10	3
2	Sc		90,480.29	1.05	103.6	Pulse	0.30	3
2	Ge		49,429.06	1.80	107.6	Pulse	0.30	3
2	Ge		73,924.21	0.90	106.7	Pulse	0.30	3
2	Rh		1,237,852.07	0.86	96.4	Pulse	0.30	3
2	In		447,448.16	0.16	102.6	Pulse	0.30	3
2	Tb		1,555,147.58	0.89	101.6	Pulse	0.30	3
2	Ho		152,552.80	0.39	103.1	Pulse	0.30	3
2	Bi		944,549.54	0.27	95.3	Pulse	0.30	3
3	Sc		87,772.68	0.67	105.6	Pulse	0.30	3
3	Ge		50,223.71	1.64	103.1	Pulse	0.30	3
3	Ge		76,120.93	1.20	103.1	Pulse	0.30	3
3	Rh		788,380.07	0.99	97.0	Pulse	0.30	3
3	Tb		1,198,888.35	0.70	101.6	Pulse	0.30	3

Quantitation Report

File Name	041_CCV.d
File Path	C:\Agilent\ICPMH\1\DATA\xa050619m2.b
Method File	
Method Path	
Acq Time	5/6/2019 14:28
Sample Name	CCVA
Sample Type	CCV
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/6/2019 12:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	47.652	ug/l	1.74	389,636.69	1.748E-01	Pulse	0.25	3
B			1	100.763	ug/l	1.66	518,382.58	2.326E-01	Pulse	0.15	3
Ca			1	5019.692	ug/l	0.27	4,329,188.89	1.569E+00	Pulse	0.10	3
Sr			1	48.726	ug/l	0.75	2,049,731.53	6.270E-01	Pulse	0.10	3
Mo			1	47.208	ug/l	0.99	390,802.40	1.195E-01	Pulse	0.10	3
Ag			1	46.512	ug/l	1.27	893,508.01	2.522E-01	Pulse	0.10	3
Sn			1	46.791	ug/l	0.79	586,505.76	1.655E-01	Pulse	0.10	3
Sb			1	47.834	ug/l	0.90	670,005.51	1.492E-01	Pulse	0.10	3
Ba			1	48.205	ug/l	0.99	281,945.07	6.280E-02	Pulse	0.10	3
Tl			1	48.249	ug/l	0.47	1,446,678.31	6.003E-01	Pulse	0.10	3
Pb			1	48.844	ug/l	0.61	494,474.38	2.052E-01	Pulse	0.10	3
Pb			1	48.175	ug/l	0.70	428,592.82	1.778E-01	Pulse	0.10	3
Pb			1	48.359	ug/l	0.75	1,976,762.78	8.202E-01	Pulse	0.10	3
Na			2	4740.377	ug/l	1.38	4,083,420.25	4.716E+01	Pulse	0.30	3
Mg			2	4754.567	ug/l	1.17	1,852,544.09	2.140E+01	Pulse	0.30	3
Al			2	4769.908	ug/l	1.25	589,640.43	6.810E+00	Pulse	0.30	3
K			2	4946.121	ug/l	1.00	1,248,597.03	1.442E+01	Pulse	0.30	3
Ca			2	5243.896	ug/l	0.09	66,418.08	7.671E-01	Pulse	0.30	3
Ti			2	46.696	ug/l	0.46	5,118.62	5.911E-02	Pulse	0.30	3
V			2	48.934	ug/l	0.55	168,314.88	1.944E+00	Pulse	0.30	3
Cr			2	47.847	ug/l	0.30	209,369.06	2.418E+00	Pulse	0.30	3
Mn			2	48.160	ug/l	0.81	101,774.85	1.175E+00	Pulse	0.30	3
Fe			2	5098.563	ug/l	0.53	17,128,408.21	1.978E+02	Analog	0.30	3
Co			2	48.452	ug/l	0.76	346,443.11	4.001E+00	Pulse	0.30	3
Ni			2	47.564	ug/l	0.60	93,803.58	1.083E+00	Pulse	0.30	3
Cu			2	47.208	ug/l	1.27	255,723.95	2.953E+00	Pulse	0.30	3
Zn			2	48.411	ug/l	1.30	32,993.19	3.811E-01	Pulse	0.30	3
As			2	49.097	ug/l	1.46	19,355.45	2.235E-01	Pulse	1.00	3
Cd			2	47.175	ug/l	0.51	47,045.12	1.057E-01	Pulse	0.30	3
Sn			2	47.588	ug/l	0.50	98,235.32	2.207E-01	Pulse	0.30	3
Se			3	190.242	ug/l	0.99	13,421.02	1.742E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,228,724.41	0.25	89.8	Pulse	0.10	3
1	Sc		2,759,842.04	1.26	97.8	Pulse	0.10	3
1	Ge		511,790.92	1.37	101.7	Pulse	0.10	3

Quantitation Report

1	Ge		707,972.65	1.27	101.0	Pulse	0.10	3
1	Rh		3,269,269.95	0.92	99.2	Pulse	0.10	3
1	In		3,543,603.93	1.83	102.5	Pulse	0.10	3
1	Tb		4,489,703.16	1.90	103.4	Pulse	0.10	3
1	Ho		428,175.61	0.75	103.8	Pulse	0.10	3
1	Bi		2,409,888.03	0.96	101.6	Pulse	0.10	3
2	Sc		86,588.30	0.81	99.2	Pulse	0.30	3
2	Ge		48,585.41	1.03	105.7	Pulse	0.30	3
2	Ge		72,607.30	1.25	104.8	Pulse	0.30	3
2	Rh		1,276,036.86	0.36	99.3	Pulse	0.30	3
2	In		445,118.26	0.49	102.1	Pulse	0.30	3
2	Tb		1,551,103.83	0.23	101.3	Pulse	0.30	3
2	Ho		150,771.03	0.95	101.9	Pulse	0.30	3
2	Bi		979,167.53	0.84	98.8	Pulse	0.30	3
3	Sc		86,088.30	0.61	103.6	Pulse	0.30	3
3	Ge		50,487.77	0.87	103.6	Pulse	0.30	3
3	Ge		77,056.33	1.09	104.4	Pulse	0.30	3
3	Rh		818,741.36	0.08	100.8	Pulse	0.30	3
3	Tb		1,208,013.28	0.42	102.4	Pulse	0.30	3

Quantitation Report

File Name	042_CCB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa050619m2.b
Method File	
Method Path	
Acq Time	5/6/2019 14:33
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/6/2019 12:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.013	ug/l	16.85	128.00	5.667E-05	Pulse	0.25	3
B			1	5.838	ug/l	2.21	32,934.55	1.457E-02	Pulse	0.15	3
Ca			1	2.523	ug/l	31.82	26,264.84	9.464E-03	Pulse	0.10	3
Sr			1	0.039	ug/l	3.34	2,160.24	6.446E-04	Pulse	0.10	3
Mo			1	0.090	ug/l	9.03	783.38	2.336E-04	Pulse	0.10	3
Ag			1	0.017	ug/l	13.16	383.35	1.067E-04	Pulse	0.10	3
Sn			1	0.455	ug/l	3.64	4,397.45	1.223E-03	Pulse	0.10	3
Sb			1	0.371	ug/l	6.24	5,361.10	1.190E-03	Pulse	0.10	3
Ba			1	0.017	ug/l	14.72	186.68	4.144E-05	Pulse	0.10	3
Tl			1	0.011	ug/l	17.36	786.72	3.167E-04	Pulse	0.10	3
Pb			1	0.016	ug/l	36.33	370.02	1.491E-04	Pulse	0.10	3
Pb			1	0.019	ug/l	58.52	376.69	1.521E-04	Pulse	0.10	3
Pb			1	0.016	ug/l	30.09	1,540.09	6.203E-04	Pulse	0.10	3
Na			2	24.560	ug/l	2.15	31,593.85	3.556E-01	Pulse	0.30	3
Mg			2	1.850	ug/l	6.04	862.26	9.707E-03	Pulse	0.30	3
Al			2	3.397	ug/l	3.61	691.13	7.778E-03	Pulse	0.30	3
K			2	-1.349	ug/l	-77.22	10,573.43	1.190E-01	Pulse	0.30	3
Ca			2	7.102	ug/l	11.90	166.67	1.877E-03	Pulse	0.30	3
Ti			2	0.059	ug/l	29.99	7.78	8.770E-05	Pulse	0.30	3
V			2	0.007	ug/l	66.43	112.22	1.264E-03	Pulse	0.30	3
Cr			2	0.000	ug/l	-1100.94	393.35	4.427E-03	Pulse	0.30	3
Mn			2	0.126	ug/l	7.83	368.90	4.151E-03	Pulse	0.30	3
Fe			2	1.219	ug/l	4.57	7,179.42	8.082E-02	Pulse	0.30	3
Co			2	0.006	ug/l	44.81	124.45	1.399E-03	Pulse	0.30	3
Ni			2	0.018	ug/l	32.48	84.44	9.498E-04	Pulse	0.30	3
Cu			2	0.010	ug/l	133.86	1,290.07	1.452E-02	Pulse	0.30	3
Zn			2	1.132	ug/l	14.08	1,288.95	1.450E-02	Pulse	0.30	3
As			2	0.018	ug/l	60.63	16.33	1.837E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	0.010	ug/l	98.25	19.95	4.390E-05	Pulse	0.30	3
Sn			2	0.117	ug/l	10.90	741.14	1.628E-03	Pulse	0.30	3
Se			3	0.103	ug/l	14.53	12.60	1.603E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,260,421.37	0.73	91.1	Pulse	0.10	3
1	Sc		2,775,171.94	0.81	98.3	Pulse	0.10	3
1	Ge		515,329.75	0.73	102.4	Pulse	0.10	3
1	Ge		713,301.47	1.24	101.8	Pulse	0.10	3
1	Rh		3,351,747.55	1.46	101.7	Pulse	0.10	3
1	In		3,594,184.22	1.11	103.9	Pulse	0.10	3
1	Tb		4,504,022.12	0.82	103.7	Pulse	0.10	3
1	Ho		425,421.16	1.22	103.1	Pulse	0.10	3
1	Bi		2,481,893.66	1.66	104.6	Pulse	0.10	3
2	Sc		88,842.50	0.93	101.7	Pulse	0.30	3
2	Ge		49,096.85	0.93	106.8	Pulse	0.30	3
2	Ge		74,136.26	0.56	107.0	Pulse	0.30	3
2	Rh		1,330,665.82	0.80	103.6	Pulse	0.30	3
2	In		455,424.65	0.87	104.5	Pulse	0.30	3
2	Tb		1,563,613.17	0.68	102.1	Pulse	0.30	3
2	Ho		152,827.56	0.81	103.3	Pulse	0.30	3
2	Bi		1,005,405.03	1.06	101.5	Pulse	0.30	3
3	Sc		87,284.44	0.49	105.0	Pulse	0.30	3
3	Ge		51,851.95	0.69	106.4	Pulse	0.30	3
3	Ge		78,584.75	0.58	106.4	Pulse	0.30	3
3	Rh		851,992.76	0.94	104.9	Pulse	0.30	3
3	Tb		1,219,900.61	0.53	103.4	Pulse	0.30	3

Quantitation Report

File Name	043SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa050619m2.b
Method File	
Method Path	
Acq Time	5/6/2019 14:38
Sample Name	mp14786-mb1 4
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/6/2019 12:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.005	ug/l	83.74	37.33	1.711E-05	Pulse	0.25	3
B			1	11.435	ug/l	1.76	31,204.54	1.430E-02	Pulse	0.15	3
Ca			1	9.255	ug/l	23.78	26,992.57	1.012E-02	Pulse	0.10	3
Sr			1	0.118	ug/l	6.73	2,957.05	9.019E-04	Pulse	0.10	3
Mo			1	0.228	ug/l	11.68	966.74	2.951E-04	Pulse	0.10	3
Ag			1	0.029	ug/l	10.54	320.01	9.114E-05	Pulse	0.10	3
Sn			1	1.661	ug/l	1.06	8,969.57	2.553E-03	Pulse	0.10	3
Sb			1	0.709	ug/l	8.14	5,117.69	1.137E-03	Pulse	0.10	3
Ba			1	0.045	ug/l	59.41	216.68	4.836E-05	Pulse	0.10	3
Tl			1	0.028	ug/l	18.99	910.06	3.558E-04	Pulse	0.10	3
Pb			1	0.046	ug/l	9.47	453.35	1.772E-04	Pulse	0.10	3
Pb			1	0.045	ug/l	38.47	420.02	1.643E-04	Pulse	0.10	3
Pb			1	0.043	ug/l	9.47	1,826.77	7.142E-04	Pulse	0.10	3
Na			2	48.776	ug/l	2.35	28,864.60	3.539E-01	Pulse	0.30	3
Mg			2	5.091	ug/l	3.92	1,046.71	1.284E-02	Pulse	0.30	3
Al			2	-0.076	ug/l	-353.23	234.45	2.876E-03	Pulse	0.30	3
K			2	-4.097	ug/l	-27.46	9,539.48	1.170E-01	Pulse	0.30	3
Ca			2	15.386	ug/l	26.01	160.00	1.963E-03	Pulse	0.30	3
Ti			2	0.347	ug/l	54.95	18.89	2.323E-04	Pulse	0.30	3
V			2	0.178	ug/l	9.57	368.90	4.523E-03	Pulse	0.30	3
Cr			2	0.373	ug/l	12.01	1,130.05	1.385E-02	Pulse	0.30	3
Mn			2	0.652	ug/l	2.46	736.69	9.033E-03	Pulse	0.30	3
Fe			2	5.341	ug/l	3.25	11,181.67	1.371E-01	Pulse	0.30	3
Co			2	0.024	ug/l	71.65	151.11	1.858E-03	Pulse	0.30	3
Ni			2	0.038	ug/l	68.24	78.89	9.677E-04	Pulse	0.30	3
Cu			2	0.541	ug/l	4.17	2,505.78	3.073E-02	Pulse	0.30	3
Zn			2	0.695	ug/l	36.57	685.58	8.415E-03	Pulse	0.30	3
As			2	0.192	ug/l	58.66	44.00	5.397E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	0.009	ug/l	82.36	13.28	3.105E-05	Pulse	0.30	3
Sn			2	1.165	ug/l	4.68	1,616.77	3.773E-03	Pulse	0.30	3
Se			3	0.156	ug/l	20.98	10.73	1.375E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,182,938.18	0.20	88.0	Pulse	0.10	3
1	Sc		2,668,778.19	1.62	94.5	Pulse	0.10	3
1	Ge		510,489.09	1.51	101.4	Pulse	0.10	3
1	Ge		705,093.82	1.30	100.6	Pulse	0.10	3
1	Rh		3,276,353.91	1.81	99.4	Pulse	0.10	3
1	In		3,513,355.78	1.21	101.6	Pulse	0.10	3
1	Tb		4,497,746.70	1.61	103.5	Pulse	0.10	3
1	Ho		431,761.10	1.43	104.7	Pulse	0.10	3
1	Bi		2,558,451.32	0.91	107.8	Pulse	0.10	3
2	Sc		81,544.40	1.10	93.4	Pulse	0.30	3
2	Ge		47,140.09	2.08	102.6	Pulse	0.30	3
2	Ge		70,857.36	0.74	102.3	Pulse	0.30	3
2	Rh		1,267,764.71	1.06	98.7	Pulse	0.30	3
2	In		428,605.18	1.29	98.3	Pulse	0.30	3
2	Tb		1,532,035.04	0.53	100.1	Pulse	0.30	3
2	Ho		150,041.74	0.17	101.4	Pulse	0.30	3
2	Bi		1,012,474.37	0.31	102.2	Pulse	0.30	3
3	Sc		84,023.64	0.58	101.1	Pulse	0.30	3
3	Ge		51,282.41	0.87	105.3	Pulse	0.30	3
3	Ge		78,015.37	0.80	105.7	Pulse	0.30	3
3	Rh		840,943.07	0.39	103.5	Pulse	0.30	3
3	Tb		1,231,599.22	0.77	104.3	Pulse	0.30	3

Quantitation Report

File Name	044SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa050619m2.b
Method File	
Method Path	
Acq Time	5/6/2019 14:43
Sample Name	mp14786-b2
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/6/2019 12:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	71.248	ug/l	1.38	279,567.19	1.307E-01	Pulse	0.25	3
B			1	88.816	ug/l	1.51	220,656.12	1.032E-01	Pulse	0.15	3
Ca			1	3905.677	ug/l	0.36	1,617,955.65	6.155E-01	Pulse	0.10	3
Sr			1	74.487	ug/l	0.34	1,554,133.73	4.793E-01	Pulse	0.10	3
Mo			1	70.010	ug/l	0.88	287,462.20	8.864E-02	Pulse	0.10	3
Ag			1	72.670	ug/l	0.71	690,980.41	1.970E-01	Pulse	0.10	3
Sn			1	71.974	ug/l	2.01	446,117.92	1.272E-01	Pulse	0.10	3
Sb			1	72.405	ug/l	1.40	509,999.56	1.130E-01	Pulse	0.10	3
Ba			1	73.491	ug/l	0.78	216,198.90	4.788E-02	Pulse	0.10	3
Tl			1	73.334	ug/l	1.17	1,127,531.26	4.563E-01	Pulse	0.10	3
Pb			1	73.675	ug/l	1.03	382,445.42	1.548E-01	Pulse	0.10	3
Pb			1	74.960	ug/l	0.47	341,963.47	1.384E-01	Pulse	0.10	3
Pb			1	74.008	ug/l	0.52	1,551,267.87	6.277E-01	Pulse	0.10	3
Na			2	3754.362	ug/l	1.59	1,538,262.96	1.874E+01	Pulse	0.30	3
Mg			2	3726.281	ug/l	1.24	688,173.39	8.385E+00	Pulse	0.30	3
Al			2	3605.309	ug/l	0.32	211,394.74	2.576E+00	Pulse	0.30	3
K			2	3822.419	ug/l	1.11	463,508.32	5.648E+00	Pulse	0.30	3
Ca			2	4308.610	ug/l	2.23	25,902.46	3.156E-01	Pulse	0.30	3
Ti			2	71.356	ug/l	4.12	3,706.01	4.517E-02	Pulse	0.30	3
V			2	76.009	ug/l	0.14	123,937.12	1.510E+00	Pulse	0.30	3
Cr			2	75.876	ug/l	0.93	157,432.96	1.918E+00	Pulse	0.30	3
Mn			2	75.237	ug/l	1.14	75,372.76	9.184E-01	Pulse	0.30	3
Fe			2	4020.310	ug/l	0.98	6,402,315.02	7.801E+01	Analog	0.30	3
Co			2	76.582	ug/l	0.76	259,535.99	3.162E+00	Pulse	0.30	3
Ni			2	75.770	ug/l	1.97	70,825.58	8.630E-01	Pulse	0.30	3
Cu			2	75.966	ug/l	1.98	195,237.45	2.379E+00	Pulse	0.30	3
Zn			2	73.186	ug/l	2.41	23,752.90	2.894E-01	Pulse	0.30	3
As			2	69.239	ug/l	2.17	12,938.47	1.577E-01	Pulse	1.00	3
Cd			2	71.836	ug/l	0.65	34,225.12	8.048E-02	Pulse	0.30	3
Sn			2	71.729	ug/l	1.25	70,848.25	1.666E-01	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	321.259	ug/l	0.36	11,396.03	1.471E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,139,191.98	1.02	86.2	Pulse	0.10	3
1	Sc		2,628,545.43	0.96	93.1	Pulse	0.10	3
1	Ge		500,739.36	1.32	99.5	Pulse	0.10	3
1	Ge		699,516.86	1.66	99.8	Pulse	0.10	3
1	Rh		3,242,806.62	1.28	98.4	Pulse	0.10	3
1	In		3,507,321.96	1.65	101.4	Pulse	0.10	3
1	Tb		4,515,597.22	1.49	104.0	Pulse	0.10	3
1	Ho		429,742.39	1.38	104.2	Pulse	0.10	3
1	Bi		2,471,311.32	0.99	104.2	Pulse	0.10	3
2	Sc		82,079.39	1.42	94.0	Pulse	0.30	3
2	Ge		46,296.59	0.50	100.8	Pulse	0.30	3
2	Ge		69,285.06	1.26	100.0	Pulse	0.30	3
2	Rh		1,262,281.48	0.93	98.3	Pulse	0.30	3
2	In		425,289.57	0.55	97.5	Pulse	0.30	3
2	Tb		1,516,217.61	0.34	99.0	Pulse	0.30	3
2	Ho		148,468.77	0.75	100.3	Pulse	0.30	3
2	Bi		984,608.57	0.29	99.4	Pulse	0.30	3
3	Sc		85,773.47	0.86	103.2	Pulse	0.30	3
3	Ge		50,516.75	0.97	103.7	Pulse	0.30	3
3	Ge		77,480.58	0.36	104.9	Pulse	0.30	3
3	Rh		832,575.38	0.97	102.5	Pulse	0.30	3
3	Tb		1,227,730.16	0.47	104.0	Pulse	0.30	3

Quantitation Report

File Name	045SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa050619m2.b
Method File	
Method Path	
Acq Time	5/6/2019 14:48
Sample Name	mp14786-s5
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/6/2019 12:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	73.734	ug/l	0.44	279,400.13	1.353E-01	Pulse	0.25	3
B			1	241.000	ug/l	1.24	574,060.48	2.779E-01	Pulse	0.15	3
Ca			1	60896.462	ug/l	0.48	24,734,651.30	9.471E+00	Analog	0.10	3
Sr			1	422.502	ug/l	1.05	8,237,378.84	2.718E+00	Analog	0.10	3
Mo			1	76.734	ug/l	0.86	294,452.46	9.716E-02	Pulse	0.10	3
Ag			1	71.228	ug/l	0.76	646,039.59	1.931E-01	Pulse	0.10	3
Sn			1	73.434	ug/l	1.09	434,296.82	1.298E-01	Pulse	0.10	3
Sb			1	73.081	ug/l	0.69	506,231.33	1.140E-01	Pulse	0.10	3
Ba			1	147.969	ug/l	1.81	427,882.80	9.638E-02	Pulse	0.10	3
Tl			1	77.476	ug/l	1.28	1,101,340.17	4.820E-01	Pulse	0.10	3
Pb			1	77.703	ug/l	1.54	372,922.30	1.632E-01	Pulse	0.10	3
Pb			1	77.533	ug/l	1.72	327,012.55	1.431E-01	Pulse	0.10	3
Pb			1	77.186	ug/l	1.13	1,495,802.13	6.547E-01	Pulse	0.10	3
Na			2	171146.417	ug/l	1.81	69,549,439.46	8.495E+02	Analog	0.30	3
Mg			2	14034.673	ug/l	2.19	2,585,310.66	3.158E+01	Pulse	0.30	3
Al			2	3700.311	ug/l	1.43	216,430.53	2.643E+00	Pulse	0.30	3
K			2	7469.708	ug/l	2.44	893,920.07	1.092E+01	Pulse	0.30	3
Ca			2	62949.401	ug/l	2.32	376,571.07	4.600E+00	Pulse	0.30	3
Ti			2	69.100	ug/l	2.41	3,581.54	4.374E-02	Pulse	0.30	3
V			2	79.687	ug/l	2.34	129,596.28	1.583E+00	Pulse	0.30	3
Cr			2	76.317	ug/l	2.30	157,943.93	1.929E+00	Pulse	0.30	3
Mn			2	316.213	ug/l	2.09	315,726.30	3.856E+00	Pulse	0.30	3
Fe			2	5287.412	ug/l	2.12	8,398,555.22	1.026E+02	Analog	0.30	3
Co			2	75.954	ug/l	2.55	256,754.76	3.136E+00	Pulse	0.30	3
Ni			2	75.703	ug/l	2.07	70,592.57	8.622E-01	Pulse	0.30	3
Cu			2	76.332	ug/l	2.82	195,683.73	2.390E+00	Pulse	0.30	3
Zn			2	103.597	ug/l	2.03	33,348.45	4.073E-01	Pulse	0.30	3
As			2	70.198	ug/l	2.07	13,085.93	1.598E-01	Pulse	1.00	3
Cd			2	70.388	ug/l	0.40	32,465.25	7.885E-02	Pulse	0.30	3
Sn			2	74.293	ug/l	0.58	71,022.31	1.725E-01	Pulse	0.30	3
Se			3	312.458	ug/l	1.05	10,891.42	1.431E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,065,583.45	1.03	83.2	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,611,795.38	1.51	92.5	Pulse	0.10	3
1	Ge		493,691.50	1.99	98.1	Pulse	0.10	3
1	Ge		680,932.28	1.86	97.1	Pulse	0.10	3
1	Rh		3,030,856.62	1.53	91.9	Pulse	0.10	3
1	In		3,345,529.86	1.13	96.7	Pulse	0.10	3
1	Tb		4,440,347.85	1.69	102.2	Pulse	0.10	3
1	Ho		424,193.74	0.97	102.8	Pulse	0.10	3
1	Bi		2,285,036.37	1.28	96.3	Pulse	0.10	3
2	Sc		81,896.23	2.31	93.8	Pulse	0.30	3
2	Ge		46,142.84	1.34	100.4	Pulse	0.30	3
2	Ge		69,980.34	0.52	101.0	Pulse	0.30	3
2	Rh		1,174,978.81	0.69	91.5	Pulse	0.30	3
2	In		411,706.02	0.30	94.4	Pulse	0.30	3
2	Tb		1,498,450.18	0.85	97.9	Pulse	0.30	3
2	Ho		147,061.98	0.46	99.4	Pulse	0.30	3
2	Bi		907,763.09	0.17	91.6	Pulse	0.30	3
3	Sc		84,449.05	1.19	101.6	Pulse	0.30	3
3	Ge		50,413.13	0.58	103.5	Pulse	0.30	3
3	Ge		76,139.80	0.87	103.1	Pulse	0.30	3
3	Rh		776,822.12	0.44	95.6	Pulse	0.30	3
3	Tb		1,191,696.58	0.15	101.0	Pulse	0.30	3

Quantitation Report

File Name 046SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa050619m2.b
Method File
Method Path
Acq Time 5/6/2019 14:53
Sample Name mp14786-s6
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 5/6/2019 12:34
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	75.312	ug/l	0.18	284,435.35	1.382E-01	Pulse	0.25	3
B			1	244.214	ug/l	0.25	579,784.73	2.816E-01	Pulse	0.15	3
Ca			1	61876.962	ug/l	0.60	25,190,356.29	9.623E+00	Analog	0.10	3
Sr			1	430.152	ug/l	2.21	8,363,949.88	2.767E+00	Analog	0.10	3
Mo			1	77.801	ug/l	0.82	297,788.02	9.851E-02	Pulse	0.10	3
Ag			1	71.320	ug/l	0.77	652,310.84	1.933E-01	Pulse	0.10	3
Sn			1	73.201	ug/l	0.60	436,549.78	1.294E-01	Pulse	0.10	3
Sb			1	74.399	ug/l	0.28	511,290.72	1.161E-01	Pulse	0.10	3
Ba			1	151.806	ug/l	0.56	435,552.52	9.888E-02	Pulse	0.10	3
Tl			1	77.908	ug/l	0.79	1,111,355.84	4.847E-01	Pulse	0.10	3
Pb			1	78.559	ug/l	0.92	378,402.78	1.650E-01	Pulse	0.10	3
Pb			1	78.451	ug/l	0.46	332,072.52	1.448E-01	Pulse	0.10	3
Pb			1	78.090	ug/l	0.27	1,518,746.18	6.623E-01	Pulse	0.10	3
Na			2	173577.475	ug/l	1.12	69,865,077.22	8.615E+02	Analog	0.30	3
Mg			2	14247.199	ug/l	0.77	2,599,650.66	3.206E+01	Pulse	0.30	3
Al			2	3703.229	ug/l	0.41	214,539.37	2.645E+00	Pulse	0.30	3
K			2	7503.098	ug/l	0.82	889,419.55	1.097E+01	Pulse	0.30	3
Ca			2	63577.035	ug/l	0.76	376,744.48	4.646E+00	Pulse	0.30	3
Ti			2	72.406	ug/l	4.19	3,716.02	4.583E-02	Pulse	0.30	3
V			2	79.379	ug/l	1.25	127,874.04	1.577E+00	Pulse	0.30	3
Cr			2	77.151	ug/l	1.65	158,153.22	1.950E+00	Pulse	0.30	3
Mn			2	320.205	ug/l	0.84	316,690.58	3.905E+00	Pulse	0.30	3
Fe			2	5314.349	ug/l	2.09	8,361,127.17	1.031E+02	Analog	0.30	3
Co			2	76.210	ug/l	1.10	255,201.51	3.147E+00	Pulse	0.30	3
Ni			2	75.799	ug/l	1.55	70,009.95	8.633E-01	Pulse	0.30	3
Cu			2	77.542	ug/l	1.49	196,902.42	2.428E+00	Pulse	0.30	3
Zn			2	104.966	ug/l	1.95	33,459.70	4.126E-01	Pulse	0.30	3
As			2	70.000	ug/l	1.01	12,925.45	1.594E-01	Pulse	1.00	3
Cd			2	70.490	ug/l	0.18	32,101.50	7.897E-02	Pulse	0.30	3
Sn			2	75.192	ug/l	1.06	70,969.64	1.746E-01	Pulse	0.30	3
Se			3	313.441	ug/l	1.31	10,884.75	1.435E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,058,767.13	1.39	83.0	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,617,767.83	0.78	92.7	Pulse	0.10	3
1	Ge		495,134.13	0.98	98.4	Pulse	0.10	3
1	Ge		689,808.90	0.79	98.4	Pulse	0.10	3
1	Rh		3,023,129.85	0.94	91.7	Pulse	0.10	3
1	In		3,373,864.63	1.19	97.5	Pulse	0.10	3
1	Tb		4,405,098.79	0.91	101.4	Pulse	0.10	3
1	Ho		420,509.15	1.39	102.0	Pulse	0.10	3
1	Bi		2,293,041.48	1.37	96.6	Pulse	0.10	3
2	Sc		81,100.34	1.08	92.9	Pulse	0.30	3
2	Ge		45,670.34	0.87	99.4	Pulse	0.30	3
2	Ge		69,164.75	0.36	99.9	Pulse	0.30	3
2	Rh		1,171,239.26	0.67	91.2	Pulse	0.30	3
2	In		406,506.65	0.52	93.2	Pulse	0.30	3
2	Tb		1,492,458.90	0.20	97.5	Pulse	0.30	3
2	Ho		145,736.83	1.08	98.5	Pulse	0.30	3
2	Bi		901,330.35	0.28	91.0	Pulse	0.30	3
3	Sc		84,243.39	0.65	101.4	Pulse	0.30	3
3	Ge		50,654.87	1.29	104.0	Pulse	0.30	3
3	Ge		75,856.50	1.01	102.7	Pulse	0.30	3
3	Rh		778,047.73	0.44	95.8	Pulse	0.30	3
3	Tb		1,200,827.03	0.43	101.7	Pulse	0.30	3

Quantitation Report

File Name 047SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa050619m2.b
Method File
Method Path
Acq Time 5/6/2019 14:58
Sample Name jc87418-1
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 5/6/2019 12:34
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.026	ug/l	13.97	118.67	5.643E-05	Pulse	0.25	3
B			1	154.689	ug/l	1.03	376,047.14	1.788E-01	Pulse	0.15	3
Ca			1	57414.791	ug/l	1.30	23,275,871.32	8.930E+00	Analog	0.10	3
Sr			1	332.320	ug/l	1.46	6,590,838.86	2.138E+00	Analog	0.10	3
Mo			1	1.055	ug/l	1.99	4,137.38	1.342E-03	Pulse	0.10	3
Ag			1	0.050	ug/l	16.66	496.69	1.468E-04	Pulse	0.10	3
Sn			1	1.380	ug/l	1.40	6,968.44	2.055E-03	Pulse	0.10	3
Sb			1	0.551	ug/l	6.40	3,920.64	8.902E-04	Pulse	0.10	3
Ba			1	74.201	ug/l	2.05	212,867.38	4.834E-02	Pulse	0.10	3
Tl			1	0.046	ug/l	21.60	1,063.41	4.638E-04	Pulse	0.10	3
Pb			1	0.245	ug/l	3.17	1,366.78	5.962E-04	Pulse	0.10	3
Pb			1	0.210	ug/l	4.13	1,073.41	4.683E-04	Pulse	0.10	3
Pb			1	0.213	ug/l	4.82	4,937.17	2.153E-03	Pulse	0.10	3
Na			2	164869.440	ug/l	2.33	66,730,001.79	8.183E+02	Analog	0.30	3
Mg			2	10248.095	ug/l	1.30	1,880,473.88	2.306E+01	Pulse	0.30	3
Al			2	21.466	ug/l	7.15	1,487.86	1.825E-02	Pulse	0.30	3
K			2	3533.058	ug/l	1.92	426,450.54	5.229E+00	Pulse	0.30	3
Ca			2	57764.648	ug/l	1.78	344,218.94	4.221E+00	Pulse	0.30	3
Ti			2	0.753	ug/l	46.68	40.00	4.894E-04	Pulse	0.30	3
V			2	0.633	ug/l	7.43	1,104.50	1.355E-02	Pulse	0.30	3
Cr			2	0.863	ug/l	3.35	2,135.72	2.619E-02	Pulse	0.30	3
Mn			2	240.663	ug/l	0.58	239,393.58	2.935E+00	Pulse	0.30	3
Fe			2	1237.562	ug/l	0.63	1,960,315.61	2.404E+01	Pulse	0.30	3
Co			2	0.589	ug/l	3.44	2,053.48	2.518E-02	Pulse	0.30	3
Ni			2	2.260	ug/l	1.39	2,141.28	2.626E-02	Pulse	0.30	3
Cu			2	4.260	ug/l	1.25	11,948.88	1.465E-01	Pulse	0.30	3
Zn			2	36.797	ug/l	0.91	12,100.12	1.484E-01	Pulse	0.30	3
As			2	0.543	ug/l	13.24	109.00	1.337E-03	Pulse	1.00	3
Cd			2	0.166	ug/l	17.74	85.38	2.076E-04	Pulse	0.30	3
Sn			2	0.765	ug/l	8.29	1,172.28	2.851E-03	Pulse	0.30	3
Se			3	0.516	ug/l	7.75	23.00	3.020E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,103,057.71	0.27	84.7	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,606,507.25	0.44	92.3	Pulse	0.10	3
1	Ge		501,318.08	0.78	99.6	Pulse	0.10	3
1	Ge		689,051.16	1.84	98.3	Pulse	0.10	3
1	Rh		3,082,770.79	1.02	93.5	Pulse	0.10	3
1	In		3,390,481.74	1.81	98.0	Pulse	0.10	3
1	Tb		4,403,170.25	0.68	101.4	Pulse	0.10	3
1	Ho		423,586.27	0.60	102.7	Pulse	0.10	3
1	Bi		2,292,278.04	0.76	96.6	Pulse	0.10	3
2	Sc		81,560.13	1.26	93.4	Pulse	0.30	3
2	Ge		45,627.04	0.49	99.3	Pulse	0.30	3
2	Ge		69,370.05	0.50	100.1	Pulse	0.30	3
2	Rh		1,176,276.45	0.43	91.6	Pulse	0.30	3
2	In		411,131.46	0.33	94.3	Pulse	0.30	3
2	Tb		1,489,762.34	0.81	97.3	Pulse	0.30	3
2	Ho		144,906.53	1.50	97.9	Pulse	0.30	3
2	Bi		900,796.39	0.57	90.9	Pulse	0.30	3
3	Sc		83,217.20	1.27	100.1	Pulse	0.30	3
3	Ge		50,642.67	1.18	103.9	Pulse	0.30	3
3	Ge		76,111.96	1.41	103.1	Pulse	0.30	3
3	Rh		778,806.22	1.17	95.9	Pulse	0.30	3
3	Tb		1,200,485.33	0.11	101.7	Pulse	0.30	3

Quantitation Report

File Name 048SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa050619m2.b
Method File
Method Path
Acq Time 5/6/2019 15:03
Sample Name mp14786-sd1
Sample Type Sample
Comment
Prep Dilution 10.000
Auto Dilution N/A
Total Dilution 10.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 5/6/2019 12:34
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.076	ug/l	17.56	80.00	3.617E-05	Pulse	0.25	3
B			1	180.732	ug/l	1.42	94,281.72	4.267E-02	Pulse	0.15	3
Ca			1	56371.252	ug/l	0.86	4,840,464.61	1.760E+00	Pulse	0.10	3
Sr			1	311.023	ug/l	0.87	1,316,690.87	4.003E-01	Pulse	0.10	3
Mo			1	1.174	ug/l	4.60	1,000.07	3.041E-04	Pulse	0.10	3
Ag			1	0.137	ug/l	29.54	306.68	8.618E-05	Pulse	0.10	3
Sn			1	3.535	ug/l	1.74	3,067.07	8.622E-04	Pulse	0.10	3
Sb			1	0.780	ug/l	6.89	1,230.10	2.744E-04	Pulse	0.10	3
Ba			1	74.551	ug/l	1.39	43,588.70	9.729E-03	Pulse	0.10	3
Tl			1	0.062	ug/l	26.31	626.70	2.564E-04	Pulse	0.10	3
Pb			1	0.319	ug/l	12.74	526.70	2.155E-04	Pulse	0.10	3
Pb			1	0.358	ug/l	12.47	520.03	2.128E-04	Pulse	0.10	3
Pb			1	0.359	ug/l	10.30	2,336.84	9.560E-04	Pulse	0.10	3
Na			2	166033.863	ug/l	1.58	14,428,214.98	1.649E+02	Analog	0.30	3
Mg			2	10455.533	ug/l	1.54	411,734.01	4.706E+00	Pulse	0.30	3
Al			2	18.850	ug/l	17.96	492.24	5.621E-03	Pulse	0.30	3
K			2	3566.417	ug/l	1.84	100,943.50	1.154E+00	Pulse	0.30	3
Ca			2	58049.006	ug/l	2.93	74,264.20	8.490E-01	Pulse	0.30	3
Ti			2	2.417	ug/l	41.71	27.78	3.187E-04	Pulse	0.30	3
V			2	0.629	ug/l	7.26	304.45	3.480E-03	Pulse	0.30	3
Cr			2	0.914	ug/l	10.12	791.14	9.045E-03	Pulse	0.30	3
Mn			2	243.470	ug/l	2.91	52,025.97	5.948E-01	Pulse	0.30	3
Fe			2	1257.682	ug/l	1.93	429,725.94	4.912E+00	Pulse	0.30	3
Co			2	0.654	ug/l	3.55	550.01	6.284E-03	Pulse	0.30	3
Ni			2	2.452	ug/l	10.11	535.57	6.114E-03	Pulse	0.30	3
Cu			2	6.397	ug/l	2.36	4,700.72	5.372E-02	Pulse	0.30	3
Zn			2	41.104	ug/l	3.68	3,288.14	3.759E-02	Pulse	0.30	3
As			2	0.591	ug/l	36.09	32.33	3.706E-04	Pulse	1.00	3
Cd			2	0.214	ug/l	46.67	31.07	6.921E-05	Pulse	0.30	3
Sn			2	0.154	ug/l	68.56	518.90	1.157E-03	Pulse	0.30	3
Se			3	0.277	ug/l	9.50	7.00	9.138E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,209,113.03	1.54	89.0	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,749,572.87	1.61	97.4	Pulse	0.10	3
1	Ge		511,156.89	1.84	101.6	Pulse	0.10	3
1	Ge		714,747.31	1.60	102.0	Pulse	0.10	3
1	Rh		3,289,577.97	0.91	99.8	Pulse	0.10	3
1	In		3,558,106.44	1.19	102.9	Pulse	0.10	3
1	Tb		4,480,522.85	1.24	103.2	Pulse	0.10	3
1	Ho		422,982.51	0.94	102.6	Pulse	0.10	3
1	Bi		2,442,955.90	1.58	103.0	Pulse	0.10	3
2	Sc		87,502.33	1.99	100.2	Pulse	0.30	3
2	Ge		49,040.09	1.72	106.7	Pulse	0.30	3
2	Ge		72,394.12	0.16	104.5	Pulse	0.30	3
2	Rh		1,275,310.16	0.82	99.3	Pulse	0.30	3
2	In		448,596.94	0.51	102.9	Pulse	0.30	3
2	Tb		1,559,265.15	0.87	101.9	Pulse	0.30	3
2	Ho		150,712.47	1.00	101.9	Pulse	0.30	3
2	Bi		986,752.81	0.78	99.6	Pulse	0.30	3
3	Sc		85,010.78	1.55	102.3	Pulse	0.30	3
3	Ge		50,504.62	0.26	103.7	Pulse	0.30	3
3	Ge		76,598.55	0.31	103.8	Pulse	0.30	3
3	Rh		810,674.41	0.35	99.8	Pulse	0.30	3
3	Tb		1,201,251.00	0.48	101.8	Pulse	0.30	3

Quantitation Report

File Name	049_CCV.d
File Path	C:\Agilent\ICPMH\1\DATA\xa050619m2.b
Method File	
Method Path	
Acq Time	5/6/2019 15:08
Sample Name	CCVA
Sample Type	CCV
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/6/2019 12:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	47.561	ug/l	0.27	379,854.28	1.745E-01	Pulse	0.25	3
B			1	101.196	ug/l	0.51	508,508.33	2.336E-01	Pulse	0.15	3
Ca			1	4970.490	ug/l	0.16	4,199,331.08	1.553E+00	Pulse	0.10	3
Sr			1	48.954	ug/l	1.14	2,026,463.20	6.299E-01	Pulse	0.10	3
Mo			1	47.065	ug/l	1.07	383,382.09	1.192E-01	Pulse	0.10	3
Ag			1	46.578	ug/l	0.82	881,830.77	2.525E-01	Pulse	0.10	3
Sn			1	46.739	ug/l	0.19	577,340.40	1.653E-01	Pulse	0.10	3
Sb			1	47.166	ug/l	0.47	655,878.83	1.472E-01	Pulse	0.10	3
Ba			1	47.713	ug/l	0.86	277,059.44	6.216E-02	Pulse	0.10	3
Tl			1	47.758	ug/l	1.35	1,424,211.49	5.942E-01	Pulse	0.10	3
Pb			1	48.178	ug/l	0.05	485,155.69	2.024E-01	Pulse	0.10	3
Pb			1	48.584	ug/l	0.77	429,901.91	1.793E-01	Pulse	0.10	3
Pb			1	47.991	ug/l	0.55	1,951,261.78	8.140E-01	Pulse	0.10	3
Na			2	4732.503	ug/l	0.62	4,032,203.45	4.708E+01	Pulse	0.30	3
Mg			2	4772.659	ug/l	1.11	1,839,268.05	2.148E+01	Pulse	0.30	3
Al			2	4768.804	ug/l	1.41	583,059.34	6.809E+00	Pulse	0.30	3
K			2	4968.421	ug/l	0.70	1,240,467.04	1.449E+01	Pulse	0.30	3
Ca			2	5293.381	ug/l	2.43	66,305.53	7.743E-01	Pulse	0.30	3
Ti			2	46.685	ug/l	4.12	5,060.83	5.910E-02	Pulse	0.30	3
V			2	49.151	ug/l	1.13	167,210.80	1.953E+00	Pulse	0.30	3
Cr			2	48.258	ug/l	1.34	208,839.40	2.439E+00	Pulse	0.30	3
Mn			2	47.838	ug/l	0.36	99,990.77	1.168E+00	Pulse	0.30	3
Fe			2	5076.333	ug/l	1.43	16,865,820.44	1.969E+02	Analog	0.30	3
Co			2	47.929	ug/l	0.91	338,954.34	3.958E+00	Pulse	0.30	3
Ni			2	47.257	ug/l	1.23	92,177.65	1.076E+00	Pulse	0.30	3
Cu			2	46.818	ug/l	0.16	250,849.17	2.929E+00	Pulse	0.30	3
Zn			2	47.824	ug/l	2.28	32,241.85	3.765E-01	Pulse	0.30	3
As			2	49.184	ug/l	0.36	19,177.88	2.239E-01	Pulse	1.00	3
Cd			2	46.894	ug/l	1.36	46,406.68	1.051E-01	Pulse	0.30	3
Sn			2	47.018	ug/l	0.62	96,320.34	2.181E-01	Pulse	0.30	3
Se			3	191.572	ug/l	1.09	13,240.54	1.754E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,176,880.24	0.77	87.7	Pulse	0.10	3
1	Sc		2,703,434.54	1.48	95.8	Pulse	0.10	3
1	Ge		502,634.08	1.74	99.9	Pulse	0.10	3

Quantitation Report

1	Ge		700,606.68	1.58	100.0	Pulse	0.10	3
1	Rh		3,217,289.64	2.10	97.6	Pulse	0.10	3
1	In		3,491,902.05	1.62	101.0	Pulse	0.10	3
1	Tb		4,457,084.10	0.86	102.6	Pulse	0.10	3
1	Ho		424,409.99	0.98	102.9	Pulse	0.10	3
1	Bi		2,397,191.58	1.66	101.0	Pulse	0.10	3
2	Sc		85,638.39	0.30	98.1	Pulse	0.30	3
2	Ge		47,957.92	0.67	104.4	Pulse	0.30	3
2	Ge		72,460.12	1.34	104.6	Pulse	0.30	3
2	Rh		1,264,523.45	0.25	98.4	Pulse	0.30	3
2	In		441,715.95	0.53	101.3	Pulse	0.30	3
2	Tb		1,531,755.08	1.65	100.1	Pulse	0.30	3
2	Ho		149,440.65	1.08	101.0	Pulse	0.30	3
2	Bi		967,368.71	0.60	97.6	Pulse	0.30	3
3	Sc		83,992.11	0.43	101.1	Pulse	0.30	3
3	Ge		49,694.30	1.67	102.0	Pulse	0.30	3
3	Ge		75,490.47	1.10	102.3	Pulse	0.30	3
3	Rh		807,249.71	0.46	99.4	Pulse	0.30	3
3	Tb		1,196,534.92	0.22	101.4	Pulse	0.30	3

Quantitation Report

File Name	050_CCB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa050619m2.b
Method File	
Method Path	
Acq Time	5/6/2019 15:13
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/6/2019 12:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.013	ug/l	49.51	121.33	5.476E-05	Pulse	0.25	3
B			1	6.860	ug/l	2.03	37,390.16	1.692E-02	Pulse	0.15	3
Ca			1	-0.991	ug/l	-27.95	22,883.20	8.372E-03	Pulse	0.10	3
Sr			1	0.021	ug/l	16.08	1,373.48	4.138E-04	Pulse	0.10	3
Mo			1	0.085	ug/l	14.38	740.05	2.227E-04	Pulse	0.10	3
Ag			1	0.011	ug/l	7.40	246.68	6.935E-05	Pulse	0.10	3
Sn			1	0.466	ug/l	3.35	4,484.13	1.260E-03	Pulse	0.10	3
Sb			1	0.369	ug/l	3.35	5,237.72	1.184E-03	Pulse	0.10	3
Ba			1	0.023	ug/l	37.70	220.01	4.963E-05	Pulse	0.10	3
Tl			1	0.013	ug/l	25.40	830.06	3.393E-04	Pulse	0.10	3
Pb			1	0.025	ug/l	22.04	456.69	1.868E-04	Pulse	0.10	3
Pb			1	0.018	ug/l	59.05	360.02	1.475E-04	Pulse	0.10	3
Pb			1	0.019	ug/l	21.70	1,623.43	6.638E-04	Pulse	0.10	3
Na			2	15.398	ug/l	3.83	23,070.26	2.647E-01	Pulse	0.30	3
Mg			2	1.154	ug/l	5.41	573.35	6.579E-03	Pulse	0.30	3
Al			2	3.459	ug/l	11.30	685.58	7.867E-03	Pulse	0.30	3
K			2	-3.081	ug/l	-33.01	9,936.37	1.140E-01	Pulse	0.30	3
Ca			2	3.857	ug/l	45.18	122.23	1.402E-03	Pulse	0.30	3
Ti			2	0.071	ug/l	65.64	8.89	1.020E-04	Pulse	0.30	3
V			2	0.012	ug/l	119.05	127.78	1.467E-03	Pulse	0.30	3
Cr			2	0.015	ug/l	109.67	451.13	5.177E-03	Pulse	0.30	3
Mn			2	0.059	ug/l	5.16	220.00	2.524E-03	Pulse	0.30	3
Fe			2	1.241	ug/l	7.41	7,119.40	8.169E-02	Pulse	0.30	3
Co			2	0.008	ug/l	54.23	136.67	1.568E-03	Pulse	0.30	3
Ni			2	0.014	ug/l	17.84	74.44	8.541E-04	Pulse	0.30	3
Cu			2	-0.009	ug/l	-29.59	1,161.17	1.332E-02	Pulse	0.30	3
Zn			2	1.128	ug/l	5.99	1,261.18	1.447E-02	Pulse	0.30	3
As			2	0.021	ug/l	41.60	17.33	1.989E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	0.006	ug/l	64.15	15.51	3.473E-05	Pulse	0.30	3
Sn			2	0.125	ug/l	11.73	743.36	1.664E-03	Pulse	0.30	3
Se			3	0.117	ug/l	24.80	13.20	1.734E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,210,134.36	0.90	89.1	Pulse	0.10	3
1	Sc		2,733,527.67	1.34	96.8	Pulse	0.10	3
1	Ge		508,158.59	1.96	101.0	Pulse	0.10	3
1	Ge		710,887.67	2.02	101.4	Pulse	0.10	3
1	Rh		3,319,195.78	1.44	100.7	Pulse	0.10	3
1	In		3,559,186.16	1.38	102.9	Pulse	0.10	3
1	Tb		4,425,084.00	1.47	101.9	Pulse	0.10	3
1	Ho		418,819.52	2.44	101.5	Pulse	0.10	3
1	Bi		2,447,642.20	1.56	103.2	Pulse	0.10	3
2	Sc		87,153.54	0.19	99.8	Pulse	0.30	3
2	Ge		48,586.67	1.87	105.7	Pulse	0.30	3
2	Ge		72,280.43	0.53	104.3	Pulse	0.30	3
2	Rh		1,293,380.61	0.51	100.7	Pulse	0.30	3
2	In		446,636.30	0.83	102.4	Pulse	0.30	3
2	Tb		1,543,890.46	0.44	100.8	Pulse	0.30	3
2	Ho		150,256.57	0.71	101.6	Pulse	0.30	3
2	Bi		997,276.21	0.89	100.7	Pulse	0.30	3
3	Sc		85,544.60	0.39	102.9	Pulse	0.30	3
3	Ge		50,119.98	1.04	102.9	Pulse	0.30	3
3	Ge		76,061.94	1.05	103.0	Pulse	0.30	3
3	Rh		836,444.08	0.35	103.0	Pulse	0.30	3
3	Tb		1,200,448.25	1.08	101.7	Pulse	0.30	3

Quantitation Report

File Name	051SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa050619m2.b
Method File	
Method Path	
Acq Time	5/6/2019 15:18
Sample Name	mp14786-s7
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/6/2019 12:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	74.640	ug/l	0.72	283,025.06	1.369E-01	Pulse	0.25	3
B			1	245.807	ug/l	0.99	585,891.80	2.834E-01	Pulse	0.15	3
Ca			1	60891.566	ug/l	0.23	24,745,042.13	9.470E+00	Analog	0.10	3
Sr			1	423.338	ug/l	1.15	8,180,245.50	2.723E+00	Analog	0.10	3
Mo			1	77.564	ug/l	0.29	295,031.40	9.821E-02	Pulse	0.10	3
Ag			1	70.920	ug/l	0.49	646,088.86	1.923E-01	Pulse	0.10	3
Sn			1	73.205	ug/l	0.08	434,832.53	1.294E-01	Pulse	0.10	3
Sb			1	74.450	ug/l	0.55	511,661.62	1.161E-01	Pulse	0.10	3
Ba			1	147.261	ug/l	0.28	422,551.31	9.592E-02	Pulse	0.10	3
Tl			1	76.394	ug/l	0.41	1,095,304.98	4.753E-01	Pulse	0.10	3
Pb			1	77.418	ug/l	1.46	374,785.87	1.626E-01	Pulse	0.10	3
Pb			1	77.349	ug/l	1.60	329,040.31	1.428E-01	Pulse	0.10	3
Pb			1	77.057	ug/l	0.67	1,506,184.24	6.536E-01	Pulse	0.10	3
Na			2	170019.002	ug/l	1.62	69,322,912.80	8.439E+02	Analog	0.30	3
Mg			2	13989.800	ug/l	0.90	2,585,901.36	3.148E+01	Pulse	0.30	3
Al			2	3637.437	ug/l	1.32	213,459.60	2.598E+00	Pulse	0.30	3
K			2	7407.882	ug/l	1.43	889,660.87	1.083E+01	Pulse	0.30	3
Ca			2	61793.905	ug/l	0.34	370,959.36	4.515E+00	Pulse	0.30	3
Ti			2	70.590	ug/l	2.68	3,671.56	4.468E-02	Pulse	0.30	3
V			2	78.650	ug/l	1.38	128,348.39	1.562E+00	Pulse	0.30	3
Cr			2	76.642	ug/l	0.78	159,167.83	1.937E+00	Pulse	0.30	3
Mn			2	311.248	ug/l	1.65	311,827.55	3.796E+00	Pulse	0.30	3
Fe			2	4135.297	ug/l	1.35	6,591,498.77	8.024E+01	Analog	0.30	3
Co			2	75.166	ug/l	1.40	254,973.73	3.104E+00	Pulse	0.30	3
Ni			2	74.834	ug/l	0.92	70,022.13	8.524E-01	Pulse	0.30	3
Cu			2	77.495	ug/l	1.20	199,347.68	2.427E+00	Pulse	0.30	3
Zn			2	92.298	ug/l	1.30	29,867.32	3.635E-01	Pulse	0.30	3
As			2	68.277	ug/l	1.23	12,771.66	1.555E-01	Pulse	1.00	3
Cd			2	71.610	ug/l	1.31	32,644.62	8.022E-02	Pulse	0.30	3
Sn			2	74.574	ug/l	0.58	70,459.55	1.732E-01	Pulse	0.30	3
Se			3	307.147	ug/l	0.69	10,729.11	1.406E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,067,109.00	0.83	83.3	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,613,006.94	0.65	92.6	Pulse	0.10	3
1	Ge		492,555.92	1.29	97.9	Pulse	0.10	3
1	Ge		684,847.67	1.54	97.7	Pulse	0.10	3
1	Rh		3,004,162.14	1.25	91.1	Pulse	0.10	3
1	In		3,360,436.36	0.81	97.2	Pulse	0.10	3
1	Tb		4,405,268.68	1.65	101.4	Pulse	0.10	3
1	Ho		420,543.69	2.40	102.0	Pulse	0.10	3
1	Bi		2,304,578.04	1.19	97.1	Pulse	0.10	3
2	Sc		82,156.68	1.12	94.1	Pulse	0.30	3
2	Ge		45,914.37	1.12	99.9	Pulse	0.30	3
2	Ge		68,924.55	0.82	99.5	Pulse	0.30	3
2	Rh		1,170,128.43	0.32	91.1	Pulse	0.30	3
2	In		406,911.35	0.34	93.3	Pulse	0.30	3
2	Tb		1,481,116.64	0.75	96.7	Pulse	0.30	3
2	Ho		144,716.32	0.91	97.8	Pulse	0.30	3
2	Bi		908,561.18	0.13	91.7	Pulse	0.30	3
3	Sc		83,855.03	0.64	100.9	Pulse	0.30	3
3	Ge		49,689.73	1.59	102.0	Pulse	0.30	3
3	Ge		76,301.61	1.38	103.4	Pulse	0.30	3
3	Rh		768,578.81	0.56	94.6	Pulse	0.30	3
3	Tb		1,189,970.61	0.16	100.8	Pulse	0.30	3

Quantitation Report

File Name 052SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa050619m2.b
Method File
Method Path
Acq Time 5/6/2019 15:23
Sample Name mp14786-s8
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 5/6/2019 12:34
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	74.152	ug/l	0.46	277,211.17	1.360E-01	Pulse	0.25	3
B			1	245.154	ug/l	0.91	576,140.41	2.827E-01	Pulse	0.15	3
Ca			1	60341.887	ug/l	0.05	24,335,971.31	9.385E+00	Analog	0.10	3
Sr			1	416.424	ug/l	0.50	8,038,340.09	2.679E+00	Analog	0.10	3
Mo			1	76.438	ug/l	0.93	290,397.51	9.678E-02	Pulse	0.10	3
Ag			1	70.621	ug/l	0.86	639,304.61	1.914E-01	Pulse	0.10	3
Sn			1	73.361	ug/l	1.64	433,089.17	1.297E-01	Pulse	0.10	3
Sb			1	73.859	ug/l	1.09	502,166.56	1.152E-01	Pulse	0.10	3
Ba			1	146.000	ug/l	0.94	414,425.20	9.510E-02	Pulse	0.10	3
Tl			1	76.649	ug/l	0.79	1,089,335.24	4.769E-01	Pulse	0.10	3
Pb			1	77.926	ug/l	0.69	373,921.06	1.637E-01	Pulse	0.10	3
Pb			1	78.112	ug/l	0.36	329,416.83	1.442E-01	Pulse	0.10	3
Pb			1	77.300	ug/l	0.74	1,497,659.78	6.556E-01	Pulse	0.10	3
Na			2	170475.213	ug/l	2.15	67,599,723.98	8.461E+02	Analog	0.30	3
Mg			2	14076.107	ug/l	0.50	2,530,572.82	3.167E+01	Pulse	0.30	3
Al			2	3664.235	ug/l	0.91	209,152.30	2.618E+00	Pulse	0.30	3
K			2	7464.173	ug/l	0.14	871,855.36	1.091E+01	Pulse	0.30	3
Ca			2	62151.255	ug/l	0.78	362,860.84	4.541E+00	Pulse	0.30	3
Ti			2	75.111	ug/l	2.30	3,799.37	4.755E-02	Pulse	0.30	3
V			2	79.242	ug/l	0.41	125,782.65	1.574E+00	Pulse	0.30	3
Cr			2	76.979	ug/l	0.66	155,487.17	1.946E+00	Pulse	0.30	3
Mn			2	312.922	ug/l	0.58	304,925.20	3.816E+00	Pulse	0.30	3
Fe			2	4217.365	ug/l	0.76	6,538,845.16	8.183E+01	Analog	0.30	3
Co			2	75.647	ug/l	0.96	249,574.47	3.124E+00	Pulse	0.30	3
Ni			2	75.296	ug/l	1.71	68,520.64	8.576E-01	Pulse	0.30	3
Cu			2	75.945	ug/l	0.85	190,031.32	2.378E+00	Pulse	0.30	3
Zn			2	91.954	ug/l	0.88	28,941.22	3.622E-01	Pulse	0.30	3
As			2	69.957	ug/l	0.52	12,728.30	1.593E-01	Pulse	1.00	3
Cd			2	71.117	ug/l	1.25	32,268.54	7.967E-02	Pulse	0.30	3
Sn			2	74.703	ug/l	0.19	70,250.99	1.735E-01	Pulse	0.30	3
Se			3	307.407	ug/l	0.65	10,668.80	1.407E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,037,893.99	0.94	82.1	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,593,181.78	0.64	91.8	Pulse	0.10	3
1	Ge		490,082.90	1.21	97.4	Pulse	0.10	3
1	Ge		679,611.86	1.39	97.0	Pulse	0.10	3
1	Rh		3,000,665.16	1.66	91.0	Pulse	0.10	3
1	In		3,339,348.79	1.36	96.6	Pulse	0.10	3
1	Tb		4,358,108.27	2.12	100.3	Pulse	0.10	3
1	Ho		416,697.95	1.30	101.0	Pulse	0.10	3
1	Bi		2,284,508.56	1.64	96.3	Pulse	0.10	3
2	Sc		79,903.40	1.05	91.5	Pulse	0.30	3
2	Ge		45,716.11	0.51	99.5	Pulse	0.30	3
2	Ge		68,336.85	1.14	98.7	Pulse	0.30	3
2	Rh		1,156,480.61	0.72	90.0	Pulse	0.30	3
2	In		405,006.46	0.58	92.9	Pulse	0.30	3
2	Tb		1,475,040.60	0.56	96.3	Pulse	0.30	3
2	Ho		144,066.15	0.21	97.4	Pulse	0.30	3
2	Bi		900,704.82	0.57	90.9	Pulse	0.30	3
3	Sc		82,565.17	0.68	99.3	Pulse	0.30	3
3	Ge		49,574.97	0.15	101.8	Pulse	0.30	3
3	Ge		75,803.86	0.17	102.7	Pulse	0.30	3
3	Rh		763,897.26	0.60	94.0	Pulse	0.30	3
3	Tb		1,184,609.22	0.52	100.4	Pulse	0.30	3

Quantitation Report

File Name	053SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa050619m2.b
Method File	
Method Path	
Acq Time	5/6/2019 15:28
Sample Name	jc87418-1f
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/6/2019 12:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.020	ug/l	20.70	89.33	4.407E-05	Pulse	0.25	3
B			1	160.114	ug/l	1.56	375,037.39	1.850E-01	Pulse	0.15	3
Ca			1	57024.973	ug/l	0.30	22,686,288.83	8.869E+00	Analog	0.10	3
Sr			1	337.582	ug/l	0.38	6,410,574.28	2.172E+00	Analog	0.10	3
Mo			1	1.041	ug/l	5.37	3,913.95	1.325E-03	Pulse	0.10	3
Ag			1	0.052	ug/l	18.04	506.69	1.529E-04	Pulse	0.10	3
Sn			1	1.434	ug/l	3.75	7,121.87	2.151E-03	Pulse	0.10	3
Sb			1	0.571	ug/l	3.74	4,007.31	9.220E-04	Pulse	0.10	3
Ba			1	72.202	ug/l	0.68	204,308.52	4.704E-02	Pulse	0.10	3
Tl			1	0.043	ug/l	24.52	1,023.40	4.470E-04	Pulse	0.10	3
Pb			1	0.096	ug/l	7.76	646.71	2.823E-04	Pulse	0.10	3
Pb			1	0.110	ug/l	12.79	650.04	2.837E-04	Pulse	0.10	3
Pb			1	0.102	ug/l	7.92	2,783.54	1.215E-03	Pulse	0.10	3
Na			2	167571.889	ug/l	1.86	65,881,819.61	8.317E+02	Analog	0.30	3
Mg			2	10468.798	ug/l	1.32	1,865,936.11	2.356E+01	Pulse	0.30	3
Al			2	5.261	ug/l	28.02	530.02	6.685E-03	Pulse	0.30	3
K			2	3663.910	ug/l	1.64	429,228.20	5.419E+00	Pulse	0.30	3
Ca			2	58881.880	ug/l	2.05	340,807.28	4.303E+00	Pulse	0.30	3
Ti			2	0.423	ug/l	44.89	22.22	2.802E-04	Pulse	0.30	3
V			2	0.351	ug/l	18.98	628.91	7.952E-03	Pulse	0.30	3
Cr			2	0.672	ug/l	4.12	1,693.44	2.138E-02	Pulse	0.30	3
Mn			2	241.444	ug/l	1.74	233,262.34	2.945E+00	Pulse	0.30	3
Fe			2	177.599	ug/l	1.65	275,508.96	3.478E+00	Pulse	0.30	3
Co			2	0.599	ug/l	0.74	2,030.15	2.563E-02	Pulse	0.30	3
Ni			2	2.387	ug/l	4.44	2,193.51	2.770E-02	Pulse	0.30	3
Cu			2	3.398	ug/l	3.21	9,480.60	1.197E-01	Pulse	0.30	3
Zn			2	27.492	ug/l	5.47	8,891.39	1.123E-01	Pulse	0.30	3
As			2	0.380	ug/l	20.99	76.67	9.656E-04	Pulse	1.00	3
Cd			2	0.124	ug/l	31.13	64.24	1.596E-04	Pulse	0.30	3
Sn			2	0.840	ug/l	8.49	1,220.06	3.025E-03	Pulse	0.30	3
Se			3	0.415	ug/l	21.58	19.53	2.558E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,026,770.14	0.82	81.7	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,557,907.25	1.39	90.6	Pulse	0.10	3
1	Ge		489,401.31	1.82	97.2	Pulse	0.10	3
1	Ge		673,452.78	2.27	96.1	Pulse	0.10	3
1	Rh		2,952,033.71	1.88	89.6	Pulse	0.10	3
1	In		3,310,170.40	1.60	95.7	Pulse	0.10	3
1	Tb		4,343,891.92	2.35	100.0	Pulse	0.10	3
1	Ho		416,824.83	1.82	101.1	Pulse	0.10	3
1	Bi		2,290,642.41	0.48	96.5	Pulse	0.10	3
2	Sc		79,226.01	1.75	90.7	Pulse	0.30	3
2	Ge		45,226.96	0.99	98.4	Pulse	0.30	3
2	Ge		68,596.81	0.64	99.0	Pulse	0.30	3
2	Rh		1,155,447.04	1.59	89.9	Pulse	0.30	3
2	In		403,287.20	1.01	92.5	Pulse	0.30	3
2	Tb		1,465,841.92	0.70	95.7	Pulse	0.30	3
2	Ho		143,705.55	1.01	97.1	Pulse	0.30	3
2	Bi		899,781.98	0.88	90.8	Pulse	0.30	3
3	Sc		83,116.62	0.57	100.0	Pulse	0.30	3
3	Ge		50,072.10	0.99	102.8	Pulse	0.30	3
3	Ge		76,410.05	0.64	103.5	Pulse	0.30	3
3	Rh		768,018.53	0.60	94.5	Pulse	0.30	3
3	Tb		1,184,166.24	0.84	100.3	Pulse	0.30	3

Quantitation Report

File Name	054SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa050619m2.b
Method File	
Method Path	
Acq Time	5/6/2019 15:33
Sample Name	mp14786-sd2
Sample Type	Sample
Comment	
Prep Dilution	10.000
Auto Dilution	N/A
Total Dilution	10.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/6/2019 12:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.041	ug/l	54.34	50.67	2.336E-05	Pulse	0.25	3
B			1	184.523	ug/l	1.28	94,357.13	4.354E-02	Pulse	0.15	3
Ca			1	57053.770	ug/l	0.94	4,776,645.66	1.782E+00	Pulse	0.10	3
Sr			1	316.224	ug/l	1.20	1,295,615.63	4.070E-01	Pulse	0.10	3
Mo			1	1.388	ug/l	14.89	1,140.08	3.583E-04	Pulse	0.10	3
Ag			1	0.100	ug/l	24.64	230.01	6.616E-05	Pulse	0.10	3
Sn			1	2.361	ug/l	3.08	1,553.48	4.461E-04	Pulse	0.10	3
Sb			1	1.144	ug/l	6.03	1,700.15	3.881E-04	Pulse	0.10	3
Ba			1	73.055	ug/l	1.53	41,783.65	9.534E-03	Pulse	0.10	3
Tl			1	0.030	ug/l	35.06	526.70	2.172E-04	Pulse	0.10	3
Pb			1	0.120	ug/l	24.03	320.02	1.319E-04	Pulse	0.10	3
Pb			1	0.069	ug/l	64.23	256.68	1.059E-04	Pulse	0.10	3
Pb			1	0.109	ug/l	30.68	1,290.07	5.321E-04	Pulse	0.10	3
Na			2	169022.463	ug/l	1.05	14,373,962.76	1.679E+02	Analog	0.30	3
Mg			2	10619.702	ug/l	0.33	409,299.77	4.780E+00	Pulse	0.30	3
Al			2	-0.538	ug/l	-461.79	244.45	2.854E-03	Pulse	0.30	3
K			2	3669.532	ug/l	1.17	101,347.99	1.184E+00	Pulse	0.30	3
Ca			2	59268.543	ug/l	1.77	74,219.50	8.668E-01	Pulse	0.30	3
Ti			2	0.518	ug/l	120.12	6.67	7.838E-05	Pulse	0.30	3
V			2	0.259	ug/l	22.66	172.22	2.012E-03	Pulse	0.30	3
Cr			2	0.109	ug/l	59.43	426.68	4.984E-03	Pulse	0.30	3
Mn			2	245.357	ug/l	0.80	51,320.44	5.994E-01	Pulse	0.30	3
Fe			2	178.675	ug/l	1.31	62,215.33	7.266E-01	Pulse	0.30	3
Co			2	0.542	ug/l	7.81	458.90	5.361E-03	Pulse	0.30	3
Ni			2	2.548	ug/l	8.47	542.24	6.333E-03	Pulse	0.30	3
Cu			2	5.344	ug/l	3.65	4,038.33	4.716E-02	Pulse	0.30	3
Zn			2	29.247	ug/l	3.65	2,431.32	2.840E-02	Pulse	0.30	3
As			2	0.691	ug/l	8.02	35.67	4.164E-04	Pulse	1.00	3
Cd			2	0.094	ug/l	165.97	18.84	4.231E-05	Pulse	0.30	3
Sn			2	-0.986	ug/l	-7.66	280.01	6.306E-04	Pulse	0.30	3
Se			3	0.604	ug/l	27.32	9.07	1.213E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,166,839.01	0.48	87.3	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,681,092.77	0.78	95.0	Pulse	0.10	3
1	Ge		502,631.54	0.77	99.9	Pulse	0.10	3
1	Ge		691,797.02	1.50	98.7	Pulse	0.10	3
1	Rh		3,183,554.01	0.66	96.6	Pulse	0.10	3
1	In		3,481,779.82	1.09	100.7	Pulse	0.10	3
1	Tb		4,382,492.22	1.56	100.9	Pulse	0.10	3
1	Ho		421,409.64	0.89	102.2	Pulse	0.10	3
1	Bi		2,425,359.29	0.59	102.2	Pulse	0.10	3
2	Sc		85,628.12	1.08	98.1	Pulse	0.30	3
2	Ge		47,641.56	0.84	103.7	Pulse	0.30	3
2	Ge		71,424.17	0.93	103.1	Pulse	0.30	3
2	Rh		1,244,320.78	0.44	96.9	Pulse	0.30	3
2	In		443,875.97	0.86	101.8	Pulse	0.30	3
2	Tb		1,522,252.99	1.00	99.4	Pulse	0.30	3
2	Ho		148,589.68	1.40	100.4	Pulse	0.30	3
2	Bi		974,071.63	0.85	98.3	Pulse	0.30	3
3	Sc		83,633.82	0.24	100.6	Pulse	0.30	3
3	Ge		49,353.32	0.31	101.3	Pulse	0.30	3
3	Ge		74,713.40	0.45	101.2	Pulse	0.30	3
3	Rh		793,645.66	0.63	97.7	Pulse	0.30	3
3	Tb		1,189,190.40	0.64	100.8	Pulse	0.30	3

Quantitation Report

File Name	055SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa050619m2.b
Method File	
Method Path	
Acq Time	5/6/2019 15:38
Sample Name	jc87343-5
Sample Type	Sample
Comment	fb
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/6/2019 12:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.033	ug/l	12.62	141.33	6.854E-05	Pulse	0.25	3
B			1	12.307	ug/l	1.55	31,551.92	1.530E-02	Pulse	0.15	3
Ca			1	46.865	ug/l	4.46	40,483.81	1.596E-02	Pulse	0.10	3
Sr			1	2.872	ug/l	2.10	58,608.04	1.861E-02	Pulse	0.10	3
Mo			1	0.060	ug/l	22.65	260.01	8.250E-05	Pulse	0.10	3
Ag			1	0.019	ug/l	33.80	220.01	6.474E-05	Pulse	0.10	3
Sn			1	1.218	ug/l	2.54	6,008.01	1.768E-03	Pulse	0.10	3
Sb			1	0.156	ug/l	1.58	1,213.43	2.751E-04	Pulse	0.10	3
Ba			1	2.777	ug/l	6.48	8,065.78	1.828E-03	Pulse	0.10	3
Tl			1	0.013	ug/l	16.32	640.04	2.625E-04	Pulse	0.10	3
Pb			1	0.249	ug/l	3.70	1,473.47	6.044E-04	Pulse	0.10	3
Pb			1	0.249	ug/l	11.65	1,316.79	5.402E-04	Pulse	0.10	3
Pb			1	0.242	ug/l	5.81	5,850.69	2.400E-03	Pulse	0.10	3
Na			2	81.035	ug/l	1.02	40,637.55	5.140E-01	Pulse	0.30	3
Mg			2	8.275	ug/l	4.33	1,581.21	2.000E-02	Pulse	0.30	3
Al			2	25.700	ug/l	5.39	1,682.33	2.127E-02	Pulse	0.30	3
K			2	-1.418	ug/l	-73.78	9,555.06	1.209E-01	Pulse	0.30	3
Ca			2	77.927	ug/l	6.20	516.68	6.532E-03	Pulse	0.30	3
Ti			2	0.070	ug/l	147.99	4.44	5.679E-05	Pulse	0.30	3
V			2	0.171	ug/l	12.44	346.67	4.380E-03	Pulse	0.30	3
Cr			2	0.505	ug/l	10.33	1,356.74	1.716E-02	Pulse	0.30	3
Mn			2	0.483	ug/l	14.99	551.13	6.976E-03	Pulse	0.30	3
Fe			2	3.971	ug/l	6.29	8,739.12	1.106E-01	Pulse	0.30	3
Co			2	0.066	ug/l	20.53	286.67	3.624E-03	Pulse	0.30	3
Ni			2	1.052	ug/l	3.16	988.93	1.251E-02	Pulse	0.30	3
Cu			2	1.739	ug/l	6.64	5,379.83	6.802E-02	Pulse	0.30	3
Zn			2	6.868	ug/l	7.63	2,559.12	3.235E-02	Pulse	0.30	3
As			2	0.056	ug/l	47.85	18.00	2.281E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	-0.002	ug/l	-196.32	7.76	1.880E-05	Pulse	0.30	3
Sn			2	0.498	ug/l	11.96	923.37	2.236E-03	Pulse	0.30	3
Se			3	0.066	ug/l	56.82	7.33	9.638E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,062,795.36	0.65	83.1	Pulse	0.10	3
1	Sc		2,536,686.06	1.26	89.8	Pulse	0.10	3
1	Ge		482,653.57	1.01	95.9	Pulse	0.10	3
1	Ge		667,548.20	0.93	95.2	Pulse	0.10	3
1	Rh		3,148,621.51	0.75	95.5	Pulse	0.10	3
1	In		3,397,209.80	0.17	98.2	Pulse	0.10	3
1	Tb		4,411,280.56	1.41	101.6	Pulse	0.10	3
1	Ho		420,088.47	1.26	101.8	Pulse	0.10	3
1	Bi		2,438,226.89	0.52	102.8	Pulse	0.10	3
2	Sc		79,062.75	1.67	90.5	Pulse	0.30	3
2	Ge		44,480.45	1.60	96.8	Pulse	0.30	3
2	Ge		68,467.48	1.18	98.8	Pulse	0.30	3
2	Rh		1,215,631.03	0.37	94.6	Pulse	0.30	3
2	In		413,001.56	0.12	94.7	Pulse	0.30	3
2	Tb		1,473,919.91	0.73	96.3	Pulse	0.30	3
2	Ho		143,925.41	0.39	97.3	Pulse	0.30	3
2	Bi		960,829.51	0.55	97.0	Pulse	0.30	3
3	Sc		82,727.32	0.45	99.5	Pulse	0.30	3
3	Ge		50,355.33	0.94	103.4	Pulse	0.30	3
3	Ge		76,064.17	0.41	103.0	Pulse	0.30	3
3	Rh		817,623.98	0.63	100.6	Pulse	0.30	3
3	Tb		1,195,725.75	0.47	101.3	Pulse	0.30	3

Quantitation Report

File Name	056SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa050619m2.b
Method File	
Method Path	
Acq Time	5/6/2019 15:43
Sample Name	jc87418-3
Sample Type	Sample
Comment	fb
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/6/2019 12:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.055	ug/l	7.97	228.01	1.087E-04	Pulse	0.25	3
B			1	11.113	ug/l	1.15	29,216.49	1.393E-02	Pulse	0.15	3
Ca			1	45.182	ug/l	1.58	40,206.21	1.570E-02	Pulse	0.10	3
Sr			1	4.073	ug/l	1.23	83,644.69	2.634E-02	Pulse	0.10	3
Mo			1	0.034	ug/l	57.15	160.01	5.007E-05	Pulse	0.10	3
Ag			1	0.018	ug/l	2.43	206.68	6.043E-05	Pulse	0.10	3
Sn			1	1.129	ug/l	3.25	5,511.16	1.611E-03	Pulse	0.10	3
Sb			1	0.090	ug/l	9.89	746.72	1.717E-04	Pulse	0.10	3
Ba			1	3.737	ug/l	0.29	10,660.69	2.453E-03	Pulse	0.10	3
Tl			1	0.008	ug/l	46.43	556.70	2.292E-04	Pulse	0.10	3
Pb			1	0.234	ug/l	3.99	1,393.46	5.739E-04	Pulse	0.10	3
Pb			1	0.217	ug/l	9.25	1,166.76	4.806E-04	Pulse	0.10	3
Pb			1	0.223	ug/l	1.77	5,443.96	2.242E-03	Pulse	0.10	3
Na			2	81.831	ug/l	1.95	42,544.44	5.180E-01	Pulse	0.30	3
Mg			2	8.744	ug/l	7.09	1,729.00	2.106E-02	Pulse	0.30	3
Al			2	22.758	ug/l	3.34	1,574.53	1.917E-02	Pulse	0.30	3
K			2	5.723	ug/l	59.63	10,773.59	1.312E-01	Pulse	0.30	3
Ca			2	85.933	ug/l	3.86	584.46	7.117E-03	Pulse	0.30	3
Ti			2	0.129	ug/l	28.40	7.78	9.470E-05	Pulse	0.30	3
V			2	0.194	ug/l	24.70	396.68	4.825E-03	Pulse	0.30	3
Cr			2	0.564	ug/l	6.85	1,533.42	1.866E-02	Pulse	0.30	3
Mn			2	0.566	ug/l	5.64	655.58	7.979E-03	Pulse	0.30	3
Fe			2	3.871	ug/l	3.62	8,922.53	1.086E-01	Pulse	0.30	3
Co			2	0.122	ug/l	11.30	486.68	5.927E-03	Pulse	0.30	3
Ni			2	1.196	ug/l	8.22	1,161.17	1.414E-02	Pulse	0.30	3
Cu			2	0.566	ug/l	13.15	2,586.90	3.151E-02	Pulse	0.30	3
Zn			2	3.331	ug/l	12.37	1,530.09	1.864E-02	Pulse	0.30	3
As			2	0.096	ug/l	24.42	26.33	3.209E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	0.002	ug/l	658.16	9.99	2.357E-05	Pulse	0.30	3
Sn			2	0.522	ug/l	12.77	971.15	2.291E-03	Pulse	0.30	3
Se			3	0.216	ug/l	94.33	12.87	1.649E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,098,135.71	0.43	84.5	Pulse	0.10	3
1	Sc		2,560,681.37	1.72	90.7	Pulse	0.10	3
1	Ge		498,825.99	1.87	99.1	Pulse	0.10	3
1	Ge		683,290.90	1.31	97.5	Pulse	0.10	3
1	Rh		3,176,149.85	1.91	96.4	Pulse	0.10	3
1	In		3,419,736.27	1.34	98.9	Pulse	0.10	3
1	Tb		4,346,443.79	1.05	100.1	Pulse	0.10	3
1	Ho		415,044.97	0.51	100.6	Pulse	0.10	3
1	Bi		2,428,365.69	0.55	102.3	Pulse	0.10	3
2	Sc		82,138.62	0.83	94.1	Pulse	0.30	3
2	Ge		46,797.99	0.93	101.8	Pulse	0.30	3
2	Ge		70,029.54	0.51	101.1	Pulse	0.30	3
2	Rh		1,245,748.11	0.40	97.0	Pulse	0.30	3
2	In		423,994.97	0.13	97.2	Pulse	0.30	3
2	Tb		1,508,417.58	0.67	98.5	Pulse	0.30	3
2	Ho		147,197.99	0.33	99.5	Pulse	0.30	3
2	Bi		973,975.14	1.06	98.3	Pulse	0.30	3
3	Sc		85,001.08	0.11	102.3	Pulse	0.30	3
3	Ge		51,471.96	0.94	105.7	Pulse	0.30	3
3	Ge		77,727.49	1.33	105.3	Pulse	0.30	3
3	Rh		830,106.30	0.30	102.2	Pulse	0.30	3
3	Tb		1,211,102.83	0.74	102.6	Pulse	0.30	3

Quantitation Report

File Name	057SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa050619m2.b
Method File	
Method Path	
Acq Time	5/6/2019 15:48
Sample Name	jc87418-3f
Sample Type	Sample
Comment	fb
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/6/2019 12:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.005	ug/l	60.45	37.33	1.748E-05	Pulse	0.25	3
B			1	10.628	ug/l	2.34	28,495.38	1.337E-02	Pulse	0.15	3
Ca			1	4.247	ug/l	27.69	24,482.01	9.340E-03	Pulse	0.10	3
Sr			1	0.396	ug/l	3.66	8,622.62	2.686E-03	Pulse	0.10	3
Mo			1	0.045	ug/l	7.11	206.68	6.441E-05	Pulse	0.10	3
Ag			1	0.012	ug/l	41.13	153.34	4.416E-05	Pulse	0.10	3
Sn			1	1.177	ug/l	2.73	5,871.33	1.695E-03	Pulse	0.10	3
Sb			1	0.079	ug/l	8.19	686.71	1.550E-04	Pulse	0.10	3
Ba			1	0.387	ug/l	13.94	1,200.10	2.711E-04	Pulse	0.10	3
Tl			1	-0.001	ug/l	-58.36	423.35	1.724E-04	Pulse	0.10	3
Pb			1	0.037	ug/l	40.30	390.02	1.587E-04	Pulse	0.10	3
Pb			1	0.016	ug/l	106.81	270.01	1.097E-04	Pulse	0.10	3
Pb			1	0.025	ug/l	26.70	1,380.09	5.615E-04	Pulse	0.10	3
Na			2	103.622	ug/l	0.70	51,882.55	6.261E-01	Pulse	0.30	3
Mg			2	2.442	ug/l	7.72	570.02	6.879E-03	Pulse	0.30	3
Al			2	0.534	ug/l	109.09	274.45	3.312E-03	Pulse	0.30	3
K			2	16.459	ug/l	9.60	12,155.63	1.467E-01	Pulse	0.30	3
Ca			2	16.048	ug/l	21.28	166.67	2.011E-03	Pulse	0.30	3
Ti			2	0.191	ug/l	82.75	11.11	1.335E-04	Pulse	0.30	3
V			2	0.166	ug/l	23.34	354.45	4.279E-03	Pulse	0.30	3
Cr			2	0.530	ug/l	9.86	1,475.64	1.781E-02	Pulse	0.30	3
Mn			2	0.224	ug/l	9.37	315.56	3.810E-03	Pulse	0.30	3
Fe			2	4.169	ug/l	2.96	9,479.48	1.144E-01	Pulse	0.30	3
Co			2	0.039	ug/l	19.68	205.56	2.482E-03	Pulse	0.30	3
Ni			2	0.149	ug/l	16.49	184.45	2.224E-03	Pulse	0.30	3
Cu			2	0.527	ug/l	6.77	2,510.23	3.029E-02	Pulse	0.30	3
Zn			2	1.807	ug/l	9.99	1,054.49	1.273E-02	Pulse	0.30	3
As			2	0.072	ug/l	59.13	22.00	2.651E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	-0.014	ug/l	-55.74	2.21	5.128E-06	Pulse	0.30	3
Sn			2	0.431	ug/l	16.92	890.04	2.081E-03	Pulse	0.30	3
Se			3	-0.015	ug/l	-254.21	4.67	5.917E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,131,887.76	0.91	85.9	Pulse	0.10	3
1	Sc		2,621,241.06	1.10	92.8	Pulse	0.10	3
1	Ge		503,184.32	1.31	100.0	Pulse	0.10	3
1	Ge		691,948.06	1.08	98.7	Pulse	0.10	3
1	Rh		3,210,089.95	1.19	97.4	Pulse	0.10	3
1	In		3,464,423.09	1.21	100.2	Pulse	0.10	3
1	Tb		4,431,832.23	1.44	102.0	Pulse	0.10	3
1	Ho		424,289.63	1.56	102.9	Pulse	0.10	3
1	Bi		2,456,171.99	1.14	103.5	Pulse	0.10	3
2	Sc		82,861.46	0.90	94.9	Pulse	0.30	3
2	Ge		47,191.34	0.20	102.7	Pulse	0.30	3
2	Ge		71,198.86	0.96	102.8	Pulse	0.30	3
2	Rh		1,266,962.41	0.34	98.6	Pulse	0.30	3
2	In		427,635.21	0.69	98.1	Pulse	0.30	3
2	Tb		1,511,608.83	1.12	98.7	Pulse	0.30	3
2	Ho		146,702.56	0.76	99.2	Pulse	0.30	3
2	Bi		976,452.64	0.35	98.5	Pulse	0.30	3
3	Sc		85,820.46	0.98	103.3	Pulse	0.30	3
3	Ge		52,005.94	1.91	106.7	Pulse	0.30	3
3	Ge		78,886.04	0.24	106.9	Pulse	0.30	3
3	Rh		837,232.24	0.41	103.0	Pulse	0.30	3
3	Tb		1,213,844.08	0.29	102.8	Pulse	0.30	3

Quantitation Report

File Name	058_CCV.d
File Path	C:\Agilent\ICPMH\1\DATA\xa050619m2.b
Method File	
Method Path	
Acq Time	5/6/2019 15:53
Sample Name	CCVA
Sample Type	CCV
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/6/2019 12:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	46.914	ug/l	0.91	374,398.86	1.721E-01	Pulse	0.25	3
B			1	98.594	ug/l	1.11	495,116.04	2.276E-01	Pulse	0.15	3
Ca			1	4967.324	ug/l	0.23	4,180,241.60	1.552E+00	Pulse	0.10	3
Sr			1	48.675	ug/l	0.98	2,006,864.19	6.263E-01	Pulse	0.10	3
Mo			1	47.159	ug/l	0.43	382,621.49	1.194E-01	Pulse	0.10	3
Ag			1	47.062	ug/l	0.58	885,208.11	2.552E-01	Pulse	0.10	3
Sn			1	46.528	ug/l	0.31	570,970.45	1.646E-01	Pulse	0.10	3
Sb			1	47.971	ug/l	1.59	664,698.95	1.497E-01	Pulse	0.10	3
Ba			1	47.721	ug/l	0.57	276,150.39	6.217E-02	Pulse	0.10	3
Tl			1	47.807	ug/l	0.96	1,418,423.42	5.948E-01	Pulse	0.10	3
Pb			1	48.060	ug/l	0.83	481,470.80	2.019E-01	Pulse	0.10	3
Pb			1	48.030	ug/l	1.10	422,864.68	1.773E-01	Pulse	0.10	3
Pb			1	47.848	ug/l	0.81	1,935,519.48	8.116E-01	Pulse	0.10	3
Na			2	4654.884	ug/l	0.40	3,995,537.20	4.631E+01	Pulse	0.30	3
Mg			2	4679.226	ug/l	0.89	1,816,564.93	2.106E+01	Pulse	0.30	3
Al			2	4760.824	ug/l	1.06	586,380.95	6.797E+00	Pulse	0.30	3
K			2	4884.181	ug/l	0.97	1,228,616.90	1.424E+01	Pulse	0.30	3
Ca			2	5227.253	ug/l	0.51	65,967.38	7.646E-01	Pulse	0.30	3
Ti			2	46.485	ug/l	2.32	5,076.40	5.885E-02	Pulse	0.30	3
V			2	48.150	ug/l	1.24	165,008.82	1.913E+00	Pulse	0.30	3
Cr			2	47.307	ug/l	1.52	206,235.55	2.391E+00	Pulse	0.30	3
Mn			2	47.502	ug/l	2.38	100,011.71	1.159E+00	Pulse	0.30	3
Fe			2	5024.917	ug/l	2.27	16,818,923.22	1.950E+02	Analog	0.30	3
Co			2	47.110	ug/l	1.21	335,623.28	3.890E+00	Pulse	0.30	3
Ni			2	46.113	ug/l	1.28	90,614.91	1.050E+00	Pulse	0.30	3
Cu			2	46.067	ug/l	1.01	248,670.93	2.882E+00	Pulse	0.30	3
Zn			2	47.280	ug/l	2.03	32,114.79	3.723E-01	Pulse	0.30	3
As			2	47.902	ug/l	1.57	18,815.82	2.181E-01	Pulse	1.00	3
Cd			2	46.388	ug/l	1.28	45,659.33	1.039E-01	Pulse	0.30	3
Sn			2	47.200	ug/l	0.98	96,170.43	2.189E-01	Pulse	0.30	3
Se			3	188.750	ug/l	0.48	13,016.36	1.728E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,175,242.34	0.03	87.6	Pulse	0.10	3
1	Sc		2,692,876.31	0.99	95.4	Pulse	0.10	3
1	Ge		497,021.11	1.73	98.8	Pulse	0.10	3

Quantitation Report

1	Ge		699,211.76	1.59	99.8	Pulse	0.10	3
1	Rh		3,203,977.97	0.74	97.2	Pulse	0.10	3
1	In		3,469,043.01	1.35	100.3	Pulse	0.10	3
1	Tb		4,441,650.77	1.16	102.3	Pulse	0.10	3
1	Ho		422,951.16	0.71	102.5	Pulse	0.10	3
1	Bi		2,384,903.40	1.63	100.5	Pulse	0.10	3
2	Sc		86,272.76	0.90	98.8	Pulse	0.30	3
2	Ge		47,393.09	1.14	103.1	Pulse	0.30	3
2	Ge		71,104.98	1.42	102.7	Pulse	0.30	3
2	Rh		1,248,469.95	1.08	97.2	Pulse	0.30	3
2	In		439,351.95	0.87	100.8	Pulse	0.30	3
2	Tb		1,533,662.61	0.69	100.2	Pulse	0.30	3
2	Ho		149,805.18	0.50	101.2	Pulse	0.30	3
2	Bi		955,770.28	0.33	96.5	Pulse	0.30	3
3	Sc		83,985.74	0.21	101.0	Pulse	0.30	3
3	Ge		49,433.59	1.37	101.5	Pulse	0.30	3
3	Ge		75,318.44	0.29	102.0	Pulse	0.30	3
3	Rh		796,408.91	0.66	98.0	Pulse	0.30	3
3	Tb		1,186,603.04	0.36	100.5	Pulse	0.30	3

Quantitation Report

File Name	059_CCB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa050619m2.b
Method File	
Method Path	
Acq Time	5/6/2019 15:58
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/6/2019 12:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.012	ug/l	24.60	110.67	5.079E-05	Pulse	0.25	3
B			1	5.651	ug/l	0.24	30,846.22	1.414E-02	Pulse	0.15	3
Ca			1	-1.939	ug/l	-13.60	21,698.16	8.077E-03	Pulse	0.10	3
Sr			1	0.018	ug/l	25.08	1,230.10	3.782E-04	Pulse	0.10	3
Mo			1	0.084	ug/l	15.33	713.38	2.193E-04	Pulse	0.10	3
Ag			1	0.009	ug/l	33.54	210.01	6.053E-05	Pulse	0.10	3
Sn			1	0.414	ug/l	7.92	3,743.92	1.075E-03	Pulse	0.10	3
Sb			1	0.273	ug/l	6.32	3,840.60	8.813E-04	Pulse	0.10	3
Ba			1	0.010	ug/l	30.11	140.01	3.211E-05	Pulse	0.10	3
Tl			1	0.012	ug/l	6.88	800.05	3.347E-04	Pulse	0.10	3
Pb			1	0.018	ug/l	12.22	380.02	1.590E-04	Pulse	0.10	3
Pb			1	0.009	ug/l	92.90	273.35	1.142E-04	Pulse	0.10	3
Pb			1	0.015	ug/l	46.28	1,440.09	6.021E-04	Pulse	0.10	3
Na			2	13.268	ug/l	2.48	20,950.83	2.436E-01	Pulse	0.30	3
Mg			2	0.821	ug/l	22.88	436.67	5.078E-03	Pulse	0.30	3
Al			2	3.441	ug/l	8.83	674.47	7.842E-03	Pulse	0.30	3
K			2	-3.963	ug/l	-19.83	9,587.28	1.115E-01	Pulse	0.30	3
Ca			2	3.102	ug/l	35.17	111.12	1.292E-03	Pulse	0.30	3
Ti			2	0.000	ug/l	13298.56	1.11	1.293E-05	Pulse	0.30	3
V			2	0.013	ug/l	14.00	130.00	1.511E-03	Pulse	0.30	3
Cr			2	0.004	ug/l	110.76	397.79	4.625E-03	Pulse	0.30	3
Mn			2	0.051	ug/l	27.83	200.00	2.325E-03	Pulse	0.30	3
Fe			2	1.184	ug/l	1.57	6,835.93	7.947E-02	Pulse	0.30	3
Co			2	0.004	ug/l	44.72	104.45	1.214E-03	Pulse	0.30	3
Ni			2	0.023	ug/l	15.00	91.11	1.059E-03	Pulse	0.30	3
Cu			2	-0.010	ug/l	-172.68	1,142.28	1.328E-02	Pulse	0.30	3
Zn			2	1.081	ug/l	8.15	1,213.40	1.411E-02	Pulse	0.30	3
As			2	0.009	ug/l	32.35	12.33	1.434E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	0.002	ug/l	430.76	11.08	2.479E-05	Pulse	0.30	3
Sn			2	0.160	ug/l	13.63	816.70	1.826E-03	Pulse	0.30	3
Se			3	0.058	ug/l	20.03	8.87	1.188E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,181,060.54	0.73	87.9	Pulse	0.10	3
1	Sc		2,686,468.19	1.21	95.2	Pulse	0.10	3
1	Ge		497,419.11	0.93	98.8	Pulse	0.10	3
1	Ge		694,821.06	1.05	99.1	Pulse	0.10	3
1	Rh		3,250,903.70	0.59	98.6	Pulse	0.10	3
1	In		3,478,272.92	1.84	100.6	Pulse	0.10	3
1	Tb		4,359,508.89	1.71	100.4	Pulse	0.10	3
1	Ho		413,393.13	2.03	100.2	Pulse	0.10	3
1	Bi		2,390,360.43	0.75	100.7	Pulse	0.10	3
2	Sc		86,018.02	0.22	98.5	Pulse	0.30	3
2	Ge		47,361.80	1.30	103.1	Pulse	0.30	3
2	Ge		71,957.87	1.28	103.9	Pulse	0.30	3
2	Rh		1,271,579.36	0.58	99.0	Pulse	0.30	3
2	In		447,151.27	0.37	102.6	Pulse	0.30	3
2	Tb		1,523,720.63	0.79	99.5	Pulse	0.30	3
2	Ho		149,382.17	0.77	101.0	Pulse	0.30	3
2	Bi		981,060.76	1.08	99.0	Pulse	0.30	3
3	Sc		83,356.78	0.46	100.3	Pulse	0.30	3
3	Ge		49,402.30	0.53	101.4	Pulse	0.30	3
3	Ge		74,649.79	1.34	101.1	Pulse	0.30	3
3	Rh		820,550.05	0.45	101.0	Pulse	0.30	3
3	Tb		1,191,744.68	1.07	101.0	Pulse	0.30	3

Quantitation Report

File Name	060SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa050619m2.b
Method File	
Method Path	
Acq Time	5/6/2019 16:03
Sample Name	jc87420-5 4
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/6/2019 12:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.051	ug/l	33.73	213.34	1.011E-04	Pulse	0.25	3
B			1	13.414	ug/l	1.71	34,951.76	1.657E-02	Pulse	0.15	3
Ca			1	73.253	ug/l	1.92	51,614.28	2.006E-02	Pulse	0.10	3
Sr			1	3.443	ug/l	2.10	71,302.34	2.229E-02	Pulse	0.10	3
Mo			1	0.088	ug/l	4.45	376.69	1.178E-04	Pulse	0.10	3
Ag			1	0.026	ug/l	9.24	280.01	8.180E-05	Pulse	0.10	3
Sn			1	1.483	ug/l	2.61	7,665.49	2.238E-03	Pulse	0.10	3
Sb			1	0.432	ug/l	7.31	3,110.43	7.050E-04	Pulse	0.10	3
Ba			1	3.540	ug/l	3.23	10,253.74	2.325E-03	Pulse	0.10	3
Tl			1	0.029	ug/l	38.88	886.73	3.574E-04	Pulse	0.10	3
Pb			1	0.192	ug/l	8.31	1,203.43	4.857E-04	Pulse	0.10	3
Pb			1	0.205	ug/l	15.45	1,136.75	4.592E-04	Pulse	0.10	3
Pb			1	0.189	ug/l	8.11	4,823.82	1.947E-03	Pulse	0.10	3
Na			2	79.662	ug/l	1.02	41,011.73	5.072E-01	Pulse	0.30	3
Mg			2	12.749	ug/l	1.46	2,431.32	3.007E-02	Pulse	0.30	3
Al			2	47.052	ug/l	5.54	2,951.40	3.650E-02	Pulse	0.30	3
K			2	1.993	ug/l	26.44	10,170.96	1.258E-01	Pulse	0.30	3
Ca			2	107.376	ug/l	5.91	702.25	8.683E-03	Pulse	0.30	3
Ti			2	0.327	ug/l	93.85	17.78	2.198E-04	Pulse	0.30	3
V			2	0.193	ug/l	3.24	388.90	4.810E-03	Pulse	0.30	3
Cr			2	1.162	ug/l	0.39	2,728.04	3.374E-02	Pulse	0.30	3
Mn			2	0.730	ug/l	10.74	807.81	9.986E-03	Pulse	0.30	3
Fe			2	10.588	ug/l	0.67	19,316.96	2.389E-01	Pulse	0.30	3
Co			2	0.113	ug/l	4.96	450.01	5.566E-03	Pulse	0.30	3
Ni			2	1.303	ug/l	8.53	1,242.28	1.537E-02	Pulse	0.30	3
Cu			2	4.610	ug/l	1.41	12,727.26	1.574E-01	Pulse	0.30	3
Zn			2	7.318	ug/l	5.18	2,756.93	3.409E-02	Pulse	0.30	3
As			2	0.086	ug/l	17.98	24.00	2.967E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	-0.002	ug/l	-170.22	7.76	1.848E-05	Pulse	0.30	3
Sn			2	0.898	ug/l	9.03	1,325.63	3.158E-03	Pulse	0.30	3
Se			3	0.097	ug/l	32.92	8.53	1.105E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,109,681.41	0.38	85.0	Pulse	0.10	3
1	Sc		2,572,806.32	0.45	91.1	Pulse	0.10	3
1	Ge		497,575.15	0.79	98.9	Pulse	0.10	3
1	Ge		688,572.34	0.93	98.2	Pulse	0.10	3
1	Rh		3,198,804.74	0.74	97.0	Pulse	0.10	3
1	In		3,424,508.65	0.98	99.0	Pulse	0.10	3
1	Tb		4,410,664.73	0.85	101.5	Pulse	0.10	3
1	Ho		417,508.72	1.20	101.2	Pulse	0.10	3
1	Bi		2,478,704.39	1.70	104.5	Pulse	0.10	3
2	Sc		80,856.88	0.71	92.6	Pulse	0.30	3
2	Ge		46,364.61	0.62	100.9	Pulse	0.30	3
2	Ge		69,639.96	0.82	100.5	Pulse	0.30	3
2	Rh		1,240,966.03	0.66	96.6	Pulse	0.30	3
2	In		419,827.84	0.26	96.3	Pulse	0.30	3
2	Tb		1,498,853.73	0.18	97.9	Pulse	0.30	3
2	Ho		146,315.67	0.68	98.9	Pulse	0.30	3
2	Bi		977,868.74	0.56	98.7	Pulse	0.30	3
3	Sc		83,017.52	1.06	99.9	Pulse	0.30	3
3	Ge		50,743.02	0.98	104.2	Pulse	0.30	3
3	Ge		77,266.43	1.40	104.7	Pulse	0.30	3
3	Rh		825,874.18	0.81	101.7	Pulse	0.30	3
3	Tb		1,207,779.64	0.43	102.3	Pulse	0.30	3

Quantitation Report

File Name	061SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa050619m2.b
Method File	
Method Path	
Acq Time	5/6/2019 16:08
Sample Name	mp14818a-mb1
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/6/2019 12:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.010	ug/l	17.29	53.33	2.567E-05	Pulse	0.25	3
B			1	8.931	ug/l	1.21	23,728.08	1.142E-02	Pulse	0.15	3
Ca			1	9.945	ug/l	4.16	26,151.39	1.023E-02	Pulse	0.10	3
Sr			1	0.057	ug/l	11.26	1,603.48	5.064E-04	Pulse	0.10	3
Mo			1	0.060	ug/l	41.16	263.35	8.305E-05	Pulse	0.10	3
Ag			1	0.015	ug/l	37.84	183.34	5.405E-05	Pulse	0.10	3
Sn			1	1.264	ug/l	2.62	6,284.80	1.849E-03	Pulse	0.10	3
Sb			1	0.189	ug/l	5.63	1,446.78	3.257E-04	Pulse	0.10	3
Ba			1	0.110	ug/l	15.12	403.36	9.073E-05	Pulse	0.10	3
Tl			1	0.011	ug/l	27.00	603.37	2.465E-04	Pulse	0.10	3
Pb			1	0.097	ug/l	6.54	696.71	2.848E-04	Pulse	0.10	3
Pb			1	0.098	ug/l	38.86	640.05	2.617E-04	Pulse	0.10	3
Pb			1	0.087	ug/l	10.21	2,660.20	1.087E-03	Pulse	0.10	3
Na			2	24.099	ug/l	3.51	18,674.90	2.315E-01	Pulse	0.30	3
Mg			2	2.690	ug/l	6.63	600.02	7.436E-03	Pulse	0.30	3
Al			2	2.358	ug/l	5.49	372.23	4.613E-03	Pulse	0.30	3
K			2	-7.545	ug/l	-14.15	9,035.88	1.120E-01	Pulse	0.30	3
Ca			2	23.200	ug/l	3.81	204.45	2.534E-03	Pulse	0.30	3
Ti			2	0.219	ug/l	74.73	12.22	1.516E-04	Pulse	0.30	3
V			2	0.150	ug/l	6.01	318.90	3.952E-03	Pulse	0.30	3
Cr			2	0.326	ug/l	4.84	1,021.16	1.266E-02	Pulse	0.30	3
Mn			2	0.153	ug/l	32.07	237.78	2.944E-03	Pulse	0.30	3
Fe			2	3.439	ug/l	2.19	8,086.52	1.002E-01	Pulse	0.30	3
Co			2	0.018	ug/l	75.85	132.22	1.636E-03	Pulse	0.30	3
Ni			2	0.062	ug/l	54.60	100.00	1.237E-03	Pulse	0.30	3
Cu			2	1.721	ug/l	3.29	5,443.18	6.748E-02	Pulse	0.30	3
Zn			2	2.436	ug/l	6.00	1,223.40	1.517E-02	Pulse	0.30	3
As			2	0.062	ug/l	39.65	19.67	2.436E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	0.000	ug/l	-6357.50	8.88	2.098E-05	Pulse	0.30	3
Sn			2	0.641	ug/l	19.33	1,083.39	2.565E-03	Pulse	0.30	3
Se			3	0.054	ug/l	104.30	6.93	9.050E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,077,992.91	0.54	83.7	Pulse	0.10	3
1	Sc		2,557,629.91	0.89	90.6	Pulse	0.10	3
1	Ge		492,330.05	0.98	97.8	Pulse	0.10	3
1	Ge		683,753.61	0.77	97.5	Pulse	0.10	3
1	Rh		3,166,210.26	1.82	96.1	Pulse	0.10	3
1	In		3,400,241.31	1.45	98.3	Pulse	0.10	3
1	Tb		4,439,361.81	2.19	102.2	Pulse	0.10	3
1	Ho		422,272.07	1.69	102.4	Pulse	0.10	3
1	Bi		2,446,859.34	0.43	103.1	Pulse	0.10	3
2	Sc		80,678.27	0.94	92.4	Pulse	0.30	3
2	Ge		46,157.27	0.93	100.4	Pulse	0.30	3
2	Ge		68,538.86	0.87	98.9	Pulse	0.30	3
2	Rh		1,242,460.58	0.38	96.7	Pulse	0.30	3
2	In		422,631.20	1.34	96.9	Pulse	0.30	3
2	Tb		1,508,712.58	0.94	98.5	Pulse	0.30	3
2	Ho		146,505.65	0.53	99.0	Pulse	0.30	3
2	Bi		967,786.00	0.80	97.7	Pulse	0.30	3
3	Sc		83,037.56	0.83	99.9	Pulse	0.30	3
3	Ge		49,966.25	1.00	102.6	Pulse	0.30	3
3	Ge		76,501.65	0.96	103.6	Pulse	0.30	3
3	Rh		823,049.48	0.14	101.3	Pulse	0.30	3
3	Tb		1,199,042.87	0.57	101.6	Pulse	0.30	3

Quantitation Report

File Name	062SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa050619m2.b
Method File	
Method Path	
Acq Time	5/6/2019 16:13
Sample Name	mp14818a-b2
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/6/2019 12:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	74.286	ug/l	0.82	284,787.73	1.363E-01	Pulse	0.25	3
B			1	90.433	ug/l	1.62	219,467.27	1.050E-01	Pulse	0.15	3
Ca			1	3992.743	ug/l	1.37	1,618,915.91	6.291E-01	Pulse	0.10	3
Sr			1	77.123	ug/l	0.55	1,567,935.24	4.962E-01	Pulse	0.10	3
Mo			1	71.162	ug/l	0.97	284,717.60	9.010E-02	Pulse	0.10	3
Ag			1	75.132	ug/l	0.81	696,664.73	2.037E-01	Pulse	0.10	3
Sn			1	71.394	ug/l	0.64	431,598.74	1.262E-01	Pulse	0.10	3
Sb			1	72.330	ug/l	1.27	497,743.86	1.128E-01	Pulse	0.10	3
Ba			1	76.073	ug/l	0.60	218,655.15	4.956E-02	Pulse	0.10	3
Tl			1	76.139	ug/l	1.53	1,146,993.32	4.737E-01	Pulse	0.10	3
Pb			1	76.976	ug/l	0.97	391,550.85	1.617E-01	Pulse	0.10	3
Pb			1	77.510	ug/l	0.91	346,429.88	1.431E-01	Pulse	0.10	3
Pb			1	76.480	ug/l	0.54	1,570,669.20	6.487E-01	Pulse	0.10	3
Na			2	3805.467	ug/l	0.24	1,553,457.47	1.900E+01	Pulse	0.30	3
Mg			2	3809.530	ug/l	0.31	700,997.16	8.573E+00	Pulse	0.30	3
Al			2	3728.005	ug/l	0.50	217,764.68	2.663E+00	Pulse	0.30	3
K			2	3907.140	ug/l	0.24	471,832.97	5.770E+00	Pulse	0.30	3
Ca			2	4328.861	ug/l	1.24	25,930.31	3.171E-01	Pulse	0.30	3
Ti			2	71.899	ug/l	1.53	3,721.57	4.551E-02	Pulse	0.30	3
V			2	78.381	ug/l	0.33	127,324.16	1.557E+00	Pulse	0.30	3
Cr			2	77.919	ug/l	0.13	161,063.12	1.970E+00	Pulse	0.30	3
Mn			2	77.172	ug/l	0.92	77,029.10	9.420E-01	Pulse	0.30	3
Fe			2	4164.821	ug/l	1.22	6,608,272.38	8.081E+01	Analog	0.30	3
Co			2	78.000	ug/l	0.64	263,371.35	3.221E+00	Pulse	0.30	3
Ni			2	77.611	ug/l	1.49	72,285.34	8.840E-01	Pulse	0.30	3
Cu			2	77.411	ug/l	0.77	198,221.04	2.424E+00	Pulse	0.30	3
Zn			2	73.188	ug/l	1.80	23,667.22	2.894E-01	Pulse	0.30	3
As			2	69.360	ug/l	0.33	12,914.44	1.579E-01	Pulse	1.00	3
Cd			2	74.535	ug/l	0.57	34,904.30	8.350E-02	Pulse	0.30	3
Sn			2	72.867	ug/l	1.14	70,735.40	1.692E-01	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	335.568	ug/l	0.79	11,714.58	1.536E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,089,807.74	0.15	84.2	Pulse	0.10	3
1	Sc		2,573,444.81	1.49	91.1	Pulse	0.10	3
1	Ge		490,088.89	1.84	97.4	Pulse	0.10	3
1	Ge		681,854.50	1.01	97.3	Pulse	0.10	3
1	Rh		3,159,890.47	1.77	95.9	Pulse	0.10	3
1	In		3,420,142.15	1.50	98.9	Pulse	0.10	3
1	Tb		4,411,683.79	1.70	101.6	Pulse	0.10	3
1	Ho		420,383.78	1.11	101.9	Pulse	0.10	3
1	Bi		2,421,366.68	1.68	102.0	Pulse	0.10	3
2	Sc		81,772.19	0.29	93.6	Pulse	0.30	3
2	Ge		45,577.87	0.36	99.2	Pulse	0.30	3
2	Ge		68,737.30	1.19	99.2	Pulse	0.30	3
2	Rh		1,240,509.84	0.03	96.6	Pulse	0.30	3
2	In		418,018.66	0.38	95.9	Pulse	0.30	3
2	Tb		1,497,829.52	1.20	97.8	Pulse	0.30	3
2	Ho		146,610.77	1.29	99.1	Pulse	0.30	3
2	Bi		961,410.76	0.58	97.0	Pulse	0.30	3
3	Sc		84,083.87	0.30	101.2	Pulse	0.30	3
3	Ge		50,045.27	0.32	102.7	Pulse	0.30	3
3	Ge		76,253.85	0.43	103.3	Pulse	0.30	3
3	Rh		814,014.03	0.11	100.2	Pulse	0.30	3
3	Tb		1,210,387.80	0.23	102.6	Pulse	0.30	3

Quantitation Report

File Name 063SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa050619m2.b
Method File
Method Path
Acq Time 5/6/2019 16:18
Sample Name jc87035-3f 4
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 5/6/2019 12:34
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.026	ug/l	15.31	116.00	5.603E-05	Pulse	0.25	3
B			1	32.332	ug/l	1.72	79,351.03	3.829E-02	Pulse	0.15	3
Ca			1	112472.444	ug/l	0.56	45,577,509.32	1.748E+01	Analog	0.10	3
Sr			1	737.801	ug/l	0.46	14,510,474.78	4.746E+00	Analog	0.10	3
Mo			1	8.337	ug/l	1.91	32,290.15	1.056E-02	Pulse	0.10	3
Ag			1	0.028	ug/l	3.18	296.68	8.722E-05	Pulse	0.10	3
Sn			1	1.529	ug/l	1.93	7,895.63	2.320E-03	Pulse	0.10	3
Sb			1	0.968	ug/l	3.96	6,801.71	1.541E-03	Pulse	0.10	3
Ba			1	86.368	ug/l	0.48	248,426.84	5.626E-02	Pulse	0.10	3
Tl			1	0.080	ug/l	7.30	1,560.15	6.798E-04	Pulse	0.10	3
Pb			1	1.132	ug/l	5.32	5,641.26	2.458E-03	Pulse	0.10	3
Pb			1	1.082	ug/l	4.03	4,767.65	2.077E-03	Pulse	0.10	3
Pb			1	1.104	ug/l	2.76	22,284.16	9.708E-03	Pulse	0.10	3
Na			2	52780.003	ug/l	0.93	21,845,261.91	2.620E+02	Analog	0.30	3
Mg			2	21173.262	ug/l	0.24	3,971,470.95	4.764E+01	Pulse	0.30	3
Al			2	32.731	ug/l	3.51	2,191.28	2.629E-02	Pulse	0.30	3
K			2	23232.962	ug/l	0.46	2,809,612.53	3.370E+01	Pulse	0.30	3
Ca			2	113680.339	ug/l	0.25	692,437.11	8.306E+00	Pulse	0.30	3
Ti			2	0.886	ug/l	4.23	47.78	5.732E-04	Pulse	0.30	3
V			2	0.605	ug/l	6.43	1,083.38	1.300E-02	Pulse	0.30	3
Cr			2	0.449	ug/l	7.41	1,313.40	1.576E-02	Pulse	0.30	3
Mn			2	303.379	ug/l	0.30	308,447.53	3.700E+00	Pulse	0.30	3
Fe			2	64.432	ug/l	1.03	106,975.30	1.283E+00	Pulse	0.30	3
Co			2	3.358	ug/l	1.85	11,628.65	1.395E-01	Pulse	0.30	3
Ni			2	3.936	ug/l	1.45	3,779.38	4.534E-02	Pulse	0.30	3
Cu			2	1.326	ug/l	1.30	4,599.59	5.517E-02	Pulse	0.30	3
Zn			2	10.029	ug/l	3.66	3,718.24	4.460E-02	Pulse	0.30	3
As			2	1.554	ug/l	11.18	303.33	3.638E-03	Pulse	1.00	3
Cd			2	0.035	ug/l	94.64	25.19	6.048E-05	Pulse	0.30	3
Sn			2	0.896	ug/l	10.02	1,315.63	3.153E-03	Pulse	0.30	3
Se			3	0.646	ug/l	4.07	27.87	3.616E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,072,186.45	1.29	83.5	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,606,716.37	0.83	92.3	Pulse	0.10	3
1	Ge		501,508.61	2.04	99.6	Pulse	0.10	3
1	Ge		689,777.07	1.70	98.4	Pulse	0.10	3
1	Rh		3,057,532.56	1.08	92.8	Pulse	0.10	3
1	In		3,401,983.97	1.27	98.4	Pulse	0.10	3
1	Tb		4,415,323.89	0.72	101.7	Pulse	0.10	3
1	Ho		422,023.74	2.22	102.3	Pulse	0.10	3
1	Bi		2,295,288.25	1.28	96.7	Pulse	0.10	3
2	Sc		83,364.87	0.15	95.5	Pulse	0.30	3
2	Ge		46,882.66	1.24	102.0	Pulse	0.30	3
2	Ge		70,404.42	0.66	101.6	Pulse	0.30	3
2	Rh		1,197,605.06	0.35	93.2	Pulse	0.30	3
2	In		417,388.77	0.69	95.7	Pulse	0.30	3
2	Tb		1,512,619.21	0.93	98.8	Pulse	0.30	3
2	Ho		148,670.28	1.53	100.5	Pulse	0.30	3
2	Bi		919,992.36	0.60	92.9	Pulse	0.30	3
3	Sc		84,959.28	1.54	102.2	Pulse	0.30	3
3	Ge		50,862.44	0.24	104.4	Pulse	0.30	3
3	Ge		77,065.34	0.55	104.4	Pulse	0.30	3
3	Rh		780,780.40	0.62	96.1	Pulse	0.30	3
3	Tb		1,193,744.47	0.79	101.1	Pulse	0.30	3

Quantitation Report

File Name 064SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa050619m2.b
Method File
Method Path
Acq Time 5/6/2019 16:24
Sample Name jc87035-4f
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 5/6/2019 12:34
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.010	ug/l	12.69	54.67	2.603E-05	Pulse	0.25	3
B			1	31.206	ug/l	1.53	77,716.61	3.700E-02	Pulse	0.15	3
Ca			1	120469.179	ug/l	0.34	49,421,800.93	1.873E+01	Analog	0.10	3
Sr			1	813.563	ug/l	0.68	15,990,686.43	5.233E+00	Analog	0.10	3
Mo			1	9.330	ug/l	1.79	36,114.95	1.182E-02	Pulse	0.10	3
Ag			1	0.019	ug/l	19.17	216.68	6.339E-05	Pulse	0.10	3
Sn			1	1.377	ug/l	2.01	7,021.82	2.049E-03	Pulse	0.10	3
Sb			1	0.731	ug/l	6.64	5,194.39	1.171E-03	Pulse	0.10	3
Ba			1	90.692	ug/l	0.88	261,999.00	5.908E-02	Pulse	0.10	3
Tl			1	0.020	ug/l	49.26	696.71	3.016E-04	Pulse	0.10	3
Pb			1	0.855	ug/l	1.40	4,334.15	1.877E-03	Pulse	0.10	3
Pb			1	0.756	ug/l	5.97	3,407.18	1.475E-03	Pulse	0.10	3
Pb			1	0.783	ug/l	1.96	16,137.36	6.989E-03	Pulse	0.10	3
Na			2	54947.541	ug/l	1.97	22,882,306.31	2.728E+02	Analog	0.30	3
Mg			2	22560.709	ug/l	1.08	4,258,055.81	5.076E+01	Pulse	0.30	3
Al			2	24.762	ug/l	3.64	1,727.93	2.060E-02	Pulse	0.30	3
K			2	25501.197	ug/l	0.28	3,102,171.96	3.698E+01	Pulse	0.30	3
Ca			2	122784.145	ug/l	0.52	752,536.20	8.971E+00	Pulse	0.30	3
Ti			2	0.336	ug/l	39.91	18.89	2.256E-04	Pulse	0.30	3
V			2	0.550	ug/l	2.76	998.93	1.191E-02	Pulse	0.30	3
Cr			2	0.474	ug/l	1.74	1,374.52	1.639E-02	Pulse	0.30	3
Mn			2	303.451	ug/l	0.61	310,440.39	3.701E+00	Pulse	0.30	3
Fe			2	47.605	ug/l	0.27	80,268.02	9.569E-01	Pulse	0.30	3
Co			2	3.203	ug/l	1.40	11,164.98	1.331E-01	Pulse	0.30	3
Ni			2	3.707	ug/l	4.07	3,583.77	4.273E-02	Pulse	0.30	3
Cu			2	1.496	ug/l	2.17	5,071.95	6.046E-02	Pulse	0.30	3
Zn			2	7.028	ug/l	2.77	2,765.82	3.297E-02	Pulse	0.30	3
As			2	1.391	ug/l	3.50	274.00	3.267E-03	Pulse	1.00	3
Cd			2	0.013	ug/l	93.61	14.99	3.561E-05	Pulse	0.30	3
Sn			2	0.811	ug/l	2.82	1,242.29	2.956E-03	Pulse	0.30	3
Se			3	0.365	ug/l	29.83	18.07	2.331E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,100,495.58	0.24	84.6	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,639,091.99	1.28	93.5	Pulse	0.10	3
1	Ge		509,245.15	1.50	101.2	Pulse	0.10	3
1	Ge		693,524.10	2.04	98.9	Pulse	0.10	3
1	Rh		3,055,759.43	1.95	92.7	Pulse	0.10	3
1	In		3,425,627.93	2.07	99.0	Pulse	0.10	3
1	Tb		4,434,679.93	0.32	102.1	Pulse	0.10	3
1	Ho		421,659.04	2.47	102.2	Pulse	0.10	3
1	Bi		2,308,848.35	0.59	97.3	Pulse	0.10	3
2	Sc		83,886.06	0.90	96.1	Pulse	0.30	3
2	Ge		47,045.33	2.40	102.4	Pulse	0.30	3
2	Ge		71,146.28	0.44	102.7	Pulse	0.30	3
2	Rh		1,200,087.69	0.99	93.4	Pulse	0.30	3
2	In		420,283.09	0.74	96.4	Pulse	0.30	3
2	Tb		1,503,728.66	0.46	98.2	Pulse	0.30	3
2	Ho		147,300.45	0.94	99.6	Pulse	0.30	3
2	Bi		918,513.89	0.63	92.7	Pulse	0.30	3
3	Sc		84,096.40	0.46	101.2	Pulse	0.30	3
3	Ge		51,053.99	1.24	104.8	Pulse	0.30	3
3	Ge		77,425.89	0.72	104.9	Pulse	0.30	3
3	Rh		785,455.06	0.42	96.7	Pulse	0.30	3
3	Tb		1,206,848.77	0.58	102.3	Pulse	0.30	3

Quantitation Report

File Name	065SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa050619m2.b
Method File	
Method Path	
Acq Time	5/6/2019 16:28
Sample Name	rinseconf
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/6/2019 12:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.001	ug/l	429.99	22.67	1.023E-05	Pulse	0.25	3
B			1	3.192	ug/l	1.27	18,868.60	8.495E-03	Pulse	0.15	3
Ca			1	5.955	ug/l	30.63	28,575.39	1.053E-02	Pulse	0.10	3
Sr			1	0.091	ug/l	3.56	4,347.40	1.312E-03	Pulse	0.10	3
Mo			1	0.011	ug/l	35.94	116.67	3.533E-05	Pulse	0.10	3
Ag			1	0.005	ug/l	17.51	143.34	4.081E-05	Pulse	0.10	3
Sn			1	0.512	ug/l	2.82	5,004.33	1.423E-03	Pulse	0.10	3
Sb			1	0.024	ug/l	7.55	463.36	1.058E-04	Pulse	0.10	3
Ba			1	0.009	ug/l	62.99	133.34	3.041E-05	Pulse	0.10	3
Tl			1	0.001	ug/l	352.90	453.36	1.896E-04	Pulse	0.10	3
Pb			1	0.002	ug/l	421.24	216.68	9.090E-05	Pulse	0.10	3
Pb			1	0.005	ug/l	93.13	236.68	9.908E-05	Pulse	0.10	3
Pb			1	0.002	ug/l	122.11	903.38	3.779E-04	Pulse	0.10	3
Na			2	19.032	ug/l	3.31	26,133.57	3.008E-01	Pulse	0.30	3
Mg			2	2.292	ug/l	7.57	1,016.71	1.170E-02	Pulse	0.30	3
Al			2	3.873	ug/l	16.54	734.47	8.458E-03	Pulse	0.30	3
K			2	-0.700	ug/l	-151.78	10,502.29	1.209E-01	Pulse	0.30	3
Ca			2	7.020	ug/l	68.76	162.23	1.864E-03	Pulse	0.30	3
Ti			2	0.080	ug/l	134.96	10.00	1.145E-04	Pulse	0.30	3
V			2	0.027	ug/l	27.59	177.78	2.047E-03	Pulse	0.30	3
Cr			2	-0.012	ug/l	-26.97	334.45	3.850E-03	Pulse	0.30	3
Mn			2	0.067	ug/l	12.45	235.56	2.711E-03	Pulse	0.30	3
Fe			2	0.354	ug/l	7.75	4,108.34	4.729E-02	Pulse	0.30	3
Co			2	0.002	ug/l	74.70	91.11	1.049E-03	Pulse	0.30	3
Ni			2	0.024	ug/l	35.84	94.45	1.087E-03	Pulse	0.30	3
Cu			2	0.020	ug/l	47.71	1,316.74	1.516E-02	Pulse	0.30	3
Zn			2	-0.329	ug/l	-11.60	275.56	3.173E-03	Pulse	0.30	3
As			2	-0.001	ug/l	-1233.38	8.33	9.565E-05	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	-0.001	ug/l	-1139.26	8.88	1.981E-05	Pulse	0.30	3
Sn			2	0.160	ug/l	18.43	818.93	1.825E-03	Pulse	0.30	3
Se			3	0.030	ug/l	50.39	6.87	9.301E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,221,105.06	0.47	89.5	Pulse	0.10	3
1	Sc		2,715,303.50	1.80	96.2	Pulse	0.10	3
1	Ge		506,137.65	1.26	100.6	Pulse	0.10	3
1	Ge		701,744.42	1.40	100.1	Pulse	0.10	3
1	Rh		3,314,174.95	2.23	100.5	Pulse	0.10	3
1	In		3,516,894.34	1.68	101.7	Pulse	0.10	3
1	Tb		4,379,291.91	0.93	100.8	Pulse	0.10	3
1	Ho		416,521.18	1.54	101.0	Pulse	0.10	3
1	Bi		2,392,447.72	1.34	100.8	Pulse	0.10	3
2	Sc		86,878.18	0.63	99.5	Pulse	0.30	3
2	Ge		48,429.35	0.24	105.4	Pulse	0.30	3
2	Ge		72,315.91	0.47	104.4	Pulse	0.30	3
2	Rh		1,286,387.24	0.29	100.1	Pulse	0.30	3
2	In		448,666.43	0.17	102.9	Pulse	0.30	3
2	Tb		1,530,557.72	0.20	100.0	Pulse	0.30	3
2	Ho		149,245.42	0.51	100.9	Pulse	0.30	3
2	Bi		981,238.09	1.18	99.0	Pulse	0.30	3
3	Sc		82,761.51	1.15	99.6	Pulse	0.30	3
3	Ge		48,784.88	1.59	100.1	Pulse	0.30	3
3	Ge		73,802.63	0.30	100.0	Pulse	0.30	3
3	Rh		814,600.33	0.44	100.3	Pulse	0.30	3
3	Tb		1,182,236.31	0.41	100.2	Pulse	0.30	3

Quantitation Report

File Name	066SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa050619m2.b
Method File	
Method Path	
Acq Time	5/6/2019 16:34
Sample Name	rinseconf
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/6/2019 12:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.003	ug/l	10.45	41.33	1.875E-05	Pulse	0.25	3
B			1	2.560	ug/l	3.45	15,525.21	7.044E-03	Pulse	0.15	3
Ca			1	-3.564	ug/l	-11.22	20,229.69	7.572E-03	Pulse	0.10	3
Sr			1	0.024	ug/l	6.00	1,453.46	4.511E-04	Pulse	0.10	3
Mo			1	0.012	ug/l	47.05	116.67	3.616E-05	Pulse	0.10	3
Ag			1	0.005	ug/l	26.24	143.34	4.176E-05	Pulse	0.10	3
Sn			1	0.480	ug/l	1.87	4,500.82	1.310E-03	Pulse	0.10	3
Sb			1	0.019	ug/l	26.27	383.35	8.924E-05	Pulse	0.10	3
Ba			1	0.007	ug/l	67.63	120.01	2.790E-05	Pulse	0.10	3
Tl			1	-0.002	ug/l	-189.77	373.35	1.604E-04	Pulse	0.10	3
Pb			1	-0.004	ug/l	-52.84	153.34	6.597E-05	Pulse	0.10	3
Pb			1	-0.004	ug/l	-93.04	153.34	6.618E-05	Pulse	0.10	3
Pb			1	-0.003	ug/l	-69.87	693.37	2.989E-04	Pulse	0.10	3
Na			2	16.617	ug/l	3.32	23,426.33	2.768E-01	Pulse	0.30	3
Mg			2	1.107	ug/l	7.41	538.91	6.364E-03	Pulse	0.30	3
Al			2	3.822	ug/l	18.21	710.02	8.385E-03	Pulse	0.30	3
K			2	-3.746	ug/l	-32.38	9,486.13	1.121E-01	Pulse	0.30	3
Ca			2	3.086	ug/l	82.54	108.89	1.290E-03	Pulse	0.30	3
Ti			2	0.021	ug/l	146.93	3.33	3.935E-05	Pulse	0.30	3
V			2	0.025	ug/l	17.74	167.78	1.982E-03	Pulse	0.30	3
Cr			2	-0.013	ug/l	-141.95	320.01	3.775E-03	Pulse	0.30	3
Mn			2	0.053	ug/l	17.10	201.12	2.375E-03	Pulse	0.30	3
Fe			2	0.371	ug/l	15.51	4,057.21	4.795E-02	Pulse	0.30	3
Co			2	0.004	ug/l	63.37	100.00	1.183E-03	Pulse	0.30	3
Ni			2	0.018	ug/l	95.79	78.89	9.348E-04	Pulse	0.30	3
Cu			2	-0.006	ug/l	-136.39	1,142.27	1.350E-02	Pulse	0.30	3
Zn			2	-0.330	ug/l	-9.61	267.78	3.162E-03	Pulse	0.30	3
As			2	0.000	ug/l	4607.80	8.67	1.027E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	0.001	ug/l	1219.92	10.00	2.282E-05	Pulse	0.30	3
Sn			2	0.153	ug/l	28.75	784.47	1.791E-03	Pulse	0.30	3
Se			3	0.005	ug/l	386.71	5.13	7.078E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,204,099.00	0.40	88.8	Pulse	0.10	3
1	Sc		2,671,789.86	1.16	94.6	Pulse	0.10	3
1	Ge		490,892.47	0.30	97.5	Pulse	0.10	3
1	Ge		685,002.75	0.46	97.7	Pulse	0.10	3
1	Rh		3,221,807.66	0.61	97.7	Pulse	0.10	3
1	In		3,436,678.82	1.26	99.4	Pulse	0.10	3
1	Tb		4,294,752.43	1.21	98.9	Pulse	0.10	3
1	Ho		406,818.98	0.65	98.6	Pulse	0.10	3
1	Bi		2,322,301.68	1.81	97.9	Pulse	0.10	3
2	Sc		84,634.19	1.29	96.9	Pulse	0.30	3
2	Ge		46,176.18	0.21	100.5	Pulse	0.30	3
2	Ge		71,244.73	0.73	102.9	Pulse	0.30	3
2	Rh		1,254,273.32	1.26	97.6	Pulse	0.30	3
2	In		437,915.81	0.38	100.4	Pulse	0.30	3
2	Tb		1,497,281.92	0.64	97.8	Pulse	0.30	3
2	Ho		145,839.50	0.60	98.6	Pulse	0.30	3
2	Bi		961,777.43	0.33	97.1	Pulse	0.30	3
3	Sc		79,642.22	1.47	95.8	Pulse	0.30	3
3	Ge		47,791.95	0.23	98.1	Pulse	0.30	3
3	Ge		72,542.63	0.25	98.3	Pulse	0.30	3
3	Rh		795,227.26	1.10	97.9	Pulse	0.30	3
3	Tb		1,156,563.39	1.10	98.0	Pulse	0.30	3

Quantitation Report

File Name	067_CCV.d
File Path	C:\Agilent\ICPMH\1\DATA\xa050619m2.b
Method File	
Method Path	
Acq Time	5/6/2019 16:39
Sample Name	CCVA
Sample Type	CCV
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/6/2019 12:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	47.441	ug/l	1.24	368,779.04	1.741E-01	Pulse	0.25	3
B			1	96.956	ug/l	0.94	474,303.99	2.239E-01	Pulse	0.15	3
Ca			1	4959.060	ug/l	0.33	4,075,939.21	1.550E+00	Pulse	0.10	3
Sr			1	48.681	ug/l	0.52	1,943,481.69	6.264E-01	Pulse	0.10	3
Mo			1	47.276	ug/l	0.72	371,408.89	1.197E-01	Pulse	0.10	3
Ag			1	47.262	ug/l	0.45	855,190.40	2.562E-01	Pulse	0.10	3
Sn			1	46.670	ug/l	0.67	550,972.78	1.651E-01	Pulse	0.10	3
Sb			1	48.465	ug/l	0.35	643,220.76	1.512E-01	Pulse	0.10	3
Ba			1	47.653	ug/l	0.70	264,103.57	6.208E-02	Pulse	0.10	3
Tl			1	47.859	ug/l	0.17	1,355,066.70	5.955E-01	Pulse	0.10	3
Pb			1	48.763	ug/l	0.14	466,149.67	2.048E-01	Pulse	0.10	3
Pb			1	48.312	ug/l	0.14	405,856.97	1.783E-01	Pulse	0.10	3
Pb			1	48.189	ug/l	0.41	1,860,087.02	8.174E-01	Pulse	0.10	3
Na			2	4671.903	ug/l	0.44	3,915,799.43	4.648E+01	Pulse	0.30	3
Mg			2	4741.369	ug/l	0.56	1,797,505.90	2.134E+01	Pulse	0.30	3
Al			2	4797.995	ug/l	0.56	577,088.80	6.850E+00	Pulse	0.30	3
K			2	4919.550	ug/l	0.83	1,208,343.94	1.434E+01	Pulse	0.30	3
Ca			2	5264.646	ug/l	1.49	64,872.04	7.701E-01	Pulse	0.30	3
Ti			2	46.958	ug/l	1.96	5,007.49	5.945E-02	Pulse	0.30	3
V			2	48.581	ug/l	0.29	162,580.85	1.930E+00	Pulse	0.30	3
Cr			2	47.527	ug/l	0.86	202,333.58	2.402E+00	Pulse	0.30	3
Mn			2	47.991	ug/l	0.47	98,674.79	1.171E+00	Pulse	0.30	3
Fe			2	5113.169	ug/l	2.41	16,710,407.11	1.984E+02	Analog	0.30	3
Co			2	47.312	ug/l	0.61	329,132.73	3.907E+00	Pulse	0.30	3
Ni			2	46.692	ug/l	0.49	89,592.72	1.064E+00	Pulse	0.30	3
Cu			2	46.095	ug/l	0.21	242,972.92	2.884E+00	Pulse	0.30	3
Zn			2	47.850	ug/l	1.24	31,736.31	3.767E-01	Pulse	0.30	3
As			2	48.173	ug/l	0.66	18,477.77	2.193E-01	Pulse	1.00	3
Cd			2	46.637	ug/l	0.93	44,935.21	1.045E-01	Pulse	0.30	3
Sn			2	47.025	ug/l	0.69	93,800.85	2.181E-01	Pulse	0.30	3
Se			3	191.845	ug/l	0.68	12,708.45	1.757E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,118,898.61	0.68	85.4	Pulse	0.10	3
1	Sc		2,630,028.45	0.69	93.2	Pulse	0.10	3
1	Ge		483,452.66	0.56	96.1	Pulse	0.10	3

Quantitation Report

1	Ge		674,098.50	0.77	96.2	Pulse	0.10	3
1	Rh		3,102,657.04	1.23	94.1	Pulse	0.10	3
1	In		3,337,438.68	0.97	96.5	Pulse	0.10	3
1	Tb		4,254,027.96	1.22	97.9	Pulse	0.10	3
1	Ho		407,155.23	1.96	98.7	Pulse	0.10	3
1	Bi		2,275,662.83	1.14	95.9	Pulse	0.10	3
2	Sc		84,243.35	0.69	96.5	Pulse	0.30	3
2	Ge		46,100.54	0.20	100.3	Pulse	0.30	3
2	Ge		69,895.60	0.99	100.9	Pulse	0.30	3
2	Rh		1,223,550.12	1.28	95.2	Pulse	0.30	3
2	In		430,089.22	1.07	98.6	Pulse	0.30	3
2	Tb		1,501,791.40	0.72	98.1	Pulse	0.30	3
2	Ho		145,086.46	1.12	98.1	Pulse	0.30	3
2	Bi		941,594.51	0.53	95.0	Pulse	0.30	3
3	Sc		80,568.89	0.80	96.9	Pulse	0.30	3
3	Ge		47,364.03	2.50	97.2	Pulse	0.30	3
3	Ge		72,354.02	1.05	98.0	Pulse	0.30	3
3	Rh		777,848.95	0.50	95.7	Pulse	0.30	3
3	Tb		1,164,488.74	0.52	98.7	Pulse	0.30	3

Quantitation Report

File Name	068_CCB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa050619m2.b
Method File	
Method Path	
Acq Time	5/6/2019 16:44
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/6/2019 12:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.008	ug/l	18.82	84.00	3.892E-05	Pulse	0.25	3
B			1	4.665	ug/l	1.36	25,646.46	1.188E-02	Pulse	0.15	3
Ca			1	-2.386	ug/l	-1.12	21,030.67	7.939E-03	Pulse	0.10	3
Sr			1	0.031	ug/l	11.99	1,713.49	5.362E-04	Pulse	0.10	3
Mo			1	0.091	ug/l	12.32	760.05	2.377E-04	Pulse	0.10	3
Ag			1	0.017	ug/l	13.64	350.02	1.023E-04	Pulse	0.10	3
Sn			1	0.630	ug/l	2.98	6,318.16	1.844E-03	Pulse	0.10	3
Sb			1	0.294	ug/l	7.64	4,040.67	9.493E-04	Pulse	0.10	3
Ba			1	0.009	ug/l	43.14	130.01	3.055E-05	Pulse	0.10	3
Tl			1	0.019	ug/l	29.03	956.73	4.112E-04	Pulse	0.10	3
Pb			1	0.024	ug/l	29.20	423.36	1.813E-04	Pulse	0.10	3
Pb			1	0.018	ug/l	16.40	340.02	1.460E-04	Pulse	0.10	3
Pb			1	0.021	ug/l	2.53	1,640.10	7.034E-04	Pulse	0.10	3
Na			2	14.225	ug/l	0.92	21,424.80	2.531E-01	Pulse	0.30	3
Mg			2	1.433	ug/l	3.93	663.36	7.834E-03	Pulse	0.30	3
Al			2	8.374	ug/l	4.00	1,260.06	1.488E-02	Pulse	0.30	3
K			2	-4.814	ug/l	-11.94	9,227.07	1.090E-01	Pulse	0.30	3
Ca			2	3.236	ug/l	22.58	111.11	1.312E-03	Pulse	0.30	3
Ti			2	0.031	ug/l	57.68	4.44	5.252E-05	Pulse	0.30	3
V			2	0.020	ug/l	36.42	148.89	1.761E-03	Pulse	0.30	3
Cr			2	0.010	ug/l	55.55	418.90	4.950E-03	Pulse	0.30	3
Mn			2	0.082	ug/l	40.92	260.00	3.075E-03	Pulse	0.30	3
Fe			2	1.548	ug/l	1.39	7,924.21	9.360E-02	Pulse	0.30	3
Co			2	0.012	ug/l	61.06	155.56	1.840E-03	Pulse	0.30	3
Ni			2	0.040	ug/l	18.77	122.22	1.443E-03	Pulse	0.30	3
Cu			2	0.041	ug/l	31.98	1,391.19	1.643E-02	Pulse	0.30	3
Zn			2	0.512	ug/l	23.15	820.03	9.689E-03	Pulse	0.30	3
As			2	0.005	ug/l	277.02	10.67	1.262E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	0.006	ug/l	62.80	15.51	3.541E-05	Pulse	0.30	3
Sn			2	0.333	ug/l	6.63	1,148.94	2.623E-03	Pulse	0.30	3
Se			3	0.084	ug/l	10.21	10.53	1.433E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,159,409.38	0.65	87.0	Pulse	0.10	3
1	Sc		2,649,207.15	1.04	93.8	Pulse	0.10	3
1	Ge		489,077.45	1.13	97.2	Pulse	0.10	3
1	Ge		677,417.57	1.86	96.6	Pulse	0.10	3
1	Rh		3,194,863.60	1.02	96.9	Pulse	0.10	3
1	In		3,427,500.39	1.77	99.1	Pulse	0.10	3
1	Tb		4,259,767.65	2.35	98.1	Pulse	0.10	3
1	Ho		404,389.47	1.85	98.0	Pulse	0.10	3
1	Bi		2,331,276.68	2.39	98.2	Pulse	0.10	3
2	Sc		84,662.32	1.15	96.9	Pulse	0.30	3
2	Ge		47,527.82	0.40	103.4	Pulse	0.30	3
2	Ge		70,531.68	0.74	101.8	Pulse	0.30	3
2	Rh		1,259,879.81	0.68	98.1	Pulse	0.30	3
2	In		438,125.15	0.35	100.5	Pulse	0.30	3
2	Tb		1,502,193.94	0.23	98.1	Pulse	0.30	3
2	Ho		146,411.31	1.19	99.0	Pulse	0.30	3
2	Bi		963,999.13	0.63	97.3	Pulse	0.30	3
3	Sc		81,492.21	0.65	98.0	Pulse	0.30	3
3	Ge		48,399.26	1.30	99.3	Pulse	0.30	3
3	Ge		73,510.17	0.39	99.6	Pulse	0.30	3
3	Rh		804,170.09	0.73	99.0	Pulse	0.30	3
3	Tb		1,171,753.46	0.06	99.3	Pulse	0.30	3

Quantitation Report

File Name 069SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa050619m2.b
Method File
Method Path
Acq Time 5/6/2019 16:49
Sample Name jc87343-1
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 5/6/2019 12:34
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.023	ug/l	10.88	101.33	5.116E-05	Pulse	0.25	3
B			1	260.438	ug/l	0.90	594,758.99	3.002E-01	Pulse	0.15	3
Ca			1	78016.212	ug/l	0.73	30,653,270.38	1.213E+01	Analog	0.10	3
Sr			1	441.029	ug/l	0.94	7,927,715.09	2.837E+00	Analog	0.10	3
Mo			1	1.410	ug/l	8.03	5,011.00	1.792E-03	Pulse	0.10	3
Ag			1	0.049	ug/l	3.66	453.36	1.447E-04	Pulse	0.10	3
Sn			1	1.540	ug/l	5.00	7,328.61	2.339E-03	Pulse	0.10	3
Sb			1	0.871	ug/l	4.56	5,724.61	1.389E-03	Pulse	0.10	3
Ba			1	125.436	ug/l	0.94	336,735.45	8.171E-02	Pulse	0.10	3
Tl			1	0.022	ug/l	30.31	663.37	3.169E-04	Pulse	0.10	3
Pb			1	0.350	ug/l	8.58	1,710.17	8.167E-04	Pulse	0.10	3
Pb			1	0.313	ug/l	15.74	1,376.78	6.578E-04	Pulse	0.10	3
Pb			1	0.325	ug/l	6.86	6,504.15	3.106E-03	Pulse	0.10	3
Na			2	548488.183	ug/l	0.95	214,665,915.91	2.722E+03	Analog	0.30	3
Mg			2	13812.856	ug/l	1.14	2,450,867.89	3.108E+01	Pulse	0.30	3
Al			2	60.476	ug/l	8.38	3,633.91	4.608E-02	Pulse	0.30	3
K			2	4016.031	ug/l	1.40	467,434.95	5.927E+00	Pulse	0.30	3
Ca			2	79628.411	ug/l	0.61	458,839.32	5.818E+00	Pulse	0.30	3
Ti			2	1.336	ug/l	46.83	67.78	8.585E-04	Pulse	0.30	3
V			2	0.648	ug/l	1.28	1,092.27	1.385E-02	Pulse	0.30	3
Cr			2	0.854	ug/l	3.35	2,049.05	2.598E-02	Pulse	0.30	3
Mn			2	168.470	ug/l	1.61	162,064.79	2.055E+00	Pulse	0.30	3
Fe			2	891.964	ug/l	0.50	1,366,933.90	1.733E+01	Pulse	0.30	3
Co			2	0.674	ug/l	1.77	2,262.41	2.869E-02	Pulse	0.30	3
Ni			2	2.678	ug/l	3.10	2,445.77	3.101E-02	Pulse	0.30	3
Cu			2	5.257	ug/l	2.25	14,003.85	1.776E-01	Pulse	0.30	3
Zn			2	25.759	ug/l	3.06	8,326.64	1.056E-01	Pulse	0.30	3
As			2	0.453	ug/l	11.31	89.33	1.133E-03	Pulse	1.00	3
Cd			2	0.110	ug/l	6.18	56.41	1.443E-04	Pulse	0.30	3
Sn			2	0.958	ug/l	2.56	1,287.85	3.296E-03	Pulse	0.30	3
Se			3	0.428	ug/l	19.02	18.47	2.620E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,980,845.02	0.66	79.8	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,527,074.96	1.57	89.5	Pulse	0.10	3
1	Ge		462,098.70	1.91	91.8	Pulse	0.10	3
1	Ge		646,272.92	1.64	92.2	Pulse	0.10	3
1	Rh		2,794,669.85	1.72	84.8	Pulse	0.10	3
1	In		3,132,079.09	0.80	90.6	Pulse	0.10	3
1	Tb		4,121,491.08	1.67	94.9	Pulse	0.10	3
1	Ho		391,870.66	1.68	95.0	Pulse	0.10	3
1	Bi		2,094,991.64	1.14	88.3	Pulse	0.10	3
2	Sc		78,861.96	0.56	90.3	Pulse	0.30	3
2	Ge		44,167.33	0.70	96.1	Pulse	0.30	3
2	Ge		65,915.86	0.21	95.2	Pulse	0.30	3
2	Rh		1,084,405.13	0.37	84.4	Pulse	0.30	3
2	In		390,706.33	1.27	89.6	Pulse	0.30	3
2	Tb		1,413,203.73	0.84	92.3	Pulse	0.30	3
2	Ho		138,534.71	1.39	93.6	Pulse	0.30	3
2	Bi		836,323.06	0.69	84.4	Pulse	0.30	3
3	Sc		78,550.57	1.12	94.5	Pulse	0.30	3
3	Ge		46,867.01	0.49	96.2	Pulse	0.30	3
3	Ge		70,513.87	0.57	95.5	Pulse	0.30	3
3	Rh		706,064.07	0.96	86.9	Pulse	0.30	3
3	Tb		1,117,455.58	0.82	94.7	Pulse	0.30	3

Quantitation Report

File Name 070SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa050619m2.b
Method File
Method Path
Acq Time 5/6/2019 16:54
Sample Name jc87343-2
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 5/6/2019 12:34
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.020	ug/l	42.35	88.00	4.514E-05	Pulse	0.25	3
B			1	268.285	ug/l	1.42	603,235.77	3.093E-01	Pulse	0.15	3
Ca			1	80886.140	ug/l	1.96	31,526,919.53	1.258E+01	Analog	0.10	3
Sr			1	447.748	ug/l	0.59	8,049,598.21	2.880E+00	Analog	0.10	3
Mo			1	1.489	ug/l	7.99	5,284.40	1.892E-03	Pulse	0.10	3
Ag			1	0.050	ug/l	18.07	460.02	1.474E-04	Pulse	0.10	3
Sn			1	1.221	ug/l	2.22	5,537.87	1.774E-03	Pulse	0.10	3
Sb			1	0.587	ug/l	6.10	3,887.31	9.469E-04	Pulse	0.10	3
Ba			1	127.359	ug/l	0.80	340,431.79	8.296E-02	Pulse	0.10	3
Tl			1	0.011	ug/l	37.61	513.36	2.497E-04	Pulse	0.10	3
Pb			1	0.339	ug/l	17.84	1,633.49	7.939E-04	Pulse	0.10	3
Pb			1	0.351	ug/l	6.14	1,496.80	7.279E-04	Pulse	0.10	3
Pb			1	0.339	ug/l	2.65	6,627.50	3.223E-03	Pulse	0.10	3
Na			2	562179.782	ug/l	0.25	217,256,129.14	2.790E+03	Analog	0.30	3
Mg			2	14457.407	ug/l	1.19	2,532,922.96	3.253E+01	Pulse	0.30	3
Al			2	27.087	ug/l	8.10	1,733.49	2.226E-02	Pulse	0.30	3
K			2	4048.584	ug/l	1.22	465,204.05	5.975E+00	Pulse	0.30	3
Ca			2	83165.347	ug/l	0.79	473,171.53	6.077E+00	Pulse	0.30	3
Ti			2	0.927	ug/l	55.23	46.66	5.991E-04	Pulse	0.30	3
V			2	0.612	ug/l	10.12	1,023.38	1.314E-02	Pulse	0.30	3
Cr			2	0.958	ug/l	6.27	2,225.74	2.859E-02	Pulse	0.30	3
Mn			2	238.844	ug/l	0.51	226,841.76	2.913E+00	Pulse	0.30	3
Fe			2	907.456	ug/l	0.77	1,373,080.81	1.763E+01	Pulse	0.30	3
Co			2	0.776	ug/l	2.26	2,564.68	3.293E-02	Pulse	0.30	3
Ni			2	2.651	ug/l	3.06	2,391.32	3.071E-02	Pulse	0.30	3
Cu			2	4.497	ug/l	5.53	11,981.16	1.539E-01	Pulse	0.30	3
Zn			2	29.372	ug/l	1.13	9,311.62	1.196E-01	Pulse	0.30	3
As			2	0.505	ug/l	12.34	97.33	1.250E-03	Pulse	1.00	3
Cd			2	0.140	ug/l	8.61	69.75	1.780E-04	Pulse	0.30	3
Sn			2	0.724	ug/l	7.15	1,080.05	2.757E-03	Pulse	0.30	3
Se			3	0.406	ug/l	11.61	17.73	2.518E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,950,479.50	0.55	78.6	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,507,190.95	1.42	88.8	Pulse	0.10	3
1	Ge		467,523.00	1.12	92.9	Pulse	0.10	3
1	Ge		645,401.79	1.83	92.1	Pulse	0.10	3
1	Rh		2,794,622.46	1.50	84.8	Pulse	0.10	3
1	In		3,120,531.08	1.59	90.2	Pulse	0.10	3
1	Tb		4,103,965.25	1.48	94.5	Pulse	0.10	3
1	Ho		393,702.14	1.94	95.5	Pulse	0.10	3
1	Bi		2,056,045.49	0.80	86.6	Pulse	0.10	3
2	Sc		77,868.40	0.65	89.2	Pulse	0.30	3
2	Ge		43,747.32	1.35	95.2	Pulse	0.30	3
2	Ge		65,577.79	0.73	94.7	Pulse	0.30	3
2	Rh		1,077,241.76	0.23	83.9	Pulse	0.30	3
2	In		391,628.45	1.37	89.8	Pulse	0.30	3
2	Tb		1,414,418.56	0.56	92.4	Pulse	0.30	3
2	Ho		137,828.19	0.74	93.2	Pulse	0.30	3
2	Bi		829,892.75	0.62	83.8	Pulse	0.30	3
3	Sc		77,726.89	1.23	93.5	Pulse	0.30	3
3	Ge		46,258.68	1.36	94.9	Pulse	0.30	3
3	Ge		70,450.30	0.86	95.4	Pulse	0.30	3
3	Rh		703,322.98	0.90	86.6	Pulse	0.30	3
3	Tb		1,109,617.87	0.70	94.0	Pulse	0.30	3

Quantitation Report

File Name 071SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa050619m2.b
Method File
Method Path
Acq Time 5/6/2019 16:59
Sample Name jc87343-3
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 5/6/2019 12:34
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.028	ug/l	44.25	120.00	5.989E-05	Pulse	0.25	3
B			1	158.732	ug/l	1.37	367,228.06	1.835E-01	Pulse	0.15	3
Ca			1	57958.756	ug/l	1.66	22,527,090.50	9.014E+00	Analog	0.10	3
Sr			1	344.914	ug/l	1.19	6,421,721.15	2.219E+00	Analog	0.10	3
Mo			1	1.131	ug/l	7.13	4,167.37	1.439E-03	Pulse	0.10	3
Ag			1	0.034	ug/l	17.67	336.68	1.047E-04	Pulse	0.10	3
Sn			1	1.698	ug/l	2.43	8,419.22	2.620E-03	Pulse	0.10	3
Sb			1	0.611	ug/l	0.53	4,154.06	9.841E-04	Pulse	0.10	3
Ba			1	71.321	ug/l	0.69	196,156.36	4.646E-02	Pulse	0.10	3
Tl			1	0.019	ug/l	28.15	653.37	2.989E-04	Pulse	0.10	3
Pb			1	0.398	ug/l	3.89	2,006.90	9.177E-04	Pulse	0.10	3
Pb			1	0.379	ug/l	5.67	1,706.83	7.802E-04	Pulse	0.10	3
Pb			1	0.379	ug/l	5.93	7,784.47	3.558E-03	Pulse	0.10	3
Na			2	188038.816	ug/l	2.01	72,583,939.34	9.333E+02	Analog	0.30	3
Mg			2	10275.269	ug/l	0.76	1,798,080.90	2.312E+01	Pulse	0.30	3
Al			2	35.081	ug/l	6.53	2,175.86	2.796E-02	Pulse	0.30	3
K			2	3850.727	ug/l	1.63	442,386.62	5.689E+00	Pulse	0.30	3
Ca			2	59457.541	ug/l	1.28	337,887.48	4.345E+00	Pulse	0.30	3
Ti			2	0.748	ug/l	6.19	37.78	4.859E-04	Pulse	0.30	3
V			2	0.572	ug/l	2.51	958.93	1.233E-02	Pulse	0.30	3
Cr			2	0.825	ug/l	10.58	1,964.58	2.526E-02	Pulse	0.30	3
Mn			2	193.545	ug/l	1.72	183,590.70	2.361E+00	Pulse	0.30	3
Fe			2	995.957	ug/l	0.51	1,504,979.87	1.935E+01	Pulse	0.30	3
Co			2	0.649	ug/l	2.92	2,153.50	2.768E-02	Pulse	0.30	3
Ni			2	2.642	ug/l	0.76	2,380.20	3.060E-02	Pulse	0.30	3
Cu			2	7.074	ug/l	0.32	18,210.22	2.341E-01	Pulse	0.30	3
Zn			2	29.911	ug/l	0.92	9,463.92	1.217E-01	Pulse	0.30	3
As			2	0.496	ug/l	10.34	95.67	1.230E-03	Pulse	1.00	3
Cd			2	0.132	ug/l	13.72	67.56	1.687E-04	Pulse	0.30	3
Sn			2	1.082	ug/l	12.59	1,434.52	3.583E-03	Pulse	0.30	3
Se			3	0.228	ug/l	19.40	12.20	1.705E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,001,841.04	0.33	80.7	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,499,025.85	0.81	88.5	Pulse	0.10	3
1	Ge		474,796.31	2.12	94.3	Pulse	0.10	3
1	Ge		655,292.19	0.79	93.5	Pulse	0.10	3
1	Rh		2,894,559.75	1.27	87.8	Pulse	0.10	3
1	In		3,213,249.92	1.41	92.9	Pulse	0.10	3
1	Tb		4,221,369.00	1.42	97.2	Pulse	0.10	3
1	Ho		401,327.75	1.38	97.3	Pulse	0.10	3
1	Bi		2,187,380.85	1.11	92.2	Pulse	0.10	3
2	Sc		77,775.66	1.19	89.1	Pulse	0.30	3
2	Ge		44,618.54	0.54	97.1	Pulse	0.30	3
2	Ge		66,819.41	1.28	96.5	Pulse	0.30	3
2	Rh		1,131,530.86	0.69	88.1	Pulse	0.30	3
2	In		400,258.56	1.06	91.8	Pulse	0.30	3
2	Tb		1,457,183.69	0.61	95.2	Pulse	0.30	3
2	Ho		142,102.03	0.47	96.0	Pulse	0.30	3
2	Bi		882,003.45	0.96	89.0	Pulse	0.30	3
3	Sc		78,327.09	0.52	94.2	Pulse	0.30	3
3	Ge		47,745.17	0.96	98.0	Pulse	0.30	3
3	Ge		71,485.90	1.00	96.8	Pulse	0.30	3
3	Rh		741,015.25	0.29	91.2	Pulse	0.30	3
3	Tb		1,150,480.47	0.32	97.5	Pulse	0.30	3

Quantitation Report

File Name	072SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa050619m2.b
Method File	
Method Path	
Acq Time	5/6/2019 17:04
Sample Name	rinseconf
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/6/2019 12:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.001	ug/l	100.33	28.00	1.313E-05	Pulse	0.25	3
B			1	4.995	ug/l	2.42	26,908.41	1.263E-02	Pulse	0.15	3
Ca			1	2.059	ug/l	38.74	24,338.52	9.320E-03	Pulse	0.10	3
Sr			1	0.058	ug/l	14.33	2,793.69	8.938E-04	Pulse	0.10	3
Mo			1	0.013	ug/l	29.74	123.34	3.941E-05	Pulse	0.10	3
Ag			1	0.005	ug/l	20.63	140.01	4.152E-05	Pulse	0.10	3
Sn			1	0.486	ug/l	3.81	4,487.49	1.331E-03	Pulse	0.10	3
Sb			1	0.012	ug/l	35.58	296.68	6.991E-05	Pulse	0.10	3
Ba			1	0.011	ug/l	34.53	143.34	3.379E-05	Pulse	0.10	3
Tl			1	-0.002	ug/l	-274.97	356.69	1.533E-04	Pulse	0.10	3
Pb			1	-0.003	ug/l	-178.08	160.01	6.877E-05	Pulse	0.10	3
Pb			1	-0.006	ug/l	-20.38	133.34	5.746E-05	Pulse	0.10	3
Pb			1	-0.005	ug/l	-30.78	623.36	2.685E-04	Pulse	0.10	3
Na			2	57.242	ug/l	3.58	56,547.10	6.800E-01	Pulse	0.30	3
Mg			2	1.803	ug/l	6.73	790.03	9.498E-03	Pulse	0.30	3
Al			2	4.000	ug/l	18.15	717.80	8.639E-03	Pulse	0.30	3
K			2	-3.271	ug/l	-61.21	9,430.53	1.135E-01	Pulse	0.30	3
Ca			2	6.338	ug/l	41.94	146.67	1.765E-03	Pulse	0.30	3
Ti			2	-0.010	ug/l	0.00	0.00	0.000E+00	Pulse	0.30	3
V			2	0.022	ug/l	20.61	154.45	1.859E-03	Pulse	0.30	3
Cr			2	-0.012	ug/l	-123.43	320.01	3.855E-03	Pulse	0.30	3
Mn			2	0.075	ug/l	60.12	242.23	2.917E-03	Pulse	0.30	3
Fe			2	0.433	ug/l	15.37	4,183.91	5.034E-02	Pulse	0.30	3
Co			2	0.001	ug/l	70.07	82.22	9.896E-04	Pulse	0.30	3
Ni			2	0.009	ug/l	105.35	62.22	7.472E-04	Pulse	0.30	3
Cu			2	0.013	ug/l	249.29	1,223.40	1.470E-02	Pulse	0.30	3
Zn			2	-0.352	ug/l	-2.17	248.90	2.994E-03	Pulse	0.30	3
As			2	-0.009	ug/l	-86.81	5.00	6.009E-05	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	0.003	ug/l	63.49	12.22	2.787E-05	Pulse	0.30	3
Sn			2	0.143	ug/l	29.44	765.58	1.747E-03	Pulse	0.30	3
Se			3	-0.018	ug/l	-132.49	3.53	4.922E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,129,632.08	0.64	85.8	Pulse	0.10	3
1	Sc		2,611,618.19	0.47	92.5	Pulse	0.10	3
1	Ge		483,977.21	1.75	96.2	Pulse	0.10	3
1	Ge		672,172.65	0.71	95.9	Pulse	0.10	3
1	Rh		3,127,754.96	1.02	94.9	Pulse	0.10	3
1	In		3,373,250.79	0.80	97.5	Pulse	0.10	3
1	Tb		4,243,701.50	0.81	97.7	Pulse	0.10	3
1	Ho		401,872.36	1.07	97.4	Pulse	0.10	3
1	Bi		2,320,239.50	1.43	97.8	Pulse	0.10	3
2	Sc		83,134.45	1.31	95.2	Pulse	0.30	3
2	Ge		46,308.74	1.47	100.8	Pulse	0.30	3
2	Ge		69,932.51	0.67	101.0	Pulse	0.30	3
2	Rh		1,245,017.56	0.86	96.9	Pulse	0.30	3
2	In		438,059.33	0.52	100.5	Pulse	0.30	3
2	Tb		1,495,415.85	0.57	97.7	Pulse	0.30	3
2	Ho		144,726.48	0.78	97.8	Pulse	0.30	3
2	Bi		958,393.64	0.34	96.7	Pulse	0.30	3
3	Sc		79,816.39	0.18	96.0	Pulse	0.30	3
3	Ge		47,260.38	1.50	97.0	Pulse	0.30	3
3	Ge		71,677.63	1.00	97.1	Pulse	0.30	3
3	Rh		795,729.33	0.27	97.9	Pulse	0.30	3
3	Tb		1,160,483.88	0.61	98.3	Pulse	0.30	3

Quantitation Report

File Name 073SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa050619m2.b
Method File
Method Path
Acq Time 5/6/2019 17:09
Sample Name jc87343-4
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 5/6/2019 12:34
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.018	ug/l	17.51	80.00	4.053E-05	Pulse	0.25	3
B			1	155.131	ug/l	0.13	354,248.77	1.793E-01	Pulse	0.15	3
Ca			1	57569.349	ug/l	1.30	22,114,458.84	8.954E+00	Analog	0.10	3
Sr			1	347.012	ug/l	0.48	6,346,348.86	2.232E+00	Analog	0.10	3
Mo			1	1.122	ug/l	1.86	4,057.32	1.427E-03	Pulse	0.10	3
Ag			1	0.032	ug/l	31.94	316.68	9.939E-05	Pulse	0.10	3
Sn			1	1.154	ug/l	2.37	5,271.13	1.655E-03	Pulse	0.10	3
Sb			1	0.478	ug/l	2.70	3,250.48	7.770E-04	Pulse	0.10	3
Ba			1	70.448	ug/l	0.70	192,027.42	4.590E-02	Pulse	0.10	3
Tl			1	0.007	ug/l	43.67	483.36	2.211E-04	Pulse	0.10	3
Pb			1	0.434	ug/l	1.62	2,170.25	9.928E-04	Pulse	0.10	3
Pb			1	0.417	ug/l	4.89	1,856.87	8.495E-04	Pulse	0.10	3
Pb			1	0.410	ug/l	5.94	8,351.24	3.820E-03	Pulse	0.10	3
Na			2	188563.806	ug/l	1.81	71,703,919.37	9.359E+02	Analog	0.30	3
Mg			2	10338.297	ug/l	0.91	1,782,317.36	2.326E+01	Pulse	0.30	3
Al			2	45.239	ug/l	16.29	2,695.11	3.521E-02	Pulse	0.30	3
K			2	3894.800	ug/l	0.68	440,747.99	5.752E+00	Pulse	0.30	3
Ca			2	59684.876	ug/l	0.75	334,169.26	4.361E+00	Pulse	0.30	3
Ti			2	0.947	ug/l	60.98	46.67	6.122E-04	Pulse	0.30	3
V			2	0.646	ug/l	4.43	1,057.82	1.381E-02	Pulse	0.30	3
Cr			2	0.886	ug/l	1.78	2,052.38	2.678E-02	Pulse	0.30	3
Mn			2	194.999	ug/l	0.61	182,253.26	2.379E+00	Pulse	0.30	3
Fe			2	1002.198	ug/l	1.31	1,491,852.86	1.947E+01	Pulse	0.30	3
Co			2	0.649	ug/l	1.46	2,121.27	2.768E-02	Pulse	0.30	3
Ni			2	2.554	ug/l	6.14	2,267.97	2.961E-02	Pulse	0.30	3
Cu			2	6.516	ug/l	3.22	16,606.30	2.168E-01	Pulse	0.30	3
Zn			2	28.382	ug/l	1.75	8,868.06	1.157E-01	Pulse	0.30	3
As			2	0.557	ug/l	9.43	105.00	1.370E-03	Pulse	1.00	3
Cd			2	0.173	ug/l	21.75	85.37	2.146E-04	Pulse	0.30	3
Sn			2	0.584	ug/l	6.48	967.82	2.432E-03	Pulse	0.30	3
Se			3	0.213	ug/l	33.78	11.73	1.635E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,975,564.17	0.95	79.6	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,469,890.38	0.55	87.5	Pulse	0.10	3
1	Ge		465,874.22	1.19	92.6	Pulse	0.10	3
1	Ge		646,087.32	0.96	92.2	Pulse	0.10	3
1	Rh		2,843,088.71	0.98	86.3	Pulse	0.10	3
1	In		3,185,027.14	0.99	92.1	Pulse	0.10	3
1	Tb		4,183,904.31	0.99	96.3	Pulse	0.10	3
1	Ho		399,032.57	1.30	96.7	Pulse	0.10	3
1	Bi		2,185,929.55	0.80	92.1	Pulse	0.10	3
2	Sc		76,625.99	1.30	87.7	Pulse	0.30	3
2	Ge		43,680.44	1.33	95.1	Pulse	0.30	3
2	Ge		66,548.34	0.94	96.1	Pulse	0.30	3
2	Rh		1,117,344.05	0.36	87.0	Pulse	0.30	3
2	In		397,902.12	0.34	91.3	Pulse	0.30	3
2	Tb		1,429,517.93	0.78	93.4	Pulse	0.30	3
2	Ho		139,413.38	0.48	94.2	Pulse	0.30	3
2	Bi		875,940.94	0.20	88.4	Pulse	0.30	3
3	Sc		78,342.56	1.65	94.3	Pulse	0.30	3
3	Ge		47,287.18	1.30	97.1	Pulse	0.30	3
3	Ge		71,736.78	0.63	97.2	Pulse	0.30	3
3	Rh		733,498.22	0.20	90.3	Pulse	0.30	3
3	Tb		1,140,313.18	0.64	96.6	Pulse	0.30	3

Quantitation Report

File Name	074SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa050619m2.b
Method File	
Method Path	
Acq Time	5/6/2019 17:14
Sample Name	jc87343-1f
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/6/2019 12:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.005	ug/l	12.75	34.67	1.784E-05	Pulse	0.25	3
B			1	253.542	ug/l	1.48	568,060.99	2.923E-01	Pulse	0.15	3
Ca			1	76490.035	ug/l	0.97	29,425,465.40	1.189E+01	Analog	0.10	3
Sr			1	437.028	ug/l	2.17	7,740,211.97	2.811E+00	Analog	0.10	3
Mo			1	1.451	ug/l	4.81	5,077.65	1.844E-03	Pulse	0.10	3
Ag			1	0.023	ug/l	58.57	230.01	7.477E-05	Pulse	0.10	3
Sn			1	1.272	ug/l	4.34	5,731.29	1.864E-03	Pulse	0.10	3
Sb			1	0.519	ug/l	6.67	3,417.16	8.411E-04	Pulse	0.10	3
Ba			1	120.490	ug/l	1.11	318,979.09	7.848E-02	Pulse	0.10	3
Tl			1	0.010	ug/l	97.71	496.69	2.421E-04	Pulse	0.10	3
Pb			1	0.074	ug/l	14.75	483.36	2.363E-04	Pulse	0.10	3
Pb			1	0.094	ug/l	39.77	520.03	2.535E-04	Pulse	0.10	3
Pb			1	0.078	ug/l	2.54	2,073.47	1.013E-03	Pulse	0.10	3
Na			2	537266.656	ug/l	0.87	207,612,489.53	2.666E+03	Analog	0.30	3
Mg			2	13497.462	ug/l	0.68	2,364,634.07	3.037E+01	Pulse	0.30	3
Al			2	10.993	ug/l	6.67	838.92	1.077E-02	Pulse	0.30	3
K			2	3896.205	ug/l	0.68	448,040.52	5.754E+00	Pulse	0.30	3
Ca			2	77317.313	ug/l	0.46	439,878.07	5.649E+00	Pulse	0.30	3
Ti			2	0.589	ug/l	80.52	30.00	3.855E-04	Pulse	0.30	3
V			2	0.357	ug/l	2.33	627.80	8.063E-03	Pulse	0.30	3
Cr			2	0.647	ug/l	4.77	1,615.65	2.075E-02	Pulse	0.30	3
Mn			2	159.638	ug/l	0.25	151,630.50	1.947E+00	Pulse	0.30	3
Fe			2	28.388	ug/l	0.94	45,481.27	5.841E-01	Pulse	0.30	3
Co			2	0.632	ug/l	4.31	2,100.16	2.697E-02	Pulse	0.30	3
Ni			2	2.501	ug/l	1.93	2,257.96	2.900E-02	Pulse	0.30	3
Cu			2	3.914	ug/l	1.69	10,569.05	1.357E-01	Pulse	0.30	3
Zn			2	17.217	ug/l	1.15	5,642.14	7.246E-02	Pulse	0.30	3
As			2	0.365	ug/l	8.02	72.67	9.333E-04	Pulse	1.00	3
Cd			2	0.099	ug/l	40.65	50.89	1.320E-04	Pulse	0.30	3
Sn			2	0.620	ug/l	9.07	971.16	2.516E-03	Pulse	0.30	3
Se			3	0.243	ug/l	22.72	12.27	1.771E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,943,142.46	0.42	78.3	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,474,188.04	1.30	87.6	Pulse	0.10	3
1	Ge		458,826.79	1.40	91.2	Pulse	0.10	3
1	Ge		634,222.18	1.70	90.5	Pulse	0.10	3
1	Rh		2,753,574.33	1.23	83.5	Pulse	0.10	3
1	In		3,075,132.78	1.30	88.9	Pulse	0.10	3
1	Tb		4,064,161.40	0.93	93.6	Pulse	0.10	3
1	Ho		390,926.07	0.54	94.8	Pulse	0.10	3
1	Bi		2,046,561.43	1.38	86.2	Pulse	0.10	3
2	Sc		77,861.72	0.12	89.2	Pulse	0.30	3
2	Ge		43,059.94	1.03	93.7	Pulse	0.30	3
2	Ge		64,588.25	1.20	93.2	Pulse	0.30	3
2	Rh		1,068,016.00	0.42	83.1	Pulse	0.30	3
2	In		386,033.38	0.47	88.5	Pulse	0.30	3
2	Tb		1,391,737.52	0.63	90.9	Pulse	0.30	3
2	Ho		135,675.63	0.96	91.7	Pulse	0.30	3
2	Bi		823,531.79	0.57	83.1	Pulse	0.30	3
3	Sc		76,643.82	1.43	92.2	Pulse	0.30	3
3	Ge		45,290.35	0.71	93.0	Pulse	0.30	3
3	Ge		69,327.40	1.23	93.9	Pulse	0.30	3
3	Rh		698,533.23	0.56	86.0	Pulse	0.30	3
3	Tb		1,104,267.32	0.90	93.6	Pulse	0.30	3

Quantitation Report

File Name	075SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa050619m2.b
Method File	
Method Path	
Acq Time	5/6/2019 17:19
Sample Name	rinseconf
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/6/2019 12:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.002	ug/l	61.27	36.00	1.668E-05	Pulse	0.25	3
B			1	5.497	ug/l	6.18	29,835.46	1.379E-02	Pulse	0.15	3
Ca			1	0.921	ug/l	75.35	23,530.74	8.966E-03	Pulse	0.10	3
Sr			1	0.056	ug/l	5.51	2,733.67	8.618E-04	Pulse	0.10	3
Mo			1	0.010	ug/l	17.36	103.34	3.256E-05	Pulse	0.10	3
Ag			1	0.003	ug/l	42.67	96.67	2.854E-05	Pulse	0.10	3
Sn			1	0.473	ug/l	3.47	4,364.11	1.287E-03	Pulse	0.10	3
Sb			1	0.017	ug/l	19.24	356.68	8.379E-05	Pulse	0.10	3
Ba			1	0.013	ug/l	64.92	153.34	3.598E-05	Pulse	0.10	3
Tl			1	-0.003	ug/l	-98.60	330.02	1.424E-04	Pulse	0.10	3
Pb			1	-0.001	ug/l	-467.27	183.34	7.925E-05	Pulse	0.10	3
Pb			1	-0.005	ug/l	-79.06	143.34	6.188E-05	Pulse	0.10	3
Pb			1	-0.005	ug/l	-9.76	596.70	2.578E-04	Pulse	0.10	3
Na			2	69.834	ug/l	7.00	68,120.73	8.050E-01	Pulse	0.30	3
Mg			2	1.713	ug/l	8.19	768.92	9.090E-03	Pulse	0.30	3
Al			2	4.038	ug/l	17.17	735.58	8.693E-03	Pulse	0.30	3
K			2	-3.914	ug/l	-23.42	9,441.63	1.116E-01	Pulse	0.30	3
Ca			2	7.103	ug/l	30.47	158.89	1.877E-03	Pulse	0.30	3
Ti			2	0.031	ug/l	56.57	4.44	5.244E-05	Pulse	0.30	3
V			2	0.019	ug/l	33.29	145.56	1.719E-03	Pulse	0.30	3
Cr			2	-0.012	ug/l	-21.60	325.57	3.847E-03	Pulse	0.30	3
Mn			2	0.055	ug/l	37.38	205.56	2.431E-03	Pulse	0.30	3
Fe			2	0.482	ug/l	28.40	4,420.12	5.224E-02	Pulse	0.30	3
Co			2	0.001	ug/l	382.44	83.33	9.865E-04	Pulse	0.30	3
Ni			2	0.018	ug/l	66.54	78.89	9.333E-04	Pulse	0.30	3
Cu			2	0.013	ug/l	71.85	1,244.51	1.471E-02	Pulse	0.30	3
Zn			2	-0.277	ug/l	-27.05	302.23	3.571E-03	Pulse	0.30	3
As			2	0.015	ug/l	36.07	14.33	1.694E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	-0.002	ug/l	-124.20	7.78	1.770E-05	Pulse	0.30	3
Sn			2	0.148	ug/l	22.50	776.70	1.768E-03	Pulse	0.30	3
Se			3	0.007	ug/l	100.15	5.20	7.253E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,164,908.23	1.50	87.2	Pulse	0.10	3
1	Sc		2,624,295.69	0.28	93.0	Pulse	0.10	3
1	Ge		486,811.24	1.61	96.7	Pulse	0.10	3
1	Ge		673,925.41	0.55	96.1	Pulse	0.10	3
1	Rh		3,170,799.85	1.95	96.2	Pulse	0.10	3
1	In		3,391,809.30	1.17	98.1	Pulse	0.10	3
1	Tb		4,254,746.18	1.09	98.0	Pulse	0.10	3
1	Ho		402,548.80	1.63	97.6	Pulse	0.10	3
1	Bi		2,314,347.05	0.83	97.5	Pulse	0.10	3
2	Sc		84,610.85	0.63	96.9	Pulse	0.30	3
2	Ge		46,711.07	2.03	101.7	Pulse	0.30	3
2	Ge		70,201.34	0.20	101.3	Pulse	0.30	3
2	Rh		1,240,600.05	0.44	96.6	Pulse	0.30	3
2	In		439,309.52	0.35	100.8	Pulse	0.30	3
2	Tb		1,501,701.16	0.11	98.1	Pulse	0.30	3
2	Ho		146,640.88	0.14	99.1	Pulse	0.30	3
2	Bi		962,036.39	0.72	97.1	Pulse	0.30	3
3	Sc		80,372.46	0.50	96.7	Pulse	0.30	3
3	Ge		47,361.93	0.78	97.2	Pulse	0.30	3
3	Ge		71,645.34	1.16	97.0	Pulse	0.30	3
3	Rh		792,089.48	0.02	97.5	Pulse	0.30	3
3	Tb		1,152,403.43	0.38	97.6	Pulse	0.30	3

Quantitation Report

File Name	076SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa050619m2.b
Method File	
Method Path	
Acq Time	5/6/2019 17:24
Sample Name	jc87343-2f
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/6/2019 12:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.015	ug/l	66.86	70.67	3.636E-05	Pulse	0.25	3
B			1	270.912	ug/l	1.01	607,786.64	3.123E-01	Pulse	0.15	3
Ca			1	82871.660	ug/l	0.81	31,792,175.36	1.289E+01	Analog	0.10	3
Sr			1	469.843	ug/l	0.66	8,278,535.92	3.022E+00	Analog	0.10	3
Mo			1	1.505	ug/l	5.06	5,237.72	1.912E-03	Pulse	0.10	3
Ag			1	0.024	ug/l	36.70	240.01	7.791E-05	Pulse	0.10	3
Sn			1	1.449	ug/l	1.87	6,698.36	2.177E-03	Pulse	0.10	3
Sb			1	0.553	ug/l	2.40	3,600.54	8.942E-04	Pulse	0.10	3
Ba			1	128.071	ug/l	1.15	335,941.18	8.342E-02	Pulse	0.10	3
Tl			1	0.014	ug/l	51.11	540.03	2.661E-04	Pulse	0.10	3
Pb			1	0.287	ug/l	16.92	1,390.12	6.834E-04	Pulse	0.10	3
Pb			1	0.292	ug/l	8.14	1,260.10	6.202E-04	Pulse	0.10	3
Pb			1	0.302	ug/l	2.00	5,900.69	2.905E-03	Pulse	0.10	3
Na			2	571055.341	ug/l	0.64	220,887,786.78	2.834E+03	Analog	0.30	3
Mg			2	14763.372	ug/l	0.53	2,588,949.90	3.322E+01	Pulse	0.30	3
Al			2	10.957	ug/l	2.70	837.81	1.075E-02	Pulse	0.30	3
K			2	4099.679	ug/l	0.49	471,414.60	6.048E+00	Pulse	0.30	3
Ca			2	84141.698	ug/l	0.70	479,169.70	6.148E+00	Pulse	0.30	3
Ti			2	0.700	ug/l	33.52	35.56	4.558E-04	Pulse	0.30	3
V			2	0.354	ug/l	2.58	624.46	8.012E-03	Pulse	0.30	3
Cr			2	0.662	ug/l	6.96	1,646.77	2.113E-02	Pulse	0.30	3
Mn			2	235.087	ug/l	0.99	223,484.19	2.867E+00	Pulse	0.30	3
Fe			2	75.883	ug/l	0.88	117,320.99	1.505E+00	Pulse	0.30	3
Co			2	0.771	ug/l	2.13	2,548.00	3.269E-02	Pulse	0.30	3
Ni			2	2.779	ug/l	4.60	2,506.89	3.217E-02	Pulse	0.30	3
Cu			2	6.180	ug/l	3.06	16,080.22	2.063E-01	Pulse	0.30	3
Zn			2	20.672	ug/l	1.77	6,691.44	8.586E-02	Pulse	0.30	3
As			2	0.416	ug/l	6.96	81.67	1.048E-03	Pulse	1.00	3
Cd			2	0.117	ug/l	29.12	58.64	1.521E-04	Pulse	0.30	3
Sn			2	0.844	ug/l	12.14	1,167.84	3.033E-03	Pulse	0.30	3
Se			3	0.233	ug/l	17.81	11.93	1.726E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,946,242.44	0.47	78.4	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,467,426.26	0.80	87.4	Pulse	0.10	3
1	Ge		455,843.64	0.97	90.6	Pulse	0.10	3
1	Ge		632,107.07	0.74	90.2	Pulse	0.10	3
1	Rh		2,739,267.35	1.27	83.1	Pulse	0.10	3
1	In		3,076,610.25	1.35	89.0	Pulse	0.10	3
1	Tb		4,026,679.62	1.85	92.7	Pulse	0.10	3
1	Ho		383,489.16	1.76	93.0	Pulse	0.10	3
1	Bi		2,031,211.11	1.86	85.6	Pulse	0.10	3
2	Sc		77,939.91	0.49	89.2	Pulse	0.30	3
2	Ge		42,865.08	0.64	93.3	Pulse	0.30	3
2	Ge		64,147.59	1.24	92.6	Pulse	0.30	3
2	Rh		1,064,407.98	0.70	82.9	Pulse	0.30	3
2	In		385,213.73	0.72	88.4	Pulse	0.30	3
2	Tb		1,392,651.02	1.30	91.0	Pulse	0.30	3
2	Ho		135,349.55	1.67	91.5	Pulse	0.30	3
2	Bi		818,969.45	0.71	82.7	Pulse	0.30	3
3	Sc		76,651.71	0.79	92.2	Pulse	0.30	3
3	Ge		45,700.47	0.97	93.8	Pulse	0.30	3
3	Ge		69,093.37	1.31	93.6	Pulse	0.30	3
3	Rh		691,585.94	1.21	85.1	Pulse	0.30	3
3	Tb		1,097,625.93	0.54	93.0	Pulse	0.30	3

Quantitation Report

File Name 077SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa050619m2.b
Method File
Method Path
Acq Time 5/6/2019 17:29
Sample Name jc87343-3f
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 5/6/2019 12:34
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.006	ug/l	26.14	38.67	1.959E-05	Pulse	0.25	3
B			1	163.318	ug/l	1.56	372,197.86	1.887E-01	Pulse	0.15	3
Ca			1	59115.095	ug/l	1.10	22,739,817.16	9.194E+00	Analog	0.10	3
Sr			1	347.878	ug/l	1.65	6,397,080.11	2.238E+00	Analog	0.10	3
Mo			1	1.108	ug/l	7.98	4,027.34	1.409E-03	Pulse	0.10	3
Ag			1	0.025	ug/l	35.11	256.68	8.012E-05	Pulse	0.10	3
Sn			1	1.476	ug/l	3.79	7,098.57	2.225E-03	Pulse	0.10	3
Sb			1	0.463	ug/l	8.38	3,147.10	7.532E-04	Pulse	0.10	3
Ba			1	70.482	ug/l	0.75	191,689.38	4.592E-02	Pulse	0.10	3
Tl			1	0.003	ug/l	90.98	430.02	1.987E-04	Pulse	0.10	3
Pb			1	0.103	ug/l	13.65	643.38	2.971E-04	Pulse	0.10	3
Pb			1	0.072	ug/l	19.14	463.36	2.141E-04	Pulse	0.10	3
Pb			1	0.088	ug/l	6.86	2,360.18	1.090E-03	Pulse	0.10	3
Na			2	191651.343	ug/l	0.94	72,808,503.77	9.512E+02	Analog	0.30	3
Mg			2	10549.530	ug/l	1.43	1,816,764.86	2.374E+01	Pulse	0.30	3
Al			2	3.554	ug/l	35.23	418.90	5.466E-03	Pulse	0.30	3
K			2	3852.022	ug/l	0.93	435,552.56	5.690E+00	Pulse	0.30	3
Ca			2	60494.006	ug/l	1.96	338,311.72	4.420E+00	Pulse	0.30	3
Ti			2	0.186	ug/l	35.85	10.00	1.304E-04	Pulse	0.30	3
V			2	0.346	ug/l	8.70	600.02	7.842E-03	Pulse	0.30	3
Cr			2	0.637	ug/l	6.87	1,568.99	2.050E-02	Pulse	0.30	3
Mn			2	195.389	ug/l	1.62	182,409.53	2.383E+00	Pulse	0.30	3
Fe			2	99.770	ug/l	1.35	150,671.85	1.969E+00	Pulse	0.30	3
Co			2	0.604	ug/l	3.64	1,976.81	2.583E-02	Pulse	0.30	3
Ni			2	2.382	ug/l	2.48	2,116.83	2.765E-02	Pulse	0.30	3
Cu			2	3.719	ug/l	0.31	9,926.41	1.297E-01	Pulse	0.30	3
Zn			2	17.975	ug/l	5.04	5,769.97	7.540E-02	Pulse	0.30	3
As			2	0.388	ug/l	12.00	75.33	9.842E-04	Pulse	1.00	3
Cd			2	0.078	ug/l	59.91	43.13	1.085E-04	Pulse	0.30	3
Sn			2	0.846	ug/l	6.25	1,206.73	3.039E-03	Pulse	0.30	3
Se			3	0.244	ug/l	20.90	12.93	1.777E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,972,420.54	0.88	79.5	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,473,340.64	0.94	87.6	Pulse	0.10	3
1	Ge		473,992.98	1.19	94.2	Pulse	0.10	3
1	Ge		661,400.63	1.62	94.4	Pulse	0.10	3
1	Rh		2,859,003.91	1.79	86.7	Pulse	0.10	3
1	In		3,191,018.03	2.01	92.3	Pulse	0.10	3
1	Tb		4,174,888.89	1.85	96.1	Pulse	0.10	3
1	Ho		402,512.76	1.11	97.6	Pulse	0.10	3
1	Bi		2,165,175.96	0.84	91.2	Pulse	0.10	3
2	Sc		76,544.59	1.06	87.6	Pulse	0.30	3
2	Ge		44,304.53	1.04	96.4	Pulse	0.30	3
2	Ge		66,971.09	0.77	96.7	Pulse	0.30	3
2	Rh		1,114,591.87	0.70	86.8	Pulse	0.30	3
2	In		397,088.01	0.36	91.1	Pulse	0.30	3
2	Tb		1,451,227.51	0.05	94.8	Pulse	0.30	3
2	Ho		140,721.39	0.57	95.1	Pulse	0.30	3
2	Bi		877,665.35	0.57	88.6	Pulse	0.30	3
3	Sc		78,955.95	1.53	95.0	Pulse	0.30	3
3	Ge		47,951.16	0.40	98.4	Pulse	0.30	3
3	Ge		72,726.63	0.85	98.5	Pulse	0.30	3
3	Rh		730,874.17	0.92	90.0	Pulse	0.30	3
3	Tb		1,154,469.26	0.90	97.8	Pulse	0.30	3

Quantitation Report

File Name	078_CCV.d
File Path	C:\Agilent\ICPMH\1\DATA\xa050619m2.b
Method File	
Method Path	
Acq Time	5/6/2019 17:34
Sample Name	CCVA
Sample Type	CCV
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/6/2019 12:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	46.949	ug/l	0.57	356,487.71	1.722E-01	Pulse	0.25	3
B			1	96.901	ug/l	0.88	463,044.86	2.237E-01	Pulse	0.15	3
Ca			1	4985.678	ug/l	0.27	3,963,285.67	1.558E+00	Pulse	0.10	3
Sr			1	48.905	ug/l	1.00	1,911,981.59	6.293E-01	Pulse	0.10	3
Mo			1	47.104	ug/l	0.21	362,386.92	1.193E-01	Pulse	0.10	3
Ag			1	47.055	ug/l	0.23	839,881.97	2.551E-01	Pulse	0.10	3
Sn			1	46.453	ug/l	0.64	540,956.71	1.643E-01	Pulse	0.10	3
Sb			1	48.005	ug/l	1.62	630,715.68	1.498E-01	Pulse	0.10	3
Ba			1	47.779	ug/l	0.83	262,129.51	6.225E-02	Pulse	0.10	3
Tl			1	48.783	ug/l	1.02	1,371,514.46	6.070E-01	Pulse	0.10	3
Pb			1	48.841	ug/l	0.89	463,603.84	2.052E-01	Pulse	0.10	3
Pb			1	49.003	ug/l	1.49	408,722.18	1.809E-01	Pulse	0.10	3
Pb			1	48.460	ug/l	1.09	1,857,222.54	8.219E-01	Pulse	0.10	3
Na			2	4691.445	ug/l	1.71	3,798,358.74	4.668E+01	Pulse	0.30	3
Mg			2	4700.631	ug/l	1.18	1,721,461.08	2.115E+01	Pulse	0.30	3
Al			2	4810.613	ug/l	1.13	558,938.90	6.868E+00	Pulse	0.30	3
K			2	4916.576	ug/l	0.83	1,166,636.14	1.434E+01	Pulse	0.30	3
Ca			2	5204.906	ug/l	2.35	61,953.50	7.614E-01	Pulse	0.30	3
Ti			2	45.138	ug/l	2.99	4,649.59	5.714E-02	Pulse	0.30	3
V			2	48.481	ug/l	1.98	156,724.04	1.926E+00	Pulse	0.30	3
Cr			2	47.348	ug/l	1.15	194,728.20	2.393E+00	Pulse	0.30	3
Mn			2	48.418	ug/l	1.98	96,165.82	1.182E+00	Pulse	0.30	3
Fe			2	5184.009	ug/l	1.56	16,366,848.24	2.011E+02	Analog	0.30	3
Co			2	47.624	ug/l	1.58	320,039.91	3.933E+00	Pulse	0.30	3
Ni			2	46.884	ug/l	2.23	86,896.05	1.068E+00	Pulse	0.30	3
Cu			2	46.119	ug/l	1.43	234,834.66	2.886E+00	Pulse	0.30	3
Zn			2	47.905	ug/l	1.17	30,692.15	3.771E-01	Pulse	0.30	3
As			2	48.439	ug/l	1.28	17,948.18	2.206E-01	Pulse	1.00	3
Cd			2	47.138	ug/l	1.77	44,742.99	1.056E-01	Pulse	0.30	3
Sn			2	46.865	ug/l	0.42	92,084.49	2.174E-01	Pulse	0.30	3
Se			3	192.524	ug/l	1.59	12,248.84	1.763E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,069,579.18	1.15	83.4	Pulse	0.10	3
1	Sc		2,543,747.52	1.27	90.1	Pulse	0.10	3
1	Ge		468,969.50	1.38	93.2	Pulse	0.10	3

Quantitation Report

1	Ge		658,223.62	2.13	93.9	Pulse	0.10	3
1	Rh		3,038,139.54	0.88	92.2	Pulse	0.10	3
1	In		3,292,071.78	1.11	95.2	Pulse	0.10	3
1	Tb		4,211,161.81	0.86	97.0	Pulse	0.10	3
1	Ho		404,948.80	2.01	98.2	Pulse	0.10	3
1	Bi		2,259,879.70	1.97	95.2	Pulse	0.10	3
2	Sc		81,388.43	1.39	93.2	Pulse	0.30	3
2	Ge		44,864.85	1.07	97.6	Pulse	0.30	3
2	Ge		68,178.44	0.46	98.4	Pulse	0.30	3
2	Rh		1,206,938.60	0.69	94.0	Pulse	0.30	3
2	In		423,658.51	0.45	97.2	Pulse	0.30	3
2	Tb		1,492,438.83	0.57	97.5	Pulse	0.30	3
2	Ho		146,923.86	1.23	99.3	Pulse	0.30	3
2	Bi		943,437.81	0.19	95.2	Pulse	0.30	3
3	Sc		77,436.58	1.10	93.2	Pulse	0.30	3
3	Ge		46,267.66	0.63	95.0	Pulse	0.30	3
3	Ge		69,496.27	1.33	94.1	Pulse	0.30	3
3	Rh		760,313.96	0.67	93.6	Pulse	0.30	3
3	Tb		1,150,842.00	0.77	97.5	Pulse	0.30	3

Quantitation Report

File Name	079_CCB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa050619m2.b
Method File	
Method Path	
Acq Time	5/6/2019 17:39
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/6/2019 12:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.014	ug/l	40.00	126.67	6.067E-05	Pulse	0.25	3
B			1	7.241	ug/l	1.46	37,205.54	1.779E-02	Pulse	0.15	3
Ca			1	-1.347	ug/l	-55.18	21,027.33	8.261E-03	Pulse	0.10	3
Sr			1	0.034	ug/l	5.54	1,790.16	5.778E-04	Pulse	0.10	3
Mo			1	0.093	ug/l	22.13	750.05	2.420E-04	Pulse	0.10	3
Ag			1	0.016	ug/l	9.51	336.69	1.011E-04	Pulse	0.10	3
Sn			1	0.628	ug/l	3.09	6,111.40	1.836E-03	Pulse	0.10	3
Sb			1	0.265	ug/l	9.13	3,583.89	8.585E-04	Pulse	0.10	3
Ba			1	0.015	ug/l	22.59	160.01	3.835E-05	Pulse	0.10	3
Tl			1	0.018	ug/l	19.08	920.07	3.978E-04	Pulse	0.10	3
Pb			1	0.022	ug/l	21.88	400.02	1.729E-04	Pulse	0.10	3
Pb			1	0.016	ug/l	15.56	320.02	1.385E-04	Pulse	0.10	3
Pb			1	0.015	ug/l	4.33	1,380.08	5.969E-04	Pulse	0.10	3
Na			2	44.916	ug/l	1.66	45,707.02	5.577E-01	Pulse	0.30	3
Mg			2	1.786	ug/l	3.53	772.25	9.423E-03	Pulse	0.30	3
Al			2	8.567	ug/l	6.56	1,242.28	1.516E-02	Pulse	0.30	3
K			2	-4.155	ug/l	-6.95	9,089.25	1.109E-01	Pulse	0.30	3
Ca			2	7.441	ug/l	57.09	157.78	1.926E-03	Pulse	0.30	3
Ti			2	0.076	ug/l	129.99	8.89	1.085E-04	Pulse	0.30	3
V			2	0.009	ug/l	107.25	111.11	1.356E-03	Pulse	0.30	3
Cr			2	0.017	ug/l	49.67	435.57	5.315E-03	Pulse	0.30	3
Mn			2	0.071	ug/l	11.20	231.11	2.820E-03	Pulse	0.30	3
Fe			2	1.616	ug/l	2.37	7,886.43	9.623E-02	Pulse	0.30	3
Co			2	0.006	ug/l	51.76	113.34	1.383E-03	Pulse	0.30	3
Ni			2	0.033	ug/l	26.93	105.56	1.288E-03	Pulse	0.30	3
Cu			2	0.041	ug/l	15.95	1,347.85	1.645E-02	Pulse	0.30	3
Zn			2	0.519	ug/l	23.51	798.92	9.749E-03	Pulse	0.30	3
As			2	0.034	ug/l	40.83	21.00	2.562E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	0.009	ug/l	135.94	17.72	4.117E-05	Pulse	0.30	3
Sn			2	0.350	ug/l	7.16	1,161.17	2.702E-03	Pulse	0.30	3
Se			3	0.106	ug/l	9.89	11.47	1.629E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,091,154.12	0.92	84.3	Pulse	0.10	3
1	Sc		2,545,712.30	0.94	90.2	Pulse	0.10	3
1	Ge		471,194.19	1.48	93.6	Pulse	0.10	3
1	Ge		653,822.78	0.67	93.3	Pulse	0.10	3
1	Rh		3,097,571.00	1.64	94.0	Pulse	0.10	3
1	In		3,329,345.66	1.44	96.3	Pulse	0.10	3
1	Tb		4,173,340.98	0.62	96.1	Pulse	0.10	3
1	Ho		397,497.86	1.18	96.4	Pulse	0.10	3
1	Bi		2,312,390.33	1.14	97.5	Pulse	0.10	3
2	Sc		81,957.71	0.26	93.8	Pulse	0.30	3
2	Ge		45,377.28	0.61	98.8	Pulse	0.30	3
2	Ge		67,893.95	0.10	98.0	Pulse	0.30	3
2	Rh		1,218,931.13	0.13	94.9	Pulse	0.30	3
2	In		429,820.66	0.82	98.6	Pulse	0.30	3
2	Tb		1,488,071.96	0.38	97.2	Pulse	0.30	3
2	Ho		145,668.16	0.47	98.5	Pulse	0.30	3
2	Bi		960,557.53	0.56	96.9	Pulse	0.30	3
3	Sc		77,837.08	1.05	93.7	Pulse	0.30	3
3	Ge		46,515.13	1.04	95.5	Pulse	0.30	3
3	Ge		70,343.00	1.35	95.3	Pulse	0.30	3
3	Rh		780,458.84	0.94	96.1	Pulse	0.30	3
3	Tb		1,153,917.11	0.30	97.8	Pulse	0.30	3

Quantitation Report

File Name	080SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa050619m2.b
Method File	
Method Path	
Acq Time	5/6/2019 17:44
Sample Name	jc87343-4f
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/6/2019 12:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.012	ug/l	13.98	58.67	3.042E-05	Pulse	0.25	3
B			1	159.321	ug/l	0.97	355,100.91	1.841E-01	Pulse	0.15	3
Ca			1	59879.406	ug/l	1.06	22,235,859.67	9.313E+00	Analog	0.10	3
Sr			1	353.105	ug/l	1.17	6,336,663.24	2.271E+00	Analog	0.10	3
Mo			1	1.236	ug/l	3.86	4,384.10	1.571E-03	Pulse	0.10	3
Ag			1	0.033	ug/l	14.19	313.34	1.007E-04	Pulse	0.10	3
Sn			1	1.530	ug/l	5.70	7,228.65	2.321E-03	Pulse	0.10	3
Sb			1	0.843	ug/l	2.97	5,547.81	1.347E-03	Pulse	0.10	3
Ba			1	69.799	ug/l	1.57	187,362.03	4.547E-02	Pulse	0.10	3
Tl			1	0.021	ug/l	9.42	666.70	3.099E-04	Pulse	0.10	3
Pb			1	0.730	ug/l	3.16	3,473.88	1.614E-03	Pulse	0.10	3
Pb			1	0.680	ug/l	5.62	2,873.71	1.335E-03	Pulse	0.10	3
Pb			1	0.711	ug/l	1.32	13,713.04	6.372E-03	Pulse	0.10	3
Na			2	191444.925	ug/l	0.57	71,462,801.60	9.502E+02	Analog	0.30	3
Mg			2	10513.545	ug/l	1.32	1,779,028.47	2.366E+01	Pulse	0.30	3
Al			2	9.341	ug/l	23.41	721.13	9.596E-03	Pulse	0.30	3
K			2	3887.281	ug/l	0.89	431,789.57	5.741E+00	Pulse	0.30	3
Ca			2	60476.880	ug/l	0.33	332,366.21	4.419E+00	Pulse	0.30	3
Ti			2	0.730	ug/l	63.30	35.56	4.745E-04	Pulse	0.30	3
V			2	0.361	ug/l	3.18	613.35	8.157E-03	Pulse	0.30	3
Cr			2	0.643	ug/l	9.33	1,553.43	2.065E-02	Pulse	0.30	3
Mn			2	193.441	ug/l	0.83	177,454.58	2.360E+00	Pulse	0.30	3
Fe			2	97.444	ug/l	1.34	144,656.52	1.924E+00	Pulse	0.30	3
Co			2	0.604	ug/l	5.83	1,941.25	2.582E-02	Pulse	0.30	3
Ni			2	2.832	ug/l	4.69	2,464.66	3.277E-02	Pulse	0.30	3
Cu			2	4.238	ug/l	3.17	10,967.07	1.458E-01	Pulse	0.30	3
Zn			2	21.533	ug/l	2.46	6,708.10	8.920E-02	Pulse	0.30	3
As			2	0.403	ug/l	7.48	76.67	1.019E-03	Pulse	1.00	3
Cd			2	0.080	ug/l	0.68	43.11	1.107E-04	Pulse	0.30	3
Sn			2	0.830	ug/l	1.40	1,167.84	3.000E-03	Pulse	0.30	3
Se			3	0.310	ug/l	23.04	14.60	2.076E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,928,526.90	0.39	77.7	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,387,798.92	1.33	84.6	Pulse	0.10	3
1	Ge		454,625.78	1.37	90.3	Pulse	0.10	3
1	Ge		631,245.82	1.63	90.1	Pulse	0.10	3
1	Rh		2,789,607.77	0.52	84.6	Pulse	0.10	3
1	In		3,113,535.26	1.07	90.0	Pulse	0.10	3
1	Tb		4,120,898.79	1.73	94.9	Pulse	0.10	3
1	Ho		395,219.76	1.03	95.8	Pulse	0.10	3
1	Bi		2,151,982.42	0.88	90.7	Pulse	0.10	3
2	Sc		75,209.59	0.87	86.1	Pulse	0.30	3
2	Ge		42,408.34	1.45	92.3	Pulse	0.30	3
2	Ge		63,598.82	0.71	91.8	Pulse	0.30	3
2	Rh		1,097,513.92	0.40	85.4	Pulse	0.30	3
2	In		389,300.05	0.55	89.3	Pulse	0.30	3
2	Tb		1,423,014.94	1.30	93.0	Pulse	0.30	3
2	Ho		139,684.67	1.17	94.4	Pulse	0.30	3
2	Bi		872,885.05	0.42	88.1	Pulse	0.30	3
3	Sc		76,270.07	1.38	91.8	Pulse	0.30	3
3	Ge		46,004.63	0.88	94.4	Pulse	0.30	3
3	Ge		70,325.14	1.48	95.3	Pulse	0.30	3
3	Rh		717,620.84	0.20	88.3	Pulse	0.30	3
3	Tb		1,126,410.93	0.44	95.4	Pulse	0.30	3

Quantitation Report

File Name	081SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa050619m2.b
Method File	
Method Path	
Acq Time	5/6/2019 17:49
Sample Name	jc87343-5f
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/6/2019 12:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.041	ug/l	6.95	165.33	8.342E-05	Pulse	0.25	3
B			1	16.081	ug/l	0.72	38,893.68	1.963E-02	Pulse	0.15	3
Ca			1	57.704	ug/l	3.31	42,522.32	1.765E-02	Pulse	0.10	3
Sr			1	2.559	ug/l	1.83	50,410.02	1.660E-02	Pulse	0.10	3
Mo			1	0.059	ug/l	24.52	246.68	8.126E-05	Pulse	0.10	3
Ag			1	0.018	ug/l	16.12	193.34	5.969E-05	Pulse	0.10	3
Sn			1	1.307	ug/l	0.91	6,238.10	1.926E-03	Pulse	0.10	3
Sb			1	0.186	ug/l	8.64	1,350.11	3.206E-04	Pulse	0.10	3
Ba			1	2.710	ug/l	1.18	7,508.72	1.784E-03	Pulse	0.10	3
Tl			1	0.008	ug/l	110.95	543.37	2.306E-04	Pulse	0.10	3
Pb			1	0.039	ug/l	81.62	383.35	1.632E-04	Pulse	0.10	3
Pb			1	0.045	ug/l	7.44	386.69	1.643E-04	Pulse	0.10	3
Pb			1	0.045	ug/l	20.59	1,716.77	7.300E-04	Pulse	0.10	3
Na			2	151.020	ug/l	1.34	65,811.40	8.613E-01	Pulse	0.30	3
Mg			2	7.567	ug/l	4.64	1,406.75	1.841E-02	Pulse	0.30	3
Al			2	28.850	ug/l	7.06	1,796.79	2.352E-02	Pulse	0.30	3
K			2	-0.064	ug/l	-2837.21	9,383.82	1.228E-01	Pulse	0.30	3
Ca			2	84.290	ug/l	10.14	534.46	6.997E-03	Pulse	0.30	3
Ti			2	0.187	ug/l	36.77	10.00	1.309E-04	Pulse	0.30	3
V			2	0.216	ug/l	6.18	403.34	5.280E-03	Pulse	0.30	3
Cr			2	0.589	ug/l	9.56	1,473.42	1.928E-02	Pulse	0.30	3
Mn			2	0.558	ug/l	6.95	602.24	7.884E-03	Pulse	0.30	3
Fe			2	5.132	ug/l	3.03	10,167.69	1.331E-01	Pulse	0.30	3
Co			2	0.078	ug/l	13.88	314.45	4.115E-03	Pulse	0.30	3
Ni			2	0.692	ug/l	11.13	642.24	8.407E-03	Pulse	0.30	3
Cu			2	0.885	ug/l	9.87	3,164.79	4.143E-02	Pulse	0.30	3
Zn			2	6.098	ug/l	3.69	2,243.51	2.936E-02	Pulse	0.30	3
As			2	0.112	ug/l	22.49	27.33	3.576E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	-0.016	ug/l	-25.61	1.10	2.717E-06	Pulse	0.30	3
Sn			2	0.735	ug/l	7.92	1,130.05	2.782E-03	Pulse	0.30	3
Se			3	0.137	ug/l	24.69	9.53	1.287E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,981,290.65	1.07	79.8	Pulse	0.10	3
1	Sc		2,409,535.64	1.07	85.3	Pulse	0.10	3
1	Ge		476,354.41	1.00	94.6	Pulse	0.10	3
1	Ge		652,836.64	0.96	93.1	Pulse	0.10	3
1	Rh		3,036,124.01	0.39	92.1	Pulse	0.10	3
1	In		3,238,383.98	0.28	93.6	Pulse	0.10	3
1	Tb		4,208,494.83	1.18	96.9	Pulse	0.10	3
1	Ho		403,626.58	1.57	97.9	Pulse	0.10	3
1	Bi		2,353,376.68	0.96	99.2	Pulse	0.10	3
2	Sc		76,408.18	0.54	87.5	Pulse	0.30	3
2	Ge		44,100.61	0.91	96.0	Pulse	0.30	3
2	Ge		67,628.19	0.83	97.6	Pulse	0.30	3
2	Rh		1,179,861.45	0.14	91.8	Pulse	0.30	3
2	In		406,257.92	0.40	93.2	Pulse	0.30	3
2	Tb		1,457,511.99	0.62	95.2	Pulse	0.30	3
2	Ho		141,760.95	1.33	95.8	Pulse	0.30	3
2	Bi		947,610.48	0.50	95.6	Pulse	0.30	3
3	Sc		78,289.50	0.11	94.2	Pulse	0.30	3
3	Ge		48,763.84	0.53	100.1	Pulse	0.30	3
3	Ge		74,059.48	0.33	100.3	Pulse	0.30	3
3	Rh		785,385.87	0.82	96.7	Pulse	0.30	3
3	Tb		1,172,720.48	0.14	99.4	Pulse	0.30	3

Quantitation Report

File Name	082SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa050619m2.b
Method File	
Method Path	
Acq Time	5/6/2019 17:54
Sample Name	rinseconf
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/6/2019 12:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.000	ug/l	-306.79	16.00	7.610E-06	Pulse	0.25	3
B			1	4.560	ug/l	1.35	24,471.26	1.164E-02	Pulse	0.15	3
Ca			1	-5.707	ug/l	-8.95	17,666.69	6.906E-03	Pulse	0.10	3
Sr			1	0.023	ug/l	9.23	1,366.78	4.419E-04	Pulse	0.10	3
Mo			1	0.014	ug/l	51.38	133.34	4.302E-05	Pulse	0.10	3
Ag			1	0.003	ug/l	66.96	86.67	2.601E-05	Pulse	0.10	3
Sn			1	0.443	ug/l	3.15	3,937.31	1.180E-03	Pulse	0.10	3
Sb			1	0.022	ug/l	6.07	426.69	1.012E-04	Pulse	0.10	3
Ba			1	0.000	ug/l	3418.20	83.34	1.970E-05	Pulse	0.10	3
Tl			1	-0.003	ug/l	-30.26	323.35	1.403E-04	Pulse	0.10	3
Pb			1	-0.001	ug/l	-687.83	183.34	7.947E-05	Pulse	0.10	3
Pb			1	-0.004	ug/l	-79.01	150.01	6.514E-05	Pulse	0.10	3
Pb			1	-0.004	ug/l	-18.37	636.70	2.761E-04	Pulse	0.10	3
Na			2	35.815	ug/l	1.79	38,531.46	4.674E-01	Pulse	0.30	3
Mg			2	1.183	ug/l	18.38	552.24	6.705E-03	Pulse	0.30	3
Al			2	2.630	ug/l	3.34	551.13	6.683E-03	Pulse	0.30	3
K			2	-4.907	ug/l	-15.91	8,963.60	1.087E-01	Pulse	0.30	3
Ca			2	2.560	ug/l	116.24	100.00	1.213E-03	Pulse	0.30	3
Ti			2	0.033	ug/l	58.48	4.44	5.407E-05	Pulse	0.30	3
V			2	0.023	ug/l	34.36	157.78	1.913E-03	Pulse	0.30	3
Cr			2	-0.017	ug/l	-71.74	293.34	3.562E-03	Pulse	0.30	3
Mn			2	0.041	ug/l	10.62	172.22	2.090E-03	Pulse	0.30	3
Fe			2	0.241	ug/l	33.41	3,537.09	4.287E-02	Pulse	0.30	3
Co			2	0.002	ug/l	148.44	83.34	1.011E-03	Pulse	0.30	3
Ni			2	0.019	ug/l	65.21	80.00	9.717E-04	Pulse	0.30	3
Cu			2	-0.015	ug/l	-112.89	1,067.83	1.294E-02	Pulse	0.30	3
Zn			2	-0.349	ug/l	-4.41	248.90	3.019E-03	Pulse	0.30	3
As			2	-0.003	ug/l	-231.05	7.33	8.916E-05	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	-0.001	ug/l	-549.87	7.77	1.821E-05	Pulse	0.30	3
Sn			2	0.096	ug/l	18.21	655.58	1.531E-03	Pulse	0.30	3
Se			3	0.035	ug/l	89.36	6.93	9.813E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,103,130.64	0.51	84.7	Pulse	0.10	3
1	Sc		2,558,182.72	0.92	90.6	Pulse	0.10	3
1	Ge		474,896.89	1.44	94.4	Pulse	0.10	3
1	Ge		656,988.18	1.00	93.7	Pulse	0.10	3
1	Rh		3,093,831.62	1.07	93.9	Pulse	0.10	3
1	In		3,335,267.54	1.46	96.4	Pulse	0.10	3
1	Tb		4,214,280.14	0.88	97.0	Pulse	0.10	3
1	Ho		401,553.76	1.94	97.4	Pulse	0.10	3
1	Bi		2,306,534.44	1.23	97.2	Pulse	0.10	3
2	Sc		82,452.52	1.16	94.4	Pulse	0.30	3
2	Ge		45,370.70	0.32	98.7	Pulse	0.30	3
2	Ge		68,185.19	0.96	98.4	Pulse	0.30	3
2	Rh		1,225,997.90	0.82	95.4	Pulse	0.30	3
2	In		428,411.10	0.65	98.3	Pulse	0.30	3
2	Tb		1,486,648.10	0.30	97.1	Pulse	0.30	3
2	Ho		143,906.65	0.80	97.3	Pulse	0.30	3
2	Bi		952,630.17	0.69	96.1	Pulse	0.30	3
3	Sc		78,089.38	2.07	94.0	Pulse	0.30	3
3	Ge		46,376.80	0.67	95.2	Pulse	0.30	3
3	Ge		70,615.14	0.28	95.6	Pulse	0.30	3
3	Rh		785,613.30	0.42	96.7	Pulse	0.30	3
3	Tb		1,148,808.95	0.35	97.3	Pulse	0.30	3

Quantitation Report

File Name	083SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa050619m2.b
Method File	
Method Path	
Acq Time	5/6/2019 17:59
Sample Name	jc87363-1
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/6/2019 12:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.025	ug/l	14.58	106.67	5.400E-05	Pulse	0.25	3
B			1	78.768	ug/l	0.37	181,038.06	9.162E-02	Pulse	0.15	3
Ca			1	77184.967	ug/l	2.06	29,030,349.57	1.200E+01	Analog	0.10	3
Sr			1	183.628	ug/l	0.74	3,475,277.13	1.181E+00	Pulse	0.10	3
Mo			1	11.641	ug/l	1.57	43,376.37	1.474E-02	Pulse	0.10	3
Ag			1	0.013	ug/l	15.96	156.68	4.824E-05	Pulse	0.10	3
Sn			1	1.843	ug/l	2.75	9,336.39	2.877E-03	Pulse	0.10	3
Sb			1	0.406	ug/l	1.87	2,813.68	6.641E-04	Pulse	0.10	3
Ba			1	40.625	ug/l	0.49	112,173.78	2.647E-02	Pulse	0.10	3
Tl			1	0.022	ug/l	6.99	726.72	3.178E-04	Pulse	0.10	3
Pb			1	2.743	ug/l	6.19	13,349.89	5.840E-03	Pulse	0.10	3
Pb			1	2.692	ug/l	4.10	11,541.61	5.047E-03	Pulse	0.10	3
Pb			1	2.742	ug/l	4.75	53,930.92	2.359E-02	Pulse	0.10	3
Na			2	5910.906	ug/l	0.12	2,235,587.34	2.945E+01	Pulse	0.30	3
Mg			2	5540.290	ug/l	0.53	946,486.04	1.247E+01	Pulse	0.30	3
Al			2	382.250	ug/l	3.18	20,931.54	2.757E-01	Pulse	0.30	3
K			2	16305.771	ug/l	0.69	1,798,599.16	2.369E+01	Pulse	0.30	3
Ca			2	77346.289	ug/l	0.46	429,072.33	5.652E+00	Pulse	0.30	3
Ti			2	6.199	ug/l	25.72	298.90	3.936E-03	Pulse	0.30	3
V			2	1.255	ug/l	8.96	1,965.72	2.589E-02	Pulse	0.30	3
Cr			2	1.224	ug/l	4.35	2,680.26	3.530E-02	Pulse	0.30	3
Mn			2	84.191	ug/l	0.87	78,012.74	1.028E+00	Pulse	0.30	3
Fe			2	648.253	ug/l	0.60	957,090.07	1.261E+01	Pulse	0.30	3
Co			2	0.379	ug/l	0.73	1,255.62	1.654E-02	Pulse	0.30	3
Ni			2	2.083	ug/l	6.75	1,840.12	2.424E-02	Pulse	0.30	3
Cu			2	4.136	ug/l	2.30	10,830.34	1.427E-01	Pulse	0.30	3
Zn			2	83.007	ug/l	1.87	24,863.41	3.275E-01	Pulse	0.30	3
As			2	1.020	ug/l	8.94	184.00	2.423E-03	Pulse	1.00	3
Cd			2	0.105	ug/l	3.54	55.79	1.391E-04	Pulse	0.30	3
Sn			2	1.308	ug/l	4.52	1,646.77	4.104E-03	Pulse	0.30	3
Se			3	0.724	ug/l	13.36	28.80	3.973E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,975,952.92	0.33	79.6	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,419,291.53	1.33	85.7	Pulse	0.10	3
1	Ge		471,874.08	1.93	93.8	Pulse	0.10	3
1	Ge		648,399.98	2.16	92.5	Pulse	0.10	3
1	Rh		2,941,874.75	1.04	89.2	Pulse	0.10	3
1	In		3,244,449.17	1.38	93.8	Pulse	0.10	3
1	Tb		4,237,024.73	0.85	97.5	Pulse	0.10	3
1	Ho		403,964.33	1.37	97.9	Pulse	0.10	3
1	Bi		2,286,992.00	1.53	96.4	Pulse	0.10	3
2	Sc		75,920.78	0.39	86.9	Pulse	0.30	3
2	Ge		44,165.14	0.85	96.1	Pulse	0.30	3
2	Ge		67,229.95	0.37	97.1	Pulse	0.30	3
2	Rh		1,144,522.94	0.76	89.1	Pulse	0.30	3
2	In		401,174.81	0.63	92.0	Pulse	0.30	3
2	Tb		1,453,532.09	0.71	94.9	Pulse	0.30	3
2	Ho		141,028.58	0.75	95.3	Pulse	0.30	3
2	Bi		924,189.58	0.20	93.3	Pulse	0.30	3
3	Sc		78,619.68	0.44	94.6	Pulse	0.30	3
3	Ge		47,371.85	1.33	97.2	Pulse	0.30	3
3	Ge		72,512.47	1.26	98.2	Pulse	0.30	3
3	Rh		756,590.89	0.43	93.1	Pulse	0.30	3
3	Tb		1,160,658.01	0.24	98.3	Pulse	0.30	3

Quantitation Report

File Name	084SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa050619m2.b
Method File	
Method Path	
Acq Time	5/6/2019 18:04
Sample Name	rinseconf
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/6/2019 12:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.000	ug/l	392.03	21.33	1.005E-05	Pulse	0.25	3
B			1	4.247	ug/l	2.11	23,127.16	1.092E-02	Pulse	0.15	3
Ca			1	1.504	ug/l	59.52	23,520.62	9.147E-03	Pulse	0.10	3
Sr			1	0.031	ug/l	4.99	1,710.16	5.457E-04	Pulse	0.10	3
Mo			1	0.014	ug/l	41.40	133.34	4.263E-05	Pulse	0.10	3
Ag			1	0.005	ug/l	28.35	133.34	3.983E-05	Pulse	0.10	3
Sn			1	0.446	ug/l	4.69	3,993.98	1.192E-03	Pulse	0.10	3
Sb			1	0.014	ug/l	16.64	313.35	7.461E-05	Pulse	0.10	3
Ba			1	0.007	ug/l	137.42	116.67	2.781E-05	Pulse	0.10	3
Tl			1	-0.002	ug/l	-50.49	366.69	1.590E-04	Pulse	0.10	3
Pb			1	-0.001	ug/l	-233.95	180.01	7.803E-05	Pulse	0.10	3
Pb			1	-0.006	ug/l	-95.43	136.67	5.924E-05	Pulse	0.10	3
Pb			1	-0.002	ug/l	-37.29	723.37	3.136E-04	Pulse	0.10	3
Na			2	30.944	ug/l	1.35	34,309.20	4.190E-01	Pulse	0.30	3
Mg			2	1.113	ug/l	15.46	523.35	6.391E-03	Pulse	0.30	3
Al			2	3.025	ug/l	20.74	593.35	7.248E-03	Pulse	0.30	3
K			2	-2.836	ug/l	-8.79	9,392.74	1.147E-01	Pulse	0.30	3
Ca			2	6.522	ug/l	31.28	146.67	1.792E-03	Pulse	0.30	3
Ti			2	0.054	ug/l	102.74	6.67	8.129E-05	Pulse	0.30	3
V			2	0.016	ug/l	43.46	133.34	1.628E-03	Pulse	0.30	3
Cr			2	-0.018	ug/l	-46.44	288.89	3.528E-03	Pulse	0.30	3
Mn			2	0.056	ug/l	23.65	201.12	2.456E-03	Pulse	0.30	3
Fe			2	0.281	ug/l	13.01	3,639.34	4.445E-02	Pulse	0.30	3
Co			2	0.001	ug/l	225.17	80.00	9.772E-04	Pulse	0.30	3
Ni			2	0.071	ug/l	116.72	175.63	2.142E-03	Pulse	0.30	3
Cu			2	-0.015	ug/l	-142.34	1,058.94	1.293E-02	Pulse	0.30	3
Zn			2	-0.435	ug/l	-4.69	192.22	2.347E-03	Pulse	0.30	3
As			2	-0.001	ug/l	-772.43	8.00	9.765E-05	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	-0.003	ug/l	-1.44	6.67	1.539E-05	Pulse	0.30	3
Sn			2	0.103	ug/l	24.05	676.69	1.562E-03	Pulse	0.30	3
Se			3	0.014	ug/l	100.00	5.60	7.858E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,118,291.76	0.48	85.4	Pulse	0.10	3
1	Sc		2,571,650.54	0.73	91.1	Pulse	0.10	3
1	Ge		479,537.72	0.99	95.3	Pulse	0.10	3
1	Ge		664,436.99	1.08	94.8	Pulse	0.10	3
1	Rh		3,133,611.93	1.12	95.1	Pulse	0.10	3
1	In		3,351,312.42	1.01	96.9	Pulse	0.10	3
1	Tb		4,198,319.73	1.04	96.7	Pulse	0.10	3
1	Ho		402,245.55	1.42	97.5	Pulse	0.10	3
1	Bi		2,306,723.72	0.94	97.2	Pulse	0.10	3
2	Sc		81,879.74	0.29	93.8	Pulse	0.30	3
2	Ge		46,240.78	1.08	100.6	Pulse	0.30	3
2	Ge		69,324.10	0.12	100.1	Pulse	0.30	3
2	Rh		1,229,978.42	0.38	95.7	Pulse	0.30	3
2	In		433,167.80	0.52	99.3	Pulse	0.30	3
2	Tb		1,487,686.47	0.43	97.2	Pulse	0.30	3
2	Ho		144,564.30	0.37	97.7	Pulse	0.30	3
2	Bi		952,191.70	0.34	96.1	Pulse	0.30	3
3	Sc		78,164.31	0.80	94.0	Pulse	0.30	3
3	Ge		46,429.16	1.27	95.3	Pulse	0.30	3
3	Ge		71,303.79	1.06	96.6	Pulse	0.30	3
3	Rh		783,785.21	0.43	96.5	Pulse	0.30	3
3	Tb		1,157,005.41	0.45	98.0	Pulse	0.30	3

Quantitation Report

File Name	085_CCV.d
File Path	C:\Agilent\ICPMH\1\DATA\xa050619m2.b
Method File	
Method Path	
Acq Time	5/6/2019 18:09
Sample Name	CCVA
Sample Type	CCV
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/6/2019 12:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	46.683	ug/l	0.52	354,637.83	1.713E-01	Pulse	0.25	3
B			1	94.633	ug/l	1.26	452,439.44	2.185E-01	Pulse	0.15	3
Ca			1	4990.092	ug/l	0.22	3,909,469.00	1.559E+00	Pulse	0.10	3
Sr			1	49.144	ug/l	1.39	1,886,396.64	6.324E-01	Pulse	0.10	3
Mo			1	47.632	ug/l	0.43	359,841.98	1.206E-01	Pulse	0.10	3
Ag			1	46.839	ug/l	0.54	828,619.13	2.540E-01	Pulse	0.10	3
Sn			1	46.513	ug/l	0.59	536,883.70	1.645E-01	Pulse	0.10	3
Sb			1	48.215	ug/l	0.38	627,222.42	1.504E-01	Pulse	0.10	3
Ba			1	47.614	ug/l	0.25	258,658.12	6.203E-02	Pulse	0.10	3
Tl			1	48.267	ug/l	1.15	1,350,531.49	6.005E-01	Pulse	0.10	3
Pb			1	48.725	ug/l	1.47	460,317.64	2.047E-01	Pulse	0.10	3
Pb			1	48.810	ug/l	0.66	405,269.97	1.802E-01	Pulse	0.10	3
Pb			1	48.369	ug/l	0.35	1,845,189.70	8.204E-01	Pulse	0.10	3
Na			2	4660.088	ug/l	0.50	3,761,035.68	4.637E+01	Pulse	0.30	3
Mg			2	4727.629	ug/l	0.72	1,725,748.79	2.127E+01	Pulse	0.30	3
Al			2	4833.059	ug/l	0.70	559,725.17	6.900E+00	Pulse	0.30	3
K			2	4922.928	ug/l	0.85	1,164,293.32	1.435E+01	Pulse	0.30	3
Ca			2	5252.980	ug/l	0.46	62,329.09	7.684E-01	Pulse	0.30	3
Ti			2	46.202	ug/l	2.18	4,744.07	5.849E-02	Pulse	0.30	3
V			2	48.188	ug/l	0.83	155,274.20	1.914E+00	Pulse	0.30	3
Cr			2	47.569	ug/l	0.82	194,992.16	2.404E+00	Pulse	0.30	3
Mn			2	48.200	ug/l	0.42	95,427.48	1.176E+00	Pulse	0.30	3
Fe			2	5124.130	ug/l	0.82	16,125,501.58	1.988E+02	Analog	0.30	3
Co			2	47.461	ug/l	0.93	317,932.42	3.919E+00	Pulse	0.30	3
Ni			2	46.697	ug/l	0.58	86,278.57	1.064E+00	Pulse	0.30	3
Cu			2	46.033	ug/l	0.46	233,644.61	2.880E+00	Pulse	0.30	3
Zn			2	48.475	ug/l	1.94	30,948.20	3.816E-01	Pulse	0.30	3
As			2	48.453	ug/l	0.88	17,894.46	2.206E-01	Pulse	1.00	3
Cd			2	47.015	ug/l	0.44	43,957.46	1.053E-01	Pulse	0.30	3
Sn			2	47.808	ug/l	0.29	92,521.53	2.217E-01	Pulse	0.30	3
Se			3	191.174	ug/l	1.39	12,199.47	1.750E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,070,604.39	0.95	83.4	Pulse	0.10	3
1	Sc		2,507,006.73	1.36	88.8	Pulse	0.10	3
1	Ge		462,766.17	1.33	91.9	Pulse	0.10	3

Quantitation Report

1	Ge		653,960.21	0.32	93.3	Pulse	0.10	3
1	Rh		2,983,454.02	1.37	90.5	Pulse	0.10	3
1	In		3,263,094.35	1.48	94.3	Pulse	0.10	3
1	Tb		4,169,530.98	1.09	96.0	Pulse	0.10	3
1	Ho		396,416.55	0.53	96.1	Pulse	0.10	3
1	Bi		2,249,194.03	1.66	94.8	Pulse	0.10	3
2	Sc		81,115.85	0.60	92.9	Pulse	0.30	3
2	Ge		45,337.27	1.53	98.7	Pulse	0.30	3
2	Ge		67,416.46	0.88	97.3	Pulse	0.30	3
2	Rh		1,187,358.35	0.56	92.4	Pulse	0.30	3
2	In		417,314.55	0.33	95.7	Pulse	0.30	3
2	Tb		1,478,718.52	0.03	96.6	Pulse	0.30	3
2	Ho		144,278.06	1.59	97.5	Pulse	0.30	3
2	Bi		929,083.57	0.96	93.8	Pulse	0.30	3
3	Sc		77,238.96	0.65	92.9	Pulse	0.30	3
3	Ge		45,482.27	0.77	93.4	Pulse	0.30	3
3	Ge		69,709.26	1.97	94.4	Pulse	0.30	3
3	Rh		756,077.47	0.28	93.1	Pulse	0.30	3
3	Tb		1,141,779.30	0.33	96.7	Pulse	0.30	3

Quantitation Report

File Name	086_CCB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa050619m2.b
Method File	
Method Path	
Acq Time	5/6/2019 18:14
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/6/2019 12:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.014	ug/l	18.73	121.33	5.827E-05	Pulse	0.25	3
B			1	5.969	ug/l	1.48	30,955.23	1.487E-02	Pulse	0.15	3
Ca			1	-0.880	ug/l	-88.10	21,294.30	8.407E-03	Pulse	0.10	3
Sr			1	0.036	ug/l	6.25	1,853.53	6.043E-04	Pulse	0.10	3
Mo			1	0.108	ug/l	14.13	860.06	2.806E-04	Pulse	0.10	3
Ag			1	0.015	ug/l	26.65	306.68	9.260E-05	Pulse	0.10	3
Sn			1	0.659	ug/l	3.38	6,451.59	1.946E-03	Pulse	0.10	3
Sb			1	0.271	ug/l	7.95	3,660.56	8.776E-04	Pulse	0.10	3
Ba			1	0.020	ug/l	57.12	186.67	4.491E-05	Pulse	0.10	3
Tl			1	0.020	ug/l	9.98	990.07	4.301E-04	Pulse	0.10	3
Pb			1	0.021	ug/l	13.98	386.69	1.679E-04	Pulse	0.10	3
Pb			1	0.010	ug/l	72.03	270.01	1.176E-04	Pulse	0.10	3
Pb			1	0.016	ug/l	13.97	1,436.75	6.243E-04	Pulse	0.10	3
Na			2	30.502	ug/l	1.77	33,417.33	4.146E-01	Pulse	0.30	3
Mg			2	1.972	ug/l	3.11	826.70	1.026E-02	Pulse	0.30	3
Al			2	8.555	ug/l	10.85	1,220.06	1.514E-02	Pulse	0.30	3
K			2	-2.408	ug/l	-23.92	9,344.93	1.160E-01	Pulse	0.30	3
Ca			2	7.565	ug/l	6.96	156.67	1.944E-03	Pulse	0.30	3
Ti			2	0.001	ug/l	2439.32	1.11	1.374E-05	Pulse	0.30	3
V			2	0.011	ug/l	69.52	115.56	1.433E-03	Pulse	0.30	3
Cr			2	0.006	ug/l	185.28	382.23	4.743E-03	Pulse	0.30	3
Mn			2	0.089	ug/l	26.65	262.23	3.254E-03	Pulse	0.30	3
Fe			2	1.771	ug/l	6.58	8,239.92	1.022E-01	Pulse	0.30	3
Co			2	0.011	ug/l	16.45	146.67	1.820E-03	Pulse	0.30	3
Ni			2	0.044	ug/l	21.76	123.34	1.530E-03	Pulse	0.30	3
Cu			2	0.048	ug/l	44.44	1,362.30	1.690E-02	Pulse	0.30	3
Zn			2	0.624	ug/l	9.13	851.14	1.056E-02	Pulse	0.30	3
As			2	0.003	ug/l	357.45	9.33	1.158E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	0.009	ug/l	159.31	17.74	4.172E-05	Pulse	0.30	3
Sn			2	0.384	ug/l	7.77	1,214.51	2.856E-03	Pulse	0.30	3
Se			3	0.082	ug/l	29.03	9.80	1.410E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,081,337.51	0.92	83.9	Pulse	0.10	3
1	Sc		2,533,594.96	1.67	89.7	Pulse	0.10	3
1	Ge		471,597.17	1.90	93.7	Pulse	0.10	3
1	Ge		655,856.16	1.44	93.6	Pulse	0.10	3
1	Rh		3,065,986.62	1.50	93.0	Pulse	0.10	3
1	In		3,313,169.86	1.49	95.8	Pulse	0.10	3
1	Tb		4,170,390.88	1.76	96.0	Pulse	0.10	3
1	Ho		399,356.58	1.93	96.8	Pulse	0.10	3
1	Bi		2,303,172.73	1.97	97.1	Pulse	0.10	3
2	Sc		80,594.60	0.27	92.3	Pulse	0.30	3
2	Ge		45,304.88	0.55	98.6	Pulse	0.30	3
2	Ge		67,200.92	0.56	97.0	Pulse	0.30	3
2	Rh		1,216,989.74	0.41	94.7	Pulse	0.30	3
2	In		425,280.26	0.40	97.5	Pulse	0.30	3
2	Tb		1,475,843.73	0.50	96.4	Pulse	0.30	3
2	Ho		143,141.32	0.98	96.7	Pulse	0.30	3
2	Bi		944,766.35	0.17	95.4	Pulse	0.30	3
3	Sc		78,194.69	1.09	94.1	Pulse	0.30	3
3	Ge		46,268.72	0.18	95.0	Pulse	0.30	3
3	Ge		69,525.01	0.35	94.2	Pulse	0.30	3
3	Rh		779,289.69	0.77	95.9	Pulse	0.30	3
3	Tb		1,142,087.66	0.39	96.8	Pulse	0.30	3

Quantitation Report

File Name 087SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\xa050619m2.b
Method File
Method Path
Acq Time 5/6/2019 18:19
Sample Name jc87363-2
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 5/6/2019 12:34
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.041	ug/l	21.60	165.33	8.403E-05	Pulse	0.25	3
B			1	102.755	ug/l	0.64	234,440.54	1.192E-01	Pulse	0.15	3
Ca			1	61979.455	ug/l	0.62	23,095,618.82	9.639E+00	Analog	0.10	3
Sr			1	133.474	ug/l	1.07	2,509,697.00	8.587E-01	Pulse	0.10	3
Mo			1	9.319	ug/l	0.41	34,501.47	1.181E-02	Pulse	0.10	3
Ag			1	0.026	ug/l	6.46	263.34	8.145E-05	Pulse	0.10	3
Sn			1	1.672	ug/l	2.85	8,319.15	2.573E-03	Pulse	0.10	3
Sb			1	0.854	ug/l	3.82	5,741.29	1.362E-03	Pulse	0.10	3
Ba			1	19.704	ug/l	3.16	54,173.74	1.285E-02	Pulse	0.10	3
Tl			1	0.053	ug/l	20.44	1,186.76	5.089E-04	Pulse	0.10	3
Pb			1	2.083	ug/l	2.15	10,400.75	4.456E-03	Pulse	0.10	3
Pb			1	2.040	ug/l	3.04	8,973.02	3.845E-03	Pulse	0.10	3
Pb			1	2.052	ug/l	1.66	41,410.94	1.774E-02	Pulse	0.10	3
Na			2	2913.895	ug/l	1.20	1,095,630.72	1.457E+01	Pulse	0.30	3
Mg			2	3655.238	ug/l	0.74	618,434.91	8.225E+00	Pulse	0.30	3
Al			2	944.048	ug/l	4.40	50,852.86	6.766E-01	Pulse	0.30	3
K			2	6572.875	ug/l	1.24	723,480.77	9.623E+00	Pulse	0.30	3
Ca			2	61701.720	ug/l	0.50	338,994.99	4.509E+00	Pulse	0.30	3
Ti			2	28.763	ug/l	42.84	1,365.42	1.821E-02	Pulse	0.30	3
V			2	2.561	ug/l	1.83	3,896.10	5.183E-02	Pulse	0.30	3
Cr			2	1.837	ug/l	6.63	3,818.30	5.077E-02	Pulse	0.30	3
Mn			2	83.511	ug/l	1.77	76,626.43	1.019E+00	Pulse	0.30	3
Fe			2	838.319	ug/l	1.26	1,224,933.08	1.629E+01	Pulse	0.30	3
Co			2	0.464	ug/l	8.96	1,505.64	2.004E-02	Pulse	0.30	3
Ni			2	2.508	ug/l	8.05	2,184.62	2.908E-02	Pulse	0.30	3
Cu			2	4.272	ug/l	0.58	11,044.94	1.469E-01	Pulse	0.30	3
Zn			2	31.480	ug/l	2.48	9,604.01	1.278E-01	Pulse	0.30	3
As			2	1.026	ug/l	9.08	183.33	2.438E-03	Pulse	1.00	3
Cd			2	0.082	ug/l	33.03	45.08	1.125E-04	Pulse	0.30	3
Sn			2	1.237	ug/l	6.56	1,580.10	3.939E-03	Pulse	0.30	3
Se			3	0.776	ug/l	6.14	30.67	4.212E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,967,342.12	0.09	79.3	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,395,974.55	1.12	84.9	Pulse	0.10	3
1	Ge		466,510.42	1.95	92.7	Pulse	0.10	3
1	Ge		646,161.18	1.33	92.2	Pulse	0.10	3
1	Rh		2,922,591.10	0.59	88.7	Pulse	0.10	3
1	In		3,232,764.85	1.10	93.5	Pulse	0.10	3
1	Tb		4,215,109.52	1.26	97.0	Pulse	0.10	3
1	Ho		399,147.48	1.48	96.8	Pulse	0.10	3
1	Bi		2,334,063.04	1.09	98.4	Pulse	0.10	3
2	Sc		75,191.80	1.63	86.1	Pulse	0.30	3
2	Ge		44,146.09	0.39	96.1	Pulse	0.30	3
2	Ge		66,639.73	0.77	96.2	Pulse	0.30	3
2	Rh		1,139,811.90	0.36	88.7	Pulse	0.30	3
2	In		401,082.27	0.42	92.0	Pulse	0.30	3
2	Tb		1,445,665.63	0.43	94.4	Pulse	0.30	3
2	Ho		141,576.34	1.38	95.7	Pulse	0.30	3
2	Bi		928,792.56	0.61	93.7	Pulse	0.30	3
3	Sc		77,208.53	0.64	92.9	Pulse	0.30	3
3	Ge		47,828.79	1.82	98.2	Pulse	0.30	3
3	Ge		72,821.51	0.53	98.6	Pulse	0.30	3
3	Rh		762,336.74	0.17	93.8	Pulse	0.30	3
3	Tb		1,164,748.18	0.82	98.7	Pulse	0.30	3

Quantitation Report

File Name	088SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa050619m2.b
Method File	
Method Path	
Acq Time	5/6/2019 18:24
Sample Name	jc87418-2
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/6/2019 12:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.015	ug/l	40.63	70.67	3.634E-05	Pulse	0.25	3
B			1	154.029	ug/l	1.85	346,386.58	1.780E-01	Pulse	0.15	3
Ca			1	59329.193	ug/l	0.65	22,352,494.66	9.227E+00	Analog	0.10	3
Sr			1	345.203	ug/l	0.59	6,252,879.91	2.221E+00	Analog	0.10	3
Mo			1	0.986	ug/l	3.76	3,533.85	1.255E-03	Pulse	0.10	3
Ag			1	0.042	ug/l	25.10	396.69	1.258E-04	Pulse	0.10	3
Sn			1	1.472	ug/l	4.44	6,978.48	2.219E-03	Pulse	0.10	3
Sb			1	0.543	ug/l	3.16	3,657.26	8.779E-04	Pulse	0.10	3
Ba			1	74.783	ug/l	1.75	202,831.55	4.872E-02	Pulse	0.10	3
Tl			1	0.020	ug/l	47.46	663.38	3.046E-04	Pulse	0.10	3
Pb			1	0.263	ug/l	11.74	1,383.45	6.342E-04	Pulse	0.10	3
Pb			1	0.215	ug/l	1.91	1,040.08	4.770E-04	Pulse	0.10	3
Pb			1	0.229	ug/l	3.93	5,000.51	2.293E-03	Pulse	0.10	3
Na			2	181403.592	ug/l	2.15	68,224,855.07	9.004E+02	Analog	0.30	3
Mg			2	10578.154	ug/l	2.25	1,803,485.07	2.380E+01	Pulse	0.30	3
Al			2	26.956	ug/l	2.55	1,680.12	2.217E-02	Pulse	0.30	3
K			2	3449.312	ug/l	2.10	387,098.65	5.108E+00	Pulse	0.30	3
Ca			2	59686.670	ug/l	1.80	330,507.83	4.361E+00	Pulse	0.30	3
Ti			2	1.365	ug/l	83.19	66.67	8.763E-04	Pulse	0.30	3
V			2	0.672	ug/l	4.38	1,085.61	1.433E-02	Pulse	0.30	3
Cr			2	0.838	ug/l	5.68	1,936.80	2.557E-02	Pulse	0.30	3
Mn			2	206.389	ug/l	1.85	190,763.45	2.517E+00	Pulse	0.30	3
Fe			2	968.471	ug/l	1.99	1,425,884.70	1.882E+01	Pulse	0.30	3
Co			2	0.462	ug/l	2.64	1,512.31	1.996E-02	Pulse	0.30	3
Ni			2	2.341	ug/l	2.35	2,060.16	2.718E-02	Pulse	0.30	3
Cu			2	4.429	ug/l	1.85	11,500.81	1.518E-01	Pulse	0.30	3
Zn			2	41.772	ug/l	4.02	12,700.57	1.677E-01	Pulse	0.30	3
As			2	0.541	ug/l	6.09	101.00	1.334E-03	Pulse	1.00	3
Cd			2	0.100	ug/l	34.98	52.05	1.332E-04	Pulse	0.30	3
Sn			2	0.863	ug/l	7.51	1,200.06	3.076E-03	Pulse	0.30	3
Se			3	0.413	ug/l	10.07	18.20	2.551E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,945,401.24	0.26	78.4	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,422,441.16	1.00	85.8	Pulse	0.10	3
1	Ge		460,806.54	1.64	91.6	Pulse	0.10	3
1	Ge		638,132.47	0.61	91.0	Pulse	0.10	3
1	Rh		2,815,891.21	0.65	85.4	Pulse	0.10	3
1	In		3,146,967.01	2.07	91.0	Pulse	0.10	3
1	Tb		4,164,340.87	2.23	95.9	Pulse	0.10	3
1	Ho		398,740.59	0.95	96.7	Pulse	0.10	3
1	Bi		2,180,333.30	1.37	91.9	Pulse	0.10	3
2	Sc		75,795.67	2.06	86.8	Pulse	0.30	3
2	Ge		43,173.70	1.62	94.0	Pulse	0.30	3
2	Ge		64,827.03	1.22	93.6	Pulse	0.30	3
2	Rh		1,099,689.61	0.83	85.6	Pulse	0.30	3
2	In		390,089.80	0.99	89.5	Pulse	0.30	3
2	Tb		1,419,937.27	0.74	92.8	Pulse	0.30	3
2	Ho		139,246.80	1.18	94.1	Pulse	0.30	3
2	Bi		872,432.29	1.45	88.1	Pulse	0.30	3
3	Sc		77,462.15	1.31	93.2	Pulse	0.30	3
3	Ge		47,238.06	0.89	97.0	Pulse	0.30	3
3	Ge		71,323.96	0.75	96.6	Pulse	0.30	3
3	Rh		728,166.53	0.25	89.6	Pulse	0.30	3
3	Tb		1,137,031.86	0.43	96.3	Pulse	0.30	3

Quantitation Report

File Name	089SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa050619m2.b
Method File	
Method Path	
Acq Time	5/6/2019 18:29
Sample Name	rinseconf
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/6/2019 12:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.003	ug/l	72.33	42.67	2.035E-05	Pulse	0.25	3
B			1	4.729	ug/l	1.77	25,196.73	1.202E-02	Pulse	0.15	3
Ca			1	0.457	ug/l	303.94	22,575.93	8.822E-03	Pulse	0.10	3
Sr			1	0.054	ug/l	3.11	2,613.65	8.341E-04	Pulse	0.10	3
Mo			1	0.017	ug/l	53.14	160.01	5.080E-05	Pulse	0.10	3
Ag			1	0.003	ug/l	75.21	93.33	2.789E-05	Pulse	0.10	3
Sn			1	0.476	ug/l	4.89	4,327.41	1.296E-03	Pulse	0.10	3
Sb			1	0.017	ug/l	29.41	350.02	8.339E-05	Pulse	0.10	3
Ba			1	0.001	ug/l	95.41	86.67	2.065E-05	Pulse	0.10	3
Tl			1	-0.002	ug/l	-118.44	366.68	1.570E-04	Pulse	0.10	3
Pb			1	-0.005	ug/l	-59.15	140.01	5.991E-05	Pulse	0.10	3
Pb			1	-0.003	ug/l	-130.02	163.34	6.973E-05	Pulse	0.10	3
Pb			1	-0.004	ug/l	-30.02	663.37	2.835E-04	Pulse	0.10	3
Na			2	39.437	ug/l	1.62	40,882.54	5.033E-01	Pulse	0.30	3
Mg			2	1.830	ug/l	1.97	781.14	9.617E-03	Pulse	0.30	3
Al			2	3.103	ug/l	14.58	597.80	7.360E-03	Pulse	0.30	3
K			2	-3.893	ug/l	-12.69	9,070.34	1.117E-01	Pulse	0.30	3
Ca			2	7.367	ug/l	6.84	155.56	1.915E-03	Pulse	0.30	3
Ti			2	0.022	ug/l	145.30	3.33	4.087E-05	Pulse	0.30	3
V			2	0.014	ug/l	51.28	125.56	1.545E-03	Pulse	0.30	3
Cr			2	-0.014	ug/l	-19.39	304.45	3.748E-03	Pulse	0.30	3
Mn			2	0.068	ug/l	15.58	222.22	2.736E-03	Pulse	0.30	3
Fe			2	0.549	ug/l	3.86	4,455.10	5.485E-02	Pulse	0.30	3
Co			2	-0.002	ug/l	-147.93	58.89	7.257E-04	Pulse	0.30	3
Ni			2	0.016	ug/l	38.65	73.33	9.029E-04	Pulse	0.30	3
Cu			2	-0.008	ug/l	-301.58	1,085.60	1.336E-02	Pulse	0.30	3
Zn			2	-0.382	ug/l	-9.10	224.45	2.763E-03	Pulse	0.30	3
As			2	0.010	ug/l	26.15	12.00	1.477E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	-0.001	ug/l	-366.32	7.77	1.797E-05	Pulse	0.30	3
Sn			2	0.123	ug/l	28.93	714.47	1.652E-03	Pulse	0.30	3
Se			3	0.012	ug/l	35.95	5.47	7.693E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,095,315.32	0.22	84.4	Pulse	0.10	3
1	Sc		2,559,279.39	1.11	90.6	Pulse	0.10	3
1	Ge		475,923.23	1.58	94.6	Pulse	0.10	3
1	Ge		660,820.15	1.33	94.3	Pulse	0.10	3
1	Rh		3,133,152.87	1.81	95.1	Pulse	0.10	3
1	In		3,340,081.30	1.51	96.6	Pulse	0.10	3
1	Tb		4,195,911.81	0.36	96.6	Pulse	0.10	3
1	Ho		397,016.82	0.74	96.3	Pulse	0.10	3
1	Bi		2,338,136.74	1.54	98.5	Pulse	0.10	3
2	Sc		81,229.72	0.61	93.0	Pulse	0.30	3
2	Ge		45,814.13	0.82	99.7	Pulse	0.30	3
2	Ge		68,930.27	1.09	99.5	Pulse	0.30	3
2	Rh		1,223,478.74	0.33	95.2	Pulse	0.30	3
2	In		432,479.75	0.27	99.2	Pulse	0.30	3
2	Tb		1,495,067.02	0.63	97.7	Pulse	0.30	3
2	Ho		145,547.67	0.42	98.4	Pulse	0.30	3
2	Bi		958,303.40	0.11	96.7	Pulse	0.30	3
3	Sc		78,280.32	0.47	94.2	Pulse	0.30	3
3	Ge		46,198.46	0.34	94.8	Pulse	0.30	3
3	Ge		71,079.48	1.02	96.3	Pulse	0.30	3
3	Rh		784,690.54	0.49	96.6	Pulse	0.30	3
3	Tb		1,154,737.31	0.29	97.8	Pulse	0.30	3

Quantitation Report

File Name	090SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa050619m2.b
Method File	
Method Path	
Acq Time	5/6/2019 18:34
Sample Name	jc87418-2f
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/6/2019 12:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.015	ug/l	13.44	68.00	3.527E-05	Pulse	0.25	3
B			1	152.379	ug/l	0.26	339,673.84	1.762E-01	Pulse	0.15	3
Ca			1	58851.661	ug/l	0.93	22,095,961.34	9.153E+00	Analog	0.10	3
Sr			1	341.987	ug/l	0.95	6,187,885.53	2.200E+00	Analog	0.10	3
Mo			1	0.930	ug/l	4.12	3,333.81	1.185E-03	Pulse	0.10	3
Ag			1	0.027	ug/l	55.39	270.01	8.623E-05	Pulse	0.10	3
Sn			1	1.512	ug/l	7.87	7,155.26	2.289E-03	Pulse	0.10	3
Sb			1	0.480	ug/l	11.89	3,233.78	7.799E-04	Pulse	0.10	3
Ba			1	72.506	ug/l	1.36	196,074.26	4.724E-02	Pulse	0.10	3
Tl			1	0.006	ug/l	73.82	466.69	2.160E-04	Pulse	0.10	3
Pb			1	0.067	ug/l	35.66	483.36	2.231E-04	Pulse	0.10	3
Pb			1	0.063	ug/l	6.71	426.69	1.973E-04	Pulse	0.10	3
Pb			1	0.056	ug/l	6.40	1,786.78	8.259E-04	Pulse	0.10	3
Na			2	178637.266	ug/l	0.72	67,022,961.78	8.866E+02	Analog	0.30	3
Mg			2	10522.282	ug/l	0.26	1,789,706.80	2.368E+01	Pulse	0.30	3
Al			2	9.016	ug/l	9.89	707.80	9.364E-03	Pulse	0.30	3
K			2	3448.661	ug/l	0.46	386,081.33	5.107E+00	Pulse	0.30	3
Ca			2	59751.565	ug/l	0.71	330,046.02	4.366E+00	Pulse	0.30	3
Ti			2	0.630	ug/l	35.65	31.11	4.116E-04	Pulse	0.30	3
V			2	0.384	ug/l	7.86	650.02	8.599E-03	Pulse	0.30	3
Cr			2	0.658	ug/l	4.22	1,590.09	2.104E-02	Pulse	0.30	3
Mn			2	202.458	ug/l	0.47	186,675.75	2.470E+00	Pulse	0.30	3
Fe			2	122.698	ug/l	0.52	182,427.45	2.413E+00	Pulse	0.30	3
Co			2	0.424	ug/l	10.26	1,391.19	1.840E-02	Pulse	0.30	3
Ni			2	2.239	ug/l	5.21	1,966.81	2.602E-02	Pulse	0.30	3
Cu			2	3.490	ug/l	1.42	9,263.79	1.225E-01	Pulse	0.30	3
Zn			2	27.166	ug/l	2.41	8,393.36	1.110E-01	Pulse	0.30	3
As			2	0.356	ug/l	28.53	69.00	9.126E-04	Pulse	1.00	3
Cd			2	0.072	ug/l	17.47	39.84	1.024E-04	Pulse	0.30	3
Sn			2	0.799	ug/l	7.04	1,138.94	2.929E-03	Pulse	0.30	3
Se			3	0.274	ug/l	20.39	13.53	1.915E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,928,268.07	0.12	77.7	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,414,139.75	0.89	85.5	Pulse	0.10	3
1	Ge		457,961.00	0.86	91.0	Pulse	0.10	3
1	Ge		634,819.49	2.21	90.6	Pulse	0.10	3
1	Rh		2,812,877.56	1.08	85.3	Pulse	0.10	3
1	In		3,126,506.05	1.05	90.4	Pulse	0.10	3
1	Tb		4,151,443.27	1.76	95.6	Pulse	0.10	3
1	Ho		397,766.39	2.01	96.4	Pulse	0.10	3
1	Bi		2,162,839.81	1.51	91.1	Pulse	0.10	3
2	Sc		75,592.41	0.22	86.6	Pulse	0.30	3
2	Ge		43,003.19	0.88	93.6	Pulse	0.30	3
2	Ge		64,619.43	1.01	93.3	Pulse	0.30	3
2	Rh		1,093,406.00	0.79	85.1	Pulse	0.30	3
2	In		388,973.61	0.83	89.2	Pulse	0.30	3
2	Tb		1,430,082.37	0.71	93.4	Pulse	0.30	3
2	Ho		139,968.52	0.97	94.6	Pulse	0.30	3
2	Bi		867,740.50	0.58	87.6	Pulse	0.30	3
3	Sc		76,711.05	0.30	92.3	Pulse	0.30	3
3	Ge		47,131.16	0.07	96.7	Pulse	0.30	3
3	Ge		70,722.69	0.77	95.8	Pulse	0.30	3
3	Rh		725,495.73	0.46	89.3	Pulse	0.30	3
3	Tb		1,130,453.05	0.25	95.8	Pulse	0.30	3

Quantitation Report

File Name	091SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa050619m2.b
Method File	
Method Path	
Acq Time	5/6/2019 18:39
Sample Name	rinseconf
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/6/2019 12:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.003	ug/l	18.57	40.00	1.903E-05	Pulse	0.25	3
B			1	4.409	ug/l	0.87	23,743.57	1.129E-02	Pulse	0.15	3
Ca			1	0.530	ug/l	116.14	22,596.10	8.845E-03	Pulse	0.10	3
Sr			1	0.055	ug/l	6.01	2,657.00	8.516E-04	Pulse	0.10	3
Mo			1	0.016	ug/l	13.40	146.68	4.703E-05	Pulse	0.10	3
Ag			1	0.003	ug/l	50.37	93.33	2.784E-05	Pulse	0.10	3
Sn			1	0.442	ug/l	2.06	3,954.00	1.176E-03	Pulse	0.10	3
Sb			1	0.014	ug/l	12.29	320.02	7.598E-05	Pulse	0.10	3
Ba			1	0.008	ug/l	122.89	126.67	3.021E-05	Pulse	0.10	3
Tl			1	-0.001	ug/l	-104.47	373.36	1.615E-04	Pulse	0.10	3
Pb			1	-0.008	ug/l	-24.34	106.67	4.610E-05	Pulse	0.10	3
Pb			1	-0.003	ug/l	-169.95	160.01	6.917E-05	Pulse	0.10	3
Pb			1	-0.004	ug/l	-73.45	653.37	2.827E-04	Pulse	0.10	3
Na			2	41.324	ug/l	3.10	42,826.17	5.220E-01	Pulse	0.30	3
Mg			2	1.756	ug/l	12.64	762.25	9.285E-03	Pulse	0.30	3
Al			2	2.874	ug/l	27.90	576.68	7.032E-03	Pulse	0.30	3
K			2	-2.584	ug/l	-36.31	9,468.34	1.154E-01	Pulse	0.30	3
Ca			2	5.656	ug/l	33.26	136.67	1.665E-03	Pulse	0.30	3
Ti			2	0.022	ug/l	145.41	3.33	4.031E-05	Pulse	0.30	3
V			2	0.024	ug/l	41.78	157.78	1.924E-03	Pulse	0.30	3
Cr			2	-0.008	ug/l	-80.50	330.01	4.021E-03	Pulse	0.30	3
Mn			2	0.069	ug/l	13.13	226.67	2.763E-03	Pulse	0.30	3
Fe			2	0.482	ug/l	14.25	4,285.05	5.225E-02	Pulse	0.30	3
Co			2	0.001	ug/l	213.99	82.22	1.000E-03	Pulse	0.30	3
Ni			2	0.012	ug/l	54.18	65.56	7.993E-04	Pulse	0.30	3
Cu			2	-0.025	ug/l	-23.98	1,013.38	1.235E-02	Pulse	0.30	3
Zn			2	-0.360	ug/l	-22.04	240.00	2.928E-03	Pulse	0.30	3
As			2	-0.001	ug/l	-1960.24	8.00	9.796E-05	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	-0.006	ug/l	-57.42	3.33	7.711E-06	Pulse	0.30	3
Sn			2	0.117	ug/l	29.98	700.03	1.627E-03	Pulse	0.30	3
Se			3	0.004	ug/l	493.65	4.93	6.948E-05	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,103,028.72	0.61	84.7	Pulse	0.10	3
1	Sc		2,554,638.56	0.79	90.5	Pulse	0.10	3
1	Ge		478,133.27	0.84	95.0	Pulse	0.10	3
1	Ge		667,949.73	1.28	95.3	Pulse	0.10	3
1	Rh		3,121,146.41	1.62	94.7	Pulse	0.10	3
1	In		3,361,305.10	1.63	97.2	Pulse	0.10	3
1	Tb		4,209,478.17	1.34	96.9	Pulse	0.10	3
1	Ho		399,461.14	2.80	96.8	Pulse	0.10	3
1	Bi		2,311,716.01	1.35	97.4	Pulse	0.10	3
2	Sc		82,033.67	1.31	93.9	Pulse	0.30	3
2	Ge		45,794.05	0.70	99.7	Pulse	0.30	3
2	Ge		69,507.11	0.86	100.3	Pulse	0.30	3
2	Rh		1,224,612.38	0.55	95.3	Pulse	0.30	3
2	In		430,459.88	0.36	98.7	Pulse	0.30	3
2	Tb		1,478,082.93	0.35	96.5	Pulse	0.30	3
2	Ho		144,154.02	0.87	97.4	Pulse	0.30	3
2	Bi		950,913.40	0.15	96.0	Pulse	0.30	3
3	Sc		78,598.45	1.17	94.6	Pulse	0.30	3
3	Ge		47,296.13	0.66	97.1	Pulse	0.30	3
3	Ge		71,000.23	0.11	96.2	Pulse	0.30	3
3	Rh		785,866.05	0.57	96.7	Pulse	0.30	3
3	Tb		1,157,315.34	0.46	98.1	Pulse	0.30	3

Quantitation Report

File Name	092_CCV.d
File Path	C:\Agilent\ICPMH\1\DATA\xa050619m2.b
Method File	
Method Path	
Acq Time	5/6/2019 18:44
Sample Name	CCVA
Sample Type	CCV
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/6/2019 12:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	47.311	ug/l	1.23	357,792.01	1.736E-01	Pulse	0.25	3
B			1	95.029	ug/l	1.11	452,296.40	2.194E-01	Pulse	0.15	3
Ca			1	5016.862	ug/l	0.84	3,954,497.44	1.568E+00	Pulse	0.10	3
Sr			1	48.663	ug/l	1.57	1,900,780.96	6.262E-01	Pulse	0.10	3
Mo			1	47.002	ug/l	1.25	361,280.59	1.190E-01	Pulse	0.10	3
Ag			1	47.240	ug/l	0.64	838,090.25	2.561E-01	Pulse	0.10	3
Sn			1	47.375	ug/l	0.89	548,408.94	1.676E-01	Pulse	0.10	3
Sb			1	48.266	ug/l	0.40	630,848.82	1.506E-01	Pulse	0.10	3
Ba			1	48.514	ug/l	0.50	264,765.34	6.321E-02	Pulse	0.10	3
Tl			1	48.222	ug/l	0.62	1,361,506.86	6.000E-01	Pulse	0.10	3
Pb			1	48.513	ug/l	1.00	462,469.00	2.038E-01	Pulse	0.10	3
Pb			1	48.526	ug/l	1.12	406,507.82	1.791E-01	Pulse	0.10	3
Pb			1	48.234	ug/l	1.01	1,856,504.20	8.181E-01	Pulse	0.10	3
Na			2	4662.222	ug/l	0.34	3,775,309.43	4.639E+01	Pulse	0.30	3
Mg			2	4714.338	ug/l	1.10	1,726,602.85	2.122E+01	Pulse	0.30	3
Al			2	4822.859	ug/l	0.20	560,413.42	6.886E+00	Pulse	0.30	3
K			2	4905.211	ug/l	0.49	1,164,066.79	1.430E+01	Pulse	0.30	3
Ca			2	5198.038	ug/l	0.75	61,885.21	7.604E-01	Pulse	0.30	3
Ti			2	47.782	ug/l	1.10	4,923.01	6.049E-02	Pulse	0.30	3
V			2	48.241	ug/l	0.86	155,970.02	1.916E+00	Pulse	0.30	3
Cr			2	47.192	ug/l	0.35	194,103.73	2.385E+00	Pulse	0.30	3
Mn			2	48.131	ug/l	0.89	95,607.25	1.175E+00	Pulse	0.30	3
Fe			2	5164.869	ug/l	0.97	16,308,246.58	2.004E+02	Analog	0.30	3
Co			2	47.361	ug/l	0.39	318,321.77	3.911E+00	Pulse	0.30	3
Ni			2	46.907	ug/l	1.33	86,952.99	1.068E+00	Pulse	0.30	3
Cu			2	46.169	ug/l	1.03	235,103.63	2.889E+00	Pulse	0.30	3
Zn			2	48.431	ug/l	2.25	31,023.96	3.812E-01	Pulse	0.30	3
As			2	47.470	ug/l	0.38	17,591.14	2.161E-01	Pulse	1.00	3
Cd			2	46.567	ug/l	0.62	43,910.58	1.043E-01	Pulse	0.30	3
Sn			2	47.288	ug/l	0.49	92,305.65	2.193E-01	Pulse	0.30	3
Se			3	190.974	ug/l	0.43	12,236.16	1.749E-01	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,061,254.12	0.40	83.1	Pulse	0.10	3
1	Sc		2,522,690.38	1.75	89.4	Pulse	0.10	3
1	Ge		467,653.91	1.02	92.9	Pulse	0.10	3

Quantitation Report

1	Ge		651,730.63	2.04	93.0	Pulse	0.10	3
1	Rh		3,035,416.41	0.87	92.1	Pulse	0.10	3
1	In		3,272,166.57	0.59	94.6	Pulse	0.10	3
1	Tb		4,189,102.54	1.57	96.4	Pulse	0.10	3
1	Ho		403,866.87	1.40	97.9	Pulse	0.10	3
1	Bi		2,269,330.02	1.43	95.6	Pulse	0.10	3
2	Sc		81,388.21	0.49	93.2	Pulse	0.30	3
2	Ge		44,096.00	1.17	96.0	Pulse	0.30	3
2	Ge		66,695.58	1.10	96.3	Pulse	0.30	3
2	Rh		1,191,760.72	1.08	92.8	Pulse	0.30	3
2	In		420,888.81	0.56	96.5	Pulse	0.30	3
2	Tb		1,483,460.42	0.33	96.9	Pulse	0.30	3
2	Ho		144,686.50	0.72	97.8	Pulse	0.30	3
2	Bi		932,132.11	1.08	94.1	Pulse	0.30	3
3	Sc		78,348.52	2.38	94.3	Pulse	0.30	3
3	Ge		45,994.59	1.12	94.4	Pulse	0.30	3
3	Ge		69,979.35	0.31	94.8	Pulse	0.30	3
3	Rh		763,267.35	0.61	93.9	Pulse	0.30	3
3	Tb		1,156,351.72	0.69	98.0	Pulse	0.30	3

Quantitation Report

File Name	093_CCB.d
File Path	C:\Agilent\ICPMH\1\DATA\xa050619m2.b
Method File	
Method Path	
Acq Time	5/6/2019 18:49
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/6/2019 12:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.014	ug/l	15.51	122.67	5.899E-05	Pulse	0.25	3
B			1	6.153	ug/l	1.42	31,812.29	1.530E-02	Pulse	0.15	3
Ca			1	-1.588	ug/l	-28.11	20,770.40	8.187E-03	Pulse	0.10	3
Sr			1	0.041	ug/l	4.55	2,063.54	6.678E-04	Pulse	0.10	3
Mo			1	0.102	ug/l	6.75	820.05	2.652E-04	Pulse	0.10	3
Ag			1	0.018	ug/l	20.94	363.35	1.099E-04	Pulse	0.10	3
Sn			1	0.680	ug/l	7.81	6,671.93	2.019E-03	Pulse	0.10	3
Sb			1	0.270	ug/l	5.67	3,657.25	8.732E-04	Pulse	0.10	3
Ba			1	0.014	ug/l	109.09	156.67	3.764E-05	Pulse	0.10	3
Tl			1	0.019	ug/l	8.99	943.40	4.100E-04	Pulse	0.10	3
Pb			1	0.016	ug/l	40.26	340.02	1.478E-04	Pulse	0.10	3
Pb			1	0.015	ug/l	52.89	313.35	1.363E-04	Pulse	0.10	3
Pb			1	0.017	ug/l	21.06	1,470.08	6.390E-04	Pulse	0.10	3
Na			2	31.143	ug/l	3.44	33,878.27	4.210E-01	Pulse	0.30	3
Mg			2	1.853	ug/l	10.64	782.25	9.721E-03	Pulse	0.30	3
Al			2	8.482	ug/l	4.05	1,210.06	1.504E-02	Pulse	0.30	3
K			2	-2.709	ug/l	-17.58	9,261.55	1.151E-01	Pulse	0.30	3
Ca			2	6.827	ug/l	33.61	147.78	1.836E-03	Pulse	0.30	3
Ti			2	0.077	ug/l	64.66	8.89	1.104E-04	Pulse	0.30	3
V			2	0.018	ug/l	51.94	137.78	1.712E-03	Pulse	0.30	3
Cr			2	0.002	ug/l	486.95	363.34	4.515E-03	Pulse	0.30	3
Mn			2	0.083	ug/l	3.67	250.00	3.107E-03	Pulse	0.30	3
Fe			2	1.836	ug/l	3.56	8,430.02	1.048E-01	Pulse	0.30	3
Co			2	0.010	ug/l	52.50	137.78	1.712E-03	Pulse	0.30	3
Ni			2	0.062	ug/l	32.90	155.56	1.933E-03	Pulse	0.30	3
Cu			2	0.032	ug/l	29.90	1,276.73	1.587E-02	Pulse	0.30	3
Zn			2	0.573	ug/l	22.33	817.81	1.016E-02	Pulse	0.30	3
As			2	0.010	ug/l	130.11	11.67	1.450E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	-0.001	ug/l	-146.06	7.73	1.817E-05	Pulse	0.30	3
Sn			2	0.331	ug/l	2.31	1,111.17	2.614E-03	Pulse	0.30	3
Se			3	0.077	ug/l	42.67	9.53	1.363E-04	Pulse	5.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,079,812.14	0.22	83.8	Pulse	0.10	3
1	Sc		2,537,409.86	1.13	89.9	Pulse	0.10	3
1	Ge		469,051.02	0.78	93.2	Pulse	0.10	3
1	Ge		658,503.66	1.29	93.9	Pulse	0.10	3
1	Rh		3,090,436.41	1.12	93.8	Pulse	0.10	3
1	In		3,302,849.39	1.56	95.5	Pulse	0.10	3
1	Tb		4,185,612.85	1.83	96.4	Pulse	0.10	3
1	Ho		397,504.98	1.87	96.4	Pulse	0.10	3
1	Bi		2,301,786.01	0.95	97.0	Pulse	0.10	3
2	Sc		80,476.16	0.19	92.2	Pulse	0.30	3
2	Ge		44,478.22	1.04	96.8	Pulse	0.30	3
2	Ge		67,976.59	0.54	98.1	Pulse	0.30	3
2	Rh		1,216,281.51	0.25	94.7	Pulse	0.30	3
2	In		425,043.45	0.77	97.5	Pulse	0.30	3
2	Tb		1,470,404.73	0.64	96.0	Pulse	0.30	3
2	Ho		142,895.96	1.02	96.6	Pulse	0.30	3
2	Bi		943,838.40	0.83	95.3	Pulse	0.30	3
3	Sc		77,062.35	0.35	92.7	Pulse	0.30	3
3	Ge		45,810.73	1.05	94.0	Pulse	0.30	3
3	Ge		69,833.13	1.35	94.6	Pulse	0.30	3
3	Rh		779,265.72	0.35	95.9	Pulse	0.30	3
3	Tb		1,144,415.41	0.29	97.0	Pulse	0.30	3

Quantitation Report

File Name	094SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\xa050619m2.b
Method File	
Method Path	
Acq Time	5/6/2019 18:54
Sample Name	rinseconf
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/6/2019 12:34
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.002	ug/l	131.78	34.67	1.658E-05	Pulse	0.25	3
B			1	4.265	ug/l	3.11	22,984.69	1.096E-02	Pulse	0.15	3
Ca			1	-4.060	ug/l	-9.08	18,954.72	7.418E-03	Pulse	0.10	3
Sr			1	0.026	ug/l	6.48	1,453.46	4.715E-04	Pulse	0.10	3
Mo			1	0.026	ug/l	18.95	226.68	7.346E-05	Pulse	0.10	3
Ag			1	0.004	ug/l	52.62	116.67	3.531E-05	Pulse	0.10	3
Sn			1	0.475	ug/l	7.40	4,270.73	1.292E-03	Pulse	0.10	3
Sb			1	0.087	ug/l	15.89	1,253.43	3.027E-04	Pulse	0.10	3
Ba			1	0.008	ug/l	68.54	120.00	2.905E-05	Pulse	0.10	3
Tl			1	0.001	ug/l	58.40	456.69	1.980E-04	Pulse	0.10	3
Pb			1	0.004	ug/l	60.89	226.68	9.830E-05	Pulse	0.10	3
Pb			1	-0.001	ug/l	-118.64	173.34	7.515E-05	Pulse	0.10	3
Pb			1	0.000	ug/l	-466.92	793.37	3.441E-04	Pulse	0.10	3
Na			2	28.096	ug/l	2.13	31,804.34	3.907E-01	Pulse	0.30	3
Mg			2	1.095	ug/l	14.12	513.35	6.310E-03	Pulse	0.30	3
Al			2	2.911	ug/l	5.53	576.69	7.085E-03	Pulse	0.30	3
K			2	-3.179	ug/l	-34.85	9,255.98	1.137E-01	Pulse	0.30	3
Ca			2	-0.229	ug/l	-549.94	65.56	8.054E-04	Pulse	0.30	3
Ti			2	0.001	ug/l	2423.60	1.11	1.375E-05	Pulse	0.30	3
V			2	0.009	ug/l	70.04	110.00	1.353E-03	Pulse	0.30	3
Cr			2	-0.019	ug/l	-35.86	283.34	3.481E-03	Pulse	0.30	3
Mn			2	0.039	ug/l	18.19	165.56	2.034E-03	Pulse	0.30	3
Fe			2	0.535	ug/l	6.68	4,420.65	5.431E-02	Pulse	0.30	3
Co			2	0.002	ug/l	138.49	87.78	1.078E-03	Pulse	0.30	3
Ni			2	0.013	ug/l	65.42	66.67	8.191E-04	Pulse	0.30	3
Cu			2	-0.023	ug/l	-29.75	1,013.38	1.245E-02	Pulse	0.30	3
Zn			2	-0.365	ug/l	-10.95	235.56	2.894E-03	Pulse	0.30	3
As			2	0.005	ug/l	232.69	10.00	1.227E-04	Pulse	1.00	3

Current Signal

[1]

Mass	Range	Count	Avg. Count	RSD [%]
7	5000	3953	3802.8	2.78
59	5000	3343	3307.5	2.44
89	10000	5164	4984.1	2.48
140	10000	4926	4785.3	3.17
205	5000	2749	2746.8	3.33
156/140	1	0.386 %	0.582 %	20.45
70/140	20	12.041 %	12.312 %	7.12
9	20	2	0.8	111.37
11	1000	458	456.9	6.34
88	100	52	51.6	16.55
95	20	2	2.9	69.14
107	20	5	2.3	84.37
121	50	10	14.7	28.26
137	20	12	8.8	33.29
208	100	58	47.3	18.70
Integration Time [sec]		0.10		

Plasma Parameters

RF Power	1500	W	Nebulizer Pump	0.10	rps
RF Matching	1.80	V	S/C Temp	2	℃
Smpl Depth	7.8	mm	Gas Switch	Dilution Gas	
Carrier Gas	0.55	L/min	Makeup/Dilution Gas	0.55	L/min
Option Gas	0.0	%			

Lenses Parameters

Extract 1	0.0	V	Cell Entrance	-40	V
Extract 2	-165.0	V	Cell Exit	-60	V
Omega Bias	-90	V	Deflect	15.0	V
Omega Lens	7.3	V	Plate Bias	-35	V

Cell Parameters

Use Gas	false		OctP Bias	-8.0	V
He Flow	0.0	mL/min	OctP RF	200	V
H2 Flow	0.0	mL/min	Energy Discrimination	5.0	V
3rd Gas Flow	0	%			

Meters

IF/BK Press	2.59E+2	Pa	S/C Temp (L)	2.0	℃
TMP Revolution	100.0	%	Carrier Gas(BP)	1.41E+2	kPa
Carrier Gas	0.55	L/min			

US EPA Tune Check Sample Report

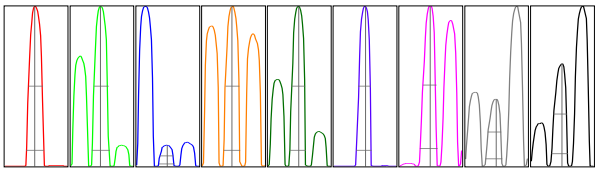
Batch Folder C:\Agilent\ICPMH\1\DATA\xa050619m1.b
Report Comment
Instrument Name G3281A JP10340551

[1]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
9	121735	0.85	5.00	
24	376000	1.11	5.00	
25	48594	1.04	5.00	
26	55951	0.74	5.00	
59	403724	0.58	5.00	
115	504125	0.42	5.00	
206	106600	0.45	5.00	
207	97492	0.48	5.00	
208	231051	0.47	5.00	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	120608	120841	121736	122433	123056
24	368985	375696	377124	378721	379473
25	47882	48364	48619	48909	49194
26	55359	56052	55717	56335	56290
59	400050	403745	403413	405346	406066
115	501211	503021	504065	506154	506176
206	106443	105957	106669	107281	106650
207	96696	97798	97488	97839	97641
208	229450	230673	231793	231096	232242

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width-X% (Flag)
9	19193	8.95	8.9 - 9.1		0.796	0.900	
24	60776	23.95	23.9 - 24.1		0.788	0.900	
25	7877	25.00	24.9 - 25.1		0.732	0.900	
26	8959	25.95	25.9 - 26.1		0.764	0.900	
59	66714	59.00	58.9 - 59.1		0.743	0.900	
115	89273	115.05	114.9 - 115.1		0.709	0.900	
206	18013	206.00	205.9 - 206.1		0.785	0.900	
207	16404	207.00	206.9 - 207.1		0.757	0.900	
208	39062	208.00	207.9 - 208.1		0.762	0.900	

X% = 10 **Integration Time [sec] =** 0.1 **Acquisition Time [sec] =** 235 **Y Axis =** Linear

Tune Parameters

Plasma Paramters

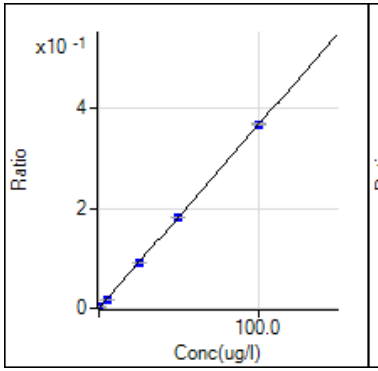
ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
RF Power	1500	W	Carrier Gas	0.55	L/min			
RF Matching	1.80	V	Option Gas	0.0	%			
Smpl Depth	7.8	mm	Nebulizer Pump	0.10	rps			
S/C Temp	2	℃						

Lenses Parameters

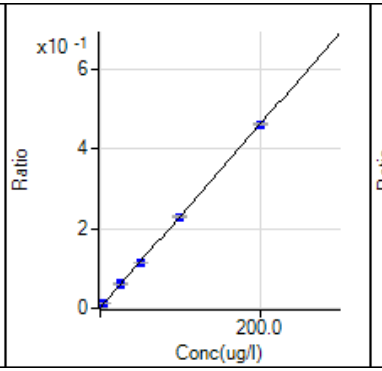
ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	7.3	V			
Extract 2	-165.0	V	Cell Entrance	-40	V			
Omega Bias	-90	V	Cell Exit	-60	V			
Deflect	15.0	V						

Cell Parameters

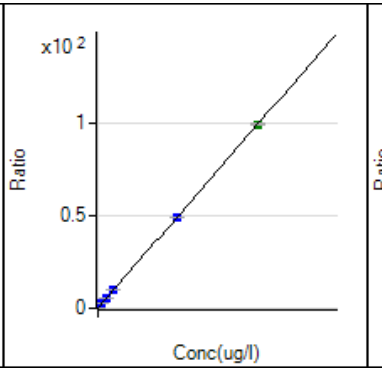
ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Use Gas	false		3rd Gas Flow	0	%			
He Flow	0.0	mL/min	OctP Bias	-8.0	V			
H2 Flow	0.0	mL/min	OctP RF	200	V			
Energy Discrimination	5.0	V						



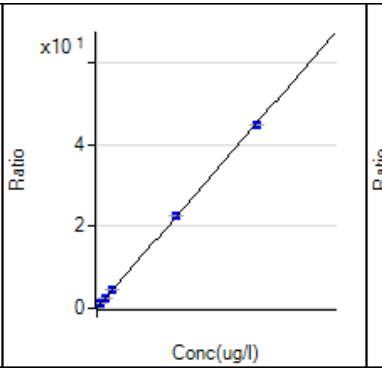
9 Be [1] / ISTD: 6 Li
y = 3.669E-3 x + 8.235E-6
R 1.0000
DL 0.002582
BEC 0.002245



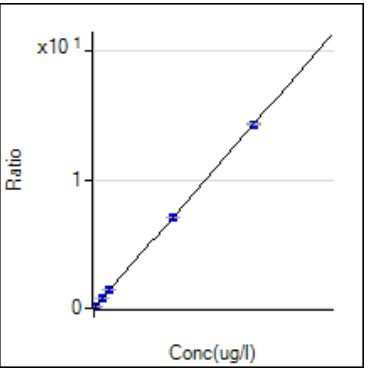
11 B [1] / ISTD: 6 Li
y = 2.297E-3 x + 1.163E-3
R 0.9999
DL 0.05574
BEC 0.5064



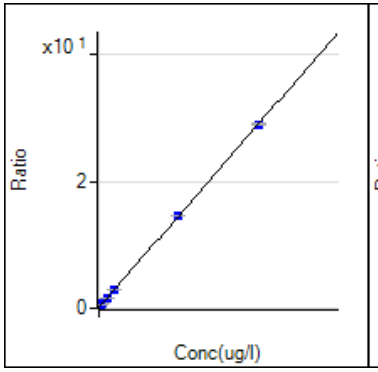
23 Na [2] / ISTD: 45 Sc
y = 9.926E-3 x + 1.119E-1
R 1.0000
DL 0.8491
BEC 11.27



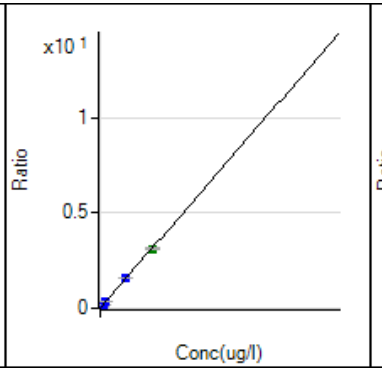
24 Mg [2] / ISTD: 45 Sc
y = 4.500E-3 x + 1.384E-3
R 1.0000
DL 0.2398
BEC 0.3075



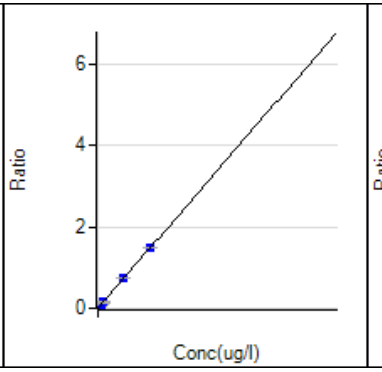
27 Al [2] / ISTD: 45 Sc
y = 1.427E-3 x + 2.931E-3
R 1.0000
DL 1.444
BEC 2.054



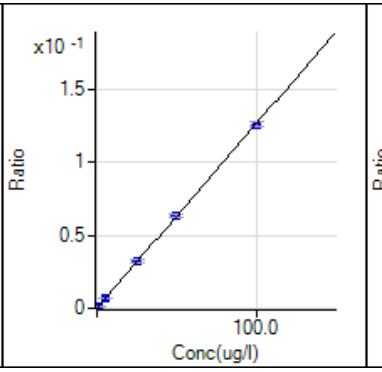
39 K [2] / ISTD: 45 Sc
y = 2.891E-3 x + 1.229E-1
R 1.0000
DL 0.6517
BEC 42.52



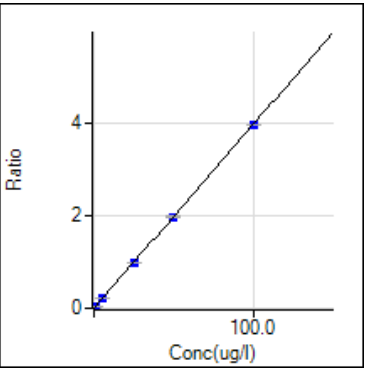
44 Ca [1] / ISTD: 45 Sc
y = 3.108E-4 x + 8.680E-3
R 1.0000
DL 0.6271
BEC 27.93



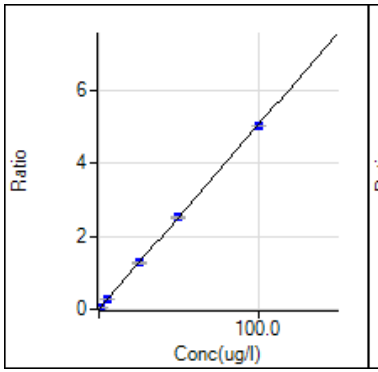
44 Ca [2] / ISTD: 45 Sc
y = 1.461E-4 x + 8.388E-4
R 1.0000
DL 0.8069
BEC 5.741



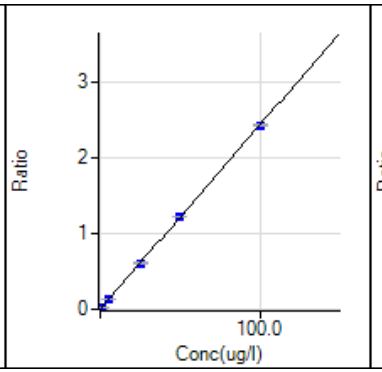
47 Ti [2] / ISTD: 45 Sc
y = 1.266E-3 x + 1.277E-5
R 1.0000
DL 0.05241
BEC 0.01009



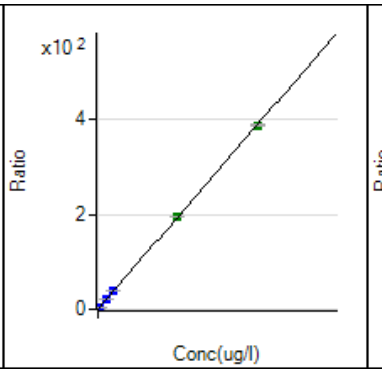
51 V [2] / ISTD: 45 Sc
y = 3.971E-2 x + 9.818E-4
R 1.0000
DL 0.01023
BEC 0.02473



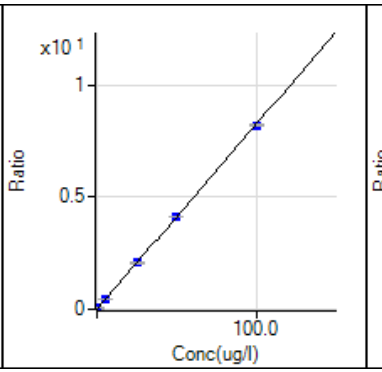
52 Cr [2] / ISTD: 45 Sc
y = 5.044E-2 x + 4.436E-3
R 1.0000
DL 0.05106
BEC 0.08794



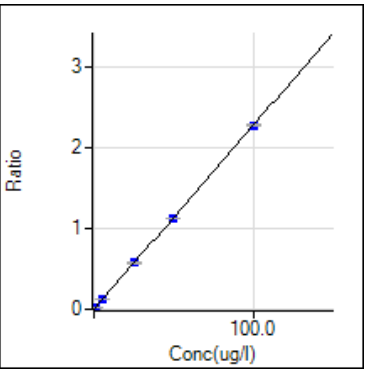
55 Mn [2] / ISTD: 45 Sc
y = 2.438E-2 x + 1.081E-3
R 1.0000
DL 0.01075
BEC 0.04435



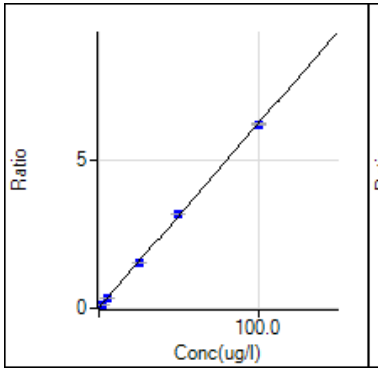
56 Fe [2] / ISTD: 45 Sc
y = 3.879E-2 x + 3.354E-2
R 1.0000
DL 0.07821
BEC 0.8647



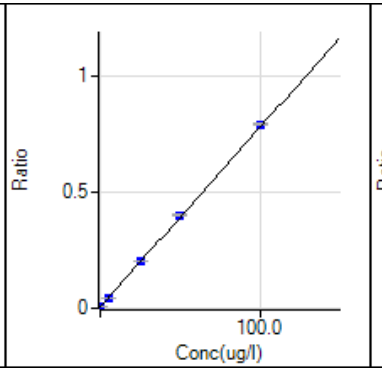
59 Co [2] / ISTD: 45 Sc
y = 8.256E-2 x + 8.865E-4
R 1.0000
DL 0.01286
BEC 0.01074



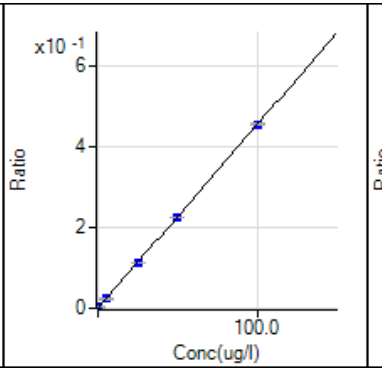
60 Ni [2] / ISTD: 45 Sc
y = 2.277E-2 x + 5.323E-4
R 1.0000
DL 0.009892
BEC 0.02338



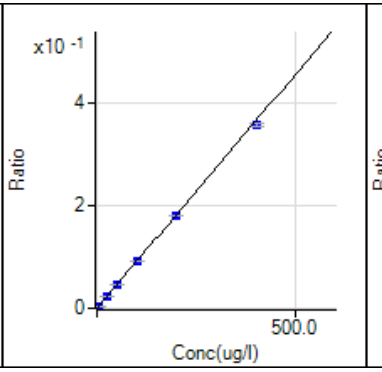
63 Cu [2] / ISTD: 45 Sc
y = 6.227E-2 x + 1.389E-2
R 1.0000
DL 0.05892
BEC 0.223



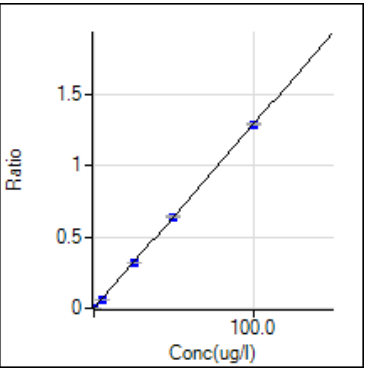
66 Zn [2] / ISTD: 45 Sc
y = 7.753E-3 x + 5.722E-3
R 1.0000
DL 0.2058
BEC 0.7381



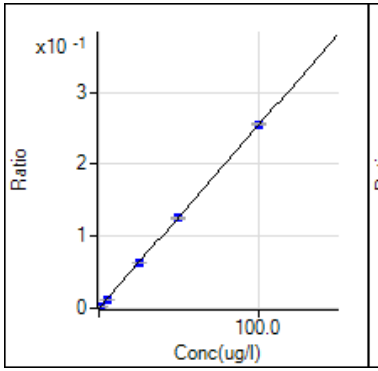
75 As [2] / ISTD: 45 Sc
y = 4.551E-3 x + 1.018E-4
R 1.0000
DL 0.007623
BEC 0.02237



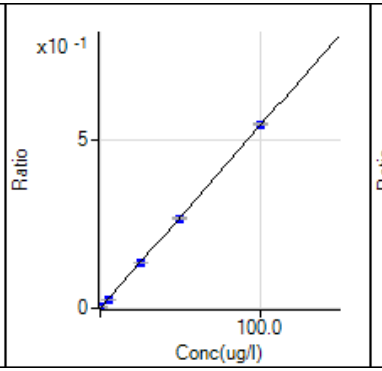
78 Se [3] / ISTD: 74 Ge
y = 9.152E-4 x + 6.600E-5
R 1.0000
DL 0.05427
BEC 0.07211



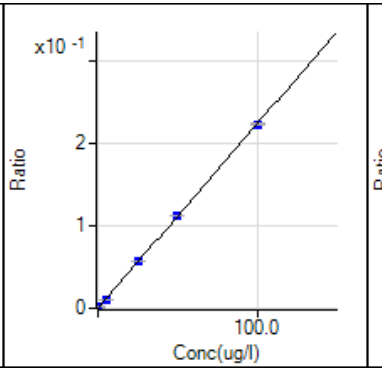
88 Sr [1] / ISTD: 103 Rh
y = 1.286E-2 x + 1.417E-4
R 1.0000
DL 0.003093
BEC 0.01101



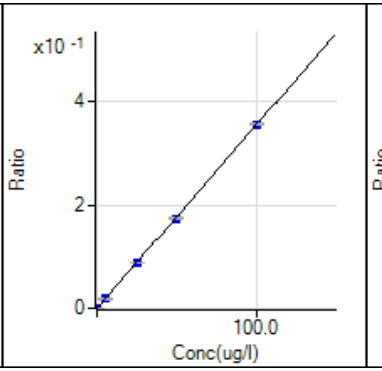
95 Mo [1] / ISTD: 103 Rh
y = 2.532E-3 x + 6.866E-6
R 1.0000
DL 0.005414
BEC 0.002712



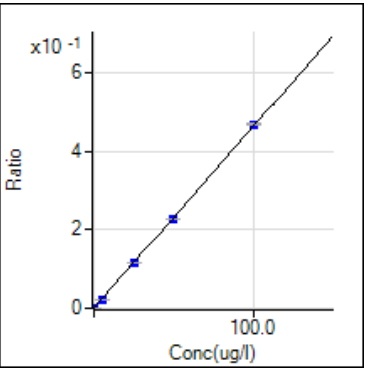
107 Ag [1] / ISTD: 115 In
y = 5.422E-3 x + 1.211E-5
R 0.9999
DL 0.0049
BEC 0.002233



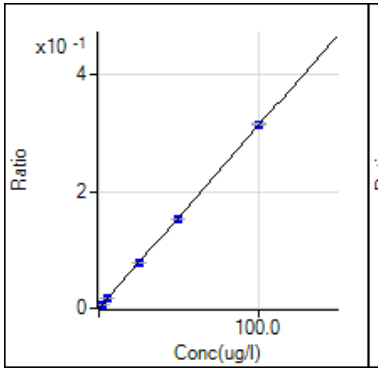
111 Cd [2] / ISTD: 115 In
y = 2.240E-3 x + 2.117E-5
R 1.0000
DL 0.03896
BEC 0.009452



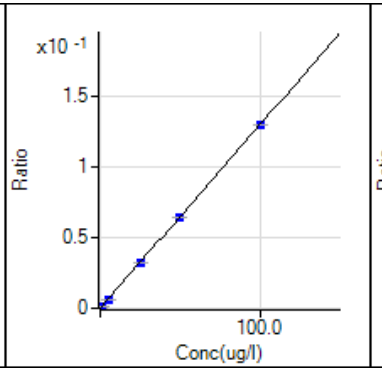
118 Sn [1] / ISTD: 115 In
y = 3.546E-3 x - 3.913E-4
R 0.9999
DL 0.01892
BEC -0.1103



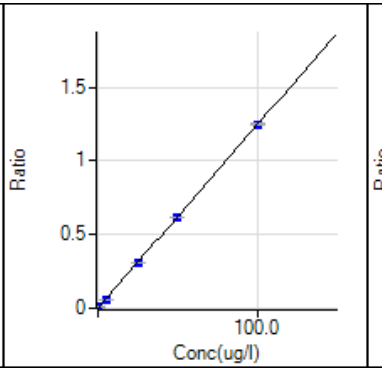
118 Sn [2] / ISTD: 115 In
y = 4.615E-3 x + 1.086E-3
R 0.9999
DL 0.07438
BEC 0.2353



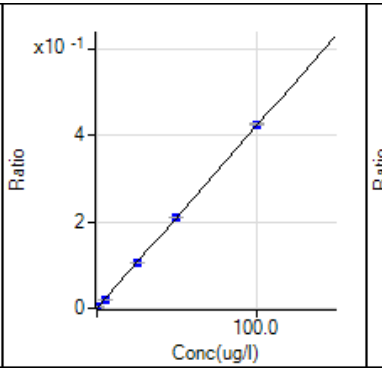
121 Sb [1] / ISTD: 159 Tb
y = 3.119E-3 x + 3.118E-5
R 0.9999
DL 0.0124
BEC 0.009995



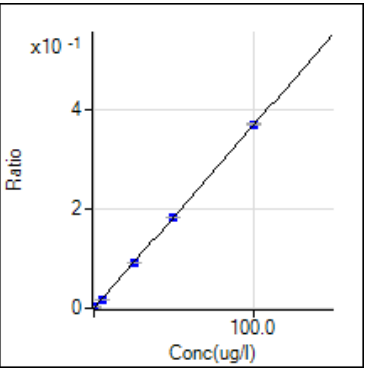
137 Ba [1] / ISTD: 159 Tb
y = 1.302E-3 x + 1.923E-5
R 1.0000
DL 0.02759
BEC 0.01477



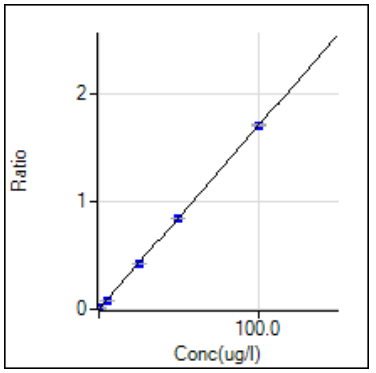
205 Tl [1] / ISTD: 209 Bi
y = 1.244E-2 x + 1.797E-4
R 1.0000
DL 0.008338
BEC 0.01445



206 Pb [1] / ISTD: 209 Bi
y = 4.199E-3 x + 8.167E-5
R 1.0000
DL 0.01754
BEC 0.01945



207 Pb [1] / ISTD: 209 Bi
y = 3.690E-3 x + 8.058E-5
R 1.0000
DL 0.01466
BEC 0.02184



208 Pb [1] / ISTD: 209 Bi

y = 1.695E-2 x + 3.480E-4

R	1.0000
DL	0.004515
BEC	0.02053

SGS

Mercury Digestion Log

Product: **HG /HGLIQ**
Matrix: **Soil / Oil / SL / Wipes**

Method: SW846 7471B
Required corrected Temp. Range is 95C. +/- 3C.

MA Batch #:	MA46645
Analyst:	EAL/LL
Date:	5/3/2019
Balance ID:	B-24
Reagents:	See attached sheet
Auto pipet ID:	M72

Hot Block # 7 Start Time: 10:30 End Time: 10:30 Tube # 1-39 .

Start Temp: 94 Corrected Start Temp: 93 Correction: -1 Thermometer ID: 6805236 .

End Temp: 94 Corrected Start Temp: 93 Correction: -1 Thermometer ID: 6805236 .

Hot Block #_____ Start Time:_____ End Time:_____ Tube #_____.

Start Temp:_____ Corrected Start Temp:_____ Correction:_____ Thermometer ID:_____.

End Temp:_____ Corrected Start Temp:_____ Correction:_____ Thermometer ID:_____.

Bot #	Sample ID	Initial Sample Wt. (gm)	Final Vol. (ml)	Spike Used		Spikelot and Conc.	MP Number	Comments/Lot # and Vendor
				Amount Spiked	Added Y or N	(mg/L)		
1	MP14782-MB1	0.6001	100				MP14782	
2	MP14782-B1	0.6001	100	2.0 ml	Y	0.1		HG-19-144-379-HGA1, IN. V
3	MP14782-S1	0.8179	100	2.0 ml	Y	0.1		JC87361-1, HG-19-144-379-HGA1, IN. V
4	MP14782-S2	0.7814	100	2.0 ml	Y	0.1		JC87361-1, HG-19-144-379-HGA1, IN. V
5	JC87361-1	0.7503	100					
6	JC87361-2	0.7047	100					
7	JC87361-3	0.8015	100					
8	JC87361-4	0.6679	100					
9	JC87361-5	0.7235	100					
10	JC87361-6	0.9109	100					
11	JC87361-7	0.7686	100					
12	JC87361-8	0.7936	100					
13	JC87361-9	0.7910	100					
14	JC87361-10	0.6590	100					
15	JC87361-11	0.7926	100					
16	JC87355-1	0.7046	100					
17	JC87355-2	0.6747	100					
18	JC87355-3	0.6425	100					
19	JC87355-4	0.6466	100					
20	JC87355-5	0.6964	100					
21	JC87318-2	0.6227	100					
22	JC87321-1	0.6326	100					
23	JC87321-2	0.6603	100					
24	JC87321-3	0.7350	100					
25	MP14783-MB1	0.6001	100				MP14783	
26	MP14783-B1	0.6001	100	2.0 ml	Y	0.1		HG-19-144-379-HGA1, IN. V
27	MP14783-S1	0.7911	100	2.0 ml	Y	0.1		JC87323-1, HG-19-144-379-HGA1, IN. V
28	MP14783-S2	0.7952	100	2.0 ml	Y	0.1		JC87323-1, HG-19-144-379-HGA1, IN. V
29	JC87323-1	0.7819	100					
30	JC87323-2	0.6602	100					
31	JC87323-3	0.7009	100					
32	JC87323-4	0.7585	100					
33	JC87324-1	0.6265	100					
34	JC87324-2	0.7004	100					
35	JC87324-3	0.7876	100					

Form: HG-022F-02
Revision Date:08/24/15

ANALYST: LL **DATE:** 5/3/19
SPIKE WITNESS: EAL **DATE:** 5/3/19
QC REVIERER:_____ **DATE:**_____

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SGS

Mercury Digestion Log

Product: **HG /HGLIQ**
Matrix: **Soil / Oil / SL / Wipes**

Method: SW846 7471B
Required corrected Temp. Range is 95C. +/- 3C.

MA Batch #:	MA46645
Analyst:	EAL/LL
Date:	5/3/2019
Balance ID:	B-24
Reagents:	See attached sheet
Auto pipet ID:	M72

Hot Block #__7__ Start Time:__10:30__ End Time:__10:30__ Tube #__1-39__.
Start Temp:__94__ Corrected Start Temp:__93__ Correction:__-1__ Thermometer ID:__6805236__.
End Temp:__94__ Corrected Start Temp:__93__ Correction:__-1__ Thermometer ID:__6805236__.
Hot Block #_____ Start Time:_____ End Time:_____ Tube #_____.
Start Temp:_____ Corrected Start Temp:_____ Correction:_____ Thermometer ID:_____.
End Temp:_____ Corrected Start Temp:_____ Correction:_____ Thermometer ID:_____.

Bot #	Sample ID	Initial Sample Wt. (gm)	Final Vol. (ml)	Spike Used		Spikelot and Conc.	MP Number	Comments/Lot # and Vendor
				Amount Spiked	Added Y or N	(mg/L)		
36	JC87324-4	0.6155	100					
37	JC87324-5	0.7476	100					
38	JC87363-3	0.8412	100					
39	JC87271-1	0.6142	100					
40			100					
41			100					
42			100					
43			100					
44			100					
45			100					
46			100					
47			100					
48			100					
49			100					
50			100					
51			100					
52			100					
53			100					
54			100					
55			100					
56			100					
57			100					
58			100					
59			100					
60			100					
61			100					
62			100					
63			100					
64			100					
65			100					
66			100					
67			100					
68			100					
69			100					
70			100					

Form: HG-022F-02
Revision Date:08/24/15

ANALYST: LL
SPIKE WITNESS: EAL
QC REVIERER:_____

DATE: 5/3/19
DATE: 5/5/19
DATE:_____

13.5.1
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SGS

Mercury Digestion Log

Product: **HG /HGLIQ**
Matrix: **Soil / Oil / SL / Wipes**

MA Batch #: MA46645
Analyst: EAL/LL
Date: 5/3/2019
Balance ID: B-24
Reagents: See attached sheet
Auto pipet ID: M72

Method: SW846 7471B
Required corrected Temp. Range is 95C. +/- 3 C.

Hot Block # 7 Start Time: 10:30 End Time: 10:30 Tube # 1-CRI
Start Temp: 94 Corrected Start Temp: 93 Correction: -1 Thermometer ID: 6805236
End Temp: 94 Corrected Start Temp: 93 Correction: -1 Thermometer ID: 6805236

Bot #	Sample ID	Initial Sample Wt. (gm)	Final Vol. (ml)	Spike Used		Spikelot and Conc.	MP Number	Comments/Lot # and Vendor
				Amount Spiked	Added Y or N	(mg/L)		
S-1	Calibration Blank	0.6	100 ml	0.0 ml	N	N/A	N/A	N/A
S-2	0.20 ug/l standard	0.6	100 ml	2.0 ml	Y	0.0100	N/A	HG-19-144-380-HGA2, IN. V
S-3	0.50 ug/l standard	0.6	100 ml	5.0 ml	Y	0.0100	N/A	HG-19-144-380-HGA2, IN. V
S-4	1.00 ug/l standard	0.6	100 ml	1.0 ml	Y	0.1000	N/A	HG-19-144-379-HGA1, IN. V
S-5	2.50 ug/l standard	0.6	100 ml	2.5 ml	Y	0.1000	N/A	HG-19-144-379-HGA1, IN. V
S-6	5.00 ug/l standard	0.6	100 ml	5.0 ml	Y	0.1000	N/A	HG-19-144-379-HGA1, IN. V
ICV	ICV (External)	0.6	100 ml	3.0 ml	Y	0.1		HG-19-144-381-HGB1, IN. V
ICB	ICB	0.6	100 ml	0.0 ml	N	N/A	N/A	
CCV	CCV	0.6	100 ml	2.5 ml	Y	0.1		HG-19-144-379-HGA1, IN. V
CCB	CCB	0.6	100 ml	0.0 ml	N	N/A	N/A	
CRI	CRI	0.6	100 ml	2.0 ml	Y	0.01		HG-19-144-380-HGA2, IN. V

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13

SGS

Reagent Information Log- Hg Soil

MA # 46645

Reagents	Exp. Date	Reagent # or manufacturer lot #
Conc. HydroChloric Acid	4/19/2021	Baker 221681
Conc. Nitric Acid	4/19/2021	Baker 205793
Sodium Chloride-Hydroxylamine Hydrochloride	10/22/2019	HG-19-144 360 -HGHCL
Potassium Permanganate	10/22/2019	HG-19-144 358 -HGKM2
Stannous Chloride	5/4/2019	HG-19-144 382 -HGS
STD Hg standard solution 1000 ppm	3/1/2020	Inorganic Ventures K2-HG669550
STD Hg standard solution 100 ppb	5/4/2019	HG-19-144 379 -HGA1
STD Hg standard solution 10 ppb	5/4/2019	HG-19-144 380 -HGA2
ICV Hg standard solution 1000 ppm	6/30/2021	Ultra T00601
ICV Hg standard solution 100 ppb	5/4/2019	HG-19-144 381 -HGB1
Solid Lab control/Soil LC	3/31/2020	ERA D094-540
Aqua Regia	5/4/2019	HG-19-144 383 -HGKAQ
Dilution acid	10/22/2019	HG-19-144 361 -HGD1
Digestion Tubes	N/A	Environmental Express 1812114
Teflon Chips (For Soil MB)	N/A	Chemware , Lot: 23656541

Form: GN087A80-04
Rev.Date: 06/06/17

SGS North America Inc.

Solids/Soil Metals Digestion Form

Batch Information

Batch ID	Start Date	Start Time	End Date	End time	QC Samp 1	QC Samp 2
MP14776	5/3/2019	8:45	5/3/2019	13:30	JC87355-1	

Temperature

		Block ID	Therm. ID#	Balance ID	Temperature	Correction	Corrected Temp	
1	Start	1	3107658	B-41	93	0	93	
1	End	1	3107658	NA	92	0	92	
2	Start							
2	End			NA				

Methods and Equipment

	Dig. Method	Heating Method		Auto Pipette #	Digestion Tube Lot #	
	SW846 3050B	Digestion Block		M-74	1812114	

Sample ID	Bottle ID	Final Volume (ML)	Wet Weight (G)	Reagent Groups Added	Spike Groups Added	Comments
MP14776-MB1	N/A	100	0.99	ABCD		
MP14776-B1	N/A	100	0.97	ABCD	ABCD	
MP14776-S1	1	100	0.97	ABCD	ABCD	
MP14776-S2	1	100	0.99	ABCD	ABCD	
MP14776-SD1	1	100	1.03	ABCD		
JC87266-1	2	100	1.03	ABCD		
JC87266-10	2	100	1.02	ABCD		
JC87266-11	2	100	1.01	ABCD		
JC87266-17	2	100	1.02	ABCD		
JC87266-18	2	100	0.98	ABCD		
JC87266-2	2	100	1.03	ABCD		
JC87266-3	2	100	1.01	ABCD		
JC87266-4	2	100	0.99	ABCD		
JC87266-5	2	100	1.03	ABCD		
JC87266-6	2	100	1.01	ABCD		
JC87266-7	2	100	1.03	ABCD		
JC87266-8	2	100	1.03	ABCD		
JC87266-9	2	100	1.03	ABCD		
JC87355-1	1	100	1.03	ABCD		
JC87355-2	1	100	1.02	ABCD		
JC87355-3	1	100	0.97	ABCD		
JC87355-4	1	100	0.97	ABCD		
JC87355-5	1	100	0.96	ABCD		
JC87363-3	1	100	0.96	ABCD		
JC87428-2	1	100	1.00	ABCD		

Reagents Groups

Group	Description	MLs Used
A	CONC HNO3	5
B	1:1 HNO3	10
C	H2O2	5
D	CONC HCL	10
E		
F		
G		
H		

Spike Groups

Group	Description	MLs Used
A	ACCUTEST 13A REV1	1
B	ACCUTEST 14A REV1	1
C	MINERALS 5000PPM	0.5
D	AG 20PPM	1.25
E		
F	AG 20PPM	1.25
G		
H		

Comments:

Analyst TAYLORG **Approved by** RAKESHP **Approved on** 5/3/2019

Note: Reagent traceability for batch Start Date can be seen on the reagent traceability page for this batch.
Serial Dilution samples shown for QC purposes only.
Acceptable Temperature range is 90-95 degrees C unless otherwise noted

SGS

Metals Digestion Reagents Information Log

Digestion Batch ID: MP 14776 **Date:** 5/3/19

Matrix: ALL

Standard/Reagent Type	Exp. Date	Standard/Reagent ID
Spiking Solution - (ACCUTEST-13A REV1)	10/23/2019	MP-015-1161
Spiking Solution - (ACCUTEST-14A REV1)	10/23/2019	MP-015-1162
Spiking Solution - 5000 mg/l Minerals	4/25/2020	P2-MEB678659 MFG: INO. VENT.
Spiking Solution - Sulfur 1000ppm	4/11/2021	LOT: 041118 MFG: ABS. GRADE
Spiking Solution - Si 1000ppm	10/31/2019	N2-SI668066 MFG: INO. VENT.
Spiking Solution - Bi 1000ppm	4/12/2020	N2-BI669548 MFG: INO. VENT.
Spiking Solution - Se 20ppm	10/10/2019	MP-015-1156
Spiking Solution - Li 1000ppm	4/18/2020	N2-LI665824 MFG: INO. VENT.
Spiking Solution- Ag 20 ppm	10/30/2019	MP-015-1165
Spiking Solution - (ACCUTEST-13B REV1)	10/10/2019	MP-015-1157
Spiking Solution - (ACCUTEST-14B REV1)	9/27/2019	MP-015-1148
Spiking Solution - 1000ppm Minerals	6/4/2019	MP-015-1117
Spiking Solution- P		
Nitric Acid	5/1/2021	LOT: 213500 MFG: J.T. BAKER
Nitric Acid (1:1)	11/1/2019	MP-018-42-199 1:1 HNO3
Hydrochloric Acid	5/1/2021	LOT: 221681 MFG: J.T. BAKER
Hydrochloric Acid (1:1)	10/30/2019	MP-018-42-197 1:1 HCL
Hydrogen Peroxide	4/26/2021	LOT: 189267 MFG: FISHER
Soil Lab Control/Soil LC	3/31/2020	LOT: D094-540 MFG: ERA
Teflon Chips(For Soil MB and Blank Spike)	N/A	LOT: 24242815 MFG: SAINT-GOBAIN
Digestion Tubes	N/A	LOT: 1812114 MFG: ENV. EXPRESS
pH Paper	6/15/2021	LOT: 217518 MFG: HYDRION
Filter paper Q8	N/A	LOT: 16917460 MFG: FISHER
Filter paper 0.45µm	N/A	LOT: F8MA26136E MFG: FISHER

Spike witnessed By: CH

Validated By: _____

Validated On: _____

Metals Prep Reagent
1/17/18

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SGS North America Inc.

Accutest Aqueous Metals Digestion Form

Batch Information

Batch ID	Start Date	Start Time	End Date	End time	QC Samp 1	QC Samp 2
MP14786	5/3/2019	17.15	5/3/2019	22:45	JC87418-1	

Temperature

		Block ID1	Therm. ID#	Temperature	Correction	Corrected Temp
1	Start	5	158274	95	0	95
1	End	5	158274	95	0	95
2	Start					
2	End					

Methods and Equipment

	Dig. Method	Heating Method		Auto Pipette #	Digestion Tube Lot #	
	SW846 3010A	Digestion Block		M-74	1812114	

Sample ID	Bottle Number	Pres (Y/N)	Initial Sample Volume	Final Volume in ML	Reagent Groups Added	Spike Groups Added	Comments
MP14786-MB1	N/A	N	50	50	AB		
MP14786-B1	N/A	N	50	50	AB	ABCD	
MP14786-S1	7	Y	50	50	AB	ABCD	
MP14786-S2	7	Y	50	50	AB	ABCD	
MP14786-SD1	7	Y	50	50	AB		
JC87035-3F	1	Y	50	50	AB		
JC87035-4F	1	Y	50	50	AB		
JC87343-1	3	Y	50	50	AB		
JC87343-1F	4	Y	50	50	AB		
JC87343-2	3	Y	50	50	AB		
JC87343-2F	4	Y	50	50	AB		
JC87343-3	3	Y	50	50	AB		
JC87343-3F	4	Y	50	50	AB		
JC87343-4	3	Y	50	50	AB		
JC87343-4F	4	Y	50	50	AB		
JC87343-5	3	Y	50	50	AB		
JC87343-5F	4	Y	50	50	AB		
JC87363-1	3	Y	50	50	AB		
JC87363-2	3	Y	50	50	AB		
JC87418-1	7	Y	50	50	AB		
JC87418-1F	10	Y	50	50	AB		
JC87418-2	3	Y	50	50	AB		
JC87418-2F	4	Y	50	50	AB		
JC87418-3	3	Y	50	50	AB		
JC87418-3F	4	Y	50	50	AB		
MP14786-B2	N/A	N	50	50	AB	EFGHI	
MP14786-S3	7	Y	50	50	AB	ABCD	
MP14786-S4	7	Y	50	50	AB	ABCD	
MP14786-S5	10	Y	50	50	AB	EFGHI	
MP14786-S6	10	Y	50	50	AB	EFGHI	
MP14786-S7	10	Y	50	50	AB	EFGHI	
MP14786-S8	10	Y	50	50	AB	EFGHI	
MP14786-SD2	10	Y	50	50	AB		

Reagents Groups

Group	Description	MLs Used
A	CONC HNO3	3
B	1:1 HCL	9
C		
D		
E		
F		
G		
H		

Spike Groups

Group	Description	MLs Used
A	ACCUTEST 13A REV1	0.5
B	ACCUTEST 14A REV1	0.5
C	MINERALS 500PPM	0.25
D	AG 20PPM	0.625
E	ACCUTEST 13B REV1	0.2
F	AG 20PPM	0.2
G	ACCUTEST 14B REV1	0.2
H	MINERALS 1000PPM	0.2
I	SE 20PPM	0.8

Comments: _____

Analyst MOUSTAFR Approved by _____ Approved on _____

Note: Reagent traceability for batch Start Date can be seen on the reagent traceability page for this batch.
Serial Dilution samples shown for QC purposes only.
Acceptable Temperature range is 90-95 degrees C unless otherwise noted

SGS

Metals Digestion Reagents Information Log

Digestion Batch ID: MP 14786 **Date:** 5/31/19

Matrix: ALL

Standard/Reagent Type	Exp. Date	Standard/Reagent ID
Spiking Solution - (ACCUTEST-13A REV1)	10/23/2019	MP-015-1161
Spiking Solution - (ACCUTEST-14A REV1)	10/23/2019	MP-015-1162
Spiking Solution - 5000 mg/l Minerals	4/25/2020	P2-MEB678659 MFG: INO. VENT.
Spiking Solution - Sulfur 1000ppm	4/11/2021	LOT: 041118 MFG: ABS. GRADE
Spiking Solution - Si 1000ppm	10/31/2019	N2-SI668066 MFG: INO. VENT.
Spiking Solution - Bi 1000ppm	4/12/2020	N2-BI669548 MFG: INO. VENT.
Spiking Solution - Se 20ppm	10/10/2019	MP-015-1156
Spiking Solution - Li 1000ppm	4/18/2020	N2-LI665824 MFG: INO. VENT.
Spiking Solution- Ag 20 ppm	10/30/2019	MP-015-1165
Spiking Solution - (ACCUTEST-13B REV1)	10/10/2019	MP-015-1157
Spiking Solution - (ACCUTEST-14B REV1)	9/27/2019	MP-015-1148
Spiking Solution - 1000ppm Minerals	6/4/2019	MP-015-1117
Spiking Solution- P		
Nitric Acid	5/3/2021	LOT: 213500 MFG: J.T. BAKER
Nitric Acid (1:1)	11/1/2019	MP-018-42-199 1:1 HNO3
Hydrochloric Acid	5/1/2021	LOT: 221681 MFG: J.T. BAKER
Hydrochloric Acid (1:1)	10/30/2019	MP-018-42-197 1:1 HCL
Hydrogen Peroxide	4/26/2021	LOT: 189267 MFG: FISHER
Soil Lab Control/Soil LC	3/31/2020	LOT: D094-540 MFG: ERA
Teflon Chips(For Soil MB and Blank Spike)	N/A	LOT: 24242815 MFG: SAINT-GOBAIN
Digestion Tubes	N/A	LOT: 1812114 MFG: ENV. EXPRESS
pH Paper	6/15/2021	LOT: 217518 MFG: HYDRION
Filter paper Q8	N/A	LOT: 16917460 MFG: FISHER
Filter paper 0.45µm	N/A	LOT: F8MA26136E MFG: FISHER

Spike witnessed By: CH

Validated By:

Validated On:

Metals Prep Reagent
1/17/18

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General Chemistry

QC Data Summaries

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries
- Percent Solids Raw Data Summary

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Chemical Oxygen Demand	GP21111/GN95153	20	0.0	mg/l	20	18.9	94.5	90-110%
Chemical Oxygen Demand	GP21111/GN95153	20	0.0	mg/l	50	51.3	102.6	90-110%
HEM Oil and Grease	GP21140/GN95199	5.0	0.0	mg/l	40.78	33.9	83.1	78-114%
Solids, Total Suspended	GN94861	4.0	0.0	mg/l				

Associated Samples:
Batch GN94861: JC87363-1, JC87363-2
Batch GP21111: JC87363-1, JC87363-2
Batch GP21140: JC87363-1, JC87363-2
(*) Outside of QC limits

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Chemical Oxygen Demand	GP21111/GN95153	JC87409-2	mg/l	29.7	29.7	0.0	0-25%
HEM Oil and Grease	GP21140/GN95199	JC87412-3	mg/l	0.0	0.0	0.0	0-18%
Solids, Percent	GN94973	JC87397-1	%	88.7	88.7	0.0	0-5%
Solids, Total Suspended	GN94861	JC87394-4	mg/l	0.0	0.0	0.0	0-17%

Associated Samples:
Batch GN94861: JC87363-1, JC87363-2
Batch GN94973: JC87363-3
Batch GP21111: JC87363-1, JC87363-2
Batch GP21140: JC87363-1, JC87363-2
(*) Outside of QC limits

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: JC87363
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Chemical Oxygen Demand	GP21111/GN95153	JC87409-2	mg/l	29.7	50	75.7	92.0	55-133%
HEM Oil and Grease	GP21140/GN95199	JC87412-3	mg/l	0.0	40.78	34.1	83.6	78-114%

Associated Samples:
Batch GP21111: JC87363-1, JC87363-2
Batch GP21140: JC87363-1, JC87363-2
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits

Percent Solids Raw Data Summary

Job Number: JC87363
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample: JC87363-3 **Analyzed:** 06-MAY-19 by BG **Method:** SM2540 G 18TH ED MOD
ClientID: SIL05

Wet Weight (Total)	34.17	g
Tare Weight	25.07	g
Dry Weight (Total)	32.49	g
Solids, Percent	81.5	%

General Chemistry

Raw Data

Test: **Total Suspended Solids**
Method: **SM2540 D-11**

Product: **TSS**
Units: mg/l
RL: 4.0

GN Batch ID: GN94861
Analyst: RC
Date: 5/3/2019
Balance ID: B53

SGS

QC Summary

Filtration Date: 5/3/19 OVEN ID: INC-21 Filtration Time: 10:45

MB ID: GN94861-MB1 Result: <rdl RDL: 4 < RDL yes
Dup ID: GN94861-D1 Samp Resu 0.36 Dup Result: 0.36 % RPD: 0
Dup ID: GN94861-D2 Samp Mass 1 Dup Mass: 1 % RPD: 0

Acceptable Temp. Range = 103 to 105 deg. C.

Therm ID: 5624416
Corr Factor: 0
FILTER LOT# 111301

		Date:	5/3/2019	5/3/2019												
		Time (Start/Finish):	11:45/13:50	14:05/17:55												
		UnCorr Temp (Start/Finish):	104/104	104/104												
		Corr Temp (Start/Finish):	104/104	104/104												
Bot #	Dish #	Sample ID	Filter Size*	Volume Filtered (ml)	Filter Tare Weight in g*	Weight after drying at 104 deg. C in g	Redry #1 Weight in g (a)	Redry ?	Redry # 2 Weight in g (a)	Redry ?	Redry # 3 Weight in g (a)	Constant Weight in g (a)	TSS in mg/l (Calculated)	Final TSS in mg/l**	Mass %RPD	Mass %RPD > 5%
	z1	GN94861-MB1	42	1000.0	0.0978	0.0978	0.0978	NO				0.0978		0.00		1000
	z2	GN94861-D1	42	550.0	0.0978	0.0980	0.0980	NO				0.0980		0.36	0.00%	550
3	z3	JC87394-4	42	550.0	0.0978	0.0980	0.0980	NO				0.0980		0.36		550
	z4	GN94861-D2	42	500.0	0.0976	0.0981	0.0981	NO				0.0981		1.00	0.00%	500
2	z5	JC87292-1	42	500.0	0.0980	0.0985	0.0985	NO				0.0985		1.00		500
26	z6	JC87391-4	42	1000.0	0.0977	0.0979	0.0979	NO				0.0979		0.20		1000
1	z7	JC87403-2	42	960.0	0.0973	0.0986	0.0986	NO				0.0986		1.35		960
1	z8	JC87404-1	42	1000.0	0.0975	0.1096	0.1096	NO				0.1096		12.10		1000
7	z9	JC87406-1	42	960.0	0.0971	0.1006	0.1006	NO				0.1006		3.65		960
5	z10	JC87366-3	42	1000.0	0.0978	0.0980	0.0980	NO				0.0980		0.20		1000
6	z11	JC87363-2	42	980.0	0.0969	0.1072	0.1072	NO				0.1072		10.51		980
7	z12	JC87363-1	42	1000.0	0.0970	0.1840	0.1839	NO				0.1839		86.90		1000
2	z13	JC87366-4	42	50.0	0.0978	0.1057	0.1056	NO				0.1056		156.00		50
2	z14	JC87270-6	42	5.0	0.0978	0.1113	0.1111	NO				0.1111		2660.00		5
2	z15	JC87270-5	42	10.0	0.0980	0.1180	0.1177	NO				0.1177		1970.00		10
2	z16	JC87270-2	42	15.0	0.0975	0.1195	0.1193	NO				0.1193		1453.33		15
2	z17	JC87270-1	42	15.0	0.0970	0.1210	0.1206	NO				0.1206		1573.33		15

(a) Redries when result is <DL after the initial weighing. Note: Constant weight is a change of <4% of the sample mass or 0.0005 g, whichever is
*Filters are dried and dessicated for a minimum of 12 hours ensure constant tare weight.
**Final TSS, mg/L = [(constant weight - filter tare mass, g) × 1000] ÷ (initial volume, mL ÷ 1000)
Comments:

DAYT-WET-0196-10-FORM-TSS
REV DATE 10/17/18

5/6/19

TSS Worksheet

SGS ACCUTEST

Acceptable Temp. Range = 103 to 105 deg. C.

** Note - Filters are dried for a minimum of 1.5 h and dessicated for a minimum of 12 h. Constant mass is determined prior to filtering.

Date:	5/2-3/2019	5/3/2019					
Time (Start/Finish):	17:00/08:00	8:23/10:21					
Uncorr Temp Deg C (Start/Finish):	104/104	104/104					
Corr Temp Deg C (Start/Finish):	104/104	104/104					

Dish #	Filter size	Initial weight after drying** (mg)	Redry 1 Constant Weight in g (a)	Redry ?	Redry 2 Constant Weight in g (a)	Redry ?	Redry 3 Constant Weight in g (a)	Constant Weight	
z1	42.00000	**0.0978**	**0.0978**	NO		*FALSE*		0.0978	X
z2	42.00000	**0.0978**	**0.0978**	NO		*FALSE*		0.0978	
z3	42.00000	**0.0978**	**0.0978**	NO		*FALSE*		0.0978	
z4	42.00000	**0.0976**	**0.0976**	NO		*FALSE*		0.0976	
z5	42.00000	**0.0980**	**0.0980**	NO		*FALSE*		0.0980	
z6	42.00000	**0.0976**	**0.0977**	NO		*FALSE*		0.0977	
z7	42.00000	**0.0973**	**0.0973**	NO		*FALSE*		0.0973	
z8	42.00000	**0.0974**	**0.0975**	NO		*FALSE*		0.0975	
z9	42.00000	**0.0971**	**0.0971**	NO		*FALSE*		0.0971	
z10	42.00000	**0.0977**	**0.0978**	NO		*FALSE*		0.0978	
z11	42.00000	**0.0970**	**0.0969**	NO		*FALSE*		0.0969	
z12	42.00000	**0.0970**	**0.0970**	NO		*FALSE*		0.0970	
z13	42.00000	**0.0978**	**0.0978**	NO		*FALSE*		0.0978	
z14	42.00000	**0.0978**	**0.0978**	NO		*FALSE*		0.0978	
z15	42.00000	**0.0980**	**0.0980**	NO		*FALSE*		0.0980	
z16	42.00000	**0.0975**	**0.0975**	NO		*FALSE*		0.0975	
z17	42.00000	**0.0970**	**0.0970**	NO		*FALSE*		0.0970	
				FALSE		FALSE			
				FALSE		FALSE			
				FALSE		FALSE			
				FALSE		FALSE			
				FALSE		FALSE			
				FALSE		FALSE			
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				FALSE		FALSE			
				FALSE		FALSE			
				FALSE		FALSE			
				FALSE		FALSE			

JJY

SGS

GN94861
TSS SAMPLE DESCRIPTION SHEET

	SGS Sample ID		Filter size used	Non-standard volumes. Comment with reason as shown below.	Limited Volume	
3	JC87394-4	Clear	42	550	L	QCD1
2	JC87292-1	Clear		500	L	QCD2
2	JC87391-4	Clear		1000		
6	JC87403-2	Hazy		960	L	
1	JC87404-1	foamy & cloudy pale		1000		
1	JC87406-1	Slight cloudy pale		960	L	
7	JC87366-3	Clear		1000		
5	JC87363-2	Cloudy		980	L	
6	JC87363-1	Cloudy pale & Particles		1000		
7	JC87366-4	Cloudy		50 a		
2	JC87270-6	Slight thick cloudy grey		5ml a		
2	JC87270-5	↓		10ml a		
2	JC87270-2	foamy, ↓		15ml a		
2	JC87270-1	↓ ↓	↓	15ml a		

Reason (a). Sample contains heavy particulates and it can be assessed by appearance that it will clog the filter at higher volumes.
Reason (b). Initial analysis of the sample at a higher volume produced clogging. Rerunning at reduced volume.

Form: GN215-02
Rev. Date: 3/2/18

SGS

Test: Chemical Oxygen Demand (Low Level)
Product: COD AQ Methods: SM5220 C-11/ Hach 8000
Method: See above for AQ ◉ Units: mg/l
Hach 8000 /SM5220M ○ mg/kg

Analyst: EB
GN Batch ID: GN95153
GP Batch ID: GP21111
Date: 5/9/2019

Ave ml of FAS for Blank (A) = 3.70 Molarity of FAS: 0.0135

COD = { (A-B) x M x 8000 } / (sample amount in ml or g)

QC Summary:

Method Blank ID:	GP21111-MB1	Date:	5/9/2019	Result:	0.0	DL:	20	<DL	Y
Spike Blank ID (± 10%):	BSLCONF	Date:	5/9/2019	Result:	18.9	Spike:	20	% Rec:	94.6
Standard Check Low (±30%):		Date:	5/9/2019	Result:	51.3	Spike:	50	% Rec:	102.7
Standard Check Mid (±10%):		Date:	5/9/2019	Result:		Spike:		% Rec:	
Duplicate ID:	JC87409-2	Samp Result:	29.72	Dup Result:	29.7	% RPD:			
MS ID:	JC87409-2	Samp Result:	29.72	MS Result:	75.7	Spike:	50	% Rec:	92.0
External:		Result:		Known:		% Rec:			

Bottle #	Sample ID	Sample Volume (ml)	Dilution	Initial ml of FAS (C)	Final ml of FAS (D)	Total Vol FAS used in ml (D - C) = B	Blank FAS - Total FAS (A - B)	Calculated Result	Final Result	Detection Limit
MB1	GP21111-MB1	2.0000	1	0.00	3.70	3.70	0.00	0.0	0.00	20
MB2	GP21111-MB2	2.0000	1	0.00	3.70	3.70	0.00	0.0	0.00	20
BSP	GP21111-B1	2.0000	1	0.00	3.35	3.35	0.35	18.9	18.91	20
BSP	GP21111-B2	2.0000	1	0.00	2.75	2.75	0.95	51.3	51.34	20
	GP21111-S1	2.0000	1	0.00	2.30	2.30	1.40	75.7	75.66	20
	GP21111-D1	2.0000	1	0.00	3.15	3.15	0.55	29.7	29.72	20
4	JC87409-1	2.0000	1	0.00	1.50	1.50	2.20	118.9	118.89	20
4	JC87409-2	2.0000	1	0.00	3.15	3.15	0.55	29.7	29.72	20
4	JC87409-3	2.0000	1	0.00	3.15	3.15	0.55	29.7	29.72	20
2	JC86985-1	2.0000	5	0.00	2.30	2.30	1.40	378.3	378.28	100
4	JC86991-1	2.0000	1	0.00	3.20	3.20	0.50	27.0	27.02	20
4	JC86991-2	2.0000	1	0.00	2.90	2.90	0.80	43.2	43.23	20
4	JC86991-3	2.0000	1	0.00	2.95	2.95	0.75	40.5	40.53	20
4	JC87363-1	2.0000	1	0.00	3.55	3.55	0.15	8.1	8.11	20
4	JC87363-2	2.0000	1	0.00	3.55	3.55	0.15	8.1	8.11	20
2	JC87403-2	2.0000	1	0.00	3.60	3.60	0.10	5.4	5.40	20

Comments:

5/12/19

Validated By: Nancy Cole Validated Date: 4/14/2017
Analyst: Date: QC Reviewer: Date:
Document Control #: AGN-COD-20RL-03

SGS

Test: Chemical Oxygen Demand Digestion Log
Method: SM5220 C-11, Hach 8000
SM5220 C-11 Mod, Hach 8000 Mod

Balance ID: NA

Product: COD GPBatch ID: GP21111
Analyst: MRP Date: 5/8/2019
Hach Low Level (20 to 150 mg/l) Lot no #190202A XP02/23
Hach High Level (50 to 1500 mg/l) LOT NO
Pipet ID: #46

Standardization of FAS with Potassium Dichromate
Potassium Dichromate reagent number: see attached

Potassium Dichromate normality (N): 0.025N

mL of FAS for Standardization Blank 1: 3.70

ml of FAS for Standardization Blank 2: 3.70

Molarity of FAS = (N x vol. of dichromate digestion solution)/(ml of FAS for Standardization Blank)
Average molarity (Blank 1 and Blank 2) = 0.0135

Digestion START Time: 19:00 Digestion Temperature (deg. C): 150 C
Digestion ENDTime: 21:00 Digestion Block ID: COD-3

Sample ID	Digestion Tube #	Initial Wt. (g) or Vol. (ml)	Final Vol. (ml)	Comments	BO NO
GP21111-MB1	MB1	2 ML	2 ML		
GP21111-MB2	MB2	2 ML	2 ML		
GP21111-B1	1	2 ML	2 ML	2ML OF20 PPM	
GP21111-B2	2	2 ML	2 ML	2ML OF 50 PPM	
GP21111-S1	3	2 ML	2 ML	1ML OF 100PPM	
GP21111-D1	4	2 ML	2 ML		
JC87409-1	5	2 ML	2 ML		4
JC87409-2	6	2 ML	2 ML	Q.C	4
JC87409-3	7	2 ML	2 ML		4
JC86985-1	8	2 ML	2 ML	TG	2
JC86991-1	9	2 ML	2 ML		4
JC86991-2	10	2 ML	2 ML		4
JC86991-3	11	2 ML	2 ML		4
JC87363-1	12	2 ML	2 ML		4
JC87363-2	13	2 ML	2 ML		4
JC87403-2	14	2 ML	2 ML		2
JC86985-1	15	2 ML	2 ML	1 ML SAMPLE + 1 ML DI	TG
JC86985-1	16	2 ML	2 ML	1 ML SAMPLE + 4 ML DI	

Form: GN018-04
Revised: 06/15/17

GN95153

Reagent Information Log - COD LOW (20 ppm)

Reagent	Reagent # or Manufacturer/Lot
Digestion Solution Tubes Low	GREEN WOOD #190202A XP02/2023
Ferroin Indicator Solution Low	GNE12-56780-COD XP5/15/19
Potassium Hydrogen Phthalate (KHP) Source	GNE3-57680-COD XP6/30/19
Standard Ferrous Ammonium Sulfate (FAS) Titrant 0.0124N/0.125N	GNE4--57809-COD XP10/19/19
H_2SO_4, Conc.	FISHER# 178261 XP:07/20/2023
Standard Potassium Dichromate Solution 0.025N	GNE12-56779-CODXP6/24/19
Potassium Hydrogen Phthalate ext source	GNE3-57681-COD XP6/30/19

Form: GN087-COD-01 Low 20 ppm
Rev Date:3/28/17

GENERAL CHEMISTRY STANDARD PREPARATION LOG FOR FE2

Product: COD

GN or GP Number: GN95153

Description	standard	concentration	Stock vol used	Autopipet ID	al	Diluent	Volume	of	(a)	Analyst	Date
1000 ppm(STD)	GNE3-57680-COD	10,000 MG/L	10ML	A		DI water	100 ml	1000.00	6/30/2019	mrp	5/8/2019
1000PPM[EXT}	GNE3-57681-COD	10,000MG/L	10ML	A		DI water	100ml	1000	6/30/2019	mrp	5/8/2019
100ppm9STD)	GNE4-57865-COD	1000mg/l	10ML	A		DI water	100ML	100	5/29/2019	mrp	5/8/2019
100PPM[EXT}	GNE4-57866-COD	1000mg/l	10ML	A		DI water	100ml	100	5/29/2019	mrp	5/8/2019
Standard Description	used to prepare	Stock	Stock volume	Autopipet ID	al	Diluent	Volume	of Standard	(a)		
20	100PPM	20.00	10.00	A		DI water	50 ml	20.00	5/14/2019	mrp	5/8/2019
50	100PPM	100.00	10.00	A		DI water	100ML	100.00	5/14/2019	mrp	5/8/2019
150	1000PPM	150.00	7.5 ml	A		DI water	50 ml	150.00	5/14/2019	mrp	5/8/2019
500	1000PPM	500.00	25 ml	A		DI water	50 ml	500.00	6/30/2019	mrp	5/8/2019
10	100PPM	10.00	1.00	A		DI water	10 ml	10.00		mrp	5/8/2019
[EXT]50	100PPM	50.00	25.00	A		DI water	50 ml	50.00	5/14/2019	mrp	5/8/2019
[EXT]750	1000PPM	750.00	37.50	A		DI water	50 ml	750.00	5/14/2019	mrp	5/8/2019

Form GN121-02 FE2
Rev Date 11/14/11

SGS

TEST: HEM Oil and Grease		OG1664		GN Group:	GN95199
Method: EPA 1664A		Reporting Date:	5/10/2019	GP Group:	GP21140
Date Extracted:	5/10/2019	Final Date Weighed:	5/10/2019	Analyst:	TM
Balance # Used:	B16	(Refer to balance log for balance calibration)		Units:	mg/L

QC Summary		Units:	mg/l						
Dup Sample ID:	JC87412-3	Samp Res:	<5	Dup Result:	<5	% RPD:	0%		
MS Sample ID:	JC87412-3	Samp Res:	<5	Spike:	40.78	MS Res:	34.1	% Rec.	83.62
Method Blank Date:	5/10/2019	Result:	<5	RL:	5			<RL:	yes
Blank Spike Date:	5/10/2019	Result:	33.9	Spk Amt.	40.78			% Rec.	83.13
External:	NA	Control Limit:	NA	Result:	NA			% Rec.	NA

Speed Vap Temperature During Evaporation: 40 deg. C

Speed: Vap III
Vap ID:

(c) refer to Determination of Constant weights page for balance check weight results.

Flask #	Sample ID	Sample pH	Sample Volume (ml)	Total Weight (g)	Tare Weight (g)	Sample Weight (g)	Calc Result	Final Result	RL	Analysis Time
	0.002 g check (c)	na	na	0.0020	0.0020	na	na	na	na	9:00
	1.000 g check (c)	na	na	1.0000	1.0000	na	na	na	na	
	5.000 g check (c)	na	na	5.0003	5.0002	na	na	na	na	
	100 g check (c)	na	na	100.0019	100.0023	na	na	na	na	
MB	GP21140-MB1	<2	1000	2.5148	2.5145	0.0003	0.300	<5	5.00	9:00
BSP	GP21140-B1	<2	1000	2.5665	2.5326	0.0339	33.900	33.900	5.00	
MS	GP21140-S1	<2	1000	2.5646	2.5305	0.0341	34.100	34.100	5.00	
DUP	GP21140-D1	<2	1000	2.5034	2.5033	0.0001	0.100	<5	5.00	
1	JC86978-1	<2	1000	2.4997	2.4942	0.0055	5.500	5.500	5.00	
2	JC87363-1	<2	1000	2.4954	2.4831	0.0123	12.300	12.300	5.00	
3	JC87363-2	<2	1000	2.4484	2.4470	0.0014	1.400	<5	5.00	
4	JC87412-3	<2	1000	2.4912	2.4910	0.0002	0.200	<5	5.00	
5	JC87025-1	<2	1000	2.7437	2.5115	0.2322	232.200	232.200	5.00	
6	JC87081-1	<2	1000	2.5170	2.4851	0.0319	31.900	31.900	5.00	
7	JC87081-2	<2	1000	2.4693	2.4618	0.0075	7.500	7.500	5.00	
8	JC87855-1	<2	1000	2.4894	2.4892	0.0002	0.200	<5	5.00	16:00
	0.002 g check (c)	na	na	0.0020	0.0020	na	na	na	na	
	1.000g check(b)	na	na	1.0000	1.0000	na	na	na	na	

5/10/19

SGS

DETERMINATION OF CONSTANT WEIGHT

Test: HEM Oil and Grease
Method: EPA 1664A
Test Code: OG1664 10A

GN Group: GN95199
GP Group: GP21140
Analyst: TM
Units: mg/l

Balance ID#: B-16
Thermometer ID#: 73133
Thermometer correction factc 0

Definition of Constant Weight: Weight loss is less than 0.5 mg (0.0005 g).

Date:		5/10/2019	5/10/2019					
Start Time, End Time, Temp (Corrected, Uncorrected)	NA	11:00-11:30	12:05-12:35					Note: Samples must be dried at 70 +/- 2 deg. For a minimum of 30 minutes for each drying cycle.
Sample ID	Flask #	Initial Weight (g)	Second Weight (g)	Re-Weigh ?	Third Weight (g)	Re-Weigh ?	Fourth Weight (g)	Description
0.002 g check (c)		0.0020	0.0020	N				
1.000 g check (c)		1.0000	1.0000	N				
5.000 g check (c)		5.0005	5.0002					
100 g check (c)		100.0020	100.0019	N				
GP21140-MB1	MB	2.5148	2.5148	N				
GP21140-B1	BSP	2.5665	2.5665	N				
GP21140-S1	MS	2.5646	2.5646	N				
GP21140-D1	DUP	2.5034	2.5034	N				
JC86978-1	1	2.4997	2.4997	N				
JC87363-1	2	2.4954	2.4954	N				
JC87363-2	3	2.4484	2.4484	N				
JC87412-3	4	2.4912	2.4912	N				
JC87025-1	5	2.7437	2.7437	N				FLOATING OIL
JC87081-1	6	2.5170	2.5170	N				
JC87081-2	7	2.4693	2.4693	N				
JC87855-1	8	2.4894	2.4894	N				
1.000g check(b)		1.0000	1.0000	N				
5.000 g check (c)		5.0003	5.0002	N				

SGS

GP21140- OG1664

	Accutest Sample ID	Bottle #	Volume (mL)	Appearance (clarity, color, etc.)	Odor
MB	GP21140-MB1	NA	1000	CLEAR	NONE
BSP	GP21140-B1	NA	1000	CLEAR	NONE
MS	GP21140-S1	3	1000	CLEAR	NONE
DUP	GP21140-D1	4	1000	CLEAR	NONE
1	JC86978-1	3	1000	CLEAR	NONE
2	JC87363-1	1	1000	CLEAR	NONE
3	JC87363-2	1	1000	CLEAR	NONE
4	JC87412-3	2	1000	CLEAR	NONE
5	JC87025-1	1	1000	CLOUDY	NONE
6	JC87081-1	2	1000	SLIGHTLY CLOUDY	NONE
7	JC87081-2	2	1000	SLIGHTLY CLOUDY	NONE
8	JC87855-1	2	1000	CLEAR	NONE
				HEM SPIKE	
				GNE4-57777-OG1664	
				5/16/2019	
				HEM: 8.155 mg/L HEX: 4.08 mg/L	

Form: GN-110
Rev. Date:5/10/2019

SGS

Reagent Information Log - OG1664 Water by EPA 1664A

Reagent	Expiration Date	Reagent # or Manufacturer/Lot
Hexane	12/12/2022	FISHER Lot #173528
HEM Spike	5/16/2019	GNE4-57777-OG1664
Methanol	4/4/2021	FISHER LOT #180813
Disk Filter	NA	LABORATORYSALES&SER.#103522
1:1 HCL	7/25/2019	GNE1-57044-PHC/OG1664
Sodium Sulfate	5/16/2019	GNE4-57781-PHC/OG1664
Filter 47mm	NA	LABORATORYSALES&SER.#150125
Pre-Filter 47mm	NA	LABORATORYSALES&SER.#141347
Filter 90/100mm	NA	LABORATORYSALES&SER.#140294
Pre-Filter 90/100mm	NA	LABORATORYSALES&SER.#141272
pH paper	6/1/2019	HYDRON LOT#215316
HEM Spike (ICV)	NA	NA

B1/S1= 5.0ml of 8.155 mg/L HEM SPIKE
HEX= 4.080 mg/L

Form: GN-087 1-44
Rev. Date: 11/4/08

Misc. Raw Data

Raw Data

Methanol Prep Log

Vial Track #:	Lims ID:	Initial Tare Wt (g)	Total Wt (g)	Weight of Sample (g)	Date Prepared	Lot #:	Prep By	Vial Desc:	Comments
4/27/2019-2964	JC87363-3.4	32.3900	37.6300	5.2400	5/2/2019 10:48:13 PM	187026	ht	5ml MeOH	
040819-3:11883	JC87363-3.5	35.5900	41.3600	5.7700	5/2/2019 10:50:42 PM	040819-3		5ml.DI/StrB-1	
040819-3:11882	JC87363-3.6	35.6100	40.8900	5.2800	5/2/2019 10:52:08 PM	040819-3		5ml.DI/StrB-1	

The results set forth herein are provided by SGS North America Inc.

e-Hardcopy 2.0
Automated Report

Technical Report for

Tantara Corporation

USACE Buffalo Nike Missle UST, East Aurora, NY

19-382

SGS Job Number: JC87686

Sampling Date: 05/06/19

Report to:

Tantara Corporation
54 Mason Street
Worcester, MA 01610
MLovejoy@TantaraCorp.com

ATTN: Mark Lovejoy

Total number of pages in report: 340

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Brian McGuire
General Manager

Client Service contact: Tammy McCloskey 732-329-0200

Certifications: NJ(12129), NY(10983), CA, CT, FL, IL, IN, KS, KY, LA, MA, MD, ME, MN, NC, OH VAP (CL0056), AK (UST-103), AZ (AZ0786), PA, RI, SC, TX, UT, VA, WV, DoD ELAP (ANAB L2248)

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how we can serve you better at:
EHS.US.CustomerCare@sgs.com

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SGS North America Inc.

Sample Summary

Tantara Corporation

Job No: JC87686

USACE Buffalo Nike Missle UST, East Aurora, NY
Project No: 19-382

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
JC87686-1	05/06/19	09:45	ML	05/07/19	AQ	Water	SILO2-1
JC87686-2	05/06/19	15:30	ML	05/07/19	AQ	Water	SILO2-2

CASE NARRATIVE / CONFORMANCE SUMMARY

Client:	Tantara Corporation	**Job No**	JC87686
Site:	USACE Buffalo Nike Missle UST, East Aurora, NY	**Report Date**	5/21/2019 11:17:30 A

On 05/07/2019, 2 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were received at SGS North America Inc. at a maximum corrected temperature of 2.4 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. Job Number of JC87686 was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Compounds qualified as out of range in the continuing calibration summary report are acceptable as per method requirements when there is a high bias but the sample result is non-detect.

MS Volatiles By Method SW846 8260C

Matrix: AQ **Batch ID:** V4D4141

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC87680-2MS, JC87680-2MSD were used as the QC samples indicated.
- Matrix Spike/Matrix Spike Duplicate Recovery(s) for Ethylbenzene, Toluene, Xylene (total) are outside control limits. Outside control limits due to high level in sample relative to spike amount.

Metals Analysis By Method SW846 6020B

Matrix: AQ **Batch ID:** MP14909

- All samples were digested within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC87783-12MS, JC87783-12MSD, JC87783-12SDL were used as the QC samples for metals.
- RPD(s) for Serial Dilution for Aluminum, Lead, Arsenic are outside control limits. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).
- MP14909-MB2 for Aluminum: Lab filtered.
- MP14909-MB2 for Barium: Lab filtered.
- MP14909-SD1 for Arsenic: Serial dilution indicates possible matrix interference.
- MP14909-MB2 for Cadmium: Lab filtered.
- MP14909-MB2 for Iron: Lab filtered.
- MP14909-MB2 for Arsenic: Lab filtered.
- MP14909-MB2 for Lead: Lab filtered.

General Chemistry By Method EPA 1664A

Matrix: AQ **Batch ID:** GP21340

- All samples were prepared within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC88025-1MS, JC87755-1DUP were used as the QC samples for HEM Oil and Grease.
- RPD(s) for Duplicate for HEM Oil and Grease are outside control limits. RPD acceptable due to low duplicate and sample concentrations.

General Chemistry By Method SM2540 D-11

Matrix:	AQ	Batch ID:	GN95193

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC87676-1DUP were used as the QC samples for Solids, Total Suspended.

General Chemistry By Method SM5220 C-11,HACH8000

Matrix:	AQ	Batch ID:	GP21342

- All samples were prepared within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC87579-7DUP, JC87579-7MS were used as the QC samples for Chemical Oxygen Demand.

SGS North America Inc. certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting the Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

SGS North America Inc. is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. Data release is authorized by SGS North America Inc indicated via signature on the report cover

Summary of Hits

Job Number: JC87686
Account: Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY
Collected: 05/06/19

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
JC87686-1	**SILO2-1**					
Aluminum		687	50	32	ug/l	SW846 6020B
Arsenic		2.6	1.0	0.94	ug/l	SW846 6020B
Barium		38.3	2.0	0.73	ug/l	SW846 6020B
Iron		613	50	19	ug/l	SW846 6020B
Lead		8.5	1.0	0.52	ug/l	SW846 6020B
Chemical Oxygen Demand		98.6	20	11	mg/l	SM5220 C-11,HACH8000
Solids, Total Suspended		21.6	4.0	1.5	mg/l	SM2540 D-11
JC87686-2	**SILO2-2**					
Aluminum		835	50	32	ug/l	SW846 6020B
Arsenic		1.0	1.0	0.94	ug/l	SW846 6020B
Barium		44.5	2.0	0.73	ug/l	SW846 6020B
Iron		704	50	19	ug/l	SW846 6020B
Lead		3.4	1.0	0.52	ug/l	SW846 6020B
Chemical Oxygen Demand		120	20	11	mg/l	SM5220 C-11,HACH8000
HEM Oil and Grease		1.6 B	5.0	1.2	mg/l	EPA 1664A
Solids, Total Suspended		13.4	4.0	1.5	mg/l	SM2540 D-11

Sample Results

Report of Analysis

SGS North America Inc.

Report of Analysis

Client Sample ID:	SILO2-1		
Lab Sample ID:	JC87686-1	**Date Sampled:**	05/06/19
Matrix:	AQ - Water	**Date Received:**	05/07/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	USACE Buffalo Nike Missle UST, East Aurora, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4D93933.D	1	05/09/19 02:47	DG	n/a	n/a	V4D4141
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.50	0.43	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	89%		80-120%
17060-07-0	1,2-Dichloroethane-D4	101%		81-124%
2037-26-5	Toluene-D8	107%		80-120%
460-00-4	4-Bromofluorobenzene	102%		80-120%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SILO2-1
Lab Sample ID: JC87686-1
Matrix: AQ - Water
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Date Sampled: 05/06/19
Date Received: 05/07/19
Percent Solids: n/a

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Aluminum	687	50	32	ug/l	2	05/09/19	05/10/19	SN	SW846 6020B [1]	SW846 3010A [2]
Arsenic	2.6	1.0	0.94	ug/l	2	05/09/19	05/10/19	SN	SW846 6020B [1]	SW846 3010A [2]
Barium	38.3	2.0	0.73	ug/l	2	05/09/19	05/10/19	SN	SW846 6020B [1]	SW846 3010A [2]
Cadmium	0.17 U	1.0	0.17	ug/l	2	05/09/19	05/10/19	SN	SW846 6020B [1]	SW846 3010A [2]
Iron	613	50	19	ug/l	2	05/09/19	05/10/19	SN	SW846 6020B [1]	SW846 3010A [2]
Lead	8.5	1.0	0.52	ug/l	2	05/09/19	05/10/19	SN	SW846 6020B [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA46696
(2) Prep QC Batch: MP14909

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	SILO2-1		
Lab Sample ID:	JC87686-1	**Date Sampled:**	05/06/19
Matrix:	AQ - Water	**Date Received:**	05/07/19
		Percent Solids:	n/a
Project:	USACE Buffalo Nike Missle UST, East Aurora, NY		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Chemical Oxygen Demand	98.6	20	11	mg/l	1	05/20/19 15:55	MP	SM5220 C-11,HACH8000
HEM Oil and Grease	1.2 U	5.0	1.2	mg/l	1	05/19/19 18:30	TM	EPA 1664A
Solids, Total Suspended	21.6	4.0	1.5	mg/l	1	05/10/19 17:40	RC	SM2540 D-11

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

SGS North America Inc.

Report of Analysis

Client Sample ID:	SILO2-2		
Lab Sample ID:	JC87686-2	**Date Sampled:**	05/06/19
Matrix:	AQ - Water	**Date Received:**	05/07/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	USACE Buffalo Nike Missle UST, East Aurora, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4D93934.D	1	05/09/19 03:16	DG	n/a	n/a	V4D4141
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.50	0.43	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	89%		80-120%
17060-07-0	1,2-Dichloroethane-D4	102%		81-124%
2037-26-5	Toluene-D8	107%		80-120%
460-00-4	4-Bromofluorobenzene	102%		80-120%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SILO2-2
Lab Sample ID: JC87686-2
Matrix: AQ - Water
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Date Sampled: 05/06/19
Date Received: 05/07/19
Percent Solids: n/a

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Aluminum	835	50	32	ug/l	2	05/09/19	05/10/19	SN	SW846 6020B [1]	SW846 3010A [2]
Arsenic	1.0	1.0	0.94	ug/l	2	05/09/19	05/10/19	SN	SW846 6020B [1]	SW846 3010A [2]
Barium	44.5	2.0	0.73	ug/l	2	05/09/19	05/10/19	SN	SW846 6020B [1]	SW846 3010A [2]
Cadmium	0.17 U	1.0	0.17	ug/l	2	05/09/19	05/10/19	SN	SW846 6020B [1]	SW846 3010A [2]
Iron	704	50	19	ug/l	2	05/09/19	05/10/19	SN	SW846 6020B [1]	SW846 3010A [2]
Lead	3.4	1.0	0.52	ug/l	2	05/09/19	05/10/19	SN	SW846 6020B [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA46696
(2) Prep QC Batch: MP14909

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	SILO2-2		
Lab Sample ID:	JC87686-2	**Date Sampled:**	05/06/19
Matrix:	AQ - Water	**Date Received:**	05/07/19
		Percent Solids:	n/a
Project:	USACE Buffalo Nike Missle UST, East Aurora, NY		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Chemical Oxygen Demand	120	20	11	mg/l	1	05/20/19 15:55	MP	SM5220 C-11,HACH8000
HEM Oil and Grease	1.6 B	5.0	1.2	mg/l	1	05/19/19 18:30	TM	EPA 1664A
Solids, Total Suspended	13.4	4.0	1.5	mg/l	1	05/10/19 17:40	RC	SM2540 D-11

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- Sample Tracking Chronicle
- Internal Chain of Custody

JC 87686
Page __ of __

SGS CHAIN OF CUSTODY

SGS North America Inc. - Dayton
2235 Route 130, Dayton, NJ 08810
TEL. 732-329-0200 FAX: 732-329-3499/3480
www.sgs.com/ehsusa

FED-EX Tracking #: | Bottle Order Control #:
SGS Quote #: | SGS Job #: BW-041019-193

Client / Reporting Information

Company Name: Tantava Corp
Street Address: 54 Mason St
City: Worcester State: Ma Zip: 01609
Project Contact: M Lowdy E-mail: M_lowdy@Tantava Corp.com
Phone #: 508-754-5499 Client Purchase Order #: 19-382
Sampler(s) Name(s): M. Lowdy Phone #:

Project Information

Project Name: Buffalo Wire
Street:
City: E Amherst State: NY
Project #:
Project Manager: M. Lowdy
Attention:

Billing Information (if different from Report to)

Company Name: Same
Street Address:
City: State: Zip:

Requested Analysis

SGS Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Grab (G) Comp (C)	Matrix	# of bottles	Number of preserved Bottles: HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE	D-TV & 8260	As Fe Al B Cu Pb	Oil and Grease	COD	TSS	LAB USE ONLY
1	Silo 2-1		5/6/19	0945	MWL	G	W	4	✓			✓					U	U	U	U	J	
2	Silo 2-2		5/6/19	1530	MWL	G	W	4	✓			✓					J	J	U	U	J	

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL - Sludge
SED-Sediment
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid
WP - Wipe
FB - Field Blank
EB-Equipment Blank
RB - Rinse Blank
TB - Trip Blank

L37
G18
A7
1090

Turn Around Time (Business Days)

Approved By (SGS PM): / Date:

- ☐ 10 Business Days
- ☐ 5 Business Days
- ☐ 3 Business Days*
- ☐ 2 Business Days*
- ☐ 1 Business Day*
- ☐ Other

All data available via Lablink

* Approval needed for 1-3 Business Day TAT

Deliverable

- ☐ Commercial "A" (Level 1)
- ☐ Commercial "B" (Level 2)
- ☐ NJ Reduced (Level 3)
- ☐ Full Tier I (Level 4)
- ☐ Commercial "C"
- ☐ NJ DKQP
- ☐ NYASP Category A
- ☐ NYASP Category B
- ☐ MA MCP Criteria_____
- ☐ CT RCP Criteria_____
- ☐ State Forms
- ☐ EDD Format _____
- ☐ DOD-QSM5

Commercial "A" = Results only; Commercial "B" = Results + QC Summary
Commercial "C" = Results + QC Summary + Partial Raw data

Comments / Special instructions

http://www.sgs.com/en/terms-and-conditions

Sample Custody must be documented below each time samples change possession, including courier delivery.

	Relinquished by:	Date / Time:	Received By:
1		5/6/19 1530	PX
2	PX	5/7/19 9:40	
3			
4			
5			

Custody Seal # ☐ Intact ☐ Not Intact | Preserved where applicable ☐ Absent | On Ice ☑ | Cooler Temp. °C 3.4°C-4

Initial Assessment: KG 2A
Label Verification_____

EHSA-QAC-0023-02-FORM-Dayton - Standard COC.xlsx

JC87686: Chain of Custody
Page 1 of 2

SGS Sample Receipt Summary

Job Number: JC87686 **Client:** TANTARA CORPORATION **Project:** USACE BUFFALO NIKE MISSLE UST, EAST AU

Date / Time Received: 5/7/2019 9:40:00 AM **Delivery Method:** **Airbill #'s:**

Cooler Temps (Raw Measured) °C: Cooler 1: (3.4);

Cooler Temps (Corrected) °C: Cooler 1: (2.4);

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	☑		☐	3. COC Present:	☑		☐
2. Custody Seals Intact:	☑		☐	4. Smpl Dates/Time OK	☑		☐

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Cooler temp verification:	IR Gun		
3. Cooler media:	Ice (Bag)		
4. No. Coolers:	1		

Quality Control Preservation	Y	or	N	N/A
1. Trip Blank present / cooler:	☐		☑	☐
2. Trip Blank listed on COC:	☐		☑	☐
3. Samples preserved properly:	☑		☐	
4. VOCs headspace free:	☑		☐	☐

Sample Integrity - Documentation	Y	or	N
1. Sample labels present on bottles:	☑		☐
2. Container labeling complete:	☑		☐
3. Sample container label / COC agree:	☑		☐

Sample Integrity - Condition	Y	or	N
1. Sample recvd within HT:	☑		☐
2. All containers accounted for:	☑		☐
3. Condition of sample:	Intact		

Sample Integrity - Instructions	Y	or	N	N/A
1. Analysis requested is clear:	☑		☐	
2. Bottles received for unspecified tests	☐		☑	
3. Sufficient volume recvd for analysis:	☑		☐	
4. Compositing instructions clear:	☐		☐	☑
5. Filtering instructions clear:	☐		☐	☑

Test Strip Lot #s: pH 1-12: 206717 pH 12+: 208717 Other: (Specify)

Comments

SM089-03
Rev. Date 12/7/17

Internal Sample Tracking Chronicle

Tantara Corporation

Job No: JC87686

USACE Buffalo Nike Missle UST, East Aurora, NY
Project No: 19-382

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JC87686-1 SILO2-1	Collected: 06-MAY-19 09:45 By: ML		Received: 07-MAY-19 By: DG			
JC87686-1	SW846 8260C	09-MAY-19 02:47	DG			V8260BTX
JC87686-1	SM2540 D-11	10-MAY-19 17:40	RC			TSS
JC87686-1	SW846 6020B	10-MAY-19 18:20	SN	09-MAY-19	MR	ALMS,ASMS,BAMS,CDMS,FEMS,PBMS
JC87686-1	EPA 1664A	19-MAY-19 18:30	TM	19-MAY-19	TM	OG1664
JC87686-1	SM5220 C-11,HACH8000	20-MAY-19 15:55	MP	19-MAY-19	MP	COD
JC87686-2 SILO2-2	Collected: 06-MAY-19 15:30 By: ML		Received: 07-MAY-19 By: DG			
JC87686-2	SW846 8260C	09-MAY-19 03:16	DG			V8260BTX
JC87686-2	SM2540 D-11	10-MAY-19 17:40	RC			TSS
JC87686-2	SW846 6020B	10-MAY-19 18:29	SN	09-MAY-19	MR	ALMS,ASMS,BAMS,CDMS,FEMS,PBMS
JC87686-2	EPA 1664A	19-MAY-19 18:30	TM	19-MAY-19	TM	OG1664
JC87686-2	SM5220 C-11,HACH8000	20-MAY-19 15:55	MP	19-MAY-19	MP	COD

SGS Internal Chain of Custody

Job Number: JC87686
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY
Received: 05/07/19

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC87686-1.1	Secured Storage	Sahara Feliciano	05/18/19 11:58	Retrieve from Storage
JC87686-1.1	Sahara Feliciano	Secured Staging Area	05/18/19 11:58	Return to Storage
JC87686-1.1	Secured Staging Area	Tharun Murali	05/19/19 08:46	Retrieve from Storage
JC87686-1.1	Tharun Murali		05/19/19 18:09	Depleted
JC87686-1.4	Secured Storage	Todd Shoemaker	05/10/19 09:01	Retrieve from Storage
JC87686-1.4	Todd Shoemaker	Secured Staging Area	05/10/19 09:01	Return to Storage
JC87686-1.4	Secured Staging Area	Ruchitaben Chauhan	05/10/19 18:51	Retrieve from Storage
JC87686-1.4	Ruchitaben Chauhan	Secured Storage	05/10/19 19:03	Return to Storage
JC87686-1.5	Secured Storage	Dwayne Johnson	05/09/19 14:03	Retrieve from Storage
JC87686-1.5	Dwayne Johnson	Secured Staging Area	05/09/19 14:03	Return to Storage
JC87686-1.5	Secured Staging Area	Moustafa Ramadan	05/09/19 17:24	Retrieve from Storage
JC87686-1.5	Moustafa Ramadan	Secured Storage	05/09/19 19:08	Return to Storage
JC87686-1.5.1	Moustafa Ramadan	Metals Digestion	05/09/19 17:28	Digestate from JC87686-1.5
JC87686-1.5.1	Metals Digestion	Moustafa Ramadan	05/09/19 17:28	Digestate from JC87686-1.5
JC87686-1.5.1	Moustafa Ramadan	Metals Digestate Storage	05/09/19 17:28	Return to Storage
JC87686-1.6	Secured Storage	Matthew Robbins	05/17/19 15:32	Retrieve from Storage
JC87686-1.6	Matthew Robbins	Secured Staging Area	05/17/19 15:32	Return to Storage
JC87686-1.6	Secured Staging Area	Mahendra Patel	05/19/19 09:12	Retrieve from Storage
JC87686-1.6	Mahendra Patel	Secured Storage	05/19/19 15:33	Return to Storage
JC87686-1.7	Secured Storage	Devin Gomez	05/08/19 19:35	Retrieve from Storage
JC87686-1.7	Devin Gomez	GCMS4D	05/08/19 19:35	Load on Instrument
JC87686-1.7	GCMS4D	Edward Durner	05/09/19 06:41	Unload from Instrument
JC87686-1.7	Edward Durner	Secured Storage	05/09/19 06:41	Return to Storage
JC87686-2.1	Secured Storage	Sahara Feliciano	05/18/19 11:58	Retrieve from Storage
JC87686-2.1	Sahara Feliciano	Secured Staging Area	05/18/19 11:58	Return to Storage
JC87686-2.1	Secured Staging Area	Tharun Murali	05/19/19 08:46	Retrieve from Storage
JC87686-2.1	Tharun Murali		05/19/19 18:09	Depleted
JC87686-2.3	Secured Storage	Todd Shoemaker	05/10/19 09:01	Retrieve from Storage
JC87686-2.3	Todd Shoemaker	Secured Staging Area	05/10/19 09:01	Return to Storage
JC87686-2.3	Secured Staging Area	Ruchitaben Chauhan	05/10/19 18:51	Retrieve from Storage
JC87686-2.3	Ruchitaben Chauhan		05/10/19 18:52	Depleted
JC87686-2.5	Secured Storage	Dwayne Johnson	05/09/19 14:03	Retrieve from Storage
JC87686-2.5	Dwayne Johnson	Secured Staging Area	05/09/19 14:03	Return to Storage
JC87686-2.5	Secured Staging Area	Moustafa Ramadan	05/09/19 17:24	Retrieve from Storage
JC87686-2.5	Moustafa Ramadan	Secured Storage	05/09/19 19:08	Return to Storage

SGS Internal Chain of Custody

Job Number: JC87686
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY
Received: 05/07/19

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC87686-2.5.1	Moustafa Ramadan	Metals Digestion	05/09/19 17:28	Digestate from JC87686-2.5
JC87686-2.5.1	Metals Digestion	Moustafa Ramadan	05/09/19 17:28	Digestate from JC87686-2.5
JC87686-2.5.1	Moustafa Ramadan	Metals Digestate Storage	05/09/19 17:28	Return to Storage
JC87686-2.6	Secured Storage	Matthew Robbins	05/17/19 15:32	Retrieve from Storage
JC87686-2.6	Matthew Robbins	Secured Staging Area	05/17/19 15:32	Return to Storage
JC87686-2.6	Secured Staging Area	Mahendra Patel	05/19/19 09:12	Retrieve from Storage
JC87686-2.6	Mahendra Patel	Secured Storage	05/19/19 15:33	Return to Storage
JC87686-2.7	Secured Storage	Devin Gomez	05/08/19 19:35	Retrieve from Storage
JC87686-2.7	Devin Gomez	GCMS4D	05/08/19 19:35	Load on Instrument
JC87686-2.7	GCMS4D	Edward Durner	05/09/19 06:41	Unload from Instrument
JC87686-2.7	Edward Durner	Secured Storage	05/09/19 06:41	Return to Storage

MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Instrument Performance Checks (BFB)
- Internal Standard Area Summaries
- Surrogate Recovery Summaries
- Initial and Continuing Calibration Summaries

Method Blank Summary

Job Number: JC87686
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V4D4141-MB	4D93917.D	1	05/08/19	DG	n/a	n/a	V4D4141

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC87686-1, JC87686-2

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.50	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	86%	80-120%
17060-07-0	1,2-Dichloroethane-D4	98%	81-124%
2037-26-5	Toluene-D8	108%	80-120%
460-00-4	4-Bromofluorobenzene	101%	80-120%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	system artifact	4.14	8	ug/l	J
	Total TIC, Volatile		0	ug/l	

Method Blank Summary

Job Number: JC87686
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V4D4141-MB2	4D93970A.D	1	05/10/19	DG	n/a	n/a	V4D4141

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC87680-2MS, JC87680-2MSD

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.50	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	86%	80-120%
17060-07-0	1,2-Dichloroethane-D4	98%	81-124%
2037-26-5	Toluene-D8	107%	80-120%
460-00-4	4-Bromofluorobenzene	101%	80-120%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	system artifact	4.14	7.9	ug/l	J
	Total TIC, Volatile		0	ug/l	

Blank Spike Summary

Job Number: JC87686
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V4D4141-BS	4D93915.D	1	05/08/19	DG	n/a	n/a	V4D4141

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC87686-1, JC87686-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	50	49.8	100	80-120
100-41-4	Ethylbenzene	50	48.3	97	80-120
108-88-3	Toluene	50	49.4	99	80-120
1330-20-7	Xylene (total)	150	148	99	80-120

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	86%	80-120%
17060-07-0	1,2-Dichloroethane-D4	97%	81-124%
2037-26-5	Toluene-D8	107%	80-120%
460-00-4	4-Bromofluorobenzene	101%	80-120%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC87686
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC87680-2MS	4D93988.D	10	05/10/19	DG	n/a	n/a	V4D4141
JC87680-2MSD	4D93989.D	10	05/10/19	DG	n/a	n/a	V4D4141
JC87680-2 [a]	4D93918.D	10	05/08/19	DG	n/a	n/a	V4D4141

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC87686-1, JC87686-2

CAS No.	Compound	JC87680-2 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	96.3		500	574	96	500	567	94	1	54-136/10
100-41-4	Ethylbenzene	2700	E	500	2210	-98* [b]	500	2210	-98* [b]	0	51-140/20
108-88-3	Toluene	2300	E	500	1970	-66* [b]	500	1960	-68* [b]	1	60-135/10
1330-20-7	Xylene (total)	6610	E	1500	6040	-38* [b]	1500	5990	-41* [b]	1	56-139/20

CAS No.	Surrogate Recoveries	MS	MSD	JC87680-2	Limits
1868-53-7	Dibromofluoromethane	86%	87%	86%	80-120%
17060-07-0	1,2-Dichloroethane-D4	96%	97%	99%	81-124%
2037-26-5	Toluene-D8	106%	105%	109%	80-120%
460-00-4	4-Bromofluorobenzene	102%	100%	101%	80-120%

(a) Diluted due to high concentration of target and non-target compound.
(b) Outside control limits due to high level in sample relative to spike amount.

* = Outside of Control Limits.

Instrument Performance Check (BFB)

Job Number: JC87686
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample:	V4D4028-BFB	**Injection Date:**	01/29/19
Lab File ID:	4D92103.D	**Injection Time:**	14:06
Instrument ID:	GCMS4D		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	14.99 - 40.0% of mass 95	14107	16.7		Pass
75	30.0 - 60.0% of mass 95	37203	44.0		Pass
95	Base peak, 100% relative abundance	84643	100.0		Pass
96	5.0 - 9.0% of mass 95	5706	6.74		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 120.0% of mass 95	71216	84.1		Pass
175	5.0 - 9.0% of mass 174	5348	6.32	(7.51) [a]	Pass
176	95.0 - 101.0% of mass 174	69448	82.0	(97.5) [a]	Pass
177	5.0 - 9.0% of mass 176	4487	5.30	(6.46) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V4D4028-IC4028	4D92104.D	01/29/19	14:41	00:35	Initial cal 0.2
V4D4028-IC4028	4D92105.D	01/29/19	15:10	01:04	Initial cal 0.5
V4D4028-IC4028	4D92106.D	01/29/19	15:39	01:33	Initial cal 1
V4D4028-IC4028	4D92107.D	01/29/19	16:08	02:02	Initial cal 2
V4D4028-IC4028	4D92108.D	01/29/19	16:37	02:31	Initial cal 4
V4D4028-IC4028	4D92109.D	01/29/19	17:06	03:00	Initial cal 8
V4D4028-IC4028	4D92110.D	01/29/19	17:35	03:29	Initial cal 20
V4D4028-ICC4028	4D92111.D	01/29/19	18:04	03:58	Initial cal 50
V4D4028-IC4028	4D92112.D	01/29/19	18:33	04:27	Initial cal 100
V4D4028-IC4028	4D92113.D	01/29/19	19:02	04:56	Initial cal 200
V4D4028-ICV4028	4D92116.D	01/29/19	20:29	06:23	Initial cal verification 50
V4D4028-ICV4028	4D92117.D	01/29/19	20:58	06:52	Initial cal verification 50

Instrument Performance Check (BFB)

Job Number: JC87686
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample:	V4D4141-BFB	**Injection Date:**	05/08/19
Lab File ID:	4D93914.D	**Injection Time:**	17:07
Instrument ID:	GCMS4D		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	14.99 - 40.0% of mass 95	10223	16.7		Pass
75	30.0 - 60.0% of mass 95	27347	44.6		Pass
95	Base peak, 100% relative abundance	61253	100.0		Pass
96	5.0 - 9.0% of mass 95	4170	6.81		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 120.0% of mass 95	53432	87.2		Pass
175	5.0 - 9.0% of mass 174	4136	6.75	(7.74) [a]	Pass
176	95.0 - 101.0% of mass 174	51640	84.3	(96.6) [a]	Pass
177	5.0 - 9.0% of mass 176	3378	5.51	(6.54) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V4D4141-CC4028	4D93914.D	05/08/19	17:07	00:00	Continuing cal 50
V4D4141-BS	4D93915.D	05/08/19	17:49	00:42	Blank Spike
V4D4141-MB	4D93917.D	05/08/19	18:46	01:39	Method Blank
JC87680-2	4D93918.D	05/08/19	19:41	02:34	(used for QC only; not part of job JC87686)
ZZZZZZ	4D93922.D	05/08/19	21:35	04:28	(unrelated sample)
ZZZZZZ	4D93923.D	05/08/19	22:03	04:56	(unrelated sample)
ZZZZZZ	4D93924.D	05/08/19	22:31	05:24	(unrelated sample)
ZZZZZZ	4D93925.D	05/08/19	23:00	05:53	(unrelated sample)
ZZZZZZ	4D93926.D	05/08/19	23:28	06:21	(unrelated sample)
ZZZZZZ	4D93927.D	05/08/19	23:57	06:50	(unrelated sample)
ZZZZZZ	4D93928.D	05/09/19	00:25	07:18	(unrelated sample)
ZZZZZZ	4D93930.D	05/09/19	01:22	08:15	(unrelated sample)
ZZZZZZ	4D93931.D	05/09/19	01:51	08:44	(unrelated sample)
ZZZZZZ	4D93932.D	05/09/19	02:19	09:12	(unrelated sample)
JC87686-1	4D93933.D	05/09/19	02:47	09:40	SILO2-1
JC87686-2	4D93934.D	05/09/19	03:16	10:09	SILO2-2

Instrument Performance Check (BFB)

Job Number: JC87686
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample:	V4D4144-BFB	**Injection Date:**	05/10/19
Lab File ID:	4D93965.D	**Injection Time:**	06:45
Instrument ID:	GCMS4D		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	14.99 - 40.0% of mass 95	10470	16.4		Pass
75	30.0 - 60.0% of mass 95	28349	44.4		Pass
95	Base peak, 100% relative abundance	63885	100.0		Pass
96	5.0 - 9.0% of mass 95	4311	6.75		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 120.0% of mass 95	55283	86.5		Pass
175	5.0 - 9.0% of mass 174	4262	6.67	(7.71) [a]	Pass
176	95.0 - 101.0% of mass 174	53552	83.8	(96.9) [a]	Pass
177	5.0 - 9.0% of mass 176	3612	5.65	(6.74) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V4D4144-CC4028	4D93965.D	05/10/19	06:45	00:00	Continuing cal 20
V4D4141-BS2	4D93968A.D	05/10/19	08:24	01:39	Blank Spike
V4D4144-BS	4D93968.D	05/10/19	08:24	01:39	Blank Spike
V4D4141-MB2	4D93970A.D	05/10/19	09:21	02:36	Method Blank
V4D4144-MB	4D93970.D	05/10/19	09:21	02:36	Method Blank
ZZZZZZ	4D93971.D	05/10/19	09:49	03:04	(unrelated sample)
JC87272-13	4D93972.D	05/10/19	10:18	03:33	(used for QC only; not part of job JC87686)
JC87272-13	4D93973.D	05/10/19	10:46	04:01	(used for QC only; not part of job JC87686)
ZZZZZZ	4D93974.D	05/10/19	11:15	04:30	(unrelated sample)
ZZZZZZ	4D93975.D	05/10/19	11:43	04:58	(unrelated sample)
ZZZZZZ	4D93976.D	05/10/19	12:12	05:27	(unrelated sample)
ZZZZZZ	4D93977.D	05/10/19	12:40	05:55	(unrelated sample)
ZZZZZZ	4D93978.D	05/10/19	13:09	06:24	(unrelated sample)
ZZZZZZ	4D93979.D	05/10/19	13:38	06:53	(unrelated sample)
JC87272-13MS	4D93980.D	05/10/19	14:06	07:21	Matrix Spike
JC87272-13MSD	4D93981.D	05/10/19	14:35	07:50	Matrix Spike Duplicate
ZZZZZZ	4D93983.D	05/10/19	15:32	08:47	(unrelated sample)
ZZZZZZ	4D93984.D	05/10/19	16:00	09:15	(unrelated sample)
ZZZZZZ	4D93985.D	05/10/19	16:29	09:44	(unrelated sample)
ZZZZZZ	4D93986.D	05/10/19	16:57	10:12	(unrelated sample)
ZZZZZZ	4D93987.D	05/10/19	17:26	10:41	(unrelated sample)
JC87680-2MS	4D93988.D	05/10/19	17:54	11:09	Matrix Spike
JC87680-2MSD	4D93989.D	05/10/19	18:23	11:38	Matrix Spike Duplicate

Internal Standard Area Summary

Job Number: JC87686
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Check Std:	V4D4141-CC4028	**Injection Date:**	05/08/19
Lab File ID:	4D93914.D	**Injection Time:**	17:07
Instrument ID:	GCMS4D	**Method:**	SW846 8260C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	151495	8.66	197814	11.15	286681	12.03	223427	14.93	95802	17.03
Upper Limit [a]	302990	9.16	395628	11.65	573362	12.53	446854	15.43	191604	17.53
Lower Limit [b]	75748	8.16	98907	10.65	143341	11.53	111714	14.43	47901	16.53

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
V4D4141-BS	137667	8.66	195405	11.14	282440	12.03	222730	14.93	97586	17.03
V4D4141-MB	153182	8.66	214020	11.15	315531	12.03	247415	14.93	107342	17.03
JC87680-2	151705	8.65	211819	11.14	310788	12.03	241975	14.93	98069	17.03
ZZZZZZ	154634	8.65	214246	11.14	318085	12.03	251171	14.93	109799	17.03
ZZZZZZ	150442	8.66	212855	11.15	317240	12.03	251342	14.93	108331	17.03
ZZZZZZ	148649	8.66	210769	11.15	311140	12.03	248336	14.93	109378	17.03
ZZZZZZ	146499	8.66	209450	11.15	310348	12.03	244701	14.93	107152	17.03
ZZZZZZ	150151	8.66	206676	11.15	309167	12.03	245325	14.93	108208	17.03
ZZZZZZ	155365	8.66	206049	11.15	306880	12.03	245552	14.93	107803	17.03
ZZZZZZ	147980	8.66	211221	11.15	314400	12.03	249367	14.93	108257	17.03
ZZZZZZ	152230	8.66	205802	11.15	307372	12.03	244925	14.93	105801	17.03
ZZZZZZ	154733	8.66	209055	11.15	312829	12.03	249329	14.93	109405	17.03
ZZZZZZ	144879	8.66	204813	11.15	305136	12.03	241784	14.93	106217	17.03
JC87686-1	146679	8.66	206228	11.15	308458	12.03	244508	14.93	106887	17.03
JC87686-2	149777	8.66	204341	11.14	304272	12.03	240178	14.93	105896	17.03

IS 1 = Tert Butyl Alcohol-D9
IS 2 = Pentafluorobenzene
IS 3 = 1,4-Difluorobenzene
IS 4 = Chlorobenzene-D5
IS 5 = 1,4-Dichlorobenzene-d4

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Internal Standard Area Summary

Job Number: JC87686
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Check Std:	V4D4144-CC4028	**Injection Date:**	05/10/19
Lab File ID:	4D93965.D	**Injection Time:**	06:45
Instrument ID:	GCMS4D	**Method:**	SW846 8260C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	151214	8.66	207152	11.14	296371	12.03	233704	14.93	101763	17.03
Upper Limit [a]	302428	9.16	414304	11.64	592742	12.53	467408	15.43	203526	17.53
Lower Limit [b]	75607	8.16	103576	10.64	148186	11.53	116852	14.43	50882	16.53

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
V4D4144-BS	145501	8.66	194429	11.15	279262	12.03	222564	14.93	96292	17.03
V4D4141-BS2	145501	8.66	194429	11.15	279262	12.03	222564	14.93	96292	17.03
V4D4141-MB2	147668	8.66	206707	11.15	303047	12.03	239751	14.93	103017	17.03
V4D4144-MB	147668	8.66	206707	11.15	303047	12.03	239751	14.93	103017	17.03
ZZZZZZ	130783	8.66	205460	11.15	302868	12.03	242474	14.93	105270	17.03
JC87272-13	146675	8.66	195916	11.15	292350	12.03	230780	14.93	100853	17.03
JC87272-13	132964	8.66	199971	11.15	296425	12.03	233854	14.93	102510	17.03
ZZZZZZ	145252	8.66	201043	11.15	296890	12.03	239013	14.93	102801	17.03
ZZZZZZ	145695	8.66	203481	11.15	300133	12.03	235928	14.93	102206	17.03
ZZZZZZ	146807	8.66	186633	11.15	267542	12.03	221412	14.93	98722	17.03
ZZZZZZ	150275	8.66	190229	11.15	267477	12.03	224524	14.93	100414	17.03
ZZZZZZ	146057	8.66	201182	11.15	296822	12.03	237350	14.93	104825	17.03
ZZZZZZ	147339	8.66	199061	11.15	291214	12.03	221854	14.93	87988	17.03
JC87272-13MS	134224	8.66	186109	11.14	271899	12.03	222213	14.93	96905	17.03
JC87272-13MSD	138355	8.66	185233	11.15	270946	12.03	219712	14.93	97908	17.03
ZZZZZZ	145435	8.66	211123	11.15	310235	12.03	243874	14.93	107375	17.03
ZZZZZZ	145566	8.66	198832	11.15	290665	12.03	232537	14.93	104877	17.03
ZZZZZZ	136735	8.66	207484	11.15	305686	12.03	242559	14.93	107907	17.03
ZZZZZZ	142914	8.66	208765	11.14	305949	12.03	244690	14.93	108645	17.03
ZZZZZZ	142405	8.66	206695	11.15	305217	12.03	244049	14.93	108217	17.03
JC87680-2MS	141687	8.66	191553	11.14	276412	12.03	219473	14.93	93503	17.03
JC87680-2MSD	142739	8.66	187385	11.15	272423	12.03	219416	14.93	94138	17.03

IS 1 = Tert Butyl Alcohol-D9
IS 2 = Pentafluorobenzene
IS 3 = 1,4-Difluorobenzene
IS 4 = Chlorobenzene-D5
IS 5 = 1,4-Dichlorobenzene-d4

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Surrogate Recovery Summary

Job Number: JC87686
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Method: SW846 8260C **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4
JC87686-1	4D93933.D	89	101	107	102
JC87686-2	4D93934.D	89	102	107	102
JC87680-2MS	4D93988.D	86	96	106	102
JC87680-2MSD	4D93989.D	87	97	105	100
V4D4141-BS	4D93915.D	86	97	107	101
V4D4141-MB	4D93917.D	86	98	108	101
V4D4141-MB2	4D93970A.D	86	98	107	101

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	80-120%
S2 = 1,2-Dichloroethane-D4	81-124%
S3 = Toluene-D8	80-120%
S4 = 4-Bromofluorobenzene	80-120%

Initial Calibration Summary

Job Number: JC87686
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample: V4D4028-ICC4028
Lab FileID: 4D92111.D

Response Factor Report MS4D

Method : C:\MSDCHEM\1\METHODS\M4D4028.M (RTE Integrator)
Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
Last Update : Fri Feb 01 10:17:00 2019
Response via : Initial Calibration

Calibration Files
1 =4D92106.D 0.5 =4D92105.D 100 =4D92112.D 50 =4D92111.D
20 =4D92110.D 200 =4D92113.D 4 =4D92108.D 2 =4D92107.D
8 =4D92109.D 0.2 =4D92104.D = =

Compound	1	0.5	100	50	20	200	4	2	8	0.2	Avg	%RSD
1) tert butyl alcohol-d9	----------ISTD----------											
2) tertiary butyl alcohol	0.898	1.179	1.120	1.112	1.167	1.075	1.023	1.094			1.084	8.29
3) ethanol	0.077	0.121	0.114	0.110	0.119	0.103	0.091	0.110			0.106	14.07
4) 1,4-dioxane	0.096	0.106	0.107	0.114	0.098	0.116	0.110	0.118			0.108	7.31
5) I pentafluorobenzene	----------ISTD----------											
6) chlorodifluoromethane	0.482	0.401	0.559	0.516	0.521	0.535	0.522	0.523	0.519		0.509	8.88
7) dichlorodifluoromethane	0.427	0.618	0.578	0.576	0.631	0.532	0.495	0.571			0.554	12.11
8) chloromethane	0.850	1.009	0.819	0.809	0.795	0.847	0.811	0.856	0.797		0.844	7.84
9) vinyl chloride	0.587	0.557	0.661	0.642	0.650	0.673	0.653	0.639	0.666		0.636	6.10
10) bromomethane		0.241	0.214	0.194	0.244	0.155	0.144	0.183			0.196	19.76
11) chloroethane	0.262	0.357	0.337	0.327	0.367	0.313	0.301	0.323			0.323	10.19
12) trichlorofluoromethane	0.600	0.622	0.810	0.768	0.761	0.831	0.726	0.676	0.752		0.727	10.97
13) vinyl bromide	0.280	0.423	0.395	0.383	0.441	0.366	0.352	0.374			0.377	13.00
14) ethyl ether		0.299	0.272	0.253	0.294	0.228	0.206	0.238			0.256	13.43
15) acrolein		0.141	0.126	0.109	0.140			0.098			0.123	15.46
16) freon 113	0.240	0.361	0.332	0.333	0.356	0.317	0.276	0.306			0.315	12.94
17) 1,1-dichloroethene	0.329	0.450	0.417	0.410	0.447	0.393	0.367	0.392			0.401	10.04
18) acetone		0.231	0.216	0.205	0.212	0.186	0.163	0.192			0.201	11.19
19) acetonitrile	0.070	0.103	0.096	0.089	0.098	0.084	0.077	0.085			0.088	12.57
20) iodomethane	*This compound fails Initial Calibration criteria*											
	0.342	0.283	0.233	0.373	0.158	0.141	0.183				0.245	37.17
21) carbon disulfide	1.016	1.040	1.148	1.067	1.020	1.136	1.015	1.026	1.012	1.381	1.086	10.58
22) methylene chloride	0.436	0.509	0.520	0.485	0.465	0.512	0.456	0.445	0.459	0.552	0.484	7.85
23) methyl acetate												

```
                0.588 0.544 0.518 0.560 0.512 0.531 0.502        0.536    5.61
24)  methyl tert butyl ether
      1.254 1.233 1.572 1.469 1.414 1.516 1.361 1.299 1.374 1.243  1.374    8.66
25)  trans-1,2-dichloroethene
      0.372       0.482 0.452 0.441 0.473 0.424 0.413 0.421        0.435    8.11
26)  di-isopropyl ether
      1.267 1.205 1.678 1.587 1.519 1.594 1.420 1.394 1.451 1.326  1.444   10.55
27)  2-butanone
                0.098 0.091 0.084 0.092 0.076 0.065 0.079        0.084   13.44
28)  1,1-dichloroethane
      0.711 0.678 0.901 0.850 0.833 0.869 0.791 0.758 0.796 0.629  0.782   11.19
29)  chloroprene
      0.521       0.720 0.682 0.661 0.699 0.614 0.575 0.625        0.637   10.50
30)  acrylonitrile
                0.246 0.223 0.203 0.240 0.176       0.182        0.212   13.80
31)  hexane
                0.319 0.295 0.285 0.316 0.267 0.214 0.258        0.279   13.20
32)  vinyl acetate
                0.130 0.118 0.108 0.126             0.089        0.114   14.46
33)  ethyl tert-butyl ether
      1.299 1.238 1.664 1.563 1.492 1.606 1.419 1.373 1.438 1.354  1.445    9.46
34)  ethyl acetate
                0.091 0.086 0.078 0.087 0.060       0.072        0.079   14.90
35)  2,2-dichloropropane
      0.657 0.633 0.725 0.711 0.720 0.674 0.697 0.690 0.700        0.690    4.39
36)  cis-1,2-dichloroethene
      0.420 0.426 0.563 0.532 0.518 0.542 0.495 0.481 0.498        0.497    9.85
37)  methyl acrylate
                0.116 0.108 0.100 0.112 0.074       0.086        0.099   16.36
38)  propionitrile
      0.081       0.120 0.115 0.107 0.109 0.099 0.090 0.101        0.103   12.34
39)  bromochloromethane
      0.185       0.260 0.252 0.250 0.250 0.233 0.219 0.241        0.236   10.33
40)  tetrahydrofuran
                0.106 0.100 0.094 0.100 0.079       0.087        0.094   10.76
41)  chloroform
      0.523 0.489 0.585 0.561 0.564 0.560 0.545 0.518 0.550 0.569  0.546    5.26
42)  t-butyl formate
      0.398 0.364 0.554 0.530 0.518 0.526 0.457 0.434 0.482        0.474   13.74
43)  dibromofluoromethane (s)
      0.539 0.535 0.557 0.568 0.557 0.566 0.555 0.553 0.562 0.521  0.551    2.71
44)  methacrylonitrile
                0.291 0.271 0.255 0.276             0.227        0.264    9.11
45)  1,1,1-trichloroethane
      0.673 0.647 0.770 0.739 0.754 0.747 0.734 0.697 0.734 0.579  0.707    8.37
46)  cyclohexane
      0.559 0.543 0.708 0.688 0.701 0.708 0.647 0.602 0.691        0.650   10.12
47)  1,1-dichloropropene
      0.553 0.569 0.663 0.636 0.656 0.640 0.626 0.601 0.632 0.505  0.608    8.36
48)  isobutyl alcohol
                0.004 0.004 0.004 0.004 0.003       0.004        0.004   15.06
49)  carbon tetrachloride
      0.523 0.492 0.667 0.641 0.662 0.646 0.631 0.596 0.643        0.611   10.25
50)  tert amyl alcohol
      0.025       0.038 0.037 0.037 0.035 0.033 0.029 0.035        0.033   13.04

51) I   1,4-difluorobenzene   ----------------ISTD---------------------
52)  1,2-dichloroethane-d4 (s)
      0.338 0.345 0.331 0.339 0.345 0.325 0.337 0.339 0.338 0.340  0.337    1.78
53)  n-butyl alcohol
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      0.011       0.018 0.017 0.017 0.016 0.015 0.013 0.015        0.015   15.96
54)  2,2,4-trimethylpentane
      0.591 0.469 0.739 0.722 0.732 0.716 0.679 0.617 0.677 0.712  0.665   12.73
55)  benzene
      1.020 1.019 1.136 1.087 1.103 1.083 1.065 1.039 1.073 1.184  1.081    4.77
56)  tert-amyl methyl ether
      0.176 0.165 0.231 0.222 0.220 0.218 0.207 0.197 0.212        0.205   10.81
57)  heptane
      0.117       0.177 0.170 0.171 0.177 0.155 0.133 0.154        0.157   13.98
58)  isopropyl acetate
                  0.093 0.087 0.085 0.088 0.071 0.062 0.077        0.080   13.45
59)  1,2-dichloroethane
      0.436 0.503 0.424 0.415 0.423 0.395 0.427 0.435 0.422        0.431    6.81
60)  trichloroethene
      0.265 0.249 0.310 0.296 0.303 0.297 0.295 0.286 0.291 0.283  0.288    6.35
61)  ethyl acrylate
      0.341       0.533 0.519 0.518 0.493 0.446 0.402 0.505        0.470   14.44
62)  2-nitropropane
      0.079       0.103 0.100 0.099 0.093 0.094 0.088 0.095        0.094    7.87
63)  2-chloroethyl vinyl ether
      0.164 0.152 0.231 0.230 0.231 0.198 0.200 0.183 0.215        0.200   14.63
64)  methyl methacrylate
                  0.108 0.101 0.099 0.102 0.086 0.069 0.089        0.093   14.25
65)  1,2-dichloropropane
      0.264 0.251 0.309 0.298 0.301 0.289 0.289 0.277 0.292 0.238  0.281    8.21
66)  dibromomethane
      0.189 0.175 0.214 0.207 0.209 0.202 0.202 0.199 0.207        0.200    5.89
67)  methylcyclohexane
      0.326 0.272 0.416 0.399 0.417 0.399 0.392 0.353 0.386        0.373   12.90
68)  bromodichloromethane
      0.375 0.363 0.426 0.409 0.412 0.408 0.405 0.387 0.400 0.327  0.391    7.46
69)  epichlorohydrin
      0.026       0.038 0.035 0.035 0.036 0.032 0.031 0.033        0.033   10.95
70)  cis-1,3-dichloropropene
      0.440 0.437 0.509 0.490 0.495 0.484 0.475 0.467 0.485 0.474  0.476    4.84
71)  4-methyl-2-pentanone
      0.146 0.132 0.168 0.169 0.173 0.142 0.167 0.154 0.168 0.137  0.155    9.79
72)  3-methyl-1-butanol
      0.009       0.017 0.016 0.016 0.014 0.014 0.011 0.014        0.014   17.99

73) I   chlorobenzene-d5      ----------------ISTD---------------------
74)  toluene-d8 (s)
      1.289 1.279 1.298 1.299 1.313 1.291 1.296 1.284 1.298 1.303  1.295    0.74
75)  toluene
      0.739 0.741 0.812 0.765 0.796 0.760 0.782 0.776 0.773 0.873  0.782    5.02
76)  trans-1,3-dichloropropene
      0.431 0.409 0.537 0.509 0.514 0.501 0.486 0.465 0.489 0.418  0.476    9.16
77)  ethyl methacrylate
      0.360       0.530 0.500 0.495 0.487 0.436 0.412 0.457        0.459   12.03
78)  1,1,2-trichloroethane
      0.246 0.213 0.293 0.276 0.280 0.273 0.268 0.255 0.274 0.204  0.258   11.35
79)  tetrachloroethene
      0.256 0.246 0.279 0.267 0.277 0.261 0.271 0.272 0.271 0.276  0.268    3.95
80)  1,3-dichloropropane
      0.486 0.455 0.527 0.512 0.530 0.468 0.516 0.495 0.519 0.526  0.504    5.22
81)  2-hexanone
      0.152 0.151 0.205 0.198 0.201 0.174 0.187 0.166 0.189        0.180   11.41
82)  butyl acetate
      0.201       0.318 0.301 0.303 0.286 0.271 0.256 0.287        0.278   13.17
83)  dibromochloromethane
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      0.320 0.289 0.399 0.371 0.372 0.380 0.345 0.320 0.352 0.292  0.344   10.98
 84)  1,2-dibromoethane
      0.366 0.353 0.438 0.412 0.416 0.412 0.396 0.378 0.399 0.389  0.396    6.40
 85)  n-butyl ether
      1.220 1.174 1.427 1.375 1.406 1.314 1.317 1.253 1.334 1.407  1.323    6.45
 86)  chlorobenzene
      0.837 0.785 0.885 0.837 0.857 0.832 0.849 0.843 0.842 0.956  0.852    5.17
 87)  1,1,1,2-tetrachloroethane
      0.273 0.258 0.332 0.312 0.315 0.309 0.304 0.294 0.306 0.274  0.298    7.71
 88)  ethylbenzene
      1.340 1.328 1.460 1.404 1.440 1.340 1.415 1.391 1.419 1.562  1.410    4.94
 89)  m,p-xylene
      0.498 0.499 0.547 0.529 0.551 0.494 0.533 0.527 0.536 0.542  0.526    4.02
 90)  o-xylene
      0.484 0.456 0.527 0.513 0.535 0.462 0.521 0.506 0.529 0.473  0.501    5.88
 91)  styrene
      0.725 0.675 0.913 0.882 0.894 0.809 0.819 0.785 0.860 0.786  0.815    9.31
 92)  bromoform
      0.209 0.201 0.295 0.269 0.263 0.281 0.239 0.219 0.247        0.247   13.25
 93)  butyl acrylate
      0.489       0.771 0.725 0.705 0.701 0.614 0.553 0.652        0.651   14.50
 94)  isopropylbenzene
      1.228 1.195 1.327 1.273 1.317 1.245 1.289 1.255 1.306 1.402  1.284    4.56
 95)  cis-1,4-dichloro-2-butene
                  0.183 0.166 0.158 0.170 0.128       0.140        0.158   12.90

 96) I   1,4-dichlorobenzene-d ----------------ISTD---------------------
 97)  4-bromofluorobenzene (s)
      1.015 1.005 1.012 0.999 1.009 1.009 1.017 1.011 1.005 1.004  1.009    0.54
 98)  bromobenzene
      0.736 0.763 0.860 0.791 0.825 0.802 0.773 0.748 0.788 0.772  0.786    4.66
 99)  1,1,2,2-tetrachloroethane
      1.049 0.952 1.220 1.118 1.154 1.108 1.070 1.021 1.107 1.104  1.090    6.72
100)  trans-1,4-dichloro-2-butene
                  0.275 0.245 0.240 0.256 0.194       0.214        0.237   12.42
101)  1,2,3-trichloropropane
      0.250       0.316 0.288 0.297 0.285 0.282 0.272 0.286        0.284    6.65
102)  n-propylbenzene
      3.225 3.221 3.549 3.382 3.560 3.257 3.453 3.373 3.432 3.559  3.401    3.93
103)  2-chlorotoluene
      0.651 0.604 0.751 0.709 0.749 0.671 0.725 0.683 0.725 0.634  0.690    7.23
104)  4-chlorotoluene
      1.975 1.952 2.156 2.036 2.125 2.003 2.097 2.048 2.066 2.291  2.075    4.78
105)  1,3,5-trimethylbenzene
      2.177 2.070 2.431 2.326 2.447 2.158 2.319 2.250 2.341 2.340  2.286    5.29
106)  tert-butylbenzene
      0.395 0.368 0.449 0.429 0.443 0.422 0.427 0.388 0.434        0.417    6.54
107)  1,2,4-trimethylbenzene
      2.175 2.056 2.442 2.345 2.457 2.256 2.309 2.247 2.374 2.403  2.307    5.46
108)  sec-butylbenzene
      2.575 2.514 2.862 2.723 2.870 2.670 2.782 2.658 2.766 2.805  2.723    4.34
109)  1,3-dichlorobenzene
      1.250 1.266 1.419 1.328 1.369 1.328 1.345 1.282 1.359 1.484  1.343    5.28
110)  p-isopropyltoluene
      2.012 1.956 2.382 2.262 2.341 2.220 2.253 2.150 2.286 2.138  2.200    6.22
111)  1,4-dichlorobenzene
      1.331 1.343 1.443 1.358 1.395 1.352 1.373 1.348 1.381 1.491  1.382    3.63
112)  benzyl chloride
      1.583 1.449 2.081 1.921 1.942 1.870 1.768 1.720 1.798 1.638  1.777   10.56
113)  1,2-dichlorobenzene
```

Initial Calibration Summary

Job Number: JC87686 **Sample:** V4D4028-ICC4028
Account: TCMAW Tantara Corporation **Lab FileID:** 4D92111.D
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

```
       1.149 1.151 1.379 1.297 1.334 1.287 1.284 1.250 1.277 1.272  1.268    5.66
114)  n-butylbenzene
       0.924 0.837 1.174 1.119 1.155 1.107 1.063 1.017 1.104        1.056   10.56
115)  1,2-dibromo-3-chloropropane
       0.149       0.243 0.223 0.224 0.226 0.197 0.184 0.206        0.207   14.38
116)  1,3,5-trichlorobenzene
       0.757 0.697 0.959 0.897 0.918 0.911 0.845 0.797 0.878 0.770  0.843   10.00
117)  2-ethylhexyl acrylate
                   0.409 0.347 0.329 0.369 0.201       0.259        0.319   23.90
              ----- Linear regression -----  Coefficient =  0.9962
                Response Ratio = -0.00222 + 0.37918 *A

118)  1,2,4-trichlorobenzene
       0.662       0.867 0.804 0.813 0.802 0.732 0.677 0.757        0.764    9.25
119)  hexachlorobutadiene
       0.245       0.307 0.295 0.304 0.294 0.283 0.264 0.292        0.286    7.37
120)  naphthalene
       2.087       2.663 2.526 2.589 2.436 2.308 2.134 2.365        2.388    8.66
121)  1,2,3-trichlorobenzene
       0.649       0.804 0.755 0.766 0.729 0.681 0.661 0.716        0.720    7.52
122)  hexachloroethane
       0.271       0.398 0.360 0.356 0.388 0.324 0.310 0.338        0.343   12.20
123)  2-methylnaphthalene
                   0.924 0.965 1.011 0.743 0.845 0.749 0.912        0.879   11.80
124)  bis(chloromethyl)ether
                                                                    0.000   -1.00
125)  ethylenimine
                                                                    0.000   -1.00
 ---------------------------------------------------------------------------
 (#) = Out of Range  ###  Number of calibration levels exceeded format  ###

           M4D4028.M         Fri Feb 01 10:20:45 2019   RPT1
```

Initial Calibration Verification

Job Number: JC87686
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample: V4D4028-ICV4028
Lab FileID: 4D92116.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\V4D4028\4D92116.D Vial: 17
Acq On : 29 Jan 2019 8:29 pm Operator: roberts
Sample : icv4028-50 Inst : MS4D
Misc : MS31310,V4D4028,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M4D4028.M (RTE Integrator)
Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
Last Update : Fri Feb 01 10:17:00 2019
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1		tert butyl alcohol-d9	1.000	1.000	0.0	104	0.00	8.66
2	M	tertiary butyl alcohol	1.084	1.217	-12.3	113	0.00	8.79
3		ethanol	0.106	0.119	-12.3	110	0.00	7.19
4	M	1,4-dioxane	0.108	0.110	-1.9	108	0.00	12.69
5	I	pentafluorobenzene	1.000	1.000	0.0	107	0.00	11.15
6	M	chlorodifluoromethane	0.509	0.569	-11.8	118	0.00	4.65
7	M	dichlorodifluoromethane	0.554	0.578	-4.3	107	0.00	4.61
8	M	chloromethane	0.844	0.721	14.6	96	0.00	5.10
9	M	vinyl chloride	0.636	0.599	5.8	100	0.00	5.37
10	M	bromomethane	0.196	0.252	-28.6	127	0.00	6.16
11	M	chloroethane	0.323	0.332	-2.8	106	0.00	6.40
12	M	trichlorofluoromethane	0.727	0.745	-2.5	104	0.00	6.97
13		vinyl bromide	0.377	0.382	-1.3	104	0.00	6.82
14	M	ethyl ether	0.256	0.290	-13.3	114	0.00	7.49
15	M	acrolein	0.123	0.139	-13.0	119	0.00	7.71
16		freon 113	0.315	0.353	-12.1	114	0.00	7.95
17	M	1,1-dichloroethene	0.401	0.402	-0.2	104	0.00	7.96
18	M	acetone	0.201	0.222	-10.4	110	0.00	7.96
19	M	acetonitrile	0.088	0.094	-6.8	106	0.00	8.40
20	M	iodomethane	0.245	0.345	-40.8#	131	0.00	8.25
21	M	carbon disulfide	1.086	1.223	-12.6	123	0.00	8.41
22	M	methylene chloride	0.484	0.492	-1.7	109	0.00	8.73
23	M	methyl acetate	0.536	0.514	4.1	102	0.00	8.53
24	M	methyl tert butyl ether	1.374	1.564	-13.8	115	0.00	9.16
25	M	trans-1,2-dichloroethene	0.435	0.451	-3.7	107	0.00	9.19
26	M	di-isopropyl ether	1.444	1.563	-8.2	106	0.00	9.85
27	M	2-butanone	0.084	0.092	-9.5	109	0.00	10.53
28	M	1,1-dichloroethane	0.782	0.844	-7.9	107	0.00	9.79
29	M	chloroprene	0.637	0.714	-12.1	112	0.00	9.94
30	M	acrylonitrile	0.212	0.236	-11.3	114	0.00	9.05
31		hexane	0.279	0.290	-3.9	106	0.00	9.61
32	M	vinyl acetate	0.114	0.120	-5.3	110	0.00	9.79
33	M	ethyl tert-butyl ether	1.445	1.549	-7.2	106	0.00	10.34
34	M	ethyl acetate	0.079	0.083	-5.1	103	0.00	10.59
35	M	2,2-dichloropropane	0.690	0.669	3.0	101	0.00	10.61
36	M	cis-1,2-dichloroethene	0.497	0.538	-8.2	109	0.00	10.58
37		methyl acrylate	0.099	0.111	-12.1	110	0.00	10.66
38	M	propionitrile	0.103	0.113	-9.7	106	0.00	10.59
39	M	bromochloromethane	0.236	0.253	-7.2	108	0.00	10.89
40	M	tetrahydrofuran	0.094	0.101	-7.4	109	0.00	10.96
41	M	chloroform	0.546	0.559	-2.4	107	0.00	10.95

Initial Calibration Verification

Job Number: JC87686
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample: V4D4028-ICV4028
Lab FileID: 4D92116.D

42	M	t-butyl formate	0.474	0.451	4.9	91	0.00	11.03
43	S	dibromofluoromethane (s)	0.551	0.560	-1.6	106	0.00	11.15
44	M	methacrylonitrile	0.264	0.272	-3.0	108	0.00	10.82
45	M	1,1,1-trichloroethane	0.707	0.709	-0.3	103	0.00	11.26
46		cyclohexane	0.650	0.595	8.5	93	0.00	11.37
47		1,1-dichloropropene	0.608	0.629	-3.5	106	0.00	11.45
48		isobutyl alcohol	0.004	0.004	0.0	103	0.00	11.45
49		carbon tetrachloride	0.611	0.627	-2.6	105	0.00	11.48
50		tert amyl alcohol	0.033	0.037	-12.1	108	0.00	11.52
51	I	1,4-difluorobenzene	1.000	1.000	0.0	106	0.00	12.04
52	S	1,2-dichloroethane-d4 (s)	0.337	0.331	1.8	103	0.00	11.58
53	M	n-butyl alcohol	0.015	0.017	-13.3	105	0.00	12.10
54		2,2,4-trimethylpentane	0.665	0.661	0.6	97	0.00	11.77
55	M	benzene	1.081	1.093	-1.1	106	0.00	11.69
56	M	tert-amyl methyl ether	0.205	0.214	-4.4	102	0.00	11.75
57	M	heptane	0.157	0.173	-10.2	108	0.00	11.92
58	M	isopropyl acetate	0.080	0.085	-6.3	104	0.00	11.61
59	M	1,2-dichloroethane	0.431	0.412	4.4	105	0.00	11.67
60	M	trichloroethene	0.288	0.300	-4.2	107	0.00	12.37
61		ethyl acrylate	0.470	0.500	-6.4	102	0.00	12.36
62	M	2-nitropropane	0.094	0.102	-8.5	108	0.00	13.02
63	M	2-chloroethyl vinyl ether	0.200	0.228	-14.0	105	0.00	13.07
64	M	methyl methacrylate	0.093	0.105	-12.9	110	0.00	12.61
65	M	1,2-dichloropropane	0.281	0.291	-3.6	103	0.00	12.59
66	M	dibromomethane	0.200	0.209	-4.5	107	0.00	12.72
67	M	methylcyclohexane	0.373	0.376	-0.8	100	0.00	12.62
68	M	bromodichloromethane	0.391	0.396	-1.3	102	0.00	12.84
69		epichlorohydrin	0.033	0.035	-6.1	104	0.00	13.16
70	M	cis-1,3-dichloropropene	0.476	0.482	-1.3	104	0.00	13.28
71	M	4-methyl-2-pentanone	0.155	0.163	-5.2	102	0.00	13.36
72	M	3-methyl-1-butanol	0.014	0.016	-14.3	103	0.00	13.35
73	I	chlorobenzene-d5	1.000	1.000	0.0	103	0.00	14.93
74	S	toluene-d8 (s)	1.295	1.300	-0.4	103	0.00	13.57
75		toluene	0.782	0.785	-0.4	105	0.00	13.64
76		trans-1,3-dichloropropene	0.476	0.490	-2.9	99	0.00	13.77
77		ethyl methacrylate	0.459	0.487	-6.1	100	0.00	13.79
78		1,1,2-trichloroethane	0.258	0.280	-8.5	104	0.00	13.96
79	M	tetrachloroethene	0.268	0.276	-3.0	106	0.00	14.18
80	M	1,3-dichloropropane	0.504	0.523	-3.8	105	0.00	14.14
81		2-hexanone	0.180	0.194	-7.8	100	0.00	14.14
82	M	butyl acetate	0.278	0.303	-9.0	103	0.00	14.21
83	M	dibromochloromethane	0.344	0.388	-12.8	107	0.00	14.37
84	M	1,2-dibromoethane	0.396	0.418	-5.6	104	0.00	14.52
85		n-butyl ether	1.323	1.326	-0.2	99	0.00	14.91
86	M	chlorobenzene	0.852	0.850	0.2	104	0.00	14.96
87	M	1,1,1,2-tetrachloroethane	0.298	0.323	-8.4	106	0.00	15.01
88	M	ethylbenzene	1.410	1.429	-1.3	104	0.00	15.02
89	M	m,p-xylene	0.526	0.545	-3.6	106	0.00	15.12
90	M	o-xylene	0.501	0.522	-4.2	104	0.00	15.49
91	M	styrene	0.815	0.909	-11.5	106	0.00	15.49
92	M	bromoform	0.247	0.287	-16.2	110	0.00	15.70
93		butyl acrylate	0.651	0.741	-13.8	105	0.00	15.31
94		isopropylbenzene	1.284	1.296	-0.9	104	0.00	15.81
95		cis-1,4-dichloro-2-butene	0.158	0.157	0.6	97	0.00	15.82
96	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	103	0.00	17.03
97	S	4-bromofluorobenzene (s)	1.009	1.002	0.7	103	0.00	15.97
98	M	bromobenzene	0.786	0.817	-3.9	106	0.00	16.15

Initial Calibration Verification

Job Number: JC87686 **Sample:** V4D4028-ICV4028
Account: TCMAW Tantara Corporation **Lab FileID:** 4D92116.D
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

99	M	1,1,2,2-tetrachloroethane	1.090	1.117	-2.5	103	0.00	16.02
100	M	trans-1,4-dichloro-2-bute	0.237	0.278	-17.3	116	0.00	16.07
101	M	1,2,3-trichloropropane	0.284	0.291	-2.5	104	0.00	16.10
102	M	n-propylbenzene	3.401	3.419	-0.5	104	0.00	16.17
103	M	2-chlorotoluene	0.690	0.712	-3.2	103	0.00	16.30
104	M	4-chlorotoluene	2.075	2.117	-2.0	107	0.00	16.39
105	M	1,3,5-trimethylbenzene	2.286	2.345	-2.6	103	0.00	16.31
106	M	tert-butylbenzene	0.417	0.435	-4.3	104	0.00	16.64
107	M	1,2,4-trimethylbenzene	2.307	2.417	-4.8	106	0.00	16.67
108	M	sec-butylbenzene	2.723	2.770	-1.7	104	0.00	16.84
109	M	1,3-dichlorobenzene	1.343	1.375	-2.4	106	0.00	16.99
110	M	p-isopropyltoluene	2.200	2.328	-5.8	106	0.00	16.94
111	M	1,4-dichlorobenzene	1.382	1.387	-0.4	105	0.00	17.06
112		benzyl chloride	1.777	1.469	17.3	78	0.00	17.15
113	M	1,2-dichlorobenzene	1.268	1.327	-4.7	105	0.00	17.42
114	M	n-butylbenzene	1.056	1.137	-7.7	104	0.00	17.32
115	M	1,2-dibromo-3-chloropropa	0.207	0.220	-6.3	101	0.00	18.12
116		1,3,5-trichlorobenzene	0.843	0.916	-8.7	105	0.00	18.33
		----------	True	Calc.	% Drift	----------		
117		2-ethylhexyl acrylate	10.000	10.775	-7.8	118	0.00	18.92
		----------	AvgRF	CCRF	% Dev	----------		
118	M	1,2,4-trichlorobenzene	0.764	0.824	-7.9	105	0.00	18.93
119	M	hexachlorobutadiene	0.286	0.293	-2.4	102	0.00	19.07
120	M	naphthalene	2.388	2.599	-8.8	106	0.00	19.19
121	M	1,2,3-trichlorobenzene	0.720	0.763	-6.0	104	0.00	19.42
122	m	hexachloroethane	0.343	0.381	-11.1	108	0.00	17.70
123		2-methylnaphthalene	0.879	1.077	-22.5	114	0.00	20.28
124		bis(chloromethyl)ether		----------NA----------				
125		ethylenimine		----------NA----------				

(#) = Out of Range SPCC's out = 0 CCC's out = 0
4D92111.D M4D4028.M Fri Feb 01 10:20:35 2019 RPT1

Initial Calibration Verification

Job Number: JC87686
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample: V4D4028-ICV4028
Lab FileID: 4D92117.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\V4D4028\4D92117.D Vial: 18
Acq On : 29 Jan 2019 8:58 pm Operator: roberts
Sample : icv4028-50 Inst : MS4D
Misc : MS31310,V4D4028,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M4D4028.M (RTE Integrator)
Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
Last Update : Thu Jan 31 10:54:24 2019
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1		tert butyl alcohol-d9	1.000	1.000	0.0	108	0.00	8.66
2	M	tertiary butyl alcohol		----------NA----------				
3		ethanol		----------NA----------				
4	M	1,4-dioxane		----------NA----------				
5	I	pentafluorobenzene	1.000	1.000	0.0	112	0.00	11.15
6	M	chlorodifluoromethane		----------NA----------				
7	M	dichlorodifluoromethane		----------NA----------				
8	M	chloromethane		----------NA----------				
9	M	vinyl chloride		----------NA----------				
10	M	bromomethane		----------NA----------				
11	M	chloroethane		----------NA----------				
12	M	trichlorofluoromethane		----------NA----------				
13		vinyl bromide		----------NA----------				
14	M	ethyl ether		----------NA----------				
15	M	acrolein		----------NA----------				
16		freon 113		----------NA----------				
17	M	1,1-dichloroethene		----------NA----------				
18	M	acetone	0.201	0.221	-10.0	114	0.00	7.96
19	M	acetonitrile	0.088	0.092	-4.5	108	0.00	8.40
20	M	iodomethane		----------NA----------				
21	M	carbon disulfide		----------NA----------				
22	M	methylene chloride		----------NA----------				
23	M	methyl acetate		----------NA----------				
24	M	methyl tert butyl ether		----------NA----------				
25	M	trans-1,2-dichloroethene		----------NA----------				
26	M	di-isopropyl ether		----------NA----------				
27	M	2-butanone		----------NA----------				
28	M	1,1-dichloroethane		----------NA----------				
29	M	chloroprene		----------NA----------				
30	M	acrylonitrile		----------NA----------				
31		hexane		----------NA----------				
32	M	vinyl acetate		----------NA----------				
33	M	ethyl tert-butyl ether		----------NA----------				
34	M	ethyl acetate		----------NA----------				
35	M	2,2-dichloropropane		----------NA----------				
36	M	cis-1,2-dichloroethene		----------NA----------				
37		methyl acrylate		----------NA----------				
38	M	propionitrile		----------NA----------				
39	M	bromochloromethane		----------NA----------				
40	M	tetrahydrofuran		----------NA----------				
41	M	chloroform		----------NA----------				

Initial Calibration Verification

Job Number: JC87686
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample: V4D4028-ICV4028
Lab FileID: 4D92117.D

42	M	t-butyl formate		----------NA----------					
43	S	dibromofluoromethane (s)	0.551	0.554	-0.5	109	0.00	11.15	
		----------	True	Calc.	% Drift	----------			
44	M	methacrylonitrile		----------NA----------					
		----------	AvgRF	CCRF	% Dev	----------			
45	M	1,1,1-trichloroethane		----------NA----------					
46		cyclohexane		----------NA----------					
47		1,1-dichloropropene		----------NA----------					
48		isobutyl alcohol		----------NA----------					
49		carbon tetrachloride		----------NA----------					
50		tert amyl alcohol		----------NA----------					
51	I	1,4-difluorobenzene	1.000	1.000	0.0	112	0.00	12.04	
52	S	1,2-dichloroethane-d4 (s)	0.337	0.336	0.3	111	0.00	11.58	
53	M	n-butyl alcohol		----------NA----------					
54		2,2,4-trimethylpentane		----------NA----------					
55	M	benzene		----------NA----------					
56	M	tert-amyl methyl ether		----------NA----------					
57	M	heptane		----------NA----------					
58	M	isopropyl acetate		----------NA----------					
59	M	1,2-dichloroethane		----------NA----------					
60	M	trichloroethene		----------NA----------					
61		ethyl acrylate		----------NA----------					
62	M	2-nitropropane		----------NA----------					
63	M	2-chloroethyl vinyl ether		----------NA----------					
64	M	methyl methacrylate		----------NA----------					
65	M	1,2-dichloropropane		----------NA----------					
66	M	dibromomethane		----------NA----------					
67	M	methylcyclohexane		----------NA----------					
68	M	bromodichloromethane		----------NA----------					
69		epichlorohydrin		----------NA----------					
70	M	cis-1,3-dichloropropene		----------NA----------					
71	M	4-methyl-2-pentanone		----------NA----------					
72	M	3-methyl-1-butanol		----------NA----------					
73	I	chlorobenzene-d5	1.000	1.000	0.0	111	0.00	14.93	
74	S	toluene-d8 (s)	1.295	1.304	-0.7	111	0.00	13.57	
75		toluene		----------NA----------					
76		trans-1,3-dichloropropene		----------NA----------					
77		ethyl methacrylate		----------NA----------					
78		1,1,2-trichloroethane		----------NA----------					
79	M	tetrachloroethene	0.268	0.245	8.6	102	0.00	14.18	
80	M	1,3-dichloropropane		----------NA----------					
81		2-hexanone		----------NA----------					
82	M	butyl acetate		----------NA----------					
83	M	dibromochloromethane		----------NA----------					
84	M	1,2-dibromoethane		----------NA----------					
85		n-butyl ether		----------NA----------					
86	M	chlorobenzene		----------NA----------					
87	M	1,1,1,2-tetrachloroethane		----------NA----------					
88	M	ethylbenzene		----------NA----------					
89	M	m,p-xylene		----------NA----------					
90	M	o-xylene		----------NA----------					
91	M	styrene		----------NA----------					
92	M	bromoform		----------NA----------					
93		butyl acrylate		----------NA----------					
94		isopropylbenzene		----------NA----------					
95		cis-1,4-dichloro-2-butene		----------NA----------					

Initial Calibration Verification

Job Number: JC87686
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample: V4D4028-ICV4028
Lab FileID: 4D92117.D

96	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	110	0.00	17.03
97	S	4-bromofluorobenzene (s)	1.009	0.999	1.0	110	0.00	15.97
98	M	bromobenzene	----------NA----------					
99	M	1,1,2,2-tetrachloroethane	----------NA----------					
100	M	trans-1,4-dichloro-2-bute	----------NA----------					
101	M	1,2,3-trichloropropane	----------NA----------					
102	M	n-propylbenzene	----------NA----------					
103	M	2-chlorotoluene	----------NA----------					
104	M	4-chlorotoluene	----------NA----------					
105	M	1,3,5-trimethylbenzene	----------NA----------					
106	M	tert-butylbenzene	----------NA----------					
107	M	1,2,4-trimethylbenzene	----------NA----------					
108	M	sec-butylbenzene	----------NA----------					
109	M	1,3-dichlorobenzene	----------NA----------					
110	M	p-isopropyltoluene	----------NA----------					
111	M	1,4-dichlorobenzene	----------NA----------					
112		benzyl chloride	----------NA----------					
113	M	1,2-dichlorobenzene	----------NA----------					
114	M	n-butylbenzene	----------NA----------					
115	M	1,2-dibromo-3-chloropropa	----------NA----------					
116		1,3,5-trichlorobenzene	----------NA----------					
		----------	True	Calc.	% Drift	----------		
117		2-ethylhexyl acrylate	----------NA----------					
		----------	AvgRF	CCRF	% Dev	----------		
118	M	1,2,4-trichlorobenzene	----------NA----------					
119	M	hexachlorobutadiene	----------NA----------					
120	M	naphthalene	----------NA----------					
121	M	1,2,3-trichlorobenzene	----------NA----------					
122	m	hexachloroethane	----------NA----------					
123		2-methylnaphthalene	----------NA----------					
124		bis(chloromethyl)ether	----------NA----------					
125		ethylenimine	----------NA----------					

(#) = Out of Range SPCC's out = 0 CCC's out = 0
4D92111.D M4D4028.M Thu Jan 31 11:31:19 2019 RPT1

Continuing Calibration Summary

Job Number: JC87686
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample: V4D4141-CC4028
Lab FileID: 4D93914.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\lo...-14\v4d4141\4d93914.d Vial: 52
Acq On : 8 May 2019 5:07 pm Operator: deving
Sample : cc4028-50 Inst : MS4D
Misc : MS34547,V4D4141,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M4D4028.M (RTE Integrator)
Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
Last Update : Fri Feb 01 10:17:00 2019
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1		tert butyl alcohol-d9	1.000	1.000	0.0	89	0.00	8.66
2	M	tertiary butyl alcohol	1.084	1.218	-12.4	97	0.00	8.79
3		ethanol	0.106	0.138	-30.2#	108	0.00	7.19
4	M	1,4-dioxane	0.108	0.102	5.6	85	0.00	12.69
5	I	pentafluorobenzene	1.000	1.000	0.0	113	0.00	11.15
6	M	chlorodifluoromethane	0.509	0.501	1.6	110	0.00	4.64
7	M	dichlorodifluoromethane	0.554	0.574	-3.6	112	0.00	4.61
8	M	chloromethane	0.844	0.689	18.4	96	0.00	5.10
9	M	vinyl chloride	0.636	0.621	2.4	110	0.00	5.38
10	M	bromomethane	0.196	0.318	-62.2#	169	0.00	6.16
11	M	chloroethane	0.323	0.347	-7.4	117	0.00	6.40
12	M	trichlorofluoromethane	0.727	0.661	9.1	98	0.00	6.97
13		vinyl bromide	0.377	0.410	-8.8	117	0.00	6.82
14	M	ethyl ether	0.256	0.262	-2.3	109	0.00	7.49
15	M	acrolein	0.123	0.115	6.5	104	0.00	7.70
16		freon 113	0.315	0.296	6.0	101	0.00	7.95
17	M	1,1-dichloroethene	0.401	0.395	1.5	108	0.00	7.95
18	M	acetone	0.201	0.189	6.0	99	0.00	7.95
19	M	acetonitrile	0.088	0.093	-5.7	110	0.00	8.40
20	M	iodomethane	0.245	0.269	-9.8	108	0.00	8.24
21	M	carbon disulfide	1.086	1.067	1.7	113	0.00	8.40
22	M	methylene chloride	0.484	0.462	4.5	108	0.00	8.72
23	M	methyl acetate	0.536	0.491	8.4	102	0.00	8.53
24	M	methyl tert butyl ether	1.374	1.311	4.6	101	0.00	9.16
25	M	trans-1,2-dichloroethene	0.435	0.422	3.0	106	0.00	9.19
26	M	di-isopropyl ether	1.444	1.529	-5.9	109	0.00	9.85
27	M	2-butanone	0.084	0.080	4.8	100	0.00	10.52
28	M	1,1-dichloroethane	0.782	0.803	-2.7	107	0.00	9.79
29	M	chloroprene	0.637	0.633	0.6	105	0.00	9.94
30	M	acrylonitrile	0.212	0.221	-4.2	112	0.00	9.05
31		hexane	0.279	0.307	-10.0	118	0.00	9.61
32	M	vinyl acetate	0.114	0.110	3.5	106	0.00	9.79
33	M	ethyl tert-butyl ether	1.445	1.422	1.6	103	0.00	10.34
34	M	ethyl acetate	0.079	0.071	10.1	93	0.00	10.58
35	M	2,2-dichloropropane	0.690	0.617	10.6	98	0.00	10.61
36	M	cis-1,2-dichloroethene	0.497	0.480	3.4	102	0.00	10.58
37		methyl acrylate	0.099	0.091	8.1	96	0.00	10.66
38	M	propionitrile	0.103	0.102	1.0	101	0.00	10.59
39	M	bromochloromethane	0.236	0.223	5.5	100	0.00	10.89
40	M	tetrahydrofuran	0.094	0.085	9.6	96	0.00	10.96
41	M	chloroform	0.546	0.482	11.7	97	0.00	10.95

Continuing Calibration Summary

Job Number: JC87686 **Sample:** V4D4141-CC4028
Account: TCMAW Tantara Corporation **Lab FileID:** 4D93914.D
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

42	M	t-butyl formate	0.474	0.390	17.7	83	0.00	11.03
43	S	dibromofluoromethane (s)	0.551	0.477	13.4	95	0.00	11.15
44	M	methacrylonitrile	0.264	0.242	8.3	101	0.00	10.81
45	M	1,1,1-trichloroethane	0.707	0.609	13.9	93	0.00	11.26
46		cyclohexane	0.650	0.569	12.5	94	0.00	11.37
47		1,1-dichloropropene	0.608	0.559	8.1	100	0.00	11.44
48		isobutyl alcohol	0.004	0.003	25.0#	92	0.00	11.44
49		carbon tetrachloride	0.611	0.506	17.2	89	0.00	11.48
50		tert amyl alcohol	0.033	0.029	12.1	89	0.00	11.52
51	I	1,4-difluorobenzene	1.000	1.000	0.0	97	0.00	12.03
52	S	1,2-dichloroethane-d4 (s)	0.337	0.327	3.0	93	0.00	11.57
53	M	n-butyl alcohol	0.015	0.016	-6.7	90	0.00	12.10
54		2,2,4-trimethylpentane	0.665	0.783	-17.7	105	0.00	11.77
55	M	benzene	1.081	1.129	-4.4	101	0.00	11.69
56	M	tert-amyl methyl ether	0.205	0.203	1.0	88	0.00	11.75
57	M	heptane	0.157	0.175	-11.5	100	0.00	11.92
58	M	isopropyl acetate	0.080	0.083	-3.8	93	0.00	11.61
59	M	1,2-dichloroethane	0.431	0.370	14.2	86	0.00	11.66
60	M	trichloroethene	0.288	0.273	5.2	89	0.00	12.37
61		ethyl acrylate	0.470	0.473	-0.6	88	0.00	12.35
62	M	2-nitropropane	0.094	0.082	12.8	80	0.00	13.02
63	M	2-chloroethyl vinyl ether	0.200	0.010	95.0#	4#	0.00	13.07
64	M	methyl methacrylate	0.093	0.093	0.0	89	0.00	12.60
65	M	1,2-dichloropropane	0.281	0.303	-7.8	98	0.00	12.59
66	M	dibromomethane	0.200	0.185	7.5	87	0.00	12.71
67	M	methylcyclohexane	0.373	0.392	-5.1	95	0.00	12.62
68	M	bromodichloromethane	0.391	0.376	3.8	89	0.00	12.83
69		epichlorohydrin	0.033	0.034	-3.0	93	0.00	13.15
70	M	cis-1,3-dichloropropene	0.476	0.464	2.5	92	0.00	13.27
71	M	4-methyl-2-pentanone	0.155	0.151	2.6	87	0.00	13.36
72	M	3-methyl-1-butanol	0.014	0.014	0.0	81	0.00	13.35
73	I	chlorobenzene-d5	1.000	1.000	0.0	86	0.00	14.93
74	S	toluene-d8 (s)	1.295	1.384	-6.9	92	0.00	13.57
75		toluene	0.782	0.803	-2.7	90	0.00	13.63
76		trans-1,3-dichloropropene	0.476	0.517	-8.6	87	0.00	13.77
77		ethyl methacrylate	0.459	0.507	-10.5	87	0.00	13.79
78		1,1,2-trichloroethane	0.258	0.281	-8.9	88	0.00	13.96
79	M	tetrachloroethene	0.268	0.266	0.7	86	0.00	14.18
80	M	1,3-dichloropropane	0.504	0.510	-1.2	86	0.00	14.13
81		2-hexanone	0.180	0.194	-7.8	84	0.00	14.13
82	M	butyl acetate	0.278	0.301	-8.3	86	0.00	14.21
83	M	dibromochloromethane	0.344	0.358	-4.1	83	0.00	14.37
84	M	1,2-dibromoethane	0.396	0.385	2.8	80	0.00	14.51
85		n-butyl ether	1.323	1.348	-1.9	84	0.00	14.91
86	M	chlorobenzene	0.852	0.829	2.7	85	0.00	14.95
87	M	1,1,1,2-tetrachloroethane	0.298	0.300	-0.7	83	0.00	15.00
88	M	ethylbenzene	1.410	1.419	-0.6	87	0.00	15.02
89	M	m,p-xylene	0.526	0.532	-1.1	87	0.00	15.11
90	M	o-xylene	0.501	0.514	-2.6	86	0.00	15.49
91	M	styrene	0.815	0.885	-8.6	86	0.00	15.49
92	M	bromoform	0.247	0.255	-3.2	82	0.00	15.70
93		butyl acrylate	0.651	0.736	-13.1	87	0.00	15.31
94		isopropylbenzene	1.284	1.276	0.6	86	0.00	15.80
95		cis-1,4-dichloro-2-butene	0.158	0.145	8.2	75	0.00	15.82
96	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	83	0.00	17.03
97	S	4-bromofluorobenzene (s)	1.009	1.033	-2.4	86	0.00	15.96
98	M	bromobenzene	0.786	0.806	-2.5	84	0.00	16.15

Continuing Calibration Summary

Job Number: JC87686 **Sample:** V4D4141-CC4028
Account: TCMAW Tantara Corporation **Lab FileID:** 4D93914.D
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

99	M	1,1,2,2-tetrachloroethane	1.090	1.111	-1.9	82	0.00	16.02
100	M	trans-1,4-dichloro-2-bute	0.237	0.237	0.0	80	0.00	16.06
101	M	1,2,3-trichloropropane	0.284	0.274	3.5	79	0.00	16.10
102	M	n-propylbenzene	3.401	3.523	-3.6	86	0.00	16.17
103	M	2-chlorotoluene	0.690	0.720	-4.3	84	0.00	16.30
104	M	4-chlorotoluene	2.075	2.095	-1.0	85	0.00	16.38
105	M	1,3,5-trimethylbenzene	2.286	2.386	-4.4	85	0.00	16.31
106	M	tert-butylbenzene	0.417	0.419	-0.5	81	0.00	16.63
107	M	1,2,4-trimethylbenzene	2.307	2.368	-2.6	84	0.00	16.67
108	M	sec-butylbenzene	2.723	2.829	-3.9	86	0.00	16.83
109	M	1,3-dichlorobenzene	1.343	1.347	-0.3	84	0.00	16.98
110	M	p-isopropyltoluene	2.200	2.317	-5.3	85	0.00	16.93
111	M	1,4-dichlorobenzene	1.382	1.353	2.1	82	0.00	17.06
112		benzyl chloride	1.777	1.849	-4.1	80	0.00	17.14
113	M	1,2-dichlorobenzene	1.268	1.283	-1.2	82	0.00	17.42
114	M	n-butylbenzene	1.056	1.155	-9.4	85	0.00	17.32
115	M	1,2-dibromo-3-chloropropa	0.207	0.196	5.3	73	0.00	18.11
116		1,3,5-trichlorobenzene	0.843	0.878	-4.2	81	0.00	18.33
		----------	True	Calc.	% Drift	----------		
117		2-ethylhexyl acrylate	10.000	4.841	51.6#	41	0.00	18.92
		----------	AvgRF	CCRF	% Dev	----------		
118	M	1,2,4-trichlorobenzene	0.764	0.752	1.6	77	0.00	18.93
119	M	hexachlorobutadiene	0.286	0.293	-2.4	82	0.00	19.06
120	M	naphthalene	2.388	2.161	9.5	71	0.00	19.18
121	M	1,2,3-trichlorobenzene	0.720	0.673	6.5	74	0.00	19.41
122	m	hexachloroethane	0.343	0.371	-8.2	85	0.00	17.69
123		2-methylnaphthalene	0.879	0.744	15.4	64	0.00	20.27
124		bis(chloromethyl)ether		----------NA----------				
125		ethylenimine		----------NA----------				

(#) = Out of Range SPCC's out = 0 CCC's out = 0
4D92111.D M4D4028.M Mon May 13 21:36:02 2019

Continuing Calibration Summary

Job Number: JC87686
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample: V4D4144-CC4028
Lab FileID: 4D93965.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\lo...-13\v4d4144\4d93965.d Vial: 2
Acq On : 10 May 2019 6:45 am Operator: deving
Sample : cc4028-20 Inst : MS4D
Misc : MS34547,V4D4144,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M4D4028.M (RTE Integrator)
Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
Last Update : Fri Feb 01 10:17:00 2019
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1		tert butyl alcohol-d9	1.000	1.000	0.0	93	0.00	8.66
2	M	tertiary butyl alcohol	1.084	1.181	-8.9	99	0.00	8.79
3		ethanol	0.106	0.133	-25.5#	112	0.00	7.19
4	M	1,4-dioxane	0.108	0.102	5.6	83	0.00	12.69
5	I	pentafluorobenzene	1.000	1.000	0.0	117	0.00	11.14
6	M	chlorodifluoromethane	0.509	0.431	15.3	97	-0.01	4.63
7	M	dichlorodifluoromethane	0.554	0.608	-9.7	124	0.00	4.61
8	M	chloromethane	0.844	0.641	24.1#	95	0.00	5.10
9	M	vinyl chloride	0.636	0.574	9.7	103	0.00	5.38
10	M	bromomethane	0.196	0.272	-38.8#	164	0.01	6.17
11	M	chloroethane	0.323	0.324	-0.3	116	0.00	6.40
12	M	trichlorofluoromethane	0.727	0.615	15.4	95	0.00	6.97
13		vinyl bromide	0.377	0.365	3.2	112	0.00	6.82
14	M	ethyl ether	0.256	0.237	7.4	110	0.00	7.49
15	M	acrolein	0.123	0.103	16.3	110	0.00	7.71
16		freon 113	0.315	0.269	14.6	95	0.00	7.95
17	M	1,1-dichloroethene	0.401	0.351	12.5	101	0.00	7.96
18	M	acetone	0.201	0.190	5.5	109	0.00	7.95
19	M	acetonitrile	0.088	0.087	1.1	114	0.00	8.40
20	M	iodomethane	0.245	0.201	18.0	101	0.00	8.24
21	M	carbon disulfide	1.086	0.952	12.3	109	0.00	8.41
22	M	methylene chloride	0.484	0.426	12.0	107	0.00	8.73
23	M	methyl acetate	0.536	0.462	13.8	105	0.00	8.52
24	M	methyl tert butyl ether	1.374	1.231	10.4	102	0.00	9.16
25	M	trans-1,2-dichloroethene	0.435	0.381	12.4	101	0.00	9.19
26	M	di-isopropyl ether	1.444	1.451	-0.5	112	0.00	9.85
27	M	2-butanone	0.084	0.078	7.1	109	0.00	10.53
28	M	1,1-dichloroethane	0.782	0.755	3.5	106	0.00	9.79
29	M	chloroprene	0.637	0.578	9.3	103	0.00	9.94
30	M	acrylonitrile	0.212	0.202	4.7	116	0.00	9.05
31		hexane	0.279	0.286	-2.5	118	0.00	9.61
32	M	vinyl acetate	0.114	0.099	13.2	108	0.00	9.79
33	M	ethyl tert-butyl ether	1.445	1.347	6.8	106	0.00	10.34
34	M	ethyl acetate	0.079	0.066	16.5	99	0.00	10.58
35	M	2,2-dichloropropane	0.690	0.577	16.4	94	0.00	10.61
36	M	cis-1,2-dichloroethene	0.497	0.451	9.3	102	0.00	10.57
37		methyl acrylate	0.099	0.085	14.1	100	0.00	10.66
38	M	propionitrile	0.103	0.097	5.8	106	0.00	10.58
39	M	bromochloromethane	0.236	0.217	8.1	102	0.00	10.89
40	M	tetrahydrofuran	0.094	0.080	14.9	101	0.00	10.96
41	M	chloroform	0.546	0.455	16.7	95	0.00	10.95

Continuing Calibration Summary

Job Number: JC87686 **Sample:** V4D4144-CC4028
Account: TCMAW Tantara Corporation **Lab FileID:** 4D93965.D
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

42	M	t-butyl formate	0.474	0.365	23.0#	83	0.00	11.03
43	S	dibromofluoromethane (s)	0.551	0.471	14.5	99	0.00	11.15
44	M	methacrylonitrile	0.264	0.229	13.3	105	0.00	10.81
45	M	1,1,1-trichloroethane	0.707	0.564	20.2#	88	0.00	11.26
46		cyclohexane	0.650	0.553	14.9	93	0.00	11.37
47		1,1-dichloropropene	0.608	0.517	15.0	92	0.00	11.44
48		isobutyl alcohol	0.004	0.003	25.0#	86	0.00	11.45
49		carbon tetrachloride	0.611	0.471	22.9#	84	0.00	11.47
50		tert amyl alcohol	0.033	0.027	18.2	87	0.00	11.52
51	I	1,4-difluorobenzene	1.000	1.000	0.0	99	0.00	12.03
52	S	1,2-dichloroethane-d4 (s)	0.337	0.336	0.3	96	0.00	11.57
53	M	n-butyl alcohol	0.015	0.015	0.0	91	0.00	12.10
54		2,2,4-trimethylpentane	0.665	0.758	-14.0	102	0.00	11.76
55	M	benzene	1.081	1.073	0.7	96	0.00	11.69
56	M	tert-amyl methyl ether	0.205	0.197	3.9	88	0.00	11.75
57	M	heptane	0.157	0.171	-8.9	98	0.00	11.92
58	M	isopropyl acetate	0.080	0.079	1.3	92	0.00	11.61
59	M	1,2-dichloroethane	0.431	0.360	16.5	84	0.00	11.66
60	M	trichloroethene	0.288	0.265	8.0	86	0.00	12.37
61		ethyl acrylate	0.470	0.446	5.1	85	0.00	12.35
62	M	2-nitropropane	0.094	0.077	18.1	77	0.00	13.02
63	M	2-chloroethyl vinyl ether	0.200	0.006	97.0#	3#	0.00	13.07
64	M	methyl methacrylate	0.093	0.088	5.4	88	0.00	12.60
65	M	1,2-dichloropropane	0.281	0.291	-3.6	95	0.00	12.59
66	M	dibromomethane	0.200	0.180	10.0	85	0.00	12.71
67	M	methylcyclohexane	0.373	0.377	-1.1	89	0.00	12.62
68	M	bromodichloromethane	0.391	0.357	8.7	85	0.00	12.83
69		epichlorohydrin	0.033	0.030	9.1	84	0.00	13.15
70	M	cis-1,3-dichloropropene	0.476	0.445	6.5	89	0.00	13.27
71	M	4-methyl-2-pentanone	0.155	0.148	4.5	84	0.00	13.36
72	M	3-methyl-1-butanol	0.014	0.013	7.1	81	0.00	13.35
73	I	chlorobenzene-d5	1.000	1.000	0.0	89	0.00	14.93
74	S	toluene-d8 (s)	1.295	1.380	-6.6	93	0.00	13.56
75		toluene	0.782	0.763	2.4	85	0.00	13.63
76		trans-1,3-dichloropropene	0.476	0.483	-1.5	83	0.00	13.77
77		ethyl methacrylate	0.459	0.475	-3.5	85	0.00	13.79
78		1,1,2-trichloroethane	0.258	0.270	-4.7	85	0.00	13.96
79	M	tetrachloroethene	0.268	0.253	5.6	81	0.00	14.18
80	M	1,3-dichloropropane	0.504	0.498	1.2	83	0.00	14.13
81		2-hexanone	0.180	0.187	-3.9	83	0.00	14.13
82	M	butyl acetate	0.278	0.286	-2.9	83	0.00	14.21
83	M	dibromochloromethane	0.344	0.339	1.5	81	0.00	14.37
84	M	1,2-dibromoethane	0.396	0.364	8.1	78	0.00	14.51
85		n-butyl ether	1.323	1.252	5.4	79	0.00	14.91
86	M	chlorobenzene	0.852	0.788	7.5	82	0.00	14.95
87	M	1,1,1,2-tetrachloroethane	0.298	0.284	4.7	80	0.00	15.00
88	M	ethylbenzene	1.410	1.340	5.0	83	0.00	15.02
89	M	m,p-xylene	0.526	0.510	3.0	82	0.00	15.11
90	M	o-xylene	0.501	0.489	2.4	81	0.00	15.49
91	M	styrene	0.815	0.836	-2.6	83	0.00	15.49
92	M	bromoform	0.247	0.235	4.9	79	0.00	15.70
93		butyl acrylate	0.651	0.677	-4.0	85	0.00	15.31
94		isopropylbenzene	1.284	1.197	6.8	81	0.00	15.80
95		cis-1,4-dichloro-2-butene	0.158	0.113	28.5#	64	0.00	15.82
96	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	89	0.00	17.03
97	S	4-bromofluorobenzene (s)	1.009	1.018	-0.9	89	0.00	15.96
98	M	bromobenzene	0.786	0.757	3.7	81	0.00	16.15

Continuing Calibration Summary

Job Number: JC87686 **Sample:** V4D4144-CC4028
Account: TCMAW Tantara Corporation **Lab FileID:** 4D93965.D
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

99	M	1,1,2,2-tetrachloroethane	1.090	1.031	5.4	79	0.00	16.02
100	M	trans-1,4-dichloro-2-bute	0.237	0.183	22.8#	67	0.00	16.06
101	M	1,2,3-trichloropropane	0.284	0.258	9.2	77	0.00	16.10
102	M	n-propylbenzene	3.401	3.270	3.9	81	0.00	16.17
103	M	2-chlorotoluene	0.690	0.674	2.3	80	0.00	16.30
104	M	4-chlorotoluene	2.075	1.952	5.9	81	0.00	16.38
105	M	1,3,5-trimethylbenzene	2.286	2.236	2.2	81	0.00	16.31
106	M	tert-butylbenzene	0.417	0.397	4.8	80	0.00	16.63
107	M	1,2,4-trimethylbenzene	2.307	2.236	3.1	81	0.00	16.67
108	M	sec-butylbenzene	2.723	2.634	3.3	81	0.00	16.83
109	M	1,3-dichlorobenzene	1.343	1.283	4.5	83	0.00	16.98
110	M	p-isopropyltoluene	2.200	2.184	0.7	83	0.00	16.93
111	M	1,4-dichlorobenzene	1.382	1.300	5.9	83	0.00	17.06
112		benzyl chloride	1.777	1.674	5.8	76	0.00	17.14
113	M	1,2-dichlorobenzene	1.268	1.218	3.9	81	0.00	17.42
114	M	n-butylbenzene	1.056	1.080	-2.3	83	0.00	17.32
115	M	1,2-dibromo-3-chloropropa	0.207	0.177	14.5	70	0.00	18.11
116		1,3,5-trichlorobenzene	0.843	0.822	2.5	79	0.00	18.33
		----------	True	Calc.	% Drift	----------		
117		2-ethylhexyl acrylate	4.000	1.682	58.0#	35	0.00	18.92
		----------	AvgRF	CCRF	% Dev	----------		
118	M	1,2,4-trichlorobenzene	0.764	0.698	8.6	76	0.00	18.93
119	M	hexachlorobutadiene	0.286	0.279	2.4	81	0.00	19.06
120	M	naphthalene	2.388	2.011	15.8	69	0.00	19.18
121	M	1,2,3-trichlorobenzene	0.720	0.622	13.6	72	0.00	19.41
122	m	hexachloroethane	0.343	0.325	5.2	81	0.00	17.69
123		2-methylnaphthalene	0.879	0.733	16.6	64	0.00	20.28
124		bis(chloromethyl)ether		----------NA----------				
125		ethylenimine		----------NA----------				

(#) = Out of Range SPCC's out = 0 CCC's out = 0
4D92110.D M4D4028.M Mon May 13 09:07:57 2019

MS Volatiles

Raw Data

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\May-2019\5-14\v4d4141\
Data File : 4d93933.d
Acq On : 9 May 2019 2:47 am
Operator : deving
Sample : JC87686-1 Inst : MS4D
Misc : MS34604,V4D4141,5,,,,1
ALS Vial : 71 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Results File: M4D4028.RES
Quant Time: May 13 22:19:47 2019
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Fri Feb 01 10:17:00 2019
Response via : Initial Calibration

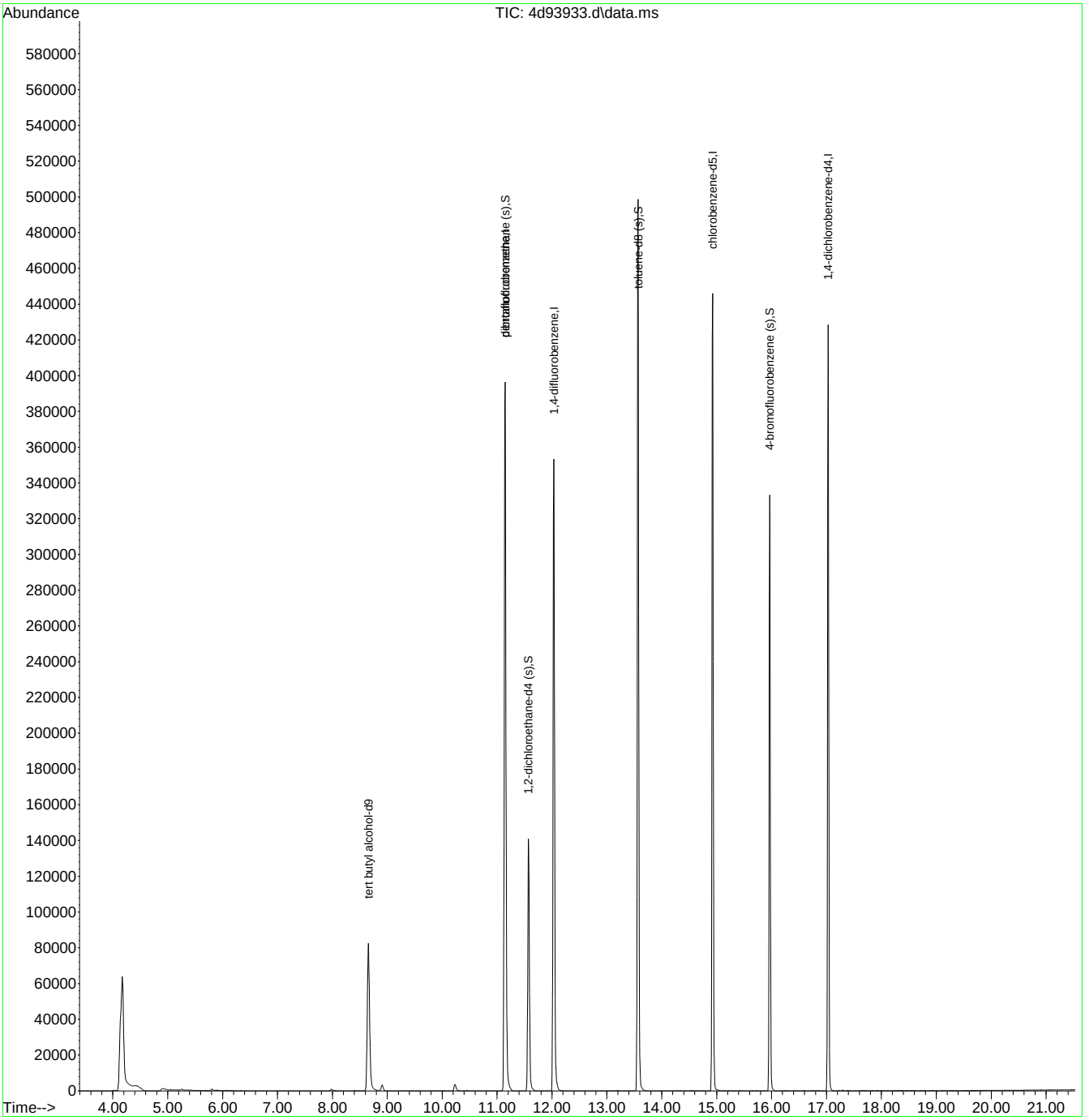
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	8.656	65	146679	500.00	ug/L	0.00
5) pentafluorobenzene	11.146	168	206228	50.00	ug/L	0.00
51) 1,4-difluorobenzene	12.033	114	308458	50.00	ug/L	0.00
73) chlorobenzene-d5	14.927	117	244508	50.00	ug/L	0.00
96) 1,4-dichlorobenzene-d4	17.029	152	106887	50.00	ug/L	0.00
System Monitoring Compounds						
43) dibromofluoromethane (s)	11.146	113	100878	44.35	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 88.70%			
52) 1,2-dichloroethane-d4 (s)	11.571	65	105116	50.49	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 100.98%			
74) toluene-d8 (s)	13.569	98	340154	53.71	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 107.42%			
97) 4-bromofluorobenzene (s)	15.965	95	109524	50.80	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.60%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\May-2019\5-14\v4d4141\
Data File : 4d93933.d
Acq On : 9 May 2019 2:47 am
Operator : deving
Sample : JC87686-1 Inst : MS4D
Misc : MS34604,V4D4141,5,,,,1
ALS Vial : 71 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Results File: M4D4028.RES
Quant Time: May 13 22:19:47 2019
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Fri Feb 01 10:17:00 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\May-2019\5-14\v4d4141\
Data File : 4d93934.d
Acq On : 9 May 2019 3:16 am
Operator : deving
Sample : JC87686-2 Inst : MS4D
Misc : MS34604,V4D4141,5,,,,1
ALS Vial : 72 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Results File: M4D4028.RES
Quant Time: May 13 22:21:13 2019
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Fri Feb 01 10:17:00 2019
Response via : Initial Calibration

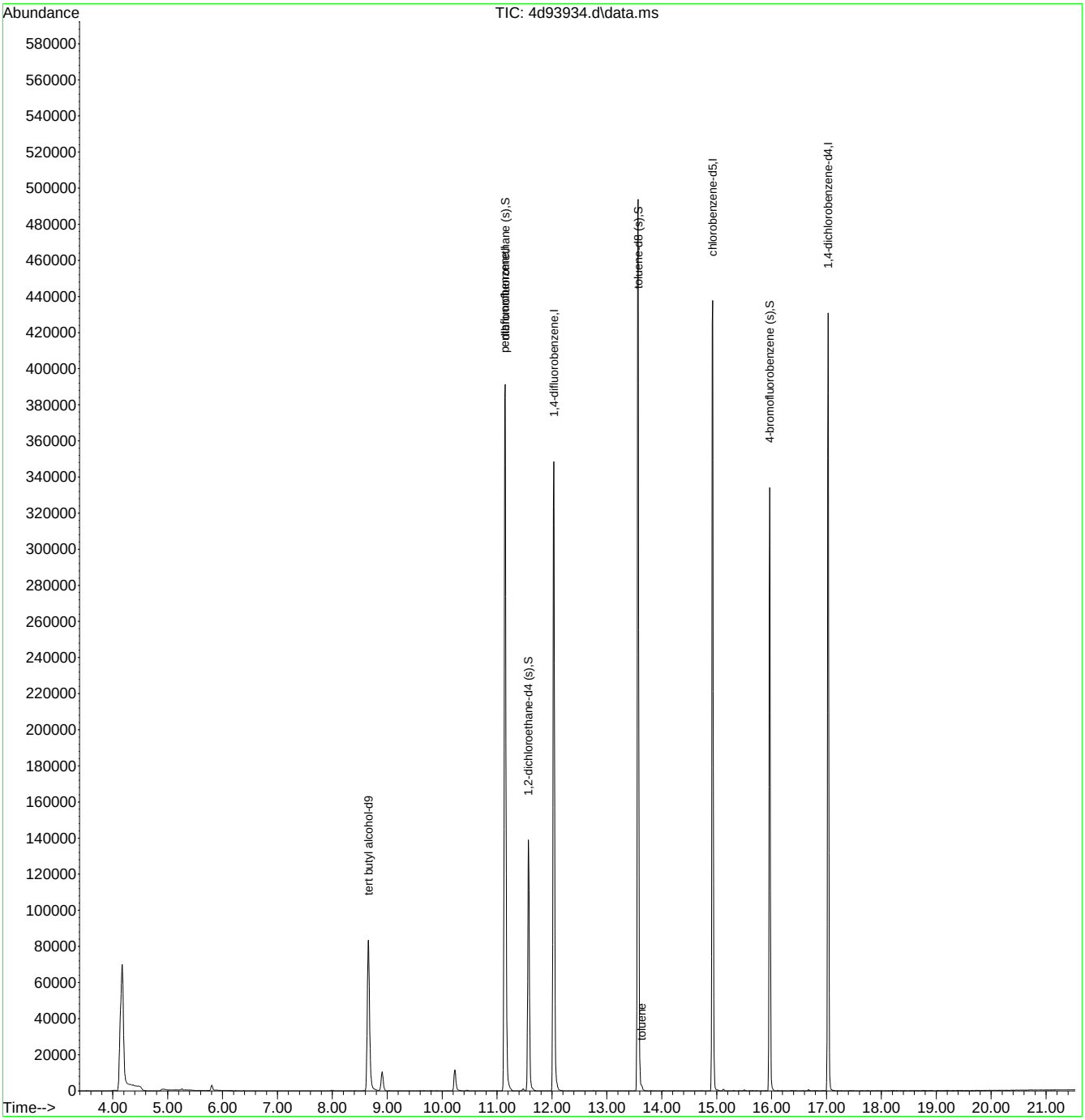
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	8.656	65	149777	500.00	ug/L	0.00
5) pentafluorobenzene	11.141	168	204341	50.00	ug/L	0.00
51) 1,4-difluorobenzene	12.033	114	304272	50.00	ug/L	0.00
73) chlorobenzene-d5	14.927	117	240178	50.00	ug/L	0.00
96) 1,4-dichlorobenzene-d4	17.029	152	105896	50.00	ug/L	0.00
System Monitoring Compounds						
43) dibromofluoromethane (s)	11.147	113	100120	44.42	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 88.84%			
52) 1,2-dichloroethane-d4 (s)	11.571	65	104327	50.80	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 101.60%			
74) toluene-d8 (s)	13.569	98	334311	53.74	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 107.48%			
97) 4-bromofluorobenzene (s)	15.965	95	108534	50.81	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.62%			
Target Compounds						Qvalue
75) toluene	13.632	92	876	0.23	ug/L	88

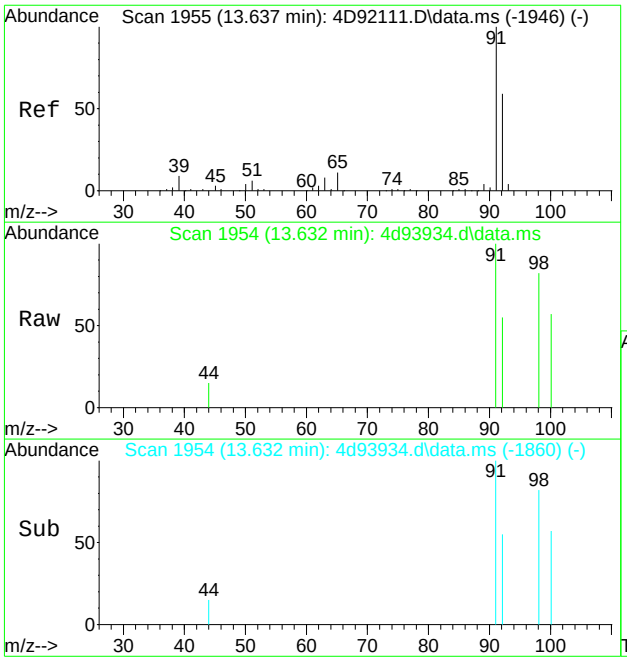
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\May-2019\5-14\v4d4141\
Data File : 4d93934.d
Acq On : 9 May 2019 3:16 am
Operator : deving
Sample : JC87686-2 Inst : MS4D
Misc : MS34604,V4D4141,5,,,,1
ALS Vial : 72 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Results File: M4D4028.RES
Quant Time: May 13 22:21:13 2019
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Fri Feb 01 10:17:00 2019
Response via : Initial Calibration

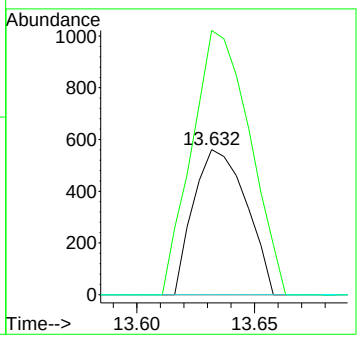




#75
toluene
Concen: 0.23 ug/L
RT: 13.632 min Scan# 1954
Delta R.T. -0.005 min
Lab File: 4d93934.d
Acq: 9 May 2019 3:16 am

Tgt Ion: 92 Resp: 876

Ion	Ratio	Lower	Upper
92	100		
91	182.2	150.3	190.3
65	0.0	0.0	38.7



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\May-2019\5-14\v4d4141\
Data File : 4d93917.d
Acq On : 8 May 2019 6:46 pm
Operator : deving
Sample : mb Inst : MS4D
Misc : MS33170,V4D4141,5,,,,1
ALS Vial : 55 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Results File: M4D4028.RES
Quant Time: May 13 21:42:32 2019
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Fri Feb 01 10:17:00 2019
Response via : Initial Calibration

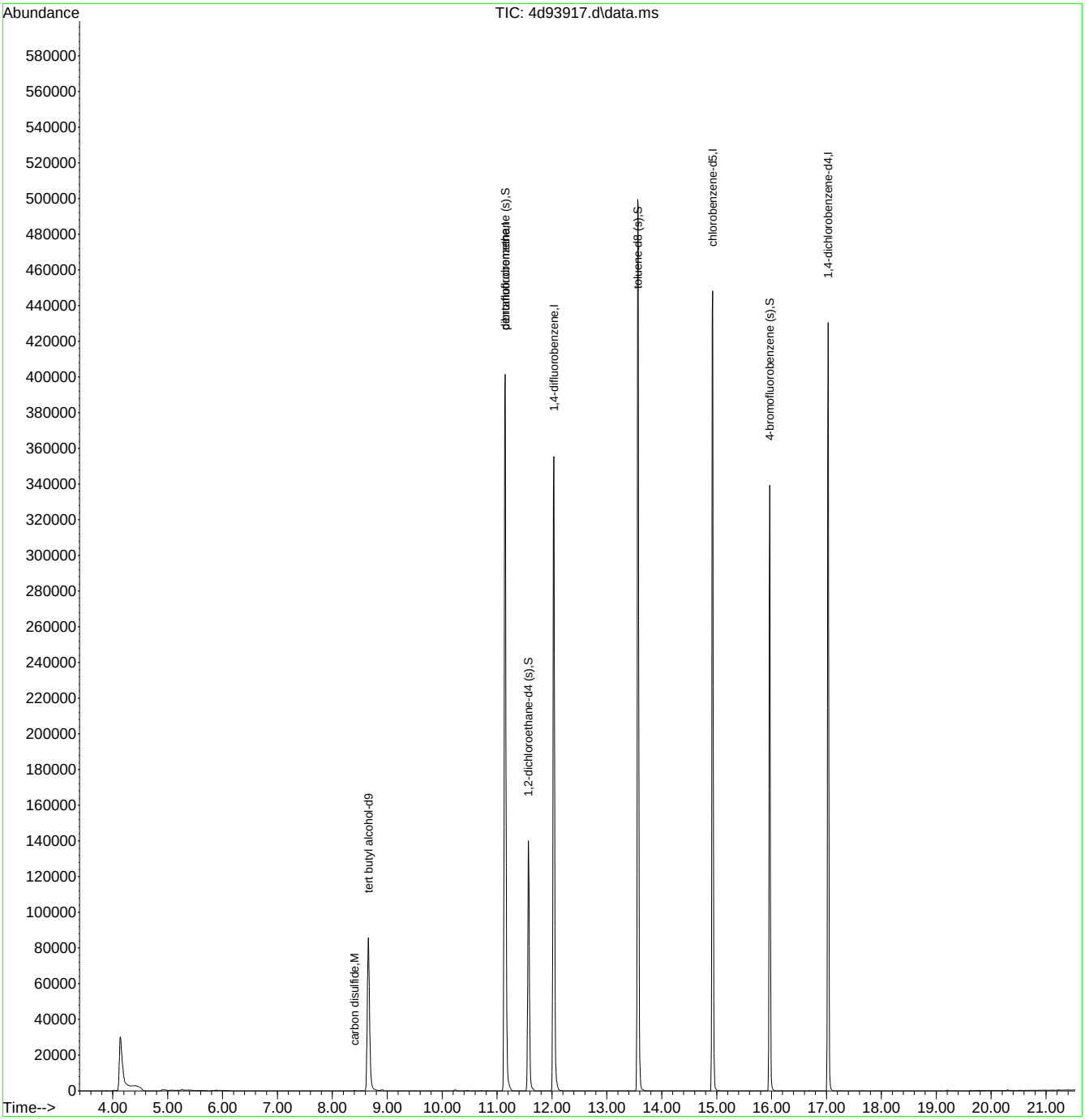
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	8.656	65	153182	500.00	ug/L	0.00
5) pentafluorobenzene	11.147	168	214020	50.00	ug/L	0.00
51) 1,4-difluorobenzene	12.033	114	315531	50.00	ug/L	0.00
73) chlorobenzene-d5	14.927	117	247415	50.00	ug/L	0.00
96) 1,4-dichlorobenzene-d4	17.029	152	107342	50.00	ug/L	0.00
System Monitoring Compounds						
43) dibromofluoromethane (s)	11.147	113	102052	43.23	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 86.46%			
52) 1,2-dichloroethane-d4 (s)	11.571	65	104698	49.16	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 98.32%			
74) toluene-d8 (s)	13.564	98	344503	53.76	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 107.52%			
97) 4-bromofluorobenzene (s)	15.965	95	109511	50.57	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.14%			
Target Compounds						Qvalue
21) carbon disulfide	8.404	76	519	0.11	ug/L	69

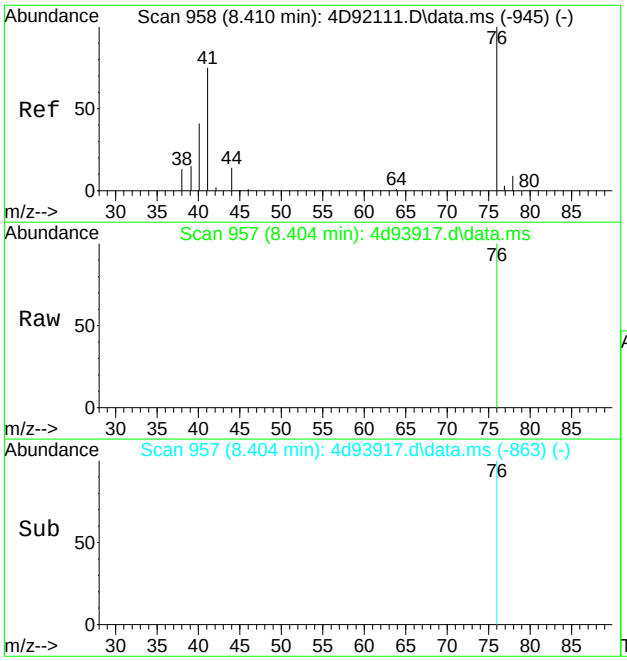
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\May-2019\5-14\v4d4141\
Data File : 4d93917.d
Acq On : 8 May 2019 6:46 pm
Operator : deving
Sample : mb Inst : MS4D
Misc : MS33170,V4D4141,5,,,,1
ALS Vial : 55 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Results File: M4D4028.RES
Quant Time: May 13 21:42:32 2019
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Fri Feb 01 10:17:00 2019
Response via : Initial Calibration

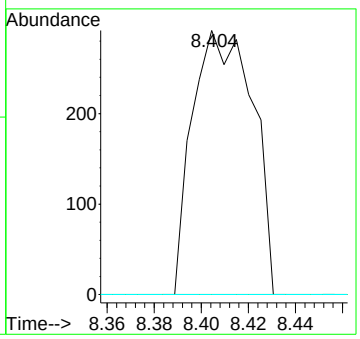




#21
carbon disulfide
Concen: 0.11 ug/L
RT: 8.404 min Scan# 957
Delta R.T. -0.006 min
Lab File: 4d93917.d
Acq: 8 May 2019 6:46 pm

Tgt Ion: 76 Resp: 519

Ion	Ratio	Lower	Upper
76	100		
78	0.0	0.0	39.0
44	0.0	0.0	43.9



Quantitation Report (QT/LSC Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\May-2019\5-13\v4d4144\
Data File : 4d93970a.d
Acq On : 10 May 2019 9:21 am
Operator : edwardd
Sample : mb2 Inst : MS4D
Misc : MS34263,V4D4141,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Results File: M4D4028.RES
Quant Time: May 13 09:20:34 2019
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Fri Feb 01 10:17:00 2019
Response via : Initial Calibration

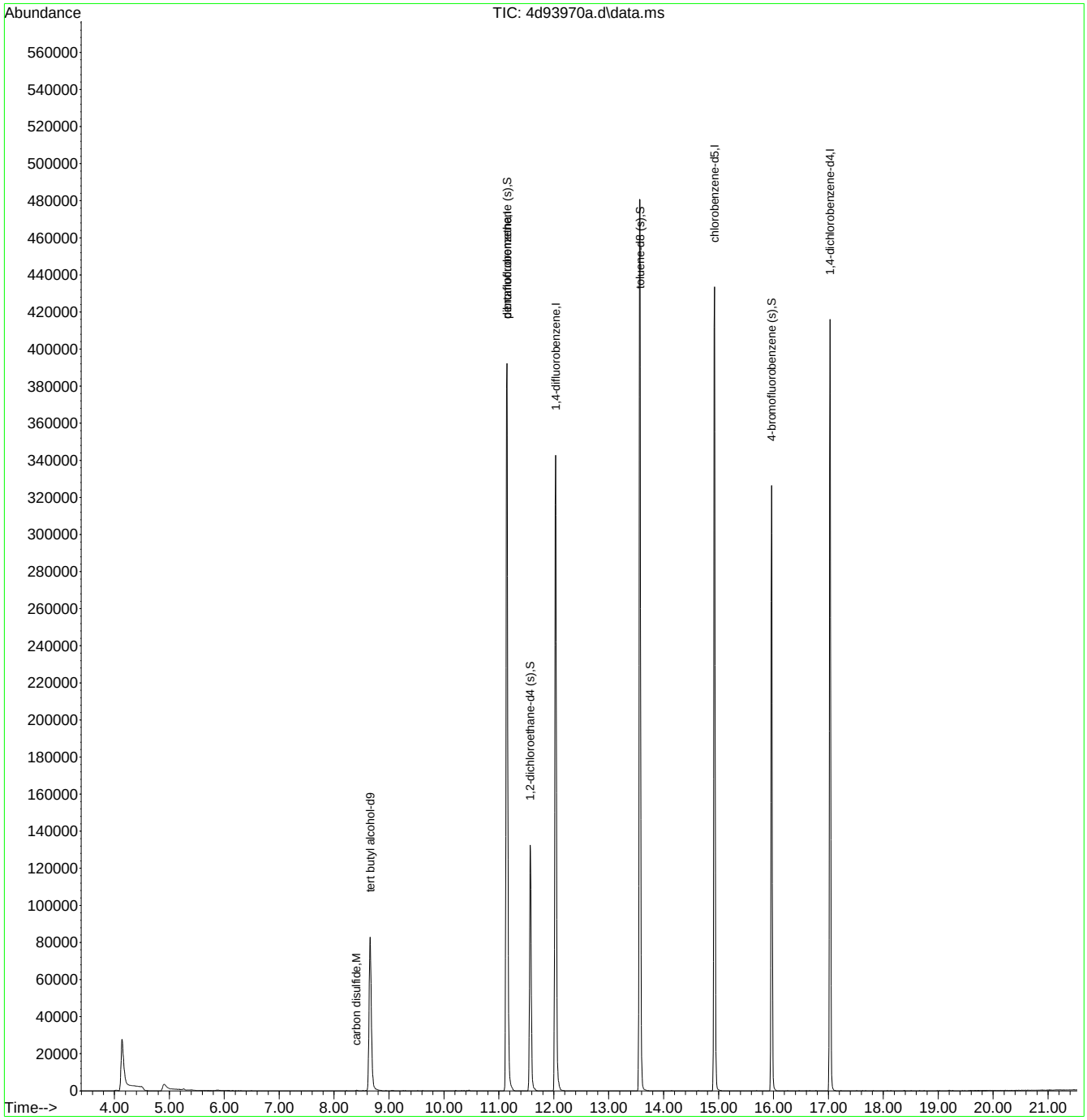
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	8.656	65	147668	500.00	ug/L	0.00
5) pentafluorobenzene	11.147	168	206707	50.00	ug/L	0.00
51) 1,4-difluorobenzene	12.033	114	303047	50.00	ug/L	0.00
73) chlorobenzene-d5	14.927	117	239751	50.00	ug/L	0.00
96) 1,4-dichlorobenzene-d4	17.029	152	103017	50.00	ug/L	0.00
System Monitoring Compounds						
43) dibromofluoromethane (s)	11.147	113	97876	42.93	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 85.86%			
52) 1,2-dichloroethane-d4 (s)	11.571	65	99995	48.89	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 97.78%			
74) toluene-d8 (s)	13.569	98	331363	53.36	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 106.72%			
97) 4-bromofluorobenzene (s)	15.965	95	105029	50.54	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.08%			
Target Compounds						Qvalue
21) carbon disulfide	8.404	76	590	0.13	ug/L	69

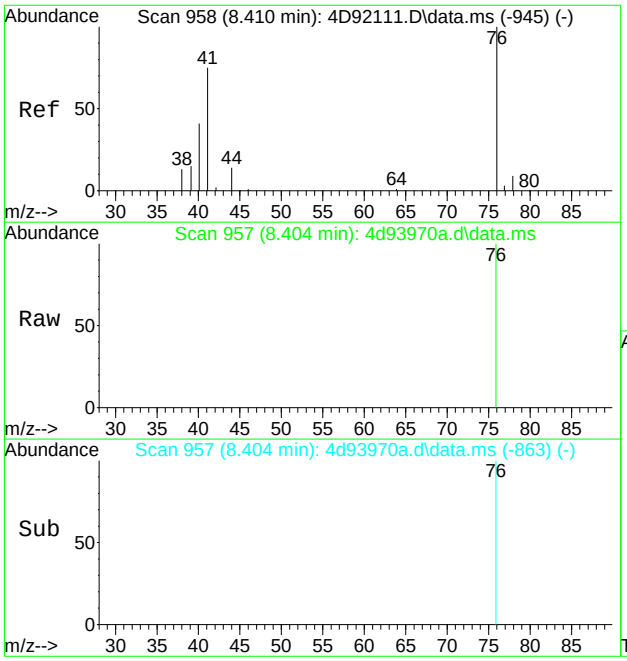
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT/LSC Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\May-2019\5-13\v4d4144\
Data File : 4d93970a.d
Acq On : 10 May 2019 9:21 am
Operator : edwardd
Sample : mb2 Inst : MS4D
Misc : MS34263,V4D4141,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Results File: M4D4028.RES
Quant Time: May 13 09:20:34 2019
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Fri Feb 01 10:17:00 2019
Response via : Initial Calibration

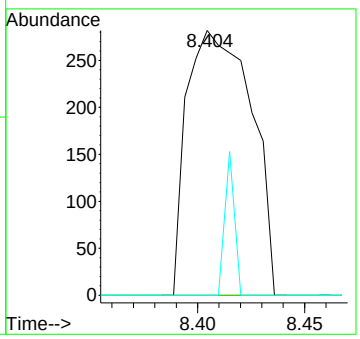




#21
carbon disulfide
Concen: 0.13 ug/L
RT: 8.404 min Scan# 957
Delta R.T. -0.006 min
Lab File: 4d93970a.d
Acq: 10 May 2019 9:21 am

Tgt Ion: 76 Resp: 590

Ion	Ratio	Lower	Upper
76	100		
78	0.0	0.0	39.0
44	0.0	0.0	43.9



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\May-2019\5-14\v4d4141\
Data File : 4d93915.d
Acq On : 8 May 2019 5:49 pm
Operator : deving
Sample : bs Inst : MS4D
Misc : MS34604,V4D4141,5,,,,1
ALS Vial : 53 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Results File: M4D4028.RES
Quant Time: May 08 19:19:42 2019
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Fri Feb 01 10:17:00 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	8.656	65	137667	500.00	ug/L	0.00
5) pentafluorobenzene	11.141	168	195405	50.00	ug/L	0.00
51) 1,4-difluorobenzene	12.033	114	282440	50.00	ug/L	0.00
73) chlorobenzene-d5	14.927	117	222730	50.00	ug/L	0.00
96) 1,4-dichlorobenzene-d4	17.029	152	97586	50.00	ug/L	0.00
System Monitoring Compounds						
43) dibromofluoromethane (s)	11.147	113	92819	43.07	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 86.14%			
52) 1,2-dichloroethane-d4 (s)	11.571	65	92362	48.45	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 96.90%			
74) toluene-d8 (s)	13.564	98	308542	53.49	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 106.98%			
97) 4-bromofluorobenzene (s)	15.965	95	98929	50.26	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.52%			
Target Compounds						Qvalue
2) tertiary butyl alcohol	8.787	59	89675	300.59	ug/L	97
3) ethanol	7.188	45	200369	6885.41	ug/L	99
4) 1,4-dioxane	12.688	88	37554	1260.89	ug/L	99
6) chlorodifluoromethane	4.635	51	93650	47.12	ug/L	96
7) dichlorodifluoromethane	4.614	85	112687	52.08	ug/L	99
8) chloromethane	5.091	50	121428	36.84	ug/L	99
9) vinyl chloride	5.379	62	112493	45.23	ug/L	98
10) bromomethane	6.160	94	63490	82.72	ug/L	99
11) chloroethane	6.396	64	62641	49.55	ug/L	98
12) trichlorofluoromethane	6.963	101	122746	43.18	ug/L	98
13) vinyl bromide	6.816	106	73615	50.02	ug/L	98
14) ethyl ether	7.487	74	50485	50.50	ug/L	93
15) acrolein	7.697	56	24757	51.62	ug/L	95
16) freon 113	7.948	151	57070	46.33	ug/L	97
17) 1,1-dichloroethene	7.954	96	72792	46.49	ug/L	98
18) acetone	7.948	43	177378	225.92	ug/L	95
19) acetonitrile	8.394	41	176494	514.69	ug/L	98
20) iodomethane	8.242	142	60932	63.75	ug/L	98
21) carbon disulfide	8.405	76	199558	47.01	ug/L	96
22) methylene chloride	8.724	84	87028	46.02	ug/L	99
23) methyl acetate	8.520	43	94681	45.17	ug/L	98
24) methyl tert butyl ether	9.160	73	250500	46.67	ug/L	96
25) trans-1,2-dichloroethene	9.186	96	78410	46.15	ug/L	99
26) di-isopropyl ether	9.841	45	291366	51.63	ug/L	94
27) 2-butanone	10.523	72	66244	202.93	ug/L	98
28) 1,1-dichloroethane	9.783	63	149738	49.02	ug/L	99
29) chloroprene	9.935	53	116828	46.90	ug/L	97
30) acrylonitrile	9.049	53	42704	51.60	ug/L	99
31) hexane	9.600	56	62112	56.93	ug/L	97
32) vinyl acetate	9.789	86	21294	47.74	ug/L #	92
33) ethyl tert-butyl ether	10.339	59	271636	48.11	ug/L	98
34) ethyl acetate	10.580	70	13741	44.48	ug/L	96
35) 2,2-dichloropropane	10.601	77	115232	42.76	ug/L	97
36) cis-1,2-dichloroethene	10.570	96	89018	45.81	ug/L	100
37) methyl acrylate	10.654	85	17671	45.46	ug/L #	81
38) propionitrile	10.580	54	195746	487.09	ug/L	99
39) bromochloromethane	10.884	128	43190	46.81	ug/L	94
40) tetrahydrofuran	10.953	72	16786	45.51	ug/L	99
41) chloroform	10.947	85	90417	42.34	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\May-2019\5-14\v4d4141\
Data File : 4d93915.d
Acq On : 8 May 2019 5:49 pm
Operator : deving
Sample : bs Inst : MS4D
Misc : MS34604,V4D4141,5,,,,1
ALS Vial : 53 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Results File: M4D4028.RES
Quant Time: May 08 19:19:42 2019
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Fri Feb 01 10:17:00 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
42) t-butyl formate	11.026	59	71920	38.84	ug/L		98
44) methacrylonitrile	10.806	67	46974	45.53	ug/L		98
45) 1,1,1-trichloroethane	11.257	97	112828	40.81	ug/L		99
46) cyclohexane	11.367	84	107927	42.51	ug/L		96
47) 1,1-dichloropropene	11.440	75	103663	43.63	ug/L		99
48) isobutyl alcohol	11.435	74	6482	419.25	ug/L		90
49) carbon tetrachloride	11.472	117	94591	39.60	ug/L		99
50) tert amyl alcohol	11.519	55	26768	205.04	ug/L		93
53) n-butyl alcohol	12.101	56	225792	2624.72	ug/L		99
54) 2,2,4-trimethylpentane	11.760	57	226790	60.34	ug/L		95
55) benzene	11.687	78	303999	49.79	ug/L		100
56) tert-amyl methyl ether	11.744	87	56793	48.93	ug/L		98
57) heptane	11.917	71	52132	58.86	ug/L		97
58) isopropyl acetate	11.608	87	23307	51.45	ug/L		93
59) 1,2-dichloroethane	11.655	62	103182	42.36	ug/L		94
60) trichloroethene	12.363	130	74562	45.90	ug/L		100
61) ethyl acrylate	12.353	55	132508	49.95	ug/L		99
62) 2-nitropropane	13.018	41	23280	43.88	ug/L		99
63) 2-chloroethyl vinyl ether	13.066	63	11602	10.25	ug/L		95
64) methyl methacrylate	12.604	100	26302	49.84	ug/L	#	85
65) 1,2-dichloropropane	12.588	63	83077	52.38	ug/L		99
66) dibromomethane	12.714	93	52020	45.94	ug/L		100
67) methylcyclohexane	12.615	83	110742	52.52	ug/L		98
68) bromodichloromethane	12.835	83	103740	46.96	ug/L		99
69) epichlorohydrin	13.155	57	46711	248.44	ug/L		96
70) cis-1,3-dichloropropene	13.270	75	129915	48.36	ug/L		97
71) 4-methyl-2-pentanone	13.359	58	171106	194.85	ug/L		96
72) 3-methyl-1-butanol	13.349	70	76532	975.11	ug/L		96
75) toluene	13.632	92	171962	49.38	ug/L		100
76) trans-1,3-dichloropropene	13.763	75	113823	53.70	ug/L		99
77) ethyl methacrylate	13.789	69	112853	55.14	ug/L		99
78) 1,1,2-trichloroethane	13.957	83	62166	54.06	ug/L		97
79) tetrachloroethene	14.177	164	55935	46.92	ug/L		99
80) 1,3-dichloropropane	14.130	76	112289	50.06	ug/L		100
81) 2-hexanone	14.130	58	175369	218.62	ug/L		99
82) butyl acetate	14.209	56	66319	53.58	ug/L		99
83) dibromochloromethane	14.366	129	78643	51.34	ug/L		100
84) 1,2-dibromoethane	14.513	107	85042	48.22	ug/L		99
85) n-butyl ether	14.906	57	288587	48.98	ug/L		100
86) chlorobenzene	14.953	112	178061	46.91	ug/L		98
87) 1,1,1,2-tetrachloroethane	15.000	131	65105	49.09	ug/L		98
88) ethylbenzene	15.016	91	303330	48.30	ug/L		99
89) m,p-xylene	15.110	106	229804	98.16	ug/L		99
90) o-xylene	15.488	106	110023	49.34	ug/L		99
91) styrene	15.488	104	191955	52.88	ug/L		99
92) bromoform	15.698	173	56353	51.22	ug/L		99
93) butyl acrylate	15.310	55	166130	57.26	ug/L		100
94) isopropylbenzene	15.802	105	272461	47.65	ug/L		99
95) cis-1,4-dichloro-2-butene	15.818	88	32120	45.78	ug/L		98
98) bromobenzene	16.148	156	76110	49.63	ug/L		98
99) 1,1,2,2-tetrachloroethane	16.017	83	106948	50.26	ug/L		100
100) trans-1,4-dichloro-2-b...	16.065	53	22907	49.44	ug/L		99
101) 1,2,3-trichloropropane	16.096	110	26240	47.28	ug/L		99
102) n-propylbenzene	16.175	91	326029	49.11	ug/L		100
103) 2-chlorotoluene	16.301	126	66349	49.25	ug/L		97
104) 4-chlorotoluene	16.384	91	195189	48.20	ug/L		98
105) 1,3,5-trimethylbenzene	16.306	105	221602	49.67	ug/L		100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\May-2019\5-14\v4d4141\
Data File : 4d93915.d
Acq On : 8 May 2019 5:49 pm
Operator : deving
Sample : bs Inst : MS4D
Misc : MS34604,V4D4141,5,,,,1
ALS Vial : 53 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Results File: M4D4028.RES
Quant Time: May 08 19:19:42 2019
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Fri Feb 01 10:17:00 2019
Response via : Initial Calibration

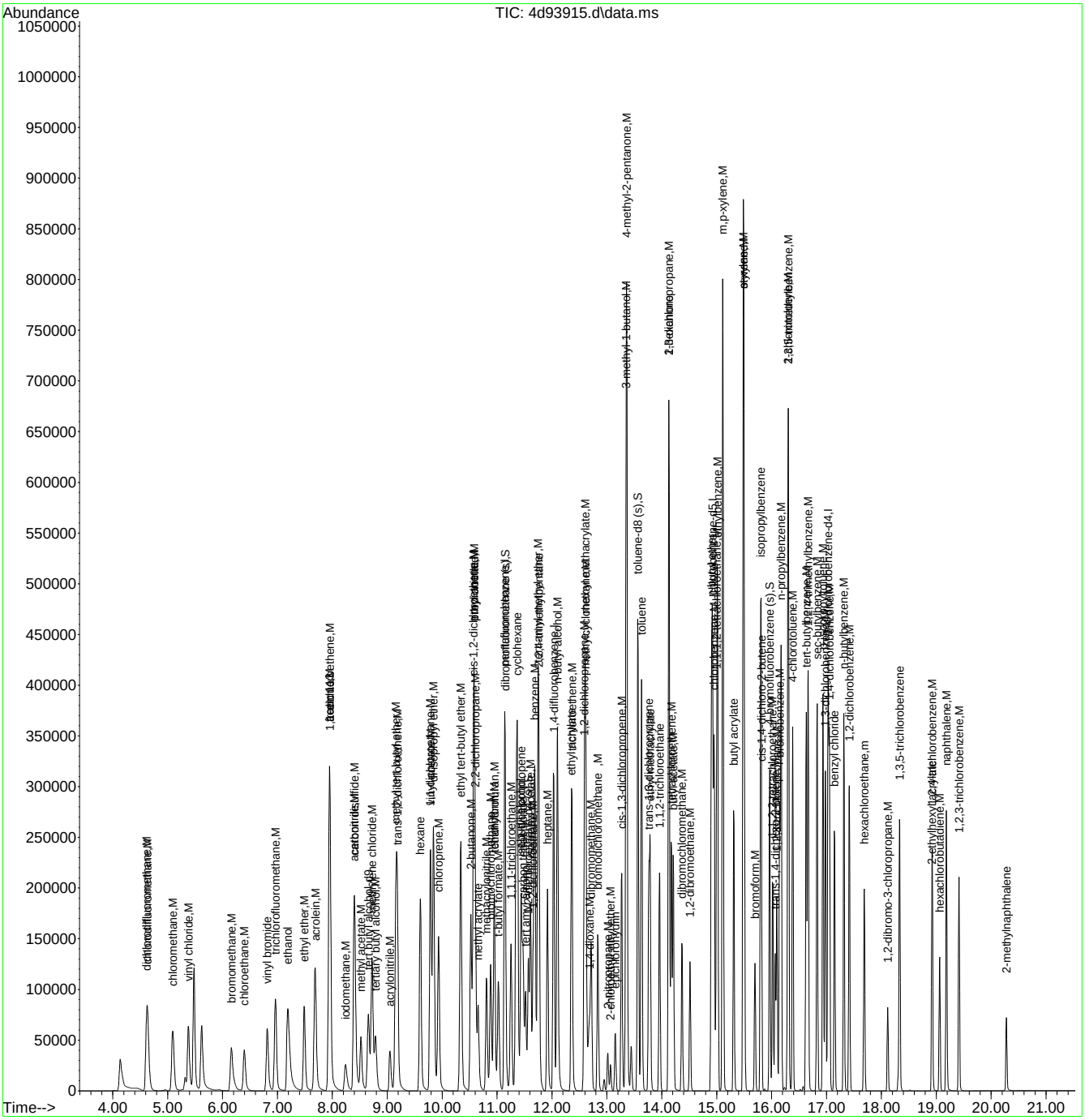
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
106) tert-butylbenzene	16.631	134	39544	48.55	ug/L	96
107) 1,2,4-trimethylbenzene	16.668	105	222282	49.38	ug/L	98
108) sec-butylbenzene	16.830	105	262072	49.32	ug/L	99
109) 1,3-dichlorobenzene	16.982	146	127819	48.76	ug/L	99
110) p-isopropyltoluene	16.935	119	216312	50.37	ug/L	99
111) 1,4-dichlorobenzene	17.056	146	129509	48.03	ug/L	99
112) benzyl chloride	17.145	91	181075	52.21	ug/L	98
113) 1,2-dichlorobenzene	17.417	146	122472	49.49	ug/L	98
114) n-butylbenzene	17.318	92	109872	53.33	ug/L	98
115) 1,2-dibromo-3-chloropr...	18.115	75	19140	47.49	ug/L	98
116) 1,3,5-trichlorobenzene	18.335	180	83749	50.91	ug/L	99
117) 2-ethylhexyl acrylate	18.917	70	3348	4.82	ug/L	92
118) 1,2,4-trichlorobenzene	18.927	180	72720	48.75	ug/L	98
119) hexachlorobutadiene	19.064	225	27985	50.20	ug/L	98
120) naphthalene	19.184	128	208259	44.68	ug/L	100
121) 1,2,3-trichlorobenzene	19.415	180	63757	45.36	ug/L	99
122) hexachloroethane	17.690	201	34215	51.08	ug/L	99
123) 2-methylnaphthalene	20.275	142	36267	21.15	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\May-2019\5-14\v4d4141\
Data File : 4d93915.d
Acq On : 8 May 2019 5:49 pm
Operator : deving
Sample : bs Inst : MS4D
Misc : MS34604,V4D4141,5,,,,1
ALS Vial : 53 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Results File: M4D4028.RES
Quant Time: May 08 19:19:42 2019
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Fri Feb 01 10:17:00 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\May-2019\5-13\v4d4144\
Data File : 4d93988.d
Acq On : 10 May 2019 5:54 pm
Operator : edwardd
Sample : JC87680-2ms Inst : MS4D
Misc : MS34604,V4D4141,5,,,,10
ALS Vial : 25 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Results File: M4D4028.RES
Quant Time: May 13 09:22:42 2019
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 31 10:41:25 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	8.661	65	141687	500.00	ug/L	0.00
5) pentafluorobenzene	11.141	168	191553	50.00	ug/L	0.00
51) 1,4-difluorobenzene	12.033	114	276412	50.00	ug/L	0.00
73) chlorobenzene-d5	14.927	117	219473	50.00	ug/L	0.00
96) 1,4-dichlorobenzene-d4	17.029	152	93503	50.00	ug/L	0.00
System Monitoring Compounds						
43) dibromofluoromethane (s)	11.147	113	91133	43.13	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 86.26%			
52) 1,2-dichloroethane-d4 (s)	11.571	65	89953	48.22	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 96.44%			
74) toluene-d8 (s)	13.569	98	301034	52.96	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 105.92%			
97) 4-bromofluorobenzene (s)	15.965	95	95917	50.85	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.70%			
Target Compounds						Qvalue
2) tertiary butyl alcohol	8.792	59	94645	308.25	ug/L	96
3) ethanol	7.193	45	211532	7062.78	ug/L	99
4) 1,4-dioxane	12.688	88	38714	1262.96	ug/L	100
6) chlorodifluoromethane	4.640	51	101742	52.22	ug/L	94
7) dichlorodifluoromethane	4.614	85	99225	46.78	ug/L	98
8) chloromethane	5.096	50	119362	36.94	ug/L	100
9) vinyl chloride	5.379	62	105288	43.18	ug/L	99
10) bromomethane	6.160	94	53239	70.76	ug/L	99
11) chloroethane	6.396	64	60547	48.86	ug/L	97
12) trichlorofluoromethane	6.968	101	120110	43.10	ug/L	99
13) vinyl bromide	6.816	106	75732	52.49	ug/L	96
14) ethyl ether	7.492	74	51068	52.11	ug/L	93
15) acrolein	7.702	56	23435	49.85	ug/L	83
16) freon 113	7.948	151	57958	47.99	ug/L	95
17) 1,1-dichloroethene	7.954	96	74693	48.67	ug/L	97
18) acetone	7.954	43	146423	190.25	ug/L	94
19) acetonitrile	8.399	41	183309	545.31	ug/L	98
20) iodomethane	8.242	142	46776	49.93	ug/L	96
21) carbon disulfide	8.404	76	202833	48.74	ug/L	96
22) methylene chloride	8.724	84	88085	47.51	ug/L	97
23) methyl acetate	8.525	43	96921	47.17	ug/L	98
24) methyl tert butyl ether	9.159	73	254323	48.33	ug/L	97
25) trans-1,2-dichloroethene	9.186	96	78059	46.87	ug/L	99
26) di-isopropyl ether	9.846	45	292015	52.79	ug/L	95
27) 2-butanone	10.528	72	62969	196.78	ug/L	98
28) 1,1-dichloroethane	9.789	63	150024	50.10	ug/L	99
29) chloroprene	9.935	53	117093	47.96	ug/L	97
30) acrylonitrile	9.049	53	43241	53.30	ug/L	100
31) hexane	9.605	56	65839	61.56	ug/L	97
32) vinyl acetate	9.789	86	21358	48.85	ug/L #	88
33) ethyl tert-butyl ether	10.344	59	273264	49.37	ug/L	97
34) ethyl acetate	10.580	70	13998	46.22	ug/L #	87
35) 2,2-dichloropropane	10.607	77	114172	43.22	ug/L	96
36) cis-1,2-dichloroethene	10.575	96	88748	46.59	ug/L	100
37) methyl acrylate	10.659	85	18136	47.60	ug/L	91
38) propionitrile	10.586	54	202855	514.94	ug/L	98
39) bromochloromethane	10.884	128	42698	47.21	ug/L	92
40) tetrahydrofuran	10.958	72	17078	47.23	ug/L	99
41) chloroform	10.953	85	89477	42.74	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\May-2019\5-13\v4d4144\
Data File : 4d93988.d
Acq On : 10 May 2019 5:54 pm
Operator : edwardd
Sample : JC87680-2ms Inst : MS4D
Misc : MS34604,V4D4141,5,,,,10
ALS Vial : 25 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Results File: M4D4028.RES
Quant Time: May 13 09:22:42 2019
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 31 10:41:25 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
42) t-butyl formate	11.026	59	72381	39.87	ug/L		95
44) methacrylonitrile	10.811	67	47488	46.95	ug/L		97
45) 1,1,1-trichloroethane	11.257	97	111340	41.09	ug/L		99
46) cyclohexane	11.367	84	104548	42.01	ug/L		89
47) 1,1-dichloropropene	11.440	75	103104	44.26	ug/L		99
48) isobutyl alcohol	11.445	74	6563	433.02	ug/L		91
49) carbon tetrachloride	11.477	117	94749	40.46	ug/L		99
50) tert amyl alcohol	11.519	55	32189	251.52	ug/L		97
53) n-butyl alcohol	12.101	56	236225	2805.88	ug/L		99
54) 2,2,4-trimethylpentane	11.765	57	225263	61.24	ug/L		92
55) benzene	11.692	78	342681	57.35	ug/L		99
56) tert-amyl methyl ether	11.749	87	56734	49.94	ug/L		95
57) heptane	11.922	71	53314	61.51	ug/L		98
58) isopropyl acetate	11.613	87	23848	53.79	ug/L		97
59) 1,2-dichloroethane	11.660	62	103646	43.48	ug/L		95
60) trichloroethene	12.363	130	73460	46.20	ug/L		99
61) ethyl acrylate	12.352	55	134417	51.77	ug/L		98
62) 2-nitropropane	13.018	41	23511	45.28	ug/L		96
64) methyl methacrylate	12.604	100	26549	51.41	ug/L	#	88
65) 1,2-dichloropropane	12.594	63	82036	52.85	ug/L		99
66) dibromomethane	12.714	93	52079	46.99	ug/L		100
67) methylcyclohexane	12.620	83	113736	55.12	ug/L		99
68) bromodichloromethane	12.835	83	102515	47.41	ug/L		99
69) epichlorohydrin	13.155	57	49325	268.07	ug/L		96
70) cis-1,3-dichloropropene	13.270	75	127317	48.43	ug/L		98
71) 4-methyl-2-pentanone	13.364	58	177401	206.42	ug/L		98
72) 3-methyl-1-butanol	13.349	70	78693	1024.51	ug/L		95
75) toluene	13.632	92	675471	196.85	ug/L		99
76) trans-1,3-dichloropropene	13.768	75	109541	52.44	ug/L		97
77) ethyl methacrylate	13.789	69	111634	55.35	ug/L		98
78) 1,1,2-trichloroethane	13.962	83	62041	54.75	ug/L		97
79) tetrachloroethene	14.177	164	55084	46.90	ug/L		98
80) 1,3-dichloropropane	14.130	76	111372	50.39	ug/L		99
81) 2-hexanone	14.130	58	176468	223.26	ug/L		98
82) butyl acetate	14.208	56	67033	54.96	ug/L		98
83) dibromochloromethane	14.371	129	77872	51.59	ug/L		100
84) 1,2-dibromoethane	14.513	107	85332	49.11	ug/L		99
85) n-butyl ether	14.906	57	289582	49.87	ug/L		99
86) chlorobenzene	14.953	112	176257	47.12	ug/L		97
87) 1,1,1,2-tetrachloroethane	15.000	131	64514	49.37	ug/L		99
88) ethylbenzene	15.016	91	1370110	221.39	ug/L		100
89) m,p-xylene	15.110	106	1102912	478.09	ug/L		99
90) o-xylene	15.488	106	276161	125.69	ug/L		100
91) styrene	15.488	104	190126	53.15	ug/L		80
92) bromoform	15.698	173	54162	49.96	ug/L		99
93) butyl acrylate	15.310	55	160629	56.18	ug/L		99
94) isopropylbenzene	15.802	105	304247	54.00	ug/L		99
95) cis-1,4-dichloro-2-butene	15.818	88	29186	42.21	ug/L		95
98) bromobenzene	16.148	156	73551	50.06	ug/L		96
99) 1,1,2,2-tetrachloroethane	16.023	83	105643	51.81	ug/L		98
100) trans-1,4-dichloro-2-b...	16.064	53	20816	46.89	ug/L		97
101) 1,2,3-trichloropropane	16.096	110	26094	49.07	ug/L		99
102) n-propylbenzene	16.175	91	429675	67.56	ug/L		99
103) 2-chlorotoluene	16.300	126	63494	49.19	ug/L		88
104) 4-chlorotoluene	16.384	91	185993	47.93	ug/L		98
105) 1,3,5-trimethylbenzene	16.306	105	340224	79.59	ug/L		99
106) tert-butylbenzene	16.631	134	37826	48.47	ug/L		96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\May-2019\5-13\v4d4144\
Data File : 4d93988.d
Acq On : 10 May 2019 5:54 pm
Operator : edwardd
Sample : JC87680-2ms Inst : MS4D
Misc : MS34604,V4D4141,5,,,,10
ALS Vial : 25 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Results File: M4D4028.RES
Quant Time: May 13 09:22:42 2019
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 31 10:41:25 2019
Response via : Initial Calibration

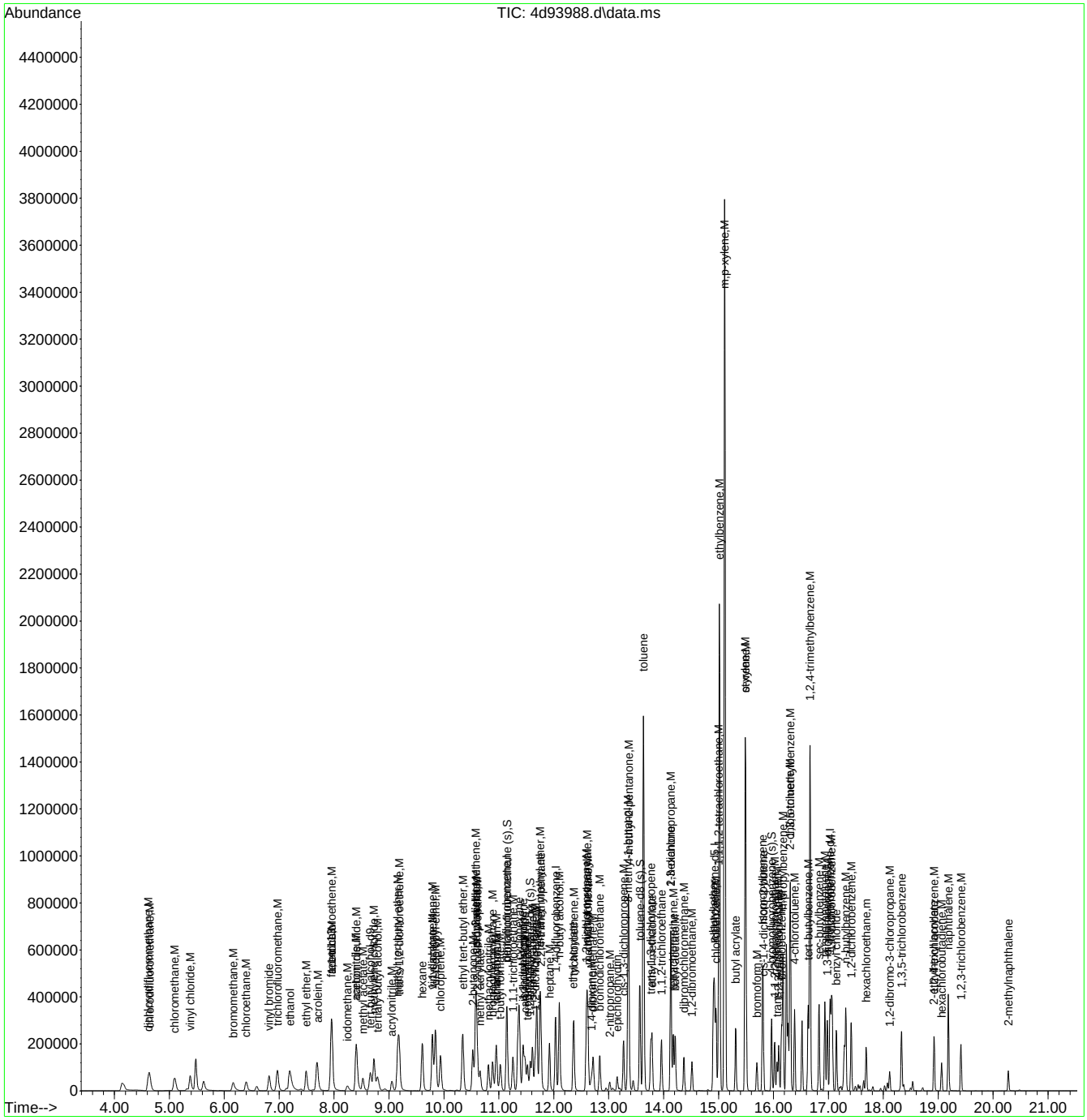
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
107) 1,2,4-trimethylbenzene	16.667	105	775280	179.74	ug/L	99
108) sec-butylbenzene	16.830	105	250120	49.12	ug/L	100
109) 1,3-dichlorobenzene	16.982	146	122292	48.69	ug/L	99
110) p-isopropyltoluene	16.935	119	205651	49.98	ug/L	99
111) 1,4-dichlorobenzene	17.055	146	124460	48.17	ug/L	99
112) benzyl chloride	17.145	91	180049	54.18	ug/L	99
113) 1,2-dichlorobenzene	17.417	146	118169	49.83	ug/L	98
114) n-butylbenzene	17.318	92	104725	53.06	ug/L	98
115) 1,2-dibromo-3-chloropr...	18.115	75	19040	49.30	ug/L	99
116) 1,3,5-trichlorobenzene	18.335	180	79815	50.63	ug/L	99
117) 2-ethylhexyl acrylate	18.917	70	3093	4.65	ug/L	86
118) 1,2,4-trichlorobenzene	18.927	180	69610	48.71	ug/L	100
119) hexachlorobutadiene	19.064	225	25378	47.51	ug/L	97
120) naphthalene	19.184	128	301993	67.61	ug/L	100
121) 1,2,3-trichlorobenzene	19.415	180	62408	46.34	ug/L	99
122) hexachloroethane	17.690	201	32685	50.93	ug/L	98
123) 2-methylnaphthalene	20.275	142	40150	24.44	ug/L	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\May-2019\5-13\v4d4144\
Data File : 4d93988.d
Acq On : 10 May 2019 5:54 pm
Operator : edwardd
Sample : JC87680-2ms Inst : MS4D
Misc : MS34604,V4D4141,5,,,,10
ALS Vial : 25 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Results File: M4D4028.RES
Quant Time: May 13 09:22:42 2019
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 31 10:41:25 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\May-2019\5-13\v4d4144\
Data File : 4d93989.d
Acq On : 10 May 2019 6:23 pm
Operator : edwardd
Sample : JC87680-2msd Inst : MS4D
Misc : MS34604,V4D4141,5,,,,10
ALS Vial : 26 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Results File: M4D4028.RES
Quant Time: May 13 09:23:50 2019
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 31 10:41:25 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	8.661	65	142739	500.00	ug/L	0.00
5) pentafluorobenzene	11.146	168	187385	50.00	ug/L	0.00
51) 1,4-difluorobenzene	12.032	114	272423	50.00	ug/L	0.00
73) chlorobenzene-d5	14.927	117	219416	50.00	ug/L	0.00
96) 1,4-dichlorobenzene-d4	17.029	152	94138	50.00	ug/L	0.00
System Monitoring Compounds						
43) dibromofluoromethane (s)	11.146	113	89941	43.52	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 87.04%			
52) 1,2-dichloroethane-d4 (s)	11.571	65	88959	48.38	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 96.76%			
74) toluene-d8 (s)	13.569	98	299620	52.72	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 105.44%			
97) 4-bromofluorobenzene (s)	15.965	95	95075	50.07	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.14%			
Target Compounds						Qvalue
2) tertiary butyl alcohol	8.792	59	91805	296.80	ug/L	96
3) ethanol	7.193	45	204488	6777.27	ug/L	99
4) 1,4-dioxane	12.688	88	38148	1235.32	ug/L	96
6) chlorodifluoromethane	4.640	51	95116	49.90	ug/L	95
7) dichlorodifluoromethane	4.614	85	93336	44.98	ug/L	100
8) chloromethane	5.096	50	115554	36.55	ug/L	99
9) vinyl chloride	5.379	62	100401	42.09	ug/L	99
10) bromomethane	6.160	94	54420	73.94	ug/L	98
11) chloroethane	6.396	64	57662	47.56	ug/L	98
12) trichlorofluoromethane	6.968	101	115457	42.36	ug/L	100
13) vinyl bromide	6.816	106	72651	51.48	ug/L	96
14) ethyl ether	7.492	74	49643	51.78	ug/L	95
15) acrolein	7.702	56	23204	50.45	ug/L	87
16) freon 113	7.948	151	55937	47.35	ug/L	96
17) 1,1-dichloroethene	7.953	96	72150	48.06	ug/L	97
18) acetone	7.953	43	140955	187.21	ug/L	94
19) acetonitrile	8.404	41	176757	537.51	ug/L	97
20) iodomethane	8.242	142	54008	58.93	ug/L	96
21) carbon disulfide	8.404	76	197103	48.42	ug/L	96
22) methylene chloride	8.724	84	84741	46.72	ug/L	100
23) methyl acetate	8.525	43	92604	46.07	ug/L	99
24) methyl tert butyl ether	9.159	73	245974	47.79	ug/L	97
25) trans-1,2-dichloroethene	9.185	96	76445	46.92	ug/L	99
26) di-isopropyl ether	9.846	45	282555	52.21	ug/L	95
27) 2-butanone	10.528	72	61421	196.21	ug/L	99
28) 1,1-dichloroethane	9.788	63	143380	48.95	ug/L	98
29) chloroprene	9.935	53	113811	47.65	ug/L	98
30) acrylonitrile	9.049	53	41518	52.32	ug/L	99
31) hexane	9.605	56	64218	61.38	ug/L	98
32) vinyl acetate	9.788	86	20602	48.17	ug/L #	87
33) ethyl tert-butyl ether	10.339	59	266758	49.27	ug/L	97
34) ethyl acetate	10.585	70	13555	45.76	ug/L #	82
35) 2,2-dichloropropane	10.606	77	110774	42.86	ug/L	95
36) cis-1,2-dichloroethene	10.575	96	86133	46.22	ug/L	97
37) methyl acrylate	10.659	85	17297	46.40	ug/L #	87
38) propionitrile	10.585	54	196539	510.00	ug/L	98
39) bromochloromethane	10.884	128	41347	46.73	ug/L	91
40) tetrahydrofuran	10.958	72	16421	46.43	ug/L	99
41) chloroform	10.952	85	87048	42.50	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\May-2019\5-13\v4d4144\
Data File : 4d93989.d
Acq On : 10 May 2019 6:23 pm
Operator : edwardd
Sample : JC87680-2msd Inst : MS4D
Misc : MS34604,V4D4141,5,,,,10
ALS Vial : 26 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Results File: M4D4028.RES
Quant Time: May 13 09:23:50 2019
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 31 10:41:25 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
42) t-butyl formate	11.026	59	69859	39.34	ug/L		96
44) methacrylonitrile	10.811	67	46011	46.50	ug/L		97
45) 1,1,1-trichloroethane	11.257	97	108599	40.96	ug/L		99
46) cyclohexane	11.367	84	102227	41.99	ug/L	#	88
47) 1,1-dichloropropene	11.440	75	100725	44.20	ug/L		99
48) isobutyl alcohol	11.440	74	6322	426.40	ug/L		88
49) carbon tetrachloride	11.477	117	92596	40.42	ug/L		99
50) tert amyl alcohol	11.519	55	30935	247.10	ug/L		96
53) n-butyl alcohol	12.101	56	233298	2811.69	ug/L		99
54) 2,2,4-trimethylpentane	11.765	57	219954	60.67	ug/L		92
55) benzene	11.686	78	333639	56.66	ug/L		100
56) tert-amyl methyl ether	11.749	87	55677	49.73	ug/L		98
57) heptane	11.922	71	51970	60.84	ug/L		98
58) isopropyl acetate	11.613	87	23408	53.57	ug/L		96
59) 1,2-dichloroethane	11.660	62	99984	42.55	ug/L		94
60) trichloroethene	12.368	130	72357	46.18	ug/L		100
61) ethyl acrylate	12.352	55	132137	51.64	ug/L		98
62) 2-nitropropane	13.018	41	23115	45.17	ug/L		98
64) methyl methacrylate	12.604	100	26061	51.20	ug/L	#	87
65) 1,2-dichloropropane	12.593	63	80397	52.55	ug/L		100
66) dibromomethane	12.714	93	51116	46.80	ug/L		99
67) methylcyclohexane	12.620	83	112226	55.18	ug/L		100
68) bromodichloromethane	12.835	83	100636	47.23	ug/L		99
69) epichlorohydrin	13.154	57	48567	267.81	ug/L		95
70) cis-1,3-dichloropropene	13.270	75	125985	48.63	ug/L		97
71) 4-methyl-2-pentanone	13.364	58	173150	204.42	ug/L		97
72) 3-methyl-1-butanol	13.348	70	78235	1033.46	ug/L		96
75) toluene	13.632	92	673280	196.26	ug/L		99
76) trans-1,3-dichloropropene	13.768	75	107252	51.36	ug/L		100
77) ethyl methacrylate	13.789	69	108710	53.91	ug/L		98
78) 1,1,2-trichloroethane	13.962	83	60242	53.18	ug/L		98
79) tetrachloroethene	14.177	164	54195	46.15	ug/L		98
80) 1,3-dichloropropane	14.130	76	109352	49.49	ug/L		100
81) 2-hexanone	14.130	58	173197	219.18	ug/L		99
82) butyl acetate	14.208	56	66138	54.24	ug/L		99
83) dibromochloromethane	14.371	129	76580	50.75	ug/L		100
84) 1,2-dibromoethane	14.518	107	83585	48.11	ug/L		100
85) n-butyl ether	14.906	57	283208	48.79	ug/L		99
86) chlorobenzene	14.953	112	174224	46.59	ug/L		98
87) 1,1,1,2-tetrachloroethane	15.000	131	63220	48.39	ug/L		97
88) ethylbenzene	15.016	91	1368126	221.13	ug/L		99
89) m,p-xylene	15.110	106	1093724	474.23	ug/L		98
90) o-xylene	15.488	106	274653	125.04	ug/L		100
91) styrene	15.488	104	187525	52.44	ug/L		80
92) bromoform	15.697	173	53658	49.51	ug/L		99
93) butyl acrylate	15.309	55	157271	55.02	ug/L		99
94) isopropylbenzene	15.802	105	301334	53.49	ug/L		98
95) cis-1,4-dichloro-2-butene	15.818	88	29321	42.42	ug/L		98
98) bromobenzene	16.148	156	72420	48.95	ug/L		99
99) 1,1,2,2-tetrachloroethane	16.022	83	103679	50.51	ug/L		99
100) trans-1,4-dichloro-2-b...	16.064	53	20886	46.73	ug/L		96
101) 1,2,3-trichloropropane	16.096	110	25601	47.82	ug/L		99
102) n-propylbenzene	16.174	91	425866	66.50	ug/L		100
103) 2-chlorotoluene	16.300	126	62658	48.22	ug/L		88
104) 4-chlorotoluene	16.384	91	184303	47.18	ug/L		99
105) 1,3,5-trimethylbenzene	16.306	105	338886	78.74	ug/L		99
106) tert-butylbenzene	16.631	134	37107	47.23	ug/L		96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\May-2019\5-13\v4d4144\
Data File : 4d93989.d
Acq On : 10 May 2019 6:23 pm
Operator : edwardd
Sample : JC87680-2msd Inst : MS4D
Misc : MS34604,V4D4141,5,,,,10
ALS Vial : 26 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Results File: M4D4028.RES
Quant Time: May 13 09:23:50 2019
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 31 10:41:25 2019
Response via : Initial Calibration

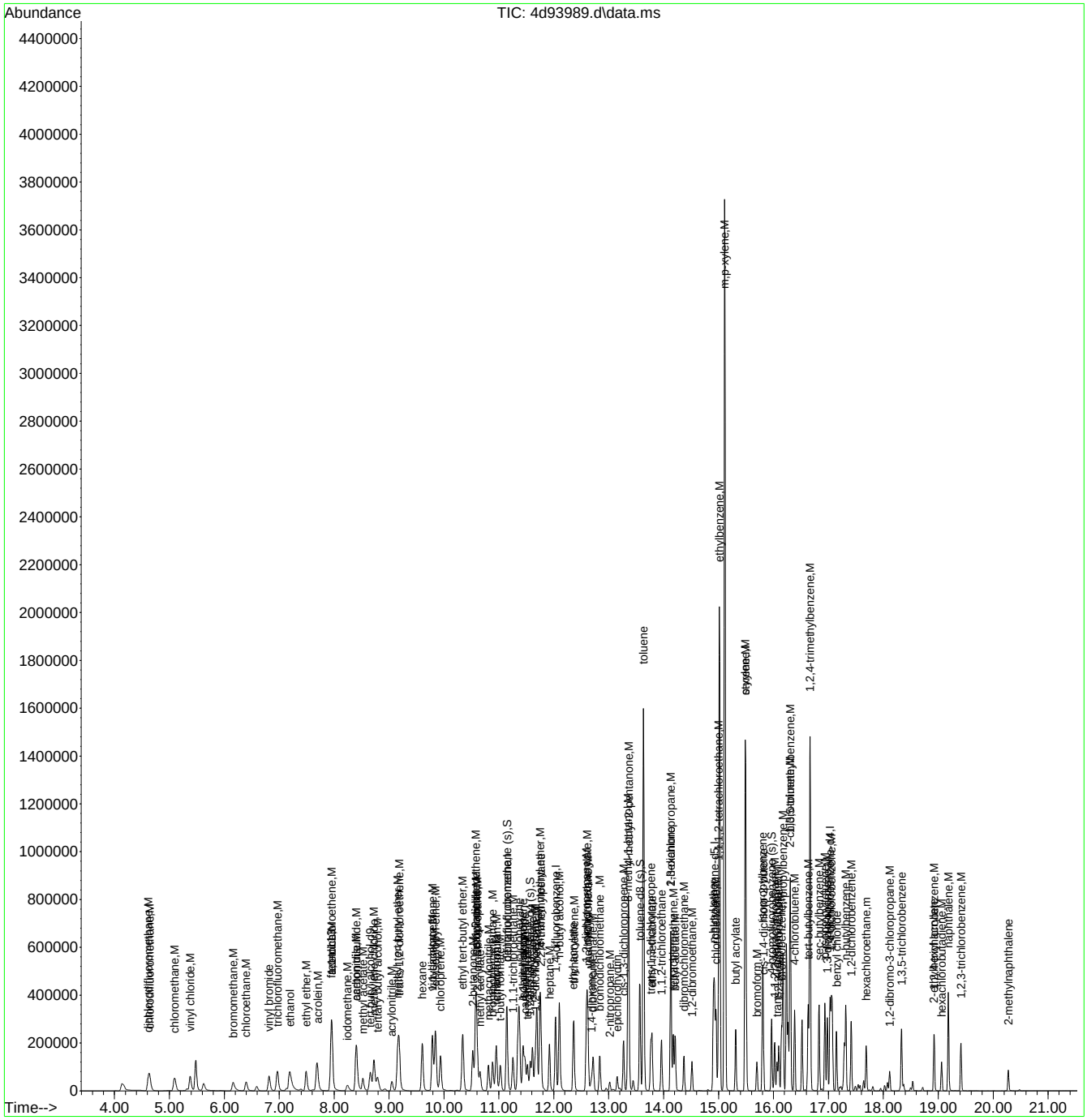
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
107) 1,2,4-trimethylbenzene	16.667	105	772540	177.90	ug/L	99
108) sec-butylbenzene	16.830	105	246405	48.07	ug/L	100
109) 1,3-dichlorobenzene	16.982	146	120253	47.56	ug/L	100
110) p-isopropyltoluene	16.935	119	205069	49.50	ug/L	99
111) 1,4-dichlorobenzene	17.055	146	122691	47.17	ug/L	99
112) benzyl chloride	17.150	91	176735	52.82	ug/L	99
113) 1,2-dichlorobenzene	17.417	146	117137	49.06	ug/L	98
114) n-butylbenzene	17.317	92	104761	52.72	ug/L	96
115) 1,2-dibromo-3-chloropr...	18.114	75	19143	49.23	ug/L	99
116) 1,3,5-trichlorobenzene	18.335	180	80644	50.81	ug/L	99
117) 2-ethylhexyl acrylate	18.917	70	3845	5.68	ug/L	91
118) 1,2,4-trichlorobenzene	18.927	180	70423	48.94	ug/L	99
119) hexachlorobutadiene	19.063	225	25939	48.23	ug/L	98
120) naphthalene	19.184	128	304441	67.70	ug/L	100
121) 1,2,3-trichlorobenzene	19.415	180	62882	46.38	ug/L	99
122) hexachloroethane	17.690	201	32747	50.68	ug/L	99
123) 2-methylnaphthalene	20.275	142	41336	24.99	ug/L	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\May-2019\5-13\v4d4144\
Data File : 4d93989.d
Acq On : 10 May 2019 6:23 pm
Operator : edwardd
Sample : JC87680-2msd Inst : MS4D
Misc : MS34604,V4D4141,5,,,,10
ALS Vial : 26 Sample Multiplier: 1

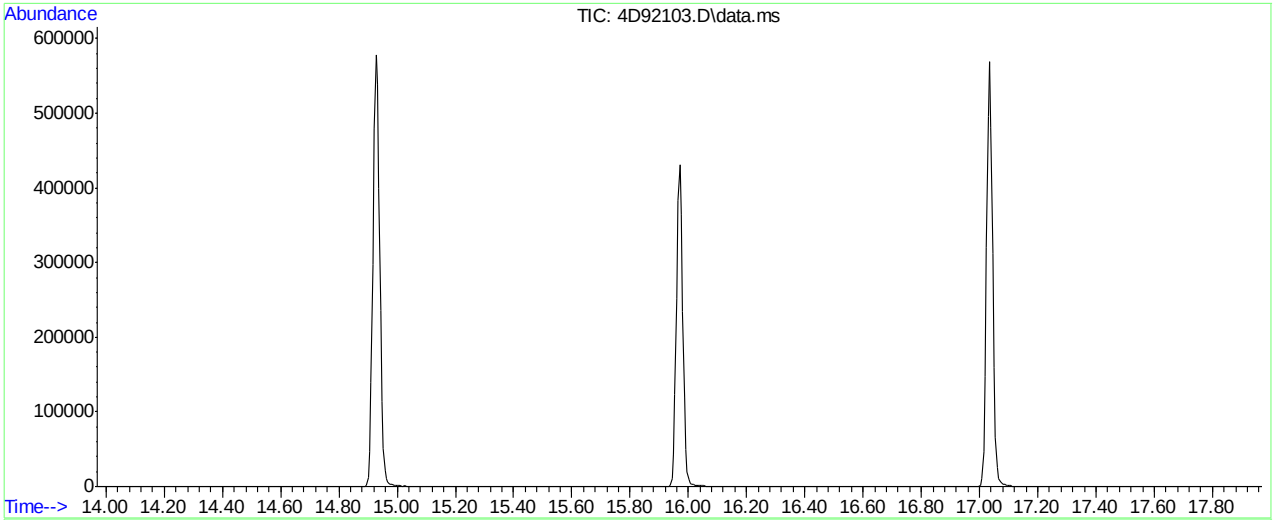
Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Results File: M4D4028.RES
Quant Time: May 13 09:23:50 2019
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 31 10:41:25 2019
Response via : Initial Calibration

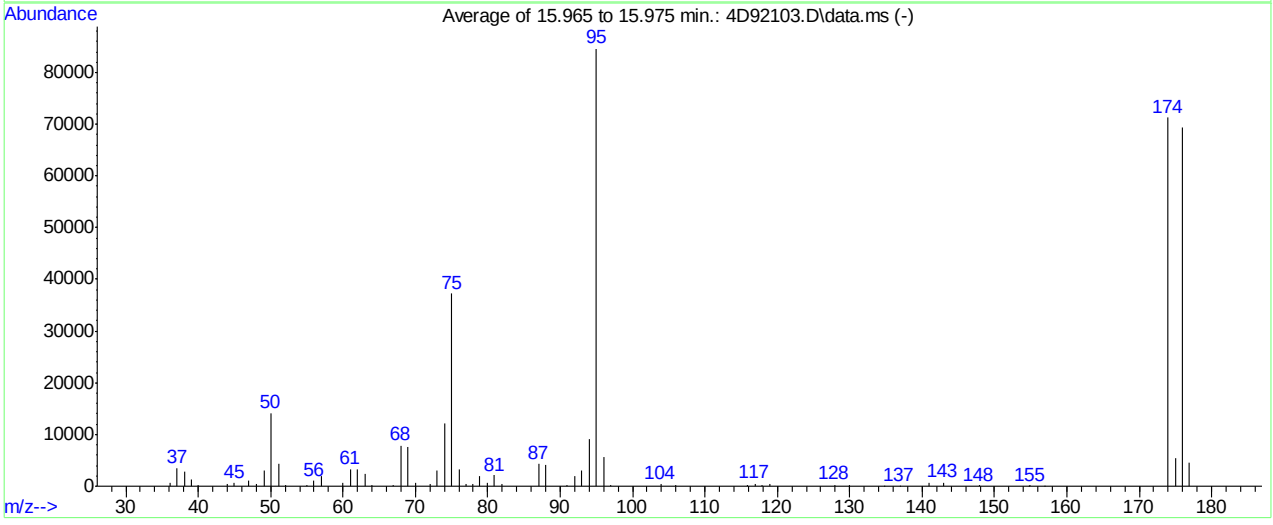


SW-846 Method 8260

Data File : C:\msdchem\1\data\V4D4028\4D92103.D Vial: 4
Acq On : 29 Jan 2019 2:06 pm Operator: roberts
Sample : bfb Inst : MS4D
Misc : MS31310,V4D4028,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M4D4028.M (RTE Integrator)
Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um





AutoFind: Scans 2399, 2400, 2401; Background Corrected with Scan 2391

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	16.7	14107	PASS
75	95	30	60	44.0	37203	PASS
95	95	100	100	100.0	84643	PASS
96	95	5	9	6.7	5706	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	84.1	71216	PASS
175	174	5	9	7.5	5348	PASS
176	174	95	101	97.5	69448	PASS
177	176	5	9	6.5	4487	PASS

4D92103.D M4D4028.M Thu Jan 31 10:12:19 2019 RPT1

Average of 15.965 to 15.975 min.: 4D92103.D\data.ms
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.05	626	51.10	4409	68.00	7863	80.00	624
37.10	3475	52.00	184	69.00	7642	80.90	2143
38.10	2931	55.00	182	70.00	606	81.90	500
39.10	1206	56.00	1068	72.00	375	87.00	4296
40.00	180	57.05	1936	73.00	3129	88.00	4044
44.00	373	60.00	666	74.00	12083	90.95	260
45.00	636	61.00	3365	75.05	37203	92.00	2005
47.00	1088	62.00	3296	76.00	3245	93.00	3140
48.00	431	63.05	2436	77.00	494	94.00	9015
49.05	3045	64.00	224	77.95	369	95.00	84643
50.05	14107	67.00	189	78.90	2049	96.00	5706

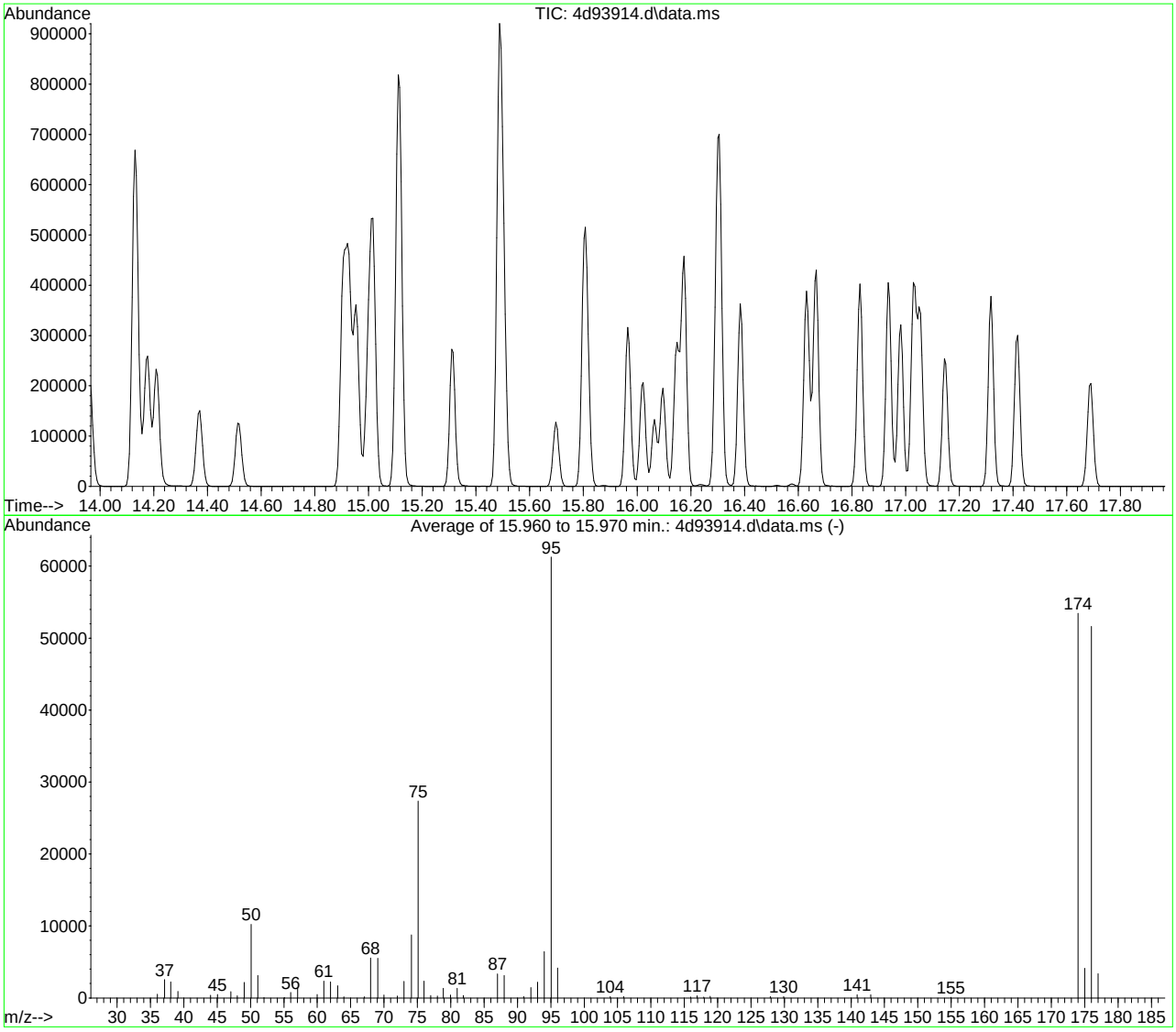
Average of 15.965 to 15.975 min.: 4D92103.D\data.ms
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
96.95	174	140.90	683				
103.90	336	142.95	691				
105.90	306	147.90	183				
115.90	246	154.80	53				
116.90	439	154.95	135				
117.90	270	156.90	53				
118.90	400	174.00	71216				
127.90	279	175.00	5348				
129.90	274	175.95	69448				
134.80	50	176.95	4487				
136.90	52						

SW-846 Method 8260

Data File : C:\msdchem\1\data\lo...-14\v4d4141\4d93914.d Vial: 52
Acq On : 8 May 2019 5:07 pm Operator: deving
Sample : bfb Inst : MS4D
Misc : MS34547,V4D4141,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M4D4028.M (RTE Integrator)
Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um



AutoFind: Scans 2398, 2399, 2400; Background Corrected with Scan 2390

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	16.7	10223	PASS
75	95	30	60	44.6	27347	PASS
95	95	100	100	100.0	61253	PASS
96	95	5	9	6.8	4170	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	87.2	53432	PASS
175	174	5	9	7.7	4136	PASS
176	174	95	101	96.6	51640	PASS
177	176	5	9	6.5	3378	PASS

4d93914.d M4D4028.M Mon May 13 21:33:30 2019

Average of 15.960 to 15.970 min.: 4d93914.d\data.ms
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.05	517	52.00	57	69.05	5530	80.95	1338
37.10	2559	55.10	58	70.00	405	81.90	339
38.05	2215	56.00	758	72.00	280	87.00	3338
39.10	895	57.05	1330	73.00	2295	88.00	3125
44.00	371	60.00	489	74.10	8781	90.95	194
45.05	467	61.00	2355	75.10	27347	92.00	1441
47.05	882	62.00	2238	76.00	2332	93.00	2190
48.00	306	63.05	1694	77.00	347	94.00	6453
49.05	2167	64.00	159	78.00	267	95.05	61253
50.10	10223	67.05	174	78.90	1345	96.00	4170
51.10	3141	68.00	5559	79.95	425	103.90	213

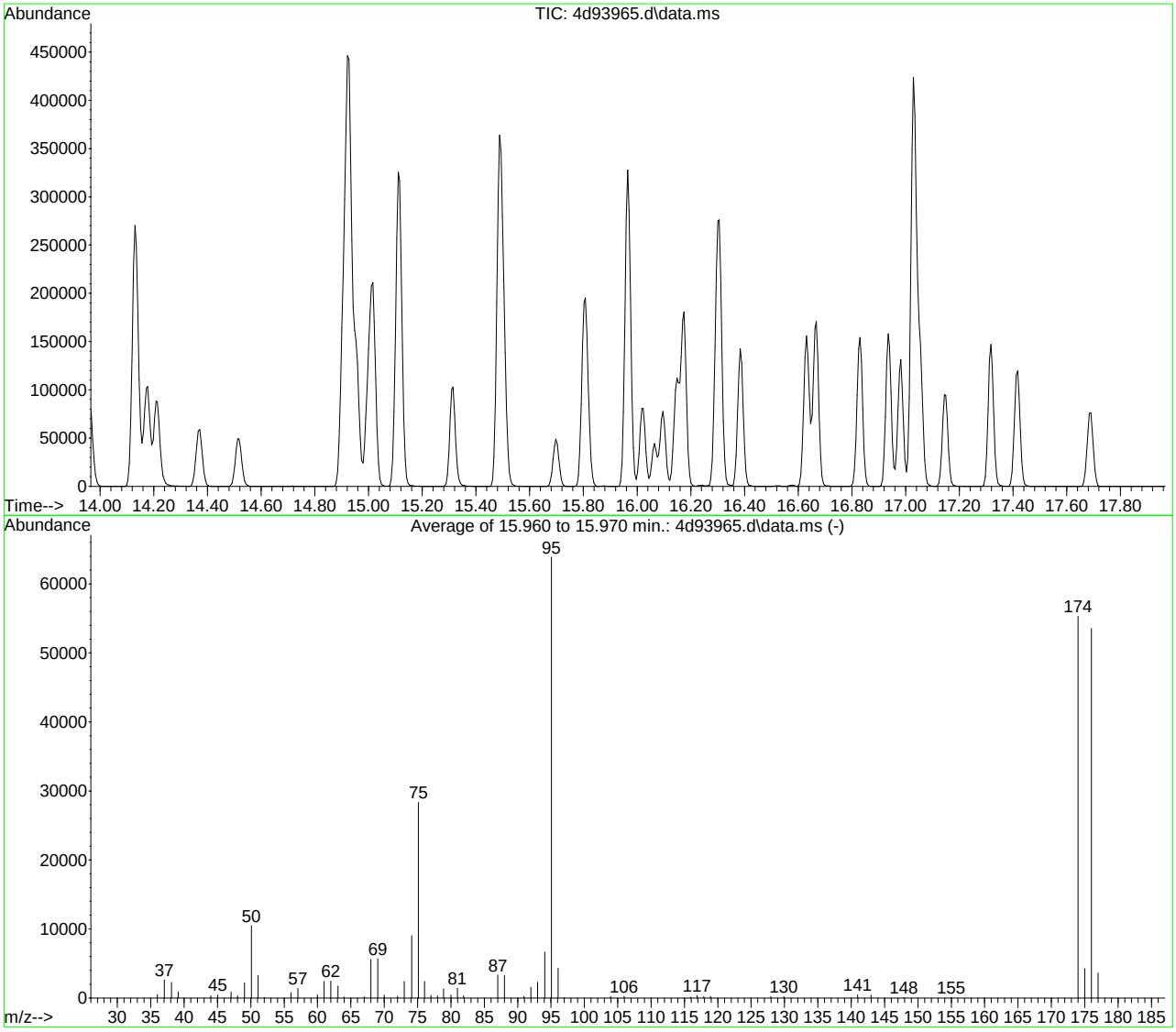
Average of 15.960 to 15.970 min.: 4d93914.d\data.ms
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
105.90	194	175.00	4136				
115.95	117	176.00	51640				
116.90	309	177.00	3378				
117.90	124						
118.90	250						
127.90	181						
129.90	204						
140.90	463						
142.95	457						
154.95	106						
174.00	53432						

SW-846 Method 8260

Data File : C:\msdchem\1\data\lo...-13\v4d4144\4d93965.d Vial: 2
Acq On : 10 May 2019 6:45 am Operator: deving
Sample : bfb Inst : MS4D
Misc : MS34547,V4D4144,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M4D4028.M (RTE Integrator)
Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um



AutoFind: Scans 2398, 2399, 2400; Background Corrected with Scan 2390

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	16.4	10470	PASS
75	95	30	60	44.4	28349	PASS
95	95	100	100	100.0	63885	PASS
96	95	5	9	6.7	4311	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	86.5	55283	PASS
175	174	5	9	7.7	4262	PASS
176	174	95	101	96.9	53552	PASS
177	176	5	9	6.7	3612	PASS

4d93965.d M4D4028.M Mon May 13 09:04:52 2019

Average of 15.960 to 15.970 min.: 4d93965.d\data.ms
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	495	52.00	110	70.00	421	81.90	323
37.05	2614	56.00	751	72.00	262	87.00	3337
38.10	2263	57.05	1405	73.00	2399	88.00	3258
39.10	872	60.00	483	74.10	9029	90.95	201
44.00	334	61.00	2392	75.10	28349	92.00	1562
45.05	435	62.00	2432	76.05	2407	93.00	2304
47.05	894	63.05	1732	77.00	391	94.05	6646
48.00	319	64.00	119	77.95	315	95.05	63885
49.05	2173	67.00	180	78.90	1331	96.05	4311
50.10	10470	68.00	5593	80.00	432	97.00	51
51.10	3271	69.05	5675	80.95	1420	103.90	221

Average of 15.960 to 15.970 min.: 4d93965.d\data.ms
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
105.95	230	174.00	55283				
115.90	118	175.00	4262				
116.90	351	176.00	53552				
117.90	207	177.00	3612				
118.90	243						
127.95	188						
129.90	205						
140.95	460						
142.95	444						
147.90	51						
155.00	56						

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V4D4028\
Data File : 4D92104.D
Acq On : 29 Jan 2019 2:41 pm
Operator : roberts
Sample : ic4028-0.2
Misc : MS31310,V4D4028,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 01 10:15:32 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 31 10:07:44 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	8.656	65	178642	500.00	ug/L		0.00
5) pentafluorobenzene	11.147	168	218199	50.00	ug/L		0.00
51) 1,4-difluorobenzene	12.038	114	356302	50.00	ug/L		0.00
73) chlorobenzene-d5	14.927	117	314653	50.00	ug/L		0.00
96) 1,4-dichlorobenzene-d4	17.035	152	137954	50.00	ug/L		0.00
System Monitoring Compounds							
43) dibromofluoromethane (s)	11.152	113	113733	45.85	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 91.70%				
52) 1,2-dichloroethane-d4 (s)	11.577	65	121256	50.18	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 100.36%				
74) toluene-d8 (s)	13.569	98	409865	50.14	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.28%				
97) 4-bromofluorobenzene (s)	15.970	95	138553	50.28	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.56%				
Target Compounds							Qvalue
21) carbon disulfide	8.405	76	1205	0.26	ug/L		57
22) methylene chloride	8.735	84	482	0.23	ug/L		93
24) methyl tert butyl ether	9.165	73	1085	0.17	ug/L		55
26) di-isopropyl ether	9.852	45	1157	0.17	ug/L		80
28) 1,1-dichloroethane	9.794	63	549	0.15	ug/L	#	49
33) ethyl tert-butyl ether	10.350	59	1182	0.17	ug/L		89
41) chloroform	10.958	85	497	0.20	ug/L	#	77
45) 1,1,1-trichloroethane	11.251	97	505	0.16	ug/L	#	70
47) 1,1-dichloropropene	11.445	75	441	0.16	ug/L	#	41
54) 2,2,4-trimethylpentane	11.760	57	1015	0.20	ug/L	#	73
55) benzene	11.697	78	1688	0.22	ug/L		86
60) trichloroethene	12.373	130	403	0.19	ug/L		87
65) 1,2-dichloropropane	12.599	63	339	0.16	ug/L	#	48
68) bromodichloromethane	12.845	83	466	0.16	ug/L		89
70) cis-1,3-dichloropropene	13.281	75	675	0.19	ug/L	#	75
71) 4-methyl-2-pentanone	13.375	58	780	0.65	ug/L	#	78
75) toluene	13.637	92	1099	0.23	ug/L		98
76) trans-1,3-dichloropropene	13.784	75	526	0.16	ug/L	#	46
78) 1,1,2-trichloroethane	13.967	83	257	0.15	ug/L	#	50
79) tetrachloroethene	14.182	164	348	0.21	ug/L		83
80) 1,3-dichloropropane	14.140	76	662	0.21	ug/L	#	67
83) dibromochloromethane	14.376	129	367	0.16	ug/L		83
84) 1,2-dibromoethane	14.528	107	489	0.19	ug/L		83
85) n-butyl ether	14.922	57	1771	0.20	ug/L	#	1
86) chlorobenzene	14.958	112	1203	0.23	ug/L		84
87) 1,1,1,2-tetrachloroethane	15.005	131	345	0.18	ug/L	#	68
88) ethylbenzene	15.026	91	1966	0.22	ug/L		91
89) m,p-xylene	15.126	106	1364	0.41	ug/L		96
90) o-xylene	15.493	106	595	0.18	ug/L		88
91) styrene	15.509	104	989	0.18	ug/L		96
94) isopropylbenzene	15.813	105	1764	0.22	ug/L		99
98) bromobenzene	16.154	156	426	0.20	ug/L		92

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V4D4028\
Data File : 4D92104.D
Acq On : 29 Jan 2019 2:41 pm
Operator : roberts
Sample : ic4028-0.2
Misc : MS31310,V4D4028,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 01 10:15:32 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 31 10:07:44 2019
Response via : Initial Calibration

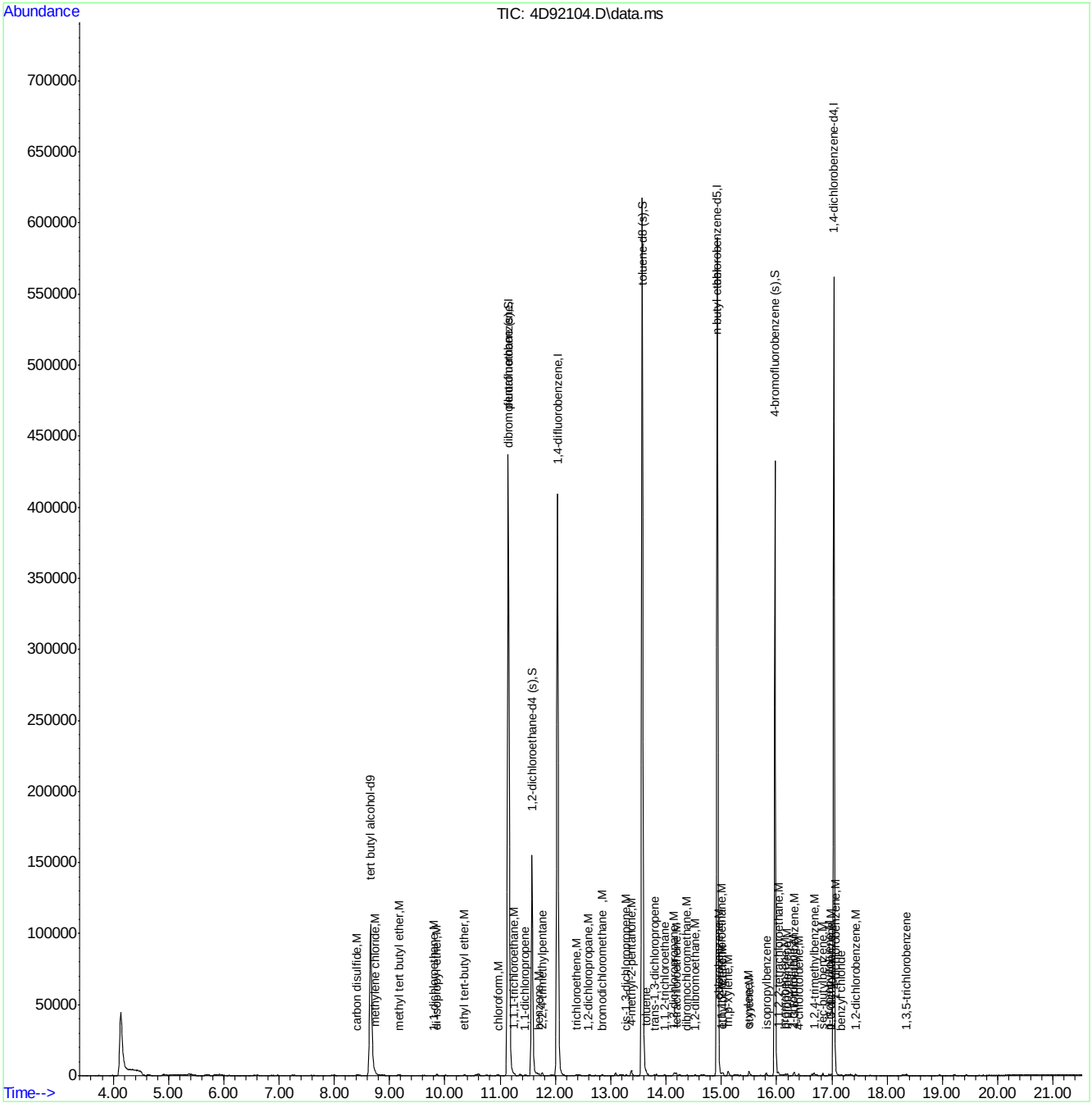
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
99) 1,1,2,2-tetrachloroethane	16.028	83	609	0.20	ug/L		92
102) n-propylbenzene	16.185	91	1964	0.21	ug/L		85
103) 2-chlorotoluene	16.306	126	350	0.18	ug/L	#	69
104) 4-chlorotoluene	16.400	91	1264	0.22	ug/L		87
105) 1,3,5-trimethylbenzene	16.316	105	1291	0.20	ug/L		93
107) 1,2,4-trimethylbenzene	16.678	105	1326	0.20	ug/L		89
108) sec-butylbenzene	16.835	105	1548	0.21	ug/L		99
109) 1,3-dichlorobenzene	16.987	146	819	0.22	ug/L		97
110) p-isopropyltoluene	16.945	119	1180	0.19	ug/L		93
111) 1,4-dichlorobenzene	17.061	146	823	0.22	ug/L		85
112) benzyl chloride	17.160	91	904	0.17	ug/L		61
113) 1,2-dichlorobenzene	17.428	146	702	0.20	ug/L		94
116) 1,3,5-trichlorobenzene	18.351	180	425	0.17	ug/L		80

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V4D4028\
Data File : 4D92104.D
Acq On : 29 Jan 2019 2:41 pm
Operator : roberts
Sample : ic4028-0.2
Misc : MS31310,V4D4028,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 01 10:15:32 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 31 10:07:44 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V4D4028\
Data File : 4D92105.D
Acq On : 29 Jan 2019 3:10 pm
Operator : roberts
Sample : ic4028-0.5
Misc : MS31310,V4D4028,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jan 31 11:22:59 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 31 10:07:44 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	8.656	65	171557	500.00	ug/L		0.00
5) pentafluorobenzene	11.146	168	200619	50.00	ug/L		0.00
51) 1,4-difluorobenzene	12.038	114	333228	50.00	ug/L		0.00
73) chlorobenzene-d5	14.927	117	300895	50.00	ug/L		0.00
96) 1,4-dichlorobenzene-d4	17.034	152	132818	50.00	ug/L		0.00
System Monitoring Compounds							
43) dibromofluoromethane (s)	11.152	113	107386	47.09	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 94.18%				
52) 1,2-dichloroethane-d4 (s)	11.576	65	114884	50.84	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 101.68%				
74) toluene-d8 (s)	13.569	98	384947	49.24	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.48%				
97) 4-bromofluorobenzene (s)	15.970	95	133464	50.31	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.62%				
Target Compounds							Qvalue
6) chlorodifluoromethane	4.650	51	804	0.39	ug/L		62
8) chloromethane	5.091	50	2024	0.62	ug/L	#	49
9) vinyl chloride	5.374	62	1118	0.43	ug/L		95
12) trichlorofluoromethane	6.968	101	1248	0.40	ug/L		88
21) carbon disulfide	8.410	76	2087	0.49	ug/L		71
22) methylene chloride	8.735	84	1022	0.52	ug/L		98
24) methyl tert butyl ether	9.165	73	2473	0.42	ug/L		97
26) di-isopropyl ether	9.851	45	2417	0.38	ug/L		84
28) 1,1-dichloroethane	9.794	63	1361	0.40	ug/L		90
33) ethyl tert-butyl ether	10.344	59	2483	0.40	ug/L		99
35) 2,2-dichloropropane	10.612	77	1269	0.44	ug/L		87
36) cis-1,2-dichloroethene	10.580	96	855	0.40	ug/L		100
41) chloroform	10.958	85	981	0.44	ug/L		100
42) t-butyl formate	11.042	59	731	0.34	ug/L		95
45) 1,1,1-trichloroethane	11.262	97	1299	0.44	ug/L		88
46) cyclohexane	11.367	84	1090	0.39	ug/L	#	71
47) 1,1-dichloropropene	11.445	75	1141	0.45	ug/L		95
49) carbon tetrachloride	11.477	117	987	0.38	ug/L	#	80
54) 2,2,4-trimethylpentane	11.765	57	1563	0.32	ug/L		82
55) benzene	11.697	78	3396	0.47	ug/L		96
56) tert-amyl methyl ether	11.749	87	551	0.37	ug/L	#	60
59) 1,2-dichloroethane	11.671	62	1675	0.61	ug/L		92
60) trichloroethene	12.373	130	830	0.42	ug/L		89
63) 2-chloroethyl vinyl ether	13.081	63	2536	1.66	ug/L		97
65) 1,2-dichloropropane	12.604	63	837	0.42	ug/L	#	48
66) dibromomethane	12.719	93	584	0.42	ug/L		94
67) methylcyclohexane	12.620	83	905	0.34	ug/L		96
68) bromodichloromethane	12.850	83	1210	0.44	ug/L		86
70) cis-1,3-dichloropropene	13.280	75	1455	0.45	ug/L		98
71) 4-methyl-2-pentanone	13.369	58	1765	1.57	ug/L		95
75) toluene	13.637	92	2229	0.48	ug/L		94
76) trans-1,3-dichloropropene	13.784	75	1232	0.40	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V4D4028\
Data File : 4D92105.D
Acq On : 29 Jan 2019 3:10 pm
Operator : roberts
Sample : ic4028-0.5
Misc : MS31310,V4D4028,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jan 31 11:22:59 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 31 10:07:44 2019
Response via : Initial Calibration

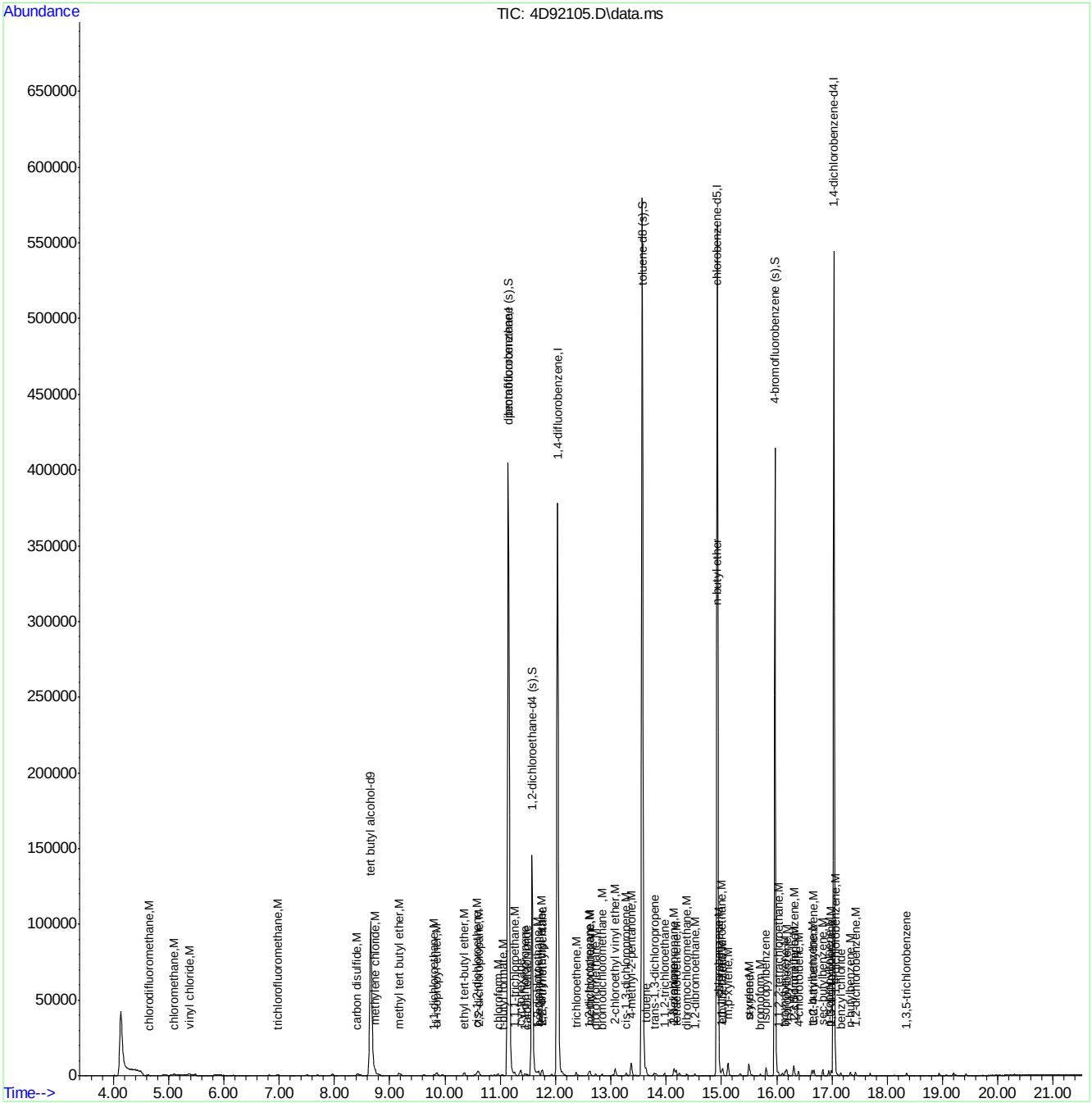
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
78) 1,1,2-trichloroethane	13.967	83	640	0.39	ug/L		90
79) tetrachloroethene	14.182	164	739	0.46	ug/L		94
80) 1,3-dichloropropane	14.140	76	1370	0.44	ug/L		84
81) 2-hexanone	14.145	58	1812	1.52	ug/L		82
83) dibromochloromethane	14.376	129	869	0.39	ug/L		84
84) 1,2-dibromoethane	14.523	107	1063	0.43	ug/L		89
85) n-butyl ether	14.916	57	3533	0.43	ug/L	#	1
86) chlorobenzene	14.958	112	2361	0.47	ug/L		86
87) 1,1,1,2-tetrachloroethane	15.005	131	775	0.41	ug/L		90
88) ethylbenzene	15.026	91	3997	0.47	ug/L		99
89) m,p-xylene	15.126	106	3004	0.94	ug/L		89
90) o-xylene	15.498	106	1371	0.44	ug/L		86
91) styrene	15.503	104	2032	0.38	ug/L		95
92) bromoform	15.708	173	606	0.37	ug/L		95
94) isopropylbenzene	15.807	105	3595	0.47	ug/L		97
98) bromobenzene	16.154	156	1014	0.48	ug/L		98
99) 1,1,2,2-tetrachloroethane	16.028	83	1265	0.43	ug/L		93
102) n-propylbenzene	16.185	91	4278	0.48	ug/L		99
103) 2-chlorotoluene	16.311	126	802	0.43	ug/L	#	76
104) 4-chlorotoluene	16.400	91	2592	0.48	ug/L		99
105) 1,3,5-trimethylbenzene	16.316	105	2749	0.44	ug/L		99
106) tert-butylbenzene	16.641	134	489	0.43	ug/L	#	78
107) 1,2,4-trimethylbenzene	16.673	105	2731	0.44	ug/L		98
108) sec-butylbenzene	16.835	105	3339	0.46	ug/L		97
109) 1,3-dichlorobenzene	16.987	146	1682	0.48	ug/L		94
110) p-isopropyltoluene	16.940	119	2598	0.43	ug/L		95
111) 1,4-dichlorobenzene	17.061	146	1784	0.49	ug/L		91
112) benzyl chloride	17.160	91	1925	0.38	ug/L		98
113) 1,2-dichlorobenzene	17.428	146	1529	0.44	ug/L		99
114) n-butylbenzene	17.328	92	1112	0.37	ug/L		92
116) 1,3,5-trichlorobenzene	18.345	180	926	0.39	ug/L		92

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V4D4028\
Data File : 4D92105.D
Acq On : 29 Jan 2019 3:10 pm
Operator : roberts
Sample : ic4028-0.5
Misc : MS31310,V4D4028,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jan 31 11:22:59 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 31 10:07:44 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V4D4028\
Data File : 4D92106.D
Acq On : 29 Jan 2019 3:39 pm
Operator : roberts
Sample : ic4028-1
Misc : MS31310,V4D4028,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jan 31 11:25:21 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 31 10:07:44 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	8.656	65	165307	500.00	ug/L		0.00
5) pentafluorobenzene	11.147	168	187804	50.00	ug/L		0.00
51) 1,4-difluorobenzene	12.038	114	319697	50.00	ug/L		0.00
73) chlorobenzene-d5	14.927	117	286907	50.00	ug/L		0.00
96) 1,4-dichlorobenzene-d4	17.034	152	125324	50.00	ug/L		0.00
System Monitoring Compounds							
43) dibromofluoromethane (s)	11.152	113	101299	47.45	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 94.90%				
52) 1,2-dichloroethane-d4 (s)	11.576	65	107960	49.80	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 99.60%				
74) toluene-d8 (s)	13.569	98	369910	49.63	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.26%				
97) 4-bromofluorobenzene (s)	15.970	95	127255	50.83	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.66%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	8.798	59	1484	4.01	ug/L		76
3) ethanol	7.214	45	2551	67.93	ug/L		91
4) 1,4-dioxane	12.693	88	796	22.57	ug/L		86
6) chlorodifluoromethane	4.656	51	1809	0.93	ug/L		62
7) dichlorodifluoromethane	4.614	85	1604	0.74	ug/L	#	50
8) chloromethane	5.096	50	3192	1.05	ug/L		93
9) vinyl chloride	5.374	62	2203	0.91	ug/L		93
11) chloroethane	6.407	64	985	0.78	ug/L		71
12) trichlorofluoromethane	6.968	101	2255	0.78	ug/L		93
13) vinyl bromide	6.826	106	1050	0.71	ug/L		87
16) freon 113	7.959	151	903	0.73	ug/L		98
17) 1,1-dichloroethene	7.954	96	1237	0.79	ug/L		88
19) acetonitrile	8.431	41	2625	7.31	ug/L		89
21) carbon disulfide	8.415	76	3818	0.95	ug/L		88
22) methylene chloride	8.729	84	1637	0.90	ug/L		97
24) methyl tert butyl ether	9.165	73	4711	0.85	ug/L		98
25) trans-1,2-dichloroethene	9.201	96	1398	0.82	ug/L		89
26) di-isopropyl ether	9.851	45	4758	0.80	ug/L		88
28) 1,1-dichloroethane	9.794	63	2672	0.84	ug/L		96
29) chloroprene	9.951	53	1957	0.76	ug/L		90
33) ethyl tert-butyl ether	10.344	59	4879	0.83	ug/L		94
35) 2,2-dichloropropane	10.612	77	2469	0.92	ug/L		99
36) cis-1,2-dichloroethene	10.586	96	1578	0.79	ug/L		95
38) propionitrile	10.606	54	3061	7.11	ug/L		93
39) bromochloromethane	10.900	128	694	0.73	ug/L		92
41) chloroform	10.958	85	1964	0.93	ug/L		91
42) t-butyl formate	11.031	59	1496	0.75	ug/L		89
45) 1,1,1-trichloroethane	11.262	97	2528	0.91	ug/L		96
46) cyclohexane	11.372	84	2098	0.81	ug/L	#	80
47) 1,1-dichloropropene	11.451	75	2076	0.87	ug/L		94
49) carbon tetrachloride	11.482	117	1965	0.82	ug/L		98
50) tert amyl alcohol	11.524	55	467	3.41	ug/L	#	84

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V4D4028\
Data File : 4D92106.D
Acq On : 29 Jan 2019 3:39 pm
Operator : roberts
Sample : ic4028-1
Misc : MS31310,V4D4028,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jan 31 11:25:21 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 31 10:07:44 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
53) n-butyl alcohol	12.111	56	3484	31.24	ug/L		97
54) 2,2,4-trimethylpentane	11.765	57	3778	0.82	ug/L		95
55) benzene	11.697	78	6519	0.94	ug/L		98
56) tert-amyl methyl ether	11.760	87	1123	0.79	ug/L	#	70
57) heptane	11.922	71	747	0.69	ug/L		85
59) 1,2-dichloroethane	11.666	62	2787	1.05	ug/L		90
60) trichloroethene	12.373	130	1695	0.89	ug/L		97
61) ethyl acrylate	12.373	55	2181	0.66	ug/L		82
62) 2-nitropropane	13.029	41	508	0.80	ug/L	#	82
63) 2-chloroethyl vinyl ether	13.076	63	5259	3.58	ug/L		98
65) 1,2-dichloropropane	12.594	63	1685	0.88	ug/L		92
66) dibromomethane	12.725	93	1209	0.91	ug/L		93
67) methylcyclohexane	12.625	83	2084	0.82	ug/L		98
68) bromodichloromethane	12.845	83	2395	0.92	ug/L		90
69) epichlorohydrin	13.170	57	842	3.72	ug/L	#	48
70) cis-1,3-dichloropropene	13.280	75	2813	0.90	ug/L		99
71) 4-methyl-2-pentanone	13.370	58	3723	3.45	ug/L		95
72) 3-methyl-1-butanol	13.359	70	1182	11.46	ug/L		79
75) toluene	13.637	92	4238	0.97	ug/L		96
76) trans-1,3-dichloropropene	13.779	75	2472	0.85	ug/L		100
77) ethyl methacrylate	13.805	69	2064	0.72	ug/L		98
78) 1,1,2-trichloroethane	13.962	83	1411	0.89	ug/L		98
79) tetrachloroethene	14.177	164	1467	0.96	ug/L		93
80) 1,3-dichloropropane	14.140	76	2788	0.95	ug/L		92
81) 2-hexanone	14.146	58	3483	3.07	ug/L		89
82) butyl acetate	14.229	56	1152	0.67	ug/L	#	76
83) dibromochloromethane	14.376	129	1836	0.86	ug/L		97
84) 1,2-dibromoethane	14.518	107	2100	0.89	ug/L		90
85) n-butyl ether	14.911	57	7000	0.89	ug/L		81
86) chlorobenzene	14.958	112	4802	1.00	ug/L		95
87) 1,1,1,2-tetrachloroethane	15.005	131	1565	0.87	ug/L		92
88) ethylbenzene	15.021	91	7688	0.95	ug/L		99
89) m,p-xylene	15.121	106	5717	1.88	ug/L		94
90) o-xylene	15.498	106	2777	0.94	ug/L		99
91) styrene	15.498	104	4162	0.82	ug/L		95
92) bromoform	15.708	173	1197	0.78	ug/L		91
93) butyl acrylate	15.330	55	2808	0.67	ug/L	#	95
94) isopropylbenzene	15.808	105	7047	0.96	ug/L		98
98) bromobenzene	16.154	156	1845	0.93	ug/L		96
99) 1,1,2,2-tetrachloroethane	16.028	83	2629	0.94	ug/L		98
101) 1,2,3-trichloropropane	16.106	110	626	0.87	ug/L		95
102) n-propylbenzene	16.180	91	8083	0.95	ug/L		97
103) 2-chlorotoluene	16.306	126	1632	0.92	ug/L		87
104) 4-chlorotoluene	16.395	91	4951	0.97	ug/L		97
105) 1,3,5-trimethylbenzene	16.316	105	5456	0.94	ug/L		100
106) tert-butylbenzene	16.636	134	990	0.92	ug/L		90
107) 1,2,4-trimethylbenzene	16.673	105	5452	0.93	ug/L		99
108) sec-butylbenzene	16.835	105	6455	0.95	ug/L		98
109) 1,3-dichlorobenzene	16.987	146	3132	0.94	ug/L		97
110) p-isopropyltoluene	16.940	119	5043	0.89	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V4D4028\
Data File : 4D92106.D
Acq On : 29 Jan 2019 3:39 pm
Operator : roberts
Sample : ic4028-1
Misc : MS31310,V4D4028,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jan 31 11:25:21 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 31 10:07:44 2019
Response via : Initial Calibration

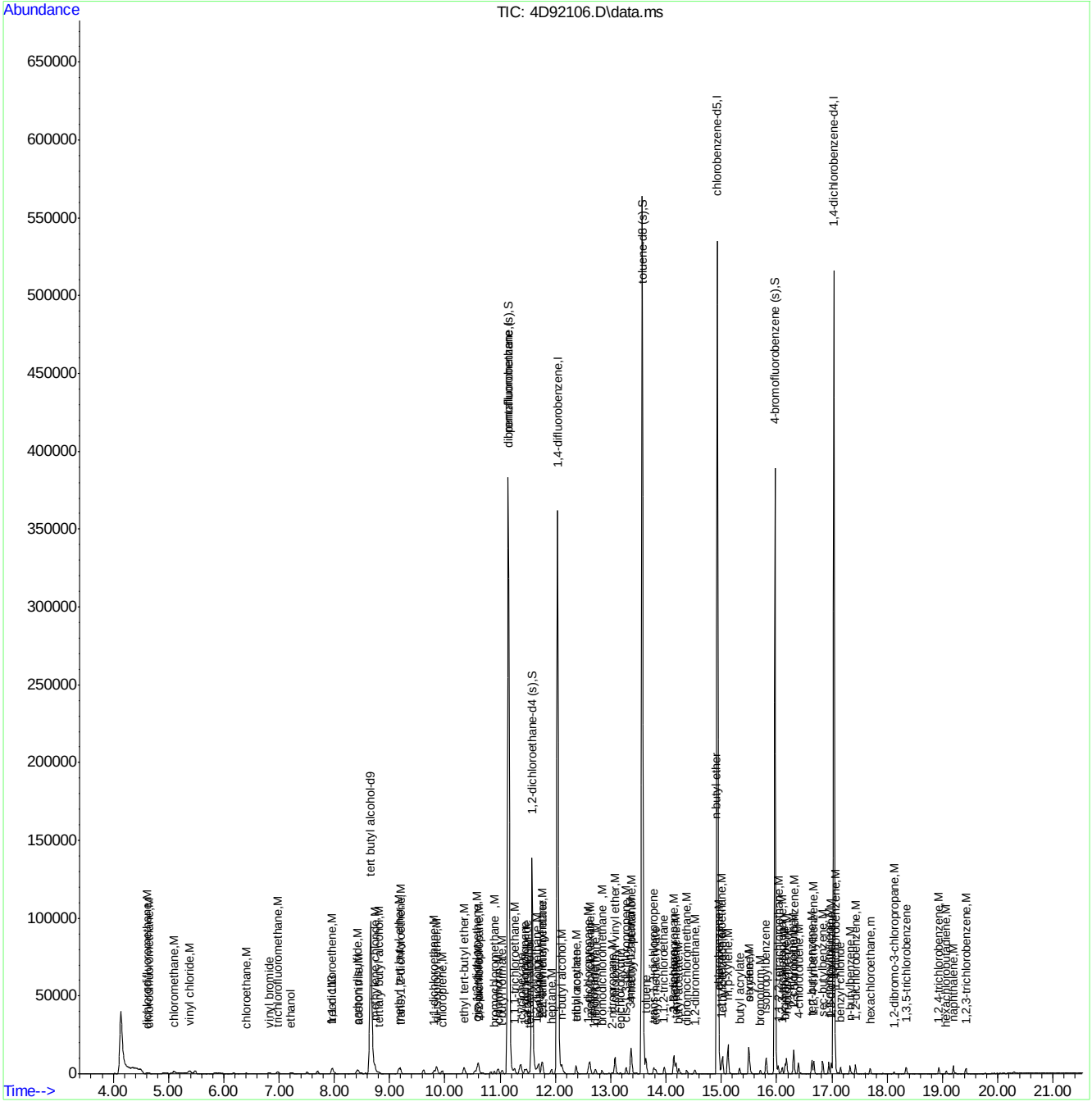
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
111) 1,4-dichlorobenzene	17.061	146	3335	0.98	ug/L		98
112) benzyl chloride	17.155	91	3968	0.82	ug/L		98
113) 1,2-dichlorobenzene	17.428	146	2880	0.89	ug/L		92
114) n-butylbenzene	17.328	92	2315	0.83	ug/L		90
115) 1,2-dibromo-3-chloropr...	18.125	75	373	0.67	ug/L	#	70
116) 1,3,5-trichlorobenzene	18.340	180	1897	0.84	ug/L		96
118) 1,2,4-trichlorobenzene	18.932	180	1660	0.82	ug/L		96
119) hexachlorobutadiene	19.064	225	615	0.83	ug/L		98
120) naphthalene	19.195	128	5231	0.83	ug/L		95
121) 1,2,3-trichlorobenzene	19.425	180	1627	0.86	ug/L		97
122) hexachloroethane	17.695	201	679	0.75	ug/L		94

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V4D4028\
Data File : 4D92106.D
Acq On : 29 Jan 2019 3:39 pm
Operator : roberts
Sample : ic4028-1
Misc : MS31310,V4D4028,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jan 31 11:25:21 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 31 10:07:44 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V4D4028\
Data File : 4D92107.D
Acq On : 29 Jan 2019 4:08 pm
Operator : roberts
Sample : ic4028-2
Misc : MS31310,V4D4028,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jan 31 11:26:33 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 31 10:35:07 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	8.656	65	159185	500.00	ug/L	0.00
5) pentafluorobenzene	11.147	168	182615	50.00	ug/L	0.00
51) 1,4-difluorobenzene	12.038	114	314912	50.00	ug/L	0.00
73) chlorobenzene-d5	14.927	117	284712	50.00	ug/L	0.00
96) 1,4-dichlorobenzene-d4	17.034	152	127557	50.00	ug/L	0.00
System Monitoring Compounds						
43) dibromofluoromethane (s)	11.152	113	101000	48.65	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.30%			
52) 1,2-dichloroethane-d4 (s)	11.576	65	106598	49.91	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 99.82%			
74) toluene-d8 (s)	13.569	98	365662	49.43	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.86%			
97) 4-bromofluorobenzene (s)	15.970	95	128972	50.62	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.24%			
Target Compounds						Qvalue
2) tertiary butyl alcohol	8.803	59	3258	9.14	ug/L	99
3) ethanol	7.209	45	5813	160.75	ug/L	95
4) 1,4-dioxane	12.693	88	1754	51.65	ug/L	92
6) chlorodifluoromethane	4.645	51	3820	2.03	ug/L	84
7) dichlorodifluoromethane	4.614	85	3619	1.71	ug/L	93
8) chloromethane	5.101	50	6253	2.12	ug/L	99
9) vinyl chloride	5.374	62	4669	1.99	ug/L	95
10) bromomethane	6.171	94	1055	1.35	ug/L	90
11) chloroethane	6.412	64	2198	1.78	ug/L	97
12) trichlorofluoromethane	6.968	101	4935	1.76	ug/L	97
13) vinyl bromide	6.821	106	2568	1.78	ug/L	95
14) ethyl ether	7.497	74	1508	1.52	ug/L	95
16) freon 113	7.948	151	2014	1.66	ug/L	94
17) 1,1-dichloroethene	7.959	96	2681	1.76	ug/L	99
18) acetone	7.974	43	4759	6.02	ug/L	93
19) acetonitrile	8.420	41	5642	16.17	ug/L	93
20) iodomethane	8.252	142	1028	0.99	ug/L	88
21) carbon disulfide	8.415	76	7494	1.92	ug/L	96
22) methylene chloride	8.735	84	3247	1.83	ug/L	95
23) methyl acetate	8.546	43	3879	1.95	ug/L	98
24) methyl tert butyl ether	9.165	73	9491	1.77	ug/L	99
25) trans-1,2-dichloroethene	9.196	96	3018	1.83	ug/L	99
26) di-isopropyl ether	9.852	45	10184	1.76	ug/L	98
27) 2-butanone	10.538	72	1908	5.75	ug/L	94
28) 1,1-dichloroethane	9.799	63	5538	1.78	ug/L	97
29) chloroprene	9.946	53	4200	1.68	ug/L	98
31) hexane	9.610	56	1563	1.45	ug/L	92
33) ethyl tert-butyl ether	10.350	59	10031	1.76	ug/L	100
35) 2,2-dichloropropane	10.607	77	5043	1.94	ug/L	97
36) cis-1,2-dichloroethene	10.580	96	3513	1.81	ug/L	91
38) propionitrile	10.601	54	6594	15.74	ug/L	92
39) bromochloromethane	10.895	128	1598	1.74	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V4D4028\
Data File : 4D92107.D
Acq On : 29 Jan 2019 4:08 pm
Operator : roberts
Sample : ic4028-2
Misc : MS31310,V4D4028,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jan 31 11:26:33 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 31 10:35:07 2019
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
41)	chloroform	10.958	85	3782	1.85	ug/L		95
42)	t-butyl formate	11.036	59	3171	1.64	ug/L		95
45)	1,1,1-trichloroethane	11.262	97	5089	1.88	ug/L		96
46)	cyclohexane	11.372	84	4395	1.75	ug/L	#	89
47)	1,1-dichloropropene	11.445	75	4387	1.89	ug/L		95
49)	carbon tetrachloride	11.482	117	4354	1.86	ug/L		96
50)	tert amyl alcohol	11.524	55	1073	8.05	ug/L		90
53)	n-butyl alcohol	12.111	56	8096	73.69	ug/L		97
54)	2,2,4-trimethylpentane	11.765	57	7766	1.71	ug/L		91
55)	benzene	11.692	78	13089	1.91	ug/L		99
56)	tert-amyl methyl ether	11.755	87	2485	1.77	ug/L		94
57)	heptane	11.928	71	1679	1.57	ug/L		96
58)	isopropyl acetate	11.624	87	785	1.44	ug/L	#	67
59)	1,2-dichloroethane	11.666	62	5482	2.10	ug/L		100
60)	trichloroethene	12.368	130	3606	1.93	ug/L		99
61)	ethyl acrylate	12.368	55	5065	1.55	ug/L		89
62)	2-nitropropane	13.024	41	1112	1.77	ug/L		92
63)	2-chloroethyl vinyl ether	13.076	63	11502	7.94	ug/L		98
64)	methyl methacrylate	12.615	100	864	1.35	ug/L		91
65)	1,2-dichloropropane	12.599	63	3495	1.86	ug/L		97
66)	dibromomethane	12.725	93	2505	1.92	ug/L		97
67)	methylcyclohexane	12.620	83	4447	1.77	ug/L		98
68)	bromodichloromethane	12.845	83	4881	1.90	ug/L		98
69)	epichlorohydrin	13.165	57	1926	8.63	ug/L		96
70)	cis-1,3-dichloropropene	13.280	75	5881	1.90	ug/L		98
71)	4-methyl-2-pentanone	13.370	58	7758	7.30	ug/L		98
72)	3-methyl-1-butanol	13.354	70	2849	28.04	ug/L		92
75)	toluene	13.637	92	8842	2.03	ug/L		99
76)	trans-1,3-dichloropropene	13.773	75	5295	1.83	ug/L		99
77)	ethyl methacrylate	13.800	69	4688	1.65	ug/L		96
78)	1,1,2-trichloroethane	13.967	83	2903	1.85	ug/L		95
79)	tetrachloroethene	14.177	164	3099	2.04	ug/L		97
80)	1,3-dichloropropane	14.135	76	5639	1.94	ug/L		96
81)	2-hexanone	14.140	58	7569	6.72	ug/L		90
82)	butyl acetate	14.224	56	2920	1.70	ug/L		91
83)	dibromochloromethane	14.371	129	3644	1.72	ug/L		97
84)	1,2-dibromoethane	14.523	107	4303	1.83	ug/L		96
85)	n-butyl ether	14.911	57	14265	1.82	ug/L		89
86)	chlorobenzene	14.958	112	9595	2.01	ug/L		97
87)	1,1,1,2-tetrachloroethane	15.005	131	3350	1.89	ug/L		96
88)	ethylbenzene	15.021	91	15846	1.98	ug/L		100
89)	m,p-xylene	15.116	106	12006	3.99	ug/L		98
90)	o-xylene	15.493	106	5768	1.97	ug/L		98
91)	styrene	15.493	104	8940	1.78	ug/L		96
92)	bromoform	15.703	173	2498	1.63	ug/L		94
93)	butyl acrylate	15.325	55	6300	1.53	ug/L		99
94)	isopropylbenzene	15.808	105	14294	1.97	ug/L		99
98)	bromobenzene	16.154	156	3815	1.89	ug/L		99
99)	1,1,2,2-tetrachloroethane	16.028	83	5208	1.83	ug/L		96
101)	1,2,3-trichloropropane	16.101	110	1388	1.89	ug/L		96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V4D4028\
Data File : 4D92107.D
Acq On : 29 Jan 2019 4:08 pm
Operator : roberts
Sample : ic4028-2
Misc : MS31310,V4D4028,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jan 31 11:26:33 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 31 10:35:07 2019
Response via : Initial Calibration

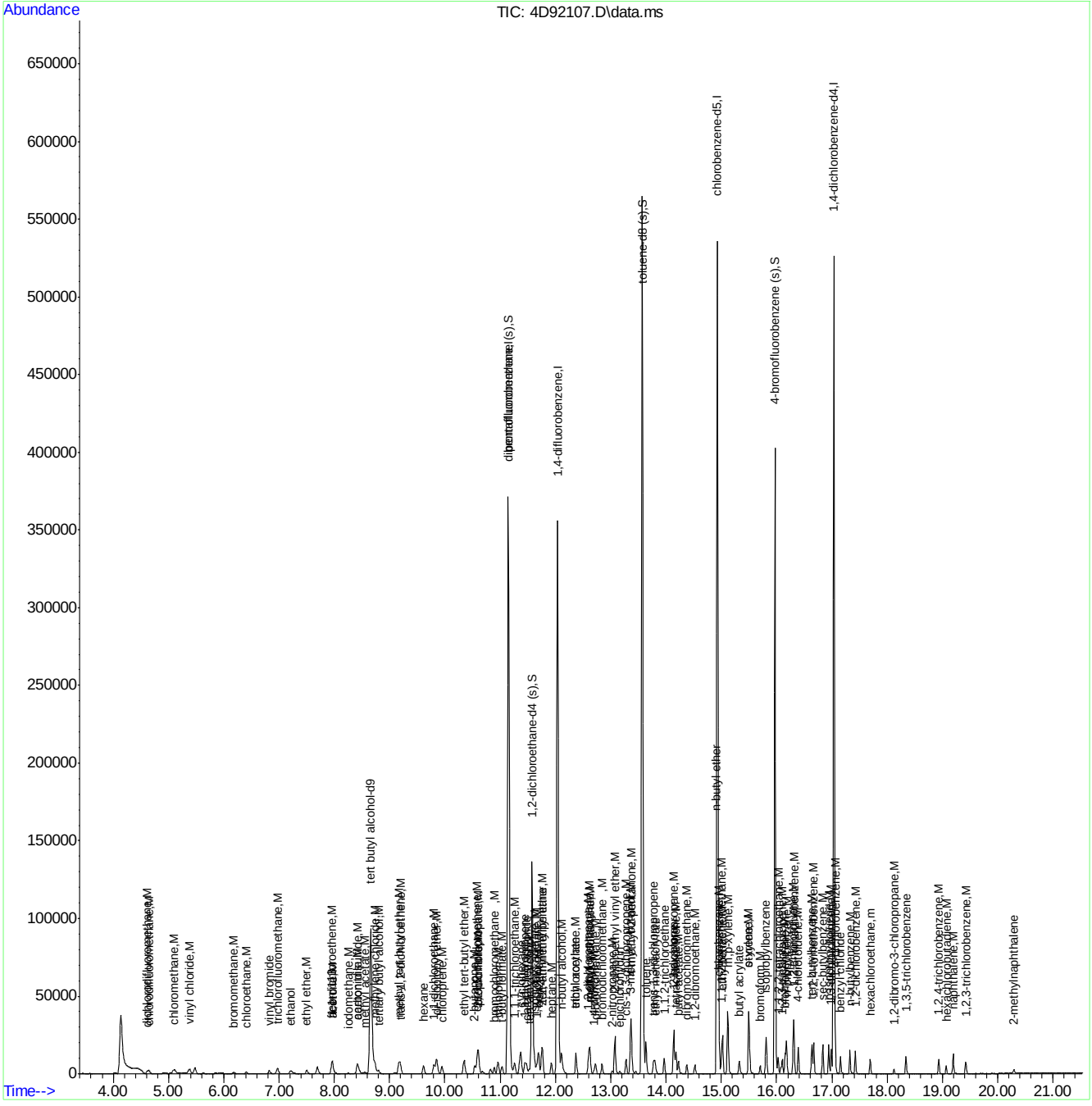
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
102) n-propylbenzene	16.180	91	17210	1.99	ug/L	98
103) 2-chlorotoluene	16.306	126	3485	1.93	ug/L	97
104) 4-chlorotoluene	16.390	91	10451	2.01	ug/L	98
105) 1,3,5-trimethylbenzene	16.316	105	11482	1.94	ug/L	100
106) tert-butylbenzene	16.636	134	1982	1.81	ug/L	93
107) 1,2,4-trimethylbenzene	16.673	105	11463	1.92	ug/L	99
108) sec-butylbenzene	16.835	105	13562	1.95	ug/L	98
109) 1,3-dichlorobenzene	16.987	146	6543	1.93	ug/L	99
110) p-isopropyltoluene	16.940	119	10972	1.90	ug/L	98
111) 1,4-dichlorobenzene	17.061	146	6880	1.99	ug/L	96
112) benzyl chloride	17.155	91	8776	1.79	ug/L	96
113) 1,2-dichlorobenzene	17.422	146	6377	1.93	ug/L	95
114) n-butylbenzene	17.323	92	5189	1.82	ug/L	95
115) 1,2-dibromo-3-chloropr...	18.125	75	940	1.65	ug/L	85
116) 1,3,5-trichlorobenzene	18.340	180	4066	1.78	ug/L	92
118) 1,2,4-trichlorobenzene	18.932	180	3454	1.68	ug/L	95
119) hexachlorobutadiene	19.069	225	1347	1.79	ug/L	98
120) naphthalene	19.195	128	10888	1.69	ug/L	98
121) 1,2,3-trichlorobenzene	19.420	180	3373	1.75	ug/L	96
122) hexachloroethane	17.695	201	1580	1.72	ug/L	95
123) 2-methylnaphthalene	20.290	142	1910	0.78	ug/L	92

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V4D4028\
Data File : 4D92107.D
Acq On : 29 Jan 2019 4:08 pm
Operator : roberts
Sample : ic4028-2
Misc : MS31310,V4D4028,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jan 31 11:26:33 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 31 10:35:07 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V4D4028\
Data File : 4D92108.D
Acq On : 29 Jan 2019 4:37 pm
Operator : roberts
Sample : ic4028-4
Misc : MS31310,V4D4028,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jan 31 11:27:19 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 31 10:35:07 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	8.656	65	159314	500.00	ug/L	0.00
5) pentafluorobenzene	11.147	168	179008	50.00	ug/L	0.00
51) 1,4-difluorobenzene	12.038	114	312089	50.00	ug/L	0.00
73) chlorobenzene-d5	14.927	117	279877	50.00	ug/L	0.00
96) 1,4-dichlorobenzene-d4	17.035	152	123986	50.00	ug/L	0.00
System Monitoring Compounds						
43) dibromofluoromethane (s)	11.152	113	99381	48.84	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.68%			
52) 1,2-dichloroethane-d4 (s)	11.576	65	105044	49.63	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 99.26%			
74) toluene-d8 (s)	13.569	98	362634	49.87	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.74%			
97) 4-bromofluorobenzene (s)	15.970	95	126038	50.89	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.78%			
Target Compounds						Qvalue
2) tertiary butyl alcohol	8.798	59	6853	19.20	ug/L	95
3) ethanol	7.193	45	13150	363.35	ug/L	97
4) 1,4-dioxane	12.693	88	3701	108.90	ug/L	96
6) chlorodifluoromethane	4.645	51	7479	4.05	ug/L	95
7) dichlorodifluoromethane	4.614	85	7619	3.68	ug/L	94
8) chloromethane	5.101	50	11616	4.01	ug/L	98
9) vinyl chloride	5.374	62	9350	4.07	ug/L	97
10) bromomethane	6.171	94	2225	2.91	ug/L	92
11) chloroethane	6.407	64	4484	3.71	ug/L	96
12) trichlorofluoromethane	6.973	101	10395	3.78	ug/L	98
13) vinyl bromide	6.821	106	5235	3.70	ug/L	98
14) ethyl ether	7.497	74	3264	3.35	ug/L	95
16) freon 113	7.954	151	4544	3.83	ug/L	97
17) 1,1-dichloroethene	7.964	96	5622	3.77	ug/L	96
18) acetone	7.969	43	10674	13.77	ug/L	98
19) acetonitrile	8.420	41	11987	35.04	ug/L	97
20) iodomethane	8.247	142	2260	2.23	ug/L	91
21) carbon disulfide	8.410	76	14535	3.80	ug/L	99
22) methylene chloride	8.735	84	6533	3.76	ug/L	93
23) methyl acetate	8.536	43	7335	3.77	ug/L	97
24) methyl tert butyl ether	9.165	73	19492	3.71	ug/L	99
25) trans-1,2-dichloroethene	9.191	96	6066	3.75	ug/L	97
26) di-isopropyl ether	9.846	45	20329	3.58	ug/L	92
27) 2-butanone	10.533	72	4343	13.36	ug/L	96
28) 1,1-dichloroethane	9.794	63	11333	3.72	ug/L	98
29) chloroprene	9.946	53	8800	3.60	ug/L	98
30) acrylonitrile	9.076	53	2521	3.15	ug/L	92
31) hexane	9.610	56	3824	3.62	ug/L	97
33) ethyl tert-butyl ether	10.344	59	20328	3.63	ug/L	98
34) ethyl acetate	10.591	70	854	2.77	ug/L	98
35) 2,2-dichloropropane	10.612	77	9976	3.92	ug/L	96
36) cis-1,2-dichloroethene	10.580	96	7092	3.72	ug/L	94

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V4D4028\
Data File : 4D92108.D
Acq On : 29 Jan 2019 4:37 pm
Operator : roberts
Sample : ic4028-4
Misc : MS31310,V4D4028,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jan 31 11:27:19 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 31 10:35:07 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) methyl acrylate	10.680	85	1065	2.76	ug/L	#	62
38) propionitrile	10.591	54	14168	34.51	ug/L		97
39) bromochloromethane	10.895	128	3336	3.70	ug/L		96
40) tetrahydrofuran	10.963	72	1125	3.13	ug/L	#	69
41) chloroform	10.958	85	7803	3.88	ug/L		96
42) t-butyl formate	11.031	59	6550	3.45	ug/L		96
45) 1,1,1-trichloroethane	11.262	97	10506	3.97	ug/L		98
46) cyclohexane	11.372	84	9263	3.76	ug/L		98
47) 1,1-dichloropropene	11.445	75	8966	3.94	ug/L		97
48) isobutyl alcohol	11.440	74	401	28.80	ug/L		52
49) carbon tetrachloride	11.477	117	9033	3.93	ug/L		99
50) tert amyl alcohol	11.529	55	2333	17.85	ug/L		98
53) n-butyl alcohol	12.106	56	18135	166.56	ug/L		96
54) 2,2,4-trimethylpentane	11.765	57	16964	3.77	ug/L		93
55) benzene	11.692	78	26581	3.92	ug/L		100
56) tert-amyl methyl ether	11.755	87	5166	3.72	ug/L		93
57) heptane	11.928	71	3876	3.66	ug/L		95
58) isopropyl acetate	11.618	87	1761	3.26	ug/L	#	80
59) 1,2-dichloroethane	11.666	62	10656	4.11	ug/L		98
60) trichloroethene	12.373	130	7362	3.98	ug/L		98
61) ethyl acrylate	12.363	55	11140	3.44	ug/L		94
62) 2-nitropropane	13.029	41	2350	3.77	ug/L		93
63) 2-chloroethyl vinyl ether	13.071	63	24980	17.41	ug/L		99
64) methyl methacrylate	12.609	100	2148	3.39	ug/L		97
65) 1,2-dichloropropane	12.599	63	7227	3.88	ug/L		98
66) dibromomethane	12.719	93	5050	3.91	ug/L		97
67) methylcyclohexane	12.620	83	9781	3.93	ug/L		97
68) bromodichloromethane	12.840	83	10107	3.96	ug/L		97
69) epichlorohydrin	13.160	57	4013	18.14	ug/L		95
70) cis-1,3-dichloropropene	13.275	75	11847	3.87	ug/L		95
71) 4-methyl-2-pentanone	13.364	58	16714	15.87	ug/L		95
72) 3-methyl-1-butanol	13.354	70	6897	68.49	ug/L		95
75) toluene	13.637	92	17518	4.09	ug/L		98
76) trans-1,3-dichloropropene	13.773	75	10871	3.82	ug/L		98
77) ethyl methacrylate	13.794	69	9764	3.49	ug/L		95
78) 1,1,2-trichloroethane	13.967	83	5992	3.88	ug/L		97
79) tetrachloroethene	14.182	164	6072	4.07	ug/L		99
80) 1,3-dichloropropane	14.135	76	11563	4.04	ug/L		97
81) 2-hexanone	14.135	58	16719	15.10	ug/L		95
82) butyl acetate	14.219	56	6067	3.60	ug/L		99
83) dibromochloromethane	14.371	129	7723	3.72	ug/L		97
84) 1,2-dibromoethane	14.523	107	8864	3.84	ug/L		96
85) n-butyl ether	14.911	57	29492	3.83	ug/L		96
86) chlorobenzene	14.958	112	19010	4.06	ug/L		95
87) 1,1,1,2-tetrachloroethane	15.005	131	6806	3.90	ug/L		99
88) ethylbenzene	15.021	91	31690	4.03	ug/L		98
89) m,p-xylene	15.116	106	23862	8.06	ug/L		95
90) o-xylene	15.493	106	11670	4.06	ug/L		98
91) styrene	15.493	104	18334	3.71	ug/L		98
92) bromoform	15.703	173	5343	3.55	ug/L		96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V4D4028\
Data File : 4D92108.D
Acq On : 29 Jan 2019 4:37 pm
Operator : roberts
Sample : ic4028-4
Misc : MS31310,V4D4028,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jan 31 11:27:19 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 31 10:35:07 2019
Response via : Initial Calibration

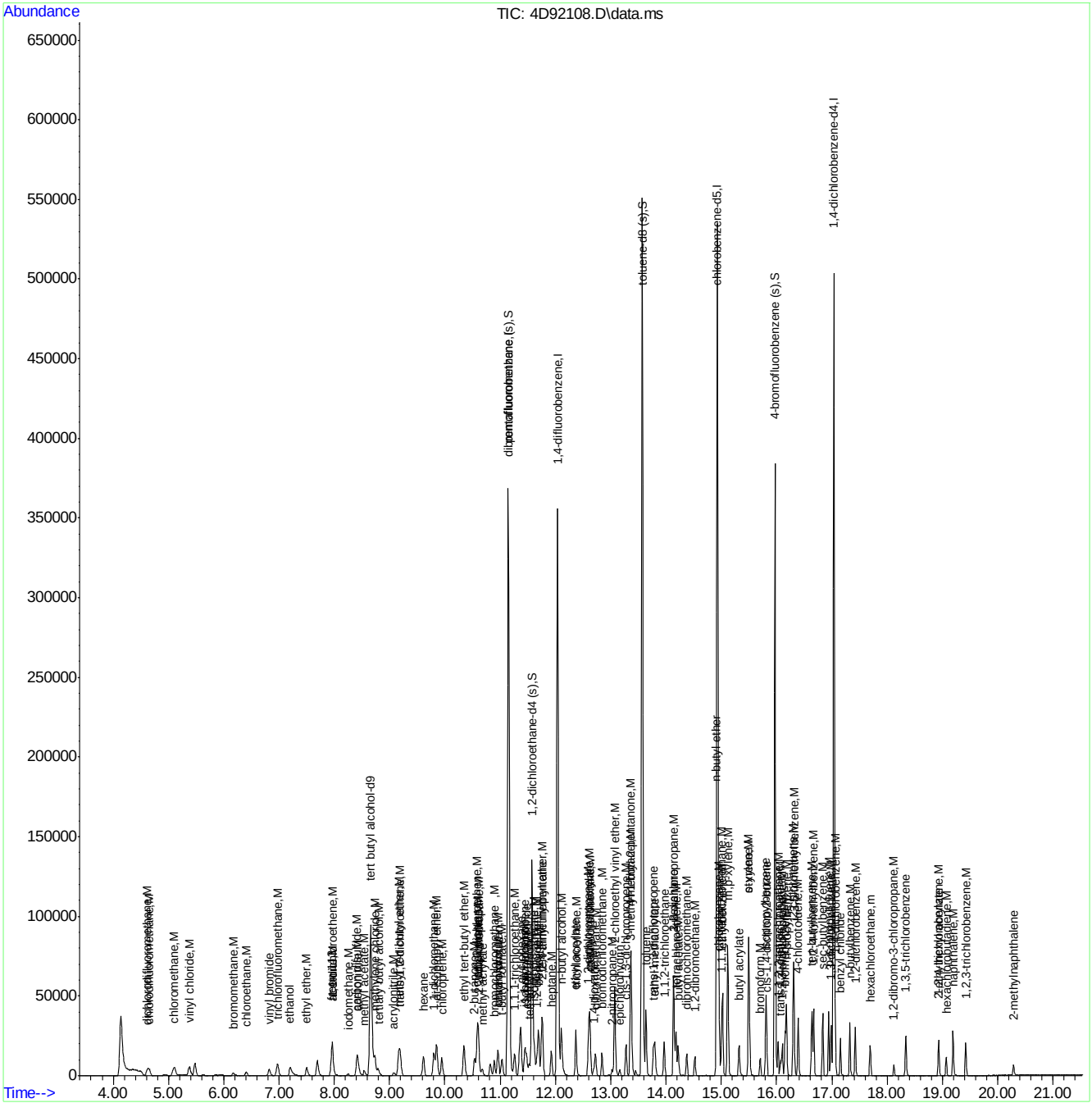
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
93) butyl acrylate	15.320	55	13750	3.39	ug/L		99
94) isopropylbenzene	15.808	105	28860	4.05	ug/L		99
95) cis-1,4-dichloro-2-butene	15.823	88	2876	3.10	ug/L		99
98) bromobenzene	16.154	156	7664	3.91	ug/L		98
99) 1,1,2,2-tetrachloroethane	16.028	83	10618	3.83	ug/L		96
100) trans-1,4-dichloro-2-b...	16.070	53	1920	3.16	ug/L		88
101) 1,2,3-trichloropropane	16.101	110	2799	3.92	ug/L		97
102) n-propylbenzene	16.180	91	34253	4.08	ug/L		99
103) 2-chlorotoluene	16.306	126	7193	4.09	ug/L		96
104) 4-chlorotoluene	16.390	91	20798	4.12	ug/L		97
105) 1,3,5-trimethylbenzene	16.311	105	23002	3.99	ug/L		98
106) tert-butylbenzene	16.636	134	4239	3.99	ug/L		96
107) 1,2,4-trimethylbenzene	16.673	105	22906	3.94	ug/L		98
108) sec-butylbenzene	16.830	105	27599	4.09	ug/L		100
109) 1,3-dichlorobenzene	16.987	146	13338	4.05	ug/L		98
110) p-isopropyltoluene	16.940	119	22352	3.99	ug/L		99
111) 1,4-dichlorobenzene	17.061	146	13614	4.04	ug/L		99
112) benzyl chloride	17.155	91	17541	3.68	ug/L		100
113) 1,2-dichlorobenzene	17.422	146	12736	3.96	ug/L		99
114) n-butylbenzene	17.323	92	10545	3.80	ug/L		95
115) 1,2-dibromo-3-chloropr...	18.120	75	1957	3.53	ug/L		81
116) 1,3,5-trichlorobenzene	18.335	180	8386	3.77	ug/L		91
117) 2-ethylhexyl acrylate	18.927	70	398	0.46	ug/L	#	70
118) 1,2,4-trichlorobenzene	18.932	180	7261	3.64	ug/L		98
119) hexachlorobutadiene	19.069	225	2810	3.83	ug/L		98
120) naphthalene	19.189	128	22893	3.65	ug/L		99
121) 1,2,3-trichlorobenzene	19.420	180	6754	3.61	ug/L		95
122) hexachloroethane	17.695	201	3216	3.60	ug/L		96
123) 2-methylnaphthalene	20.285	142	4193	1.75	ug/L		98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V4D4028\
Data File : 4D92108.D
Acq On : 29 Jan 2019 4:37 pm
Operator : roberts
Sample : ic4028-4
Misc : MS31310,V4D4028,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jan 31 11:27:19 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 31 10:35:07 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V4D4028\
Data File : 4D92109.D
Acq On : 29 Jan 2019 5:06 pm
Operator : roberts
Sample : ic4028-8
Misc : MS31310,V4D4028,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jan 31 10:35:30 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 31 10:35:07 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	8.661	65	153556	500.00	ug/L		0.00
5) pentafluorobenzene	11.146	168	176494	50.00	ug/L		0.00
51) 1,4-difluorobenzene	12.038	114	307506	50.00	ug/L		0.00
73) chlorobenzene-d5	14.927	117	275696	50.00	ug/L		0.00
96) 1,4-dichlorobenzene-d4	17.034	152	122172	50.00	ug/L		0.00
System Monitoring Compounds							
43) dibromofluoromethane (s)	11.152	113	99265	49.48	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.96%				
52) 1,2-dichloroethane-d4 (s)	11.576	65	103808	49.78	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 99.56%				
74) toluene-d8 (s)	13.569	98	357919	49.97	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.94%				
97) 4-bromofluorobenzene (s)	15.970	95	122798	50.32	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.64%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	8.792	59	13437	39.07	ug/L		96
3) ethanol	7.198	45	26923	771.82	ug/L		100
4) 1,4-dioxane	12.693	88	7235	220.87	ug/L		99
6) chlorodifluoromethane	4.645	51	14660	8.05	ug/L		98
7) dichlorodifluoromethane	4.614	85	16114	7.89	ug/L		98
8) chloromethane	5.101	50	22497	7.88	ug/L		99
9) vinyl chloride	5.374	62	18796	8.30	ug/L		98
10) bromomethane	6.176	94	5174	6.86	ug/L		98
11) chloroethane	6.407	64	9128	7.67	ug/L		97
12) trichlorofluoromethane	6.973	101	21232	7.83	ug/L		98
13) vinyl bromide	6.821	106	10566	7.57	ug/L		98
14) ethyl ether	7.497	74	6727	7.01	ug/L		96
15) acrolein	7.718	56	2764	6.23	ug/L		96
16) freon 113	7.959	151	8639	7.38	ug/L		97
17) 1,1-dichloroethene	7.964	96	11074	7.53	ug/L		98
18) acetone	7.964	43	21721	28.42	ug/L		97
19) acetonitrile	8.410	41	24108	71.48	ug/L		98
20) iodomethane	8.252	142	5159	5.16	ug/L		98
21) carbon disulfide	8.415	76	28591	7.59	ug/L		98
22) methylene chloride	8.729	84	12957	7.56	ug/L		98
23) methyl acetate	8.535	43	14162	7.37	ug/L		99
24) methyl tert butyl ether	9.165	73	38793	7.48	ug/L		99
25) trans-1,2-dichloroethene	9.196	96	11887	7.45	ug/L		98
26) di-isopropyl ether	9.846	45	40969	7.31	ug/L		95
27) 2-butanone	10.533	72	8872	27.68	ug/L	#	87
28) 1,1-dichloroethane	9.794	63	22470	7.49	ug/L		98
29) chloroprene	9.941	53	17662	7.33	ug/L		99
30) acrylonitrile	9.065	53	5150	6.53	ug/L		96
31) hexane	9.610	56	7278	6.99	ug/L		97
32) vinyl acetate	9.804	86	2510	6.04	ug/L		98
33) ethyl tert-butyl ether	10.344	59	40616	7.36	ug/L		100
34) ethyl acetate	10.585	70	2035	6.69	ug/L	#	76

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V4D4028\
Data File : 4D92109.D
Acq On : 29 Jan 2019 5:06 pm
Operator : roberts
Sample : ic4028-8
Misc : MS31310,V4D4028,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jan 31 10:35:30 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 31 10:35:07 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
35) 2,2-dichloropropane	10.606	77	19759	7.88	ug/L		100
36) cis-1,2-dichloroethene	10.580	96	14068	7.49	ug/L		99
37) methyl acrylate	10.664	85	2431	6.38	ug/L		95
38) propionitrile	10.591	54	28416	70.20	ug/L		97
39) bromochloromethane	10.890	128	6804	7.65	ug/L		96
40) tetrahydrofuran	10.963	72	2463	6.95	ug/L		92
41) chloroform	10.952	85	15539	7.84	ug/L		96
42) t-butyl formate	11.031	59	13624	7.28	ug/L		97
44) methacrylonitrile	10.821	67	6422	6.71	ug/L		96
45) 1,1,1-trichloroethane	11.262	97	20729	7.94	ug/L		99
46) cyclohexane	11.372	84	19522	8.04	ug/L		97
47) 1,1-dichloropropene	11.445	75	17844	7.95	ug/L		96
48) isobutyl alcohol	11.445	74	1088	79.26	ug/L		71
49) carbon tetrachloride	11.477	117	18159	8.02	ug/L		99
50) tert amyl alcohol	11.524	55	4891	37.95	ug/L		96
53) n-butyl alcohol	12.101	56	36962	344.54	ug/L		98
54) 2,2,4-trimethylpentane	11.765	57	33333	7.51	ug/L		95
55) benzene	11.692	78	52799	7.90	ug/L		100
56) tert-amyl methyl ether	11.755	87	10432	7.63	ug/L		96
57) heptane	11.922	71	7564	7.25	ug/L		98
58) isopropyl acetate	11.618	87	3778	7.10	ug/L	#	83
59) 1,2-dichloroethane	11.666	62	20779	8.13	ug/L		98
60) trichloroethene	12.368	130	14318	7.86	ug/L		99
61) ethyl acrylate	12.358	55	24851	7.78	ug/L		100
62) 2-nitropropane	13.023	41	4652	7.58	ug/L		96
63) 2-chloroethyl vinyl ether	13.071	63	52848	37.38	ug/L		99
64) methyl methacrylate	12.615	100	4401	7.05	ug/L	#	95
65) 1,2-dichloropropane	12.594	63	14346	7.82	ug/L		99
66) dibromomethane	12.719	93	10176	8.00	ug/L		98
67) methylcyclohexane	12.625	83	18987	7.73	ug/L		98
68) bromodichloromethane	12.840	83	19660	7.82	ug/L		97
69) epichlorohydrin	13.160	57	8069	37.02	ug/L		96
70) cis-1,3-dichloropropene	13.275	75	23875	7.92	ug/L		98
71) 4-methyl-2-pentanone	13.370	58	32968	31.78	ug/L		97
72) 3-methyl-1-butanol	13.354	70	13990	141.00	ug/L		97
75) toluene	13.637	92	34078	8.08	ug/L		98
76) trans-1,3-dichloropropene	13.773	75	21590	7.70	ug/L		99
77) ethyl methacrylate	13.794	69	20173	7.32	ug/L		96
78) 1,1,2-trichloroethane	13.962	83	12089	7.94	ug/L		98
79) tetrachloroethene	14.177	164	11968	8.14	ug/L		99
80) 1,3-dichloropropane	14.135	76	22914	8.12	ug/L		97
81) 2-hexanone	14.135	58	33298	30.52	ug/L		94
82) butyl acetate	14.214	56	12655	7.62	ug/L		98
83) dibromochloromethane	14.371	129	15513	7.58	ug/L		99
84) 1,2-dibromoethane	14.523	107	17616	7.75	ug/L		98
85) n-butyl ether	14.906	57	58848	7.76	ug/L		99
86) chlorobenzene	14.958	112	37141	8.05	ug/L		98
87) 1,1,1,2-tetrachloroethane	15.005	131	13497	7.85	ug/L		96
88) ethylbenzene	15.021	91	62576	8.08	ug/L		100
89) m,p-xylene	15.115	106	47295	16.23	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V4D4028\
Data File : 4D92109.D
Acq On : 29 Jan 2019 5:06 pm
Operator : roberts
Sample : ic4028-8
Misc : MS31310,V4D4028,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jan 31 10:35:30 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 31 10:35:07 2019
Response via : Initial Calibration

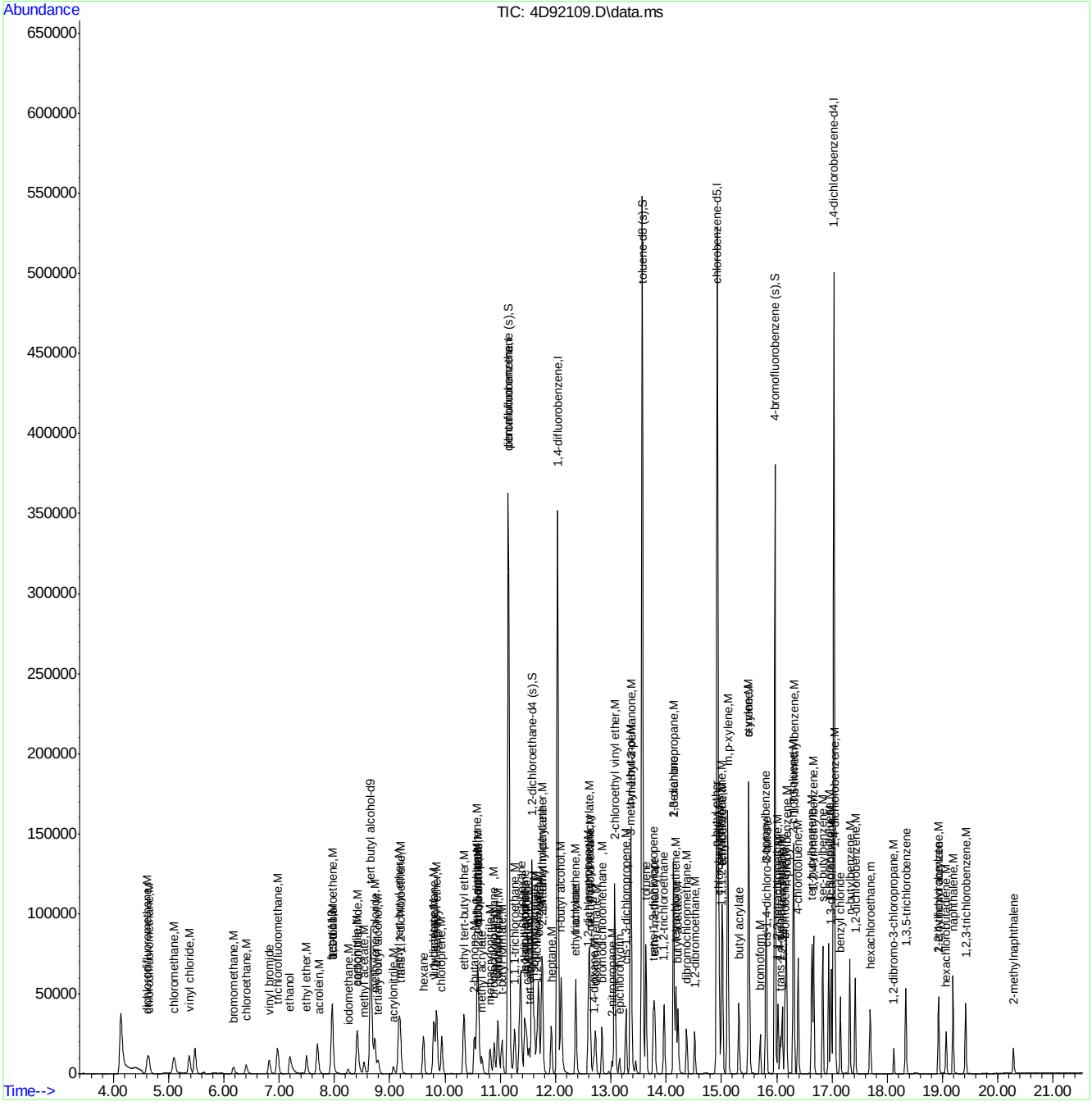
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
90) o-xylene	15.493	106	23317	8.24	ug/L	99
91) styrene	15.493	104	37951	7.80	ug/L	98
92) bromoform	15.703	173	10897	7.36	ug/L	98
93) butyl acrylate	15.315	55	28758	7.19	ug/L	99
94) isopropylbenzene	15.808	105	57625	8.21	ug/L	100
95) cis-1,4-dichloro-2-butene	15.823	88	6158	6.73	ug/L	98
98) bromobenzene	16.154	156	15413	7.98	ug/L	98
99) 1,1,2,2-tetrachloroethane	16.022	83	21645	7.92	ug/L	99
100) trans-1,4-dichloro-2-b...	16.070	53	4176	6.97	ug/L	89
101) 1,2,3-trichloropropane	16.101	110	5582	7.94	ug/L	96
102) n-propylbenzene	16.180	91	67079	8.12	ug/L	100
103) 2-chlorotoluene	16.300	126	14170	8.18	ug/L	97
104) 4-chlorotoluene	16.389	91	40392	8.12	ug/L	100
105) 1,3,5-trimethylbenzene	16.311	105	45766	8.05	ug/L	99
106) tert-butylbenzene	16.636	134	8487	8.11	ug/L	99
107) 1,2,4-trimethylbenzene	16.667	105	46415	8.10	ug/L	99
108) sec-butylbenzene	16.835	105	54069	8.13	ug/L	100
109) 1,3-dichlorobenzene	16.987	146	26570	8.19	ug/L	99
110) p-isopropyltoluene	16.940	119	44690	8.09	ug/L	99
111) 1,4-dichlorobenzene	17.055	146	27004	8.14	ug/L	99
112) benzyl chloride	17.155	91	35141	7.49	ug/L	99
113) 1,2-dichlorobenzene	17.422	146	24969	7.88	ug/L	98
114) n-butylbenzene	17.323	92	21585	7.89	ug/L	98
115) 1,2-dibromo-3-chloropr...	18.120	75	4033	7.39	ug/L	87
116) 1,3,5-trichlorobenzene	18.340	180	17154	7.83	ug/L	98
117) 2-ethylhexyl acrylate	18.927	70	1013	1.20	ug/L	98
118) 1,2,4-trichlorobenzene	18.932	180	14794	7.53	ug/L	98
119) hexachlorobutadiene	19.063	225	5705	7.90	ug/L	96
120) naphthalene	19.189	128	46230	7.49	ug/L	99
121) 1,2,3-trichlorobenzene	19.420	180	13996	7.59	ug/L	99
122) hexachloroethane	17.695	201	6603	7.50	ug/L	97
123) 2-methylnaphthalene	20.285	142	8910	3.78	ug/L	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V4D4028\
Data File : 4D92109.D
Acq On : 29 Jan 2019 5:06 pm
Operator : roberts
Sample : ic4028-8
Misc : MS31310,V4D4028,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jan 31 10:35:30 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 31 10:35:07 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V4D4028\
Data File : 4D92110.D
Acq On : 29 Jan 2019 5:35 pm
Operator : roberts
Sample : ic4028-20
Misc : MS31310,V4D4028,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jan 31 10:35:33 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 31 10:35:07 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	8.661	65	162692	500.00	ug/L	0.00
5) pentafluorobenzene	11.146	168	176570	50.00	ug/L	0.00
51) 1,4-difluorobenzene	12.032	114	300757	50.00	ug/L	0.00
73) chlorobenzene-d5	14.927	117	263553	50.00	ug/L	0.00
96) 1,4-dichlorobenzene-d4	17.034	152	114803	50.00	ug/L	0.00
System Monitoring Compounds						
43) dibromofluoromethane (s)	11.152	113	98413	49.03	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.06%			
52) 1,2-dichloroethane-d4 (s)	11.576	65	103642	50.81	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 101.62%			
74) toluene-d8 (s)	13.569	98	346018	50.53	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.06%			
97) 4-bromofluorobenzene (s)	15.970	95	115801	50.50	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.00%			
Target Compounds						Qvalue
2) tertiary butyl alcohol	8.792	59	36174	99.27	ug/L	99
3) ethanol	7.188	45	71894	1945.29	ug/L	100
4) 1,4-dioxane	12.688	88	18524	533.74	ug/L	100
6) chlorodifluoromethane	4.640	51	36769	20.18	ug/L	98
7) dichlorodifluoromethane	4.614	85	40694	19.92	ug/L	99
8) chloromethane	5.096	50	56123	19.64	ug/L	99
9) vinyl chloride	5.374	62	45928	20.26	ug/L	99
10) bromomethane	6.171	94	13701	18.16	ug/L	99
11) chloroethane	6.401	64	23093	19.39	ug/L	99
12) trichlorofluoromethane	6.968	101	53732	19.80	ug/L	100
13) vinyl bromide	6.821	106	27069	19.39	ug/L	98
14) ethyl ether	7.497	74	17899	18.64	ug/L	99
15) acrolein	7.712	56	7710	17.38	ug/L	99
16) freon 113	7.953	151	23554	20.12	ug/L	98
17) 1,1-dichloroethene	7.964	96	28937	19.67	ug/L	95
18) acetone	7.959	43	57983	75.84	ug/L	98
19) acetonitrile	8.410	41	63103	187.01	ug/L	99
20) iodomethane	8.247	142	16474	16.48	ug/L	97
21) carbon disulfide	8.410	76	72065	19.12	ug/L	98
22) methylene chloride	8.729	84	32873	19.18	ug/L	100
23) methyl acetate	8.530	43	36571	19.03	ug/L	98
24) methyl tert butyl ether	9.165	73	99841	19.24	ug/L	98
25) trans-1,2-dichloroethene	9.191	96	31150	19.52	ug/L	97
26) di-isopropyl ether	9.846	45	107257	19.14	ug/L	96
27) 2-butanone	10.528	72	23708	73.95	ug/L	97
28) 1,1-dichloroethane	9.794	63	58821	19.60	ug/L	100
29) chloroprene	9.941	53	46711	19.38	ug/L	99
30) acrylonitrile	9.060	53	14365	18.21	ug/L	97
31) hexane	9.610	56	20099	19.29	ug/L	95
32) vinyl acetate	9.799	86	7619	18.32	ug/L	96
33) ethyl tert-butyl ether	10.344	59	105370	19.09	ug/L	99
34) ethyl acetate	10.585	70	5513	18.12	ug/L #	93

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V4D4028\
Data File : 4D92110.D
Acq On : 29 Jan 2019 5:35 pm
Operator : roberts
Sample : ic4028-20
Misc : MS31310,V4D4028,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jan 31 10:35:33 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 31 10:35:07 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
35) 2,2-dichloropropane	10.606	77	50876	20.27	ug/L		97
36) cis-1,2-dichloroethene	10.580	96	36591	19.48	ug/L		97
37) methyl acrylate	10.659	85	7066	18.55	ug/L		92
38) propionitrile	10.585	54	75877	187.36	ug/L		98
39) bromochloromethane	10.889	128	17623	19.80	ug/L		98
40) tetrahydrofuran	10.963	72	6609	18.65	ug/L		98
41) chloroform	10.952	85	39826	20.10	ug/L		99
42) t-butyl formate	11.031	59	36585	19.54	ug/L		98
44) methacrylonitrile	10.816	67	18018	18.82	ug/L		98
45) 1,1,1-trichloroethane	11.262	97	53264	20.40	ug/L		99
46) cyclohexane	11.372	84	49525	20.38	ug/L		99
47) 1,1-dichloropropene	11.445	75	46337	20.64	ug/L		99
48) isobutyl alcohol	11.440	74	3034	220.93	ug/L		78
49) carbon tetrachloride	11.477	117	46727	20.63	ug/L		99
50) tert amyl alcohol	11.524	55	12972	100.60	ug/L		93
53) n-butyl alcohol	12.101	56	100855	961.21	ug/L		99
54) 2,2,4-trimethylpentane	11.765	57	88061	20.28	ug/L		99
55) benzene	11.692	78	132667	20.29	ug/L		99
56) tert-amyl methyl ether	11.755	87	26456	19.78	ug/L		97
57) heptane	11.922	71	20609	20.18	ug/L		99
58) isopropyl acetate	11.618	87	10206	19.60	ug/L	#	87
59) 1,2-dichloroethane	11.665	62	50934	20.39	ug/L		99
60) trichloroethene	12.368	130	36477	20.47	ug/L		100
61) ethyl acrylate	12.358	55	62280	19.94	ug/L		99
62) 2-nitropropane	13.023	41	11902	19.84	ug/L		99
63) 2-chloroethyl vinyl ether	13.071	63	139078	100.57	ug/L		99
64) methyl methacrylate	12.609	100	11862	19.43	ug/L		92
65) 1,2-dichloropropane	12.593	63	36218	20.20	ug/L		100
66) dibromomethane	12.719	93	25152	20.22	ug/L		100
67) methylcyclohexane	12.620	83	50126	20.87	ug/L		98
68) bromodichloromethane	12.840	83	49546	20.15	ug/L		97
69) epichlorohydrin	13.160	57	21303	99.93	ug/L		97
70) cis-1,3-dichloropropene	13.275	75	59569	20.20	ug/L		99
71) 4-methyl-2-pentanone	13.364	58	83172	81.97	ug/L		98
72) 3-methyl-1-butanol	13.348	70	37544	386.88	ug/L		98
75) toluene	13.637	92	83948	20.81	ug/L		99
76) trans-1,3-dichloropropene	13.768	75	54140	20.19	ug/L		99
77) ethyl methacrylate	13.794	69	52137	19.80	ug/L		97
78) 1,1,2-trichloroethane	13.962	83	29541	20.30	ug/L		99
79) tetrachloroethene	14.177	164	29178	20.75	ug/L		100
80) 1,3-dichloropropane	14.135	76	55884	20.72	ug/L		99
81) 2-hexanone	14.135	58	84585	81.10	ug/L		98
82) butyl acetate	14.214	56	31984	20.15	ug/L		98
83) dibromochloromethane	14.371	129	39171	20.03	ug/L		99
84) 1,2-dibromoethane	14.518	107	43844	20.18	ug/L		99
85) n-butyl ether	14.906	57	148268	20.45	ug/L		100
86) chlorobenzene	14.958	112	90327	20.48	ug/L		99
87) 1,1,1,2-tetrachloroethane	15.005	131	33185	20.18	ug/L		99
88) ethylbenzene	15.021	91	151786	20.51	ug/L		100
89) m,p-xylene	15.115	106	116102	41.67	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V4D4028\
Data File : 4D92110.D
Acq On : 29 Jan 2019 5:35 pm
Operator : roberts
Sample : ic4028-20
Misc : MS31310,V4D4028,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jan 31 10:35:33 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 31 10:35:07 2019
Response via : Initial Calibration

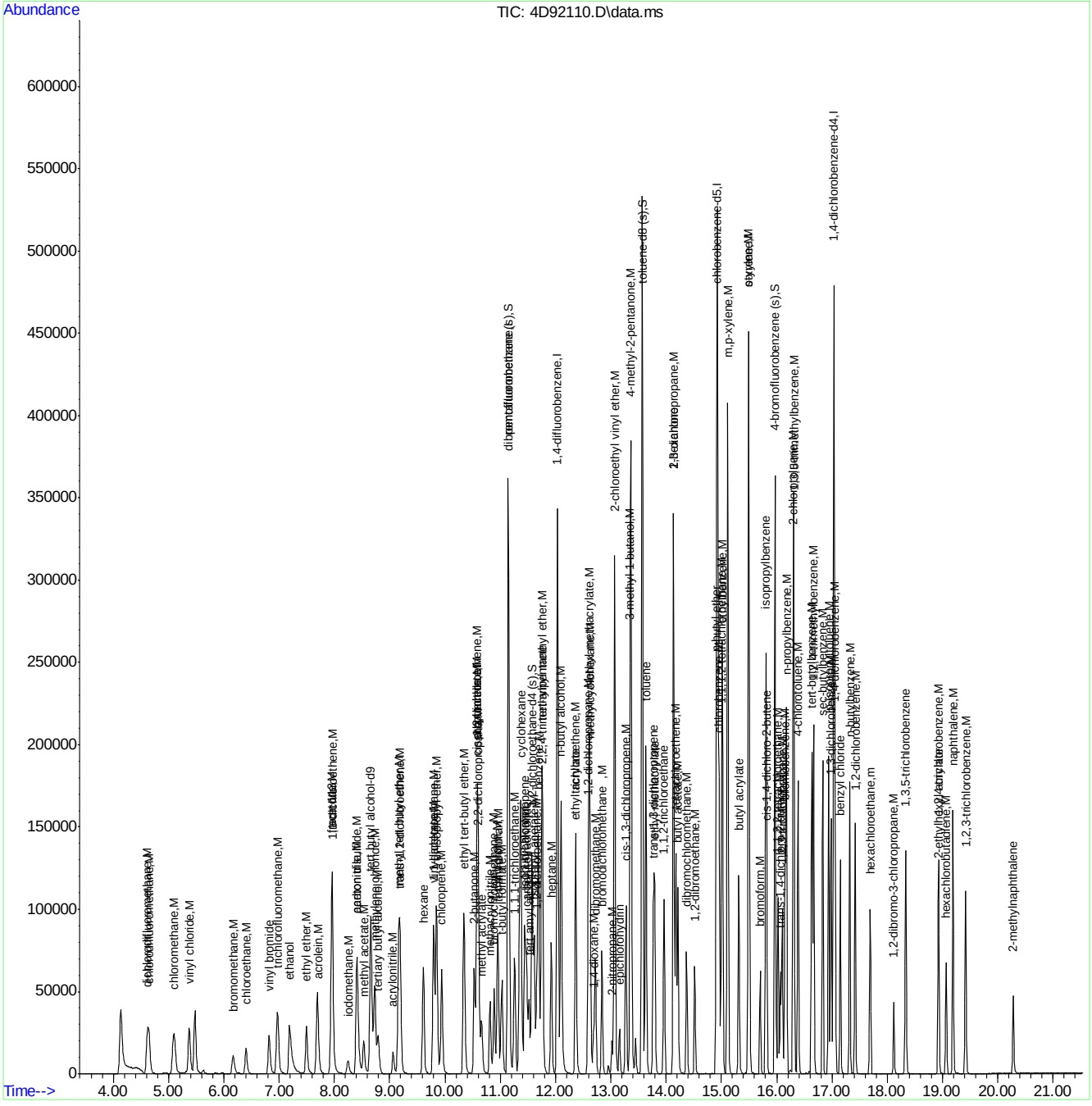
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
90) o-xylene	15.493	106	56358	20.84	ug/L	100
91) styrene	15.493	104	94214	20.26	ug/L	99
92) bromoform	15.703	173	27741	19.59	ug/L	100
93) butyl acrylate	15.315	55	74303	19.43	ug/L	99
94) isopropylbenzene	15.807	105	138826	20.69	ug/L	100
95) cis-1,4-dichloro-2-butene	15.823	88	16607	19.00	ug/L	95
98) bromobenzene	16.154	156	37883	20.86	ug/L	98
99) 1,1,2,2-tetrachloroethane	16.022	83	53011	20.65	ug/L	99
100) trans-1,4-dichloro-2-b...	16.070	53	11036	19.59	ug/L	99
101) 1,2,3-trichloropropane	16.101	110	13646	20.64	ug/L	100
102) n-propylbenzene	16.180	91	163491	21.05	ug/L	99
103) 2-chlorotoluene	16.300	126	34399	21.14	ug/L	100
104) 4-chlorotoluene	16.389	91	97604	20.87	ug/L	100
105) 1,3,5-trimethylbenzene	16.311	105	112358	21.04	ug/L	100
106) tert-butylbenzene	16.636	134	20344	20.68	ug/L	95
107) 1,2,4-trimethylbenzene	16.667	105	112828	20.96	ug/L	100
108) sec-butylbenzene	16.835	105	131810	21.08	ug/L	99
109) 1,3-dichlorobenzene	16.987	146	62844	20.61	ug/L	99
110) p-isopropyltoluene	16.940	119	107506	20.70	ug/L	99
111) 1,4-dichlorobenzene	17.055	146	64074	20.56	ug/L	99
112) benzyl chloride	17.150	91	89200	20.23	ug/L	99
113) 1,2-dichlorobenzene	17.422	146	61262	20.57	ug/L	99
114) n-butylbenzene	17.323	92	53026	20.64	ug/L	98
115) 1,2-dibromo-3-chloropr...	18.120	75	10265	20.02	ug/L	96
116) 1,3,5-trichlorobenzene	18.335	180	42144	20.46	ug/L	98
117) 2-ethylhexyl acrylate	18.922	70	3020	3.79	ug/L	96
118) 1,2,4-trichlorobenzene	18.927	180	37349	20.23	ug/L	98
119) hexachlorobutadiene	19.063	225	13964	20.58	ug/L	98
120) naphthalene	19.189	128	118891	20.50	ug/L	100
121) 1,2,3-trichlorobenzene	19.420	180	35195	20.31	ug/L	99
122) hexachloroethane	17.695	201	16347	19.76	ug/L	96
123) 2-methylnaphthalene	20.280	142	23224	10.48	ug/L	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V4D4028\
Data File : 4D92110.D
Acq On : 29 Jan 2019 5:35 pm
Operator : roberts
Sample : ic4028-20
Misc : MS31310,V4D4028,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jan 31 10:35:33 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 31 10:35:07 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V4D4028\
Data File : 4D92111.D
Acq On : 29 Jan 2019 6:04 pm
Operator : roberts
Sample : icc4028-50
Misc : MS31310,V4D4028,5,,,,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jan 31 10:35:36 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 31 10:35:07 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	8.661	65	170089	500.00	ug/L	0.00
5) pentafluorobenzene	11.147	168	174602	50.00	ug/L	0.00
51) 1,4-difluorobenzene	12.033	114	295870	50.00	ug/L	0.00
73) chlorobenzene-d5	14.927	117	259574	50.00	ug/L	0.00
96) 1,4-dichlorobenzene-d4	17.035	152	115841	50.00	ug/L	0.00
System Monitoring Compounds						
43) dibromofluoromethane (s)	11.152	113	99239	50.00	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.00%			
52) 1,2-dichloroethane-d4 (s)	11.577	65	100323	50.00	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 100.00%			
74) toluene-d8 (s)	13.569	98	337193	50.00	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.00%			
97) 4-bromofluorobenzene (s)	15.970	95	115694	50.00	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.00%			
Target Compounds						Qvalue
2) tertiary butyl alcohol	8.793	59	95246	250.00	ug/L	100
3) ethanol	7.193	45	193192	5000.00	ug/L	100
4) 1,4-dioxane	12.688	88	45355	1250.00	ug/L	100
6) chlorodifluoromethane	4.645	51	90086	50.00	ug/L	100
7) dichlorodifluoromethane	4.614	85	101001	50.00	ug/L	100
8) chloromethane	5.101	50	141252	50.00	ug/L	100
9) vinyl chloride	5.374	62	112080	50.00	ug/L	100
10) bromomethane	6.160	94	37297	50.00	ug/L	100
11) chloroethane	6.396	64	58888	50.00	ug/L	100
12) trichlorofluoromethane	6.968	101	134170	50.00	ug/L	100
13) vinyl bromide	6.816	106	69032	50.00	ug/L	100
14) ethyl ether	7.497	74	47479	50.00	ug/L	100
15) acrolein	7.707	56	21937	50.00	ug/L	100
16) freon 113	7.954	151	57893	50.00	ug/L	100
17) 1,1-dichloroethene	7.959	96	72736	50.00	ug/L	100
18) acetone	7.959	43	151200	200.00	ug/L	100
19) acetonitrile	8.405	41	166832	500.00	ug/L	100
20) iodomethane	8.242	142	49434	50.00	ug/L	100
21) carbon disulfide	8.410	76	186316	50.00	ug/L	100
22) methylene chloride	8.730	84	84725	50.00	ug/L	100
23) methyl acetate	8.525	43	95002	50.00	ug/L	100
24) methyl tert butyl ether	9.165	73	256524	50.00	ug/L	100
25) trans-1,2-dichloroethene	9.186	96	78917	50.00	ug/L	100
26) di-isopropyl ether	9.846	45	277129	50.00	ug/L	100
27) 2-butanone	10.528	72	63408	200.00	ug/L	100
28) 1,1-dichloroethane	9.794	63	148412	50.00	ug/L	100
29) chloroprene	9.941	53	119162	50.00	ug/L	100
30) acrylonitrile	9.055	53	38998	50.00	ug/L	100
31) hexane	9.605	56	51504	50.00	ug/L	100
32) vinyl acetate	9.794	86	20561	50.00	ug/L	100
33) ethyl tert-butyl ether	10.344	59	272951	50.00	ug/L	100
34) ethyl acetate	10.586	70	15044	50.00	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V4D4028\
Data File : 4D92111.D
Acq On : 29 Jan 2019 6:04 pm
Operator : roberts
Sample : icc4028-50
Misc : MS31310,V4D4028,5,,,,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jan 31 10:35:36 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 31 10:35:07 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
35) 2,2-dichloropropane	10.607	77	124109	50.00	ug/L	100
36) cis-1,2-dichloroethene	10.575	96	92863	50.00	ug/L	100
37) methyl acrylate	10.664	85	18835	50.00	ug/L	100
38) propionitrile	10.586	54	200236	500.00	ug/L	100
39) bromochloromethane	10.890	128	44014	50.00	ug/L	100
40) tetrahydrofuran	10.958	72	17517	50.00	ug/L	100
41) chloroform	10.953	85	97981	50.00	ug/L	100
42) t-butyl formate	11.031	59	92572	50.00	ug/L	100
44) methacrylonitrile	10.816	67	47332	50.00	ug/L	100
45) 1,1,1-trichloroethane	11.257	97	129068	50.00	ug/L	100
46) cyclohexane	11.372	84	120161	50.00	ug/L	100
47) 1,1-dichloropropene	11.445	75	110975	50.00	ug/L	100
48) isobutyl alcohol	11.440	74	7513	553.24	ug/L	61
49) carbon tetrachloride	11.477	117	111991	50.00	ug/L	100
50) tert amyl alcohol	11.524	55	31877	250.00	ug/L	100
53) n-butyl alcohol	12.101	56	258049	2500.00	ug/L	100
54) 2,2,4-trimethylpentane	11.765	57	213537	50.00	ug/L	100
55) benzene	11.692	78	321670	50.00	ug/L	100
56) tert-amyl methyl ether	11.750	87	65801	50.00	ug/L	100
57) heptane	11.923	71	50223	50.00	ug/L	100
58) isopropyl acetate	11.613	87	25609	50.00	ug/L	100
59) 1,2-dichloroethane	11.660	62	122883	50.00	ug/L	100
60) trichloroethene	12.368	130	87666	50.00	ug/L	100
61) ethyl acrylate	12.358	55	153627	50.00	ug/L	100
62) 2-nitropropane	13.018	41	29510	50.00	ug/L	100
63) 2-chloroethyl vinyl ether	13.071	63	340116	250.00	ug/L	100
64) methyl methacrylate	12.604	100	30025	50.00	ug/L	100
65) 1,2-dichloropropane	12.594	63	88201	50.00	ug/L	100
66) dibromomethane	12.720	93	61198	50.00	ug/L	100
67) methylcyclohexane	12.620	83	118119	50.00	ug/L	100
68) bromodichloromethane	12.840	83	120925	50.00	ug/L	100
69) epichlorohydrin	13.160	57	52429	250.00	ug/L	100
70) cis-1,3-dichloropropene	13.275	75	145072	50.00	ug/L	100
71) 4-methyl-2-pentanone	13.364	58	199641	200.00	ug/L	100
72) 3-methyl-1-butanol	13.349	70	95465	1000.00	ug/L	100
75) toluene	13.637	92	198656	50.00	ug/L	100
76) trans-1,3-dichloropropene	13.768	75	132023	50.00	ug/L	100
77) ethyl methacrylate	13.794	69	129676	50.00	ug/L	100
78) 1,1,2-trichloroethane	13.962	83	71676	50.00	ug/L	100
79) tetrachloroethene	14.177	164	69253	50.00	ug/L	100
80) 1,3-dichloropropane	14.135	76	132837	50.00	ug/L	100
81) 2-hexanone	14.135	58	205434	200.00	ug/L	100
82) butyl acetate	14.214	56	78184	50.00	ug/L	100
83) dibromochloromethane	14.371	129	96305	50.00	ug/L	100
84) 1,2-dibromoethane	14.518	107	106995	50.00	ug/L	100
85) n-butyl ether	14.906	57	356967	50.00	ug/L	100
86) chlorobenzene	14.958	112	217169	50.00	ug/L	100
87) 1,1,1,2-tetrachloroethane	15.000	131	80971	50.00	ug/L	100
88) ethylbenzene	15.021	91	364372	50.00	ug/L	100
89) m,p-xylene	15.116	106	274425	100.00	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V4D4028\
Data File : 4D92111.D
Acq On : 29 Jan 2019 6:04 pm
Operator : roberts
Sample : icc4028-50
Misc : MS31310,V4D4028,5,,,,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jan 31 10:35:36 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 31 10:35:07 2019
Response via : Initial Calibration

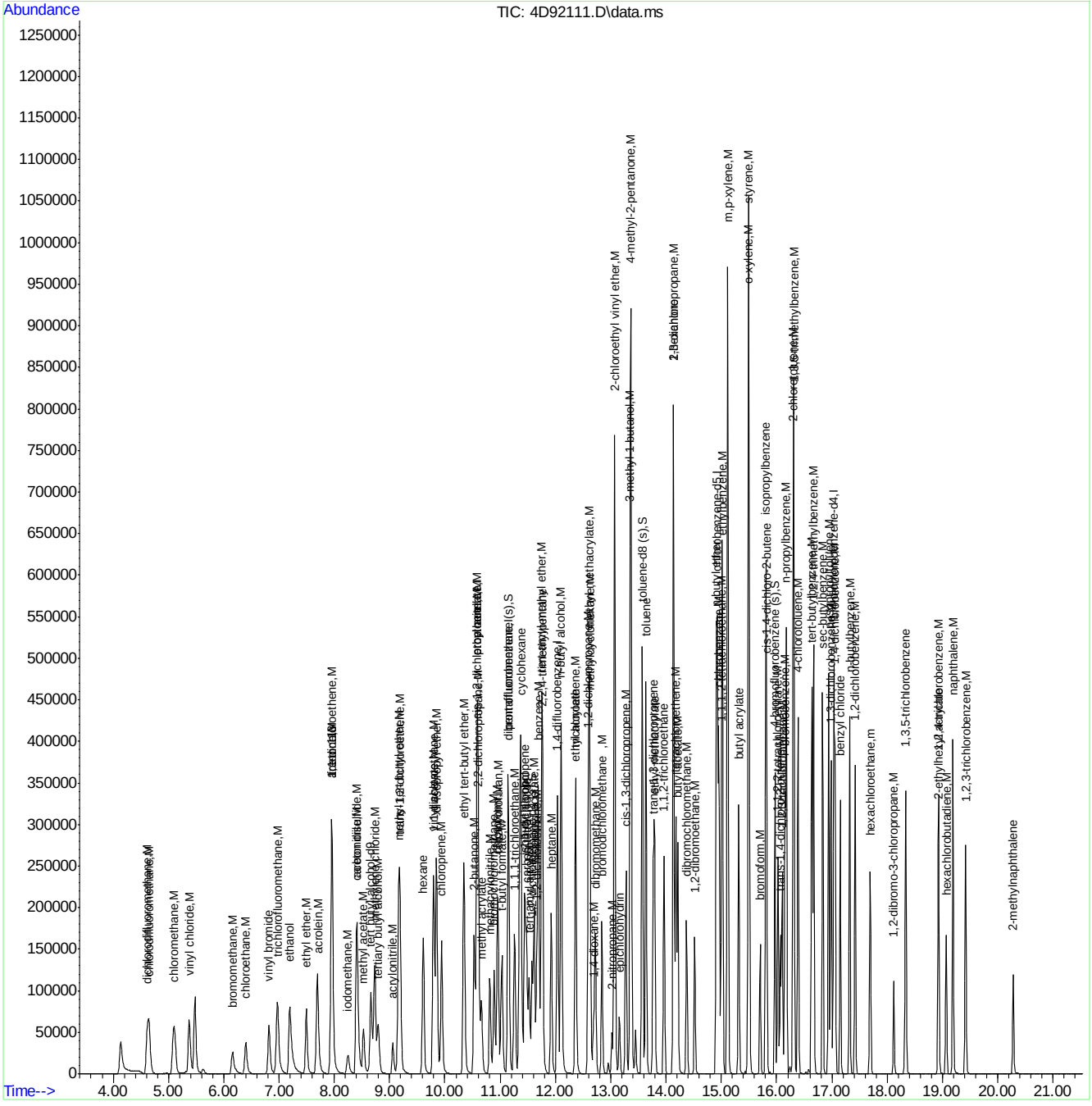
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
90) o-xylene	15.493	106	133193	50.00	ug/L	100
91) styrene	15.488	104	229031	50.00	ug/L	100
92) bromoform	15.703	173	69739	50.00	ug/L	100
93) butyl acrylate	15.315	55	188293	50.00	ug/L	100
94) isopropylbenzene	15.808	105	330479	50.00	ug/L	100
95) cis-1,4-dichloro-2-butene	15.818	88	43050	50.00	ug/L	100
98) bromobenzene	16.154	156	91604	50.00	ug/L	100
99) 1,1,2,2-tetrachloroethane	16.023	83	129496	50.00	ug/L	100
100) trans-1,4-dichloro-2-b...	16.070	53	28422	50.00	ug/L	100
101) 1,2,3-trichloropropane	16.101	110	33349	50.00	ug/L	100
102) n-propylbenzene	16.175	91	391814	50.00	ug/L	100
103) 2-chlorotoluene	16.301	126	82088	50.00	ug/L	100
104) 4-chlorotoluene	16.390	91	235905	50.00	ug/L	100
105) 1,3,5-trimethylbenzene	16.311	105	269402	50.00	ug/L	100
106) tert-butylbenzene	16.636	134	49639	50.00	ug/L	100
107) 1,2,4-trimethylbenzene	16.668	105	271634	50.00	ug/L	100
108) sec-butylbenzene	16.830	105	315454	50.00	ug/L	100
109) 1,3-dichlorobenzene	16.987	146	153851	50.00	ug/L	100
110) p-isopropyltoluene	16.940	119	261984	50.00	ug/L	100
111) 1,4-dichlorobenzene	17.056	146	157267	50.00	ug/L	100
112) benzyl chloride	17.150	91	222497	50.00	ug/L	100
113) 1,2-dichlorobenzene	17.417	146	150293	50.00	ug/L	100
114) n-butylbenzene	17.323	92	129641	50.00	ug/L	100
115) 1,2-dibromo-3-chloropr...	18.120	75	25870	50.00	ug/L	100
116) 1,3,5-trichlorobenzene	18.335	180	103928	50.00	ug/L	100
117) 2-ethylhexyl acrylate	18.922	70	8032	10.00	ug/L	100
118) 1,2,4-trichlorobenzene	18.927	180	93128	50.00	ug/L	100
119) hexachlorobutadiene	19.069	225	34230	50.00	ug/L	100
120) naphthalene	19.189	128	292658	50.00	ug/L	100
121) 1,2,3-trichlorobenzene	19.420	180	87449	50.00	ug/L	100
122) hexachloroethane	17.695	201	41729	50.00	ug/L	100
123) 2-methylnaphthalene	20.280	142	55886	25.00	ug/L	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V4D4028\
Data File : 4D92111.D
Acq On : 29 Jan 2019 6:04 pm
Operator : roberts
Sample : icc4028-50
Misc : MS31310,V4D4028,5,,,,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jan 31 10:35:36 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 31 10:35:07 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V4D4028\
Data File : 4D92112.D
Acq On : 29 Jan 2019 6:33 pm
Operator : roberts
Sample : ic4028-100
Misc : MS31310,V4D4028,5,,,,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jan 31 10:35:39 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 31 10:35:07 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	8.672	65	170772	500.00	ug/L	0.01
5) pentafluorobenzene	11.147	168	170846	50.00	ug/L	0.00
51) 1,4-difluorobenzene	12.033	114	286537	50.00	ug/L	0.00
73) chlorobenzene-d5	14.927	117	246879	50.00	ug/L	0.00
96) 1,4-dichlorobenzene-d4	17.035	152	108346	50.00	ug/L	0.00
System Monitoring Compounds						
43) dibromofluoromethane (s)	11.152	113	95081	48.96	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.92%			
52) 1,2-dichloroethane-d4 (s)	11.577	65	94818	48.80	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 97.60%			
74) toluene-d8 (s)	13.569	98	320466	49.96	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.92%			
97) 4-bromofluorobenzene (s)	15.970	95	109674	50.68	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.36%			
Target Compounds						Qvalue
2) tertiary butyl alcohol	8.798	59	201317	526.30	ug/L	99
3) ethanol	7.204	45	414025	10672.52	ug/L	98
4) 1,4-dioxane	12.693	88	90615	2487.39	ug/L	98
6) chlorodifluoromethane	4.645	51	191169	108.44	ug/L	99
7) dichlorodifluoromethane	4.614	85	211300	106.90	ug/L	99
8) chloromethane	5.101	50	279695	101.18	ug/L	99
9) vinyl chloride	5.374	62	225868	102.98	ug/L	99
10) bromomethane	6.139	94	82207	112.63	ug/L	98
11) chloroethane	6.386	64	121849	105.73	ug/L	99
12) trichlorofluoromethane	6.963	101	276772	105.41	ug/L	99
13) vinyl bromide	6.811	106	144424	106.91	ug/L	97
14) ethyl ether	7.492	74	102001	109.78	ug/L	97
15) acrolein	7.702	56	48129	112.11	ug/L	96
16) freon 113	7.948	151	123498	109.01	ug/L	99
17) 1,1-dichloroethene	7.959	96	153916	108.13	ug/L	98
18) acetone	7.959	43	315951	427.11	ug/L	98
19) acetonitrile	8.404	41	352598	1079.98	ug/L	99
20) iodomethane	8.242	142	116768	120.70	ug/L	99
21) carbon disulfide	8.404	76	392142	107.55	ug/L	99
22) methylene chloride	8.730	84	177660	107.15	ug/L	99
23) methyl acetate	8.525	43	200853	108.03	ug/L	99
24) methyl tert butyl ether	9.165	73	537222	107.01	ug/L	99
25) trans-1,2-dichloroethene	9.186	96	164624	106.60	ug/L	99
26) di-isopropyl ether	9.846	45	573389	105.73	ug/L	99
27) 2-butanone	10.528	72	133993	431.93	ug/L	96
28) 1,1-dichloroethane	9.794	63	307725	105.95	ug/L	100
29) chloroprene	9.941	53	245969	105.48	ug/L	99
30) acrylonitrile	9.055	53	83890	109.92	ug/L	97
31) hexane	9.605	56	109151	108.29	ug/L	99
32) vinyl acetate	9.794	86	44585	110.80	ug/L	94
33) ethyl tert-butyl ether	10.344	59	568412	106.41	ug/L	99
34) ethyl acetate	10.586	70	31254	106.16	ug/L #	89

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V4D4028\
Data File : 4D92112.D
Acq On : 29 Jan 2019 6:33 pm
Operator : roberts
Sample : ic4028-100
Misc : MS31310,V4D4028,5,,,,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jan 31 10:35:39 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 31 10:35:07 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
35) 2,2-dichloropropane	10.607	77	247651	101.97	ug/L		98
36) cis-1,2-dichloroethene	10.575	96	192240	105.78	ug/L		99
37) methyl acrylate	10.659	85	39800	107.98	ug/L		93
38) propionitrile	10.591	54	409573	1045.21	ug/L		99
39) bromochloromethane	10.890	128	88869	103.17	ug/L		99
40) tetrahydrofuran	10.958	72	36360	106.07	ug/L		97
41) chloroform	10.953	85	199981	104.29	ug/L		98
42) t-butyl formate	11.031	59	189429	104.56	ug/L		99
44) methacrylonitrile	10.816	67	99295	107.20	ug/L		97
45) 1,1,1-trichloroethane	11.257	97	263212	104.21	ug/L		100
46) cyclohexane	11.372	84	241807	102.83	ug/L		96
47) 1,1-dichloropropene	11.440	75	226707	104.39	ug/L		99
48) isobutyl alcohol	11.440	74	14898	1121.17	ug/L		67
49) carbon tetrachloride	11.477	117	227904	103.99	ug/L		99
50) tert amyl alcohol	11.524	55	64475	516.77	ug/L		96
53) n-butyl alcohol	12.106	56	518199	5183.88	ug/L		98
54) 2,2,4-trimethylpentane	11.765	57	423567	102.41	ug/L		99
55) benzene	11.692	78	650772	104.45	ug/L		100
56) tert-amyl methyl ether	11.750	87	132663	104.09	ug/L		99
57) heptane	11.923	71	101558	104.40	ug/L		99
58) isopropyl acetate	11.613	87	53080	107.01	ug/L		94
59) 1,2-dichloroethane	11.660	62	243262	102.21	ug/L		99
60) trichloroethene	12.368	130	177836	104.73	ug/L		100
61) ethyl acrylate	12.358	55	305405	102.64	ug/L		99
62) 2-nitropropane	13.024	41	58999	103.22	ug/L		96
63) 2-chloroethyl vinyl ether	13.071	63	661133	501.79	ug/L		99
64) methyl methacrylate	12.604	100	61973	106.56	ug/L	#	90
65) 1,2-dichloropropane	12.594	63	176958	103.58	ug/L		99
66) dibromomethane	12.720	93	122750	103.56	ug/L		98
67) methylcyclohexane	12.620	83	238520	104.25	ug/L		98
68) bromodichloromethane	12.840	83	243906	104.13	ug/L		98
69) epichlorohydrin	13.160	57	108400	533.73	ug/L		98
70) cis-1,3-dichloropropene	13.275	75	291935	103.89	ug/L		98
71) 4-methyl-2-pentanone	13.364	58	384508	397.75	ug/L		98
72) 3-methyl-1-butanol	13.354	70	190147	2056.67	ug/L		99
75) toluene	13.637	92	400736	106.05	ug/L		99
76) trans-1,3-dichloropropene	13.768	75	265179	105.59	ug/L		99
77) ethyl methacrylate	13.794	69	261725	106.10	ug/L		99
78) 1,1,2-trichloroethane	13.962	83	144803	106.21	ug/L		99
79) tetrachloroethene	14.177	164	137695	104.53	ug/L		99
80) 1,3-dichloropropane	14.135	76	260215	102.98	ug/L		97
81) 2-hexanone	14.135	58	404407	413.96	ug/L		98
82) butyl acetate	14.214	56	156828	105.45	ug/L		98
83) dibromochloromethane	14.371	129	196997	107.54	ug/L		100
84) 1,2-dibromoethane	14.518	107	216095	106.18	ug/L		100
85) n-butyl ether	14.906	57	704726	103.79	ug/L		99
86) chlorobenzene	14.958	112	436952	105.77	ug/L		99
87) 1,1,1,2-tetrachloroethane	15.005	131	164119	106.56	ug/L		99
88) ethylbenzene	15.021	91	721067	104.03	ug/L		100
89) m,p-xylene	15.116	106	540660	207.15	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V4D4028\
Data File : 4D92112.D
Acq On : 29 Jan 2019 6:33 pm
Operator : roberts
Sample : ic4028-100
Misc : MS31310,V4D4028,5,,,,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jan 31 10:35:39 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 31 10:35:07 2019
Response via : Initial Calibration

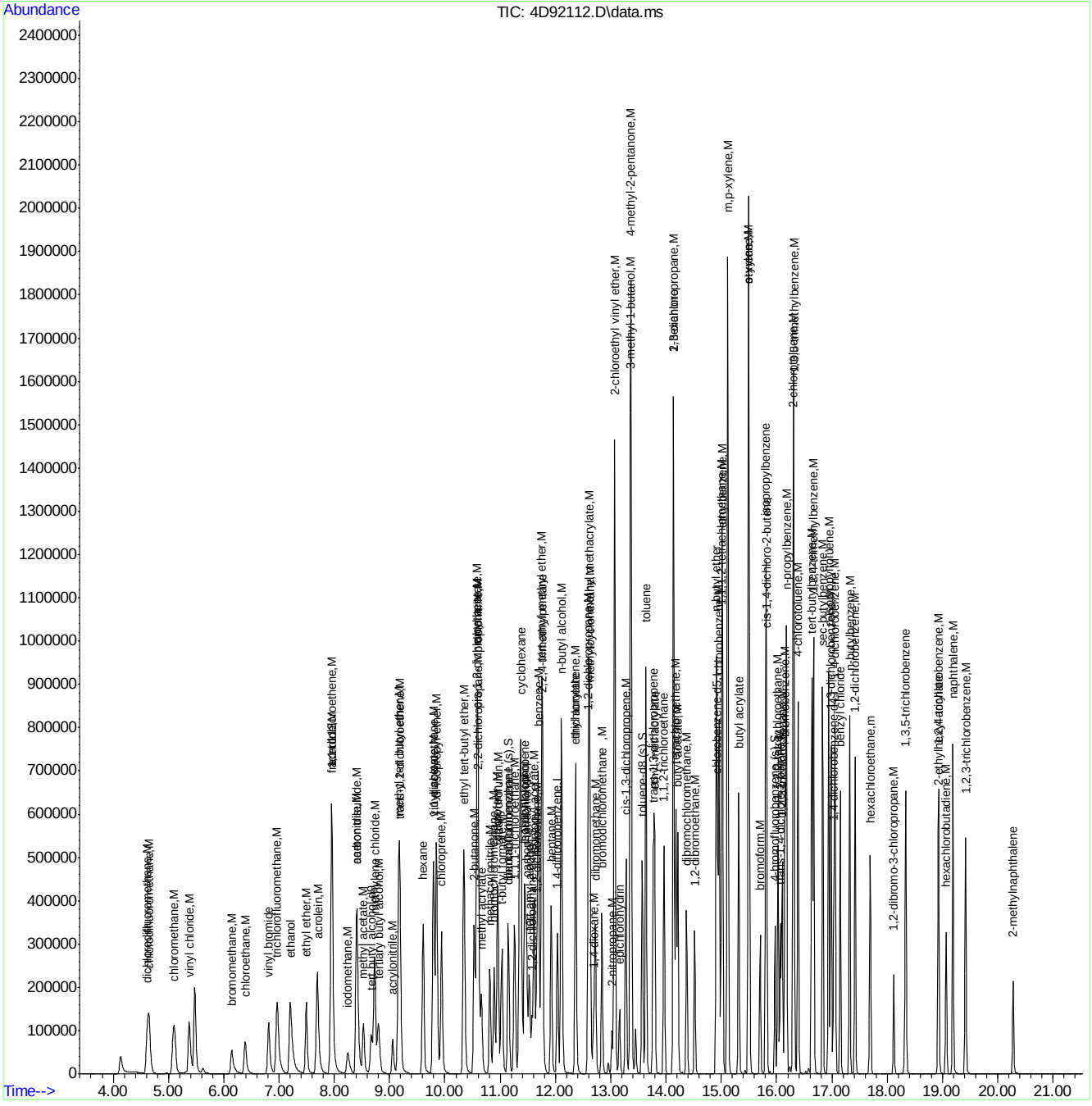
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
90) o-xylene	15.493	106	260202	102.70	ug/L	98
91) styrene	15.488	104	450998	103.52	ug/L	98
92) bromoform	15.703	173	145494	109.68	ug/L	99
93) butyl acrylate	15.315	55	380761	106.31	ug/L	100
94) isopropylbenzene	15.808	105	655177	104.22	ug/L	100
95) cis-1,4-dichloro-2-butene	15.818	88	90529	110.55	ug/L	99
98) bromobenzene	16.154	156	186287	108.71	ug/L	98
99) 1,1,2,2-tetrachloroethane	16.023	83	264303	109.11	ug/L	99
100) trans-1,4-dichloro-2-b...	16.065	53	59642	112.18	ug/L	98
101) 1,2,3-trichloropropane	16.101	110	68371	109.60	ug/L	100
102) n-propylbenzene	16.180	91	768998	104.92	ug/L	99
103) 2-chlorotoluene	16.301	126	162695	105.95	ug/L	99
104) 4-chlorotoluene	16.390	91	467221	105.88	ug/L	100
105) 1,3,5-trimethylbenzene	16.311	105	526868	104.55	ug/L	100
106) tert-butylbenzene	16.636	134	97313	104.80	ug/L	95
107) 1,2,4-trimethylbenzene	16.668	105	529254	104.16	ug/L	99
108) sec-butylbenzene	16.835	105	620188	105.10	ug/L	98
109) 1,3-dichlorobenzene	16.987	146	307414	106.82	ug/L	99
110) p-isopropyltoluene	16.940	119	516223	105.34	ug/L	100
111) 1,4-dichlorobenzene	17.055	146	312641	106.27	ug/L	100
112) benzyl chloride	17.150	91	450850	108.32	ug/L	99
113) 1,2-dichlorobenzene	17.417	146	298814	106.29	ug/L	100
114) n-butylbenzene	17.323	92	254323	104.87	ug/L	99
115) 1,2-dibromo-3-chloropr...	18.120	75	52635	108.77	ug/L	96
116) 1,3,5-trichlorobenzene	18.335	180	207894	106.94	ug/L	99
117) 2-ethylhexyl acrylate	18.922	70	17712	23.58	ug/L	93
118) 1,2,4-trichlorobenzene	18.927	180	187829	107.82	ug/L	99
119) hexachlorobutadiene	19.064	225	66514	103.88	ug/L	98
120) naphthalene	19.189	128	577010	105.40	ug/L	99
121) 1,2,3-trichlorobenzene	19.420	180	174183	106.48	ug/L	99
122) hexachloroethane	17.695	201	86305	110.56	ug/L	99
123) 2-methylnaphthalene	20.280	142	100154	47.90	ug/L	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V4D4028\
Data File : 4D92112.D
Acq On : 29 Jan 2019 6:33 pm
Operator : roberts
Sample : ic4028-100
Misc : MS31310,V4D4028,5,,,,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jan 31 10:35:39 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 31 10:35:07 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V4D4028\
Data File : 4D92113.D
Acq On : 29 Jan 2019 7:02 pm
Operator : roberts
Sample : ic4028-200
Misc : MS31310,V4D4028,5,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jan 31 10:35:42 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 31 10:35:07 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	8.682	65	161416	500.00	ug/L	0.02
5) pentafluorobenzene	11.147	168	166505	50.00	ug/L	0.00
51) 1,4-difluorobenzene	12.033	114	282065	50.00	ug/L	0.00
73) chlorobenzene-d5	14.927	117	246336	50.00	ug/L	0.00
96) 1,4-dichlorobenzene-d4	17.035	152	109773	50.00	ug/L	0.00
System Monitoring Compounds						
43) dibromofluoromethane (s)	11.152	113	94231	49.79	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.58%			
52) 1,2-dichloroethane-d4 (s)	11.577	65	91560	47.87	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 95.74%			
74) toluene-d8 (s)	13.569	98	317905	49.67	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.34%			
97) 4-bromofluorobenzene (s)	15.970	95	110763	50.52	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.04%			
Target Compounds						Qvalue
2) tertiary butyl alcohol	8.813	59	376811	1042.19	ug/L	98
3) ethanol	7.225	45	768614	20961.33	ug/L	98
4) 1,4-dioxane	12.699	88	158678	4608.20	ug/L	97
6) chlorodifluoromethane	4.645	51	356112	207.26	ug/L	99
7) dichlorodifluoromethane	4.614	85	420262	218.17	ug/L	99
8) chloromethane	5.101	50	564052	209.37	ug/L	99
9) vinyl chloride	5.379	62	448341	209.74	ug/L	99
10) bromomethane	6.129	94	162215	228.04	ug/L	98
11) chloroethane	6.370	64	244747	217.91	ug/L	99
12) trichlorofluoromethane	6.957	101	553589	216.33	ug/L	100
13) vinyl bromide	6.800	106	293450	222.88	ug/L	98
14) ethyl ether	7.492	74	195893	216.33	ug/L	96
15) acrolein	7.707	56	93293	222.98	ug/L	99
16) freon 113	7.943	151	237065	214.70	ug/L	99
17) 1,1-dichloroethene	7.954	96	297750	214.63	ug/L	96
18) acetone	7.964	43	564457	782.94	ug/L	97
19) acetonitrile	8.410	41	650504	2044.38	ug/L	98
20) iodomethane	8.242	142	248132	263.18	ug/L	99
21) carbon disulfide	8.404	76	756843	212.98	ug/L	98
22) methylene chloride	8.730	84	340811	210.91	ug/L	98
23) methyl acetate	8.525	43	372735	205.71	ug/L	100
24) methyl tert butyl ether	9.165	73	1009532	206.34	ug/L	99
25) trans-1,2-dichloroethene	9.186	96	315025	209.30	ug/L	99
26) di-isopropyl ether	9.852	45	1061370	200.81	ug/L	96
27) 2-butanone	10.533	72	245854	813.18	ug/L	95
28) 1,1-dichloroethane	9.794	63	578782	204.47	ug/L	100
29) chloroprene	9.935	53	465650	204.89	ug/L	98
30) acrylonitrile	9.055	53	159718	214.74	ug/L	100
31) hexane	9.605	56	210728	214.52	ug/L	99
32) vinyl acetate	9.794	86	83688	213.41	ug/L #	85
33) ethyl tert-butyl ether	10.344	59	1069659	205.47	ug/L	99
34) ethyl acetate	10.586	70	57880	201.72	ug/L	96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V4D4028\
Data File : 4D92113.D
Acq On : 29 Jan 2019 7:02 pm
Operator : roberts
Sample : ic4028-200
Misc : MS31310,V4D4028,5,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jan 31 10:35:42 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 31 10:35:07 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
35) 2,2-dichloropropane	10.607	77	448666	189.54	ug/L		95
36) cis-1,2-dichloroethene	10.575	96	361151	203.91	ug/L		96
37) methyl acrylate	10.664	85	74529	207.47	ug/L		97
38) propionitrile	10.596	54	728105	1906.53	ug/L		99
39) bromochloromethane	10.890	128	166209	198.00	ug/L		99
40) tetrahydrofuran	10.963	72	66722	199.71	ug/L		95
41) chloroform	10.953	85	373151	199.68	ug/L		97
42) t-butyl formate	11.031	59	350033	198.25	ug/L		97
44) methacrylonitrile	10.816	67	183724	203.52	ug/L		96
45) 1,1,1-trichloroethane	11.257	97	497216	201.98	ug/L		99
46) cyclohexane	11.372	84	471471	205.72	ug/L	#	84
47) 1,1-dichloropropene	11.440	75	425994	201.27	ug/L		100
48) isobutyl alcohol	11.440	74	27475	2121.58	ug/L		76
49) carbon tetrachloride	11.477	117	430380	201.49	ug/L		99
50) tert amyl alcohol	11.535	55	115854	952.79	ug/L		94
53) n-butyl alcohol	12.117	56	915706	9305.63	ug/L		96
54) 2,2,4-trimethylpentane	11.765	57	807535	198.34	ug/L		99
55) benzene	11.692	78	1221694	199.19	ug/L		99
56) tert-amyl methyl ether	11.755	87	246381	196.38	ug/L		96
57) heptane	11.923	71	199575	208.41	ug/L		99
58) isopropyl acetate	11.618	87	99013	202.78	ug/L	#	90
59) 1,2-dichloroethane	11.660	62	445790	190.27	ug/L		100
60) trichloroethene	12.368	130	335118	200.49	ug/L		99
61) ethyl acrylate	12.358	55	556195	189.88	ug/L		99
62) 2-nitropropane	13.024	41	105389	187.30	ug/L		97
63) 2-chloroethyl vinyl ether	13.071	63	1115641	860.18	ug/L		98
64) methyl methacrylate	12.609	100	114650	200.27	ug/L	#	81
65) 1,2-dichloropropane	12.594	63	325963	193.83	ug/L		100
66) dibromomethane	12.720	93	227803	195.23	ug/L		99
67) methylcyclohexane	12.620	83	450219	199.91	ug/L		98
68) bromodichloromethane	12.840	83	460662	199.80	ug/L		99
69) epichlorohydrin	13.160	57	201519	1007.94	ug/L		98
70) cis-1,3-dichloropropene	13.275	75	545528	197.22	ug/L		97
71) 4-methyl-2-pentanone	13.370	58	639358	671.86	ug/L		93
72) 3-methyl-1-butanol	13.359	70	321441	3531.90	ug/L		98
75) toluene	13.637	92	749261	198.72	ug/L		99
76) trans-1,3-dichloropropene	13.768	75	493945	197.12	ug/L		99
77) ethyl methacrylate	13.794	69	479792	194.94	ug/L		98
78) 1,1,2-trichloroethane	13.962	83	268637	197.47	ug/L		99
79) tetrachloroethene	14.177	164	257364	195.80	ug/L		100
80) 1,3-dichloropropane	14.135	76	461097	182.88	ug/L		92
81) 2-hexanone	14.135	58	684234	701.93	ug/L		94
82) butyl acetate	14.214	56	281542	189.73	ug/L		95
83) dibromochloromethane	14.376	129	374594	204.93	ug/L		99
84) 1,2-dibromoethane	14.518	107	406069	199.96	ug/L		99
85) n-butyl ether	14.906	57	1294473	191.06	ug/L		98
86) chlorobenzene	14.958	112	819672	198.86	ug/L		99
87) 1,1,1,2-tetrachloroethane	15.000	131	304840	198.36	ug/L		100
88) ethylbenzene	15.021	91	1319935	190.86	ug/L		99
89) m,p-xylene	15.116	106	972629	373.47	ug/L		97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V4D4028\
Data File : 4D92113.D
Acq On : 29 Jan 2019 7:02 pm
Operator : roberts
Sample : ic4028-200
Misc : MS31310,V4D4028,5,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jan 31 10:35:42 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 31 10:35:07 2019
Response via : Initial Calibration

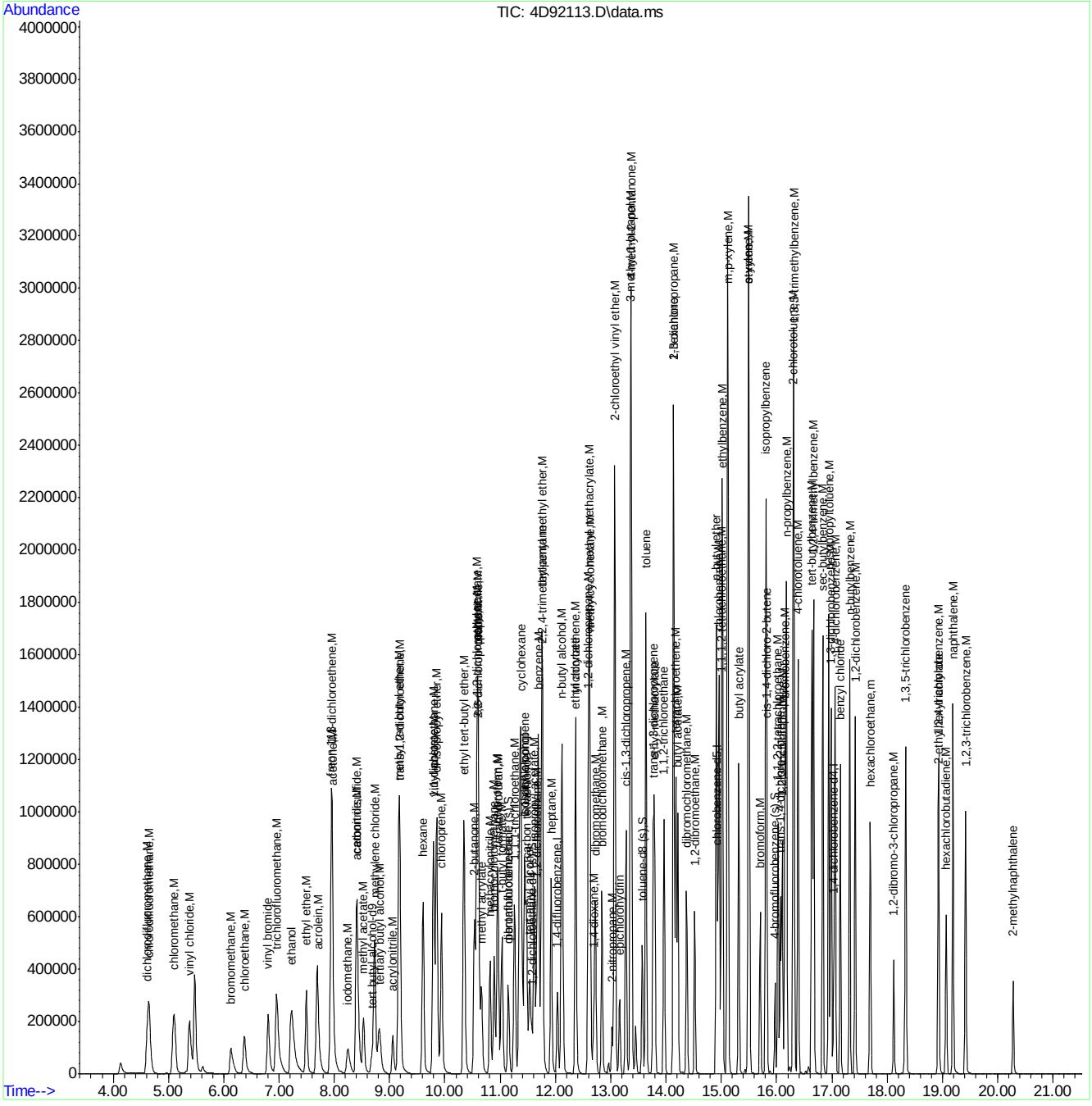
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
90) o-xylene	15.493	106	455410	180.15	ug/L	99
91) styrene	15.488	104	797430	183.44	ug/L	97
92) bromoform	15.703	173	277131	209.37	ug/L	100
93) butyl acrylate	15.315	55	690458	193.20	ug/L	99
94) isopropylbenzene	15.808	105	1226398	195.52	ug/L	100
95) cis-1,4-dichloro-2-butene	15.823	88	167799	205.36	ug/L	96
98) bromobenzene	16.154	156	351998	202.75	ug/L	98
99) 1,1,2,2-tetrachloroethane	16.023	83	486397	198.19	ug/L	99
100) trans-1,4-dichloro-2-b...	16.070	53	112558	208.96	ug/L	97
101) 1,2,3-trichloropropane	16.101	110	124958	197.71	ug/L	100
102) n-propylbenzene	16.180	91	1430271	192.61	ug/L	98
103) 2-chlorotoluene	16.301	126	294798	189.49	ug/L	98
104) 4-chlorotoluene	16.390	91	879610	196.74	ug/L	99
105) 1,3,5-trimethylbenzene	16.311	105	947721	185.62	ug/L	100
106) tert-butylbenzene	16.636	134	185326	196.99	ug/L	98
107) 1,2,4-trimethylbenzene	16.668	105	990733	192.45	ug/L	99
108) sec-butylbenzene	16.835	105	1172338	196.09	ug/L	99
109) 1,3-dichlorobenzene	16.987	146	583127	199.99	ug/L	100
110) p-isopropyltoluene	16.940	119	974908	196.35	ug/L	100
111) 1,4-dichlorobenzene	17.061	146	593765	199.21	ug/L	99
112) benzyl chloride	17.150	91	820911	194.67	ug/L	99
113) 1,2-dichlorobenzene	17.423	146	564894	198.32	ug/L	99
114) n-butylbenzene	17.323	92	485996	197.80	ug/L	99
115) 1,2-dibromo-3-chloropr...	18.120	75	99110	202.14	ug/L	95
116) 1,3,5-trichlorobenzene	18.335	180	399931	203.04	ug/L	99
117) 2-ethylhexyl acrylate	18.922	70	32431	42.61	ug/L	94
118) 1,2,4-trichlorobenzene	18.933	180	352055	199.47	ug/L	99
119) hexachlorobutadiene	19.064	225	129184	199.13	ug/L	98
120) naphthalene	19.189	128	1069466	192.82	ug/L	99
121) 1,2,3-trichlorobenzene	19.420	180	320155	193.17	ug/L	99
122) hexachloroethane	17.695	201	170539	215.64	ug/L	99
123) 2-methylnaphthalene	20.280	142	163228	77.05	ug/L	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V4D4028\
Data File : 4D92113.D
Acq On : 29 Jan 2019 7:02 pm
Operator : roberts
Sample : ic4028-200
Misc : MS31310,V4D4028,5,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jan 31 10:35:42 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 31 10:35:07 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\V4D4028\
Data File : 4D92116.D
Acq On : 29 Jan 2019 8:29 pm
Operator : roberts
Sample : icv4028-50
Misc : MS31310,V4D4028,5,,,,1
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Feb 01 10:17:12 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Fri Feb 01 10:17:00 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	8.661	65	177631	500.00	ug/L	0.00
5) pentafluorobenzene	11.147	168	187614	50.00	ug/L	0.00
51) 1,4-difluorobenzene	12.038	114	312954	50.00	ug/L	0.00
73) chlorobenzene-d5	14.927	117	266375	50.00	ug/L	0.00
96) 1,4-dichlorobenzene-d4	17.035	152	118845	50.00	ug/L	0.00
System Monitoring Compounds						
43) dibromofluoromethane (s)	11.152	113	105077	50.78	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.56%			
52) 1,2-dichloroethane-d4 (s)	11.577	65	103625	49.06	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 98.12%			
74) toluene-d8 (s)	13.569	98	346399	50.21	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.42%			
97) 4-bromofluorobenzene (s)	15.970	95	119084	49.67	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.34%			
Target Compounds						Qvalue
2) tertiary butyl alcohol	8.792	59	108102	280.84	ug/L	99
3) ethanol	7.193	45	212145	5649.93	ug/L	100
4) 1,4-dioxane	12.688	88	49027	1275.75	ug/L	100
6) chlorodifluoromethane	4.645	51	106729	55.93	ug/L	99
7) dichlorodifluoromethane	4.614	85	108502	52.23	ug/L	99
8) chloromethane	5.096	50	135268	42.74	ug/L	99
9) vinyl chloride	5.374	62	112394	47.06	ug/L	99
10) bromomethane	6.160	94	47272	64.15	ug/L	99
11) chloroethane	6.396	64	62275	51.31	ug/L	99
12) trichlorofluoromethane	6.968	101	139795	51.22	ug/L	99
13) vinyl bromide	6.816	106	71742	50.77	ug/L	99
14) ethyl ether	7.492	74	54318	56.59	ug/L	96
15) acrolein	7.707	56	26130	56.74	ug/L	97
16) freon 113	7.954	151	66258	56.02	ug/L	99
17) 1,1-dichloroethene	7.959	96	75514	50.24	ug/L	99
18) acetone	7.959	43	166897	221.40	ug/L	98
19) acetonitrile	8.405	41	176781	536.93	ug/L	100
20) iodomethane	8.247	142	64694	70.50	ug/L	98
21) carbon disulfide	8.410	76	229469	56.30	ug/L	98
22) methylene chloride	8.730	84	92354	50.86	ug/L	97
23) methyl acetate	8.525	43	96511	47.96	ug/L	99
24) methyl tert butyl ether	9.165	73	586614	113.82	ug/L	98
25) trans-1,2-dichloroethene	9.191	96	84640	51.89	ug/L	99
26) di-isopropyl ether	9.846	45	293323	54.14	ug/L	99
27) 2-butanone	10.528	72	68864	219.72	ug/L	100
28) 1,1-dichloroethane	9.794	63	158393	54.00	ug/L	99
29) chloroprene	9.941	53	133898	55.99	ug/L	99
30) acrylonitrile	9.055	53	44274	55.72	ug/L	100
31) hexane	9.605	56	54468	52.00	ug/L	99
32) vinyl acetate	9.794	86	22521	52.59	ug/L	100
33) ethyl tert-butyl ether	10.344	59	290624	53.61	ug/L	100
34) ethyl acetate	10.586	70	15538	52.39	ug/L	96

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\V4D4028\
Data File : 4D92116.D
Acq On : 29 Jan 2019 8:29 pm
Operator : roberts
Sample : icv4028-50
Misc : MS31310,V4D4028,5,,,,1
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Feb 01 10:17:12 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Fri Feb 01 10:17:00 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
35) 2,2-dichloropropane	10.607	77	125426	48.47	ug/L		100
36) cis-1,2-dichloroethene	10.580	96	100851	54.05	ug/L		99
37) methyl acrylate	10.659	85	20741	55.58	ug/L		96
38) propionitrile	10.586	54	211814	548.97	ug/L		99
39) bromochloromethane	10.890	128	47386	53.49	ug/L		98
40) tetrahydrofuran	10.963	72	19021	53.71	ug/L		92
41) chloroform	10.953	85	104795	51.11	ug/L		97
42) t-butyl formate	11.031	59	84562	47.56	ug/L		99
44) methacrylonitrile	10.816	67	51096	51.58	ug/L		99
45) 1,1,1-trichloroethane	11.262	97	133018	50.11	ug/L		100
46) cyclohexane	11.372	84	111545	45.76	ug/L		95
47) 1,1-dichloropropene	11.445	75	118079	51.76	ug/L		99
48) isobutyl alcohol	11.445	74	7756	522.48	ug/L		90
49) carbon tetrachloride	11.477	117	117553	51.25	ug/L		98
50) tert amyl alcohol	11.524	55	34505	275.28	ug/L		94
53) n-butyl alcohol	12.101	56	270440	2837.20	ug/L		100
54) 2,2,4-trimethylpentane	11.765	57	206870	49.67	ug/L		98
55) benzene	11.692	78	342158	50.58	ug/L		99
56) tert-amyl methyl ether	11.750	87	67089	52.16	ug/L		99
57) heptane	11.923	71	54234	55.27	ug/L		99
58) isopropyl acetate	11.613	87	26587	52.96	ug/L		99
59) 1,2-dichloroethane	11.666	62	128927	47.77	ug/L		100
60) trichloroethene	12.368	130	93902	52.17	ug/L		99
61) ethyl acrylate	12.358	55	156408	53.21	ug/L		100
62) 2-nitropropane	13.024	41	31958	54.36	ug/L		99
63) 2-chloroethyl vinyl ether	13.071	63	357062	284.62	ug/L		99
64) methyl methacrylate	12.609	100	32931	56.32	ug/L	#	83
65) 1,2-dichloropropane	12.594	63	90982	51.77	ug/L		100
66) dibromomethane	12.720	93	65455	52.16	ug/L		98
67) methylcyclohexane	12.620	83	117674	50.37	ug/L		99
68) bromodichloromethane	12.840	83	123944	50.63	ug/L		98
69) epichlorohydrin	13.160	57	54326	260.77	ug/L		100
70) cis-1,3-dichloropropene	13.275	75	150795	50.66	ug/L		99
71) 4-methyl-2-pentanone	13.364	58	204005	209.66	ug/L		99
72) 3-methyl-1-butanol	13.354	70	98694	1134.88	ug/L		98
75) toluene	13.637	92	209088	50.20	ug/L		100
76) trans-1,3-dichloropropene	13.768	75	130450	51.46	ug/L		99
77) ethyl methacrylate	13.794	69	129770	53.01	ug/L		99
78) 1,1,2-trichloroethane	13.962	83	74706	54.32	ug/L		99
79) tetrachloroethene	14.177	164	73552	51.59	ug/L		98
80) 1,3-dichloropropane	14.135	76	139405	51.97	ug/L		98
81) 2-hexanone	14.135	58	206399	215.15	ug/L		99
82) butyl acetate	14.214	56	80697	54.51	ug/L		98
83) dibromochloromethane	14.371	129	103434	56.46	ug/L		99
84) 1,2-dibromoethane	14.518	107	111463	52.85	ug/L		100
85) n-butyl ether	14.906	57	353169	50.12	ug/L		100
86) chlorobenzene	14.958	112	226358	49.86	ug/L		99
87) 1,1,1,2-tetrachloroethane	15.005	131	86145	54.32	ug/L		99
88) ethylbenzene	15.021	91	380684	50.68	ug/L		100
89) m,p-xylene	15.116	106	290266	103.67	ug/L		99

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\V4D4028\
Data File : 4D92116.D
Acq On : 29 Jan 2019 8:29 pm
Operator : roberts
Sample : icv4028-50
Misc : MS31310,V4D4028,5,,,,1
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Feb 01 10:17:12 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Fri Feb 01 10:17:00 2019
Response via : Initial Calibration

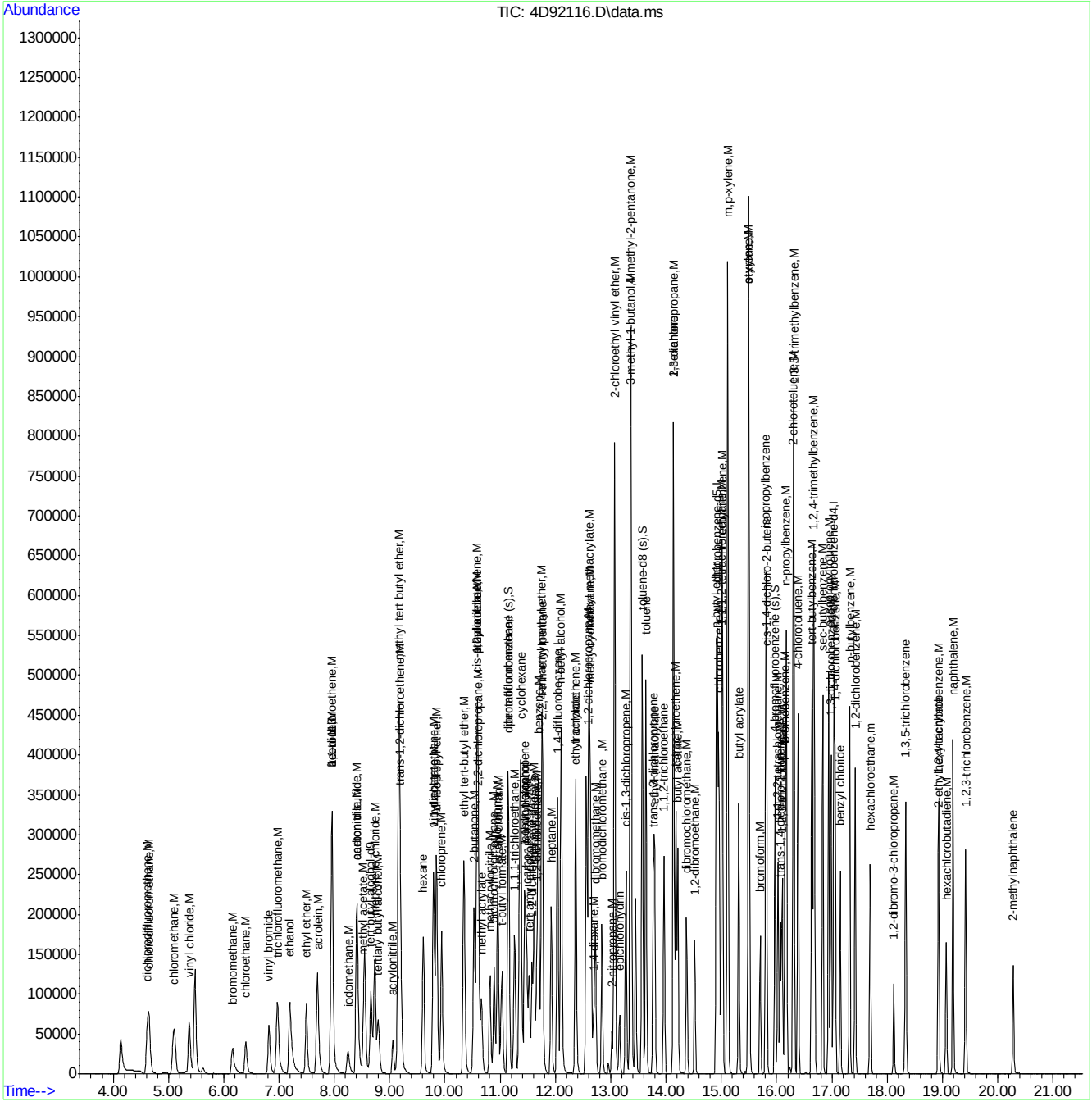
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
90) o-xylene	15.493	106	139085	52.16	ug/L	99
91) styrene	15.493	104	242052	55.75	ug/L	96
92) bromoform	15.703	173	76488	58.13	ug/L	100
93) butyl acrylate	15.315	55	197432	56.90	ug/L	99
94) isopropylbenzene	15.808	105	345218	50.48	ug/L	100
95) cis-1,4-dichloro-2-butene	15.818	88	41799	49.81	ug/L	99
98) bromobenzene	16.154	156	97129	52.01	ug/L	100
99) 1,1,2,2-tetrachloroethane	16.023	83	132788	51.24	ug/L	99
100) trans-1,4-dichloro-2-b...	16.070	53	32990	58.46	ug/L	98
101) 1,2,3-trichloropropane	16.101	110	34531	51.09	ug/L	100
102) n-propylbenzene	16.175	91	406372	50.27	ug/L	100
103) 2-chlorotoluene	16.301	126	84675	51.61	ug/L	97
104) 4-chlorotoluene	16.390	91	251560	51.00	ug/L	100
105) 1,3,5-trimethylbenzene	16.311	105	278666	51.29	ug/L	100
106) tert-butylbenzene	16.636	134	51706	52.13	ug/L	99
107) 1,2,4-trimethylbenzene	16.668	105	287209	52.39	ug/L	100
108) sec-butylbenzene	16.835	105	329221	50.87	ug/L	99
109) 1,3-dichlorobenzene	16.987	146	163458	51.21	ug/L	100
110) p-isopropyltoluene	16.940	119	276677	52.91	ug/L	100
111) 1,4-dichlorobenzene	17.061	146	164831	50.19	ug/L	99
112) benzyl chloride	17.150	91	174567	41.33	ug/L	100
113) 1,2-dichlorobenzene	17.423	146	157689	52.32	ug/L	98
114) n-butylbenzene	17.323	92	135090	53.85	ug/L	99
115) 1,2-dibromo-3-chloropr...	18.120	75	26142	53.26	ug/L	97
116) 1,3,5-trichlorobenzene	18.335	180	108823	54.32	ug/L	99
117) 2-ethylhexyl acrylate	18.922	70	9447	10.77	ug/L	95
118) 1,2,4-trichlorobenzene	18.933	180	97956	53.92	ug/L	98
119) hexachlorobutadiene	19.069	225	34783	51.23	ug/L	99
120) naphthalene	19.189	128	308882	54.41	ug/L	99
121) 1,2,3-trichlorobenzene	19.420	180	90688	52.98	ug/L	99
122) hexachloroethane	17.695	201	45238	55.46	ug/L	99
123) 2-methylnaphthalene	20.280	142	63983	30.64	ug/L	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\V4D4028\
Data File : 4D92116.D
Acq On : 29 Jan 2019 8:29 pm
Operator : roberts
Sample : icv4028-50
Misc : MS31310,V4D4028,5,,,,1
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Feb 01 10:17:12 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Fri Feb 01 10:17:00 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V4D4028\
Data File : 4D92117.D
Acq On : 29 Jan 2019 8:58 pm
Operator : roberts
Sample : icv4028-50
Misc : MS31310,V4D4028,5,,,,1
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Jan 31 11:30:59 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 31 10:54:24 2019
Response via : Initial Calibration

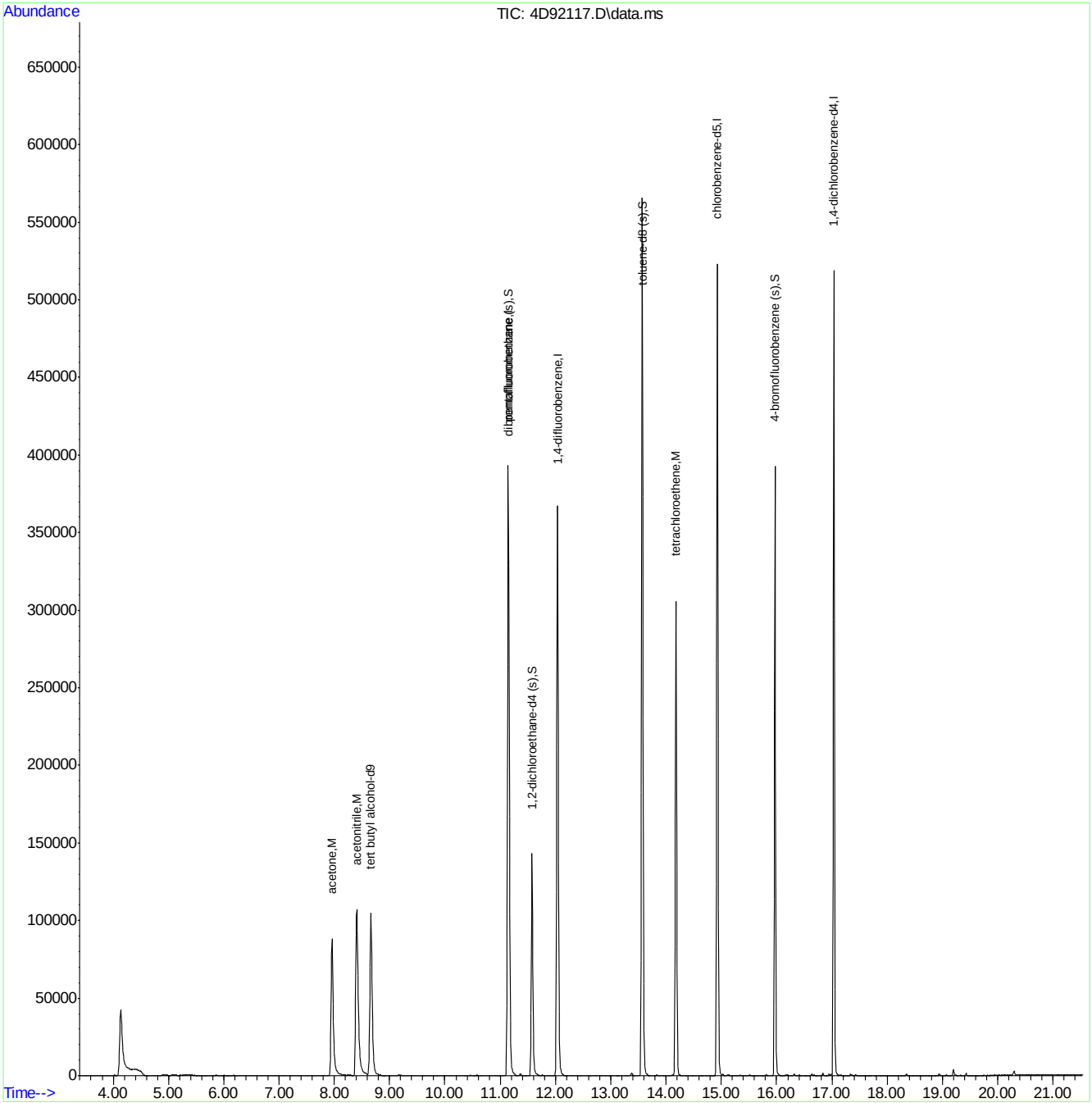
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	8.661	65	182852	500.00	ug/L	0.00
5) pentafluorobenzene	11.147	168	195328	50.00	ug/L	0.00
51) 1,4-difluorobenzene	12.038	114	329995	50.00	ug/L	0.00
73) chlorobenzene-d5	14.927	117	288182	50.00	ug/L	0.00
96) 1,4-dichlorobenzene-d4	17.035	152	127753	50.00	ug/L	0.00
System Monitoring Compounds						
43) dibromofluoromethane (s)	11.152	113	108182	50.21	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.42%			
52) 1,2-dichloroethane-d4 (s)	11.577	65	110886	49.79	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 99.58%			
74) toluene-d8 (s)	13.569	98	375854	50.36	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.72%			
97) 4-bromofluorobenzene (s)	15.970	95	127631	49.53	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.06%			
Target Compounds						Qvalue
18) acetone	7.959	43	172300	219.54	ug/L	99
19) acetonitrile	8.404	41	180565	526.77	ug/L	100
79) tetrachloroethene	14.177	164	70691	45.83	ug/L	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V4D4028\
Data File : 4D92117.D
Acq On : 29 Jan 2019 8:58 pm
Operator : roberts
Sample : icv4028-50
Misc : MS31310,V4D4028,5,,,,1
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Jan 31 11:30:59 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 31 10:54:24 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\May-2019\5-14\v4d4141\
Data File : 4d93914.d
Acq On : 8 May 2019 5:07 pm
Operator : deving
Sample : cc4028-50 Inst : MS4D
Misc : MS34547,V4D4141,5,,,,1
ALS Vial : 52 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Results File: M4D4028.RES
Quant Time: May 08 17:32:21 2019
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Fri Feb 01 10:17:00 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	8.661	65	151495	500.00	ug/L	0.00
5) pentafluorobenzene	11.147	168	197814	50.00	ug/L	0.00
51) 1,4-difluorobenzene	12.033	114	286681	50.00	ug/L	0.00
73) chlorobenzene-d5	14.927	117	223427	50.00	ug/L	0.00
96) 1,4-dichlorobenzene-d4	17.029	152	95802	50.00	ug/L	0.00
System Monitoring Compounds						
43) dibromofluoromethane (s)	11.147	113	94271	43.21	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 86.42%			
52) 1,2-dichloroethane-d4 (s)	11.571	65	93772	48.46	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 96.92%			
74) toluene-d8 (s)	13.569	98	309273	53.44	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 106.88%			
97) 4-bromofluorobenzene (s)	15.965	95	98947	51.20	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.40%			
Target Compounds						Qvalue
2) tertiary butyl alcohol	8.792	59	92236	280.96	ug/L	97
3) ethanol	7.193	45	209512	6542.44	ug/L	98
4) 1,4-dioxane	12.688	88	38482	1174.11	ug/L	99
6) chlorodifluoromethane	4.640	51	99183	49.29	ug/L	96
7) dichlorodifluoromethane	4.614	85	113565	51.85	ug/L	99
8) chloromethane	5.096	50	136290	40.84	ug/L	99
9) vinyl chloride	5.379	62	122928	48.82	ug/L	99
10) bromomethane	6.160	94	62988	81.07	ug/L	99
11) chloroethane	6.402	64	68739	53.71	ug/L	97
12) trichlorofluoromethane	6.968	101	130841	45.47	ug/L	100
13) vinyl bromide	6.816	106	81010	54.37	ug/L	97
14) ethyl ether	7.492	74	51778	51.16	ug/L	91
15) acrolein	7.702	56	22845	47.05	ug/L	98
16) freon 113	7.948	151	58531	46.93	ug/L	95
17) 1,1-dichloroethene	7.954	96	78221	49.35	ug/L	97
18) acetone	7.954	43	149716	188.37	ug/L	97
19) acetonitrile	8.399	41	183897	529.74	ug/L	99
20) iodomethane	8.242	142	53175	54.96	ug/L	97
21) carbon disulfide	8.404	76	211106	49.12	ug/L	96
22) methylene chloride	8.724	84	91364	47.72	ug/L	99
23) methyl acetate	8.525	43	97210	45.82	ug/L	97
24) methyl tert butyl ether	9.159	73	259279	47.71	ug/L	97
25) trans-1,2-dichloroethene	9.186	96	83525	48.57	ug/L	97
26) di-isopropyl ether	9.846	45	302473	52.95	ug/L	95
27) 2-butanone	10.523	72	63333	191.65	ug/L	97
28) 1,1-dichloroethane	9.789	63	158886	51.38	ug/L	98
29) chloroprene	9.935	53	125281	49.68	ug/L	98
30) acrylonitrile	9.049	53	43732	52.20	ug/L	98
31) hexane	9.605	56	60724	54.98	ug/L	97
32) vinyl acetate	9.789	86	21699	48.06	ug/L #	88
33) ethyl tert-butyl ether	10.339	59	281280	49.21	ug/L	97
34) ethyl acetate	10.580	70	14058	44.95	ug/L #	84
35) 2,2-dichloropropane	10.607	77	122087	44.75	ug/L	97
36) cis-1,2-dichloroethene	10.575	96	94935	48.26	ug/L	99
37) methyl acrylate	10.659	85	18019	45.79	ug/L #	88
38) propionitrile	10.586	54	201335	494.90	ug/L	99
39) bromochloromethane	10.890	128	44177	47.30	ug/L	96
40) tetrahydrofuran	10.958	72	16876	45.20	ug/L	97
41) chloroform	10.953	85	95311	44.08	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\May-2019\5-14\v4d4141\
Data File : 4d93914.d
Acq On : 8 May 2019 5:07 pm
Operator : deving
Sample : cc4028-50 Inst : MS4D
Misc : MS34547,V4D4141,5,,,,1
ALS Vial : 52 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Results File: M4D4028.RES
Quant Time: May 08 17:32:21 2019
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Fri Feb 01 10:17:00 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
42) t-butyl formate	11.026	59	77050	41.10	ug/L		96
44) methacrylonitrile	10.811	67	47783	45.75	ug/L		97
45) 1,1,1-trichloroethane	11.257	97	120521	43.07	ug/L		100
46) cyclohexane	11.367	84	112558	43.79	ug/L		92
47) 1,1-dichloropropene	11.440	75	110596	45.98	ug/L		99
48) isobutyl alcohol	11.440	74	6906	441.23	ug/L		92
49) carbon tetrachloride	11.477	117	100071	41.38	ug/L		99
50) tert amyl alcohol	11.519	55	28422	215.06	ug/L		96
53) n-butyl alcohol	12.101	56	233411	2673.15	ug/L		98
54) 2,2,4-trimethylpentane	11.765	57	224605	58.87	ug/L		92
55) benzene	11.687	78	323781	52.25	ug/L		100
56) tert-amyl methyl ether	11.749	87	58207	49.40	ug/L		97
57) heptane	11.923	71	50221	55.87	ug/L		97
58) isopropyl acetate	11.613	87	23770	51.69	ug/L		96
59) 1,2-dichloroethane	11.660	62	106063	42.90	ug/L		94
60) trichloroethene	12.368	130	78383	47.53	ug/L		99
61) ethyl acrylate	12.352	55	135635	50.37	ug/L		98
62) 2-nitropropane	13.018	41	23553	43.73	ug/L		96
63) 2-chloroethyl vinyl ether	13.071	63	14691	12.78	ug/L		99
64) methyl methacrylate	12.604	100	26694	49.84	ug/L	#	89
65) 1,2-dichloropropane	12.594	63	86819	53.93	ug/L		100
66) dibromomethane	12.714	93	53116	46.21	ug/L		100
67) methylcyclohexane	12.620	83	112307	52.48	ug/L		100
68) bromodichloromethane	12.835	83	107778	48.06	ug/L		99
69) epichlorohydrin	13.155	57	48685	255.11	ug/L		96
70) cis-1,3-dichloropropene	13.270	75	133084	48.81	ug/L		97
71) 4-methyl-2-pentanone	13.364	58	173566	194.72	ug/L		98
72) 3-methyl-1-butanol	13.349	70	77670	974.97	ug/L		98
75) toluene	13.632	92	179342	51.34	ug/L		100
76) trans-1,3-dichloropropene	13.768	75	115456	54.30	ug/L		99
77) ethyl methacrylate	13.789	69	113256	55.16	ug/L		98
78) 1,1,2-trichloroethane	13.962	83	62803	54.44	ug/L		98
79) tetrachloroethene	14.177	164	59376	49.65	ug/L		98
80) 1,3-dichloropropane	14.130	76	113947	50.65	ug/L		99
81) 2-hexanone	14.130	58	173340	215.42	ug/L		98
82) butyl acetate	14.208	56	67214	54.13	ug/L		99
83) dibromochloromethane	14.371	129	80027	52.08	ug/L		100
84) 1,2-dibromoethane	14.513	107	85985	48.61	ug/L		99
85) n-butyl ether	14.906	57	301133	50.95	ug/L		100
86) chlorobenzene	14.953	112	185180	48.63	ug/L		97
87) 1,1,1,2-tetrachloroethane	15.000	131	66965	50.34	ug/L		96
88) ethylbenzene	15.016	91	317043	50.32	ug/L		99
89) m,p-xylene	15.110	106	237544	101.15	ug/L		98
90) o-xylene	15.488	106	114941	51.39	ug/L		99
91) styrene	15.488	104	197712	54.29	ug/L		99
92) bromoform	15.698	173	56917	51.57	ug/L		98
93) butyl acrylate	15.310	55	164396	56.48	ug/L		99
94) isopropylbenzene	15.802	105	285056	49.70	ug/L		99
95) cis-1,4-dichloro-2-butene	15.818	88	32328	45.93	ug/L		96
98) bromobenzene	16.148	156	77236	51.30	ug/L		97
99) 1,1,2,2-tetrachloroethane	16.023	83	106396	50.93	ug/L		98
100) trans-1,4-dichloro-2-b...	16.065	53	22686	49.87	ug/L		98
101) 1,2,3-trichloropropane	16.096	110	26289	48.25	ug/L		98
102) n-propylbenzene	16.175	91	337465	51.78	ug/L		99
103) 2-chlorotoluene	16.300	126	68985	52.16	ug/L		95
104) 4-chlorotoluene	16.384	91	200696	50.48	ug/L		98
105) 1,3,5-trimethylbenzene	16.306	105	228599	52.19	ug/L		100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\May-2019\5-14\v4d4141\
Data File : 4d93914.d
Acq On : 8 May 2019 5:07 pm
Operator : deving
Sample : cc4028-50 Inst : MS4D
Misc : MS34547,V4D4141,5,,,,1
ALS Vial : 52 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Results File: M4D4028.RES
Quant Time: May 08 17:32:21 2019
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Fri Feb 01 10:17:00 2019
Response via : Initial Calibration

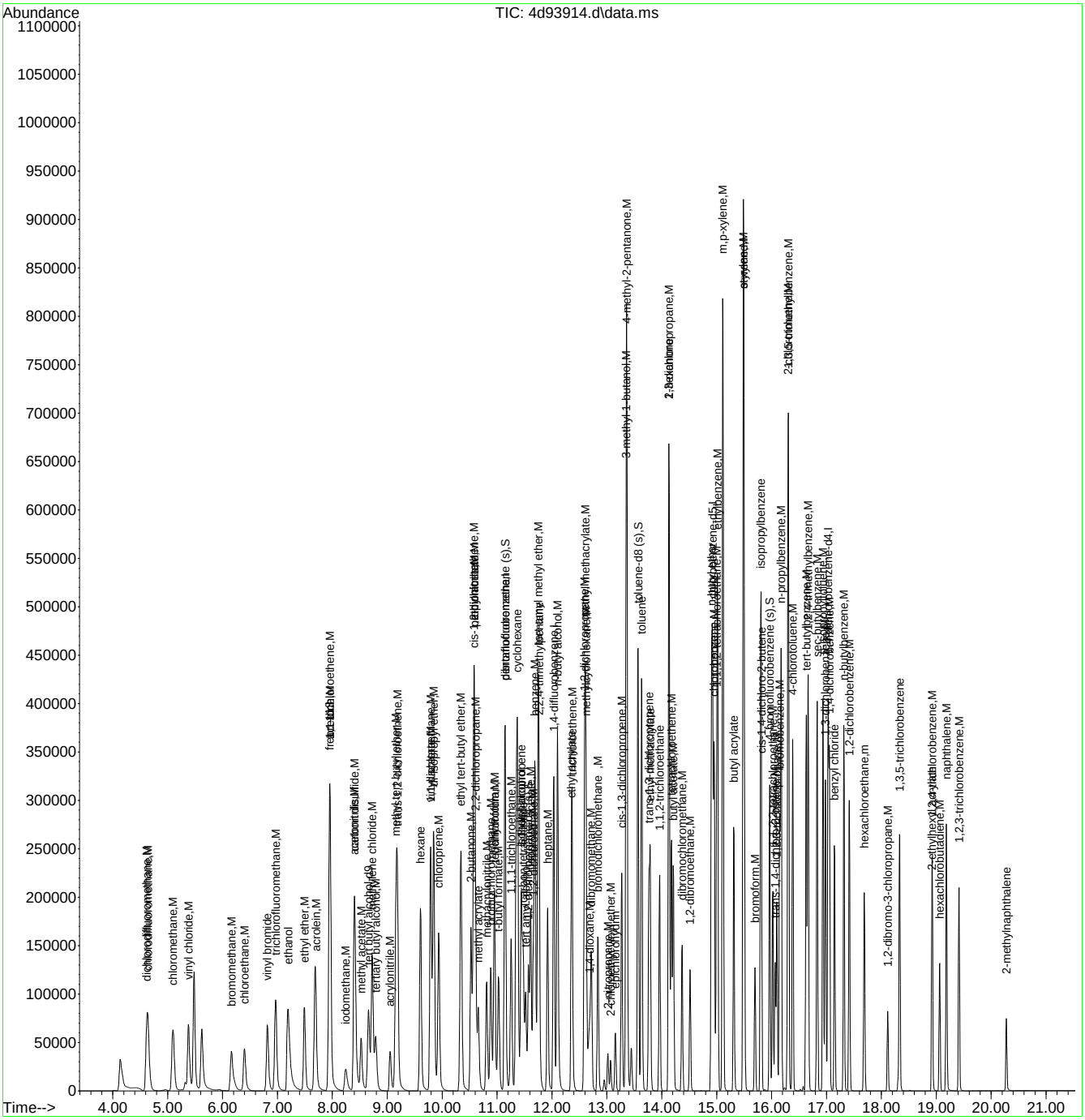
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
106) tert-butylbenzene	16.631	134	40128	50.19	ug/L	91
107) 1,2,4-trimethylbenzene	16.667	105	226829	51.33	ug/L	99
108) sec-butylbenzene	16.830	105	271053	51.96	ug/L	99
109) 1,3-dichlorobenzene	16.982	146	129006	50.13	ug/L	100
110) p-isopropyltoluene	16.935	119	222011	52.66	ug/L	99
111) 1,4-dichlorobenzene	17.055	146	129615	48.96	ug/L	99
112) benzyl chloride	17.145	91	177161	52.03	ug/L	98
113) 1,2-dichlorobenzene	17.417	146	122925	50.59	ug/L	99
114) n-butylbenzene	17.318	92	110673	54.72	ug/L	98
115) 1,2-dibromo-3-chloropr...	18.115	75	18784	47.47	ug/L	97
116) 1,3,5-trichlorobenzene	18.335	180	84161	52.11	ug/L	99
117) 2-ethylhexyl acrylate	18.917	70	3304	4.84	ug/L	89
118) 1,2,4-trichlorobenzene	18.927	180	72006	49.17	ug/L	99
119) hexachlorobutadiene	19.064	225	28077	51.30	ug/L	99
120) naphthalene	19.184	128	207065	45.25	ug/L	100
121) 1,2,3-trichlorobenzene	19.415	180	64488	46.73	ug/L	99
122) hexachloroethane	17.690	201	35580	54.11	ug/L	99
123) 2-methylnaphthalene	20.275	142	35653	21.18	ug/L	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\May-2019\5-14\v4d4141\
Data File : 4d93914.d
Acq On : 8 May 2019 5:07 pm
Operator : deving
Sample : cc4028-50 Inst : MS4D
Misc : MS34547,V4D4141,5,,,,1
ALS Vial : 52 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Results File: M4D4028.RES
Quant Time: May 08 17:32:21 2019
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Fri Feb 01 10:17:00 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\May-2019\5-13\v4d4144\
Data File : 4d93965.d
Acq On : 10 May 2019 6:45 am
Operator : deving
Sample : cc4028-20 Inst : MS4D
Misc : MS34547,V4D4144,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Results File: M4D4028.RES
Quant Time: May 10 16:07:45 2019
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Fri Feb 01 10:17:00 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	8.656	65	151214	500.00	ug/L	0.00
5) pentafluorobenzene	11.141	168	207152	50.00	ug/L	0.00
51) 1,4-difluorobenzene	12.033	114	296371	50.00	ug/L	0.00
73) chlorobenzene-d5	14.927	117	233704	50.00	ug/L	0.00
96) 1,4-dichlorobenzene-d4	17.029	152	101763	50.00	ug/L	0.00
System Monitoring Compounds						
43) dibromofluoromethane (s)	11.146	113	97508	42.68	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 85.36%			
52) 1,2-dichloroethane-d4 (s)	11.571	65	99462	49.72	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 99.44%			
74) toluene-d8 (s)	13.564	98	322617	53.30	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 106.60%			
97) 4-bromofluorobenzene (s)	15.965	95	103592	50.46	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.92%			
Target Compounds						Qvalue
2) tertiary butyl alcohol	8.787	59	35729	109.04	ug/L	99
3) ethanol	7.188	45	80702	2524.77	ug/L	99
4) 1,4-dioxane	12.688	88	15377	470.03	ug/L	96
6) chlorodifluoromethane	4.635	51	35703	16.94	ug/L	95
7) dichlorodifluoromethane	4.614	85	50362	21.96	ug/L	99
8) chloromethane	5.096	50	53084	15.19	ug/L	99
9) vinyl chloride	5.379	62	47528	18.03	ug/L	98
10) bromomethane	6.171	94	22530	27.69	ug/L	96
11) chloroethane	6.402	64	26822	20.01	ug/L	98
12) trichlorofluoromethane	6.968	101	50973	16.92	ug/L	99
13) vinyl bromide	6.821	106	30217	19.37	ug/L	95
14) ethyl ether	7.492	74	19679	18.57	ug/L	91
15) acrolein	7.707	56	8504	16.73	ug/L	98
16) freon 113	7.953	151	22292	17.07	ug/L	98
17) 1,1-dichloroethene	7.959	96	29098	17.53	ug/L	96
18) acetone	7.953	43	63025	75.72	ug/L	94
19) acetonitrile	8.404	41	71744	197.35	ug/L	98
20) iodomethane	8.242	142	16648	16.43	ug/L	97
21) carbon disulfide	8.410	76	78871	17.53	ug/L	96
22) methylene chloride	8.729	84	35303	17.61	ug/L	96
23) methyl acetate	8.525	43	38276	17.23	ug/L	99
24) methyl tert butyl ether	9.159	73	101989	17.92	ug/L	96
25) trans-1,2-dichloroethene	9.186	96	31557	17.52	ug/L	97
26) di-isopropyl ether	9.846	45	120203	20.09	ug/L	96
27) 2-butanone	10.528	72	25840	74.67	ug/L	98
28) 1,1-dichloroethane	9.789	63	62545	19.31	ug/L	99
29) chloroprene	9.941	53	47920	18.15	ug/L	97
30) acrylonitrile	9.055	53	16717	19.06	ug/L	98
31) hexane	9.605	56	23704	20.49	ug/L	98
32) vinyl acetate	9.789	86	8222	17.39	ug/L #	92
33) ethyl tert-butyl ether	10.339	59	111649	18.65	ug/L	97
34) ethyl acetate	10.580	70	5482	16.74	ug/L #	77
35) 2,2-dichloropropane	10.606	77	47786	16.73	ug/L	97
36) cis-1,2-dichloroethene	10.575	96	37402	18.15	ug/L	99
37) methyl acrylate	10.659	85	7065	17.15	ug/L	93
38) propionitrile	10.580	54	80266	188.41	ug/L	99
39) bromochloromethane	10.890	128	18011	18.41	ug/L	96
40) tetrahydrofuran	10.958	72	6644	16.99	ug/L	94
41) chloroform	10.952	85	37724	16.66	ug/L	97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\May-2019\5-13\v4d4144\
Data File : 4d93965.d
Acq On : 10 May 2019 6:45 am
Operator : deving
Sample : cc4028-20 Inst : MS4D
Misc : MS34547,V4D4144,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Results File: M4D4028.RES
Quant Time: May 10 16:07:45 2019
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Fri Feb 01 10:17:00 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
42) t-butyl formate	11.026	59	30252	15.41	ug/L		96
44) methacrylonitrile	10.811	67	18936	17.31	ug/L		97
45) 1,1,1-trichloroethane	11.257	97	46743	15.95	ug/L		100
46) cyclohexane	11.367	84	45834	17.03	ug/L		93
47) 1,1-dichloropropene	11.440	75	42812	17.00	ug/L		99
48) isobutyl alcohol	11.445	74	2599	158.57	ug/L		95
49) carbon tetrachloride	11.472	117	39030	15.41	ug/L		98
50) tert amyl alcohol	11.519	55	11274	81.46	ug/L		95
53) n-butyl alcohol	12.101	56	91464	1013.25	ug/L		98
54) 2,2,4-trimethylpentane	11.760	57	89815	22.77	ug/L		98
55) benzene	11.692	78	127163	19.85	ug/L		99
56) tert-amyl methyl ether	11.749	87	23406	19.22	ug/L		93
57) heptane	11.922	71	20257	21.80	ug/L		99
58) isopropyl acetate	11.613	87	9411	19.80	ug/L		100
59) 1,2-dichloroethane	11.660	62	42736	16.72	ug/L		94
60) trichloroethene	12.368	130	31374	18.40	ug/L		99
61) ethyl acrylate	12.352	55	52877	18.99	ug/L		98
62) 2-nitropropane	13.018	41	9134	16.41	ug/L		98
63) 2-chloroethyl vinyl ether	13.071	63	3680	3.10	ug/L		100
64) methyl methacrylate	12.604	100	10420	18.82	ug/L	#	89
65) 1,2-dichloropropane	12.594	63	34491	20.72	ug/L		98
66) dibromomethane	12.714	93	21305	17.93	ug/L		99
67) methylcyclohexane	12.620	83	44696	20.20	ug/L		99
68) bromodichloromethane	12.835	83	42264	18.23	ug/L		99
69) epichlorohydrin	13.155	57	17884	90.65	ug/L		95
70) cis-1,3-dichloropropene	13.270	75	52750	18.71	ug/L		96
71) 4-methyl-2-pentanone	13.364	58	70105	76.08	ug/L		99
72) 3-methyl-1-butanol	13.349	70	30410	369.25	ug/L		98
75) toluene	13.632	92	71291	19.51	ug/L		99
76) trans-1,3-dichloropropene	13.768	75	45159	20.30	ug/L		99
77) ethyl methacrylate	13.789	69	44366	20.66	ug/L		99
78) 1,1,2-trichloroethane	13.962	83	25201	20.88	ug/L		98
79) tetrachloroethene	14.177	164	23645	18.90	ug/L		98
80) 1,3-dichloropropane	14.130	76	46542	19.78	ug/L		97
81) 2-hexanone	14.130	58	70098	83.28	ug/L		99
82) butyl acetate	14.214	56	26701	20.56	ug/L		94
83) dibromochloromethane	14.371	129	31670	19.70	ug/L		100
84) 1,2-dibromoethane	14.512	107	34068	18.41	ug/L		99
85) n-butyl ether	14.906	57	117005	18.92	ug/L		99
86) chlorobenzene	14.953	112	73700	18.50	ug/L		98
87) 1,1,1,2-tetrachloroethane	15.000	131	26558	19.09	ug/L		98
88) ethylbenzene	15.016	91	125309	19.02	ug/L		99
89) m,p-xylene	15.110	106	95425	38.85	ug/L		100
90) o-xylene	15.488	106	45750	19.55	ug/L		99
91) styrene	15.488	104	78144	20.52	ug/L		98
92) bromoform	15.697	173	21967	19.03	ug/L		98
93) butyl acrylate	15.315	55	63246	20.77	ug/L		99
94) isopropylbenzene	15.802	105	111878	18.65	ug/L		99
95) cis-1,4-dichloro-2-butene	15.818	88	10595	14.39	ug/L		96
98) bromobenzene	16.148	156	30817	19.27	ug/L		99
99) 1,1,2,2-tetrachloroethane	16.017	83	41958	18.91	ug/L		98
100) trans-1,4-dichloro-2-b...	16.064	53	7434	15.39	ug/L		98
101) 1,2,3-trichloropropane	16.096	110	10498	18.14	ug/L		99
102) n-propylbenzene	16.175	91	133122	19.23	ug/L		99
103) 2-chlorotoluene	16.300	126	27432	19.53	ug/L		97
104) 4-chlorotoluene	16.384	91	79465	18.82	ug/L		97
105) 1,3,5-trimethylbenzene	16.306	105	91036	19.57	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\May-2019\5-13\v4d4144\
Data File : 4d93965.d
Acq On : 10 May 2019 6:45 am
Operator : deving
Sample : cc4028-20 Inst : MS4D
Misc : MS34547,V4D4144,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Results File: M4D4028.RES
Quant Time: May 10 16:07:45 2019
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Fri Feb 01 10:17:00 2019
Response via : Initial Calibration

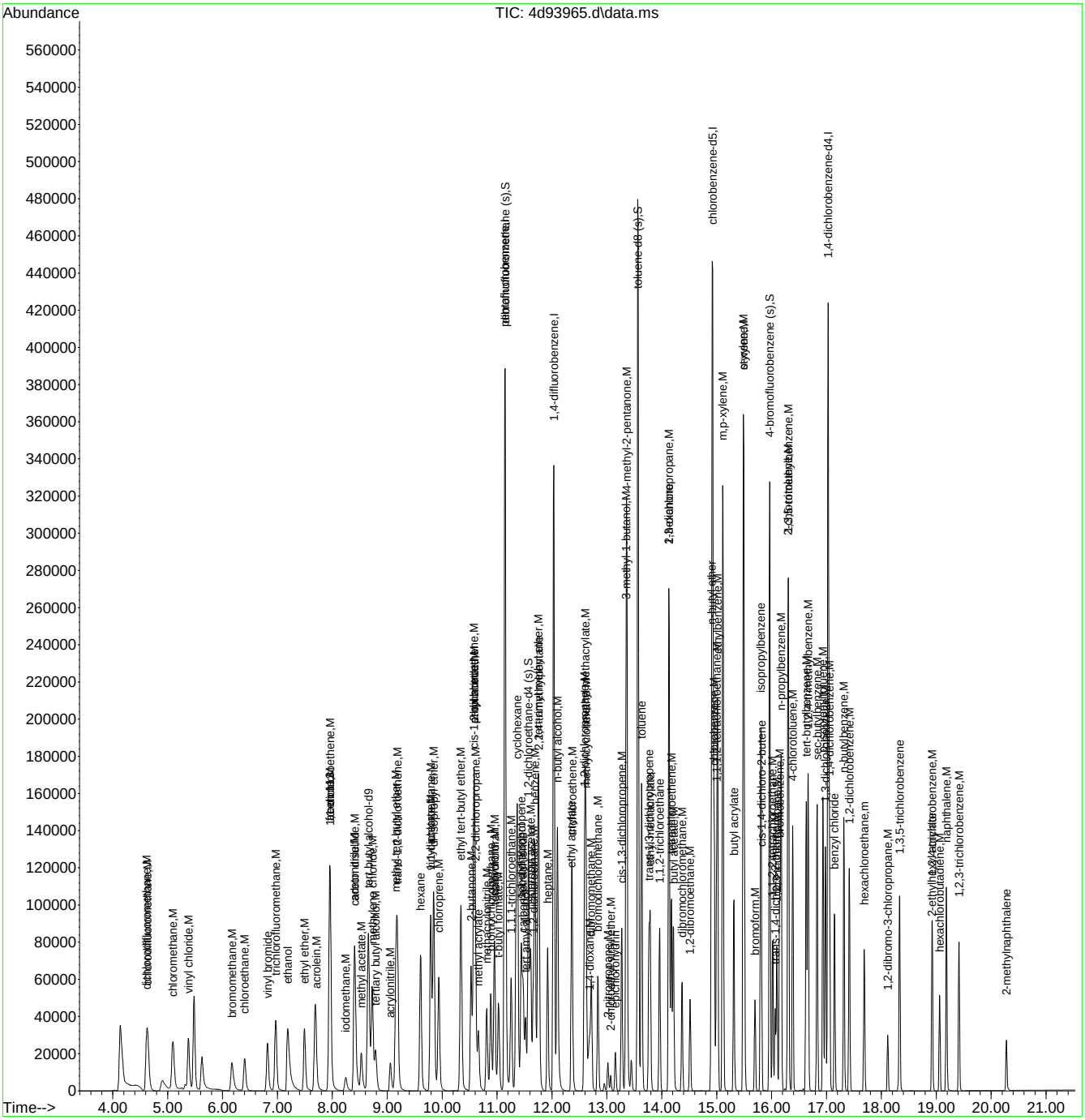
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
106) tert-butylbenzene	16.631	134	16177	19.05	ug/L		93
107) 1,2,4-trimethylbenzene	16.667	105	91006	19.39	ug/L		99
108) sec-butylbenzene	16.830	105	107230	19.35	ug/L		99
109) 1,3-dichlorobenzene	16.982	146	52208	19.10	ug/L		98
110) p-isopropyltoluene	16.935	119	88896	19.85	ug/L		99
111) 1,4-dichlorobenzene	17.055	146	52937	18.83	ug/L		99
112) benzyl chloride	17.145	91	68125	18.84	ug/L		98
113) 1,2-dichlorobenzene	17.417	146	49576	19.21	ug/L		98
114) n-butylbenzene	17.318	92	43968	20.47	ug/L		99
115) 1,2-dibromo-3-chloropr...	18.114	75	7187	17.10	ug/L		94
116) 1,3,5-trichlorobenzene	18.335	180	33446	19.50	ug/L		99
117) 2-ethylhexyl acrylate	18.917	70	1072	1.68	ug/L	#	76
118) 1,2,4-trichlorobenzene	18.927	180	28413	18.27	ug/L		99
119) hexachlorobutadiene	19.063	225	11363	19.54	ug/L		97
120) naphthalene	19.184	128	81873	16.84	ug/L		100
121) 1,2,3-trichlorobenzene	19.415	180	25308	17.27	ug/L		98
122) hexachloroethane	17.690	201	13233	18.95	ug/L		99
123) 2-methylnaphthalene	20.280	142	14909	8.34	ug/L		99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\May-2019\5-13\v4d4144\
Data File : 4d93965.d
Acq On : 10 May 2019 6:45 am
Operator : deving
Sample : cc4028-20 Inst : MS4D
Misc : MS34547,V4D4144,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Results File: M4D4028.RES
Quant Time: May 10 16:07:45 2019
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Fri Feb 01 10:17:00 2019
Response via : Initial Calibration



GCMS Volatile Run Log

Standard / Reagents	Lot #				Column	DB624(60mx0.25mmx1.4um)
Standards	ABK V018-2645-111.1	EC V018-2645-108.9	Acrolein V018-2645-85.4 8	Acetone 3rd Source V018-2645-55.3	Method	V8260C
Standard Concentration	100-10,000ppm	100ppm	100ppm	400 ppm	Init Calib Date	1/29/2019
Internal Surrogate	V018-2645-91					
Internal Surrogate Concentration	250/2500ppm					
Ext. Standards	ABK V018-2645-109.2	EC V018-2645-102.3	Acrolein V018-2645-98.1	Ext. PA V018-2645-8 2.2	Analysis Date	1/29/2019
Ext. Standard Concentration	100-10,000ppm	100ppm	100ppm	1000ppm	Sequence loaded by	Gaby Alvarez
					Data processed by	Bridget Kelly
					Batch ID	V4D4028
Calibration Prepared by	Robert Szot				Matrix	AQ
Initial Calibration Method	M4D4028				Approved By:	MEI
pH Paper Lot#	204518				Approved Date:	1/31/2019 11:43:52 AM

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	CL	pH	ALS #	Status	Comments
4D	92100	IB		NA			5			1	ok	
4D	92101	IB		NA			5			2	ok	
4D	92102	BFB		NA			5			3	ok	2:06pm 01/29/2019
4D	92103	IC4028-0.2		NA		V8260 Initial Cal	5			4	ok	2uL A/B/K, EC, Acrolein/1000mL
4D	92104	IC4028-0.5		NA		V8260 Initial Cal	5			5	ok	5uL A/B/K, EC, Acrolein/1000mL
4D	92105	IC4028-1		NA		V8260 Initial Cal	5			6	ok	5uL A/B/K, EC, Acrolein/500mL
4D	92106	IC4028-2		NA		V8260 Initial Cal	5			7	ok	10uL A/B/K, EC, Acrolein/500mL
4D	92107	IC4028-4		NA		V8260 Initial Cal	5			8	ok	4uL A/B/K, EC, Acrolein/100mL
4D	92108	IC4028-8		NA		V8260 Initial Cal	5			9	ok	8uL A/B/K, EC, Acrolein/100mL
4D	92109	IC4028-20		NA		V8260 Initial Cal	5			10	ok	20uL A/B/K, EC, Acrolein/100mL
4D	92110	IC4028-50		NA		V8260 Initial Cal	5			11	ok	50uL A/B/K, EC, Acrolein/100mL

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	CL	pH	ALS #	Status	Comments
4D	92111	IC4028-100		NA		V8260 Initial Cal	5			12	ok	100uL A/B/K, EC, Acrolein/100mL
4D	92112	IC4028-200		NA		V8260 Initial Cal	5			13	ok	200uL A/B/K, EC, Acrolein/100mL
4D	92113	IB		NA			5			14	ok	
4D	92114	IB		NA			5			15	ok	
4D	92115	ICV4028-50		NA		V8260 Initial Cal	5			16	ok	50uL A/B/K, EC, Acrolein/100mL
4D	92116	ICV4028-50		NA		V8260 Initial Cal	5			17	ok	50uL A/B/K, EC, Acrolein/100mL

GCMS Volatile Run Log

Standard / Reagents	Lot #				Column	Rxi-624(60mx0.25mmx1.4um)
Standard	ABK: V019-2648-72.60	EC: V019-2648-98.1	Acrolein: V019-2648-88.3		Method	V8260C
Standard Concentration	100-10,000ppm	100ppm	100ppm		Init Calib Date	5/2/2019
Internal Surrogate	V018-2648-73					
Internal Surrogate Concentration	25/250ppm					
					Analysis Date	5/8/2019
dilutions & MS/MSD made by	Devin Gomez				Sequence loaded by	Devin Gomez
					Data processed by	Lotusa
					Batch ID	V4D4141
Rough Reviewed	Bridget Kelly				Matrix	AQ
Initial Calibration Method	M4D4028				Approved By:	KANYAV
pH Paper Lot#	204518				Approved Date:	5/14/2019 1:22:26 AM

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	CL	pH	ALS #	Status	Comments
4D	93913	IB		NA			5			1	OK	
4D	93914	BFB/CC4028-50		NA			5			2	OK/OK	50uL ABK, EC, Acrolein/100mL (5:07pm)
4D	93915	BS		NA			5			3	OK	50uL ABK, EC, Acrolein/100mL
4D	93916	IB		NA			5			4	OK	
4D	93917	MB		NA			5			5	OK	
4D	93918	JC87680-2	2	10X	MS34604	V8260BTXM	5/50		1	6	ok/dl	f/d
4D	93919	JC87680-2MS	2	10X	MS34604	V8260BTXM	5/50		1	7	rr	50uL ABK, EC, Acrolein/100mL analyst prepped wrong
4D	93920	JC87680-2MSD	2	10X	MS34604	V8260BTXM	5/50		1	8	rr	50uL ABK, EC, Acrolein/100mL analyst prepped wrong
4D	93921	IB		NA			5			9	OK	
4D	93922	JC87680-11	1	NA	MS34604	V8260BTXM	5		1	10	OK	
4D	93923	JC87666-8	6	NA	MS34597	V8260BENZ	5		1	11	OK	

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	CL	pH	ALS #	Status	Comments
4D	93924	JC87680-1	2	NA	MS34604	V8260BTXM	5		1	12	OK	
4D	93925	JC87680-3	1	NA	MS34604	V8260BTXM	5		1	13	OK	
4D	93926	JC87680-4	1	NA	MS34604	V8260BTXM	5		1	14	OK	
4D	93927	JC87680-5	1	NA	MS34604	V8260BTXM	5		1	15	OK	
4D	93928	JC87680-6	2	NA	MS34604	V8260BTXM	5		1	16	OK	
4D	93929	JC87680-7	1	2X	MS34604	V8260BTXM	25/50		1	17	OK	o/d rr
4D	93930	JC87680-8	1	100X	MS34604	V8260BTXM	0.5/50		1	18	OK	o/d rr
4D	93931	JC87680-9	1	NA	MS34604	V8260BTXM	5		1	19	OK	
4D	93932	JC87680-10	2	NA	MS34604	V8260BTXM	5		1	20	OK	
4D	93933	JC87686-1	7	NA	MS34604	V8260BTX	5		1	21	OK	
4D	93934	JC87686-2	7	NA	MS34604	V8260BTX	5		1	22	OK	3:16am

GCMS Volatile Run Log

Standard / Reagents	Lot #				Column	Rxi-624(60mx0.25mmx1.4um)
Standard	ABK: V019-2648-72.19	EC: V019-2648-98.2	Acrolein: V019-2648-88.30		Method	v8260c
Standard Concentration	100-10,000ppm	100ppm	100ppm		Init Calib Date	1/29/2019
Internal Surrogate	V018-2648-97					
Internal Surrogate Concentration	50/500ppm					
					Analysis Date	5/10/2019
					Sequence loaded by	Edward Durner
					Data processed by	lotusa
					Batch ID	V4D4144
Rough reviewed by	Devin Gomez 5/10				Matrix	AQ
Initial Calibration Method	M4D4028				Approved By:	BRIDGETK
pH Paper Lot#	204518				Approved Date:	5/13/2019 4:52:50 PM

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	CL	pH	ALS #	Status	Comments
4D	93964	IB		NA			5			1	Ok	
4D	93965	BFB/CC4028-20		NA			5			2	Ok/Ok	20ul abk,ec,acrolein/100ml, 6:45am
4D	93966	CC4028-1		NA			5			3	Ok	1ul abk,ec,acrolein/100ml
4D	93967	CC4028-2		NA			5			4	Ok	2ul abk,ec,acrolein/100ml
4D	93968	BS		NA			5			5	Ok	50ul abk,ec,acrolein/100ml
4D	93969	IB		NA			5			6	Ok	
4D	93970	MB		NA			5			7	Ok	
4D	93971	JC87272-9	8	NA	MS34535	V8260RCP	5		1	8	Ok	
4D	93972	JC87272-13	8	20x	MS34535	V8260RCP	2.5/50		1	9	ok	report 1,1,1-TCE from L core
4D	93973	JC87272-13	8	200x	MS34535	V8260RCP	0.25/50		1	10	Ok	+
4D	93974	JC87272-10	8	50x	MS34535	V8260RCP	1/50		1	11	Ok	report 1,1,1-TCE from

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	CL	pH	ALS #	Status	Comments
4D	93975	JC87272-10	8	500x	MS34535	V8260RCP	0.1/50		1	12	Ok	
4D	93976	JC87439-10	1	NA	MS34509	V8260RCP	5		1	13	Ok	
4D	93977	JC87439-4	2	NA	MS34509	V8260RCP	5		1	14	Ok	
4D	93978	JC87272-5	9	10x	MS34432	V8260RCP	5/50		1	15	Ok	
4D	93979	JC87439-15	1	2x	MS34509	V8260RCP	25/50		1	16	Ok	use 4B for CFS
4D	93980	JC87272-13MS	8	20x	MS34535	V8260RCP	2.5/50		1	17	Ok	50ul abk,ec,acrolein,5ml sample/100ml
4D	93981	JC87272-13MSD	8	20x	MS34535	V8260RCP	2.5/50		1	18	Ok	50ul abk,ec,acrolein,5ml sample/100ml
4D	93982	IB		NA			5			19	Ok	
4D	93983	JC87803-1	1	NA	MS34644	V8260RCP	5		1	20	Ok	
4D	93984	JC87803-2	7	NA	MS34644	V8260RCP	5		1	21	Ok	
4D	93985	JC87803-3	7	NA	MS34644	V8260RCP	5		1	22	Ok	
4D	93986	JC87803-4	8	NA	MS34644	V8260RCP	5		1	23	Ok	
4D	93987	JC87803-5	7	NA	MS34644	V8260RCP	5		1	24	Ok	
4D	93988	JC87680-2MS	7	10x	MS34604	V8260BTXM	5/50		1	25	Ok	V4D4141 QC, 50ul abk,ec,acrolein, 10ml sample/100ml
4D	93989	JC87680-2MSD	7	10x	MS34604	V8260BTXM	5/50		1	26	Ok	V4D4141 QC 6:23pm, 50ul abk,ec,acrolein, 10ml sample/100ml

Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Instrument Runlogs
- Initial and Continuing Calibration Blanks
- Initial and Continuing Calibration Checks
- High and Low Check Standards
- Interfering Element Check Standards
- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries
- IDL and Linear Range Summaries

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC87686
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XB051019M2.CSV Date Analyzed: 05/10/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA46696
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Dilution Factor	PS Recov	Comments
13:15	MA46696-STD1	1		STDA
13:20	MA46696-STD2	1		STDA
13:24	MA46696-STD3	1		STDA
13:29	MA46696-STD4	1		STDB
13:34	MA46696-STD5	1		STDC
13:39	MA46696-STD6	1		STDD
13:44	MA46696-STD7	1		STDE
13:48	MA46696-STD8	1		STDF
13:53	MA46696-STD9	1		STDG
13:58	MA46696-STD10	1		STDH
14:03	MA46696-STD11	1		STDI
14:07	MA46696-STD12	1		STDJ
14:12	MA46696-STD13	1		STDA
14:22	MA46696-STD14	1		STDB
14:31	MA46696-ICVA1	1		
14:36	MA46696-ICV1	1		
14:41	MA46696-ICB1	1		
14:46	MA46696-CCVA1	1		
14:50	MA46696-CCB1	1		
14:55	MA46696-CRI1	1		
15:00	MA46696-ICSA1	1		See rerun
15:05	MA46696-ICSAB1	1		
15:09	ZZZZZZ	1		
15:15	MA46696-ICSA2	1		
15:20	MA46696-CCVA2	1		
15:25	MA46696-CCB2	1		
15:29	MP14909-MB1	2		
15:34	MP14909-MB2	2		
15:39	MP14909-B2	2		
15:44	MP14909-B3	25		
15:48	ZZZZZZ	2		
15:53	ZZZZZZ	2		
16:02	MP14909-MB1	2		Confirmation

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC87686
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XB051019M2.CSV Date Analyzed: 05/10/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA46696
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Dilution Factor	PS Recov	Comments
16:06	MP14909-MB2	2		Confirmation
16:11	MP14909-S3	2		
16:16	MA46696-CCVA3	1		
16:21	MA46696-CCB3	1		
16:25	ZZZZZZ	2		
16:30	JC87783-12	2		(sample used for QC only; not part of login JC87686)
16:35	MP14909-S4	2		
16:40	MP14909-SD1	10		
16:44	ZZZZZZ	5		
16:49	ZZZZZZ	1		
16:54	ZZZZZZ	1		
16:59	ZZZZZZ	2		
17:04	ZZZZZZ	2		
17:08	MA46696-CCVA4	1		
17:13	MA46696-CCB4	1		
17:18	MP11926-MB3	2		To rerun Cr and Se. MB/BS out
17:23	MP11926-B3	2		To rerun Cr and Se. MB/BS out
17:27	ZZZZZZ	2		
17:32	MP11929-MB3	1		
17:37	MP11929-B3	1		
17:42	ZZZZZZ	1		
17:47	MP11928-MB3	5		
17:51	MP11928-B3	5		
17:56	ZZZZZZ	5		
18:01	MA46696-CCVA5	1		
18:06	MA46696-CCB5	1		
18:10	ZZZZZZ	2		
18:15	ZZZZZZ	2		
18:20	JC87686-1	2		
18:25	ZZZZZZ	2		
18:29	JC87686-2	2		
---------->	Last reportable sample/prep for job JC87686			
18:34	ZZZZZZ	2		
18:39	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC87686
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XB051019M2.CSV Date Analyzed: 05/10/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA46696
Parameters: Al,As,Ba,Cd,Fe,Pb

	Time	Sample Description	Dilution Factor	PS Recov	Comments
	18:44	ZZZZZZ	2		
	18:48	ZZZZZZ	2		
	18:53	MA46696-CCVA6	1		
	18:58	MA46696-CCB6	1		
---------->	Last reportable CCB for job JC87686				
	19:03	ZZZZZZ	2		
	19:07	ZZZZZZ	2		
	19:12	ZZZZZZ	2		
	19:17	ZZZZZZ	1		
	19:22	ZZZZZZ	2		
	19:26	ZZZZZZ	2		
	19:31	ZZZZZZ	1		
	19:36	ZZZZZZ	2		
	19:41	ZZZZZZ	2		
	19:45	MA46696-CCVA7	1		
	19:50	MA46696-CCB7	1		
	19:55	ZZZZZZ	2		
	20:00	MP14935-MB1	5		
	20:05	MP14935-B1	5		
	20:09	MP14935-S1	5		
	20:14	MP14935-S2	5		
	20:19	ZZZZZZ	1		
	20:24	JC85493-1AR	5		(sample used for QC only; not part of login JC87686)
	20:28	MP14935-SD1	25		
	20:33	ZZZZZZ	5		
	20:38	MA46696-CCVA8	1		
	20:42	MA46696-CCB8	1		
	20:47	MP14888-MB1	1		
	20:52	MP14888-B1	1		
	20:57	MP14888-S1	1		overrange
	21:01	MP14888-S2	1		overrange
	21:06	ZZZZZZ	1		
	21:11	JC87629-4	1		(sample used for QC only; not part of login JC87686)
	21:16	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC87686
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XB051019M2.CSV Date Analyzed: 05/10/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA46696
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Dilution Factor	PS Recov	Comments
21:20	ZZZZZZ	1		
21:25	ZZZZZZ	1		
21:30	MA46696-CCVA9	1		
21:34	MA46696-CCB9	1		
21:39	ZZZZZZ	1		
21:44	ZZZZZZ	1		
21:49	ZZZZZZ	1		
21:53	ZZZZZZ	1		
21:58	ZZZZZZ	1		
22:03	ZZZZZZ	1		
22:08	MA46696-CCVA10	1		
22:12	MA46696-CCB10	1		
22:17	ZZZZZZ	1		
22:22	ZZZZZZ	1		
22:27	ZZZZZZ	1		

Refer to raw data for calibration curve and standards.

REPORTED ELEMENTS SUMMARY

Login Number: JC87686
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XB051019M2.CSV Date Analyzed: 05/10/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA46696
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Element: Dilution	Al	As	Ba	Cd	Fe	Pb	
14:31	MA46696-ICVA1	1	X	X	X	X	X	X	
14:36	MA46696-ICV1	1	X						
14:41	MA46696-ICB1	1	X	X	X	X	X	X	
14:46	MA46696-CCVA1	1	X	X	X	X	X	X	
14:50	MA46696-CCB1	1	X	X	X	X	X	X	
14:55	MA46696-CRI1	1	X	X	X	X	X	X	
15:00	MA46696-ICSA1	1	See rerun						
15:05	MA46696-ICSAB1	1	X	X	X	X	X	X	
15:09	ZZZZZZ	1							
15:15	MA46696-ICSA2	1	X	X	X	X	X	X	
15:20	MA46696-CCVA2	1	X	X	X	X	X	X	
15:25	MA46696-CCB2	1	X	X	X	X	X	X	
15:29	MP14909-MB1	2	X	X	X	X	X	X	
15:34	MP14909-MB2	2	X	X	X	X	X	X	
15:39	MP14909-B2	2	X	X	X	X	X	X	
15:44	MP14909-B3	25	X	X	X	X	X	X	
15:48	ZZZZZZ	2							
15:53	ZZZZZZ	2							
16:02	MP14909-MB1	2	Confirmation						
16:06	MP14909-MB2	2	Confirmation						
16:11	MP14909-S3	2	X	X	X	X	X	X	
16:16	MA46696-CCVA3	1	X	X	X	X	X	X	
16:21	MA46696-CCB3	1	X	X	X	X	X	X	
16:25	ZZZZZZ	2							
16:30	JC87783-12	2		X					(a)
16:35	MP14909-S4	2	X	X	X	X	X	X	
16:40	MP14909-SD1	10	X	X	X	X	X	X	
16:44	ZZZZZZ	5							
16:49	ZZZZZZ	1							
16:54	ZZZZZZ	1							
16:59	ZZZZZZ	2							
17:04	ZZZZZZ	2							
17:08	MA46696-CCVA4	1	X	X	X	X	X	X	
		Element:	Al	As	Ba	Cd	Fe	Pb	

REPORTED ELEMENTS SUMMARY

Login Number: JC87686
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XB051019M2.CSV Date Analyzed: 05/10/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA46696
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Element: Dilution	Al	As	Ba	Cd	Fe	Pb
17:13	MA46696-CCB4	1	X	X	X	X	X	X
17:18	MP11926-MB3	2	X	X	X	X	X	X
17:23	MP11926-B3	2	X	X	X	X	X	X
17:27	ZZZZZZ	2						
17:32	MP11929-MB3	1	X	X	X	X	X	X
17:37	MP11929-B3	1	X	X	X	X	X	X
17:42	ZZZZZZ	1						
17:47	MP11928-MB3	5	X	X	X	X	X	X
17:51	MP11928-B3	5	X	X	X	X	X	X
17:56	ZZZZZZ	5						
18:01	MA46696-CCVA5	1	X	X	X	X	X	X
18:06	MA46696-CCB5	1	X	X	X	X	X	X
18:10	ZZZZZZ	2						
18:15	ZZZZZZ	2						
18:20	JC87686-1	2	X	X	X	X	X	X
18:25	ZZZZZZ	2						
18:29	JC87686-2	2	X	X	X	X	X	X
18:34	ZZZZZZ	2						
18:39	ZZZZZZ	1						
18:44	ZZZZZZ	2						
18:48	ZZZZZZ	2						
18:53	MA46696-CCVA6	1	X	X	X	X	X	X
18:58	MA46696-CCB6	1	X	X	X	X	X	X
19:03	ZZZZZZ	2						
19:07	ZZZZZZ	2						
19:12	ZZZZZZ	2						
19:17	ZZZZZZ	1						
19:22	ZZZZZZ	2						
19:26	ZZZZZZ	2						
19:31	ZZZZZZ	1						
19:36	ZZZZZZ	2						
19:41	ZZZZZZ	2						
19:45	MA46696-CCVA7	1	X	X	X	X	X	X
		Element:	Al	As	Ba	Cd	Fe	Pb

REPORTED ELEMENTS SUMMARY

Login Number: JC87686
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XB051019M2.CSV Date Analyzed: 05/10/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA46696
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Element: Dilution	Al	As	Ba	Cd	Fe	Pb	
19:50	MA46696-CCB7	1	X	X	X	X	X	X	
19:55	ZZZZZZ	2							
20:00	MP14935-MB1	5							
20:05	MP14935-B1	5							
20:09	MP14935-S1	5							
20:14	MP14935-S2	5							
20:19	ZZZZZZ	1							
20:24	JC85493-1AR	5							(a)
20:28	MP14935-SD1	25							
20:33	ZZZZZZ	5							
20:38	MA46696-CCVA8	1	X	X	X	X	X	X	
20:42	MA46696-CCB8	1	X	X	X	X	X	X	
20:47	MP14888-MB1	1						X	
20:52	MP14888-B1	1						X	
20:57	MP14888-S1	1	overrange						
21:01	MP14888-S2	1	overrange						
21:06	ZZZZZZ	1							
21:11	JC87629-4	1	overrange						
21:16	ZZZZZZ	1							
21:20	ZZZZZZ	1							
21:25	ZZZZZZ	1							
21:30	MA46696-CCVA9	1			X			X	
21:34	MA46696-CCB9	1			X			X	
21:39	ZZZZZZ	1							
21:44	ZZZZZZ	1							
21:49	ZZZZZZ	1							
21:53	ZZZZZZ	1							
21:58	ZZZZZZ	1							
22:03	ZZZZZZ	1							
22:08	MA46696-CCVA10	1			X			X	
22:12	MA46696-CCB10	1			X			X	
22:17	ZZZZZZ	1							
22:22	ZZZZZZ	1							
		Element:	Al	As	Ba	Cd	Fe	Pb	

REPORTED ELEMENTS SUMMARY

Login Number: JC87686
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XB051019M2.CSV Date Analyzed: 05/10/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA46696
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Element: Dilution	Al	As	Ba	Cd	Fe	Pb
22:27	ZZZZZZ	1						

(a) Sample used for QC only; not part of login JC87686.

Element: Al As Ba Cd Fe Pb

INTERNAL STANDARD SUMMARY

Login Number: JC87686
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XB051019M2.CSV Date Analyzed: 05/10/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA46696
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8
13:15	MA46696-STD1	100	100	100	100	100	100	100	100
13:20	MA46696-STD2	100	100	100	100	100	100	100	100
13:24	MA46696-STD3	100	100	100	100	100	100	100	100
13:29	MA46696-STD4	101.415	100.959	99.848	99.365	101.352	100.482	99.78	100.12
13:34	MA46696-STD5	101.721	101.099	99.476	98.64	101.941	100.374	99.992	99.285
13:39	MA46696-STD6	103.261	102.67	99.573	99.053	101.108	99.506	99.839	99.285
13:44	MA46696-STD7	103.108	101.416	99.534	98.995	102.485	100.409	99.719	101.332
13:48	MA46696-STD8	103.855	101.479	101.149	99.426	103.14	101.072	99.674	100.676
13:53	MA46696-STD9	101.633	100.693	100.151	98.271	99.6	100.3	100.109	98.064
13:58	MA46696-STD10	102.232	100.209	101.912	99.553	102.913	101.7	101.898	96.031
14:03	MA46696-STD11	102.029	100.542	102.898	99.375	100.445	101.704	99.635	95.203
14:07	MA46696-STD12	101.173	101.123	103.347	100.18	98.237	100.942	99.275	94.036
14:12	MA46696-STD13	100	100	100	100	100	100	100	100
14:22	MA46696-STD14	103.083	100.932	102.078	100.759	100.607	101.514	102.168	99.697
14:31	MA46696-ICVA1	100.754	101.942	104.497	102.52	101.667	104.871	102.505	98.522
14:36	MA46696-ICV1	101.223	101.163	101.993	101.228	100.172	100.602	102.158	100.357
14:41	MA46696-ICB1	102.733	102.504	102.012	101.557	100.799	101.648	101.577	100.243
14:46	MA46696-CCVA1	101.713	102.986	104.41	101.682	102.668	103.932	101.638	99.593
14:50	MA46696-CCB1	101.697	100.859	100.224	100.381	99.387	98.993	100.123	99.732
14:55	MA46696-CRI1	102.606	102.698	102.955	100.92	100.502	101.718	101.318	101.469
15:00	MA46696-ICSA1	No results reported for the elements associated with this internal standard.							
15:05	MA46696-ICSAB1	80.76	85.656	89.252	88.819	83.853	88.683	85.659	79.376
15:09	ZZZZZZ	82.073	85.594	84.351	94.632	88.909	87.868	89.447	92.97
15:15	MA46696-ICSA2	79.24	84.25	86.705	92.694	83.868	85.105	88.051	78.76
15:20	MA46696-CCVA2	82.659	87.172	88.705	91.668	92.66	91.67	92.397	91.917
15:25	MA46696-CCB2	84.559	87.404	85.676	91.433	90.277	88.67	92.785	93.306
15:29	MP14909-MB1	82.749	86.954	83.567	89.535	91.102	88.98	98.062	91.417
15:34	MP14909-MB2	84.251	88.406	85.12	91.071	93.245	89.4	99.195	92.063
15:39	MP14909-B2	84.402	90.604	87.601	91.565	95.208	91.005	99.894	92.205
15:44	MP14909-B3	92.631	96.224	95.05	95.184	98.635	95.808	95.462	98.393
15:48	ZZZZZZ	84.85	87.808	85.375	91.015	92.469	89.522	100.62	92.21
15:53	ZZZZZZ	87.833	90.61	86.357	93.58	94.496	91.466	101.131	92.618
16:02	MP14909-MB1	No results reported for the elements associated with this internal standard.							

INTERNAL STANDARD SUMMARY

Login Number: JC87686
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XB051019M2.CSV Date Analyzed: 05/10/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA46696
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8
16:06	MP14909-MB2	No results reported for the elements associated with this internal standard.							
16:11	MP14909-S3	85.091	90.69	89.698	92.286	92.07	91.434	100.208	84.239
16:16	MA46696-CCVA3	93.028	96.239	97.61	96.409	97.128	97.746	97.075	95.143
16:21	MA46696-CCB3	94.601	94.62	93.509	95.411	95.157	92.849	94.722	94.985
16:25	ZZZZZZ	85.171	90.271	89.336	90.628	89.766	88.69	103.238	84.84
16:30	JC87783-12	84.357	88.779	87.054	90.476	89.723	90.216	100.506	84.781
16:35	MP14909-S4	84.157	89.527	87.765	91.006	90.495	89.523	98.563	84.352
16:40	MP14909-SD1	92.594	92.558	90.952	91.569	93.77	91.416	91.367	91.359
16:44	ZZZZZZ	87.691	89.503	88.166	90.311	89.481	88.231	94.86	87.581
16:49	ZZZZZZ	93.638	91.013	80.004	91.718	91.859	80.45	92.289	92.207
16:54	ZZZZZZ	93.415	90.696	89.816	90.566	90.456	89.476	91.733	91.647
16:59	ZZZZZZ	94.927	90.291	91.673	73.658	91.335	92.139	81.605	92.248
17:04	ZZZZZZ	88.708	88.441	85.847	90.268	90.635	88.863	102.989	89.949
17:08	MA46696-CCVA4	91.29	90.662	92.337	90.931	92.425	91.607	92.171	91.198
17:13	MA46696-CCB4	92.146	90.256	89.483	90.87	91.001	89.855	90.54	92.038
17:18	MP11926-MB3	88.363	88.547	86.45	90.759	90.325	88.153	101.554	90.227
17:23	MP11926-B3	88.763	90.249	87.961	92.218	92.234	90.037	101.763	90.035
17:27	ZZZZZZ	90.019	89.548	86.553	90.752	91.955	88.793	100.495	90.893
17:32	MP11929-MB3	95.394	92.278	91.449	91.04	90.803	90.372	90.193	92.197
17:37	MP11929-B3	94.795	92.943	92.268	90.546	92.758	90.762	90.413	93.496
17:42	ZZZZZZ	92.425	90.414	89.192	89.126	89.696	89.015	90.144	91.35
17:47	MP11928-MB3	93.797	89.22	88.333	89.061	89.109	87.615	89.851	90.403
17:51	MP11928-B3	91.408	90.219	89.169	89.68	90.03	88.151	91.076	88.953
17:56	ZZZZZZ	92.237	89.023	88.781	88.571	88.949	87.252	89.813	89.258
18:01	MA46696-CCVA5	91.655	90.684	89.92	88.802	90.233	89.343	88.743	88.007
18:06	MA46696-CCB5	91.1	87.608	86.545	87.565	86.86	85.849	87.134	88.837
18:10	ZZZZZZ	84.595	86.417	84.156	87.403	86.226	85.884	98.744	80.142
18:15	ZZZZZZ	86.97	87.663	85.564	88.515	89.173	87.368	96.669	93.67
18:20	JC87686-1	84.335	85.462	84.439	88.263	87.12	86.622	96.812	84.64
18:25	ZZZZZZ	90.459	87.678	86.685	86.197	86.614	85.28	87.273	90.213
18:29	JC87686-2	83.419	83.842	83.572	87.189	86.275	85.029	96.668	83.085
18:34	ZZZZZZ	82.656	84.013	81.272	85.575	84.327	82.126	94.774	81.439
18:39	ZZZZZZ	90.028	86.291	85.123	85.402	86.403	84.281	87.865	87.519

INTERNAL STANDARD SUMMARY

Login Number: JC87686
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XB051019M2.CSV Date Analyzed: 05/10/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA46696
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8
18:44	ZZZZZZ	81.615	83.204	80.994	85.409	84.172	82.569	95.128	81.787
18:48	ZZZZZZ	83.122	83.58	83.285	86.435	83.99	83.442	94.431	82.173
18:53	MA46696-CCVA6	89.001	87.018	86.495	83.945	86.755	86.5	85.43	86.854
18:58	MA46696-CCB6	88.301	83.436	77.024	82.707	84.097	76.063	82.457	84.281
19:03	ZZZZZZ	83.383	82.398	79.866	84.389	83.994	83.232	93.399	81.925
19:07	ZZZZZZ	78.412	79.034	77.407	79.144	78.685	77.637	86.896	73.898
19:12	ZZZZZZ	76.899	77.179	77.154	78.565	77.805	78.195	86.179	73.698
19:17	ZZZZZZ	83.968	79.169	79.749	77.899	80.216	79.132	78.297	83.25
19:22	ZZZZZZ	76.164	78.591	77.969	80.794	80.173	81.738	88.633	76.717
19:26	ZZZZZZ	81.512	78.681	93.06	75.962	70.361	79.87	74.923	58.478 !a
19:31	ZZZZZZ	95.206	83.308	85.19	74.354	81.589	82.05	74.327	82.004
19:36	ZZZZZZ	78.656	76.007	89.916	75.346	69.351 !a	80.169	73.699	58.805 !a
19:41	ZZZZZZ	73.815	72.714	74.339	69.83 !a	71.88	74.12	75.545	67.217 !a
19:45	MA46696-CCVA7	80.147	72.286	76.78	70.149	74.7	78.02	70.133	75.594
19:50	MA46696-CCB7	80.201	70.671	75.234	68.694 !a	72.535	74.402	70.027	74.03
19:55	ZZZZZZ	74.125	72.039	75.575	41.881 !a	71.188	75.04	50.927 !a	66.999 !a
20:00	MP14935-MB1	85.068	76.417	78.841	72.94	77.047	78.282	73.928	78.746
20:05	MP14935-B1	81.295	75.104	78.201	71.746	75.274	77.307	72.128	76.885
20:09	MP14935-S1	77.075	84.029	90.075	80.457	76.074	80.321	73.152	75.425
20:14	MP14935-S2	76.686	84.221	89.228	81.374	75.487	79.896	73.194	74.6
20:19	ZZZZZZ	77.994	73.876	76.27	71.899	74.758	76.445	73.056	78.387
20:24	JC85493-1AR	77.46	83.823	89.749	81.466	74.86	80.177	73.146	74.409
20:28	MP14935-SD1	81.658	77.603	83.731	75.806	76.267	80.356	73.441	77.893
20:33	ZZZZZZ	76.914	83.325	89.323	81.526	74.579	79.197	73.013	74.561
20:38	MA46696-CCVA8	78.638	75.412	80.024	74.946	76.496	79.201	74.183	77.311
20:42	MA46696-CCB8	79.8	74.609	76.8	46.819 !a	76.239	76.862	50.911 !a	75.831
20:47	MP14888-MB1	79.975	74.45	77.991	73.321	76.063	77.337	73.521	78.356
20:52	MP14888-B1	81.988	75.344	78.503	73.079	78.817	79.015	73.887	78.986
20:57	MP14888-S1	No results reported for the elements associated with this internal standard.							
21:01	MP14888-S2	No results reported for the elements associated with this internal standard.							
21:06	ZZZZZZ	77.342	71.485	74.717	71.413	73.207	75.116	71.672	75.749
21:11	JC87629-4	No results reported for the elements associated with this internal standard.							
21:16	ZZZZZZ	No results reported for the elements associated with this internal standard.							

INTERNAL STANDARD SUMMARY

Login Number: JC87686
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XB051019M2.CSV Date Analyzed: 05/10/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA46696
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8
21:20	ZZZZZZ	No results reported for the elements associated with this internal standard.							
21:25	ZZZZZZ	77.269	72.82	77.264	72.508	74.123	79.78	74.398	75.037
21:30	MA46696-CCVA9	77.422	72.839	77.809	71.509	75.571	77.3	71.578	73.993
21:34	MA46696-CCB9	77.406	72.083	74.707	71.714	72.792	74.464	71.383	75.757
21:39	ZZZZZZ	78.794	73.716	77.546	72.451	74.328	77.17	72.705	75.72
21:44	ZZZZZZ	78.685	73.088	77.458	71.889	74.995	78.222	72.842	73.448
21:49	ZZZZZZ	79.381	73.477	75.037	71.897	71.203	74.286	71.289	76.028
21:53	ZZZZZZ	77.431	72.346	77.28	64.185	71.781	77.0319	60.496	75.056
21:58	ZZZZZZ	78.321	72.124	74.549	71.436	73.73	73.569	71	74.928
22:03	ZZZZZZ	79.242	72.339	74.754	71.029	72.351	73.694	69.549	75.117
22:08	MA46696-CCVA10	79.762	73.908	77.25	72.837	73.811	75.889	71.537	75.32
22:12	MA46696-CCB10	79.886	73.279	74.906	72.066	73.507	74.278	71.38	73.871
22:17	ZZZZZZ	80.367	73.832	75.58	71.173	73.052	74.446	71.152	76.539
22:22	ZZZZZZ	80.858	72.894	75.492	71.54	73.831	75.096	71.135	74.259
22:27	ZZZZZZ	80.042	72.993	75.073	61.939	71.911	74.123	65.239	75.273

! = Outside limits.

LEGEND:

Istd#	Parameter	Limits
Istd#1	Lithium	60-125 %
Istd#2	Scandium (45-1)	60-125 %
Istd#3	Scandium (45-2)	60-125 %
Istd#4	Scandium (45-3)	60-125 %
Istd#5	Germanium (74-1)	60-125 %
Istd#6	Germanium (74-2)	60-125 %
Istd#7	Germanium (74-3)	60-125 %
Istd#8	Rhodium (103-1)	60-125 %

(a) No samples reported for the elements associated with this internal standard.

INTERNAL STANDARD SUMMARY

Login Number: JC87686
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XB051019M2.CSV Date Analyzed: 05/10/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA46696
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16
13:15	MA46696-STD1	100	100	100	100	100	100	100	100
13:20	MA46696-STD2	100	100	100	100	100	100	100	100
13:24	MA46696-STD3	100	100	100	100	100	100	100	100
13:29	MA46696-STD4	100.643	100.129	100.429	100.138	101.567	99.679	99.728	100.921
13:34	MA46696-STD5	100.158	98.996	99.639	99.609	99.561	98.468	98.46	98.704
13:39	MA46696-STD6	99.572	99.412	98.421	99.416	100.737	99.138	99.016	99.084
13:44	MA46696-STD7	100.339	99.453	100.795	99.785	100.19	99.407	99.297	99.356
13:48	MA46696-STD8	100.848	98.409	101.307	100.672	102.454	100.304	98.361	103.019
13:53	MA46696-STD9	99.366	98.321	99.649	99.094	97.395	98.78	98.417	97.517
13:58	MA46696-STD10	99.623	98.841	98.375	99.645	98.311	100.333	98.701	98.228
14:03	MA46696-STD11	99.746	95.948	96.833	100.295	98.739	101.322	97.511	98.117
14:07	MA46696-STD12	97.609	94.41	95.811	98.837	97.157	99.749	98.138	96.327
14:12	MA46696-STD13	100	100	100	100	100	100	100	100
14:22	MA46696-STD14	100.672	99.753	99.935	101.304	98.203	101.11	100.4	98.051
14:31	MA46696-ICVA1	101.692	97.723	100.194	103.806	100.817	106.062	101.246	102.403
14:36	MA46696-ICV1	100.932	99.946	101.133	101.289	99.303	100.865	100.553	99.493
14:41	MA46696-ICB1	100.194	99.712	100.524	101.277	99.181	99.541	99.08	99.333
14:46	MA46696-CCVA1	101.145	96.618	100.208	102.653	101.176	103.887	100.075	102.276
14:50	MA46696-CCB1	99.624	99.569	99.705	99.715	97.773	99.823	99.084	97.867
14:55	MA46696-CRI1	100.344	98.934	99.878	101.357	99.818	100.167	98.447	99.643
15:00	MA46696-ICSA1	No results reported for the elements associated with this internal standard.							
15:05	MA46696-ICSAB1	83.078	79.948	82.645	87.954	87.28	92.284	90.426	87.817
15:09	ZZZZZZ	91.221	97.392	94.059	91.235	95.942	94.41	100.409	95.836
15:15	MA46696-ICSA2	80.731	83.031	82.231	84.797	87.366	89.884	94.427	87.017
15:20	MA46696-CCVA2	92.681	91.584	94.702	93.199	98.739	98.697	97.158	97.646
15:25	MA46696-CCB2	91.682	93.815	94.74	91.881	96.562	94.085	95.914	97.28
15:29	MP14909-MB1	89.721	91.851	93.888	88.496	97.175	92.948	95.743	96.758
15:34	MP14909-MB2	91.062	93.373	94.066	88.137	97.278	93.696	96.57	96.758
15:39	MP14909-B2	91.612	92.085	94.598	90.361	98.829	95.42	96.08	98.348
15:44	MP14909-B3	97.37	94.986	99.284	98.16	100.466	100.107	97.428	100.599
15:48	ZZZZZZ	90.188	92.134	92.542	87.963	94.92	92.213	94.983	95.35
15:53	ZZZZZZ	91.861	94.222	94.5	90.026	96.497	94.249	96.718	95.785
16:02	MP14909-MB1	No results reported for the elements associated with this internal standard.							

INTERNAL STANDARD SUMMARY

Login Number: JC87686
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XB051019M2.CSV Date Analyzed: 05/10/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA46696
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16
16:06	MP14909-MB2	No results reported for the elements associated with this internal standard.							
16:11	MP14909-S3	85.971	85.934	89.456	88.029	94.442	95.251	94.098	94.728
16:16	MA46696-CCVA3	96.481	93.61	97.534	97.342	98.619	100.57	97.604	98.816
16:21	MA46696-CCB3	93.985	94.645	95.212	94.001	94.91	94.909	94.752	94.354
16:25	ZZZZZZ	85.844	84.043	88.86	87.884	93.643	94.175	91.551	94.266
16:30	JC87783-12	84.815	84.395	88.524	87.292	92.745	93.633	91.758	93.58
16:35	MP14909-S4	84.402	83.848	88.068	85.943	93.068	93.197	92.286	93.683
16:40	MP14909-SD1	89.995	89.002	93.778	92.259	94.514	94.587	92.732	94.708
16:44	ZZZZZZ	87.354	87.447	91.156	88.278	92.481	92.049	91.987	92.789
16:49	ZZZZZZ	80.76	90.386	92.456	81.364	92.338	81.661	91.528	92.188
16:54	ZZZZZZ	91.135	90.401	92.07	91.347	91.644	92.198	91.082	91.222
16:59	ZZZZZZ	91.063	75.213	92.494	93.682	91.098	93.142	75.864	90.997
17:04	ZZZZZZ	88.181	89.482	90.716	86.27	92.473	91.015	91.611	92.152
17:08	MA46696-CCVA4	91.046	87.712	93.014	92.159	93.638	95.317	91.056	95.139
17:13	MA46696-CCB4	90.357	89.827	92.843	90.913	90.12	91.377	90.25	89.672
17:18	MP11926-MB3	88.574	89.589	89.427	86.693	92.098	89.97	91.094	91.273
17:23	MP11926-B3	89.102	89.106	91.873	88.244	93.218	92.05	91.515	93.087
17:27	ZZZZZZ	87.993	88.922	90.679	86.358	92.589	89.534	89.987	93.145
17:32	MP11929-MB3	90.922	89.605	93.411	91.343	90.485	91.479	90.26	89.901
17:37	MP11929-B3	91.113	88.144	91.911	92.463	93.672	94.196	91.123	93.078
17:42	ZZZZZZ	89.805	88.531	91.143	91.45	92.115	92.433	89.987	90.896
17:47	MP11928-MB3	88.441	88.606	89.916	89.362	90.023	90.046	89.386	89.014
17:51	MP11928-B3	88.178	86.794	90.324	89.07	91.721	92.004	90.476	90.659
17:56	ZZZZZZ	87.956	87.063	89.728	89.48	89.421	89.908	88.489	88.856
18:01	MA46696-CCVA5	88.444	85.634	89.207	90.591	89.834	92.608	88.86	89.526
18:06	MA46696-CCB5	86.443	86.588	87.835	87.522	87.831	88.195	87.882	86.253
18:10	ZZZZZZ	80.819	80.533	84.124	83.131	87.167	88.003	87.402	87.279
18:15	ZZZZZZ	84.168	83.419	96.666	85.378	101.133	90.053	89.418	90.203
18:20	JC87686-1	83.887	84.224	87.112	85.662	89.739	89.609	89.111	89.781
18:25	ZZZZZZ	87.035	86.264	88.181	88.208	89.233	88.679	87.852	86.915
18:29	JC87686-2	82.782	83.464	84.858	83.78	87.531	88.316	88.444	87.316
18:34	ZZZZZZ	80.795	80.748	84.575	81.277	88.548	86.889	86.877	87.702
18:39	ZZZZZZ	86.185	85.854	88.447	87.723	88.841	88.799	87.321	88.731

INTERNAL STANDARD SUMMARY

Login Number: JC87686
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XB051019M2.CSV Date Analyzed: 05/10/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA46696
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16
18:44	ZZZZZZ	80.681	81.861	84.058	81.627	88.211	87.153	87.86	88.645
18:48	ZZZZZZ	81.173	82.519	84.716	83.779	87.725	88.321	88.272	87.836
18:53	MA46696-CCVA6	85.986	83.145	87.229	88.487	89.702	92.014	88.052	89.955
18:58	MA46696-CCB6	77.5	83.579	84.975	78.528	86.039	79.952	85.035	85.444
19:03	ZZZZZZ	81.649	82.437	84.703	83.327	87.048	88.763	88.274	87.254
19:07	ZZZZZZ	73.84	73.112	77.409	77.346	82.271	83.824	81.882	82.463
19:12	ZZZZZZ	73.816	73.345	76.952	78.073	81.146	84.4	81.898	82.129
19:17	ZZZZZZ	81.018	79.592	83.913	82.861	81.615	84.486	82.759	82.693
19:22	ZZZZZZ	77.325	76.972	80.361	80.694	84.12	86.521	85.43	85.162
19:26	ZZZZZZ	60.239 !a	54.867 !a	61.634 !a	71.936	62.791 !a	67.62 !a	60.903 !a	61.844 !a
19:31	ZZZZZZ	81.022	74.91	81.785	86.472	79.617	85.036	78.23	79.586
19:36	ZZZZZZ	60.708 !a	55.182 !a	61.836 !a	72.481	63.759 !a	69.743 !a	61.26 !a	62.5 !a
19:41	ZZZZZZ	67.801 !a	63.985 !a	71.297	74.947	75.235	79.903	74.367	75.828
19:45	MA46696-CCVA7	76.416	69.9 !a	76.534	82.994	79.623	85.859	76.556	78.894
19:50	MA46696-CCB7	75.355	71.043	75.703	80.574	76.243	81.537	75.383	76.354
19:55	ZZZZZZ	68.167 !a	37.399 !a	71.045	75.619	75.168	80.188	43.027 !a	75.133
20:00	MP14935-MB1	78.238	73.865	78.335	82.408	79.317	83.444	77.198	79.525
20:05	MP14935-B1	76.796	72.202	76.233	82.041	80.666	84.501	77.361	79.251
20:09	MP14935-S1	76.491	69.714 !a	76.371	82.247	81.583	86.886	77.628	88.059
20:14	MP14935-S2	75.822	69.816 !a	76.846	81.823	81.347	86.169	77.502	87.51
20:19	ZZZZZZ	76.71	73.607	77.899	81.201	77.568	81.769	76.466	77.116
20:24	JC85493-1AR	76.503	70.347	76.041	81.807	79.647	86.055	77.425	86.303
20:28	MP14935-SD1	78.432	73.097	78.152	84.672	78.171	85.846	78.517	78.582
20:33	ZZZZZZ	76.04	70	75.507	81.409	80.61	86.295	77.153	88.859
20:38	MA46696-CCVA8	78.045	73.265	77.881	82.415	81.522	85.501	77.428	81.149
20:42	MA46696-CCB8	77.096	47.621 !a	78.02	81.045	78.619	81.789	49.155 !a	79.031
20:47	MP14888-MB1	77.416	74.134	78.515	81.378	77.019	82.216	76.482	77.168
20:52	MP14888-B1	78.375	74.288	80.195	82.635	79.56	83.141	76.892	80.487
20:57	MP14888-S1	No results reported for the elements associated with this internal standard.							
21:01	MP14888-S2	No results reported for the elements associated with this internal standard.							
21:06	ZZZZZZ	74.659	71.871	75.009	79.098	76.559	79.186	74.644	74.538
21:11	JC87629-4	No results reported for the elements associated with this internal standard.							
21:16	ZZZZZZ	No results reported for the elements associated with this internal standard.							

INTERNAL STANDARD SUMMARY

Login Number: JC87686
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XB051019M2.CSV Date Analyzed: 05/10/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA46696
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16
21:20	ZZZZZZ	No results reported for the elements associated with this internal standard.							
21:25	ZZZZZZ	75.989	71.189	75.989	81.923	77.536	84.095	76.064	77.212
21:30	MA46696-CCVA9	75.825	70.429	76.151	80.506	78.533	82.879	75.391	80.324
21:34	MA46696-CCB9	75.007	72.294	75.54	78.458	75.176	78.443	74.365	76.482
21:39	ZZZZZZ	76.068	71.9	76.265	80.766	77.429	82.635	76.257	76.992
21:44	ZZZZZZ	76.064	70.971	76.838	81.897	76.99	83.1	75.642	76.331
21:49	ZZZZZZ	74.787	72.172	74.123	78.255	74.787	78.79	73.726	72.481
21:53	ZZZZZZ	75.908	63.28	74.379	80.915	75.712	82.536	66.954	74.409
21:58	ZZZZZZ	74.643	71.72	76.218	78.588	75.145	78.856	74.488	76.23
22:03	ZZZZZZ	74.047	70.91	74.639	77.51	75.4	77.762	73.199	74.107
22:08	MA46696-CCVA10	74.932	70.237	74.033	79.406	77.346	81.859	75.171	76.136
22:12	MA46696-CCB10	74.427	71.438	74.846	77.83	75.028	77.664	73.341	73.66
22:17	ZZZZZZ	74.709	71.518	76.043	77.956	74.296	78.33	73.579	74.344
22:22	ZZZZZZ	74.744	71.022	74.768	78.703	74.789	78.52	73.002	74.581
22:27	ZZZZZZ	74.428	62.742	73.824	78.03	74.616	78.348	64.423	72.465

! = Outside limits.

LEGEND:

Istd#	Parameter	Limits
Istd#9	Rhodium (103-2)	60-125 %
Istd#10	Rhodium (103-3)	60-125 %
Istd#11	Indium (115-1)	60-125 %
Istd#12	Indium (115-2)	60-125 %
Istd#13	Terbium (159-1)	60-125 %
Istd#14	Terbium (159-2)	60-125 %
Istd#15	Terbium (159-3)	60-125 %
Istd#16	Holmium (165-1)	60-125 %

(a) No samples reported for the elements associated with this internal standard.

INTERNAL STANDARD SUMMARY

Login Number: JC87686
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XB051019M2.CSV Date Analyzed: 05/10/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA46696
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Istd#17	Istd#18	Istd#19
13:15	MA46696-STD1	100	100	100
13:20	MA46696-STD2	100	100	100
13:24	MA46696-STD3	100	100	100
13:29	MA46696-STD4	100.543	100.287	100.206
13:34	MA46696-STD5	97.83	97.847	99
13:39	MA46696-STD6	97.982	99.662	98.709
13:44	MA46696-STD7	98.778	99.968	99.244
13:48	MA46696-STD8	99.808	101.017	100.17
13:53	MA46696-STD9	98.111	95.97	98.274
13:58	MA46696-STD10	100.365	94.436	98.806
14:03	MA46696-STD11	100.58	92.922	97.535
14:07	MA46696-STD12	99.632	92.247	95.687
14:12	MA46696-STD13	100	100	100
14:22	MA46696-STD14	102.149	99.919	102.207
14:31	MA46696-ICVA1	107.807	99.133	104.341
14:36	MA46696-ICV1	101.297	100.707	100.592
14:41	MA46696-ICB1	100.342	100.418	101.076
14:46	MA46696-CCVA1	104.09	98.203	100.747
14:50	MA46696-CCB1	100.045	99.88	99.597
14:55	MA46696-CRI1	100.148	101.476	99.942
15:00	MA46696-ICSA1	No results reported for the elements associated with this internal standard.		
15:05	MA46696-ICSAB1	92.311	82.04	84.818
15:09	ZZZZZZ	95.518	99.111	96.69
15:15	MA46696-ICSA2	90.212	81.035	82.467
15:20	MA46696-CCVA2	99.571	97.406	97.941
15:25	MA46696-CCB2	95.377	99.77	96.714
15:29	MP14909-MB1	93.27	97.818	94.108
15:34	MP14909-MB2	94.736	97.705	93.738
15:39	MP14909-B2	96.068	97.225	94.321
15:44	MP14909-B3	100.036	101.989	100.348
15:48	ZZZZZZ	92.316	96.007	92.474
15:53	ZZZZZZ	93.386	95.655	93.205
16:02	MP14909-MB1	No results reported for the elements associated with this internal standard.		

INTERNAL STANDARD SUMMARY

Login Number: JC87686
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XB051019M2.CSV Date Analyzed: 05/10/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA46696
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Istd#17	Istd#18	Istd#19
16:06	MP14909-MB2	No results reported for the elements associated with this internal standard.		
16:11	MP14909-S3	96.113	87.462	87.921
16:16	MA46696-CCVA3	101.278	97.058	98.545
16:21	MA46696-CCB3	95.355	95.921	94.81
16:25	ZZZZZZ	95.22	87.219	87.627
16:30	JC87783-12	95.023	86.489	86.97
16:35	MP14909-S4	94.373	86.94	86.086
16:40	MP14909-SD1	94.184	94.17	91.722
16:44	ZZZZZZ	92.772	91.302	88.912
16:49	ZZZZZZ	81.499	93.64	82.226
16:54	ZZZZZZ	92.041	92.288	92.5
16:59	ZZZZZZ	94.032	93.413	94.086
17:04	ZZZZZZ	90.964	92.309	89.852
17:08	MA46696-CCVA4	95.526	92.432	93.097
17:13	MA46696-CCB4	90.885	91.811	92.167
17:18	MP11926-MB3	89.685	91.423	89.769
17:23	MP11926-B3	93.104	91.994	90.519
17:27	ZZZZZZ	88.685	91.337	88.113
17:32	MP11929-MB3	90.977	91.729	91.462
17:37	MP11929-B3	94.725	91.993	92.367
17:42	ZZZZZZ	92.104	91.1	91.787
17:47	MP11928-MB3	90.187	90.375	90.759
17:51	MP11928-B3	92.917	90.368	90.488
17:56	ZZZZZZ	89.682	89.117	89.849
18:01	MA46696-CCVA5	92.798	89.366	90.134
18:06	MA46696-CCB5	87.881	89.567	87.895
18:10	ZZZZZZ	88.595	81.943	81.922
18:15	ZZZZZZ	90.434	86.744	85.417
18:20	JC87686-1	89.931	87.125	86.089
18:25	ZZZZZZ	88.621	89.675	88.294
18:29	JC87686-2	88.195	85.108	84.973
18:34	ZZZZZZ	87.631	85.006	82.822
18:39	ZZZZZZ	88.561	86.826	88.591

INTERNAL STANDARD SUMMARY

Login Number: JC87686
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XB051019M2.CSV Date Analyzed: 05/10/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA46696
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Istd#17	Istd#18	Istd#19
18:44	ZZZZZZ	88.034	85.086	83.252
18:48	ZZZZZZ	89.758	84.526	84.89
18:53	MA46696-CCVA6	92.473	87.84	89.18
18:58	MA46696-CCB6	79.973	86.652	79.751
19:03	ZZZZZZ	88.894	85.281	85.64
19:07	ZZZZZZ	84.087	75.461	75.884
19:12	ZZZZZZ	84.624	76.329	77.795
19:17	ZZZZZZ	84.672	84.816	85.288
19:22	ZZZZZZ	87.837	82.683	83.764
19:26	ZZZZZZ	67.501 !a	49.691 !a	52.317 !a
19:31	ZZZZZZ	84.673	80.171	85.077
19:36	ZZZZZZ	69.374 !a	50.631 !a	54.092 !a
19:41	ZZZZZZ	80.176	67.812 !a	70.87
19:45	MA46696-CCVA7	86.569	78.22	84.079
19:50	MA46696-CCB7	81.529	77.831	81.903
19:55	ZZZZZZ	81.096	67.576 !a	70.835
20:00	MP14935-MB1	83.423	79.554	83.982
20:05	MP14935-B1	84.654	79.392	83.608
20:09	MP14935-S1	94.902	75.935	80.517
20:14	MP14935-S2	93.862	76.195	80.526
20:19	ZZZZZZ	80.902	78.765	81.418
20:24	JC85493-1AR	94.109	74.321	79.762
20:28	MP14935-SD1	87.386	78.196	84.536
20:33	ZZZZZZ	95.014	75.715	80.092
20:38	MA46696-CCVA8	85.362	80.173	82.955
20:42	MA46696-CCB8	80.687	76.176	81.096
20:47	MP14888-MB1	81.597	78.263	82.456
20:52	MP14888-B1	82.824	79.027	83.462
20:57	MP14888-S1	No results reported for the elements associated with this internal standard.		
21:01	MP14888-S2	No results reported for the elements associated with this internal standard.		
21:06	ZZZZZZ	79.35	77.328	79.775
21:11	JC87629-4	No results reported for the elements associated with this internal standard.		
21:16	ZZZZZZ	No results reported for the elements associated with this internal standard.		

INTERNAL STANDARD SUMMARY

Login Number: JC87686
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XB051019M2.CSV Date Analyzed: 05/10/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA46696
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Istd#17	Istd#18	Istd#19
21:20	ZZZZZZ	No results reported for the elements associated with this internal standard.		
21:25	ZZZZZZ	83.844	76.257	81.89
21:30	MA46696-CCVA9	83.295	75.814	81.313
21:34	MA46696-CCB9	78.504	76.206	78.342
21:39	ZZZZZZ	82.442	77.151	81.302
21:44	ZZZZZZ	82.812	75.827	82.29
21:49	ZZZZZZ	78.676	77.742	78.671
21:53	ZZZZZZ	83.13	77.106	80.754
21:58	ZZZZZZ	78.751	75.056	78.47
22:03	ZZZZZZ	77.171	75.512	77.331
22:08	MA46696-CCVA10	81.706	76.216	79.025
22:12	MA46696-CCB10	76.824	75.224	77.136
22:17	ZZZZZZ	77.335	75.47	77.869
22:22	ZZZZZZ	77.955	74.167	77.535
22:27	ZZZZZZ	77.817	75.952	77.394

! = Outside limits.

LEGEND:

Istd#	Parameter	Limits
Istd#17	Holmium (165-2)	60-125 %
Istd#18	Bismuth (209-1)	60-125 %
Istd#19	Bismuth (209-2)	60-125 %

(a) No samples reported for the elements associated with this internal standard.

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC87686
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XB051019M2.CSV Date Analyzed: 05/10/19 Methods: EPA 200.8, SW846 6020B
QC Limits: result < RL Run ID: MA46696 Units: ug/l

Time: / Sample ID:			14:41 ICB1		14:50 CCB1		15:25 CCB2		16:21 CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	25	.27	1.91	<25	1.64	<25	3.01	<25	1.69	<25
Antimony	2.0	.061	anr							
Arsenic	0.50	.008	0.0170	<0.50	0.0170	<0.50	0.0209	<0.50	0.0175	<0.50
Barium	1.0	.01	0.0111	<1.0	0.00921	<1.0	0.0115	<1.0	0.00510	<1.0
Beryllium	0.30	.005	anr							
Boron	25	.67	anr							
Cadmium	0.50	.002	0.0108	<0.50	0.0141	<0.50	0.0121	<0.50	0.0197	<0.50
Calcium	250	1.8	anr							
Chromium	1.0	.018	anr							
Cobalt	0.50	.002	anr							
Copper	2.0	.006	anr							
Iron	25	.16	-0.103	<25	0.211	<25	1.91	<25	0.225	<25
Lead	0.50	.004	0.00936	<0.50	0.0136	<0.50	0.0152	<0.50	0.0173	<0.50
Magnesium	250	.14	anr							
Manganese	1.0	.005	anr							
Molybdenum	1.0	.01	anr							
Nickel	1.0	.008	anr							
Potassium	250	1	anr							
Selenium	0.50	.4	anr							
Silver	0.50	.002	anr							
Sodium	250	.28	anr							
Strontium	1.0	.003	anr							
Thallium	0.50	.002	anr							
Tin	5.0	.02	anr							
Titanium	1.0	.02	anr							
Vanadium	1.0	.023	anr							
Zinc	5.0	.023	anr							

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC87686
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XB051019M2.CSV Date Analyzed: 05/10/19 Methods: EPA 200.8, SW846 6020B
QC Limits: result < RL Run ID: MA46696 Units: ug/l

Time: / Sample ID:			17:13 CCB4		18:06 CCB5		18:58 CCB6	
Metal	RL	IDL	raw	final	raw	final	raw	final
Aluminum	25	.27	1.15	<25	1.24	<25	1.77	<25
Antimony	2.0	.061	anr					
Arsenic	0.50	.008	0.0129	<0.50	0.0161	<0.50	0.0227	<0.50
Barium	1.0	.01	0.0171	<1.0	0.0131	<1.0	0.00546	<1.0
Beryllium	0.30	.005	anr					
Boron	25	.67	anr					
Cadmium	0.50	.002	0.00716	<0.50	0.00769	<0.50	0.0136	<0.50
Calcium	250	1.8	anr					
Chromium	1.0	.018	anr					
Cobalt	0.50	.002	anr					
Copper	2.0	.006	anr					
Iron	25	.16	0.356	<25	0.222	<25	0.428	<25
Lead	0.50	.004	0.00962	<0.50	0.0141	<0.50	0.0125	<0.50
Magnesium	250	.14	anr					
Manganese	1.0	.005	anr					
Molybdenum	1.0	.01	anr					
Nickel	1.0	.008	anr					
Potassium	250	1	anr					
Selenium	0.50	.4	anr					
Silver	0.50	.002	anr					
Sodium	250	.28	anr					
Strontium	1.0	.003	anr					
Thallium	0.50	.002	anr					
Tin	5.0	.02	anr					
Titanium	1.0	.02	anr					
Vanadium	1.0	.023	anr					
Zinc	5.0	.023	anr					

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC87686
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XB051019M2.CSV Date Analyzed: 05/10/19 Methods: EPA 200.8, SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA46696 Units: ug/l

Time:		14:31			14:36			14:46	
Sample ID:	ICVA	ICVA1		ICV	ICV1		CCVA	CCVA1	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	5500	5460	99.3	60	63.7	106.2	5000	5000	100.0
Antimony	anr								
Arsenic	60	58.5	97.5				50	48.5	97.0
Barium	60	62.1	103.5				50	50.5	101.0
Beryllium	anr								
Boron	anr								
Cadmium	60	60.5	100.8				50	50.2	100.4
Calcium	anr								
Chromium	anr								
Cobalt	anr								
Copper	anr								
Iron	5500	5410	98.4				5000	4980	99.6
Lead	60	61.7	102.8				50	51.4	102.8
Magnesium	anr								
Manganese	anr								
Molybdenum	anr								
Nickel	anr								
Potassium	anr								
Selenium	anr								
Silver	anr								
Sodium	anr								
Strontium	anr								
Thallium	anr								
Tin	anr								
Titanium	anr								
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC87686
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XB051019M2.CSV Date Analyzed: 05/10/19 Methods: EPA 200.8, SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA46696 Units: ug/l

Time:		15:20			16:16			17:08	
Sample ID:	CCVA	CCVA2		CCVA	CCVA3		CCVA	CCVA4	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	5000	4800	96.0	5000	4910	98.2	5000	5010	100.2
Antimony	anr								
Arsenic	50	49.3	98.6	50	47.7	95.4	50	48.5	97.0
Barium	50	49.8	99.6	50	50.4	100.8	50	49.0	98.0
Beryllium	anr								
Boron	anr								
Cadmium	50	51.8	103.6	50	49.9	99.8	50	49.6	99.2
Calcium	anr								
Chromium	anr								
Cobalt	anr								
Copper	anr								
Iron	5000	5130	102.6	5000	5060	101.2	5000	5150	103.0
Lead	50	51.1	102.2	50	50.5	101.0	50	49.6	99.2
Magnesium	anr								
Manganese	anr								
Molybdenum	anr								
Nickel	anr								
Potassium	anr								
Selenium	anr								
Silver	anr								
Sodium	anr								
Strontium	anr								
Thallium	anr								
Tin	anr								
Titanium	anr								
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC87686
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XB051019M2.CSV Date Analyzed: 05/10/19 Methods: EPA 200.8, SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA46696 Units: ug/l

Time:		18:01			18:53	
Sample ID:	CCVA	CCVA5		CCVA	CCVA6	
Metal	True	Results	% Rec	True	Results	% Rec
Aluminum	5000	5080	101.6	5000	5090	101.8
Antimony	anr					
Arsenic	50	48.0	96.0	50	48.5	97.0
Barium	50	49.4	98.8	50	48.8	97.6
Beryllium	anr					
Boron	anr					
Cadmium	50	48.9	97.8	50	48.7	97.4
Calcium	anr					
Chromium	anr					
Cobalt	anr					
Copper	anr					
Iron	5000	5240	104.8	5000	5320	106.4
Lead	50	49.1	98.2	50	49.4	98.8
Magnesium	anr					
Manganese	anr					
Molybdenum	anr					
Nickel	anr					
Potassium	anr					
Selenium	anr					
Silver	anr					
Sodium	anr					
Strontium	anr					
Thallium	anr					
Tin	anr					
Titanium	anr					
Vanadium	anr					
Zinc	anr					

(*) Outside of QC limits
(anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC87686
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XB051019M2.CSV Date Analyzed: 05/10/19 Methods: EPA 200.8, SW846 6020B
QC Limits: 80 to 120 % Recovery Run ID: MA46696 Units: ug/l

Time:			14:55	
Sample ID:	CRI	CRIA	CRI1	
Metal	True	True	Results	% Rec
Aluminum	25	25	25.4	101.6
Antimony	2.0	0.25	anr	
Arsenic	0.50	0.50	0.512	102.4
Barium	1.0	0.50	1.10	110.0
Beryllium	0.50	0.25	anr	
Boron	25	2.5	anr	
Cadmium	0.50	0.25	0.523	104.6
Calcium	250	125	anr	
Chromium	1.0	2.0	anr	
Cobalt	0.50	0.25	anr	
Copper	2.0	2.0	anr	
Iron	25	25	24.3	97.2
Lead	0.50	0.25	0.517	103.4
Magnesium	250	125	anr	
Manganese	1.0	0.25	anr	
Molybdenum	1.0	0.50	anr	
Nickel	1.0	2.0	anr	
Potassium	250	125	anr	
Selenium	0.50	0.50	anr	
Silver	0.50	1.0	anr	
Sodium	250	125	anr	
Strontium	5.0	0.50	anr	
Thallium	0.50	0.25	anr	
Tin	5.0	0.50	anr	
Titanium	1.0	0.50	anr	
Vanadium	1.0	2.0	anr	
Zinc	5.0	2.0	anr	

(*) Outside of QC limits
(anr) Analyte not requested

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: JC87686
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XB051019M2.CSV Date Analyzed: 05/10/19 Methods: EPA 200.8, SW846 6020B
QC Limits: 80 to 120 % Recovery Run ID: MA46696 Units: ug/l

Time:			15:05		15:15	
Sample ID:	ICSA	ICSAB	ICSAB1		ICSA2	
Metal	True	True	Results	% Rec	Results	% Rec
Aluminum	100000	100000	105000	105.0	100000	100.0
Antimony			0.141		0.135	
Arsenic		20	19.4	97.0	0.0890	
Barium			0.261		0.220	
Beryllium			0.000557		-0.0000729	
Boron		50	50.0	100.0	-0.0481	
Cadmium		20	18.8	94.0	-0.252	
Calcium	100000	100000	111000	111.0	107000	107.0
Chromium		20	20.5	102.5	0.258	
Cobalt		20	20.0	100.0	0.327	
Copper		20	18.8	94.0	0.170	
Iron	100000	100000	98900	98.9	95500	95.5
Lead			0.0841		0.0753	
Magnesium	100000	100000	97500	97.5	93300	93.3
Manganese		20	20.9	104.5	0.264	
Molybdenum	2000	2000	2390	119.5	2310	115.5
Nickel		20	19.5	97.5	0.704	
Potassium	100000	100000	109000	109.0	104000	104.0
Selenium		20	20.2	101.0	0.0967	
Silver		20	20.0	100.0	0.0123	
Sodium	100000	100000	100000	100.0	96100	96.1
Strontium	2000	2000	2380	119.0	2300	115.0
Thallium			-0.000309		0.00219	
Tin	2000	2000	1840	92.0	1800	90.0
Titanium	2000	2000	1920	96.0	1830	91.5
Vanadium		20	21.8	109.0	0.0371	
Zinc		20	17.2	86.0	-0.183	

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: JC87686
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

QC Batch ID: MP14909
Matrix Type: AQUEOUS

Methods: SW846 6020B
Units: ug/l

Prep Date:				05/09/19		05/09/19	
Metal	RL	IDL	MDL	MB raw	final	MB raw	final
Aluminum	50	.54	32	2.6	<50	1.0	<50 (a)
Antimony	4.0	.12	1.7				
Arsenic	1.0	.016	.94	0.14	<1.0	0.078	<1.0 (a)
Barium	2.0	.02	.73	0.097	<2.0	0.061	<2.0 (a)
Beryllium	1.0	.01	.15				
Boron	50	1.3	14				
Cadmium	1.0	.004	.17	-0.0042	<1.0	-0.0061	<1.0 (a)
Calcium	500	3.7	64				
Chromium	2.0	.036	.62				
Cobalt	1.0	.004	.17				
Copper	4.0	.012	1.9				
Iron	50	.31	19	4.9	<50	23.8	<50 (a)
Lead	1.0	.008	.52	0.029	<1.0	0.012	<1.0 (a)
Magnesium	500	.27	46				
Manganese	2.0	.01	.63				
Molybdenum	2.0	.02	.45				
Nickel	2.0	.016	.95				
Potassium	500	2	68				
Selenium	1.0	.8	.55				
Silver	1.0	.004	.16				
Sodium	500	.56	140				
Strontium	10	.006	2.4				
Thallium	1.0	.004	.17				
Tin	10	.07	2.6				
Titanium	2.0	.04	1.6				
Vanadium	2.0	.046	1.8				
Zinc	10	.046	5.4				

Associated samples MP14909: JC87686-1, JC87686-2

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested
(a) Lab filtered.

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC87686
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

QC Batch ID: MP14909
Matrix Type: AQUEOUS

Methods: SW846 6020B
Units: ug/l

Prep Date: 05/09/19

Metal	JC87783-12 Original	MS	Spikelot MP6020AQ3%	Rec	QC Limits
Aluminum	20.5	4010	4000	99.7	75-125
Antimony	anr				
Arsenic	56.1	123	80	83.6	75-125
Barium	98.9	178	80	98.9	75-125
Beryllium	anr				
Boron					
Cadmium	0.0	77.3	80	96.6	75-125
Calcium					
Chromium	anr				
Cobalt					
Copper	anr				
Iron	1540	5750	4000	105.3	75-125
Lead	0.22	85.0	80	106.0	75-125
Magnesium					
Manganese					
Molybdenum					
Nickel	anr				
Potassium					
Selenium	anr				
Silver	anr				
Sodium					
Strontium					
Thallium	anr				
Tin					
Titanium					
Vanadium	anr				
Zinc	anr				

Associated samples MP14909: JC87686-1, JC87686-2

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC87686
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

QC Batch ID: MP14909
Matrix Type: AQUEOUS

Methods: SW846 6020B
Units: ug/l

Prep Date: 05/09/19

Metal	JC87783-12 Original	MSD	Spikelot MP6020AQ3%	Rec	MSD RPD	QC Limit
Aluminum	20.5	4020	4000	100.0	0.2	20
Antimony	anr					
Arsenic	56.1	122	80	82.4	0.8	20
Barium	98.9	179	80	100.1	0.6	20
Beryllium	anr					
Boron						
Cadmium	0.0	77.6	80	97.0	0.4	20
Calcium						
Chromium	anr					
Cobalt						
Copper	anr					
Iron	1540	5830	4000	107.3	1.4	20
Lead	0.22	83.8	80	104.5	1.4	20
Magnesium						
Manganese						
Molybdenum						
Nickel	anr					
Potassium						
Selenium	anr					
Silver	anr					
Sodium						
Strontium						
Thallium	anr					
Tin						
Titanium						
Vanadium	anr					
Zinc	anr					

Associated samples MP14909: JC87686-1, JC87686-2

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: JC87686
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

QC Batch ID: MP14909
Matrix Type: AQUEOUS

Methods: SW846 6020B
Units: ug/l

Prep Date:			05/09/19				05/09/19	
Metal	BSP Result	Spikelot MP6020AQ3% Rec		QC Limits	BSP Result	Spikelot MPSPK2 % Rec		QC Limits
Aluminum	3990	4000	99.8	80-120	24400(a)	25000	97.6	80-120
Antimony	anr							
Arsenic	70.6	80	88.3	80-120	1920 (a)	2000	96.0	80-120
Barium	80.5	80	100.6	80-120	1990 (a)	2000	99.5	80-120
Beryllium	anr							
Boron								
Cadmium	77.5	80	96.9	80-120	2050 (a)	2000	102.5	80-120
Calcium								
Chromium	anr							
Cobalt								
Copper	anr							
Iron	4310	4000	107.8	80-120	23100(a)	25000	92.4	80-120
Lead	81.1	80	101.4	80-120	1980 (a)	2000	99.0	80-120
Magnesium								
Manganese								
Molybdenum								
Nickel	anr							
Potassium								
Selenium	anr							
Silver	anr							
Sodium								
Strontium								
Thallium	anr							
Tin								
Titanium								
Vanadium	anr							
Zinc	anr							

Associated samples MP14909: JC87686-1, JC87686-2

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested
(a) Lab filtered.

SERIAL DILUTION RESULTS SUMMARY

Login Number: JC87686
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

QC Batch ID: MP14909
Matrix Type: AQUEOUS

Methods: SW846 6020B
Units: ug/l

Prep Date: 05/09/19

Metal	JC87783-12 Original	SDL 2:10	%DIF	QC Limits
Aluminum	20.5	18.2	11.5 (a)	0-10
Antimony	anr			
Arsenic	56.1	61.9	10.4*(b)	0-10
Barium	98.9	103	4.3	0-10
Beryllium	anr			
Boron				
Cadmium	0.00	0.169	NC	0-10
Calcium				
Chromium	anr			
Cobalt				
Copper	anr			
Iron	1540	1570	2.4	0-10
Lead	0.223	0.270	20.9 (a)	0-10
Magnesium				
Manganese				
Molybdenum				
Nickel	anr			
Potassium				
Selenium	anr			
Silver	anr			
Sodium				
Strontium				
Thallium	anr			
Tin				
Titanium				
Vanadium	anr			
Zinc	anr			

Associated samples MP14909: JC87686-1, JC87686-2

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested
(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).
(b) Serial dilution indicates possible matrix interference.

Instrument Detection Limits

Job Number: JC87686
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Instrument ID: AGICPMS2 **Effective Date:** 01/31/19

Analyte	IDL ug/l
Aluminum	.371
Aluminum	.272
Antimony	.061
Arsenic	.253
Arsenic	.008
Barium	.01
Beryllium	.005
Boron	.671
Cadmium	.005
Cadmium	.002
Calcium	1.84
Chromium	.147
Chromium	.018
Cobalt	.003
Cobalt	.002
Copper	.018
Copper	.006
Iron	3.211
Iron	.155
Lead	.004
Magnesium	.163
Magnesium	.136
Manganese	.012
Manganese	.005
Molybdenum	.01
Nickel	.012
Nickel	.008
Potassium	3.978
Potassium	1.01
Selenium	.84
Selenium	.4
Silver	.002
Sodium	.503
Sodium	.278
Strontium	.003
Thallium	.002
Tin	.02
Tin	.035
Titanium	.197
Titanium	.02
Vanadium	.113
Vanadium	.023
Zinc	.886
Zinc	.023

Instrument Detection Limits

Job Number: JC87686
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Instrument ID:	AGICPMS2	**Effective Date:**	01/31/19

Analyte	**IDL ug/l**

The above applies to the following instrument runs:
MA46696

Instrument Linear Ranges

Job Number: JC87686
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Instrument ID: AGICPMS2 **Effective Date:** 09/10/18

Analyte	Linear Range ug/l
Aluminum	10000
Aluminum	10000
Antimony	100
Arsenic	100
Arsenic	100
Barium	100
Beryllium	100
Boron	200
Cadmium	100
Cadmium	100
Calcium	10000
Chromium	100
Chromium	100
Cobalt	100
Cobalt	100
Copper	100
Copper	100
Iron	10000
Iron	10000
Lithium	100
Lead	100
Magnesium	10000
Magnesium	10000
Manganese	100
Manganese	100
Molybdenum	100
Nickel	100
Nickel	100
Potassium	10000
Potassium	10000
Selenium	400
Selenium	400
Silver	100
Sodium	10000
Sodium	10000
Strontium	100
Thallium	100
Tin	100
Tin	100
Titanium	100
Titanium	100
Tungsten	100
Uranium	100
Vanadium	100
Vanadium	100
Zinc	100

Instrument Linear Ranges

Job Number: JC87686
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Instrument ID: AGICPMS2 **Effective Date:** 09/10/18

Analyte	Linear Range ug/l
Zinc	100

The above applies to the following instrument runs:
MA46696

Metals Analysis

Raw Data

Quantitation Report

File Name	001CALB.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051019m2.b
Method File	
Method Path	
Acq Time	5/10/2019 13:15
Sample Name	STDA 4
Sample Type	CalBlk
Comment	0
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.006	ug/l	26.33	58.67	2.947E-05	Pulse	0.25	3
B			1	-1.106	ug/l	-6.21	6,775.11	3.411E-03	Pulse	0.15	3
Ca			1	-1.969	ug/l	-18.59	27,872.12	8.929E-03	Pulse	0.10	3
Sr			1	0.006	ug/l	33.21	790.06	2.546E-04	Pulse	0.10	3
Mo			1	0.092	ug/l	3.17	216.68	6.955E-05	Pulse	0.10	3
Ag			1	0.000	ug/l	515.81	26.67	8.589E-06	Pulse	0.10	3
Sn			1	0.016	ug/l	64.48	1,586.96	5.090E-04	Pulse	0.10	3
Sb			1	-0.081	ug/l	-6.02	453.36	1.245E-04	Pulse	0.10	3
Ba			1	0.002	ug/l	129.58	53.33	1.472E-05	Pulse	0.10	3
Tl			1	0.006	ug/l	56.87	373.35	1.953E-04	Pulse	0.10	3
Pb			1	0.014	ug/l	35.33	246.68	1.303E-04	Pulse	0.10	3
Pb			1	0.018	ug/l	40.45	210.01	1.103E-04	Pulse	0.10	3
Pb			1	0.014	ug/l	5.36	893.38	4.705E-04	Pulse	0.10	3
Na			2	0.924	ug/l	247.48	7,480.96	7.043E-02	Pulse	0.30	3
Mg			2	-0.598	ug/l	-15.81	206.67	1.904E-03	Pulse	0.30	3
Al			2	2.144	ug/l	50.01	452.23	4.290E-03	Pulse	0.30	3
K			2	3.945	ug/l	228.35	9,180.89	8.638E-02	Pulse	0.30	3
Ca			2	1.333	ug/l	298.66	212.23	2.000E-03	Pulse	0.30	3
Ti			2	0.012	ug/l	173.21	1.11	1.426E-05	Pulse	0.30	3
V			2	0.032	ug/l	136.96	450.01	4.295E-03	Pulse	0.30	3
Cr			2	0.050	ug/l	81.02	521.13	4.970E-03	Pulse	0.30	3
Mn			2	0.031	ug/l	90.66	132.23	1.289E-03	Pulse	0.30	3
Fe			2	0.031	ug/l	1282.02	6,066.96	5.677E-02	Pulse	0.30	3
Co			2	0.009	ug/l	81.18	117.78	1.140E-03	Pulse	0.30	3
Ni			2	0.057	ug/l	22.92	151.11	1.392E-03	Pulse	0.30	3
Cu			2	0.088	ug/l	43.89	965.60	8.955E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	-0.455	ug/l	-19.42	237.78	2.227E-03	Pulse	0.30	3
As			2	0.014	ug/l	93.04	10.00	9.837E-05	Pulse	1.00	3
Cd			2	0.022	ug/l	24.56	52.65	1.105E-04	Pulse	0.30	3
Sn			2	-0.469	ug/l	-9.16	344.45	7.495E-04	Pulse	0.30	3
Se			3	-0.033	ug/l	-99.55	4.00	3.097E-05	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,987,538.71	2.39	100.0	Pulse	0.10	3
1	Sc		3,122,236.31	3.44	100.0	Pulse	0.10	3
1	Ge		712,568.48	4.15	100.0	Pulse	0.10	3
1	Rh		3,110,657.25	3.82	100.0	Pulse	0.10	3
1	In		3,124,930.89	5.04	100.0	Pulse	0.10	3
1	Tb		3,637,838.38	3.40	100.0	Pulse	0.10	3
1	Ho		344,939.16	3.80	100.0	Pulse	0.10	3
1	Bi		1,899,824.71	4.84	100.0	Pulse	0.10	3
2	Sc		111,964.35	26.79	100.0	Pulse	0.30	3
2	Ge		86,629.01	22.53	100.0	Pulse	0.30	3
2	Rh		1,355,367.45	27.14	100.0	Pulse	0.30	3
2	In		480,554.42	26.48	100.0	Pulse	0.30	3
2	Tb		1,452,443.83	26.96	100.0	Pulse	0.30	3
2	Ho		137,099.44	26.77	100.0	Pulse	0.30	3
2	Bi		866,279.76	24.52	100.0	Pulse	0.30	3
3	Sc		160,004.82	1.84	100.0	Pulse	0.30	3
3	Ge		127,823.15	2.43	100.0	Pulse	0.30	3
3	Rh		1,108,970.06	1.66	100.0	Pulse	0.30	3
3	Tb		1,446,341.09	1.70	100.0	Pulse	0.30	3

Quantitation Report

File Name	002CALB.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051019m2.b
Method File	
Method Path	
Acq Time	5/10/2019 13:20
Sample Name	STDA 4
Sample Type	CalBlk
Comment	0
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	-0.001	ug/l	-113.53	14.67	7.274E-06	Pulse	0.25	3
B			1	-1.029	ug/l	-4.62	7,297.64	3.632E-03	Pulse	0.15	3
Ca			1	-2.972	ug/l	-34.71	27,531.66	8.621E-03	Pulse	0.10	3
Sr			1	-0.003	ug/l	-40.80	463.36	1.460E-04	Pulse	0.10	3
Mo			1	0.081	ug/l	6.73	133.34	4.214E-05	Pulse	0.10	3
Ag			1	-0.001	ug/l	-56.22	6.67	2.004E-06	Pulse	0.10	3
Sn			1	-0.005	ug/l	-224.90	1,400.15	4.345E-04	Pulse	0.10	3
Sb			1	-0.086	ug/l	-0.87	403.35	1.080E-04	Pulse	0.10	3
Ba			1	0.000	ug/l	-797.42	43.33	1.155E-05	Pulse	0.10	3
Tl			1	0.000	ug/l	1526.67	250.01	1.280E-04	Pulse	0.10	3
Pb			1	0.000	ug/l	-2353.79	140.01	7.120E-05	Pulse	0.10	3
Pb			1	0.003	ug/l	116.86	113.34	5.818E-05	Pulse	0.10	3
Pb			1	0.001	ug/l	256.51	526.70	2.699E-04	Pulse	0.10	3
Na			2	-0.573	ug/l	-39.67	7,200.81	5.713E-02	Pulse	0.30	3
Mg			2	-0.887	ug/l	-3.44	93.33	7.407E-04	Pulse	0.30	3
Al			2	-0.931	ug/l	-3.36	31.11	2.469E-04	Pulse	0.30	3
K			2	-1.340	ug/l	-19.25	9,058.58	7.187E-02	Pulse	0.30	3
Ca			2	-1.699	ug/l	-43.87	195.56	1.552E-03	Pulse	0.30	3
Ti			2	0.015	ug/l	86.60	2.22	1.759E-05	Pulse	0.30	3
V			2	0.004	ug/l	89.04	416.68	3.306E-03	Pulse	0.30	3
Cr			2	-0.006	ug/l	-45.21	320.01	2.539E-03	Pulse	0.30	3
Mn			2	0.002	ug/l	394.16	80.00	6.350E-04	Pulse	0.30	3
Fe			2	-0.971	ug/l	-1.41	2,528.04	2.006E-02	Pulse	0.30	3
Co			2	0.000	ug/l	741.46	70.00	5.553E-04	Pulse	0.30	3
Ni			2	-0.009	ug/l	-75.80	22.22	1.762E-04	Pulse	0.30	3
Cu			2	0.005	ug/l	86.33	625.58	4.964E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	0.016	ug/l	479.61	681.14	5.405E-03	Pulse	0.30	3
As			2	0.005	ug/l	154.19	8.00	6.351E-05	Pulse	1.00	3
Cd			2	0.002	ug/l	328.63	16.80	3.152E-05	Pulse	0.30	3
Sn			2	-0.509	ug/l	-2.32	306.67	5.752E-04	Pulse	0.30	3
Se			3	-0.020	ug/l	-150.84	5.33	4.137E-05	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,010,263.44	2.02	100.0	Pulse	0.10	3
1	Sc		3,193,944.01	1.51	100.0	Pulse	0.10	3
1	Ge		734,683.01	2.92	100.0	Pulse	0.10	3
1	Rh		3,181,009.02	3.45	100.0	Pulse	0.10	3
1	In		3,220,249.51	3.18	100.0	Pulse	0.10	3
1	Tb		3,734,842.96	3.41	100.0	Pulse	0.10	3
1	Ho		357,937.91	3.48	100.0	Pulse	0.10	3
1	Bi		1,958,705.44	4.22	100.0	Pulse	0.10	3
2	Sc		126,040.54	0.28	100.0	Pulse	0.30	3
2	Ge		97,327.64	0.30	100.0	Pulse	0.30	3
2	Rh		1,514,009.87	0.50	100.0	Pulse	0.30	3
2	In		533,163.01	0.36	100.0	Pulse	0.30	3
2	Tb		1,611,929.55	1.03	100.0	Pulse	0.30	3
2	Ho		153,581.78	0.53	100.0	Pulse	0.30	3
2	Bi		966,144.34	0.51	100.0	Pulse	0.30	3
3	Sc		159,940.03	1.58	100.0	Pulse	0.30	3
3	Ge		129,567.98	1.38	100.0	Pulse	0.30	3
3	Rh		1,114,400.58	1.04	100.0	Pulse	0.30	3
3	Tb		1,459,535.64	1.60	100.0	Pulse	0.30	3

Quantitation Report

File Name	003CALB.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051019m2.b
Method File	
Method Path	
Acq Time	5/10/2019 13:24
Sample Name	STDA 4
Sample Type	CalBlk
Comment	0
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.012	ug/l	20.60	100.00	4.941E-05	Pulse	0.25	3
B			1	-1.021	ug/l	-2.83	7,391.02	3.655E-03	Pulse	0.15	3
Ca			1	-0.285	ug/l	-267.72	30,126.83	9.446E-03	Pulse	0.10	3
Sr			1	0.004	ug/l	50.93	746.72	2.316E-04	Pulse	0.10	3
Mo			1	0.084	ug/l	2.62	156.68	4.865E-05	Pulse	0.10	3
Ag			1	0.000	ug/l	-174.95	23.33	7.223E-06	Pulse	0.10	3
Sn			1	0.025	ug/l	84.68	1,746.85	5.414E-04	Pulse	0.10	3
Sb			1	-0.080	ug/l	-4.38	476.70	1.277E-04	Pulse	0.10	3
Ba			1	0.007	ug/l	31.27	80.00	2.144E-05	Pulse	0.10	3
Tl			1	0.007	ug/l	41.27	413.36	2.083E-04	Pulse	0.10	3
Pb			1	0.012	ug/l	67.31	240.01	1.216E-04	Pulse	0.10	3
Pb			1	0.012	ug/l	63.74	180.01	9.111E-05	Pulse	0.10	3
Pb			1	0.012	ug/l	41.81	876.71	4.423E-04	Pulse	0.10	3
Na			2	-0.548	ug/l	-63.51	7,297.53	5.736E-02	Pulse	0.30	3
Mg			2	-0.655	ug/l	-4.20	213.34	1.677E-03	Pulse	0.30	3
Al			2	1.566	ug/l	18.50	448.90	3.530E-03	Pulse	0.30	3
K			2	-0.523	ug/l	-194.94	9,434.43	7.411E-02	Pulse	0.30	3
Ca			2	-1.207	ug/l	-47.55	206.67	1.624E-03	Pulse	0.30	3
Ti			2	0.008	ug/l	173.21	1.11	8.643E-06	Pulse	0.30	3
V			2	0.014	ug/l	18.62	465.57	3.659E-03	Pulse	0.30	3
Cr			2	0.029	ug/l	23.00	516.68	4.060E-03	Pulse	0.30	3
Mn			2	0.014	ug/l	42.33	114.45	8.994E-04	Pulse	0.30	3
Fe			2	-0.188	ug/l	-11.36	6,204.81	4.876E-02	Pulse	0.30	3
Co			2	0.007	ug/l	19.06	125.56	9.870E-04	Pulse	0.30	3
Ni			2	0.029	ug/l	27.65	111.11	8.730E-04	Pulse	0.30	3
Cu			2	0.069	ug/l	23.28	1,026.72	8.071E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	-0.515	ug/l	-0.96	232.23	1.825E-03	Pulse	0.30	3
As			2	0.010	ug/l	40.88	10.33	8.110E-05	Pulse	1.00	3
Cd			2	0.010	ug/l	35.28	33.65	6.243E-05	Pulse	0.30	3
Sn			2	-0.476	ug/l	-2.19	388.90	7.217E-04	Pulse	0.30	3
Se			3	-0.007	ug/l	-166.46	6.67	5.144E-05	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,022,223.69	0.84	100.0	Pulse	0.10	3
1	Sc		3,188,503.60	1.50	100.0	Pulse	0.10	3
1	Ge		736,670.82	2.37	100.0	Pulse	0.10	3
1	Rh		3,224,817.77	2.05	100.0	Pulse	0.10	3
1	In		3,223,481.21	2.85	100.0	Pulse	0.10	3
1	Tb		3,738,530.57	3.67	100.0	Pulse	0.10	3
1	Ho		355,187.08	3.63	100.0	Pulse	0.10	3
1	Bi		1,983,983.41	3.58	100.0	Pulse	0.10	3
2	Sc		127,266.22	0.97	100.0	Pulse	0.30	3
2	Ge		97,677.78	0.75	100.0	Pulse	0.30	3
2	Rh		1,518,739.14	1.38	100.0	Pulse	0.30	3
2	In		539,025.37	0.82	100.0	Pulse	0.30	3
2	Tb		1,625,301.71	0.62	100.0	Pulse	0.30	3
2	Ho		154,572.51	1.99	100.0	Pulse	0.30	3
2	Bi		968,456.11	1.44	100.0	Pulse	0.30	3
3	Sc		163,475.19	1.67	100.0	Pulse	0.30	3
3	Ge		129,866.78	1.73	100.0	Pulse	0.30	3
3	Rh		1,126,960.34	1.43	100.0	Pulse	0.30	3
3	Tb		1,472,679.46	0.89	100.0	Pulse	0.30	3

Quantitation Report

File Name	004CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051019m2.b
Method File	
Method Path	
Acq Time	5/10/2019 13:29
Sample Name	STDB
Sample Type	CalStd
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.521	ug/l	5.92	3,535.17	1.723E-03	Pulse	0.25	3
B			1	24.744	ug/l	3.72	158,018.88	7.706E-02	Pulse	0.15	3
Ca			1	254.446	ug/l	0.57	282,167.38	8.766E-02	Pulse	0.10	3
Sr			1	5.164	ug/l	1.95	204,011.20	6.321E-02	Pulse	0.10	3
Mo			1	1.039	ug/l	4.03	7,932.62	2.457E-03	Pulse	0.10	3
Ag			1	0.462	ug/l	4.95	8,429.73	2.603E-03	Pulse	0.10	3
Sn			1	5.072	ug/l	1.71	59,300.39	1.832E-02	Pulse	0.10	3
Sb			1	2.023	ug/l	2.40	26,533.95	6.985E-03	Pulse	0.10	3
Ba			1	1.035	ug/l	2.57	4,991.14	1.314E-03	Pulse	0.10	3
Tl			1	0.508	ug/l	2.54	12,356.46	6.209E-03	Pulse	0.10	3
Pb			1	0.506	ug/l	1.41	4,290.93	2.157E-03	Pulse	0.10	3
Pb			1	0.528	ug/l	4.62	3,834.08	1.925E-03	Pulse	0.10	3
Pb			1	0.521	ug/l	2.84	17,495.58	8.789E-03	Pulse	0.10	3
Na			2	249.880	ug/l	0.34	289,961.71	2.282E+00	Pulse	0.30	3
Mg			2	253.263	ug/l	2.20	130,242.08	1.025E+00	Pulse	0.30	3
Al			2	25.571	ug/l	3.83	4,458.53	3.509E-02	Pulse	0.30	3
K			2	259.775	ug/l	0.49	100,269.64	7.891E-01	Pulse	0.30	3
Ca			2	280.879	ug/l	2.72	5,508.93	4.335E-02	Pulse	0.30	3
Ti			2	0.975	ug/l	9.67	142.22	1.119E-03	Pulse	0.30	3
V			2	1.072	ug/l	6.28	5,247.73	4.130E-02	Pulse	0.30	3
Cr			2	1.148	ug/l	2.99	6,680.58	5.257E-02	Pulse	0.30	3
Mn			2	1.038	ug/l	1.11	3,025.92	2.381E-02	Pulse	0.30	3
Fe			2	24.856	ug/l	0.38	122,807.76	9.664E-01	Pulse	0.30	3
Co			2	0.526	ug/l	2.23	4,674.18	3.678E-02	Pulse	0.30	3
Ni			2	1.075	ug/l	3.41	2,550.27	2.007E-02	Pulse	0.30	3
Cu			2	2.076	ug/l	1.49	13,345.48	1.050E-01	Pulse	0.30	3
Zn			2	4.793	ug/l	4.33	4,785.35	3.766E-02	Pulse	0.30	3
As			2	0.493	ug/l	7.63	252.33	1.986E-03	Pulse	1.00	3
Cd			2	0.505	ug/l	6.37	1,086.32	2.013E-03	Pulse	0.30	3
Sn			2	4.779	ug/l	2.14	12,853.02	2.381E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	0.639	ug/l	35.41	73.33	5.672E-04	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,050,840.80	2.28	101.4	Pulse	0.10	3
1	Sc		3,219,066.20	2.93	101.0	Pulse	0.10	3
1	Ge		746,634.18	2.74	101.4	Pulse	0.10	3
1	Rh		3,228,698.60	3.09	100.1	Pulse	0.10	3
1	In		3,237,311.48	2.48	100.4	Pulse	0.10	3
1	Tb		3,797,111.51	3.27	101.6	Pulse	0.10	3
1	Ho		358,458.47	3.06	100.9	Pulse	0.10	3
1	Bi		1,989,685.65	3.90	100.3	Pulse	0.10	3
2	Sc		127,073.24	0.29	99.8	Pulse	0.30	3
2	Ge		98,148.84	0.91	100.5	Pulse	0.30	3
2	Rh		1,528,501.15	0.69	100.6	Pulse	0.30	3
2	In		539,771.19	0.53	100.1	Pulse	0.30	3
2	Tb		1,620,088.86	0.58	99.7	Pulse	0.30	3
2	Ho		155,412.00	1.05	100.5	Pulse	0.30	3
2	Bi		970,447.15	0.43	100.2	Pulse	0.30	3
3	Sc		162,437.57	0.22	99.4	Pulse	0.30	3
3	Ge		129,581.40	1.29	99.8	Pulse	0.30	3
3	Rh		1,128,412.21	1.01	100.1	Pulse	0.30	3
3	Tb		1,468,675.01	1.30	99.7	Pulse	0.30	3

Quantitation Report

File Name 005CALS.d
File Path C:\Agilent\ICPMH\1\DATA\.b051019m2.b
Method File
Method Path
Acq Time 5/10/2019 13:34
Sample Name STDC
Sample Type CalStd
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name Metals
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 5/13/2019 7:20
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	4.932	ug/l	3.12	33,372.63	1.622E-02	Pulse	0.25	3
B			1	4.006	ug/l	2.10	36,979.95	1.798E-02	Pulse	0.15	3
Ca			1	14.867	ug/l	3.28	45,448.42	1.410E-02	Pulse	0.10	3
Sr			1	4.998	ug/l	1.20	195,911.37	6.118E-02	Pulse	0.10	3
Mo			1	4.934	ug/l	2.00	39,325.22	1.228E-02	Pulse	0.10	3
Ag			1	4.811	ug/l	2.60	86,785.26	2.701E-02	Pulse	0.10	3
Sn			1	5.290	ug/l	1.65	61,329.38	1.909E-02	Pulse	0.10	3
Sb			1	4.957	ug/l	0.72	61,600.62	1.655E-02	Pulse	0.10	3
Ba			1	4.910	ug/l	1.15	23,034.40	6.189E-03	Pulse	0.10	3
Tl			1	4.957	ug/l	0.65	115,431.13	5.947E-02	Pulse	0.10	3
Pb			1	5.012	ug/l	1.29	40,211.80	2.071E-02	Pulse	0.10	3
Pb			1	4.951	ug/l	2.14	34,281.09	1.767E-02	Pulse	0.10	3
Pb			1	4.986	ug/l	0.79	159,047.89	8.195E-02	Pulse	0.10	3
Na			2	7.031	ug/l	3.66	15,785.63	1.247E-01	Pulse	0.30	3
Mg			2	5.095	ug/l	4.52	3,144.83	2.485E-02	Pulse	0.30	3
Al			2	6.113	ug/l	5.07	1,203.40	9.508E-03	Pulse	0.30	3
K			2	5.460	ug/l	9.99	11,464.81	9.055E-02	Pulse	0.30	3
Ca			2	40.356	ug/l	10.64	983.38	7.772E-03	Pulse	0.30	3
Ti			2	4.987	ug/l	5.22	724.48	5.725E-03	Pulse	0.30	3
V			2	4.976	ug/l	0.29	22,804.44	1.801E-01	Pulse	0.30	3
Cr			2	5.004	ug/l	1.62	27,830.23	2.198E-01	Pulse	0.30	3
Mn			2	5.038	ug/l	1.92	14,341.99	1.133E-01	Pulse	0.30	3
Fe			2	5.299	ug/l	1.85	31,621.74	2.498E-01	Pulse	0.30	3
Co			2	4.956	ug/l	0.40	43,335.60	3.423E-01	Pulse	0.30	3
Ni			2	4.944	ug/l	1.28	11,530.48	9.107E-02	Pulse	0.30	3
Cu			2	5.098	ug/l	1.88	31,773.34	2.510E-01	Pulse	0.30	3
Zn			2	6.878	ug/l	1.54	6,548.30	5.173E-02	Pulse	0.30	3
As			2	4.906	ug/l	1.43	2,455.56	1.940E-02	Pulse	1.00	3
Cd			2	4.884	ug/l	2.51	10,339.23	1.925E-02	Pulse	0.30	3
Sn			2	4.869	ug/l	1.97	12,996.48	2.421E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	4.684	ug/l	9.41	492.01	3.792E-03	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,057,023.22	1.17	101.7	Pulse	0.10	3
1	Sc		3,223,531.20	1.87	101.1	Pulse	0.10	3
1	Ge		750,971.14	3.70	101.9	Pulse	0.10	3
1	Rh		3,201,770.47	2.55	99.3	Pulse	0.10	3
1	In		3,211,836.67	2.98	99.6	Pulse	0.10	3
1	Tb		3,722,121.40	3.27	99.6	Pulse	0.10	3
1	Ho		350,583.30	2.90	98.7	Pulse	0.10	3
1	Bi		1,941,260.39	4.53	97.8	Pulse	0.10	3
2	Sc		126,599.13	1.45	99.5	Pulse	0.30	3
2	Ge		98,042.63	0.98	100.4	Pulse	0.30	3
2	Rh		1,521,144.14	0.02	100.2	Pulse	0.30	3
2	In		536,920.03	0.71	99.6	Pulse	0.30	3
2	Tb		1,600,401.54	0.63	98.5	Pulse	0.30	3
2	Ho		151,218.09	1.15	97.8	Pulse	0.30	3
2	Bi		958,771.00	0.79	99.0	Pulse	0.30	3
3	Sc		161,252.28	1.24	98.6	Pulse	0.30	3
3	Ge		129,856.60	1.83	100.0	Pulse	0.30	3
3	Rh		1,115,641.94	1.01	99.0	Pulse	0.30	3
3	Tb		1,449,997.55	1.74	98.5	Pulse	0.30	3

Quantitation Report

File Name	006CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051019m2.b
Method File	
Method Path	
Acq Time	5/10/2019 13:39
Sample Name	STDD
Sample Type	CalStd
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	24.780	ug/l	2.90	170,119.57	8.146E-02	Pulse	0.25	3
B			1	23.581	ug/l	2.23	154,010.72	7.374E-02	Pulse	0.15	3
Ca			1	37.907	ug/l	2.45	69,316.61	2.117E-02	Pulse	0.10	3
Sr			1	25.025	ug/l	0.75	978,626.16	3.056E-01	Pulse	0.10	3
Mo			1	24.920	ug/l	0.23	200,734.48	6.270E-02	Pulse	0.10	3
Ag			1	25.520	ug/l	1.21	454,399.82	1.433E-01	Pulse	0.10	3
Sn			1	25.083	ug/l	0.65	281,730.08	8.881E-02	Pulse	0.10	3
Sb			1	25.442	ug/l	2.19	313,787.57	8.335E-02	Pulse	0.10	3
Ba			1	25.229	ug/l	1.53	119,526.10	3.175E-02	Pulse	0.10	3
Tl			1	24.968	ug/l	2.09	591,438.81	2.990E-01	Pulse	0.10	3
Pb			1	24.805	ug/l	1.60	202,130.97	1.022E-01	Pulse	0.10	3
Pb			1	24.894	ug/l	1.68	175,338.92	8.865E-02	Pulse	0.10	3
Pb			1	24.979	ug/l	1.39	809,877.98	4.095E-01	Pulse	0.10	3
Na			2	27.216	ug/l	0.74	38,519.05	3.040E-01	Pulse	0.30	3
Mg			2	24.527	ug/l	1.07	13,071.73	1.032E-01	Pulse	0.30	3
Al			2	26.320	ug/l	2.06	4,571.91	3.607E-02	Pulse	0.30	3
K			2	26.470	ug/l	2.15	18,786.12	1.483E-01	Pulse	0.30	3
Ca			2	163.552	ug/l	8.17	3,293.77	2.600E-02	Pulse	0.30	3
Ti			2	25.655	ug/l	4.80	3,730.55	2.945E-02	Pulse	0.30	3
V			2	25.082	ug/l	3.01	113,417.76	8.952E-01	Pulse	0.30	3
Cr			2	25.290	ug/l	1.65	139,352.50	1.100E+00	Pulse	0.30	3
Mn			2	25.038	ug/l	1.79	71,045.65	5.607E-01	Pulse	0.30	3
Fe			2	24.522	ug/l	2.17	120,904.61	9.542E-01	Pulse	0.30	3
Co			2	25.319	ug/l	1.14	221,317.93	1.747E+00	Pulse	0.30	3
Ni			2	25.000	ug/l	0.81	58,175.45	4.591E-01	Pulse	0.30	3
Cu			2	25.305	ug/l	1.12	155,501.46	1.227E+00	Pulse	0.30	3
Zn			2	27.080	ug/l	1.14	23,837.53	1.881E-01	Pulse	0.30	3
As			2	24.737	ug/l	2.66	12,369.93	9.763E-02	Pulse	1.00	3
Cd			2	25.013	ug/l	0.41	52,786.57	9.850E-02	Pulse	0.30	3
Sn			2	25.182	ug/l	1.09	60,808.35	1.135E-01	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	24.522	ug/l	4.30	2,541.59	1.961E-02	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,088,170.20	1.41	103.3	Pulse	0.10	3
1	Sc		3,273,628.81	3.06	102.7	Pulse	0.10	3
1	Ge		744,836.68	4.40	101.1	Pulse	0.10	3
1	Rh		3,201,765.16	3.62	99.3	Pulse	0.10	3
1	In		3,172,588.53	3.99	98.4	Pulse	0.10	3
1	Tb		3,766,085.99	3.15	100.7	Pulse	0.10	3
1	Ho		351,934.50	4.94	99.1	Pulse	0.10	3
1	Bi		1,977,282.79	2.93	99.7	Pulse	0.10	3
2	Sc		126,723.31	1.30	99.6	Pulse	0.30	3
2	Ge		97,195.65	0.76	99.5	Pulse	0.30	3
2	Rh		1,512,245.60	1.02	99.6	Pulse	0.30	3
2	In		535,877.18	0.83	99.4	Pulse	0.30	3
2	Tb		1,611,285.01	0.52	99.1	Pulse	0.30	3
2	Ho		151,453.87	0.88	98.0	Pulse	0.30	3
2	Bi		955,956.91	0.82	98.7	Pulse	0.30	3
3	Sc		161,927.85	1.00	99.1	Pulse	0.30	3
3	Ge		129,657.70	1.67	99.8	Pulse	0.30	3
3	Rh		1,120,337.60	1.61	99.4	Pulse	0.30	3
3	Tb		1,458,188.34	1.12	99.0	Pulse	0.30	3

Quantitation Report

File Name	007CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051019m2.b
Method File	
Method Path	
Acq Time	5/10/2019 13:44
Sample Name	STDE
Sample Type	CalStd
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	50.888	ug/l	0.82	348,752.04	1.673E-01	Pulse	0.25	3
B			1	50.683	ug/l	0.73	314,727.62	1.510E-01	Pulse	0.15	3
Ca			1	74.837	ug/l	1.78	105,153.58	3.251E-02	Pulse	0.10	3
Sr			1	50.566	ug/l	1.33	2,017,817.10	6.173E-01	Pulse	0.10	3
Mo			1	50.029	ug/l	1.12	411,894.81	1.260E-01	Pulse	0.10	3
Ag			1	49.985	ug/l	3.10	911,015.53	2.806E-01	Pulse	0.10	3
Sn			1	50.008	ug/l	0.88	573,904.85	1.766E-01	Pulse	0.10	3
Sb			1	52.518	ug/l	0.81	642,968.91	1.716E-01	Pulse	0.10	3
Ba			1	52.417	ug/l	0.91	247,053.22	6.595E-02	Pulse	0.10	3
Tl			1	50.891	ug/l	2.53	1,208,151.49	6.093E-01	Pulse	0.10	3
Pb			1	50.944	ug/l	2.66	416,140.27	2.098E-01	Pulse	0.10	3
Pb			1	50.953	ug/l	1.27	359,676.28	1.814E-01	Pulse	0.10	3
Pb			1	50.992	ug/l	1.87	1,657,388.44	8.358E-01	Pulse	0.10	3
Na			2	50.887	ug/l	0.59	65,140.50	5.142E-01	Pulse	0.30	3
Mg			2	48.791	ug/l	2.37	25,451.93	2.009E-01	Pulse	0.30	3
Al			2	53.299	ug/l	1.57	9,063.00	7.154E-02	Pulse	0.30	3
K			2	49.753	ug/l	1.49	26,879.28	2.122E-01	Pulse	0.30	3
Ca			2	315.696	ug/l	2.98	6,142.55	4.850E-02	Pulse	0.30	3
Ti			2	51.428	ug/l	0.99	7,478.76	5.904E-02	Pulse	0.30	3
V			2	51.371	ug/l	0.68	231,833.40	1.830E+00	Pulse	0.30	3
Cr			2	51.454	ug/l	0.85	283,062.62	2.235E+00	Pulse	0.30	3
Mn			2	51.443	ug/l	0.54	145,843.55	1.151E+00	Pulse	0.30	3
Fe			2	48.952	ug/l	0.50	234,269.31	1.849E+00	Pulse	0.30	3
Co			2	51.514	ug/l	0.79	450,057.74	3.553E+00	Pulse	0.30	3
Ni			2	51.058	ug/l	1.31	118,721.43	9.373E-01	Pulse	0.30	3
Cu			2	51.540	ug/l	0.99	315,967.39	2.495E+00	Pulse	0.30	3
Zn			2	52.408	ug/l	1.07	45,486.28	3.591E-01	Pulse	0.30	3
As			2	50.572	ug/l	0.58	25,276.57	1.995E-01	Pulse	1.00	3
Cd			2	51.035	ug/l	1.39	108,089.87	2.010E-01	Pulse	0.30	3
Sn			2	51.113	ug/l	0.66	122,319.83	2.274E-01	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	50.019	ug/l	2.78	5,171.68	3.994E-02	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,085,072.31	2.57	103.1	Pulse	0.10	3
1	Sc		3,233,651.41	2.36	101.4	Pulse	0.10	3
1	Ge		754,973.97	3.40	102.5	Pulse	0.10	3
1	Rh		3,267,763.08	3.33	101.3	Pulse	0.10	3
1	In		3,249,107.83	4.77	100.8	Pulse	0.10	3
1	Tb		3,745,646.51	2.81	100.2	Pulse	0.10	3
1	Ho		352,900.52	3.64	99.4	Pulse	0.10	3
1	Bi		1,983,349.45	3.94	100.0	Pulse	0.10	3
2	Sc		126,672.91	1.00	99.5	Pulse	0.30	3
2	Ge		98,077.40	0.19	100.4	Pulse	0.30	3
2	Rh		1,523,881.43	0.37	100.3	Pulse	0.30	3
2	In		537,868.73	0.42	99.8	Pulse	0.30	3
2	Tb		1,615,660.32	0.50	99.4	Pulse	0.30	3
2	Ho		152,683.58	0.67	98.8	Pulse	0.30	3
2	Bi		961,129.75	0.69	99.2	Pulse	0.30	3
3	Sc		161,831.87	1.00	99.0	Pulse	0.30	3
3	Ge		129,501.95	1.04	99.7	Pulse	0.30	3
3	Rh		1,120,792.11	0.88	99.5	Pulse	0.30	3
3	Tb		1,462,320.81	1.48	99.3	Pulse	0.30	3

Quantitation Report

File Name	008CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051019m2.b
Method File	
Method Path	
Acq Time	5/10/2019 13:48
Sample Name	STDF
Sample Type	CalStd
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	99.125	ug/l	0.60	684,304.46	3.258E-01	Pulse	0.25	3
B			1	97.210	ug/l	0.76	595,418.64	2.835E-01	Pulse	0.15	3
Ca			1	139.792	ug/l	0.50	169,731.80	5.246E-02	Pulse	0.10	3
Sr			1	99.082	ug/l	0.90	3,926,354.53	1.209E+00	Pulse	0.10	3
Mo			1	100.008	ug/l	0.98	818,380.59	2.521E-01	Pulse	0.10	3
Ag			1	95.415	ug/l	2.62	1,749,705.44	5.356E-01	Pulse	0.10	3
Sn			1	96.970	ug/l	1.70	1,117,125.14	3.420E-01	Pulse	0.10	3
Sb			1	98.629	ug/l	2.54	1,232,384.28	3.220E-01	Pulse	0.10	3
Ba			1	98.738	ug/l	1.27	475,589.64	1.242E-01	Pulse	0.10	3
Tl			1	99.202	ug/l	1.96	2,380,914.44	1.188E+00	Pulse	0.10	3
Pb			1	99.271	ug/l	1.06	819,464.18	4.088E-01	Pulse	0.10	3
Pb			1	99.191	ug/l	1.93	707,843.53	3.531E-01	Pulse	0.10	3
Pb			1	98.918	ug/l	1.66	3,249,561.95	1.621E+00	Pulse	0.10	3
Na			2	98.871	ug/l	0.41	121,064.23	9.405E-01	Pulse	0.30	3
Mg			2	97.127	ug/l	1.38	50,941.60	3.957E-01	Pulse	0.30	3
Al			2	123.377	ug/l	1.91	21,069.24	1.637E-01	Pulse	0.30	3
K			2	99.428	ug/l	1.65	44,880.72	3.486E-01	Pulse	0.30	3
Ca			2	598.012	ug/l	2.55	11,619.45	9.026E-02	Pulse	0.30	3
Ti			2	99.124	ug/l	2.70	14,647.85	1.138E-01	Pulse	0.30	3
V			2	98.227	ug/l	1.80	450,089.43	3.496E+00	Pulse	0.30	3
Cr			2	98.254	ug/l	2.29	548,963.47	4.265E+00	Pulse	0.30	3
Mn			2	99.267	ug/l	1.51	285,930.49	2.221E+00	Pulse	0.30	3
Fe			2	96.836	ug/l	1.98	463,926.21	3.604E+00	Pulse	0.30	3
Co			2	98.277	ug/l	1.38	872,493.11	6.778E+00	Pulse	0.30	3
Ni			2	98.455	ug/l	1.52	232,621.17	1.807E+00	Pulse	0.30	3
Cu			2	98.116	ug/l	1.47	610,753.06	4.745E+00	Pulse	0.30	3
Zn			2	98.544	ug/l	0.43	86,322.15	6.706E-01	Pulse	0.30	3
As			2	96.453	ug/l	1.37	48,987.67	3.806E-01	Pulse	1.00	3
Cd			2	99.485	ug/l	2.73	212,552.41	3.917E-01	Pulse	0.30	3
Sn			2	99.408	ug/l	0.45	238,567.69	4.396E-01	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	97.297	ug/l	3.99	10,047.10	7.764E-02	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,100,187.51	2.34	103.9	Pulse	0.10	3
1	Sc		3,235,658.60	2.70	101.5	Pulse	0.10	3
1	Ge		759,799.49	4.55	103.1	Pulse	0.10	3
1	Rh		3,246,632.97	2.93	100.7	Pulse	0.10	3
1	In		3,265,618.01	2.25	101.3	Pulse	0.10	3
1	Tb		3,830,279.73	5.61	102.5	Pulse	0.10	3
1	Ho		365,911.08	5.27	103.0	Pulse	0.10	3
1	Bi		2,004,156.95	2.20	101.0	Pulse	0.10	3
2	Sc		128,728.11	0.20	101.1	Pulse	0.30	3
2	Ge		98,725.37	1.28	101.1	Pulse	0.30	3
2	Rh		1,531,615.60	0.81	100.8	Pulse	0.30	3
2	In		542,647.78	0.94	100.7	Pulse	0.30	3
2	Tb		1,630,236.43	0.81	100.3	Pulse	0.30	3
2	Ho		154,275.32	1.35	99.8	Pulse	0.30	3
2	Bi		970,102.15	0.17	100.2	Pulse	0.30	3
3	Sc		162,536.18	0.32	99.4	Pulse	0.30	3
3	Ge		129,443.19	1.16	99.7	Pulse	0.30	3
3	Rh		1,109,032.67	1.53	98.4	Pulse	0.30	3
3	Tb		1,448,535.19	0.68	98.4	Pulse	0.30	3

Quantitation Report

File Name 009CALS.d
File Path C:\Agilent\ICPMH\1\DATA\.b051019m2.b
Method File
Method Path
Acq Time 5/10/2019 13:53
Sample Name STDG
Sample Type CalStd
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name Metals
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 5/13/2019 7:20
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.012	ug/l	21.90	97.33	4.742E-05	Pulse	0.25	3
B			1	201.526	ug/l	3.84	1,193,764.15	5.807E-01	Pulse	0.15	3
Ca			1	506.963	ug/l	0.46	530,402.47	1.652E-01	Pulse	0.10	3
Sr			1	0.036	ug/l	15.42	1,946.89	6.171E-04	Pulse	0.10	3
Mo			1	0.186	ug/l	4.51	970.08	3.062E-04	Pulse	0.10	3
Ag			1	0.016	ug/l	12.36	320.01	9.930E-05	Pulse	0.10	3
Sn			1	0.249	ug/l	2.33	4,274.21	1.331E-03	Pulse	0.10	3
Sb			1	0.575	ug/l	5.42	8,249.58	2.265E-03	Pulse	0.10	3
Ba			1	0.041	ug/l	27.11	230.01	6.343E-05	Pulse	0.10	3
Tl			1	0.026	ug/l	10.16	846.73	4.443E-04	Pulse	0.10	3
Pb			1	0.019	ug/l	37.74	283.35	1.484E-04	Pulse	0.10	3
Pb			1	0.034	ug/l	58.37	320.02	1.679E-04	Pulse	0.10	3
Pb			1	0.030	ug/l	26.32	1,396.76	7.334E-04	Pulse	0.10	3
Na			2	497.967	ug/l	0.88	571,705.19	4.486E+00	Pulse	0.30	3
Mg			2	501.303	ug/l	0.05	258,046.92	2.025E+00	Pulse	0.30	3
Al			2	508.873	ug/l	1.21	85,459.68	6.705E-01	Pulse	0.30	3
K			2	513.774	ug/l	0.15	189,494.45	1.487E+00	Pulse	0.30	3
Ca			2	517.275	ug/l	0.48	9,982.58	7.832E-02	Pulse	0.30	3
Ti			2	0.099	ug/l	47.68	14.45	1.132E-04	Pulse	0.30	3
V			2	0.008	ug/l	66.99	438.90	3.443E-03	Pulse	0.30	3
Cr			2	0.023	ug/l	19.53	483.35	3.793E-03	Pulse	0.30	3
Mn			2	0.074	ug/l	7.34	287.79	2.258E-03	Pulse	0.30	3
Fe			2	482.164	ug/l	1.40	2,258,868.52	1.772E+01	Pulse	0.30	3
Co			2	0.037	ug/l	2.43	394.46	3.095E-03	Pulse	0.30	3
Ni			2	0.124	ug/l	5.27	333.34	2.615E-03	Pulse	0.30	3
Cu			2	0.113	ug/l	1.74	1,298.97	1.019E-02	Pulse	0.30	3
Zn			2	1.086	ug/l	5.64	1,610.12	1.263E-02	Pulse	0.30	3
As			2	0.040	ug/l	27.03	25.67	2.011E-04	Pulse	1.00	3
Cd			2	0.008	ug/l	59.43	28.88	5.402E-05	Pulse	0.30	3
Sn			2	-0.244	ug/l	-3.70	928.93	1.739E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	198.123	ug/l	4.62	20,538.22	1.580E-01	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,055,244.23	1.16	101.6	Pulse	0.10	3
1	Sc		3,210,606.62	1.70	100.7	Pulse	0.10	3
1	Ge		733,723.92	2.02	99.6	Pulse	0.10	3
1	Rh		3,162,380.47	4.24	98.1	Pulse	0.10	3
1	In		3,212,179.81	4.42	99.6	Pulse	0.10	3
1	Tb		3,641,142.13	2.77	97.4	Pulse	0.10	3
1	Ho		346,369.49	3.91	97.5	Pulse	0.10	3
1	Bi		1,904,037.79	3.03	96.0	Pulse	0.10	3
2	Sc		127,458.90	0.85	100.2	Pulse	0.30	3
2	Ge		97,971.17	1.75	100.3	Pulse	0.30	3
2	Rh		1,509,116.30	0.68	99.4	Pulse	0.30	3
2	In		534,141.52	0.60	99.1	Pulse	0.30	3
2	Tb		1,605,468.51	0.85	98.8	Pulse	0.30	3
2	Ho		151,653.02	0.97	98.1	Pulse	0.30	3
2	Bi		951,737.39	1.08	98.3	Pulse	0.30	3
3	Sc		160,648.62	1.40	98.3	Pulse	0.30	3
3	Ge		130,007.76	1.36	100.1	Pulse	0.30	3
3	Rh		1,108,034.68	1.43	98.3	Pulse	0.30	3
3	Tb		1,449,364.73	1.36	98.4	Pulse	0.30	3

Quantitation Report

File Name	010CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051019m2.b
Method File	
Method Path	
Acq Time	5/10/2019 13:58
Sample Name	STDH
Sample Type	CalStd
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.004	ug/l	63.94	49.33	2.375E-05	Pulse	0.25	3
B			1	2.182	ug/l	4.78	26,425.10	1.278E-02	Pulse	0.15	3
Ca			1	995.654	ug/l	0.36	1,007,225.04	3.152E-01	Pulse	0.10	3
Sr			1	0.023	ug/l	9.25	1,430.14	4.624E-04	Pulse	0.10	3
Mo			1	0.097	ug/l	4.60	250.01	8.050E-05	Pulse	0.10	3
Ag			1	0.003	ug/l	35.31	83.34	2.627E-05	Pulse	0.10	3
Sn			1	0.202	ug/l	17.73	3,697.34	1.167E-03	Pulse	0.10	3
Sb			1	0.171	ug/l	18.46	3,477.28	9.451E-04	Pulse	0.10	3
Ba			1	0.018	ug/l	47.46	130.01	3.523E-05	Pulse	0.10	3
Tl			1	0.006	ug/l	36.64	376.69	2.020E-04	Pulse	0.10	3
Pb			1	0.010	ug/l	21.90	210.01	1.118E-04	Pulse	0.10	3
Pb			1	0.018	ug/l	16.55	206.68	1.100E-04	Pulse	0.10	3
Pb			1	0.013	ug/l	28.69	856.71	4.557E-04	Pulse	0.10	3
Na			2	984.462	ug/l	0.72	1,142,246.34	8.807E+00	Pulse	0.30	3
Mg			2	988.220	ug/l	0.89	517,072.22	3.987E+00	Pulse	0.30	3
Al			2	1009.695	ug/l	1.13	172,347.54	1.329E+00	Pulse	0.30	3
K			2	1012.847	ug/l	0.79	370,607.69	2.858E+00	Pulse	0.30	3
Ca			2	1002.792	ug/l	1.47	19,471.50	1.501E-01	Pulse	0.30	3
Ti			2	0.015	ug/l	173.21	2.22	1.723E-05	Pulse	0.30	3
V			2	0.020	ug/l	17.33	502.24	3.873E-03	Pulse	0.30	3
Cr			2	0.016	ug/l	47.38	454.46	3.505E-03	Pulse	0.30	3
Mn			2	0.039	ug/l	31.51	191.11	1.474E-03	Pulse	0.30	3
Fe			2	943.343	ug/l	1.71	4,490,202.46	3.462E+01	Pulse	0.30	3
Co			2	0.050	ug/l	2.16	520.02	4.010E-03	Pulse	0.30	3
Ni			2	0.083	ug/l	11.75	242.23	1.868E-03	Pulse	0.30	3
Cu			2	0.049	ug/l	15.61	917.82	7.075E-03	Pulse	0.30	3
Zn			2	-0.176	ug/l	-17.10	533.35	4.112E-03	Pulse	0.30	3
As			2	0.012	ug/l	105.92	11.67	8.987E-05	Pulse	1.00	3
Cd			2	-0.002	ug/l	-156.06	8.14	1.518E-05	Pulse	0.30	3
Sn			2	-0.292	ug/l	-4.94	820.04	1.527E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	401.646	ug/l	3.98	42,382.30	3.203E-01	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,067,361.32	1.90	102.2	Pulse	0.10	3
1	Sc		3,195,172.66	3.38	100.2	Pulse	0.10	3
1	Ge		758,133.63	3.31	102.9	Pulse	0.10	3
1	Rh		3,096,837.14	4.29	96.0	Pulse	0.10	3
1	In		3,171,085.49	4.03	98.4	Pulse	0.10	3
1	Tb		3,675,400.36	4.12	98.3	Pulse	0.10	3
1	Ho		348,893.16	4.22	98.2	Pulse	0.10	3
1	Bi		1,873,602.32	5.43	94.4	Pulse	0.10	3
2	Sc		129,699.08	0.51	101.9	Pulse	0.30	3
2	Ge		99,338.55	1.10	101.7	Pulse	0.30	3
2	Rh		1,513,019.56	0.66	99.6	Pulse	0.30	3
2	In		537,110.41	0.41	99.6	Pulse	0.30	3
2	Tb		1,630,712.92	0.70	100.3	Pulse	0.30	3
2	Ho		155,137.20	0.45	100.4	Pulse	0.30	3
2	Bi		956,894.89	0.20	98.8	Pulse	0.30	3
3	Sc		162,744.96	0.68	99.6	Pulse	0.30	3
3	Ge		132,332.12	0.65	101.9	Pulse	0.30	3
3	Rh		1,113,899.30	0.85	98.8	Pulse	0.30	3
3	Tb		1,453,553.48	1.57	98.7	Pulse	0.30	3

Quantitation Report

File Name	011CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051019m2.b
Method File	
Method Path	
Acq Time	5/10/2019 14:03
Sample Name	STDI
Sample Type	CalStd
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.000	ug/l	-1479.22	18.67	8.995E-06	Pulse	0.25	3
B			1	0.736	ug/l	6.00	17,865.01	8.660E-03	Pulse	0.15	3
Ca			1	4895.086	ug/l	0.61	4,849,387.74	1.513E+00	Pulse	0.10	3
Sr			1	0.051	ug/l	12.84	2,466.99	8.038E-04	Pulse	0.10	3
Mo			1	0.101	ug/l	6.12	280.01	9.162E-05	Pulse	0.10	3
Ag			1	0.002	ug/l	36.97	66.67	2.138E-05	Pulse	0.10	3
Sn			1	0.281	ug/l	6.13	4,504.28	1.443E-03	Pulse	0.10	3
Sb			1	0.111	ug/l	9.73	2,773.73	7.512E-04	Pulse	0.10	3
Ba			1	0.014	ug/l	69.55	110.00	3.001E-05	Pulse	0.10	3
Tl			1	0.001	ug/l	358.77	246.68	1.345E-04	Pulse	0.10	3
Pb			1	0.004	ug/l	160.65	160.01	8.684E-05	Pulse	0.10	3
Pb			1	0.017	ug/l	33.38	196.68	1.065E-04	Pulse	0.10	3
Pb			1	0.010	ug/l	36.79	760.04	4.108E-04	Pulse	0.10	3
Na			2	4841.534	ug/l	0.10	5,640,015.75	4.307E+01	Pulse	0.30	3
Mg			2	4856.563	ug/l	0.21	2,563,602.68	1.958E+01	Pulse	0.30	3
Al			2	4999.896	ug/l	1.38	860,987.12	6.575E+00	Pulse	0.30	3
K			2	5027.173	ug/l	0.89	1,818,122.57	1.388E+01	Pulse	0.30	3
Ca			2	5004.379	ug/l	0.58	97,173.90	7.420E-01	Pulse	0.30	3
Ti			2	0.015	ug/l	173.21	2.22	1.692E-05	Pulse	0.30	3
V			2	0.020	ug/l	44.94	506.68	3.869E-03	Pulse	0.30	3
Cr			2	0.025	ug/l	35.89	504.46	3.853E-03	Pulse	0.30	3
Mn			2	0.149	ug/l	19.11	513.35	3.919E-03	Pulse	0.30	3
Fe			2	5048.893	ug/l	1.70	24,235,069.59	1.851E+02	Analog	0.30	3
Co			2	0.238	ug/l	2.08	2,219.10	1.695E-02	Pulse	0.30	3
Ni			2	0.231	ug/l	2.33	598.91	4.573E-03	Pulse	0.30	3
Cu			2	0.333	ug/l	3.54	2,724.75	2.081E-02	Pulse	0.30	3
Zn			2	-0.199	ug/l	-12.06	517.80	3.954E-03	Pulse	0.30	3
As			2	0.032	ug/l	38.34	22.33	1.705E-04	Pulse	1.00	3
Cd			2	0.000	ug/l	-2410.50	12.51	2.314E-05	Pulse	0.30	3
Sn			2	-0.179	ug/l	-13.88	1,095.62	2.027E-03	Pulse	0.30	3
Se			3	0.070	ug/l	110.11	14.67	1.129E-04	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,063,252.28	3.08	102.0	Pulse	0.10	3
1	Sc		3,205,780.89	3.00	100.5	Pulse	0.10	3
1	Ge		739,951.37	3.13	100.4	Pulse	0.10	3

Quantitation Report

1	Rh		3,070,113.19	3.99	95.2	Pulse	0.10	3
1	In		3,121,409.30	3.57	96.8	Pulse	0.10	3
1	Tb		3,691,395.47	4.20	98.7	Pulse	0.10	3
1	Ho		348,499.21	3.57	98.1	Pulse	0.10	3
1	Bi		1,843,550.70	4.62	92.9	Pulse	0.10	3
2	Sc		130,954.65	0.36	102.9	Pulse	0.30	3
2	Ge		99,341.85	0.59	101.7	Pulse	0.30	3
2	Rh		1,514,888.59	0.36	99.7	Pulse	0.30	3
2	In		540,614.31	0.64	100.3	Pulse	0.30	3
2	Tb		1,646,792.92	0.37	101.3	Pulse	0.30	3
2	Ho		155,469.45	0.09	100.6	Pulse	0.30	3
2	Bi		944,583.05	0.22	97.5	Pulse	0.30	3
3	Sc		162,453.81	0.63	99.4	Pulse	0.30	3
3	Ge		129,393.12	1.32	99.6	Pulse	0.30	3
3	Rh		1,081,294.65	1.14	95.9	Pulse	0.30	3
3	Tb		1,436,022.41	0.83	97.5	Pulse	0.30	3

Quantitation Report

File Name	012CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051019m2.b
Method File	
Method Path	
Acq Time	5/10/2019 14:07
Sample Name	STDJ
Sample Type	CalStd
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.000	ug/l	-368.79	16.00	7.799E-06	Pulse	0.25	3
B			1	0.360	ug/l	36.54	15,526.64	7.590E-03	Pulse	0.15	3
Ca			1	10996.115	ug/l	3.04	10,910,594.01	3.386E+00	Analog	0.10	3
Sr			1	0.102	ug/l	3.87	4,337.53	1.430E-03	Pulse	0.10	3
Mo			1	0.087	ug/l	3.59	170.01	5.600E-05	Pulse	0.10	3
Ag			1	0.001	ug/l	272.33	36.67	1.180E-05	Pulse	0.10	3
Sn			1	0.377	ug/l	4.77	5,498.03	1.780E-03	Pulse	0.10	3
Sb			1	0.101	ug/l	2.32	2,610.36	7.185E-04	Pulse	0.10	3
Ba			1	0.026	ug/l	5.55	163.34	4.499E-05	Pulse	0.10	3
Tl			1	-0.001	ug/l	-276.52	213.35	1.168E-04	Pulse	0.10	3
Pb			1	0.018	ug/l	34.66	266.68	1.452E-04	Pulse	0.10	3
Pb			1	0.022	ug/l	8.93	233.35	1.273E-04	Pulse	0.10	3
Pb			1	0.018	ug/l	6.46	996.72	5.443E-04	Pulse	0.10	3
Na			2	10183.940	ug/l	1.78	11,906,260.64	9.052E+01	Analog	0.30	3
Mg			2	9485.035	ug/l	0.32	5,028,107.85	3.823E+01	Pulse	0.30	3
Al			2	9959.546	ug/l	0.99	1,722,306.67	1.309E+01	Pulse	0.30	3
K			2	9984.271	ug/l	0.28	3,616,856.66	2.750E+01	Pulse	0.30	3
Ca			2	9954.189	ug/l	0.85	193,896.96	1.474E+00	Pulse	0.30	3
Ti			2	0.037	ug/l	91.67	5.56	4.219E-05	Pulse	0.30	3
V			2	0.011	ug/l	93.87	468.90	3.566E-03	Pulse	0.30	3
Cr			2	0.054	ug/l	6.74	672.25	5.111E-03	Pulse	0.30	3
Mn			2	0.190	ug/l	9.01	636.69	4.841E-03	Pulse	0.30	3
Fe			2	9982.149	ug/l	0.80	48,115,698.09	3.658E+02	Analog	0.30	3
Co			2	0.480	ug/l	4.31	4,424.10	3.364E-02	Pulse	0.30	3
Ni			2	0.405	ug/l	3.96	1,023.38	7.781E-03	Pulse	0.30	3
Cu			2	0.090	ug/l	11.11	1,191.18	9.057E-03	Pulse	0.30	3
Zn			2	-0.121	ug/l	-38.44	590.02	4.486E-03	Pulse	0.30	3
As			2	0.046	ug/l	17.16	29.33	2.230E-04	Pulse	1.00	3
Cd			2	-0.005	ug/l	-33.87	1.93	3.649E-06	Pulse	0.30	3
Sn			2	-0.095	ug/l	-28.70	1,274.52	2.393E-03	Pulse	0.30	3
Se			3	0.038	ug/l	105.99	11.33	8.792E-05	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,045,938.21	1.07	101.2	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		3,224,299.54	3.05	101.1	Pulse	0.10	3
1	Ge		723,685.17	2.71	98.2	Pulse	0.10	3
1	Rh		3,032,498.60	3.26	94.0	Pulse	0.10	3
1	In		3,088,459.91	3.42	95.8	Pulse	0.10	3
1	Tb		3,632,251.72	3.38	97.2	Pulse	0.10	3
1	Ho		342,141.08	3.94	96.3	Pulse	0.10	3
1	Bi		1,830,170.55	3.49	92.2	Pulse	0.10	3
2	Sc		131,526.29	0.28	103.3	Pulse	0.30	3
2	Ge		98,597.72	1.67	100.9	Pulse	0.30	3
2	Rh		1,482,419.53	0.58	97.6	Pulse	0.30	3
2	In		532,758.65	0.70	98.8	Pulse	0.30	3
2	Tb		1,621,214.76	0.20	99.7	Pulse	0.30	3
2	Ho		154,004.45	0.87	99.6	Pulse	0.30	3
2	Bi		926,689.41	0.13	95.7	Pulse	0.30	3
3	Sc		163,769.38	1.02	100.2	Pulse	0.30	3
3	Ge		128,925.67	0.54	99.3	Pulse	0.30	3
3	Rh		1,063,964.51	1.29	94.4	Pulse	0.30	3
3	Tb		1,445,262.51	1.84	98.1	Pulse	0.30	3

Quantitation Report

File Name	013CALB.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051019m2.b
Method File	
Method Path	
Acq Time	5/10/2019 14:12
Sample Name	STDA
Sample Type	CalBlk
Comment	0
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.000	ug/l	-1860.94	18.67	8.857E-06	Pulse	0.25	3
B			1	0.000	ug/l	---	13,720.29	6.563E-03	Pulse	0.15	3
Ca			1	-1.154	ug/l	-73.37	29,362.06	9.180E-03	Pulse	0.10	3
Sr			1	0.000	ug/l	-2889.11	576.71	1.813E-04	Pulse	0.10	3
Mo			1	0.075	ug/l	3.92	80.00	2.510E-05	Pulse	0.10	3
Ag			1	0.000	ug/l	5360.04	26.67	8.356E-06	Pulse	0.10	3
Sn			1	-0.001	ug/l	-1318.23	1,420.13	4.512E-04	Pulse	0.10	3
Sb			1	0.000	ug/l	---	1,413.47	3.882E-04	Pulse	0.10	3
Ba			1	0.000	ug/l	---	43.33	1.203E-05	Pulse	0.10	3
Tl			1	0.000	ug/l	-4587.06	236.68	1.263E-04	Pulse	0.10	3
Pb			1	0.000	ug/l	3735.85	136.67	7.239E-05	Pulse	0.10	3
Pb			1	-0.001	ug/l	-124.84	83.33	4.421E-05	Pulse	0.10	3
Pb			1	-0.001	ug/l	-502.08	443.35	2.363E-04	Pulse	0.10	3
Na			2	0.231	ug/l	70.68	8,179.14	6.428E-02	Pulse	0.30	3
Mg			2	-0.217	ug/l	-44.99	437.79	3.441E-03	Pulse	0.30	3
Al			2	-0.256	ug/l	-41.22	144.45	1.135E-03	Pulse	0.30	3
K			2	0.000	ug/l	---	9,615.63	7.555E-02	Pulse	0.30	3
Ca			2	-1.323	ug/l	-140.22	204.45	1.607E-03	Pulse	0.30	3
Ti			2	0.000	ug/l	---	0.00		Pulse	0.30	3
V			2	0.016	ug/l	99.76	476.68	3.748E-03	Pulse	0.30	3
Cr			2	-0.006	ug/l	-47.31	323.34	2.541E-03	Pulse	0.30	3
Mn			2	0.000	ug/l	---	75.56	5.938E-04	Pulse	0.30	3
Fe			2	0.000	ug/l	---	7,079.69	5.564E-02	Pulse	0.30	3
Co			2	0.000	ug/l	-578.29	64.45	5.063E-04	Pulse	0.30	3
Ni			2	0.000	ug/l	-1512.58	42.22	3.321E-04	Pulse	0.30	3
Cu			2	-0.005	ug/l	-42.29	567.80	4.461E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	0.001	ug/l	5777.73	675.58	5.307E-03	Pulse	0.30	3
As			2	0.002	ug/l	364.56	6.33	4.976E-05	Pulse	1.00	3
Cd			2	0.000	ug/l	---	12.59	2.399E-05	Pulse	0.30	3
Sn			2	-0.500	ug/l	-2.76	324.45	6.127E-04	Pulse	0.30	3
Se			3	0.000	ug/l	---	7.33	5.734E-05	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,092,550.84	3.33	100.0	Pulse	0.10	3
1	Sc		3,197,979.33	2.40	100.0	Pulse	0.10	3
1	Ge		737,494.65	3.98	100.0	Pulse	0.10	3
1	Rh		3,165,134.43	4.13	100.0	Pulse	0.10	3
1	In		3,148,946.82	4.19	100.0	Pulse	0.10	3
1	Tb		3,641,299.32	3.96	100.0	Pulse	0.10	3
1	Ho		342,771.16	2.96	100.0	Pulse	0.10	3
1	Bi		1,878,788.10	5.47	100.0	Pulse	0.10	3
2	Sc		127,261.11	0.54	100.0	Pulse	0.30	3
2	Ge		96,971.80	0.24	100.0	Pulse	0.30	3
2	Rh		1,501,880.18	0.48	100.0	Pulse	0.30	3
2	In		529,126.24	1.22	100.0	Pulse	0.30	3
2	Tb		1,580,187.37	1.11	100.0	Pulse	0.30	3
2	Ho		148,463.00	0.41	100.0	Pulse	0.30	3
2	Bi		930,625.28	1.25	100.0	Pulse	0.30	3
3	Sc		161,484.21	0.51	100.0	Pulse	0.30	3
3	Ge		127,933.00	1.26	100.0	Pulse	0.30	3
3	Rh		1,112,569.89	0.97	100.0	Pulse	0.30	3
3	Tb		1,434,259.42	0.95	100.0	Pulse	0.30	3

Quantitation Report

File Name 014CALS.d
File Path C:\Agilent\ICPMH\1\DATA\.b051019m2.b
Method File
Method Path
Acq Time 5/10/2019 14:22
Sample Name STDB
Sample Type CalStd
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name Metals
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 5/13/2019 7:20
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.506	ug/l	2.84	3,609.86	1.673E-03	Pulse	0.25	3
B			1	24.205	ug/l	2.11	162,935.16	7.552E-02	Pulse	0.15	3
Ca			1	257.465	ug/l	1.22	285,909.45	8.859E-02	Pulse	0.10	3
Sr			1	5.102	ug/l	2.37	196,903.23	6.245E-02	Pulse	0.10	3
Mo			1	1.034	ug/l	7.84	7,705.83	2.445E-03	Pulse	0.10	3
Ag			1	0.498	ug/l	4.97	8,826.64	2.803E-03	Pulse	0.10	3
Sn			1	5.057	ug/l	1.91	57,492.42	1.827E-02	Pulse	0.10	3
Sb			1	2.200	ug/l	1.21	27,034.96	7.561E-03	Pulse	0.10	3
Ba			1	1.087	ug/l	2.72	4,934.45	1.379E-03	Pulse	0.10	3
Tl			1	0.503	ug/l	0.45	11,549.15	6.152E-03	Pulse	0.10	3
Pb			1	0.492	ug/l	2.50	3,940.76	2.097E-03	Pulse	0.10	3
Pb			1	0.541	ug/l	8.73	3,704.02	1.972E-03	Pulse	0.10	3
Pb			1	0.521	ug/l	3.35	16,478.29	8.776E-03	Pulse	0.10	3
Na			2	250.626	ug/l	1.54	297,271.66	2.288E+00	Pulse	0.30	3
Mg			2	252.385	ug/l	2.17	132,678.66	1.021E+00	Pulse	0.30	3
Al			2	25.662	ug/l	5.30	4,573.03	3.521E-02	Pulse	0.30	3
K			2	257.004	ug/l	1.21	101,511.95	7.815E-01	Pulse	0.30	3
Ca			2	275.978	ug/l	3.21	5,536.73	4.263E-02	Pulse	0.30	3
Ti			2	0.872	ug/l	27.17	130.00	1.001E-03	Pulse	0.30	3
V			2	1.057	ug/l	3.63	5,292.19	4.074E-02	Pulse	0.30	3
Cr			2	1.087	ug/l	4.03	6,486.04	4.994E-02	Pulse	0.30	3
Mn			2	1.017	ug/l	3.86	3,031.48	2.334E-02	Pulse	0.30	3
Fe			2	24.567	ug/l	1.04	124,166.29	9.558E-01	Pulse	0.30	3
Co			2	0.514	ug/l	1.46	4,670.83	3.596E-02	Pulse	0.30	3
Ni			2	1.014	ug/l	2.49	2,461.36	1.895E-02	Pulse	0.30	3
Cu			2	2.034	ug/l	0.48	13,378.88	1.030E-01	Pulse	0.30	3
Zn			2	4.688	ug/l	2.56	4,799.79	3.695E-02	Pulse	0.30	3
As			2	0.490	ug/l	3.87	256.67	1.976E-03	Pulse	1.00	3
Cd			2	0.561	ug/l	6.07	1,196.17	2.232E-03	Pulse	0.30	3
Sn			2	4.797	ug/l	1.05	12,805.17	2.389E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	0.549	ug/l	15.83	64.67	4.954E-04	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,157,066.81	1.57	103.1	Pulse	0.10	3
1	Sc		3,227,799.33	2.63	100.9	Pulse	0.10	3
1	Ge		741,969.83	4.42	100.6	Pulse	0.10	3
1	Rh		3,155,544.12	5.32	99.7	Pulse	0.10	3
1	In		3,146,888.01	4.14	99.9	Pulse	0.10	3
1	Tb		3,575,857.13	4.39	98.2	Pulse	0.10	3
1	Ho		336,089.88	4.38	98.1	Pulse	0.10	3
1	Bi		1,877,275.23	5.45	99.9	Pulse	0.10	3
2	Sc		129,906.05	0.55	102.1	Pulse	0.30	3
2	Ge		98,440.19	0.96	101.5	Pulse	0.30	3
2	Rh		1,511,967.09	0.50	100.7	Pulse	0.30	3
2	In		536,026.61	0.77	101.3	Pulse	0.30	3
2	Tb		1,597,726.74	0.47	101.1	Pulse	0.30	3
2	Ho		151,653.68	0.07	102.1	Pulse	0.30	3
2	Bi		951,166.25	0.67	102.2	Pulse	0.30	3
3	Sc		162,710.55	0.48	100.8	Pulse	0.30	3
3	Ge		130,706.24	1.94	102.2	Pulse	0.30	3
3	Rh		1,109,816.28	1.40	99.8	Pulse	0.30	3
3	Tb		1,439,995.78	0.85	100.4	Pulse	0.30	3

Quantitation Report

File Name	015_ICV.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051019m2.b
Method File	
Method Path	
Acq Time	5/10/2019 14:31
Sample Name	ICVA
Sample Type	ICV
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	59.675	ug/l	0.75	413,619.47	1.962E-01	Pulse	0.25	3
B			1	121.959	ug/l	1.19	746,321.60	3.540E-01	Pulse	0.15	3
Ca			1	5274.705	ug/l	0.71	5,310,097.94	1.629E+00	Pulse	0.10	3
Sr			1	64.004	ug/l	3.04	2,435,154.70	7.814E-01	Pulse	0.10	3
Mo			1	59.960	ug/l	1.54	471,086.27	1.511E-01	Pulse	0.10	3
Ag			1	56.656	ug/l	2.34	1,003,795.66	3.180E-01	Pulse	0.10	3
Sn			1	58.963	ug/l	0.70	656,840.41	2.082E-01	Pulse	0.10	3
Sb			1	62.486	ug/l	1.67	749,214.73	2.041E-01	Pulse	0.10	3
Ba			1	62.144	ug/l	2.21	286,818.14	7.818E-02	Pulse	0.10	3
Tl			1	64.968	ug/l	3.25	1,449,760.24	7.778E-01	Pulse	0.10	3
Pb			1	63.409	ug/l	2.12	486,567.10	2.612E-01	Pulse	0.10	3
Pb			1	60.191	ug/l	1.07	399,187.19	2.143E-01	Pulse	0.10	3
Pb			1	61.655	ug/l	1.03	1,882,287.28	1.010E+00	Pulse	0.10	3
Na			2	5222.355	ug/l	1.24	6,177,088.23	4.645E+01	Pulse	0.30	3
Mg			2	5277.472	ug/l	1.35	2,828,797.39	2.127E+01	Pulse	0.30	3
Al			2	5464.253	ug/l	1.20	955,472.50	7.185E+00	Pulse	0.30	3
K			2	5468.966	ug/l	0.99	2,007,626.17	1.510E+01	Pulse	0.30	3
Ca			2	5734.193	ug/l	1.49	113,034.02	8.500E-01	Pulse	0.30	3
Ti			2	59.429	ug/l	2.63	9,071.95	6.822E-02	Pulse	0.30	3
V			2	60.463	ug/l	0.53	286,364.21	2.153E+00	Pulse	0.30	3
Cr			2	60.195	ug/l	1.21	347,575.70	2.614E+00	Pulse	0.30	3
Mn			2	60.284	ug/l	0.67	179,411.45	1.349E+00	Pulse	0.30	3
Fe			2	5412.900	ug/l	0.92	26,383,052.84	1.984E+02	Analog	0.30	3
Co			2	59.169	ug/l	1.12	542,675.66	4.081E+00	Pulse	0.30	3
Ni			2	58.488	ug/l	0.99	142,772.08	1.074E+00	Pulse	0.30	3
Cu			2	58.259	ug/l	1.07	374,884.54	2.819E+00	Pulse	0.30	3
Zn			2	58.195	ug/l	1.85	52,948.30	3.982E-01	Pulse	0.30	3
As			2	58.534	ug/l	1.28	30,712.62	2.310E-01	Pulse	1.00	3
Cd			2	60.520	ug/l	1.35	130,883.02	2.383E-01	Pulse	0.30	3
Sn			2	60.073	ug/l	0.34	146,536.31	2.668E-01	Pulse	0.30	3
Se			3	257.385	ug/l	3.97	26,913.88	2.053E-01	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,108,318.49	2.53	100.8	Pulse	0.10	3
1	Sc		3,260,096.20	4.13	101.9	Pulse	0.10	3
1	Ge		749,791.68	3.80	101.7	Pulse	0.10	3

Quantitation Report

1	Rh		3,118,365.27	4.58	98.5	Pulse	0.10	3
1	In		3,155,062.30	3.18	100.2	Pulse	0.10	3
1	Tb		3,671,052.34	5.18	100.8	Pulse	0.10	3
1	Ho		351,009.45	5.92	102.4	Pulse	0.10	3
1	Bi		1,862,491.48	3.69	99.1	Pulse	0.10	3
2	Sc		132,984.12	0.56	104.5	Pulse	0.30	3
2	Ge		101,694.86	0.74	104.9	Pulse	0.30	3
2	Rh		1,527,294.00	0.26	101.7	Pulse	0.30	3
2	In		549,262.32	0.46	103.8	Pulse	0.30	3
2	Tb		1,675,974.45	1.15	106.1	Pulse	0.30	3
2	Ho		160,053.14	0.53	107.8	Pulse	0.30	3
2	Bi		971,027.95	0.44	104.3	Pulse	0.30	3
3	Sc		165,554.34	0.90	102.5	Pulse	0.30	3
3	Ge		131,137.52	1.13	102.5	Pulse	0.30	3
3	Rh		1,087,235.55	1.97	97.7	Pulse	0.30	3
3	Tb		1,452,127.75	1.16	101.2	Pulse	0.30	3

Quantitation Report

File Name	016_ICV.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051019m2.b
Method File	
Method Path	
Acq Time	5/10/2019 14:36
Sample Name	ICV
Sample Type	ICV
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.037	ug/l	14.51	278.68	1.313E-04	Pulse	0.25	3
B			1	0.833	ug/l	13.83	18,921.92	8.936E-03	Pulse	0.15	3
Ca			1	4.445	ug/l	19.60	35,252.50	1.090E-02	Pulse	0.10	3
Sr			1	0.011	ug/l	27.75	1,000.08	3.152E-04	Pulse	0.10	3
Mo			1	0.124	ug/l	1.85	473.36	1.490E-04	Pulse	0.10	3
Ag			1	0.007	ug/l	38.31	153.34	4.838E-05	Pulse	0.10	3
Sn			1	0.112	ug/l	11.53	2,700.40	8.478E-04	Pulse	0.10	3
Sb			1	-0.023	ug/l	-3.88	1,130.10	3.126E-04	Pulse	0.10	3
Ba			1	0.027	ug/l	26.07	166.68	4.622E-05	Pulse	0.10	3
Tl			1	0.014	ug/l	38.44	543.37	2.888E-04	Pulse	0.10	3
Pb			1	0.013	ug/l	27.72	236.68	1.253E-04	Pulse	0.10	3
Pb			1	0.019	ug/l	19.07	216.68	1.142E-04	Pulse	0.10	3
Pb			1	0.018	ug/l	10.13	1,016.73	5.382E-04	Pulse	0.10	3
Na			2	1.143	ug/l	11.26	9,394.32	7.238E-02	Pulse	0.30	3
Mg			2	0.034	ug/l	283.59	577.80	4.453E-03	Pulse	0.30	3
Al			2	63.657	ug/l	4.23	11,052.23	8.516E-02	Pulse	0.30	3
K			2	0.651	ug/l	130.41	10,039.25	7.734E-02	Pulse	0.30	3
Ca			2	4.475	ug/l	39.33	320.01	2.465E-03	Pulse	0.30	3
Ti			2	0.052	ug/l	107.74	7.78	6.009E-05	Pulse	0.30	3
V			2	0.016	ug/l	72.70	484.46	3.731E-03	Pulse	0.30	3
Cr			2	0.103	ug/l	7.16	943.38	7.267E-03	Pulse	0.30	3
Mn			2	0.054	ug/l	15.09	234.45	1.806E-03	Pulse	0.30	3
Fe			2	1.672	ug/l	6.66	15,172.90	1.169E-01	Pulse	0.30	3
Co			2	0.008	ug/l	21.65	138.89	1.070E-03	Pulse	0.30	3
Ni			2	0.036	ug/l	18.59	130.01	1.002E-03	Pulse	0.30	3
Cu			2	0.069	ug/l	10.01	1,044.50	8.046E-03	Pulse	0.30	3
Zn			2	0.063	ug/l	118.62	743.36	5.725E-03	Pulse	0.30	3
As			2	0.024	ug/l	4.25	17.67	1.361E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	0.001	ug/l	610.88	14.46	2.692E-05	Pulse	0.30	3
Sn			2	-0.412	ug/l	-3.93	536.69	1.001E-03	Pulse	0.30	3
Se			3	0.062	ug/l	61.53	14.00	1.071E-04	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,118,142.41	3.00	101.2	Pulse	0.10	3
1	Sc		3,235,187.24	2.58	101.2	Pulse	0.10	3
1	Ge		738,762.67	3.68	100.2	Pulse	0.10	3
1	Rh		3,176,441.72	3.31	100.4	Pulse	0.10	3
1	In		3,184,615.86	2.54	101.1	Pulse	0.10	3
1	Tb		3,615,936.82	5.08	99.3	Pulse	0.10	3
1	Ho		341,032.74	4.13	99.5	Pulse	0.10	3
1	Bi		1,892,064.92	4.09	100.7	Pulse	0.10	3
2	Sc		129,797.81	0.56	102.0	Pulse	0.30	3
2	Ge		97,555.12	0.79	100.6	Pulse	0.30	3
2	Rh		1,515,879.66	0.90	100.9	Pulse	0.30	3
2	In		535,945.14	0.53	101.3	Pulse	0.30	3
2	Tb		1,593,855.04	0.52	100.9	Pulse	0.30	3
2	Ho		150,387.95	1.57	101.3	Pulse	0.30	3
2	Bi		936,132.36	0.41	100.6	Pulse	0.30	3
3	Sc		163,467.95	0.65	101.2	Pulse	0.30	3
3	Ge		130,693.62	1.42	102.2	Pulse	0.30	3
3	Rh		1,111,967.25	1.11	99.9	Pulse	0.30	3
3	Tb		1,442,196.30	1.51	100.6	Pulse	0.30	3

Quantitation Report

File Name	017_ICB.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051019m2.b
Method File	
Method Path	
Acq Time	5/10/2019 14:41
Sample Name	ICB
Sample Type	ICB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.009	ug/l	19.44	85.33	3.971E-05	Pulse	0.25	3
B			1	0.006	ug/l	1189.74	14,140.73	6.579E-03	Pulse	0.15	3
Ca			1	-1.341	ug/l	-50.66	29,900.02	9.122E-03	Pulse	0.10	3
Sr			1	0.008	ug/l	44.70	880.06	2.776E-04	Pulse	0.10	3
Mo			1	0.090	ug/l	4.60	203.34	6.413E-05	Pulse	0.10	3
Ag			1	0.002	ug/l	62.14	63.33	1.983E-05	Pulse	0.10	3
Sn			1	0.034	ug/l	49.81	1,816.95	5.725E-04	Pulse	0.10	3
Sb			1	-0.042	ug/l	-32.96	910.07	2.510E-04	Pulse	0.10	3
Ba			1	0.011	ug/l	36.52	93.34	2.595E-05	Pulse	0.10	3
Tl			1	0.006	ug/l	22.41	366.69	1.948E-04	Pulse	0.10	3
Pb			1	0.005	ug/l	69.13	176.68	9.410E-05	Pulse	0.10	3
Pb			1	0.017	ug/l	35.67	200.01	1.064E-04	Pulse	0.10	3
Pb			1	0.009	ug/l	34.71	753.37	4.007E-04	Pulse	0.10	3
Na			2	-0.707	ug/l	-24.38	7,264.17	5.595E-02	Pulse	0.30	3
Mg			2	-0.636	ug/l	-10.85	227.78	1.753E-03	Pulse	0.30	3
Al			2	1.908	ug/l	11.62	516.71	3.979E-03	Pulse	0.30	3
K			2	0.203	ug/l	412.37	9,878.02	7.611E-02	Pulse	0.30	3
Ca			2	0.833	ug/l	48.74	250.01	1.926E-03	Pulse	0.30	3
Ti			2	0.008	ug/l	173.21	1.11	8.667E-06	Pulse	0.30	3
V			2	0.019	ug/l	40.23	498.90	3.845E-03	Pulse	0.30	3
Cr			2	0.033	ug/l	43.74	547.80	4.224E-03	Pulse	0.30	3
Mn			2	0.017	ug/l	30.90	125.56	9.679E-04	Pulse	0.30	3
Fe			2	-0.103	ug/l	-48.05	6,732.83	5.187E-02	Pulse	0.30	3
Co			2	0.005	ug/l	21.41	108.89	8.389E-04	Pulse	0.30	3
Ni			2	0.035	ug/l	12.52	126.67	9.763E-04	Pulse	0.30	3
Cu			2	0.074	ug/l	7.97	1,076.72	8.292E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	-0.411	ug/l	-18.30	327.79	2.523E-03	Pulse	0.30	3
As			2	0.017	ug/l	63.69	14.33	1.101E-04	Pulse	1.00	3
Cd			2	0.011	ug/l	41.22	35.74	6.661E-05	Pulse	0.30	3
Sn			2	-0.497	ug/l	-0.50	336.68	6.282E-04	Pulse	0.30	3
Se			3	-0.008	ug/l	-385.25	6.67	5.127E-05	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,149,743.82	2.94	102.7	Pulse	0.10	3
1	Sc		3,278,051.31	2.39	102.5	Pulse	0.10	3
1	Ge		743,386.97	3.03	100.8	Pulse	0.10	3
1	Rh		3,172,836.41	2.74	100.2	Pulse	0.10	3
1	In		3,165,434.02	4.07	100.5	Pulse	0.10	3
1	Tb		3,611,469.43	3.65	99.2	Pulse	0.10	3
1	Ho		340,483.51	3.26	99.3	Pulse	0.10	3
1	Bi		1,886,642.47	4.45	100.4	Pulse	0.10	3
2	Sc		129,822.05	1.17	102.0	Pulse	0.30	3
2	Ge		98,569.93	0.97	101.6	Pulse	0.30	3
2	Rh		1,504,788.87	0.83	100.2	Pulse	0.30	3
2	In		535,880.93	0.93	101.3	Pulse	0.30	3
2	Tb		1,572,927.40	0.68	99.5	Pulse	0.30	3
2	Ho		148,970.63	0.59	100.3	Pulse	0.30	3
2	Bi		940,642.22	0.56	101.1	Pulse	0.30	3
3	Sc		163,998.80	0.16	101.6	Pulse	0.30	3
3	Ge		129,950.91	0.38	101.6	Pulse	0.30	3
3	Rh		1,109,363.19	1.14	99.7	Pulse	0.30	3
3	Tb		1,421,069.56	1.00	99.1	Pulse	0.30	3

Quantitation Report

File Name 018_CCV.d
File Path C:\Agilent\ICPMH\1\DATA\.b051019m2.b
Method File
Method Path
Acq Time 5/10/2019 14:46
Sample Name CCVA
Sample Type CCV
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name Metals
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 5/13/2019 7:20
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	50.950	ug/l	1.64	356,397.06	1.675E-01	Pulse	0.25	3
B			1	104.067	ug/l	3.93	644,552.33	3.030E-01	Pulse	0.15	3
Ca			1	4823.165	ug/l	1.72	4,907,132.74	1.490E+00	Pulse	0.10	3
Sr			1	51.767	ug/l	1.86	1,992,238.77	6.320E-01	Pulse	0.10	3
Mo			1	51.087	ug/l	1.93	405,599.46	1.287E-01	Pulse	0.10	3
Ag			1	49.044	ug/l	0.59	868,743.84	2.753E-01	Pulse	0.10	3
Sn			1	48.647	ug/l	1.48	542,004.71	1.718E-01	Pulse	0.10	3
Sb			1	52.462	ug/l	2.93	631,197.15	1.715E-01	Pulse	0.10	3
Ba			1	50.501	ug/l	1.58	234,011.32	6.354E-02	Pulse	0.10	3
Tl			1	52.715	ug/l	0.73	1,164,552.04	6.312E-01	Pulse	0.10	3
Pb			1	51.914	ug/l	0.36	394,490.31	2.138E-01	Pulse	0.10	3
Pb			1	51.960	ug/l	0.81	341,358.52	1.850E-01	Pulse	0.10	3
Pb			1	51.429	ug/l	0.59	1,555,112.14	8.429E-01	Pulse	0.10	3
Na			2	4772.169	ug/l	1.07	5,640,500.33	4.245E+01	Pulse	0.30	3
Mg			2	4834.371	ug/l	0.83	2,589,174.96	1.949E+01	Pulse	0.30	3
Al			2	5002.529	ug/l	0.79	874,038.73	6.578E+00	Pulse	0.30	3
K			2	5002.924	ug/l	0.73	1,835,858.81	1.382E+01	Pulse	0.30	3
Ca			2	5231.474	ug/l	0.88	103,057.49	7.756E-01	Pulse	0.30	3
Ti			2	50.394	ug/l	0.12	7,686.66	5.785E-02	Pulse	0.30	3
V			2	49.746	ug/l	0.65	235,484.70	1.772E+00	Pulse	0.30	3
Cr			2	49.979	ug/l	0.87	288,413.59	2.171E+00	Pulse	0.30	3
Mn			2	49.679	ug/l	0.80	147,743.45	1.112E+00	Pulse	0.30	3
Fe			2	4982.562	ug/l	1.56	24,265,071.26	1.826E+02	Analog	0.30	3
Co			2	49.016	ug/l	1.07	449,198.68	3.381E+00	Pulse	0.30	3
Ni			2	48.619	ug/l	0.36	118,592.36	8.925E-01	Pulse	0.30	3
Cu			2	48.568	ug/l	0.81	312,369.18	2.351E+00	Pulse	0.30	3
Zn			2	47.438	ug/l	1.74	43,254.55	3.256E-01	Pulse	0.30	3
As			2	48.472	ug/l	0.76	25,413.48	1.913E-01	Pulse	1.00	3
Cd			2	50.204	ug/l	0.81	107,373.75	1.977E-01	Pulse	0.30	3
Sn			2	49.496	ug/l	0.77	119,664.68	2.203E-01	Pulse	0.30	3
Se			3	194.384	ug/l	4.27	20,160.30	1.551E-01	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,128,394.46	3.12	101.7	Pulse	0.10	3
1	Sc		3,293,460.16	3.15	103.0	Pulse	0.10	3
1	Ge		757,169.52	4.67	102.7	Pulse	0.10	3

Quantitation Report

1	Rh		3,152,245.47	2.30	99.6	Pulse	0.10	3
1	In		3,155,510.44	3.68	100.2	Pulse	0.10	3
1	Tb		3,684,139.01	5.60	101.2	Pulse	0.10	3
1	Ho		350,572.79	4.60	102.3	Pulse	0.10	3
1	Bi		1,845,031.22	3.19	98.2	Pulse	0.10	3
2	Sc		132,873.21	0.69	104.4	Pulse	0.30	3
2	Ge		100,784.38	0.99	103.9	Pulse	0.30	3
2	Rh		1,519,071.40	0.22	101.1	Pulse	0.30	3
2	In		543,165.92	0.40	102.7	Pulse	0.30	3
2	Tb		1,641,609.17	0.49	103.9	Pulse	0.30	3
2	Ho		154,534.43	0.96	104.1	Pulse	0.30	3
2	Bi		937,581.28	0.26	100.7	Pulse	0.30	3
3	Sc		164,200.56	0.97	101.7	Pulse	0.30	3
3	Ge		130,028.07	1.48	101.6	Pulse	0.30	3
3	Rh		1,074,945.55	0.81	96.6	Pulse	0.30	3
3	Tb		1,435,340.92	0.67	100.1	Pulse	0.30	3

Quantitation Report

File Name	019_CCB.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051019m2.b
Method File	
Method Path	
Acq Time	5/10/2019 14:50
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.013	ug/l	15.85	109.33	5.143E-05	Pulse	0.25	3
B			1	0.866	ug/l	6.78	19,215.67	9.030E-03	Pulse	0.15	3
Ca			1	-0.268	ug/l	-113.47	30,480.97	9.452E-03	Pulse	0.10	3
Sr			1	0.011	ug/l	39.48	993.41	3.157E-04	Pulse	0.10	3
Mo			1	0.122	ug/l	6.25	453.36	1.439E-04	Pulse	0.10	3
Ag			1	0.008	ug/l	21.13	173.34	5.543E-05	Pulse	0.10	3
Sn			1	0.048	ug/l	29.86	1,956.90	6.235E-04	Pulse	0.10	3
Sb			1	0.062	ug/l	35.63	2,090.24	5.890E-04	Pulse	0.10	3
Ba			1	0.009	ug/l	70.35	83.33	2.362E-05	Pulse	0.10	3
Tl			1	0.011	ug/l	29.42	483.36	2.565E-04	Pulse	0.10	3
Pb			1	0.009	ug/l	28.65	206.68	1.105E-04	Pulse	0.10	3
Pb			1	0.014	ug/l	51.36	183.34	9.844E-05	Pulse	0.10	3
Pb			1	0.014	ug/l	39.24	880.05	4.709E-04	Pulse	0.10	3
Na			2	-0.458	ug/l	-31.64	7,417.58	5.815E-02	Pulse	0.30	3
Mg			2	-0.418	ug/l	-18.10	335.56	2.630E-03	Pulse	0.30	3
Al			2	1.638	ug/l	12.82	462.24	3.625E-03	Pulse	0.30	3
K			2	0.563	ug/l	127.12	9,833.58	7.710E-02	Pulse	0.30	3
Ca			2	0.827	ug/l	85.25	245.56	1.925E-03	Pulse	0.30	3
Ti			2	0.038	ug/l	69.61	5.55	4.359E-05	Pulse	0.30	3
V			2	0.026	ug/l	54.39	520.02	4.076E-03	Pulse	0.30	3
Cr			2	0.037	ug/l	19.62	557.79	4.374E-03	Pulse	0.30	3
Mn			2	0.014	ug/l	96.10	115.56	9.054E-04	Pulse	0.30	3
Fe			2	0.211	ug/l	8.15	8,082.45	6.337E-02	Pulse	0.30	3
Co			2	0.008	ug/l	55.03	140.00	1.097E-03	Pulse	0.30	3
Ni			2	0.028	ug/l	24.30	108.89	8.539E-04	Pulse	0.30	3
Cu			2	0.069	ug/l	12.12	1,025.61	8.041E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	-0.434	ug/l	-6.00	302.23	2.370E-03	Pulse	0.30	3
As			2	0.017	ug/l	42.71	14.00	1.098E-04	Pulse	1.00	3
Cd			2	0.014	ug/l	11.97	41.85	7.930E-05	Pulse	0.30	3
Sn			2	-0.436	ug/l	-8.02	472.24	8.952E-04	Pulse	0.30	3
Se			3	0.046	ug/l	44.07	12.00	9.374E-05	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,128,069.89	1.19	101.7	Pulse	0.10	3
1	Sc		3,225,458.70	2.69	100.9	Pulse	0.10	3
1	Ge		732,972.41	3.00	99.4	Pulse	0.10	3
1	Rh		3,156,646.93	3.05	99.7	Pulse	0.10	3
1	In		3,139,658.19	4.32	99.7	Pulse	0.10	3
1	Tb		3,560,197.03	4.57	97.8	Pulse	0.10	3
1	Ho		335,460.32	4.85	97.9	Pulse	0.10	3
1	Bi		1,876,530.75	4.49	99.9	Pulse	0.10	3
2	Sc		127,546.46	0.34	100.2	Pulse	0.30	3
2	Ge		95,995.30	0.93	99.0	Pulse	0.30	3
2	Rh		1,496,228.07	0.93	99.6	Pulse	0.30	3
2	In		527,616.75	0.55	99.7	Pulse	0.30	3
2	Tb		1,577,389.52	0.03	99.8	Pulse	0.30	3
2	Ho		148,529.57	1.86	100.0	Pulse	0.30	3
2	Bi		926,873.36	0.82	99.6	Pulse	0.30	3
3	Sc		162,098.74	1.15	100.4	Pulse	0.30	3
3	Ge		128,090.00	0.83	100.1	Pulse	0.30	3
3	Rh		1,107,777.67	1.55	99.6	Pulse	0.30	3
3	Tb		1,421,118.76	1.70	99.1	Pulse	0.30	3

Quantitation Report

File Name	020LCCV.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051019m2.b
Method File	
Method Path	
Acq Time	5/10/2019 14:55
Sample Name	CRI
Sample Type	LLCCV
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.516	ug/l	2.04	3,659.19	1.704E-03	Pulse	0.25	3
B			1	26.258	ug/l	1.14	174,710.07	8.137E-02	Pulse	0.15	3
Ca			1	254.997	ug/l	0.98	288,468.54	8.783E-02	Pulse	0.10	3
Sr			1	5.103	ug/l	1.66	200,549.69	6.247E-02	Pulse	0.10	3
Mo			1	1.038	ug/l	5.36	7,875.92	2.455E-03	Pulse	0.10	3
Ag			1	0.493	ug/l	3.74	8,746.58	2.778E-03	Pulse	0.10	3
Sn			1	5.224	ug/l	2.56	59,280.31	1.886E-02	Pulse	0.10	3
Sb			1	2.083	ug/l	4.51	26,059.60	7.179E-03	Pulse	0.10	3
Ba			1	1.096	ug/l	4.92	5,061.16	1.391E-03	Pulse	0.10	3
Tl			1	0.479	ug/l	8.69	11,158.68	5.863E-03	Pulse	0.10	3
Pb			1	0.504	ug/l	6.20	4,097.51	2.146E-03	Pulse	0.10	3
Pb			1	0.517	ug/l	2.30	3,597.34	1.887E-03	Pulse	0.10	3
Pb			1	0.517	ug/l	2.68	16,641.70	8.726E-03	Pulse	0.10	3
Na			2	249.975	ug/l	0.23	299,081.54	2.283E+00	Pulse	0.30	3
Mg			2	254.797	ug/l	0.13	135,101.27	1.031E+00	Pulse	0.30	3
Al			2	25.386	ug/l	1.56	4,565.25	3.485E-02	Pulse	0.30	3
K			2	260.639	ug/l	1.29	103,690.84	7.914E-01	Pulse	0.30	3
Ca			2	293.075	ug/l	4.01	5,915.77	4.515E-02	Pulse	0.30	3
Ti			2	1.012	ug/l	2.16	152.22	1.162E-03	Pulse	0.30	3
V			2	1.053	ug/l	3.90	5,323.32	4.063E-02	Pulse	0.30	3
Cr			2	1.031	ug/l	2.18	6,223.69	4.751E-02	Pulse	0.30	3
Mn			2	1.033	ug/l	5.53	3,105.94	2.371E-02	Pulse	0.30	3
Fe			2	24.263	ug/l	0.50	123,772.76	9.447E-01	Pulse	0.30	3
Co			2	0.522	ug/l	1.34	4,784.22	3.652E-02	Pulse	0.30	3
Ni			2	1.032	ug/l	3.30	2,526.93	1.929E-02	Pulse	0.30	3
Cu			2	2.181	ug/l	2.40	14,423.23	1.101E-01	Pulse	0.30	3
Zn			2	4.561	ug/l	3.00	4,728.65	3.609E-02	Pulse	0.30	3
As			2	0.512	ug/l	2.70	270.33	2.063E-03	Pulse	1.00	3
Cd			2	0.523	ug/l	3.35	1,116.15	2.082E-03	Pulse	0.30	3
Sn			2	4.790	ug/l	1.76	12,796.25	2.386E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	0.463	ug/l	12.74	55.33	4.267E-04	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,147,089.38	1.63	102.6	Pulse	0.10	3
1	Sc		3,284,262.03	2.62	102.7	Pulse	0.10	3
1	Ge		741,197.31	4.14	100.5	Pulse	0.10	3
1	Rh		3,211,621.72	3.04	101.5	Pulse	0.10	3
1	In		3,145,092.61	4.57	99.9	Pulse	0.10	3
1	Tb		3,634,670.57	4.74	99.8	Pulse	0.10	3
1	Ho		341,548.51	6.22	99.6	Pulse	0.10	3
1	Bi		1,906,518.93	3.32	101.5	Pulse	0.10	3
2	Sc		131,021.74	0.72	103.0	Pulse	0.30	3
2	Ge		98,638.11	1.04	101.7	Pulse	0.30	3
2	Rh		1,507,049.00	0.68	100.3	Pulse	0.30	3
2	In		536,308.29	1.04	101.4	Pulse	0.30	3
2	Tb		1,582,827.78	0.64	100.2	Pulse	0.30	3
2	Ho		148,683.20	0.59	100.1	Pulse	0.30	3
2	Bi		930,087.95	0.37	99.9	Pulse	0.30	3
3	Sc		162,970.32	0.22	100.9	Pulse	0.30	3
3	Ge		129,619.73	0.67	101.3	Pulse	0.30	3
3	Rh		1,100,711.35	0.56	98.9	Pulse	0.30	3
3	Tb		1,411,987.86	0.41	98.4	Pulse	0.30	3

Quantitation Report

File Name 021ICSA.d
File Path C:\Agilent\ICPMH\1\DATA\.b051019m2.b
Method File
Method Path
Acq Time 5/10/2019 15:00
Sample Name ICSA
Sample Type ICSA
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name Metals
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 5/13/2019 7:20
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.001	ug/l	186.21	20.00	1.118E-05	Pulse	0.25	3
B			1	0.482	ug/l	27.82	14,129.67	7.935E-03	Pulse	0.15	3
Ca			1	110630.059	ug/l	3.18	97,462,378.55	3.398E+01	Analog	0.10	3
Sr			1	2356.888	ug/l	4.47	73,927,338.90	2.877E+01	Analog	0.10	3
Mo			1	2405.509	ug/l	3.86	15,596,567.27	6.068E+00	Analog	0.10	3
Ag			1	0.016	ug/l	20.93	260.01	9.923E-05	Pulse	0.10	3
Sn			1	2086.587	ug/l	4.44	19,181,371.80	7.351E+00	Analog	0.10	3
Sb			1	0.161	ug/l	16.22	2,923.78	9.121E-04	Pulse	0.10	3
Ba			1	0.252	ug/l	7.74	1,056.76	3.287E-04	Pulse	0.10	3
Tl			1	0.003	ug/l	76.27	250.01	1.641E-04	Pulse	0.10	3
Pb			1	0.085	ug/l	13.09	640.05	4.211E-04	Pulse	0.10	3
Pb			1	0.079	ug/l	12.83	500.04	3.290E-04	Pulse	0.10	3
Pb			1	0.079	ug/l	4.18	2,356.86	1.546E-03	Pulse	0.10	3
Na			2	100147.047	ug/l	0.29	104,148,011.42	8.896E+02	Analog	0.30	3
Mg			2	98752.184	ug/l	2.03	46,592,337.04	3.980E+02	Analog	0.30	3
Al			2	106154.158	ug/l	1.57	16,337,381.02	1.396E+02	Analog	0.30	3
K			2	109325.196	ug/l	0.78	35,162,193.05	3.004E+02	Analog	0.30	3
Ca			2	109160.196	ug/l	0.57	1,890,496.45	1.615E+01	Pulse	0.30	3
Ti			2	1930.625	ug/l	0.70	259,455.43	2.216E+00	Pulse	0.30	3
V			2	0.041	ug/l	38.57	542.24	4.634E-03	Pulse	0.30	3
Cr			2	0.275	ug/l	7.83	1,724.58	1.473E-02	Pulse	0.30	3
Mn			2	0.262	ug/l	4.88	755.58	6.454E-03	Pulse	0.30	3
Fe			2	98187.947	ug/l	1.60	421,209,992.15	3.598E+03	Analog	0.30	3
Co			2	0.350	ug/l	1.35	2,887.00	2.466E-02	Pulse	0.30	3
Ni			2	0.703	ug/l	7.39	1,549.00	1.324E-02	Pulse	0.30	3
Cu			2	0.085	ug/l	12.36	1,034.51	8.838E-03	Pulse	0.30	3
Zn			2	-0.232	ug/l	-8.99	436.68	3.730E-03	Pulse	0.30	3
As			2	0.095	ug/l	9.81	48.67	4.158E-04	Pulse	1.00	3
Cd			2	0.019	ug/l	1664.75	45.17	9.793E-05	Pulse	0.30	3
Sn			2	1847.979	ug/l	0.46	3,832,782.91	8.123E+00	Pulse	0.30	3
Se			3	0.072	ug/l	19.00	12.67	1.144E-04	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,781,976.44	2.26	85.2	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,869,815.58	2.40	89.7	Pulse	0.10	3
1	Ge		636,737.26	2.97	86.3	Pulse	0.10	3
1	Rh		2,572,997.05	4.00	81.3	Pulse	0.10	3
1	In		2,611,994.81	3.39	82.9	Pulse	0.10	3
1	Tb		3,209,869.74	3.70	88.2	Pulse	0.10	3
1	Ho		302,589.49	4.36	88.3	Pulse	0.10	3
1	Bi		1,523,149.04	3.68	81.1	Pulse	0.10	3
2	Sc		117,065.71	0.61	92.0	Pulse	0.30	3
2	Ge		87,171.01	0.89	89.9	Pulse	0.30	3
2	Rh		1,263,703.80	0.76	84.1	Pulse	0.30	3
2	In		471,822.87	0.57	89.2	Pulse	0.30	3
2	Tb		1,463,697.76	0.27	92.6	Pulse	0.30	3
2	Ho		137,325.48	0.53	92.5	Pulse	0.30	3
2	Bi		783,320.46	0.94	84.2	Pulse	0.30	3
3	Sc		146,275.11	0.61	90.6	Pulse	0.30	3
3	Ge		110,758.28	0.45	86.6	Pulse	0.30	3
3	Rh		891,588.82	0.94	80.1	Pulse	0.30	3
3	Tb		1,288,004.39	1.81	89.8	Pulse	0.30	3

Quantitation Report

File Name	022ICSB.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051019m2.b
Method File	
Method Path	
Acq Time	5/10/2019 15:05
Sample Name	ICSAB
Sample Type	ICSB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.001	ug/l	189.80	18.67	1.101E-05	Pulse	0.25	3
B			1	49.959	ug/l	0.73	251,635.15	1.489E-01	Pulse	0.15	3
Ca			1	111012.982	ug/l	3.29	93,348,801.94	3.410E+01	Analog	0.10	3
Sr			1	2380.109	ug/l	2.59	72,936,317.25	2.905E+01	Analog	0.10	3
Mo			1	2389.735	ug/l	3.75	15,131,919.78	6.028E+00	Analog	0.10	3
Ag			1	19.953	ug/l	0.62	291,449.67	1.120E-01	Pulse	0.10	3
Sn			1	2082.069	ug/l	3.91	19,068,029.72	7.335E+00	Analog	0.10	3
Sb			1	0.141	ug/l	15.12	2,703.72	8.494E-04	Pulse	0.10	3
Ba			1	0.261	ug/l	8.58	1,080.09	3.401E-04	Pulse	0.10	3
Tl			1	0.000	ug/l	-799.58	190.01	1.234E-04	Pulse	0.10	3
Pb			1	0.083	ug/l	12.41	633.38	4.120E-04	Pulse	0.10	3
Pb			1	0.081	ug/l	19.60	516.70	3.366E-04	Pulse	0.10	3
Pb			1	0.084	ug/l	8.63	2,500.20	1.625E-03	Pulse	0.10	3
Na			2	100054.237	ug/l	0.91	100,957,942.65	8.888E+02	Analog	0.30	3
Mg			2	97523.001	ug/l	0.24	44,641,186.00	3.930E+02	Analog	0.30	3
Al			2	105398.151	ug/l	1.19	15,739,735.48	1.386E+02	Analog	0.30	3
K			2	108951.037	ug/l	0.53	34,000,024.21	2.993E+02	Analog	0.30	3
Ca			2	109335.732	ug/l	0.38	1,837,181.59	1.617E+01	Pulse	0.30	3
Ti			2	1924.049	ug/l	0.52	250,882.86	2.209E+00	Pulse	0.30	3
V			2	21.783	ug/l	0.35	88,351.03	7.778E-01	Pulse	0.30	3
Cr			2	20.535	ug/l	0.98	101,479.71	8.935E-01	Pulse	0.30	3
Mn			2	20.898	ug/l	1.41	53,161.76	4.681E-01	Pulse	0.30	3
Fe			2	98912.194	ug/l	0.74	411,668,179.20	3.624E+03	Analog	0.30	3
Co			2	19.977	ug/l	1.17	156,527.15	1.378E+00	Pulse	0.30	3
Ni			2	19.503	ug/l	1.74	40,685.53	3.582E-01	Pulse	0.30	3
Cu			2	18.763	ug/l	1.37	103,487.21	9.111E-01	Pulse	0.30	3
Zn			2	17.238	ug/l	1.35	13,819.29	1.217E-01	Pulse	0.30	3
As			2	19.365	ug/l	2.45	8,681.10	7.644E-02	Pulse	1.00	3
Cd			2	18.799	ug/l	3.01	34,452.54	7.404E-02	Pulse	0.30	3
Sn			2	1842.120	ug/l	0.59	3,768,527.77	8.097E+00	Pulse	0.30	3
Se			3	20.189	ug/l	5.42	1,770.13	1.616E-02	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,689,951.32	1.52	80.8	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,739,272.46	2.56	85.7	Pulse	0.10	3
1	Ge		618,413.38	3.29	83.9	Pulse	0.10	3
1	Rh		2,512,368.03	3.67	79.4	Pulse	0.10	3
1	In		2,602,435.27	4.21	82.6	Pulse	0.10	3
1	Tb		3,178,114.01	3.25	87.3	Pulse	0.10	3
1	Ho		301,012.18	3.85	87.8	Pulse	0.10	3
1	Bi		1,541,360.29	4.04	82.0	Pulse	0.10	3
2	Sc		113,583.65	0.99	89.3	Pulse	0.30	3
2	Ge		85,997.09	0.24	88.7	Pulse	0.30	3
2	Rh		1,247,731.37	0.19	83.1	Pulse	0.30	3
2	In		465,385.65	0.79	88.0	Pulse	0.30	3
2	Tb		1,458,254.77	0.07	92.3	Pulse	0.30	3
2	Ho		137,047.18	0.30	92.3	Pulse	0.30	3
2	Bi		789,342.19	0.21	84.8	Pulse	0.30	3
3	Sc		143,428.64	0.17	88.8	Pulse	0.30	3
3	Ge		109,586.65	0.90	85.7	Pulse	0.30	3
3	Rh		889,480.87	1.19	79.9	Pulse	0.30	3
3	Tb		1,296,939.98	1.56	90.4	Pulse	0.30	3

Quantitation Report

File Name	023SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051019m2.b
Method File	
Method Path	
Acq Time	5/10/2019 15:09
Sample Name	rinseconf
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	-0.002	ug/l	-35.32	2.67	1.555E-06	Pulse	0.25	3
B			1	-0.323	ug/l	-3.69	9,688.00	5.641E-03	Pulse	0.15	3
Ca			1	6.475	ug/l	15.25	31,529.98	1.152E-02	Pulse	0.10	3
Sr			1	0.268	ug/l	7.92	10,157.52	3.457E-03	Pulse	0.10	3
Mo			1	0.819	ug/l	2.03	5,601.38	1.903E-03	Pulse	0.10	3
Ag			1	0.002	ug/l	128.29	60.00	1.997E-05	Pulse	0.10	3
Sn			1	0.420	ug/l	2.22	5,721.46	1.932E-03	Pulse	0.10	3
Sb			1	-0.038	ug/l	-24.36	923.41	2.649E-04	Pulse	0.10	3
Ba			1	-0.003	ug/l	-213.02	30.00	8.552E-06	Pulse	0.10	3
Tl			1	-0.002	ug/l	-47.69	196.68	1.054E-04	Pulse	0.10	3
Pb			1	0.002	ug/l	222.22	146.68	7.875E-05	Pulse	0.10	3
Pb			1	0.004	ug/l	175.35	116.67	6.329E-05	Pulse	0.10	3
Pb			1	0.003	ug/l	76.44	550.03	2.951E-04	Pulse	0.10	3
Na			2	11.597	ug/l	11.43	17,734.64	1.652E-01	Pulse	0.30	3
Mg			2	7.866	ug/l	11.71	3,865.02	3.601E-02	Pulse	0.30	3
Al			2	7.852	ug/l	13.65	1,265.63	1.179E-02	Pulse	0.30	3
K			2	8.832	ug/l	16.00	10,713.10	9.981E-02	Pulse	0.30	3
Ca			2	4.883	ug/l	45.92	271.11	2.525E-03	Pulse	0.30	3
Ti			2	0.235	ug/l	44.00	28.89	2.693E-04	Pulse	0.30	3
V			2	0.016	ug/l	91.48	402.23	3.747E-03	Pulse	0.30	3
Cr			2	-0.011	ug/l	-65.25	248.89	2.319E-03	Pulse	0.30	3
Mn			2	0.006	ug/l	143.82	77.78	7.247E-04	Pulse	0.30	3
Fe			2	9.191	ug/l	10.02	42,116.56	3.924E-01	Pulse	0.30	3
Co			2	0.001	ug/l	131.71	63.33	5.900E-04	Pulse	0.30	3
Ni			2	-0.003	ug/l	-151.12	30.00	2.793E-04	Pulse	0.30	3
Cu			2	0.003	ug/l	261.56	523.35	4.875E-03	Pulse	0.30	3
Zn			2	-0.055	ug/l	-55.12	528.91	4.927E-03	Pulse	0.30	3
As			2	0.003	ug/l	52.61	5.67	5.278E-05	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	0.001	ug/l	751.00	13.54	2.801E-05	Pulse	0.30	3
Sn			2	-0.137	ug/l	-4.14	1,065.61	2.208E-03	Pulse	0.30	3
Se			3	-0.037	ug/l	-113.07	3.33	2.744E-05	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,717,426.16	0.46	82.1	Pulse	0.10	3
1	Sc		2,737,263.81	2.82	85.6	Pulse	0.10	3
1	Ge		655,696.27	2.62	88.9	Pulse	0.10	3
1	Rh		2,942,622.56	3.35	93.0	Pulse	0.10	3
1	In		2,961,881.47	3.13	94.1	Pulse	0.10	3
1	Tb		3,493,522.24	3.33	95.9	Pulse	0.10	3
1	Ho		328,498.92	3.10	95.8	Pulse	0.10	3
1	Bi		1,862,079.45	3.44	99.1	Pulse	0.10	3
2	Sc		107,346.34	0.39	84.4	Pulse	0.30	3
2	Ge		85,206.77	1.29	87.9	Pulse	0.30	3
2	Rh		1,370,035.40	0.81	91.2	Pulse	0.30	3
2	In		482,748.03	1.58	91.2	Pulse	0.30	3
2	Tb		1,491,848.90	1.12	94.4	Pulse	0.30	3
2	Ho		141,809.31	1.13	95.5	Pulse	0.30	3
2	Bi		899,822.78	0.90	96.7	Pulse	0.30	3
3	Sc		152,815.32	4.70	94.6	Pulse	0.30	3
3	Ge		114,432.19	8.39	89.4	Pulse	0.30	3
3	Rh		1,083,551.21	6.18	97.4	Pulse	0.30	3
3	Tb		1,440,124.11	6.34	100.4	Pulse	0.30	3

Quantitation Report

File Name	024ICSA.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051019m2.b
Method File	
Method Path	
Acq Time	5/10/2019 15:15
Sample Name	ICSA
Sample Type	ICSA
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.000	ug/l	-2615.10	14.67	8.941E-06	Pulse	0.25	3
B			1	-0.048	ug/l	-90.52	10,657.61	6.426E-03	Pulse	0.15	3
Ca			1	106767.147	ug/l	4.09	88,275,862.02	3.279E+01	Analog	0.10	3
Sr			1	2295.018	ug/l	3.55	69,754,038.96	2.801E+01	Analog	0.10	3
Mo			1	2308.404	ug/l	3.67	14,500,158.53	5.823E+00	Analog	0.10	3
Ag			1	0.012	ug/l	20.97	200.01	7.740E-05	Pulse	0.10	3
Sn			1	2008.753	ug/l	5.48	18,291,705.15	7.077E+00	Analog	0.10	3
Sb			1	0.135	ug/l	6.01	2,637.03	8.297E-04	Pulse	0.10	3
Ba			1	0.220	ug/l	5.77	916.74	2.885E-04	Pulse	0.10	3
Tl			1	0.002	ug/l	95.09	233.34	1.533E-04	Pulse	0.10	3
Pb			1	0.083	ug/l	16.33	626.71	4.136E-04	Pulse	0.10	3
Pb			1	0.077	ug/l	27.38	483.36	3.201E-04	Pulse	0.10	3
Pb			1	0.075	ug/l	3.14	2,253.51	1.481E-03	Pulse	0.10	3
Na			2	96074.015	ug/l	2.71	94,121,596.26	8.535E+02	Analog	0.30	3
Mg			2	93314.072	ug/l	3.51	41,465,862.80	3.761E+02	Analog	0.30	3
Al			2	100437.230	ug/l	3.18	14,560,304.98	1.320E+02	Analog	0.30	3
K			2	104465.952	ug/l	1.63	31,659,962.08	2.870E+02	Analog	0.30	3
Ca			2	104461.484	ug/l	2.91	1,704,209.90	1.545E+01	Pulse	0.30	3
Ti			2	1833.407	ug/l	2.37	232,121.22	2.105E+00	Pulse	0.30	3
V			2	0.037	ug/l	30.37	494.46	4.485E-03	Pulse	0.30	3
Cr			2	0.258	ug/l	2.48	1,544.55	1.400E-02	Pulse	0.30	3
Mn			2	0.264	ug/l	5.16	715.58	6.491E-03	Pulse	0.30	3
Fe			2	95485.881	ug/l	1.96	385,963,611.33	3.499E+03	Analog	0.30	3
Co			2	0.327	ug/l	4.99	2,545.82	2.309E-02	Pulse	0.30	3
Ni			2	0.704	ug/l	7.55	1,460.10	1.325E-02	Pulse	0.30	3
Cu			2	0.170	ug/l	8.46	1,424.54	1.292E-02	Pulse	0.30	3
Zn			2	-0.183	ug/l	-12.31	448.90	4.065E-03	Pulse	0.30	3
As			2	0.089	ug/l	33.30	43.67	3.938E-04	Pulse	1.00	3
Cd			2	-0.252	ug/l	-74.98	-440.48	-9.701E-04	Pulse	0.30	3
Sn			2	1797.457	ug/l	2.88	3,543,156.94	7.901E+00	Pulse	0.30	3
Se			3	0.097	ug/l	109.09	15.33	1.344E-04	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,658,140.38	2.35	79.2	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,694,293.29	3.13	84.2	Pulse	0.10	3
1	Ge		618,518.87	2.97	83.9	Pulse	0.10	3
1	Rh		2,492,866.48	4.41	78.8	Pulse	0.10	3
1	In		2,589,404.49	4.87	82.2	Pulse	0.10	3
1	Tb		3,181,268.81	4.39	87.4	Pulse	0.10	3
1	Ho		298,270.86	4.72	87.0	Pulse	0.10	3
1	Bi		1,522,472.27	5.30	81.0	Pulse	0.10	3
2	Sc		110,341.37	3.04	86.7	Pulse	0.30	3
2	Ge		82,528.11	1.43	85.1	Pulse	0.30	3
2	Rh		1,212,478.56	2.82	80.7	Pulse	0.30	3
2	In		448,682.04	3.00	84.8	Pulse	0.30	3
2	Tb		1,420,329.67	1.91	89.9	Pulse	0.30	3
2	Ho		133,930.98	2.27	90.2	Pulse	0.30	3
2	Bi		767,459.15	2.42	82.5	Pulse	0.30	3
3	Sc		149,685.85	6.04	92.7	Pulse	0.30	3
3	Ge		112,646.64	3.47	88.1	Pulse	0.30	3
3	Rh		923,773.68	4.81	83.0	Pulse	0.30	3
3	Tb		1,354,328.07	4.30	94.4	Pulse	0.30	3

Quantitation Report

File Name 025_CCV.d
File Path C:\Agilent\ICPMH\1\DATA\.b051019m2.b
Method File
Method Path
Acq Time 5/10/2019 15:20
Sample Name CCVA
Sample Type CCV
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name Metals
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 5/13/2019 7:20
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	48.930	ug/l	1.11	278,147.84	1.608E-01	Pulse	0.25	3
B			1	98.729	ug/l	0.83	497,803.26	2.878E-01	Pulse	0.15	3
Ca			1	4912.980	ug/l	1.53	4,230,664.10	1.518E+00	Pulse	0.10	3
Sr			1	51.877	ug/l	1.02	1,842,131.69	6.333E-01	Pulse	0.10	3
Mo			1	51.690	ug/l	1.20	378,751.31	1.302E-01	Pulse	0.10	3
Ag			1	48.741	ug/l	1.39	815,744.68	2.736E-01	Pulse	0.10	3
Sn			1	49.179	ug/l	0.40	517,929.98	1.737E-01	Pulse	0.10	3
Sb			1	51.445	ug/l	0.45	604,477.93	1.681E-01	Pulse	0.10	3
Ba			1	49.782	ug/l	0.91	225,139.23	6.263E-02	Pulse	0.10	3
Tl			1	51.134	ug/l	1.40	1,120,495.40	6.122E-01	Pulse	0.10	3
Pb			1	50.603	ug/l	0.11	381,445.98	2.084E-01	Pulse	0.10	3
Pb			1	51.150	ug/l	0.91	333,231.21	1.821E-01	Pulse	0.10	3
Pb			1	51.132	ug/l	0.91	1,533,426.66	8.380E-01	Pulse	0.10	3
Na			2	4586.912	ug/l	1.47	4,606,288.98	4.081E+01	Pulse	0.30	3
Mg			2	4631.053	ug/l	1.47	2,107,191.93	1.867E+01	Pulse	0.30	3
Al			2	4804.996	ug/l	1.48	713,227.00	6.318E+00	Pulse	0.30	3
K			2	4862.681	ug/l	1.12	1,516,208.69	1.343E+01	Pulse	0.30	3
Ca			2	5191.756	ug/l	0.76	86,893.95	7.698E-01	Pulse	0.30	3
Ti			2	48.755	ug/l	2.15	6,318.18	5.597E-02	Pulse	0.30	3
V			2	49.966	ug/l	0.39	200,949.74	1.780E+00	Pulse	0.30	3
Cr			2	49.874	ug/l	0.80	244,516.62	2.166E+00	Pulse	0.30	3
Mn			2	50.216	ug/l	0.35	126,876.37	1.124E+00	Pulse	0.30	3
Fe			2	5128.128	ug/l	2.67	21,216,963.05	1.880E+02	Analog	0.30	3
Co			2	49.697	ug/l	1.16	386,926.36	3.428E+00	Pulse	0.30	3
Ni			2	49.306	ug/l	1.64	102,173.90	9.052E-01	Pulse	0.30	3
Cu			2	49.320	ug/l	1.22	269,485.72	2.387E+00	Pulse	0.30	3
Zn			2	49.810	ug/l	1.53	38,557.36	3.416E-01	Pulse	0.30	3
As			2	49.289	ug/l	1.90	21,953.56	1.945E-01	Pulse	1.00	3
Cd			2	51.777	ug/l	0.48	100,538.50	2.039E-01	Pulse	0.30	3
Sn			2	50.735	ug/l	0.78	111,328.06	2.257E-01	Pulse	0.30	3
Se			3	193.771	ug/l	3.91	18,266.94	1.546E-01	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,729,674.10	3.21	82.7	Pulse	0.10	3
1	Sc		2,787,753.81	3.52	87.2	Pulse	0.10	3
1	Ge		683,365.96	3.96	92.7	Pulse	0.10	3

Quantitation Report

1	Rh		2,909,283.29	4.75	91.9	Pulse	0.10	3
1	In		2,982,111.03	4.17	94.7	Pulse	0.10	3
1	Tb		3,595,364.42	3.92	98.7	Pulse	0.10	3
1	Ho		334,703.36	3.93	97.6	Pulse	0.10	3
1	Bi		1,830,052.78	3.93	97.4	Pulse	0.10	3
2	Sc		112,887.10	0.56	88.7	Pulse	0.30	3
2	Ge		88,894.29	0.62	91.7	Pulse	0.30	3
2	Rh		1,391,953.83	0.40	92.7	Pulse	0.30	3
2	In		493,142.22	0.60	93.2	Pulse	0.30	3
2	Tb		1,559,603.55	1.01	98.7	Pulse	0.30	3
2	Ho		147,826.43	0.81	99.6	Pulse	0.30	3
2	Bi		911,459.69	0.75	97.9	Pulse	0.30	3
3	Sc		148,029.04	1.30	91.7	Pulse	0.30	3
3	Ge		118,206.46	1.06	92.4	Pulse	0.30	3
3	Rh		1,018,932.01	1.38	91.6	Pulse	0.30	3
3	Tb		1,393,498.87	0.82	97.2	Pulse	0.30	3

Quantitation Report

File Name	026_CCB.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051019m2.b
Method File	
Method Path	
Acq Time	5/10/2019 15:25
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.015	ug/l	5.27	101.33	5.731E-05	Pulse	0.25	3
B			1	0.027	ug/l	506.26	11,740.71	6.641E-03	Pulse	0.15	3
Ca			1	-4.120	ug/l	-33.55	23,090.15	8.269E-03	Pulse	0.10	3
Sr			1	0.042	ug/l	22.35	2,060.26	7.004E-04	Pulse	0.10	3
Mo			1	0.239	ug/l	12.39	1,300.12	4.406E-04	Pulse	0.10	3
Ag			1	0.006	ug/l	31.32	123.34	4.144E-05	Pulse	0.10	3
Sn			1	0.105	ug/l	6.58	2,457.00	8.237E-04	Pulse	0.10	3
Sb			1	0.027	ug/l	81.73	1,676.85	4.768E-04	Pulse	0.10	3
Ba			1	0.012	ug/l	9.14	93.33	2.654E-05	Pulse	0.10	3
Tl			1	0.012	ug/l	5.41	516.70	2.755E-04	Pulse	0.10	3
Pb			1	0.016	ug/l	34.79	260.01	1.392E-04	Pulse	0.10	3
Pb			1	0.018	ug/l	46.61	206.68	1.101E-04	Pulse	0.10	3
Pb			1	0.015	ug/l	15.28	930.05	4.966E-04	Pulse	0.10	3
Na			2	2.756	ug/l	19.26	9,453.26	8.671E-02	Pulse	0.30	3
Mg			2	1.077	ug/l	25.55	944.49	8.655E-03	Pulse	0.30	3
Al			2	3.013	ug/l	4.70	592.24	5.432E-03	Pulse	0.30	3
K			2	-0.302	ug/l	-186.53	8,146.91	7.472E-02	Pulse	0.30	3
Ca			2	-0.114	ug/l	-2260.53	194.45	1.786E-03	Pulse	0.30	3
Ti			2	0.107	ug/l	66.64	13.33	1.228E-04	Pulse	0.30	3
V			2	0.013	ug/l	127.01	394.46	3.615E-03	Pulse	0.30	3
Cr			2	0.031	ug/l	8.03	448.90	4.117E-03	Pulse	0.30	3
Mn			2	0.014	ug/l	48.17	98.89	9.080E-04	Pulse	0.30	3
Fe			2	1.913	ug/l	3.19	13,711.38	1.257E-01	Pulse	0.30	3
Co			2	0.007	ug/l	30.12	106.67	9.779E-04	Pulse	0.30	3
Ni			2	0.041	ug/l	22.71	118.89	1.089E-03	Pulse	0.30	3
Cu			2	0.059	ug/l	21.89	825.59	7.574E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	-0.406	ug/l	-9.07	278.90	2.556E-03	Pulse	0.30	3
As			2	0.021	ug/l	31.80	13.67	1.253E-04	Pulse	1.00	3
Cd			2	0.012	ug/l	31.22	34.82	7.161E-05	Pulse	0.30	3
Sn			2	-0.379	ug/l	-2.35	556.69	1.145E-03	Pulse	0.30	3
Se			3	0.048	ug/l	129.09	11.33	9.572E-05	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,769,435.20	2.44	84.6	Pulse	0.10	3
1	Sc		2,795,154.02	3.17	87.4	Pulse	0.10	3
1	Ge		665,790.47	3.54	90.3	Pulse	0.10	3
1	Rh		2,953,260.69	3.69	93.3	Pulse	0.10	3
1	In		2,983,306.68	4.96	94.7	Pulse	0.10	3
1	Tb		3,516,129.63	1.94	96.6	Pulse	0.10	3
1	Ho		333,447.92	4.08	97.3	Pulse	0.10	3
1	Bi		1,874,468.57	3.30	99.8	Pulse	0.10	3
2	Sc		109,032.40	1.08	85.7	Pulse	0.30	3
2	Ge		85,984.71	0.61	88.7	Pulse	0.30	3
2	Rh		1,376,948.03	0.48	91.7	Pulse	0.30	3
2	In		486,165.47	0.24	91.9	Pulse	0.30	3
2	Tb		1,486,719.66	0.57	94.1	Pulse	0.30	3
2	Ho		141,599.72	1.03	95.4	Pulse	0.30	3
2	Bi		900,045.59	1.01	96.7	Pulse	0.30	3
3	Sc		147,649.62	0.69	91.4	Pulse	0.30	3
3	Ge		118,702.98	1.15	92.8	Pulse	0.30	3
3	Rh		1,043,757.14	1.21	93.8	Pulse	0.30	3
3	Tb		1,375,651.51	1.81	95.9	Pulse	0.30	3

Quantitation Report

File Name	027SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051019m2.b
Method File	
Method Path	
Acq Time	5/10/2019 15:29
Sample Name	mp14909-mb1 4
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.011	ug/l	99.59	48.00	2.767E-05	Pulse	0.25	3
B			1	0.457	ug/l	21.33	12,490.28	7.213E-03	Pulse	0.15	3
Ca			1	12.912	ug/l	12.34	32,021.04	1.152E-02	Pulse	0.10	3
Sr			1	0.144	ug/l	18.20	3,060.48	1.061E-03	Pulse	0.10	3
Mo			1	0.600	ug/l	10.40	1,720.19	5.933E-04	Pulse	0.10	3
Ag			1	0.018	ug/l	27.95	173.34	5.827E-05	Pulse	0.10	3
Sn			1	0.605	ug/l	6.88	4,490.92	1.520E-03	Pulse	0.10	3
Sb			1	0.145	ug/l	8.99	2,206.94	6.238E-04	Pulse	0.10	3
Ba			1	0.097	ug/l	23.34	260.01	7.330E-05	Pulse	0.10	3
Tl			1	0.011	ug/l	32.87	360.02	1.954E-04	Pulse	0.10	3
Pb			1	0.027	ug/l	57.84	233.35	1.272E-04	Pulse	0.10	3
Pb			1	0.025	ug/l	47.92	166.68	9.134E-05	Pulse	0.10	3
Pb			1	0.029	ug/l	35.71	883.39	4.821E-04	Pulse	0.10	3
Na			2	12.300	ug/l	4.47	12,428.92	1.169E-01	Pulse	0.30	3
Mg			2	1.905	ug/l	25.65	867.81	8.154E-03	Pulse	0.30	3
Al			2	2.572	ug/l	33.76	336.68	3.162E-03	Pulse	0.30	3
K			2	1.025	ug/l	164.88	8,184.71	7.696E-02	Pulse	0.30	3
Ca			2	21.540	ug/l	4.88	361.12	3.396E-03	Pulse	0.30	3
Ti			2	0.438	ug/l	58.06	26.66	2.513E-04	Pulse	0.30	3
V			2	0.570	ug/l	9.61	1,414.54	1.330E-02	Pulse	0.30	3
Cr			2	0.262	ug/l	7.05	901.16	8.474E-03	Pulse	0.30	3
Mn			2	0.207	ug/l	9.58	310.00	2.914E-03	Pulse	0.30	3
Fe			2	4.945	ug/l	11.76	15,558.13	1.462E-01	Pulse	0.30	3
Co			2	0.011	ug/l	30.44	96.67	9.096E-04	Pulse	0.30	3
Ni			2	0.085	ug/l	25.83	118.89	1.117E-03	Pulse	0.30	3
Cu			2	0.241	ug/l	8.32	1,121.17	1.055E-02	Pulse	0.30	3
Zn			2	6.309	ug/l	5.00	2,828.11	2.660E-02	Pulse	0.30	3
As			2	0.140	ug/l	9.73	34.00	3.196E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	-0.004	ug/l	-92.39	7.36	1.566E-05	Pulse	0.30	3
Sn			2	-0.364	ug/l	-12.48	942.27	2.012E-03	Pulse	0.30	3
Se			3	0.243	ug/l	42.27	19.33	1.542E-04	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,731,569.75	0.61	82.7	Pulse	0.10	3
1	Sc		2,780,782.35	2.76	87.0	Pulse	0.10	3
1	Ge		671,869.14	3.10	91.1	Pulse	0.10	3
1	Rh		2,893,456.94	3.65	91.4	Pulse	0.10	3
1	In		2,956,478.04	4.04	93.9	Pulse	0.10	3
1	Tb		3,538,443.38	3.53	97.2	Pulse	0.10	3
1	Ho		331,657.49	2.76	96.8	Pulse	0.10	3
1	Bi		1,837,795.75	4.61	97.8	Pulse	0.10	3
2	Sc		106,348.76	0.88	83.6	Pulse	0.30	3
2	Ge		86,285.50	0.60	89.0	Pulse	0.30	3
2	Rh		1,347,500.47	1.26	89.7	Pulse	0.30	3
2	In		468,254.24	1.14	88.5	Pulse	0.30	3
2	Tb		1,468,754.46	0.21	92.9	Pulse	0.30	3
2	Ho		138,471.11	0.63	93.3	Pulse	0.30	3
2	Bi		875,791.79	0.44	94.1	Pulse	0.30	3
3	Sc		144,585.68	1.60	89.5	Pulse	0.30	3
3	Ge		125,453.62	1.48	98.1	Pulse	0.30	3
3	Rh		1,021,904.02	1.34	91.9	Pulse	0.30	3
3	Tb		1,373,201.23	1.26	95.7	Pulse	0.30	3

Quantitation Report

File Name	028SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051019m2.b
Method File	
Method Path	
Acq Time	5/10/2019 15:34
Sample Name	mp14909-mb2
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.000	ug/l	-2212.71	16.00	9.078E-06	Pulse	0.25	3
B			1	0.448	ug/l	28.45	12,694.82	7.201E-03	Pulse	0.15	3
Ca			1	13.316	ug/l	4.88	32,732.76	1.158E-02	Pulse	0.10	3
Sr			1	0.208	ug/l	3.96	4,237.50	1.453E-03	Pulse	0.10	3
Mo			1	0.350	ug/l	6.90	810.06	2.777E-04	Pulse	0.10	3
Ag			1	0.007	ug/l	103.51	86.67	2.873E-05	Pulse	0.10	3
Sn			1	0.416	ug/l	2.42	3,510.59	1.186E-03	Pulse	0.10	3
Sb			1	0.044	ug/l	38.65	1,626.83	4.595E-04	Pulse	0.10	3
Ba			1	0.061	ug/l	21.40	176.68	5.013E-05	Pulse	0.10	3
Tl			1	0.004	ug/l	75.64	273.35	1.490E-04	Pulse	0.10	3
Pb			1	0.013	ug/l	60.85	180.01	9.767E-05	Pulse	0.10	3
Pb			1	0.015	ug/l	105.71	133.34	7.321E-05	Pulse	0.10	3
Pb			1	0.012	ug/l	46.21	643.37	3.495E-04	Pulse	0.10	3
Na			2	12.810	ug/l	3.97	12,903.79	1.191E-01	Pulse	0.30	3
Mg			2	0.652	ug/l	38.44	610.02	5.629E-03	Pulse	0.30	3
Al			2	1.039	ug/l	47.06	233.34	2.154E-03	Pulse	0.30	3
K			2	0.654	ug/l	106.36	8,280.31	7.645E-02	Pulse	0.30	3
Ca			2	24.469	ug/l	12.66	391.12	3.613E-03	Pulse	0.30	3
Ti			2	0.411	ug/l	53.80	25.56	2.356E-04	Pulse	0.30	3
V			2	0.546	ug/l	7.13	1,393.42	1.287E-02	Pulse	0.30	3
Cr			2	0.318	ug/l	8.37	1,047.83	9.677E-03	Pulse	0.30	3
Mn			2	0.221	ug/l	2.96	332.23	3.067E-03	Pulse	0.30	3
Fe			2	23.783	ug/l	0.77	53,227.80	4.914E-01	Pulse	0.30	3
Co			2	0.017	ug/l	9.46	122.23	1.128E-03	Pulse	0.30	3
Ni			2	2.267	ug/l	1.71	2,290.22	2.114E-02	Pulse	0.30	3
Cu			2	3.683	ug/l	4.52	10,143.84	9.369E-02	Pulse	0.30	3
Zn			2	3.535	ug/l	9.69	1,867.93	1.723E-02	Pulse	0.30	3
As			2	0.078	ug/l	5.34	21.33	1.970E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	-0.006	ug/l	-193.30	5.61	1.196E-05	Pulse	0.30	3
Sn			2	-0.536	ug/l	-15.85	762.25	1.635E-03	Pulse	0.30	3
Se			3	0.040	ug/l	279.60	9.33	7.323E-05	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,763,004.95	1.59	84.3	Pulse	0.10	3
1	Sc		2,827,210.69	3.01	88.4	Pulse	0.10	3
1	Ge		687,679.99	3.89	93.2	Pulse	0.10	3
1	Rh		2,913,931.31	3.32	92.1	Pulse	0.10	3
1	In		2,962,078.17	4.69	94.1	Pulse	0.10	3
1	Tb		3,542,175.37	4.90	97.3	Pulse	0.10	3
1	Ho		331,659.01	4.98	96.8	Pulse	0.10	3
1	Bi		1,835,670.96	3.78	97.7	Pulse	0.10	3
2	Sc		108,324.99	1.60	85.1	Pulse	0.30	3
2	Ge		86,692.57	0.53	89.4	Pulse	0.30	3
2	Rh		1,367,644.53	0.27	91.1	Pulse	0.30	3
2	In		466,354.58	1.30	88.1	Pulse	0.30	3
2	Tb		1,480,568.76	0.93	93.7	Pulse	0.30	3
2	Ho		140,647.32	0.52	94.7	Pulse	0.30	3
2	Bi		872,349.71	0.57	93.7	Pulse	0.30	3
3	Sc		147,065.93	0.64	91.1	Pulse	0.30	3
3	Ge		126,903.65	1.06	99.2	Pulse	0.30	3
3	Rh		1,038,839.44	1.45	93.4	Pulse	0.30	3
3	Tb		1,385,069.08	1.59	96.6	Pulse	0.30	3

Quantitation Report

File Name	029SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051019m2.b
Method File	
Method Path	
Acq Time	5/10/2019 15:39
Sample Name	mp14909-b2
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	79.050	ug/l	1.34	229,469.91	1.299E-01	Pulse	0.25	3
B			1	83.435	ug/l	2.97	221,482.18	1.254E-01	Pulse	0.15	3
Ca			1	4015.333	ug/l	0.31	1,813,695.28	6.260E-01	Pulse	0.10	3
Sr			1	82.839	ug/l	0.24	1,475,905.40	5.057E-01	Pulse	0.10	3
Mo			1	78.597	ug/l	0.07	288,836.94	9.897E-02	Pulse	0.10	3
Ag			1	76.466	ug/l	2.34	639,461.79	2.146E-01	Pulse	0.10	3
Sn			1	74.657	ug/l	0.38	393,090.44	1.320E-01	Pulse	0.10	3
Sb			1	77.381	ug/l	0.50	455,361.91	1.266E-01	Pulse	0.10	3
Ba			1	80.535	ug/l	2.26	182,217.35	5.066E-02	Pulse	0.10	3
Tl			1	82.180	ug/l	2.24	898,784.13	4.920E-01	Pulse	0.10	3
Pb			1	80.684	ug/l	2.28	303,558.12	1.662E-01	Pulse	0.10	3
Pb			1	80.758	ug/l	1.49	262,657.03	1.438E-01	Pulse	0.10	3
Pb			1	81.088	ug/l	1.55	1,214,019.54	6.646E-01	Pulse	0.10	3
Na			2	3898.914	ug/l	0.33	1,937,417.49	1.738E+01	Pulse	0.30	3
Mg			2	3915.496	ug/l	1.05	880,045.17	7.894E+00	Pulse	0.30	3
Al			2	3986.376	ug/l	1.02	292,288.46	2.622E+00	Pulse	0.30	3
K			2	4000.651	ug/l	0.77	620,932.39	5.570E+00	Pulse	0.30	3
Ca			2	4392.314	ug/l	2.62	36,416.53	3.267E-01	Pulse	0.30	3
Ti			2	77.407	ug/l	3.80	4,953.17	4.443E-02	Pulse	0.30	3
V			2	81.075	ug/l	0.26	161,070.52	1.445E+00	Pulse	0.30	3
Cr			2	81.926	ug/l	0.98	198,390.39	1.780E+00	Pulse	0.30	3
Mn			2	80.849	ug/l	0.31	100,878.75	9.049E-01	Pulse	0.30	3
Fe			2	4309.955	ug/l	2.13	8,809,382.99	7.902E+01	Analog	0.30	3
Co			2	81.267	ug/l	1.02	312,449.54	2.803E+00	Pulse	0.30	3
Ni			2	80.673	ug/l	0.89	82,558.27	7.405E-01	Pulse	0.30	3
Cu			2	82.206	ug/l	1.09	221,883.44	1.990E+00	Pulse	0.30	3
Zn			2	83.870	ug/l	0.63	32,152.13	2.884E-01	Pulse	0.30	3
As			2	70.563	ug/l	1.48	15,521.80	1.392E-01	Pulse	1.00	3
Cd			2	77.457	ug/l	2.18	72,906.72	1.525E-01	Pulse	0.30	3
Sn			2	77.722	ug/l	0.43	82,990.37	1.736E-01	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	336.909	ug/l	2.48	17,174.19	1.344E-01	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,766,144.99	1.70	84.4	Pulse	0.10	3
1	Sc		2,897,503.60	3.22	90.6	Pulse	0.10	3
1	Ge		702,154.89	2.70	95.2	Pulse	0.10	3
1	Rh		2,918,426.52	2.83	92.2	Pulse	0.10	3
1	In		2,978,841.87	3.05	94.6	Pulse	0.10	3
1	Tb		3,598,656.20	4.01	98.8	Pulse	0.10	3
1	Ho		337,108.46	3.32	98.3	Pulse	0.10	3
1	Bi		1,826,660.81	3.60	97.2	Pulse	0.10	3
2	Sc		111,481.47	0.17	87.6	Pulse	0.30	3
2	Ge		88,249.04	0.63	91.0	Pulse	0.30	3
2	Rh		1,375,900.22	0.30	91.6	Pulse	0.30	3
2	In		478,123.51	0.83	90.4	Pulse	0.30	3
2	Tb		1,507,814.73	0.50	95.4	Pulse	0.30	3
2	Ho		142,626.17	1.29	96.1	Pulse	0.30	3
2	Bi		877,770.87	0.43	94.3	Pulse	0.30	3
3	Sc		147,863.45	0.57	91.6	Pulse	0.30	3
3	Ge		127,796.82	0.24	99.9	Pulse	0.30	3
3	Rh		1,024,505.48	0.63	92.1	Pulse	0.30	3
3	Tb		1,378,034.25	0.60	96.1	Pulse	0.30	3

Quantitation Report

File Name 030SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\.b051019m2.b
Method File
Method Path
Acq Time 5/10/2019 15:44
Sample Name mp14909-b3
Sample Type Sample
Comment
Prep Dilution 25.000
Auto Dilution N/A
Total Dilution 25.000
Operator Name Metals
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 5/13/2019 7:20
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	1993.069	ug/l	1.51	507,998.41	2.621E-01	Pulse	0.25	3
B			1	1852.843	ug/l	2.89	422,061.55	2.177E-01	Pulse	0.15	3
Ca			1	24849.700	ug/l	0.71	968,553.47	3.147E-01	Pulse	0.10	3
Sr			1	1987.840	ug/l	1.22	3,023,381.31	9.706E-01	Pulse	0.10	3
Mo			1	1859.174	ug/l	0.84	583,760.24	1.874E-01	Pulse	0.10	3
Ag			1	229.424	ug/l	2.13	161,142.86	5.152E-02	Pulse	0.10	3
Sn			1	1779.632	ug/l	1.23	785,492.28	2.512E-01	Pulse	0.10	3
Sb			1	2022.297	ug/l	1.84	966,454.00	2.642E-01	Pulse	0.10	3
Ba			1	1989.705	ug/l	0.46	366,327.01	1.001E-01	Pulse	0.10	3
Tl			1	1968.962	ug/l	0.68	1,807,141.07	9.429E-01	Pulse	0.10	3
Pb			1	1965.661	ug/l	0.76	620,610.12	3.238E-01	Pulse	0.10	3
Pb			1	1968.756	ug/l	1.41	537,295.69	2.803E-01	Pulse	0.10	3
Pb			1	1975.588	ug/l	0.56	2,481,719.96	1.295E+00	Pulse	0.10	3
Na			2	23509.013	ug/l	0.66	1,017,903.05	8.415E+00	Pulse	0.30	3
Mg			2	23779.614	ug/l	0.56	464,191.27	3.838E+00	Pulse	0.30	3
Al			2	24416.721	ug/l	0.56	155,489.85	1.285E+00	Pulse	0.30	3
K			2	24551.576	ug/l	0.63	335,417.35	2.773E+00	Pulse	0.30	3
Ca			2	33891.176	ug/l	2.67	24,472.70	2.023E-01	Pulse	0.30	3
Ti			2	1852.795	ug/l	1.52	10,290.58	8.508E-02	Pulse	0.30	3
V			2	1964.073	ug/l	0.82	338,336.64	2.797E+00	Pulse	0.30	3
Cr			2	1973.012	ug/l	0.69	414,403.59	3.426E+00	Pulse	0.30	3
Mn			2	1978.603	ug/l	1.24	214,226.68	1.771E+00	Pulse	0.30	3
Fe			2	23063.275	ug/l	1.51	4,095,564.14	3.386E+01	Pulse	0.30	3
Co			2	1971.977	ug/l	1.31	658,036.40	5.440E+00	Pulse	0.30	3
Ni			2	1951.593	ug/l	1.07	173,319.95	1.433E+00	Pulse	0.30	3
Cu			2	1955.716	ug/l	1.11	457,684.13	3.784E+00	Pulse	0.30	3
Zn			2	2144.455	ug/l	0.59	70,688.61	5.844E-01	Pulse	0.30	3
As			2	1922.333	ug/l	1.30	36,697.52	3.034E-01	Pulse	1.00	3
Cd			2	2047.430	ug/l	0.65	167,477.89	3.225E-01	Pulse	0.30	3
Sn			2	1831.145	ug/l	0.84	168,629.35	3.247E-01	Pulse	0.30	3
Se			3	2142.344	ug/l	5.57	8,353.95	6.839E-02	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,938,347.27	0.81	92.6	Pulse	0.10	3
1	Sc		3,077,235.79	3.36	96.2	Pulse	0.10	3
1	Ge		727,427.18	3.06	98.6	Pulse	0.10	3

Quantitation Report

1	Rh		3,114,273.39	3.94	98.4	Pulse	0.10	3
1	In		3,126,387.68	4.13	99.3	Pulse	0.10	3
1	Tb		3,658,259.11	3.67	100.5	Pulse	0.10	3
1	Ho		344,825.93	3.84	100.6	Pulse	0.10	3
1	Bi		1,916,149.97	4.40	102.0	Pulse	0.10	3
2	Sc		120,961.80	0.48	95.1	Pulse	0.30	3
2	Ge		92,906.32	0.57	95.8	Pulse	0.30	3
2	Rh		1,462,374.63	0.83	97.4	Pulse	0.30	3
2	In		519,388.72	0.59	98.2	Pulse	0.30	3
2	Tb		1,581,871.39	0.49	100.1	Pulse	0.30	3
2	Ho		148,516.88	0.92	100.0	Pulse	0.30	3
2	Bi		933,859.83	1.24	100.3	Pulse	0.30	3
3	Sc		153,706.37	0.66	95.2	Pulse	0.30	3
3	Ge		122,127.49	0.95	95.5	Pulse	0.30	3
3	Rh		1,056,785.03	0.59	95.0	Pulse	0.30	3
3	Tb		1,397,365.47	0.38	97.4	Pulse	0.30	3

Quantitation Report

File Name	031SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051019m2.b
Method File	
Method Path	
Acq Time	5/10/2019 15:48
Sample Name	sampleconf
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.043	ug/l	19.02	141.33	7.971E-05	Pulse	0.25	3
B			1	2.607	ug/l	10.38	18,241.04	1.028E-02	Pulse	0.15	3
Ca			1	61.327	ug/l	1.91	53,205.98	1.895E-02	Pulse	0.10	3
Sr			1	0.136	ug/l	7.92	2,950.43	1.013E-03	Pulse	0.10	3
Mo			1	0.679	ug/l	4.55	2,020.23	6.933E-04	Pulse	0.10	3
Ag			1	0.014	ug/l	54.57	140.01	4.770E-05	Pulse	0.10	3
Sn			1	0.981	ug/l	10.52	6,365.11	2.182E-03	Pulse	0.10	3
Sb			1	0.067	ug/l	15.45	1,720.18	4.978E-04	Pulse	0.10	3
Ba			1	0.597	ug/l	3.70	1,340.13	3.875E-04	Pulse	0.10	3
Tl			1	0.119	ug/l	16.45	1,503.49	8.381E-04	Pulse	0.10	3
Pb			1	0.239	ug/l	10.38	1,013.41	5.635E-04	Pulse	0.10	3
Pb			1	0.223	ug/l	3.82	803.39	4.449E-04	Pulse	0.10	3
Pb			1	0.247	ug/l	1.73	4,093.78	2.271E-03	Pulse	0.10	3
Na			2	20.430	ug/l	3.21	16,618.80	1.530E-01	Pulse	0.30	3
Mg			2	3.431	ug/l	7.18	1,220.07	1.123E-02	Pulse	0.30	3
Al			2	14.285	ug/l	8.65	1,180.07	1.086E-02	Pulse	0.30	3
K			2	4.304	ug/l	21.92	8,850.67	8.146E-02	Pulse	0.30	3
Ca			2	71.869	ug/l	10.38	773.37	7.118E-03	Pulse	0.30	3
Ti			2	0.446	ug/l	59.37	27.78	2.559E-04	Pulse	0.30	3
V			2	0.587	ug/l	6.30	1,477.88	1.360E-02	Pulse	0.30	3
Cr			2	0.315	ug/l	1.94	1,045.61	9.624E-03	Pulse	0.30	3
Mn			2	0.475	ug/l	3.52	642.24	5.911E-03	Pulse	0.30	3
Fe			2	4.327	ug/l	4.84	14,659.04	1.349E-01	Pulse	0.30	3
Co			2	0.025	ug/l	38.73	152.22	1.401E-03	Pulse	0.30	3
Ni			2	0.448	ug/l	6.86	483.35	4.449E-03	Pulse	0.30	3
Cu			2	6.149	ug/l	0.71	16,650.19	1.532E-01	Pulse	0.30	3
Zn			2	15.234	ug/l	2.75	6,162.58	5.672E-02	Pulse	0.30	3
As			2	0.179	ug/l	23.94	43.00	3.958E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	0.019	ug/l	114.71	28.11	6.054E-05	Pulse	0.30	3
Sn			2	-0.065	ug/l	-155.11	1,242.30	2.669E-03	Pulse	0.30	3
Se			3	0.118	ug/l	136.11	13.33	1.042E-04	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,775,531.67	1.27	84.9	Pulse	0.10	3
1	Sc		2,808,073.60	3.85	87.8	Pulse	0.10	3
1	Ge		681,956.08	2.53	92.5	Pulse	0.10	3
1	Rh		2,918,556.10	4.79	92.2	Pulse	0.10	3
1	In		2,914,098.66	2.57	92.5	Pulse	0.10	3
1	Tb		3,456,303.59	3.45	94.9	Pulse	0.10	3
1	Ho		326,832.30	3.69	95.4	Pulse	0.10	3
1	Bi		1,803,776.85	6.14	96.0	Pulse	0.10	3
2	Sc		108,648.94	0.16	85.4	Pulse	0.30	3
2	Ge		86,811.36	1.11	89.5	Pulse	0.30	3
2	Rh		1,354,515.33	0.97	90.2	Pulse	0.30	3
2	In		465,433.43	0.58	88.0	Pulse	0.30	3
2	Tb		1,457,145.22	0.94	92.2	Pulse	0.30	3
2	Ho		137,055.36	0.72	92.3	Pulse	0.30	3
2	Bi		860,588.77	0.59	92.5	Pulse	0.30	3
3	Sc		146,975.10	1.78	91.0	Pulse	0.30	3
3	Ge		128,726.45	1.66	100.6	Pulse	0.30	3
3	Rh		1,025,059.89	1.90	92.1	Pulse	0.30	3
3	Tb		1,362,296.54	2.07	95.0	Pulse	0.30	3

Quantitation Report

File Name	032SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051019m2.b
Method File	
Method Path	
Acq Time	5/10/2019 15:53
Sample Name	sampleconf
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.004	ug/l	128.39	28.00	1.514E-05	Pulse	0.25	3
B			1	1.094	ug/l	5.99	14,928.14	8.122E-03	Pulse	0.15	3
Ca			1	14.371	ug/l	25.94	33,985.86	1.174E-02	Pulse	0.10	3
Sr			1	0.199	ug/l	4.98	4,100.79	1.398E-03	Pulse	0.10	3
Mo			1	0.259	ug/l	0.36	480.03	1.638E-04	Pulse	0.10	3
Ag			1	0.007	ug/l	51.86	80.00	2.675E-05	Pulse	0.10	3
Sn			1	0.349	ug/l	10.75	3,183.85	1.069E-03	Pulse	0.10	3
Sb			1	-0.042	ug/l	-27.39	1,123.43	3.201E-04	Pulse	0.10	3
Ba			1	0.023	ug/l	12.87	93.33	2.659E-05	Pulse	0.10	3
Tl			1	0.021	ug/l	41.71	453.36	2.505E-04	Pulse	0.10	3
Pb			1	0.006	ug/l	420.17	153.34	8.412E-05	Pulse	0.10	3
Pb			1	0.031	ug/l	69.39	180.01	1.016E-04	Pulse	0.10	3
Pb			1	0.015	ug/l	38.21	663.37	3.691E-04	Pulse	0.10	3
Na			2	9.734	ug/l	8.71	11,590.40	1.055E-01	Pulse	0.30	3
Mg			2	-0.028	ug/l	-1016.63	467.79	4.258E-03	Pulse	0.30	3
Al			2	0.485	ug/l	60.08	196.67	1.790E-03	Pulse	0.30	3
K			2	0.476	ug/l	235.19	8,374.83	7.620E-02	Pulse	0.30	3
Ca			2	19.494	ug/l	21.95	356.68	3.245E-03	Pulse	0.30	3
Ti			2	0.158	ug/l	33.05	10.00	9.097E-05	Pulse	0.30	3
V			2	0.503	ug/l	25.16	1,330.08	1.210E-02	Pulse	0.30	3
Cr			2	0.275	ug/l	8.35	961.15	8.746E-03	Pulse	0.30	3
Mn			2	0.230	ug/l	17.47	347.79	3.166E-03	Pulse	0.30	3
Fe			2	23.898	ug/l	2.42	54,228.17	4.935E-01	Pulse	0.30	3
Co			2	0.023	ug/l	35.68	143.33	1.304E-03	Pulse	0.30	3
Ni			2	2.316	ug/l	4.73	2,372.46	2.159E-02	Pulse	0.30	3
Cu			2	3.703	ug/l	1.55	10,347.32	9.415E-02	Pulse	0.30	3
Zn			2	3.322	ug/l	9.61	1,814.59	1.651E-02	Pulse	0.30	3
As			2	0.080	ug/l	10.97	22.00	2.001E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	-0.006	ug/l	-116.95	5.89	1.243E-05	Pulse	0.30	3
Sn			2	-0.588	ug/l	-9.83	723.36	1.519E-03	Pulse	0.30	3
Se			3	0.012	ug/l	591.59	8.00	6.193E-05	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,837,950.21	2.00	87.8	Pulse	0.10	3
1	Sc		2,897,702.67	3.56	90.6	Pulse	0.10	3
1	Ge		696,899.39	3.83	94.5	Pulse	0.10	3
1	Rh		2,931,496.83	3.71	92.6	Pulse	0.10	3
1	In		2,975,755.85	3.50	94.5	Pulse	0.10	3
1	Tb		3,513,741.20	4.36	96.5	Pulse	0.10	3
1	Ho		328,323.03	4.44	95.8	Pulse	0.10	3
1	Bi		1,797,145.70	5.82	95.7	Pulse	0.10	3
2	Sc		109,898.98	0.67	86.4	Pulse	0.30	3
2	Ge		88,696.36	0.84	91.5	Pulse	0.30	3
2	Rh		1,379,636.61	0.17	91.9	Pulse	0.30	3
2	In		476,351.60	0.85	90.0	Pulse	0.30	3
2	Tb		1,489,308.10	0.60	94.2	Pulse	0.30	3
2	Ho		138,643.57	1.11	93.4	Pulse	0.30	3
2	Bi		867,389.29	0.64	93.2	Pulse	0.30	3
3	Sc		151,116.12	0.64	93.6	Pulse	0.30	3
3	Ge		129,379.46	0.59	101.1	Pulse	0.30	3
3	Rh		1,048,284.19	0.68	94.2	Pulse	0.30	3
3	Tb		1,387,185.36	0.96	96.7	Pulse	0.30	3

Quantitation Report

File Name	033SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051019m2.b
Method File	
Method Path	
Acq Time	5/10/2019 16:02
Sample Name	mp14909-mb1 4
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.003	ug/l	101.22	26.67	1.438E-05	Pulse	0.25	3
B			1	-0.114	ug/l	-96.59	11,831.89	6.401E-03	Pulse	0.15	3
Ca			1	6.214	ug/l	14.34	30,300.38	1.049E-02	Pulse	0.10	3
Sr			1	0.031	ug/l	17.06	1,083.42	3.732E-04	Pulse	0.10	3
Mo			1	0.183	ug/l	7.13	196.68	6.808E-05	Pulse	0.10	3
Ag			1	0.004	ug/l	83.31	53.33	1.824E-05	Pulse	0.10	3
Sn			1	0.156	ug/l	24.35	2,120.25	7.279E-04	Pulse	0.10	3
Sb			1	-0.067	ug/l	-61.24	960.08	2.785E-04	Pulse	0.10	3
Ba			1	0.025	ug/l	37.75	96.67	2.802E-05	Pulse	0.10	3
Tl			1	-0.002	ug/l	-33.70	203.34	1.146E-04	Pulse	0.10	3
Pb			1	0.027	ug/l	60.60	226.68	1.280E-04	Pulse	0.10	3
Pb			1	0.068	ug/l	35.46	296.68	1.677E-04	Pulse	0.10	3
Pb			1	0.038	ug/l	16.28	990.06	5.595E-04	Pulse	0.10	3
Na			2	4.833	ug/l	6.70	9,408.81	8.369E-02	Pulse	0.30	3
Mg			2	-0.366	ug/l	-59.64	402.23	3.578E-03	Pulse	0.30	3
Al			2	0.468	ug/l	34.97	200.00	1.779E-03	Pulse	0.30	3
K			2	0.992	ug/l	163.97	8,647.22	7.691E-02	Pulse	0.30	3
Ca			2	13.055	ug/l	28.41	311.12	2.769E-03	Pulse	0.30	3
Ti			2	0.172	ug/l	75.99	11.11	9.895E-05	Pulse	0.30	3
V			2	0.537	ug/l	7.49	1,430.10	1.272E-02	Pulse	0.30	3
Cr			2	0.234	ug/l	1.36	883.37	7.857E-03	Pulse	0.30	3
Mn			2	0.147	ug/l	6.76	251.12	2.234E-03	Pulse	0.30	3
Fe			2	-0.416	ug/l	-22.78	5,396.69	4.801E-02	Pulse	0.30	3
Co			2	0.006	ug/l	97.56	84.44	7.501E-04	Pulse	0.30	3
Ni			2	0.067	ug/l	40.55	107.78	9.590E-04	Pulse	0.30	3
Cu			2	1.314	ug/l	1.35	4,098.43	3.645E-02	Pulse	0.30	3
Zn			2	6.548	ug/l	4.50	3,080.38	2.740E-02	Pulse	0.30	3
As			2	0.055	ug/l	20.70	17.00	1.511E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	-0.003	ug/l	-228.78	8.28	1.729E-05	Pulse	0.30	3
Sn			2	-0.777	ug/l	-0.64	527.80	1.104E-03	Pulse	0.30	3
Se			3	0.098	ug/l	175.98	12.67	9.633E-05	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,848,837.69	1.38	88.4	Pulse	0.10	3
1	Sc		2,889,210.37	1.72	90.3	Pulse	0.10	3
1	Ge		685,980.00	4.30	93.0	Pulse	0.10	3
1	Rh		2,910,310.37	4.54	91.9	Pulse	0.10	3
1	In		2,905,310.66	4.26	92.3	Pulse	0.10	3
1	Tb		3,425,858.28	4.99	94.1	Pulse	0.10	3
1	Ho		323,977.26	3.92	94.5	Pulse	0.10	3
1	Bi		1,773,803.98	4.16	94.4	Pulse	0.10	3
2	Sc		112,428.56	0.70	88.3	Pulse	0.30	3
2	Ge		89,214.41	1.01	92.0	Pulse	0.30	3
2	Rh		1,378,498.31	0.62	91.8	Pulse	0.30	3
2	In		478,075.88	1.28	90.4	Pulse	0.30	3
2	Tb		1,487,359.07	1.18	94.1	Pulse	0.30	3
2	Ho		139,830.17	0.92	94.2	Pulse	0.30	3
2	Bi		867,948.59	0.11	93.3	Pulse	0.30	3
3	Sc		149,374.22	0.78	92.5	Pulse	0.30	3
3	Ge		131,355.83	0.54	102.7	Pulse	0.30	3
3	Rh		1,037,185.45	0.87	93.2	Pulse	0.30	3
3	Tb		1,367,373.66	1.17	95.3	Pulse	0.30	3

Quantitation Report

File Name	034SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051019m2.b
Method File	
Method Path	
Acq Time	5/10/2019 16:06
Sample Name	mp14909-mb2
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.000	ug/l	3639.56	17.33	9.334E-06	Pulse	0.25	3
B			1	-0.155	ug/l	-96.33	11,860.78	6.342E-03	Pulse	0.15	3
Ca			1	13.983	ug/l	5.32	34,507.00	1.168E-02	Pulse	0.10	3
Sr			1	0.183	ug/l	6.60	3,854.05	1.301E-03	Pulse	0.10	3
Mo			1	0.190	ug/l	5.19	226.68	7.658E-05	Pulse	0.10	3
Ag			1	0.001	ug/l	164.74	33.33	1.124E-05	Pulse	0.10	3
Sn			1	0.148	ug/l	11.41	2,110.26	7.151E-04	Pulse	0.10	3
Sb			1	-0.071	ug/l	-12.62	960.07	2.721E-04	Pulse	0.10	3
Ba			1	0.044	ug/l	37.92	140.01	3.975E-05	Pulse	0.10	3
Tl			1	0.007	ug/l	48.17	303.35	1.665E-04	Pulse	0.10	3
Pb			1	0.002	ug/l	360.85	140.01	7.660E-05	Pulse	0.10	3
Pb			1	0.015	ug/l	83.59	133.34	7.352E-05	Pulse	0.10	3
Pb			1	0.012	ug/l	29.94	633.37	3.486E-04	Pulse	0.10	3
Na			2	8.075	ug/l	5.43	11,247.92	9.809E-02	Pulse	0.30	3
Mg			2	-0.102	ug/l	-319.72	471.13	4.109E-03	Pulse	0.30	3
Al			2	0.149	ug/l	465.73	180.00	1.569E-03	Pulse	0.30	3
K			2	-0.929	ug/l	-214.73	8,517.13	7.427E-02	Pulse	0.30	3
Ca			2	24.107	ug/l	23.75	411.12	3.586E-03	Pulse	0.30	3
Ti			2	0.101	ug/l	99.78	6.67	5.802E-05	Pulse	0.30	3
V			2	0.537	ug/l	3.73	1,457.87	1.271E-02	Pulse	0.30	3
Cr			2	0.324	ug/l	8.25	1,125.62	9.816E-03	Pulse	0.30	3
Mn			2	0.201	ug/l	27.64	325.56	2.838E-03	Pulse	0.30	3
Fe			2	22.531	ug/l	2.67	53,721.78	4.684E-01	Pulse	0.30	3
Co			2	0.022	ug/l	5.69	148.89	1.298E-03	Pulse	0.30	3
Ni			2	2.150	ug/l	2.13	2,301.34	2.007E-02	Pulse	0.30	3
Cu			2	3.523	ug/l	2.00	10,299.51	8.981E-02	Pulse	0.30	3
Zn			2	3.519	ug/l	5.45	1,970.17	1.718E-02	Pulse	0.30	3
As			2	0.036	ug/l	86.75	13.00	1.135E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	-0.008	ug/l	-48.44	4.04	8.403E-06	Pulse	0.30	3
Sn			2	-0.835	ug/l	-3.15	468.90	9.760E-04	Pulse	0.30	3
Se			3	-0.069	ug/l	-53.51	4.00	2.987E-05	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,870,972.11	1.88	89.4	Pulse	0.10	3
1	Sc		2,954,062.14	2.70	92.4	Pulse	0.10	3
1	Ge		699,570.69	2.50	94.9	Pulse	0.10	3
1	Rh		2,960,709.12	3.72	93.5	Pulse	0.10	3
1	In		2,953,534.77	3.20	93.8	Pulse	0.10	3
1	Tb		3,531,016.41	3.50	97.0	Pulse	0.10	3
1	Ho		331,707.63	4.65	96.8	Pulse	0.10	3
1	Bi		1,819,468.41	2.93	96.8	Pulse	0.10	3
2	Sc		114,678.70	0.34	90.1	Pulse	0.30	3
2	Ge		89,368.49	0.87	92.2	Pulse	0.30	3
2	Rh		1,398,354.53	0.18	93.1	Pulse	0.30	3
2	In		480,402.25	0.26	90.8	Pulse	0.30	3
2	Tb		1,496,566.15	1.12	94.7	Pulse	0.30	3
2	Ho		140,543.73	0.97	94.7	Pulse	0.30	3
2	Bi		870,408.47	0.20	93.5	Pulse	0.30	3
3	Sc		153,498.90	0.21	95.1	Pulse	0.30	3
3	Ge		133,578.47	0.91	104.4	Pulse	0.30	3
3	Rh		1,054,462.56	0.62	94.8	Pulse	0.30	3
3	Tb		1,388,587.83	1.07	96.8	Pulse	0.30	3

Quantitation Report

File Name	035SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051019m2.b
Method File	
Method Path	
Acq Time	5/10/2019 16:11
Sample Name	mp14909-s3
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	80.626	ug/l	0.52	235,934.99	1.325E-01	Pulse	0.25	3
B			1	223.945	ug/l	1.12	579,583.31	3.256E-01	Pulse	0.15	3
Ca			1	49146.163	ug/l	4.17	21,894,797.17	7.555E+00	Analog	0.10	3
Sr			1	447.488	ug/l	5.28	7,267,666.56	2.731E+00	Analog	0.10	3
Mo			1	84.858	ug/l	1.64	284,802.57	1.069E-01	Pulse	0.10	3
Ag			1	73.688	ug/l	0.84	582,546.53	2.068E-01	Pulse	0.10	3
Sn			1	77.610	ug/l	0.29	386,376.45	1.372E-01	Pulse	0.10	3
Sb			1	78.521	ug/l	0.65	441,494.62	1.284E-01	Pulse	0.10	3
Ba			1	177.958	ug/l	0.67	384,932.47	1.119E-01	Pulse	0.10	3
Tl			1	85.201	ug/l	0.87	837,955.04	5.101E-01	Pulse	0.10	3
Pb			1	84.799	ug/l	1.02	286,899.92	1.747E-01	Pulse	0.10	3
Pb			1	84.785	ug/l	1.10	248,004.54	1.509E-01	Pulse	0.10	3
Pb			1	84.953	ug/l	0.79	1,143,977.29	6.962E-01	Pulse	0.10	3
Na			2	201458.011	ug/l	1.60	102,140,369.28	8.948E+02	Analog	0.30	3
Mg			2	22357.697	ug/l	0.31	5,142,940.77	4.505E+01	Pulse	0.30	3
Al			2	4014.872	ug/l	0.73	301,418.78	2.641E+00	Pulse	0.30	3
K			2	10586.935	ug/l	0.96	1,668,192.09	1.461E+01	Pulse	0.30	3
Ca			2	46348.111	ug/l	0.86	391,491.37	3.430E+00	Pulse	0.30	3
Ti			2	77.540	ug/l	1.45	5,079.89	4.451E-02	Pulse	0.30	3
V			2	83.464	ug/l	0.84	169,762.38	1.487E+00	Pulse	0.30	3
Cr			2	81.139	ug/l	0.41	201,191.56	1.762E+00	Pulse	0.30	3
Mn			2	579.715	ug/l	0.66	740,227.04	6.485E+00	Pulse	0.30	3
Fe			2	5752.859	ug/l	1.37	12,038,772.30	1.055E+02	Analog	0.30	3
Co			2	78.211	ug/l	0.94	307,876.59	2.697E+00	Pulse	0.30	3
Ni			2	79.034	ug/l	1.52	82,808.64	7.255E-01	Pulse	0.30	3
Cu			2	76.867	ug/l	1.05	212,457.89	1.861E+00	Pulse	0.30	3
Zn			2	72.260	ug/l	0.56	28,448.50	2.492E-01	Pulse	0.30	3
As			2	123.120	ug/l	0.88	27,724.93	2.429E-01	Pulse	1.00	3
Cd			2	77.294	ug/l	1.10	70,884.40	1.522E-01	Pulse	0.30	3
Sn			2	79.638	ug/l	0.17	82,808.22	1.778E-01	Pulse	0.30	3
Se			3	319.320	ug/l	3.15	16,327.16	1.274E-01	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,780,577.85	2.86	85.1	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,900,260.17	2.65	90.7	Pulse	0.10	3
1	Ge		679,008.74	3.61	92.1	Pulse	0.10	3
1	Rh		2,666,287.15	5.41	84.2	Pulse	0.10	3
1	In		2,816,935.34	4.79	89.5	Pulse	0.10	3
1	Tb		3,438,929.64	5.68	94.4	Pulse	0.10	3
1	Ho		324,699.97	5.47	94.7	Pulse	0.10	3
1	Bi		1,643,225.18	5.33	87.5	Pulse	0.10	3
2	Sc		114,150.73	1.32	89.7	Pulse	0.30	3
2	Ge		88,665.30	1.02	91.4	Pulse	0.30	3
2	Rh		1,291,183.49	0.50	86.0	Pulse	0.30	3
2	In		465,782.42	0.31	88.0	Pulse	0.30	3
2	Tb		1,505,139.42	0.39	95.3	Pulse	0.30	3
2	Ho		142,691.78	0.85	96.1	Pulse	0.30	3
2	Bi		818,213.77	0.88	87.9	Pulse	0.30	3
3	Sc		149,027.41	1.40	92.3	Pulse	0.30	3
3	Ge		128,198.57	0.54	100.2	Pulse	0.30	3
3	Rh		956,071.49	0.57	85.9	Pulse	0.30	3
3	Tb		1,349,610.57	0.80	94.1	Pulse	0.30	3

Quantitation Report

File Name 036_CCV.d
File Path C:\Agilent\ICPMH\1\DATA\.b051019m2.b
Method File
Method Path
Acq Time 5/10/2019 16:16
Sample Name CCVA
Sample Type CCV
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name Metals
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 5/13/2019 7:20
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	50.662	ug/l	1.75	324,076.62	1.665E-01	Pulse	0.25	3
B			1	100.914	ug/l	1.51	572,372.55	2.941E-01	Pulse	0.15	3
Ca			1	4838.925	ug/l	0.85	4,602,790.14	1.495E+00	Pulse	0.10	3
Sr			1	52.311	ug/l	1.23	1,923,266.95	6.386E-01	Pulse	0.10	3
Mo			1	51.277	ug/l	1.58	388,991.11	1.292E-01	Pulse	0.10	3
Ag			1	47.372	ug/l	2.36	816,156.08	2.659E-01	Pulse	0.10	3
Sn			1	48.864	ug/l	1.28	530,036.51	1.726E-01	Pulse	0.10	3
Sb			1	52.472	ug/l	1.93	615,693.25	1.715E-01	Pulse	0.10	3
Ba			1	50.367	ug/l	0.88	227,541.37	6.337E-02	Pulse	0.10	3
Tl			1	50.945	ug/l	1.07	1,111,905.45	6.100E-01	Pulse	0.10	3
Pb			1	50.444	ug/l	2.35	378,612.57	2.078E-01	Pulse	0.10	3
Pb			1	50.386	ug/l	2.54	326,928.50	1.794E-01	Pulse	0.10	3
Pb			1	50.498	ug/l	1.52	1,508,707.42	8.277E-01	Pulse	0.10	3
Na			2	4698.791	ug/l	0.74	5,192,232.85	4.180E+01	Pulse	0.30	3
Mg			2	4748.362	ug/l	0.96	2,377,534.49	1.914E+01	Pulse	0.30	3
Al			2	4911.238	ug/l	1.12	802,194.01	6.458E+00	Pulse	0.30	3
K			2	4911.202	ug/l	0.78	1,684,985.00	1.357E+01	Pulse	0.30	3
Ca			2	5186.925	ug/l	1.09	95,531.44	7.690E-01	Pulse	0.30	3
Ti			2	50.105	ug/l	2.09	7,145.26	5.752E-02	Pulse	0.30	3
V			2	49.620	ug/l	0.50	219,593.59	1.768E+00	Pulse	0.30	3
Cr			2	49.472	ug/l	0.60	266,905.23	2.149E+00	Pulse	0.30	3
Mn			2	49.496	ug/l	0.44	137,613.57	1.108E+00	Pulse	0.30	3
Fe			2	5058.054	ug/l	1.99	23,031,421.86	1.854E+02	Analog	0.30	3
Co			2	48.731	ug/l	1.51	417,496.56	3.361E+00	Pulse	0.30	3
Ni			2	48.226	ug/l	2.43	109,972.28	8.853E-01	Pulse	0.30	3
Cu			2	48.316	ug/l	1.31	290,509.00	2.339E+00	Pulse	0.30	3
Zn			2	47.585	ug/l	0.56	40,565.21	3.266E-01	Pulse	0.30	3
As			2	47.660	ug/l	0.15	23,361.20	1.881E-01	Pulse	1.00	3
Cd			2	49.868	ug/l	0.67	101,133.70	1.964E-01	Pulse	0.30	3
Sn			2	49.517	ug/l	1.52	113,526.41	2.204E-01	Pulse	0.30	3
Se			3	190.953	ug/l	4.49	18,911.83	1.523E-01	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,946,655.63	3.27	93.0	Pulse	0.10	3
1	Sc		3,077,692.24	2.98	96.2	Pulse	0.10	3
1	Ge		716,317.05	3.40	97.1	Pulse	0.10	3

Quantitation Report

1	Rh		3,011,389.54	3.24	95.1	Pulse	0.10	3
1	In		3,071,295.32	4.66	97.5	Pulse	0.10	3
1	Tb		3,591,015.68	4.66	98.6	Pulse	0.10	3
1	Ho		338,711.76	5.51	98.8	Pulse	0.10	3
1	Bi		1,823,522.42	5.00	97.1	Pulse	0.10	3
2	Sc		124,219.57	0.93	97.6	Pulse	0.30	3
2	Ge		94,785.68	0.22	97.7	Pulse	0.30	3
2	Rh		1,449,032.20	1.35	96.5	Pulse	0.30	3
2	In		515,061.82	0.75	97.3	Pulse	0.30	3
2	Tb		1,589,196.92	0.78	100.6	Pulse	0.30	3
2	Ho		150,360.35	0.52	101.3	Pulse	0.30	3
2	Bi		917,085.31	0.64	98.5	Pulse	0.30	3
3	Sc		155,685.91	1.33	96.4	Pulse	0.30	3
3	Ge		124,191.23	1.16	97.1	Pulse	0.30	3
3	Rh		1,041,478.92	0.55	93.6	Pulse	0.30	3
3	Tb		1,399,890.60	0.60	97.6	Pulse	0.30	3

Quantitation Report

File Name	037_CCB.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051019m2.b
Method File	
Method Path	
Acq Time	5/10/2019 16:21
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.014	ug/l	40.73	109.33	5.538E-05	Pulse	0.25	3
B			1	0.880	ug/l	23.34	17,936.19	9.069E-03	Pulse	0.15	3
Ca			1	-3.885	ug/l	-23.54	25,233.77	8.341E-03	Pulse	0.10	3
Sr			1	0.014	ug/l	26.89	1,076.76	3.576E-04	Pulse	0.10	3
Mo			1	0.134	ug/l	6.02	523.36	1.745E-04	Pulse	0.10	3
Ag			1	0.006	ug/l	20.11	130.01	4.319E-05	Pulse	0.10	3
Sn			1	0.053	ug/l	17.97	1,923.54	6.416E-04	Pulse	0.10	3
Sb			1	0.026	ug/l	61.38	1,630.16	4.726E-04	Pulse	0.10	3
Ba			1	0.005	ug/l	122.12	63.33	1.844E-05	Pulse	0.10	3
Tl			1	0.021	ug/l	31.83	686.72	3.789E-04	Pulse	0.10	3
Pb			1	0.016	ug/l	26.13	246.68	1.370E-04	Pulse	0.10	3
Pb			1	0.017	ug/l	9.79	196.68	1.092E-04	Pulse	0.10	3
Pb			1	0.017	ug/l	28.31	953.39	5.308E-04	Pulse	0.10	3
Na			2	0.614	ug/l	26.81	8,054.61	6.768E-02	Pulse	0.30	3
Mg			2	-0.336	ug/l	-25.13	352.23	2.959E-03	Pulse	0.30	3
Al			2	1.686	ug/l	7.31	438.90	3.688E-03	Pulse	0.30	3
K			2	-0.576	ug/l	-92.41	8,802.86	7.397E-02	Pulse	0.30	3
Ca			2	0.427	ug/l	516.35	222.23	1.866E-03	Pulse	0.30	3
Ti			2	0.049	ug/l	50.48	6.67	5.615E-05	Pulse	0.30	3
V			2	0.019	ug/l	74.51	458.90	3.858E-03	Pulse	0.30	3
Cr			2	0.030	ug/l	24.17	486.68	4.088E-03	Pulse	0.30	3
Mn			2	0.029	ug/l	18.01	148.89	1.251E-03	Pulse	0.30	3
Fe			2	0.225	ug/l	19.46	7,604.38	6.390E-02	Pulse	0.30	3
Co			2	0.012	ug/l	23.48	162.23	1.362E-03	Pulse	0.30	3
Ni			2	0.033	ug/l	10.16	112.22	9.429E-04	Pulse	0.30	3
Cu			2	0.079	ug/l	13.05	1,017.83	8.553E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	-0.460	ug/l	-7.91	261.12	2.195E-03	Pulse	0.30	3
As			2	0.018	ug/l	45.80	13.33	1.120E-04	Pulse	1.00	3
Cd			2	0.020	ug/l	29.35	50.39	1.014E-04	Pulse	0.30	3
Sn			2	-0.434	ug/l	-4.78	448.90	9.031E-04	Pulse	0.30	3
Se			3	0.094	ug/l	81.02	16.00	1.323E-04	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,979,577.66	2.29	94.6	Pulse	0.10	3
1	Sc		3,025,913.81	3.45	94.6	Pulse	0.10	3
1	Ge		701,774.26	3.65	95.2	Pulse	0.10	3
1	Rh		3,006,403.18	4.48	95.0	Pulse	0.10	3
1	In		2,998,164.10	4.73	95.2	Pulse	0.10	3
1	Tb		3,455,951.62	3.47	94.9	Pulse	0.10	3
1	Ho		323,419.54	4.71	94.4	Pulse	0.10	3
1	Bi		1,802,146.22	4.07	95.9	Pulse	0.10	3
2	Sc		119,000.98	0.72	93.5	Pulse	0.30	3
2	Ge		90,037.25	1.78	92.8	Pulse	0.30	3
2	Rh		1,411,537.03	0.56	94.0	Pulse	0.30	3
2	In		497,384.14	1.00	94.0	Pulse	0.30	3
2	Tb		1,499,737.72	0.69	94.9	Pulse	0.30	3
2	Ho		141,567.22	0.97	95.4	Pulse	0.30	3
2	Bi		882,327.99	0.22	94.8	Pulse	0.30	3
3	Sc		154,073.04	0.71	95.4	Pulse	0.30	3
3	Ge		121,180.08	1.17	94.7	Pulse	0.30	3
3	Rh		1,052,994.75	1.38	94.6	Pulse	0.30	3
3	Tb		1,358,996.61	0.98	94.8	Pulse	0.30	3

Quantitation Report

File Name	038SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051019m2.b
Method File	
Method Path	
Acq Time	5/10/2019 16:25
Sample Name	mp14909-s4conf
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	78.019	ug/l	0.74	228,538.32	1.282E-01	Pulse	0.25	3
B			1	224.357	ug/l	1.41	581,269.78	3.262E-01	Pulse	0.15	3
Ca			1	49364.370	ug/l	2.58	21,894,645.51	7.588E+00	Analog	0.10	3
Sr			1	442.680	ug/l	3.41	7,250,094.27	2.702E+00	Analog	0.10	3
Mo			1	81.730	ug/l	0.67	276,379.80	1.029E-01	Pulse	0.10	3
Ag			1	71.983	ug/l	1.10	565,337.10	2.020E-01	Pulse	0.10	3
Sn			1	74.644	ug/l	0.91	369,068.46	1.319E-01	Pulse	0.10	3
Sb			1	76.592	ug/l	0.77	427,199.03	1.253E-01	Pulse	0.10	3
Ba			1	174.583	ug/l	0.59	374,492.21	1.098E-01	Pulse	0.10	3
Tl			1	82.535	ug/l	0.43	809,604.49	4.941E-01	Pulse	0.10	3
Pb			1	82.469	ug/l	0.66	278,289.96	1.699E-01	Pulse	0.10	3
Pb			1	81.943	ug/l	1.48	238,957.27	1.459E-01	Pulse	0.10	3
Pb			1	82.314	ug/l	0.39	1,105,302.05	6.746E-01	Pulse	0.10	3
Na			2	201648.697	ug/l	0.66	101,827,973.73	8.957E+02	Analog	0.30	3
Mg			2	22121.804	ug/l	0.21	5,068,270.91	4.458E+01	Pulse	0.30	3
Al			2	3891.425	ug/l	0.76	290,981.96	2.559E+00	Pulse	0.30	3
K			2	10313.445	ug/l	0.27	1,618,889.73	1.424E+01	Pulse	0.30	3
Ca			2	45561.938	ug/l	0.42	383,312.80	3.372E+00	Pulse	0.30	3
Ti			2	77.264	ug/l	3.29	5,042.08	4.435E-02	Pulse	0.30	3
V			2	80.193	ug/l	1.03	162,478.90	1.429E+00	Pulse	0.30	3
Cr			2	78.844	ug/l	1.21	194,722.10	1.713E+00	Pulse	0.30	3
Mn			2	568.952	ug/l	0.86	723,562.21	6.364E+00	Pulse	0.30	3
Fe			2	5691.154	ug/l	1.41	11,860,872.03	1.043E+02	Analog	0.30	3
Co			2	75.903	ug/l	0.91	297,604.62	2.618E+00	Pulse	0.30	3
Ni			2	75.857	ug/l	1.57	79,168.97	6.964E-01	Pulse	0.30	3
Cu			2	73.985	ug/l	1.08	203,709.23	1.792E+00	Pulse	0.30	3
Zn			2	67.118	ug/l	1.35	26,360.96	2.319E-01	Pulse	0.30	3
As			2	119.263	ug/l	1.00	26,750.02	2.353E-01	Pulse	1.00	3
Cd			2	75.037	ug/l	0.44	68,699.07	1.477E-01	Pulse	0.30	3
Sn			2	76.931	ug/l	0.83	79,911.74	1.718E-01	Pulse	0.30	3
Se			3	294.526	ug/l	1.52	15,519.54	1.175E-01	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,782,251.80	1.43	85.2	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,886,832.98	3.05	90.3	Pulse	0.10	3
1	Ge		662,019.39	3.99	89.8	Pulse	0.10	3
1	Rh		2,685,312.25	3.05	84.8	Pulse	0.10	3
1	In		2,798,152.71	4.11	88.9	Pulse	0.10	3
1	Tb		3,409,826.41	3.41	93.6	Pulse	0.10	3
1	Ho		323,116.86	4.02	94.3	Pulse	0.10	3
1	Bi		1,638,653.67	4.90	87.2	Pulse	0.10	3
2	Sc		113,690.31	0.37	89.3	Pulse	0.30	3
2	Ge		86,004.02	1.14	88.7	Pulse	0.30	3
2	Rh		1,289,272.17	0.94	85.8	Pulse	0.30	3
2	In		465,016.29	1.17	87.9	Pulse	0.30	3
2	Tb		1,488,142.16	1.06	94.2	Pulse	0.30	3
2	Ho		141,366.54	0.94	95.2	Pulse	0.30	3
2	Bi		815,483.66	1.09	87.6	Pulse	0.30	3
3	Sc		146,350.39	0.20	90.6	Pulse	0.30	3
3	Ge		132,074.93	1.86	103.2	Pulse	0.30	3
3	Rh		935,035.52	0.78	84.0	Pulse	0.30	3
3	Tb		1,313,077.21	0.80	91.6	Pulse	0.30	3

Quantitation Report

File Name 039SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\.b051019m2.b
Method File
Method Path
Acq Time 5/10/2019 16:30
Sample Name jc87783-12
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name Metals
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 5/13/2019 7:20
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.018	ug/l	43.45	69.33	3.940E-05	Pulse	0.25	3
B			1	145.131	ug/l	1.39	376,566.62	2.133E-01	Pulse	0.15	3
Ca			1	46402.941	ug/l	3.30	20,243,176.36	7.133E+00	Analog	0.10	3
Sr			1	307.242	ug/l	1.04	5,030,575.03	1.875E+00	Pulse	0.10	3
Mo			1	0.458	ug/l	6.50	1,113.42	4.145E-04	Pulse	0.10	3
Ag			1	0.052	ug/l	17.89	426.69	1.535E-04	Pulse	0.10	3
Sn			1	0.231	ug/l	14.00	2,400.32	8.610E-04	Pulse	0.10	3
Sb			1	0.130	ug/l	6.26	2,026.90	6.000E-04	Pulse	0.10	3
Ba			1	98.944	ug/l	1.75	210,219.99	6.224E-02	Pulse	0.10	3
Tl			1	0.055	ug/l	14.52	746.72	4.583E-04	Pulse	0.10	3
Pb			1	0.244	ug/l	30.41	933.41	5.731E-04	Pulse	0.10	3
Pb			1	0.212	ug/l	11.25	686.71	4.237E-04	Pulse	0.10	3
Pb			1	0.223	ug/l	11.37	3,370.31	2.075E-03	Pulse	0.10	3
Na			2	206884.564	ug/l	0.57	101,805,667.06	9.189E+02	Analog	0.30	3
Mg			2	19436.371	ug/l	1.02	4,339,097.47	3.917E+01	Pulse	0.30	3
Al			2	20.522	ug/l	16.06	1,659.09	1.496E-02	Pulse	0.30	3
K			2	6866.876	ug/l	0.67	1,053,086.55	9.506E+00	Pulse	0.30	3
Ca			2	43556.089	ug/l	0.59	357,070.38	3.223E+00	Pulse	0.30	3
Ti			2	1.259	ug/l	15.74	80.00	7.227E-04	Pulse	0.30	3
V			2	1.624	ug/l	1.89	3,550.50	3.205E-02	Pulse	0.30	3
Cr			2	1.124	ug/l	3.89	3,009.25	2.717E-02	Pulse	0.30	3
Mn			2	520.694	ug/l	0.71	645,276.14	5.825E+00	Pulse	0.30	3
Fe			2	1536.349	ug/l	1.11	3,124,507.37	2.820E+01	Pulse	0.30	3
Co			2	0.110	ug/l	14.53	476.68	4.304E-03	Pulse	0.30	3
Ni			2	2.044	ug/l	8.66	2,114.64	1.909E-02	Pulse	0.30	3
Cu			2	0.785	ug/l	3.02	2,623.61	2.369E-02	Pulse	0.30	3
Zn			2	11.058	ug/l	2.41	4,723.09	4.263E-02	Pulse	0.30	3
As			2	56.054	ug/l	1.17	12,253.48	1.106E-01	Pulse	1.00	3
Cd			2	0.001	ug/l	572.89	12.17	2.642E-05	Pulse	0.30	3
Sn			2	-0.769	ug/l	-2.90	517.79	1.121E-03	Pulse	0.30	3
Se			3	0.337	ug/l	28.96	24.67	1.918E-04	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,765,221.32	1.67	84.4	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,839,128.81	2.40	88.8	Pulse	0.10	3
1	Ge		661,700.81	3.82	89.7	Pulse	0.10	3
1	Rh		2,683,424.59	3.95	84.8	Pulse	0.10	3
1	In		2,787,569.40	3.59	88.5	Pulse	0.10	3
1	Tb		3,377,121.72	3.59	92.7	Pulse	0.10	3
1	Ho		320,763.75	4.67	93.6	Pulse	0.10	3
1	Bi		1,624,936.54	4.01	86.5	Pulse	0.10	3
2	Sc		110,785.27	1.13	87.1	Pulse	0.30	3
2	Ge		87,484.38	0.40	90.2	Pulse	0.30	3
2	Rh		1,273,817.66	0.38	84.8	Pulse	0.30	3
2	In		461,883.86	0.77	87.3	Pulse	0.30	3
2	Tb		1,479,582.96	0.47	93.6	Pulse	0.30	3
2	Ho		141,073.52	0.74	95.0	Pulse	0.30	3
2	Bi		809,368.96	0.93	87.0	Pulse	0.30	3
3	Sc		146,104.93	0.41	90.5	Pulse	0.30	3
3	Ge		128,579.95	0.81	100.5	Pulse	0.30	3
3	Rh		938,953.30	0.74	84.4	Pulse	0.30	3
3	Tb		1,316,041.23	0.60	91.8	Pulse	0.30	3

Quantitation Report

File Name	040SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051019m2.b
Method File	
Method Path	
Acq Time	5/10/2019 16:35
Sample Name	mp14909-s4
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	80.464	ug/l	1.21	232,915.47	1.323E-01	Pulse	0.25	3
B			1	229.254	ug/l	1.23	586,696.58	3.331E-01	Pulse	0.15	3
Ca			1	49766.644	ug/l	2.67	21,890,564.67	7.650E+00	Analog	0.10	3
Sr			1	446.818	ug/l	4.19	7,273,687.60	2.727E+00	Analog	0.10	3
Mo			1	84.253	ug/l	0.86	283,334.72	1.061E-01	Pulse	0.10	3
Ag			1	73.672	ug/l	0.98	573,341.46	2.068E-01	Pulse	0.10	3
Sn			1	77.532	ug/l	0.40	379,964.35	1.370E-01	Pulse	0.10	3
Sb			1	78.472	ug/l	1.58	434,702.78	1.283E-01	Pulse	0.10	3
Ba			1	179.320	ug/l	0.48	382,200.97	1.128E-01	Pulse	0.10	3
Tl			1	84.185	ug/l	0.22	823,217.98	5.040E-01	Pulse	0.10	3
Pb			1	84.072	ug/l	0.74	282,866.66	1.732E-01	Pulse	0.10	3
Pb			1	83.562	ug/l	0.36	242,993.82	1.488E-01	Pulse	0.10	3
Pb			1	83.820	ug/l	0.96	1,122,078.68	6.869E-01	Pulse	0.10	3
Na			2	207213.839	ug/l	1.56	102,796,655.92	9.204E+02	Analog	0.30	3
Mg			2	22592.057	ug/l	0.24	5,084,931.74	4.553E+01	Pulse	0.30	3
Al			2	4016.018	ug/l	0.72	295,012.51	2.641E+00	Pulse	0.30	3
K			2	10587.350	ug/l	0.16	1,632,420.32	1.462E+01	Pulse	0.30	3
Ca			2	46650.164	ug/l	0.65	385,559.88	3.452E+00	Pulse	0.30	3
Ti			2	78.460	ug/l	0.75	5,029.87	4.503E-02	Pulse	0.30	3
V			2	83.471	ug/l	0.41	166,129.94	1.487E+00	Pulse	0.30	3
Cr			2	81.065	ug/l	0.21	196,675.60	1.761E+00	Pulse	0.30	3
Mn			2	580.207	ug/l	0.68	724,902.65	6.490E+00	Pulse	0.30	3
Fe			2	5825.765	ug/l	2.12	11,927,789.25	1.068E+02	Analog	0.30	3
Co			2	78.396	ug/l	0.21	301,978.35	2.704E+00	Pulse	0.30	3
Ni			2	79.152	ug/l	0.54	81,153.69	7.266E-01	Pulse	0.30	3
Cu			2	76.811	ug/l	0.28	207,748.27	1.860E+00	Pulse	0.30	3
Zn			2	71.430	ug/l	1.98	27,522.07	2.464E-01	Pulse	0.30	3
As			2	122.410	ug/l	0.37	26,973.07	2.415E-01	Pulse	1.00	3
Cd			2	77.598	ug/l	1.95	69,473.60	1.528E-01	Pulse	0.30	3
Sn			2	78.966	ug/l	0.18	80,175.43	1.763E-01	Pulse	0.30	3
Se			3	317.604	ug/l	2.68	15,974.73	1.267E-01	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,761,034.81	0.93	84.2	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,863,040.27	2.94	89.5	Pulse	0.10	3
1	Ge		667,395.26	2.85	90.5	Pulse	0.10	3
1	Rh		2,669,861.94	3.40	84.4	Pulse	0.10	3
1	In		2,773,203.18	3.44	88.1	Pulse	0.10	3
1	Tb		3,388,881.31	4.67	93.1	Pulse	0.10	3
1	Ho		321,116.83	4.54	93.7	Pulse	0.10	3
1	Bi		1,633,419.77	3.61	86.9	Pulse	0.10	3
2	Sc		111,690.58	0.21	87.8	Pulse	0.30	3
2	Ge		86,812.24	0.30	89.5	Pulse	0.30	3
2	Rh		1,267,612.00	0.29	84.4	Pulse	0.30	3
2	In		454,746.90	0.34	85.9	Pulse	0.30	3
2	Tb		1,472,692.13	1.04	93.2	Pulse	0.30	3
2	Ho		140,108.75	1.20	94.4	Pulse	0.30	3
2	Bi		801,140.70	0.18	86.1	Pulse	0.30	3
3	Sc		146,960.53	0.83	91.0	Pulse	0.30	3
3	Ge		126,094.76	0.32	98.6	Pulse	0.30	3
3	Rh		932,865.83	1.14	83.8	Pulse	0.30	3
3	Tb		1,323,614.77	1.40	92.3	Pulse	0.30	3

Quantitation Report

File Name 041SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\.b051019m2.b
Method File
Method Path
Acq Time 5/10/2019 16:40
Sample Name mp14909-sd1
Sample Type Sample
Comment
Prep Dilution 10.000
Auto Dilution N/A
Total Dilution 10.000
Operator Name Metals
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 5/13/2019 7:20
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.066	ug/l	35.88	60.00	3.103E-05	Pulse	0.25	3
B			1	141.680	ug/l	0.70	90,930.40	4.693E-02	Pulse	0.15	3
Ca			1	41580.210	ug/l	1.47	3,808,257.24	1.286E+00	Pulse	0.10	3
Sr			1	309.452	ug/l	0.34	1,092,618.06	3.779E-01	Pulse	0.10	3
Mo			1	1.190	ug/l	3.95	396.69	1.370E-04	Pulse	0.10	3
Ag			1	0.063	ug/l	39.29	130.01	4.362E-05	Pulse	0.10	3
Sn			1	-0.559	ug/l	-13.88	760.05	2.569E-04	Pulse	0.10	3
Sb			1	-0.348	ug/l	-30.88	943.40	2.746E-04	Pulse	0.10	3
Ba			1	103.240	ug/l	2.86	44,774.54	1.300E-02	Pulse	0.10	3
Tl			1	0.168	ug/l	22.15	580.04	3.285E-04	Pulse	0.10	3
Pb			1	0.345	ug/l	25.87	380.03	2.139E-04	Pulse	0.10	3
Pb			1	0.279	ug/l	12.92	260.02	1.468E-04	Pulse	0.10	3
Pb			1	0.270	ug/l	7.49	1,220.08	6.892E-04	Pulse	0.10	3
Na			2	217242.265	ug/l	1.15	22,342,945.22	1.930E+02	Analog	0.30	3
Mg			2	20309.668	ug/l	0.59	947,832.56	8.189E+00	Pulse	0.30	3
Al			2	18.158	ug/l	14.39	446.68	3.859E-03	Pulse	0.30	3
K			2	7028.868	ug/l	0.25	232,202.96	2.006E+00	Pulse	0.30	3
Ca			2	44280.429	ug/l	0.72	76,019.15	6.568E-01	Pulse	0.30	3
Ti			2	1.090	ug/l	70.64	14.44	1.251E-04	Pulse	0.30	3
V			2	1.126	ug/l	4.86	830.04	7.170E-03	Pulse	0.30	3
Cr			2	0.920	ug/l	18.33	784.48	6.781E-03	Pulse	0.30	3
Mn			2	534.375	ug/l	0.73	138,428.75	1.196E+00	Pulse	0.30	3
Fe			2	1572.637	ug/l	0.25	673,435.37	5.818E+00	Pulse	0.30	3
Co			2	0.143	ug/l	36.54	175.56	1.515E-03	Pulse	0.30	3
Ni			2	2.147	ug/l	7.31	495.57	4.280E-03	Pulse	0.30	3
Cu			2	1.517	ug/l	5.61	1,394.54	1.205E-02	Pulse	0.30	3
Zn			2	19.709	ug/l	1.12	2,153.53	1.861E-02	Pulse	0.30	3
As			2	61.896	ug/l	1.41	2,831.30	2.446E-02	Pulse	1.00	3
Cd			2	0.169	ug/l	19.96	44.16	9.049E-05	Pulse	0.30	3
Sn			2	-5.554	ug/l	-2.82	181.12	3.713E-04	Pulse	0.30	3
Se			3	0.853	ug/l	104.85	14.67	1.254E-04	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,937,573.49	2.09	92.6	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,959,999.22	2.68	92.6	Pulse	0.10	3
1	Ge		691,549.94	3.68	93.8	Pulse	0.10	3
1	Rh		2,891,639.85	2.87	91.4	Pulse	0.10	3
1	In		2,953,010.82	4.92	93.8	Pulse	0.10	3
1	Tb		3,441,552.24	5.10	94.5	Pulse	0.10	3
1	Ho		324,630.17	3.57	94.7	Pulse	0.10	3
1	Bi		1,769,247.79	3.90	94.2	Pulse	0.10	3
2	Sc		115,745.96	0.70	91.0	Pulse	0.30	3
2	Ge		88,648.19	0.89	91.4	Pulse	0.30	3
2	Rh		1,351,613.28	0.45	90.0	Pulse	0.30	3
2	In		488,165.79	0.68	92.3	Pulse	0.30	3
2	Tb		1,494,655.91	0.82	94.6	Pulse	0.30	3
2	Ho		139,828.51	0.73	94.2	Pulse	0.30	3
2	Bi		853,591.77	0.23	91.7	Pulse	0.30	3
3	Sc		147,870.03	1.80	91.6	Pulse	0.30	3
3	Ge		116,888.77	1.76	91.4	Pulse	0.30	3
3	Rh		990,208.92	1.78	89.0	Pulse	0.30	3
3	Tb		1,330,015.19	1.64	92.7	Pulse	0.30	3

Quantitation Report

File Name	042SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051019m2.b
Method File	
Method Path	
Acq Time	5/10/2019 16:44
Sample Name	jc87578-2
Sample Type	Sample
Comment	
Prep Dilution	5.000
Auto Dilution	N/A
Total Dilution	5.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.016	ug/l	52.64	36.00	1.957E-05	Pulse	0.25	3
B			1	139.361	ug/l	1.41	157,745.69	8.597E-02	Pulse	0.15	3
Ca			1	131131.111	ug/l	1.90	23,069,866.32	8.062E+00	Analog	0.10	3
Sr			1	402.973	ug/l	1.22	2,727,694.39	9.838E-01	Pulse	0.10	3
Mo			1	6.603	ug/l	3.11	8,783.20	3.168E-03	Pulse	0.10	3
Ag			1	0.005	ug/l	52.70	40.00	1.386E-05	Pulse	0.10	3
Sn			1	0.658	ug/l	18.49	2,633.70	9.171E-04	Pulse	0.10	3
Sb			1	-0.078	ug/l	-61.39	1,136.77	3.375E-04	Pulse	0.10	3
Ba			1	563.796	ug/l	0.29	477,656.62	1.419E-01	Pulse	0.10	3
Tl			1	0.021	ug/l	14.82	303.34	1.770E-04	Pulse	0.10	3
Pb			1	0.331	ug/l	12.39	590.04	3.443E-04	Pulse	0.10	3
Pb			1	0.324	ug/l	5.74	476.69	2.776E-04	Pulse	0.10	3
Pb			1	0.325	ug/l	4.87	2,250.17	1.311E-03	Pulse	0.10	3
Na			2	48578.077	ug/l	0.18	9,689,998.78	8.636E+01	Analog	0.30	3
Mg			2	29326.112	ug/l	0.49	2,652,472.88	2.364E+01	Pulse	0.30	3
Al			2	180.434	ug/l	15.77	5,492.44	4.891E-02	Pulse	0.30	3
K			2	4325.121	ug/l	0.56	275,055.20	2.451E+00	Pulse	0.30	3
Ca			2	117346.036	ug/l	0.53	389,720.15	3.473E+00	Pulse	0.30	3
Ti			2	5.349	ug/l	17.25	137.78	1.228E-03	Pulse	0.30	3
V			2	2.856	ug/l	2.11	2,634.73	2.348E-02	Pulse	0.30	3
Cr			2	2.691	ug/l	3.74	2,932.57	2.613E-02	Pulse	0.30	3
Mn			2	7.136	ug/l	2.64	3,648.30	3.252E-02	Pulse	0.30	3
Fe			2	120.975	ug/l	0.99	105,710.82	9.422E-01	Pulse	0.30	3
Co			2	0.094	ug/l	6.67	204.45	1.822E-03	Pulse	0.30	3
Ni			2	1.160	ug/l	9.68	515.57	4.597E-03	Pulse	0.30	3
Cu			2	6.281	ug/l	3.03	7,337.58	6.540E-02	Pulse	0.30	3
Zn			2	8.158	ug/l	6.05	1,830.14	1.632E-02	Pulse	0.30	3
As			2	0.401	ug/l	25.45	40.33	3.590E-04	Pulse	1.00	3
Cd			2	-0.013	ug/l	-146.57	6.32	1.340E-05	Pulse	0.30	3
Sn			2	-1.679	ug/l	-8.63	624.49	1.336E-03	Pulse	0.30	3
Se			3	0.191	ug/l	172.49	10.67	8.785E-05	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,834,978.33	2.04	87.7	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,862,271.94	2.30	89.5	Pulse	0.10	3
1	Ge		659,916.59	3.49	89.5	Pulse	0.10	3
1	Rh		2,772,051.73	2.76	87.6	Pulse	0.10	3
1	In		2,870,465.61	3.89	91.2	Pulse	0.10	3
1	Tb		3,367,508.49	3.78	92.5	Pulse	0.10	3
1	Ho		318,055.35	3.79	92.8	Pulse	0.10	3
1	Bi		1,715,367.53	4.22	91.3	Pulse	0.10	3
2	Sc		112,200.80	0.95	88.2	Pulse	0.30	3
2	Ge		85,558.80	0.43	88.2	Pulse	0.30	3
2	Rh		1,311,957.86	0.45	87.4	Pulse	0.30	3
2	In		467,102.93	1.38	88.3	Pulse	0.30	3
2	Tb		1,454,542.09	0.45	92.0	Pulse	0.30	3
2	Ho		137,731.52	1.84	92.8	Pulse	0.30	3
2	Bi		827,433.00	0.78	88.9	Pulse	0.30	3
3	Sc		145,838.49	1.27	90.3	Pulse	0.30	3
3	Ge		121,357.23	1.29	94.9	Pulse	0.30	3
3	Rh		972,913.89	0.53	87.4	Pulse	0.30	3
3	Tb		1,319,334.50	0.52	92.0	Pulse	0.30	3

Quantitation Report

File Name	043SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051019m2.b
Method File	
Method Path	
Acq Time	5/10/2019 16:49
Sample Name	rinseconf
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	-0.002	ug/l	-47.92	5.33	2.709E-06	Pulse	0.25	3
B			1	0.309	ug/l	33.94	14,585.66	7.443E-03	Pulse	0.15	3
Ca			1	-4.227	ug/l	-20.87	23,958.05	8.236E-03	Pulse	0.10	3
Sr			1	0.188	ug/l	4.59	7,245.56	2.483E-03	Pulse	0.10	3
Mo			1	0.072	ug/l	3.13	56.67	1.950E-05	Pulse	0.10	3
Ag			1	0.000	ug/l	450.88	30.00	1.018E-05	Pulse	0.10	3
Sn			1	-0.010	ug/l	-6.17	1,213.44	4.167E-04	Pulse	0.10	3
Sb			1	-0.080	ug/l	-7.15	426.69	1.267E-04	Pulse	0.10	3
Ba			1	0.012	ug/l	120.48	90.00	2.657E-05	Pulse	0.10	3
Tl			1	-0.001	ug/l	-99.63	196.68	1.117E-04	Pulse	0.10	3
Pb			1	-0.001	ug/l	-524.60	120.01	6.852E-05	Pulse	0.10	3
Pb			1	0.005	ug/l	52.24	116.67	6.650E-05	Pulse	0.10	3
Pb			1	0.001	ug/l	170.67	473.36	2.698E-04	Pulse	0.10	3
Na			2	2.345	ug/l	95.85	8,195.80	8.306E-02	Pulse	0.30	3
Mg			2	-0.268	ug/l	-100.80	315.56	3.236E-03	Pulse	0.30	3
Al			2	-0.901	ug/l	-16.75	26.67	2.863E-04	Pulse	0.30	3
K			2	4.751	ug/l	162.38	8,745.05	8.860E-02	Pulse	0.30	3
Ca			2	1.640	ug/l	262.31	200.00	2.046E-03	Pulse	0.30	3
Ti			2	0.017	ug/l	86.60	2.22	1.963E-05	Pulse	0.30	3
V			2	0.043	ug/l	50.85	468.90	4.701E-03	Pulse	0.30	3
Cr			2	0.028	ug/l	31.60	402.23	3.998E-03	Pulse	0.30	3
Mn			2	0.039	ug/l	65.28	142.23	1.467E-03	Pulse	0.30	3
Fe			2	-0.930	ug/l	-7.67	2,162.43	2.157E-02	Pulse	0.30	3
Co			2	0.003	ug/l	98.15	72.22	7.352E-04	Pulse	0.30	3
Ni			2	-0.010	ug/l	-16.18	16.67	1.600E-04	Pulse	0.30	3
Cu			2	0.009	ug/l	119.65	517.79	5.145E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	-0.677	ug/l	-4.56	74.45	7.299E-04	Pulse	0.30	3
As			2	0.017	ug/l	35.20	11.00	1.111E-04	Pulse	1.00	3
Cd			2	0.005	ug/l	48.03	18.97	4.544E-05	Pulse	0.30	3
Sn			2	-0.482	ug/l	-7.02	292.23	6.945E-04	Pulse	0.30	3
Se			3	-0.030	ug/l	-122.84	4.00	3.363E-05	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,959,419.16	0.68	93.6	Pulse	0.10	3
1	Sc		2,910,576.52	2.67	91.0	Pulse	0.10	3
1	Ge		677,457.21	2.71	91.9	Pulse	0.10	3
1	Rh		2,918,481.41	3.84	92.2	Pulse	0.10	3
1	In		2,911,388.44	3.23	92.5	Pulse	0.10	3
1	Tb		3,362,311.72	4.03	92.3	Pulse	0.10	3
1	Ho		315,992.51	3.33	92.2	Pulse	0.10	3
1	Bi		1,759,299.92	3.91	93.6	Pulse	0.10	3
2	Sc		101,814.53	19.23	80.0	Pulse	0.30	3
2	Ge		78,014.20	16.87	80.5	Pulse	0.30	3
2	Rh		1,212,912.42	20.03	80.8	Pulse	0.30	3
2	In		430,520.86	20.10	81.4	Pulse	0.30	3
2	Tb		1,290,389.18	19.78	81.7	Pulse	0.30	3
2	Ho		120,996.25	19.90	81.5	Pulse	0.30	3
2	Bi		765,219.78	18.40	82.2	Pulse	0.30	3
3	Sc		148,109.36	1.01	91.7	Pulse	0.30	3
3	Ge		118,067.64	1.30	92.3	Pulse	0.30	3
3	Rh		1,005,605.83	1.09	90.4	Pulse	0.30	3
3	Tb		1,312,743.91	1.10	91.5	Pulse	0.30	3

Quantitation Report

File Name 044SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\.b051019m2.b
Method File
Method Path
Acq Time 5/10/2019 16:54
Sample Name rinseconf
Sample Type Sample
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name Metals
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 5/13/2019 7:20
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	-0.001	ug/l	-86.12	10.67	5.473E-06	Pulse	0.25	3
B			1	-0.025	ug/l	-78.01	12,690.44	6.492E-03	Pulse	0.15	3
Ca			1	-7.160	ug/l	-11.43	21,273.76	7.336E-03	Pulse	0.10	3
Sr			1	0.179	ug/l	6.43	6,882.02	2.370E-03	Pulse	0.10	3
Mo			1	0.069	ug/l	3.80	30.00	1.021E-05	Pulse	0.10	3
Ag			1	0.000	ug/l	16.76	30.00	1.036E-05	Pulse	0.10	3
Sn			1	0.036	ug/l	261.71	1,688.32	5.809E-04	Pulse	0.10	3
Sb			1	-0.092	ug/l	-6.60	290.01	8.681E-05	Pulse	0.10	3
Ba			1	-0.005	ug/l	-46.96	20.00	5.940E-06	Pulse	0.10	3
Tl			1	-0.002	ug/l	-83.16	186.68	1.076E-04	Pulse	0.10	3
Pb			1	0.000	ug/l	975.11	126.67	7.283E-05	Pulse	0.10	3
Pb			1	0.002	ug/l	114.73	93.34	5.370E-05	Pulse	0.10	3
Pb			1	-0.001	ug/l	-233.50	403.35	2.319E-04	Pulse	0.10	3
Na			2	-0.314	ug/l	-12.68	6,793.93	5.944E-02	Pulse	0.30	3
Mg			2	-0.813	ug/l	-4.54	118.89	1.041E-03	Pulse	0.30	3
Al			2	-0.934	ug/l	-3.85	27.78	2.433E-04	Pulse	0.30	3
K			2	-0.149	ug/l	-761.13	8,590.54	7.514E-02	Pulse	0.30	3
Ca			2	-2.852	ug/l	-46.19	157.78	1.381E-03	Pulse	0.30	3
Ti			2	0.017	ug/l	173.21	2.22	1.939E-05	Pulse	0.30	3
V			2	0.028	ug/l	23.92	475.57	4.163E-03	Pulse	0.30	3
Cr			2	0.013	ug/l	120.14	381.12	3.339E-03	Pulse	0.30	3
Mn			2	0.018	ug/l	10.52	114.45	1.002E-03	Pulse	0.30	3
Fe			2	-0.963	ug/l	-1.13	2,324.67	2.034E-02	Pulse	0.30	3
Co			2	0.004	ug/l	81.30	91.11	7.970E-04	Pulse	0.30	3
Ni			2	-0.002	ug/l	-381.14	35.55	3.102E-04	Pulse	0.30	3
Cu			2	-0.011	ug/l	-76.06	475.57	4.164E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	-0.653	ug/l	-2.76	102.23	8.945E-04	Pulse	0.30	3
As			2	0.007	ug/l	114.64	8.00	6.975E-05	Pulse	1.00	3
Cd			2	-0.002	ug/l	-228.94	8.41	1.739E-05	Pulse	0.30	3
Sn			2	-0.509	ug/l	-2.85	277.78	5.747E-04	Pulse	0.30	3
Se			3	-0.043	ug/l	-29.28	2.67	2.279E-05	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,954,747.06	2.19	93.4	Pulse	0.10	3
1	Sc		2,900,424.75	2.32	90.7	Pulse	0.10	3
1	Ge		667,111.69	2.72	90.5	Pulse	0.10	3
1	Rh		2,900,765.06	2.96	91.6	Pulse	0.10	3
1	In		2,899,244.70	3.47	92.1	Pulse	0.10	3
1	Tb		3,337,045.68	3.35	91.6	Pulse	0.10	3
1	Ho		312,684.39	3.10	91.2	Pulse	0.10	3
1	Bi		1,733,899.82	3.08	92.3	Pulse	0.10	3
2	Sc		114,300.20	1.19	89.8	Pulse	0.30	3
2	Ge		86,766.73	0.45	89.5	Pulse	0.30	3
2	Rh		1,368,734.29	0.59	91.1	Pulse	0.30	3
2	In		483,338.64	0.06	91.3	Pulse	0.30	3
2	Tb		1,456,899.66	0.26	92.2	Pulse	0.30	3
2	Ho		136,646.69	1.08	92.0	Pulse	0.30	3
2	Bi		860,829.90	1.14	92.5	Pulse	0.30	3
3	Sc		146,250.60	0.37	90.6	Pulse	0.30	3
3	Ge		117,357.37	1.23	91.7	Pulse	0.30	3
3	Rh		1,005,770.03	0.77	90.4	Pulse	0.30	3
3	Tb		1,306,351.96	0.84	91.1	Pulse	0.30	3

Quantitation Report

File Name	045SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051019m2.b
Method File	
Method Path	
Acq Time	5/10/2019 16:59
Sample Name	jc87582-2q
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.001	ug/l	412.49	21.33	1.076E-05	Pulse	0.25	3
B			1	0.784	ug/l	13.87	15,252.99	7.680E-03	Pulse	0.15	3
Ca			1	653.954	ug/l	1.53	317,382.29	1.099E-01	Pulse	0.10	3
Sr			1	1.917	ug/l	2.08	34,675.46	1.188E-02	Pulse	0.10	3
Mo			1	0.256	ug/l	0.87	466.69	1.598E-04	Pulse	0.10	3
Ag			1	0.006	ug/l	65.58	70.00	2.401E-05	Pulse	0.10	3
Sn			1	-0.160	ug/l	-1.93	503.37	1.727E-04	Pulse	0.10	3
Sb			1	-0.189	ug/l	-5.00	266.68	8.011E-05	Pulse	0.10	3
Ba			1	1.391	ug/l	3.33	2,940.44	8.866E-04	Pulse	0.10	3
Tl			1	0.003	ug/l	75.93	260.02	1.478E-04	Pulse	0.10	3
Pb			1	0.133	ug/l	7.40	606.71	3.458E-04	Pulse	0.10	3
Pb			1	0.145	ug/l	6.66	536.70	3.060E-04	Pulse	0.10	3
Pb			1	0.134	ug/l	12.39	2,356.85	1.346E-03	Pulse	0.10	3
Na			2	67.111	ug/l	1.27	42,030.24	3.603E-01	Pulse	0.30	3
Mg			2	18.907	ug/l	1.75	4,947.60	4.241E-02	Pulse	0.30	3
Al			2	71.492	ug/l	5.16	5,655.80	4.847E-02	Pulse	0.30	3
K			2	36.049	ug/l	1.79	14,589.94	1.251E-01	Pulse	0.30	3
Ca			2	675.225	ug/l	2.06	6,036.93	5.174E-02	Pulse	0.30	3
Ti			2	0.050	ug/l	100.55	3.33	2.856E-05	Pulse	0.30	3
V			2	-0.120	ug/l	-5.50	121.11	1.039E-03	Pulse	0.30	3
Cr			2	-0.036	ug/l	-37.09	235.56	2.018E-03	Pulse	0.30	3
Mn			2	0.384	ug/l	9.30	570.02	4.888E-03	Pulse	0.30	3
Fe			2	-1.029	ug/l	-9.70	4,290.90	3.679E-02	Pulse	0.30	3
Co			2	0.024	ug/l	11.71	158.89	1.362E-03	Pulse	0.30	3
Ni			2	0.173	ug/l	16.31	224.45	1.925E-03	Pulse	0.30	3
Cu			2	1.149	ug/l	6.36	3,787.24	3.247E-02	Pulse	0.30	3
Zn			2	1.125	ug/l	3.58	1,061.16	9.096E-03	Pulse	0.30	3
As			2	0.009	ug/l	83.24	7.00	5.991E-05	Pulse	1.00	3
Cd			2	0.416	ug/l	17.85	417.75	8.434E-04	Pulse	0.30	3
Sn			2	-1.191	ug/l	-0.29	96.67	1.950E-04	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	-0.029	ug/l	-217.60	4.67	4.588E-05	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,986,406.14	1.43	94.9	Pulse	0.10	3
1	Sc		2,887,491.94	2.71	90.3	Pulse	0.10	3
1	Ge		673,593.30	3.96	91.3	Pulse	0.10	3
1	Rh		2,919,759.33	4.22	92.2	Pulse	0.10	3
1	In		2,912,595.17	3.68	92.5	Pulse	0.10	3
1	Tb		3,317,153.81	3.25	91.1	Pulse	0.10	3
1	Ho		311,911.79	1.73	91.0	Pulse	0.10	3
1	Bi		1,755,035.23	3.69	93.4	Pulse	0.10	3
2	Sc		116,663.76	0.92	91.7	Pulse	0.30	3
2	Ge		89,348.73	1.15	92.1	Pulse	0.30	3
2	Rh		1,367,661.79	0.73	91.1	Pulse	0.30	3
2	In		495,694.20	0.69	93.7	Pulse	0.30	3
2	Tb		1,471,816.47	0.49	93.1	Pulse	0.30	3
2	Ho		139,602.67	1.50	94.0	Pulse	0.30	3
2	Bi		875,588.59	0.95	94.1	Pulse	0.30	3
3	Sc		118,946.68	19.04	73.7	Pulse	0.30	3
3	Ge		104,399.67	12.59	81.6	Pulse	0.30	3
3	Rh		836,797.19	18.76	75.2	Pulse	0.30	3
3	Tb		1,088,082.49	19.30	75.9	Pulse	0.30	3

Quantitation Report

File Name	046SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051019m2.b
Method File	
Method Path	
Acq Time	5/10/2019 17:04
Sample Name	jc87783-13
Sample Type	Sample
Comment	fb
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	-0.002	ug/l	-93.62	10.67	5.721E-06	Pulse	0.25	3
B			1	1.226	ug/l	6.88	15,424.24	8.308E-03	Pulse	0.15	3
Ca			1	23.521	ug/l	11.66	37,174.16	1.315E-02	Pulse	0.10	3
Sr			1	0.125	ug/l	9.76	2,687.06	9.453E-04	Pulse	0.10	3
Mo			1	0.204	ug/l	5.76	270.02	9.456E-05	Pulse	0.10	3
Ag			1	0.020	ug/l	17.19	186.68	6.536E-05	Pulse	0.10	3
Sn			1	0.240	ug/l	19.59	2,510.35	8.769E-04	Pulse	0.10	3
Sb			1	-0.043	ug/l	-45.96	1,073.42	3.181E-04	Pulse	0.10	3
Ba			1	0.243	ug/l	10.10	553.37	1.647E-04	Pulse	0.10	3
Tl			1	0.002	ug/l	91.28	236.68	1.365E-04	Pulse	0.10	3
Pb			1	-0.001	ug/l	-1272.12	120.01	6.981E-05	Pulse	0.10	3
Pb			1	0.029	ug/l	37.10	173.34	9.960E-05	Pulse	0.10	3
Pb			1	0.021	ug/l	21.39	726.71	4.200E-04	Pulse	0.10	3
Na			2	6.442	ug/l	1.60	9,923.60	9.084E-02	Pulse	0.30	3
Mg			2	0.831	ug/l	8.75	654.47	5.990E-03	Pulse	0.30	3
Al			2	0.207	ug/l	274.89	175.56	1.608E-03	Pulse	0.30	3
K			2	1.456	ug/l	36.95	8,472.66	7.755E-02	Pulse	0.30	3
Ca			2	30.949	ug/l	22.41	446.68	4.092E-03	Pulse	0.30	3
Ti			2	0.142	ug/l	57.59	8.89	8.160E-05	Pulse	0.30	3
V			2	0.618	ug/l	10.49	1,545.66	1.415E-02	Pulse	0.30	3
Cr			2	0.463	ug/l	6.09	1,402.31	1.284E-02	Pulse	0.30	3
Mn			2	0.283	ug/l	2.67	411.12	3.763E-03	Pulse	0.30	3
Fe			2	0.409	ug/l	16.31	6,897.34	6.314E-02	Pulse	0.30	3
Co			2	0.017	ug/l	19.51	121.11	1.109E-03	Pulse	0.30	3
Ni			2	0.114	ug/l	2.92	151.11	1.383E-03	Pulse	0.30	3
Cu			2	0.325	ug/l	5.96	1,373.42	1.257E-02	Pulse	0.30	3
Zn			2	6.976	ug/l	7.71	3,150.40	2.885E-02	Pulse	0.30	3
As			2	0.087	ug/l	43.60	23.33	2.137E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	-0.001	ug/l	-2236.31	10.42	2.270E-05	Pulse	0.30	3
Sn			2	-0.770	ug/l	-4.28	511.13	1.120E-03	Pulse	0.30	3
Se			3	0.111	ug/l	81.30	13.33	1.014E-04	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,856,250.33	1.16	88.7	Pulse	0.10	3
1	Sc		2,828,314.65	3.35	88.4	Pulse	0.10	3
1	Ge		668,431.60	2.87	90.6	Pulse	0.10	3
1	Rh		2,847,005.79	3.72	89.9	Pulse	0.10	3
1	In		2,856,610.26	3.79	90.7	Pulse	0.10	3
1	Tb		3,367,216.72	3.94	92.5	Pulse	0.10	3
1	Ho		315,871.66	5.14	92.2	Pulse	0.10	3
1	Bi		1,734,282.32	4.00	92.3	Pulse	0.10	3
2	Sc		109,249.50	1.05	85.8	Pulse	0.30	3
2	Ge		86,171.64	0.85	88.9	Pulse	0.30	3
2	Rh		1,324,371.58	0.69	88.2	Pulse	0.30	3
2	In		456,475.53	0.70	86.3	Pulse	0.30	3
2	Tb		1,438,214.77	0.17	91.0	Pulse	0.30	3
2	Ho		135,047.48	1.34	91.0	Pulse	0.30	3
2	Bi		836,185.75	1.62	89.9	Pulse	0.30	3
3	Sc		145,769.21	1.06	90.3	Pulse	0.30	3
3	Ge		131,756.44	1.41	103.0	Pulse	0.30	3
3	Rh		995,554.33	1.58	89.5	Pulse	0.30	3
3	Tb		1,313,933.66	1.58	91.6	Pulse	0.30	3

Quantitation Report

File Name	047_CCV.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051019m2.b
Method File	
Method Path	
Acq Time	5/10/2019 17:08
Sample Name	CCVA
Sample Type	CCV
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	48.766	ug/l	0.54	306,249.62	1.603E-01	Pulse	0.25	3
B			1	99.763	ug/l	0.68	555,495.99	2.908E-01	Pulse	0.15	3
Ca			1	4860.851	ug/l	0.30	4,355,128.27	1.502E+00	Pulse	0.10	3
Sr			1	50.161	ug/l	0.78	1,767,512.22	6.124E-01	Pulse	0.10	3
Mo			1	51.424	ug/l	0.96	373,865.63	1.296E-01	Pulse	0.10	3
Ag			1	47.578	ug/l	1.44	781,877.38	2.671E-01	Pulse	0.10	3
Sn			1	49.432	ug/l	1.71	511,127.08	1.746E-01	Pulse	0.10	3
Sb			1	51.777	ug/l	2.23	576,853.04	1.692E-01	Pulse	0.10	3
Ba			1	49.027	ug/l	1.55	210,294.49	6.168E-02	Pulse	0.10	3
Tl			1	49.918	ug/l	2.96	1,038,459.93	5.977E-01	Pulse	0.10	3
Pb			1	49.811	ug/l	2.24	356,290.20	2.052E-01	Pulse	0.10	3
Pb			1	49.524	ug/l	0.59	306,145.01	1.763E-01	Pulse	0.10	3
Pb			1	49.582	ug/l	1.18	1,411,005.78	8.127E-01	Pulse	0.10	3
Na			2	4724.083	ug/l	0.34	4,938,359.39	4.203E+01	Pulse	0.30	3
Mg			2	4799.883	ug/l	0.14	2,273,558.45	1.935E+01	Pulse	0.30	3
Al			2	5012.965	ug/l	0.41	774,606.67	6.592E+00	Pulse	0.30	3
K			2	4931.836	ug/l	0.54	1,600,647.85	1.362E+01	Pulse	0.30	3
Ca			2	5148.918	ug/l	0.66	89,712.31	7.634E-01	Pulse	0.30	3
Ti			2	49.072	ug/l	1.50	6,619.45	5.633E-02	Pulse	0.30	3
V			2	48.299	ug/l	0.53	202,213.05	1.721E+00	Pulse	0.30	3
Cr			2	48.098	ug/l	0.61	245,476.55	2.089E+00	Pulse	0.30	3
Mn			2	48.537	ug/l	0.57	127,656.53	1.086E+00	Pulse	0.30	3
Fe			2	5153.173	ug/l	1.28	22,196,343.00	1.889E+02	Analog	0.30	3
Co			2	47.534	ug/l	0.89	385,251.58	3.279E+00	Pulse	0.30	3
Ni			2	46.851	ug/l	0.94	101,065.54	8.601E-01	Pulse	0.30	3
Cu			2	46.913	ug/l	0.23	266,870.21	2.271E+00	Pulse	0.30	3
Zn			2	47.258	ug/l	0.54	38,112.78	3.243E-01	Pulse	0.30	3
As			2	48.499	ug/l	1.08	22,487.08	1.914E-01	Pulse	1.00	3
Cd			2	49.575	ug/l	0.26	95,189.77	1.952E-01	Pulse	0.30	3
Sn			2	50.521	ug/l	0.96	109,624.73	2.248E-01	Pulse	0.30	3
Se			3	189.799	ug/l	4.58	17,845.73	1.514E-01	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,910,292.90	2.26	91.3	Pulse	0.10	3
1	Sc		2,899,340.79	3.04	90.7	Pulse	0.10	3
1	Ge		681,626.42	4.05	92.4	Pulse	0.10	3

Quantitation Report

1	Rh		2,886,538.92	4.79	91.2	Pulse	0.10	3
1	In		2,928,958.33	4.90	93.0	Pulse	0.10	3
1	Tb		3,409,646.82	4.94	93.6	Pulse	0.10	3
1	Ho		326,108.69	5.77	95.1	Pulse	0.10	3
1	Bi		1,736,601.85	5.08	92.4	Pulse	0.10	3
2	Sc		117,509.67	0.64	92.3	Pulse	0.30	3
2	Ge		88,833.13	0.70	91.6	Pulse	0.30	3
2	Rh		1,367,399.53	0.49	91.0	Pulse	0.30	3
2	In		487,638.17	0.26	92.2	Pulse	0.30	3
2	Tb		1,506,189.39	0.11	95.3	Pulse	0.30	3
2	Ho		141,820.17	0.67	95.5	Pulse	0.30	3
2	Bi		866,384.93	0.37	93.1	Pulse	0.30	3
3	Sc		146,838.95	0.36	90.9	Pulse	0.30	3
3	Ge		117,917.47	1.42	92.2	Pulse	0.30	3
3	Rh		975,854.37	1.76	87.7	Pulse	0.30	3
3	Tb		1,305,976.58	1.57	91.1	Pulse	0.30	3

Quantitation Report

File Name	048_CCB.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051019m2.b
Method File	
Method Path	
Acq Time	5/10/2019 17:13
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.010	ug/l	16.85	84.00	4.359E-05	Pulse	0.25	3
B			1	0.704	ug/l	15.04	16,514.42	8.568E-03	Pulse	0.15	3
Ca			1	-4.263	ug/l	-11.32	23,737.83	8.225E-03	Pulse	0.10	3
Sr			1	0.103	ug/l	3.89	4,197.49	1.440E-03	Pulse	0.10	3
Mo			1	0.137	ug/l	6.07	533.37	1.835E-04	Pulse	0.10	3
Ag			1	0.005	ug/l	75.68	106.67	3.624E-05	Pulse	0.10	3
Sn			1	0.060	ug/l	34.47	1,943.64	6.660E-04	Pulse	0.10	3
Sb			1	0.102	ug/l	7.58	2,360.30	7.191E-04	Pulse	0.10	3
Ba			1	0.017	ug/l	62.19	110.01	3.353E-05	Pulse	0.10	3
Tl			1	0.018	ug/l	6.01	586.70	3.398E-04	Pulse	0.10	3
Pb			1	0.000	ug/l	473.94	126.67	7.365E-05	Pulse	0.10	3
Pb			1	0.015	ug/l	11.24	176.68	1.024E-04	Pulse	0.10	3
Pb			1	0.010	ug/l	29.57	696.70	4.050E-04	Pulse	0.10	3
Na			2	-0.062	ug/l	-257.01	7,024.05	6.167E-02	Pulse	0.30	3
Mg			2	-0.136	ug/l	-26.83	428.90	3.766E-03	Pulse	0.30	3
Al			2	1.152	ug/l	5.80	340.01	2.986E-03	Pulse	0.30	3
K			2	0.158	ug/l	443.92	8,653.88	7.598E-02	Pulse	0.30	3
Ca			2	1.587	ug/l	131.32	232.23	2.038E-03	Pulse	0.30	3
Ti			2	0.068	ug/l	77.65	8.89	7.798E-05	Pulse	0.30	3
V			2	0.014	ug/l	71.80	415.57	3.650E-03	Pulse	0.30	3
Cr			2	0.033	ug/l	65.45	480.02	4.217E-03	Pulse	0.30	3
Mn			2	0.036	ug/l	40.93	158.89	1.396E-03	Pulse	0.30	3
Fe			2	0.356	ug/l	16.31	7,821.20	6.867E-02	Pulse	0.30	3
Co			2	0.007	ug/l	17.41	113.34	9.949E-04	Pulse	0.30	3
Ni			2	0.024	ug/l	44.20	88.89	7.816E-04	Pulse	0.30	3
Cu			2	0.050	ug/l	6.37	814.48	7.153E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	-0.434	ug/l	-14.88	270.01	2.373E-03	Pulse	0.30	3
As			2	0.013	ug/l	79.04	10.67	9.356E-05	Pulse	1.00	3
Cd			2	0.007	ug/l	48.21	25.07	5.217E-05	Pulse	0.30	3
Sn			2	-0.438	ug/l	-4.11	426.68	8.871E-04	Pulse	0.30	3
Se			3	0.065	ug/l	19.73	12.67	1.094E-04	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,928,191.62	1.53	92.1	Pulse	0.10	3
1	Sc		2,886,381.94	2.71	90.3	Pulse	0.10	3
1	Ge		671,129.63	3.44	91.0	Pulse	0.10	3
1	Rh		2,913,133.08	3.04	92.0	Pulse	0.10	3
1	In		2,923,581.94	3.87	92.8	Pulse	0.10	3
1	Tb		3,281,537.14	2.92	90.1	Pulse	0.10	3
1	Ho		307,370.09	3.73	89.7	Pulse	0.10	3
1	Bi		1,724,930.39	3.42	91.8	Pulse	0.10	3
2	Sc		113,877.69	0.77	89.5	Pulse	0.30	3
2	Ge		87,134.37	1.61	89.9	Pulse	0.30	3
2	Rh		1,357,055.02	1.00	90.4	Pulse	0.30	3
2	In		481,046.61	1.01	90.9	Pulse	0.30	3
2	Tb		1,443,924.08	0.11	91.4	Pulse	0.30	3
2	Ho		134,930.02	0.82	90.9	Pulse	0.30	3
2	Bi		857,725.33	0.16	92.2	Pulse	0.30	3
3	Sc		146,741.28	0.62	90.9	Pulse	0.30	3
3	Ge		115,830.33	1.69	90.5	Pulse	0.30	3
3	Rh		999,383.43	1.83	89.8	Pulse	0.30	3
3	Tb		1,294,419.98	1.83	90.3	Pulse	0.30	3

Quantitation Report

File Name	049SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051019m2.b
Method File	
Method Path	
Acq Time	5/10/2019 17:18
Sample Name	MP11926-MB3 4
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.016	ug/l	21.88	65.33	3.538E-05	Pulse	0.25	3
B			1	1.353	ug/l	12.18	15,691.22	8.490E-03	Pulse	0.15	3
Ca			1	14.593	ug/l	7.78	33,334.20	1.177E-02	Pulse	0.10	3
Sr			1	0.068	ug/l	14.83	1,700.17	5.971E-04	Pulse	0.10	3
Mo			1	0.245	ug/l	4.18	416.69	1.461E-04	Pulse	0.10	3
Ag			1	0.017	ug/l	23.03	160.01	5.696E-05	Pulse	0.10	3
Sn			1	0.585	ug/l	5.03	4,184.17	1.485E-03	Pulse	0.10	3
Sb			1	0.172	ug/l	4.08	2,240.28	6.678E-04	Pulse	0.10	3
Ba			1	0.123	ug/l	37.76	300.02	8.961E-05	Pulse	0.10	3
Tl			1	0.012	ug/l	65.19	336.68	1.972E-04	Pulse	0.10	3
Pb			1	0.058	ug/l	18.62	326.69	1.908E-04	Pulse	0.10	3
Pb			1	0.047	ug/l	39.13	223.34	1.309E-04	Pulse	0.10	3
Pb			1	0.054	ug/l	24.55	1,180.07	6.904E-04	Pulse	0.10	3
Na			2	8.990	ug/l	7.17	11,239.02	1.022E-01	Pulse	0.30	3
Mg			2	1.066	ug/l	18.01	711.14	6.464E-03	Pulse	0.30	3
Al			2	5.812	ug/l	4.91	582.24	5.292E-03	Pulse	0.30	3
K			2	2.077	ug/l	76.77	8,626.09	7.840E-02	Pulse	0.30	3
Ca			2	24.656	ug/l	18.13	398.90	3.627E-03	Pulse	0.30	3
Ti			2	0.282	ug/l	28.99	17.78	1.617E-04	Pulse	0.30	3
V			2	0.585	ug/l	8.13	1,493.44	1.357E-02	Pulse	0.30	3
Cr			2	1.072	ug/l	3.91	2,864.77	2.604E-02	Pulse	0.30	3
Mn			2	0.171	ug/l	7.13	275.56	2.504E-03	Pulse	0.30	3
Fe			2	2.138	ug/l	4.41	10,430.74	9.481E-02	Pulse	0.30	3
Co			2	0.010	ug/l	22.36	96.67	8.786E-04	Pulse	0.30	3
Ni			2	0.181	ug/l	14.45	220.00	2.000E-03	Pulse	0.30	3
Cu			2	0.983	ug/l	10.21	3,130.50	2.846E-02	Pulse	0.30	3
Zn			2	2.090	ug/l	15.37	1,358.98	1.235E-02	Pulse	0.30	3
As			2	0.086	ug/l	13.92	23.33	2.121E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	0.002	ug/l	903.54	12.44	2.703E-05	Pulse	0.30	3
Sn			2	-0.441	ug/l	-1.81	845.60	1.843E-03	Pulse	0.30	3
Se			3	-0.041	ug/l	-141.13	5.33	4.090E-05	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,849,031.18	2.38	88.4	Pulse	0.10	3
1	Sc		2,831,715.16	2.25	88.5	Pulse	0.10	3
1	Ge		666,145.43	2.52	90.3	Pulse	0.10	3
1	Rh		2,855,794.85	4.36	90.2	Pulse	0.10	3
1	In		2,816,015.53	4.16	89.4	Pulse	0.10	3
1	Tb		3,353,572.45	4.28	92.1	Pulse	0.10	3
1	Ho		312,856.47	3.57	91.3	Pulse	0.10	3
1	Bi		1,717,641.49	4.73	91.4	Pulse	0.10	3
2	Sc		110,017.17	0.36	86.4	Pulse	0.30	3
2	Ge		85,484.00	1.13	88.2	Pulse	0.30	3
2	Rh		1,330,272.41	0.84	88.6	Pulse	0.30	3
2	In		458,716.81	0.72	86.7	Pulse	0.30	3
2	Tb		1,421,690.05	0.42	90.0	Pulse	0.30	3
2	Ho		133,149.53	0.28	89.7	Pulse	0.30	3
2	Bi		835,417.33	0.03	89.8	Pulse	0.30	3
3	Sc		146,560.66	1.45	90.8	Pulse	0.30	3
3	Ge		129,921.49	0.96	101.6	Pulse	0.30	3
3	Rh		996,745.14	1.65	89.6	Pulse	0.30	3
3	Tb		1,306,518.76	2.06	91.1	Pulse	0.30	3

Quantitation Report

File Name	050SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051019m2.b
Method File	
Method Path	
Acq Time	5/10/2019 17:23
Sample Name	MP11926-B3
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	78.069	ug/l	1.78	238,350.95	1.283E-01	Pulse	0.25	3
B			1	84.325	ug/l	1.31	235,320.61	1.267E-01	Pulse	0.15	3
Ca			1	4114.875	ug/l	1.17	1,850,197.73	6.413E-01	Pulse	0.10	3
Sr			1	83.105	ug/l	3.71	1,444,065.71	5.073E-01	Pulse	0.10	3
Mo			1	80.881	ug/l	2.48	290,016.63	1.019E-01	Pulse	0.10	3
Ag			1	77.986	ug/l	1.44	633,431.67	2.189E-01	Pulse	0.10	3
Sn			1	76.982	ug/l	0.48	393,596.94	1.360E-01	Pulse	0.10	3
Sb			1	81.594	ug/l	3.69	453,081.24	1.334E-01	Pulse	0.10	3
Ba			1	81.449	ug/l	2.55	173,983.77	5.124E-02	Pulse	0.10	3
Tl			1	81.466	ug/l	1.30	842,626.50	4.877E-01	Pulse	0.10	3
Pb			1	81.022	ug/l	1.37	288,309.71	1.669E-01	Pulse	0.10	3
Pb			1	80.261	ug/l	1.11	246,860.22	1.429E-01	Pulse	0.10	3
Pb			1	81.013	ug/l	0.72	1,147,271.95	6.639E-01	Pulse	0.10	3
Na			2	3997.986	ug/l	0.90	1,994,621.45	1.782E+01	Pulse	0.30	3
Mg			2	4000.050	ug/l	1.12	902,720.56	8.064E+00	Pulse	0.30	3
Al			2	4086.169	ug/l	1.14	300,830.28	2.687E+00	Pulse	0.30	3
K			2	4054.512	ug/l	1.15	631,780.77	5.644E+00	Pulse	0.30	3
Ca			2	4510.387	ug/l	0.91	37,542.88	3.354E-01	Pulse	0.30	3
Ti			2	78.648	ug/l	1.36	5,053.20	4.514E-02	Pulse	0.30	3
V			2	80.708	ug/l	1.39	161,000.38	1.438E+00	Pulse	0.30	3
Cr			2	81.416	ug/l	0.75	197,967.14	1.768E+00	Pulse	0.30	3
Mn			2	80.975	ug/l	1.56	101,450.95	9.063E-01	Pulse	0.30	3
Fe			2	4378.869	ug/l	2.10	8,987,017.98	8.028E+01	Analog	0.30	3
Co			2	80.056	ug/l	0.88	309,063.06	2.761E+00	Pulse	0.30	3
Ni			2	79.596	ug/l	0.53	81,789.37	7.307E-01	Pulse	0.30	3
Cu			2	81.912	ug/l	0.67	222,003.46	1.983E+00	Pulse	0.30	3
Zn			2	77.968	ug/l	1.08	30,055.19	2.685E-01	Pulse	0.30	3
As			2	71.003	ug/l	1.93	15,681.98	1.401E-01	Pulse	1.00	3
Cd			2	78.121	ug/l	0.40	71,814.78	1.538E-01	Pulse	0.30	3
Sn			2	79.345	ug/l	0.65	82,710.79	1.771E-01	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	309.941	ug/l	3.10	16,096.88	1.236E-01	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,857,404.31	1.16	88.8	Pulse	0.10	3
1	Sc		2,886,131.21	4.11	90.2	Pulse	0.10	3
1	Ge		680,221.73	2.70	92.2	Pulse	0.10	3
1	Rh		2,849,738.29	5.39	90.0	Pulse	0.10	3
1	In		2,893,042.86	3.42	91.9	Pulse	0.10	3
1	Tb		3,394,348.81	2.92	93.2	Pulse	0.10	3
1	Ho		319,076.67	5.15	93.1	Pulse	0.10	3
1	Bi		1,728,366.38	5.20	92.0	Pulse	0.10	3
2	Sc		111,940.66	0.66	88.0	Pulse	0.30	3
2	Ge		87,310.91	1.14	90.0	Pulse	0.30	3
2	Rh		1,338,198.84	0.80	89.1	Pulse	0.30	3
2	In		466,919.72	1.10	88.2	Pulse	0.30	3
2	Tb		1,454,569.46	0.50	92.1	Pulse	0.30	3
2	Ho		138,224.81	1.01	93.1	Pulse	0.30	3
2	Bi		842,389.74	0.57	90.5	Pulse	0.30	3
3	Sc		148,917.72	0.73	92.2	Pulse	0.30	3
3	Ge		130,188.85	0.49	101.8	Pulse	0.30	3
3	Rh		991,371.53	0.83	89.1	Pulse	0.30	3
3	Tb		1,312,559.95	0.95	91.5	Pulse	0.30	3

Quantitation Report

File Name	051SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051019m2.b
Method File	
Method Path	
Acq Time	5/10/2019 17:27
Sample Name	JC85415-11A
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.586	ug/l	5.28	1,832.15	9.728E-04	Pulse	0.25	3
B			1	111.676	ug/l	1.98	312,066.14	1.656E-01	Pulse	0.15	3
Ca			1	548.039	ug/l	0.93	268,239.23	9.367E-02	Pulse	0.10	3
Sr			1	11.721	ug/l	1.83	206,209.49	7.171E-02	Pulse	0.10	3
Mo			1	2.352	ug/l	4.39	8,059.37	2.803E-03	Pulse	0.10	3
Ag			1	1.100	ug/l	2.92	8,843.30	3.097E-03	Pulse	0.10	3
Sn			1	9.889	ug/l	1.52	51,032.70	1.787E-02	Pulse	0.10	3
Sb			1	6.545	ug/l	2.62	37,286.92	1.106E-02	Pulse	0.10	3
Ba			1	2.332	ug/l	4.04	4,984.47	1.479E-03	Pulse	0.10	3
Tl			1	1.138	ug/l	2.22	11,899.39	6.938E-03	Pulse	0.10	3
Pb			1	2.142	ug/l	5.28	7,685.98	4.481E-03	Pulse	0.10	3
Pb			1	2.226	ug/l	6.11	6,872.15	4.009E-03	Pulse	0.10	3
Pb			1	2.219	ug/l	1.07	31,610.29	1.842E-02	Pulse	0.10	3
Na			2	533.684	ug/l	1.30	267,902.78	2.433E+00	Pulse	0.30	3
Mg			2	418.648	ug/l	0.57	93,396.41	8.479E-01	Pulse	0.30	3
Al			2	89.012	ug/l	2.16	6,606.07	5.998E-02	Pulse	0.30	3
K			2	520.744	ug/l	1.60	87,082.13	7.907E-01	Pulse	0.30	3
Ca			2	638.719	ug/l	1.57	5,401.11	4.904E-02	Pulse	0.30	3
Ti			2	3.934	ug/l	10.25	248.89	2.258E-03	Pulse	0.30	3
V			2	4.928	ug/l	0.86	10,001.52	9.080E-02	Pulse	0.30	3
Cr			2	3.693	ug/l	2.22	9,129.78	8.289E-02	Pulse	0.30	3
Mn			2	2.437	ug/l	5.12	3,069.27	2.785E-02	Pulse	0.30	3
Fe			2	84.229	ug/l	1.31	176,115.03	1.599E+00	Pulse	0.30	3
Co			2	0.595	ug/l	2.48	2,316.90	2.104E-02	Pulse	0.30	3
Ni			2	2.322	ug/l	3.75	2,383.57	2.164E-02	Pulse	0.30	3
Cu			2	10.319	ug/l	2.67	27,968.51	2.540E-01	Pulse	0.30	3
Zn			2	10.743	ug/l	1.87	4,578.60	4.156E-02	Pulse	0.30	3
As			2	1.964	ug/l	6.42	431.34	3.916E-03	Pulse	1.00	3
Cd			2	1.122	ug/l	5.87	1,020.29	2.232E-03	Pulse	0.30	3
Sn			2	9.377	ug/l	0.66	10,698.85	2.341E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	1.898	ug/l	11.04	104.67	8.140E-04	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,883,692.01	1.17	90.0	Pulse	0.10	3
1	Sc		2,863,726.94	2.95	89.5	Pulse	0.10	3
1	Ge		678,165.98	3.57	92.0	Pulse	0.10	3
1	Rh		2,876,872.46	3.32	90.9	Pulse	0.10	3
1	In		2,855,427.07	1.92	90.7	Pulse	0.10	3
1	Tb		3,371,450.47	3.50	92.6	Pulse	0.10	3
1	Ho		319,275.16	2.11	93.1	Pulse	0.10	3
1	Bi		1,716,023.20	3.84	91.3	Pulse	0.10	3
2	Sc		110,147.81	1.51	86.6	Pulse	0.30	3
2	Ge		86,104.61	0.55	88.8	Pulse	0.30	3
2	Rh		1,321,542.48	0.14	88.0	Pulse	0.30	3
2	In		456,945.03	0.89	86.4	Pulse	0.30	3
2	Tb		1,414,804.87	1.42	89.5	Pulse	0.30	3
2	Ho		131,664.88	0.65	88.7	Pulse	0.30	3
2	Bi		820,000.47	0.80	88.1	Pulse	0.30	3
3	Sc		146,550.78	1.48	90.8	Pulse	0.30	3
3	Ge		128,565.63	1.14	100.5	Pulse	0.30	3
3	Rh		989,320.59	2.32	88.9	Pulse	0.30	3
3	Tb		1,290,650.82	1.22	90.0	Pulse	0.30	3

Quantitation Report

File Name	052SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051019m2.b
Method File	
Method Path	
Acq Time	5/10/2019 17:32
Sample Name	MP11929-MB3 1
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.003	ug/l	65.67	37.33	1.866E-05	Pulse	0.25	3
B			1	0.238	ug/l	35.96	14,452.18	7.241E-03	Pulse	0.15	3
Ca			1	1.583	ug/l	16.10	29,569.09	1.002E-02	Pulse	0.10	3
Sr			1	0.012	ug/l	13.75	966.74	3.309E-04	Pulse	0.10	3
Mo			1	0.130	ug/l	11.99	483.36	1.651E-04	Pulse	0.10	3
Ag			1	0.002	ug/l	119.39	50.00	1.721E-05	Pulse	0.10	3
Sn			1	-0.029	ug/l	-64.31	1,033.42	3.526E-04	Pulse	0.10	3
Sb			1	-0.058	ug/l	-26.63	656.71	2.000E-04	Pulse	0.10	3
Ba			1	0.040	ug/l	38.65	206.68	6.279E-05	Pulse	0.10	3
Tl			1	0.006	ug/l	31.40	336.69	1.951E-04	Pulse	0.10	3
Pb			1	0.003	ug/l	76.88	146.67	8.483E-05	Pulse	0.10	3
Pb			1	0.016	ug/l	8.64	176.68	1.025E-04	Pulse	0.10	3
Pb			1	0.015	ug/l	10.80	846.71	4.920E-04	Pulse	0.10	3
Na			2	5.069	ug/l	9.08	12,477.86	1.073E-01	Pulse	0.30	3
Mg			2	0.433	ug/l	52.23	705.58	6.061E-03	Pulse	0.30	3
Al			2	1.820	ug/l	12.69	450.01	3.864E-03	Pulse	0.30	3
K			2	-0.093	ug/l	-642.65	8,763.96	7.530E-02	Pulse	0.30	3
Ca			2	7.833	ug/l	18.39	344.45	2.962E-03	Pulse	0.30	3
Ti			2	0.042	ug/l	69.92	5.55	4.784E-05	Pulse	0.30	3
V			2	0.004	ug/l	27.92	384.46	3.304E-03	Pulse	0.30	3
Cr			2	0.657	ug/l	2.91	3,640.53	3.129E-02	Pulse	0.30	3
Mn			2	0.051	ug/l	13.60	202.22	1.736E-03	Pulse	0.30	3
Fe			2	0.084	ug/l	48.07	6,832.91	5.871E-02	Pulse	0.30	3
Co			2	0.013	ug/l	52.03	167.78	1.446E-03	Pulse	0.30	3
Ni			2	0.058	ug/l	13.42	163.34	1.403E-03	Pulse	0.30	3
Cu			2	0.244	ug/l	6.73	1,917.94	1.649E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	0.140	ug/l	60.58	726.70	6.245E-03	Pulse	0.30	3
As			2	0.013	ug/l	41.27	11.00	9.432E-05	Pulse	1.00	3
Cd			2	0.000	ug/l	777.35	12.40	2.568E-05	Pulse	0.30	3
Sn			2	-0.511	ug/l	-5.83	273.34	5.658E-04	Pulse	0.30	3
Se			3	0.023	ug/l	391.97	8.67	7.546E-05	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,996,174.53	1.24	95.4	Pulse	0.10	3
1	Sc		2,951,034.02	2.61	92.3	Pulse	0.10	3
1	Ge		669,666.59	2.96	90.8	Pulse	0.10	3
1	Rh		2,918,171.10	3.27	92.2	Pulse	0.10	3
1	In		2,941,457.17	3.12	93.4	Pulse	0.10	3
1	Tb		3,294,832.97	2.90	90.5	Pulse	0.10	3
1	Ho		308,155.21	5.00	89.9	Pulse	0.10	3
1	Bi		1,723,392.27	4.33	91.7	Pulse	0.10	3
2	Sc		116,378.71	1.48	91.4	Pulse	0.30	3
2	Ge		87,635.16	0.91	90.4	Pulse	0.30	3
2	Rh		1,365,544.01	0.49	90.9	Pulse	0.30	3
2	In		483,321.05	0.28	91.3	Pulse	0.30	3
2	Tb		1,445,546.75	1.16	91.5	Pulse	0.30	3
2	Ho		135,067.60	0.21	91.0	Pulse	0.30	3
2	Bi		851,168.20	0.91	91.5	Pulse	0.30	3
3	Sc		147,015.94	1.13	91.0	Pulse	0.30	3
3	Ge		115,386.34	1.64	90.2	Pulse	0.30	3
3	Rh		996,914.58	1.47	89.6	Pulse	0.30	3
3	Tb		1,294,560.47	1.33	90.3	Pulse	0.30	3

Quantitation Report

File Name	053SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051019m2.b
Method File	
Method Path	
Acq Time	5/10/2019 17:37
Sample Name	MP11929-B3
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	77.294	ug/l	0.65	504,018.04	2.541E-01	Pulse	0.25	3
B			1	78.309	ug/l	1.79	455,644.36	2.297E-01	Pulse	0.15	3
Ca			1	1972.696	ug/l	0.50	1,828,549.14	6.152E-01	Pulse	0.10	3
Sr			1	78.874	ug/l	0.45	2,849,444.02	9.628E-01	Pulse	0.10	3
Mo			1	78.582	ug/l	0.83	586,247.41	1.981E-01	Pulse	0.10	3
Ag			1	78.064	ug/l	0.90	1,268,393.44	4.382E-01	Pulse	0.10	3
Sn			1	76.654	ug/l	1.13	782,838.01	2.705E-01	Pulse	0.10	3
Sb			1	84.378	ug/l	1.25	939,688.42	2.755E-01	Pulse	0.10	3
Ba			1	80.630	ug/l	1.00	346,043.07	1.014E-01	Pulse	0.10	3
Tl			1	81.267	ug/l	1.84	1,681,458.98	9.730E-01	Pulse	0.10	3
Pb			1	80.748	ug/l	3.00	574,920.66	3.326E-01	Pulse	0.10	3
Pb			1	80.346	ug/l	2.60	494,363.78	2.860E-01	Pulse	0.10	3
Pb			1	80.386	ug/l	2.09	2,277,304.42	1.317E+00	Pulse	0.10	3
Na			2	1909.155	ug/l	0.26	1,998,598.05	1.702E+01	Pulse	0.30	3
Mg			2	1927.807	ug/l	0.35	912,759.83	7.773E+00	Pulse	0.30	3
Al			2	2005.210	ug/l	0.42	309,715.95	2.638E+00	Pulse	0.30	3
K			2	1977.818	ug/l	0.49	646,755.91	5.508E+00	Pulse	0.30	3
Ca			2	2365.417	ug/l	0.59	41,296.77	3.517E-01	Pulse	0.30	3
Ti			2	78.901	ug/l	0.48	10,635.28	9.058E-02	Pulse	0.30	3
V			2	78.770	ug/l	0.61	329,300.69	2.804E+00	Pulse	0.30	3
Cr			2	79.380	ug/l	0.38	404,625.57	3.446E+00	Pulse	0.30	3
Mn			2	79.360	ug/l	0.24	208,524.23	1.776E+00	Pulse	0.30	3
Fe			2	2074.439	ug/l	1.12	8,932,174.64	7.607E+01	Analog	0.30	3
Co			2	78.000	ug/l	0.92	631,680.58	5.379E+00	Pulse	0.30	3
Ni			2	77.494	ug/l	0.33	167,021.95	1.422E+00	Pulse	0.30	3
Cu			2	77.406	ug/l	0.35	439,635.69	3.744E+00	Pulse	0.30	3
Zn			2	77.325	ug/l	1.09	61,921.04	5.273E-01	Pulse	0.30	3
As			2	75.747	ug/l	1.17	35,094.38	2.989E-01	Pulse	1.00	3
Cd			2	80.182	ug/l	0.80	154,452.19	3.157E-01	Pulse	0.30	3
Sn			2	78.884	ug/l	0.61	170,967.60	3.494E-01	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	196.848	ug/l	3.30	18,156.13	1.570E-01	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,983,631.18	2.13	94.8	Pulse	0.10	3
1	Sc		2,972,297.25	3.31	92.9	Pulse	0.10	3
1	Ge		684,088.17	3.30	92.8	Pulse	0.10	3
1	Rh		2,959,269.02	4.03	93.5	Pulse	0.10	3
1	In		2,894,216.71	4.49	91.9	Pulse	0.10	3
1	Tb		3,410,868.59	3.93	93.7	Pulse	0.10	3
1	Ho		319,044.00	3.30	93.1	Pulse	0.10	3
1	Bi		1,728,346.49	4.52	92.0	Pulse	0.10	3
2	Sc		117,420.72	0.41	92.3	Pulse	0.30	3
2	Ge		88,013.12	0.60	90.8	Pulse	0.30	3
2	Rh		1,368,405.92	0.57	91.1	Pulse	0.30	3
2	In		489,246.82	0.75	92.5	Pulse	0.30	3
2	Tb		1,488,481.16	0.39	94.2	Pulse	0.30	3
2	Ho		140,631.14	0.28	94.7	Pulse	0.30	3
2	Bi		859,594.86	0.28	92.4	Pulse	0.30	3
3	Sc		146,217.20	1.55	90.5	Pulse	0.30	3
3	Ge		115,667.51	1.58	90.4	Pulse	0.30	3
3	Rh		980,664.93	1.42	88.1	Pulse	0.30	3
3	Tb		1,306,945.57	1.79	91.1	Pulse	0.30	3

Quantitation Report

File Name	054SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051019m2.b
Method File	
Method Path	
Acq Time	5/10/2019 17:42
Sample Name	JC85415-9A
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.518	ug/l	5.42	3,308.44	1.711E-03	Pulse	0.25	3
B			1	108.653	ug/l	1.20	611,266.38	3.161E-01	Pulse	0.15	3
Ca			1	339.678	ug/l	1.74	329,173.99	1.138E-01	Pulse	0.10	3
Sr			1	5.848	ug/l	0.22	206,909.96	7.156E-02	Pulse	0.10	3
Mo			1	1.170	ug/l	2.51	8,062.70	2.787E-03	Pulse	0.10	3
Ag			1	0.915	ug/l	2.09	14,758.65	5.146E-03	Pulse	0.10	3
Sn			1	5.390	ug/l	1.54	55,771.58	1.944E-02	Pulse	0.10	3
Sb			1	2.237	ug/l	0.85	25,765.88	7.681E-03	Pulse	0.10	3
Ba			1	2.493	ug/l	0.76	10,554.64	3.147E-03	Pulse	0.10	3
Tl			1	0.632	ug/l	2.77	13,160.81	7.691E-03	Pulse	0.10	3
Pb			1	0.678	ug/l	1.68	4,901.13	2.863E-03	Pulse	0.10	3
Pb			1	0.670	ug/l	6.33	4,164.18	2.432E-03	Pulse	0.10	3
Pb			1	0.671	ug/l	3.68	19,243.17	1.124E-02	Pulse	0.10	3
Na			2	334.141	ug/l	0.36	343,953.28	3.030E+00	Pulse	0.30	3
Mg			2	267.322	ug/l	0.94	122,768.28	1.082E+00	Pulse	0.30	3
Al			2	64.269	ug/l	2.41	9,757.94	8.596E-02	Pulse	0.30	3
K			2	267.654	ug/l	0.68	92,023.25	8.107E-01	Pulse	0.30	3
Ca			2	388.534	ug/l	0.73	6,728.37	5.927E-02	Pulse	0.30	3
Ti			2	2.259	ug/l	5.73	294.45	2.593E-03	Pulse	0.30	3
V			2	4.431	ug/l	0.92	18,246.59	1.607E-01	Pulse	0.30	3
Cr			2	3.621	ug/l	2.08	18,143.14	1.599E-01	Pulse	0.30	3
Mn			2	1.256	ug/l	4.30	3,257.10	2.870E-02	Pulse	0.30	3
Fe			2	88.248	ug/l	0.48	373,343.18	3.289E+00	Pulse	0.30	3
Co			2	0.612	ug/l	1.65	4,848.68	4.272E-02	Pulse	0.30	3
Ni			2	4.499	ug/l	2.67	9,408.86	8.291E-02	Pulse	0.30	3
Cu			2	6.378	ug/l	1.95	35,504.71	3.128E-01	Pulse	0.30	3
Zn			2	13.104	ug/l	1.92	10,642.01	9.377E-02	Pulse	0.30	3
As			2	1.005	ug/l	1.27	454.68	4.006E-03	Pulse	1.00	3
Cd			2	0.529	ug/l	7.57	1,019.96	2.107E-03	Pulse	0.30	3
Sn			2	5.104	ug/l	4.12	12,215.73	2.524E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	1.938	ug/l	7.32	184.67	1.602E-03	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,934,046.69	2.73	92.4	Pulse	0.10	3
1	Sc		2,891,431.00	3.25	90.4	Pulse	0.10	3
1	Ge		661,502.74	3.27	89.7	Pulse	0.10	3
1	Rh		2,891,337.35	3.33	91.3	Pulse	0.10	3
1	In		2,870,035.94	4.53	91.1	Pulse	0.10	3
1	Tb		3,354,175.16	4.09	92.1	Pulse	0.10	3
1	Ho		311,565.44	4.39	90.9	Pulse	0.10	3
1	Bi		1,711,574.97	2.86	91.1	Pulse	0.10	3
2	Sc		113,506.49	1.04	89.2	Pulse	0.30	3
2	Ge		86,319.08	1.12	89.0	Pulse	0.30	3
2	Rh		1,348,756.89	1.35	89.8	Pulse	0.30	3
2	In		483,884.68	1.10	91.4	Pulse	0.30	3
2	Tb		1,460,619.59	0.66	92.4	Pulse	0.30	3
2	Ho		136,741.08	0.93	92.1	Pulse	0.30	3
2	Bi		854,196.81	0.83	91.8	Pulse	0.30	3
3	Sc		143,924.48	1.63	89.1	Pulse	0.30	3
3	Ge		115,323.53	1.92	90.1	Pulse	0.30	3
3	Rh		984,968.61	2.17	88.5	Pulse	0.30	3
3	Tb		1,290,643.28	2.40	90.0	Pulse	0.30	3

Quantitation Report

File Name	055SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051019m2.b
Method File	
Method Path	
Acq Time	5/10/2019 17:47
Sample Name	MP11928-MB3 4
Sample Type	Sample
Comment	
Prep Dilution	5.000
Auto Dilution	N/A
Total Dilution	5.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.020	ug/l	22.69	44.00	2.237E-05	Pulse	0.25	3
B			1	4.985	ug/l	14.74	18,441.25	9.403E-03	Pulse	0.15	3
Ca			1	56.840	ug/l	7.47	37,147.28	1.302E-02	Pulse	0.10	3
Sr			1	0.336	ug/l	8.25	2,870.42	1.003E-03	Pulse	0.10	3
Mo			1	0.944	ug/l	9.73	893.39	3.129E-04	Pulse	0.10	3
Ag			1	0.081	ug/l	11.94	280.02	9.896E-05	Pulse	0.10	3
Sn			1	14.984	ug/l	1.66	31,171.22	1.101E-02	Pulse	0.10	3
Sb			1	0.102	ug/l	23.52	1,490.14	4.544E-04	Pulse	0.10	3
Ba			1	0.269	ug/l	25.27	260.02	7.977E-05	Pulse	0.10	3
Tl			1	0.119	ug/l	8.91	700.05	4.120E-04	Pulse	0.10	3
Pb			1	0.206	ug/l	23.21	410.02	2.412E-04	Pulse	0.10	3
Pb			1	0.143	ug/l	24.88	253.34	1.489E-04	Pulse	0.10	3
Pb			1	0.188	ug/l	22.10	1,466.76	8.630E-04	Pulse	0.10	3
Na			2	49.199	ug/l	5.26	16,814.59	1.496E-01	Pulse	0.30	3
Mg			2	11.391	ug/l	5.54	1,517.88	1.350E-02	Pulse	0.30	3
Al			2	21.910	ug/l	6.68	813.37	7.232E-03	Pulse	0.30	3
K			2	19.987	ug/l	17.93	9,727.91	8.653E-02	Pulse	0.30	3
Ca			2	73.403	ug/l	5.86	446.68	3.975E-03	Pulse	0.30	3
Ti			2	1.511	ug/l	19.76	38.89	3.468E-04	Pulse	0.30	3
V			2	0.361	ug/l	10.30	644.47	5.733E-03	Pulse	0.30	3
Cr			2	0.745	ug/l	13.79	1,038.94	9.254E-03	Pulse	0.30	3
Mn			2	0.415	ug/l	19.95	275.56	2.449E-03	Pulse	0.30	3
Fe			2	19.544	ug/l	2.71	22,350.40	1.989E-01	Pulse	0.30	3
Co			2	0.026	ug/l	19.85	100.00	8.886E-04	Pulse	0.30	3
Ni			2	0.451	ug/l	5.85	224.45	1.996E-03	Pulse	0.30	3
Cu			2	2.006	ug/l	4.43	2,708.09	2.410E-02	Pulse	0.30	3
Zn			2	10.880	ug/l	1.41	2,246.88	1.999E-02	Pulse	0.30	3
As			2	0.269	ug/l	30.73	28.67	2.549E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	0.030	ug/l	61.49	22.73	4.797E-05	Pulse	0.30	3
Sn			2	13.207	ug/l	1.83	6,818.49	1.442E-02	Pulse	0.30	3
Se			3	0.221	ug/l	110.96	10.67	9.255E-05	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,962,740.26	2.73	93.8	Pulse	0.10	3
1	Sc		2,853,247.35	3.06	89.2	Pulse	0.10	3
1	Ge		657,175.50	3.47	89.1	Pulse	0.10	3
1	Rh		2,861,389.44	2.77	90.4	Pulse	0.10	3
1	In		2,831,399.98	3.07	89.9	Pulse	0.10	3
1	Tb		3,278,017.97	4.61	90.0	Pulse	0.10	3
1	Ho		305,113.36	4.92	89.0	Pulse	0.10	3
1	Bi		1,697,955.13	1.97	90.4	Pulse	0.10	3
2	Sc		112,413.53	1.94	88.3	Pulse	0.30	3
2	Ge		84,961.90	0.70	87.6	Pulse	0.30	3
2	Rh		1,328,274.77	0.54	88.4	Pulse	0.30	3
2	In		472,838.17	1.20	89.4	Pulse	0.30	3
2	Tb		1,422,891.75	0.56	90.0	Pulse	0.30	3
2	Ho		133,894.71	0.46	90.2	Pulse	0.30	3
2	Bi		844,623.49	0.74	90.8	Pulse	0.30	3
3	Sc		143,820.20	1.25	89.1	Pulse	0.30	3
3	Ge		114,949.30	1.67	89.9	Pulse	0.30	3
3	Rh		985,803.85	1.22	88.6	Pulse	0.30	3
3	Tb		1,282,025.68	1.30	89.4	Pulse	0.30	3

Quantitation Report

File Name 056SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\.b051019m2.b
Method File
Method Path
Acq Time 5/10/2019 17:51
Sample Name MP11928-B3
Sample Type Sample
Comment
Prep Dilution 5.000
Auto Dilution N/A
Total Dilution 5.000
Operator Name Metals
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 5/13/2019 7:20
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	194.967	ug/l	0.64	245,171.96	1.282E-01	Pulse	0.25	3
B			1	199.696	ug/l	1.90	230,240.53	1.203E-01	Pulse	0.15	3
Ca			1	10116.561	ug/l	1.23	1,819,389.35	6.308E-01	Pulse	0.10	3
Sr			1	203.495	ug/l	0.76	1,399,166.44	4.969E-01	Pulse	0.10	3
Mo			1	196.938	ug/l	0.74	279,240.67	9.919E-02	Pulse	0.10	3
Ag			1	97.956	ug/l	0.84	312,767.14	1.100E-01	Pulse	0.10	3
Sn			1	205.834	ug/l	1.33	413,569.92	1.455E-01	Pulse	0.10	3
Sb			1	204.972	ug/l	1.28	447,568.22	1.341E-01	Pulse	0.10	3
Ba			1	209.536	ug/l	1.11	176,058.88	5.273E-02	Pulse	0.10	3
Tl			1	202.578	ug/l	2.62	822,904.73	4.851E-01	Pulse	0.10	3
Pb			1	203.009	ug/l	2.81	283,657.64	1.672E-01	Pulse	0.10	3
Pb			1	203.327	ug/l	2.44	245,592.80	1.448E-01	Pulse	0.10	3
Pb			1	203.057	ug/l	1.21	1,129,708.25	6.657E-01	Pulse	0.10	3
Na			2	9932.022	ug/l	0.74	2,009,224.57	1.771E+01	Pulse	0.30	3
Mg			2	9865.976	ug/l	0.85	902,802.12	7.956E+00	Pulse	0.30	3
Al			2	10288.509	ug/l	0.60	307,129.44	2.707E+00	Pulse	0.30	3
K			2	10154.479	ug/l	1.25	641,511.29	5.654E+00	Pulse	0.30	3
Ca			2	11194.633	ug/l	1.69	37,781.14	3.330E-01	Pulse	0.30	3
Ti			2	198.728	ug/l	5.37	5,175.47	4.563E-02	Pulse	0.30	3
V			2	196.684	ug/l	0.42	159,102.97	1.402E+00	Pulse	0.30	3
Cr			2	197.464	ug/l	0.67	194,706.58	1.716E+00	Pulse	0.30	3
Mn			2	199.843	ug/l	0.55	101,524.56	8.947E-01	Pulse	0.30	3
Fe			2	10824.890	ug/l	0.59	9,008,605.20	7.939E+01	Analog	0.30	3
Co			2	194.238	ug/l	0.84	304,050.16	2.680E+00	Pulse	0.30	3
Ni			2	195.044	ug/l	2.54	81,255.36	7.162E-01	Pulse	0.30	3
Cu			2	224.624	ug/l	1.70	246,776.88	2.175E+00	Pulse	0.30	3
Zn			2	225.310	ug/l	1.03	35,120.43	3.095E-01	Pulse	0.30	3
As			2	183.246	ug/l	0.88	16,410.50	1.446E-01	Pulse	1.00	3
Cd			2	198.986	ug/l	2.35	73,850.22	1.567E-01	Pulse	0.30	3
Sn			2	209.559	ug/l	0.56	88,123.04	1.870E-01	Pulse	0.30	3
Se			3	464.908	ug/l	3.63	8,643.45	7.420E-02	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,912,761.16	1.94	91.4	Pulse	0.10	3
1	Sc		2,885,192.56	3.94	90.2	Pulse	0.10	3
1	Ge		663,970.04	3.91	90.0	Pulse	0.10	3

Quantitation Report

1	Rh		2,815,493.40	3.61	89.0	Pulse	0.10	3
1	In		2,844,269.12	5.14	90.3	Pulse	0.10	3
1	Tb		3,339,823.28	4.86	91.7	Pulse	0.10	3
1	Ho		310,753.77	4.14	90.7	Pulse	0.10	3
1	Bi		1,697,831.17	5.70	90.4	Pulse	0.10	3
2	Sc		113,477.37	1.19	89.2	Pulse	0.30	3
2	Ge		85,481.73	0.52	88.2	Pulse	0.30	3
2	Rh		1,324,333.14	0.70	88.2	Pulse	0.30	3
2	In		471,292.31	0.47	89.1	Pulse	0.30	3
2	Tb		1,453,834.07	1.01	92.0	Pulse	0.30	3
2	Ho		137,947.19	0.42	92.9	Pulse	0.30	3
2	Bi		842,104.93	0.50	90.5	Pulse	0.30	3
3	Sc		144,819.67	0.52	89.7	Pulse	0.30	3
3	Ge		116,516.36	1.10	91.1	Pulse	0.30	3
3	Rh		965,643.40	0.74	86.8	Pulse	0.30	3
3	Tb		1,297,654.95	0.55	90.5	Pulse	0.30	3

Quantitation Report

File Name	057SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051019m2.b
Method File	
Method Path	
Acq Time	5/10/2019 17:56
Sample Name	JC85415-13A
Sample Type	Sample
Comment	
Prep Dilution	5.000
Auto Dilution	N/A
Total Dilution	5.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	2.614	ug/l	4.12	3,333.78	1.727E-03	Pulse	0.25	3
B			1	267.216	ug/l	2.22	306,610.42	1.588E-01	Pulse	0.15	3
Ca			1	1682.934	ug/l	1.76	321,399.59	1.129E-01	Pulse	0.10	3
Sr			1	24.143	ug/l	1.79	167,057.62	5.911E-02	Pulse	0.10	3
Mo			1	5.821	ug/l	0.17	7,835.92	2.774E-03	Pulse	0.10	3
Ag			1	6.107	ug/l	4.99	19,378.13	6.865E-03	Pulse	0.10	3
Sn			1	406.390	ug/l	0.61	810,145.09	2.868E-01	Pulse	0.10	3
Sb			1	17.085	ug/l	3.38	37,550.72	1.153E-02	Pulse	0.10	3
Ba			1	11.541	ug/l	3.84	9,500.47	2.915E-03	Pulse	0.10	3
Tl			1	3.084	ug/l	1.41	12,576.69	7.511E-03	Pulse	0.10	3
Pb			1	5.646	ug/l	6.44	7,912.84	4.721E-03	Pulse	0.10	3
Pb			1	5.653	ug/l	5.66	6,825.45	4.071E-03	Pulse	0.10	3
Pb			1	5.693	ug/l	2.34	31,653.59	1.890E-02	Pulse	0.10	3
Na			2	1683.014	ug/l	1.32	344,845.43	3.052E+00	Pulse	0.30	3
Mg			2	1601.918	ug/l	0.97	146,367.46	1.295E+00	Pulse	0.30	3
Al			2	354.468	ug/l	1.64	10,696.39	9.467E-02	Pulse	0.30	3
K			2	1632.224	ug/l	1.73	109,840.25	9.722E-01	Pulse	0.30	3
Ca			2	1833.930	ug/l	3.18	6,333.72	5.606E-02	Pulse	0.30	3
Ti			2	10.537	ug/l	13.14	273.34	2.419E-03	Pulse	0.30	3
V			2	11.029	ug/l	1.22	9,220.96	8.161E-02	Pulse	0.30	3
Cr			2	12.531	ug/l	0.92	12,596.92	1.115E-01	Pulse	0.30	3
Mn			2	3.415	ug/l	3.20	1,793.47	1.587E-02	Pulse	0.30	3
Fe			2	320.805	ug/l	0.65	271,914.47	2.407E+00	Pulse	0.30	3
Co			2	2.771	ug/l	3.92	4,377.41	3.875E-02	Pulse	0.30	3
Ni			2	12.079	ug/l	3.30	5,047.65	4.467E-02	Pulse	0.30	3
Cu			2	30.178	ug/l	1.69	33,476.33	2.963E-01	Pulse	0.30	3
Zn			2	65.722	ug/l	3.44	10,625.31	9.404E-02	Pulse	0.30	3
As			2	5.233	ug/l	3.52	471.34	4.172E-03	Pulse	1.00	3
Cd			2	2.854	ug/l	15.07	1,075.03	2.271E-03	Pulse	0.30	3
Sn			2	414.971	ug/l	0.81	173,999.01	3.675E-01	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	5.721	ug/l	8.83	111.33	9.697E-04	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,930,114.56	1.90	92.2	Pulse	0.10	3
1	Sc		2,846,932.36	1.09	89.0	Pulse	0.10	3
1	Ge		655,991.17	3.84	88.9	Pulse	0.10	3
1	Rh		2,825,149.75	2.59	89.3	Pulse	0.10	3
1	In		2,825,499.32	3.79	89.7	Pulse	0.10	3
1	Tb		3,256,072.87	3.39	89.4	Pulse	0.10	3
1	Ho		304,572.97	2.78	88.9	Pulse	0.10	3
1	Bi		1,674,328.00	3.53	89.1	Pulse	0.10	3
2	Sc		112,983.99	0.30	88.8	Pulse	0.30	3
2	Ge		84,609.56	0.78	87.3	Pulse	0.30	3
2	Rh		1,320,992.34	0.22	88.0	Pulse	0.30	3
2	In		473,461.63	1.20	89.5	Pulse	0.30	3
2	Tb		1,420,719.63	0.26	89.9	Pulse	0.30	3
2	Ho		133,143.95	0.12	89.7	Pulse	0.30	3
2	Bi		836,155.89	0.81	89.8	Pulse	0.30	3
3	Sc		143,027.49	0.11	88.6	Pulse	0.30	3
3	Ge		114,900.48	1.57	89.8	Pulse	0.30	3
3	Rh		968,640.10	1.64	87.1	Pulse	0.30	3
3	Tb		1,269,159.25	0.83	88.5	Pulse	0.30	3

Quantitation Report

File Name 058_CCV.d
File Path C:\Agilent\ICPMH\1\DATA\.b051019m2.b
Method File
Method Path
Acq Time 5/10/2019 18:01
Sample Name CCVA
Sample Type CCV
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name Metals
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 5/13/2019 7:20
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	47.532	ug/l	2.03	299,675.22	1.562E-01	Pulse	0.25	3
B			1	97.493	ug/l	2.13	545,350.74	2.843E-01	Pulse	0.15	3
Ca			1	4796.512	ug/l	1.56	4,299,906.39	1.482E+00	Pulse	0.10	3
Sr			1	50.137	ug/l	0.92	1,704,534.61	6.121E-01	Pulse	0.10	3
Mo			1	51.136	ug/l	1.03	358,791.94	1.288E-01	Pulse	0.10	3
Ag			1	48.883	ug/l	0.85	770,921.45	2.744E-01	Pulse	0.10	3
Sn			1	49.109	ug/l	0.53	487,216.74	1.734E-01	Pulse	0.10	3
Sb			1	52.002	ug/l	0.83	556,035.00	1.700E-01	Pulse	0.10	3
Ba			1	49.441	ug/l	0.91	203,481.61	6.220E-02	Pulse	0.10	3
Tl			1	49.204	ug/l	1.30	988,681.63	5.891E-01	Pulse	0.10	3
Pb			1	48.463	ug/l	1.22	335,011.40	1.996E-01	Pulse	0.10	3
Pb			1	48.749	ug/l	0.41	291,446.01	1.736E-01	Pulse	0.10	3
Pb			1	49.058	ug/l	0.15	1,349,959.40	8.041E-01	Pulse	0.10	3
Na			2	4752.619	ug/l	0.61	4,838,079.39	4.228E+01	Pulse	0.30	3
Mg			2	4856.018	ug/l	0.21	2,239,924.98	1.957E+01	Pulse	0.30	3
Al			2	5079.195	ug/l	0.34	764,292.65	6.679E+00	Pulse	0.30	3
K			2	4988.642	ug/l	0.53	1,576,609.31	1.378E+01	Pulse	0.30	3
Ca			2	5254.512	ug/l	0.98	89,151.79	7.790E-01	Pulse	0.30	3
Ti			2	50.765	ug/l	1.50	6,668.35	5.828E-02	Pulse	0.30	3
V			2	48.490	ug/l	1.08	197,695.95	1.728E+00	Pulse	0.30	3
Cr			2	48.507	ug/l	0.64	241,080.75	2.107E+00	Pulse	0.30	3
Mn			2	48.933	ug/l	1.23	125,324.78	1.095E+00	Pulse	0.30	3
Fe			2	5241.259	ug/l	0.87	21,983,609.13	1.921E+02	Analog	0.30	3
Co			2	47.579	ug/l	0.70	375,529.11	3.282E+00	Pulse	0.30	3
Ni			2	47.165	ug/l	0.34	99,081.50	8.658E-01	Pulse	0.30	3
Cu			2	46.806	ug/l	0.26	259,287.16	2.266E+00	Pulse	0.30	3
Zn			2	46.639	ug/l	0.45	36,636.61	3.202E-01	Pulse	0.30	3
As			2	47.978	ug/l	0.36	21,664.07	1.893E-01	Pulse	1.00	3
Cd			2	48.895	ug/l	0.65	92,287.01	1.925E-01	Pulse	0.30	3
Sn			2	50.319	ug/l	0.76	107,335.95	2.239E-01	Pulse	0.30	3
Se			3	194.021	ug/l	5.17	17,560.68	1.548E-01	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,917,930.07	1.31	91.7	Pulse	0.10	3
1	Sc		2,900,039.96	2.94	90.7	Pulse	0.10	3
1	Ge		665,462.55	4.75	90.2	Pulse	0.10	3

Quantitation Report

1	Rh		2,785,555.32	5.44	88.0	Pulse	0.10	3
1	In		2,809,081.36	4.54	89.2	Pulse	0.10	3
1	Tb		3,271,114.12	3.98	89.8	Pulse	0.10	3
1	Ho		306,868.51	3.41	89.5	Pulse	0.10	3
1	Bi		1,679,005.39	5.56	89.4	Pulse	0.10	3
2	Sc		114,433.10	0.53	89.9	Pulse	0.30	3
2	Ge		86,637.70	0.21	89.3	Pulse	0.30	3
2	Rh		1,328,315.85	0.48	88.4	Pulse	0.30	3
2	In		479,339.13	0.05	90.6	Pulse	0.30	3
2	Tb		1,463,373.90	0.44	92.6	Pulse	0.30	3
2	Ho		137,771.39	0.36	92.8	Pulse	0.30	3
2	Bi		838,814.29	0.70	90.1	Pulse	0.30	3
3	Sc		143,401.80	1.33	88.8	Pulse	0.30	3
3	Ge		113,530.99	1.91	88.7	Pulse	0.30	3
3	Rh		952,739.86	2.02	85.6	Pulse	0.30	3
3	Tb		1,274,478.42	1.15	88.9	Pulse	0.30	3

Quantitation Report

File Name	059_CCB.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051019m2.b
Method File	
Method Path	
Acq Time	5/10/2019 18:06
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.016	ug/l	18.53	114.67	6.024E-05	Pulse	0.25	3
B			1	1.309	ug/l	6.26	19,613.90	1.029E-02	Pulse	0.15	3
Ca			1	-4.616	ug/l	-17.45	22,726.12	8.117E-03	Pulse	0.10	3
Sr			1	0.092	ug/l	4.79	3,670.64	1.307E-03	Pulse	0.10	3
Mo			1	0.133	ug/l	11.53	486.70	1.723E-04	Pulse	0.10	3
Ag			1	0.008	ug/l	56.30	143.34	5.165E-05	Pulse	0.10	3
Sn			1	0.080	ug/l	28.76	2,033.64	7.342E-04	Pulse	0.10	3
Sb			1	0.101	ug/l	4.58	2,290.29	7.165E-04	Pulse	0.10	3
Ba			1	0.013	ug/l	76.59	90.00	2.846E-05	Pulse	0.10	3
Tl			1	0.014	ug/l	21.05	486.70	2.901E-04	Pulse	0.10	3
Pb			1	0.005	ug/l	134.62	153.34	9.048E-05	Pulse	0.10	3
Pb			1	0.018	ug/l	21.56	186.68	1.113E-04	Pulse	0.10	3
Pb			1	0.014	ug/l	16.51	803.38	4.784E-04	Pulse	0.10	3
Na			2	-0.474	ug/l	-34.21	6,390.41	5.802E-02	Pulse	0.30	3
Mg			2	-0.412	ug/l	-4.18	292.23	2.654E-03	Pulse	0.30	3
Al			2	1.244	ug/l	16.78	342.23	3.107E-03	Pulse	0.30	3
K			2	0.099	ug/l	601.04	8,351.49	7.582E-02	Pulse	0.30	3
Ca			2	0.433	ug/l	186.67	205.56	1.867E-03	Pulse	0.30	3
Ti			2	0.018	ug/l	86.61	2.22	2.027E-05	Pulse	0.30	3
V			2	0.017	ug/l	9.26	416.68	3.783E-03	Pulse	0.30	3
Cr			2	0.027	ug/l	42.18	437.79	3.977E-03	Pulse	0.30	3
Mn			2	0.022	ug/l	65.43	120.00	1.090E-03	Pulse	0.30	3
Fe			2	0.222	ug/l	5.10	7,022.98	6.376E-02	Pulse	0.30	3
Co			2	0.009	ug/l	35.08	126.67	1.151E-03	Pulse	0.30	3
Ni			2	0.028	ug/l	16.33	93.34	8.477E-04	Pulse	0.30	3
Cu			2	0.053	ug/l	16.45	803.37	7.293E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	-0.449	ug/l	-11.77	250.00	2.268E-03	Pulse	0.30	3
As			2	0.016	ug/l	79.66	11.67	1.062E-04	Pulse	1.00	3
Cd			2	0.008	ug/l	136.10	25.09	5.427E-05	Pulse	0.30	3
Sn			2	-0.445	ug/l	-0.24	395.57	8.542E-04	Pulse	0.30	3
Se			3	0.101	ug/l	57.74	15.33	1.379E-04	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,906,320.35	1.91	91.1	Pulse	0.10	3
1	Sc		2,801,681.31	3.48	87.6	Pulse	0.10	3
1	Ge		640,589.76	2.79	86.9	Pulse	0.10	3
1	Rh		2,811,824.02	3.76	88.8	Pulse	0.10	3
1	In		2,765,875.08	3.15	87.8	Pulse	0.10	3
1	Tb		3,198,185.58	3.87	87.8	Pulse	0.10	3
1	Ho		295,651.07	3.14	86.3	Pulse	0.10	3
1	Bi		1,682,780.34	4.36	89.6	Pulse	0.10	3
2	Sc		110,138.22	1.09	86.5	Pulse	0.30	3
2	Ge		83,249.37	0.36	85.8	Pulse	0.30	3
2	Rh		1,298,269.12	0.03	86.4	Pulse	0.30	3
2	In		463,104.28	0.37	87.5	Pulse	0.30	3
2	Tb		1,393,648.90	0.24	88.2	Pulse	0.30	3
2	Ho		130,470.51	0.59	87.9	Pulse	0.30	3
2	Bi		817,969.73	0.87	87.9	Pulse	0.30	3
3	Sc		141,404.15	0.72	87.6	Pulse	0.30	3
3	Ge		111,473.17	1.03	87.1	Pulse	0.30	3
3	Rh		963,355.03	1.36	86.6	Pulse	0.30	3
3	Tb		1,260,460.85	1.30	87.9	Pulse	0.30	3

Quantitation Report

File Name	060SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051019m2.b
Method File	
Method Path	
Acq Time	5/10/2019 18:10
Sample Name	jc87559-1f 4
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.011	ug/l	46.09	49.33	2.774E-05	Pulse	0.25	3
B			1	337.264	ug/l	0.49	862,119.27	4.870E-01	Pulse	0.15	3
Ca			1	89448.506	ug/l	2.80	37,961,294.43	1.374E+01	Analog	0.10	3
Sr			1	1119.320	ug/l	4.13	17,308,346.82	6.831E+00	Analog	0.10	3
Mo			1	33.268	ug/l	0.99	106,001.57	4.180E-02	Pulse	0.10	3
Ag			1	0.019	ug/l	22.97	163.34	6.188E-05	Pulse	0.10	3
Sn			1	0.338	ug/l	3.46	2,777.06	1.049E-03	Pulse	0.10	3
Sb			1	3.340	ug/l	1.52	18,516.87	5.834E-03	Pulse	0.10	3
Ba			1	51.435	ug/l	0.85	102,738.76	3.236E-02	Pulse	0.10	3
Tl			1	0.007	ug/l	52.55	260.01	1.683E-04	Pulse	0.10	3
Pb			1	0.118	ug/l	17.12	483.36	3.150E-04	Pulse	0.10	3
Pb			1	0.119	ug/l	14.49	396.69	2.585E-04	Pulse	0.10	3
Pb			1	0.124	ug/l	11.10	1,940.14	1.263E-03	Pulse	0.10	3
Na			2	129945.259	ug/l	0.64	61,816,806.43	5.772E+02	Analog	0.30	3
Mg			2	18115.847	ug/l	0.64	3,909,832.07	3.651E+01	Pulse	0.30	3
Al			2	110.215	ug/l	1.51	7,916.75	7.392E-02	Pulse	0.30	3
K			2	6821.509	ug/l	1.00	1,011,382.08	9.444E+00	Pulse	0.30	3
Ca			2	82944.634	ug/l	0.44	657,186.66	6.136E+00	Pulse	0.30	3
Ti			2	1.012	ug/l	17.27	62.22	5.810E-04	Pulse	0.30	3
V			2	7.186	ug/l	2.59	14,022.81	1.309E-01	Pulse	0.30	3
Cr			2	0.331	ug/l	2.50	1,067.83	9.971E-03	Pulse	0.30	3
Mn			2	69.548	ug/l	1.18	83,372.44	7.785E-01	Pulse	0.30	3
Fe			2	4.485	ug/l	3.62	14,759.11	1.378E-01	Pulse	0.30	3
Co			2	0.440	ug/l	6.73	1,680.12	1.569E-02	Pulse	0.30	3
Ni			2	1.605	ug/l	2.26	1,613.45	1.506E-02	Pulse	0.30	3
Cu			2	1.187	ug/l	0.97	3,574.95	3.338E-02	Pulse	0.30	3
Zn			2	3.606	ug/l	6.70	1,871.27	1.747E-02	Pulse	0.30	3
As			2	7.156	ug/l	0.58	1,516.42	1.416E-02	Pulse	1.00	3
Cd			2	0.013	ug/l	261.66	21.64	4.960E-05	Pulse	0.30	3
Sn			2	-0.693	ug/l	-8.00	566.69	1.288E-03	Pulse	0.30	3
Se			3	0.412	ug/l	10.76	28.00	2.217E-04	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,770,186.16	2.23	84.6	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,763,598.92	2.30	86.4	Pulse	0.10	3
1	Ge		635,913.78	3.48	86.2	Pulse	0.10	3
1	Rh		2,536,608.19	3.91	80.1	Pulse	0.10	3
1	In		2,649,013.53	3.19	84.1	Pulse	0.10	3
1	Tb		3,174,018.91	3.95	87.2	Pulse	0.10	3
1	Ho		299,167.52	4.18	87.3	Pulse	0.10	3
1	Bi		1,539,533.10	4.31	81.9	Pulse	0.10	3
2	Sc		107,097.78	0.38	84.2	Pulse	0.30	3
2	Ge		83,283.41	0.45	85.9	Pulse	0.30	3
2	Rh		1,213,804.92	0.39	80.8	Pulse	0.30	3
2	In		439,870.25	1.03	83.1	Pulse	0.30	3
2	Tb		1,390,605.85	0.05	88.0	Pulse	0.30	3
2	Ho		131,531.16	1.39	88.6	Pulse	0.30	3
2	Bi		762,386.48	0.98	81.9	Pulse	0.30	3
3	Sc		141,142.21	0.95	87.4	Pulse	0.30	3
3	Ge		126,326.77	1.46	98.7	Pulse	0.30	3
3	Rh		895,988.33	1.11	80.5	Pulse	0.30	3
3	Tb		1,253,569.36	1.29	87.4	Pulse	0.30	3

Quantitation Report

File Name 061SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\.b051019m2.b
Method File
Method Path
Acq Time 5/10/2019 18:15
Sample Name jc87559-2f
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name Metals
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 5/13/2019 7:20
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.002	ug/l	158.96	24.00	1.284E-05	Pulse	0.25	3
B			1	81.550	ug/l	24.29	216,569.36	1.227E-01	Pulse	0.15	3
Ca			1	143447.019	ug/l	27.95	58,895,632.45	2.203E+01	Analog	0.10	3
Sr			1	710.586	ug/l	35.48	11,731,038.16	4.336E+00	Analog	0.10	3
Mo			1	8.802	ug/l	36.91	29,403.08	1.094E-02	Pulse	0.10	3
Ag			1	0.016	ug/l	58.20	140.01	5.246E-05	Pulse	0.10	3
Sn			1	0.453	ug/l	55.69	3,473.93	1.251E-03	Pulse	0.10	3
Sb			1	0.992	ug/l	41.85	6,738.63	2.006E-03	Pulse	0.10	3
Ba			1	26.666	ug/l	38.15	55,645.94	1.678E-02	Pulse	0.10	3
Tl			1	0.016	ug/l	108.80	336.69	2.205E-04	Pulse	0.10	3
Pb			1	1.895	ug/l	26.88	6,231.82	3.972E-03	Pulse	0.10	3
Pb			1	1.805	ug/l	22.83	5,141.27	3.260E-03	Pulse	0.10	3
Pb			1	1.848	ug/l	25.87	24,150.07	1.538E-02	Pulse	0.10	3
Na			2	40248.441	ug/l	1.99	19,471,930.34	1.788E+02	Analog	0.30	3
Mg			2	8435.988	ug/l	0.59	1,851,437.15	1.700E+01	Pulse	0.30	3
Al			2	12.063	ug/l	4.37	1,023.38	9.400E-03	Pulse	0.30	3
K			2	8878.157	ug/l	0.78	1,335,814.60	1.227E+01	Pulse	0.30	3
Ca			2	122664.543	ug/l	1.06	988,013.54	9.074E+00	Pulse	0.30	3
Ti			2	1.224	ug/l	27.60	76.67	7.028E-04	Pulse	0.30	3
V			2	11.002	ug/l	0.29	21,648.15	1.988E-01	Pulse	0.30	3
Cr			2	0.742	ug/l	5.04	2,056.85	1.889E-02	Pulse	0.30	3
Mn			2	202.413	ug/l	0.39	246,586.84	2.265E+00	Pulse	0.30	3
Fe			2	186.750	ug/l	0.76	378,609.13	3.477E+00	Pulse	0.30	3
Co			2	0.347	ug/l	5.14	1,361.20	1.250E-02	Pulse	0.30	3
Ni			2	3.059	ug/l	3.31	3,093.72	2.841E-02	Pulse	0.30	3
Cu			2	2.496	ug/l	3.65	7,077.46	6.501E-02	Pulse	0.30	3
Zn			2	17.407	ug/l	2.53	6,974.07	6.406E-02	Pulse	0.30	3
As			2	48.774	ug/l	1.04	10,481.36	9.625E-02	Pulse	1.00	3
Cd			2	0.015	ug/l	246.61	24.22	5.385E-05	Pulse	0.30	3
Sn			2	-0.539	ug/l	-4.01	735.58	1.628E-03	Pulse	0.30	3
Se			3	0.248	ug/l	8.00	19.33	1.563E-04	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,819,900.49	19.82	87.0	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,803,431.78	25.29	87.7	Pulse	0.10	3
1	Ge		657,646.10	19.58	89.2	Pulse	0.10	3
1	Rh		2,964,785.94	37.68	93.7	Mix	0.10	3
1	In		3,043,948.92	37.80	96.7	Mix	0.10	3
1	Tb		3,682,561.45	39.39	101.1	Mix	0.10	3
1	Ho		309,189.25	26.24	90.2	Pulse	0.10	3
1	Bi		1,629,733.67	21.76	86.7	Pulse	0.10	3
2	Sc		108,889.29	1.02	85.6	Pulse	0.30	3
2	Ge		84,722.57	0.89	87.4	Pulse	0.30	3
2	Rh		1,264,098.74	0.13	84.2	Pulse	0.30	3
2	In		451,757.70	1.43	85.4	Pulse	0.30	3
2	Tb		1,423,012.55	0.92	90.1	Pulse	0.30	3
2	Ho		134,260.93	0.93	90.4	Pulse	0.30	3
2	Bi		794,909.20	0.69	85.4	Pulse	0.30	3
3	Sc		142,937.31	1.45	88.5	Pulse	0.30	3
3	Ge		123,671.74	1.23	96.7	Pulse	0.30	3
3	Rh		928,090.42	1.36	83.4	Pulse	0.30	3
3	Tb		1,282,486.44	1.36	89.4	Pulse	0.30	3

Quantitation Report

File Name 062SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\.b051019m2.b
Method File
Method Path
Acq Time 5/10/2019 18:20
Sample Name jc87686-1
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name Metals
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 5/13/2019 7:20
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.033	ug/l	40.01	112.00	6.368E-05	Pulse	0.25	3
B			1	56.278	ug/l	2.39	153,111.51	8.673E-02	Pulse	0.15	3
Ca			1	98239.620	ug/l	1.05	41,244,136.05	1.509E+01	Analog	0.10	3
Sr			1	263.036	ug/l	1.18	4,299,392.23	1.605E+00	Pulse	0.10	3
Mo			1	13.840	ug/l	2.67	46,303.86	1.729E-02	Pulse	0.10	3
Ag			1	0.022	ug/l	43.32	193.34	7.034E-05	Pulse	0.10	3
Sn			1	5.663	ug/l	4.03	28,578.21	1.043E-02	Pulse	0.10	3
Sb			1	0.572	ug/l	2.83	4,317.54	1.322E-03	Pulse	0.10	3
Ba			1	38.328	ug/l	3.16	78,787.79	2.412E-02	Pulse	0.10	3
Tl			1	0.013	ug/l	37.85	340.02	2.070E-04	Pulse	0.10	3
Pb			1	8.427	ug/l	3.01	28,493.02	1.742E-02	Pulse	0.10	3
Pb			1	8.571	ug/l	3.51	25,049.21	1.530E-02	Pulse	0.10	3
Pb			1	8.489	ug/l	1.53	114,216.82	6.979E-02	Pulse	0.10	3
Na			2	7074.266	ug/l	0.40	3,382,892.85	3.148E+01	Pulse	0.30	3
Mg			2	3915.835	ug/l	0.23	848,347.68	7.895E+00	Pulse	0.30	3
Al			2	686.619	ug/l	6.22	48,660.53	4.528E-01	Pulse	0.30	3
K			2	15660.190	ug/l	0.35	2,319,149.42	2.158E+01	Pulse	0.30	3
Ca			2	86883.896	ug/l	0.75	690,683.62	6.428E+00	Pulse	0.30	3
Ti			2	10.343	ug/l	31.20	639.07	5.936E-03	Pulse	0.30	3
V			2	3.250	ug/l	2.61	6,551.64	6.096E-02	Pulse	0.30	3
Cr			2	3.521	ug/l	0.99	8,506.06	7.916E-02	Pulse	0.30	3
Mn			2	32.432	ug/l	0.67	39,043.92	3.633E-01	Pulse	0.30	3
Fe			2	612.706	ug/l	1.27	1,212,311.10	1.128E+01	Pulse	0.30	3
Co			2	0.295	ug/l	3.45	1,150.06	1.070E-02	Pulse	0.30	3
Ni			2	1.457	ug/l	1.86	1,473.43	1.371E-02	Pulse	0.30	3
Cu			2	4.729	ug/l	1.94	12,780.50	1.189E-01	Pulse	0.30	3
Zn			2	107.708	ug/l	2.18	39,633.72	3.689E-01	Pulse	0.30	3
As			2	2.645	ug/l	6.17	565.01	5.259E-03	Pulse	1.00	3
Cd			2	0.077	ug/l	51.92	79.12	1.748E-04	Pulse	0.30	3
Sn			2	4.898	ug/l	1.46	6,152.62	1.357E-02	Pulse	0.30	3
Se			3	1.020	ug/l	35.50	57.33	4.640E-04	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,764,760.60	2.36	84.3	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,733,049.65	2.38	85.5	Pulse	0.10	3
1	Ge		642,507.29	3.47	87.1	Pulse	0.10	3
1	Rh		2,678,971.78	4.07	84.6	Pulse	0.10	3
1	In		2,743,099.66	4.15	87.1	Pulse	0.10	3
1	Tb		3,267,654.22	4.63	89.7	Pulse	0.10	3
1	Ho		307,742.07	3.85	89.8	Pulse	0.10	3
1	Bi		1,636,889.51	4.35	87.1	Pulse	0.10	3
2	Sc		107,458.53	0.99	84.4	Pulse	0.30	3
2	Ge		83,999.36	0.23	86.6	Pulse	0.30	3
2	Rh		1,259,879.15	0.51	83.9	Pulse	0.30	3
2	In		453,262.39	0.47	85.7	Pulse	0.30	3
2	Tb		1,415,985.61	0.95	89.6	Pulse	0.30	3
2	Ho		133,514.05	1.43	89.9	Pulse	0.30	3
2	Bi		801,163.20	0.39	86.1	Pulse	0.30	3
3	Sc		142,530.68	0.68	88.3	Pulse	0.30	3
3	Ge		123,854.27	1.46	96.8	Pulse	0.30	3
3	Rh		937,050.72	1.12	84.2	Pulse	0.30	3
3	Tb		1,278,086.72	0.78	89.1	Pulse	0.30	3

Quantitation Report

File Name	063SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051019m2.b
Method File	
Method Path	
Acq Time	5/10/2019 18:25
Sample Name	rinseconf
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	-0.001	ug/l	-295.98	14.67	7.727E-06	Pulse	0.25	3
B			1	1.774	ug/l	14.37	17,199.75	9.089E-03	Pulse	0.15	3
Ca			1	-6.668	ug/l	-34.62	23,844.40	8.510E-03	Pulse	0.10	3
Sr			1	0.398	ug/l	9.53	7,439.07	2.610E-03	Pulse	0.10	3
Mo			1	0.143	ug/l	0.35	50.00	1.753E-05	Pulse	0.10	3
Ag			1	0.000	ug/l	-362.94	20.00	7.184E-06	Pulse	0.10	3
Sn			1	-0.013	ug/l	-153.66	1,193.44	4.300E-04	Pulse	0.10	3
Sb			1	-0.148	ug/l	-12.80	476.69	1.465E-04	Pulse	0.10	3
Ba			1	0.001	ug/l	1585.34	40.00	1.237E-05	Pulse	0.10	3
Tl			1	-0.006	ug/l	-48.79	156.67	9.269E-05	Pulse	0.10	3
Pb			1	-0.002	ug/l	-273.99	113.34	6.700E-05	Pulse	0.10	3
Pb			1	0.006	ug/l	66.64	96.67	5.739E-05	Pulse	0.10	3
Pb			1	0.001	ug/l	132.46	436.69	2.592E-04	Pulse	0.10	3
Na			2	-1.687	ug/l	-18.74	6,039.14	5.473E-02	Pulse	0.30	3
Mg			2	-1.513	ug/l	-9.88	140.00	1.267E-03	Pulse	0.30	3
Al			2	-1.765	ug/l	-6.18	34.44	3.116E-04	Pulse	0.30	3
K			2	-0.906	ug/l	-172.67	8,198.07	7.431E-02	Pulse	0.30	3
Ca			2	0.979	ug/l	364.10	206.67	1.875E-03	Pulse	0.30	3
Ti			2	0.000	ug/l	---	0.00	0.000E+00	Pulse	0.30	3
V			2	0.035	ug/l	75.17	417.79	3.792E-03	Pulse	0.30	3
Cr			2	0.026	ug/l	44.29	368.90	3.346E-03	Pulse	0.30	3
Mn			2	0.030	ug/l	107.24	103.33	9.336E-04	Pulse	0.30	3
Fe			2	-1.883	ug/l	-3.07	2,330.23	2.113E-02	Pulse	0.30	3
Co			2	0.007	ug/l	47.79	84.45	7.647E-04	Pulse	0.30	3
Ni			2	-0.007	ug/l	-83.56	30.00	2.725E-04	Pulse	0.30	3
Cu			2	-0.006	ug/l	-222.69	503.35	4.566E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	-1.310	ug/l	-3.87	96.67	8.779E-04	Pulse	0.30	3
As			2	0.007	ug/l	31.74	6.33	5.738E-05	Pulse	1.00	3
Cd			2	-0.008	ug/l	-103.65	4.20	8.946E-06	Pulse	0.30	3
Sn			2	-1.024	ug/l	-1.86	262.23	5.618E-04	Pulse	0.30	3
Se			3	-0.023	ug/l	-296.81	5.33	4.801E-05	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,892,893.62	1.71	90.5	Pulse	0.10	3
1	Sc		2,803,931.94	2.71	87.7	Pulse	0.10	3
1	Ge		638,777.05	3.67	86.6	Pulse	0.10	3
1	Rh		2,855,367.25	3.61	90.2	Pulse	0.10	3
1	In		2,776,786.66	3.19	88.2	Pulse	0.10	3
1	Tb		3,249,235.05	3.49	89.2	Pulse	0.10	3
1	Ho		297,919.95	2.99	86.9	Pulse	0.10	3
1	Bi		1,684,795.81	3.32	89.7	Pulse	0.10	3
2	Sc		110,315.72	1.49	86.7	Pulse	0.30	3
2	Ge		82,698.03	0.65	85.3	Pulse	0.30	3
2	Rh		1,307,158.32	1.14	87.0	Pulse	0.30	3
2	In		466,729.79	1.16	88.2	Pulse	0.30	3
2	Tb		1,401,291.89	0.85	88.7	Pulse	0.30	3
2	Ho		131,569.16	1.09	88.6	Pulse	0.30	3
2	Bi		821,689.76	0.60	88.3	Pulse	0.30	3
3	Sc		139,194.39	1.19	86.2	Pulse	0.30	3
3	Ge		111,651.41	1.91	87.3	Pulse	0.30	3
3	Rh		959,741.87	1.31	86.3	Pulse	0.30	3
3	Tb		1,260,031.76	1.82	87.9	Pulse	0.30	3

Quantitation Report

File Name 064SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\.b051019m2.b
Method File
Method Path
Acq Time 5/10/2019 18:29
Sample Name jc87686-2
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name Metals
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 5/13/2019 7:20
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.039	ug/l	32.29	128.00	7.348E-05	Pulse	0.25	3
B			1	78.955	ug/l	1.69	207,799.78	1.190E-01	Pulse	0.15	3
Ca			1	85029.647	ug/l	3.09	35,008,842.81	1.306E+01	Analog	0.10	3
Sr			1	187.847	ug/l	0.47	3,014,724.33	1.147E+00	Pulse	0.10	3
Mo			1	13.292	ug/l	1.26	43,665.44	1.660E-02	Pulse	0.10	3
Ag			1	0.012	ug/l	31.10	110.01	4.127E-05	Pulse	0.10	3
Sn			1	0.870	ug/l	4.30	5,304.60	1.987E-03	Pulse	0.10	3
Sb			1	0.468	ug/l	9.47	3,664.00	1.151E-03	Pulse	0.10	3
Ba			1	44.530	ug/l	0.66	89,318.73	2.802E-02	Pulse	0.10	3
Tl			1	0.060	ug/l	13.16	776.72	4.872E-04	Pulse	0.10	3
Pb			1	3.484	ug/l	2.34	11,579.05	7.245E-03	Pulse	0.10	3
Pb			1	3.426	ug/l	3.82	9,827.57	6.144E-03	Pulse	0.10	3
Pb			1	3.411	ug/l	1.12	45,073.15	2.819E-02	Pulse	0.10	3
Na			2	5806.519	ug/l	1.20	2,749,213.43	2.585E+01	Pulse	0.30	3
Mg			2	5478.889	ug/l	1.16	1,174,534.40	1.104E+01	Pulse	0.30	3
Al			2	834.519	ug/l	9.22	58,474.26	5.500E-01	Pulse	0.30	3
K			2	15164.944	ug/l	1.26	2,222,901.51	2.090E+01	Pulse	0.30	3
Ca			2	73990.353	ug/l	1.45	582,154.04	5.474E+00	Pulse	0.30	3
Ti			2	26.990	ug/l	25.94	1,649.06	1.549E-02	Pulse	0.30	3
V			2	2.501	ug/l	8.30	5,064.34	4.764E-02	Pulse	0.30	3
Cr			2	1.783	ug/l	4.91	4,408.54	4.146E-02	Pulse	0.30	3
Mn			2	107.414	ug/l	0.84	127,837.66	1.202E+00	Pulse	0.30	3
Fe			2	704.217	ug/l	1.85	1,377,981.02	1.296E+01	Pulse	0.30	3
Co			2	0.491	ug/l	2.11	1,856.82	1.746E-02	Pulse	0.30	3
Ni			2	2.546	ug/l	4.04	2,520.26	2.370E-02	Pulse	0.30	3
Cu			2	5.043	ug/l	1.86	13,456.70	1.265E-01	Pulse	0.30	3
Zn			2	101.586	ug/l	2.11	37,029.86	3.482E-01	Pulse	0.30	3
As			2	1.037	ug/l	3.69	222.00	2.088E-03	Pulse	1.00	3
Cd			2	0.124	ug/l	25.22	119.00	2.684E-04	Pulse	0.30	3
Sn			2	-0.159	ug/l	-11.32	1,091.17	2.461E-03	Pulse	0.30	3
Se			3	0.749	ug/l	10.34	44.00	3.560E-04	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,745,579.86	1.07	83.4	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,681,254.07	2.50	83.8	Pulse	0.10	3
1	Ge		636,274.13	3.41	86.3	Pulse	0.10	3
1	Rh		2,629,746.83	3.44	83.1	Pulse	0.10	3
1	In		2,672,131.44	3.65	84.9	Pulse	0.10	3
1	Tb		3,187,266.62	3.50	87.5	Pulse	0.10	3
1	Ho		299,294.49	3.14	87.3	Pulse	0.10	3
1	Bi		1,598,997.89	4.77	85.1	Pulse	0.10	3
2	Sc		106,354.45	0.80	83.6	Pulse	0.30	3
2	Ge		82,454.36	1.62	85.0	Pulse	0.30	3
2	Rh		1,243,281.20	0.54	82.8	Pulse	0.30	3
2	In		443,299.45	0.42	83.8	Pulse	0.30	3
2	Tb		1,395,563.18	0.39	88.3	Pulse	0.30	3
2	Ho		130,937.48	0.22	88.2	Pulse	0.30	3
2	Bi		790,778.18	0.71	85.0	Pulse	0.30	3
3	Sc		140,797.24	0.86	87.2	Pulse	0.30	3
3	Ge		123,670.10	1.29	96.7	Pulse	0.30	3
3	Rh		928,590.28	0.97	83.5	Pulse	0.30	3
3	Tb		1,268,513.35	1.26	88.4	Pulse	0.30	3

Quantitation Report

File Name 065SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\.b051019m2.b
Method File
Method Path
Acq Time 5/10/2019 18:34
Sample Name jc87783-1
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name Metals
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 5/13/2019 7:20
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.023	ug/l	3.97	80.00	4.624E-05	Pulse	0.25	3
B			1	98.589	ug/l	1.94	254,301.31	1.470E-01	Pulse	0.15	3
Ca			1	105678.534	ug/l	2.49	43,596,532.68	1.623E+01	Analog	0.10	3
Sr			1	404.813	ug/l	3.34	6,363,647.41	2.471E+00	Analog	0.10	3
Mo			1	0.922	ug/l	4.95	2,577.02	9.996E-04	Pulse	0.10	3
Ag			1	0.047	ug/l	20.64	376.68	1.407E-04	Pulse	0.10	3
Sn			1	1.324	ug/l	3.36	7,415.72	2.785E-03	Pulse	0.10	3
Sb			1	0.313	ug/l	16.67	2,903.78	8.987E-04	Pulse	0.10	3
Ba			1	127.728	ug/l	0.71	259,100.81	8.035E-02	Pulse	0.10	3
Tl			1	0.014	ug/l	48.43	340.02	2.127E-04	Pulse	0.10	3
Pb			1	29.524	ug/l	1.12	97,160.83	6.085E-02	Pulse	0.10	3
Pb			1	27.755	ug/l	1.00	78,975.16	4.944E-02	Pulse	0.10	3
Pb			1	28.931	ug/l	0.43	378,888.78	2.373E-01	Pulse	0.10	3
Na			2	32531.575	ug/l	2.72	14,951,590.52	1.445E+02	Analog	0.30	3
Mg			2	13980.724	ug/l	0.57	2,914,150.23	2.818E+01	Pulse	0.30	3
Al			2	425.474	ug/l	0.95	29,078.11	2.811E-01	Pulse	0.30	3
K			2	5870.546	ug/l	0.26	841,672.03	8.138E+00	Pulse	0.30	3
Ca			2	94059.055	ug/l	0.60	719,698.90	6.958E+00	Pulse	0.30	3
Ti			2	24.275	ug/l	2.26	1,441.21	1.393E-02	Pulse	0.30	3
V			2	4.365	ug/l	3.73	8,357.04	8.079E-02	Pulse	0.30	3
Cr			2	7.328	ug/l	0.91	16,725.79	1.617E-01	Pulse	0.30	3
Mn			2	239.070	ug/l	1.31	276,633.71	2.675E+00	Pulse	0.30	3
Fe			2	8658.451	ug/l	0.88	16,413,266.02	1.587E+02	Analog	0.30	3
Co			2	0.778	ug/l	3.80	2,830.33	2.737E-02	Pulse	0.30	3
Ni			2	4.983	ug/l	2.58	4,764.21	4.606E-02	Pulse	0.30	3
Cu			2	8.661	ug/l	0.50	22,125.69	2.139E-01	Pulse	0.30	3
Zn			2	20.516	ug/l	3.10	7,711.15	7.455E-02	Pulse	0.30	3
As			2	2.894	ug/l	6.13	595.02	5.752E-03	Pulse	1.00	3
Cd			2	0.019	ug/l	122.54	26.12	6.077E-05	Pulse	0.30	3
Sn			2	0.370	ug/l	17.32	1,559.00	3.625E-03	Pulse	0.30	3
Se			3	0.187	ug/l	23.39	16.00	1.321E-04	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,729,624.89	2.36	82.7	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,686,734.18	2.63	84.0	Pulse	0.10	3
1	Ge		621,907.54	2.97	84.3	Pulse	0.10	3
1	Rh		2,577,664.13	3.21	81.4	Pulse	0.10	3
1	In		2,663,234.88	4.21	84.6	Pulse	0.10	3
1	Tb		3,224,281.93	3.61	88.5	Pulse	0.10	3
1	Ho		300,618.28	4.13	87.7	Pulse	0.10	3
1	Bi		1,597,074.98	4.01	85.0	Pulse	0.10	3
2	Sc		103,428.11	0.50	81.3	Pulse	0.30	3
2	Ge		79,639.18	0.98	82.1	Pulse	0.30	3
2	Rh		1,213,438.67	0.62	80.8	Pulse	0.30	3
2	In		430,058.34	0.21	81.3	Pulse	0.30	3
2	Tb		1,373,004.60	0.15	86.9	Pulse	0.30	3
2	Ho		130,099.87	0.84	87.6	Pulse	0.30	3
2	Bi		770,761.88	0.43	82.8	Pulse	0.30	3
3	Sc		138,190.83	0.24	85.6	Pulse	0.30	3
3	Ge		121,247.70	0.96	94.8	Pulse	0.30	3
3	Rh		898,372.60	2.06	80.7	Pulse	0.30	3
3	Tb		1,246,041.72	1.62	86.9	Pulse	0.30	3

Quantitation Report

File Name	066SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051019m2.b
Method File	
Method Path	
Acq Time	5/10/2019 18:39
Sample Name	rinseconf
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	-0.002	ug/l	-111.09	6.67	3.587E-06	Pulse	0.25	3
B			1	0.474	ug/l	24.96	14,910.35	7.914E-03	Pulse	0.15	3
Ca			1	-3.791	ug/l	-25.48	23,079.87	8.370E-03	Pulse	0.10	3
Sr			1	0.196	ug/l	0.87	7,122.17	2.571E-03	Pulse	0.10	3
Mo			1	0.071	ug/l	1.02	43.33	1.563E-05	Pulse	0.10	3
Ag			1	0.000	ug/l	-553.49	20.00	7.069E-06	Pulse	0.10	3
Sn			1	-0.001	ug/l	-1501.66	1,253.44	4.508E-04	Pulse	0.10	3
Sb			1	-0.080	ug/l	-14.09	406.69	1.262E-04	Pulse	0.10	3
Ba			1	0.003	ug/l	81.48	50.00	1.542E-05	Pulse	0.10	3
Tl			1	-0.001	ug/l	-37.64	186.68	1.143E-04	Pulse	0.10	3
Pb			1	0.003	ug/l	328.74	136.67	8.494E-05	Pulse	0.10	3
Pb			1	-0.001	ug/l	-261.34	70.00	4.303E-05	Pulse	0.10	3
Pb			1	0.002	ug/l	146.24	443.35	2.719E-04	Pulse	0.10	3
Na			2	-0.431	ug/l	-63.64	6,324.83	5.840E-02	Pulse	0.30	3
Mg			2	-0.516	ug/l	-25.78	242.23	2.235E-03	Pulse	0.30	3
Al			2	-0.893	ug/l	-5.69	32.22	2.978E-04	Pulse	0.30	3
K			2	-0.099	ug/l	-662.03	8,155.79	7.528E-02	Pulse	0.30	3
Ca			2	-0.111	ug/l	-1883.97	193.34	1.787E-03	Pulse	0.30	3
Ti			2	0.000	ug/l	---	0.00	0.000E+00	Pulse	0.30	3
V			2	0.011	ug/l	255.39	385.57	3.563E-03	Pulse	0.30	3
Cr			2	0.007	ug/l	52.48	334.45	3.087E-03	Pulse	0.30	3
Mn			2	0.018	ug/l	22.56	108.89	1.005E-03	Pulse	0.30	3
Fe			2	-0.668	ug/l	-5.66	3,373.79	3.114E-02	Pulse	0.30	3
Co			2	0.004	ug/l	38.27	90.00	8.302E-04	Pulse	0.30	3
Ni			2	-0.006	ug/l	-31.06	24.45	2.257E-04	Pulse	0.30	3
Cu			2	0.002	ug/l	552.29	523.35	4.831E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	-0.656	ug/l	-4.36	94.45	8.710E-04	Pulse	0.30	3
As			2	0.005	ug/l	173.06	6.67	6.165E-05	Pulse	1.00	3
Cd			2	-0.002	ug/l	-350.46	8.42	1.806E-05	Pulse	0.30	3
Sn			2	-0.509	ug/l	-1.98	266.67	5.747E-04	Pulse	0.30	3
Se			3	-0.020	ug/l	-64.60	4.67	4.151E-05	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,883,890.51	1.32	90.0	Pulse	0.10	3
1	Sc		2,759,571.00	3.28	86.3	Pulse	0.10	3
1	Ge		637,216.11	2.31	86.4	Pulse	0.10	3
1	Rh		2,770,078.60	3.16	87.5	Pulse	0.10	3
1	In		2,785,139.30	2.96	88.4	Pulse	0.10	3
1	Tb		3,234,978.29	2.76	88.8	Pulse	0.10	3
1	Ho		304,144.45	5.09	88.7	Pulse	0.10	3
1	Bi		1,631,285.03	4.04	86.8	Pulse	0.10	3
2	Sc		108,328.37	0.88	85.1	Pulse	0.30	3
2	Ge		81,729.27	0.76	84.3	Pulse	0.30	3
2	Rh		1,294,402.93	0.55	86.2	Pulse	0.30	3
2	In		464,167.69	0.83	87.7	Pulse	0.30	3
2	Tb		1,403,186.30	0.47	88.8	Pulse	0.30	3
2	Ho		131,480.53	0.63	88.6	Pulse	0.30	3
2	Bi		824,451.11	0.51	88.6	Pulse	0.30	3
3	Sc		137,910.26	0.79	85.4	Pulse	0.30	3
3	Ge		112,408.72	0.14	87.9	Pulse	0.30	3
3	Rh		955,191.15	1.00	85.9	Pulse	0.30	3
3	Tb		1,252,406.20	1.31	87.3	Pulse	0.30	3

Quantitation Report

File Name 067SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\.b051019m2.b
Method File
Method Path
Acq Time 5/10/2019 18:44
Sample Name jc87783-2
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name Metals
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 5/13/2019 7:20
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.080	ug/l	7.49	240.01	1.406E-04	Pulse	0.25	3
B			1	87.348	ug/l	2.25	223,699.46	1.310E-01	Pulse	0.15	3
Ca			1	70910.888	ug/l	3.41	28,973,397.90	1.090E+01	Analog	0.10	3
Sr			1	317.165	ug/l	0.74	5,009,777.94	1.936E+00	Pulse	0.10	3
Mo			1	1.183	ug/l	3.66	3,437.24	1.329E-03	Pulse	0.10	3
Ag			1	0.059	ug/l	10.65	460.03	1.743E-04	Pulse	0.10	3
Sn			1	0.852	ug/l	4.09	5,174.54	1.954E-03	Pulse	0.10	3
Sb			1	0.264	ug/l	10.37	2,630.36	8.192E-04	Pulse	0.10	3
Ba			1	148.417	ug/l	0.69	299,923.33	9.336E-02	Pulse	0.10	3
Tl			1	0.008	ug/l	46.97	276.68	1.736E-04	Pulse	0.10	3
Pb			1	27.316	ug/l	0.86	90,018.83	5.631E-02	Pulse	0.10	3
Pb			1	26.605	ug/l	0.73	75,758.88	4.739E-02	Pulse	0.10	3
Pb			1	26.991	ug/l	0.26	353,853.11	2.214E-01	Pulse	0.10	3
Na			2	29236.595	ug/l	0.65	13,390,155.86	1.299E+02	Analog	0.30	3
Mg			2	8884.333	ug/l	0.55	1,845,611.66	1.791E+01	Pulse	0.30	3
Al			2	731.793	ug/l	0.85	49,733.25	4.825E-01	Pulse	0.30	3
K			2	5554.452	ug/l	0.78	794,041.43	7.704E+00	Pulse	0.30	3
Ca			2	63979.568	ug/l	0.68	487,922.57	4.734E+00	Pulse	0.30	3
Ti			2	20.585	ug/l	3.11	1,217.84	1.182E-02	Pulse	0.30	3
V			2	3.755	ug/l	1.23	7,209.77	6.994E-02	Pulse	0.30	3
Cr			2	3.026	ug/l	4.59	7,053.00	6.841E-02	Pulse	0.30	3
Mn			2	380.305	ug/l	0.32	438,501.42	4.254E+00	Pulse	0.30	3
Fe			2	21705.988	ug/l	2.50	40,996,446.15	3.977E+02	Analog	0.30	3
Co			2	2.294	ug/l	1.48	8,206.97	7.962E-02	Pulse	0.30	3
Ni			2	46.659	ug/l	0.29	44,162.79	4.285E-01	Pulse	0.30	3
Cu			2	27.582	ug/l	0.42	69,154.88	6.709E-01	Pulse	0.30	3
Zn			2	29.783	ug/l	2.75	10,908.89	1.058E-01	Pulse	0.30	3
As			2	4.082	ug/l	1.62	834.36	8.094E-03	Pulse	1.00	3
Cd			2	0.066	ug/l	63.08	65.88	1.529E-04	Pulse	0.30	3
Sn			2	-0.083	ug/l	-32.45	1,135.62	2.629E-03	Pulse	0.30	3
Se			3	0.336	ug/l	44.66	23.33	1.913E-04	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,707,828.89	2.80	81.6	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,660,848.29	2.96	83.2	Pulse	0.10	3
1	Ge		620,763.63	4.36	84.2	Pulse	0.10	3
1	Rh		2,588,661.26	4.83	81.8	Pulse	0.10	3
1	In		2,646,944.63	4.34	84.1	Pulse	0.10	3
1	Tb		3,212,030.37	3.70	88.2	Pulse	0.10	3
1	Ho		303,847.94	4.81	88.6	Pulse	0.10	3
1	Bi		1,598,584.45	4.19	85.1	Pulse	0.10	3
2	Sc		103,073.59	0.76	81.0	Pulse	0.30	3
2	Ge		80,068.98	0.70	82.6	Pulse	0.30	3
2	Rh		1,211,733.15	0.44	80.7	Pulse	0.30	3
2	In		431,912.17	0.87	81.6	Pulse	0.30	3
2	Tb		1,377,185.60	0.25	87.2	Pulse	0.30	3
2	Ho		130,697.31	0.32	88.0	Pulse	0.30	3
2	Bi		774,768.23	0.63	83.3	Pulse	0.30	3
3	Sc		137,921.52	1.32	85.4	Pulse	0.30	3
3	Ge		121,700.43	1.55	95.1	Pulse	0.30	3
3	Rh		910,757.25	1.54	81.9	Pulse	0.30	3
3	Tb		1,260,147.00	1.45	87.9	Pulse	0.30	3

Quantitation Report

File Name	068SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051019m2.b
Method File	
Method Path	
Acq Time	5/10/2019 18:48
Sample Name	jc87783-3
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.038	ug/l	21.58	124.00	7.119E-05	Pulse	0.25	3
B			1	30.859	ug/l	1.27	87,864.60	5.052E-02	Pulse	0.15	3
Ca			1	41475.520	ug/l	3.20	17,034,701.42	6.377E+00	Analog	0.10	3
Sr			1	160.701	ug/l	1.37	2,550,557.72	9.809E-01	Pulse	0.10	3
Mo			1	0.780	ug/l	4.43	2,133.60	8.205E-04	Pulse	0.10	3
Ag			1	0.023	ug/l	30.63	190.01	7.164E-05	Pulse	0.10	3
Sn			1	1.294	ug/l	7.52	7,298.97	2.733E-03	Pulse	0.10	3
Sb			1	0.188	ug/l	5.58	2,216.94	6.943E-04	Pulse	0.10	3
Ba			1	30.629	ug/l	1.85	61,599.28	1.928E-02	Pulse	0.10	3
Tl			1	0.007	ug/l	76.70	263.35	1.664E-04	Pulse	0.10	3
Pb			1	13.296	ug/l	2.37	43,583.06	2.744E-02	Pulse	0.10	3
Pb			1	12.436	ug/l	1.85	35,230.14	2.218E-02	Pulse	0.10	3
Pb			1	12.908	ug/l	0.88	168,366.17	1.060E-01	Pulse	0.10	3
Na			2	56185.720	ug/l	0.77	26,455,842.84	2.496E+02	Analog	0.30	3
Mg			2	5679.679	ug/l	0.67	1,213,477.21	1.145E+01	Pulse	0.30	3
Al			2	660.034	ug/l	3.66	46,134.03	4.353E-01	Pulse	0.30	3
K			2	2417.526	ug/l	0.69	359,913.72	3.396E+00	Pulse	0.30	3
Ca			2	36397.354	ug/l	0.86	285,507.82	2.694E+00	Pulse	0.30	3
Ti			2	25.589	ug/l	6.34	1,556.79	1.469E-02	Pulse	0.30	3
V			2	2.697	ug/l	0.58	5,418.90	5.113E-02	Pulse	0.30	3
Cr			2	2.599	ug/l	1.44	6,270.38	5.916E-02	Pulse	0.30	3
Mn			2	104.159	ug/l	2.19	123,536.88	1.166E+00	Pulse	0.30	3
Fe			2	1403.933	ug/l	1.57	2,732,050.73	2.578E+01	Pulse	0.30	3
Co			2	0.545	ug/l	3.35	2,049.07	1.933E-02	Pulse	0.30	3
Ni			2	3.455	ug/l	0.52	3,396.01	3.204E-02	Pulse	0.30	3
Cu			2	8.285	ug/l	1.10	21,711.68	2.048E-01	Pulse	0.30	3
Zn			2	25.598	ug/l	5.03	9,717.98	9.171E-02	Pulse	0.30	3
As			2	1.649	ug/l	0.35	349.34	3.296E-03	Pulse	1.00	3
Cd			2	0.052	ug/l	49.98	55.96	1.261E-04	Pulse	0.30	3
Sn			2	0.510	ug/l	6.53	1,743.47	3.933E-03	Pulse	0.30	3
Se			3	0.050	ug/l	253.26	9.33	7.720E-05	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,739,379.43	2.05	83.1	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,672,868.50	2.80	83.6	Pulse	0.10	3
1	Ge		619,418.38	3.36	84.0	Pulse	0.10	3
1	Rh		2,600,896.11	4.03	82.2	Pulse	0.10	3
1	In		2,667,649.38	3.57	84.7	Pulse	0.10	3
1	Tb		3,194,335.79	3.60	87.7	Pulse	0.10	3
1	Ho		301,078.16	4.33	87.8	Pulse	0.10	3
1	Bi		1,588,058.42	4.53	84.5	Pulse	0.10	3
2	Sc		105,989.96	0.73	83.3	Pulse	0.30	3
2	Ge		80,915.35	1.21	83.4	Pulse	0.30	3
2	Rh		1,219,119.99	0.68	81.2	Pulse	0.30	3
2	In		443,296.29	0.71	83.8	Pulse	0.30	3
2	Tb		1,395,636.89	0.51	88.3	Pulse	0.30	3
2	Ho		133,257.58	1.19	89.8	Pulse	0.30	3
2	Bi		790,008.91	0.44	84.9	Pulse	0.30	3
3	Sc		139,578.61	0.50	86.4	Pulse	0.30	3
3	Ge		120,808.16	0.47	94.4	Pulse	0.30	3
3	Rh		918,079.41	0.57	82.5	Pulse	0.30	3
3	Tb		1,266,045.99	0.82	88.3	Pulse	0.30	3

Quantitation Report

File Name 069_CCV.d
File Path C:\Agilent\ICPMH\1\DATA\.b051019m2.b
Method File
Method Path
Acq Time 5/10/2019 18:53
Sample Name CCVA
Sample Type CCV
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name Metals
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 5/13/2019 7:20
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	46.801	ug/l	1.64	286,522.44	1.538E-01	Pulse	0.25	3
B			1	95.902	ug/l	3.54	521,045.81	2.798E-01	Pulse	0.15	3
Ca			1	4801.299	ug/l	0.42	4,129,119.52	1.484E+00	Pulse	0.10	3
Sr			1	49.016	ug/l	0.82	1,645,406.54	5.984E-01	Pulse	0.10	3
Mo			1	50.534	ug/l	1.01	349,904.71	1.273E-01	Pulse	0.10	3
Ag			1	49.032	ug/l	0.40	755,921.76	2.752E-01	Pulse	0.10	3
Sn			1	49.342	ug/l	1.34	478,507.19	1.743E-01	Pulse	0.10	3
Sb			1	51.053	ug/l	1.70	544,838.61	1.669E-01	Pulse	0.10	3
Ba			1	48.752	ug/l	2.12	200,301.45	6.134E-02	Pulse	0.10	3
Tl			1	50.207	ug/l	2.09	992,525.98	6.011E-01	Pulse	0.10	3
Pb			1	49.213	ug/l	1.48	334,566.92	2.027E-01	Pulse	0.10	3
Pb			1	49.108	ug/l	0.90	288,518.03	1.748E-01	Pulse	0.10	3
Pb			1	49.428	ug/l	0.90	1,337,150.12	8.101E-01	Pulse	0.10	3
Na			2	4729.490	ug/l	0.36	4,631,205.79	4.207E+01	Pulse	0.30	3
Mg			2	4833.082	ug/l	1.55	2,144,398.52	1.948E+01	Pulse	0.30	3
Al			2	5094.331	ug/l	0.55	737,367.05	6.699E+00	Pulse	0.30	3
K			2	4952.650	ug/l	0.45	1,505,712.02	1.368E+01	Pulse	0.30	3
Ca			2	5264.399	ug/l	1.30	85,914.03	7.805E-01	Pulse	0.30	3
Ti			2	50.989	ug/l	1.67	6,442.69	5.853E-02	Pulse	0.30	3
V			2	48.390	ug/l	0.32	189,777.99	1.724E+00	Pulse	0.30	3
Cr			2	47.870	ug/l	0.72	228,863.79	2.079E+00	Pulse	0.30	3
Mn			2	48.641	ug/l	1.36	119,841.39	1.089E+00	Pulse	0.30	3
Fe			2	5315.749	ug/l	1.35	21,447,236.37	1.948E+02	Analog	0.30	3
Co			2	47.407	ug/l	0.87	359,917.42	3.270E+00	Pulse	0.30	3
Ni			2	47.122	ug/l	0.55	95,220.35	8.651E-01	Pulse	0.30	3
Cu			2	46.727	ug/l	0.91	248,986.02	2.262E+00	Pulse	0.30	3
Zn			2	46.598	ug/l	1.69	35,212.94	3.199E-01	Pulse	0.30	3
As			2	48.467	ug/l	0.96	21,051.81	1.912E-01	Pulse	1.00	3
Cd			2	48.741	ug/l	0.40	89,860.47	1.919E-01	Pulse	0.30	3
Sn			2	50.062	ug/l	0.77	104,310.87	2.228E-01	Pulse	0.30	3
Se			3	194.706	ug/l	4.02	16,973.28	1.553E-01	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,862,400.39	2.58	89.0	Pulse	0.10	3
1	Sc		2,782,827.46	3.02	87.0	Pulse	0.10	3
1	Ge		639,813.18	3.98	86.8	Pulse	0.10	3

Quantitation Report

1	Rh		2,749,060.79	3.53	86.9	Pulse	0.10	3
1	In		2,746,781.45	4.19	87.2	Pulse	0.10	3
1	Tb		3,266,312.04	4.54	89.7	Pulse	0.10	3
1	Ho		308,338.56	6.37	90.0	Pulse	0.10	3
1	Bi		1,650,328.21	3.96	87.8	Pulse	0.10	3
2	Sc		110,075.07	0.47	86.5	Pulse	0.30	3
2	Ge		83,880.72	1.27	86.5	Pulse	0.30	3
2	Rh		1,291,400.06	0.94	86.0	Pulse	0.30	3
2	In		468,209.17	0.63	88.5	Pulse	0.30	3
2	Tb		1,453,993.90	0.33	92.0	Pulse	0.30	3
2	Ho		137,288.74	0.83	92.5	Pulse	0.30	3
2	Bi		829,932.60	0.81	89.2	Pulse	0.30	3
3	Sc		135,557.53	0.02	83.9	Pulse	0.30	3
3	Ge		109,293.59	0.82	85.4	Pulse	0.30	3
3	Rh		925,042.91	1.06	83.1	Pulse	0.30	3
3	Tb		1,262,899.12	0.66	88.1	Pulse	0.30	3

Quantitation Report

File Name	070_CCB.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051019m2.b
Method File	
Method Path	
Acq Time	5/10/2019 18:58
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.012	ug/l	42.42	88.00	4.746E-05	Pulse	0.25	3
B			1	0.999	ug/l	9.74	17,379.91	9.408E-03	Pulse	0.15	3
Ca			1	-6.587	ug/l	-11.61	20,045.11	7.511E-03	Pulse	0.10	3
Sr			1	0.100	ug/l	1.29	3,740.70	1.402E-03	Pulse	0.10	3
Mo			1	0.139	ug/l	4.88	500.03	1.873E-04	Pulse	0.10	3
Ag			1	0.008	ug/l	22.51	136.67	5.114E-05	Pulse	0.10	3
Sn			1	0.041	ug/l	57.37	1,603.49	5.979E-04	Pulse	0.10	3
Sb			1	0.108	ug/l	6.79	2,320.30	7.409E-04	Pulse	0.10	3
Ba			1	0.005	ug/l	111.71	60.00	1.890E-05	Pulse	0.10	3
Tl			1	0.015	ug/l	8.69	496.70	3.050E-04	Pulse	0.10	3
Pb			1	0.012	ug/l	23.98	193.34	1.191E-04	Pulse	0.10	3
Pb			1	0.017	ug/l	55.68	176.68	1.091E-04	Pulse	0.10	3
Pb			1	0.013	ug/l	16.21	736.70	4.526E-04	Pulse	0.10	3
Na			2	0.323	ug/l	296.79	6,312.59	6.510E-02	Pulse	0.30	3
Mg			2	0.426	ug/l	296.08	551.49	6.032E-03	Pulse	0.30	3
Al			2	1.766	ug/l	89.97	355.57	3.793E-03	Pulse	0.30	3
K			2	3.529	ug/l	144.52	8,243.67	8.524E-02	Pulse	0.30	3
Ca			2	-0.931	ug/l	-100.25	163.34	1.665E-03	Pulse	0.30	3
Ti			2	0.018	ug/l	173.21	2.22	2.076E-05	Pulse	0.30	3
V			2	0.031	ug/l	65.54	413.34	4.261E-03	Pulse	0.30	3
Cr			2	0.037	ug/l	20.60	430.01	4.410E-03	Pulse	0.30	3
Mn			2	0.042	ug/l	34.84	146.67	1.522E-03	Pulse	0.30	3
Fe			2	0.428	ug/l	93.39	6,872.97	7.131E-02	Pulse	0.30	3
Co			2	0.014	ug/l	27.23	145.56	1.506E-03	Pulse	0.30	3
Ni			2	0.035	ug/l	22.92	96.67	9.749E-04	Pulse	0.30	3
Cu			2	0.067	ug/l	49.99	766.70	7.954E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	-0.440	ug/l	-11.21	226.67	2.331E-03	Pulse	0.30	3
As			2	0.023	ug/l	89.86	12.33	1.323E-04	Pulse	1.00	3
Cd			2	0.014	ug/l	46.58	31.46	7.759E-05	Pulse	0.30	3
Sn			2	-0.436	ug/l	-11.68	366.68	8.959E-04	Pulse	0.30	3
Se			3	0.023	ug/l	204.38	8.00	7.546E-05	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,847,737.43	2.10	88.3	Pulse	0.10	3
1	Sc		2,668,258.86	2.78	83.4	Pulse	0.10	3
1	Ge		620,207.35	3.96	84.1	Pulse	0.10	3
1	Rh		2,667,602.30	3.23	84.3	Pulse	0.10	3
1	In		2,675,803.93	2.41	85.0	Pulse	0.10	3
1	Tb		3,132,937.98	5.11	86.0	Pulse	0.10	3
1	Ho		292,877.12	4.25	85.4	Pulse	0.10	3
1	Bi		1,628,005.19	4.24	86.7	Pulse	0.10	3
2	Sc		98,021.64	12.26	77.0	Pulse	0.30	3
2	Ge		73,759.55	13.40	76.1	Pulse	0.30	3
2	Rh		1,163,956.31	12.59	77.5	Pulse	0.30	3
2	In		415,512.07	12.20	78.5	Pulse	0.30	3
2	Tb		1,263,388.46	13.11	80.0	Pulse	0.30	3
2	Ho		118,730.04	12.70	80.0	Pulse	0.30	3
2	Bi		742,186.50	13.38	79.8	Pulse	0.30	3
3	Sc		133,559.47	0.71	82.7	Pulse	0.30	3
3	Ge		105,489.76	2.11	82.5	Pulse	0.30	3
3	Rh		929,880.10	1.97	83.6	Pulse	0.30	3
3	Tb		1,219,627.76	1.83	85.0	Pulse	0.30	3

Quantitation Report

File Name	071SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051019m2.b
Method File	
Method Path	
Acq Time	5/10/2019 19:03
Sample Name	jc87783-4
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

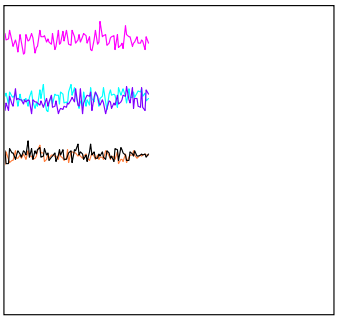
Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.048	ug/l	12.74	154.67	8.862E-05	Pulse	0.25	3
B			1	64.749	ug/l	1.92	172,351.45	9.880E-02	Pulse	0.15	3
Ca			1	37396.507	ug/l	3.27	15,143,032.27	5.751E+00	Analog	0.10	3
Sr			1	235.032	ug/l	0.93	3,718,769.01	1.434E+00	Pulse	0.10	3
Mo			1	2.109	ug/l	4.31	6,468.49	2.497E-03	Pulse	0.10	3
Ag			1	0.060	ug/l	15.40	470.03	1.766E-04	Pulse	0.10	3
Sn			1	4.394	ug/l	3.21	21,872.00	8.193E-03	Pulse	0.10	3
Sb			1	1.281	ug/l	2.98	7,845.97	2.477E-03	Pulse	0.10	3
Ba			1	69.940	ug/l	0.89	139,439.74	4.400E-02	Pulse	0.10	3
Tl			1	0.022	ug/l	36.14	416.69	2.614E-04	Pulse	0.10	3
Pb			1	20.004	ug/l	0.36	66,094.17	4.125E-02	Pulse	0.10	3
Pb			1	18.589	ug/l	2.32	53,113.41	3.313E-02	Pulse	0.10	3
Pb			1	19.210	ug/l	0.40	252,573.72	1.576E-01	Pulse	0.10	3
Na			2	8699.281	ug/l	0.67	3,933,328.73	3.870E+01	Pulse	0.30	3
Mg			2	3436.393	ug/l	0.34	704,212.96	6.929E+00	Pulse	0.30	3
Al			2	718.525	ug/l	3.68	48,153.82	4.738E-01	Pulse	0.30	3
K			2	2588.644	ug/l	1.02	369,021.25	3.631E+00	Pulse	0.30	3
Ca			2	34170.336	ug/l	0.83	257,053.33	2.529E+00	Pulse	0.30	3
Ti			2	24.931	ug/l	3.53	1,454.55	1.431E-02	Pulse	0.30	3
V			2	26.019	ug/l	1.79	47,345.01	4.658E-01	Pulse	0.30	3
Cr			2	3.347	ug/l	4.94	7,661.12	7.539E-02	Pulse	0.30	3
Mn			2	56.352	ug/l	0.42	64,122.16	6.309E-01	Pulse	0.30	3
Fe			2	1518.142	ug/l	0.66	2,832,629.12	2.787E+01	Pulse	0.30	3
Co			2	0.594	ug/l	3.17	2,134.64	2.100E-02	Pulse	0.30	3
Ni			2	12.907	ug/l	1.10	12,070.94	1.188E-01	Pulse	0.30	3
Cu			2	22.374	ug/l	1.55	55,405.39	5.451E-01	Pulse	0.30	3
Zn			2	59.478	ug/l	2.05	20,943.84	2.061E-01	Pulse	0.30	3
As			2	2.632	ug/l	6.20	532.01	5.235E-03	Pulse	1.00	3
Cd			2	0.128	ug/l	13.14	121.51	2.756E-04	Pulse	0.30	3
Sn			2	3.193	ug/l	0.59	4,332.99	9.828E-03	Pulse	0.30	3
Se			3	0.151	ug/l	51.62	14.00	1.176E-04	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,744,832.51	2.60	83.4	Pulse	0.10	3

Current Signal

[1]



Mass	Range	Count	Avg. Count	RSD [%]
7	5000	3498	3514.7	2.86
59	5000	3564	3447.2	2.98
89	10000	5174	5116.6	2.24
140	5000	4402	4449.2	2.35
205	5000	2593	2592.1	2.78
156/140	2	0.772 %	1.082 %	18.43
70/140	10	6.225 %	6.210 %	8.30
9	50	8	10.2	36.00
11	200	118	128.2	10.38
88	100	53	66.6	14.60
95	50	12	15.2	28.40
107	20	6	2.6	76.26
121	50	31	27.9	20.76
137	50	22	21.8	25.63
208	200	80	71.5	13.41

Integration Time [sec] 0.10

Plasma Parameters

RF Power	1500	W	Nebulizer Pump	0.10	rps
RF Matching	1.75	V	S/C Temp	2	℃
Smpl Depth	7.8	mm	Gas Switch	Dilution Gas	
Carrier Gas	0.55	L/min	Makeup/Dilution Gas	0.55	L/min
Option Gas	0.0	%			

Lenses Parameters

Extract 1	0.0	V	Cell Entrance	-38	V
Extract 2	-155.0	V	Cell Exit	-60	V
Omega Bias	-80	V	Deflect	15.0	V
Omega Lens	8.6	V	Plate Bias	-50	V

Cell Parameters

Use Gas	false		OctP Bias	-8.0	V
He Flow	0.0	mL/min	OctP RF	200	V
H2 Flow	0.0	mL/min	Energy Discrimination	5.0	V
3rd Gas Flow	0	%			

Meters

IF/BK Press	2.56E+2	Pa	Water Temp	22.9	℃
TMP Revolution	100.0	%	Carrier Gas(BP)	1.44E+2	kPa
Carrier Gas	0.55	L/min			

US EPA Tune Check Sample Report

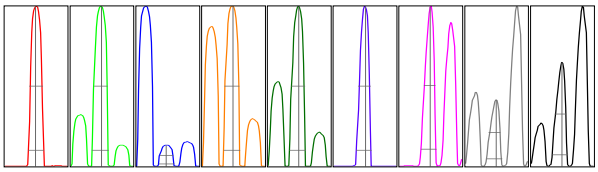
Batch Folder C:\Agilent\ICPMH\1\DATA\.b051019m1.b
Report Comment
Instrument Name G3281A JP12412081

[1]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
9	107052	0.89	5.00	
24	433215	0.69	5.00	
25	56947	0.67	5.00	
26	66674	0.55	5.00	
59	498900	0.68	5.00	
115	526872	0.90	5.00	
206	102959	0.70	5.00	
207	93027	0.61	5.00	
208	222488	0.68	5.00	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	105581	108128	107032	106952	107570
24	431303	437482	429921	432666	434704
25	56781	56727	56642	57590	56993
26	66403	66884	66163	66907	67012
59	496329	499854	504406	497475	496435
115	521926	530650	529729	521502	530552
206	101792	103662	102935	102975	103431
207	92327	93437	93298	92505	93566
208	221803	224690	222981	220619	222349

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width-X% (Flag)
9	18565	9.00	8.9 - 9.1		0.719	0.900	
24	70135	24.00	23.9 - 24.1		0.761	0.900	
25	9261	24.95	24.9 - 25.1		0.736	0.900	
26	10611	26.00	25.9 - 26.1		0.770	0.900	
59	86009	59.00	58.9 - 59.1		0.754	0.900	
115	103371	115.05	114.9 - 115.1		0.698	0.900	
206	20702	206.00	205.9 - 206.1		0.706	0.900	
207	18661	207.00	206.9 - 207.1		0.707	0.900	
208	45010	208.00	207.9 - 208.1		0.717	0.900	

X% = 10 **Integration Time [sec] =** 0.1 **Acquisition Time [sec] =** 235 **Y Axis =** Linear

Tune Parameters

Plasma Paramters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
RF Power	1500	W	Carrier Gas	0.55	L/min			
RF Matching	1.75	V	Option Gas	0.0	%			
Smpl Depth	7.8	mm	Nebulizer Pump	0.20	rps			
S/C Temp	2	℃						

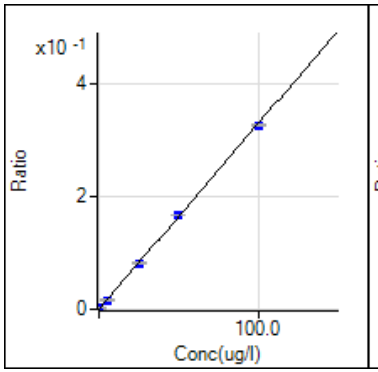
Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	8.6	V			
Extract 2	-155.0	V	Cell Entrance	-38	V			
Omega Bias	-80	V	Cell Exit	-60	V			
Deflect	15.0	V						

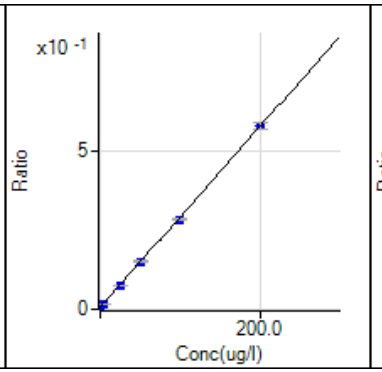
Cell Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Use Gas	false		3rd Gas Flow	0	%			
He Flow	0.0	mL/min	OctP Bias	-8.0	V			
H2 Flow	0.0	mL/min	OctP RF	200	V			
Energy Discrimination	5.0	V						

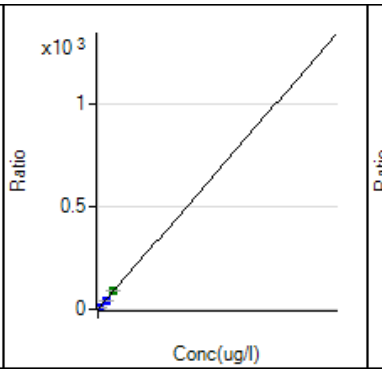
Calibration for C:\Agilent\ICPMH\1\DATA\.b051019m2.b\035SMPL.d



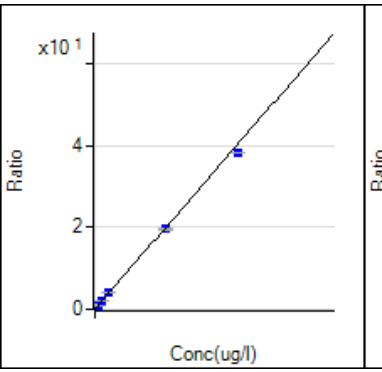
9 Be [1] / ISTD: 6 Li
y = 3.287E-3 x + 9.181E-6
R 0.9999
DL 0.005492
BEC 0.002793



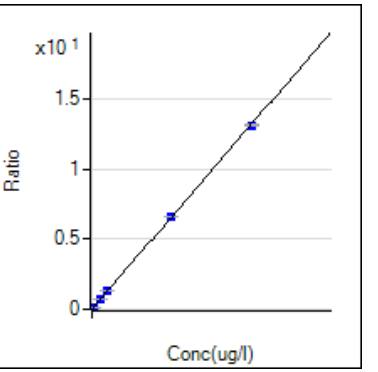
11 B [1] / ISTD: 6 Li
y = 2.849E-3 x + 6.563E-3
R 0.9998
DL 0.2964
BEC 2.304



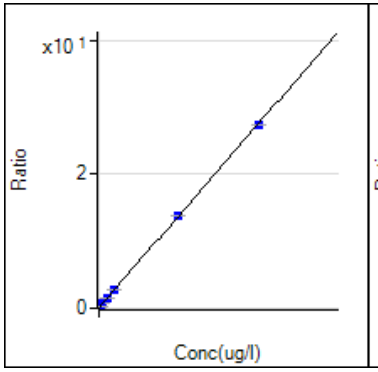
23 Na [2] / ISTD: 45 Sc
y = 8.883E-3 x + 6.222E-2
R 0.9997
DL 0.4895
BEC 7.005



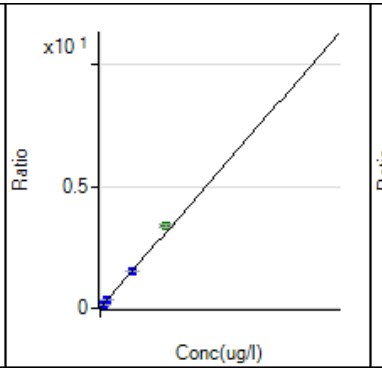
24 Mg [2] / ISTD: 45 Sc
y = 4.030E-3 x + 4.315E-3
R 0.9999
DL 0.2927
BEC 1.071



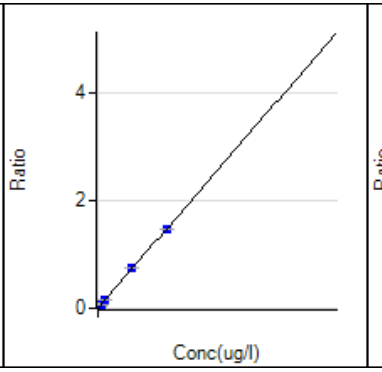
27 Al [2] / ISTD: 45 Sc
y = 1.315E-3 x + 1.471E-3
R 1.0000
DL 0.3162
BEC 1.119



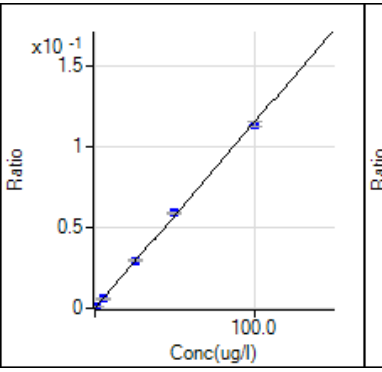
39 K [2] / ISTD: 45 Sc
y = 2.747E-3 x + 7.555E-2
R 1.0000
DL 2.472
BEC 27.51



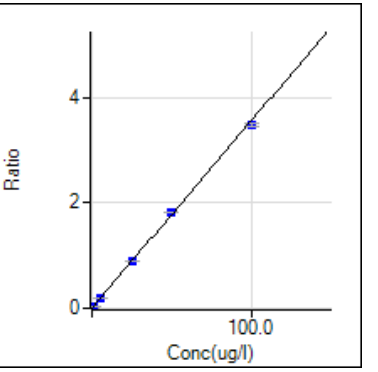
44 Ca [1] / ISTD: 45 Sc
y = 3.070E-4 x + 9.534E-3
R 0.9986
DL 2.54
BEC 31.05



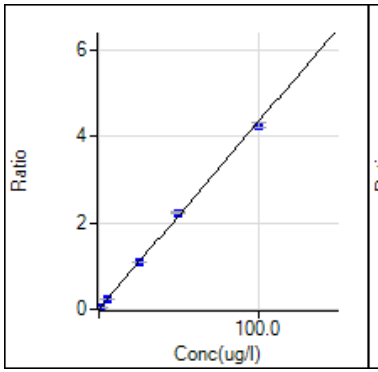
44 Ca [2] / ISTD: 45 Sc
y = 1.479E-4 x + 1.803E-3
R 1.0000
DL 5.567
BEC 12.19



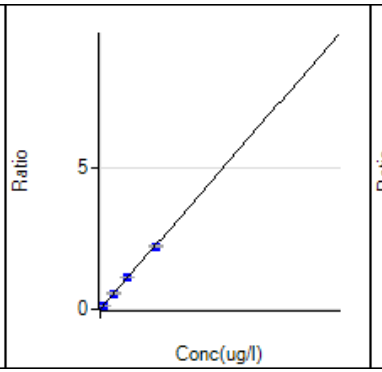
47 Ti [2] / ISTD: 45 Sc
y = 1.148E-3 x
R 0.9998
DL 0
BEC 0



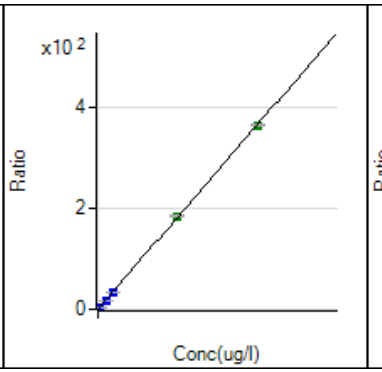
51 V [2] / ISTD: 45 Sc
y = 3.556E-2 x + 3.168E-3
R 0.9997
DL 0.04881
BEC 0.08907



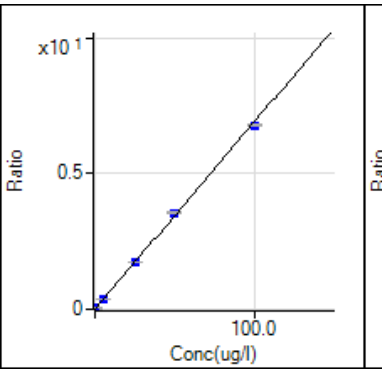
52 Cr [2] / ISTD: 45 Sc
y = 4.338E-2 x + 2.790E-3
R 0.9997
DL 0.00816
BEC 0.06433



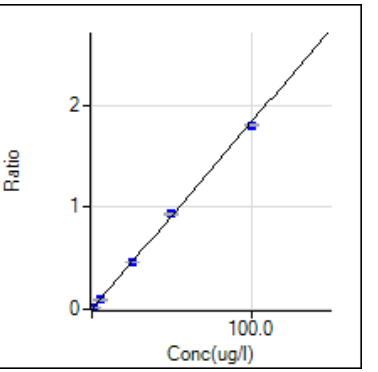
55 Mn [2] / ISTD: 45 Sc
y = 2.237E-2 x + 5.938E-4
R 0.9998
DL 0.005672
BEC 0.02655



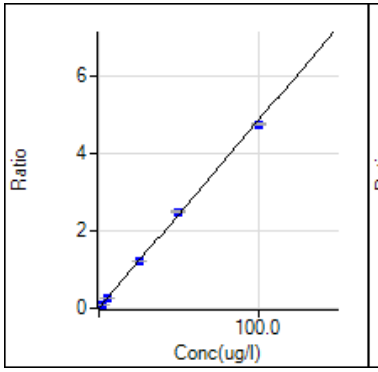
56 Fe [2] / ISTD: 45 Sc
y = 3.664E-2 x + 5.564E-2
R 1.0000
DL 0.1504
BEC 1.518



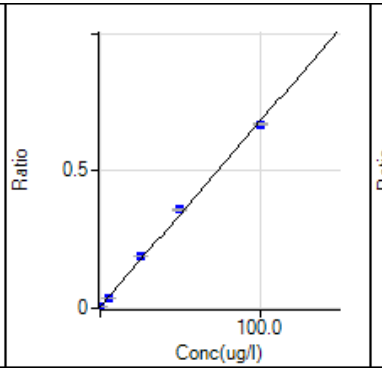
59 Co [2] / ISTD: 45 Sc
y = 6.896E-2 x + 5.275E-4
R 0.9997
DL 0.005343
BEC 0.007649



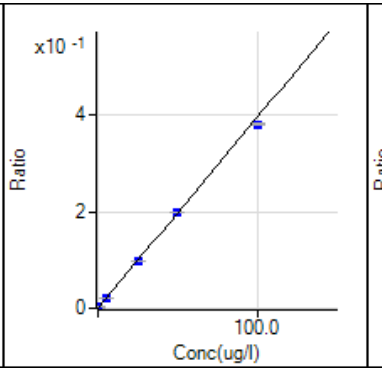
60 Ni [2] / ISTD: 45 Sc
y = 1.835E-2 x + 3.404E-4
R 0.9998
DL 0.02049
BEC 0.01855



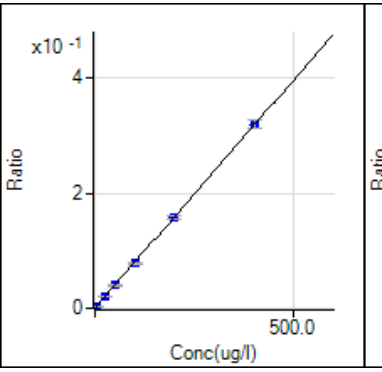
63 Cu [2] / ISTD: 45 Sc
y = 4.831E-2 x + 4.718E-3
R 0.9997
DL 0.006754
BEC 0.09767



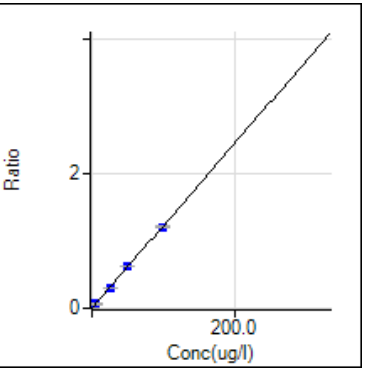
66 Zn [2] / ISTD: 45 Sc
y = 6.751E-3 x + 5.300E-3
R 0.9992
DL 0.1981
BEC 0.785



75 As [2] / ISTD: 45 Sc
y = 3.945E-3 x + 4.283E-5
R 0.9997
DL 0.01923
BEC 0.01086

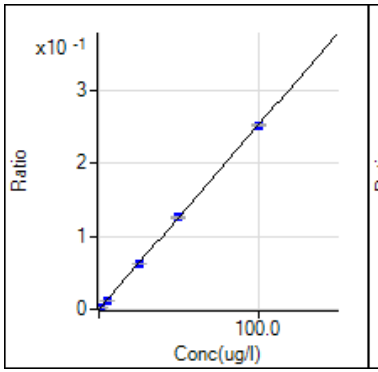


78 Se [3] / ISTD: 74 Ge
y = 7.974E-4 x + 5.734E-5
R 1.0000
DL 0.03435
BEC 0.0719

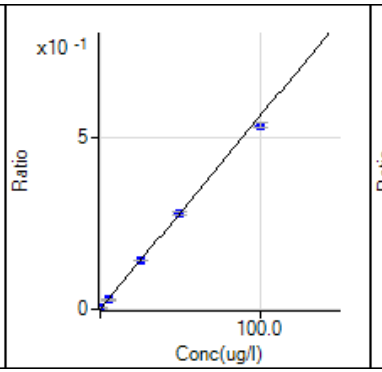


88 Sr [1] / ISTD: 103 Rh
y = 1.220E-2 x + 1.832E-4
R 0.9999
DL 0.01342
BEC 0.01501

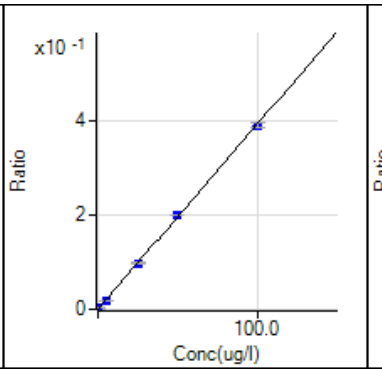
Calibration for C:\Agilent\ICPMH\1\DATA\.b051019m2.b\035SMPL.d



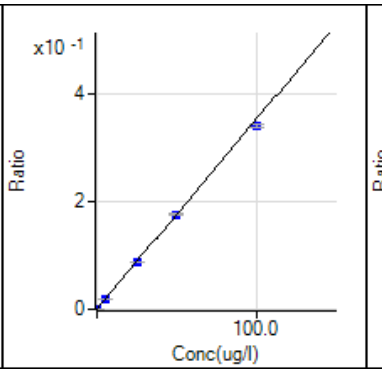
95 Mo [1] / ISTD: 103 Rh
y = 2.523E-3 x - 1.633E-4
R 1.0000
DL 0.008781
BEC -0.06472



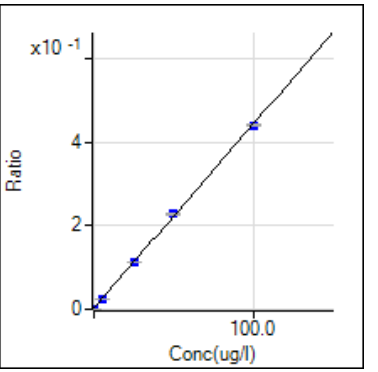
107 Ag [1] / ISTD: 115 In
y = 5.613E-3 x + 8.176E-6
R 0.9996
DL 0.005171
BEC 0.001457



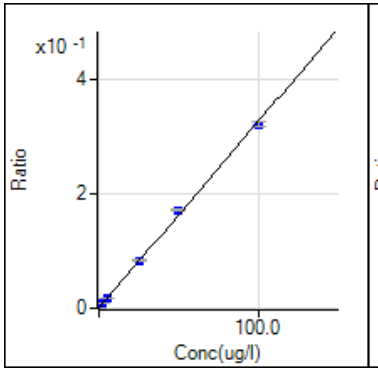
111 Cd [2] / ISTD: 115 In
y = 3.937E-3 x + 2.399E-5
R 0.9999
DL 0.01852
BEC 0.006092



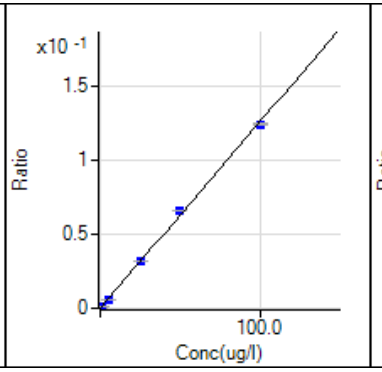
118 Sn [1] / ISTD: 115 In
y = 3.523E-3 x + 4.537E-4
R 0.9999
DL 0.02792
BEC 0.1288



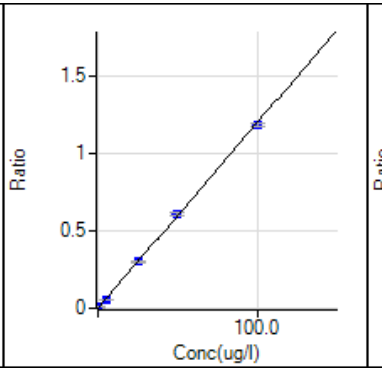
118 Sn [2] / ISTD: 115 In
y = 4.394E-3 x + 2.812E-3
R 0.9999
DL 0.04137
BEC 0.6399



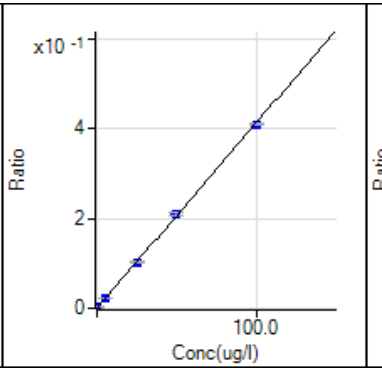
121 Sb [1] / ISTD: 159 Tb
y = 3.261E-3 x + 3.882E-4
R 0.9995
DL 0.0208
BEC 0.119



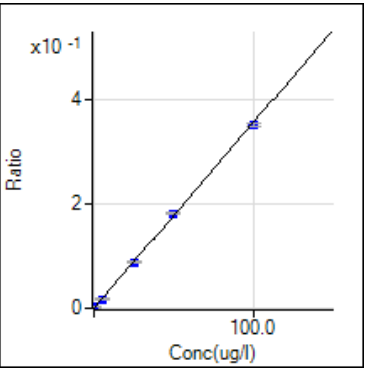
137 Ba [1] / ISTD: 159 Tb
y = 1.258E-3 x + 1.203E-5
R 0.9995
DL 0.01451
BEC 0.009561



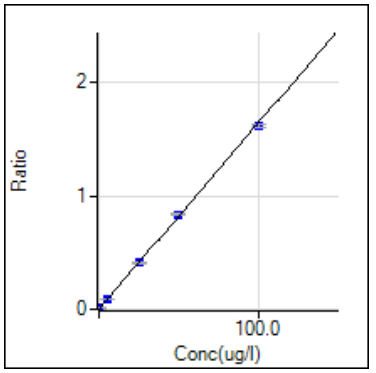
205 Tl [1] / ISTD: 209 Bi
y = 1.197E-2 x + 1.271E-4
R 0.9999
DL 0.008751
BEC 0.01062



206 Pb [1] / ISTD: 209 Bi
y = 4.117E-3 x + 7.167E-5
R 0.9999
DL 0.01968
BEC 0.01741



207 Pb [1] / ISTD: 209 Bi
y = 3.559E-3 x + 4.730E-5
R 0.9999
DL 0.003249
BEC 0.01329



208 Pb [1] / ISTD: 209 Bi

y = 1.638E-2 x + 2.473E-4

R	0.9999
DL	0.01006
BEC	0.01509

SGS North America Inc.

Accutest Aqueous Metals Digestion Form

Batch Information

Batch ID	Start Date	Start Time	End Date	End time	QC Samp 1	QC Samp 2
MP14909	5/9/2019	17:20	5/9/2019	22:50	JC87783-12	

Temperature

		Block ID1	Therm. ID#	Temperature	Correction	Corrected Temp
1	Start	3	2106305	97	-2	95
1	End	3	2106305	97	-2	95
2	Start					
2	End					

Methods and Equipment

	Dig. Method	Heating Method		Auto Pipette #	Digestion Tube Lot #	
	SW846 3010A	Digestion Block		M-74	1812114	

Sample ID	Bottle Number	Pres (Y/N)	Initial Sample Volume	Final Volume in ML	Reagent Groups Added	Spike Groups Added	Comments
MP14909-MB1	N/A	N	50	50	AB		
MP14909-B1	N/A	N	50	50	AB	ABCD	
MP14909-S1	3	Y	50	50	AB	ABCD	
MP14909-S2	3	Y	50	50	AB	ABCD	
MP14909-SD1	3	Y	50	50	AB		
JC87559-1F	3	Y	50	50	AB		
JC87559-2F	3	Y	50	50	AB		
JC87578-2	1	Y	50	50	AB		
JC87686-1	5	Y	50	50	AB		
JC87686-2	5	Y	50	50	AB		
JC87783-1	3	Y	50	50	AB		
JC87783-10	3	Y	50	50	AB		
JC87783-11	3	Y	50	50	AB		
JC87783-12	3	Y	50	50	AB		
JC87783-13	3	Y	50	50	AB		
JC87783-2	3	Y	50	50	AB		
JC87783-3	3	Y	50	50	AB		
JC87783-4	3	Y	50	50	AB		
JC87783-5	3	Y	50	50	AB		
JC87783-6	3	Y	50	50	AB		
JC87783-7	3	Y	50	50	AB		
JC87783-8	3	Y	50	50	AB		
JC87783-9	3	Y	50	50	AB		
MP14909-B2	N/A	N	50	50	AB	EFGHI	
MP14909-B3	N/A	Y	50	50	AB	ABCD	**FILTERMET 5/8
MP14909-MB2	N/A	Y	50	50	AB		**FILTERMET 5/8
MP14909-S3	3	Y	50	50	AB	EFGHI	
MP14909-S4	3	Y	50	50	AB	EFGHI	

Reagents Groups

Group	Description	MLs Used
A	CONC HNO3	3
B	1:1 HCL	5
C		
D		
E		
F		
G		
H		

Spike Groups

Group	Description	MLs Used
A	ACCUTEST 13A REV1	0.5
B	ACCUTEST 14A REV1	0.5
C	MINERALS 5000PPM	0.25
D	AG 20PPM	0.625
E	ACCUTEST 13B REV1	0.2
F	AG 20PPM	0.2
G	ACCUTEST 14B REV1	0.2
H	MINERALS 1000PPM	0.2

I Se 20ppm 0.8

Comments: **SEE MP FOR SPIKE LOT INFORMATION

Analyst MOUSTAFR Approved by _____ Approved on _____

Note: Reagent traceability for batch Start Date can be seen on the reagent traceability page for this batch.
Serial Dilution samples shown for QC purposes only.
Acceptable Temperature range is 90-95 degrees C unless otherwise noted

SGS

Metals Digestion Reagents Information Log

Digestion Batch ID: MP 14909 **Date:** 5/9/19

Matrix: ALL

Standard/Reagent Type	Exp. Date	Standard/Reagent ID
Spiking Solution - (ACCUTEST-13A REV1)	10/23/2019	MP-015-1161
Spiking Solution - (ACCUTEST-14A REV1)	10/23/2019	MP-015-1162
Spiking Solution - 5000 mg/l Minerals	4/25/2020	P2-MEB678659 MFG: INO. VENT.
Spiking Solution - Sulfur 1000ppm	4/11/2021	LOT: 041118 MFG: ABS. GRADE
Spiking Solution - Si 1000ppm	10/31/2019	N2-SI668066 MFG: INO. VENT.
Spiking Solution - Bi 1000ppm	4/12/2020	N2-BI669548 MFG: INO. VENT.
Spiking Solution - Se 20ppm	10/10/2019	MP-015-1156
Spiking Solution - Li 1000ppm	4/18/2020	N2-LI665824 MFG: INO. VENT.
Spiking Solution- Ag 20 ppm	10/30/2019	MP-015-1165
Spiking Solution - (ACCUTEST-13B REV1)	10/10/2019	MP-015-1157
Spiking Solution - (ACCUTEST-14B REV1)	9/27/2019	MP-015-1148
Spiking Solution - 1000ppm Minerals	6/4/2019	MP-015-1117
Spiking Solution- P		
Nitric Acid	5/9/2021	LOT: 213500 MFG: J.T. BAKER
Nitric Acid (1:1)	11/8/2019	MP-018-42-203 1:1 HNO3
Hydrochloric Acid	5/7/2021	LOT: 221681 MFG: J.T. BAKER
Hydrochloric Acid (1:1)	11/7/2019	MP-018-42-202 1:1 HCL
Hydrogen Peroxide	4/26/2021	LOT: 189267 MFG: FISHER
Soil Lab Control/Soil LC	3/31/2020	LOT: D094-540 MFG: ERA
Teflon Chips(For Soil MB and Blank Spike)	N/A	LOT: 24242815 MFG: SAINT-GOBAIN
Digestion Tubes	N/A	LOT: 1812114 MFG: ENV. EXPRESS
pH Paper	6/15/2021	LOT: 217518 MFG: HYDRION
Filter paper Q8	N/A	LOT: 16917460 MFG: FISHER
Filter paper 0.45µm	N/A	LOT: F8MA26136E MFG: FISHER

Spike witnessed By: _____ Validated By: _____

Validated On: _____

Metals Prep Reagent
1/17/18

SGS North America Inc.

Accutest Aqueous Metals Digestion Form

Batch Information

Batch ID	Start Date	Start Time	End Date	End time	QC Samp 1	QC Samp 2
MP14909	5/10/2019	17:00	5/10/2019	22:30	JC87783-12	

Temperature

		Block ID1	Therm. ID#	Temperature	Correction	Corrected Temp
1	Start	5	158274	95	0	95
1	End	5	158274	95	0	95
2	Start					
2	End					

Methods and Equipment

	Dig. Method	Heating Method		Auto Pipette #	Digestion Tube Lot #	
	SW846 3010A	Digestion Block		M-74	1812114	

Sample ID	Bottle Number	Pres (Y/N)	Initial Sample Volume	Final Volume in ML	Reagent Groups Added	Spike Groups Added	Comments
MP14909-MB3	N/A	N	50	50	AB		
MP14909-B4	N/A	N	50	50	AB	ABCDE	
JC87585-1	1	Y	50	50	AB		
JC87833-1	3	Y	50	50	AB		

Reagents Groups

Group	Description	MLs Used
A	CONC HNO3	3
B	1:1 HCL	5
C		
D		
E		
F		
G		
H		

Spike Groups

Group	Description	MLs Used
A	ACCUTEST 13B REV1	0.2
B	ACCUTEST 14B REV1	0.2
C	MINERALS 1000PPM	0.2
D	AG 20PPM	0.2
E	SE 20PPM	0.8
F	AG 20PPM	0.2
G		
H		

Comments:

Analyst MOUSTAFR **Approved by** gulcagt **Approved on** 5/13/2019

Note: Reagent traceability for batch Start Date can be seen on the reagent traceability page for this batch.
Serial Dilution samples shown for QC purposes only.
Acceptable Temperature range is 90-95 degrees C unless otherwise noted

SGS

Metals Digestion Reagents Information Log

Digestion Batch ID: MP 14909 **Date:** 5/10/19

Matrix: ALL

Standard/Reagent Type	Exp. Date	Standard/Reagent ID
Spiking Solution - (ACCUTEST-13A REV1)	10/30/2019	MP-015-1166
Spiking Solution - (ACCUTEST-14A REV1)	10/30/2019	MP-015-1167
Spiking Solution - 5000 mg/l Minerals	4/25/2020	P2-MEB678659 MFG: INO. VENT.
Spiking Solution - Sulfur 1000ppm	4/11/2021	LOT: 041118 MFG: ABS. GRADE
Spiking Solution - Si 1000ppm	10/31/2019	N2-SI668066 MFG: INO. VENT.
Spiking Solution - Bi 1000ppm	4/12/2020	N2-BI669548 MFG: INO. VENT.
Spiking Solution - Se 20ppm	10/10/2019	MP-015-1156
Spiking Solution - Li 1000ppm	4/18/2020	N2-LI665824 MFG: INO. VENT.
Spiking Solution- Ag 20 ppm	11/7/2019	MP-015-1168
Spiking Solution - (ACCUTEST-13B REV1)	10/10/2019	MP-015-1157
Spiking Solution - (ACCUTEST-14B REV1)	9/27/2019	MP-015-1148
Spiking Solution - 1000ppm Minerals	10/29/2019	MP-015-1164
Spiking Solution- P		
Nitric Acid	5/9/2021	LOT: 213500 MFG: J.T. BAKER
Nitric Acid (1:1)	11/8/2019	MP-018-42-203 1:1 HNO3
Hydrochloric Acid	5/7/2021	LOT: 221681 MFG: J.T. BAKER
Hydrochloric Acid (1:1)	11/7/2019	MP-018-42-202 1:1 HCL
Hydrogen Peroxide	4/26/2021	LOT: 189267 MFG: FISHER
Soil Lab Control/Soil LC	3/31/2020	LOT: D094-540 MFG: ERA
Teflon Chips(For Soil MB and Blank Spike)	N/A	LOT: 24242815 MFG: SAINT-GOBAIN
Digestion Tubes	N/A	LOT: 1812114 MFG: ENV. EXPRESS
pH Paper	6/15/2021	LOT: 217518 MFG: HYDRION
Filter paper Q8	N/A	LOT: 16917460 MFG: FISHER
Filter paper 0.45µm	N/A	LOT: F8MA26136E MFG: FISHER

Spike witnessed By: TG

Validated By:

Validated On:

Metals Prep Reagent
1/17/18

General Chemistry

QC Data Summaries

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: JC87686
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Chemical Oxygen Demand	GP21342/GN95549	20	0.0	mg/l				
Chemical Oxygen Demand	GP21342/GN95549	20	0.0	mg/l	50	52.0	104.0	90-110%
HEM Oil and Grease	GP21340/GN95516	5.0	0.0	mg/l	40.26	35.4	87.9	78-114%
Solids, Total Suspended	GN95193	4.0	0.0	mg/l				

Associated Samples:
Batch GN95193: JC87686-1, JC87686-2
Batch GP21340: JC87686-1, JC87686-2
Batch GP21342: JC87686-1, JC87686-2
(*) Outside of QC limits

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: JC87686
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Chemical Oxygen Demand	GP21342/GN95549	JC87579-7	mg/l	60.2	60.2	0.0	0-25%
HEM Oil and Grease	GP21340/GN95516	JC87755-1	mg/l	3.5 B	2.4	37.3(a)	0-18%
Solids, Total Suspended	GN95193	JC87676-1	mg/l	2.2 B	2.2	0.0	0-17%

Associated Samples:
Batch GN95193: JC87686-1, JC87686-2
Batch GP21340: JC87686-1, JC87686-2
Batch GP21342: JC87686-1, JC87686-2
(*) Outside of QC limits
(a) RPD acceptable due to low duplicate and sample concentrations.

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: JC87686
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Chemical Oxygen Demand	GP21342/GN95549	JC87579-7	mg/l	60.2	50	107	93.6	55-133%
HEM Oil and Grease	GP21340/GN95516	JC88025-1	mg/l	0.0	40.26	37.6	93.4	78-114%

Associated Samples:
Batch GP21340: JC87686-1, JC87686-2
Batch GP21342: JC87686-1, JC87686-2
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits

General Chemistry

Raw Data

Test: **Total Suspended Solids**
Method: **SM2540 D-11**

Product: **TSS**
Units: mg/l
RL: 4.0

GN Batch ID: GN95193
Analyst: RC
Date: 5/10/2019
Balance ID: B53

SGS

QC Summary

Filtration Date: 5/10/19 OVEN ID: INC-21 Filtration Time: 17:40

MB ID:	GN95193-MB1	Result:	<rdl	RDL: 4	< RDL yes
Dup ID:	GN95193-D1	Samp Resu	2.22	Dup Result: 2.22	% RPD: 0
Dup ID:	GN95193-D2	Samp Mass	0.4	Dup Mass: 0.4	% RPD: 0

Acceptable Temp. Range = 103 to 105 deg. C.

Date:	5/10-11/2019	5/11/2019	
Time (Start/Finish):	19:00/07:40	8:05/09:02	
UnCorr Temp (Start/Finish):	104/104	104/104	
Corr Temp (Start/Finish):	104/104	104/104	

Therm ID: 5624416
Corr Factor: 0
FILTER LOT# 111301

Bot #	Dish #	Sample ID	Filter Size*	Volume Filtered (ml)	Filter Tare Weight in g*	Weight after drying at 104 deg. C in g	Redry #1 Weight in g (a)	Redry ?	Redry # 2 Weight in g (a)	Redry ?	Redry # 3 Weight in g (a)	Constant Weight in g (a)	TSS in mg/l (Calculated)	Final TSS in mg/l**	Mass %RPD	Mass %RPD > 5%
	X1	GN95193-MB1	42	1000.0	0.0941	0.0941	0.0941	NO				0.0941		0.00		1000
	X2	GN95193-D1	42	450.0	0.0942	0.0952	0.0952	NO				0.0952		2.22	0.00%	450
2	X3	JC87676-1	42	450.0	0.0965	0.0975	0.0975	NO				0.0975		2.22		450
	X4	GN95193-D2	42	500.0	0.0942	0.0944	0.0944	NO				0.0944		0.40	0.00%	500
1	X5	JC87714-6	42	500.0	0.0947	0.0949	0.0949	NO				0.0949		0.40		500
1	X6	JC87714-5	42	200.0	0.0952	0.1223	0.1223	NO				0.1223		135.50		200
1	X7	JC87714-4	42	200.0	0.0941	0.1678	0.1678	NO				0.1678		368.50		200
1	X8	JC87714-3	42	1000.0	0.0954	0.0962	0.0962	NO				0.0962		0.80		1000
2	X9	JC87714-2	42	1000.0	0.0946	0.1075	0.1075	NO				0.1075		12.90		1000
2	X10	JC87714-1	42	1000.0	0.0948	0.1143	0.1143	NO				0.1143		19.50		1000
4	X11	JC87716-1	42	1000.0	0.0938	0.0980	0.0978	NO				0.0978		4.00		1000
4	X12	JC87724-1	42	1000.0	0.0948	0.1377	0.1377	NO				0.1377		42.90		1000
4	X13	JC87725-1	42	700.0	0.0957	0.1392	0.1389	NO				0.1389		61.71		700
2	X14	JC87726-2	42	1000.0	0.0949	0.0959	0.0959	NO				0.0959		1.00		1000
1	X15	JC87727-1	42	30.0	0.0947	0.1175	0.1173	NO				0.1173		753.33		30
6	X16	JC87749-1	42	400.0	0.0940	0.1005	0.1004	NO				0.1004		16.00		400
3	X17	JC87702-1	42	550.0	0.0942	0.1202	0.1202	NO				0.1202		47.27		550
3	X18	JC87700-1	42	450.0	0.0935	0.1034	0.1034	NO				0.1034		22.00		450
2	X19	JC87690-2	42	1000.0	0.0939	0.0969	0.0970	NO				0.0970		3.10		1000
3	X20	JC87686-2	42	950.0	0.0933	0.1060	0.1060	NO				0.1060		13.37		950
4	X21	JC87686-1	42	750.0	0.0952	0.1113	0.1114	NO				0.1114		21.60		750
1	X22	JC87676-2	42	1000.0	0.0957	0.0962	0.0962	NO				0.0962		0.50		1000
3	X23	JC87671-3	42	1000.0	0.0952	0.0980	0.0980	NO				0.0980		2.80		1000

(a) Redries when result is <DL after the initial weighing. Note: Constant weight is a change of <4% of the sample mass or 0.0005 g, whichever is
*Filters are dried and dessicated for a minimum of 12 hours ensure constant tare weight.
**Final TSS, mg/L = [(constant weight - filter tare mass, g) × 1000] ÷ (initial volume, mL ÷ 1000)
Comments:

5/13/19

DAYT-WET-0196-10-FORM-TSS
REV DATE 10/17/18

TSS Worksheet

SGS ACCUTEST

Acceptable Temp. Range = 103 to 105 deg. C.

** Note - Filters are dried for a minimum of 1.5 h and dessicated for a minimum of 12 h. Constant mass is determined prior to filtering.

Date:	5/10/2019	5/10/2019				
Time (Start/Finish):	08:00/10:00	16:00/17:29				
Uncorr Temp Deg C (Start/Finish):	104/104	104/104				
Corr Temp Deg C (Start/Finish):	104/104	104/104				

Dish #	Filter size	Initial weight after drying** (mg)	Redry 1 Constant Weight in g (a)	Redry ?	Redry 2 Constant Weight in g (a)	Redry ?	Redry 3 Constant Weight in g (a)	Constant Weight
X1	42.00000	**0.0941**	**0.0941**	NO		*FALSE*		0.0941
X2	42.00000	**0.0942**	**0.0942**	NO		*FALSE*		0.0942
X3	42.00000	**0.0965**	**0.0965**	NO		*FALSE*		0.0965
X4	42.00000	**0.0942**	**0.0942**	NO		*FALSE*		0.0942
X5	42.00000	**0.0947**	**0.0947**	NO		*FALSE*		0.0947
X6	42.00000	**0.0953**	**0.0952**	NO		*FALSE*		0.0952
X7	42.00000	**0.0941**	**0.0941**	NO		*FALSE*		0.0941
X8	42.00000	**0.0954**	**0.0954**	NO		*FALSE*		0.0954
X9	42.00000	**0.0946**	**0.0946**	NO		*FALSE*		0.0946
X10	42.00000	**0.0951**	**0.0948**	NO		*FALSE*		0.0948
X11	42.00000	**0.0940**	**0.0938**	NO		*FALSE*		0.0938
X12	42.00000	**0.0947**	**0.0948**	NO		*FALSE*		0.0948
X13	42.00000	**0.0958**	**0.0957**	NO		*FALSE*		0.0957
X14	42.00000	**0.0949**	**0.0949**	NO		*FALSE*		0.0949
X15	42.00000	**0.0947**	**0.0947**	NO		*FALSE*		0.0947
X16	42.00000	**0.0940**	**0.0940**	NO		*FALSE*		0.0940
X17	42.00000	**0.0943**	**0.0942**	NO		*FALSE*		0.0942
X18	42.00000	**0.0935**	**0.0935**	NO		*FALSE*		0.0935
X19	42.00000	**0.0939**	**0.0939**	NO		*FALSE*		0.0939
X20	42.00000	**0.0933**	**0.0933**	NO		*FALSE*		0.0933
X21	42.00000	**0.0953**	**0.0952**	NO		*FALSE*		0.0952
X22	42.00000	**0.0958**	**0.0957**	NO		*FALSE*		0.0957
X23	42.00000	**0.0952**	**0.0952**	NO		*FALSE*		0.0952
				FALSE		FALSE		
				FALSE		FALSE		
				FALSE		FALSE		
				YES		FALSE		0.0957
				FALSE		FALSE		
				FALSE		FALSE		
				FALSE		FALSE		
				FALSE		FALSE		
				FALSE		FALSE		
				FALSE		FALSE		

JJY

X

SGS

GN95193
TSS SAMPLE DESCRIPTION SHEET

	SGS Sample ID		Filter size used	Non-standard volumes. Comment with reason as shown below.	Limited Volume
2	JC87676-1	Clear	42	450	✓
1	JC87714-6	almost clear		500	✓
1	JC87714-5	cloudy Orange		200 a	
1	JC87714-4	cloudy Brown		200 a	
1	JC87714-3	Pale		1000	
2	JC87714-2	Brown		1000	
2	JC87714-1	↓		1000	
4	JC87716-1	clear, foamy		1000	
4	JC87724-1	foamy cloudy Orange		1000	
4	JC87725-1	foamy cloudy grey, smelly		700 a	
2	JC87726-2	foamy & almost clear		1000	
1	JC87727-1	Cloudy Brick Red		30 a	
6	JC87749-1	cloudy Yellow & Particles		400 a	
3	JC87702-1	foamy, cloudy Pale Yellow		550 a	
3	JC87700-1	cloudy & Particles		450 a	
2	JC87690-2	Foamy & clear		1000	
3	JC87686-2	foamy & cloudy Pale		950 a	✓
4	JC87686-1	↓		750 a	
1	JC87676-2	Clear		1000	
3	JC87671-3	Pale	↓	1000	

QC QC

Reason (a). Sample contains heavy particulates and it can be assessed by appearance that it will clog the filter at higher volumes.
Reason (b). Initial analysis of the sample at a higher volume produced clogging. Rerunning at reduced volume.

Form: GN215-02
Rev. Date: 3/2/18

SGS

TEST: HEM Oil and Grease
Method: EPA 1664A
Date Extracted: 5/19/2019
Balance # Used: B16

OG1664
Reporting Date: 5/19/2019
Final Date Weighed: 5/19/2019
(Refer to balance log for balance calibration)

GN Group: GN95516
GP Group: GP21340
Analyst: TM
Units: mg/L

QC Summary

Units: mg/l

Dup Sample ID: JC87755-1
MS Sample ID: JC88025-1
Method Blank Date: 5/19/2019
Blank Spike Date: 5/19/2019
External: NA

Samp Res: <5
Samp Res: <5
Result: <5
Result: 35.4
Control Limit: NA

Dup Result: <5
Spike: 40.26
RL: 5
Spk Amt. 40.26
Result: NA

% RPD: 0%
MS Res: 37.6

% Rec. 93.39
<RL: yes
% Rec. 87.93
% Rec. NA

Speed Vap Temperature During Evaporation: 40 deg. C

Speed: Vap III
Vap ID:

(c) refer to Determination of Constant weights page for balance check weight results.

Flask #	Sample ID	Sample pH	Sample Volume (ml)	Total Weight (g)	Tare Weight (g)	Sample Weight (g)	Calc Result	Final Result	RL	Analysis Time
	0.002 g check (c)	na	na	0.0020	0.0020	na	na	na	na	9:00
	1.000 g check (c)	na	na	1.0000	1.0000	na	na	na	na	
	5.000 g check (c)	na	na	5.0005	5.0002	na	na	na	na	
	100 g check (c)	na	na	100.0061	100.0060	na	na	na	na	
MB	GP21340-MB1	<2	1000	2.5039	2.5037	0.0002	0.200	<5	5.00	9:00
BSP	GP21340-B1	<2	1000	2.5426	2.5072	0.0354	35.400	35.400	5.00	
MS	GP21340-S1	<2	1000	2.5467	2.5091	0.0376	37.600	37.600	5.00	
DUP	GP21340-D1	<2	1000	2.5318	2.5294	0.0024	2.400	<5	5.00	
1	JC88025-1	<2	1000	2.5162	2.5161	0.0001	0.100	<5	5.00	
2	JC87663-1	<2	1000	2.5182	2.5169	0.0013	1.300	<5	5.00	
3	JC87663-2	<2	1000	2.5120	2.5109	0.0011	1.100	<5	5.00	
4	JC87686-1	<2	1000	2.5016	2.5015	0.0001	0.100	<5	5.00	
5	JC87686-2	<2	1000	2.5011	2.4995	0.0016	1.600	<5	5.00	
6	JC87699-1	<2	1000	2.4839	2.4832	0.0007	0.700	<5	5.00	
7	JC87755-1	<2	1000	2.4769	2.4734	0.0035	3.500	<5	5.00	18:30
	0.002 g check (c)	na	na	0.0020	0.0020	na	na	na	na	
	1.000g check(b)	na	na	1.0001	1.0000	na	na	na	na	

SGS

DETERMINATION OF CONSTANT WEIGHT

Test: HEM Oil and Grease
Method: EPA 1664A
Test Code: OG1664 10A

GN Group: GN95516
GP Group: GP21340
Analyst: TM
Units: mg/l

Balance ID#: B-16
Thermometer ID#: 73133
Thermometer correction factc 0

Definition of Constant Weight: Weight loss is less than 0.5 mg (0.0005 g).

Date:		5/19/2019	5/19/2019					
Start Time, End Time, Temp (Corrected, Uncorrected)	NA	16:00-16:30	17:05-17:35					Note: Samples must be dried at 70 +/- 2 deg. For a minimum of 30 minutes for each drying cycle.
Sample ID	Flask #	Initial Weight (g)	Second Weight (g)	Re-Weigh ?	Third Weight (g)	Re-Weigh ?	Fourth Weight (g)	Description
0.002 g check (c)		0.0020	0.0020	N				
1.000 g check (c)		1.0000	1.0000	N				
5.000 g check (c)		5.0003	5.0001					
100 g check (c)		100.0060	100.0064	N				
GP21340-MB1	MB	2.5039	2.5039	N				
GP21340-B1	BSP	2.5426	2.5426	N				
GP21340-S1	MS	2.5467	2.5467	N				
GP21340-D1	DUP	2.5318	2.5318	N				
JC88025-1	1	2.5162	2.5162	N				
JC87663-1	2	2.5182	2.5182	N				
JC87663-2	3	2.5120	2.5120	N				
JC87686-1	4	2.5016	2.5016	N				
JC87686-2	5	2.5011	2.5011	N				
JC87699-1	6	2.4839	2.4839	N				
JC87755-1	7	2.4769	2.4769	N				
0.002 g check (c)		0.0020	0.0020	N				
1.000g check(b)		1.0000	1.0000	N				
5.000 g check(c)		5.0003	5.0001	N				

SGS

GP21340- OG1664

	Accutest Sample ID	Bottle #	Volume (mL)	Appearance (clarity, color, etc.)	Odor
MB	GP21340-MB1	NA	1000	CLEAR	NONE
BSP	GP21340-B1	NA	1000	CLEAR	NONE
MS	GP21340-S1	1	1000	CLEAR	NONE
DUP	GP21340-D1	1	1000	SLIGHTLY CLOUDY	NONE
1	JC88025-1	2	1000	CLEAR	NONE
2	JC87663-1	1	1000	CLEAR	NONE
3	JC87663-2	1	1000	CLEAR	NONE
4	JC87686-1	1	1000	CLEAR	NONE
5	JC87686-2	1	1000	CLEAR	NONE
6	JC87699-1	1	1000	CLEAR	NONE
7	JC87755-1	3	1000	SLIGHTLY CLOUDY	NONE
				HEM SPIKE	
				GNE5-58016-OG1664	
				6/14/2019	
				HEM: 8.053mg/L HEX: 4.036 mg/L	

Form: GN-110
Rev. Date:5/19/2019

SGS

Reagent Information Log - OG1664 Water by EPA 1664A

Reagent	Expiration Date	Reagent # or Manufacturer/Lot
Hexane	12/12/2022	FISHER Lot #173528
HEM Spike	6/14/2019	GNE5-58016-OG1664
Methanol	4/4/2021	FISHER LOT #180813
Disk Filter	NA	LABORATORYSALES&SER.#103522
1:1 HCL	7/25/2019	GNE1-57044-PHC/OG1664
Sodium Sulfate	6/21/2019	GNE5-58067-PHC/OG1664
Filter 47mm	NA	LABORATORYSALES&SER.#150125
Pre-Filter 47mm	NA	LABORATORYSALES&SER.#141347
Filter 90/100mm	NA	LABORATORYSALES&SER.#140294
Pre-Filter 90/100mm	NA	LABORATORYSALES&SER.#141272
pH paper	6/1/2019	HYDRON LOT#215316
HEM Spike (ICV)	NA	NA

B1/S1= 5.0ml of 8.053 mg/L HEM SPIKE
HEX= 4.036 mg/L

Form: GN-087 1-44
Rev. Date: 11/4/08

SGS

Test: Chemical Oxygen Demand (Low Level)
Product: COD AQ Methods: SM5220 C-11/ Hach 8000
Method: See above for AQ ◉ Units: mg/l
Hach 8000 /SM5220M ○ mg/kg

Analyst: MRP
GN Batch ID: GN95549
GP Batch ID: GP21342
Date: 5/20/2019

Ave ml of FAS for Blank (A) = 3.65 Molarity of FAS: 0.0137

COD = { (A-B) x M x 8000 } / (sample amount in ml or g)

QC Summary:

Method Blank ID:	GP21342-MB1	Date:	5/20/2019	Result:	0.0	DL:	20	<DL	Y
Spike Blank ID (± 10%):	BSLCONF	Date:	5/20/2019	Result:	21.9	Spike:	20	% Rec:	109.5
Standard Check Low (±30%):	GP21342-B2	Date:	5/20/2019	Result:	52.0	Spike:	50	% Rec:	104.0
Standard Check Mid (±10%):		Date:		Result:		Spike:		% Rec:	
Duplicate ID:	JC87579-7	Samp Result:		Dup Result:		% RPD:			
MS ID:	JC87579-7	Samp Result:	60.24	MS Result:	106.8	Spike:	50	% Rec:	93.1
External:		Result:		Known:		% Rec:			

Bottle #	Sample ID	Sample Volume (ml)	Dilution	Initial ml of FAS (C)	Final ml of FAS (D)	Total Vol FAS used in ml (D - C) = B	Blank FAS - Total FAS (A - B)	Calculated Result	Final Result	Detection Limit
MB1	GP21342-MB1	2.0000	1	0.00	3.65	3.65	0.00	0.0	0.00	20
MB2	GP21342-MB2	2.0000	1	0.00	3.65	3.65	0.00	0.0	0.00	20
BSP	BSLCONF	2.0000	1	0.00	3.25	3.25	0.40	21.9	21.90	20
BSP	GP21342-B2	2.0000	1	0.00	2.70	2.70	0.95	52.0	52.02	20
	GP21342-S1	2.0000	1	0.00	1.70	1.70	1.95	106.8	106.78	20
	GP21342-D1	2.0000	1	0.00	2.55	2.55	1.10	60.2	60.24	20
	JC87579-1	2.0000	2	0.00	1.55	1.55	2.10	230.0	229.99	40
	JC87579-2	2.0000	2	0.00	2.00	2.00	1.65	180.7	180.71	40
	JC87579-4	2.0000	1	0.00	2.20	2.20	1.45	79.4	79.40	20
	JC87579-5	2.0000	1	0.00	3.00	3.00	0.65	35.6	35.59	20
	JC87579-6	2.0000	1	0.00	2.75	2.75	0.90	49.3	49.28	20
	JC87579-7	2.0000	1	0.00	2.55	2.55	1.10	60.2	60.24	20
	JC87579-8	2.0000	1	0.00	2.40	2.40	1.25	68.5	68.45	20
	JC87579-9	2.0000	1	0.00	2.25	2.25	1.40	76.7	76.66	20
	JC87579-10	2.0000	1	0.00	2.25	2.25	1.40	76.7	76.66	20
	JC87579-11	2.0000	1	0.00	2.45	2.45	1.20	65.7	65.71	20
	JC87597-1	2.0000	1	0.00	3.50	3.50	0.15	8.2	8.21	20
	JC87598-1	2.0000	1	0.00	1.70	1.70	1.95	106.8	106.78	20
	JC87600-1	2.0000	1	0.00	1.75	1.75	1.90	104.0	104.04	20
	JC87686-1	2.0000	1	0.00	1.85	1.85	1.80	98.6	98.57	20
	JC87686-2	2.0000	1	0.00	1.45	1.45	2.20	120.5	120.47	20
	JC88025-1	2.0000	1	0.00	1.15	1.15	2.50	136.9	136.90	20

Comments:

Validated By: Nancy Cole Validated Date: 4/14/2017
Analyst: Date: QC Reviewer: Date:
Document Control #: ~~ACN-COD-20RL-03~~

gn 95549

Reagent Information Log - COD LOW (20 ppm)

Reagent	Reagent # or Manufacturer/Lot
Digestion Solution Tubes Low	GREEN WOOD #190202A XP02/2023
Ferroin Indicator Solution Low	GNE5-58013-COD XP11/14/19
Potassium Hydrogen Phthalate (KHP) Source	GNE3-57680-COD XP6/30/19
Standard Ferrous Ammonium Sulfate (FAS) Titrant 0.0124N/0.125N	GNE4--57809-COD XP10/19/19
H_2SO_4, Conc.	FISHER# 178261 XP:07/20/2023
Standard Potassium Dichromate Solution 0.025N	GNE12-56779-CODXP6/24/19
Potassium Hydrogen Phthalate ext source	GNE3-57681-COD XP6/30/19

Form: GN087-COD-01 Low 20 ppm
Rev Date:3/28/17

GENERAL CHEMISTRY STANDARD PREPARATION LOG FOR FE2

Product: COD

GN or GP Number: GN 95549

Description	standard	concentration	Stock vol used	Autopipet ID	al	Diluent	Volume	of	(a)	Analyst	Date
1000 ppm(STD)	GNE3-57680-COD	10,000 MG/L	10ML	A		DI water	100 ml	1000.00	6/30/2019	MRP	5/19/2019
1000PPM[EXT}	GNE3-57681-COD	10,000MG/L	10ML	A		DI water	100ml	1000	6/30/2019	MRP	5/19/2019
100ppm9STD)	GNE4-57865-COD	1000mg/l	10ML	A		DI water	100ML	100	5/29/2019	MRP	5/19/2019
100PPM[EXT}	GNE4-57866-COD	1000mg/l	10ML	A		DI water	100ml	100	5/29/2019	MRP	5/19/2019
Standard Description	used to prepare	Stock	Stock volume	Autopipet ID	al	Diluent	Volume	of Standard	(a)	MRP	
20	100PPM	20.00	10.00	A		DI water	50 ml	20.00	5/23/2019	MRP	5/19/2019
50	100PPM	100.00	10.00	A		DI water	100ML	100.00	5/23/2019	MRP	5/19/2019
150	1000PPM	150.00	7.5 ml	A		DI water	50 ml	150.00	5/23/2019	MRP	5/19/2019
500	1000PPM	500.00	25 ml	A		DI water	50 ml	500.00	6/30/2019	MRP	5/19/2019
10	100PPM	10.00	1.00	A		DI water	10 ml	10.00			5/19/2019
[EXT]50	100PPM	50.00	25.00	A		DI water	50 ml	50.00	5/23/2019	MRP	5/19/2019
[EXT]750	1000PPM	750.00	37.50	A		DI water	50 ml	750.00	5/23/2019	MRP	5/19/2019

Form: GN121-02 FE2
Rev. Date: 11/14/11

GN 95549

SGS

Test: Chemical Oxygen Demand Digestion Log
Method: SM5220 C-11, Hach 8000
SM5220 C-11 Mod, Hach 8000 Mod

Balance ID: NA

Product: COD GPBatch ID: GP21342
Analyst MRP
Hach Low Level (20 to 150 mg/l)
Hach High Level (50 to 1500 mg/l)
Pipet ID: #46

Date: 5/19/2019
Lot no #190202A XP02/23
_LOT NO

Standardization of FAS with Potassium Dichromate
Potassium Dichromate reagent number: see attached

Potassium Dichromate normality (N): 0.025N

mL of FAS for Standardization Blank 1: 3.65

ml of FAS for Standardization Blank 2: 3.65

Molarity of FAS = (N x vol. of dichromate digestion solution)/(ml of FAS for Standardization Blank)
Average molarity (Blank 1 and Blank 2) = 0.01369

Digestion START Time: 10:00 Digestion Temperature (deg. C): 150 C
Digestion ENDTime: 12:00 Digestion Block ID: COD-3

Sample ID	Digestion Tube #	Initial Wt. (g) or Vol. (ml)	Final Vol. (ml)	Comments	BO NO
GP21342-MB1	MB1	2 ML	2 ML		
GP21342-MB2	MB2	2 ML	2 ML		
GP21342-B1	1	2 ML	2 ML	2ML OF20 PPM	
GP21342-B2	2	2 ML	2 ML	2ML OF 50 PPM	
GP21342-S1	3	2 ML	2 ML	1ML OF 100PPM	7
GP21342-D1	4	2 ML	2 ML		7
JC87579-1	5	2 ML	2 ML	T.G	7
JC87579-2	6	2 ML	2 ML		7
JC87579-4	7	2 ML	2 ML		7
JC87579-5	8	2 ML	2 ML		7
JC87579-6	9	2 ML	2 ML		7
JC87579-7	10	2 ML	2 ML	Q.C	7
JC87579-8	11	2 ML	2 ML		7
JC87579-9	12	2 ML	2 ML		7
JC87579-10	13	2 ML	2 ML		7
JC87579-11	14	2 ML	2 ML		7
JC87597-1	15	2 ML	2 ML		12
JC87598-1	16	2 ML	2 ML		6
JC87600-1	17	2 ML	2 ML		12
JC87686-1	18	2 ML	2 ML		6
JC87686-2	19	2 ML	2 ML		6
JC88025-1	20	2 ML	2 ML		12
JC87579-1	21	2 ML	2 ML	1ML SAMPLE+1ML DI	7
JC87579-1	22	2 ML	2 ML	1ML SAMPLE+4ML DI	7
JC87579-2	23	2 ML	2 ML	1ML SAMPLE+1ML DI	7

Form: GN018-04
Revised: 06/15/17

The results set forth herein are provided by SGS North America Inc.

e-Hardcopy 2.0
Automated Report

Technical Report for

Tantara Corporation

USACE Buffalo Nike Missle UST, East Aurora, NY

19-382

SGS Job Number: JC87833

Sampling Date: 05/08/19

Report to:

Tantara Corporation
54 Mason Street
Worcester, MA 01610
MLovejoy@TantaraCorp.com

ATTN: Mark Lovejoy

Total number of pages in report: 389

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Brian McGuire
General Manager

Client Service contact: Tammy McCloskey 732-329-0200

Certifications: NJ(12129), NY(10983), CA, CT, FL, IL, IN, KS, KY, LA, MA, MD, ME, MN, NC, OH VAP (CL0056), AK (UST-103), AZ (AZ0786), PA, RI, SC, TX, UT, VA, WV, DoD ELAP (ANAB L2248)

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SGS North America Inc.

Sample Summary

Tantara Corporation

Job No: JC87833

USACE Buffalo Nike Missle UST, East Aurora, NY
Project No: 19-382

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
JC87833-1	05/08/19	07:45	ML	05/09/19	AQ	Water	SILO 2-3

CASE NARRATIVE / CONFORMANCE SUMMARY

Client:	Tantara Corporation	**Job No**	JC87833
Site:	USACE Buffalo Nike Missle UST, East Aurora, NY	**Report Date**	5/16/2019 1:33:13 PM

On 05/09/2019, 1 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were received at SGS North America Inc. at a maximum corrected temperature of 2.4 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. Job Number of JC87833 was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Compounds qualified as out of range in the continuing calibration summary report are acceptable as per method requirements when there is a high bias but the sample result is non-detect.

MS Volatiles By Method SW846 8260C

Matrix: AQ **Batch ID:** V4D4145

- All samples were analyzed within the recommended method holding time.
- Sample(s) JC87889-3MS, JC87889-4DUP were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

Metals Analysis By Method SW846 6020B

Matrix: AQ **Batch ID:** MP14909

- All samples were digested within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC87783-12MS, JC87783-12MSD, JC87783-12SDL were used as the QC samples for metals.
- RPD(s) for Serial Dilution for Aluminum, Lead are outside control limits. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).
- MP14909-SD1 for Arsenic: Serial dilution indicates possible matrix interference.

General Chemistry By Method EPA 1664A

Matrix: AQ **Batch ID:** GP21256

- All samples were prepared within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC87830-3DUP, JC87830-3MS were used as the QC samples for HEM Oil and Grease.
- Matrix Spike Recovery(s) for HEM Oil and Grease are outside control limits. Spike recovery indicates possible matrix interference.

General Chemistry By Method SM2540 D-11

Matrix: AQ **Batch ID:** GN95259

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC87830-4DUP were used as the QC samples for Solids, Total Suspended.

SGS North America Inc. certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting the Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

SGS North America Inc. is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. Data release is authorized by SGS North America Inc indicated via signature on the report cover

Summary of Hits

Job Number: JC87833
Account: Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY
Collected: 05/08/19

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
JC87833-1	**SILO 2-3**					
Aluminum		126	50	32	ug/l	SW846 6020B
Arsenic		2.0	1.0	0.94	ug/l	SW846 6020B
Barium		24.1	2.0	0.73	ug/l	SW846 6020B
Iron		292	50	19	ug/l	SW846 6020B
Lead		0.84 B	1.0	0.52	ug/l	SW846 6020B
Solids, Total Suspended		4.7	4.0	1.5	mg/l	SM2540 D-11

Sample Results

Report of Analysis

SGS North America Inc.

Report of Analysis

Client Sample ID:	SILO 2-3		
Lab Sample ID:	JC87833-1	**Date Sampled:**	05/08/19
Matrix:	AQ - Water	**Date Received:**	05/09/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	USACE Buffalo Nike Missle UST, East Aurora, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4D94008.D	1	05/11/19 04:21	ED	n/a	n/a	V4D4145
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.50	0.43	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	87%		80-120%
17060-07-0	1,2-Dichloroethane-D4	100%		81-124%
2037-26-5	Toluene-D8	107%		80-120%
460-00-4	4-Bromofluorobenzene	103%		80-120%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SILO 2-3
Lab Sample ID: JC87833-1
Matrix: AQ - Water
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Date Sampled: 05/08/19
Date Received: 05/09/19
Percent Solids: n/a

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Aluminum	126	50	32	ug/l	2	05/10/19	05/13/19	SN	SW846 6020B [1]	SW846 3010A [2]
Arsenic	2.0	1.0	0.94	ug/l	2	05/10/19	05/13/19	SN	SW846 6020B [1]	SW846 3010A [2]
Barium	24.1	2.0	0.73	ug/l	2	05/10/19	05/13/19	SN	SW846 6020B [1]	SW846 3010A [2]
Cadmium	0.17 U	1.0	0.17	ug/l	2	05/10/19	05/13/19	SN	SW846 6020B [1]	SW846 3010A [2]
Iron	292	50	19	ug/l	2	05/10/19	05/13/19	SN	SW846 6020B [1]	SW846 3010A [2]
Lead	0.84 B	1.0	0.52	ug/l	2	05/10/19	05/13/19	SN	SW846 6020B [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA46701
(2) Prep QC Batch: MP14909

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	SILO 2-3		
Lab Sample ID:	JC87833-1	**Date Sampled:**	05/08/19
Matrix:	AQ - Water	**Date Received:**	05/09/19
		Percent Solids:	n/a
Project:	USACE Buffalo Nike Missle UST, East Aurora, NY		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
HEM Oil and Grease	1.3 U	5.5	1.3	mg/l	1	05/15/19 11:20	BM	EPA 1664A
Solids, Total Suspended	4.7	4.0	1.5	mg/l	1	05/13/19 11:56	RC	SM2540 D-11

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- Sample Tracking Chronicle
- Internal Chain of Custody

CHAIN OF CUSTODY

SGS North America Inc. - Dayton
2235 Route 130, Dayton, NJ 08810
TEL. 732-329-0200 FAX: 732-329-3499/3480
www.sgs.com/ehsusa

WW

Page __ of __

FED-EX Tracking #:
Bottle Order Control #: BW-041019-193
SGS Quote #:
SGS Job #: JC87833

Client / Reporting Information

Company Name: Signature Corp
Street Address: 54 Mason St
City / State / Zip: Worcester Ma 01608
Project Contact / E-mail: mlovejoy@signaturecorp.com
Phone #: 508-752-5588
Sampler(s) Name(s) / Phone #: M Lovejoy

Project Information

Project Name: Buffalo / Mike
Street:
City / State: E Aurora NY
Project #: Corp. Com
Client Purchase Order #: 19362
Project Manager: M Lovejoy

Billing Information (If different from Report to)

Company Name: Same
Street Address:
City / State / Zip:
Attention:

Requested Analysis

TCLP 8260
As, Fe, Al Ba, Cd, Pb
Ag 0.1 and Grain Size

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL - Sludge
SED - Sediment
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid
WP - Wipe
FB - Field Blank
EB - Equipment Blank
RB - Rinse Blank
TB - Trip Blank

SGS Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Grab (G) Comp (C)	Matrix	# of bottles	Number of preserved Bottles: HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE	TCLP 8260	As, Fe, Al Ba, Cd, Pb	Ag 0.1 and Grain Size	LAB USE ONLY
1	Silo 2-3		5/8/19	7:45	ML	G	W	8	V		V	V	V				V	V	V	L19 A39 G44 V114

Turn Around Time (Business Days)

Approved By (SGS PM): / Date:

- [ ] 10 Business Days
- [X] 5 Business Days
- [ ] 3 Business Days*
- [ ] 2 Business Days*
- [ ] 1 Business Day*
- [ ] Other

All data available via Lablink

* Approval needed for 1-3 Business Day TAT

Deliverable

- [ ] Commercial "A" (Level 1)
- [ ] Commercial "B" (Level 2)
- [ ] NJ Reduced (Level 3)
- [ ] Full Tier I (Level 4)
- [ ] Commercial "C"
- [ ] NJ DKQP
- [ ] NYASP Category A
- [ ] NYASP Category B
- [ ] MA MCP Criteria_____
- [ ] CT RCP Criteria_____
- [ ] State Forms
- [ ] EDD Format _____
- [ ] DOD-QSM5

Commercial "A" = Results only, Commercial "B" = Results + QC Summary
Commercial "C" = Results + QC Summary + Partial Raw data

Comments / Special Instructions

Initial Assessment 2B (N)
Label Verification_____
http://www.sgs.com/en/terms-and-conditions

Sample Custody must be documented below each time samples change possession, including courier delivery.

	Relinquished by:	Date / Time:	Received By:	Relinquished By:	Date / Time:	Received By:
1		5/8/19	FEDEX	FEDEX	5/9/19 900	
2						
3						
4						
5						

Custody Seal #: ☐ Intact ☐ Not intact
Preserved where applicable: ☐ Absent
Therm. ID:
On Ice: ☑
Cooler Temp. °C: 3.4 °C

EHSA-QAC-0023-02-FORM-Dayton - Standard COC.xlsx

JC87833: Chain of Custody
Page 1 of 2

SGS Sample Receipt Summary

Job Number: JC87833 **Client:** TANTARA CORPORATION **Project:** USACE BUFFALO NIKE MISSLE UST, EAST AU

Date / Time Received: 5/9/2019 9:00:00 AM **Delivery Method:** **Airbill #'s:**

Cooler Temps (Raw Measured) °C: Cooler 1: (3.4);

Cooler Temps (Corrected) °C: Cooler 1: (2.4);

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	☑		☐	3. COC Present:	☑		☐
2. Custody Seals Intact:	☑		☐	4. Smpl Dates/Time OK	☑		☐

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Cooler temp verification:	IR Gun		
3. Cooler media:	Ice (Bag)		
4. No. Coolers:	1		

Quality Control Preservation	Y	or	N	N/A
1. Trip Blank present / cooler:	☐		☑	☐
2. Trip Blank listed on COC:	☐		☑	☐
3. Samples preserved properly:	☑		☐	
4. VOCs headspace free:	☑		☐	☐

Sample Integrity - Documentation	Y	or	N
1. Sample labels present on bottles:	☑		☐
2. Container labeling complete:	☑		☐
3. Sample container label / COC agree:	☑		☐

Sample Integrity - Condition	Y	or	N
1. Sample recvd within HT:	☑		☐
2. All containers accounted for:	☑		☐
3. Condition of sample:	Intact		

Sample Integrity - Instructions	Y	or	N	N/A
1. Analysis requested is clear:	☑		☐	
2. Bottles received for unspecified tests	☐		☑	
3. Sufficient volume recvd for analysis:	☑		☐	
4. Compositing instructions clear:	☐		☐	☑
5. Filtering instructions clear:	☐		☐	☑

Test Strip Lot #s: pH 1-12: 206717 pH 12+: 208717 Other: (Specify)

Comments

SM089-03
Rev. Date 12/7/17

Internal Sample Tracking Chronicle

Tantara Corporation

Job No: JC87833

USACE Buffalo Nike Missle UST, East Aurora, NY
Project No: 19-382

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JC87833-1 SILO 2-3	Collected: 08-MAY-19 07:45 By: ML		Received: 09-MAY-19 By: AS			
JC87833-1	SW846 8260C	11-MAY-19 04:21	ED			V8260BTX
JC87833-1	SW846 6020B	13-MAY-19 00:15	SN	10-MAY-19	MR	ALMS,ASMS,BAMS,CDMS,FEMS, PBMS
JC87833-1	SM2540 D-11	13-MAY-19 11:56	RC			TSS
JC87833-1	EPA 1664A	15-MAY-19 11:20	BM	15-MAY-19	BM	OG1664

SGS Internal Chain of Custody

Job Number: JC87833
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY
Received: 05/09/19

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC87833-1.1	Secured Storage	Dave Hunkele	05/15/19 08:03	Retrieve from Storage
JC87833-1.1	Dave Hunkele	Secured Staging Area	05/15/19 08:04	Return to Storage
JC87833-1.1	Secured Staging Area	Beatrice Marcelino	05/15/19 10:33	Retrieve from Storage
JC87833-1.1	Beatrice Marcelino		05/15/19 12:14	Depleted
JC87833-1.3	Secured Storage	Dwayne Johnson	05/10/19 13:57	Retrieve from Storage
JC87833-1.3	Dwayne Johnson	Secured Staging Area	05/10/19 13:57	Return to Storage
JC87833-1.3	Secured Staging Area	Moustafa Ramadan	05/10/19 17:17	Retrieve from Storage
JC87833-1.3	Moustafa Ramadan	Secured Storage	05/10/19 17:29	Return to Storage
JC87833-1.3.1	Moustafa Ramadan	Metals Digestion	05/10/19 17:26	Digestate from JC87833-1.3
JC87833-1.3.1	Metals Digestion	Moustafa Ramadan	05/10/19 17:26	Digestate from JC87833-1.3
JC87833-1.3.1	Moustafa Ramadan	Metals Digestate Storage	05/10/19 17:26	Return to Storage
JC87833-1.5	Secured Storage	Sahara Feliciano	05/12/19 13:17	Retrieve from Storage
JC87833-1.5	Sahara Feliciano	Secured Staging Area	05/12/19 13:17	Return to Storage
JC87833-1.5	Secured Staging Area	Ruchitaben Chauhan	05/13/19 09:59	Retrieve from Storage
JC87833-1.5	Ruchitaben Chauhan		05/13/19 14:03	Depleted
JC87833-1.7	Secured Storage	Devin Gomez	05/10/19 20:29	Retrieve from Storage
JC87833-1.7	Devin Gomez	GCMS4D	05/10/19 20:29	Load on Instrument
JC87833-1.7	GCMS4D	Edward Durner	05/13/19 07:59	Unload from Instrument
JC87833-1.7	Edward Durner	Secured Storage	05/13/19 07:59	Return to Storage

MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Instrument Performance Checks (BFB)
- Internal Standard Area Summaries
- Surrogate Recovery Summaries
- Initial and Continuing Calibration Summaries

Method Blank Summary

Job Number: JC87833
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V4D4145-MB	4D93993.D	1	05/10/19	ED	n/a	n/a	V4D4145

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC87833-1

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.50	0.43	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	85%	80-120%
17060-07-0	1,2-Dichloroethane-D4	96%	81-124%
2037-26-5	Toluene-D8	107%	80-120%
460-00-4	4-Bromofluorobenzene	100%	80-120%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	system artifact	4.14	7.6	ug/l	J
	Total TIC, Volatile		0	ug/l	

Blank Spike Summary

Job Number: JC87833
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V4D4145-BS	4D93991.D	1	05/10/19	ED	n/a	n/a	V4D4145

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC87833-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	50	51.7	103	80-120
100-41-4	Ethylbenzene	50	48.6	97	80-120
108-88-3	Toluene	50	49.3	99	80-120
1330-20-7	Xylene (total)	150	148	99	80-120

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	86%	80-120%
17060-07-0	1,2-Dichloroethane-D4	96%	81-124%
2037-26-5	Toluene-D8	105%	80-120%
460-00-4	4-Bromofluorobenzene	102%	80-120%

* = Outside of Control Limits.

Matrix Spike Summary

Job Number: JC87833
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC87889-3MS	4D93997.D	1	05/10/19	ED	n/a	n/a	V4D4145
JC87889-3	4D93994.D	1	05/10/19	ED	n/a	n/a	V4D4145

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC87833-1

CAS No.	Compound	JC87889-3 ug/l	Q	Spike ug/l	MS ug/l	MS %	Limits
71-43-2	Benzene	ND		50	55.9	112	54-136
100-41-4	Ethylbenzene	ND		50	53.6	107	51-140
108-88-3	Toluene	ND		50	54.3	109	60-135
1330-20-7	Xylene (total)	ND		150	162	108	56-139

CAS No.	Surrogate Recoveries	MS	JC87889-3	Limits
1868-53-7	Dibromofluoromethane	86%	86%	80-120%
17060-07-0	1,2-Dichloroethane-D4	96%	98%	81-124%
2037-26-5	Toluene-D8	106%	107%	80-120%
460-00-4	4-Bromofluorobenzene	102%	101%	80-120%

* = Outside of Control Limits.

Duplicate Summary

Job Number: JC87833
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC87889-4DUP	4D93999.D	1	05/11/19	ED	n/a	n/a	V4D4145
JC87889-4	4D93995.D	1	05/10/19	ED	n/a	n/a	V4D4145

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC87833-1

CAS No.	Compound	JC87889-4 ug/l	Q	DUP ug/l	Q	RPD	Limits
71-43-2	Benzene	ND		ND		nc	20
100-41-4	Ethylbenzene	ND		ND		nc	20
108-88-3	Toluene	ND		ND		nc	20
1330-20-7	Xylene (total)	ND		ND		nc	20

CAS No.	Surrogate Recoveries	DUP	JC87889-4	Limits
1868-53-7	Dibromofluoromethane	85%	85%	80-120%
17060-07-0	1,2-Dichloroethane-D4	96%	97%	81-124%
2037-26-5	Toluene-D8	107%	106%	80-120%
460-00-4	4-Bromofluorobenzene	101%	101%	80-120%

* = Outside of Control Limits.

Instrument Performance Check (BFB)

Job Number: JC87833
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample: V4D4028-BFB
Lab File ID: 4D92103.D
Instrument ID: GCMS4D
Injection Date: 01/29/19
Injection Time: 14:06

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	14.99 - 40.0% of mass 95	14107	16.7		Pass
75	30.0 - 60.0% of mass 95	37203	44.0		Pass
95	Base peak, 100% relative abundance	84643	100.0		Pass
96	5.0 - 9.0% of mass 95	5706	6.74		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 120.0% of mass 95	71216	84.1		Pass
175	5.0 - 9.0% of mass 174	5348	6.32	(7.51) [a]	Pass
176	95.0 - 101.0% of mass 174	69448	82.0	(97.5) [a]	Pass
177	5.0 - 9.0% of mass 176	4487	5.30	(6.46) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V4D4028-IC4028	4D92104.D	01/29/19	14:41	00:35	Initial cal 0.2
V4D4028-IC4028	4D92105.D	01/29/19	15:10	01:04	Initial cal 0.5
V4D4028-IC4028	4D92106.D	01/29/19	15:39	01:33	Initial cal 1
V4D4028-IC4028	4D92107.D	01/29/19	16:08	02:02	Initial cal 2
V4D4028-IC4028	4D92108.D	01/29/19	16:37	02:31	Initial cal 4
V4D4028-IC4028	4D92109.D	01/29/19	17:06	03:00	Initial cal 8
V4D4028-IC4028	4D92110.D	01/29/19	17:35	03:29	Initial cal 20
V4D4028-ICC4028	4D92111.D	01/29/19	18:04	03:58	Initial cal 50
V4D4028-IC4028	4D92112.D	01/29/19	18:33	04:27	Initial cal 100
V4D4028-IC4028	4D92113.D	01/29/19	19:02	04:56	Initial cal 200
V4D4028-ICV4028	4D92116.D	01/29/19	20:29	06:23	Initial cal verification 50
V4D4028-ICV4028	4D92117.D	01/29/19	20:58	06:52	Initial cal verification 50

Instrument Performance Check (BFB)

Job Number: JC87833
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample:	V4D4145-BFB	**Injection Date:**	05/10/19
Lab File ID:	4D93990.D	**Injection Time:**	18:52
Instrument ID:	GCMS4D		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	14.99 - 40.0% of mass 95	10282	16.7		Pass
75	30.0 - 60.0% of mass 95	27251	44.2		Pass
95	Base peak, 100% relative abundance	61613	100.0		Pass
96	5.0 - 9.0% of mass 95	4062	6.59		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 120.0% of mass 95	52915	85.9		Pass
175	5.0 - 9.0% of mass 174	4045	6.57	(7.64) [a]	Pass
176	95.0 - 101.0% of mass 174	51683	83.9	(97.7) [a]	Pass
177	5.0 - 9.0% of mass 176	3430	5.57	(6.64) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V4D4145-CC4028	4D93990.D	05/10/19	18:52	00:00	Continuing cal 50
V4D4145-BS	4D93991.D	05/10/19	19:29	00:37	Blank Spike
V4D4145-MB	4D93993.D	05/10/19	20:51	01:59	Method Blank
JC87889-3	4D93994.D	05/10/19	21:19	02:27	(used for QC only; not part of job JC87833)
JC87889-4	4D93995.D	05/10/19	21:48	02:56	(used for QC only; not part of job JC87833)
ZZZZZZ	4D93996.D	05/10/19	22:16	03:24	(unrelated sample)
JC87889-3MS	4D93997.D	05/10/19	23:07	04:15	Matrix Spike
JC87889-4DUP	4D93999.D	05/11/19	00:04	05:12	Duplicate
ZZZZZZ	4D94000.D	05/11/19	00:32	05:40	(unrelated sample)
ZZZZZZ	4D94001.D	05/11/19	01:01	06:09	(unrelated sample)
ZZZZZZ	4D94002.D	05/11/19	01:29	06:37	(unrelated sample)
ZZZZZZ	4D94003.D	05/11/19	01:58	07:06	(unrelated sample)
ZZZZZZ	4D94004.D	05/11/19	02:27	07:35	(unrelated sample)
ZZZZZZ	4D94005.D	05/11/19	02:55	08:03	(unrelated sample)
ZZZZZZ	4D94006.D	05/11/19	03:24	08:32	(unrelated sample)
ZZZZZZ	4D94007.D	05/11/19	03:52	09:00	(unrelated sample)
JC87833-1	4D94008.D	05/11/19	04:21	09:29	SILO 2-3
ZZZZZZ	4D94009.D	05/11/19	04:50	09:58	(unrelated sample)
ZZZZZZ	4D94010.D	05/11/19	05:18	10:26	(unrelated sample)
ZZZZZZ	4D94011.D	05/11/19	05:47	10:55	(unrelated sample)
ZZZZZZ	4D94012.D	05/11/19	06:15	11:23	(unrelated sample)
ZZZZZZ	4D94013.D	05/11/19	06:44	11:52	(unrelated sample)
ZZZZZZ	4D94014.D	05/11/19	07:12	12:20	(unrelated sample)
ZZZZZZ	4D94015.D	05/11/19	07:41	12:49	(unrelated sample)

Internal Standard Area Summary

Job Number: JC87833
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Check Std:	V4D4145-CC4028	**Injection Date:**	05/10/19
Lab File ID:	4D93990.D	**Injection Time:**	18:52
Instrument ID:	GCMS4D	**Method:**	SW846 8260C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	135610	8.66	188811	11.14	275960	12.03	221628	14.93	96459	17.03
Upper Limit [a]	271220	9.16	377622	11.64	551920	12.53	443256	15.43	192918	17.53
Lower Limit [b]	67805	8.16	94406	10.64	137980	11.53	110814	14.43	48230	16.53

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
V4D4145-BS	142044	8.66	189190	11.14	274225	12.03	221093	14.93	95423	17.03
V4D4145-MB	146398	8.65	206647	11.14	302386	12.03	238307	14.93	104471	17.03
JC87889-3	150781	8.66	208036	11.15	302425	12.03	240799	14.93	104641	17.03
JC87889-4	146446	8.66	207215	11.15	303733	12.03	241209	14.93	104250	17.03
ZZZZZZ	145454	8.66	207715	11.15	302744	12.03	239823	14.93	102900	17.03
JC87889-3MS	140354	8.66	188378	11.14	269475	12.03	215471	14.92	92207	17.03
JC87889-4DUP	149535	8.66	204383	11.14	299958	12.03	235105	14.93	101069	17.03
ZZZZZZ	151292	8.66	204951	11.15	299643	12.03	235249	14.93	101796	17.03
ZZZZZZ	144804	8.66	201519	11.15	293972	12.03	233511	14.93	101469	17.03
ZZZZZZ	144259	8.66	201809	11.15	296676	12.03	235629	14.93	102018	17.03
ZZZZZZ	140805	8.66	200363	11.14	293084	12.03	230148	14.93	100260	17.03
ZZZZZZ	145570	8.66	199113	11.15	292520	12.03	231718	14.93	101826	17.03
ZZZZZZ	136129	8.66	198959	11.15	290201	12.03	229694	14.93	101519	17.03
ZZZZZZ	142715	8.66	197438	11.15	290637	12.03	230610	14.93	102163	17.03
ZZZZZZ	144622	8.66	195997	11.15	286996	12.03	224805	14.93	98545	17.03
JC87833-1	140723	8.66	196761	11.15	291098	12.03	229137	14.93	98513	17.03
ZZZZZZ	141990	8.66	193352	11.15	285547	12.03	223361	14.93	97460	17.03
ZZZZZZ	138510	8.66	194375	11.15	286836	12.03	225653	14.93	98202	17.03
ZZZZZZ	141770	8.66	186363	11.14	278379	12.03	217582	14.93	96171	17.03
ZZZZZZ	138287	8.66	191066	11.15	281855	12.03	222594	14.93	96325	17.03
ZZZZZZ	142165	8.66	190087	11.14	279254	12.03	221616	14.93	96791	17.03
ZZZZZZ	131695	8.66	186250	11.15	275497	12.03	218062	14.93	95152	17.03
ZZZZZZ	129012	8.66	185934	11.15	275917	12.03	215900	14.93	93914	17.03

IS 1 = Tert Butyl Alcohol-D9
IS 2 = Pentafluorobenzene
IS 3 = 1,4-Difluorobenzene
IS 4 = Chlorobenzene-D5
IS 5 = 1,4-Dichlorobenzene-d4

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Surrogate Recovery Summary

Job Number: JC87833
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Method: SW846 8260C **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4
JC87833-1	4D94008.D	87	100	107	103
JC87889-3MS	4D93997.D	86	96	106	102
JC87889-4DUP	4D93999.D	85	96	107	101
V4D4145-BS	4D93991.D	86	96	105	102
V4D4145-MB	4D93993.D	85	96	107	100

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	80-120%
S2 = 1,2-Dichloroethane-D4	81-124%
S3 = Toluene-D8	80-120%
S4 = 4-Bromofluorobenzene	80-120%

Initial Calibration Summary

Job Number: JC87833
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample: V4D4028-ICC4028
Lab FileID: 4D92111.D

Response Factor Report MS4D

Method : C:\MSDCHEM\1\METHODS\M4D4028.M (RTE Integrator)
Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
Last Update : Fri Feb 01 10:17:00 2019
Response via : Initial Calibration

Calibration Files
1 =4D92106.D 0.5 =4D92105.D 100 =4D92112.D 50 =4D92111.D
20 =4D92110.D 200 =4D92113.D 4 =4D92108.D 2 =4D92107.D
8 =4D92109.D 0.2 =4D92104.D = =

Compound	1	0.5	100	50	20	200	4	2	8	0.2	Avg	%RSD
1) tert butyl alcohol-d9	----------ISTD----------											
2) tertiary butyl alcohol	0.898	1.179	1.120	1.112	1.167	1.075	1.023	1.094			1.084	8.29
3) ethanol	0.077	0.121	0.114	0.110	0.119	0.103	0.091	0.110			0.106	14.07
4) 1,4-dioxane	0.096	0.106	0.107	0.114	0.098	0.116	0.110	0.118			0.108	7.31
5) I pentafluorobenzene	----------ISTD----------											
6) chlorodifluoromethane	0.482	0.401	0.559	0.516	0.521	0.535	0.522	0.523	0.519		0.509	8.88
7) dichlorodifluoromethane	0.427	0.618	0.578	0.576	0.631	0.532	0.495	0.571			0.554	12.11
8) chloromethane	0.850	1.009	0.819	0.809	0.795	0.847	0.811	0.856	0.797		0.844	7.84
9) vinyl chloride	0.587	0.557	0.661	0.642	0.650	0.673	0.653	0.639	0.666		0.636	6.10
10) bromomethane		0.241	0.214	0.194	0.244	0.155	0.144	0.183			0.196	19.76
11) chloroethane	0.262	0.357	0.337	0.327	0.367	0.313	0.301	0.323			0.323	10.19
12) trichlorofluoromethane	0.600	0.622	0.810	0.768	0.761	0.831	0.726	0.676	0.752		0.727	10.97
13) vinyl bromide	0.280	0.423	0.395	0.383	0.441	0.366	0.352	0.374			0.377	13.00
14) ethyl ether		0.299	0.272	0.253	0.294	0.228	0.206	0.238			0.256	13.43
15) acrolein		0.141	0.126	0.109	0.140			0.098			0.123	15.46
16) freon 113	0.240	0.361	0.332	0.333	0.356	0.317	0.276	0.306			0.315	12.94
17) 1,1-dichloroethene	0.329	0.450	0.417	0.410	0.447	0.393	0.367	0.392			0.401	10.04
18) acetone		0.231	0.216	0.205	0.212	0.186	0.163	0.192			0.201	11.19
19) acetonitrile	0.070	0.103	0.096	0.089	0.098	0.084	0.077	0.085			0.088	12.57
20) iodomethane	*This compound fails Initial Calibration criteria*											
	0.342	0.283	0.233	0.373	0.158	0.141	0.183				0.245	37.17
21) carbon disulfide	1.016	1.040	1.148	1.067	1.020	1.136	1.015	1.026	1.012	1.381	1.086	10.58
22) methylene chloride	0.436	0.509	0.520	0.485	0.465	0.512	0.456	0.445	0.459	0.552	0.484	7.85
23) methyl acetate												

```
                0.588 0.544 0.518 0.560 0.512 0.531 0.502        0.536    5.61
24)  methyl tert butyl ether
      1.254 1.233 1.572 1.469 1.414 1.516 1.361 1.299 1.374 1.243  1.374    8.66
25)  trans-1,2-dichloroethene
      0.372       0.482 0.452 0.441 0.473 0.424 0.413 0.421        0.435    8.11
26)  di-isopropyl ether
      1.267 1.205 1.678 1.587 1.519 1.594 1.420 1.394 1.451 1.326  1.444   10.55
27)  2-butanone
                0.098 0.091 0.084 0.092 0.076 0.065 0.079        0.084   13.44
28)  1,1-dichloroethane
      0.711 0.678 0.901 0.850 0.833 0.869 0.791 0.758 0.796 0.629  0.782   11.19
29)  chloroprene
      0.521       0.720 0.682 0.661 0.699 0.614 0.575 0.625        0.637   10.50
30)  acrylonitrile
                0.246 0.223 0.203 0.240 0.176       0.182        0.212   13.80
31)  hexane
                0.319 0.295 0.285 0.316 0.267 0.214 0.258        0.279   13.20
32)  vinyl acetate
                0.130 0.118 0.108 0.126             0.089        0.114   14.46
33)  ethyl tert-butyl ether
      1.299 1.238 1.664 1.563 1.492 1.606 1.419 1.373 1.438 1.354  1.445    9.46
34)  ethyl acetate
                0.091 0.086 0.078 0.087 0.060       0.072        0.079   14.90
35)  2,2-dichloropropane
      0.657 0.633 0.725 0.711 0.720 0.674 0.697 0.690 0.700        0.690    4.39
36)  cis-1,2-dichloroethene
      0.420 0.426 0.563 0.532 0.518 0.542 0.495 0.481 0.498        0.497    9.85
37)  methyl acrylate
                0.116 0.108 0.100 0.112 0.074       0.086        0.099   16.36
38)  propionitrile
      0.081       0.120 0.115 0.107 0.109 0.099 0.090 0.101        0.103   12.34
39)  bromochloromethane
      0.185       0.260 0.252 0.250 0.250 0.233 0.219 0.241        0.236   10.33
40)  tetrahydrofuran
                0.106 0.100 0.094 0.100 0.079       0.087        0.094   10.76
41)  chloroform
      0.523 0.489 0.585 0.561 0.564 0.560 0.545 0.518 0.550 0.569  0.546    5.26
42)  t-butyl formate
      0.398 0.364 0.554 0.530 0.518 0.526 0.457 0.434 0.482        0.474   13.74
43)  dibromofluoromethane (s)
      0.539 0.535 0.557 0.568 0.557 0.566 0.555 0.553 0.562 0.521  0.551    2.71
44)  methacrylonitrile
                0.291 0.271 0.255 0.276             0.227        0.264    9.11
45)  1,1,1-trichloroethane
      0.673 0.647 0.770 0.739 0.754 0.747 0.734 0.697 0.734 0.579  0.707    8.37
46)  cyclohexane
      0.559 0.543 0.708 0.688 0.701 0.708 0.647 0.602 0.691        0.650   10.12
47)  1,1-dichloropropene
      0.553 0.569 0.663 0.636 0.656 0.640 0.626 0.601 0.632 0.505  0.608    8.36
48)  isobutyl alcohol
                0.004 0.004 0.004 0.004 0.003       0.004        0.004   15.06
49)  carbon tetrachloride
      0.523 0.492 0.667 0.641 0.662 0.646 0.631 0.596 0.643        0.611   10.25
50)  tert amyl alcohol
      0.025       0.038 0.037 0.037 0.035 0.033 0.029 0.035        0.033   13.04

51) I   1,4-difluorobenzene   ----------------ISTD---------------------
52)  1,2-dichloroethane-d4 (s)
      0.338 0.345 0.331 0.339 0.345 0.325 0.337 0.339 0.338 0.340  0.337    1.78
53)  n-butyl alcohol
```

```
      0.011       0.018 0.017 0.017 0.016 0.015 0.013 0.015        0.015   15.96
54)  2,2,4-trimethylpentane
      0.591 0.469 0.739 0.722 0.732 0.716 0.679 0.617 0.677 0.712  0.665   12.73
55)  benzene
      1.020 1.019 1.136 1.087 1.103 1.083 1.065 1.039 1.073 1.184  1.081    4.77
56)  tert-amyl methyl ether
      0.176 0.165 0.231 0.222 0.220 0.218 0.207 0.197 0.212        0.205   10.81
57)  heptane
      0.117       0.177 0.170 0.171 0.177 0.155 0.133 0.154        0.157   13.98
58)  isopropyl acetate
                  0.093 0.087 0.085 0.088 0.071 0.062 0.077        0.080   13.45
59)  1,2-dichloroethane
      0.436 0.503 0.424 0.415 0.423 0.395 0.427 0.435 0.422        0.431    6.81
60)  trichloroethene
      0.265 0.249 0.310 0.296 0.303 0.297 0.295 0.286 0.291 0.283  0.288    6.35
61)  ethyl acrylate
      0.341       0.533 0.519 0.518 0.493 0.446 0.402 0.505        0.470   14.44
62)  2-nitropropane
      0.079       0.103 0.100 0.099 0.093 0.094 0.088 0.095        0.094    7.87
63)  2-chloroethyl vinyl ether
      0.164 0.152 0.231 0.230 0.231 0.198 0.200 0.183 0.215        0.200   14.63
64)  methyl methacrylate
                  0.108 0.101 0.099 0.102 0.086 0.069 0.089        0.093   14.25
65)  1,2-dichloropropane
      0.264 0.251 0.309 0.298 0.301 0.289 0.289 0.277 0.292 0.238  0.281    8.21
66)  dibromomethane
      0.189 0.175 0.214 0.207 0.209 0.202 0.202 0.199 0.207        0.200    5.89
67)  methylcyclohexane
      0.326 0.272 0.416 0.399 0.417 0.399 0.392 0.353 0.386        0.373   12.90
68)  bromodichloromethane
      0.375 0.363 0.426 0.409 0.412 0.408 0.405 0.387 0.400 0.327  0.391    7.46
69)  epichlorohydrin
      0.026       0.038 0.035 0.035 0.036 0.032 0.031 0.033        0.033   10.95
70)  cis-1,3-dichloropropene
      0.440 0.437 0.509 0.490 0.495 0.484 0.475 0.467 0.485 0.474  0.476    4.84
71)  4-methyl-2-pentanone
      0.146 0.132 0.168 0.169 0.173 0.142 0.167 0.154 0.168 0.137  0.155    9.79
72)  3-methyl-1-butanol
      0.009       0.017 0.016 0.016 0.014 0.014 0.011 0.014        0.014   17.99

73) I   chlorobenzene-d5      ----------------ISTD---------------------
74)  toluene-d8 (s)
      1.289 1.279 1.298 1.299 1.313 1.291 1.296 1.284 1.298 1.303  1.295    0.74
75)  toluene
      0.739 0.741 0.812 0.765 0.796 0.760 0.782 0.776 0.773 0.873  0.782    5.02
76)  trans-1,3-dichloropropene
      0.431 0.409 0.537 0.509 0.514 0.501 0.486 0.465 0.489 0.418  0.476    9.16
77)  ethyl methacrylate
      0.360       0.530 0.500 0.495 0.487 0.436 0.412 0.457        0.459   12.03
78)  1,1,2-trichloroethane
      0.246 0.213 0.293 0.276 0.280 0.273 0.268 0.255 0.274 0.204  0.258   11.35
79)  tetrachloroethene
      0.256 0.246 0.279 0.267 0.277 0.261 0.271 0.272 0.271 0.276  0.268    3.95
80)  1,3-dichloropropane
      0.486 0.455 0.527 0.512 0.530 0.468 0.516 0.495 0.519 0.526  0.504    5.22
81)  2-hexanone
      0.152 0.151 0.205 0.198 0.201 0.174 0.187 0.166 0.189        0.180   11.41
82)  butyl acetate
      0.201       0.318 0.301 0.303 0.286 0.271 0.256 0.287        0.278   13.17
83)  dibromochloromethane
```

```
      0.320 0.289 0.399 0.371 0.372 0.380 0.345 0.320 0.352 0.292  0.344   10.98
 84)  1,2-dibromoethane
      0.366 0.353 0.438 0.412 0.416 0.412 0.396 0.378 0.399 0.389  0.396    6.40
 85)  n-butyl ether
      1.220 1.174 1.427 1.375 1.406 1.314 1.317 1.253 1.334 1.407  1.323    6.45
 86)  chlorobenzene
      0.837 0.785 0.885 0.837 0.857 0.832 0.849 0.843 0.842 0.956  0.852    5.17
 87)  1,1,1,2-tetrachloroethane
      0.273 0.258 0.332 0.312 0.315 0.309 0.304 0.294 0.306 0.274  0.298    7.71
 88)  ethylbenzene
      1.340 1.328 1.460 1.404 1.440 1.340 1.415 1.391 1.419 1.562  1.410    4.94
 89)  m,p-xylene
      0.498 0.499 0.547 0.529 0.551 0.494 0.533 0.527 0.536 0.542  0.526    4.02
 90)  o-xylene
      0.484 0.456 0.527 0.513 0.535 0.462 0.521 0.506 0.529 0.473  0.501    5.88
 91)  styrene
      0.725 0.675 0.913 0.882 0.894 0.809 0.819 0.785 0.860 0.786  0.815    9.31
 92)  bromoform
      0.209 0.201 0.295 0.269 0.263 0.281 0.239 0.219 0.247        0.247   13.25
 93)  butyl acrylate
      0.489       0.771 0.725 0.705 0.701 0.614 0.553 0.652        0.651   14.50
 94)  isopropylbenzene
      1.228 1.195 1.327 1.273 1.317 1.245 1.289 1.255 1.306 1.402  1.284    4.56
 95)  cis-1,4-dichloro-2-butene
                  0.183 0.166 0.158 0.170 0.128       0.140        0.158   12.90

 96) I   1,4-dichlorobenzene-d ----------------ISTD---------------------
 97)  4-bromofluorobenzene (s)
      1.015 1.005 1.012 0.999 1.009 1.009 1.017 1.011 1.005 1.004  1.009    0.54
 98)  bromobenzene
      0.736 0.763 0.860 0.791 0.825 0.802 0.773 0.748 0.788 0.772  0.786    4.66
 99)  1,1,2,2-tetrachloroethane
      1.049 0.952 1.220 1.118 1.154 1.108 1.070 1.021 1.107 1.104  1.090    6.72
100)  trans-1,4-dichloro-2-butene
                  0.275 0.245 0.240 0.256 0.194       0.214        0.237   12.42
101)  1,2,3-trichloropropane
      0.250       0.316 0.288 0.297 0.285 0.282 0.272 0.286        0.284    6.65
102)  n-propylbenzene
      3.225 3.221 3.549 3.382 3.560 3.257 3.453 3.373 3.432 3.559  3.401    3.93
103)  2-chlorotoluene
      0.651 0.604 0.751 0.709 0.749 0.671 0.725 0.683 0.725 0.634  0.690    7.23
104)  4-chlorotoluene
      1.975 1.952 2.156 2.036 2.125 2.003 2.097 2.048 2.066 2.291  2.075    4.78
105)  1,3,5-trimethylbenzene
      2.177 2.070 2.431 2.326 2.447 2.158 2.319 2.250 2.341 2.340  2.286    5.29
106)  tert-butylbenzene
      0.395 0.368 0.449 0.429 0.443 0.422 0.427 0.388 0.434        0.417    6.54
107)  1,2,4-trimethylbenzene
      2.175 2.056 2.442 2.345 2.457 2.256 2.309 2.247 2.374 2.403  2.307    5.46
108)  sec-butylbenzene
      2.575 2.514 2.862 2.723 2.870 2.670 2.782 2.658 2.766 2.805  2.723    4.34
109)  1,3-dichlorobenzene
      1.250 1.266 1.419 1.328 1.369 1.328 1.345 1.282 1.359 1.484  1.343    5.28
110)  p-isopropyltoluene
      2.012 1.956 2.382 2.262 2.341 2.220 2.253 2.150 2.286 2.138  2.200    6.22
111)  1,4-dichlorobenzene
      1.331 1.343 1.443 1.358 1.395 1.352 1.373 1.348 1.381 1.491  1.382    3.63
112)  benzyl chloride
      1.583 1.449 2.081 1.921 1.942 1.870 1.768 1.720 1.798 1.638  1.777   10.56
113)  1,2-dichlorobenzene
```

Initial Calibration Summary

Job Number: JC87833 **Sample:** V4D4028-ICC4028
Account: TCMAW Tantara Corporation **Lab FileID:** 4D92111.D
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

```
       1.149 1.151 1.379 1.297 1.334 1.287 1.284 1.250 1.277 1.272  1.268    5.66
114)  n-butylbenzene
       0.924 0.837 1.174 1.119 1.155 1.107 1.063 1.017 1.104        1.056   10.56
115)  1,2-dibromo-3-chloropropane
       0.149       0.243 0.223 0.224 0.226 0.197 0.184 0.206        0.207   14.38
116)  1,3,5-trichlorobenzene
       0.757 0.697 0.959 0.897 0.918 0.911 0.845 0.797 0.878 0.770  0.843   10.00
117)  2-ethylhexyl acrylate
                   0.409 0.347 0.329 0.369 0.201       0.259        0.319   23.90
              ----- Linear regression -----  Coefficient =  0.9962
                Response Ratio = -0.00222 + 0.37918 *A

118)  1,2,4-trichlorobenzene
       0.662       0.867 0.804 0.813 0.802 0.732 0.677 0.757        0.764    9.25
119)  hexachlorobutadiene
       0.245       0.307 0.295 0.304 0.294 0.283 0.264 0.292        0.286    7.37
120)  naphthalene
       2.087       2.663 2.526 2.589 2.436 2.308 2.134 2.365        2.388    8.66
121)  1,2,3-trichlorobenzene
       0.649       0.804 0.755 0.766 0.729 0.681 0.661 0.716        0.720    7.52
122)  hexachloroethane
       0.271       0.398 0.360 0.356 0.388 0.324 0.310 0.338        0.343   12.20
123)  2-methylnaphthalene
                   0.924 0.965 1.011 0.743 0.845 0.749 0.912        0.879   11.80
124)  bis(chloromethyl)ether
                                                                    0.000   -1.00
125)  ethylenimine
                                                                    0.000   -1.00
 ---------------------------------------------------------------------------
 (#) = Out of Range  ###  Number of calibration levels exceeded format  ###

           M4D4028.M         Fri Feb 01 10:20:45 2019   RPT1
```

Initial Calibration Verification

Job Number: JC87833
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample: V4D4028-ICV4028
Lab FileID: 4D92116.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\V4D4028\4D92116.D Vial: 17
Acq On : 29 Jan 2019 8:29 pm Operator: roberts
Sample : icv4028-50 Inst : MS4D
Misc : MS31310,V4D4028,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M4D4028.M (RTE Integrator)
Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
Last Update : Fri Feb 01 10:17:00 2019
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1		tert butyl alcohol-d9	1.000	1.000	0.0	104	0.00	8.66
2	M	tertiary butyl alcohol	1.084	1.217	-12.3	113	0.00	8.79
3		ethanol	0.106	0.119	-12.3	110	0.00	7.19
4	M	1,4-dioxane	0.108	0.110	-1.9	108	0.00	12.69
5	I	pentafluorobenzene	1.000	1.000	0.0	107	0.00	11.15
6	M	chlorodifluoromethane	0.509	0.569	-11.8	118	0.00	4.65
7	M	dichlorodifluoromethane	0.554	0.578	-4.3	107	0.00	4.61
8	M	chloromethane	0.844	0.721	14.6	96	0.00	5.10
9	M	vinyl chloride	0.636	0.599	5.8	100	0.00	5.37
10	M	bromomethane	0.196	0.252	-28.6	127	0.00	6.16
11	M	chloroethane	0.323	0.332	-2.8	106	0.00	6.40
12	M	trichlorofluoromethane	0.727	0.745	-2.5	104	0.00	6.97
13		vinyl bromide	0.377	0.382	-1.3	104	0.00	6.82
14	M	ethyl ether	0.256	0.290	-13.3	114	0.00	7.49
15	M	acrolein	0.123	0.139	-13.0	119	0.00	7.71
16		freon 113	0.315	0.353	-12.1	114	0.00	7.95
17	M	1,1-dichloroethene	0.401	0.402	-0.2	104	0.00	7.96
18	M	acetone	0.201	0.222	-10.4	110	0.00	7.96
19	M	acetonitrile	0.088	0.094	-6.8	106	0.00	8.40
20	M	iodomethane	0.245	0.345	-40.8#	131	0.00	8.25
21	M	carbon disulfide	1.086	1.223	-12.6	123	0.00	8.41
22	M	methylene chloride	0.484	0.492	-1.7	109	0.00	8.73
23	M	methyl acetate	0.536	0.514	4.1	102	0.00	8.53
24	M	methyl tert butyl ether	1.374	1.564	-13.8	115	0.00	9.16
25	M	trans-1,2-dichloroethene	0.435	0.451	-3.7	107	0.00	9.19
26	M	di-isopropyl ether	1.444	1.563	-8.2	106	0.00	9.85
27	M	2-butanone	0.084	0.092	-9.5	109	0.00	10.53
28	M	1,1-dichloroethane	0.782	0.844	-7.9	107	0.00	9.79
29	M	chloroprene	0.637	0.714	-12.1	112	0.00	9.94
30	M	acrylonitrile	0.212	0.236	-11.3	114	0.00	9.05
31		hexane	0.279	0.290	-3.9	106	0.00	9.61
32	M	vinyl acetate	0.114	0.120	-5.3	110	0.00	9.79
33	M	ethyl tert-butyl ether	1.445	1.549	-7.2	106	0.00	10.34
34	M	ethyl acetate	0.079	0.083	-5.1	103	0.00	10.59
35	M	2,2-dichloropropane	0.690	0.669	3.0	101	0.00	10.61
36	M	cis-1,2-dichloroethene	0.497	0.538	-8.2	109	0.00	10.58
37		methyl acrylate	0.099	0.111	-12.1	110	0.00	10.66
38	M	propionitrile	0.103	0.113	-9.7	106	0.00	10.59
39	M	bromochloromethane	0.236	0.253	-7.2	108	0.00	10.89
40	M	tetrahydrofuran	0.094	0.101	-7.4	109	0.00	10.96
41	M	chloroform	0.546	0.559	-2.4	107	0.00	10.95

Initial Calibration Verification

Job Number: JC87833
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample: V4D4028-ICV4028
Lab FileID: 4D92116.D

42	M	t-butyl formate	0.474	0.451	4.9	91	0.00	11.03
43	S	dibromofluoromethane (s)	0.551	0.560	-1.6	106	0.00	11.15
44	M	methacrylonitrile	0.264	0.272	-3.0	108	0.00	10.82
45	M	1,1,1-trichloroethane	0.707	0.709	-0.3	103	0.00	11.26
46		cyclohexane	0.650	0.595	8.5	93	0.00	11.37
47		1,1-dichloropropene	0.608	0.629	-3.5	106	0.00	11.45
48		isobutyl alcohol	0.004	0.004	0.0	103	0.00	11.45
49		carbon tetrachloride	0.611	0.627	-2.6	105	0.00	11.48
50		tert amyl alcohol	0.033	0.037	-12.1	108	0.00	11.52
51	I	1,4-difluorobenzene	1.000	1.000	0.0	106	0.00	12.04
52	S	1,2-dichloroethane-d4 (s)	0.337	0.331	1.8	103	0.00	11.58
53	M	n-butyl alcohol	0.015	0.017	-13.3	105	0.00	12.10
54		2,2,4-trimethylpentane	0.665	0.661	0.6	97	0.00	11.77
55	M	benzene	1.081	1.093	-1.1	106	0.00	11.69
56	M	tert-amyl methyl ether	0.205	0.214	-4.4	102	0.00	11.75
57	M	heptane	0.157	0.173	-10.2	108	0.00	11.92
58	M	isopropyl acetate	0.080	0.085	-6.3	104	0.00	11.61
59	M	1,2-dichloroethane	0.431	0.412	4.4	105	0.00	11.67
60	M	trichloroethene	0.288	0.300	-4.2	107	0.00	12.37
61		ethyl acrylate	0.470	0.500	-6.4	102	0.00	12.36
62	M	2-nitropropane	0.094	0.102	-8.5	108	0.00	13.02
63	M	2-chloroethyl vinyl ether	0.200	0.228	-14.0	105	0.00	13.07
64	M	methyl methacrylate	0.093	0.105	-12.9	110	0.00	12.61
65	M	1,2-dichloropropane	0.281	0.291	-3.6	103	0.00	12.59
66	M	dibromomethane	0.200	0.209	-4.5	107	0.00	12.72
67	M	methylcyclohexane	0.373	0.376	-0.8	100	0.00	12.62
68	M	bromodichloromethane	0.391	0.396	-1.3	102	0.00	12.84
69		epichlorohydrin	0.033	0.035	-6.1	104	0.00	13.16
70	M	cis-1,3-dichloropropene	0.476	0.482	-1.3	104	0.00	13.28
71	M	4-methyl-2-pentanone	0.155	0.163	-5.2	102	0.00	13.36
72	M	3-methyl-1-butanol	0.014	0.016	-14.3	103	0.00	13.35
73	I	chlorobenzene-d5	1.000	1.000	0.0	103	0.00	14.93
74	S	toluene-d8 (s)	1.295	1.300	-0.4	103	0.00	13.57
75		toluene	0.782	0.785	-0.4	105	0.00	13.64
76		trans-1,3-dichloropropene	0.476	0.490	-2.9	99	0.00	13.77
77		ethyl methacrylate	0.459	0.487	-6.1	100	0.00	13.79
78		1,1,2-trichloroethane	0.258	0.280	-8.5	104	0.00	13.96
79	M	tetrachloroethene	0.268	0.276	-3.0	106	0.00	14.18
80	M	1,3-dichloropropane	0.504	0.523	-3.8	105	0.00	14.14
81		2-hexanone	0.180	0.194	-7.8	100	0.00	14.14
82	M	butyl acetate	0.278	0.303	-9.0	103	0.00	14.21
83	M	dibromochloromethane	0.344	0.388	-12.8	107	0.00	14.37
84	M	1,2-dibromoethane	0.396	0.418	-5.6	104	0.00	14.52
85		n-butyl ether	1.323	1.326	-0.2	99	0.00	14.91
86	M	chlorobenzene	0.852	0.850	0.2	104	0.00	14.96
87	M	1,1,1,2-tetrachloroethane	0.298	0.323	-8.4	106	0.00	15.01
88	M	ethylbenzene	1.410	1.429	-1.3	104	0.00	15.02
89	M	m,p-xylene	0.526	0.545	-3.6	106	0.00	15.12
90	M	o-xylene	0.501	0.522	-4.2	104	0.00	15.49
91	M	styrene	0.815	0.909	-11.5	106	0.00	15.49
92	M	bromoform	0.247	0.287	-16.2	110	0.00	15.70
93		butyl acrylate	0.651	0.741	-13.8	105	0.00	15.31
94		isopropylbenzene	1.284	1.296	-0.9	104	0.00	15.81
95		cis-1,4-dichloro-2-butene	0.158	0.157	0.6	97	0.00	15.82
96	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	103	0.00	17.03
97	S	4-bromofluorobenzene (s)	1.009	1.002	0.7	103	0.00	15.97
98	M	bromobenzene	0.786	0.817	-3.9	106	0.00	16.15

Initial Calibration Verification

Job Number: JC87833 **Sample:** V4D4028-ICV4028
Account: TCMAW Tantara Corporation **Lab FileID:** 4D92116.D
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

99	M	1,1,2,2-tetrachloroethane	1.090	1.117	-2.5	103	0.00	16.02
100	M	trans-1,4-dichloro-2-bute	0.237	0.278	-17.3	116	0.00	16.07
101	M	1,2,3-trichloropropane	0.284	0.291	-2.5	104	0.00	16.10
102	M	n-propylbenzene	3.401	3.419	-0.5	104	0.00	16.17
103	M	2-chlorotoluene	0.690	0.712	-3.2	103	0.00	16.30
104	M	4-chlorotoluene	2.075	2.117	-2.0	107	0.00	16.39
105	M	1,3,5-trimethylbenzene	2.286	2.345	-2.6	103	0.00	16.31
106	M	tert-butylbenzene	0.417	0.435	-4.3	104	0.00	16.64
107	M	1,2,4-trimethylbenzene	2.307	2.417	-4.8	106	0.00	16.67
108	M	sec-butylbenzene	2.723	2.770	-1.7	104	0.00	16.84
109	M	1,3-dichlorobenzene	1.343	1.375	-2.4	106	0.00	16.99
110	M	p-isopropyltoluene	2.200	2.328	-5.8	106	0.00	16.94
111	M	1,4-dichlorobenzene	1.382	1.387	-0.4	105	0.00	17.06
112		benzyl chloride	1.777	1.469	17.3	78	0.00	17.15
113	M	1,2-dichlorobenzene	1.268	1.327	-4.7	105	0.00	17.42
114	M	n-butylbenzene	1.056	1.137	-7.7	104	0.00	17.32
115	M	1,2-dibromo-3-chloropropa	0.207	0.220	-6.3	101	0.00	18.12
116		1,3,5-trichlorobenzene	0.843	0.916	-8.7	105	0.00	18.33
		----------	True	Calc.	% Drift	----------		
117		2-ethylhexyl acrylate	10.000	10.775	-7.8	118	0.00	18.92
		----------	AvgRF	CCRF	% Dev	----------		
118	M	1,2,4-trichlorobenzene	0.764	0.824	-7.9	105	0.00	18.93
119	M	hexachlorobutadiene	0.286	0.293	-2.4	102	0.00	19.07
120	M	naphthalene	2.388	2.599	-8.8	106	0.00	19.19
121	M	1,2,3-trichlorobenzene	0.720	0.763	-6.0	104	0.00	19.42
122	m	hexachloroethane	0.343	0.381	-11.1	108	0.00	17.70
123		2-methylnaphthalene	0.879	1.077	-22.5	114	0.00	20.28
124		bis(chloromethyl)ether		----------NA----------				
125		ethylenimine		----------NA----------				

(#) = Out of Range SPCC's out = 0 CCC's out = 0
4D92111.D M4D4028.M Fri Feb 01 10:20:35 2019 RPT1

Initial Calibration Verification

Job Number: JC87833
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample: V4D4028-ICV4028
Lab FileID: 4D92117.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\V4D4028\4D92117.D Vial: 18
Acq On : 29 Jan 2019 8:58 pm Operator: roberts
Sample : icv4028-50 Inst : MS4D
Misc : MS31310,V4D4028,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M4D4028.M (RTE Integrator)
Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
Last Update : Thu Jan 31 10:54:24 2019
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1		tert butyl alcohol-d9	1.000	1.000	0.0	108	0.00	8.66
2	M	tertiary butyl alcohol		----------NA----------				
3		ethanol		----------NA----------				
4	M	1,4-dioxane		----------NA----------				
5	I	pentafluorobenzene	1.000	1.000	0.0	112	0.00	11.15
6	M	chlorodifluoromethane		----------NA----------				
7	M	dichlorodifluoromethane		----------NA----------				
8	M	chloromethane		----------NA----------				
9	M	vinyl chloride		----------NA----------				
10	M	bromomethane		----------NA----------				
11	M	chloroethane		----------NA----------				
12	M	trichlorofluoromethane		----------NA----------				
13		vinyl bromide		----------NA----------				
14	M	ethyl ether		----------NA----------				
15	M	acrolein		----------NA----------				
16		freon 113		----------NA----------				
17	M	1,1-dichloroethene		----------NA----------				
18	M	acetone	0.201	0.221	-10.0	114	0.00	7.96
19	M	acetonitrile	0.088	0.092	-4.5	108	0.00	8.40
20	M	iodomethane		----------NA----------				
21	M	carbon disulfide		----------NA----------				
22	M	methylene chloride		----------NA----------				
23	M	methyl acetate		----------NA----------				
24	M	methyl tert butyl ether		----------NA----------				
25	M	trans-1,2-dichloroethene		----------NA----------				
26	M	di-isopropyl ether		----------NA----------				
27	M	2-butanone		----------NA----------				
28	M	1,1-dichloroethane		----------NA----------				
29	M	chloroprene		----------NA----------				
30	M	acrylonitrile		----------NA----------				
31		hexane		----------NA----------				
32	M	vinyl acetate		----------NA----------				
33	M	ethyl tert-butyl ether		----------NA----------				
34	M	ethyl acetate		----------NA----------				
35	M	2,2-dichloropropane		----------NA----------				
36	M	cis-1,2-dichloroethene		----------NA----------				
37		methyl acrylate		----------NA----------				
38	M	propionitrile		----------NA----------				
39	M	bromochloromethane		----------NA----------				
40	M	tetrahydrofuran		----------NA----------				
41	M	chloroform		----------NA----------				

Initial Calibration Verification

Job Number: JC87833
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample: V4D4028-ICV4028
Lab FileID: 4D92117.D

42	M	t-butyl formate		----------NA----------					
43	S	dibromofluoromethane (s)	0.551	0.554	-0.5	109	0.00	11.15	
		----------	True	Calc.	% Drift	----------			
44	M	methacrylonitrile		----------NA----------					
		----------	AvgRF	CCRF	% Dev	----------			
45	M	1,1,1-trichloroethane		----------NA----------					
46		cyclohexane		----------NA----------					
47		1,1-dichloropropene		----------NA----------					
48		isobutyl alcohol		----------NA----------					
49		carbon tetrachloride		----------NA----------					
50		tert amyl alcohol		----------NA----------					
51	I	1,4-difluorobenzene	1.000	1.000	0.0	112	0.00	12.04	
52	S	1,2-dichloroethane-d4 (s)	0.337	0.336	0.3	111	0.00	11.58	
53	M	n-butyl alcohol		----------NA----------					
54		2,2,4-trimethylpentane		----------NA----------					
55	M	benzene		----------NA----------					
56	M	tert-amyl methyl ether		----------NA----------					
57	M	heptane		----------NA----------					
58	M	isopropyl acetate		----------NA----------					
59	M	1,2-dichloroethane		----------NA----------					
60	M	trichloroethene		----------NA----------					
61		ethyl acrylate		----------NA----------					
62	M	2-nitropropane		----------NA----------					
63	M	2-chloroethyl vinyl ether		----------NA----------					
64	M	methyl methacrylate		----------NA----------					
65	M	1,2-dichloropropane		----------NA----------					
66	M	dibromomethane		----------NA----------					
67	M	methylcyclohexane		----------NA----------					
68	M	bromodichloromethane		----------NA----------					
69		epichlorohydrin		----------NA----------					
70	M	cis-1,3-dichloropropene		----------NA----------					
71	M	4-methyl-2-pentanone		----------NA----------					
72	M	3-methyl-1-butanol		----------NA----------					
73	I	chlorobenzene-d5	1.000	1.000	0.0	111	0.00	14.93	
74	S	toluene-d8 (s)	1.295	1.304	-0.7	111	0.00	13.57	
75		toluene		----------NA----------					
76		trans-1,3-dichloropropene		----------NA----------					
77		ethyl methacrylate		----------NA----------					
78		1,1,2-trichloroethane		----------NA----------					
79	M	tetrachloroethene	0.268	0.245	8.6	102	0.00	14.18	
80	M	1,3-dichloropropane		----------NA----------					
81		2-hexanone		----------NA----------					
82	M	butyl acetate		----------NA----------					
83	M	dibromochloromethane		----------NA----------					
84	M	1,2-dibromoethane		----------NA----------					
85		n-butyl ether		----------NA----------					
86	M	chlorobenzene		----------NA----------					
87	M	1,1,1,2-tetrachloroethane		----------NA----------					
88	M	ethylbenzene		----------NA----------					
89	M	m,p-xylene		----------NA----------					
90	M	o-xylene		----------NA----------					
91	M	styrene		----------NA----------					
92	M	bromoform		----------NA----------					
93		butyl acrylate		----------NA----------					
94		isopropylbenzene		----------NA----------					
95		cis-1,4-dichloro-2-butene		----------NA----------					

96	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	110	0.00	17.03
97	S	4-bromofluorobenzene (s)	1.009	0.999	1.0	110	0.00	15.97
98	M	bromobenzene		----------NA----------				
99	M	1,1,2,2-tetrachloroethane		----------NA----------				
100	M	trans-1,4-dichloro-2-bute		----------NA----------				
101	M	1,2,3-trichloropropane		----------NA----------				
102	M	n-propylbenzene		----------NA----------				
103	M	2-chlorotoluene		----------NA----------				
104	M	4-chlorotoluene		----------NA----------				
105	M	1,3,5-trimethylbenzene		----------NA----------				
106	M	tert-butylbenzene		----------NA----------				
107	M	1,2,4-trimethylbenzene		----------NA----------				
108	M	sec-butylbenzene		----------NA----------				
109	M	1,3-dichlorobenzene		----------NA----------				
110	M	p-isopropyltoluene		----------NA----------				
111	M	1,4-dichlorobenzene		----------NA----------				
112		benzyl chloride		----------NA----------				
113	M	1,2-dichlorobenzene		----------NA----------				
114	M	n-butylbenzene		----------NA----------				
115	M	1,2-dibromo-3-chloropropa		----------NA----------				
116		1,3,5-trichlorobenzene		----------NA----------				
		----------	True	Calc.	% Drift	----------		
117		2-ethylhexyl acrylate		----------NA----------				
		----------	AvgRF	CCRF	% Dev	----------		
118	M	1,2,4-trichlorobenzene		----------NA----------				
119	M	hexachlorobutadiene		----------NA----------				
120	M	naphthalene		----------NA----------				
121	M	1,2,3-trichlorobenzene		----------NA----------				
122	m	hexachloroethane		----------NA----------				
123		2-methylnaphthalene		----------NA----------				
124		bis(chloromethyl)ether		----------NA----------				
125		ethylenimine		----------NA----------				

(#) = Out of Range SPCC's out = 0 CCC's out = 0
4D92111.D M4D4028.M Thu Jan 31 11:31:19 2019 RPT1

Continuing Calibration Summary

Job Number: JC87833
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Sample: V4D4145-CC4028
Lab FileID: 4D93990.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\lo...-15\v4d4145\4d93990.d Vial: 51
Acq On : 10 May 2019 6:52 pm Operator: edwardd
Sample : cc4028-50 Inst : MS4D
Misc : MS34604,V4D4145,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M4D4028.M (RTE Integrator)
Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
Last Update : Fri Feb 01 10:17:00 2019
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1		tert butyl alcohol-d9	1.000	1.000	0.0	80	0.00	8.66
2	M	tertiary butyl alcohol	1.084	1.209	-11.5	86	0.00	8.79
3		ethanol	0.106	0.135	-27.4#	95	0.00	7.19
4	M	1,4-dioxane	0.108	0.102	5.6	76	0.00	12.69
5	I	pentafluorobenzene	1.000	1.000	0.0	108	0.00	11.14
6	M	chlorodifluoromethane	0.509	0.377	25.9#	79	0.00	4.64
7	M	dichlorodifluoromethane	0.554	0.552	0.4	103	0.00	4.61
8	M	chloromethane	0.844	0.666	21.1#	89	0.00	5.10
9	M	vinyl chloride	0.636	0.583	8.3	98	0.00	5.38
10	M	bromomethane	0.196	0.303	-54.6#	153	0.00	6.17
11	M	chloroethane	0.323	0.327	-1.2	105	0.00	6.40
12	M	trichlorofluoromethane	0.727	0.623	14.3	88	0.00	6.97
13		vinyl bromide	0.377	0.382	-1.3	104	0.00	6.82
14	M	ethyl ether	0.256	0.243	5.1	97	0.00	7.49
15	M	acrolein	0.123	0.095	22.8#	82	0.00	7.70
16		freon 113	0.315	0.259	17.8	84	0.00	7.95
17	M	1,1-dichloroethene	0.401	0.345	14.0	89	0.00	7.96
18	M	acetone	0.201	0.170	15.4	85	0.00	7.95
19	M	acetonitrile	0.088	0.085	3.4	97	0.00	8.40
20	M	iodomethane	0.245	0.299	-22.0#	114	0.00	8.24
21	M	carbon disulfide	1.086	0.920	15.3	93	0.00	8.40
22	M	methylene chloride	0.484	0.426	12.0	95	0.00	8.72
23	M	methyl acetate	0.536	0.458	14.6	91	0.00	8.52
24	M	methyl tert butyl ether	1.374	1.245	9.4	92	0.00	9.16
25	M	trans-1,2-dichloroethene	0.435	0.385	11.5	92	0.00	9.19
26	M	di-isopropyl ether	1.444	1.439	0.3	98	0.00	9.85
27	M	2-butanone	0.084	0.076	9.5	90	0.00	10.52
28	M	1,1-dichloroethane	0.782	0.745	4.7	95	0.00	9.79
29	M	chloroprene	0.637	0.572	10.2	91	0.00	9.94
30	M	acrylonitrile	0.212	0.206	2.8	100	0.00	9.05
31		hexane	0.279	0.267	4.3	98	0.00	9.61
32	M	vinyl acetate	0.114	0.106	7.0	97	0.00	9.79
33	M	ethyl tert-butyl ether	1.445	1.361	5.8	94	0.00	10.34
34	M	ethyl acetate	0.079	0.067	15.2	84	0.00	10.58
35	M	2,2-dichloropropane	0.690	0.562	18.6	85	0.00	10.61
36	M	cis-1,2-dichloroethene	0.497	0.452	9.1	92	0.00	10.57
37		methyl acrylate	0.099	0.089	10.1	89	0.00	10.66
38	M	propionitrile	0.103	0.096	6.8	90	0.00	10.58
39	M	bromochloromethane	0.236	0.212	10.2	91	0.00	10.89
40	M	tetrahydrofuran	0.094	0.081	13.8	87	0.00	10.96
41	M	chloroform	0.546	0.455	16.7	88	0.00	10.95

Continuing Calibration Summary

Job Number: JC87833 **Sample:** V4D4145-CC4028
Account: TCMAW Tantara Corporation **Lab FileID:** 4D93990.D
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

42	M	t-butyl formate	0.474	0.375	20.9#	77	0.00	11.03
43	S	dibromofluoromethane (s)	0.551	0.478	13.2	91	0.00	11.15
44	M	methacrylonitrile	0.264	0.232	12.1	93	0.00	10.81
45	M	1,1,1-trichloroethane	0.707	0.562	20.5#	82	0.00	11.26
46		cyclohexane	0.650	0.547	15.8	86	0.00	11.37
47		1,1-dichloropropene	0.608	0.513	15.6	87	0.00	11.44
48		isobutyl alcohol	0.004	0.003	25.0#	82	0.00	11.44
49		carbon tetrachloride	0.611	0.470	23.1#	79	0.00	11.47
50		tert amyl alcohol	0.033	0.027	18.2	79	0.00	11.52
51	I	1,4-difluorobenzene	1.000	1.000	0.0	93	0.00	12.03
52	S	1,2-dichloroethane-d4 (s)	0.337	0.325	3.6	89	0.00	11.57
53	M	n-butyl alcohol	0.015	0.015	0.0	82	0.00	12.10
54		2,2,4-trimethylpentane	0.665	0.695	-4.5	90	0.00	11.76
55	M	benzene	1.081	1.046	3.2	90	0.00	11.69
56	M	tert-amyl methyl ether	0.205	0.195	4.9	82	0.00	11.75
57	M	heptane	0.157	0.155	1.3	85	0.00	11.92
58	M	isopropyl acetate	0.080	0.080	0.0	87	0.00	11.61
59	M	1,2-dichloroethane	0.431	0.351	18.6	79	0.00	11.66
60	M	trichloroethene	0.288	0.260	9.7	82	0.00	12.36
61		ethyl acrylate	0.470	0.453	3.6	81	0.00	12.35
62	M	2-nitropropane	0.094	0.077	18.1	72	0.00	13.02
63	M	2-chloroethyl vinyl ether	0.200	0.009	95.5#	4#	0.00	13.07
64	M	methyl methacrylate	0.093	0.090	3.2	83	0.00	12.60
65	M	1,2-dichloropropane	0.281	0.288	-2.5	90	0.00	12.59
66	M	dibromomethane	0.200	0.180	10.0	81	0.00	12.71
67	M	methylcyclohexane	0.373	0.358	4.0	84	0.00	12.62
68	M	bromodichloromethane	0.391	0.364	6.9	83	0.00	12.83
69		epichlorohydrin	0.033	0.032	3.0	84	0.00	13.15
70	M	cis-1,3-dichloropropene	0.476	0.449	5.7	85	0.00	13.27
71	M	4-methyl-2-pentanone	0.155	0.148	4.5	82	0.00	13.36
72	M	3-methyl-1-butanol	0.014	0.013	7.1	74	0.00	13.35
73	I	chlorobenzene-d5	1.000	1.000	0.0	85	0.00	14.93
74	S	toluene-d8 (s)	1.295	1.362	-5.2	90	0.00	13.56
75		toluene	0.782	0.743	5.0	83	0.00	13.63
76		trans-1,3-dichloropropene	0.476	0.488	-2.5	82	0.00	13.77
77		ethyl methacrylate	0.459	0.486	-5.9	83	0.00	13.79
78		1,1,2-trichloroethane	0.258	0.269	-4.3	83	0.00	13.96
79	M	tetrachloroethene	0.268	0.246	8.2	79	0.00	14.18
80	M	1,3-dichloropropane	0.504	0.487	3.4	81	0.00	14.13
81		2-hexanone	0.180	0.185	-2.8	80	0.00	14.13
82	M	butyl acetate	0.278	0.288	-3.6	82	0.00	14.21
83	M	dibromochloromethane	0.344	0.344	0.0	79	0.00	14.37
84	M	1,2-dibromoethane	0.396	0.369	6.8	76	0.00	14.51
85		n-butyl ether	1.323	1.268	4.2	79	0.00	14.91
86	M	chlorobenzene	0.852	0.787	7.6	80	0.00	14.95
87	M	1,1,1,2-tetrachloroethane	0.298	0.287	3.7	79	0.00	15.00
88	M	ethylbenzene	1.410	1.332	5.5	81	0.00	15.02
89	M	m,p-xylene	0.526	0.503	4.4	81	0.00	15.11
90	M	o-xylene	0.501	0.486	3.0	81	0.00	15.49
91	M	styrene	0.815	0.849	-4.2	82	0.00	15.49
92	M	bromoform	0.247	0.243	1.6	77	0.00	15.70
93		butyl acrylate	0.651	0.721	-10.8	85	0.00	15.31
94		isopropylbenzene	1.284	1.200	6.5	80	0.00	15.80
95		cis-1,4-dichloro-2-butene	0.158	0.130	17.7	67	0.00	15.82
96	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	83	0.00	17.03
97	S	4-bromofluorobenzene (s)	1.009	1.023	-1.4	85	0.00	15.96
98	M	bromobenzene	0.786	0.766	2.5	81	0.00	16.15

Continuing Calibration Summary

Job Number: JC87833 **Sample:** V4D4145-CC4028
Account: TCMAW Tantara Corporation **Lab FileID:** 4D93990.D
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

99	M	1,1,2,2-tetrachloroethane	1.090	1.062	2.6	79	0.00	16.02
100	M	trans-1,4-dichloro-2-bute	0.237	0.213	10.1	72	0.00	16.06
101	M	1,2,3-trichloropropane	0.284	0.263	7.4	76	0.00	16.10
102	M	n-propylbenzene	3.401	3.293	3.2	81	0.00	16.17
103	M	2-chlorotoluene	0.690	0.673	2.5	79	0.00	16.30
104	M	4-chlorotoluene	2.075	1.976	4.8	81	0.00	16.38
105	M	1,3,5-trimethylbenzene	2.286	2.237	2.1	80	0.00	16.31
106	M	tert-butylbenzene	0.417	0.398	4.6	77	0.00	16.63
107	M	1,2,4-trimethylbenzene	2.307	2.257	2.2	80	0.00	16.67
108	M	sec-butylbenzene	2.723	2.648	2.8	81	0.00	16.83
109	M	1,3-dichlorobenzene	1.343	1.279	4.8	80	0.00	16.98
110	M	p-isopropyltoluene	2.200	2.175	1.1	80	0.00	16.93
111	M	1,4-dichlorobenzene	1.382	1.308	5.4	80	0.00	17.06
112		benzyl chloride	1.777	1.761	0.9	76	0.00	17.14
113	M	1,2-dichlorobenzene	1.268	1.237	2.4	79	0.00	17.42
114	M	n-butylbenzene	1.056	1.084	-2.7	81	0.00	17.32
115	M	1,2-dibromo-3-chloropropa	0.207	0.189	8.7	70	0.00	18.11
116		1,3,5-trichlorobenzene	0.843	0.840	0.4	78	0.00	18.33
		----------	True	Calc.	% Drift	----------		
117		2-ethylhexyl acrylate	10.000	5.622	43.8#	49	0.00	18.92
		----------	AvgRF	CCRF	% Dev	----------		
118	M	1,2,4-trichlorobenzene	0.764	0.741	3.0	77	0.00	18.93
119	M	hexachlorobutadiene	0.286	0.274	4.2	77	0.00	19.06
120	M	naphthalene	2.388	2.176	8.9	72	0.00	19.18
121	M	1,2,3-trichlorobenzene	0.720	0.657	8.7	72	0.00	19.41
122	m	hexachloroethane	0.343	0.350	-2.0	81	0.00	17.69
123		2-methylnaphthalene	0.879	0.767	12.7	66	0.00	20.27
124		bis(chloromethyl)ether		----------NA----------				
125		ethylenimine		----------NA----------				

(#) = Out of Range SPCC's out = 0 CCC's out = 0
4D92111.D M4D4028.M Wed May 15 19:13:24 2019

MS Volatiles

Raw Data

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\May-2019\5-15\v4d4145\
Data File : 4d94008.d
Acq On : 11 May 2019 4:21 am
Operator : deving
Sample : JC87833-1 Inst : MS4D
Misc : MS34673,V4D4145,5,,,,1
ALS Vial : 69 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Results File: M4D4028.RES
Quant Time: May 15 19:34:22 2019
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Fri Feb 01 10:17:00 2019
Response via : Initial Calibration

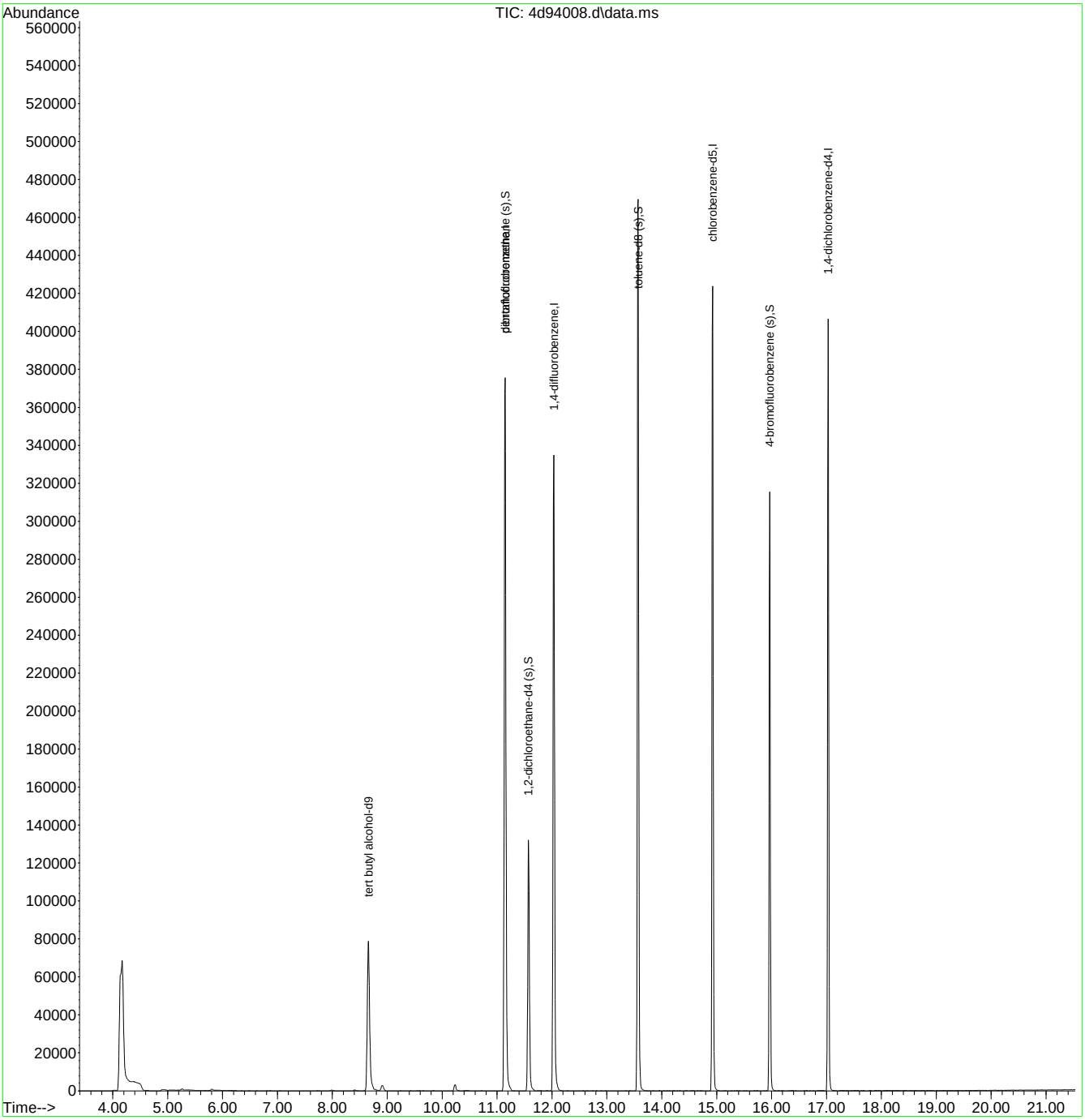
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	8.656	65	140723	500.00	ug/L	0.00
5) pentafluorobenzene	11.147	168	196761	50.00	ug/L	0.00
51) 1,4-difluorobenzene	12.033	114	291098	50.00	ug/L	0.00
73) chlorobenzene-d5	14.927	117	229137	50.00	ug/L	0.00
96) 1,4-dichlorobenzene-d4	17.029	152	98513	50.00	ug/L	0.00
System Monitoring Compounds						
43) dibromofluoromethane (s)	11.147	113	94336	43.47	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 86.94%			
52) 1,2-dichloroethane-d4 (s)	11.571	65	98122	49.94	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 99.88%			
74) toluene-d8 (s)	13.569	98	318711	53.70	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 107.40%			
97) 4-bromofluorobenzene (s)	15.965	95	102098	51.38	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.76%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\May-2019\5-15\v4d4145\
Data File : 4d94008.d
Acq On : 11 May 2019 4:21 am
Operator : deving
Sample : JC87833-1 Inst : MS4D
Misc : MS34673,V4D4145,5,,,,1
ALS Vial : 69 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Results File: M4D4028.RES
Quant Time: May 15 19:34:22 2019
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Fri Feb 01 10:17:00 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\May-2019\5-15\v4d4145\
Data File : 4d93993.d
Acq On : 10 May 2019 8:51 pm
Operator : deving
Sample : mb Inst : MS4D
Misc : MS34696,V4D4145,5,,,,1
ALS Vial : 54 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Results File: M4D4028.RES
Quant Time: May 15 19:19:07 2019
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Fri Feb 01 10:17:00 2019
Response via : Initial Calibration

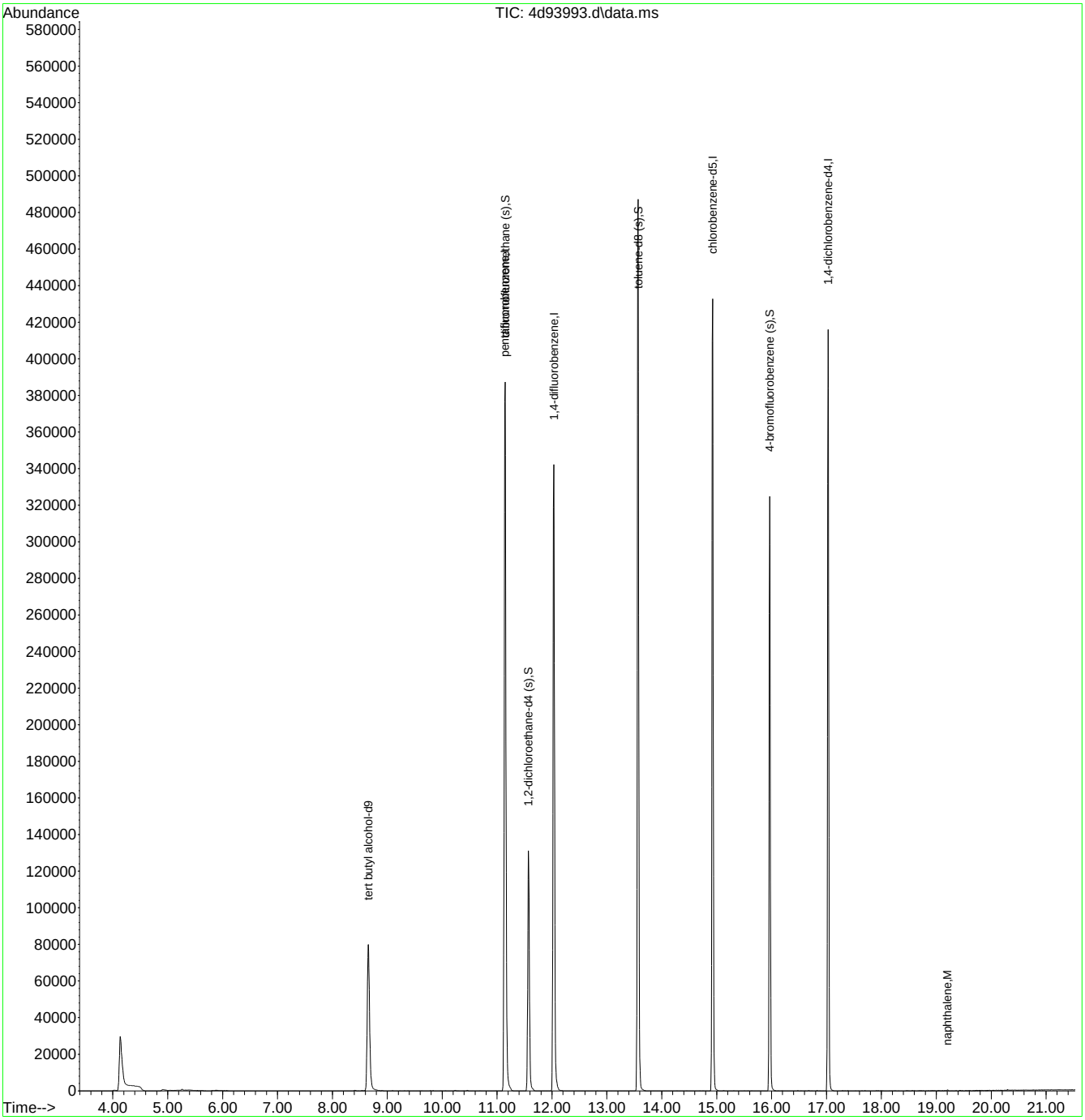
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	8.651	65	146398	500.00	ug/L	-0.01
5) pentafluorobenzene	11.141	168	206647	50.00	ug/L	0.00
51) 1,4-difluorobenzene	12.032	114	302386	50.00	ug/L	0.00
73) chlorobenzene-d5	14.927	117	238307	50.00	ug/L	0.00
96) 1,4-dichlorobenzene-d4	17.029	152	104471	50.00	ug/L	0.00
System Monitoring Compounds						
43) dibromofluoromethane (s)	11.146	113	97326	42.70	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 85.40%			
52) 1,2-dichloroethane-d4 (s)	11.571	65	98005	48.02	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 96.04%			
74) toluene-d8 (s)	13.569	98	330046	53.47	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 106.94%			
97) 4-bromofluorobenzene (s)	15.965	95	105818	50.21	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.42%			
Target Compounds						Qvalue
120) naphthalene	19.200	128	721	0.14	ug/L	69

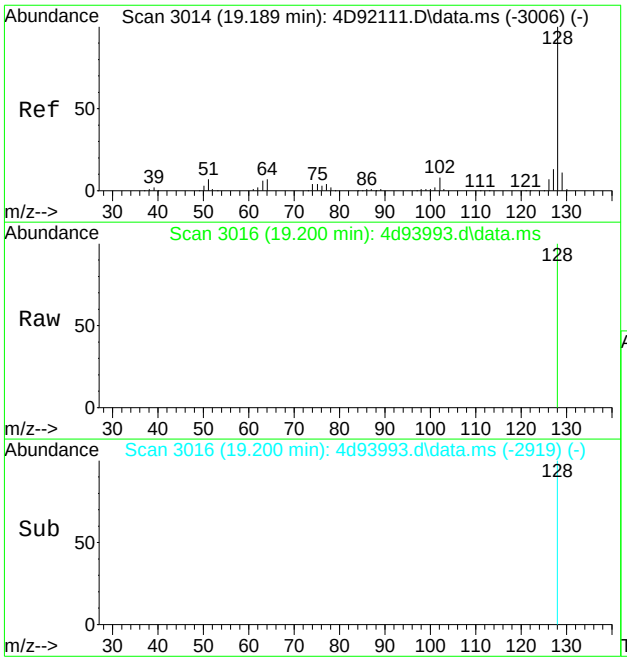
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\May-2019\5-15\v4d4145\
Data File : 4d93993.d
Acq On : 10 May 2019 8:51 pm
Operator : deving
Sample : mb Inst : MS4D
Misc : MS34696,V4D4145,5,,,,1
ALS Vial : 54 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Results File: M4D4028.RES
Quant Time: May 15 19:19:07 2019
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Fri Feb 01 10:17:00 2019
Response via : Initial Calibration

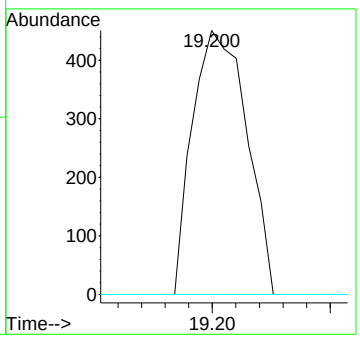




#120
naphthalene
Concen: 0.14 ug/L
RT: 19.200 min Scan# 3016
Delta R.T. 0.011 min
Lab File: 4d93993.d
Acq: 10 May 2019 8:51 pm

Tgt Ion:128 Resp: 721

Ion	Ratio	Lower	Upper
128	100		
127	0.0	0.0	42.8
129	0.0	0.0	40.8



7.2.1

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\May-2019\5-15\v4d4145\
Data File : 4d93991.d
Acq On : 10 May 2019 7:29 pm
Operator : edwardd
Sample : bs Inst : MS4D
Misc : MS34673,V4D4145,5,,,,1
ALS Vial : 52 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Results File: M4D4028.RES
Quant Time: May 13 21:19:43 2019
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Fri Feb 01 10:17:00 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	8.656	65	142044	500.00	ug/L		0.00
5) pentafluorobenzene	11.141	168	189190	50.00	ug/L		0.00
51) 1,4-difluorobenzene	12.032	114	274225	50.00	ug/L		0.00
73) chlorobenzene-d5	14.927	117	221093	50.00	ug/L		0.00
96) 1,4-dichlorobenzene-d4	17.029	152	95423	50.00	ug/L		0.00
System Monitoring Compounds							
43) dibromofluoromethane (s)	11.146	113	90021	43.14	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 86.28%				
52) 1,2-dichloroethane-d4 (s)	11.571	65	88400	47.76	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 95.52%				
74) toluene-d8 (s)	13.563	98	300222	52.43	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 104.86%				
97) 4-bromofluorobenzene (s)	15.965	95	98150	50.99	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.98%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	8.787	59	92395	300.17	ug/L		98
3) ethanol	7.193	45	206723	6884.86	ug/L		99
4) 1,4-dioxane	12.688	88	38238	1244.29	ug/L		100
6) chlorodifluoromethane	4.635	51	94930	49.33	ug/L		95
7) dichlorodifluoromethane	4.614	85	90276	43.09	ug/L		98
8) chloromethane	5.091	50	113702	35.62	ug/L		100
9) vinyl chloride	5.374	62	103750	43.08	ug/L		98
10) bromomethane	6.160	94	58311	78.47	ug/L		98
11) chloroethane	6.396	64	59604	48.70	ug/L		98
12) trichlorofluoromethane	6.962	101	114702	41.68	ug/L		100
13) vinyl bromide	6.816	106	75920	53.28	ug/L		97
14) ethyl ether	7.487	74	51231	52.93	ug/L		92
15) acrolein	7.696	56	24711	53.22	ug/L		98
16) freon 113	7.948	151	55026	46.13	ug/L		98
17) 1,1-dichloroethene	7.953	96	74585	49.20	ug/L		97
18) acetone	7.948	43	151280	199.01	ug/L		94
19) acetonitrile	8.399	41	183226	551.87	ug/L		97
20) iodomethane	8.242	142	60275	65.14	ug/L		96
21) carbon disulfide	8.404	76	205706	50.05	ug/L		96
22) methylene chloride	8.724	84	87277	47.66	ug/L		99
23) methyl acetate	8.520	43	96734	47.67	ug/L		99
24) methyl tert butyl ether	9.159	73	252669	48.62	ug/L		98
25) trans-1,2-dichloroethene	9.185	96	79357	48.25	ug/L		99
26) di-isopropyl ether	9.841	45	290291	53.13	ug/L		95
27) 2-butanone	10.522	72	63924	202.26	ug/L		99
28) 1,1-dichloroethane	9.783	63	149923	50.69	ug/L		99
29) chloroprene	9.935	53	115872	48.05	ug/L		97
30) acrylonitrile	9.049	53	43428	54.20	ug/L		98
31) hexane	9.600	56	60342	57.13	ug/L		100
32) vinyl acetate	9.788	86	21534	49.86	ug/L		95
33) ethyl tert-butyl ether	10.339	59	272385	49.83	ug/L		98
34) ethyl acetate	10.580	70	14111	47.18	ug/L	#	91
35) 2,2-dichloropropane	10.601	77	113287	43.42	ug/L		96
36) cis-1,2-dichloroethene	10.570	96	90083	47.88	ug/L		100
37) methyl acrylate	10.659	85	17886	47.53	ug/L	#	87
38) propionitrile	10.580	54	201505	517.90	ug/L		98
39) bromochloromethane	10.884	128	42616	47.71	ug/L		94
40) tetrahydrofuran	10.952	72	16931	47.41	ug/L		95
41) chloroform	10.947	85	89492	43.28	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\May-2019\5-15\v4d4145\
Data File : 4d93991.d
Acq On : 10 May 2019 7:29 pm
Operator : edwardd
Sample : bs Inst : MS4D
Misc : MS34673,V4D4145,5,,,,1
ALS Vial : 52 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Results File: M4D4028.RES
Quant Time: May 13 21:19:43 2019
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Fri Feb 01 10:17:00 2019
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
42)	t-butyl formate	11.026	59	71787	40.04	ug/L		97
44)	methacrylonitrile	10.806	67	47592	47.64	ug/L		97
45)	1,1,1-trichloroethane	11.257	97	111813	41.77	ug/L		98
46)	cyclohexane	11.367	84	99706	40.56	ug/L		94
47)	1,1-dichloropropene	11.440	75	102869	44.71	ug/L		99
48)	isobutyl alcohol	11.435	74	6450	430.88	ug/L		91
49)	carbon tetrachloride	11.471	117	93542	40.44	ug/L		98
50)	tert amyl alcohol	11.519	55	28015	221.64	ug/L		94
53)	n-butyl alcohol	12.101	56	231817	2775.48	ug/L		98
54)	2,2,4-trimethylpentane	11.760	57	215854	59.15	ug/L		96
55)	benzene	11.686	78	306398	51.69	ug/L		99
56)	tert-amyl methyl ether	11.744	87	56324	49.98	ug/L		93
57)	heptane	11.917	71	50584	58.83	ug/L		97
58)	isopropyl acetate	11.608	87	23915	54.37	ug/L		96
59)	1,2-dichloroethane	11.655	62	102281	43.25	ug/L		94
60)	trichloroethene	12.363	130	74279	47.09	ug/L		99
61)	ethyl acrylate	12.352	55	135664	52.67	ug/L		98
62)	2-nitropropane	13.018	41	23226	45.09	ug/L		98
63)	2-chloroethyl vinyl ether	13.065	63	11886	10.81	ug/L		98
64)	methyl methacrylate	12.604	100	26521	51.76	ug/L	#	85
65)	1,2-dichloropropane	12.588	63	82379	53.49	ug/L		99
66)	dibromomethane	12.714	93	52071	47.36	ug/L		99
67)	methylcyclohexane	12.620	83	108706	53.10	ug/L		100
68)	bromodichloromethane	12.835	83	102596	47.83	ug/L		99
69)	epichlorohydrin	13.154	57	47688	261.24	ug/L		96
70)	cis-1,3-dichloropropene	13.270	75	128170	49.14	ug/L		97
71)	4-methyl-2-pentanone	13.359	58	176287	206.76	ug/L		98
72)	3-methyl-1-butanol	13.348	70	79806	1047.29	ug/L		97
75)	toluene	13.632	92	170388	49.29	ug/L		99
76)	trans-1,3-dichloropropene	13.763	75	112416	53.42	ug/L		100
77)	ethyl methacrylate	13.789	69	112923	55.58	ug/L		99
78)	1,1,2-trichloroethane	13.962	83	62344	54.61	ug/L		98
79)	tetrachloroethene	14.177	164	56241	47.53	ug/L		98
80)	1,3-dichloropropane	14.130	76	112221	50.40	ug/L		98
81)	2-hexanone	14.130	58	177870	223.38	ug/L		100
82)	butyl acetate	14.208	56	67263	54.74	ug/L		98
83)	dibromochloromethane	14.371	129	78492	51.62	ug/L		99
84)	1,2-dibromoethane	14.512	107	85801	49.02	ug/L		99
85)	n-butyl ether	14.906	57	289812	49.55	ug/L		99
86)	chlorobenzene	14.953	112	179070	47.52	ug/L		99
87)	1,1,1,2-tetrachloroethane	15.000	131	65184	49.52	ug/L		98
88)	ethylbenzene	15.016	91	302895	48.58	ug/L		99
89)	m,p-xylene	15.110	106	228832	98.47	ug/L		99
90)	o-xylene	15.488	106	109968	49.68	ug/L		97
91)	styrene	15.488	104	193110	53.59	ug/L		98
92)	bromoform	15.697	173	56488	51.73	ug/L		100
93)	butyl acrylate	15.309	55	166818	57.92	ug/L		99
94)	isopropylbenzene	15.802	105	272461	48.00	ug/L		99
95)	cis-1,4-dichloro-2-butene	15.818	88	30801	44.22	ug/L		97
98)	bromobenzene	16.148	156	75257	50.19	ug/L		98
99)	1,1,2,2-tetrachloroethane	16.022	83	108000	51.90	ug/L		99
100)	trans-1,4-dichloro-2-b...	16.064	53	21882	48.30	ug/L		95
101)	1,2,3-trichloropropane	16.096	110	26782	49.35	ug/L		100
102)	n-propylbenzene	16.174	91	322941	49.75	ug/L		100
103)	2-chlorotoluene	16.300	126	66127	50.20	ug/L		97
104)	4-chlorotoluene	16.384	91	194036	49.00	ug/L		99
105)	1,3,5-trimethylbenzene	16.306	105	220374	50.52	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\May-2019\5-15\v4d4145\
Data File : 4d93991.d
Acq On : 10 May 2019 7:29 pm
Operator : edwardd
Sample : bs Inst : MS4D
Misc : MS34673,V4D4145,5,,,,1
ALS Vial : 52 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Results File: M4D4028.RES
Quant Time: May 13 21:19:43 2019
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Fri Feb 01 10:17:00 2019
Response via : Initial Calibration

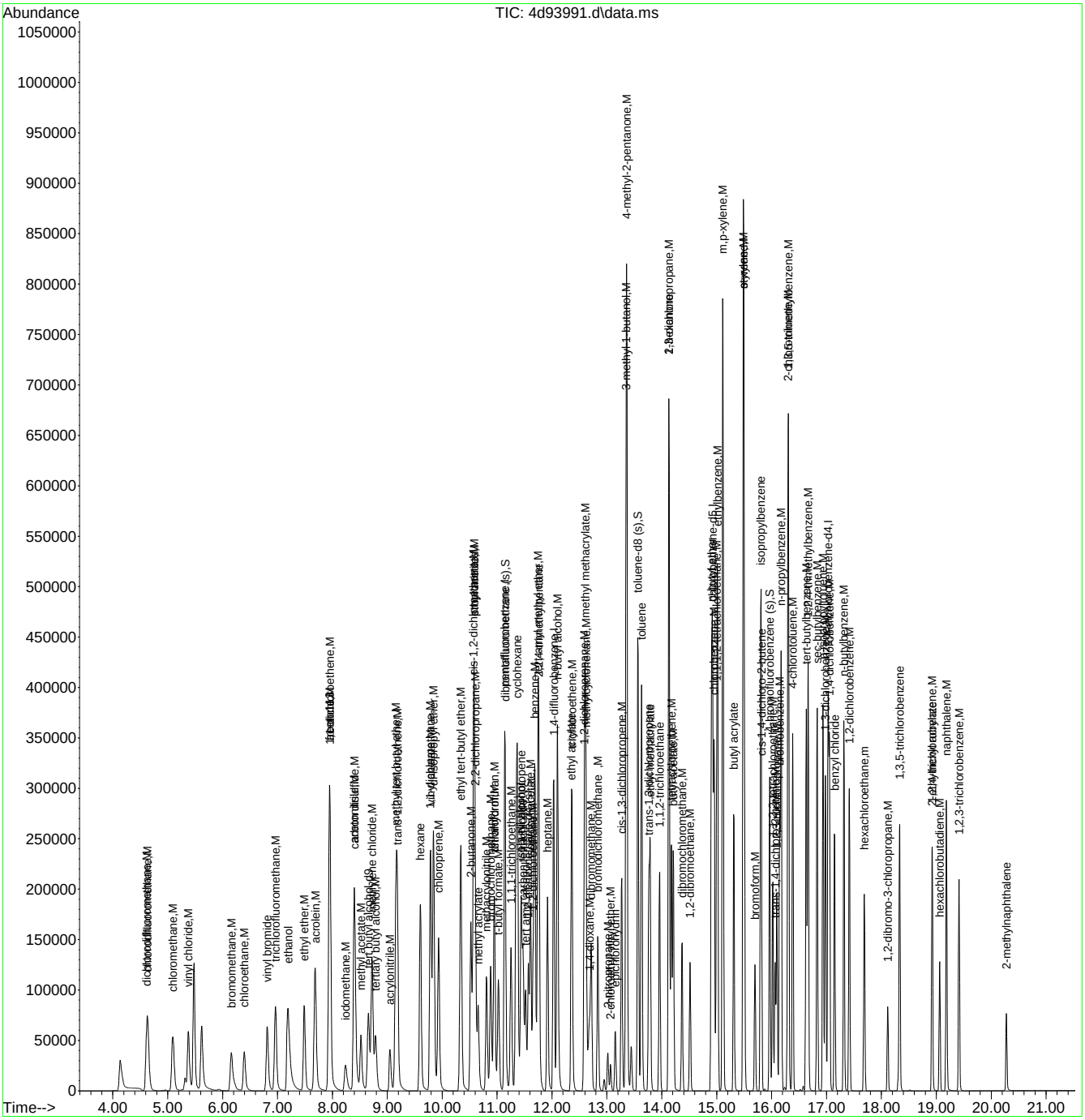
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
106) tert-butylbenzene	16.631	134	39086	49.08	ug/L		91
107) 1,2,4-trimethylbenzene	16.667	105	219475	49.86	ug/L		99
108) sec-butylbenzene	16.830	105	257947	49.64	ug/L		100
109) 1,3-dichlorobenzene	16.982	146	124654	48.64	ug/L		99
110) p-isopropyltoluene	16.935	119	214153	51.00	ug/L		99
111) 1,4-dichlorobenzene	17.055	146	129250	49.02	ug/L		98
112) benzyl chloride	17.150	91	179973	53.07	ug/L		100
113) 1,2-dichlorobenzene	17.417	146	121392	50.16	ug/L		98
114) n-butylbenzene	17.317	92	107601	53.42	ug/L		98
115) 1,2-dibromo-3-chloropr...	18.114	75	19774	50.17	ug/L		97
116) 1,3,5-trichlorobenzene	18.335	180	83107	51.66	ug/L		98
117) 2-ethylhexyl acrylate	18.922	70	3529	5.17	ug/L	#	82
118) 1,2,4-trichlorobenzene	18.927	180	72546	49.74	ug/L		98
119) hexachlorobutadiene	19.063	225	27000	49.53	ug/L		97
120) naphthalene	19.184	128	215055	47.18	ug/L		99
121) 1,2,3-trichlorobenzene	19.415	180	64539	46.96	ug/L		100
122) hexachloroethane	17.690	201	34309	52.38	ug/L		99
123) 2-methylnaphthalene	20.275	142	37427	22.32	ug/L		98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\May-2019\5-15\v4d4145\
Data File : 4d93991.d
Acq On : 10 May 2019 7:29 pm
Operator : edwardd
Sample : bs Inst : MS4D
Misc : MS34673,V4D4145,5,,,,1
ALS Vial : 52 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Results File: M4D4028.RES
Quant Time: May 13 21:19:43 2019
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Fri Feb 01 10:17:00 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\May-2019\5-15\v4d4145\
Data File : 4d93997.d
Acq On : 10 May 2019 11:07 pm
Operator : deving
Sample : JC87889-3ms Inst : MS4D
Misc : MS34684,V4D4145,5,,,,1
ALS Vial : 58 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Results File: M4D4028.RES
Quant Time: May 15 19:23:32 2019
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Fri Feb 01 10:17:00 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	8.656	65	140354	500.00	ug/L		0.00
5) pentafluorobenzene	11.141	168	188378	50.00	ug/L		0.00
51) 1,4-difluorobenzene	12.027	114	269475	50.00	ug/L		0.00
73) chlorobenzene-d5	14.922	117	215471	50.00	ug/L		0.00
96) 1,4-dichlorobenzene-d4	17.029	152	92207	50.00	ug/L		0.00
System Monitoring Compounds							
43) dibromofluoromethane (s)	11.147	113	89281	42.97	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 85.94%				
52) 1,2-dichloroethane-d4 (s)	11.571	65	87479	48.10	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 96.20%				
74) toluene-d8 (s)	13.564	98	296374	53.11	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 106.22%				
97) 4-bromofluorobenzene (s)	15.965	95	95052	51.10	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.20%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	8.787	59	101539	333.85	ug/L		98
3) ethanol	7.188	45	208934	7042.29	ug/L		98
4) 1,4-dioxane	12.688	88	37688	1241.16	ug/L		98
6) chlorodifluoromethane	4.635	51	100701	52.55	ug/L		95
7) dichlorodifluoromethane	4.614	85	143863	68.97	ug/L		100
8) chloromethane	5.091	50	145526	45.79	ug/L		99
9) vinyl chloride	5.379	62	137884	57.50	ug/L		99
10) bromomethane	6.160	94	67434	91.14	ug/L		98
11) chloroethane	6.396	64	74389	61.04	ug/L		98
12) trichlorofluoromethane	6.963	101	149610	54.60	ug/L		99
13) vinyl bromide	6.816	106	92884	65.47	ug/L		97
14) ethyl ether	7.487	74	51179	53.11	ug/L		90
15) acrolein	7.697	56	23681	51.22	ug/L		99
16) freon 113	7.943	151	63426	53.41	ug/L		96
17) 1,1-dichloroethene	7.954	96	81280	53.85	ug/L		96
18) acetone	7.948	43	142539	188.32	ug/L		96
19) acetonitrile	8.399	41	180494	545.99	ug/L		99
20) iodomethane	8.242	142	60372	65.52	ug/L		97
21) carbon disulfide	8.404	76	220216	53.81	ug/L		96
22) methylene chloride	8.724	84	90879	49.84	ug/L		100
23) methyl acetate	8.520	43	94886	46.96	ug/L		98
24) methyl tert butyl ether	9.154	73	647924	125.21	ug/L		96
25) trans-1,2-dichloroethene	9.180	96	84401	51.53	ug/L		97
26) di-isopropyl ether	9.841	45	299336	55.02	ug/L		96
27) 2-butanone	10.523	72	61952	196.86	ug/L		98
28) 1,1-dichloroethane	9.789	63	159873	54.29	ug/L		99
29) chloroprene	9.935	53	129630	53.98	ug/L		97
30) acrylonitrile	9.049	53	42495	53.27	ug/L		99
31) hexane	9.600	56	70921	67.43	ug/L		98
32) vinyl acetate	9.789	86	21237	49.39	ug/L		94
33) ethyl tert-butyl ether	10.339	59	274421	50.42	ug/L		98
34) ethyl acetate	10.580	70	13735	46.12	ug/L		95
35) 2,2-dichloropropane	10.601	77	125106	48.15	ug/L		96
36) cis-1,2-dichloroethene	10.570	96	94788	50.59	ug/L		99
37) methyl acrylate	10.654	85	17648	47.10	ug/L	#	87
38) propionitrile	10.580	54	197694	510.29	ug/L		99
39) bromochloromethane	10.884	128	43806	49.25	ug/L		94
40) tetrahydrofuran	10.953	72	16663	46.86	ug/L		99
41) chloroform	10.947	85	95145	46.21	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\May-2019\5-15\v4d4145\
Data File : 4d93997.d
Acq On : 10 May 2019 11:07 pm
Operator : deving
Sample : JC87889-3ms Inst : MS4D
Misc : MS34684,V4D4145,5,,,,1
ALS Vial : 58 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Results File: M4D4028.RES
Quant Time: May 15 19:23:32 2019
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Fri Feb 01 10:17:00 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
42) t-butyl formate	11.026	59	62911	35.24	ug/L		97
44) methacrylonitrile	10.806	67	46678	46.93	ug/L		97
45) 1,1,1-trichloroethane	11.251	97	123789	46.45	ug/L		100
46) cyclohexane	11.367	84	124251	50.77	ug/L		95
47) 1,1-dichloropropene	11.435	75	115126	50.26	ug/L		99
48) isobutyl alcohol	11.440	74	7081	475.07	ug/L		93
49) carbon tetrachloride	11.472	117	104660	45.45	ug/L		99
50) tert amyl alcohol	11.514	55	27537	218.80	ug/L		95
53) n-butyl alcohol	12.101	56	229513	2796.33	ug/L		98
54) 2,2,4-trimethylpentane	11.760	57	257436	71.78	ug/L		93
55) benzene	11.687	78	325834	55.94	ug/L		100
56) tert-amyl methyl ether	11.744	87	56955	51.43	ug/L		96
57) heptane	11.917	71	61405	72.67	ug/L		97
58) isopropyl acetate	11.608	87	23543	54.47	ug/L	#	88
59) 1,2-dichloroethane	11.655	62	105631	45.45	ug/L		95
60) trichloroethene	12.363	130	80189	51.74	ug/L		98
61) ethyl acrylate	12.352	55	135027	53.34	ug/L		99
62) 2-nitropropane	13.018	41	23035	45.50	ug/L		97
64) methyl methacrylate	12.604	100	26427	52.49	ug/L	#	90
65) 1,2-dichloropropane	12.588	63	85558	56.54	ug/L		100
66) dibromomethane	12.714	93	52895	48.95	ug/L		99
67) methylcyclohexane	12.615	83	126705	62.98	ug/L		98
68) bromodichloromethane	12.835	83	107575	51.04	ug/L		99
69) epichlorohydrin	13.155	57	44849	250.02	ug/L		97
70) cis-1,3-dichloropropene	13.270	75	132260	51.61	ug/L		97
71) 4-methyl-2-pentanone	13.359	58	174239	207.96	ug/L		98
72) 3-methyl-1-butanol	13.349	70	76305	1019.00	ug/L		95
75) toluene	13.632	92	182939	54.30	ug/L		99
76) trans-1,3-dichloropropene	13.763	75	114906	56.03	ug/L		100
77) ethyl methacrylate	13.789	69	114076	57.61	ug/L		99
78) 1,1,2-trichloroethane	13.957	83	62920	56.56	ug/L		99
79) tetrachloroethene	14.177	164	62037	53.80	ug/L		97
80) 1,3-dichloropropane	14.130	76	113750	52.42	ug/L		97
81) 2-hexanone	14.130	58	172583	222.40	ug/L		99
82) butyl acetate	14.209	56	67309	56.21	ug/L		99
83) dibromochloromethane	14.366	129	80077	54.04	ug/L		99
84) 1,2-dibromoethane	14.513	107	86842	50.90	ug/L		100
85) n-butyl ether	14.906	57	308675	54.15	ug/L		99
86) chlorobenzene	14.953	112	187981	51.19	ug/L		98
87) 1,1,1,2-tetrachloroethane	15.000	131	67324	52.48	ug/L		99
88) ethylbenzene	15.016	91	325963	53.65	ug/L		99
89) m,p-xylene	15.110	106	244275	107.85	ug/L		99
90) o-xylene	15.488	106	116321	53.93	ug/L		99
91) styrene	15.488	104	200765	57.17	ug/L		98
92) bromoform	15.698	173	56129	52.74	ug/L		99
93) butyl acrylate	15.310	55	168019	59.86	ug/L		99
94) isopropylbenzene	15.802	105	294742	53.28	ug/L		99
95) cis-1,4-dichloro-2-butene	15.818	88	30440	44.84	ug/L		96
98) bromobenzene	16.148	156	77841	53.72	ug/L		98
99) 1,1,2,2-tetrachloroethane	16.023	83	106947	53.19	ug/L		98
100) trans-1,4-dichloro-2-b...	16.065	53	21387	48.85	ug/L		98
101) 1,2,3-trichloropropane	16.096	110	26203	49.97	ug/L		99
102) n-propylbenzene	16.175	91	349371	55.70	ug/L		99
103) 2-chlorotoluene	16.295	126	69798	54.84	ug/L		98
104) 4-chlorotoluene	16.384	91	205010	53.57	ug/L		98
105) 1,3,5-trimethylbenzene	16.306	105	234057	55.52	ug/L		100
106) tert-butylbenzene	16.631	134	41601	54.06	ug/L		93

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\May-2019\5-15\v4d4145\
Data File : 4d93997.d
Acq On : 10 May 2019 11:07 pm
Operator : deving
Sample : JC87889-3ms Inst : MS4D
Misc : MS34684,V4D4145,5,,,,1
ALS Vial : 58 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Results File: M4D4028.RES
Quant Time: May 15 19:23:32 2019
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Fri Feb 01 10:17:00 2019
Response via : Initial Calibration

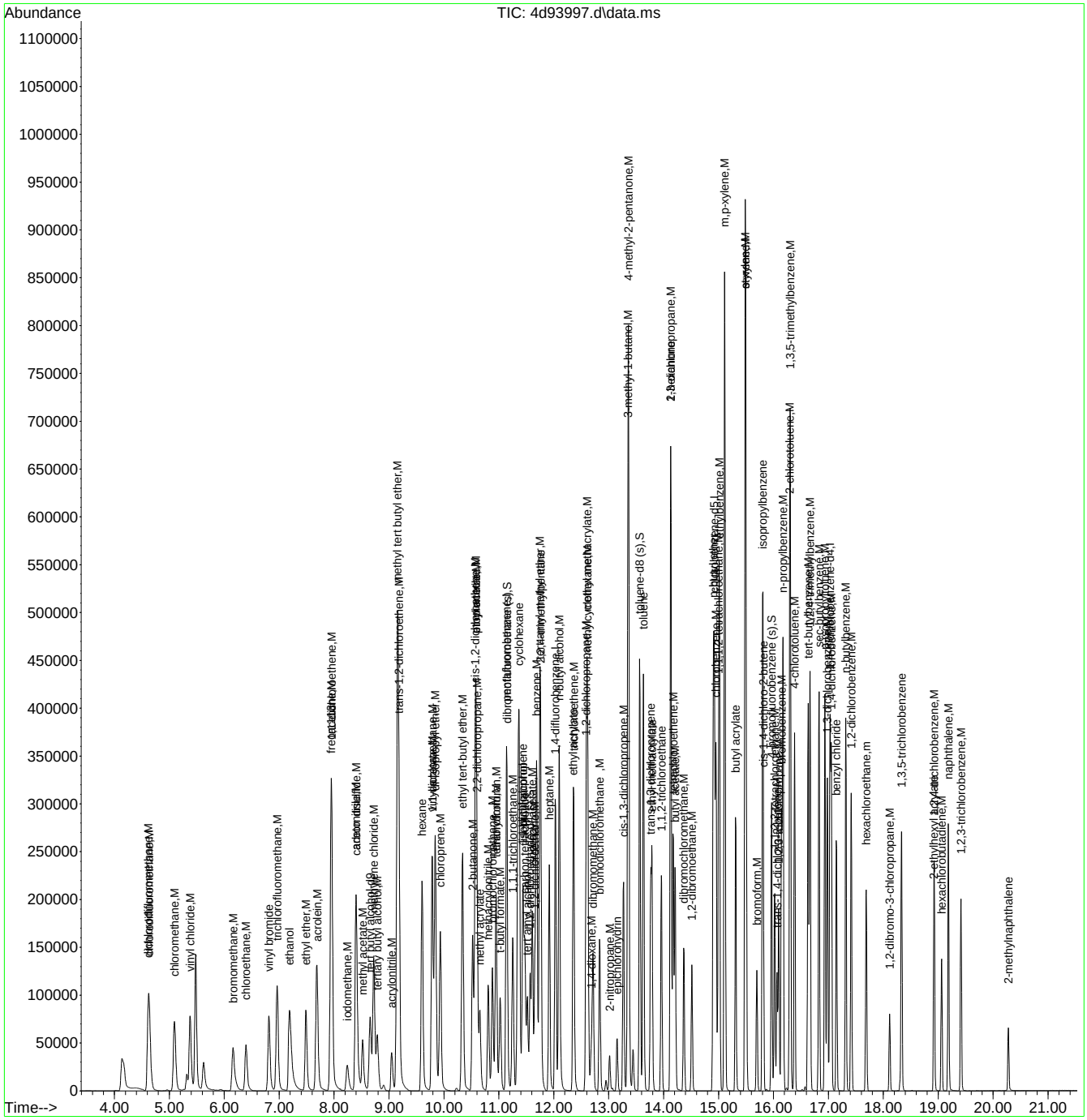
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
107) 1,2,4-trimethylbenzene	16.668	105	231499	54.42	ug/L		100
108) sec-butylbenzene	16.830	105	282390	56.24	ug/L		99
109) 1,3-dichlorobenzene	16.982	146	130674	52.76	ug/L		100
110) p-isopropyltoluene	16.935	119	229154	56.48	ug/L		99
111) 1,4-dichlorobenzene	17.055	146	132955	52.18	ug/L		99
112) benzyl chloride	17.145	91	181776	55.47	ug/L		99
113) 1,2-dichlorobenzene	17.417	146	124056	53.05	ug/L		99
114) n-butylbenzene	17.318	92	116181	59.69	ug/L		98
115) 1,2-dibromo-3-chloropr...	18.115	75	18923	49.69	ug/L		99
116) 1,3,5-trichlorobenzene	18.335	180	85626	55.08	ug/L		99
117) 2-ethylhexyl acrylate	18.917	70	3104	4.73	ug/L	#	81
118) 1,2,4-trichlorobenzene	18.927	180	72356	51.34	ug/L		99
119) hexachlorobutadiene	19.064	225	29736	56.45	ug/L		98
120) naphthalene	19.184	128	205497	46.65	ug/L		100
121) 1,2,3-trichlorobenzene	19.415	180	63124	47.53	ug/L		99
122) hexachloroethane	17.690	201	36234	57.25	ug/L		99
123) 2-methylnaphthalene	20.280	142	33634	20.76	ug/L		98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\May-2019\5-15\v4d4145\
Data File : 4d93997.d
Acq On : 10 May 2019 11:07 pm
Operator : deving
Sample : JC87889-3ms Inst : MS4D
Misc : MS34684,V4D4145,5,,,,1
ALS Vial : 58 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Results File: M4D4028.RES
Quant Time: May 15 19:23:32 2019
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Fri Feb 01 10:17:00 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\May-2019\5-15\v4d4145\
Data File : 4d93999.d
Acq On : 11 May 2019 12:04 am
Operator : deving
Sample : JC87889-4dup Inst : MS4D
Misc : MS34684,V4D4145,5,,,,1
ALS Vial : 60 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Results File: M4D4028.RES
Quant Time: May 15 19:24:34 2019
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Fri Feb 01 10:17:00 2019
Response via : Initial Calibration

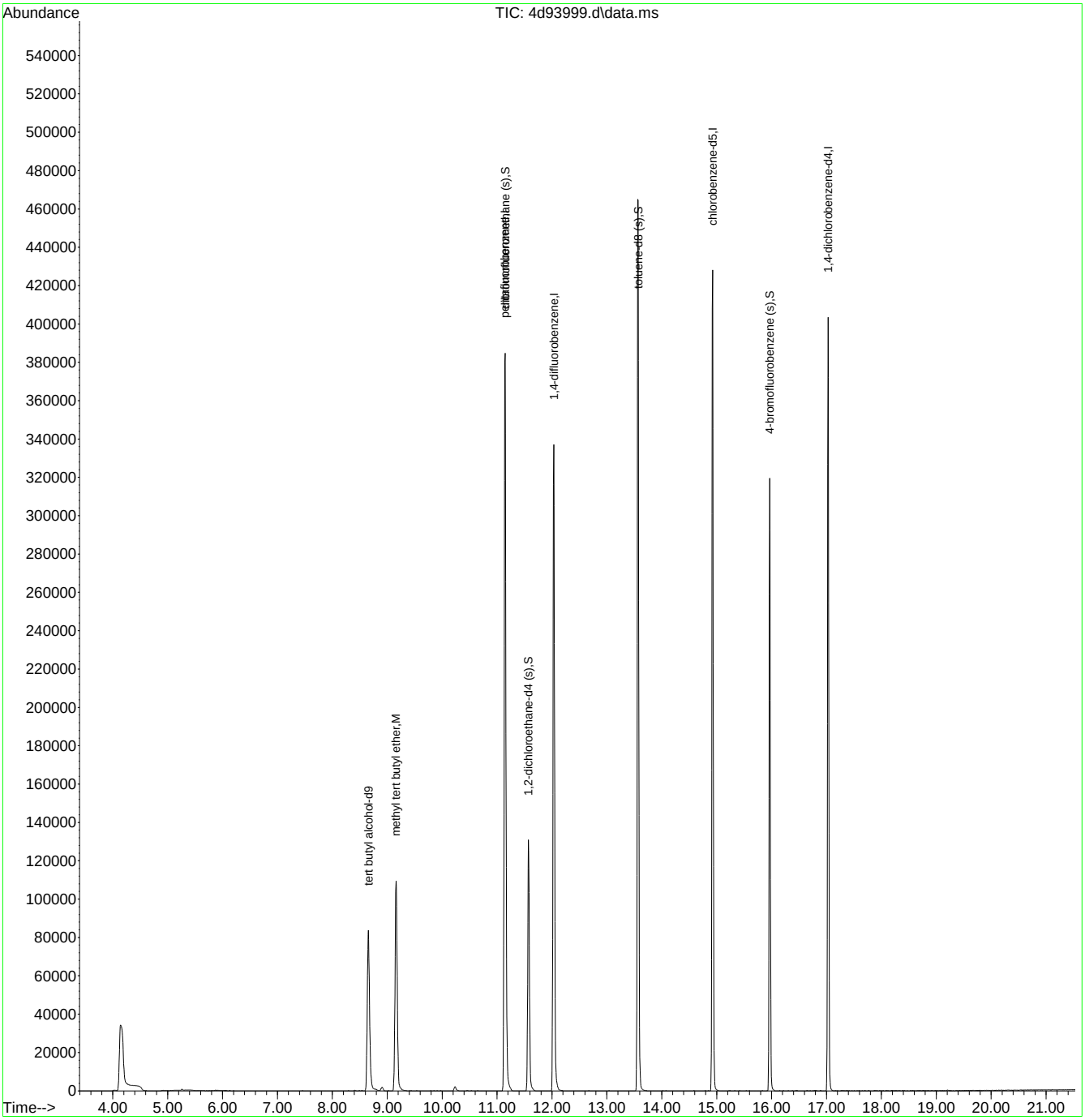
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	8.656	65	149535	500.00	ug/L	0.00
5) pentafluorobenzene	11.141	168	204383	50.00	ug/L	0.00
51) 1,4-difluorobenzene	12.033	114	299958	50.00	ug/L	0.00
73) chlorobenzene-d5	14.927	117	235105	50.00	ug/L	0.00
96) 1,4-dichlorobenzene-d4	17.029	152	101069	50.00	ug/L	0.00
System Monitoring Compounds						
43) dibromofluoromethane (s)	11.147	113	96263	42.70	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 85.40%			
52) 1,2-dichloroethane-d4 (s)	11.571	65	97399	48.11	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 96.22%			
74) toluene-d8 (s)	13.569	98	324986	53.37	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 106.74%			
97) 4-bromofluorobenzene (s)	15.965	95	103342	50.69	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.38%			
Target Compounds						Qvalue
24) methyl tert butyl ether	9.160	73	155218	27.65	ug/L	97

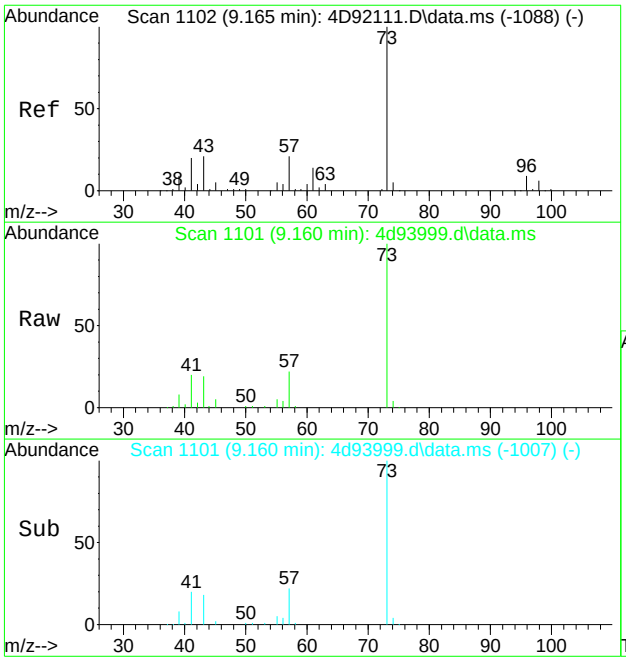
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\May-2019\5-15\v4d4145\
Data File : 4d93999.d
Acq On : 11 May 2019 12:04 am
Operator : deving
Sample : JC87889-4dup Inst : MS4D
Misc : MS34684,V4D4145,5,,,,1
ALS Vial : 60 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Results File: M4D4028.RES
Quant Time: May 15 19:24:34 2019
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Fri Feb 01 10:17:00 2019
Response via : Initial Calibration

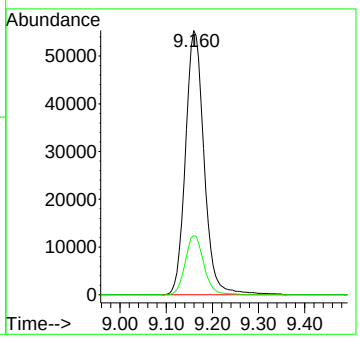




#24
methyl tert butyl ether
Concen: 27.65 ug/L
RT: 9.160 min Scan# 1101
Delta R.T. -0.005 min
Lab File: 4d93999.d
Acq: 11 May 2019 12:04 am

Tgt Ion: 73 Resp: 155218

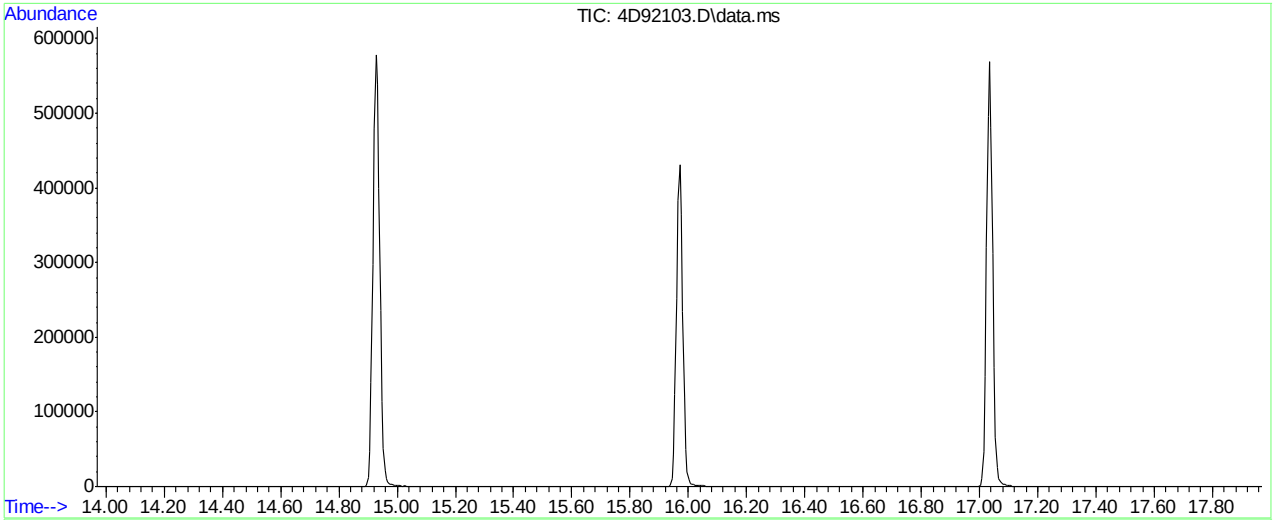
Ion	Ratio	Lower	Upper
73	100		
57	22.4	0.0	221.1

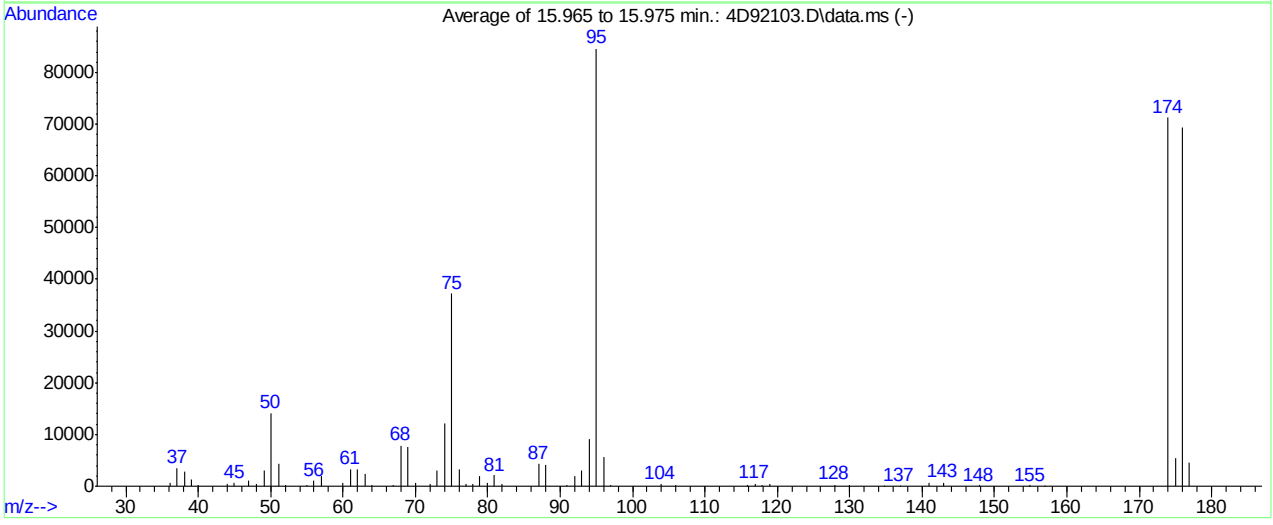


SW-846 Method 8260

Data File : C:\msdchem\1\data\V4D4028\4D92103.D Vial: 4
Acq On : 29 Jan 2019 2:06 pm Operator: roberts
Sample : bfb Inst : MS4D
Misc : MS31310,V4D4028,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M4D4028.M (RTE Integrator)
Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um





AutoFind: Scans 2399, 2400, 2401; Background Corrected with Scan 2391

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	16.7	14107	PASS
75	95	30	60	44.0	37203	PASS
95	95	100	100	100.0	84643	PASS
96	95	5	9	6.7	5706	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	84.1	71216	PASS
175	174	5	9	7.5	5348	PASS
176	174	95	101	97.5	69448	PASS
177	176	5	9	6.5	4487	PASS

4D92103.D M4D4028.M Thu Jan 31 10:12:19 2019 RPT1

Average of 15.965 to 15.975 min.: 4D92103.D\data.ms
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.05	626	51.10	4409	68.00	7863	80.00	624
37.10	3475	52.00	184	69.00	7642	80.90	2143
38.10	2931	55.00	182	70.00	606	81.90	500
39.10	1206	56.00	1068	72.00	375	87.00	4296
40.00	180	57.05	1936	73.00	3129	88.00	4044
44.00	373	60.00	666	74.00	12083	90.95	260
45.00	636	61.00	3365	75.05	37203	92.00	2005
47.00	1088	62.00	3296	76.00	3245	93.00	3140
48.00	431	63.05	2436	77.00	494	94.00	9015
49.05	3045	64.00	224	77.95	369	95.00	84643
50.05	14107	67.00	189	78.90	2049	96.00	5706

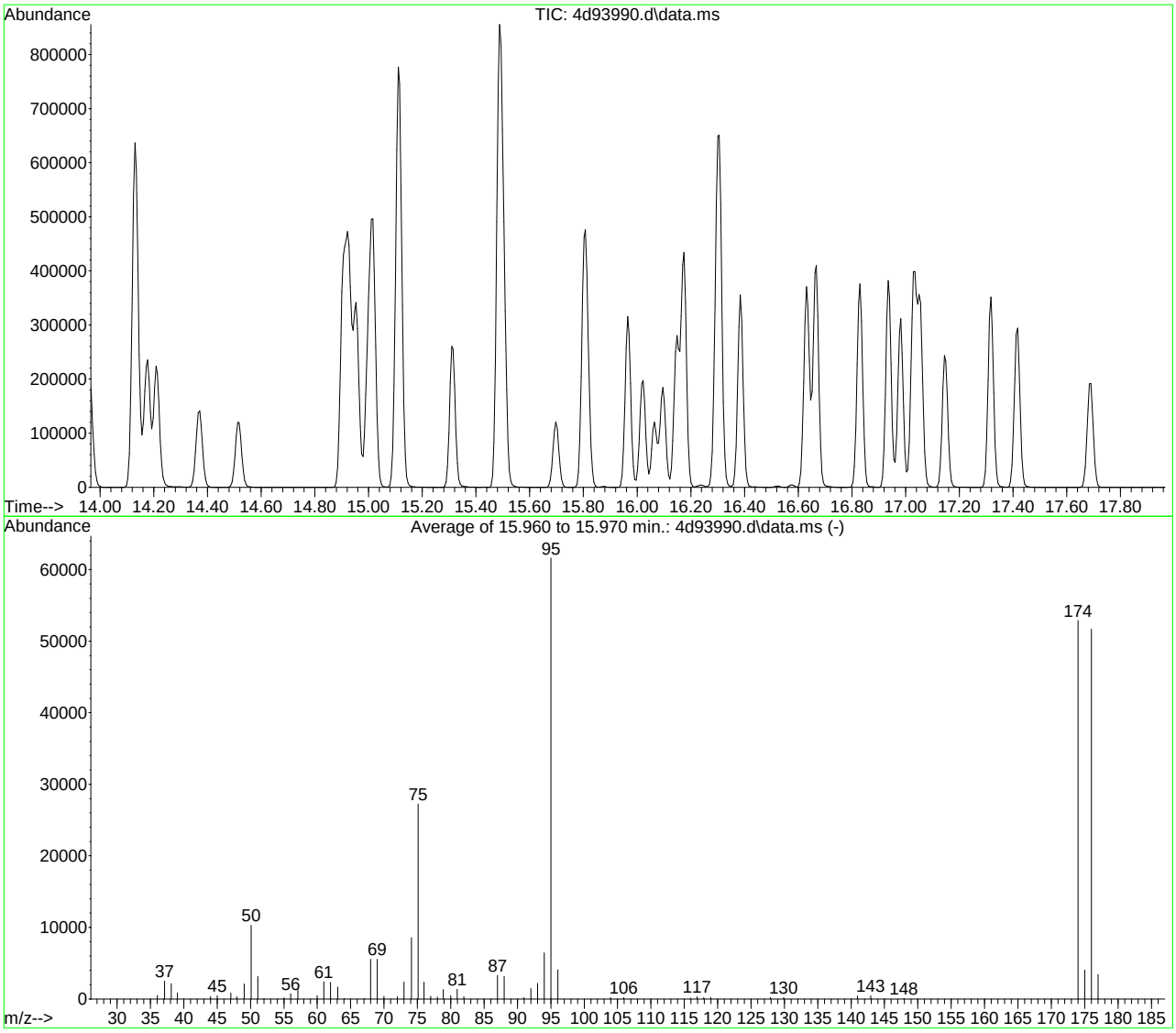
Average of 15.965 to 15.975 min.: 4D92103.D\data.ms
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
96.95	174	140.90	683				
103.90	336	142.95	691				
105.90	306	147.90	183				
115.90	246	154.80	53				
116.90	439	154.95	135				
117.90	270	156.90	53				
118.90	400	174.00	71216				
127.90	279	175.00	5348				
129.90	274	175.95	69448				
134.80	50	176.95	4487				
136.90	52						

SW-846 Method 8260

Data File : C:\msdchem\1\data\lo...-15\v4d4145\4d93990.d Vial: 51
Acq On : 10 May 2019 6:52 pm Operator: edwardd
Sample : bfb Inst : MS4D
Misc : MS34604,V4D4145,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M4D4028.M (RTE Integrator)
Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um



AutoFind: Scans 2398, 2399, 2400; Background Corrected with Scan 2390

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	16.7	10282	PASS
75	95	30	60	44.2	27251	PASS
95	95	100	100	100.0	61613	PASS
96	95	5	9	6.6	4062	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	85.9	52915	PASS
175	174	5	9	7.6	4045	PASS
176	174	95	101	97.7	51683	PASS
177	176	5	9	6.6	3430	PASS

4d93990.d M4D4028.M Wed May 15 19:10:20 2019

Average of 15.960 to 15.970 min.: 4d93990.d\data.ms
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.05	486	52.00	62	69.00	5565	80.95	1357
37.10	2484	55.00	158	70.00	397	81.95	338
38.10	2151	56.00	732	72.00	303	87.00	3272
39.05	838	57.10	1328	73.00	2357	88.00	3140
44.00	339	60.00	450	74.10	8553	90.95	190
45.00	465	61.00	2376	75.10	27251	92.00	1444
47.05	845	62.00	2333	76.00	2371	93.00	2191
47.95	320	63.05	1681	77.00	395	94.00	6434
49.05	2093	64.10	55	78.00	278	95.00	61613
50.10	10282	67.10	53	78.90	1313	96.05	4062
51.10	3134	68.00	5535	80.00	440	103.95	206

Average of 15.960 to 15.970 min.: 4d93990.d\data.ms
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
105.90	213	175.00	4045				
115.90	114	176.00	51683				
116.90	313	177.00	3430				
117.90	188						
118.95	225						
127.90	182						
129.90	205						
140.95	430						
142.95	449						
147.90	51						
174.00	52915						

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V4D4028\
Data File : 4D92104.D
Acq On : 29 Jan 2019 2:41 pm
Operator : roberts
Sample : ic4028-0.2
Misc : MS31310,V4D4028,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 01 10:15:32 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 31 10:07:44 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	8.656	65	178642	500.00	ug/L		0.00
5) pentafluorobenzene	11.147	168	218199	50.00	ug/L		0.00
51) 1,4-difluorobenzene	12.038	114	356302	50.00	ug/L		0.00
73) chlorobenzene-d5	14.927	117	314653	50.00	ug/L		0.00
96) 1,4-dichlorobenzene-d4	17.035	152	137954	50.00	ug/L		0.00
System Monitoring Compounds							
43) dibromofluoromethane (s)	11.152	113	113733	45.85	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 91.70%				
52) 1,2-dichloroethane-d4 (s)	11.577	65	121256	50.18	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 100.36%				
74) toluene-d8 (s)	13.569	98	409865	50.14	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.28%				
97) 4-bromofluorobenzene (s)	15.970	95	138553	50.28	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.56%				
Target Compounds							Qvalue
21) carbon disulfide	8.405	76	1205	0.26	ug/L		57
22) methylene chloride	8.735	84	482	0.23	ug/L		93
24) methyl tert butyl ether	9.165	73	1085	0.17	ug/L		55
26) di-isopropyl ether	9.852	45	1157	0.17	ug/L		80
28) 1,1-dichloroethane	9.794	63	549	0.15	ug/L	#	49
33) ethyl tert-butyl ether	10.350	59	1182	0.17	ug/L		89
41) chloroform	10.958	85	497	0.20	ug/L	#	77
45) 1,1,1-trichloroethane	11.251	97	505	0.16	ug/L	#	70
47) 1,1-dichloropropene	11.445	75	441	0.16	ug/L	#	41
54) 2,2,4-trimethylpentane	11.760	57	1015	0.20	ug/L	#	73
55) benzene	11.697	78	1688	0.22	ug/L		86
60) trichloroethene	12.373	130	403	0.19	ug/L		87
65) 1,2-dichloropropane	12.599	63	339	0.16	ug/L	#	48
68) bromodichloromethane	12.845	83	466	0.16	ug/L		89
70) cis-1,3-dichloropropene	13.281	75	675	0.19	ug/L	#	75
71) 4-methyl-2-pentanone	13.375	58	780	0.65	ug/L	#	78
75) toluene	13.637	92	1099	0.23	ug/L		98
76) trans-1,3-dichloropropene	13.784	75	526	0.16	ug/L	#	46
78) 1,1,2-trichloroethane	13.967	83	257	0.15	ug/L	#	50
79) tetrachloroethene	14.182	164	348	0.21	ug/L		83
80) 1,3-dichloropropane	14.140	76	662	0.21	ug/L	#	67
83) dibromochloromethane	14.376	129	367	0.16	ug/L		83
84) 1,2-dibromoethane	14.528	107	489	0.19	ug/L		83
85) n-butyl ether	14.922	57	1771	0.20	ug/L	#	1
86) chlorobenzene	14.958	112	1203	0.23	ug/L		84
87) 1,1,1,2-tetrachloroethane	15.005	131	345	0.18	ug/L	#	68
88) ethylbenzene	15.026	91	1966	0.22	ug/L		91
89) m,p-xylene	15.126	106	1364	0.41	ug/L		96
90) o-xylene	15.493	106	595	0.18	ug/L		88
91) styrene	15.509	104	989	0.18	ug/L		96
94) isopropylbenzene	15.813	105	1764	0.22	ug/L		99
98) bromobenzene	16.154	156	426	0.20	ug/L		92

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V4D4028\
Data File : 4D92104.D
Acq On : 29 Jan 2019 2:41 pm
Operator : roberts
Sample : ic4028-0.2
Misc : MS31310,V4D4028,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 01 10:15:32 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 31 10:07:44 2019
Response via : Initial Calibration

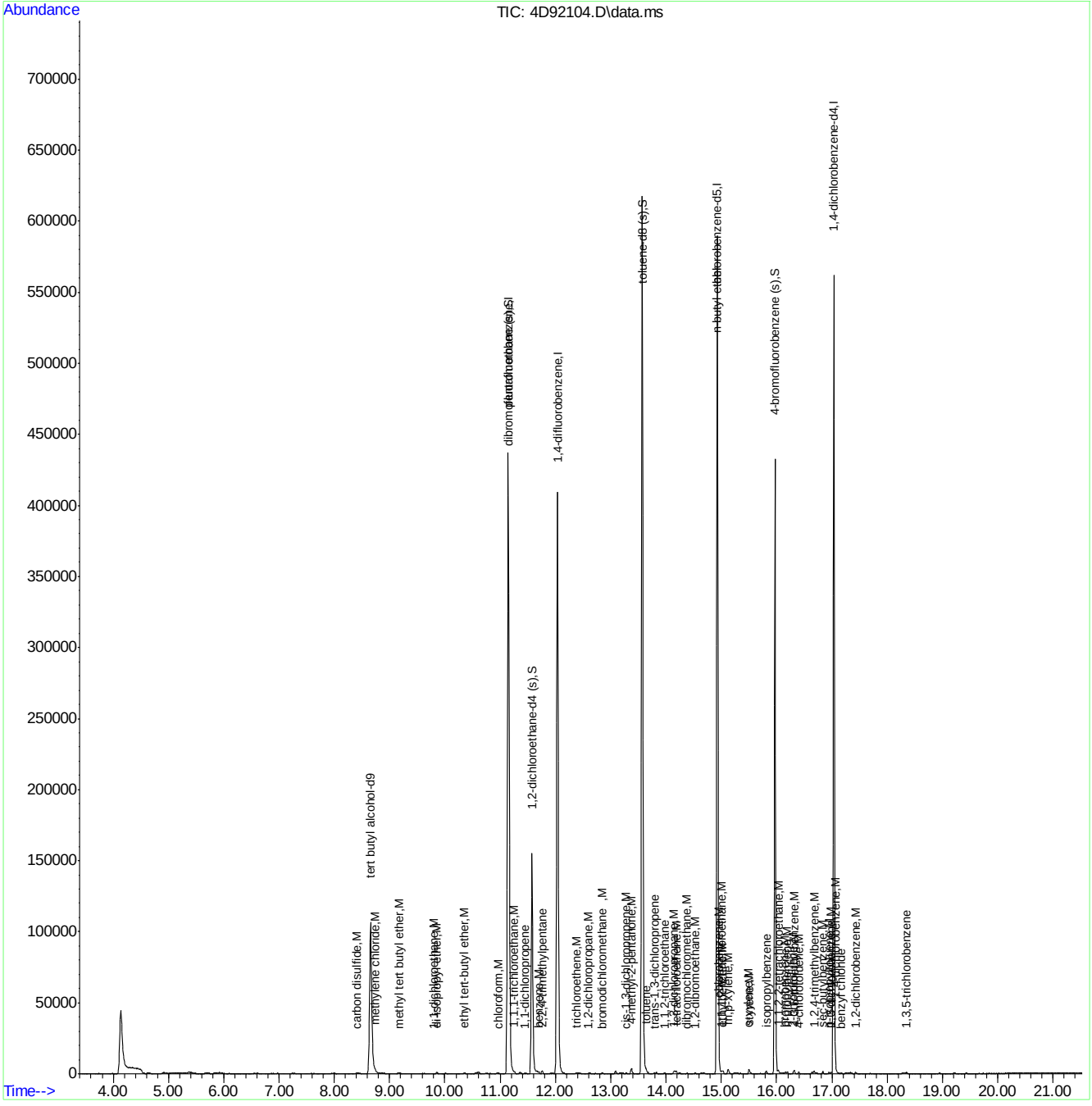
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
99) 1,1,2,2-tetrachloroethane	16.028	83	609	0.20	ug/L		92
102) n-propylbenzene	16.185	91	1964	0.21	ug/L		85
103) 2-chlorotoluene	16.306	126	350	0.18	ug/L	#	69
104) 4-chlorotoluene	16.400	91	1264	0.22	ug/L		87
105) 1,3,5-trimethylbenzene	16.316	105	1291	0.20	ug/L		93
107) 1,2,4-trimethylbenzene	16.678	105	1326	0.20	ug/L		89
108) sec-butylbenzene	16.835	105	1548	0.21	ug/L		99
109) 1,3-dichlorobenzene	16.987	146	819	0.22	ug/L		97
110) p-isopropyltoluene	16.945	119	1180	0.19	ug/L		93
111) 1,4-dichlorobenzene	17.061	146	823	0.22	ug/L		85
112) benzyl chloride	17.160	91	904	0.17	ug/L		61
113) 1,2-dichlorobenzene	17.428	146	702	0.20	ug/L		94
116) 1,3,5-trichlorobenzene	18.351	180	425	0.17	ug/L		80

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V4D4028\
Data File : 4D92104.D
Acq On : 29 Jan 2019 2:41 pm
Operator : roberts
Sample : ic4028-0.2
Misc : MS31310,V4D4028,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 01 10:15:32 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 31 10:07:44 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V4D4028\
Data File : 4D92105.D
Acq On : 29 Jan 2019 3:10 pm
Operator : roberts
Sample : ic4028-0.5
Misc : MS31310,V4D4028,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jan 31 11:22:59 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 31 10:07:44 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	8.656	65	171557	500.00	ug/L		0.00
5) pentafluorobenzene	11.146	168	200619	50.00	ug/L		0.00
51) 1,4-difluorobenzene	12.038	114	333228	50.00	ug/L		0.00
73) chlorobenzene-d5	14.927	117	300895	50.00	ug/L		0.00
96) 1,4-dichlorobenzene-d4	17.034	152	132818	50.00	ug/L		0.00
System Monitoring Compounds							
43) dibromofluoromethane (s)	11.152	113	107386	47.09	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 94.18%				
52) 1,2-dichloroethane-d4 (s)	11.576	65	114884	50.84	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 101.68%				
74) toluene-d8 (s)	13.569	98	384947	49.24	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.48%				
97) 4-bromofluorobenzene (s)	15.970	95	133464	50.31	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.62%				
Target Compounds							Qvalue
6) chlorodifluoromethane	4.650	51	804	0.39	ug/L		62
8) chloromethane	5.091	50	2024	0.62	ug/L	#	49
9) vinyl chloride	5.374	62	1118	0.43	ug/L		95
12) trichlorofluoromethane	6.968	101	1248	0.40	ug/L		88
21) carbon disulfide	8.410	76	2087	0.49	ug/L		71
22) methylene chloride	8.735	84	1022	0.52	ug/L		98
24) methyl tert butyl ether	9.165	73	2473	0.42	ug/L		97
26) di-isopropyl ether	9.851	45	2417	0.38	ug/L		84
28) 1,1-dichloroethane	9.794	63	1361	0.40	ug/L		90
33) ethyl tert-butyl ether	10.344	59	2483	0.40	ug/L		99
35) 2,2-dichloropropane	10.612	77	1269	0.44	ug/L		87
36) cis-1,2-dichloroethene	10.580	96	855	0.40	ug/L		100
41) chloroform	10.958	85	981	0.44	ug/L		100
42) t-butyl formate	11.042	59	731	0.34	ug/L		95
45) 1,1,1-trichloroethane	11.262	97	1299	0.44	ug/L		88
46) cyclohexane	11.367	84	1090	0.39	ug/L	#	71
47) 1,1-dichloropropene	11.445	75	1141	0.45	ug/L		95
49) carbon tetrachloride	11.477	117	987	0.38	ug/L	#	80
54) 2,2,4-trimethylpentane	11.765	57	1563	0.32	ug/L		82
55) benzene	11.697	78	3396	0.47	ug/L		96
56) tert-amyl methyl ether	11.749	87	551	0.37	ug/L	#	60
59) 1,2-dichloroethane	11.671	62	1675	0.61	ug/L		92
60) trichloroethene	12.373	130	830	0.42	ug/L		89
63) 2-chloroethyl vinyl ether	13.081	63	2536	1.66	ug/L		97
65) 1,2-dichloropropane	12.604	63	837	0.42	ug/L	#	48
66) dibromomethane	12.719	93	584	0.42	ug/L		94
67) methylcyclohexane	12.620	83	905	0.34	ug/L		96
68) bromodichloromethane	12.850	83	1210	0.44	ug/L		86
70) cis-1,3-dichloropropene	13.280	75	1455	0.45	ug/L		98
71) 4-methyl-2-pentanone	13.369	58	1765	1.57	ug/L		95
75) toluene	13.637	92	2229	0.48	ug/L		94
76) trans-1,3-dichloropropene	13.784	75	1232	0.40	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V4D4028\
Data File : 4D92105.D
Acq On : 29 Jan 2019 3:10 pm
Operator : roberts
Sample : ic4028-0.5
Misc : MS31310,V4D4028,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jan 31 11:22:59 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 31 10:07:44 2019
Response via : Initial Calibration

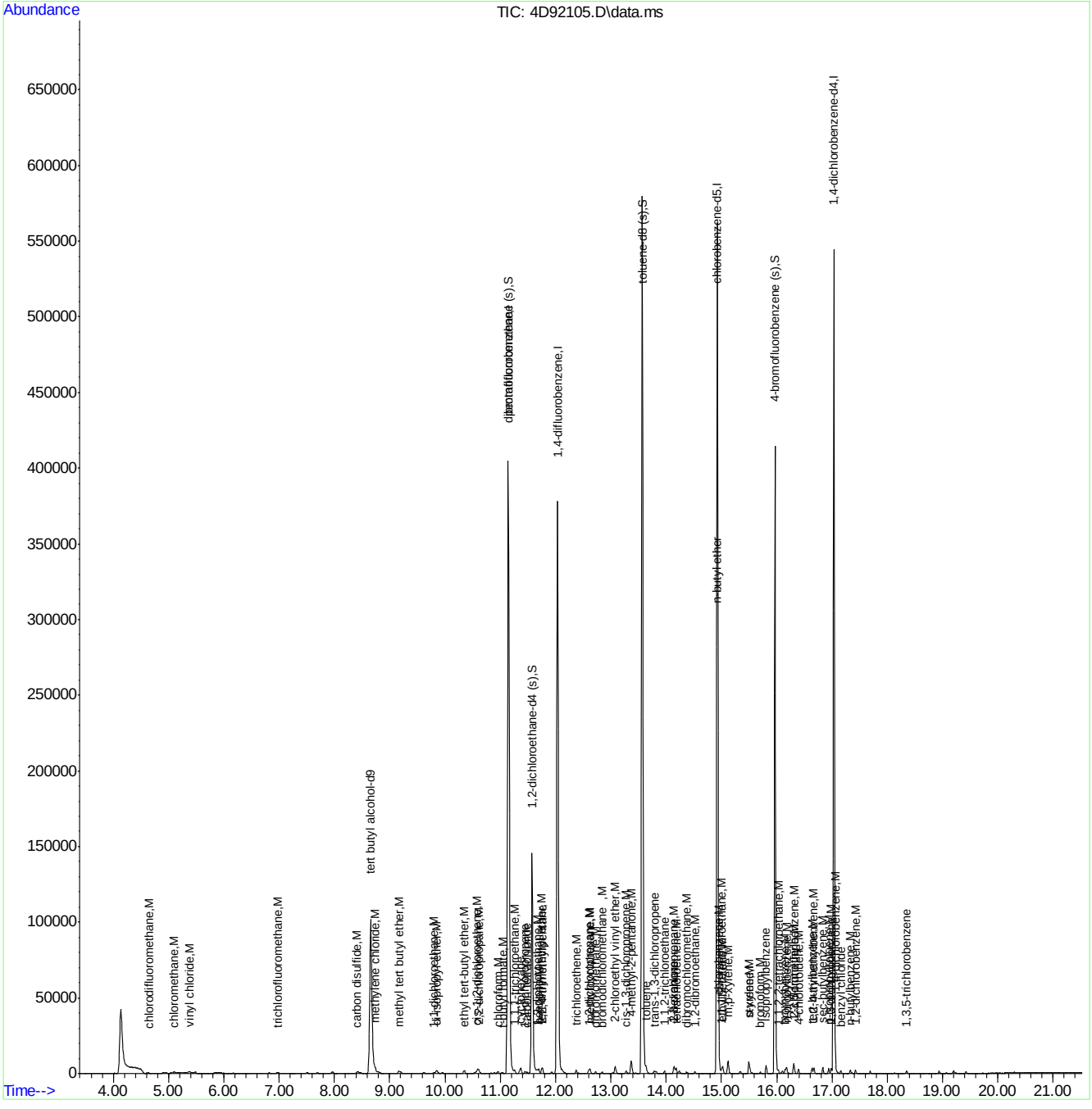
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
78) 1,1,2-trichloroethane	13.967	83	640	0.39	ug/L		90
79) tetrachloroethene	14.182	164	739	0.46	ug/L		94
80) 1,3-dichloropropane	14.140	76	1370	0.44	ug/L		84
81) 2-hexanone	14.145	58	1812	1.52	ug/L		82
83) dibromochloromethane	14.376	129	869	0.39	ug/L		84
84) 1,2-dibromoethane	14.523	107	1063	0.43	ug/L		89
85) n-butyl ether	14.916	57	3533	0.43	ug/L	#	1
86) chlorobenzene	14.958	112	2361	0.47	ug/L		86
87) 1,1,1,2-tetrachloroethane	15.005	131	775	0.41	ug/L		90
88) ethylbenzene	15.026	91	3997	0.47	ug/L		99
89) m,p-xylene	15.126	106	3004	0.94	ug/L		89
90) o-xylene	15.498	106	1371	0.44	ug/L		86
91) styrene	15.503	104	2032	0.38	ug/L		95
92) bromoform	15.708	173	606	0.37	ug/L		95
94) isopropylbenzene	15.807	105	3595	0.47	ug/L		97
98) bromobenzene	16.154	156	1014	0.48	ug/L		98
99) 1,1,2,2-tetrachloroethane	16.028	83	1265	0.43	ug/L		93
102) n-propylbenzene	16.185	91	4278	0.48	ug/L		99
103) 2-chlorotoluene	16.311	126	802	0.43	ug/L	#	76
104) 4-chlorotoluene	16.400	91	2592	0.48	ug/L		99
105) 1,3,5-trimethylbenzene	16.316	105	2749	0.44	ug/L		99
106) tert-butylbenzene	16.641	134	489	0.43	ug/L	#	78
107) 1,2,4-trimethylbenzene	16.673	105	2731	0.44	ug/L		98
108) sec-butylbenzene	16.835	105	3339	0.46	ug/L		97
109) 1,3-dichlorobenzene	16.987	146	1682	0.48	ug/L		94
110) p-isopropyltoluene	16.940	119	2598	0.43	ug/L		95
111) 1,4-dichlorobenzene	17.061	146	1784	0.49	ug/L		91
112) benzyl chloride	17.160	91	1925	0.38	ug/L		98
113) 1,2-dichlorobenzene	17.428	146	1529	0.44	ug/L		99
114) n-butylbenzene	17.328	92	1112	0.37	ug/L		92
116) 1,3,5-trichlorobenzene	18.345	180	926	0.39	ug/L		92

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V4D4028\
Data File : 4D92105.D
Acq On : 29 Jan 2019 3:10 pm
Operator : roberts
Sample : ic4028-0.5
Misc : MS31310,V4D4028,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jan 31 11:22:59 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 31 10:07:44 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V4D4028\
Data File : 4D92106.D
Acq On : 29 Jan 2019 3:39 pm
Operator : roberts
Sample : ic4028-1
Misc : MS31310,V4D4028,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jan 31 11:25:21 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 31 10:07:44 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	8.656	65	165307	500.00	ug/L		0.00
5) pentafluorobenzene	11.147	168	187804	50.00	ug/L		0.00
51) 1,4-difluorobenzene	12.038	114	319697	50.00	ug/L		0.00
73) chlorobenzene-d5	14.927	117	286907	50.00	ug/L		0.00
96) 1,4-dichlorobenzene-d4	17.034	152	125324	50.00	ug/L		0.00
System Monitoring Compounds							
43) dibromofluoromethane (s)	11.152	113	101299	47.45	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 94.90%				
52) 1,2-dichloroethane-d4 (s)	11.576	65	107960	49.80	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 99.60%				
74) toluene-d8 (s)	13.569	98	369910	49.63	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.26%				
97) 4-bromofluorobenzene (s)	15.970	95	127255	50.83	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.66%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	8.798	59	1484	4.01	ug/L		76
3) ethanol	7.214	45	2551	67.93	ug/L		91
4) 1,4-dioxane	12.693	88	796	22.57	ug/L		86
6) chlorodifluoromethane	4.656	51	1809	0.93	ug/L		62
7) dichlorodifluoromethane	4.614	85	1604	0.74	ug/L	#	50
8) chloromethane	5.096	50	3192	1.05	ug/L		93
9) vinyl chloride	5.374	62	2203	0.91	ug/L		93
11) chloroethane	6.407	64	985	0.78	ug/L		71
12) trichlorofluoromethane	6.968	101	2255	0.78	ug/L		93
13) vinyl bromide	6.826	106	1050	0.71	ug/L		87
16) freon 113	7.959	151	903	0.73	ug/L		98
17) 1,1-dichloroethene	7.954	96	1237	0.79	ug/L		88
19) acetonitrile	8.431	41	2625	7.31	ug/L		89
21) carbon disulfide	8.415	76	3818	0.95	ug/L		88
22) methylene chloride	8.729	84	1637	0.90	ug/L		97
24) methyl tert butyl ether	9.165	73	4711	0.85	ug/L		98
25) trans-1,2-dichloroethene	9.201	96	1398	0.82	ug/L		89
26) di-isopropyl ether	9.851	45	4758	0.80	ug/L		88
28) 1,1-dichloroethane	9.794	63	2672	0.84	ug/L		96
29) chloroprene	9.951	53	1957	0.76	ug/L		90
33) ethyl tert-butyl ether	10.344	59	4879	0.83	ug/L		94
35) 2,2-dichloropropane	10.612	77	2469	0.92	ug/L		99
36) cis-1,2-dichloroethene	10.586	96	1578	0.79	ug/L		95
38) propionitrile	10.606	54	3061	7.11	ug/L		93
39) bromochloromethane	10.900	128	694	0.73	ug/L		92
41) chloroform	10.958	85	1964	0.93	ug/L		91
42) t-butyl formate	11.031	59	1496	0.75	ug/L		89
45) 1,1,1-trichloroethane	11.262	97	2528	0.91	ug/L		96
46) cyclohexane	11.372	84	2098	0.81	ug/L	#	80
47) 1,1-dichloropropene	11.451	75	2076	0.87	ug/L		94
49) carbon tetrachloride	11.482	117	1965	0.82	ug/L		98
50) tert amyl alcohol	11.524	55	467	3.41	ug/L	#	84

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V4D4028\
Data File : 4D92106.D
Acq On : 29 Jan 2019 3:39 pm
Operator : roberts
Sample : ic4028-1
Misc : MS31310,V4D4028,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jan 31 11:25:21 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 31 10:07:44 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
53) n-butyl alcohol	12.111	56	3484	31.24	ug/L		97
54) 2,2,4-trimethylpentane	11.765	57	3778	0.82	ug/L		95
55) benzene	11.697	78	6519	0.94	ug/L		98
56) tert-amyl methyl ether	11.760	87	1123	0.79	ug/L	#	70
57) heptane	11.922	71	747	0.69	ug/L		85
59) 1,2-dichloroethane	11.666	62	2787	1.05	ug/L		90
60) trichloroethene	12.373	130	1695	0.89	ug/L		97
61) ethyl acrylate	12.373	55	2181	0.66	ug/L		82
62) 2-nitropropane	13.029	41	508	0.80	ug/L	#	82
63) 2-chloroethyl vinyl ether	13.076	63	5259	3.58	ug/L		98
65) 1,2-dichloropropane	12.594	63	1685	0.88	ug/L		92
66) dibromomethane	12.725	93	1209	0.91	ug/L		93
67) methylcyclohexane	12.625	83	2084	0.82	ug/L		98
68) bromodichloromethane	12.845	83	2395	0.92	ug/L		90
69) epichlorohydrin	13.170	57	842	3.72	ug/L	#	48
70) cis-1,3-dichloropropene	13.280	75	2813	0.90	ug/L		99
71) 4-methyl-2-pentanone	13.370	58	3723	3.45	ug/L		95
72) 3-methyl-1-butanol	13.359	70	1182	11.46	ug/L		79
75) toluene	13.637	92	4238	0.97	ug/L		96
76) trans-1,3-dichloropropene	13.779	75	2472	0.85	ug/L		100
77) ethyl methacrylate	13.805	69	2064	0.72	ug/L		98
78) 1,1,2-trichloroethane	13.962	83	1411	0.89	ug/L		98
79) tetrachloroethene	14.177	164	1467	0.96	ug/L		93
80) 1,3-dichloropropane	14.140	76	2788	0.95	ug/L		92
81) 2-hexanone	14.146	58	3483	3.07	ug/L		89
82) butyl acetate	14.229	56	1152	0.67	ug/L	#	76
83) dibromochloromethane	14.376	129	1836	0.86	ug/L		97
84) 1,2-dibromoethane	14.518	107	2100	0.89	ug/L		90
85) n-butyl ether	14.911	57	7000	0.89	ug/L		81
86) chlorobenzene	14.958	112	4802	1.00	ug/L		95
87) 1,1,1,2-tetrachloroethane	15.005	131	1565	0.87	ug/L		92
88) ethylbenzene	15.021	91	7688	0.95	ug/L		99
89) m,p-xylene	15.121	106	5717	1.88	ug/L		94
90) o-xylene	15.498	106	2777	0.94	ug/L		99
91) styrene	15.498	104	4162	0.82	ug/L		95
92) bromoform	15.708	173	1197	0.78	ug/L		91
93) butyl acrylate	15.330	55	2808	0.67	ug/L	#	95
94) isopropylbenzene	15.808	105	7047	0.96	ug/L		98
98) bromobenzene	16.154	156	1845	0.93	ug/L		96
99) 1,1,2,2-tetrachloroethane	16.028	83	2629	0.94	ug/L		98
101) 1,2,3-trichloropropane	16.106	110	626	0.87	ug/L		95
102) n-propylbenzene	16.180	91	8083	0.95	ug/L		97
103) 2-chlorotoluene	16.306	126	1632	0.92	ug/L		87
104) 4-chlorotoluene	16.395	91	4951	0.97	ug/L		97
105) 1,3,5-trimethylbenzene	16.316	105	5456	0.94	ug/L		100
106) tert-butylbenzene	16.636	134	990	0.92	ug/L		90
107) 1,2,4-trimethylbenzene	16.673	105	5452	0.93	ug/L		99
108) sec-butylbenzene	16.835	105	6455	0.95	ug/L		98
109) 1,3-dichlorobenzene	16.987	146	3132	0.94	ug/L		97
110) p-isopropyltoluene	16.940	119	5043	0.89	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V4D4028\
Data File : 4D92106.D
Acq On : 29 Jan 2019 3:39 pm
Operator : roberts
Sample : ic4028-1
Misc : MS31310,V4D4028,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jan 31 11:25:21 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 31 10:07:44 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
111) 1,4-dichlorobenzene	17.061	146	3335	0.98	ug/L		98
112) benzyl chloride	17.155	91	3968	0.82	ug/L		98
113) 1,2-dichlorobenzene	17.428	146	2880	0.89	ug/L		92
114) n-butylbenzene	17.328	92	2315	0.83	ug/L		90
115) 1,2-dibromo-3-chloropr...	18.125	75	373	0.67	ug/L	#	70
116) 1,3,5-trichlorobenzene	18.340	180	1897	0.84	ug/L		96
118) 1,2,4-trichlorobenzene	18.932	180	1660	0.82	ug/L		96
119) hexachlorobutadiene	19.064	225	615	0.83	ug/L		98
120) naphthalene	19.195	128	5231	0.83	ug/L		95
121) 1,2,3-trichlorobenzene	19.425	180	1627	0.86	ug/L		97
122) hexachloroethane	17.695	201	679	0.75	ug/L		94

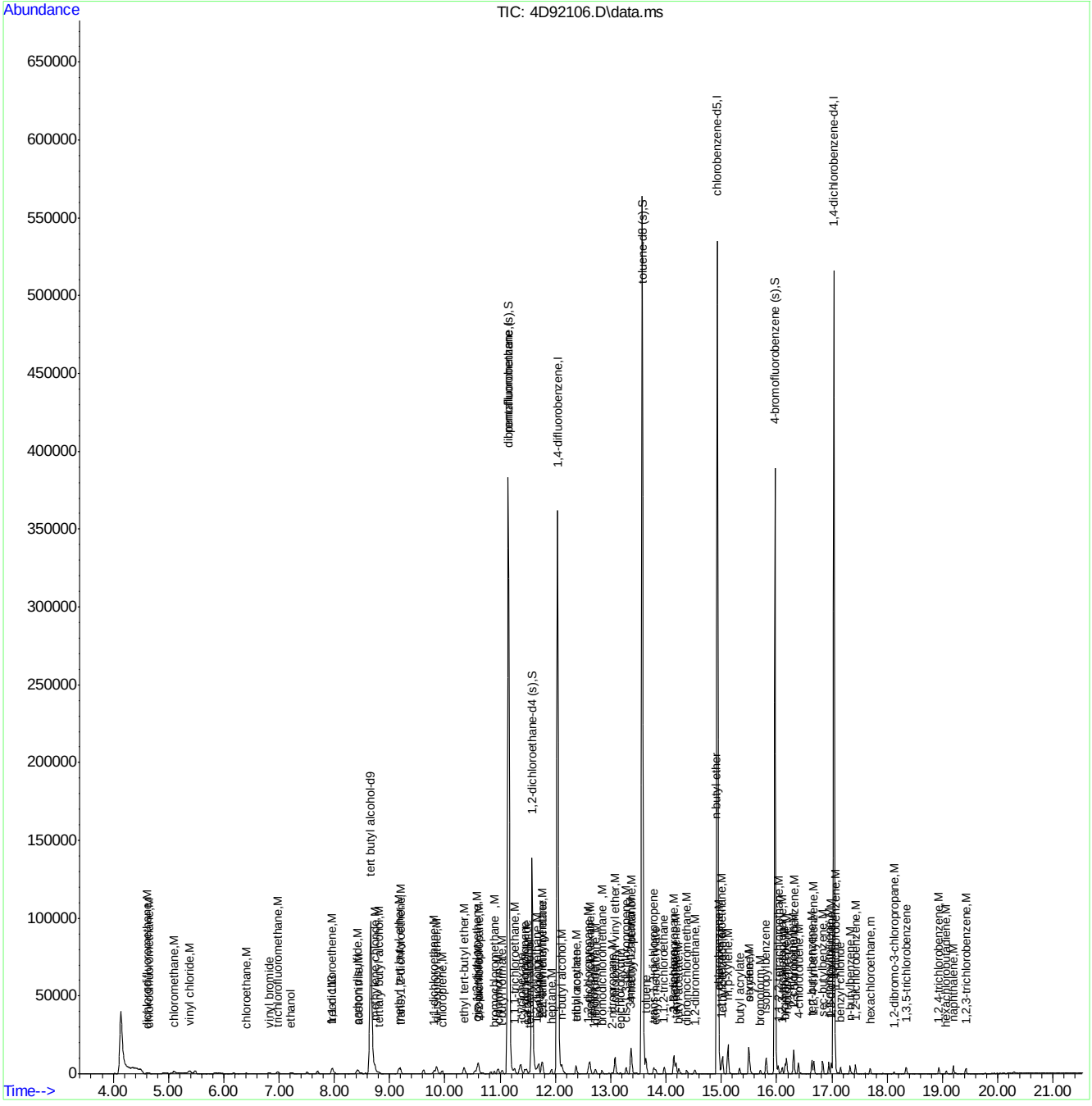
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.7.3
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V4D4028\
Data File : 4D92106.D
Acq On : 29 Jan 2019 3:39 pm
Operator : roberts
Sample : ic4028-1
Misc : MS31310,V4D4028,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jan 31 11:25:21 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 31 10:07:44 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V4D4028\
Data File : 4D92107.D
Acq On : 29 Jan 2019 4:08 pm
Operator : roberts
Sample : ic4028-2
Misc : MS31310,V4D4028,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jan 31 11:26:33 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 31 10:35:07 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	8.656	65	159185	500.00	ug/L	0.00
5) pentafluorobenzene	11.147	168	182615	50.00	ug/L	0.00
51) 1,4-difluorobenzene	12.038	114	314912	50.00	ug/L	0.00
73) chlorobenzene-d5	14.927	117	284712	50.00	ug/L	0.00
96) 1,4-dichlorobenzene-d4	17.034	152	127557	50.00	ug/L	0.00
System Monitoring Compounds						
43) dibromofluoromethane (s)	11.152	113	101000	48.65	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.30%			
52) 1,2-dichloroethane-d4 (s)	11.576	65	106598	49.91	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 99.82%			
74) toluene-d8 (s)	13.569	98	365662	49.43	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.86%			
97) 4-bromofluorobenzene (s)	15.970	95	128972	50.62	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.24%			
Target Compounds						Qvalue
2) tertiary butyl alcohol	8.803	59	3258	9.14	ug/L	99
3) ethanol	7.209	45	5813	160.75	ug/L	95
4) 1,4-dioxane	12.693	88	1754	51.65	ug/L	92
6) chlorodifluoromethane	4.645	51	3820	2.03	ug/L	84
7) dichlorodifluoromethane	4.614	85	3619	1.71	ug/L	93
8) chloromethane	5.101	50	6253	2.12	ug/L	99
9) vinyl chloride	5.374	62	4669	1.99	ug/L	95
10) bromomethane	6.171	94	1055	1.35	ug/L	90
11) chloroethane	6.412	64	2198	1.78	ug/L	97
12) trichlorofluoromethane	6.968	101	4935	1.76	ug/L	97
13) vinyl bromide	6.821	106	2568	1.78	ug/L	95
14) ethyl ether	7.497	74	1508	1.52	ug/L	95
16) freon 113	7.948	151	2014	1.66	ug/L	94
17) 1,1-dichloroethene	7.959	96	2681	1.76	ug/L	99
18) acetone	7.974	43	4759	6.02	ug/L	93
19) acetonitrile	8.420	41	5642	16.17	ug/L	93
20) iodomethane	8.252	142	1028	0.99	ug/L	88
21) carbon disulfide	8.415	76	7494	1.92	ug/L	96
22) methylene chloride	8.735	84	3247	1.83	ug/L	95
23) methyl acetate	8.546	43	3879	1.95	ug/L	98
24) methyl tert butyl ether	9.165	73	9491	1.77	ug/L	99
25) trans-1,2-dichloroethene	9.196	96	3018	1.83	ug/L	99
26) di-isopropyl ether	9.852	45	10184	1.76	ug/L	98
27) 2-butanone	10.538	72	1908	5.75	ug/L	94
28) 1,1-dichloroethane	9.799	63	5538	1.78	ug/L	97
29) chloroprene	9.946	53	4200	1.68	ug/L	98
31) hexane	9.610	56	1563	1.45	ug/L	92
33) ethyl tert-butyl ether	10.350	59	10031	1.76	ug/L	100
35) 2,2-dichloropropane	10.607	77	5043	1.94	ug/L	97
36) cis-1,2-dichloroethene	10.580	96	3513	1.81	ug/L	91
38) propionitrile	10.601	54	6594	15.74	ug/L	92
39) bromochloromethane	10.895	128	1598	1.74	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V4D4028\
Data File : 4D92107.D
Acq On : 29 Jan 2019 4:08 pm
Operator : roberts
Sample : ic4028-2
Misc : MS31310,V4D4028,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jan 31 11:26:33 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 31 10:35:07 2019
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
41)	chloroform	10.958	85	3782	1.85	ug/L		95
42)	t-butyl formate	11.036	59	3171	1.64	ug/L		95
45)	1,1,1-trichloroethane	11.262	97	5089	1.88	ug/L		96
46)	cyclohexane	11.372	84	4395	1.75	ug/L	#	89
47)	1,1-dichloropropene	11.445	75	4387	1.89	ug/L		95
49)	carbon tetrachloride	11.482	117	4354	1.86	ug/L		96
50)	tert amyl alcohol	11.524	55	1073	8.05	ug/L		90
53)	n-butyl alcohol	12.111	56	8096	73.69	ug/L		97
54)	2,2,4-trimethylpentane	11.765	57	7766	1.71	ug/L		91
55)	benzene	11.692	78	13089	1.91	ug/L		99
56)	tert-amyl methyl ether	11.755	87	2485	1.77	ug/L		94
57)	heptane	11.928	71	1679	1.57	ug/L		96
58)	isopropyl acetate	11.624	87	785	1.44	ug/L	#	67
59)	1,2-dichloroethane	11.666	62	5482	2.10	ug/L		100
60)	trichloroethene	12.368	130	3606	1.93	ug/L		99
61)	ethyl acrylate	12.368	55	5065	1.55	ug/L		89
62)	2-nitropropane	13.024	41	1112	1.77	ug/L		92
63)	2-chloroethyl vinyl ether	13.076	63	11502	7.94	ug/L		98
64)	methyl methacrylate	12.615	100	864	1.35	ug/L		91
65)	1,2-dichloropropane	12.599	63	3495	1.86	ug/L		97
66)	dibromomethane	12.725	93	2505	1.92	ug/L		97
67)	methylcyclohexane	12.620	83	4447	1.77	ug/L		98
68)	bromodichloromethane	12.845	83	4881	1.90	ug/L		98
69)	epichlorohydrin	13.165	57	1926	8.63	ug/L		96
70)	cis-1,3-dichloropropene	13.280	75	5881	1.90	ug/L		98
71)	4-methyl-2-pentanone	13.370	58	7758	7.30	ug/L		98
72)	3-methyl-1-butanol	13.354	70	2849	28.04	ug/L		92
75)	toluene	13.637	92	8842	2.03	ug/L		99
76)	trans-1,3-dichloropropene	13.773	75	5295	1.83	ug/L		99
77)	ethyl methacrylate	13.800	69	4688	1.65	ug/L		96
78)	1,1,2-trichloroethane	13.967	83	2903	1.85	ug/L		95
79)	tetrachloroethene	14.177	164	3099	2.04	ug/L		97
80)	1,3-dichloropropane	14.135	76	5639	1.94	ug/L		96
81)	2-hexanone	14.140	58	7569	6.72	ug/L		90
82)	butyl acetate	14.224	56	2920	1.70	ug/L		91
83)	dibromochloromethane	14.371	129	3644	1.72	ug/L		97
84)	1,2-dibromoethane	14.523	107	4303	1.83	ug/L		96
85)	n-butyl ether	14.911	57	14265	1.82	ug/L		89
86)	chlorobenzene	14.958	112	9595	2.01	ug/L		97
87)	1,1,1,2-tetrachloroethane	15.005	131	3350	1.89	ug/L		96
88)	ethylbenzene	15.021	91	15846	1.98	ug/L		100
89)	m,p-xylene	15.116	106	12006	3.99	ug/L		98
90)	o-xylene	15.493	106	5768	1.97	ug/L		98
91)	styrene	15.493	104	8940	1.78	ug/L		96
92)	bromoform	15.703	173	2498	1.63	ug/L		94
93)	butyl acrylate	15.325	55	6300	1.53	ug/L		99
94)	isopropylbenzene	15.808	105	14294	1.97	ug/L		99
98)	bromobenzene	16.154	156	3815	1.89	ug/L		99
99)	1,1,2,2-tetrachloroethane	16.028	83	5208	1.83	ug/L		96
101)	1,2,3-trichloropropane	16.101	110	1388	1.89	ug/L		96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V4D4028\
Data File : 4D92107.D
Acq On : 29 Jan 2019 4:08 pm
Operator : roberts
Sample : ic4028-2
Misc : MS31310,V4D4028,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jan 31 11:26:33 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 31 10:35:07 2019
Response via : Initial Calibration

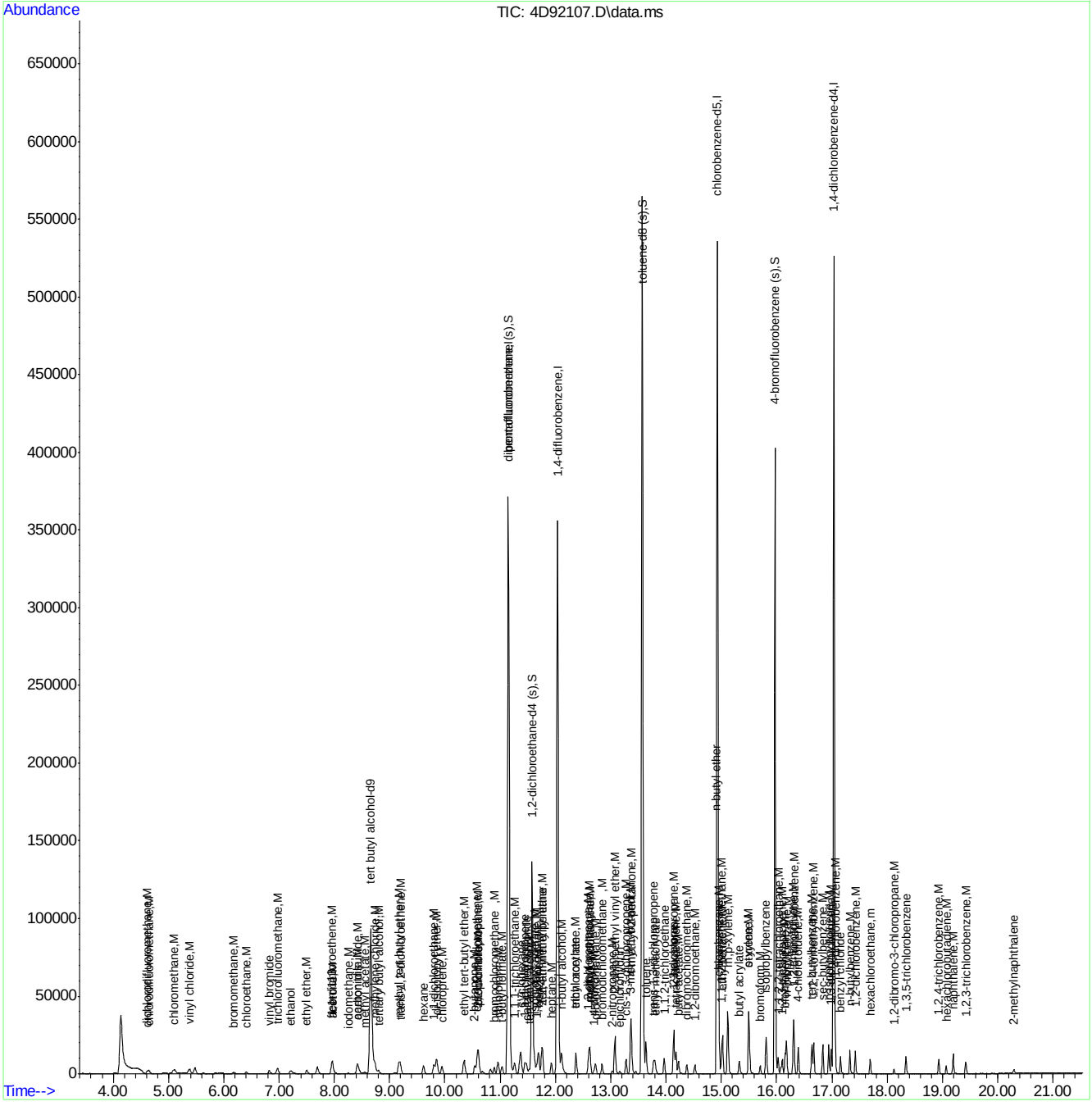
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
102) n-propylbenzene	16.180	91	17210	1.99	ug/L	98
103) 2-chlorotoluene	16.306	126	3485	1.93	ug/L	97
104) 4-chlorotoluene	16.390	91	10451	2.01	ug/L	98
105) 1,3,5-trimethylbenzene	16.316	105	11482	1.94	ug/L	100
106) tert-butylbenzene	16.636	134	1982	1.81	ug/L	93
107) 1,2,4-trimethylbenzene	16.673	105	11463	1.92	ug/L	99
108) sec-butylbenzene	16.835	105	13562	1.95	ug/L	98
109) 1,3-dichlorobenzene	16.987	146	6543	1.93	ug/L	99
110) p-isopropyltoluene	16.940	119	10972	1.90	ug/L	98
111) 1,4-dichlorobenzene	17.061	146	6880	1.99	ug/L	96
112) benzyl chloride	17.155	91	8776	1.79	ug/L	96
113) 1,2-dichlorobenzene	17.422	146	6377	1.93	ug/L	95
114) n-butylbenzene	17.323	92	5189	1.82	ug/L	95
115) 1,2-dibromo-3-chloropr...	18.125	75	940	1.65	ug/L	85
116) 1,3,5-trichlorobenzene	18.340	180	4066	1.78	ug/L	92
118) 1,2,4-trichlorobenzene	18.932	180	3454	1.68	ug/L	95
119) hexachlorobutadiene	19.069	225	1347	1.79	ug/L	98
120) naphthalene	19.195	128	10888	1.69	ug/L	98
121) 1,2,3-trichlorobenzene	19.420	180	3373	1.75	ug/L	96
122) hexachloroethane	17.695	201	1580	1.72	ug/L	95
123) 2-methylnaphthalene	20.290	142	1910	0.78	ug/L	92

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V4D4028\
Data File : 4D92107.D
Acq On : 29 Jan 2019 4:08 pm
Operator : roberts
Sample : ic4028-2
Misc : MS31310,V4D4028,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jan 31 11:26:33 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 31 10:35:07 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V4D4028\
Data File : 4D92108.D
Acq On : 29 Jan 2019 4:37 pm
Operator : roberts
Sample : ic4028-4
Misc : MS31310,V4D4028,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jan 31 11:27:19 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 31 10:35:07 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	8.656	65	159314	500.00	ug/L	0.00
5) pentafluorobenzene	11.147	168	179008	50.00	ug/L	0.00
51) 1,4-difluorobenzene	12.038	114	312089	50.00	ug/L	0.00
73) chlorobenzene-d5	14.927	117	279877	50.00	ug/L	0.00
96) 1,4-dichlorobenzene-d4	17.035	152	123986	50.00	ug/L	0.00
System Monitoring Compounds						
43) dibromofluoromethane (s)	11.152	113	99381	48.84	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.68%			
52) 1,2-dichloroethane-d4 (s)	11.576	65	105044	49.63	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 99.26%			
74) toluene-d8 (s)	13.569	98	362634	49.87	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.74%			
97) 4-bromofluorobenzene (s)	15.970	95	126038	50.89	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.78%			
Target Compounds						Qvalue
2) tertiary butyl alcohol	8.798	59	6853	19.20	ug/L	95
3) ethanol	7.193	45	13150	363.35	ug/L	97
4) 1,4-dioxane	12.693	88	3701	108.90	ug/L	96
6) chlorodifluoromethane	4.645	51	7479	4.05	ug/L	95
7) dichlorodifluoromethane	4.614	85	7619	3.68	ug/L	94
8) chloromethane	5.101	50	11616	4.01	ug/L	98
9) vinyl chloride	5.374	62	9350	4.07	ug/L	97
10) bromomethane	6.171	94	2225	2.91	ug/L	92
11) chloroethane	6.407	64	4484	3.71	ug/L	96
12) trichlorofluoromethane	6.973	101	10395	3.78	ug/L	98
13) vinyl bromide	6.821	106	5235	3.70	ug/L	98
14) ethyl ether	7.497	74	3264	3.35	ug/L	95
16) freon 113	7.954	151	4544	3.83	ug/L	97
17) 1,1-dichloroethene	7.964	96	5622	3.77	ug/L	96
18) acetone	7.969	43	10674	13.77	ug/L	98
19) acetonitrile	8.420	41	11987	35.04	ug/L	97
20) iodomethane	8.247	142	2260	2.23	ug/L	91
21) carbon disulfide	8.410	76	14535	3.80	ug/L	99
22) methylene chloride	8.735	84	6533	3.76	ug/L	93
23) methyl acetate	8.536	43	7335	3.77	ug/L	97
24) methyl tert butyl ether	9.165	73	19492	3.71	ug/L	99
25) trans-1,2-dichloroethene	9.191	96	6066	3.75	ug/L	97
26) di-isopropyl ether	9.846	45	20329	3.58	ug/L	92
27) 2-butanone	10.533	72	4343	13.36	ug/L	96
28) 1,1-dichloroethane	9.794	63	11333	3.72	ug/L	98
29) chloroprene	9.946	53	8800	3.60	ug/L	98
30) acrylonitrile	9.076	53	2521	3.15	ug/L	92
31) hexane	9.610	56	3824	3.62	ug/L	97
33) ethyl tert-butyl ether	10.344	59	20328	3.63	ug/L	98
34) ethyl acetate	10.591	70	854	2.77	ug/L	98
35) 2,2-dichloropropane	10.612	77	9976	3.92	ug/L	96
36) cis-1,2-dichloroethene	10.580	96	7092	3.72	ug/L	94

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V4D4028\
Data File : 4D92108.D
Acq On : 29 Jan 2019 4:37 pm
Operator : roberts
Sample : ic4028-4
Misc : MS31310,V4D4028,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jan 31 11:27:19 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 31 10:35:07 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) methyl acrylate	10.680	85	1065	2.76	ug/L	#	62
38) propionitrile	10.591	54	14168	34.51	ug/L		97
39) bromochloromethane	10.895	128	3336	3.70	ug/L		96
40) tetrahydrofuran	10.963	72	1125	3.13	ug/L	#	69
41) chloroform	10.958	85	7803	3.88	ug/L		96
42) t-butyl formate	11.031	59	6550	3.45	ug/L		96
45) 1,1,1-trichloroethane	11.262	97	10506	3.97	ug/L		98
46) cyclohexane	11.372	84	9263	3.76	ug/L		98
47) 1,1-dichloropropene	11.445	75	8966	3.94	ug/L		97
48) isobutyl alcohol	11.440	74	401	28.80	ug/L		52
49) carbon tetrachloride	11.477	117	9033	3.93	ug/L		99
50) tert amyl alcohol	11.529	55	2333	17.85	ug/L		98
53) n-butyl alcohol	12.106	56	18135	166.56	ug/L		96
54) 2,2,4-trimethylpentane	11.765	57	16964	3.77	ug/L		93
55) benzene	11.692	78	26581	3.92	ug/L		100
56) tert-amyl methyl ether	11.755	87	5166	3.72	ug/L		93
57) heptane	11.928	71	3876	3.66	ug/L		95
58) isopropyl acetate	11.618	87	1761	3.26	ug/L	#	80
59) 1,2-dichloroethane	11.666	62	10656	4.11	ug/L		98
60) trichloroethene	12.373	130	7362	3.98	ug/L		98
61) ethyl acrylate	12.363	55	11140	3.44	ug/L		94
62) 2-nitropropane	13.029	41	2350	3.77	ug/L		93
63) 2-chloroethyl vinyl ether	13.071	63	24980	17.41	ug/L		99
64) methyl methacrylate	12.609	100	2148	3.39	ug/L		97
65) 1,2-dichloropropane	12.599	63	7227	3.88	ug/L		98
66) dibromomethane	12.719	93	5050	3.91	ug/L		97
67) methylcyclohexane	12.620	83	9781	3.93	ug/L		97
68) bromodichloromethane	12.840	83	10107	3.96	ug/L		97
69) epichlorohydrin	13.160	57	4013	18.14	ug/L		95
70) cis-1,3-dichloropropene	13.275	75	11847	3.87	ug/L		95
71) 4-methyl-2-pentanone	13.364	58	16714	15.87	ug/L		95
72) 3-methyl-1-butanol	13.354	70	6897	68.49	ug/L		95
75) toluene	13.637	92	17518	4.09	ug/L		98
76) trans-1,3-dichloropropene	13.773	75	10871	3.82	ug/L		98
77) ethyl methacrylate	13.794	69	9764	3.49	ug/L		95
78) 1,1,2-trichloroethane	13.967	83	5992	3.88	ug/L		97
79) tetrachloroethene	14.182	164	6072	4.07	ug/L		99
80) 1,3-dichloropropane	14.135	76	11563	4.04	ug/L		97
81) 2-hexanone	14.135	58	16719	15.10	ug/L		95
82) butyl acetate	14.219	56	6067	3.60	ug/L		99
83) dibromochloromethane	14.371	129	7723	3.72	ug/L		97
84) 1,2-dibromoethane	14.523	107	8864	3.84	ug/L		96
85) n-butyl ether	14.911	57	29492	3.83	ug/L		96
86) chlorobenzene	14.958	112	19010	4.06	ug/L		95
87) 1,1,1,2-tetrachloroethane	15.005	131	6806	3.90	ug/L		99
88) ethylbenzene	15.021	91	31690	4.03	ug/L		98
89) m,p-xylene	15.116	106	23862	8.06	ug/L		95
90) o-xylene	15.493	106	11670	4.06	ug/L		98
91) styrene	15.493	104	18334	3.71	ug/L		98
92) bromoform	15.703	173	5343	3.55	ug/L		96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V4D4028\
Data File : 4D92108.D
Acq On : 29 Jan 2019 4:37 pm
Operator : roberts
Sample : ic4028-4
Misc : MS31310,V4D4028,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jan 31 11:27:19 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 31 10:35:07 2019
Response via : Initial Calibration

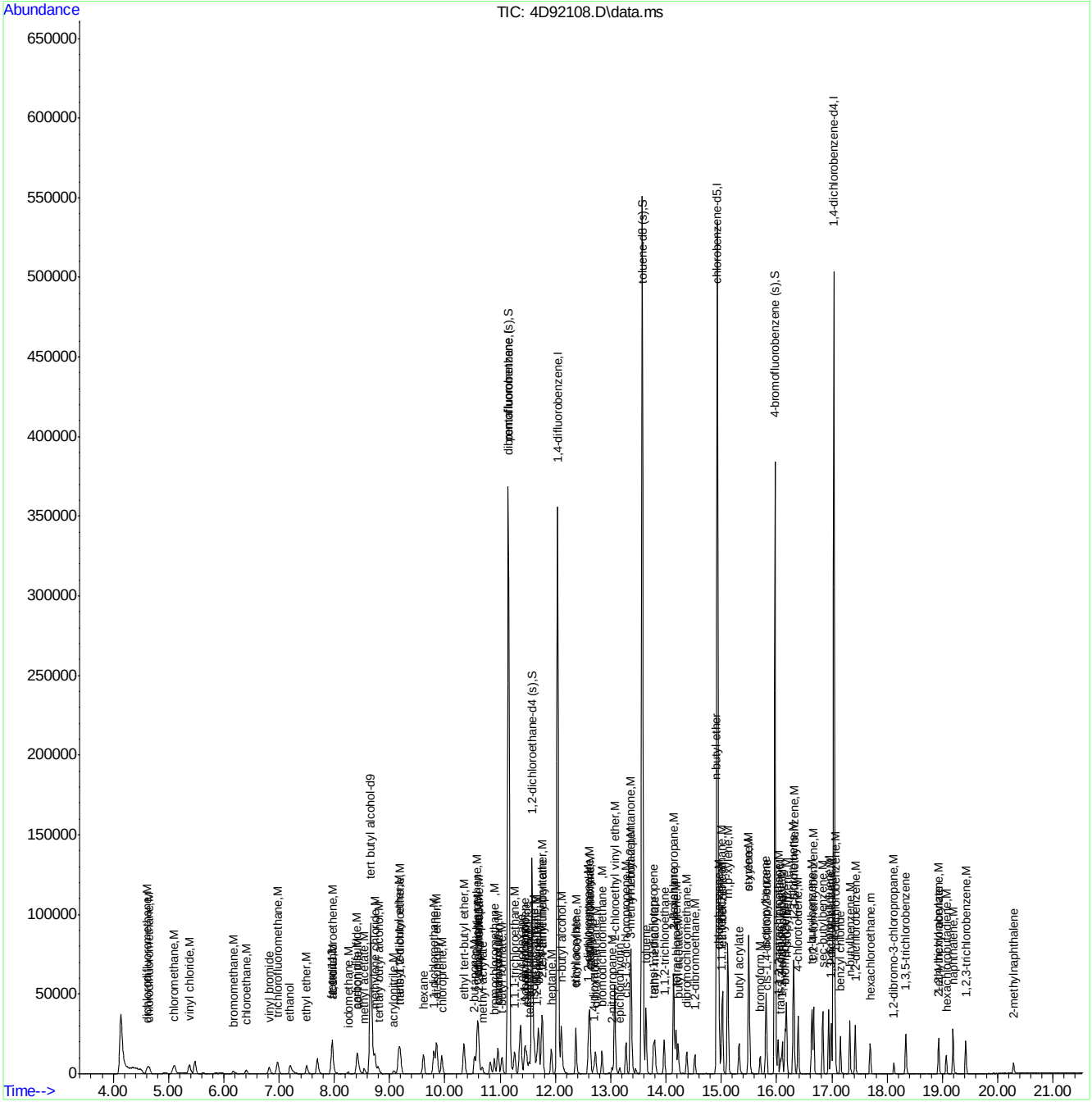
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
93) butyl acrylate	15.320	55	13750	3.39	ug/L		99
94) isopropylbenzene	15.808	105	28860	4.05	ug/L		99
95) cis-1,4-dichloro-2-butene	15.823	88	2876	3.10	ug/L		99
98) bromobenzene	16.154	156	7664	3.91	ug/L		98
99) 1,1,2,2-tetrachloroethane	16.028	83	10618	3.83	ug/L		96
100) trans-1,4-dichloro-2-b...	16.070	53	1920	3.16	ug/L		88
101) 1,2,3-trichloropropane	16.101	110	2799	3.92	ug/L		97
102) n-propylbenzene	16.180	91	34253	4.08	ug/L		99
103) 2-chlorotoluene	16.306	126	7193	4.09	ug/L		96
104) 4-chlorotoluene	16.390	91	20798	4.12	ug/L		97
105) 1,3,5-trimethylbenzene	16.311	105	23002	3.99	ug/L		98
106) tert-butylbenzene	16.636	134	4239	3.99	ug/L		96
107) 1,2,4-trimethylbenzene	16.673	105	22906	3.94	ug/L		98
108) sec-butylbenzene	16.830	105	27599	4.09	ug/L		100
109) 1,3-dichlorobenzene	16.987	146	13338	4.05	ug/L		98
110) p-isopropyltoluene	16.940	119	22352	3.99	ug/L		99
111) 1,4-dichlorobenzene	17.061	146	13614	4.04	ug/L		99
112) benzyl chloride	17.155	91	17541	3.68	ug/L		100
113) 1,2-dichlorobenzene	17.422	146	12736	3.96	ug/L		99
114) n-butylbenzene	17.323	92	10545	3.80	ug/L		95
115) 1,2-dibromo-3-chloropr...	18.120	75	1957	3.53	ug/L		81
116) 1,3,5-trichlorobenzene	18.335	180	8386	3.77	ug/L		91
117) 2-ethylhexyl acrylate	18.927	70	398	0.46	ug/L	#	70
118) 1,2,4-trichlorobenzene	18.932	180	7261	3.64	ug/L		98
119) hexachlorobutadiene	19.069	225	2810	3.83	ug/L		98
120) naphthalene	19.189	128	22893	3.65	ug/L		99
121) 1,2,3-trichlorobenzene	19.420	180	6754	3.61	ug/L		95
122) hexachloroethane	17.695	201	3216	3.60	ug/L		96
123) 2-methylnaphthalene	20.285	142	4193	1.75	ug/L		98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V4D4028\
Data File : 4D92108.D
Acq On : 29 Jan 2019 4:37 pm
Operator : roberts
Sample : ic4028-4
Misc : MS31310,V4D4028,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jan 31 11:27:19 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 31 10:35:07 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V4D4028\
Data File : 4D92109.D
Acq On : 29 Jan 2019 5:06 pm
Operator : roberts
Sample : ic4028-8
Misc : MS31310,V4D4028,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jan 31 10:35:30 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 31 10:35:07 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	8.661	65	153556	500.00	ug/L		0.00
5) pentafluorobenzene	11.146	168	176494	50.00	ug/L		0.00
51) 1,4-difluorobenzene	12.038	114	307506	50.00	ug/L		0.00
73) chlorobenzene-d5	14.927	117	275696	50.00	ug/L		0.00
96) 1,4-dichlorobenzene-d4	17.034	152	122172	50.00	ug/L		0.00
System Monitoring Compounds							
43) dibromofluoromethane (s)	11.152	113	99265	49.48	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.96%				
52) 1,2-dichloroethane-d4 (s)	11.576	65	103808	49.78	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 99.56%				
74) toluene-d8 (s)	13.569	98	357919	49.97	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.94%				
97) 4-bromofluorobenzene (s)	15.970	95	122798	50.32	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.64%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	8.792	59	13437	39.07	ug/L		96
3) ethanol	7.198	45	26923	771.82	ug/L		100
4) 1,4-dioxane	12.693	88	7235	220.87	ug/L		99
6) chlorodifluoromethane	4.645	51	14660	8.05	ug/L		98
7) dichlorodifluoromethane	4.614	85	16114	7.89	ug/L		98
8) chloromethane	5.101	50	22497	7.88	ug/L		99
9) vinyl chloride	5.374	62	18796	8.30	ug/L		98
10) bromomethane	6.176	94	5174	6.86	ug/L		98
11) chloroethane	6.407	64	9128	7.67	ug/L		97
12) trichlorofluoromethane	6.973	101	21232	7.83	ug/L		98
13) vinyl bromide	6.821	106	10566	7.57	ug/L		98
14) ethyl ether	7.497	74	6727	7.01	ug/L		96
15) acrolein	7.718	56	2764	6.23	ug/L		96
16) freon 113	7.959	151	8639	7.38	ug/L		97
17) 1,1-dichloroethene	7.964	96	11074	7.53	ug/L		98
18) acetone	7.964	43	21721	28.42	ug/L		97
19) acetonitrile	8.410	41	24108	71.48	ug/L		98
20) iodomethane	8.252	142	5159	5.16	ug/L		98
21) carbon disulfide	8.415	76	28591	7.59	ug/L		98
22) methylene chloride	8.729	84	12957	7.56	ug/L		98
23) methyl acetate	8.535	43	14162	7.37	ug/L		99
24) methyl tert butyl ether	9.165	73	38793	7.48	ug/L		99
25) trans-1,2-dichloroethene	9.196	96	11887	7.45	ug/L		98
26) di-isopropyl ether	9.846	45	40969	7.31	ug/L		95
27) 2-butanone	10.533	72	8872	27.68	ug/L	#	87
28) 1,1-dichloroethane	9.794	63	22470	7.49	ug/L		98
29) chloroprene	9.941	53	17662	7.33	ug/L		99
30) acrylonitrile	9.065	53	5150	6.53	ug/L		96
31) hexane	9.610	56	7278	6.99	ug/L		97
32) vinyl acetate	9.804	86	2510	6.04	ug/L		98
33) ethyl tert-butyl ether	10.344	59	40616	7.36	ug/L		100
34) ethyl acetate	10.585	70	2035	6.69	ug/L	#	76

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V4D4028\
Data File : 4D92109.D
Acq On : 29 Jan 2019 5:06 pm
Operator : roberts
Sample : ic4028-8
Misc : MS31310,V4D4028,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jan 31 10:35:30 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 31 10:35:07 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
35) 2,2-dichloropropane	10.606	77	19759	7.88	ug/L		100
36) cis-1,2-dichloroethene	10.580	96	14068	7.49	ug/L		99
37) methyl acrylate	10.664	85	2431	6.38	ug/L		95
38) propionitrile	10.591	54	28416	70.20	ug/L		97
39) bromochloromethane	10.890	128	6804	7.65	ug/L		96
40) tetrahydrofuran	10.963	72	2463	6.95	ug/L		92
41) chloroform	10.952	85	15539	7.84	ug/L		96
42) t-butyl formate	11.031	59	13624	7.28	ug/L		97
44) methacrylonitrile	10.821	67	6422	6.71	ug/L		96
45) 1,1,1-trichloroethane	11.262	97	20729	7.94	ug/L		99
46) cyclohexane	11.372	84	19522	8.04	ug/L		97
47) 1,1-dichloropropene	11.445	75	17844	7.95	ug/L		96
48) isobutyl alcohol	11.445	74	1088	79.26	ug/L		71
49) carbon tetrachloride	11.477	117	18159	8.02	ug/L		99
50) tert amyl alcohol	11.524	55	4891	37.95	ug/L		96
53) n-butyl alcohol	12.101	56	36962	344.54	ug/L		98
54) 2,2,4-trimethylpentane	11.765	57	33333	7.51	ug/L		95
55) benzene	11.692	78	52799	7.90	ug/L		100
56) tert-amyl methyl ether	11.755	87	10432	7.63	ug/L		96
57) heptane	11.922	71	7564	7.25	ug/L		98
58) isopropyl acetate	11.618	87	3778	7.10	ug/L	#	83
59) 1,2-dichloroethane	11.666	62	20779	8.13	ug/L		98
60) trichloroethene	12.368	130	14318	7.86	ug/L		99
61) ethyl acrylate	12.358	55	24851	7.78	ug/L		100
62) 2-nitropropane	13.023	41	4652	7.58	ug/L		96
63) 2-chloroethyl vinyl ether	13.071	63	52848	37.38	ug/L		99
64) methyl methacrylate	12.615	100	4401	7.05	ug/L	#	95
65) 1,2-dichloropropane	12.594	63	14346	7.82	ug/L		99
66) dibromomethane	12.719	93	10176	8.00	ug/L		98
67) methylcyclohexane	12.625	83	18987	7.73	ug/L		98
68) bromodichloromethane	12.840	83	19660	7.82	ug/L		97
69) epichlorohydrin	13.160	57	8069	37.02	ug/L		96
70) cis-1,3-dichloropropene	13.275	75	23875	7.92	ug/L		98
71) 4-methyl-2-pentanone	13.370	58	32968	31.78	ug/L		97
72) 3-methyl-1-butanol	13.354	70	13990	141.00	ug/L		97
75) toluene	13.637	92	34078	8.08	ug/L		98
76) trans-1,3-dichloropropene	13.773	75	21590	7.70	ug/L		99
77) ethyl methacrylate	13.794	69	20173	7.32	ug/L		96
78) 1,1,2-trichloroethane	13.962	83	12089	7.94	ug/L		98
79) tetrachloroethene	14.177	164	11968	8.14	ug/L		99
80) 1,3-dichloropropane	14.135	76	22914	8.12	ug/L		97
81) 2-hexanone	14.135	58	33298	30.52	ug/L		94
82) butyl acetate	14.214	56	12655	7.62	ug/L		98
83) dibromochloromethane	14.371	129	15513	7.58	ug/L		99
84) 1,2-dibromoethane	14.523	107	17616	7.75	ug/L		98
85) n-butyl ether	14.906	57	58848	7.76	ug/L		99
86) chlorobenzene	14.958	112	37141	8.05	ug/L		98
87) 1,1,1,2-tetrachloroethane	15.005	131	13497	7.85	ug/L		96
88) ethylbenzene	15.021	91	62576	8.08	ug/L		100
89) m,p-xylene	15.115	106	47295	16.23	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V4D4028\
Data File : 4D92109.D
Acq On : 29 Jan 2019 5:06 pm
Operator : roberts
Sample : ic4028-8
Misc : MS31310,V4D4028,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jan 31 10:35:30 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 31 10:35:07 2019
Response via : Initial Calibration

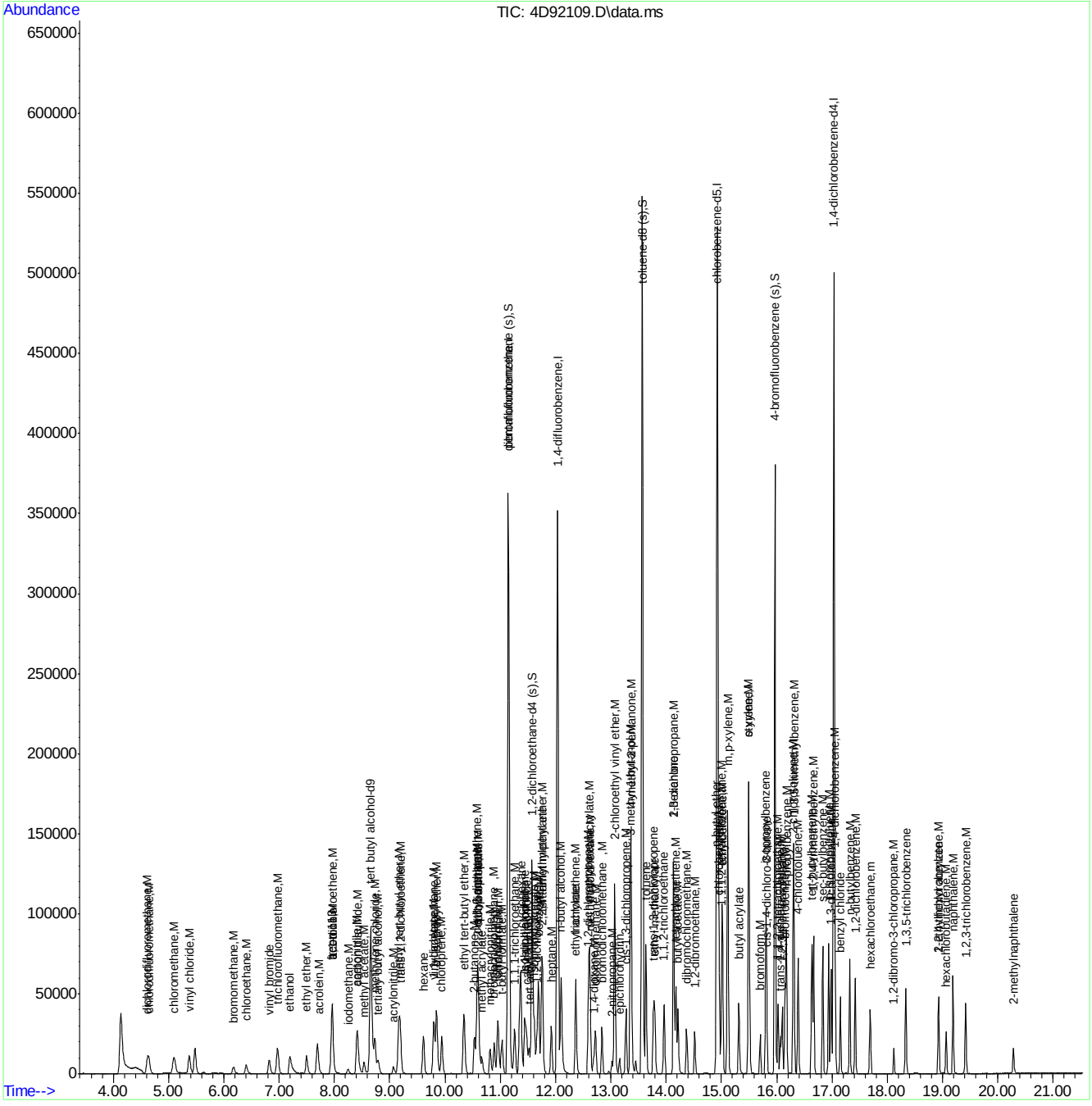
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
90) o-xylene	15.493	106	23317	8.24	ug/L	99
91) styrene	15.493	104	37951	7.80	ug/L	98
92) bromoform	15.703	173	10897	7.36	ug/L	98
93) butyl acrylate	15.315	55	28758	7.19	ug/L	99
94) isopropylbenzene	15.808	105	57625	8.21	ug/L	100
95) cis-1,4-dichloro-2-butene	15.823	88	6158	6.73	ug/L	98
98) bromobenzene	16.154	156	15413	7.98	ug/L	98
99) 1,1,2,2-tetrachloroethane	16.022	83	21645	7.92	ug/L	99
100) trans-1,4-dichloro-2-b...	16.070	53	4176	6.97	ug/L	89
101) 1,2,3-trichloropropane	16.101	110	5582	7.94	ug/L	96
102) n-propylbenzene	16.180	91	67079	8.12	ug/L	100
103) 2-chlorotoluene	16.300	126	14170	8.18	ug/L	97
104) 4-chlorotoluene	16.389	91	40392	8.12	ug/L	100
105) 1,3,5-trimethylbenzene	16.311	105	45766	8.05	ug/L	99
106) tert-butylbenzene	16.636	134	8487	8.11	ug/L	99
107) 1,2,4-trimethylbenzene	16.667	105	46415	8.10	ug/L	99
108) sec-butylbenzene	16.835	105	54069	8.13	ug/L	100
109) 1,3-dichlorobenzene	16.987	146	26570	8.19	ug/L	99
110) p-isopropyltoluene	16.940	119	44690	8.09	ug/L	99
111) 1,4-dichlorobenzene	17.055	146	27004	8.14	ug/L	99
112) benzyl chloride	17.155	91	35141	7.49	ug/L	99
113) 1,2-dichlorobenzene	17.422	146	24969	7.88	ug/L	98
114) n-butylbenzene	17.323	92	21585	7.89	ug/L	98
115) 1,2-dibromo-3-chloropr...	18.120	75	4033	7.39	ug/L	87
116) 1,3,5-trichlorobenzene	18.340	180	17154	7.83	ug/L	98
117) 2-ethylhexyl acrylate	18.927	70	1013	1.20	ug/L	98
118) 1,2,4-trichlorobenzene	18.932	180	14794	7.53	ug/L	98
119) hexachlorobutadiene	19.063	225	5705	7.90	ug/L	96
120) naphthalene	19.189	128	46230	7.49	ug/L	99
121) 1,2,3-trichlorobenzene	19.420	180	13996	7.59	ug/L	99
122) hexachloroethane	17.695	201	6603	7.50	ug/L	97
123) 2-methylnaphthalene	20.285	142	8910	3.78	ug/L	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V4D4028\
Data File : 4D92109.D
Acq On : 29 Jan 2019 5:06 pm
Operator : roberts
Sample : ic4028-8
Misc : MS31310,V4D4028,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jan 31 10:35:30 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 31 10:35:07 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V4D4028\
Data File : 4D92110.D
Acq On : 29 Jan 2019 5:35 pm
Operator : roberts
Sample : ic4028-20
Misc : MS31310,V4D4028,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jan 31 10:35:33 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 31 10:35:07 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	8.661	65	162692	500.00	ug/L	0.00
5) pentafluorobenzene	11.146	168	176570	50.00	ug/L	0.00
51) 1,4-difluorobenzene	12.032	114	300757	50.00	ug/L	0.00
73) chlorobenzene-d5	14.927	117	263553	50.00	ug/L	0.00
96) 1,4-dichlorobenzene-d4	17.034	152	114803	50.00	ug/L	0.00
System Monitoring Compounds						
43) dibromofluoromethane (s)	11.152	113	98413	49.03	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.06%			
52) 1,2-dichloroethane-d4 (s)	11.576	65	103642	50.81	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 101.62%			
74) toluene-d8 (s)	13.569	98	346018	50.53	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.06%			
97) 4-bromofluorobenzene (s)	15.970	95	115801	50.50	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.00%			
Target Compounds						Qvalue
2) tertiary butyl alcohol	8.792	59	36174	99.27	ug/L	99
3) ethanol	7.188	45	71894	1945.29	ug/L	100
4) 1,4-dioxane	12.688	88	18524	533.74	ug/L	100
6) chlorodifluoromethane	4.640	51	36769	20.18	ug/L	98
7) dichlorodifluoromethane	4.614	85	40694	19.92	ug/L	99
8) chloromethane	5.096	50	56123	19.64	ug/L	99
9) vinyl chloride	5.374	62	45928	20.26	ug/L	99
10) bromomethane	6.171	94	13701	18.16	ug/L	99
11) chloroethane	6.401	64	23093	19.39	ug/L	99
12) trichlorofluoromethane	6.968	101	53732	19.80	ug/L	100
13) vinyl bromide	6.821	106	27069	19.39	ug/L	98
14) ethyl ether	7.497	74	17899	18.64	ug/L	99
15) acrolein	7.712	56	7710	17.38	ug/L	99
16) freon 113	7.953	151	23554	20.12	ug/L	98
17) 1,1-dichloroethene	7.964	96	28937	19.67	ug/L	95
18) acetone	7.959	43	57983	75.84	ug/L	98
19) acetonitrile	8.410	41	63103	187.01	ug/L	99
20) iodomethane	8.247	142	16474	16.48	ug/L	97
21) carbon disulfide	8.410	76	72065	19.12	ug/L	98
22) methylene chloride	8.729	84	32873	19.18	ug/L	100
23) methyl acetate	8.530	43	36571	19.03	ug/L	98
24) methyl tert butyl ether	9.165	73	99841	19.24	ug/L	98
25) trans-1,2-dichloroethene	9.191	96	31150	19.52	ug/L	97
26) di-isopropyl ether	9.846	45	107257	19.14	ug/L	96
27) 2-butanone	10.528	72	23708	73.95	ug/L	97
28) 1,1-dichloroethane	9.794	63	58821	19.60	ug/L	100
29) chloroprene	9.941	53	46711	19.38	ug/L	99
30) acrylonitrile	9.060	53	14365	18.21	ug/L	97
31) hexane	9.610	56	20099	19.29	ug/L	95
32) vinyl acetate	9.799	86	7619	18.32	ug/L	96
33) ethyl tert-butyl ether	10.344	59	105370	19.09	ug/L	99
34) ethyl acetate	10.585	70	5513	18.12	ug/L #	93

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V4D4028\
Data File : 4D92110.D
Acq On : 29 Jan 2019 5:35 pm
Operator : roberts
Sample : ic4028-20
Misc : MS31310,V4D4028,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jan 31 10:35:33 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 31 10:35:07 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
35) 2,2-dichloropropane	10.606	77	50876	20.27	ug/L		97
36) cis-1,2-dichloroethene	10.580	96	36591	19.48	ug/L		97
37) methyl acrylate	10.659	85	7066	18.55	ug/L		92
38) propionitrile	10.585	54	75877	187.36	ug/L		98
39) bromochloromethane	10.889	128	17623	19.80	ug/L		98
40) tetrahydrofuran	10.963	72	6609	18.65	ug/L		98
41) chloroform	10.952	85	39826	20.10	ug/L		99
42) t-butyl formate	11.031	59	36585	19.54	ug/L		98
44) methacrylonitrile	10.816	67	18018	18.82	ug/L		98
45) 1,1,1-trichloroethane	11.262	97	53264	20.40	ug/L		99
46) cyclohexane	11.372	84	49525	20.38	ug/L		99
47) 1,1-dichloropropene	11.445	75	46337	20.64	ug/L		99
48) isobutyl alcohol	11.440	74	3034	220.93	ug/L		78
49) carbon tetrachloride	11.477	117	46727	20.63	ug/L		99
50) tert amyl alcohol	11.524	55	12972	100.60	ug/L		93
53) n-butyl alcohol	12.101	56	100855	961.21	ug/L		99
54) 2,2,4-trimethylpentane	11.765	57	88061	20.28	ug/L		99
55) benzene	11.692	78	132667	20.29	ug/L		99
56) tert-amyl methyl ether	11.755	87	26456	19.78	ug/L		97
57) heptane	11.922	71	20609	20.18	ug/L		99
58) isopropyl acetate	11.618	87	10206	19.60	ug/L	#	87
59) 1,2-dichloroethane	11.665	62	50934	20.39	ug/L		99
60) trichloroethene	12.368	130	36477	20.47	ug/L		100
61) ethyl acrylate	12.358	55	62280	19.94	ug/L		99
62) 2-nitropropane	13.023	41	11902	19.84	ug/L		99
63) 2-chloroethyl vinyl ether	13.071	63	139078	100.57	ug/L		99
64) methyl methacrylate	12.609	100	11862	19.43	ug/L		92
65) 1,2-dichloropropane	12.593	63	36218	20.20	ug/L		100
66) dibromomethane	12.719	93	25152	20.22	ug/L		100
67) methylcyclohexane	12.620	83	50126	20.87	ug/L		98
68) bromodichloromethane	12.840	83	49546	20.15	ug/L		97
69) epichlorohydrin	13.160	57	21303	99.93	ug/L		97
70) cis-1,3-dichloropropene	13.275	75	59569	20.20	ug/L		99
71) 4-methyl-2-pentanone	13.364	58	83172	81.97	ug/L		98
72) 3-methyl-1-butanol	13.348	70	37544	386.88	ug/L		98
75) toluene	13.637	92	83948	20.81	ug/L		99
76) trans-1,3-dichloropropene	13.768	75	54140	20.19	ug/L		99
77) ethyl methacrylate	13.794	69	52137	19.80	ug/L		97
78) 1,1,2-trichloroethane	13.962	83	29541	20.30	ug/L		99
79) tetrachloroethene	14.177	164	29178	20.75	ug/L		100
80) 1,3-dichloropropane	14.135	76	55884	20.72	ug/L		99
81) 2-hexanone	14.135	58	84585	81.10	ug/L		98
82) butyl acetate	14.214	56	31984	20.15	ug/L		98
83) dibromochloromethane	14.371	129	39171	20.03	ug/L		99
84) 1,2-dibromoethane	14.518	107	43844	20.18	ug/L		99
85) n-butyl ether	14.906	57	148268	20.45	ug/L		100
86) chlorobenzene	14.958	112	90327	20.48	ug/L		99
87) 1,1,1,2-tetrachloroethane	15.005	131	33185	20.18	ug/L		99
88) ethylbenzene	15.021	91	151786	20.51	ug/L		100
89) m,p-xylene	15.115	106	116102	41.67	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V4D4028\
Data File : 4D92110.D
Acq On : 29 Jan 2019 5:35 pm
Operator : roberts
Sample : ic4028-20
Misc : MS31310,V4D4028,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jan 31 10:35:33 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 31 10:35:07 2019
Response via : Initial Calibration

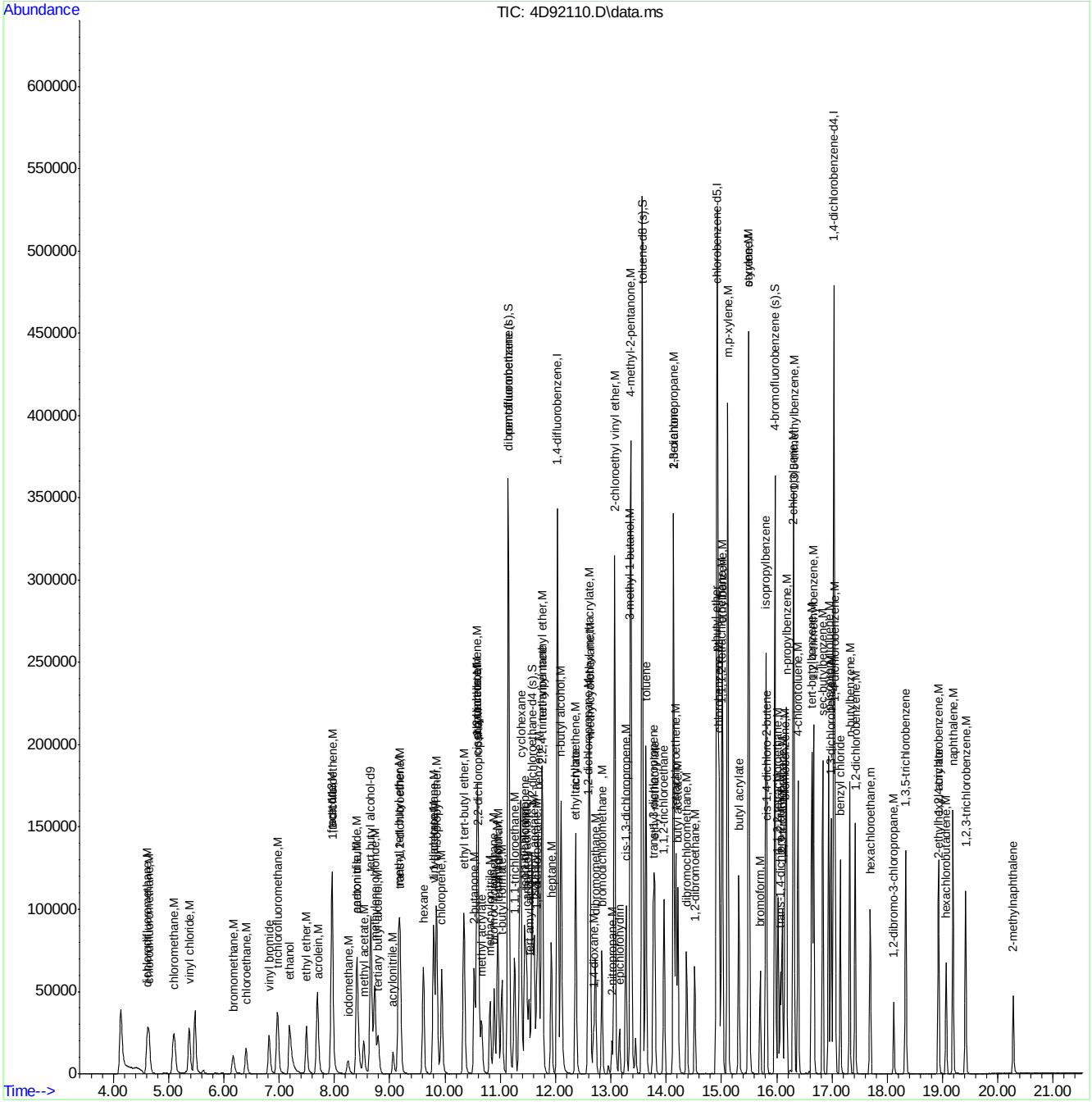
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
90) o-xylene	15.493	106	56358	20.84	ug/L	100
91) styrene	15.493	104	94214	20.26	ug/L	99
92) bromoform	15.703	173	27741	19.59	ug/L	100
93) butyl acrylate	15.315	55	74303	19.43	ug/L	99
94) isopropylbenzene	15.807	105	138826	20.69	ug/L	100
95) cis-1,4-dichloro-2-butene	15.823	88	16607	19.00	ug/L	95
98) bromobenzene	16.154	156	37883	20.86	ug/L	98
99) 1,1,2,2-tetrachloroethane	16.022	83	53011	20.65	ug/L	99
100) trans-1,4-dichloro-2-b...	16.070	53	11036	19.59	ug/L	99
101) 1,2,3-trichloropropane	16.101	110	13646	20.64	ug/L	100
102) n-propylbenzene	16.180	91	163491	21.05	ug/L	99
103) 2-chlorotoluene	16.300	126	34399	21.14	ug/L	100
104) 4-chlorotoluene	16.389	91	97604	20.87	ug/L	100
105) 1,3,5-trimethylbenzene	16.311	105	112358	21.04	ug/L	100
106) tert-butylbenzene	16.636	134	20344	20.68	ug/L	95
107) 1,2,4-trimethylbenzene	16.667	105	112828	20.96	ug/L	100
108) sec-butylbenzene	16.835	105	131810	21.08	ug/L	99
109) 1,3-dichlorobenzene	16.987	146	62844	20.61	ug/L	99
110) p-isopropyltoluene	16.940	119	107506	20.70	ug/L	99
111) 1,4-dichlorobenzene	17.055	146	64074	20.56	ug/L	99
112) benzyl chloride	17.150	91	89200	20.23	ug/L	99
113) 1,2-dichlorobenzene	17.422	146	61262	20.57	ug/L	99
114) n-butylbenzene	17.323	92	53026	20.64	ug/L	98
115) 1,2-dibromo-3-chloropr...	18.120	75	10265	20.02	ug/L	96
116) 1,3,5-trichlorobenzene	18.335	180	42144	20.46	ug/L	98
117) 2-ethylhexyl acrylate	18.922	70	3020	3.79	ug/L	96
118) 1,2,4-trichlorobenzene	18.927	180	37349	20.23	ug/L	98
119) hexachlorobutadiene	19.063	225	13964	20.58	ug/L	98
120) naphthalene	19.189	128	118891	20.50	ug/L	100
121) 1,2,3-trichlorobenzene	19.420	180	35195	20.31	ug/L	99
122) hexachloroethane	17.695	201	16347	19.76	ug/L	96
123) 2-methylnaphthalene	20.280	142	23224	10.48	ug/L	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V4D4028\
Data File : 4D92110.D
Acq On : 29 Jan 2019 5:35 pm
Operator : roberts
Sample : ic4028-20
Misc : MS31310,V4D4028,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jan 31 10:35:33 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 31 10:35:07 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V4D4028\
Data File : 4D92111.D
Acq On : 29 Jan 2019 6:04 pm
Operator : roberts
Sample : icc4028-50
Misc : MS31310,V4D4028,5,,,,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jan 31 10:35:36 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 31 10:35:07 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	8.661	65	170089	500.00	ug/L	0.00
5) pentafluorobenzene	11.147	168	174602	50.00	ug/L	0.00
51) 1,4-difluorobenzene	12.033	114	295870	50.00	ug/L	0.00
73) chlorobenzene-d5	14.927	117	259574	50.00	ug/L	0.00
96) 1,4-dichlorobenzene-d4	17.035	152	115841	50.00	ug/L	0.00
System Monitoring Compounds						
43) dibromofluoromethane (s)	11.152	113	99239	50.00	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.00%			
52) 1,2-dichloroethane-d4 (s)	11.577	65	100323	50.00	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 100.00%			
74) toluene-d8 (s)	13.569	98	337193	50.00	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.00%			
97) 4-bromofluorobenzene (s)	15.970	95	115694	50.00	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.00%			
Target Compounds						Qvalue
2) tertiary butyl alcohol	8.793	59	95246	250.00	ug/L	100
3) ethanol	7.193	45	193192	5000.00	ug/L	100
4) 1,4-dioxane	12.688	88	45355	1250.00	ug/L	100
6) chlorodifluoromethane	4.645	51	90086	50.00	ug/L	100
7) dichlorodifluoromethane	4.614	85	101001	50.00	ug/L	100
8) chloromethane	5.101	50	141252	50.00	ug/L	100
9) vinyl chloride	5.374	62	112080	50.00	ug/L	100
10) bromomethane	6.160	94	37297	50.00	ug/L	100
11) chloroethane	6.396	64	58888	50.00	ug/L	100
12) trichlorofluoromethane	6.968	101	134170	50.00	ug/L	100
13) vinyl bromide	6.816	106	69032	50.00	ug/L	100
14) ethyl ether	7.497	74	47479	50.00	ug/L	100
15) acrolein	7.707	56	21937	50.00	ug/L	100
16) freon 113	7.954	151	57893	50.00	ug/L	100
17) 1,1-dichloroethene	7.959	96	72736	50.00	ug/L	100
18) acetone	7.959	43	151200	200.00	ug/L	100
19) acetonitrile	8.405	41	166832	500.00	ug/L	100
20) iodomethane	8.242	142	49434	50.00	ug/L	100
21) carbon disulfide	8.410	76	186316	50.00	ug/L	100
22) methylene chloride	8.730	84	84725	50.00	ug/L	100
23) methyl acetate	8.525	43	95002	50.00	ug/L	100
24) methyl tert butyl ether	9.165	73	256524	50.00	ug/L	100
25) trans-1,2-dichloroethene	9.186	96	78917	50.00	ug/L	100
26) di-isopropyl ether	9.846	45	277129	50.00	ug/L	100
27) 2-butanone	10.528	72	63408	200.00	ug/L	100
28) 1,1-dichloroethane	9.794	63	148412	50.00	ug/L	100
29) chloroprene	9.941	53	119162	50.00	ug/L	100
30) acrylonitrile	9.055	53	38998	50.00	ug/L	100
31) hexane	9.605	56	51504	50.00	ug/L	100
32) vinyl acetate	9.794	86	20561	50.00	ug/L	100
33) ethyl tert-butyl ether	10.344	59	272951	50.00	ug/L	100
34) ethyl acetate	10.586	70	15044	50.00	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V4D4028\
Data File : 4D92111.D
Acq On : 29 Jan 2019 6:04 pm
Operator : roberts
Sample : icc4028-50
Misc : MS31310,V4D4028,5,,,,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jan 31 10:35:36 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 31 10:35:07 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
35) 2,2-dichloropropane	10.607	77	124109	50.00	ug/L	100
36) cis-1,2-dichloroethene	10.575	96	92863	50.00	ug/L	100
37) methyl acrylate	10.664	85	18835	50.00	ug/L	100
38) propionitrile	10.586	54	200236	500.00	ug/L	100
39) bromochloromethane	10.890	128	44014	50.00	ug/L	100
40) tetrahydrofuran	10.958	72	17517	50.00	ug/L	100
41) chloroform	10.953	85	97981	50.00	ug/L	100
42) t-butyl formate	11.031	59	92572	50.00	ug/L	100
44) methacrylonitrile	10.816	67	47332	50.00	ug/L	100
45) 1,1,1-trichloroethane	11.257	97	129068	50.00	ug/L	100
46) cyclohexane	11.372	84	120161	50.00	ug/L	100
47) 1,1-dichloropropene	11.445	75	110975	50.00	ug/L	100
48) isobutyl alcohol	11.440	74	7513	553.24	ug/L	61
49) carbon tetrachloride	11.477	117	111991	50.00	ug/L	100
50) tert amyl alcohol	11.524	55	31877	250.00	ug/L	100
53) n-butyl alcohol	12.101	56	258049	2500.00	ug/L	100
54) 2,2,4-trimethylpentane	11.765	57	213537	50.00	ug/L	100
55) benzene	11.692	78	321670	50.00	ug/L	100
56) tert-amyl methyl ether	11.750	87	65801	50.00	ug/L	100
57) heptane	11.923	71	50223	50.00	ug/L	100
58) isopropyl acetate	11.613	87	25609	50.00	ug/L	100
59) 1,2-dichloroethane	11.660	62	122883	50.00	ug/L	100
60) trichloroethene	12.368	130	87666	50.00	ug/L	100
61) ethyl acrylate	12.358	55	153627	50.00	ug/L	100
62) 2-nitropropane	13.018	41	29510	50.00	ug/L	100
63) 2-chloroethyl vinyl ether	13.071	63	340116	250.00	ug/L	100
64) methyl methacrylate	12.604	100	30025	50.00	ug/L	100
65) 1,2-dichloropropane	12.594	63	88201	50.00	ug/L	100
66) dibromomethane	12.720	93	61198	50.00	ug/L	100
67) methylcyclohexane	12.620	83	118119	50.00	ug/L	100
68) bromodichloromethane	12.840	83	120925	50.00	ug/L	100
69) epichlorohydrin	13.160	57	52429	250.00	ug/L	100
70) cis-1,3-dichloropropene	13.275	75	145072	50.00	ug/L	100
71) 4-methyl-2-pentanone	13.364	58	199641	200.00	ug/L	100
72) 3-methyl-1-butanol	13.349	70	95465	1000.00	ug/L	100
75) toluene	13.637	92	198656	50.00	ug/L	100
76) trans-1,3-dichloropropene	13.768	75	132023	50.00	ug/L	100
77) ethyl methacrylate	13.794	69	129676	50.00	ug/L	100
78) 1,1,2-trichloroethane	13.962	83	71676	50.00	ug/L	100
79) tetrachloroethene	14.177	164	69253	50.00	ug/L	100
80) 1,3-dichloropropane	14.135	76	132837	50.00	ug/L	100
81) 2-hexanone	14.135	58	205434	200.00	ug/L	100
82) butyl acetate	14.214	56	78184	50.00	ug/L	100
83) dibromochloromethane	14.371	129	96305	50.00	ug/L	100
84) 1,2-dibromoethane	14.518	107	106995	50.00	ug/L	100
85) n-butyl ether	14.906	57	356967	50.00	ug/L	100
86) chlorobenzene	14.958	112	217169	50.00	ug/L	100
87) 1,1,1,2-tetrachloroethane	15.000	131	80971	50.00	ug/L	100
88) ethylbenzene	15.021	91	364372	50.00	ug/L	100
89) m,p-xylene	15.116	106	274425	100.00	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V4D4028\
Data File : 4D92111.D
Acq On : 29 Jan 2019 6:04 pm
Operator : roberts
Sample : icc4028-50
Misc : MS31310,V4D4028,5,,,,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jan 31 10:35:36 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 31 10:35:07 2019
Response via : Initial Calibration

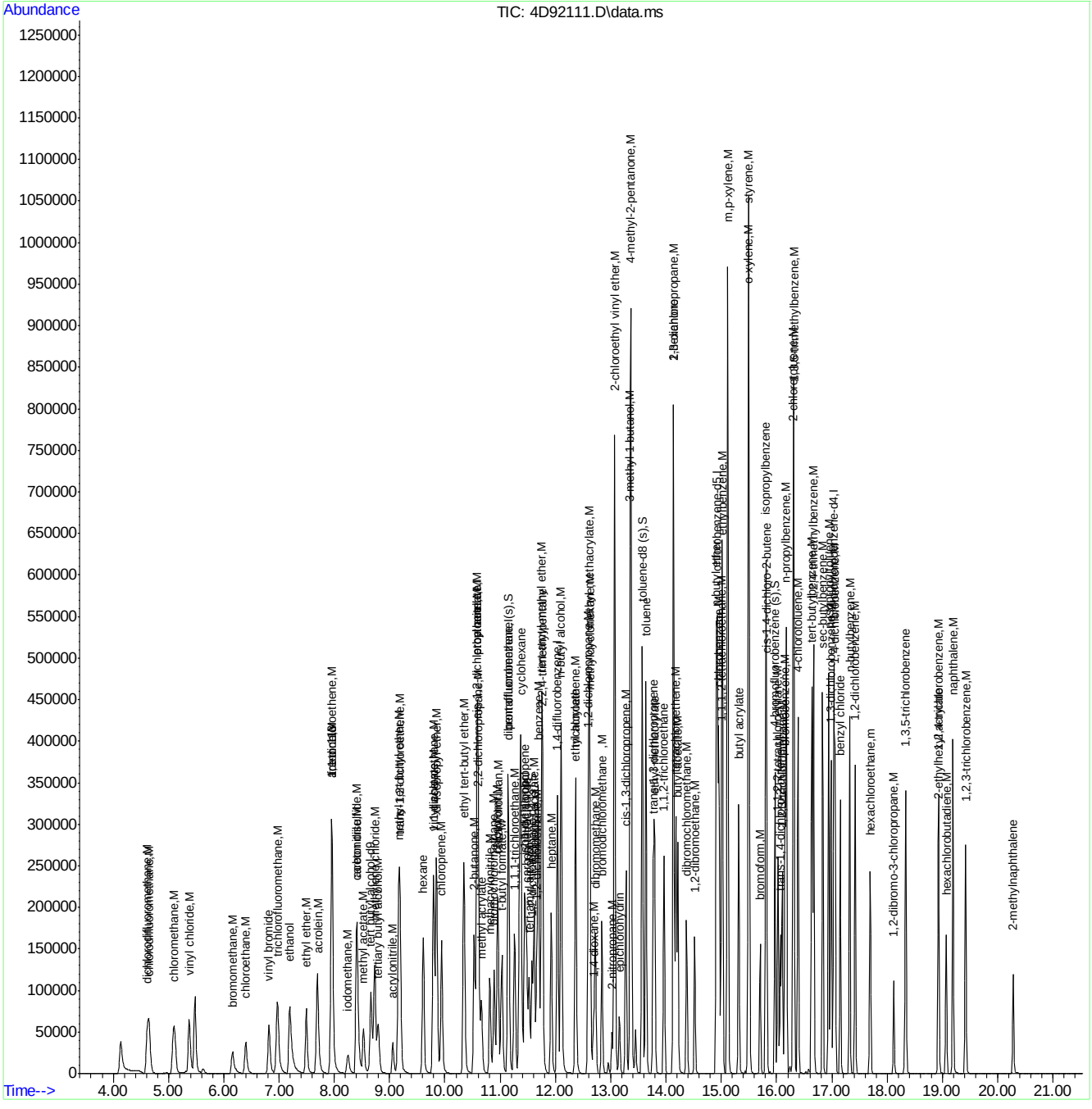
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
90) o-xylene	15.493	106	133193	50.00	ug/L	100
91) styrene	15.488	104	229031	50.00	ug/L	100
92) bromoform	15.703	173	69739	50.00	ug/L	100
93) butyl acrylate	15.315	55	188293	50.00	ug/L	100
94) isopropylbenzene	15.808	105	330479	50.00	ug/L	100
95) cis-1,4-dichloro-2-butene	15.818	88	43050	50.00	ug/L	100
98) bromobenzene	16.154	156	91604	50.00	ug/L	100
99) 1,1,2,2-tetrachloroethane	16.023	83	129496	50.00	ug/L	100
100) trans-1,4-dichloro-2-b...	16.070	53	28422	50.00	ug/L	100
101) 1,2,3-trichloropropane	16.101	110	33349	50.00	ug/L	100
102) n-propylbenzene	16.175	91	391814	50.00	ug/L	100
103) 2-chlorotoluene	16.301	126	82088	50.00	ug/L	100
104) 4-chlorotoluene	16.390	91	235905	50.00	ug/L	100
105) 1,3,5-trimethylbenzene	16.311	105	269402	50.00	ug/L	100
106) tert-butylbenzene	16.636	134	49639	50.00	ug/L	100
107) 1,2,4-trimethylbenzene	16.668	105	271634	50.00	ug/L	100
108) sec-butylbenzene	16.830	105	315454	50.00	ug/L	100
109) 1,3-dichlorobenzene	16.987	146	153851	50.00	ug/L	100
110) p-isopropyltoluene	16.940	119	261984	50.00	ug/L	100
111) 1,4-dichlorobenzene	17.056	146	157267	50.00	ug/L	100
112) benzyl chloride	17.150	91	222497	50.00	ug/L	100
113) 1,2-dichlorobenzene	17.417	146	150293	50.00	ug/L	100
114) n-butylbenzene	17.323	92	129641	50.00	ug/L	100
115) 1,2-dibromo-3-chloropr...	18.120	75	25870	50.00	ug/L	100
116) 1,3,5-trichlorobenzene	18.335	180	103928	50.00	ug/L	100
117) 2-ethylhexyl acrylate	18.922	70	8032	10.00	ug/L	100
118) 1,2,4-trichlorobenzene	18.927	180	93128	50.00	ug/L	100
119) hexachlorobutadiene	19.069	225	34230	50.00	ug/L	100
120) naphthalene	19.189	128	292658	50.00	ug/L	100
121) 1,2,3-trichlorobenzene	19.420	180	87449	50.00	ug/L	100
122) hexachloroethane	17.695	201	41729	50.00	ug/L	100
123) 2-methylnaphthalene	20.280	142	55886	25.00	ug/L	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V4D4028\
Data File : 4D92111.D
Acq On : 29 Jan 2019 6:04 pm
Operator : roberts
Sample : icc4028-50
Misc : MS31310,V4D4028,5,,,,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jan 31 10:35:36 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 31 10:35:07 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V4D4028\
Data File : 4D92112.D
Acq On : 29 Jan 2019 6:33 pm
Operator : roberts
Sample : ic4028-100
Misc : MS31310,V4D4028,5,,,,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jan 31 10:35:39 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 31 10:35:07 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	8.672	65	170772	500.00	ug/L	0.01
5) pentafluorobenzene	11.147	168	170846	50.00	ug/L	0.00
51) 1,4-difluorobenzene	12.033	114	286537	50.00	ug/L	0.00
73) chlorobenzene-d5	14.927	117	246879	50.00	ug/L	0.00
96) 1,4-dichlorobenzene-d4	17.035	152	108346	50.00	ug/L	0.00
System Monitoring Compounds						
43) dibromofluoromethane (s)	11.152	113	95081	48.96	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.92%			
52) 1,2-dichloroethane-d4 (s)	11.577	65	94818	48.80	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 97.60%			
74) toluene-d8 (s)	13.569	98	320466	49.96	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.92%			
97) 4-bromofluorobenzene (s)	15.970	95	109674	50.68	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.36%			
Target Compounds						Qvalue
2) tertiary butyl alcohol	8.798	59	201317	526.30	ug/L	99
3) ethanol	7.204	45	414025	10672.52	ug/L	98
4) 1,4-dioxane	12.693	88	90615	2487.39	ug/L	98
6) chlorodifluoromethane	4.645	51	191169	108.44	ug/L	99
7) dichlorodifluoromethane	4.614	85	211300	106.90	ug/L	99
8) chloromethane	5.101	50	279695	101.18	ug/L	99
9) vinyl chloride	5.374	62	225868	102.98	ug/L	99
10) bromomethane	6.139	94	82207	112.63	ug/L	98
11) chloroethane	6.386	64	121849	105.73	ug/L	99
12) trichlorofluoromethane	6.963	101	276772	105.41	ug/L	99
13) vinyl bromide	6.811	106	144424	106.91	ug/L	97
14) ethyl ether	7.492	74	102001	109.78	ug/L	97
15) acrolein	7.702	56	48129	112.11	ug/L	96
16) freon 113	7.948	151	123498	109.01	ug/L	99
17) 1,1-dichloroethene	7.959	96	153916	108.13	ug/L	98
18) acetone	7.959	43	315951	427.11	ug/L	98
19) acetonitrile	8.404	41	352598	1079.98	ug/L	99
20) iodomethane	8.242	142	116768	120.70	ug/L	99
21) carbon disulfide	8.404	76	392142	107.55	ug/L	99
22) methylene chloride	8.730	84	177660	107.15	ug/L	99
23) methyl acetate	8.525	43	200853	108.03	ug/L	99
24) methyl tert butyl ether	9.165	73	537222	107.01	ug/L	99
25) trans-1,2-dichloroethene	9.186	96	164624	106.60	ug/L	99
26) di-isopropyl ether	9.846	45	573389	105.73	ug/L	99
27) 2-butanone	10.528	72	133993	431.93	ug/L	96
28) 1,1-dichloroethane	9.794	63	307725	105.95	ug/L	100
29) chloroprene	9.941	53	245969	105.48	ug/L	99
30) acrylonitrile	9.055	53	83890	109.92	ug/L	97
31) hexane	9.605	56	109151	108.29	ug/L	99
32) vinyl acetate	9.794	86	44585	110.80	ug/L	94
33) ethyl tert-butyl ether	10.344	59	568412	106.41	ug/L	99
34) ethyl acetate	10.586	70	31254	106.16	ug/L #	89

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V4D4028\
Data File : 4D92112.D
Acq On : 29 Jan 2019 6:33 pm
Operator : roberts
Sample : ic4028-100
Misc : MS31310,V4D4028,5,,,,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jan 31 10:35:39 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 31 10:35:07 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
35) 2,2-dichloropropane	10.607	77	247651	101.97	ug/L		98
36) cis-1,2-dichloroethene	10.575	96	192240	105.78	ug/L		99
37) methyl acrylate	10.659	85	39800	107.98	ug/L		93
38) propionitrile	10.591	54	409573	1045.21	ug/L		99
39) bromochloromethane	10.890	128	88869	103.17	ug/L		99
40) tetrahydrofuran	10.958	72	36360	106.07	ug/L		97
41) chloroform	10.953	85	199981	104.29	ug/L		98
42) t-butyl formate	11.031	59	189429	104.56	ug/L		99
44) methacrylonitrile	10.816	67	99295	107.20	ug/L		97
45) 1,1,1-trichloroethane	11.257	97	263212	104.21	ug/L		100
46) cyclohexane	11.372	84	241807	102.83	ug/L		96
47) 1,1-dichloropropene	11.440	75	226707	104.39	ug/L		99
48) isobutyl alcohol	11.440	74	14898	1121.17	ug/L		67
49) carbon tetrachloride	11.477	117	227904	103.99	ug/L		99
50) tert amyl alcohol	11.524	55	64475	516.77	ug/L		96
53) n-butyl alcohol	12.106	56	518199	5183.88	ug/L		98
54) 2,2,4-trimethylpentane	11.765	57	423567	102.41	ug/L		99
55) benzene	11.692	78	650772	104.45	ug/L		100
56) tert-amyl methyl ether	11.750	87	132663	104.09	ug/L		99
57) heptane	11.923	71	101558	104.40	ug/L		99
58) isopropyl acetate	11.613	87	53080	107.01	ug/L		94
59) 1,2-dichloroethane	11.660	62	243262	102.21	ug/L		99
60) trichloroethene	12.368	130	177836	104.73	ug/L		100
61) ethyl acrylate	12.358	55	305405	102.64	ug/L		99
62) 2-nitropropane	13.024	41	58999	103.22	ug/L		96
63) 2-chloroethyl vinyl ether	13.071	63	661133	501.79	ug/L		99
64) methyl methacrylate	12.604	100	61973	106.56	ug/L	#	90
65) 1,2-dichloropropane	12.594	63	176958	103.58	ug/L		99
66) dibromomethane	12.720	93	122750	103.56	ug/L		98
67) methylcyclohexane	12.620	83	238520	104.25	ug/L		98
68) bromodichloromethane	12.840	83	243906	104.13	ug/L		98
69) epichlorohydrin	13.160	57	108400	533.73	ug/L		98
70) cis-1,3-dichloropropene	13.275	75	291935	103.89	ug/L		98
71) 4-methyl-2-pentanone	13.364	58	384508	397.75	ug/L		98
72) 3-methyl-1-butanol	13.354	70	190147	2056.67	ug/L		99
75) toluene	13.637	92	400736	106.05	ug/L		99
76) trans-1,3-dichloropropene	13.768	75	265179	105.59	ug/L		99
77) ethyl methacrylate	13.794	69	261725	106.10	ug/L		99
78) 1,1,2-trichloroethane	13.962	83	144803	106.21	ug/L		99
79) tetrachloroethene	14.177	164	137695	104.53	ug/L		99
80) 1,3-dichloropropane	14.135	76	260215	102.98	ug/L		97
81) 2-hexanone	14.135	58	404407	413.96	ug/L		98
82) butyl acetate	14.214	56	156828	105.45	ug/L		98
83) dibromochloromethane	14.371	129	196997	107.54	ug/L		100
84) 1,2-dibromoethane	14.518	107	216095	106.18	ug/L		100
85) n-butyl ether	14.906	57	704726	103.79	ug/L		99
86) chlorobenzene	14.958	112	436952	105.77	ug/L		99
87) 1,1,1,2-tetrachloroethane	15.005	131	164119	106.56	ug/L		99
88) ethylbenzene	15.021	91	721067	104.03	ug/L		100
89) m,p-xylene	15.116	106	540660	207.15	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V4D4028\
Data File : 4D92112.D
Acq On : 29 Jan 2019 6:33 pm
Operator : roberts
Sample : ic4028-100
Misc : MS31310,V4D4028,5,,,,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jan 31 10:35:39 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 31 10:35:07 2019
Response via : Initial Calibration

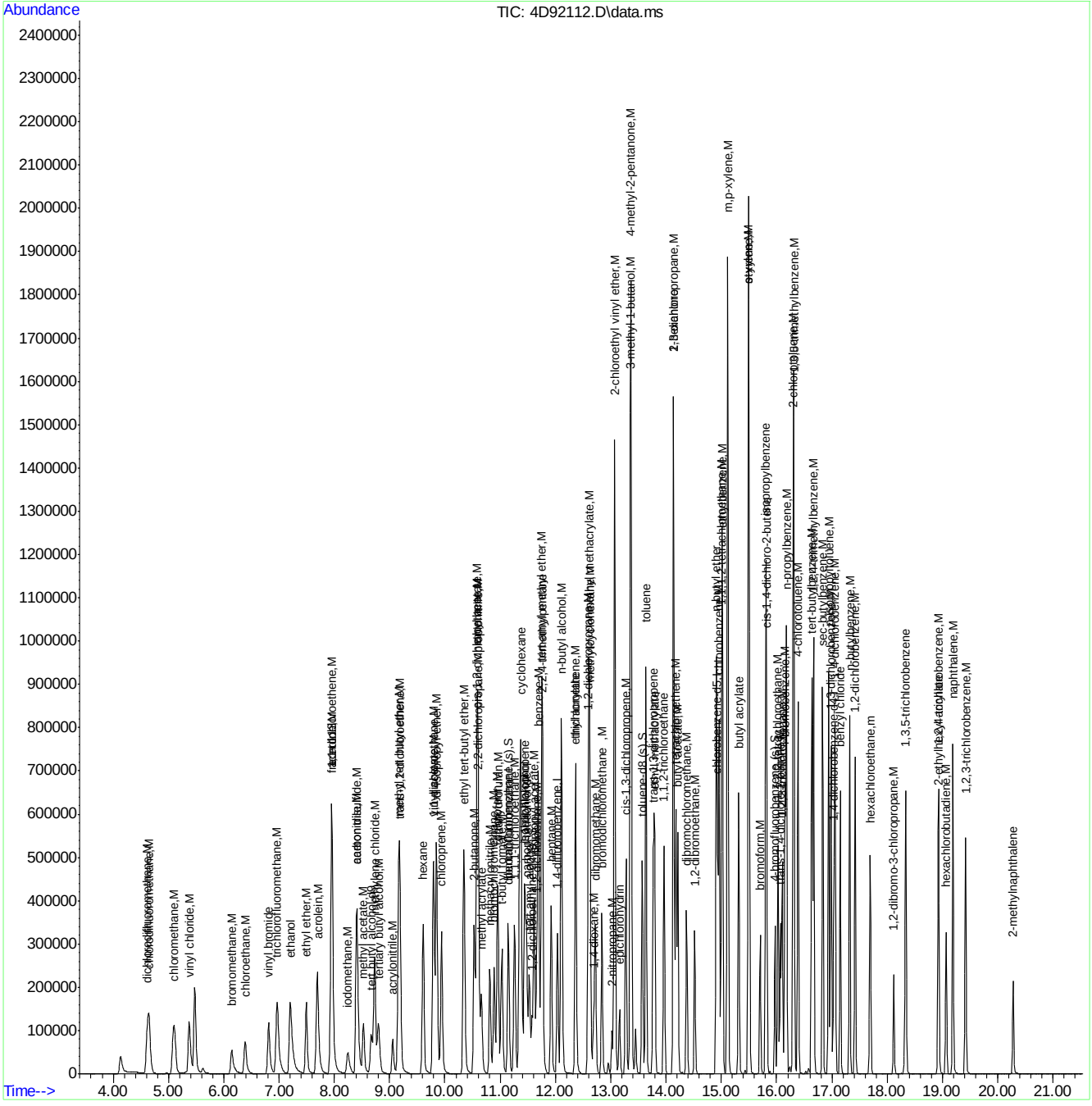
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
90) o-xylene	15.493	106	260202	102.70	ug/L	98
91) styrene	15.488	104	450998	103.52	ug/L	98
92) bromoform	15.703	173	145494	109.68	ug/L	99
93) butyl acrylate	15.315	55	380761	106.31	ug/L	100
94) isopropylbenzene	15.808	105	655177	104.22	ug/L	100
95) cis-1,4-dichloro-2-butene	15.818	88	90529	110.55	ug/L	99
98) bromobenzene	16.154	156	186287	108.71	ug/L	98
99) 1,1,2,2-tetrachloroethane	16.023	83	264303	109.11	ug/L	99
100) trans-1,4-dichloro-2-b...	16.065	53	59642	112.18	ug/L	98
101) 1,2,3-trichloropropane	16.101	110	68371	109.60	ug/L	100
102) n-propylbenzene	16.180	91	768998	104.92	ug/L	99
103) 2-chlorotoluene	16.301	126	162695	105.95	ug/L	99
104) 4-chlorotoluene	16.390	91	467221	105.88	ug/L	100
105) 1,3,5-trimethylbenzene	16.311	105	526868	104.55	ug/L	100
106) tert-butylbenzene	16.636	134	97313	104.80	ug/L	95
107) 1,2,4-trimethylbenzene	16.668	105	529254	104.16	ug/L	99
108) sec-butylbenzene	16.835	105	620188	105.10	ug/L	98
109) 1,3-dichlorobenzene	16.987	146	307414	106.82	ug/L	99
110) p-isopropyltoluene	16.940	119	516223	105.34	ug/L	100
111) 1,4-dichlorobenzene	17.055	146	312641	106.27	ug/L	100
112) benzyl chloride	17.150	91	450850	108.32	ug/L	99
113) 1,2-dichlorobenzene	17.417	146	298814	106.29	ug/L	100
114) n-butylbenzene	17.323	92	254323	104.87	ug/L	99
115) 1,2-dibromo-3-chloropr...	18.120	75	52635	108.77	ug/L	96
116) 1,3,5-trichlorobenzene	18.335	180	207894	106.94	ug/L	99
117) 2-ethylhexyl acrylate	18.922	70	17712	23.58	ug/L	93
118) 1,2,4-trichlorobenzene	18.927	180	187829	107.82	ug/L	99
119) hexachlorobutadiene	19.064	225	66514	103.88	ug/L	98
120) naphthalene	19.189	128	577010	105.40	ug/L	99
121) 1,2,3-trichlorobenzene	19.420	180	174183	106.48	ug/L	99
122) hexachloroethane	17.695	201	86305	110.56	ug/L	99
123) 2-methylnaphthalene	20.280	142	100154	47.90	ug/L	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V4D4028\
Data File : 4D92112.D
Acq On : 29 Jan 2019 6:33 pm
Operator : roberts
Sample : ic4028-100
Misc : MS31310,V4D4028,5,,,,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jan 31 10:35:39 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 31 10:35:07 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V4D4028\
Data File : 4D92113.D
Acq On : 29 Jan 2019 7:02 pm
Operator : roberts
Sample : ic4028-200
Misc : MS31310,V4D4028,5,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jan 31 10:35:42 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 31 10:35:07 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	8.682	65	161416	500.00	ug/L	0.02
5) pentafluorobenzene	11.147	168	166505	50.00	ug/L	0.00
51) 1,4-difluorobenzene	12.033	114	282065	50.00	ug/L	0.00
73) chlorobenzene-d5	14.927	117	246336	50.00	ug/L	0.00
96) 1,4-dichlorobenzene-d4	17.035	152	109773	50.00	ug/L	0.00
System Monitoring Compounds						
43) dibromofluoromethane (s)	11.152	113	94231	49.79	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.58%			
52) 1,2-dichloroethane-d4 (s)	11.577	65	91560	47.87	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 95.74%			
74) toluene-d8 (s)	13.569	98	317905	49.67	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.34%			
97) 4-bromofluorobenzene (s)	15.970	95	110763	50.52	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.04%			
Target Compounds						Qvalue
2) tertiary butyl alcohol	8.813	59	376811	1042.19	ug/L	98
3) ethanol	7.225	45	768614	20961.33	ug/L	98
4) 1,4-dioxane	12.699	88	158678	4608.20	ug/L	97
6) chlorodifluoromethane	4.645	51	356112	207.26	ug/L	99
7) dichlorodifluoromethane	4.614	85	420262	218.17	ug/L	99
8) chloromethane	5.101	50	564052	209.37	ug/L	99
9) vinyl chloride	5.379	62	448341	209.74	ug/L	99
10) bromomethane	6.129	94	162215	228.04	ug/L	98
11) chloroethane	6.370	64	244747	217.91	ug/L	99
12) trichlorofluoromethane	6.957	101	553589	216.33	ug/L	100
13) vinyl bromide	6.800	106	293450	222.88	ug/L	98
14) ethyl ether	7.492	74	195893	216.33	ug/L	96
15) acrolein	7.707	56	93293	222.98	ug/L	99
16) freon 113	7.943	151	237065	214.70	ug/L	99
17) 1,1-dichloroethene	7.954	96	297750	214.63	ug/L	96
18) acetone	7.964	43	564457	782.94	ug/L	97
19) acetonitrile	8.410	41	650504	2044.38	ug/L	98
20) iodomethane	8.242	142	248132	263.18	ug/L	99
21) carbon disulfide	8.404	76	756843	212.98	ug/L	98
22) methylene chloride	8.730	84	340811	210.91	ug/L	98
23) methyl acetate	8.525	43	372735	205.71	ug/L	100
24) methyl tert butyl ether	9.165	73	1009532	206.34	ug/L	99
25) trans-1,2-dichloroethene	9.186	96	315025	209.30	ug/L	99
26) di-isopropyl ether	9.852	45	1061370	200.81	ug/L	96
27) 2-butanone	10.533	72	245854	813.18	ug/L	95
28) 1,1-dichloroethane	9.794	63	578782	204.47	ug/L	100
29) chloroprene	9.935	53	465650	204.89	ug/L	98
30) acrylonitrile	9.055	53	159718	214.74	ug/L	100
31) hexane	9.605	56	210728	214.52	ug/L	99
32) vinyl acetate	9.794	86	83688	213.41	ug/L #	85
33) ethyl tert-butyl ether	10.344	59	1069659	205.47	ug/L	99
34) ethyl acetate	10.586	70	57880	201.72	ug/L	96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V4D4028\
Data File : 4D92113.D
Acq On : 29 Jan 2019 7:02 pm
Operator : roberts
Sample : ic4028-200
Misc : MS31310,V4D4028,5,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jan 31 10:35:42 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 31 10:35:07 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
35) 2,2-dichloropropane	10.607	77	448666	189.54	ug/L		95
36) cis-1,2-dichloroethene	10.575	96	361151	203.91	ug/L		96
37) methyl acrylate	10.664	85	74529	207.47	ug/L		97
38) propionitrile	10.596	54	728105	1906.53	ug/L		99
39) bromochloromethane	10.890	128	166209	198.00	ug/L		99
40) tetrahydrofuran	10.963	72	66722	199.71	ug/L		95
41) chloroform	10.953	85	373151	199.68	ug/L		97
42) t-butyl formate	11.031	59	350033	198.25	ug/L		97
44) methacrylonitrile	10.816	67	183724	203.52	ug/L		96
45) 1,1,1-trichloroethane	11.257	97	497216	201.98	ug/L		99
46) cyclohexane	11.372	84	471471	205.72	ug/L	#	84
47) 1,1-dichloropropene	11.440	75	425994	201.27	ug/L		100
48) isobutyl alcohol	11.440	74	27475	2121.58	ug/L		76
49) carbon tetrachloride	11.477	117	430380	201.49	ug/L		99
50) tert amyl alcohol	11.535	55	115854	952.79	ug/L		94
53) n-butyl alcohol	12.117	56	915706	9305.63	ug/L		96
54) 2,2,4-trimethylpentane	11.765	57	807535	198.34	ug/L		99
55) benzene	11.692	78	1221694	199.19	ug/L		99
56) tert-amyl methyl ether	11.755	87	246381	196.38	ug/L		96
57) heptane	11.923	71	199575	208.41	ug/L		99
58) isopropyl acetate	11.618	87	99013	202.78	ug/L	#	90
59) 1,2-dichloroethane	11.660	62	445790	190.27	ug/L		100
60) trichloroethene	12.368	130	335118	200.49	ug/L		99
61) ethyl acrylate	12.358	55	556195	189.88	ug/L		99
62) 2-nitropropane	13.024	41	105389	187.30	ug/L		97
63) 2-chloroethyl vinyl ether	13.071	63	1115641	860.18	ug/L		98
64) methyl methacrylate	12.609	100	114650	200.27	ug/L	#	81
65) 1,2-dichloropropane	12.594	63	325963	193.83	ug/L		100
66) dibromomethane	12.720	93	227803	195.23	ug/L		99
67) methylcyclohexane	12.620	83	450219	199.91	ug/L		98
68) bromodichloromethane	12.840	83	460662	199.80	ug/L		99
69) epichlorohydrin	13.160	57	201519	1007.94	ug/L		98
70) cis-1,3-dichloropropene	13.275	75	545528	197.22	ug/L		97
71) 4-methyl-2-pentanone	13.370	58	639358	671.86	ug/L		93
72) 3-methyl-1-butanol	13.359	70	321441	3531.90	ug/L		98
75) toluene	13.637	92	749261	198.72	ug/L		99
76) trans-1,3-dichloropropene	13.768	75	493945	197.12	ug/L		99
77) ethyl methacrylate	13.794	69	479792	194.94	ug/L		98
78) 1,1,2-trichloroethane	13.962	83	268637	197.47	ug/L		99
79) tetrachloroethene	14.177	164	257364	195.80	ug/L		100
80) 1,3-dichloropropane	14.135	76	461097	182.88	ug/L		92
81) 2-hexanone	14.135	58	684234	701.93	ug/L		94
82) butyl acetate	14.214	56	281542	189.73	ug/L		95
83) dibromochloromethane	14.376	129	374594	204.93	ug/L		99
84) 1,2-dibromoethane	14.518	107	406069	199.96	ug/L		99
85) n-butyl ether	14.906	57	1294473	191.06	ug/L		98
86) chlorobenzene	14.958	112	819672	198.86	ug/L		99
87) 1,1,1,2-tetrachloroethane	15.000	131	304840	198.36	ug/L		100
88) ethylbenzene	15.021	91	1319935	190.86	ug/L		99
89) m,p-xylene	15.116	106	972629	373.47	ug/L		97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V4D4028\
Data File : 4D92113.D
Acq On : 29 Jan 2019 7:02 pm
Operator : roberts
Sample : ic4028-200
Misc : MS31310,V4D4028,5,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jan 31 10:35:42 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 31 10:35:07 2019
Response via : Initial Calibration

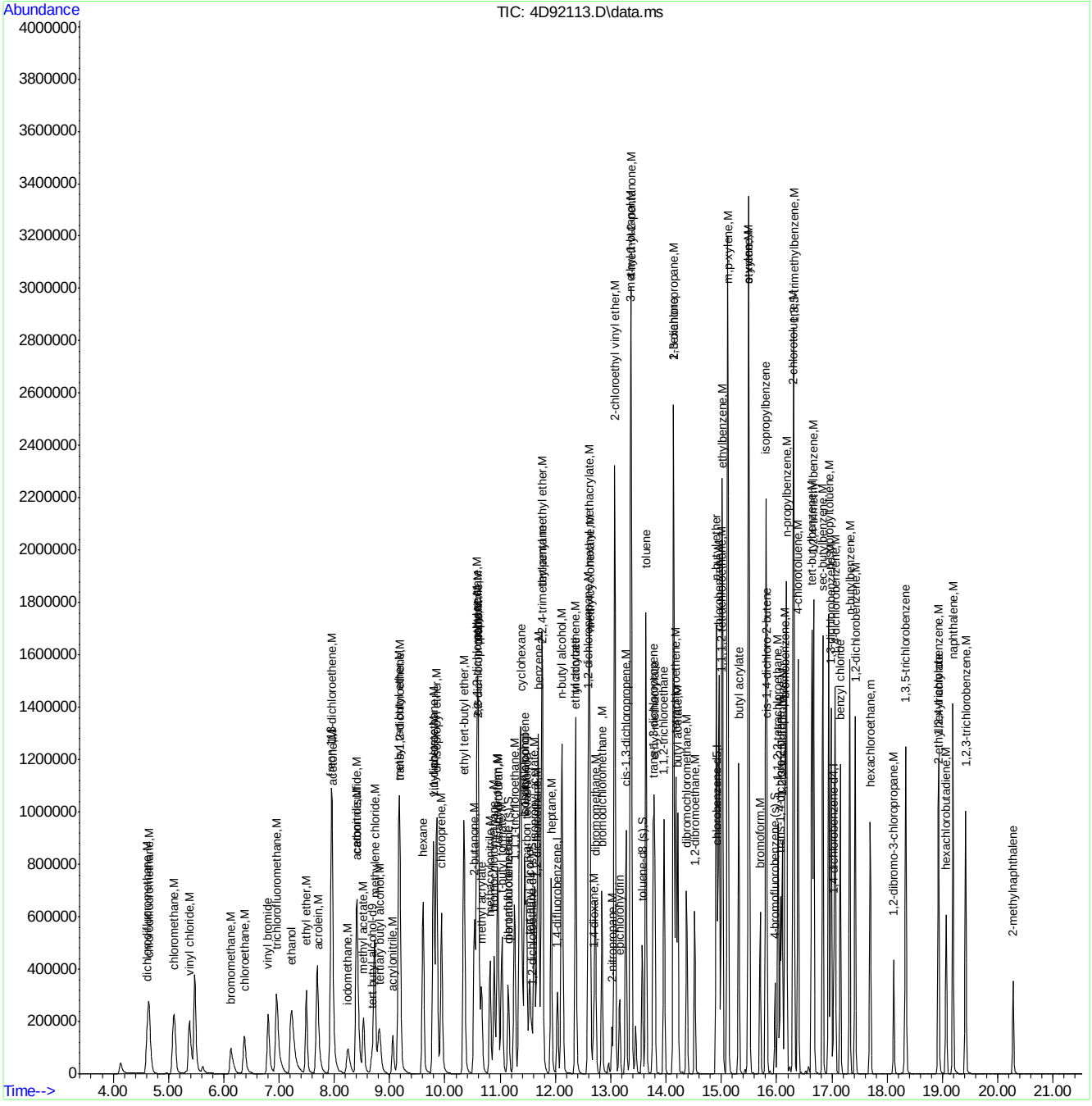
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
90) o-xylene	15.493	106	455410	180.15	ug/L	99
91) styrene	15.488	104	797430	183.44	ug/L	97
92) bromoform	15.703	173	277131	209.37	ug/L	100
93) butyl acrylate	15.315	55	690458	193.20	ug/L	99
94) isopropylbenzene	15.808	105	1226398	195.52	ug/L	100
95) cis-1,4-dichloro-2-butene	15.823	88	167799	205.36	ug/L	96
98) bromobenzene	16.154	156	351998	202.75	ug/L	98
99) 1,1,2,2-tetrachloroethane	16.023	83	486397	198.19	ug/L	99
100) trans-1,4-dichloro-2-b...	16.070	53	112558	208.96	ug/L	97
101) 1,2,3-trichloropropane	16.101	110	124958	197.71	ug/L	100
102) n-propylbenzene	16.180	91	1430271	192.61	ug/L	98
103) 2-chlorotoluene	16.301	126	294798	189.49	ug/L	98
104) 4-chlorotoluene	16.390	91	879610	196.74	ug/L	99
105) 1,3,5-trimethylbenzene	16.311	105	947721	185.62	ug/L	100
106) tert-butylbenzene	16.636	134	185326	196.99	ug/L	98
107) 1,2,4-trimethylbenzene	16.668	105	990733	192.45	ug/L	99
108) sec-butylbenzene	16.835	105	1172338	196.09	ug/L	99
109) 1,3-dichlorobenzene	16.987	146	583127	199.99	ug/L	100
110) p-isopropyltoluene	16.940	119	974908	196.35	ug/L	100
111) 1,4-dichlorobenzene	17.061	146	593765	199.21	ug/L	99
112) benzyl chloride	17.150	91	820911	194.67	ug/L	99
113) 1,2-dichlorobenzene	17.423	146	564894	198.32	ug/L	99
114) n-butylbenzene	17.323	92	485996	197.80	ug/L	99
115) 1,2-dibromo-3-chloropr...	18.120	75	99110	202.14	ug/L	95
116) 1,3,5-trichlorobenzene	18.335	180	399931	203.04	ug/L	99
117) 2-ethylhexyl acrylate	18.922	70	32431	42.61	ug/L	94
118) 1,2,4-trichlorobenzene	18.933	180	352055	199.47	ug/L	99
119) hexachlorobutadiene	19.064	225	129184	199.13	ug/L	98
120) naphthalene	19.189	128	1069466	192.82	ug/L	99
121) 1,2,3-trichlorobenzene	19.420	180	320155	193.17	ug/L	99
122) hexachloroethane	17.695	201	170539	215.64	ug/L	99
123) 2-methylnaphthalene	20.280	142	163228	77.05	ug/L	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V4D4028\
Data File : 4D92113.D
Acq On : 29 Jan 2019 7:02 pm
Operator : roberts
Sample : ic4028-200
Misc : MS31310,V4D4028,5,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jan 31 10:35:42 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 31 10:35:07 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\V4D4028\
Data File : 4D92116.D
Acq On : 29 Jan 2019 8:29 pm
Operator : roberts
Sample : icv4028-50
Misc : MS31310,V4D4028,5,,,,1
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Feb 01 10:17:12 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Fri Feb 01 10:17:00 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	8.661	65	177631	500.00	ug/L	0.00
5) pentafluorobenzene	11.147	168	187614	50.00	ug/L	0.00
51) 1,4-difluorobenzene	12.038	114	312954	50.00	ug/L	0.00
73) chlorobenzene-d5	14.927	117	266375	50.00	ug/L	0.00
96) 1,4-dichlorobenzene-d4	17.035	152	118845	50.00	ug/L	0.00
System Monitoring Compounds						
43) dibromofluoromethane (s)	11.152	113	105077	50.78	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.56%			
52) 1,2-dichloroethane-d4 (s)	11.577	65	103625	49.06	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 98.12%			
74) toluene-d8 (s)	13.569	98	346399	50.21	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.42%			
97) 4-bromofluorobenzene (s)	15.970	95	119084	49.67	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.34%			
Target Compounds						Qvalue
2) tertiary butyl alcohol	8.792	59	108102	280.84	ug/L	99
3) ethanol	7.193	45	212145	5649.93	ug/L	100
4) 1,4-dioxane	12.688	88	49027	1275.75	ug/L	100
6) chlorodifluoromethane	4.645	51	106729	55.93	ug/L	99
7) dichlorodifluoromethane	4.614	85	108502	52.23	ug/L	99
8) chloromethane	5.096	50	135268	42.74	ug/L	99
9) vinyl chloride	5.374	62	112394	47.06	ug/L	99
10) bromomethane	6.160	94	47272	64.15	ug/L	99
11) chloroethane	6.396	64	62275	51.31	ug/L	99
12) trichlorofluoromethane	6.968	101	139795	51.22	ug/L	99
13) vinyl bromide	6.816	106	71742	50.77	ug/L	99
14) ethyl ether	7.492	74	54318	56.59	ug/L	96
15) acrolein	7.707	56	26130	56.74	ug/L	97
16) freon 113	7.954	151	66258	56.02	ug/L	99
17) 1,1-dichloroethene	7.959	96	75514	50.24	ug/L	99
18) acetone	7.959	43	166897	221.40	ug/L	98
19) acetonitrile	8.405	41	176781	536.93	ug/L	100
20) iodomethane	8.247	142	64694	70.50	ug/L	98
21) carbon disulfide	8.410	76	229469	56.30	ug/L	98
22) methylene chloride	8.730	84	92354	50.86	ug/L	97
23) methyl acetate	8.525	43	96511	47.96	ug/L	99
24) methyl tert butyl ether	9.165	73	586614	113.82	ug/L	98
25) trans-1,2-dichloroethene	9.191	96	84640	51.89	ug/L	99
26) di-isopropyl ether	9.846	45	293323	54.14	ug/L	99
27) 2-butanone	10.528	72	68864	219.72	ug/L	100
28) 1,1-dichloroethane	9.794	63	158393	54.00	ug/L	99
29) chloroprene	9.941	53	133898	55.99	ug/L	99
30) acrylonitrile	9.055	53	44274	55.72	ug/L	100
31) hexane	9.605	56	54468	52.00	ug/L	99
32) vinyl acetate	9.794	86	22521	52.59	ug/L	100
33) ethyl tert-butyl ether	10.344	59	290624	53.61	ug/L	100
34) ethyl acetate	10.586	70	15538	52.39	ug/L	96

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\V4D4028\
Data File : 4D92116.D
Acq On : 29 Jan 2019 8:29 pm
Operator : roberts
Sample : icv4028-50
Misc : MS31310,V4D4028,5,,,,1
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Feb 01 10:17:12 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Fri Feb 01 10:17:00 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
35) 2,2-dichloropropane	10.607	77	125426	48.47	ug/L		100
36) cis-1,2-dichloroethene	10.580	96	100851	54.05	ug/L		99
37) methyl acrylate	10.659	85	20741	55.58	ug/L		96
38) propionitrile	10.586	54	211814	548.97	ug/L		99
39) bromochloromethane	10.890	128	47386	53.49	ug/L		98
40) tetrahydrofuran	10.963	72	19021	53.71	ug/L		92
41) chloroform	10.953	85	104795	51.11	ug/L		97
42) t-butyl formate	11.031	59	84562	47.56	ug/L		99
44) methacrylonitrile	10.816	67	51096	51.58	ug/L		99
45) 1,1,1-trichloroethane	11.262	97	133018	50.11	ug/L		100
46) cyclohexane	11.372	84	111545	45.76	ug/L		95
47) 1,1-dichloropropene	11.445	75	118079	51.76	ug/L		99
48) isobutyl alcohol	11.445	74	7756	522.48	ug/L		90
49) carbon tetrachloride	11.477	117	117553	51.25	ug/L		98
50) tert amyl alcohol	11.524	55	34505	275.28	ug/L		94
53) n-butyl alcohol	12.101	56	270440	2837.20	ug/L		100
54) 2,2,4-trimethylpentane	11.765	57	206870	49.67	ug/L		98
55) benzene	11.692	78	342158	50.58	ug/L		99
56) tert-amyl methyl ether	11.750	87	67089	52.16	ug/L		99
57) heptane	11.923	71	54234	55.27	ug/L		99
58) isopropyl acetate	11.613	87	26587	52.96	ug/L		99
59) 1,2-dichloroethane	11.666	62	128927	47.77	ug/L		100
60) trichloroethene	12.368	130	93902	52.17	ug/L		99
61) ethyl acrylate	12.358	55	156408	53.21	ug/L		100
62) 2-nitropropane	13.024	41	31958	54.36	ug/L		99
63) 2-chloroethyl vinyl ether	13.071	63	357062	284.62	ug/L		99
64) methyl methacrylate	12.609	100	32931	56.32	ug/L	#	83
65) 1,2-dichloropropane	12.594	63	90982	51.77	ug/L		100
66) dibromomethane	12.720	93	65455	52.16	ug/L		98
67) methylcyclohexane	12.620	83	117674	50.37	ug/L		99
68) bromodichloromethane	12.840	83	123944	50.63	ug/L		98
69) epichlorohydrin	13.160	57	54326	260.77	ug/L		100
70) cis-1,3-dichloropropene	13.275	75	150795	50.66	ug/L		99
71) 4-methyl-2-pentanone	13.364	58	204005	209.66	ug/L		99
72) 3-methyl-1-butanol	13.354	70	98694	1134.88	ug/L		98
75) toluene	13.637	92	209088	50.20	ug/L		100
76) trans-1,3-dichloropropene	13.768	75	130450	51.46	ug/L		99
77) ethyl methacrylate	13.794	69	129770	53.01	ug/L		99
78) 1,1,2-trichloroethane	13.962	83	74706	54.32	ug/L		99
79) tetrachloroethene	14.177	164	73552	51.59	ug/L		98
80) 1,3-dichloropropane	14.135	76	139405	51.97	ug/L		98
81) 2-hexanone	14.135	58	206399	215.15	ug/L		99
82) butyl acetate	14.214	56	80697	54.51	ug/L		98
83) dibromochloromethane	14.371	129	103434	56.46	ug/L		99
84) 1,2-dibromoethane	14.518	107	111463	52.85	ug/L		100
85) n-butyl ether	14.906	57	353169	50.12	ug/L		100
86) chlorobenzene	14.958	112	226358	49.86	ug/L		99
87) 1,1,1,2-tetrachloroethane	15.005	131	86145	54.32	ug/L		99
88) ethylbenzene	15.021	91	380684	50.68	ug/L		100
89) m,p-xylene	15.116	106	290266	103.67	ug/L		99

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\V4D4028\
Data File : 4D92116.D
Acq On : 29 Jan 2019 8:29 pm
Operator : roberts
Sample : icv4028-50
Misc : MS31310,V4D4028,5,,,,1
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Feb 01 10:17:12 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Fri Feb 01 10:17:00 2019
Response via : Initial Calibration

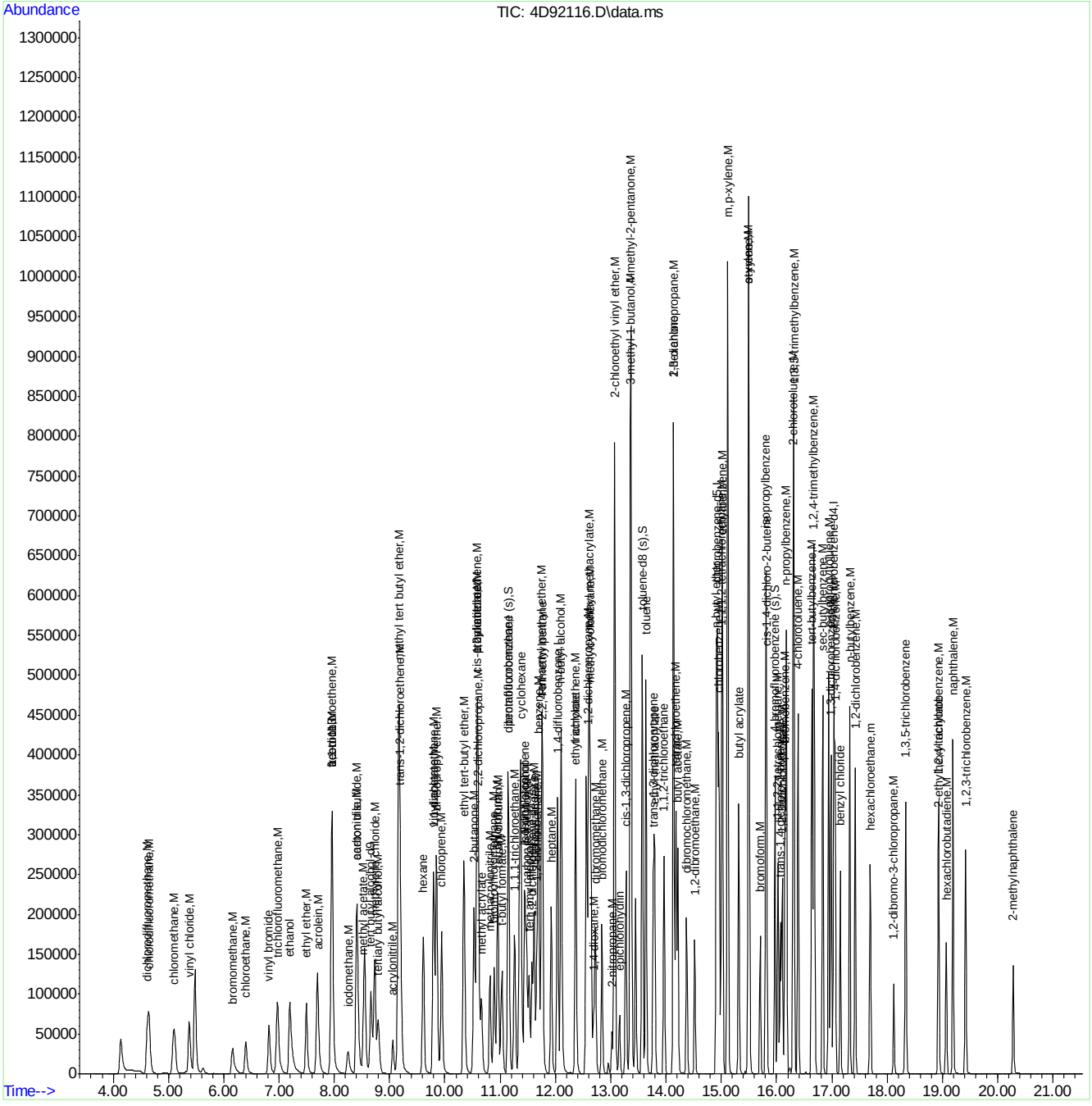
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
90) o-xylene	15.493	106	139085	52.16	ug/L	99
91) styrene	15.493	104	242052	55.75	ug/L	96
92) bromoform	15.703	173	76488	58.13	ug/L	100
93) butyl acrylate	15.315	55	197432	56.90	ug/L	99
94) isopropylbenzene	15.808	105	345218	50.48	ug/L	100
95) cis-1,4-dichloro-2-butene	15.818	88	41799	49.81	ug/L	99
98) bromobenzene	16.154	156	97129	52.01	ug/L	100
99) 1,1,2,2-tetrachloroethane	16.023	83	132788	51.24	ug/L	99
100) trans-1,4-dichloro-2-b...	16.070	53	32990	58.46	ug/L	98
101) 1,2,3-trichloropropane	16.101	110	34531	51.09	ug/L	100
102) n-propylbenzene	16.175	91	406372	50.27	ug/L	100
103) 2-chlorotoluene	16.301	126	84675	51.61	ug/L	97
104) 4-chlorotoluene	16.390	91	251560	51.00	ug/L	100
105) 1,3,5-trimethylbenzene	16.311	105	278666	51.29	ug/L	100
106) tert-butylbenzene	16.636	134	51706	52.13	ug/L	99
107) 1,2,4-trimethylbenzene	16.668	105	287209	52.39	ug/L	100
108) sec-butylbenzene	16.835	105	329221	50.87	ug/L	99
109) 1,3-dichlorobenzene	16.987	146	163458	51.21	ug/L	100
110) p-isopropyltoluene	16.940	119	276677	52.91	ug/L	100
111) 1,4-dichlorobenzene	17.061	146	164831	50.19	ug/L	99
112) benzyl chloride	17.150	91	174567	41.33	ug/L	100
113) 1,2-dichlorobenzene	17.423	146	157689	52.32	ug/L	98
114) n-butylbenzene	17.323	92	135090	53.85	ug/L	99
115) 1,2-dibromo-3-chloropr...	18.120	75	26142	53.26	ug/L	97
116) 1,3,5-trichlorobenzene	18.335	180	108823	54.32	ug/L	99
117) 2-ethylhexyl acrylate	18.922	70	9447	10.77	ug/L	95
118) 1,2,4-trichlorobenzene	18.933	180	97956	53.92	ug/L	98
119) hexachlorobutadiene	19.069	225	34783	51.23	ug/L	99
120) naphthalene	19.189	128	308882	54.41	ug/L	99
121) 1,2,3-trichlorobenzene	19.420	180	90688	52.98	ug/L	99
122) hexachloroethane	17.695	201	45238	55.46	ug/L	99
123) 2-methylnaphthalene	20.280	142	63983	30.64	ug/L	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\V4D4028\
Data File : 4D92116.D
Acq On : 29 Jan 2019 8:29 pm
Operator : roberts
Sample : icv4028-50
Misc : MS31310,V4D4028,5,,,,1
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Feb 01 10:17:12 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Fri Feb 01 10:17:00 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V4D4028\
Data File : 4D92117.D
Acq On : 29 Jan 2019 8:58 pm
Operator : roberts
Sample : icv4028-50
Misc : MS31310,V4D4028,5,,,,1
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Jan 31 11:30:59 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 31 10:54:24 2019
Response via : Initial Calibration

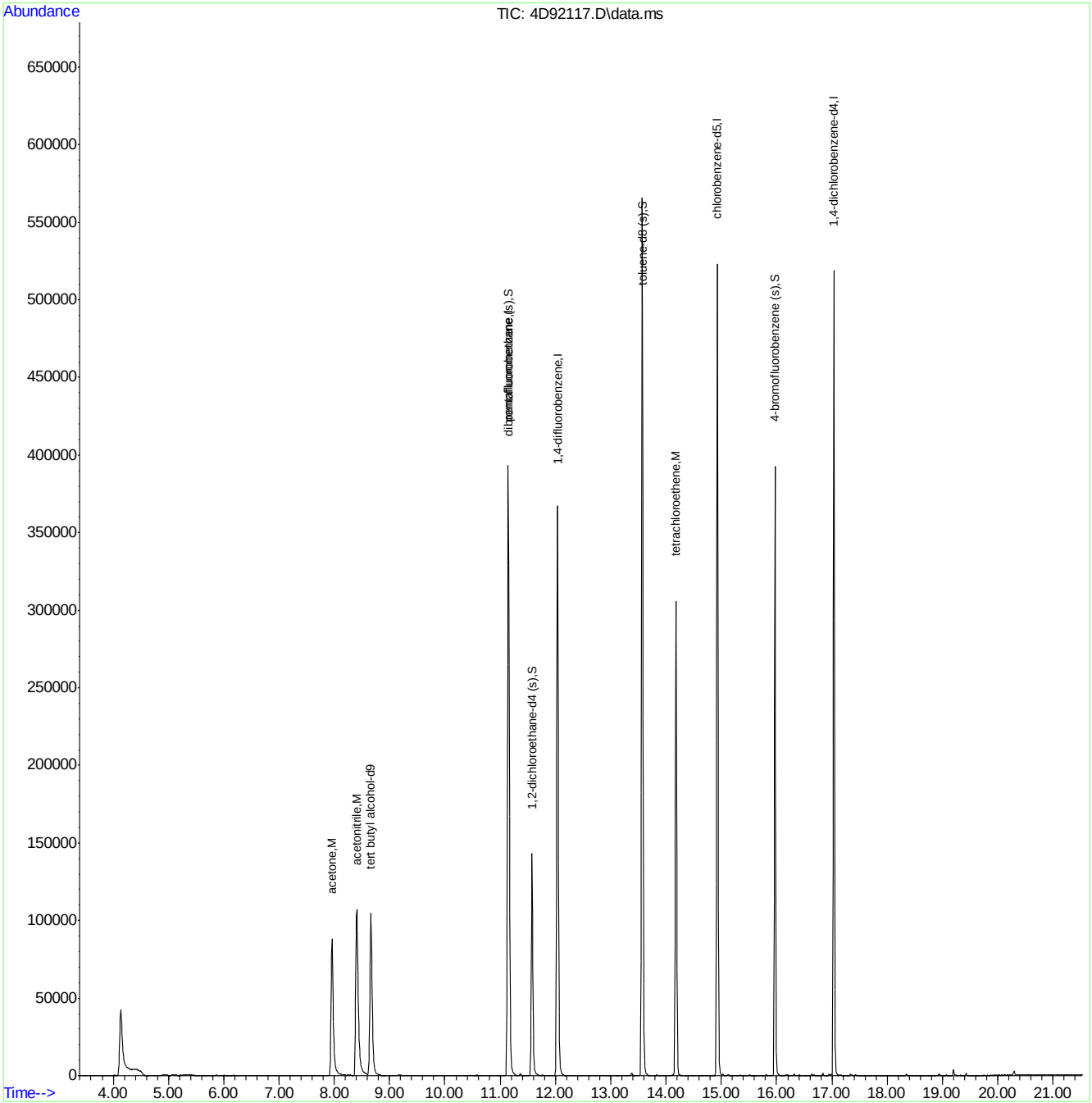
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	8.661	65	182852	500.00	ug/L	0.00
5) pentafluorobenzene	11.147	168	195328	50.00	ug/L	0.00
51) 1,4-difluorobenzene	12.038	114	329995	50.00	ug/L	0.00
73) chlorobenzene-d5	14.927	117	288182	50.00	ug/L	0.00
96) 1,4-dichlorobenzene-d4	17.035	152	127753	50.00	ug/L	0.00
System Monitoring Compounds						
43) dibromofluoromethane (s)	11.152	113	108182	50.21	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.42%			
52) 1,2-dichloroethane-d4 (s)	11.577	65	110886	49.79	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 99.58%			
74) toluene-d8 (s)	13.569	98	375854	50.36	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.72%			
97) 4-bromofluorobenzene (s)	15.970	95	127631	49.53	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.06%			
Target Compounds						Qvalue
18) acetone	7.959	43	172300	219.54	ug/L	99
19) acetonitrile	8.404	41	180565	526.77	ug/L	100
79) tetrachloroethene	14.177	164	70691	45.83	ug/L	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V4D4028\
Data File : 4D92117.D
Acq On : 29 Jan 2019 8:58 pm
Operator : roberts
Sample : icv4028-50
Misc : MS31310,V4D4028,5,,,,1
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Jan 31 11:30:59 2019
Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Thu Jan 31 10:54:24 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\May-2019\5-15\v4d4145\
Data File : 4d93990.d
Acq On : 10 May 2019 6:52 pm
Operator : edwardd
Sample : cc4028-50 Inst : MS4D
Misc : MS34604,V4D4145,5,,,,1
ALS Vial : 51 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Results File: M4D4028.RES
Quant Time: May 13 21:19:36 2019
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Fri Feb 01 10:17:00 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	8.656	65	135610	500.00	ug/L	0.00
5) pentafluorobenzene	11.141	168	188811	50.00	ug/L	0.00
51) 1,4-difluorobenzene	12.033	114	275960	50.00	ug/L	0.00
73) chlorobenzene-d5	14.927	117	221628	50.00	ug/L	0.00
96) 1,4-dichlorobenzene-d4	17.029	152	96459	50.00	ug/L	0.00
System Monitoring Compounds						
43) dibromofluoromethane (s)	11.147	113	90265	43.34	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 86.68%			
52) 1,2-dichloroethane-d4 (s)	11.571	65	89752	48.19	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 96.38%			
74) toluene-d8 (s)	13.564	98	301811	52.58	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 105.16%			
97) 4-bromofluorobenzene (s)	15.965	95	98659	50.70	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.40%			
Target Compounds						Qvalue
2) tertiary butyl alcohol	8.792	59	81957	278.89	ug/L	97
3) ethanol	7.188	45	182748	6375.15	ug/L	99
4) 1,4-dioxane	12.688	88	34474	1175.03	ug/L	99
6) chlorodifluoromethane	4.640	51	71244	37.09	ug/L	96
7) dichlorodifluoromethane	4.614	85	104316	49.90	ug/L	98
8) chloromethane	5.096	50	125733	39.47	ug/L	99
9) vinyl chloride	5.379	62	109988	45.77	ug/L	99
10) bromomethane	6.166	94	57145	77.05	ug/L	97
11) chloroethane	6.396	64	61820	50.61	ug/L	97
12) trichlorofluoromethane	6.968	101	117539	42.79	ug/L	99
13) vinyl bromide	6.816	106	72095	50.70	ug/L	95
14) ethyl ether	7.492	74	45903	47.52	ug/L	93
15) acrolein	7.702	56	18022	38.89	ug/L	99
16) freon 113	7.948	151	48814	41.01	ug/L	97
17) 1,1-dichloroethene	7.959	96	65048	43.00	ug/L	96
18) acetone	7.953	43	128025	168.76	ug/L	96
19) acetonitrile	8.399	41	161314	486.85	ug/L	97
20) iodomethane	8.242	142	56466	61.14	ug/L	96
21) carbon disulfide	8.404	76	173773	42.37	ug/L	96
22) methylene chloride	8.724	84	80527	44.07	ug/L	99
23) methyl acetate	8.525	43	86395	42.66	ug/L	100
24) methyl tert butyl ether	9.159	73	235022	45.31	ug/L	97
25) trans-1,2-dichloroethene	9.186	96	72725	44.30	ug/L	99
26) di-isopropyl ether	9.846	45	271793	49.85	ug/L	96
27) 2-butanone	10.523	72	57297	181.65	ug/L	99
28) 1,1-dichloroethane	9.789	63	140618	47.64	ug/L	99
29) chloroprene	9.935	53	107941	44.85	ug/L	98
30) acrylonitrile	9.049	53	38862	48.60	ug/L	99
31) hexane	9.605	56	50473	47.88	ug/L	97
32) vinyl acetate	9.789	86	19960	46.31	ug/L #	88
33) ethyl tert-butyl ether	10.339	59	257024	47.11	ug/L	98
34) ethyl acetate	10.580	70	12638	42.34	ug/L #	84
35) 2,2-dichloropropane	10.606	77	106105	40.75	ug/L	96
36) cis-1,2-dichloroethene	10.575	96	85273	45.41	ug/L	100
37) methyl acrylate	10.659	85	16750	44.60	ug/L #	85
38) propionitrile	10.580	54	181012	466.16	ug/L	98
39) bromochloromethane	10.890	128	40046	44.92	ug/L	96
40) tetrahydrofuran	10.958	72	15281	42.88	ug/L	100
41) chloroform	10.953	85	85947	41.65	ug/L	97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\May-2019\5-15\v4d4145\
Data File : 4d93990.d
Acq On : 10 May 2019 6:52 pm
Operator : edwardd
Sample : cc4028-50 Inst : MS4D
Misc : MS34604,V4D4145,5,,,,1
ALS Vial : 51 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Results File: M4D4028.RES
Quant Time: May 13 21:19:36 2019
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Fri Feb 01 10:17:00 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
42) t-butyl formate	11.026	59	70866	39.60	ug/L		98
44) methacrylonitrile	10.811	67	43872	44.01	ug/L		97
45) 1,1,1-trichloroethane	11.257	97	106120	39.73	ug/L		99
46) cyclohexane	11.367	84	103271	42.10	ug/L		93
47) 1,1-dichloropropene	11.440	75	96768	42.15	ug/L		100
48) isobutyl alcohol	11.440	74	6169	412.94	ug/L		80
49) carbon tetrachloride	11.472	117	88817	38.48	ug/L		98
50) tert amyl alcohol	11.519	55	25242	200.10	ug/L		94
53) n-butyl alcohol	12.101	56	211181	2512.52	ug/L		98
54) 2,2,4-trimethylpentane	11.760	57	191667	52.19	ug/L		97
55) benzene	11.687	78	288681	48.39	ug/L		100
56) tert-amyl methyl ether	11.749	87	53877	47.51	ug/L		94
57) heptane	11.922	71	42658	49.30	ug/L		98
58) isopropyl acetate	11.613	87	22209	50.17	ug/L		99
59) 1,2-dichloroethane	11.660	62	96789	40.67	ug/L		95
60) trichloroethene	12.363	130	71695	45.17	ug/L		98
61) ethyl acrylate	12.352	55	124927	48.19	ug/L		98
62) 2-nitropropane	13.018	41	21307	41.10	ug/L		98
63) 2-chloroethyl vinyl ether	13.071	63	12691	11.47	ug/L		99
64) methyl methacrylate	12.604	100	24961	48.41	ug/L	#	86
65) 1,2-dichloropropane	12.594	63	79542	51.33	ug/L		99
66) dibromomethane	12.714	93	49707	44.92	ug/L		99
67) methylcyclohexane	12.620	83	98695	47.91	ug/L		99
68) bromodichloromethane	12.835	83	100354	46.49	ug/L		99
69) epichlorohydrin	13.155	57	44123	240.19	ug/L		97
70) cis-1,3-dichloropropene	13.270	75	123927	47.22	ug/L		97
71) 4-methyl-2-pentanone	13.364	58	163869	190.99	ug/L		98
72) 3-methyl-1-butanol	13.349	70	70955	925.28	ug/L		96
75) toluene	13.632	92	164619	47.51	ug/L		100
76) trans-1,3-dichloropropene	13.768	75	108081	51.24	ug/L		99
77) ethyl methacrylate	13.789	69	107772	52.92	ug/L		99
78) 1,1,2-trichloroethane	13.962	83	59621	52.10	ug/L		98
79) tetrachloroethene	14.177	164	54417	45.88	ug/L		99
80) 1,3-dichloropropane	14.130	76	108041	48.41	ug/L		98
81) 2-hexanone	14.130	58	164048	205.53	ug/L		98
82) butyl acetate	14.208	56	63932	51.91	ug/L		100
83) dibromochloromethane	14.371	129	76150	49.96	ug/L		99
84) 1,2-dibromoethane	14.513	107	81794	46.61	ug/L		99
85) n-butyl ether	14.906	57	280953	47.92	ug/L		100
86) chlorobenzene	14.953	112	174496	46.20	ug/L		98
87) 1,1,1,2-tetrachloroethane	15.000	131	63611	48.21	ug/L		98
88) ethylbenzene	15.016	91	295230	47.24	ug/L		99
89) m,p-xylene	15.110	106	223137	95.78	ug/L		100
90) o-xylene	15.488	106	107740	48.56	ug/L		100
91) styrene	15.488	104	188070	52.06	ug/L		98
92) bromoform	15.697	173	53945	49.28	ug/L		100
93) butyl acrylate	15.309	55	159694	55.31	ug/L		99
94) isopropylbenzene	15.802	105	265947	46.74	ug/L		99
95) cis-1,4-dichloro-2-butene	15.818	88	28847	41.32	ug/L		97
98) bromobenzene	16.148	156	73888	48.74	ug/L		99
99) 1,1,2,2-tetrachloroethane	16.023	83	102430	48.70	ug/L		99
100) trans-1,4-dichloro-2-b...	16.064	53	20568	44.91	ug/L		98
101) 1,2,3-trichloropropane	16.096	110	25321	46.16	ug/L		99
102) n-propylbenzene	16.175	91	317609	48.41	ug/L		100
103) 2-chlorotoluene	16.295	126	64915	48.75	ug/L		99
104) 4-chlorotoluene	16.384	91	190632	47.62	ug/L		98
105) 1,3,5-trimethylbenzene	16.306	105	215751	48.92	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\May-2019\5-15\v4d4145\
Data File : 4d93990.d
Acq On : 10 May 2019 6:52 pm
Operator : edwardd
Sample : cc4028-50 Inst : MS4D
Misc : MS34604,V4D4145,5,,,,1
ALS Vial : 51 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Results File: M4D4028.RES
Quant Time: May 13 21:19:36 2019
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Fri Feb 01 10:17:00 2019
Response via : Initial Calibration

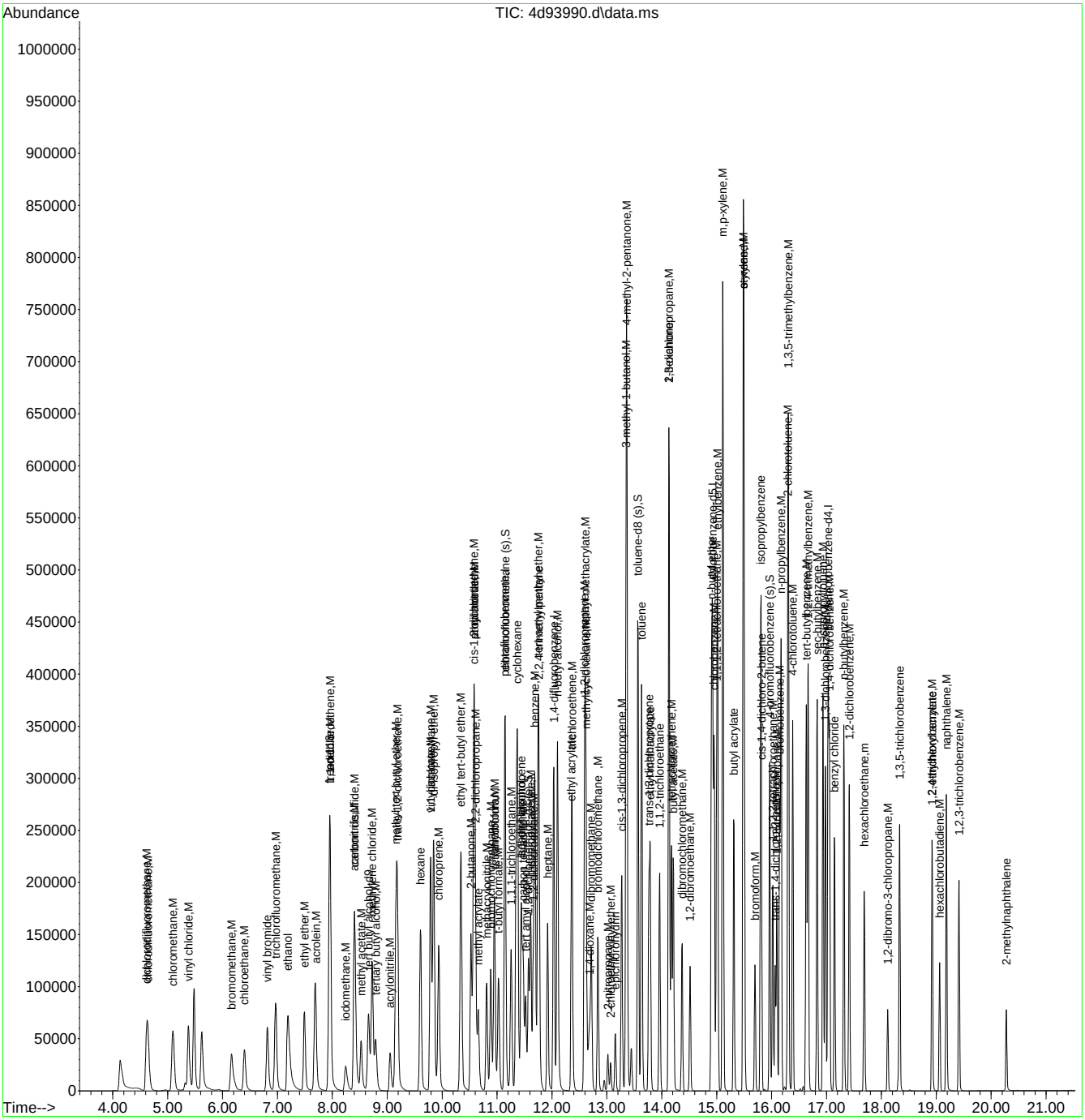
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
106) tert-butylbenzene	16.631	134	38431	47.74	ug/L	96
107) 1,2,4-trimethylbenzene	16.667	105	217749	48.94	ug/L	99
108) sec-butylbenzene	16.830	105	255466	48.64	ug/L	99
109) 1,3-dichlorobenzene	16.982	146	123354	47.61	ug/L	100
110) p-isopropyltoluene	16.935	119	209772	49.42	ug/L	99
111) 1,4-dichlorobenzene	17.055	146	126209	47.35	ug/L	99
112) benzyl chloride	17.145	91	169836	49.54	ug/L	99
113) 1,2-dichlorobenzene	17.417	146	119277	48.76	ug/L	98
114) n-butylbenzene	17.318	92	104584	51.36	ug/L	98
115) 1,2-dibromo-3-chloropr...	18.115	75	18235	45.77	ug/L	98
116) 1,3,5-trichlorobenzene	18.335	180	81062	49.85	ug/L	99
117) 2-ethylhexyl acrylate	18.922	70	3898	5.62	ug/L	94
118) 1,2,4-trichlorobenzene	18.927	180	71465	48.47	ug/L	99
119) hexachlorobutadiene	19.063	225	26451	48.00	ug/L	97
120) naphthalene	19.184	128	209916	45.56	ug/L	99
121) 1,2,3-trichlorobenzene	19.415	180	63388	45.62	ug/L	99
122) hexachloroethane	17.690	201	33764	51.00	ug/L	100
123) 2-methylnaphthalene	20.275	142	37010	21.84	ug/L	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\May-2019\5-15\v4d4145\
Data File : 4d93990.d
Acq On : 10 May 2019 6:52 pm
Operator : edwardd
Sample : cc4028-50 Inst : MS4D
Misc : MS34604,V4D4145,5,,,,1
ALS Vial : 51 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4D4028.M
Quant Results File: M4D4028.RES
Quant Time: May 13 21:19:36 2019
Quant Title : SW846 8260C/ EPA 624, DB-624 60 m x 0.25 mm x 1.4 um
QLast Update : Fri Feb 01 10:17:00 2019
Response via : Initial Calibration



GCMS Volatile Run Log

Standard / Reagents	Lot #				Column	DB624(60mx0.25mmx1.4um)
Standards	ABK V018-2645-111.1	EC V018-2645-108.9	Acrolein V018-2645-85.4 8	Acetone 3rd Source V018-2645-55.3	Method	V8260C
Standard Concentration	100-10,000ppm	100ppm	100ppm	400 ppm	Init Calib Date	1/29/2019
Internal Surrogate	V018-2645-91					
Internal Surrogate Concentration	250/2500ppm					
Ext. Standards	ABK V018-2645-109.2	EC V018-2645-102.3	Acrolein V018-2645-98.1	Ext. PA V018-2645-8 2.2	Analysis Date	1/29/2019
Ext. Standard Concentration	100-10,000ppm	100ppm	100ppm	1000ppm	Sequence loaded by	Gaby Alvarez
					Data processed by	Bridget Kelly
					Batch ID	V4D4028
Calibration Prepared by	Robert Szot				Matrix	AQ
Initial Calibration Method	M4D4028				Approved By:	MEI
pH Paper Lot#	204518				Approved Date:	1/31/2019 11:43:52 AM

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	CL	pH	ALS #	Status	Comments
4D	92100	IB		NA			5			1	ok	
4D	92101	IB		NA			5			2	ok	
4D	92102	BFB		NA			5			3	ok	2:06pm 01/29/2019
4D	92103	IC4028-0.2		NA		V8260 Initial Cal	5			4	ok	2uL A/B/K, EC, Acrolein/1000mL
4D	92104	IC4028-0.5		NA		V8260 Initial Cal	5			5	ok	5uL A/B/K, EC, Acrolein/1000mL
4D	92105	IC4028-1		NA		V8260 Initial Cal	5			6	ok	5uL A/B/K, EC, Acrolein/500mL
4D	92106	IC4028-2		NA		V8260 Initial Cal	5			7	ok	10uL A/B/K, EC, Acrolein/500mL
4D	92107	IC4028-4		NA		V8260 Initial Cal	5			8	ok	4uL A/B/K, EC, Acrolein/100mL
4D	92108	IC4028-8		NA		V8260 Initial Cal	5			9	ok	8uL A/B/K, EC, Acrolein/100mL
4D	92109	IC4028-20		NA		V8260 Initial Cal	5			10	ok	20uL A/B/K, EC, Acrolein/100mL
4D	92110	IC4028-50		NA		V8260 Initial Cal	5			11	ok	50uL A/B/K, EC, Acrolein/100mL

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	CL	pH	ALS #	Status	Comments
4D	92111	IC4028-100		NA		V8260 Initial Cal	5			12	ok	100uL A/B/K, EC, Acrolein/100mL
4D	92112	IC4028-200		NA		V8260 Initial Cal	5			13	ok	200uL A/B/K, EC, Acrolein/100mL
4D	92113	IB		NA			5			14	ok	
4D	92114	IB		NA			5			15	ok	
4D	92115	ICV4028-50		NA		V8260 Initial Cal	5			16	ok	50uL A/B/K, EC, Acrolein/100mL
4D	92116	ICV4028-50		NA		V8260 Initial Cal	5			17	ok	50uL A/B/K, EC, Acrolein/100mL

GCMS Volatile Run Log

Standard / Reagents	Lot #				Column	Rxi-624(60mx0.25mmx1.4um)
Standard	ABK: V019-2648-72.19	EC: V019-2648-98.2	Acrolein: V019-2648-88.3		Method	V8260C
Standard Concentration	100-10,000ppm	100ppm	100ppm		Init Calib Date	1/29/2019
Internal Surrogate	V018-2648-97					
Internal Surrogate Concentration	50/500ppm					
					Analysis Date	5/10/2019
dilutions & MS/MSD made by	Devin Gomez				Sequence loaded by	Devin Gomez
					Data processed by	lotusa
					Batch ID	V4D4145
Rough reviewed by	Devin Gomez 5/13				Matrix	AQ
Initial Calibration Method	M4D4028				Approved By:	KANYAV
pH Paper Lot#	204518				Approved Date:	5/16/2019 3:39:18 AM

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	CL	pH	ALS #	Status	Comments
4D	93990	BFB/CC4028-50		NA			5			1	OK/OK	50uL ABK, EC, Acrolein/100mL (6:52pm)
4D	93991	BS		NA			5			2	OK	50uL ABK, EC, Acrolein/100mL
4D	93992	IB		NA			5			3	OK	
4D	93993	MB		NA			5			4	OK	
4D	93994	JC87889-3	4	NA	MS34684	V8260BTXMN	5		1	5	OK	
4D	93995	JC87889-4	3	NA	MS34684	V8260BTXMN	5		1	6	OK	
4D	93996	JC87891-1	1	NA	MS34684	V8260PAUGTMB	5		1	7	OK	
4D	93997	JC87889-3MS	5	NA	MS34684	V8260BTXMN	5		1	8	OK	20uL ABK, EC, Acrolein/40mL
4D	93998	IB		NA			5			9	OK	
4D	93999	JC87889-4DUP	5	NA	MS34684	V8260BTXMN	5		1	10	OK	
4D	94000	JC87889-5	4	NA	MS34684	V8260BTXMN	5		1	11	OK	

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	CL	pH	ALS #	Status	Comments
4D	94001	JC87889-1	4	NA	MS34684	V8260BTXMN	5		1	12	OK	
4D	94002	JC87889-2	5	NA	MS34684	V8260BTXMN	5		1	13	OK	
4D	94003	JC87891-2	1	NA	MS34684	V8260PAUGTMB	5		1	14	OK	
4D	94004	JC87891-3	2	NA	MS34684	V8260PAUGTMB	5		1	15	OK	
4D	94005	JC87891-4	1	NA	MS34684	V8260PAUGTMB	5		1	16	OK	
4D	94006	JC87891-5	2	NA	MS34684	V8260PAUGTMB	5		1	17	OK	
4D	94007	JC87891-6	2	NA	MS34684	V8260PAUGTMB	5		1	18	OK	
4D	94008	JC87833-1	7	NA	MS34673	V8260BTX	5		1	19	OK	
4D	94009	JC87847-1	1	100X	MS34673	V8260PAUGTMB	0.5/50		1	20	ok/rr	10x o/d
4D	94010	JC87870-1	1	NA	MS34673	V8260BTXOXY5	5		1	21	OK	
4D	94011	JC87870-2	2	NA	MS34673	V8260BTXOXY5	5		1	22	OK	
4D	94012	JC87870-3	1	NA	MS34673	V8260BTXOXY5	5		1	23	OK	
4D	94013	JC87870-4	2	NA	MS34673	V8260BTXOXY5	5		1	24	OK	6:44am
4D	94014	JC87870-5	2	NA	MS34673	V8260BTXOXY5	5		1	25	ok/rr	10x f/d + out of bfb
4D	94015	JC87870-6	2	NA	MS34673	V8260BTXOXY5	5		1	26	ok/rr	1x out of bfb

Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Instrument Runlogs
- Initial and Continuing Calibration Blanks
- Initial and Continuing Calibration Checks
- High and Low Check Standards
- Interfering Element Check Standards
- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries
- IDL and Linear Range Summaries

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC87833
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XB051019M2.CSV Date Analyzed: 05/10/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA46696
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Dilution Factor	PS Recov	Comments
13:15	MA46696-STD1	1		STDA
13:20	MA46696-STD2	1		STDA
13:24	MA46696-STD3	1		STDA
13:29	MA46696-STD4	1		STDB
13:34	MA46696-STD5	1		STDC
13:39	MA46696-STD6	1		STDD
13:44	MA46696-STD7	1		STDE
13:48	MA46696-STD8	1		STDF
13:53	MA46696-STD9	1		STDG
13:58	MA46696-STD10	1		STDH
14:03	MA46696-STD11	1		STDI
14:07	MA46696-STD12	1		STDJ
14:12	MA46696-STD13	1		STDA
14:22	MA46696-STD14	1		STDB
14:31	MA46696-ICVA1	1		
14:36	MA46696-ICV1	1		
14:41	MA46696-ICB1	1		
14:46	MA46696-CCVA1	1		
14:50	MA46696-CCB1	1		
14:55	MA46696-CRI1	1		
15:00	MA46696-ICSA1	1		See rerun
15:05	MA46696-ICSAB1	1		
15:09	ZZZZZZ	1		
15:15	MA46696-ICSA2	1		
15:20	MA46696-CCVA2	1		
15:25	MA46696-CCB2	1		
15:29	MP14909-MB1	2		
15:34	MP14909-MB2	2		
15:39	MP14909-B2	2		
15:44	MP14909-B3	25		
15:48	ZZZZZZ	2		
15:53	ZZZZZZ	2		
16:02	MP14909-MB1	2		Confirmation

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC87833
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XB051019M2.CSV Date Analyzed: 05/10/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA46696
Parameters: Al,As,Ba,Cd,Fe,Pb

	Time	Sample Description	Dilution Factor	PS Recov	Comments
	16:06	MP14909-MB2	2		Confirmation
	16:11	MP14909-S3	2		
	16:16	MA46696-CCVA3	1		
	16:21	MA46696-CCB3	1		
	16:25	ZZZZZZ	2		
	16:30	JC87783-12	2		(sample used for QC only; not part of login JC87833)
	16:35	MP14909-S4	2		
	16:40	MP14909-SD1	10		
---------->		Last reportable sample/prep for job JC87833			
	16:44	ZZZZZZ	5		
	16:49	ZZZZZZ	1		
	16:54	ZZZZZZ	1		
	16:59	ZZZZZZ	2		
	17:04	ZZZZZZ	2		
	17:08	MA46696-CCVA4	1		
	17:13	MA46696-CCB4	1		
---------->		Last reportable CCB for job JC87833			
	17:18	MP11926-MB3	2		To rerun Cr and Se. MB/BS out
	17:23	MP11926-B3	2		To rerun Cr and Se. MB/BS out
	17:27	ZZZZZZ	2		
	17:32	MP11929-MB3	1		
	17:37	MP11929-B3	1		
	17:42	ZZZZZZ	1		
	17:47	MP11928-MB3	5		
	17:51	MP11928-B3	5		
	17:56	ZZZZZZ	5		
	18:01	MA46696-CCVA5	1		
	18:06	MA46696-CCB5	1		
	18:10	ZZZZZZ	2		
	18:15	ZZZZZZ	2		
	18:20	ZZZZZZ	2		
	18:25	ZZZZZZ	2		
	18:29	ZZZZZZ	2		
	18:34	ZZZZZZ	2		
	18:39	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC87833
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XB051019M2.CSV Date Analyzed: 05/10/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA46696
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Dilution Factor	PS Recov	Comments
18:44	ZZZZZZ	2		
18:48	ZZZZZZ	2		
18:53	MA46696-CCVA6	1		
18:58	MA46696-CCB6	1		
19:03	ZZZZZZ	2		
19:07	ZZZZZZ	2		
19:12	ZZZZZZ	2		
19:17	ZZZZZZ	1		
19:22	ZZZZZZ	2		
19:26	ZZZZZZ	2		
19:31	ZZZZZZ	1		
19:36	ZZZZZZ	2		
19:41	ZZZZZZ	2		
19:45	MA46696-CCVA7	1		
19:50	MA46696-CCB7	1		
19:55	ZZZZZZ	2		
20:00	MP14935-MB1	5		
20:05	MP14935-B1	5		
20:09	MP14935-S1	5		
20:14	MP14935-S2	5		
20:19	ZZZZZZ	1		
20:24	JC85493-1AR	5		(sample used for QC only; not part of login JC87833)
20:28	MP14935-SD1	25		
20:33	ZZZZZZ	5		
20:38	MA46696-CCVA8	1		
20:42	MA46696-CCB8	1		
20:47	MP14888-MB1	1		
20:52	MP14888-B1	1		
20:57	MP14888-S1	1		overrange
21:01	MP14888-S2	1		overrange
21:06	ZZZZZZ	1		
21:11	JC87629-4	1		(sample used for QC only; not part of login JC87833)
21:16	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC87833
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XB051019M2.CSV Date Analyzed: 05/10/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA46696
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Dilution Factor	PS Recov	Comments
21:20	ZZZZZZ	1		
21:25	ZZZZZZ	1		
21:30	MA46696-CCVA9	1		
21:34	MA46696-CCB9	1		
21:39	ZZZZZZ	1		
21:44	ZZZZZZ	1		
21:49	ZZZZZZ	1		
21:53	ZZZZZZ	1		
21:58	ZZZZZZ	1		
22:03	ZZZZZZ	1		
22:08	MA46696-CCVA10	1		
22:12	MA46696-CCB10	1		
22:17	ZZZZZZ	1		
22:22	ZZZZZZ	1		
22:27	ZZZZZZ	1		

Refer to raw data for calibration curve and standards.

REPORTED ELEMENTS SUMMARY

Login Number: JC87833
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XB051019M2.CSV Date Analyzed: 05/10/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA46696
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Element: Dilution	Al	As	Ba	Cd	Fe	Pb	
14:31	MA46696-ICVA1	1	X	X	X	X	X	X	
14:36	MA46696-ICV1	1	X						
14:41	MA46696-ICB1	1	X	X	X	X	X	X	
14:46	MA46696-CCVA1	1	X	X	X	X	X	X	
14:50	MA46696-CCB1	1	X	X	X	X	X	X	
14:55	MA46696-CRI1	1	X	X	X	X	X	X	
15:00	MA46696-ICSA1	1	See rerun						
15:05	MA46696-ICSAB1	1	X	X	X	X	X	X	
15:09	ZZZZZZ	1							
15:15	MA46696-ICSA2	1	X	X	X	X	X	X	
15:20	MA46696-CCVA2	1	X	X	X	X	X	X	
15:25	MA46696-CCB2	1	X	X	X	X	X	X	
15:29	MP14909-MB1	2	X	X	X	X	X	X	
15:34	MP14909-MB2	2	X	X	X	X	X	X	
15:39	MP14909-B2	2	X	X	X	X	X	X	
15:44	MP14909-B3	25	X	X	X	X	X	X	
15:48	ZZZZZZ	2							
15:53	ZZZZZZ	2							
16:02	MP14909-MB1	2	Confirmation						
16:06	MP14909-MB2	2	Confirmation						
16:11	MP14909-S3	2	X	X	X	X	X	X	
16:16	MA46696-CCVA3	1	X	X	X	X	X	X	
16:21	MA46696-CCB3	1	X	X	X	X	X	X	
16:25	ZZZZZZ	2							
16:30	JC87783-12	2		X					(a)
16:35	MP14909-S4	2	X	X	X	X	X	X	
16:40	MP14909-SD1	10	X	X	X	X	X	X	
16:44	ZZZZZZ	5							
16:49	ZZZZZZ	1							
16:54	ZZZZZZ	1							
16:59	ZZZZZZ	2							
17:04	ZZZZZZ	2							
17:08	MA46696-CCVA4	1	X	X	X	X	X	X	
		Element:	Al	As	Ba	Cd	Fe	Pb	

REPORTED ELEMENTS SUMMARY

Login Number: JC87833
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XB051019M2.CSV Date Analyzed: 05/10/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA46696
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Dilution	Element: Al	As	Ba	Cd	Fe	Pb
17:13	MA46696-CCB4	1	X	X	X	X	X	X
17:18	MP11926-MB3	2	X	X	X	X	X	X
17:23	MP11926-B3	2	X	X	X	X	X	X
17:27	ZZZZZZ	2						
17:32	MP11929-MB3	1	X	X	X	X	X	X
17:37	MP11929-B3	1	X	X	X	X	X	X
17:42	ZZZZZZ	1						
17:47	MP11928-MB3	5	X	X	X	X	X	X
17:51	MP11928-B3	5	X	X	X	X	X	X
17:56	ZZZZZZ	5						
18:01	MA46696-CCVA5	1	X	X	X	X	X	X
18:06	MA46696-CCB5	1	X	X	X	X	X	X
18:10	ZZZZZZ	2						
18:15	ZZZZZZ	2						
18:20	ZZZZZZ	2						
18:25	ZZZZZZ	2						
18:29	ZZZZZZ	2						
18:34	ZZZZZZ	2						
18:39	ZZZZZZ	1						
18:44	ZZZZZZ	2						
18:48	ZZZZZZ	2						
18:53	MA46696-CCVA6	1	X	X	X	X	X	X
18:58	MA46696-CCB6	1	X	X	X	X	X	X
19:03	ZZZZZZ	2						
19:07	ZZZZZZ	2						
19:12	ZZZZZZ	2						
19:17	ZZZZZZ	1						
19:22	ZZZZZZ	2						
19:26	ZZZZZZ	2						
19:31	ZZZZZZ	1						
19:36	ZZZZZZ	2						
19:41	ZZZZZZ	2						
19:45	MA46696-CCVA7	1	X	X	X	X	X	X
		Element:	Al	As	Ba	Cd	Fe	Pb

REPORTED ELEMENTS SUMMARY

Login Number: JC87833
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XB051019M2.CSV Date Analyzed: 05/10/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA46696
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Element: Dilution	Al	As	Ba	Cd	Fe	Pb	
19:50	MA46696-CCB7	1	X	X	X	X	X	X	
19:55	ZZZZZZ	2							
20:00	MP14935-MB1	5							
20:05	MP14935-B1	5							
20:09	MP14935-S1	5							
20:14	MP14935-S2	5							
20:19	ZZZZZZ	1							
20:24	JC85493-1AR	5							(a)
20:28	MP14935-SD1	25							
20:33	ZZZZZZ	5							
20:38	MA46696-CCVA8	1	X	X	X	X	X	X	
20:42	MA46696-CCB8	1	X	X	X	X	X	X	
20:47	MP14888-MB1	1						X	
20:52	MP14888-B1	1						X	
20:57	MP14888-S1	1	overrange						
21:01	MP14888-S2	1	overrange						
21:06	ZZZZZZ	1							
21:11	JC87629-4	1	overrange						
21:16	ZZZZZZ	1							
21:20	ZZZZZZ	1							
21:25	ZZZZZZ	1							
21:30	MA46696-CCVA9	1			X			X	
21:34	MA46696-CCB9	1			X			X	
21:39	ZZZZZZ	1							
21:44	ZZZZZZ	1							
21:49	ZZZZZZ	1							
21:53	ZZZZZZ	1							
21:58	ZZZZZZ	1							
22:03	ZZZZZZ	1							
22:08	MA46696-CCVA10	1			X			X	
22:12	MA46696-CCB10	1			X			X	
22:17	ZZZZZZ	1							
22:22	ZZZZZZ	1							
		Element:	Al	As	Ba	Cd	Fe	Pb	

REPORTED ELEMENTS SUMMARY

Login Number: JC87833
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XB051019M2.CSV Date Analyzed: 05/10/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA46696
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Element: Dilution	Al	As	Ba	Cd	Fe	Pb
22:27	ZZZZZZ	1						

(a) Sample used for QC only; not part of login JC87833.

Element: Al As Ba Cd Fe Pb

INTERNAL STANDARD SUMMARY

Login Number: JC87833
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XB051019M2.CSV Date Analyzed: 05/10/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA46696
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8
13:15	MA46696-STD1	100	100	100	100	100	100	100	100
13:20	MA46696-STD2	100	100	100	100	100	100	100	100
13:24	MA46696-STD3	100	100	100	100	100	100	100	100
13:29	MA46696-STD4	101.415	100.959	99.848	99.365	101.352	100.482	99.78	100.12
13:34	MA46696-STD5	101.721	101.099	99.476	98.64	101.941	100.374	99.992	99.285
13:39	MA46696-STD6	103.261	102.67	99.573	99.053	101.108	99.506	99.839	99.285
13:44	MA46696-STD7	103.108	101.416	99.534	98.995	102.485	100.409	99.719	101.332
13:48	MA46696-STD8	103.855	101.479	101.149	99.426	103.14	101.072	99.674	100.676
13:53	MA46696-STD9	101.633	100.693	100.151	98.271	99.6	100.3	100.109	98.064
13:58	MA46696-STD10	102.232	100.209	101.912	99.553	102.913	101.7	101.898	96.031
14:03	MA46696-STD11	102.029	100.542	102.898	99.375	100.445	101.704	99.635	95.203
14:07	MA46696-STD12	101.173	101.123	103.347	100.18	98.237	100.942	99.275	94.036
14:12	MA46696-STD13	100	100	100	100	100	100	100	100
14:22	MA46696-STD14	103.083	100.932	102.078	100.759	100.607	101.514	102.168	99.697
14:31	MA46696-ICVA1	100.754	101.942	104.497	102.52	101.667	104.871	102.505	98.522
14:36	MA46696-ICV1	101.223	101.163	101.993	101.228	100.172	100.602	102.158	100.357
14:41	MA46696-ICB1	102.733	102.504	102.012	101.557	100.799	101.648	101.577	100.243
14:46	MA46696-CCVA1	101.713	102.986	104.41	101.682	102.668	103.932	101.638	99.593
14:50	MA46696-CCB1	101.697	100.859	100.224	100.381	99.387	98.993	100.123	99.732
14:55	MA46696-CRI1	102.606	102.698	102.955	100.92	100.502	101.718	101.318	101.469
15:00	MA46696-ICSA1	No results reported for the elements associated with this internal standard.							
15:05	MA46696-ICSAB1	80.76	85.656	89.252	88.819	83.853	88.683	85.659	79.376
15:09	ZZZZZZ	82.073	85.594	84.351	94.632	88.909	87.868	89.447	92.97
15:15	MA46696-ICSA2	79.24	84.25	86.705	92.694	83.868	85.105	88.051	78.76
15:20	MA46696-CCVA2	82.659	87.172	88.705	91.668	92.66	91.67	92.397	91.917
15:25	MA46696-CCB2	84.559	87.404	85.676	91.433	90.277	88.67	92.785	93.306
15:29	MP14909-MB1	82.749	86.954	83.567	89.535	91.102	88.98	98.062	91.417
15:34	MP14909-MB2	84.251	88.406	85.12	91.071	93.245	89.4	99.195	92.063
15:39	MP14909-B2	84.402	90.604	87.601	91.565	95.208	91.005	99.894	92.205
15:44	MP14909-B3	92.631	96.224	95.05	95.184	98.635	95.808	95.462	98.393
15:48	ZZZZZZ	84.85	87.808	85.375	91.015	92.469	89.522	100.62	92.21
15:53	ZZZZZZ	87.833	90.61	86.357	93.58	94.496	91.466	101.131	92.618
16:02	MP14909-MB1	No results reported for the elements associated with this internal standard.							

INTERNAL STANDARD SUMMARY

Login Number: JC87833
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XB051019M2.CSV Date Analyzed: 05/10/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA46696
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8
16:06	MP14909-MB2	No results reported for the elements associated with this internal standard.							
16:11	MP14909-S3	85.091	90.69	89.698	92.286	92.07	91.434	100.208	84.239
16:16	MA46696-CCVA3	93.028	96.239	97.61	96.409	97.128	97.746	97.075	95.143
16:21	MA46696-CCB3	94.601	94.62	93.509	95.411	95.157	92.849	94.722	94.985
16:25	ZZZZZZ	85.171	90.271	89.336	90.628	89.766	88.69	103.238	84.84
16:30	JC87783-12	84.357	88.779	87.054	90.476	89.723	90.216	100.506	84.781
16:35	MP14909-S4	84.157	89.527	87.765	91.006	90.495	89.523	98.563	84.352
16:40	MP14909-SD1	92.594	92.558	90.952	91.569	93.77	91.416	91.367	91.359
16:44	ZZZZZZ	87.691	89.503	88.166	90.311	89.481	88.231	94.86	87.581
16:49	ZZZZZZ	93.638	91.013	80.004	91.718	91.859	80.45	92.289	92.207
16:54	ZZZZZZ	93.415	90.696	89.816	90.566	90.456	89.476	91.733	91.647
16:59	ZZZZZZ	94.927	90.291	91.673	73.658	91.335	92.139	81.605	92.248
17:04	ZZZZZZ	88.708	88.441	85.847	90.268	90.635	88.863	102.989	89.949
17:08	MA46696-CCVA4	91.29	90.662	92.337	90.931	92.425	91.607	92.171	91.198
17:13	MA46696-CCB4	92.146	90.256	89.483	90.87	91.001	89.855	90.54	92.038
17:18	MP11926-MB3	88.363	88.547	86.45	90.759	90.325	88.153	101.554	90.227
17:23	MP11926-B3	88.763	90.249	87.961	92.218	92.234	90.037	101.763	90.035
17:27	ZZZZZZ	90.019	89.548	86.553	90.752	91.955	88.793	100.495	90.893
17:32	MP11929-MB3	95.394	92.278	91.449	91.04	90.803	90.372	90.193	92.197
17:37	MP11929-B3	94.795	92.943	92.268	90.546	92.758	90.762	90.413	93.496
17:42	ZZZZZZ	92.425	90.414	89.192	89.126	89.696	89.015	90.144	91.35
17:47	MP11928-MB3	93.797	89.22	88.333	89.061	89.109	87.615	89.851	90.403
17:51	MP11928-B3	91.408	90.219	89.169	89.68	90.03	88.151	91.076	88.953
17:56	ZZZZZZ	92.237	89.023	88.781	88.571	88.949	87.252	89.813	89.258
18:01	MA46696-CCVA5	91.655	90.684	89.92	88.802	90.233	89.343	88.743	88.007
18:06	MA46696-CCB5	91.1	87.608	86.545	87.565	86.86	85.849	87.134	88.837
18:10	ZZZZZZ	84.595	86.417	84.156	87.403	86.226	85.884	98.744	80.142
18:15	ZZZZZZ	86.97	87.663	85.564	88.515	89.173	87.368	96.669	93.67
18:20	ZZZZZZ	84.335	85.462	84.439	88.263	87.12	86.622	96.812	84.64
18:25	ZZZZZZ	90.459	87.678	86.685	86.197	86.614	85.28	87.273	90.213
18:29	ZZZZZZ	83.419	83.842	83.572	87.189	86.275	85.029	96.668	83.085
18:34	ZZZZZZ	82.656	84.013	81.272	85.575	84.327	82.126	94.774	81.439
18:39	ZZZZZZ	90.028	86.291	85.123	85.402	86.403	84.281	87.865	87.519

INTERNAL STANDARD SUMMARY

Login Number: JC87833
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XB051019M2.CSV Date Analyzed: 05/10/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA46696
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8
18:44	ZZZZZZ	81.615	83.204	80.994	85.409	84.172	82.569	95.128	81.787
18:48	ZZZZZZ	83.122	83.58	83.285	86.435	83.99	83.442	94.431	82.173
18:53	MA46696-CCVA6	89.001	87.018	86.495	83.945	86.755	86.5	85.43	86.854
18:58	MA46696-CCB6	88.301	83.436	77.024	82.707	84.097	76.063	82.457	84.281
19:03	ZZZZZZ	83.383	82.398	79.866	84.389	83.994	83.232	93.399	81.925
19:07	ZZZZZZ	78.412	79.034	77.407	79.144	78.685	77.637	86.896	73.898
19:12	ZZZZZZ	76.899	77.179	77.154	78.565	77.805	78.195	86.179	73.698
19:17	ZZZZZZ	83.968	79.169	79.749	77.899	80.216	79.132	78.297	83.25
19:22	ZZZZZZ	76.164	78.591	77.969	80.794	80.173	81.738	88.633	76.717
19:26	ZZZZZZ	81.512	78.681	93.06	75.962	70.361	79.87	74.923	58.478 !a
19:31	ZZZZZZ	95.206	83.308	85.19	74.354	81.589	82.05	74.327	82.004
19:36	ZZZZZZ	78.656	76.007	89.916	75.346	69.351 !a	80.169	73.699	58.805 !a
19:41	ZZZZZZ	73.815	72.714	74.339	69.83 !a	71.88	74.12	75.545	67.217 !a
19:45	MA46696-CCVA7	80.147	72.286	76.78	70.149	74.7	78.02	70.133	75.594
19:50	MA46696-CCB7	80.201	70.671	75.234	68.694 !a	72.535	74.402	70.027	74.03
19:55	ZZZZZZ	74.125	72.039	75.575	41.881 !a	71.188	75.04	50.927 !a	66.999 !a
20:00	MP14935-MB1	85.068	76.417	78.841	72.94	77.047	78.282	73.928	78.746
20:05	MP14935-B1	81.295	75.104	78.201	71.746	75.274	77.307	72.128	76.885
20:09	MP14935-S1	77.075	84.029	90.075	80.457	76.074	80.321	73.152	75.425
20:14	MP14935-S2	76.686	84.221	89.228	81.374	75.487	79.896	73.194	74.6
20:19	ZZZZZZ	77.994	73.876	76.27	71.899	74.758	76.445	73.056	78.387
20:24	JC85493-1AR	77.46	83.823	89.749	81.466	74.86	80.177	73.146	74.409
20:28	MP14935-SD1	81.658	77.603	83.731	75.806	76.267	80.356	73.441	77.893
20:33	ZZZZZZ	76.914	83.325	89.323	81.526	74.579	79.197	73.013	74.561
20:38	MA46696-CCVA8	78.638	75.412	80.024	74.946	76.496	79.201	74.183	77.311
20:42	MA46696-CCB8	79.8	74.609	76.8	46.819 !a	76.239	76.862	50.911 !a	75.831
20:47	MP14888-MB1	79.975	74.45	77.991	73.321	76.063	77.337	73.521	78.356
20:52	MP14888-B1	81.988	75.344	78.503	73.079	78.817	79.015	73.887	78.986
20:57	MP14888-S1	No results reported for the elements associated with this internal standard.							
21:01	MP14888-S2	No results reported for the elements associated with this internal standard.							
21:06	ZZZZZZ	77.342	71.485	74.717	71.413	73.207	75.116	71.672	75.749
21:11	JC87629-4	No results reported for the elements associated with this internal standard.							
21:16	ZZZZZZ	No results reported for the elements associated with this internal standard.							

INTERNAL STANDARD SUMMARY

Login Number: JC87833
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XB051019M2.CSV Date Analyzed: 05/10/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA46696
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8
21:20	ZZZZZZ	No results reported for the elements associated with this internal standard.							
21:25	ZZZZZZ	77.269	72.82	77.264	72.508	74.123	79.78	74.398	75.037
21:30	MA46696-CCVA9	77.422	72.839	77.809	71.509	75.571	77.3	71.578	73.993
21:34	MA46696-CCB9	77.406	72.083	74.707	71.714	72.792	74.464	71.383	75.757
21:39	ZZZZZZ	78.794	73.716	77.546	72.451	74.328	77.17	72.705	75.72
21:44	ZZZZZZ	78.685	73.088	77.458	71.889	74.995	78.222	72.842	73.448
21:49	ZZZZZZ	79.381	73.477	75.037	71.897	71.203	74.286	71.289	76.028
21:53	ZZZZZZ	77.431	72.346	77.28	64.185	71.781	77.0319	60.496	75.056
21:58	ZZZZZZ	78.321	72.124	74.549	71.436	73.73	73.569	71	74.928
22:03	ZZZZZZ	79.242	72.339	74.754	71.029	72.351	73.694	69.549	75.117
22:08	MA46696-CCVA10	79.762	73.908	77.25	72.837	73.811	75.889	71.537	75.32
22:12	MA46696-CCB10	79.886	73.279	74.906	72.066	73.507	74.278	71.38	73.871
22:17	ZZZZZZ	80.367	73.832	75.58	71.173	73.052	74.446	71.152	76.539
22:22	ZZZZZZ	80.858	72.894	75.492	71.54	73.831	75.096	71.135	74.259
22:27	ZZZZZZ	80.042	72.993	75.073	61.939	71.911	74.123	65.239	75.273

! = Outside limits.

LEGEND:

Istd#	Parameter	Limits
Istd#1	Lithium	60-125 %
Istd#2	Scandium (45-1)	60-125 %
Istd#3	Scandium (45-2)	60-125 %
Istd#4	Scandium (45-3)	60-125 %
Istd#5	Germanium (74-1)	60-125 %
Istd#6	Germanium (74-2)	60-125 %
Istd#7	Germanium (74-3)	60-125 %
Istd#8	Rhodium (103-1)	60-125 %

(a) No samples reported for the elements associated with this internal standard.

INTERNAL STANDARD SUMMARY

Login Number: JC87833
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XB051019M2.CSV Date Analyzed: 05/10/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA46696
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16
13:15	MA46696-STD1	100	100	100	100	100	100	100	100
13:20	MA46696-STD2	100	100	100	100	100	100	100	100
13:24	MA46696-STD3	100	100	100	100	100	100	100	100
13:29	MA46696-STD4	100.643	100.129	100.429	100.138	101.567	99.679	99.728	100.921
13:34	MA46696-STD5	100.158	98.996	99.639	99.609	99.561	98.468	98.46	98.704
13:39	MA46696-STD6	99.572	99.412	98.421	99.416	100.737	99.138	99.016	99.084
13:44	MA46696-STD7	100.339	99.453	100.795	99.785	100.19	99.407	99.297	99.356
13:48	MA46696-STD8	100.848	98.409	101.307	100.672	102.454	100.304	98.361	103.019
13:53	MA46696-STD9	99.366	98.321	99.649	99.094	97.395	98.78	98.417	97.517
13:58	MA46696-STD10	99.623	98.841	98.375	99.645	98.311	100.333	98.701	98.228
14:03	MA46696-STD11	99.746	95.948	96.833	100.295	98.739	101.322	97.511	98.117
14:07	MA46696-STD12	97.609	94.41	95.811	98.837	97.157	99.749	98.138	96.327
14:12	MA46696-STD13	100	100	100	100	100	100	100	100
14:22	MA46696-STD14	100.672	99.753	99.935	101.304	98.203	101.11	100.4	98.051
14:31	MA46696-ICVA1	101.692	97.723	100.194	103.806	100.817	106.062	101.246	102.403
14:36	MA46696-ICV1	100.932	99.946	101.133	101.289	99.303	100.865	100.553	99.493
14:41	MA46696-ICB1	100.194	99.712	100.524	101.277	99.181	99.541	99.08	99.333
14:46	MA46696-CCVA1	101.145	96.618	100.208	102.653	101.176	103.887	100.075	102.276
14:50	MA46696-CCB1	99.624	99.569	99.705	99.715	97.773	99.823	99.084	97.867
14:55	MA46696-CRI1	100.344	98.934	99.878	101.357	99.818	100.167	98.447	99.643
15:00	MA46696-ICSA1	No results reported for the elements associated with this internal standard.							
15:05	MA46696-ICSAB1	83.078	79.948	82.645	87.954	87.28	92.284	90.426	87.817
15:09	ZZZZZZ	91.221	97.392	94.059	91.235	95.942	94.41	100.409	95.836
15:15	MA46696-ICSA2	80.731	83.031	82.231	84.797	87.366	89.884	94.427	87.017
15:20	MA46696-CCVA2	92.681	91.584	94.702	93.199	98.739	98.697	97.158	97.646
15:25	MA46696-CCB2	91.682	93.815	94.74	91.881	96.562	94.085	95.914	97.28
15:29	MP14909-MB1	89.721	91.851	93.888	88.496	97.175	92.948	95.743	96.758
15:34	MP14909-MB2	91.062	93.373	94.066	88.137	97.278	93.696	96.57	96.758
15:39	MP14909-B2	91.612	92.085	94.598	90.361	98.829	95.42	96.08	98.348
15:44	MP14909-B3	97.37	94.986	99.284	98.16	100.466	100.107	97.428	100.599
15:48	ZZZZZZ	90.188	92.134	92.542	87.963	94.92	92.213	94.983	95.35
15:53	ZZZZZZ	91.861	94.222	94.5	90.026	96.497	94.249	96.718	95.785
16:02	MP14909-MB1	No results reported for the elements associated with this internal standard.							

INTERNAL STANDARD SUMMARY

Login Number: JC87833
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XB051019M2.CSV Date Analyzed: 05/10/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA46696
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16
16:06	MP14909-MB2	No results reported for the elements associated with this internal standard.							
16:11	MP14909-S3	85.971	85.934	89.456	88.029	94.442	95.251	94.098	94.728
16:16	MA46696-CCVA3	96.481	93.61	97.534	97.342	98.619	100.57	97.604	98.816
16:21	MA46696-CCB3	93.985	94.645	95.212	94.001	94.91	94.909	94.752	94.354
16:25	ZZZZZZ	85.844	84.043	88.86	87.884	93.643	94.175	91.551	94.266
16:30	JC87783-12	84.815	84.395	88.524	87.292	92.745	93.633	91.758	93.58
16:35	MP14909-S4	84.402	83.848	88.068	85.943	93.068	93.197	92.286	93.683
16:40	MP14909-SD1	89.995	89.002	93.778	92.259	94.514	94.587	92.732	94.708
16:44	ZZZZZZ	87.354	87.447	91.156	88.278	92.481	92.049	91.987	92.789
16:49	ZZZZZZ	80.76	90.386	92.456	81.364	92.338	81.661	91.528	92.188
16:54	ZZZZZZ	91.135	90.401	92.07	91.347	91.644	92.198	91.082	91.222
16:59	ZZZZZZ	91.063	75.213	92.494	93.682	91.098	93.142	75.864	90.997
17:04	ZZZZZZ	88.181	89.482	90.716	86.27	92.473	91.015	91.611	92.152
17:08	MA46696-CCVA4	91.046	87.712	93.014	92.159	93.638	95.317	91.056	95.139
17:13	MA46696-CCB4	90.357	89.827	92.843	90.913	90.12	91.377	90.25	89.672
17:18	MP11926-MB3	88.574	89.589	89.427	86.693	92.098	89.97	91.094	91.273
17:23	MP11926-B3	89.102	89.106	91.873	88.244	93.218	92.05	91.515	93.087
17:27	ZZZZZZ	87.993	88.922	90.679	86.358	92.589	89.534	89.987	93.145
17:32	MP11929-MB3	90.922	89.605	93.411	91.343	90.485	91.479	90.26	89.901
17:37	MP11929-B3	91.113	88.144	91.911	92.463	93.672	94.196	91.123	93.078
17:42	ZZZZZZ	89.805	88.531	91.143	91.45	92.115	92.433	89.987	90.896
17:47	MP11928-MB3	88.441	88.606	89.916	89.362	90.023	90.046	89.386	89.014
17:51	MP11928-B3	88.178	86.794	90.324	89.07	91.721	92.004	90.476	90.659
17:56	ZZZZZZ	87.956	87.063	89.728	89.48	89.421	89.908	88.489	88.856
18:01	MA46696-CCVA5	88.444	85.634	89.207	90.591	89.834	92.608	88.86	89.526
18:06	MA46696-CCB5	86.443	86.588	87.835	87.522	87.831	88.195	87.882	86.253
18:10	ZZZZZZ	80.819	80.533	84.124	83.131	87.167	88.003	87.402	87.279
18:15	ZZZZZZ	84.168	83.419	96.666	85.378	101.133	90.053	89.418	90.203
18:20	ZZZZZZ	83.887	84.224	87.112	85.662	89.739	89.609	89.111	89.781
18:25	ZZZZZZ	87.035	86.264	88.181	88.208	89.233	88.679	87.852	86.915
18:29	ZZZZZZ	82.782	83.464	84.858	83.78	87.531	88.316	88.444	87.316
18:34	ZZZZZZ	80.795	80.748	84.575	81.277	88.548	86.889	86.877	87.702
18:39	ZZZZZZ	86.185	85.854	88.447	87.723	88.841	88.799	87.321	88.731

INTERNAL STANDARD SUMMARY

Login Number: JC87833
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XB051019M2.CSV Date Analyzed: 05/10/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA46696
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16
18:44	ZZZZZZ	80.681	81.861	84.058	81.627	88.211	87.153	87.86	88.645
18:48	ZZZZZZ	81.173	82.519	84.716	83.779	87.725	88.321	88.272	87.836
18:53	MA46696-CCVA6	85.986	83.145	87.229	88.487	89.702	92.014	88.052	89.955
18:58	MA46696-CCB6	77.5	83.579	84.975	78.528	86.039	79.952	85.035	85.444
19:03	ZZZZZZ	81.649	82.437	84.703	83.327	87.048	88.763	88.274	87.254
19:07	ZZZZZZ	73.84	73.112	77.409	77.346	82.271	83.824	81.882	82.463
19:12	ZZZZZZ	73.816	73.345	76.952	78.073	81.146	84.4	81.898	82.129
19:17	ZZZZZZ	81.018	79.592	83.913	82.861	81.615	84.486	82.759	82.693
19:22	ZZZZZZ	77.325	76.972	80.361	80.694	84.12	86.521	85.43	85.162
19:26	ZZZZZZ	60.239 !a	54.867 !a	61.634 !a	71.936	62.791 !a	67.62 !a	60.903 !a	61.844 !a
19:31	ZZZZZZ	81.022	74.91	81.785	86.472	79.617	85.036	78.23	79.586
19:36	ZZZZZZ	60.708 !a	55.182 !a	61.836 !a	72.481	63.759 !a	69.743 !a	61.26 !a	62.5 !a
19:41	ZZZZZZ	67.801 !a	63.985 !a	71.297	74.947	75.235	79.903	74.367	75.828
19:45	MA46696-CCVA7	76.416	69.9 !a	76.534	82.994	79.623	85.859	76.556	78.894
19:50	MA46696-CCB7	75.355	71.043	75.703	80.574	76.243	81.537	75.383	76.354
19:55	ZZZZZZ	68.167 !a	37.399 !a	71.045	75.619	75.168	80.188	43.027 !a	75.133
20:00	MP14935-MB1	78.238	73.865	78.335	82.408	79.317	83.444	77.198	79.525
20:05	MP14935-B1	76.796	72.202	76.233	82.041	80.666	84.501	77.361	79.251
20:09	MP14935-S1	76.491	69.714 !a	76.371	82.247	81.583	86.886	77.628	88.059
20:14	MP14935-S2	75.822	69.816 !a	76.846	81.823	81.347	86.169	77.502	87.51
20:19	ZZZZZZ	76.71	73.607	77.899	81.201	77.568	81.769	76.466	77.116
20:24	JC85493-1AR	76.503	70.347	76.041	81.807	79.647	86.055	77.425	86.303
20:28	MP14935-SD1	78.432	73.097	78.152	84.672	78.171	85.846	78.517	78.582
20:33	ZZZZZZ	76.04	70	75.507	81.409	80.61	86.295	77.153	88.859
20:38	MA46696-CCVA8	78.045	73.265	77.881	82.415	81.522	85.501	77.428	81.149
20:42	MA46696-CCB8	77.096	47.621 !a	78.02	81.045	78.619	81.789	49.155 !a	79.031
20:47	MP14888-MB1	77.416	74.134	78.515	81.378	77.019	82.216	76.482	77.168
20:52	MP14888-B1	78.375	74.288	80.195	82.635	79.56	83.141	76.892	80.487
20:57	MP14888-S1	No results reported for the elements associated with this internal standard.							
21:01	MP14888-S2	No results reported for the elements associated with this internal standard.							
21:06	ZZZZZZ	74.659	71.871	75.009	79.098	76.559	79.186	74.644	74.538
21:11	JC87629-4	No results reported for the elements associated with this internal standard.							
21:16	ZZZZZZ	No results reported for the elements associated with this internal standard.							

INTERNAL STANDARD SUMMARY

Login Number: JC87833
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XB051019M2.CSV Date Analyzed: 05/10/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA46696
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16
21:20	ZZZZZZ	No results reported for the elements associated with this internal standard.							
21:25	ZZZZZZ	75.989	71.189	75.989	81.923	77.536	84.095	76.064	77.212
21:30	MA46696-CCVA9	75.825	70.429	76.151	80.506	78.533	82.879	75.391	80.324
21:34	MA46696-CCB9	75.007	72.294	75.54	78.458	75.176	78.443	74.365	76.482
21:39	ZZZZZZ	76.068	71.9	76.265	80.766	77.429	82.635	76.257	76.992
21:44	ZZZZZZ	76.064	70.971	76.838	81.897	76.99	83.1	75.642	76.331
21:49	ZZZZZZ	74.787	72.172	74.123	78.255	74.787	78.79	73.726	72.481
21:53	ZZZZZZ	75.908	63.28	74.379	80.915	75.712	82.536	66.954	74.409
21:58	ZZZZZZ	74.643	71.72	76.218	78.588	75.145	78.856	74.488	76.23
22:03	ZZZZZZ	74.047	70.91	74.639	77.51	75.4	77.762	73.199	74.107
22:08	MA46696-CCVA10	74.932	70.237	74.033	79.406	77.346	81.859	75.171	76.136
22:12	MA46696-CCB10	74.427	71.438	74.846	77.83	75.028	77.664	73.341	73.66
22:17	ZZZZZZ	74.709	71.518	76.043	77.956	74.296	78.33	73.579	74.344
22:22	ZZZZZZ	74.744	71.022	74.768	78.703	74.789	78.52	73.002	74.581
22:27	ZZZZZZ	74.428	62.742	73.824	78.03	74.616	78.348	64.423	72.465

! = Outside limits.

LEGEND:

Istd#	Parameter	Limits
Istd#9	Rhodium (103-2)	60-125 %
Istd#10	Rhodium (103-3)	60-125 %
Istd#11	Indium (115-1)	60-125 %
Istd#12	Indium (115-2)	60-125 %
Istd#13	Terbium (159-1)	60-125 %
Istd#14	Terbium (159-2)	60-125 %
Istd#15	Terbium (159-3)	60-125 %
Istd#16	Holmium (165-1)	60-125 %

(a) No samples reported for the elements associated with this internal standard.

INTERNAL STANDARD SUMMARY

Login Number: JC87833
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XB051019M2.CSV Date Analyzed: 05/10/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA46696
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Istd#17	Istd#18	Istd#19
13:15	MA46696-STD1	100	100	100
13:20	MA46696-STD2	100	100	100
13:24	MA46696-STD3	100	100	100
13:29	MA46696-STD4	100.543	100.287	100.206
13:34	MA46696-STD5	97.83	97.847	99
13:39	MA46696-STD6	97.982	99.662	98.709
13:44	MA46696-STD7	98.778	99.968	99.244
13:48	MA46696-STD8	99.808	101.017	100.17
13:53	MA46696-STD9	98.111	95.97	98.274
13:58	MA46696-STD10	100.365	94.436	98.806
14:03	MA46696-STD11	100.58	92.922	97.535
14:07	MA46696-STD12	99.632	92.247	95.687
14:12	MA46696-STD13	100	100	100
14:22	MA46696-STD14	102.149	99.919	102.207
14:31	MA46696-ICVA1	107.807	99.133	104.341
14:36	MA46696-ICV1	101.297	100.707	100.592
14:41	MA46696-ICB1	100.342	100.418	101.076
14:46	MA46696-CCVA1	104.09	98.203	100.747
14:50	MA46696-CCB1	100.045	99.88	99.597
14:55	MA46696-CRI1	100.148	101.476	99.942
15:00	MA46696-ICSA1	No results reported for the elements associated with this internal standard.		
15:05	MA46696-ICSAB1	92.311	82.04	84.818
15:09	ZZZZZZ	95.518	99.111	96.69
15:15	MA46696-ICSA2	90.212	81.035	82.467
15:20	MA46696-CCVA2	99.571	97.406	97.941
15:25	MA46696-CCB2	95.377	99.77	96.714
15:29	MP14909-MB1	93.27	97.818	94.108
15:34	MP14909-MB2	94.736	97.705	93.738
15:39	MP14909-B2	96.068	97.225	94.321
15:44	MP14909-B3	100.036	101.989	100.348
15:48	ZZZZZZ	92.316	96.007	92.474
15:53	ZZZZZZ	93.386	95.655	93.205
16:02	MP14909-MB1	No results reported for the elements associated with this internal standard.		

INTERNAL STANDARD SUMMARY

Login Number: JC87833
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XB051019M2.CSV Date Analyzed: 05/10/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA46696
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Istd#17	Istd#18	Istd#19
16:06	MP14909-MB2	No results reported for the elements associated with this internal standard.		
16:11	MP14909-S3	96.113	87.462	87.921
16:16	MA46696-CCVA3	101.278	97.058	98.545
16:21	MA46696-CCB3	95.355	95.921	94.81
16:25	ZZZZZZ	95.22	87.219	87.627
16:30	JC87783-12	95.023	86.489	86.97
16:35	MP14909-S4	94.373	86.94	86.086
16:40	MP14909-SD1	94.184	94.17	91.722
16:44	ZZZZZZ	92.772	91.302	88.912
16:49	ZZZZZZ	81.499	93.64	82.226
16:54	ZZZZZZ	92.041	92.288	92.5
16:59	ZZZZZZ	94.032	93.413	94.086
17:04	ZZZZZZ	90.964	92.309	89.852
17:08	MA46696-CCVA4	95.526	92.432	93.097
17:13	MA46696-CCB4	90.885	91.811	92.167
17:18	MP11926-MB3	89.685	91.423	89.769
17:23	MP11926-B3	93.104	91.994	90.519
17:27	ZZZZZZ	88.685	91.337	88.113
17:32	MP11929-MB3	90.977	91.729	91.462
17:37	MP11929-B3	94.725	91.993	92.367
17:42	ZZZZZZ	92.104	91.1	91.787
17:47	MP11928-MB3	90.187	90.375	90.759
17:51	MP11928-B3	92.917	90.368	90.488
17:56	ZZZZZZ	89.682	89.117	89.849
18:01	MA46696-CCVA5	92.798	89.366	90.134
18:06	MA46696-CCB5	87.881	89.567	87.895
18:10	ZZZZZZ	88.595	81.943	81.922
18:15	ZZZZZZ	90.434	86.744	85.417
18:20	ZZZZZZ	89.931	87.125	86.089
18:25	ZZZZZZ	88.621	89.675	88.294
18:29	ZZZZZZ	88.195	85.108	84.973
18:34	ZZZZZZ	87.631	85.006	82.822
18:39	ZZZZZZ	88.561	86.826	88.591

INTERNAL STANDARD SUMMARY

Login Number: JC87833
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XB051019M2.CSV Date Analyzed: 05/10/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA46696
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Istd#17	Istd#18	Istd#19
18:44	ZZZZZZ	88.034	85.086	83.252
18:48	ZZZZZZ	89.758	84.526	84.89
18:53	MA46696-CCVA6	92.473	87.84	89.18
18:58	MA46696-CCB6	79.973	86.652	79.751
19:03	ZZZZZZ	88.894	85.281	85.64
19:07	ZZZZZZ	84.087	75.461	75.884
19:12	ZZZZZZ	84.624	76.329	77.795
19:17	ZZZZZZ	84.672	84.816	85.288
19:22	ZZZZZZ	87.837	82.683	83.764
19:26	ZZZZZZ	67.501 !a	49.691 !a	52.317 !a
19:31	ZZZZZZ	84.673	80.171	85.077
19:36	ZZZZZZ	69.374 !a	50.631 !a	54.092 !a
19:41	ZZZZZZ	80.176	67.812 !a	70.87
19:45	MA46696-CCVA7	86.569	78.22	84.079
19:50	MA46696-CCB7	81.529	77.831	81.903
19:55	ZZZZZZ	81.096	67.576 !a	70.835
20:00	MP14935-MB1	83.423	79.554	83.982
20:05	MP14935-B1	84.654	79.392	83.608
20:09	MP14935-S1	94.902	75.935	80.517
20:14	MP14935-S2	93.862	76.195	80.526
20:19	ZZZZZZ	80.902	78.765	81.418
20:24	JC85493-1AR	94.109	74.321	79.762
20:28	MP14935-SD1	87.386	78.196	84.536
20:33	ZZZZZZ	95.014	75.715	80.092
20:38	MA46696-CCVA8	85.362	80.173	82.955
20:42	MA46696-CCB8	80.687	76.176	81.096
20:47	MP14888-MB1	81.597	78.263	82.456
20:52	MP14888-B1	82.824	79.027	83.462
20:57	MP14888-S1	No results reported for the elements associated with this internal standard.		
21:01	MP14888-S2	No results reported for the elements associated with this internal standard.		
21:06	ZZZZZZ	79.35	77.328	79.775
21:11	JC87629-4	No results reported for the elements associated with this internal standard.		
21:16	ZZZZZZ	No results reported for the elements associated with this internal standard.		

INTERNAL STANDARD SUMMARY

Login Number: JC87833
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XB051019M2.CSV Date Analyzed: 05/10/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA46696
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Istd#17	Istd#18	Istd#19
21:20	ZZZZZZ	No results reported for the elements associated with this internal standard.		
21:25	ZZZZZZ	83.844	76.257	81.89
21:30	MA46696-CCVA9	83.295	75.814	81.313
21:34	MA46696-CCB9	78.504	76.206	78.342
21:39	ZZZZZZ	82.442	77.151	81.302
21:44	ZZZZZZ	82.812	75.827	82.29
21:49	ZZZZZZ	78.676	77.742	78.671
21:53	ZZZZZZ	83.13	77.106	80.754
21:58	ZZZZZZ	78.751	75.056	78.47
22:03	ZZZZZZ	77.171	75.512	77.331
22:08	MA46696-CCVA10	81.706	76.216	79.025
22:12	MA46696-CCB10	76.824	75.224	77.136
22:17	ZZZZZZ	77.335	75.47	77.869
22:22	ZZZZZZ	77.955	74.167	77.535
22:27	ZZZZZZ	77.817	75.952	77.394

! = Outside limits.

LEGEND:

Istd#	Parameter	Limits
Istd#17	Holmium (165-2)	60-125 %
Istd#18	Bismuth (209-1)	60-125 %
Istd#19	Bismuth (209-2)	60-125 %

(a) No samples reported for the elements associated with this internal standard.

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC87833
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XB051019M2.CSV Date Analyzed: 05/10/19 Methods: EPA 200.8, SW846 6020B
QC Limits: result < RL Run ID: MA46696 Units: ug/l

Time:			14:41		14:50		15:25		16:21	
Sample ID:			ICB1		CCB1		CCB2		CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	25	.27	1.91	<25	1.64	<25	3.01	<25	1.69	<25
Antimony	2.0	.061	anr							
Arsenic	0.50	.008	0.0170	<0.50	0.0170	<0.50	0.0209	<0.50	0.0175	<0.50
Barium	1.0	.01	0.0111	<1.0	0.00921	<1.0	0.0115	<1.0	0.00510	<1.0
Beryllium	0.30	.005	anr							
Boron	25	.67	anr							
Cadmium	0.50	.002	0.0108	<0.50	0.0141	<0.50	0.0121	<0.50	0.0197	<0.50
Calcium	250	1.8	anr							
Chromium	1.0	.018	anr							
Cobalt	0.50	.002	anr							
Copper	2.0	.006	anr							
Iron	25	.16	-0.103	<25	0.211	<25	1.91	<25	0.225	<25
Lead	0.50	.004	0.00936	<0.50	0.0136	<0.50	0.0152	<0.50	0.0173	<0.50
Magnesium	250	.14	anr							
Manganese	1.0	.005	anr							
Molybdenum	1.0	.01	anr							
Nickel	1.0	.008	anr							
Potassium	250	1	anr							
Selenium	0.50	.4	anr							
Silver	0.50	.002	anr							
Sodium	250	.28	anr							
Strontium	1.0	.003	anr							
Thallium	0.50	.002	anr							
Tin	5.0	.02	anr							
Titanium	1.0	.02	anr							
Vanadium	1.0	.023	anr							
Zinc	5.0	.023	anr							

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC87833
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XB051019M2.CSV Date Analyzed: 05/10/19 Methods: EPA 200.8, SW846 6020B
QC Limits: result < RL Run ID: MA46696 Units: ug/l

Time:			17:13	
Sample ID:			CCB4	
Metal	RL	IDL	raw	final
Aluminum	25	.27	1.15	<25
Antimony	2.0	.061	anr	
Arsenic	0.50	.008	0.0129	<0.50
Barium	1.0	.01	0.0171	<1.0
Beryllium	0.30	.005	anr	
Boron	25	.67	anr	
Cadmium	0.50	.002	0.00716	<0.50
Calcium	250	1.8	anr	
Chromium	1.0	.018	anr	
Cobalt	0.50	.002	anr	
Copper	2.0	.006	anr	
Iron	25	.16	0.356	<25
Lead	0.50	.004	0.00962	<0.50
Magnesium	250	.14	anr	
Manganese	1.0	.005	anr	
Molybdenum	1.0	.01	anr	
Nickel	1.0	.008	anr	
Potassium	250	1	anr	
Selenium	0.50	.4	anr	
Silver	0.50	.002	anr	
Sodium	250	.28	anr	
Strontium	1.0	.003	anr	
Thallium	0.50	.002	anr	
Tin	5.0	.02	anr	
Titanium	1.0	.02	anr	
Vanadium	1.0	.023	anr	
Zinc	5.0	.023	anr	

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC87833
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XB051019M2.CSV Date Analyzed: 05/10/19 Methods: EPA 200.8, SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA46696 Units: ug/l

Time:		14:31			14:36			14:46	
Sample ID:	ICVA	ICVA1		ICV	ICV1		CCVA	CCVA1	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	5500	5460	99.3	60	63.7	106.2	5000	5000	100.0
Antimony	anr								
Arsenic	60	58.5	97.5				50	48.5	97.0
Barium	60	62.1	103.5				50	50.5	101.0
Beryllium	anr								
Boron	anr								
Cadmium	60	60.5	100.8				50	50.2	100.4
Calcium	anr								
Chromium	anr								
Cobalt	anr								
Copper	anr								
Iron	5500	5410	98.4				5000	4980	99.6
Lead	60	61.7	102.8				50	51.4	102.8
Magnesium	anr								
Manganese	anr								
Molybdenum	anr								
Nickel	anr								
Potassium	anr								
Selenium	anr								
Silver	anr								
Sodium	anr								
Strontium	anr								
Thallium	anr								
Tin	anr								
Titanium	anr								
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC87833
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XB051019M2.CSV Date Analyzed: 05/10/19 Methods: EPA 200.8, SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA46696 Units: ug/l

Time:		15:20			16:16			17:08	
Sample ID:	CCVA	CCVA2		CCVA	CCVA3		CCVA	CCVA4	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	5000	4800	96.0	5000	4910	98.2	5000	5010	100.2
Antimony	anr								
Arsenic	50	49.3	98.6	50	47.7	95.4	50	48.5	97.0
Barium	50	49.8	99.6	50	50.4	100.8	50	49.0	98.0
Beryllium	anr								
Boron	anr								
Cadmium	50	51.8	103.6	50	49.9	99.8	50	49.6	99.2
Calcium	anr								
Chromium	anr								
Cobalt	anr								
Copper	anr								
Iron	5000	5130	102.6	5000	5060	101.2	5000	5150	103.0
Lead	50	51.1	102.2	50	50.5	101.0	50	49.6	99.2
Magnesium	anr								
Manganese	anr								
Molybdenum	anr								
Nickel	anr								
Potassium	anr								
Selenium	anr								
Silver	anr								
Sodium	anr								
Strontium	anr								
Thallium	anr								
Tin	anr								
Titanium	anr								
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC87833
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XB051019M2.CSV Date Analyzed: 05/10/19 Methods: EPA 200.8, SW846 6020B
QC Limits: 80 to 120 % Recovery Run ID: MA46696 Units: ug/l

Time:			14:55	
Sample ID:	CRI	CRIA	CRI1	
Metal	True	True	Results	% Rec
Aluminum	25	25	25.4	101.6
Antimony	2.0	0.25	anr	
Arsenic	0.50	0.50	0.512	102.4
Barium	1.0	0.50	1.10	110.0
Beryllium	0.50	0.25	anr	
Boron	25	2.5	anr	
Cadmium	0.50	0.25	0.523	104.6
Calcium	250	125	anr	
Chromium	1.0	2.0	anr	
Cobalt	0.50	0.25	anr	
Copper	2.0	2.0	anr	
Iron	25	25	24.3	97.2
Lead	0.50	0.25	0.517	103.4
Magnesium	250	125	anr	
Manganese	1.0	0.25	anr	
Molybdenum	1.0	0.50	anr	
Nickel	1.0	2.0	anr	
Potassium	250	125	anr	
Selenium	0.50	0.50	anr	
Silver	0.50	1.0	anr	
Sodium	250	125	anr	
Strontium	5.0	0.50	anr	
Thallium	0.50	0.25	anr	
Tin	5.0	0.50	anr	
Titanium	1.0	0.50	anr	
Vanadium	1.0	2.0	anr	
Zinc	5.0	2.0	anr	

(*) Outside of QC limits
(anr) Analyte not requested

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: JC87833
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XB051019M2.CSV Date Analyzed: 05/10/19 Methods: EPA 200.8, SW846 6020B
QC Limits: 80 to 120 % Recovery Run ID: MA46696 Units: ug/l

Time:			15:05		15:15	
Sample ID:	ICSA	ICSAB	ICSAB1		ICSA2	
Metal	True	True	Results	% Rec	Results	% Rec
Aluminum	100000	100000	105000	105.0	100000	100.0
Antimony			0.141		0.135	
Arsenic		20	19.4	97.0	0.0890	
Barium			0.261		0.220	
Beryllium			0.000557		-0.0000729	
Boron		50	50.0	100.0	-0.0481	
Cadmium		20	18.8	94.0	-0.252	
Calcium	100000	100000	111000	111.0	107000	107.0
Chromium		20	20.5	102.5	0.258	
Cobalt		20	20.0	100.0	0.327	
Copper		20	18.8	94.0	0.170	
Iron	100000	100000	98900	98.9	95500	95.5
Lead			0.0841		0.0753	
Magnesium	100000	100000	97500	97.5	93300	93.3
Manganese		20	20.9	104.5	0.264	
Molybdenum	2000	2000	2390	119.5	2310	115.5
Nickel		20	19.5	97.5	0.704	
Potassium	100000	100000	109000	109.0	104000	104.0
Selenium		20	20.2	101.0	0.0967	
Silver		20	20.0	100.0	0.0123	
Sodium	100000	100000	100000	100.0	96100	96.1
Strontium	2000	2000	2380	119.0	2300	115.0
Thallium			-0.000309		0.00219	
Tin	2000	2000	1840	92.0	1800	90.0
Titanium	2000	2000	1920	96.0	1830	91.5
Vanadium		20	21.8	109.0	0.0371	
Zinc		20	17.2	86.0	-0.183	

(*) Outside of QC limits
(anr) Analyte not requested

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC87833
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XB051219M1.CSV Date Analyzed: 05/12/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA46701
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Dilution Factor	PS Recov	Comments
21:27	MA46701-STD1	1		STDA
21:32	MA46701-STD2	1		STDA
21:38	MA46701-STD3	1		STDA
21:42	MA46701-STD4	1		STDA
21:47	MA46701-STD5	1		STDB
21:52	MA46701-STD6	1		STDC
21:57	MA46701-STD7	1		STDD
22:01	MA46701-STD8	1		STDE
22:06	MA46701-STD9	1		STDF
22:11	MA46701-STD10	1		STDG
22:16	MA46701-STD11	1		STDH
22:21	MA46701-STD12	1		STDI
22:25	MA46701-STD13	1		STDJ
22:30	ZZZZZZ	1		
22:35	ZZZZZZ	1		
22:40	MA46701-STD14	1		STDB
22:44	MA46701-STD15	1		STDC
22:49	MA46701-ICVA1	1		
22:54	MA46701-ICV1	1		60ppb Al.
22:59	MA46701-ICB1	1		
23:03	MA46701-CCVA1	1		
23:08	MA46701-CCB1	1		
23:13	MA46701-CRI1	1		
23:18	MA46701-ICSA1	1		
23:22	MA46701-ICSAB1	1		
23:27	ZZZZZZ	1		
23:32	ZZZZZZ	1		
23:37	MA46701-CCVA2	1		
23:41	MA46701-CCB2	1		
23:46	ZZZZZZ	2		
23:51	ZZZZZZ	2		
23:56	MP14909-MB3	2		
00:00	MP14909-B4	2		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC87833
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XB051219M1.CSV Date Analyzed: 05/12/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA46701
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Dilution Factor	PS Recov	Comments
00:05	ZZZZZZ	10		
00:10	ZZZZZZ	2		
00:15	JC87833-1	2		
---------->	Last reportable sample/prep for job JC87833			
00:19	ZZZZZZ	1		
00:24	ZZZZZZ	1		
00:29	MA46701-CCVA3	1		
00:34	MA46701-CCB3	1		
---------->	Last reportable CCB for job JC87833			
00:38	MP14947-MB1	1		
00:43	MP14947-B1	1		
00:48	MP14947-S1	1		
00:53	MP14947-S2	1		
00:57	JC87777-1	1		(sample used for QC only; not part of login JC87833)
01:02	MP14947-S3	1		
01:07	JC87777-2	1		(sample used for QC only; not part of login JC87833)
01:12	ZZZZZZ	1		
01:17	ZZZZZZ	1		
01:21	ZZZZZZ	1		
01:26	MA46701-CCVA4	1		
01:31	MA46701-CCB4	1		
01:36	ZZZZZZ	1		
01:40	ZZZZZZ	1		
01:45	ZZZZZZ	1		
01:50	ZZZZZZ	1		
01:55	ZZZZZZ	1		
01:59	ZZZZZZ	1		
02:04	ZZZZZZ	1		
02:09	ZZZZZZ	1		
02:14	ZZZZZZ	1		
02:19	ZZZZZZ	1		
02:23	MA46701-CCVA5	1		
02:28	MA46701-CCB5	1		
02:33	ZZZZZZ	1		
02:38	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC87833
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XB051219M1.CSV Date Analyzed: 05/12/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA46701
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Dilution Factor	PS Recov	Comments
02:42	ZZZZZZ	1		
02:47	ZZZZZZ	1		
02:52	ZZZZZZ	1		
02:57	MP14948-MB1	1		
03:01	MP14948-B1	1		
03:06	MP14948-S1	1		
03:11	MP14948-S2	1		
03:16	JC87777-21	1		(sample used for QC only; not part of login JC87833)
03:20	MA46701-CCVA6	1		
03:25	MA46701-CCB6	1		
03:30	MP14948-S3	1		
03:35	JC87777-22	1		(sample used for QC only; not part of login JC87833)
03:39	ZZZZZZ	1		
03:44	ZZZZZZ	1		
03:49	ZZZZZZ	1		
03:54	ZZZZZZ	1		
03:58	ZZZZZZ	1		
04:03	ZZZZZZ	1		
04:08	ZZZZZZ	1		
04:13	ZZZZZZ	1		
04:17	MA46701-CCVA7	1		
04:22	MA46701-CCB7	1		
04:27	ZZZZZZ	1		
04:32	ZZZZZZ	1		
04:36	ZZZZZZ	1		
04:41	ZZZZZZ	1		
04:46	ZZZZZZ	1		
04:51	ZZZZZZ	1		
04:56	ZZZZZZ	1		
05:00	ZZZZZZ	1		
05:05	ZZZZZZ	1		
05:10	ZZZZZZ	1		
05:15	MA46701-CCVA8	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC87833
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XB051219M1.CSV Date Analyzed: 05/12/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA46701
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Dilution Factor	PS Recov	Comments
05:19	MA46701-CCB8	1		
05:24	MP14949-MB1	1		
05:29	MP14949-B1	1		
05:34	MP14949-S1	1		
05:38	MP14949-S2	1		
05:43	JC87777-41	1		(sample used for QC only; not part of login JC87833)
05:48	MP14949-S3	1		overrange
05:53	JC87777-42	1		(sample used for QC only; not part of login JC87833)
05:57	ZZZZZZ	1		
06:02	ZZZZZZ	1		
06:07	ZZZZZZ	1		
06:12	MA46701-CCVA9	1		
06:16	MA46701-CCB9	1		
06:21	ZZZZZZ	1		
06:26	ZZZZZZ	1		
06:31	ZZZZZZ	1		
06:36	ZZZZZZ	1		
06:40	ZZZZZZ	1		
06:45	ZZZZZZ	1		
06:50	ZZZZZZ	1		
06:55	ZZZZZZ	1		
06:59	ZZZZZZ	1		
07:04	ZZZZZZ	1		
07:09	MA46701-CCVA10	1		
07:24	MA46701-CCB10	1		
07:28	ZZZZZZ	1		
07:33	ZZZZZZ	1		
07:38	ZZZZZZ	1		
07:43	ZZZZZZ	1		
07:47	ZZZZZZ	1		
07:52	MP14950-MB1	1		
07:57	MP14950-B1	1		
08:02	MP14950-S1	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC87833
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XB051219M1.CSV Date Analyzed: 05/12/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA46701
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Dilution Factor	PS Recov	Comments
08:07	MP14950-S2	1		Very high RSD
08:11	JC87777-61	1		(sample used for QC only; not part of login JC87833)
08:16	MA46701-CCVA11	1		
08:21	MA46701-CCB11	1		
08:26	MP14950-S3	1		
08:30	JC87777-62	1		(sample used for QC only; not part of login JC87833)
08:35	ZZZZZZ	1		
08:40	ZZZZZZ	1		
08:45	ZZZZZZ	1		
08:50	ZZZZZZ	1		
08:54	ZZZZZZ	1		
08:59	ZZZZZZ	1		
09:04	ZZZZZZ	1		
09:09	ZZZZZZ	1		
09:13	MA46701-CCVA12	1		
09:18	MA46701-CCB12	1		
09:23	ZZZZZZ	1		
09:28	ZZZZZZ	1		
09:32	ZZZZZZ	1		
09:37	ZZZZZZ	1		
09:42	ZZZZZZ	1		
09:47	ZZZZZZ	1		
09:51	ZZZZZZ	1		
09:56	ZZZZZZ	1		
10:01	ZZZZZZ	1		
10:06	ZZZZZZ	1		
10:10	MA46701-CCVA13	1		
10:15	MA46701-CCB13	1		
10:20	ZZZZZZ	10		
10:25	ZZZZZZ	1		
10:29	ZZZZZZ	1		
10:34	MA46701-CCVA14	1		
10:39	MA46701-CCB14	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC87833
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XB051219M1.CSV Date Analyzed: 05/12/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA46701
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Dilution Factor	PS Recov	Comments
10:44	ZZZZZZ	1		
10:49	ZZZZZZ	1		
10:53	ZZZZZZ	1		

Refer to raw data for calibration curve and standards.

REPORTED ELEMENTS SUMMARY

Login Number: JC87833
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XB051219M1.CSV Date Analyzed: 05/12/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA46701
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Element: Dilution	Al	As	Ba	Cd	Fe	Pb	
22:30	ZZZZZZ	1							
22:35	ZZZZZZ	1							
22:49	MA46701-ICVA1	1	X	X	X	X	X	X	
22:54	MA46701-ICV1	1	X						
22:59	MA46701-ICB1	1	X	X	X	X	X	X	
23:03	MA46701-CCVA1	1	X	X	X	X	X	X	
23:08	MA46701-CCB1	1	X	X	X	X	X	X	
23:13	MA46701-CRI1	1	X	X	X	X	X	X	
23:18	MA46701-ICSA1	1	X	X	X	X	X	X	
23:22	MA46701-ICSAB1	1	X	X	X	X	X	X	
23:27	ZZZZZZ	1							
23:32	ZZZZZZ	1							
23:37	MA46701-CCVA2	1	X	X	X	X	X	X	
23:41	MA46701-CCB2	1	X	X	X	X	X	X	
23:46	ZZZZZZ	2							
23:51	ZZZZZZ	2							
23:56	MP14909-MB3	2	X	X	X	X	X	X	
00:00	MP14909-B4	2	X	X	X	X	X	X	
00:05	ZZZZZZ	10							
00:10	ZZZZZZ	2							
00:15	JC87833-1	2	X	X	X	X	X	X	
00:19	ZZZZZZ	1							
00:24	ZZZZZZ	1							
00:29	MA46701-CCVA3	1	X	X	X	X	X	X	
00:34	MA46701-CCB3	1	X	X	X	X	X	X	
00:38	MP14947-MB1	1						X	
00:43	MP14947-B1	1						X	
00:48	MP14947-S1	1						X	
00:53	MP14947-S2	1						X	
00:57	JC87777-1	1						X	(a)
01:02	MP14947-S3	1						X	
01:07	JC87777-2	1						X	(a)
01:12	ZZZZZZ	1							
		Element:	Al	As	Ba	Cd	Fe	Pb	

REPORTED ELEMENTS SUMMARY

Login Number: JC87833
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XB051219M1.CSV Date Analyzed: 05/12/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA46701
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Element: Dilution	Al	As	Ba	Cd	Fe	Pb	
01:17	ZZZZZZ	1							
01:21	ZZZZZZ	1							
01:26	MA46701-CCVA4	1			X			X	
01:31	MA46701-CCB4	1			X			X	
01:36	ZZZZZZ	1							
01:40	ZZZZZZ	1							
01:45	ZZZZZZ	1							
01:50	ZZZZZZ	1							
01:55	ZZZZZZ	1							
01:59	ZZZZZZ	1							
02:04	ZZZZZZ	1							
02:09	ZZZZZZ	1							
02:14	ZZZZZZ	1							
02:19	ZZZZZZ	1							
02:23	MA46701-CCVA5	1			X			X	
02:28	MA46701-CCB5	1			X			X	
02:33	ZZZZZZ	1							
02:38	ZZZZZZ	1							
02:42	ZZZZZZ	1							
02:47	ZZZZZZ	1							
02:52	ZZZZZZ	1							
02:57	MP14948-MB1	1						X	
03:01	MP14948-B1	1						X	
03:06	MP14948-S1	1						X	
03:11	MP14948-S2	1						X	
03:16	JC87777-21	1						X	(a)
03:20	MA46701-CCVA6	1			X			X	
03:25	MA46701-CCB6	1			X			X	
03:30	MP14948-S3	1						X	
03:35	JC87777-22	1						X	(a)
03:39	ZZZZZZ	1							
03:44	ZZZZZZ	1							
03:49	ZZZZZZ	1							
		Element:	Al	As	Ba	Cd	Fe	Pb	

REPORTED ELEMENTS SUMMARY

Login Number: JC87833
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XB051219M1.CSV Date Analyzed: 05/12/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA46701
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Element: Dilution	Al	As	Ba	Cd	Fe	Pb	
03:54	ZZZZZZ	1							
03:58	ZZZZZZ	1							
04:03	ZZZZZZ	1							
04:08	ZZZZZZ	1							
04:13	ZZZZZZ	1							
04:17	MA46701-CCVA7	1			X			X	
04:22	MA46701-CCB7	1			X			X	
04:27	ZZZZZZ	1							
04:32	ZZZZZZ	1							
04:36	ZZZZZZ	1							
04:41	ZZZZZZ	1							
04:46	ZZZZZZ	1							
04:51	ZZZZZZ	1							
04:56	ZZZZZZ	1							
05:00	ZZZZZZ	1							
05:05	ZZZZZZ	1							
05:10	ZZZZZZ	1							
05:15	MA46701-CCVA8	1			X			X	
05:19	MA46701-CCB8	1			X			X	
05:24	MP14949-MB1	1						X	
05:29	MP14949-B1	1						X	
05:34	MP14949-S1	1						X	
05:38	MP14949-S2	1						X	
05:43	JC87777-41	1						X	(a)
05:48	MP14949-S3	1	overrange						
05:53	JC87777-42	1						X	(a)
05:57	ZZZZZZ	1							
06:02	ZZZZZZ	1							
06:07	ZZZZZZ	1							
06:12	MA46701-CCVA9	1			X			X	
06:16	MA46701-CCB9	1			X			X	
06:21	ZZZZZZ	1							
06:26	ZZZZZZ	1							
		Element:	Al	As	Ba	Cd	Fe	Pb	

REPORTED ELEMENTS SUMMARY

Login Number: JC87833
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XB051219M1.CSV Date Analyzed: 05/12/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA46701
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Element: Dilution	Al	As	Ba	Cd	Fe	Pb
06:31	ZZZZZZ	1						
06:36	ZZZZZZ	1						
06:40	ZZZZZZ	1						
06:45	ZZZZZZ	1						
06:50	ZZZZZZ	1						
06:55	ZZZZZZ	1						
06:59	ZZZZZZ	1						
07:04	ZZZZZZ	1						
07:09	MA46701-CCVA10	1			X			X
07:24	MA46701-CCB10	1			X			X
07:28	ZZZZZZ	1						
07:33	ZZZZZZ	1						
07:38	ZZZZZZ	1						
07:43	ZZZZZZ	1						
07:47	ZZZZZZ	1						
07:52	MP14950-MB1	1						X
07:57	MP14950-B1	1						X
08:02	MP14950-S1	1						X
08:07	MP14950-S2	1	Very high RSD					
08:11	JC87777-61	1						X (a)
08:16	MA46701-CCVA11	1			X			X
08:21	MA46701-CCB11	1			X			X
08:26	MP14950-S3	1						X
08:30	JC87777-62	1						X (a)
08:35	ZZZZZZ	1						
08:40	ZZZZZZ	1						
08:45	ZZZZZZ	1						
08:50	ZZZZZZ	1						
08:54	ZZZZZZ	1						
08:59	ZZZZZZ	1						
09:04	ZZZZZZ	1						
09:09	ZZZZZZ	1						
09:13	MA46701-CCVA12	1			X			X
		Element:	Al	As	Ba	Cd	Fe	Pb

REPORTED ELEMENTS SUMMARY

Login Number: JC87833
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XB051219M1.CSV Date Analyzed: 05/12/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA46701
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Element: Dilution	Al	As	Ba	Cd	Fe	Pb
09:18	MA46701-CCB12	1			X			X
09:23	ZZZZZZ	1						
09:28	ZZZZZZ	1						
09:32	ZZZZZZ	1						
09:37	ZZZZZZ	1						
09:42	ZZZZZZ	1						
09:47	ZZZZZZ	1						
09:51	ZZZZZZ	1						
09:56	ZZZZZZ	1						
10:01	ZZZZZZ	1						
10:06	ZZZZZZ	1						
10:10	MA46701-CCVA13	1			X			X
10:15	MA46701-CCB13	1			X			X
10:20	ZZZZZZ	10						
10:25	ZZZZZZ	1						
10:29	ZZZZZZ	1						
10:34	MA46701-CCVA14	1	X	X	X	X	X	X
10:39	MA46701-CCB14	1	X	X	X	X	X	X
10:44	ZZZZZZ	1						
10:49	ZZZZZZ	1						
10:53	ZZZZZZ	1						

(a) Sample used for QC only; not part of login JC87833.

Element: Al As Ba Cd Fe Pb

INTERNAL STANDARD SUMMARY

Login Number: JC87833
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XB051219M1.CSV Date Analyzed: 05/12/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA46701
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8
21:27	MA46701-STD1	100	100	100	100	100	100	100	100
21:32	MA46701-STD2	100	100	100	100	100	100	100	100
21:38	MA46701-STD3	100	100	100	100	100	100	100	100
21:42	MA46701-STD4	100	100	100	100	100	100	100	100
21:47	MA46701-STD5	101.542	101.19	100.205	99.9	100.985	100.812	100.064	99.327
21:52	MA46701-STD6	100.696	100.609	100.28	100.311	99.536	100.122	99.989	100.464
21:57	MA46701-STD7	101.6	100.306	98.959	99.13	100.091	100.376	98.451	98.797
22:01	MA46701-STD8	100.129	98.647	98.353	99.05	99.706	99.278	98.337	98.039
22:06	MA46701-STD9	98.271	98.069	97.68	97.973	98.669	98.801	96.719	98.731
22:11	MA46701-STD10	96.511	95.511	97.511	98.192	97.57	99.159	99.157	95.697
22:16	MA46701-STD11	98.116	96.965	99.042	99.887	99.033	100.961	100.305	96.532
22:21	MA46701-STD12	98.581	99.178	100.906	100.072	97.553	99.974	98.957	96.144
22:25	MA46701-STD13	96.642	97.567	100.792	99.726	96.586	101.052	97.687	94.636
22:30	ZZZZZZ	98.748	97.85	98.521	99.772	99.038	100.535	99.539	98.263
22:35	ZZZZZZ	98.432	98.773	99.855	101.69	99.032	100.95	100.807	99.088
22:40	MA46701-STD14	100.842	100.387	101.737	102.114	99.254	102.28	102.296	100.268
22:44	MA46701-STD15	100.409	100.176	101.092	102.073	99.241	102.028	102.425	99.969
22:49	MA46701-ICVA1	98.266	99.505	98.939	99.34	100.727	99.922	99.602	97.083
22:54	MA46701-ICV1	98.408	97.891	96.65	99.916	96.617	98.04	98.909	96.418
22:59	MA46701-ICB1	97.72	98.63	98.753	99.179	97.152	98.888	99.197	98.224
23:03	MA46701-CCVA1	98.786	98.984	99.581	99.752	99.73	100.543	99.318	97.603
23:08	MA46701-CCB1	97.48	96.601	96.684	99.231	95.549	96.915	99.585	97.256
23:13	MA46701-CRI1	99.412	98.142	98.931	100.632	98.397	99.046	100.288	98.105
23:18	MA46701-ICSA1	88.042	93.063	96.881	100.799	89.374	95.76	94.6	83.511
23:22	MA46701-ICSAB1	90.08	95.708	99.006	106.168	92.184	97.419	98.852	87.207
23:27	ZZZZZZ	91.931	98.327	94.114	105.459	98.818	97.295	105.642	100.666
23:32	ZZZZZZ	95.047	99.426	96.001	108.366	99.949	99.034	106.682	101.633
23:37	MA46701-CCVA2	97.095	102.744	100.923	110.605	103.617	103.431	108.56	102.664
23:41	MA46701-CCB2	99.609	102.697	100.454	111.028	103.336	101.781	109.336	103.446
23:46	ZZZZZZ	107.099	109.983	104.281	120.789	110.313	108.361	128.603	106.975
23:51	ZZZZZZ	108.834	113.106	108.636	123.462	113.626	110.842	128.956	108.481
23:56	MP14909-MB3	113.346	115.251	108.921	126.026	116.663	111.375	135.045	!a110.115
00:00	MP14909-B4	113.395	117.344	110.979	126.632	117.144	112.926	133.743	!a110.825

INTERNAL STANDARD SUMMARY

Login Number: JC87833
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XB051219M1.CSV Date Analyzed: 05/12/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA46701
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8
00:05	ZZZZZZ	105.813	108.712	107.894	115.66	106.699	108.061	111.543	104.105
00:10	ZZZZZZ	94.682	99.709	108.024	109.573	89.514	98.481	104.818	78.235
00:15	JC87833-1	103.246	102.588	98.72	116.034	106.012	102.201	123.606	99.464
00:19	ZZZZZZ	104.641	105.393	99.806	114.483	105.049	101.149	112.504	104.903
00:24	ZZZZZZ	105.85	105.972	100.582	113.786	105.503	101.747	111.347	103.935
00:29	MA46701-CCVA3	104.865	107.904	103.834	117.029	107.2	104.736	112.675	103.577
00:34	MA46701-CCB3	105.73	107.942	101.902	115.316	105.771	102.882	111.941	106.557
00:38	MP14947-MB1	108.397	107.675	102.626	116.586	106.304	103.374	112.914	105.531
00:43	MP14947-B1	109.095	108.535	103.527	115.248	109.328	104.445	112.19	106.756
00:48	MP14947-S1	106.684	107.698	105.042	94.978	107.257	106.953	99.477	102.934
00:53	MP14947-S2	104.521	107.356	104.936	109.32	106.108	106.211	107.019	101.995
00:57	JC87777-1	104.434	103.696	104.129	107.475	103.114	104.557	105.936	98.401
01:02	MP14947-S3	103.083	104.126	102.706	107.535	103.773	104.319	105.657	99.868
01:07	JC87777-2	100.946	100.856	102.051	105.311	100.402	102.885	103.567	96.646
01:12	ZZZZZZ	101.437	101.29	101.273	105.235	100.211	102.142	103.016	96.249
01:17	ZZZZZZ	100.623	100.46	101.901	104.649	99.281	102.62	102.587	95.764
01:21	ZZZZZZ	100.858	100.123	92.37	103.776	98.797	94.233	102.327	95.494
01:26	MA46701-CCVA4	99.5	99.428	99.207	108.667	99.688	100.029	105.213	97.614
01:31	MA46701-CCB4	102.278	99.54	96.385	106.973	98.842	96.909	104.511	98.968
01:36	ZZZZZZ	102.219	100.41	101.228	105.179	99.694	102.609	102.427	95.892
01:40	ZZZZZZ	99.557	98.795	100.166	103.57	96.993	101.862	100.983	94.202
01:45	ZZZZZZ	99.21	98.2	98.953	102.73	97.278	100.475	100.293	93.433
01:50	ZZZZZZ	99.03	97.144	99.554	100.894	96.147	100.512	99.855	92.938
01:55	ZZZZZZ	98.881	96.782	99.983	102.395	95.172	100.355	100.502	92.836
01:59	ZZZZZZ	98.801	96.985	99.382	100.891	95.554	101.184	99.954	92.416
02:04	ZZZZZZ	97.557	96.31	97.609	100.371	94.869	98.015	97.885	91.965
02:09	ZZZZZZ	98.234	95.73	97.377	99.222	94.756	97.935	96.694	91.748
02:14	ZZZZZZ	98.152	96.049	96.494	99.304	94.784	97.135	97.18	90.936
02:19	ZZZZZZ	98.136	95.15	97.768	100.108	93.925	97.79	97.873	91.434
02:23	MA46701-CCVA5	97.271	95.568	95.57	101.69	95.23	96.677	100.079	93.432
02:28	MA46701-CCB5	97.915	94.364	93.316	99.726	93.864	94.905	99.282	93.951
02:33	ZZZZZZ	98.583	95.221	98.102	99.955	95.021	99.548	97.424	92.108
02:38	ZZZZZZ	98.016	95.059	96.803	98.42	93.868	97.433	97.134	90.536

INTERNAL STANDARD SUMMARY

Login Number: JC87833
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XB051219M1.CSV Date Analyzed: 05/12/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA46701
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8
02:42	ZZZZZZ	96.748	95.178	97.127	97.829	94.04	97.453	95.913	90.592
02:47	ZZZZZZ	96.735	94.22	96.388	97.629	93.097	97.682	95.488	90.498
02:52	ZZZZZZ	98.77	96.163	97.178	98.402	95.062	96.498	94.949	90.893
02:57	MP14948-MB1	98.821	94.399	92.059	98.738	93.335	92.952	95.862	93.151
03:01	MP14948-B1	98.893	95.348	92.767	98.521	94.531	93.871	97.347	94.449
03:06	MP14948-S1	96.972	94.723	93.967	96.033	93.179	94.883	92.77	89.705
03:11	MP14948-S2	94.638	93.033	93.683	95.465	91.924	94.346	94.095	88.54
03:16	JC87777-21	94.3	91.084	92.417	94.176	89.246	92.184	92.13	86.437
03:20	MA46701-CCVA6	93.998	91.05	85.951	97.219	90.316	85.719	94.316	89.616
03:25	MA46701-CCB6	95.904	90.376	89.949	96.924	90.366	89.701	94.271	88.957
03:30	MP14948-S3	96.256	94.456	94.006	94.773	93.306	93.965	92.908	89.505
03:35	JC87777-22	93.809	91.185	92.604	94.734	89.531	92.813	91.282	86.16
03:39	ZZZZZZ	94.153	91.079	92.901	93.786	89.302	92.944	90.488	85.3
03:44	ZZZZZZ	94.335	91.067	93.232	94.222	90.216	93.238	92.475	86.972
03:49	ZZZZZZ	94.801	91.25	93.343	94.455	89.363	93.475	92.27	86.296
03:54	ZZZZZZ	94.646	91.966	94.515	94.335	90.319	94.54	92.221	87.208
03:58	ZZZZZZ	96.141	92.424	93.436	95.661	90.611	94.693	94.024	87.529
04:03	ZZZZZZ	95.142	90.673	94.19	93.546	90.259	93.835	91.89	86.932
04:08	ZZZZZZ	95.747	91.861	92.954	94.245	90.174	93.994	92.273	86.549
04:13	ZZZZZZ	95.136	91.085	92.872	93.958	90.414	93.851	91.613	85.995
04:17	MA46701-CCVA7	94.624	91.015	91.845	96.53	90.768	91.855	93.322	88.043
04:22	MA46701-CCB7	95.526	90.572	88.999	96.533	89.772	89.923	94.077	90.077
04:27	ZZZZZZ	97.703	92.853	94.167	96.336	91.622	94.96	93.002	87.786
04:32	ZZZZZZ	94.984	92.023	86.943	94.807	89.896	86.153	92.834	85.757
04:36	ZZZZZZ	95.359	92.329	93.946	93.838	89.197	93.55	91.571	86.33
04:41	ZZZZZZ	94.871	90.952	93.346	93.479	89.319	93.784	91.093	85.932
04:46	ZZZZZZ	94.859	91.07	93.17	93.627	89.077	92.853	91.06	86.011
04:51	ZZZZZZ	95.352	91.132	93.076	93.686	89.964	92.622	91.379	85.871
04:56	ZZZZZZ	95.06	90.76	92.855	92.347	88.817	92.229	90.161	85.364
05:00	ZZZZZZ	94.946	90.568	93.034	91.718	89.215	91.609	89.358	84.934
05:05	ZZZZZZ	94.869	90.429	92.103	91.977	87.677	92.03	89.364	84.782
05:10	ZZZZZZ	93.846	90.165	92.274	92.062	88.139	90.663	88.861	84.223
05:15	MA46701-CCVA8	94.177	89.496	91.596	95.188	88.366	90.921	91.848	86.413

INTERNAL STANDARD SUMMARY

Login Number: JC87833
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XB051219M1.CSV Date Analyzed: 05/12/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA46701
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8
05:19	MA46701-CCB8	95.94	89.513	89.114	93.991	87.928	88.255	91.103	88.013
05:24	MP14949-MB1	97.393	91.054	89.933	95.215	89.723	89.234	92.186	89.134
05:29	MP14949-B1	97.338	92.434	89.866	96.277	91.412	90.215	93.014	90.57
05:34	MP14949-S1	97.912	92.631	93.261	92.286	90.938	92.618	89.946	87.008
05:38	MP14949-S2	94.917	91.171	91.785	92.13	89.512	91.574	89.475	85.095
05:43	JC87777-41	93.513	88.257	90.494	91.934	87.063	90.129	89.239	83.499
05:48	MP14949-S3	No results reported for the elements associated with this internal standard.							
05:53	JC87777-42	92.91	87.95	92.642	91.834	86.552	93.154	88.986	82.979
05:57	ZZZZZZ	92.366	87.51	90.204	90.769	86.375	89.943	88.364	82.811
06:02	ZZZZZZ	93.728	88.158	90.584	90.984	86.597	90.293	88.624	82.93
06:07	ZZZZZZ	93.493	87.73	90.581	91.265	85.727	90.06	88.54	82.563
06:12	MA46701-CCVA9	92.205	87.247	88.943	94.86	86.327	88.648	89.5	84.909
06:16	MA46701-CCB9	93.558	87.825	86.711	94.082	85.31	86.579	90.494	86.661
06:21	ZZZZZZ	94.604	90.079	92.881	92.394	87.67	92.425	89.446	84.053
06:26	ZZZZZZ	93.924	89.481	90.347	91.083	87.134	90.549	89.046	83.04
06:31	ZZZZZZ	93.456	88.805	90.689	92.145	86.428	90.363	89.715	82.616
06:36	ZZZZZZ	93.371	88.444	91.793	90.855	86.252	90.932	88.539	82.084
06:40	ZZZZZZ	93.476	88.297	92.244	91.295	86.068	91.17	88.05	82.358
06:45	ZZZZZZ	93.316	88.245	90.291	91.559	85.444	89.779	87.661	82.188
06:50	ZZZZZZ	92.971	88.13	91.075	91.281	86.544	89.071	87.959	82.03
06:55	ZZZZZZ	93.065	88.108	90.127	91.109	85.278	89.487	87.635	81.677
06:59	ZZZZZZ	96.43	94.441	90.698	90.771	87.979	90.045	87.689	87.087
07:04	ZZZZZZ	93.387	87.477	91.122	90.995	85.376	90.038	86.487	81.128
07:09	MA46701-CCVA10	92.621	87.524	88.515	92.095	86.286	86.718	87.955	83.092
07:24	MA46701-CCB10	96.187	87.136	87.49	93.682	83.405	85.627	90.631	83.606
07:28	ZZZZZZ	96.664	89.542	91.01	91.921	87.766	90.855	88.075	83.066
07:33	ZZZZZZ	94.951	88.608	89.85	90.337	86.212	89.218	86.981	81.754
07:38	ZZZZZZ	94.069	88.706	92.056	91.153	85.43	89.685	86.975	81.399
07:43	ZZZZZZ	94.391	88.521	91.234	90.915	86.554	88.86	87.13	82.353
07:47	ZZZZZZ	94.434	88.442	90.743	90.275	86.26	88.672	86.428	81.772
07:52	MP14950-MB1	96.184	88.466	87.541	92.377	86.124	86.376	89.036	86.074
07:57	MP14950-B1	95.957	89.432	88.089	93.378	87.659	87.021	88.894	86.101
08:02	MP14950-S1	94.708	89.722	89.461	89.747	86.946	87.964	86.052	82.678

INTERNAL STANDARD SUMMARY

Login Number: JC87833
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XB051219M1.CSV Date Analyzed: 05/12/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA46701
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8
08:07	MP14950-S2	No results reported for the elements associated with this internal standard.							
08:11	JC87777-61	90.989	85.448	86.968	87.356	82.332	86.17	84.634	79.033
08:16	MA46701-CCVA11	90.861	85.835	85.75	91.983	84.045	85.384	87.514	81.606
08:21	MA46701-CCB11	92.702	85.34	84.911	91.608	82.857	83.169	87.095	82.984
08:26	MP14950-S3	94.215	88.267	89.492	89.353	85.907	89.409	85.342	81.575
08:30	JC87777-62	91.669	84.978	88.444	88.794	82.383	86.793	85.266	78.929
08:35	ZZZZZZ	91.823	85.315	88.091	87.12	83.128	86.609	83.883	78.436
08:40	ZZZZZZ	91.86	85.208	87.361	87.532	83.031	86.262	84.561	78.879
08:45	ZZZZZZ	91.823	84.867	86.997	87.118	82.515	86.476	84.503	78.869
08:50	ZZZZZZ	91.132	85.138	87.063	86.72	82.337	86.09	83.189	78.664
08:54	ZZZZZZ	91.076	85.423	87.633	87.617	82.394	86.366	83.405	78.231
08:59	ZZZZZZ	92.032	84.889	87.41	86.289	82.419	86.302	82.85	78.919
09:04	ZZZZZZ	92.225	85.45	87.592	87.594	82.532	86.02	83.402	78.189
09:09	ZZZZZZ	91.917	85.137	86.994	87.333	82.276	85.789	84.124	78.59
09:13	MA46701-CCVA12	90.574	83.872	85.855	89.558	82.112	83.72	84.889	80.314
09:18	MA46701-CCB12	92.836	84.239	83.046	89.798	81.636	81.236	84.733	81.211
09:23	ZZZZZZ	94.147	87.027	88.421	88.383	83.722	86.698	83.77	79.207
09:28	ZZZZZZ	92.425	85.05	87.385	87.068	81.822	85.389	82.996	78.031
09:32	ZZZZZZ	92.096	85.101	86.551	87.242	81.836	85.111	81.594	77.803
09:37	ZZZZZZ	91.606	84.656	86.471	86.43	81.938	85.185	82.28	77.795
09:42	ZZZZZZ	91.777	84.664	86.393	81.311	81.439	84.523	79.748	78.285
09:47	ZZZZZZ	91.603	84.573	87.699	86.788	81.64	86.787	81.516	76.76
09:51	ZZZZZZ	92.485	84.507	86.726	87.387	83.167	84.892	83.857	80.25
09:56	ZZZZZZ	92.694	85.467	85.816	86.35	82.899	85.69	83.045	79.756
10:01	ZZZZZZ	93.415	84.666	85.715	86.472	82.676	85.129	82.859	80.012
10:06	ZZZZZZ	91.341	83.95	83.908	85.449	81.404	84.591	82.748	79.286
10:10	MA46701-CCVA13	89.799	82.989	83.904	88.114	80.558	82.223	83.818	77.971
10:15	MA46701-CCB13	89.992	82.66	81.276	88.04	79.3	80.394	83.531	79.213
10:20	ZZZZZZ	86.397	80.609	79.721	83.614	74.485	75.859	81.828	70.266
10:25	ZZZZZZ	89.699	81.279	78.957	88.45	79.375	78.873	85.761	79.436
10:29	ZZZZZZ	91.624	82.868	80.504	87.061	79.732	79.379	77.447	79.727
10:34	MA46701-CCVA14	92.319	84.287	83.984	90.856	82.176	82.714	85.676	79.805
10:39	MA46701-CCB14	93.15	84.007	82.315	88.765	80.736	80.53	84.991	81.162

INTERNAL STANDARD SUMMARY

Login Number: JC87833
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XB051219M1.CSV Date Analyzed: 05/12/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA46701
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7	Istd#8
10:44	ZZZZZZ	94.243	85.003	81.9	90.17	81.05	80.793	85.231	81.354
10:49	ZZZZZZ	94.207	84.233	82.651	90.164	81.781	80.65	85.607	80.689
10:53	ZZZZZZ	94.986	86.009	82.368	90.786	82.194	80.052	86.252	81.841

! = Outside limits.

LEGEND:

Istd#	Parameter	Limits
Istd#1	Lithium	60-125 %
Istd#2	Scandium (45-1)	60-125 %
Istd#3	Scandium (45-2)	60-125 %
Istd#4	Scandium (45-3)	60-125 %
Istd#5	Germanium (74-1)	60-125 %
Istd#6	Germanium (74-2)	60-125 %
Istd#7	Germanium (74-3)	60-125 %
Istd#8	Rhodium (103-1)	60-125 %

(a) No samples reported for the elements associated with this internal standard.

INTERNAL STANDARD SUMMARY

Login Number: JC87833
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XB051219M1.CSV Date Analyzed: 05/12/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA46701
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16
21:27	MA46701-STD1	100	100	100	100	100	100	100	100
21:32	MA46701-STD2	100	100	100	100	100	100	100	100
21:38	MA46701-STD3	100	100	100	100	100	100	100	100
21:42	MA46701-STD4	100	100	100	100	100	100	100	100
21:47	MA46701-STD5	100.746	99.735	99.301	100.459	100.861	100.335	99.822	101.325
21:52	MA46701-STD6	99.815	99.824	99.164	100.441	100.083	100.121	98.796	100.016
21:57	MA46701-STD7	99.378	98.473	99.89	99.59	100.183	99.72	98.244	101.302
22:01	MA46701-STD8	98.563	98.21	99.06	98.544	99.88	99.974	98.007	100.534
22:06	MA46701-STD9	98.234	97.731	98.492	98.34	101.395	100.436	98.023	101.379
22:11	MA46701-STD10	98.292	97.457	97.815	98.709	99.706	99.569	98.679	99.691
22:16	MA46701-STD11	99.457	98.398	97.81	99.382	99.062	101.104	97.996	99.534
22:21	MA46701-STD12	98.862	96.698	96.705	100.413	100.046	102.16	98.28	100.296
22:25	MA46701-STD13	97.299	94.315	94.309	98.943	98.234	101.047	97.426	98.509
22:30	ZZZZZZ	99.327	99.496	98.454	99.103	98.423	99.674	97.91	99.613
22:35	ZZZZZZ	99.803	100.029	98.633	100.572	97.292	99.535	98.843	98.02
22:40	MA46701-STD14	101.421	100.598	99.626	102.069	99.809	100.748	99.474	100.086
22:44	MA46701-STD15	101.263	100.998	99.521	101.835	99.393	100.668	99.328	99.621
22:49	MA46701-ICVA1	96.816	96.112	98.719	98.171	100.09	101.015	97.701	100.553
22:54	MA46701-ICV1	97.837	99.896	95.921	97.994	98.068	98.688	98.679	98.322
22:59	MA46701-ICB1	98.725	99.182	97.869	99.092	98.497	99.245	98.142	99.723
23:03	MA46701-CCVA1	98.268	96.445	98.384	99.114	100.424	101.9	98.307	100.736
23:08	MA46701-CCB1	98.041	98.397	95.3	97.917	97.4	97.73	96.877	96.977
23:13	MA46701-CRI1	98.708	99.433	96.598	99.153	98.93	98.784	98.24	98.622
23:18	MA46701-ICSA1	88.329	87.056	86.445	91.56	92.782	96.429	95.324	93.423
23:22	MA46701-ICSAB1	90.267	90.322	90.033	92.374	97.712	97.752	97.573	97.533
23:27	ZZZZZZ	100.191	105.499	101.584	96.873	104.301	100.012	103.357	104.388
23:32	ZZZZZZ	100.953	106.416	101.586	98.238	105.048	100.682	103	105.36
23:37	MA46701-CCVA2	102.844	104.167	103.361	100.367	108.023	104.791	104.471	107.961
23:41	MA46701-CCB2	103.369	107.777	104.195	101.077	106.7	101.846	103.701	107.483
23:46	ZZZZZZ	106.244	113.754	106.797	100.428	112.233	104.297	108.916	113.254
23:51	ZZZZZZ	108.511	113.085	110.044	102.615	113.609	106.703	110.275	114.62
23:56	MP14909-MB3	109.279	115.396	110.743	102.859	115.079	104.86	110.346	116.263
00:00	MP14909-B4	110.139	114.249	112.47	103.665	113.824	107.85	110.916	116.557

INTERNAL STANDARD SUMMARY

Login Number: JC87833
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XB051219M1.CSV Date Analyzed: 05/12/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA46701
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16
00:05	ZZZZZZ	106.588	106.19	106.059	104.238	109.223	107.16	104.709	109.724
00:10	ZZZZZZ	82.161	81.866	83.624	87.564	89.147	88.675	86.629	90.644
00:15	JC87833-1	99.84	105.804	103.108	95.588	109.974	102.279	107.891	111.43
00:19	ZZZZZZ	103.737	109.816	107.043	99.303	110.621	102.001	107.897	112.066
00:24	ZZZZZZ	103.526	108.761	106.014	98.897	110.417	101.52	105.567	111.322
00:29	MA46701-CCVA3	104.698	107.311	106.593	101.353	110.863	105.928	107.053	113.407
00:34	MA46701-CCB3	104.38	109.748	107.243	100.215	108.783	101.534	105.835	109.124
00:38	MP14947-MB1	104.578	110.725	106.108	100.263	109.229	102.699	106.346	110.357
00:43	MP14947-B1	105.416	108.918	107.99	102.297	111.542	103.874	105.903	112.805
00:48	MP14947-S1	102.42	88.116	105.179	103.743	109.357	106.659	89.972	110.783
00:53	MP14947-S2	101.803	100.455	106.347	103.675	108.937	105.778	103.158	109.456
00:57	JC87777-1	99.325	99.458	101.432	102.086	105.402	103.993	102.459	106.111
01:02	MP14947-S3	99.586	98.942	102.316	102.182	106.965	104.768	102.474	106.962
01:07	JC87777-2	97.968	97.924	99.61	100.215	103.039	102.984	101.003	104.027
01:12	ZZZZZZ	98.131	98.059	98.852	100.131	102.648	103.421	101.774	103.698
01:17	ZZZZZZ	98.086	97.293	99.029	99.945	102.572	104.097	101.436	103.987
01:21	ZZZZZZ	88.376	96.577	98.795	91.436	102.798	93.703	100.408	103.076
01:26	MA46701-CCVA4	98.449	101.092	98.907	98.337	104.285	102.46	103.159	106.21
01:31	MA46701-CCB4	98.697	103.816	100.12	96.457	104.011	99.101	101.042	103.862
01:36	ZZZZZZ	97.581	97.752	98.955	100.526	102.141	102.686	100.74	102.484
01:40	ZZZZZZ	96.391	96.194	97.836	100.081	100.621	102.117	100.494	100.847
01:45	ZZZZZZ	94.988	94.988	96.495	98.328	100.304	100.375	98.954	100.684
01:50	ZZZZZZ	96.058	94.99	95.061	99.445	99.203	101.67	98.669	99.614
01:55	ZZZZZZ	95.574	95.028	95.416	98.602	99.427	100.87	99.487	99.904
01:59	ZZZZZZ	96.479	94.735	95.133	99.696	99.246	102.48	99.032	99.175
02:04	ZZZZZZ	93.384	92.77	95.354	96.639	98.075	98.895	96.709	98.824
02:09	ZZZZZZ	93.009	91.77	94.587	96.278	97.75	98.563	95.783	98.621
02:14	ZZZZZZ	93.22	92.461	93.99	96.264	97.814	98.123	95.989	98.539
02:19	ZZZZZZ	93.008	92.339	93.729	96.976	97.586	99.204	96.506	98.213
02:23	MA46701-CCVA5	95.785	95.249	95.003	95.193	100.047	99.943	97.99	101.031
02:28	MA46701-CCB5	94.807	97.571	96.187	94.081	98.333	95.725	96.474	99.004
02:33	ZZZZZZ	93.102	91.501	94.987	96.118	98.239	98.827	95.63	98.772
02:38	ZZZZZZ	91.873	90.854	92.979	95.878	96.703	97.771	94.933	97.446

INTERNAL STANDARD SUMMARY

Login Number: JC87833
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XB051219M1.CSV Date Analyzed: 05/12/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA46701
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16
02:42	ZZZZZZ	92.311	90.509	93.666	95.585	96.382	97.654	94.962	96.885
02:47	ZZZZZZ	91.777	90.328	93.113	95.433	95.27	97.919	95.044	95.4
02:52	ZZZZZZ	92.608	90.432	92.748	95.548	96.995	97.596	94.826	97.849
02:57	MP14948-MB1	93.2	95.471	94.084	91.979	96.116	93.997	93.687	97.051
03:01	MP14948-B1	93.991	96.057	95.73	92.564	99.405	95.443	94.89	100.089
03:06	MP14948-S1	90.553	88.551	92.954	93.353	96.81	96.327	92.889	97.144
03:11	MP14948-S2	90.145	88.629	92.202	93.365	94.769	95.833	93.039	94.648
03:16	JC87777-21	88.519	86.991	89.374	91.598	93.226	93.956	91.559	94.147
03:20	MA46701-CCVA6	85.087	91.073	91.531	85.21	95.763	89.012	93.131	97.175
03:25	MA46701-CCB6	90.575	93.301	91.012	89.052	95.275	91.314	92.4	95.462
03:30	MP14948-S3	90.269	87.114	93.345	92.063	96.159	94.776	91.463	96.535
03:35	JC87777-22	87.567	86.331	89.052	91.024	92.833	93.227	90.486	93.299
03:39	ZZZZZZ	87.943	85.892	88.934	90.541	91.798	93.975	90.377	92.838
03:44	ZZZZZZ	87.906	87.113	89.684	91.466	92.522	93.624	91.646	93.179
03:49	ZZZZZZ	89.076	87.602	89.569	92.492	92.972	95.538	91.412	93.518
03:54	ZZZZZZ	88.916	87.346	90.215	92.294	93.24	94.656	91.549	93.703
03:58	ZZZZZZ	89.069	88.029	90.227	93.359	93.502	94.783	93.093	93.635
04:03	ZZZZZZ	88.728	87.189	90.083	92.111	92.951	94.294	92.039	92.551
04:08	ZZZZZZ	88.46	87.026	89.088	92.146	93.421	94.693	91.341	93.072
04:13	ZZZZZZ	88.579	87.122	88.616	92.302	91.666	94.205	91.423	92.782
04:17	MA46701-CCVA7	90.673	90.748	90.219	90.899	95.049	94.495	92.02	96.505
04:22	MA46701-CCB7	89.548	93.063	91.694	88.953	92.987	91.362	91.679	93.584
04:27	ZZZZZZ	89.646	88.572	90.592	92.962	92.857	94.222	91.995	93.744
04:32	ZZZZZZ	81.734	86.923	89.021	84.926	92.022	86.013	90.569	91.886
04:36	ZZZZZZ	88.282	86.275	88.629	91.692	92.16	93.818	89.345	92.093
04:41	ZZZZZZ	87.758	85.885	88.522	91.237	91.484	93.298	89.249	92.553
04:46	ZZZZZZ	87.61	86.342	88.617	91.376	91.001	92.339	89.747	91.863
04:51	ZZZZZZ	87.21	86.209	89.261	90.909	90.534	92.295	89.573	91.118
04:56	ZZZZZZ	87.436	84.79	87.531	90.209	90.52	91.935	88.467	90.766
05:00	ZZZZZZ	86.111	84.092	88.102	89.545	90.648	91.117	88.337	91.204
05:05	ZZZZZZ	87.145	84.105	87.221	89.946	90.657	92.608	87.878	90.451
05:10	ZZZZZZ	85.135	83.322	86.981	88.302	90.172	90.636	86.95	90.764
05:15	MA46701-CCVA8	88.915	88.862	87.89	89.165	92.755	92.334	90.107	92.835

INTERNAL STANDARD SUMMARY

Login Number: JC87833
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XB051219M1.CSV Date Analyzed: 05/12/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA46701
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16
05:19	MA46701-CCB8	88.535	90.997	89.27	87.653	90.837	89.012	89.423	91.369
05:24	MP14949-MB1	88.991	91.174	90.032	87.556	92.105	89.488	89.2	92.441
05:29	MP14949-B1	89.859	91.86	91.882	88.688	93.733	90.978	89.729	93.418
05:34	MP14949-S1	87.751	84.849	89.831	90.445	93.007	92.006	88.254	93.114
05:38	MP14949-S2	86.431	84.876	88.704	89.96	91.396	91.665	88.512	91.753
05:43	JC87777-41	84.729	83.937	85.445	88.283	89.316	90.068	87.571	89.568
05:48	MP14949-S3	No results reported for the elements associated with this internal standard.							
05:53	JC87777-42	86.826	84.695	85.955	90.053	88.722	92.35	87.882	89.365
05:57	ZZZZZZ	84.755	83.066	85.336	88.126	87.695	89.795	86.354	87.85
06:02	ZZZZZZ	84.508	83.29	85.759	88.403	88.582	89.719	86.619	89.216
06:07	ZZZZZZ	84.039	83.146	85.955	87.751	88.033	89.356	86.428	88.171
06:12	MA46701-CCVA9	86.395	87.526	86.707	87.009	89.687	90.182	88.781	90.521
06:16	MA46701-CCB9	86.28	88.988	87.003	85.329	88.967	87.405	87.592	88.779
06:21	ZZZZZZ	86.582	83.396	86.185	89.421	89.398	91.088	87.462	89.228
06:26	ZZZZZZ	84.419	82.422	85.591	87.863	88.733	89.734	86.134	88.812
06:31	ZZZZZZ	85.191	83.694	85.258	88.497	87.659	90.041	87.162	87.367
06:36	ZZZZZZ	84.837	83.192	85.296	88.391	87.461	90.627	86.548	88.359
06:40	ZZZZZZ	85.163	82.413	85.611	89.275	87.568	90.254	85.753	88.224
06:45	ZZZZZZ	84.406	82.06	84.961	87.818	87.558	88.488	85.41	87.463
06:50	ZZZZZZ	83.482	82.03	84.748	87.084	87.207	88.103	85.257	86.842
06:55	ZZZZZZ	83.481	82.313	83.603	87.163	86.077	88.142	85.391	86.471
06:59	ZZZZZZ	83.928	81.815	99.004	87.028	102.569	88.547	84.461	93.579
07:04	ZZZZZZ	84.192	81.392	83.708	87.165	86.335	88.093	84.136	85.712
07:09	MA46701-CCVA10	85.163	84.863	85.493	85.277	88.6	87.633	85.309	90.202
07:24	MA46701-CCB10	85.902	88.886	83.338	84.149	86.135	85.676	86.447	84.527
07:28	ZZZZZZ	84.238	82.676	85.247	86.381	87.62	88.131	85.745	87.182
07:33	ZZZZZZ	83.03	81.557	84.097	85.944	87.169	87.302	83.953	87.043
07:38	ZZZZZZ	83.815	81.335	83.85	87.422	86.397	88.947	84.451	86.525
07:43	ZZZZZZ	83.06	81.14	84.418	87.109	86.849	86.858	83.733	87.196
07:47	ZZZZZZ	83.31	80.768	84.756	86.202	85.682	87.028	83.103	85.725
07:52	MP14950-MB1	85.134	87.003	86.063	84.178	87.596	84.89	85.142	86.616
07:57	MP14950-B1	85.313	86.431	87.892	84.467	90.179	87.061	86.042	89.84
08:02	MP14950-S1	82.776	80.306	85.314	85.739	88.316	87.289	83.863	88.434

INTERNAL STANDARD SUMMARY

Login Number: JC87833
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

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Analyst: SN Run ID: MA46701
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16
08:07	MP14950-S2	No results reported for the elements associated with this internal standard.							
08:11	JC87777-61	80.559	78.552	82.034	83.74	83.447	84.954	82.162	83.857
08:16	MA46701-CCVA11	83.185	84.043	83.767	83.248	86.112	86.633	84.085	86.462
08:21	MA46701-CCB11	82.746	86.076	83.749	81.617	85.415	82.625	83.094	85.849
08:26	MP14950-S3	83.404	79.969	83.805	86.308	86.34	87.402	82.976	86.217
08:30	JC87777-62	81.849	79.47	80.988	84.266	83.341	86.072	82.318	83.722
08:35	ZZZZZZ	80.929	78.187	80.962	83.596	83.981	85.124	81.403	83.885
08:40	ZZZZZZ	80.282	78.54	81.468	83.262	83.42	84.338	81.084	83.349
08:45	ZZZZZZ	81.193	78.656	81.346	83.918	83.613	85.624	81.461	83.872
08:50	ZZZZZZ	80.016	77.726	81.389	83.65	83.046	84.474	79.677	83.121
08:54	ZZZZZZ	80.512	77.907	80.987	83.692	83.172	85.215	80.332	83.359
08:59	ZZZZZZ	80.328	77.579	80.966	83.24	82.77	83.805	79.985	83.375
09:04	ZZZZZZ	80.313	78.37	80.673	83.548	83.673	84.137	80.688	83.298
09:09	ZZZZZZ	79.756	78.304	81.351	83.698	82.917	84.276	80.647	83.45
09:13	MA46701-CCVA12	81.516	80.85	82.112	81.381	84.375	84.477	81.702	85.124
09:18	MA46701-CCB12	81.208	83.463	81.675	80.073	83.941	81.205	81.6	84.346
09:23	ZZZZZZ	80.97	78.433	81.919	83.116	83.734	84.531	80.888	83.226
09:28	ZZZZZZ	80.489	78.351	80.76	82.055	82.178	83.146	80.326	81.86
09:32	ZZZZZZ	79.741	76.97	79.615	82.176	81.831	83.364	79.39	82.11
09:37	ZZZZZZ	78.899	77.053	80.087	81.652	82.089	82.274	79.49	81.403
09:42	ZZZZZZ	79.555	71.615	80.219	81.889	81.857	82.801	74.153	81.675
09:47	ZZZZZZ	80.401	76.226	79.081	83.227	81.398	84.014	78.839	81.171
09:51	ZZZZZZ	80.701	80.127	82.017	82.514	81.901	82.031	79.436	82.289
09:56	ZZZZZZ	81.446	79.96	81.216	83.341	83.259	83.731	80.535	82.739
10:01	ZZZZZZ	80.618	79.565	81.691	82.499	82.199	82.609	80.168	81.754
10:06	ZZZZZZ	79.982	79.247	80.806	81.629	81.137	81.677	79.431	81.434
10:10	MA46701-CCVA13	80.159	79.872	80.504	79.554	83.32	82.356	79.71	83.689
10:15	MA46701-CCB13	79.456	81.412	80.25	77.714	81.166	79.258	79.4	81.152
10:20	ZZZZZZ	70.003	70.195	73.332	71.652	78.065	75.496	74.379	77.693
10:25	ZZZZZZ	78.596	81.545	80.901	76.534	82.34	78.705	79.61	82.915
10:29	ZZZZZZ	79.116	80.047	80.219	76.623	82.32	78.298	77.647	82.367
10:34	MA46701-CCVA14	80.55	80.888	82.124	79.4	85.771	82.81	80.708	86.186
10:39	MA46701-CCB14	80.353	82.532	81.337	78.181	83.5	79.169	80.025	83.447

INTERNAL STANDARD SUMMARY

Login Number: JC87833
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XB051219M1.CSV Date Analyzed: 05/12/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA46701
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Istd#9	Istd#10	Istd#11	Istd#12	Istd#13	Istd#14	Istd#15	Istd#16
10:44	ZZZZZZ	80.343	83.067	81.837	78.679	84.476	79.415	80.159	83.727
10:49	ZZZZZZ	80.421	83.542	81.971	78.236	83.484	79.17	80.001	83.027
10:53	ZZZZZZ	80.825	83.808	82.808	77.881	83.23	79.647	80.474	83.326

! = Outside limits.

LEGEND:

Istd#	Parameter	Limits
Istd#9	Rhodium (103-2)	60-125 %
Istd#10	Rhodium (103-3)	60-125 %
Istd#11	Indium (115-1)	60-125 %
Istd#12	Indium (115-2)	60-125 %
Istd#13	Terbium (159-1)	60-125 %
Istd#14	Terbium (159-2)	60-125 %
Istd#15	Terbium (159-3)	60-125 %
Istd#16	Holmium (165-1)	60-125 %

INTERNAL STANDARD SUMMARY

Login Number: JC87833
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XB051219M1.CSV Date Analyzed: 05/12/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA46701
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Istd#17	Istd#18	Istd#19
21:27	MA46701-STD1	100	100	100
21:32	MA46701-STD2	100	100	100
21:38	MA46701-STD3	100	100	100
21:42	MA46701-STD4	100	100	100
21:47	MA46701-STD5	99.05	99.904	100.684
21:52	MA46701-STD6	99.205	100.74	99.917
21:57	MA46701-STD7	98.544	100.393	100.042
22:01	MA46701-STD8	98.9049	98.684	99.451
22:06	MA46701-STD9	99.964	99.992	100.008
22:11	MA46701-STD10	98.963	97.151	99.752
22:16	MA46701-STD11	99.936	96.992	100.134
22:21	MA46701-STD12	101.456	96.49	99.345
22:25	MA46701-STD13	100.677	92.514	97.149
22:30	ZZZZZZ	97.938	97.128	98.508
22:35	ZZZZZZ	98.426	96.788	98.894
22:40	MA46701-STD14	99.609	98.335	99.5
22:44	MA46701-STD15	99.205	97.622	99.001
22:49	MA46701-ICVA1	99.597	96.311	97.413
22:54	MA46701-ICV1	98.026	95.858	98.333
22:59	MA46701-ICB1	97.71	97.298	98.093
23:03	MA46701-CCVA1	101.268	96.181	98.772
23:08	MA46701-CCB1	97.045	96.022	97.47
23:13	MA46701-CRI1	98.298	96.512	98.162
23:18	MA46701-ICSA1	95.781	83.478	87.055
23:22	MA46701-ICSAB1	96.714	86.996	87.951
23:27	ZZZZZZ	99.705	103.569	100.535
23:32	ZZZZZZ	99.596	103.194	100.117
23:37	MA46701-CCVA2	103.66	102.649	101.06
23:41	MA46701-CCB2	100.441	103.389	100.513
23:46	ZZZZZZ	102.871	106.457	101.048
23:51	ZZZZZZ	106.384	108.155	102.514
23:56	MP14909-MB3	104.748	107.726	101.849
00:00	MP14909-B4	106.873	108.96	102.428

INTERNAL STANDARD SUMMARY

Login Number: JC87833
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XB051219M1.CSV Date Analyzed: 05/12/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA46701
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Istd#17	Istd#18	Istd#19
00:05	ZZZZZZ	105.957	102.96	102.478
00:10	ZZZZZZ	88.445	72.212	72.746
00:15	JC87833-1	102.578	103.366	98.357
00:19	ZZZZZZ	101.007	108.126	100.78
00:24	ZZZZZZ	100.87	106.713	100.545
00:29	MA46701-CCVA3	105.612	105.453	101.857
00:34	MA46701-CCB3	100.101	107.275	100.058
00:38	MP14947-MB1	100.871	103.763	100.641
00:43	MP14947-B1	103.095	106.632	102.778
00:48	MP14947-S1	106.17	101.755	100.871
00:53	MP14947-S2	105.311	102.32	100.853
00:57	JC87777-1	103.526	97.733	98.531
01:02	MP14947-S3	103.893	98.681	99.109
01:07	JC87777-2	102.489	96.505	97.91
01:12	ZZZZZZ	101.888	95.728	97.714
01:17	ZZZZZZ	102.746	95.514	98.228
01:21	ZZZZZZ	92.909	94.998	88.133
01:26	MA46701-CCVA4	101.247	99.4	99.148
01:31	MA46701-CCB4	98.078	99.706	97.841
01:36	ZZZZZZ	102.784	93.893	97.65
01:40	ZZZZZZ	101.582	93.793	97.21
01:45	ZZZZZZ	99.684	93.864	95.371
01:50	ZZZZZZ	101.811	92.621	97.168
01:55	ZZZZZZ	100.171	91.682	96.41
01:59	ZZZZZZ	102.106	92.834	98.43
02:04	ZZZZZZ	98.321	91.531	94.063
02:09	ZZZZZZ	97.748	90.924	93.106
02:14	ZZZZZZ	97.644	91.087	92.775
02:19	ZZZZZZ	98.46	90.609	93.982
02:23	MA46701-CCVA5	98.904	95.037	95.71
02:28	MA46701-CCB5	94.922	95.398	95.127
02:33	ZZZZZZ	97.788	90.922	93.225
02:38	ZZZZZZ	97.631	89.806	92.7

INTERNAL STANDARD SUMMARY

Login Number: JC87833
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XB051219M1.CSV Date Analyzed: 05/12/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA46701
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Istd#17	Istd#18	Istd#19
02:42	ZZZZZZ	97.484	89.036	92.207
02:47	ZZZZZZ	97.306	89.059	93.543
02:52	ZZZZZZ	97.259	87.781	92.327
02:57	MP14948-MB1	93.362	93.817	93.037
03:01	MP14948-B1	94.855	97.808	93.842
03:06	MP14948-S1	95.991	90.009	91.702
03:11	MP14948-S2	94.723	89.805	91.217
03:16	JC87777-21	92.967	87.748	89.552
03:20	MA46701-CCVA6	88.719	90.867	86.203
03:25	MA46701-CCB6	90.257	91.356	90.439
03:30	MP14948-S3	94.114	89.936	90.028
03:35	JC87777-22	92.995	86.117	88.058
03:39	ZZZZZZ	93.814	85.672	88.873
03:44	ZZZZZZ	92.732	85.511	89.469
03:49	ZZZZZZ	95.476	86.545	91.362
03:54	ZZZZZZ	93.895	86.577	89.356
03:58	ZZZZZZ	93.948	86.219	89.615
04:03	ZZZZZZ	93.574	85.835	89.448
04:08	ZZZZZZ	93.758	85.818	88.47
04:13	ZZZZZZ	93.57	84.762	88.913
04:17	MA46701-CCVA7	93.295	89.704	91.092
04:22	MA46701-CCB7	89.746	89.739	89.224
04:27	ZZZZZZ	93.871	84.581	88.672
04:32	ZZZZZZ	85.367	84.424	80.974
04:36	ZZZZZZ	93.071	84.98	88.724
04:41	ZZZZZZ	92.793	83.962	87.545
04:46	ZZZZZZ	91.324	84.336	87.217
04:51	ZZZZZZ	91.794	84.706	87.031
04:56	ZZZZZZ	91.031	83.87	87.13
05:00	ZZZZZZ	90.284	83.988	85.654
05:05	ZZZZZZ	91.82	84.076	87.333
05:10	ZZZZZZ	89.406	83.374	85.414
05:15	MA46701-CCVA8	91.266	86.539	88.202

INTERNAL STANDARD SUMMARY

Login Number: JC87833
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XB051219M1.CSV Date Analyzed: 05/12/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA46701
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Istd#17	Istd#18	Istd#19
05:19	MA46701-CCB8	87.583	87.696	87.034
05:24	MP14949-MB1	87.996	88.127	87.693
05:29	MP14949-B1	89.409	90.601	88.669
05:34	MP14949-S1	91.135	86.542	86.334
05:38	MP14949-S2	91.074	85.253	86.389
05:43	JC87777-41	89.419	81.418	84.956
05:48	MP14949-S3	No results reported for the elements associated with this internal standard.		
05:53	JC87777-42	92.178	81.867	87.707
05:57	ZZZZZZ	88.545	81.343	84.546
06:02	ZZZZZZ	89.508	81.237	84.64
06:07	ZZZZZZ	88.149	81.197	83.431
06:12	MA46701-CCVA9	89.393	84.995	86.139
06:16	MA46701-CCB9	86.279	85.336	85.302
06:21	ZZZZZZ	90.824	80.107	85.223
06:26	ZZZZZZ	88.718	80.716	83.405
06:31	ZZZZZZ	89.27	81.005	84.436
06:36	ZZZZZZ	90.263	79.859	84.865
06:40	ZZZZZZ	89.893	79.871	84.299
06:45	ZZZZZZ	87.804	79.569	82.703
06:50	ZZZZZZ	87.137	79.443	82.182
06:55	ZZZZZZ	87.462	78.731	82.594
06:59	ZZZZZZ	87.59	82.121	83.036
07:04	ZZZZZZ	87.992	77.996	82.725
07:09	MA46701-CCVA10	86.579	81.389	83.604
07:24	MA46701-CCB10	84.007	80.527	82.213
07:28	ZZZZZZ	87.613	79.705	82.33
07:33	ZZZZZZ	86.543	78.44	81.813
07:38	ZZZZZZ	87.746	78.699	82.613
07:43	ZZZZZZ	86.21	78.241	81.311
07:47	ZZZZZZ	85.809	78.471	81.096
07:52	MP14950-MB1	83.672	81.934	81.378
07:57	MP14950-B1	86.675	84.074	83.699
08:02	MP14950-S1	86.981	79.963	80.947

INTERNAL STANDARD SUMMARY

Login Number: JC87833
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XB051219M1.CSV Date Analyzed: 05/12/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA46701
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Istd#17	Istd#18	Istd#19
08:07	MP14950-S2	No results reported for the elements associated with this internal standard.		
08:11	JC87777-61	84.739	76.706	79.728
08:16	MA46701-CCVA11	85.558	80.75	81.79
08:21	MA46701-CCB11	81.558	81.058	80.436
08:26	MP14950-S3	87.136	77.425	81.175
08:30	JC87777-62	86.107	75.284	79.764
08:35	ZZZZZZ	84.589	76.06	79.613
08:40	ZZZZZZ	84.018	76.331	78.31
08:45	ZZZZZZ	85.448	76.162	80.306
08:50	ZZZZZZ	84.115	75.38	78.902
08:54	ZZZZZZ	84.729	74.862	79.256
08:59	ZZZZZZ	83.503	75.621	78.345
09:04	ZZZZZZ	82.929	75.445	78.496
09:09	ZZZZZZ	83.463	76.253	78.466
09:13	MA46701-CCVA12	84.173	78.703	79.902
09:18	MA46701-CCB12	80.226	78.28	78.447
09:23	ZZZZZZ	82.792	74.699	77.621
09:28	ZZZZZZ	81.835	74.888	77.342
09:32	ZZZZZZ	82.805	74.135	77.511
09:37	ZZZZZZ	81.966	74.559	76.579
09:42	ZZZZZZ	81.481	73.938	76.382
09:47	ZZZZZZ	83.031	73.927	78.155
09:51	ZZZZZZ	81.753	76.855	79.236
09:56	ZZZZZZ	82.925	76.935	79.991
10:01	ZZZZZZ	81.964	76.139	78.574
10:06	ZZZZZZ	80.962	75.882	77.995
10:10	MA46701-CCVA13	81.973	76.523	77.78
10:15	MA46701-CCB13	78.035	77.222	76.316
10:20	ZZZZZZ	75.259	66.43 !a	65.709 !a
10:25	ZZZZZZ	77.719	78.368	76.071
10:29	ZZZZZZ	77.608	78.566	76.185
10:34	MA46701-CCVA14	81.996	77.167	77.449
10:39	MA46701-CCB14	78.556	79.439	76.468

INTERNAL STANDARD SUMMARY

Login Number: JC87833
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XB051219M1.CSV Date Analyzed: 05/12/19 Methods: EPA 200.8, SW846 6020B
Analyst: SN Run ID: MA46701
Parameters: Al,As,Ba,Cd,Fe,Pb

Time	Sample Description	Istd#17	Istd#18	Istd#19
10:44	ZZZZZZ	78.322	78.813	76.512
10:49	ZZZZZZ	77.965	77.539	75.799
10:53	ZZZZZZ	78.62	79.074	76.631

! = Outside limits.

LEGEND:

Istd#	Parameter	Limits
Istd#17	Holmium (165-2)	60-125 %
Istd#18	Bismuth (209-1)	60-125 %
Istd#19	Bismuth (209-2)	60-125 %

(a) No samples reported for the elements associated with this internal standard.

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC87833
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XB051219M1.CSV Date Analyzed: 05/12/19 Methods: EPA 200.8, SW846 6020B
QC Limits: result < RL Run ID: MA46701 Units: ug/l

Time: / Sample ID:			22:59 ICB1		23:08 CCB1		23:41 CCB2		00:34 CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	25	.27	0.102	<25	0.336	<25	0.958	<25	0.429	<25
Antimony	2.0	.061								
Arsenic	0.50	.008	0.00242	<0.50	0.0156	<0.50	0.00725	<0.50	0.0113	<0.50
Barium	1.0	.01	-0.00436	<1.0	0.000958	<1.0	0.000100	<1.0	-0.00643	<1.0
Beryllium	0.30	.005								
Boron	25	.67								
Cadmium	0.50	.002	0.0000948	<0.50	-0.000880	<0.50	0.00615	<0.50	0.00546	<0.50
Calcium	250	1.8								
Chromium	1.0	.018								
Cobalt	0.50	.002								
Copper	2.0	.006	anr							
Iron	25	.16	0.318	<25	0.628	<25	1.27	<25	0.650	<25
Lead	0.50	.004	-0.00919	<0.50	-0.0103	<0.50	-0.0119	<0.50	-0.00972	<0.50
Magnesium	250	.14								
Manganese	1.0	.005								
Molybdenum	1.0	.01								
Nickel	1.0	.008	anr							
Potassium	250	1								
Selenium	0.50	.4								
Silver	0.50	.002								
Sodium	250	.28								
Strontium	1.0	.003								
Thallium	0.50	.002								
Tin	5.0	.02								
Titanium	1.0	.02								
Vanadium	1.0	.023								
Zinc	5.0	.023	anr							

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC87833
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XB051219M1.CSV Date Analyzed: 05/12/19 Methods: EPA 200.8, SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA46701 Units: ug/l

Time:		22:49			22:54			23:03	
Sample ID:	ICVA	ICVA1		ICV	ICV1		CCVA	CCVA1	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	5500	5640	102.5	60	64.8	108.0	5000	5070	101.4
Antimony									
Arsenic	60	61.8	103.0				50	51.1	102.2
Barium	60	63.7	106.2				50	49.5	99.0
Beryllium									
Boron									
Cadmium	60	62.3	103.8				50	48.8	97.6
Calcium									
Chromium									
Cobalt									
Copper	anr								
Iron	5500	5600	101.8				5000	5170	103.4
Lead	60	64.2	107.0				50	50.3	100.6
Magnesium									
Manganese									
Molybdenum									
Nickel	anr								
Potassium									
Selenium									
Silver									
Sodium									
Strontium									
Thallium									
Tin									
Titanium									
Vanadium									
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC87833
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XB051219M1.CSV Date Analyzed: 05/12/19 Methods: EPA 200.8, SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA46701 Units: ug/l

Time:		23:37			00:29	
Sample ID:	CCVA	CCVA2		CCVA	CCVA3	
Metal	True	Results	% Rec	True	Results	% Rec
Aluminum	5000	4860	97.2	5000	4920	98.4
Antimony						
Arsenic	50	52.2	104.4	50	51.4	102.8
Barium	50	49.0	98.0	50	48.9	97.8
Beryllium						
Boron						
Cadmium	50	49.1	98.2	50	49.9	99.8
Calcium						
Chromium						
Cobalt						
Copper	anr					
Iron	5000	5220	104.4	5000	5270	105.4
Lead	50	50.8	101.6	50	50.8	101.6
Magnesium						
Manganese						
Molybdenum						
Nickel	anr					
Potassium						
Selenium						
Silver						
Sodium						
Strontium						
Thallium						
Tin						
Titanium						
Vanadium						
Zinc	anr					

(*) Outside of QC limits
(anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC87833
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XB051219M1.CSV Date Analyzed: 05/12/19 Methods: EPA 200.8, SW846 6020B
QC Limits: 80 to 120 % Recovery Run ID: MA46701 Units: ug/l

Time:			23:13	
Sample ID:	CRI	CRIA	CRI1	
Metal	True	True	Results	% Rec
Aluminum	25	25	26.3	105.2
Antimony	2.0	0.25		
Arsenic	0.50	0.50	0.527	105.4
Barium	1.0	0.50	1.07	107.0
Beryllium	0.50	0.25		
Boron	25	2.5		
Cadmium	0.50	0.25	0.553	110.6
Calcium	250	125		
Chromium	1.0	2.0		
Cobalt	0.50	0.25		
Copper	2.0	2.0	anr	
Iron	25	25	26.9	107.6
Lead	0.50	0.25	0.524	104.8
Magnesium	250	125		
Manganese	1.0	0.25		
Molybdenum	1.0	0.50		
Nickel	1.0	2.0	anr	
Potassium	250	125		
Selenium	0.50	0.50		
Silver	0.50	1.0		
Sodium	250	125		
Strontium	5.0	0.50		
Thallium	0.50	0.25		
Tin	5.0	0.50		
Titanium	1.0	0.50		
Vanadium	1.0	2.0		
Zinc	5.0	2.0	anr	

(*) Outside of QC limits
(anr) Analyte not requested

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: JC87833
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

File ID: XB051219M1.CSV Date Analyzed: 05/12/19 Methods: EPA 200.8, SW846 6020B
QC Limits: 80 to 120 % Recovery Run ID: MA46701 Units: ug/l

Time:			23:18		23:22	
Sample ID:	ICSA	ICSAB	ICSA1		ICSAB1	
Metal	True	True	Results	% Rec	Results	% Rec
Aluminum	100000	100000	100000	100.0	96700	96.7
Antimony			0.266		0.266	
Arsenic		20	0.0893		19.1	95.5
Barium			0.257		0.274	
Beryllium			0.00170		0.00470	
Boron		50	1.97		51.6	103.2
Cadmium		20	0.345		19.4	97.0
Calcium	100000	100000	106000	106.0	104000	104.0
Chromium		20	0.259		20.4	102.0
Cobalt		20	0.344		19.7	98.5
Copper		20	0.191		18.5	92.5
Iron	100000	100000	97300	97.3	94200	94.2
Lead			0.0618		0.0718	
Magnesium	100000	100000	98100	98.1	95100	95.1
Manganese		20	0.308		20.1	100.5
Molybdenum	2000	2000	2350	117.5	2260	113.0
Nickel		20	0.752		19.4	97.0
Potassium	100000	100000	104000	104.0	101000	101.0
Selenium		20	0.0888		21.0	105.0
Silver		20	0.0152		19.7	98.5
Sodium	100000	100000	99300	99.3	97300	97.3
Strontium	2000	2000	2400	120.0	2140	107.0
Thallium			-0.00671		-0.00801	
Tin	2000	2000	1990	99.5	1970	98.5
Titanium	2000	2000	1940	97.0	1880	94.0
Vanadium		20	0.00815		21.3	106.5
Zinc		20	0.671		16.9	84.5

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: JC87833
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

QC Batch ID: MP14909
Matrix Type: AQUEOUS

Methods: SW846 6020B
Units: ug/l

Prep Date: 05/10/19

Metal	RL	IDL	MDL	MB raw	final
Aluminum	50	.54	32	2.3	<50
Antimony	4.0	.12	1.7		
Arsenic	1.0	.016	.94	0.10	<1.0
Barium	2.0	.02	.73	0.057	<2.0
Beryllium	1.0	.01	.15		
Boron	50	1.3	14		
Cadmium	1.0	.004	.17	-0.0064	<1.0
Calcium	500	3.7	64		
Chromium	2.0	.036	.62		
Cobalt	1.0	.004	.17		
Copper	4.0	.012	1.9		
Iron	50	.31	19	3.6	<50
Lead	1.0	.008	.52	0.10	<1.0
Magnesium	500	.27	46		
Manganese	2.0	.01	.63		
Molybdenum	2.0	.02	.45		
Nickel	2.0	.016	.95		
Potassium	500	2	68		
Selenium	1.0	.8	.55		
Silver	1.0	.004	.16		
Sodium	500	.56	140		
Strontium	10	.006	2.4		
Thallium	1.0	.004	.17		
Tin	10	.07	2.6		
Titanium	2.0	.04	1.6		
Vanadium	2.0	.046	1.8		
Zinc	10	.046	5.4		

Associated samples MP14909: JC87833-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC87833
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

QC Batch ID: MP14909
Matrix Type: AQUEOUS

Methods: SW846 6020B
Units: ug/l

Prep Date: 05/09/19

Metal	JC87783-12 Original	MS	Spikelot MP6020AQ3%	Rec	QC Limits
Aluminum	20.5	4010	4000	99.7	75-125
Antimony	anr				
Arsenic	56.1	123	80	83.6	75-125
Barium	98.9	178	80	98.9	75-125
Beryllium	anr				
Boron					
Cadmium	0.0	77.3	80	96.6	75-125
Calcium					
Chromium	anr				
Cobalt					
Copper	anr				
Iron	1540	5750	4000	105.3	75-125
Lead	0.22	85.0	80	106.0	75-125
Magnesium					
Manganese					
Molybdenum					
Nickel	anr				
Potassium					
Selenium	anr				
Silver	anr				
Sodium					
Strontium					
Thallium	anr				
Tin					
Titanium					
Vanadium	anr				
Zinc	anr				

Associated samples MP14909: JC87833-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC87833
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

QC Batch ID: MP14909
Matrix Type: AQUEOUS

Methods: SW846 6020B
Units: ug/l

Prep Date: 05/09/19

Metal	JC87783-12 Original	MSD	Spikelot MP6020AQ3%	Rec	MSD RPD	QC Limit
Aluminum	20.5	4020	4000	100.0	0.2	20
Antimony	anr					
Arsenic	56.1	122	80	82.4	0.8	20
Barium	98.9	179	80	100.1	0.6	20
Beryllium	anr					
Boron						
Cadmium	0.0	77.6	80	97.0	0.4	20
Calcium						
Chromium	anr					
Cobalt						
Copper	anr					
Iron	1540	5830	4000	107.3	1.4	20
Lead	0.22	83.8	80	104.5	1.4	20
Magnesium						
Manganese						
Molybdenum						
Nickel	anr					
Potassium						
Selenium	anr					
Silver	anr					
Sodium						
Strontium						
Thallium	anr					
Tin						
Titanium						
Vanadium	anr					
Zinc	anr					

Associated samples MP14909: JC87833-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: JC87833
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

QC Batch ID: MP14909
Matrix Type: AQUEOUS

Methods: SW846 6020B
Units: ug/l

Prep Date: 05/10/19

Metal	BSP Result	Spikelot MP6020AQ3%	Rec	QC Limits
Aluminum	3950	4000	98.8	80-120
Antimony				
Arsenic	73.1	80	91.4	80-120
Barium	85.4	80	106.8	80-120
Beryllium				
Boron				
Cadmium	82.4	80	103.0	80-120
Calcium				
Chromium				
Cobalt				
Copper	anr			
Iron	4270	4000	106.8	80-120
Lead	86.0	80	107.5	80-120
Magnesium				
Manganese				
Molybdenum				
Nickel	anr			
Potassium				
Selenium				
Silver				
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Vanadium				
Zinc	anr			

Associated samples MP14909: JC87833-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: JC87833
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

QC Batch ID: MP14909 Methods: SW846 6020B
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 05/09/19

Metal	JC87783-12 Original	SDL 2:10	%DIF	QC Limits
Aluminum	20.5	18.2	11.5 (a)	0-10
Antimony	anr			
Arsenic	56.1	61.9	10.4*(b)	0-10
Barium	98.9	103	4.3	0-10
Beryllium	anr			
Boron				
Cadmium	0.00	0.169	NC	0-10
Calcium				
Chromium	anr			
Cobalt				
Copper	anr			
Iron	1540	1570	2.4	0-10
Lead	0.223	0.270	20.9 (a)	0-10
Magnesium				
Manganese				
Molybdenum				
Nickel	anr			
Potassium				
Selenium	anr			
Silver	anr			
Sodium				
Strontium				
Thallium	anr			
Tin				
Titanium				
Vanadium	anr			
Zinc	anr			

Associated samples MP14909: JC87833-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested
(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).
(b) Serial dilution indicates possible matrix interference.

Instrument Detection Limits

Job Number: JC87833
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Instrument ID: AGICPMS2 **Effective Date:** 01/31/19

Analyte	IDL ug/l
Aluminum	.371
Aluminum	.272
Antimony	.061
Arsenic	.253
Arsenic	.008
Barium	.01
Beryllium	.005
Boron	.671
Cadmium	.005
Cadmium	.002
Calcium	1.84
Chromium	.147
Chromium	.018
Cobalt	.003
Cobalt	.002
Copper	.018
Copper	.006
Iron	3.211
Iron	.155
Lead	.004
Magnesium	.163
Magnesium	.136
Manganese	.012
Manganese	.005
Molybdenum	.01
Nickel	.012
Nickel	.008
Potassium	3.978
Potassium	1.01
Selenium	.84
Selenium	.4
Silver	.002
Sodium	.503
Sodium	.278
Strontium	.003
Thallium	.002
Tin	.02
Tin	.035
Titanium	.197
Titanium	.02
Vanadium	.113
Vanadium	.023
Zinc	.886
Zinc	.023

Instrument Detection Limits

Job Number: JC87833
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Instrument ID: AGICPMS2 **Effective Date:** 01/31/19

Analyte	IDL ug/l

The above applies to the following instrument runs:
MA46696,MA46701

Instrument Linear Ranges

Job Number: JC87833
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Instrument ID: AGICPMS2 **Effective Date:** 09/10/18

Analyte	Linear Range ug/l
Aluminum	10000
Aluminum	10000
Antimony	100
Arsenic	100
Arsenic	100
Barium	100
Beryllium	100
Boron	200
Cadmium	100
Cadmium	100
Calcium	10000
Chromium	100
Chromium	100
Cobalt	100
Cobalt	100
Copper	100
Copper	100
Iron	10000
Iron	10000
Lithium	100
Lead	100
Magnesium	10000
Magnesium	10000
Manganese	100
Manganese	100
Molybdenum	100
Nickel	100
Nickel	100
Potassium	10000
Potassium	10000
Selenium	400
Selenium	400
Silver	100
Sodium	10000
Sodium	10000
Strontium	100
Thallium	100
Tin	100
Tin	100
Titanium	100
Titanium	100
Tungsten	100
Uranium	100
Vanadium	100
Vanadium	100
Zinc	100

Instrument Linear Ranges

Job Number: JC87833
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Instrument ID: AGICPMS2 **Effective Date:** 09/10/18

Analyte	Linear Range ug/l
Zinc	100

The above applies to the following instrument runs:
MA46696,MA46701

Metals Analysis

Raw Data

Quantitation Report

File Name	001CALB.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051019m2.b
Method File	
Method Path	
Acq Time	5/10/2019 13:15
Sample Name	STDA 4
Sample Type	CalBlk
Comment	0
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.006	ug/l	26.33	58.67	2.947E-05	Pulse	0.25	3
B			1	-1.106	ug/l	-6.21	6,775.11	3.411E-03	Pulse	0.15	3
Ca			1	-1.969	ug/l	-18.59	27,872.12	8.929E-03	Pulse	0.10	3
Sr			1	0.006	ug/l	33.21	790.06	2.546E-04	Pulse	0.10	3
Mo			1	0.092	ug/l	3.17	216.68	6.955E-05	Pulse	0.10	3
Ag			1	0.000	ug/l	515.81	26.67	8.589E-06	Pulse	0.10	3
Sn			1	0.016	ug/l	64.48	1,586.96	5.090E-04	Pulse	0.10	3
Sb			1	-0.081	ug/l	-6.02	453.36	1.245E-04	Pulse	0.10	3
Ba			1	0.002	ug/l	129.58	53.33	1.472E-05	Pulse	0.10	3
Tl			1	0.006	ug/l	56.87	373.35	1.953E-04	Pulse	0.10	3
Pb			1	0.014	ug/l	35.33	246.68	1.303E-04	Pulse	0.10	3
Pb			1	0.018	ug/l	40.45	210.01	1.103E-04	Pulse	0.10	3
Pb			1	0.014	ug/l	5.36	893.38	4.705E-04	Pulse	0.10	3
Na			2	0.924	ug/l	247.48	7,480.96	7.043E-02	Pulse	0.30	3
Mg			2	-0.598	ug/l	-15.81	206.67	1.904E-03	Pulse	0.30	3
Al			2	2.144	ug/l	50.01	452.23	4.290E-03	Pulse	0.30	3
K			2	3.945	ug/l	228.35	9,180.89	8.638E-02	Pulse	0.30	3
Ca			2	1.333	ug/l	298.66	212.23	2.000E-03	Pulse	0.30	3
Ti			2	0.012	ug/l	173.21	1.11	1.426E-05	Pulse	0.30	3
V			2	0.032	ug/l	136.96	450.01	4.295E-03	Pulse	0.30	3
Cr			2	0.050	ug/l	81.02	521.13	4.970E-03	Pulse	0.30	3
Mn			2	0.031	ug/l	90.66	132.23	1.289E-03	Pulse	0.30	3
Fe			2	0.031	ug/l	1282.02	6,066.96	5.677E-02	Pulse	0.30	3
Co			2	0.009	ug/l	81.18	117.78	1.140E-03	Pulse	0.30	3
Ni			2	0.057	ug/l	22.92	151.11	1.392E-03	Pulse	0.30	3
Cu			2	0.088	ug/l	43.89	965.60	8.955E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	-0.455	ug/l	-19.42	237.78	2.227E-03	Pulse	0.30	3
As			2	0.014	ug/l	93.04	10.00	9.837E-05	Pulse	1.00	3
Cd			2	0.022	ug/l	24.56	52.65	1.105E-04	Pulse	0.30	3
Sn			2	-0.469	ug/l	-9.16	344.45	7.495E-04	Pulse	0.30	3
Se			3	-0.033	ug/l	-99.55	4.00	3.097E-05	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,987,538.71	2.39	100.0	Pulse	0.10	3
1	Sc		3,122,236.31	3.44	100.0	Pulse	0.10	3
1	Ge		712,568.48	4.15	100.0	Pulse	0.10	3
1	Rh		3,110,657.25	3.82	100.0	Pulse	0.10	3
1	In		3,124,930.89	5.04	100.0	Pulse	0.10	3
1	Tb		3,637,838.38	3.40	100.0	Pulse	0.10	3
1	Ho		344,939.16	3.80	100.0	Pulse	0.10	3
1	Bi		1,899,824.71	4.84	100.0	Pulse	0.10	3
2	Sc		111,964.35	26.79	100.0	Pulse	0.30	3
2	Ge		86,629.01	22.53	100.0	Pulse	0.30	3
2	Rh		1,355,367.45	27.14	100.0	Pulse	0.30	3
2	In		480,554.42	26.48	100.0	Pulse	0.30	3
2	Tb		1,452,443.83	26.96	100.0	Pulse	0.30	3
2	Ho		137,099.44	26.77	100.0	Pulse	0.30	3
2	Bi		866,279.76	24.52	100.0	Pulse	0.30	3
3	Sc		160,004.82	1.84	100.0	Pulse	0.30	3
3	Ge		127,823.15	2.43	100.0	Pulse	0.30	3
3	Rh		1,108,970.06	1.66	100.0	Pulse	0.30	3
3	Tb		1,446,341.09	1.70	100.0	Pulse	0.30	3

Quantitation Report

File Name	002CALB.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051019m2.b
Method File	
Method Path	
Acq Time	5/10/2019 13:20
Sample Name	STDA 4
Sample Type	CalBlk
Comment	0
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	-0.001	ug/l	-113.53	14.67	7.274E-06	Pulse	0.25	3
B			1	-1.029	ug/l	-4.62	7,297.64	3.632E-03	Pulse	0.15	3
Ca			1	-2.972	ug/l	-34.71	27,531.66	8.621E-03	Pulse	0.10	3
Sr			1	-0.003	ug/l	-40.80	463.36	1.460E-04	Pulse	0.10	3
Mo			1	0.081	ug/l	6.73	133.34	4.214E-05	Pulse	0.10	3
Ag			1	-0.001	ug/l	-56.22	6.67	2.004E-06	Pulse	0.10	3
Sn			1	-0.005	ug/l	-224.90	1,400.15	4.345E-04	Pulse	0.10	3
Sb			1	-0.086	ug/l	-0.87	403.35	1.080E-04	Pulse	0.10	3
Ba			1	0.000	ug/l	-797.42	43.33	1.155E-05	Pulse	0.10	3
Tl			1	0.000	ug/l	1526.67	250.01	1.280E-04	Pulse	0.10	3
Pb			1	0.000	ug/l	-2353.79	140.01	7.120E-05	Pulse	0.10	3
Pb			1	0.003	ug/l	116.86	113.34	5.818E-05	Pulse	0.10	3
Pb			1	0.001	ug/l	256.51	526.70	2.699E-04	Pulse	0.10	3
Na			2	-0.573	ug/l	-39.67	7,200.81	5.713E-02	Pulse	0.30	3
Mg			2	-0.887	ug/l	-3.44	93.33	7.407E-04	Pulse	0.30	3
Al			2	-0.931	ug/l	-3.36	31.11	2.469E-04	Pulse	0.30	3
K			2	-1.340	ug/l	-19.25	9,058.58	7.187E-02	Pulse	0.30	3
Ca			2	-1.699	ug/l	-43.87	195.56	1.552E-03	Pulse	0.30	3
Ti			2	0.015	ug/l	86.60	2.22	1.759E-05	Pulse	0.30	3
V			2	0.004	ug/l	89.04	416.68	3.306E-03	Pulse	0.30	3
Cr			2	-0.006	ug/l	-45.21	320.01	2.539E-03	Pulse	0.30	3
Mn			2	0.002	ug/l	394.16	80.00	6.350E-04	Pulse	0.30	3
Fe			2	-0.971	ug/l	-1.41	2,528.04	2.006E-02	Pulse	0.30	3
Co			2	0.000	ug/l	741.46	70.00	5.553E-04	Pulse	0.30	3
Ni			2	-0.009	ug/l	-75.80	22.22	1.762E-04	Pulse	0.30	3
Cu			2	0.005	ug/l	86.33	625.58	4.964E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	0.016	ug/l	479.61	681.14	5.405E-03	Pulse	0.30	3
As			2	0.005	ug/l	154.19	8.00	6.351E-05	Pulse	1.00	3
Cd			2	0.002	ug/l	328.63	16.80	3.152E-05	Pulse	0.30	3
Sn			2	-0.509	ug/l	-2.32	306.67	5.752E-04	Pulse	0.30	3
Se			3	-0.020	ug/l	-150.84	5.33	4.137E-05	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,010,263.44	2.02	100.0	Pulse	0.10	3
1	Sc		3,193,944.01	1.51	100.0	Pulse	0.10	3
1	Ge		734,683.01	2.92	100.0	Pulse	0.10	3
1	Rh		3,181,009.02	3.45	100.0	Pulse	0.10	3
1	In		3,220,249.51	3.18	100.0	Pulse	0.10	3
1	Tb		3,734,842.96	3.41	100.0	Pulse	0.10	3
1	Ho		357,937.91	3.48	100.0	Pulse	0.10	3
1	Bi		1,958,705.44	4.22	100.0	Pulse	0.10	3
2	Sc		126,040.54	0.28	100.0	Pulse	0.30	3
2	Ge		97,327.64	0.30	100.0	Pulse	0.30	3
2	Rh		1,514,009.87	0.50	100.0	Pulse	0.30	3
2	In		533,163.01	0.36	100.0	Pulse	0.30	3
2	Tb		1,611,929.55	1.03	100.0	Pulse	0.30	3
2	Ho		153,581.78	0.53	100.0	Pulse	0.30	3
2	Bi		966,144.34	0.51	100.0	Pulse	0.30	3
3	Sc		159,940.03	1.58	100.0	Pulse	0.30	3
3	Ge		129,567.98	1.38	100.0	Pulse	0.30	3
3	Rh		1,114,400.58	1.04	100.0	Pulse	0.30	3
3	Tb		1,459,535.64	1.60	100.0	Pulse	0.30	3

Quantitation Report

File Name	003CALB.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051019m2.b
Method File	
Method Path	
Acq Time	5/10/2019 13:24
Sample Name	STDA 4
Sample Type	CalBlk
Comment	0
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.012	ug/l	20.60	100.00	4.941E-05	Pulse	0.25	3
B			1	-1.021	ug/l	-2.83	7,391.02	3.655E-03	Pulse	0.15	3
Ca			1	-0.285	ug/l	-267.72	30,126.83	9.446E-03	Pulse	0.10	3
Sr			1	0.004	ug/l	50.93	746.72	2.316E-04	Pulse	0.10	3
Mo			1	0.084	ug/l	2.62	156.68	4.865E-05	Pulse	0.10	3
Ag			1	0.000	ug/l	-174.95	23.33	7.223E-06	Pulse	0.10	3
Sn			1	0.025	ug/l	84.68	1,746.85	5.414E-04	Pulse	0.10	3
Sb			1	-0.080	ug/l	-4.38	476.70	1.277E-04	Pulse	0.10	3
Ba			1	0.007	ug/l	31.27	80.00	2.144E-05	Pulse	0.10	3
Tl			1	0.007	ug/l	41.27	413.36	2.083E-04	Pulse	0.10	3
Pb			1	0.012	ug/l	67.31	240.01	1.216E-04	Pulse	0.10	3
Pb			1	0.012	ug/l	63.74	180.01	9.111E-05	Pulse	0.10	3
Pb			1	0.012	ug/l	41.81	876.71	4.423E-04	Pulse	0.10	3
Na			2	-0.548	ug/l	-63.51	7,297.53	5.736E-02	Pulse	0.30	3
Mg			2	-0.655	ug/l	-4.20	213.34	1.677E-03	Pulse	0.30	3
Al			2	1.566	ug/l	18.50	448.90	3.530E-03	Pulse	0.30	3
K			2	-0.523	ug/l	-194.94	9,434.43	7.411E-02	Pulse	0.30	3
Ca			2	-1.207	ug/l	-47.55	206.67	1.624E-03	Pulse	0.30	3
Ti			2	0.008	ug/l	173.21	1.11	8.643E-06	Pulse	0.30	3
V			2	0.014	ug/l	18.62	465.57	3.659E-03	Pulse	0.30	3
Cr			2	0.029	ug/l	23.00	516.68	4.060E-03	Pulse	0.30	3
Mn			2	0.014	ug/l	42.33	114.45	8.994E-04	Pulse	0.30	3
Fe			2	-0.188	ug/l	-11.36	6,204.81	4.876E-02	Pulse	0.30	3
Co			2	0.007	ug/l	19.06	125.56	9.870E-04	Pulse	0.30	3
Ni			2	0.029	ug/l	27.65	111.11	8.730E-04	Pulse	0.30	3
Cu			2	0.069	ug/l	23.28	1,026.72	8.071E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	-0.515	ug/l	-0.96	232.23	1.825E-03	Pulse	0.30	3
As			2	0.010	ug/l	40.88	10.33	8.110E-05	Pulse	1.00	3
Cd			2	0.010	ug/l	35.28	33.65	6.243E-05	Pulse	0.30	3
Sn			2	-0.476	ug/l	-2.19	388.90	7.217E-04	Pulse	0.30	3
Se			3	-0.007	ug/l	-166.46	6.67	5.144E-05	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,022,223.69	0.84	100.0	Pulse	0.10	3
1	Sc		3,188,503.60	1.50	100.0	Pulse	0.10	3
1	Ge		736,670.82	2.37	100.0	Pulse	0.10	3
1	Rh		3,224,817.77	2.05	100.0	Pulse	0.10	3
1	In		3,223,481.21	2.85	100.0	Pulse	0.10	3
1	Tb		3,738,530.57	3.67	100.0	Pulse	0.10	3
1	Ho		355,187.08	3.63	100.0	Pulse	0.10	3
1	Bi		1,983,983.41	3.58	100.0	Pulse	0.10	3
2	Sc		127,266.22	0.97	100.0	Pulse	0.30	3
2	Ge		97,677.78	0.75	100.0	Pulse	0.30	3
2	Rh		1,518,739.14	1.38	100.0	Pulse	0.30	3
2	In		539,025.37	0.82	100.0	Pulse	0.30	3
2	Tb		1,625,301.71	0.62	100.0	Pulse	0.30	3
2	Ho		154,572.51	1.99	100.0	Pulse	0.30	3
2	Bi		968,456.11	1.44	100.0	Pulse	0.30	3
3	Sc		163,475.19	1.67	100.0	Pulse	0.30	3
3	Ge		129,866.78	1.73	100.0	Pulse	0.30	3
3	Rh		1,126,960.34	1.43	100.0	Pulse	0.30	3
3	Tb		1,472,679.46	0.89	100.0	Pulse	0.30	3

Quantitation Report

File Name 004CALS.d
File Path C:\Agilent\ICPMH\1\DATA\.b051019m2.b
Method File
Method Path
Acq Time 5/10/2019 13:29
Sample Name STDB
Sample Type CalStd
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name Metals
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 5/13/2019 7:20
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.521	ug/l	5.92	3,535.17	1.723E-03	Pulse	0.25	3
B			1	24.744	ug/l	3.72	158,018.88	7.706E-02	Pulse	0.15	3
Ca			1	254.446	ug/l	0.57	282,167.38	8.766E-02	Pulse	0.10	3
Sr			1	5.164	ug/l	1.95	204,011.20	6.321E-02	Pulse	0.10	3
Mo			1	1.039	ug/l	4.03	7,932.62	2.457E-03	Pulse	0.10	3
Ag			1	0.462	ug/l	4.95	8,429.73	2.603E-03	Pulse	0.10	3
Sn			1	5.072	ug/l	1.71	59,300.39	1.832E-02	Pulse	0.10	3
Sb			1	2.023	ug/l	2.40	26,533.95	6.985E-03	Pulse	0.10	3
Ba			1	1.035	ug/l	2.57	4,991.14	1.314E-03	Pulse	0.10	3
Tl			1	0.508	ug/l	2.54	12,356.46	6.209E-03	Pulse	0.10	3
Pb			1	0.506	ug/l	1.41	4,290.93	2.157E-03	Pulse	0.10	3
Pb			1	0.528	ug/l	4.62	3,834.08	1.925E-03	Pulse	0.10	3
Pb			1	0.521	ug/l	2.84	17,495.58	8.789E-03	Pulse	0.10	3
Na			2	249.880	ug/l	0.34	289,961.71	2.282E+00	Pulse	0.30	3
Mg			2	253.263	ug/l	2.20	130,242.08	1.025E+00	Pulse	0.30	3
Al			2	25.571	ug/l	3.83	4,458.53	3.509E-02	Pulse	0.30	3
K			2	259.775	ug/l	0.49	100,269.64	7.891E-01	Pulse	0.30	3
Ca			2	280.879	ug/l	2.72	5,508.93	4.335E-02	Pulse	0.30	3
Ti			2	0.975	ug/l	9.67	142.22	1.119E-03	Pulse	0.30	3
V			2	1.072	ug/l	6.28	5,247.73	4.130E-02	Pulse	0.30	3
Cr			2	1.148	ug/l	2.99	6,680.58	5.257E-02	Pulse	0.30	3
Mn			2	1.038	ug/l	1.11	3,025.92	2.381E-02	Pulse	0.30	3
Fe			2	24.856	ug/l	0.38	122,807.76	9.664E-01	Pulse	0.30	3
Co			2	0.526	ug/l	2.23	4,674.18	3.678E-02	Pulse	0.30	3
Ni			2	1.075	ug/l	3.41	2,550.27	2.007E-02	Pulse	0.30	3
Cu			2	2.076	ug/l	1.49	13,345.48	1.050E-01	Pulse	0.30	3
Zn			2	4.793	ug/l	4.33	4,785.35	3.766E-02	Pulse	0.30	3
As			2	0.493	ug/l	7.63	252.33	1.986E-03	Pulse	1.00	3
Cd			2	0.505	ug/l	6.37	1,086.32	2.013E-03	Pulse	0.30	3
Sn			2	4.779	ug/l	2.14	12,853.02	2.381E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	0.639	ug/l	35.41	73.33	5.672E-04	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,050,840.80	2.28	101.4	Pulse	0.10	3
1	Sc		3,219,066.20	2.93	101.0	Pulse	0.10	3
1	Ge		746,634.18	2.74	101.4	Pulse	0.10	3
1	Rh		3,228,698.60	3.09	100.1	Pulse	0.10	3
1	In		3,237,311.48	2.48	100.4	Pulse	0.10	3
1	Tb		3,797,111.51	3.27	101.6	Pulse	0.10	3
1	Ho		358,458.47	3.06	100.9	Pulse	0.10	3
1	Bi		1,989,685.65	3.90	100.3	Pulse	0.10	3
2	Sc		127,073.24	0.29	99.8	Pulse	0.30	3
2	Ge		98,148.84	0.91	100.5	Pulse	0.30	3
2	Rh		1,528,501.15	0.69	100.6	Pulse	0.30	3
2	In		539,771.19	0.53	100.1	Pulse	0.30	3
2	Tb		1,620,088.86	0.58	99.7	Pulse	0.30	3
2	Ho		155,412.00	1.05	100.5	Pulse	0.30	3
2	Bi		970,447.15	0.43	100.2	Pulse	0.30	3
3	Sc		162,437.57	0.22	99.4	Pulse	0.30	3
3	Ge		129,581.40	1.29	99.8	Pulse	0.30	3
3	Rh		1,128,412.21	1.01	100.1	Pulse	0.30	3
3	Tb		1,468,675.01	1.30	99.7	Pulse	0.30	3

Quantitation Report

File Name	005CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051019m2.b
Method File	
Method Path	
Acq Time	5/10/2019 13:34
Sample Name	STDC
Sample Type	CalStd
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	4.932	ug/l	3.12	33,372.63	1.622E-02	Pulse	0.25	3
B			1	4.006	ug/l	2.10	36,979.95	1.798E-02	Pulse	0.15	3
Ca			1	14.867	ug/l	3.28	45,448.42	1.410E-02	Pulse	0.10	3
Sr			1	4.998	ug/l	1.20	195,911.37	6.118E-02	Pulse	0.10	3
Mo			1	4.934	ug/l	2.00	39,325.22	1.228E-02	Pulse	0.10	3
Ag			1	4.811	ug/l	2.60	86,785.26	2.701E-02	Pulse	0.10	3
Sn			1	5.290	ug/l	1.65	61,329.38	1.909E-02	Pulse	0.10	3
Sb			1	4.957	ug/l	0.72	61,600.62	1.655E-02	Pulse	0.10	3
Ba			1	4.910	ug/l	1.15	23,034.40	6.189E-03	Pulse	0.10	3
Tl			1	4.957	ug/l	0.65	115,431.13	5.947E-02	Pulse	0.10	3
Pb			1	5.012	ug/l	1.29	40,211.80	2.071E-02	Pulse	0.10	3
Pb			1	4.951	ug/l	2.14	34,281.09	1.767E-02	Pulse	0.10	3
Pb			1	4.986	ug/l	0.79	159,047.89	8.195E-02	Pulse	0.10	3
Na			2	7.031	ug/l	3.66	15,785.63	1.247E-01	Pulse	0.30	3
Mg			2	5.095	ug/l	4.52	3,144.83	2.485E-02	Pulse	0.30	3
Al			2	6.113	ug/l	5.07	1,203.40	9.508E-03	Pulse	0.30	3
K			2	5.460	ug/l	9.99	11,464.81	9.055E-02	Pulse	0.30	3
Ca			2	40.356	ug/l	10.64	983.38	7.772E-03	Pulse	0.30	3
Ti			2	4.987	ug/l	5.22	724.48	5.725E-03	Pulse	0.30	3
V			2	4.976	ug/l	0.29	22,804.44	1.801E-01	Pulse	0.30	3
Cr			2	5.004	ug/l	1.62	27,830.23	2.198E-01	Pulse	0.30	3
Mn			2	5.038	ug/l	1.92	14,341.99	1.133E-01	Pulse	0.30	3
Fe			2	5.299	ug/l	1.85	31,621.74	2.498E-01	Pulse	0.30	3
Co			2	4.956	ug/l	0.40	43,335.60	3.423E-01	Pulse	0.30	3
Ni			2	4.944	ug/l	1.28	11,530.48	9.107E-02	Pulse	0.30	3
Cu			2	5.098	ug/l	1.88	31,773.34	2.510E-01	Pulse	0.30	3
Zn			2	6.878	ug/l	1.54	6,548.30	5.173E-02	Pulse	0.30	3
As			2	4.906	ug/l	1.43	2,455.56	1.940E-02	Pulse	1.00	3
Cd			2	4.884	ug/l	2.51	10,339.23	1.925E-02	Pulse	0.30	3
Sn			2	4.869	ug/l	1.97	12,996.48	2.421E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	4.684	ug/l	9.41	492.01	3.792E-03	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,057,023.22	1.17	101.7	Pulse	0.10	3
1	Sc		3,223,531.20	1.87	101.1	Pulse	0.10	3
1	Ge		750,971.14	3.70	101.9	Pulse	0.10	3
1	Rh		3,201,770.47	2.55	99.3	Pulse	0.10	3
1	In		3,211,836.67	2.98	99.6	Pulse	0.10	3
1	Tb		3,722,121.40	3.27	99.6	Pulse	0.10	3
1	Ho		350,583.30	2.90	98.7	Pulse	0.10	3
1	Bi		1,941,260.39	4.53	97.8	Pulse	0.10	3
2	Sc		126,599.13	1.45	99.5	Pulse	0.30	3
2	Ge		98,042.63	0.98	100.4	Pulse	0.30	3
2	Rh		1,521,144.14	0.02	100.2	Pulse	0.30	3
2	In		536,920.03	0.71	99.6	Pulse	0.30	3
2	Tb		1,600,401.54	0.63	98.5	Pulse	0.30	3
2	Ho		151,218.09	1.15	97.8	Pulse	0.30	3
2	Bi		958,771.00	0.79	99.0	Pulse	0.30	3
3	Sc		161,252.28	1.24	98.6	Pulse	0.30	3
3	Ge		129,856.60	1.83	100.0	Pulse	0.30	3
3	Rh		1,115,641.94	1.01	99.0	Pulse	0.30	3
3	Tb		1,449,997.55	1.74	98.5	Pulse	0.30	3

Quantitation Report

File Name	006CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051019m2.b
Method File	
Method Path	
Acq Time	5/10/2019 13:39
Sample Name	STDD
Sample Type	CalStd
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	24.780	ug/l	2.90	170,119.57	8.146E-02	Pulse	0.25	3
B			1	23.581	ug/l	2.23	154,010.72	7.374E-02	Pulse	0.15	3
Ca			1	37.907	ug/l	2.45	69,316.61	2.117E-02	Pulse	0.10	3
Sr			1	25.025	ug/l	0.75	978,626.16	3.056E-01	Pulse	0.10	3
Mo			1	24.920	ug/l	0.23	200,734.48	6.270E-02	Pulse	0.10	3
Ag			1	25.520	ug/l	1.21	454,399.82	1.433E-01	Pulse	0.10	3
Sn			1	25.083	ug/l	0.65	281,730.08	8.881E-02	Pulse	0.10	3
Sb			1	25.442	ug/l	2.19	313,787.57	8.335E-02	Pulse	0.10	3
Ba			1	25.229	ug/l	1.53	119,526.10	3.175E-02	Pulse	0.10	3
Tl			1	24.968	ug/l	2.09	591,438.81	2.990E-01	Pulse	0.10	3
Pb			1	24.805	ug/l	1.60	202,130.97	1.022E-01	Pulse	0.10	3
Pb			1	24.894	ug/l	1.68	175,338.92	8.865E-02	Pulse	0.10	3
Pb			1	24.979	ug/l	1.39	809,877.98	4.095E-01	Pulse	0.10	3
Na			2	27.216	ug/l	0.74	38,519.05	3.040E-01	Pulse	0.30	3
Mg			2	24.527	ug/l	1.07	13,071.73	1.032E-01	Pulse	0.30	3
Al			2	26.320	ug/l	2.06	4,571.91	3.607E-02	Pulse	0.30	3
K			2	26.470	ug/l	2.15	18,786.12	1.483E-01	Pulse	0.30	3
Ca			2	163.552	ug/l	8.17	3,293.77	2.600E-02	Pulse	0.30	3
Ti			2	25.655	ug/l	4.80	3,730.55	2.945E-02	Pulse	0.30	3
V			2	25.082	ug/l	3.01	113,417.76	8.952E-01	Pulse	0.30	3
Cr			2	25.290	ug/l	1.65	139,352.50	1.100E+00	Pulse	0.30	3
Mn			2	25.038	ug/l	1.79	71,045.65	5.607E-01	Pulse	0.30	3
Fe			2	24.522	ug/l	2.17	120,904.61	9.542E-01	Pulse	0.30	3
Co			2	25.319	ug/l	1.14	221,317.93	1.747E+00	Pulse	0.30	3
Ni			2	25.000	ug/l	0.81	58,175.45	4.591E-01	Pulse	0.30	3
Cu			2	25.305	ug/l	1.12	155,501.46	1.227E+00	Pulse	0.30	3
Zn			2	27.080	ug/l	1.14	23,837.53	1.881E-01	Pulse	0.30	3
As			2	24.737	ug/l	2.66	12,369.93	9.763E-02	Pulse	1.00	3
Cd			2	25.013	ug/l	0.41	52,786.57	9.850E-02	Pulse	0.30	3
Sn			2	25.182	ug/l	1.09	60,808.35	1.135E-01	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	24.522	ug/l	4.30	2,541.59	1.961E-02	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,088,170.20	1.41	103.3	Pulse	0.10	3
1	Sc		3,273,628.81	3.06	102.7	Pulse	0.10	3
1	Ge		744,836.68	4.40	101.1	Pulse	0.10	3
1	Rh		3,201,765.16	3.62	99.3	Pulse	0.10	3
1	In		3,172,588.53	3.99	98.4	Pulse	0.10	3
1	Tb		3,766,085.99	3.15	100.7	Pulse	0.10	3
1	Ho		351,934.50	4.94	99.1	Pulse	0.10	3
1	Bi		1,977,282.79	2.93	99.7	Pulse	0.10	3
2	Sc		126,723.31	1.30	99.6	Pulse	0.30	3
2	Ge		97,195.65	0.76	99.5	Pulse	0.30	3
2	Rh		1,512,245.60	1.02	99.6	Pulse	0.30	3
2	In		535,877.18	0.83	99.4	Pulse	0.30	3
2	Tb		1,611,285.01	0.52	99.1	Pulse	0.30	3
2	Ho		151,453.87	0.88	98.0	Pulse	0.30	3
2	Bi		955,956.91	0.82	98.7	Pulse	0.30	3
3	Sc		161,927.85	1.00	99.1	Pulse	0.30	3
3	Ge		129,657.70	1.67	99.8	Pulse	0.30	3
3	Rh		1,120,337.60	1.61	99.4	Pulse	0.30	3
3	Tb		1,458,188.34	1.12	99.0	Pulse	0.30	3

Quantitation Report

File Name	007CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051019m2.b
Method File	
Method Path	
Acq Time	5/10/2019 13:44
Sample Name	STDE
Sample Type	CalStd
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	50.888	ug/l	0.82	348,752.04	1.673E-01	Pulse	0.25	3
B			1	50.683	ug/l	0.73	314,727.62	1.510E-01	Pulse	0.15	3
Ca			1	74.837	ug/l	1.78	105,153.58	3.251E-02	Pulse	0.10	3
Sr			1	50.566	ug/l	1.33	2,017,817.10	6.173E-01	Pulse	0.10	3
Mo			1	50.029	ug/l	1.12	411,894.81	1.260E-01	Pulse	0.10	3
Ag			1	49.985	ug/l	3.10	911,015.53	2.806E-01	Pulse	0.10	3
Sn			1	50.008	ug/l	0.88	573,904.85	1.766E-01	Pulse	0.10	3
Sb			1	52.518	ug/l	0.81	642,968.91	1.716E-01	Pulse	0.10	3
Ba			1	52.417	ug/l	0.91	247,053.22	6.595E-02	Pulse	0.10	3
Tl			1	50.891	ug/l	2.53	1,208,151.49	6.093E-01	Pulse	0.10	3
Pb			1	50.944	ug/l	2.66	416,140.27	2.098E-01	Pulse	0.10	3
Pb			1	50.953	ug/l	1.27	359,676.28	1.814E-01	Pulse	0.10	3
Pb			1	50.992	ug/l	1.87	1,657,388.44	8.358E-01	Pulse	0.10	3
Na			2	50.887	ug/l	0.59	65,140.50	5.142E-01	Pulse	0.30	3
Mg			2	48.791	ug/l	2.37	25,451.93	2.009E-01	Pulse	0.30	3
Al			2	53.299	ug/l	1.57	9,063.00	7.154E-02	Pulse	0.30	3
K			2	49.753	ug/l	1.49	26,879.28	2.122E-01	Pulse	0.30	3
Ca			2	315.696	ug/l	2.98	6,142.55	4.850E-02	Pulse	0.30	3
Ti			2	51.428	ug/l	0.99	7,478.76	5.904E-02	Pulse	0.30	3
V			2	51.371	ug/l	0.68	231,833.40	1.830E+00	Pulse	0.30	3
Cr			2	51.454	ug/l	0.85	283,062.62	2.235E+00	Pulse	0.30	3
Mn			2	51.443	ug/l	0.54	145,843.55	1.151E+00	Pulse	0.30	3
Fe			2	48.952	ug/l	0.50	234,269.31	1.849E+00	Pulse	0.30	3
Co			2	51.514	ug/l	0.79	450,057.74	3.553E+00	Pulse	0.30	3
Ni			2	51.058	ug/l	1.31	118,721.43	9.373E-01	Pulse	0.30	3
Cu			2	51.540	ug/l	0.99	315,967.39	2.495E+00	Pulse	0.30	3
Zn			2	52.408	ug/l	1.07	45,486.28	3.591E-01	Pulse	0.30	3
As			2	50.572	ug/l	0.58	25,276.57	1.995E-01	Pulse	1.00	3
Cd			2	51.035	ug/l	1.39	108,089.87	2.010E-01	Pulse	0.30	3
Sn			2	51.113	ug/l	0.66	122,319.83	2.274E-01	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	50.019	ug/l	2.78	5,171.68	3.994E-02	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,085,072.31	2.57	103.1	Pulse	0.10	3
1	Sc		3,233,651.41	2.36	101.4	Pulse	0.10	3
1	Ge		754,973.97	3.40	102.5	Pulse	0.10	3
1	Rh		3,267,763.08	3.33	101.3	Pulse	0.10	3
1	In		3,249,107.83	4.77	100.8	Pulse	0.10	3
1	Tb		3,745,646.51	2.81	100.2	Pulse	0.10	3
1	Ho		352,900.52	3.64	99.4	Pulse	0.10	3
1	Bi		1,983,349.45	3.94	100.0	Pulse	0.10	3
2	Sc		126,672.91	1.00	99.5	Pulse	0.30	3
2	Ge		98,077.40	0.19	100.4	Pulse	0.30	3
2	Rh		1,523,881.43	0.37	100.3	Pulse	0.30	3
2	In		537,868.73	0.42	99.8	Pulse	0.30	3
2	Tb		1,615,660.32	0.50	99.4	Pulse	0.30	3
2	Ho		152,683.58	0.67	98.8	Pulse	0.30	3
2	Bi		961,129.75	0.69	99.2	Pulse	0.30	3
3	Sc		161,831.87	1.00	99.0	Pulse	0.30	3
3	Ge		129,501.95	1.04	99.7	Pulse	0.30	3
3	Rh		1,120,792.11	0.88	99.5	Pulse	0.30	3
3	Tb		1,462,320.81	1.48	99.3	Pulse	0.30	3

Quantitation Report

File Name	008CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051019m2.b
Method File	
Method Path	
Acq Time	5/10/2019 13:48
Sample Name	STDF
Sample Type	CalStd
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	99.125	ug/l	0.60	684,304.46	3.258E-01	Pulse	0.25	3
B			1	97.210	ug/l	0.76	595,418.64	2.835E-01	Pulse	0.15	3
Ca			1	139.792	ug/l	0.50	169,731.80	5.246E-02	Pulse	0.10	3
Sr			1	99.082	ug/l	0.90	3,926,354.53	1.209E+00	Pulse	0.10	3
Mo			1	100.008	ug/l	0.98	818,380.59	2.521E-01	Pulse	0.10	3
Ag			1	95.415	ug/l	2.62	1,749,705.44	5.356E-01	Pulse	0.10	3
Sn			1	96.970	ug/l	1.70	1,117,125.14	3.420E-01	Pulse	0.10	3
Sb			1	98.629	ug/l	2.54	1,232,384.28	3.220E-01	Pulse	0.10	3
Ba			1	98.738	ug/l	1.27	475,589.64	1.242E-01	Pulse	0.10	3
Tl			1	99.202	ug/l	1.96	2,380,914.44	1.188E+00	Pulse	0.10	3
Pb			1	99.271	ug/l	1.06	819,464.18	4.088E-01	Pulse	0.10	3
Pb			1	99.191	ug/l	1.93	707,843.53	3.531E-01	Pulse	0.10	3
Pb			1	98.918	ug/l	1.66	3,249,561.95	1.621E+00	Pulse	0.10	3
Na			2	98.871	ug/l	0.41	121,064.23	9.405E-01	Pulse	0.30	3
Mg			2	97.127	ug/l	1.38	50,941.60	3.957E-01	Pulse	0.30	3
Al			2	123.377	ug/l	1.91	21,069.24	1.637E-01	Pulse	0.30	3
K			2	99.428	ug/l	1.65	44,880.72	3.486E-01	Pulse	0.30	3
Ca			2	598.012	ug/l	2.55	11,619.45	9.026E-02	Pulse	0.30	3
Ti			2	99.124	ug/l	2.70	14,647.85	1.138E-01	Pulse	0.30	3
V			2	98.227	ug/l	1.80	450,089.43	3.496E+00	Pulse	0.30	3
Cr			2	98.254	ug/l	2.29	548,963.47	4.265E+00	Pulse	0.30	3
Mn			2	99.267	ug/l	1.51	285,930.49	2.221E+00	Pulse	0.30	3
Fe			2	96.836	ug/l	1.98	463,926.21	3.604E+00	Pulse	0.30	3
Co			2	98.277	ug/l	1.38	872,493.11	6.778E+00	Pulse	0.30	3
Ni			2	98.455	ug/l	1.52	232,621.17	1.807E+00	Pulse	0.30	3
Cu			2	98.116	ug/l	1.47	610,753.06	4.745E+00	Pulse	0.30	3
Zn			2	98.544	ug/l	0.43	86,322.15	6.706E-01	Pulse	0.30	3
As			2	96.453	ug/l	1.37	48,987.67	3.806E-01	Pulse	1.00	3
Cd			2	99.485	ug/l	2.73	212,552.41	3.917E-01	Pulse	0.30	3
Sn			2	99.408	ug/l	0.45	238,567.69	4.396E-01	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	97.297	ug/l	3.99	10,047.10	7.764E-02	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,100,187.51	2.34	103.9	Pulse	0.10	3
1	Sc		3,235,658.60	2.70	101.5	Pulse	0.10	3
1	Ge		759,799.49	4.55	103.1	Pulse	0.10	3
1	Rh		3,246,632.97	2.93	100.7	Pulse	0.10	3
1	In		3,265,618.01	2.25	101.3	Pulse	0.10	3
1	Tb		3,830,279.73	5.61	102.5	Pulse	0.10	3
1	Ho		365,911.08	5.27	103.0	Pulse	0.10	3
1	Bi		2,004,156.95	2.20	101.0	Pulse	0.10	3
2	Sc		128,728.11	0.20	101.1	Pulse	0.30	3
2	Ge		98,725.37	1.28	101.1	Pulse	0.30	3
2	Rh		1,531,615.60	0.81	100.8	Pulse	0.30	3
2	In		542,647.78	0.94	100.7	Pulse	0.30	3
2	Tb		1,630,236.43	0.81	100.3	Pulse	0.30	3
2	Ho		154,275.32	1.35	99.8	Pulse	0.30	3
2	Bi		970,102.15	0.17	100.2	Pulse	0.30	3
3	Sc		162,536.18	0.32	99.4	Pulse	0.30	3
3	Ge		129,443.19	1.16	99.7	Pulse	0.30	3
3	Rh		1,109,032.67	1.53	98.4	Pulse	0.30	3
3	Tb		1,448,535.19	0.68	98.4	Pulse	0.30	3

Quantitation Report

File Name	009CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051019m2.b
Method File	
Method Path	
Acq Time	5/10/2019 13:53
Sample Name	STDG
Sample Type	CalStd
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.012	ug/l	21.90	97.33	4.742E-05	Pulse	0.25	3
B			1	201.526	ug/l	3.84	1,193,764.15	5.807E-01	Pulse	0.15	3
Ca			1	506.963	ug/l	0.46	530,402.47	1.652E-01	Pulse	0.10	3
Sr			1	0.036	ug/l	15.42	1,946.89	6.171E-04	Pulse	0.10	3
Mo			1	0.186	ug/l	4.51	970.08	3.062E-04	Pulse	0.10	3
Ag			1	0.016	ug/l	12.36	320.01	9.930E-05	Pulse	0.10	3
Sn			1	0.249	ug/l	2.33	4,274.21	1.331E-03	Pulse	0.10	3
Sb			1	0.575	ug/l	5.42	8,249.58	2.265E-03	Pulse	0.10	3
Ba			1	0.041	ug/l	27.11	230.01	6.343E-05	Pulse	0.10	3
Tl			1	0.026	ug/l	10.16	846.73	4.443E-04	Pulse	0.10	3
Pb			1	0.019	ug/l	37.74	283.35	1.484E-04	Pulse	0.10	3
Pb			1	0.034	ug/l	58.37	320.02	1.679E-04	Pulse	0.10	3
Pb			1	0.030	ug/l	26.32	1,396.76	7.334E-04	Pulse	0.10	3
Na			2	497.967	ug/l	0.88	571,705.19	4.486E+00	Pulse	0.30	3
Mg			2	501.303	ug/l	0.05	258,046.92	2.025E+00	Pulse	0.30	3
Al			2	508.873	ug/l	1.21	85,459.68	6.705E-01	Pulse	0.30	3
K			2	513.774	ug/l	0.15	189,494.45	1.487E+00	Pulse	0.30	3
Ca			2	517.275	ug/l	0.48	9,982.58	7.832E-02	Pulse	0.30	3
Ti			2	0.099	ug/l	47.68	14.45	1.132E-04	Pulse	0.30	3
V			2	0.008	ug/l	66.99	438.90	3.443E-03	Pulse	0.30	3
Cr			2	0.023	ug/l	19.53	483.35	3.793E-03	Pulse	0.30	3
Mn			2	0.074	ug/l	7.34	287.79	2.258E-03	Pulse	0.30	3
Fe			2	482.164	ug/l	1.40	2,258,868.52	1.772E+01	Pulse	0.30	3
Co			2	0.037	ug/l	2.43	394.46	3.095E-03	Pulse	0.30	3
Ni			2	0.124	ug/l	5.27	333.34	2.615E-03	Pulse	0.30	3
Cu			2	0.113	ug/l	1.74	1,298.97	1.019E-02	Pulse	0.30	3
Zn			2	1.086	ug/l	5.64	1,610.12	1.263E-02	Pulse	0.30	3
As			2	0.040	ug/l	27.03	25.67	2.011E-04	Pulse	1.00	3
Cd			2	0.008	ug/l	59.43	28.88	5.402E-05	Pulse	0.30	3
Sn			2	-0.244	ug/l	-3.70	928.93	1.739E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	198.123	ug/l	4.62	20,538.22	1.580E-01	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,055,244.23	1.16	101.6	Pulse	0.10	3
1	Sc		3,210,606.62	1.70	100.7	Pulse	0.10	3
1	Ge		733,723.92	2.02	99.6	Pulse	0.10	3
1	Rh		3,162,380.47	4.24	98.1	Pulse	0.10	3
1	In		3,212,179.81	4.42	99.6	Pulse	0.10	3
1	Tb		3,641,142.13	2.77	97.4	Pulse	0.10	3
1	Ho		346,369.49	3.91	97.5	Pulse	0.10	3
1	Bi		1,904,037.79	3.03	96.0	Pulse	0.10	3
2	Sc		127,458.90	0.85	100.2	Pulse	0.30	3
2	Ge		97,971.17	1.75	100.3	Pulse	0.30	3
2	Rh		1,509,116.30	0.68	99.4	Pulse	0.30	3
2	In		534,141.52	0.60	99.1	Pulse	0.30	3
2	Tb		1,605,468.51	0.85	98.8	Pulse	0.30	3
2	Ho		151,653.02	0.97	98.1	Pulse	0.30	3
2	Bi		951,737.39	1.08	98.3	Pulse	0.30	3
3	Sc		160,648.62	1.40	98.3	Pulse	0.30	3
3	Ge		130,007.76	1.36	100.1	Pulse	0.30	3
3	Rh		1,108,034.68	1.43	98.3	Pulse	0.30	3
3	Tb		1,449,364.73	1.36	98.4	Pulse	0.30	3

Quantitation Report

File Name	010CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051019m2.b
Method File	
Method Path	
Acq Time	5/10/2019 13:58
Sample Name	STDH
Sample Type	CalStd
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.004	ug/l	63.94	49.33	2.375E-05	Pulse	0.25	3
B			1	2.182	ug/l	4.78	26,425.10	1.278E-02	Pulse	0.15	3
Ca			1	995.654	ug/l	0.36	1,007,225.04	3.152E-01	Pulse	0.10	3
Sr			1	0.023	ug/l	9.25	1,430.14	4.624E-04	Pulse	0.10	3
Mo			1	0.097	ug/l	4.60	250.01	8.050E-05	Pulse	0.10	3
Ag			1	0.003	ug/l	35.31	83.34	2.627E-05	Pulse	0.10	3
Sn			1	0.202	ug/l	17.73	3,697.34	1.167E-03	Pulse	0.10	3
Sb			1	0.171	ug/l	18.46	3,477.28	9.451E-04	Pulse	0.10	3
Ba			1	0.018	ug/l	47.46	130.01	3.523E-05	Pulse	0.10	3
Tl			1	0.006	ug/l	36.64	376.69	2.020E-04	Pulse	0.10	3
Pb			1	0.010	ug/l	21.90	210.01	1.118E-04	Pulse	0.10	3
Pb			1	0.018	ug/l	16.55	206.68	1.100E-04	Pulse	0.10	3
Pb			1	0.013	ug/l	28.69	856.71	4.557E-04	Pulse	0.10	3
Na			2	984.462	ug/l	0.72	1,142,246.34	8.807E+00	Pulse	0.30	3
Mg			2	988.220	ug/l	0.89	517,072.22	3.987E+00	Pulse	0.30	3
Al			2	1009.695	ug/l	1.13	172,347.54	1.329E+00	Pulse	0.30	3
K			2	1012.847	ug/l	0.79	370,607.69	2.858E+00	Pulse	0.30	3
Ca			2	1002.792	ug/l	1.47	19,471.50	1.501E-01	Pulse	0.30	3
Ti			2	0.015	ug/l	173.21	2.22	1.723E-05	Pulse	0.30	3
V			2	0.020	ug/l	17.33	502.24	3.873E-03	Pulse	0.30	3
Cr			2	0.016	ug/l	47.38	454.46	3.505E-03	Pulse	0.30	3
Mn			2	0.039	ug/l	31.51	191.11	1.474E-03	Pulse	0.30	3
Fe			2	943.343	ug/l	1.71	4,490,202.46	3.462E+01	Pulse	0.30	3
Co			2	0.050	ug/l	2.16	520.02	4.010E-03	Pulse	0.30	3
Ni			2	0.083	ug/l	11.75	242.23	1.868E-03	Pulse	0.30	3
Cu			2	0.049	ug/l	15.61	917.82	7.075E-03	Pulse	0.30	3
Zn			2	-0.176	ug/l	-17.10	533.35	4.112E-03	Pulse	0.30	3
As			2	0.012	ug/l	105.92	11.67	8.987E-05	Pulse	1.00	3
Cd			2	-0.002	ug/l	-156.06	8.14	1.518E-05	Pulse	0.30	3
Sn			2	-0.292	ug/l	-4.94	820.04	1.527E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	401.646	ug/l	3.98	42,382.30	3.203E-01	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,067,361.32	1.90	102.2	Pulse	0.10	3
1	Sc		3,195,172.66	3.38	100.2	Pulse	0.10	3
1	Ge		758,133.63	3.31	102.9	Pulse	0.10	3
1	Rh		3,096,837.14	4.29	96.0	Pulse	0.10	3
1	In		3,171,085.49	4.03	98.4	Pulse	0.10	3
1	Tb		3,675,400.36	4.12	98.3	Pulse	0.10	3
1	Ho		348,893.16	4.22	98.2	Pulse	0.10	3
1	Bi		1,873,602.32	5.43	94.4	Pulse	0.10	3
2	Sc		129,699.08	0.51	101.9	Pulse	0.30	3
2	Ge		99,338.55	1.10	101.7	Pulse	0.30	3
2	Rh		1,513,019.56	0.66	99.6	Pulse	0.30	3
2	In		537,110.41	0.41	99.6	Pulse	0.30	3
2	Tb		1,630,712.92	0.70	100.3	Pulse	0.30	3
2	Ho		155,137.20	0.45	100.4	Pulse	0.30	3
2	Bi		956,894.89	0.20	98.8	Pulse	0.30	3
3	Sc		162,744.96	0.68	99.6	Pulse	0.30	3
3	Ge		132,332.12	0.65	101.9	Pulse	0.30	3
3	Rh		1,113,899.30	0.85	98.8	Pulse	0.30	3
3	Tb		1,453,553.48	1.57	98.7	Pulse	0.30	3

Quantitation Report

File Name	011CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051019m2.b
Method File	
Method Path	
Acq Time	5/10/2019 14:03
Sample Name	STDI
Sample Type	CalStd
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.000	ug/l	-1479.22	18.67	8.995E-06	Pulse	0.25	3
B			1	0.736	ug/l	6.00	17,865.01	8.660E-03	Pulse	0.15	3
Ca			1	4895.086	ug/l	0.61	4,849,387.74	1.513E+00	Pulse	0.10	3
Sr			1	0.051	ug/l	12.84	2,466.99	8.038E-04	Pulse	0.10	3
Mo			1	0.101	ug/l	6.12	280.01	9.162E-05	Pulse	0.10	3
Ag			1	0.002	ug/l	36.97	66.67	2.138E-05	Pulse	0.10	3
Sn			1	0.281	ug/l	6.13	4,504.28	1.443E-03	Pulse	0.10	3
Sb			1	0.111	ug/l	9.73	2,773.73	7.512E-04	Pulse	0.10	3
Ba			1	0.014	ug/l	69.55	110.00	3.001E-05	Pulse	0.10	3
Tl			1	0.001	ug/l	358.77	246.68	1.345E-04	Pulse	0.10	3
Pb			1	0.004	ug/l	160.65	160.01	8.684E-05	Pulse	0.10	3
Pb			1	0.017	ug/l	33.38	196.68	1.065E-04	Pulse	0.10	3
Pb			1	0.010	ug/l	36.79	760.04	4.108E-04	Pulse	0.10	3
Na			2	4841.534	ug/l	0.10	5,640,015.75	4.307E+01	Pulse	0.30	3
Mg			2	4856.563	ug/l	0.21	2,563,602.68	1.958E+01	Pulse	0.30	3
Al			2	4999.896	ug/l	1.38	860,987.12	6.575E+00	Pulse	0.30	3
K			2	5027.173	ug/l	0.89	1,818,122.57	1.388E+01	Pulse	0.30	3
Ca			2	5004.379	ug/l	0.58	97,173.90	7.420E-01	Pulse	0.30	3
Ti			2	0.015	ug/l	173.21	2.22	1.692E-05	Pulse	0.30	3
V			2	0.020	ug/l	44.94	506.68	3.869E-03	Pulse	0.30	3
Cr			2	0.025	ug/l	35.89	504.46	3.853E-03	Pulse	0.30	3
Mn			2	0.149	ug/l	19.11	513.35	3.919E-03	Pulse	0.30	3
Fe			2	5048.893	ug/l	1.70	24,235,069.59	1.851E+02	Analog	0.30	3
Co			2	0.238	ug/l	2.08	2,219.10	1.695E-02	Pulse	0.30	3
Ni			2	0.231	ug/l	2.33	598.91	4.573E-03	Pulse	0.30	3
Cu			2	0.333	ug/l	3.54	2,724.75	2.081E-02	Pulse	0.30	3
Zn			2	-0.199	ug/l	-12.06	517.80	3.954E-03	Pulse	0.30	3
As			2	0.032	ug/l	38.34	22.33	1.705E-04	Pulse	1.00	3
Cd			2	0.000	ug/l	-2410.50	12.51	2.314E-05	Pulse	0.30	3
Sn			2	-0.179	ug/l	-13.88	1,095.62	2.027E-03	Pulse	0.30	3
Se			3	0.070	ug/l	110.11	14.67	1.129E-04	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,063,252.28	3.08	102.0	Pulse	0.10	3
1	Sc		3,205,780.89	3.00	100.5	Pulse	0.10	3
1	Ge		739,951.37	3.13	100.4	Pulse	0.10	3

Quantitation Report

1	Rh		3,070,113.19	3.99	95.2	Pulse	0.10	3
1	In		3,121,409.30	3.57	96.8	Pulse	0.10	3
1	Tb		3,691,395.47	4.20	98.7	Pulse	0.10	3
1	Ho		348,499.21	3.57	98.1	Pulse	0.10	3
1	Bi		1,843,550.70	4.62	92.9	Pulse	0.10	3
2	Sc		130,954.65	0.36	102.9	Pulse	0.30	3
2	Ge		99,341.85	0.59	101.7	Pulse	0.30	3
2	Rh		1,514,888.59	0.36	99.7	Pulse	0.30	3
2	In		540,614.31	0.64	100.3	Pulse	0.30	3
2	Tb		1,646,792.92	0.37	101.3	Pulse	0.30	3
2	Ho		155,469.45	0.09	100.6	Pulse	0.30	3
2	Bi		944,583.05	0.22	97.5	Pulse	0.30	3
3	Sc		162,453.81	0.63	99.4	Pulse	0.30	3
3	Ge		129,393.12	1.32	99.6	Pulse	0.30	3
3	Rh		1,081,294.65	1.14	95.9	Pulse	0.30	3
3	Tb		1,436,022.41	0.83	97.5	Pulse	0.30	3

Quantitation Report

File Name 012CALS.d
File Path C:\Agilent\ICPMH\1\DATA\.b051019m2.b
Method File
Method Path
Acq Time 5/10/2019 14:07
Sample Name STDJ
Sample Type CalStd
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name Metals
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 5/13/2019 7:20
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.000	ug/l	-368.79	16.00	7.799E-06	Pulse	0.25	3
B			1	0.360	ug/l	36.54	15,526.64	7.590E-03	Pulse	0.15	3
Ca			1	10996.115	ug/l	3.04	10,910,594.01	3.386E+00	Analog	0.10	3
Sr			1	0.102	ug/l	3.87	4,337.53	1.430E-03	Pulse	0.10	3
Mo			1	0.087	ug/l	3.59	170.01	5.600E-05	Pulse	0.10	3
Ag			1	0.001	ug/l	272.33	36.67	1.180E-05	Pulse	0.10	3
Sn			1	0.377	ug/l	4.77	5,498.03	1.780E-03	Pulse	0.10	3
Sb			1	0.101	ug/l	2.32	2,610.36	7.185E-04	Pulse	0.10	3
Ba			1	0.026	ug/l	5.55	163.34	4.499E-05	Pulse	0.10	3
Tl			1	-0.001	ug/l	-276.52	213.35	1.168E-04	Pulse	0.10	3
Pb			1	0.018	ug/l	34.66	266.68	1.452E-04	Pulse	0.10	3
Pb			1	0.022	ug/l	8.93	233.35	1.273E-04	Pulse	0.10	3
Pb			1	0.018	ug/l	6.46	996.72	5.443E-04	Pulse	0.10	3
Na			2	10183.940	ug/l	1.78	11,906,260.64	9.052E+01	Analog	0.30	3
Mg			2	9485.035	ug/l	0.32	5,028,107.85	3.823E+01	Pulse	0.30	3
Al			2	9959.546	ug/l	0.99	1,722,306.67	1.309E+01	Pulse	0.30	3
K			2	9984.271	ug/l	0.28	3,616,856.66	2.750E+01	Pulse	0.30	3
Ca			2	9954.189	ug/l	0.85	193,896.96	1.474E+00	Pulse	0.30	3
Ti			2	0.037	ug/l	91.67	5.56	4.219E-05	Pulse	0.30	3
V			2	0.011	ug/l	93.87	468.90	3.566E-03	Pulse	0.30	3
Cr			2	0.054	ug/l	6.74	672.25	5.111E-03	Pulse	0.30	3
Mn			2	0.190	ug/l	9.01	636.69	4.841E-03	Pulse	0.30	3
Fe			2	9982.149	ug/l	0.80	48,115,698.09	3.658E+02	Analog	0.30	3
Co			2	0.480	ug/l	4.31	4,424.10	3.364E-02	Pulse	0.30	3
Ni			2	0.405	ug/l	3.96	1,023.38	7.781E-03	Pulse	0.30	3
Cu			2	0.090	ug/l	11.11	1,191.18	9.057E-03	Pulse	0.30	3
Zn			2	-0.121	ug/l	-38.44	590.02	4.486E-03	Pulse	0.30	3
As			2	0.046	ug/l	17.16	29.33	2.230E-04	Pulse	1.00	3
Cd			2	-0.005	ug/l	-33.87	1.93	3.649E-06	Pulse	0.30	3
Sn			2	-0.095	ug/l	-28.70	1,274.52	2.393E-03	Pulse	0.30	3
Se			3	0.038	ug/l	105.99	11.33	8.792E-05	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,045,938.21	1.07	101.2	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		3,224,299.54	3.05	101.1	Pulse	0.10	3
1	Ge		723,685.17	2.71	98.2	Pulse	0.10	3
1	Rh		3,032,498.60	3.26	94.0	Pulse	0.10	3
1	In		3,088,459.91	3.42	95.8	Pulse	0.10	3
1	Tb		3,632,251.72	3.38	97.2	Pulse	0.10	3
1	Ho		342,141.08	3.94	96.3	Pulse	0.10	3
1	Bi		1,830,170.55	3.49	92.2	Pulse	0.10	3
2	Sc		131,526.29	0.28	103.3	Pulse	0.30	3
2	Ge		98,597.72	1.67	100.9	Pulse	0.30	3
2	Rh		1,482,419.53	0.58	97.6	Pulse	0.30	3
2	In		532,758.65	0.70	98.8	Pulse	0.30	3
2	Tb		1,621,214.76	0.20	99.7	Pulse	0.30	3
2	Ho		154,004.45	0.87	99.6	Pulse	0.30	3
2	Bi		926,689.41	0.13	95.7	Pulse	0.30	3
3	Sc		163,769.38	1.02	100.2	Pulse	0.30	3
3	Ge		128,925.67	0.54	99.3	Pulse	0.30	3
3	Rh		1,063,964.51	1.29	94.4	Pulse	0.30	3
3	Tb		1,445,262.51	1.84	98.1	Pulse	0.30	3

Quantitation Report

File Name	013CALB.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051019m2.b
Method File	
Method Path	
Acq Time	5/10/2019 14:12
Sample Name	STDA
Sample Type	CalBlk
Comment	0
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.000	ug/l	-1860.94	18.67	8.857E-06	Pulse	0.25	3
B			1	0.000	ug/l	---	13,720.29	6.563E-03	Pulse	0.15	3
Ca			1	-1.154	ug/l	-73.37	29,362.06	9.180E-03	Pulse	0.10	3
Sr			1	0.000	ug/l	-2889.11	576.71	1.813E-04	Pulse	0.10	3
Mo			1	0.075	ug/l	3.92	80.00	2.510E-05	Pulse	0.10	3
Ag			1	0.000	ug/l	5360.04	26.67	8.356E-06	Pulse	0.10	3
Sn			1	-0.001	ug/l	-1318.23	1,420.13	4.512E-04	Pulse	0.10	3
Sb			1	0.000	ug/l	---	1,413.47	3.882E-04	Pulse	0.10	3
Ba			1	0.000	ug/l	---	43.33	1.203E-05	Pulse	0.10	3
Tl			1	0.000	ug/l	-4587.06	236.68	1.263E-04	Pulse	0.10	3
Pb			1	0.000	ug/l	3735.85	136.67	7.239E-05	Pulse	0.10	3
Pb			1	-0.001	ug/l	-124.84	83.33	4.421E-05	Pulse	0.10	3
Pb			1	-0.001	ug/l	-502.08	443.35	2.363E-04	Pulse	0.10	3
Na			2	0.231	ug/l	70.68	8,179.14	6.428E-02	Pulse	0.30	3
Mg			2	-0.217	ug/l	-44.99	437.79	3.441E-03	Pulse	0.30	3
Al			2	-0.256	ug/l	-41.22	144.45	1.135E-03	Pulse	0.30	3
K			2	0.000	ug/l	---	9,615.63	7.555E-02	Pulse	0.30	3
Ca			2	-1.323	ug/l	-140.22	204.45	1.607E-03	Pulse	0.30	3
Ti			2	0.000	ug/l	---	0.00		Pulse	0.30	3
V			2	0.016	ug/l	99.76	476.68	3.748E-03	Pulse	0.30	3
Cr			2	-0.006	ug/l	-47.31	323.34	2.541E-03	Pulse	0.30	3
Mn			2	0.000	ug/l	---	75.56	5.938E-04	Pulse	0.30	3
Fe			2	0.000	ug/l	---	7,079.69	5.564E-02	Pulse	0.30	3
Co			2	0.000	ug/l	-578.29	64.45	5.063E-04	Pulse	0.30	3
Ni			2	0.000	ug/l	-1512.58	42.22	3.321E-04	Pulse	0.30	3
Cu			2	-0.005	ug/l	-42.29	567.80	4.461E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	0.001	ug/l	5777.73	675.58	5.307E-03	Pulse	0.30	3
As			2	0.002	ug/l	364.56	6.33	4.976E-05	Pulse	1.00	3
Cd			2	0.000	ug/l	---	12.59	2.399E-05	Pulse	0.30	3
Sn			2	-0.500	ug/l	-2.76	324.45	6.127E-04	Pulse	0.30	3
Se			3	0.000	ug/l	---	7.33	5.734E-05	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,092,550.84	3.33	100.0	Pulse	0.10	3
1	Sc		3,197,979.33	2.40	100.0	Pulse	0.10	3
1	Ge		737,494.65	3.98	100.0	Pulse	0.10	3
1	Rh		3,165,134.43	4.13	100.0	Pulse	0.10	3
1	In		3,148,946.82	4.19	100.0	Pulse	0.10	3
1	Tb		3,641,299.32	3.96	100.0	Pulse	0.10	3
1	Ho		342,771.16	2.96	100.0	Pulse	0.10	3
1	Bi		1,878,788.10	5.47	100.0	Pulse	0.10	3
2	Sc		127,261.11	0.54	100.0	Pulse	0.30	3
2	Ge		96,971.80	0.24	100.0	Pulse	0.30	3
2	Rh		1,501,880.18	0.48	100.0	Pulse	0.30	3
2	In		529,126.24	1.22	100.0	Pulse	0.30	3
2	Tb		1,580,187.37	1.11	100.0	Pulse	0.30	3
2	Ho		148,463.00	0.41	100.0	Pulse	0.30	3
2	Bi		930,625.28	1.25	100.0	Pulse	0.30	3
3	Sc		161,484.21	0.51	100.0	Pulse	0.30	3
3	Ge		127,933.00	1.26	100.0	Pulse	0.30	3
3	Rh		1,112,569.89	0.97	100.0	Pulse	0.30	3
3	Tb		1,434,259.42	0.95	100.0	Pulse	0.30	3

Quantitation Report

File Name	014CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051019m2.b
Method File	
Method Path	
Acq Time	5/10/2019 14:22
Sample Name	STDB
Sample Type	CalStd
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.506	ug/l	2.84	3,609.86	1.673E-03	Pulse	0.25	3
B			1	24.205	ug/l	2.11	162,935.16	7.552E-02	Pulse	0.15	3
Ca			1	257.465	ug/l	1.22	285,909.45	8.859E-02	Pulse	0.10	3
Sr			1	5.102	ug/l	2.37	196,903.23	6.245E-02	Pulse	0.10	3
Mo			1	1.034	ug/l	7.84	7,705.83	2.445E-03	Pulse	0.10	3
Ag			1	0.498	ug/l	4.97	8,826.64	2.803E-03	Pulse	0.10	3
Sn			1	5.057	ug/l	1.91	57,492.42	1.827E-02	Pulse	0.10	3
Sb			1	2.200	ug/l	1.21	27,034.96	7.561E-03	Pulse	0.10	3
Ba			1	1.087	ug/l	2.72	4,934.45	1.379E-03	Pulse	0.10	3
Tl			1	0.503	ug/l	0.45	11,549.15	6.152E-03	Pulse	0.10	3
Pb			1	0.492	ug/l	2.50	3,940.76	2.097E-03	Pulse	0.10	3
Pb			1	0.541	ug/l	8.73	3,704.02	1.972E-03	Pulse	0.10	3
Pb			1	0.521	ug/l	3.35	16,478.29	8.776E-03	Pulse	0.10	3
Na			2	250.626	ug/l	1.54	297,271.66	2.288E+00	Pulse	0.30	3
Mg			2	252.385	ug/l	2.17	132,678.66	1.021E+00	Pulse	0.30	3
Al			2	25.662	ug/l	5.30	4,573.03	3.521E-02	Pulse	0.30	3
K			2	257.004	ug/l	1.21	101,511.95	7.815E-01	Pulse	0.30	3
Ca			2	275.978	ug/l	3.21	5,536.73	4.263E-02	Pulse	0.30	3
Ti			2	0.872	ug/l	27.17	130.00	1.001E-03	Pulse	0.30	3
V			2	1.057	ug/l	3.63	5,292.19	4.074E-02	Pulse	0.30	3
Cr			2	1.087	ug/l	4.03	6,486.04	4.994E-02	Pulse	0.30	3
Mn			2	1.017	ug/l	3.86	3,031.48	2.334E-02	Pulse	0.30	3
Fe			2	24.567	ug/l	1.04	124,166.29	9.558E-01	Pulse	0.30	3
Co			2	0.514	ug/l	1.46	4,670.83	3.596E-02	Pulse	0.30	3
Ni			2	1.014	ug/l	2.49	2,461.36	1.895E-02	Pulse	0.30	3
Cu			2	2.034	ug/l	0.48	13,378.88	1.030E-01	Pulse	0.30	3
Zn			2	4.688	ug/l	2.56	4,799.79	3.695E-02	Pulse	0.30	3
As			2	0.490	ug/l	3.87	256.67	1.976E-03	Pulse	1.00	3
Cd			2	0.561	ug/l	6.07	1,196.17	2.232E-03	Pulse	0.30	3
Sn			2	4.797	ug/l	1.05	12,805.17	2.389E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	0.549	ug/l	15.83	64.67	4.954E-04	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,157,066.81	1.57	103.1	Pulse	0.10	3
1	Sc		3,227,799.33	2.63	100.9	Pulse	0.10	3
1	Ge		741,969.83	4.42	100.6	Pulse	0.10	3
1	Rh		3,155,544.12	5.32	99.7	Pulse	0.10	3
1	In		3,146,888.01	4.14	99.9	Pulse	0.10	3
1	Tb		3,575,857.13	4.39	98.2	Pulse	0.10	3
1	Ho		336,089.88	4.38	98.1	Pulse	0.10	3
1	Bi		1,877,275.23	5.45	99.9	Pulse	0.10	3
2	Sc		129,906.05	0.55	102.1	Pulse	0.30	3
2	Ge		98,440.19	0.96	101.5	Pulse	0.30	3
2	Rh		1,511,967.09	0.50	100.7	Pulse	0.30	3
2	In		536,026.61	0.77	101.3	Pulse	0.30	3
2	Tb		1,597,726.74	0.47	101.1	Pulse	0.30	3
2	Ho		151,653.68	0.07	102.1	Pulse	0.30	3
2	Bi		951,166.25	0.67	102.2	Pulse	0.30	3
3	Sc		162,710.55	0.48	100.8	Pulse	0.30	3
3	Ge		130,706.24	1.94	102.2	Pulse	0.30	3
3	Rh		1,109,816.28	1.40	99.8	Pulse	0.30	3
3	Tb		1,439,995.78	0.85	100.4	Pulse	0.30	3

Quantitation Report

File Name	015_ICV.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051019m2.b
Method File	
Method Path	
Acq Time	5/10/2019 14:31
Sample Name	ICVA
Sample Type	ICV
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	59.675	ug/l	0.75	413,619.47	1.962E-01	Pulse	0.25	3
B			1	121.959	ug/l	1.19	746,321.60	3.540E-01	Pulse	0.15	3
Ca			1	5274.705	ug/l	0.71	5,310,097.94	1.629E+00	Pulse	0.10	3
Sr			1	64.004	ug/l	3.04	2,435,154.70	7.814E-01	Pulse	0.10	3
Mo			1	59.960	ug/l	1.54	471,086.27	1.511E-01	Pulse	0.10	3
Ag			1	56.656	ug/l	2.34	1,003,795.66	3.180E-01	Pulse	0.10	3
Sn			1	58.963	ug/l	0.70	656,840.41	2.082E-01	Pulse	0.10	3
Sb			1	62.486	ug/l	1.67	749,214.73	2.041E-01	Pulse	0.10	3
Ba			1	62.144	ug/l	2.21	286,818.14	7.818E-02	Pulse	0.10	3
Tl			1	64.968	ug/l	3.25	1,449,760.24	7.778E-01	Pulse	0.10	3
Pb			1	63.409	ug/l	2.12	486,567.10	2.612E-01	Pulse	0.10	3
Pb			1	60.191	ug/l	1.07	399,187.19	2.143E-01	Pulse	0.10	3
Pb			1	61.655	ug/l	1.03	1,882,287.28	1.010E+00	Pulse	0.10	3
Na			2	5222.355	ug/l	1.24	6,177,088.23	4.645E+01	Pulse	0.30	3
Mg			2	5277.472	ug/l	1.35	2,828,797.39	2.127E+01	Pulse	0.30	3
Al			2	5464.253	ug/l	1.20	955,472.50	7.185E+00	Pulse	0.30	3
K			2	5468.966	ug/l	0.99	2,007,626.17	1.510E+01	Pulse	0.30	3
Ca			2	5734.193	ug/l	1.49	113,034.02	8.500E-01	Pulse	0.30	3
Ti			2	59.429	ug/l	2.63	9,071.95	6.822E-02	Pulse	0.30	3
V			2	60.463	ug/l	0.53	286,364.21	2.153E+00	Pulse	0.30	3
Cr			2	60.195	ug/l	1.21	347,575.70	2.614E+00	Pulse	0.30	3
Mn			2	60.284	ug/l	0.67	179,411.45	1.349E+00	Pulse	0.30	3
Fe			2	5412.900	ug/l	0.92	26,383,052.84	1.984E+02	Analog	0.30	3
Co			2	59.169	ug/l	1.12	542,675.66	4.081E+00	Pulse	0.30	3
Ni			2	58.488	ug/l	0.99	142,772.08	1.074E+00	Pulse	0.30	3
Cu			2	58.259	ug/l	1.07	374,884.54	2.819E+00	Pulse	0.30	3
Zn			2	58.195	ug/l	1.85	52,948.30	3.982E-01	Pulse	0.30	3
As			2	58.534	ug/l	1.28	30,712.62	2.310E-01	Pulse	1.00	3
Cd			2	60.520	ug/l	1.35	130,883.02	2.383E-01	Pulse	0.30	3
Sn			2	60.073	ug/l	0.34	146,536.31	2.668E-01	Pulse	0.30	3
Se			3	257.385	ug/l	3.97	26,913.88	2.053E-01	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,108,318.49	2.53	100.8	Pulse	0.10	3
1	Sc		3,260,096.20	4.13	101.9	Pulse	0.10	3
1	Ge		749,791.68	3.80	101.7	Pulse	0.10	3

Quantitation Report

1	Rh		3,118,365.27	4.58	98.5	Pulse	0.10	3
1	In		3,155,062.30	3.18	100.2	Pulse	0.10	3
1	Tb		3,671,052.34	5.18	100.8	Pulse	0.10	3
1	Ho		351,009.45	5.92	102.4	Pulse	0.10	3
1	Bi		1,862,491.48	3.69	99.1	Pulse	0.10	3
2	Sc		132,984.12	0.56	104.5	Pulse	0.30	3
2	Ge		101,694.86	0.74	104.9	Pulse	0.30	3
2	Rh		1,527,294.00	0.26	101.7	Pulse	0.30	3
2	In		549,262.32	0.46	103.8	Pulse	0.30	3
2	Tb		1,675,974.45	1.15	106.1	Pulse	0.30	3
2	Ho		160,053.14	0.53	107.8	Pulse	0.30	3
2	Bi		971,027.95	0.44	104.3	Pulse	0.30	3
3	Sc		165,554.34	0.90	102.5	Pulse	0.30	3
3	Ge		131,137.52	1.13	102.5	Pulse	0.30	3
3	Rh		1,087,235.55	1.97	97.7	Pulse	0.30	3
3	Tb		1,452,127.75	1.16	101.2	Pulse	0.30	3

Quantitation Report

File Name	016_ICV.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051019m2.b
Method File	
Method Path	
Acq Time	5/10/2019 14:36
Sample Name	ICV
Sample Type	ICV
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.037	ug/l	14.51	278.68	1.313E-04	Pulse	0.25	3
B			1	0.833	ug/l	13.83	18,921.92	8.936E-03	Pulse	0.15	3
Ca			1	4.445	ug/l	19.60	35,252.50	1.090E-02	Pulse	0.10	3
Sr			1	0.011	ug/l	27.75	1,000.08	3.152E-04	Pulse	0.10	3
Mo			1	0.124	ug/l	1.85	473.36	1.490E-04	Pulse	0.10	3
Ag			1	0.007	ug/l	38.31	153.34	4.838E-05	Pulse	0.10	3
Sn			1	0.112	ug/l	11.53	2,700.40	8.478E-04	Pulse	0.10	3
Sb			1	-0.023	ug/l	-3.88	1,130.10	3.126E-04	Pulse	0.10	3
Ba			1	0.027	ug/l	26.07	166.68	4.622E-05	Pulse	0.10	3
Tl			1	0.014	ug/l	38.44	543.37	2.888E-04	Pulse	0.10	3
Pb			1	0.013	ug/l	27.72	236.68	1.253E-04	Pulse	0.10	3
Pb			1	0.019	ug/l	19.07	216.68	1.142E-04	Pulse	0.10	3
Pb			1	0.018	ug/l	10.13	1,016.73	5.382E-04	Pulse	0.10	3
Na			2	1.143	ug/l	11.26	9,394.32	7.238E-02	Pulse	0.30	3
Mg			2	0.034	ug/l	283.59	577.80	4.453E-03	Pulse	0.30	3
Al			2	63.657	ug/l	4.23	11,052.23	8.516E-02	Pulse	0.30	3
K			2	0.651	ug/l	130.41	10,039.25	7.734E-02	Pulse	0.30	3
Ca			2	4.475	ug/l	39.33	320.01	2.465E-03	Pulse	0.30	3
Ti			2	0.052	ug/l	107.74	7.78	6.009E-05	Pulse	0.30	3
V			2	0.016	ug/l	72.70	484.46	3.731E-03	Pulse	0.30	3
Cr			2	0.103	ug/l	7.16	943.38	7.267E-03	Pulse	0.30	3
Mn			2	0.054	ug/l	15.09	234.45	1.806E-03	Pulse	0.30	3
Fe			2	1.672	ug/l	6.66	15,172.90	1.169E-01	Pulse	0.30	3
Co			2	0.008	ug/l	21.65	138.89	1.070E-03	Pulse	0.30	3
Ni			2	0.036	ug/l	18.59	130.01	1.002E-03	Pulse	0.30	3
Cu			2	0.069	ug/l	10.01	1,044.50	8.046E-03	Pulse	0.30	3
Zn			2	0.063	ug/l	118.62	743.36	5.725E-03	Pulse	0.30	3
As			2	0.024	ug/l	4.25	17.67	1.361E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	0.001	ug/l	610.88	14.46	2.692E-05	Pulse	0.30	3
Sn			2	-0.412	ug/l	-3.93	536.69	1.001E-03	Pulse	0.30	3
Se			3	0.062	ug/l	61.53	14.00	1.071E-04	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,118,142.41	3.00	101.2	Pulse	0.10	3
1	Sc		3,235,187.24	2.58	101.2	Pulse	0.10	3
1	Ge		738,762.67	3.68	100.2	Pulse	0.10	3
1	Rh		3,176,441.72	3.31	100.4	Pulse	0.10	3
1	In		3,184,615.86	2.54	101.1	Pulse	0.10	3
1	Tb		3,615,936.82	5.08	99.3	Pulse	0.10	3
1	Ho		341,032.74	4.13	99.5	Pulse	0.10	3
1	Bi		1,892,064.92	4.09	100.7	Pulse	0.10	3
2	Sc		129,797.81	0.56	102.0	Pulse	0.30	3
2	Ge		97,555.12	0.79	100.6	Pulse	0.30	3
2	Rh		1,515,879.66	0.90	100.9	Pulse	0.30	3
2	In		535,945.14	0.53	101.3	Pulse	0.30	3
2	Tb		1,593,855.04	0.52	100.9	Pulse	0.30	3
2	Ho		150,387.95	1.57	101.3	Pulse	0.30	3
2	Bi		936,132.36	0.41	100.6	Pulse	0.30	3
3	Sc		163,467.95	0.65	101.2	Pulse	0.30	3
3	Ge		130,693.62	1.42	102.2	Pulse	0.30	3
3	Rh		1,111,967.25	1.11	99.9	Pulse	0.30	3
3	Tb		1,442,196.30	1.51	100.6	Pulse	0.30	3

Quantitation Report

File Name	017_ICB.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051019m2.b
Method File	
Method Path	
Acq Time	5/10/2019 14:41
Sample Name	ICB
Sample Type	ICB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.009	ug/l	19.44	85.33	3.971E-05	Pulse	0.25	3
B			1	0.006	ug/l	1189.74	14,140.73	6.579E-03	Pulse	0.15	3
Ca			1	-1.341	ug/l	-50.66	29,900.02	9.122E-03	Pulse	0.10	3
Sr			1	0.008	ug/l	44.70	880.06	2.776E-04	Pulse	0.10	3
Mo			1	0.090	ug/l	4.60	203.34	6.413E-05	Pulse	0.10	3
Ag			1	0.002	ug/l	62.14	63.33	1.983E-05	Pulse	0.10	3
Sn			1	0.034	ug/l	49.81	1,816.95	5.725E-04	Pulse	0.10	3
Sb			1	-0.042	ug/l	-32.96	910.07	2.510E-04	Pulse	0.10	3
Ba			1	0.011	ug/l	36.52	93.34	2.595E-05	Pulse	0.10	3
Tl			1	0.006	ug/l	22.41	366.69	1.948E-04	Pulse	0.10	3
Pb			1	0.005	ug/l	69.13	176.68	9.410E-05	Pulse	0.10	3
Pb			1	0.017	ug/l	35.67	200.01	1.064E-04	Pulse	0.10	3
Pb			1	0.009	ug/l	34.71	753.37	4.007E-04	Pulse	0.10	3
Na			2	-0.707	ug/l	-24.38	7,264.17	5.595E-02	Pulse	0.30	3
Mg			2	-0.636	ug/l	-10.85	227.78	1.753E-03	Pulse	0.30	3
Al			2	1.908	ug/l	11.62	516.71	3.979E-03	Pulse	0.30	3
K			2	0.203	ug/l	412.37	9,878.02	7.611E-02	Pulse	0.30	3
Ca			2	0.833	ug/l	48.74	250.01	1.926E-03	Pulse	0.30	3
Ti			2	0.008	ug/l	173.21	1.11	8.667E-06	Pulse	0.30	3
V			2	0.019	ug/l	40.23	498.90	3.845E-03	Pulse	0.30	3
Cr			2	0.033	ug/l	43.74	547.80	4.224E-03	Pulse	0.30	3
Mn			2	0.017	ug/l	30.90	125.56	9.679E-04	Pulse	0.30	3
Fe			2	-0.103	ug/l	-48.05	6,732.83	5.187E-02	Pulse	0.30	3
Co			2	0.005	ug/l	21.41	108.89	8.389E-04	Pulse	0.30	3
Ni			2	0.035	ug/l	12.52	126.67	9.763E-04	Pulse	0.30	3
Cu			2	0.074	ug/l	7.97	1,076.72	8.292E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	-0.411	ug/l	-18.30	327.79	2.523E-03	Pulse	0.30	3
As			2	0.017	ug/l	63.69	14.33	1.101E-04	Pulse	1.00	3
Cd			2	0.011	ug/l	41.22	35.74	6.661E-05	Pulse	0.30	3
Sn			2	-0.497	ug/l	-0.50	336.68	6.282E-04	Pulse	0.30	3
Se			3	-0.008	ug/l	-385.25	6.67	5.127E-05	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,149,743.82	2.94	102.7	Pulse	0.10	3
1	Sc		3,278,051.31	2.39	102.5	Pulse	0.10	3
1	Ge		743,386.97	3.03	100.8	Pulse	0.10	3
1	Rh		3,172,836.41	2.74	100.2	Pulse	0.10	3
1	In		3,165,434.02	4.07	100.5	Pulse	0.10	3
1	Tb		3,611,469.43	3.65	99.2	Pulse	0.10	3
1	Ho		340,483.51	3.26	99.3	Pulse	0.10	3
1	Bi		1,886,642.47	4.45	100.4	Pulse	0.10	3
2	Sc		129,822.05	1.17	102.0	Pulse	0.30	3
2	Ge		98,569.93	0.97	101.6	Pulse	0.30	3
2	Rh		1,504,788.87	0.83	100.2	Pulse	0.30	3
2	In		535,880.93	0.93	101.3	Pulse	0.30	3
2	Tb		1,572,927.40	0.68	99.5	Pulse	0.30	3
2	Ho		148,970.63	0.59	100.3	Pulse	0.30	3
2	Bi		940,642.22	0.56	101.1	Pulse	0.30	3
3	Sc		163,998.80	0.16	101.6	Pulse	0.30	3
3	Ge		129,950.91	0.38	101.6	Pulse	0.30	3
3	Rh		1,109,363.19	1.14	99.7	Pulse	0.30	3
3	Tb		1,421,069.56	1.00	99.1	Pulse	0.30	3

Quantitation Report

File Name 018_CCV.d
File Path C:\Agilent\ICPMH\1\DATA\.b051019m2.b
Method File
Method Path
Acq Time 5/10/2019 14:46
Sample Name CCVA
Sample Type CCV
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name Metals
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 5/13/2019 7:20
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	50.950	ug/l	1.64	356,397.06	1.675E-01	Pulse	0.25	3
B			1	104.067	ug/l	3.93	644,552.33	3.030E-01	Pulse	0.15	3
Ca			1	4823.165	ug/l	1.72	4,907,132.74	1.490E+00	Pulse	0.10	3
Sr			1	51.767	ug/l	1.86	1,992,238.77	6.320E-01	Pulse	0.10	3
Mo			1	51.087	ug/l	1.93	405,599.46	1.287E-01	Pulse	0.10	3
Ag			1	49.044	ug/l	0.59	868,743.84	2.753E-01	Pulse	0.10	3
Sn			1	48.647	ug/l	1.48	542,004.71	1.718E-01	Pulse	0.10	3
Sb			1	52.462	ug/l	2.93	631,197.15	1.715E-01	Pulse	0.10	3
Ba			1	50.501	ug/l	1.58	234,011.32	6.354E-02	Pulse	0.10	3
Tl			1	52.715	ug/l	0.73	1,164,552.04	6.312E-01	Pulse	0.10	3
Pb			1	51.914	ug/l	0.36	394,490.31	2.138E-01	Pulse	0.10	3
Pb			1	51.960	ug/l	0.81	341,358.52	1.850E-01	Pulse	0.10	3
Pb			1	51.429	ug/l	0.59	1,555,112.14	8.429E-01	Pulse	0.10	3
Na			2	4772.169	ug/l	1.07	5,640,500.33	4.245E+01	Pulse	0.30	3
Mg			2	4834.371	ug/l	0.83	2,589,174.96	1.949E+01	Pulse	0.30	3
Al			2	5002.529	ug/l	0.79	874,038.73	6.578E+00	Pulse	0.30	3
K			2	5002.924	ug/l	0.73	1,835,858.81	1.382E+01	Pulse	0.30	3
Ca			2	5231.474	ug/l	0.88	103,057.49	7.756E-01	Pulse	0.30	3
Ti			2	50.394	ug/l	0.12	7,686.66	5.785E-02	Pulse	0.30	3
V			2	49.746	ug/l	0.65	235,484.70	1.772E+00	Pulse	0.30	3
Cr			2	49.979	ug/l	0.87	288,413.59	2.171E+00	Pulse	0.30	3
Mn			2	49.679	ug/l	0.80	147,743.45	1.112E+00	Pulse	0.30	3
Fe			2	4982.562	ug/l	1.56	24,265,071.26	1.826E+02	Analog	0.30	3
Co			2	49.016	ug/l	1.07	449,198.68	3.381E+00	Pulse	0.30	3
Ni			2	48.619	ug/l	0.36	118,592.36	8.925E-01	Pulse	0.30	3
Cu			2	48.568	ug/l	0.81	312,369.18	2.351E+00	Pulse	0.30	3
Zn			2	47.438	ug/l	1.74	43,254.55	3.256E-01	Pulse	0.30	3
As			2	48.472	ug/l	0.76	25,413.48	1.913E-01	Pulse	1.00	3
Cd			2	50.204	ug/l	0.81	107,373.75	1.977E-01	Pulse	0.30	3
Sn			2	49.496	ug/l	0.77	119,664.68	2.203E-01	Pulse	0.30	3
Se			3	194.384	ug/l	4.27	20,160.30	1.551E-01	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,128,394.46	3.12	101.7	Pulse	0.10	3
1	Sc		3,293,460.16	3.15	103.0	Pulse	0.10	3
1	Ge		757,169.52	4.67	102.7	Pulse	0.10	3

Quantitation Report

1	Rh		3,152,245.47	2.30	99.6	Pulse	0.10	3
1	In		3,155,510.44	3.68	100.2	Pulse	0.10	3
1	Tb		3,684,139.01	5.60	101.2	Pulse	0.10	3
1	Ho		350,572.79	4.60	102.3	Pulse	0.10	3
1	Bi		1,845,031.22	3.19	98.2	Pulse	0.10	3
2	Sc		132,873.21	0.69	104.4	Pulse	0.30	3
2	Ge		100,784.38	0.99	103.9	Pulse	0.30	3
2	Rh		1,519,071.40	0.22	101.1	Pulse	0.30	3
2	In		543,165.92	0.40	102.7	Pulse	0.30	3
2	Tb		1,641,609.17	0.49	103.9	Pulse	0.30	3
2	Ho		154,534.43	0.96	104.1	Pulse	0.30	3
2	Bi		937,581.28	0.26	100.7	Pulse	0.30	3
3	Sc		164,200.56	0.97	101.7	Pulse	0.30	3
3	Ge		130,028.07	1.48	101.6	Pulse	0.30	3
3	Rh		1,074,945.55	0.81	96.6	Pulse	0.30	3
3	Tb		1,435,340.92	0.67	100.1	Pulse	0.30	3

Quantitation Report

File Name	019_CCB.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051019m2.b
Method File	
Method Path	
Acq Time	5/10/2019 14:50
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.013	ug/l	15.85	109.33	5.143E-05	Pulse	0.25	3
B			1	0.866	ug/l	6.78	19,215.67	9.030E-03	Pulse	0.15	3
Ca			1	-0.268	ug/l	-113.47	30,480.97	9.452E-03	Pulse	0.10	3
Sr			1	0.011	ug/l	39.48	993.41	3.157E-04	Pulse	0.10	3
Mo			1	0.122	ug/l	6.25	453.36	1.439E-04	Pulse	0.10	3
Ag			1	0.008	ug/l	21.13	173.34	5.543E-05	Pulse	0.10	3
Sn			1	0.048	ug/l	29.86	1,956.90	6.235E-04	Pulse	0.10	3
Sb			1	0.062	ug/l	35.63	2,090.24	5.890E-04	Pulse	0.10	3
Ba			1	0.009	ug/l	70.35	83.33	2.362E-05	Pulse	0.10	3
Tl			1	0.011	ug/l	29.42	483.36	2.565E-04	Pulse	0.10	3
Pb			1	0.009	ug/l	28.65	206.68	1.105E-04	Pulse	0.10	3
Pb			1	0.014	ug/l	51.36	183.34	9.844E-05	Pulse	0.10	3
Pb			1	0.014	ug/l	39.24	880.05	4.709E-04	Pulse	0.10	3
Na			2	-0.458	ug/l	-31.64	7,417.58	5.815E-02	Pulse	0.30	3
Mg			2	-0.418	ug/l	-18.10	335.56	2.630E-03	Pulse	0.30	3
Al			2	1.638	ug/l	12.82	462.24	3.625E-03	Pulse	0.30	3
K			2	0.563	ug/l	127.12	9,833.58	7.710E-02	Pulse	0.30	3
Ca			2	0.827	ug/l	85.25	245.56	1.925E-03	Pulse	0.30	3
Ti			2	0.038	ug/l	69.61	5.55	4.359E-05	Pulse	0.30	3
V			2	0.026	ug/l	54.39	520.02	4.076E-03	Pulse	0.30	3
Cr			2	0.037	ug/l	19.62	557.79	4.374E-03	Pulse	0.30	3
Mn			2	0.014	ug/l	96.10	115.56	9.054E-04	Pulse	0.30	3
Fe			2	0.211	ug/l	8.15	8,082.45	6.337E-02	Pulse	0.30	3
Co			2	0.008	ug/l	55.03	140.00	1.097E-03	Pulse	0.30	3
Ni			2	0.028	ug/l	24.30	108.89	8.539E-04	Pulse	0.30	3
Cu			2	0.069	ug/l	12.12	1,025.61	8.041E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	-0.434	ug/l	-6.00	302.23	2.370E-03	Pulse	0.30	3
As			2	0.017	ug/l	42.71	14.00	1.098E-04	Pulse	1.00	3
Cd			2	0.014	ug/l	11.97	41.85	7.930E-05	Pulse	0.30	3
Sn			2	-0.436	ug/l	-8.02	472.24	8.952E-04	Pulse	0.30	3
Se			3	0.046	ug/l	44.07	12.00	9.374E-05	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,128,069.89	1.19	101.7	Pulse	0.10	3
1	Sc		3,225,458.70	2.69	100.9	Pulse	0.10	3
1	Ge		732,972.41	3.00	99.4	Pulse	0.10	3
1	Rh		3,156,646.93	3.05	99.7	Pulse	0.10	3
1	In		3,139,658.19	4.32	99.7	Pulse	0.10	3
1	Tb		3,560,197.03	4.57	97.8	Pulse	0.10	3
1	Ho		335,460.32	4.85	97.9	Pulse	0.10	3
1	Bi		1,876,530.75	4.49	99.9	Pulse	0.10	3
2	Sc		127,546.46	0.34	100.2	Pulse	0.30	3
2	Ge		95,995.30	0.93	99.0	Pulse	0.30	3
2	Rh		1,496,228.07	0.93	99.6	Pulse	0.30	3
2	In		527,616.75	0.55	99.7	Pulse	0.30	3
2	Tb		1,577,389.52	0.03	99.8	Pulse	0.30	3
2	Ho		148,529.57	1.86	100.0	Pulse	0.30	3
2	Bi		926,873.36	0.82	99.6	Pulse	0.30	3
3	Sc		162,098.74	1.15	100.4	Pulse	0.30	3
3	Ge		128,090.00	0.83	100.1	Pulse	0.30	3
3	Rh		1,107,777.67	1.55	99.6	Pulse	0.30	3
3	Tb		1,421,118.76	1.70	99.1	Pulse	0.30	3

Quantitation Report

File Name 020LCCV.d
File Path C:\Agilent\ICPMH\1\DATA\.b051019m2.b
Method File
Method Path
Acq Time 5/10/2019 14:55
Sample Name CRI
Sample Type LLCCV
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name Metals
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 5/13/2019 7:20
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.516	ug/l	2.04	3,659.19	1.704E-03	Pulse	0.25	3
B			1	26.258	ug/l	1.14	174,710.07	8.137E-02	Pulse	0.15	3
Ca			1	254.997	ug/l	0.98	288,468.54	8.783E-02	Pulse	0.10	3
Sr			1	5.103	ug/l	1.66	200,549.69	6.247E-02	Pulse	0.10	3
Mo			1	1.038	ug/l	5.36	7,875.92	2.455E-03	Pulse	0.10	3
Ag			1	0.493	ug/l	3.74	8,746.58	2.778E-03	Pulse	0.10	3
Sn			1	5.224	ug/l	2.56	59,280.31	1.886E-02	Pulse	0.10	3
Sb			1	2.083	ug/l	4.51	26,059.60	7.179E-03	Pulse	0.10	3
Ba			1	1.096	ug/l	4.92	5,061.16	1.391E-03	Pulse	0.10	3
Tl			1	0.479	ug/l	8.69	11,158.68	5.863E-03	Pulse	0.10	3
Pb			1	0.504	ug/l	6.20	4,097.51	2.146E-03	Pulse	0.10	3
Pb			1	0.517	ug/l	2.30	3,597.34	1.887E-03	Pulse	0.10	3
Pb			1	0.517	ug/l	2.68	16,641.70	8.726E-03	Pulse	0.10	3
Na			2	249.975	ug/l	0.23	299,081.54	2.283E+00	Pulse	0.30	3
Mg			2	254.797	ug/l	0.13	135,101.27	1.031E+00	Pulse	0.30	3
Al			2	25.386	ug/l	1.56	4,565.25	3.485E-02	Pulse	0.30	3
K			2	260.639	ug/l	1.29	103,690.84	7.914E-01	Pulse	0.30	3
Ca			2	293.075	ug/l	4.01	5,915.77	4.515E-02	Pulse	0.30	3
Ti			2	1.012	ug/l	2.16	152.22	1.162E-03	Pulse	0.30	3
V			2	1.053	ug/l	3.90	5,323.32	4.063E-02	Pulse	0.30	3
Cr			2	1.031	ug/l	2.18	6,223.69	4.751E-02	Pulse	0.30	3
Mn			2	1.033	ug/l	5.53	3,105.94	2.371E-02	Pulse	0.30	3
Fe			2	24.263	ug/l	0.50	123,772.76	9.447E-01	Pulse	0.30	3
Co			2	0.522	ug/l	1.34	4,784.22	3.652E-02	Pulse	0.30	3
Ni			2	1.032	ug/l	3.30	2,526.93	1.929E-02	Pulse	0.30	3
Cu			2	2.181	ug/l	2.40	14,423.23	1.101E-01	Pulse	0.30	3
Zn			2	4.561	ug/l	3.00	4,728.65	3.609E-02	Pulse	0.30	3
As			2	0.512	ug/l	2.70	270.33	2.063E-03	Pulse	1.00	3
Cd			2	0.523	ug/l	3.35	1,116.15	2.082E-03	Pulse	0.30	3
Sn			2	4.790	ug/l	1.76	12,796.25	2.386E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	0.463	ug/l	12.74	55.33	4.267E-04	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,147,089.38	1.63	102.6	Pulse	0.10	3
1	Sc		3,284,262.03	2.62	102.7	Pulse	0.10	3
1	Ge		741,197.31	4.14	100.5	Pulse	0.10	3
1	Rh		3,211,621.72	3.04	101.5	Pulse	0.10	3
1	In		3,145,092.61	4.57	99.9	Pulse	0.10	3
1	Tb		3,634,670.57	4.74	99.8	Pulse	0.10	3
1	Ho		341,548.51	6.22	99.6	Pulse	0.10	3
1	Bi		1,906,518.93	3.32	101.5	Pulse	0.10	3
2	Sc		131,021.74	0.72	103.0	Pulse	0.30	3
2	Ge		98,638.11	1.04	101.7	Pulse	0.30	3
2	Rh		1,507,049.00	0.68	100.3	Pulse	0.30	3
2	In		536,308.29	1.04	101.4	Pulse	0.30	3
2	Tb		1,582,827.78	0.64	100.2	Pulse	0.30	3
2	Ho		148,683.20	0.59	100.1	Pulse	0.30	3
2	Bi		930,087.95	0.37	99.9	Pulse	0.30	3
3	Sc		162,970.32	0.22	100.9	Pulse	0.30	3
3	Ge		129,619.73	0.67	101.3	Pulse	0.30	3
3	Rh		1,100,711.35	0.56	98.9	Pulse	0.30	3
3	Tb		1,411,987.86	0.41	98.4	Pulse	0.30	3

Quantitation Report

File Name	021ICSA.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051019m2.b
Method File	
Method Path	
Acq Time	5/10/2019 15:00
Sample Name	ICSA
Sample Type	ICSA
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.001	ug/l	186.21	20.00	1.118E-05	Pulse	0.25	3
B			1	0.482	ug/l	27.82	14,129.67	7.935E-03	Pulse	0.15	3
Ca			1	110630.059	ug/l	3.18	97,462,378.55	3.398E+01	Analog	0.10	3
Sr			1	2356.888	ug/l	4.47	73,927,338.90	2.877E+01	Analog	0.10	3
Mo			1	2405.509	ug/l	3.86	15,596,567.27	6.068E+00	Analog	0.10	3
Ag			1	0.016	ug/l	20.93	260.01	9.923E-05	Pulse	0.10	3
Sn			1	2086.587	ug/l	4.44	19,181,371.80	7.351E+00	Analog	0.10	3
Sb			1	0.161	ug/l	16.22	2,923.78	9.121E-04	Pulse	0.10	3
Ba			1	0.252	ug/l	7.74	1,056.76	3.287E-04	Pulse	0.10	3
Tl			1	0.003	ug/l	76.27	250.01	1.641E-04	Pulse	0.10	3
Pb			1	0.085	ug/l	13.09	640.05	4.211E-04	Pulse	0.10	3
Pb			1	0.079	ug/l	12.83	500.04	3.290E-04	Pulse	0.10	3
Pb			1	0.079	ug/l	4.18	2,356.86	1.546E-03	Pulse	0.10	3
Na			2	100147.047	ug/l	0.29	104,148,011.42	8.896E+02	Analog	0.30	3
Mg			2	98752.184	ug/l	2.03	46,592,337.04	3.980E+02	Analog	0.30	3
Al			2	106154.158	ug/l	1.57	16,337,381.02	1.396E+02	Analog	0.30	3
K			2	109325.196	ug/l	0.78	35,162,193.05	3.004E+02	Analog	0.30	3
Ca			2	109160.196	ug/l	0.57	1,890,496.45	1.615E+01	Pulse	0.30	3
Ti			2	1930.625	ug/l	0.70	259,455.43	2.216E+00	Pulse	0.30	3
V			2	0.041	ug/l	38.57	542.24	4.634E-03	Pulse	0.30	3
Cr			2	0.275	ug/l	7.83	1,724.58	1.473E-02	Pulse	0.30	3
Mn			2	0.262	ug/l	4.88	755.58	6.454E-03	Pulse	0.30	3
Fe			2	98187.947	ug/l	1.60	421,209,992.15	3.598E+03	Analog	0.30	3
Co			2	0.350	ug/l	1.35	2,887.00	2.466E-02	Pulse	0.30	3
Ni			2	0.703	ug/l	7.39	1,549.00	1.324E-02	Pulse	0.30	3
Cu			2	0.085	ug/l	12.36	1,034.51	8.838E-03	Pulse	0.30	3
Zn			2	-0.232	ug/l	-8.99	436.68	3.730E-03	Pulse	0.30	3
As			2	0.095	ug/l	9.81	48.67	4.158E-04	Pulse	1.00	3
Cd			2	0.019	ug/l	1664.75	45.17	9.793E-05	Pulse	0.30	3
Sn			2	1847.979	ug/l	0.46	3,832,782.91	8.123E+00	Pulse	0.30	3
Se			3	0.072	ug/l	19.00	12.67	1.144E-04	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,781,976.44	2.26	85.2	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,869,815.58	2.40	89.7	Pulse	0.10	3
1	Ge		636,737.26	2.97	86.3	Pulse	0.10	3
1	Rh		2,572,997.05	4.00	81.3	Pulse	0.10	3
1	In		2,611,994.81	3.39	82.9	Pulse	0.10	3
1	Tb		3,209,869.74	3.70	88.2	Pulse	0.10	3
1	Ho		302,589.49	4.36	88.3	Pulse	0.10	3
1	Bi		1,523,149.04	3.68	81.1	Pulse	0.10	3
2	Sc		117,065.71	0.61	92.0	Pulse	0.30	3
2	Ge		87,171.01	0.89	89.9	Pulse	0.30	3
2	Rh		1,263,703.80	0.76	84.1	Pulse	0.30	3
2	In		471,822.87	0.57	89.2	Pulse	0.30	3
2	Tb		1,463,697.76	0.27	92.6	Pulse	0.30	3
2	Ho		137,325.48	0.53	92.5	Pulse	0.30	3
2	Bi		783,320.46	0.94	84.2	Pulse	0.30	3
3	Sc		146,275.11	0.61	90.6	Pulse	0.30	3
3	Ge		110,758.28	0.45	86.6	Pulse	0.30	3
3	Rh		891,588.82	0.94	80.1	Pulse	0.30	3
3	Tb		1,288,004.39	1.81	89.8	Pulse	0.30	3

Quantitation Report

File Name	022ICSB.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051019m2.b
Method File	
Method Path	
Acq Time	5/10/2019 15:05
Sample Name	ICSAB
Sample Type	ICSB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.001	ug/l	189.80	18.67	1.101E-05	Pulse	0.25	3
B			1	49.959	ug/l	0.73	251,635.15	1.489E-01	Pulse	0.15	3
Ca			1	111012.982	ug/l	3.29	93,348,801.94	3.410E+01	Analog	0.10	3
Sr			1	2380.109	ug/l	2.59	72,936,317.25	2.905E+01	Analog	0.10	3
Mo			1	2389.735	ug/l	3.75	15,131,919.78	6.028E+00	Analog	0.10	3
Ag			1	19.953	ug/l	0.62	291,449.67	1.120E-01	Pulse	0.10	3
Sn			1	2082.069	ug/l	3.91	19,068,029.72	7.335E+00	Analog	0.10	3
Sb			1	0.141	ug/l	15.12	2,703.72	8.494E-04	Pulse	0.10	3
Ba			1	0.261	ug/l	8.58	1,080.09	3.401E-04	Pulse	0.10	3
Tl			1	0.000	ug/l	-799.58	190.01	1.234E-04	Pulse	0.10	3
Pb			1	0.083	ug/l	12.41	633.38	4.120E-04	Pulse	0.10	3
Pb			1	0.081	ug/l	19.60	516.70	3.366E-04	Pulse	0.10	3
Pb			1	0.084	ug/l	8.63	2,500.20	1.625E-03	Pulse	0.10	3
Na			2	100054.237	ug/l	0.91	100,957,942.65	8.888E+02	Analog	0.30	3
Mg			2	97523.001	ug/l	0.24	44,641,186.00	3.930E+02	Analog	0.30	3
Al			2	105398.151	ug/l	1.19	15,739,735.48	1.386E+02	Analog	0.30	3
K			2	108951.037	ug/l	0.53	34,000,024.21	2.993E+02	Analog	0.30	3
Ca			2	109335.732	ug/l	0.38	1,837,181.59	1.617E+01	Pulse	0.30	3
Ti			2	1924.049	ug/l	0.52	250,882.86	2.209E+00	Pulse	0.30	3
V			2	21.783	ug/l	0.35	88,351.03	7.778E-01	Pulse	0.30	3
Cr			2	20.535	ug/l	0.98	101,479.71	8.935E-01	Pulse	0.30	3
Mn			2	20.898	ug/l	1.41	53,161.76	4.681E-01	Pulse	0.30	3
Fe			2	98912.194	ug/l	0.74	411,668,179.20	3.624E+03	Analog	0.30	3
Co			2	19.977	ug/l	1.17	156,527.15	1.378E+00	Pulse	0.30	3
Ni			2	19.503	ug/l	1.74	40,685.53	3.582E-01	Pulse	0.30	3
Cu			2	18.763	ug/l	1.37	103,487.21	9.111E-01	Pulse	0.30	3
Zn			2	17.238	ug/l	1.35	13,819.29	1.217E-01	Pulse	0.30	3
As			2	19.365	ug/l	2.45	8,681.10	7.644E-02	Pulse	1.00	3
Cd			2	18.799	ug/l	3.01	34,452.54	7.404E-02	Pulse	0.30	3
Sn			2	1842.120	ug/l	0.59	3,768,527.77	8.097E+00	Pulse	0.30	3
Se			3	20.189	ug/l	5.42	1,770.13	1.616E-02	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,689,951.32	1.52	80.8	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,739,272.46	2.56	85.7	Pulse	0.10	3
1	Ge		618,413.38	3.29	83.9	Pulse	0.10	3
1	Rh		2,512,368.03	3.67	79.4	Pulse	0.10	3
1	In		2,602,435.27	4.21	82.6	Pulse	0.10	3
1	Tb		3,178,114.01	3.25	87.3	Pulse	0.10	3
1	Ho		301,012.18	3.85	87.8	Pulse	0.10	3
1	Bi		1,541,360.29	4.04	82.0	Pulse	0.10	3
2	Sc		113,583.65	0.99	89.3	Pulse	0.30	3
2	Ge		85,997.09	0.24	88.7	Pulse	0.30	3
2	Rh		1,247,731.37	0.19	83.1	Pulse	0.30	3
2	In		465,385.65	0.79	88.0	Pulse	0.30	3
2	Tb		1,458,254.77	0.07	92.3	Pulse	0.30	3
2	Ho		137,047.18	0.30	92.3	Pulse	0.30	3
2	Bi		789,342.19	0.21	84.8	Pulse	0.30	3
3	Sc		143,428.64	0.17	88.8	Pulse	0.30	3
3	Ge		109,586.65	0.90	85.7	Pulse	0.30	3
3	Rh		889,480.87	1.19	79.9	Pulse	0.30	3
3	Tb		1,296,939.98	1.56	90.4	Pulse	0.30	3

Quantitation Report

File Name	023SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051019m2.b
Method File	
Method Path	
Acq Time	5/10/2019 15:09
Sample Name	rinseconf
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	-0.002	ug/l	-35.32	2.67	1.555E-06	Pulse	0.25	3
B			1	-0.323	ug/l	-3.69	9,688.00	5.641E-03	Pulse	0.15	3
Ca			1	6.475	ug/l	15.25	31,529.98	1.152E-02	Pulse	0.10	3
Sr			1	0.268	ug/l	7.92	10,157.52	3.457E-03	Pulse	0.10	3
Mo			1	0.819	ug/l	2.03	5,601.38	1.903E-03	Pulse	0.10	3
Ag			1	0.002	ug/l	128.29	60.00	1.997E-05	Pulse	0.10	3
Sn			1	0.420	ug/l	2.22	5,721.46	1.932E-03	Pulse	0.10	3
Sb			1	-0.038	ug/l	-24.36	923.41	2.649E-04	Pulse	0.10	3
Ba			1	-0.003	ug/l	-213.02	30.00	8.552E-06	Pulse	0.10	3
Tl			1	-0.002	ug/l	-47.69	196.68	1.054E-04	Pulse	0.10	3
Pb			1	0.002	ug/l	222.22	146.68	7.875E-05	Pulse	0.10	3
Pb			1	0.004	ug/l	175.35	116.67	6.329E-05	Pulse	0.10	3
Pb			1	0.003	ug/l	76.44	550.03	2.951E-04	Pulse	0.10	3
Na			2	11.597	ug/l	11.43	17,734.64	1.652E-01	Pulse	0.30	3
Mg			2	7.866	ug/l	11.71	3,865.02	3.601E-02	Pulse	0.30	3
Al			2	7.852	ug/l	13.65	1,265.63	1.179E-02	Pulse	0.30	3
K			2	8.832	ug/l	16.00	10,713.10	9.981E-02	Pulse	0.30	3
Ca			2	4.883	ug/l	45.92	271.11	2.525E-03	Pulse	0.30	3
Ti			2	0.235	ug/l	44.00	28.89	2.693E-04	Pulse	0.30	3
V			2	0.016	ug/l	91.48	402.23	3.747E-03	Pulse	0.30	3
Cr			2	-0.011	ug/l	-65.25	248.89	2.319E-03	Pulse	0.30	3
Mn			2	0.006	ug/l	143.82	77.78	7.247E-04	Pulse	0.30	3
Fe			2	9.191	ug/l	10.02	42,116.56	3.924E-01	Pulse	0.30	3
Co			2	0.001	ug/l	131.71	63.33	5.900E-04	Pulse	0.30	3
Ni			2	-0.003	ug/l	-151.12	30.00	2.793E-04	Pulse	0.30	3
Cu			2	0.003	ug/l	261.56	523.35	4.875E-03	Pulse	0.30	3
Zn			2	-0.055	ug/l	-55.12	528.91	4.927E-03	Pulse	0.30	3
As			2	0.003	ug/l	52.61	5.67	5.278E-05	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	0.001	ug/l	751.00	13.54	2.801E-05	Pulse	0.30	3
Sn			2	-0.137	ug/l	-4.14	1,065.61	2.208E-03	Pulse	0.30	3
Se			3	-0.037	ug/l	-113.07	3.33	2.744E-05	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,717,426.16	0.46	82.1	Pulse	0.10	3
1	Sc		2,737,263.81	2.82	85.6	Pulse	0.10	3
1	Ge		655,696.27	2.62	88.9	Pulse	0.10	3
1	Rh		2,942,622.56	3.35	93.0	Pulse	0.10	3
1	In		2,961,881.47	3.13	94.1	Pulse	0.10	3
1	Tb		3,493,522.24	3.33	95.9	Pulse	0.10	3
1	Ho		328,498.92	3.10	95.8	Pulse	0.10	3
1	Bi		1,862,079.45	3.44	99.1	Pulse	0.10	3
2	Sc		107,346.34	0.39	84.4	Pulse	0.30	3
2	Ge		85,206.77	1.29	87.9	Pulse	0.30	3
2	Rh		1,370,035.40	0.81	91.2	Pulse	0.30	3
2	In		482,748.03	1.58	91.2	Pulse	0.30	3
2	Tb		1,491,848.90	1.12	94.4	Pulse	0.30	3
2	Ho		141,809.31	1.13	95.5	Pulse	0.30	3
2	Bi		899,822.78	0.90	96.7	Pulse	0.30	3
3	Sc		152,815.32	4.70	94.6	Pulse	0.30	3
3	Ge		114,432.19	8.39	89.4	Pulse	0.30	3
3	Rh		1,083,551.21	6.18	97.4	Pulse	0.30	3
3	Tb		1,440,124.11	6.34	100.4	Pulse	0.30	3

Quantitation Report

File Name	024ICSA.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051019m2.b
Method File	
Method Path	
Acq Time	5/10/2019 15:15
Sample Name	ICSA
Sample Type	ICSA
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.000	ug/l	-2615.10	14.67	8.941E-06	Pulse	0.25	3
B			1	-0.048	ug/l	-90.52	10,657.61	6.426E-03	Pulse	0.15	3
Ca			1	106767.147	ug/l	4.09	88,275,862.02	3.279E+01	Analog	0.10	3
Sr			1	2295.018	ug/l	3.55	69,754,038.96	2.801E+01	Analog	0.10	3
Mo			1	2308.404	ug/l	3.67	14,500,158.53	5.823E+00	Analog	0.10	3
Ag			1	0.012	ug/l	20.97	200.01	7.740E-05	Pulse	0.10	3
Sn			1	2008.753	ug/l	5.48	18,291,705.15	7.077E+00	Analog	0.10	3
Sb			1	0.135	ug/l	6.01	2,637.03	8.297E-04	Pulse	0.10	3
Ba			1	0.220	ug/l	5.77	916.74	2.885E-04	Pulse	0.10	3
Tl			1	0.002	ug/l	95.09	233.34	1.533E-04	Pulse	0.10	3
Pb			1	0.083	ug/l	16.33	626.71	4.136E-04	Pulse	0.10	3
Pb			1	0.077	ug/l	27.38	483.36	3.201E-04	Pulse	0.10	3
Pb			1	0.075	ug/l	3.14	2,253.51	1.481E-03	Pulse	0.10	3
Na			2	96074.015	ug/l	2.71	94,121,596.26	8.535E+02	Analog	0.30	3
Mg			2	93314.072	ug/l	3.51	41,465,862.80	3.761E+02	Analog	0.30	3
Al			2	100437.230	ug/l	3.18	14,560,304.98	1.320E+02	Analog	0.30	3
K			2	104465.952	ug/l	1.63	31,659,962.08	2.870E+02	Analog	0.30	3
Ca			2	104461.484	ug/l	2.91	1,704,209.90	1.545E+01	Pulse	0.30	3
Ti			2	1833.407	ug/l	2.37	232,121.22	2.105E+00	Pulse	0.30	3
V			2	0.037	ug/l	30.37	494.46	4.485E-03	Pulse	0.30	3
Cr			2	0.258	ug/l	2.48	1,544.55	1.400E-02	Pulse	0.30	3
Mn			2	0.264	ug/l	5.16	715.58	6.491E-03	Pulse	0.30	3
Fe			2	95485.881	ug/l	1.96	385,963,611.33	3.499E+03	Analog	0.30	3
Co			2	0.327	ug/l	4.99	2,545.82	2.309E-02	Pulse	0.30	3
Ni			2	0.704	ug/l	7.55	1,460.10	1.325E-02	Pulse	0.30	3
Cu			2	0.170	ug/l	8.46	1,424.54	1.292E-02	Pulse	0.30	3
Zn			2	-0.183	ug/l	-12.31	448.90	4.065E-03	Pulse	0.30	3
As			2	0.089	ug/l	33.30	43.67	3.938E-04	Pulse	1.00	3
Cd			2	-0.252	ug/l	-74.98	-440.48	-9.701E-04	Pulse	0.30	3
Sn			2	1797.457	ug/l	2.88	3,543,156.94	7.901E+00	Pulse	0.30	3
Se			3	0.097	ug/l	109.09	15.33	1.344E-04	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,658,140.38	2.35	79.2	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,694,293.29	3.13	84.2	Pulse	0.10	3
1	Ge		618,518.87	2.97	83.9	Pulse	0.10	3
1	Rh		2,492,866.48	4.41	78.8	Pulse	0.10	3
1	In		2,589,404.49	4.87	82.2	Pulse	0.10	3
1	Tb		3,181,268.81	4.39	87.4	Pulse	0.10	3
1	Ho		298,270.86	4.72	87.0	Pulse	0.10	3
1	Bi		1,522,472.27	5.30	81.0	Pulse	0.10	3
2	Sc		110,341.37	3.04	86.7	Pulse	0.30	3
2	Ge		82,528.11	1.43	85.1	Pulse	0.30	3
2	Rh		1,212,478.56	2.82	80.7	Pulse	0.30	3
2	In		448,682.04	3.00	84.8	Pulse	0.30	3
2	Tb		1,420,329.67	1.91	89.9	Pulse	0.30	3
2	Ho		133,930.98	2.27	90.2	Pulse	0.30	3
2	Bi		767,459.15	2.42	82.5	Pulse	0.30	3
3	Sc		149,685.85	6.04	92.7	Pulse	0.30	3
3	Ge		112,646.64	3.47	88.1	Pulse	0.30	3
3	Rh		923,773.68	4.81	83.0	Pulse	0.30	3
3	Tb		1,354,328.07	4.30	94.4	Pulse	0.30	3

Quantitation Report

File Name 025_CCV.d
File Path C:\Agilent\ICPMH\1\DATA\.b051019m2.b
Method File
Method Path
Acq Time 5/10/2019 15:20
Sample Name CCVA
Sample Type CCV
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name Metals
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 5/13/2019 7:20
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	48.930	ug/l	1.11	278,147.84	1.608E-01	Pulse	0.25	3
B			1	98.729	ug/l	0.83	497,803.26	2.878E-01	Pulse	0.15	3
Ca			1	4912.980	ug/l	1.53	4,230,664.10	1.518E+00	Pulse	0.10	3
Sr			1	51.877	ug/l	1.02	1,842,131.69	6.333E-01	Pulse	0.10	3
Mo			1	51.690	ug/l	1.20	378,751.31	1.302E-01	Pulse	0.10	3
Ag			1	48.741	ug/l	1.39	815,744.68	2.736E-01	Pulse	0.10	3
Sn			1	49.179	ug/l	0.40	517,929.98	1.737E-01	Pulse	0.10	3
Sb			1	51.445	ug/l	0.45	604,477.93	1.681E-01	Pulse	0.10	3
Ba			1	49.782	ug/l	0.91	225,139.23	6.263E-02	Pulse	0.10	3
Tl			1	51.134	ug/l	1.40	1,120,495.40	6.122E-01	Pulse	0.10	3
Pb			1	50.603	ug/l	0.11	381,445.98	2.084E-01	Pulse	0.10	3
Pb			1	51.150	ug/l	0.91	333,231.21	1.821E-01	Pulse	0.10	3
Pb			1	51.132	ug/l	0.91	1,533,426.66	8.380E-01	Pulse	0.10	3
Na			2	4586.912	ug/l	1.47	4,606,288.98	4.081E+01	Pulse	0.30	3
Mg			2	4631.053	ug/l	1.47	2,107,191.93	1.867E+01	Pulse	0.30	3
Al			2	4804.996	ug/l	1.48	713,227.00	6.318E+00	Pulse	0.30	3
K			2	4862.681	ug/l	1.12	1,516,208.69	1.343E+01	Pulse	0.30	3
Ca			2	5191.756	ug/l	0.76	86,893.95	7.698E-01	Pulse	0.30	3
Ti			2	48.755	ug/l	2.15	6,318.18	5.597E-02	Pulse	0.30	3
V			2	49.966	ug/l	0.39	200,949.74	1.780E+00	Pulse	0.30	3
Cr			2	49.874	ug/l	0.80	244,516.62	2.166E+00	Pulse	0.30	3
Mn			2	50.216	ug/l	0.35	126,876.37	1.124E+00	Pulse	0.30	3
Fe			2	5128.128	ug/l	2.67	21,216,963.05	1.880E+02	Analog	0.30	3
Co			2	49.697	ug/l	1.16	386,926.36	3.428E+00	Pulse	0.30	3
Ni			2	49.306	ug/l	1.64	102,173.90	9.052E-01	Pulse	0.30	3
Cu			2	49.320	ug/l	1.22	269,485.72	2.387E+00	Pulse	0.30	3
Zn			2	49.810	ug/l	1.53	38,557.36	3.416E-01	Pulse	0.30	3
As			2	49.289	ug/l	1.90	21,953.56	1.945E-01	Pulse	1.00	3
Cd			2	51.777	ug/l	0.48	100,538.50	2.039E-01	Pulse	0.30	3
Sn			2	50.735	ug/l	0.78	111,328.06	2.257E-01	Pulse	0.30	3
Se			3	193.771	ug/l	3.91	18,266.94	1.546E-01	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,729,674.10	3.21	82.7	Pulse	0.10	3
1	Sc		2,787,753.81	3.52	87.2	Pulse	0.10	3
1	Ge		683,365.96	3.96	92.7	Pulse	0.10	3

Quantitation Report

1	Rh		2,909,283.29	4.75	91.9	Pulse	0.10	3
1	In		2,982,111.03	4.17	94.7	Pulse	0.10	3
1	Tb		3,595,364.42	3.92	98.7	Pulse	0.10	3
1	Ho		334,703.36	3.93	97.6	Pulse	0.10	3
1	Bi		1,830,052.78	3.93	97.4	Pulse	0.10	3
2	Sc		112,887.10	0.56	88.7	Pulse	0.30	3
2	Ge		88,894.29	0.62	91.7	Pulse	0.30	3
2	Rh		1,391,953.83	0.40	92.7	Pulse	0.30	3
2	In		493,142.22	0.60	93.2	Pulse	0.30	3
2	Tb		1,559,603.55	1.01	98.7	Pulse	0.30	3
2	Ho		147,826.43	0.81	99.6	Pulse	0.30	3
2	Bi		911,459.69	0.75	97.9	Pulse	0.30	3
3	Sc		148,029.04	1.30	91.7	Pulse	0.30	3
3	Ge		118,206.46	1.06	92.4	Pulse	0.30	3
3	Rh		1,018,932.01	1.38	91.6	Pulse	0.30	3
3	Tb		1,393,498.87	0.82	97.2	Pulse	0.30	3

Quantitation Report

File Name	026_CCB.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051019m2.b
Method File	
Method Path	
Acq Time	5/10/2019 15:25
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.015	ug/l	5.27	101.33	5.731E-05	Pulse	0.25	3
B			1	0.027	ug/l	506.26	11,740.71	6.641E-03	Pulse	0.15	3
Ca			1	-4.120	ug/l	-33.55	23,090.15	8.269E-03	Pulse	0.10	3
Sr			1	0.042	ug/l	22.35	2,060.26	7.004E-04	Pulse	0.10	3
Mo			1	0.239	ug/l	12.39	1,300.12	4.406E-04	Pulse	0.10	3
Ag			1	0.006	ug/l	31.32	123.34	4.144E-05	Pulse	0.10	3
Sn			1	0.105	ug/l	6.58	2,457.00	8.237E-04	Pulse	0.10	3
Sb			1	0.027	ug/l	81.73	1,676.85	4.768E-04	Pulse	0.10	3
Ba			1	0.012	ug/l	9.14	93.33	2.654E-05	Pulse	0.10	3
Tl			1	0.012	ug/l	5.41	516.70	2.755E-04	Pulse	0.10	3
Pb			1	0.016	ug/l	34.79	260.01	1.392E-04	Pulse	0.10	3
Pb			1	0.018	ug/l	46.61	206.68	1.101E-04	Pulse	0.10	3
Pb			1	0.015	ug/l	15.28	930.05	4.966E-04	Pulse	0.10	3
Na			2	2.756	ug/l	19.26	9,453.26	8.671E-02	Pulse	0.30	3
Mg			2	1.077	ug/l	25.55	944.49	8.655E-03	Pulse	0.30	3
Al			2	3.013	ug/l	4.70	592.24	5.432E-03	Pulse	0.30	3
K			2	-0.302	ug/l	-186.53	8,146.91	7.472E-02	Pulse	0.30	3
Ca			2	-0.114	ug/l	-2260.53	194.45	1.786E-03	Pulse	0.30	3
Ti			2	0.107	ug/l	66.64	13.33	1.228E-04	Pulse	0.30	3
V			2	0.013	ug/l	127.01	394.46	3.615E-03	Pulse	0.30	3
Cr			2	0.031	ug/l	8.03	448.90	4.117E-03	Pulse	0.30	3
Mn			2	0.014	ug/l	48.17	98.89	9.080E-04	Pulse	0.30	3
Fe			2	1.913	ug/l	3.19	13,711.38	1.257E-01	Pulse	0.30	3
Co			2	0.007	ug/l	30.12	106.67	9.779E-04	Pulse	0.30	3
Ni			2	0.041	ug/l	22.71	118.89	1.089E-03	Pulse	0.30	3
Cu			2	0.059	ug/l	21.89	825.59	7.574E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	-0.406	ug/l	-9.07	278.90	2.556E-03	Pulse	0.30	3
As			2	0.021	ug/l	31.80	13.67	1.253E-04	Pulse	1.00	3
Cd			2	0.012	ug/l	31.22	34.82	7.161E-05	Pulse	0.30	3
Sn			2	-0.379	ug/l	-2.35	556.69	1.145E-03	Pulse	0.30	3
Se			3	0.048	ug/l	129.09	11.33	9.572E-05	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,769,435.20	2.44	84.6	Pulse	0.10	3
1	Sc		2,795,154.02	3.17	87.4	Pulse	0.10	3
1	Ge		665,790.47	3.54	90.3	Pulse	0.10	3
1	Rh		2,953,260.69	3.69	93.3	Pulse	0.10	3
1	In		2,983,306.68	4.96	94.7	Pulse	0.10	3
1	Tb		3,516,129.63	1.94	96.6	Pulse	0.10	3
1	Ho		333,447.92	4.08	97.3	Pulse	0.10	3
1	Bi		1,874,468.57	3.30	99.8	Pulse	0.10	3
2	Sc		109,032.40	1.08	85.7	Pulse	0.30	3
2	Ge		85,984.71	0.61	88.7	Pulse	0.30	3
2	Rh		1,376,948.03	0.48	91.7	Pulse	0.30	3
2	In		486,165.47	0.24	91.9	Pulse	0.30	3
2	Tb		1,486,719.66	0.57	94.1	Pulse	0.30	3
2	Ho		141,599.72	1.03	95.4	Pulse	0.30	3
2	Bi		900,045.59	1.01	96.7	Pulse	0.30	3
3	Sc		147,649.62	0.69	91.4	Pulse	0.30	3
3	Ge		118,702.98	1.15	92.8	Pulse	0.30	3
3	Rh		1,043,757.14	1.21	93.8	Pulse	0.30	3
3	Tb		1,375,651.51	1.81	95.9	Pulse	0.30	3

Quantitation Report

File Name	027SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051019m2.b
Method File	
Method Path	
Acq Time	5/10/2019 15:29
Sample Name	mp14909-mb1 4
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.011	ug/l	99.59	48.00	2.767E-05	Pulse	0.25	3
B			1	0.457	ug/l	21.33	12,490.28	7.213E-03	Pulse	0.15	3
Ca			1	12.912	ug/l	12.34	32,021.04	1.152E-02	Pulse	0.10	3
Sr			1	0.144	ug/l	18.20	3,060.48	1.061E-03	Pulse	0.10	3
Mo			1	0.600	ug/l	10.40	1,720.19	5.933E-04	Pulse	0.10	3
Ag			1	0.018	ug/l	27.95	173.34	5.827E-05	Pulse	0.10	3
Sn			1	0.605	ug/l	6.88	4,490.92	1.520E-03	Pulse	0.10	3
Sb			1	0.145	ug/l	8.99	2,206.94	6.238E-04	Pulse	0.10	3
Ba			1	0.097	ug/l	23.34	260.01	7.330E-05	Pulse	0.10	3
Tl			1	0.011	ug/l	32.87	360.02	1.954E-04	Pulse	0.10	3
Pb			1	0.027	ug/l	57.84	233.35	1.272E-04	Pulse	0.10	3
Pb			1	0.025	ug/l	47.92	166.68	9.134E-05	Pulse	0.10	3
Pb			1	0.029	ug/l	35.71	883.39	4.821E-04	Pulse	0.10	3
Na			2	12.300	ug/l	4.47	12,428.92	1.169E-01	Pulse	0.30	3
Mg			2	1.905	ug/l	25.65	867.81	8.154E-03	Pulse	0.30	3
Al			2	2.572	ug/l	33.76	336.68	3.162E-03	Pulse	0.30	3
K			2	1.025	ug/l	164.88	8,184.71	7.696E-02	Pulse	0.30	3
Ca			2	21.540	ug/l	4.88	361.12	3.396E-03	Pulse	0.30	3
Ti			2	0.438	ug/l	58.06	26.66	2.513E-04	Pulse	0.30	3
V			2	0.570	ug/l	9.61	1,414.54	1.330E-02	Pulse	0.30	3
Cr			2	0.262	ug/l	7.05	901.16	8.474E-03	Pulse	0.30	3
Mn			2	0.207	ug/l	9.58	310.00	2.914E-03	Pulse	0.30	3
Fe			2	4.945	ug/l	11.76	15,558.13	1.462E-01	Pulse	0.30	3
Co			2	0.011	ug/l	30.44	96.67	9.096E-04	Pulse	0.30	3
Ni			2	0.085	ug/l	25.83	118.89	1.117E-03	Pulse	0.30	3
Cu			2	0.241	ug/l	8.32	1,121.17	1.055E-02	Pulse	0.30	3
Zn			2	6.309	ug/l	5.00	2,828.11	2.660E-02	Pulse	0.30	3
As			2	0.140	ug/l	9.73	34.00	3.196E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	-0.004	ug/l	-92.39	7.36	1.566E-05	Pulse	0.30	3
Sn			2	-0.364	ug/l	-12.48	942.27	2.012E-03	Pulse	0.30	3
Se			3	0.243	ug/l	42.27	19.33	1.542E-04	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,731,569.75	0.61	82.7	Pulse	0.10	3
1	Sc		2,780,782.35	2.76	87.0	Pulse	0.10	3
1	Ge		671,869.14	3.10	91.1	Pulse	0.10	3
1	Rh		2,893,456.94	3.65	91.4	Pulse	0.10	3
1	In		2,956,478.04	4.04	93.9	Pulse	0.10	3
1	Tb		3,538,443.38	3.53	97.2	Pulse	0.10	3
1	Ho		331,657.49	2.76	96.8	Pulse	0.10	3
1	Bi		1,837,795.75	4.61	97.8	Pulse	0.10	3
2	Sc		106,348.76	0.88	83.6	Pulse	0.30	3
2	Ge		86,285.50	0.60	89.0	Pulse	0.30	3
2	Rh		1,347,500.47	1.26	89.7	Pulse	0.30	3
2	In		468,254.24	1.14	88.5	Pulse	0.30	3
2	Tb		1,468,754.46	0.21	92.9	Pulse	0.30	3
2	Ho		138,471.11	0.63	93.3	Pulse	0.30	3
2	Bi		875,791.79	0.44	94.1	Pulse	0.30	3
3	Sc		144,585.68	1.60	89.5	Pulse	0.30	3
3	Ge		125,453.62	1.48	98.1	Pulse	0.30	3
3	Rh		1,021,904.02	1.34	91.9	Pulse	0.30	3
3	Tb		1,373,201.23	1.26	95.7	Pulse	0.30	3

Quantitation Report

File Name	028SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051019m2.b
Method File	
Method Path	
Acq Time	5/10/2019 15:34
Sample Name	mp14909-mb2
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.000	ug/l	-2212.71	16.00	9.078E-06	Pulse	0.25	3
B			1	0.448	ug/l	28.45	12,694.82	7.201E-03	Pulse	0.15	3
Ca			1	13.316	ug/l	4.88	32,732.76	1.158E-02	Pulse	0.10	3
Sr			1	0.208	ug/l	3.96	4,237.50	1.453E-03	Pulse	0.10	3
Mo			1	0.350	ug/l	6.90	810.06	2.777E-04	Pulse	0.10	3
Ag			1	0.007	ug/l	103.51	86.67	2.873E-05	Pulse	0.10	3
Sn			1	0.416	ug/l	2.42	3,510.59	1.186E-03	Pulse	0.10	3
Sb			1	0.044	ug/l	38.65	1,626.83	4.595E-04	Pulse	0.10	3
Ba			1	0.061	ug/l	21.40	176.68	5.013E-05	Pulse	0.10	3
Tl			1	0.004	ug/l	75.64	273.35	1.490E-04	Pulse	0.10	3
Pb			1	0.013	ug/l	60.85	180.01	9.767E-05	Pulse	0.10	3
Pb			1	0.015	ug/l	105.71	133.34	7.321E-05	Pulse	0.10	3
Pb			1	0.012	ug/l	46.21	643.37	3.495E-04	Pulse	0.10	3
Na			2	12.810	ug/l	3.97	12,903.79	1.191E-01	Pulse	0.30	3
Mg			2	0.652	ug/l	38.44	610.02	5.629E-03	Pulse	0.30	3
Al			2	1.039	ug/l	47.06	233.34	2.154E-03	Pulse	0.30	3
K			2	0.654	ug/l	106.36	8,280.31	7.645E-02	Pulse	0.30	3
Ca			2	24.469	ug/l	12.66	391.12	3.613E-03	Pulse	0.30	3
Ti			2	0.411	ug/l	53.80	25.56	2.356E-04	Pulse	0.30	3
V			2	0.546	ug/l	7.13	1,393.42	1.287E-02	Pulse	0.30	3
Cr			2	0.318	ug/l	8.37	1,047.83	9.677E-03	Pulse	0.30	3
Mn			2	0.221	ug/l	2.96	332.23	3.067E-03	Pulse	0.30	3
Fe			2	23.783	ug/l	0.77	53,227.80	4.914E-01	Pulse	0.30	3
Co			2	0.017	ug/l	9.46	122.23	1.128E-03	Pulse	0.30	3
Ni			2	2.267	ug/l	1.71	2,290.22	2.114E-02	Pulse	0.30	3
Cu			2	3.683	ug/l	4.52	10,143.84	9.369E-02	Pulse	0.30	3
Zn			2	3.535	ug/l	9.69	1,867.93	1.723E-02	Pulse	0.30	3
As			2	0.078	ug/l	5.34	21.33	1.970E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	-0.006	ug/l	-193.30	5.61	1.196E-05	Pulse	0.30	3
Sn			2	-0.536	ug/l	-15.85	762.25	1.635E-03	Pulse	0.30	3
Se			3	0.040	ug/l	279.60	9.33	7.323E-05	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,763,004.95	1.59	84.3	Pulse	0.10	3
1	Sc		2,827,210.69	3.01	88.4	Pulse	0.10	3
1	Ge		687,679.99	3.89	93.2	Pulse	0.10	3
1	Rh		2,913,931.31	3.32	92.1	Pulse	0.10	3
1	In		2,962,078.17	4.69	94.1	Pulse	0.10	3
1	Tb		3,542,175.37	4.90	97.3	Pulse	0.10	3
1	Ho		331,659.01	4.98	96.8	Pulse	0.10	3
1	Bi		1,835,670.96	3.78	97.7	Pulse	0.10	3
2	Sc		108,324.99	1.60	85.1	Pulse	0.30	3
2	Ge		86,692.57	0.53	89.4	Pulse	0.30	3
2	Rh		1,367,644.53	0.27	91.1	Pulse	0.30	3
2	In		466,354.58	1.30	88.1	Pulse	0.30	3
2	Tb		1,480,568.76	0.93	93.7	Pulse	0.30	3
2	Ho		140,647.32	0.52	94.7	Pulse	0.30	3
2	Bi		872,349.71	0.57	93.7	Pulse	0.30	3
3	Sc		147,065.93	0.64	91.1	Pulse	0.30	3
3	Ge		126,903.65	1.06	99.2	Pulse	0.30	3
3	Rh		1,038,839.44	1.45	93.4	Pulse	0.30	3
3	Tb		1,385,069.08	1.59	96.6	Pulse	0.30	3

Quantitation Report

File Name	029SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051019m2.b
Method File	
Method Path	
Acq Time	5/10/2019 15:39
Sample Name	mp14909-b2
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	79.050	ug/l	1.34	229,469.91	1.299E-01	Pulse	0.25	3
B			1	83.435	ug/l	2.97	221,482.18	1.254E-01	Pulse	0.15	3
Ca			1	4015.333	ug/l	0.31	1,813,695.28	6.260E-01	Pulse	0.10	3
Sr			1	82.839	ug/l	0.24	1,475,905.40	5.057E-01	Pulse	0.10	3
Mo			1	78.597	ug/l	0.07	288,836.94	9.897E-02	Pulse	0.10	3
Ag			1	76.466	ug/l	2.34	639,461.79	2.146E-01	Pulse	0.10	3
Sn			1	74.657	ug/l	0.38	393,090.44	1.320E-01	Pulse	0.10	3
Sb			1	77.381	ug/l	0.50	455,361.91	1.266E-01	Pulse	0.10	3
Ba			1	80.535	ug/l	2.26	182,217.35	5.066E-02	Pulse	0.10	3
Tl			1	82.180	ug/l	2.24	898,784.13	4.920E-01	Pulse	0.10	3
Pb			1	80.684	ug/l	2.28	303,558.12	1.662E-01	Pulse	0.10	3
Pb			1	80.758	ug/l	1.49	262,657.03	1.438E-01	Pulse	0.10	3
Pb			1	81.088	ug/l	1.55	1,214,019.54	6.646E-01	Pulse	0.10	3
Na			2	3898.914	ug/l	0.33	1,937,417.49	1.738E+01	Pulse	0.30	3
Mg			2	3915.496	ug/l	1.05	880,045.17	7.894E+00	Pulse	0.30	3
Al			2	3986.376	ug/l	1.02	292,288.46	2.622E+00	Pulse	0.30	3
K			2	4000.651	ug/l	0.77	620,932.39	5.570E+00	Pulse	0.30	3
Ca			2	4392.314	ug/l	2.62	36,416.53	3.267E-01	Pulse	0.30	3
Ti			2	77.407	ug/l	3.80	4,953.17	4.443E-02	Pulse	0.30	3
V			2	81.075	ug/l	0.26	161,070.52	1.445E+00	Pulse	0.30	3
Cr			2	81.926	ug/l	0.98	198,390.39	1.780E+00	Pulse	0.30	3
Mn			2	80.849	ug/l	0.31	100,878.75	9.049E-01	Pulse	0.30	3
Fe			2	4309.955	ug/l	2.13	8,809,382.99	7.902E+01	Analog	0.30	3
Co			2	81.267	ug/l	1.02	312,449.54	2.803E+00	Pulse	0.30	3
Ni			2	80.673	ug/l	0.89	82,558.27	7.405E-01	Pulse	0.30	3
Cu			2	82.206	ug/l	1.09	221,883.44	1.990E+00	Pulse	0.30	3
Zn			2	83.870	ug/l	0.63	32,152.13	2.884E-01	Pulse	0.30	3
As			2	70.563	ug/l	1.48	15,521.80	1.392E-01	Pulse	1.00	3
Cd			2	77.457	ug/l	2.18	72,906.72	1.525E-01	Pulse	0.30	3
Sn			2	77.722	ug/l	0.43	82,990.37	1.736E-01	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	336.909	ug/l	2.48	17,174.19	1.344E-01	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,766,144.99	1.70	84.4	Pulse	0.10	3
1	Sc		2,897,503.60	3.22	90.6	Pulse	0.10	3
1	Ge		702,154.89	2.70	95.2	Pulse	0.10	3
1	Rh		2,918,426.52	2.83	92.2	Pulse	0.10	3
1	In		2,978,841.87	3.05	94.6	Pulse	0.10	3
1	Tb		3,598,656.20	4.01	98.8	Pulse	0.10	3
1	Ho		337,108.46	3.32	98.3	Pulse	0.10	3
1	Bi		1,826,660.81	3.60	97.2	Pulse	0.10	3
2	Sc		111,481.47	0.17	87.6	Pulse	0.30	3
2	Ge		88,249.04	0.63	91.0	Pulse	0.30	3
2	Rh		1,375,900.22	0.30	91.6	Pulse	0.30	3
2	In		478,123.51	0.83	90.4	Pulse	0.30	3
2	Tb		1,507,814.73	0.50	95.4	Pulse	0.30	3
2	Ho		142,626.17	1.29	96.1	Pulse	0.30	3
2	Bi		877,770.87	0.43	94.3	Pulse	0.30	3
3	Sc		147,863.45	0.57	91.6	Pulse	0.30	3
3	Ge		127,796.82	0.24	99.9	Pulse	0.30	3
3	Rh		1,024,505.48	0.63	92.1	Pulse	0.30	3
3	Tb		1,378,034.25	0.60	96.1	Pulse	0.30	3

Quantitation Report

File Name	030SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051019m2.b
Method File	
Method Path	
Acq Time	5/10/2019 15:44
Sample Name	mp14909-b3
Sample Type	Sample
Comment	
Prep Dilution	25.000
Auto Dilution	N/A
Total Dilution	25.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	1993.069	ug/l	1.51	507,998.41	2.621E-01	Pulse	0.25	3
B			1	1852.843	ug/l	2.89	422,061.55	2.177E-01	Pulse	0.15	3
Ca			1	24849.700	ug/l	0.71	968,553.47	3.147E-01	Pulse	0.10	3
Sr			1	1987.840	ug/l	1.22	3,023,381.31	9.706E-01	Pulse	0.10	3
Mo			1	1859.174	ug/l	0.84	583,760.24	1.874E-01	Pulse	0.10	3
Ag			1	229.424	ug/l	2.13	161,142.86	5.152E-02	Pulse	0.10	3
Sn			1	1779.632	ug/l	1.23	785,492.28	2.512E-01	Pulse	0.10	3
Sb			1	2022.297	ug/l	1.84	966,454.00	2.642E-01	Pulse	0.10	3
Ba			1	1989.705	ug/l	0.46	366,327.01	1.001E-01	Pulse	0.10	3
Tl			1	1968.962	ug/l	0.68	1,807,141.07	9.429E-01	Pulse	0.10	3
Pb			1	1965.661	ug/l	0.76	620,610.12	3.238E-01	Pulse	0.10	3
Pb			1	1968.756	ug/l	1.41	537,295.69	2.803E-01	Pulse	0.10	3
Pb			1	1975.588	ug/l	0.56	2,481,719.96	1.295E+00	Pulse	0.10	3
Na			2	23509.013	ug/l	0.66	1,017,903.05	8.415E+00	Pulse	0.30	3
Mg			2	23779.614	ug/l	0.56	464,191.27	3.838E+00	Pulse	0.30	3
Al			2	24416.721	ug/l	0.56	155,489.85	1.285E+00	Pulse	0.30	3
K			2	24551.576	ug/l	0.63	335,417.35	2.773E+00	Pulse	0.30	3
Ca			2	33891.176	ug/l	2.67	24,472.70	2.023E-01	Pulse	0.30	3
Ti			2	1852.795	ug/l	1.52	10,290.58	8.508E-02	Pulse	0.30	3
V			2	1964.073	ug/l	0.82	338,336.64	2.797E+00	Pulse	0.30	3
Cr			2	1973.012	ug/l	0.69	414,403.59	3.426E+00	Pulse	0.30	3
Mn			2	1978.603	ug/l	1.24	214,226.68	1.771E+00	Pulse	0.30	3
Fe			2	23063.275	ug/l	1.51	4,095,564.14	3.386E+01	Pulse	0.30	3
Co			2	1971.977	ug/l	1.31	658,036.40	5.440E+00	Pulse	0.30	3
Ni			2	1951.593	ug/l	1.07	173,319.95	1.433E+00	Pulse	0.30	3
Cu			2	1955.716	ug/l	1.11	457,684.13	3.784E+00	Pulse	0.30	3
Zn			2	2144.455	ug/l	0.59	70,688.61	5.844E-01	Pulse	0.30	3
As			2	1922.333	ug/l	1.30	36,697.52	3.034E-01	Pulse	1.00	3
Cd			2	2047.430	ug/l	0.65	167,477.89	3.225E-01	Pulse	0.30	3
Sn			2	1831.145	ug/l	0.84	168,629.35	3.247E-01	Pulse	0.30	3
Se			3	2142.344	ug/l	5.57	8,353.95	6.839E-02	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,938,347.27	0.81	92.6	Pulse	0.10	3
1	Sc		3,077,235.79	3.36	96.2	Pulse	0.10	3
1	Ge		727,427.18	3.06	98.6	Pulse	0.10	3

Quantitation Report

1	Rh		3,114,273.39	3.94	98.4	Pulse	0.10	3
1	In		3,126,387.68	4.13	99.3	Pulse	0.10	3
1	Tb		3,658,259.11	3.67	100.5	Pulse	0.10	3
1	Ho		344,825.93	3.84	100.6	Pulse	0.10	3
1	Bi		1,916,149.97	4.40	102.0	Pulse	0.10	3
2	Sc		120,961.80	0.48	95.1	Pulse	0.30	3
2	Ge		92,906.32	0.57	95.8	Pulse	0.30	3
2	Rh		1,462,374.63	0.83	97.4	Pulse	0.30	3
2	In		519,388.72	0.59	98.2	Pulse	0.30	3
2	Tb		1,581,871.39	0.49	100.1	Pulse	0.30	3
2	Ho		148,516.88	0.92	100.0	Pulse	0.30	3
2	Bi		933,859.83	1.24	100.3	Pulse	0.30	3
3	Sc		153,706.37	0.66	95.2	Pulse	0.30	3
3	Ge		122,127.49	0.95	95.5	Pulse	0.30	3
3	Rh		1,056,785.03	0.59	95.0	Pulse	0.30	3
3	Tb		1,397,365.47	0.38	97.4	Pulse	0.30	3

Quantitation Report

File Name	031SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051019m2.b
Method File	
Method Path	
Acq Time	5/10/2019 15:48
Sample Name	sampleconf
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.043	ug/l	19.02	141.33	7.971E-05	Pulse	0.25	3
B			1	2.607	ug/l	10.38	18,241.04	1.028E-02	Pulse	0.15	3
Ca			1	61.327	ug/l	1.91	53,205.98	1.895E-02	Pulse	0.10	3
Sr			1	0.136	ug/l	7.92	2,950.43	1.013E-03	Pulse	0.10	3
Mo			1	0.679	ug/l	4.55	2,020.23	6.933E-04	Pulse	0.10	3
Ag			1	0.014	ug/l	54.57	140.01	4.770E-05	Pulse	0.10	3
Sn			1	0.981	ug/l	10.52	6,365.11	2.182E-03	Pulse	0.10	3
Sb			1	0.067	ug/l	15.45	1,720.18	4.978E-04	Pulse	0.10	3
Ba			1	0.597	ug/l	3.70	1,340.13	3.875E-04	Pulse	0.10	3
Tl			1	0.119	ug/l	16.45	1,503.49	8.381E-04	Pulse	0.10	3
Pb			1	0.239	ug/l	10.38	1,013.41	5.635E-04	Pulse	0.10	3
Pb			1	0.223	ug/l	3.82	803.39	4.449E-04	Pulse	0.10	3
Pb			1	0.247	ug/l	1.73	4,093.78	2.271E-03	Pulse	0.10	3
Na			2	20.430	ug/l	3.21	16,618.80	1.530E-01	Pulse	0.30	3
Mg			2	3.431	ug/l	7.18	1,220.07	1.123E-02	Pulse	0.30	3
Al			2	14.285	ug/l	8.65	1,180.07	1.086E-02	Pulse	0.30	3
K			2	4.304	ug/l	21.92	8,850.67	8.146E-02	Pulse	0.30	3
Ca			2	71.869	ug/l	10.38	773.37	7.118E-03	Pulse	0.30	3
Ti			2	0.446	ug/l	59.37	27.78	2.559E-04	Pulse	0.30	3
V			2	0.587	ug/l	6.30	1,477.88	1.360E-02	Pulse	0.30	3
Cr			2	0.315	ug/l	1.94	1,045.61	9.624E-03	Pulse	0.30	3
Mn			2	0.475	ug/l	3.52	642.24	5.911E-03	Pulse	0.30	3
Fe			2	4.327	ug/l	4.84	14,659.04	1.349E-01	Pulse	0.30	3
Co			2	0.025	ug/l	38.73	152.22	1.401E-03	Pulse	0.30	3
Ni			2	0.448	ug/l	6.86	483.35	4.449E-03	Pulse	0.30	3
Cu			2	6.149	ug/l	0.71	16,650.19	1.532E-01	Pulse	0.30	3
Zn			2	15.234	ug/l	2.75	6,162.58	5.672E-02	Pulse	0.30	3
As			2	0.179	ug/l	23.94	43.00	3.958E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	0.019	ug/l	114.71	28.11	6.054E-05	Pulse	0.30	3
Sn			2	-0.065	ug/l	-155.11	1,242.30	2.669E-03	Pulse	0.30	3
Se			3	0.118	ug/l	136.11	13.33	1.042E-04	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,775,531.67	1.27	84.9	Pulse	0.10	3
1	Sc		2,808,073.60	3.85	87.8	Pulse	0.10	3
1	Ge		681,956.08	2.53	92.5	Pulse	0.10	3
1	Rh		2,918,556.10	4.79	92.2	Pulse	0.10	3
1	In		2,914,098.66	2.57	92.5	Pulse	0.10	3
1	Tb		3,456,303.59	3.45	94.9	Pulse	0.10	3
1	Ho		326,832.30	3.69	95.4	Pulse	0.10	3
1	Bi		1,803,776.85	6.14	96.0	Pulse	0.10	3
2	Sc		108,648.94	0.16	85.4	Pulse	0.30	3
2	Ge		86,811.36	1.11	89.5	Pulse	0.30	3
2	Rh		1,354,515.33	0.97	90.2	Pulse	0.30	3
2	In		465,433.43	0.58	88.0	Pulse	0.30	3
2	Tb		1,457,145.22	0.94	92.2	Pulse	0.30	3
2	Ho		137,055.36	0.72	92.3	Pulse	0.30	3
2	Bi		860,588.77	0.59	92.5	Pulse	0.30	3
3	Sc		146,975.10	1.78	91.0	Pulse	0.30	3
3	Ge		128,726.45	1.66	100.6	Pulse	0.30	3
3	Rh		1,025,059.89	1.90	92.1	Pulse	0.30	3
3	Tb		1,362,296.54	2.07	95.0	Pulse	0.30	3

Quantitation Report

File Name	032SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051019m2.b
Method File	
Method Path	
Acq Time	5/10/2019 15:53
Sample Name	sampleconf
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.004	ug/l	128.39	28.00	1.514E-05	Pulse	0.25	3
B			1	1.094	ug/l	5.99	14,928.14	8.122E-03	Pulse	0.15	3
Ca			1	14.371	ug/l	25.94	33,985.86	1.174E-02	Pulse	0.10	3
Sr			1	0.199	ug/l	4.98	4,100.79	1.398E-03	Pulse	0.10	3
Mo			1	0.259	ug/l	0.36	480.03	1.638E-04	Pulse	0.10	3
Ag			1	0.007	ug/l	51.86	80.00	2.675E-05	Pulse	0.10	3
Sn			1	0.349	ug/l	10.75	3,183.85	1.069E-03	Pulse	0.10	3
Sb			1	-0.042	ug/l	-27.39	1,123.43	3.201E-04	Pulse	0.10	3
Ba			1	0.023	ug/l	12.87	93.33	2.659E-05	Pulse	0.10	3
Tl			1	0.021	ug/l	41.71	453.36	2.505E-04	Pulse	0.10	3
Pb			1	0.006	ug/l	420.17	153.34	8.412E-05	Pulse	0.10	3
Pb			1	0.031	ug/l	69.39	180.01	1.016E-04	Pulse	0.10	3
Pb			1	0.015	ug/l	38.21	663.37	3.691E-04	Pulse	0.10	3
Na			2	9.734	ug/l	8.71	11,590.40	1.055E-01	Pulse	0.30	3
Mg			2	-0.028	ug/l	-1016.63	467.79	4.258E-03	Pulse	0.30	3
Al			2	0.485	ug/l	60.08	196.67	1.790E-03	Pulse	0.30	3
K			2	0.476	ug/l	235.19	8,374.83	7.620E-02	Pulse	0.30	3
Ca			2	19.494	ug/l	21.95	356.68	3.245E-03	Pulse	0.30	3
Ti			2	0.158	ug/l	33.05	10.00	9.097E-05	Pulse	0.30	3
V			2	0.503	ug/l	25.16	1,330.08	1.210E-02	Pulse	0.30	3
Cr			2	0.275	ug/l	8.35	961.15	8.746E-03	Pulse	0.30	3
Mn			2	0.230	ug/l	17.47	347.79	3.166E-03	Pulse	0.30	3
Fe			2	23.898	ug/l	2.42	54,228.17	4.935E-01	Pulse	0.30	3
Co			2	0.023	ug/l	35.68	143.33	1.304E-03	Pulse	0.30	3
Ni			2	2.316	ug/l	4.73	2,372.46	2.159E-02	Pulse	0.30	3
Cu			2	3.703	ug/l	1.55	10,347.32	9.415E-02	Pulse	0.30	3
Zn			2	3.322	ug/l	9.61	1,814.59	1.651E-02	Pulse	0.30	3
As			2	0.080	ug/l	10.97	22.00	2.001E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	-0.006	ug/l	-116.95	5.89	1.243E-05	Pulse	0.30	3
Sn			2	-0.588	ug/l	-9.83	723.36	1.519E-03	Pulse	0.30	3
Se			3	0.012	ug/l	591.59	8.00	6.193E-05	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,837,950.21	2.00	87.8	Pulse	0.10	3
1	Sc		2,897,702.67	3.56	90.6	Pulse	0.10	3
1	Ge		696,899.39	3.83	94.5	Pulse	0.10	3
1	Rh		2,931,496.83	3.71	92.6	Pulse	0.10	3
1	In		2,975,755.85	3.50	94.5	Pulse	0.10	3
1	Tb		3,513,741.20	4.36	96.5	Pulse	0.10	3
1	Ho		328,323.03	4.44	95.8	Pulse	0.10	3
1	Bi		1,797,145.70	5.82	95.7	Pulse	0.10	3
2	Sc		109,898.98	0.67	86.4	Pulse	0.30	3
2	Ge		88,696.36	0.84	91.5	Pulse	0.30	3
2	Rh		1,379,636.61	0.17	91.9	Pulse	0.30	3
2	In		476,351.60	0.85	90.0	Pulse	0.30	3
2	Tb		1,489,308.10	0.60	94.2	Pulse	0.30	3
2	Ho		138,643.57	1.11	93.4	Pulse	0.30	3
2	Bi		867,389.29	0.64	93.2	Pulse	0.30	3
3	Sc		151,116.12	0.64	93.6	Pulse	0.30	3
3	Ge		129,379.46	0.59	101.1	Pulse	0.30	3
3	Rh		1,048,284.19	0.68	94.2	Pulse	0.30	3
3	Tb		1,387,185.36	0.96	96.7	Pulse	0.30	3

Quantitation Report

File Name	033SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051019m2.b
Method File	
Method Path	
Acq Time	5/10/2019 16:02
Sample Name	mp14909-mb1 4
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.003	ug/l	101.22	26.67	1.438E-05	Pulse	0.25	3
B			1	-0.114	ug/l	-96.59	11,831.89	6.401E-03	Pulse	0.15	3
Ca			1	6.214	ug/l	14.34	30,300.38	1.049E-02	Pulse	0.10	3
Sr			1	0.031	ug/l	17.06	1,083.42	3.732E-04	Pulse	0.10	3
Mo			1	0.183	ug/l	7.13	196.68	6.808E-05	Pulse	0.10	3
Ag			1	0.004	ug/l	83.31	53.33	1.824E-05	Pulse	0.10	3
Sn			1	0.156	ug/l	24.35	2,120.25	7.279E-04	Pulse	0.10	3
Sb			1	-0.067	ug/l	-61.24	960.08	2.785E-04	Pulse	0.10	3
Ba			1	0.025	ug/l	37.75	96.67	2.802E-05	Pulse	0.10	3
Tl			1	-0.002	ug/l	-33.70	203.34	1.146E-04	Pulse	0.10	3
Pb			1	0.027	ug/l	60.60	226.68	1.280E-04	Pulse	0.10	3
Pb			1	0.068	ug/l	35.46	296.68	1.677E-04	Pulse	0.10	3
Pb			1	0.038	ug/l	16.28	990.06	5.595E-04	Pulse	0.10	3
Na			2	4.833	ug/l	6.70	9,408.81	8.369E-02	Pulse	0.30	3
Mg			2	-0.366	ug/l	-59.64	402.23	3.578E-03	Pulse	0.30	3
Al			2	0.468	ug/l	34.97	200.00	1.779E-03	Pulse	0.30	3
K			2	0.992	ug/l	163.97	8,647.22	7.691E-02	Pulse	0.30	3
Ca			2	13.055	ug/l	28.41	311.12	2.769E-03	Pulse	0.30	3
Ti			2	0.172	ug/l	75.99	11.11	9.895E-05	Pulse	0.30	3
V			2	0.537	ug/l	7.49	1,430.10	1.272E-02	Pulse	0.30	3
Cr			2	0.234	ug/l	1.36	883.37	7.857E-03	Pulse	0.30	3
Mn			2	0.147	ug/l	6.76	251.12	2.234E-03	Pulse	0.30	3
Fe			2	-0.416	ug/l	-22.78	5,396.69	4.801E-02	Pulse	0.30	3
Co			2	0.006	ug/l	97.56	84.44	7.501E-04	Pulse	0.30	3
Ni			2	0.067	ug/l	40.55	107.78	9.590E-04	Pulse	0.30	3
Cu			2	1.314	ug/l	1.35	4,098.43	3.645E-02	Pulse	0.30	3
Zn			2	6.548	ug/l	4.50	3,080.38	2.740E-02	Pulse	0.30	3
As			2	0.055	ug/l	20.70	17.00	1.511E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	-0.003	ug/l	-228.78	8.28	1.729E-05	Pulse	0.30	3
Sn			2	-0.777	ug/l	-0.64	527.80	1.104E-03	Pulse	0.30	3
Se			3	0.098	ug/l	175.98	12.67	9.633E-05	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,848,837.69	1.38	88.4	Pulse	0.10	3
1	Sc		2,889,210.37	1.72	90.3	Pulse	0.10	3
1	Ge		685,980.00	4.30	93.0	Pulse	0.10	3
1	Rh		2,910,310.37	4.54	91.9	Pulse	0.10	3
1	In		2,905,310.66	4.26	92.3	Pulse	0.10	3
1	Tb		3,425,858.28	4.99	94.1	Pulse	0.10	3
1	Ho		323,977.26	3.92	94.5	Pulse	0.10	3
1	Bi		1,773,803.98	4.16	94.4	Pulse	0.10	3
2	Sc		112,428.56	0.70	88.3	Pulse	0.30	3
2	Ge		89,214.41	1.01	92.0	Pulse	0.30	3
2	Rh		1,378,498.31	0.62	91.8	Pulse	0.30	3
2	In		478,075.88	1.28	90.4	Pulse	0.30	3
2	Tb		1,487,359.07	1.18	94.1	Pulse	0.30	3
2	Ho		139,830.17	0.92	94.2	Pulse	0.30	3
2	Bi		867,948.59	0.11	93.3	Pulse	0.30	3
3	Sc		149,374.22	0.78	92.5	Pulse	0.30	3
3	Ge		131,355.83	0.54	102.7	Pulse	0.30	3
3	Rh		1,037,185.45	0.87	93.2	Pulse	0.30	3
3	Tb		1,367,373.66	1.17	95.3	Pulse	0.30	3

Quantitation Report

File Name	034SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051019m2.b
Method File	
Method Path	
Acq Time	5/10/2019 16:06
Sample Name	mp14909-mb2
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.000	ug/l	3639.56	17.33	9.334E-06	Pulse	0.25	3
B			1	-0.155	ug/l	-96.33	11,860.78	6.342E-03	Pulse	0.15	3
Ca			1	13.983	ug/l	5.32	34,507.00	1.168E-02	Pulse	0.10	3
Sr			1	0.183	ug/l	6.60	3,854.05	1.301E-03	Pulse	0.10	3
Mo			1	0.190	ug/l	5.19	226.68	7.658E-05	Pulse	0.10	3
Ag			1	0.001	ug/l	164.74	33.33	1.124E-05	Pulse	0.10	3
Sn			1	0.148	ug/l	11.41	2,110.26	7.151E-04	Pulse	0.10	3
Sb			1	-0.071	ug/l	-12.62	960.07	2.721E-04	Pulse	0.10	3
Ba			1	0.044	ug/l	37.92	140.01	3.975E-05	Pulse	0.10	3
Tl			1	0.007	ug/l	48.17	303.35	1.665E-04	Pulse	0.10	3
Pb			1	0.002	ug/l	360.85	140.01	7.660E-05	Pulse	0.10	3
Pb			1	0.015	ug/l	83.59	133.34	7.352E-05	Pulse	0.10	3
Pb			1	0.012	ug/l	29.94	633.37	3.486E-04	Pulse	0.10	3
Na			2	8.075	ug/l	5.43	11,247.92	9.809E-02	Pulse	0.30	3
Mg			2	-0.102	ug/l	-319.72	471.13	4.109E-03	Pulse	0.30	3
Al			2	0.149	ug/l	465.73	180.00	1.569E-03	Pulse	0.30	3
K			2	-0.929	ug/l	-214.73	8,517.13	7.427E-02	Pulse	0.30	3
Ca			2	24.107	ug/l	23.75	411.12	3.586E-03	Pulse	0.30	3
Ti			2	0.101	ug/l	99.78	6.67	5.802E-05	Pulse	0.30	3
V			2	0.537	ug/l	3.73	1,457.87	1.271E-02	Pulse	0.30	3
Cr			2	0.324	ug/l	8.25	1,125.62	9.816E-03	Pulse	0.30	3
Mn			2	0.201	ug/l	27.64	325.56	2.838E-03	Pulse	0.30	3
Fe			2	22.531	ug/l	2.67	53,721.78	4.684E-01	Pulse	0.30	3
Co			2	0.022	ug/l	5.69	148.89	1.298E-03	Pulse	0.30	3
Ni			2	2.150	ug/l	2.13	2,301.34	2.007E-02	Pulse	0.30	3
Cu			2	3.523	ug/l	2.00	10,299.51	8.981E-02	Pulse	0.30	3
Zn			2	3.519	ug/l	5.45	1,970.17	1.718E-02	Pulse	0.30	3
As			2	0.036	ug/l	86.75	13.00	1.135E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	-0.008	ug/l	-48.44	4.04	8.403E-06	Pulse	0.30	3
Sn			2	-0.835	ug/l	-3.15	468.90	9.760E-04	Pulse	0.30	3
Se			3	-0.069	ug/l	-53.51	4.00	2.987E-05	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,870,972.11	1.88	89.4	Pulse	0.10	3
1	Sc		2,954,062.14	2.70	92.4	Pulse	0.10	3
1	Ge		699,570.69	2.50	94.9	Pulse	0.10	3
1	Rh		2,960,709.12	3.72	93.5	Pulse	0.10	3
1	In		2,953,534.77	3.20	93.8	Pulse	0.10	3
1	Tb		3,531,016.41	3.50	97.0	Pulse	0.10	3
1	Ho		331,707.63	4.65	96.8	Pulse	0.10	3
1	Bi		1,819,468.41	2.93	96.8	Pulse	0.10	3
2	Sc		114,678.70	0.34	90.1	Pulse	0.30	3
2	Ge		89,368.49	0.87	92.2	Pulse	0.30	3
2	Rh		1,398,354.53	0.18	93.1	Pulse	0.30	3
2	In		480,402.25	0.26	90.8	Pulse	0.30	3
2	Tb		1,496,566.15	1.12	94.7	Pulse	0.30	3
2	Ho		140,543.73	0.97	94.7	Pulse	0.30	3
2	Bi		870,408.47	0.20	93.5	Pulse	0.30	3
3	Sc		153,498.90	0.21	95.1	Pulse	0.30	3
3	Ge		133,578.47	0.91	104.4	Pulse	0.30	3
3	Rh		1,054,462.56	0.62	94.8	Pulse	0.30	3
3	Tb		1,388,587.83	1.07	96.8	Pulse	0.30	3

Quantitation Report

File Name	035SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051019m2.b
Method File	
Method Path	
Acq Time	5/10/2019 16:11
Sample Name	mp14909-s3
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	80.626	ug/l	0.52	235,934.99	1.325E-01	Pulse	0.25	3
B			1	223.945	ug/l	1.12	579,583.31	3.256E-01	Pulse	0.15	3
Ca			1	49146.163	ug/l	4.17	21,894,797.17	7.555E+00	Analog	0.10	3
Sr			1	447.488	ug/l	5.28	7,267,666.56	2.731E+00	Analog	0.10	3
Mo			1	84.858	ug/l	1.64	284,802.57	1.069E-01	Pulse	0.10	3
Ag			1	73.688	ug/l	0.84	582,546.53	2.068E-01	Pulse	0.10	3
Sn			1	77.610	ug/l	0.29	386,376.45	1.372E-01	Pulse	0.10	3
Sb			1	78.521	ug/l	0.65	441,494.62	1.284E-01	Pulse	0.10	3
Ba			1	177.958	ug/l	0.67	384,932.47	1.119E-01	Pulse	0.10	3
Tl			1	85.201	ug/l	0.87	837,955.04	5.101E-01	Pulse	0.10	3
Pb			1	84.799	ug/l	1.02	286,899.92	1.747E-01	Pulse	0.10	3
Pb			1	84.785	ug/l	1.10	248,004.54	1.509E-01	Pulse	0.10	3
Pb			1	84.953	ug/l	0.79	1,143,977.29	6.962E-01	Pulse	0.10	3
Na			2	201458.011	ug/l	1.60	102,140,369.28	8.948E+02	Analog	0.30	3
Mg			2	22357.697	ug/l	0.31	5,142,940.77	4.505E+01	Pulse	0.30	3
Al			2	4014.872	ug/l	0.73	301,418.78	2.641E+00	Pulse	0.30	3
K			2	10586.935	ug/l	0.96	1,668,192.09	1.461E+01	Pulse	0.30	3
Ca			2	46348.111	ug/l	0.86	391,491.37	3.430E+00	Pulse	0.30	3
Ti			2	77.540	ug/l	1.45	5,079.89	4.451E-02	Pulse	0.30	3
V			2	83.464	ug/l	0.84	169,762.38	1.487E+00	Pulse	0.30	3
Cr			2	81.139	ug/l	0.41	201,191.56	1.762E+00	Pulse	0.30	3
Mn			2	579.715	ug/l	0.66	740,227.04	6.485E+00	Pulse	0.30	3
Fe			2	5752.859	ug/l	1.37	12,038,772.30	1.055E+02	Analog	0.30	3
Co			2	78.211	ug/l	0.94	307,876.59	2.697E+00	Pulse	0.30	3
Ni			2	79.034	ug/l	1.52	82,808.64	7.255E-01	Pulse	0.30	3
Cu			2	76.867	ug/l	1.05	212,457.89	1.861E+00	Pulse	0.30	3
Zn			2	72.260	ug/l	0.56	28,448.50	2.492E-01	Pulse	0.30	3
As			2	123.120	ug/l	0.88	27,724.93	2.429E-01	Pulse	1.00	3
Cd			2	77.294	ug/l	1.10	70,884.40	1.522E-01	Pulse	0.30	3
Sn			2	79.638	ug/l	0.17	82,808.22	1.778E-01	Pulse	0.30	3
Se			3	319.320	ug/l	3.15	16,327.16	1.274E-01	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,780,577.85	2.86	85.1	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,900,260.17	2.65	90.7	Pulse	0.10	3
1	Ge		679,008.74	3.61	92.1	Pulse	0.10	3
1	Rh		2,666,287.15	5.41	84.2	Pulse	0.10	3
1	In		2,816,935.34	4.79	89.5	Pulse	0.10	3
1	Tb		3,438,929.64	5.68	94.4	Pulse	0.10	3
1	Ho		324,699.97	5.47	94.7	Pulse	0.10	3
1	Bi		1,643,225.18	5.33	87.5	Pulse	0.10	3
2	Sc		114,150.73	1.32	89.7	Pulse	0.30	3
2	Ge		88,665.30	1.02	91.4	Pulse	0.30	3
2	Rh		1,291,183.49	0.50	86.0	Pulse	0.30	3
2	In		465,782.42	0.31	88.0	Pulse	0.30	3
2	Tb		1,505,139.42	0.39	95.3	Pulse	0.30	3
2	Ho		142,691.78	0.85	96.1	Pulse	0.30	3
2	Bi		818,213.77	0.88	87.9	Pulse	0.30	3
3	Sc		149,027.41	1.40	92.3	Pulse	0.30	3
3	Ge		128,198.57	0.54	100.2	Pulse	0.30	3
3	Rh		956,071.49	0.57	85.9	Pulse	0.30	3
3	Tb		1,349,610.57	0.80	94.1	Pulse	0.30	3

Quantitation Report

File Name 036_CCV.d
File Path C:\Agilent\ICPMH\1\DATA\.b051019m2.b
Method File
Method Path
Acq Time 5/10/2019 16:16
Sample Name CCVA
Sample Type CCV
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name Metals
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 5/13/2019 7:20
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	50.662	ug/l	1.75	324,076.62	1.665E-01	Pulse	0.25	3
B			1	100.914	ug/l	1.51	572,372.55	2.941E-01	Pulse	0.15	3
Ca			1	4838.925	ug/l	0.85	4,602,790.14	1.495E+00	Pulse	0.10	3
Sr			1	52.311	ug/l	1.23	1,923,266.95	6.386E-01	Pulse	0.10	3
Mo			1	51.277	ug/l	1.58	388,991.11	1.292E-01	Pulse	0.10	3
Ag			1	47.372	ug/l	2.36	816,156.08	2.659E-01	Pulse	0.10	3
Sn			1	48.864	ug/l	1.28	530,036.51	1.726E-01	Pulse	0.10	3
Sb			1	52.472	ug/l	1.93	615,693.25	1.715E-01	Pulse	0.10	3
Ba			1	50.367	ug/l	0.88	227,541.37	6.337E-02	Pulse	0.10	3
Tl			1	50.945	ug/l	1.07	1,111,905.45	6.100E-01	Pulse	0.10	3
Pb			1	50.444	ug/l	2.35	378,612.57	2.078E-01	Pulse	0.10	3
Pb			1	50.386	ug/l	2.54	326,928.50	1.794E-01	Pulse	0.10	3
Pb			1	50.498	ug/l	1.52	1,508,707.42	8.277E-01	Pulse	0.10	3
Na			2	4698.791	ug/l	0.74	5,192,232.85	4.180E+01	Pulse	0.30	3
Mg			2	4748.362	ug/l	0.96	2,377,534.49	1.914E+01	Pulse	0.30	3
Al			2	4911.238	ug/l	1.12	802,194.01	6.458E+00	Pulse	0.30	3
K			2	4911.202	ug/l	0.78	1,684,985.00	1.357E+01	Pulse	0.30	3
Ca			2	5186.925	ug/l	1.09	95,531.44	7.690E-01	Pulse	0.30	3
Ti			2	50.105	ug/l	2.09	7,145.26	5.752E-02	Pulse	0.30	3
V			2	49.620	ug/l	0.50	219,593.59	1.768E+00	Pulse	0.30	3
Cr			2	49.472	ug/l	0.60	266,905.23	2.149E+00	Pulse	0.30	3
Mn			2	49.496	ug/l	0.44	137,613.57	1.108E+00	Pulse	0.30	3
Fe			2	5058.054	ug/l	1.99	23,031,421.86	1.854E+02	Analog	0.30	3
Co			2	48.731	ug/l	1.51	417,496.56	3.361E+00	Pulse	0.30	3
Ni			2	48.226	ug/l	2.43	109,972.28	8.853E-01	Pulse	0.30	3
Cu			2	48.316	ug/l	1.31	290,509.00	2.339E+00	Pulse	0.30	3
Zn			2	47.585	ug/l	0.56	40,565.21	3.266E-01	Pulse	0.30	3
As			2	47.660	ug/l	0.15	23,361.20	1.881E-01	Pulse	1.00	3
Cd			2	49.868	ug/l	0.67	101,133.70	1.964E-01	Pulse	0.30	3
Sn			2	49.517	ug/l	1.52	113,526.41	2.204E-01	Pulse	0.30	3
Se			3	190.953	ug/l	4.49	18,911.83	1.523E-01	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,946,655.63	3.27	93.0	Pulse	0.10	3
1	Sc		3,077,692.24	2.98	96.2	Pulse	0.10	3
1	Ge		716,317.05	3.40	97.1	Pulse	0.10	3

Quantitation Report

1	Rh		3,011,389.54	3.24	95.1	Pulse	0.10	3
1	In		3,071,295.32	4.66	97.5	Pulse	0.10	3
1	Tb		3,591,015.68	4.66	98.6	Pulse	0.10	3
1	Ho		338,711.76	5.51	98.8	Pulse	0.10	3
1	Bi		1,823,522.42	5.00	97.1	Pulse	0.10	3
2	Sc		124,219.57	0.93	97.6	Pulse	0.30	3
2	Ge		94,785.68	0.22	97.7	Pulse	0.30	3
2	Rh		1,449,032.20	1.35	96.5	Pulse	0.30	3
2	In		515,061.82	0.75	97.3	Pulse	0.30	3
2	Tb		1,589,196.92	0.78	100.6	Pulse	0.30	3
2	Ho		150,360.35	0.52	101.3	Pulse	0.30	3
2	Bi		917,085.31	0.64	98.5	Pulse	0.30	3
3	Sc		155,685.91	1.33	96.4	Pulse	0.30	3
3	Ge		124,191.23	1.16	97.1	Pulse	0.30	3
3	Rh		1,041,478.92	0.55	93.6	Pulse	0.30	3
3	Tb		1,399,890.60	0.60	97.6	Pulse	0.30	3

Quantitation Report

File Name	037_CCB.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051019m2.b
Method File	
Method Path	
Acq Time	5/10/2019 16:21
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.014	ug/l	40.73	109.33	5.538E-05	Pulse	0.25	3
B			1	0.880	ug/l	23.34	17,936.19	9.069E-03	Pulse	0.15	3
Ca			1	-3.885	ug/l	-23.54	25,233.77	8.341E-03	Pulse	0.10	3
Sr			1	0.014	ug/l	26.89	1,076.76	3.576E-04	Pulse	0.10	3
Mo			1	0.134	ug/l	6.02	523.36	1.745E-04	Pulse	0.10	3
Ag			1	0.006	ug/l	20.11	130.01	4.319E-05	Pulse	0.10	3
Sn			1	0.053	ug/l	17.97	1,923.54	6.416E-04	Pulse	0.10	3
Sb			1	0.026	ug/l	61.38	1,630.16	4.726E-04	Pulse	0.10	3
Ba			1	0.005	ug/l	122.12	63.33	1.844E-05	Pulse	0.10	3
Tl			1	0.021	ug/l	31.83	686.72	3.789E-04	Pulse	0.10	3
Pb			1	0.016	ug/l	26.13	246.68	1.370E-04	Pulse	0.10	3
Pb			1	0.017	ug/l	9.79	196.68	1.092E-04	Pulse	0.10	3
Pb			1	0.017	ug/l	28.31	953.39	5.308E-04	Pulse	0.10	3
Na			2	0.614	ug/l	26.81	8,054.61	6.768E-02	Pulse	0.30	3
Mg			2	-0.336	ug/l	-25.13	352.23	2.959E-03	Pulse	0.30	3
Al			2	1.686	ug/l	7.31	438.90	3.688E-03	Pulse	0.30	3
K			2	-0.576	ug/l	-92.41	8,802.86	7.397E-02	Pulse	0.30	3
Ca			2	0.427	ug/l	516.35	222.23	1.866E-03	Pulse	0.30	3
Ti			2	0.049	ug/l	50.48	6.67	5.615E-05	Pulse	0.30	3
V			2	0.019	ug/l	74.51	458.90	3.858E-03	Pulse	0.30	3
Cr			2	0.030	ug/l	24.17	486.68	4.088E-03	Pulse	0.30	3
Mn			2	0.029	ug/l	18.01	148.89	1.251E-03	Pulse	0.30	3
Fe			2	0.225	ug/l	19.46	7,604.38	6.390E-02	Pulse	0.30	3
Co			2	0.012	ug/l	23.48	162.23	1.362E-03	Pulse	0.30	3
Ni			2	0.033	ug/l	10.16	112.22	9.429E-04	Pulse	0.30	3
Cu			2	0.079	ug/l	13.05	1,017.83	8.553E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	-0.460	ug/l	-7.91	261.12	2.195E-03	Pulse	0.30	3
As			2	0.018	ug/l	45.80	13.33	1.120E-04	Pulse	1.00	3
Cd			2	0.020	ug/l	29.35	50.39	1.014E-04	Pulse	0.30	3
Sn			2	-0.434	ug/l	-4.78	448.90	9.031E-04	Pulse	0.30	3
Se			3	0.094	ug/l	81.02	16.00	1.323E-04	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,979,577.66	2.29	94.6	Pulse	0.10	3
1	Sc		3,025,913.81	3.45	94.6	Pulse	0.10	3
1	Ge		701,774.26	3.65	95.2	Pulse	0.10	3
1	Rh		3,006,403.18	4.48	95.0	Pulse	0.10	3
1	In		2,998,164.10	4.73	95.2	Pulse	0.10	3
1	Tb		3,455,951.62	3.47	94.9	Pulse	0.10	3
1	Ho		323,419.54	4.71	94.4	Pulse	0.10	3
1	Bi		1,802,146.22	4.07	95.9	Pulse	0.10	3
2	Sc		119,000.98	0.72	93.5	Pulse	0.30	3
2	Ge		90,037.25	1.78	92.8	Pulse	0.30	3
2	Rh		1,411,537.03	0.56	94.0	Pulse	0.30	3
2	In		497,384.14	1.00	94.0	Pulse	0.30	3
2	Tb		1,499,737.72	0.69	94.9	Pulse	0.30	3
2	Ho		141,567.22	0.97	95.4	Pulse	0.30	3
2	Bi		882,327.99	0.22	94.8	Pulse	0.30	3
3	Sc		154,073.04	0.71	95.4	Pulse	0.30	3
3	Ge		121,180.08	1.17	94.7	Pulse	0.30	3
3	Rh		1,052,994.75	1.38	94.6	Pulse	0.30	3
3	Tb		1,358,996.61	0.98	94.8	Pulse	0.30	3

Quantitation Report

File Name	038SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051019m2.b
Method File	
Method Path	
Acq Time	5/10/2019 16:25
Sample Name	mp14909-s4conf
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	78.019	ug/l	0.74	228,538.32	1.282E-01	Pulse	0.25	3
B			1	224.357	ug/l	1.41	581,269.78	3.262E-01	Pulse	0.15	3
Ca			1	49364.370	ug/l	2.58	21,894,645.51	7.588E+00	Analog	0.10	3
Sr			1	442.680	ug/l	3.41	7,250,094.27	2.702E+00	Analog	0.10	3
Mo			1	81.730	ug/l	0.67	276,379.80	1.029E-01	Pulse	0.10	3
Ag			1	71.983	ug/l	1.10	565,337.10	2.020E-01	Pulse	0.10	3
Sn			1	74.644	ug/l	0.91	369,068.46	1.319E-01	Pulse	0.10	3
Sb			1	76.592	ug/l	0.77	427,199.03	1.253E-01	Pulse	0.10	3
Ba			1	174.583	ug/l	0.59	374,492.21	1.098E-01	Pulse	0.10	3
Tl			1	82.535	ug/l	0.43	809,604.49	4.941E-01	Pulse	0.10	3
Pb			1	82.469	ug/l	0.66	278,289.96	1.699E-01	Pulse	0.10	3
Pb			1	81.943	ug/l	1.48	238,957.27	1.459E-01	Pulse	0.10	3
Pb			1	82.314	ug/l	0.39	1,105,302.05	6.746E-01	Pulse	0.10	3
Na			2	201648.697	ug/l	0.66	101,827,973.73	8.957E+02	Analog	0.30	3
Mg			2	22121.804	ug/l	0.21	5,068,270.91	4.458E+01	Pulse	0.30	3
Al			2	3891.425	ug/l	0.76	290,981.96	2.559E+00	Pulse	0.30	3
K			2	10313.445	ug/l	0.27	1,618,889.73	1.424E+01	Pulse	0.30	3
Ca			2	45561.938	ug/l	0.42	383,312.80	3.372E+00	Pulse	0.30	3
Ti			2	77.264	ug/l	3.29	5,042.08	4.435E-02	Pulse	0.30	3
V			2	80.193	ug/l	1.03	162,478.90	1.429E+00	Pulse	0.30	3
Cr			2	78.844	ug/l	1.21	194,722.10	1.713E+00	Pulse	0.30	3
Mn			2	568.952	ug/l	0.86	723,562.21	6.364E+00	Pulse	0.30	3
Fe			2	5691.154	ug/l	1.41	11,860,872.03	1.043E+02	Analog	0.30	3
Co			2	75.903	ug/l	0.91	297,604.62	2.618E+00	Pulse	0.30	3
Ni			2	75.857	ug/l	1.57	79,168.97	6.964E-01	Pulse	0.30	3
Cu			2	73.985	ug/l	1.08	203,709.23	1.792E+00	Pulse	0.30	3
Zn			2	67.118	ug/l	1.35	26,360.96	2.319E-01	Pulse	0.30	3
As			2	119.263	ug/l	1.00	26,750.02	2.353E-01	Pulse	1.00	3
Cd			2	75.037	ug/l	0.44	68,699.07	1.477E-01	Pulse	0.30	3
Sn			2	76.931	ug/l	0.83	79,911.74	1.718E-01	Pulse	0.30	3
Se			3	294.526	ug/l	1.52	15,519.54	1.175E-01	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,782,251.80	1.43	85.2	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,886,832.98	3.05	90.3	Pulse	0.10	3
1	Ge		662,019.39	3.99	89.8	Pulse	0.10	3
1	Rh		2,685,312.25	3.05	84.8	Pulse	0.10	3
1	In		2,798,152.71	4.11	88.9	Pulse	0.10	3
1	Tb		3,409,826.41	3.41	93.6	Pulse	0.10	3
1	Ho		323,116.86	4.02	94.3	Pulse	0.10	3
1	Bi		1,638,653.67	4.90	87.2	Pulse	0.10	3
2	Sc		113,690.31	0.37	89.3	Pulse	0.30	3
2	Ge		86,004.02	1.14	88.7	Pulse	0.30	3
2	Rh		1,289,272.17	0.94	85.8	Pulse	0.30	3
2	In		465,016.29	1.17	87.9	Pulse	0.30	3
2	Tb		1,488,142.16	1.06	94.2	Pulse	0.30	3
2	Ho		141,366.54	0.94	95.2	Pulse	0.30	3
2	Bi		815,483.66	1.09	87.6	Pulse	0.30	3
3	Sc		146,350.39	0.20	90.6	Pulse	0.30	3
3	Ge		132,074.93	1.86	103.2	Pulse	0.30	3
3	Rh		935,035.52	0.78	84.0	Pulse	0.30	3
3	Tb		1,313,077.21	0.80	91.6	Pulse	0.30	3

Quantitation Report

File Name 039SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\.b051019m2.b
Method File
Method Path
Acq Time 5/10/2019 16:30
Sample Name jc87783-12
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name Metals
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 5/13/2019 7:20
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.018	ug/l	43.45	69.33	3.940E-05	Pulse	0.25	3
B			1	145.131	ug/l	1.39	376,566.62	2.133E-01	Pulse	0.15	3
Ca			1	46402.941	ug/l	3.30	20,243,176.36	7.133E+00	Analog	0.10	3
Sr			1	307.242	ug/l	1.04	5,030,575.03	1.875E+00	Pulse	0.10	3
Mo			1	0.458	ug/l	6.50	1,113.42	4.145E-04	Pulse	0.10	3
Ag			1	0.052	ug/l	17.89	426.69	1.535E-04	Pulse	0.10	3
Sn			1	0.231	ug/l	14.00	2,400.32	8.610E-04	Pulse	0.10	3
Sb			1	0.130	ug/l	6.26	2,026.90	6.000E-04	Pulse	0.10	3
Ba			1	98.944	ug/l	1.75	210,219.99	6.224E-02	Pulse	0.10	3
Tl			1	0.055	ug/l	14.52	746.72	4.583E-04	Pulse	0.10	3
Pb			1	0.244	ug/l	30.41	933.41	5.731E-04	Pulse	0.10	3
Pb			1	0.212	ug/l	11.25	686.71	4.237E-04	Pulse	0.10	3
Pb			1	0.223	ug/l	11.37	3,370.31	2.075E-03	Pulse	0.10	3
Na			2	206884.564	ug/l	0.57	101,805,667.06	9.189E+02	Analog	0.30	3
Mg			2	19436.371	ug/l	1.02	4,339,097.47	3.917E+01	Pulse	0.30	3
Al			2	20.522	ug/l	16.06	1,659.09	1.496E-02	Pulse	0.30	3
K			2	6866.876	ug/l	0.67	1,053,086.55	9.506E+00	Pulse	0.30	3
Ca			2	43556.089	ug/l	0.59	357,070.38	3.223E+00	Pulse	0.30	3
Ti			2	1.259	ug/l	15.74	80.00	7.227E-04	Pulse	0.30	3
V			2	1.624	ug/l	1.89	3,550.50	3.205E-02	Pulse	0.30	3
Cr			2	1.124	ug/l	3.89	3,009.25	2.717E-02	Pulse	0.30	3
Mn			2	520.694	ug/l	0.71	645,276.14	5.825E+00	Pulse	0.30	3
Fe			2	1536.349	ug/l	1.11	3,124,507.37	2.820E+01	Pulse	0.30	3
Co			2	0.110	ug/l	14.53	476.68	4.304E-03	Pulse	0.30	3
Ni			2	2.044	ug/l	8.66	2,114.64	1.909E-02	Pulse	0.30	3
Cu			2	0.785	ug/l	3.02	2,623.61	2.369E-02	Pulse	0.30	3
Zn			2	11.058	ug/l	2.41	4,723.09	4.263E-02	Pulse	0.30	3
As			2	56.054	ug/l	1.17	12,253.48	1.106E-01	Pulse	1.00	3
Cd			2	0.001	ug/l	572.89	12.17	2.642E-05	Pulse	0.30	3
Sn			2	-0.769	ug/l	-2.90	517.79	1.121E-03	Pulse	0.30	3
Se			3	0.337	ug/l	28.96	24.67	1.918E-04	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,765,221.32	1.67	84.4	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,839,128.81	2.40	88.8	Pulse	0.10	3
1	Ge		661,700.81	3.82	89.7	Pulse	0.10	3
1	Rh		2,683,424.59	3.95	84.8	Pulse	0.10	3
1	In		2,787,569.40	3.59	88.5	Pulse	0.10	3
1	Tb		3,377,121.72	3.59	92.7	Pulse	0.10	3
1	Ho		320,763.75	4.67	93.6	Pulse	0.10	3
1	Bi		1,624,936.54	4.01	86.5	Pulse	0.10	3
2	Sc		110,785.27	1.13	87.1	Pulse	0.30	3
2	Ge		87,484.38	0.40	90.2	Pulse	0.30	3
2	Rh		1,273,817.66	0.38	84.8	Pulse	0.30	3
2	In		461,883.86	0.77	87.3	Pulse	0.30	3
2	Tb		1,479,582.96	0.47	93.6	Pulse	0.30	3
2	Ho		141,073.52	0.74	95.0	Pulse	0.30	3
2	Bi		809,368.96	0.93	87.0	Pulse	0.30	3
3	Sc		146,104.93	0.41	90.5	Pulse	0.30	3
3	Ge		128,579.95	0.81	100.5	Pulse	0.30	3
3	Rh		938,953.30	0.74	84.4	Pulse	0.30	3
3	Tb		1,316,041.23	0.60	91.8	Pulse	0.30	3

Quantitation Report

File Name	040SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051019m2.b
Method File	
Method Path	
Acq Time	5/10/2019 16:35
Sample Name	mp14909-s4
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	80.464	ug/l	1.21	232,915.47	1.323E-01	Pulse	0.25	3
B			1	229.254	ug/l	1.23	586,696.58	3.331E-01	Pulse	0.15	3
Ca			1	49766.644	ug/l	2.67	21,890,564.67	7.650E+00	Analog	0.10	3
Sr			1	446.818	ug/l	4.19	7,273,687.60	2.727E+00	Analog	0.10	3
Mo			1	84.253	ug/l	0.86	283,334.72	1.061E-01	Pulse	0.10	3
Ag			1	73.672	ug/l	0.98	573,341.46	2.068E-01	Pulse	0.10	3
Sn			1	77.532	ug/l	0.40	379,964.35	1.370E-01	Pulse	0.10	3
Sb			1	78.472	ug/l	1.58	434,702.78	1.283E-01	Pulse	0.10	3
Ba			1	179.320	ug/l	0.48	382,200.97	1.128E-01	Pulse	0.10	3
Tl			1	84.185	ug/l	0.22	823,217.98	5.040E-01	Pulse	0.10	3
Pb			1	84.072	ug/l	0.74	282,866.66	1.732E-01	Pulse	0.10	3
Pb			1	83.562	ug/l	0.36	242,993.82	1.488E-01	Pulse	0.10	3
Pb			1	83.820	ug/l	0.96	1,122,078.68	6.869E-01	Pulse	0.10	3
Na			2	207213.839	ug/l	1.56	102,796,655.92	9.204E+02	Analog	0.30	3
Mg			2	22592.057	ug/l	0.24	5,084,931.74	4.553E+01	Pulse	0.30	3
Al			2	4016.018	ug/l	0.72	295,012.51	2.641E+00	Pulse	0.30	3
K			2	10587.350	ug/l	0.16	1,632,420.32	1.462E+01	Pulse	0.30	3
Ca			2	46650.164	ug/l	0.65	385,559.88	3.452E+00	Pulse	0.30	3
Ti			2	78.460	ug/l	0.75	5,029.87	4.503E-02	Pulse	0.30	3
V			2	83.471	ug/l	0.41	166,129.94	1.487E+00	Pulse	0.30	3
Cr			2	81.065	ug/l	0.21	196,675.60	1.761E+00	Pulse	0.30	3
Mn			2	580.207	ug/l	0.68	724,902.65	6.490E+00	Pulse	0.30	3
Fe			2	5825.765	ug/l	2.12	11,927,789.25	1.068E+02	Analog	0.30	3
Co			2	78.396	ug/l	0.21	301,978.35	2.704E+00	Pulse	0.30	3
Ni			2	79.152	ug/l	0.54	81,153.69	7.266E-01	Pulse	0.30	3
Cu			2	76.811	ug/l	0.28	207,748.27	1.860E+00	Pulse	0.30	3
Zn			2	71.430	ug/l	1.98	27,522.07	2.464E-01	Pulse	0.30	3
As			2	122.410	ug/l	0.37	26,973.07	2.415E-01	Pulse	1.00	3
Cd			2	77.598	ug/l	1.95	69,473.60	1.528E-01	Pulse	0.30	3
Sn			2	78.966	ug/l	0.18	80,175.43	1.763E-01	Pulse	0.30	3
Se			3	317.604	ug/l	2.68	15,974.73	1.267E-01	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,761,034.81	0.93	84.2	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,863,040.27	2.94	89.5	Pulse	0.10	3
1	Ge		667,395.26	2.85	90.5	Pulse	0.10	3
1	Rh		2,669,861.94	3.40	84.4	Pulse	0.10	3
1	In		2,773,203.18	3.44	88.1	Pulse	0.10	3
1	Tb		3,388,881.31	4.67	93.1	Pulse	0.10	3
1	Ho		321,116.83	4.54	93.7	Pulse	0.10	3
1	Bi		1,633,419.77	3.61	86.9	Pulse	0.10	3
2	Sc		111,690.58	0.21	87.8	Pulse	0.30	3
2	Ge		86,812.24	0.30	89.5	Pulse	0.30	3
2	Rh		1,267,612.00	0.29	84.4	Pulse	0.30	3
2	In		454,746.90	0.34	85.9	Pulse	0.30	3
2	Tb		1,472,692.13	1.04	93.2	Pulse	0.30	3
2	Ho		140,108.75	1.20	94.4	Pulse	0.30	3
2	Bi		801,140.70	0.18	86.1	Pulse	0.30	3
3	Sc		146,960.53	0.83	91.0	Pulse	0.30	3
3	Ge		126,094.76	0.32	98.6	Pulse	0.30	3
3	Rh		932,865.83	1.14	83.8	Pulse	0.30	3
3	Tb		1,323,614.77	1.40	92.3	Pulse	0.30	3

Quantitation Report

File Name	041SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051019m2.b
Method File	
Method Path	
Acq Time	5/10/2019 16:40
Sample Name	mp14909-sd1
Sample Type	Sample
Comment	
Prep Dilution	10.000
Auto Dilution	N/A
Total Dilution	10.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.066	ug/l	35.88	60.00	3.103E-05	Pulse	0.25	3
B			1	141.680	ug/l	0.70	90,930.40	4.693E-02	Pulse	0.15	3
Ca			1	41580.210	ug/l	1.47	3,808,257.24	1.286E+00	Pulse	0.10	3
Sr			1	309.452	ug/l	0.34	1,092,618.06	3.779E-01	Pulse	0.10	3
Mo			1	1.190	ug/l	3.95	396.69	1.370E-04	Pulse	0.10	3
Ag			1	0.063	ug/l	39.29	130.01	4.362E-05	Pulse	0.10	3
Sn			1	-0.559	ug/l	-13.88	760.05	2.569E-04	Pulse	0.10	3
Sb			1	-0.348	ug/l	-30.88	943.40	2.746E-04	Pulse	0.10	3
Ba			1	103.240	ug/l	2.86	44,774.54	1.300E-02	Pulse	0.10	3
Tl			1	0.168	ug/l	22.15	580.04	3.285E-04	Pulse	0.10	3
Pb			1	0.345	ug/l	25.87	380.03	2.139E-04	Pulse	0.10	3
Pb			1	0.279	ug/l	12.92	260.02	1.468E-04	Pulse	0.10	3
Pb			1	0.270	ug/l	7.49	1,220.08	6.892E-04	Pulse	0.10	3
Na			2	217242.265	ug/l	1.15	22,342,945.22	1.930E+02	Analog	0.30	3
Mg			2	20309.668	ug/l	0.59	947,832.56	8.189E+00	Pulse	0.30	3
Al			2	18.158	ug/l	14.39	446.68	3.859E-03	Pulse	0.30	3
K			2	7028.868	ug/l	0.25	232,202.96	2.006E+00	Pulse	0.30	3
Ca			2	44280.429	ug/l	0.72	76,019.15	6.568E-01	Pulse	0.30	3
Ti			2	1.090	ug/l	70.64	14.44	1.251E-04	Pulse	0.30	3
V			2	1.126	ug/l	4.86	830.04	7.170E-03	Pulse	0.30	3
Cr			2	0.920	ug/l	18.33	784.48	6.781E-03	Pulse	0.30	3
Mn			2	534.375	ug/l	0.73	138,428.75	1.196E+00	Pulse	0.30	3
Fe			2	1572.637	ug/l	0.25	673,435.37	5.818E+00	Pulse	0.30	3
Co			2	0.143	ug/l	36.54	175.56	1.515E-03	Pulse	0.30	3
Ni			2	2.147	ug/l	7.31	495.57	4.280E-03	Pulse	0.30	3
Cu			2	1.517	ug/l	5.61	1,394.54	1.205E-02	Pulse	0.30	3
Zn			2	19.709	ug/l	1.12	2,153.53	1.861E-02	Pulse	0.30	3
As			2	61.896	ug/l	1.41	2,831.30	2.446E-02	Pulse	1.00	3
Cd			2	0.169	ug/l	19.96	44.16	9.049E-05	Pulse	0.30	3
Sn			2	-5.554	ug/l	-2.82	181.12	3.713E-04	Pulse	0.30	3
Se			3	0.853	ug/l	104.85	14.67	1.254E-04	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,937,573.49	2.09	92.6	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,959,999.22	2.68	92.6	Pulse	0.10	3
1	Ge		691,549.94	3.68	93.8	Pulse	0.10	3
1	Rh		2,891,639.85	2.87	91.4	Pulse	0.10	3
1	In		2,953,010.82	4.92	93.8	Pulse	0.10	3
1	Tb		3,441,552.24	5.10	94.5	Pulse	0.10	3
1	Ho		324,630.17	3.57	94.7	Pulse	0.10	3
1	Bi		1,769,247.79	3.90	94.2	Pulse	0.10	3
2	Sc		115,745.96	0.70	91.0	Pulse	0.30	3
2	Ge		88,648.19	0.89	91.4	Pulse	0.30	3
2	Rh		1,351,613.28	0.45	90.0	Pulse	0.30	3
2	In		488,165.79	0.68	92.3	Pulse	0.30	3
2	Tb		1,494,655.91	0.82	94.6	Pulse	0.30	3
2	Ho		139,828.51	0.73	94.2	Pulse	0.30	3
2	Bi		853,591.77	0.23	91.7	Pulse	0.30	3
3	Sc		147,870.03	1.80	91.6	Pulse	0.30	3
3	Ge		116,888.77	1.76	91.4	Pulse	0.30	3
3	Rh		990,208.92	1.78	89.0	Pulse	0.30	3
3	Tb		1,330,015.19	1.64	92.7	Pulse	0.30	3

Quantitation Report

File Name	042SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051019m2.b
Method File	
Method Path	
Acq Time	5/10/2019 16:44
Sample Name	jc87578-2
Sample Type	Sample
Comment	
Prep Dilution	5.000
Auto Dilution	N/A
Total Dilution	5.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.016	ug/l	52.64	36.00	1.957E-05	Pulse	0.25	3
B			1	139.361	ug/l	1.41	157,745.69	8.597E-02	Pulse	0.15	3
Ca			1	131131.111	ug/l	1.90	23,069,866.32	8.062E+00	Analog	0.10	3
Sr			1	402.973	ug/l	1.22	2,727,694.39	9.838E-01	Pulse	0.10	3
Mo			1	6.603	ug/l	3.11	8,783.20	3.168E-03	Pulse	0.10	3
Ag			1	0.005	ug/l	52.70	40.00	1.386E-05	Pulse	0.10	3
Sn			1	0.658	ug/l	18.49	2,633.70	9.171E-04	Pulse	0.10	3
Sb			1	-0.078	ug/l	-61.39	1,136.77	3.375E-04	Pulse	0.10	3
Ba			1	563.796	ug/l	0.29	477,656.62	1.419E-01	Pulse	0.10	3
Tl			1	0.021	ug/l	14.82	303.34	1.770E-04	Pulse	0.10	3
Pb			1	0.331	ug/l	12.39	590.04	3.443E-04	Pulse	0.10	3
Pb			1	0.324	ug/l	5.74	476.69	2.776E-04	Pulse	0.10	3
Pb			1	0.325	ug/l	4.87	2,250.17	1.311E-03	Pulse	0.10	3
Na			2	48578.077	ug/l	0.18	9,689,998.78	8.636E+01	Analog	0.30	3
Mg			2	29326.112	ug/l	0.49	2,652,472.88	2.364E+01	Pulse	0.30	3
Al			2	180.434	ug/l	15.77	5,492.44	4.891E-02	Pulse	0.30	3
K			2	4325.121	ug/l	0.56	275,055.20	2.451E+00	Pulse	0.30	3
Ca			2	117346.036	ug/l	0.53	389,720.15	3.473E+00	Pulse	0.30	3
Ti			2	5.349	ug/l	17.25	137.78	1.228E-03	Pulse	0.30	3
V			2	2.856	ug/l	2.11	2,634.73	2.348E-02	Pulse	0.30	3
Cr			2	2.691	ug/l	3.74	2,932.57	2.613E-02	Pulse	0.30	3
Mn			2	7.136	ug/l	2.64	3,648.30	3.252E-02	Pulse	0.30	3
Fe			2	120.975	ug/l	0.99	105,710.82	9.422E-01	Pulse	0.30	3
Co			2	0.094	ug/l	6.67	204.45	1.822E-03	Pulse	0.30	3
Ni			2	1.160	ug/l	9.68	515.57	4.597E-03	Pulse	0.30	3
Cu			2	6.281	ug/l	3.03	7,337.58	6.540E-02	Pulse	0.30	3
Zn			2	8.158	ug/l	6.05	1,830.14	1.632E-02	Pulse	0.30	3
As			2	0.401	ug/l	25.45	40.33	3.590E-04	Pulse	1.00	3
Cd			2	-0.013	ug/l	-146.57	6.32	1.340E-05	Pulse	0.30	3
Sn			2	-1.679	ug/l	-8.63	624.49	1.336E-03	Pulse	0.30	3
Se			3	0.191	ug/l	172.49	10.67	8.785E-05	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,834,978.33	2.04	87.7	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,862,271.94	2.30	89.5	Pulse	0.10	3
1	Ge		659,916.59	3.49	89.5	Pulse	0.10	3
1	Rh		2,772,051.73	2.76	87.6	Pulse	0.10	3
1	In		2,870,465.61	3.89	91.2	Pulse	0.10	3
1	Tb		3,367,508.49	3.78	92.5	Pulse	0.10	3
1	Ho		318,055.35	3.79	92.8	Pulse	0.10	3
1	Bi		1,715,367.53	4.22	91.3	Pulse	0.10	3
2	Sc		112,200.80	0.95	88.2	Pulse	0.30	3
2	Ge		85,558.80	0.43	88.2	Pulse	0.30	3
2	Rh		1,311,957.86	0.45	87.4	Pulse	0.30	3
2	In		467,102.93	1.38	88.3	Pulse	0.30	3
2	Tb		1,454,542.09	0.45	92.0	Pulse	0.30	3
2	Ho		137,731.52	1.84	92.8	Pulse	0.30	3
2	Bi		827,433.00	0.78	88.9	Pulse	0.30	3
3	Sc		145,838.49	1.27	90.3	Pulse	0.30	3
3	Ge		121,357.23	1.29	94.9	Pulse	0.30	3
3	Rh		972,913.89	0.53	87.4	Pulse	0.30	3
3	Tb		1,319,334.50	0.52	92.0	Pulse	0.30	3

Quantitation Report

File Name	043SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051019m2.b
Method File	
Method Path	
Acq Time	5/10/2019 16:49
Sample Name	rinseconf
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	-0.002	ug/l	-47.92	5.33	2.709E-06	Pulse	0.25	3
B			1	0.309	ug/l	33.94	14,585.66	7.443E-03	Pulse	0.15	3
Ca			1	-4.227	ug/l	-20.87	23,958.05	8.236E-03	Pulse	0.10	3
Sr			1	0.188	ug/l	4.59	7,245.56	2.483E-03	Pulse	0.10	3
Mo			1	0.072	ug/l	3.13	56.67	1.950E-05	Pulse	0.10	3
Ag			1	0.000	ug/l	450.88	30.00	1.018E-05	Pulse	0.10	3
Sn			1	-0.010	ug/l	-6.17	1,213.44	4.167E-04	Pulse	0.10	3
Sb			1	-0.080	ug/l	-7.15	426.69	1.267E-04	Pulse	0.10	3
Ba			1	0.012	ug/l	120.48	90.00	2.657E-05	Pulse	0.10	3
Tl			1	-0.001	ug/l	-99.63	196.68	1.117E-04	Pulse	0.10	3
Pb			1	-0.001	ug/l	-524.60	120.01	6.852E-05	Pulse	0.10	3
Pb			1	0.005	ug/l	52.24	116.67	6.650E-05	Pulse	0.10	3
Pb			1	0.001	ug/l	170.67	473.36	2.698E-04	Pulse	0.10	3
Na			2	2.345	ug/l	95.85	8,195.80	8.306E-02	Pulse	0.30	3
Mg			2	-0.268	ug/l	-100.80	315.56	3.236E-03	Pulse	0.30	3
Al			2	-0.901	ug/l	-16.75	26.67	2.863E-04	Pulse	0.30	3
K			2	4.751	ug/l	162.38	8,745.05	8.860E-02	Pulse	0.30	3
Ca			2	1.640	ug/l	262.31	200.00	2.046E-03	Pulse	0.30	3
Ti			2	0.017	ug/l	86.60	2.22	1.963E-05	Pulse	0.30	3
V			2	0.043	ug/l	50.85	468.90	4.701E-03	Pulse	0.30	3
Cr			2	0.028	ug/l	31.60	402.23	3.998E-03	Pulse	0.30	3
Mn			2	0.039	ug/l	65.28	142.23	1.467E-03	Pulse	0.30	3
Fe			2	-0.930	ug/l	-7.67	2,162.43	2.157E-02	Pulse	0.30	3
Co			2	0.003	ug/l	98.15	72.22	7.352E-04	Pulse	0.30	3
Ni			2	-0.010	ug/l	-16.18	16.67	1.600E-04	Pulse	0.30	3
Cu			2	0.009	ug/l	119.65	517.79	5.145E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	-0.677	ug/l	-4.56	74.45	7.299E-04	Pulse	0.30	3
As			2	0.017	ug/l	35.20	11.00	1.111E-04	Pulse	1.00	3
Cd			2	0.005	ug/l	48.03	18.97	4.544E-05	Pulse	0.30	3
Sn			2	-0.482	ug/l	-7.02	292.23	6.945E-04	Pulse	0.30	3
Se			3	-0.030	ug/l	-122.84	4.00	3.363E-05	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,959,419.16	0.68	93.6	Pulse	0.10	3
1	Sc		2,910,576.52	2.67	91.0	Pulse	0.10	3
1	Ge		677,457.21	2.71	91.9	Pulse	0.10	3
1	Rh		2,918,481.41	3.84	92.2	Pulse	0.10	3
1	In		2,911,388.44	3.23	92.5	Pulse	0.10	3
1	Tb		3,362,311.72	4.03	92.3	Pulse	0.10	3
1	Ho		315,992.51	3.33	92.2	Pulse	0.10	3
1	Bi		1,759,299.92	3.91	93.6	Pulse	0.10	3
2	Sc		101,814.53	19.23	80.0	Pulse	0.30	3
2	Ge		78,014.20	16.87	80.5	Pulse	0.30	3
2	Rh		1,212,912.42	20.03	80.8	Pulse	0.30	3
2	In		430,520.86	20.10	81.4	Pulse	0.30	3
2	Tb		1,290,389.18	19.78	81.7	Pulse	0.30	3
2	Ho		120,996.25	19.90	81.5	Pulse	0.30	3
2	Bi		765,219.78	18.40	82.2	Pulse	0.30	3
3	Sc		148,109.36	1.01	91.7	Pulse	0.30	3
3	Ge		118,067.64	1.30	92.3	Pulse	0.30	3
3	Rh		1,005,605.83	1.09	90.4	Pulse	0.30	3
3	Tb		1,312,743.91	1.10	91.5	Pulse	0.30	3

Quantitation Report

File Name	044SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051019m2.b
Method File	
Method Path	
Acq Time	5/10/2019 16:54
Sample Name	rinseconf
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	-0.001	ug/l	-86.12	10.67	5.473E-06	Pulse	0.25	3
B			1	-0.025	ug/l	-78.01	12,690.44	6.492E-03	Pulse	0.15	3
Ca			1	-7.160	ug/l	-11.43	21,273.76	7.336E-03	Pulse	0.10	3
Sr			1	0.179	ug/l	6.43	6,882.02	2.370E-03	Pulse	0.10	3
Mo			1	0.069	ug/l	3.80	30.00	1.021E-05	Pulse	0.10	3
Ag			1	0.000	ug/l	16.76	30.00	1.036E-05	Pulse	0.10	3
Sn			1	0.036	ug/l	261.71	1,688.32	5.809E-04	Pulse	0.10	3
Sb			1	-0.092	ug/l	-6.60	290.01	8.681E-05	Pulse	0.10	3
Ba			1	-0.005	ug/l	-46.96	20.00	5.940E-06	Pulse	0.10	3
Tl			1	-0.002	ug/l	-83.16	186.68	1.076E-04	Pulse	0.10	3
Pb			1	0.000	ug/l	975.11	126.67	7.283E-05	Pulse	0.10	3
Pb			1	0.002	ug/l	114.73	93.34	5.370E-05	Pulse	0.10	3
Pb			1	-0.001	ug/l	-233.50	403.35	2.319E-04	Pulse	0.10	3
Na			2	-0.314	ug/l	-12.68	6,793.93	5.944E-02	Pulse	0.30	3
Mg			2	-0.813	ug/l	-4.54	118.89	1.041E-03	Pulse	0.30	3
Al			2	-0.934	ug/l	-3.85	27.78	2.433E-04	Pulse	0.30	3
K			2	-0.149	ug/l	-761.13	8,590.54	7.514E-02	Pulse	0.30	3
Ca			2	-2.852	ug/l	-46.19	157.78	1.381E-03	Pulse	0.30	3
Ti			2	0.017	ug/l	173.21	2.22	1.939E-05	Pulse	0.30	3
V			2	0.028	ug/l	23.92	475.57	4.163E-03	Pulse	0.30	3
Cr			2	0.013	ug/l	120.14	381.12	3.339E-03	Pulse	0.30	3
Mn			2	0.018	ug/l	10.52	114.45	1.002E-03	Pulse	0.30	3
Fe			2	-0.963	ug/l	-1.13	2,324.67	2.034E-02	Pulse	0.30	3
Co			2	0.004	ug/l	81.30	91.11	7.970E-04	Pulse	0.30	3
Ni			2	-0.002	ug/l	-381.14	35.55	3.102E-04	Pulse	0.30	3
Cu			2	-0.011	ug/l	-76.06	475.57	4.164E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	-0.653	ug/l	-2.76	102.23	8.945E-04	Pulse	0.30	3
As			2	0.007	ug/l	114.64	8.00	6.975E-05	Pulse	1.00	3
Cd			2	-0.002	ug/l	-228.94	8.41	1.739E-05	Pulse	0.30	3
Sn			2	-0.509	ug/l	-2.85	277.78	5.747E-04	Pulse	0.30	3
Se			3	-0.043	ug/l	-29.28	2.67	2.279E-05	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,954,747.06	2.19	93.4	Pulse	0.10	3
1	Sc		2,900,424.75	2.32	90.7	Pulse	0.10	3
1	Ge		667,111.69	2.72	90.5	Pulse	0.10	3
1	Rh		2,900,765.06	2.96	91.6	Pulse	0.10	3
1	In		2,899,244.70	3.47	92.1	Pulse	0.10	3
1	Tb		3,337,045.68	3.35	91.6	Pulse	0.10	3
1	Ho		312,684.39	3.10	91.2	Pulse	0.10	3
1	Bi		1,733,899.82	3.08	92.3	Pulse	0.10	3
2	Sc		114,300.20	1.19	89.8	Pulse	0.30	3
2	Ge		86,766.73	0.45	89.5	Pulse	0.30	3
2	Rh		1,368,734.29	0.59	91.1	Pulse	0.30	3
2	In		483,338.64	0.06	91.3	Pulse	0.30	3
2	Tb		1,456,899.66	0.26	92.2	Pulse	0.30	3
2	Ho		136,646.69	1.08	92.0	Pulse	0.30	3
2	Bi		860,829.90	1.14	92.5	Pulse	0.30	3
3	Sc		146,250.60	0.37	90.6	Pulse	0.30	3
3	Ge		117,357.37	1.23	91.7	Pulse	0.30	3
3	Rh		1,005,770.03	0.77	90.4	Pulse	0.30	3
3	Tb		1,306,351.96	0.84	91.1	Pulse	0.30	3

Quantitation Report

File Name	045SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051019m2.b
Method File	
Method Path	
Acq Time	5/10/2019 16:59
Sample Name	jc87582-2q
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.001	ug/l	412.49	21.33	1.076E-05	Pulse	0.25	3
B			1	0.784	ug/l	13.87	15,252.99	7.680E-03	Pulse	0.15	3
Ca			1	653.954	ug/l	1.53	317,382.29	1.099E-01	Pulse	0.10	3
Sr			1	1.917	ug/l	2.08	34,675.46	1.188E-02	Pulse	0.10	3
Mo			1	0.256	ug/l	0.87	466.69	1.598E-04	Pulse	0.10	3
Ag			1	0.006	ug/l	65.58	70.00	2.401E-05	Pulse	0.10	3
Sn			1	-0.160	ug/l	-1.93	503.37	1.727E-04	Pulse	0.10	3
Sb			1	-0.189	ug/l	-5.00	266.68	8.011E-05	Pulse	0.10	3
Ba			1	1.391	ug/l	3.33	2,940.44	8.866E-04	Pulse	0.10	3
Tl			1	0.003	ug/l	75.93	260.02	1.478E-04	Pulse	0.10	3
Pb			1	0.133	ug/l	7.40	606.71	3.458E-04	Pulse	0.10	3
Pb			1	0.145	ug/l	6.66	536.70	3.060E-04	Pulse	0.10	3
Pb			1	0.134	ug/l	12.39	2,356.85	1.346E-03	Pulse	0.10	3
Na			2	67.111	ug/l	1.27	42,030.24	3.603E-01	Pulse	0.30	3
Mg			2	18.907	ug/l	1.75	4,947.60	4.241E-02	Pulse	0.30	3
Al			2	71.492	ug/l	5.16	5,655.80	4.847E-02	Pulse	0.30	3
K			2	36.049	ug/l	1.79	14,589.94	1.251E-01	Pulse	0.30	3
Ca			2	675.225	ug/l	2.06	6,036.93	5.174E-02	Pulse	0.30	3
Ti			2	0.050	ug/l	100.55	3.33	2.856E-05	Pulse	0.30	3
V			2	-0.120	ug/l	-5.50	121.11	1.039E-03	Pulse	0.30	3
Cr			2	-0.036	ug/l	-37.09	235.56	2.018E-03	Pulse	0.30	3
Mn			2	0.384	ug/l	9.30	570.02	4.888E-03	Pulse	0.30	3
Fe			2	-1.029	ug/l	-9.70	4,290.90	3.679E-02	Pulse	0.30	3
Co			2	0.024	ug/l	11.71	158.89	1.362E-03	Pulse	0.30	3
Ni			2	0.173	ug/l	16.31	224.45	1.925E-03	Pulse	0.30	3
Cu			2	1.149	ug/l	6.36	3,787.24	3.247E-02	Pulse	0.30	3
Zn			2	1.125	ug/l	3.58	1,061.16	9.096E-03	Pulse	0.30	3
As			2	0.009	ug/l	83.24	7.00	5.991E-05	Pulse	1.00	3
Cd			2	0.416	ug/l	17.85	417.75	8.434E-04	Pulse	0.30	3
Sn			2	-1.191	ug/l	-0.29	96.67	1.950E-04	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	-0.029	ug/l	-217.60	4.67	4.588E-05	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,986,406.14	1.43	94.9	Pulse	0.10	3
1	Sc		2,887,491.94	2.71	90.3	Pulse	0.10	3
1	Ge		673,593.30	3.96	91.3	Pulse	0.10	3
1	Rh		2,919,759.33	4.22	92.2	Pulse	0.10	3
1	In		2,912,595.17	3.68	92.5	Pulse	0.10	3
1	Tb		3,317,153.81	3.25	91.1	Pulse	0.10	3
1	Ho		311,911.79	1.73	91.0	Pulse	0.10	3
1	Bi		1,755,035.23	3.69	93.4	Pulse	0.10	3
2	Sc		116,663.76	0.92	91.7	Pulse	0.30	3
2	Ge		89,348.73	1.15	92.1	Pulse	0.30	3
2	Rh		1,367,661.79	0.73	91.1	Pulse	0.30	3
2	In		495,694.20	0.69	93.7	Pulse	0.30	3
2	Tb		1,471,816.47	0.49	93.1	Pulse	0.30	3
2	Ho		139,602.67	1.50	94.0	Pulse	0.30	3
2	Bi		875,588.59	0.95	94.1	Pulse	0.30	3
3	Sc		118,946.68	19.04	73.7	Pulse	0.30	3
3	Ge		104,399.67	12.59	81.6	Pulse	0.30	3
3	Rh		836,797.19	18.76	75.2	Pulse	0.30	3
3	Tb		1,088,082.49	19.30	75.9	Pulse	0.30	3

Quantitation Report

File Name	046SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051019m2.b
Method File	
Method Path	
Acq Time	5/10/2019 17:04
Sample Name	jc87783-13
Sample Type	Sample
Comment	fb
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	-0.002	ug/l	-93.62	10.67	5.721E-06	Pulse	0.25	3
B			1	1.226	ug/l	6.88	15,424.24	8.308E-03	Pulse	0.15	3
Ca			1	23.521	ug/l	11.66	37,174.16	1.315E-02	Pulse	0.10	3
Sr			1	0.125	ug/l	9.76	2,687.06	9.453E-04	Pulse	0.10	3
Mo			1	0.204	ug/l	5.76	270.02	9.456E-05	Pulse	0.10	3
Ag			1	0.020	ug/l	17.19	186.68	6.536E-05	Pulse	0.10	3
Sn			1	0.240	ug/l	19.59	2,510.35	8.769E-04	Pulse	0.10	3
Sb			1	-0.043	ug/l	-45.96	1,073.42	3.181E-04	Pulse	0.10	3
Ba			1	0.243	ug/l	10.10	553.37	1.647E-04	Pulse	0.10	3
Tl			1	0.002	ug/l	91.28	236.68	1.365E-04	Pulse	0.10	3
Pb			1	-0.001	ug/l	-1272.12	120.01	6.981E-05	Pulse	0.10	3
Pb			1	0.029	ug/l	37.10	173.34	9.960E-05	Pulse	0.10	3
Pb			1	0.021	ug/l	21.39	726.71	4.200E-04	Pulse	0.10	3
Na			2	6.442	ug/l	1.60	9,923.60	9.084E-02	Pulse	0.30	3
Mg			2	0.831	ug/l	8.75	654.47	5.990E-03	Pulse	0.30	3
Al			2	0.207	ug/l	274.89	175.56	1.608E-03	Pulse	0.30	3
K			2	1.456	ug/l	36.95	8,472.66	7.755E-02	Pulse	0.30	3
Ca			2	30.949	ug/l	22.41	446.68	4.092E-03	Pulse	0.30	3
Ti			2	0.142	ug/l	57.59	8.89	8.160E-05	Pulse	0.30	3
V			2	0.618	ug/l	10.49	1,545.66	1.415E-02	Pulse	0.30	3
Cr			2	0.463	ug/l	6.09	1,402.31	1.284E-02	Pulse	0.30	3
Mn			2	0.283	ug/l	2.67	411.12	3.763E-03	Pulse	0.30	3
Fe			2	0.409	ug/l	16.31	6,897.34	6.314E-02	Pulse	0.30	3
Co			2	0.017	ug/l	19.51	121.11	1.109E-03	Pulse	0.30	3
Ni			2	0.114	ug/l	2.92	151.11	1.383E-03	Pulse	0.30	3
Cu			2	0.325	ug/l	5.96	1,373.42	1.257E-02	Pulse	0.30	3
Zn			2	6.976	ug/l	7.71	3,150.40	2.885E-02	Pulse	0.30	3
As			2	0.087	ug/l	43.60	23.33	2.137E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	-0.001	ug/l	-2236.31	10.42	2.270E-05	Pulse	0.30	3
Sn			2	-0.770	ug/l	-4.28	511.13	1.120E-03	Pulse	0.30	3
Se			3	0.111	ug/l	81.30	13.33	1.014E-04	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,856,250.33	1.16	88.7	Pulse	0.10	3
1	Sc		2,828,314.65	3.35	88.4	Pulse	0.10	3
1	Ge		668,431.60	2.87	90.6	Pulse	0.10	3
1	Rh		2,847,005.79	3.72	89.9	Pulse	0.10	3
1	In		2,856,610.26	3.79	90.7	Pulse	0.10	3
1	Tb		3,367,216.72	3.94	92.5	Pulse	0.10	3
1	Ho		315,871.66	5.14	92.2	Pulse	0.10	3
1	Bi		1,734,282.32	4.00	92.3	Pulse	0.10	3
2	Sc		109,249.50	1.05	85.8	Pulse	0.30	3
2	Ge		86,171.64	0.85	88.9	Pulse	0.30	3
2	Rh		1,324,371.58	0.69	88.2	Pulse	0.30	3
2	In		456,475.53	0.70	86.3	Pulse	0.30	3
2	Tb		1,438,214.77	0.17	91.0	Pulse	0.30	3
2	Ho		135,047.48	1.34	91.0	Pulse	0.30	3
2	Bi		836,185.75	1.62	89.9	Pulse	0.30	3
3	Sc		145,769.21	1.06	90.3	Pulse	0.30	3
3	Ge		131,756.44	1.41	103.0	Pulse	0.30	3
3	Rh		995,554.33	1.58	89.5	Pulse	0.30	3
3	Tb		1,313,933.66	1.58	91.6	Pulse	0.30	3

Quantitation Report

File Name 047_CCV.d
File Path C:\Agilent\ICPMH\1\DATA\.b051019m2.b
Method File
Method Path
Acq Time 5/10/2019 17:08
Sample Name CCVA
Sample Type CCV
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name Metals
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 5/13/2019 7:20
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	48.766	ug/l	0.54	306,249.62	1.603E-01	Pulse	0.25	3
B			1	99.763	ug/l	0.68	555,495.99	2.908E-01	Pulse	0.15	3
Ca			1	4860.851	ug/l	0.30	4,355,128.27	1.502E+00	Pulse	0.10	3
Sr			1	50.161	ug/l	0.78	1,767,512.22	6.124E-01	Pulse	0.10	3
Mo			1	51.424	ug/l	0.96	373,865.63	1.296E-01	Pulse	0.10	3
Ag			1	47.578	ug/l	1.44	781,877.38	2.671E-01	Pulse	0.10	3
Sn			1	49.432	ug/l	1.71	511,127.08	1.746E-01	Pulse	0.10	3
Sb			1	51.777	ug/l	2.23	576,853.04	1.692E-01	Pulse	0.10	3
Ba			1	49.027	ug/l	1.55	210,294.49	6.168E-02	Pulse	0.10	3
Tl			1	49.918	ug/l	2.96	1,038,459.93	5.977E-01	Pulse	0.10	3
Pb			1	49.811	ug/l	2.24	356,290.20	2.052E-01	Pulse	0.10	3
Pb			1	49.524	ug/l	0.59	306,145.01	1.763E-01	Pulse	0.10	3
Pb			1	49.582	ug/l	1.18	1,411,005.78	8.127E-01	Pulse	0.10	3
Na			2	4724.083	ug/l	0.34	4,938,359.39	4.203E+01	Pulse	0.30	3
Mg			2	4799.883	ug/l	0.14	2,273,558.45	1.935E+01	Pulse	0.30	3
Al			2	5012.965	ug/l	0.41	774,606.67	6.592E+00	Pulse	0.30	3
K			2	4931.836	ug/l	0.54	1,600,647.85	1.362E+01	Pulse	0.30	3
Ca			2	5148.918	ug/l	0.66	89,712.31	7.634E-01	Pulse	0.30	3
Ti			2	49.072	ug/l	1.50	6,619.45	5.633E-02	Pulse	0.30	3
V			2	48.299	ug/l	0.53	202,213.05	1.721E+00	Pulse	0.30	3
Cr			2	48.098	ug/l	0.61	245,476.55	2.089E+00	Pulse	0.30	3
Mn			2	48.537	ug/l	0.57	127,656.53	1.086E+00	Pulse	0.30	3
Fe			2	5153.173	ug/l	1.28	22,196,343.00	1.889E+02	Analog	0.30	3
Co			2	47.534	ug/l	0.89	385,251.58	3.279E+00	Pulse	0.30	3
Ni			2	46.851	ug/l	0.94	101,065.54	8.601E-01	Pulse	0.30	3
Cu			2	46.913	ug/l	0.23	266,870.21	2.271E+00	Pulse	0.30	3
Zn			2	47.258	ug/l	0.54	38,112.78	3.243E-01	Pulse	0.30	3
As			2	48.499	ug/l	1.08	22,487.08	1.914E-01	Pulse	1.00	3
Cd			2	49.575	ug/l	0.26	95,189.77	1.952E-01	Pulse	0.30	3
Sn			2	50.521	ug/l	0.96	109,624.73	2.248E-01	Pulse	0.30	3
Se			3	189.799	ug/l	4.58	17,845.73	1.514E-01	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,910,292.90	2.26	91.3	Pulse	0.10	3
1	Sc		2,899,340.79	3.04	90.7	Pulse	0.10	3
1	Ge		681,626.42	4.05	92.4	Pulse	0.10	3

Quantitation Report

1	Rh		2,886,538.92	4.79	91.2	Pulse	0.10	3
1	In		2,928,958.33	4.90	93.0	Pulse	0.10	3
1	Tb		3,409,646.82	4.94	93.6	Pulse	0.10	3
1	Ho		326,108.69	5.77	95.1	Pulse	0.10	3
1	Bi		1,736,601.85	5.08	92.4	Pulse	0.10	3
2	Sc		117,509.67	0.64	92.3	Pulse	0.30	3
2	Ge		88,833.13	0.70	91.6	Pulse	0.30	3
2	Rh		1,367,399.53	0.49	91.0	Pulse	0.30	3
2	In		487,638.17	0.26	92.2	Pulse	0.30	3
2	Tb		1,506,189.39	0.11	95.3	Pulse	0.30	3
2	Ho		141,820.17	0.67	95.5	Pulse	0.30	3
2	Bi		866,384.93	0.37	93.1	Pulse	0.30	3
3	Sc		146,838.95	0.36	90.9	Pulse	0.30	3
3	Ge		117,917.47	1.42	92.2	Pulse	0.30	3
3	Rh		975,854.37	1.76	87.7	Pulse	0.30	3
3	Tb		1,305,976.58	1.57	91.1	Pulse	0.30	3

Quantitation Report

File Name	048_CCB.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051019m2.b
Method File	
Method Path	
Acq Time	5/10/2019 17:13
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.010	ug/l	16.85	84.00	4.359E-05	Pulse	0.25	3
B			1	0.704	ug/l	15.04	16,514.42	8.568E-03	Pulse	0.15	3
Ca			1	-4.263	ug/l	-11.32	23,737.83	8.225E-03	Pulse	0.10	3
Sr			1	0.103	ug/l	3.89	4,197.49	1.440E-03	Pulse	0.10	3
Mo			1	0.137	ug/l	6.07	533.37	1.835E-04	Pulse	0.10	3
Ag			1	0.005	ug/l	75.68	106.67	3.624E-05	Pulse	0.10	3
Sn			1	0.060	ug/l	34.47	1,943.64	6.660E-04	Pulse	0.10	3
Sb			1	0.102	ug/l	7.58	2,360.30	7.191E-04	Pulse	0.10	3
Ba			1	0.017	ug/l	62.19	110.01	3.353E-05	Pulse	0.10	3
Tl			1	0.018	ug/l	6.01	586.70	3.398E-04	Pulse	0.10	3
Pb			1	0.000	ug/l	473.94	126.67	7.365E-05	Pulse	0.10	3
Pb			1	0.015	ug/l	11.24	176.68	1.024E-04	Pulse	0.10	3
Pb			1	0.010	ug/l	29.57	696.70	4.050E-04	Pulse	0.10	3
Na			2	-0.062	ug/l	-257.01	7,024.05	6.167E-02	Pulse	0.30	3
Mg			2	-0.136	ug/l	-26.83	428.90	3.766E-03	Pulse	0.30	3
Al			2	1.152	ug/l	5.80	340.01	2.986E-03	Pulse	0.30	3
K			2	0.158	ug/l	443.92	8,653.88	7.598E-02	Pulse	0.30	3
Ca			2	1.587	ug/l	131.32	232.23	2.038E-03	Pulse	0.30	3
Ti			2	0.068	ug/l	77.65	8.89	7.798E-05	Pulse	0.30	3
V			2	0.014	ug/l	71.80	415.57	3.650E-03	Pulse	0.30	3
Cr			2	0.033	ug/l	65.45	480.02	4.217E-03	Pulse	0.30	3
Mn			2	0.036	ug/l	40.93	158.89	1.396E-03	Pulse	0.30	3
Fe			2	0.356	ug/l	16.31	7,821.20	6.867E-02	Pulse	0.30	3
Co			2	0.007	ug/l	17.41	113.34	9.949E-04	Pulse	0.30	3
Ni			2	0.024	ug/l	44.20	88.89	7.816E-04	Pulse	0.30	3
Cu			2	0.050	ug/l	6.37	814.48	7.153E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	-0.434	ug/l	-14.88	270.01	2.373E-03	Pulse	0.30	3
As			2	0.013	ug/l	79.04	10.67	9.356E-05	Pulse	1.00	3
Cd			2	0.007	ug/l	48.21	25.07	5.217E-05	Pulse	0.30	3
Sn			2	-0.438	ug/l	-4.11	426.68	8.871E-04	Pulse	0.30	3
Se			3	0.065	ug/l	19.73	12.67	1.094E-04	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,928,191.62	1.53	92.1	Pulse	0.10	3
1	Sc		2,886,381.94	2.71	90.3	Pulse	0.10	3
1	Ge		671,129.63	3.44	91.0	Pulse	0.10	3
1	Rh		2,913,133.08	3.04	92.0	Pulse	0.10	3
1	In		2,923,581.94	3.87	92.8	Pulse	0.10	3
1	Tb		3,281,537.14	2.92	90.1	Pulse	0.10	3
1	Ho		307,370.09	3.73	89.7	Pulse	0.10	3
1	Bi		1,724,930.39	3.42	91.8	Pulse	0.10	3
2	Sc		113,877.69	0.77	89.5	Pulse	0.30	3
2	Ge		87,134.37	1.61	89.9	Pulse	0.30	3
2	Rh		1,357,055.02	1.00	90.4	Pulse	0.30	3
2	In		481,046.61	1.01	90.9	Pulse	0.30	3
2	Tb		1,443,924.08	0.11	91.4	Pulse	0.30	3
2	Ho		134,930.02	0.82	90.9	Pulse	0.30	3
2	Bi		857,725.33	0.16	92.2	Pulse	0.30	3
3	Sc		146,741.28	0.62	90.9	Pulse	0.30	3
3	Ge		115,830.33	1.69	90.5	Pulse	0.30	3
3	Rh		999,383.43	1.83	89.8	Pulse	0.30	3
3	Tb		1,294,419.98	1.83	90.3	Pulse	0.30	3

Quantitation Report

File Name	049SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051019m2.b
Method File	
Method Path	
Acq Time	5/10/2019 17:18
Sample Name	MP11926-MB3 4
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 7:20
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

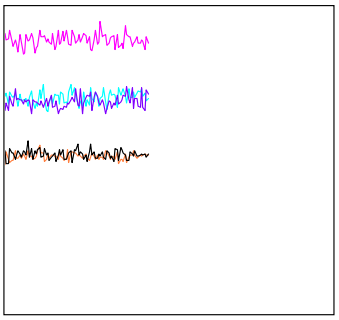
Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.016	ug/l	21.88	65.33	3.538E-05	Pulse	0.25	3
B			1	1.353	ug/l	12.18	15,691.22	8.490E-03	Pulse	0.15	3
Ca			1	14.593	ug/l	7.78	33,334.20	1.177E-02	Pulse	0.10	3
Sr			1	0.068	ug/l	14.83	1,700.17	5.971E-04	Pulse	0.10	3
Mo			1	0.245	ug/l	4.18	416.69	1.461E-04	Pulse	0.10	3
Ag			1	0.017	ug/l	23.03	160.01	5.696E-05	Pulse	0.10	3
Sn			1	0.585	ug/l	5.03	4,184.17	1.485E-03	Pulse	0.10	3
Sb			1	0.172	ug/l	4.08	2,240.28	6.678E-04	Pulse	0.10	3
Ba			1	0.123	ug/l	37.76	300.02	8.961E-05	Pulse	0.10	3
Tl			1	0.012	ug/l	65.19	336.68	1.972E-04	Pulse	0.10	3
Pb			1	0.058	ug/l	18.62	326.69	1.908E-04	Pulse	0.10	3
Pb			1	0.047	ug/l	39.13	223.34	1.309E-04	Pulse	0.10	3
Pb			1	0.054	ug/l	24.55	1,180.07	6.904E-04	Pulse	0.10	3
Na			2	8.990	ug/l	7.17	11,239.02	1.022E-01	Pulse	0.30	3
Mg			2	1.066	ug/l	18.01	711.14	6.464E-03	Pulse	0.30	3
Al			2	5.812	ug/l	4.91	582.24	5.292E-03	Pulse	0.30	3
K			2	2.077	ug/l	76.77	8,626.09	7.840E-02	Pulse	0.30	3
Ca			2	24.656	ug/l	18.13	398.90	3.627E-03	Pulse	0.30	3
Ti			2	0.282	ug/l	28.99	17.78	1.617E-04	Pulse	0.30	3
V			2	0.585	ug/l	8.13	1,493.44	1.357E-02	Pulse	0.30	3
Cr			2	1.072	ug/l	3.91	2,864.77	2.604E-02	Pulse	0.30	3
Mn			2	0.171	ug/l	7.13	275.56	2.504E-03	Pulse	0.30	3
Fe			2	2.138	ug/l	4.41	10,430.74	9.481E-02	Pulse	0.30	3
Co			2	0.010	ug/l	22.36	96.67	8.786E-04	Pulse	0.30	3
Ni			2	0.181	ug/l	14.45	220.00	2.000E-03	Pulse	0.30	3
Cu			2	0.983	ug/l	10.21	3,130.50	2.846E-02	Pulse	0.30	3
Zn			2	2.090	ug/l	15.37	1,358.98	1.235E-02	Pulse	0.30	3
As			2	0.086	ug/l	13.92	23.33	2.121E-04	Pulse	1.00	3

Current Signal

[1]



Mass	Range	Count	Avg. Count	RSD [%]
7	5000	3498	3514.7	2.86
59	5000	3564	3447.2	2.98
89	10000	5174	5116.6	2.24
140	5000	4402	4449.2	2.35
205	5000	2593	2592.1	2.78
156/140	2	0.772 %	1.082 %	18.43
70/140	10	6.225 %	6.210 %	8.30
9	50	8	10.2	36.00
11	200	118	128.2	10.38
88	100	53	66.6	14.60
95	50	12	15.2	28.40
107	20	6	2.6	76.26
121	50	31	27.9	20.76
137	50	22	21.8	25.63
208	200	80	71.5	13.41
Integration Time [sec]		0.10		

Plasma Parameters

RF Power	1500	W	Nebulizer Pump	0.10	rps
RF Matching	1.75	V	S/C Temp	2	℃
Smpl Depth	7.8	mm	Gas Switch	Dilution Gas	
Carrier Gas	0.55	L/min	Makeup/Dilution Gas	0.55	L/min
Option Gas	0.0	%			

Lenses Parameters

Extract 1	0.0	V	Cell Entrance	-38	V
Extract 2	-155.0	V	Cell Exit	-60	V
Omega Bias	-80	V	Deflect	15.0	V
Omega Lens	8.6	V	Plate Bias	-50	V

Cell Parameters

Use Gas	false		OctP Bias	-8.0	V
He Flow	0.0	mL/min	OctP RF	200	V
H2 Flow	0.0	mL/min	Energy Discrimination	5.0	V
3rd Gas Flow	0	%			

Meters

IF/BK Press	2.56E+2	Pa	Water Temp	22.9	℃
TMP Revolution	100.0	%	Carrier Gas(BP)	1.44E+2	kPa
Carrier Gas	0.55	L/min			

US EPA Tune Check Sample Report

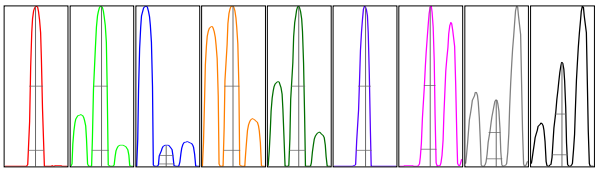
Batch Folder C:\Agilent\ICPMH\1\DATA\.b051019m1.b
Report Comment
Instrument Name G3281A JP12412081

[1]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
9	107052	0.89	5.00	
24	433215	0.69	5.00	
25	56947	0.67	5.00	
26	66674	0.55	5.00	
59	498900	0.68	5.00	
115	526872	0.90	5.00	
206	102959	0.70	5.00	
207	93027	0.61	5.00	
208	222488	0.68	5.00	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	105581	108128	107032	106952	107570
24	431303	437482	429921	432666	434704
25	56781	56727	56642	57590	56993
26	66403	66884	66163	66907	67012
59	496329	499854	504406	497475	496435
115	521926	530650	529729	521502	530552
206	101792	103662	102935	102975	103431
207	92327	93437	93298	92505	93566
208	221803	224690	222981	220619	222349

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width-X% (Flag)
9	18565	9.00	8.9 - 9.1		0.719	0.900	
24	70135	24.00	23.9 - 24.1		0.761	0.900	
25	9261	24.95	24.9 - 25.1		0.736	0.900	
26	10611	26.00	25.9 - 26.1		0.770	0.900	
59	86009	59.00	58.9 - 59.1		0.754	0.900	
115	103371	115.05	114.9 - 115.1		0.698	0.900	
206	20702	206.00	205.9 - 206.1		0.706	0.900	
207	18661	207.00	206.9 - 207.1		0.707	0.900	
208	45010	208.00	207.9 - 208.1		0.717	0.900	

X% = 10 **Integration Time [sec] =** 0.1 **Acquisition Time [sec] =** 235 **Y Axis =** Linear

Tune Parameters

Plasma Paramters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
RF Power	1500	W	Carrier Gas	0.55	L/min			
RF Matching	1.75	V	Option Gas	0.0	%			
Smpl Depth	7.8	mm	Nebulizer Pump	0.20	rps			
S/C Temp	2	℃						

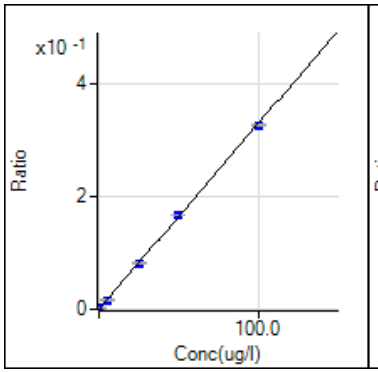
Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	8.6	V			
Extract 2	-155.0	V	Cell Entrance	-38	V			
Omega Bias	-80	V	Cell Exit	-60	V			
Deflect	15.0	V						

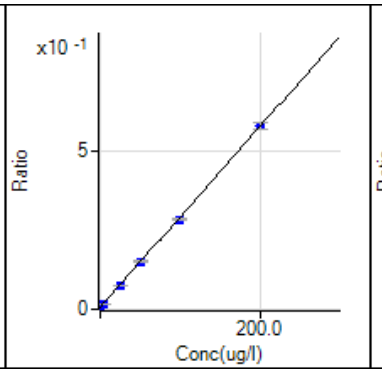
Cell Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Use Gas	false		3rd Gas Flow	0	%			
He Flow	0.0	mL/min	OctP Bias	-8.0	V			
H2 Flow	0.0	mL/min	OctP RF	200	V			
Energy Discrimination	5.0	V						

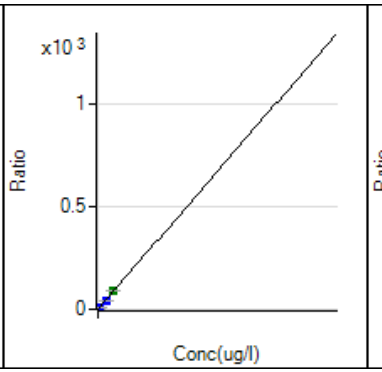
Calibration for C:\Agilent\ICPMH\1\DATA\.b051019m2.b\035SMPL.d



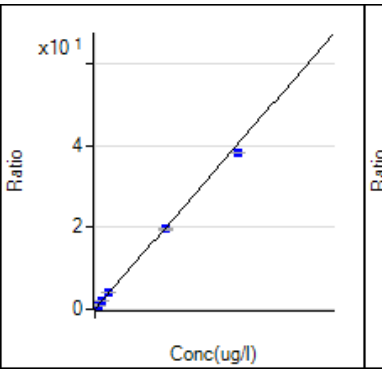
9 Be [1] / ISTD: 6 Li
y = 3.287E-3 x + 9.181E-6
R 0.9999
DL 0.005492
BEC 0.002793



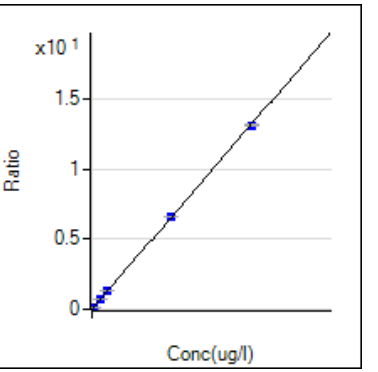
11 B [1] / ISTD: 6 Li
y = 2.849E-3 x + 6.563E-3
R 0.9998
DL 0.2964
BEC 2.304



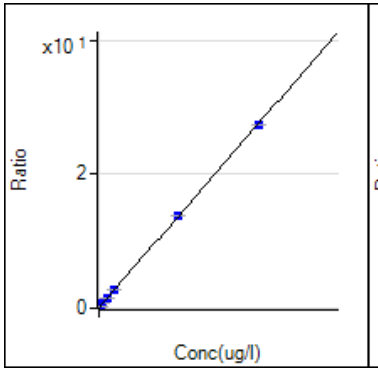
23 Na [2] / ISTD: 45 Sc
y = 8.883E-3 x + 6.222E-2
R 0.9997
DL 0.4895
BEC 7.005



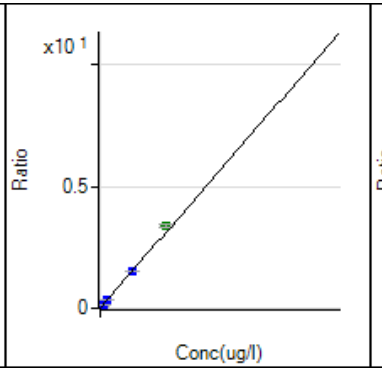
24 Mg [2] / ISTD: 45 Sc
y = 4.030E-3 x + 4.315E-3
R 0.9999
DL 0.2927
BEC 1.071



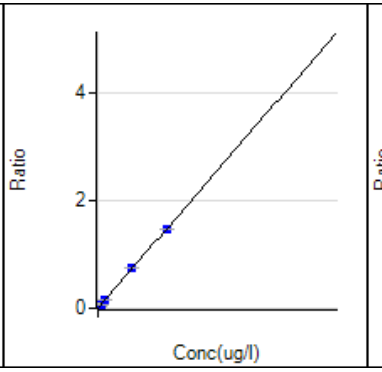
27 Al [2] / ISTD: 45 Sc
y = 1.315E-3 x + 1.471E-3
R 1.0000
DL 0.3162
BEC 1.119



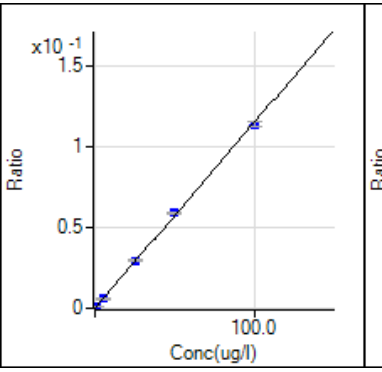
39 K [2] / ISTD: 45 Sc
y = 2.747E-3 x + 7.555E-2
R 1.0000
DL 2.472
BEC 27.51



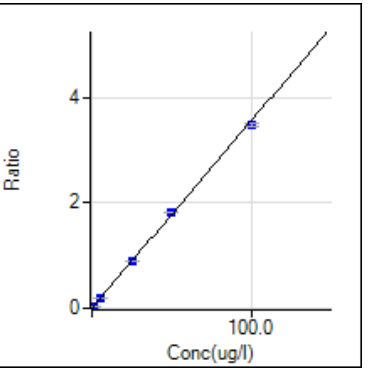
44 Ca [1] / ISTD: 45 Sc
y = 3.070E-4 x + 9.534E-3
R 0.9986
DL 2.54
BEC 31.05



44 Ca [2] / ISTD: 45 Sc
y = 1.479E-4 x + 1.803E-3
R 1.0000
DL 5.567
BEC 12.19

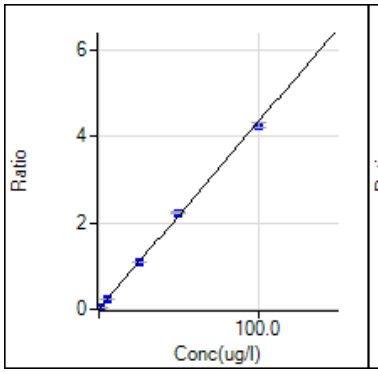


47 Ti [2] / ISTD: 45 Sc
y = 1.148E-3 x
R 0.9998
DL 0
BEC 0

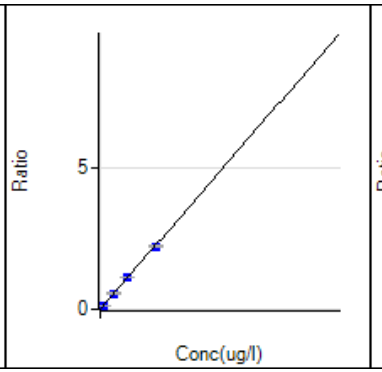


51 V [2] / ISTD: 45 Sc
y = 3.556E-2 x + 3.168E-3
R 0.9997
DL 0.04881
BEC 0.08907

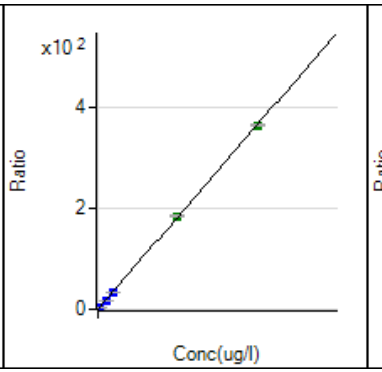
Calibration for C:\Agilent\ICPMH\1\DATA\.b051019m2.b\035SMPL.d



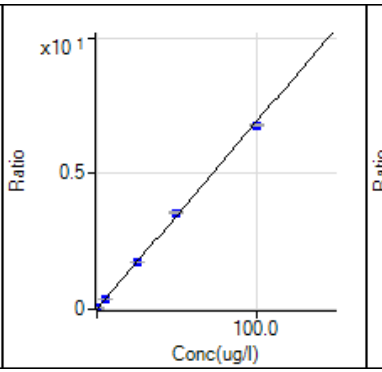
52 Cr [2] / ISTD: 45 Sc
y = 4.338E-2 x + 2.790E-3
R 0.9997
DL 0.00816
BEC 0.06433



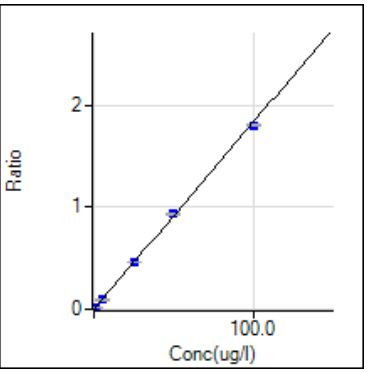
55 Mn [2] / ISTD: 45 Sc
y = 2.237E-2 x + 5.938E-4
R 0.9998
DL 0.005672
BEC 0.02655



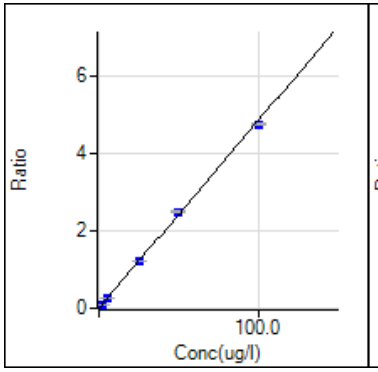
56 Fe [2] / ISTD: 45 Sc
y = 3.664E-2 x + 5.564E-2
R 1.0000
DL 0.1504
BEC 1.518



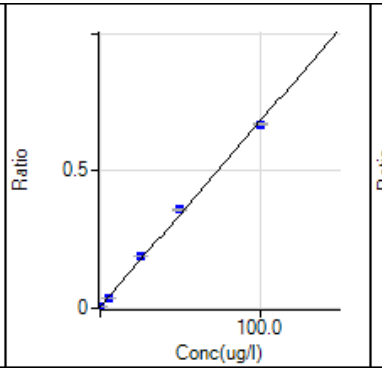
59 Co [2] / ISTD: 45 Sc
y = 6.896E-2 x + 5.275E-4
R 0.9997
DL 0.005343
BEC 0.007649



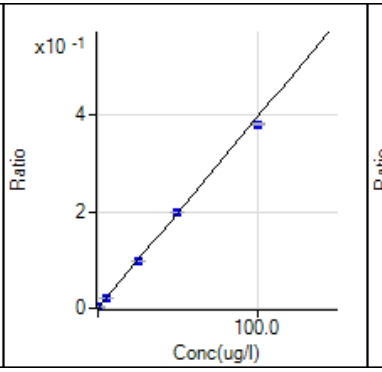
60 Ni [2] / ISTD: 45 Sc
y = 1.835E-2 x + 3.404E-4
R 0.9998
DL 0.02049
BEC 0.01855



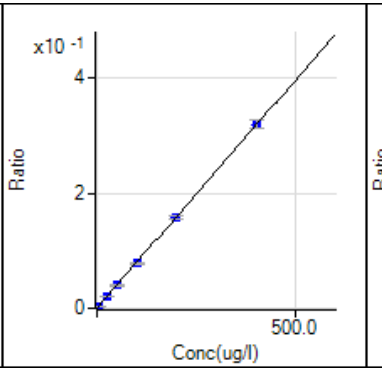
63 Cu [2] / ISTD: 45 Sc
y = 4.831E-2 x + 4.718E-3
R 0.9997
DL 0.006754
BEC 0.09767



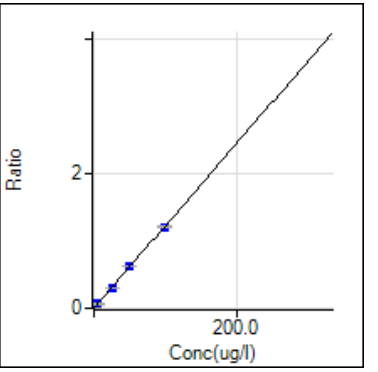
66 Zn [2] / ISTD: 45 Sc
y = 6.751E-3 x + 5.300E-3
R 0.9992
DL 0.1981
BEC 0.785



75 As [2] / ISTD: 45 Sc
y = 3.945E-3 x + 4.283E-5
R 0.9997
DL 0.01923
BEC 0.01086

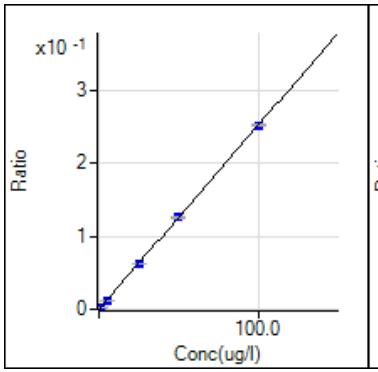


78 Se [3] / ISTD: 74 Ge
y = 7.974E-4 x + 5.734E-5
R 1.0000
DL 0.03435
BEC 0.0719

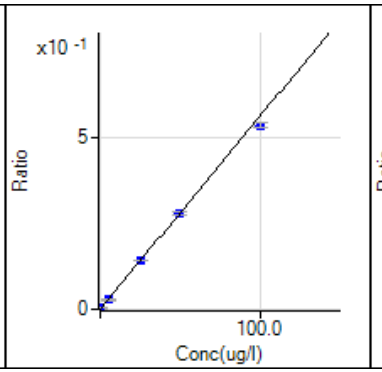


88 Sr [1] / ISTD: 103 Rh
y = 1.220E-2 x + 1.832E-4
R 0.9999
DL 0.01342
BEC 0.01501

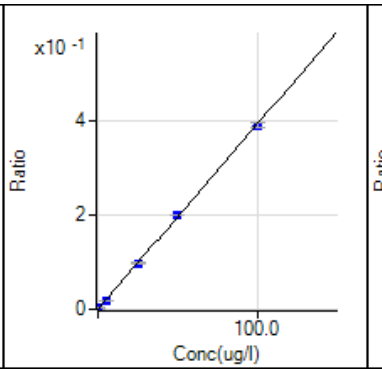
Calibration for C:\Agilent\ICPMH\1\DATA\.b051019m2.b\035SMPL.d



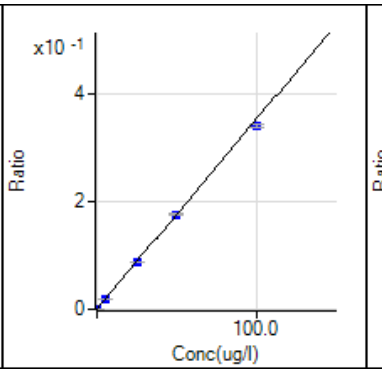
95 Mo [1] / ISTD: 103 Rh
y = 2.523E-3 x - 1.633E-4
R 1.0000
DL 0.008781
BEC -0.06472



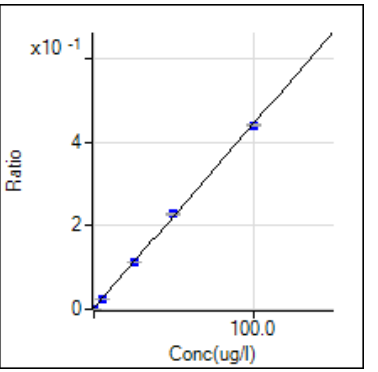
107 Ag [1] / ISTD: 115 In
y = 5.613E-3 x + 8.176E-6
R 0.9996
DL 0.005171
BEC 0.001457



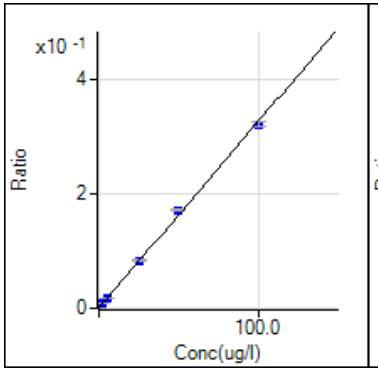
111 Cd [2] / ISTD: 115 In
y = 3.937E-3 x + 2.399E-5
R 0.9999
DL 0.01852
BEC 0.006092



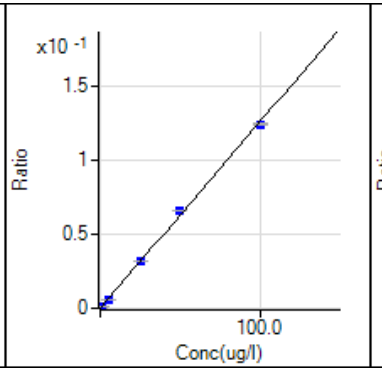
118 Sn [1] / ISTD: 115 In
y = 3.523E-3 x + 4.537E-4
R 0.9999
DL 0.02792
BEC 0.1288



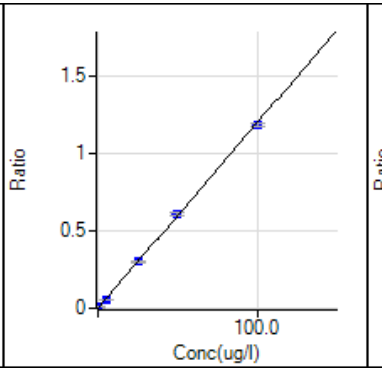
118 Sn [2] / ISTD: 115 In
y = 4.394E-3 x + 2.812E-3
R 0.9999
DL 0.04137
BEC 0.6399



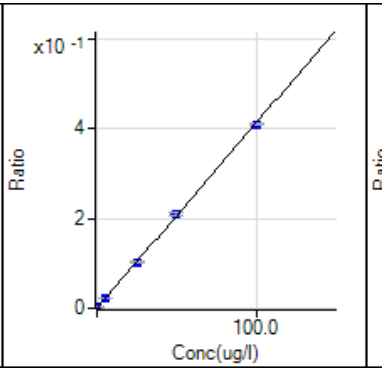
121 Sb [1] / ISTD: 159 Tb
y = 3.261E-3 x + 3.882E-4
R 0.9995
DL 0.0208
BEC 0.119



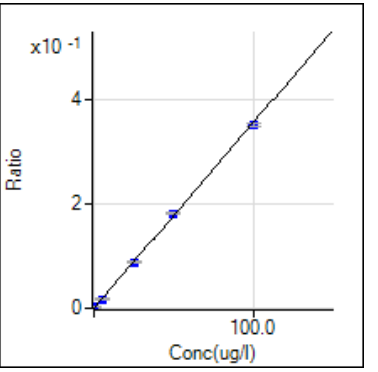
137 Ba [1] / ISTD: 159 Tb
y = 1.258E-3 x + 1.203E-5
R 0.9995
DL 0.01451
BEC 0.009561



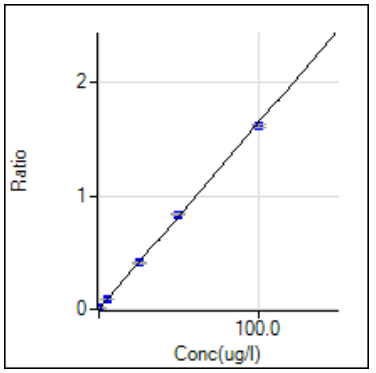
205 Tl [1] / ISTD: 209 Bi
y = 1.197E-2 x + 1.271E-4
R 0.9999
DL 0.008751
BEC 0.01062



206 Pb [1] / ISTD: 209 Bi
y = 4.117E-3 x + 7.167E-5
R 0.9999
DL 0.01968
BEC 0.01741



207 Pb [1] / ISTD: 209 Bi
y = 3.559E-3 x + 4.730E-5
R 0.9999
DL 0.003249
BEC 0.01329



208 Pb [1] / ISTD: 209 Bi

y = 1.638E-2 x + 2.473E-4

R	0.9999
DL	0.01006
BEC	0.01509

Quantitation Report

File Name	001CALB.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051219m1.b
Method File	
Method Path	
Acq Time	5/12/2019 21:27
Sample Name	STDA 4
Sample Type	CalBlk
Comment	0
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 8:46
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.002	ug/l	138.43	17.33	9.300E-06	Pulse	0.25	3
B			1	0.066	ug/l	152.96	5,768.02	3.080E-03	Pulse	0.15	3
Ca			1	0.473	ug/l	299.12	20,449.19	7.148E-03	Pulse	0.10	3
Sr			1	-0.005	ug/l	-98.86	1,006.75	3.172E-04	Pulse	0.10	3
Mo			1	-0.141	ug/l	-1.36	33.33	1.041E-05	Pulse	0.10	3
Ag			1	0.000	ug/l	-178.44	23.33	7.236E-06	Pulse	0.10	3
Sn			1	0.011	ug/l	184.49	1,476.81	4.610E-04	Pulse	0.10	3
Sb			1	0.005	ug/l	60.35	286.68	7.824E-05	Pulse	0.10	3
Ba			1	-0.009	ug/l	-44.38	10.00	2.714E-06	Pulse	0.10	3
Tl			1	0.006	ug/l	91.66	896.74	4.397E-04	Pulse	0.10	3
Pb			1	0.007	ug/l	207.91	496.70	2.436E-04	Pulse	0.10	3
Pb			1	0.014	ug/l	45.02	420.02	2.072E-04	Pulse	0.10	3
Pb			1	0.007	ug/l	36.70	1,930.15	9.499E-04	Pulse	0.10	3
Na			2	1.693	ug/l	12.30	16,182.70	1.194E-01	Pulse	0.30	3
Mg			2	0.027	ug/l	180.01	95.56	7.050E-04	Pulse	0.30	3
Al			2	-0.043	ug/l	-112.84	43.33	3.199E-04	Pulse	0.30	3
K			2	0.553	ug/l	130.96	9,403.25	6.939E-02	Pulse	0.30	3
Ca			2	-1.744	ug/l	-46.67	175.56	1.296E-03	Pulse	0.30	3
Ti			2	0.000	ug/l	-31602.85	1.11	8.198E-06	Pulse	0.30	3
V			2	0.029	ug/l	45.31	676.69	4.994E-03	Pulse	0.30	3
Cr			2	-0.001	ug/l	-2521.33	431.12	3.182E-03	Pulse	0.30	3
Mn			2	0.012	ug/l	46.33	133.34	9.838E-04	Pulse	0.30	3
Fe			2	-0.048	ug/l	-74.74	3,044.82	2.247E-02	Pulse	0.30	3
Co			2	0.001	ug/l	115.19	113.34	8.364E-04	Pulse	0.30	3
Ni			2	-0.003	ug/l	-168.32	34.44	2.543E-04	Pulse	0.30	3
Cu			2	-0.005	ug/l	-120.61	721.14	5.322E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	-0.031	ug/l	-17.84	178.89	1.320E-03	Pulse	0.30	3
As			2	0.000	ug/l	2403.83	9.67	7.132E-05	Pulse	1.00	3
Cd			2	-0.002	ug/l	-293.61	13.32	2.084E-05	Pulse	0.30	3
Sn			2	-0.459	ug/l	-4.04	306.67	4.803E-04	Pulse	0.30	3
Se			3	0.006	ug/l	823.37	5.33	4.437E-05	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,872,174.41	1.76	100.0	Pulse	0.10	3
1	Sc		2,859,107.15	1.70	100.0	Pulse	0.10	3
1	Ge		697,531.32	3.57	100.0	Pulse	0.10	3
1	Rh		3,186,495.58	3.83	100.0	Pulse	0.10	3
1	In		3,201,600.44	3.47	100.0	Pulse	0.10	3
1	Tb		3,664,742.86	4.20	100.0	Pulse	0.10	3
1	Ho		353,883.25	5.93	100.0	Pulse	0.10	3
1	Bi		2,032,461.43	3.89	100.0	Pulse	0.10	3
2	Sc		135,503.74	0.22	100.0	Pulse	0.30	3
2	Ge		105,134.60	0.83	100.0	Pulse	0.30	3
2	Rh		1,584,031.29	0.55	100.0	Pulse	0.30	3
2	In		638,644.37	0.21	100.0	Pulse	0.30	3
2	Tb		1,822,496.11	0.31	100.0	Pulse	0.30	3
2	Ho		176,307.91	0.66	100.0	Pulse	0.30	3
2	Bi		1,087,244.61	0.24	100.0	Pulse	0.30	3
3	Sc		133,518.68	0.82	100.0	Pulse	0.30	3
3	Ge		120,174.96	0.62	100.0	Pulse	0.30	3
3	Rh		1,187,013.67	1.55	100.0	Pulse	0.30	3
3	Tb		1,703,868.44	1.53	100.0	Pulse	0.30	3

Quantitation Report

File Name	002CALB.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051219m1.b
Method File	
Method Path	
Acq Time	5/12/2019 21:32
Sample Name	STDA 4
Sample Type	CalBlk
Comment	0
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 8:46
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.000	ug/l	-119.90	8.00	4.230E-06	Pulse	0.25	3
B			1	0.135	ug/l	42.94	6,172.63	3.265E-03	Pulse	0.15	3
Ca			1	-0.492	ug/l	-80.89	20,018.39	6.865E-03	Pulse	0.10	3
Sr			1	-0.016	ug/l	-13.78	603.37	1.857E-04	Pulse	0.10	3
Mo			1	-0.143	ug/l	-1.38	16.67	5.154E-06	Pulse	0.10	3
Ag			1	-0.001	ug/l	-135.39	20.00	6.014E-06	Pulse	0.10	3
Sn			1	-0.003	ug/l	-222.04	1,356.79	4.154E-04	Pulse	0.10	3
Sb			1	0.002	ug/l	62.81	256.68	6.798E-05	Pulse	0.10	3
Ba			1	-0.004	ug/l	-87.43	33.33	8.793E-06	Pulse	0.10	3
Tl			1	-0.001	ug/l	-272.17	750.06	3.629E-04	Pulse	0.10	3
Pb			1	-0.001	ug/l	-493.79	440.03	2.124E-04	Pulse	0.10	3
Pb			1	0.013	ug/l	19.82	426.69	2.062E-04	Pulse	0.10	3
Pb			1	0.002	ug/l	229.10	1,823.46	8.789E-04	Pulse	0.10	3
Na			2	0.873	ug/l	35.65	15,375.16	1.129E-01	Pulse	0.30	3
Mg			2	-0.068	ug/l	-46.49	47.78	3.516E-04	Pulse	0.30	3
Al			2	-0.074	ug/l	-64.00	37.78	2.779E-04	Pulse	0.30	3
K			2	0.407	ug/l	52.58	9,391.03	6.899E-02	Pulse	0.30	3
Ca			2	-1.882	ug/l	-109.94	173.34	1.275E-03	Pulse	0.30	3
Ti			2	-0.008	ug/l	0.00	0.00	0.000E+00	Pulse	0.30	3
V			2	0.010	ug/l	84.88	598.91	4.400E-03	Pulse	0.30	3
Cr			2	0.001	ug/l	383.33	442.24	3.248E-03	Pulse	0.30	3
Mn			2	0.000	ug/l	-3608.23	95.56	7.008E-04	Pulse	0.30	3
Fe			2	-0.189	ug/l	-9.88	2,395.80	1.760E-02	Pulse	0.30	3
Co			2	-0.002	ug/l	-129.29	87.78	6.460E-04	Pulse	0.30	3
Ni			2	0.000	ug/l	25349.31	42.22	3.107E-04	Pulse	0.30	3
Cu			2	-0.007	ug/l	-159.74	712.25	5.234E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	-0.065	ug/l	-70.94	148.89	1.096E-03	Pulse	0.30	3
As			2	-0.001	ug/l	-1620.73	9.33	6.834E-05	Pulse	1.00	3
Cd			2	-0.001	ug/l	-795.72	15.00	2.341E-05	Pulse	0.30	3
Sn			2	-0.446	ug/l	-1.01	342.23	5.355E-04	Pulse	0.30	3
Se			3	-0.007	ug/l	-292.22	4.00	3.352E-05	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,891,343.76	1.30	100.0	Pulse	0.10	3
1	Sc		2,915,504.12	1.85	100.0	Pulse	0.10	3
1	Ge		711,718.11	4.64	100.0	Pulse	0.10	3
1	Rh		3,241,256.20	3.16	100.0	Pulse	0.10	3
1	In		3,262,162.03	3.62	100.0	Pulse	0.10	3
1	Tb		3,776,477.65	2.22	100.0	Pulse	0.10	3
1	Ho		365,231.89	3.92	100.0	Pulse	0.10	3
1	Bi		2,070,113.67	3.58	100.0	Pulse	0.10	3
2	Sc		136,122.86	0.93	100.0	Pulse	0.30	3
2	Ge		106,964.32	0.36	100.0	Pulse	0.30	3
2	Rh		1,583,371.36	0.71	100.0	Pulse	0.30	3
2	In		639,171.33	0.81	100.0	Pulse	0.30	3
2	Tb		1,812,376.25	1.03	100.0	Pulse	0.30	3
2	Ho		174,307.94	0.60	100.0	Pulse	0.30	3
2	Bi		1,082,565.86	0.50	100.0	Pulse	0.30	3
3	Sc		134,108.77	1.36	100.0	Pulse	0.30	3
3	Ge		119,356.65	0.36	100.0	Pulse	0.30	3
3	Rh		1,183,928.01	1.43	100.0	Pulse	0.30	3
3	Tb		1,713,231.15	1.59	100.0	Pulse	0.30	3

Quantitation Report

File Name	003CALB.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051219m1.b
Method File	
Method Path	
Acq Time	5/12/2019 21:38
Sample Name	STDA 4
Sample Type	CalBlk
Comment	0
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 8:46
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.001	ug/l	119.70	13.33	6.994E-06	Pulse	0.25	3
B			1	0.025	ug/l	162.12	5,683.51	2.970E-03	Pulse	0.15	3
Ca			1	-0.583	ug/l	-91.14	20,238.78	6.838E-03	Pulse	0.10	3
Sr			1	-0.002	ug/l	-313.15	1,136.77	3.521E-04	Pulse	0.10	3
Mo			1	-0.144	ug/l	-1.46	13.33	4.232E-06	Pulse	0.10	3
Ag			1	-0.001	ug/l	-171.12	23.33	7.205E-06	Pulse	0.10	3
Sn			1	0.010	ug/l	137.37	1,483.48	4.609E-04	Pulse	0.10	3
Sb			1	0.005	ug/l	48.44	303.35	7.984E-05	Pulse	0.10	3
Ba			1	-0.003	ug/l	-139.32	36.67	9.561E-06	Pulse	0.10	3
Tl			1	0.002	ug/l	371.22	823.40	3.945E-04	Pulse	0.10	3
Pb			1	0.008	ug/l	191.62	516.70	2.478E-04	Pulse	0.10	3
Pb			1	0.005	ug/l	178.25	366.69	1.757E-04	Pulse	0.10	3
Pb			1	-0.001	ug/l	-660.17	1,723.45	8.273E-04	Pulse	0.10	3
Na			2	1.164	ug/l	48.11	15,596.46	1.152E-01	Pulse	0.30	3
Mg			2	-0.017	ug/l	-84.63	73.33	5.422E-04	Pulse	0.30	3
Al			2	0.048	ug/l	59.47	60.00	4.432E-04	Pulse	0.30	3
K			2	0.325	ug/l	138.14	9,305.44	6.876E-02	Pulse	0.30	3
Ca			2	-1.509	ug/l	-68.92	180.01	1.330E-03	Pulse	0.30	3
Ti			2	-0.008	ug/l	0.00	0.00	0.000E+00	Pulse	0.30	3
V			2	0.008	ug/l	81.82	582.24	4.304E-03	Pulse	0.30	3
Cr			2	0.003	ug/l	339.52	450.01	3.323E-03	Pulse	0.30	3
Mn			2	0.009	ug/l	61.42	122.23	9.027E-04	Pulse	0.30	3
Fe			2	-0.036	ug/l	-59.69	3,099.29	2.291E-02	Pulse	0.30	3
Co			2	-0.003	ug/l	-25.66	77.78	5.752E-04	Pulse	0.30	3
Ni			2	0.001	ug/l	414.63	43.34	3.204E-04	Pulse	0.30	3
Cu			2	-0.013	ug/l	-52.61	673.36	4.975E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	-0.006	ug/l	-426.38	201.11	1.487E-03	Pulse	0.30	3
As			2	0.002	ug/l	86.90	10.33	7.640E-05	Pulse	1.00	3
Cd			2	0.006	ug/l	152.85	26.65	4.229E-05	Pulse	0.30	3
Sn			2	-0.413	ug/l	-13.33	423.38	6.716E-04	Pulse	0.30	3
Se			3	0.007	ug/l	164.12	5.33	4.518E-05	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,913,187.39	2.11	100.0	Pulse	0.10	3
1	Sc		2,959,907.14	2.60	100.0	Pulse	0.10	3
1	Ge		716,951.03	3.25	100.0	Pulse	0.10	3
1	Rh		3,242,498.18	3.69	100.0	Pulse	0.10	3
1	In		3,216,746.60	3.22	100.0	Pulse	0.10	3
1	Tb		3,803,738.07	2.37	100.0	Pulse	0.10	3
1	Ho		358,205.84	4.06	100.0	Pulse	0.10	3
1	Bi		2,080,524.71	4.22	100.0	Pulse	0.10	3
2	Sc		135,308.51	1.01	100.0	Pulse	0.30	3
2	Ge		104,845.77	0.14	100.0	Pulse	0.30	3
2	Rh		1,569,660.77	0.31	100.0	Pulse	0.30	3
2	In		630,966.73	0.40	100.0	Pulse	0.30	3
2	Tb		1,809,747.22	0.57	100.0	Pulse	0.30	3
2	Ho		174,489.26	0.38	100.0	Pulse	0.30	3
2	Bi		1,083,616.73	0.54	100.0	Pulse	0.30	3
3	Sc		133,933.64	1.11	100.0	Pulse	0.30	3
3	Ge		118,017.75	1.30	100.0	Pulse	0.30	3
3	Rh		1,167,521.69	0.51	100.0	Pulse	0.30	3
3	Tb		1,703,171.94	0.82	100.0	Pulse	0.30	3

Quantitation Report

File Name	004CALB.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051219m1.b
Method File	
Method Path	
Acq Time	5/12/2019 21:42
Sample Name	STDA 4
Sample Type	CalBlk
Comment	0
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 8:46
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.000	ug/l	-12669.53	8.00	4.259E-06	Pulse	0.25	3
B			1	0.000	ug/l	---	5,478.98	2.903E-03	Pulse	0.15	3
Ca			1	-0.575	ug/l	-72.18	20,018.57	6.841E-03	Pulse	0.10	3
Sr			1	-0.001	ug/l	-474.14	1,180.10	3.655E-04	Pulse	0.10	3
Mo			1	-0.143	ug/l	-2.54	20.00	6.343E-06	Pulse	0.10	3
Ag			1	0.000	ug/l	-1012.50	30.00	9.317E-06	Pulse	0.10	3
Sn			1	-0.003	ug/l	-330.23	1,356.79	4.160E-04	Pulse	0.10	3
Sb			1	0.000	ug/l	---	240.01	6.330E-05	Pulse	0.10	3
Ba			1	0.000	ug/l	---	50.00	1.331E-05	Pulse	0.10	3
Tl			1	-0.001	ug/l	-265.85	756.73	3.644E-04	Pulse	0.10	3
Pb			1	0.000	ug/l	7134.16	446.69	2.156E-04	Pulse	0.10	3
Pb			1	-0.001	ug/l	-1206.95	326.69	1.567E-04	Pulse	0.10	3
Pb			1	0.000	ug/l	5112.71	1,746.79	8.420E-04	Pulse	0.10	3
Na			2	0.420	ug/l	17.31	14,780.12	1.094E-01	Pulse	0.30	3
Mg			2	-0.001	ug/l	-2192.28	81.11	6.005E-04	Pulse	0.30	3
Al			2	-0.018	ug/l	-45.96	47.78	3.535E-04	Pulse	0.30	3
K			2	0.000	ug/l	---	9,175.34	6.787E-02	Pulse	0.30	3
Ca			2	-1.168	ug/l	-22.96	186.67	1.381E-03	Pulse	0.30	3
Ti			2	0.000	ug/l	---	1.11	8.243E-06	Pulse	0.30	3
V			2	-0.003	ug/l	-163.32	535.58	3.963E-03	Pulse	0.30	3
Cr			2	-0.005	ug/l	-137.82	406.68	3.008E-03	Pulse	0.30	3
Mn			2	0.000	ug/l	---	95.56	7.076E-04	Pulse	0.30	3
Fe			2	0.000	ug/l	---	3,263.76	2.415E-02	Pulse	0.30	3
Co			2	0.000	ug/l	-597.71	105.56	7.814E-04	Pulse	0.30	3
Ni			2	-0.004	ug/l	-141.93	32.22	2.388E-04	Pulse	0.30	3
Cu			2	-0.006	ug/l	-185.62	713.36	5.281E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	-0.002	ug/l	-1039.44	204.45	1.512E-03	Pulse	0.30	3
As			2	0.002	ug/l	358.18	10.67	7.877E-05	Pulse	1.00	3
Cd			2	0.000	ug/l	---	16.66	2.636E-05	Pulse	0.30	3
Sn			2	-0.458	ug/l	-6.05	305.56	4.854E-04	Pulse	0.30	3
Se			3	0.000	ug/l	---	4.67	3.926E-05	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,887,164.82	1.45	100.0	Pulse	0.10	3
1	Sc		2,926,717.14	2.93	100.0	Pulse	0.10	3
1	Ge		713,968.22	2.93	100.0	Pulse	0.10	3
1	Rh		3,232,808.80	2.98	100.0	Pulse	0.10	3
1	In		3,261,680.78	4.11	100.0	Pulse	0.10	3
1	Tb		3,784,877.24	3.57	100.0	Pulse	0.10	3
1	Ho		361,157.26	3.91	100.0	Pulse	0.10	3
1	Bi		2,075,078.62	3.54	100.0	Pulse	0.10	3
2	Sc		135,156.13	0.81	100.0	Pulse	0.30	3
2	Ge		104,830.24	0.56	100.0	Pulse	0.30	3
2	Rh		1,572,451.60	0.59	100.0	Pulse	0.30	3
2	In		628,672.75	0.89	100.0	Pulse	0.30	3
2	Tb		1,798,514.51	0.91	100.0	Pulse	0.30	3
2	Ho		175,412.90	0.99	100.0	Pulse	0.30	3
2	Bi		1,074,045.13	0.67	100.0	Pulse	0.30	3
3	Sc		132,978.98	1.21	100.0	Pulse	0.30	3
3	Ge		118,972.09	0.78	100.0	Pulse	0.30	3
3	Rh		1,172,985.20	0.85	100.0	Pulse	0.30	3
3	Tb		1,699,352.33	0.91	100.0	Pulse	0.30	3

Quantitation Report

File Name	005CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051219m1.b
Method File	
Method Path	
Acq Time	5/12/2019 21:47
Sample Name	STDB
Sample Type	CalStd
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 8:46
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.531	ug/l	7.51	3,148.41	1.644E-03	Pulse	0.25	3
B			1	25.812	ug/l	0.60	137,838.23	7.193E-02	Pulse	0.15	3
Ca			1	264.548	ug/l	0.91	250,227.89	8.448E-02	Pulse	0.10	3
Sr			1	5.198	ug/l	0.92	196,553.02	6.122E-02	Pulse	0.10	3
Mo			1	0.874	ug/l	0.98	7,682.47	2.392E-03	Pulse	0.10	3
Ag			1	0.523	ug/l	2.97	8,973.34	2.772E-03	Pulse	0.10	3
Sn			1	5.315	ug/l	1.85	59,126.20	1.825E-02	Pulse	0.10	3
Sb			1	2.168	ug/l	1.82	25,448.49	6.669E-03	Pulse	0.10	3
Ba			1	1.028	ug/l	5.42	4,747.68	1.245E-03	Pulse	0.10	3
Tl			1	0.526	ug/l	5.69	13,417.69	6.480E-03	Pulse	0.10	3
Pb			1	0.505	ug/l	5.01	4,604.37	2.223E-03	Pulse	0.10	3
Pb			1	0.526	ug/l	5.24	4,117.52	1.985E-03	Pulse	0.10	3
Pb			1	0.520	ug/l	3.05	18,559.41	8.955E-03	Pulse	0.10	3
Na			2	255.663	ug/l	0.30	288,231.17	2.128E+00	Pulse	0.30	3
Mg			2	262.879	ug/l	1.19	132,189.40	9.761E-01	Pulse	0.30	3
Al			2	27.290	ug/l	7.17	5,063.20	3.739E-02	Pulse	0.30	3
K			2	264.300	ug/l	1.37	107,422.00	7.932E-01	Pulse	0.30	3
Ca			2	286.670	ug/l	3.14	5,973.57	4.411E-02	Pulse	0.30	3
Ti			2	0.777	ug/l	10.02	116.67	8.613E-04	Pulse	0.30	3
V			2	1.083	ug/l	2.21	5,364.46	3.961E-02	Pulse	0.30	3
Cr			2	1.065	ug/l	2.16	6,229.24	4.600E-02	Pulse	0.30	3
Mn			2	1.104	ug/l	1.35	3,424.91	2.529E-02	Pulse	0.30	3
Fe			2	26.647	ug/l	0.37	128,271.96	9.471E-01	Pulse	0.30	3
Co			2	0.510	ug/l	3.57	4,514.13	3.333E-02	Pulse	0.30	3
Ni			2	1.056	ug/l	2.05	2,418.02	1.785E-02	Pulse	0.30	3
Cu			2	2.129	ug/l	2.28	13,329.93	9.842E-02	Pulse	0.30	3
Zn			2	5.276	ug/l	4.65	4,940.94	3.647E-02	Pulse	0.30	3
As			2	0.475	ug/l	6.12	255.33	1.885E-03	Pulse	1.00	3
Cd			2	0.519	ug/l	6.87	942.87	1.493E-03	Pulse	0.30	3
Sn			2	4.859	ug/l	0.76	14,427.95	2.284E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	0.463	ug/l	36.03	50.00	4.201E-04	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,916,261.79	1.46	101.5	Pulse	0.10	3
1	Sc		2,961,538.19	2.11	101.2	Pulse	0.10	3
1	Ge		721,001.61	2.78	101.0	Pulse	0.10	3
1	Rh		3,211,064.53	2.61	99.3	Pulse	0.10	3
1	In		3,238,892.61	3.97	99.3	Pulse	0.10	3
1	Tb		3,817,449.94	3.70	100.9	Pulse	0.10	3
1	Ho		365,941.34	3.16	101.3	Pulse	0.10	3
1	Bi		2,073,095.75	3.64	99.9	Pulse	0.10	3
2	Sc		135,433.55	0.97	100.2	Pulse	0.30	3
2	Ge		105,681.34	0.65	100.8	Pulse	0.30	3
2	Rh		1,584,176.50	0.69	100.7	Pulse	0.30	3
2	In		631,559.15	1.24	100.5	Pulse	0.30	3
2	Tb		1,804,542.98	0.73	100.3	Pulse	0.30	3
2	Ho		173,745.78	0.90	99.0	Pulse	0.30	3
2	Bi		1,081,387.60	0.65	100.7	Pulse	0.30	3
3	Sc		132,845.69	1.51	99.9	Pulse	0.30	3
3	Ge		119,048.41	0.83	100.1	Pulse	0.30	3
3	Rh		1,169,877.63	1.27	99.7	Pulse	0.30	3
3	Tb		1,696,331.77	1.47	99.8	Pulse	0.30	3

Quantitation Report

File Name	006CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051219m1.b
Method File	
Method Path	
Acq Time	5/12/2019 21:52
Sample Name	STDC
Sample Type	CalStd
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 8:46
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	4.936	ug/l	1.81	28,961.65	1.524E-02	Pulse	0.25	3
B			1	5.250	ug/l	4.83	32,188.28	1.694E-02	Pulse	0.15	3
Ca			1	15.389	ug/l	3.87	33,902.35	1.152E-02	Pulse	0.10	3
Sr			1	4.711	ug/l	1.39	180,261.87	5.552E-02	Pulse	0.10	3
Mo			1	4.716	ug/l	2.55	37,075.30	1.141E-02	Pulse	0.10	3
Ag			1	4.970	ug/l	2.01	84,856.32	2.624E-02	Pulse	0.10	3
Sn			1	5.096	ug/l	2.17	56,631.91	1.752E-02	Pulse	0.10	3
Sb			1	4.988	ug/l	1.99	57,783.70	1.526E-02	Pulse	0.10	3
Ba			1	5.088	ug/l	2.37	23,144.62	6.111E-03	Pulse	0.10	3
Tl			1	4.827	ug/l	1.01	117,981.23	5.643E-02	Pulse	0.10	3
Pb			1	4.885	ug/l	1.14	41,054.81	1.964E-02	Pulse	0.10	3
Pb			1	4.828	ug/l	1.12	35,380.84	1.692E-02	Pulse	0.10	3
Pb			1	4.907	ug/l	0.62	161,664.30	7.734E-02	Pulse	0.10	3
Na			2	8.186	ug/l	4.33	23,147.99	1.708E-01	Pulse	0.30	3
Mg			2	5.759	ug/l	7.40	2,978.18	2.197E-02	Pulse	0.30	3
Al			2	5.537	ug/l	8.34	1,068.94	7.889E-03	Pulse	0.30	3
K			2	8.123	ug/l	2.48	12,221.03	9.017E-02	Pulse	0.30	3
Ca			2	39.809	ug/l	4.39	1,011.72	7.464E-03	Pulse	0.30	3
Ti			2	4.920	ug/l	1.39	733.37	5.411E-03	Pulse	0.30	3
V			2	4.960	ug/l	0.93	22,614.16	1.668E-01	Pulse	0.30	3
Cr			2	4.908	ug/l	1.44	27,161.14	2.004E-01	Pulse	0.30	3
Mn			2	4.934	ug/l	1.65	14,989.37	1.106E-01	Pulse	0.30	3
Fe			2	5.054	ug/l	1.82	26,997.54	1.992E-01	Pulse	0.30	3
Co			2	4.911	ug/l	0.91	42,549.85	3.139E-01	Pulse	0.30	3
Ni			2	4.867	ug/l	2.53	11,006.75	8.121E-02	Pulse	0.30	3
Cu			2	4.893	ug/l	0.84	29,675.42	2.189E-01	Pulse	0.30	3
Zn			2	4.754	ug/l	0.31	4,475.22	3.302E-02	Pulse	0.30	3
As			2	4.717	ug/l	2.37	2,453.89	1.810E-02	Pulse	1.00	3
Cd			2	4.987	ug/l	1.86	8,921.98	1.413E-02	Pulse	0.30	3
Sn			2	4.825	ug/l	2.87	14,337.85	2.270E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	4.654	ug/l	2.29	460.01	3.867E-03	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,900,302.06	1.97	100.7	Pulse	0.10	3
1	Sc		2,944,548.08	2.36	100.6	Pulse	0.10	3
1	Ge		710,658.71	3.00	99.5	Pulse	0.10	3
1	Rh		3,247,809.85	3.04	100.5	Pulse	0.10	3
1	In		3,234,408.32	3.37	99.2	Pulse	0.10	3
1	Tb		3,788,034.21	3.45	100.1	Pulse	0.10	3
1	Ho		361,214.58	3.86	100.0	Pulse	0.10	3
1	Bi		2,090,430.59	3.11	100.7	Pulse	0.10	3
2	Sc		135,535.13	0.51	100.3	Pulse	0.30	3
2	Ge		104,957.71	0.78	100.1	Pulse	0.30	3
2	Rh		1,569,542.54	1.10	99.8	Pulse	0.30	3
2	In		631,443.37	0.83	100.4	Pulse	0.30	3
2	Tb		1,800,686.52	0.53	100.1	Pulse	0.30	3
2	Ho		174,018.50	0.48	99.2	Pulse	0.30	3
2	Bi		1,073,151.10	0.43	99.9	Pulse	0.30	3
3	Sc		133,392.24	1.02	100.3	Pulse	0.30	3
3	Ge		118,958.75	0.40	100.0	Pulse	0.30	3
3	Rh		1,170,916.55	1.26	99.8	Pulse	0.30	3
3	Tb		1,678,889.13	1.11	98.8	Pulse	0.30	3

Quantitation Report

File Name	007CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051219m1.b
Method File	
Method Path	
Acq Time	5/12/2019 21:57
Sample Name	STDD
Sample Type	CalStd
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 8:46
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	24.769	ug/l	1.28	146,604.42	7.647E-02	Pulse	0.25	3
B			1	24.714	ug/l	2.02	132,266.06	6.899E-02	Pulse	0.15	3
Ca			1	37.350	ug/l	0.92	52,683.99	1.795E-02	Pulse	0.10	3
Sr			1	24.638	ug/l	0.98	922,132.25	2.888E-01	Pulse	0.10	3
Mo			1	25.254	ug/l	0.48	190,368.90	5.961E-02	Pulse	0.10	3
Ag			1	25.336	ug/l	2.22	435,809.08	1.337E-01	Pulse	0.10	3
Sn			1	25.079	ug/l	2.13	275,466.20	8.454E-02	Pulse	0.10	3
Sb			1	25.415	ug/l	1.78	293,798.02	7.750E-02	Pulse	0.10	3
Ba			1	25.482	ug/l	0.51	115,859.43	3.055E-02	Pulse	0.10	3
Tl			1	24.871	ug/l	0.78	602,464.97	2.892E-01	Pulse	0.10	3
Pb			1	24.722	ug/l	0.05	205,262.93	9.853E-02	Pulse	0.10	3
Pb			1	24.786	ug/l	0.86	179,586.34	8.621E-02	Pulse	0.10	3
Pb			1	25.114	ug/l	0.54	817,335.20	3.924E-01	Pulse	0.10	3
Na			2	25.696	ug/l	3.40	41,363.82	3.093E-01	Pulse	0.30	3
Mg			2	25.356	ug/l	2.04	12,663.60	9.469E-02	Pulse	0.30	3
Al			2	25.841	ug/l	2.42	4,737.54	3.543E-02	Pulse	0.30	3
K			2	26.277	ug/l	2.93	18,720.41	1.400E-01	Pulse	0.30	3
Ca			2	146.636	ug/l	3.00	3,119.28	2.332E-02	Pulse	0.30	3
Ti			2	25.915	ug/l	0.64	3,807.23	2.846E-02	Pulse	0.30	3
V			2	25.248	ug/l	1.27	111,354.69	8.327E-01	Pulse	0.30	3
Cr			2	25.295	ug/l	1.27	136,355.98	1.020E+00	Pulse	0.30	3
Mn			2	25.104	ug/l	1.39	74,873.38	5.599E-01	Pulse	0.30	3
Fe			2	25.098	ug/l	1.03	119,492.04	8.935E-01	Pulse	0.30	3
Co			2	25.162	ug/l	1.25	214,679.33	1.605E+00	Pulse	0.30	3
Ni			2	24.989	ug/l	1.54	55,590.26	4.157E-01	Pulse	0.30	3
Cu			2	25.172	ug/l	0.97	147,577.67	1.103E+00	Pulse	0.30	3
Zn			2	24.958	ug/l	1.20	22,313.78	1.669E-01	Pulse	0.30	3
As			2	25.171	ug/l	0.38	12,879.40	9.630E-02	Pulse	1.00	3
Cd			2	25.099	ug/l	1.09	44,456.74	7.101E-02	Pulse	0.30	3
Sn			2	25.138	ug/l	0.70	67,701.51	1.081E-01	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	24.591	ug/l	5.36	2,372.23	2.027E-02	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,917,355.87	1.44	101.6	Pulse	0.10	3
1	Sc		2,935,672.25	2.22	100.3	Pulse	0.10	3
1	Ge		714,620.53	3.60	100.1	Pulse	0.10	3
1	Rh		3,193,903.28	3.28	98.8	Pulse	0.10	3
1	In		3,258,098.63	1.92	99.9	Pulse	0.10	3
1	Tb		3,791,815.05	3.96	100.2	Pulse	0.10	3
1	Ho		365,859.21	3.60	101.3	Pulse	0.10	3
1	Bi		2,083,233.20	2.78	100.4	Pulse	0.10	3
2	Sc		133,749.52	1.40	99.0	Pulse	0.30	3
2	Ge		105,224.64	0.80	100.4	Pulse	0.30	3
2	Rh		1,562,677.58	0.79	99.4	Pulse	0.30	3
2	In		626,097.44	0.95	99.6	Pulse	0.30	3
2	Tb		1,793,476.81	0.55	99.7	Pulse	0.30	3
2	Ho		172,858.35	0.43	98.5	Pulse	0.30	3
2	Bi		1,074,498.63	0.60	100.0	Pulse	0.30	3
3	Sc		131,821.53	0.76	99.1	Pulse	0.30	3
3	Ge		117,129.50	1.98	98.5	Pulse	0.30	3
3	Rh		1,155,068.32	1.35	98.5	Pulse	0.30	3
3	Tb		1,669,517.09	1.74	98.2	Pulse	0.30	3

Quantitation Report

File Name	008CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051219m1.b
Method File	
Method Path	
Acq Time	5/12/2019 22:01
Sample Name	STDE
Sample Type	CalStd
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 8:46
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	50.943	ug/l	1.37	297,184.90	1.573E-01	Pulse	0.25	3
B			1	50.461	ug/l	1.75	260,473.13	1.378E-01	Pulse	0.15	3
Ca			1	69.501	ug/l	1.85	78,984.30	2.736E-02	Pulse	0.10	3
Sr			1	49.837	ug/l	0.71	1,850,217.63	5.838E-01	Pulse	0.10	3
Mo			1	50.694	ug/l	1.23	378,242.46	1.193E-01	Pulse	0.10	3
Ag			1	50.834	ug/l	2.05	866,364.52	2.683E-01	Pulse	0.10	3
Sn			1	50.098	ug/l	1.19	544,128.35	1.684E-01	Pulse	0.10	3
Sb			1	51.060	ug/l	1.35	588,341.46	1.556E-01	Pulse	0.10	3
Ba			1	51.345	ug/l	0.95	232,695.67	6.155E-02	Pulse	0.10	3
Tl			1	51.770	ug/l	2.31	1,231,197.64	6.016E-01	Pulse	0.10	3
Pb			1	51.784	ug/l	1.72	421,952.83	2.062E-01	Pulse	0.10	3
Pb			1	51.365	ug/l	1.04	365,369.79	1.785E-01	Pulse	0.10	3
Pb			1	52.087	ug/l	1.25	1,663,907.14	8.129E-01	Pulse	0.10	3
Na			2	47.542	ug/l	0.07	64,081.39	4.821E-01	Pulse	0.30	3
Mg			2	49.010	ug/l	1.21	24,253.17	1.825E-01	Pulse	0.30	3
Al			2	49.100	ug/l	2.18	8,904.03	6.698E-02	Pulse	0.30	3
K			2	49.120	ug/l	4.62	26,942.76	2.027E-01	Pulse	0.30	3
Ca			2	298.524	ug/l	2.78	6,098.09	4.587E-02	Pulse	0.30	3
Ti			2	52.499	ug/l	1.96	7,664.43	5.766E-02	Pulse	0.30	3
V			2	51.515	ug/l	0.99	225,262.09	1.695E+00	Pulse	0.30	3
Cr			2	51.417	ug/l	1.67	275,040.53	2.069E+00	Pulse	0.30	3
Mn			2	51.109	ug/l	0.61	151,423.03	1.139E+00	Pulse	0.30	3
Fe			2	48.320	ug/l	1.01	225,686.89	1.698E+00	Pulse	0.30	3
Co			2	51.051	ug/l	0.66	432,847.34	3.256E+00	Pulse	0.30	3
Ni			2	51.034	ug/l	0.52	112,801.19	8.486E-01	Pulse	0.30	3
Cu			2	50.940	ug/l	0.45	296,084.41	2.227E+00	Pulse	0.30	3
Zn			2	50.209	ug/l	0.83	44,412.79	3.341E-01	Pulse	0.30	3
As			2	50.220	ug/l	0.83	25,529.71	1.921E-01	Pulse	1.00	3
Cd			2	50.985	ug/l	0.61	89,348.43	1.442E-01	Pulse	0.30	3
Sn			2	50.977	ug/l	0.87	134,307.32	2.168E-01	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	50.147	ug/l	5.70	4,828.89	4.129E-02	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,889,608.68	1.04	100.1	Pulse	0.10	3
1	Sc		2,887,119.33	2.40	98.6	Pulse	0.10	3
1	Ge		711,870.51	2.57	99.7	Pulse	0.10	3
1	Rh		3,169,422.66	3.14	98.0	Pulse	0.10	3
1	In		3,231,020.04	4.50	99.1	Pulse	0.10	3
1	Tb		3,780,325.67	2.66	99.9	Pulse	0.10	3
1	Ho		363,084.55	3.05	100.5	Pulse	0.10	3
1	Bi		2,047,766.27	5.77	98.7	Pulse	0.10	3
2	Sc		132,929.50	0.88	98.4	Pulse	0.30	3
2	Ge		104,073.31	0.62	99.3	Pulse	0.30	3
2	Rh		1,549,847.96	0.04	98.6	Pulse	0.30	3
2	In		619,518.63	0.67	98.5	Pulse	0.30	3
2	Tb		1,798,051.60	0.67	100.0	Pulse	0.30	3
2	Ho		173,491.95	1.33	98.9	Pulse	0.30	3
2	Bi		1,068,148.39	0.22	99.5	Pulse	0.30	3
3	Sc		131,716.29	0.69	99.1	Pulse	0.30	3
3	Ge		116,993.27	0.91	98.3	Pulse	0.30	3
3	Rh		1,151,991.59	0.19	98.2	Pulse	0.30	3
3	Tb		1,665,485.00	0.23	98.0	Pulse	0.30	3

Quantitation Report

File Name	009CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051219m1.b
Method File	
Method Path	
Acq Time	5/12/2019 22:06
Sample Name	STDF
Sample Type	CalStd
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 8:46
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	99.953	ug/l	0.71	572,260.96	3.086E-01	Pulse	0.25	3
B			1	98.917	ug/l	2.37	496,059.11	2.674E-01	Pulse	0.15	3
Ca			1	138.182	ug/l	0.94	136,274.49	4.748E-02	Pulse	0.10	3
Sr			1	95.812	ug/l	1.11	3,580,131.61	1.122E+00	Pulse	0.10	3
Mo			1	99.605	ug/l	1.04	747,039.41	2.341E-01	Pulse	0.10	3
Ag			1	99.517	ug/l	0.71	1,687,489.51	5.252E-01	Pulse	0.10	3
Sn			1	98.891	ug/l	0.79	1,066,715.95	3.321E-01	Pulse	0.10	3
Sb			1	99.363	ug/l	2.39	1,161,356.18	3.028E-01	Pulse	0.10	3
Ba			1	99.202	ug/l	0.59	456,273.60	1.189E-01	Pulse	0.10	3
Tl			1	98.595	ug/l	1.18	2,377,149.65	1.145E+00	Pulse	0.10	3
Pb			1	98.688	ug/l	1.38	814,992.02	3.927E-01	Pulse	0.10	3
Pb			1	99.050	ug/l	0.23	713,850.43	3.440E-01	Pulse	0.10	3
Pb			1	100.032	ug/l	0.21	3,237,545.92	1.560E+00	Pulse	0.10	3
Na			2	96.315	ug/l	0.75	114,571.09	8.678E-01	Pulse	0.30	3
Mg			2	99.008	ug/l	0.79	48,584.67	3.680E-01	Pulse	0.30	3
Al			2	98.301	ug/l	1.55	17,651.19	1.337E-01	Pulse	0.30	3
K			2	98.204	ug/l	0.13	44,539.71	3.374E-01	Pulse	0.30	3
Ca			2	551.720	ug/l	1.35	11,016.73	8.345E-02	Pulse	0.30	3
Ti			2	98.528	ug/l	2.48	14,284.16	1.082E-01	Pulse	0.30	3
V			2	99.332	ug/l	0.41	430,903.52	3.264E+00	Pulse	0.30	3
Cr			2	99.559	ug/l	0.48	528,557.95	4.004E+00	Pulse	0.30	3
Mn			2	99.422	ug/l	0.65	292,470.75	2.215E+00	Pulse	0.30	3
Fe			2	100.113	ug/l	0.59	461,007.59	3.492E+00	Pulse	0.30	3
Co			2	98.903	ug/l	0.26	832,718.87	6.307E+00	Pulse	0.30	3
Ni			2	98.682	ug/l	0.41	216,596.85	1.641E+00	Pulse	0.30	3
Cu			2	98.913	ug/l	0.35	570,308.83	4.320E+00	Pulse	0.30	3
Zn			2	98.246	ug/l	1.59	86,111.23	6.523E-01	Pulse	0.30	3
As			2	98.462	ug/l	0.62	49,701.90	3.765E-01	Pulse	1.00	3
Cd			2	99.483	ug/l	0.73	173,955.84	2.814E-01	Pulse	0.30	3
Sn			2	99.484	ug/l	0.54	260,148.29	4.208E-01	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	96.804	ug/l	2.97	9,165.12	7.966E-02	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,854,541.31	1.40	98.3	Pulse	0.10	3
1	Sc		2,870,189.85	1.48	98.1	Pulse	0.10	3
1	Ge		704,461.74	3.81	98.7	Pulse	0.10	3
1	Rh		3,191,778.49	3.46	98.7	Pulse	0.10	3
1	In		3,212,488.49	2.49	98.5	Pulse	0.10	3
1	Tb		3,837,680.26	4.91	101.4	Pulse	0.10	3
1	Ho		366,137.44	4.52	101.4	Pulse	0.10	3
1	Bi		2,074,906.01	3.24	100.0	Pulse	0.10	3
2	Sc		132,019.85	1.01	97.7	Pulse	0.30	3
2	Ge		103,572.99	0.93	98.8	Pulse	0.30	3
2	Rh		1,544,680.18	0.73	98.2	Pulse	0.30	3
2	In		618,235.05	0.73	98.3	Pulse	0.30	3
2	Tb		1,806,361.38	0.47	100.4	Pulse	0.30	3
2	Ho		175,349.03	1.14	100.0	Pulse	0.30	3
2	Bi		1,074,135.58	1.12	100.0	Pulse	0.30	3
3	Sc		130,283.78	0.67	98.0	Pulse	0.30	3
3	Ge		115,069.12	1.43	96.7	Pulse	0.30	3
3	Rh		1,146,373.12	1.44	97.7	Pulse	0.30	3
3	Tb		1,665,758.06	1.14	98.0	Pulse	0.30	3

Quantitation Report

File Name	010CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051219m1.b
Method File	
Method Path	
Acq Time	5/12/2019 22:11
Sample Name	STDG
Sample Type	CalStd
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 8:46
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.020	ug/l	27.98	121.33	6.641E-05	Pulse	0.25	3
B			1	200.354	ug/l	1.48	981,087.29	5.387E-01	Pulse	0.15	3
Ca			1	505.465	ug/l	0.89	433,360.25	1.550E-01	Pulse	0.10	3
Sr			1	0.011	ug/l	20.45	1,540.16	4.975E-04	Pulse	0.10	3
Mo			1	-0.035	ug/l	-52.74	803.39	2.603E-04	Pulse	0.10	3
Ag			1	0.020	ug/l	11.99	370.02	1.161E-04	Pulse	0.10	3
Sn			1	0.234	ug/l	3.33	3,867.37	1.212E-03	Pulse	0.10	3
Sb			1	0.781	ug/l	1.97	9,226.91	2.444E-03	Pulse	0.10	3
Ba			1	0.021	ug/l	16.58	146.68	3.891E-05	Pulse	0.10	3
Tl			1	0.035	ug/l	11.80	1,580.18	7.844E-04	Pulse	0.10	3
Pb			1	0.012	ug/l	36.87	533.38	2.643E-04	Pulse	0.10	3
Pb			1	0.013	ug/l	104.55	416.69	2.061E-04	Pulse	0.10	3
Pb			1	0.020	ug/l	28.51	2,313.54	1.146E-03	Pulse	0.10	3
Na			2	492.175	ug/l	0.69	527,028.99	3.999E+00	Pulse	0.30	3
Mg			2	503.021	ug/l	0.66	246,074.12	1.867E+00	Pulse	0.30	3
Al			2	509.242	ug/l	1.12	91,079.50	6.911E-01	Pulse	0.30	3
K			2	506.265	ug/l	0.62	192,047.30	1.457E+00	Pulse	0.30	3
Ca			2	501.436	ug/l	1.17	10,014.81	7.599E-02	Pulse	0.30	3
Ti			2	0.092	ug/l	104.10	14.44	1.097E-04	Pulse	0.30	3
V			2	0.004	ug/l	267.15	550.02	4.173E-03	Pulse	0.30	3
Cr			2	0.005	ug/l	145.16	450.02	3.414E-03	Pulse	0.30	3
Mn			2	0.047	ug/l	16.43	232.23	1.762E-03	Pulse	0.30	3
Fe			2	491.952	ug/l	1.12	2,248,945.39	1.706E+01	Pulse	0.30	3
Co			2	0.038	ug/l	5.81	427.79	3.246E-03	Pulse	0.30	3
Ni			2	0.024	ug/l	71.92	94.45	7.169E-04	Pulse	0.30	3
Cu			2	0.021	ug/l	24.08	850.04	6.450E-03	Pulse	0.30	3
Zn			2	0.036	ug/l	167.49	232.23	1.763E-03	Pulse	0.30	3
As			2	0.033	ug/l	27.47	26.00	1.973E-04	Pulse	1.00	3
Cd			2	0.015	ug/l	46.45	42.80	6.887E-05	Pulse	0.30	3
Sn			2	-0.190	ug/l	-15.73	998.94	1.610E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	198.606	ug/l	5.17	19,261.68	1.634E-01	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,821,312.65	1.95	96.5	Pulse	0.10	3
1	Sc		2,795,325.90	2.47	95.5	Pulse	0.10	3
1	Ge		696,618.40	3.08	97.6	Pulse	0.10	3
1	Rh		3,093,710.68	2.89	95.7	Pulse	0.10	3
1	In		3,190,423.37	3.16	97.8	Pulse	0.10	3
1	Tb		3,773,758.59	4.80	99.7	Pulse	0.10	3
1	Ho		360,042.05	5.36	99.7	Pulse	0.10	3
1	Bi		2,015,958.88	3.03	97.2	Pulse	0.10	3
2	Sc		131,792.34	0.22	97.5	Pulse	0.30	3
2	Ge		103,948.33	0.33	99.2	Pulse	0.30	3
2	Rh		1,545,594.24	0.17	98.3	Pulse	0.30	3
2	In		620,556.58	0.91	98.7	Pulse	0.30	3
2	Tb		1,790,771.59	0.54	99.6	Pulse	0.30	3
2	Ho		173,593.39	0.76	99.0	Pulse	0.30	3
2	Bi		1,071,382.94	0.44	99.8	Pulse	0.30	3
3	Sc		130,575.27	0.21	98.2	Pulse	0.30	3
3	Ge		117,968.56	2.50	99.2	Pulse	0.30	3
3	Rh		1,143,157.80	0.80	97.5	Pulse	0.30	3
3	Tb		1,676,910.04	1.02	98.7	Pulse	0.30	3

Quantitation Report

File Name	011CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051219m1.b
Method File	
Method Path	
Acq Time	5/12/2019 22:16
Sample Name	STDH
Sample Type	CalStd
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 8:46
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.006	ug/l	43.74	40.00	2.163E-05	Pulse	0.25	3
B			1	3.523	ug/l	11.45	22,785.52	1.233E-02	Pulse	0.15	3
Ca			1	1012.165	ug/l	0.36	861,103.22	3.034E-01	Pulse	0.10	3
Sr			1	-0.006	ug/l	-53.84	960.08	3.071E-04	Pulse	0.10	3
Mo			1	-0.109	ug/l	-0.91	270.02	8.653E-05	Pulse	0.10	3
Ag			1	0.002	ug/l	102.49	56.67	1.783E-05	Pulse	0.10	3
Sn			1	0.179	ug/l	12.73	3,273.88	1.027E-03	Pulse	0.10	3
Sb			1	0.303	ug/l	3.71	3,704.00	9.878E-04	Pulse	0.10	3
Ba			1	0.045	ug/l	25.98	253.35	6.740E-05	Pulse	0.10	3
Tl			1	0.002	ug/l	81.86	796.73	3.959E-04	Pulse	0.10	3
Pb			1	-0.004	ug/l	-210.69	403.36	2.002E-04	Pulse	0.10	3
Pb			1	0.007	ug/l	209.72	370.02	1.827E-04	Pulse	0.10	3
Pb			1	0.000	ug/l	-495.34	1,680.12	8.346E-04	Pulse	0.10	3
Na			2	980.557	ug/l	0.48	1,052,402.04	7.862E+00	Pulse	0.30	3
Mg			2	1000.940	ug/l	0.27	497,260.55	3.715E+00	Pulse	0.30	3
Al			2	1009.807	ug/l	0.48	183,395.42	1.370E+00	Pulse	0.30	3
K			2	1010.420	ug/l	0.85	380,264.89	2.841E+00	Pulse	0.30	3
Ca			2	1006.707	ug/l	0.42	20,212.51	1.510E-01	Pulse	0.30	3
Ti			2	0.023	ug/l	152.60	4.44	3.325E-05	Pulse	0.30	3
V			2	-0.001	ug/l	-758.47	536.69	4.009E-03	Pulse	0.30	3
Cr			2	-0.006	ug/l	-87.83	396.68	2.963E-03	Pulse	0.30	3
Mn			2	0.019	ug/l	22.54	151.11	1.129E-03	Pulse	0.30	3
Fe			2	971.400	ug/l	0.60	4,507,329.96	3.367E+01	Pulse	0.30	3
Co			2	0.045	ug/l	1.87	492.24	3.677E-03	Pulse	0.30	3
Ni			2	0.034	ug/l	19.83	117.78	8.797E-04	Pulse	0.30	3
Cu			2	0.011	ug/l	3.14	806.70	6.026E-03	Pulse	0.30	3
Zn			2	0.082	ug/l	72.80	276.67	2.066E-03	Pulse	0.30	3
As			2	0.011	ug/l	140.46	15.00	1.120E-04	Pulse	1.00	3
Cd			2	0.007	ug/l	130.56	28.14	4.498E-05	Pulse	0.30	3
Sn			2	-0.241	ug/l	-8.88	872.26	1.396E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	401.508	ug/l	3.92	39,403.47	3.303E-01	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,851,617.41	2.77	98.1	Pulse	0.10	3
1	Sc		2,837,890.38	1.82	97.0	Pulse	0.10	3
1	Ge		707,065.56	4.06	99.0	Pulse	0.10	3
1	Rh		3,120,688.08	3.05	96.5	Pulse	0.10	3
1	In		3,190,237.84	2.11	97.8	Pulse	0.10	3
1	Tb		3,749,371.09	3.11	99.1	Pulse	0.10	3
1	Ho		359,474.58	3.27	99.5	Pulse	0.10	3
1	Bi		2,012,663.93	3.48	97.0	Pulse	0.10	3
2	Sc		133,861.07	0.25	99.0	Pulse	0.30	3
2	Ge		105,837.78	0.51	101.0	Pulse	0.30	3
2	Rh		1,563,917.20	0.99	99.5	Pulse	0.30	3
2	In		624,788.80	0.56	99.4	Pulse	0.30	3
2	Tb		1,818,368.33	0.62	101.1	Pulse	0.30	3
2	Ho		175,300.45	1.10	99.9	Pulse	0.30	3
2	Bi		1,075,480.20	0.45	100.1	Pulse	0.30	3
3	Sc		132,828.34	0.44	99.9	Pulse	0.30	3
3	Ge		119,334.63	1.25	100.3	Pulse	0.30	3
3	Rh		1,154,195.30	0.58	98.4	Pulse	0.30	3
3	Tb		1,665,296.60	0.78	98.0	Pulse	0.30	3

Quantitation Report

File Name	012CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051219m1.b
Method File	
Method Path	
Acq Time	5/12/2019 22:21
Sample Name	STDI
Sample Type	CalStd
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 8:46
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.003	ug/l	62.73	22.67	1.218E-05	Pulse	0.25	3
B			1	1.911	ug/l	2.85	14,908.21	8.014E-03	Pulse	0.15	3
Ca			1	4942.591	ug/l	0.25	4,222,120.98	1.454E+00	Pulse	0.10	3
Sr			1	0.028	ug/l	18.87	2,156.93	6.946E-04	Pulse	0.10	3
Mo			1	-0.118	ug/l	-7.75	206.68	6.587E-05	Pulse	0.10	3
Ag			1	0.001	ug/l	167.68	43.33	1.377E-05	Pulse	0.10	3
Sn			1	0.277	ug/l	0.49	4,277.51	1.356E-03	Pulse	0.10	3
Sb			1	0.227	ug/l	12.23	2,867.10	7.557E-04	Pulse	0.10	3
Ba			1	0.002	ug/l	208.91	60.00	1.590E-05	Pulse	0.10	3
Tl			1	-0.002	ug/l	-83.70	700.05	3.491E-04	Pulse	0.10	3
Pb			1	0.011	ug/l	58.06	513.37	2.571E-04	Pulse	0.10	3
Pb			1	0.009	ug/l	90.47	383.35	1.922E-04	Pulse	0.10	3
Pb			1	-0.003	ug/l	-174.71	1,583.44	7.933E-04	Pulse	0.10	3
Na			2	4820.199	ug/l	0.93	5,213,866.88	3.823E+01	Pulse	0.30	3
Mg			2	4914.770	ug/l	1.21	2,487,076.22	1.824E+01	Pulse	0.30	3
Al			2	4961.018	ug/l	0.47	917,715.87	6.729E+00	Pulse	0.30	3
K			2	4982.893	ug/l	0.48	1,874,121.11	1.374E+01	Pulse	0.30	3
Ca			2	4966.544	ug/l	0.82	100,756.61	7.388E-01	Pulse	0.30	3
Ti			2	0.000	ug/l	-13968.17	1.11	8.142E-06	Pulse	0.30	3
V			2	0.004	ug/l	102.84	570.02	4.180E-03	Pulse	0.30	3
Cr			2	-0.006	ug/l	-140.04	403.35	2.959E-03	Pulse	0.30	3
Mn			2	0.123	ug/l	12.71	470.02	3.445E-03	Pulse	0.30	3
Fe			2	4964.649	ug/l	2.10	23,454,215.18	1.720E+02	Analog	0.30	3
Co			2	0.232	ug/l	6.86	2,124.64	1.558E-02	Pulse	0.30	3
Ni			2	0.191	ug/l	4.63	475.57	3.488E-03	Pulse	0.30	3
Cu			2	0.310	ug/l	9.87	2,598.06	1.906E-02	Pulse	0.30	3
Zn			2	0.068	ug/l	68.89	270.01	1.978E-03	Pulse	0.30	3
As			2	0.030	ug/l	39.79	25.33	1.855E-04	Pulse	1.00	3
Cd			2	0.001	ug/l	190.13	18.21	2.887E-05	Pulse	0.30	3
Sn			2	-0.153	ug/l	-11.44	1,116.73	1.769E-03	Pulse	0.30	3
Se			3	0.159	ug/l	34.60	20.00	1.699E-04	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,860,389.26	1.29	98.6	Pulse	0.10	3
1	Sc		2,902,671.73	2.78	99.2	Pulse	0.10	3
1	Ge		696,497.15	3.94	97.6	Pulse	0.10	3

Quantitation Report

1	Rh		3,108,136.00	4.45	96.1	Pulse	0.10	3
1	In		3,154,200.28	4.97	96.7	Pulse	0.10	3
1	Tb		3,786,631.61	2.78	100.0	Pulse	0.10	3
1	Ho		362,226.40	3.44	100.3	Pulse	0.10	3
1	Bi		2,002,246.12	4.56	96.5	Pulse	0.10	3
2	Sc		136,380.23	0.94	100.9	Pulse	0.30	3
2	Ge		104,803.06	0.58	100.0	Pulse	0.30	3
2	Rh		1,554,564.21	0.26	98.9	Pulse	0.30	3
2	In		631,268.68	0.89	100.4	Pulse	0.30	3
2	Tb		1,837,357.36	0.30	102.2	Pulse	0.30	3
2	Ho		177,966.37	0.41	101.5	Pulse	0.30	3
2	Bi		1,067,005.96	0.36	99.3	Pulse	0.30	3
3	Sc		133,075.21	0.54	100.1	Pulse	0.30	3
3	Ge		117,731.79	0.83	99.0	Pulse	0.30	3
3	Rh		1,134,247.42	1.62	96.7	Pulse	0.30	3
3	Tb		1,670,127.19	1.28	98.3	Pulse	0.30	3

Quantitation Report

File Name	013CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051219m1.b
Method File	
Method Path	
Acq Time	5/12/2019 22:25
Sample Name	STDJ
Sample Type	CalStd
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 8:46
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.001	ug/l	5.61	12.00	6.581E-06	Pulse	0.25	3
B			1	1.676	ug/l	8.35	13,473.39	7.386E-03	Pulse	0.15	3
Ca			1	10763.869	ug/l	1.78	9,018,409.45	3.159E+00	Analog	0.10	3
Sr			1	0.071	ug/l	10.67	3,673.98	1.199E-03	Pulse	0.10	3
Mo			1	-0.119	ug/l	-0.69	190.01	6.215E-05	Pulse	0.10	3
Ag			1	0.001	ug/l	153.97	46.67	1.505E-05	Pulse	0.10	3
Sn			1	0.370	ug/l	10.06	5,137.86	1.668E-03	Pulse	0.10	3
Sb			1	0.217	ug/l	6.08	2,700.40	7.255E-04	Pulse	0.10	3
Ba			1	0.026	ug/l	30.36	166.68	4.461E-05	Pulse	0.10	3
Tl			1	-0.006	ug/l	-53.91	580.04	3.013E-04	Pulse	0.10	3
Pb			1	0.005	ug/l	215.45	450.03	2.355E-04	Pulse	0.10	3
Pb			1	0.009	ug/l	16.55	363.36	1.894E-04	Pulse	0.10	3
Pb			1	0.000	ug/l	-645.96	1,600.11	8.342E-04	Pulse	0.10	3
Na			2	10212.734	ug/l	1.07	11,018,299.01	8.089E+01	Analog	0.30	3
Mg			2	9739.569	ug/l	0.76	4,923,251.89	3.614E+01	Pulse	0.30	3
Al			2	10021.110	ug/l	0.51	1,851,620.00	1.359E+01	Pulse	0.30	3
K			2	10006.859	ug/l	0.71	3,750,076.24	2.753E+01	Pulse	0.30	3
Ca			2	9994.759	ug/l	0.58	202,324.42	1.485E+00	Pulse	0.30	3
Ti			2	0.015	ug/l	150.44	3.33	2.457E-05	Pulse	0.30	3
V			2	0.000	ug/l	2571.74	554.47	4.071E-03	Pulse	0.30	3
Cr			2	0.024	ug/l	13.38	567.80	4.167E-03	Pulse	0.30	3
Mn			2	0.143	ug/l	7.68	530.02	3.892E-03	Pulse	0.30	3
Fe			2	10020.941	ug/l	1.29	47,287,683.68	3.471E+02	Analog	0.30	3
Co			2	0.476	ug/l	2.91	4,239.58	3.113E-02	Pulse	0.30	3
Ni			2	0.411	ug/l	5.37	972.27	7.139E-03	Pulse	0.30	3
Cu			2	0.072	ug/l	13.94	1,184.51	8.695E-03	Pulse	0.30	3
Zn			2	0.240	ug/l	14.45	424.46	3.115E-03	Pulse	0.30	3
As			2	0.074	ug/l	14.62	48.00	3.526E-04	Pulse	1.00	3
Cd			2	-0.002	ug/l	-240.87	13.25	2.127E-05	Pulse	0.30	3
Sn			2	-0.058	ug/l	-35.78	1,346.75	2.165E-03	Pulse	0.30	3
Se			3	0.078	ug/l	53.89	12.00	1.033E-04	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,823,788.28	1.96	96.6	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,855,524.44	2.96	97.6	Pulse	0.10	3
1	Ge		689,591.94	2.67	96.6	Pulse	0.10	3
1	Rh		3,059,399.12	3.03	94.6	Pulse	0.10	3
1	In		3,076,070.07	3.76	94.3	Pulse	0.10	3
1	Tb		3,718,030.15	3.72	98.2	Pulse	0.10	3
1	Ho		355,772.98	4.21	98.5	Pulse	0.10	3
1	Bi		1,919,739.35	3.90	92.5	Pulse	0.10	3
2	Sc		136,226.42	0.77	100.8	Pulse	0.30	3
2	Ge		105,932.81	0.45	101.1	Pulse	0.30	3
2	Rh		1,529,972.54	0.26	97.3	Pulse	0.30	3
2	In		622,029.96	0.59	98.9	Pulse	0.30	3
2	Tb		1,817,336.11	0.61	101.0	Pulse	0.30	3
2	Ho		176,599.79	0.45	100.7	Pulse	0.30	3
2	Bi		1,043,419.30	0.44	97.1	Pulse	0.30	3
3	Sc		132,614.48	1.29	99.7	Pulse	0.30	3
3	Ge		116,220.23	1.32	97.7	Pulse	0.30	3
3	Rh		1,106,302.49	0.95	94.3	Pulse	0.30	3
3	Tb		1,655,614.10	1.15	97.4	Pulse	0.30	3

Quantitation Report

File Name	014SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051219m1.b
Method File	
Method Path	
Acq Time	5/12/2019 22:30
Sample Name	rinseconf
Sample Type	Sample
Comment	0
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 8:46
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.000	ug/l	224.71	10.67	5.740E-06	Pulse	0.25	3
B			1	1.253	ug/l	1.53	11,651.83	6.253E-03	Pulse	0.15	3
Ca			1	0.503	ug/l	274.22	20,472.53	7.156E-03	Pulse	0.10	3
Sr			1	-0.002	ug/l	-148.07	1,106.75	3.486E-04	Pulse	0.10	3
Mo			1	-0.137	ug/l	-4.85	66.67	2.133E-05	Pulse	0.10	3
Ag			1	0.000	ug/l	-416.77	26.67	8.165E-06	Pulse	0.10	3
Sn			1	0.028	ug/l	80.45	1,670.22	5.195E-04	Pulse	0.10	3
Sb			1	0.118	ug/l	13.94	1,566.82	4.218E-04	Pulse	0.10	3
Ba			1	-0.004	ug/l	-134.04	30.00	8.019E-06	Pulse	0.10	3
Tl			1	-0.008	ug/l	-48.18	566.70	2.824E-04	Pulse	0.10	3
Pb			1	-0.010	ug/l	-49.27	353.35	1.752E-04	Pulse	0.10	3
Pb			1	-0.008	ug/l	-80.87	270.01	1.335E-04	Pulse	0.10	3
Pb			1	-0.012	ug/l	-31.67	1,336.75	6.617E-04	Pulse	0.10	3
Na			2	-1.481	ug/l	-14.78	12,560.18	9.432E-02	Pulse	0.30	3
Mg			2	0.946	ug/l	7.37	547.80	4.115E-03	Pulse	0.30	3
Al			2	1.000	ug/l	22.85	231.12	1.734E-03	Pulse	0.30	3
K			2	1.119	ug/l	44.02	9,446.61	7.095E-02	Pulse	0.30	3
Ca			2	0.948	ug/l	242.46	225.56	1.695E-03	Pulse	0.30	3
Ti			2	-0.008	ug/l	0.00	0.00	0.000E+00	Pulse	0.30	3
V			2	0.011	ug/l	62.90	590.02	4.432E-03	Pulse	0.30	3
Cr			2	-0.010	ug/l	-6.90	373.35	2.804E-03	Pulse	0.30	3
Mn			2	0.014	ug/l	42.99	136.67	1.027E-03	Pulse	0.30	3
Fe			2	1.349	ug/l	5.75	9,433.30	7.085E-02	Pulse	0.30	3
Co			2	-0.006	ug/l	-9.66	57.78	4.337E-04	Pulse	0.30	3
Ni			2	-0.005	ug/l	-80.40	30.00	2.256E-04	Pulse	0.30	3
Cu			2	-0.014	ug/l	-58.38	654.47	4.915E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	0.024	ug/l	152.52	224.45	1.684E-03	Pulse	0.30	3
As			2	-0.001	ug/l	-726.76	9.00	6.754E-05	Pulse	1.00	3
Cd			2	0.001	ug/l	309.36	18.28	2.932E-05	Pulse	0.30	3
Sn			2	-0.430	ug/l	-2.73	375.57	6.029E-04	Pulse	0.30	3
Se			3	0.035	ug/l	62.60	8.00	6.772E-05	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,863,542.89	1.68	98.7	Pulse	0.10	3
1	Sc		2,863,806.73	2.83	97.9	Pulse	0.10	3
1	Ge		707,102.26	2.75	99.0	Pulse	0.10	3
1	Rh		3,176,640.16	3.56	98.3	Pulse	0.10	3
1	In		3,211,261.11	3.02	98.5	Pulse	0.10	3
1	Tb		3,725,172.55	3.53	98.4	Pulse	0.10	3
1	Ho		359,758.51	4.14	99.6	Pulse	0.10	3
1	Bi		2,015,485.28	4.12	97.1	Pulse	0.10	3
2	Sc		133,157.16	0.77	98.5	Pulse	0.30	3
2	Ge		105,391.10	1.26	100.5	Pulse	0.30	3
2	Rh		1,561,871.08	0.09	99.3	Pulse	0.30	3
2	In		623,033.51	0.33	99.1	Pulse	0.30	3
2	Tb		1,792,647.99	0.35	99.7	Pulse	0.30	3
2	Ho		171,795.12	0.69	97.9	Pulse	0.30	3
2	Bi		1,058,018.85	0.67	98.5	Pulse	0.30	3
3	Sc		132,675.65	2.01	99.8	Pulse	0.30	3
3	Ge		118,424.00	1.38	99.5	Pulse	0.30	3
3	Rh		1,167,071.86	0.48	99.5	Pulse	0.30	3
3	Tb		1,663,842.16	1.19	97.9	Pulse	0.30	3

Quantitation Report

File Name	015SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051219m1.b
Method File	
Method Path	
Acq Time	5/12/2019 22:35
Sample Name	rinseconf
Sample Type	Sample
Comment	0
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 8:46
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.001	ug/l	113.69	13.33	7.181E-06	Pulse	0.25	3
B			1	0.947	ug/l	5.14	10,097.18	5.436E-03	Pulse	0.15	3
Ca			1	-0.691	ug/l	-148.86	19,681.44	6.807E-03	Pulse	0.10	3
Sr			1	0.000	ug/l	-4294.47	1,183.43	3.705E-04	Pulse	0.10	3
Mo			1	-0.139	ug/l	-2.43	50.00	1.546E-05	Pulse	0.10	3
Ag			1	-0.001	ug/l	-48.38	10.00	3.167E-06	Pulse	0.10	3
Sn			1	0.017	ug/l	104.33	1,550.16	4.823E-04	Pulse	0.10	3
Sb			1	0.102	ug/l	11.41	1,376.80	3.745E-04	Pulse	0.10	3
Ba			1	-0.004	ug/l	-167.23	30.00	8.283E-06	Pulse	0.10	3
Tl			1	-0.004	ug/l	-97.71	653.37	3.247E-04	Pulse	0.10	3
Pb			1	-0.011	ug/l	-69.11	340.02	1.692E-04	Pulse	0.10	3
Pb			1	0.004	ug/l	218.24	350.02	1.739E-04	Pulse	0.10	3
Pb			1	-0.012	ug/l	-4.58	1,326.76	6.606E-04	Pulse	0.10	3
Na			2	-2.449	ug/l	-11.34	11,694.94	8.666E-02	Pulse	0.30	3
Mg			2	0.436	ug/l	12.78	300.01	2.224E-03	Pulse	0.30	3
Al			2	0.559	ug/l	13.95	153.34	1.136E-03	Pulse	0.30	3
K			2	-0.162	ug/l	-456.99	9,099.73	6.743E-02	Pulse	0.30	3
Ca			2	-0.659	ug/l	-455.34	196.67	1.457E-03	Pulse	0.30	3
Ti			2	0.000	ug/l	-35363.93	1.11	8.203E-06	Pulse	0.30	3
V			2	0.009	ug/l	72.46	587.80	4.355E-03	Pulse	0.30	3
Cr			2	0.001	ug/l	379.80	438.90	3.251E-03	Pulse	0.30	3
Mn			2	0.004	ug/l	191.80	107.78	7.986E-04	Pulse	0.30	3
Fe			2	0.549	ug/l	7.30	5,824.63	4.316E-02	Pulse	0.30	3
Co			2	-0.001	ug/l	-214.82	102.22	7.577E-04	Pulse	0.30	3
Ni			2	0.003	ug/l	134.79	48.89	3.621E-04	Pulse	0.30	3
Cu			2	-0.021	ug/l	-20.27	626.69	4.644E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	0.036	ug/l	68.21	237.78	1.762E-03	Pulse	0.30	3
As			2	0.000	ug/l	-2048.23	9.33	6.916E-05	Pulse	1.00	3
Cd			2	-0.007	ug/l	-73.42	4.96	7.804E-06	Pulse	0.30	3
Sn			2	-0.441	ug/l	-5.19	351.12	5.558E-04	Pulse	0.30	3
Se			3	0.054	ug/l	2.62	10.00	8.339E-05	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,857,566.14	0.16	98.4	Pulse	0.10	3
1	Sc		2,890,802.67	2.10	98.8	Pulse	0.10	3
1	Ge		707,059.00	3.51	99.0	Pulse	0.10	3
1	Rh		3,203,329.95	2.91	99.1	Pulse	0.10	3
1	In		3,217,083.11	3.50	98.6	Pulse	0.10	3
1	Tb		3,682,374.42	2.61	97.3	Pulse	0.10	3
1	Ho		354,007.31	3.68	98.0	Pulse	0.10	3
1	Bi		2,008,423.67	2.16	96.8	Pulse	0.10	3
2	Sc		134,960.36	0.60	99.9	Pulse	0.30	3
2	Ge		105,825.74	1.25	100.9	Pulse	0.30	3
2	Rh		1,569,347.47	0.89	99.8	Pulse	0.30	3
2	In		632,269.27	0.66	100.6	Pulse	0.30	3
2	Tb		1,790,146.18	0.61	99.5	Pulse	0.30	3
2	Ho		172,651.79	0.35	98.4	Pulse	0.30	3
2	Bi		1,062,166.97	0.76	98.9	Pulse	0.30	3
3	Sc		135,225.88	1.36	101.7	Pulse	0.30	3
3	Ge		119,931.86	1.40	100.8	Pulse	0.30	3
3	Rh		1,173,322.59	0.86	100.0	Pulse	0.30	3
3	Tb		1,679,694.10	1.19	98.8	Pulse	0.30	3

Quantitation Report

File Name	016SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051219m1.b
Method File	
Method Path	
Acq Time	5/12/2019 22:40
Sample Name	STDB
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 8:46
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.528	ug/l	1.15	3,109.72	1.634E-03	Pulse	0.25	3
B			1	27.274	ug/l	1.79	144,328.60	7.584E-02	Pulse	0.15	3
Ca			1	264.500	ug/l	0.75	248,199.15	8.447E-02	Pulse	0.10	3
Sr			1	5.071	ug/l	1.34	193,643.75	5.973E-02	Pulse	0.10	3
Mo			1	0.846	ug/l	4.97	7,539.03	2.327E-03	Pulse	0.10	3
Ag			1	0.496	ug/l	3.03	8,546.43	2.629E-03	Pulse	0.10	3
Sn			1	5.380	ug/l	0.62	60,030.29	1.847E-02	Pulse	0.10	3
Sb			1	2.288	ug/l	3.57	26,587.57	7.035E-03	Pulse	0.10	3
Ba			1	1.086	ug/l	2.36	4,964.46	1.314E-03	Pulse	0.10	3
Tl			1	0.525	ug/l	1.94	13,204.17	6.469E-03	Pulse	0.10	3
Pb			1	0.513	ug/l	2.81	4,597.66	2.254E-03	Pulse	0.10	3
Pb			1	0.558	ug/l	7.77	4,287.59	2.098E-03	Pulse	0.10	3
Pb			1	0.536	ug/l	2.28	18,762.85	9.192E-03	Pulse	0.10	3
Na			2	251.794	ug/l	0.23	288,430.25	2.098E+00	Pulse	0.30	3
Mg			2	258.227	ug/l	0.82	131,832.08	9.588E-01	Pulse	0.30	3
Al			2	26.146	ug/l	2.00	4,927.60	3.584E-02	Pulse	0.30	3
K			2	261.262	ug/l	0.46	107,915.59	7.848E-01	Pulse	0.30	3
Ca			2	285.098	ug/l	1.22	6,033.59	4.388E-02	Pulse	0.30	3
Ti			2	0.999	ug/l	26.64	152.23	1.105E-03	Pulse	0.30	3
V			2	1.096	ug/l	2.00	5,505.60	4.004E-02	Pulse	0.30	3
Cr			2	1.032	ug/l	2.73	6,141.44	4.467E-02	Pulse	0.30	3
Mn			2	1.052	ug/l	1.98	3,318.22	2.413E-02	Pulse	0.30	3
Fe			2	26.678	ug/l	1.07	130,379.17	9.482E-01	Pulse	0.30	3
Co			2	0.513	ug/l	0.74	4,605.26	3.349E-02	Pulse	0.30	3
Ni			2	1.058	ug/l	2.90	2,460.26	1.789E-02	Pulse	0.30	3
Cu			2	2.096	ug/l	2.17	13,332.13	9.697E-02	Pulse	0.30	3
Zn			2	5.228	ug/l	1.27	4,970.96	3.615E-02	Pulse	0.30	3
As			2	0.515	ug/l	11.64	280.33	2.038E-03	Pulse	1.00	3
Cd			2	0.544	ug/l	7.51	1,004.48	1.565E-03	Pulse	0.30	3
Sn			2	4.877	ug/l	3.27	14,708.25	2.292E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	0.464	ug/l	15.90	51.33	4.213E-04	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,903,045.63	1.04	100.8	Pulse	0.10	3
1	Sc		2,938,040.89	1.92	100.4	Pulse	0.10	3
1	Ge		708,643.53	3.10	99.3	Pulse	0.10	3
1	Rh		3,241,464.22	3.32	100.3	Pulse	0.10	3
1	In		3,249,477.06	3.93	99.6	Pulse	0.10	3
1	Tb		3,777,654.73	2.11	99.8	Pulse	0.10	3
1	Ho		361,469.04	3.34	100.1	Pulse	0.10	3
1	Bi		2,040,524.03	2.96	98.3	Pulse	0.10	3
2	Sc		137,503.35	0.99	101.7	Pulse	0.30	3
2	Ge		107,220.82	0.29	102.3	Pulse	0.30	3
2	Rh		1,594,801.08	0.78	101.4	Pulse	0.30	3
2	In		641,677.75	0.70	102.1	Pulse	0.30	3
2	Tb		1,811,966.25	0.45	100.7	Pulse	0.30	3
2	Ho		174,727.66	1.08	99.6	Pulse	0.30	3
2	Bi		1,068,675.69	0.28	99.5	Pulse	0.30	3
3	Sc		135,789.94	0.68	102.1	Pulse	0.30	3
3	Ge		121,703.55	1.44	102.3	Pulse	0.30	3
3	Rh		1,180,005.37	0.38	100.6	Pulse	0.30	3
3	Tb		1,690,414.76	0.63	99.5	Pulse	0.30	3

Quantitation Report

File Name	017SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051219m1.b
Method File	
Method Path	
Acq Time	5/12/2019 22:44
Sample Name	STDC
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 8:46
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	4.946	ug/l	1.68	28,944.25	1.527E-02	Pulse	0.25	3
B			1	5.910	ug/l	1.69	35,442.83	1.871E-02	Pulse	0.15	3
Ca			1	14.542	ug/l	3.26	33,033.44	1.127E-02	Pulse	0.10	3
Sr			1	4.808	ug/l	1.73	183,039.41	5.665E-02	Pulse	0.10	3
Mo			1	4.841	ug/l	0.63	37,824.42	1.170E-02	Pulse	0.10	3
Ag			1	4.897	ug/l	2.98	83,951.22	2.586E-02	Pulse	0.10	3
Sn			1	5.164	ug/l	0.55	57,602.93	1.774E-02	Pulse	0.10	3
Sb			1	5.013	ug/l	2.30	57,653.14	1.534E-02	Pulse	0.10	3
Ba			1	5.028	ug/l	1.85	22,707.01	6.039E-03	Pulse	0.10	3
Tl			1	4.894	ug/l	1.66	115,908.00	5.722E-02	Pulse	0.10	3
Pb			1	5.004	ug/l	2.39	40,740.54	2.011E-02	Pulse	0.10	3
Pb			1	4.926	ug/l	4.04	34,969.57	1.726E-02	Pulse	0.10	3
Pb			1	5.018	ug/l	1.83	160,183.43	7.907E-02	Pulse	0.10	3
Na			2	5.277	ug/l	8.12	20,188.96	1.478E-01	Pulse	0.30	3
Mg			2	5.776	ug/l	1.79	3,011.48	2.204E-02	Pulse	0.30	3
Al			2	5.668	ug/l	6.46	1,102.28	8.065E-03	Pulse	0.30	3
K			2	7.892	ug/l	8.94	12,234.36	8.953E-02	Pulse	0.30	3
Ca			2	36.973	ug/l	1.66	962.27	7.043E-03	Pulse	0.30	3
Ti			2	4.809	ug/l	8.26	722.25	5.288E-03	Pulse	0.30	3
V			2	4.955	ug/l	0.92	22,774.36	1.667E-01	Pulse	0.30	3
Cr			2	4.998	ug/l	0.11	27,878.13	2.040E-01	Pulse	0.30	3
Mn			2	5.001	ug/l	1.00	15,316.41	1.121E-01	Pulse	0.30	3
Fe			2	5.241	ug/l	0.69	28,104.24	2.057E-01	Pulse	0.30	3
Co			2	4.890	ug/l	1.87	42,705.87	3.126E-01	Pulse	0.30	3
Ni			2	4.959	ug/l	0.32	11,304.74	8.274E-02	Pulse	0.30	3
Cu			2	5.034	ug/l	1.34	30,755.50	2.251E-01	Pulse	0.30	3
Zn			2	4.995	ug/l	2.42	4,729.76	3.461E-02	Pulse	0.30	3
As			2	4.846	ug/l	0.96	2,540.91	1.860E-02	Pulse	1.00	3
Cd			2	4.905	ug/l	1.99	8,896.52	1.390E-02	Pulse	0.30	3
Sn			2	4.763	ug/l	2.88	14,369.02	2.244E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	4.905	ug/l	10.94	496.01	4.074E-03	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,894,882.42	2.31	100.4	Pulse	0.10	3
1	Sc		2,931,879.54	2.61	100.2	Pulse	0.10	3
1	Ge		708,545.77	2.79	99.2	Pulse	0.10	3
1	Rh		3,231,799.85	3.01	100.0	Pulse	0.10	3
1	In		3,246,052.19	2.49	99.5	Pulse	0.10	3
1	Tb		3,761,899.84	5.09	99.4	Pulse	0.10	3
1	Ho		359,786.77	3.59	99.6	Pulse	0.10	3
1	Bi		2,025,734.29	2.60	97.6	Pulse	0.10	3
2	Sc		136,632.51	0.82	101.1	Pulse	0.30	3
2	Ge		106,956.43	2.13	102.0	Pulse	0.30	3
2	Rh		1,592,315.84	0.28	101.3	Pulse	0.30	3
2	In		640,206.90	1.71	101.8	Pulse	0.30	3
2	Tb		1,810,523.05	0.92	100.7	Pulse	0.30	3
2	Ho		174,019.24	0.68	99.2	Pulse	0.30	3
2	Bi		1,063,313.26	0.57	99.0	Pulse	0.30	3
3	Sc		135,735.21	0.52	102.1	Pulse	0.30	3
3	Ge		121,857.29	1.39	102.4	Pulse	0.30	3
3	Rh		1,184,692.83	0.93	101.0	Pulse	0.30	3
3	Tb		1,687,927.16	1.64	99.3	Pulse	0.30	3

Quantitation Report

File Name	018_ICV.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051219m1.b
Method File	
Method Path	
Acq Time	5/12/2019 22:49
Sample Name	ICVA
Sample Type	ICV
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 8:46
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	62.397	ug/l	0.79	357,192.12	1.926E-01	Pulse	0.25	3
B			1	129.555	ug/l	2.56	647,880.95	3.494E-01	Pulse	0.15	3
Ca			1	5474.532	ug/l	0.47	4,689,857.01	1.610E+00	Pulse	0.10	3
Sr			1	64.188	ug/l	0.73	2,359,188.56	7.518E-01	Pulse	0.10	3
Mo			1	61.696	ug/l	0.64	455,545.98	1.451E-01	Pulse	0.10	3
Ag			1	58.446	ug/l	0.22	993,219.98	3.085E-01	Pulse	0.10	3
Sn			1	60.914	ug/l	0.54	659,267.95	2.047E-01	Pulse	0.10	3
Sb			1	64.875	ug/l	1.24	749,234.23	1.977E-01	Pulse	0.10	3
Ba			1	63.739	ug/l	1.56	289,540.47	7.640E-02	Pulse	0.10	3
Tl			1	65.057	ug/l	2.60	1,510,280.39	7.559E-01	Pulse	0.10	3
Pb			1	64.812	ug/l	2.76	515,379.03	2.580E-01	Pulse	0.10	3
Pb			1	61.658	ug/l	1.35	428,002.26	2.142E-01	Pulse	0.10	3
Pb			1	64.226	ug/l	1.46	2,002,462.52	1.002E+00	Pulse	0.10	3
Na			2	5424.063	ug/l	3.53	5,747,097.69	4.301E+01	Pulse	0.30	3
Mg			2	5525.017	ug/l	3.81	2,739,479.89	2.050E+01	Pulse	0.30	3
Al			2	5642.268	ug/l	3.61	1,022,671.77	7.653E+00	Pulse	0.30	3
K			2	5580.558	ug/l	3.44	2,055,541.86	1.538E+01	Pulse	0.30	3
Ca			2	5942.966	ug/l	3.94	118,088.61	8.838E-01	Pulse	0.30	3
Ti			2	60.887	ug/l	5.34	8,937.42	6.687E-02	Pulse	0.30	3
V			2	63.905	ug/l	4.01	280,771.46	2.101E+00	Pulse	0.30	3
Cr			2	62.563	ug/l	4.25	336,301.46	2.517E+00	Pulse	0.30	3
Mn			2	63.038	ug/l	3.39	187,736.72	1.405E+00	Pulse	0.30	3
Fe			2	5603.617	ug/l	4.38	25,936,990.08	1.941E+02	Analog	0.30	3
Co			2	62.008	ug/l	3.70	528,463.76	3.955E+00	Pulse	0.30	3
Ni			2	61.902	ug/l	4.21	137,524.93	1.029E+00	Pulse	0.30	3
Cu			2	61.345	ug/l	4.10	358,254.76	2.681E+00	Pulse	0.30	3
Zn			2	60.103	ug/l	3.22	53,408.89	3.997E-01	Pulse	0.30	3
As			2	61.775	ug/l	3.10	31,570.23	2.362E-01	Pulse	1.00	3
Cd			2	62.306	ug/l	3.28	108,705.87	1.762E-01	Pulse	0.30	3
Sn			2	62.457	ug/l	3.35	163,502.28	2.651E-01	Pulse	0.30	3
Se			3	265.942	ug/l	3.31	25,917.34	2.188E-01	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,854,450.74	1.27	98.3	Pulse	0.10	3
1	Sc		2,912,224.85	2.54	99.5	Pulse	0.10	3
1	Ge		719,157.70	2.97	100.7	Pulse	0.10	3

Quantitation Report

1	Rh		3,138,499.85	3.28	97.1	Pulse	0.10	3
1	In		3,219,891.86	3.39	98.7	Pulse	0.10	3
1	Tb		3,788,290.88	3.61	100.1	Pulse	0.10	3
1	Ho		363,155.20	3.12	100.6	Pulse	0.10	3
1	Bi		1,998,523.72	4.24	96.3	Pulse	0.10	3
2	Sc		133,722.61	3.06	98.9	Pulse	0.30	3
2	Ge		104,748.21	1.68	99.9	Pulse	0.30	3
2	Rh		1,522,388.48	2.86	96.8	Pulse	0.30	3
2	In		617,175.30	2.77	98.2	Pulse	0.30	3
2	Tb		1,816,761.80	2.72	101.0	Pulse	0.30	3
2	Ho		174,705.29	2.78	99.6	Pulse	0.30	3
2	Bi		1,046,254.27	2.65	97.4	Pulse	0.30	3
3	Sc		132,100.67	0.56	99.3	Pulse	0.30	3
3	Ge		118,498.12	1.53	99.6	Pulse	0.30	3
3	Rh		1,127,378.81	1.13	96.1	Pulse	0.30	3
3	Tb		1,660,284.93	0.97	97.7	Pulse	0.30	3

Quantitation Report

File Name	019_ICV.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051219m1.b
Method File	
Method Path	
Acq Time	5/12/2019 22:54
Sample Name	ICV
Sample Type	ICV
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 8:46
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.048	ug/l	12.18	281.34	1.517E-04	Pulse	0.25	3
B			1	2.406	ug/l	6.89	17,324.32	9.336E-03	Pulse	0.15	3
Ca			1	6.819	ug/l	11.09	25,798.10	9.006E-03	Pulse	0.10	3
Sr			1	0.000	ug/l	764.51	1,173.45	3.772E-04	Pulse	0.10	3
Mo			1	-0.080	ug/l	-10.42	480.03	1.536E-04	Pulse	0.10	3
Ag			1	0.006	ug/l	40.18	126.67	4.041E-05	Pulse	0.10	3
Sn			1	0.104	ug/l	12.16	2,416.98	7.732E-04	Pulse	0.10	3
Sb			1	0.078	ug/l	8.68	1,120.09	3.017E-04	Pulse	0.10	3
Ba			1	0.023	ug/l	23.09	150.01	4.036E-05	Pulse	0.10	3
Tl			1	0.004	ug/l	112.57	833.39	4.181E-04	Pulse	0.10	3
Pb			1	-0.003	ug/l	-237.06	403.36	2.024E-04	Pulse	0.10	3
Pb			1	0.009	ug/l	51.14	380.02	1.910E-04	Pulse	0.10	3
Pb			1	-0.005	ug/l	-126.69	1,520.09	7.624E-04	Pulse	0.10	3
Na			2	-1.724	ug/l	-23.57	12,067.53	9.240E-02	Pulse	0.30	3
Mg			2	0.834	ug/l	7.54	483.35	3.699E-03	Pulse	0.30	3
Al			2	64.778	ug/l	1.23	11,525.93	8.824E-02	Pulse	0.30	3
K			2	1.769	ug/l	9.73	9,499.99	7.273E-02	Pulse	0.30	3
Ca			2	9.926	ug/l	21.26	395.57	3.028E-03	Pulse	0.30	3
Ti			2	0.000	ug/l	6471.43	1.11	8.470E-06	Pulse	0.30	3
V			2	0.003	ug/l	101.79	542.24	4.152E-03	Pulse	0.30	3
Cr			2	0.070	ug/l	10.69	785.59	6.015E-03	Pulse	0.30	3
Mn			2	0.046	ug/l	23.88	225.56	1.728E-03	Pulse	0.30	3
Fe			2	1.765	ug/l	3.41	11,137.95	8.527E-02	Pulse	0.30	3
Co			2	0.001	ug/l	112.38	108.89	8.338E-04	Pulse	0.30	3
Ni			2	0.021	ug/l	38.37	85.56	6.553E-04	Pulse	0.30	3
Cu			2	0.025	ug/l	28.51	867.82	6.642E-03	Pulse	0.30	3
Zn			2	1.195	ug/l	5.14	1,233.41	9.443E-03	Pulse	0.30	3
As			2	0.001	ug/l	1967.59	9.67	7.376E-05	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	0.008	ug/l	73.09	29.74	4.821E-05	Pulse	0.30	3
Sn			2	-0.341	ug/l	-3.93	602.24	9.774E-04	Pulse	0.30	3
Se			3	0.090	ug/l	13.13	13.33	1.133E-04	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,857,121.11	2.51	98.4	Pulse	0.10	3
1	Sc		2,865,004.65	2.57	97.9	Pulse	0.10	3
1	Ge		689,812.39	3.22	96.6	Pulse	0.10	3
1	Rh		3,117,007.56	3.41	96.4	Pulse	0.10	3
1	In		3,128,636.23	2.82	95.9	Pulse	0.10	3
1	Tb		3,711,755.47	5.17	98.1	Pulse	0.10	3
1	Ho		355,095.83	5.23	98.3	Pulse	0.10	3
1	Bi		1,989,132.47	2.99	95.9	Pulse	0.10	3
2	Sc		130,627.76	0.82	96.6	Pulse	0.30	3
2	Ge		102,775.94	1.27	98.0	Pulse	0.30	3
2	Rh		1,538,443.72	1.24	97.8	Pulse	0.30	3
2	In		616,058.87	0.78	98.0	Pulse	0.30	3
2	Tb		1,774,920.21	0.26	98.7	Pulse	0.30	3
2	Ho		171,950.04	1.33	98.0	Pulse	0.30	3
2	Bi		1,056,139.30	1.08	98.3	Pulse	0.30	3
3	Sc		132,867.80	2.05	99.9	Pulse	0.30	3
3	Ge		117,673.62	1.57	98.9	Pulse	0.30	3
3	Rh		1,171,770.09	0.58	99.9	Pulse	0.30	3
3	Tb		1,676,905.18	1.65	98.7	Pulse	0.30	3

Quantitation Report

File Name	020_ICB.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051219m1.b
Method File	
Method Path	
Acq Time	5/12/2019 22:59
Sample Name	ICB
Sample Type	ICB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 8:46
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.004	ug/l	9.66	30.67	1.663E-05	Pulse	0.25	3
B			1	1.414	ug/l	1.40	12,325.69	6.684E-03	Pulse	0.15	3
Ca			1	-1.743	ug/l	-37.86	18,763.30	6.498E-03	Pulse	0.10	3
Sr			1	0.002	ug/l	16.28	1,270.11	4.001E-04	Pulse	0.10	3
Mo			1	-0.128	ug/l	-6.48	133.34	4.231E-05	Pulse	0.10	3
Ag			1	0.002	ug/l	28.92	60.00	1.874E-05	Pulse	0.10	3
Sn			1	0.024	ug/l	13.18	1,620.17	5.076E-04	Pulse	0.10	3
Sb			1	0.060	ug/l	12.25	916.74	2.464E-04	Pulse	0.10	3
Ba			1	-0.004	ug/l	-55.06	30.00	8.083E-06	Pulse	0.10	3
Tl			1	-0.007	ug/l	-66.80	593.37	2.950E-04	Pulse	0.10	3
Pb			1	-0.017	ug/l	-40.59	296.68	1.471E-04	Pulse	0.10	3
Pb			1	0.005	ug/l	107.96	360.02	1.784E-04	Pulse	0.10	3
Pb			1	-0.009	ug/l	-16.27	1,410.09	6.981E-04	Pulse	0.10	3
Na			2	-3.550	ug/l	-9.80	10,403.93	7.795E-02	Pulse	0.30	3
Mg			2	0.191	ug/l	33.59	175.56	1.316E-03	Pulse	0.30	3
Al			2	0.102	ug/l	54.47	68.89	5.161E-04	Pulse	0.30	3
K			2	-0.493	ug/l	-145.25	8,878.48	6.652E-02	Pulse	0.30	3
Ca			2	-1.388	ug/l	-21.63	180.00	1.349E-03	Pulse	0.30	3
Ti			2	0.030	ug/l	43.53	5.56	4.166E-05	Pulse	0.30	3
V			2	0.005	ug/l	202.98	563.35	4.220E-03	Pulse	0.30	3
Cr			2	0.005	ug/l	49.48	452.24	3.388E-03	Pulse	0.30	3
Mn			2	0.003	ug/l	324.91	103.33	7.737E-04	Pulse	0.30	3
Fe			2	0.318	ug/l	11.44	4,691.97	3.515E-02	Pulse	0.30	3
Co			2	-0.002	ug/l	-133.17	90.00	6.739E-04	Pulse	0.30	3
Ni			2	-0.003	ug/l	-118.91	34.44	2.579E-04	Pulse	0.30	3
Cu			2	-0.021	ug/l	-69.50	616.69	4.620E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	0.014	ug/l	296.22	215.56	1.615E-03	Pulse	0.30	3
As			2	0.002	ug/l	371.57	10.67	7.985E-05	Pulse	1.00	3
Cd			2	0.000	ug/l	1718.38	16.59	2.663E-05	Pulse	0.30	3
Sn			2	-0.435	ug/l	-2.01	362.23	5.813E-04	Pulse	0.30	3
Se			3	0.014	ug/l	255.27	6.00	5.107E-05	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,844,136.41	1.64	97.7	Pulse	0.10	3
1	Sc		2,886,615.37	1.52	98.6	Pulse	0.10	3
1	Ge		693,632.36	2.90	97.2	Pulse	0.10	3
1	Rh		3,175,403.18	4.74	98.2	Pulse	0.10	3
1	In		3,192,171.75	3.15	97.9	Pulse	0.10	3
1	Tb		3,727,977.97	3.35	98.5	Pulse	0.10	3
1	Ho		360,156.02	2.53	99.7	Pulse	0.10	3
1	Bi		2,019,005.59	3.26	97.3	Pulse	0.10	3
2	Sc		133,470.39	0.41	98.8	Pulse	0.30	3
2	Ge		103,664.55	0.98	98.9	Pulse	0.30	3
2	Rh		1,552,407.54	0.56	98.7	Pulse	0.30	3
2	In		622,965.88	0.61	99.1	Pulse	0.30	3
2	Tb		1,784,929.17	0.42	99.2	Pulse	0.30	3
2	Ho		171,396.50	0.53	97.7	Pulse	0.30	3
2	Bi		1,053,568.39	0.27	98.1	Pulse	0.30	3
3	Sc		131,886.62	1.16	99.2	Pulse	0.30	3
3	Ge		118,017.32	1.34	99.2	Pulse	0.30	3
3	Rh		1,163,394.22	0.89	99.2	Pulse	0.30	3
3	Tb		1,667,783.58	1.43	98.1	Pulse	0.30	3

Quantitation Report

File Name 021_CCV.d
File Path C:\Agilent\ICPMH\1\DATA\.b051219m1.b
Method File
Method Path
Acq Time 5/12/2019 23:03
Sample Name CCVA
Sample Type CCV
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name Metals
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 5/13/2019 8:46
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	49.586	ug/l	0.36	285,367.17	1.531E-01	Pulse	0.25	3
B			1	102.451	ug/l	1.01	516,216.33	2.769E-01	Pulse	0.15	3
Ca			1	5010.885	ug/l	0.73	4,271,114.52	1.474E+00	Pulse	0.10	3
Sr			1	48.593	ug/l	0.92	1,795,767.84	5.692E-01	Pulse	0.10	3
Mo			1	53.316	ug/l	2.87	395,824.54	1.255E-01	Pulse	0.10	3
Ag			1	50.677	ug/l	1.21	858,331.29	2.675E-01	Pulse	0.10	3
Sn			1	51.416	ug/l	1.03	554,777.35	1.729E-01	Pulse	0.10	3
Sb			1	54.646	ug/l	0.51	633,125.59	1.666E-01	Pulse	0.10	3
Ba			1	49.547	ug/l	0.54	225,765.80	5.939E-02	Pulse	0.10	3
Tl			1	50.081	ug/l	3.50	1,161,095.71	5.820E-01	Pulse	0.10	3
Pb			1	50.017	ug/l	3.64	397,291.82	1.991E-01	Pulse	0.10	3
Pb			1	49.642	ug/l	0.71	344,260.10	1.725E-01	Pulse	0.10	3
Pb			1	50.302	ug/l	0.98	1,566,615.00	7.850E-01	Pulse	0.10	3
Na			2	4941.189	ug/l	1.15	5,274,202.15	3.919E+01	Pulse	0.30	3
Mg			2	5019.315	ug/l	1.04	2,506,781.08	1.863E+01	Pulse	0.30	3
Al			2	5067.779	ug/l	0.24	925,177.60	6.874E+00	Pulse	0.30	3
K			2	5054.216	ug/l	1.25	1,875,861.66	1.394E+01	Pulse	0.30	3
Ca			2	5296.531	ug/l	1.34	106,027.15	7.878E-01	Pulse	0.30	3
Ti			2	53.540	ug/l	2.82	7,914.56	5.880E-02	Pulse	0.30	3
V			2	49.767	ug/l	0.62	220,358.46	1.637E+00	Pulse	0.30	3
Cr			2	49.439	ug/l	1.71	267,795.96	1.990E+00	Pulse	0.30	3
Mn			2	49.501	ug/l	0.59	148,492.88	1.103E+00	Pulse	0.30	3
Fe			2	5171.505	ug/l	1.86	24,113,689.04	1.792E+02	Analog	0.30	3
Co			2	48.801	ug/l	0.74	418,913.12	3.113E+00	Pulse	0.30	3
Ni			2	48.613	ug/l	0.40	108,795.79	8.084E-01	Pulse	0.30	3
Cu			2	48.438	ug/l	1.33	285,087.78	2.118E+00	Pulse	0.30	3
Zn			2	48.111	ug/l	1.09	43,097.44	3.202E-01	Pulse	0.30	3
As			2	51.143	ug/l	1.58	26,322.87	1.956E-01	Pulse	1.00	3
Cd			2	48.836	ug/l	1.03	86,073.86	1.381E-01	Pulse	0.30	3
Sn			2	52.134	ug/l	0.46	138,119.54	2.217E-01	Pulse	0.30	3
Se			3	190.739	ug/l	4.77	18,536.00	1.569E-01	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,864,247.20	1.83	98.8	Pulse	0.10	3
1	Sc		2,896,971.31	3.45	99.0	Pulse	0.10	3
1	Ge		712,038.20	2.53	99.7	Pulse	0.10	3

Quantitation Report

1	Rh		3,155,306.31	3.07	97.6	Pulse	0.10	3
1	In		3,208,986.89	2.47	98.4	Pulse	0.10	3
1	Tb		3,800,918.38	2.76	100.4	Pulse	0.10	3
1	Ho		363,814.28	2.74	100.7	Pulse	0.10	3
1	Bi		1,995,830.34	4.06	96.2	Pulse	0.10	3
2	Sc		134,590.42	0.78	99.6	Pulse	0.30	3
2	Ge		105,399.05	0.81	100.5	Pulse	0.30	3
2	Rh		1,545,223.65	0.80	98.3	Pulse	0.30	3
2	In		623,103.58	0.59	99.1	Pulse	0.30	3
2	Tb		1,832,683.61	0.58	101.9	Pulse	0.30	3
2	Ho		177,637.49	0.79	101.3	Pulse	0.30	3
2	Bi		1,060,852.14	0.39	98.8	Pulse	0.30	3
3	Sc		132,649.15	1.14	99.8	Pulse	0.30	3
3	Ge		118,161.15	1.29	99.3	Pulse	0.30	3
3	Rh		1,131,283.43	1.13	96.4	Pulse	0.30	3
3	Tb		1,670,585.98	1.67	98.3	Pulse	0.30	3

Quantitation Report

File Name	022_CCB.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051219m1.b
Method File	
Method Path	
Acq Time	5/12/2019 23:08
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 8:46
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.008	ug/l	18.44	52.00	2.828E-05	Pulse	0.25	3
B			1	2.185	ug/l	6.34	16,085.04	8.747E-03	Pulse	0.15	3
Ca			1	-1.486	ug/l	-35.00	18,589.87	6.574E-03	Pulse	0.10	3
Sr			1	0.003	ug/l	170.96	1,273.45	4.058E-04	Pulse	0.10	3
Mo			1	-0.074	ug/l	-5.15	526.70	1.674E-04	Pulse	0.10	3
Ag			1	0.006	ug/l	50.96	123.34	3.951E-05	Pulse	0.10	3
Sn			1	0.045	ug/l	26.17	1,793.53	5.772E-04	Pulse	0.10	3
Sb			1	0.242	ug/l	3.11	2,950.43	8.000E-04	Pulse	0.10	3
Ba			1	0.001	ug/l	581.55	53.33	1.445E-05	Pulse	0.10	3
Tl			1	0.001	ug/l	457.01	776.72	3.897E-04	Pulse	0.10	3
Pb			1	-0.009	ug/l	-32.25	353.35	1.775E-04	Pulse	0.10	3
Pb			1	-0.003	ug/l	-340.23	300.01	1.502E-04	Pulse	0.10	3
Pb			1	-0.010	ug/l	-24.63	1,356.75	6.815E-04	Pulse	0.10	3
Na			2	-3.348	ug/l	-4.05	10,395.04	7.955E-02	Pulse	0.30	3
Mg			2	0.304	ug/l	10.60	226.67	1.735E-03	Pulse	0.30	3
Al			2	0.336	ug/l	13.40	108.89	8.337E-04	Pulse	0.30	3
K			2	0.621	ug/l	66.23	9,091.97	6.958E-02	Pulse	0.30	3
Ca			2	-1.543	ug/l	-67.28	173.34	1.325E-03	Pulse	0.30	3
Ti			2	0.016	ug/l	148.75	3.33	2.555E-05	Pulse	0.30	3
V			2	0.006	ug/l	287.29	556.69	4.264E-03	Pulse	0.30	3
Cr			2	-0.005	ug/l	-127.23	390.01	2.986E-03	Pulse	0.30	3
Mn			2	0.013	ug/l	86.12	131.12	1.003E-03	Pulse	0.30	3
Fe			2	0.628	ug/l	6.16	5,996.93	4.588E-02	Pulse	0.30	3
Co			2	-0.001	ug/l	-156.59	96.67	7.396E-04	Pulse	0.30	3
Ni			2	0.002	ug/l	212.83	44.44	3.401E-04	Pulse	0.30	3
Cu			2	-0.019	ug/l	-23.20	617.80	4.727E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	-0.029	ug/l	-105.07	174.45	1.334E-03	Pulse	0.30	3
As			2	0.016	ug/l	48.43	17.00	1.303E-04	Pulse	1.00	3
Cd			2	-0.001	ug/l	-558.81	14.74	2.388E-05	Pulse	0.30	3
Sn			2	-0.385	ug/l	-1.62	487.79	7.924E-04	Pulse	0.30	3
Se			3	0.117	ug/l	21.09	16.00	1.354E-04	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,839,612.90	1.57	97.5	Pulse	0.10	3
1	Sc		2,827,230.89	1.77	96.6	Pulse	0.10	3
1	Ge		682,187.25	2.38	95.5	Pulse	0.10	3
1	Rh		3,144,092.66	2.63	97.3	Pulse	0.10	3
1	In		3,108,386.46	2.65	95.3	Pulse	0.10	3
1	Tb		3,686,479.53	2.51	97.4	Pulse	0.10	3
1	Ho		350,239.14	3.07	97.0	Pulse	0.10	3
1	Bi		1,992,538.62	2.38	96.0	Pulse	0.10	3
2	Sc		130,673.93	1.12	96.7	Pulse	0.30	3
2	Ge		101,595.99	1.19	96.9	Pulse	0.30	3
2	Rh		1,541,642.20	0.88	98.0	Pulse	0.30	3
2	In		615,576.65	0.89	97.9	Pulse	0.30	3
2	Tb		1,757,693.09	0.83	97.7	Pulse	0.30	3
2	Ho		170,228.93	1.10	97.0	Pulse	0.30	3
2	Bi		1,046,869.54	0.56	97.5	Pulse	0.30	3
3	Sc		131,956.71	0.39	99.2	Pulse	0.30	3
3	Ge		118,478.26	2.49	99.6	Pulse	0.30	3
3	Rh		1,154,177.77	1.69	98.4	Pulse	0.30	3
3	Tb		1,646,284.10	0.92	96.9	Pulse	0.30	3

Quantitation Report

File Name	023LCCV.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051219m1.b
Method File	
Method Path	
Acq Time	5/12/2019 23:13
Sample Name	CRI
Sample Type	LLCCV
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 8:46
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.518	ug/l	2.32	3,004.37	1.602E-03	Pulse	0.25	3
B			1	27.489	ug/l	0.92	143,372.51	7.641E-02	Pulse	0.15	3
Ca			1	262.532	ug/l	0.52	240,950.22	8.389E-02	Pulse	0.10	3
Sr			1	5.100	ug/l	0.60	190,530.90	6.007E-02	Pulse	0.10	3
Mo			1	0.858	ug/l	3.13	7,472.39	2.355E-03	Pulse	0.10	3
Ag			1	0.520	ug/l	1.57	8,683.12	2.755E-03	Pulse	0.10	3
Sn			1	5.346	ug/l	2.87	57,824.06	1.836E-02	Pulse	0.10	3
Sb			1	2.300	ug/l	1.31	26,474.07	7.071E-03	Pulse	0.10	3
Ba			1	1.068	ug/l	3.71	4,847.76	1.293E-03	Pulse	0.10	3
Tl			1	0.515	ug/l	6.83	12,716.88	6.355E-03	Pulse	0.10	3
Pb			1	0.511	ug/l	5.00	4,494.32	2.247E-03	Pulse	0.10	3
Pb			1	0.553	ug/l	8.11	4,160.86	2.081E-03	Pulse	0.10	3
Pb			1	0.524	ug/l	2.52	18,039.05	9.005E-03	Pulse	0.10	3
Na			2	252.990	ug/l	1.58	281,730.20	2.107E+00	Pulse	0.30	3
Mg			2	263.178	ug/l	1.54	130,649.46	9.772E-01	Pulse	0.30	3
Al			2	26.342	ug/l	1.63	4,827.55	3.611E-02	Pulse	0.30	3
K			2	262.514	ug/l	1.82	105,405.79	7.883E-01	Pulse	0.30	3
Ca			2	285.414	ug/l	2.91	5,873.54	4.392E-02	Pulse	0.30	3
Ti			2	1.248	ug/l	26.88	184.45	1.379E-03	Pulse	0.30	3
V			2	1.087	ug/l	2.13	5,311.08	3.972E-02	Pulse	0.30	3
Cr			2	1.050	ug/l	0.69	6,072.52	4.541E-02	Pulse	0.30	3
Mn			2	1.050	ug/l	2.74	3,222.64	2.410E-02	Pulse	0.30	3
Fe			2	26.902	ug/l	0.20	127,826.60	9.560E-01	Pulse	0.30	3
Co			2	0.523	ug/l	3.86	4,564.14	3.414E-02	Pulse	0.30	3
Ni			2	1.027	ug/l	6.16	2,323.56	1.737E-02	Pulse	0.30	3
Cu			2	2.164	ug/l	2.23	13,364.40	9.995E-02	Pulse	0.30	3
Zn			2	5.060	ug/l	3.43	4,685.30	3.505E-02	Pulse	0.30	3
As			2	0.527	ug/l	2.49	279.00	2.087E-03	Pulse	1.00	3
Cd			2	0.553	ug/l	14.20	991.11	1.590E-03	Pulse	0.30	3
Sn			2	4.937	ug/l	1.64	14,445.77	2.317E-02	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Se			3	0.468	ug/l	16.94	50.67	4.244E-04	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,876,069.23	2.08	99.4	Pulse	0.10	3
1	Sc		2,872,344.54	3.00	98.1	Pulse	0.10	3
1	Ge		702,526.21	2.91	98.4	Pulse	0.10	3
1	Rh		3,171,535.47	2.88	98.1	Pulse	0.10	3
1	In		3,150,704.42	3.29	96.6	Pulse	0.10	3
1	Tb		3,744,386.30	4.27	98.9	Pulse	0.10	3
1	Ho		356,178.81	3.75	98.6	Pulse	0.10	3
1	Bi		2,002,690.33	4.16	96.5	Pulse	0.10	3
2	Sc		133,710.85	0.78	98.9	Pulse	0.30	3
2	Ge		103,830.50	0.58	99.0	Pulse	0.30	3
2	Rh		1,552,131.85	0.71	98.7	Pulse	0.30	3
2	In		623,350.26	0.82	99.2	Pulse	0.30	3
2	Tb		1,776,641.04	0.52	98.8	Pulse	0.30	3
2	Ho		172,427.50	0.87	98.3	Pulse	0.30	3
2	Bi		1,054,301.42	0.48	98.2	Pulse	0.30	3
3	Sc		133,819.05	0.85	100.6	Pulse	0.30	3
3	Ge		119,315.05	1.79	100.3	Pulse	0.30	3
3	Rh		1,166,332.25	1.02	99.4	Pulse	0.30	3
3	Tb		1,669,444.59	1.48	98.2	Pulse	0.30	3

Quantitation Report

File Name	024ICSA.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051219m1.b
Method File	
Method Path	
Acq Time	5/12/2019 23:18
Sample Name	ICSA
Sample Type	ICSA
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 8:46
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.002	ug/l	239.52	16.00	9.525E-06	Pulse	0.25	3
B			1	1.967	ug/l	2.02	13,562.33	8.163E-03	Pulse	0.15	3
Ca			1	106434.256	ug/l	2.40	84,886,613.74	3.118E+01	Analog	0.10	3
Sr			1	2398.464	ug/l	2.63	75,753,775.54	2.808E+01	Analog	0.10	3
Mo			1	2348.987	ug/l	2.80	14,874,163.53	5.513E+00	Analog	0.10	3
Ag			1	0.015	ug/l	25.07	253.35	9.009E-05	Pulse	0.10	3
Sn			1	2168.860	ug/l	5.39	20,475,163.03	7.275E+00	Analog	0.10	3
Sb			1	0.266	ug/l	6.41	3,067.16	8.725E-04	Pulse	0.10	3
Ba			1	0.257	ug/l	9.45	1,130.10	3.216E-04	Pulse	0.10	3
Tl			1	-0.007	ug/l	-79.52	513.37	2.957E-04	Pulse	0.10	3
Pb			1	0.066	ug/l	22.45	830.06	4.776E-04	Pulse	0.10	3
Pb			1	0.084	ug/l	20.78	780.06	4.518E-04	Pulse	0.10	3
Pb			1	0.062	ug/l	1.21	3,126.95	1.805E-03	Pulse	0.10	3
Na			2	99294.828	ug/l	2.06	102,837,124.80	7.855E+02	Analog	0.30	3
Mg			2	98100.344	ug/l	1.12	47,661,870.33	3.640E+02	Analog	0.30	3
Al			2	100451.054	ug/l	1.69	17,841,578.18	1.362E+02	Analog	0.30	3
K			2	104114.397	ug/l	1.82	37,417,910.73	2.858E+02	Analog	0.30	3
Ca			2	107903.389	ug/l	1.05	2,097,418.39	1.602E+01	Pulse	0.30	3
Ti			2	1944.540	ug/l	0.57	279,578.94	2.135E+00	Pulse	0.30	3
V			2	0.008	ug/l	277.88	566.69	4.325E-03	Pulse	0.30	3
Cr			2	0.259	ug/l	2.75	1,783.47	1.362E-02	Pulse	0.30	3
Mn			2	0.308	ug/l	4.80	992.27	7.577E-03	Pulse	0.30	3
Fe			2	97291.658	ug/l	0.56	441,283,466.91	3.370E+03	Analog	0.30	3
Co			2	0.344	ug/l	2.09	2,974.81	2.272E-02	Pulse	0.30	3
Ni			2	0.752	ug/l	6.02	1,676.79	1.281E-02	Pulse	0.30	3
Cu			2	0.191	ug/l	6.03	1,817.92	1.388E-02	Pulse	0.30	3
Zn			2	0.671	ug/l	8.28	781.14	5.968E-03	Pulse	0.30	3
As			2	0.089	ug/l	19.05	54.00	4.122E-04	Pulse	1.00	3
Cd			2	0.345	ug/l	94.12	576.22	1.003E-03	Pulse	0.30	3
Sn			2	1991.338	ug/l	0.17	4,822,059.95	8.377E+00	Pulse	0.30	3
Se			3	0.089	ug/l	69.37	12.67	1.123E-04	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,661,496.60	1.43	88.0	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,723,697.25	2.68	93.1	Pulse	0.10	3
1	Ge		638,101.25	3.24	89.4	Pulse	0.10	3
1	Rh		2,699,753.14	3.49	83.5	Pulse	0.10	3
1	In		2,819,575.86	4.90	86.4	Pulse	0.10	3
1	Tb		3,511,694.01	3.57	92.8	Pulse	0.10	3
1	Ho		337,402.74	4.22	93.4	Pulse	0.10	3
1	Bi		1,732,224.40	3.99	83.5	Pulse	0.10	3
2	Sc		130,940.40	1.11	96.9	Pulse	0.30	3
2	Ge		100,385.06	0.44	95.8	Pulse	0.30	3
2	Rh		1,388,932.93	0.59	88.3	Pulse	0.30	3
2	In		575,611.85	0.82	91.6	Pulse	0.30	3
2	Tb		1,734,292.05	0.36	96.4	Pulse	0.30	3
2	Ho		168,011.83	0.87	95.8	Pulse	0.30	3
2	Bi		935,014.93	0.94	87.1	Pulse	0.30	3
3	Sc		134,041.09	0.55	100.8	Pulse	0.30	3
3	Ge		112,547.38	0.89	94.6	Pulse	0.30	3
3	Rh		1,021,157.81	0.27	87.1	Pulse	0.30	3
3	Tb		1,619,892.57	0.41	95.3	Pulse	0.30	3

Quantitation Report

File Name 025ICSB.d
File Path C:\Agilent\ICPMH\1\DATA\.b051219m1.b
Method File
Method Path
Acq Time 5/12/2019 23:22
Sample Name ICSAB
Sample Type ICSB
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name Metals
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 5/13/2019 8:46
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.005	ug/l	30.19	32.00	1.877E-05	Pulse	0.25	3
B			1	51.627	ug/l	0.77	239,656.68	1.410E-01	Pulse	0.15	3
Ca			1	103652.547	ug/l	1.71	85,022,858.73	3.036E+01	Analog	0.10	3
Sr			1	2144.799	ug/l	3.83	70,714,960.61	2.511E+01	Analog	0.10	3
Mo			1	2261.355	ug/l	2.96	14,952,255.19	5.307E+00	Analog	0.10	3
Ag			1	19.746	ug/l	0.65	306,013.80	1.042E-01	Pulse	0.10	3
Sn			1	2118.072	ug/l	3.80	20,840,653.44	7.104E+00	Analog	0.10	3
Sb			1	0.266	ug/l	4.13	3,233.89	8.752E-04	Pulse	0.10	3
Ba			1	0.274	ug/l	16.79	1,260.11	3.418E-04	Pulse	0.10	3
Tl			1	-0.008	ug/l	-74.08	503.36	2.807E-04	Pulse	0.10	3
Pb			1	0.070	ug/l	18.31	890.07	4.925E-04	Pulse	0.10	3
Pb			1	0.073	ug/l	6.36	746.72	4.132E-04	Pulse	0.10	3
Pb			1	0.072	ug/l	10.00	3,543.68	1.960E-03	Pulse	0.10	3
Na			2	97282.814	ug/l	1.08	102,976,111.46	7.696E+02	Analog	0.30	3
Mg			2	95091.763	ug/l	0.20	47,216,331.46	3.529E+02	Analog	0.30	3
Al			2	96668.117	ug/l	0.62	17,544,427.08	1.311E+02	Analog	0.30	3
K			2	101416.906	ug/l	0.77	37,251,958.52	2.784E+02	Analog	0.30	3
Ca			2	104003.157	ug/l	0.88	2,066,045.61	1.544E+01	Pulse	0.30	3
Ti			2	1880.494	ug/l	0.39	276,302.17	2.065E+00	Pulse	0.30	3
V			2	21.338	ug/l	0.54	94,249.63	7.043E-01	Pulse	0.30	3
Cr			2	20.387	ug/l	1.11	110,046.69	8.224E-01	Pulse	0.30	3
Mn			2	20.102	ug/l	1.34	60,007.26	4.485E-01	Pulse	0.30	3
Fe			2	94207.055	ug/l	1.09	436,634,000.43	3.263E+03	Analog	0.30	3
Co			2	19.660	ug/l	0.95	167,850.72	1.254E+00	Pulse	0.30	3
Ni			2	19.355	ug/l	2.41	43,087.06	3.220E-01	Pulse	0.30	3
Cu			2	18.452	ug/l	1.20	108,435.16	8.104E-01	Pulse	0.30	3
Zn			2	16.915	ug/l	3.27	15,195.20	1.136E-01	Pulse	0.30	3
As			2	19.118	ug/l	1.38	9,788.83	7.316E-02	Pulse	1.00	3
Cd			2	19.365	ug/l	3.63	31,816.72	5.479E-02	Pulse	0.30	3
Sn			2	1972.306	ug/l	0.54	4,818,352.03	8.297E+00	Pulse	0.30	3
Se			3	21.050	ug/l	1.43	2,040.84	1.735E-02	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,699,960.62	1.96	90.1	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		2,801,113.71	2.76	95.7	Pulse	0.10	3
1	Ge		658,167.08	2.71	92.2	Pulse	0.10	3
1	Rh		2,819,238.81	3.79	87.2	Pulse	0.10	3
1	In		2,936,598.59	4.07	90.0	Pulse	0.10	3
1	Tb		3,698,289.64	4.41	97.7	Pulse	0.10	3
1	Ho		352,247.31	4.28	97.5	Pulse	0.10	3
1	Bi		1,805,240.60	4.04	87.0	Pulse	0.10	3
2	Sc		133,812.07	0.81	99.0	Pulse	0.30	3
2	Ge		102,124.33	1.16	97.4	Pulse	0.30	3
2	Rh		1,419,404.42	0.65	90.3	Pulse	0.30	3
2	In		580,727.07	0.44	92.4	Pulse	0.30	3
2	Tb		1,758,084.13	0.64	97.8	Pulse	0.30	3
2	Ho		169,649.18	0.60	96.7	Pulse	0.30	3
2	Bi		944,637.74	0.48	88.0	Pulse	0.30	3
3	Sc		141,180.99	0.84	106.2	Pulse	0.30	3
3	Ge		117,606.19	0.35	98.9	Pulse	0.30	3
3	Rh		1,059,467.25	0.81	90.3	Pulse	0.30	3
3	Tb		1,658,112.61	0.86	97.6	Pulse	0.30	3

Quantitation Report

File Name	026SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051219m1.b
Method File	
Method Path	
Acq Time	5/12/2019 23:27
Sample Name	rinseconf
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 8:46
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	-0.001	ug/l	-114.62	4.00	2.285E-06	Pulse	0.25	3
B			1	1.268	ug/l	6.13	10,920.02	6.294E-03	Pulse	0.15	3
Ca			1	9.393	ug/l	11.22	28,072.60	9.760E-03	Pulse	0.10	3
Sr			1	0.234	ug/l	13.22	10,117.54	3.115E-03	Pulse	0.10	3
Mo			1	0.678	ug/l	2.36	6,288.40	1.932E-03	Pulse	0.10	3
Ag			1	0.002	ug/l	158.84	60.00	1.801E-05	Pulse	0.10	3
Sn			1	0.334	ug/l	11.12	5,107.88	1.545E-03	Pulse	0.10	3
Sb			1	0.061	ug/l	17.20	986.74	2.503E-04	Pulse	0.10	3
Ba			1	-0.008	ug/l	-16.28	13.33	3.414E-06	Pulse	0.10	3
Tl			1	-0.012	ug/l	-25.40	496.70	2.306E-04	Pulse	0.10	3
Pb			1	-0.025	ug/l	-38.17	250.01	1.161E-04	Pulse	0.10	3
Pb			1	-0.008	ug/l	-82.75	286.69	1.330E-04	Pulse	0.10	3
Pb			1	-0.017	ug/l	-9.58	1,240.08	5.776E-04	Pulse	0.10	3
Na			2	8.613	ug/l	15.33	22,153.10	1.742E-01	Pulse	0.30	3
Mg			2	8.407	ug/l	8.93	4,045.07	3.180E-02	Pulse	0.30	3
Al			2	7.752	ug/l	10.31	1,385.64	1.089E-02	Pulse	0.30	3
K			2	9.332	ug/l	8.44	11,890.73	9.348E-02	Pulse	0.30	3
Ca			2	7.655	ug/l	14.71	342.23	2.691E-03	Pulse	0.30	3
Ti			2	0.247	ug/l	23.97	35.56	2.794E-04	Pulse	0.30	3
V			2	-0.018	ug/l	-51.19	438.90	3.450E-03	Pulse	0.30	3
Cr			2	0.002	ug/l	672.03	418.90	3.292E-03	Pulse	0.30	3
Mn			2	0.012	ug/l	125.66	123.34	9.703E-04	Pulse	0.30	3
Fe			2	9.934	ug/l	8.62	46,840.62	3.682E-01	Pulse	0.30	3
Co			2	-0.004	ug/l	-28.81	71.11	5.592E-04	Pulse	0.30	3
Ni			2	-0.001	ug/l	-309.13	37.78	2.970E-04	Pulse	0.30	3
Cu			2	0.003	ug/l	214.23	721.14	5.670E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	-0.061	ug/l	-19.67	142.22	1.118E-03	Pulse	0.30	3
As			2	0.010	ug/l	52.79	13.67	1.074E-04	Pulse	1.00	3
Cd			2	0.005	ug/l	123.53	25.34	4.152E-05	Pulse	0.30	3
Sn			2	-0.203	ug/l	-10.67	947.83	1.557E-03	Pulse	0.30	3
Se			3	-0.003	ug/l	-777.82	4.67	3.695E-05	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,734,891.41	1.49	91.9	Pulse	0.10	3
1	Sc		2,877,752.67	2.72	98.3	Pulse	0.10	3
1	Ge		705,531.63	4.06	98.8	Pulse	0.10	3
1	Rh		3,254,348.07	2.53	100.7	Pulse	0.10	3
1	In		3,313,354.26	4.60	101.6	Pulse	0.10	3
1	Tb		3,947,676.29	3.47	104.3	Pulse	0.10	3
1	Ho		377,005.21	4.89	104.4	Pulse	0.10	3
1	Bi		2,149,129.71	4.12	103.6	Pulse	0.10	3
2	Sc		127,200.73	0.38	94.1	Pulse	0.30	3
2	Ge		101,994.41	0.37	97.3	Pulse	0.30	3
2	Rh		1,575,455.87	0.35	100.2	Pulse	0.30	3
2	In		609,014.03	0.77	96.9	Pulse	0.30	3
2	Tb		1,798,734.86	0.59	100.0	Pulse	0.30	3
2	Ho		174,895.34	0.48	99.7	Pulse	0.30	3
2	Bi		1,079,790.30	0.47	100.5	Pulse	0.30	3
3	Sc		140,238.41	1.14	105.5	Pulse	0.30	3
3	Ge		125,684.89	1.64	105.6	Pulse	0.30	3
3	Rh		1,237,484.08	1.41	105.5	Pulse	0.30	3
3	Tb		1,756,406.56	1.52	103.4	Pulse	0.30	3

Quantitation Report

File Name	027SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051219m1.b
Method File	
Method Path	
Acq Time	5/12/2019 23:32
Sample Name	rinseconf
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 8:46
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.002	ug/l	129.45	20.00	1.108E-05	Pulse	0.25	3
B			1	0.932	ug/l	9.62	9,674.69	5.395E-03	Pulse	0.15	3
Ca			1	-0.622	ug/l	-190.18	19,844.80	6.827E-03	Pulse	0.10	3
Sr			1	0.052	ug/l	10.15	3,233.88	9.852E-04	Pulse	0.10	3
Mo			1	0.049	ug/l	9.72	1,500.14	4.568E-04	Pulse	0.10	3
Ag			1	0.000	ug/l	-101.84	26.67	8.064E-06	Pulse	0.10	3
Sn			1	0.100	ug/l	12.04	2,523.67	7.612E-04	Pulse	0.10	3
Sb			1	0.039	ug/l	14.31	720.05	1.815E-04	Pulse	0.10	3
Ba			1	-0.010	ug/l	-11.36	3.33	8.188E-07	Pulse	0.10	3
Tl			1	-0.009	ug/l	-47.87	586.71	2.739E-04	Pulse	0.10	3
Pb			1	-0.016	ug/l	-77.22	323.35	1.521E-04	Pulse	0.10	3
Pb			1	-0.014	ug/l	-30.22	240.01	1.119E-04	Pulse	0.10	3
Pb			1	-0.014	ug/l	-16.47	1,320.09	6.173E-04	Pulse	0.10	3
Na			2	-0.028	ug/l	-1279.35	13,729.05	1.058E-01	Pulse	0.30	3
Mg			2	3.073	ug/l	13.54	1,557.88	1.201E-02	Pulse	0.30	3
Al			2	2.600	ug/l	1.22	506.68	3.905E-03	Pulse	0.30	3
K			2	1.906	ug/l	35.81	9,485.55	7.310E-02	Pulse	0.30	3
Ca			2	0.952	ug/l	99.77	220.01	1.696E-03	Pulse	0.30	3
Ti			2	0.086	ug/l	54.33	13.33	1.028E-04	Pulse	0.30	3
V			2	0.002	ug/l	605.19	534.46	4.120E-03	Pulse	0.30	3
Cr			2	-0.009	ug/l	-25.98	371.12	2.860E-03	Pulse	0.30	3
Mn			2	0.006	ug/l	61.19	108.89	8.393E-04	Pulse	0.30	3
Fe			2	3.554	ug/l	4.04	19,103.34	1.472E-01	Pulse	0.30	3
Co			2	-0.002	ug/l	-128.11	88.89	6.850E-04	Pulse	0.30	3
Ni			2	-0.004	ug/l	-156.62	32.22	2.482E-04	Pulse	0.30	3
Cu			2	-0.018	ug/l	-30.23	615.58	4.745E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	-0.092	ug/l	-31.05	118.89	9.163E-04	Pulse	0.30	3
As			2	-0.002	ug/l	-86.45	8.00	6.166E-05	Pulse	1.00	3
Cd			2	0.007	ug/l	79.50	29.07	4.720E-05	Pulse	0.30	3
Sn			2	-0.360	ug/l	-9.48	554.46	8.977E-04	Pulse	0.30	3
Se			3	0.016	ug/l	69.82	6.67	5.255E-05	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,793,685.04	1.31	95.0	Pulse	0.10	3
1	Sc		2,909,922.25	3.09	99.4	Pulse	0.10	3
1	Ge		713,605.64	2.61	99.9	Pulse	0.10	3
1	Rh		3,285,615.89	2.94	101.6	Pulse	0.10	3
1	In		3,313,412.14	1.99	101.6	Pulse	0.10	3
1	Tb		3,975,934.63	3.88	105.0	Pulse	0.10	3
1	Ho		380,513.65	3.11	105.4	Pulse	0.10	3
1	Bi		2,141,361.38	3.91	103.2	Pulse	0.10	3
2	Sc		129,751.85	0.29	96.0	Pulse	0.30	3
2	Ge		103,817.43	0.67	99.0	Pulse	0.30	3
2	Rh		1,587,439.66	0.94	101.0	Pulse	0.30	3
2	In		617,598.31	1.32	98.2	Pulse	0.30	3
2	Tb		1,810,779.79	0.85	100.7	Pulse	0.30	3
2	Ho		174,704.68	0.12	99.6	Pulse	0.30	3
2	Bi		1,075,302.66	0.21	100.1	Pulse	0.30	3
3	Sc		144,103.76	0.95	108.4	Pulse	0.30	3
3	Ge		126,921.82	1.53	106.7	Pulse	0.30	3
3	Rh		1,248,239.46	1.70	106.4	Pulse	0.30	3
3	Tb		1,750,332.05	1.25	103.0	Pulse	0.30	3

Quantitation Report

File Name	028_CCV.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051219m1.b
Method File	
Method Path	
Acq Time	5/12/2019 23:37
Sample Name	CCVA
Sample Type	CCV
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 8:46
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	49.795	ug/l	0.15	281,662.53	1.537E-01	Pulse	0.25	3
B			1	103.273	ug/l	1.05	511,326.32	2.791E-01	Pulse	0.15	3
Ca			1	5057.863	ug/l	0.63	4,475,132.95	1.488E+00	Pulse	0.10	3
Sr			1	49.029	ug/l	0.49	1,905,873.62	5.743E-01	Pulse	0.10	3
Mo			1	53.760	ug/l	1.27	419,750.94	1.265E-01	Pulse	0.10	3
Ag			1	51.082	ug/l	0.31	908,911.34	2.696E-01	Pulse	0.10	3
Sn			1	51.684	ug/l	0.43	585,881.54	1.738E-01	Pulse	0.10	3
Sb			1	53.760	ug/l	0.58	669,942.53	1.639E-01	Pulse	0.10	3
Ba			1	49.040	ug/l	0.94	240,354.01	5.879E-02	Pulse	0.10	3
Tl			1	49.730	ug/l	1.55	1,230,544.09	5.779E-01	Pulse	0.10	3
Pb			1	50.209	ug/l	0.47	425,719.19	1.999E-01	Pulse	0.10	3
Pb			1	50.215	ug/l	1.06	371,567.34	1.745E-01	Pulse	0.10	3
Pb			1	50.760	ug/l	0.25	1,687,240.91	7.922E-01	Pulse	0.10	3
Na			2	4935.851	ug/l	0.14	5,339,755.76	3.915E+01	Pulse	0.30	3
Mg			2	4964.833	ug/l	0.28	2,513,036.50	1.842E+01	Pulse	0.30	3
Al			2	4860.186	ug/l	0.52	899,232.19	6.593E+00	Pulse	0.30	3
K			2	5019.677	ug/l	0.70	1,888,219.86	1.384E+01	Pulse	0.30	3
Ca			2	5223.084	ug/l	1.35	105,967.87	7.769E-01	Pulse	0.30	3
Ti			2	51.691	ug/l	0.91	7,743.38	5.677E-02	Pulse	0.30	3
V			2	50.009	ug/l	1.09	224,410.89	1.645E+00	Pulse	0.30	3
Cr			2	49.994	ug/l	0.31	274,448.95	2.012E+00	Pulse	0.30	3
Mn			2	48.937	ug/l	0.55	148,780.67	1.091E+00	Pulse	0.30	3
Fe			2	5216.753	ug/l	2.45	24,650,089.02	1.807E+02	Analog	0.30	3
Co			2	49.588	ug/l	0.53	431,418.01	3.163E+00	Pulse	0.30	3
Ni			2	49.533	ug/l	0.65	112,347.69	8.237E-01	Pulse	0.30	3
Cu			2	49.306	ug/l	0.22	294,110.13	2.156E+00	Pulse	0.30	3
Zn			2	48.317	ug/l	0.28	43,865.47	3.216E-01	Pulse	0.30	3
As			2	52.239	ug/l	1.32	27,249.65	1.998E-01	Pulse	1.00	3
Cd			2	49.149	ug/l	1.48	87,721.22	1.390E-01	Pulse	0.30	3
Sn			2	52.238	ug/l	0.40	140,144.09	2.221E-01	Pulse	0.30	3
Se			3	189.940	ug/l	4.37	20,180.31	1.563E-01	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,832,335.00	2.28	97.1	Pulse	0.10	3
1	Sc		3,007,036.41	3.50	102.7	Pulse	0.10	3
1	Ge		739,793.24	2.92	103.6	Pulse	0.10	3

Quantitation Report

1	Rh		3,318,946.20	3.61	102.7	Pulse	0.10	3
1	In		3,371,304.58	4.18	103.4	Pulse	0.10	3
1	Tb		4,088,524.00	4.92	108.0	Pulse	0.10	3
1	Ho		389,907.70	2.58	108.0	Pulse	0.10	3
1	Bi		2,130,050.39	5.04	102.6	Pulse	0.10	3
2	Sc		136,403.43	0.42	100.9	Pulse	0.30	3
2	Ge		108,426.61	0.74	103.4	Pulse	0.30	3
2	Rh		1,617,170.60	0.32	102.8	Pulse	0.30	3
2	In		630,979.93	0.23	100.4	Pulse	0.30	3
2	Tb		1,884,673.54	0.55	104.8	Pulse	0.30	3
2	Ho		181,832.95	1.08	103.7	Pulse	0.30	3
2	Bi		1,085,429.68	0.39	101.1	Pulse	0.30	3
3	Sc		147,080.84	1.12	110.6	Pulse	0.30	3
3	Ge		129,155.78	1.15	108.6	Pulse	0.30	3
3	Rh		1,221,869.08	0.84	104.2	Pulse	0.30	3
3	Tb		1,775,329.86	1.62	104.5	Pulse	0.30	3

Quantitation Report

File Name	029_CCB.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051219m1.b
Method File	
Method Path	
Acq Time	5/12/2019 23:41
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 8:46
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.008	ug/l	24.52	57.33	3.045E-05	Pulse	0.25	3
B			1	1.878	ug/l	6.46	14,892.59	7.926E-03	Pulse	0.15	3
Ca			1	-1.528	ug/l	-35.48	19,714.78	6.561E-03	Pulse	0.10	3
Sr			1	0.014	ug/l	40.05	1,806.86	5.403E-04	Pulse	0.10	3
Mo			1	-0.036	ug/l	-38.19	863.40	2.575E-04	Pulse	0.10	3
Ag			1	0.007	ug/l	28.96	163.34	4.830E-05	Pulse	0.10	3
Sn			1	0.056	ug/l	20.74	2,083.58	6.132E-04	Pulse	0.10	3
Sb			1	0.212	ug/l	10.12	2,867.09	7.103E-04	Pulse	0.10	3
Ba			1	0.000	ug/l	7197.52	53.33	1.343E-05	Pulse	0.10	3
Tl			1	0.000	ug/l	-3506.10	793.39	3.720E-04	Pulse	0.10	3
Pb			1	-0.010	ug/l	-70.67	370.02	1.734E-04	Pulse	0.10	3
Pb			1	-0.010	ug/l	-63.39	266.68	1.245E-04	Pulse	0.10	3
Pb			1	-0.012	ug/l	-39.69	1,403.43	6.560E-04	Pulse	0.10	3
Na			2	-3.099	ug/l	-12.07	11,067.79	8.152E-02	Pulse	0.30	3
Mg			2	0.913	ug/l	14.26	542.24	3.992E-03	Pulse	0.30	3
Al			2	0.958	ug/l	14.23	227.78	1.677E-03	Pulse	0.30	3
K			2	-0.156	ug/l	-416.73	9,156.42	6.745E-02	Pulse	0.30	3
Ca			2	-1.982	ug/l	-23.85	171.11	1.260E-03	Pulse	0.30	3
Ti			2	0.052	ug/l	89.98	8.89	6.563E-05	Pulse	0.30	3
V			2	-0.003	ug/l	-660.89	538.91	3.972E-03	Pulse	0.30	3
Cr			2	0.003	ug/l	474.66	452.23	3.328E-03	Pulse	0.30	3
Mn			2	0.010	ug/l	73.56	125.56	9.251E-04	Pulse	0.30	3
Fe			2	1.270	ug/l	3.33	9,253.21	6.815E-02	Pulse	0.30	3
Co			2	0.000	ug/l	447.02	110.00	8.105E-04	Pulse	0.30	3
Ni			2	-0.001	ug/l	-453.21	38.89	2.869E-04	Pulse	0.30	3
Cu			2	-0.013	ug/l	-93.05	673.36	4.958E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	-0.006	ug/l	-511.52	202.23	1.489E-03	Pulse	0.30	3
As			2	0.007	ug/l	102.52	13.33	9.833E-05	Pulse	1.00	3
Cd			2	0.006	ug/l	112.19	27.86	4.375E-05	Pulse	0.30	3
Sn			2	-0.399	ug/l	-5.21	465.57	7.332E-04	Pulse	0.30	3
Se			3	0.065	ug/l	60.30	12.00	9.256E-05	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,879,790.75	1.56	99.6	Pulse	0.10	3
1	Sc		3,005,662.87	2.43	102.7	Pulse	0.10	3
1	Ge		737,785.59	1.87	103.3	Pulse	0.10	3
1	Rh		3,344,202.45	3.20	103.4	Pulse	0.10	3
1	In		3,398,502.45	3.24	104.2	Pulse	0.10	3
1	Tb		4,038,477.65	3.89	106.7	Pulse	0.10	3
1	Ho		388,181.05	3.14	107.5	Pulse	0.10	3
1	Bi		2,145,405.96	5.44	103.4	Pulse	0.10	3
2	Sc		135,769.71	0.75	100.5	Pulse	0.30	3
2	Ge		106,696.93	1.12	101.8	Pulse	0.30	3
2	Rh		1,625,434.83	0.46	103.4	Pulse	0.30	3
2	In		635,441.27	0.89	101.1	Pulse	0.30	3
2	Tb		1,831,722.70	1.15	101.8	Pulse	0.30	3
2	Ho		176,186.58	1.34	100.4	Pulse	0.30	3
2	Bi		1,079,557.81	0.59	100.5	Pulse	0.30	3
3	Sc		147,644.56	1.33	111.0	Pulse	0.30	3
3	Ge		130,079.89	1.46	109.3	Pulse	0.30	3
3	Rh		1,264,210.75	1.44	107.8	Pulse	0.30	3
3	Tb		1,762,251.11	1.47	103.7	Pulse	0.30	3

Quantitation Report

File Name	030SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051219m1.b
Method File	
Method Path	
Acq Time	5/12/2019 23:46
Sample Name	mp14909-mb1conf
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 8:46
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.012	ug/l	51.41	46.67	2.306E-05	Pulse	0.25	3
B			1	3.711	ug/l	6.37	15,900.42	7.865E-03	Pulse	0.15	3
Ca			1	34.233	ug/l	5.54	38,701.69	1.202E-02	Pulse	0.10	3
Sr			1	0.060	ug/l	24.18	2,483.65	7.202E-04	Pulse	0.10	3
Mo			1	-0.030	ug/l	-23.78	1,060.08	3.066E-04	Pulse	0.10	3
Ag			1	0.016	ug/l	24.14	180.01	5.149E-05	Pulse	0.10	3
Sn			1	0.789	ug/l	9.32	6,078.28	1.748E-03	Pulse	0.10	3
Sb			1	0.524	ug/l	6.69	3,654.02	8.615E-04	Pulse	0.10	3
Ba			1	0.231	ug/l	13.48	643.37	1.520E-04	Pulse	0.10	3
Tl			1	-0.012	ug/l	-37.12	666.71	3.024E-04	Pulse	0.10	3
Pb			1	0.049	ug/l	32.04	686.71	3.115E-04	Pulse	0.10	3
Pb			1	0.102	ug/l	9.31	743.38	3.362E-04	Pulse	0.10	3
Pb			1	0.066	ug/l	4.42	2,986.92	1.353E-03	Pulse	0.10	3
Na			2	5.841	ug/l	8.29	18,199.65	1.291E-01	Pulse	0.30	3
Mg			2	3.731	ug/l	8.92	1,061.17	7.527E-03	Pulse	0.30	3
Al			2	5.880	ug/l	11.48	615.58	4.366E-03	Pulse	0.30	3
K			2	4.310	ug/l	29.60	10,398.42	7.379E-02	Pulse	0.30	3
Ca			2	35.591	ug/l	11.86	591.13	4.196E-03	Pulse	0.30	3
Ti			2	0.330	ug/l	12.79	26.67	1.892E-04	Pulse	0.30	3
V			2	0.635	ug/l	6.64	2,039.07	1.447E-02	Pulse	0.30	3
Cr			2	0.256	ug/l	10.87	1,175.62	8.342E-03	Pulse	0.30	3
Mn			2	0.312	ug/l	2.30	590.02	4.187E-03	Pulse	0.30	3
Fe			2	5.531	ug/l	8.66	16,911.87	1.199E-01	Pulse	0.30	3
Co			2	0.008	ug/l	86.37	146.67	1.042E-03	Pulse	0.30	3
Ni			2	0.127	ug/l	2.25	192.23	1.364E-03	Pulse	0.30	3
Cu			2	2.595	ug/l	3.24	8,756.21	6.214E-02	Pulse	0.30	3
Zn			2	11.019	ug/l	3.52	5,359.99	3.802E-02	Pulse	0.30	3
As			2	0.087	ug/l	47.81	33.33	2.368E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	0.005	ug/l	365.63	21.03	3.333E-05	Pulse	0.30	3
Sn			2	-0.089	ug/l	-110.61	1,403.42	2.223E-03	Pulse	0.30	3
Se			3	0.222	ug/l	49.57	20.00	1.307E-04	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,021,126.33	2.43	107.1	Pulse	0.10	3
1	Sc		3,218,883.18	1.36	110.0	Pulse	0.10	3
1	Ge		787,598.58	3.45	110.3	Pulse	0.10	3
1	Rh		3,458,304.11	3.94	107.0	Pulse	0.10	3
1	In		3,483,385.52	4.26	106.8	Pulse	0.10	3
1	Tb		4,247,898.48	4.58	112.2	Pulse	0.10	3
1	Ho		409,023.81	4.23	113.3	Pulse	0.10	3
1	Bi		2,209,058.66	3.69	106.5	Pulse	0.10	3
2	Sc		140,942.75	1.00	104.3	Pulse	0.30	3
2	Ge		113,595.47	0.79	108.4	Pulse	0.30	3
2	Rh		1,670,635.80	0.37	106.2	Pulse	0.30	3
2	In		631,364.88	0.18	100.4	Pulse	0.30	3
2	Tb		1,875,787.91	1.21	104.3	Pulse	0.30	3
2	Ho		180,449.49	0.35	102.9	Pulse	0.30	3
2	Bi		1,085,300.93	0.61	101.0	Pulse	0.30	3
3	Sc		160,623.95	1.18	120.8	Pulse	0.30	3
3	Ge		153,001.32	0.37	128.6	Pulse	0.30	3
3	Rh		1,334,319.71	2.22	113.8	Pulse	0.30	3
3	Tb		1,850,858.54	2.23	108.9	Pulse	0.30	3

Quantitation Report

File Name	031SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051219m1.b
Method File	
Method Path	
Acq Time	5/12/2019 23:51
Sample Name	mp14909-b2conf
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 8:46
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	81.560	ug/l	1.73	258,575.02	1.259E-01	Pulse	0.25	3
B			1	91.311	ug/l	2.00	256,707.32	1.250E-01	Pulse	0.15	3
Ca			1	4144.671	ug/l	0.87	2,032,172.99	6.139E-01	Pulse	0.10	3
Sr			1	82.342	ug/l	0.91	1,691,643.00	4.823E-01	Pulse	0.10	3
Mo			1	80.956	ug/l	0.20	334,346.33	9.534E-02	Pulse	0.10	3
Ag			1	78.406	ug/l	1.98	742,219.29	2.069E-01	Pulse	0.10	3
Sn			1	77.613	ug/l	1.22	468,661.10	1.306E-01	Pulse	0.10	3
Sb			1	81.529	ug/l	1.22	534,221.96	1.243E-01	Pulse	0.10	3
Ba			1	81.702	ug/l	0.76	210,569.32	4.897E-02	Pulse	0.10	3
Tl			1	82.750	ug/l	0.41	1,079,252.90	4.809E-01	Pulse	0.10	3
Pb			1	82.768	ug/l	1.41	369,742.42	1.648E-01	Pulse	0.10	3
Pb			1	82.681	ug/l	2.33	322,237.46	1.437E-01	Pulse	0.10	3
Pb			1	84.190	ug/l	1.25	1,474,319.71	6.571E-01	Pulse	0.10	3
Na			2	4169.429	ug/l	0.19	2,436,671.15	1.660E+01	Pulse	0.30	3
Mg			2	4108.650	ug/l	0.62	1,119,343.22	7.624E+00	Pulse	0.30	3
Al			2	3868.020	ug/l	0.79	385,213.17	2.624E+00	Pulse	0.30	3
K			2	4046.801	ug/l	0.44	825,260.28	5.621E+00	Pulse	0.30	3
Ca			2	4397.384	ug/l	0.33	48,150.87	3.279E-01	Pulse	0.30	3
Ti			2	79.355	ug/l	2.19	6,398.23	4.358E-02	Pulse	0.30	3
V			2	84.325	ug/l	1.23	203,758.27	1.388E+00	Pulse	0.30	3
Cr			2	84.415	ug/l	0.79	249,486.07	1.699E+00	Pulse	0.30	3
Mn			2	80.774	ug/l	0.66	132,188.12	9.003E-01	Pulse	0.30	3
Fe			2	4262.175	ug/l	1.05	10,841,935.40	7.384E+01	Analog	0.30	3
Co			2	83.345	ug/l	0.65	390,279.39	2.658E+00	Pulse	0.30	3
Ni			2	82.534	ug/l	0.94	100,760.23	6.863E-01	Pulse	0.30	3
Cu			2	86.558	ug/l	0.54	277,987.06	1.893E+00	Pulse	0.30	3
Zn			2	83.311	ug/l	0.68	40,739.09	2.775E-01	Pulse	0.30	3
As			2	70.962	ug/l	1.57	19,926.12	1.357E-01	Pulse	1.00	3
Cd			2	80.291	ug/l	1.42	73,251.35	1.136E-01	Pulse	0.30	3
Sn			2	79.078	ug/l	1.53	108,814.00	1.687E-01	Pulse	0.30	3
Se			3	322.905	ug/l	1.88	20,379.97	1.328E-01	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,053,881.26	1.75	108.8	Pulse	0.10	3
1	Sc		3,310,283.08	3.12	113.1	Pulse	0.10	3
1	Ge		811,250.95	3.92	113.6	Pulse	0.10	3

Quantitation Report

1	Rh		3,506,998.60	3.25	108.5	Pulse	0.10	3
1	In		3,589,298.15	4.58	110.0	Pulse	0.10	3
1	Tb		4,299,973.89	3.68	113.6	Pulse	0.10	3
1	Ho		413,960.07	5.29	114.6	Pulse	0.10	3
1	Bi		2,244,309.34	4.97	108.2	Pulse	0.10	3
2	Sc		146,828.43	0.19	108.6	Pulse	0.30	3
2	Ge		116,195.97	0.45	110.8	Pulse	0.30	3
2	Rh		1,706,277.26	0.34	108.5	Pulse	0.30	3
2	In		645,110.26	1.44	102.6	Pulse	0.30	3
2	Tb		1,919,074.16	0.32	106.7	Pulse	0.30	3
2	Ho		186,611.25	0.57	106.4	Pulse	0.30	3
2	Bi		1,101,042.53	0.59	102.5	Pulse	0.30	3
3	Sc		164,178.51	0.69	123.5	Pulse	0.30	3
3	Ge		153,421.42	0.31	129.0	Pulse	0.30	3
3	Rh		1,326,474.50	0.94	113.1	Pulse	0.30	3
3	Tb		1,873,960.97	1.25	110.3	Pulse	0.30	3

Quantitation Report

File Name	032SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051219m1.b
Method File	
Method Path	
Acq Time	5/12/2019 23:56
Sample Name	mp14909-mb3 4
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 8:46
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.013	ug/l	25.48	52.00	2.433E-05	Pulse	0.25	3
B			1	3.813	ug/l	5.47	17,106.31	8.001E-03	Pulse	0.15	3
Ca			1	16.145	ug/l	5.16	31,616.75	9.373E-03	Pulse	0.10	3
Sr			1	0.012	ug/l	18.47	1,570.16	4.414E-04	Pulse	0.10	3
Mo			1	-0.088	ug/l	-37.13	853.40	2.386E-04	Pulse	0.10	3
Ag			1	0.019	ug/l	3.19	216.68	5.994E-05	Pulse	0.10	3
Sn			1	0.423	ug/l	10.28	4,094.13	1.135E-03	Pulse	0.10	3
Sb			1	0.301	ug/l	6.85	2,276.96	5.219E-04	Pulse	0.10	3
Ba			1	0.057	ug/l	24.74	206.68	4.759E-05	Pulse	0.10	3
Tl			1	0.036	ug/l	12.33	1,306.79	5.854E-04	Pulse	0.10	3
Pb			1	0.107	ug/l	22.16	960.07	4.282E-04	Pulse	0.10	3
Pb			1	0.094	ug/l	24.57	720.05	3.234E-04	Pulse	0.10	3
Pb			1	0.105	ug/l	2.36	3,703.71	1.657E-03	Pulse	0.10	3
Na			2	4.870	ug/l	13.49	18,444.40	1.253E-01	Pulse	0.30	3
Mg			2	2.766	ug/l	2.58	844.48	5.737E-03	Pulse	0.30	3
Al			2	2.280	ug/l	12.13	283.34	1.924E-03	Pulse	0.30	3
K			2	5.735	ug/l	24.98	11,151.23	7.574E-02	Pulse	0.30	3
Ca			2	18.003	ug/l	6.70	425.57	2.891E-03	Pulse	0.30	3
Ti			2	0.177	ug/l	13.37	15.56	1.057E-04	Pulse	0.30	3
V			2	0.654	ug/l	1.41	2,177.98	1.480E-02	Pulse	0.30	3
Cr			2	0.294	ug/l	12.55	1,340.09	9.104E-03	Pulse	0.30	3
Mn			2	0.286	ug/l	11.50	573.36	3.894E-03	Pulse	0.30	3
Fe			2	3.613	ug/l	5.68	12,766.42	8.673E-02	Pulse	0.30	3
Co			2	0.014	ug/l	47.51	184.45	1.253E-03	Pulse	0.30	3
Ni			2	0.082	ug/l	25.86	145.56	9.890E-04	Pulse	0.30	3
Cu			2	0.242	ug/l	18.36	1,593.45	1.082E-02	Pulse	0.30	3
Zn			2	1.832	ug/l	4.90	1,117.84	7.593E-03	Pulse	0.30	3
As			2	0.102	ug/l	20.83	39.00	2.648E-04	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	-0.006	ug/l	-51.18	11.20	1.733E-05	Pulse	0.30	3
Sn			2	-0.429	ug/l	-6.64	975.60	1.509E-03	Pulse	0.30	3
Se			3	0.197	ug/l	76.26	19.33	1.201E-04	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,139,017.00	2.36	113.3	Pulse	0.10	3
1	Sc		3,373,058.60	2.41	115.3	Pulse	0.10	3
1	Ge		832,937.75	4.24	116.7	Pulse	0.10	3
1	Rh		3,559,800.88	4.59	110.1	Pulse	0.10	3
1	In		3,612,081.23	4.47	110.7	Pulse	0.10	3
1	Tb		4,355,607.64	4.09	115.1	Pulse	0.10	3
1	Ho		419,892.52	4.12	116.3	Pulse	0.10	3
1	Bi		2,235,408.87	4.82	107.7	Pulse	0.10	3
2	Sc		147,212.87	0.45	108.9	Pulse	0.30	3
2	Ge		116,754.36	0.82	111.4	Pulse	0.30	3
2	Rh		1,718,353.58	0.81	109.3	Pulse	0.30	3
2	In		646,644.19	0.79	102.9	Pulse	0.30	3
2	Tb		1,885,930.34	0.64	104.9	Pulse	0.30	3
2	Ho		183,741.17	1.10	104.7	Pulse	0.30	3
2	Bi		1,093,901.76	0.55	101.8	Pulse	0.30	3
3	Sc		167,588.60	0.68	126.0	Pulse	0.30	3
3	Ge		160,665.53	0.96	135.0	Pulse	0.30	3
3	Rh		1,353,578.56	1.04	115.4	Pulse	0.30	3
3	Tb		1,875,167.50	1.25	110.3	Pulse	0.30	3

Quantitation Report

File Name	033SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051219m1.b
Method File	
Method Path	
Acq Time	5/13/2019 0:00
Sample Name	mp14909-b4
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 8:46
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	84.990	ug/l	1.53	280,707.65	1.312E-01	Pulse	0.25	3
B			1	93.789	ug/l	1.27	274,559.22	1.283E-01	Pulse	0.15	3
Ca			1	4211.880	ug/l	0.44	2,142,123.04	6.238E-01	Pulse	0.10	3
Sr			1	84.598	ug/l	1.41	1,775,598.46	4.955E-01	Pulse	0.10	3
Mo			1	81.955	ug/l	1.09	345,808.93	9.651E-02	Pulse	0.10	3
Ag			1	79.619	ug/l	1.06	770,660.54	2.101E-01	Pulse	0.10	3
Sn			1	80.032	ug/l	2.06	493,647.79	1.346E-01	Pulse	0.10	3
Sb			1	84.765	ug/l	0.48	556,588.95	1.292E-01	Pulse	0.10	3
Ba			1	85.441	ug/l	0.64	220,597.08	5.121E-02	Pulse	0.10	3
Tl			1	84.235	ug/l	0.55	1,106,671.16	4.895E-01	Pulse	0.10	3
Pb			1	84.354	ug/l	1.23	379,707.39	1.679E-01	Pulse	0.10	3
Pb			1	84.167	ug/l	0.30	330,736.06	1.463E-01	Pulse	0.10	3
Pb			1	86.028	ug/l	0.49	1,518,147.44	6.714E-01	Pulse	0.10	3
Na			2	4259.289	ug/l	1.31	2,542,286.15	1.695E+01	Pulse	0.30	3
Mg			2	4166.583	ug/l	1.46	1,159,493.50	7.731E+00	Pulse	0.30	3
Al			2	3952.898	ug/l	1.48	402,115.17	2.681E+00	Pulse	0.30	3
K			2	4128.704	ug/l	0.96	859,856.77	5.733E+00	Pulse	0.30	3
Ca			2	4471.533	ug/l	0.17	50,015.08	3.334E-01	Pulse	0.30	3
Ti			2	80.439	ug/l	0.88	6,625.00	4.417E-02	Pulse	0.30	3
V			2	86.795	ug/l	0.85	214,219.72	1.428E+00	Pulse	0.30	3
Cr			2	87.186	ug/l	1.59	263,195.97	1.755E+00	Pulse	0.30	3
Mn			2	82.857	ug/l	0.52	138,517.86	9.235E-01	Pulse	0.30	3
Fe			2	4273.447	ug/l	0.91	11,105,030.95	7.404E+01	Analog	0.30	3
Co			2	85.535	ug/l	1.60	409,128.85	2.728E+00	Pulse	0.30	3
Ni			2	85.082	ug/l	1.06	106,107.68	7.074E-01	Pulse	0.30	3
Cu			2	91.126	ug/l	0.53	298,920.03	1.993E+00	Pulse	0.30	3
Zn			2	82.305	ug/l	1.09	41,114.69	2.741E-01	Pulse	0.30	3
As			2	73.073	ug/l	1.35	20,959.68	1.397E-01	Pulse	1.00	3
Cd			2	82.355	ug/l	0.62	75,915.15	1.165E-01	Pulse	0.30	3
Sn			2	79.579	ug/l	1.48	110,624.71	1.698E-01	Pulse	0.30	3
Se			3	326.885	ug/l	2.75	21,395.51	1.345E-01	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		2,139,951.64	1.49	113.4	Pulse	0.10	3
1	Sc		3,434,317.24	2.16	117.3	Pulse	0.10	3
1	Ge		836,371.42	3.54	117.1	Pulse	0.10	3

Quantitation Report

1	Rh		3,582,761.72	1.95	110.8	Pulse	0.10	3
1	In		3,668,402.72	4.41	112.5	Pulse	0.10	3
1	Tb		4,308,103.37	3.41	113.8	Pulse	0.10	3
1	Ho		420,955.55	3.54	116.6	Pulse	0.10	3
1	Bi		2,261,001.58	4.09	109.0	Pulse	0.10	3
2	Sc		149,994.66	1.10	111.0	Pulse	0.30	3
2	Ge		118,380.61	0.90	112.9	Pulse	0.30	3
2	Rh		1,731,878.34	0.52	110.1	Pulse	0.30	3
2	In		651,712.85	0.53	103.7	Pulse	0.30	3
2	Tb		1,939,704.65	0.34	107.9	Pulse	0.30	3
2	Ho		187,469.37	0.17	106.9	Pulse	0.30	3
2	Bi		1,100,122.49	0.55	102.4	Pulse	0.30	3
3	Sc		168,394.36	1.20	126.6	Pulse	0.30	3
3	Ge		159,116.84	1.33	133.7	Pulse	0.30	3
3	Rh		1,340,118.63	1.32	114.2	Pulse	0.30	3
3	Tb		1,884,854.65	1.46	110.9	Pulse	0.30	3

Quantitation Report

File Name	034SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051219m1.b
Method File	
Method Path	
Acq Time	5/13/2019 0:05
Sample Name	jc87578-2
Sample Type	Sample
Comment	
Prep Dilution	10.000
Auto Dilution	N/A
Total Dilution	10.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 8:46
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.129	ug/l	28.23	88.00	4.419E-05	Pulse	0.25	3
B			1	144.585	ug/l	2.08	82,995.65	4.157E-02	Pulse	0.15	3
Ca			1	128412.297	ug/l	1.65	11,985,318.15	3.768E+00	Analog	0.10	3
Sr			1	396.093	ug/l	1.32	1,561,223.26	4.640E-01	Pulse	0.10	3
Mo			1	5.103	ug/l	8.53	5,187.89	1.539E-03	Pulse	0.10	3
Ag			1	0.062	ug/l	9.32	146.68	4.241E-05	Pulse	0.10	3
Sn			1	0.403	ug/l	7.58	1,940.23	5.611E-04	Pulse	0.10	3
Sb			1	0.932	ug/l	7.38	1,436.80	3.472E-04	Pulse	0.10	3
Ba			1	581.186	ug/l	0.40	287,988.49	6.967E-02	Pulse	0.10	3
Tl			1	0.044	ug/l	81.48	906.73	4.253E-04	Pulse	0.10	3
Pb			1	1.108	ug/l	2.15	1,400.15	6.554E-04	Pulse	0.10	3
Pb			1	1.056	ug/l	2.90	1,123.43	5.260E-04	Pulse	0.10	3
Pb			1	1.137	ug/l	3.51	5,580.75	2.613E-03	Pulse	0.10	3
Na			2	45211.560	ug/l	2.88	5,228,477.85	3.587E+01	Pulse	0.30	3
Mg			2	30386.159	ug/l	2.57	1,643,808.23	1.128E+01	Pulse	0.30	3
Al			2	189.726	ug/l	7.48	3,807.36	2.611E-02	Pulse	0.30	3
K			2	4352.587	ug/l	3.31	184,010.95	1.262E+00	Pulse	0.30	3
Ca			2	117256.133	ug/l	2.88	253,964.74	1.742E+00	Pulse	0.30	3
Ti			2	4.854	ug/l	29.00	78.89	5.412E-04	Pulse	0.30	3
V			2	2.043	ug/l	8.93	1,569.00	1.076E-02	Pulse	0.30	3
Cr			2	2.786	ug/l	8.59	2,099.08	1.440E-02	Pulse	0.30	3
Mn			2	9.522	ug/l	7.20	3,194.86	2.192E-02	Pulse	0.30	3
Fe			2	148.616	ug/l	3.76	78,555.35	5.389E-01	Pulse	0.30	3
Co			2	0.097	ug/l	49.85	206.67	1.416E-03	Pulse	0.30	3
Ni			2	2.556	ug/l	10.53	664.47	4.558E-03	Pulse	0.30	3
Cu			2	43.821	ug/l	2.08	28,674.39	1.967E-01	Pulse	0.30	3
Zn			2	68.503	ug/l	2.48	6,838.45	4.690E-02	Pulse	0.30	3
As			2	0.534	ug/l	28.62	40.00	2.749E-04	Pulse	1.00	3
Cd			2	0.282	ug/l	71.71	69.15	1.060E-04	Pulse	0.30	3
Sn			2	-4.098	ug/l	-4.44	450.01	6.868E-04	Pulse	0.30	3
Se			3	0.502	ug/l	77.78	10.67	8.058E-05	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,996,863.62	2.44	105.8	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		3,181,697.97	1.78	108.7	Pulse	0.10	3
1	Ge		761,794.89	2.80	106.7	Pulse	0.10	3
1	Rh		3,365,501.20	3.81	104.1	Pulse	0.10	3
1	In		3,459,310.73	3.52	106.1	Pulse	0.10	3
1	Tb		4,133,969.83	4.19	109.2	Pulse	0.10	3
1	Ho		396,276.32	3.89	109.7	Pulse	0.10	3
1	Bi		2,136,491.43	3.30	103.0	Pulse	0.10	3
2	Sc		145,825.47	1.81	107.9	Pulse	0.30	3
2	Ge		113,281.10	1.63	108.1	Pulse	0.30	3
2	Rh		1,676,044.41	1.47	106.6	Pulse	0.30	3
2	In		655,314.22	1.29	104.2	Pulse	0.30	3
2	Tb		1,927,292.91	2.40	107.2	Pulse	0.30	3
2	Ho		185,862.82	2.22	106.0	Pulse	0.30	3
2	Bi		1,100,658.85	1.62	102.5	Pulse	0.30	3
3	Sc		153,803.73	1.36	115.7	Pulse	0.30	3
3	Ge		132,704.94	1.40	111.5	Pulse	0.30	3
3	Rh		1,245,590.09	1.60	106.2	Pulse	0.30	3
3	Tb		1,779,366.94	1.77	104.7	Pulse	0.30	3

Quantitation Report

File Name	035SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051219m1.b
Method File	
Method Path	
Acq Time	5/13/2019 0:10
Sample Name	jc87585-1
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 8:46
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.078	ug/l	26.07	222.67	1.248E-04	Pulse	0.25	3
B			1	10.750	ug/l	2.05	30,874.13	1.728E-02	Pulse	0.15	3
Ca			1	91481.545	ug/l	1.35	39,102,541.92	1.340E+01	Analog	0.10	3
Sr			1	486.806	ug/l	3.99	7,200,793.02	2.850E+00	Analog	0.10	3
Mo			1	13.443	ug/l	0.46	40,762.60	1.612E-02	Pulse	0.10	3
Ag			1	0.042	ug/l	23.03	333.35	1.217E-04	Pulse	0.10	3
Sn			1	2.181	ug/l	0.99	11,138.34	4.083E-03	Pulse	0.10	3
Sb			1	0.206	ug/l	10.18	1,273.46	3.769E-04	Pulse	0.10	3
Ba			1	62.096	ug/l	0.57	125,601.49	3.722E-02	Pulse	0.10	3
Tl			1	-0.009	ug/l	-178.75	476.70	3.193E-04	Pulse	0.10	3
Pb			1	0.397	ug/l	11.78	1,503.49	1.003E-03	Pulse	0.10	3
Pb			1	0.375	ug/l	10.82	1,213.44	8.098E-04	Pulse	0.10	3
Pb			1	0.356	ug/l	7.44	5,420.69	3.614E-03	Pulse	0.10	3
Na			2	2934022.698	ug/l	0.19	1,694,153,959.35	1.160E+04	Analog	0.30	3
Mg			2	10615.276	ug/l	1.60	2,875,449.54	1.970E+01	Pulse	0.30	3
Al			2	38.358	ug/l	3.00	3,852.81	2.639E-02	Pulse	0.30	3
K			2	7829.666	ug/l	1.39	1,578,361.01	1.081E+01	Pulse	0.30	3
Ca			2	85405.903	ug/l	0.86	925,717.36	6.341E+00	Pulse	0.30	3
Ti			2	1.730	ug/l	24.43	140.00	9.579E-04	Pulse	0.30	3
V			2	2.680	ug/l	4.35	7,012.98	4.804E-02	Pulse	0.30	3
Cr			2	646.587	ug/l	1.22	1,897,029.71	1.299E+01	Pulse	0.30	3
Mn			2	44.508	ug/l	2.73	72,474.51	4.964E-01	Pulse	0.30	3
Fe			2	2175.685	ug/l	1.12	5,504,835.62	3.770E+01	Pulse	0.30	3
Co			2	5.973	ug/l	0.96	27,918.37	1.912E-01	Pulse	0.30	3
Ni			2	410.590	ug/l	0.88	498,259.77	3.413E+00	Pulse	0.30	3
Cu			2	21.868	ug/l	1.52	70,436.81	4.825E-01	Pulse	0.30	3
Zn			2	33.473	ug/l	1.30	16,408.85	1.124E-01	Pulse	0.30	3
As			2	0.428	ug/l	10.17	129.67	8.882E-04	Pulse	1.00	3
Cd			2	0.019	ug/l	231.35	29.61	5.368E-05	Pulse	0.30	3
Sn			2	1.349	ug/l	4.67	2,888.13	5.246E-03	Pulse	0.30	3
Se			3	0.709	ug/l	28.96	41.33	3.309E-04	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,786,809.98	1.04	94.7	Pulse	0.10	3
1	Sc		2,918,186.93	2.55	99.7	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		639,101.98	3.72	89.5	Pulse	0.10	3
1	Rh		2,529,185.75	3.38	78.2	Pulse	0.10	3
1	In		2,727,536.40	3.13	83.6	Pulse	0.10	3
1	Tb		3,374,097.55	3.59	89.1	Pulse	0.10	3
1	Ho		327,367.27	3.62	90.6	Pulse	0.10	3
1	Bi		1,498,452.74	3.41	72.2	Pulse	0.10	3
2	Sc		146,001.25	0.64	108.0	Pulse	0.30	3
2	Ge		103,238.28	0.21	98.5	Pulse	0.30	3
2	Rh		1,291,941.68	0.73	82.2	Pulse	0.30	3
2	In		550,489.17	0.73	87.6	Pulse	0.30	3
2	Tb		1,594,837.26	0.48	88.7	Pulse	0.30	3
2	Ho		155,143.39	0.88	88.4	Pulse	0.30	3
2	Bi		781,325.84	0.50	72.7	Pulse	0.30	3
3	Sc		145,709.08	0.94	109.6	Pulse	0.30	3
3	Ge		124,704.71	1.08	104.8	Pulse	0.30	3
3	Rh		960,274.06	1.44	81.9	Pulse	0.30	3
3	Tb		1,472,130.29	1.66	86.6	Pulse	0.30	3

Quantitation Report

File Name 036SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\.b051219m1.b
Method File
Method Path
Acq Time 5/13/2019 0:15
Sample Name jc87833-1
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name Metals
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 5/13/2019 8:46
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.006	ug/l	90.96	28.00	1.430E-05	Pulse	0.25	3
B			1	40.175	ug/l	1.39	110,299.66	5.662E-02	Pulse	0.15	3
Ca			1	73084.753	ug/l	3.62	32,130,783.69	1.071E+01	Analog	0.10	3
Sr			1	169.787	ug/l	0.92	3,196,575.89	9.941E-01	Pulse	0.10	3
Mo			1	11.347	ug/l	1.11	43,919.51	1.366E-02	Pulse	0.10	3
Ag			1	0.014	ug/l	36.74	156.67	4.617E-05	Pulse	0.10	3
Sn			1	0.899	ug/l	2.37	6,501.85	1.933E-03	Pulse	0.10	3
Sb			1	2.252	ug/l	4.08	14,541.94	3.494E-03	Pulse	0.10	3
Ba			1	24.086	ug/l	2.40	60,126.26	1.445E-02	Pulse	0.10	3
Tl			1	-0.018	ug/l	-19.61	576.71	2.692E-04	Pulse	0.10	3
Pb			1	0.855	ug/l	5.38	4,104.17	1.914E-03	Pulse	0.10	3
Pb			1	0.836	ug/l	2.68	3,453.96	1.610E-03	Pulse	0.10	3
Pb			1	0.844	ug/l	2.98	15,924.53	7.424E-03	Pulse	0.10	3
Na			2	5376.889	ug/l	0.25	2,851,392.66	2.137E+01	Pulse	0.30	3
Mg			2	4940.313	ug/l	0.63	1,223,031.69	9.167E+00	Pulse	0.30	3
Al			2	126.035	ug/l	2.93	11,456.08	8.585E-02	Pulse	0.30	3
K			2	11038.532	ug/l	0.50	2,029,916.93	1.521E+01	Pulse	0.30	3
Ca			2	64832.515	ug/l	0.51	642,269.05	4.814E+00	Pulse	0.30	3
Ti			2	0.879	ug/l	46.75	65.55	4.910E-04	Pulse	0.30	3
V			2	1.609	ug/l	4.82	4,062.87	3.045E-02	Pulse	0.30	3
Cr			2	2.445	ug/l	1.02	6,980.73	5.232E-02	Pulse	0.30	3
Mn			2	23.778	ug/l	0.64	35,428.76	2.655E-01	Pulse	0.30	3
Fe			2	292.120	ug/l	0.67	678,256.33	5.083E+00	Pulse	0.30	3
Co			2	0.083	ug/l	6.85	460.01	3.448E-03	Pulse	0.30	3
Ni			2	0.748	ug/l	4.82	871.15	6.530E-03	Pulse	0.30	3
Cu			2	1.406	ug/l	3.92	4,829.80	3.620E-02	Pulse	0.30	3
Zn			2	12.638	ug/l	3.07	5,787.94	4.338E-02	Pulse	0.30	3
As			2	1.973	ug/l	1.93	512.68	3.842E-03	Pulse	1.00	3
Cd			2	0.029	ug/l	160.21	40.04	6.681E-05	Pulse	0.30	3
Sn			2	0.006	ug/l	1716.52	1,455.65	2.423E-03	Pulse	0.30	3
Se			3	0.797	ug/l	14.51	54.00	3.671E-04	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,948,430.92	2.31	103.2	Pulse	0.10	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		3,002,468.29	3.03	102.6	Pulse	0.10	3
1	Ge		756,888.71	3.27	106.0	Pulse	0.10	3
1	Rh		3,215,466.10	3.67	99.5	Pulse	0.10	3
1	In		3,363,052.34	4.69	103.1	Pulse	0.10	3
1	Tb		4,162,379.83	3.56	110.0	Pulse	0.10	3
1	Ho		402,436.60	4.13	111.4	Pulse	0.10	3
1	Bi		2,144,927.94	4.37	103.4	Pulse	0.10	3
2	Sc		133,425.64	0.59	98.7	Pulse	0.30	3
2	Ge		107,137.75	0.73	102.2	Pulse	0.30	3
2	Rh		1,569,931.36	0.71	99.8	Pulse	0.30	3
2	In		600,936.27	0.42	95.6	Pulse	0.30	3
2	Tb		1,839,503.89	0.60	102.3	Pulse	0.30	3
2	Ho		179,934.53	0.03	102.6	Pulse	0.30	3
2	Bi		1,056,398.85	0.07	98.4	Pulse	0.30	3
3	Sc		154,300.30	1.00	116.0	Pulse	0.30	3
3	Ge		147,056.08	0.43	123.6	Pulse	0.30	3
3	Rh		1,241,066.10	0.64	105.8	Pulse	0.30	3
3	Tb		1,833,445.69	1.02	107.9	Pulse	0.30	3

Quantitation Report

File Name	037SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051219m1.b
Method File	
Method Path	
Acq Time	5/13/2019 0:19
Sample Name	rinseconf
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 8:46
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.001	ug/l	110.72	12.00	6.063E-06	Pulse	0.25	3
B			1	0.787	ug/l	5.98	9,890.37	5.007E-03	Pulse	0.15	3
Ca			1	1.056	ug/l	74.06	22,565.78	7.318E-03	Pulse	0.10	3
Sr			1	-0.007	ug/l	-15.94	1,000.08	2.946E-04	Pulse	0.10	3
Mo			1	-0.131	ug/l	-4.32	113.34	3.372E-05	Pulse	0.10	3
Ag			1	-0.001	ug/l	-64.18	20.00	5.671E-06	Pulse	0.10	3
Sn			1	0.018	ug/l	55.48	1,700.17	4.863E-04	Pulse	0.10	3
Sb			1	0.018	ug/l	45.53	486.69	1.167E-04	Pulse	0.10	3
Ba			1	-0.005	ug/l	-44.73	30.00	7.244E-06	Pulse	0.10	3
Tl			1	-0.010	ug/l	-29.39	576.71	2.564E-04	Pulse	0.10	3
Pb			1	-0.017	ug/l	-14.62	333.35	1.488E-04	Pulse	0.10	3
Pb			1	-0.020	ug/l	-14.14	200.01	8.901E-05	Pulse	0.10	3
Pb			1	-0.024	ug/l	-4.48	1,050.06	4.681E-04	Pulse	0.10	3
Na			2	36.650	ug/l	6.77	53,403.74	3.959E-01	Pulse	0.30	3
Mg			2	0.352	ug/l	19.39	257.78	1.911E-03	Pulse	0.30	3
Al			2	0.049	ug/l	62.84	60.00	4.447E-04	Pulse	0.30	3
K			2	1.209	ug/l	58.87	9,603.39	7.119E-02	Pulse	0.30	3
Ca			2	0.568	ug/l	378.34	221.12	1.639E-03	Pulse	0.30	3
Ti			2	0.015	ug/l	149.94	3.33	2.472E-05	Pulse	0.30	3
V			2	0.007	ug/l	106.88	580.02	4.299E-03	Pulse	0.30	3
Cr			2	0.004	ug/l	208.35	456.68	3.385E-03	Pulse	0.30	3
Mn			2	0.019	ug/l	11.92	152.22	1.128E-03	Pulse	0.30	3
Fe			2	0.098	ug/l	12.11	3,717.22	2.756E-02	Pulse	0.30	3
Co			2	0.000	ug/l	884.21	107.78	7.990E-04	Pulse	0.30	3
Ni			2	-0.002	ug/l	-385.45	37.78	2.802E-04	Pulse	0.30	3
Cu			2	-0.009	ug/l	-118.38	694.47	5.148E-03	Pulse	0.30	3
Zn			2	-0.013	ug/l	-43.63	194.45	1.441E-03	Pulse	0.30	3
As			2	0.004	ug/l	380.02	11.67	8.657E-05	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	0.006	ug/l	123.92	26.59	4.255E-05	Pulse	0.30	3
Sn			2	-0.430	ug/l	-1.74	375.56	6.016E-04	Pulse	0.30	3
Se			3	-0.011	ug/l	-336.40	4.00	3.020E-05	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,974,757.25	2.08	104.6	Pulse	0.10	3
1	Sc		3,084,552.87	2.11	105.4	Pulse	0.10	3
1	Ge		750,017.05	2.65	105.0	Pulse	0.10	3
1	Rh		3,391,322.97	3.58	104.9	Pulse	0.10	3
1	In		3,491,396.70	3.20	107.0	Pulse	0.10	3
1	Tb		4,186,858.58	4.37	110.6	Pulse	0.10	3
1	Ho		404,733.52	4.41	112.1	Pulse	0.10	3
1	Bi		2,243,705.85	3.30	108.1	Pulse	0.10	3
2	Sc		134,893.78	0.23	99.8	Pulse	0.30	3
2	Ge		106,035.21	0.84	101.1	Pulse	0.30	3
2	Rh		1,631,207.23	0.36	103.7	Pulse	0.30	3
2	In		624,293.62	0.45	99.3	Pulse	0.30	3
2	Tb		1,834,510.34	0.80	102.0	Pulse	0.30	3
2	Ho		177,178.80	0.33	101.0	Pulse	0.30	3
2	Bi		1,082,421.21	0.45	100.8	Pulse	0.30	3
3	Sc		152,238.17	2.01	114.5	Pulse	0.30	3
3	Ge		133,847.81	1.76	112.5	Pulse	0.30	3
3	Rh		1,288,127.97	1.47	109.8	Pulse	0.30	3
3	Tb		1,833,548.05	1.75	107.9	Pulse	0.30	3

Quantitation Report

File Name	038SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051219m1.b
Method File	
Method Path	
Acq Time	5/13/2019 0:24
Sample Name	rinseconf
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 8:46
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.000	ug/l	401.11	10.67	5.286E-06	Pulse	0.25	3
B			1	0.491	ug/l	17.04	8,422.73	4.217E-03	Pulse	0.15	3
Ca			1	-2.049	ug/l	-20.18	19,875.11	6.409E-03	Pulse	0.10	3
Sr			1	-0.012	ug/l	-10.02	793.39	2.359E-04	Pulse	0.10	3
Mo			1	-0.131	ug/l	-2.33	113.34	3.368E-05	Pulse	0.10	3
Ag			1	-0.001	ug/l	-40.92	10.00	2.893E-06	Pulse	0.10	3
Sn			1	0.024	ug/l	137.68	1,750.44	5.078E-04	Pulse	0.10	3
Sb			1	0.016	ug/l	27.30	463.36	1.110E-04	Pulse	0.10	3
Ba			1	-0.004	ug/l	-115.95	36.67	8.674E-06	Pulse	0.10	3
Tl			1	-0.012	ug/l	-34.94	520.03	2.337E-04	Pulse	0.10	3
Pb			1	-0.025	ug/l	-1.99	256.68	1.159E-04	Pulse	0.10	3
Pb			1	-0.010	ug/l	-4.80	276.68	1.249E-04	Pulse	0.10	3
Pb			1	-0.020	ug/l	-22.72	1,173.40	5.298E-04	Pulse	0.10	3
Na			2	16.675	ug/l	3.08	32,349.35	2.379E-01	Pulse	0.30	3
Mg			2	0.273	ug/l	16.38	220.00	1.620E-03	Pulse	0.30	3
Al			2	0.035	ug/l	218.43	57.78	4.258E-04	Pulse	0.30	3
K			2	1.199	ug/l	6.00	9,674.56	7.116E-02	Pulse	0.30	3
Ca			2	-1.157	ug/l	-104.75	187.78	1.383E-03	Pulse	0.30	3
Ti			2	-0.008	ug/l	0.00	0.00	0.000E+00	Pulse	0.30	3
V			2	0.007	ug/l	239.09	582.24	4.287E-03	Pulse	0.30	3
Cr			2	0.000	ug/l	-1338.35	433.35	3.187E-03	Pulse	0.30	3
Mn			2	0.011	ug/l	40.40	128.89	9.485E-04	Pulse	0.30	3
Fe			2	0.077	ug/l	16.74	3,646.08	2.682E-02	Pulse	0.30	3
Co			2	-0.002	ug/l	-192.56	94.45	6.966E-04	Pulse	0.30	3
Ni			2	-0.006	ug/l	-85.16	28.89	2.119E-04	Pulse	0.30	3
Cu			2	-0.016	ug/l	-69.00	660.02	4.851E-03	Pulse	0.30	3
Zn			2	-0.031	ug/l	-119.65	178.89	1.318E-03	Pulse	0.30	3
As			2	-0.005	ug/l	-4.21	7.00	5.150E-05	Pulse	1.00	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cd			2	0.007	ug/l	135.73	28.27	4.546E-05	Pulse	0.30	3
Sn			2	-0.433	ug/l	-1.88	366.68	5.898E-04	Pulse	0.30	3
Se			3	0.038	ug/l	169.84	9.33	7.073E-05	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,997,570.37	2.42	105.9	Pulse	0.10	3
1	Sc		3,101,486.41	2.39	106.0	Pulse	0.10	3
1	Ge		753,260.77	2.06	105.5	Pulse	0.10	3
1	Rh		3,360,017.03	2.99	103.9	Pulse	0.10	3
1	In		3,457,832.10	2.46	106.0	Pulse	0.10	3
1	Tb		4,179,149.42	2.82	110.4	Pulse	0.10	3
1	Ho		402,047.68	2.86	111.3	Pulse	0.10	3
1	Bi		2,214,387.47	4.55	106.7	Pulse	0.10	3
2	Sc		135,942.61	1.57	100.6	Pulse	0.30	3
2	Ge		106,662.04	0.98	101.7	Pulse	0.30	3
2	Rh		1,627,899.83	0.52	103.5	Pulse	0.30	3
2	In		621,735.69	0.88	98.9	Pulse	0.30	3
2	Tb		1,825,843.75	0.99	101.5	Pulse	0.30	3
2	Ho		176,939.77	0.47	100.9	Pulse	0.30	3
2	Bi		1,079,900.83	0.84	100.5	Pulse	0.30	3
3	Sc		151,312.04	0.80	113.8	Pulse	0.30	3
3	Ge		132,471.55	0.79	111.3	Pulse	0.30	3
3	Rh		1,275,751.09	1.45	108.8	Pulse	0.30	3
3	Tb		1,793,950.62	1.35	105.6	Pulse	0.30	3

Quantitation Report

File Name	039_CCV.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051219m1.b
Method File	
Method Path	
Acq Time	5/13/2019 0:29
Sample Name	CCVA
Sample Type	CCV
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 8:46
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	50.016	ug/l	0.68	305,518.30	1.544E-01	Pulse	0.25	3
B			1	102.583	ug/l	2.23	548,721.98	2.772E-01	Pulse	0.15	3
Ca			1	5081.088	ug/l	0.24	4,721,576.18	1.495E+00	Pulse	0.10	3
Sr			1	49.798	ug/l	2.86	1,952,096.12	5.833E-01	Pulse	0.10	3
Mo			1	53.912	ug/l	1.28	424,722.61	1.269E-01	Pulse	0.10	3
Ag			1	50.906	ug/l	0.96	934,075.35	2.687E-01	Pulse	0.10	3
Sn			1	51.932	ug/l	0.80	607,021.16	1.746E-01	Pulse	0.10	3
Sb			1	53.999	ug/l	2.20	690,352.36	1.646E-01	Pulse	0.10	3
Ba			1	48.927	ug/l	1.33	246,114.64	5.865E-02	Pulse	0.10	3
Tl			1	50.168	ug/l	2.02	1,276,122.51	5.830E-01	Pulse	0.10	3
Pb			1	49.965	ug/l	2.82	435,439.00	1.989E-01	Pulse	0.10	3
Pb			1	49.959	ug/l	1.38	379,929.30	1.736E-01	Pulse	0.10	3
Pb			1	50.792	ug/l	0.90	1,734,688.76	7.927E-01	Pulse	0.10	3
Na			2	5137.373	ug/l	0.48	5,717,362.00	4.074E+01	Pulse	0.30	3
Mg			2	5090.390	ug/l	0.30	2,650,864.62	1.889E+01	Pulse	0.30	3
Al			2	4918.565	ug/l	0.69	936,266.81	6.672E+00	Pulse	0.30	3
K			2	5039.670	ug/l	0.68	1,950,362.77	1.390E+01	Pulse	0.30	3
Ca			2	5209.151	ug/l	0.48	108,739.30	7.748E-01	Pulse	0.30	3
Ti			2	52.062	ug/l	1.46	8,023.53	5.717E-02	Pulse	0.30	3
V			2	50.341	ug/l	0.87	232,413.71	1.656E+00	Pulse	0.30	3
Cr			2	50.416	ug/l	0.76	284,743.25	2.029E+00	Pulse	0.30	3
Mn			2	49.083	ug/l	0.80	153,528.67	1.094E+00	Pulse	0.30	3
Fe			2	5271.356	ug/l	0.73	25,627,822.32	1.826E+02	Analog	0.30	3
Co			2	49.573	ug/l	0.64	443,734.98	3.162E+00	Pulse	0.30	3
Ni			2	49.127	ug/l	0.67	114,640.65	8.169E-01	Pulse	0.30	3
Cu			2	48.994	ug/l	0.36	300,678.05	2.143E+00	Pulse	0.30	3
Zn			2	48.122	ug/l	0.21	44,949.92	3.203E-01	Pulse	0.30	3
As			2	51.404	ug/l	0.52	27,588.34	1.966E-01	Pulse	1.00	3
Cd			2	49.929	ug/l	0.48	89,990.35	1.412E-01	Pulse	0.30	3
Sn			2	52.632	ug/l	0.93	142,576.31	2.238E-01	Pulse	0.30	3
Se			3	191.423	ug/l	3.33	21,107.70	1.575E-01	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,978,976.31	2.75	104.9	Pulse	0.10	3
1	Sc		3,158,040.06	2.38	107.9	Pulse	0.10	3
1	Ge		765,374.29	4.24	107.2	Pulse	0.10	3

Quantitation Report

1	Rh		3,348,433.60	4.68	103.6	Pulse	0.10	3
1	In		3,476,736.27	3.66	106.6	Pulse	0.10	3
1	Tb		4,196,037.54	4.32	110.9	Pulse	0.10	3
1	Ho		409,576.66	5.02	113.4	Pulse	0.10	3
1	Bi		2,188,230.28	4.01	105.5	Pulse	0.10	3
2	Sc		140,337.72	0.64	103.8	Pulse	0.30	3
2	Ge		109,795.30	0.13	104.7	Pulse	0.30	3
2	Rh		1,646,329.55	0.50	104.7	Pulse	0.30	3
2	In		637,177.95	0.33	101.4	Pulse	0.30	3
2	Tb		1,905,130.96	0.35	105.9	Pulse	0.30	3
2	Ho		185,256.97	0.95	105.6	Pulse	0.30	3
2	Bi		1,093,995.13	0.39	101.9	Pulse	0.30	3
3	Sc		155,624.56	1.17	117.0	Pulse	0.30	3
3	Ge		134,051.33	0.98	112.7	Pulse	0.30	3
3	Rh		1,258,737.17	0.66	107.3	Pulse	0.30	3
3	Tb		1,819,205.21	0.97	107.1	Pulse	0.30	3

Quantitation Report

File Name	040_CCB.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051219m1.b
Method File	
Method Path	
Acq Time	5/13/2019 0:34
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 8:46
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.008	ug/l	29.55	56.00	2.805E-05	Pulse	0.25	3
B			1	1.669	ug/l	8.48	14,685.73	7.365E-03	Pulse	0.15	3
Ca			1	-1.364	ug/l	-32.88	20,869.81	6.609E-03	Pulse	0.10	3
Sr			1	0.004	ug/l	38.45	1,453.48	4.221E-04	Pulse	0.10	3
Mo			1	-0.084	ug/l	-2.97	500.03	1.451E-04	Pulse	0.10	3
Ag			1	0.006	ug/l	28.48	140.01	4.007E-05	Pulse	0.10	3
Sn			1	0.040	ug/l	7.04	1,956.90	5.597E-04	Pulse	0.10	3
Sb			1	0.209	ug/l	8.17	2,887.09	7.003E-04	Pulse	0.10	3
Ba			1	-0.006	ug/l	-46.36	23.33	5.603E-06	Pulse	0.10	3
Tl			1	0.001	ug/l	184.68	860.06	3.868E-04	Pulse	0.10	3
Pb			1	-0.009	ug/l	-28.70	396.69	1.784E-04	Pulse	0.10	3
Pb			1	-0.005	ug/l	-295.85	320.02	1.427E-04	Pulse	0.10	3
Pb			1	-0.010	ug/l	-26.86	1,536.76	6.898E-04	Pulse	0.10	3
Na			2	4.194	ug/l	13.49	19,168.69	1.392E-01	Pulse	0.30	3
Mg			2	0.528	ug/l	2.94	353.34	2.566E-03	Pulse	0.30	3
Al			2	0.429	ug/l	42.10	132.22	9.604E-04	Pulse	0.30	3
K			2	1.646	ug/l	29.78	9,969.21	7.239E-02	Pulse	0.30	3
Ca			2	1.541	ug/l	18.91	245.56	1.783E-03	Pulse	0.30	3
Ti			2	0.036	ug/l	59.25	6.67	4.828E-05	Pulse	0.30	3
V			2	0.001	ug/l	709.89	564.46	4.100E-03	Pulse	0.30	3
Cr			2	0.003	ug/l	208.73	456.68	3.318E-03	Pulse	0.30	3
Mn			2	0.009	ug/l	76.11	124.45	9.044E-04	Pulse	0.30	3
Fe			2	0.650	ug/l	7.36	6,423.79	4.665E-02	Pulse	0.30	3
Co			2	0.000	ug/l	699.03	113.33	8.244E-04	Pulse	0.30	3
Ni			2	-0.003	ug/l	-245.04	36.67	2.664E-04	Pulse	0.30	3
Cu			2	-0.010	ug/l	-44.22	702.25	5.100E-03	Pulse	0.30	3

Quantitation Report

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Zn			2	0.023	ug/l	222.94	231.11	1.680E-03	Pulse	0.30	3
As			2	0.011	ug/l	44.44	15.67	1.139E-04	Pulse	1.00	3
Cd			2	0.005	ug/l	118.04	26.34	4.181E-05	Pulse	0.30	3
Sn			2	-0.398	ug/l	-6.21	464.46	7.373E-04	Pulse	0.30	3
Se			3	0.147	ug/l	23.92	21.33	1.599E-04	Pulse	0.50	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Li		1,995,299.18	1.95	105.7	Pulse	0.10	3
1	Sc		3,159,170.47	4.02	107.9	Pulse	0.10	3
1	Ge		755,171.53	4.13	105.8	Pulse	0.10	3
1	Rh		3,444,796.41	2.26	106.6	Pulse	0.10	3
1	In		3,497,935.79	3.71	107.2	Pulse	0.10	3
1	Tb		4,117,310.36	3.84	108.8	Pulse	0.10	3
1	Ho		394,109.28	3.53	109.1	Pulse	0.10	3
1	Bi		2,226,032.88	4.39	107.3	Pulse	0.10	3
2	Sc		137,726.15	1.10	101.9	Pulse	0.30	3
2	Ge		107,851.36	1.15	102.9	Pulse	0.30	3
2	Rh		1,641,324.66	0.73	104.4	Pulse	0.30	3
2	In		630,023.23	0.77	100.2	Pulse	0.30	3
2	Tb		1,826,104.30	0.28	101.5	Pulse	0.30	3
2	Ho		175,590.05	0.71	100.1	Pulse	0.30	3
2	Bi		1,074,664.09	0.43	100.1	Pulse	0.30	3
3	Sc		153,346.65	1.53	115.3	Pulse	0.30	3
3	Ge		133,178.41	1.78	111.9	Pulse	0.30	3
3	Rh		1,287,323.66	2.13	109.7	Pulse	0.30	3
3	Tb		1,798,507.78	1.60	105.8	Pulse	0.30	3

Quantitation Report

File Name	041SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\.b051219m1.b
Method File	
Method Path	
Acq Time	5/13/2019 0:38
Sample Name	mp14947-mb1 1
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	Metals
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/13/2019 8:46
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

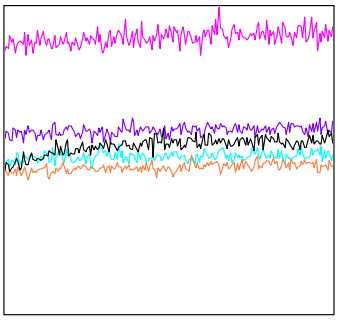
Tune Step	Tune File
1	
2	
3	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Be			1	0.002	ug/l	41.55	22.67	1.105E-05	Pulse	0.25	3
B			1	0.978	ug/l	2.04	11,291.47	5.520E-03	Pulse	0.15	3
Ca			1	-0.201	ug/l	-274.36	21,894.77	6.950E-03	Pulse	0.10	3
Sr			1	-0.013	ug/l	-14.92	733.38	2.151E-04	Pulse	0.10	3
Mo			1	-0.116	ug/l	-5.95	236.68	6.968E-05	Pulse	0.10	3
Ag			1	0.001	ug/l	172.68	53.33	1.563E-05	Pulse	0.10	3
Sn			1	0.023	ug/l	31.84	1,736.84	5.020E-04	Pulse	0.10	3
Sb			1	0.107	ug/l	12.76	1,606.83	3.879E-04	Pulse	0.10	3
Ba			1	0.006	ug/l	12.51	83.33	2.015E-05	Pulse	0.10	3
Tl			1	-0.009	ug/l	-8.47	583.37	2.711E-04	Pulse	0.10	3
Pb			1	-0.015	ug/l	-42.47	333.36	1.554E-04	Pulse	0.10	3
Pb			1	-0.011	ug/l	-79.49	263.35	1.221E-04	Pulse	0.10	3
Pb			1	-0.015	ug/l	-24.77	1,313.42	6.092E-04	Pulse	0.10	3
Na			2	2.037	ug/l	16.46	16,943.60	1.221E-01	Pulse	0.30	3
Mg			2	0.195	ug/l	17.92	184.45	1.330E-03	Pulse	0.30	3
Al			2	0.471	ug/l	31.62	141.11	1.017E-03	Pulse	0.30	3
K			2	2.152	ug/l	8.00	10,233.87	7.378E-02	Pulse	0.30	3
Ca			2	0.854	ug/l	230.49	233.34	1.681E-03	Pulse	0.30	3
Ti			2	0.051	ug/l	65.32	8.89	6.396E-05	Pulse	0.30	3
V			2	0.000	ug/l	-6174.85	562.24	4.054E-03	Pulse	0.30	3
Cr			2	0.004	ug/l	194.81	468.90	3.381E-03	Pulse	0.30	3
Mn			2	0.014	ug/l	36.51	142.23	1.025E-03	Pulse	0.30	3
Fe			2	0.462	ug/l	9.27	5,568.97	4.016E-02	Pulse	0.30	3
Co			2	-0.002	ug/l	-108.76	95.56	6.891E-04	Pulse	0.30	3
Ni			2	-0.001	ug/l	-119.72	40.00	2.885E-04	Pulse	0.30	3
Cu			2	0.051	ug/l	20.23	1,080.06	7.786E-03	Pulse	0.30	3

Current Signal

[1]



Mass	Range	Count	Avg. Count	RSD [%]
7	5000	2574	2558.6	2.87
59	5000	3118	2982.1	2.67
89	10000	4807	4750.3	2.96
140	5000	4659	4497.3	2.91
205	5000	2766	2725.8	4.91
156/140	2	0.901 %	1.058 %	16.35
70/140	10	3.241 %	3.479 %	13.04
9	20	2	4.7	54.85
11	1000	782	711.7	6.37
88	100	37	33.7	18.32
95	50	2	9.5	39.64
107	20	0	3.6	58.87
121	50	26	24.5	21.05
137	50	16	10.4	34.61
208	200	134	134.4	9.03
Integration Time [sec]		0.10		

Plasma Parameters

RF Power	1500	W	Nebulizer Pump	0.10	rps
RF Matching	1.75	V	S/C Temp	2	℃
Smpl Depth	7.8	mm	Gas Switch	Dilution Gas	
Carrier Gas	0.55	L/min	Makeup/Dilution Gas	0.55	L/min
Option Gas	0.0	%			

Lenses Parameters

Extract 1	0.0	V	Cell Entrance	-38	V
Extract 2	-150.0	V	Cell Exit	-60	V
Omega Bias	-80	V	Deflect	16.0	V
Omega Lens	9.9	V	Plate Bias	-50	V

Cell Parameters

Use Gas	false		OctP Bias	-8.0	V
He Flow	0.0	mL/min	OctP RF	200	V
H2 Flow	0.0	mL/min	Energy Discrimination	5.0	V
3rd Gas Flow	0	%			

Meters

IF/BK Press	2.56E+2	Pa	Water Temp	21.9	℃
TMP Revolution	100.0	%	Carrier Gas(BP)	1.45E+2	kPa
Carrier Gas	0.55	L/min			

US EPA Tune Check Sample Report

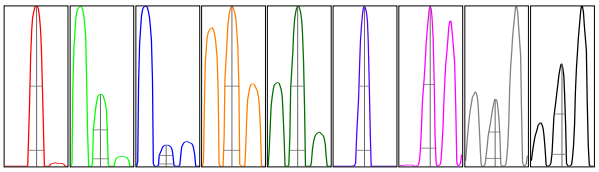
Batch Folder C:\Agilent\ICPMH\1\DATA\.b051219m1.b
Report Comment
Instrument Name G3281A JP12412081

[1]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
9	69350	1.16	5.00	
24	297279	0.77	5.00	
25	39252	0.63	5.00	
26	45390	0.67	5.00	
59	395829	0.75	5.00	
115	471849	1.20	5.00	
206	98095	0.97	5.00	
207	89705	0.81	5.00	
208	212075	0.52	5.00	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	68046	69475	69809	70156	69265
24	293230	298737	298061	298450	297917
25	38849	39494	39274	39398	39243
26	44960	45200	45556	45720	45512
59	391805	394487	398077	399296	395483
115	462648	471826	477486	475315	471969
206	96718	97960	99030	98953	97815
207	88856	89277	89793	90801	89796
208	210294	212740	213123	211884	212333

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width-X% (Flag)
9	11525	9.05	8.9 - 9.1		0.728	0.900	
24	47630	23.95	23.9 - 24.1		0.735	0.900	
25	6316	24.95	24.9 - 25.1		0.735	0.900	
26	7315	25.95	25.9 - 26.1		0.765	0.900	
59	66536	58.95	58.9 - 59.1		0.760	0.900	
115	91923	115.00	114.9 - 115.1		0.698	0.900	
206	19683	206.00	205.9 - 206.1		0.713	0.900	
207	17820	206.95	206.9 - 207.1		0.702	0.900	
208	42459	208.00	207.9 - 208.1		0.693	0.900	

X% = 10 **Integration Time [sec] =** 0.1 **Acquisition Time [sec] =** 235 **Y Axis =** Linear

Tune Parameters

Plasma Paramters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
RF Power	1500	W	Carrier Gas	0.55	L/min			
RF Matching	1.75	V	Option Gas	0.0	%			
Smpl Depth	7.8	mm	Nebulizer Pump	0.10	rps			
S/C Temp	2	℃						

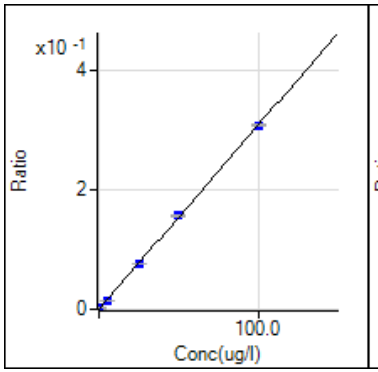
Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	9.9	V			
Extract 2	-150.0	V	Cell Entrance	-38	V			
Omega Bias	-80	V	Cell Exit	-60	V			
Deflect	16.0	V						

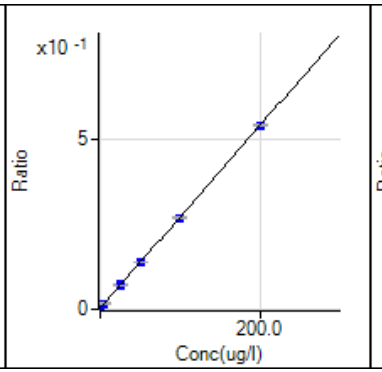
Cell Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Use Gas	false		3rd Gas Flow	0	%			
He Flow	0.0	mL/min	OctP Bias	-8.0	V			
H2 Flow	0.0	mL/min	OctP RF	200	V			
Energy Discrimination	5.0	V						

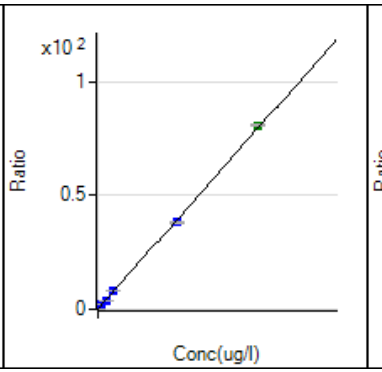
Calibration for C:\Agilent\ICPMH\1\DATA\.b051219m1.b\001CALB.d



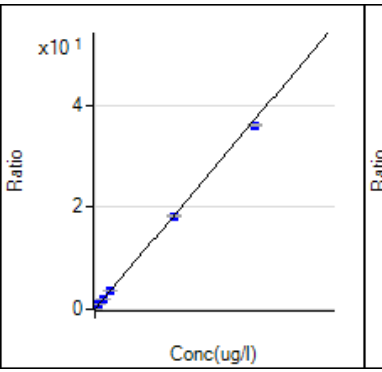
9 Be [1] / ISTD: 6 Li
y = 3.087E-3 x + 4.277E-6
R 0.9999
DL 0.002123
BEC 0.001385



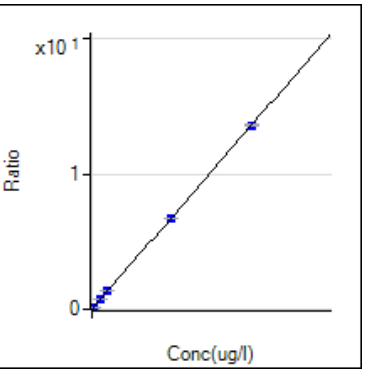
11 B [1] / ISTD: 6 Li
y = 2.674E-3 x + 2.903E-3
R 1.0000
DL 0.03805
BEC 1.086



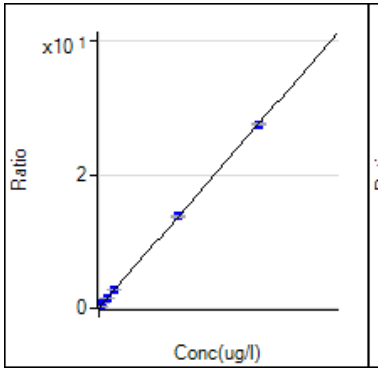
23 Na [2] / ISTD: 45 Sc
y = 7.910E-3 x + 1.060E-1
R 0.9996
DL 0.2182
BEC 13.41



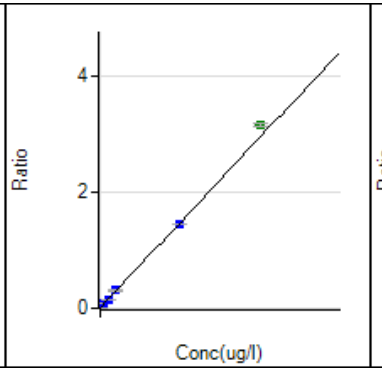
24 Mg [2] / ISTD: 45 Sc
y = 3.711E-3 x + 6.052E-4
R 1.0000
DL 0.08325
BEC 0.1631



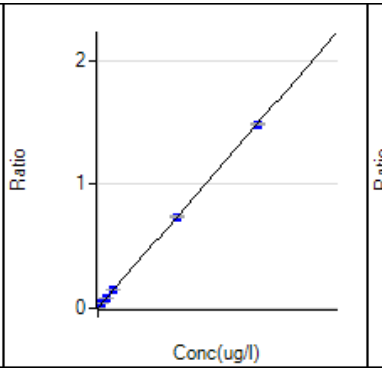
27 Al [2] / ISTD: 45 Sc
y = 1.356E-3 x + 3.781E-4
R 1.0000
DL 0.02504
BEC 0.2788



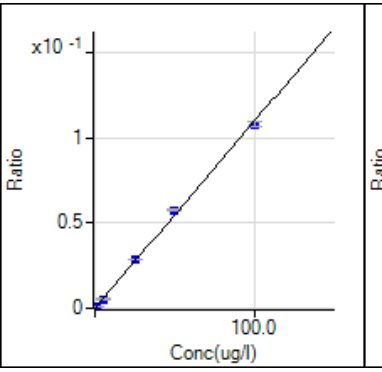
39 K [2] / ISTD: 45 Sc
y = 2.744E-3 x + 6.787E-2
R 1.0000
DL 2.583
BEC 24.73



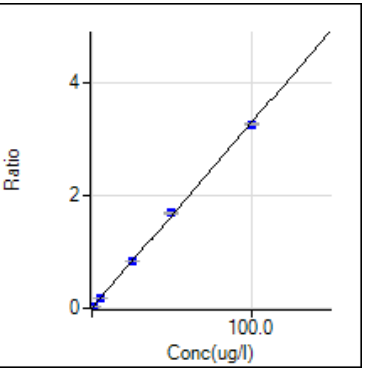
44 Ca [1] / ISTD: 45 Sc
y = 2.929E-4 x + 7.009E-3
R 0.9992
DL 1.245
BEC 23.93



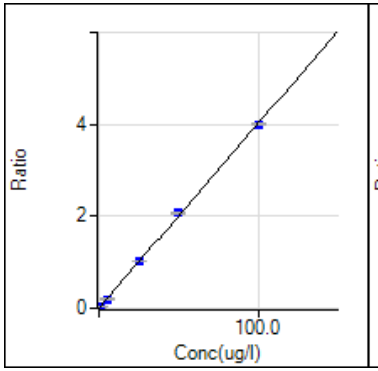
44 Ca [2] / ISTD: 45 Sc
y = 1.484E-4 x + 1.555E-3
R 1.0000
DL 0.8047
BEC 10.47



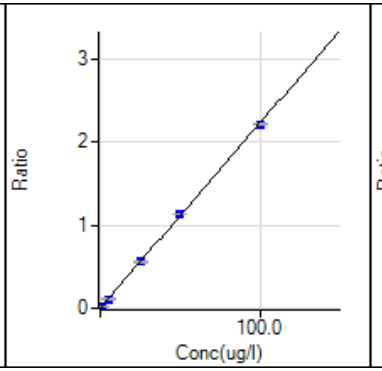
47 Ti [2] / ISTD: 45 Sc
y = 1.098E-3 x + 8.243E-6
R 0.9994
DL 0.03901
BEC 0.007507



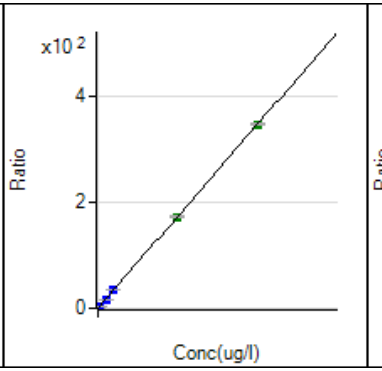
51 V [2] / ISTD: 45 Sc
y = 3.282E-2 x + 4.057E-3
R 0.9998
DL 0.01401
BEC 0.1236



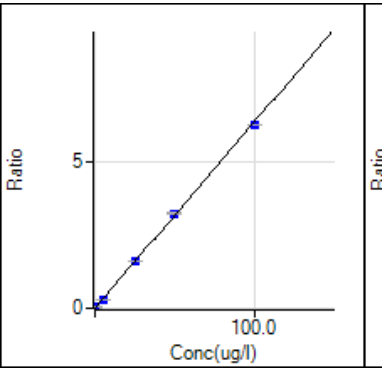
52 Cr [2] / ISTD: 45 Sc
y = 4.018E-2 x + 3.206E-3
R 0.9999
DL 0.0204
BEC 0.07978



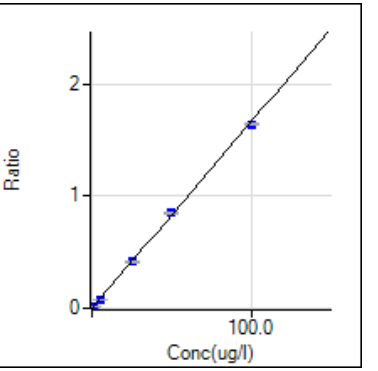
55 Mn [2] / ISTD: 45 Sc
y = 2.227E-2 x + 7.076E-4
R 0.9999
DL 0.01454
BEC 0.03177



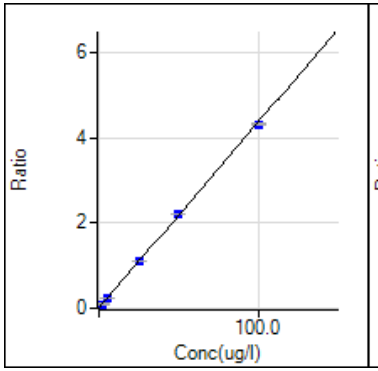
56 Fe [2] / ISTD: 45 Sc
y = 3.464E-2 x + 2.415E-2
R 1.0000
DL 0.05571
BEC 0.6971



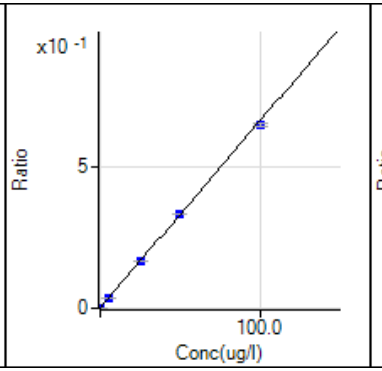
59 Co [2] / ISTD: 45 Sc
y = 6.377E-2 x + 7.949E-4
R 0.9999
DL 0.003794
BEC 0.01247



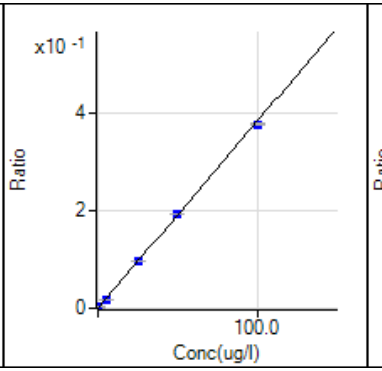
60 Ni [2] / ISTD: 45 Sc
y = 1.662E-2 x + 3.099E-4
R 0.9999
DL 0.01821
BEC 0.01864



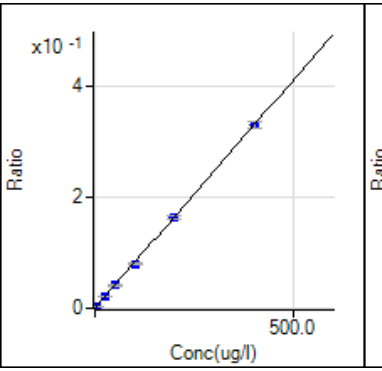
63 Cu [2] / ISTD: 45 Sc
y = 4.362E-2 x + 5.545E-3
R 0.9999
DL 0.03376
BEC 0.1271



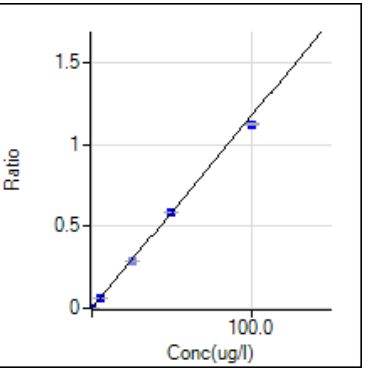
66 Zn [2] / ISTD: 45 Sc
y = 6.624E-3 x + 1.525E-3
R 0.9999
DL 0.06261
BEC 0.2303



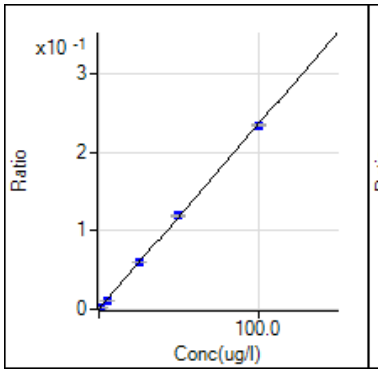
75 As [2] / ISTD: 45 Sc
y = 3.823E-3 x + 7.062E-5
R 0.9999
DL 0.02291
BEC 0.01847



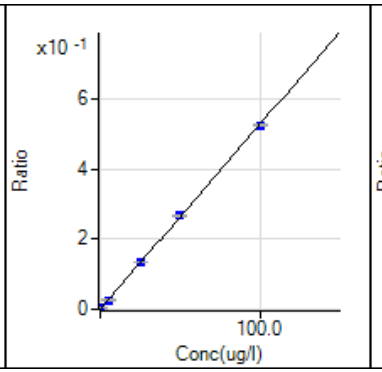
78 Se [3] / ISTD: 74 Ge
y = 8.225E-4 x + 3.926E-5
R 1.0000
DL 0.03637
BEC 0.04774



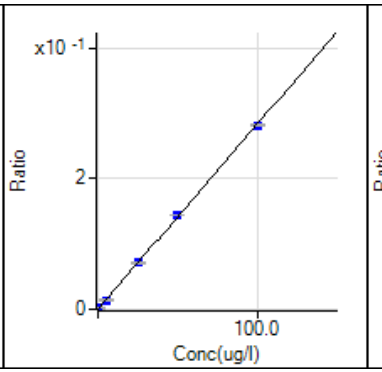
88 Sr [1] / ISTD: 103 Rh
y = 1.171E-2 x + 3.719E-4
R 0.9998
DL 0.00774
BEC 0.03177



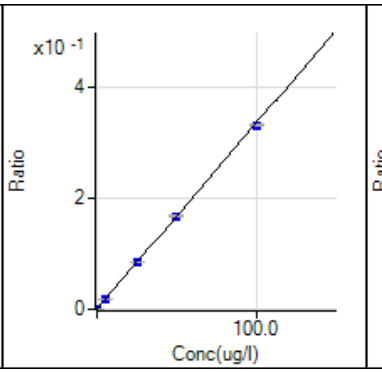
95 Mo [1] / ISTD: 103 Rh
y = 2.347E-3 x + 3.417E-4
R 0.9999
DL 0.01087
BEC 0.1456



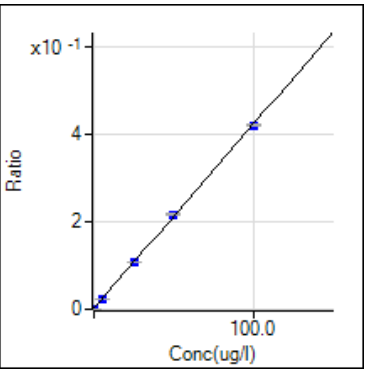
107 Ag [1] / ISTD: 115 In
y = 5.278E-3 x + 9.862E-6
R 0.9999
DL 0.003135
BEC 0.001869



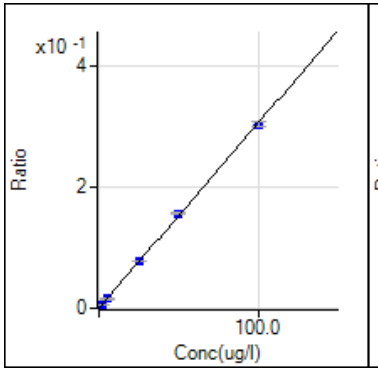
111 Cd [2] / ISTD: 115 In
y = 2.828E-3 x + 2.636E-5
R 0.9999
DL 0.02675
BEC 0.009322



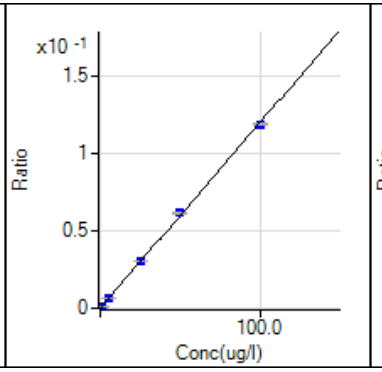
118 Sn [1] / ISTD: 115 In
y = 3.354E-3 x + 4.258E-4
R 1.0000
DL 0.02901
BEC 0.127



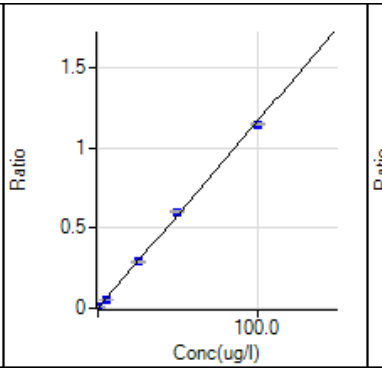
118 Sn [2] / ISTD: 115 In
y = 4.206E-3 x + 2.410E-3
R 0.9999
DL 0.08303
BEC 0.5731



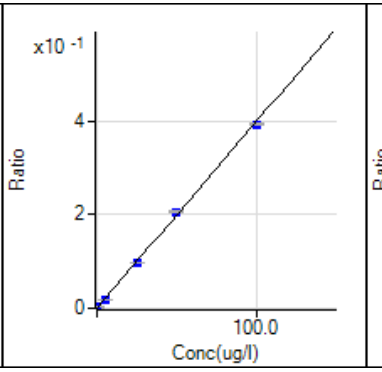
121 Sb [1] / ISTD: 159 Tb
y = 3.047E-3 x + 6.330E-5
R 0.9999
DL 0.0133
BEC 0.02078



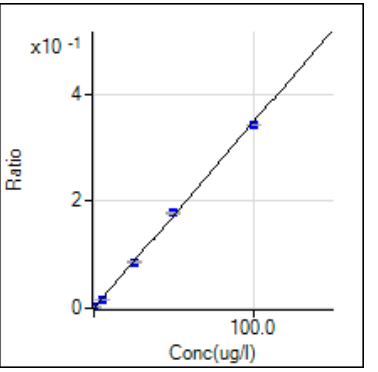
137 Ba [1] / ISTD: 159 Tb
y = 1.198E-3 x + 1.331E-5
R 0.9998
DL 0.01428
BEC 0.0111



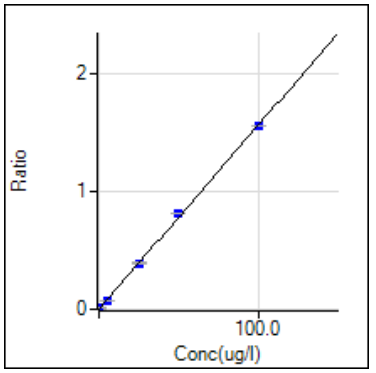
205 Tl [1] / ISTD: 209 Bi
y = 1.161E-2 x + 3.737E-4
R 0.9997
DL 0.006351
BEC 0.03218



206 Pb [1] / ISTD: 209 Bi
y = 3.977E-3 x + 2.147E-4
R 0.9997
DL 0.04965
BEC 0.05398



207 Pb [1] / ISTD: 209 Bi
y = 3.472E-3 x + 1.596E-4
R 0.9998
DL 0.02981
BEC 0.04596



208 Pb [1] / ISTD: 209 Bi

y = 1.559E-2 x + 8.414E-4

R	0.9998
DL	0.006377
BEC	0.05397

SGS North America Inc.

Accutest Aqueous Metals Digestion Form

Batch Information

Batch ID	Start Date	Start Time	End Date	End time	QC Samp 1	QC Samp 2
MP14909	5/9/2019	17:20	5/9/2019	22:50	JC87783-12	

Temperature

		Block ID1	Therm. ID#	Temperature	Correction	Corrected Temp
1	Start	3	2106305	97	-2	95
1	End	3	2106305	97	-2	95
2	Start					
2	End					

Methods and Equipment

	Dig. Method	Heating Method		Auto Pipette #	Digestion Tube Lot #	
	SW846 3010A	Digestion Block		M-74	1812114	

Sample ID	Bottle Number	Pres (Y/N)	Initial Sample Volume	Final Volume in ML	Reagent Groups Added	Spike Groups Added	Comments
MP14909-MB1	N/A	N	50	50	AB		
MP14909-B1	N/A	N	50	50	AB	ABCD	
MP14909-S1	3	Y	50	50	AB	ABCD	
MP14909-S2	3	Y	50	50	AB	ABCD	
MP14909-SD1	3	Y	50	50	AB		
JC87559-1F	3	Y	50	50	AB		
JC87559-2F	3	Y	50	50	AB		
JC87578-2	1	Y	50	50	AB		
JC87686-1	5	Y	50	50	AB		
JC87686-2	5	Y	50	50	AB		
JC87783-1	3	Y	50	50	AB		
JC87783-10	3	Y	50	50	AB		
JC87783-11	3	Y	50	50	AB		
JC87783-12	3	Y	50	50	AB		
JC87783-13	3	Y	50	50	AB		
JC87783-2	3	Y	50	50	AB		
JC87783-3	3	Y	50	50	AB		
JC87783-4	3	Y	50	50	AB		
JC87783-5	3	Y	50	50	AB		
JC87783-6	3	Y	50	50	AB		
JC87783-7	3	Y	50	50	AB		
JC87783-8	3	Y	50	50	AB		
JC87783-9	3	Y	50	50	AB		
MP14909-B2	N/A	N	50	50	AB	EFGHI	
MP14909-B3	N/A	Y	50	50	AB	ABCD	**FILTERMET 5/8
MP14909-MB2	N/A	Y	50	50	AB		**FILTERMET 5/8
MP14909-S3	3	Y	50	50	AB	EFGHI	
MP14909-S4	3	Y	50	50	AB	EFGHI	

Reagents Groups		
Group	Description	MLs Used
A	CONC HNO3	3
B	1:1 HCL	5
C		
D		
E		
F		
G		
H		

Spike Groups		
Group	Description	MLs Used
A	ACCUTEST 13A REV1	0.5
B	ACCUTEST 14A REV1	0.5
C	MINERALS 5000PPM	0.25
D	AG 20PPM	0.025
E	ACCUTEST 13B REV1	0.2
F	AG 20PPM	0.2
G	ACCUTEST 14B REV1	0.2
H	MINERALS 1000PPM	0.2

I Se 20ppm 0.8

Comments: **SEE MP FOR SPIKE LOT INFORMATION

Analyst MOUSTAFR Approved by _____ Approved on _____

Note: Reagent traceability for batch Start Date can be seen on the reagent traceability page for this batch.
Serial Dilution samples shown for QC purposes only.
Acceptable Temperature range is 90-95 degrees C unless otherwise noted

SGS

Metals Digestion Reagents Information Log

Digestion Batch ID: MP 14909 **Date:** 5/9/19

Matrix: ALL

Standard/Reagent Type	Exp. Date	Standard/Reagent ID
Spiking Solution - (ACCUTEST-13A REV1)	10/23/2019	MP-015-1161
Spiking Solution - (ACCUTEST-14A REV1)	10/23/2019	MP-015-1162
Spiking Solution - 5000 mg/l Minerals	4/25/2020	P2-MEB678659 MFG: INO. VENT.
Spiking Solution - Sulfur 1000ppm	4/11/2021	LOT: 041118 MFG: ABS. GRADE
Spiking Solution - Si 1000ppm	10/31/2019	N2-SI668066 MFG: INO. VENT.
Spiking Solution - Bi 1000ppm	4/12/2020	N2-BI669548 MFG: INO. VENT.
Spiking Solution - Se 20ppm	10/10/2019	MP-015-1156
Spiking Solution - Li 1000ppm	4/18/2020	N2-LI665824 MFG: INO. VENT.
Spiking Solution- Ag 20 ppm	10/30/2019	MP-015-1165
Spiking Solution - (ACCUTEST-13B REV1)	10/10/2019	MP-015-1157
Spiking Solution - (ACCUTEST-14B REV1)	9/27/2019	MP-015-1148
Spiking Solution - 1000ppm Minerals	6/4/2019	MP-015-1117
Spiking Solution- P		
Nitric Acid	5/9/2021	LOT: 213500 MFG: J.T. BAKER
Nitric Acid (1:1)	11/8/2019	MP-018-42-203 1:1 HNO3
Hydrochloric Acid	5/7/2021	LOT: 221681 MFG: J.T. BAKER
Hydrochloric Acid (1:1)	11/7/2019	MP-018-42-202 1:1 HCL
Hydrogen Peroxide	4/26/2021	LOT: 189267 MFG: FISHER
Soil Lab Control/Soil LC	3/31/2020	LOT: D094-540 MFG: ERA
Teflon Chips(For Soil MB and Blank Spike)	N/A	LOT: 24242815 MFG: SAINT-GOBAIN
Digestion Tubes	N/A	LOT: 1812114 MFG: ENV. EXPRESS
pH Paper	6/15/2021	LOT: 217518 MFG: HYDRION
Filter paper Q8	N/A	LOT: 16917460 MFG: FISHER
Filter paper 0.45µm	N/A	LOT: F8MA26136E MFG: FISHER

Spike witnessed By: _____ Validated By: _____

Validated On: _____

Metals Prep Reagent
1/17/18

SGS North America Inc.

Accutest Aqueous Metals Digestion Form

Batch Information

Batch ID	Start Date	Start Time	End Date	End time	QC Samp 1	QC Samp 2
MP14909	5/10/2019	17:00	5/10/2019	22:30	JC87783-12	

Temperature

		Block ID1	Therm. ID#	Temperature	Correction	Corrected Temp
1	Start	5	158274	95	0	95
1	End	5	158274	95	0	95
2	Start					
2	End					

Methods and Equipment

	Dig. Method	Heating Method		Auto Pipette #	Digestion Tube Lot #	
	SW846 3010A	Digestion Block		M-74	1812114	

Sample ID	Bottle Number	Pres (Y/N)	Initial Sample Volume	Final Volume in ML	Reagent Groups Added	Spike Groups Added	Comments
MP14909-MB3	N/A	N	50	50	AB		
MP14909-B4	N/A	N	50	50	AB	ABCDE	
JC87585-1	1	Y	50	50	AB		
JC87833-1	3	Y	50	50	AB		

Reagents Groups

Group	Description	MLs Used
A	CONC HNO3	3
B	1:1 HCL	5
C		
D		
E		
F		
G		
H		

Spike Groups

Group	Description	MLs Used
A	ACCUTEST 13B REV1	0.2
B	ACCUTEST 14B REV1	0.2
C	MINERALS 1000PPM	0.2
D	AG 20PPM	0.2
E	SE 20PPM	0.8
F	AG 20PPM	0.2
G		
H		

Comments:

Analyst MOUSTAFR **Approved by** gulcagt **Approved on** 5/13/2019

Note: Reagent traceability for batch Start Date can be seen on the reagent traceability page for this batch.
Serial Dilution samples shown for QC purposes only.
Acceptable Temperature range is 90-95 degrees C unless otherwise noted

SGS

Metals Digestion Reagents Information Log

Digestion Batch ID: MP 14909 **Date:** 5/10/19

Matrix: ALL

Standard/Reagent Type	Exp. Date	Standard/Reagent ID
Spiking Solution - (ACCUTEST-13A REV1)	10/30/2019	MP-015-1166
Spiking Solution - (ACCUTEST-14A REV1)	10/30/2019	MP-015-1167
Spiking Solution - 5000 mg/l Minerals	4/25/2020	P2-MEB678659 MFG: INO. VENT.
Spiking Solution - Sulfur 1000ppm	4/11/2021	LOT: 041118 MFG: ABS. GRADE
Spiking Solution - Si 1000ppm	10/31/2019	N2-SI668066 MFG: INO. VENT.
Spiking Solution - Bi 1000ppm	4/12/2020	N2-BI669548 MFG: INO. VENT.
Spiking Solution - Se 20ppm	10/10/2019	MP-015-1156
Spiking Solution - Li 1000ppm	4/18/2020	N2-LI665824 MFG: INO. VENT.
Spiking Solution- Ag 20 ppm	11/7/2019	MP-015-1168
Spiking Solution - (ACCUTEST-13B REV1)	10/10/2019	MP-015-1157
Spiking Solution - (ACCUTEST-14B REV1)	9/27/2019	MP-015-1148
Spiking Solution - 1000ppm Minerals	10/29/2019	MP-015-1164
Spiking Solution- P		
Nitric Acid	5/9/2021	LOT: 213500 MFG: J.T. BAKER
Nitric Acid (1:1)	11/8/2019	MP-018-42-203 1:1 HNO3
Hydrochloric Acid	5/7/2021	LOT: 221681 MFG: J.T. BAKER
Hydrochloric Acid (1:1)	11/7/2019	MP-018-42-202 1:1 HCL
Hydrogen Peroxide	4/26/2021	LOT: 189267 MFG: FISHER
Soil Lab Control/Soil LC	3/31/2020	LOT: D094-540 MFG: ERA
Teflon Chips(For Soil MB and Blank Spike)	N/A	LOT: 24242815 MFG: SAINT-GOBAIN
Digestion Tubes	N/A	LOT: 1812114 MFG: ENV. EXPRESS
pH Paper	6/15/2021	LOT: 217518 MFG: HYDRION
Filter paper Q8	N/A	LOT: 16917460 MFG: FISHER
Filter paper 0.45µm	N/A	LOT: F8MA26136E MFG: FISHER

Spike witnessed By: TG

Validated By:

Validated On:

Metals Prep Reagent
1/17/18

General Chemistry

QC Data Summaries

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: JC87833
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
HEM Oil and Grease	GP21256/GN95365	5.0	0.0	mg/l	40.265	35.6	88.4	78-114%
Solids, Total Suspended	GN95259	4.0	0.0	mg/l				

Associated Samples:
Batch GN95259: JC87833-1
Batch GP21256: JC87833-1
(*) Outside of QC limits

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: JC87833
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
HEM Oil and Grease	GP21256/GN95365	JC87830-3	mg/l	0.0	0.0	0.0	0-18%
Solids, Total Suspended	GN95259	JC87830-4	mg/l	2.2	2.2	0.0	0-17%

Associated Samples:
Batch GN95259: JC87833-1
Batch GP21256: JC87833-1
(*) Outside of QC limits

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: JC87833
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
HEM Oil and Grease	GP21256/GN95365	JC87830-3	mg/l	0.0	40.265	24.5	60.8N(a)	78-114%

Associated Samples:
Batch GP21256: JC87833-1
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(a) Spike recovery indicates possible matrix interference.

General Chemistry

Raw Data

Test: **Total Suspended Solids**
Method: **SM2540 D-11**

Product: **TSS**
Units: mg/l
RL: 4.0

GN Batch ID: GN95259
Analyst: RC
Date: 5/13/2019
Balance ID: B53

SGS

QC Summary Filtration Date: 5/13/19 OVEN ID: INC-21 Filtration Time: 11:56

MB ID:	GN95259-MB1	Result:	<RDL	RDL:	4	< RDL YES
Dup ID:	GN95259-D1	Samp Resu	2.2	Dup Result:	2.2	% RPD: 0
Dup ID:	GN95259-D2	Samp Mass	15.8	Dup Mass:	16.2	% RPD: 2.5

Acceptable Temp. Range = 103 to 105 deg. C.

Therm ID: 5624416
Corr Factor: 0
FILTER LOT# 111301

Date:	5/13/2019	5/13/2019	
Time (Start/Finish):	13:15/15:04	15:19/16:36	
UnCorr Temp (Start/Finish):	104/104	104/104	
Corr Temp (Start/Finish):	104/104	104/104	

Bot #	Dish #	Sample ID	Filter Size*	Volume Filtered (ml)	Filter Tare Weight in g*	Weight after drying at 104 deg. C in g	Redry #1 Weight in g (a)	Redry ?	Redry # 2 Weight in g (a)	Redry ?	Redry # 3 Weight in g (a)	Constant Weight in g (a)	TSS in mg/l (Calculated)	Final TSS in mg/l**	Mass %RPD	Mass %RPD > 5%
	x1	GN95259-MB1	42	1000.0	0.0945	0.0945	0.0945	NO				0.0945		0.00		1000
	x2	GN95259-D1	42	500.0	0.0954	0.0965	0.0965	NO				0.0965		2.20	0.00%	500
1	x3	JC87830-4	42	500.0	0.0936	0.0947	0.0947	NO				0.0947		2.20		500
	x4	GN95259-D2	42	500.0	0.0962	0.1043	0.1043	NO				0.1043		16.20	2.50%	500
2	x5	JC87772-3	42	500.0	0.0955	0.1035	0.1034	NO				0.1034		15.80		500
1	x6	JC87772-2	42	150.0	0.0961	0.1443	0.1443	NO				0.1443		321.33		150
1	x7	JC87830-5	42	1000.0	0.0946	0.0962	0.0962	NO				0.0962		1.60		1000
9	x8	JC87845-4	42	250.0	0.0939	0.1047	0.1047	NO				0.1047		43.20		250
9	x9	JC87845-3	42	200.0	0.0945	0.1030	0.1030	NO				0.1030		42.50		200
9	x10	JC87845-2	42	20.0	0.0954	0.1857	0.1855	NO				0.1855		4505.00		20
9	x11	JC87845-1	42	200.0	0.0942	0.1326	0.1327	NO				0.1327		192.50		200
3	x12	JC87969-1	42	200.0	0.0961	0.1050	0.1049	NO				0.1049		44.00		200
1	x13	JC87846-1	42	1000.0	0.0950	0.0990	0.0990	NO				0.0990		4.00		1000
1	x14	JC87846-2	42	1000.0	0.0935	0.0975	0.0975	NO				0.0975		4.00		1000
1	x15	JC87846-3	42	1000.0	0.0937	0.0975	0.0975	NO				0.0975		3.80		1000
1	x16	JC87846-4	42	1000.0	0.0958	0.1056	0.1055	NO				0.1055		9.70		1000
5	x17	JC87833-1	42	940.0	0.0956	0.1000	0.1000	NO				0.1000		4.68		940
2	x18	JC87786-3	42	650.0	0.0945	0.1070	0.1070	NO				0.1070		19.23		650
4	x19	JC87786-1	42	1000.0	0.0958	0.1135	0.1137	NO				0.1137		17.90		1000
3	x20	JC87785-1	42	1000.0	0.0940	0.1280	0.1279	NO				0.1279		33.90		1000
1	x21	JC87766-4	42	50.0	0.0957	0.1244	0.1244	NO				0.1244		574.00		50
1	x22	JC87766-2	42	900.0	0.0953	0.1021	0.1018	NO				0.1018		7.22		900
2	x23	JC87755-2	42	750.0	0.0938	0.1110	0.1109	NO				0.1109		22.80		750

(a) Redries when result is <DL after the initial weighing. Note: Constant weight is a change of <4% of the sample mass or 0.0005 g, whichever is
*Filters are dried and dessicated for a minimum of 12 hours ensure constant tare weight.
**Final TSS, mg/L = [(constant weight - filter tare mass, g) × 1000] ÷ (initial volume, mL ÷ 1000)
Comments:

DAYT-WET-0196-10-FORM-TSS
REV DATE 10/17/18

TSS Worksheet

SGS ACCUTEST

Acceptable Temp. Range = 103 to 105 deg. C.

** Note - Filters are dried for a minimum of 1.5 h and dessicated for a minimum of 12 h. Constant mass is determined prior to filtering.

Date:	5/13/2019	5/13/2019					
Time (Start/Finish):	08.00/10:00	10:37/11:43					
Uncorr Temp Deg C (Start/Finish):	104/104	104/104					
Corr Temp Deg C (Start/Finish):	104/104	104/104					

Dish #	Filter size	Initial weight after drying** (mg)	Redry 1 Constant Weight in g (a)	Redry ?	Redry 2 Constant Weight in g (a)	Redry ?	Redry 3 Constant Weight in g (a)	Constant Weight	
X1	42.00000	**0.0945**	**0.0945**	NO		***FALSE***		0.0945	X
X2	42.00000	**0.0955**	**0.0954**	NO		***FALSE***		0.0954	
X3	42.00000	**0.0935**	**0.0936**	NO		*FALSE*		0.0936	
X4	42.00000	**0.0962**	**0.0962**	NO		*FALSE*		0.0962	
X5	42.00000	**0.0955**	**0.0955**	NO		*FALSE*		0.0955	
X6	42.00000	**0.0962**	**0.0961**	NO		*FALSE*		0.0961	
X7	42.00000	**0.0947**	**0.0946**	NO		*FALSE*		0.0946	
X8	42.00000	**0.0938**	**0.0939**	NO		***FALSE***		0.0939	
X9	42.00000	**0.0945**	**0.0945**	NO		***FALSE***		0.0945	
X10	42.00000	**0.0954**	**0.0954**	NO		*FALSE*		0.0954	
X11	42.00000	**0.0942**	**0.0942**	NO		*FALSE*		0.0942	
X12	42.00000	**0.0961**	**0.0961**	NO		*FALSE*		0.0961	
X13	42.00000	**0.0950**	**0.0950**	NO		*FALSE*		0.0950	
X14	42.00000	**0.0934**	**0.0935**	NO		*FALSE*		0.0935	
X15	42.00000	**0.0937**	**0.0937**	NO		*FALSE*		0.0937	
X16	42.00000	**0.0960**	**0.0958**	NO		*FALSE*		0.0958	
X17	42.00000	**0.0956**	**0.0956**	NO		***FALSE***		0.0956	
X18	42.00000	**0.0945**	**0.0945**	NO		***FALSE***		0.0945	
X19	42.00000	**0.0958**	**0.0958**	NO		***FALSE***		0.0958	
X20	42.00000	**0.0939**	**0.0940**	NO		***FALSE***		0.0940	
X21	42.00000	**0.0960**	**0.0957**	NO		*FALSE*		0.0957	
X22	42.00000	**0.0953**	**0.0953**	NO		*FALSE*		0.0953	
X23	42.00000	**0.0938**	**0.0938**	NO		*FALSE*		0.0938	
				FALSE		FALSE			
				FALSE		FALSE			
				FALSE		FALSE			
				YES		FALSE		0.0953	
				FALSE		FALSE			
				FALSE		FALSE			
				FALSE		FALSE			
				FALSE		FALSE			
				FALSE		FALSE			
				FALSE		FALSE			

JJY

SGS

GN95259
TSS SAMPLE DESCRIPTION SHEET

	SGS Sample ID		Filter size used	Non-standard volumes. Comment with reason as shown below.	Limited Volume	
1	JC87830-4	Slight Pale	42	500	✓	QCD1
2	JC87772-3	Foamy & Clear		500	✓	QCD2
1	JC87772-2	foomy, cloudy yellow		150 a		
1	JC87830-5	Pale		1000		
9	JC87845-4	Foamy, cloudy Pale yellow		250 a		
9	JC87845-3	↓		200 a		
9	JC87845-2	cloudy grey		20 a		
9	JC87845-1	Cloudy light Brown		200 a		
3	JC87969-1	Foamy cloudy offwhite, Particles		200 a		
1	JC87846-1	Brownish Yellow		1000		
1	JC87846-2	↓ with Particles		1000		
1	JC87846-3	↓ ↓		1000		
1	JC87846-4	↓ ↓		1000		
5	JC87833-1	Slight Pale		940	✓	
2	JC87786-3	cloudy yellow		650 a		
4	JC87786-1	Cloudy Pale		1000		
3	JC87785-1	Cloudy Pale & Particles		1000		
1	JC87766-4	Cloudy Orange		50 a		
1	JC87766-2	Foamy Hazy & Pale		900a		
2	JC87755-2	Foamy, cloudy gray, smelly		750 a		

Reason (a). Sample contains heavy particulates and it can be assessed by appearance that it will clog the filter at higher volumes.
Reason (b). Initial analysis of the sample at a higher volume produced clogging. Rerunning at reduced volume.

Form: GN215-02
Rev. Date: 3/2/18

SGS

TEST: HEM Oil and Grease		OG1664		GN Group:	GN95365
Method: EPA 1664A		Reporting Date:	5/15/2019	GP Group:	GP21256
Date Extracted:	5/15/2019	Final Date Weighed:	5/15/2019	Analyst:	BM
Balance # Used:	B16	(Refer to balance log for balance calibration)		Units:	mg/L

QC Summary — Units: mg/l

Dup Sample ID:	JC87830-3	Samp Res:	<5	Dup Result:	<5	% RPD:	0%		
MS Sample ID:	JC87830-3	Samp Res:	<5	Spike:	40.265	MS Res:	24.5	% Rec.	60.80%
Method Blank Date:	5/15/2019	Result:	<5	RL:	5			<RL:	YES
Blank Spike Date:	5/15/2019	Result:	35.6	Spk Amt.	40.265			% Rec.	88%
External:	NA	Control Limit:	NA	Result:	NA			% Rec.	NA

Speed Vap Temperature During Evaporation: 40 deg. C

Speed: Vap III

Vap ID:

(c) refer to Determination of Constant weights page for balance check weight results.

Flask #	Sample ID	Sample pH	Sample Volume (ml)	Total Weight (g)	Tare Weight (g)	Sample Weight (g)	Calc Result	Final Result	RL	Analysis Time
	0.002 g check (c)	na	na	0.0020	0.0020	na	na	na	na	
	1.000 g check (c)	na	na	1.0000	1.0000	na	na	na	na	
	5.000 g check (c)	na	na	5.0000	5.0000	na	na	na	na	
	100 g check (c)	na	na	100.0066	100.0068	na	na	na	na	
MB	GP21256-MB1	<2	1000	2.4856	2.4852	0.0004	0.400	<5	5.00	10:30
BSP	GP21256-B1	<2	1000	2.5764	2.5408	0.0356	35.600	35.600	5.00	
MS	GP21256-S1	<2	1000	2.4945	2.4700	0.0245	24.500	24.500	5.00	
DUP	GP21256-D1	<2	1000	2.5101	2.5100	0.0001	0.100	<5	5.00	
1	JC87457-1	<2	980	2.5190	2.5189	0.0001	0.102	<5.1	5.10	
2	JC87462-1	<2	1000	2.5084	2.5073	0.0011	1.100	<5	5.00	
3	JC87463-6	<2	970	2.5039	2.5027	0.0012	1.237	<5.15	5.15	
4	JC87830-3	<2	1000	2.4783	2.4782	0.0001	0.100	<5	5.00	
5	JC87833-1	<2	910	2.4594	2.4593	0.0001	0.110	<5.49	5.49	
6	JC88062-1	<2	1000	2.5024	2.5019	0.0005	0.500	<5	5.00	
7	JC85400-6	<2	1000	2.5011	2.5006	0.0005	0.500	<5	5.00	
8	JC87519-1A	<2	1000	2.4899	2.4896	0.0003	0.300	<5	5.00	11:20
9										
10										
	0.002 g check (c)	na	na	0.0020	0.0020	na	na	na	na	
	1.000g check(b)	na	na	1.0001	1.0000	na	na	na	na	

SGS

DETERMINATION OF CONSTANT WEIGHT

Test: HEM Oil and Grease
Method: EPA 1664A
Test Code: OG1664 10A

GN Group: GN95365
GP Group: GP21256
Analyst: BM
Units: mg/l

Balance ID#: B-16
Thermometer ID#: 73133
Thermometer correction factc 0

Definition of Constant Weight: Weight loss is less than 0.5 mg (0.0005 g).

Date:		5/15/2019	5/15/2019					
Start Time, End Time, Temp (Corrected, Uncorrected)	NA	13:00-13:30	13:35-14:05					Note: Samples must be dried at 70 +/- 2 deg. For a minimum of 30 minutes for each drying cycle.
Sample ID	Flask #	Initial Weight (g)	Second Weight (g)	Re-Weigh ?	Third Weight (g)	Re-Weigh ?	Fourth Weight (g)	Description
0.002 g check (c)		0.0020	0.0020	N				
1.000 g check (c)		1.0001	1.0000	N				
5.000 g check (c)		5.0000	5.0000					
100 g check (c)		100.0068	100.0066	N				
GP21256-MB1	MB	2.4857	2.4856	N				
GP21256-B1	BSP	2.5762	2.5764	N				
GP21256-S1	MS	2.4945	2.4945	N				
GP21256-D1	DUP	2.5101	2.5101	N				
JC87457-1	1	2.5192	2.5190	N				
JC87462-1	2	2.5082	2.5084	N				
JC87463-6	3	2.5037	2.5039	N				
JC87830-3	4	2.4780	2.4783	N				
JC87833-1	5	2.4593	2.4594	N				
JC88062-1	6	2.5023	2.5024	N				
JC85400-6	7	2.5010	2.5011	N				
JC87519-1A	8	2.4897	2.4899	N				
	9							
	10							
0.002 g check (c)		0.0020	0.0020	N				
1.000g check(b)		1.0000	1.0001	N				
5.000 g check (c)		5.0000	5.0000	N				

SGS

GP21256 OG1664 TRAY A

	Accutest Sample ID	Bottle #	Volume (mL)	Appearance (clarity, color, etc.)	Odor
MS	GP21256-S1	1	1000	CLEAR, COLORLESS	NONE
DUP	GP21256-D1	2	1000	CLEAR, COLORLESS	NONE
1	JC87457-1	2	980	SLIGHT PARTICLES	NONE
2	JC87462-1	1	1000	SLIGHT PARTICLES	SLIGHT ODOR
3	JC87463-6	1	970	CLEAR, COLORLESS	SLIGHT ODOR
4	JC87830-3	3	1000	CLEAR, COLORLESS	NONE
5	JC87833-1	1	910	SLIGHT PARTICLES	SLIGHT ODOR
6	JC88062-1	2	1000	SLIGHT PARTICLES	SLIGHT ODOR
7	JC85400-6	4	1000	CLEAR, COLORLESS	NONE
8	JC87519-1A	1	1000	SLIGHT CLOUDY	SLIGHT ODOR
9					
10					
				HEM SPIKE	
				GNE5-58016-OG1664	
				6/14/2019	
				HEM: 8.053mg/L HEX: 4.036 mg/L	

Form: GN-110
Rev. Date:5/15/2019

Reagent Information Log - OG1664 Water by EPA 1664A

Reagent	Expiration Date	Reagent # or Manufacturer/Lot
Hexane	12/12/2022	FISHER Lot #173528
HEM Spike	6/14/2019	GNE5-58016-OG1664
Methanol	4/4/2021	FISHER LOT #180813
Disk Filter	NA	LABORATORYSALES&SER.#103522
1:1 HCL	7/25/2019	GNE1-57044-PHC/OG1664
Sodium Sulfate	5/16/2019	GNE4-57781-PHC/OG1664
Filter 47mm	NA	LABORATORYSALES&SER.#150125
Pre-Filter 47mm	NA	LABORATORYSALES&SER.#141347
Filter 90/100mm	NA	LABORATORYSALES&SER.#140294
Pre-Filter 90/100mm	NA	LABORATORYSALES&SER.#141272
pH paper	6/1/2019	HYDRON LOT#215316
HEM Spike (ICV)	NA	NA

B1/S1= 5.0ml of 8.155 mg/L HEM SPIKE
HEX= 4.080 mg/L

Form: GN-087 1-44
Rev. Date: 11/4/08

The results set forth herein are provided by SGS North America Inc.

e-Hardcopy 2.0
Automated Report

Technical Report for

Tantara Corporation

USACE Buffalo Nike Missle UST, East Aurora, NY

19-382

SGS Job Number: JC88797

Sampling Dates: 05/21/19 - 05/23/19

Report to:

Tantara Corporation
54 Mason Street
Worcester, MA 01610
MLovejoy@TantaraCorp.com

ATTN: Mark Lovejoy

Total number of pages in report: 34

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Brian McGuire
General Manager

Client Service contact: Tammy McCloskey 732-329-0200

Certifications: NJ(12129), NY(10983), CA, CT, FL, IL, IN, KS, KY, LA, MA, MD, ME, MN, NC, OH VAP (CL0056), AK (UST-103), AZ (AZ0786), PA, RI, SC, TX, UT, VA, WV, DoD ELAP (ANAB L2248)

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Test results relate only to samples analyzed.

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Please share your ideas about
how we can serve you better at:
EHS.US.CustomerCare@sgs.com

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SGS North America Inc.

Sample Summary

Tantara Corporation

Job No: JC88797

USACE Buffalo Nike Missle UST, East Aurora, NY
Project No: 19-382

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
JC88797-1	05/21/19	07:00	MJ	05/25/19	AQ	Water	SILO 6-1
JC88797-2	05/23/19	07:45	MJ	05/25/19	AQ	Water	SILO 6-2
JC88797-3	05/23/19	13:00	MJ	05/25/19	AQ	Water	SILO 4-1

CASE NARRATIVE / CONFORMANCE SUMMARY

Client:	Tantara Corporation	**Job No**	JC88797
Site:	USACE Buffalo Nike Missle UST, East Aurora, NY	**Report Date**	6/3/2019 3:05:39 PM

On 05/25/2019, 3 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were received at SGS North America Inc. at a maximum corrected temperature of 1 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. Job Number of JC88797 was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Compounds qualified as out of range in the continuing calibration summary report are acceptable as per method requirements when there is a high bias but the sample result is non-detect.

General Chemistry By Method SM2540 D-11

Matrix: AQ **Batch ID:** GN95808

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC88797-1DUP were used as the QC samples for Solids, Total Suspended.

Matrix: AQ **Batch ID:** GN95842

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC88682-1DUP were used as the QC samples for Solids, Total Suspended.

General Chemistry By Method SM5220 C-11,HACH8000

Matrix: AQ **Batch ID:** GP21610

- All samples were prepared within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC88424-2DUP, JC88424-2MS were used as the QC samples for Chemical Oxygen Demand.

SGS North America Inc. certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting the Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

SGS North America Inc. is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. Data release is authorized by SGS North America Inc indicated via signature on the report cover

Summary of Hits

Job Number: JC88797
Account: Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY
Collected: 05/21/19 thru 05/23/19

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
JC88797-1	**SILO 6-1**					
Solids, Total Suspended		19.2	4.0	1.5	mg/l	SM2540 D-11
JC88797-2	**SILO 6-2**					
Chemical Oxygen Demand		74.1	20	11	mg/l	SM5220 C-11,HACH8000
Solids, Total Suspended		17.2	4.0	1.5	mg/l	SM2540 D-11
JC88797-3	**SILO 4-1**					
Solids, Total Suspended		16.8	4.0	1.5	mg/l	SM2540 D-11

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	SILO 6-1		
Lab Sample ID:	JC88797-1	**Date Sampled:**	05/21/19
Matrix:	AQ - Water	**Date Received:**	05/25/19
		Percent Solids:	n/a
Project:	USACE Buffalo Nike Missle UST, East Aurora, NY		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Chemical Oxygen Demand	11 U	20	11	mg/l	1	06/03/19 13:13	MP	SM5220 C-11,HACH8000
Solids, Total Suspended	19.2	4.0	1.5	mg/l	1	05/28/19 10:58	RC	SM2540 D-11

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	SILO 6-2		
Lab Sample ID:	JC88797-2	**Date Sampled:**	05/23/19
Matrix:	AQ - Water	**Date Received:**	05/25/19
		Percent Solids:	n/a
Project:	USACE Buffalo Nike Missle UST, East Aurora, NY		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Chemical Oxygen Demand	74.1	20	11	mg/l	1	06/03/19 13:13	MP	SM5220 C-11,HACH8000
Solids, Total Suspended	17.2	4.0	1.5	mg/l	1	05/29/19 10:08	RC	SM2540 D-11

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	SILO 4-1		
Lab Sample ID:	JC88797-3	**Date Sampled:**	05/23/19
Matrix:	AQ - Water	**Date Received:**	05/25/19
		Percent Solids:	n/a
Project:	USACE Buffalo Nike Missle UST, East Aurora, NY		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Chemical Oxygen Demand	11 U	20	11	mg/l	1	06/03/19 13:13	MP	SM5220 C-11,HACH8000
Solids, Total Suspended	16.8	4.0	1.5	mg/l	1	05/29/19 10:08	RC	SM2540 D-11

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- Sample Tracking Chronicle
- Internal Chain of Custody

CHAIN OF CUSTODY

SGS North America Inc. - Dayton
2235 Route 130, Dayton, NJ 08810
TEL. 732-329-0200 FAX: 732-329-3499/3480
www.sgs.com/ehsusa

Page __ of __

FED-EX Tracking # 1219 2800 6049 | Bottle Order Control # | SGS Quote # | SGS Job # JC 88797

Client / Reporting Information

Company Name: Tantara Corp
Street Address: 54 Main St
City / State / Zip: Worcester MA 0610
Project Manager / Contact / E-mail: Mike Jay @ tantaracorp.com
Phone #: 508-752-5590
Sampler(s) Name(s) / Phone #:

Project Information

Project Name: Buffalo Nike
Street:
City / State:
Project #: 19-382
Client Purchase Order #:
Project Manager:

Billing Information (if different from Report to)

Company Name: Same
Street Address:
City / State / Zip:
Attention:

Requested Analysis

BETX 8260, As, Fe, Al, Ba, Cd, Pb, Oil, Cond, TSS

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL - Sludge
SED-Sediment
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid
WP - Wipe
FB - Field Blank
EB-Equipment Blank
RB - Rinse Blank
TB - Trip Blank

SGS Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Grab (G) Comp (C)	Matrix	# of bottles	Number of preserved Bottles: HCl	NaOH	HNO_3	H_2SO_4	NONE	DI Water	MEOH	ENCORE	LAB USE ONLY
1	Silo 6-1		5/21	0700			W	3				X	X				
2	Silo 6-2		5/23	0945			W	3				X	X				
3	Silo 4-1		5/23	1300			W	3				X	X				

C37

Turn Around Time (Business Days)

Approved By (SGS PM): / Date:

- [ ] 10 Business Days
- [x] 5 Business Days
- [ ] 3 Business Days*
- [ ] 2 Business Days*
- [ ] 1 Business Day*
- [ ] Other

All data available via Lablink

* Approval needed for 1-3 Business Day TAT

Deliverable

- [ ] Commercial "A" (Level 1)
- [ ] Commercial "B" (Level 2)
- [ ] NJ Reduced (Level 3)
- [ ] Full Tier I (Level 4)
- [ ] Commercial "C"
- [ ] NJ DKQP
- [ ] NYASP Category A
- [ ] NYASP Category B
- [ ] MA MCP Criteria_____
- [ ] CT RCP Criteria_____
- [ ] State Forms
- [ ] EDD Format _____
- [ ] DOD-QSM5

Commercial "A" = Results only; Commercial "B" = Results + QC Summary
Commercial "C" = Results + QC Summary + Partial Raw data

Comments / Special Instructions

http://www.sgs.com/en/terms-and-conditions

Sample Custody must be documented below each time samples change possession, including courier delivery.

	Relinquished by:	Date / Time:	Received By:	Relinquished By:	Date / Time:	Received By:
1		5/23 1700	FedEx	2 FedEx	5/25/19 0945	
3			3	4		4
5			5	Custody Seal #	Intact / Not intact	Preserved where applicable / Absent / Therm. ID: / On Ice / Cooler Temp. °C 2.0

INITIAL ASESSMENT 2BJK

LABEL VERIFICATION

IR 278

EHSA-QAC-0023-02-FORM-Dayton - Standard COC.xlsx

SGS Sample Receipt Summary

Job Number: JC88797 **Client:** TANTARA CORPORATION **Project:** USACE BUFFALO NIKE MISSLE UST, EAST AU

Date / Time Received: 5/25/2019 9:45:00 AM **Delivery Method:** FedEx **Airbill #'s:** 101928006049

Cooler Temps (Raw Measured) °C: Cooler 1: (2.0);

Cooler Temps (Corrected) °C: Cooler 1: (1.0);

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	☑		☐	3. COC Present:	☑		☐
2. Custody Seals Intact:	☑		☐	4. Smpl Dates/Time OK	☑		☐

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Cooler temp verification:	IR Gun		
3. Cooler media:	Ice (Bag)		
4. No. Coolers:	1		

Quality Control Preservation	Y	or	N	N/A
1. Trip Blank present / cooler:	☐		☑	☐
2. Trip Blank listed on COC:	☐		☑	☐
3. Samples preserved properly:	☑		☐	
4. VOCs headspace free:	☐		☐	☑

Sample Integrity - Documentation	Y	or	N
1. Sample labels present on bottles:	☑		☐
2. Container labeling complete:	☑		☐
3. Sample container label / COC agree:	☑		☐

Sample Integrity - Condition	Y	or	N
1. Sample recvd within HT:	☑		☐
2. All containers accounted for:	☑		☐
3. Condition of sample:	Intact		

Sample Integrity - Instructions	Y	or	N	N/A
1. Analysis requested is clear:	☑		☐	
2. Bottles received for unspecified tests	☐		☑	
3. Sufficient volume recvd for analysis:	☑		☐	
4. Compositing instructions clear:	☐		☐	☑
5. Filtering instructions clear:	☐		☐	☑

Test Strip Lot #s: pH 1-12: 206717 pH 12+: 208717 Other: (Specify) _____ _____

Comments: All samples: Only received 2x1000mL volumes for TSS and 1x500mL H2SO4 volume for COD. Did not receive volume for BTEX8260, Metals and Oil & Grease as listed on COC.

SM089-02 Rev. Date 12/1/16

Responded to by:

Response Date:

Per client please log for TSS & COD

JC88797: Chain of Custody
Page 3 of 6

JC88797

SAMPLE LOG SHEET
SILO WATER TREATMENT DISCHARGE
Buffalo Nike Silo Closure, East Aurora, NY

Date: 5/23/19 Silo # 4-1

Time: 14:00 Treated Vol. Of Water from this Silo: 27,500 gals

Date of Last Calibration: 5/23/19

Water Apperance : (Clear) Cloudy

Odor? Yes (No)

Sample Collected: (Yes) No

If yes, sample ID# Silo4-1

		Acceptable Limits
Temperature	21.73 C	NA
pH:	8.51	6.0 - 9.0
Dissolved Oxygen	9.03 mg/L	5 mg/L or greater
Totalizer Start:	1889816	
Totalizer Finish:	1889240	

Notes: _____

5.1

5

JC88797

SAMPLE LOG SHEET
SILO WATER TREATMENT DISCHARGE
Buffalo Nike Silo Closure, East Aurora, NY

Date: 5/23/19 Silo # 6-52

Time: 07:45 Treated Vol. Of Water from this Silo: 38,200 gals

Date of Last Calibration: 5/23/19

Water Apperance : (Clear) Cloudy _____

Odor? Yes (No) _____

Sample Collected: (Yes) No

If yes, sample ID# 6-52

		Acceptable Limits
Temperature	20.2 C	NA
pH:	8.73	6.0 - 9.0
Dissolved Oxygen	7.86 mg/L	5 mg/L or greater
Totalizer Start:	18864900	
Totalizer Finish:	18898100	

Notes: _____

5.1

5

JC88797: Chain of Custody
Page 5 of 6

JC88797

SAMPLE LOG SHEET
SILO WATER TREATMENT DISCHARGE
Buffalo Nike Silo Closure, East Aurora, NY

Date: 5/14/19 **Silo #** 6-1

Time: 1:00 **Treated Vol. Of Water from this Silo:** 2,800 **gals**

Date of Last Calibration: 5/13/19

Water Apperance : (Clear) Cloudy _____

Odor? Yes (No) _____

Sample Collected: (Yes) No

If yes, sample ID# Silo 6-1

	Acceptable Limits
Temperature 21.4 C	NA
pH: 9.76	6.0 - 9.0
Dissolved Oxygen 7.48 mg/L	5 mg/L or greater
Totalizer Start: 18761600	
Totalizer Finish: 18769400	

Notes: _____

5.1 5

JC88797: Chain of Custody
Page 6 of 6

Internal Sample Tracking Chronicle

Tantara Corporation

Job No: JC88797

USACE Buffalo Nike Missle UST, East Aurora, NY
Project No: 19-382

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JC88797-1 SILO 6-1	Collected: 21-MAY-19 07:00 By: MJ		Received: 25-MAY-19 By: DG			
JC88797-1	SM2540 D-11	28-MAY-19 10:58	RC			TSS
JC88797-1	SM5220 C-11,HACH8000	03-JUN-19 13:13	MP	03-JUN-19	MP	COD
JC88797-2 SILO 6-2	Collected: 23-MAY-19 07:45 By: MJ		Received: 25-MAY-19 By: DG			
JC88797-2	SM2540 D-11	29-MAY-19 10:08	RC			TSS
JC88797-2	SM5220 C-11,HACH8000	03-JUN-19 13:13	MP	03-JUN-19	MP	COD
JC88797-3 SILO 4-1	Collected: 23-MAY-19 13:00 By: MJ		Received: 25-MAY-19 By: DG			
JC88797-3	SM2540 D-11	29-MAY-19 10:08	RC			TSS
JC88797-3	SM5220 C-11,HACH8000	03-JUN-19 13:13	MP	03-JUN-19	MP	COD

SGS Internal Chain of Custody

Job Number: JC88797
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY
Received: 05/25/19

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC88797-1.2	Secured Storage	Todd Shoemaker	05/28/19 09:29	Retrieve from Storage
JC88797-1.2	Todd Shoemaker	Secured Staging Area	05/28/19 09:29	Return to Storage
JC88797-1.2	Secured Staging Area	Ruchitaben Chauhan	05/28/19 09:32	Retrieve from Storage
JC88797-1.2	Ruchitaben Chauhan		05/28/19 14:11	Depleted
JC88797-1.3	Secured Storage	Benjamin Gaines	05/30/19 08:30	Retrieve from Storage
JC88797-1.3	Benjamin Gaines	Secured Staging Area	05/30/19 08:30	Return to Storage
JC88797-1.3	Secured Staging Area	Mahendra Patel	05/30/19 08:36	Retrieve from Storage
JC88797-1.3	Mahendra Patel	Secured Storage	05/30/19 17:57	Return to Storage
JC88797-1.3	Secured Storage	Joshua Reitan	05/30/19 18:36	Retrieve from Storage
JC88797-1.3	Joshua Reitan	Secured Staging Area	05/30/19 18:36	Return to Storage
JC88797-1.3	Secured Storage	Dwayne Johnson	05/31/19 08:55	Retrieve from Storage
Bottle was returned to secure storage, but inadvertently not scanned.				
JC88797-1.3	Dwayne Johnson	Secured Staging Area	05/31/19 08:55	Return to Storage
JC88797-2.1	Secured Storage	Todd Shoemaker	05/28/19 09:29	Retrieve from Storage
JC88797-2.1	Todd Shoemaker	Secured Staging Area	05/28/19 09:29	Return to Storage
JC88797-2.1	Secured Staging Area	Ruchitaben Chauhan	05/28/19 09:32	Retrieve from Storage
JC88797-2.1	Ruchitaben Chauhan	Secured Storage	05/28/19 16:57	Return to Storage
JC88797-2.2	Secured Storage	Dwayne Johnson	05/29/19 09:00	Retrieve from Storage
JC88797-2.2	Dwayne Johnson	Secured Staging Area	05/29/19 09:01	Return to Storage
JC88797-2.2	Secured Staging Area	Ruchitaben Chauhan	05/29/19 09:28	Retrieve from Storage
JC88797-2.2	Ruchitaben Chauhan	Secured Storage	05/29/19 16:24	Return to Storage
JC88797-2.3	Secured Storage	Benjamin Gaines	05/30/19 08:30	Retrieve from Storage
JC88797-2.3	Benjamin Gaines	Secured Staging Area	05/30/19 08:30	Return to Storage
JC88797-2.3	Secured Staging Area	Mahendra Patel	05/30/19 08:36	Retrieve from Storage
JC88797-2.3	Mahendra Patel	Secured Storage	05/30/19 17:57	Return to Storage
JC88797-2.3	Secured Storage	Joshua Reitan	05/30/19 18:36	Retrieve from Storage
JC88797-2.3	Joshua Reitan	Secured Staging Area	05/30/19 18:36	Return to Storage
JC88797-2.3	Secured Storage	Dwayne Johnson	05/31/19 08:55	Retrieve from Storage
Bottle was returned to secure storage, but inadvertently not scanned.				
JC88797-2.3	Dwayne Johnson	Secured Staging Area	05/31/19 08:55	Return to Storage
JC88797-3.1	Secured Storage	Dwayne Johnson	05/29/19 09:00	Retrieve from Storage
JC88797-3.1	Dwayne Johnson	Secured Staging Area	05/29/19 09:01	Return to Storage
JC88797-3.1	Secured Staging Area	Ruchitaben Chauhan	05/29/19 09:28	Retrieve from Storage
JC88797-3.1	Ruchitaben Chauhan	Secured Storage	05/29/19 16:24	Return to Storage
JC88797-3.2	Secured Storage	Todd Shoemaker	05/28/19 09:29	Retrieve from Storage
JC88797-3.2	Todd Shoemaker	Secured Staging Area	05/28/19 09:29	Return to Storage
JC88797-3.2	Secured Staging Area	Ruchitaben Chauhan	05/28/19 09:32	Retrieve from Storage
JC88797-3.2	Ruchitaben Chauhan	Secured Storage	05/28/19 16:57	Return to Storage

SGS Internal Chain of Custody

Job Number: JC88797
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY
Received: 05/25/19

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC88797-3.3	Secured Storage	Benjamin Gaines	05/30/19 08:30	Retrieve from Storage
JC88797-3.3	Benjamin Gaines	Secured Staging Area	05/30/19 08:30	Return to Storage
JC88797-3.3	Secured Staging Area	Mahendra Patel	05/30/19 08:36	Retrieve from Storage
JC88797-3.3	Mahendra Patel	Secured Storage	05/30/19 17:57	Return to Storage
JC88797-3.3	Secured Storage	Joshua Reitan	05/30/19 18:36	Retrieve from Storage
JC88797-3.3	Joshua Reitan	Secured Staging Area	05/30/19 18:36	Return to Storage
JC88797-3.3	Secured Storage	Dwayne Johnson	05/31/19 08:55	Retrieve from Storage
Bottle was returned to secure storage, but inadvertently not scanned.				
JC88797-3.3	Dwayne Johnson	Secured Staging Area	05/31/19 08:55	Return to Storage

General Chemistry

QC Data Summaries

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: JC88797
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Chemical Oxygen Demand	GP21610/GN96023	20	0.0	mg/l	750	741	98.8	90-110%
Chemical Oxygen Demand	GP21610/GN96023	20	0.0	mg/l	150	148	98.7	90-110%
Solids, Total Suspended	GN95808	4.0	0.0	mg/l				
Solids, Total Suspended	GN95842	4.0	0.0	mg/l				

Associated Samples:
Batch GN95808: JC88797-1
Batch GN95842: JC88797-2, JC88797-3
Batch GP21610: JC88797-1, JC88797-2, JC88797-3
(*) Outside of QC limits

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: JC88797
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Chemical Oxygen Demand	GP21610/GN96023	JC88424-2	mg/l	11 U	0.0	0.0	0-25%
Solids, Total Suspended	GN95808	JC88797-1	mg/l	19.2	19.4	1.0	0-17%
Solids, Total Suspended	GN95842	JC88682-1	mg/l	1.5 U	0.0	0.0	0-17%

Associated Samples:
Batch GN95808: JC88797-1
Batch GN95842: JC88797-2, JC88797-3
Batch GP21610: JC88797-1, JC88797-2, JC88797-3
(*) Outside of QC limits

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: JC88797
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Chemical Oxygen Demand	GP21610/GN96023	JC88424-2	mg/l	11 U	250	247	98.8	55-133%

Associated Samples:
Batch GP21610: JC88797-1, JC88797-2, JC88797-3
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits

General Chemistry

Raw Data

Test: **Total Suspended Solids** Product: **TSS** GN Batch ID: GN95808
Method: **SM2540 D-11** Units: mg/l Analyst: RC
RL: 4.0 Date: 5/28/2019
Balance ID: B53

SGS

QC Summary	Filtration Date: 5/28/19	OVEN ID: INC-21	Filtration Time: 10:58
MB ID: GN95808-MB1	Result: <RDL	RDL: 4	< RDL YES
Dup ID: GN95808-D1	Samp Resu 0	Dup Result: 0	% RPD: 0
Dup ID: GN95808-D2	Samp Mass 19.2	Dup Mass: 19.4	% RPD: 1.04

Acceptable Temp. Range = 103 to 105 deg. C.

Therm ID: 5624416
Corr Factor: 0
FILTER LOT# 105137

		Date:	5/28/2019	5/28/2019												
		Time (Start/Finish):	12:07/13:33	13:48/14:24												
		UnCorr Temp (Start/Finish):	104/104	104/104												
		Corr Temp (Start/Finish):	104/104	104/104												
Bot #	Dish #	Sample ID	Filter Size*	Volume Filtered (ml)	Filter Tare Weight in g*	Weight after drying at 104 deg. C in g	Redry #1 Weight in g (a)	Redry ?	Redry # 2 Weight in g (a)	Redry ?	Redry # 3 Weight in g (a)	Constant Weight in g (a)	TSS in mg/l (Calculated)	Final TSS in mg/l**	Mass %RPD	Mass %RPD > 5%
	z1	GN95808-MB1	42	1000.0	0.0968	0.0968	0.0968	NO				0.0968		0.00		1000
	z2	GN95808-D1	42	500.0	0.0959	0.0959	0.0959	NO				0.0959		0.00	#DIV/0!	500
6	z3	JC88578-1	42	500.0	0.0963	0.0963	0.0963	NO				0.0963		0.00		500
	z4	GN95808-D2	42	500.0	0.0962	0.1059	0.1059	NO				0.1059		19.40	1.04%	500
2	z5	JC88797-1	42	500.0	0.0975	0.1071	0.1071	NO				0.1071		19.20		500
7	z6	JC88621-4	42	1000.0	0.0965	0.0977	0.0976	NO				0.0976		1.10		1000
6	z7	JC88621-3	42	300.0	0.0965	0.1171	0.1169	NO				0.1169		68.00		300
7	z8	JC88621-2	42	250.0	0.0963	0.1167	0.1167	NO				0.1167		81.60		250
6	z9	JC88621-1	42	500.0	0.0963	0.1177	0.1176	NO				0.1176		42.60		500
4	z10	JC88613-1	42	1000.0	0.0971	0.1042	0.1042	NO				0.1042		7.10		1000
5	z11	JC88578-8	42	1000.0	0.0968	0.0969	0.0969	NO				0.0969		0.10		1000
6	z12	JC88578-7	42	1000.0	0.0963	0.0963	0.0963	NO				0.0963		0.00		1000
6	z13	JC88578-6	42	1000.0	0.0962	0.1041	0.1039	NO				0.1039		7.70		1000
6	z14	JC88578-5	42	1000.0	0.0962	0.0970	0.0970	NO				0.0970		0.80		1000
4	z15	JC88578-3	42	1000.0	0.0965	0.0967	0.0967	NO				0.0967		0.20		1000
6	z16	JC88578-2	42	1000.0	0.0960	0.0970	0.0970	NO				0.0970		1.00		1000
3	z17	JC88649-1	42	1000.0	0.0960	0.0960	0.0960	NO				0.0960		0.00		1000
8	z18	JC88570-6	42	1000.0	0.0963	0.0964	0.0964	NO				0.0964		0.10		1000
1	z19	JC88570-5	42	300.0	0.0965	0.1012	0.1012	NO				0.1012		15.67		300
7	z20	JC86593-1	42	20.0	0.0969	0.1240	0.1240	NO				0.1240		1355.00		20
1	z21	JC88656-1	42	200.0	0.0958	0.1018	0.1018	NO				0.1018		30.00		200
5	z22	JC88633-1	42	1000.0	0.0965	0.1054	0.1054	NO				0.1054		8.90		1000
2	z23	JC88633-2	42	1000.0	0.0966	0.1052	0.1052	NO				0.1052		8.60		1000

(a) Redries when result is <DL after the initial weighing. Note: Constant weight is a change of <4% of the sample mass or 0.0005 g, whichever is
*Filters are dried and dessicated for a minimum of 12 hours ensure constant tare weight.
**Final TSS, mg/L = [(constant weight - filter tare mass, g) × 1000] ÷ (initial volume, mL ÷ 1000)
Comments:

DAYT-WET-0196-10-FORM-TSS
REV DATE 10/17/18

5/28/19

TSS Worksheet

SGS ACCUTEST

Acceptable Temp. Range = 103 to 105 deg. C.

** Note - Filters are dried for a minimum of 1.5 h and dessicated for a minimum of 12 h. Constant mass is determined prior to filtering.

Date:	5/24/2019	5/28/2019				
Time (Start/Finish):	08:00/10:00	8:54/10:48				
Uncorr Temp Deg C (Start/Finish):	104/104	104/104				
Corr Temp Deg C (Start/Finish):	104/104	104/104				

Dish #	Filter size	Initial weight after drying** (mg)	Redry 1 Constant Weight in g (a)	Redry ?	Redry 2 Constant Weight in g (a)	Redry ?	Redry 3 Constant Weight in g (a)	Constant Weight
z1	42.00000	0.0968	0.0968	NO		FALSE		0.0968
z2	42.00000	0.0959	0.0959	NO		FALSE		0.0959
z3	42.00000	0.0963	0.0963	NO		FALSE		0.0963
z4	42.00000	0.0962	0.0962	NO		FALSE		0.0962
z5	42.00000	0.0975	0.0975	NO		FALSE		0.0975
z6	42.00000	0.0966	0.0965	NO		FALSE		0.0965
z7	42.00000	0.0964	0.0965	NO		FALSE		0.0965
z8	42.00000	0.0963	0.0963	NO		FALSE		0.0963
z9	42.00000	0.0960	0.0963	NO		FALSE		0.0963
z10	42.00000	0.0971	0.0971	NO		FALSE		0.0971
z11	42.00000	0.0967	0.0968	NO		FALSE		0.0968
z12	42.00000	0.0962	0.0963	NO		FALSE		0.0963
z13	42.00000	0.0962	0.0962	NO		FALSE		0.0962
z14	42.00000	0.0962	0.0962	NO		FALSE		0.0962
z15	42.00000	0.0965	0.0965	NO		FALSE		0.0965
z16	42.00000	0.0960	0.0960	NO		FALSE		0.0960
z17	42.00000	0.0959	0.0960	NO		FALSE		0.0960
z18	42.00000	0.0964	0.0963	NO		FALSE		0.0963
z19	42.00000	0.0965	0.0965	NO		FALSE		0.0965
z20	42.00000	0.0969	0.0969	NO		FALSE		0.0969
z21	42.00000	0.0957	0.0958	NO		FALSE		0.0958
z22	42.00000	0.0964	0.0965	NO		FALSE		0.0965
z23	42.00000	0.0968	0.0966	NO		FALSE		0.0966
				FALSE		FALSE		
				FALSE		FALSE		
				FALSE		FALSE		
				YES		FALSE		0.0965
				FALSE		FALSE		
				FALSE		FALSE		
				FALSE		FALSE		
				FALSE		FALSE		
				FALSE		FALSE		
				FALSE		FALSE		

X

JJY

SGS

GN95808

TSS SAMPLE DESCRIPTION SHEET

	SGS Sample ID		Filter size used	Non-standard volumes. Comment with reason as shown below.	Limited Volume
6	JC88578-1	clear	42	500	✓
2	JC88797-1	Slight cloudy pale & Particles		500	✓
7	JC88621-4	clear		1000	
6	JC88621-3	Foamy cloudy Brown		300 a	
7	JC88621-2	↓		250 a	
6	JC88621-1	Foamy cloudy yellow		500 a	
4	JC88613-1	Slight cloudy yellow		1000	
5	JC88578-8	almost clear		1000	
6	JC88578-7	↓		1000	
6	JC88578-6	cloudy light orange		1000	
6	JC88578-5	clear		1000	
4	JC88578-3	↓		1000	
6	JC88578-2	↓		1000	
3	JC88649-1	↓		1000	
8	JC88570-6	↓		1000	
1	JC88570-5	Slight cloudy Pale yellow		300 a	
7	JC86593-1	Foamy, dark Brown, smelly		20 a	
1	JC88656-1	cloudy orange & Particles		200 a	
5	JC88633-1	Foamy Hazy & Pale		100	
2	JC88633-2	↓	↓	1000	

QC1 QC2

Reason (a). Sample contains heavy particulates and it can be assessed by appearance that it will clog the filter at higher volumes.
Reason (b). Initial analysis of the sample at a higher volume produced clogging. Rerunning at reduced volume.

Form: GN215-02
Rev. Date: 3/2/18

Test: **Total Suspended Solids**
Method: **SM2540 D-11**

Product: **TSS**
Units: mg/l
RL: 4.0

GN Batch ID: GN95842
Analyst: RC
Date: 5/29/2019
Balance ID: B53

SGS

QC Summary

Filtration Date: 5/29/19 OVEN ID: INC-21 Filtration Time: 10:08

MB ID: GN95842-MB1 Result: <RDL RDL: 4 < RDL YES
Dup ID: GN95842-D1 Samp Resu 0 Dup Result: 0 % RPD: 0
Dup ID: GN95842-D2 Samp Mass 0.18 Dup Mass: 0.18 % RPD: 0

Acceptable Temp. Range = 103 to 105 deg. C.

Therm ID: 5624416
Corr Factor: 0
FILTER LOT# 105137

Date:	5/29/2019	5/29/2019	
Time (Start/Finish):	11:18/12:44	13:01/14:09	
UnCorr Temp (Start/Finish):	104/104	104/104	
Corr Temp (Start/Finish):	104/104	104/104	

Bot #	Dish #	Sample ID	Filter Size*	Volume Filtered (ml)	Filter Tare Weight in g*	Weight after drying at 104 deg. C in g	Redry #1 Weight in g (a)	Redry ?	Redry # 2 Weight in g (a)	Redry ?	Redry # 3 Weight in g (a)	Constant Weight in g (a)	TSS in mg/l (Calculated)	Final TSS in mg/l**	Mass %RPD	Mass %RPD > 5%
	z1	GN95842-MB1	42	1000.0	0.0965	0.0965	0.0965	NO				0.0965		0.00		1000
	z2	GN95842-D1	42	550.0	0.0969	0.0969	0.0969	NO				0.0969		0.00	#DIV/0!	550
6	z3	JC88682-1	42	550.0	0.0967	0.0967	0.0967	NO				0.0967		0.00		550
	z4	GN95842-D2	42	550.0	0.0963	0.0964	0.0964	NO				0.0964		0.18	0.00%	550
4	z5	JC88686-2	42	550.0	0.0966	0.0967	0.0967	NO				0.0967		0.18		550
2	z6	JC88818-1	42	650.0	0.0965	0.1060	0.1060	NO				0.1060		14.62		650
3	z7	JC88818-2	42	500.0	0.0961	0.1042	0.1042	NO				0.1042		16.20		500
3	z8	JC88818-3	42	600.0	0.0963	0.1115	0.1115	NO				0.1115		25.33		600
3	z9	JC88818-4	42	500.0	0.0962	0.1070	0.1070	NO				0.1070		21.60		500
3	z10	JC88818-5	42	500.0	0.0963	0.1080	0.1078	NO				0.1078		23.00		500
2	z11	JC88797-2	42	750.0	0.0961	0.1090	0.1090	NO				0.1090		17.20		750
1	z12	JC88797-3	42	800.0	0.0989	0.1122	0.1123	NO				0.1123		16.75		800
4	z13	JC88781-1	42	200.0	0.0990	0.1135	0.1134	NO				0.1134		72.00		200
3	z14	JC88780-1	42	1000.0	0.0988	0.1120	0.1120	NO				0.1120		13.20		1000
1	z15	JC88742-2	42	1000.0	0.0986	0.1019	0.1018	NO				0.1018		3.20		1000
1	z16	JC88742-1	42	1000.0	0.0995	0.1222	0.1222	NO				0.1222		22.70		1000
4	z17	JC88728-1	42	800.0	0.0985	0.1115	0.1114	NO				0.1114		16.13		800
2	z18	JC88723-1	42	800.0	0.0985	0.0991	0.0991	NO				0.0991		0.75		800
5	z19	JC88695-1	42	400.0	0.0986	0.1207	0.1207	NO				0.1207		55.25		400
1	z20	JC88796-4	42	250.0	0.0987	0.1076	0.1077	NO				0.1077		36.00		250
15	z21	JC88791-1	42	970.0	0.0991	0.0994	0.0994	NO				0.0994		0.31		970
16	z22	JC88791-3	42	10.0	0.0986	0.1456	0.1457	NO				0.1457		4710.00		10

(a) Redries when result is <DL after the initial weighing. Note: Constant weight is a change of <4% of the sample mass or 0.0005 g, whichever is
*Filters are dried and dessicated for a minimum of 12 hours ensure constant tare weight.
**Final TSS, mg/L = [(constant weight - filter tare mass, g) × 1000] ÷ (initial volume, mL ÷ 1000)
Comments:

DAYT-WET-0196-10-FORM-TSS
REV DATE 10/17/18

TSS Worksheet

SGS ACCUTEST

Acceptable Temp. Range = 103 to 105 deg. C.

** Note - Filters are dried for a minimum of 1.5 h and dessicated for a minimum of 12 h. Constant mass is determined prior to filtering.

Date:	5/28/2019	5/28/2019					
Time (Start/Finish):	08:00/10:00	8:27/09:47					
Uncorr Temp Deg C (Start/Finish):	104/104	104/104					
Corr Temp Deg C (Start/Finish):	104/104	104/104					

Dish #	Filter size	Initial weight after drying** (mg)	Redry 1 Constant Weight in g (a)	Redry ?	Redry 2 Constant Weight in g (a)	Redry ?	Redry 3 Constant Weight in g (a)	Constant Weight
z1	42.00000	**0.0965**	**0.0965**	NO		*FALSE*		0.0965
z2	42.00000	**0.0970**	**0.0969**	NO		*FALSE*		0.0969
z3	42.00000	**0.0968**	**0.0967**	NO		*FALSE*		0.0967
z4	42.00000	**0.0963**	**0.0963**	NO		*FALSE*		0.0963
z5	42.00000	**0.0966**	**0.0966**	NO		*FALSE*		0.0966
z6	42.00000	**0.0965**	**0.0965**	NO		*FALSE*		0.0965
z7	42.00000	**0.0962**	**0.0961**	NO		*FALSE*		0.0961
z8	42.00000	**0.0963**	**0.0963**	NO		*FALSE*		0.0963
z9	42.00000	**0.0962**	**0.0962**	NO		*FALSE*		0.0962
z10	42.00000	**0.0963**	**0.0963**	NO		*FALSE*		0.0963
z11	42.00000	**0.0961**	**0.0961**	NO		*FALSE*		0.0961
z12	42.00000	**0.0989**	**0.0989**	NO		*FALSE*		0.0989
z13	42.00000	**0.0990**	**0.0990**	NO		*FALSE*		0.0990
z14	42.00000	**0.0990**	**0.0988**	NO		*FALSE*		0.0988
z15	42.00000	**0.0987**	**0.0986**	NO		*FALSE*		0.0986
z16	42.00000	**0.0994**	**0.0995**	NO		*FALSE*		0.0995
z17	42.00000	**0.0983**	**0.0985**	NO		*FALSE*		0.0985
z18	42.00000	**0.0986**	**0.0985**	NO		*FALSE*		0.0985
z19	42.00000	**0.0986**	**0.0986**	NO		*FALSE*		0.0986
z20	42.00000	**0.0983**	**0.0987**	NO		*FALSE*		0.0987
z21	42.00000	**0.0991**	**0.0991**	NO		*FALSE*		0.0991
z22	42.00000	**0.0985**	**0.0986**	NO		*FALSE*		0.0986
				FALSE		FALSE		
				FALSE		FALSE		
				FALSE		FALSE		
				FALSE		FALSE		
				YES		FALSE		0.0986
				FALSE		FALSE		
				FALSE		FALSE		
				FALSE		FALSE		
				FALSE		FALSE		
				FALSE		FALSE		
				FALSE		FALSE		

JJY

X

SGS

GN95842
TSS SAMPLE DESCRIPTION SHEET

	SGS Sample ID		Filter size used	Non-standard volumes. Comment with reason as shown below.	Limited Volume
6	JC88682-1	Clear	42	550	L
4	JC88686-2	↓		550	L
2	JC88818-1	Cloudy Yellowish Brown		650 a	
3	JC88818-2	↓		500 a	
3	JC88818-3	↓		600 a	
3	JC88818-4	↓		500 a	
3	JC88818-5	↓		500 a	
2	JC88797-2	Foamy, cloudy Offwhite		750 a	
1	JC88797-3	↓		800 a	
4	JC88781-1	Foamy Cloudy Brown		200 a	
3	JC88780-1	Foamy, Hazy. Pale & Particles		1000	
1	JC88742-2	Almost Clear		1000	
1	JC88742-1	Pale		1000	
4	JC88728-1	Foamy Hazy & Particles pale		800 a	
2	JC88723-1	almost clear		800	L
5	JC88695-1	Cloudy Light Orange, Particles		400 a	
1	JC88796-4	Foamy cloudy yellow		250 a	
15	JC88791-1	Clear		970	L
16	JC88791-3	Slight Turbid Light Brown		10 a	
	* JC88791-3 →	10 mL of Sample + 100 mL of DI H2O → used		full vol.	

PC0
PW2

Reason (a). Sample contains heavy particulates and it can be assessed by appearance that it will clog the filter at higher volumes.
Reason (b). Initial analysis of the sample at a higher volume produced clogging. Rerunning at reduced volume.

Form: GN215-02
Rev. Date: 3/2/18

SGS

Test: Chemical Oxygen Demand (High Level)
Product: COD **AQ Methods:** Hach 8000/SM 5220 B or C-11
Method: Aq - see above (◉) **Units:** mg/l
HACH 8000 / SM5220C M (○) mg/kg

Ave ml of FAS for Blank (A) = 4.05 Molarity of FAS: 0.1235

COD = ((A-B) x M x 8000) / (sample amount in ml or g)

Analyst: MRP
GN Batch ID: GN96023
GP Batch ID: GP21610
Analysis Date: 6/3/2019

QC Summary:

Method Blank ID:	GP21610-MB1	Date:	6/3/2019	Result:	0.00	DL:	150.00	<DL	Y
			6/3/2019		148.20				
Standard Check Low (±30%):	GP21610-B1	Date:		Result:		Spike:	150.00	% Rec:	#VALUE!
Standard Check Mid (±10%):	GP21610-B2	Date:	6/3/2019	Result:		Spike:	750.00	% Rec:	#VALUE!
Duplicate ID:	JC88424-2	Samp Result:	0.00	Dup Result:	0.00	% RPD:	#DIV/0!		
MS ID	JC88424-2	Samp Result:	0.00	MS Result:	247.0	Spike:	250	% Rec:	98.8
External:		Result:		Known:		% Rec:			

Bottle #	Sample ID	Sample Volume (ml)	Dilution	Initial ml of FAS (C)	Final ml of FAS (D)	Total Vol FAS used in ml (D - C) = B	Blank FAS - Total FAS (A - B)	Calculated Result	Final Result	Detection Limit	Units	Analysis Time
MB1	GP21610-MB1	2.0000	1	0.00	4.05	4.05	0.00	0.00	0.00	150	mg/l	13:00
MB2	GP21610-MB2	2.0000	1	0.00	4.05	4.05	0.00	0.00	0.00	150	mg/l	13:13
BSP	GP21610-B1	2.0000	1	0.00	3.75	3.75	0.30	148.20	148.20	150	mg/l	13:13
BSP	GP21610-B2	2.0000	1	0.00	2.55	2.55	1.50	741.00	741.00	150	mg/l	13:13
	GP21610-S1	2.0000	1	0.00	3.55	3.55	0.50	247.00	247.00	150	mg/l	13:13
	GP21610-D1	2.0000	1	0.00	4.05	4.05	0.00	0.00	0.00	150	mg/l	13:13
	JC88319-1conf	2.0000	1	0.00	over					150		13:13
	JC88319-2	2.0000	1	0.00	2.45	2.45	1.60	790.40	790.40	150	mg/l	13:13
	JC88424-1conf	2.0000	1	0.00	over					150		13:13
	JC88424-2	2.0000	1	0.00	4.05	4.05	0.00	0.00	0.00	150	mg/l	13:13
	JC88425-1	2.0000	1	0.00	4.00	4.00	0.05	24.70	24.70	150	mg/l	13:13
	JC88425-2	2.0000	1	0.00	4.05	4.05	0.00	0.00	0.00	150	mg/l	13:13
	JC88443-1	2.0000	1	0.00	4.05	4.05	0.00	0.00	0.00	150	mg/l	13:13
	JC88797-1	2.0000	1	0.00	4.05	4.05	0.00	0.00	0.00	150	mg/l	13:13
	JC88797-2	2.0000	1	0.00	3.90	3.90	0.15	74.10	74.10	150	mg/l	13:13
	JC88797-3	2.0000	1	0.00	4.05	4.05	0.00	0.00	0.00	150	mg/l	13:13
	JC88319-1	2.0000	2	0.00	1.10	1.10	2.95	2914.60	2914.60	300	mg/l	13:13
	JC88424-1	2.0000	5	0.00	3.55	3.55	0.50	1235.00	1235.00	750	mg/l	13:13

Comments:

Validated By: _____ Validated Date: _____
Document Control #: AGN-COD-150RL-03

Analyst: MR Date: 6/3/19 QC Reviewer: _____ Date: 6/3/19

gn 96023

Reagent Information Log - COD (High)

Reagent	Reagent # or Manufacturer/Lot
Digestion Solution Tubes High	#190210A XP 02/2023 GREEN WOOD
Ferroin Indicator Solution High	GNE5-58013-COD XP11/14/19
Potassium Hydrogen Phthalate (KHP) Source	GNE3-57680-COD XP6/30/19
Standard Ferrous Ammonium Sulfate (FAS) Titrant 0.0124N/0.125N	GNE5-58158-COD XP 11/31/19
H_2SO_4, Conc.	FISHER#178261 XP:07/20/23
Standard Potassium Dichromate Solution 0.25N	GNE12-56778-COD XP6/24/19
EXT	gne3-57681-cod xp6/30/19

Form: GN087-COD-High-01
Rev Date: 3/28/17

GENERAL CHEMISTRY STANDARD PREPARATION LOG FOR FE2

Product: COD

GN or GP Number: GN 96023

Description	standard	concentration	Stock vol used	Autopipet ID	al	Diluent	Volume	of	(a)	Analyst	Date
1000 ppm(STD)	GNE3-57680-COD	10,000 MG/L	10ML	A		DI water	100 ml	1000.00	6/30/2019	mrp	6/3/2019
1000PPM[EXT}	GNE3-57681-COD	10,000MG/L	10ML	A		DI water	100ml	1000	6/30/2019	mrp	6/3/2019
100ppm9STD)	GNE4-57865-COD	1000mg/l	10ML	A		DI water	100ML	100	6/24/2019	mrp	6/3/2019
100PPM[EXT}	GNE4-57866-COD	1000mg/l	10ML	A		DI water	100ml	100	6/24/2019	mrp	6/3/2019
Standard Description	used to prepare	Stock	Stock volume	Autopipet ID	al	Diluent	Volume	of Standard	(a)		
20	100PPM	20.00	10.00	A		DI water	50 ml	20.00	6/10/2019	mrp	6/3/2019
50	100PPM	100.00	10.00	A		DI water	100ML	100.00	6/10/2019	mrp	6/3/2019
150	1000PPM	150.00	7.5 ml	A		DI water	50 ml	150.00	6/10/2019	mrp	6/3/2019
500	1000PPM	500.00	25 ml	A		DI water	50 ml	500.00	6/30/2019	mrp	6/3/2019
10	100PPM	10.00	1.00	A		DI water	10 ml	10.00			6/3/2019
[EXT]50	100PPM	50.00	25.00	A		DI water	50 ml	50.00	6/10/2019	mrp	6/3/2019
[EXT]750	1000PPM	750.00	37.50	A		DI water	50 ml	750.00	6/10/2019	mrp	6/3/2019

Form: GN121-02 FE2
Rev. Date: 11/14/11

SGS

GN 96023

Test: Chemical Oxygen Demand Digestion Log
Method: SM5220 C-11, Hach 8000
SM5220 C-11 Mod, Hach 8000 Mod

Balance ID: NA

Product: COD GPBatch ID: GP21610
Analyst MRP Date: 6/3/2019
Hach Low Level (20 to 150 mg/l) Lot no
Hach High Level (50 to 1500 mg/l) LOT NO #190210A XP02/202
Pipet ID: 46

Standardization of FAS with Potassium Dichromate
Potassium Dichromate reagent number: see attached

Potassium Dichromate normality (N): 0.25N

mL of FAS for Standardization Blank 1: 4.05

ml of FAS for Standardization Blank 2: 4.05

Molarity of FAS = (N x vol. of dichromate digestion solution)/(ml of FAS for Standardization Blank)
Average molarity (Blank 1 and Blank 2) = 0.1235

Digestion START Time: 10:30 Digestion Temperature (deg. C): 150 C
Digestion ENDTime: 12:30 Digestion Block ID: COD-3

Sample ID	Digestion Tube #	Initial Wt. (g) or Vol. (ml)	Final Vol. (ml)	Comments	BO NO
GP21610-MB1	MB1	2 ML	2 ML		
GP21610-MB2	MB2	2 ML	2 ML		
GP21610-B1	1	2 ML	2 ML	2ML OF150 PPM	
GP21610-B2	2	2 ML	2 ML	2ML OF 750 PPM	
GP21610-S1	3	2 ML	2 ML	1ML OF 500PPM,	7
GP21610-D1	4	2 ML	2 ML		7
JC88319-1	5	2 ML	2 ML		7
JC88319-2	6	2 ML	2 ML		7
JC88424-1	7	2 ML	2 ML		7
JC88424-2	8	2 ML	2 ML	Q.C	5
JC88425-1	9	2 ML	2 ML		5
JC88425-2	10	2 ML	2 ML		5
JC88443-1	11	2 ML	2 ML		7
JC88797-1	12	2 ML	2 ML		3
JC88797-2	13	2 ML	2 ML		3
JC88797-3	14	2 ML	2 ML		3
JC88319-1	15	2 ML	2 ML	1ml sample+1ml di	7
JC88424-1	16	2 ML	2 ML	1ml sample+4ml di	7

Form: GN018-04
Revised: 06/15/17

The results set forth herein are provided by SGS North America Inc.

e-Hardcopy 2.0
Automated Report

Technical Report for

Tantara Corporation

USACE Buffalo Nike Missle UST, East Aurora, NY

19-382

SGS Job Number: JC89422

Sampling Date: 06/06/19

Report to:

Tantara Corporation
54 Mason Street
Worcester, MA 01610
MLovejoy@TantaraCorp.com

ATTN: Mark Lovejoy

Total number of pages in report: 27

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Brian McGuire
General Manager

Client Service contact: Tammy McCloskey 732-329-0200

Certifications: NJ(12129), NY(10983), CA, CT, FL, IL, IN, KS, KY, LA, MA, MD, ME, MN, NC, OH VAP (CL0056), AK (UST-103), AZ (AZ0786), PA, RI, SC, TX, UT, VA, WV, DoD ELAP (ANAB L2248)

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Test results relate only to samples analyzed.

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how we can serve you better at:
EHS.US.CustomerCare@sgs.com

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SGS North America Inc.

Sample Summary

Tantara Corporation

Job No: JC89422

USACE Buffalo Nike Missle UST, East Aurora, NY
Project No: 19-382

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
JC89422-1	06/06/19	07:00	ML	06/07/19	AQ	Water	SILO 4-2
JC89422-2	06/06/19	08:15	ML	06/07/19	AQ	Water	SILO 1-1
JC89422-3	06/06/19	13:15	ML	06/07/19	AQ	Water	SILO 1-2

CASE NARRATIVE / CONFORMANCE SUMMARY

Client:	Tantara Corporation	**Job No**	JC89422
Site:	USACE Buffalo Nike Missle UST, East Aurora, NY	**Report Date**	6/12/2019 10:23:28 A

On 06/07/2019, 3 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were received at SGS North America Inc. at a maximum corrected temperature of 2.5 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. Job Number of JC89422 was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Compounds qualified as out of range in the continuing calibration summary report are acceptable as per method requirements when there is a high bias but the sample result is non-detect.

General Chemistry By Method SM2540 D-11

Matrix: AQ **Batch ID:** GN96329

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC89513-1DUP were used as the QC samples for Solids, Total Suspended.

General Chemistry By Method SM5220 C-11,HACH8000

Matrix: AQ **Batch ID:** GP21771

- All samples were prepared within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC88854-1DUP, JC88854-1MS were used as the QC samples for Chemical Oxygen Demand.

SGS North America Inc. certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting the Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

SGS North America Inc. is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. Data release is authorized by SGS North America Inc indicated via signature on the report cover

Summary of Hits

Job Number: JC89422
Account: Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY
Collected: 06/06/19

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
JC89422-1	**SILO 4-2**					
Solids, Total Suspended		34.3	4.0	1.5	mg/l	SM2540 D-11
JC89422-2	**SILO 1-1**					
Solids, Total Suspended		28.2	4.0	1.5	mg/l	SM2540 D-11
JC89422-3	**SILO 1-2**					
Solids, Total Suspended		29.0	4.0	1.5	mg/l	SM2540 D-11

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	SILO 4-2		
Lab Sample ID:	JC89422-1	**Date Sampled:**	06/06/19
Matrix:	AQ - Water	**Date Received:**	06/07/19
		Percent Solids:	n/a
Project:	USACE Buffalo Nike Missle UST, East Aurora, NY		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Chemical Oxygen Demand	11 U	20	11	mg/l	1	06/12/19 09:03	MP	SM5220 C-11,HACH8000
Solids, Total Suspended	34.3	4.0	1.5	mg/l	1	06/11/19 09:56	RC	SM2540 D-11

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	SILO 1-1		
Lab Sample ID:	JC89422-2	**Date Sampled:**	06/06/19
Matrix:	AQ - Water	**Date Received:**	06/07/19
		Percent Solids:	n/a
Project:	USACE Buffalo Nike Missle UST, East Aurora, NY		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Chemical Oxygen Demand	11 U	20	11	mg/l	1	06/12/19 09:03	MP	SM5220 C-11,HACH8000
Solids, Total Suspended	28.2	4.0	1.5	mg/l	1	06/11/19 09:56	RC	SM2540 D-11

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	SILO 1-2		
Lab Sample ID:	JC89422-3	**Date Sampled:**	06/06/19
Matrix:	AQ - Water	**Date Received:**	06/07/19
		Percent Solids:	n/a
Project:	USACE Buffalo Nike Missle UST, East Aurora, NY		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Chemical Oxygen Demand	11 U	20	11	mg/l	1	06/12/19 09:03	MP	SM5220 C-11,HACH8000
Solids, Total Suspended	29.0	4.0	1.5	mg/l	1	06/11/19 09:56	RC	SM2540 D-11

RL = Reporting Limit
MDL = Method Detection Limit

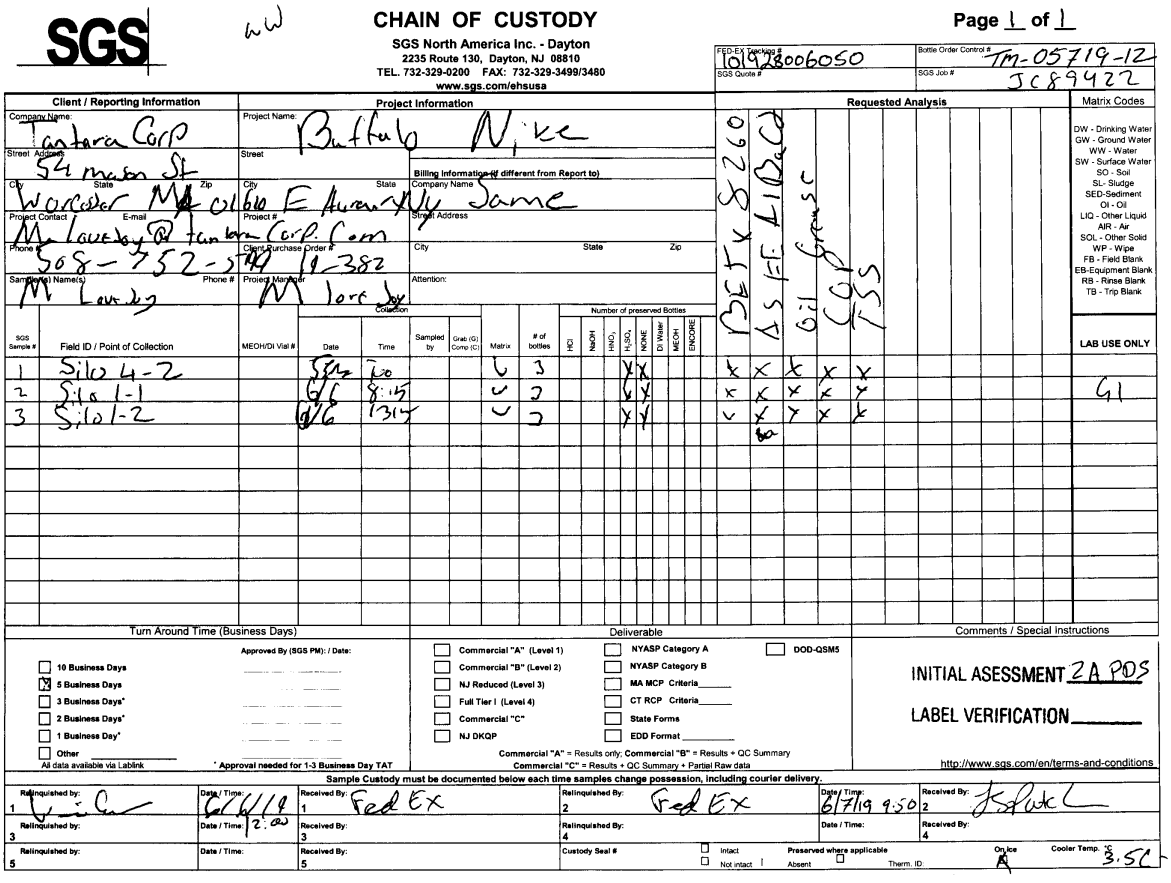
U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- Sample Tracking Chronicle
- Internal Chain of Custody



CHAIN OF CUSTODY

SGS North America Inc. - Dayton
2235 Route 130, Dayton, NJ 08810
TEL. 732-329-0200 FAX: 732-329-3499/3480
www.sgs.com/ehsusa

Page 1 of 1

FED-EX Tracking # 101928006050
Bottle Order Control # TM-05719-12
SGS Quote #
SGS Job # JC89422

Client / Reporting Information

Company Name: Tantara Corp
Street Address: 54 mason St
City: Worcester State: MA Zip: 01610
Project Contact: M Lovejoy E-mail: M Lovejoy@tantaracorp.com
Phone #: 508-752-5[illegible] Client Purchase Order #: 19-382
Sampler(s) Name(s): M Lovejoy Phone #: Project Manager: M Lovejoy

Project Information

Project Name: Buffalo Nike
Street:
City: State: Company Name:
Project #:
Client Purchase Order #:
Project Manager:

Billing Information (if different from Report to)

Company Name: Same
Street Address:
City: State: Zip:
Attention:

Requested Analysis

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL- Sludge; SED-Sediment; OI - Oil; LIQ - Other Liquid; AIR - Air; SOL - Other Solid; WP - Wipe; FB - Field Blank; EB-Equipment Blank; RB - Rinse Blank; TB - Trip Blank

SGS Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Grab (G) Comp (C)	Matrix	# of bottles	Number of preserved Bottles: HCl	NaOH	HNO_3	H_2SO_4	NONE	DI Water	MEOH	ENCORE	BETX 8260	ASTM Diesel Gasoline	Oil Grease	TSS	LAB USE ONLY
1	Silo 4-2		6/6	1:00			W	3				X	X				X	X	X	X	
2	Silo 1-1		6/6	8:15			W	3				X	X				X	X	X	X	G1
3	Silo 1-2		6/6	1314			W	3				X	X				X	X	X	X	
																	60				

Turn Around Time (Business Days)

Approved By (SGS PM): / Date:

- [ ] 10 Business Days
- [x] 5 Business Days
- [ ] 3 Business Days*
- [ ] 2 Business Days*
- [ ] 1 Business Day*
- [ ] Other

All data available via Lablink
* Approval needed for 1-3 Business Day TAT

Deliverable

- [ ] Commercial "A" (Level 1)
- [ ] Commercial "B" (Level 2)
- [ ] NJ Reduced (Level 3)
- [ ] Full Tier I (Level 4)
- [ ] Commercial "C"
- [ ] NJ DKQP
- [ ] NYASP Category A
- [ ] NYASP Category B
- [ ] MA MCP Criteria
- [ ] CT RCP Criteria
- [ ] State Forms
- [ ] EDD Format
- [ ] DOD-QSM5

Commercial "A" = Results only; Commercial "B" = Results + QC Summary
Commercial "C" = Results + QC Summary + Partial Raw data

Comments / Special Instructions

INITIAL ASESSMENT 2A PDS
LABEL VERIFICATION

http://www.sgs.com/en/terms-and-conditions

Sample Custody must be documented below each time samples change possession, including courier delivery.

	Relinquished by:	Date / Time:	Received By:	Relinquished By:	Date / Time:	Received By:
1		6/6/19 12:00	Fed Ex	Fed Ex	6/7/19 9:50	
2						
3						
4						
5						

Custody Seal # ☐ Intact ☐ Not intact
Preserved where applicable ☐ Absent ☐ Therm. ID:
On Ice: A
Cooler Temp. °C: 3.5C - P

EHSA-QAC-0023-02-FORM-Dayton - Standard COC.xlsx

SGS Sample Receipt Summary

Job Number: JC89422 **Client:** TANTARA CORPORATION **Project:** USACE BUFFALO NIKE MISSLE UST, EAST AU

Date / Time Received: 6/7/2019 9:50:00 AM **Delivery Method:** FedEx **Airbill #'s:**

Cooler Temps (Raw Measured) °C: Cooler 1: (3.5);

Cooler Temps (Corrected) °C: Cooler 1: (2.5);

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	☑		☐	3. COC Present:	☑		☐
2. Custody Seals Intact:	☑		☐	4. Smpl Dates/Time OK	☑		☐

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Cooler temp verification:	IR Gun		
3. Cooler media:	Ice (Bag)		
4. No. Coolers:	1		

Quality Control Preservation	Y	or	N	N/A
1. Trip Blank present / cooler:	☐		☑	☐
2. Trip Blank listed on COC:	☐		☑	☐
3. Samples preserved properly:	☑		☐	
4. VOCs headspace free:	☐		☐	☑

Sample Integrity - Documentation	Y	or	N
1. Sample labels present on bottles:	☑		☐
2. Container labeling complete:	☑		☐
3. Sample container label / COC agree:	☑		☐

Sample Integrity - Condition	Y	or	N
1. Sample recvd within HT:	☑		☐
2. All containers accounted for:	☑		☐
3. Condition of sample:	Intact		

Sample Integrity - Instructions	Y	or	N	N/A
1. Analysis requested is clear:	☑		☐	
2. Bottles received for unspecified tests	☐		☑	
3. Sufficient volume recvd for analysis:	☑		☐	
4. Compositing instructions clear:	☐		☐	☑
5. Filtering instructions clear:	☐		☐	☑

Test Strip Lot #s: pH 1-12: 206717 pH 12+: 208717 Other: (Specify)

Comments: -1 thru -3 Only rec'd volume for TSS and COD.

SM089-02 Rev. Date 12/1/16

Responded to by: Tammy Esposito McCloskey Response Date: 6/10/19

-1 through -3 should only be analyzed for TSS and COD per Mark Lovejoy.

JC89422: Chain of Custody
Page 3 of 3

Internal Sample Tracking Chronicle

Tantara Corporation

Job No: JC89422

USACE Buffalo Nike Missle UST, East Aurora, NY
Project No: 19-382

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JC89422-1 SILO 4-2	Collected: 06-JUN-19 07:00	By: ML	Received: 07-JUN-19		By: AS	
JC89422-1	SM2540 D-11	11-JUN-19 09:56	RC			TSS
JC89422-1	SM5220 C-11,HACH8000	11-JUN-19 09:03	MP	11-JUN-19	MP	COD
JC89422-2 SILO 1-1	Collected: 06-JUN-19 08:15	By: ML	Received: 07-JUN-19		By: AS	
JC89422-2	SM2540 D-11	11-JUN-19 09:56	RC			TSS
JC89422-2	SM5220 C-11,HACH8000	11-JUN-19 09:03	MP	11-JUN-19	MP	COD
JC89422-3 SILO 1-2	Collected: 06-JUN-19 13:15	By: ML	Received: 07-JUN-19		By: AS	
JC89422-3	SM2540 D-11	11-JUN-19 09:56	RC			TSS
JC89422-3	SM5220 C-11,HACH8000	11-JUN-19 09:03	MP	11-JUN-19	MP	COD

SGS Internal Chain of Custody

Job Number: JC89422
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY
Received: 06/07/19

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC89422-1.1	Sahara Feliciano	Secured Storage	06/07/19 19:05	Return to Storage
JC89422-1.1	Secured Storage	Benjamin Gaines	06/11/19 09:13	Retrieve from Storage
JC89422-1.1	Benjamin Gaines	Secured Staging Area	06/11/19 09:13	Return to Storage
JC89422-1.1	Secured Staging Area	Ruchitaben Chauhan	06/11/19 09:43	Retrieve from Storage
JC89422-1.1	Ruchitaben Chauhan	Secured Storage	06/11/19 17:21	Return to Storage
JC89422-1.2	Sahara Feliciano	Secured Storage	06/07/19 19:05	Return to Storage
JC89422-1.3	Sahara Feliciano	Secured Storage	06/07/19 19:05	Return to Storage
JC89422-1.3	Secured Storage	Dwayne Johnson	06/11/19 11:08	Retrieve from Storage
JC89422-1.3	Dwayne Johnson	Secured Staging Area	06/11/19 11:08	Return to Storage
JC89422-1.3	Secured Staging Area	Mahendra Patel	06/11/19 13:21	Retrieve from Storage
JC89422-1.3	Mahendra Patel	Secured Storage	06/11/19 18:55	Return to Storage
JC89422-2.1	Sahara Feliciano	Secured Storage	06/07/19 19:05	Return to Storage
JC89422-2.1	Secured Storage	Benjamin Gaines	06/11/19 09:13	Retrieve from Storage
JC89422-2.1	Benjamin Gaines	Secured Staging Area	06/11/19 09:13	Return to Storage
JC89422-2.1	Secured Staging Area	Ruchitaben Chauhan	06/11/19 09:43	Retrieve from Storage
JC89422-2.1	Ruchitaben Chauhan	Secured Storage	06/11/19 17:21	Return to Storage
JC89422-2.2	Sahara Feliciano	Secured Storage	06/07/19 19:05	Return to Storage
JC89422-2.3	Sahara Feliciano	Secured Storage	06/07/19 19:05	Return to Storage
JC89422-2.3	Secured Storage	Dwayne Johnson	06/11/19 11:08	Retrieve from Storage
JC89422-2.3	Dwayne Johnson	Secured Staging Area	06/11/19 11:08	Return to Storage
JC89422-2.3	Secured Staging Area	Mahendra Patel	06/11/19 13:21	Retrieve from Storage
JC89422-2.3	Mahendra Patel	Secured Storage	06/11/19 18:55	Return to Storage
JC89422-3.1	Sahara Feliciano	Secured Storage	06/07/19 19:05	Return to Storage
JC89422-3.1	Secured Storage	Benjamin Gaines	06/11/19 09:13	Retrieve from Storage
JC89422-3.1	Benjamin Gaines	Secured Staging Area	06/11/19 09:13	Return to Storage
JC89422-3.1	Secured Staging Area	Ruchitaben Chauhan	06/11/19 09:43	Retrieve from Storage
JC89422-3.1	Ruchitaben Chauhan	Secured Storage	06/11/19 17:21	Return to Storage
JC89422-3.2	Sahara Feliciano	Secured Storage	06/07/19 19:05	Return to Storage
JC89422-3.3	Sahara Feliciano	Secured Storage	06/07/19 19:05	Return to Storage
JC89422-3.3	Secured Storage	Dwayne Johnson	06/11/19 11:08	Retrieve from Storage
JC89422-3.3	Dwayne Johnson	Secured Staging Area	06/11/19 11:08	Return to Storage
JC89422-3.3	Secured Staging Area	Mahendra Patel	06/11/19 13:21	Retrieve from Storage
JC89422-3.3	Mahendra Patel	Secured Storage	06/11/19 18:55	Return to Storage

General Chemistry

6

QC Data Summaries

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: JC89422
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Chemical Oxygen Demand	GP21771/GN96373	20	0.0	mg/l	50	51.3	102.6	90-110%
Chemical Oxygen Demand	GP21771/GN96373	20	0.0	mg/l				
Solids, Total Suspended	GN96329	4.0	0.0	mg/l				

Associated Samples:
Batch GN96329: JC89422-1, JC89422-2, JC89422-3
Batch GP21771: JC89422-1, JC89422-2, JC89422-3
(*) Outside of QC limits

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: JC89422
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Chemical Oxygen Demand	GP21771/GN96373	JC88854-1	mg/l	11 U	0.0	0.0	0-25%
Solids, Total Suspended	GN96329	JC89513-1	mg/l	0.0	0.0	0.0	0-17%

Associated Samples:
Batch GN96329: JC89422-1, JC89422-2, JC89422-3
Batch GP21771: JC89422-1, JC89422-2, JC89422-3
(*) Outside of QC limits

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: JC89422
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missle UST, East Aurora, NY

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Chemical Oxygen Demand	GP21771/GN96373	JC88854-1	mg/l	11 U	50	51.3	102.6	55-133%

Associated Samples:
Batch GP21771: JC89422-1, JC89422-2, JC89422-3
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits

General Chemistry

Raw Data

Test: **Total Suspended Solids**
Method: **SM2540 D-11**

Product: **TSS**
Units: mg/l
RL: 4.0

GN Batch ID: GN96329
Analyst: RC
Date: 6/11/2019
Balance ID: B53

SGS

QC Summary

Filtration Date: 6/11/19 OVEN ID: INC-21 Filtration Time: 9:56

MB ID:	GN96329-MB1	Result:	<RDL	RDL:	4	< RDL	YES
Dup ID:	GN96329-D1	Samp Resu	0.91	Dup Result:	0.91	% RPD:	0
Dup ID:		Samp Mass:		Dup Mass:		% RPD:	

Acceptable Temp. Range = 103 to 105 deg. C.

Date:	6/11/2019	6/11/2019			
Time (Start/Finish):	10:36/12:14	12:28/13:39			
UnCorr Temp (Start/Finish):	104/104	104/104			
Corr Temp (Start/Finish):	104/104	104/104			

Therm ID: 5624416
Corr Factor: 0
FILTER LOT# 111301

Bot #	Dish #	Sample ID	Filter Size*	Volume Filtered (ml)	Filter Tare Weight in g*	Weight after drying at 104 deg. C in g	Redry #1 Weight in g (a)	Redry ?	Redry # 2 Weight in g (a)	Redry ?	Redry # 3 Weight in g (a)	Constant Weight in g (a)	TSS in mg/l (Calculated)	Final TSS in mg/l**	Mass %RPD	Mass %RPD > 5%
	X1	GN96329-MB1	42	1000.0	0.0946	0.0946	0.0946	NO				0.0946		0.00		1000
	X2	GN96329-D1	42	550.0	0.0936	0.0941	0.0941	NO				0.0941		0.91	0.00%	550
3	X3	JC89513-1	42	550.0	0.0950	0.0955	0.0955	NO				0.0955		0.91		550
5	X4	JC89525-1	42	1000.0	0.0947	0.0961	0.0961	NO				0.0961		1.40		1000
3	X5	JC89536-2	42	1000.0	0.0960	0.1000	0.1000	NO				0.1000		4.00		1000
2	X6	JC89420-2	42	1.0	0.0951	0.1023	0.1022	NO				0.1022		7100.00		1
2	X7	JC89420-1	42	750.0	0.0945	0.0946	0.0946	NO				0.0946		0.13		750
2	X8	JC89395-1	42	1000.0	0.0960	0.0960	0.0960	NO				0.0960		0.00		1000
25	X9	JC89394-1	42	1000.0	0.0962	0.0969	0.0969	NO				0.0969		0.70		1000
1	X10	JC89422-1	42	400.0	0.0949	0.1084	0.1086	NO				0.1086		34.25		400
1	X11	JC89422-2	42	500.0	0.0949	0.1090	0.1090	NO				0.1090		28.20		500
1	X12	JC89422-3	42	600.0	0.0937	0.1110	0.1111	NO				0.1111		29.00		600

(a) Redries when result is <DL after the initial weighing. Note: Constant weight is a change of <4% of the sample mass or 0.0005 g, whichever is
*Filters are dried and dessicated for a minimum of 12 hours ensure constant tare weight.
**Final TSS, mg/L = [(constant weight - filter tare mass, g) × 1000] ÷ (initial volume, mL ÷ 1000)
Comments:

6/11/19

DAYT-WET-0196-10-FORM-TSS
REV DATE 10/17/18

SGS

TSS Worksheet

SGS ACCUTEST

Acceptable Temp. Range = 103 to 105 deg. C.

** Note - Filters are dried for a minimum of 1.5 h and dessicated for a minimum of 12 h. Constant mass is determined prior to filtering.

Date:	6/10/2019	6/11/2019					
Time (Start/Finish)	08:00/10:00	8:33/09:46					
Uncorr Temp Deg C (Start/Finish)	104/104	104/104					
Corr Temp Deg C (Start/Finish):	104/104	104/104					

Dish #	Filter size	Initial weight after drying** (mg)	Redry 1 Constant Weight in g (a)	Redry ?	Redry 2 Constant Weight in g (a)	Redry ?	Redry 3 Constant Weight in g (a)	Constant Weight	
x1	42.00000	**0.0946**	**0.0946**	NO		*FALSE*		0.0946	X
x2	42.00000	**0.0936**	**0.0936**	NO		*FALSE*		0.0936	
x3	42.00000	**0.0950**	**0.0950**	NO		*FALSE*		0.0950	
x4	42.00000	**0.0950**	**0.0947**	NO		*FALSE*		0.0947	
x5	42.00000	**0.0960**	**0.0960**	NO		***FALSE***		0.0960	
x6	42.00000	**0.0952**	**0.0951**	NO		***FALSE***		0.0951	
x7	42.00000	**0.0945**	**0.0945**	NO		***FALSE***		0.0945	
x8	42.00000	**0.0961**	**0.0960**	NO		***FALSE***		0.0960	
x9	42.00000	**0.0962**	**0.0962**	NO		*FALSE*		0.0962	
x10	42.00000	**0.0949**	**0.0949**	NO		*FALSE*		0.0949	
x11	42.00000	**0.0949**	**0.0949**	NO		*FALSE*		0.0949	
x12	42.00000	**0.0936**	**0.0937**	NO		*FALSE*		0.0937	
				FALSE		FALSE			
				FALSE		FALSE			
				FALSE		FALSE			
				FALSE		FALSE			
				FALSE		FALSE			
				FALSE		FALSE			
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				FALSE		FALSE			
				FALSE		FALSE			

JJY

SGS

GN96329
TSS SAMPLE DESCRIPTION SHEET

	SGS Sample ID		Filter size used	Non-standard volumes. Comment with reason as shown below.	Limited Volume
3	JC89513-1	Clear	42	550	
5	JC89525-1	Yellow		1000	
3	JC89536-2	Foamy Hazy & Pale		1000	
2	JC89420-2	Slight thick grey & very odorous		RE ~~1000~~ 1 ml a	
2	JC89420-1	Foamy Yellow		750	✓
2	JC89395-1	almost clear		1000	
25	JC89394-1	Clear		1000	
1	JC89422-1	Cloudy Pale		400 a ~~500 a~~ RE	
1	JC89422-2	Cloudy Pale & Particles		500 a	
1	JC89422-3	↓	↓	600 a	
*	JC89420-2 -	5ml of Sample 95 ml of DI water			
		used 10 ml of Dilute			

QCD1

Reason (a). Sample contains heavy particulates and it can be assessed by appearance that it will clog the filter at higher volumes.
Reason (b). Initial analysis of the sample at a higher volume produced clogging. Rerunning at reduced volume.

Form: GN215-02
Rev. Date: 3/2/18

SGS

Test: Chemical Oxygen Demand (Low Level)
Product: COD AQ Methods: SM5220 C-11/ Hach 8000
Method: See above for AQ ◉ Units: mg/l
Hach 8000 /SM5220M ○ mg/kg

Analyst: MRP
GN Batch ID: GN96373
GP Batch ID: GP21771
Date: 6/12/2019

Ave ml of FAS for Blank (A) = 3.95 Molarity of FAS: 0.0135

COD = { (A-B) x M x 8000 } / (sample amount in ml or g)

QC Summary:

Method Blank ID:	GP21771-MB1	Date:	6/12/2019	Result:	0.0	DL:	20	<DL	Y
Spike Blank ID (± 10%):	BSLCONF	Date:	6/12/2019	Result:	21.6	Spike:	20	% Rec:	108.1
Standard Check Low (±30%):	GP21771-B2	Date:		Result:	51.3	Spike:	50	% Rec:	102.6
Standard Check Mid (±10%):		Date:		Result:		Spike:		% Rec:	
Duplicate ID:	JC88854-1	Samp Result:	0	Dup Result:	0.0	% RPD:			
MS ID:	JC88854-1	Samp Result:	0	MS Result:	51.3	Spike:	50	% Rec:	102.6
External:		Result:		Known:		% Rec:			

Bottle #	Sample ID	Sample Volume (ml)	Dilution	Initial ml of FAS (C)	Final ml of FAS (D)	Total Vol FAS used in ml (D - C) = B	Blank FAS - Total FAS (A - B)	Calculated Result	Final Result	Detection Limit
MB1	GP21771-MB1	2.0000	1	0.00	3.95	3.95	0.00	0.0	0.00	20
MB2	GP21771-MB2	2.0000	1	0.00	3.95	3.95	0.00	0.0	0.00	20
BSP	BSLCONF	2.0000	1	0.00	3.55	3.55	0.40	21.6	21.62	20
BSP	GP21771-B2	2.0000	1	0.00	3.00	3.00	0.95	51.3	51.34	20
	GP21771-S1	2.0000	1	0.00	3.00	3.00	0.95	51.3	51.34	20
	GP21771-D1	2.0000	1	0.00	3.95	3.95	0.00	0.0	0.00	20
	JC88854-1	2.0000	1	0.00	3.95	3.95	0.00	0.0	0.00	20
	JC88861-1	2.0000	1	0.00	1.35	1.35	2.60	140.5	140.50	20
	JC88883-2	2.0000	1	0.00	3.35	3.35	0.60	32.4	32.42	20
	JC89278-4	2.0000	1	0.00	1.90	1.90	2.05	110.8	110.78	20
	JC89278-5	2.0000	1	0.00	3.25	3.25	0.70	37.8	37.83	20
	JC89278-6	2.0000	1	0.00	3.55	3.55	0.40	21.6	21.62	20
	JC89008-1	2.0000	1	0.00	3.25	3.25	0.70	37.8	37.83	20
	JC89013-1	2.0000	1	0.00	3.75	3.75	0.20	10.8	10.81	20
	JC89016-1	2.0000	1	0.00	3.95	3.95	0.00	0.0	0.00	20
	JC89016-4	2.0000	1	0.00	3.65	3.65	0.30	16.2	16.21	20
	JC89016-5	2.0000	1	0.00	3.95	3.95	0.00	0.0	0.00	20
	JC89017-3	2.0000	5	0.00	1.30	1.30	2.65	716.0	716.03	100
	JC89062-3	2.0000	1	0.00	3.85	3.85	0.10	5.4	5.40	20
	JC89035-1	2.0000	1	0.00	2.75	2.75	1.20	64.8	64.85	20
	JC89422-1	2.0000	1	0.00	3.80	3.80	0.15	8.1	8.11	20
	JC89422-2	2.0000	1	0.00	3.80	3.80	0.15	8.1	8.11	20
	JC89422-3	2.0000	1	0.00	3.80	3.80	0.15	8.1	8.11	20

Comments:

Validated By: Nancy Cole Validated Date: 4/14/2017
Analyst: Date: QC Reviewer: Date:
Document Control #: ACN-COD-20RL-03

SGS

GN 96373

Test: Chemical Oxygen Demand Digestion Log
Method: SM5220 C-11, Hach 8000
SM5220 C-11 Mod, Hach 8000 Mod

Balance ID: NA

Product: COD GP Batch ID: GP21771
Analyst: MRP Date: 6/11/2019
Hach Low Level (20 to 150 mg/l) Lot No. #190531A XP5/2023
Hach High Level (50 to 1500 mg/l) Lot No.
Pipet ID: #46

Standardization of FAS with Potassium Dichromate
Potassium Dichromate reagent number: see attached

Potassium Dichromate normality (N): 0.025N

mL of FAS for Standardization Blank 1: 3.20

ml of FAS for Standardization Blank 2: 3.20

Molarity of FAS = (N x vol. of dichromate digestion solution)/(ml of FAS for Standardization Blank)
Average molarity (Blank 1 and Blank 2) = 0.01351

Digestion START Time: 16:45 Digestion Temperature (deg. C): 150 C
Digestion END Time: 18:45 Digestion Block ID: COD-3

Sample ID	Digestion Tube #	Initial Wt. (g) or Vol. (ml)	Final Vol. (ml)	Comments	BO NO
GP21771-MB1	MB1	2 ML	2 ML		
GP21771-MB2	MB2	2 ML	2 ML		
GP21771-B1	1	2 ML	2 ML	2ML OF 20 PPM	
GP21771-B2	2	2 ML	2 ML	2ML OF 50 PPM	
GP21771-S1	3	2 ML	2 ML	1ML OF 100 PPM	7
GP21771-D1	4	2 ML	2 ML		7
JC88854-1	5	2 ML	2 ML	Q.C	7
JC88861-1	6	2 ML	2 ML		8
JC88883-2	7	2 ML	2 ML		1
JC89278-4	8	2 ML	2 ML		5
JC89278-5	9	2 ML	2 ML		5
JC89278-6	10	2 ML	2 ML		5
JC89008-1	11	2 ML	2 ML		4
JC89013-1	12	2 ML	2 ML		3
JC89016-1	13	2 ML	2 ML		7
JC89016-4	14	2 ML	2 ML		7
JC89016-5	15	2 ML	2 ML		7
JC89017-3	16	2 ML	2 ML	1 ML Sample + 4 ML DI (1:5)	4
JC89062-3	17	2 ML	2 ML		7
JC89035-1	18	2 ML	2 ML		3
JC89422-1	19	2 ML	2 ML		3
JC89422-2	20	2 ML	2 ML		3
JC89422-3	21	2 ML	2 ML		3

Form: GN018-04
Revised: 06/15/17

gn 96373

SGS

Reagent Information Log - COD LOW (20 ppm)

Reagent	Reagent # or Manufacturer/Lot
Digestion Solution Tubes Low	GREEN WOOD #190531A XP05/2023
Ferroin Indicator Solution Low	GNE5-58013-COD XP11/14/19
Potassium Hydrogen Phthalate (KHP) Source	GNE3-57680-COD XP6/30/19
Standard Ferrous Ammonium Sulfate (FAS) Titrant 0.0124N/0.125N	GNE5-58065-COD XP11/21/19
H_2SO_4, Conc.	FISHER# 178261 XP:07/20/2023
Standard Potassium Dichromate Solution 0.025N	GNE12-56779-CODXP6/24/19
Potassium Hydrogen Phthalate ext source	GNE3-57681-COD XP6/30/19

Form: GN087-COD-01 Low 20 ppm
Rev Date:3/28/17

7.2
7

GENERAL CHEMISTRY STANDARD PREPARATION LOG FOR FE2

Product: COD

GN or GP Number: GN96373

Description	standard	concentration	Stock vol used	Autopipet ID	al	Diluent	Volume	of	(a)	Analyst	Date
1000 ppm(STD)	GNE3-57680-COD	10,000 MG/L	10ML	A		DI water	100 ml	1000.00	6/30/2019	mrp	6/11/2019
1000PPM[EXT}	GNE3-57681-COD	10,000MG/L	10ML	A		DI water	100ml	1000	6/30/2019	mrp	6/11/2019
100ppm9STD)	GNE4-57865-COD	1000mg/l	10ML	A		DI water	100ML	100	6/24/2019	mrp	6/11/2019
100PPM[EXT}	GNE4-57866-COD	1000mg/l	10ML	A		DI water	100ml	100	6/24/2019	mrp	6/11/2019
Standard Description	used to prepare	Stock	Stock volume	Autopipet ID	al	Diluent	Volume	of Standard	(a)		
20	100PPM	20.00	10.00	A		DI water	50 ml	20.00	6/18/2019	mrp	6/11/2019
50	100PPM	100.00	10.00	A		DI water	100ML	100.00	6/18/2019	mrp	6/11/2019
150	1000PPM	150.00	7.5 ml	A		DI water	50 ml	150.00	6/18/2019	mrp	6/11/2019
500	1000PPM	500.00	25 ml	A		DI water	50 ml	500.00	6/30/2019	mrp	6/11/2019
10	100PPM	10.00	1.00	A		DI water	10 ml	10.00			6/11/2019
[EXT]50	100PPM	50.00	25.00	A		DI water	50 ml	50.00	6/18/2019	mrp	6/11/2019
[EXT]750	1000PPM	750.00	37.50	A		DI water	50 ml	750.00	6/18/2019	mrp	6/11/2019

Form: GN121-02 FE2
Rev. Date: 11/14/11

ATTACHMENT 4
PHOTOGRAPHS

ATTACHMENT 4
SITE PHOTOGRAPHS

Photograph 1: Treated Discharge Structure (4/18/19).

Photograph 2: Discharge across Grassy Area towards Cazenovia Creek (4/19/19).

ATTACHMENT 4
SITE PHOTOGRAPHS

Photograph 3: Water Discharge towards Cazenovia Creek (4/23/19).

Photograph 4: Discharge across Grassy Area towards Cazenovia Creek (4/24/19) .

ATTACHMENT 4
SITE PHOTOGRAPHS

Photograph 5: Treated Discharge Structure (5/3/19).

Photograph 6: Water Discharge from Pipe to Grassy Area (5/3/19).

ATTACHMENT 4
SITE PHOTOGRAPHS

Photograph 7: Discharge across Grassy Area towards Cazenovia Creek (5/15/19).

Photograph 8: Discharge across Grassy Area towards Cazenovia Creek (5/30/19).

ATTACHMENT 4
SITE PHOTOGRAPHS

Photograph 9: Discharge across Grassy Area towards Cazenovia Creek (6/6/19).

ATTACHMENT 5
WASTE MANIFEST – GAC & ORGANOCLAY

NY19-074

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
	1	800-535-5053	30613

GENERATOR

5. Generator's Name and Mailing Address
Army Corp. of Engineers
601 Willardshire Road
East Aurora, NY 14052
Generator's Phone: 339-234-3142

Generator's Site Address (if different than mailing address)

6. Transporter 1 Company Name: Allied Environmental Services, I (800) 992-5781 — U.S. EPA ID Number: NYR000227447

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address
American Recyclers Company
177 Wales Avenue
Tonawanda, NY 14150
Facility's Phone: 716.695.6720 — U.S. EPA ID Number: NYR000030809

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	Non RCRA Non DOT Regulated , (Carbon Filter Media)	1	TT	2500	Gl.	
2.						
3.						
4.						

13. Special Handling Instructions and Additional Information

ERG:	Approval #:	Handling Codes:	24 Hour Emergency Contact:
1 -	1 - X15134L	1 - None	INFOTRAC (Caller Must ID ESG)
2 -	2 -	2 -	
3 -	3 -	3 -	
4 -	4 -	4 -	

14. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: James Vinson — Signature: [signature] — Month 5 Day 13 Year 19

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Mark Armbruster — Signature: [signature] — Month 5 Day 13 Year 19

Transporter 2 Printed/Typed Name — Signature — Month Day Year

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month Day Year

Vac truck clean out 5/13/19

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name: Julian Mastrapolli — Signature: [signature] — Month 05 Day 13 Year 19

DESIGNATED FACILITY TO GENERATOR

PARISO LOGISTICS, INC.

3649 RIVER ROAD
TONAWANDA, NEW YORK 14150
OFFICE: (716) 875-6168 FAX: (716) 875-4121
SCALE: (716) 875-0902

TANDEMS **TRI-AXLES** **DUMP TRAILERS**

VARIETY OF PRODUCTS AVAILABLE FROM OUR STOCKPILES

CUSTOMER # tsg

CUSTOMER NAME

TICKET # P131083

DATE 05/13/2019
TIME 03:17PM

JOB #

SHIP TO tsg

35040 pounds

GROSS 35040 lb POUNDS
TARE 83920 lb POUNDS
NET 5556 TN POUNDS

PRODUCT scale empty

WEIGHMASTER: **PARISO LOGISTICS, INC.**
S. RAWE / E. RAWE
N.Y.S. LICENSE #140331 / 601381

WEIGHED BY SP

TRUCK NO. 836 TRUCKING CO.:

TRUCKER'S SIGNATURE

CUSTOMER 1

PARISO LOGISTICS, INC.

3649 RIVER ROAD
TONAWANDA, NEW YORK 14150
OFFICE: (716) 875-6168 FAX: (716) 875-4121
SCALE: (716) 875-0902

TANDEMS **TRI-AXLES** **DUMP TRAILERS**

VARIETY OF PRODUCTS AVAILABLE FROM OUR STOCKPILES

CUSTOMER # tsg

CUSTOMER NAME

TICKET # P131076

DATE 05/13/2019
TIME 01:11PM

JOB #

SHIP TO tsg

49000 pounds

GROSS 49000 lb POUNDS
TARE 36780 lb POUNDS
NET 12220 lb
11.11 TN POUNDS

6.98 tons carbon

PRODUCT scale Gulf

WEIGHMASTER: **PARISO LOGISTICS, INC.**
S. RAWE / E. RAWE
N.Y.S. LICENSE #140331 / 601381

WEIGHED BY SP

TRUCK NO. 836 TRUCKING CO.: Allied

TRUCKER'S SIGNATURE

CUSTOMER 1