

Appendix F

2018 Water Treatment System Media Waste Profiles, Waste Characterization, and Waste Manifests



EZ Profile™

Requested Facility: _____ ☐ Unsure Profile Number: 119157NY
☐ Multiple Generator Locations (Attach Locations) ☐ Request Certificate of Disposal ☐ Renewal? Original Profile Number: _____

A. GENERATOR INFORMATION (MATERIAL ORIGIN)

1. Generator Name: US Army Corps of Engineers
2. Site Address: 601 Willardshire Rd.
(City, State, ZIP) East Aurora, NY 14052
3. County: Erie
4. Contact Name: Mark Lovejoy
5. Email: mlovejoy@tantara.com
6. Phone: 508-752-5599 7. Fax: _____
8. Generator EPA ID: _____ ☒ N/A
9. State ID: _____ ☒ N/A

B. BILLING INFORMATION☐ SAME AS GENERATOR

1. Billing Name: NRC
2. Billing Address: 3500 Sunset Hwy. Ste. 200, Bldg 200
(City, State, ZIP) Great River NY 11739-1001
3. Contact Name: Accounts Payable
4. Email: ap@nrc.com
5. Phone: (631) 224-9141 6. Fax: _____
7. WM Hauled? ☐ Yes ☒ No
8. P.O. Number: _____
9. Payment Method: ☒ Credit Account ☐ Cash ☐ Credit Card

C. MATERIAL INFORMATION

1. Common Name: spent GAC/organoclay media
Describe Process Generating Material: ☐ See Attached

Carbon (GAC) & organoclay used to treat hydraulic oil impacted groundwater

2. Material Composition and Contaminants: ☒ See Attached

1. <u>See analytical</u>	
2.	
3.	
4.	

Total comp. must be equal to or greater than 100% ☒ ≥100%

3. State Waste Codes: _____ ☒ N/A
4. Color: _____
5. Physical State at 70°F: ☐ Solid ☐ Liquid ☐ Other: _____
6. Free Liquid Range Percentage: 20 to 25 ☐ N/A
7. pH: _____ to _____ ☐ N/A
8. Strong Odor: ☐ Yes ☐ No Describe: _____
9. Flash Point: ☐ <140°F ☐ 140°-199°F ☐ ≥200° ☐ N/A

E. ANALYTICAL AND OTHER REPRESENTATIVE INFORMATION

1. Analytical attached ☐ Yes

Please identify applicable samples and/or lab reports:

2. Other information attached (such as MSDS)? ☐ Yes

G. GENERATOR CERTIFICATION (PLEASE READ AND CERTIFY BY SIGNATURE)

By signing this EZ Profile™ form, I hereby certify that all information submitted in this and all attached documents contain true and accurate descriptions of this material, and that all relevant information necessary for proper material characterization and to identify known and suspected hazards has been provided. Any analytical data attached was derived from a sample that is representative as defined in 40 CFR 261 - Appendix 1 or by using an equivalent method. All changes occurring in the character of the material (i.e., changes in the process or new analytical) will be identified by the Generator and be disclosed to Waste Management prior to providing the material to Waste Management.

If I am an agent signing on behalf of the Generator, I have confirmed with the Generator that information contained in this Profile is accurate and complete.

Name (Print): Mark Lovejoy Date: 6/5/10

Title: Project Manager

Company: TANTARA Corporation

on behalf of USACE

THINK GREEN:

QUESTIONS? CALL 800 963 4776 FOR ASSISTANCE

D. REGULATORY INFORMATION

1. EPA Hazardous Waste? ☐ Yes* ☒ No
Code: _____
2. State Hazardous Waste? ☐ Yes ☒ No
Code: _____
3. Is this material non-hazardous due to Treatment, Delisting, or an Exclusion? ☐ Yes* ☒ No
4. Contains Underlying Hazardous Constituents? ☐ Yes* ☒ No
5. From an industry regulated under Benzene NESHAP? ☐ Yes* ☒ No
6. Facility remediation subject to 40 CFR 63 GGGGG? ☐ Yes* ☒ No
7. CERCLA or State-mandated clean-up? ☐ Yes* ☒ No
8. NRC or State-regulated radioactive or NORM waste? ☐ Yes* ☒ No
*If Yes, see Addendum (page 2) for additional questions and space.
9. Contains PCBs? → If Yes, answer a, b and c. ☐ Yes ☒ No
a. Regulated by 40 CFR 761? ☐ Yes ☒ No
b. Remediation under 40 CFR 761.61 (a)? ☐ Yes ☒ No
c. Were PCB imported into the US? ☐ Yes ☒ No
10. Regulated and/or Untreated Medical/Infectious Waste? ☐ Yes ☒ No
11. Contains Asbestos? ☐ Yes ☒ No
→ If Yes: ☐ Non-Friable ☐ Non-Friable - Regulated ☐ Friable

F. SHIPPING AND DOT INFORMATION

1. ☒ One-Time Event ☐ Repeat Event/Ongoing Business
2. Estimated Quantity/Unit of Measure: _____
☐ Tons ☐ Yards ☐ Drums ☐ Gallons ☐ Other: _____
3. Container Type and Size: _____
4. USDOT Proper Shipping Name: _____ ☐ N/A

Certification Signature

Revised June 30, 2015
©2015 Waste Management

GENERATOR WASTE CHARACTERIZATION REPORT

INSTRUCTIONS: The following form is required for disposal of non-hazardous industrial/commercial wastes at Modern Landfill. Please complete all sections of this report. Send completed report along with the analytical, chain of custody and the Application for Disposal of and Industrial Waste Stream (47-19-7) to this office. A separate form is required for each waste stream.

GENERATOR INFORMATION:

Generator Name: U.S. Army Corps of Engineers
Generating Facility Address: 601 Willardshire Rd., East Aurora, NY 14052
Technical Contact: Mark Lovejoy Phone: 339-234-3142
Alternate Contact: Bob Foley Phone: 609-254-9405

INVOICING INFORMATION:

Contracting Firm: Sun Environmental Corp.

Contact: Kevin Cannon Phone: 716-640-3782

Do you have an existing account with Modern Landfill? ☐ Yes ☒ No

Billing Address: 4655 Crossroad Park Dr. Liverpool, NY 13088

TRANSPORTER INFORMATION:

Hauler Name: Modern Landfill Inc. NYSDEC Permit No: _____

Contact Person: Brian Hanaka Phone: 716-417-9086

Is Modern Landfill currently on your Transporter Permit? ☐ Yes ☐ No

If no, please enclose a Part C Application to cover this waste stream.

WASTE INFORMATION:

Common name of waste: Silt filter bags for water/hydraulic oil mix.

Description of process generating this waste: Silt filter bags for carbon system filtering the water/hydraulic oil

Is this waste hazardous under USEPA Guidelines & 6NYCRR Part 371 (d)? ☐ Yes ☒ No

Indicate the category which best describes this waste stream:

☒
☐
☐

Industrial Waste
Household Waste
Commercial Solid Waste

☐
☐

Construction & Demolition Debris
Other (Please Specify) _____

PHYSICAL CHARACTERISTICS OF WASTE

The waste is at least 20% solid and contains no free liquid	Yes	☒	No	☐
The flashpoint of the waste is > 140 F	Yes	☒	No	☐
The pH level of the waste is between 2.0 and 12.5	Yes	☒	No	☐
Is the waste reactive (Cyanide/ Sulfide)?	Yes	☐	No	☒
Is the waste free of PCB's?	Yes	☐	No	☒
Color:	Odor: ☐ Strong ☐ Mild ☒ None			

TCLP TESTING AND CERTIFICATION

METALS

CONSTITUENT	NONHAZARDOUS LIMIT (mg/l)	PRESENT	NOT PRESENT
ARSENIC	5.0		☒
BARIUM	100.0		☒
CADMIUM	1.0		☒
CHROMIUM	5.0		☒
LEAD	5.0		☒
MERCURY	0.2		☒
SELENIUM	1.0		☒
SILVER	5.0		☒

HERBICIDES/ PESTICIDES

CONSTITUENT	NONHAZARDOUS LIMIT (mg/l)	PRESENT	NOT PRESENT
2,4-D	10.0		☒
2,4,5-TP (SILVEX)	1.0		☒
ENDRIN	0.02		☒
LINDANE	0.4		☒
METHOXYCHLOR	10.0		☒
TOXAPHENE	0.5		☒
CHLORDANE	0.03		☒
HEPTACHLOR	0.008		☒

ACID EXTRACTABLES

CONSTITUENT	NONHAZARDOUS LIMIT (mg/l)	PRESENT	NOT PRESENT
O-CREOSOL	200.0		☒
M-CREOSOL	200.0		☒
P-CREOSOL	200.0		☒
PENTACHLOROPHENOL	100.0		☒
2, 4,5-TRICHLOROPHENOL	400.0		☒
2,4,6-TRICHLOROPHENOL	2.0		☒

BASE NEUTRALS EXTRACTABLES

CONSTITUENT	NONHAZARDOUS LIMIT (mg/l)	PRESENT	NOT PRESENT
1,4 DICHLOROBENZENE	7.5		☒
2, 4 DINITROTOLUENE	0.13		☒
HEXACHLOROBENZENE	0.13		☒
HEXACHLOROBUTADIENE	0.5		☒
HEXACHLOROETANE	3		☒
NITROBENZENE	2		☒
PYRIDINE	5		☒

VOLATILE ORGANICS CERTIFICATION:

CONSTITUENT	NONHAZARDOUS LIMIT (mg/l)	PRESENT	NOT PRESENT
1,1 DICHLOROETHYLENE	0.7		☒
METHYL ETHYL KETONE	200.0		☒
TETRACHLOROETHYLENE	0.7		☒
VINYL CHLORIDE	0.2		☒
BENZENE	0.5		☒
CARBON TETRACHLORIDE	0.5		☒
CHLOROFORM	6.0		☒
TRICHLOROETHYLENE	0.5		☒
1,2 DICHLOROETHANE	0.5		☒
CHLOROBENZENE	100.0		☒

I CERTIFY THAT ALL INFORMATION CONTAINED WITHIN THIS GENERATOR WASTE CHARACTERIZATION REPORT, INCLUDING ALL ATTACHED INFORMATION, IS COMPLETE AND ACTUAL AND IS AN ACCURATE REPRESENTATION OF KNOWN OR SUSPECTED HAZARDS DESCRIBED HEREIN.

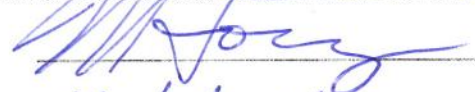
SIGNATURE:

PRINTED NAME:

TITLE:

COMPANY:

DATE:


 Mark Lovejoy
 On Behalf of USACE
 Proj. Manager
 TANTARA Corp.
 6/20/18

**APPLICATION FOR TREATMENT OR DISPOSAL
OF AN INDUSTRIAL WASTE STREAM
SEE APPLICATION INSTRUCTIONS ON REVERSE SIDE**

FOR STATE USE ONLY		
SITE NO. 32S30	APPLICATION NO.	DATE RECEIVED
DEPARTMENT ACTION ☐ Approved ☐ Disapproved		DATE

1. NAME OF PROJECT/FACILITY MODERN LANDFILL, INC.		2. COUNTY NIAGARA		3. SITE NUMBER 32S30	
4. NAME OF OWNER RICHARD WASHUTA		5. ADDRESS (Street, City, State, Zip Code) 4746 Model City Road, Model City, NY 14107		6. TELEPHONE NO. (716) 754-8226	
6. NAME OF OPERATOR RICHARD WASHUTA		8. ADDRESS (Street, City, State, Zip Code) Pletcher & Harold Road, Model City, NY 14107		9. TELEPHONE NO. (716) 754-8226	
10. METHOD OF TREATMENT OR DISPOSAL SANITARY LANDFILL - D90					
11. COMPANY GENERATING WASTE US Corps of Engineers		12. ADDRESS OF FACILITY GENERATING WASTE (Street, City, State, Zip Code) 601 Willardshire Rd E. Aurora, NY 14052			
13. REPRESENTATIVE OF WASTE GENERATOR Mark Lovejoy		14. MAILING ADDRESS OF REPRESENTATIVE 54 Mason St, Worcester, MA 01610		15. TELEPHONE NO. 508-752-5599	
16. DESCRIPTION OF PROCESS PRODUCING WASTE: Silt Filter Bags for Carbon System Filtering the Water/Hydraulic Oil					
17. EXPECTED ANNUAL WASTE PRODUCTION		18. WASTE HAULED IN ☐ Drums ☐ Bulk Tank ☒ Roll-Off Container ☐ Other			
19. WASTE COMPOSITION 19A. Average Percent Solids		19b. Physical State ☐ Liquid ☐ Slurry ☐ Sludge ☒ Solid ☐ Contained Gas		19c. pH Range 6 to 9	
19d. COMPONENTS		CONCENTRATION (Dry Weight) Upper Lower Typical		UNIT (Check One) Wt. % ppm	
1) Sediment				10-25	
2) Filter Bags				75-90	
3)					
4)					
20. IS AN ANALYSIS OF WASTE ATTACHED? ☒ YES ☐ NO		21. WAS A TCLP TEST CONDUCTED ON THE WASTE? ☐ Yes ☒ No If "yes":		22. MATERIAL IS: Hazardous ☐ Non-Hazardous ☒	
23. DETAIL ALL HAZARD AND NUISANCE PROBLEMS ASSOCIATED WITH THE WASTES. List necessary safety, handling, treatment and disposal precautions					
24. WHERE WAS MATERIAL DISPOSED OF PREVIOUSLY? N/A					
25. NAME OF WASTE TRANSPORTER Modern Landfill Inc.		26. ADDRESS (Street, City, State, Zip Code)		27. NYSDEC PERMIT No. 716-417-9086	
28. TELEPHONE NO.					
29. CERTIFICATION I hereby affirm under penalty of perjury that information provided on this form and attached statements and exhibits is true to the best of my knowledge and belief. False statements made herein are punishable as a Class A misdemeanor pursuant to Section 210.45 of the Penal Law.					
a. SIGNATURE AND TITLE OF REPRESENTATIVE OF WASTE GENERATOR Project Manager of USACE				DATE 6/20/18	
b. SIGNATURE AND TITLE OF REPRESENTATIVE OF TREATMENT OR DISPOSAL FACILITY				DATE	



DEPARTMENT OF THE ARMY
US ARMY CORPS OF ENGINEERS
NEW ENGLAND DISTRICT
696 VIRGINIA ROAD
CONCORD MA 01742-2751

June 4, 2018

Environmental Engineering Section

Mark Lovejoy, PE
Tantara Corporation
54 Mason Street
Worcester, MA 01610

SUBJECT: Contract No. W912WJ-16-C-0023, Former Niagara Falls-Buffalo Defense Nike Battery BU-34-35, East Aurora and Orchard Park, New York; Authorization to Sign Non-Hazardous Waste Manifests at the Former Launch Area (Aurora, New York) related to Closure of Underground Missile Silos.

Dear Mr. Lovejoy:

This letter confirms Tantara Corporation (Tantara) is authorized to sign waste profiles, shipping records, and other supporting documents on behalf of the U.S. Army Corps of Engineers in connection with the management and disposal of non-hazardous wastes from the Silo Closure Work at the Former Launch Area for Nike BU 34-35 in accordance with the contract referenced above. Per the contract, Tantara is responsible for completing all necessary testing and documentation to support the determination that the material to be disposed has been properly classified as non-hazardous.

Please contact Penny Reddy, USACE Project Manager, at 978-318-8160 or via e-mail at Penelope.Reddy@usace.army.mil if there are any questions or Jessica Kidd at 978-318-8699, or email at jessica.m.kidd@usace.army.mil.

Sincerely,

Penelope Reddy
Contracting Officer Representative



EMSL Analytical, Inc.

490 Rowley Road Depew, NY 14043

Tel/Fax: (716) 651-0030 / (716) 651-0394

<http://www.EMSL.com> / buffalolab@emsl.com

EMSL Order: 141802481

Customer ID: TNTA42

Customer PO:

Project ID:

Attention: Mark Lovejoy
Tantara Associates Corporation
54 Mason St.
Worcester, MA 01610

Phone: (508) 752-5599

Fax: (508) 752-1005

Received Date: 05/30/2018 8:42 AM

Analysis Date: 05/31/2018

Collected Date: 05/15/2018

Project: Buffalo Nike

Test Report: Asbestos Analysis of Non-Friable Organically Bound Materials by PLM via the NY State ELAP 198.6 Method

Sample ID	Description	Appearance	Matrix Material	% Non-Asbestos Fibers	% Asbestos Types
1 141802481-0001	BAG-A-SILOS-1-5 - Sediment	Brown Fibrous Homogeneous	100% Other	None	Inconclusive: No Asbestos Detected

Analyst(s)

Mark Tate (1)

Rhonda McGee, Laboratory Manager
or other approved signatory

*Polarized Light Microscopy (PLM) is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. Quantitative Transmission Electron Microscopy is currently the only method that can be used to determine if this material can be considered or treated as non-asbestos containing. The test results contained within this report meet the requirements of NELAC unless otherwise noted. EMSL maintains liability limited to cost of analysis. This report relates only to the samples reported above and may not be reproduced, except in full, without written approval by EMSL. The above test report relates only to the items tested. EMSL bears no responsibility for sample collection activities or analytical method limitations. Samples received in good condition unless otherwise noted.

Samples analyzed by EMSL Analytical, Inc. Depew, NY NYS ELAP 11606

Initial report from: 05/31/2018 09:58:55



EMSL Analytical, Inc.

490 Rowley Road Depew, NY 14043

Tel/Fax: (716) 651-0030 / (716) 651-0394

<http://www.EMSL.com> / buffalolab@emsl.com

EMSL Order: 141802481

Customer ID: TNTA42

Customer PO:

Project ID:

Attention: Mark Lovejoy
Tantara Associates Corporation
54 Mason St.
Worcester, MA 01610

Phone: (508) 752-5599

Fax: (508) 752-1005

Received Date: 05/30/2018 8:42 AM

Analysis Date: 05/31/2018

Collected Date: 05/15/2018

Project: Buffalo Nike

Test Report: Asbestos Analysis of Non-Friable Organically Bound materials by Transmission Electron Microscopy via NYS ELAP Method 198.4

Sample ID	Description	Appearance	Matrix Material	% Non-Asbestos Fibers	% Asbestos Types	% Total Asbestos
1 141802481-0001	BAG-A-SILOS-1-5 - Sediment	Brown Fibrous Homogeneous	100% Other	None	No Asbestos Detected	

Analyst(s)

Mark Tate (1)

Rhonda McGee, Laboratory Manager
or other approved signatory

Analytical Sensitivity <1% Asbestos. This laboratory is not responsible for % asbestos in total sample when the residue only is submitted for analysis. The above report relates only to the items tested. This report may not be reproduced, except in full, without written approval by EMSL Analytical, Inc. Samples received in good condition unless otherwise noted.

Samples analyzed by EMSL Analytical, Inc. Depew, NY NYS ELAP 11606

Initial report from: 05/31/2018 09:58:55



EMSL ANALYTICAL, INC.
LABORATORY • PRODUCTS • TRAINING

Asbestos Bulk Building Material Chain of Custody

EMSL Order Number (Lab Use Only):

Depew, NY 14043

PHONE: (716) 651-0030

FAX: (716) 651-0394

14186248)

Company : TANTARA Corporation		EMSL-Bill to: ☐ Same ☒ Different If Bill to is Different note instructions in Comments**	
Street: 54 Mason Street		Third Party Billing requires written authorization from third party	
City: WORCESTER	State/Province: MA	Zip/Postal Code: 01610	Country: US
Report To (Name): Mark Lovejoy		Telephone #: 5087525599	
Email Address: mlovejoy@tantaracorp.com		Fax #:	Purchase Order:
Project Name/Number: Buffalo Nike		Please Provide Results: ☐ Fax ☒ Email ☐ Mail	
U.S. State Samples Taken: NY		CT Samples: ☐ Commercial/Taxable ☐ Residential/Tax Exempt	
Turnaround Time (TAT) Options* – Please Check			
☐ 3 Hour ☐ 6 Hour ☐ 24 Hour ☒ 48 Hour ☐ 72 Hour ☐ 96 Hour ☐ 1 Week ☐ 2 Week			
*For TEM Air 3 hr through 6 hr, please call ahead to schedule.*There is a premium charge for 3 Hour TEM AHERA or EPA Level II TAT. You will be asked to sign an authorization form for this service. Analysis completed in accordance with EMSL's Terms and Conditions located in the Analytical Price Guide.			
PLM - Bulk (reporting limit)		TEM – Bulk	
☐ PLM EPA 600/R-93/116 (<1%) ☐ PLM EPA NOB (<1%) Point Count ☐ 400 (<0.25%) ☐ 1000 (<0.1%) Point Count w/Gravimetric ☐ 400 (<0.25%) ☐ 1000 (<0.1%) ☐ NIOSH 9002 (<1%) ☐ NY ELAP Method 198.1 (friable in NY) ☒ NY ELAP Method 198.6 NOB (non-friable-NY) ☐ OSHA ID-191 Modified ☐ Standard Addition Method		☐ TEM EPA NOB – EPA 600/R-93/116 Section 2.5.5.1 ☒ NY ELAP Method 198.4 (TEM) ☐ Chatfield Protocol (semi-quantitative) ☐ TEM % by Mass – EPA 600/R-93/116 Section 2.5.5.2 ☐ TEM Qualitative via Filtration Prep Technique ☐ TEM Qualitative via Drop Mount Prep Technique	
		Other	
☐ Check For Positive Stop – Clearly Identify Homogenous Group		Date Sampled: 5/15/18	
Samplers Name: Bob Foley		Samplers Signature: [Signature]	
Sample #	HA #	Sample Location	Material Description
1		BAG-A-SILOS-1-5	Sediment
Client Sample # (s):	-	Total # of Samples:	
Relinquished (Client): [Signature]	Date: 5/30/18	Time:	
Received (Lab):	Date:	Time:	
Comments/Special Instructions: BillTo: TANTARA Corporation, 54 Mason Street, WORCESTER, MA, 01610, US Attention: Mark Lovejoy Phone: 5087525599 Email: mlovejoy@tantaracorp.com Purchase Order: 16-299			

RECEIVED
MAY 30 2018
BY: *Jessie Store*

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

e-Hardcopy 2.0
Automated Report

Technical Report for

Tantara Corporation

USACE Buffalo Nike Missile UST, East Aurora, NY

16-299

SGS Job Number: JC66934

Sampling Date: 05/29/18

Report to:

Tantara Corporation
54 Mason Street
Worcester, MA 01610
mlovejoy@tantaracorp.com

ATTN: Mark Lovejoy

Total number of pages in report: **350**



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



Nancy Cole
Laboratory Director

Client Service contact: Tammy McCloskey 732-329-0200

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

This report shall not be reproduced, except in its entirety, without the written approval of SGS.
Test results relate only to samples analyzed.

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Sample Summary

Tantara Corporation

Job No: JC66934

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

Sample Number	Collected		Matrix Code Type	Client	
	Date	Time By	Received	Sample ID	
JC66934-1	05/29/18	10:30 RF	05/30/18	SO	Soil
					PRIMARY GAC/CLAY

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

CASE NARRATIVE / CONFORMANCE SUMMARY

2

Client: Tantara Corporation

Job No JC66934

Site: USACE Buffalo Nike Missile UST, East Aurora, NY

Report Date 6/1/2018 10:28:57 AM

On 05/30/2018, 1 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were received at SGS North America Inc. at a maximum corrected temperature of 4.7 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. Job Number of JC66934 was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section.

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

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

MS Volatiles By Method SW846 8260C

Matrix: SO

Batch ID: VY7792

- All samples were analyzed within the recommended method holding time.
- Sample(s) JC66826-7MS, JC66826-8DUP were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- RPD(s) for Duplicate for Acetone are outside control limits for sample JC66826-8DUP. Outside control limits due to sample non-homogeneity.
- JC66934-1: Sample was not collected per 5035A specifications. Sample preserved from intact soil by laboratory.

Metals Analysis By Method SW846 6010C

Matrix: SO

Batch ID: MP7388

- All samples were digested within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC66684-1MS, JC66684-1MSD, JC66684-1SDL were used as the QC samples for metals.
- RPD(s) for Serial Dilution for Arsenic, Silver are outside control limits for sample MP7388-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

Metals Analysis By Method SW846 7471B

Matrix: SO

Batch ID: MP7406

- All samples were digested within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC66951-3MS, JC66951-3MSD were used as the QC samples for metals.

General Chemistry By Method SM2540 G-97

Matrix: SO

Batch ID: GN80671

- The data for SM2540 G-97 meets quality control requirements.

Friday, June 01, 2018

Page 1 of 2

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

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

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

Summary of Hits

Job Number: JC66934
Account: Tantara Corporation
Project: USACE Buffalo Nike Missile UST, East Aurora, NY
Collected: 05/29/18



Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Analyte						
JC66934-1	PRIMARY GAC/CLAY					
Acetone ^a		54.5	13	8.3	ug/kg	SW846 8260C
p-Isopropyltoluene ^a		0.37 J	2.6	0.33	ug/kg	SW846 8260C
Methylene chloride ^a		3.7 J	6.5	3.2	ug/kg	SW846 8260C
Styrene ^a		1.1 J	2.6	0.64	ug/kg	SW846 8260C
Arsenic		5.9	2.7		mg/kg	SW846 6010C
Barium		196	27		mg/kg	SW846 6010C
Chromium		1.6	1.3		mg/kg	SW846 6010C
Lead		22.1	2.7		mg/kg	SW846 6010C

(a) Sample was not collected per 5035A specifications. Sample preserved from intact soil by laboratory.

Sample Results

Report of Analysis

SGS North America Inc.

Report of Analysis

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Client Sample ID:	PRIMARY GAC/CLAY	Date Sampled:	05/29/18
Lab Sample ID:	JC66934-1	Date Received:	05/30/18
Matrix:	SO - Soil	Percent Solids:	75.9
Method:	SW846 8260C SW846 5035		
Project:	USACE Buffalo Nike Missile UST, East Aurora, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	Y180153.D	1	05/30/18 17:14	PS	05/30/18 11:00	n/a	VY7792
Run #2							

Run #	Initial Weight
Run #1	5.1 g
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	54.5	13	8.3	ug/kg	
71-43-2	Benzene	ND	0.65	0.14	ug/kg	
108-86-1	Bromobenzene	ND	6.5	0.38	ug/kg	
74-97-5	Bromochloromethane	ND	6.5	0.56	ug/kg	
75-27-4	Bromodichloromethane	ND	2.6	0.31	ug/kg	
75-25-2	Bromoform	ND	6.5	0.40	ug/kg	
74-83-9	Bromomethane	ND	6.5	0.91	ug/kg	
78-93-3	2-Butanone (MEK)	ND	13	6.8	ug/kg	
104-51-8	n-Butylbenzene	ND	2.6	0.47	ug/kg	
135-98-8	sec-Butylbenzene	ND	2.6	0.30	ug/kg	
98-06-6	tert-Butylbenzene	ND	2.6	0.57	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.6	0.84	ug/kg	
108-90-7	Chlorobenzene	ND	2.6	0.37	ug/kg	
75-00-3	Chloroethane	ND	6.5	1.2	ug/kg	
67-66-3	Chloroform	ND	2.6	0.42	ug/kg	
74-87-3	Chloromethane	ND	6.5	1.3	ug/kg	
95-49-8	o-Chlorotoluene	ND	2.6	0.36	ug/kg	
106-43-4	p-Chlorotoluene	ND	2.6	0.34	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.6	0.87	ug/kg	
124-48-1	Dibromochloromethane	ND	2.6	0.49	ug/kg	
106-93-4	1,2-Dibromoethane	ND	1.3	0.32	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	1.3	0.67	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1.3	0.37	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1.3	0.62	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	6.5	0.79	ug/kg	
75-34-3	1,1-Dichloroethane	ND	1.3	0.33	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.3	0.23	ug/kg	
75-35-4	1,1-Dichloroethene	ND	1.3	0.91	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	1.3	0.52	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	1.3	0.75	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.6	0.51	ug/kg	
142-28-9	1,3-Dichloropropane	ND	2.6	0.33	ug/kg	

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PRIMARY GAC/CLAY	Date Sampled:	05/29/18
Lab Sample ID:	JC66934-1	Date Received:	05/30/18
Matrix:	SO - Soil	Percent Solids:	75.9
Method:	SW846 8260C SW846 5035		
Project:	USACE Buffalo Nike Missile UST, East Aurora, NY		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
594-20-7	2,2-Dichloropropane	ND	2.6	0.53	ug/kg	
563-58-6	1,1-Dichloropropene	ND	2.6	0.67	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.6	0.50	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.6	0.31	ug/kg	
100-41-4	Ethylbenzene	ND	1.3	0.37	ug/kg	
87-68-3	Hexachlorobutadiene	ND	6.5	0.67	ug/kg	
98-82-8	Isopropylbenzene	ND	2.6	0.32	ug/kg	
99-87-6	p-Isopropyltoluene	0.37	2.6	0.33	ug/kg	J
1634-04-4	Methyl Tert Butyl Ether	ND	1.3	0.55	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	6.5	2.3	ug/kg	
74-95-3	Methylene bromide	ND	6.5	0.47	ug/kg	
75-09-2	Methylene chloride	3.7	6.5	3.2	ug/kg	J
91-20-3	Naphthalene	ND	6.5	2.6	ug/kg	
103-65-1	n-Propylbenzene	ND	2.6	0.30	ug/kg	
100-42-5	Styrene	1.1	2.6	0.64	ug/kg	J
630-20-6	1,1,1,2-Tetrachloroethane	ND	2.6	0.33	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.6	0.33	ug/kg	
127-18-4	Tetrachloroethene	ND	2.6	0.82	ug/kg	
108-88-3	Toluene	ND	1.3	0.71	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	6.5	1.3	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	6.5	1.3	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	2.6	0.75	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	2.6	0.54	ug/kg	
79-01-6	Trichloroethene	ND	1.3	0.71	ug/kg	
75-69-4	Trichlorofluoromethane	ND	6.5	0.62	ug/kg	
96-18-4	1,2,3-Trichloropropane	ND	6.5	0.68	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	2.6	1.3	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	2.6	1.3	ug/kg	
75-01-4	Vinyl chloride	ND	2.6	0.99	ug/kg	
	m,p-Xylene	ND	1.3	0.71	ug/kg	
95-47-6	o-Xylene	ND	1.3	0.32	ug/kg	
1330-20-7	Xylene (total)	ND	1.3	0.32	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	111%		75-127%
17060-07-0	1,2-Dichloroethane-D4	109%		75-130%
2037-26-5	Toluene-D8	103%		80-120%
460-00-4	4-Bromofluorobenzene	107%		79-127%

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Report of Analysis

Client Sample ID:	PRIMARY GAC/CLAY	Date Sampled:	05/29/18
Lab Sample ID:	JC66934-1	Date Received:	05/30/18
Matrix:	SO - Soil	Percent Solids:	75.9
Method:	SW846 8260C SW846 5035		
Project:	USACE Buffalo Nike Missile UST, East Aurora, NY		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q

(a) Sample was not collected per 5035A specifications. Sample preserved from intact soil by laboratory.

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

4.1
4

Report of Analysis

Client Sample ID:	PRIMARY GAC/CLAY	Date Sampled:	05/29/18
Lab Sample ID:	JC66934-1	Date Received:	05/30/18
Matrix:	SO - Soil	Percent Solids:	75.9
Project:	USACE Buffalo Nike Missile UST, East Aurora, NY		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analized By	Method	Prep Method
Arsenic	5.9	2.7	mg/kg	1	05/30/18	05/30/18 EAL	SW846 6010C ¹	SW846 3050B ³
Barium	196	27	mg/kg	1	05/30/18	05/30/18 EAL	SW846 6010C ¹	SW846 3050B ³
Cadmium	< 0.67	0.67	mg/kg	1	05/30/18	05/30/18 EAL	SW846 6010C ¹	SW846 3050B ³
Chromium	1.6	1.3	mg/kg	1	05/30/18	05/30/18 EAL	SW846 6010C ¹	SW846 3050B ³
Lead	22.1	2.7	mg/kg	1	05/30/18	05/30/18 EAL	SW846 6010C ¹	SW846 3050B ³
Mercury	< 0.040	0.040	mg/kg	1	05/31/18	05/31/18 DP	SW846 7471B ²	SW846 7471B ⁴
Selenium	< 2.7	2.7	mg/kg	1	05/30/18	05/30/18 EAL	SW846 6010C ¹	SW846 3050B ³
Silver	< 0.67	0.67	mg/kg	1	05/30/18	05/30/18 EAL	SW846 6010C ¹	SW846 3050B ³

- (1) Instrument QC Batch: MA44551
- (2) Instrument QC Batch: MA44553
- (3) Prep QC Batch: MP7388
- (4) Prep QC Batch: MP7406

RL = Reporting Limit

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Misc. Forms

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Custody Documents and Other Forms

Includes the following where applicable:

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



CHAIN OF CUSTODY

PAGE 1 OF 1

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

FED-EX Tracking # 435763462010
SGS Quote #
Bottle Order Control # PD-051518-54
SGS Job # JC 66934

Client / Reporting Information		Project Information		Requested Analysis (see TEST CODE sheet)		Matrix Codes																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
Company Name TRINTARA CORP	Project Name BUFFALO NVO	Billing Information (If different from Report to)		100% 8260 PCRA 5 mod 14		DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL - Sludge SED - Sediment OI - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB - Field Blank EB - Equipment Blank RB - Rinse Blank TB - Trip Blank																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
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Project Contact Mark Lovejoy	E-mail mlovejoy@trintara.com	Project #	Client Purchase Order #					City	State	Zip																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
Phone # 332-234-3142	Fax #	Project Manager M. Lovejoy	Attention:																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
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Lab Sample #	Field ID / Point of Collection	MECH/DI Vial #	Date	Time	Sampled by	Matrix	# of bottles	ICD	NaOH	INCO	INCO2	INCO3	INCO4	INCO5	INCO6	INCO7	INCO8	INCO9	INCO10	INCO11	INCO12	INCO13	INCO14	INCO15	INCO16	INCO17	INCO18	INCO19	INCO20	INCO21	INCO22	INCO23	INCO24	INCO25	INCO26	INCO27	INCO28	INCO29	INCO30	INCO31	INCO32	INCO33	INCO34	INCO35	INCO36	INCO37	INCO38	INCO39	INCO40	INCO41	INCO42	INCO43	INCO44	INCO45	INCO46	INCO47	INCO48	INCO49	INCO50	INCO51	INCO52	INCO53	INCO54	INCO55	INCO56	INCO57	INCO58	INCO59	INCO60	INCO61	INCO62	INCO63	INCO64	INCO65	INCO66	INCO67	INCO68	INCO69	INCO70	INCO71	INCO72	INCO73	INCO74	INCO75	INCO76	INCO77	INCO78	INCO79	INCO80	INCO81	INCO82	INCO83	INCO84	INCO85	INCO86	INCO87	INCO88	INCO89	INCO90	INCO91	INCO92	INCO93	INCO94	INCO95	INCO96	INCO97	INCO98	INCO99	INCO100	INCO101	INCO102	INCO103	INCO104	INCO105	INCO106	INCO107	INCO108	INCO109	INCO110	INCO111	INCO112	INCO113	INCO114	INCO115	INCO116	INCO117	INCO118	INCO119	INCO120	INCO121	INCO122	INCO123	INCO124	INCO125	INCO126	INCO127	INCO128	INCO129	INCO130	INCO131	INCO132	INCO133	INCO134	INCO135	INCO136	INCO137	INCO138	INCO139	INCO140	INCO141	INCO142	INCO143	INCO144	INCO145	INCO146	INCO147	INCO148	INCO149	INCO150	INCO151	INCO152	INCO153	INCO154	INCO155	INCO156	INCO157	INCO158	INCO159	INCO160	INCO161	INCO162	INCO163	INCO164	INCO165	INCO166	INCO167	INCO168	INCO169	INCO170	INCO171	INCO172	INCO173	INCO174	INCO175	INCO176	INCO177	INCO178	INCO179	INCO180	INCO181	INCO182	INCO183	INCO184	INCO185	INCO186	INCO187	INCO188	INCO189	INCO190	INCO191	INCO192	INCO193	INCO194	INCO195	INCO196	INCO197	INCO198	INCO199	INCO200	INCO201	INCO202	INCO203	INCO204	INCO205	INCO206	INCO207	INCO208	INCO209	INCO210	INCO211	INCO212	INCO213	INCO214	INCO215	INCO216	INCO217	INCO218	INCO219	INCO220	INCO221	INCO222	INCO223	INCO224	INCO225	INCO226	INCO227	INCO228	INCO229	INCO230	INCO231	INCO232	INCO233	INCO234	INCO235	INCO236	INCO237	INCO238	INCO239	INCO240	INCO241	INCO242	INCO243	INCO244	INCO245	INCO246	INCO247	INCO248	INCO249	INCO250	INCO251	INCO252	INCO253	INCO254	INCO255	INCO256	INCO257	INCO258	INCO259	INCO260	INCO261	INCO262	INCO263	INCO264	INCO265	INCO266	INCO267	INCO268	INCO269	INCO270	INCO271	INCO272	INCO273	INCO274	INCO275	INCO276	INCO277	INCO278	INCO279	INCO280	INCO281	INCO282	INCO283	INCO284	INCO285	INCO286	INCO287	INCO288	INCO289	INCO290	INCO291	INCO292	INCO293	INCO294	INCO295	INCO296	INCO297	INCO298	INCO299	INCO300	INCO301	INCO302	INCO303	INCO304	INCO305	INCO306	INCO307	INCO308	INCO309	INCO310	INCO311	INCO312	INCO313	INCO314	INCO315	INCO316	INCO317	INCO318	INCO319	INCO320	INCO321	INCO322	INCO323	INCO324	INCO325	INCO326	INCO327	INCO328	INCO329	INCO330	INCO331	INCO332	INCO333	INCO334	INCO335	INCO336	INCO337	INCO338	INCO339	INCO340	INCO341	INCO342	INCO343	INCO344	INCO345	INCO346	INCO347	INCO348	INCO349	INCO350	INCO351	INCO352	INCO353	INCO354	INCO355	INCO356	INCO357	INCO358	INCO359	INCO360	INCO361	INCO362	INCO363	INCO364	INCO365	INCO366	INCO367	INCO368	INCO369	INCO370	INCO371	INCO372	INCO373	INCO374	INCO375	INCO376	INCO377	INCO378	INCO379	INCO380	INCO381	INCO382	INCO383	INCO384	INCO385	INCO386	INCO387	INCO388	INCO389	INCO390	INCO391	INCO392	INCO393	INCO394	INCO395	INCO396	INCO397	INCO398	INCO399	INCO400	INCO401	INCO402	INCO403	INCO404	INCO405	INCO406	INCO407	INCO408	INCO409	INCO410	INCO411	INCO412	INCO413	INCO414	INCO415	INCO416	INCO417	INCO418	INCO419	INCO420	INCO421	INCO422	INCO423	INCO424	INCO425	INCO426	INCO427	INCO428	INCO429	INCO430	INCO431	INCO432	INCO433	INCO434	INCO435	INCO436	INCO437	INCO438	INCO439	INCO440	INCO441	INCO442	INCO443	INCO444	INCO445	INCO446	INCO447	INCO448	INCO449	INCO450	INCO451	INCO452	INCO453	INCO454	INCO455	INCO456	INCO457	INCO458	INCO459	INCO460	INCO461	INCO462	INCO463	INCO464	INCO465	INCO466	INCO467	INCO468	INCO469	INCO470	INCO471	INCO472	INCO473	INCO474	INCO475	INCO476	INCO477	INCO478	INCO479	INCO480	INCO481	INCO482	INCO483	INCO484	INCO485	INCO486	INCO487	INCO488	INCO489	INCO490	INCO491	INCO492	INCO493	INCO494	INCO495	INCO496	INCO497	INCO498	INCO499	INCO500	INCO501	INCO502	INCO503	INCO504	INCO505	INCO506	INCO507	INCO508	INCO509	INCO510	INCO511	INCO512	INCO513	INCO514	INCO515	INCO516	INCO517	INCO518	INCO519	INCO520	INCO521	INCO522	INCO523	INCO524	INCO525	INCO526	INCO527	INCO528	INCO529	INCO530	INCO531	INCO532	INCO533	INCO534	INCO535	INCO536	INCO537	INCO538	INCO539	INCO540	INCO541	INCO542	INCO543	INCO544	INCO545	INCO546	INCO547	INCO548	INCO549	INCO550	INCO551	INCO552	INCO553	INCO554	INCO555	INCO556	INCO557	INCO558	INCO559	INCO560	INCO561	INCO562	INCO563	INCO564	INCO565	INCO566	INCO567	INCO568	INCO569	INCO570	INCO571	INCO572	INCO573	INCO574	INCO575	INCO576	INCO577	INCO578	INCO579	INCO580	INCO581	INCO582	INCO583	INCO584	INCO585	INCO586	INCO587	INCO588	INCO589	INCO590	INCO591	INCO592	INCO593	INCO594	INCO595	INCO596	INCO597	INCO598	INCO599	INCO600	INCO601	INCO602	INCO603	INCO604	INCO605	INCO606	INCO607	INCO608	INCO609	INCO610	INCO611	INCO612	INCO613	INCO614	INCO615	INCO616	INCO617	INCO618	INCO619	INCO620	INCO621	INCO622	INCO623	INCO624	INCO625	INCO626	INCO627	INCO628	INCO629	INCO630	INCO631	INCO632	INCO633	INCO634	INCO635	INCO636	INCO637	INCO638	INCO639	INCO640	INCO641	INCO642	INCO643	INCO644	INCO645	INCO646	INCO647	INCO648	INCO649	INCO650	INCO651	INCO652	INCO653	INCO654	INCO655	INCO656	INCO657	INCO658	INCO659	INCO660	INCO661	INCO662	INCO663	INCO664	INCO665	INCO666	INCO667	INCO668	INCO669	INCO670	INCO671	INCO672	INCO673	INCO674	INCO675	INCO676	INCO677	INCO678	INCO679	INCO680	INCO681	INCO682	INCO683	INCO684	INCO685	INCO686	INCO687	INCO688	INCO689	INCO690	INCO691	INCO692	INCO693	INCO694	INCO695	INCO696	INCO697	INCO698	INCO699	INCO700	INCO701	INCO702	INCO703	INCO704	INCO705	INCO706	INCO707	INCO708	INCO709	INCO710	INCO711	INCO712	INCO713	INCO714	INCO715	INCO716	INCO717	INCO718	INCO719	INCO720	INCO721	INCO722	INCO723	INCO724	INCO725	INCO726	INCO727	INCO728	INCO729	INCO730	INCO731	INCO732	INCO733	INCO734	INCO735	INCO736	INCO737	INCO738	INCO739	INCO740	INCO741	INCO742	INCO743	INCO744	INCO745	INCO746	INCO747	INCO748	INCO749	INCO750	INCO751	INCO752	INCO753	INCO754	INCO755	INCO756	INCO757	INCO758	INCO759	INCO760	INCO761	INCO762	INCO763	INCO764	INCO765	INCO766	INCO767	INCO768	INCO769	INCO770	INCO771	INCO772	INCO773	INCO774	INCO775	INCO776	INCO777	INCO778	INCO779	INCO780	INCO781	INCO782	INCO783	INCO784	INCO785	INCO786	INCO787	INCO788	INCO789	INCO790	INCO791	INCO792	INCO793	INCO794	INCO795	INCO796	INCO797	INCO798	INCO799	INCO800	INCO801	INCO802	INCO803	INCO804	INCO805	INCO806	INCO807	INCO808	INCO809	INCO810	INCO811	INCO812	INCO813	INCO814	INCO815	INCO816	INCO817	INCO818	INCO819	INCO820	INCO821	INCO822	INCO823	INCO824	INCO825	INCO826	INCO827	INCO828	INCO829	INCO830	INCO831	INCO832	INCO833	INCO834	INCO835	INCO836	INCO837	INCO838	INCO839	INCO840	INCO841	INCO842	INCO843	INCO844	INCO845	INCO846	INCO847	INCO848	INCO849	INCO850	INCO851	INCO852	INCO853	INCO854	INCO855	INCO856	INCO857	INCO858	INCO859	INCO860	INCO861	INCO862	INCO863	INCO864	INCO865	INCO866	INCO867	INCO868	INCO869	INCO870	INCO871	INCO872	INCO873	INCO874	INCO875	INCO876	INCO877	INCO878	INCO879	INCO880	INCO881	INCO882	INCO883	INCO884	INCO885	INCO886	INCO887	INCO888	INCO889	INCO890	INCO891	INCO892	INCO893	INCO894	INCO895	INCO896	INCO897	INCO898	INCO899	INCO900	INCO901	INCO902	INCO903	INCO904	INCO905	INCO906	INCO907	INCO908	INCO909	INCO910	INCO911	INCO912	INCO913	INCO914	INCO915	INCO916	INCO917	INCO918	INCO919	INCO920	INCO921	INCO922	INCO923	INCO924	INCO925	INCO926	INCO927	INCO928	INCO929	INCO930	INCO931	INCO932	INCO933	INCO934	INCO935	INCO936	INCO937	INCO938	INCO939	INCO940	INCO941	INCO942	INCO943	INCO944	INCO945	INCO946	INCO947	INCO948	INCO949	INCO950	INCO951	INCO952	INCO953	INCO954	INCO955	INCO956	INCO957	INCO958	INCO959	INCO960	INCO961	INCO962	INCO963	INCO964	INCO965	INCO966	INCO967	INCO968	INCO969	INCO970	INCO971	INCO972	INCO973	INCO974	INCO975	INCO976	INCO977	INCO978	INCO979	INCO980	INCO981	INCO982	INCO983	INCO984	INCO985	INCO986	INCO987	INCO988	INCO989	INCO990	INCO991	INCO992	INCO993	INCO994	INCO995	INCO996	INCO997	INCO998	INCO999	INCO1000	INCO1001	INCO1002	INCO1003	INCO1004	INCO1005	INCO1006	INCO1007	INCO1008	INCO1009	INCO1010	INCO1011	INCO1012	INCO1013	INCO1014	INCO1015	INCO1016	INCO1017	INCO1018	INCO1019	INCO1020	INCO1021	INCO1022	INCO1023	INCO1024	INCO1025	INCO1026	INCO1027	INCO1028	INCO1029	INCO1030	INCO1031	INCO1032	INCO1033	INCO1034	INCO1035	INCO1036	INCO1037	INCO1038	INCO1039	INCO1040	INCO1041	INCO1042	INCO1043	INCO1044	INCO1045	INCO1046	INCO1047	INCO1048	INCO1049	INCO1050	INCO1051	INCO1052	INCO1053	INCO1054	INCO1055	INCO1056	INCO1057	INCO1058	INCO1059	INCO1060	INCO1061	INCO1062	INCO1063	INCO1064	INCO1065	INCO1066	INCO1067	INCO1068	INCO1069	INCO1070	INCO1071	INCO1072	INCO1073	INCO1074	INCO1075	INCO1076	INCO1077	INCO1078	INCO1079	INCO1080	INCO1081	INCO1082	INCO1083	INCO1084	INCO1085	INCO1086	INCO1087	INCO1088	INCO1089	INCO1090	INCO1091	INCO1092	INCO1093	INCO1094	INCO1095	INCO1096	INCO1097	INCO1098	INCO1099	INCO1100	INCO1101	INCO1102	INCO1103	INCO1104	INCO1105	INCO1106	INCO1107	INCO1108	INCO1109	INCO1110	INCO1111	INCO1112	INCO1113	INCO1114	INCO1115	INCO1116	INCO1117	INCO1118	INCO1119	INCO1120	INCO1121	INCO1122	INCO1123	INCO1124	INCO1125	INCO1126	INCO1127	INCO1128	INCO1129	INCO1130	INCO1131	INCO1132	INCO1133	INCO1134	INCO1135	INCO1136

SGS Sample Receipt Summary

Job Number: JC66934

Client: TANTARA CORPORATION

Project: USACE BUFFALO NIKE MISSLE UST, EAST AU

Date / Time Received: 5/30/2018 9:45:00 AM

Delivery Method: FedEx

Airbill #s: 4357 6346 2010

Cooler Temps (Raw Measured) °C: Cooler 1: (4.7);

Cooler Temps (Corrected) °C: Cooler 1: (4.7);

Cooler Security
Y or N
Y or N

1. Custody Seals Present:	☒	☐	3. COC Present:	☒	☐
2. Custody Seals Intact:	☒	☐	4. Smpl Dates/Time OK	☒	☐

Cooler Temperature
Y or N

1. Temp criteria achieved:	☒	☐
2. Cooler temp verification:	IR Gun	
3. Cooler media:	Ice (Bag)	
4. No. Coolers:	1	

Quality Control Preservation
Y or N
N/A

1. Trip Blank present / cooler:	☐	☒	☐
2. Trip Blank listed on COC:	☐	☒	☐
3. Samples preserved properly:	☒	☐	
4. VOCs headspace free:	☐	☐	☒

Sample Integrity - Documentation
Y or N

1. Sample labels present on bottles:	☒	☐
2. Container labeling complete:	☒	☐
3. Sample container label / COC agree:	☒	☐

Sample Integrity - Condition
Y or N

1. Sample recvd within HT:	☒	☐
2. All containers accounted for:	☒	☐
3. Condition of sample:	Intact	

Sample Integrity - Instructions
Y or N
N/A

1. Analysis requested is clear:	☒	☐	
2. Bottles received for unspecified tests	☐	☒	
3. Sufficient volume recvd for analysis:	☒	☐	
4. Compositing instructions clear:	☐	☐	☒
5. Filtering instructions clear:	☐	☐	☒

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

Comments -1: Lab to prep from intact soil volume for low level voc analysis within hold time.

SM089-03
Rev. Date 12/7/17

JC66934: Chain of Custody

Page 2 of 4

Responded to by: CSR: N/A

Response Date: Response Date: 5/30/2018

Response:

Response: Proceed with analysis

Job Change Order: JC66934

Requested Date:	5/30/2018	Received Date:	5/30/2018
Account Name:	Tantara Corporation	Due Date:	6/13/2018
Project Description:	USACE Buffalo Nike Missile UST, East Aurora, NY	Deliverable:	FULT1
C/O Initiated By:	TAMMY	PM:	TM
		TAT (Days):	1

=====

Sample #: JC66934-1 Change:
revise to 24 hour t/a, due 5/31/18

Dept:

TAT: 1

PRIMARY GAC/CLAY

=====

Above Changes Per: Mark Lovejoy Date/Time: 5/30/2018 3:59:28 PM

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

Page 1 of 1

Internal Sample Tracking Chronicle

Tantara Corporation

Job No: JC66934

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

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JC66934-1 Collected: 29-MAY-18 10:30 By: RF Received: 30-MAY-18 By: RL PRIMARY GAC/CLAY						
JC66934-1	SM2540 G-97	30-MAY-18 17:00	LV			SOL104
JC66934-1	SW846 8260C	30-MAY-18 17:14	PS			V8260STD
JC66934-1	SW846 6010C	30-MAY-18 23:34	EAL	30-MAY-18 CH		AG,AS,BA,CD,CR,PB,SE
JC66934-1	SW846 7471B	31-MAY-18 11:59	DP	31-MAY-18 DP		HG

SGS Internal Chain of Custody

Page 1 of 1

Job Number: JC66934

Account: TCMaw Tantara Corporation

Project: USACE Buffalo Nike Missile UST, East Aurora, NY

Received: 05/30/18

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC66934-1.1	Secured Storage	Colleen Hill	05/30/18 15:20	Retrieve from Storage
JC66934-1.1	Colleen Hill	Secured Storage	05/30/18 17:16	Return to Storage
JC66934-1.1	Secured Storage	Matthew Robbins	05/30/18 18:04	Retrieve from Storage
JC66934-1.1	Matthew Robbins	Secured Staging Area	05/30/18 18:04	Return to Storage
JC66934-1.1	Secured Staging Area	Deval Patel	05/31/18 07:26	Retrieve from Storage
JC66934-1.1	Deval Patel	Secured Storage	05/31/18 09:37	Return to Storage
JC66934-1.1.1	Colleen Hill	Metals Digestion	05/30/18 17:12	Digestate from JC66934-1.1
JC66934-1.1.1	Metals Digestion	Colleen Hill	05/30/18 17:13	Digestate from JC66934-1.1
JC66934-1.1.1	Colleen Hill	Metals Digestate Storage	05/30/18 17:13	Return to Storage
JC66934-1.2	Secured Storage	Todd Shoemaker	05/30/18 15:12	Retrieve from Storage
JC66934-1.2	Todd Shoemaker	Secured Staging Area	05/30/18 15:12	Return to Storage
JC66934-1.2	Secured Staging Area	Luis Villanueva	05/30/18 16:03	Retrieve from Storage
JC66934-1.2	Luis Villanueva	Secured Storage	05/30/18 17:13	Return to Storage
JC66934-1.3	Secured Storage	Dwayne Johnson	05/30/18 15:46	Retrieve from Storage
JC66934-1.3	Dwayne Johnson	Secured Staging Area	05/30/18 15:46	Return to Storage
JC66934-1.3	Secured Staging Area	Luis Villanueva	05/30/18 15:48	Retrieve from Storage
JC66934-1.3	Luis Villanueva	Secured Storage	05/30/18 17:13	Return to Storage
JC66934-1.4	Secured Storage	Jayna Patel	05/30/18 11:00	Retrieve from Storage
JC66934-1.4	Jayna Patel	Secured Storage	05/30/18 11:03	Return to Storage
JC66934-1.5	Secured Storage	Prashant Shukla	05/30/18 16:17	Retrieve from Storage
JC66934-1.5	Prashant Shukla	Secured Storage	05/30/18 16:17	Return to Storage
JC66934-1.6	Secured Storage	Prashant Shukla	05/30/18 13:26	Retrieve from Storage
JC66934-1.6	Prashant Shukla	GCMS1C	05/30/18 13:26	Load on Instrument
JC66934-1.6	GCMS1C	Prashant Shukla	05/31/18 09:53	Unload from Instrument
JC66934-1.6	Prashant Shukla		05/31/18 09:54	Depleted
JC66934-1.7	Secured Storage	Prashant Shukla	05/30/18 15:58	Retrieve from Storage
JC66934-1.7	Prashant Shukla	GCMSY	05/30/18 15:58	Load on Instrument
JC66934-1.7	GCMSY	Prashant Shukla	05/31/18 09:54	Unload from Instrument
JC66934-1.7	Prashant Shukla		05/31/18 09:54	Depleted

MS Volatiles

QC Data Summaries

Includes the following where applicable:

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

Method Blank Summary

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Job Number: JC66934

Account: TCMaw Tantara Corporation

Project: USACE Buffalo Nike Missile UST, East Aurora, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VY7792-MB	Y180137.D	1	05/30/18	PS	n/a	n/a	VY7792

The QC reported here applies to the following samples:

Method: SW846 8260C

JC66934-1

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	6.4	ug/kg	
71-43-2	Benzene	ND	0.50	0.11	ug/kg	
108-86-1	Bromobenzene	ND	5.0	0.30	ug/kg	
74-97-5	Bromochloromethane	ND	5.0	0.44	ug/kg	
75-27-4	Bromodichloromethane	ND	2.0	0.24	ug/kg	
75-25-2	Bromoform	ND	5.0	0.31	ug/kg	
74-83-9	Bromomethane	ND	5.0	0.70	ug/kg	
78-93-3	2-Butanone (MEK)	ND	10	5.2	ug/kg	
104-51-8	n-Butylbenzene	ND	2.0	0.36	ug/kg	
135-98-8	sec-Butylbenzene	ND	2.0	0.23	ug/kg	
98-06-6	tert-Butylbenzene	ND	2.0	0.44	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.0	0.65	ug/kg	
108-90-7	Chlorobenzene	ND	2.0	0.29	ug/kg	
75-00-3	Chloroethane	ND	5.0	0.90	ug/kg	
67-66-3	Chloroform	ND	2.0	0.32	ug/kg	
74-87-3	Chloromethane	ND	5.0	0.99	ug/kg	
95-49-8	o-Chlorotoluene	ND	2.0	0.28	ug/kg	
106-43-4	p-Chlorotoluene	ND	2.0	0.26	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.67	ug/kg	
124-48-1	Dibromochloromethane	ND	2.0	0.38	ug/kg	
106-93-4	1,2-Dibromoethane	ND	1.0	0.25	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.52	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.29	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.48	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	5.0	0.61	ug/kg	
75-34-3	1,1-Dichloroethane	ND	1.0	0.26	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.0	0.18	ug/kg	
75-35-4	1,1-Dichloroethene	ND	1.0	0.71	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.40	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.58	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.0	0.40	ug/kg	
142-28-9	1,3-Dichloropropane	ND	2.0	0.26	ug/kg	
594-20-7	2,2-Dichloropropane	ND	2.0	0.41	ug/kg	
563-58-6	1,1-Dichloropropene	ND	2.0	0.52	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.0	0.38	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.0	0.24	ug/kg	

Method Blank Summary

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Job Number: JC66934

Account: TCMaw Tantara Corporation

Project: USACE Buffalo Nike Missile UST, East Aurora, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VY7792-MB	Y180137.D	1	05/30/18	PS	n/a	n/a	VY7792

The QC reported here applies to the following samples:

Method: SW846 8260C

JC66934-1

CAS No.	Compound	Result	RL	MDL	Units	Q
100-41-4	Ethylbenzene	ND	1.0	0.29	ug/kg	
87-68-3	Hexachlorobutadiene	ND	5.0	0.52	ug/kg	
98-82-8	Isopropylbenzene	ND	2.0	0.25	ug/kg	
99-87-6	p-Isopropyltoluene	ND	2.0	0.26	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.43	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.8	ug/kg	
74-95-3	Methylene bromide	ND	5.0	0.37	ug/kg	
75-09-2	Methylene chloride	ND	5.0	2.5	ug/kg	
91-20-3	Naphthalene	ND	5.0	2.0	ug/kg	
103-65-1	n-Propylbenzene	ND	2.0	0.23	ug/kg	
100-42-5	Styrene	ND	2.0	0.50	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	2.0	0.26	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.0	0.25	ug/kg	
127-18-4	Tetrachloroethene	ND	2.0	0.64	ug/kg	
108-88-3	Toluene	ND	1.0	0.55	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	1.0	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	1.0	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	2.0	0.58	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	2.0	0.42	ug/kg	
79-01-6	Trichloroethene	ND	1.0	0.55	ug/kg	
75-69-4	Trichlorofluoromethane	ND	5.0	0.48	ug/kg	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.52	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	1.0	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	1.0	ug/kg	
75-01-4	Vinyl chloride	ND	2.0	0.77	ug/kg	
	m,p-Xylene	ND	1.0	0.55	ug/kg	
95-47-6	o-Xylene	ND	1.0	0.25	ug/kg	
1330-20-7	Xylene (total)	ND	1.0	0.25	ug/kg	

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	100% 75-127%
17060-07-0	1,2-Dichloroethane-D4	95% 75-130%
2037-26-5	Toluene-D8	97% 80-120%
460-00-4	4-Bromofluorobenzene	107% 79-127%

Method Blank Summary

Job Number: JC66934
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missile UST, East Aurora, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VY7792-MB	Y180137.D	1	05/30/18	PS	n/a	n/a	VY7792

The QC reported here applies to the following samples: Method:

JC66934-1

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	system artifact	3.43	240	ug/kg	J
	Total TIC, Volatile		0	ug/kg	

6.1.1
6

Blank Spike Summary

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Job Number: JC66934**Account:** TCMaw Tantara Corporation**Project:** USACE Buffalo Nike Missile UST, East Aurora, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VY7792-BS	Y180135.D	1	05/30/18	PS	n/a	n/a	VY7792

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

JC66934-1

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
67-64-1	Acetone	200	182	91	48-149
71-43-2	Benzene	50	45.2	90	74-117
108-86-1	Bromobenzene	50	49.5	99	77-117
74-97-5	Bromochloromethane	50	50.3	101	82-121
75-27-4	Bromodichloromethane	50	49.9	100	78-119
75-25-2	Bromoform	50	50.8	102	76-130
74-83-9	Bromomethane	50	50.0	100	58-137
78-93-3	2-Butanone (MEK)	200	219	110	65-143
104-51-8	n-Butylbenzene	50	45.3	91	74-123
135-98-8	sec-Butylbenzene	50	46.2	92	74-123
98-06-6	tert-Butylbenzene	50	46.1	92	73-124
56-23-5	Carbon tetrachloride	50	48.4	97	69-136
108-90-7	Chlorobenzene	50	46.7	93	79-117
75-00-3	Chloroethane	50	45.1	90	62-139
67-66-3	Chloroform	50	44.9	90	76-119
74-87-3	Chloromethane	50	49.1	98	52-144
95-49-8	o-Chlorotoluene	50	49.3	99	77-118
106-43-4	p-Chlorotoluene	50	48.3	97	75-117
96-12-8	1,2-Dibromo-3-chloropropane	50	48.6	97	72-124
124-48-1	Dibromochloromethane	50	45.7	91	78-122
106-93-4	1,2-Dibromoethane	50	46.4	93	80-116
95-50-1	1,2-Dichlorobenzene	50	46.5	93	77-117
541-73-1	1,3-Dichlorobenzene	50	46.0	92	75-117
106-46-7	1,4-Dichlorobenzene	50	45.9	92	76-115
75-71-8	Dichlorodifluoromethane	50	45.5	91	43-156
75-34-3	1,1-Dichloroethane	50	48.8	98	75-124
107-06-2	1,2-Dichloroethane	50	49.1	98	74-124
75-35-4	1,1-Dichloroethene	50	47.4	95	64-129
156-59-2	cis-1,2-Dichloroethene	50	48.1	96	74-118
156-60-5	trans-1,2-Dichloroethene	50	48.4	97	71-125
78-87-5	1,2-Dichloropropane	50	48.4	97	80-119
142-28-9	1,3-Dichloropropane	50	46.1	92	79-115
594-20-7	2,2-Dichloropropane	50	51.7	103	66-130
563-58-6	1,1-Dichloropropene	50	45.8	92	74-124
10061-01-5	cis-1,3-Dichloropropene	50	50.5	101	80-119
10061-02-6	trans-1,3-Dichloropropene	50	43.8	88	78-119

* = Outside of Control Limits.

Blank Spike Summary

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Job Number: JC66934

Account: TCMaw Tantara Corporation

Project: USACE Buffalo Nike Missile UST, East Aurora, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VY7792-BS	Y180135.D	1	05/30/18	PS	n/a	n/a	VY7792

The QC reported here applies to the following samples:

Method: SW846 8260C

JC66934-1

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
100-41-4	Ethylbenzene	50	45.1	90	75-118
87-68-3	Hexachlorobutadiene	50	44.3	89	64-133
98-82-8	Isopropylbenzene	50	43.6	87	74-122
99-87-6	p-Isopropyltoluene	50	46.7	93	74-121
1634-04-4	Methyl Tert Butyl Ether	50	46.1	92	75-123
108-10-1	4-Methyl-2-pentanone(MIBK)	200	216	108	73-136
74-95-3	Methylene bromide	50	46.3	93	82-120
75-09-2	Methylene chloride	50	46.3	93	73-120
91-20-3	Naphthalene	50	47.3	95	71-130
103-65-1	n-Propylbenzene	50	47.2	94	75-120
100-42-5	Styrene	50	46.8	94	78-120
630-20-6	1,1,1,2-Tetrachloroethane	50	43.5	87	75-122
79-34-5	1,1,2,2-Tetrachloroethane	50	45.0	90	72-120
127-18-4	Tetrachloroethene	50	39.8	80	69-128
108-88-3	Toluene	50	41.7	83	74-117
87-61-6	1,2,3-Trichlorobenzene	50	49.3	99	72-133
120-82-1	1,2,4-Trichlorobenzene	50	49.3	99	73-132
71-55-6	1,1,1-Trichloroethane	50	46.7	93	73-131
79-00-5	1,1,2-Trichloroethane	50	42.4	85	79-117
79-01-6	Trichloroethene	50	48.9	98	80-120
75-69-4	Trichlorofluoromethane	50	45.9	92	63-141
96-18-4	1,2,3-Trichloropropane	50	49.3	99	77-121
95-63-6	1,2,4-Trimethylbenzene	50	45.8	92	76-119
108-67-8	1,3,5-Trimethylbenzene	50	47.3	95	74-119
75-01-4	Vinyl chloride	50	46.5	93	55-145
	m,p-Xylene	100	91.3	91	75-120
95-47-6	o-Xylene	50	44.4	89	75-119
1330-20-7	Xylene (total)	150	136	91	76-119

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	103%	75-127%
17060-07-0	1,2-Dichloroethane-D4	100%	75-130%
2037-26-5	Toluene-D8	90%	80-120%
460-00-4	4-Bromofluorobenzene	104%	79-127%

* = Outside of Control Limits.

Matrix Spike Summary

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Job Number: JC66934

Account: TCMaw Tantara Corporation

Project: USACE Buffalo Nike Missile UST, East Aurora, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC66826-7MS	Y180144.D	1	05/30/18	PS	n/a	n/a	VY7792
JC66826-7	Y180138.D	1	05/30/18	PS	n/a	n/a	VY7792

The QC reported here applies to the following samples:

Method: SW846 8260C

JC66934-1

CAS No.	Compound	JC66826-7 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	Limits
67-64-1	Acetone	ND		200	188	94	10-157
71-43-2	Benzene	ND		49.9	44.6	89	58-125
108-86-1	Bromobenzene	ND		49.9	46.0	92	50-129
74-97-5	Bromochloromethane	ND		49.9	50.0	100	60-127
75-27-4	Bromodichloromethane	ND		49.9	50.3	101	57-128
75-25-2	Bromoform	ND		49.9	50.8	102	48-133
74-83-9	Bromomethane	ND		49.9	55.8	112	31-141
78-93-3	2-Butanone (MEK)	ND		200	214	107	29-146
104-51-8	n-Butylbenzene	ND		49.9	34.4	69	23-149
135-98-8	sec-Butylbenzene	ND		49.9	39.5	79	33-147
98-06-6	tert-Butylbenzene	ND		49.9	41.6	83	39-145
56-23-5	Carbon tetrachloride	ND		49.9	50.5	101	51-143
108-90-7	Chlorobenzene	ND		49.9	44.8	90	54-130
75-00-3	Chloroethane	ND		49.9	50.1	100	22-153
67-66-3	Chloroform	ND		49.9	45.6	91	61-125
74-87-3	Chloromethane	ND		49.9	55.7	112	43-142
95-49-8	o-Chlorotoluene	ND		49.9	44.5	89	47-137
106-43-4	p-Chlorotoluene	ND		49.9	42.8	86	44-133
96-12-8	1,2-Dibromo-3-chloropropane	ND		49.9	48.8	98	41-127
124-48-1	Dibromochloromethane	ND		49.9	45.9	92	56-127
106-93-4	1,2-Dibromoethane	ND		49.9	47.1	94	54-121
95-50-1	1,2-Dichlorobenzene	ND		49.9	42.5	85	41-134
541-73-1	1,3-Dichlorobenzene	ND		49.9	41.4	83	41-135
106-46-7	1,4-Dichlorobenzene	ND		49.9	40.8	82	41-133
75-71-8	Dichlorodifluoromethane	ND		49.9	57.6	115	30-153
75-34-3	1,1-Dichloroethane	ND		49.9	49.7	100	61-131
107-06-2	1,2-Dichloroethane	ND		49.9	50.1	100	56-126
75-35-4	1,1-Dichloroethene	ND		49.9	48.1	96	53-132
156-59-2	cis-1,2-Dichloroethene	ND		49.9	48.5	97	57-125
156-60-5	trans-1,2-Dichloroethene	ND		49.9	48.7	98	56-130
78-87-5	1,2-Dichloropropane	ND		49.9	48.3	97	63-126
142-28-9	1,3-Dichloropropane	ND		49.9	46.7	94	58-119
594-20-7	2,2-Dichloropropane	ND		49.9	45.9	92	41-135
563-58-6	1,1-Dichloropropene	ND		49.9	42.7	86	53-132
10061-01-5	cis-1,3-Dichloropropene	ND		49.9	48.7	98	55-126
10061-02-6	trans-1,3-Dichloropropene	ND		49.9	42.8	86	51-126

* = Outside of Control Limits.

Matrix Spike Summary

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Job Number: JC66934

Account: TCMaw Tantara Corporation

Project: USACE Buffalo Nike Missile UST, East Aurora, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC66826-7MS	Y180144.D	1	05/30/18	PS	n/a	n/a	VY7792
JC66826-7	Y180138.D	1	05/30/18	PS	n/a	n/a	VY7792

The QC reported here applies to the following samples:

Method: SW846 8260C

JC66934-1

CAS No.	Compound	JC66826-7 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	Limits
100-41-4	Ethylbenzene	ND		49.9	42.8	86	49-132
87-68-3	Hexachlorobutadiene	ND		49.9	26.4	53	10-165
98-82-8	Isopropylbenzene	ND		49.9	41.6	83	43-141
99-87-6	p-Isopropyltoluene	ND		49.9	38.1	76	34-144
1634-04-4	Methyl Tert Butyl Ether	ND		49.9	48.2	97	58-123
108-10-1	4-Methyl-2-pentanone(MIBK)	ND		200	217	109	40-140
74-95-3	Methylene bromide	ND		49.9	46.1	92	57-124
75-09-2	Methylene chloride	ND		49.9	50.2	101	57-123
91-20-3	Naphthalene	ND		49.9	39.8	80	22-145
103-65-1	n-Propylbenzene	ND		49.9	41.7	84	41-139
100-42-5	Styrene	ND		49.9	43.6	87	46-139
630-20-6	1,1,1,2-Tetrachloroethane	ND		49.9	44.1	88	53-133
79-34-5	1,1,2,2-Tetrachloroethane	ND		49.9	45.3	91	44-127
127-18-4	Tetrachloroethene	ND		49.9	37.9	76	39-154
108-88-3	Toluene	ND		49.9	40.2	81	54-127
87-61-6	1,2,3-Trichlorobenzene	ND		49.9	36.9	74	17-151
120-82-1	1,2,4-Trichlorobenzene	ND		49.9	36.3	73	19-153
71-55-6	1,1,1-Trichloroethane	ND		49.9	48.4	97	57-138
79-00-5	1,1,2-Trichloroethane	ND		49.9	43.2	87	53-127
79-01-6	Trichloroethene	ND		49.9	46.4	93	52-140
75-69-4	Trichlorofluoromethane	ND		49.9	51.6	103	46-142
96-18-4	1,2,3-Trichloropropane	ND		49.9	50.8	102	48-129
95-63-6	1,2,4-Trimethylbenzene	ND		49.9	41.7	84	39-142
108-67-8	1,3,5-Trimethylbenzene	ND		49.9	42.8	86	40-140
75-01-4	Vinyl chloride	ND		49.9	51.7	104	43-146
	m,p-Xylene	ND		99.8	84.8	85	45-137
95-47-6	o-Xylene	ND		49.9	43.3	87	48-135
1330-20-7	Xylene (total)	ND		150	128	86	46-137

CAS No.	Surrogate Recoveries	MS	JC66826-7	Limits
1868-53-7	Dibromofluoromethane	105%	104%	75-127%
17060-07-0	1,2-Dichloroethane-D4	101%	104%	75-130%
2037-26-5	Toluene-D8	93%	91%	80-120%
460-00-4	4-Bromofluorobenzene	101%	109%	79-127%

* = Outside of Control Limits.

Duplicate Summary

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Job Number: JC66934

Account: TCMaw Tantara Corporation

Project: USACE Buffalo Nike Missile UST, East Aurora, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC66826-8DUP	Y180143.D	1	05/30/18	PS	n/a	n/a	VY7792
JC66826-8	Y180139.D	1	05/30/18	PS	n/a	n/a	VY7792

The QC reported here applies to the following samples:

Method: SW846 8260C

JC66934-1

CAS No.	Compound	JC66826-8 ug/kg	DUP Q	ug/kg	Q	RPD	Limits
67-64-1	Acetone	ND		19.5		200* a	40
71-43-2	Benzene	ND		ND		nc	30
108-86-1	Bromobenzene	ND		ND		nc	30
74-97-5	Bromochloromethane	ND		ND		nc	30
75-27-4	Bromodichloromethane	ND		ND		nc	30
75-25-2	Bromoform	ND		ND		nc	30
74-83-9	Bromomethane	ND		ND		nc	30
78-93-3	2-Butanone (MEK)	ND		ND		nc	30
104-51-8	n-Butylbenzene	ND		ND		nc	30
135-98-8	sec-Butylbenzene	ND		ND		nc	30
98-06-6	tert-Butylbenzene	ND		ND		nc	30
56-23-5	Carbon tetrachloride	ND		ND		nc	30
108-90-7	Chlorobenzene	ND		ND		nc	30
75-00-3	Chloroethane	ND		ND		nc	30
67-66-3	Chloroform	ND		ND		nc	30
74-87-3	Chloromethane	ND		ND		nc	30
95-49-8	o-Chlorotoluene	ND		ND		nc	30
106-43-4	p-Chlorotoluene	ND		ND		nc	30
96-12-8	1,2-Dibromo-3-chloropropane	ND		ND		nc	30
124-48-1	Dibromochloromethane	ND		ND		nc	30
106-93-4	1,2-Dibromoethane	ND		ND		nc	30
95-50-1	1,2-Dichlorobenzene	ND		ND		nc	30
541-73-1	1,3-Dichlorobenzene	ND		ND		nc	30
106-46-7	1,4-Dichlorobenzene	ND		ND		nc	30
75-71-8	Dichlorodifluoromethane	ND		ND		nc	30
75-34-3	1,1-Dichloroethane	ND		ND		nc	30
107-06-2	1,2-Dichloroethane	ND		ND		nc	30
75-35-4	1,1-Dichloroethene	ND		ND		nc	30
156-59-2	cis-1,2-Dichloroethene	ND		ND		nc	30
156-60-5	trans-1,2-Dichloroethene	ND		ND		nc	30
78-87-5	1,2-Dichloropropane	ND		ND		nc	30
142-28-9	1,3-Dichloropropane	ND		ND		nc	30
594-20-7	2,2-Dichloropropane	ND		ND		nc	30
563-58-6	1,1-Dichloropropene	ND		ND		nc	30
10061-01-5	cis-1,3-Dichloropropene	ND		ND		nc	30
10061-02-6	trans-1,3-Dichloropropene	ND		ND		nc	30

* = Outside of Control Limits.

Duplicate Summary

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Job Number: JC66934

Account: TCMaw Tantara Corporation

Project: USACE Buffalo Nike Missile UST, East Aurora, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC66826-8DUP	Y180143.D	1	05/30/18	PS	n/a	n/a	VY7792
JC66826-8	Y180139.D	1	05/30/18	PS	n/a	n/a	VY7792

The QC reported here applies to the following samples:

Method: SW846 8260C

JC66934-1

CAS No.	Compound	JC66826-8 ug/kg	DUP Q	Q	RPD	Limits
100-41-4	Ethylbenzene	ND	ND	nc		30
87-68-3	Hexachlorobutadiene	ND	ND	nc		30
98-82-8	Isopropylbenzene	ND	ND	nc		30
99-87-6	p-Isopropyltoluene	ND	ND	nc		30
1634-04-4	Methyl Tert Butyl Ether	ND	ND	nc		30
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	ND	nc		30
74-95-3	Methylene bromide	ND	ND	nc		30
75-09-2	Methylene chloride	ND	ND	nc		36
91-20-3	Naphthalene	ND	ND	nc		30
103-65-1	n-Propylbenzene	ND	ND	nc		30
100-42-5	Styrene	ND	ND	nc		30
630-20-6	1,1,1,2-Tetrachloroethane	ND	ND	nc		30
79-34-5	1,1,2,2-Tetrachloroethane	ND	ND	nc		30
127-18-4	Tetrachloroethene	ND	ND	nc		30
108-88-3	Toluene	ND	ND	nc		24
87-61-6	1,2,3-Trichlorobenzene	ND	ND	nc		30
120-82-1	1,2,4-Trichlorobenzene	ND	ND	nc		30
71-55-6	1,1,1-Trichloroethane	ND	ND	nc		30
79-00-5	1,1,2-Trichloroethane	ND	ND	nc		30
79-01-6	Trichloroethene	ND	ND	nc		30
75-69-4	Trichlorofluoromethane	ND	ND	nc		30
96-18-4	1,2,3-Trichloropropane	ND	ND	nc		30
95-63-6	1,2,4-Trimethylbenzene	ND	ND	nc		30
108-67-8	1,3,5-Trimethylbenzene	ND	ND	nc		30
75-01-4	Vinyl chloride	ND	ND	nc		30
	m,p-Xylene	ND	ND	nc		32
95-47-6	o-Xylene	ND	ND	nc		30
1330-20-7	Xylene (total)	ND	ND	nc		33

CAS No.	Surrogate Recoveries	DUP	JC66826-8	Limits
1868-53-7	Dibromofluoromethane	104%	104%	75-127%
17060-07-0	1,2-Dichloroethane-D4	101%	101%	75-130%
2037-26-5	Toluene-D8	90%	89%	80-120%
460-00-4	4-Bromofluorobenzene	107%	108%	79-127%

* = Outside of Control Limits.

Duplicate Summary

Job Number: JC66934
Account: TCMaw Tantara Corporation
Project: USACE Buffalo Nike Missile UST, East Aurora, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC66826-8DUP	Y180143.D	1	05/30/18	PS	n/a	n/a	VY7792
JC66826-8	Y180139.D	1	05/30/18	PS	n/a	n/a	VY7792

The QC reported here applies to the following samples:

Method: SW846 8260C

JC66934-1

(a) Outside control limits due to sample non-homogeneity.

* = Outside of Control Limits.

Instrument Performance Check (BFB)

Page 1 of 1

Job Number: JC66934**Account:** TCMAW Tantara Corporation**Project:** USACE Buffalo Nike Missile UST, East Aurora, NY**Sample:** VY7788-BFB**Injection Date:** 05/24/18**Lab File ID:** Y180045.D**Injection Time:** 21:19**Instrument ID:** GCMSY

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
50	15.0 - 40.0% of mass 95	17826	19.2	Pass
75	30.0 - 60.0% of mass 95	43941	47.4	Pass
95	Base peak, 100% relative abundance	92728	100.0	Pass
96	5.0 - 9.0% of mass 95	6182	6.67	Pass
173	Less than 2.0% of mass 174	0	0.00 (0.00) ^a	Pass
174	50.0 - 120.0% of mass 95	74365	80.2	Pass
175	5.0 - 9.0% of mass 174	5543	5.98 (7.45) ^a	Pass
176	95.0 - 101.0% of mass 174	71810	77.4 (96.6) ^a	Pass
177	5.0 - 9.0% of mass 176	4749	5.12 (6.61) ^b	Pass

(a) Value is % of mass 174

(b) Value is % of mass 176

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
VY7788-IC7788	Y180046.D	05/24/18	22:13	00:54	Initial cal 0.5
VY7788-IC7788	Y180047.D	05/24/18	22:42	01:23	Initial cal 1
VY7788-IC7788	Y180048.D	05/24/18	23:10	01:51	Initial cal 2
VY7788-IC7788	Y180049.D	05/24/18	23:39	02:20	Initial cal 4
VY7788-IC7788	Y180050.D	05/25/18	00:07	02:48	Initial cal 8
VY7788-IC7788	Y180051.D	05/25/18	00:36	03:17	Initial cal 20
VY7788-ICC7788	Y180052.D	05/25/18	01:04	03:45	Initial cal 50
VY7788-IC7788	Y180053.D	05/25/18	01:33	04:14	Initial cal 100
VY7788-IC7788	Y180054.D	05/25/18	02:02	04:43	Initial cal 200
VY7788-ICV7788	Y180057.D	05/25/18	03:28	06:09	Initial cal verification 50
VY7788-ICV7788	Y180058.D	05/25/18	03:56	06:37	Initial cal verification 50

Instrument Performance Check (BFB)

Page 1 of 1

Job Number: JC66934

Account: TCMAW Tantara Corporation

Project: USACE Buffalo Nike Missile UST, East Aurora, NY

Sample: VY7792-BFB

Injection Date: 05/30/18

Lab File ID: Y180134.D

Injection Time: 07:34

Instrument ID: GCMSY

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
50	15.0 - 40.0% of mass 95	20512	19.9	Pass
75	30.0 - 60.0% of mass 95	48088	46.7	Pass
95	Base peak, 100% relative abundance	102931	100.0	Pass
96	5.0 - 9.0% of mass 95	6963	6.76	Pass
173	Less than 2.0% of mass 174	0	0.00 (0.00) ^a	Pass
174	50.0 - 120.0% of mass 95	82781	80.4	Pass
175	5.0 - 9.0% of mass 174	6471	6.29 (7.82) ^a	Pass
176	95.0 - 101.0% of mass 174	79784	77.5 (96.4) ^a	Pass
177	5.0 - 9.0% of mass 176	5208	5.06 (6.53) ^b	Pass

(a) Value is % of mass 174

(b) Value is % of mass 176

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

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
VY7792-CC7788	Y180134.D	05/30/18	07:34	00:00	Continuing cal 20
VY7792-BS	Y180135.D	05/30/18	08:05	00:31	Blank Spike
VY7792-MB	Y180137.D	05/30/18	09:24	01:50	Method Blank
JC66826-7	Y180138.D	05/30/18	10:03	02:29	(used for QC only; not part of job JC66934)
JC66826-8	Y180139.D	05/30/18	10:32	02:58	(used for QC only; not part of job JC66934)
ZZZZZZ	Y180140.D	05/30/18	11:00	03:26	(unrelated sample)
ZZZZZZ	Y180141.D	05/30/18	11:29	03:55	(unrelated sample)
ZZZZZZ	Y180142.D	05/30/18	11:58	04:24	(unrelated sample)
JC66826-8DUP	Y180143.D	05/30/18	12:27	04:53	Duplicate
JC66826-7MS	Y180144.D	05/30/18	12:56	05:22	Matrix Spike
ZZZZZZ	Y180146.D	05/30/18	13:53	06:19	(unrelated sample)
ZZZZZZ	Y180147.D	05/30/18	14:22	06:48	(unrelated sample)
ZZZZZZ	Y180148.D	05/30/18	14:50	07:16	(unrelated sample)
ZZZZZZ	Y180149.D	05/30/18	15:19	07:45	(unrelated sample)
ZZZZZZ	Y180150.D	05/30/18	15:47	08:13	(unrelated sample)
ZZZZZZ	Y180151.D	05/30/18	16:16	08:42	(unrelated sample)
ZZZZZZ	Y180152.D	05/30/18	16:45	09:11	(unrelated sample)
JC66934-1	Y180153.D	05/30/18	17:14	09:40	PRIMARY GAC/CLAY

Internal Standard Area Summary

Page 1 of 1

Job Number: JC66934

Account: TCMaw Tantara Corporation

Project: USACE Buffalo Nike Missile UST, East Aurora, NY

Check Std: VY7792-CC7788

Injection Date: 05/30/18

Lab File ID: Y180134.D

Injection Time: 07:34

Instrument ID: GCMSY

Method: SW846 8260C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	108831	6.86	236207	9.10	368598	10.01	366160	13.19	182284	15.50
Upper Limit ^a	217662	7.36	472414	9.60	737196	10.51	732320	13.69	364568	16.00
Lower Limit ^b	54416	6.36	118104	8.60	184299	9.51	183080	12.69	91142	15.00

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
VY7792-BS	116542	6.88	246207	9.10	389501	10.01	412943	13.19	203741	15.50
VY7792-MB	94089	6.87	247006	9.10	396938	10.01	407495	13.19	173203	15.50
JC66826-7	131479	6.88	254552	9.10	409867	10.01	416436	13.19	182683	15.50
JC66826-8	118400	6.86	248901	9.10	400389	10.01	426135	13.19	185680	15.50
ZZZZZZ	115136	6.88	245657	9.10	396086	10.01	413823	13.19	176713	15.50
ZZZZZZ	112360	6.87	247295	9.10	389518	10.00	389457	13.19	180805	15.50
ZZZZZZ	111649	6.86	239845	9.10	386355	10.01	365897	13.19	173857	15.50
JC66826-8DUP	105210	6.86	239077	9.10	380775	10.01	398331	13.19	176950	15.50
JC66826-7MS	113069	6.88	237441	9.10	379444	10.00	390886	13.19	198176	15.50
ZZZZZZ	107694	6.88	211284	9.09	334234	10.00	316230	13.19	171106	15.50
ZZZZZZ	106362	6.88	223141	9.10	369280	10.01	392274	13.19	168412	15.50
ZZZZZZ	105630	6.87	237368	9.10	381902	10.01	394065	13.19	172764	15.50
ZZZZZZ	98012	6.88	202117	9.09	317558	10.00	303484	13.19	163791	15.50
ZZZZZZ	98674	6.87	219801	9.10	372545	10.01	372993	13.19	162634	15.50
ZZZZZZ	88743	6.87	221188	9.10	365019	10.01	355231	13.19	160888	15.50
ZZZZZZ	88926	6.86	214587	9.10	349159	10.01	347750	13.19	158093	15.50
JC66934-1 ^c	101839	6.87	191818	9.10	310813	10.01	263617	13.19	122640	15.50

IS 1 = Tert Butyl Alcohol-D9

IS 2 = Pentafluorobenzene

IS 3 = 1,4-Difluorobenzene

IS 4 = Chlorobenzene-D5

IS 5 = 1,4-Dichlorobenzene-d4

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

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

(c) Sample was not collected per 5035A specifications. Sample preserved from intact soil by laboratory.

Surrogate Recovery Summary

Job Number: JC66934
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missile UST, East Aurora, NY

Method: SW846 8260C	Matrix: SO

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4
JC66934-1	Y180153.D	111	109	103	107
JC66826-7MS	Y180144.D	105	101	93	101
JC66826-8DUP	Y180143.D	104	101	90	107
VY7792-BS	Y180135.D	103	100	90	104
VY7792-MB	Y180137.D	100	95	97	107

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	75-127%
S2 = 1,2-Dichloroethane-D4	75-130%
S3 = Toluene-D8	80-120%
S4 = 4-Bromofluorobenzene	79-127%

Initial Calibration Summary

Page 1 of 5

Job Number: JC66934
 Account: TCMaw Tantara Corporation
 Project: USACE Buffalo Nike Missile UST, East Aurora, NY
 Sample: VY7788-ICC7788
 Lab FileID: Y180052.D

Response Factor Report MSY

Method : C:\MSDCHEM\1\METHODS\MYS7788.M (RTE Integrator)
 Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um
 Last Update : Tue May 29 11:30:55 2018
 Response via : Initial Calibration

Calibration Files

4 =Y180049.D 8 =Y180050.D 0.5 =Y180046.D 50 =Y180052.D
 100 =Y180053.D 1 =Y180047.D 200 =Y180054.D 20 =Y180051.D
 2 =Y180048.D =

Compound	4	8	0.5	50	100	1	200	20	2	Avg	%RSD
1) I tert butyl alcohol-d9 -----ISTD-----											
2) ethanol										0.000	-1.00
3) tertiary butyl alcohol											
1.460 1.461				1.458 1.550			1.509 1.500			1.490	2.49
4) 1,4-dioxane											
0.121 0.120				0.124 0.133			0.131 0.122 0.093			0.121	10.86
5) I pentafluorobenzene -----ISTD-----											
6) chlorodifluoromethane											
0.827 0.891				0.855 0.881			0.850 0.760			0.844	5.57
7) dichlorodifluoromethane											
0.832 0.826				0.852 0.940			0.933 0.827			0.868	6.18
8) freon 142b											
1.010 0.892				0.848 0.855			0.806 0.860 1.185			0.922	14.34
9) freon 114										0.000	-1.00
10) chloromethane											
1.099 1.198				1.155 1.160			1.150 1.167 1.273			1.172	4.56
11) vinyl chloride											
1.090 1.042				0.977 0.992			0.977 0.952 1.254			1.040	10.09
12) 1,3-butadiene											
0.824 0.738				0.790 0.819			0.765 0.765 0.901			0.800	6.74
13) bromomethane											
0.565 0.592				0.570 0.587			0.547 0.554 0.706			0.589	9.21
14) chloroethane											
0.625 0.555				0.514 0.518			0.495 0.535 0.791			0.576	18.00
15) vinyl bromide											
0.554 0.521				0.513 0.524			0.500 0.512 0.611			0.533	7.19
16) trichlorofluoromethane											
0.914 0.826 0.888				0.843 0.850 1.035			0.813 0.835 0.946			0.883	8.11
17) ethyl ether											
0.310 0.262				0.275 0.275 0.327			0.273 0.276 0.293			0.286	7.65
18) 2-chloropropane											
0.256 0.231				0.218 0.224			0.213 0.230 0.238			0.230	6.15
19) acrolein											
0.098				0.102 0.090			0.093 0.092			0.095	5.09
20) freon 113											
0.448 0.385				0.405 0.414			0.391 0.390 0.395			0.404	5.38
21) 1,1-dichloroethene											
0.898 0.850 1.040				0.831 0.857 1.098			0.804 0.827 0.868			0.897	11.38
22) acetone											
0.051 0.042				0.040 0.038			0.039 0.042 0.048			0.043	11.20
23) acetonitrile											

Initial Calibration Summary

Job Number: JC66934

Sample: VY7788-ICC7788

Account: TCMaw Tantara Corporation

Lab FileID: Y180052.D

Project: USACE Buffalo Nike Missile UST, East Aurora, NY

		0.070	0.071		0.070	0.068		0.068	0.070	0.073	0.070	2.62
24)	iodomethane											
		0.751	0.717	0.808	0.723	0.763	0.831	0.721	0.723	0.752	0.754	5.41
25)	carbon disulfide											
		1.753	1.614		1.599	1.673	2.079	1.573	1.599	1.812	1.713	9.93
26)	methylene chloride											
		0.669	0.616		0.588	0.606		0.575	0.598	0.787	0.634	11.65
27)	methyl acetate											
		0.282	0.282		0.333	0.319		0.336	0.302		0.309	7.86
28)	methyl tert butyl ether											
		1.709	1.641		1.617	1.634	2.389	1.632	1.628	1.826	1.759	14.99
29)	trans-1,2-dichloroethene											
		0.848	0.798	0.898	0.789	0.817	0.944	0.769	0.799	0.850	0.835	6.81
30)	hexane											
		1.117	0.838		0.927	0.935		0.858	0.775	1.008	0.923	12.36
31)	di-isopropyl ether											
		2.376	2.193		2.197	2.253	2.892	2.183	2.185	2.319	2.325	10.32
32)	ethyl tert-butyl ether											
		1.932	1.852	2.245	1.947	1.999	2.161	1.987	1.890	1.948	1.996	6.39
33)	2-butanone											
		0.047	0.042		0.050	0.048		0.050	0.048	0.029	0.045	16.52
34)	1,1-dichloroethane											
		1.043	0.988	1.176	0.986	1.017	1.198	0.963	0.992	1.020	1.043	8.18
35)	chloroprene											
		0.902	0.815		0.796	0.806	1.085	0.766	0.813	0.913	0.862	12.02
36)	acrylonitrile											
		0.197			0.174	0.171		0.169	0.177		0.177	6.30
37)	vinyl acetate											
		0.071			0.080	0.080		0.079	0.078		0.078	5.13
38)	ethyl acetate											
	This compound does not meet initial calibration criteria											
		0.184	0.113		0.084	0.085		0.073	0.104		0.107	37.59
	----- Linear regression ----- Coefficient = 0.9947											
	Response Ratio = 0.00853 + 0.07461 *A											
39)	2,2-dichloropropane											
		0.948	0.866		0.774	0.807		0.771	0.806	1.018	0.856	11.05
40)	cis-1,2-dichloroethene											
		0.600	0.569		0.576	0.596	0.747	0.564	0.569	0.588	0.601	10.06
41)	propionitrile											
		0.072	0.073		0.074	0.072	0.081	0.072	0.075	0.068	0.073	4.85
42)	bromochloromethane											
		0.315	0.322	0.293	0.326	0.335	0.369	0.329	0.333	0.325	0.327	6.09
43)	tetrahydrofuran											
		0.063			0.060	0.059		0.060	0.063		0.061	2.92
44)	chloroform											
		0.978	0.987		0.936	0.950	1.228	0.909	0.942	1.347	1.035	15.57
45)	tert-butyl formate											
											0.000	-1.00
46)	isobutyl alcohol											
											0.000	-1.00
47)	dibromofluoromethane (s)											
		0.444	0.446	0.462	0.457	0.450	0.461	0.452	0.443	0.450	0.452	1.55
48)	methacrylonitrile											
		0.150	0.158		0.174	0.175		0.174	0.172		0.167	6.32
49)	1,1,1-trichloroethane											
		0.952	0.895		0.820	0.845	1.063	0.813	0.838	1.058	0.911	11.29
50)	cyclohexane											
		0.877	0.834		0.803	0.805	1.142	0.781	0.796	0.892	0.866	13.63
51)	1,1-dichloropropene											

Initial Calibration Summary

Page 3 of 5

Job Number: JC66934

Sample: VY7788-ICC7788

Account: TCMaw Tantara Corporation

Lab FileID: Y180052.D

Project: USACE Buffalo Nike Missile UST, East Aurora, NY

		0.768	0.704	0.849	0.712	0.730	0.910	0.689	0.715	0.746	0.758	9.79
52)	tert-amyl alcohol											
		0.026	0.025		0.021	0.020		0.021	0.021		0.023	11.26
53)	carbon tetrachloride											
		0.737	0.704		0.694	0.720	0.941	0.690	0.705	0.722	0.739	11.21
54)	I 1,4-difluorobenzene	-----ISTD-----										
55)	1,2-dichloroethane-d4 (s)											
		0.292	0.297	0.302	0.296	0.288	0.302	0.286	0.305	0.287	0.295	2.43
56)	2,2,4-trimethylpentane											
		1.716	1.413		1.662	1.733	1.951	1.611	1.454	1.464	1.626	11.10
57)	tert-amyl methyl ether											
		1.109	1.089		1.108	1.131	1.318	1.121	1.106	1.031	1.127	7.38
58)	n-butyl alcohol											
		0.008	0.009		0.011	0.010		0.011	0.010		0.010	10.64
59)	benzene											
		1.571	1.455	1.964	1.413	1.469	1.777	1.391	1.452	1.536	1.559	12.27
60)	heptane											
		0.388	0.288		0.349	0.362		0.335	0.284	0.333	0.334	11.30
61)	isopropyl acetate											
		0.052	0.048		0.056	0.058		0.059	0.057		0.055	7.91
62)	1,2-dichloroethane											
		0.427	0.422	0.454	0.422	0.429	0.448	0.415	0.429	0.406	0.428	3.51
63)	trichloroethene											
		0.348	0.321		0.325	0.338	0.358	0.322	0.330	0.326	0.333	4.01
64)	ethyl acrylate											
		0.377	0.378		0.385	0.381		0.387	0.390	0.360	0.380	2.61
65)	2-nitropropane											
		0.080			0.067	0.064		0.065	0.072		0.070	9.15
66)	2-chloroethyl vinyl ether											
		0.162	0.167	0.160	0.172	0.173	0.164	0.176	0.172	0.145	0.166	5.67
67)	methyl methacrylate											
		0.056	0.060		0.070	0.072		0.072	0.072		0.067	10.43
68)	1,2-dichloropropane											
		0.429	0.402	0.472	0.397	0.411	0.439	0.397	0.399	0.424	0.419	5.98
69)	methylcyclohexane											
		0.798	0.698		0.693	0.701		0.658	0.665	0.687	0.700	6.60
70)	dibromomethane											
		0.211	0.208	0.258	0.197	0.198	0.243	0.194	0.203	0.215	0.214	10.38
71)	bromodichloromethane											
		0.508	0.470		0.478	0.495	0.506	0.483	0.483	0.467	0.486	3.14
72)	epichlorohydrin											
		0.034	0.033		0.031	0.029		0.030	0.032		0.032	6.26
73)	cis-1,3-dichloropropene											
		0.620	0.594	0.644	0.600	0.618	0.673	0.601	0.604	0.593	0.616	4.32
74)	4-methyl-2-pentanone											
		0.128	0.128		0.132	0.126	0.142	0.130	0.133	0.121	0.130	4.86
75)	3-methyl-1-butanol											
		0.012	0.011		0.010	0.010		0.010	0.010	0.014	0.011	13.60
76)	I chlorobenzene-d5	-----ISTD-----										
77)	toluene-d8 (s)											
		1.415	1.430	1.349	1.406	1.426	1.328	1.413	1.425	1.367	1.395	2.68
78)	toluene											
		1.059	0.989	1.242	0.984	1.029	1.054	0.969	1.004	1.004	1.037	7.96
79)	trans-1,3-dichloropropene											
		0.621	0.577	0.740	0.587	0.608	0.640	0.586	0.599	0.560	0.613	8.68
80)	ethyl methacrylate											
		0.524	0.475		0.480	0.484		0.475	0.479	0.440	0.480	5.09
81)	1,1,2-trichloroethane											

Initial Calibration Summary

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Job Number: JC66934
Account: TCMaw Tantara Corporation
Project: USACE Buffalo Nike Missile UST, East Aurora, NY

Sample: VY7788-ICC7788
Lab FileID: Y180052.D

		0.347	0.311		0.284	0.285		0.276	0.305	0.294	0.300	7.96
82)	2-hexanone											
		0.142	0.140		0.149	0.136	0.128	0.138	0.149	0.135	0.140	5.07
83)	tetrachloroethene											
		0.444	0.389		0.392	0.402	0.522	0.379	0.384	0.391	0.413	11.73
84)	1,3-dichloropropane											
		0.565	0.528	0.623	0.537	0.553	0.532	0.529	0.558	0.526	0.550	5.63
85)	butyl acetate											
		0.303	0.313		0.250	0.246		0.240	0.256		0.268	11.85
86)	dibromochloromethane											
		0.382	0.362	0.412	0.374	0.389	0.383	0.382	0.377	0.349	0.379	4.61
87)	1,2-dibromoethane											
		0.339	0.322	0.342	0.333	0.338	0.367	0.333	0.340	0.320	0.337	4.08
88)	n-butyl ether											
		2.198	2.027		2.024	2.128	2.472	1.982	2.054	2.204	2.136	7.43
89)	chlorobenzene											
		1.128	1.051	1.128	1.054	1.099	1.131	1.043	1.071	1.027	1.081	3.77
90)	1,1,1,2-tetrachloroethane											
		0.425	0.385	0.404	0.387	0.409	0.396	0.399	0.394	0.411	0.401	3.19
91)	ethylbenzene											
		2.013	1.871	2.320	1.837	1.926	2.165	1.817	1.843	1.966	1.973	8.62
92)	m,p-xylene											
		0.759	0.699	0.871	0.695	0.729	0.797	0.690	0.694	0.706	0.738	8.37
93)	o-xylene											
		1.732	1.581		1.543	1.620	1.978	1.531	1.579	1.675	1.655	8.89
94)	styrene											
		1.241	1.171	1.400	1.189	1.255	1.281	1.196	1.180	1.165	1.231	6.12
95)	bromoform											
		0.215	0.212	0.215	0.225	0.238	0.223	0.239	0.223	0.197	0.221	5.94
96)	butyl acrylate											
		0.820	0.772		0.801	0.817		0.803	0.813	0.741	0.795	3.61
97)	isopropylbenzene											
		1.958	1.830	2.222	1.794	1.904	2.214	1.793	1.824	1.900	1.938	8.69
98)	cis-1,4-dichloro-2-butene											
		0.134	0.124		0.138	0.140	0.126	0.142	0.135	0.121	0.132	5.95
99)	I 1,4-dichlorobenzene-d	-----ISTD-----										
100)	4-bromofluorobenzene (s)											
		0.985	0.944	0.935	0.940	0.927	0.968	0.920	0.957	0.998	0.953	2.79
101)	bromobenzene											
		0.895	0.858	0.889	0.844	0.902	0.904	0.848	0.882	0.922	0.883	3.07
102)	1,1,2,2-tetrachloroethane											
		0.994	0.895		0.840	0.842		0.814	0.931	1.301	0.945	17.83
103)	trans-1,4-dichloro-2-butene											
		0.216	0.211		0.195	0.199		0.192	0.213	0.219	0.206	5.23
104)	1,2,3-trichloropropane											
		0.181	0.190		0.181	0.182		0.179	0.191	0.202	0.187	4.41
105)	n-propylbenzene											
		4.808	4.291		4.229	4.460	5.404	4.097	4.382	4.716	4.548	9.23
106)	4-ethyltoluene											
											0.000	-1.00
107)	2-chlorotoluene											
		0.933	0.852		0.839	0.898		0.834	0.894	0.894	0.878	4.16
108)	4-chlorotoluene											
		2.854	2.626		2.566	2.745		2.556	2.631	3.043	2.717	6.56
109)	1,3,5-trimethylbenzene											
		3.398	3.092		3.063	3.208	3.560	2.979	3.163	3.337	3.225	6.02
110)	tert-butylbenzene											
		0.570	0.526	0.577	0.524	0.556	0.607	0.515	0.548	0.518	0.549	5.73
111)	1,2,4-trimethylbenzene											

Initial Calibration Summary

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Job Number: JC66934

Sample: VY7788-ICC7788

Account: TCMaw Tantara Corporation

Lab FileID: Y180052.D

Project: USACE Buffalo Nike Missile UST, East Aurora, NY

	3.439	3.172		3.117	3.303	4.090	3.060	3.273	3.466	3.365	9.70
112)	sec-butylbenzene										
	4.374	3.901	4.579	3.902	4.107	4.349	3.786	4.079	4.185	4.140	6.26
113)	1,3-dichlorobenzene										
	1.855	1.651	1.876	1.677	1.794	1.780	1.696	1.712	1.801	1.760	4.53
114)	p-isopropyltoluene										
	3.600	3.271	3.684	3.323	3.511	3.636	3.236	3.362	3.359	3.442	4.87
115)	1,4-dichlorobenzene										
	1.807	1.671	1.941	1.688	1.797	1.830	1.710	1.736	1.798	1.775	4.75
116)	1,2-dichlorobenzene										
	1.685	1.655	1.846	1.605	1.708	1.653	1.629	1.683	1.569	1.670	4.72
117)	1,4-diethylbenzene										
										0.000	-1.00
118)	n-butylbenzene										
	2.081	1.782	2.063	1.931	2.041	1.981	1.885	1.874	1.787	1.936	5.85
119)	1,2,4,5-tetramethylbenzene										
										0.000	-1.00
120)	1,2-dibromo-3-chloropropane										
	0.144	0.144		0.152	0.156	0.137	0.159	0.166	0.147	0.151	6.20
121)	1,3,5-trichlorobenzene										
	1.593	1.436	1.619	1.551	1.656	1.555	1.571	1.537	1.499	1.557	4.15
122)	1,2,4-trichlorobenzene										
	1.151	1.095	1.033	1.219	1.321	1.197	1.279	1.184	1.046	1.170	8.45
123)	hexachlorobutadiene										
	0.882	0.761	0.831	0.806	0.865	0.872	0.800	0.817	0.748	0.820	5.77
124)	naphthalene										
	1.856	1.884	2.198	2.041	2.157	2.039	2.198	2.066	1.818	2.029	7.20
125)	1,2,3-trichlorobenzene										
	0.990	0.929	0.949	1.023	1.128	0.952	1.111	1.038	0.901	1.002	7.93
126)	hexachloroethane										
	0.525	0.493	0.449	0.523	0.562	0.489	0.540	0.526	0.485	0.510	6.65
127)	benzyl chloride										
	4.015	3.297		3.481	3.669		3.381	3.442	3.633	3.560	6.74
128)	2-ethylhexyl acrylate										
	1.349	0.891		0.887	1.063		1.129	0.878	1.033	1.033	16.57
129)	2-methylnaphthalene										
	0.591			0.808	0.946		1.057	0.724		0.825	22.16
	----- Linear regression ----- Coefficient = 0.9937										
	Response Ratio = -0.04939 + 1.03263 *A										
130)	bis(chloromethyl)ether										
										0.000	-1.00
131)	ethylenimine										
										0.000	-1.00

(#) = Out of Range ### Number of calibration levels exceeded format ###

MYS7788.M

Tue May 29 11:35:11 2018

RPT1

Initial Calibration Verification

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Job Number: JC66934

Sample: VY7788-ICV7788

Account: TCMAW Tantara Corporation

Lab FileID: Y180057.D

Project: USACE Buffalo Nike Missile UST, East Aurora, NY

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\VY7788\Y180057.D

Vial: 23

Acq On : 25 May 2018 3:28 am

Operator: PrashanS

Sample : icv7788-50

Inst : MSY

Misc : MS26438,VY7788,5.0,,,,,1

Multiplr: 1.00

MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MYS7788.M (RTE Integrator)

Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um

Last Update : Tue May 29 11:30:55 2018

Response via : Multiple Level Calibration

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

Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	tert butyl alcohol-d9	1.000	1.000	0.0	101	0.00	6.87
2	ethanol			-----NA-----			
3	tertiary butyl alcohol	1.490	1.418	4.8	98	0.00	6.97
4	1,4-dioxane	0.121	0.122	-0.8	99	0.00	10.72
5 I	pentafluorobenzene	1.000	1.000	0.0	100	0.00	9.10
6	chlorodifluoromethane	0.844	0.644	23.7	75	0.00	3.78
7	dichlorodifluoromethane	0.868	0.630	27.4	74	-0.01	3.76
8	freon 142b			-----NA-----			
9	freon 114			-----NA-----			
10	chloromethane	1.172	1.055	10.0	91	-0.01	4.11
11	vinyl chloride	1.040	0.834	19.8	85	0.00	4.32
12	1,3-butadiene			-----NA-----			
13	bromomethane	0.589	0.535	9.2	94	0.00	4.91
14	chloroethane	0.576	0.454	21.2	88	0.00	5.05
15	vinyl bromide	0.533	0.474	11.1	93	-0.01	5.37
16	trichlorofluoromethane	0.883	0.731	17.2	87	0.00	5.48
17	ethyl ether	0.286	0.260	9.1	94	0.00	5.85
18	2-chloropropane	0.230	0.213	7.4	98	0.00	6.03
19	acrolein	0.095	0.094	1.1	92	-0.01	6.04
20	freon 113	0.404	0.385	4.7	95	0.00	6.26
21	1,1-dichloroethene	0.897	0.704	21.5	85	0.00	6.25
22	acetone	0.043	0.040	7.0	100	0.00	6.24
23	acetonitrile			-----NA-----			
24	iodomethane	0.754	0.816	-8.2	113	0.00	6.50
25	carbon disulfide	1.713	1.947	-13.7	122	0.00	6.64
26	methylene chloride	0.634	0.553	12.8	94	0.00	6.90
27	methyl acetate	0.309	0.316	-2.3	95	0.00	6.72
28	methyl tert butyl ether	1.759	1.599	9.1	99	0.00	7.28
29	trans-1,2-dichloroethene	0.835	0.729	12.7	92	0.00	7.30
30	hexane	0.923	0.724	21.6	78	0.00	7.65
31	di-isopropyl ether	2.325	2.193	5.7	100	0.00	7.87
32	ethyl tert-butyl ether	1.996	1.923	3.7	99	0.00	8.33
33	2-butanone	0.045	0.049	-8.9	98	0.00	8.51
34	1,1-dichloroethane	1.043	0.941	9.8	95	0.00	7.84
35	chloroprene	0.862	0.770	10.7	97	0.00	7.96
36	acrylonitrile	0.177	0.195	-10.2	112	0.00	7.19
37	vinyl acetate	0.078	0.083	-6.4	104	0.00	7.83
38	ethyl acetate	50.000	52.691	-5.4	103	0.00	8.57

Initial Calibration Verification

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Job Number: JC66934

Sample: VY7788-ICV7788

Account: TCMaw Tantara Corporation

Lab FileID: Y180057.D

Project: USACE Buffalo Nike Missile UST, East Aurora, NY

		AvgRF	CCRF	% Dev			
39	2,2-dichloropropane	0.856	0.736	14.0	95	0.00	8.58
40	cis-1,2-dichloroethene	0.601	0.566	5.8	98	0.00	8.56
41	propionitrile	0.073	0.072	1.4	97	0.00	8.56
42	bromochloromethane	0.327	0.324	0.9	99	0.00	8.86
43	tetrahydrofuran	0.061	0.060	1.6	100	-0.01	8.91
44	chloroform	1.035	0.918	11.3	98	0.00	8.92
45	tert-butyl formate			-----NA-----			
46	isobutyl alcohol			-----NA-----			
47 S	dibromofluoromethane (s)	0.452	0.460	-1.8	101	0.00	9.12
48	methacrylonitrile	0.167	0.181	-8.4	104	0.00	8.77
49	1,1,1-trichloroethane	0.911	0.759	16.7	93	0.00	9.21
50	cyclohexane	0.866	0.763	11.9	95	0.00	9.32
51	1,1-dichloropropene	0.758	0.683	9.9	96	0.00	9.39
52	tert-amyl alcohol	0.023	0.023	0.0	109	0.00	9.49
53	carbon tetrachloride	0.739	0.643	13.0	93	0.00	9.43
54 I	1,4-difluorobenzene	1.000	1.000	0.0	100	0.00	10.01
55 S	1,2-dichloroethane-d4 (s)	0.295	0.298	-1.0	100	0.00	9.52
56	2,2,4-trimethylpentane	1.626	1.537	5.5	93	0.00	9.70
57	tert-amyl methyl ether	1.127	1.096	2.8	99	0.00	9.70
58	n-butyl alcohol	0.010	0.011	-10.0	103	0.00	10.11
59	benzene	1.559	1.377	11.7	97	0.00	9.64
60	heptane	0.334	0.388	-16.2	111	0.00	9.88
61	isopropyl acetate	0.055	0.057	-3.6	101	0.00	9.56
62	1,2-dichloroethane	0.428	0.422	1.4	100	0.00	9.62
63	trichloroethene	0.333	0.315	5.4	97	0.00	10.36
64	ethyl acrylate	0.380	0.395	-3.9	103	0.00	10.36
65	2-nitropropane	0.070	0.073	-4.3	108	0.00	11.07
66	2-chloroethyl vinyl ether	0.166	0.184	-10.8	107	0.00	11.14
67	methyl methacrylate	0.067	0.074	-10.4	106	0.00	10.63
68	1,2-dichloropropane	0.419	0.387	7.6	97	0.00	10.60
69	methylcyclohexane	0.700	0.622	11.1	90	0.00	10.62
70	dibromomethane	0.214	0.201	6.1	102	0.00	10.75
71	bromodichloromethane	0.486	0.476	2.1	100	0.00	10.89
72	epichlorohydrin	0.032	0.031	3.1	101	0.00	11.23
73	cis-1,3-dichloropropene	0.616	0.599	2.8	100	0.00	11.37
74	4-methyl-2-pentanone	0.130	0.131	-0.8	99	0.00	11.45
75	3-methyl-1-butanol	0.011	0.010	9.1	102	0.00	11.48
76 I	chlorobenzene-d5	1.000	1.000	0.0	101	0.00	13.19
77 S	toluene-d8 (s)	1.395	1.408	-0.9	101	0.00	11.68
78	toluene	1.037	0.962	7.2	99	0.00	11.75
79	trans-1,3-dichloropropene	0.613	0.561	8.5	97	0.00	11.92
80	ethyl methacrylate	0.480	0.468	2.5	99	0.00	11.95
81	1,1,2-trichloroethane	0.300	0.286	4.7	102	0.00	12.13
82	2-hexanone	0.140	0.142	-1.4	97	0.00	12.32
83	tetrachloroethene			-----NA-----			
84	1,3-dichloropropane	0.550	0.552	-0.4	104	0.00	12.32
85	butyl acetate	0.268	0.264	1.5	107	0.00	12.42
86	dibromochloromethane	0.379	0.383	-1.1	104	0.00	12.58
87	1,2-dibromoethane	0.337	0.335	0.6	102	0.00	12.73
88	n-butyl ether	2.136	1.946	8.9	97	0.00	13.19
89	chlorobenzene	1.081	1.037	4.1	100	0.00	13.22
90	1,1,1,2-tetrachloroethane	0.401	0.395	1.5	103	0.00	13.27
91	ethylbenzene	1.973	1.817	7.9	100	0.00	13.29
92	m,p-xylene	0.738	0.689	6.6	100	0.00	13.40
93	o-xylene	1.655	1.541	6.9	101	0.00	13.81
94	styrene	1.231	1.194	3.0	102	0.00	13.81
95	bromoform	0.221	0.243	-10.0	109	0.00	14.05

6.8.2
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Initial Calibration Verification

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Job Number: JC66934

Sample: VY7788-ICV7788

Account: TCMaw Tantara Corporation

Lab FileID: Y180057.D

Project: USACE Buffalo Nike Missile UST, East Aurora, NY

96	butyl acrylate	0.795	0.824	-3.6	104	0.00	13.64
97	isopropylbenzene	1.938	1.757	9.3	99	0.00	14.16
98	cis-1,4-dichloro-2-butene	0.132	0.134	-1.5	98	0.00	14.19
99 I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	101	0.00	15.50
100 S	4-bromofluorobenzene (s)	0.953	0.942	1.2	101	0.00	14.34
101	bromobenzene	0.883	0.851	3.6	102	0.00	14.53
102	1,1,2,2-tetrachloroethane	0.945	0.827	12.5	100	0.00	14.42
103	trans-1,4-dichloro-2-bute	0.206	0.216	-4.9	112	0.00	14.46
104	1,2,3-trichloropropane	0.187	0.182	2.7	101	0.00	14.49
105	n-propylbenzene	4.548	4.188	7.9	100	0.00	14.57
106	4-ethyltoluene			NA			
107	2-chlorotoluene	0.878	0.821	6.5	99	0.00	14.70
108	4-chlorotoluene	2.717	2.634	3.1	104	0.00	14.80
109	1,3,5-trimethylbenzene	3.225	2.996	7.1	99	0.00	14.72
110	tert-butylbenzene	0.549	0.513	6.6	99	0.00	15.06
111	1,2,4-trimethylbenzene	3.365	3.143	6.6	102	0.00	15.11
112	sec-butylbenzene	4.140	3.819	7.8	99	0.00	15.28
113	1,3-dichlorobenzene	1.760	1.697	3.6	102	0.00	15.45
114	p-isopropyltoluene	3.442	3.270	5.0	100	0.00	15.40
115	1,4-dichlorobenzene	1.775	1.699	4.3	102	0.00	15.53
116	1,2-dichlorobenzene	1.670	1.603	4.0	101	0.00	15.91
117	1,4-diethylbenzene			NA			
118	n-butylbenzene	1.936	1.902	1.8	100	0.00	15.81
119	1,2,4,5-tetramethylbenzen			NA			
120	1,2-dibromo-3-chloropropa	0.151	0.152	-0.7	101	0.00	16.66
121	1,3,5-trichlorobenzene	1.557	1.521	2.3	99	0.00	16.88
122	1,2,4-trichlorobenzene	1.170	1.189	-1.6	99	0.00	17.50
123	hexachlorobutadiene	0.820	0.783	4.5	98	0.00	17.64
124	naphthalene	2.029	2.043	-0.7	101	0.00	17.76
125	1,2,3-trichlorobenzene	1.002	1.012	-1.0	100	0.00	18.00
126	hexachloroethane	0.510	0.519	-1.8	101	0.00	16.19
127	benzyl chloride	3.560	3.441	3.3	100	0.00	15.81
128	2-ethylhexyl acrylate	1.033	1.022	1.1	117	0.00	17.51
		True	Calc.	% Drift			
129	2-methylnaphthalene	25.000	19.787	20.9	90	0.00	18.93
		AvgRF	CCRF	% Dev			
130	bis(chloromethyl)ether			NA			
131	ethylenimine			NA			

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

Y180052.D MYS7788.M

Tue May 29 11:35:11 2018 RPT1

Initial Calibration Verification

Page 1 of 3

Job Number: JC66934

Sample: VY7788-ICV7788

Account: TCMAW Tantara Corporation

Lab FileID: Y180058.D

Project: USACE Buffalo Nike Missile UST, East Aurora, NY

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\VY7788\Y180058.D Vial: 24
 Acq On : 25 May 2018 3:56 am Operator: PrashanS
 Sample : icv7788-50 Inst : MSY
 Misc : MS26438,VY7788,5.0,,,,,1 Multiplr: 1.00
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MYS7788.M (RTE Integrator)
 Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um
 Last Update : Tue May 29 11:30:55 2018
 Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	tert butyl alcohol-d9	1.000	1.000	0.0	96	0.00	6.88
2	ethanol		-----NA-----				
3	tertiary butyl alcohol		-----NA-----				
4	1,4-dioxane		-----NA-----				
5 I	pentafluorobenzene	1.000	1.000	0.0	98	0.00	9.10
6	chlorodifluoromethane		-----NA-----				
7	dichlorodifluoromethane		-----NA-----				
8	freon 142b	0.922	0.787	14.6	91	0.00	4.02
9	freon 114		-----NA-----				
10	chloromethane		-----NA-----				
11	vinyl chloride		-----NA-----				
12	1,3-butadiene	0.800	0.654	18.3	81	0.00	4.35
13	bromomethane		-----NA-----				
14	chloroethane		-----NA-----				
15	vinyl bromide		-----NA-----				
16	trichlorofluoromethane		-----NA-----				
17	ethyl ether		-----NA-----				
18	2-chloropropane		-----NA-----				
19	acrolein		-----NA-----				
20	freon 113		-----NA-----				
21	1,1-dichloroethene		-----NA-----				
22	acetone		-----NA-----				
23	acetonitrile	0.070	0.070	0.0	99	0.00	6.63
24	iodomethane		-----NA-----				
25	carbon disulfide		-----NA-----				
26	methylene chloride		-----NA-----				
27	methyl acetate		-----NA-----				
28	methyl tert butyl ether		-----NA-----				
29	trans-1,2-dichloroethene		-----NA-----				
30	hexane		-----NA-----				
31	di-isopropyl ether		-----NA-----				
32	ethyl tert-butyl ether		-----NA-----				
33	2-butanone		-----NA-----				
34	1,1-dichloroethane		-----NA-----				
35	chloroprene		-----NA-----				
36	acrylonitrile		-----NA-----				
37	vinyl acetate		-----NA-----				
38	----- True	Calc.	% Drift	-----			
	ethyl acetate		-----NA-----				

Initial Calibration Verification

Page 2 of 3

Job Number: JC66934

Sample: VY7788-ICV7788

Account: TCMaw Tantara Corporation

Lab FileID: Y180058.D

Project: USACE Buffalo Nike Missile UST, East Aurora, NY

		AvgRF	CCRF	% Dev			
39	2,2-dichloropropane			NA			
40	cis-1,2-dichloroethene			NA			
41	propionitrile			NA			
42	bromochloromethane			NA			
43	tetrahydrofuran			NA			
44	chloroform			NA			
45	tert-butyl formate			NA			
46	isobutyl alcohol			NA			
47 S	dibromofluoromethane (s)	0.452	0.462	-2.2	99	0.00	9.11
48	methacrylonitrile			NA			
49	1,1,1-trichloroethane			NA			
50	cyclohexane			NA			
51	1,1-dichloropropene			NA			
52	tert-amyl alcohol			NA			
53	carbon tetrachloride			NA			
54 I	1,4-difluorobenzene	1.000	1.000	0.0	98	0.00	10.01
55 S	1,2-dichloroethane-d4 (s)	0.295	0.301	-2.0	100	0.00	9.53
56	2,2,4-trimethylpentane			NA			
57	tert-amyl methyl ether			NA			
58	n-butyl alcohol			NA			
59	benzene			NA			
60	heptane			NA			
61	isopropyl acetate			NA			
62	1,2-dichloroethane			NA			
63	trichloroethene			NA			
64	ethyl acrylate			NA			
65	2-nitropropane			NA			
66	2-chloroethyl vinyl ether			NA			
67	methyl methacrylate			NA			
68	1,2-dichloropropane			NA			
69	methylcyclohexane			NA			
70	dibromomethane			NA			
71	bromodichloromethane			NA			
72	epichlorohydrin			NA			
73	cis-1,3-dichloropropene			NA			
74	4-methyl-2-pentanone			NA			
75	3-methyl-1-butanol			NA			
76 I	chlorobenzene-d5	1.000	1.000	0.0	103	0.00	13.19
77 S	toluene-d8 (s)	1.395	1.364	2.2	100	0.00	11.68
78	toluene			NA			
79	trans-1,3-dichloropropene			NA			
80	ethyl methacrylate			NA			
81	1,1,2-trichloroethane			NA			
82	2-hexanone			NA			
83	tetrachloroethene	0.413	0.318	23.0	83	0.00	12.36
84	1,3-dichloropropane			NA			
85	butyl acetate			NA			
86	dibromochloromethane			NA			
87	1,2-dibromoethane			NA			
88	n-butyl ether			NA			
89	chlorobenzene			NA			
90	1,1,1,2-tetrachloroethane			NA			
91	ethylbenzene			NA			
92	m,p-xylene			NA			
93	o-xylene			NA			
94	styrene			NA			
95	bromoform			NA			

6.8.3

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Initial Calibration Verification

Page 3 of 3

Job Number: JC66934

Sample: VY7788-ICV7788

Account: TCMaw Tantara Corporation

Lab FileID: Y180058.D

Project: USACE Buffalo Nike Missile UST, East Aurora, NY

96	butyl acrylate								-----NA-----
97	isopropylbenzene								-----NA-----
98	cis-1,4-dichloro-2-butene								-----NA-----
99 I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	96	0.00	15.50		
100 S	4-bromofluorobenzene (s)	0.953	1.008	-5.8	103	0.00	14.34		
101	bromobenzene								-----NA-----
102	1,1,2,2-tetrachloroethane								-----NA-----
103	trans-1,4-dichloro-2-bute								-----NA-----
104	1,2,3-trichloropropane								-----NA-----
105	n-propylbenzene								-----NA-----
106	4-ethyltoluene								-----NA-----
107	2-chlorotoluene								-----NA-----
108	4-chlorotoluene								-----NA-----
109	1,3,5-trimethylbenzene								-----NA-----
110	tert-butylbenzene								-----NA-----
111	1,2,4-trimethylbenzene								-----NA-----
112	sec-butylbenzene								-----NA-----
113	1,3-dichlorobenzene								-----NA-----
114	p-isopropyltoluene								-----NA-----
115	1,4-dichlorobenzene								-----NA-----
116	1,2-dichlorobenzene								-----NA-----
117	1,4-diethylbenzene								-----NA-----
118	n-butylbenzene								-----NA-----
119	1,2,4,5-tetramethylbenzen								-----NA-----
120	1,2-dibromo-3-chloropropa								-----NA-----
121	1,3,5-trichlorobenzene								-----NA-----
122	1,2,4-trichlorobenzene								-----NA-----
123	hexachlorobutadiene								-----NA-----
124	naphthalene								-----NA-----
125	1,2,3-trichlorobenzene								-----NA-----
126	hexachloroethane								-----NA-----
127	benzyl chloride								-----NA-----
128	2-ethylhexyl acrylate								-----NA-----
----- True Calc. % Drift -----									
129	2-methylnaphthalene								-----NA-----
----- AvgRF CCRF % Dev -----									
130	bis(chloromethyl)ether								-----NA-----
131	ethylenimine								-----NA-----

(#) = Out of Range
Y180052.D MYS7788.M

SPCC's out = 0 CCC's out = 0
Tue May 29 11:35:15 2018 RPT1

6.8.3

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Continuing Calibration Summary

Page 1 of 3

Job Number: JC66934

Sample: VY7792-CC7788

Account: TCMAW Tantara Corporation

Lab FileID: Y180134.D

Project: USACE Buffalo Nike Missile UST, East Aurora, NY

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\ja...1-18\vy7792\y180134.d Vial: 1
 Acq On : 30 May 2018 7:34 am Operator: PrashanS
 Sample : cc7788-20 Inst : MSY
 Misc : MS26699,VY7792,5.0,,,,,1 Multiplr: 1.00
 MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MYS7788.M (RTE Integrator)
 Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um
 Last Update : Mon Sep 13 11:48:20 2010
 Response via : Multiple Level Calibration

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

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	tert butyl alcohol-d9	1.000	1.000	0.0	108	-0.01	6.86
2	ethanol			-----NA-----			
3	tertiary butyl alcohol	1.490	1.407	5.6	101	0.00	6.97
4	1,4-dioxane	0.121	0.127	-5.0	112	0.00	10.72
5 I	pentafluorobenzene	1.000	1.000	0.0	100	0.00	9.10
6	chlorodifluoromethane	0.844	1.051	-24.5#	138	0.00	3.77
7	dichlorodifluoromethane	0.868	0.826	4.8	99	0.00	3.78
8	freon 142b	0.922	0.986	-6.9	114	0.00	4.02
9	freon 114			-----NA-----			
10	chloromethane	1.172	1.193	-1.8	102	0.00	4.12
11	vinyl chloride	1.040	1.009	3.0	106	0.00	4.33
12	1,3-butadiene	0.800	0.913	-14.1	119	0.00	4.35
13	bromomethane	0.589	0.574	2.5	103	0.00	4.91
14	chloroethane	0.576	0.549	4.7	102	0.00	5.05
15	vinyl bromide	0.533	0.547	-2.6	106	0.00	5.37
16	trichlorofluoromethane	0.883	0.889	-0.7	106	0.00	5.48
17	ethyl ether	0.286	0.261	8.7	94	0.00	5.85
18	2-chloropropane	0.230	0.244	-6.1	106	0.00	6.02
19	acrolein	0.095	0.102	-7.4	110	0.00	6.04
20	freon 113	0.404	0.430	-6.4	110	-0.01	6.26
21	1,1-dichloroethene	0.897	0.918	-2.3	111	0.00	6.25
22	acetone	0.043	0.040	7.0	94	0.00	6.25
23	acetonitrile	0.070	0.078	-11.4	111	0.00	6.63
24	iodomethane	0.754	0.759	-0.7	105	0.00	6.50
25	carbon disulfide	1.713	1.766	-3.1	110	0.00	6.64
26	methylene chloride	0.634	0.595	6.2	99	0.00	6.90
27	methyl acetate	0.309	0.337	-9.1	111	0.01	6.72
28	methyl tert butyl ether	1.759	1.589	9.7	97	0.00	7.28
29	trans-1,2-dichloroethene	0.835	0.841	-0.7	105	0.01	7.31
30	hexane	0.923	0.834	9.6	107	0.00	7.65
31	di-isopropyl ether	2.325	2.187	5.9	100	0.00	7.88
32	ethyl tert-butyl ether	1.996	1.873	6.2	99	0.00	8.33
33	2-butanone	0.045	0.048	-6.7	98	0.00	8.51
34	1,1-dichloroethane	1.043	1.038	0.5	104	0.00	7.84
35	chloroprene	0.862	0.818	5.1	100	0.00	7.97
36	acrylonitrile	0.177	0.172	2.8	97	0.00	7.19
37	vinyl acetate	0.078	0.060	23.1#	77	0.00	7.84
38	ethyl acetate	20.000	16.756	16.2	80	0.00	8.57

Continuing Calibration Summary

Page 2 of 3

Job Number: JC66934

Sample: VY7792-CC7788

Account: TCMaw Tantara Corporation

Lab FileID: Y180134.D

Project: USACE Buffalo Nike Missile UST, East Aurora, NY

		AvgRF	CCRF	% Dev			
39	2,2-dichloropropane	0.856	0.918	-7.2	113	0.00	8.59
40	cis-1,2-dichloroethene	0.601	0.590	1.8	103	0.00	8.56
41	propionitrile	0.073	0.074	-1.4	98	0.01	8.57
42	bromochloromethane	0.327	0.322	1.5	96	0.00	8.86
43	tetrahydrofuran	0.061	0.057	6.6	89	0.00	8.92
44	chloroform	1.035	0.934	9.8	99	0.00	8.92
45	tert-butyl formate			-----NA-----			
46	isobutyl alcohol			-----NA-----			
47 S	dibromofluoromethane (s)	0.452	0.461	-2.0	104	0.00	9.11
48	methacrylonitrile	0.167	0.163	2.4	95	0.00	8.77
49	1,1,1-trichloroethane	0.911	0.888	2.5	106	0.00	9.21
50	cyclohexane	0.866	0.847	2.2	106	0.00	9.32
51	1,1-dichloropropene	0.758	0.734	3.2	102	0.00	9.38
52	tert-amyl alcohol	0.023	0.024	-4.3	113	0.00	9.48
53	carbon tetrachloride	0.739	0.750	-1.5	106	-0.01	9.42
54 I	1,4-difluorobenzene	1.000	1.000	0.0	101	0.00	10.01
55 S	1,2-dichloroethane-d4 (s)	0.295	0.298	-1.0	99	0.00	9.53
56	2,2,4-trimethylpentane	1.626	1.559	4.1	109	0.00	9.69
57	tert-amyl methyl ether	1.127	1.083	3.9	99	0.00	9.70
58	n-butyl alcohol	0.010	0.010	0.0	105	0.00	10.11
59	benzene	1.559	1.453	6.8	101	0.00	9.63
60	heptane	0.334	0.312	6.6	111	0.00	9.87
61	isopropyl acetate	0.055	0.058	-5.5	104	0.00	9.57
62	1,2-dichloroethane	0.428	0.430	-0.5	102	0.00	9.62
63	trichloroethene	0.333	0.333	0.0	102	0.00	10.36
64	ethyl acrylate	0.380	0.389	-2.4	101	0.01	10.37
65	2-nitropropane	0.070	0.073	-4.3	103	0.00	11.08
66	2-chloroethyl vinyl ether	0.166	0.186	-12.0	110	0.00	11.15
67	methyl methacrylate	0.067	0.065	3.0	92	0.00	10.63
68	1,2-dichloropropane	0.419	0.404	3.6	103	0.00	10.60
69	methylcyclohexane	0.700	0.696	0.6	106	0.00	10.62
70	dibromomethane	0.214	0.194	9.3	97	0.00	10.75
71	bromodichloromethane	0.486	0.472	2.9	99	0.00	10.89
72	epichlorohydrin	0.032	0.032	0.0	103	0.01	11.25
73	cis-1,3-dichloropropene	0.616	0.607	1.5	102	0.00	11.36
74	4-methyl-2-pentanone	0.130	0.136	-4.6	104	0.00	11.46
75	3-methyl-1-butanol	0.011	0.010	9.1	98	0.00	11.48
76 I	chlorobenzene-d5	1.000	1.000	0.0	118	0.00	13.19
77 S	toluene-d8 (s)	1.395	1.320	5.4	109	0.00	11.68
78	toluene	1.037	0.914	11.9	107	0.00	11.75
79	trans-1,3-dichloropropene	0.613	0.542	11.6	107	0.00	11.93
80	ethyl methacrylate	0.480	0.440	8.3	108	0.00	11.96
81	1,1,2-trichloroethane	0.300	0.256	14.7	99	0.00	12.13
82	2-hexanone	0.140	0.142	-1.4	113	0.00	12.32
83	tetrachloroethene	0.413	0.362	12.3	111	0.00	12.36
84	1,3-dichloropropane	0.550	0.513	6.7	108	0.00	12.32
85	butyl acetate	0.268	0.244	9.0	112	0.00	12.43
86	dibromochloromethane	0.379	0.348	8.2	109	0.00	12.58
87	1,2-dibromoethane	0.337	0.325	3.6	113	0.00	12.74
88	n-butyl ether	2.136	1.991	6.8	114	0.00	13.19
89	chlorobenzene	1.081	1.043	3.5	115	0.00	13.22
90	1,1,1,2-tetrachloroethane	0.401	0.358	10.7	107	0.00	13.27
91	ethylbenzene	1.973	1.854	6.0	118	0.00	13.29
92	m,p-xylene	0.738	0.696	5.7	118	0.00	13.40
93	o-xylene	1.655	1.515	8.5	113	0.00	13.81
94	styrene	1.231	1.149	6.7	115	0.00	13.82
95	bromoform	0.221	0.225	-1.8	119	0.00	14.05

Continuing Calibration Summary

Page 3 of 3

Job Number: JC66934

Sample: VY7792-CC7788

Account: TCMaw Tantara Corporation

Lab FileID: Y180134.D

Project: USACE Buffalo Nike Missile UST, East Aurora, NY

96	butyl acrylate	0.795	0.727	8.6	105	0.00	13.65
97	isopropylbenzene	1.938	1.788	7.7	115	0.00	14.16
98	cis-1,4-dichloro-2-butene	0.132	0.138	-4.5	121	0.00	14.19
99 I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	116	0.00	15.50
100 S	4-bromofluorobenzene (s)	0.953	0.980	-2.8	118	0.00	14.34
101	bromobenzene	0.883	0.879	0.5	115	0.00	14.54
102	1,1,2,2-tetrachloroethane	0.945	0.887	6.1	110	0.00	14.42
103	trans-1,4-dichloro-2-bute	0.206	0.208	-1.0	113	0.00	14.47
104	1,2,3-trichloropropane	0.187	0.201	-7.5	122	0.00	14.49
105	n-propylbenzene	4.548	4.531	0.4	120	0.00	14.57
106	4-ethyltoluene			NA			
107	2-chlorotoluene	0.878	0.884	-0.7	115	0.00	14.70
108	4-chlorotoluene	2.717	2.685	1.2	118	0.00	14.80
109	1,3,5-trimethylbenzene	3.225	3.149	2.4	115	0.00	14.72
110	tert-butylbenzene	0.549	0.527	4.0	111	0.00	15.06
111	1,2,4-trimethylbenzene	3.365	3.169	5.8	112	0.00	15.11
112	sec-butylbenzene	4.140	4.047	2.2	115	0.00	15.28
113	1,3-dichlorobenzene	1.760	1.656	5.9	112	0.00	15.45
114	p-isopropyltoluene	3.442	3.357	2.5	116	0.00	15.40
115	1,4-dichlorobenzene	1.775	1.681	5.3	112	0.00	15.53
116	1,2-dichlorobenzene	1.670	1.562	6.5	107	0.00	15.92
117	1,4-diethylbenzene			NA			
118	n-butylbenzene	1.936	1.828	5.6	113	0.00	15.82
119	1,2,4,5-tetramethylbenzen			NA			
120	1,2-dibromo-3-chloropropa	0.151	0.150	0.7	105	0.00	16.66
121	1,3,5-trichlorobenzene	1.557	1.467	5.8	110	0.00	16.88
122	1,2,4-trichlorobenzene	1.170	1.080	7.7	106	0.00	17.50
123	hexachlorobutadiene	0.820	0.751	8.4	106	0.00	17.64
124	naphthalene	2.029	1.808	10.9	101	0.00	17.76
125	1,2,3-trichlorobenzene	1.002	0.920	8.2	103	0.00	18.00
126	hexachloroethane	0.510	0.506	0.8	111	0.00	16.19
127	benzyl chloride	3.560	3.391	4.7	114	0.00	15.82
128	2-ethylhexyl acrylate	1.033	0.490	52.6#	65	0.00	17.51
	----- True	Calc.	% Drift	-----			
129	2-methylnaphthalene	10.000	7.471	25.3#	84	0.00	18.93
	----- AvgRF	CCRF	% Dev	-----			
130	bis(chloromethyl)ether			NA			
131	ethylenimine			NA			

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

Y180051.D MYS7788.M

Thu May 31 11:57:29 2018

MS Volatiles

Raw Data

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\06-01-18\vy7792\
 Data File : y180153.d
 Acq On : 30 May 2018 5:14 pm
 Operator : Prashans
 Sample : JC66934-1 Inst : MSY
 Misc : MS26753,VY7792,5.1,,,,,1
 ALS Vial : 20 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MYS7788.M
 Quant Results File: MYS7788.RES
 Quant Time: May 31 11:55:29 2018
 Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um
 QLast Update : Tue May 29 11:30:55 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	6.873	65	101839	500.00	ug/L	0.00
5) pentafluorobenzene	9.096	168	191818	50.00	ug/L	0.00
54) 1,4-difluorobenzene	10.006	114	310813	50.00	ug/L	0.00
76) chlorobenzene-d5	13.191	117	263617	50.00	ug/L	0.00
99) 1,4-dichlorobenzene-d4	15.503	152	122640	50.00	ug/L	0.00
System Monitoring Compounds						
47) dibromofluoromethane (s)	9.117	113	96498	55.68	ug/L	0.00
Spiked Amount	50.000	Range	72 - 129	Recovery	=	111.36%
55) 1,2-dichloroethane-d4 (s)	9.530	65	100165	54.60	ug/L	0.00
Spiked Amount	50.000	Range	73 - 132	Recovery	=	109.20%
77) toluene-d8 (s)	11.680	98	378784	51.48	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	102.96%
100) 4-bromofluorobenzene (s)	14.342	95	124641	53.35	ug/L	0.00
Spiked Amount	50.000	Range	77 - 125	Recovery	=	106.70%
Target Compounds						
22) acetone	6.245	58	6947	42.21	ug/L	95
25) carbon disulfide	6.643	76	76498	11.64	ug/L	96
26) methylene chloride	6.915	84	6985	2.87	ug/L	92
94) styrene	13.829	104	5467	0.84	ug/L	96
109) 1,3,5-trimethylbenzene	14.724	105	3151	0.40	ug/L	85
111) 1,2,4-trimethylbenzene	15.111	105	6949	0.84	ug/L	96
114) p-isopropyltoluene	15.404	119	2387	0.28	ug/L	70

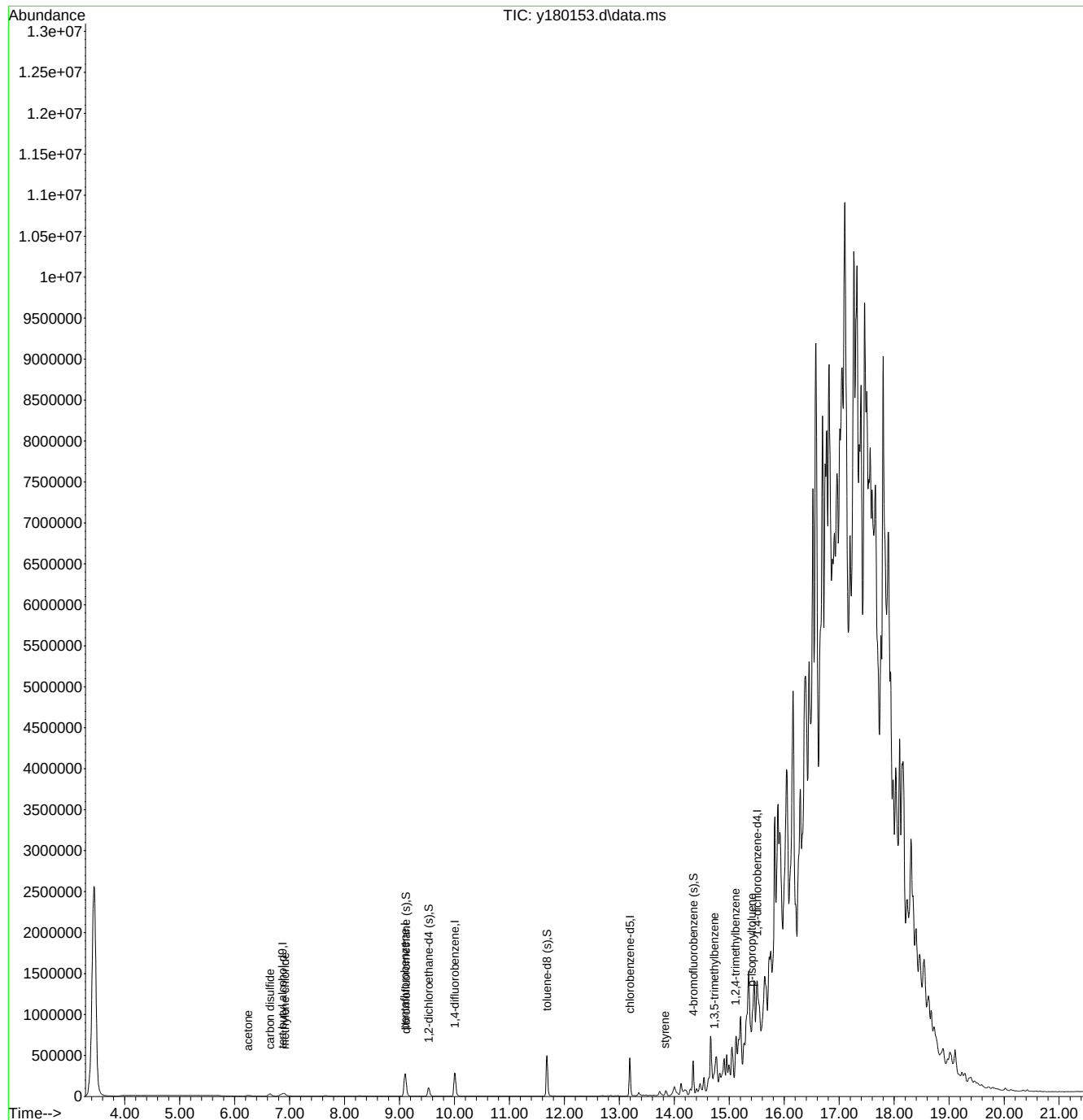
(#) = qualifier out of range (m) = manual integration (+) = signals summed

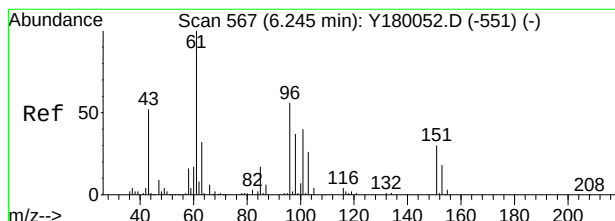
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janeliac\06-01-18\vy7792\
Data File : y180153.d
Acq On : 30 May 2018 5:14 pm
Operator : PrashanS
Sample : JC66934-1
Misc : MS26753,VY7792,5.1,,,,,1
ALS Vial : 20 Sample Multiplier: 1

Inst : MSY

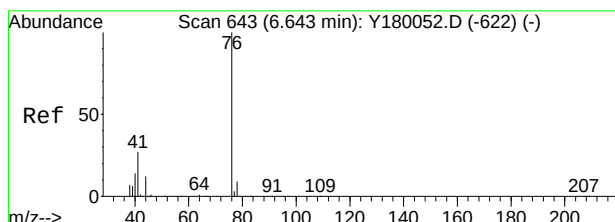
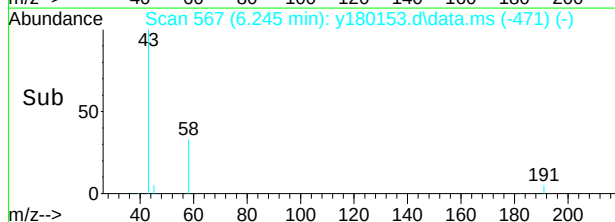
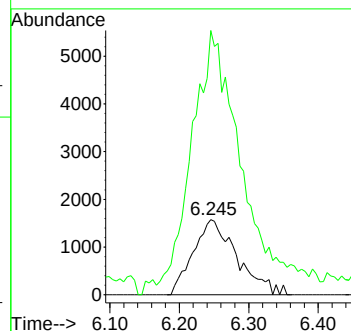
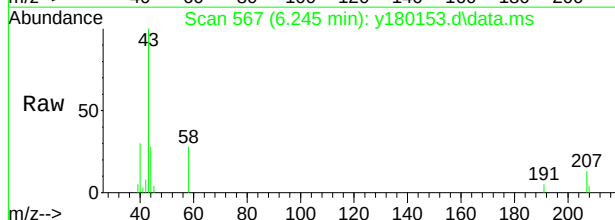
Quant Method : C:\MSDCHEM\1\METHODS\MYS7788.M
Quant Results File: MYS7788.RES
Quant Time: May 31 11:55:29 2018
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um
QLast Update : Tue May 29 11:30:55 2018
Response via : Initial Calibration





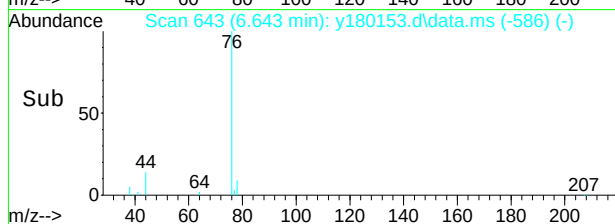
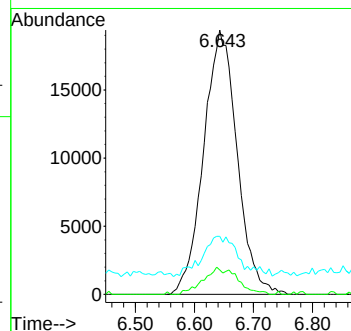
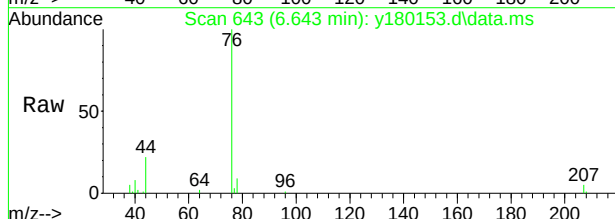
#22
acetone
Concen: 42.21 ug/L
RT: 6.245 min Scan# 567
Delta R.T. -0.000 min
Lab File: y180153.d
Acq: 30 May 2018 5:14 pm

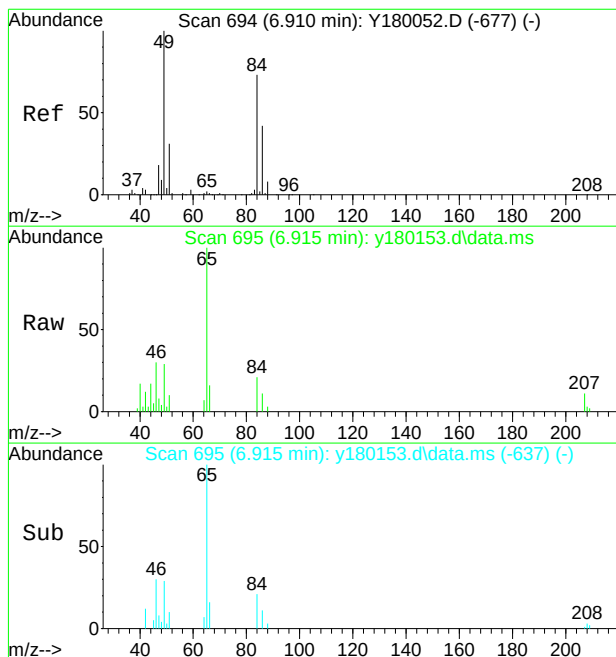
Tgt Ion: 58 Resp: 6947
Ion Ratio Lower Upper
58 100
43 320.1 300.2 360.2



#25
carbon disulfide
Concen: 11.64 ug/L
RT: 6.643 min Scan# 643
Delta R.T. -0.000 min
Lab File: y180153.d
Acq: 30 May 2018 5:14 pm

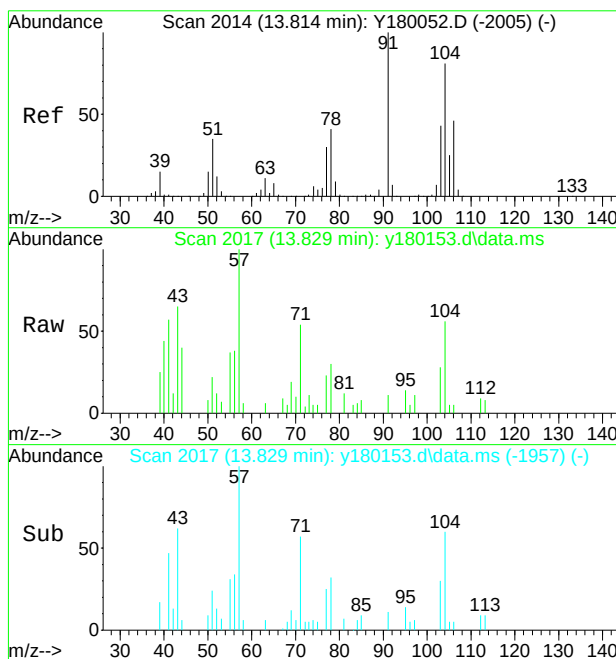
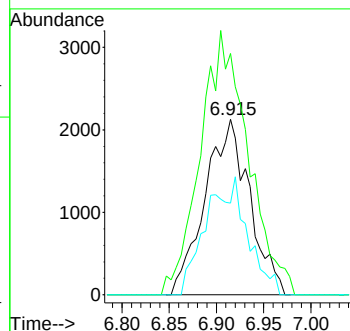
Tgt Ion: 76 Resp: 76498
Ion Ratio Lower Upper
76 100
78 9.2 0.0 39.1
44 14.7 0.0 42.2





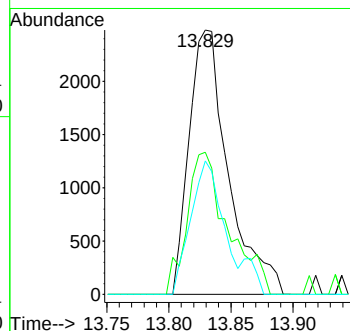
#26
methylene chloride
Concen: 2.87 ug/L
RT: 6.915 min Scan# 695
Delta R.T. 0.005 min
Lab File: y180153.d
Acq: 30 May 2018 5:14 pm

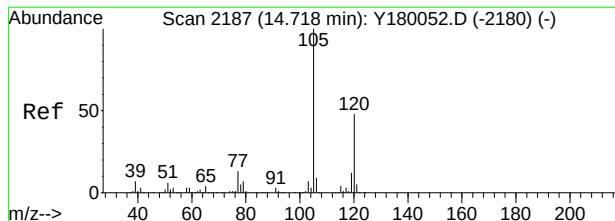
Tgt Ion:	84	Resp:	6985
Ion	Ratio	Lower	Upper
84	100		
49	127.2	107.2	167.2
86	52.2	28.1	88.1



#94
styrene
Concen: 0.84 ug/L
RT: 13.829 min Scan# 2017
Delta R.T. 0.016 min
Lab File: y180153.d
Acq: 30 May 2018 5:14 pm

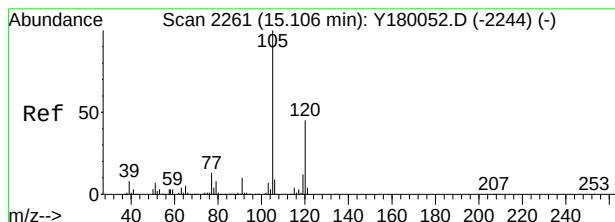
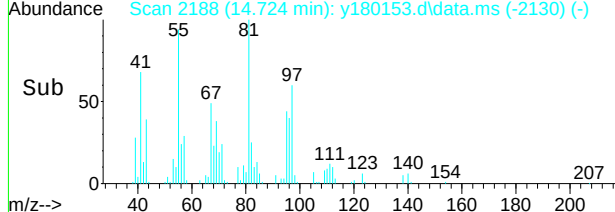
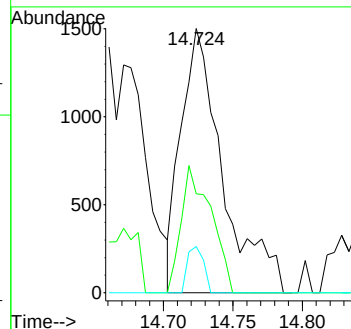
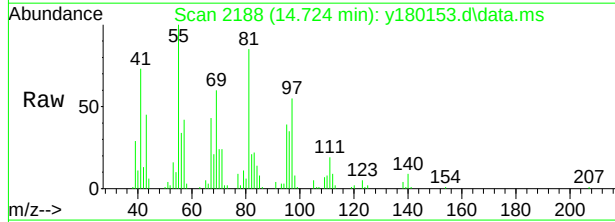
Tgt Ion:	104	Resp:	5467
Ion	Ratio	Lower	Upper
104	100		
78	53.7	21.4	81.4
103	50.4	23.3	83.3





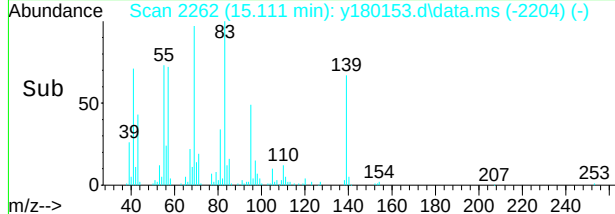
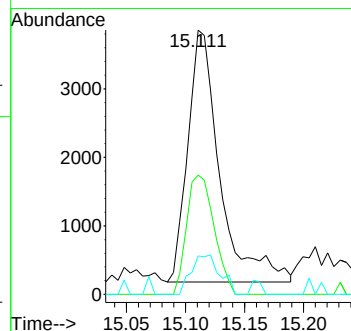
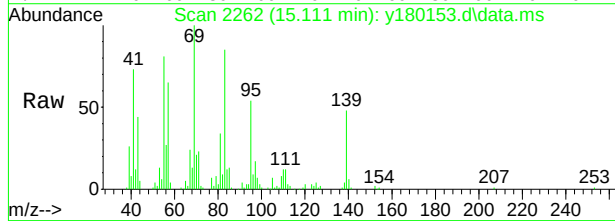
#109
1,3,5-trimethylbenzene
Concen: 0.40 ug/L
RT: 14.724 min Scan# 2188
Delta R.T. 0.005 min
Lab File: y180153.d
Acq: 30 May 2018 5:14 pm

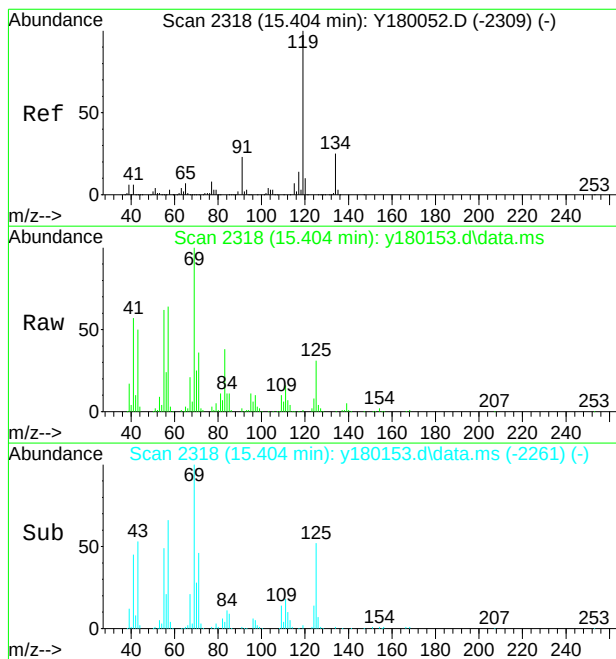
Tgt	Ion:105	Resp:	3151
Ion	Ratio	Lower	Upper
105	100		
120	37.4	18.2	78.2
119	17.5	0.0	42.2



#111
1,2,4-trimethylbenzene
Concen: 0.84 ug/L
RT: 15.111 min Scan# 2262
Delta R.T. 0.005 min
Lab File: y180153.d
Acq: 30 May 2018 5:14 pm

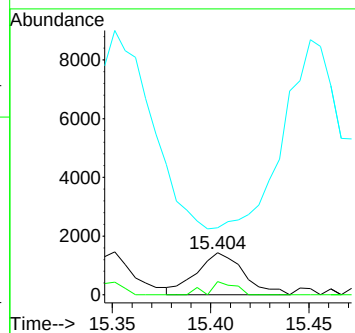
Tgt	Ion:105	Resp:	6949
Ion	Ratio	Lower	Upper
105	100		
120	47.3	15.3	75.3
119	15.2	0.0	42.1





#114
p-isopropyltoluene
Concen: 0.28 ug/L
RT: 15.404 min Scan# 2318
Delta R.T. -0.000 min
Lab File: y180153.d
Acq: 30 May 2018 5:14 pm

Tgt Ion:	119	Resp:	2387
Ion	Ratio	Lower	Upper
119	100		
134	31.6	0.0	55.1
91	0.0	0.0	53.3



Quantitation Report (QT/LSC Reviewed)

Data Path : C:\msdchem\1\data\janellac\06-01-18\vy7792\
 Data File : y180137.d
 Acq On : 30 May 2018 9:24 am
 Operator : Prashans
 Sample : MB Inst : MSY
 Misc : MS26699,VY7792,5.0,,,,,1
 ALS Vial : 4 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MYS7788.M
 Quant Results File: MYS7788.RES
 Quant Time: May 31 11:46:43 2018
 Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um
 QLast Update : Tue May 29 11:30:55 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	6.868	65	94089	500.00	ug/L	0.00
5) pentafluorobenzene	9.096	168	247006	50.00	ug/L	0.00
54) 1,4-difluorobenzene	10.006	114	396938	50.00	ug/L	0.00
76) chlorobenzene-d5	13.191	117	407495	50.00	ug/L	0.00
99) 1,4-dichlorobenzene-d4	15.503	152	173203	50.00	ug/L	0.00
System Monitoring Compounds						
47) dibromofluoromethane (s)	9.112	113	111083	49.77	ug/L	0.00
Spiked Amount 50.000	Range 72 - 129		Recovery =	99.54%		
55) 1,2-dichloroethane-d4 (s)	9.530	65	111467	47.58	ug/L	0.00
Spiked Amount 50.000	Range 73 - 132		Recovery =	95.16%		
77) toluene-d8 (s)	11.685	98	552124	48.55	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery =	97.10%		
100) 4-bromofluorobenzene (s)	14.342	95	177309	53.74	ug/L	0.00
Spiked Amount 50.000	Range 77 - 125		Recovery =	107.48%		
Target Compounds						
26) methylene chloride	6.899	84	1365	0.44	ug/L #	47
124) naphthalene	17.778	128	1764	0.25	ug/L	57
125) 1,2,3-trichlorobenzene	18.008	180	491	0.14	ug/L #	80
129) 2-methylnaphthalene	18.939	142	616	2.56	ug/L #	75

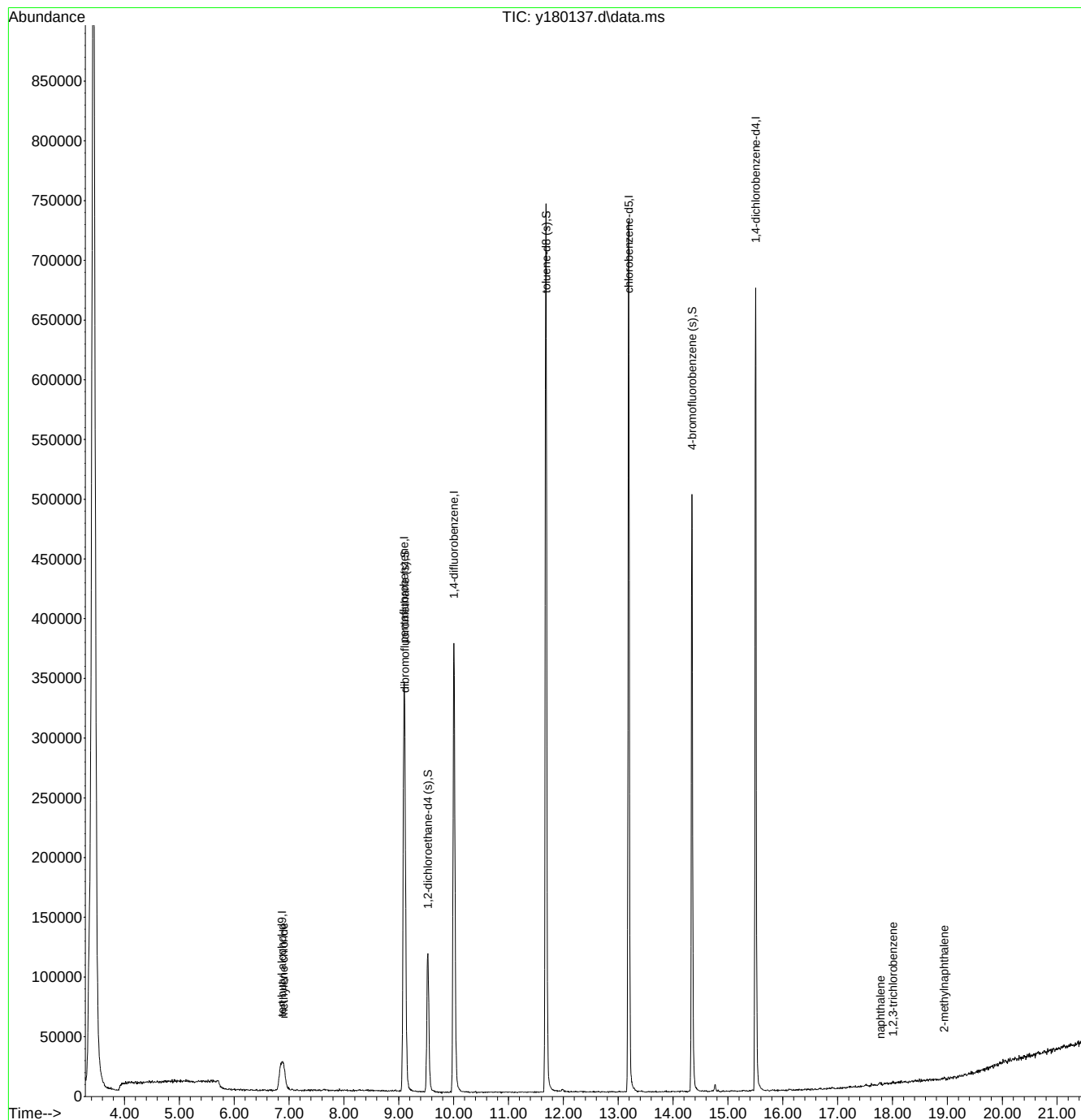
(#) = qualifier out of range (m) = manual integration (+) = signals summed

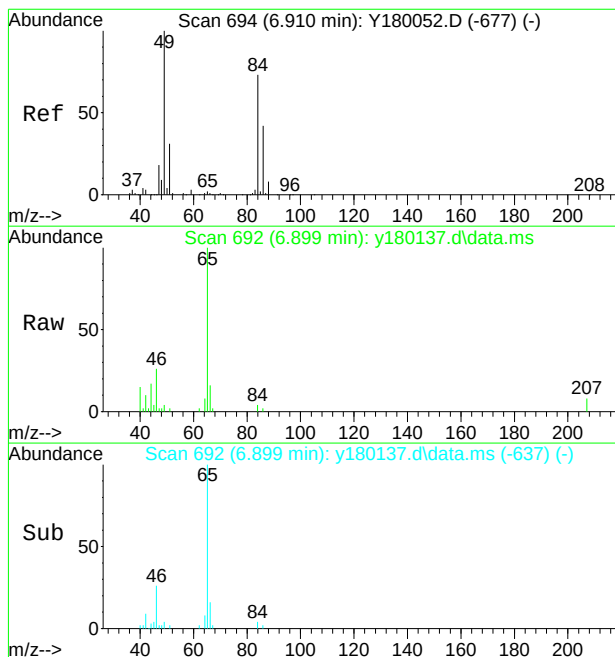
Quantitation Report (QT/LSC Reviewed)

Data Path : C:\msdchem\1\data\janelac\06-01-18\vy7792\
Data File : y180137.d
Acq On : 30 May 2018 9:24 am
Operator : PrashanS
Sample : MB
Misc : MS26699,VY7792,5.0,,,,,1
ALS Vial : 4 Sample Multiplier: 1

Inst : MSY

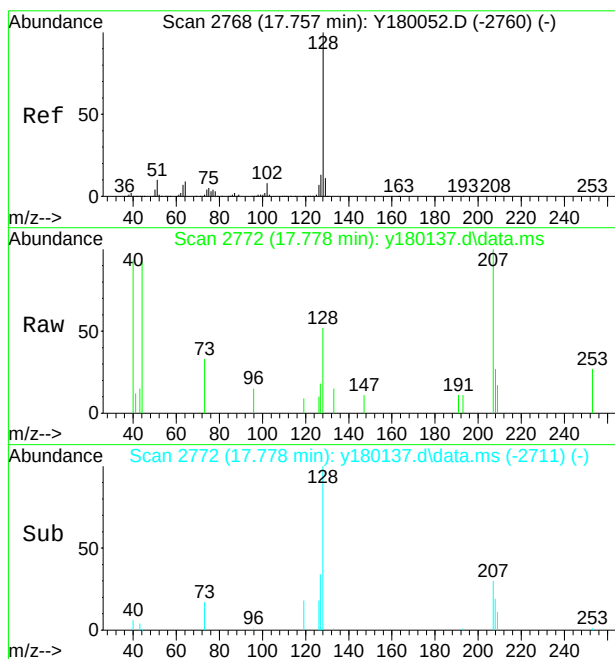
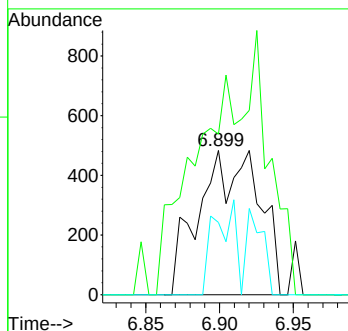
Quant Method : C:\MSDCHEM\1\METHODS\MYS7788.M
Quant Results File: MYS7788.RES
Quant Time: May 31 11:46:43 2018
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um
QLast Update : Tue May 29 11:30:55 2018
Response via : Initial Calibration





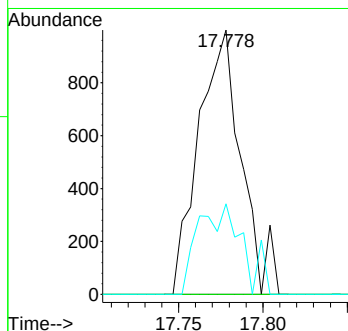
#26
methylene chloride
Concen: 0.44 ug/L
RT: 6.899 min Scan# 692
Delta R.T. -0.011 min
Lab File: y180137.d
Acq: 30 May 2018 9:24 am

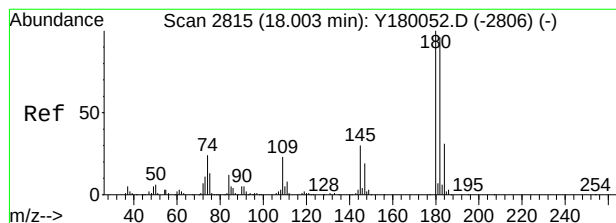
Tgt Ion	84	Resp	1365
Ratio	Lower	Upper	
84	100		
49	51.7	107.2	167.2#
86	50.0	28.1	88.1



#124
naphthalene
Concen: 0.25 ug/L
RT: 17.778 min Scan# 2772
Delta R.T. 0.021 min
Lab File: y180137.d
Acq: 30 May 2018 9:24 am

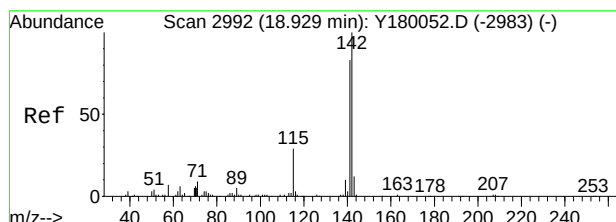
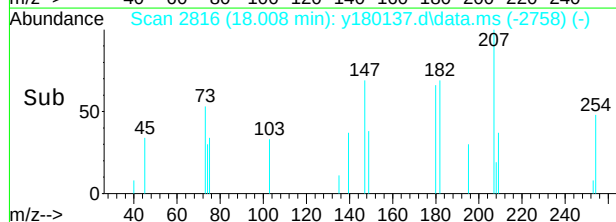
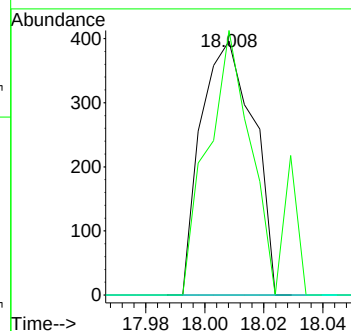
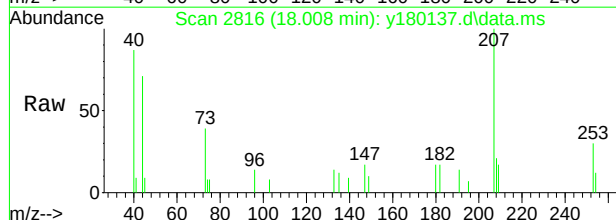
Tgt Ion	128	Resp	1764
Ratio	Lower	Upper	
128	100		
129	0.0	0.0	40.7
127	34.3	0.0	42.6





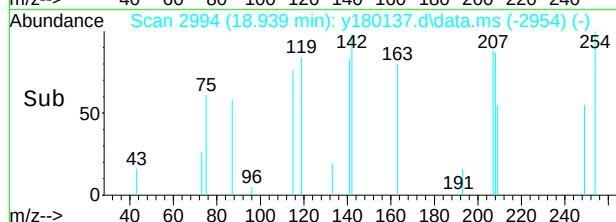
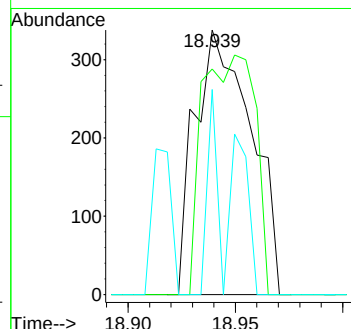
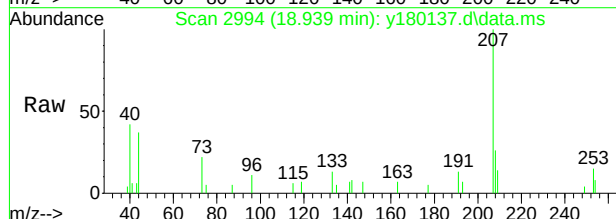
#125
1,2,3-trichlorobenzene
Concen: 0.14 ug/L
RT: 18.008 min Scan# 2816
Delta R.T. 0.005 min
Lab File: y180137.d
Acq: 30 May 2018 9:24 am

Tgt Ion	Ratio	Resp	Lower	Upper
180	100	491		
182	104.3	66.0	126.0	
184	0.0	1.4	61.4#	



#129
2-methylnaphthalene
Concen: 2.56 ug/L
RT: 18.939 min Scan# 2994
Delta R.T. 0.010 min
Lab File: y180137.d
Acq: 30 May 2018 9:24 am

Tgt Ion	Ratio	Resp	Lower	Upper
142	100	616		
141	85.2	63.0	103.0	
115	77.5	8.9	48.9#	



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\06-01-18\vy7792\
 Data File : y180135.d
 Acq On : 30 May 2018 8:05 am
 Operator : Prashans
 Sample : bs Inst : MSY
 Misc : MS26699,VY7792,5.0,,,,,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MYS7788.M
 Quant Results File: MYS7788.RES
 Quant Time: May 31 11:46:01 2018
 Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um
 QLast Update : Tue May 29 11:30:55 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	6.878	65	116542	500.00	ug/L	0.00
5) pentafluorobenzene	9.096	168	246207	50.00	ug/L	0.00
54) 1,4-difluorobenzene	10.006	114	389501	50.00	ug/L	0.00
76) chlorobenzene-d5	13.191	117	412943	50.00	ug/L	0.00
99) 1,4-dichlorobenzene-d4	15.503	152	203741	50.00	ug/L	0.00
System Monitoring Compounds						
47) dibromofluoromethane (s)	9.112	113	114254	51.36	ug/L	0.00
Spiked Amount 50.000	Range 72 - 129		Recovery =	102.72%		
55) 1,2-dichloroethane-d4 (s)	9.525	65	115177	50.10	ug/L	0.00
Spiked Amount 50.000	Range 73 - 132		Recovery =	100.20%		
77) toluene-d8 (s)	11.680	98	518329	44.97	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery =	89.94%		
100) 4-bromofluorobenzene (s)	14.342	95	200929	51.77	ug/L	0.00
Spiked Amount 50.000	Range 77 - 125		Recovery =	103.54%		
Target Compounds						
3) tertiary butyl alcohol	6.983	59	81963	236.06	ug/L	95
4) 1,4-dioxane	10.723	88	35608	1267.31	ug/L	98
6) chlorodifluoromethane	3.777	51	238036	57.28	ug/L	98
7) dichlorodifluoromethane	3.772	85	194545	45.50	ug/L	99
8) freon 142b	4.017	65	237815	52.36	ug/L	97
10) chloromethane	4.117	50	283051	49.07	ug/L	99
11) vinyl chloride	4.326	62	238460	46.55	ug/L	99
12) 1,3-butadiene	4.352	54	222853	56.55	ug/L	99
13) bromomethane	4.912	94	144949	49.99	ug/L	98
14) chloroethane	5.058	64	127987	45.10	ug/L	97
15) vinyl bromide	5.383	106	127253	48.45	ug/L	96
16) trichlorofluoromethane	5.503	101	199841	45.95	ug/L	89
17) ethyl ether	5.853	74	65081	46.15	ug/L	95
18) 2-chloropropane	6.021	63	55673	49.18	ug/L	97
19) acrolein	6.042	56	24017	51.21	ug/L	98
20) freon 113	6.256	151	91610	46.05	ug/L	94
21) 1,1-dichloroethene	6.246	61	209512	47.43	ug/L	98
22) acetone	6.240	58	38530	182.38	ug/L	96
23) acetonitrile	6.643	41	177093	515.15	ug/L	96
24) iodomethane	6.502	142	186062	50.09	ug/L	99
25) carbon disulfide	6.643	76	411838	48.83	ug/L	99
26) methylene chloride	6.910	84	144488	46.26	ug/L	90
27) methyl acetate	6.721	43	86399	56.80	ug/L	99
28) methyl tert butyl ether	7.281	73	399585	46.12	ug/L	98
29) trans-1,2-dichloroethene	7.302	61	198795	48.37	ug/L	98
30) hexane	7.647	57	175375	38.61	ug/L	99
31) di-isopropyl ether	7.877	45	552633	48.27	ug/L	100
32) ethyl tert-butyl ether	8.332	59	478327	48.68	ug/L	99
33) 2-butanone	8.505	72	48515	219.32	ug/L	97
34) 1,1-dichloroethane	7.836	63	250468	48.79	ug/L	97
35) chloroprene	7.961	53	191568	45.13	ug/L	98
36) acrylonitrile	7.192	53	41859	47.90	ug/L	98
37) vinyl acetate	7.841	86	17736	46.38	ug/L #	84
38) ethyl acetate	8.568	45	19288	46.78	ug/L #	72
39) 2,2-dichloropropane	8.589	77	217833	51.70	ug/L	97
40) cis-1,2-dichloroethene	8.563	96	142449	48.14	ug/L	98
41) propionitrile	8.563	54	180400	498.93	ug/L	99
42) bromochloromethane	8.861	130	81027	50.27	ug/L	96
43) tetrahydrofuran	8.923	72	14518	48.25	ug/L	85

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\06-01-18\vy7792\
 Data File : y180135.d
 Acq On : 30 May 2018 8:05 am
 Operator : Prashans
 Sample : bs Inst : MSY
 Misc : MS26699,VY7792,5.0,,,,,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MYS7788.M
 Quant Results File: MYS7788.RES
 Quant Time: May 31 11:46:01 2018
 Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um
 QLast Update : Tue May 29 11:30:55 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) chloroform	8.918	83	228552	44.86	ug/L	97
46) isobutyl alcohol	9.300	41	347256	509.49	ug/L	98
48) methacrylonitrile	8.772	67	41473	50.41	ug/L	97
49) 1,1,1-trichloroethane	9.211	97	209551	46.73	ug/L	98
50) cyclohexane	9.316	84	189508	44.42	ug/L	98
51) 1,1-dichloropropene	9.389	75	170817	45.75	ug/L	98
52) tert-amyl alcohol	9.488	55	26696	240.87	ug/L #	82
53) carbon tetrachloride	9.426	117	176089	48.37	ug/L	97
56) 2,2,4-trimethylpentane	9.692	57	541104	42.73	ug/L	98
57) tert-amyl methyl ether	9.697	73	428248	48.80	ug/L	98
58) n-butyl alcohol	10.105	56	210781	2730.10	ug/L	97
59) benzene	9.640	78	549067	45.22	ug/L	99
60) heptane	9.875	57	106893	41.06	ug/L	97
61) isopropyl acetate	9.567	87	22730	52.96	ug/L	90
62) 1,2-dichloroethane	9.619	62	163796	49.14	ug/L	98
63) trichloroethene	10.362	130	127051	48.92	ug/L	99
64) ethyl acrylate	10.362	55	158637	53.63	ug/L	99
65) 2-nitropropane	11.073	41	27710	51.00	ug/L	93
66) 2-chloroethyl vinyl ether	11.146	63	383747	297.62	ug/L	99
67) methyl methacrylate	10.634	100	28089	53.85	ug/L	97
68) 1,2-dichloropropane	10.602	63	158032	48.42	ug/L	97
69) methylcyclohexane	10.623	83	236445	43.36	ug/L	98
70) dibromomethane	10.749	93	77208	46.27	ug/L	98
71) bromodichloromethane	10.890	83	189098	49.90	ug/L	99
72) epichlorohydrin	11.240	57	64990	264.36	ug/L	97
73) cis-1,3-dichloropropene	11.366	75	242652	50.55	ug/L	99
74) 4-methyl-2-pentanone	11.460	58	218381	215.76	ug/L	98
75) 3-methyl-1-butanol	11.481	70	80576	940.61	ug/L	95
78) toluene	11.753	92	356990	41.67	ug/L	98
79) trans-1,3-dichloropropene	11.926	75	221546	43.75	ug/L	98
80) ethyl methacrylate	11.952	69	181670	45.87	ug/L	99
81) 1,1,2-trichloroethane	12.135	83	105253	42.44	ug/L	95
82) 2-hexanone	12.323	58	220099	190.94	ug/L	96
83) tetrachloroethene	12.360	166	135576	39.78	ug/L	99
84) 1,3-dichloropropane	12.318	76	209316	46.08	ug/L	100
85) butyl acetate	12.428	56	98020	44.30	ug/L	91
86) dibromochloromethane	12.585	129	143102	45.71	ug/L	100
87) 1,2-dibromoethane	12.736	107	129067	46.38	ug/L	98
88) n-butyl ether	13.186	57	808362	45.82	ug/L	99
89) chlorobenzene	13.223	112	417251	46.73	ug/L	99
90) 1,1,1,2-tetrachloroethane	13.275	131	144195	43.51	ug/L	99
91) ethylbenzene	13.291	91	734903	45.10	ug/L	99
92) m,p-xylene	13.400	106	556504	91.34	ug/L	100
93) o-xylene	13.814	91	606761	44.39	ug/L	99
94) styrene	13.819	104	475978	46.82	ug/L	98
95) bromoform	14.049	173	92596	50.78	ug/L	92
96) butyl acrylate	13.646	55	300175	45.70	ug/L	100
97) isopropylbenzene	14.159	105	698456	43.65	ug/L	100
98) cis-1,4-dichloro-2-butene	14.190	88	56816	51.96	ug/L	98
101) bromobenzene	14.535	156	178049	49.51	ug/L	95
102) 1,1,2,2-tetrachloroethane	14.420	83	173437	45.03	ug/L	100
103) trans-1,4-dichloro-2-b...	14.467	53	40163	47.77	ug/L	95
104) 1,2,3-trichloropropane	14.494	110	37500	49.27	ug/L	97
105) n-propylbenzene	14.567	91	874252	47.17	ug/L	100
107) 2-chlorotoluene	14.703	126	176395	49.33	ug/L	95
108) 4-chlorotoluene	14.797	91	534960	48.31	ug/L	99
109) 1,3,5-trimethylbenzene	14.724	105	621874	47.32	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\06-01-18\vy7792\
 Data File : y180135.d
 Acq On : 30 May 2018 8:05 am
 Operator : Prashans
 Sample : bs Inst : MSY
 Misc : MS26699,VY7792,5.0,,,,,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MYS7788.M
 Quant Results File: MYS7788.RES
 Quant Time: May 31 11:46:01 2018
 Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um
 QLast Update : Tue May 29 11:30:55 2018
 Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
110)	tert-butylbenzene	15.064	134	103086	46.07	ug/L	98
111)	1,2,4-trimethylbenzene	15.111	105	627711	45.78	ug/L	100
112)	sec-butylbenzene	15.278	105	779840	46.22	ug/L	99
113)	1,3-dichlorobenzene	15.446	146	329976	46.00	ug/L	99
114)	p-isopropyltoluene	15.404	119	655181	46.71	ug/L	99
115)	1,4-dichlorobenzene	15.529	146	331694	45.85	ug/L	99
116)	1,2-dichlorobenzene	15.911	146	316637	46.52	ug/L	99
118)	n-butylbenzene	15.812	92	357190	45.28	ug/L	97
120)	1,2-dibromo-3-chloropr...	16.659	157	29868	48.65	ug/L	97
121)	1,3,5-trichlorobenzene	16.884	180	298671	47.06	ug/L	98
122)	1,2,4-trichlorobenzene	17.501	180	235105	49.33	ug/L	100
123)	hexachlorobutadiene	17.642	225	148014	44.28	ug/L	98
124)	naphthalene	17.763	128	390980	47.30	ug/L	99
125)	1,2,3-trichlorobenzene	18.003	180	201337	49.30	ug/L	97
126)	hexachloroethane	16.193	201	101190	48.66	ug/L	95
127)	benzyl chloride	15.812	91	648438	44.70	ug/L	99
128)	2-ethylhexyl acrylate	17.511	70	27698	6.58	ug/L	95
129)	2-methylnaphthalene	18.929	142	70268	19.09	ug/L	90

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\06-01-18\vy7792\
 Data File : y180144.d
 Acq On : 30 May 2018 12:56 pm
 Operator : Prashans
 Sample : JC66826-7MS Inst : MSY
 Misc : MS26699,VY7792,5.7,,,,,1
 ALS Vial : 11 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MYS7788.M
 Quant Results File: MYS7788.RES
 Quant Time: May 31 11:53:26 2018
 Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um
 QLast Update : Tue May 29 11:30:55 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	6.878	65	113069	500.00	ug/L	0.00
5) pentafluorobenzene	9.096	168	237441	50.00	ug/L	0.00
54) 1,4-difluorobenzene	10.001	114	379444	50.00	ug/L	0.00
76) chlorobenzene-d5	13.186	117	390886	50.00	ug/L	0.00
99) 1,4-dichlorobenzene-d4	15.503	152	198176	50.00	ug/L	0.00
System Monitoring Compounds						
47) dibromofluoromethane (s)	9.112	113	113059	52.70	ug/L	0.00
Spiked Amount	50.000	Range	72 - 129	Recovery	=	105.40%
55) 1,2-dichloroethane-d4 (s)	9.525	65	112638	50.30	ug/L	0.00
Spiked Amount	50.000	Range	73 - 132	Recovery	=	100.60%
77) toluene-d8 (s)	11.680	98	507483	46.52	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	93.04%
100) 4-bromofluorobenzene (s)	14.342	95	191578	50.75	ug/L	0.00
Spiked Amount	50.000	Range	77 - 125	Recovery	=	101.50%
Target Compounds						
3) tertiary butyl alcohol	6.983	59	86517	256.83	ug/L	95
4) 1,4-dioxane	10.723	88	35758	1311.73	ug/L	100
6) chlorodifluoromethane	3.777	51	246177	61.42	ug/L	99
7) dichlorodifluoromethane	3.766	85	238117	57.75	ug/L	98
8) freon 142b	4.012	65	215359	49.17	ug/L	97
10) chloromethane	4.112	50	310632	55.84	ug/L	98
11) vinyl chloride	4.326	62	256124	51.84	ug/L	99
12) 1,3-butadiene	4.352	54	184362	48.51	ug/L	99
13) bromomethane	4.912	94	156473	55.96	ug/L	96
14) chloroethane	5.048	64	137357	50.19	ug/L	98
15) vinyl bromide	5.362	106	135419	53.46	ug/L	98
16) trichlorofluoromethane	5.477	101	216981	51.73	ug/L	95
17) ethyl ether	5.838	74	64773	47.62	ug/L	93
18) 2-chloropropane	6.026	63	56809	52.04	ug/L	99
19) acrolein	6.036	56	13021	28.79	ug/L	97
20) freon 113	6.261	151	93025	48.49	ug/L	95
21) 1,1-dichloroethene	6.245	61	205490	48.24	ug/L	97
22) acetone	6.235	58	38307	188.02	ug/L	93
23) acetonitrile	6.632	41	156643	472.49	ug/L	98
24) iodomethane	6.497	142	181717	50.73	ug/L	99
25) carbon disulfide	6.643	76	388416	47.75	ug/L	98
26) methylene chloride	6.910	84	151437	50.27	ug/L	90
27) methyl acetate	6.711	43	242894	165.57	ug/L	98
28) methyl tert butyl ether	7.276	73	403441	48.28	ug/L	98
29) trans-1,2-dichloroethene	7.302	61	193392	48.79	ug/L	97
30) hexane	7.647	57	112625	25.71	ug/L	98
31) di-isopropyl ether	7.872	45	557282	50.48	ug/L	91
32) ethyl tert-butyl ether	8.332	59	485025	51.18	ug/L	99
33) 2-butanone	8.500	72	45783	214.61	ug/L #	84
34) 1,1-dichloroethane	7.835	63	246586	49.81	ug/L	98
35) chloroprene	7.961	53	180025	43.98	ug/L	97
36) acrylonitrile	7.182	53	35731	42.40	ug/L	97
37) vinyl acetate	7.841	86	2084	5.65	ug/L #	1
38) ethyl acetate	8.568	45	12351	29.14	ug/L #	1
39) 2,2-dichloropropane	8.589	77	186812	45.98	ug/L	97
40) cis-1,2-dichloroethene	8.557	96	138621	48.58	ug/L	93
41) propionitrile	8.557	54	157252	450.97	ug/L	99
42) bromochloromethane	8.855	130	77908	50.12	ug/L	97
43) tetrahydrofuran	8.918	72	14075	48.50	ug/L	84

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\06-01-18\vy7792\
 Data File : y180144.d
 Acq On : 30 May 2018 12:56 pm
 Operator : Prashans
 Sample : JC66826-7MS Inst : MSY
 Misc : MS26699,VY7792,5.7,,,,,1
 ALS Vial : 11 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MYS7788.M
 Quant Results File: MYS7788.RES
 Quant Time: May 31 11:53:26 2018
 Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um
 QLast Update : Tue May 29 11:30:55 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) chloroform	8.918	83	224413	45.67	ug/L	97
46) isobutyl alcohol	9.295	41	337309	513.17	ug/L	97
48) methacrylonitrile	8.772	67	36263	45.70	ug/L	89
49) 1,1,1-trichloroethane	9.206	97	209761	48.51	ug/L	96
50) cyclohexane	9.310	84	187611	45.60	ug/L	99
51) 1,1-dichloropropene	9.384	75	154096	42.80	ug/L	98
52) tert-amyl alcohol	9.488	55	27633	258.53	ug/L	91
53) carbon tetrachloride	9.431	117	177809	50.65	ug/L	97
56) 2,2,4-trimethylpentane	9.692	57	322062	26.11	ug/L	85
57) tert-amyl methyl ether	9.697	73	426542	49.89	ug/L	97
58) n-butyl alcohol	10.105	56	204433	2718.06	ug/L	97
59) benzene	9.635	78	528570	44.69	ug/L	99
60) heptane	9.875	57	43825	17.28	ug/L	95
61) isopropyl acetate	9.572	87	12256	29.31	ug/L	87
62) 1,2-dichloroethane	9.614	62	163096	50.22	ug/L	98
63) trichloroethene	10.362	130	117652	46.51	ug/L	97
64) ethyl acrylate	10.362	55	55023	19.09	ug/L	97
65) 2-nitropropane	11.073	41	26221	49.53	ug/L	99
66) 2-chloroethyl vinyl ether	11.141	63	362429	288.54	ug/L	97
67) methyl methacrylate	10.634	100	34939	68.76	ug/L #	70
68) 1,2-dichloropropane	10.597	63	153808	48.38	ug/L	100
69) methylcyclohexane	10.618	83	210152	39.56	ug/L	96
70) dibromomethane	10.749	93	75131	46.22	ug/L	97
71) bromodichloromethane	10.885	83	185948	50.37	ug/L	98
72) epichlorohydrin	11.235	57	55745	232.77	ug/L	96
73) cis-1,3-dichloropropene	11.361	75	228223	48.80	ug/L	98
74) 4-methyl-2-pentanone	11.455	58	214528	217.57	ug/L	99
75) 3-methyl-1-butanol	11.476	70	78030	935.03	ug/L	98
78) toluene	11.753	92	326797	40.30	ug/L	99
79) trans-1,3-dichloropropene	11.920	75	205725	42.92	ug/L	99
80) ethyl methacrylate	11.952	69	106917	28.52	ug/L	99
81) 1,1,2-trichloroethane	12.129	83	101531	43.25	ug/L	96
82) 2-hexanone	12.318	58	213483	195.65	ug/L	96
83) tetrachloroethene	12.360	166	122438	37.95	ug/L	96
84) 1,3-dichloropropane	12.318	76	201358	46.83	ug/L	99
85) butyl acetate	12.428	56	27825	13.28	ug/L	89
86) dibromochloromethane	12.585	129	136357	46.02	ug/L	97
87) 1,2-dibromoethane	12.731	107	124282	47.18	ug/L	98
88) n-butyl ether	13.186	57	750056	44.91	ug/L	99
89) chlorobenzene	13.217	112	379428	44.89	ug/L	100
90) 1,1,1,2-tetrachloroethane	13.275	131	138656	44.20	ug/L	98
91) ethylbenzene	13.291	91	660907	42.85	ug/L	99
92) m,p-xylene	13.400	106	490296	85.01	ug/L	98
93) o-xylene	13.808	91	561091	43.37	ug/L	99
94) styrene	13.814	104	420462	43.70	ug/L	99
95) bromoform	14.049	173	87935	50.95	ug/L	93
96) butyl acrylate	13.646	55	89503	14.40	ug/L	98
97) isopropylbenzene	14.159	105	632182	41.73	ug/L	100
98) cis-1,4-dichloro-2-butene	14.190	88	48152	46.52	ug/L	96
101) bromobenzene	14.530	156	161113	46.05	ug/L	98
102) 1,1,2,2-tetrachloroethane	14.415	83	170234	45.43	ug/L	98
103) trans-1,4-dichloro-2-b...	14.467	53	36894	45.12	ug/L	93
104) 1,2,3-trichloropropane	14.494	110	37675	50.89	ug/L	98
105) n-propylbenzene	14.567	91	752738	41.76	ug/L	99
107) 2-chlorotoluene	14.698	126	155136	44.60	ug/L	99
108) 4-chlorotoluene	14.797	91	461726	42.87	ug/L	99
109) 1,3,5-trimethylbenzene	14.718	105	548133	42.88	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\06-01-18\vy7792\
 Data File : y180144.d
 Acq On : 30 May 2018 12:56 pm
 Operator : Prashans
 Sample : JC66826-7MS Inst : MSY
 Misc : MS26699,VY7792,5.7,,,,,1
 ALS Vial : 11 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MYS7788.M
 Quant Results File: MYS7788.RES
 Quant Time: May 31 11:53:26 2018
 Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um
 QLast Update : Tue May 29 11:30:55 2018
 Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
110)	tert-butylbenzene	15.064	134	90810	41.73	ug/L	93
111)	1,2,4-trimethylbenzene	15.105	105	556784	41.75	ug/L	100
112)	sec-butylbenzene	15.278	105	649670	39.59	ug/L	99
113)	1,3-dichlorobenzene	15.445	146	289535	41.50	ug/L	99
114)	p-isopropyltoluene	15.404	119	521105	38.19	ug/L	99
115)	1,4-dichlorobenzene	15.529	146	287710	40.89	ug/L	99
116)	1,2-dichlorobenzene	15.911	146	282232	42.63	ug/L	100
118)	n-butylbenzene	15.812	92	264843	34.51	ug/L	98
120)	1,2-dibromo-3-chloropr...	16.659	157	29173	48.85	ug/L	93
121)	1,3,5-trichlorobenzene	16.884	180	214730	34.79	ug/L	98
122)	1,2,4-trichlorobenzene	17.501	180	168768	36.41	ug/L	99
123)	hexachlorobutadiene	17.642	225	85900	26.42	ug/L	99
124)	naphthalene	17.757	128	320672	39.88	ug/L	99
125)	1,2,3-trichlorobenzene	17.998	180	146767	36.95	ug/L	99
126)	hexachloroethane	16.193	201	87113	43.07	ug/L	95
127)	benzyl chloride	15.812	91	485466	34.41	ug/L	99
128)	2-ethylhexyl acrylate	17.511	70	9774	2.39	ug/L	95
129)	2-methylnaphthalene	18.929	142	44243	13.20	ug/L	95

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\06-01-18\vy7792\
 Data File : y180143.d
 Acq On : 30 May 2018 12:27 pm
 Operator : Prashans
 Sample : JC66826-8DUP Inst : MSY
 Misc : MS26699,VY7792,5.3,,,,,1
 ALS Vial : 10 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MYS7788.M
 Quant Results File: MYS7788.RES
 Quant Time: May 31 11:52:35 2018
 Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um
 QLast Update : Tue May 29 11:30:55 2018
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	6.862	65	105210	500.00	ug/L	-0.01
5) pentafluorobenzene	9.096	168	239077	50.00	ug/L	0.00
54) 1,4-difluorobenzene	10.006	114	380775	50.00	ug/L	0.00
76) chlorobenzene-d5	13.191	117	398331	50.00	ug/L	0.00
99) 1,4-dichlorobenzene-d4	15.503	152	176950	50.00	ug/L	0.00
System Monitoring Compounds						
47) dibromofluoromethane (s)	9.111	113	112539	52.10	ug/L	0.00
Spiked Amount	50.000	Range	72 - 129	Recovery	=	104.20%
55) 1,2-dichloroethane-d4 (s)	9.525	65	113354	50.44	ug/L	0.00
Spiked Amount	50.000	Range	73 - 132	Recovery	=	100.88%
77) toluene-d8 (s)	11.680	98	502834	45.23	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	90.46%
100) 4-bromofluorobenzene (s)	14.342	95	181021	53.70	ug/L	0.00
Spiked Amount	50.000	Range	77 - 125	Recovery	=	107.40%
Target Compounds						
22) acetone	6.251	58	3609	17.59	ug/L #	64
26) methylene chloride	6.920	84	2487	0.82	ug/L #	78

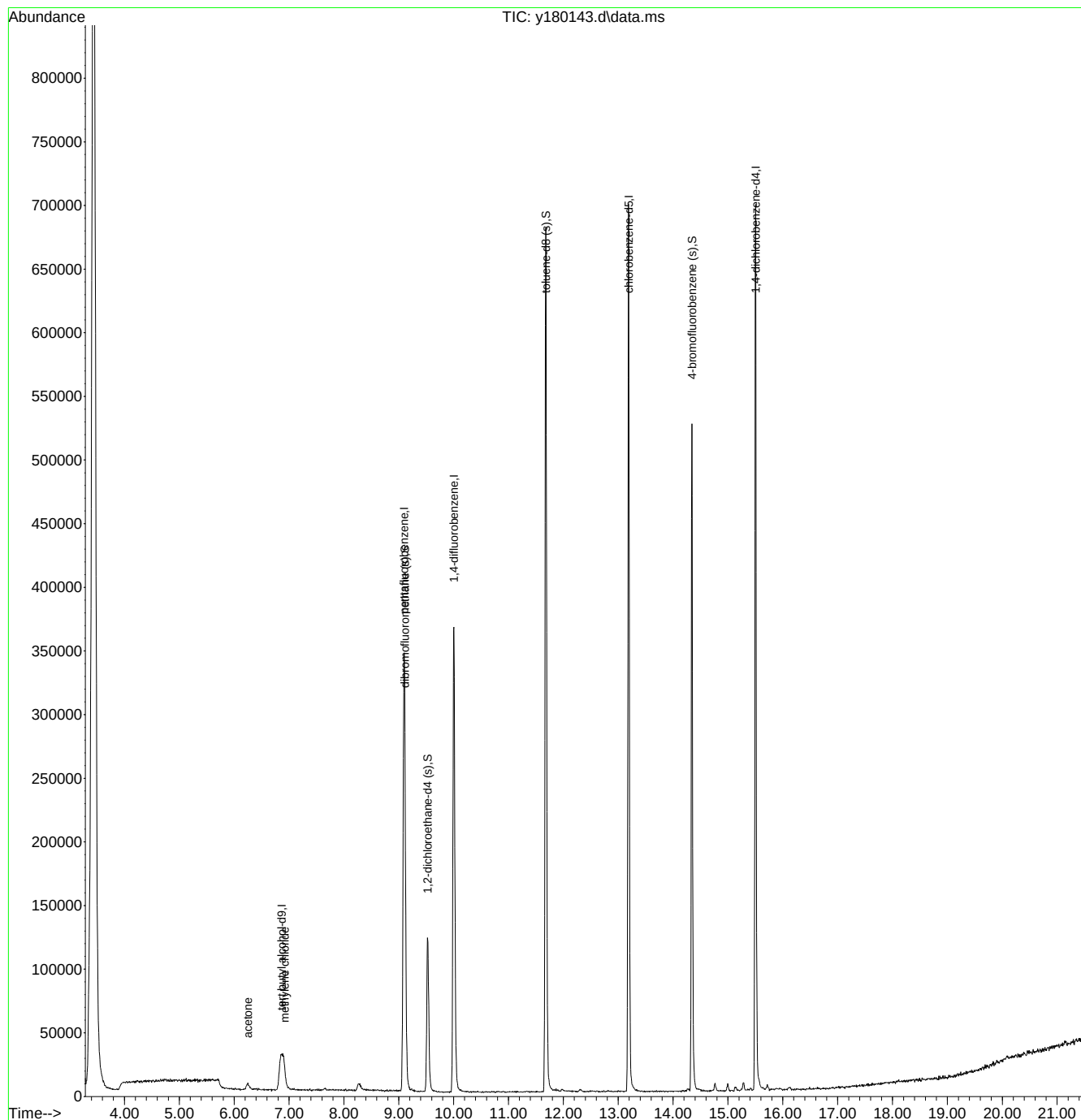
(#) = qualifier out of range (m) = manual integration (+) = signals summed

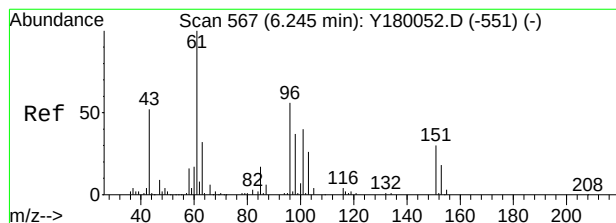
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janelac\06-01-18\vy7792\
Data File : y180143.d
Acq On : 30 May 2018 12:27 pm
Operator : PrashanS
Sample : JC66826-8DUP
Misc : MS26699,VY7792,5.3,,,,,1
ALS Vial : 10 Sample Multiplier: 1

Inst : MSY

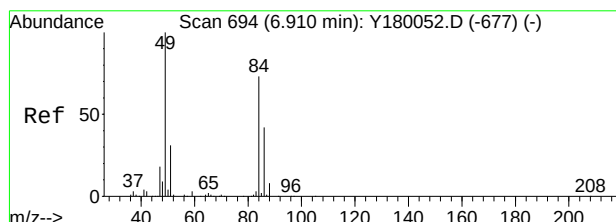
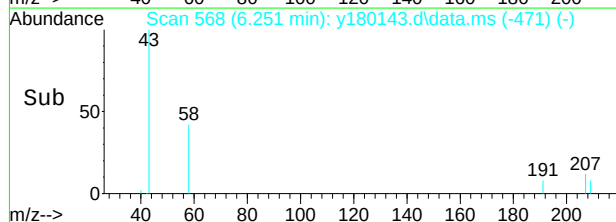
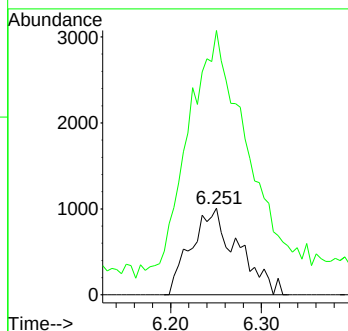
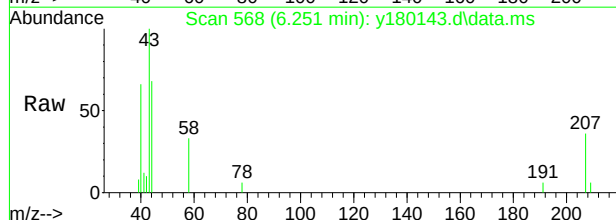
Quant Method : C:\MSDCHEM\1\METHODS\MYS7788.M
Quant Results File: MYS7788.RES
Quant Time: May 31 11:52:35 2018
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um
QLast Update : Tue May 29 11:30:55 2018
Response via : Initial Calibration





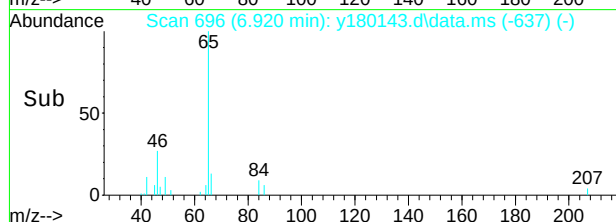
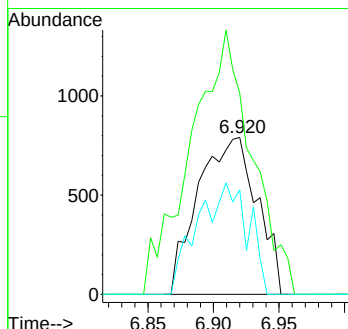
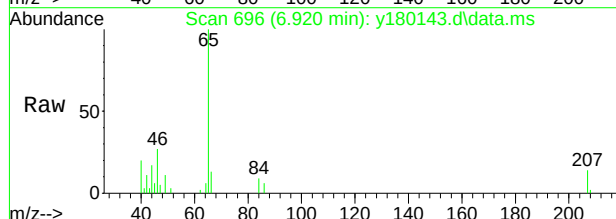
#22
acetone
Concen: 17.59 ug/L
RT: 6.251 min Scan# 568
Delta R.T. 0.005 min
Lab File: y180143.d
Acq: 30 May 2018 12:27 pm

Tgt Ion: 58 Resp: 3609
Ion Ratio Lower Upper
58 100
43 254.9 300.2 360.2#



#26
methylene chloride
Concen: 0.82 ug/L
RT: 6.920 min Scan# 696
Delta R.T. 0.010 min
Lab File: y180143.d
Acq: 30 May 2018 12:27 pm

Tgt Ion: 84 Resp: 2487
Ion Ratio Lower Upper
84 100
49 104.8 107.2 167.2#
86 66.5 28.1 88.1



SW-846 Method 8260

Data File : C:\MSDCHEM\1\DATA\VY7788\Y180045.D

Vial: 11

Acq On : 24 May 2018 9:19 pm

Operator: PrashanS

Sample : bfb

Inst : MSY

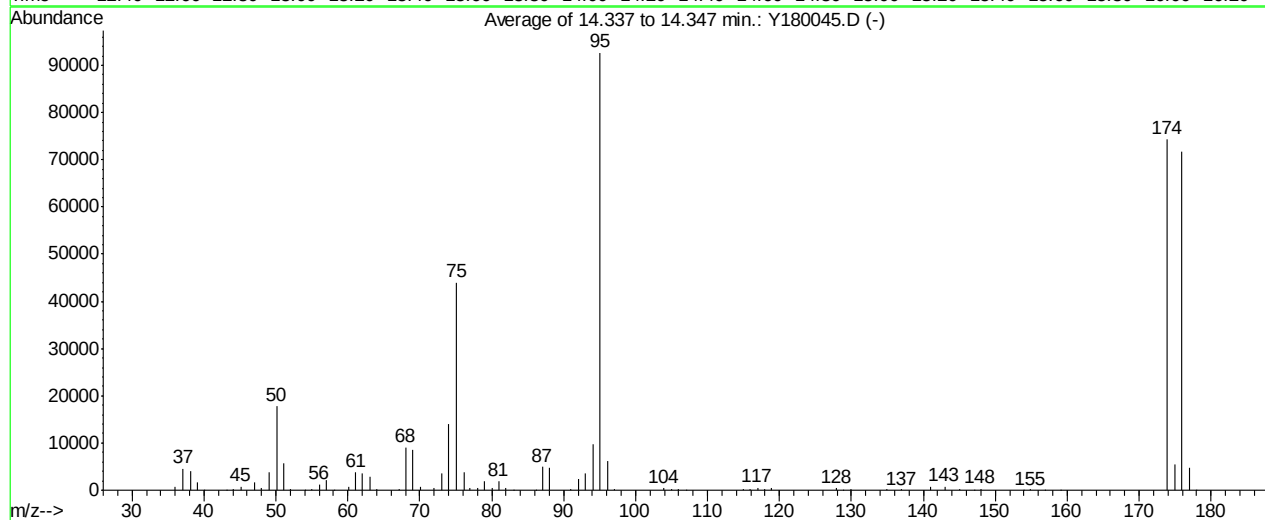
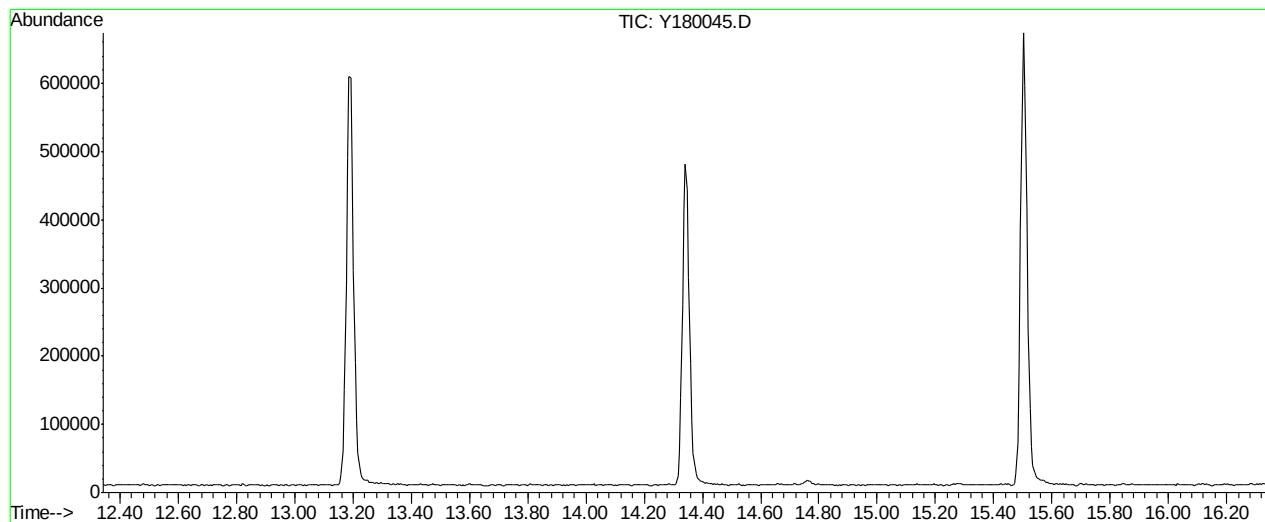
Misc : MS26438,VY7788,5.0,,,,,1

Multiplr: 1.00

MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MYS7788.M (RTE Integrator)

Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um



AutoFind: Scans 2114, 2115, 2116; Background Corrected with Scan 2104

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	19.2	17826	PASS
75	95	30	60	47.4	43941	PASS
95	95	100	100	100.0	92728	PASS
96	95	5	9	6.7	6182	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	80.2	74365	PASS
175	174	5	9	7.5	5543	PASS
176	174	95	101	96.6	71810	PASS
177	176	5	9	6.6	4749	PASS

Y180045.D MYS7788.M Tue May 29 10:49:46 2018 RPT1

Average of 14.337 to 14.347 min.: Y180045.D

bfb

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	834	50.10	17826	63.10	2789	77.00	494
37.10	4512	51.10	5788	64.05	300	78.00	496
38.10	4028	52.00	288	67.10	283	78.95	1997
39.10	1725	54.10	60	68.00	9099	80.00	586
40.00	31	55.05	174	69.05	8637	80.95	1912
43.10	27	56.00	1191	70.05	818	81.95	585
44.00	182	57.05	2257	72.00	467	83.10	48
45.10	727	58.10	124	73.10	3511	86.10	121
47.05	1703	60.10	759	74.05	14024	87.00	4969
48.00	582	61.10	3839	75.10	43941	88.00	4643
49.10	3767	62.05	3656	76.10	3796	91.05	282

Average of 14.337 to 14.347 min.: Y180045.D

bfb

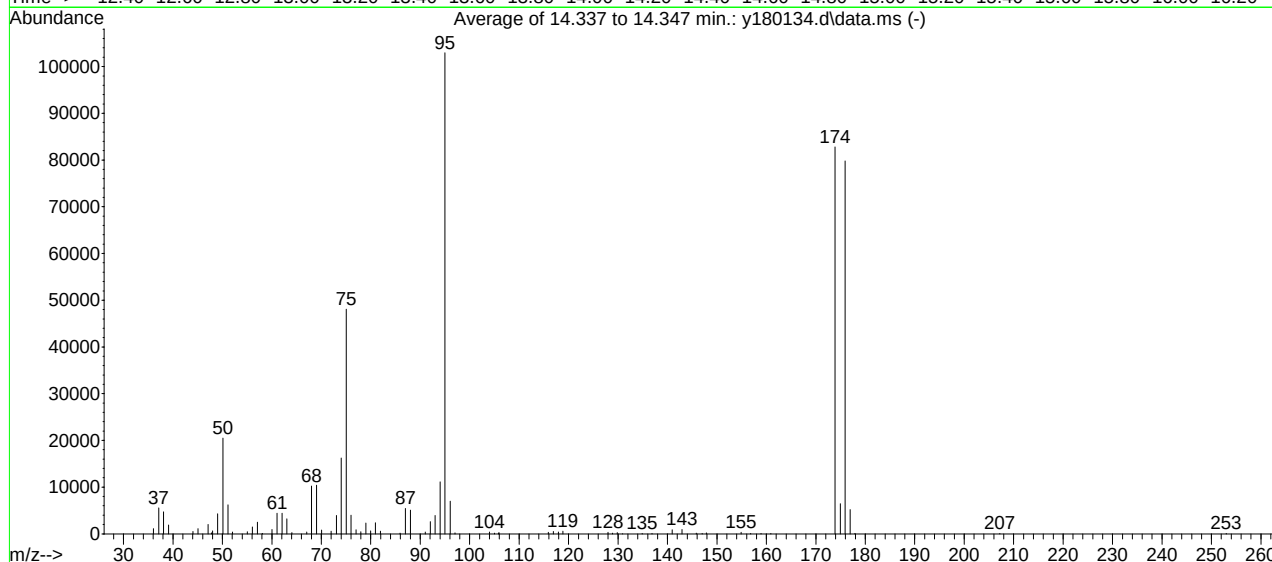
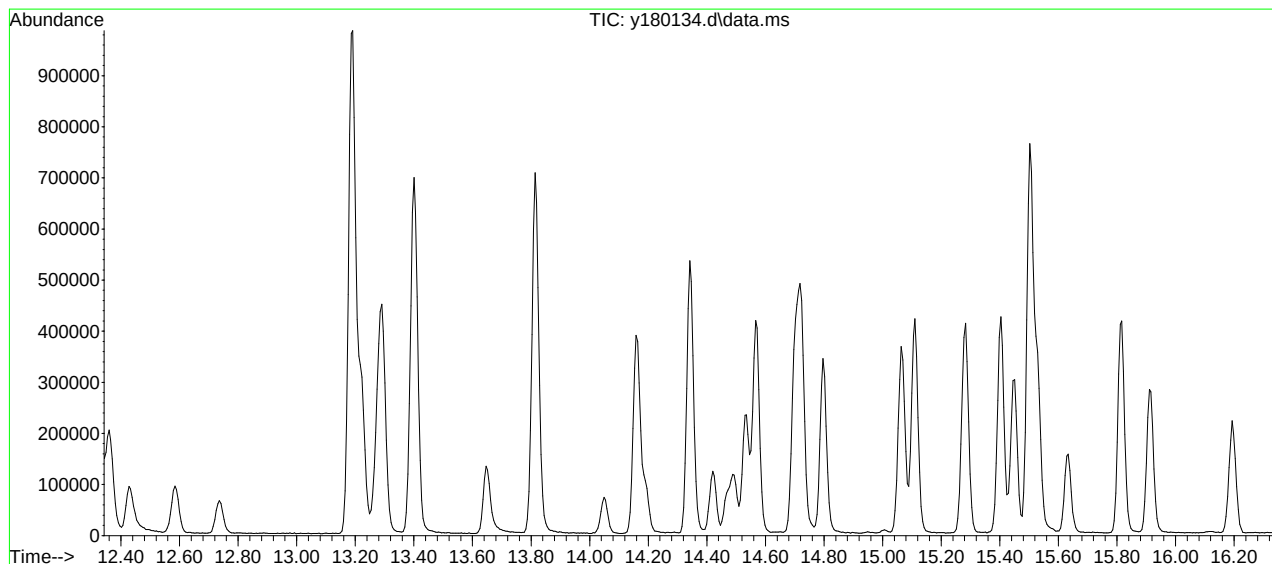
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
92.05	2427	115.95	283	145.00	133	177.90	72
93.00	3537	117.00	546	147.10	64		
94.05	9748	117.95	324	147.95	247		
95.05	92728	118.90	393	154.00	59		
96.05	6182	127.95	389	154.90	163		
97.10	142	128.90	71	156.90	80		
103.95	418	129.90	327	159.00	122		
105.00	246	134.90	203	173.90	74365		
105.95	355	136.95	211	174.95	5543		
107.00	60	140.95	704	175.90	71810		
114.95	204	142.95	759	176.95	4749		

SW-846 Method 8260

Data File : C:\msdchem\1\data\ja...1-18\vy7792\y180134.d Vial: 1
Acq On : 30 May 2018 7:34 am Operator: Prashans
Sample : bfb Inst : MSY
Misc : MS26699,VY7792,5.0,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MYS7788.M (RTE Integrator)
Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um



AutoFind: Scans 2114, 2115, 2116; Background Corrected with Scan 2106

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	19.9	20512	PASS
75	95	30	60	46.7	48088	PASS
95	95	100	100	100.0	102931	PASS
96	95	5	9	6.8	6963	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	80.4	82781	PASS
175	174	5	9	7.8	6471	PASS
176	174	95	101	96.4	79784	PASS
177	176	5	9	6.5	5208	PASS

y180134.d MYS7788.M Thu May 31 11:41:24 2018

Average of 14.337 to 14.347 min.: y180134.d\data.ms

bfb

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.05	1085	51.10	6222	67.05	383	79.00	2333
37.10	5522	52.05	379	68.00	10243	80.00	662
38.10	4683	55.05	438	69.05	10401	80.95	2354
39.10	1878	56.05	1445	70.05	821	81.95	591
44.05	532	57.10	2517	72.00	574	85.95	148
45.05	1110	58.10	68	73.05	3960	87.00	5408
47.10	1993	60.05	912	74.05	16197	88.00	5097
47.80	189	61.05	4413	75.05	48088	91.00	398
48.00	607	62.05	4406	76.00	4018	92.05	2617
49.05	4302	63.05	3211	77.00	850	93.00	3957
50.10	20512	64.05	289	78.00	445	94.05	11102

Average of 14.337 to 14.347 min.: y180134.d\data.ms

bfb

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
95.00	102931	127.95	328	154.90	334		
96.05	6963	128.90	177	156.80	67		
97.05	207	129.85	274	158.90	94		
104.00	386	130.90	63	160.90	66		
105.00	161	134.90	81	173.90	82781		
105.80	129	136.90	91	174.95	6471		
105.95	285	140.95	901	175.90	79784		
115.90	329	142.95	922	176.95	5208		
116.90	486	145.85	166	177.90	66		
117.95	366	147.00	66	207.20	68		
118.85	557	147.85	236	253.00	65		

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\VY7788\
 Data File : Y180046.D
 Acq On : 24 May 2018 10:13 pm
 Operator : PrashanS
 Sample : ic7788-0.5
 Misc : MS26438,VY7788,5.0,,,,1
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: May 29 10:52:00 2018
 Quant Method : C:\MSDCHEM\1\METHODS\MYS7788.M
 Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um
 QLast Update : Fri May 25 13:36:21 2018
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	6.88	65	100080	500.00	ug/L	0.00
5) pentafluorobenzene	9.09	168	209767	50.00	ug/L	0.00
54) 1,4-difluorobenzene	10.00	114	315768	50.00	ug/L	0.00
76) chlorobenzene-d5	13.19	117	289761	50.00	ug/L	0.00
99) 1,4-dichlorobenzene-d4	15.50	152	158207	50.00	ug/L	0.00

System Monitoring Compounds

47) dibromofluoromethane (s)	9.11	113	96916	50.53	ug/L	0.00
Spiked Amount	50.000	Range 72 - 129	Recovery	=	101.06%	
55) 1,2-dichloroethane-d4 (s)	9.52	65	95412	47.02	ug/L	0.00
Spiked Amount	50.000	Range 73 - 132	Recovery	=	94.04%	
77) toluene-d8 (s)	11.68	98	391006	47.99	ug/L	0.00
Spiked Amount	50.000	Range 80 - 120	Recovery	=	95.98%	
100) 4-bromofluorobenzene (s)	14.34	95	147860	49.71	ug/L	0.00
Spiked Amount	50.000	Range 77 - 125	Recovery	=	99.42%	

Target Compounds

						Qvalue
16) trichlorofluoromethane	5.46	101	1862	0.53	ug/L	93
21) 1,1-dichloroethene	6.25	61	2181	0.63	ug/L	94
24) iodomethane	6.51	142	1695	0.56	ug/L	78
29) trans-1,2-dichloroethene	7.30	61	1884	0.57	ug/L	91
32) ethyl tert-butyl ether	8.33	59	4709	0.58	ug/L	85
34) 1,1-dichloroethane	7.84	63	2467	0.60	ug/L	96
42) bromochloromethane	8.86	130	614	0.45	ug/L	83
51) 1,1-dichloropropene	9.38	75	1781	0.60	ug/L	82
59) benzene	9.64	78	6202	0.70	ug/L	81
62) 1,2-dichloroethane	9.61	62	1433	0.54	ug/L	60
66) 2-chloroethyl vinyl ether	11.16	63	2519	2.32	ug/L	85
68) 1,2-dichloropropane	10.60	63	1491	0.59	ug/L	98
70) dibromomethane	10.75	93	816	0.66	ug/L	85
73) cis-1,3-dichloropropene	11.37	75	2032	0.54	ug/L	98
78) toluene	11.76	92	3598	0.63	ug/L	88
79) trans-1,3-dichloropropene	11.94	75	2144	0.63	ug/L	# 68
84) 1,3-dichloropropane	12.32	76	1805	0.58	ug/L	85
86) dibromochloromethane	12.59	129	1195	0.55	ug/L	80
87) 1,2-dibromoethane	12.75	107	990	0.51	ug/L	90
89) chlorobenzene	13.22	112	3268	0.54	ug/L	94
90) 1,1,1,2-tetrachloroethane	13.27	131	1172	0.52	ug/L	91
91) ethylbenzene	13.30	91	6723	0.63	ug/L	92
92) m,p-xylene	13.41	106	5049	1.25	ug/L	94
94) styrene	13.83	104	4057	0.59	ug/L	92
95) bromoform	14.05	173	624	0.48	ug/L	95
97) isopropylbenzene	14.16	105	6438	0.62	ug/L	92
101) bromobenzene	14.54	156	1407	0.53	ug/L	91
110) tert-butylbenzene	15.07	134	913	0.55	ug/L	# 66
112) sec-butylbenzene	15.29	105	7244	0.59	ug/L	94
113) 1,3-dichlorobenzene	15.46	146	2968	0.56	ug/L	89
114) p-isopropyltoluene	15.40	119	5829	0.55	ug/L	91
115) 1,4-dichlorobenzene	15.53	146	3071	0.58	ug/L	84
116) 1,2-dichlorobenzene	15.92	146	2921	0.58	ug/L	92

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\VY7788\
Data File : Y180046.D
Acq On : 24 May 2018 10:13 pm
Operator : PrashanS
Sample : ic7788-0.5
Misc : MS26438,VY7788,5.0,,,,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: May 29 10:52:00 2018
Quant Method : C:\MSDCHEM\1\METHODS\MYS7788.M
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 25 13:36:21 2018
Response via : Initial Calibration

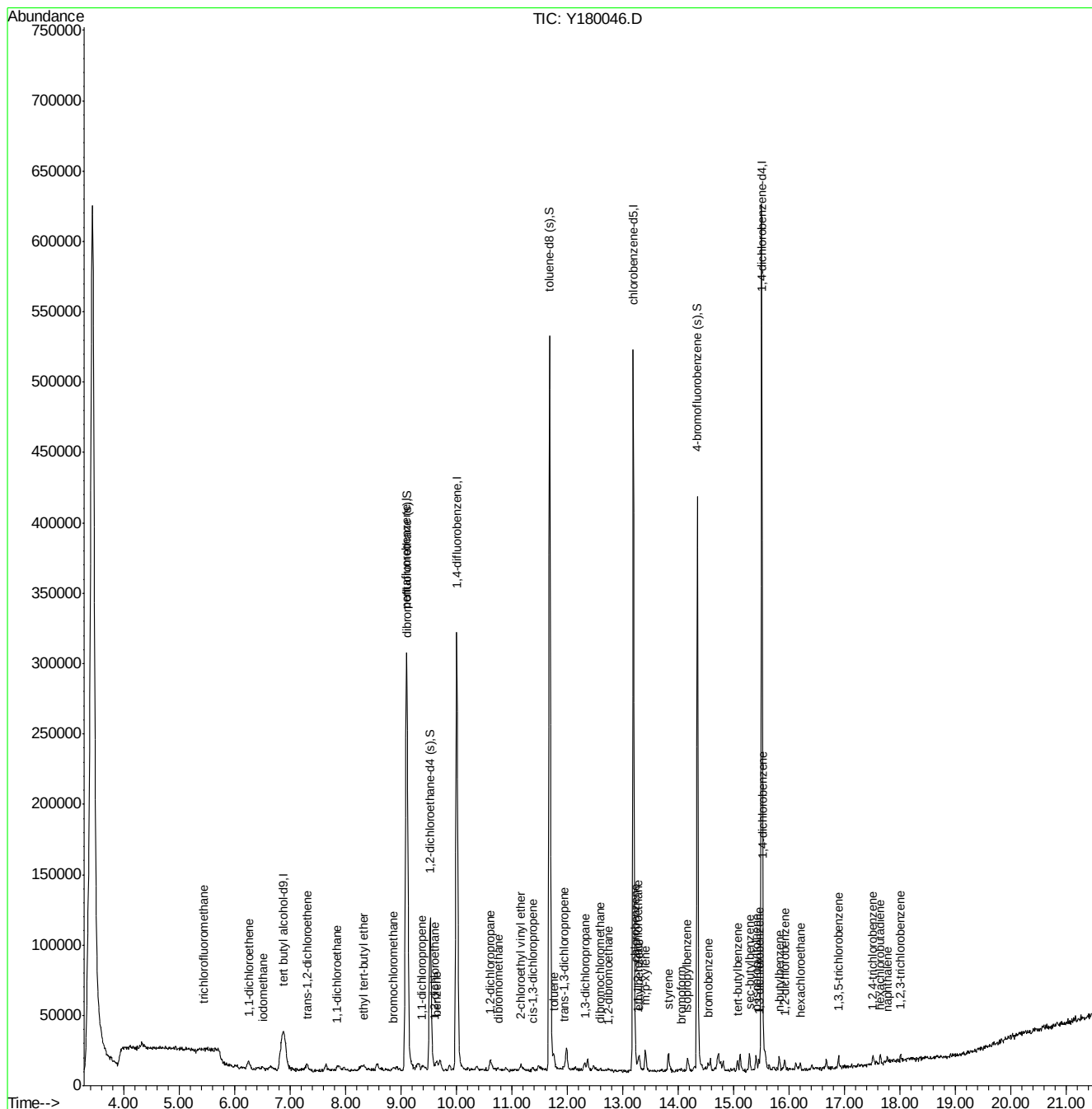
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
118) n-butylbenzene	15.82	92	3264	0.53	ug/L	83
121) 1,3,5-trichlorobenzene	16.89	180	2561	0.52	ug/L	93
122) 1,2,4-trichlorobenzene	17.51	180	1634	0.42	ug/L	82
123) hexachlorobutadiene	17.64	225	1315	0.52	ug/L	82
124) naphthalene	17.77	128	3478	0.54	ug/L	80
125) 1,2,3-trichlorobenzene	18.01	180	1501	0.46	ug/L	90
126) hexachloroethane	16.19	201	711	0.43	ug/L	95

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\VY7788\
Data File : Y180046.D
Acq On : 24 May 2018 10:13 pm
Operator : PrashanS
Sample : ic7788-0.5
Misc : MS26438,VY7788,5.0,,,,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: May 29 10:52:00 2018
Quant Method : C:\MSDCHEM\1\METHODS\MYS7788.M
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 25 13:36:21 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\VY7788\
 Data File : Y180047.D
 Acq On : 24 May 2018 10:42 pm
 Operator : PrashanS
 Sample : ic7788-1
 Misc : MS26438,VY7788,5.0,,,,1
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: May 29 10:56:21 2018
 Quant Method : C:\MSDCHEM\1\METHODS\MYS7788.M
 Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um
 QLast Update : Fri May 25 13:36:21 2018
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	6.87	65	97850	500.00	ug/L	0.00
5) pentafluorobenzene	9.10	168	201857	50.00	ug/L	0.00
54) 1,4-difluorobenzene	10.01	114	302965	50.00	ug/L	0.00
76) chlorobenzene-d5	13.19	117	286841	50.00	ug/L	0.00
99) 1,4-dichlorobenzene-d4	15.50	152	154035	50.00	ug/L	0.00

System Monitoring Compounds

47) dibromofluoromethane (s)	9.11	113	93109	50.45	ug/L	0.00
Spiked Amount	50.000	Range	72 - 129	Recovery	=	100.90%
55) 1,2-dichloroethane-d4 (s)	9.52	65	91552	47.02	ug/L	0.00
Spiked Amount	50.000	Range	73 - 132	Recovery	=	94.04%
77) toluene-d8 (s)	11.68	98	380997	47.24	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	94.48%
100) 4-bromofluorobenzene (s)	14.34	95	149035	51.46	ug/L	0.00
Spiked Amount	50.000	Range	77 - 125	Recovery	=	102.92%

Target Compounds

						Qvalue
16) trichlorofluoromethane	5.45	101	4177	1.23	ug/L	89
17) ethyl ether	5.85	74	1319	1.19	ug/L #	74
21) 1,1-dichloroethene	6.25	61	4433	1.32	ug/L	81
24) iodomethane	6.50	142	3355	1.15	ug/L	91
25) carbon disulfide	6.65	76	8393	1.30	ug/L	92
28) methyl tert butyl ether	7.28	73	9646	1.48	ug/L	91
29) trans-1,2-dichloroethene	7.30	61	3812	1.20	ug/L	97
31) di-isopropyl ether	7.88	45	11677	1.32	ug/L	80
32) ethyl tert-butyl ether	8.33	59	8724	1.11	ug/L	95
34) 1,1-dichloroethane	7.84	63	4836	1.22	ug/L	95
35) chloroprene	7.97	53	4379	1.36	ug/L	90
40) cis-1,2-dichloroethene	8.57	96	3015	1.30	ug/L	96
41) propionitrile	8.59	54	3254	10.82	ug/L	78
42) bromochloromethane	8.86	130	1488	1.13	ug/L	92
44) chloroform	8.92	83	4957	1.31	ug/L	91
45) tert-butyl formate	8.98	59	608	0.51	ug/L	87
49) 1,1,1-trichloroethane	9.21	97	4293	1.30	ug/L	85
50) cyclohexane	9.32	84	4610	1.42	ug/L #	72
51) 1,1-dichloropropene	9.39	75	3675	1.28	ug/L	96
53) carbon tetrachloride	9.44	117	3798	1.36	ug/L	90
56) 2,2,4-trimethylpentane	9.70	57	11823	1.17	ug/L	95
57) tert-amyl methyl ether	9.70	73	7987	1.19	ug/L	91
59) benzene	9.65	78	10769	1.26	ug/L	97
62) 1,2-dichloroethane	9.62	62	2714	1.06	ug/L	93
63) trichloroethene	10.37	130	2167	1.10	ug/L	80
66) 2-chloroethyl vinyl ether	11.16	63	4960	4.76	ug/L	91
68) 1,2-dichloropropane	10.61	63	2660	1.10	ug/L	90
70) dibromomethane	10.76	93	1474	1.24	ug/L	81
71) bromodichloromethane	10.88	83	3065m	1.06	ug/L	
73) cis-1,3-dichloropropene	11.37	75	4076	1.12	ug/L	85
74) 4-methyl-2-pentanone	11.47	58	3453	4.32	ug/L #	74
78) toluene	11.75	92	6047	1.07	ug/L	91
79) trans-1,3-dichloropropene	11.94	75	3673	1.09	ug/L	90

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\VY7788\
 Data File : Y180047.D
 Acq On : 24 May 2018 10:42 pm
 Operator : PrashanS
 Sample : ic7788-1
 Misc : MS26438,VY7788,5.0,,,,1
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: May 29 10:56:21 2018
 Quant Method : C:\MSDCHEM\1\METHODS\MYS7788.M
 Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um
 QLast Update : Fri May 25 13:36:21 2018
 Response via : Initial Calibration

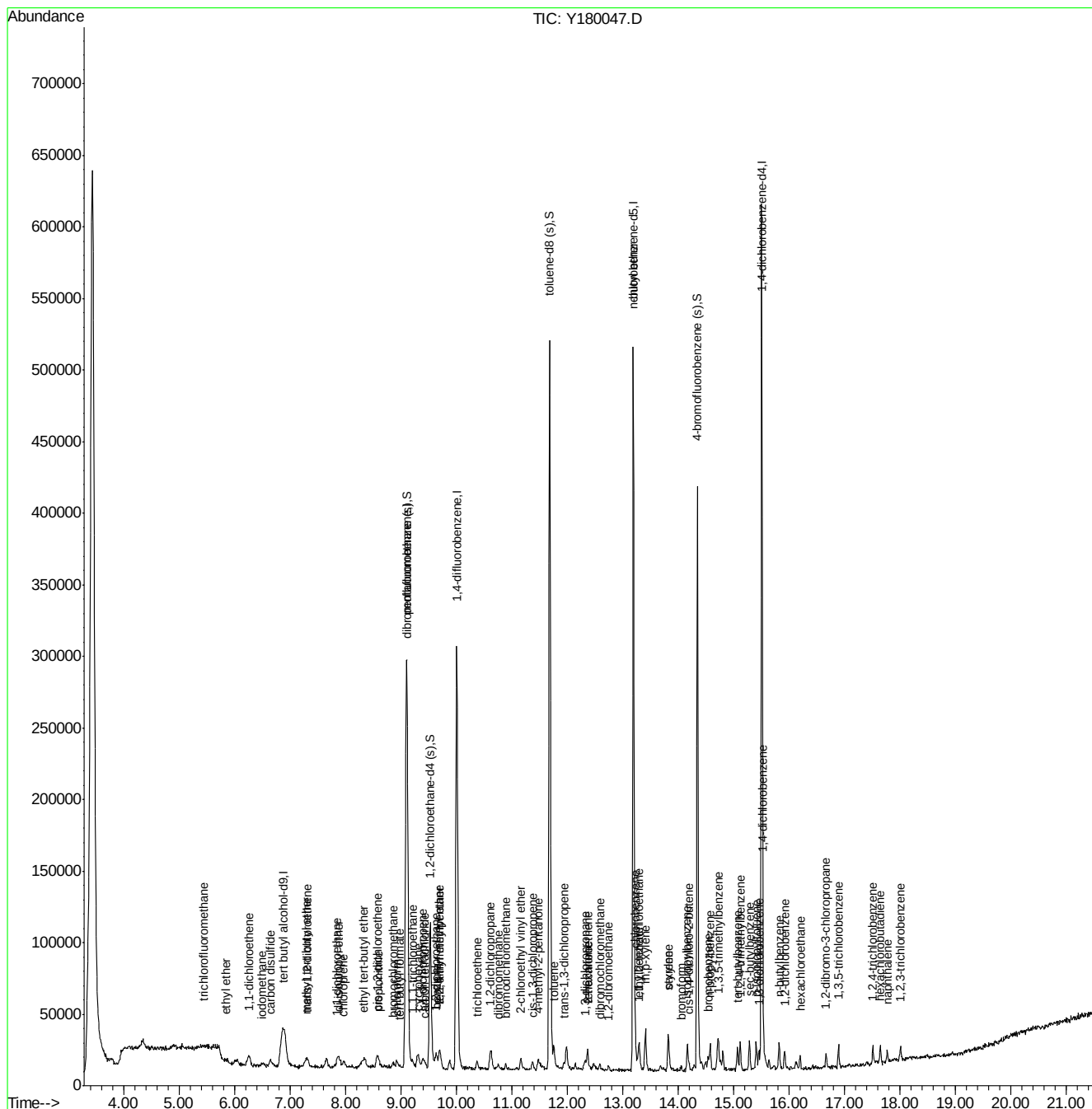
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
82) 2-hexanone	12.37	58	2931	3.44	ug/L #	60
83) tetrachloroethene	12.36	166	2992	1.33	ug/L	94
84) 1,3-dichloropropane	12.33	76	3050	0.99	ug/L	95
86) dibromochloromethane	12.58	129	2199	1.03	ug/L	88
87) 1,2-dibromoethane	12.74	107	2105	1.10	ug/L	88
88) n-butyl ether	13.20	57	14182	1.22	ug/L	61
89) chlorobenzene	13.22	112	6487	1.07	ug/L	94
90) 1,1,1,2-tetrachloroethane	13.28	131	2273	1.03	ug/L	86
91) ethylbenzene	13.30	91	12418	1.18	ug/L	97
92) m,p-xylene	13.41	106	9150	2.29	ug/L	96
93) o-xylene	13.81	91	11350	1.28	ug/L	98
94) styrene	13.83	104	7350	1.08	ug/L	98
95) bromoform	14.05	173	1282	0.99	ug/L	84
97) isopropylbenzene	14.16	105	12704	1.23	ug/L	96
98) cis-1,4-dichloro-2-butene	14.19	88	722	0.91	ug/L #	71
101) bromobenzene	14.54	156	2784	1.07	ug/L #	85
105) n-propylbenzene	14.57	91	16647	1.28	ug/L	97
109) 1,3,5-trimethylbenzene	14.72	105	10967	1.16	ug/L	99
110) tert-butylbenzene	15.07	134	1870	1.16	ug/L #	65
111) 1,2,4-trimethylbenzene	15.11	105	12601	1.31	ug/L	95
112) sec-butylbenzene	15.28	105	13397	1.11	ug/L	99
113) 1,3-dichlorobenzene	15.45	146	5484	1.06	ug/L	96
114) p-isopropyltoluene	15.40	119	11201	1.09	ug/L	98
115) 1,4-dichlorobenzene	15.53	146	5639	1.08	ug/L	92
116) 1,2-dichlorobenzene	15.92	146	5093	1.03	ug/L	95
118) n-butylbenzene	15.82	92	6103	1.03	ug/L	99
120) 1,2-dibromo-3-chloropropan	16.66	157	422	0.90	ug/L	95
121) 1,3,5-trichlorobenzene	16.89	180	4791	1.00	ug/L	95
122) 1,2,4-trichlorobenzene	17.51	180	3689	0.98	ug/L	93
123) hexachlorobutadiene	17.64	225	2686	1.08	ug/L	91
124) naphthalene	17.77	128	6281	1.00	ug/L	96
125) 1,2,3-trichlorobenzene	18.01	180	2932	0.93	ug/L	88
126) hexachloroethane	16.19	201	1508	0.94	ug/L	86

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\VY7788\
Data File : Y180047.D
Acq On : 24 May 2018 10:42 pm
Operator : PrashanS
Sample : ic7788-1
Misc : MS26438,VY7788,5.0,,,,,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: May 29 10:56:21 2018
Quant Method : C:\MSDCHEM\1\METHODS\MYS7788.M
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 25 13:36:21 2018
Response via : Initial Calibration



7.7.2

Manual Integration Approval Summary

Sample Number: VY7788-IC7788

Method: SW846 8260C

Lab FileID: Y180047.D

Analyst approved: 05/29/18 11:38 Robert Szot

Injection Time: 05/24/18 22:42

Supervisor approved: 05/29/18 17:12 Kanya Veerawat

Parameter	CAS	Sig#	R.T. (min.)	Reason
Bromodichloromethane	75-27-4		10.88	Poorly defined baseline

7.7.2.1
7

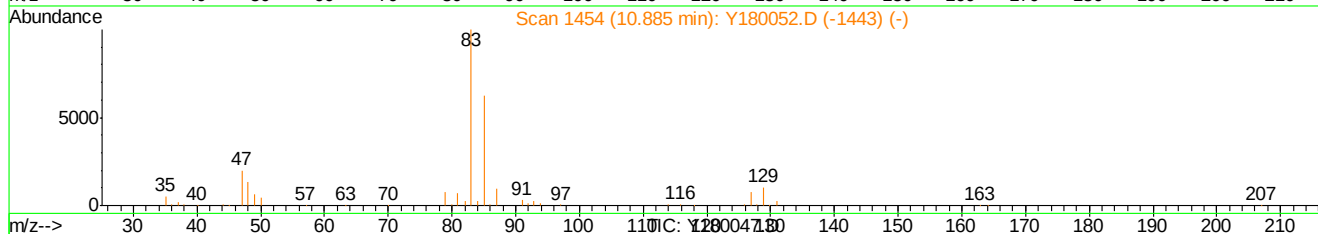
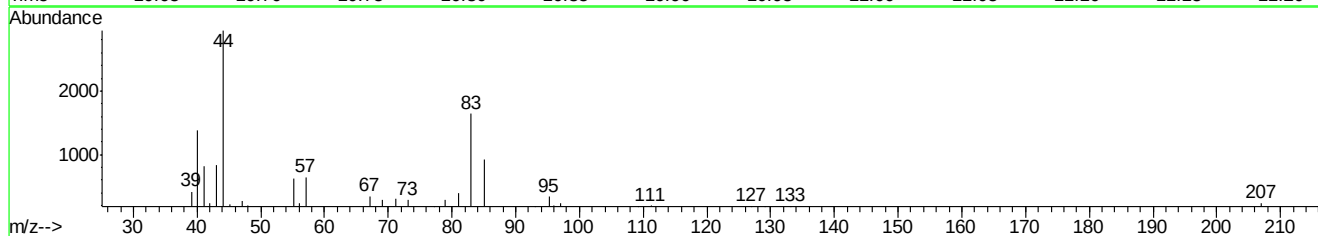
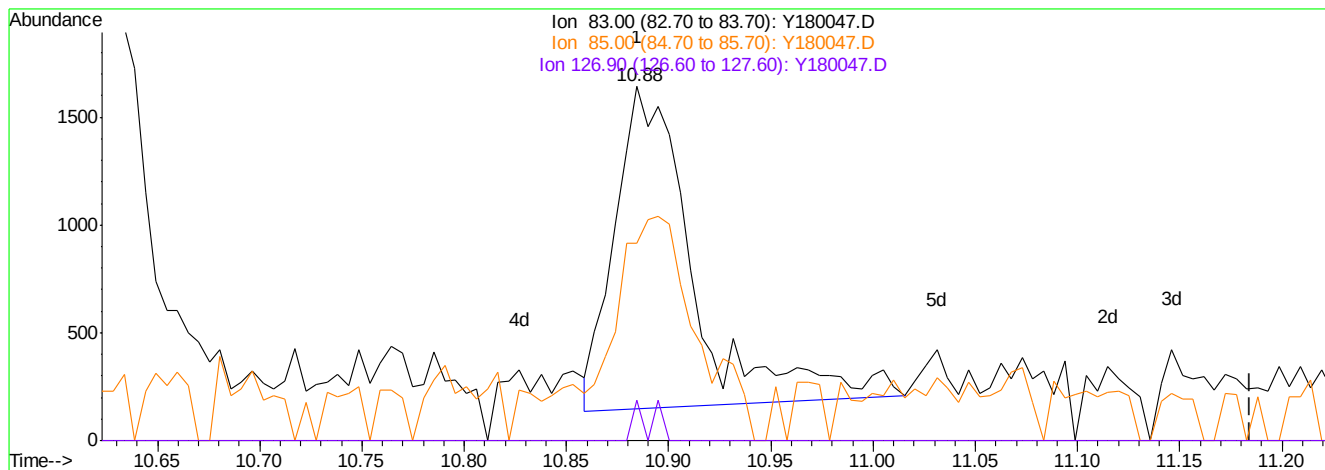
Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\VY7788\Y180047.D Vial: 13
Acq On : 24 May 2018 10:42 pm Operator: PrashanS
Sample : ic7788-1 Inst : MSY
Misc : MS26438,VY7788,5.0,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: May 29 10:55:25 2018

Results File: MYS7788.RES

Method : C:\MSDCHEM\1\METHODS\MYS7788.M (RTE Integrator)
Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um
Last Update : Fri May 25 16:39:15 2018
Response via : Multiple Level Calibration



(71) bromodichloromethane

10.88min 1.38ug/L

response 4004

Ion	Exp%	Act%
83.00	100	100
85.00	62.40	50.17
126.90	7.90	13.08
0.00	0.00	0.00

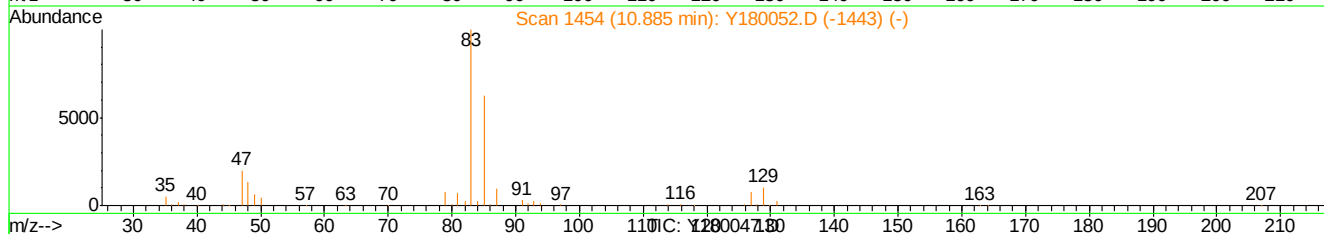
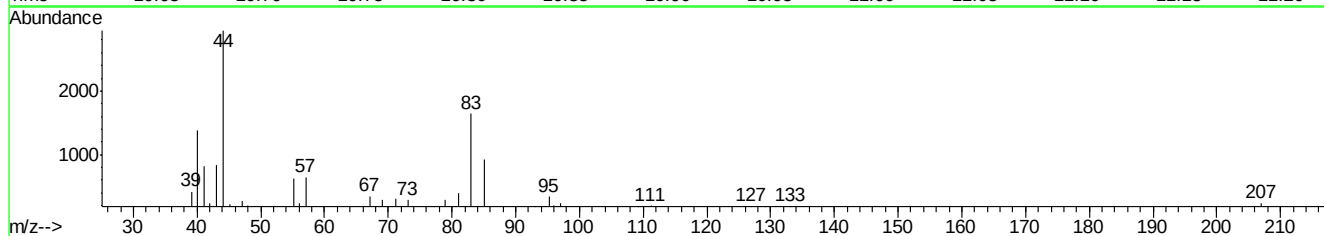
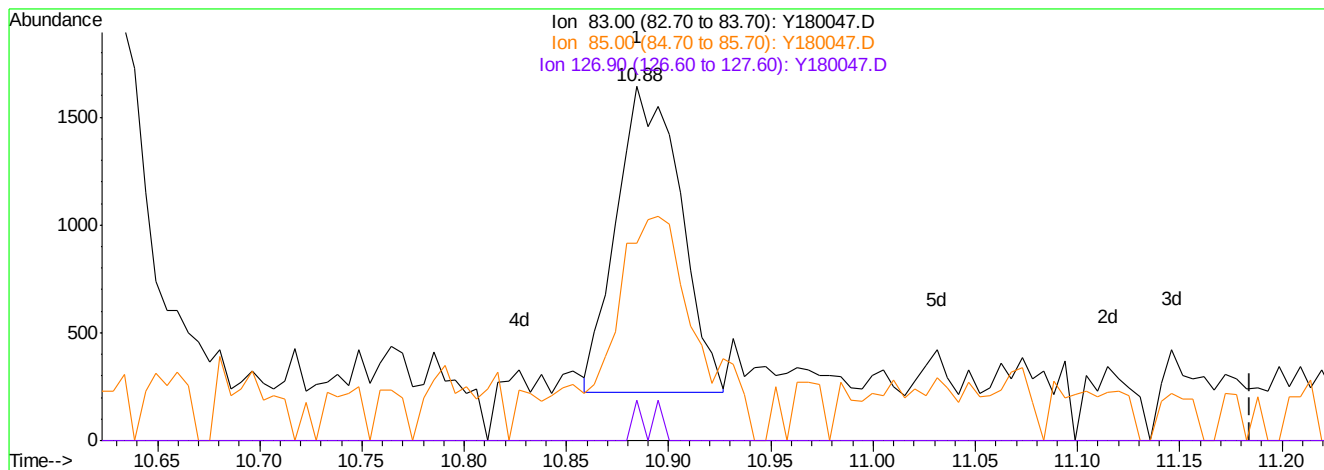
Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\VY7788\Y180047.D Vial: 13
Acq On : 24 May 2018 10:42 pm Operator: PrashanS
Sample : ic7788-1 Inst : MSY
Misc : MS26438,VY7788,5.0,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: May 29 10:55:25 2018

Results File: MYS7788.RES

Method : C:\MSDCHEM\1\METHODS\MYS7788.M (RTE Integrator)
Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um
Last Update : Fri May 25 16:39:15 2018
Response via : Multiple Level Calibration



(71) bromodichloromethane

10.88min 1.06ug/L m

response 3065

Ion	Exp%	Act%
83.00	100	100
85.00	62.40	55.81
126.90	7.90	11.43
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\VY7788\
 Data File : Y180048.D
 Acq On : 24 May 2018 11:10 pm
 Operator : PrashanS
 Sample : ic7788-2
 Misc : MS26438,VY7788,5.0,,,,1
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: May 29 11:31:06 2018
 Quant Method : C:\MSDCHEM\1\METHODS\MYS7788.M
 Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um
 QLast Update : Fri May 25 16:39:15 2018
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	6.87	65	92603	500.00	ug/L	0.00
5) pentafluorobenzene	9.10	168	223785	50.00	ug/L	0.00
54) 1,4-difluorobenzene	10.01	114	344164	50.00	ug/L	0.00
76) chlorobenzene-d5	13.19	117	309176	50.00	ug/L	0.00
99) 1,4-dichlorobenzene-d4	15.50	152	153871	50.00	ug/L	0.00

System Monitoring Compounds

47) dibromofluoromethane (s)	9.11	113	100733	49.82	ug/L	0.00
Spiked Amount 50.000	Range 72 - 129		Recovery =	99.64%		
55) 1,2-dichloroethane-d4 (s)	9.53	65	98734	48.06	ug/L	0.00
Spiked Amount 50.000	Range 73 - 132		Recovery =	96.12%		
77) toluene-d8 (s)	11.68	98	422790	49.00	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery =	98.00%		
100) 4-bromofluorobenzene (s)	14.34	95	153499	52.37	ug/L	0.00
Spiked Amount 50.000	Range 77 - 125		Recovery =	104.74%		

Target Compounds

						Qvalue
4) 1,4-dioxane	10.73	88	864	38.70	ug/L	# 56
8) freon 142b	4.02	65	10606	2.56	ug/L	88
10) chloromethane	4.11	50	11393m	2.19	ug/L	
11) vinyl chloride	4.32	62	11222	2.44	ug/L	91
12) 1,3-butadiene	4.35	54	8065m	2.03	ug/L	
13) bromomethane	4.91	94	6322	2.41	ug/L	94
14) chloroethane	5.05	64	7083	2.81	ug/L	85
15) vinyl bromide	5.37	106	5473	2.29	ug/L	92
16) trichlorofluoromethane	5.50	101	8465	2.14	ug/L	97
17) ethyl ether	5.84	74	2627	2.05	ug/L	# 70
18) 2-chloropropane	6.03	63	2129	2.07	ug/L	# 20
20) freon 113	6.26	151	3540	2.03	ug/L	91
21) 1,1-dichloroethene	6.25	61	7771	1.94	ug/L	88
22) acetone	6.25	58	1718	8.95	ug/L	# 34
23) acetonitrile	6.64	41	6527	20.72	ug/L	83
24) iodomethane	6.50	142	6729	1.99	ug/L	83
25) carbon disulfide	6.64	76	16224	2.12	ug/L	95
26) methylene chloride	6.90	84	7049	2.48	ug/L	94
28) methyl tert butyl ether	7.29	73	16341	2.08	ug/L	94
29) trans-1,2-dichloroethene	7.30	61	7610	2.04	ug/L	92
30) hexane	7.65	57	9020	2.18	ug/L	86
31) di-isopropyl ether	7.88	45	20762	2.00	ug/L	90
32) ethyl tert-butyl ether	8.34	59	17439	1.95	ug/L	96
33) 2-butanone	8.55	72	1045	5.20	ug/L	# 44
34) 1,1-dichloroethane	7.84	63	9129	1.96	ug/L	97
35) chloroprene	7.97	53	8174	2.12	ug/L	94
39) 2,2-dichloropropane	8.58	77	9109	2.38	ug/L	89
40) cis-1,2-dichloroethene	8.57	96	5261	1.96	ug/L	82
41) propionitrile	8.59	54	6103	18.57	ug/L	69
42) bromochloromethane	8.86	130	2910	1.99	ug/L	89
44) chloroform	8.92	83	12062	2.61	ug/L	95
49) 1,1,1-trichloroethane	9.22	97	9468	2.32	ug/L	87
50) cyclohexane	9.31	84	7984	1.95	ug/L	94

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\VY7788\
 Data File : Y180048.D
 Acq On : 24 May 2018 11:10 pm
 Operator : PrashanS
 Sample : ic7788-2
 Misc : MS26438,VY7788,5.0,,,,1
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: May 29 11:31:06 2018
 Quant Method : C:\MSDCHEM\1\METHODS\MYS7788.M
 Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um
 QLast Update : Fri May 25 16:39:15 2018
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
51) 1,1-dichloropropene	9.40	75	6678	1.97	ug/L	97
53) carbon tetrachloride	9.44	117	6465	1.95	ug/L #	83
56) 2,2,4-trimethylpentane	9.70	57	20160	1.80	ug/L	91
57) tert-amyl methyl ether	9.70	73	14192	1.83	ug/L	98
59) benzene	9.64	78	21139	1.97	ug/L	91
60) heptane	9.89	57	4583	1.89	ug/L	80
62) 1,2-dichloroethane	9.62	62	5590	1.90	ug/L	94
63) trichloroethene	10.36	130	4482	1.95	ug/L	78
64) ethyl acrylate	10.40	55	4953	1.89	ug/L	82
66) 2-chloroethyl vinyl ether	11.16	63	10000	8.78	ug/L	96
68) 1,2-dichloropropane	10.61	63	5835	2.02	ug/L	98
69) methylcyclohexane	10.62	83	9460	1.96	ug/L	98
70) dibromomethane	10.76	93	2966	2.01	ug/L	97
71) bromodichloromethane	10.90	83	6430	1.84	ug/L	99
73) cis-1,3-dichloropropene	11.37	75	8158	1.92	ug/L	95
74) 4-methyl-2-pentanone	11.47	58	6651	7.44	ug/L	89
75) 3-methyl-1-butanol	11.51	70	3805	50.20	ug/L #	50
78) toluene	11.76	92	12421	1.94	ug/L	98
79) trans-1,3-dichloropropene	11.93	75	6924	1.83	ug/L	96
80) ethyl methacrylate	11.98	69	5443	1.88	ug/L #	77
81) 1,1,2-trichloroethane	12.13	83	3632	1.92	ug/L #	87
82) 2-hexanone	12.35	58	6656	7.71	ug/L #	85
83) tetrachloroethene	12.36	166	4835	1.89	ug/L	90
84) 1,3-dichloropropane	12.32	76	6501	1.91	ug/L	98
86) dibromochloromethane	12.58	129	4322	1.84	ug/L	90
87) 1,2-dibromoethane	12.74	107	3952	1.90	ug/L	88
88) n-butyl ether	13.19	57	27256	2.06	ug/L	70
89) chlorobenzene	13.22	112	12697	1.90	ug/L	99
90) 1,1,1,2-tetrachloroethane	13.28	131	5088	2.05	ug/L	96
91) ethylbenzene	13.30	91	24315	1.99	ug/L	98
92) m,p-xylene	13.41	106	17452	3.83	ug/L	90
93) o-xylene	13.81	91	20719	2.02	ug/L	96
94) styrene	13.82	104	14409	1.89	ug/L	96
95) bromoform	14.05	173	2431	1.78	ug/L	87
96) butyl acrylate	13.67	55	9163	1.90	ug/L	94
97) isopropylbenzene	14.16	105	23494	1.96	ug/L	97
98) cis-1,4-dichloro-2-butene	14.19	88	1500	1.83	ug/L #	85
101) bromobenzene	14.54	156	5673	2.09	ug/L	83
102) 1,1,2,2-tetrachloroethane	14.42	83	8005	2.93	ug/L	98
103) trans-1,4-dichloro-2-buten	14.47	53	1348	2.12	ug/L #	60
104) 1,2,3-trichloropropane	14.49	110	1244	2.10	ug/L	82
105) n-propylbenzene	14.57	91	29025	2.07	ug/L	96
107) 2-chlorotoluene	14.70	126	5502m	2.09	ug/L	
108) 4-chlorotoluene	14.80	91	18732	2.24	ug/L	99
109) 1,3,5-trimethylbenzene	14.72	105	20538	2.07	ug/L	95
110) tert-butylbenzene	15.06	134	3190	1.89	ug/L #	75
111) 1,2,4-trimethylbenzene	15.11	105	21331	2.06	ug/L	96
112) sec-butylbenzene	15.28	105	25760	2.02	ug/L	95
113) 1,3-dichlorobenzene	15.45	146	11083	2.05	ug/L	98
114) p-isopropyltoluene	15.40	119	20675	1.95	ug/L	95

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\VY7788\
Data File : Y180048.D
Acq On : 24 May 2018 11:10 pm
Operator : PrashanS
Sample : ic7788-2
Misc : MS26438,VY7788,5.0,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: May 29 11:31:06 2018
Quant Method : C:\MSDCHEM\1\METHODS\MYS7788.M
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 25 16:39:15 2018
Response via : Initial Calibration

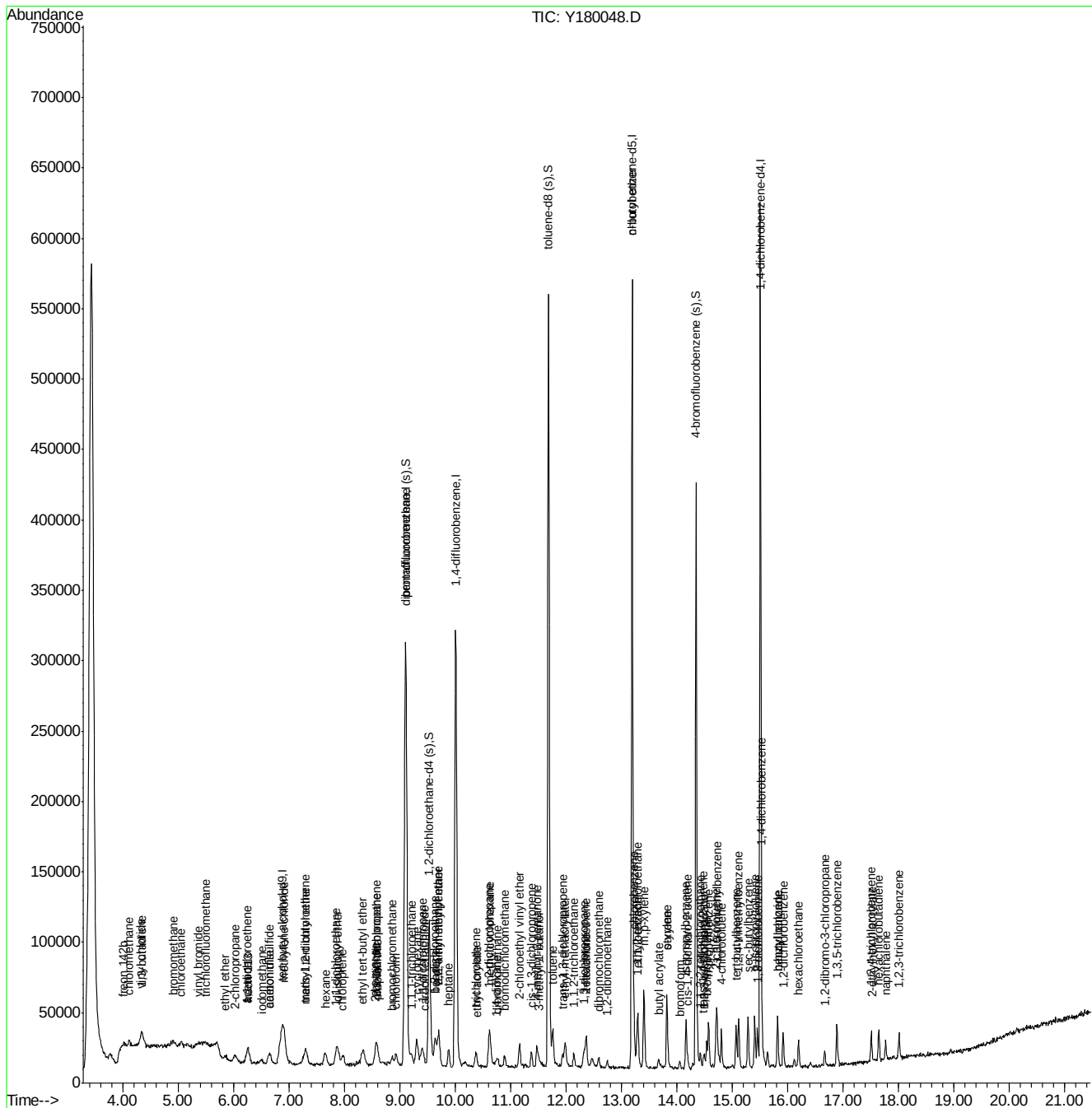
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
115) 1,4-dichlorobenzene	15.53	146	11067	2.03	ug/L	94
116) 1,2-dichlorobenzene	15.92	146	9654	1.88	ug/L	98
118) n-butylbenzene	15.82	92	11001	1.85	ug/L	87
120) 1,2-dibromo-3-chloropropan	16.66	157	905	1.95	ug/L	96
121) 1,3,5-trichlorobenzene	16.88	180	9229	1.93	ug/L	97
122) 1,2,4-trichlorobenzene	17.51	180	6441	1.79	ug/L	96
123) hexachlorobutadiene	17.65	225	4603	1.82	ug/L	97
124) naphthalene	17.76	128	11188	1.79	ug/L	92
125) 1,2,3-trichlorobenzene	18.00	180	5546	1.80	ug/L	91
126) hexachloroethane	16.19	201	2988	1.90	ug/L	95
127) benzyl chloride	15.82	91	22358	1.98	ug/L	99
128) 2-ethylhexyl acrylate	17.52	70	1271	0.40	ug/L #	45

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

(QT Reviewed)

```
Data Path   : C:\MSDCHEM\1\DATA\VY7788\
Data File  : Y180048.D
Acq On     : 24 May 2018   11:10 pm
Operator   : PrashanS
Sample     : IC7788-2
Misc       : MS26438,VY7788,5.0,,,,,1
ALS Vial   : 14   Sample Multiplier: 1
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Quant Time: May 29 11:31:06 2018
Quant Method : C:\MSDCHEM\1\METHODS\MYS7788.M
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 25 16:39:15 2018
Response via : Initial Calibration



Manual Integration Approval Summary

Sample Number: VY7788-IC7788

Method: SW846 8260C

Lab FileID: Y180048.D

Analyst approved: 05/29/18 11:38 Robert Szot

Injection Time: 05/24/18 23:10

Supervisor approved: 05/29/18 17:12 Kanya Veerawat

Parameter	CAS	Sig#	R.T. (min.)	Reason
Chloromethane	74-87-3		4.11	Poorly defined baseline
1,3-Butadiene	106-99-0		4.35	Poorly defined baseline
o-Chlorotoluene	95-49-8		14.70	Missed peak

7.7.3.1
7

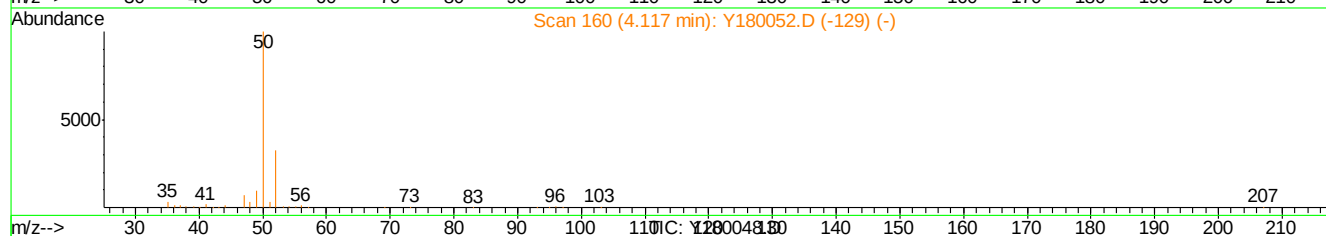
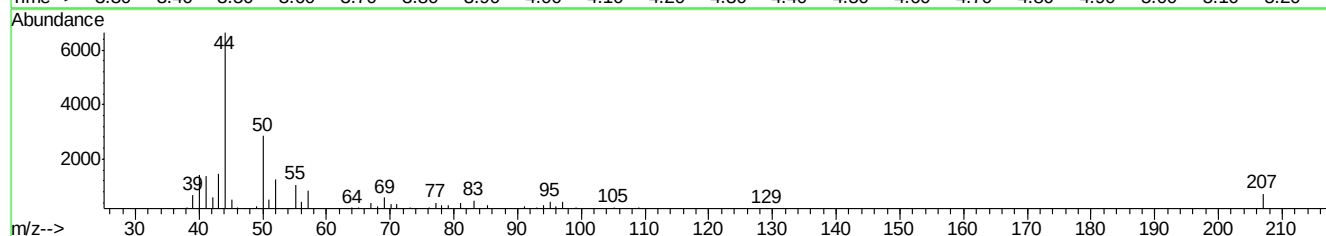
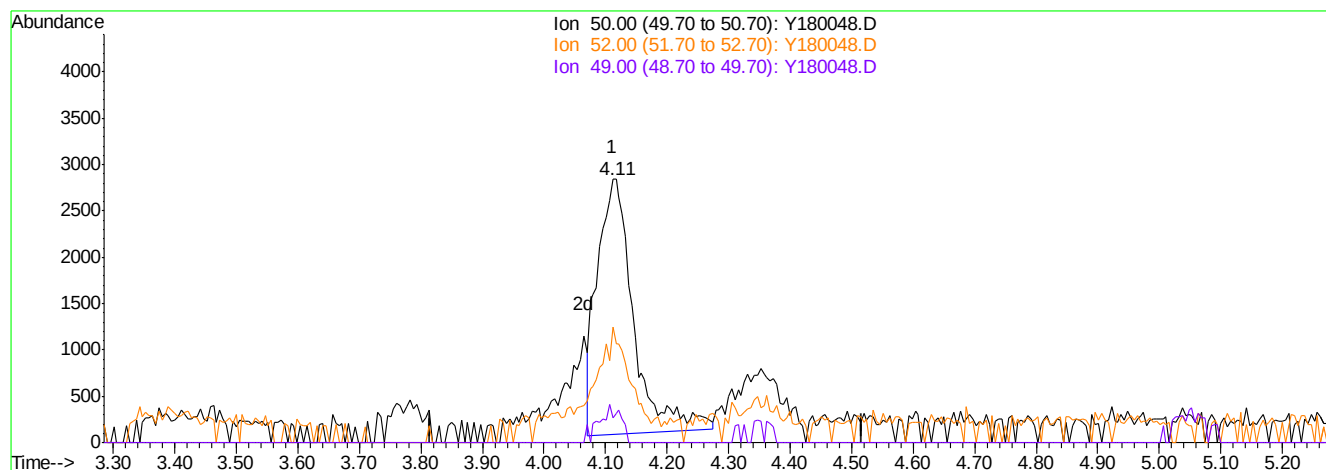
Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\VY7788\Y180048.D Vial: 14
Acq On : 24 May 2018 11:10 pm Operator: PrashanS
Sample : ic7788-2 Inst : MSY
Misc : MS26438,VY7788,5.0,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: May 25 16:36:22 2018

Results File: MYS7788.RES

Method : C:\MSDCHEM\1\METHODS\MYS7788.M (RTE Integrator)
Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um
Last Update : Fri May 25 16:39:15 2018
Response via : Multiple Level Calibration



(10) chloromethane

4.11min 2.18ug/L

response 11390

Ion	Exp%	Act%
50.00	100	100
52.00	32.30	35.57
49.00	9.60	10.21
0.00	0.00	0.00

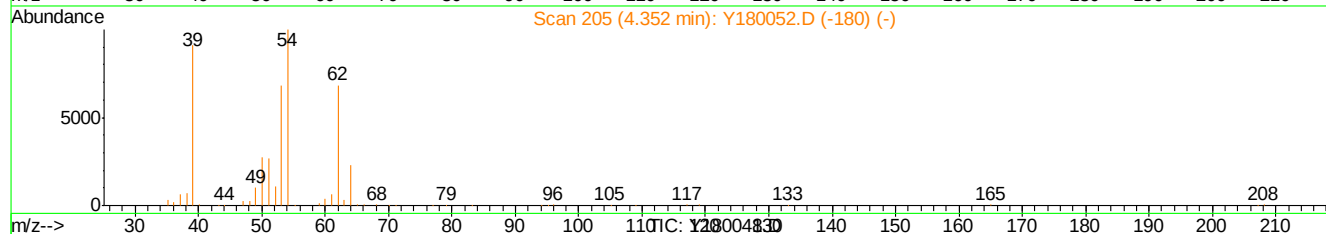
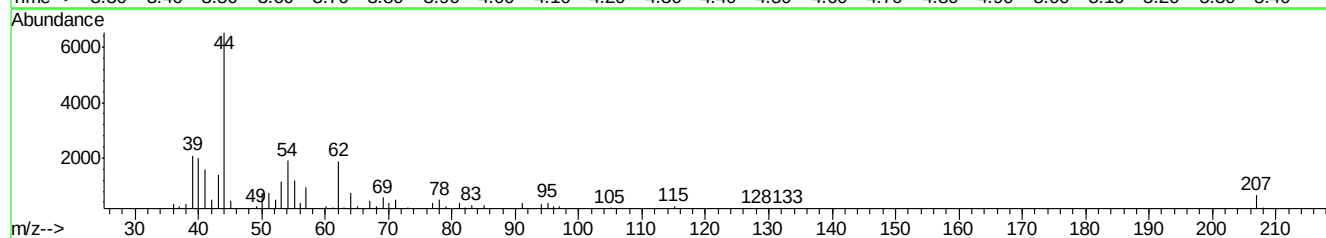
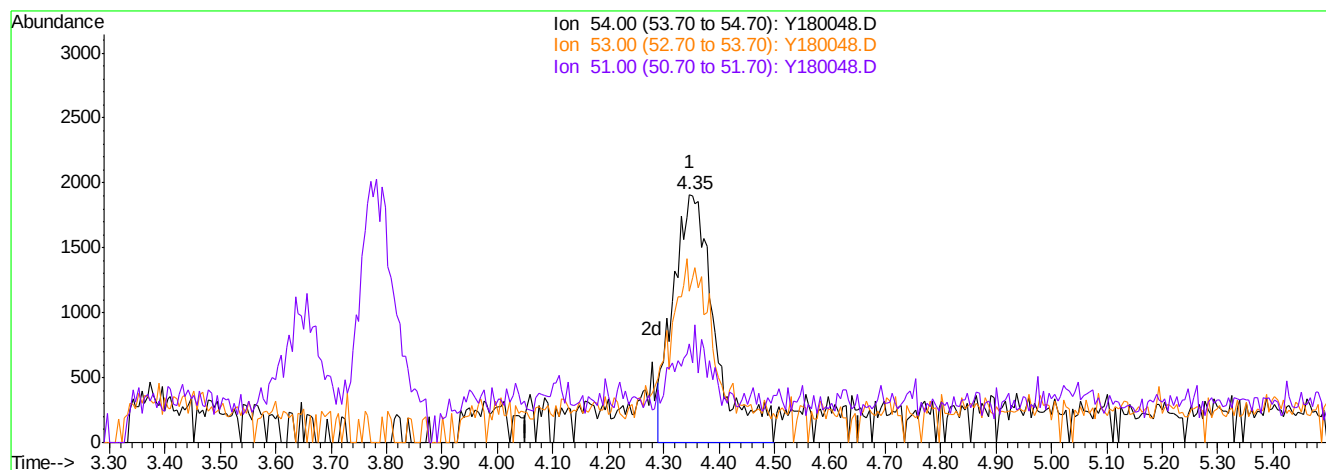
Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\VY7788\Y180048.D Vial: 14
Acq On : 24 May 2018 11:10 pm Operator: PrashanS
Sample : ic7788-2 Inst : MSY
Misc : MS26438,VY7788,5.0,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Quant Time: May 25 16:36:22 2018

Results File: MYS7788.RES

Method : C:\MSDCHEM\1\METHODS\MYS7788.M (RTE Integrator)
Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um
Last Update : Fri May 25 16:39:15 2018
Response via : Multiple Level Calibration



(12) 1,3-butadiene

4.35min 2.81ug/L

response 10193

Ion	Exp%	Act%
54.00	100	100
53.00	70.00	48.87
51.00	28.10	20.41
0.00	0.00	0.00

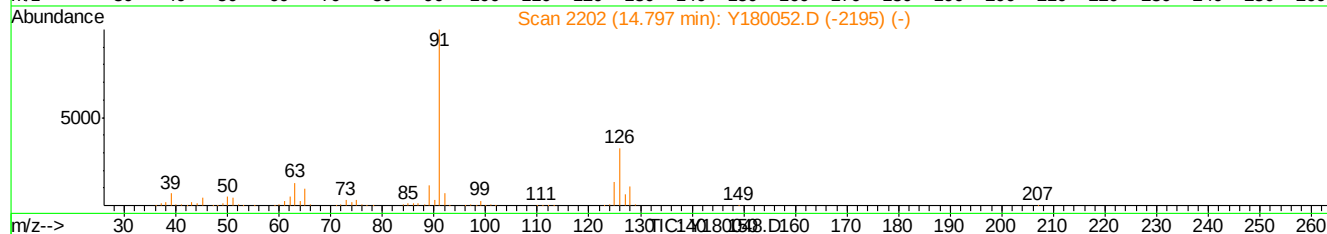
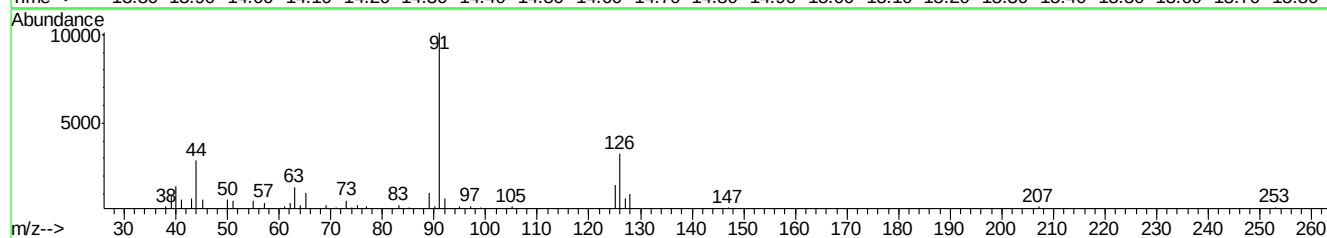
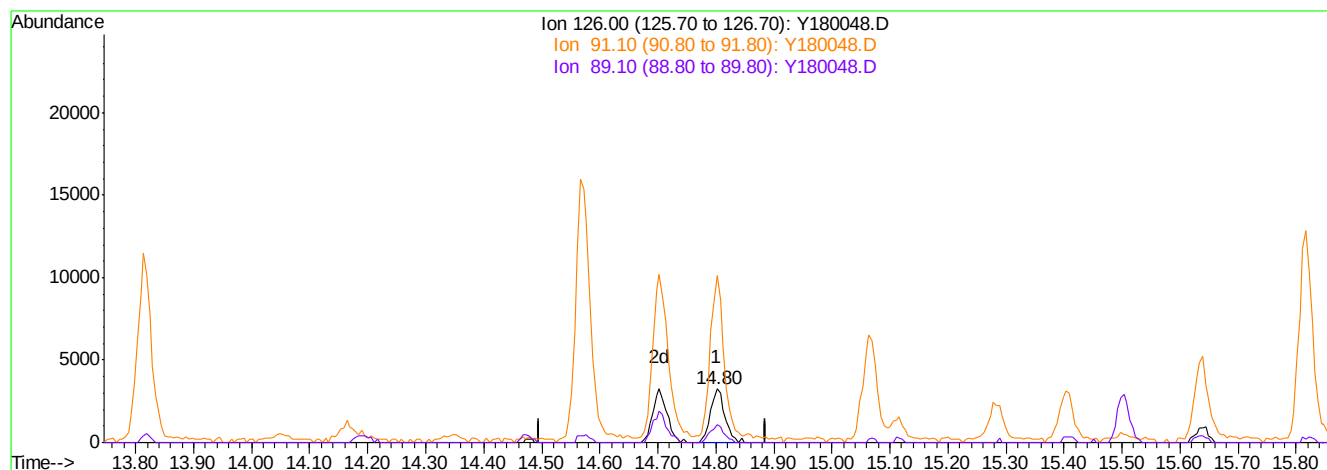
Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\VY7788\Y180048.D Vial: 14
Acq On : 24 May 2018 11:10 pm Operator: PrashanS
Sample : ic7788-2 Inst : MSY
Misc : MS26438,VY7788,5.0,,,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Quant Time: May 29 10:59:52 2018

Results File: MYS7788.RES

Method : C:\MSDCHEM\1\METHODS\MYS7788.M (RTE Integrator)
Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um
Last Update : Fri May 25 16:39:15 2018
Response via : Multiple Level Calibration



(107) 2-chlorotoluene

14.80min 2.11ug/L

response 5572

Ion	Exp%	Act%
126.00	100	100
91.10	305.80	298.74
89.10	34.60	33.12
0.00	0.00	0.00

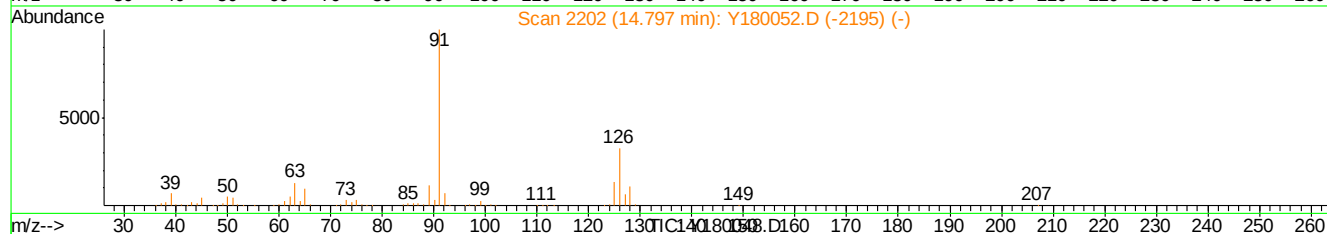
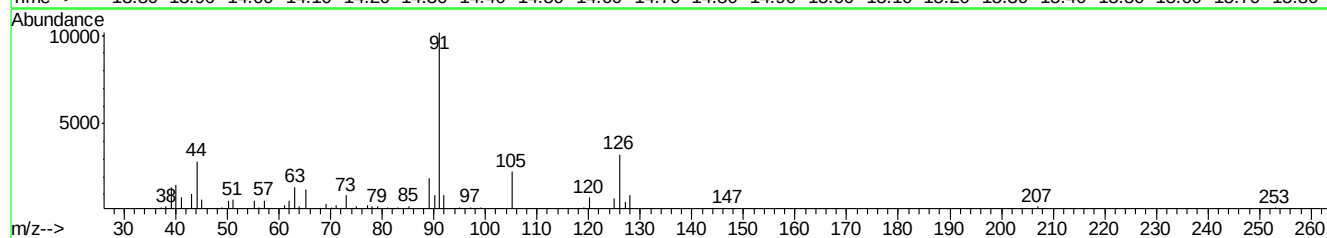
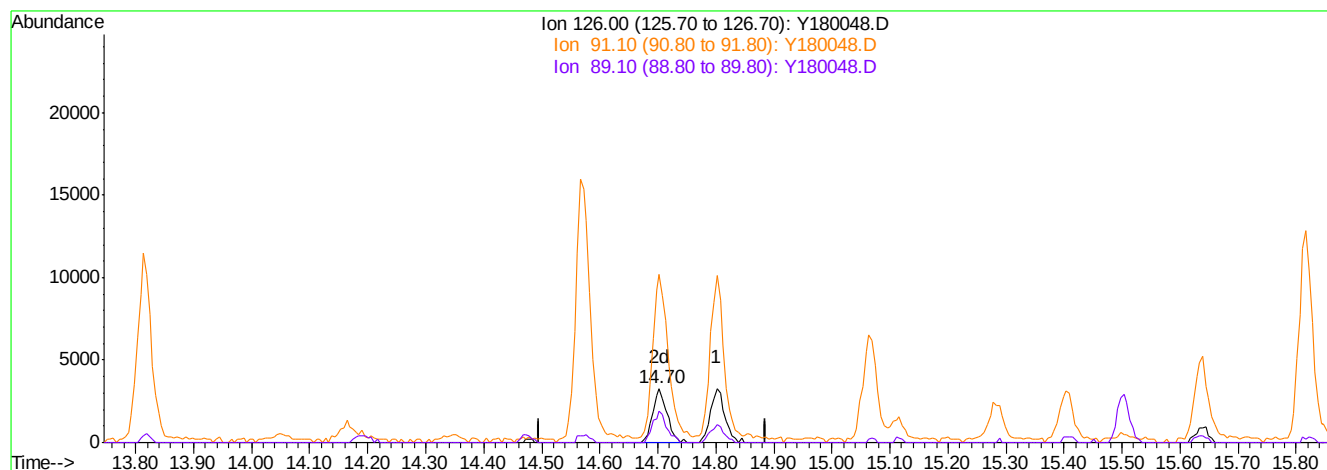
Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\VY7788\Y180048.D Vial: 14
Acq On : 24 May 2018 11:10 pm Operator: PrashanS
Sample : ic7788-2 Inst : MSY
Misc : MS26438,VY7788,5.0,,,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Quant Time: May 29 10:59:52 2018

Results File: MYS7788.RES

Method : C:\MSDCHEM\1\METHODS\MYS7788.M (RTE Integrator)
Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um
Last Update : Fri May 25 16:39:15 2018
Response via : Multiple Level Calibration



(107) 2-chlorotoluene

14.70min 2.09ug/L m

response 5502

Ion	Exp%	Act%
126.00	100	100
91.10	305.80	311.49
89.10	34.60	58.32
0.00	0.00	0.00

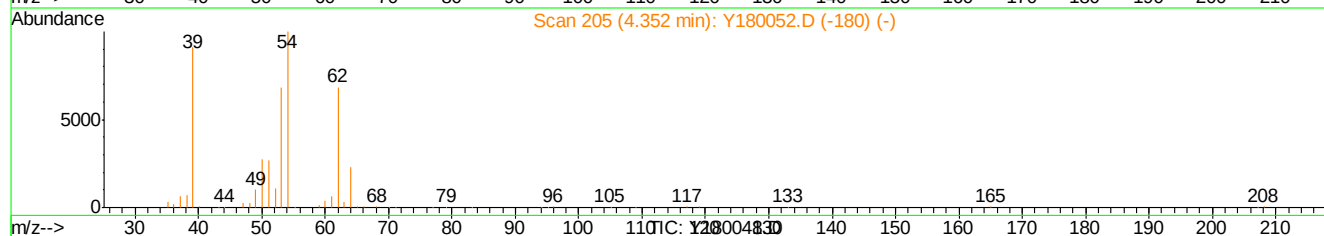
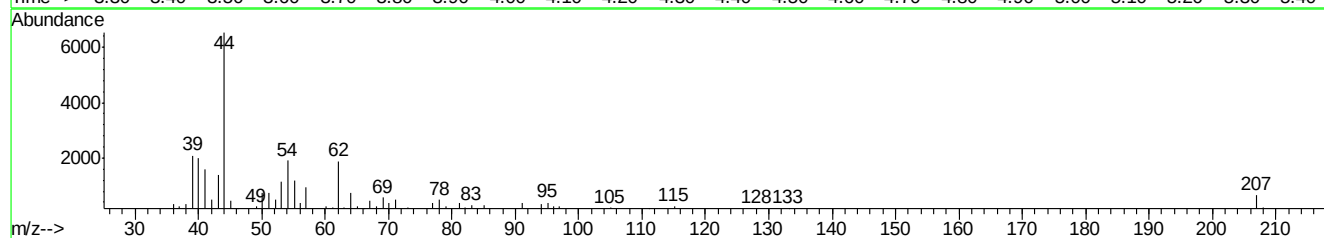
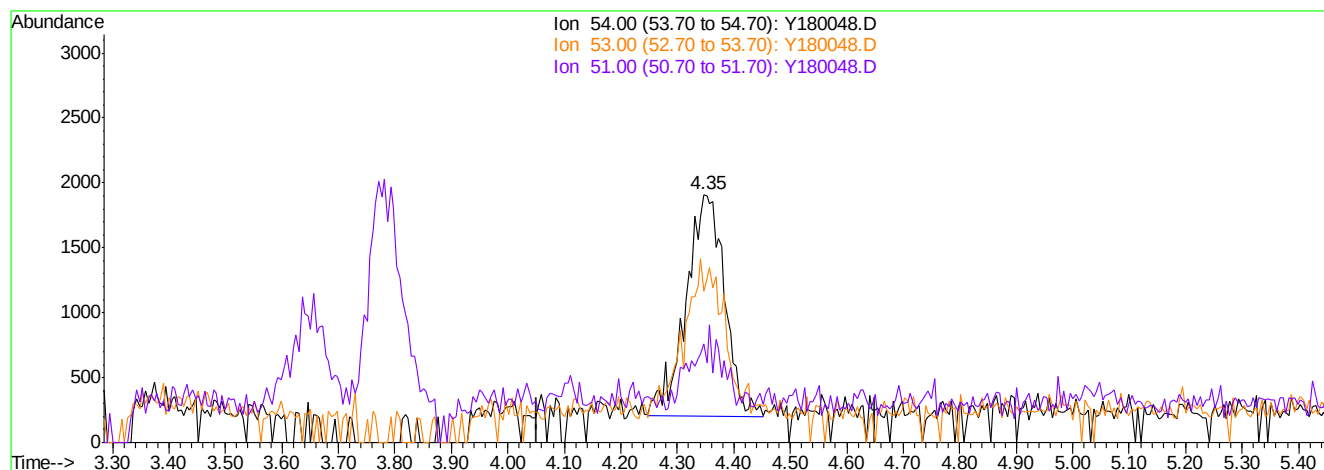
Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\VY7788\Y180048.D Vial: 14
Acq On : 24 May 2018 11:10 pm Operator: PrashanS
Sample : ic7788-2 Inst : MSY
Misc : MS26438,VY7788,5.0,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Quant Time: May 29 10:59:52 2018

Results File: MYS7788.RES

Method : C:\MSDCHEM\1\METHODS\MYS7788.M (RTE Integrator)
Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um
Last Update : Fri May 25 16:39:15 2018
Response via : Multiple Level Calibration



(12) 1,3-butadiene

4.35min 2.03ug/L m

response 8065

Ion	Exp%	Act%
54.00	100	100
53.00	70.00	60.81
51.00	28.10	39.56
0.00	0.00	0.00

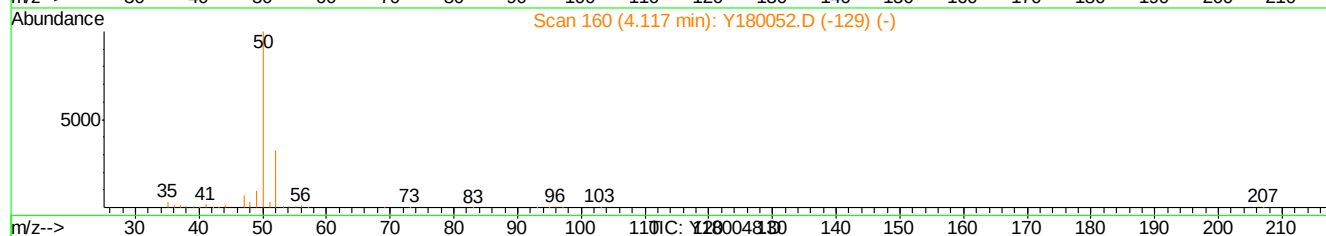
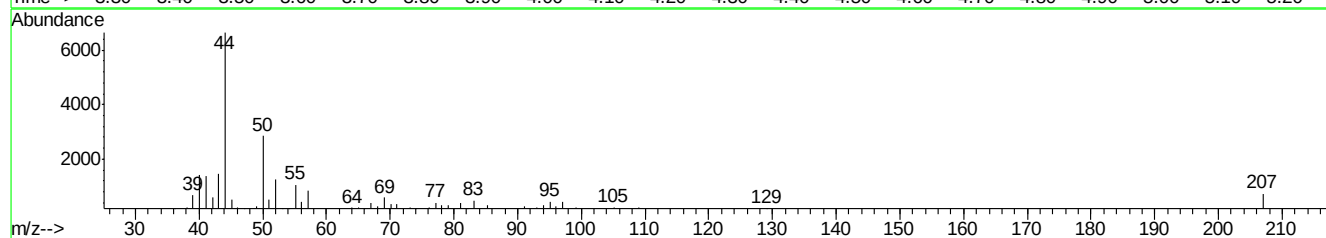
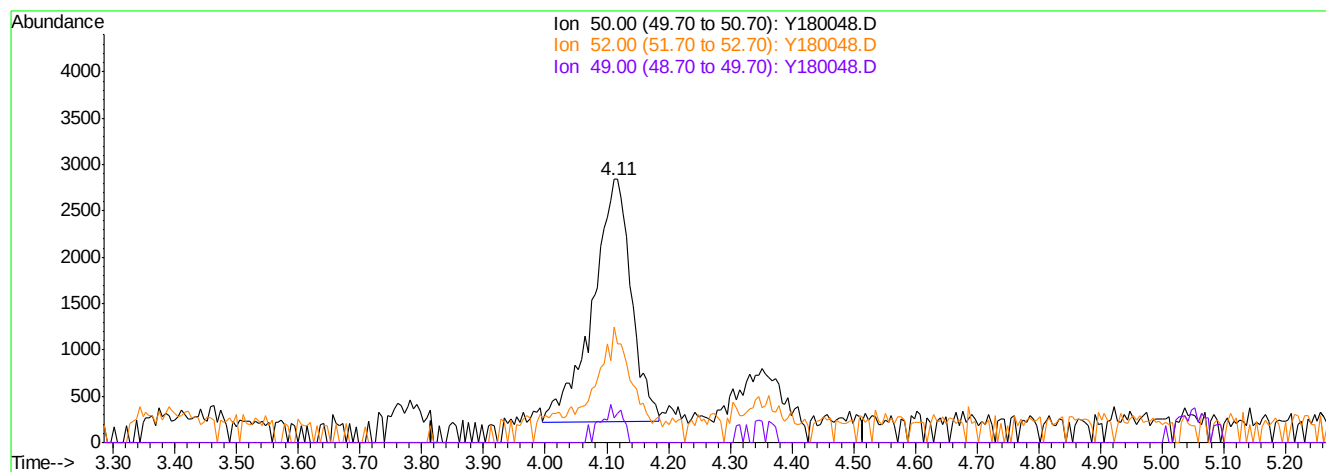
Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\VY7788\Y180048.D Vial: 14
Acq On : 24 May 2018 11:10 pm Operator: PrashanS
Sample : ic7788-2 Inst : MSY
Misc : MS26438,VY7788,5.0,,,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Quant Time: May 29 10:59:52 2018

Results File: MYS7788.RES

Method : C:\MSDCHEM\1\METHODS\MYS7788.M (RTE Integrator)
Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um
Last Update : Fri May 25 16:39:15 2018
Response via : Multiple Level Calibration



(10) chloromethane

4.11min 2.19ug/L m

response 11393

Ion	Exp%	Act%
50.00	100	100
52.00	32.30	43.81
49.00	9.60	9.43
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\VY7788\
 Data File : Y180049.D
 Acq On : 24 May 2018 11:39 pm
 Operator : PrashanS
 Sample : ic7788-4
 Misc : MS26438,VY7788,5.0,,,,1
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: May 29 11:31:13 2018
 Quant Method : C:\MSDCHEM\1\METHODS\MYS7788.M
 Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um
 QLast Update : Tue May 29 11:20:59 2018
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	6.88	65	94856	500.00	ug/L	0.00
5) pentafluorobenzene	9.10	168	236506	50.00	ug/L	0.00
54) 1,4-difluorobenzene	10.01	114	359867	50.00	ug/L	0.00
76) chlorobenzene-d5	13.19	117	312008	50.00	ug/L	0.00
99) 1,4-dichlorobenzene-d4	15.50	152	160336	50.00	ug/L	0.00

System Monitoring Compounds

47) dibromofluoromethane (s)	9.11	113	105072	49.17	ug/L	0.00
Spiked Amount 50.000	Range 72 - 129		Recovery =	98.34%		
55) 1,2-dichloroethane-d4 (s)	9.53	65	105192	48.97	ug/L	0.00
Spiked Amount 50.000	Range 73 - 132		Recovery =	97.94%		
77) toluene-d8 (s)	11.68	98	441434	50.69	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery =	101.38%		
100) 4-bromofluorobenzene (s)	14.34	95	157923	51.70	ug/L	0.00
Spiked Amount 50.000	Range 77 - 125		Recovery =	103.40%		

Target Compounds

						Qvalue
3) tertiary butyl alcohol	6.99	59	5540	19.60	ug/L	82
4) 1,4-dioxane	10.73	88	2291	100.18	ug/L	96
6) chlorodifluoromethane	3.77	51	15640	3.94	ug/L	94
7) dichlorodifluoromethane	3.77	85	15736	3.86	ug/L	83
8) freon 142b	4.02	65	19113	4.36	ug/L	90
10) chloromethane	4.11	50	20794	3.78	ug/L	94
11) vinyl chloride	4.32	62	20621	4.24	ug/L	97
12) 1,3-butadiene	4.35	54	15591	3.71	ug/L	92
13) bromomethane	4.91	94	10695	3.86	ug/L	90
14) chloroethane	5.06	64	11831	4.45	ug/L	94
15) vinyl bromide	5.38	106	10488	4.16	ug/L	97
16) trichlorofluoromethane	5.48	101	17297	4.14	ug/L	96
17) ethyl ether	5.84	74	5863	4.33	ug/L	83
18) 2-chloropropane	6.03	63	4842	4.45	ug/L	# 70
20) freon 113	6.26	151	8475	4.59	ug/L	89
21) 1,1-dichloroethene	6.25	61	16991	4.00	ug/L	89
22) acetone	6.26	58	3850	18.97	ug/L	# 51
23) acetonitrile	6.65	41	13207	39.67	ug/L	94
24) iodomethane	6.50	142	14208	3.98	ug/L	96
25) carbon disulfide	6.65	76	33174	4.09	ug/L	98
26) methylene chloride	6.91	84	12666	4.22	ug/L	93
27) methyl acetate	6.74	43	5333	2.74	ug/L	78
28) methyl tert butyl ether	7.28	73	32340	3.89	ug/L	93
29) trans-1,2-dichloroethene	7.31	61	16048	4.06	ug/L	94
30) hexane	7.65	57	21126	4.83	ug/L	95
31) di-isopropyl ether	7.87	45	44958	4.09	ug/L	88
32) ethyl tert-butyl ether	8.34	59	36550	3.87	ug/L	96
33) 2-butanone	8.54	72	3584	16.87	ug/L	# 65
34) 1,1-dichloroethane	7.85	63	19738	4.00	ug/L	96
35) chloroprene	7.97	53	17069	4.19	ug/L	94
38) ethyl acetate	8.58	45	3483	2.96	ug/L	# 1
39) 2,2-dichloropropane	8.58	77	17941	4.43	ug/L	89
40) cis-1,2-dichloroethene	8.57	96	11346	3.99	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\VY7788\
 Data File : Y180049.D
 Acq On : 24 May 2018 11:39 pm
 Operator : PrashanS
 Sample : ic7788-4
 Misc : MS26438,VY7788,5.0,,,,1
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: May 29 11:31:13 2018
 Quant Method : C:\MSDCHEM\1\METHODS\MYS7788.M
 Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um
 QLast Update : Tue May 29 11:20:59 2018
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
41) propionitrile	8.59	54	13608	39.18	ug/L	99
42) bromochloromethane	8.87	130	5958	3.85	ug/L	96
44) chloroform	8.92	83	18499	3.78	ug/L	95
48) methacrylonitrile	8.78	67	2835	3.59	ug/L #	46
49) 1,1,1-trichloroethane	9.20	97	18006	4.18	ug/L	99
50) cyclohexane	9.32	84	16600	3.84	ug/L	86
51) 1,1-dichloropropene	9.39	75	14539	4.05	ug/L	90
52) tert-amyl alcohol	9.48	55	2484	23.29	ug/L #	23
53) carbon tetrachloride	9.43	117	13949	3.99	ug/L	96
56) 2,2,4-trimethylpentane	9.69	57	49414	4.22	ug/L	99
57) tert-amyl methyl ether	9.70	73	31933	3.93	ug/L	95
58) n-butyl alcohol	10.14	56	11780	165.14	ug/L	83
59) benzene	9.64	78	45219	4.03	ug/L	97
60) heptane	9.88	57	11168	4.39	ug/L	92
61) isopropyl acetate	9.58	87	1490	3.75	ug/L #	33
62) 1,2-dichloroethane	9.62	62	12290	3.99	ug/L	99
63) trichloroethene	10.37	130	10010	4.17	ug/L	97
64) ethyl acrylate	10.39	55	10861	3.97	ug/L	94
66) 2-chloroethyl vinyl ether	11.15	63	23300	19.56	ug/L	98
67) methyl methacrylate	10.65	100	1622	3.37	ug/L #	47
68) 1,2-dichloropropane	10.61	63	12337	4.09	ug/L	93
69) methylcyclohexane	10.62	83	22979	4.55	ug/L	94
70) dibromomethane	10.75	93	6083	3.95	ug/L	98
71) bromodichloromethane	10.89	83	14619	4.01	ug/L	94
72) epichlorohydrin	11.25	57	4963	22.00	ug/L	94
73) cis-1,3-dichloropropene	11.37	75	17855	4.03	ug/L	96
74) 4-methyl-2-pentanone	11.47	58	14719	15.74	ug/L	92
75) 3-methyl-1-butanol	11.50	70	7027	88.67	ug/L #	64
78) toluene	11.76	92	26429	4.08	ug/L	98
79) trans-1,3-dichloropropene	11.93	75	15498	4.05	ug/L	96
80) ethyl methacrylate	11.97	69	13076	4.48	ug/L	97
81) 1,1,2-trichloroethane	12.13	83	8655	4.53	ug/L	99
82) 2-hexanone	12.34	58	14191	16.29	ug/L	92
83) tetrachloroethene	12.36	166	11078	4.30	ug/L	96
84) 1,3-dichloropropane	12.32	76	14112	4.11	ug/L	98
85) butyl acetate	12.46	56	7561	4.52	ug/L #	57
86) dibromochloromethane	12.58	129	9525	4.03	ug/L	95
87) 1,2-dibromoethane	12.74	107	8470	4.03	ug/L	93
88) n-butyl ether	13.19	57	54873	4.11	ug/L	88
89) chlorobenzene	13.22	112	28150	4.17	ug/L	91
90) 1,1,1,2-tetrachloroethane	13.27	131	10610	4.24	ug/L	100
91) ethylbenzene	13.30	91	50256	4.08	ug/L	99
92) m,p-xylene	13.41	106	37870	8.22	ug/L	92
93) o-xylene	13.81	91	43236	4.19	ug/L	96
94) styrene	13.82	104	30975	4.03	ug/L	99
95) bromoform	14.05	173	5367	3.90	ug/L	97
96) butyl acrylate	13.66	55	20457	4.20	ug/L	96
97) isopropylbenzene	14.16	105	48871	4.04	ug/L	99
98) cis-1,4-dichloro-2-butene	14.19	88	3334	4.04	ug/L #	89
101) bromobenzene	14.54	156	11476	4.05	ug/L	92

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\VY7788\
Data File : Y180049.D
Acq On : 24 May 2018 11:39 pm
Operator : PrashanS
Sample : ic7788-4
Misc : MS26438,VY7788,5.0,,,,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: May 29 11:31:13 2018
Quant Method : C:\MSDCHEM\1\METHODS\MYS7788.M
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um
QLast Update : Tue May 29 11:20:59 2018
Response via : Initial Calibration

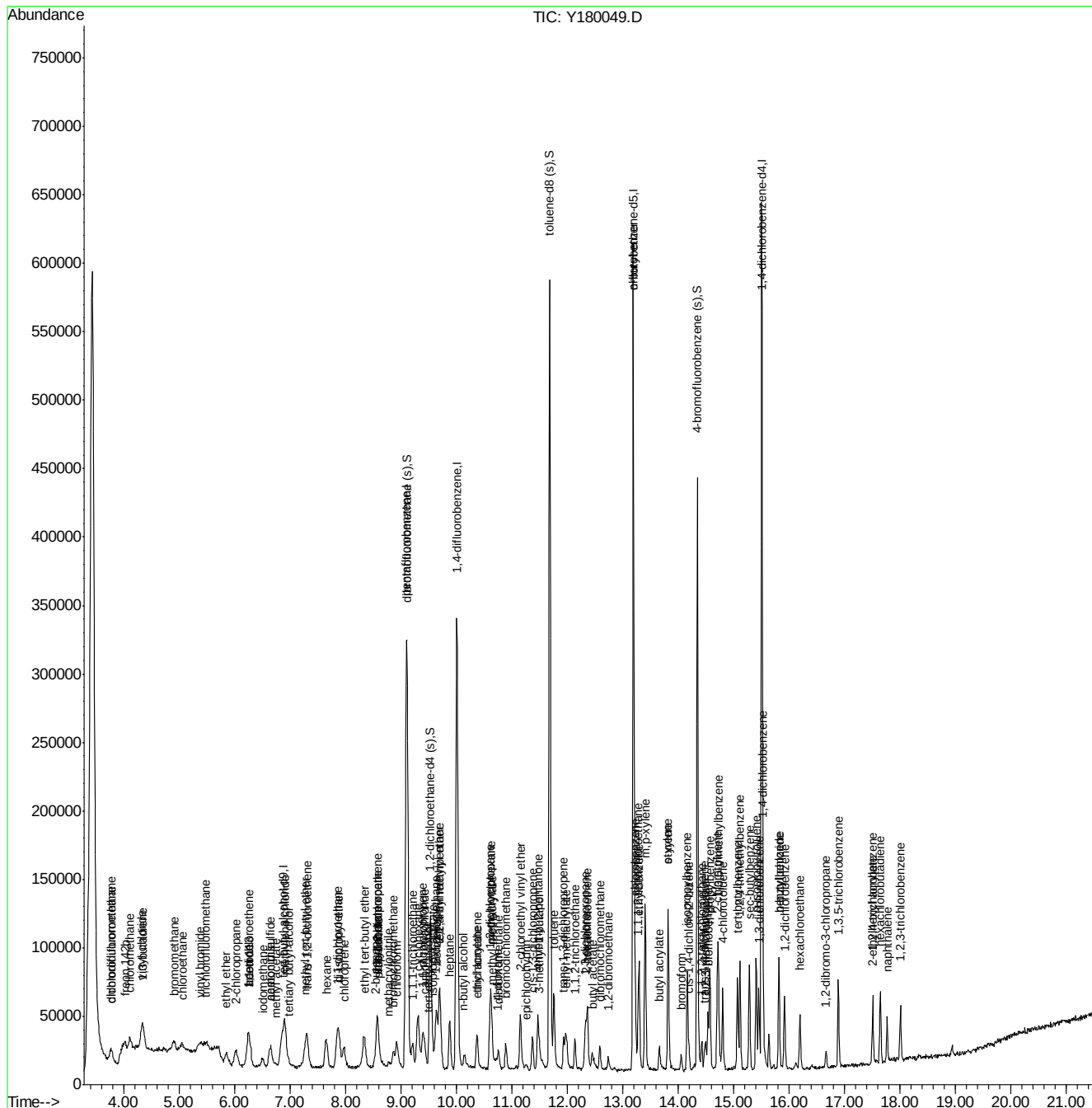
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
102) 1,1,2,2-tetrachloroethane	14.42	83	12752	4.48	ug/L	94
103) trans-1,4-dichloro-2-buten	14.47	53	2769	4.18	ug/L	93
104) 1,2,3-trichloropropane	14.49	110	2322	3.75	ug/L	97
105) n-propylbenzene	14.57	91	61674	4.23	ug/L	99
107) 2-chlorotoluene	14.70	126	11964	4.35	ug/L	94
108) 4-chlorotoluene	14.80	91	36611	4.20	ug/L	96
109) 1,3,5-trimethylbenzene	14.72	105	43592	4.21	ug/L	99
110) tert-butylbenzene	15.07	134	7313	4.15	ug/L	95
111) 1,2,4-trimethylbenzene	15.11	105	44110	4.09	ug/L	96
112) sec-butylbenzene	15.28	105	56108	4.23	ug/L	97
113) 1,3-dichlorobenzene	15.45	146	23794	4.22	ug/L	99
114) p-isopropyltoluene	15.40	119	46174	4.18	ug/L	99
115) 1,4-dichlorobenzene	15.53	146	23172	4.07	ug/L	98
116) 1,2-dichlorobenzene	15.92	146	21615	4.04	ug/L	96
118) n-butylbenzene	15.82	92	26693	4.30	ug/L	98
120) 1,2-dibromo-3-chloropropan	16.66	157	1852	3.83	ug/L	85
121) 1,3,5-trichlorobenzene	16.88	180	20433	4.09	ug/L	96
122) 1,2,4-trichlorobenzene	17.51	180	14766	3.94	ug/L	99
123) hexachlorobutadiene	17.64	225	11311	4.30	ug/L	97
124) naphthalene	17.76	128	23806	3.66	ug/L	96
125) 1,2,3-trichlorobenzene	18.00	180	12693	3.95	ug/L	97
126) hexachloroethane	16.19	201	6729	4.11	ug/L	97
127) benzyl chloride	15.82	91	51500	4.37	ug/L	100
128) 2-ethylhexyl acrylate	17.52	70	3461	1.04	ug/L #	67

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

Quantitation Report (QT Reviewed)

```
Data Path   : C:\MSDCHEM\1\DATA\VY7788\
Data File  : Y180049.D
Acq On     : 24 May 2018   11:39 pm
Operator   : PrashanS
Sample     : ic7788-4
Misc       : MS26438, VY7788, 5.0, , , , 1
ALS Vial   : 15      Sample Multiplier: 1
```

Quant Time: May 29 11:31:13 2018
Quant Method : C:\MSDCHEM\1\METHODS\MYS7788.M
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um
QLast Update : Tue May 29 11:20:59 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\VY7788\
 Data File : Y180050.D
 Acq On : 25 May 2018 12:07 am
 Operator : PrashanS
 Sample : ic7788-8
 Misc : MS26438,VY7788,5.0,,,,1
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: May 29 11:31:23 2018
 Quant Method : C:\MSDCHEM\1\METHODS\MYS7788.M
 Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um
 QLast Update : Tue May 29 11:20:59 2018
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	6.87	65	103374	500.00	ug/L	0.00
5) pentafluorobenzene	9.10	168	235136	50.00	ug/L	0.00
54) 1,4-difluorobenzene	10.01	114	360372	50.00	ug/L	0.00
76) chlorobenzene-d5	13.19	117	310224	50.00	ug/L	0.00
99) 1,4-dichlorobenzene-d4	15.50	152	161840	50.00	ug/L	0.00

System Monitoring Compounds

47) dibromofluoromethane (s)	9.11	113	104778	49.32	ug/L	0.00
Spiked Amount	50.000	Range	72 - 129	Recovery	=	98.64%
55) 1,2-dichloroethane-d4 (s)	9.52	65	107168	49.82	ug/L	0.00
Spiked Amount	50.000	Range	73 - 132	Recovery	=	99.64%
77) toluene-d8 (s)	11.68	98	443505	51.22	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	102.44%
100) 4-bromofluorobenzene (s)	14.34	95	152785	49.56	ug/L	0.00
Spiked Amount	50.000	Range	77 - 125	Recovery	=	99.12%

Target Compounds

						Qvalue
3) tertiary butyl alcohol	6.99	59	12079	39.22	ug/L	93
4) 1,4-dioxane	10.72	88	4945	198.41	ug/L	93
6) chlorodifluoromethane	3.78	51	33519	8.49	ug/L	95
7) dichlorodifluoromethane	3.77	85	31069	7.66	ug/L	97
8) freon 142b	4.02	65	33569	7.71	ug/L	95
10) chloromethane	4.10	50	45062	8.25	ug/L	96
11) vinyl chloride	4.32	62	39201	8.12	ug/L	97
12) 1,3-butadiene	4.35	54	27782	6.66	ug/L	99
13) bromomethane	4.91	94	22267	8.09	ug/L	91
14) chloroethane	5.04	64	20888	7.90	ug/L	94
15) vinyl bromide	5.35	106	19587	7.81	ug/L	91
16) trichlorofluoromethane	5.49	101	31067	7.48	ug/L	90
17) ethyl ether	5.84	74	9858	7.32	ug/L	83
18) 2-chloropropane	6.02	63	8689	8.04	ug/L	# 68
19) acrolein	6.04	56	3697	8.25	ug/L	73
20) freon 113	6.25	151	14487	7.89	ug/L	96
21) 1,1-dichloroethene	6.25	61	31982	7.58	ug/L	91
22) acetone	6.25	58	6373	31.59	ug/L	# 51
23) acetonitrile	6.63	41	26558	80.23	ug/L	88
24) iodomethane	6.50	142	26989	7.61	ug/L	97
25) carbon disulfide	6.64	76	60704	7.54	ug/L	96
26) methylene chloride	6.91	84	23179	7.77	ug/L	95
27) methyl acetate	6.72	43	10591	5.48	ug/L	96
28) methyl tert butyl ether	7.28	73	61723	7.46	ug/L	92
29) trans-1,2-dichloroethene	7.30	61	30034	7.65	ug/L	93
30) hexane	7.65	57	31530	7.25	ug/L	94
31) di-isopropyl ether	7.88	45	82500	7.55	ug/L	94
32) ethyl tert-butyl ether	8.33	59	69683	7.42	ug/L	99
33) 2-butanone	8.52	72	6332	29.97	ug/L	91
34) 1,1-dichloroethane	7.84	63	37161	7.58	ug/L	95
35) chloroprene	7.97	53	30677	7.57	ug/L	95
36) acrylonitrile	7.18	53	7402	8.87	ug/L	80
37) vinyl acetate	7.84	86	2658	7.28	ug/L	# 85

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\VY7788\
 Data File : Y180050.D
 Acq On : 25 May 2018 12:07 am
 Operator : PrashanS
 Sample : ic7788-8
 Misc : MS26438,VY7788,5.0,,,,1
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: May 29 11:31:23 2018
 Quant Method : C:\MSDCHEM\1\METHODS\MYS7788.M
 Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um
 QLast Update : Tue May 29 11:20:59 2018
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
38) ethyl acetate	8.58	45	4260	5.23	ug/L #	1
39) 2,2-dichloropropane	8.58	77	32567	8.09	ug/L	97
40) cis-1,2-dichloroethene	8.56	96	21409	7.58	ug/L	91
41) propionitrile	8.57	54	27375	79.28	ug/L	92
42) bromochloromethane	8.86	130	12127	7.88	ug/L	97
43) tetrahydrofuran	8.93	72	2362	8.22	ug/L #	40
44) chloroform	8.92	83	37122	7.63	ug/L	99
48) methacrylonitrile	8.77	67	5945	7.57	ug/L	81
49) 1,1,1-trichloroethane	9.21	97	33688	7.86	ug/L	97
50) cyclohexane	9.31	84	31367	7.31	ug/L	93
51) 1,1-dichloropropene	9.39	75	26504	7.43	ug/L	96
52) tert-amyl alcohol	9.50	55	4720	44.51	ug/L #	68
53) carbon tetrachloride	9.42	117	26504	7.62	ug/L	98
56) 2,2,4-trimethylpentane	9.69	57	81495	6.96	ug/L	96
57) tert-amyl methyl ether	9.70	73	62800	7.72	ug/L	96
58) n-butyl alcohol	10.13	56	26534	371.46	ug/L	97
59) benzene	9.63	78	83920	7.47	ug/L	97
60) heptane	9.88	57	16589	6.52	ug/L	92
61) isopropyl acetate	9.57	87	2761	6.95	ug/L #	58
62) 1,2-dichloroethane	9.62	62	24325	7.89	ug/L	97
63) trichloroethene	10.37	130	18489	7.70	ug/L	97
64) ethyl acrylate	10.37	55	21818	7.97	ug/L	94
65) 2-nitropropane	11.07	41	4611	8.99	ug/L #	65
66) 2-chloroethyl vinyl ether	11.15	63	48052	40.28	ug/L	98
67) methyl methacrylate	10.65	100	3449	7.15	ug/L #	42
68) 1,2-dichloropropane	10.60	63	23205	7.68	ug/L	96
69) methylcyclohexane	10.62	83	40243	7.96	ug/L	97
70) dibromomethane	10.75	93	11970	7.75	ug/L	94
71) bromodichloromethane	10.89	83	27122	7.42	ug/L	98
72) epichlorohydrin	11.25	57	9595	42.47	ug/L	94
73) cis-1,3-dichloropropene	11.37	75	34252	7.71	ug/L	97
74) 4-methyl-2-pentanone	11.46	58	29419	31.41	ug/L	90
75) 3-methyl-1-butanol	11.49	70	12400	156.24	ug/L	96
78) toluene	11.75	92	49083	7.63	ug/L	95
79) trans-1,3-dichloropropene	11.93	75	28658	7.53	ug/L	97
80) ethyl methacrylate	11.96	69	23580	8.13	ug/L	95
81) 1,1,2-trichloroethane	12.13	83	15455	8.14	ug/L	95
82) 2-hexanone	12.33	58	27837	32.15	ug/L	99
83) tetrachloroethene	12.36	166	19288	7.53	ug/L	98
84) 1,3-dichloropropane	12.32	76	26198	7.68	ug/L	99
85) butyl acetate	12.44	56	15555	9.36	ug/L #	75
86) dibromochloromethane	12.58	129	17987	7.65	ug/L	98
87) 1,2-dibromoethane	12.74	107	15967	7.64	ug/L	99
88) n-butyl ether	13.19	57	100614	7.58	ug/L	94
89) chlorobenzene	13.22	112	52161	7.78	ug/L	95
90) 1,1,1,2-tetrachloroethane	13.27	131	19100	7.67	ug/L	99
91) ethylbenzene	13.29	91	92849	7.58	ug/L	98
92) m,p-xylene	13.40	106	69396	15.16	ug/L	97
93) o-xylene	13.81	91	78477	7.64	ug/L	97
94) styrene	13.82	104	58120	7.61	ug/L	97

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\VY7788\
 Data File : Y180050.D
 Acq On : 25 May 2018 12:07 am
 Operator : PrashanS
 Sample : ic7788-8
 Misc : MS26438,VY7788,5.0,,,,1
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: May 29 11:31:23 2018
 Quant Method : C:\MSDCHEM\1\METHODS\MYS7788.M
 Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um
 QLast Update : Tue May 29 11:20:59 2018
 Response via : Initial Calibration

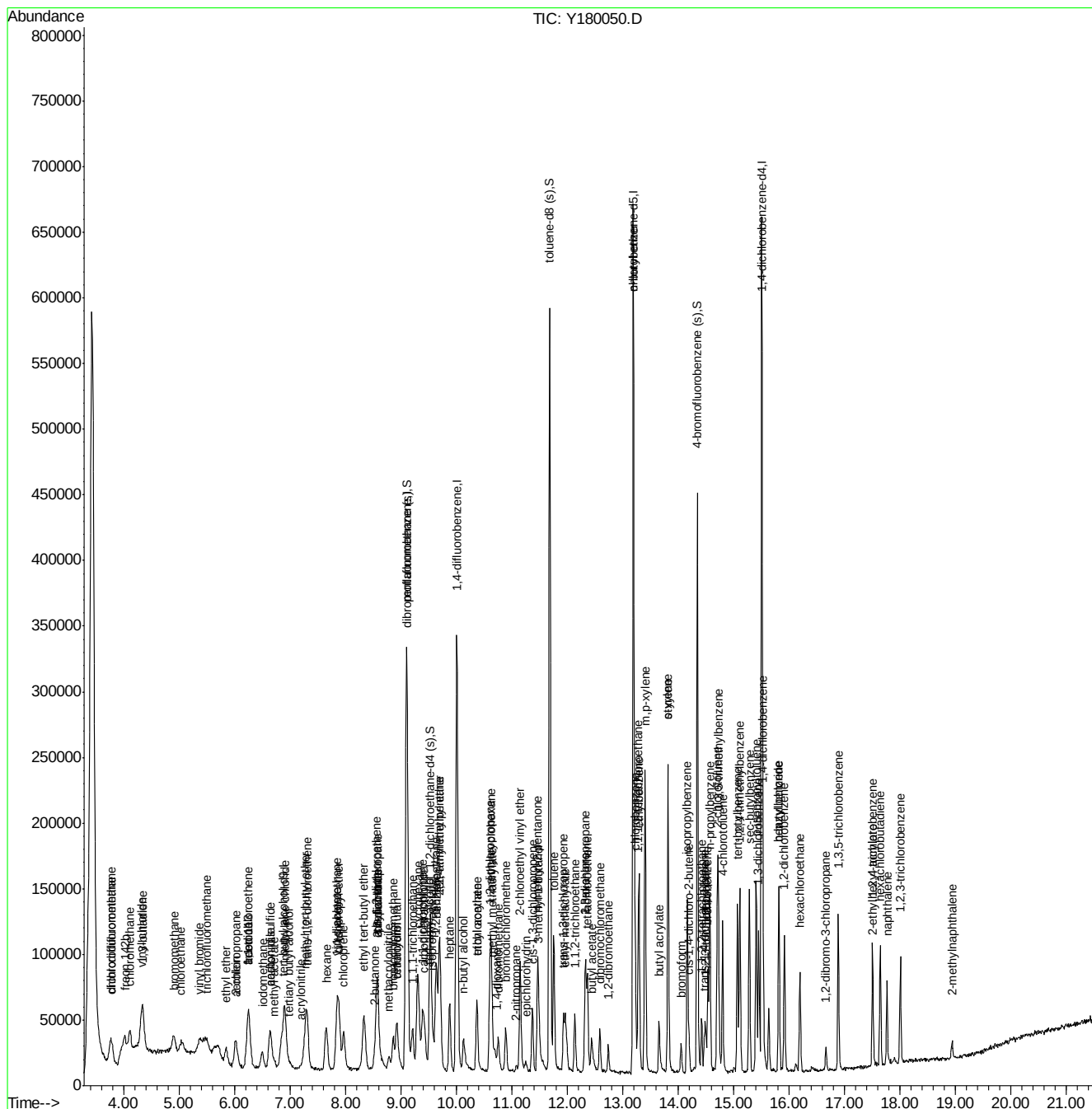
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
95) bromoform	14.05	173	10510	7.67	ug/L	96
96) butyl acrylate	13.65	55	38320	7.92	ug/L	94
97) isopropylbenzene	14.16	105	90835	7.56	ug/L	98
98) cis-1,4-dichloro-2-butene	14.19	88	6134	7.47	ug/L	96
101) bromobenzene	14.54	156	22226	7.78	ug/L	96
102) 1,1,2,2-tetrachloroethane	14.42	83	23188	8.07	ug/L	98
103) trans-1,4-dichloro-2-buten	14.47	53	5457	8.17	ug/L	90
104) 1,2,3-trichloropropane	14.49	110	4927	7.89	ug/L	92
105) n-propylbenzene	14.57	91	111117	7.55	ug/L	100
107) 2-chlorotoluene	14.70	126	22056	7.95	ug/L	95
108) 4-chlorotoluene	14.80	91	67986	7.73	ug/L	99
109) 1,3,5-trimethylbenzene	14.72	105	80071	7.67	ug/L	98
110) tert-butylbenzene	15.07	134	13613	7.66	ug/L	90
111) 1,2,4-trimethylbenzene	15.11	105	82149	7.54	ug/L	98
112) sec-butylbenzene	15.28	105	101018	7.54	ug/L	97
113) 1,3-dichlorobenzene	15.45	146	42757	7.50	ug/L	97
114) p-isopropyltoluene	15.40	119	84692	7.60	ug/L	97
115) 1,4-dichlorobenzene	15.53	146	43257	7.53	ug/L	98
116) 1,2-dichlorobenzene	15.91	146	42850	7.93	ug/L	99
118) n-butylbenzene	15.81	92	46135	7.36	ug/L	98
120) 1,2-dibromo-3-chloropropan	16.66	157	3732	7.65	ug/L	99
121) 1,3,5-trichlorobenzene	16.88	180	37187	7.38	ug/L	96
122) 1,2,4-trichlorobenzene	17.50	180	28348	7.49	ug/L	97
123) hexachlorobutadiene	17.64	225	19714	7.43	ug/L	99
124) naphthalene	17.76	128	48796	7.43	ug/L	97
125) 1,2,3-trichlorobenzene	18.00	180	24047	7.41	ug/L	96
126) hexachloroethane	16.19	201	12765	7.73	ug/L	90
127) benzyl chloride	15.81	91	85374	7.17	ug/L	96
128) 2-ethylhexyl acrylate	17.52	70	4614	1.38	ug/L	84
129) 2-methylnaphthalene	18.93	142	7658	4.68	ug/L	90

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

Quantitation Report (QT Reviewed)

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Data Path   : C:\MSDCHEM\1\DATA\VY7788\
Data File   : Y180050.D
Acq On      : 25 May 2018  12:07 am
Operator    : PrashanS
Sample      : ic7788-8
Misc        : MS26438,VY7788,5.0,,,,,1
ALS Vial    : 16      Sample Multiplier: 1
```

Quant Time: May 29 11:31:23 2018
Quant Method : C:\MSDCHEM\1\METHODS\MYS7788.M
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um
QLast Update : Tue May 29 11:20:59 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\VY7788\
 Data File : Y180051.D
 Acq On : 25 May 2018 12:36 am
 Operator : PrashanS
 Sample : ic7788-20
 Misc : MS26438,VY7788,5.0,,,,1
 ALS Vial : 17 Sample Multiplier: 1

Quant Time: May 29 11:31:32 2018
 Quant Method : C:\MSDCHEM\1\METHODS\MYS7788.M
 Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um
 QLast Update : Tue May 29 11:20:59 2018
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	6.87	65	100740	500.00	ug/L	0.00
5) pentafluorobenzene	9.10	168	237193	50.00	ug/L	0.00
54) 1,4-difluorobenzene	10.01	114	363383	50.00	ug/L	0.00
76) chlorobenzene-d5	13.19	117	311119	50.00	ug/L	0.00
99) 1,4-dichlorobenzene-d4	15.50	152	157435	50.00	ug/L	0.00

System Monitoring Compounds

47) dibromofluoromethane (s)	9.11	113	105192	49.08	ug/L	0.00
Spiked Amount 50.000	Range 72 - 129		Recovery =	98.16%		
55) 1,2-dichloroethane-d4 (s)	9.53	65	110802	51.08	ug/L	0.00
Spiked Amount 50.000	Range 73 - 132		Recovery =	102.16%		
77) toluene-d8 (s)	11.68	98	443279	51.05	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery =	102.10%		
100) 4-bromofluorobenzene (s)	14.34	95	150742	50.26	ug/L	0.00
Spiked Amount 50.000	Range 77 - 125		Recovery =	100.52%		

Target Compounds

						Qvalue
3) tertiary butyl alcohol	6.99	59	30226	100.71	ug/L	92
4) 1,4-dioxane	10.73	88	12281	505.65	ug/L	86
6) chlorodifluoromethane	3.77	51	72119	18.10	ug/L	98
7) dichlorodifluoromethane	3.77	85	78472	19.18	ug/L	96
8) freon 142b	4.02	65	81627	18.59	ug/L	96
10) chloromethane	4.11	50	110700	20.09	ug/L	98
11) vinyl chloride	4.32	62	90356	18.55	ug/L	96
12) 1,3-butadiene	4.36	54	72608	17.25	ug/L	95
13) bromomethane	4.91	94	52540	18.93	ug/L	96
14) chloroethane	5.04	64	50771	19.04	ug/L	93
15) vinyl bromide	5.36	106	48555	19.19	ug/L	98
16) trichlorofluoromethane	5.48	101	79235	18.91	ug/L	93
17) ethyl ether	5.85	74	26155	19.25	ug/L	92
18) 2-chloropropane	6.02	63	21782	19.97	ug/L #	74
19) acrolein	6.04	56	8730	19.32	ug/L	93
20) freon 113	6.25	151	36973	19.97	ug/L	95
21) 1,1-dichloroethene	6.25	61	78482	18.44	ug/L	98
22) acetone	6.25	58	16064	78.93	ug/L #	76
23) acetonitrile	6.63	41	66798	200.05	ug/L	93
24) iodomethane	6.50	142	68596	19.17	ug/L	95
25) carbon disulfide	6.65	76	151754	18.68	ug/L	98
26) methylene chloride	6.91	84	56748	18.86	ug/L	96
27) methyl acetate	6.73	43	28668	14.70	ug/L	95
28) methyl tert butyl ether	7.28	73	154501	18.51	ug/L	96
29) trans-1,2-dichloroethene	7.31	61	75764	19.13	ug/L	95
30) hexane	7.65	57	73565	16.76	ug/L	98
31) di-isopropyl ether	7.88	45	207307	18.80	ug/L	91
32) ethyl tert-butyl ether	8.33	59	179304	18.94	ug/L	97
33) 2-butanone	8.51	72	18297	85.86	ug/L	96
34) 1,1-dichloroethane	7.84	63	94124	19.03	ug/L	97
35) chloroprene	7.97	53	77093	18.85	ug/L	97
36) acrylonitrile	7.20	53	16779	19.93	ug/L	97
37) vinyl acetate	7.85	86	7422	20.15	ug/L #	71

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\VY7788\
 Data File : Y180051.D
 Acq On : 25 May 2018 12:36 am
 Operator : PrashanS
 Sample : ic7788-20
 Misc : MS26438,VY7788,5.0,,,,1
 ALS Vial : 17 Sample Multiplier: 1

Quant Time: May 29 11:31:32 2018
 Quant Method : C:\MSDCHEM\1\METHODS\MYS7788.M
 Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um
 QLast Update : Tue May 29 11:20:59 2018
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
38) ethyl acetate	8.58	45	9904	21.05	ug/L #	14
39) 2,2-dichloropropane	8.58	77	76513	18.85	ug/L	97
40) cis-1,2-dichloroethene	8.56	96	53953	18.93	ug/L	98
41) propionitrile	8.56	54	71241	204.52	ug/L	99
42) bromochloromethane	8.86	130	31586	20.34	ug/L	93
43) tetrahydrofuran	8.93	72	6004	20.71	ug/L	86
44) chloroform	8.92	83	89402	18.23	ug/L	96
48) methacrylonitrile	8.78	67	16298	20.56	ug/L	95
49) 1,1,1-trichloroethane	9.21	97	79522	18.40	ug/L	98
50) cyclohexane	9.32	84	75565	17.45	ug/L	98
51) 1,1-dichloropropene	9.39	75	67822	18.86	ug/L	98
52) tert-amyl alcohol	9.49	55	10141	94.79	ug/L #	86
53) carbon tetrachloride	9.43	117	66917	19.08	ug/L	98
56) 2,2,4-trimethylpentane	9.70	57	211342	17.89	ug/L	97
57) tert-amyl methyl ether	9.70	73	160704	19.60	ug/L	97
58) n-butyl alcohol	10.12	56	72807	1010.80	ug/L	98
59) benzene	9.64	78	211087	18.64	ug/L	99
60) heptane	9.88	57	41305	16.09	ug/L	96
61) isopropyl acetate	9.58	87	8299	20.71	ug/L	94
62) 1,2-dichloroethane	9.62	62	62404	20.07	ug/L	97
63) trichloroethene	10.37	130	47959	19.80	ug/L	97
64) ethyl acrylate	10.37	55	56682	20.53	ug/L	96
65) 2-nitropropane	11.07	41	10433	20.17	ug/L	81
66) 2-chloroethyl vinyl ether	11.15	63	124815	103.76	ug/L	99
67) methyl methacrylate	10.64	100	10431	21.44	ug/L #	75
68) 1,2-dichloropropane	10.60	63	58052	19.07	ug/L	98
69) methylcyclohexane	10.62	83	96670	18.95	ug/L	98
70) dibromomethane	10.75	93	29506	18.95	ug/L	94
71) bromodichloromethane	10.89	83	70269	19.08	ug/L	99
72) epichlorohydrin	11.24	57	22929	100.65	ug/L	98
73) cis-1,3-dichloropropene	11.37	75	87842	19.61	ug/L	99
74) 4-methyl-2-pentanone	11.46	58	77261	81.82	ug/L	99
75) 3-methyl-1-butanol	11.48	70	30174	377.05	ug/L	85
78) toluene	11.76	92	125004	19.37	ug/L	99
79) trans-1,3-dichloropropene	11.93	75	74530	19.54	ug/L	99
80) ethyl methacrylate	11.95	69	59621	20.51	ug/L	98
81) 1,1,2-trichloroethane	12.13	83	37971	19.94	ug/L	97
82) 2-hexanone	12.32	58	74022	85.23	ug/L	95
83) tetrachloroethene	12.36	166	47751	18.59	ug/L	97
84) 1,3-dichloropropane	12.32	76	69489	20.30	ug/L	99
85) butyl acetate	12.43	56	31799	19.07	ug/L	96
86) dibromochloromethane	12.58	129	46901	19.89	ug/L	94
87) 1,2-dibromoethane	12.74	107	42302	20.18	ug/L	98
88) n-butyl ether	13.19	57	255587	19.21	ug/L	98
89) chlorobenzene	13.22	112	133272	19.81	ug/L	99
90) 1,1,1,2-tetrachloroethane	13.27	131	49089	19.66	ug/L	94
91) ethylbenzene	13.29	91	229314	18.68	ug/L	98
92) m,p-xylene	13.40	106	172650	37.60	ug/L	100
93) o-xylene	13.81	91	196519	19.08	ug/L	97
94) styrene	13.82	104	146804	19.17	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\VY7788\
 Data File : Y180051.D
 Acq On : 25 May 2018 12:36 am
 Operator : PrashanS
 Sample : ic7788-20
 Misc : MS26438,VY7788,5.0,,,,1
 ALS Vial : 17 Sample Multiplier: 1

Quant Time: May 29 11:31:32 2018
 Quant Method : C:\MSDCHEM\1\METHODS\MYS7788.M
 Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um
 QLast Update : Tue May 29 11:20:59 2018
 Response via : Initial Calibration

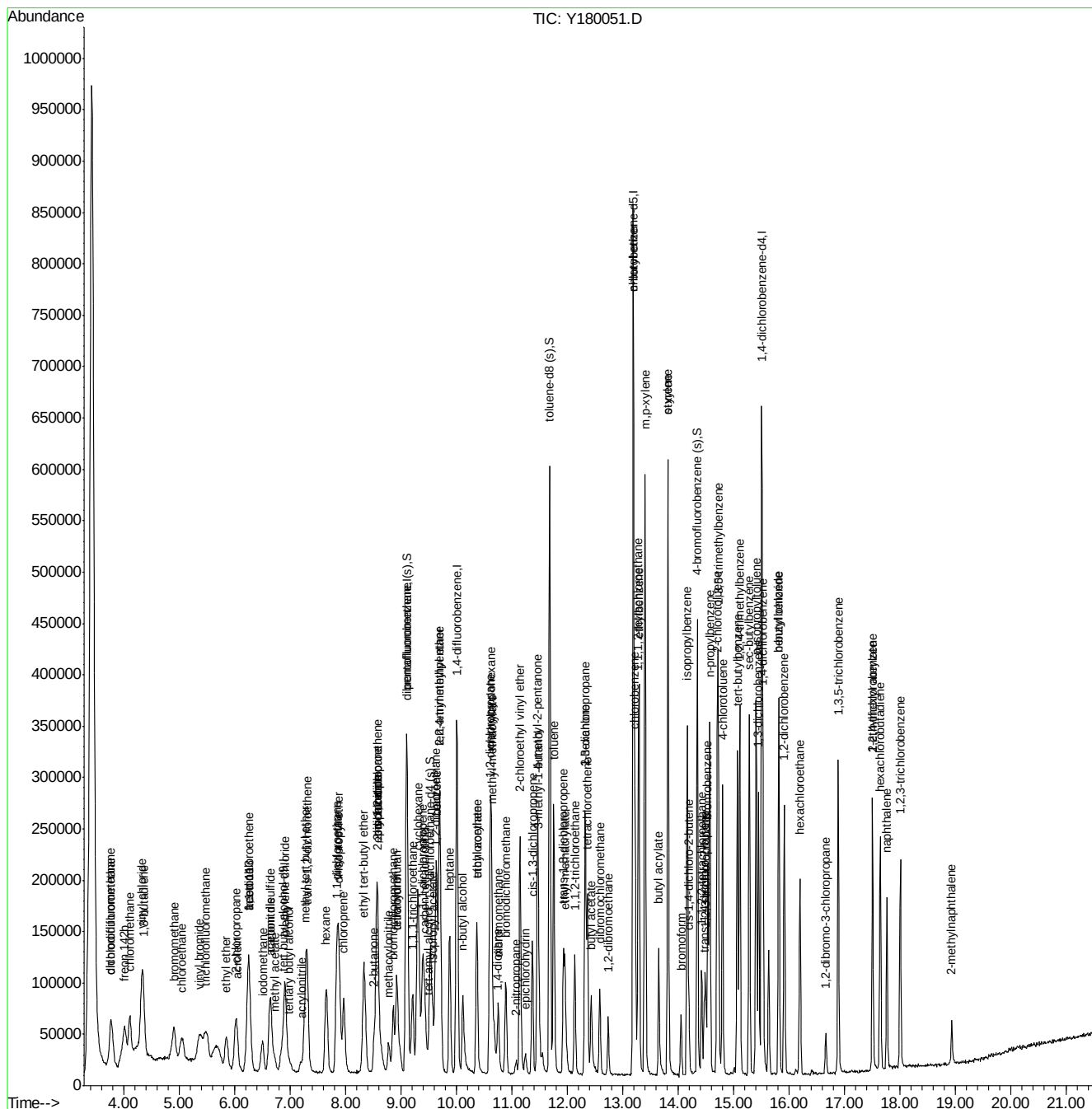
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
95) bromoform	14.05	173	27751	20.20	ug/L	98
96) butyl acrylate	13.65	55	101122	20.83	ug/L	98
97) isopropylbenzene	14.16	105	226932	18.82	ug/L	99
98) cis-1,4-dichloro-2-butene	14.19	88	16744	20.32	ug/L	97
101) bromobenzene	14.54	156	55567	19.99	ug/L	92
102) 1,1,2,2-tetrachloroethane	14.42	83	58653	20.98	ug/L	97
103) trans-1,4-dichloro-2-buten	14.47	53	13396	20.61	ug/L	88
104) 1,2,3-trichloropropane	14.49	110	12034	19.81	ug/L	99
105) n-propylbenzene	14.57	91	275969	19.27	ug/L	99
107) 2-chlorotoluene	14.70	126	56269	20.86	ug/L	96
108) 4-chlorotoluene	14.80	91	165702	19.37	ug/L	97
109) 1,3,5-trimethylbenzene	14.72	105	199180	19.61	ug/L	99
110) tert-butylbenzene	15.06	134	34527	19.97	ug/L	96
111) 1,2,4-trimethylbenzene	15.11	105	206102	19.45	ug/L	97
112) sec-butylbenzene	15.28	105	256842	19.70	ug/L	99
113) 1,3-dichlorobenzene	15.45	146	107812	19.45	ug/L	98
114) p-isopropyltoluene	15.40	119	211728	19.53	ug/L	99
115) 1,4-dichlorobenzene	15.53	146	109308	19.55	ug/L	99
116) 1,2-dichlorobenzene	15.91	146	105988	20.15	ug/L	100
118) n-butylbenzene	15.81	92	117994	19.35	ug/L	98
120) 1,2-dibromo-3-chloropropan	16.66	157	10423	21.97	ug/L	98
121) 1,3,5-trichlorobenzene	16.88	180	96818	19.74	ug/L	97
122) 1,2,4-trichlorobenzene	17.50	180	74572	20.25	ug/L	100
123) hexachlorobutadiene	17.64	225	51460	19.92	ug/L	97
124) naphthalene	17.76	128	130109	20.37	ug/L	100
125) 1,2,3-trichlorobenzene	18.00	180	65377	20.72	ug/L	98
126) hexachloroethane	16.19	201	33124	20.62	ug/L	92
127) benzyl chloride	15.81	91	216778	18.72	ug/L	98
128) 2-ethylhexyl acrylate	17.51	70	11053	3.40	ug/L	98
129) 2-methylnaphthalene	18.93	142	22781	9.40	ug/L	98

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

Quantitation Report (QT Reviewed)

```
Data Path   : C:\MSDCHEM\1\DATA\VY7788\
Data File  : Y180051.D
Acq On     : 25 May 2018  12:36 am
Operator   : PrashanS
Sample     : ic7788-20
Misc       : MS26438,VY7788,5.0,,,,,1
ALS Vial   : 17   Sample Multiplier: 1
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Quant Time: May 29 11:31:32 2018
Quant Method : C:\MSDCHEM\1\METHODS\MYS7788.M
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um
QLast Update : Tue May 29 11:20:59 2018
Response via : Initial Calibration



7.7.6

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\VY7788\
 Data File : Y180052.D
 Acq On : 25 May 2018 1:04 am
 Operator : PrashanS
 Sample : icc7788-50
 Misc : MS26438,VY7788,5.0,,,,1
 ALS Vial : 18 Sample Multiplier: 1

Quant Time: May 29 11:31:39 2018
 Quant Method : C:\MSDCHEM\1\METHODS\MYS7788.M
 Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um
 QLast Update : Tue May 29 11:20:59 2018
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	6.87	65	108194	500.00	ug/L	0.00
5) pentafluorobenzene	9.10	168	238472	50.00	ug/L	0.00
54) 1,4-difluorobenzene	10.01	114	373400	50.00	ug/L	0.00
76) chlorobenzene-d5	13.19	117	322348	50.00	ug/L	0.00
99) 1,4-dichlorobenzene-d4	15.50	152	170481	50.00	ug/L	0.00

System Monitoring Compounds

47) dibromofluoromethane (s)	9.11	113	109022	50.60	ug/L	0.00
Spiked Amount 50.000	Range 72 - 129		Recovery =	101.20%		
55) 1,2-dichloroethane-d4 (s)	9.53	65	110616	49.63	ug/L	0.00
Spiked Amount 50.000	Range 73 - 132		Recovery =	99.26%		
77) toluene-d8 (s)	11.68	98	453200	50.37	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery =	100.74%		
100) 4-bromofluorobenzene (s)	14.34	95	160253	49.34	ug/L	0.00
Spiked Amount 50.000	Range 77 - 125		Recovery =	98.68%		

Target Compounds

Qvalue

3) tertiary butyl alcohol	6.98	59	78857	244.64	ug/L	100
4) 1,4-dioxane	10.72	88	33521	1285.08	ug/L	100
6) chlorodifluoromethane	3.78	51	203872	50.90	ug/L	97
7) dichlorodifluoromethane	3.77	85	203273	49.41	ug/L	100
8) freon 142b	4.02	65	202211	45.79	ug/L	100
10) chloromethane	4.12	50	275403	49.71	ug/L	100
11) vinyl chloride	4.33	62	232870	47.54	ug/L	100
12) 1,3-butadiene	4.35	54	188340	44.50	ug/L	100
13) bromomethane	4.91	94	135995	48.73	ug/L	100
14) chloroethane	5.05	64	122480	45.68	ug/L	100
15) vinyl bromide	5.38	106	122242	48.05	ug/L	100
16) trichlorofluoromethane	5.49	101	201022	47.72	ug/L	100
17) ethyl ether	5.85	74	65550	47.99	ug/L	100
18) 2-chloropropane	6.03	63	52012	47.44	ug/L	100
19) acrolein	6.05	56	24352	53.61	ug/L	100
20) freon 113	6.27	151	96505	51.85	ug/L	100
21) 1,1-dichloroethene	6.25	61	198179	46.32	ug/L	100
22) acetone	6.25	58	38023	185.82	ug/L	100
23) acetonitrile	6.63	41	166256	495.24	ug/L	100
24) iodomethane	6.50	142	172383	47.91	ug/L	100
25) carbon disulfide	6.64	76	381294	46.67	ug/L	100
26) methylene chloride	6.91	84	140279	46.37	ug/L	100
27) methyl acetate	6.71	43	79338	40.47	ug/L	100
28) methyl tert butyl ether	7.28	73	385585	45.95	ug/L	100
29) trans-1,2-dichloroethene	7.30	61	188063	47.24	ug/L	100
30) hexane	7.65	57	221125	50.10	ug/L	100
31) di-isopropyl ether	7.88	45	524009	47.25	ug/L	100
32) ethyl tert-butyl ether	8.33	59	464295	48.78	ug/L	100
33) 2-butanone	8.50	72	47844	223.30	ug/L	100
34) 1,1-dichloroethane	7.84	63	235091	47.27	ug/L	100
35) chloroprene	7.97	53	189897	46.19	ug/L	100
36) acrylonitrile	7.19	53	41438	48.95	ug/L	100
37) vinyl acetate	7.83	86	19102	51.58	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\VY7788\
 Data File : Y180052.D
 Acq On : 25 May 2018 1:04 am
 Operator : PrashanS
 Sample : icc7788-50
 Misc : MS26438,VY7788,5.0,,,,1
 ALS Vial : 18 Sample Multiplier: 1

Quant Time: May 29 11:31:39 2018
 Quant Method : C:\MSDCHEM\1\METHODS\MYS7788.M
 Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um
 QLast Update : Tue May 29 11:20:59 2018
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
38) ethyl acetate	8.56	45	20111	49.55	ug/L	100
39) 2,2-dichloropropane	8.58	77	184521	45.22	ug/L	100
40) cis-1,2-dichloroethene	8.56	96	137334	47.92	ug/L	100
41) propionitrile	8.56	54	177615	507.17	ug/L	100
42) bromochloromethane	8.86	130	77730	49.79	ug/L	100
43) tetrahydrofuran	8.92	72	14320	49.13	ug/L	100
44) chloroform	8.92	83	223309	45.28	ug/L	100
46) isobutyl alcohol	9.29	41	332741	471.52	ug/L	100
48) methacrylonitrile	8.77	67	41442	52.00	ug/L	100
49) 1,1,1-trichloroethane	9.21	97	195565	45.01	ug/L	100
50) cyclohexane	9.32	84	191529	43.99	ug/L	100
51) 1,1-dichloropropene	9.39	75	169801	46.95	ug/L	100
52) tert-amyl alcohol	9.49	55	24958	232.04	ug/L	100
53) carbon tetrachloride	9.43	117	165567	46.96	ug/L	100
56) 2,2,4-trimethylpentane	9.69	57	620429	51.11	ug/L	100
57) tert-amyl methyl ether	9.70	73	413572	49.08	ug/L	100
58) n-butyl alcohol	10.11	56	198189	2677.69	ug/L	100
59) benzene	9.63	78	527510	45.32	ug/L	100
60) heptane	9.88	57	130330	49.42	ug/L	100
61) isopropyl acetate	9.57	87	21085	51.21	ug/L	99
62) 1,2-dichloroethane	9.61	62	157458	49.27	ug/L	100
63) trichloroethene	10.36	130	121263	48.71	ug/L	100
64) ethyl acrylate	10.36	55	143781	50.69	ug/L	100
65) 2-nitropropane	11.07	41	25128	47.27	ug/L	100
66) 2-chloroethyl vinyl ether	11.14	63	320794	259.52	ug/L	100
67) methyl methacrylate	10.63	100	26283	52.57	ug/L	100
68) 1,2-dichloropropane	10.60	63	148413	47.43	ug/L	100
69) methylcyclohexane	10.62	83	258645	49.35	ug/L	100
70) dibromomethane	10.75	93	73462	45.93	ug/L	100
71) bromodichloromethane	10.88	83	178552	47.17	ug/L	100
72) epichlorohydrin	11.24	57	57227	244.48	ug/L	100
73) cis-1,3-dichloropropene	11.37	75	223879	48.65	ug/L	100
74) 4-methyl-2-pentanone	11.45	58	197215	203.25	ug/L	100
75) 3-methyl-1-butanol	11.48	70	75749	921.16	ug/L	100
78) toluene	11.75	92	317292	47.45	ug/L	100
79) trans-1,3-dichloropropene	11.92	75	189117	47.85	ug/L	100
80) ethyl methacrylate	11.95	69	154825	51.40	ug/L	100
81) 1,1,2-trichloroethane	12.13	83	91453	46.35	ug/L	100
82) 2-hexanone	12.32	58	191709	213.06	ug/L	100
83) tetrachloroethene	12.36	166	126471	47.53	ug/L	100
84) 1,3-dichloropropane	12.32	76	172961	48.77	ug/L	100
85) butyl acetate	12.42	56	80455	46.58	ug/L	100
86) dibromochloromethane	12.58	129	120441	49.29	ug/L	100
87) 1,2-dibromoethane	12.73	107	107181	49.34	ug/L	100
88) n-butyl ether	13.19	57	652491	47.33	ug/L	100
89) chlorobenzene	13.22	112	339666	48.73	ug/L	100
90) 1,1,1,2-tetrachloroethane	13.27	131	124603	48.17	ug/L	100
91) ethylbenzene	13.29	91	592298	46.56	ug/L	100
92) m,p-xylene	13.40	106	448268	94.23	ug/L	100
93) o-xylene	13.81	91	497274	46.61	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\VY7788\
 Data File : Y180052.D
 Acq On : 25 May 2018 1:04 am
 Operator : PrashanS
 Sample : icc7788-50
 Misc : MS26438,VY7788,5.0,,,,1
 ALS Vial : 18 Sample Multiplier: 1

Quant Time: May 29 11:31:39 2018
 Quant Method : C:\MSDCHEM\1\METHODS\MYS7788.M
 Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um
 QLast Update : Tue May 29 11:20:59 2018
 Response via : Initial Calibration

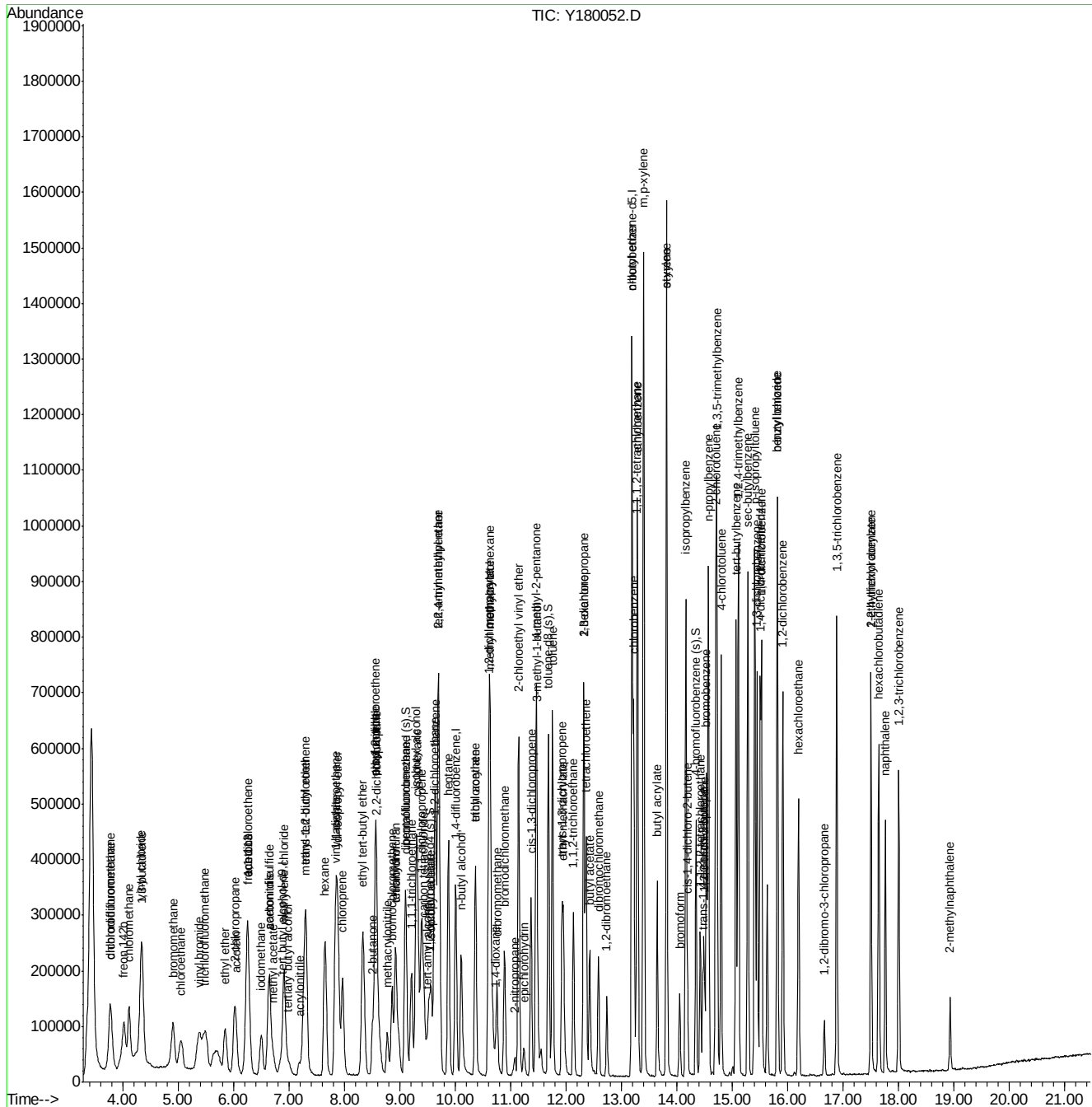
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
94) styrene	13.81	104	383267	48.30	ug/L	100
95) bromoform	14.05	173	72669	51.05	ug/L	100
96) butyl acrylate	13.64	55	258329	51.36	ug/L	100
97) isopropylbenzene	14.16	105	578308	46.30	ug/L	100
98) cis-1,4-dichloro-2-butene	14.19	88	44585	52.23	ug/L	100
101) bromobenzene	14.53	156	143815	47.79	ug/L	100
102) 1,1,2,2-tetrachloroethane	14.42	83	143185	47.30	ug/L	100
103) trans-1,4-dichloro-2-buten	14.46	53	33191	47.17	ug/L	100
104) 1,2,3-trichloropropane	14.49	110	30890	46.97	ug/L	100
105) n-propylbenzene	14.57	91	720889	46.48	ug/L	100
107) 2-chlorotoluene	14.70	126	143010	48.95	ug/L	90
108) 4-chlorotoluene	14.80	91	437408	47.21	ug/L	100
109) 1,3,5-trimethylbenzene	14.72	105	522182	47.47	ug/L	100
110) tert-butylbenzene	15.06	134	89293	47.70	ug/L	100
111) 1,2,4-trimethylbenzene	15.11	105	531347	46.30	ug/L	100
112) sec-butylbenzene	15.28	105	665145	47.12	ug/L	100
113) 1,3-dichlorobenzene	15.45	146	285907	47.64	ug/L	100
114) p-isopropyltoluene	15.40	119	566565	48.27	ug/L	100
115) 1,4-dichlorobenzene	15.53	146	287757	47.54	ug/L	100
116) 1,2-dichlorobenzene	15.91	146	273558	48.03	ug/L	100
118) n-butylbenzene	15.81	92	329140	49.85	ug/L	100
120) 1,2-dibromo-3-chloropropan	16.66	157	25878	50.37	ug/L	100
121) 1,3,5-trichlorobenzene	16.88	180	264399	49.79	ug/L	100
122) 1,2,4-trichlorobenzene	17.50	180	207813	52.11	ug/L	100
123) hexachlorobutadiene	17.64	225	137484	49.16	ug/L	100
124) naphthalene	17.76	128	347951	50.30	ug/L	100
125) 1,2,3-trichlorobenzene	18.00	180	174332	51.02	ug/L	100
126) hexachloroethane	16.19	201	89089	51.20	ug/L	100
127) benzyl chloride	15.81	91	593495	47.34	ug/L	100
128) 2-ethylhexyl acrylate	17.51	70	30252	8.58	ug/L	100
129) 2-methylnaphthalene	18.93	142	68847	21.95	ug/L	100

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

(QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\VY7788\
Data File : Y180052.D
Acq On : 25 May 2018 1:04 am
Operator : Prashans
Sample : icc7788-50
Misc : MS26438,VY7788,5.0,,,,1
ALS Vial : 18 Sample Multiplier: 1

Quant Time: May 29 11:31:39 2018
Quant Method : C:\MSDCHEM\1\METHODS\MYS7788.M
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um
QLast Update : Tue May 29 11:20:59 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\VY7788\
 Data File : Y180053.D
 Acq On : 25 May 2018 1:33 am
 Operator : PrashanS
 Sample : ic7788-100
 Misc : MS26438,VY7788,5.0,,,,1
 ALS Vial : 19 Sample Multiplier: 1

Quant Time: May 29 11:31:47 2018
 Quant Method : C:\MSDCHEM\1\METHODS\MYS7788.M
 Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um
 QLast Update : Tue May 29 11:20:59 2018
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	6.87	65	95560	500.00	ug/L	0.00
5) pentafluorobenzene	9.10	168	237699	50.00	ug/L	0.00
54) 1,4-difluorobenzene	10.01	114	370544	50.00	ug/L	0.00
76) chlorobenzene-d5	13.19	117	317747	50.00	ug/L	0.00
99) 1,4-dichlorobenzene-d4	15.50	152	168923	50.00	ug/L	0.00

System Monitoring Compounds

47) dibromofluoromethane (s)	9.11	113	106969	49.80	ug/L	0.00
Spiked Amount	50.000	Range	72 - 129	Recovery	=	99.60%
55) 1,2-dichloroethane-d4 (s)	9.53	65	106552	48.17	ug/L	0.00
Spiked Amount	50.000	Range	73 - 132	Recovery	=	96.34%
77) toluene-d8 (s)	11.68	98	453145	51.10	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	102.20%
100) 4-bromofluorobenzene (s)	14.34	95	156521	48.64	ug/L	0.00
Spiked Amount	50.000	Range	77 - 125	Recovery	=	97.28%

Target Compounds

						Qvalue
3) tertiary butyl alcohol	6.99	59	148129	520.30	ug/L	86
4) 1,4-dioxane	10.72	88	63607	2760.87	ug/L	100
6) chlorodifluoromethane	3.78	51	418830	104.91	ug/L	98
7) dichlorodifluoromethane	3.77	85	446822	108.97	ug/L	99
8) freon 142b	4.02	65	406427	92.34	ug/L	99
10) chloromethane	4.12	50	551277	99.84	ug/L	99
11) vinyl chloride	4.33	62	471584	96.59	ug/L	99
12) 1,3-butadiene	4.35	54	389431	92.32	ug/L	100
13) bromomethane	4.90	94	279172	100.36	ug/L	98
14) chloroethane	5.04	64	246424	92.20	ug/L	98
15) vinyl bromide	5.37	106	248926	98.16	ug/L	98
16) trichlorofluoromethane	5.49	101	404135	96.25	ug/L	98
17) ethyl ether	5.85	74	130969	96.19	ug/L	95
18) 2-chloropropane	6.03	63	106349	97.31	ug/L	97
19) acrolein	6.04	56	42955	94.87	ug/L	94
20) freon 113	6.27	151	196878	106.13	ug/L	98
21) 1,1-dichloroethene	6.25	61	407247	95.50	ug/L	99
22) acetone	6.24	58	72997	357.89	ug/L	91
23) acetonitrile	6.63	41	321499	960.79	ug/L	96
24) iodomethane	6.50	142	362666	101.13	ug/L	98
25) carbon disulfide	6.64	76	795414	97.68	ug/L	100
26) methylene chloride	6.91	84	288028	95.51	ug/L	95
27) methyl acetate	6.72	43	151597	77.58	ug/L	95
28) methyl tert butyl ether	7.28	73	776615	92.85	ug/L	99
29) trans-1,2-dichloroethene	7.30	61	388529	97.91	ug/L	99
30) hexane	7.65	57	444346	101.01	ug/L	99
31) di-isopropyl ether	7.88	45	1071000	96.90	ug/L	97
32) ethyl tert-butyl ether	8.33	59	950243	100.16	ug/L	99
33) 2-butanone	8.50	72	90966	425.94	ug/L	94
34) 1,1-dichloroethane	7.84	63	483369	97.50	ug/L	99
35) chloroprene	7.97	53	383119	93.49	ug/L	99
36) acrylonitrile	7.18	53	81378	96.45	ug/L	98
37) vinyl acetate	7.83	86	37961	102.83	ug/L	96

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\VY7788\
 Data File : Y180053.D
 Acq On : 25 May 2018 1:33 am
 Operator : PrashanS
 Sample : ic7788-100
 Misc : MS26438,VY7788,5.0,,,,1
 ALS Vial : 19 Sample Multiplier: 1

Quant Time: May 29 11:31:47 2018
 Quant Method : C:\MSDCHEM\1\METHODS\MYS7788.M
 Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um
 QLast Update : Tue May 29 11:20:59 2018
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
38) ethyl acetate	8.56	45	40255	106.45	ug/L #	90
39) 2,2-dichloropropane	8.59	77	383642	94.32	ug/L	98
40) cis-1,2-dichloroethene	8.56	96	283234	99.15	ug/L	99
41) propionitrile	8.56	54	342227	980.38	ug/L	98
42) bromochloromethane	8.86	130	159298	102.36	ug/L	98
43) tetrahydrofuran	8.92	72	28246	97.23	ug/L	89
44) chloroform	8.92	83	451838	91.92	ug/L	98
46) isobutyl alcohol	9.29	41	667629	949.16	ug/L	97
48) methacrylonitrile	8.77	67	83042	104.54	ug/L	96
49) 1,1,1-trichloroethane	9.21	97	401805	92.78	ug/L	97
50) cyclohexane	9.32	84	382917	88.24	ug/L	97
51) 1,1-dichloropropene	9.39	75	347016	96.27	ug/L	98
52) tert-amyl alcohol	9.49	55	47494	443.01	ug/L #	90
53) carbon tetrachloride	9.43	117	342333	97.41	ug/L	99
56) 2,2,4-trimethylpentane	9.70	57	1284070	106.59	ug/L	100
57) tert-amyl methyl ether	9.70	73	838180	100.24	ug/L	98
58) n-butyl alcohol	10.10	56	384297	5232.17	ug/L	97
59) benzene	9.64	78	1088362	94.23	ug/L	98
60) heptane	9.88	57	268460	102.58	ug/L	98
61) isopropyl acetate	9.57	87	43248	105.84	ug/L	96
62) 1,2-dichloroethane	9.61	62	317942	100.26	ug/L	98
63) trichloroethene	10.36	130	250837	101.53	ug/L	99
64) ethyl acrylate	10.36	55	282366	100.32	ug/L	99
65) 2-nitropropane	11.07	41	47654	90.34	ug/L	98
66) 2-chloroethyl vinyl ether	11.14	63	642697	523.95	ug/L	98
67) methyl methacrylate	10.63	100	53143	107.10	ug/L #	87
68) 1,2-dichloropropane	10.60	63	304766	98.16	ug/L	99
69) methylcyclohexane	10.62	83	519266	99.84	ug/L	99
70) dibromomethane	10.75	93	146984	92.60	ug/L	97
71) bromodichloromethane	10.89	83	367071	97.73	ug/L	98
72) epichlorohydrin	11.24	57	108779	468.30	ug/L	98
73) cis-1,3-dichloropropene	11.36	75	458244	100.35	ug/L	99
74) 4-methyl-2-pentanone	11.45	58	373527	387.92	ug/L	98
75) 3-methyl-1-butanol	11.48	70	141961	1739.65	ug/L	96
78) toluene	11.75	92	654149	99.24	ug/L	99
79) trans-1,3-dichloropropene	11.92	75	386502	99.20	ug/L	99
80) ethyl methacrylate	11.95	69	307464	103.55	ug/L	100
81) 1,1,2-trichloroethane	12.13	83	181256	93.19	ug/L	98
82) 2-hexanone	12.32	58	346904	391.11	ug/L	100
83) tetrachloroethene	12.36	166	255478	97.41	ug/L	96
84) 1,3-dichloropropane	12.32	76	351635	100.59	ug/L	98
85) butyl acetate	12.42	56	156257	91.78	ug/L	94
86) dibromochloromethane	12.58	129	247477	102.74	ug/L	99
87) 1,2-dibromoethane	12.73	107	214782	100.31	ug/L	99
88) n-butyl ether	13.19	57	1352373	99.52	ug/L	100
89) chlorobenzene	13.22	112	698216	101.62	ug/L	99
90) 1,1,1,2-tetrachloroethane	13.27	131	260080	101.99	ug/L	99
91) ethylbenzene	13.29	91	1223964	97.61	ug/L	100
92) m,p-xylene	13.40	106	926487	197.58	ug/L	99
93) o-xylene	13.81	91	1029483	97.89	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\VY7788\
 Data File : Y180053.D
 Acq On : 25 May 2018 1:33 am
 Operator : PrashanS
 Sample : ic7788-100
 Misc : MS26438,VY7788,5.0,,,,1
 ALS Vial : 19 Sample Multiplier: 1

Quant Time: May 29 11:31:47 2018
 Quant Method : C:\MSDCHEM\1\METHODS\MYS7788.M
 Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um
 QLast Update : Tue May 29 11:20:59 2018
 Response via : Initial Calibration

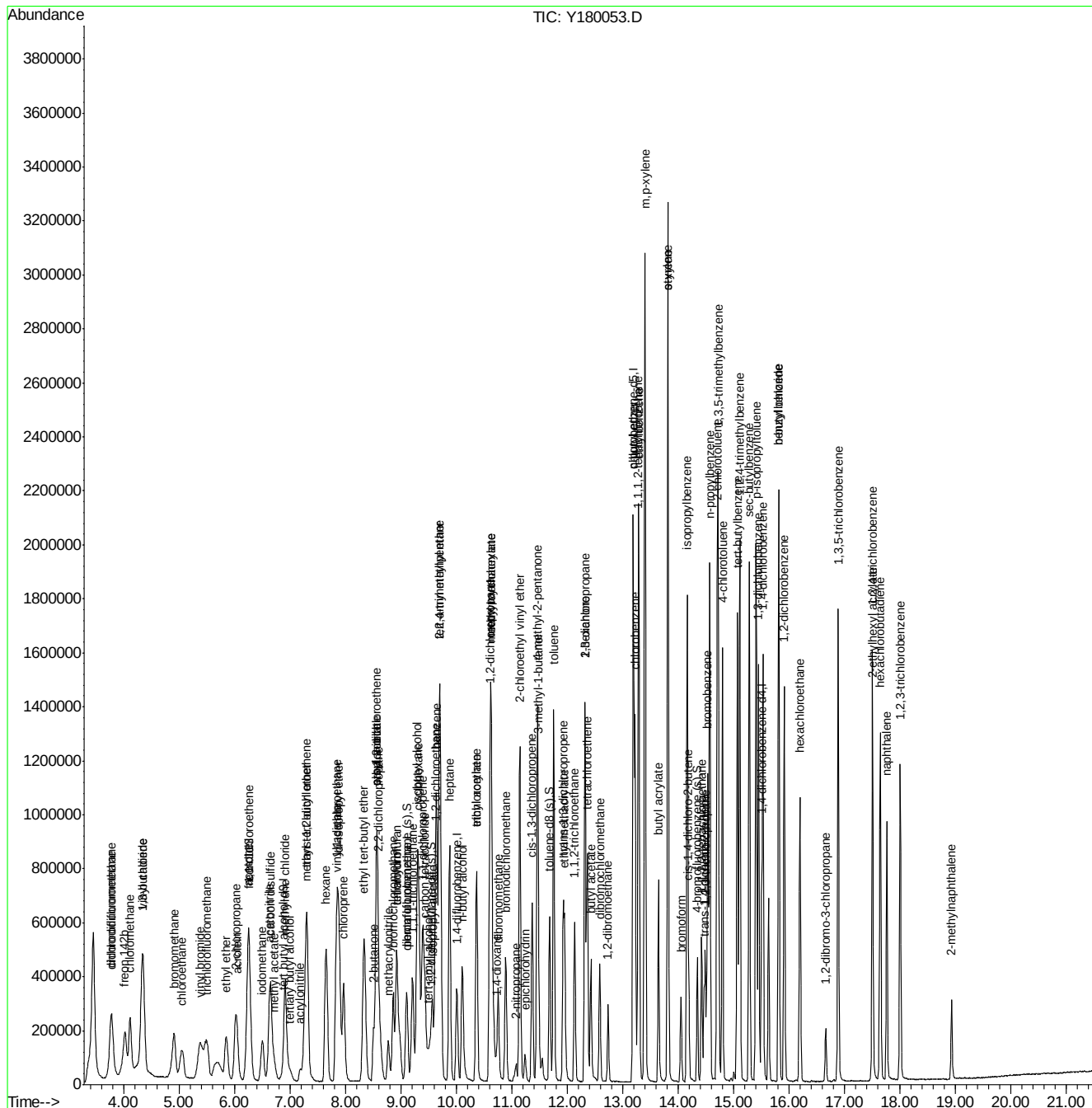
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
94) styrene	13.81	104	797466	101.95	ug/L	99
95) bromoform	14.05	173	150981	107.61	ug/L	95
96) butyl acrylate	13.64	55	519061	104.69	ug/L	99
97) isopropylbenzene	14.16	105	1209993	98.27	ug/L	100
98) cis-1,4-dichloro-2-butene	14.18	88	89205	106.02	ug/L	99
101) bromobenzene	14.53	156	304808	102.22	ug/L	99
102) 1,1,2,2-tetrachloroethane	14.42	83	284342	94.81	ug/L	98
103) trans-1,4-dichloro-2-buten	14.46	53	67138	96.29	ug/L	99
104) 1,2,3-trichloropropane	14.49	110	61649	94.60	ug/L	98
105) n-propylbenzene	14.57	91	1506640	98.04	ug/L	100
107) 2-chlorotoluene	14.70	126	303270	104.76	ug/L	94
108) 4-chlorotoluene	14.80	91	927367	101.02	ug/L	99
109) 1,3,5-trimethylbenzene	14.72	105	1083850	99.43	ug/L	99
110) tert-butylbenzene	15.06	134	187975	101.33	ug/L	99
111) 1,2,4-trimethylbenzene	15.11	105	1115850	98.12	ug/L	99
112) sec-butylbenzene	15.28	105	1387670	99.21	ug/L	99
113) 1,3-dichlorobenzene	15.45	146	606160	101.93	ug/L	99
114) p-isopropyltoluene	15.40	119	1186204	101.99	ug/L	99
115) 1,4-dichlorobenzene	15.52	146	607137	101.23	ug/L	98
116) 1,2-dichlorobenzene	15.91	146	577138	102.27	ug/L	99
118) n-butylbenzene	15.81	92	689469	105.39	ug/L	99
120) 1,2-dibromo-3-chloropropan	16.66	157	52760	103.65	ug/L	96
121) 1,3,5-trichlorobenzene	16.88	180	559308	106.29	ug/L	99
122) 1,2,4-trichlorobenzene	17.50	180	446292	112.95	ug/L	99
123) hexachlorobutadiene	17.64	225	292191	105.44	ug/L	99
124) naphthalene	17.76	128	728644	106.30	ug/L	99
125) 1,2,3-trichlorobenzene	18.00	180	381066	112.55	ug/L	99
126) hexachloroethane	16.19	201	189748	110.06	ug/L	96
127) benzyl chloride	15.81	91	1239693	99.79	ug/L	100
128) 2-ethylhexyl acrylate	17.51	70	71851	20.58	ug/L	92
129) 2-methylnaphthalene	18.93	142	159837	48.21	ug/L	98

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\VY7788\
 Data File : Y180053.D
 Acq On : 25 May 2018 1:33 am
 Operator : PrashanS
 Sample : ic7788-100
 Misc : MS26438,VY7788,5.0,,,,,1
 ALS Vial : 19 Sample Multiplier: 1

Quant Time: May 29 11:31:47 2018
 Quant Method : C:\MSDCHEM\1\METHODS\MYS7788.M
 Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um
 QLast Update : Tue May 29 11:20:59 2018
 Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\VY7788\
 Data File : Y180054.D
 Acq On : 25 May 2018 2:02 am
 Operator : PrashanS
 Sample : ic7788-200
 Misc : MS26438,VY7788,5.0,,,,1
 ALS Vial : 20 Sample Multiplier: 1

Quant Time: May 29 11:32:05 2018
 Quant Method : C:\MSDCHEM\1\METHODS\MYS7788.M
 Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um
 QLast Update : Tue May 29 11:20:59 2018
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	6.88	65	104633	500.00	ug/L	0.01
5) pentafluorobenzene	9.10	168	238799	50.00	ug/L	0.00
54) 1,4-difluorobenzene	10.01	114	376552	50.00	ug/L	0.00
76) chlorobenzene-d5	13.19	117	329358	50.00	ug/L	0.00
99) 1,4-dichlorobenzene-d4	15.50	152	177978	50.00	ug/L	0.00

System Monitoring Compounds

47) dibromofluoromethane (s)	9.11	113	107955	50.03	ug/L	0.00
Spiked Amount 50.000	Range 72 - 129		Recovery =	100.06%		
55) 1,2-dichloroethane-d4 (s)	9.52	65	107824	47.97	ug/L	0.00
Spiked Amount 50.000	Range 73 - 132		Recovery =	95.94%		
77) toluene-d8 (s)	11.68	98	465362	50.63	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery =	101.26%		
100) 4-bromofluorobenzene (s)	14.34	95	163688	48.28	ug/L	0.00
Spiked Amount 50.000	Range 77 - 125		Recovery =	96.56%		

Target Compounds

						Qvalue
3) tertiary butyl alcohol	6.99	59	315789	1013.03	ug/L	92
4) 1,4-dioxane	10.72	88	137287	5442.23	ug/L	93
6) chlorodifluoromethane	3.77	51	812151	202.49	ug/L	97
7) dichlorodifluoromethane	3.77	85	891061	216.31	ug/L	99
8) freon 142b	4.02	65	770139	174.17	ug/L	99
10) chloromethane	4.11	50	1098296	197.99	ug/L	99
11) vinyl chloride	4.32	62	932840	190.17	ug/L	99
12) 1,3-butadiene	4.35	54	730639	172.41	ug/L	99
13) bromomethane	4.90	94	522818	187.08	ug/L	100
14) chloroethane	5.04	64	473152	176.22	ug/L	98
15) vinyl bromide	5.36	106	477127	187.29	ug/L	99
16) trichlorofluoromethane	5.49	101	776619	184.11	ug/L	97
17) ethyl ether	5.84	74	260882	190.72	ug/L	95
18) 2-chloropropane	6.02	63	203584	185.42	ug/L	99
19) acrolein	6.04	56	89275	196.26	ug/L	93
20) freon 113	6.26	151	373572	200.46	ug/L	97
21) 1,1-dichloroethene	6.25	61	768093	179.29	ug/L	99
22) acetone	6.24	58	147289	718.80	ug/L	87
23) acetonitrile	6.62	41	645983	1921.60	ug/L	98
24) iodomethane	6.50	142	688814	191.20	ug/L	100
25) carbon disulfide	6.64	76	1502206	183.64	ug/L	100
26) methylene chloride	6.91	84	549286	181.31	ug/L	96
27) methyl acetate	6.71	43	321360	163.70	ug/L	96
28) methyl tert butyl ether	7.28	73	1559172	185.54	ug/L	99
29) trans-1,2-dichloroethene	7.30	61	734382	184.22	ug/L	99
30) hexane	7.65	57	819454	185.42	ug/L	99
31) di-isopropyl ether	7.88	45	2085168	187.78	ug/L	96
32) ethyl tert-butyl ether	8.33	59	1897908	199.13	ug/L	99
33) 2-butanone	8.50	72	189659	883.97	ug/L	96
34) 1,1-dichloroethane	7.84	63	920282	184.78	ug/L	98
35) chloroprene	7.96	53	731673	177.72	ug/L	99
36) acrylonitrile	7.18	53	161277	190.27	ug/L	97
37) vinyl acetate	7.83	86	75876	204.59	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\VY7788\
 Data File : Y180054.D
 Acq On : 25 May 2018 2:02 am
 Operator : PrashanS
 Sample : ic7788-200
 Misc : MS26438,VY7788,5.0,,,,1
 ALS Vial : 20 Sample Multiplier: 1

Quant Time: May 29 11:32:05 2018
 Quant Method : C:\MSDCHEM\1\METHODS\MYS7788.M
 Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um
 QLast Update : Tue May 29 11:20:59 2018
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
38) ethyl acetate	8.55	45	69960	189.18	ug/L #	79
39) 2,2-dichloropropane	8.58	77	736220	180.16	ug/L	97
40) cis-1,2-dichloroethene	8.56	96	538276	187.56	ug/L	98
41) propionitrile	8.55	54	691586	1972.07	ug/L	98
42) bromochloromethane	8.86	130	313912	200.78	ug/L	97
43) tetrahydrofuran	8.92	72	57318	196.40	ug/L	95
44) chloroform	8.92	83	868238	175.81	ug/L	98
46) isobutyl alcohol	9.29	41	1292175	1828.60	ug/L	97
48) methacrylonitrile	8.77	67	166625	208.80	ug/L	99
49) 1,1,1-trichloroethane	9.21	97	777016	178.60	ug/L	98
50) cyclohexane	9.32	84	746385	171.21	ug/L	98
51) 1,1-dichloropropene	9.39	75	658216	181.76	ug/L	98
52) tert-amyl alcohol	9.49	55	102249	949.35	ug/L	94
53) carbon tetrachloride	9.43	117	658827	186.60	ug/L	100
56) 2,2,4-trimethylpentane	9.70	57	2426212	198.18	ug/L	100
57) tert-amyl methyl ether	9.70	73	1688442	198.71	ug/L	97
58) n-butyl alcohol	10.10	56	833982	11173.43	ug/L	98
59) benzene	9.63	78	2094702	178.46	ug/L	99
60) heptane	9.87	57	505288	189.99	ug/L	99
61) isopropyl acetate	9.57	87	88890	214.07	ug/L	91
62) 1,2-dichloroethane	9.61	62	624674	193.84	ug/L	99
63) trichloroethene	10.36	130	485279	193.30	ug/L	99
64) ethyl acrylate	10.35	55	582460	203.63	ug/L	100
65) 2-nitropropane	11.07	41	98540	183.83	ug/L	97
66) 2-chloroethyl vinyl ether	11.14	63	1322198	1060.71	ug/L	98
67) methyl methacrylate	10.62	100	107998	214.18	ug/L #	73
68) 1,2-dichloropropane	10.60	63	597308	189.31	ug/L	99
69) methylcyclohexane	10.62	83	991760	187.64	ug/L	98
70) dibromomethane	10.75	93	291686	180.82	ug/L	98
71) bromodichloromethane	10.88	83	728031	190.74	ug/L	99
72) epichlorohydrin	11.24	57	226162	958.10	ug/L	100
73) cis-1,3-dichloropropene	11.36	75	904577	194.92	ug/L	99
74) 4-methyl-2-pentanone	11.45	58	782622	799.80	ug/L	98
75) 3-methyl-1-butanol	11.47	70	304222	3668.59	ug/L	99
78) toluene	11.75	92	1276911	186.89	ug/L	99
79) trans-1,3-dichloropropene	11.92	75	771866	191.12	ug/L	100
80) ethyl methacrylate	11.95	69	625545	203.25	ug/L	99
81) 1,1,2-trichloroethane	12.13	83	363827	180.47	ug/L	94
82) 2-hexanone	12.32	58	727735	791.55	ug/L	99
83) tetrachloroethene	12.36	166	498826	183.49	ug/L	97
84) 1,3-dichloropropane	12.32	76	696714	192.29	ug/L	99
85) butyl acetate	12.42	56	316440	179.31	ug/L	93
86) dibromochloromethane	12.58	129	503569	201.69	ug/L	100
87) 1,2-dibromoethane	12.73	107	438535	197.59	ug/L	99
88) n-butyl ether	13.19	57	2611700	185.42	ug/L	99
89) chlorobenzene	13.22	112	1373983	192.93	ug/L	99
90) 1,1,1,2-tetrachloroethane	13.27	131	525937	198.97	ug/L	98
91) ethylbenzene	13.29	91	2393302	184.14	ug/L	99
92) m,p-xylene	13.40	106	1817380	373.92	ug/L	97
93) o-xylene	13.81	91	2016681	184.99	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\VY7788\
 Data File : Y180054.D
 Acq On : 25 May 2018 2:02 am
 Operator : PrashanS
 Sample : ic7788-200
 Misc : MS26438,VY7788,5.0,,,,1
 ALS Vial : 20 Sample Multiplier: 1

Quant Time: May 29 11:32:05 2018
 Quant Method : C:\MSDCHEM\1\METHODS\MYS7788.M
 Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um
 QLast Update : Tue May 29 11:20:59 2018
 Response via : Initial Calibration

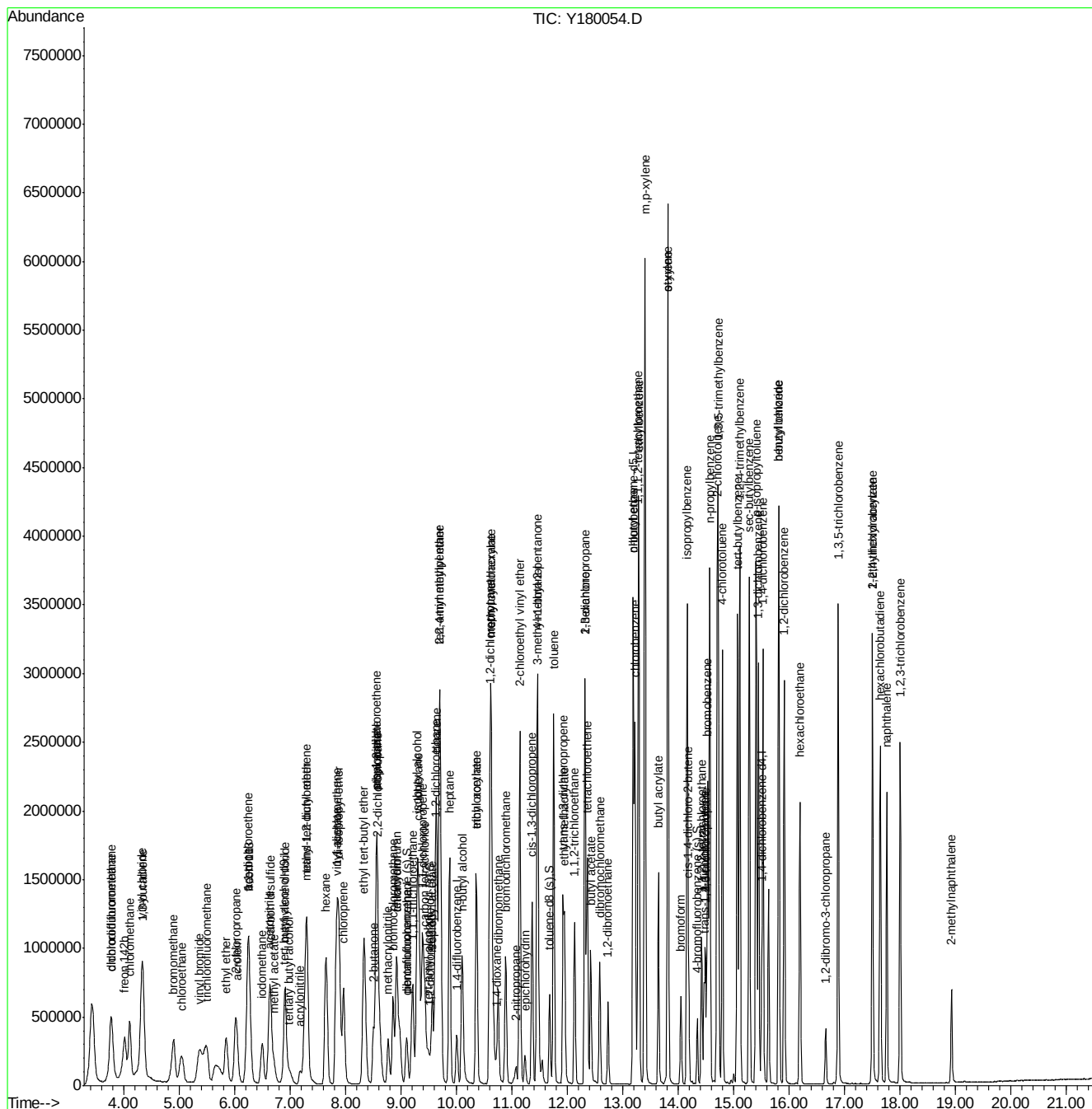
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
94) styrene	13.81	104	1575635	194.33	ug/L	99
95) bromoform	14.05	173	314754	216.42	ug/L	95
96) butyl acrylate	13.64	55	1058383	205.94	ug/L	99
97) isopropylbenzene	14.16	105	2361885	185.05	ug/L	100
98) cis-1,4-dichloro-2-butene	14.18	88	186606	213.97	ug/L	99
101) bromobenzene	14.53	156	603486	192.09	ug/L	97
102) 1,1,2,2-tetrachloroethane	14.42	83	579532	183.40	ug/L	97
103) trans-1,4-dichloro-2-buten	14.46	53	137011	186.50	ug/L	98
104) 1,2,3-trichloropropane	14.49	110	127576	185.81	ug/L	99
105) n-propylbenzene	14.57	91	2916770	180.14	ug/L	99
107) 2-chlorotoluene	14.70	126	593966	194.74	ug/L	93
108) 4-chlorotoluene	14.79	91	1819684	188.13	ug/L	99
109) 1,3,5-trimethylbenzene	14.72	105	2120563	184.64	ug/L	100
110) tert-butylbenzene	15.06	134	366683	187.61	ug/L	98
111) 1,2,4-trimethylbenzene	15.11	105	2178681	181.83	ug/L	100
112) sec-butylbenzene	15.28	105	2695405	182.90	ug/L	99
113) 1,3-dichlorobenzene	15.45	146	1207644	192.73	ug/L	99
114) p-isopropyltoluene	15.40	119	2303553	187.99	ug/L	100
115) 1,4-dichlorobenzene	15.53	146	1217630	192.68	ug/L	100
116) 1,2-dichlorobenzene	15.91	146	1159551	195.03	ug/L	99
118) n-butylbenzene	15.81	92	1341951	194.70	ug/L	98
120) 1,2-dibromo-3-chloropropan	16.66	157	113445	211.53	ug/L	95
121) 1,3,5-trichlorobenzene	16.88	180	1118339	201.72	ug/L	98
122) 1,2,4-trichlorobenzene	17.50	180	910636	218.74	ug/L	100
123) hexachlorobutadiene	17.64	225	569364	195.00	ug/L	98
124) naphthalene	17.76	128	1564554	216.63	ug/L	100
125) 1,2,3-trichlorobenzene	18.00	180	791002	221.74	ug/L	99
126) hexachloroethane	16.19	201	384785	211.84	ug/L	96
127) benzyl chloride	15.81	91	2407186	183.91	ug/L	100
128) 2-ethylhexyl acrylate	17.51	70	160745	43.69	ug/L	96
129) 2-methylnaphthalene	18.93	142	376307	104.77	ug/L	95

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

Quantitation Report (QT Reviewed)

```
Data Path   : C:\MSDCHEM\1\DATA\VY7788\
Data File   : Y180054.D
Acq On      : 25 May 2018    2:02 am
Operator    : PrashanS
Sample      : ic7788-200
Misc        : MS26438,VY7788,5.0,,,,,1
ALS Vial    : 20    Sample Multiplier: 1
```

Quant Time: May 29 11:32:05 2018
Quant Method : C:\MSDCHEM\1\METHODS\MYS7788.M
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um
QLast Update : Tue May 29 11:20:59 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\VY7788\
 Data File : Y180057.D
 Acq On : 25 May 2018 3:28 am
 Operator : PrashanS
 Sample : icv7788-50
 Misc : MS26438,VY7788,5.0,,,,1
 ALS Vial : 23 Sample Multiplier: 1

Quant Time: May 29 11:32:31 2018
 Quant Method : C:\MSDCHEM\1\METHODS\MYS7788.M
 Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um
 QLast Update : Tue May 29 11:30:55 2018
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	6.87	65	109061	500.00	ug/L	0.00
5) pentafluorobenzene	9.10	168	238519	50.00	ug/L	0.00
54) 1,4-difluorobenzene	10.01	114	373482	50.00	ug/L	0.00
76) chlorobenzene-d5	13.19	117	326041	50.00	ug/L	0.00
99) 1,4-dichlorobenzene-d4	15.50	152	172548	50.00	ug/L	0.00

System Monitoring Compounds

47) dibromofluoromethane (s)	9.12	113	109820	50.96	ug/L	0.00
Spiked Amount 50.000	Range 72 - 129		Recovery =	101.92%		
55) 1,2-dichloroethane-d4 (s)	9.52	65	111117	50.41	ug/L	0.00
Spiked Amount 50.000	Range 73 - 132		Recovery =	100.82%		
77) toluene-d8 (s)	11.68	98	459012	50.44	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery =	100.88%		
100) 4-bromofluorobenzene (s)	14.34	95	162607	49.47	ug/L	0.00
Spiked Amount 50.000	Range 77 - 125		Recovery =	98.94%		

Target Compounds

Qvalue

3) tertiary butyl alcohol	6.97	59	77297	237.90	ug/L	96
4) 1,4-dioxane	10.72	88	33184	1262.05	ug/L	100
6) chlorodifluoromethane	3.78	51	153643	38.16	ug/L	99
7) dichlorodifluoromethane	3.76	85	150386	36.31	ug/L	98
10) chloromethane	4.11	50	251552	45.01	ug/L	99
11) vinyl chloride	4.32	62	198886	40.07	ug/L	99
13) bromomethane	4.91	94	127560	45.41	ug/L	100
14) chloroethane	5.05	64	108354	39.41	ug/L	93
15) vinyl bromide	5.37	106	113099	44.45	ug/L	99
16) trichlorofluoromethane	5.48	101	174270	41.36	ug/L	99
17) ethyl ether	5.85	74	61943	45.34	ug/L	98
18) 2-chloropropane	6.03	63	50918	46.43	ug/L	97
19) acrolein	6.04	56	22500	49.52	ug/L	98
20) freon 113	6.26	151	91766	47.61	ug/L	97
21) 1,1-dichloroethene	6.25	61	167985	39.26	ug/L	96
22) acetone	6.24	58	38147	186.38	ug/L	90
24) iodomethane	6.50	142	194736	54.12	ug/L	99
25) carbon disulfide	6.64	76	464419	56.84	ug/L	99
26) methylene chloride	6.90	84	132015	43.63	ug/L	95
27) methyl acetate	6.72	43	75340	51.12	ug/L	96
28) methyl tert butyl ether	7.28	73	762902	90.89	ug/L	94
29) trans-1,2-dichloroethene	7.30	61	173931	43.68	ug/L	97
30) hexane	7.65	57	172801	39.27	ug/L	100
31) di-isopropyl ether	7.87	45	523086	47.16	ug/L	96
32) ethyl tert-butyl ether	8.33	59	458694	48.18	ug/L	98
33) 2-butanone	8.51	72	46707	217.95	ug/L	100
34) 1,1-dichloroethane	7.84	63	224438	45.13	ug/L	98
35) chloroprene	7.96	53	183603	44.65	ug/L	99
36) acrylonitrile	7.19	53	46481	54.90	ug/L	96
37) vinyl acetate	7.83	86	19815	53.49	ug/L	# 93
38) ethyl acetate	8.57	45	20790	52.69	ug/L	# 62
39) 2,2-dichloropropane	8.58	77	175557	43.01	ug/L	96
40) cis-1,2-dichloroethene	8.56	96	134901	47.06	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\VY7788\
 Data File : Y180057.D
 Acq On : 25 May 2018 3:28 am
 Operator : PrashanS
 Sample : icv7788-50
 Misc : MS26438,VY7788,5.0,,,,1
 ALS Vial : 23 Sample Multiplier: 1

Quant Time: May 29 11:32:31 2018
 Quant Method : C:\MSDCHEM\1\METHODS\MYS7788.M
 Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um
 QLast Update : Tue May 29 11:30:55 2018
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
41) propionitrile	8.56	54	172166	491.51	ug/L	98
42) bromochloromethane	8.86	130	77279	49.49	ug/L	98
43) tetrahydrofuran	8.91	72	14367	49.29	ug/L #	72
44) chloroform	8.92	83	218922	44.35	ug/L	98
48) methacrylonitrile	8.77	67	43116	54.09	ug/L	93
49) 1,1,1-trichloroethane	9.21	97	180946	41.65	ug/L	99
50) cyclohexane	9.32	84	182079	44.05	ug/L	98
51) 1,1-dichloropropene	9.39	75	162945	45.05	ug/L	99
52) tert-amyl alcohol	9.49	55	27182	253.16	ug/L #	78
53) carbon tetrachloride	9.43	117	153477	43.52	ug/L	100
56) 2,2,4-trimethylpentane	9.70	57	574221	47.29	ug/L	98
57) tert-amyl methyl ether	9.70	73	409450	48.66	ug/L	98
58) n-butyl alcohol	10.11	56	204443	2761.58	ug/L	95
59) benzene	9.64	78	514174	44.17	ug/L	99
60) heptane	9.88	57	144847	58.02	ug/L	97
61) isopropyl acetate	9.56	87	21258	51.65	ug/L	89
62) 1,2-dichloroethane	9.62	62	157576	49.30	ug/L	98
63) trichloroethene	10.36	130	117667	47.25	ug/L	96
64) ethyl acrylate	10.36	55	147435	51.98	ug/L	98
65) 2-nitropropane	11.07	41	27238	52.28	ug/L	98
66) 2-chloroethyl vinyl ether	11.14	63	343243	277.62	ug/L	98
67) methyl methacrylate	10.63	100	27822	55.63	ug/L	94
68) 1,2-dichloropropane	10.60	63	144545	46.19	ug/L	100
69) methylcyclohexane	10.62	83	232479	44.46	ug/L	98
70) dibromomethane	10.75	93	74956	46.85	ug/L	99
71) bromodichloromethane	10.89	83	177697	48.91	ug/L	99
72) epichlorohydrin	11.23	57	58067	246.33	ug/L	97
73) cis-1,3-dichloropropene	11.37	75	223817	48.63	ug/L	99
74) 4-methyl-2-pentanone	11.45	58	195688	201.63	ug/L	99
75) 3-methyl-1-butanol	11.48	70	77332	941.46	ug/L	95
78) toluene	11.75	92	313712	46.38	ug/L	97
79) trans-1,3-dichloropropene	11.92	75	182804	45.72	ug/L	98
80) ethyl methacrylate	11.95	69	152681	48.82	ug/L	100
81) 1,1,2-trichloroethane	12.13	83	93339	47.67	ug/L	99
82) 2-hexanone	12.32	58	185329	203.63	ug/L	100
84) 1,3-dichloropropane	12.32	76	179858	50.14	ug/L	99
85) butyl acetate	12.42	56	85932	49.19	ug/L	99
86) dibromochloromethane	12.58	129	124889	50.53	ug/L	98
87) 1,2-dibromoethane	12.73	107	109185	49.69	ug/L	98
88) n-butyl ether	13.19	57	634525	45.55	ug/L	100
89) chlorobenzene	13.22	112	338221	47.98	ug/L	98
90) 1,1,1,2-tetrachloroethane	13.27	131	128879	49.25	ug/L	94
91) ethylbenzene	13.29	91	592367	46.04	ug/L	99
92) m,p-xylene	13.40	106	449528	93.44	ug/L	100
93) o-xylene	13.81	91	502400	46.55	ug/L	100
94) styrene	13.81	104	389133	48.48	ug/L	99
95) bromoform	14.05	173	79073	54.92	ug/L	92
96) butyl acrylate	13.64	55	268714	51.82	ug/L	98
97) isopropylbenzene	14.16	105	572739	45.33	ug/L	99
98) cis-1,4-dichloro-2-butene	14.19	88	43682	50.60	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\VY7788\
 Data File : Y180057.D
 Acq On : 25 May 2018 3:28 am
 Operator : PrashanS
 Sample : icv7788-50
 Misc : MS26438,VY7788,5.0,,,,1
 ALS Vial : 23 Sample Multiplier: 1

Quant Time: May 29 11:32:31 2018
 Quant Method : C:\MSDCHEM\1\METHODS\MYS7788.M
 Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um
 QLast Update : Tue May 29 11:30:55 2018
 Response via : Initial Calibration

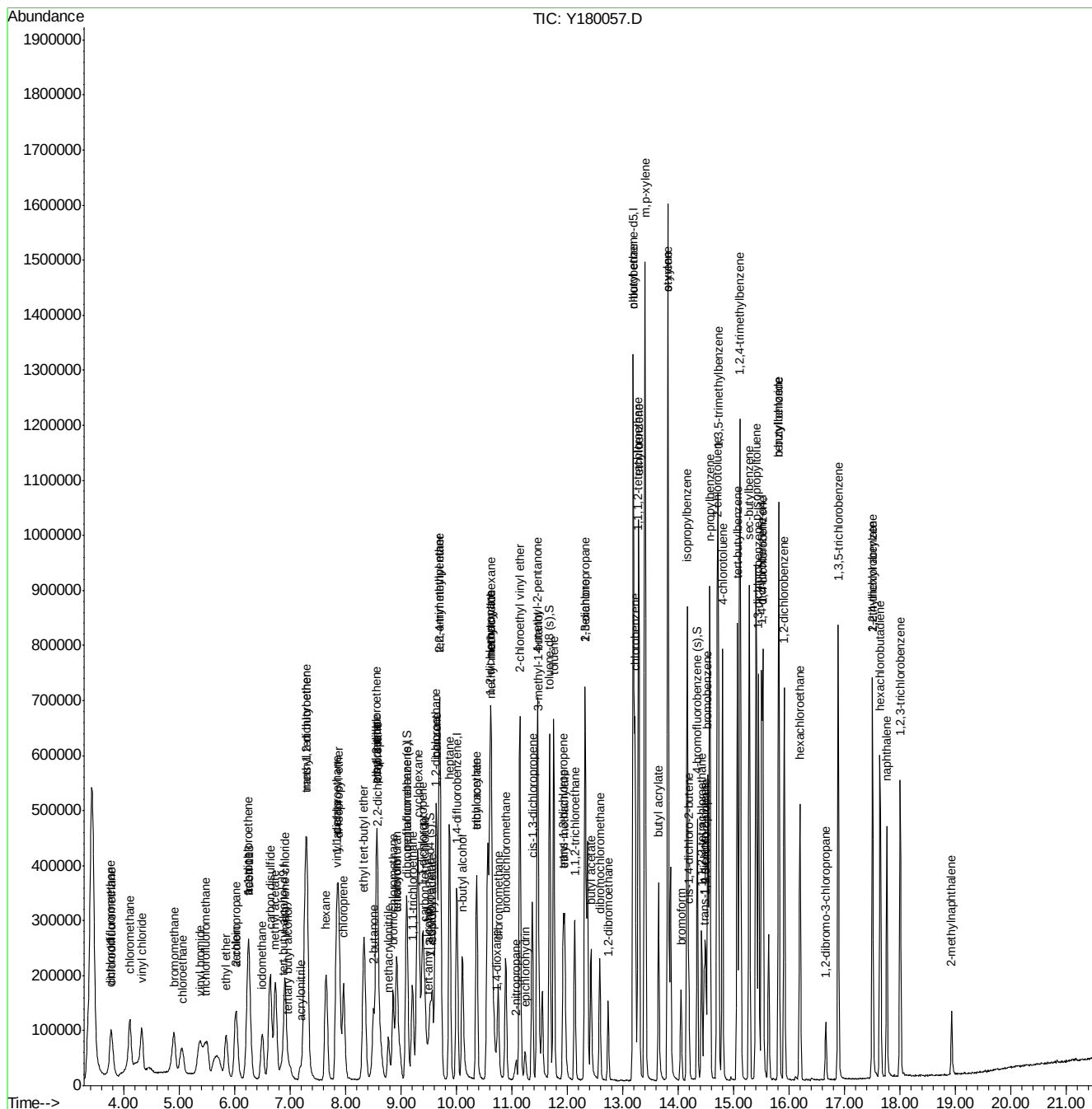
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
101) bromobenzene	14.53	156	146909	48.23	ug/L	98
102) 1,1,2,2-tetrachloroethane	14.42	83	142756	43.76	ug/L	98
103) trans-1,4-dichloro-2-buten	14.46	53	37320	52.42	ug/L	98
104) 1,2,3-trichloropropane	14.49	110	31328	48.61	ug/L	97
105) n-propylbenzene	14.57	91	722555	46.03	ug/L	99
107) 2-chlorotoluene	14.70	126	141586	46.75	ug/L	97
108) 4-chlorotoluene	14.80	91	454426	48.46	ug/L	100
109) 1,3,5-trimethylbenzene	14.72	105	516870	46.44	ug/L	99
110) tert-butylbenzene	15.06	134	88445	46.68	ug/L	98
111) 1,2,4-trimethylbenzene	15.11	105	542275	46.70	ug/L	98
112) sec-butylbenzene	15.28	105	658895	46.12	ug/L	99
113) 1,3-dichlorobenzene	15.45	146	292878	48.21	ug/L	100
114) p-isopropyltoluene	15.40	119	564261	47.50	ug/L	100
115) 1,4-dichlorobenzene	15.53	146	293227	47.86	ug/L	98
116) 1,2-dichlorobenzene	15.91	146	276531	47.97	ug/L	100
118) n-butylbenzene	15.81	92	328272	49.13	ug/L	98
120) 1,2-dibromo-3-chloropropan	16.66	157	26200	50.39	ug/L	97
121) 1,3,5-trichlorobenzene	16.88	180	262516	48.84	ug/L	97
122) 1,2,4-trichlorobenzene	17.50	180	205118	50.82	ug/L	100
123) hexachlorobutadiene	17.64	225	135176	47.75	ug/L	98
124) naphthalene	17.76	128	352583	50.37	ug/L	99
125) 1,2,3-trichlorobenzene	18.00	180	174571	50.48	ug/L	98
126) hexachloroethane	16.19	201	89567	50.86	ug/L	97
127) benzyl chloride	15.81	91	593725	48.33	ug/L	100
128) 2-ethylhexyl acrylate	17.51	70	35286	9.90	ug/L	97
129) 2-methylnaphthalene	18.93	142	61992	19.79	ug/L	91

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

Quantitation Report (QT Reviewed)

```
Data Path   : C:\MSDCHEM\1\DATA\VY7788\
Data File   : Y180057.D
Acq On      : 25 May 2018    3:28 am
Operator    : PrashanS
Sample      : icv7788-50
Misc        : MS26438,VY7788,5.0,,,,,1
ALS Vial    : 23    Sample Multiplier: 1
```

Quant Time: May 29 11:32:31 2018
Quant Method : C:\MSDCHEM\1\METHODS\MYS7788.M
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um
QLast Update : Tue May 29 11:30:55 2018
Response via : Initial Calibration



7.7.10

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\VY7788\
 Data File : Y180058.D
 Acq On : 25 May 2018 3:56 am
 Operator : PrashanS
 Sample : icv7788-50
 Misc : MS26438,VY7788,5.0,,,,1
 ALS Vial : 24 Sample Multiplier: 1

Quant Time: May 29 11:33:14 2018
 Quant Method : C:\MSDCHEM\1\METHODS\MYS7788.M
 Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um
 QLast Update : Tue May 29 11:30:55 2018
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	6.88	65	104228	500.00	ug/L	0.00
5) pentafluorobenzene	9.10	168	234695	50.00	ug/L	0.00
54) 1,4-difluorobenzene	10.01	114	366487	50.00	ug/L	0.00
76) chlorobenzene-d5	13.19	117	332345	50.00	ug/L	0.00
99) 1,4-dichlorobenzene-d4	15.50	152	163874	50.00	ug/L	0.00

System Monitoring Compounds

47) dibromofluoromethane (s)	9.11	113	108474	51.15	ug/L	0.00
Spiked Amount 50.000	Range 72 - 129		Recovery =	102.30%		
55) 1,2-dichloroethane-d4 (s)	9.53	65	110430	51.05	ug/L	0.00
Spiked Amount 50.000	Range 73 - 132		Recovery =	102.10%		
77) toluene-d8 (s)	11.68	98	453220	48.86	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery =	97.72%		
100) 4-bromofluorobenzene (s)	14.34	95	165187	52.91	ug/L	0.00
Spiked Amount 50.000	Range 77 - 125		Recovery =	105.82%		

Target Compounds

						Qvalue
8) freon 142b	4.02	65	184742	42.67	ug/L	97
12) 1,3-butadiene	4.35	54	153487	40.86	ug/L	98
23) acetonitrile	6.63	41	163891	500.14	ug/L	98
83) tetrachloroethene	12.36	166	105547	38.48	ug/L	97

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

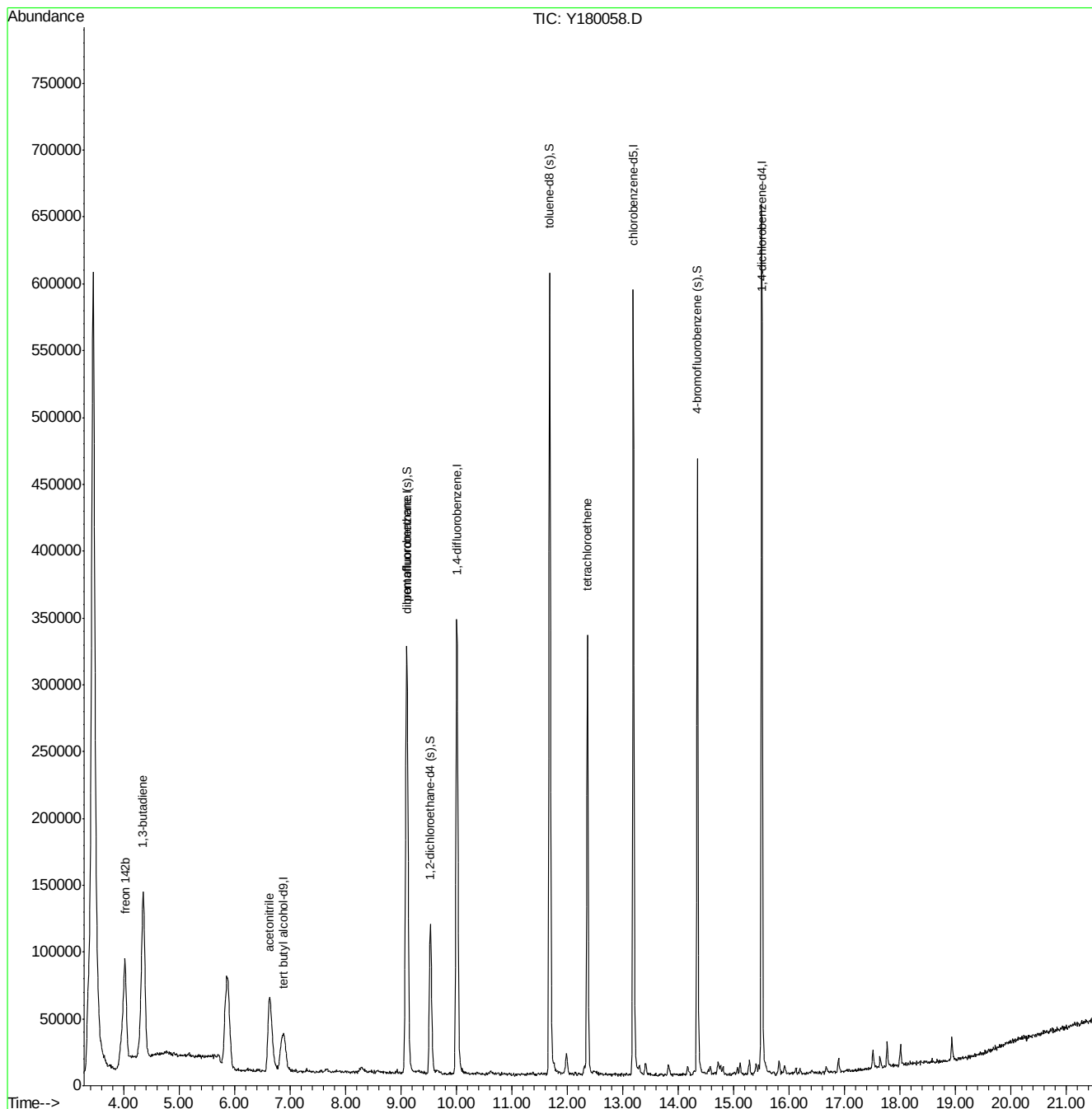
7.7.11

7

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\VY7788\
Data File : Y180058.D
Acq On : 25 May 2018 3:56 am
Operator : PrashanS
Sample : icv7788-50
Misc : MS26438,VY7788,5.0,,,,1
ALS Vial : 24 Sample Multiplier: 1

Quant Time: May 29 11:33:14 2018
Quant Method : C:\MSDCHEM\1\METHODS\MYS7788.M
Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um
QLast Update : Tue May 29 11:30:55 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\06-01-18\vy7792\
 Data File : y180134.d
 Acq On : 30 May 2018 7:34 am
 Operator : Prashans
 Sample : cc7788-20 Inst : MSY
 Misc : MS26699,VY7792,5.0,,,,,1
 ALS Vial : 1 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MYS7788.M
 Quant Results File: MYS7788.RES
 Quant Time: May 31 11:45:21 2018
 Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um
 QLast Update : Mon Sep 13 11:48:20 2010
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	6.862	65	108831	500.00	ug/L	-0.01
5) pentafluorobenzene	9.096	168	236207	50.00	ug/L	0.00
54) 1,4-difluorobenzene	10.006	114	368598	50.00	ug/L	0.00
76) chlorobenzene-d5	13.191	117	366160	50.00	ug/L	0.00
99) 1,4-dichlorobenzene-d4	15.503	152	182284	50.00	ug/L	0.00
System Monitoring Compounds						
47) dibromofluoromethane (s)	9.111	113	108875	51.01	ug/L	0.00
Spiked Amount 50.000	Range 72 - 129		Recovery =	102.02%		
55) 1,2-dichloroethane-d4 (s)	9.530	65	109784	50.46	ug/L	0.00
Spiked Amount 50.000	Range 73 - 132		Recovery =	100.92%		
77) toluene-d8 (s)	11.680	98	483418	47.30	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery =	94.60%		
100) 4-bromofluorobenzene (s)	14.342	95	178625	51.44	ug/L	0.00
Spiked Amount 50.000	Range 77 - 125		Recovery =	102.88%		
Target Compounds						
3) tertiary butyl alcohol	6.972	59	30629	94.47	ug/L	97
4) 1,4-dioxane	10.717	88	13797	525.83	ug/L	98
6) chlorodifluoromethane	3.771	51	99315	24.91	ug/L	97
7) dichlorodifluoromethane	3.777	85	78023	19.02	ug/L	99
8) freon 142b	4.017	65	93155	21.38	ug/L	98
10) chloromethane	4.117	50	112692	20.36	ug/L	95
11) vinyl chloride	4.331	62	95333	19.40	ug/L	98
12) 1,3-butadiene	4.352	54	86271	22.82	ug/L	98
13) bromomethane	4.906	94	54228	19.49	ug/L	92
14) chloroethane	5.053	64	51853	19.05	ug/L	95
15) vinyl bromide	5.372	106	51698	20.52	ug/L	94
16) trichlorofluoromethane	5.482	101	83984	20.13	ug/L	99
17) ethyl ether	5.853	74	24668	18.23	ug/L	95
18) 2-chloropropane	6.020	63	23042	21.22	ug/L	96
19) acrolein	6.041	56	9642	21.43	ug/L	88
20) freon 113	6.256	151	40629	21.29	ug/L	94
21) 1,1-dichloroethene	6.245	61	86766	20.48	ug/L	97
22) acetone	6.245	58	15103	74.51	ug/L	89
23) acetonitrile	6.632	41	74017	224.43	ug/L	98
24) iodomethane	6.496	142	71709	20.12	ug/L	100
25) carbon disulfide	6.643	76	166881	20.62	ug/L	100
26) methylene chloride	6.904	84	56206	18.76	ug/L	91
27) methyl acetate	6.721	43	31834	21.81	ug/L	97
28) methyl tert butyl ether	7.281	73	150104	18.06	ug/L	96
29) trans-1,2-dichloroethene	7.307	61	79484	20.16	ug/L	97
30) hexane	7.647	57	78760	18.07	ug/L	99
31) di-isopropyl ether	7.877	45	206680	18.82	ug/L	98
32) ethyl tert-butyl ether	8.332	59	176986	18.77	ug/L	98
33) 2-butanone	8.510	72	17959	84.62	ug/L	96
34) 1,1-dichloroethane	7.835	63	98114	19.92	ug/L	97
35) chloroprene	7.966	53	77268	18.97	ug/L	98
36) acrylonitrile	7.192	53	16221	19.35	ug/L	96
37) vinyl acetate	7.835	86	5688	15.51	ug/L #	71
38) ethyl acetate	8.568	45	7922	16.76	ug/L #	56
39) 2,2-dichloropropane	8.588	77	86746	21.46	ug/L	97
40) cis-1,2-dichloroethene	8.557	96	55738	19.64	ug/L	98
41) propionitrile	8.568	54	69591	200.62	ug/L	96
42) bromochloromethane	8.855	130	30383	19.65	ug/L	98
43) tetrahydrofuran	8.918	72	5356	18.55	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\06-01-18\vy7792\
 Data File : y180134.d
 Acq On : 30 May 2018 7:34 am
 Operator : Prashans
 Sample : cc7788-20 Inst : MSY
 Misc : MS26699,VY7792,5.0,,,1
 ALS Vial : 1 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MYS7788.M
 Quant Results File: MYS7788.RES
 Quant Time: May 31 11:45:21 2018
 Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um
 QLast Update : Mon Sep 13 11:48:20 2010
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) chloroform	8.923	83	88203	18.04	ug/L	95
48) methacrylonitrile	8.772	67	15438	19.56	ug/L	88
49) 1,1,1-trichloroethane	9.211	97	83934	19.51	ug/L	99
50) cyclohexane	9.315	84	80073	19.56	ug/L	96
51) 1,1-dichloropropene	9.383	75	69367	19.37	ug/L	98
52) tert-amyl alcohol	9.483	55	11458	107.76	ug/L #	76
53) carbon tetrachloride	9.420	117	70885	20.30	ug/L	97
56) 2,2,4-trimethylpentane	9.692	57	229801	19.18	ug/L	97
57) tert-amyl methyl ether	9.697	73	159690	19.23	ug/L	96
58) n-butyl alcohol	10.110	56	76721	1050.07	ug/L	97
59) benzene	9.635	78	214233	18.65	ug/L	98
60) heptane	9.870	57	45942	18.65	ug/L	98
61) isopropyl acetate	9.572	87	8624	21.23	ug/L	95
62) 1,2-dichloroethane	9.619	62	63440	20.11	ug/L	99
63) trichloroethene	10.362	130	49045	19.96	ug/L	97
64) ethyl acrylate	10.367	55	57369	20.49	ug/L	96
65) 2-nitropropane	11.078	41	10713	20.83	ug/L	98
66) 2-chloroethyl vinyl ether	11.146	63	136750	112.07	ug/L	98
67) methyl methacrylate	10.634	100	9614	19.48	ug/L #	86
68) 1,2-dichloropropane	10.597	63	59528	19.27	ug/L	98
69) methylcyclohexane	10.623	83	102551	19.87	ug/L	97
70) dibromomethane	10.754	93	28587	18.10	ug/L	95
71) bromodichloromethane	10.890	83	69633	19.42	ug/L	99
72) epichlorohydrin	11.245	57	23566	101.30	ug/L	97
73) cis-1,3-dichloropropene	11.361	75	89528	19.71	ug/L	95
74) 4-methyl-2-pentanone	11.460	58	80296	83.83	ug/L	99
75) 3-methyl-1-butanol	11.481	70	29657	365.84	ug/L	97
78) toluene	11.753	92	133828	17.62	ug/L	100
79) trans-1,3-dichloropropene	11.925	75	79430	17.69	ug/L	98
80) ethyl methacrylate	11.957	69	64371	18.33	ug/L	99
81) 1,1,2-trichloroethane	12.135	83	37498	17.05	ug/L	91
82) 2-hexanone	12.323	58	83409	81.60	ug/L	96
83) tetrachloroethene	12.359	166	53049	17.55	ug/L	98
84) 1,3-dichloropropane	12.318	76	75104	18.64	ug/L	97
85) butyl acetate	12.427	56	35747	18.22	ug/L	96
86) dibromochloromethane	12.584	129	51011	18.38	ug/L	96
87) 1,2-dibromoethane	12.736	107	47640	19.31	ug/L	94
88) n-butyl ether	13.191	57	291649	18.64	ug/L	98
89) chlorobenzene	13.222	112	152689	19.29	ug/L	99
90) 1,1,1,2-tetrachloroethane	13.275	131	52498	17.87	ug/L	97
91) ethylbenzene	13.290	91	271556	18.79	ug/L	100
92) m,p-xylene	13.400	106	203750	37.71	ug/L	99
93) o-xylene	13.813	91	221853	18.31	ug/L	99
94) styrene	13.819	104	168232	18.66	ug/L	98
95) bromoform	14.049	173	32890	20.34	ug/L	97
96) butyl acrylate	13.646	55	106462	18.28	ug/L	98
97) isopropylbenzene	14.159	105	261852	18.45	ug/L	99
98) cis-1,4-dichloro-2-butene	14.190	88	20259	20.89	ug/L	97
101) bromobenzene	14.535	156	64072	19.91	ug/L	99
102) 1,1,2,2-tetrachloroethane	14.420	83	64648	18.76	ug/L	98
103) trans-1,4-dichloro-2-b...	14.467	53	15177	20.18	ug/L	97
104) 1,2,3-trichloropropane	14.493	110	14687	21.57	ug/L	91
105) n-propylbenzene	14.567	91	330400	19.93	ug/L	97
107) 2-chlorotoluene	14.703	126	64437	20.14	ug/L	90
108) 4-chlorotoluene	14.797	91	195766	19.76	ug/L	100
109) 1,3,5-trimethylbenzene	14.724	105	229587	19.53	ug/L	98
110) tert-butylbenzene	15.064	134	38435	19.20	ug/L	97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\06-01-18\vy7792\
 Data File : y180134.d
 Acq On : 30 May 2018 7:34 am
 Operator : Prashans
 Sample : cc7788-20 Inst : MSY
 Misc : MS26699,VY7792,5.0,,,,,1
 ALS Vial : 1 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\MYS7788.M
 Quant Results File: MYS7788.RES
 Quant Time: May 31 11:45:21 2018
 Quant Title : Method SW846 8260C, ZB624 60m x 0.25mm x 1.4um
 QLast Update : Mon Sep 13 11:48:20 2010
 Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
111)	1,2,4-trimethylbenzene	15.111	105	231079	18.84	ug/L	98
112)	sec-butylbenzene	15.283	105	295076	19.55	ug/L	99
113)	1,3-dichlorobenzene	15.451	146	120723	18.81	ug/L	98
114)	p-isopropyltoluene	15.403	119	244759	19.50	ug/L	98
115)	1,4-dichlorobenzene	15.529	146	122541	18.93	ug/L	99
116)	1,2-dichlorobenzene	15.916	146	113893	18.70	ug/L	98
118)	n-butylbenzene	15.817	92	133312	18.89	ug/L	95
120)	1,2-dibromo-3-chloropr...	16.659	157	10929	19.90	ug/L	98
121)	1,3,5-trichlorobenzene	16.884	180	106982	18.84	ug/L	99
122)	1,2,4-trichlorobenzene	17.501	180	78740	18.47	ug/L	99
123)	hexachlorobutadiene	17.642	225	54770	18.32	ug/L	98
124)	naphthalene	17.762	128	131856	17.83	ug/L	98
125)	1,2,3-trichlorobenzene	18.003	180	67104	18.37	ug/L	99
126)	hexachloroethane	16.193	201	36906	19.84	ug/L	94
127)	benzyl chloride	15.817	91	247218	19.05	ug/L	98
128)	2-ethylhexyl acrylate	17.511	70	7143	1.90	ug/L	99
129)	2-methylnaphthalene	18.934	142	19125	7.47	ug/L	90

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

7.7.12

7

GCMS Volatile Run Log

Standard / Reagents			Lot #		
Standard	ABK: V018-2623-20.25	C: V018-2623-29.1	E: V018-2623-3.64	SL: V018-2623-31.3	
Standard Concentration	100/10000 PPM	100 PPM	100 PPM	100 PPM	
Ext-Standard	Ext.ABK: V018-2623-28.3	Ext.C: V018-2623-33.1	Ext.E: V018-2623-25.3	Ext.1,3-Butadiene: V018-2623-32.5	
Standard Concentration	100/10000 PPM	100 PPM	100 PPM	100 PPM	
Ext-Standard	Ext.PA: V018-2623-19.2	Ext.Freon mix: V018-2623-23.1			
Standard Concentration	100/1000 PPM	100 PPM			
Internal Surrogate	V018-2623-17				
Internal Surrogate Concentratio	250/2500 PPM				
Standard / Reagents					
GCMSY	Instrument ID:	Sequence loaded by			
Analysis Date	5/24/2018	Data processed by			
Column	ZB624(60mx0.25mmx1.4um)	Batch ID			
Method	V8260C	Matrix			
Init Calib Date	5/24/2018	Approved By:			
Init Calib Quant Method	MYS7788	Approved Date:			
DI Purge Volume	5				

Data File	Sample ID	Bot #	Dil	Workgroup #	Test	Smpl Amt (g)	MeOH/ DI FV (ml)	MeOH Purge (uL)	ALS #	Status	Comments
Y 180045	BFB		NA		Tune	5.0	5		1	OK	9:19 PM
Y 180046	IC7788-0.5		NA		IC8260	5.0	5		2	OK	1uL Std.A/B/K,C,E,SL in 200mL DI H2O
Y 180047	IC7788-1		NA		IC8260	5.0	5		3	OK	1uL Std.A/B/K,C,E,SL in 100mL DI H2O
Y 180048	IC7788-2		NA		IC8260	5.0	5		4	OK	2uL Std.A/B/K,C,E,SL in 100mL DI H2O
Y 180049	IC7788-4		NA		IC8260	5.0	5		5	OK	4uL Std.A/B/K,C,E,SL in 100mL DI H2O

Data File	Sample ID	Bot #	Dil	Workgroup #	Test	Smpl Amt (g)	MeOH/ DI FV (ml)	MeOH Purge (uL)	ALS #	Status	Comments
Y 180050	IC7788-8		NA		IC8260	5.0	5		6	OK	4uL Std.A/B/K,C,E,SL in 50mL DI H2O
Y 180051	IC7788-20		NA		IC8260	5.0	5		7	OK	10uL Std.A/B/K,C,E,SL in 50mL DI H2O
Y 180052	ICC7788-50		NA		IC8260	5.0	5		8	OK	25uL Std.A/B/K,C,E,SL in 50mL DI H2O
Y 180053	IC7788-100		NA		IC8260	5.0	5		9	OK	50uL Std.A/B/K,C,E,SL in 50mL DI H2O
Y 180054	IC7788-200		NA		IC8260	5.0	5		10	OK	100uL Std.A/B/K,C,E,SL in 50mL DI H2O
Y 180055	IB		NA			5.0	5		11	OK	
Y 180056	IB		NA			5.0	5		12	OK	
Y 180057	ICV7788-50		NA		ICV8260	5.0	5		13	OK	25uL Ext.A/B/K,C,E in 50mL DI H2O
Y 180058	ICV7788-50		NA		ICV8260	5.0	5		14	OK	25uL Ext.PA, 1,3-Butadiene, Freon mix in 50mL DI H2O
Y 180059	IB		NA			5.0	5		15	OK	

GCMS Volatile Run Log

Standard / Reagents			Lot #		
Standard	ABK: V018-2623-20.25	C: V018-2623-29.1	E: V018-2623-3.64	SL: V018-2623-31.3	
Standard Concentration	100/10000 PPM	100 PPM	100 PPM	100 PPM	
Standard	Freon Mix: V018-2623-12				
Standard Concentration	100 PPM				
Internal Surrogate	V018-2623-17				
Internal Surrogate Concentration	250/2500 PPM				
Rough reviewed by	Prashant B. Shukla				
Standard / Reagents					
GCMSY	Instrument ID:	Sequence loaded by Prashant B. Shukla			
Analysis Date	5/30/2018	Data processed by janellec			
Column	ZB624(60mx0.25mmx1.4um)	Batch ID VY7792			
Method	V8260C	Matrix SO			
Init Calib Date	5/24/2018	Approved By: JESSICA			
Init Calib Quant Method	MYS7788	Approved Date: 5/31/2018 5:37:06 PM			
DI Purge Volume	5				

Data File	Sample ID	Bot #	Dil	Workgroup #	Test	Smpl Amt (g)	MeOH/ DI FV (ml)	MeOH Purge (uL)	ALS #	Status	Comments
Y 180134	BFB/CC7788-20		NA			5.0	5		1	ok/ok	10uL Std.A/B/K,C,E,SL in 50mL DI H2O, 7:34 AM
Y 180135	BS		NA			5.0	5		2	ok	25uL Std.A/B/K,C,E,SL in 50mL DI H2O
Y 180136	IB		NA			5.0	5		3	OK	
Y 180137	MB		NA			5.0	5		4	ok	
Y 180138	JC66826-7	5	NA	MS26699	V8260TCL20+	5.97	5		5	ok	

Data File	Sample ID	Bot #	Dil	Workgroup #	Test	Smpl Amt (g)	MeOH/ DI FV (ml)	MeOH Purge (uL)	ALS #	Status	Comments
Y 180139	JC66826-8	4	NA	MS26699	V8260TCL20+	4.19	5		6	ok	
Y 180140	JC66826-9	4	NA	MS26699	V8260TCL20+	5.4	5		7	ok	
Y 180141	JC66764-15	5	NA	MS26663	V8260SCOTCL20	5.3	5		8	ok	
Y 180142	JC66764-16	5	NA	MS26663	V8260SCOTCL20	4.3	5		9	ok	
Y 180143	JC66826-8DUP	5	NA	MS26699	V8260TCL20+	5.31	5		10	ok	
Y 180144	JC66826-7MS	6	NA	MS26699	V8260TCL20+	5.69	5		11	ok	2.5uL Std.A/B/K,C,E,SL in sample
Y 180145	IB		NA			5.0	5		12	OK	
Y 180146	JC58441-14A		NA	MS23682	V8260SL	5.0	5		13	ok	1uL Freon Mix in 100mL DI H2O
Y 180147	JC58441-14A		NA	MS23682	V8260SL	5.0	5		14	ok	1uL Freon Mix in 100mL DI H2O
Y 180148	JC58441-14		NA	MS23682	V8260SL	5.0	5		15	ok	5uL Freon Mix in 100mL DI H2O
Y 180149	JC58441-14		NA	MS23682	V8260SL	5.0	5		16	ok	5uL Freon Mix in 100mL DI H2O
Y 180150	JC58163B-21		NA	MS23601	V8260SL	5.0	5		17	ok	
Y 180151	JC58163C-21		NA	MS23601	V8260SL	5.0	5		18	ok	
Y 180152	JC58163D-21		NA	MS23601	V8260SL	5.0	5		19	ok	
Y 180153	JC66934-1	7	NA	MS26753	V8260STD	5.08	5		20	ok	5:14 PM
Y 180154	IB		NA			5.0	5		21	OK	
Y 180155	IB		NA			5.0	5		22	OK	

Metals Analysis

QC Data Summaries



Includes the following where applicable:

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

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC66934

Account: TCMaw - Tantara Corporation

Project: USACE Buffalo Nike Missile UST, East Aurora, NY

File ID: SE053018M2.ICP

Date Analyzed: 05/30/18

Methods: EPA 200.7, SW846 6010C

Analyst: EAL

Run ID: MA44551

Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Dilution Factor	PS Recov	Comments
15:45	MA44551-STD1	1		STDA
15:50	MA44551-STD2	1		STDB
15:54	ZZZZZZ	1		
15:58	ZZZZZZ	1		
16:05	MA44551-ICV1	1		
16:12	MA44551-ICB1	1		
16:16	MA44551-ICCV1	1		
16:23	MA44551-CCB1	1		
16:28	MA44551-CRI1	1		
16:32	MA44551-CRID1	1		
16:36	MA44551-ICSA1	1		
16:41	MA44551-ICSAB1	1		
16:45	MA44551-HSTD1	1		
16:49	MA44551-HSTD2	1		
16:54	ZZZZZZ	1		
16:58	ZZZZZZ	1		
17:02	ZZZZZZ	1		
17:07	MA44551-CCV1	1		
17:11	MA44551-CCB2	1		
17:15	MP7375-MB1	1		
17:19	MP7375-B1	1		
17:23	MP7375-S1	1		Na high
17:28	MP7375-S2	1		Na high
17:32	JC66833-1	1		(sample used for QC only; not part of login JC66934)
17:36	MP7375-SD1	5		
17:40	ZZZZZZ	1		
17:45	ZZZZZZ	1		
17:49	ZZZZZZ	1		
17:53	MA44551-CCV2	1		
17:57	MA44551-CCB3	1		
18:01	ZZZZZZ	1		
18:06	ZZZZZZ	1		
18:10	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC66934
Account: TCMaw - Tantara Corporation
Project: USACE Buffalo Nike Missile UST, East Aurora, NY

File ID: SE053018M2.ICP Date Analyzed: 05/30/18 Methods: EPA 200.7, SW846 6010C
Analyst: EAL Run ID: MA44551
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Dilution Factor	PS Recov	Comments
18:15	ZZZZZZ	1		
18:19	ZZZZZZ	1		
18:23	ZZZZZZ	1		
18:28	ZZZZZZ	1		
18:32	ZZZZZZ	1		
18:36	ZZZZZZ	1		
18:41	ZZZZZZ	1		
18:45	ZZZZZZ	1		
18:49	ZZZZZZ	1		
18:54	MA44551-CCV3	1		
18:58	MA44551-CCB4	1		
19:02	MA44551-CCV4	1		
19:06	MA44551-CCB5	1		
20:43	MA44551-CCV5	1		
20:47	MA44551-CCB6	1		
20:52	MP7398-MB1	5		
20:56	MP7398-B1	5		
21:00	MP7398-S1	5		
21:04	MP7398-S2	5		
21:09	JC66891-7	5		(sample used for QC only; not part of login JC66934)
21:13	MP7398-SD1	25		
21:17	ZZZZZZ	1		
21:22	ZZZZZZ	1		
21:26	MA44551-CCV6	1		
21:35	MA44551-CCB7	1		
21:39	MA44551-CRI2	1		
21:44	MA44551-CRID2	1		
21:48	MA44551-ICSA2	1		
21:52	MA44551-ICSAB2	1		
21:57	ZZZZZZ	1		
22:01	MA44551-CCV7	1		
22:05	MA44551-CCB8	1		
22:18	MP7389-MB1	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC66934
Account: TCMaw - Tantara Corporation
Project: USACE Buffalo Nike Missile UST, East Aurora, NY

File ID: SE053018M2.ICP Date Analyzed: 05/30/18 Methods: EPA 200.7, SW846 6010C
Analyst: EAL Run ID: MA44551
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Dilution Factor	PS Recov	Comments
22:23	MP7389-B1	1		
22:27	MP7389-B2	1		
22:31	MP7389-S1	1		
22:35	MP7389-S2	1		
22:39	JC66882-2	1		(sample used for QC only; not part of login JC66934)
22:43	MP7389-SD1	5		
22:47	ZZZZZZ	1		
22:56	MP7389-SD1	5		
23:00	MA44551-CCV8	1		
23:04	MA44551-CCB9	1		
23:09	ZZZZZZ	1		
23:13	ZZZZZZ	1		
23:17	ZZZZZZ	1		
23:21	ZZZZZZ	1		
23:26	MP7388-B1	1		
23:30	MP7388-MB1	1		
23:34	JC66934-1	1		
23:38	MP7388-S1	1		Fe high
23:42	MP7388-S2	1		Fe high
23:47	MA44551-CCV9	1		
23:51	MA44551-CCB10	1		
23:55	JC66684-1	1		(sample used for QC only; not part of login JC66934)
23:59	MP7388-SD1	5		Fe high
00:03	ZZZZZZ	1		
00:08	ZZZZZZ	1		
00:12	ZZZZZZ	1		
00:16	ZZZZZZ	1		
00:20	ZZZZZZ	1		
00:24	ZZZZZZ	1		
00:29	ZZZZZZ	1		
00:33	MA44551-CCV10	1		
00:37	MA44551-CCB11	1		
00:41	ZZZZZZ	1		

----->

Last reportable sample/prep for job JC66934

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC66934
Account: TCMaw - Tantara Corporation
Project: USACE Buffalo Nike Missile UST, East Aurora, NY

File ID: SE053018M2.ICP Date Analyzed: 05/30/18 Methods: EPA 200.7, SW846 6010C
Analyst: EAL Run ID: MA44551
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Dilution Factor	PS Recov	Comments
00:46	ZZZZZZ	1		
00:50	ZZZZZZ	1		
00:54	ZZZZZZ	1		
00:58	ZZZZZZ	1		
01:02	ZZZZZZ	1		
01:06	ZZZZZZ	1		
01:11	ZZZZZZ	1		
01:15	ZZZZZZ	1		
01:19	MA44551-CCV11	1		
01:23	MA44551-CCB12	1		
01:27	ZZZZZZ	1		
01:32	ZZZZZZ	1		
01:36	MP7387-B1	1		
01:40	MP7387-MB1	1		
01:44	MP7387-S1	1		
01:48	MP7387-S2	1		
01:52	DA5683-7	1		(sample used for QC only; not part of login JC66934)
01:56	MP7387-SD1	5		
02:00	ZZZZZZ	1		
02:05	MA44551-CCV12	1		
02:09	MA44551-CCB13	1		
02:13	ZZZZZZ	1		
02:17	ZZZZZZ	1		
02:21	ZZZZZZ	1		
02:26	ZZZZZZ	1		
02:30	ZZZZZZ	1		
02:34	ZZZZZZ	1		
02:38	ZZZZZZ	1		
02:42	ZZZZZZ	1		
02:47	ZZZZZZ	1		
02:51	MA44551-CCV13	1		
02:55	MA44551-CCB14	1		
02:59	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC66934
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missile UST, East Aurora, NY

File ID: SE053018M2.ICP Date Analyzed: 05/30/18 Methods: EPA 200.7, SW846 6010C
Analyst: EAL Run ID: MA44551
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Dilution Factor	PS Recov	Comments
03:04	ZZZZZZ	1		
03:08	ZZZZZZ	1		
03:12	ZZZZZZ	1		
03:16	ZZZZZZ	1		
03:20	ZZZZZZ	1		
03:24	ZZZZZZ	1		
03:29	ZZZZZZ	1		
03:33	ZZZZZZ	1		
03:37	MA44551-CCV14	1		
03:41	MA44551-CCB15	1		
03:46	MA44551-CRI3	1		
03:50	MA44551-CRID3	1		
03:54	MA44551-CCV15	1		
03:58	MA44551-CCB16	1		
----->	Last reportable CCB for job JC66934 Refer to raw data for calibration curve and standards.			

INTERNAL STANDARD SUMMARY

Login Number: JC66934
Account: TCMaw - Tantara Corporation
Project: USACE Buffalo Nike Missile UST, East Aurora, NY

File ID: SE053018M2.ICP Date Analyzed: 05/30/18 Methods: EPA 200.7, SW846 6010C
Analyst: EAL Run ID: MA44551
Parameters: As, Ba, Cd, Cr, Pb, Se, Ag

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
15:45	MA44551-STD1	3532 R	91454 R	12048 R	8473 R
15:50	MA44551-STD2	3338	86223	11888	7303
15:54	ZZZZZZ	3451	88944	12064	7641
15:58	ZZZZZZ	3566	92978	12228	8540
16:05	MA44551-ICV1	3432	88772	12057	7609
16:12	MA44551-ICB1	3570	92878	12262	8552
16:16	MA44551-ICCV1	3437	89083	12110	7622
16:23	MA44551-CCB1	3577	93221	12195	8556
16:28	MA44551-CRI1	3532	92072	12119	8321
16:32	MA44551-CRID1	3556	93093	12234	8479
16:36	MA44551-ICSA1	3193	81760	11689	6706
16:41	MA44551-ICSAB1	3177	82031	11635	6694
16:45	MA44551-HSTD1	3531	92648	12172	8292
16:49	MA44551-HSTD2	3248	84079	11633	6800
16:54	ZZZZZZ	3518	92134	12144	8411
16:58	ZZZZZZ	3567	95403	12390	8675
17:02	ZZZZZZ	3580	93951	12136	8569
17:07	MA44551-CCV1	3486	90037	12002	7702
17:11	MA44551-CCB2	3596	94137	12126	8612
17:15	MP7375-MB1	3624	95515	12264	8729
17:19	MP7375-B1	3518	91297	12141	7942
17:23	MP7375-S1	3301	86047	11923	7108
17:28	MP7375-S2	3295	85831	11931	7078
17:32	JC66833-1	3297	86434	11984	7232
17:36	MP7375-SD1	3463	90461	11962	7916
17:40	ZZZZZZ	3574	94370	12138	8543
17:45	ZZZZZZ	3483	90808	11994	7824
17:49	ZZZZZZ	2970	77331	11323	6245
17:53	MA44551-CCV2	3442	90336	11829	7606
17:57	MA44551-CCB3	3577	93831	11975	8540
18:01	ZZZZZZ	3270	85693	11606	7252
18:06	ZZZZZZ	3673	89512	12252	7569
18:10	ZZZZZZ	3254	85739	11631	7245

INTERNAL STANDARD SUMMARY

Login Number: JC66934
Account: TCMaw - Tantara Corporation
Project: USACE Buffalo Nike Missile UST, East Aurora, NY

File ID: SE053018M2.ICP Date Analyzed: 05/30/18 Methods: EPA 200.7, SW846 6010C
Analyst: EAL Run ID: MA44551
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
18:15	ZZZZZZ	3588	94688	11997	8571
18:19	ZZZZZZ	3581	93969	12016	8530
18:23	ZZZZZZ	3557	92963	11936	8470
18:28	ZZZZZZ	3566	93332	11939	8547
18:32	ZZZZZZ	3580	93561	11902	8514
18:36	ZZZZZZ	3569	93603	11975	8490
18:41	ZZZZZZ	3580	93885	11960	8540
18:45	ZZZZZZ	3596	94291	11959	8577
18:49	ZZZZZZ	3562	93521	11969	8544
18:54	MA44551-CCV3	3448	89434	11778	7617
18:58	MA44551-CCB4	3584	93768	11966	8562
19:02	MA44551-CCV4	3453	89405	11829	7626
19:06	MA44551-CCB5	3571	94134	11936	8536
20:43	MA44551-CCV5	3368	86984	11332	7452
20:47	MA44551-CCB6	3552	92838	11664	8496
20:52	MP7398-MB1	3362	86621	11562	7420
20:56	MP7398-B1	3408	87685	11704	7409
21:00	MP7398-S1	3397	87428	11652	7371
21:04	MP7398-S2	3405	87799	11650	7396
21:09	JC66891-7	3398	87201	11613	7468
21:13	MP7398-SD1	3478	90470	11644	7990
21:17	ZZZZZZ	3365	86889	11496	7381
21:22	ZZZZZZ	3379	86932	11578	7393
21:26	MA44551-CCV6	3457	89692	11551	7621
21:35	MA44551-CCB7	3601	94239	11721	8582
21:39	MA44551-CRI2	3564	93451	11718	8363
21:44	MA44551-CRID2	3609	94111	11786	8544
21:48	MA44551-ICSA2	3233	83127	11323	6746
21:52	MA44551-ICSAB2	3222	82994	11305	6741
21:57	ZZZZZZ	10795 !	242410 !	22726 !	24368 !
22:01	MA44551-CCV7	3474	89452	11428	7624
22:05	MA44551-CCB8	3621	94221	11645	8602
22:18	MP7389-MB1	3738	97429	12099	9017

INTERNAL STANDARD SUMMARY

Login Number: JC66934
 Account: TCMaw - Tantara Corporation
 Project: USACE Buffalo Nike Missile UST, East Aurora, NY

File ID: SE053018M2.ICP Date Analyzed: 05/30/18 Methods: EPA 200.7, SW846 6010C
 Analyst: EAL Run ID: MA44551
 Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
22:23	MP7389-B1	3634	94311	12084	8178
22:27	MP7389-B2	3635	94359	12114	8173
22:31	MP7389-S1	3595	93039	12164	8005
22:35	MP7389-S2	3594	93385	12059	8022
22:39	JC66882-2	3687	96120	12140	8586
22:43	MP7389-SD1	No results reported for the elements associated with this internal standard.			
22:47	ZZZZZZ	3704	96683	12225	8598
22:56	MP7389-SD1	3656	96082	11829	8659
23:00	MA44551-CCV8	3519	91310	11663	7731
23:04	MA44551-CCB9	3661	95557	11778	8704
23:09	ZZZZZZ	3662	95288	12058	8319
23:13	ZZZZZZ	3631	94682	12030	8264
23:17	ZZZZZZ	3706	96573	12071	8633
23:21	ZZZZZZ	3701	96556	12181	8596
23:26	MP7388-B1	3552	92176	11647	7931
23:30	MP7388-MB1	3689	96787	11911	8778
23:34	JC66934-1	3944	99957	12934	7438
23:38	MP7388-S1	3515	90774	11913	7538
23:42	MP7388-S2	3483	89919	11747	7498
23:47	MA44551-CCV9	3548	91421	11565	7777
23:51	MA44551-CCB10	3684	96088	11804	8737
23:55	JC66684-1	3630	93599	12142	7861
23:59	MP7388-SD1	3697	95138	11895	8340
00:03	ZZZZZZ	No results reported for the elements associated with this internal standard.			
00:08	ZZZZZZ	No results reported for the elements associated with this internal standard.			
00:12	ZZZZZZ	No results reported for the elements associated with this internal standard.			
00:16	ZZZZZZ	No results reported for the elements associated with this internal standard.			
00:20	ZZZZZZ	No results reported for the elements associated with this internal standard.			
00:24	ZZZZZZ	No results reported for the elements associated with this internal standard.			
00:29	ZZZZZZ	No results reported for the elements associated with this internal standard.			
00:33	MA44551-CCV10	3541	91866	11714	7777
00:37	MA44551-CCB11	3687	96299	11796	8772
00:41	ZZZZZZ	No results reported for the elements associated with this internal standard.			

INTERNAL STANDARD SUMMARY

Login Number: JC66934
Account: TCMaw - Tantara Corporation
Project: USACE Buffalo Nike Missile UST, East Aurora, NY

File ID: SE053018M2.ICP Date Analyzed: 05/30/18 Methods: EPA 200.7, SW846 6010C
Analyst: EAL Run ID: MA44551
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
00:46	ZZZZZZ	No results reported for the elements associated with this internal standard.			
00:50	ZZZZZZ	No results reported for the elements associated with this internal standard.			
00:54	ZZZZZZ	No results reported for the elements associated with this internal standard.			
00:58	ZZZZZZ	No results reported for the elements associated with this internal standard.			
01:02	ZZZZZZ	No results reported for the elements associated with this internal standard.			
01:06	ZZZZZZ	No results reported for the elements associated with this internal standard.			
01:11	ZZZZZZ	No results reported for the elements associated with this internal standard.			
01:15	ZZZZZZ	No results reported for the elements associated with this internal standard.			
01:19	MA44551-CCV11	3530	91602	11580	7763
01:23	MA44551-CCB12	3676	96341	11692	8754
01:27	ZZZZZZ	3279	88187	11604	7647
01:32	ZZZZZZ	3551	92701	11824	7716
01:36	MP7387-B1	3534	92146	11622	7917
01:40	MP7387-MB1	3691	97209	11938	8839
01:44	MP7387-S1	3634	93229	12180	7485
01:48	MP7387-S2	3611	92735	11981	7458
01:52	DA5683-7	3747	96120	12354	7789
01:56	MP7387-SD1	3662	95070	11739	8269
02:00	ZZZZZZ	3611	93707	11948	7713
02:05	MA44551-CCV12	3524	91340	11470	7755
02:09	MA44551-CCB13	3654	95661	11697	8715
02:13	ZZZZZZ	3695	95378	12179	7752
02:17	ZZZZZZ	3593	92998	11981	7458
02:21	ZZZZZZ	3648	93680	12005	7667
02:26	ZZZZZZ	3680	94588	12193	7651
02:30	ZZZZZZ	3614	94263	11955	7712
02:34	ZZZZZZ	3611	93782	11897	8072
02:38	ZZZZZZ	3734	95168	12058	7902
02:42	ZZZZZZ	3739	94873	12159	7857
02:47	ZZZZZZ	3627	95069	11775	8350
02:51	MA44551-CCV13	3521	91264	11443	7743
02:55	MA44551-CCB14	3651	95686	11634	8698
02:59	ZZZZZZ	3602	94627	12076	8054

INTERNAL STANDARD SUMMARY

Login Number: JC66934
 Account: TCMAW - Tantara Corporation
 Project: USACE Buffalo Nike Missile UST, East Aurora, NY

File ID: SE053018M2.ICP Date Analyzed: 05/30/18 Methods: EPA 200.7, SW846 6010C
 Analyst: EAL Run ID: MA44551
 Parameters: As, Ba, Cd, Cr, Pb, Se, Ag

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
03:04	ZZZZZZ	3621	94452	11831	8139
03:08	ZZZZZZ	3705	96351	11916	8342
03:12	ZZZZZZ	3660	95171	11931	8180
03:16	ZZZZZZ	3668	95385	11867	8204
03:20	ZZZZZZ	3631	94782	11727	8208
03:24	ZZZZZZ	3680	95242	11952	8060
03:29	ZZZZZZ	3675	94800	11910	8092
03:33	ZZZZZZ	3586	93059	11721	7986
03:37	MA44551-CCV14	3500	90712	11431	7705
03:41	MA44551-CCB15	3641	94707	11520	8687
03:46	MA44551-CRI3	3573	93778	11543	8395
03:50	MA44551-CRID3	3605	94366	11498	8550
03:54	MA44551-CCV15	3490	90577	11431	7694
03:58	MA44551-CCB16	3608	94892	11522	8591

R = Reference for ISTD limits. ! = Outside limits.

LEGEND:

Istd#	Parameter	Limits
Istd#1	Yttrium (2243)	70-130 %
Istd#2	Yttrium (3600)	70-130 %
Istd#3	Yttrium (3710)	70-130 %
Istd#4	Indium	70-130 %

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC66934
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missile UST, East Aurora, NY

File ID: SE053018M2.ICP Date Analyzed: 05/30/18 Methods: EPA 200.7, SW846 6010C
QC Limits: result < RL Run ID: MA44551 Units: ug/l

Time: Sample ID:			16:12 ICB1		16:23 CCB1		17:11 CCB2		17:57 CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	12	anr							
Antimony	6.0	1.6	anr							
Arsenic	3.0	1.5	-1.00	<3.0	-0.100	<3.0	-0.100	<3.0	-0.600	<3.0
Barium	200	.4	-0.300	<200	-0.400	<200	-0.300	<200	-0.100	<200
Beryllium	1.0	.1	anr							
Bismuth	20	1.4								
Boron	100	1.1								
Cadmium	3.0	.3	-0.200	<3.0	0.200	<3.0	-0.100	<3.0	0.100	<3.0
Calcium	5000	2.7	anr							
Chromium	10	.5	0.400	<10	0.200	<10	0.200	<10	-0.100	<10
Cobalt	50	.2	anr							
Copper	10	.6	anr							
Iron	100	4	anr							
Lead	3.0	1.6	0.900	<3.0	1.40	<3.0	0.900	<3.0	1.10	<3.0
Lithium	50	2.5								
Magnesium	5000	26	anr							
Manganese	15	.1	anr							
Molybdenum	20	.4	anr							
Nickel	10	.4	anr							
Phosphorus	50	2.5								
Potassium	10000	29	anr							
Selenium	10	2.3	-0.100	<10	2.20	<10	1.80	<10	0.600	<10
Silicon	200	1.5								
Silver	10	.6	0.600	<10	0.600	<10	0.700	<10	0.00	<10
Sodium	10000	12	anr							
Strontium	10	.1								
Sulfur	50	2.9	anr							
Thallium	2.0	.9	anr							
Tin	10	.6								
Titanium	10	.4								
Tungsten	50	1.1								
Vanadium	50	.6	anr							
Zinc	20	.2	anr							

8.1.2
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BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC66934
Account: TCMaw - Tantara Corporation
Project: USACE Buffalo Nike Missile UST, East Aurora, NY

File ID: SE053018M2.ICP Date Analyzed: 05/30/18 Methods: EPA 200.7, SW846 6010C
QC Limits: result < RL Run ID: MA44551 Units: ug/l

Time: Sample ID:		16:12 ICB1		16:23 CCB1		17:11 CCB2		17:57 CCB3		
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final

Zirconium 10 .4

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

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC66934
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missile UST, East Aurora, NY

File ID: SE053018M2.ICP Date Analyzed: 05/30/18 Methods: EPA 200.7, SW846 6010C
QC Limits: result < RL Run ID: MA44551 Units: ug/l

Time: Sample ID:			18:58 CCB4		19:06 CCB5		20:47 CCB6		21:35 CCB7	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	12	anr							
Antimony	6.0	1.6	anr							
Arsenic	3.0	1.5	0.00	<3.0	-0.300	<3.0	-0.500	<3.0	-0.400	<3.0
Barium	200	.4	-0.100	<200	-0.100	<200	0.00	<200	-0.200	<200
Beryllium	1.0	.1	anr							
Bismuth	20	1.4								
Boron	100	1.1								
Cadmium	3.0	.3	0.200	<3.0	0.100	<3.0	0.300	<3.0	-0.100	<3.0
Calcium	5000	2.7	anr							
Chromium	10	.5	0.300	<10	0.100	<10	0.300	<10	0.200	<10
Cobalt	50	.2	anr							
Copper	10	.6	anr							
Iron	100	4	anr							
Lead	3.0	1.6	1.50	<3.0	0.500	<3.0	0.500	<3.0	1.00	<3.0
Lithium	50	2.5								
Magnesium	5000	26	anr							
Manganese	15	.1	anr							
Molybdenum	20	.4	anr							
Nickel	10	.4	anr							
Phosphorus	50	2.5								
Potassium	10000	29	anr							
Selenium	10	2.3	1.30	<10	-0.600	<10	0.100	<10	-2.50	<10
Silicon	200	1.5								
Silver	10	.6	0.100	<10	0.700	<10	0.200	<10	0.200	<10
Sodium	10000	12	anr							
Strontium	10	.1								
Sulfur	50	2.9	anr							
Thallium	2.0	.9	anr							
Tin	10	.6								
Titanium	10	.4								
Tungsten	50	1.1								
Vanadium	50	.6	anr							
Zinc	20	.2	anr							

8.1.2
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BLANK RESULTS SUMMARY
 Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC66934
 Account: TCMAW - Tantara Corporation
 Project: USACE Buffalo Nike Missile UST, East Aurora, NY

File ID: SE053018M2.ICP Date Analyzed: 05/30/18 Methods: EPA 200.7, SW846 6010C
 QC Limits: result < RL Run ID: MA44551 Units: ug/l

Time:		18:58		19:06		20:47		21:35		
Sample ID:		CCB4		CCB5		CCB6		CCB7		
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final

Zirconium 10 .4

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

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC66934
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missile UST, East Aurora, NY

File ID: SE053018M2.ICP Date Analyzed: 05/30/18 Methods: EPA 200.7, SW846 6010C
QC Limits: result < RL Run ID: MA44551 Units: ug/l

Time: Sample ID:			22:05 CCB8		23:04 CCB9		23:51 CCB10		00:37 CCB11	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	12	anr							
Antimony	6.0	1.6	anr							
Arsenic	3.0	1.5	-1.40	<3.0	-0.200	<3.0	-0.400	<3.0	-1.30	<3.0
Barium	200	.4	-0.200	<200	0.00	<200	-0.300	<200	-0.200	<200
Beryllium	1.0	.1	anr							
Bismuth	20	1.4								
Boron	100	1.1								
Cadmium	3.0	.3	0.00	<3.0	-0.100	<3.0	0.200	<3.0	0.100	<3.0
Calcium	5000	2.7	anr							
Chromium	10	.5	0.500	<10	0.300	<10	0.600	<10	0.200	<10
Cobalt	50	.2	anr							
Copper	10	.6	anr							
Iron	100	4	anr							
Lead	3.0	1.6	1.30	<3.0	0.900	<3.0	0.00	<3.0	0.00	<3.0
Lithium	50	2.5								
Magnesium	5000	26	anr							
Manganese	15	.1	anr							
Molybdenum	20	.4	anr							
Nickel	10	.4	anr							
Phosphorus	50	2.5								
Potassium	10000	29	anr							
Selenium	10	2.3	1.20	<10	1.00	<10	-0.100	<10	1.30	<10
Silicon	200	1.5								
Silver	10	.6	0.00	<10	0.300	<10	0.600	<10	0.400	<10
Sodium	10000	12	anr							
Strontium	10	.1								
Sulfur	50	2.9	anr							
Thallium	2.0	.9	anr							
Tin	10	.6								
Titanium	10	.4								
Tungsten	50	1.1								
Vanadium	50	.6	anr							
Zinc	20	.2	anr							

8.1.2
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BLANK RESULTS SUMMARY
 Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC66934
 Account: TCMaw - Tantara Corporation
 Project: USACE Buffalo Nike Missile UST, East Aurora, NY

File ID: SE053018M2.ICP Date Analyzed: 05/30/18 Methods: EPA 200.7, SW846 6010C
 QC Limits: result < RL Run ID: MA44551 Units: ug/l

Time:		22:05		23:04		23:51		00:37		
Sample ID:		CCB8		CCB9		CCB10		CCB11		
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final

Zirconium 10 .4

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

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC66934
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missile UST, East Aurora, NY

File ID: SE053018M2.ICP Date Analyzed: 05/30/18 Methods: EPA 200.7, SW846 6010C
QC Limits: result < RL Run ID: MA44551 Units: ug/l

Time: Sample ID:			01:23 CCB12		02:09 CCB13		02:55 CCB14		03:41 CCB15	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	12	anr							
Antimony	6.0	1.6	anr							
Arsenic	3.0	1.5	-1.40	<3.0	-0.800	<3.0	-0.600	<3.0	-0.700	<3.0
Barium	200	.4	-0.200	<200	-0.200	<200	0.00	<200	-0.100	<200
Beryllium	1.0	.1	anr							
Bismuth	20	1.4								
Boron	100	1.1								
Cadmium	3.0	.3	0.100	<3.0	0.00	<3.0	0.100	<3.0	0.200	<3.0
Calcium	5000	2.7	anr							
Chromium	10	.5	0.300	<10	0.200	<10	0.200	<10	0.300	<10
Cobalt	50	.2	anr							
Copper	10	.6	anr							
Iron	100	4	anr							
Lead	3.0	1.6	0.800	<3.0	0.500	<3.0	0.100	<3.0	0.700	<3.0
Lithium	50	2.5								
Magnesium	5000	26	anr							
Manganese	15	.1	anr							
Molybdenum	20	.4	anr							
Nickel	10	.4	anr							
Phosphorus	50	2.5								
Potassium	10000	29	anr							
Selenium	10	2.3	0.700	<10	0.100	<10	1.50	<10	0.900	<10
Silicon	200	1.5								
Silver	10	.6	0.00	<10	0.400	<10	-0.100	<10	0.600	<10
Sodium	10000	12	anr							
Strontium	10	.1								
Sulfur	50	2.9	anr							
Thallium	2.0	.9	anr							
Tin	10	.6								
Titanium	10	.4								
Tungsten	50	1.1								
Vanadium	50	.6	anr							
Zinc	20	.2	anr							

8.1.2
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BLANK RESULTS SUMMARY
 Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC66934
 Account: TCMaw - Tantara Corporation
 Project: USACE Buffalo Nike Missile UST, East Aurora, NY

File ID: SE053018M2.ICP Date Analyzed: 05/30/18 Methods: EPA 200.7, SW846 6010C
 QC Limits: result < RL Run ID: MA44551 Units: ug/l

Time:		01:23		02:09		02:55		03:41		
Sample ID:		CCB12		CCB13		CCB14		CCB15		
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final

Zirconium 10 .4

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

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC66934
Account: TCMaw - Tantara Corporation
Project: USACE Buffalo Nike Missile UST, East Aurora, NY

File ID: SE053018M2.ICP Date Analyzed: 05/30/18 Methods: EPA 200.7, SW846 6010C
QC Limits: result < RL Run ID: MA44551 Units: ug/l

Time: Sample ID:		03:58 CCB16			
Metal	RL	IDL	raw	final	
Aluminum	200	12	anr		
Antimony	6.0	1.6	anr		
Arsenic	3.0	1.5	-0.100	<3.0	
Barium	200	.4	0.00	<200	
Beryllium	1.0	.1	anr		
Bismuth	20	1.4			
Boron	100	1.1			
Cadmium	3.0	.3	0.00	<3.0	
Calcium	5000	2.7	anr		
Chromium	10	.5	0.100	<10	
Cobalt	50	.2	anr		
Copper	10	.6	anr		
Iron	100	4	anr		
Lead	3.0	1.6	1.40	<3.0	
Lithium	50	2.5			
Magnesium	5000	26	anr		
Manganese	15	.1	anr		
Molybdenum	20	.4	anr		
Nickel	10	.4	anr		
Phosphorus	50	2.5			
Potassium	10000	29	anr		
Selenium	10	2.3	-1.40	<10	
Silicon	200	1.5			
Silver	10	.6	0.400	<10	
Sodium	10000	12	anr		
Strontium	10	.1			
Sulfur	50	2.9	anr		
Thallium	2.0	.9	anr		
Tin	10	.6			
Titanium	10	.4			
Tungsten	50	1.1			
Vanadium	50	.6	anr		
Zinc	20	.2	anr		

8.1.2
8

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC66934
Account: TCMaw - Tantara Corporation
Project: USACE Buffalo Nike Missile UST, East Aurora, NY

File ID: SE053018M2.ICP Date Analyzed: 05/30/18 Methods: EPA 200.7, SW846 6010C
QC Limits: result < RL Run ID: MA44551 Units: ug/l

Time:		03:58	
Sample ID:		CCB16	
Metal	RL	IDL	raw final

Zirconium 10 .4

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

CALIBRATION CHECK STANDARDS SUMMARY
Initial Continuing Calibration Check

Login Number: JC66934

Account: TCMaw - Tantara Corporation

Project: USACE Buffalo Nike Missile UST, East Aurora, NY

File ID: SE053018M2.ICP
QC Limits: 95 to 105 % Recovery

Date Analyzed: 05/30/18
Run ID: MA44551

Methods: EPA 200.7, SW846 6010C
Units: ug/l

Time: Sample ID:	ICCV	16:16 ICCV1	
Metal	True	Results	% Rec
Aluminum	anr		
Antimony	anr		
Arsenic	2000	2020	101.0
Barium	2000	2020	101.0
Beryllium	anr		
Bismuth			
Boron			
Cadmium	2000	2020	101.0
Calcium	anr		
Chromium	2000	2030	101.5
Cobalt	anr		
Copper	anr		
Iron	anr		
Lead	2000	2040	102.0
Lithium			
Magnesium	anr		
Manganese	anr		
Molybdenum	anr		
Nickel	anr		
Phosphorus			
Potassium	anr		
Selenium	2000	2020	101.0
Silicon			
Silver	250	248	99.2
Sodium	anr		
Strontium			
Sulfur	anr		
Thallium	anr		
Tin			
Titanium			
Tungsten			
Vanadium	anr		
Zinc	anr		

8.1.3
8

CALIBRATION CHECK STANDARDS SUMMARY
Initial Continuing Calibration Check

Login Number: JC66934
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missile UST, East Aurora, NY

File ID: SE053018M2.ICP Date Analyzed: 05/30/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44551 Units: ug/l

Time:	16:16
Sample ID:	ICCV ICCV1
Metal	True Results % Rec

Zirconium

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

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC66934
Account: TCMaw - Tantara Corporation
Project: USACE Buffalo Nike Missile UST, East Aurora, NY

File ID: SE053018M2.ICP Date Analyzed: 05/30/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44551 Units: ug/l

Time: Sample ID:	ICV	16:05 ICV1		CCV	17:07 CCV1		CCV	17:53 CCV2	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	2000	2010	100.5	2000	1980	99.0	2000	2000	100.0
Barium	2000	2010	100.5	2000	2020	101.0	2000	2040	102.0
Beryllium	anr								
Bismuth									
Boron									
Cadmium	2000	2010	100.5	2000	1990	99.5	2000	2010	100.5
Calcium	anr								
Chromium	2000	2030	101.5	2000	2000	100.0	2000	1980	99.0
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	2000	2030	101.5	2000	2020	101.0	2000	2040	102.0
Lithium									
Magnesium	anr								
Manganese	anr								
Molybdenum	anr								
Nickel	anr								
Phosphorus									
Potassium	anr								
Selenium	2000	2000	100.0	2000	1990	99.5	2000	2020	101.0
Silicon									
Silver	250	248	99.2	250	246	98.4	250	243	97.2
Sodium	anr								
Strontium									
Sulfur	anr								
Thallium	anr								
Tin									
Titanium									
Tungsten									
Vanadium	anr								
Zinc	anr								

8.1.4
8

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC66934
Account: TCMaw - Tantara Corporation
Project: USACE Buffalo Nike Missile UST, East Aurora, NY

File ID: SE053018M2.ICP Date Analyzed: 05/30/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44551 Units: ug/l

Time:		16:05			17:07			17:53		
Sample ID:	ICV	ICV1		CCV	CCV1		CCV	CCV2		
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec	

Zirconium

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

8.1.4

8

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC66934
Account: TCMaw - Tantara Corporation
Project: USACE Buffalo Nike Missile UST, East Aurora, NY

File ID: SE053018M2.ICP Date Analyzed: 05/30/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44551 Units: ug/l

Time: Sample ID:	CCV	18:54 CCV3		CCV	19:02 CCV4		CCV	20:43 CCV5	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	2000	2010	100.5	2000	2000	100.0	2000	2060	103.0
Barium	2000	2050	102.5	2000	2040	102.0	2000	2090	104.5
Beryllium	anr								
Bismuth									
Boron									
Cadmium	2000	2010	100.5	2000	2000	100.0	2000	2060	103.0
Calcium	anr								
Chromium	2000	2010	100.5	2000	2020	101.0	2000	2080	104.0
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	2000	2050	102.5	2000	2040	102.0	2000	2100	105.0
Lithium									
Magnesium	anr								
Manganese	anr								
Molybdenum	anr								
Nickel	anr								
Phosphorus									
Potassium	anr								
Selenium	2000	2020	101.0	2000	2020	101.0	2000	2060	103.0
Silicon									
Silver	250	246	98.4	250	248	99.2	250	255	102.0
Sodium	anr								
Strontium									
Sulfur	anr								
Thallium	anr								
Tin									
Titanium									
Tungsten									
Vanadium	anr								
Zinc	anr								

8.1.4
8

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC66934
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missile UST, East Aurora, NY

File ID: SE053018M2.ICP Date Analyzed: 05/30/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44551 Units: ug/l

Time:		18:54			19:02			20:43		
Sample ID:	CCV	CCV3		CCV	CCV4		CCV	CCV5		
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec	

Zirconium

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

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC66934
Account: TCMaw - Tantara Corporation
Project: USACE Buffalo Nike Missile UST, East Aurora, NY

File ID: SE053018M2.ICP Date Analyzed: 05/30/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44551 Units: ug/l

Time: Sample ID:	CCV	21:26 CCV6	% Rec	CCV	22:01 CCV7	% Rec	CCV	23:00 CCV8	% Rec
Metal	True	Results		True	Results		True	Results	
Aluminum	anr								
Antimony	anr								
Arsenic	2000	2010	100.5	2000	2010	100.5	2000	1970	98.5
Barium	2000	2060	103.0	2000	2080	104.0	2000	2030	101.5
Beryllium	anr								
Bismuth									
Boron									
Cadmium	2000	2020	101.0	2000	2020	101.0	2000	1980	99.0
Calcium	anr								
Chromium	2000	2010	100.5	2000	2020	101.0	2000	1970	98.5
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	2000	2070	103.5	2000	2080	104.0	2000	2040	102.0
Lithium									
Magnesium	anr								
Manganese	anr								
Molybdenum	anr								
Nickel	anr								
Phosphorus									
Potassium	anr								
Selenium	2000	2020	101.0	2000	2020	101.0	2000	1990	99.5
Silicon									
Silver	250	246	98.4	250	247	98.8	250	242	96.8
Sodium	anr								
Strontium									
Sulfur	anr								
Thallium	anr								
Tin									
Titanium									
Tungsten									
Vanadium	anr								
Zinc	anr								

8.1.4
8

Login Number: JC66934
Account: TCMaw - Tantara Corporation
Project: USACE Buffalo Nike Missile UST, East Aurora, NY

		Time: 21:26				Time: 22:01				Time: 23:00	
Sample ID:	CCV	CCV6		CCV	CCV7		CCV	CCV8			
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec		

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

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC66934
Account: TCMaw - Tantara Corporation
Project: USACE Buffalo Nike Missile UST, East Aurora, NY

File ID: SE053018M2.ICP Date Analyzed: 05/30/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44551 Units: ug/l

Time: Sample ID:		23:47 CCV9		00:33 CCV10		01:19 CCV11			
Metal	CCV	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	2000	1970	98.5	2000	1980	99.0	2000	1970	98.5
Barium	2000	2040	102.0	2000	2020	101.0	2000	2040	102.0
Beryllium	anr								
Bismuth									
Boron									
Cadmium	2000	1970	98.5	2000	1990	99.5	2000	1980	99.0
Calcium	anr								
Chromium	2000	1980	99.0	2000	1990	99.5	2000	1990	99.5
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	2000	2040	102.0	2000	2050	102.5	2000	2030	101.5
Lithium									
Magnesium	anr								
Manganese	anr								
Molybdenum	anr								
Nickel	anr								
Phosphorus									
Potassium	anr								
Selenium	2000	1990	99.5	2000	2000	100.0	2000	1990	99.5
Silicon									
Silver	250	242	96.8	250	244	97.6	250	244	97.6
Sodium	anr								
Strontium									
Sulfur	anr								
Thallium	anr								
Tin									
Titanium									
Tungsten									
Vanadium	anr								
Zinc	anr								

8.1.4
8

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC66934
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missile UST, East Aurora, NY

File ID: SE053018M2.ICP Date Analyzed: 05/30/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44551 Units: ug/l

Time:	23:47	00:33	01:19
Sample ID:	CCV9	CCV10	CCV11
Metal	True	True	True
	Results % Rec	Results % Rec	Results % Rec

Zirconium

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

8.1.4

8

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC66934
Account: TCMaw - Tantara Corporation
Project: USACE Buffalo Nike Missile UST, East Aurora, NY

File ID: SE053018M2.ICP Date Analyzed: 05/30/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44551 Units: ug/l

Time: Sample ID:	CCV	02:05 CCV12	% Rec	CCV	02:51 CCV13	% Rec	CCV	03:37 CCV14	% Rec
Metal	True	Results		True	Results		True	Results	
Aluminum	anr								
Antimony	anr								
Arsenic	2000	1970	98.5	2000	1970	98.5	2000	1980	99.0
Barium	2000	2050	102.5	2000	2040	102.0	2000	2050	102.5
Beryllium	anr								
Bismuth									
Boron									
Cadmium	2000	1980	99.0	2000	1980	99.0	2000	1980	99.0
Calcium	anr								
Chromium	2000	1980	99.0	2000	1980	99.0	2000	1990	99.5
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	2000	2020	101.0	2000	2030	101.5	2000	2030	101.5
Lithium									
Magnesium	anr								
Manganese	anr								
Molybdenum	anr								
Nickel	anr								
Phosphorus									
Potassium	anr								
Selenium	2000	1990	99.5	2000	1990	99.5	2000	2000	100.0
Silicon									
Silver	250	244	97.6	250	244	97.6	250	245	98.0
Sodium	anr								
Strontium									
Sulfur	anr								
Thallium	anr								
Tin									
Titanium									
Tungsten									
Vanadium	anr								
Zinc	anr								

8.1.4
8

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC66934
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missile UST, East Aurora, NY

File ID: SE053018M2.ICP Date Analyzed: 05/30/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44551 Units: ug/l

Time:		02:05		02:51		03:37	
Sample ID:	CCV	CCV12	CCV	CCV13	CCV	CCV14	
Metal	True	Results	% Rec	True	Results	% Rec	True

Zirconium

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

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC66934
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missile UST, East Aurora, NY

File ID: SE053018M2.ICP Date Analyzed: 05/30/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44551 Units: ug/l

Time: Sample ID: CCV		03:54 CCV15	
Metal	True	Results	% Rec
Aluminum	anr		
Antimony	anr		
Arsenic	2000	1990	99.5
Barium	2000	2060	103.0
Beryllium	anr		
Bismuth			
Boron			
Cadmium	2000	1990	99.5
Calcium	anr		
Chromium	2000	2000	100.0
Cobalt	anr		
Copper	anr		
Iron	anr		
Lead	2000	2030	101.5
Lithium			
Magnesium	anr		
Manganese	anr		
Molybdenum	anr		
Nickel	anr		
Phosphorus			
Potassium	anr		
Selenium	2000	2000	100.0
Silicon			
Silver	250	247	98.8
Sodium	anr		
Strontium			
Sulfur	anr		
Thallium	anr		
Tin			
Titanium			
Tungsten			
Vanadium	anr		
Zinc	anr		

8.1.4
8

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC66934
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missile UST, East Aurora, NY

File ID: SE053018M2.ICP Date Analyzed: 05/30/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44551 Units: ug/l

Time:	03:54
Sample ID:	CCV
Metal	True
Results	% Rec

Zirconium

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

HIGH STANDARD CHECK SUMMARY

Login Number: JC66934
Account: TCMaw - Tantara Corporation
Project: USACE Buffalo Nike Missile UST, East Aurora, NY

File ID: SE053018M2.ICP
QC Limits: 90 to 110 % Recovery

Date Analyzed: 05/30/18
Run ID: MA44551

Methods: EPA 200.7, SW846 6010C
Units: ug/l

Time: Sample ID:	HSTD	16:45 HSTD1	% Rec	HSTD	16:49 HSTD2	% Rec
Metal	True	Results		True	Results	
Aluminum						
Antimony	anr					
Arsenic	5000	5100	102.0			
Barium	5000	5220	104.4			
Beryllium	anr					
Bismuth						
Boron						
Cadmium	5000	5100	102.0			
Calcium						
Chromium	5000	5230	104.6			
Cobalt	anr					
Copper	anr					
Iron						
Lead	5000	5170	103.4			
Lithium						
Magnesium						
Manganese	anr					
Molybdenum	anr					
Nickel	anr					
Phosphorus						
Potassium						
Selenium	5000	5150	103.0			
Silicon						
Silver	625	620	99.2			
Sodium						
Strontium						
Sulfur	anr					
Thallium	anr					
Tin						
Titanium						
Tungsten						
Vanadium	anr					
Zinc	anr					

HIGH STANDARD CHECK SUMMARY

Login Number: JC66934
 Account: TCMAW - Tantara Corporation
 Project: USACE Buffalo Nike Missile UST, East Aurora, NY

File ID: SE053018M2.ICP Date Analyzed: 05/30/18 Methods: EPA 200.7, SW846 6010C
 QC Limits: 90 to 110 % Recovery Run ID: MA44551 Units: ug/l

Time:		16:45			16:49		
Sample ID:	HSTD	HSTD1		HSTD	HSTD2		
Metal	True	Results	% Rec	True	Results	% Rec	

Zirconium

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

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC66934
 Account: TCMaw - Tantara Corporation
 Project: USACE Buffalo Nike Missile UST, East Aurora, NY

File ID: SE053018M2.ICP Date Analyzed: 05/30/18 Methods: EPA 200.7, SW846 6010C
 QC Limits: 70 to 130 % Recovery Run ID: MA44551 Units: ug/l

Time: Sample ID:	CRI	CRIA	CRID	16:28 CRI1	% Rec	16:32 CRID1	% Rec	21:39 CRI2	% Rec
Metal	True	True	True	Results		Results		Results	
Aluminum	200	500	100	anr					
Antimony	6.0	20	3.0	anr					
Arsenic	8.0	20	3.0	7.70	96.3	2.20	73.3	7.70	96.3
Barium	200		4.0	207	103.5	4.00	100.0	209	104.5
Beryllium	2.0		1.0	anr					
Bismuth	20								
Boron	100		10						
Cadmium	3.0		1.0	3.20	106.7	1.10	110.0	3.10	103.3
Calcium	5000	2000	1000	anr					
Chromium	10		2.0	10.6	106.0	2.10	105.0	10.3	103.0
Cobalt	50		3.0	anr					
Copper	10		2.0	anr					
Iron	100	500		anr					
Lead	3.0	20	2.5	3.00	100.0			3.60	120.0
Lithium	50								
Magnesium	5000	2000	100	anr					
Manganese	15		3.0	anr					
Molybdenum	20			anr					
Nickel	10		4.0	anr					
Phosphorus	50								
Potassium	5000		2000	anr					
Selenium	10	20	5.0	10.7	107.0	5.70	114.0	10.2	102.0
Silicon	200								
Silver	5.0		2.0	5.40	108.0			5.60	112.0
Sodium	5000		1000	anr					
Strontium	10								
Sulfur	50			anr					
Thallium	10		2.0	anr					
Tin	10								
Titanium	10								
Tungsten	50								
Vanadium	50		2.0	anr					
Zinc	20		10	anr					

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC66934
 Account: TCMaw - Tantara Corporation
 Project: USACE Buffalo Nike Missile UST, East Aurora, NY

File ID: SE053018M2.ICP Date Analyzed: 05/30/18 Methods: EPA 200.7, SW846 6010C
 QC Limits: 70 to 130 % Recovery Run ID: MA44551 Units: ug/l

Time:				16:28		16:32		21:39	
Sample ID:	CRI	CRIA	CRID	CRI1		CRID1		CRI2	
Metal	True	True	True	Results	% Rec	Results	% Rec	Results	% Rec

Zirconium 10

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

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC66934
 Account: TCMaw - Tantara Corporation
 Project: USACE Buffalo Nike Missile UST, East Aurora, NY

File ID: SE053018M2.ICP Date Analyzed: 05/30/18 Methods: EPA 200.7, SW846 6010C
 QC Limits: 70 to 130 % Recovery Run ID: MA44551 Units: ug/l

Time: Sample ID:	CRI	CRIA	CRID	21:44 CRID2	% Rec	03:46 CRI3	% Rec	03:50 CRID3	% Rec
Metal	True	True	True	Results		Results		Results	
Aluminum	200	500	100	anr					
Antimony	6.0	20	3.0						
Arsenic	8.0	20	3.0	2.40	80.0	7.30	91.3	2.20	73.3
Barium	200		4.0	4.20	105.0	210	105.0	4.00	100.0
Beryllium	2.0		1.0	anr					
Bismuth	20								
Boron	100		10						
Cadmium	3.0		1.0	1.10	110.0	3.30	110.0	1.00	100.0
Calcium	5000	2000	1000	anr					
Chromium	10		2.0	2.30	115.0	10.6	106.0	2.30	115.0
Cobalt	50		3.0	anr					
Copper	10		2.0						
Iron	100	500							
Lead	3.0	20	2.5			3.40	113.3		
Lithium	50								
Magnesium	5000	2000	100	anr					
Manganese	15		3.0	anr					
Molybdenum	20								
Nickel	10		4.0	anr					
Phosphorus	50								
Potassium	5000		2000	anr					
Selenium	10	20	5.0	6.20	124.0	11.5	115.0		
Silicon	200								
Silver	5.0		2.0			5.60	112.0		
Sodium	5000		1000	anr					
Strontium	10								
Sulfur	50								
Thallium	10		2.0	anr					
Tin	10								
Titanium	10								
Tungsten	50								
Vanadium	50		2.0	anr					
Zinc	20		10	anr					

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC66934
Account: TCMaw - Tantara Corporation
Project: USACE Buffalo Nike Missile UST, East Aurora, NY

File ID: SE053018M2.ICP Date Analyzed: 05/30/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 70 to 130 % Recovery Run ID: MA44551 Units: ug/l

Time:					21:44		03:46		03:50	
Sample ID:	CRI	CRIA	CRID	CRID2	Results	% Rec	CRI3	Results	% Rec	CRID3
Metal	True	True	True	Results			Results			Results

Zirconium 10

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

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

Login Number: JC66934
 Account: TCMaw - Tantara Corporation
 Project: USACE Buffalo Nike Missile UST, East Aurora, NY

File ID: SE053018M2.ICP Date Analyzed: 05/30/18 Methods: EPA 200.7, SW846 6010C
 QC Limits: 80 to 120 % Recovery Run ID: MA44551 Units: ug/l

Time: Sample ID:	ICSA True	ICSAB True	16:36 ICSA1 Results	% Rec	16:41 ICSAB1 Results	% Rec	21:48 ICSA2 Results	% Rec	21:52 ICSAB2 Results	% Rec
Metal										
Aluminum	500000	500000	543000	108.6	529000	105.8	550000	110.0	528000	105.6
Antimony		1000	-1.20		1070	107.0	-3.00		1050	105.0
Arsenic		1000	-0.300		1060	106.0	2.50		1050	105.0
Barium		500	-0.400		526	105.2	-0.500		531	106.2
Beryllium		500	0.200		512	102.4	0.100		513	102.6
Bismuth		500	-4.10		522	104.4	-5.60		512	102.4
Boron		500	0.100		494	98.8	-1.00		486	97.2
Cadmium		1000	0.00		1040	104.0	-0.300		1030	103.0
Calcium	400000	400000	390000	97.5	399000	99.8	394000	98.5	396000	99.0
Chromium		500	1.20		493	98.6	1.40		492	98.4
Cobalt		500	1.10		499	99.8	0.600		497	99.4
Copper		500	-1.50		515	103.0	-0.800		515	103.0
Iron	200000	200000	192000	96.0	206000	103.0	195000	97.5	208000	104.0
Lead		1000	1.80		996	99.6	0.300		1000	100.0
Lithium		500	2.20		546	109.2	4.70		549	109.8
Magnesium	500000	500000	516000	103.2	521000	104.2	524000	104.8	526000	105.2
Manganese		500	3.20		514	102.8	2.70		516	103.2
Molybdenum		500	-0.600		500	100.0	-0.700		500	100.0
Nickel		1000	-0.700		999	99.9	-1.60		1000	100.0
Phosphorus		500	-0.500		503	100.6	-0.900		515	103.0
Potassium			-444		-433		-424		-459	
Selenium		1000	3.00		1110	111.0	-0.500		1110	111.0
Silicon		500	-14.0		513	102.6	-13.0		511	102.2
Silver		1000	5.90		1060	106.0	5.60		1060	106.0
Sodium			24.5		26.7		118		92.4	
Strontium		500	4.80		558	111.6	5.00		562	112.4
Sulfur		500	-10.7		494	98.8	-3.30		501	100.2
Thallium		1000	-1.00		1070	107.0	-0.900		1080	108.0
Tin		500	-5.00		474	94.8	-5.00		469	93.8
Titanium		500	-1.20		514	102.8	-0.600		513	102.6
Tungsten		500	10.7		497	99.4	8.30		498	99.6
Vanadium		500	-1.40		494	98.8	-1.10		494	98.8
Zinc		1000	5.00		978	97.8	5.00		984	98.4

8.1.7
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INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: JC66934
Account: TCMaw - Tantara Corporation
Project: USACE Buffalo Nike Missile UST, East Aurora, NY

File ID: SE053018M2.ICP Date Analyzed: 05/30/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 80 to 120 % Recovery Run ID: MA44551 Units: ug/l

Time:				16:36			16:41			21:48			21:52
Sample ID:	ICSAB	ICSAB	ICSAB	Results	% Rec	Results	% Rec	Results	% Rec	Results	% Rec	Results	% Rec
Metal	True	True	True										

Zirconium	500	2.20		489	97.8	1.60		489	97.8

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

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC66934
Account: TCMaw - Tantara Corporation
Project: USACE Buffalo Nike Missile UST, East Aurora, NY

File ID: H8053118S1.CSV Date Analyzed: 05/31/18 Methods: SW846 7471B
Analyst: DP Run ID: MA44553
Parameters: Hg

Time	Sample Description	Dilution Factor	PS Recov	Comments
10:53	MA44553-STD1	1		B=1.1120E-004, C=-2.1282E-002, R=0.9999561
10:54	MA44553-STD2	1		STDB
10:55	MA44553-STD3	1		STDC
10:57	MA44553-STD4	1		STDD
10:58	MA44553-STD5	1		STDE
11:00	MA44553-STD6	1		STDF
11:08	MA44553-STD7	1		STDD
11:12	ZZZZZZ	1		
11:15	ZZZZZZ	1		
11:23	MA44553-ICV1	1		
11:28	MA44553-ICB1	1		
11:29	MA44553-CCV1	1		
11:31	MA44553-CCB1	1		
11:32	MA44553-CRI1	1		
11:35	MP7406-MB1	1		
11:36	MP7406-B1	1		
11:38	MP7406-S1	1		%Sol
11:39	MP7406-S2	1		%Sol
11:41	JC66951-3	1		(sample used for QC only; not part of login JC66934)
11:43	ZZZZZZ	1		
11:44	ZZZZZZ	1		
11:45	MA44553-CCV2	1		
11:47	MA44553-CCB2	1		
11:49	ZZZZZZ	1		
11:50	ZZZZZZ	1		
11:51	ZZZZZZ	1		
11:53	ZZZZZZ	1		
11:54	ZZZZZZ	1		
11:55	ZZZZZZ	1		
11:57	ZZZZZZ	1		
11:59	JC66934-1	1		
----->	Last reportable sample/			prep for job JC66934
12:01	ZZZZZZ	1		
12:02	MA44553-CCV3	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC66934
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missile UST, East Aurora, NY

File ID: H8053118S1.CSV
Analyst: DP
Parameters: Hg

Date Analyzed: 05/31/18
Run ID: MA44553
Methods: SW846 7471B

Time	Sample Description	Dilution Factor	PS Recov	Comments

----->
12:03 MA44553-CCB3 1
Last reportable CCB for job JC66934
12:05 ZZZZZZ 1

12:06 ZZZZZZ 1

12:08 ZZZZZZ 1

12:09 ZZZZZZ 1

12:11 ZZZZZZ 1

12:12 ZZZZZZ 1

12:13 ZZZZZZ 1

12:15 ZZZZZZ 1

12:20 ZZZZZZ 5

12:25 MA44553-CCV4 1

12:27 MA44553-CCB4 1

Refer to raw data for calibration curve and standards.

BLANK RESULTS SUMMARY
 Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC66934
 Account: TCMAW - Tantara Corporation
 Project: USACE Buffalo Nike Missile UST, East Aurora, NY

File ID: H8053118S1.CSV Date Analyzed: 05/31/18 Methods: SW846 7471B
 QC Limits: result < RL Run ID: MA44553 Units: ug/l

Time: Sample ID:		11:28 ICB1		11:31 CCB1		11:47 CCB2		12:03 CCB3		
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Mercury	0.20	.025	-0.0149	<0.20	-0.0406	<0.20	-0.0422	<0.20	-0.0555	<0.20

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

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC66934
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missile UST, East Aurora, NY

File ID: H8053118S1.CSV Date Analyzed: 05/31/18 Methods: SW846 7471B
QC Limits: 90 to 110 % Recovery Run ID: MA44553 Units: ug/l

Time:		11:23			11:29			11:45		
Sample ID:	ICV	ICV1		CCV	CCV1		CCV	CCV2		
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec	
Mercury	3	3.08	102.7	2.5	2.46	98.4	2.5	2.41	96.4	

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

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC66934

Account: TCMAW - Tantara Corporation

Project: USACE Buffalo Nike Missile UST, East Aurora, NY

File ID: H8053118S1.CSV
QC Limits: 90 to 110 % Recovery

Date Analyzed: 05/31/18
Run ID: MA44553

Methods: SW846 7471B
Units: ug/l

Time:	12:02
Sample ID:	CCV
Metal	True
Results	% Rec
Mercury	2.5
	2.42
	96.8

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

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC66934
 Account: TCMAW - Tantara Corporation
 Project: USACE Buffalo Nike Missile UST, East Aurora, NY

File ID: H8053118S1.CSV Date Analyzed: 05/31/18 Methods: SW846 7471B
 QC Limits: 70 to 130 % Recovery Run ID: MA44553 Units: ug/l

Time:		11:32	
Sample ID:	CRI	CRIA	CRI1
Metal	True	True	Results % Rec
Mercury	0.20	0.191	95.5

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

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC66934
Account: TCMaw - Tantara Corporation
Project: USACE Buffalo Nike Missile UST, East Aurora, NY

File ID: SD053118M1.ICP Date Analyzed: 05/31/18 Methods: EPA 200.7, SW846 6010C
Analyst: EAL Run ID: MA44556
Parameters: As,Cr,Pb,Se,Ag

Time	Sample Description	Dilution Factor	PS Recov	Comments
12:09	MA44556-STD1	1		STDA
12:13	MA44556-STD2	1		STDB
12:17	ZZZZZZ	1		
12:21	ZZZZZZ	1		
12:27	ZZZZZZ	1		
12:31	MA44556-ICV1	1		
12:37	MA44556-ICB1	1		
12:40	MA44556-ICCV1	1		
12:46	MA44556-CCB1	1		
12:50	MA44556-CRI1	1		
12:54	MA44556-CRID1	1		
12:58	MA44556-ICSA1	1		
13:03	MA44556-ICSAB1	1		
13:07	MA44556-HSTD1	1		
13:11	MA44556-HSTD2	1		Minerals
13:16	ZZZZZZ	1		
13:20	ZZZZZZ	1		
13:24	ZZZZZZ	1		
13:29	MA44556-CCV1	1		
13:33	MA44556-CCB2	1		
13:39	ZZZZZZ	1		
13:43	ZZZZZZ	1		
13:47	MP7375-S1	2		
13:51	MP7375-S2	2		
13:55	ZZZZZZ	1		
13:59	ZZZZZZ	1		
14:04	MP7388-S1	2		
14:08	MP7388-S2	2		
14:12	JC66684-1	2		(sample used for QC only; not part of login JC66934)
14:16	MA44556-CCV2	1		
14:20	MA44556-CCB3	1		
14:24	MP7388-SD1	10		
----->	Last reportable sample/prep for job JC66934			
14:29	ZZZZZZ	2		



SGS Instrument Runlog
Inorganics Analyses

Login Number: JC66934

Account: TCMaw - Tantara Corporation

Project: USACE Buffalo Nike Missile UST, East Aurora, NY

File ID: SD053118M1.ICP

Date Analyzed: 05/31/18

Methods: EPA 200.7, SW846 6010C

Analyst: EAL

Run ID: MA44556

Parameters: As,Cr,Pb,Se,Ag

Time	Sample Description	Dilution Factor	PS Recov	Comments
14:33	ZZZZZZ	2		
14:37	ZZZZZZ	2		
14:42	ZZZZZZ	2		
14:46	ZZZZZZ	2		
14:50	ZZZZZZ	2		
14:54	ZZZZZZ	2		
14:58	ZZZZZZ	2		
15:03	MA44556-CCV3	1		
15:07	MA44556-CCB4	1		
15:11	ZZZZZZ	2		
15:15	ZZZZZZ	2		
15:20	ZZZZZZ	2		
15:24	ZZZZZZ	2		
15:28	ZZZZZZ	2		
15:33	ZZZZZZ	2		
15:37	ZZZZZZ	2		
15:41	ZZZZZZ	2		
15:45	ZZZZZZ	2		
15:49	MA44556-CCV4	1		
15:54	MA44556-CCB5	1		
15:59	ZZZZZZ	5		
16:03	ZZZZZZ	25		
16:08	ZZZZZZ	1		
16:12	ZZZZZZ	1		
16:16	ZZZZZZ	5		
16:20	ZZZZZZ	25		
16:24	ZZZZZZ	5		
16:29	MA44556-CCV5	1		
16:33	MA44556-CCB6	1		
16:37	ZZZZZZ	1		
16:41	ZZZZZZ	1		
16:47	MA44556-CRI2	1		
16:52	MA44556-CRID2	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC66934
Account: TCMaw - Tantara Corporation
Project: USACE Buffalo Nike Missile UST, East Aurora, NY

File ID: SD053118M1.ICP Date Analyzed: 05/31/18 Methods: EPA 200.7, SW846 6010C
Analyst: EAL Run ID: MA44556
Parameters: As,Cr,Pb,Se,Ag

Time	Sample Description	Dilution Factor	PS Recov	Comments
16:56	MA44556-ICSA2	1		
17:00	MA44556-ICSAB2	1		
17:04	MA44556-CCV6	1		
17:09	MA44556-CCB7	1		
17:13	ZZZZZZ	1		Last reportable CCB for job JC66934
17:17	ZZZZZZ	1		
17:21	ZZZZZZ	1		
17:26	ZZZZZZ	1		
17:30	ZZZZZZ	1		
17:34	ZZZZZZ	1		
17:39	ZZZZZZ	1		
17:43	ZZZZZZ	1		
17:48	ZZZZZZ	1		
17:52	ZZZZZZ	1		
17:56	ZZZZZZ	1		
18:01	ZZZZZZ	1		
18:05	MA44556-CCV7	1		
18:09	MA44556-CCB8	1		
18:13	MP7392-MB1	1		
18:18	MP7392-B1	1		
18:22	MP7392-S1	1		
18:26	MP7392-S2	1		
18:30	JC66612-2A	1		(sample used for QC only; not part of login JC66934)
18:34	MP7392-SD1	5		
18:38	ZZZZZZ	1		
18:43	ZZZZZZ	1		
18:47	ZZZZZZ	1		
18:51	MA44556-CCV8	1		
18:55	MA44556-CCB9	1		
18:59	ZZZZZZ	1		
19:04	ZZZZZZ	1		
19:08	ZZZZZZ	1		
19:12	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC66934
Account: TCMaw - Tantara Corporation
Project: USACE Buffalo Nike Missile UST, East Aurora, NY

File ID: SD053118M1.ICP Date Analyzed: 05/31/18 Methods: EPA 200.7, SW846 6010C
Analyst: EAL Run ID: MA44556
Parameters: As,Cr,Pb,Se,Ag

Time	Sample Description	Dilution Factor	PS Recov	Comments
19:16	ZZZZZZ	1		
19:21	ZZZZZZ	1		
19:25	ZZZZZZ	1		
19:29	ZZZZZZ	1		
19:33	ZZZZZZ	1		
19:38	MA44556-CCV9	1		
19:42	MA44556-CCB10	1		
19:46	ZZZZZZ	1		
19:50	ZZZZZZ	1		
19:55	ZZZZZZ	1		
19:59	ZZZZZZ	1		
20:03	ZZZZZZ	1		
20:07	ZZZZZZ	1		
20:12	ZZZZZZ	1		
20:16	MP7397-B1	1		
20:20	MP7397-MB1	1		
20:24	MA44556-CCV10	1		
20:28	MA44556-CCB11	1		
20:33	MP7397-S1	1		
20:37	MP7397-S2	1		
20:41	JC66819-1	1		(sample used for QC only; not part of login JC66934)
20:45	MP7397-SD1	5		
20:49	MP7397-S3	1		
20:53	MP7397-S4	1		
20:57	JC66819-1F	1		(sample used for QC only; not part of login JC66934)
21:02	MP7397-SD2	5		
21:06	ZZZZZZ	1		
21:10	MA44556-CCV11	1		
21:15	MA44556-CCB12	1		
21:19	ZZZZZZ	1		
21:23	ZZZZZZ	1		
21:28	ZZZZZZ	1		
21:35	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC66934
Account: TCMaw - Tantara Corporation
Project: USACE Buffalo Nike Missile UST, East Aurora, NY

File ID: SD053118M1.ICP Date Analyzed: 05/31/18 Methods: EPA 200.7, SW846 6010C
Analyst: EAL Run ID: MA44556
Parameters: As,Cr,Pb,Se,Ag

Time	Sample Description	Dilution Factor	PS Recov	Comments
21:40	ZZZZZZ	1		
21:44	ZZZZZZ	1		
21:49	ZZZZZZ	1		
21:53	ZZZZZZ	1		
21:57	ZZZZZZ	1		
22:02	ZZZZZZ	1		
22:09	MA44556-CCV12	1		
22:13	MA44556-CCB13	1		
22:18	ZZZZZZ	1		
22:22	ZZZZZZ	1		
22:27	ZZZZZZ	1		
22:31	ZZZZZZ	1		
22:35	ZZZZZZ	1		
22:40	ZZZZZZ	1		
22:44	ZZZZZZ	1		
22:48	ZZZZZZ	1		
22:53	ZZZZZZ	1		
22:57	ZZZZZZ	1		
23:01	MA44556-CCV13	1		
23:05	MA44556-CCB14	1		
23:10	MP7398-MB2	5		
23:14	MP7398-B2	5		
23:18	ZZZZZZ	5		
23:23	ZZZZZZ	5		
23:27	ZZZZZZ	5		
23:31	MP7403-B1	1		
23:35	MP7403-MB1	1		
23:40	ZZZZZZ	1		
23:44	ZZZZZZ	1		
23:48	MA44556-CCV14	1		
23:52	MA44556-CCB15	1		
23:57	MA44556-CRI3	1		
00:01	MA44556-CRID3	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC66934
Account: TCMaw - Tantara Corporation
Project: USACE Buffalo Nike Missile UST, East Aurora, NY

File ID: SD053118M1.ICP Date Analyzed: 05/31/18 Methods: EPA 200.7, SW846 6010C
Analyst: EAL Run ID: MA44556
Parameters: As,Cr,Pb,Se,Ag

Time	Sample Description	Dilution Factor	PS Recov	Comments
00:05	MA44556-ICSA3	1		
00:10	MA44556-ICSAB3	1		
00:14	MA44556-CCV15	1		
00:18	MA44556-CCB16	1		
00:22	MP7403-S1	1		Ca overrange
00:27	MP7403-S2	1		Ca overrange
00:31	JC66764-14	1		(sample used for QC only; not part of login JC66934)
00:35	MP7403-SD1	5		
00:40	ZZZZZZ	1		
00:44	ZZZZZZ	1		
00:48	ZZZZZZ	1		
00:52	ZZZZZZ	1		
00:57	ZZZZZZ	1		
01:01	MA44556-CCV16	1		
01:05	MA44556-CCB17	1		
01:09	ZZZZZZ	1		
01:14	ZZZZZZ	1		
01:18	ZZZZZZ	1		
01:23	ZZZZZZ	1		
01:27	ZZZZZZ	1		
01:31	ZZZZZZ	1		
01:35	ZZZZZZ	1		
01:40	ZZZZZZ	1		
01:44	ZZZZZZ	1		
01:48	MA44556-CCV17	1		
01:53	MA44556-CCB18	1		
01:57	ZZZZZZ	1		
02:01	ZZZZZZ	10		
02:05	ZZZZZZ	1		
02:10	ZZZZZZ	1		
02:14	MP7402-B1	1		
02:18	MP7402-MB1	1		
02:22	MP7402-S1	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC66934
Account: TCMaw - Tantara Corporation
Project: USACE Buffalo Nike Missile UST, East Aurora, NY

File ID: SD053118M1.ICP Date Analyzed: 05/31/18 Methods: EPA 200.7, SW846 6010C
Analyst: EAL Run ID: MA44556
Parameters: As,Cr,Pb,Se,Ag

Time	Sample Description	Dilution Factor	PS Recov	Comments
02:27	MP7402-S2	1		
02:31	JC66978-3	1		(sample used for QC only; not part of login JC66934)
02:35	MP7402-SD1	5		
02:39	MA44556-CCV18	1		
02:43	MA44556-CCB19	1		
02:48	ZZZZZZ	1		
02:52	ZZZZZZ	1		
02:56	ZZZZZZ	1		
03:01	ZZZZZZ	1		
03:05	ZZZZZZ	1		
03:09	ZZZZZZ	1		
03:13	ZZZZZZ	1		
03:18	ZZZZZZ	1		
03:22	ZZZZZZ	1		
03:26	MA44556-CCV19	1		
03:31	MA44556-CCB20	1		
03:35	ZZZZZZ	1		
03:39	ZZZZZZ	1		
03:43	ZZZZZZ	1		
03:48	ZZZZZZ	1		
03:52	ZZZZZZ	1		
03:56	ZZZZZZ	1		
04:01	ZZZZZZ	1		
04:05	ZZZZZZ	1		
04:09	ZZZZZZ	1		
04:13	MA44556-CCV20	1		
04:17	MA44556-CCB21	1		
04:22	MA44556-CRI4	1		
04:26	MA44556-CRID4	1		
04:30	MA44556-CCV21	1		
04:34	MA44556-CCB22	1		

Refer to raw data for calibration curve and standards.

INTERNAL STANDARD SUMMARY

Login Number: JC66934
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missile UST, East Aurora, NY

File ID: SD053118M1.ICP
Analyst: EAL
Parameters: As,Cr,Pb,Se,Ag

Date Analyzed: 05/31/18
Run ID: MA44556
Methods: EPA 200.7, SW846 6010C

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
12:09	MA44556-STD1	4648 R	167750 R	22097 R	10676 R
12:13	MA44556-STD2	4326	152180	21622	9264
12:17	ZZZZZZ	4559	161480	22613	9818
12:21	ZZZZZZ	4787	173190	22931	10952
12:27	ZZZZZZ	4584	162920	22785	9883
12:31	MA44556-ICV1	4545	160800	22506	9788
12:37	MA44556-ICB1	4758	172170	22789	10903
12:40	MA44556-ICCV1	4446	157560	21903	9589
12:46	MA44556-CCB1	4796	171830	22616	10972
12:50	MA44556-CRI1	4742	169890	22409	10697
12:54	MA44556-CRID1	4788	172590	22734	10888
12:58	MA44556-ICSA1	4212	146440	21951	8788
13:03	MA44556-ICSAB1	4163	146390	21884	8741
13:07	MA44556-HSTD1	4699	167870	22524	10635
13:11	MA44556-HSTD2	4306	150480	21596	8871
13:16	ZZZZZZ	4698	167660	22432	10816
13:20	ZZZZZZ	4721	172670	22849	10926
13:24	ZZZZZZ	4794	172250	22615	10941
13:29	MA44556-CCV1	4580	161190	22160	9832
13:33	MA44556-CCB2	4794	173900	22547	10939
13:39	ZZZZZZ	4768	171910	22680	10951
13:43	ZZZZZZ	4697	166730	22728	10257
13:47	MP7375-S1	4485	158430	22134	9495
13:51	MP7375-S2	4534	159780	22427	9620
13:55	ZZZZZZ	4667	173980	22911	10714
13:59	ZZZZZZ	4604	164330	22392	10037
14:04	MP7388-S1	4611	162530	22796	9922
14:08	MP7388-S2	4618	163270	22937	9923
14:12	JC66684-1	4714	166270	23111	10229
14:16	MA44556-CCV2	4579	161340	22321	9828
14:20	MA44556-CCB3	4821	173680	22604	10984
14:24	MP7388-SD1	4830	171680	22801	10677
14:29	ZZZZZZ	4748	168630	23022	10286

INTERNAL STANDARD SUMMARY

Login Number: JC66934
Account: TCMaw - Tantara Corporation
Project: USACE Buffalo Nike Missile UST, East Aurora, NY

File ID: SD053118M1.ICP
Analyst: EAL
Parameters: As,Cr,Pb,Se,Ag

Date Analyzed: 05/31/18
Run ID: MA44556
Methods: EPA 200.7, SW846 6010C

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
14:33	ZZZZZZ	4738	166980	22908	10248
14:37	ZZZZZZ	4615	164600	22492	9998
14:42	ZZZZZZ	4716	167650	22877	10212
14:46	ZZZZZZ	4628	164100	22428	10013
14:50	ZZZZZZ	4734	167390	22975	10194
14:54	ZZZZZZ	4696	166660	22893	10150
14:58	ZZZZZZ	4595	162800	22233	10029
15:03	MA44556-CCV3	4619	162300	22228	9871
15:07	MA44556-CCB4	4806	173490	22690	10964
15:11	ZZZZZZ	4693	165740	22537	10203
15:15	ZZZZZZ	4730	167960	23194	10188
15:20	ZZZZZZ	4699	166800	22831	10172
15:24	ZZZZZZ	4773	166690	22674	10326
15:28	ZZZZZZ	4841	169070	23199	10406
15:33	ZZZZZZ	4633	162440	22156	9999
15:37	ZZZZZZ	4738	166110	22807	10196
15:41	ZZZZZZ	4660	163490	22336	10078
15:45	ZZZZZZ	4495	160530	22327	9983
15:49	MA44556-CCV4	4656	163790	22330	9930
15:54	MA44556-CCB5	4819	173300	22325	10956
15:59	ZZZZZZ	4667	165830	22225	10317
16:03	ZZZZZZ	4676	165840	21519	10494
16:08	ZZZZZZ	4996	174320	22810	11334
16:12	ZZZZZZ	4662	164590	22231	10084
16:16	ZZZZZZ	4878	172760	22763	10743
16:20	ZZZZZZ	4865	173840	22546	10943
16:24	ZZZZZZ	4864	172700	22718	10770
16:29	MA44556-CCV5	4654	163420	22287	9901
16:33	MA44556-CCB6	4855	176200	23302	10978
16:37	ZZZZZZ	4836	172290	22371	10781
16:41	ZZZZZZ	4838	170700	22358	10906
16:47	MA44556-CRI2	4808	172630	22432	10738
16:52	MA44556-CRID2	4857	173960	22375	10936

INTERNAL STANDARD SUMMARY

Login Number: JC66934
Account: TCMaw - Tantara Corporation
Project: USACE Buffalo Nike Missile UST, East Aurora, NY

File ID: SD053118M1.ICP
Analyst: EAL
Parameters: As,Cr,Pb,Se,Ag

Date Analyzed: 05/31/18
Run ID: MA44556
Methods: EPA 200.7, SW846 6010C

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
16:56	MA44556-ICSA2	4237	147430	21342	8757
17:00	MA44556-ICSAB2	4158	147720	21401	8669
17:04	MA44556-CCV6	4644	161970	21917	9887
17:09	MA44556-CCB7	4862	174790	22439	11005
17:13	ZZZZZZ	4464	157520	21655	9443
17:17	ZZZZZZ	4748	156850	22619	9682
17:21	ZZZZZZ	4439	157720	21714	9431
17:26	ZZZZZZ	4897	174950	22302	11077
17:30	ZZZZZZ	4841	174740	22516	10906
17:34	ZZZZZZ	4845	175170	22436	10925
17:39	ZZZZZZ	4816	175900	21484	10920
17:43	ZZZZZZ	4882	176520	22753	10994
17:48	ZZZZZZ	4849	165820	22461	10905
17:52	ZZZZZZ	4800	171190	22508	10511
17:56	ZZZZZZ	4874	174400	22466	11028
18:01	ZZZZZZ	4923	176380	22741	11070
18:05	MA44556-CCV7	4800	159840	21726	10140
18:09	MA44556-CCB8	4888	175660	22433	11016
18:13	MP7392-MB1	4876	175960	22773	10989
18:18	MP7392-B1	4720	167730	22584	10133
18:22	MP7392-S1	4666	163970	22620	9813
18:26	MP7392-S2	4623	164190	22546	9741
18:30	JC66612-2A	4797	167250	22293	10336
18:34	MP7392-SD1	4720	173830	22733	10516
18:38	ZZZZZZ	4529	162450	21982	9740
18:43	ZZZZZZ	4482	161060	21841	9628
18:47	ZZZZZZ	4644	166100	22527	10074
18:51	MA44556-CCV8	4650	163390	22072	9873
18:55	MA44556-CCB9	4846	174680	22507	10954
18:59	ZZZZZZ	4446	160690	22064	9561
19:04	ZZZZZZ	4634	167560	21979	10250
19:08	ZZZZZZ	4401	158400	21680	9286
19:12	ZZZZZZ	4463	160670	21315	9505

INTERNAL STANDARD SUMMARY

Login Number: JC66934
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missile UST, East Aurora, NY

File ID: SD053118M1.ICP
Analyst: EAL
Parameters: As,Cr,Pb,Se,Ag

Date Analyzed: 05/31/18
Run ID: MA44556
Methods: EPA 200.7, SW846 6010C

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
19:16	ZZZZZZ	4502	162010	22149	9719
19:21	ZZZZZZ	4599	165880	22405	9942
19:25	ZZZZZZ	4593	164190	22208	9829
19:29	ZZZZZZ	4651	166800	22416	10062
19:33	ZZZZZZ	4552	163680	22373	9758
19:38	MA44556-CCV9	4644	164700	22297	9858
19:42	MA44556-CCB10	4881	176050	22421	11019
19:46	ZZZZZZ	4647	166610	22697	10055
19:50	ZZZZZZ	4535	162280	23267	9680
19:55	ZZZZZZ	4770	170450	22591	10503
19:59	ZZZZZZ	4374	155860	21562	9248
20:03	ZZZZZZ	No results reported for the elements associated with this internal standard.			
20:07	ZZZZZZ	4479	162110	22055	9684
20:12	ZZZZZZ	4521	162790	22010	9793
20:16	MP7397-B1	4585	167530	22466	9915
20:20	MP7397-MB1	4840	176340	22979	10956
20:24	MA44556-CCV10	4626	163930	22357	9843
20:28	MA44556-CCB11	4903	178110	23014	11081
20:33	MP7397-S1	4564	161960	22416	9588
20:37	MP7397-S2	4571	163040	22618	9599
20:41	JC66819-1	4680	168070	22775	9998
20:45	MP7397-SD1	4770	170810	22417	10560
20:49	MP7397-S3	4580	162530	22592	9623
20:53	MP7397-S4	4531	162900	22582	9534
20:57	JC66819-1F	4687	167290	22792	9998
21:02	MP7397-SD2	4771	173080	22996	10547
21:06	ZZZZZZ	4567	160660	22256	9628
21:10	MA44556-CCV11	4707	166390	22566	10040
21:15	MA44556-CCB12	4812	175920	23078	10934
21:19	ZZZZZZ	4544	161270	22275	9582
21:23	ZZZZZZ	No results reported for the elements associated with this internal standard.			
21:28	ZZZZZZ	4687	168450	22244	10101
21:35	ZZZZZZ	4486	162340	21857	9514

INTERNAL STANDARD SUMMARY

Login Number: JC66934
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missile UST, East Aurora, NY

File ID: SD053118M1.ICP
Analyst: EAL
Parameters: As,Cr,Pb,Se,Ag

Date Analyzed: 05/31/18
Run ID: MA44556
Methods: EPA 200.7, SW846 6010C

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
21:40	ZZZZZZ	4575	165950	21833	9730
21:44	ZZZZZZ	4594	166440	21857	9799
21:49	ZZZZZZ	4581	168520	22212	9783
21:53	ZZZZZZ	4818	176720	22627	10963
21:57	ZZZZZZ	4507	162860	21586	9583
22:02	ZZZZZZ	4663	164090	22545	9963
22:09	MA44556-CCV12	4505	160740	21367	9645
22:13	MA44556-CCB13	4731	171230	21673	10747
22:18	ZZZZZZ	4480	157050	21639	9489
22:22	ZZZZZZ	4408	156890	21368	9338
22:27	ZZZZZZ	4434	160370	21061	9572
22:31	ZZZZZZ	4443	160870	21711	9456
22:35	ZZZZZZ	4442	158500	20943	9453
22:40	ZZZZZZ	4523	158740	21222	9616
22:44	ZZZZZZ	4500	160800	21575	9576
22:48	ZZZZZZ	4724	172820	21721	10720
22:53	ZZZZZZ	4458	159020	21297	9391
22:57	ZZZZZZ	4251	157320	21111	9087
23:01	MA44556-CCV13	4439	157440	20704	9492
23:05	MA44556-CCB14	4715	171120	21411	10693
23:10	MP7398-MB2	4428	156090	20991	9295
23:14	MP7398-B2	4467	157240	21100	9286
23:18	ZZZZZZ	4494	157730	21533	9399
23:23	ZZZZZZ	4400	155770	21198	9113
23:27	ZZZZZZ	4411	155930	20971	9169
23:31	MP7403-B1	4484	160690	20994	9713
23:35	MP7403-MB1	4775	173650	21888	10814
23:40	ZZZZZZ	4824	172330	22697	10208
23:44	ZZZZZZ	4494	154160	21871	9115
23:48	MA44556-CCV14	4496	160360	21308	9585
23:52	MA44556-CCB15	4713	172330	21498	10680
23:57	MA44556-CRI3	4658	167410	21252	10421
00:01	MA44556-CRID3	4688	172310	21616	10595

INTERNAL STANDARD SUMMARY

Login Number: JC66934
Account: TCMaw - Tantara Corporation
Project: USACE Buffalo Nike Missile UST, East Aurora, NY

File ID: SD053118M1.ICP
Analyst: EAL
Parameters: As,Cr,Pb,Se,Ag

Date Analyzed: 05/31/18
Run ID: MA44556
Methods: EPA 200.7, SW846 6010C

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
00:05	MA44556-ICSA3	4076	143570	20400	8455
00:10	MA44556-ICSAB3	4072	143820	20384	8480
00:14	MA44556-CCV15	4520	161520	21129	9622
00:18	MA44556-CCB16	4686	171090	21758	10629
00:22	MP7403-S1	4274	153210	21453	8784
00:27	MP7403-S2	4191	151420	21132	8576
00:31	JC66764-14	4428	159360	21639	9223
00:35	MP7403-SD1	4613	168160	21899	10072
00:40	ZZZZZZ	4588	159880	22771	9666
00:44	ZZZZZZ	4771	172420	22189	10277
00:48	ZZZZZZ	4469	160400	21645	9415
00:52	ZZZZZZ	4304	156560	21778	9000
00:57	ZZZZZZ	4543	164540	22024	9519
01:01	MA44556-CCV16	4587	164870	21533	9772
01:05	MA44556-CCB17	4735	171790	21550	10735
01:09	ZZZZZZ	4390	155760	21800	8907
01:14	ZZZZZZ	4617	164260	22028	9505
01:18	ZZZZZZ	4371	157000	21601	8911
01:23	ZZZZZZ	4427	160330	21750	9264
01:27	ZZZZZZ	4321	155040	21300	8863
01:31	ZZZZZZ	4528	163640	21909	9559
01:35	ZZZZZZ	4419	157800	21418	8975
01:40	ZZZZZZ	4671	168630	22210	9816
01:44	ZZZZZZ	4340	156120	21114	8915
01:48	MA44556-CCV17	4480	162040	21094	9547
01:53	MA44556-CCB18	4722	172070	21532	10694
01:57	ZZZZZZ	4270	155930	20819	11008
02:01	ZZZZZZ	4669	168210	21583	10607
02:05	ZZZZZZ	4505	999999	21877	9236
02:10	ZZZZZZ	4712	168950	22283	9859
02:14	MP7402-B1	4520	162980	21132	9763
02:18	MP7402-MB1	4784	175850	22049	10806
02:22	MP7402-S1	4472	159810	21365	9360

INTERNAL STANDARD SUMMARY

Login Number: JC66934
 Account: TCMaw - Tantara Corporation
 Project: USACE Buffalo Nike Missile UST, East Aurora, NY

File ID: SD053118M1.ICP
 Analyst: EAL
 Parameters: As,Cr,Pb,Se,Ag

Date Analyzed: 05/31/18
 Run ID: MA44556
 Methods: EPA 200.7, SW846 6010C

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
02:27	MP7402-S2	4539	163520	21795	9471
02:31	JC66978-3	4534	164920	21602	9626
02:35	MP7402-SD1	4636	171980	21269	10252
02:39	MA44556-CCV18	4559	163630	21450	9701
02:43	MA44556-CCB19	4662	170570	21138	10557
02:48	ZZZZZZ	3881	133690	20031	7560
02:52	ZZZZZZ	3912	137550	20396	7581
02:56	ZZZZZZ	4523	162420	21202	9583
03:01	ZZZZZZ	5217	187420	25274	8836
03:05	ZZZZZZ	4587	168370	21450	10048
03:09	ZZZZZZ	4674	171270	21708	10223
03:13	ZZZZZZ	4731	174220	21503	10699
03:18	ZZZZZZ	3911	134880	20152	7644
03:22	ZZZZZZ	3865	134670	20007	7536
03:26	MA44556-CCV19	4548	163290	21082	9671
03:31	MA44556-CCB20	4709	172530	21144	10662
03:35	ZZZZZZ	4554	165170	21373	9646
03:39	ZZZZZZ	4582	166230	21575	9726
03:43	ZZZZZZ	3952	136860	20396	7653
03:48	ZZZZZZ	4522	164770	21173	9564
03:52	ZZZZZZ	4573	165220	21413	9679
03:56	ZZZZZZ	5215	186170	24848	8812
04:01	ZZZZZZ	5182	185830	24939	8717
04:05	ZZZZZZ	4583	169910	21260	10047
04:09	ZZZZZZ	4664	169950	21325	10208
04:13	MA44556-CCV20	4595	164000	21117	9759
04:17	MA44556-CCB21	4699	168850	20812	10618
04:22	MA44556-CRI4	4637	167910	20680	10351
04:26	MA44556-CRID4	4673	170180	21188	10522
04:30	MA44556-CCV21	4527	163270	20936	9597
04:34	MA44556-CCB22	4705	171040	21116	10632

R = Reference for ISTD limits. ! = Outside limits.

LEGEND:

Istd#	Parameter	Limits
Istd#1	Yttrium (2243)	70-130 %

INTERNAL STANDARD SUMMARY

Login Number: JC66934
 Account: TCMAW - Tantara Corporation
 Project: USACE Buffalo Nike Missile UST, East Aurora, NY

File ID: SD053118M1.ICP Date Analyzed: 05/31/18 Methods: EPA 200.7, SW846 6010C
 Analyst: EAL Run ID: MA44556
 Parameters: As,Cr,Pb,Se,Ag

Sample					
Time	Description	Istd#1	Istd#2	Istd#3	Istd#4
Istd#4	Yttrium (3600)		70-130 %		
Istd#3	Yttrium (3710)		70-130 %		
Istd#4	Indium		70-130 %		

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

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC66934
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missile UST, East Aurora, NY

File ID: SD053118M1.ICP Date Analyzed: 05/31/18 Methods: EPA 200.7, SW846 6010C
QC Limits: result < RL Run ID: MA44556 Units: ug/l

Time: Sample ID:			12:37 ICB1		12:46 CCB1		13:33 CCB2		14:20 CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	8.7	anr							
Antimony	6.0	1.3	anr							
Arsenic	3.0	1.2	0.600	<3.0	-0.600	<3.0	1.90	<3.0	-0.200	<3.0
Barium	200	.4	anr							
Beryllium	1.0	.1	anr							
Bismuth	20	1.7								
Boron	100	1.5	anr							
Cadmium	3.0	.2	anr							
Calcium	5000	3.6	anr							
Chromium	10	.5	0.200	<10	0.300	<10	0.100	<10	0.200	<10
Cobalt	50	.4	anr							
Copper	10	.6	anr							
Iron	100	2.3	anr							
Lead	3.0	1.4	1.10	<3.0	0.00	<3.0	0.00	<3.0	0.500	<3.0
Lithium	50	1.9								
Magnesium	5000	24	anr							
Manganese	15	.1	anr							
Molybdenum	20	.3								
Nickel	10	.3	anr							
Phosphorus	50	1.4								
Potassium	10000	41	anr							
Selenium	10	3.6	-2.30	<10	1.40	<10	-1.10	<10	-0.900	<10
Silicon	200	1.9								
Silver	10	.4	0.00	<10	-0.200	<10	0.00	<10	-0.300	<10
Sodium	10000	17	anr							
Strontium	10	.1								
Sulfur	50	4.1								
Thallium	2.0	1.9	anr							
Tin	10	1.1								
Titanium	10	.3								
Tungsten	50	1.2								
Vanadium	50	.4	anr							
Zinc	20	.2	anr							

8.3.2
8

BLANK RESULTS SUMMARY
 Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC66934
 Account: TCMAW - Tantara Corporation
 Project: USACE Buffalo Nike Missile UST, East Aurora, NY

File ID: SD053118M1.ICP Date Analyzed: 05/31/18 Methods: EPA 200.7, SW846 6010C
 QC Limits: result < RL Run ID: MA44556 Units: ug/l

Time: Sample ID:			12:37 ICB1		12:46 CCB1		13:33 CCB2		14:20 CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final

Zirconium 10 .2

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

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC66934
Account: TCMaw - Tantara Corporation
Project: USACE Buffalo Nike Missile UST, East Aurora, NY

File ID: SD053118M1.ICP Date Analyzed: 05/31/18 Methods: EPA 200.7, SW846 6010C
QC Limits: result < RL Run ID: MA44556 Units: ug/l

Time: Sample ID:			15:07 CCB4		15:54 CCB5		16:33 CCB6		17:09 CCB7	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	8.7	anr							
Antimony	6.0	1.3	anr							
Arsenic	3.0	1.2	0.200	<3.0	-0.700	<3.0	1.20	<3.0	1.00	<3.0
Barium	200	.4	anr							
Beryllium	1.0	.1	anr							
Bismuth	20	1.7								
Boron	100	1.5	anr							
Cadmium	3.0	.2	anr							
Calcium	5000	3.6	anr							
Chromium	10	.5	0.400	<10	-0.100	<10	0.100	<10	0.00	<10
Cobalt	50	.4	anr							
Copper	10	.6	anr							
Iron	100	2.3	anr							
Lead	3.0	1.4	-0.700	<3.0	0.300	<3.0	-0.300	<3.0	0.00	<3.0
Lithium	50	1.9								
Magnesium	5000	24	anr							
Manganese	15	.1	anr							
Molybdenum	20	.3								
Nickel	10	.3	anr							
Phosphorus	50	1.4								
Potassium	10000	41	anr							
Selenium	10	3.6	-1.60	<10	-0.800	<10	-0.100	<10	-2.00	<10
Silicon	200	1.9								
Silver	10	.4	0.300	<10	-0.100	<10	0.100	<10	0.00	<10
Sodium	10000	17	anr							
Strontium	10	.1								
Sulfur	50	4.1								
Thallium	2.0	1.9	anr							
Tin	10	1.1								
Titanium	10	.3								
Tungsten	50	1.2								
Vanadium	50	.4	anr							
Zinc	20	.2	anr							

8.3.2
8

BLANK RESULTS SUMMARY
 Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC66934
 Account: TCMAW - Tantara Corporation
 Project: USACE Buffalo Nike Missile UST, East Aurora, NY

File ID: SD053118M1.ICP Date Analyzed: 05/31/18 Methods: EPA 200.7, SW846 6010C
 QC Limits: result < RL Run ID: MA44556 Units: ug/l

Time: Sample ID:			15:07 CCB4		15:54 CCB5		16:33 CCB6		17:09 CCB7	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final

Zirconium 10 .2

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



CALIBRATION CHECK STANDARDS SUMMARY
Initial Continuing Calibration Check

Login Number: JC66934

Account: TCMaw - Tantara Corporation

Project: USACE Buffalo Nike Missile UST, East Aurora, NY

File ID: SD053118M1.ICP
QC Limits: 95 to 105 % Recovery

Date Analyzed: 05/31/18
Run ID: MA44556

Methods: EPA 200.7, SW846 6010C
Units: ug/l

Time: Sample ID: ICCV		12:40 ICCV1	
Metal	True	Results	% Rec
Aluminum	anr		
Antimony	anr		
Arsenic	2000	1990	99.5
Barium	anr		
Beryllium	anr		
Bismuth			
Boron	anr		
Cadmium	anr		
Calcium	anr		
Chromium	2000	2010	100.5
Cobalt	anr		
Copper	anr		
Iron	anr		
Lead	2000	2030	101.5
Lithium			
Magnesium	anr		
Manganese	anr		
Molybdenum			
Nickel	anr		
Phosphorus			
Potassium	anr		
Selenium	2000	1990	99.5
Silicon			
Silver	250	249	99.6
Sodium	anr		
Strontium			
Sulfur			
Thallium	anr		
Tin			
Titanium			
Tungsten			
Vanadium	anr		
Zinc	anr		

8.3.3
8

CALIBRATION CHECK STANDARDS SUMMARY
Initial Continuing Calibration Check

Login Number: JC66934
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missile UST, East Aurora, NY

File ID: SD053118M1.ICP Date Analyzed: 05/31/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44556 Units: ug/l

Time:	12:40
Sample ID:	ICCV ICCV1
Metal	True Results % Rec

Zirconium

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

8.3.3
8

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC66934
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missile UST, East Aurora, NY

File ID: SD053118M1.ICP Date Analyzed: 05/31/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44556 Units: ug/l

Time: Sample ID:	ICV	12:31 ICV1		CCV	13:29 CCV1		CCV	14:16 CCV2	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	2000	1940	97.0	2000	1920	96.0	2000	1920	96.0
Barium	anr								
Beryllium	anr								
Bismuth									
Boron	anr								
Cadmium	anr								
Calcium	anr								
Chromium	2000	1950	97.5	2000	1950	97.5	2000	1950	97.5
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	2000	1990	99.5	2000	1980	99.0	2000	1990	99.5
Lithium									
Magnesium	anr								
Manganese	anr								
Molybdenum									
Nickel	anr								
Phosphorus									
Potassium	anr								
Selenium	2000	1940	97.0	2000	1920	96.0	2000	1930	96.5
Silicon									
Silver	250	242	96.8	250	241	96.4	250	243	97.2
Sodium	anr								
Strontium									
Sulfur									
Thallium	anr								
Tin									
Titanium									
Tungsten									
Vanadium	anr								
Zinc	anr								

8.3.4
8

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC66934
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missile UST, East Aurora, NY

File ID: SD053118M1.ICP Date Analyzed: 05/31/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44556 Units: ug/l

Time:		12:31			13:29			14:16		
Sample ID:	ICV	ICV1		CCV	CCV1		CCV	CCV2		
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec	

Zirconium

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

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC66934
Account: TCMaw - Tantara Corporation
Project: USACE Buffalo Nike Missile UST, East Aurora, NY

File ID: SD053118M1.ICP Date Analyzed: 05/31/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44556 Units: ug/l

Time: Sample ID:		15:03 CCV3		15:49 CCV4		16:29 CCV5			
Metal	CCV True	Results	% Rec	CCV True	Results	% Rec	CCV True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	2000	1910	95.5	2000	1900	95.0	2000	1890	94.5
Barium	anr								
Beryllium	anr								
Bismuth									
Boron	anr								
Cadmium	anr								
Calcium	anr								
Chromium	2000	1950	97.5	2000	1950	97.5	2000	1950	97.5
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	2000	1990	99.5	2000	1990	99.5	2000	1990	99.5
Lithium									
Magnesium	anr								
Manganese	anr								
Molybdenum									
Nickel	anr								
Phosphorus									
Potassium	anr								
Selenium	2000	1910	95.5	2000	1900	95.0	2000	1890	94.5
Silicon									
Silver	250	242	96.8	250	242	96.8	250	243	97.2
Sodium	anr								
Strontium									
Sulfur									
Thallium	anr								
Tin									
Titanium									
Tungsten									
Vanadium	anr								
Zinc	anr								

8.3.4
8

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC66934
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missile UST, East Aurora, NY

File ID: SD053118M1.ICP Date Analyzed: 05/31/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44556 Units: ug/l

Time:		15:03			15:49			16:29		
Sample ID:	CCV	CCV3		CCV	CCV4		CCV	CCV5		
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec	

Zirconium

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

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC66934
Account: TCMaw - Tantara Corporation
Project: USACE Buffalo Nike Missile UST, East Aurora, NY

File ID: SD053118M1.ICP Date Analyzed: 05/31/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44556 Units: ug/l

Time: Sample ID: CCV		17:04 CCV6	
Metal	True	Results	% Rec
Aluminum	anr		
Antimony	anr		
Arsenic	2000	1900	95.0
Barium	anr		
Beryllium	anr		
Bismuth			
Boron	anr		
Cadmium	anr		
Calcium	anr		
Chromium	2000	1970	98.5
Cobalt	anr		
Copper	anr		
Iron	anr		
Lead	2000	1990	99.5
Lithium			
Magnesium	anr		
Manganese	anr		
Molybdenum			
Nickel	anr		
Phosphorus			
Potassium	anr		
Selenium	2000	1890	94.5
Silicon			
Silver	250	244	97.6
Sodium	anr		
Strontium			
Sulfur			
Thallium	anr		
Tin			
Titanium			
Tungsten			
Vanadium	anr		
Zinc	anr		

8.3.4
8

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC66934
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missile UST, East Aurora, NY

File ID: SD053118M1.ICP Date Analyzed: 05/31/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 95 to 105 % Recovery Run ID: MA44556 Units: ug/l

Time:	17:04
Sample ID:	CCV
Metal	True
Results	% Rec

Zirconium

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

HIGH STANDARD CHECK SUMMARY

Login Number: JC66934
 Account: TCMaw - Tantara Corporation
 Project: USACE Buffalo Nike Missile UST, East Aurora, NY

File ID: SD053118M1.ICP Date Analyzed: 05/31/18 Methods: EPA 200.7, SW846 6010C
 QC Limits: 90 to 110 % Recovery Run ID: MA44556 Units: ug/l

Time:		13:07			13:11		
Sample ID:	HSTD	HSTD1		HSTD	HSTD2		
Metal	True	Results	% Rec	True	Results	% Rec	
Aluminum							
Antimony	anr						
Arsenic	5000	4780	95.6				
Barium	anr						
Beryllium	anr						
Bismuth							
Boron	anr						
Cadmium	anr						
Calcium							
Chromium	5000	4960	99.2				
Cobalt	anr						
Copper	anr						
Iron							
Lead	5000	4950	99.0				
Lithium							
Magnesium							
Manganese	anr						
Molybdenum							
Nickel	anr						
Phosphorus							
Potassium							
Selenium	5000	4790	95.8				
Silicon							
Silver	625	596	95.4				
Sodium							
Strontium							
Sulfur							
Thallium	anr						
Tin							
Titanium							
Tungsten							
Vanadium	anr						
Zinc	anr						

8.3.5
8

HIGH STANDARD CHECK SUMMARY

Login Number: JC66934
 Account: TCMAW - Tantara Corporation
 Project: USACE Buffalo Nike Missile UST, East Aurora, NY

File ID: SD053118M1.ICP Date Analyzed: 05/31/18 Methods: EPA 200.7, SW846 6010C
 QC Limits: 90 to 110 % Recovery Run ID: MA44556 Units: ug/l

Time:		13:07			13:11		
Sample ID:		HSTD	HSTD1	HSTD	HSTD2		
Metal	True	Results	% Rec	True	Results	% Rec	

Zirconium

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

8.3.5

8

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC66934
 Account: TCMaw - Tantara Corporation
 Project: USACE Buffalo Nike Missile UST, East Aurora, NY

File ID: SD053118M1.ICP Date Analyzed: 05/31/18 Methods: EPA 200.7, SW846 6010C
 QC Limits: 70 to 130 % Recovery Run ID: MA44556 Units: ug/l

Time: Sample ID:	CRI	CRIA	CRID	12:50 CRI1	% Rec	12:54 CRID1	% Rec	16:47 CRI2	% Rec
Metal	True	True	True	Results		Results		Results	
Aluminum	200	500	100	anr					
Antimony	6.0	20	3.0	anr					
Arsenic	8.0	20	3.0	7.60	95.0	3.00	100.0	7.60	95.0
Barium	200		4.0	anr					
Beryllium	2.0		1.0	anr					
Bismuth	20								
Boron	100		10	anr					
Cadmium	3.0		1.0	anr					
Calcium	5000	2000	1000	anr					
Chromium	10		2.0	9.80	98.0	2.10	105.0	9.60	96.0
Cobalt	50		3.0	anr					
Copper	10		2.0	anr					
Iron	100	500		anr					
Lead	3.0	20	2.5	2.20	73.3	0.00U	0.0* (a)	2.30	76.7
Lithium	50								
Magnesium	5000	2000	100	anr					
Manganese	15		3.0	anr					
Molybdenum	20								
Nickel	10		4.0	anr					
Phosphorus	50								
Potassium	5000		2000	anr					
Selenium	10	20	5.0	8.70	87.0	3.50U	0.0* (a)	9.20	92.0
Silicon	200								
Silver	5.0		2.0	4.40	88.0	0.00U	0.0* (a)	4.60	92.0
Sodium	5000		1000	anr					
Strontium	10								
Sulfur	50								
Thallium	10		2.0	anr					
Tin	10								
Titanium	10								
Tungsten	50								
Vanadium	50		2.0	anr					
Zinc	20		10	anr					

8.3.6
8

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC66934
 Account: TCMaw - Tantara Corporation
 Project: USACE Buffalo Nike Missile UST, East Aurora, NY

File ID: SD053118M1.ICP Date Analyzed: 05/31/18 Methods: EPA 200.7, SW846 6010C
 QC Limits: 70 to 130 % Recovery Run ID: MA44556 Units: ug/l

Time:				12:50		12:54		16:47	
Sample ID:	CRI	CRIA	CRID	CRI1		CRID1		CRI2	
Metal	True	True	True	Results	% Rec	Results	% Rec	Results	% Rec

Zirconium 10

(*) Outside of QC limits
 (anr) Analyte not requested
 (a) No samples reported for this element at this RL in the area bracketed by this QC.

8.3.6

8

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC66934
 Account: TCMaw - Tantara Corporation
 Project: USACE Buffalo Nike Missile UST, East Aurora, NY

File ID: SD053118M1.ICP Date Analyzed: 05/31/18 Methods: EPA 200.7, SW846 6010C
 QC Limits: 70 to 130 % Recovery Run ID: MA44556 Units: ug/l

Time: Sample ID:	CRI	CRIA	CRID	16:52 CRID2	
Metal	True	True	True	Results	% Rec
Aluminum	200	500	100	anr	
Antimony	6.0	20	3.0	anr	
Arsenic	8.0	20	3.0	3.60	120.0
Barium	200		4.0	anr	
Beryllium	2.0		1.0	anr	
Bismuth	20				
Boron	100		10	anr	
Cadmium	3.0		1.0	anr	
Calcium	5000	2000	1000	anr	
Chromium	10		2.0	1.80	90.0
Cobalt	50		3.0	anr	
Copper	10		2.0	anr	
Iron	100	500			
Lead	3.0	20	2.5	0.300U	0.0* (a)
Lithium	50				
Magnesium	5000	2000	100	anr	
Manganese	15		3.0	anr	
Molybdenum	20				
Nickel	10		4.0	anr	
Phosphorus	50				
Potassium	5000		2000	anr	
Selenium	10	20	5.0	3.30U	0.0* (a)
Silicon	200				
Silver	5.0		2.0	0.200U	0.0* (a)
Sodium	5000		1000	anr	
Strontium	10				
Sulfur	50				
Thallium	10		2.0	anr	
Tin	10				
Titanium	10				
Tungsten	50				
Vanadium	50		2.0	anr	
Zinc	20		10	anr	

8.3.6

8

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC66934
 Account: TCMaw - Tantara Corporation
 Project: USACE Buffalo Nike Missile UST, East Aurora, NY

File ID: SD053118M1.ICP Date Analyzed: 05/31/18 Methods: EPA 200.7, SW846 6010C
 QC Limits: 70 to 130 % Recovery Run ID: MA44556 Units: ug/l

Time:				16:52	
Sample ID:	CRI	CRIA	CRID	CRID2	
Metal	True	True	True	Results	% Rec

Zirconium 10

(*) Outside of QC limits
 (anr) Analyte not requested
 (a) No samples reported for this element at this RL in the area bracketed by this QC.

8.3.6

8

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

Login Number: JC66934
Account: TCMaw - Tantara Corporation
Project: USACE Buffalo Nike Missile UST, East Aurora, NY

File ID: SD053118M1.ICP Date Analyzed: 05/31/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 80 to 120 % Recovery Run ID: MA44556 Units: ug/l

Time: Sample ID:	ICSA True	ICSAB True	12:58 ICSA1 Results	% Rec	13:03 ICSAB1 Results	% Rec	16:56 ICSA2 Results	% Rec	17:00 ICSAB2 Results	% Rec
Metal										
Aluminum	500000	500000	519000	103.8	494000	98.8	521000	104.2	498000	99.6
Antimony		1000	5.50		1030	103.0	2.80		1030	103.0
Arsenic		1000	0.600		1000	100.0	2.40		1000	100.0
Barium		500	0.800		487	97.4	0.900		492	98.4
Beryllium		500	-0.500		471	94.2	-0.600		469	93.8
Bismuth		500	7.60		505	101.0	5.60		510	102.0
Boron		500	0.00		471	94.2	-0.700		478	95.6
Cadmium		1000	2.50		984	98.4	2.40		995	99.5
Calcium	400000	400000	368000	92.0	375000	93.8	370000	92.5	370000	92.5
Chromium		500	-1.60		463	92.6	-1.70		463	92.6
Cobalt		500	-0.200		463	92.6	0.00		469	93.8
Copper		500	-0.200		482	96.4	0.300		479	95.8
Iron	200000	200000	181000	90.5	193000	96.5	180000	90.0	192000	96.0
Lead		1000	-1.20		930	93.0	3.10		949	94.9
Lithium		500	15.5		522	104.4	13.9		525	105.0
Magnesium	500000	500000	500000	100.0	497000	99.4	496000	99.2	491000	98.2
Manganese		500	-2.00		484	96.8	-2.90		480	96.0
Molybdenum		500	-1.40		474	94.8	-1.60		476	95.2
Nickel		1000	1.00		937	93.7	0.100		958	95.8
Phosphorus		500	6.90		487	97.4	11.0		493	98.6
Potassium			172		160		259		178	
Selenium		1000	-2.30		1080	108.0	-5.20		1080	108.0
Silicon		500	-17.9		491	98.2	-15.3		499	99.8
Silver		1000	1.20		993	99.3	0.900		1000	100.0
Sodium			13.0		5.60		-4.00		0.200	
Strontium		500	0.500		526	105.2	0.400		527	105.4
Sulfur		500	4.90		489	97.8	3.80		488	97.6
Thallium		1000	-0.700		1040	104.0	0.100		1060	106.0
Tin		500	-1.80		456	91.2	-1.00		453	90.6
Titanium		500	-0.900		480	96.0	-1.00		491	98.2
Tungsten		500	-0.100		465	93.0	-1.00		469	93.8
Vanadium		500	-1.70		472	94.4	-1.00		472	94.4
Zinc		1000	-1.10		917	91.7	-1.30		923	92.3

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

Login Number: JC66934
Account: TCMaw - Tantara Corporation
Project: USACE Buffalo Nike Missile UST, East Aurora, NY

File ID: SD053118M1.ICP Date Analyzed: 05/31/18 Methods: EPA 200.7, SW846 6010C
QC Limits: 80 to 120 % Recovery Run ID: MA44556 Units: ug/l

Time:				12:58		13:03		16:56		17:00	
Sample ID:	ICSAB	ICSAB	ICSAB	ICSAB1	ICSAB1	ICSAB1	ICSAB1	ICSAB2	ICSAB2	ICSAB2	ICSAB2
Metal	True	True	True	Results	% Rec	Results	% Rec	Results	% Rec	Results	% Rec

Zirconium	500	0.400		471	94.2	0.200		466	93.2

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

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: JC66934
Account: TCMaw - Tantara Corporation
Project: USACE Buffalo Nike Missile UST, East Aurora, NY

QC Batch ID: MP7388
Matrix Type: SOLID

Methods: SW846 6010C
Units: mg/kg

Prep Date: 05/30/18

Metal	RL	IDL	MDL	MB raw	final
Aluminum	50	1.2	5.2		
Antimony	2.0	.16	.37		
Arsenic	2.0	.15	.25	-0.010	<2.0
Barium	20	.04	.17	0.050	<20
Beryllium	0.20	.01	.049		
Bismuth	2.0	.14	.49		
Boron	10	.11	1.3		
Cadmium	0.50	.03	.057	0.020	<0.50
Calcium	500	.27	42		
Chromium	1.0	.05	.18	0.15	<1.0
Cobalt	5.0	.02	.07		
Copper	2.5	.06	.4		
Iron	50	.4	4.6		
Lead	2.0	.16	.34	0.030	<2.0
Lithium	5.0	.25	1.2		
Magnesium	500	2.6	13		
Manganese	1.5	.01	.087		
Molybdenum	2.0	.04	.15		
Nickel	4.0	.04	.25		
Phosphorus	10	.25	4.1		
Potassium	1000	2.9	30		
Selenium	2.0	.23	.65	0.040	<2.0
Silicon	20	.15	2.6		
Silver	0.50	.06	.29	0.020	<0.50
Sodium	1000	1.2	14		
Strontium	5.0	.01	.96		
Sulfur	10	.29	2.9		
Thallium	1.0	.09	.4		
Tin	10	.06	2.6		
Titanium	1.0	.04	.27		
Tungsten	5.0	.11	1.2		
Vanadium	5.0	.06	.088		
Zinc	5.0	.02	3.8		

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: JC66934
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missile UST, East Aurora, NY

QC Batch ID: MP7388
Matrix Type: SOLID

Methods: SW846 6010C
Units: mg/kg

Prep Date: 05/30/18

Metal	RL	IDL	MDL	MB raw	final

Zirconium 2.0 .04 .25

Associated samples MP7388: JC66934-1

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

8.4.1
8

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC66934
 Account: TCMaw - Tantara Corporation
 Project: USACE Buffalo Nike Missile UST, East Aurora, NY

QC Batch ID: MP7388
 Matrix Type: SOLID

Methods: SW846 6010C
 Units: mg/kg

Prep Date: 05/30/18

Metal	JC66684-1 Original MS		Spike lot MPSPK2	% Rec	QC Limits
Aluminum					
Antimony	anr				
Arsenic	4.0	206	225	90.0	75-125
Barium	91.3	332	225	107.2	75-125
Beryllium					
Bismuth					
Boron					
Cadmium	0.0	206	225	91.8	75-125
Calcium					
Chromium	40.2	253	225	94.8	75-125
Cobalt					
Copper					
Iron					
Lead	21.2	230	225	93.0	75-125
Lithium					
Magnesium					
Manganese					
Molybdenum					
Nickel	anr				
Phosphorus					
Potassium					
Selenium	0.0	199	225	88.6	75-125
Silicon					
Silver	0.27	26.3	28.1	92.8	75-125
Sodium					
Strontium					
Sulfur					
Thallium	anr				
Tin					
Titanium					
Tungsten					
Vanadium					
Zinc					

8.4.2
8

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC66934
 Account: TCMAW - Tantara Corporation
 Project: USACE Buffalo Nike Missile UST, East Aurora, NY

QC Batch ID: MP7388
 Matrix Type: SOLID

Methods: SW846 6010C
 Units: mg/kg

Prep Date: 05/30/18

Metal	JC66684-1 Original MS	Spike lot MPSPK2	% Rec	QC Limits

Zirconium

Associated samples MP7388: JC66934-1

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

8.4.2

8

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC66934
 Account: TCMaw - Tantara Corporation
 Project: USACE Buffalo Nike Missile UST, East Aurora, NY

QC Batch ID: MP7388
 Matrix Type: SOLID

Methods: SW846 6010C
 Units: mg/kg

Prep Date: 05/30/18

Metal	JC66684-1 Original	MSD	Spike lot MPSPK2	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony	anr					
Arsenic	4.0	210	231	89.0	1.9	20
Barium	91.3	337	231	106.2	1.5	20
Beryllium						
Bismuth						
Boron						
Cadmium	0.0	212	231	91.6	2.9	20
Calcium						
Chromium	40.2	260	231	95.0	2.7	20
Cobalt						
Copper						
Iron						
Lead	21.2	235	231	92.4	2.2	20
Lithium						
Magnesium						
Manganese						
Molybdenum						
Nickel	anr					
Phosphorus						
Potassium						
Selenium	0.0	206	231	89.0	3.5	20
Silicon						
Silver	0.27	26.9	28.9	92.1	2.3	20
Sodium						
Strontium						
Sulfur						
Thallium	anr					
Tin						
Titanium						
Tungsten						
Vanadium						
Zinc						

8.4.2
8

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC66934
 Account: TCMaw - Tantara Corporation
 Project: USACE Buffalo Nike Missile UST, East Aurora, NY

QC Batch ID: MP7388
 Matrix Type: SOLID

Methods: SW846 6010C
 Units: mg/kg

Prep Date: 05/30/18

Metal	JC66684-1 Original MSD	Spike lot MPSPK2	% Rec	MSD RPD	QC Limit

Zirconium

Associated samples MP7388: JC66934-1

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

8.4.2
8

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: JC66934
 Account: TCMaw - Tantara Corporation
 Project: USACE Buffalo Nike Missile UST, East Aurora, NY

QC Batch ID: MP7388
 Matrix Type: SOLID

Methods: SW846 6010C
 Units: mg/kg

Prep Date: 05/30/18

Metal	BSP Result	Spike lot MPSPK2	% Rec	QC Limits
Aluminum				
Antimony	anr			
Arsenic	182	202	90.1	80-120
Barium	190	202	94.1	80-120
Beryllium				
Bismuth				
Boron				
Cadmium	183	202	90.6	80-120
Calcium				
Chromium	183	202	90.6	80-120
Cobalt				
Copper				
Iron				
Lead	189	202	93.6	80-120
Lithium				
Magnesium				
Manganese				
Molybdenum				
Nickel	anr			
Phosphorus				
Potassium				
Selenium	182	202	90.1	80-120
Silicon				
Silver	22.8	25.3	90.3	80-120
Sodium				
Strontium				
Sulfur				
Thallium	anr			
Tin				
Titanium				
Tungsten				
Vanadium				
Zinc				

8.4.3
8

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: JC66934
 Account: TCMAW - Tantara Corporation
 Project: USACE Buffalo Nike Missile UST, East Aurora, NY

QC Batch ID: MP7388
 Matrix Type: SOLID

Methods: SW846 6010C
 Units: mg/kg

Prep Date: 05/30/18

Metal	BSP Result	Spike lot MPSPK2	% Rec	QC Limits

Zirconium

Associated samples MP7388: JC66934-1

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

8.4.3

8

SERIAL DILUTION RESULTS SUMMARY

Login Number: JC66934
 Account: TCMaw - Tantara Corporation
 Project: USACE Buffalo Nike Missile UST, East Aurora, NY

QC Batch ID: MP7388
 Matrix Type: SOLID

Methods: SW846 6010C
 Units: ug/l

Prep Date: 05/30/18

Metal	JC66684-1 Original	SDL 1:5	%DIF	QC Limits
Aluminum				
Antimony	anr			
Arsenic	35.2	50.7	44.0 (a)	0-10
Barium	813	830	2.1	0-10
Beryllium				
Bismuth				
Boron				
Cadmium	0.00	0.00	NC	0-10
Calcium				
Chromium	358	364	1.8	0-10
Cobalt				
Copper				
Iron				
Lead	189	185	1.9	0-10
Lithium				
Magnesium				
Manganese				
Molybdenum				
Nickel	anr			
Phosphorus				
Potassium				
Selenium	0.00	0.00	NC	0-10
Silicon				
Silver	2.40	0.00	100.0(a)	0-10
Sodium				
Strontium				
Sulfur				
Thallium	anr			
Tin				
Titanium				
Tungsten				
Vanadium				
Zinc				

8.4.4
8

SERIAL DILUTION RESULTS SUMMARY

Login Number: JC66934
 Account: TCMaw - Tantara Corporation
 Project: USACE Buffalo Nike Missile UST, East Aurora, NY

QC Batch ID: MP7388
 Matrix Type: SOLID

Methods: SW846 6010C
 Units: ug/l

Prep Date: 05/30/18

Metal	JC66684-1	QC	
	Original SDL 1:5	%DIF	Limits

Zirconium

Associated samples MP7388: JC66934-1

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(anr) Analyte not requested

(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

8.4.4

8

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: JC66934
Account: TCMAW - Tantara Corporation
Project: USACE Buffalo Nike Missile UST, East Aurora, NY

QC Batch ID: MP7406
Matrix Type: SOLID

Methods: SW846 7471B
Units: mg/kg

Prep Date: 05/31/18

Metal	RL	IDL	MDL	MB raw	final
Mercury	0.033	.0042	.015	0.0039	<0.033

Associated samples MP7406: JC66934-1

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

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC66934
 Account: TCMaw - Tantara Corporation
 Project: USACE Buffalo Nike Missile UST, East Aurora, NY

QC Batch ID: MP7406
 Matrix Type: SOLID

Methods: SW846 7471B
 Units: mg/kg

Prep Date: 05/31/18

Metal	JC66951-3 Original MS		Spike lot HGPWS1	% Rec	QC Limits
Mercury	0.0	0.36	0.338	106.6	80-120

Associated samples MP7406: JC66934-1

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

8.5.2

8

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC66934
 Account: TCMAW - Tantara Corporation
 Project: USACE Buffalo Nike Missile UST, East Aurora, NY

QC Batch ID: MP7406
 Matrix Type: SOLID

Methods: SW846 7471B
 Units: mg/kg

Prep Date: 05/31/18

Metal	JC66951-3 Original MSD		Spike lot HGPWS1	% Rec	MSD RPD	QC Limit
Mercury	0.0	0.34	0.339	100.4	5.7	20

Associated samples MP7406: JC66934-1

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

8.5.2

8

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: JC66934
 Account: TCMAW - Tantara Corporation
 Project: USACE Buffalo Nike Missile UST, East Aurora, NY

QC Batch ID: MP7406
 Matrix Type: SOLID

Methods: SW846 7471B
 Units: mg/kg

Prep Date: 05/31/18

Metal	BSP Result	Spike lot HGPWS1	% Rec	QC Limits
Mercury	0.36	0.333	108.1	80-120

Associated samples MP7406: JC66934-1

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

8.5.3

8

Instrument Detection Limits

Job Number: JC66934
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missile UST, East Aurora, NY

Instrument ID: LEEMANHG8	Effective Date: 03/09/18

Analyte	IDL ug/l
Mercury	.02495

The above applies to the following instrument runs:
MA44553

Instrument Detection Limits

Job Number: JC66934
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missile UST, East Aurora, NY

Instrument ID: SSTRACE4	Effective Date: 05/29/18

Analyte	IDL ug/l
Aluminum	8.7
Antimony	1.3
Arsenic	1.2
Barium	.4
Beryllium	.1
Bismuth	1.7
Boron	1.5
Cadmium	.2
Calcium	3.6
Chromium	.5
Cobalt	.4
Copper	.6
Iron	2.3
Lead	1.4
Lithium	1.9
Magnesium	24.3
Manganese	.1
Molybdenum	.3
Nickel	.3
Phosphorus	1.4
Potassium	40.5
Selenium	3.6
Silicon	1.9
Silver	.4
Sodium	17
Sulfur	4.1
Strontium	.1
Thallium	1.9
Tin	1.1
Titanium	.3
Tungsten	1.2
Vanadium	.4
Zinc	.2
Zirconium	.2

The above applies to the following instrument runs:
MA44556

9.8
8

Instrument Detection Limits

Job Number: JC66934
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missile UST, East Aurora, NY

Instrument ID: SSTRACE5	Effective Date: 05/29/18

Analyte	IDL ug/l
Aluminum	11.6
Antimony	1.6
Arsenic	1.5
Barium	.4
Beryllium	.1
Bismuth	1.4
Boron	1.1
Cadmium	.3
Calcium	2.7
Chromium	.5
Cobalt	.2
Copper	.6
Iron	4
Lead	1.6
Lithium	2.5
Magnesium	25.6
Manganese	.1
Molybdenum	.4
Nickel	.4
Phosphorus	2.5
Potassium	29.1
Selenium	2.3
Silicon	1.5
Silver	.6
Sodium	11.9
Sulfur	2.9
Strontium	.1
Thallium	.9
Tin	.6
Titanium	.4
Tungsten	1.1
Vanadium	.6
Zinc	.2
Zirconium	.4

The above applies to the following instrument runs:
MA44551

Instrument Linear Ranges

Job Number: JC66934
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missile UST, East Aurora, NY

Instrument ID: LEEMANHG8	Effective Date: 03/10/17

Analyte	Linear Range ug/l
Mercury	5

The above applies to the following instrument runs:
MA44553

Instrument Linear Ranges

Job Number: JC66934
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missile UST, East Aurora, NY

Instrument ID: SSTRACE4	Effective Date: 12/04/17

Analyte	Linear Range ug/l
Aluminum	600000
Antimony	10000
Arsenic	10000
Barium	10000
Beryllium	10000
Bismuth	10000
Boron	10000
Cadmium	10000
Calcium	300000
Chromium	10000
Cobalt	10000
Copper	10000
Iron	300000
Lead	10000
Lithium	10000
Magnesium	600000
Manganese	10000
Molybdenum	10000
Nickel	10000
Palladium	10000
Phosphorus	50000
Potassium	300000
Selenium	10000
Silicon	50000
Silver	1250
Sodium	300000
Sulfur	100000
Strontium	10000
Thallium	10000
Tin	10000
Titanium	10000
Tungsten	10000
Vanadium	10000
Zinc	10000
Zirconium	10000

The above applies to the following instrument runs:
MA44556

8.6
8

Instrument Linear Ranges

Job Number: JC66934
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missile UST, East Aurora, NY

Instrument ID: SSTRACE5	Effective Date: 11/30/17

Analyte	Linear Range ug/l
Aluminum	600000
Antimony	10000
Arsenic	10000
Barium	10000
Beryllium	10000
Bismuth	10000
Boron	10000
Cadmium	10000
Calcium	300000
Chromium	10000
Cobalt	10000
Copper	10000
Iron	300000
Lead	10000
Lithium	10000
Magnesium	600000
Manganese	10000
Molybdenum	10000
Nickel	10000
Palladium	10000
Phosphorus	50000
Potassium	300000
Selenium	10000
Silicon	50000
Silver	1250
Sodium	300000
Sulfur	100000
Strontium	10000
Thallium	10000
Tin	10000
Titanium	10000
Tungsten	10000
Vanadium	10000
Zinc	10000
Zirconium	10000

The above applies to the following instrument runs:
MA44551

Metals Analysis

Raw Data

Sample Name: STDA Acquired: 5/30/2018 15:45:49 Type: Cal
Method: Accutest 2(v421) Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.0021	-0.003	0.003	0.000	-0.000	0.025	0.000	-0.001	-0.001
Stddev	.0001	.0000	.0003	.0001	.0000	.0000	.0000	.0001	.0000
%RSD	5.143	16.44	72.70	336.6	39.08	.2727	13.93	122.8	11.46

#1	.0022	-0.003	.0005	.0001	-0.000	.0025	.0000	-0.000	-0.001
#2	.0020	-0.002	.0002	-0.000	-0.001	.0025	.0000	-0.002	-0.001

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.0000	.0011	-0.001	-0.003	-0.005	.0004	.0001	-0.0025	.0052
Stddev	.0000	.0002	.0002	.0000	.0000	.0001	.0001	.0001	.0002
%RSD	24.10	13.32	140.7	5.910	8.480	14.10	98.39	1.998	2.951

#1	.0000	.0010	-0.000	-0.003	-0.005	.0005	.0002	-0.0025	.0051
#2	.0000	.0013	-0.003	-0.003	-0.005	.0004	.0000	-0.0026	.0053

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.0001	.0000	-0.0024	-0.0017	.0002	.0001	.0057	.0005	.0004
Stddev	.0001	.0000	.0010	.0004	.0003	.0004	.0000	.0001	.0002
%RSD	178.5	178.2	41.06	24.39	119.9	278.1	.5208	21.83	51.11

#1	-0.000	.0001	-0.031	-0.020	.0000	.0004	.0057	.0006	.0005
#2	.0002	-0.000	-0.017	-0.014	.0005	-0.001	.0057	.0004	.0002

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S		
Avg	.0000	.0015	-0.003	-0.009	-0.010	.0003	-0.0122		
Stddev	.0000	.0004	.0000	.0001	.0001	.0001	.0000		
%RSD	306.7	25.42	3.814	11.02	11.43	40.82	.2772		

#1	.0000	.0017	-0.003	-0.010	-0.009	.0002	-0.0122		
#2	-0.000	.0012	-0.003	-0.009	-0.011	.0004	-0.0122		

Raw Data MA44551 page 1 of 244

Sample Name: STDB Acquired: 5/30/2018 15:50:07 Type: Cal
Method: Accutest 2(v421) Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	8.240	7.478	4.283	2.138	.2794	.7804	1.512	1.529	.0521
Stddev	.010	.008	.010	.008	.0004	.0021	.001	.005	.0001
%RSD	.1256	.1119	.2372	.3570	.1416	.2804	.0797	.3054	.1032

#1	8.247	7.472	4.275	2.133	.2792	.7620	1.513	1.525	.0520
#2	8.232	7.484	4.290	2.144	.2797	.7589	1.511	1.532	.0521

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.4343	5.895	.6401	.2814	.7059	.4720	.8833	3.201	4.756
Stddev	.0002	.025	.0017	.0001	.0020	.0008	.0024	.001	.009
%RSD	.0550	.4278	.2696	.0222	.2805	.1634	.2735	.0391	.1965

#1	.4342	5.878	.6388	.2813	.7045	.4714	.8816	3.200	4.750
#2	.4345	5.913	.6413	.2814	.7073	.4725	.8850	3.202	4.763

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1.980	.3820	2.952	8.350	1.025	4.186	2.554	1.025	15.36
Stddev	.004	.0006	.003	.005	.002	.012	.008	.003	.01
%RSD	.2105	.1455	.1111	.0631	.1926	.2822	.2991	.3266	.0624

#1	1.977	.3816	2.949	8.347	1.024	4.178	2.548	1.023	15.37
#2	1.983	.3824	2.954	8.354	1.026	4.194	2.559	1.028	15.35

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S		
Avg	.5401	2.019	1.315	.2668	.9921	3.046	.5764		
Stddev	.0006	.004	.003	.0002	.0021	.002	.0000		
%RSD	.1027	.2049	.1873	.0889	.2164	.0555	.0083		

#1	.5405	2.016	1.316	.2666	.9905	3.047	.5764		
#2	.5397	2.022	1.313	.2669	.9936	3.045	.5764		

Raw Data MA44551 page 3 of 244

Sample Name: STDA Acquired: 5/30/2018 15:45:49 Type: Cal
Method: Accutest 2(v421) Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	91454.	12048.	3531.8	8472.7
Stddev	115.	42.	8.4	16.2
%RSD	.12565	.34641	.23809	.19166

#1	91372.	12077.	3525.9	8461.2
#2	91535.	12018.	3537.8	8484.2

Raw Data MA44551 page 2 of 244

Sample Name: STDB Acquired: 5/30/2018 15:50:07 Type: Cal
Method: Accutest 2(v421) Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	86223.	11888.	3338.2	7302.5
Stddev	178.	28.	13.0	31.3
%RSD	.20629	.23692	.38801	.42915

#1	86097.	11908.	3347.4	7324.7
#2	86348.	11868.	3329.0	7280.3

Raw Data MA44551 page 4 of 244

Sample Name: ccvconf Acquired: 5/30/2018 15:54:10 Type: QC
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.006	2.021	1.997	1.989	2.022	1.964	2.035	2.013	2.488
Stddev	.003	.002	.002	.002	.004	.002	.001	.001	.0009
%RSD	.1546	.0727	.0893	.1026	.1904	.1115	.0546	.0484	.3772
#1	2.004	2.020	1.999	1.991	2.025	1.966	2.034	2.014	2.494
#2	2.009	2.022	1.996	1.988	2.019	1.962	2.036	2.012	2.481

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
Value
Range

Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.000	2.030	1.996	2.053	2.029	1.999	2.007	39.61	40.18
Stddev	.005	.002	.001	.004	.005	.005	.001	.09	.04
%RSD	.2284	.0831	.0545	.1917	.2676	.2685	.0438	.2243	.1117
#1	2.004	2.031	1.995	2.050	2.033	2.002	2.008	39.55	40.15
#2	1.997	2.029	1.997	2.055	2.025	1.995	2.007	39.68	40.21

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
Value
Range

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	40.71	40.12	39.68	39.98	2.013	2.035	5.100	2.053	2.008
Stddev	.09	.08	.06	.02	.000	.002	.008	.001	.004
%RSD	.2199	.1988	.1606	.0590	.0096	.0995	.1631	.0272	.1984
#1	40.65	40.18	39.64	39.97	2.013	2.037	5.106	2.053	2.005
#2	40.77	40.06	39.73	40.00	2.014	2.034	5.094	2.052	2.011

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
Value
Range

Raw Data MA44551 page 5 of 244

Sample Name: ccvconf Acquired: 5/30/2018 15:54:10 Type: QC
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.017	2.011	2.006	1.963	2.027	1.984	1.991
Stddev	.001	.008	.003	.006	.004	.001	.001
%RSD	.0566	.3940	.1234	.3141	.1968	.0411	.0558
#1	2.018	2.017	2.008	1.959	2.030	1.985	1.990
#2	2.016	2.006	2.004	1.968	2.024	1.983	1.991

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
Value
Range

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	88944.	12064.	3450.9	7640.9
Stddev	46.	8.	4.9	9.4
%RSD	.05117	.06608	.14276	.12298
#1	88976.	12070.	3447.4	7634.3
#2	88912.	12059.	3454.4	7647.6

Raw Data MA44551 page 6 of 244

Sample Name: ccbconf Acquired: 5/30/2018 15:58:14 Type: QC
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.001	.0000	.0002	.0005	.0004	.0003	.0001	-0.002	.0004
Stddev	.0000	.0000	.0001	.0000	.0000	.0001	.0000	.0002	.0002
%RSD	55.83	165.6	71.96	5.334	9.851	51.46	27.72	100.4	60.12
#1	-0.000	-0.000	.0003	.0005	.0005	.0003	.0001	-0.000	.0002
#2	-0.001	.0001	.0001	.0005	.0004	.0002	.0001	-0.003	.0006

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
High Limit
Low Limit

Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.001	.0002	-0.011	.0010	.0006	.0008	.0017	.0035	.0002
Stddev	.0001	.0002	.0020	.0009	.0021	.0002	.0003	.0135	.0015
%RSD	124.0	108.7	181.8	95.02	329.2	32.26	15.92	390.0	681.5
#1	-0.000	.0003	-.0025	.0003	-.0009	.0006	.0019	.0130	-.0008
#2	-.0002	.0000	.0003	.0017	.0021	.0009	.0015	-.0061	.0013

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
High Limit
Low Limit

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0059	.0005	.0181	.0071	.0020	.0016	-0.0004	.0005	.0001
Stddev	.0005	.0068	.0078	.0060	.0007	.0001	.0006	.0000	.0000
%RSD	8.757	1354.	43.23	85.02	32.66	3.882	142.2	7.426	20.24
#1	.0062	.0053	.0126	.0114	.0025	.0017	.0000	.0005	.0001
#2	.0055	-.0043	.0237	.0028	.0015	.0016	-.0009	.0006	.0001

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
High Limit
Low Limit

Raw Data MA44551 page 7 of 244

Sample Name: ccbconf Acquired: 5/30/2018 15:58:14 Type: QC
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000	.0010	.0001	.0016	.0009	.0015	.0024
Stddev	.0003	.0006	.0001	.0004	.0001	.0010	.0002
%RSD	1715.	60.64	90.69	24.55	11.37	66.86	9.230
#1	-.0002	.0015	.0001	.0013	.0008	.0022	.0026
#2	.0003	.0006	.0002	.0019	.0010	.0008	.0023

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
High Limit
Low Limit

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	92978.	12228.	3565.5	8540.1
Stddev	32.	8.	3.5	16.0
%RSD	.03467	.06897	.09796	.18728
#1	93001.	12222.	3563.0	8528.8
#2	92955.	12234.	3568.0	8551.4

Raw Data MA44551 page 8 of 244

Sample Name: icv Acquired: 5/30/2018 16:05:56 Type: QC
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.013	2.022	2.007	1.998	2.027	1.968	2.037	2.019	2.478
Stddev	.004	.007	.002	.004	.004	.002	.002	.002	.0013
%RSD	.1814	.3414	.0837	.2049	.1776	.1119	.0910	.1122	.5397
#1	2.017	2.030	2.007	1.994	2.023	1.968	2.036	2.017	2.478
#2	2.009	2.020	2.009	2.002	2.029	1.966	2.039	2.022	2.464
#3	2.013	2.017	2.005	1.999	2.029	1.970	2.036	2.019	2.491

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
Value
Range

Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.004	2.035	2.007	2.064	2.027	2.004	2.015	39.68	40.18
Stddev	.002	.004	.004	.002	.001	.004	.004	.11	.15
%RSD	.0902	.1937	.2000	.0872	.0379	.2232	.1856	.2768	.3810
#1	2.002	2.031	2.005	2.062	2.027	2.009	2.017	39.81	40.35
#2	2.003	2.039	2.011	2.065	2.027	2.000	2.018	39.60	40.13
#3	2.006	2.035	2.004	2.065	2.028	2.003	2.011	39.64	40.05

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
Value
Range

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	40.76	40.08	39.73	39.99	2.027	2.044	5.113	2.064	2.016
Stddev	.12	.18	.04	.08	.001	.003	.005	.002	.004
%RSD	.2975	.4420	.1075	.2002	.0643	.1654	.1013	.0868	.2045
#1	40.90	40.26	39.78	40.08	2.028	2.042	5.112	2.063	2.021
#2	40.70	40.08	39.70	39.92	2.027	2.047	5.118	2.066	2.014
#3	40.67	39.90	39.72	39.98	2.025	2.042	5.108	2.063	2.013

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
Value
Range

Raw Data MA44551 page 9 of 244

Sample Name: icv Acquired: 5/30/2018 16:05:56 Type: QC
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.022	2.019	2.012	1.970	2.039	1.984	2.006
Stddev	.001	.002	.001	.005	.001	.003	.003
%RSD	.0443	.0845	.0537	.2628	.0326	.1662	.1530
#1	2.022	2.021	2.012	1.975	2.039	1.987	2.003
#2	2.021	2.020	2.011	1.969	2.039	1.981	2.008
#3	2.023	2.017	2.014	1.965	2.038	1.985	2.008

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
Value
Range

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	88772.	12057.	3431.8	7608.5
Stddev	172.	18.	4.3	11.0
%RSD	.19408	.14728	.12584	.14412
#1	88888.	12037.	3434.9	7618.0
#2	88574.	12068.	3426.8	7596.5
#3	88853.	12067.	3433.5	7611.0

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Sample Name: icb Acquired: 5/30/2018 16:12:42 Type: QC
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.003	.0000	-0.002	.0004	.0004	.0003	.0001	-0.002	.0006
Stddev	.0001	.0000	.0001	.0002	.0001	.0000	.0000	.0003	.0002
%RSD	20.30	94.83	73.25	41.22	27.64	4.849	2.746	193.4	26.47
#1	-0.002	.0001	-0.003	.0005	.0004	.0002	.0001	-0.004	.0005
#2	-0.003	.0000	-0.001	.0003	.0005	.0003	.0001	-0.001	.0007

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
High Limit
Low Limit

Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001	-0.002	-0.010	.0007	.0009	-0.001	.0017	.0093	-0.081
Stddev	.0000	.0000	.0008	.0007	.0002	.0017	.0007	.0121	.0046
%RSD	5.943	19.99	72.65	92.82	17.85	2144.	44.10	130.3	56.71
#1	.0001	-0.002	-0.016	.0012	.0010	.0011	.0022	.0007	-0.113
#2	.0001	-0.002	-0.005	.0003	.0008	-0.013	.0012	.0178	-0.048

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
High Limit
Low Limit

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0042	-0.011	.0010	-0.003	.0019	.0008	-0.0006	-0.0006	.0001
Stddev	.0022	.0015	.0028	.0063	.0002	.0002	.0009	.0002	.0001
%RSD	52.78	128.6	272.6	2059.	11.45	20.03	142.3	35.65	73.04
#1	.0057	-0.001	.0030	.0041	.0021	.0009	.0000	-0.004	.0001
#2	.0026	-0.022	-0.009	-0.048	.0018	.0007	-0.013	-0.007	.0000

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
High Limit
Low Limit

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Sample Name: icb Acquired: 5/30/2018 16:12:42 Type: QC
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.005	.0016	.0002	-0.009	.0008	.0011	.0024
Stddev	.0002	.0001	.0000	.0031	.0011	.0010	.0007
%RSD	32.21	3.267	27.29	354.6	134.5	88.01	27.45
#1	-0.004	.0016	.0001	-0.031	.0015	.0018	.0019
#2	-0.006	.0015	.0002	.0013	.0000	.0004	.0029

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
High Limit
Low Limit

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	92878.	12262.	3569.8	8552.1
Stddev	225.	25.	5.7	11.1
%RSD	.24246	.20202	.15880	.12943
#1	92719.	12279.	3565.8	8544.3
#2	93037.	12244.	3573.8	8559.9

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Sample Name: iccv Acquired: 5/30/2018 16:16:17 Type: QC
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.024	2.031	2.017	2.003	2.028	1.983	2.045	2.024	2.482
Stddev	.004	.002	.004	.001	.003	.002	.003	.001	.0004
%RSD	.1713	.0869	.2051	.0681	.1613	.0916	.1489	.0701	.1497
#1	2.026	2.031	2.019	2.003	2.028	1.983	2.046	2.023	2.482
#2	2.023	2.033	2.013	2.001	2.032	1.985	2.050	2.022	2.479
#3	2.027	2.033	2.022	2.004	2.024	1.983	2.042	2.025	2.488
#4	2.019	2.029	2.016	2.003	2.026	1.980	2.044	2.023	2.480

Check ?
Value
Range

Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.002	2.039	2.018	2.066	2.038	2.022	2.029	39.78	40.24
Stddev	.003	.002	.005	.001	.004	.004	.004	.12	.07
%RSD	.1591	.0790	.2640	.0481	.1888	.1932	.2093	.2990	.1781

#1	2.001	2.041	2.019	2.067	2.041	2.027	2.029	39.86	40.27
#2	2.005	2.039	2.014	2.065	2.034	2.020	2.027	39.85	40.29
#3	1.997	2.039	2.025	2.065	2.041	2.021	2.035	39.81	40.26
#4	2.003	2.037	2.014	2.065	2.035	2.019	2.025	39.61	40.13

Check ?
Value
Range

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Sample Name: iccv Acquired: 5/30/2018 16:16:17 Type: QC
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	40.96	40.32	39.97	40.18	2.036	2.053	5.144	2.072	2.026
Stddev	.06	.03	.08	.09	.003	.004	.010	.002	.003
%RSD	.1534	.0803	.1949	.2292	.1579	.1779	.1997	.0989	.1579
#1	41.01	40.27	39.89	40.18	2.039	2.053	5.148	2.074	2.026
#2	40.90	40.33	40.02	40.28	2.032	2.048	5.131	2.069	2.029
#3	41.02	40.34	40.06	40.22	2.035	2.057	5.155	2.073	2.028
#4	40.91	40.33	39.93	40.06	2.037	2.053	5.144	2.072	2.022

Check ?
Value
Range

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.029	2.025	2.022	1.985	2.054	1.997	2.015
Stddev	.003	.002	.002	.004	.003	.004	.004
%RSD	.1679	.1028	.0786	.1902	.1549	.1907	.1946

#1	2.029	2.027	2.022	1.984	2.057	1.998	2.017
#2	2.034	2.024	2.025	1.980	2.050	2.001	2.009
#3	2.025	2.025	2.022	1.987	2.057	1.996	2.017
#4	2.028	2.023	2.021	1.988	2.054	1.992	2.016

Check ?
Value
Range

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Sample Name: iccv Acquired: 5/30/2018 16:16:17 Type: QC
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	89083.	12110.	3437.0	7622.2
Stddev	239.	11.	7.5	20.2
%RSD	.26843	.08866	.21942	.26537

#1	89229.	12123.	3442.6	7641.7
#2	88793.	12097.	3435.3	7614.2
#3	89322.	12108.	3427.0	7597.6
#4	88988.	12110.	3443.1	7635.5

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Sample Name: ccb Acquired: 5/30/2018 16:23:43 Type: QC
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.004	-0.000	.0002	.0001	.0002	.0006	.0001	.0001	.0006
Stddev	.0000	.0000	.0000	.0000	.0003	.0000	.0000	.0005	.0004
%RSD	5.495	41.91	18.87	9.421	194.4	4.810	38.19	402.6	62.45

#1	-0.004	-0.000	.0002	.0001	-0.001	.0006	.0001	-0.002	.0003
#2	-0.003	-0.000	.0003	.0001	-0.004	.0006	.0001	.0005	.0009

Check ?
High Limit
Low Limit

Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0003	-0.000	-0.001	.0007	.0014	.0022	.0007	.0015	-0.009
Stddev	.0004	.0000	.0007	.0001	.0000	.0006	.0013	.0107	.0004
%RSD	121.3	29.97	1109.	16.29	1.122	28.36	180.8	732.7	41.36

#1	.0000	-0.000	.0004	.0006	.0014	.0018	.0017	.0090	-0.012
#2	.0006	-0.001	-0.005	.0008	.0014	.0026	-0.002	-0.061	-0.006

Check ?
High Limit
Low Limit

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0043	-0.0114	-0.0029	-0.0017	.0023	.0011	.0006	-0.0005	.0002
Stddev	.0049	.0303	.0164	.0057	.0003	.0000	.0003	.0007	.0000
%RSD	112.4	266.2	566.0	343.4	13.90	2.234	46.81	131.7	30.35

#1	.0009	.0100	-0.0145	.0024	.0026	.0011	.0008	-0.0000	.0001
#2	.0078	-0.0328	.0087	-0.0057	.0021	.0011	.0004	-0.0010	.0002

Check ?
High Limit
Low Limit

Sample Name: ccb Acquired: 5/30/2018 16:23:43 Type: QC
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0003	.0009	.0003	.0000	.0008	.0013	.0020
Stddev	.0002	.0006	.0000	.0027	.0003	.0008	.0002
%RSD	81.57	67.16	15.10	27460.	34.38	62.67	7.765
#1	-.0001	.0013	.0003	.0019	.0006	.0007	.0019
#2	-.0004	.0005	.0002	-.0019	.0010	.0018	.0021

Check ? High Limit
Low Limit

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	93221.	12195.	3576.7	8556.2
Stddev	266.	55.	5.6	8.8
%RSD	.28582	.44929	.15681	.10331
#1	93410.	12234.	3580.7	8562.4
#2	93033.	12156.	3572.8	8549.9

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Sample Name: cri Acquired: 5/30/2018 16:28:19 Type: QC
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2068	.0019	.0032	.0500	.0106	.0103	.0164	.0103	.0054
Stddev	.0002	.0000	.0001	.0000	.0000	.0005	.0000	.0003	.0002
%RSD	.1110	2.486	3.825	.0894	.1536	4.546	.0250	2.854	3.881
#1	.2066	.0020	.0032	.0500	.0106	.0107	.0164	.0105	.0056
#2	.2070	.0019	.0033	.0500	.0106	.0100	.0164	.0100	.0053

Check ? Value
Range

Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0515	.0210	.0077	.0113	.0030	.0107	.0074	.2148	5.251
Stddev	.0005	.0000	.0008	.0004	.0003	.0007	.0001	.0052	.025
%RSD	1.030	.0486	10.50	3.119	8.863	6.464	.8486	2.439	.4660
#1	.0511	.0210	.0072	.0115	.0032	.0112	.0074	.2111	5.234
#2	.0519	.0210	.0083	.0110	.0028	.0102	.0073	.2185	5.269

Check ? Value
Range

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1116	5.226	5.136	5.143	.1058	.0219	.2220	.0087	.0103
Stddev	.0022	.002	.002	.001	.0007	.0003	.0015	.0001	.0000
%RSD	2.008	.0324	.0429	.0228	.6343	1.453	.6982	.8727	.1760
#1	.1131	5.225	5.134	5.144	.1053	.0217	.2231	.0087	.0103
#2	.1100	5.227	5.138	5.143	.1062	.0222	.2209	.0088	.0103

Check ? Value
Range

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Sample Name: cri Acquired: 5/30/2018 16:28:19 Type: QC
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0101	.0530	F .0176	.0525	.0242	.0541	.0548
Stddev	.0002	.0007	.0007	.0012	.0010	.0020	.0006
%RSD	1.900	1.319	3.894	2.285	3.956	3.698	1.031
#1	.0099	.0535	.0181	.0517	.0249	.0555	.0544
#2	.0102	.0525	.0171	.0534	.0236	.0527	.0552

Check ? Value
Range

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	92072.	12119.	3532.1	8320.9
Stddev	135.	48.	5.8	11.2
%RSD	.14625	.39352	.16383	.13476
#1	92168.	12153.	3528.0	8328.8
#2	91977.	12086.	3536.2	8313.0

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Sample Name: crid Acquired: 5/30/2018 16:32:38 Type: QC
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0040	.0010	.0011	.0032	.0021	F -.0000	.0034	.0042
Stddev	.0001	.0000	.0001	.0003	.0001	.0000	.0000	.0002
%RSD	3.460	.0480	12.52	8.261	5.359	153.5	1.357	3.578
#1	.0039	.0010	.0012	.0030	.0022	.0000	.0034	.0041
#2	.0041	.0010	.0010	.0034	.0021	-.0001	.0033	.0043

Check ? Value
Range

Elem	Ag3280	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .0006	.0025	.0111	.0022	.0026	F .0005	.0057	F .0012
Stddev	.0005	.0000	.0002	.0003	.0004	.0012	.0009	.0010
%RSD	88.30	.7680	1.669	14.13	14.52	247.6	16.59	87.84
#1	.0002	.0025	.0112	.0019	.0028	-.0004	.0064	.0019
#2	.0010	.0025	.0110	.0024	.0023	.0013	.0050	.0004

Check ? Value
Range

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1089	1.080	-.0023	.1043	2.138	1.055	F .0018	.0005
Stddev	.0010	.003	.0005	.0093	.007	.007	.0007	.0000
%RSD	.8788	.2856	20.34	8.889	.3316	.6971	40.94	7.628
#1	.1096	1.078	-.0020	.1108	2.143	1.050	.0012	.0005
#2	.1082	1.082	-.0027	.0977	2.133	1.060	.0023	.0005

Check ? Value
Range

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1089	1.080	-.0023	.1043	2.138	1.055	F .0018	.0005
Stddev	.0010	.003	.0005	.0093	.007	.007	.0007	.0000
%RSD	.8788	.2856	20.34	8.889	.3316	.6971	40.94	7.628
#1	.1096	1.078	-.0020	.1108	2.143	1.050	.0012	.0005
#2	.1082	1.082	-.0027	.0977	2.133	1.060	.0023	.0005

Check ? Value
Range

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Sample Name: crid Acquired: 5/30/2018 16:32:38 Type: QC
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0012	-0.0016	-0.0000	-0.0003	F_0.0003	F_0.0002	F_0.0025	F_0.0002
Stddev	.0012	.0007	.0000	.0001	.0005	.0001	.0018	.0000
%RSD	100.1	45.92	1936.	15.50	144.0	36.03	70.45	5.175
#1	.0021	-.0022	-.0000	-.0003	.0007	.0003	.0013	.0002
#2	.0004	-.0011	-.0000	-.0004	-.0000	.0002	.0038	.0003

Check ? High Limit
Value Range
None None None None Chk Fail .0040 -30.00% Chk Fail .0040 -30.00% Chk Fail .0040 -30.00% Chk Fail .0040 -30.00%

Elem	Li6707	P_1774
Units	ppm	ppm
Avg	F_0.0011	F_0.0015
Stddev	.0010	.0009
%RSD	90.87	59.50

#1	.0004	.0022
#2	.0017	.0009

Check ? High Limit
Value Range
Chk Fail .0040 -30.00% Chk Fail .0040 -30.00%

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	93093.	12234.	3555.9	8479.4
Stddev	638.	9.	5.8	14.0
%RSD	.68520	.07431	.16342	.16464

#1	92642.	12241.	3551.8	8469.5
#2	93544.	12228.	3560.0	8489.2

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Sample Name: icsa Acquired: 5/30/2018 16:36:59 Type: QC
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0012	.0107	.0022	-0.0107	-0.0041	.0022	-0.0005
Stddev	.0002	.0006	.0001	.0025	.0005	.0000	.0006
%RSD	16.66	5.727	3.177	23.45	11.35	1.635	125.1

#1	-.0014	.0112	.0022	-.0089	-.0044	.0022	-.0010
#2	-.0011	.0103	.0021	-.0125	-.0038	.0022	-.0001

Check ? High Limit
Value Range
Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	81760.	11689.	3193.0	6706.3
Stddev	123.	1.	2.3	2.4
%RSD	.15048	.00906	.07323	.03506

#1	81847.	11690.	3191.4	6704.6
#2	81673.	11688.	3194.7	6708.0

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Sample Name: icsa Acquired: 5/30/2018 16:36:59 Type: QC
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0004	.0002	-0.0000	.0011	.0012	-0.0015	.0032	-0.0007	.0059
Stddev	.0002	.0002	.0001	.0004	.0006	.0005	.0002	.0004	.0000
%RSD	49.72	88.76	4740.	38.76	46.20	30.49	6.015	62.06	.2874
#1	-.0006	.0003	-.0001	.0008	.0008	-.0012	.0033	-.0010	.0059
#2	-.0003	.0001	.0001	.0014	.0016	-.0018	.0030	-.0004	.0059

Check ? High Limit
Value Range
Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass

Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0014	.0050	-0.0003	-0.0010	.0018	.0030	-0.0012	.542.8	.390.0
Stddev	.0001	.0001	.0004	.0002	.0002	.0028	.0006	5.1	2.7
%RSD	6.142	2.465	158.8	16.05	12.17	93.00	52.00	.9382	.7021

#1	-.0014	.0051	.0000	-.0011	.0016	.0010	-.0007	.546.4	.391.9
#2	-.0015	.0050	-.0005	-.0009	.0019	.0050	-.0016	.539.2	.388.0

Check ? High Limit
Value Range
Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.191.8	.515.7	-0.4442	.0245	.0001	-0.0006	-0.0140	-0.0050	.0048
Stddev	.3	.5	.0016	.0021	.0003	.0002	.0003	.0005	.0001
%RSD	.1404	.1056	.3695	8.634	466.7	38.22	2.227	9.452	1.505

#1	192.0	516.1	-.4454	.0230	.0003	-.0008	-.0138	-.0046	.0047
#2	191.6	515.3	-.4431	.0259	-.0001	-.0005	-.0142	-.0053	.0048

Check ? High Limit
Value Range
Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass

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Sample Name: ICSAB Acquired: 5/30/2018 16:41:25 Type: QC
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5257	.5121	1.042	.4986	.4931	.5145	.5138	.9986	1.057
Stddev	.0002	.0006	.001	.0010	.0033	.0001	.0016	.0033	.001
%RSD	.0286	.1124	.1167	.1948	.6632	.0226	.3193	.3331	.1054

#1	.5259	.5125	1.043	.4979	.4908	.5145	.5126	.9962	1.058
#2	.5256	.5117	1.042	.4993	.4955	.5144	.5149	1.001	1.057

Check ? High Limit
Value Range
Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass

Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4941	.9779	1.058	1.070	.9958	1.108	1.067	.528.5	.398.8
Stddev	.0018	.0024	.002	.001	.0035	.001	.001	4.3	1.3
%RSD	.3615	.2440	.2102	.0560	.3492	.0808	.1160	.8192	.3161

#1	.4929	.9762	1.059	1.069	.9931	1.109	1.068	.531.5	.397.9
#2	.4954	.9795	1.056	1.070	.9980	1.108	1.066	.525.4	.399.7

Check ? High Limit
Value Range
Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	206.2	.521.4	-0.4328	.0267	.4938	.5001	.5134	.4736	.5581
Stddev	.5	2.1	.0047	.0027	.0009	.0001	.0028	.0010	.0013
%RSD	.2493	.4102	1.094	10.09	.1802	.0184	.5426	.2166	.2262

#1	206.6	522.9	-.4361	.0286	.4944	.5000	.5114	.4743	.5590
#2	205.9	519.9	-.4294	.0248	.4931	.5002	.5154	.4728	.5572

Check ? High Limit
Value Range
Chk Pass Chk Pass None None Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass

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Sample Name: ICSAB Acquired: 5/30/2018 16:41:25 Type: QC
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5137	.4973	.4887	.4942	.5216	.5464	.5033
Stddev	.0023	.0012	.0010	.0065	.0027	.0003	.0032
%RSD	.4549	.2365	.1953	1.319	.5150	.0614	.6447
#1	.5121	.4981	.4880	.4896	.5235	.5461	.5055
#2	.5154	.4965	.4894	.4988	.5197	.5466	.5010

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
Value
Range

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	82031.	11635.	3177.1	6693.9
Stddev	520.	70.	3.6	5.4
%RSD	.63365	.59959	.11206	.08108
#1	82399.	11586.	3174.6	6690.0
#2	81664.	11684.	3179.6	6697.7

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Sample Name: hstd 2 Acquired: 5/30/2018 16:45:40 Type: QC
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.224	5.306	5.130	5.137	5.351	5.128	5.098
Stddev	.007	.001	.011	.00	.002	.006	.003
%RSD	.1384	.0196	.2220	.0057	.0440	.1175	.0647
#1	5.229	5.305	5.138	5.137	5.353	5.132	5.096
#2	5.219	5.307	5.122	5.137	5.349	5.123	5.100

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
Value
Range

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	92648.	12172.	3530.9	8291.9
Stddev	51.	17.	2.1	1.3
%RSD	.05536	.13860	.06006	.01563
#1	92612.	12160.	3532.4	8291.0
#2	92684.	12184.	3529.4	8292.8

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Sample Name: hstd 2 Acquired: 5/30/2018 16:45:40 Type: QC
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.216	5.243	5.101	5.068	5.226	5.242	5.266	5.074	.6203
Stddev	.009	.006	.006	.006	.004	.002	.012	.006	.0024
%RSD	.1729	.1199	.1096	.1236	.0849	.0308	.2176	.1171	.3856
#1	5.222	5.238	5.105	5.073	5.223	5.241	5.274	5.078	.6186
#2	5.209	5.247	5.097	5.064	5.230	5.243	5.258	5.070	.6219

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
Value
Range

Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.155	5.287	5.097	5.351	5.165	5.145	5.229	.0406	-.1019
Stddev	.005	.004	.007	.011	.007	.001	.002	.0005	.0016
%RSD	.1022	.0836	.1336	.2102	.1303	.0143	.0338	1.212	1.565
#1	5.151	5.290	5.102	5.359	5.170	5.144	5.228	.0403	-.1030
#2	5.158	5.284	5.092	5.343	5.160	5.145	5.231	.0410	-.1008

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass None None
Value
Range

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0235	-.0452	.1782	.0456	5.151	5.303	27.05	5.421	5.217
Stddev	.0004	.0242	.0019	.0025	.003	.001	.00	.010	.022
%RSD	1.618	53.66	1.049	5.586	.0539	.0101	.0090	.1793	.4297
#1	.0237	-.0280	.1795	.0438	5.152	5.302	27.05	5.428	5.233
#2	.0232	-.0623	.1769	.0474	5.149	5.303	27.05	5.414	5.202

Check ? None None None None Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
Value
Range

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Sample Name: hstd Acquired: 5/30/2018 16:49:49 Type: QC
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0001	.0002	-.0000	.0006	.0022	-.0007	.0022	-.0008	.0067
Stddev	.0000	.0001	.0001	.0001	.0001	.0005	.0000	.0002	.0002
%RSD	46.01	48.41	459.6	15.64	5.181	71.17	2.225	27.91	3.073
#1	-.0000	.0003	.0001	.0007	.0023	-.0010	.0022	-.0010	.0069
#2	-.0001	.0001	-.0001	.0006	.0021	-.0003	.0023	-.0007	.0066

Check ? None None None None None None None None None None
Value
Range

Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0007	.0027	.0003	-.0003	.0015	.0022	-.0020	311.5	151.7
Stddev	.0003	.0002	.0011	.0017	.0010	.0004	.0026	.0	.0
%RSD	50.74	8.634	417.3	487.3	65.81	19.12	127.6	.0150	.0018
#1	-.0009	.0026	.0010	-.0015	.0022	.0019	-.0002	311.5	151.7
#2	-.0004	.0029	-.0005	.0008	.0008	.0025	-.0038	311.5	151.7

Check ? None None None None None None None Chk Pass Chk Pass
Value
Range

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	153.2	313.3	157.1	157.0	.0013	.0030	-.0086	-.0042	.0016
Stddev	.2	.1	.0	.1	.0004	.0001	.0010	.0012	.0001
%RSD	.1046	.0427	.0283	.0344	28.89	4.003	11.68	28.21	3.223
#1	153.4	313.2	157.1	157.1	.0016	.0031	-.0079	-.0051	.0016
#2	153.1	313.4	157.2	157.0	.0010	.0029	-.0094	-.0034	.0017

Check ? Chk Pass Chk Pass Chk Pass Chk Pass None None None None None
Value
Range

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Sample Name: hstd Acquired: 5/30/2018 16:49:49 Type: QC
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.006	.0083	.0021	-0.0031	-0.0041	.0059	.0060
Stddev	.0005	.0008	.0002	.0042	.0006	.0009	.0024
%RSD	86.17	10.21	8.689	136.4	14.24	14.92	40.73
#1	-.0010	.0077	.0022	-.0060	-.0045	.0052	.0077
#2	-.0002	.0089	.0020	-.0001	-.0037	.0065	.0043

Check ?	None	None	None	None	None	None	None
Value							
Range							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	84079.	11633.	3247.6	6800.2
Stddev	149.	76.	12.1	15.3
%RSD	.17666	.65728	.37266	.22514

#1	84184.	11688.	3239.0	6789.4
#2	83974.	11579.	3256.1	6811.0

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Sample Name: feconf Acquired: 5/30/2018 16:54:06 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	-0.003	.0004	-0.006	.0004	.0032	W -0.0033	.0048	-0.001
Stddev	.0001	.0000	.0000	.0000	.0007	.0007	.0000	.0002
%RSD	18.92	2.631	3.294	7.043	21.33	20.94	.0543	199.9
#1	-.0003	.0004	-.0005	.0004	.0027	-.0038	.0048	-.0003
#2	-.0004	.0004	-.0006	.0004	.0036	-.0028	.0048	.0000

Elem	Ag3280	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068
Avg	.0065	.0003	.0002	-0.0004	.0002	-0.0010	-0.0032	-0.0002
Stddev	.0005	.0003	.0000	.0005	.0011	.0005	.0012	.0008
%RSD	8.396	96.79	28.74	119.5	473.9	47.12	37.14	338.4
#1	.0068	.0001	.0001	-.0007	-.0005	-.0006	-.0040	-.0008
#2	.0061	.0006	.0002	-.0001	.0010	-.0013	-.0023	.0003

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	-0.0081	-0.0282	225.0	-0.0001	.1021	.0314	-0.0012	.0014
Stddev	.0053	.0013	.1	.0092	.0130	.0062	.0003	.0003
%RSD	65.33	4.463	.0423	9602.	12.77	19.89	22.15	18.19
#1	-.0043	-.0273	224.9	-.0066	.0929	.0270	-.0014	.0013
#2	-.0118	-.0291	225.0	.0064	.1113	.0358	-.0010	.0016

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	-0.0043	-0.0005	-0.0003	-0.0002	.0023	.0026	.0025	-0.0071
Stddev	.0010	.0007	.0000	.0001	.0014	.0001	.0015	.0015
%RSD	23.98	156.9	5.449	61.20	62.60	3.920	60.31	20.83
#1	-.0036	-.0010	-.0003	-.0003	.0013	.0026	.0036	-.0060
#2	-.0051	.0001	-.0003	-.0001	.0033	.0027	.0014	-.0081

Elem	Li6707	P_1774
Avg	.0008	.0024
Stddev	.0009	.0009
%RSD	113.4	35.46
#1	.0015	.0031
#2	.0002	.0018

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Sample Name: feconf Acquired: 5/30/2018 16:54:06 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	92134.	12144.	3517.7	8411.4
Stddev	198.	15.	.5	4.3
%RSD	.21491	.12745	.01405	.05141

#1	92274.	12155.	3517.3	8414.4
#2	91994.	12133.	3518.0	8408.3

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Sample Name: crconf Acquired: 5/30/2018 16:58:28 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	-0.0004	-0.0000	-0.0000	-0.0003	F 11.16	-0.0002	-0.0001	.0010	.0007
Stddev	.0001	.0001	.0001	.0000	.01	.0003	.0001	.0003	.0006
%RSD	23.53	649.6	383.7	7.380	.1143	142.2	87.47	25.64	83.61
#1	-.0004	-.0001	-.0001	-.0003	11.17	.0000	-.0000	.0008	.0012
#2	-.0003	.0001	.0001	-.0003	11.15	-.0004	-.0001	.0012	.0003

Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	-0.0045	.0018	.0004	-0.0003	.0020	-0.0004	.0004	.0093	.0131
Stddev	.0002	.0004	.0004	.0003	.0000	.0032	.0008	.0085	.0024
%RSD	4.625	20.40	113.8	87.22	2.271	905.5	200.7	91.38	18.55
#1	-.0044	.0021	.0001	-.0001	.0020	-.0026	.0009	.0033	.0149
#2	-.0047	.0016	.0007	-.0005	.0020	.0019	-.0002	.0152	.0114

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	.0232	.0136	.0226	.0186	.0019	.0010	.0023	.0036	.0001
Stddev	.0016	.0158	.0116	.0056	.0007	.0001	.0000	.0001	.0000
%RSD	6.998	115.9	51.25	29.97	35.87	12.53	.5130	1.836	17.80
#1	.0243	.0248	.0308	.0146	.0023	.0009	.0023	.0036	.0001
#2	.0220	.0025	.0144	.0225	.0014	.0011	.0023	.0037	.0002

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	.0004	.0053	.0084	.0041	.0003	.0014	.0011
Stddev	.0002	.0004	.0000	.0015	.0008	.0003	.0011
%RSD	43.09	6.723	.1160	36.55	254.7	23.01	105.9
#1	.0006	.0056	.0084	.0031	.0008	.0011	.0019
#2	.0003	.0051	.0084	.0052	-.0002	.0016	.0003

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	95403.	12390.	3567.1	8675.0
Stddev	153.	55.	1.4	8
%RSD	.16044	.44411	.03815	.00907
#1	95295.	12351.	3568.0	8675.5
#2	95511.	12429.	3566.1	8674.4

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Sample Name: asconf Acquired: 5/30/2018 17:02:48 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	-0.001	-0.001	-0.003	-0.009	.0002	.0002	.0001	.0002	.0005
Stddev	.0001	.0000	.0003	.0001	.0003	.0007	.0001	.0001	.0004
%RSD	49.44	43.36	103.0	11.87	122.5	430.9	67.72	46.65	74.67

#1	-0.001	-0.000	-0.005	-0.010	.0000	-0.003	.0001	.0003	.0002
#2	-0.001	-0.001	-0.001	-0.008	.0005	.0006	.0002	.0001	.0007

Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	-0.005	.0029	5.361	.0008	.0009	-0.013	.0018	-0.0085	.0183
Stddev	.0000	.0001	.015	.0000	.0005	.0014	.0005	.0059	.0010
%RSD	5.902	3.346	.2759	3.598	51.66	104.7	29.10	69.30	5.547

#1	-0.005	.0030	5.371	.0008	.0012	-0.003	.0022	-0.043	.0190
#2	-0.005	.0029	5.350	.0008	.0006	-0.023	.0015	-0.127	.0176

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	.0033	-0.0180	.0313	-0.014	.0010	.0004	.0092	-0.0006	-0.0000
Stddev	.0054	.0030	.0044	.0027	.0001	.0001	.0008	.0001	.0000
%RSD	164.3	16.89	14.02	189.1	11.04	23.47	8.436	14.72	74.00

#1	-0.005	-0.201	.0344	-0.034	.0011	.0003	.0087	-0.007	-0.000
#2	.0071	-0.158	.0282	.0005	.0010	.0004	.0097	-0.006	-0.001

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	-0.001	.0017	.0002	.0020	.0007	.0008	.0027
Stddev	.0003	.0000	.0001	.0030	.0007	.0000	.0006
%RSD	219.0	1.394	59.63	151.6	110.0	2.011	20.92

#1	-0.003	.0018	.0003	.0041	.0001	.0008	.0031
#2	.0001	.0017	.0001	-0.001	.0012	.0008	.0023

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	93951.	12136.	3579.8	8568.8
Stddev	252.	11.	4.0	10.4
%RSD	.26798	.08887	.11094	.12087

#1	94129.	12144.	3577.0	8576.1
#2	93773.	12129.	3582.6	8561.4

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Sample Name: ccv Acquired: 5/30/2018 17:07:09 Type: QC
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.012	2.000	2.003	1.964	2.011	1.987	2.014
Stddev	.000	.002	.003	.004	.001	.002	.000
%RSD	.0208	.1003	.1461	.1801	.0541	.0737	.0019

#1	2.013	1.998	2.005	1.961	2.010	1.988	2.014
#2	2.012	2.001	2.001	1.966	2.012	1.986	2.014

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	90037.	12002.	3486.3	7701.7
Stddev	224.	17.	9.7	8.9
%RSD	.24906	.14530	.27853	.11586

#1	89879.	11990.	3493.1	7708.0
#2	90196.	12014.	3479.4	7695.4

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Sample Name: ccv Acquired: 5/30/2018 17:07:09 Type: QC
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.017	2.019	1.986	1.978	2.001	1.965	2.031	2.004	2.457
Stddev	.003	.008	.003	.003	.007	.001	.001	.003	.0009
%RSD	.1578	.4080	.1610	.1405	.3281	.0656	.0557	.1640	.3825

#1	2.019	2.025	1.984	1.980	2.006	1.966	2.032	2.007	2.464
#2	2.014	2.013	1.988	1.976	1.996	1.964	2.031	2.002	2.450

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.985	2.022	1.981	2.054	2.024	1.990	1.992	39.63	40.02
Stddev	.006	.002	.001	.001	.001	.004	.005	.03	.10
%RSD	.3209	.0942	.0439	.0449	.0668	.2097	.2409	.0795	.2567

#1	1.989	2.024	1.982	2.053	2.025	1.987	1.988	39.66	40.09
#2	1.980	2.021	1.981	2.054	2.023	1.993	1.995	39.61	39.95

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	40.83	40.21	39.95	40.22	1.993	2.030	5.089	2.038	2.023
Stddev	.14	.24	.07	.04	.001	.001	.001	.002	.005
%RSD	.3432	.5960	.1762	.0978	.0373	.0481	.0275	.1092	.2328

#1	40.93	40.38	40.00	40.25	1.993	2.029	5.088	2.036	2.026
#2	40.73	40.04	39.90	40.19	1.994	2.030	5.090	2.039	2.020

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

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Sample Name: ccb Acquired: 5/30/2018 17:11:12 Type: QC
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.003	-0.000	-0.001	.0004	.0002	-0.001	.0002	.0007	.0007
Stddev	.0001	.0000	.0000	.0001	.0001	.0000	.0000	.0002	.0000
%RSD	37.24	80.69	46.92	11.75	62.58	47.81	14.06	29.08	5.054

#1	-0.002	-0.000	-0.001	.0005	.0001	-0.001	.0002	.0005	.0007
#2	-0.004	-0.000	-0.001	.0004	.0003	-0.000	.0001	.0008	.0007

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001	-0.000	-0.001	.0008	.0009	.0018	.0012	-0.0026	-0.0028
Stddev	.0002	.0000	.0003	.0001	.0000	.0014	.0007	.0066	.0036
%RSD	172.2	70.88	236.5	8.865	4.916	75.75	57.75	251.9	131.7

#1	.0003	-0.000	.0001	.0009	.0009	.0028	.0017	.0020	-0.0053
#2	-0.000	-0.001	-0.003	.0008	.0010	.0009	.0007	-0.073	-0.0002

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0024	-0.0318	.0101	.0050	.0015	.0012	-0.0003	-0.0002	.0002
Stddev	.0028	.0220	.0121	.0021	.0003	.0002	.0013	.0003	.0001
%RSD	117.4	69.11	120.5	42.27	18.25	12.29	413.7	216.4	33.85

#1	.0044	-0.0474	.0186	.0035	.0013	.0013	.0006	-0.0004	.0001
#2	.0004	-0.163	.0015	.0064	.0017	.0011	-0.012	.0001	.0002

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

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Sample Name: ccb Acquired: 5/30/2018 17:11:12 Type: QC
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.001	.0000	.0004	.0021	.0010	.0015	.0027
Stddev	.0005	.0010	.0000	.0020	.0007	.0012	.0020
%RSD	961.8	4502.	11.37	93.28	69.62	84.53	71.42
#1	.0003	.0007	.0004	.0036	.0015	.0023	.0041
#2	-.0004	-.0007	.0003	.0007	.0005	.0006	.0014

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
High Limit
Low Limit

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	94137	12126.	3596.4	8612.4
Stddev	152.	61.	12.6	31.7
%RSD	.16171	.50093	.35099	.36817
#1	94244.	12169.	3605.3	8634.8
#2	94029.	12084.	3587.5	8590.0

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Sample Name: mp7375-mb1 1 Acquired: 5/30/2018 17:15:34 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	-0.003	-0.000	-0.001	.0000	.0006	.0007	.0001	.0006	.0004
Stddev	.0001	.0000	.0000	.0002	.0000	.0001	.0000	.0000	.0000
%RSD	35.67	77.69	50.96	737.1	.6745	10.41	65.14	7.098	1.991
#1	-.0003	-.0000	-.0001	-.0001	.0006	.0006	.0000	.0006	.0004
#2	-.0004	-.0001	-.0001	.0002	.0006	.0007	.0001	.0007	.0004

Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	-0.001	.0011	-0.001	.0020	.0010	.0015	.0005	.0009	.0025
Stddev	.0002	.0000	.0012	.0002	.0010	.0033	.0005	.0129	.0017
%RSD	251.5	.0400	1702.	12.03	93.47	222.4	98.34	1478.	66.78
#1	.0001	.0011	.0008	.0018	.0017	-.0008	.0009	.0100	.0013
#2	-.0003	.0011	-.0009	.0021	.0004	.0038	.0002	-.0082	.0037

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	.0007	-.0225	.0408	-.0024	.0014	.0009	.0054	.0342	.0001
Stddev	.0000	.0021	.0163	.0001	.0000	.0002	.0005	.0001	.0001
%RSD	6.979	9.357	40.06	4.825	1.645	25.11	9.624	.3566	78.03
#1	.0007	-.0240	.0523	-.0025	.0014	.0011	.0058	.0341	.0001
#2	.0006	-.0210	.0292	-.0023	.0014	.0007	.0050	.0343	.0002

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	.0001	.0007	.0001	.0033	.0014	-.0009	.0351
Stddev	.0001	.0001	.0000	.0003	.0010	.0003	.0002
%RSD	122.5	17.06	14.46	8.846	73.50	36.68	.5254
#1	.0000	.0006	.0001	.0031	.0022	-.0012	.0352
#2	.0002	.0008	.0001	.0035	.0007	-.0007	.0349

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	95515.	12264.	3624.1	8729.1
Stddev	507.	36.	9.8	12.3
%RSD	.53132	.29757	.27105	.14142
#1	95156.	12289.	3617.2	8720.4
#2	95873.	12238.	3631.1	8737.8

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Sample Name: mp7375-b1 Acquired: 5/30/2018 17:19:52 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	2.035	2.027	2.057	1.986	2.022	2.006	2.061	2.017	.0824
Stddev	.001	.007	.001	.001	.009	.005	.003	.002	.0009
%RSD	.0333	.3260	.0460	.0691	.4360	.2608	.1589	.0720	1.134
#1	2.035	2.023	2.057	1.985	2.016	2.009	2.059	2.016	.0818
#2	2.036	2.032	2.056	1.987	2.028	2.002	2.064	2.018	.0831

Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	2.005	2.062	2.035	2.132	2.061	2.075	2.094	26.11	26.31
Stddev	.008	.001	.001	.002	.000	.002	.002	.01	.01
%RSD	.3921	.0278	.0380	.0804	.0103	.0726	.0878	.0347	.0234
#1	2.000	2.061	2.036	2.133	2.061	2.077	2.093	26.11	26.32
#2	2.011	2.062	2.035	2.130	2.061	2.074	2.095	26.10	26.31

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	27.05	26.58	26.36	26.56	2.049	2.073	.0034	2.139	2.042
Stddev	.01	.09	.04	.03	.000	.001	.0001	.003	.004
%RSD	.0528	.3321	.1500	.1013	.0116	.0285	1.952	.1582	.2187
#1	27.06	26.52	26.33	26.54	2.050	2.073	.0034	2.137	2.038
#2	27.04	26.64	26.39	26.58	2.049	2.074	.0033	2.141	2.045

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	2.044	2.036	2.022	2.191	.0038	.0018	2.085
Stddev	.001	.001	.001	.002	.0009	.0009	.001
%RSD	.0490	.0370	.0425	.0997	24.27	51.11	.0400
#1	2.043	2.036	2.021	2.189	.0031	.0024	2.084
#2	2.044	2.037	2.022	2.192	.0044	.0011	2.086

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	91297.	12141.	3518.1	7941.6
Stddev	155.	28.	3.3	8.5
%RSD	.16946	.22888	.09373	.10706
#1	91407.	12122.	3520.5	7947.6
#2	91188.	12161.	3515.8	7935.6

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Sample Name: mp7375-s1 Acquired: 5/30/2018 17:23:53 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	2.506	2.026	2.083	2.020	1.994	1.998	2.545	2.052
Stddev	.000	.002	.001	.001	.006	.001	.005	.002
%RSD	.0064	.0941	.0233	.0697	.2857	.0358	.1864	.0950
#1	2.506	2.025	2.083	2.019	1.990	1.997	2.541	2.051
#2	2.506	2.027	2.083	2.021	1.998	1.998	2.548	2.053

Elem	Ag3280	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068
Avg	.0848	1.999	2.055	2.111	2.043	2.067	2.119	2.111
Stddev	.0006	.004	.004	.002	.004	.002	.002	.003
%RSD	.7256	.1934	.1948	.0891	.2069	.0857	.0701	.1557
#1	.0843	1.996	2.052	2.110	2.040	2.066	2.120	2.109
#2	.0852	2.002	2.058	2.112	2.046	2.069	2.118	2.113

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	25.81	126.6	27.14	64.59	30.95	W 283.9	2.070	2.076
Stddev	.05	.1	.08	.07	.00	3.3	.004	.004
%RSD	.1852	.1009	.2834	.1070	.0138	1.156	.1727	.2042
#1	25.85	126.7	27.09	64.54	30.94	286.2	2.067	2.073
#2	25.78	126.5	27.19	64.64	30.95	281.5	2.072	2.079

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	3.368	2.075	2.551	2.049	2.050	2.041	12.94	.0063
Stddev	.002	.003	.001	.003	.002	.001	.01	.0005
%RSD	.0676	.1429	.0380	.1412	.0828	.0484	.0480	8.557
#1	3.366	2.073	2.551	2.047	2.051	2.040	12.95	.0066
#2	3.369	2.078	2.552	2.051	2.049	2.042	12.94	.0059

Elem	Li6707	P_1774
Avg	.0119	2.214
Stddev	.0001	.004
%RSD	.9547	.1608
#1	.0118	2.211
#2	.0119	2.216

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Sample Name: mp7375-s1 Acquired: 5/30/2018 17:23:53 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	86047.	11923.	3300.6	7108.2
Stddev	164.	48.	.3	4.4
%RSD	.19112	.40425	.00834	.06167

#1	86163.	11889.	3300.5	7105.1
#2	85931.	11957.	3300.8	7111.3

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Sample Name: mp7375-s2 Acquired: 5/30/2018 17:28:00 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	2.531	2.041	2.094	2.034	2.010	2.012	2.570	2.067
Stddev	.002	.000	.000	.001	.005	.009	.004	.002
%RSD	.0741	.0218	.0071	.0505	.2384	.4209	.1347	.0705

#1	2.532	2.041	2.094	2.035	2.007	2.006	2.567	2.068
#2	2.529	2.041	2.094	2.034	2.013	2.018	2.572	2.066

Elem	Ag3280	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068
Avg	.0850	2.015	2.064	2.120	2.048	2.079	2.127	2.116
Stddev	.0005	.004	.001	.002	.003	.006	.003	.001
%RSD	.6358	.2120	.0658	.0855	.1563	.2848	.1424	.0277

#1	.0846	2.012	2.063	2.119	2.046	2.075	2.125	2.116
#2	.0854	2.019	2.065	2.122	2.050	2.083	2.129	2.115

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	25.87	128.7	27.27	65.37	31.12	W 286.2	2.080	2.081
Stddev	.03	.2	.02	.06	.02	3.9	.005	.002
%RSD	.1298	.1283	.0811	.0852	.0696	1.360	.2604	.0857

#1	25.89	128.8	27.29	65.41	31.14	288.9	2.084	2.080
#2	25.85	128.6	27.26	65.33	31.11	283.4	2.076	2.083

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	3.440	2.078	2.577	2.060	2.058	2.053	13.16	.0043
Stddev	.011	.003	.006	.004	.001	.003	.03	.0008
%RSD	.3229	.1256	.2271	.1856	.0269	.1579	.2271	19.81

#1	3.432	2.076	2.581	2.057	2.059	2.051	13.14	.0049
#2	3.447	2.080	2.573	2.063	2.058	2.055	13.18	.0037

Elem	Li6707	P_1774
Avg	.0104	2.224
Stddev	.0007	.003
%RSD	6.245	.1321

#1	.0100	2.222
#2	.0109	2.226

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Sample Name: mp7375-s2 Acquired: 5/30/2018 17:28:00 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	85831.	11931.	3294.8	7077.8
Stddev	175.	36.	.8	6.8
%RSD	.20433	.29905	.02293	.09631

#1	85955.	11906.	3295.3	7073.0
#2	85707.	11956.	3294.2	7082.7

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Sample Name: jc66833-1 Acquired: 5/30/2018 17:32:06 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	.4656	.0002	.0001	.0006	.0017	.0044	.5092	.0023	.0005
Stddev	.0008	.0000	.0001	.0000	.0001	.0001	.0005	.0005	.0004
%RSD	.1812	17.47	66.15	7.810	3.344	2.331	.0989	22.49	77.42

#1	.4662	.0002	.0001	.0006	.0016	.0045	.5088	.0026	.0002
#2	.4650	.0001	.0002	.0006	.0017	.0044	.5096	.0019	.0008

Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	-.0000	.0101	.0040	-.0003	.0012	-.0003	-.0003	.0387	100.3
Stddev	.0002	.0003	.0005	.0005	.0004	.0015	.0019	.0050	.1
%RSD	867.7	2.570	13.57	176.8	35.42	454.2	572.6	12.89	.1108

#1	-.0002	.0099	.0037	-.0006	.0015	.0007	-.0017	.0352	100.3
#2	.0001	.0103	.0044	.0001	.0009	-.0014	.0010	.0422	100.2

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	.8660	38.49	4.431	252.1	.0355	.0043	3.344	.0288	.5106
Stddev	.0025	.13	.008	.1	.0007	.0004	.003	.0005	.0007
%RSD	.2852	.3374	.1716	.0443	2.107	9.496	.0758	1.625	.1378

#1	.8677	38.40	4.426	252.2	.0361	.0046	3.346	.0291	.5111
#2	.8642	38.58	4.437	252.0	.0350	.0040	3.342	.0285	.5101

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	.0005	.0072	.0007	10.77	.0023	.0101	.0787
Stddev	.0001	.0003	.0000	.03	.0006	.0008	.0009
%RSD	18.63	4.369	1.366	.2525	24.27	8.155	1.083

#1	.0004	.0069	.0007	10.75	.0027	.0107	.0781
#2	.0006	.0074	.0007	10.79	.0019	.0095	.0793

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	86434.	11984.	3296.5	7231.5
Stddev	121.	48.	4.5	4.7
%RSD	.13941	.40458	.13500	.06536

#1	86519.	12018.	3299.6	7228.2
#2	86349.	11949.	3293.3	7234.9

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Sample Name: mp7375-sd1 Acquired: 5/30/2018 17:36:28 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	.4560	-.0005	-.0005	.0012	.0035	.0045	.5061	.0026	.0025
Stddev	.0005	.0001	.0003	.0003	.0003	.0015	.0014	.0013	.0015
%RSD	.1120	25.95	46.21	24.16	7.123	32.57	.2820	51.14	60.29

#1	.4563	-.0004	-.0007	.0010	.0037	.0035	.5071	.0016	.0014
#2	.4556	-.0006	-.0004	.0014	.0034	.0055	.5051	.0035	.0035

Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	.0013	.0167	.0043	.0002	.0016	-.0005	.0039	.7049	98.41
Stddev	.0019	.0035	.0031	.0029	.0003	.0035	.0032	.0212	.11
%RSD	145.6	21.19	72.18	1688.	16.99	747.1	82.44	3.010	.1088

#1	.0027	.0142	.0066	-.0019	.0014	-.0030	.0016	.7199	98.49
#2	-.0000	.0192	.0021	.0022	.0018	.0020	.0062	.6899	98.34

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	.8831	37.92	4.413	252.8	.0394	.0059	3.225	.0217	.5004
Stddev	.0026	.27	.137	.5	.0010	.0000	.007	.0020	.0013
%RSD	.2971	.7135	3.096	.2066	2.413	.6376	.2176	9.056	.2518

#1	.8850	38.12	4.509	253.2	.0401	.0060	3.220	.0203	.5013
#2	.8813	37.73	4.316	252.4	.0388	.0059	3.230	.0231	.4995

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Avg	-.0021	.0129	.0020	9.859	.0037	.0145	.1072		
Stddev	.0001	.0051	.0002	.007	.0013	.0053	.0012		
%RSD	6.357	39.89	9.850	.0734	35.38	36.53	1.142		

#1	-.0022	.0092	.0021	9.864	.0028	.0107	.1063		
#2	-.0020	.0165	.0019	9.854	.0046	.0182	.1081		

Int. Std.	Y_3600	Y_3710	Y_2243	In2306					
Avg	90461.	11962.	3463.1	7916.3					
Stddev	46.	34.	4.6	2.5					
%RSD	.05034	.28371	.13347	.03218					

#1	90493.	11986.	3466.3	7918.1					
#2	90429.	11938.	3459.8	7914.5					

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Sample Name: mp7371-b1conf Acquired: 5/30/2018 17:45:06 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	
Avg	2.025	2.021	1.978	1.950	1.975	1.974	2.026	1.977	
Stddev	.001	.001	.002	.002	.000	.001	.001	.001	
%RSD	.0498	.0236	.1160	.0749	.0220	.0393	.0597	.0505	

#1	2.025	2.020	1.980	1.951	1.975	1.974	2.027	1.977	
#2	2.026	2.021	1.976	1.949	1.975	1.973	2.025	1.978	

Elem	Ag3280	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	
Avg	.2451	1.970	2.004	1.959	2.068	2.011	1.979	1.998	
Stddev	.0001	.001	.000	.002	.005	.003	.003	.002	
%RSD	.0383	.0601	.0082	.0882	.2282	.1606	.1564	.0882	

#1	.2452	1.969	2.004	1.958	2.064	2.009	1.982	1.999	
#2	.2451	1.971	2.004	1.960	2.071	2.013	1.977	1.997	

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	
Avg	25.55	25.71	26.63	25.83	25.86	26.03	1.984	2.040	
Stddev	.02	.05	.01	.12	.04	.06	.001	.000	
%RSD	.0671	.2067	.0347	.4607	.1493	.2482	.0488	.0051	

#1	25.53	25.67	26.62	25.92	25.84	25.99	1.984	2.040	
#2	25.56	25.75	26.64	25.75	25.89	26.08	1.983	2.040	

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230	
Avg	.0271	2.043	2.028	2.002	1.972	1.996	F -.0943	.0025	
Stddev	.0021	.002	.002	.002	.001	.000	.0025	.0018	
%RSD	7.768	.1080	.0963	.0759	.0258	.0078	2.658	71.69	

#1	.0286	2.042	2.027	2.001	1.972	1.996	-.0961	.0012	
#2	.0256	2.045	2.029	2.003	1.972	1.996	-.0926	.0037	

Elem	Li6707	P_1774							
Avg	.0016	1.988							
Stddev	.0014	.005							
%RSD	85.40	.2603							

#1	.0026	1.991							
#2	.0007	1.984							

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Sample Name: mp7371-mb1conf Acquired: 5/30/2018 17:40:45 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	-.0004	-.0001	-.0000	.0000	.0002	.0014	.0000	.0005	.0002
Stddev	.0005	.0001	.0001	.0000	.0005	.0000	.0001	.0004	.0001
%RSD	111.4	81.78	2486.	48.11	264.2	.7709	145.5	70.97	32.17

#1	-.0001	-.0000	.0000	.0000	.0005	.0014	-.0000	.0008	.0002
#2	-.0008	-.0001	-.0001	.0000	-.0002	.0014	.0001	.0003	.0003

Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	.0001	.0002	-.0017	-.0001	.0004	.0007	.0008	.0021	.0064
Stddev	.0000	.0001	.0004	.0009	.0005	.0011	.0004	.0006	.0014
%RSD	36.63	31.64	22.83	1457.	130.1	164.6	46.45	29.22	21.51

#1	.0001	.0003	-.0019	-.0007	.0007	-.0001	.0010	.0017	.0054
#2	.0001	.0002	-.0014	.0006	.0000	.0015	.0005	.0026	.0074

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	.0017	.0209	.0250	.0650	.0013	.0006	.0145	-.0015	-.0000
Stddev	.0014	.0115	.0132	.0057	.0001	.0002	.0001	.0000	.0000
%RSD	81.23	55.11	52.84	8.818	10.60	31.87	.4368	.6565	20.63

#1	.0007	.0128	.0344	.0691	.0012	.0005	.0145	-.0015	-.0000
#2	.0027	.0291	.0157	.0610	.0014	.0008	.0145	-.0015	-.0000

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Avg	.0001	.0010	.0007	.0029	.0004	-.0002	.0035		
Stddev	.0004	.0001	.0000	.0027	.0009	.0022	.0003		
%RSD	256.2	10.05	4.402	92.70	236.4	1442.	8.706		

#1	-.0001	.0009	.0006	.0010	.0010	-.0017	.0033		
#2	.0004	.0011	.0007	.0048	-.0003	.0014	.0037		

Int. Std.	Y_3600	Y_3710	Y_2243	In2306					
Avg	94370.	12138.	3573.5	8543.1					
Stddev	56.	31.	1.3	5.4					
%RSD	.05906	.25725	.03612	.06366					

#1	94330.	12160.	3572.6	8539.3					
#2	94409.	12116.	3574.4	8547.0					

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Sample Name: mp7371-b1conf Acquired: 5/30/2018 17:45:06 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306					
Avg	90808.	11994.	3482.7	7824.2					
Stddev	253.	25.	2.2	1.4					
%RSD	.27864	.20808	.06294	.01849					

#1	90629.	12011.	3481.1	7823.2					
#2	90987.	11976.	3484.2	7825.2					

Sample Name: jc66580-1a 2 Acquired: 5/30/2018 17:49:10 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	2050	-0.002	.0000	.0004	.0046	.0019	.0239	.0046
Stddev	.0010	.0001	.0002	.0001	.0001	.0001	.0000	.0001
%RSD	.4681	81.73	787.0	20.56	2.427	7.321	.0630	1.980
#1	.2057	-.0001	-.0001	.0004	.0045	.0020	.0240	.0047
#2	.2044	-.0002	.0001	.0003	.0046	.0018	.0239	.0046
Elem	Ag3280	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068
Avg	.0008	.0006	-0.0007	.0012	F -.0041	-0.0007	.0037	-0.0006
Stddev	.0003	.0003	.0002	.0008	.0014	.0017	.0004	.0010
%RSD	33.78	48.68	32.69	70.29	34.27	249.5	11.96	167.3
#1	.0010	.0008	-.0008	.0017	-.0051	.0005	.0040	-.0014
#2	.0006	.0004	-.0005	.0006	-.0031	-.0019	.0034	.0001
Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	-0.0349	214.5	.0968	144.3	64.57	F 1098.	.8626	.0009
Stddev	.0096	.0	.0019	.5	.11	12.	.0005	.0003
%RSD	27.63	.0179	1.941	.3761	.1768	1.133	.0561	31.49
#1	-.0281	214.5	.0954	144.7	64.66	1107.	.8623	.0011
#2	-.0417	214.5	.0981	143.9	64.49	1090.	.8629	.0007
Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	25.10	-0.0027	2.188	-0.0009	.0293	-0.0005	84.48	.0020
Stddev	.00	.0014	.013	.0003	.0001	.0001	.21	.0017
%RSD	.0194	51.34	.5812	29.22	.3233	12.59	.2444	87.52
#1	25.10	-.0037	2.197	-.0011	.0292	-.0005	84.33	.0032
#2	25.11	-.0017	2.179	-.0007	.0293	-.0006	84.63	.0008
Elem	Li6707	P_1774						
Avg	.0415	.0758						
Stddev	.0017	.0007						
%RSD	4.093	.8820						
#1	.0428	.0754						
#2	.0403	.0763						

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Sample Name: jc66580-1a 2 Acquired: 5/30/2018 17:49:10 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	77331.	11323.	2970.0	6245.2
Stddev	67.	33.	1.7	3.9
%RSD	.08653	.29396	.05716	.06310
#1	77283.	11347.	2968.8	6242.5
#2	77378.	11300.	2971.2	6248.0

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Sample Name: ccv Acquired: 5/30/2018 17:53:33 Type: QC
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.044	2.043	2.005	1.989	1.980	1.966	2.032	2.017	.2429
Stddev	.007	.010	.006	.004	.017	.028	.019	.004	.0026
%RSD	.3263	.4813	.2929	.2190	.8605	1.404	.9509	.2000	1.060
#1	2.048	2.050	2.009	1.992	1.968	1.946	2.018	2.020	.2411
#2	2.039	2.036	2.001	1.986	1.993	1.985	2.046	2.014	.2447
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									
Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.961	2.033	1.998	2.064	2.041	2.016	2.018	39.92	40.13
Stddev	.019	.007	.003	.004	.005	.006	.005	.13	.15
%RSD	.9212	.3697	.1605	.1684	.2602	.2871	.2349	.3149	.3785
#1	1.949	2.038	2.000	2.067	2.045	2.020	2.021	40.01	40.23
#2	1.974	2.027	1.996	2.062	2.038	2.011	2.015	39.83	40.02
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	41.40	40.61	40.50	40.21	2.013	2.051	5.146	2.048	2.049
Stddev	.25	.23	.16	.09	.006	.006	.015	.006	.008
%RSD	.5943	.5749	.3839	.2120	.2908	.2833	.2878	.2852	.4006
#1	41.58	40.78	40.61	40.27	2.017	2.055	5.157	2.053	2.055
#2	41.23	40.44	40.39	40.15	2.009	2.047	5.136	2.044	2.043
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

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Sample Name: ccv Acquired: 5/30/2018 17:53:33 Type: QC
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.007	2.021	2.007	1.981	2.041	2.010	2.032
Stddev	.021	.002	.021	.011	.003	.008	.005
%RSD	1.039	.0817	1.071	.5522	.1419	.3810	.2675
#1	1.992	2.022	1.992	1.989	2.043	2.015	2.036
#2	2.022	2.020	2.023	1.974	2.039	2.005	2.028
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							
Int. Std.	Y_3600	Y_3710	Y_2243	In2306			
Units	Cts/S	Cts/S	Cts/S	Cts/S			
Avg	90336.	11829.	3442.4	7605.8			
Stddev	907.	36.	3.5	8.3			
%RSD	1.0039	.30053	.10132	.10882			
#1	90978.	11804.	3440.0	7600.0			
#2	89695.	11855.	3444.9	7611.7			

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Sample Name: ccb Acquired: 5/30/2018 17:57:37 Type: QC
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.001	.0001	.0001	.0002	-0.001	-0.001	.0002	.0002	-0.000
Stddev	.0002	.0000	.0001	.0003	.0001	.0000	.0001	.0002	.0005
%RSD	156.5	72.65	202.9	119.1	76.94	37.99	41.37	72.34	1034.
#1	-.0002	.0000	.0002	.0000	-.0002	-.0001	.0002	.0001	.0003
#2	.0000	.0001	-.0000	.0004	-.0001	-.0001	.0001	.0004	-.0004

Check ? High Limit Low Limit
Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass

Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0002	-0.001	-0.006	.0008	.0011	.0006	.0015	.0125	-0.047
Stddev	.0000	.0002	.0002	.0010	.0001	.0019	.0008	.0138	.0046
%RSD	22.85	164.3	27.19	123.4	6.269	335.4	55.13	110.4	98.05
#1	.0002	-.0002	-.0007	.0001	.0012	.0019	.0021	.0223	-.0080
#2	.0001	.0000	-.0005	.0015	.0011	-.0008	.0009	.0028	-.0015

Check ? High Limit Low Limit
Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0033	.0050	.0411	.1391	.0019	.0013	.0008	-0.0005	.0002
Stddev	.0022	.0048	.0234	.0028	.0008	.0000	.0003	.0002	.0001
%RSD	65.41	95.28	56.79	2.025	41.09	2.227	34.83	31.77	40.99
#1	.0048	.0016	.0246	.1411	.0024	.0013	.0006	-.0004	.0001
#2	.0018	.0084	.0577	.1371	.0013	.0013	.0010	-.0007	.0002

Check ? High Limit Low Limit
Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass

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Sample Name: MGCONF Acquired: 5/30/2018 18:01:59 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	-0.001	-0.001	.0007	.0005	-0.001	.0011	.0017	.0002
Stddev	.0001	.0001	.0000	.0004	.0000	.0001	.0000	.0002
%RSD	155.5	95.75	2.786	89.11	27.03	11.47	.7920	112.6
#1	-.0001	-.0000	.0007	.0008	-.0001	.0012	.0017	.0000
#2	.0000	-.0002	.0007	.0002	-.0001	.0010	.0017	.0004

Elem	Ag3280	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068
Avg	.0006	-0.0005	.0071	-0.0024	.0003	-0.001	-0.0005	-0.0006
Stddev	.0009	.0001	.0000	.0004	.0008	.0012	.0033	.0020
%RSD	151.7	12.12	.6809	17.17	251.1	1092.	618.5	344.4
#1	.0012	-.0006	.0071	-.0021	.0009	-.0010	-.0029	-.0020
#2	-.0000	-.0005	.0072	-.0027	-.0002	.0008	.0018	.0008

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	.0034	.1092	.0027	W 542.2	-1.1256	.1970	.0029	.0013
Stddev	.0111	.0019	.0047	2.6	.0050	.0007	.0002	.0005
%RSD	326.1	1.728	175.6	.4730	3.992	.3642	7.470	40.58
#1	.0113	.1079	.0061	544.0	-.1221	.1975	.0031	.0009
#2	-.0044	.1105	-.0007	540.3	-.1292	.1965	.0027	.0017

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	.0055	.0009	.0002	.0001	.0043	.0001	W -0.139	.0012
Stddev	.0005	.0004	.0000	.0000	.0010	.0000	.0008	.0017
%RSD	9.707	45.08	22.29	70.25	22.16	61.00	5.846	139.2
#1	.0058	.0012	.0002	.0001	.0050	.0000	-.0145	.0024
#2	.0051	.0006	.0001	.0000	.0037	.0001	-.0133	.0000

Elem	Li6707	P_1774
Avg	.0008	.0109
Stddev	.0006	.0005
%RSD	76.79	4.293
#1	.0004	.0105
#2	.0013	.0112

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Sample Name: ccb Acquired: 5/30/2018 17:57:37 Type: QC
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.002	.0012	.0003	.0025	.0014	.0022	.0044
Stddev	.0000	.0007	.0002	.0004	.0014	.0011	.0008
%RSD	2.556	54.85	62.93	17.08	101.4	52.14	18.01
#1	-.0003	.0017	.0002	.0028	.0004	.0014	.0050
#2	-.0002	.0008	.0004	.0022	.0024	.0030	.0039

Check ? High Limit Low Limit
Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	93831.	11975.	3577.4	8540.4
Stddev	229.	57.	1.7	1.3
%RSD	.24438	.47520	.04795	.01539
#1	93993.	12015.	3576.1	8539.5
#2	93669.	11935.	3578.6	8541.3

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Sample Name: MGCONF Acquired: 5/30/2018 18:01:59 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	85693.	11606.	3269.5	7252.1
Stddev	97.	83.	4.9	1.0
%RSD	.11377	.71870	.14923	.01331
#1	85762.	11547.	3266.0	7252.8
#2	85624.	11665.	3272.9	7251.4

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Sample Name: ALCONF Acquired: 5/30/2018 18:06:20 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	-0.012	-0.001	-0.001	-0.001	-0.012	.0003	-0.006	-0.008	.0003
Stddev	.0000	.0000	.0000	.0002	.0005	.0001	.0000	.0002	.0006
%RSD	2.707	19.83	15.72	262.6	42.06	51.42	4.580	27.96	214.1
#1	-.0012	-.0001	-.0001	.0001	-.0009	.0004	-.0006	-.0009	-.0001
#2	-.0012	-.0001	-.0001	-.0002	-.0016	.0002	-.0007	-.0006	.0007
Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	-0.002	.0010	.0029	.0022	-0.004	-0.013	.0004	506.1	-0.000
Stddev	.0002	.0000	.0001	.0026	.0001	.0041	.0031	.7	.0006
%RSD	69.92	2.772	1.751	121.5	25.21	303.3	865.1	.1445	3042.
#1	-.0003	.0010	.0029	.0040	-.0003	.0015	-.0018	506.6	-.0004
#2	-.0001	.0009	.0028	.0003	-.0004	-.0042	.0026	505.6	.0004
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	.0044	.0001	-.1187	.1265	.0004	-0.008	-0.010	-0.039	.0001
Stddev	.0027	.0191	.0171	.0074	.0007	.0003	.0005	.0007	.0001
%RSD	60.89	15050.	14.38	5.881	152.4	37.35	4.424	16.96	223.7
#1	.0063	.0136	-.1066	.1213	.0009	-.0010	-.0114	-.0044	.0001
#2	.0025	-.0133	-.1308	.1318	-.0000	-.0006	-.0107	-.0034	-.0000
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Avg	-0.002	.0045	.0001	-0.021	-0.003	.0013	.0117		
Stddev	.0001	.0012	.0000	.0002	.0010	.0014	.0020		
%RSD	45.42	26.79	10.98	11.62	352.9	104.3	17.27		
#1	-.0003	.0037	.0001	-.0022	-.0009	.0003	.0132		
#2	-.0001	.0054	.0002	-.0019	-.0004	.0023	.0103		
Int. Std.	Y_3600	Y_3710	Y_2243	In2306					
Avg	89512.	12252.	3672.5	7569.1					
Stddev	183.	50.	2.2	.6					
%RSD	.20471	.40952	.05946	.00774					
#1	89382.	12216.	3671.0	7568.6					
#2	89641.	12287.	3674.1	7569.5					

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Sample Name: CACONF Acquired: 5/30/2018 18:10:44 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	.0001	-0.003	-0.001	.0004	.0006	.0007	.0003	-0.003	.0016
Stddev	.0002	.0000	.0002	.0000	.0002	.0003	.0001	.0000	.0000
%RSD	227.2	5.711	200.0	5.430	34.41	36.28	18.01	5.591	2.879
#1	-.0001	-.0003	-.0003	.0005	.0004	.0005	.0004	-.0003	.0015
#2	.0002	-.0003	-.0000	.0004	.0007	.0009	.0003	-.0003	.0016
Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	-0.001	.0000	-0.002	-0.003	-0.002	.0027	-0.016	-0.0158	F 412.3
Stddev	.0001	.0000	.0011	.0007	.0013	.0004	.0003	.0072	2.0
%RSD	68.86	103.7	458.0	217.4	604.0	13.65	19.62	45.95	.4831
#1	-.0001	.0000	-.0010	-.0008	-.0012	.0024	-.0014	-.0209	413.7
#2	-.0002	.0001	.0005	.0002	.0007	.0029	-.0018	-.0106	410.9
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	-0.061	-0.111	-0.1602	.0755	.0015	-0.010	-0.009	-0.021	.0050
Stddev	.0030	.0230	.0031	.0071	.0012	.0002	.0001	.0000	.0000
%RSD	49.21	207.3	1.962	9.461	80.72	22.01	9.690	.3758	.5610
#1	-.0082	-.0273	-.1625	.0705	.0024	-.0012	-.0009	-.0021	.0051
#2	-.0040	.0052	-.1580	.0806	.0007	-.0009	-.0008	-.0021	.0050
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Avg	-0.015	.0011	-0.000	.0084	.0032	.0042	-0.0064		
Stddev	.0005	.0006	.0002	.0009	.0005	.0012	.0004		
%RSD	31.79	51.56	482.3	11.11	14.49	29.56	6.130		
#1	-.0018	.0015	-.0001	.0091	.0035	.0033	-.0061		
#2	-.0011	.0007	.0001	.0077	.0029	.0051	-.0067		
Int. Std.	Y_3600	Y_3710	Y_2243	In2306					
Avg	85739.	11631.	3253.7	7244.7					
Stddev	270.	8.	5.8	.2					
%RSD	.31497	.06459	.17841	.00207					
#1	85930.	11636.	3257.8	7244.8					
#2	85548.	11626.	3249.6	7244.6					

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Sample Name: SCONF Acquired: 5/30/2018 18:15:09 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	-0.003	-0.002	-0.001	-0.002	.0002	.0001	-0.002	.0003	.0008
Stddev	.0001	.0000	.0000	.0000	.0001	.0003	.0002	.0001	.0005
%RSD	26.48	5.968	50.09	20.01	39.73	579.1	70.09	26.29	68.55
#1	-.0004	-.0001	-.0001	-.0002	.0002	.0003	.0001	.0002	.0004
#2	-.0003	-.0002	-.0001	-.0002	.0001	-.0002	.0004	.0003	.0011
Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	-0.001	-0.001	.0001	-0.012	.0007	.0004	.0017	.0093	-0.016
Stddev	.0004	.0000	.0006	.0008	.0001	.0022	.0014	.0020	.0016
%RSD	551.3	1.472	419.8	68.99	15.41	514.7	80.12	21.46	97.77
#1	.0002	-.0001	.0006	-.0018	.0007	.0020	.0027	.0079	-.0005
#2	-.0003	-.0001	-.0003	-.0006	.0006	-.0011	.0007	.0107	-.0028
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	.0056	.0082	.0119	.0511	.0012	.0002	-0.010	-0.008	.0001
Stddev	.0008	.0049	.0169	.0034	.0000	.0001	.0007	.0007	.0000
%RSD	14.07	59.70	1692.	6.589	.5677	78.96	77.60	84.32	15.32
#1	.0062	.0047	-.0129	.0535	.0012	.0001	-.0004	-.0013	.0001
#2	.0050	.0117	.0109	.0487	.0012	.0003	-.0015	-.0003	.0001
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Avg	.0001	.0008	.0001	F 105.1	.0004	.0014	.0041		
Stddev	.0001	.0012	.0001	.2	.0017	.0012	.0001		
%RSD	140.5	143.6	42.76	.2118	416.9	83.63	2.566		
#1	.0002	-.0000	.0002	105.2	-.0008	.0023	.0042		
#2	.0000	.0017	.0001	104.9	.0016	.0006	.0040		
Int. Std.	Y_3600	Y_3710	Y_2243	In2306					
Avg	94688.	11997.	3587.5	8570.7					
Stddev	1518.	45.	4.8	11.0					
%RSD	1.6031	.37872	.13300	.12784					
#1	95761.	11965.	3584.1	8563.0					
#2	93614.	12029.	3590.9	8578.4					

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Sample Name: SICONF Acquired: 5/30/2018 18:19:27 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	-0.005	-0.001	.0000	.0002	.0002	-0.004	-0.005	.0003	.0002
Stddev	.0004	.0000	.0000	.0000	.0003	.0002	.0000	.0000	.0003
%RSD	77.17	41.48	47.17	20.77	132.1	46.75	1.444	9.676	192.2
#1	-.0008	-.0001	.0001	.0002	.0004	-.0003	-.0005	.0003	.0004
#2	-.0002	-.0001	.0000	.0002	.0000	-.0006	-.0005	.0003	-.0001
Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	-0.000	-0.011	-0.012	.0000	.0010	.0005	.0009	-0.031	-0.036
Stddev	.0003	.0001	.0002	.0004	.0002	.0002	.0004	.0081	.0001
%RSD	14340.	12.05	16.89	1079.	22.52	42.05	47.89	265.8	2.738
#1	.0002	-.0012	-.0010	.0004	.0008	.0006	.0012	.0027	-.0036
#2	-.0002	-.0010	-.0013	-.0003	.0011	.0003	.0006	-.0088	-.0037
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	.0038	-0.013	.0103	.0348	.0053	.0001	11.09	-0.023	-0.000
Stddev	.0004	.0106	.0083	.0063	.0001	.0001	.01	.0000	.0000
%RSD	10.56	93.50	80.66	18.10	2.612	55.26	.1018	.9279	15.77
#1	.0041	-.0038	.0162	.0393	.0052	.0001	11.09	-.0023	-.0000
#2	.0035	-.0188	.0044	.0304	.0054	.0002	11.08	-.0023	-.0000
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Avg	-0.003	.0103	.0100	.0035	.0001	.0011	.0034		
Stddev	.0001	.0007	.0006	.0020	.0001	.0004	.0011		
%RSD	50.50	7.234	6.283	57.12	128.5	37.33	32.04		
#1	-.0002	.0108	.0104	.0049	.0002	.0014	.0026		
#2	-.0003	.0098	.0095	.0021	.0000	.0008	.0041		
Int. Std.	Y_3600	Y_3710	Y_2243	In2306					
Avg	93969.	12016.	3581.4	8530.0					
Stddev	129.	13.	6.4	19.1					
%RSD	.13755	.11054	.17898	.22362					
#1	93877.	12007.	3576.8	8516.5					
#2	94060.	12026.	3585.9	8543.5					

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Sample Name: MNCONF Acquired: 5/30/2018 18:23:45 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	-0.003	.0002	-0.001	.0001	-0.017	.0009	F 10.38	.0004	.0001
Stddev	.0001	.0000	.0002	.0002	.0002	.0000	.00	.0002	.0004
%RSD	44.19	17.95	347.9	441.4	14.04	5.644	.0442	61.17	293.8
#1	-.0004	.0001	.0001	-.0001	-.0019	.0009	10.39	.0006	-.0002
#2	-.0002	.0002	-.0002	.0002	-.0015	.0008	10.38	.0002	.0004
Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	-0.001	.0012	-0.002	-0.000	-0.005	.0004	.0010	-0.062	.0815
Stddev	.0001	.0002	.0007	.0001	.0006	.0006	.0008	.0054	.0026
%RSD	79.35	13.66	311.9	483.7	105.6	135.3	75.94	86.46	3.232
#1	-.0001	.0011	.0003	-.0001	-.0001	.0000	.0016	-.0100	.0797
#2	-.0002	.0013	-.0007	.0001	-.0010	.0008	.0005	-.0024	.0834
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	.0181	-0.004	-0.144	.0450	.0006	-0.006	.0007	-0.016	.0000
Stddev	.0008	.0216	.0160	.0045	.0006	.0001	.0002	.0013	.0000
%RSD	4.463	5216.	111.2	10.05	105.3	21.21	30.20	83.72	71.74
#1	.0175	-.0157	-.0031	.0418	.0001	-.0005	.0005	-.0025	.0000
#2	.0186	.0149	-.0258	.0482	.0010	-.0006	.0008	-.0006	.0000
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Avg	-0.003	.0017	.0000	.0067	.0003	.0013	.0131		
Stddev	.0001	.0010	.0000	.0001	.0002	.0007	.0012		
%RSD	37.49	57.79	101.6	1.922	63.40	57.08	9.053		
#1	-.0004	.0010	.0000	.0066	.0002	.0018	.0139		
#2	-.0002	.0024	.0001	.0068	.0005	.0007	.0123		
Int. Std.	Y_3600	Y_3710	Y_2243	In2306					
Avg	92963.	11936.	3556.7	8470.1					
Stddev	91.	19.	3.7	12.8					
%RSD	.09817	.15976	.10273	.15127					
#1	93028.	11949.	3559.3	8461.1					
#2	92899.	11922.	3554.2	8479.2					

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Sample Name: MOCONF Acquired: 5/30/2018 18:28:09 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	-0.006	-0.000	.0002	.0125	.0012	-0.004	-0.005	.0000	.0003
Stddev	.0000	.0000	.0000	.0003	.0001	.0005	.0000	.0001	.0004
%RSD	2.123	6620.	11.06	2.038	5.728	127.5	7.311	331.4	119.3
#1	-.0006	.0000	.0002	.0123	.0011	-.0000	-.0005	-.0000	.0006
#2	-.0006	-.0000	.0002	.0127	.0012	-.0007	-.0005	.0001	.0000
Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	-0.004	-0.000	.0002	-0.002	.0031	.0020	.0031	-0.0266	-0.0057
Stddev	.0004	.0001	.0007	.0005	.0002	.0006	.0014	.0021	.0028
%RSD	91.90	225.2	347.4	282.4	6.755	31.59	46.42	7.729	49.64
#1	-.0007	-.0001	-.0003	-.0006	.0033	.0016	.0041	-.0280	-.0077
#2	-.0001	.0000	.0007	.0002	.0030	.0025	.0021	-.0251	-.0037
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	.0012	-0.013	.0193	.0491	.0448	F 10.66	.0345	-0.016	.0000
Stddev	.0020	.0003	.0146	.0022	.0003	.00	.0011	.0006	.0000
%RSD	170.0	26.40	75.62	4.490	.6784	.0263	3.270	37.00	60.92
#1	-.0002	-.0010	.0297	.0506	.0445	10.66	.0337	-.0012	.0001
#2	.0026	-.0015	.0090	.0475	.0450	10.66	.0353	-.0020	.0000
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Avg	.0022	.0057	.0018	.0080	-0.001	.0014	.0044		
Stddev	.0001	.0001	.0001	.0019	.0001	.0006	.0011		
%RSD	5.630	1.300	4.729	23.66	3.018	41.50	24.80		
#1	.0021	.0057	.0019	.0093	-.0021	.0010	.0037		
#2	.0023	.0058	.0017	.0066	-.0020	.0018	.0052		
Int. Std.	Y_3600	Y_3710	Y_2243	In2306					
Avg	93332.	11939.	3566.2	8547.3					
Stddev	178.	74.	2.2	1.5					
%RSD	.19068	.61635	.06047	.01798					
#1	93206.	11887.	3564.7	8546.2					
#2	93458.	11991.	3567.7	8548.4					

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Sample Name: TICONF Acquired: 5/30/2018 18:32:27 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	
Avg	-0.003	.0005	-0.001	-0.015	-0.006	.0037	.0006	.0001	
Stddev	.0002	.0001	.0001	.0001	.0002	.0000	.0001	.0001	
%RSD	58.40	21.03	224.5	7.912	26.86	.0773	24.01	64.93	
#1	-.0004	.0004	.0000	-.0016	-.0007	.0037	.0005	.0001	
#2	-.0002	.0005	-.0002	-.0014	-.0005	.0037	.0006	.0000	
Elem	Ag3280	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	
Avg	.0006	-0.009	.0002	-0.003	.0008	-0.000	.0004	.0012	
Stddev	.0002	.0002	.0001	.0006	.0007	.0002	.0001	.0006	
%RSD	27.44	21.58	57.86	183.2	84.64	1060.	12.99	46.44	
#1	.0007	-.0010	.0001	-.0007	.0013	.0001	.0005	.0017	
#2	.0005	-.0007	.0002	.0001	.0003	-.0002	.0004	.0008	
Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	
Avg	.0065	.0387	.0078	-0.024	.0141	.0065	.0016	.0080	
Stddev	.0004	.0019	.0006	.0221	.0057	.0074	.0002	.0015	
%RSD	6.862	4.717	7.181	935.7	40.30	114.6	15.34	18.26	
#1	.0068	.0384	.0074	.0132	.0101	.0012	.0017	.0090	
#2	.0062	.0410	.0082	-.0180	.0182	.0118	.0014	.0069	
Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230	
Avg	W -0.0524	F -0.160	.0001	F 10.34	-0.014	.0022	F -0.664	.0088	
Stddev	.0004	.0003	.0000	.01	.0001	.0001	.0005	.0005	
%RSD	.7645	1.903	15.97	.1073	7.353	5.318	.6791	6.037	
#1	-.0527	-.0162	.0001	10.35	-.0013	.0023	-.0667	.0084	
#2	-.0522	-.0158	.0001	10.34	-.0015	.0021	-.0661	.0092	
Elem	Li6707	P_1774							
Avg	.0006	.0101							
Stddev	.0009	.0004							
%RSD	147.9	3.465							
#1	.0013	.0099							
#2	-.0000	.0104							

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Sample Name: TICONF Acquired: 5/30/2018 18:32:27 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	93561.	11902.	3579.8	8514.3
Stddev	2.	45.	3.0	5.3
%RSD	.00250	.37913	.08362	.06208
#1	93562.	11934.	3577.7	8510.6
#2	93559.	11870.	3582.0	8518.0

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Sample Name: VCONF Acquired: 5/30/2018 18:36:46 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	-0.001	-0.000	-0.004	.0003	.0003	.0017	-0.001	.0002	-0.010
Stddev	.0001	.0001	.0001	.0001	.0003	.0003	.0000	.0001	.0005
%RSD	149.0	1005.	34.07	44.45	89.46	18.87	16.10	70.98	50.33
#1	-.0001	-.0001	-.0003	.0004	.0001	.0015	-.0001	.0003	-.0014
#2	.0000	-.0001	-.0005	.0002	.0005	.0019	-.0001	.0001	-.0007
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	F 10.63	.0009	-0.011	-0.008	-0.003	.0037	.0028	.0021	.0145
Stddev	.04	.0001	.0001	.0008	.0002	.0002	.0005	.0010	.0033
%RSD	.3881	9.937	8.699	103.5	66.91	5.063	18.26	46.20	22.98
#1	10.66	.0008	-.0012	-.0002	-.0002	.0036	.0031	.0014	.0122
#2	10.61	.0009	-.0011	-.0014	-.0005	.0038	.0024	.0028	.0169
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	.0064	.0015	.0111	.0876	.0244	.0011	.0259	.0002	-0.0000
Stddev	.0001	.0198	.0125	.0160	.0003	.0002	.0248	.0001	.0001
%RSD	.9991	1300.	112.8	18.25	1.042	17.87	95.92	60.76	631.7
#1	.0065	-.0124	.0022	.0763	.0246	.0013	.0083	.0003	.0001
#2	.0064	.0155	.0199	.0989	.0242	.0010	.0435	.0001	-.0001
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Avg	.0042	.0066	.0042	-0.0036	.0033	.0003	.0012		
Stddev	.0001	.0001	.0001	.0006	.0004	.0009	.0010		
%RSD	2.667	.9662	1.429	17.10	11.93	329.6	84.74		
#1	.0043	.0066	.0042	-.0041	.0036	-.0004	.0005		
#2	.0041	.0065	.0041	-.0032	.0030	.0009	.0019		
Int. Std.	Y_3600	Y_3710	Y_2243	In2306					
Avg	93603.	11975.	3569.4	8489.9					
Stddev	196.	27.	11.7	3.8					
%RSD	.20980	.22474	.32803	.04451					
#1	93464.	11956.	3561.1	8487.2					
#2	93741.	11994.	3577.7	8492.5					

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Sample Name: BCONF Acquired: 5/30/2018 18:41:05 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	-0.003	-0.002	-0.002	.0001	.0002	.0002	-0.000	.0001	-0.003
Stddev	.0001	.0000	.0001	.0000	.0002	.0002	.0001	.0000	.0000
%RSD	46.21	30.89	25.67	4.165	88.19	90.02	359.4	26.06	5.137
#1	-.0002	-.0001	-.0003	.0001	.0004	.0001	.0000	.0002	.0003
#2	-.0004	-.0002	-.0002	.0001	.0001	.0004	-.0001	.0001	-.0003
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	.0001	.0009	.0000	-0.017	.0018	.0012	.0016	.0023	-0.0013
Stddev	.0002	.0001	.0001	.0002	.0009	.0006	.0009	.0175	.0019
%RSD	233.3	8.397	301.5	10.91	47.50	47.67	58.61	772.0	146.8
#1	-.0001	.0008	-.0001	-.0016	.0012	.0008	.0009	-.0101	.0001
#2	.0002	.0009	.0001	-.0019	.0024	.0016	.0022	.0146	-.0027
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	-0.0008	.0203	-0.0027	.0122	F 10.60	.0007	.0123	-0.0003	.0000
Stddev	.0014	.0134	.0459	.0005	.02	.0000	.0009	.0005	.0000
%RSD	166.9	65.85	1703.	3.899	.1477	.9773	7.180	135.8	47.00
#1	-.0018	.0298	-.0352	.0126	10.61	.0007	.0117	-.0000	.0000
#2	.0001	.0109	.0298	.0119	10.59	.0007	.0129	-.0007	.0001
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Avg	-0.0005	.0101	.0000	-0.0040	.0004	.0009	.0032		
Stddev	.0004	.0001	.0001	.0003	.0005	.0018	.0016		
%RSD	72.45	.8099	333.4	6.759	117.5	204.4	50.11		
#1	-.0002	.0102	.0001	-.0038	.0001	-.0004	.0021		
#2	-.0008	.0101	-.0001	-.0042	.0008	.0022	.0043		
Int. Std.	Y_3600	Y_3710	Y_2243	In2306					
Avg	93885.	11960.	3579.8	8540.0					
Stddev	217.	41.	6.1	16.4					
%RSD	.23079	.34625	.16971	.19190					
#1	94038.	11930.	3575.5	8528.4					
#2	93731.	11989.	3584.1	8551.6					

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Sample Name: SBCONF Acquired: 5/30/2018 18:45:24 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	-0.0005	-0.0001	-0.0001	-0.0001	.0002	.0003	-0.0001	.0000	.0006
Stddev	.0003	.0000	.0000	.0001	.0002	.0000	.0000	.0004	.0001
%RSD	60.40	12.62	.5311	97.36	87.77	18.45	26.12	1394.	10.74
#1	-.0003	-.0001	-.0001	-.0000	.0001	.0002	-.0001	-.0003	.0006
#2	-.0007	-.0002	-.0001	-.0002	.0003	.0003	-.0001	.0003	.0005
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	-0.0004	-0.0001	-0.0004	.0005	-0.0002	.0006	F 10.53	-0.0068	-0.0041
Stddev	.0003	.0000	.0014	.0002	.0004	.0031	.00	.0075	.0033
%RSD	77.82	14.04	320.2	38.88	260.4	530.9	.0333	110.6	79.64
#1	-.0007	-.0001	.0006	.0004	.0001	-.0016	10.54	-.0121	-.0018
#2	-.0002	-.0001	-.0014	.0006	-.0005	.0028	10.53	-.0015	-.0065
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	-0.0002	.0109	.0105	.0091	.0034	.0005	.0051	-0.0016	.0001
Stddev	.0020	.0280	.0282	.0004	.0001	.0000	.0011	.0001	.0000
%RSD	822.3	257.3	269.0	4.170	1.849	8.011	20.72	8.676	.2625
#1	-.0017	-.0089	.0304	.0094	.0033	.0005	.0059	-.0015	.0001
#2	.0012	.0307	-.0094	.0089	.0034	.0005	.0044	-.0017	.0001
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Avg	.0001	.0319	-0.0004	.0052	.0002	.0009	.0023		
Stddev	.0002	.0002	.0001	.0011	.0012	.0009	.0001		
%RSD	351.9	.7015	13.98	22.03	780.1	100.6	3.572		
#1	-.0001	.0320	-.0004	.0060	-.0007	.0003	.0024		
#2	.0002	.0317	-.0003	.0044	.0010	.0016	.0023		
Int. Std.	Y_3600	Y_3710	Y_2243	In2306					
Avg	94291.	11959.	3596.3	8576.6					
Stddev	122.	57.	8.5	18.3					
%RSD	.12942	.47611	.23751	.21318					
#1	94204.	11919.	3602.3	8589.5					
#2	94377.	12000.	3590.3	8563.7					

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Sample Name: BACONF Acquired: 5/30/2018 18:49:44 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	F 12.18	-0.0001	.0002	.0023	-0.0001	-0.0000	-0.0002	.0002	.0001
Stddev	.21	.0001	.0002	.0001	.0001	.0006	.0000	.0001	.0001
%RSD	1.685	43.93	100.7	5.842	109.2	3875.	18.91	35.85	55.33
#1	12.32	-.0001	.0001	.0022	-.0000	-.0005	-.0002	.0001	.0002
#2	12.03	-.0002	.0004	.0024	-.0002	.0004	-.0001	.0002	.0001
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	.0000	.0008	-0.0008	-0.0004	.0007	.0005	.0016	.0057	-0.0529
Stddev	.0001	.0001	.0002	.0005	.0006	.0008	.0018	.0071	.0026
%RSD	1925.	15.53	22.87	116.4	87.66	137.1	116.8	124.3	4.950
#1	.0001	.0009	-.0009	-.0001	.0011	.0000	.0029	.0007	-.0547
#2	-.0001	.0007	-.0006	-.0007	.0003	.0011	.0003	.0107	-.0510
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	-0.0085	-0.0378	-0.0287	-0.0092	.0038	.0000	.0191	-0.0013	.0001
Stddev	.0023	.0435	.0219	.0015	.0001	.0003	.0002	.0003	.0000
%RSD	26.95	115.1	76.11	16.02	2.631	3403.	1.010	23.68	20.06
#1	-.0101	-.0685	-.0133	-.0103	.0039	.0002	.0192	-.0015	.0001
#2	-.0069	-.0070	-.0442	-.0082	.0037	-.0002	.0189	-.0011	.0001
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Avg	-0.0003	.0013	-0.0001	-0.0002	.0009	.0016	.0027		
Stddev	.0001	.0006	.0001	.0030	.0005	.0008	.0011		
%RSD	50.13	48.54	132.4	1759.	53.47	49.02	40.02		
#1	-.0002	.0017	-.0000	-.0023	.0012	.0022	.0019		
#2	-.0004	.0008	-.0001	.0020	.0005	.0011	.0035		
Int. Std.	Y_3600	Y_3710	Y_2243	In2306					
Avg	93521.	11969.	3562.3	8544.3					
Stddev	72.	5.	2.2	5					
%RSD	.07747	.03788	.06130	.00540					
#1	93469.	11966.	3560.8	8544.0					
#2	93572.	11972.	3563.9	8544.6					

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Sample Name: CCV Acquired: 5/30/2018 18:54:11 Type: QC
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.047	2.047	2.011	1.998	2.006	1.991	2.055	2.023	2.460
Stddev	.003	.001	.000	.001	.003	.003	.002	.001	.0010
%RSD	.1494	.0298	.0001	.0562	.1717	.1686	.0828	.0505	.3930
#1	2.045	2.047	2.011	1.999	2.008	1.994	2.056	2.024	2.467
#2	2.049	2.048	2.011	1.997	2.003	1.989	2.054	2.023	2.453

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
Value
Range

Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.987	2.042	2.010	2.078	2.047	2.020	2.021	40.06	40.31
Stddev	.003	.001	.003	.002	.005	.002	.001	.01	.04
%RSD	.1260	.0411	.1243	.0754	.2232	.1116	.0280	.0222	.1057
#1	1.989	2.041	2.008	2.079	2.044	2.022	2.022	40.06	40.34
#2	1.985	2.043	2.011	2.077	2.051	2.019	2.021	40.05	40.28

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
Value
Range

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	41.47	40.71	40.69	40.82	2.018	2.056	5.160	2.062	2.053
Stddev	.04	.12	.06	.02	.000	.005	.005	.000	.000
%RSD	.0923	.2898	.1532	.0588	.0148	.2523	.0958	.0009	.0130
#1	41.45	40.80	40.65	40.84	2.018	2.060	5.164	2.062	2.053
#2	41.50	40.63	40.74	40.81	2.018	2.052	5.157	2.062	2.054

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
Value
Range

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Sample Name: CCV Acquired: 5/30/2018 18:54:11 Type: QC
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.034	2.026	2.023	1.995	2.043	2.020	2.054
Stddev	.005	.001	.006	.002	.003	.003	.003
%RSD	.2520	.0433	.3021	.1101	.1217	.1520	.1255
#1	2.037	2.027	2.028	1.994	2.045	2.018	2.056
#2	2.030	2.026	2.019	1.997	2.041	2.023	2.052

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
Value
Range

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	89434.	11778.	3448.2	7617.1
Stddev	163.	102.	8.5	16.0
%RSD	.18187	.86658	.24563	.21043
#1	89319.	11706.	3442.2	7605.8
#2	89549.	11850.	3454.2	7628.4

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Sample Name: CCB Acquired: 5/30/2018 18:58:15 Type: QC
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0001	.0001	.0002	.0002	.0003	-0.0002	.0002	.0001	.0001
Stddev	.0002	.0001	.0002	.0003	.0004	.0002	.0000	.0003	.0000
%RSD	252.3	192.0	124.4	124.8	120.6	106.8	8.731	319.4	61.23
#1	-0.0002	.0001	.0000	.0004	.0006	-0.0000	.0002	-0.0001	.0001
#2	.0001	-0.0000	.0004	.0000	.0000	-0.0004	.0001	.0003	.0000

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
High Limit
Low Limit

Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0003	-0.0000	-0.0000	.0013	.0015	.0013	.0011	.0095	-0.0053
Stddev	.0003	.0001	.0007	.0006	.0002	.0011	.0010	.0087	.0008
%RSD	92.15	281.6	3598.	44.02	15.32	78.94	92.76	91.25	15.69
#1	.0005	.0000	.0004	.0017	.0016	.0021	.0004	.0157	-.0047
#2	.0001	-0.0001	-.0005	.0009	.0013	.0006	.0018	.0034	-.0059

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
High Limit
Low Limit

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0034	.0115	.0000	.0236	.0024	.0013	.0007	-0.0004	.0002
Stddev	.0029	.0198	.0049	.0053	.0003	.0005	.0003	.0007	.0000
%RSD	83.85	172.1	10400.	22.52	12.30	36.14	45.43	173.5	12.58
#1	.0014	.0256	-.0034	.0198	.0022	.0017	.0005	.0001	.0002
#2	.0054	-.0025	.0035	.0274	.0026	.0010	.0009	-.0009	.0002

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
High Limit
Low Limit

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Sample Name: CCB Acquired: 5/30/2018 18:58:15 Type: QC
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001	.0004	.0003	-0.0016	.0026	.0013	.0029
Stddev	.0002	.0007	.0002	.0023	.0014	.0006	.0006
%RSD	192.9	177.4	50.64	140.9	52.17	45.99	19.59
#1	-0.0000	.0009	.0002	-0.0000	.0036	.0009	.0033
#2	.0002	-0.0001	.0004	-0.0032	.0017	.0018	.0025

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
High Limit
Low Limit

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	93768.	11966.	3583.7	8562.2
Stddev	515.	32.	.9	6.0
%RSD	.54916	.26660	.02431	.07001
#1	94132.	11943.	3584.4	8566.4
#2	93404.	11988.	3583.1	8558.0

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Sample Name: ccv Acquired: 5/30/2018 19:02:39 Type: QC									
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000									
User: admin Custom ID1: Custom ID2: Custom ID3:									
Comment:									
Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.042	2.033	2.004	1.994	2.017	1.984	2.055	2.020	2.480
Stddev	.000	.002	.005	.001	.006	.006	.005	.001	.0010
%RSD	.0219	.0846	.2673	.0326	.3221	.3267	.2530	.0341	.4222
#1	2.042	2.032	2.000	1.995	2.022	1.989	2.059	2.020	2.487
#2	2.042	2.034	2.008	1.994	2.013	1.979	2.051	2.021	2.472
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									
Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.000	2.037	2.000	2.067	2.042	2.018	2.015	40.02	40.28
Stddev	.004	.005	.004	.002	.001	.002	.008	.03	.01
%RSD	.1994	.2341	.1929	.0902	.0435	.1093	.3755	.0840	.0138
#1	2.003	2.033	1.997	2.068	2.041	2.020	2.009	39.99	40.29
#2	1.997	2.040	2.003	2.066	2.042	2.017	2.020	40.04	40.28
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	41.18	40.48	40.61	40.73	2.014	2.050	5.139	2.053	2.043
Stddev	.07	.04	.03	.01	.006	.004	.012	.005	.001
%RSD	.1655	.0881	.0832	.0223	.2968	.2078	.2415	.2352	.0326
#1	41.13	40.45	40.59	40.73	2.010	2.047	5.130	2.050	2.043
#2	41.23	40.50	40.64	40.72	2.019	2.053	5.148	2.057	2.042
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

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Sample Name: ccb Acquired: 5/30/2018 19:06:44 Type: QC									
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000									
User: admin Custom ID1: Custom ID2: Custom ID3:									
Comment:									
Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0001	.0001	.0001	.0002	.0001	.0004	.0002	.0001	.0007
Stddev	.0001	.0000	.0001	.0001	.0001	.0005	.0000	.0003	.0000
%RSD	181.7	7.713	72.31	52.92	92.56	149.3	3.224	545.3	.1635
#1	-.0002	.0001	.0002	.0002	.0002	-.0000	.0002	-.0002	.0007
#2	.0000	.0001	.0000	.0001	.0000	.0007	.0002	.0003	.0007
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									
Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0004	-0.0001	-0.0003	.0009	.0005	-0.0006	.0014	-0.0044	-0.0057
Stddev	.0001	.0001	.0001	.0010	.0004	.0012	.0007	.0003	.0007
%RSD	22.70	69.80	19.64	104.6	91.22	193.8	51.75	209.7	12.94
#1	.0005	-.0000	-.0003	.0016	.0008	-.0015	.0009	.0021	-.0052
#2	.0003	-.0001	-.0004	.0002	.0002	.0002	.0019	-.0110	-.0063
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0033	.0020	.0188	.0273	.0019	.0014	.0014	-0.0006	.0002
Stddev	.0036	.0349	.0135	.0032	.0001	.0000	.0001	.0003	.0001
%RSD	107.9	1711.	72.13	11.71	7.640	2.683	9.546	59.89	44.19
#1	.0008	-.0227	.0092	.0296	.0020	.0014	.0015	-.0008	.0001
#2	.0059	.0268	.0284	.0250	.0018	.0014	.0013	-.0003	.0003
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

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Sample Name: ccv Acquired: 5/30/2018 19:02:39 Type: QC									
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000									
User: admin Custom ID1: Custom ID2: Custom ID3:									
Comment:									
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	2.030	2.024	2.024	1.986	2.037	2.016	2.039		
Stddev	.004	.004	.005	.006	.004	.000	.004		
%RSD	.2086	.1800	.2485	.2930	.2178	.0199	.1893		
#1	2.033	2.022	2.028	1.982	2.034	2.015	2.037		
#2	2.028	2.027	2.021	1.990	2.041	2.016	2.042		
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass		
Value									
Range									
Int. Std.	Y_3600	Y_3710	Y_2243	In2306					
Units	Cts/S	Cts/S	Cts/S	Cts/S					
Avg	89405.	11829.	3452.7	7626.3					
Stddev	125.	25.	7.9	.7					
%RSD	.13945	.21409	.22737	.00974					
#1	89493.	11811.	3458.3	7626.9					
#2	89316.	11847.	3447.2	7625.8					

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Sample Name: ccb Acquired: 5/30/2018 19:06:44 Type: QC									
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000									
User: admin Custom ID1: Custom ID2: Custom ID3:									
Comment:									
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	-0.0002	.0014	.0004	-0.0005	.0010	.0023	.0018		
Stddev	.0003	.0006	.0001	.0001	.0009	.0017	.0003		
%RSD	123.2	45.43	26.92	30.96	86.75	75.68	14.25		
#1	-.0000	.0010	.0004	-.0006	.0004	.0011	.0020		
#2	-.0004	.0019	.0005	-.0004	.0017	.0035	.0016		
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass		
High Limit									
Low Limit									
Int. Std.	Y_3600	Y_3710	Y_2243	In2306					
Units	Cts/S	Cts/S	Cts/S	Cts/S					
Avg	94134.	11936.	3571.0	8535.6					
Stddev	294.	36.	6	13.9					
%RSD	.31281	.29980	.01709	.16255					
#1	93926.	11911.	3570.5	8545.5					
#2	94342.	11962.	3571.4	8525.8					

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Sample Name: CCV Acquired: 5/30/2018 20:43:37 Type: QC
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.092	2.095	2.063	2.049	2.081	2.034	2.115	2.078	2.546
Stddev	.004	.007	.005	.004	.013	.005	.008	.004	.0010
%RSD	.1930	.3516	.2624	.1927	.6390	.2440	.3662	.1994	.4049
#1	2.090	2.101	2.067	2.052	2.091	2.038	2.120	2.081	2.553
#2	2.095	2.090	2.059	2.046	2.072	2.030	2.109	2.075	2.539

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
Value
Range

Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.058	2.103	2.062	2.129	2.098	2.063	2.066	41.17	41.56
Stddev	.014	.004	.002	.006	.009	.005	.000	.08	.04
%RSD	.6931	.2122	.0795	.2674	.4432	.2381	.0142	.1849	.1036
#1	2.068	2.106	2.063	2.133	2.105	2.067	2.065	41.12	41.59
#2	2.048	2.100	2.061	2.125	2.091	2.060	2.066	41.22	41.53

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
Value
Range

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	42.29	41.85	41.86	41.83	2.073	2.107	5.267	2.120	2.097
Stddev	.10	.27	.04	.05	.002	.005	.003	.008	.001
%RSD	.2394	.6422	.0955	.1124	.0936	.2191	.0534	.3577	.0663
#1	42.36	42.04	41.83	41.80	2.074	2.111	5.269	2.125	2.096
#2	42.22	41.66	41.89	41.86	2.071	2.104	5.265	2.115	2.098

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
Value
Range

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Sample Name: CCV Acquired: 5/30/2018 20:43:37 Type: QC
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.088	2.078	2.079	2.032	2.085	2.074	2.112
Stddev	.009	.003	.006	.005	.005	.004	.006
%RSD	.4302	.1380	.2968	.2401	.2563	.2067	.2883
#1	2.094	2.080	2.084	2.035	2.089	2.071	2.116
#2	2.081	2.076	2.075	2.029	2.082	2.077	2.107

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
Value
Range

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	86984.	11332.	3367.8	7451.6
Stddev	591.	8.	2	6.6
%RSD	.67889	.07399	.00588	.08815
#1	86566.	11338.	3367.6	7447.0
#2	87401.	11326.	3367.9	7456.3

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Sample Name: CCB Acquired: 5/30/2018 20:47:41 Type: QC
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0000	.0001	.0003	.0001	.0003	.0001	.0001	-0.0001	.0002
Stddev	.0002	.0001	.0001	.0003	.0001	.0001	.0000	.0000	.0006
%RSD	811.9	100.8	22.27	264.8	14.81	76.15	15.36	46.46	271.6
#1	.0001	.0001	.0003	-.0001	.0003	.0001	.0002	-.0001	-.0002
#2	-.0002	.0000	.0004	.0004	.0004	.0002	.0001	-.0001	.0007

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
High Limit
Low Limit

Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0003	.0001	-.0005	.0001	.0005	.0001	.0007	.0044	-.0041
Stddev	.0002	.0001	.0014	.0006	.0003	.0001	.0006	.0066	.0009
%RSD	64.71	119.8	310.9	496.4	59.42	175.9	91.26	149.8	22.89
#1	.0001	.0001	-.0014	-.0003	.0007	.0001	.0002	.0091	-.0048
#2	.0004	.0000	.0005	.0006	.0003	-.0000	.0011	-.0003	-.0035

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
High Limit
Low Limit

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0022	.0026	.0350	.0131	.0015	.0011	.0001	-.0005	.0002
Stddev	.0068	.0014	.0057	.0049	.0000	.0001	.0003	.0002	.0001
%RSD	309.6	53.84	16.24	37.11	.7920	5.977	423.4	43.88	57.88
#1	.0070	.0016	.0310	.0096	.0015	.0011	.0002	-.0004	.0001
#2	-.0026	.0035	.0391	.0165	.0015	.0012	-.0001	-.0007	.0002

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
High Limit
Low Limit

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Sample Name: CCB Acquired: 5/30/2018 20:47:41 Type: QC
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0002	.0016	.0003	-.0004	.0016	.0014	.0007
Stddev	.0003	.0007	.0000	.0009	.0004	.0008	.0006
%RSD	136.3	42.04	5.696	239.0	25.06	54.08	95.08
#1	.0004	.0020	.0002	-.0010	.0013	.0009	.0011
#2	.0000	.0011	.0003	.0003	.0019	.0020	.0002

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
High Limit
Low Limit

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	92838.	11664.	3552.1	8495.5
Stddev	392.	10.	2.5	2.4
%RSD	.42260	.08425	.07150	.02875
#1	92560.	11657.	3553.9	8497.2
#2	93115.	11671.	3550.3	8493.8

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Sample Name: MP7398-MB1 2 Acquired: 5/30/2018 20:52:04 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment: TCLP

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	.0040	-.0005	.0000	.0010	.0005	.0216	.0120	.0049	.0006
Stddev	.0011	.0002	.0004	.0004	.0003	.0003	.0002	.0014	.0008
%RSD	28.54	44.07	715.8	39.84	57.23	1.354	1.338	28.07	138.5
#1	.0032	-.0006	-.0002	.0007	.0003	.0218	.0121	.0059	.0000
#2	.0048	-.0003	.0003	.0012	.0007	.0214	.0118	.0040	.0012
Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	.0011	.0189	-.0009	.0021	.0126	.0000	.0029	.0209	.3854
Stddev	.0006	.0007	.0019	.0029	.0006	.0012	.0045	.0332	.0003
%RSD	51.85	3.573	221.3	139.0	4.868	3554.	157.3	158.6	.0652
#1	.0016	.0184	.0005	.0000	.0130	.0009	.0061	-.0025	.3856
#2	.0007	.0194	-.0022	.0041	.0121	-.0008	-.0003	.0443	.3853
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	.1409	.1117	2.217	1259.	.0112	.0014	.2330	-.0093	.0027
Stddev	.0006	.1812	.248	5.	.0025	.0011	.0012	.0002	.0002
%RSD	.4346	162.2	11.17	.3695	22.21	76.48	.5139	2.309	8.486
#1	.1405	.2399	2.041	1256.	.0094	.0022	.2322	-.0095	.0029
#2	.1413	-.0164	2.392	1263.	.0130	.0007	.2339	-.0092	.0026
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Avg	.0002	.0013	.0000	.0840	.0043	.0249	.3421		
Stddev	.0023	.0020	.0002	.0199	.0165	.0042	.0050		
%RSD	976.4	153.0	755.9	23.73	386.8	16.90	1.460		
#1	.0019	-.0001	.0002	.0699	.0159	.0279	.3457		
#2	-.0014	.0028	-.0001	.0981	-.0074	.0219	.3386		
Int. Std.	Y_3600	Y_3710	Y_2243	In2306					
Avg	86621.	11562.	3362.4	7419.9					
Stddev	441.	16.	3.3	9.6					
%RSD	.50885	.13766	.09671	.12892					
#1	86310.	11551.	3364.7	7426.6					
#2	86933.	11574.	3360.1	7413.1					

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Sample Name: MP7398-B1 Acquired: 5/30/2018 20:56:30 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	87685.	11704.	3408.0	7409.4
Stddev	22.	11.	1.5	.3
%RSD	.02519	.09292	.04506	.00361
#1	87670.	11711.	3409.0	7409.6
#2	87701.	11696.	3406.9	7409.2

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Sample Name: MP7398-B1 Acquired: 5/30/2018 20:56:30 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	2.006	2.021	2.018	1.999	2.010	1.891	2.039	2.054	
Stddev	.001	.005	.002	.003	.004	.006	.003	.000	
%RSD	.0719	.2480	.1034	.1662	.2234	.3224	.1551	.0053	
#1	2.005	2.017	2.020	1.996	2.013	1.895	2.037	2.054	
#2	2.007	2.024	2.017	2.001	2.007	1.886	2.041	2.054	
Elem	Ag3280	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	
Avg	.2524	1.988	2.101	2.025	2.038	2.052	2.049	2.003	
Stddev	.0014	.006	.000	.011	.006	.005	.005	.015	
%RSD	.5529	.3016	.0107	.5409	.2786	.2522	.2575	.7254	
#1	.2534	1.993	2.101	2.017	2.042	2.049	2.045	1.993	
#2	.2515	1.984	2.101	2.033	2.034	2.056	2.053	2.014	
Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	
Avg	25.65	26.08	26.85	26.07	26.70	1287.	1.988	2.061	
Stddev	.02	.02	.00	.21	.23	2.	.000	.000	
%RSD	.0899	.0837	.0181	.7952	.8443	.1718	.0147	.0079	
#1	25.66	26.10	26.84	26.21	26.54	1288.	1.988	2.061	
#2	25.63	26.07	26.85	25.92	26.86	1285.	1.988	2.061	
Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230	
Avg	.0497	2.032	1.998	2.023	2.017	1.958	W -.0857	.0085	
Stddev	.0034	.003	.003	.002	.006	.003	.0020	.0042	
%RSD	6.775	.1552	.1287	.0979	.3160	.1338	2.354	49.10	
#1	.0473	2.030	1.997	2.025	2.013	1.960	-.0872	.0055	
#2	.0521	2.034	2.000	2.022	2.022	1.956	-.0843	.0114	
Elem	Li6707	P_1774							
Avg	.0218	2.112							
Stddev	.0113	.010							
%RSD	51.69	.4901							
#1	.0298	2.119							
#2	.0139	2.104							

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Sample Name: MP7398-S1 Acquired: 5/30/2018 21:00:45 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	2.169	2.016	1.998	1.987	1.991	1.879	2.131	2.043	.2495
Stddev	.006	.009	.008	.004	.004	.005	.008	.001	.0030
%RSD	.2708	.4470	.4184	.1937	.2076	.2891	.3617	.0373	1.191
#1	2.173	2.022	2.004	1.989	1.994	1.883	2.136	2.043	.2516
#2	2.165	2.009	1.992	1.984	1.988	1.875	2.125	2.042	.2474
Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	1.972	2.125	2.000	2.027	2.058	2.025	1.982	25.57	33.58
Stddev	.007	.001	.001	.014	.007	.014	.007	.04	.07
%RSD	.3743	.0594	.0298	.6697	.3488	.7079	.3603	.1700	.2179
#1	1.978	2.126	2.000	2.037	2.053	2.035	1.987	25.60	33.63
#2	1.967	2.124	2.001	2.018	2.063	2.015	1.977	25.54	33.53
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	26.46	26.34	29.48	1288.	2.177	2.046	1.230	2.007	2.029
Stddev	.11	.14	.02	16.	.001	.001	.002	.006	.007
%RSD	.4206	.5347	.0729	1.222	.0359	.0291	.1543	.2772	.3708
#1	26.54	26.44	29.46	1299.	2.178	2.047	1.229	2.011	2.034
#2	26.38	26.24	29.49	1276.	2.177	2.046	1.232	2.003	2.024
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Avg	2.006	1.999	1.958	.8268	.0209	.0284	2.139		
Stddev	.007	.005	.005	.0012	.0025	.0075	.000		
%RSD	.3397	.2461	.2550	.1511	11.74	26.20	.0103		
#1	2.011	1.996	1.961	.8277	.0192	.0337	2.139		
#2	2.001	2.002	1.954	.8260	.0226	.0232	2.139		
Int. Std.	Y_3600	Y_3710	Y_2243	In2306					
Avg	87428.	11652.	3397.0	7370.5					
Stddev	227.	18.	3.9	2.3					
%RSD	.25964	.15399	.11506	.03123					
#1	87267.	11640.	3394.3	7372.2					
#2	87588.	11665.	3399.8	7368.9					

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Sample Name: MP7398-S2 Acquired: 5/30/2018 21:04:58 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	2.172	2.012	1.999	1.987	1.986	1.876	2.131	2.046	2501
Stddev	.003	.002	.008	.000	.008	.000	.002	.003	.0009
%RSD	.1298	.1076	.4066	.0149	.3952	.0121	.0767	.1306	.3441
#1	2.170	2.010	2.004	1.987	1.980	1.876	2.132	2.048	2495
#2	2.174	2.014	1.993	1.987	1.991	1.877	2.130	2.045	2507
Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	1.964	2.129	2.001	2.027	2.054	2.033	1.984	25.43	33.93
Stddev	.006	.007	.001	.011	.021	.005	.001	.06	.05
%RSD	.3101	.3303	.0410	.5517	1.036	.2419	.0324	.2369	.1542
#1	1.960	2.134	2.000	2.035	2.069	2.029	1.985	25.39	33.89
#2	1.969	2.124	2.002	2.019	2.039	2.036	1.984	25.48	33.97
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	26.43	26.40	29.24	1292.	2.189	2.044	1.240	2.013	2.027
Stddev	.05	.20	.23	27.	.006	.004	.001	.003	.003
%RSD	.1779	.7561	.7806	2.098	.2962	.1911	.0529	.1603	.1436
#1	26.40	26.26	29.08	1273.	2.194	2.047	1.241	2.015	2.025
#2	26.47	26.54	29.40	1311.	2.185	2.041	1.240	2.011	2.029
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Avg	2.004	1.994	1.959	.8516	.0072	.0207	2.143		
Stddev	.006	.012	.001	.0114	.0076	.0034	.002		
%RSD	.2776	.5828	.0258	1.337	105.4	16.46	.0849		
#1	2.000	2.003	1.958	.8596	.0018	.0183	2.144		
#2	2.008	1.986	1.959	.8435	.0125	.0231	2.142		
Int. Std.	Y_3600	Y_3710	Y_2243	In2306					
Avg	87799.	11650.	3405.4	7396.0					
Stddev	4.	7.	3.1	1.6					
%RSD	.00480	.06145	.09034	.02140					
#1	87796.	11655.	3403.2	7394.9					
#2	87802.	11645.	3407.6	7397.1					

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Sample Name: JC66891-7 Acquired: 5/30/2018 21:09:11 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	.1652	-.0005	.0028	.0013	.0007	.0101	.1078	.0079	.0026
Stddev	.0012	.0002	.0011	.0001	.0006	.0019	.0002	.0001	.0008
%RSD	.7481	39.64	41.64	6.976	84.08	18.44	.1672	.9957	30.20
#1	.1661	-.0003	.0036	.0013	.0003	.0114	.1079	.0080	.0020
#2	.1644	-.0006	.0019	.0012	.0011	.0088	.1076	.0079	.0031
Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	.0029	.0400	-.0047	-.0012	.0094	-.0065	.0078	.2425	7.920
Stddev	.0005	.0002	.0021	.0041	.0024	.0068	.0043	.0064	.012
%RSD	15.90	.4679	45.32	330.3	25.34	105.2	55.74	2.619	.1485
#1	.0032	.0398	-.0062	-.0017	.0077	-.0017	.0108	.2470	7.912
#2	.0026	.0401	-.0032	-.0042	.0111	-.0113	.0047	.2380	7.929
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	.0303	.8793	3.200	1265.	.2196	.0016	1.171	-.0066	.0357
Stddev	.0037	.0117	.141	10.	.0016	.0006	.021	.0037	.0002
%RSD	12.11	1.332	4.396	.8018	.7488	39.76	1.788	56.60	.4585
#1	.0329	.8710	3.100	1272.	.2208	.0011	1.156	-.0039	.0356
#2	.0277	.8876	3.299	1258.	.2184	.0020	1.186	-.0092	.0358
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Avg	-.0011	.0053	.0013	.9152	.0058	.0255	.0691		
Stddev	.0004	.0041	.0002	.0182	.0105	.0046	.0019		
%RSD	34.52	75.88	13.07	1.994	180.6	17.92	2.702		
#1	-.0014	.0025	.0011	.9023	.0132	.0223	.0678		
#2	-.0008	.0082	.0014	.9281	-.0016	.0287	.0704		
Int. Std.	Y_3600	Y_3710	Y_2243	In2306					
Avg	87201.	11613.	3397.6	7467.7					
Stddev	238.	27.	17.1	34.2					
%RSD	.27240	.23456	.50355	.45796					
#1	87033.	11632.	3409.7	7491.9					
#2	87369.	11594.	3385.5	7443.6					

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Sample Name: MP7398-SD1 Acquired: 5/30/2018 21:13:36 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 25.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	.1705	-.0026	.0039	.0049	.0042	.0195	.1094	.0075	.0108
Stddev	.0058	.0016	.0006	.0040	.0060	.0172	.0021	.0063	.0012
%RSD	3.413	61.50	15.68	81.11	144.8	87.94	1.906	84.23	11.49
#1	.1664	-.0038	.0043	.0021	-.0001	.0316	.1079	.0030	.0099
#2	.1746	-.0015	.0035	.0077	-.0084	.0074	.1108	.0120	.0117
Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	.0030	.0483	-.0098	.0078	.0248	-.0280	.0259	.3032	8.049
Stddev	.0015	.0041	.0004	.0158	.0170	.0313	.0489	.0706	.052
%RSD	48.99	8.443	4.516	202.1	68.73	111.8	188.7	23.29	.6435
#1	.0020	.0512	-.0101	.0190	.0368	-.0501	.0605	.2532	8.012
#2	.0040	.0454	-.0095	-.0034	.0127	-.0059	-.0087	.3531	8.085
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	.0905	.9147	3.574	1341.	.2207	-.0011	1.302	-.0312	.0362
Stddev	.1537	.6749	.564	2.	.0069	.0025	.034	.0118	.0010
%RSD	169.7	73.79	15.78	.1257	3.123	238.0	2.570	37.84	2.800
#1	.1992	.4375	3.973	1342.	.2256	.0007	1.278	-.0228	.0369
#2	-.0181	1.392	3.175	1340.	.2159	-.0028	1.325	-.0395	.0355
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Avg	.0005	.0118	.0063	.9700	.0417	.0402	.1527		
Stddev	.0021	.0142	.0043	.0099	.0304	.0014	.0376		
%RSD	411.2	120.3	67.80	1.024	72.83	3.572	24.64		
#1	-.0010	.0218	.0094	.9630	.0202	.0412	.1793		
#2	.0020	.0018	.0033	.9770	.0632	.0392	.1261		
Int. Std.	Y_3600	Y_3710	Y_2243	In2306					
Avg	90470.	11644.	3477.8	7989.9					
Stddev	38.	44.	13.2	37.4					
%RSD	.04201	.37801	.38027	.46853					
#1	90443.	11613.	3468.5	7963.5					
#2	90497.	11675.	3487.2	8016.4					

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Sample Name: JC66853-2A Acquired: 5/30/2018 21:17:56 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	.0559	-.0000	-.0001	.0003	.0003	.0029	.0257	.0018	.0004
Stddev	.0010	.0001	.0000	.0001	.0004	.0000	.0001	.0002	.0001
%RSD	1.750	325.3	26.57	32.62	128.9	1.126	.3127	11.84	34.62
#1	.0552	.0000	-.0001	.0003	.0000	.0029	.0256	.0016	.0003
#2	.0566	-.0001	-.0001	.0004	.0007	.0029	.0257	.0019	.0005
Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	.0004	.0194	-.0015	.0002	.0103	.0011	.0010	.0216	5.510
Stddev	.0002	.0001	.0008	.0010	.0014	.0003	.0013	.0048	.086
%RSD	56.52	.5045	56.01	434.8	13.19	26.89	132.9	22.15	1.563
#1	.0005	.0194	-.0009	-.0005	.0113	.0014	.0001	.0182	5.449
#2	.0002	.0195	-.0020	-.0010	.0093	.0009	.0020	.0249	5.571
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	.0053	.7955	.9696	251.9	.0465	.0000	.7807	-.0017	.0335
Stddev	.0006	.0288	.0215	1.5	.0004	.0001	.0040	.0002	.0006
%RSD	12.18	3.615	2.212	.5987	.8579	2145.	.5179	14.51	1.672
#1	.0058	.7751	.9545	250.8	.0468	.0001	.7779	-.0015	.0331
#2	.0048	.8158	.9848	252.9	.0462	-.0000	.7836	-.0018	.0339
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Avg	-.0004	.0000	.0002	.1510	-.0002	.0037	.0101		
Stddev	.0002	.0001	.0000	.0037	.0008	.0002	.0003		
%RSD	51.30	1012.	10.73	2.419	349.3	5.003	2.659		
#1	-.0002	.0000	.0003	.1484	.0003	.0039	.0099		
#2	-.0005	-.0000	.0002	.1536	-.0008	.0036	.0102		
Int. Std.	Y_3600	Y_3710	Y_2243	In2306					
Avg	86889.	11496.	3364.5	7380.8					
Stddev	108.	113.	21.3	37.7					
%RSD	.12381	.98660	.63167	.51026					
#1	86965.	11576.	3379.5	7407.4					
#2	86813.	11416.	3349.5	7354.1					

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Sample Name: JC66891-15 Acquired: 5/30/2018 21:22:21 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	.0323	-0.002	.0004	.0003	.0007	.0026	.0376	.0032	.0003
Stddev	.0002	.0001	.0002	.0001	.0003	.0000	.0002	.0001	.0004
%RSD	.6377	46.87	51.66	42.36	48.54	.8469	.5988	4.153	130.2

#1	.0324	-.0001	.0003	.0004	.0005	.0026	.0377	.0031	.0006
#2	.0322	-.0002	.0006	.0002	.0010	.0026	.0374	.0033	.0000

Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	.0026	.0107	-0.0004	-0.0008	.0031	.0018	.0009	.0914	11.44
Stddev	.0001	.0001	.0015	.0014	.0006	.0000	.0004	.0125	.05
%RSD	3.288	.6104	348.7	186.2	18.71	.4913	41.41	13.73	.4589

#1	.0026	.0107	-.0015	.0002	.0027	.0018	.0012	.0825	11.47
#2	.0025	.0106	.0006	-.0018	.0035	.0018	.0006	.1003	11.40

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	.0107	.3644	.8497	252.9	.0346	.0000	.6223	-0.0021	.0306
Stddev	.0057	.0088	.0199	.8	.0006	.0000	.0020	.0000	.0000
%RSD	53.55	2.418	2.337	.3098	1.736	21.37	.3275	2.335	.0542

#1	.0067	.3707	.8357	252.4	.0350	.0000	.6208	-.0021	.0306
#2	.0148	.3582	.8638	253.5	.0342	.0000	.6237	-.0021	.0306

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Avg	-0.0005	.0005	.0002	.2308	.0017	.0039	.0200		
Stddev	.0003	.0000	.0002	.0009	.0001	.0006	.0027		
%RSD	67.77	5.973	136.7	.3899	3.100	14.23	13.33		

#1	-.0007	.0005	.0000	.2302	.0018	.0043	.0219		
#2	-.0003	.0005	.0003	.2314	.0017	.0035	.0182		

Int. Std.	Y_3600	Y_3710	Y_2243	In2306					
Avg	86932.	11578.	3379.1	7393.1					
Stddev	25.	5.	4.8	14.1					
%RSD	.02844	.03964	.14295	.19055					

#1	86914.	11575.	3375.7	7383.2					
#2	86949.	11582.	3382.5	7403.1					

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Sample Name: CCV Acquired: 5/30/2018 21:26:46 Type: QC
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.035	2.036	2.036	1.990	2.042	2.032	2.064
Stddev	.001	.000	.000	.004	.001	.001	.002
%RSD	.0511	.0085	.0036	.2248	.0658	.0498	.1084

#1	2.034	2.036	2.036	1.993	2.043	2.033	2.063
#2	2.036	2.036	2.036	1.987	2.041	2.032	2.066

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	89692.	11551.	3457.2	7621.2
Stddev	196.	14.	3.9	9.2
%RSD	.22189	.12081	.11225	.12119

#1	89551.	11542.	3454.5	7614.6
#2	89833.	11561.	3460.0	7627.7

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Sample Name: CCV Acquired: 5/30/2018 21:26:46 Type: QC
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.061	2.063	2.019	2.005	2.013	1.989	2.065	2.038	2.464
Stddev	.003	.003	.001	.001	.001	.002	.000	.002	.0002
%RSD	.1519	.1338	.0343	.0413	.0703	.1151	.0002	.1178	.0659

#1	2.058	2.065	2.018	2.006	2.012	1.988	2.065	2.040	2.465
#2	2.063	2.061	2.019	2.005	2.014	1.991	2.065	2.037	2.463

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.991	2.067	2.013	2.094	2.069	2.016	2.022	40.26	40.56
Stddev	.004	.000	.001	.002	.000	.001	.002	.02	.12
%RSD	.2015	.0149	.0466	.0750	.0067	.0702	.0785	.0425	.2952

#1	1.988	2.067	2.012	2.093	2.069	2.017	2.021	40.27	40.64
#2	1.994	2.068	2.013	2.095	2.069	2.015	2.023	40.25	40.47

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	41.81	41.26	41.18	40.98	2.016	2.070	5.164	2.071	2.071
Stddev	.06	.16	.00	.04	.002	.001	.000	.002	.004
%RSD	.1526	.3976	.0083	.0932	.0743	.0698	.0046	.0791	.1813

#1	41.86	41.38	41.19	40.96	2.017	2.071	5.164	2.072	2.068
#2	41.77	41.15	41.18	41.01	2.015	2.069	5.164	2.070	2.074

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

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Sample Name: CCB Acquired: 5/30/2018 21:35:27 Type: QC
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.002	.0000	-0.0001	.0001	.0002	.0000	.0000	.0000	.0002
Stddev	.0000	.0001	.0001	.0001	.0001	.0001	.0000	.0005	.0004
%RSD	9.009	12340.	139.6	131.5	42.04	18240.	58.55	1691.	179.9

#1	-.0002	-.0001	-.0000	.0002	.0002	-.0001	.0000	.0004	.0005
#2	-.0002	.0001	-.0001	.0000	.0001	.0001	.0000	-.0003	-.0001

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.002	-0.003	-0.0004	.0004	.0010	-0.0025	.0013	-0.0095	-0.0084
Stddev	.0002	.0001	.0009	.0003	.0005	.0017	.0006	.0057	.0019
%RSD	137.9	36.16	228.3	68.19	51.58	70.01	47.47	59.91	22.74

#1	-.0003	-.0004	.0002	.0002	.0013	-.0013	.0009	-.0136	-.0071
#2	-.0000	-.0002	-.0010	.0006	.0006	-.0037	.0017	-.0055	-.0098

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0028	.0012	-0.0000	.0435	.0007	.0001	.0011	-0.0009	.0001
Stddev	.0039	.0028	.0151	.0039	.0006	.0001	.0018	.0003	.0001
%RSD	137.1	228.7	11e6	9.020	92.45	100.5	162.7	37.80	164.5

#1	.0001	.0032	.0107	.0463	.0011	.0000	.0024	-.0007	-.0000
#2	.0056	-.0008	-.0107	.0407	.0002	.0001	-.0002	-.0012	.0002

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

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Sample Name: CCB Acquired: 5/30/2018 21:35:27 Type: QC
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0004	.0004	-.0001	-.0016	.0003	.0026	.0028
Stddev	.0001	.0002	.0002	.0021	.0008	.0002	.0010
%RSD	23.24	37.58	278.5	134.2	238.8	7.454	34.61
#1	-.0003	.0005	-.0002	-.0001	.0009	.0027	.0021
#2	-.0005	.0003	.0001	-.0031	-.0002	.0025	.0035

Check ? High Limit
Low Limit

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	94239.	11721.	3600.8	8582.3
Stddev	198.	57.	5.3	20.0
%RSD	.21014	.48533	.14852	.23247
#1	94099.	11761.	3597.0	8568.2
#2	94379.	11681.	3604.6	8596.4

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Sample Name: CRI Acquired: 5/30/2018 21:39:49 Type: QC
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2092	.0021	.0031	.0493	.0103	.0106	.0165	.0098	.0056
Stddev	.0007	.0001	.0002	.0001	.0001	.0005	.0000	.0004	.0002
%RSD	.3133	4.643	5.466	.1894	.9756	4.354	.1935	4.487	3.532
#1	.2096	.0020	.0032	.0492	.0102	.0103	.0165	.0095	.0058
#2	.2087	.0021	.0030	.0494	.0103	.0110	.0165	.0102	.0055

Check ? Value
Range

Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0503	.0212	.0077	.0099	.0036	.0102	.0066	.2138	5.265
Stddev	.0002	.0002	.0015	.0000	.0005	.0005	.0009	.0085	.019
%RSD	.3911	.8495	19.49	.4655	13.82	4.651	13.23	3.971	.3596
#1	.0504	.0211	.0066	.0099	.0032	.0098	.0060	.2198	5.278
#2	.0501	.0213	.0088	.0099	.0039	.0105	.0072	.2078	5.251

Check ? Value
Range

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1143	5.313	5.271	5.266	.1028	.0217	.2220	.0088	.0104
Stddev	.0039	.048	.022	.008	.0010	.0002	.0007	.0005	.0000
%RSD	3.416	.9081	.4259	.1511	.9441	.9361	.3159	5.766	.4030
#1	.1171	5.347	5.287	5.271	.1022	.0219	.2215	.0084	.0104
#2	.1115	5.279	5.255	5.260	.1035	.0216	.2225	.0091	.0105

Check ? Value
Range

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Sample Name: CRI Acquired: 5/30/2018 21:39:49 Type: QC
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0098	.0511	F .0191	.0544	.0250	.0558	.0557
Stddev	.0001	.0007	.0006	.0014	.0005	.0003	.0007
%RSD	.7488	1.367	3.032	2.551	1.964	.4932	1.345
#1	.0098	.0506	.0195	.0534	.0247	.0560	.0552
#2	.0099	.0516	.0187	.0554	.0254	.0556	.0562

Check ? Value
Range

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	93451.	11718.	3564.4	8362.5
Stddev	79.	7.	2.5	12.5
%RSD	.08416	.05761	.07090	.14929
#1	93395.	11714.	3562.6	8353.7
#2	93507.	11723.	3566.2	8371.4

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Sample Name: CRID Acquired: 5/30/2018 21:44:08 Type: QC
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0042	.0009	.0011	.0032	.0023	F -.0003	.0033	.0041
Stddev	.0003	.0000	.0000	.0001	.0003	.0002	.0001	.0003
%RSD	7.157	.9671	1.106	4.491	12.75	89.17	2.004	6.992
#1	.0044	.0009	.0011	.0031	.0021	-.0004	.0034	.0043
#2	.0040	.0009	.0011	.0033	.0025	-.0001	.0033	.0039

Check ? Value
Range

Elem	Ag3280	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .0003	.0024	.0110	.0024	.0025	F .0009	.0062	F .0001
Stddev	.0000	.0000	.0001	.0012	.0020	.0002	.0003	.0011
%RSD	7.361	1.438	.6313	49.51	78.56	26.51	4.223	1480.
#1	.0003	.0023	.0110	.0033	.0011	.0007	.0060	.0009
#2	.0004	.0024	.0111	.0016	.0039	.0010	.0063	-.0007

Check ? Value
Range

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1078	1.078	.0016	.1177	2.135	1.118	F .0005	.0003
Stddev	.0217	.005	.0011	.0183	.036	.002	.0004	.0001
%RSD	20.12	.4893	66.47	15.52	1.678	.2067	81.84	30.66
#1	.0925	1.082	.0009	.1307	2.161	1.120	.0002	.0004
#2	.1232	1.075	.0024	.1048	2.110	1.117	.0007	.0003

Check ? Value
Range

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1078	1.078	.0016	.1177	2.135	1.118	F .0005	.0003
Stddev	.0217	.005	.0011	.0183	.036	.002	.0004	.0001
%RSD	20.12	.4893	66.47	15.52	1.678	.2067	81.84	30.66
#1	.0925	1.082	.0009	.1307	2.161	1.120	.0002	.0004
#2	.1232	1.075	.0024	.1048	2.110	1.117	.0007	.0003

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Sample Name: CRID Acquired: 5/30/2018 21:44:08 Type: QC
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0027	-.0019	.0000	-.0003	F -.0005	F -.0000	.0034	F .0002
Stddev	.0015	.0004	.0000	.0001	.0008	.0001	.0021	.0004
%RSD	57.24	21.87	1128.	34.02	143.0	2406.	62.67	169.5
#1	.0037	-.0022	.0000	-.0004	.0000	-.0000	.0048	-.0000
#2	.0016	-.0016	-.0000	-.0003	-.0011	.0000	.0019	.0005
Check ?	None	None	None	None	Chk Fail	Chk Fail	Chk Pass	Chk Fail
Value					.0040	.0040		.0040
Range					-30.00%	-30.00%		-30.00%

Elem	Li6707	P_1774
Units	ppm	ppm
Avg	F .0014	.0044
Stddev	.0001	.0007
%RSD	6.517	15.37
#1	.0015	.0039
#2	.0013	.0049
Check ?	Chk Fail	Chk Pass
Value	.0040	
Range	-30.00%	

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	94111.	11786.	3608.6	8544.3
Stddev	123.	13.	10.6	9.2
%RSD	.13082	.10843	.29463	.10754
#1	94198.	11777.	3616.1	8550.8
#2	94024.	11795.	3601.1	8537.8

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Sample Name: ICSA Acquired: 5/30/2018 21:48:29 Type: QC
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0006	.0083	.0016	-.0033	-.0056	.0047	-.0009
Stddev	.0002	.0023	.0000	.0044	.0013	.0000	.0028
%RSD	36.52	27.98	1.589	135.0	23.08	.3646	299.0
#1	-.0008	.0099	.0016	-.0002	-.0047	.0047	-.0029
#2	-.0005	.0066	.0016	-.0064	-.0065	.0047	.0010

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	83127.	11323.	3233.4	6746.3
Stddev	357.	20.	8	12.8
%RSD	.47708	.17670	.02362	.18903

#1	82847.	11309.	3232.8	6737.3
#2	83407.	11337.	3233.9	6755.3

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Sample Name: ICSA Acquired: 5/30/2018 21:48:29 Type: QC
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0005	.0001	-.0003	.0006	.0014	-.0008	.0027	-.0016	.0056
Stddev	.0002	.0001	.0000	.0004	.0002	.0002	.0001	.0008	.0001
%RSD	37.74	34.13	.3482	59.73	16.28	30.11	3.275	48.57	2.354
#1	-.0004	.0002	-.0003	.0004	.0012	-.0010	.0027	-.0011	.0055
#2	-.0006	.0001	-.0003	.0009	.0016	-.0006	.0028	-.0022	.0057

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0011	.0050	.0025	-.0009	.0003	-.0005	-.0030	.549.5	393.6
Stddev	.0007	.0001	.0019	.0001	.0005	.0038	.0019	4.6	2.0
%RSD	66.05	2.439	74.41	13.54	196.9	741.5	61.45	.8458	.4961
#1	-.0015	.0049	.0012	-.0010	.0007	.0022	-.0017	546.2	395.0
#2	-.0006	.0051	.0039	-.0008	-.0001	-.0032	-.0044	552.8	392.2
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	195.2	524.1	-.4235	.1179	-.0010	-.0007	-.0130	-.0050	.0050
Stddev	.7	2.8	.0192	.0001	.0003	.0003	.0027	.0002	.0001
%RSD	.3645	.5364	4.545	.0444	32.87	38.63	20.76	4.676	2.731
#1	195.7	526.1	-.4099	.1179	-.0012	-.0005	-.0111	-.0048	.0049
#2	194.7	522.1	-.4371	.1178	-.0008	-.0008	-.0149	-.0051	.0051
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

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Sample Name: ICSAB Acquired: 5/30/2018 21:52:54 Type: QC
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5308	.5127	1.033	.4969	.4917	.5149	.5157	1.001	1.055
Stddev	.0001	.0003	.001	.0003	.0013	.0006	.0010	.001	.000
%RSD	.0095	.0606	.0889	.0639	.2606	.1147	.1881	.1005	.0050
#1	.5308	.5125	1.034	.4971	.4908	.5145	.5150	1.002	1.055
#2	.5308	.5129	1.033	.4967	.4926	.5153	.5164	1.001	1.055

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4941	.9841	1.052	1.076	1.003	1.108	1.053	527.6	396.3
Stddev	.0001	.0013	.001	.002	.004	.007	.001	5.7	3.0
%RSD	.0215	.1272	.0822	.2178	.4047	.5999	.1107	1.079	.7635

#1	.4941	.9832	1.053	1.074	1.000	1.103	1.054	531.6	398.4
#2	.4940	.9850	1.052	1.077	1.006	1.113	1.052	523.6	394.1

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	208.1	525.7	-.4594	.0824	.4855	.4997	.5105	.4685	.5623
Stddev	.2	.6	.0069	.0055	.0005	.0000	.0015	.0004	.0010
%RSD	.0873	.1230	1.498	5.955	.1028	.0003	.2857	.0917	.1805
#1	208.0	525.3	-.4545	.0885	.4851	.4997	.5116	.4688	.5616
#2	208.3	526.2	-.4643	.0963	.4858	.4997	.5095	.4682	.5630

Check ?	Chk Pass	Chk Pass	None	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

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Sample Name: ICSAB Acquired: 5/30/2018 21:52:54 Type: QC
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5132	.4978	.4891	.5005	.5117	.5490	.5147
Stddev	.0007	.0010	.0020	.0016	.0005	.0005	.0022
%RSD	.1455	.1990	.4000	.3210	.0957	.0978	.4195
#1	.5127	.4971	.4878	.5016	.5121	.5493	.5132
#2	.5138	.4985	.4905	.4994	.5114	.5486	.5162

Check ?
Value
Range

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	82994.	11305.	3222.3	6741.0
Stddev	319.	3.	2.0	8.1
%RSD	.38382	.02348	.06288	.12075
#1	83219.	11303.	3220.9	6735.3
#2	82769.	11307.	3223.7	6746.8

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Sample Name: EMPTYCONF Acquired: 5/30/2018 21:57:09 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	-0.0005	-0.0004	-0.0003	.0001	.0001	W -.0050	-0.0001	.0001
Stddev	.0000	.0001	.0000	.0000	.0001	.0002	.0000	.0002
%RSD	8.270	15.51	6.661	48.14	74.86	3.472	48.36	164.8

#1	-.0005	-.0004	-.0003	.0001	.0001	-.0051	-.0000	.0003
#2	-.0005	-.0004	-.0003	.0001	.0002	-.0049	-.0001	-.0000

Elem	Ag3280	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068
Avg	-0.0005	-0.0001	-0.0008	.0012	.0027	.0025	-0.0020	.0005
Stddev	.0001	.0001	.0000	.0000	.0003	.0005	.0001	.0002
%RSD	24.26	99.84	1.599	2.047	11.30	22.11	2.892	50.44

#1	-.0005	-.0000	-.0008	.0012	.0029	.0029	-.0021	.0003
#2	-.0006	-.0001	-.0008	.0012	.0025	.0021	-.0020	.0007

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	.0126	-0.0171	-0.0015	-0.0008	.0118	-0.0105	-0.0006	-0.0002
Stddev	.0001	.0003	.0002	.0309	.0060	.0008	.0001	.0001
%RSD	1.005	1.517	10.50	4065.	51.12	7.622	23.74	21.95

#1	.0125	-.0169	-.0014	-.0226	.0076	-.0100	-.0005	-.0002
#2	.0127	-.0173	-.0016	.0211	.0161	-.0111	-.0007	-.0003

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	-0.0149	-0.0022	-0.0001	-0.0002	-0.0019	.0006	.0044	.0030
Stddev	.0002	.0002	.0000	.0003	.0002	.0001	.0017	.0000
%RSD	1.399	8.103	70.14	131.7	9.136	12.92	39.75	.3371

#1	-.0150	-.0023	-.0000	-.0000	-.0017	.0006	.0056	.0030
#2	-.0147	-.0021	-.0001	-.0004	-.0020	.0005	.0031	.0030

Elem	Li6707	P_1774
Avg	.0005	-0.0071
Stddev	.0024	.0002
%RSD	494.6	2.593

#1	-.0012	-.0072
#2	.0022	-.0070

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Sample Name: EMPTYCONF Acquired: 5/30/2018 21:57:09 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	242410.	22726.	10795.	24368.
Stddev	6121.	4.	14.	42.
%RSD	2.5251	.01787	.13129	.17156

#1	246740.	22723.	10805.	24397.
#2	238080.	22729.	10785.	24338.

Check ?
Value
Range

Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.004	2.073	2.009	2.101	2.081	2.023	2.019	40.52	40.86
Stddev	.008	.004	.002	.000	.007	.003	.004	.08	.08
%RSD	.4111	.1914	.1169	.0128	.3414	.1332	.1871	.2034	.2062

#1	1.999	2.076	2.010	2.102	2.086	2.024	2.022	40.47	40.80
#2	2.010	2.070	2.007	2.101	2.076	2.021	2.016	40.58	40.91

Check ?
Value
Range

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	42.16	41.72	41.56	41.46	2.008	2.067	5.153	2.067	2.085
Stddev	.10	.12	.08	.08	.004	.002	.003	.004	.003
%RSD	.2365	.2858	.1848	.1933	.1887	.1045	.0504	.1821	.1272

#1	42.09	41.64	41.50	41.40	2.010	2.068	5.155	2.070	2.083
#2	42.23	41.81	41.61	41.51	2.005	2.065	5.151	2.065	2.087

Check ?
Value
Range

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Sample Name: CCV Acquired: 5/30/2018 22:01:35 Type: QC
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.075	2.071	2.015	2.010	2.024	2.000	2.086	2.044	.2470
Stddev	.003	.006	.001	.006	.003	.008	.003	.006	.0005
%RSD	.1386	.2763	.0704	.3088	.1460	.3843	.1296	.3183	.1880

#1	2.073	2.067	2.016	2.015	2.022	1.995	2.084	2.049	.2467
#2	2.077	2.075	2.014	2.006	2.026	2.006	2.088	2.040	.2473

Check ?
Value
Range

Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.004	2.073	2.009	2.101	2.081	2.023	2.019	40.52	40.86
Stddev	.008	.004	.002	.000	.007	.003	.004	.08	.08
%RSD	.4111	.1914	.1169	.0128	.3414	.1332	.1871	.2034	.2062

#1	1.999	2.076	2.010	2.102	2.086	2.024	2.022	40.47	40.80
#2	2.010	2.070	2.007	2.101	2.076	2.021	2.016	40.58	40.91

Check ?
Value
Range

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	42.16	41.72	41.56	41.46	2.008	2.067	5.153	2.067	2.085
Stddev	.10	.12	.08	.08	.004	.002	.003	.004	.003
%RSD	.2365	.2858	.1848	.1933	.1887	.1045	.0504	.1821	.1272

#1	42.09	41.64	41.50	41.40	2.010	2.068	5.155	2.070	2.083
#2	42.23	41.81	41.61	41.51	2.005	2.065	5.151	2.065	2.087

Check ?
Value
Range

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Sample Name: CCV Acquired: 5/30/2018 22:01:35 Type: QC
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.053	2.034	2.051	1.999	2.032	2.041	2.079
Stddev	.003	.004	.005	.003	.000	.001	.005
%RSD	.1495	.1708	.2492	.1637	.0164	.0532	.2565
#1	2.051	2.037	2.047	1.997	2.032	2.041	2.083
#2	2.055	2.032	2.054	2.002	2.032	2.040	2.075

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
Value
Range

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	89452.	11428.	3474.2	7624.0
Stddev	239.	14.	1.2	14.7
%RSD	.26772	.12581	.03572	.19323
#1	89621.	11438.	3473.3	7613.6
#2	89283.	11418.	3475.1	7634.4

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Sample Name: CCB Acquired: 5/30/2018 22:05:38 Type: QC
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.002	-0.001	.0000	.0002	.0005	-0.001	.0001	.0002	.0000
Stddev	.0002	.0000	.0003	.0002	.0000	.0001	.0000	.0001	.0002
%RSD	73.14	2.844	1006.	93.30	2.294	104.2	10.81	58.70	507.1
#1	-.0004	-.0001	.0002	.0003	.0005	-.0000	.0001	.0001	.0002
#2	-.0001	-.0001	-.0002	.0001	.0005	-.0001	.0001	.0003	-.0001

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
High Limit
Low Limit

Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0002	-0.0003	-0.0014	.0006	.0013	.0012	.0011	-0.0003	-0.0088
Stddev	.0000	.0001	.0005	.0005	.0000	.0026	.0017	.0112	.0009
%RSD	22.60	23.26	37.95	81.73	1.000	208.1	150.4	3802.	10.12
#1	.0002	-.0003	-.0018	.0003	.0013	.0031	.0023	-.0082	-.0081
#2	.0002	-.0004	-.0010	.0010	.0013	-.0006	-.0001	.0076	-.0094

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
High Limit
Low Limit

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0036	-0.0019	.0079	.0353	.0010	.0011	.0006	-0.0015	.0001
Stddev	.0025	.0127	.0164	.0069	.0009	.0004	.0005	.0002	.0001
%RSD	68.56	680.1	206.5	19.60	96.79	37.52	82.75	10.68	63.26
#1	.0019	-.0109	.0195	.0402	.0016	.0013	.0003	-.0016	.0002
#2	.0054	.0071	-.0037	.0304	.0003	.0008	.0010	-.0014	.0001

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
High Limit
Low Limit

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Sample Name: CCB Acquired: 5/30/2018 22:05:38 Type: QC
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0004	.0004	.0002	-0.0009	.0006	.0014	.0029
Stddev	.0004	.0006	.0002	.0020	.0001	.0004	.0002
%RSD	113.3	141.7	81.85	215.5	13.69	25.83	5.742
#1	-.0006	-.0000	.0001	-.0024	.0005	.0011	.0030
#2	-.0001	.0008	.0003	.0005	.0006	.0016	.0028

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
High Limit
Low Limit

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	94221.	11645.	3621.3	8602.3
Stddev	38.	10.	1	2.4
%RSD	.04012	.08927	.00196	.02831
#1	94194.	11652.	3621.4	8604.0
#2	94247.	11637.	3621.3	8600.5

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Sample Name: MP7389-MB1 1 Acquired: 5/30/2018 22:18:45 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment: EPA

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0002	-0.0000	-0.0001	-0.0001	.0004	.0002	-0.0000	.0003	.0002
Stddev	.0001	.0001	.0000	.0002	.0005	.0001	.0000	.0001	.0003
%RSD	39.06	466.4	37.90	169.9	115.5	68.15	197.6	31.78	136.0
#1	-.0002	.0000	-.0001	.0000	.0008	.0001	-.0001	.0003	.0000
#2	-.0003	-.0001	-.0001	-.0002	.0001	.0002	.0000	.0002	.0004

Elem V_2924 Zn2062 As1890 Ti1908 Pb2203 Se1960 Sb2068 Al3961 Ca3179
Avg **-0.0001** **-0.0001** **-0.0002** **.0026** **.0021** **-0.0018** **-0.0018** **.0007** **-0.0116**
Stddev .0004 .0001 .0015 .0003 .0001 .0010 .0006 .0149 .0021
%RSD 672.5 149.3 591.3 11.35 3.743 55.78 32.76 2063. 18.15

#1 .0002 .0000 .0008 .0028 .0021 -.0026 -.0014 -.0098 -.0131
#2 -.0003 -.0001 -.0013 .0024 .0022 -.0011 -.0023 .0112 -.0101

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0083	-0.0043	-0.0189	-0.0077	.0005	-0.0001	.0005	-0.0026	.0001
Stddev	.0014	.0096	.0062	.0035	.0003	.0001	.0000	.0007	.0001
%RSD	17.37	221.1	32.72	45.08	62.82	191.0	.1528	25.37	90.87
#1	.0073	.0024	-.0233	-.0101	.0003	.0000	.0065	-.0021	.0002
#2	.0094	-.0111	-.0145	-.0052	.0008	-.0002	.0065	-.0031	.0000

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0002	-0.0009	-0.0001	-0.0002	.0028	.0004	.0014
Stddev	.0002	.0002	.0000	.0002	.0013	.0011	.0005
%RSD	109.8	25.72	19.32	70.96	46.23	242.6	32.64
#1	-.0004	-.0011	-.0001	-.0001	.0038	.0012	.0011
#2	-.0000	-.0008	-.0001	-.0004	.0019	-.0003	.0017

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	97429.	12099.	3737.7	9017.1
Stddev	8.	52.	2.0	3.8
%RSD	.00863	.42941	.05247	.04170
#1	97423.	12062.	3736.3	9019.7
#2	97435.	12135.	3739.1	9014.4

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Sample Name: MP7389-B1 Acquired: 5/30/2018 22:23:07 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	1.949	1.933	1.983	1.885	1.904	1.905	1.966	1.924
Stddev	.005	.003	.006	.002	.001	.001	.001	.001
%RSD	.2691	.1348	.2893	.1188	.0570	.0254	.0398	.0235
#1	1.953	1.935	1.979	1.884	1.905	1.905	1.966	1.924
#2	1.945	1.931	1.987	1.887	1.904	1.904	1.965	1.924
Elem	Ag3280	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068
Avg	.0776	1.883	2.222	1.967	2.065	1.988	2.052	2.018
Stddev	.0002	.000	.001	.004	.003	.003	.004	.007
%RSD	.2924	.0136	.0321	.2278	.1651	.1687	.1733	.3324
#1	.0775	1.883	2.223	1.964	2.063	1.986	2.049	2.013
#2	.0778	1.883	2.222	1.970	2.068	1.990	2.054	2.023
Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	24.40	24.37	25.25	24.87	24.99	25.02	2.001	1.960
Stddev	.05	.03	.04	.02	.02	.02	.000	.006
%RSD	.1865	.1231	.1620	.0973	.0983	.0617	.0094	.2995
#1	24.43	24.39	25.28	24.89	25.00	25.03	2.001	1.956
#2	24.37	24.35	25.22	24.86	24.97	25.00	2.001	1.964
Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	-.0059	2.019	1.951	1.938	1.862	1.919	F -.0886	.0056
Stddev	.0004	.004	.004	.002	.006	.001	.0011	.0003
%RSD	6.375	.1980	.1832	.0882	.3216	.0434	1.291	4.970
#1	-.0061	2.016	1.954	1.939	1.858	1.918	-.0878	.0054
#2	-.0056	2.022	1.949	1.936	1.866	1.919	-.0894	.0058
Elem	Li6707	P_1774						
Avg	.0016	2.024						
Stddev	.0006	.005						
%RSD	38.28	.2659						
#1	.0011	2.021						
#2	.0020	2.028						

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Sample Name: MP7389-B2 Acquired: 5/30/2018 22:27:11 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	1.973	1.951	2.007	1.912	1.930	1.927	1.989	1.950
Stddev	.008	.004	.003	.000	.009	.005	.006	.001
%RSD	.4237	.2129	.1263	.0012	.4822	.2753	.2941	.0531
#1	1.967	1.948	2.009	1.912	1.924	1.923	1.985	1.949
#2	1.979	1.954	2.005	1.912	1.937	1.930	1.994	1.950
Elem	Ag3280	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068
Avg	.0793	1.911	2.011	1.989	2.094	2.011	2.077	2.038
Stddev	.0007	.007	.004	.002	.000	.002	.001	.003
%RSD	.8257	.3814	.1716	.1110	.0186	.1043	.0567	.1327
#1	.0788	1.906	2.013	1.990	2.094	2.012	2.078	2.040
#2	.0797	1.916	2.008	1.987	2.095	2.009	2.076	2.036
Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	24.66	24.68	25.54	24.96	25.24	25.30	2.027	1.980
Stddev	.03	.01	.06	.00	.12	.05	.004	.002
%RSD	.1351	.0209	.2182	.0130	.4749	.1813	.1751	.0733
#1	24.64	24.68	25.50	24.96	25.16	25.26	2.030	1.981
#2	24.69	24.69	25.57	24.95	25.33	25.33	2.025	1.979
Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	-.0056	2.041	1.974	1.958	1.885	1.945	F -.0923	.0050
Stddev	.0008	.004	.008	.005	.001	.005	.0021	.0008
%RSD	13.89	.1893	.4199	.2402	.0368	.2621	2.286	16.64
#1	-.0062	2.044	1.968	1.955	1.886	1.941	-.0908	.0056
#2	-.0051	2.038	1.980	1.962	1.885	1.948	-.0938	.0044
Elem	Li6707	P_1774						
Avg	.0000	2.053						
Stddev	.0003	.002						
%RSD	859.1	.1116						
#1	.0003	2.055						
#2	-.0002	2.051						

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Sample Name: MP7389-B1 Acquired: 5/30/2018 22:23:07 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	94311.	12084.	3634.1	8177.8
Stddev	63.	45.	1.1	5.9
%RSD	.06704	.37356	.03113	.07212
#1	94266.	12052.	3633.3	8173.6
#2	94355.	12116.	3634.9	8182.0

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Sample Name: MP7389-B2 Acquired: 5/30/2018 22:27:11 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	94359.	12114.	3634.8	8172.6
Stddev	258.	26.	6.2	.4
%RSD	.27303	.21388	.17006	.00465
#1	94542.	12132.	3630.4	8172.9
#2	94177.	12096.	3639.1	8172.4

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Sample Name: MP7389-S1 Acquired: 5/30/2018 22:31:14 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	2.075	1.961	2.014	1.933	1.940	2.019	1.997	1.970	0.803
Stddev	.002	.004	.003	.002	.004	.003	.001	.001	.0003
%RSD	.0702	.2091	.1222	.0959	.1784	.1516	.0457	.0671	.3307
#1	2.074	1.958	2.016	1.934	1.942	2.016	1.996	1.971	.0804
#2	2.076	1.963	2.013	1.931	1.937	2.021	1.997	1.969	.0801
Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	1.942	2.018	2.010	2.086	2.024	2.088	2.049	24.75	33.14
Stddev	.001	.005	.000	.002	.003	.001	.002	.02	.05
%RSD	.0292	.2296	.0203	.0948	.1344	.0512	.0874	.0809	.1638
#1	1.942	2.022	2.010	2.087	2.026	2.089	2.050	24.76	33.10
#2	1.943	2.015	2.010	2.084	2.022	2.088	2.048	24.73	33.17
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	25.63	25.27	25.62	51.88	2.050	2.000	8.575	2.043	2.334
Stddev	.10	.07	.01	.02	.004	.002	.029	.003	.000
%RSD	.3837	.2938	.0230	.0411	.1713	.1094	.3329	.1320	.0093
#1	25.56	25.22	25.62	51.87	2.053	2.002	8.595	2.044	2.334
#2	25.69	25.32	25.61	51.90	2.048	1.999	8.555	2.041	2.334
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Avg	1.979	1.966	1.969	1.878	0.044	0.183	2.125		
Stddev	.002	.007	.000	.002	.0011	.0007	.003		
%RSD	.0988	.3423	.0105	.1066	25.25	3.945	.1527		
#1	1.978	1.971	1.969	1.879	.0036	.0188	2.127		
#2	1.980	1.962	1.969	1.876	.0052	.0178	2.123		
Int. Std.	Y_3600	Y_3710	Y_2243	In2306					
Avg	93039.	12164.	3595.0	8004.9					
Stddev	285.	11.	7.9	15.4					
%RSD	.30640	.09090	.22069	.19274					
#1	93240.	12156.	3589.4	7994.0					
#2	92837.	12172.	3600.6	8015.9					

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Sample Name: JC66882-2 Acquired: 5/30/2018 22:39:14 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	0.893	0.001	-0.003	0.003	0.018	0.716	0.002	0.006	0.003
Stddev	.0005	.0000	.0000	.0002	.0003	.0001	.0000	.0001	.0008
%RSD	.5737	18.17	2.775	61.41	14.39	.1982	6.584	10.49	265.7
#1	.0890	.0001	-0.003	.0001	.0016	.0717	.0002	.0007	-0.0003
#2	.0897	.0001	-0.003	.0004	.0020	.0715	.0002	.0006	.0009
Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	0.154	0.029	0.015	0.013	0.016	-0.017	-0.006	0.316	8.302
Stddev	.0003	.0002	.0003	.0006	.0009	.0004	.0005	.0116	.002
%RSD	2.228	6.490	20.04	45.94	53.88	21.54	86.17	36.59	.0244
#1	.0152	.0031	.0017	.0017	.0010	-.0014	-.0010	.0398	8.300
#2	.0157	.0028	.0013	.0008	.0023	-.0019	-.0002	.0234	8.303
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	0.462	20.96	1.772	25.97	0.019	0.037	8.429	-0.029	3434
Stddev	.0015	.0106	.0177	.14	.0003	.0004	.013	.0007	.0021
%RSD	3.231	5.067	9.985	.5293	1.317	10.76	.1554	23.06	.6125
#1	.0472	.2021	.1897	25.87	.0221	.0040	8.438	-.0033	.3419
#2	.0451	.2171	.1647	26.06	.0217	.0034	8.420	-.0024	.3449
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Avg	0.012	0.029	-0.001	1.944	0.032	0.0155	0.061		
Stddev	.0001	.0002	.0001	.003	.0001	.0010	.0001		
%RSD	12.16	1.847	165.6	.1667	1.853	6.418	.2059		
#1	.0011	.0130	-0.002	1.946	.0032	.0162	.0560		
#2	.0013	.0127	.0000	1.942	.0032	.0148	.0562		
Int. Std.	Y_3600	Y_3710	Y_2243	In2306					
Avg	96120.	12140.	3687.1	8586.1					
Stddev	92.	49.	.1	.9					
%RSD	.09601	.40244	.00196	.01052					
#1	96185.	12174.	3687.0	8586.8					
#2	96054.	12105.	3687.1	8585.5					

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Sample Name: MP7389-S2 Acquired: 5/30/2018 22:35:14 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	2.059	1.947	2.001	1.916	1.928	1.998	1.981	1.956	0.795
Stddev	.009	.010	.000	.002	.003	.002	.004	.002	.0001
%RSD	.4538	.5021	.0035	.1141	.1508	.0865	.2218	.1068	.1189
#1	2.052	1.940	2.001	1.914	1.926	1.996	1.978	1.954	.0794
#2	2.065	1.954	2.001	1.917	1.930	1.999	1.984	1.957	.0795
Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	1.930	2.008	1.998	2.075	2.009	2.073	2.039	24.70	32.93
Stddev	.001	.003	.002	.007	.004	.000	.001	.12	.12
%RSD	.0429	.1241	.0967	.3165	.1805	.0098	.0612	.5027	.3778
#1	1.930	2.010	1.996	2.079	2.012	2.073	2.038	24.61	32.84
#2	1.929	2.007	1.999	2.070	2.007	2.073	2.040	24.79	33.02
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	25.62	25.30	25.56	51.20	2.035	1.992	8.349	2.035	2.310
Stddev	.15	.25	.16	.30	.001	.001	.009	.003	.011
%RSD	.5931	.9993	.6291	.5822	.0231	.0303	.1086	.1313	.4808
#1	25.51	25.12	25.44	50.98	2.035	1.991	8.343	2.033	2.302
#2	25.73	25.47	25.67	51.41	2.036	1.992	8.356	2.036	2.318
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Avg	1.969	1.952	1.961	1.823	0.049	0.176	2.107		
Stddev	.002	.004	.002	.000	.0004	.0012	.002		
%RSD	.1070	.2145	.1119	.0144	9.075	6.900	.0702		
#1	1.967	1.949	1.959	1.823	.0052	.0167	2.106		
#2	1.970	1.955	1.962	1.823	.0046	.0184	2.108		
Int. Std.	Y_3600	Y_3710	Y_2243	In2306					
Avg	93385.	12059.	3593.6	8022.3					
Stddev	86.	118.	15.5	26.1					
%RSD	.09225	.97552	.43104	.32570					
#1	93445.	12143.	3582.6	8003.8					
#2	93324.	11976.	3604.5	8040.8					

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Sample Name: MP7389-SD1 Acquired: 5/30/2018 22:43:30 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	0.875	-0.003	-0.012	0.002	0.011	0.795	0.005	-0.009	0.021
Stddev	.0003	.0002	.0005	.0006	.0005	.0037	.0003	.0016	.0002
%RSD	.3164	71.15	42.26	323.9	48.63	4.698	56.25	191.2	9.805
#1	.0873	-0.005	-0.015	-0.002	.0007	.0769	.0003	-.0020	.0020
#2	.0877	-0.002	-0.008	.0006	.0015	.0821	.0007	.0003	.0023
Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	0.168	0.3283	0.038	-0.0022	0.079	-0.030	0.033	0.109	8.336
Stddev	.0008	.0008	.0031	.0038	.0022	.0076	.0047	.0196	.067
%RSD	4.723	.2334	81.52	171.4	27.61	251.9	141.1	179.6	.7978
#1	.0162	.3278	.0060	.0005	.0063	.0023	.0067	.0248	8.383
#2	.0173	.3288	.0016	-.0049	.0094	-.0084	.0000	-.0029	8.289
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	0.691	1.448	34.66	25.88	0.0259	0.099	8.274	-0.017	3466
Stddev	.0169	.0986	.0051	.01	.0003	.0010	.006	.0006	.0001
%RSD	24.52	68.10	1.458	.0553	1.349	9.839	.0674	32.69	.0245
#1	.0571	.0750	.3501	25.87	.0256	.0106	8.278	-.0013	.3465
#2	.0811	.2145	.3430	25.89	.0261	.0092	8.270	-.0021	.3467
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Avg	0.004	0.0327	0.034	1.837	0.048	0.0227	0.070		
Stddev	.0018	.0065	.0007	.008	.0010	.0021	.0013		
%RSD	496.0	19.94	19.95	.4245	21.31	9.414	1.908		
#1	.0016	.0373	.0029	1.843	.0055	.0242	.0691		
#2	-.0009	.0281	.0039	1.832	.0041	.0212	.0710		
Int. Std.	Y_3600	Y_3710	Y_2243	In2306					
Avg	94971.	11863.	3636.7	8595.4					
Stddev	667.	79.	2.4	4.2					
%RSD	.70275	.66323	.06664	.04845					
#1	95443.	11808.	3638.4	8598.3					
#2	94499.	11919.	3635.0	8592.4					

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Sample Name: JC66882-3 Acquired: 5/30/2018 22:47:47 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	.0900	-.0001	-.0000	-.0000	.0018	.0447	.0013	.0004	.0002
Stddev	.0005	.0001	.0001	.0001	.0003	.0004	.0001	.0001	.0001
%RSD	.5730	74.45	567.0	4946.	17.83	.8818	6.865	38.12	41.93

#1	.0897	-.0000	-.0001	.0001	.0021	.0444	.0013	.0005	.0001
#2	.0904	-.0002	.0001	-.0001	.0016	.0450	.0014	.0003	.0002

Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	.0163	.0164	.0020	.0017	.0074	-.0004	-.0004	.0397	8.401
Stddev	.0003	.0000	.0007	.0007	.0006	.0009	.0004	.0025	.003
%RSD	1.765	.0209	33.19	38.08	7.697	211.5	101.2	6.352	.0331

#1	.0161	.0164	.0015	.0013	.0070	.0002	-.0007	.0415	8.402
#2	.0165	.0164	.0024	.0022	.0078	-.0010	-.0001	.0379	8.399

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	.0847	.2393	.1979	26.08	.0206	.0009	8.588	-.0027	.3461
Stddev	.0016	.0217	.0193	.01	.0001	.0004	.017	.0006	.0000
%RSD	1.897	9.067	9.736	.0266	.4219	43.18	.1970	23.51	.0046

#1	.0835	.2547	.2115	26.09	.0207	.0006	8.600	-.0032	.3461
#2	.0858	.2240	.1843	26.08	.0206	.0011	8.576	-.0023	.3461

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Avg	.0011	.0089	-.0003	1.971	.0030	.0169	.0590		
Stddev	.0001	.0009	.0000	.001	.0020	.0012	.0000		
%RSD	12.75	10.26	1.371	.0456	66.82	7.124	.0609		

#1	.0012	.0082	-.0003	1.970	.0016	.0160	.0590		
#2	.0010	.0095	-.0003	1.971	.0044	.0177	.0590		

Int. Std.	Y_3600	Y_3710	Y_2243	In2306					
Avg	96683.	12225.	3703.6	8598.0					
Stddev	48.	50.	1.2	1.2					
%RSD	.04946	.40694	.03139	.01437					

#1	96649.	12189.	3702.7	8597.1					
#2	96717.	12260.	3704.4	8598.9					

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Sample Name: CCV Acquired: 5/30/2018 23:00:35 Type: QC
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.033	2.025	1.979	1.970	1.973	1.957	2.031	2.004	2.423
Stddev	.003	.002	.000	.001	.001	.002	.002	.000	.0004
%RSD	.1673	.0975	.0167	.0527	.0613	.0755	.0853	.0038	.1462

#1	2.035	2.027	1.979	1.969	1.973	1.958	2.033	2.004	2.420
#2	2.030	2.024	1.979	1.970	1.974	1.956	2.030	2.004	2.425

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.960	2.030	1.969	2.062	2.037	1.990	1.982	39.65	39.83
Stddev	.004	.002	.005	.004	.002	.002	.000	.04	.02
%RSD	.1838	.0871	.2447	.1926	.0872	.0835	.0018	.1007	.0450

#1	1.957	2.031	1.965	2.059	2.036	1.991	1.982	39.68	39.84
#2	1.962	2.028	1.972	2.064	2.038	1.989	1.982	39.62	39.82

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	41.18	40.58	40.61	40.70	1.973	2.030	5.081	2.023	2.038
Stddev	.12	.00	.06	.09	.003	.003	.002	.002	.003
%RSD	.2944	.0099	.1396	.2136	.1474	.1339	.0318	.0872	.1626

#1	41.27	40.58	40.65	40.77	1.971	2.028	5.082	2.024	2.041
#2	41.10	40.58	40.57	40.64	1.975	2.032	5.080	2.021	2.036

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

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Sample Name: MP7389-SD1 Acquired: 5/30/2018 22:56:15 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	.0879	-.0002	.0005	.0018	.0022	.0702	.0001	.0015	.0025
Stddev	.0011	.0002	.0016	.0003	.0004	.0015	.0001	.0025	.0000
%RSD	1.299	76.08	295.1	18.23	17.14	2.089	111.9	167.5	1.155

#1	.0871	-.0003	.0016	.0016	.0019	.0691	.0000	.0032	.0025
#2	.0887	-.0001	-.0006	.0021	.0025	.0712	.0001	-.0003	.0024

Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	.0154	.0004	-.0008	.0065	.0018	.0027	.0032	.0146	8.326
Stddev	.0004	.0010	.0056	.0017	.0014	.0013	.0030	.1006	.026
%RSD	2.482	227.6	673.9	26.93	76.60	47.01	93.89	688.7	.3110

#1	.0157	-.0003	-.0048	.0077	.0028	.0018	.0011	.0858	8.344
#2	.0151	.0012	.0031	.0052	.0008	.0037	.0053	-.0565	8.308

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	.0509	.1124	.0738	25.70	.0206	.0030	8.210	-.0094	.3450
Stddev	.0008	.0628	.0716	.04	.0001	.0002	.008	.0022	.0009
%RSD	1.566	55.93	97.11	.1570	.3683	7.353	.0971	22.81	.2578

#1	.0515	.1568	.0231	25.67	.0206	.0032	8.205	-.0110	.3443
#2	.0503	.0679	.1244	25.73	.0205	.0029	8.216	-.0079	.3456

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Avg	-.0005	.0150	.0014	1.797	.0099	.0169	.0668		
Stddev	.0006	.0003	.0007	.006	.0005	.0094	.0074		
%RSD	108.3	1.840	47.74	.3229	5.117	55.97	11.15		

#1	-.0009	.0152	.0019	1.801	.0096	.0102	.0720		
#2	-.0001	.0148	.0009	1.793	.0103	.0235	.0615		

Int. Std.	Y_3600	Y_3710	Y_2243	In2306					
Avg	96082.	11829.	3656.3	8659.0					
Stddev	233.	16.	3.7	14.2					
%RSD	.24211	.13750	.10028	.16398					

#1	96246.	11841.	3658.9	8669.1					
#2	95918.	11818.	3653.7	8649.0					

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Sample Name: CCV Acquired: 5/30/2018 23:00:35 Type: QC
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	2.002	2.000	2.009	1.959	1.998	1.998	2.039		
Stddev	.002	.001	.002	.003	.001	.001	.009		
%RSD	.1125	.0681	.0768	.1676	.0261	.0481	.4243		

#1	2.003	1.999	2.010	1.961	1.998	1.999	2.033		
#2	2.000	2.001	2.008	1.956	1.999	1.998	2.045		

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass		
Value									
Range									

Int. Std.	Y_3600	Y_3710	Y_2243	In2306					
Units	Cts/S	Cts/S	Cts/S	Cts/S					
Avg	91310.	11663.	3519.1	7730.9					
Stddev	287.	64.	12.1	22.6					
%RSD	.31409	.54940	.34357	.29220					

#1	91107.	11617.	3510.5	7715.0					
#2	91512.	11708.	3527.6	7746.9					

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Sample Name: CCB Acquired: 5/30/2018 23:04:38 Type: QC
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.000	-0.000	-0.001	-0.001	.0003	-0.002	.0001	.0002	.0003
Stddev	.0001	.0001	.0000	.0001	.0002	.0008	.0000	.0004	.0004
%RSD	503.2	274.1	8.709	118.5	58.50	431.7	29.80	172.0	117.0
#1	-.0001	-.0001	-.0001	-.0000	.0004	-.0007	.0001	.0005	.0001
#2	.0001	.0000	-.0001	-.0001	.0002	.0004	.0001	-.0001	.0006

Check ? High Limit Low Limit
Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass

Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.001	-0.003	-0.002	.0002	.0009	.0010	.0015	-0.0054	-0.0091
Stddev	.0000	.0002	.0005	.0004	.0008	.0005	.0006	.0122	.0017
%RSD	78.44	46.76	275.8	180.4	88.95	51.22	43.43	227.2	18.97
#1	-.0001	-.0002	.0002	-.0001	.0015	.0013	.0010	.0033	-.0103
#2	-.0000	-.0004	-.0006	.0006	.0003	.0006	.0019	-.0140	-.0079

Check ? High Limit Low Limit
Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0032	.0104	.0004	.0171	.0009	.0017	.0004	-0.0010	.0001
Stddev	.0046	.0017	.0071	.0069	.0002	.0003	.0011	.0001	.0001
%RSD	143.8	16.80	1709.	40.26	20.84	16.15	247.7	5.775	90.61
#1	.0065	.0117	.0054	.0220	.0010	.0019	.0012	-.0009	.0000
#2	-.0001	.0092	-.0046	.0122	.0008	.0015	-.0003	-.0010	.0001

Check ? High Limit Low Limit
Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass

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Sample Name: CCB Acquired: 5/30/2018 23:04:38 Type: QC
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.003	.0025	.0002	-0.023	.0012	.0010	.0036
Stddev	.0004	.0009	.0000	.0003	.0004	.0003	.0011
%RSD	115.6	34.67	4.919	13.19	36.82	33.42	29.40
#1	-.0006	.0019	.0002	-.0021	.0015	.0013	.0029
#2	-.0001	.0032	.0002	-.0025	.0009	.0008	.0043

Check ? High Limit Low Limit
Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	9555.7	11778.	3660.8	8703.9
Stddev	164.	5.	6.3	1.7
%RSD	.17210	.04295	.17209	.01944
#1	95673.	11782.	3656.4	8705.1
#2	95441.	11775.	3665.3	8702.7

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Sample Name: JC66883-2 Acquired: 5/30/2018 23:09:00 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	.0057	-0.000	-0.003	-0.001	.0015	.0142	-0.001	.0009	.0003
Stddev	.0000	.0000	.0002	.0001	.0002	.0001	.0001	.0003	.0005
%RSD	.6544	94.20	66.25	79.64	12.72	.7392	133.3	39.33	170.4
#1	.0057	-.0001	-.0004	-.0002	.0016	.0142	-.0000	.0006	-.0001
#2	.0057	-.0000	-.0002	-.0001	.0013	.0141	-.0001	.0011	.0007

Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	.0032	.0069	.0012	.0022	.0010	-0.002	-0.001	-0.003	4.208
Stddev	.0000	.0002	.0002	.0001	.0006	.0007	.0001	.0196	.003
%RSD	1.458	2.320	16.04	5.224	61.09	455.4	173.3	5754.	.0694
#1	.0033	.0070	.0014	.0021	.0015	-.0007	.0000	-.0142	4.210
#2	.0032	.0068	.0011	.0023	.0006	.0003	-.0001	.0135	4.205

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	.0672	.0023	.0868	72.14	.0305	.0019	7.169	-0.0027	.2068
Stddev	.0024	.0157	.0134	.11	.0001	.0001	.010	.0000	.0005
%RSD	3.570	690.6	15.38	.1586	.1674	4.067	.1439	1.075	.2225
#1	.0689	-.0088	.0774	72.06	.0306	.0019	7.176	-.0027	.2065
#2	.0655	.0133	.0963	72.22	.0305	.0020	7.162	-.0027	.2071

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	-0.007	.0068	-0.005	4.647	.0036	.0281	.0189
Stddev	.0002	.0006	.0001	.004	.0008	.0005	.0004
%RSD	25.85	9.411	10.75	.0975	23.39	1.718	2.024
#1	-.0006	.0063	-.0005	4.644	.0030	.0277	.0191
#2	-.0008	.0073	-.0005	4.650	.0042	.0284	.0186

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	95288.	12058.	3662.4	8318.7
Stddev	403.	13.	2.3	11.1
%RSD	.42335	.10912	.06328	.13304
#1	95574.	12048.	3664.1	8326.6
#2	95003.	12067.	3660.8	8310.9

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Sample Name: JC66883-3 Acquired: 5/30/2018 23:13:17 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	.0057	-0.001	-0.000	.0001	.0014	.0136	.0002	.0010	.0003
Stddev	.0002	.0001	.0001	.0001	.0005	.0004	.0000	.0000	.0004
%RSD	3.034	100.4	847.9	75.07	32.92	3.070	21.01	.2378	106.9
#1	.0056	-.0002	-.0001	.0001	.0011	.0133	.0002	.0010	.0001
#2	.0058	-.0000	.0001	.0002	.0017	.0138	.0002	.0010	.0006

Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	.0035	.0259	.0008	.0022	.0097	-0.004	-0.009	-0.0019	4.270
Stddev	.0003	.0000	.0006	.0006	.0003	.0014	.0003	.0103	.010
%RSD	9.760	.1623	76.26	30.11	3.185	368.9	29.89	533.1	.2411
#1	.0037	.0259	.0012	.0026	.0095	.0006	-.0007	-.0092	4.263
#2	.0032	.0260	.0004	.0017	.0099	-.0014	-.0011	.0054	4.277

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	.0886	.0103	.0976	73.10	.0304	.0018	7.267	-0.0033	.2082
Stddev	.0050	.0054	.0307	.22	.0006	.0001	.014	.0000	.0008
%RSD	5.637	52.17	31.49	.2992	1.846	8.335	.1950	.0185	.4055
#1	.0921	.0065	.0759	72.95	.0308	.0017	7.257	-.0033	.2086
#2	.0850	.0141	.1194	73.26	.0300	.0019	7.277	-.0033	.2098

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	-0.007	.0062	-0.004	4.703	.0032	.0316	.0221
Stddev	.0001	.0000	.0000	.006	.0007	.0012	.0007
%RSD	14.81	.5728	.2266	.1370	22.98	3.950	3.038
#1	-.0006	.0062	-.0004	4.699	.0027	.0307	.0226
#2	-.0007	.0062	-.0004	4.708	.0037	.0325	.0217

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	94682.	12030.	3631.4	8264.1
Stddev	115.	49.	14.6	30.0
%RSD	.12137	.41117	.40085	.36314
#1	94764.	12065.	3641.7	8285.3
#2	94601.	11995.	3621.1	8242.9

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Sample Name: JC66884-2 Acquired: 5/30/2018 23:17:34 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	.0386	-.0001	-.0003	-.0001	.0016	.0574	-.0001	.0004	.0000
Stddev	.0004	.0001	.0000	.0001	.0004	.0003	.0001	.0004	.0006
%RSD	1.140	45.09	7.621	83.52	26.97	.5150	42.53	104.2	4237.
#1	.0383	-.0001	-.0003	-.0002	.0013	.0572	-.0001	.0007	-.0004
#2	.0389	-.0002	-.0003	-.0000	.0019	.0576	-.0002	.0001	.0004
Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	.0082	.0017	.0013	.0021	.0015	-.0010	-.0005	-.0080	5.050
Stddev	.0000	.0000	.0014	.0003	.0006	.0008	.0007	.0000	.004
%RSD	.3797	1.618	109.6	14.06	40.37	77.77	152.5	.0395	.0842
#1	.0082	.0017	.0023	.0023	.0011	-.0016	-.0009	-.0081	5.047
#2	.0082	.0017	.0003	.0019	.0020	-.0005	.0000	-.0080	5.053
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	.0059	.4733	.2830	23.95	.0221	.0000	9.603	-.0037	.1729
Stddev	.0020	.0042	.0081	.05	.0009	.0000	.044	.0002	.0001
%RSD	34.45	.8825	2.880	.2049	4.254	183.9	.4601	4.522	.0862
#1	.0074	.4763	.2772	23.91	.0214	.0000	9.571	-.0038	.1730
#2	.0045	.4704	.2888	23.98	.0227	-.0000	9.634	-.0035	.1728
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Avg	-.0006	.0090	-.0006	1.712	.0020	.0171	.0877		
Stddev	.0002	.0001	.0001	.008	.0008	.0020	.0006		
%RSD	32.57	.6436	10.69	.4865	41.57	11.87	.6830		
#1	-.0005	.0089	-.0006	1.707	.0025	.0157	.0873		
#2	-.0008	.0090	-.0007	1.718	.0014	.0185	.0882		
Int. Std.	Y_3600	Y_3710	Y_2243	In2306					
Avg	96573.	12071.	3706.4	8632.7					
Stddev	3.	81.	9.5	4.8					
%RSD	.00270	.67148	.25680	.05568					
#1	96571.	12128.	3713.1	8636.1					
#2	96575.	12014.	3699.7	8629.3					

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Sample Name: MP7388-B1.2 Acquired: 5/30/2018 23:26:09 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	
Avg	1.880	1.869	1.814	1.793	1.814	1.811	1.883	1.829	
Stddev	.000	.000	.002	.002	.005	.004	.001	.003	
%RSD	.0046	.0153	.0856	.0917	.2709	.2161	.0403	.1405	
#1	1.880	1.870	1.816	1.795	1.817	1.808	1.882	1.831	
#2	1.880	1.869	1.813	1.792	1.810	1.813	1.883	1.828	
Elem	Ag3280	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	
Avg	.2257	1.808	1.880	1.799	1.921	1.875	1.806	1.818	
Stddev	.0010	.002	.006	.004	.002	.004	.001	.002	
%RSD	.4464	.1349	.3379	.2455	.1156	.2022	.0371	.0981	
#1	.2264	1.810	1.884	1.802	1.923	1.878	1.806	1.817	
#2	.2250	1.806	1.875	1.796	1.919	1.873	1.807	1.819	
Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	
Avg	23.44	23.74	24.55	23.92	23.99	24.20	1.768	1.886	
Stddev	.04	.03	.03	.02	.01	.01	.000	.001	
%RSD	.1900	.1127	.1341	.1029	.0370	.0463	.0097	.0539	
#1	23.41	23.72	24.52	23.91	23.98	24.21	1.767	1.887	
#2	23.47	23.76	24.57	23.94	24.00	24.19	1.768	1.886	
Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230	
Avg	.1254	1.901	1.882	1.856	1.730	1.848	F -.0711	.0033	
Stddev	.0060	.001	.000	.000	.004	.001	.0004	.0002	
%RSD	4.810	.0504	.0095	.0006	.2600	.0617	.5780	6.194	
#1	.1212	1.902	1.882	1.856	1.727	1.847	-.0714	.0034	
#2	.1297	1.901	1.881	1.856	1.733	1.849	-.0708	.0031	
Elem	Li6707	P_1774							
Avg	.0011	1.867							
Stddev	.0006	.005							
%RSD	58.82	.2944							
#1	.0016	1.870							
#2	.0006	1.863							

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Sample Name: JC66884-3 Acquired: 5/30/2018 23:21:52 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	.0405	-.0002	.0000	.0001	.0019	.0760	.0034	.0020	-.0002
Stddev	.0000	.0000	.0002	.0000	.0002	.0006	.0000	.0004	.0000
%RSD	.0352	29.89	601.7	53.19	10.70	.7511	.9933	19.04	19.31
#1	.0404	-.0002	-.0001	.0000	.0021	.0756	.0034	.0018	-.0003
#2	.0405	-.0001	.0002	.0001	.0018	.0764	.0034	.0023	-.0002
Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	.0090	.1830	.0008	.0014	.0133	.0001	-.0012	.1533	5.108
Stddev	.0004	.0020	.0005	.0006	.0005	.0000	.0005	.0000	.007
%RSD	3.906	1.073	65.48	43.37	3.830	50.13	38.79	.0154	.1414
#1	.0087	.1816	.0004	.0019	.0137	.0000	-.0016	.1534	5.113
#2	.0092	.1844	.0012	.0010	.0130	.0001	-.0009	.1533	5.103
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	.2059	.4673	.3300	24.01	.0215	.0001	9.952	-.0012	.1738
Stddev	.0021	.0004	.0242	.00	.0008	.0001	.090	.0004	.0002
%RSD	1.035	.0853	7.339	.0145	3.697	36.05	.9016	31.07	.1393
#1	.2044	.4676	.3472	24.02	.0210	.0001	9.889	-.0014	.1740
#2	.2074	.4671	.3129	24.01	.0221	.0002	10.02	-.0009	.1737
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Avg	.0058	.0096	-.0007	1.736	.0021	.0161	.0955		
Stddev	.0002	.0004	.0000	.021	.0004	.0005	.0009		
%RSD	3.680	4.629	1.944	1.205	17.96	2.984	.9732		
#1	.0059	.0093	-.0008	1.722	.0024	.0158	.0948		
#2	.0056	.0099	-.0007	1.751	.0019	.0165	.0961		
Int. Std.	Y_3600	Y_3710	Y_2243	In2306					
Avg	96556.	12181.	3700.9	8595.8					
Stddev	210.	66.	31.2	72.9					
%RSD	.21756	.54488	.84244	.84828					
#1	96407.	12134.	3722.9	8647.4					
#2	96704.	12228.	3678.8	8544.3					

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Sample Name: MP7388-B1.2 Acquired: 5/30/2018 23:26:09 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	92176.	11647.	3551.8	7931.1
Stddev	153.	12.	5.8	14.1
%RSD	.16574	.09956	.16394	.17826
#1	92284.	11639.	3555.9	7941.1
#2	92068.	11655.	3547.6	7921.1

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Sample Name: MP7388-MB1 2 Acquired: 5/30/2018 23:30:13 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment: SOIL

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	.0005	.0002	.0002	.0004	.0015	.0011	.0008	.0009	.0002
Stddev	.0002	.0000	.0001	.0003	.0001	.0003	.0000	.0000	.0004
%RSD	44.13	5.498	43.58	68.80	5.290	29.50	5.099	4.749	173.3
#1	.0007	.0002	.0001	.0002	.0015	.0013	.0008	.0008	.0005
#2	.0004	.0003	.0002	.0006	.0016	.0009	.0007	.0009	-.0001
Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	.0002	.0130	-.0001	.0012	.0003	.0004	.0024	.0057	.1784
Stddev	.0001	.0001	.0002	.0002	.0009	.0001	.0003	.0053	.0006
%RSD	32.84	.5356	119.3	15.95	272.4	33.54	12.61	93.52	.3597
#1	.0003	.0130	-.0000	.0013	-.0003	.0005	.0022	.0019	.1789
#2	.0002	.0131	-.0002	.0011	.0009	.0003	.0026	.0094	.1780
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	.0427	.0319	.0532	.1208	.0025	.0015	.0623	.0190	.0010
Stddev	.0007	.0133	.0124	.0030	.0009	.0001	.0040	.0001	.0000
%RSD	1.699	41.61	23.30	2.470	36.30	4.551	6.426	.7024	2.866
#1	.0422	.0412	.0444	.1187	.0032	.0016	.0652	.0190	.0010
#2	.0432	.0225	.0619	.1229	.0019	.0015	.0595	.0189	.0009
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Avg	.0005	.0032	.0014	.0178	.0013	.0010	.0260		
Stddev	.0005	.0007	.0001	.0016	.0012	.0001	.0007		
%RSD	96.38	21.37	3.840	8.733	91.78	6.534	2.803		
#1	.0009	.0037	.0015	.0189	.0021	.0010	.0265		
#2	.0002	.0027	.0014	.0167	.0004	.0011	.0255		
Int. Std.	Y_3600	Y_3710	Y_2243	In2306					
Avg	96787.	11911.	3689.1	8777.8					
Stddev	295.	61.	2.8	1.9					
%RSD	.30484	.51115	.07518	.02171					
#1	96578.	11868.	3687.1	8776.5					
#2	96995.	11954.	3691.0	8779.2					

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Sample Name: JC66934-1 Acquired: 5/30/2018 23:34:33 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment: DUE

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	1.461	.0162	.0013	.0071	.0118	.0500	.3588	.0081
Stddev	.002	.0002	.0001	.0001	.0002	.0006	.0012	.0003
%RSD	.1336	1.131	9.822	2.024	1.439	1.178	.3336	3.806
#1	1.460	.0164	.0012	.0072	.0116	.0504	.3596	.0079
#2	1.462	.0161	.0014	.0070	.0119	.0496	.3579	.0083
Elem	Ag3280	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068
Avg	.0000	.0130	.8811	.0442	.0008	.1647	.0004	.0015
Stddev	.0006	.0001	.0004	.0005	.0010	.0017	.0027	.0005
%RSD	7820.	.7302	.0420	1.198	131.0	1.012	698.5	34.95
#1	.0004	.0129	.8813	.0439	.0015	.1635	-.0015	.0011
#2	-.0004	.0131	.8808	.0446	.0001	.1658	.0023	.0018
Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	182.9	66.60	39.11	10.94	141.8	3.042	2.357	.0040
Stddev	.1	.21	.02	.06	.1	.007	.0007	.0001
%RSD	.0814	.3225	.0611	.5804	.0924	.2299	.2821	3.059
#1	183.0	66.75	39.09	10.99	141.7	3.037	.2362	.0040
#2	182.8	66.45	39.12	10.90	141.8	3.047	.2352	.0039
Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	3.796	.0232	4.652	.4083	.0098	.1052	1.384	W -.0149
Stddev	.009	.0000	.029	.0017	.0009	.0001	.008	.0008
%RSD	.2282	.0349	.6118	.4192	9.322	.1361	.5535	5.490
#1	3.790	.0232	4.672	.4095	.0104	.1053	1.389	-.0143
#2	3.802	.0232	4.632	.4070	.0091	.1051	1.378	-.0155
Elem	Li6707	P_1774						
Avg	.0115	.8111						
Stddev	.0001	.0006						
%RSD	.5296	.0801						
#1	.0115	.8116						
#2	.0115	.8106						

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Sample Name: JC66934-1 Acquired: 5/30/2018 23:34:33 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment: DUE

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	99957.	12934.	3944.1	7438.3
Stddev	2.	1.	3.2	2.6
%RSD	.00187	.00803	.07992	.03511
#1	99956.	12935.	3941.9	7436.5
#2	99958.	12933.	3946.4	7440.2

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Sample Name: MP7388-S1 Acquired: 5/30/2018 23:38:51 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	2.954	1.885	1.835	1.941	2.220	1.958	7.926	2.201
Stddev	.008	.002	.006	.006	.004	.001	.002	.006
%RSD	.2591	.1261	.3522	.3344	.2028	.0252	.0260	.2930
#1	2.959	1.886	1.840	1.946	2.217	1.958	7.927	2.206
#2	2.948	1.883	1.831	1.937	2.223	1.959	7.924	2.196
Elem	Ag3280	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068
Avg	.2359	2.211	2.622	1.818	1.805	2.028	1.767	1.145
Stddev	.0004	.000	.013	.005	.005	.007	.005	.006
%RSD	.1740	.0023	.4859	.2870	.2933	.3377	.2711	.4988
#1	.2362	2.211	2.631	1.822	1.809	2.033	1.770	1.149
#2	.2356	2.211	2.613	1.815	1.802	2.023	1.763	1.141
Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	305.9	35.52	F 420.3	113.5	97.12	26.89	2.192	1.810
Stddev	.2	.14	.6	.0	.19	.02	.007	.008
%RSD	.0664	.3816	.1481	.0247	.1997	.0763	.3308	.4340
#1	305.8	35.43	420.7	113.5	97.25	26.90	2.197	1.815
#2	306.1	35.62	419.9	113.5	96.98	26.87	2.187	1.804
Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	7.519	1.721	2.031	6.748	1.341	1.957	.0023	W -.0133
Stddev	.050	.010	.007	.009	.004	.005	.0001	.0004
%RSD	.6626	.5603	.3262	.1381	.3346	.2498	2.404	3.297
#1	7.554	1.728	2.036	6.741	1.344	1.954	.0024	-.0136
#2	7.484	1.714	2.026	6.755	1.338	1.961	.0023	-.0129
Elem	Li6707	P_1774						
Avg	.6867	3.255						
Stddev	.0009	.008						
%RSD	.1278	.2527						
#1	.6861	3.261						
#2	.6873	3.250						

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Sample Name: MP7388-S1 Acquired: 5/30/2018 23:38:51 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	90774.	11913.	3514.6	7538.1
Stddev	277.	8.	17.5	32.3
%RSD	.30483	.06600	.49907	.42877
#1	90970.	11907.	3502.2	7515.2
#2	90579.	11918.	3527.0	7560.9

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Sample Name: MP7388-S2 Acquired: 5/30/2018 23:42:59 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	2.910	1.889	1.832	1.934	2.218	1.952	7.283	2.182
Stddev	.005	.005	.000	.000	.002	.006	.028	.000
%RSD	.1690	.2617	.0089	.0122	.0821	.3085	.3899	.0091
#1	2.907	1.885	1.832	1.935	2.220	1.957	7.303	2.182
#2	2.914	1.892	1.832	1.934	2.217	1.948	7.263	2.182
Elem	Ag3280	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068
Avg	2.349	2.224	2.603	1.820	1.802	2.021	1.779	1.191
Stddev	.0001	.000	.003	.001	.006	.002	.004	.000
%RSD	.0434	.0105	.1226	.0665	.3252	.0775	.2449	.0206
#1	.2348	2.224	2.601	1.821	1.798	2.020	1.782	1.192
#2	.2350	2.225	2.606	1.819	1.806	2.022	1.776	1.191
Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	301.2	35.03	F 407.4	111.0	97.76	26.73	2.233	1.822
Stddev	.1	.01	.5	.4	.09	.00	.002	.000
%RSD	.0357	.0219	.1194	.3907	.0932	.0047	.1037	.0030
#1	301.1	35.04	407.0	110.7	97.69	26.73	2.234	1.822
#2	301.3	35.03	407.7	111.3	97.82	26.73	2.231	1.822
Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	8.792	1.729	2.033	6.874	1.407	1.962	.0017	W -.0157
Stddev	.015	.000	.003	.005	.002	.003	.002	.0003
%RSD	.1662	.0021	.1640	.0716	.1569	.1596	132.2	2.000
#1	8.802	1.729	2.030	6.878	1.408	1.964	.0032	-.0159
#2	8.781	1.729	2.035	6.871	1.405	1.960	.0001	-.0155
Elem	Li6707	P_1774						
Avg	.6544	3.181						
Stddev	.0006	.000						
%RSD	.0880	.0062						
#1	.6548	3.181						
#2	.6540	3.181						

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Sample Name: MP7388-S2 Acquired: 5/30/2018 23:42:59 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	89919.	11747.	3482.6	7497.9
Stddev	54.	38.	5.4	7.1
%RSD	.05964	.32335	.15600	.09423
#1	89881.	11720.	3486.5	7502.9
#2	89957.	11774.	3478.8	7492.9

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Sample Name: CCV Acquired: 5/30/2018 23:47:07 Type: QC
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.041	2.028	1.972	1.968	1.976	1.960	2.048	2.006	.2417
Stddev	.002	.000	.002	.003	.001	.001	.002	.003	.0008
%RSD	.0961	.0041	.1156	.1576	.0367	.0605	.1046	.1596	.3347
#1	2.040	2.028	1.971	1.970	1.975	1.959	2.046	2.008	.2423
#2	2.043	2.028	1.974	1.966	1.976	1.961	2.049	2.004	.2412
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									
Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.960	2.036	1.966	2.062	2.044	1.991	1.975	39.80	40.05
Stddev	.002	.003	.004	.002	.004	.006	.006	.01	.00
%RSD	.1152	.1646	.2065	.0804	.1824	.3178	.3305	.0326	.0095
#1	1.962	2.038	1.964	2.063	2.047	1.987	1.971	39.79	40.05
#2	1.959	2.033	1.969	2.061	2.042	1.996	1.980	39.81	40.05
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	41.43	40.90	40.99	41.00	1.962	2.030	5.072	2.020	2.050
Stddev	.02	.16	.04	.01	.000	.001	.007	.002	.002
%RSD	.0396	.3963	.0912	.0234	.0152	.0510	.1427	.0743	.0953
#1	41.42	41.02	40.96	41.01	1.962	2.029	5.067	2.019	2.048
#2	41.44	40.79	41.02	40.99	1.962	2.031	5.077	2.021	2.051
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

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Sample Name: CCV Acquired: 5/30/2018 23:47:07 Type: QC
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.009	2.000	2.015	1.957	1.988	2.000	2.036
Stddev	.003	.000	.001	.002	.006	.002	.001
%RSD	.1370	.0133	.0452	.0891	.3281	.0792	.0477
#1	2.007	1.999	2.016	1.956	1.984	1.999	2.036
#2	2.011	2.000	2.015	1.958	1.993	2.001	2.035

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
Value
Range

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	91421.	11565.	3548.0	7777.2
Stddev	207.	8.	7.4	.1
%RSD	.22623	.06868	.20982	.00106
#1	91567.	11570.	3553.3	7777.2
#2	91274.	11559.	3542.7	7777.3

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Sample Name: CCB Acquired: 5/30/2018 23:51:11 Type: QC
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.003	-0.000	-0.002	-0.002	-0.006	-0.001	-0.002	-0.002	-0.006
Stddev	.0000	.0001	.0001	.0001	.0004	.0001	.0001	.0000	.0005
%RSD	1.217	540.9	44.50	65.35	77.82	50.61	33.15	14.73	82.36
#1	-0.003	-0.001	-0.002	-0.003	-0.009	-0.001	-0.001	-0.001	-0.009
#2	-0.003	-0.001	-0.001	-0.001	-0.002	-0.001	-0.002	-0.002	-0.002

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
High Limit
Low Limit

Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0003	-0.0002	-0.0004	F_0.0020	.0000	-0.0001	.0020	-0.0012	-0.0061
Stddev	.0001	.0001	.0000	.0009	.0001	.0009	.0002	.0127	.0018
%RSD	55.38	36.52	2.283	44.42	4441.	1256.	8.514	1060.	28.98
#1	.0002	-0.0001	-0.0004	.0013	.0001	-0.0007	.0021	-.0102	-.0074
#2	.0004	-0.0002	-0.0004	.0026	-0.0001	-0.0006	.0019	.0078	-.0049

Check ? Chk Pass Chk Pass Chk Pass Chk Fail Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
High Limit
Low Limit

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0043	.0088	.0770	.0154	.0015	.0015	.0029	-0.0009	.0001
Stddev	.0071	.0155	.0263	.0120	.0001	.0001	.0012	.0011	.0001
%RSD	166.5	175.2	34.14	77.66	9.971	7.525	43.00	121.9	100.7
#1	-0.0008	.0197	.0584	.0239	.0014	.0016	.0037	-.0016	.0000
#2	.0093	-0.0021	.0956	.0070	.0016	.0014	.0020	-.0001	.0002

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
High Limit
Low Limit

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Sample Name: CCB Acquired: 5/30/2018 23:51:11 Type: QC
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0002	.0027	.0001	-0.0013	.0000	.0015	.0046
Stddev	.0001	.0006	.0003	.0021	.0008	.0010	.0000
%RSD	47.11	22.33	230.8	161.3	2334.	71.55	.8906
#1	-0.0002	.0031	-0.0001	.0002	.0006	.0022	.0046
#2	-0.0001	.0023	.0004	-0.0027	-0.0005	.0007	.0046

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
High Limit
Low Limit

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	96088.	11804.	3683.8	8736.8
Stddev	145.	57.	4	1.9
%RSD	.15105	.48621	.01027	.02187
#1	95985.	11764.	3683.6	8738.1
#2	96191.	11845.	3684.1	8735.4

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Sample Name: JC66684-1 Acquired: 5/30/2018 23:55:32 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8129	.0106	W -0.0009	.1427	.3547	.0884	4.766	.3511
Stddev	.0010	.0000	.0000	.0001	.0024	.0007	.013	.0006
%RSD	.1195	.0725	5.670	.0402	.6723	.8454	.2659	.1598
#1	.8136	.0106	-0.0009	.1426	.3530	.0879	4.757	.3507
#2	.8122	.0106	-0.0008	.1427	.3564	.0890	4.775	.3515

Elem	Ag3280	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0066	.3197	.7380	.0289	.0028	.1867	.0017	.0014
Stddev	.0004	.0003	.0010	.0003	.0002	.0020	.0015	.0000
%RSD	5.335	.0840	.1401	1.038	7.759	1.097	86.80	.5487
#1	.0068	.3199	.7373	.0291	.0030	.1881	.0027	.0014
#2	.0063	.3195	.7388	.0287	.0027	.1852	.0006	.0014

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	193.9	12.10	F 384.1	73.48	38.17	1.890	.2520	.0129
Stddev	.1	.02	.4	.22	.00	.003	.0007	.0005
%RSD	.0559	.1979	.0928	.3057	.0002	.1575	.2893	3.618
#1	193.8	12.08	383.8	73.32	38.17	1.888	.2525	.0126
#2	194.0	12.11	384.4	73.64	38.17	1.893	.2515	.0133

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.737	.0157	.1140	4.758	.0147	.1243	.0684	W -.0158
Stddev	.002	.0001	.0005	.009	.0006	.0000	.0010	.0010
%RSD	.0515	.6957	.4167	.1864	4.014	.0369	1.400	6.574
#1	4.735	.0156	.1143	4.752	.0142	.1243	.0691	-.0165
#2	4.738	.0158	.1136	4.764	.0151	.1243	.0678	-.0151

Elem	Li6707	P_1774
Units	ppm	ppm
Avg	.6298	1.329
Stddev	.0023	.002
%RSD	.3706	.1423
#1	.6282	1.328
#2	.6315	1.331

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Sample Name: JC66684-1 Acquired: 5/30/2018 23:55:32 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	93599.	12142.	3629.6	7860.8
Stddev	159.	11.	2.0	9.1
%RSD	.16972	.09325	.05441	.11552

#1	93711.	12150.	3631.0	7854.4
#2	93486.	12134.	3628.2	7867.2

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Sample Name: JC66684-3 Acquired: 5/31/2018 0:03:52 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	1.083	.0109	-.0006	.1578	.3321	.0820	F 10.73	.3370
Stddev	.000	.0001	.0000	.0003	.0006	.0002	.02	.0002
%RSD	.0282	.5317	1.296	.1851	.1828	.2815	.2304	.0658

#1	1.083	.0108	-.0006	.1580	.3325	.0818	10.71	.3368
#2	1.084	.0109	-.0006	.1576	.3316	.0821	10.74	.3372

Elem	Ag3280	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068
Avg	.0061	.3096	.6993	.0292	.0023	.2037	-.0009	-.0009
Stddev	.0005	.0010	.0004	.0010	.0007	.0008	.0032	.0006
%RSD	8.600	.3355	.0552	3.544	30.08	.3757	355.9	68.20

#1	.0058	.3089	.6996	.0300	.0027	.2043	-.0031	-.0014
#2	.0065	.3103	.6990	.0285	.0018	.2032	.0014	-.0005

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	185.3	10.50	F 372.4	68.38	34.26	2.156	.2174	.0120
Stddev	.1	.04	1.5	.14	.02	.017	.0009	.0001
%RSD	.0518	.3608	.4151	.2001	.0593	.7694	.4260	.6715

#1	185.3	10.47	371.3	68.28	34.24	2.144	.2181	.0120
#2	185.4	10.53	373.5	68.47	34.27	2.167	.2168	.0121

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	4.662	.0150	.1002	4.478	.0147	.1185	.0926	W -.0157
Stddev	.045	.0013	.0003	.001	.0017	.0003	.0033	.0011
%RSD	.9586	8.886	.3378	.0278	11.51	.2654	3.570	7.238

#1	4.693	.0160	.1005	4.479	.0159	.1183	.0903	-.0149
#2	4.630	.0141	.1000	4.477	.0135	.1187	.0950	-.0165

Elem	Li6707	P_1774
Avg	.6222	1.868
Stddev	.0010	.007
%RSD	.1593	.3998

#1	.6215	1.863
#2	.6229	1.873

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Sample Name: MP7388-SD1 Acquired: 5/30/2018 23:59:39 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	.8299	.0103	-.0022	.1447	.3702	.0920	5.026	.3596	.0116
Stddev	.0002	.0002	.0006	.0003	.0007	.0008	.009	.0012	.0022
%RSD	.0197	1.595	25.87	.2203	.1917	.8172	.1839	.3448	18.64

#1	.8300	.0101	-.0026	.1445	.3707	.0925	5.033	.3605	.0101
#2	.8298	.0104	-.0018	.1450	.3697	.0914	5.020	.3587	.0132

Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	.3301	.7770	.0253	.0067	.1944	-.0022	.0032	195.9	12.61
Stddev	.0002	.0036	.0037	.0095	.0019	.0012	.0026	.2	.03
%RSD	.0455	.4648	14.68	141.4	.9723	53.65	81.73	.1181	.2138

#1	.3302	.7796	.0227	-.0000	.1930	-.0031	.0014	196.1	12.63
#2	.3300	.7745	.0279	.0134	.1957	-.0014	.0051	195.8	12.59

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	415.6	75.54	38.54	1.962	.2753	.0134	4.961	.0181	.1168
Stddev	.0	.39	.14	.003	.0076	.0006	.023	.0003	.0005
%RSD	.0007	.5183	.3655	.1682	2.743	4.326	.4641	1.566	.3908

#1	415.6	75.26	38.44	1.960	.2700	.0130	4.977	.0179	.1164
#2	415.6	75.82	38.64	1.965	.2806	.0138	4.945	.0183	.1171

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	4.883	.0173	.1289	.0809	-.0167	.6409	1.396
Stddev	.018	.0071	.0011	.0047	.0124	.0016	.001
%RSD	.3609	41.09	.8468	5.765	74.44	.2574	.0475

#1	4.895	.0123	.1281	.0842	-.0079	.6397	1.396
#2	4.870	.0223	.1297	.0776	-.0255	.6420	1.397

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	95138.	11895.	3697.1	8340.3
Stddev	205.	9.	9.3	24.3
%RSD	.21557	.07466	.25166	.29098

#1	94993.	11902.	3690.5	8323.2
#2	95283.	11889.	3703.6	8357.5

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Sample Name: JC66684-3 Acquired: 5/31/2018 0:03:52 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	93664.	12164.	3641.9	7894.6
Stddev	114.	22.	4.0	3.0
%RSD	.12138	.17881	.10972	.03858

#1	93583.	12180.	3644.8	7896.7
#2	93744.	12149.	3639.1	7892.4

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Sample Name: JC66684-5 Acquired: 5/31/2018 0:08:06 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	.8161	.0115	W -.0009	.1516	.3262	.0597	6.705	.3430
Stddev	.0006	.0001	.0003	.0000	.0018	.0007	.027	.0000
%RSD	.0723	.5300	34.30	.0012	.5533	1.208	.3965	.0111
#1	.8157	.0115	-.0011	.1516	.3249	.0592	6.686	.3430
#2	.8165	.0116	-.0007	.1516	.3275	.0602	6.724	.3430
Elem	Ag3280	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068
Avg	.0055	.2877	.7446	.0266	.0008	.2014	-.0023	.0020
Stddev	.0001	.0015	.0007	.0016	.0012	.0014	.0000	.0015
%RSD	2.423	.5144	.0993	6.115	160.3	.6781	1.237	74.65
#1	.0054	.2867	.7451	.0277	.0017	.2023	-.0024	.0009
#2	.0056	.2888	.7441	.0254	-.0001	.2004	-.0023	.0030
Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	179.4	6.970	F 356.6	72.13	39.36	1.436	.2561	.0114
Stddev	.3	.041	1.6	.43	.09	.017	.0003	.0002
%RSD	.1630	.5894	.4526	.5990	.2284	1.157	.1026	2.051
#1	179.2	6.941	355.4	71.82	39.30	1.448	.2559	.0116
#2	179.6	6.999	357.7	72.43	39.42	1.424	.2563	.0112
Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	5.408	.0164	.0876	4.095	.0134	.1188	.0628	W -.0150
Stddev	.009	.0014	.0004	.008	.0003	.0008	.0012	.0016
%RSD	.1676	8.666	.4536	.1925	2.066	.6779	1.874	10.47
#1	5.401	.0174	.0873	4.089	.0132	.1183	.0636	-.0161
#2	5.414	.0154	.0879	4.100	.0136	.1194	.0619	-.0139
Elem	Li6707	P_1774						
Avg	.6303	1.893						
Stddev	.0018	.004						
%RSD	.2836	.2297						
#1	.6290	1.890						
#2	.6315	1.896						

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Sample Name: JC66684-7 Acquired: 5/31/2018 0:12:20 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	.9600	.0143	-.0005	.1599	.3351	.0467	6.397	.3720
Stddev	.0004	.0000	.0003	.0001	.0007	.0001	.062	.0014
%RSD	.0426	.1931	64.47	.0432	.2099	.1455	.9719	.3724
#1	.9597	.0143	-.0003	.1599	.3356	.0466	6.441	.3730
#2	.9603	.0143	-.0007	.1600	.3346	.0467	6.353	.3710
Elem	Ag3280	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068
Avg	.0057	.3213	.8161	.0356	-.0000	.1979	-.0003	.0010
Stddev	.0002	.0007	.0007	.0003	.0014	.0028	.0056	.0014
%RSD	4.128	.2085	.0873	.8317	6467.	1.440	1800.	140.1
#1	.0055	.3218	.8156	.0359	-.0010	.2000	-.0043	.0000
#2	.0058	.3208	.8167	.0354	.0009	.1959	.0037	.0019
Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	187.0	13.12	F 401.4	76.03	44.88	1.820	.2833	.0123
Stddev	.1	.03	.2	.09	.00	.002	.0003	.0004
%RSD	.0628	.2084	.0554	.1207	.0063	.1198	.1137	3.010
#1	186.9	13.10	401.5	76.10	44.88	1.821	.2831	.0121
#2	187.1	13.14	401.2	75.97	44.88	1.818	.2835	.0126
Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	4.562	.0170	.1152	4.416	.0133	.1173	.0415	W -.0160
Stddev	.008	.0002	.0002	.003	.0001	.0004	.0021	.0016
%RSD	.1677	1.014	.1453	.0580	.4824	.3812	5.114	10.04
#1	4.568	.0169	.1153	4.418	.0132	.1176	.0400	-.0148
#2	4.557	.0171	.1151	4.415	.0133	.1170	.0430	-.0171
Elem	Li6707	P_1774						
Avg	.6636	2.349						
Stddev	.0010	.000						
%RSD	.1453	.0158						
#1	.6642	2.349						
#2	.6629	2.349						

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Sample Name: JC66684-5 Acquired: 5/31/2018 0:08:06 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	93706.	12128.	3652.2	7911.2
Stddev	182.	59.	8.3	13.1
%RSD	.19441	.48377	.22708	.16513
#1	93834.	12170.	3646.3	7901.9
#2	93577.	12087.	3658.0	7920.4

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Sample Name: JC66684-7 Acquired: 5/31/2018 0:12:20 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	93586.	12109.	3644.6	7882.6
Stddev	33.	26.	7.2	21.3
%RSD	.03502	.21507	.19814	.27068
#1	93609.	12127.	3639.5	7867.5
#2	93563.	12090.	3649.7	7897.7

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Sample Name: JC66684-9 Acquired: 5/31/2018 0:16:34 Type: Unk								
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000								
User: admin Custom ID1: Custom ID2: Custom ID3:								
Comment:								
Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	1.060	.0120	-.0001	.1445	.2842	.1145	6.849	.3156
Stddev	.001	.0001	.0004	.0003	.0007	.0005	.013	.0005
%RSD	.1074	.5417	282.9	.2001	.2498	.4769	.1939	.1506
#1	1.061	.0120	.0001	.1447	.2837	.1142	6.840	.3160
#2	1.059	.0121	-.0004	.1443	.2847	.1149	6.859	.3153
Elem	Ag3280	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068
Avg	.0055	.3116	.6851	.0324	.0003	.1706	.0003	.0005
Stddev	.0002	.0005	.0008	.0014	.0019	.0028	.0035	.0001
%RSD	2.854	.1671	.1163	4.173	743.7	1.638	1144.	25.79
#1	.0056	.3112	.6856	.0315	.0016	.1726	.0028	.0006
#2	.0054	.3119	.6845	.0334	-.0011	.1686	-.0022	.0004
Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	217.3	8.395	F 303.8	60.87	28.48	.9985	.1793	.0082
Stddev	.1	.005	.3	.29	.00	.0037	.0017	.0001
%RSD	.0351	.0569	.0944	.4700	.0026	.3682	.9362	1.076
#1	217.2	8.392	303.5	60.67	28.48	1.001	.1781	.0082
#2	217.3	8.398	304.0	61.07	28.48	.9959	.1804	.0081
Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	7.545	.0183	.0908	3.231	.0136	.0644	.3064	W -.0149
Stddev	.155	.0008	.0001	.001	.0019	.0008	.0017	.0019
%RSD	2.051	4.385	.1195	.0444	14.14	1.277	.5427	12.87
#1	7.655	.0189	.0909	3.230	.0150	.0649	.3076	-.0136
#2	7.436	.0177	.0907	3.232	.0123	.0638	.3052	-.0163
Elem	Li6707	P_1774						
Avg	.5370	2.797						
Stddev	.0002	.006						
%RSD	.0404	.2335						
#1	.5368	2.802						
#2	.5371	2.792						

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Sample Name: JC66684-10 Acquired: 5/31/2018 0:20:50 Type: Unk								
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000								
User: admin Custom ID1: Custom ID2: Custom ID3:								
Comment:								
Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	.8201	.0129	-.0007	.1442	.3427	.0462	4.097	.3507
Stddev	.0031	.0001	.0002	.0006	.0015	.0004	.006	.0005
%RSD	.3805	.5900	35.46	.4068	.4239	.9416	.1529	.1416
#1	.8179	.0129	-.0005	.1446	.3417	.0465	4.092	.3510
#2	.8223	.0128	-.0008	.1438	.3437	.0459	4.101	.3503
Elem	Ag3280	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068
Avg	.0067	.3261	.7651	.0317	-.0009	.1901	-.0026	.0006
Stddev	.0002	.0013	.0017	.0012	.0021	.0015	.0017	.0004
%RSD	3.345	.4085	.2263	3.840	237.6	.8008	65.00	62.83
#1	.0069	.3251	.7664	.0325	-.0024	.1890	-.0014	.0009
#2	.0066	.3270	.7639	.0308	.0006	.1912	-.0038	.0003
Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	181.3	14.58	F 387.0	74.69	42.88	1.871	.2869	.0125
Stddev	.3	.00	.7	.15	.06	.015	.0002	.0005
%RSD	.1781	.0111	.1811	.1972	.1468	.8036	.0576	3.754
#1	181.1	14.58	386.5	74.79	42.83	1.860	.2870	.0121
#2	181.5	14.58	387.5	74.58	42.92	1.881	.2867	.0128
Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	4.687	.0165	.1138	4.486	.0135	.1179	.0527	W -.0150
Stddev	.037	.0012	.0007	.007	.0005	.0004	.0042	.0004
%RSD	.7936	7.415	.6161	.1523	3.398	.3071	7.992	2.667
#1	4.713	.0157	.1133	4.481	.0132	.1176	.0497	-.0147
#2	4.660	.0174	.1143	4.491	.0139	.1181	.0556	-.0153
Elem	Li6707	P_1774						
Avg	.6194	3.144						
Stddev	.0023	.001						
%RSD	.3641	.0451						
#1	.6178	3.145						
#2	.6210	3.143						

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Sample Name: JC66684-9 Acquired: 5/31/2018 0:16:34 Type: Unk					
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000					
User: admin Custom ID1: Custom ID2: Custom ID3:					
Comment:					
Int. Std.	Y_3600	Y_3710	Y_2243	In2306	
Avg	93410.	12109.	3648.7	7854.1	
Stddev	135.	40.	4.5	10.3	
%RSD	.14446	.32757	.12293	.13122	
#1	93505.	12137.	3645.5	7846.8	
#2	93314.	12081.	3651.8	7861.4	

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[Zoom In](#)
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Sample Name: JC66684-10 Acquired: 5/31/2018 0:20:50 Type: Unk					
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000					
User: admin Custom ID1: Custom ID2: Custom ID3:					
Comment:					
Int. Std.	Y_3600	Y_3710	Y_2243	In2306	
Avg	94201.	12245.	3661.6	7901.5	
Stddev	152.	22.	3.3	8.1	
%RSD	.16114	.18181	.08978	.10210	
#1	94308.	12261.	3663.9	7907.2	
#2	94093.	12229.	3659.2	7895.8	

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◀ Zoom In ▶
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Sample Name: JC66684-12 Acquired: 5/31/2018 0:24:58 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	.6708	.0163	W -.0009	.1573	.3569	.0376	3.641	.3962
Stddev	.0002	.0001	.0003	.0004	.0010	.0004	.004	.0002
%RSD	.0312	.4739	34.10	.2792	.2677	1.138	.1171	.0537
#1	.6706	.0163	-.0011	.1576	.3576	.0373	3.644	.3963
#2	.6709	.0162	-.0007	.1570	.3562	.0379	3.638	.3960
Elem	Ag3280	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068
Avg	.0051	.3467	.8887	.0427	.0004	.2045	-.0024	.0034
Stddev	.0000	.0001	.0001	.0005	.0014	.0009	.0018	.0002
%RSD	.5011	.0413	.0096	1.256	334.6	.4260	73.81	6.433
#1	.0051	.3468	.8886	.0423	.0015	.2038	-.0037	.0033
#2	.0051	.3466	.8887	.0430	-.0006	.2051	-.0012	.0036
Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	197.4	14.00	F 435.4	89.04	53.97	1.690	.3401	.0137
Stddev	.1	.02	.4	.08	.10	.004	.0010	.0003
%RSD	.0592	.1428	.0941	.0874	.1896	.2687	.2822	2.285
#1	197.5	14.01	435.7	89.09	54.04	1.693	.3394	.0139
#2	197.3	13.98	435.1	88.98	53.90	1.687	.3408	.0135
Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	6.335	.0164	.1130	4.937	.0156	.1123	.0811	W -.0151
Stddev	.012	.0002	.0002	.009	.0016	.0001	.0024	.0009
%RSD	.1872	1.502	.1514	.1890	10.22	.0875	2.984	5.886
#1	6.343	.0162	.1131	4.944	.0167	.1123	.0794	-.0157
#2	6.326	.0166	.1129	4.931	.0144	.1122	.0828	-.0145
Elem	Li6707	P_1774						
Avg	.7503	4.294						
Stddev	.0000	.012						
%RSD	.0047	.2770						
#1	.7503	4.302						
#2	.7502	4.285						

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◀ Zoom In ▶
Zoom Out

Sample Name: JC66684-14 Acquired: 5/31/2018 0:29:07 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	.9716	.0146	-.0008	.1714	.3631	.0628	5.143	.3799
Stddev	.0070	.0001	.0002	.0007	.0003	.0002	.003	.0002
%RSD	.7201	.9817	29.42	.3986	.0806	.3383	.0497	.0397
#1	.9766	.0147	-.0009	.1719	.3633	.0629	5.141	.3798
#2	.9667	.0145	-.0006	.1710	.3629	.0626	5.144	.3800
Elem	Ag3280	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068
Avg	.0061	.3358	.9992	.0306	.0000	.2148	-.0014	.0014
Stddev	.0015	.0007	.0019	.0007	.0000	.0021	.0004	.0025
%RSD	24.05	.2091	.1951	2.157	296.7	.9598	32.95	183.5
#1	.0072	.3363	1.001	.0310	.0000	.2163	-.0010	.0032
#2	.0051	.3353	.9978	.0301	-.0000	.2134	-.0017	-.0004
Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	209.1	11.36	F 409.2	91.88	57.25	1.928	.3607	.0124
Stddev	1.3	.03	2.4	.22	.33	.004	.0004	.0001
%RSD	.6194	.2738	.5815	.2429	.5679	.2351	.1182	.4282
#1	210.0	11.38	410.9	92.03	57.48	1.925	.3610	.0125
#2	208.2	11.34	407.6	91.72	57.02	1.931	.3604	.0124
Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	5.668	.0184	.1112	4.760	.0154	.1253	.1960	W -.0147
Stddev	.035	.0003	.0006	.005	.0007	.0005	.0007	.0017
%RSD	.6222	1.364	.4964	.1045	4.773	.3691	.3632	11.38
#1	5.692	.0185	.1116	4.763	.0148	.1256	.1965	-.0135
#2	5.643	.0182	.1108	4.756	.0159	.1250	.1955	-.0159
Elem	Li6707	P_1774						
Avg	.7443	3.729						
Stddev	.0038	.008						
%RSD	.5169	.2169						
#1	.7470	3.735						
#2	.7416	3.724						

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Sample Name: JC66684-12 Acquired: 5/31/2018 0:24:58 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	94393.	12276.	3652.9	7839.8
Stddev	189.	34.	10.3	28.3
%RSD	.20005	.28041	.28202	.36159
#1	94260.	12300.	3645.6	7819.7
#2	94527.	12252.	3660.2	7859.8

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◀ Zoom In ▶
Zoom Out

Sample Name: JC66684-14 Acquired: 5/31/2018 0:29:07 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	93328.	12140.	3603.6	7811.7
Stddev	125.	27.	5.3	6.2
%RSD	.13348	.22088	.14607	.07958
#1	93416.	12159.	3599.9	7807.3
#2	93240.	12121.	3607.4	7816.1

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Sample Name: CCV Acquired: 5/31/2018 0:33:17 Type: QC									
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000									
User: admin Custom ID1: Custom ID2: Custom ID3:									
Comment:									
Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.020	1.974	1.986	1.982	1.988	1.952	2.030	2.015	2.436
Stddev	.004	.007	.019	.021	.003	.007	.003	.020	.0021
%RSD	.2013	.3491	.9770	1.061	.1589	.3365	.1322	.9805	.8658
#1	2.017	1.969	1.999	1.997	1.985	1.947	2.028	2.029	2.421
#2	2.022	1.979	1.972	1.967	1.990	1.957	2.032	2.001	2.450
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									
Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.971	2.033	1.981	2.067	2.045	1.999	1.992	39.35	39.50
Stddev	.001	.019	.020	.026	.018	.022	.022	.12	.08
%RSD	.0477	.9410	1.020	1.275	.8534	1.089	1.120	.3001	.2020
#1	1.971	2.047	1.995	2.086	2.058	2.015	2.008	39.27	39.45
#2	1.972	2.020	1.967	2.049	2.033	1.984	1.976	39.44	39.56
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	40.37	39.53	40.50	40.36	1.986	2.034	5.102	2.036	2.010
Stddev	.15	.21	.14	.07	.024	.019	.062	.019	.006
%RSD	.3689	.5407	.3576	.1683	1.209	.9319	1.220	.9207	.3109
#1	40.26	39.38	40.40	40.31	2.003	2.047	5.146	2.049	2.005
#2	40.47	39.68	40.60	40.41	1.969	2.020	5.058	2.022	2.014
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

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Sample Name: CCV Acquired: 5/31/2018 0:33:17 Type: QC									
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000									
User: admin Custom ID1: Custom ID2: Custom ID3:									
Comment:									
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	1.998	2.005	1.999	1.972	2.009	1.990	2.040		
Stddev	.002	.019	.001	.026	.021	.004	.021		
%RSD	.0962	.9571	.0583	1.331	1.062	.2182	1.009		
#1	1.997	2.018	1.998	1.991	2.024	1.987	2.055		
#2	1.999	1.991	1.999	1.953	1.994	1.993	2.026		
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass		
Value									
Range									
Int. Std.	Y_3600	Y_3710	Y_2243	In2306					
Units	Cts/S	Cts/S	Cts/S	Cts/S					
Avg	91866.	11714.	3540.7	7776.8					
Stddev	160.	66.	30.7	63.6					
%RSD	.17469	.56008	.86794	.81815					
#1	91980.	11760.	3519.0	7731.8					
#2	91753.	11667.	3562.4	7821.8					

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Sample Name: CCB Acquired: 5/31/2018 0:37:21 Type: QC									
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000									
User: admin Custom ID1: Custom ID2: Custom ID3:									
Comment:									
Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0002	-0.0001	.0001	.0003	.0002	-0.0002	-0.0000	.0001	.0004
Stddev	.0002	.0000	.0000	.0001	.0003	.0002	.0000	.0001	.0001
%RSD	76.66	19.07	29.37	18.18	135.7	81.24	58.26	101.2	30.98
#1	-0.0001	-0.0002	.0001	.0003	.0000	-0.0001	-0.0000	.0002	.0005
#2	-0.0003	-0.0001	.0001	.0004	.0004	-0.0003	-0.0001	.0000	.0003
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									
Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0001	-0.0005	-0.0013	.0009	.0000	.0013	.0013	-0.0031	-0.0097
Stddev	.0002	.0000	.0007	.0008	.0007	.0006	.0004	.0005	.0018
%RSD	163.2	4.276	52.26	99.45	1580.	49.46	27.24	16.19	19.02
#1	.0000	-0.0005	-0.0018	.0015	-0.0005	.0008	.0016	-0.0034	-0.0110
#2	-0.0002	-0.0005	-0.0008	.0003	.0006	.0017	.0011	-0.0027	-0.0084
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0007	-0.0156	.0304	.0016	.0013	.0011	.0029	-0.0015	-0.0000
Stddev	.0019	.0047	.0324	.0056	.0003	.0000	.0007	.0002	.0000
%RSD	275.5	29.80	106.4	356.5	20.92	2.619	24.77	13.77	55.58
#1	-0.0007	-0.0189	.0534	.0056	.0015	.0011	.0024	-0.0013	-0.0000
#2	.0021	-0.0123	.0075	-0.0024	.0011	.0011	.0034	-0.0016	-0.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

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Sample Name: CCB Acquired: 5/31/2018 0:37:21 Type: QC									
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000									
User: admin Custom ID1: Custom ID2: Custom ID3:									
Comment:									
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	-0.0005	.0010	.0000	-0.0015	.0009	.0007	.0035		
Stddev	.0002	.0004	.0002	.0016	.0008	.0001	.0012		
%RSD	44.70	39.75	481.8	108.9	86.01	9.672	35.39		
#1	-0.0003	.0013	-0.0001	-0.0003	.0003	.0008	.0044		
#2	-0.0006	.0007	.0002	-0.0027	.0014	.0007	.0026		
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass		
High Limit									
Low Limit									
Int. Std.	Y_3600	Y_3710	Y_2243	In2306					
Units	Cts/S	Cts/S	Cts/S	Cts/S					
Avg	96299.	11796.	3687.3	8771.9					
Stddev	165.	67.	3	12.2					
%RSD	.17098	.56656	.00682	.13928					
#1	96416.	11843.	3687.5	8780.5					
#2	96183.	11748.	3687.2	8763.2					

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Sample Name: JC66684-16 Acquired: 5/31/2018 0:41:43 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	.8523	.0090	.0003	.1348	.3253	.0815	6.083	.3240
Stddev	.0007	.0000	.0001	.0004	.0014	.0000	.024	.0005
%RSD	.0856	.3846	25.20	.2607	.4354	.0307	.3928	.1513
#1	.8528	.0090	.0003	.1346	.3263	.0815	6.066	.3237
#2	.8518	.0089	.0002	.1351	.3243	.0816	6.100	.3244
Elem	Ag3280	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068
Avg	.0060	.2832	1.176	.0333	.0010	.8311	-0.0019	.0046
Stddev	.0000	.0004	.000	.0002	.0004	.0007	.0007	.0008
%RSD	.4686	.1252	.0265	.5652	41.41	.0856	36.37	17.07
#1	.0061	.2830	1.176	.0334	.0013	.8316	-.0024	.0052
#2	.0060	.2835	1.176	.0332	.0007	.8306	-.0014	.0041
Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	168.9	17.95	F 351.5	69.72	30.69	1.780	.1987	.0114
Stddev	.2	.05	.7	.24	.00	.002	.0003	.0001
%RSD	.1074	.2564	.1871	.3451	.0061	.0977	.1271	.6052
#1	169.0	17.99	351.9	69.89	30.69	1.779	.1988	.0114
#2	168.8	17.92	351.0	69.55	30.69	1.781	.1985	.0113
Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	3.914	.0213	.1180	4.254	.0100	.0833	.2892	W -.0112
Stddev	.003	.0000	.0000	.009	.0015	.0003	.0011	.0002
%RSD	.0851	.0700	.0180	.2209	14.79	.3975	.3913	2.223
#1	3.917	.0213	.1180	4.247	.0089	.0836	.2884	-.0113
#2	3.912	.0213	.1180	4.261	.0110	.0831	.2900	-.0110
Elem	Li6707	P_1774						
Avg	.5950	4.808						
Stddev	.0004	.003						
%RSD	.0596	.0637						
#1	.5948	4.806						
#2	.5953	4.811						

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Sample Name: JC66684-16 Acquired: 5/31/2018 0:41:43 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	93267.	12057.	3604.8	7914.5
Stddev	167.	9.	2.1	1.0
%RSD	.17904	.07205	.05701	.01307
#1	93149.	12051.	3606.2	7913.8
#2	93385.	12063.	3603.3	7915.2

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Sample Name: JC66684-17 Acquired: 5/31/2018 0:46:00 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	.5786	.0093	-0.0005	.1418	.3259	.0482	6.865	.3258
Stddev	.0005	.0000	.0001	.0005	.0008	.0003	.008	.0000
%RSD	.0826	.3339	25.64	.3415	.2367	.5958	.1189	.0100
#1	.5782	.0093	-.0005	.1415	.3264	.0480	6.671	.3258
#2	.5789	.0092	-.0004	.1421	.3253	.0484	6.660	.3257
Elem	Ag3280	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068
Avg	.0067	.2844	.8082	.0367	.0012	.2944	-0.0042	.0030
Stddev	.0005	.0006	.0011	.0026	.0013	.0004	.0013	.0011
%RSD	8.124	.1967	.1352	7.050	107.8	.1368	30.55	37.37
#1	.0063	.2848	.8090	.0349	.0003	.2942	-.0033	.0022
#2	.0071	.2840	.8074	.0385	.0020	.2947	-.0051	.0038
Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	160.4	13.88	F 354.7	71.92	32.88	1.885	.2242	.0122
Stddev	.2	.02	1.5	.47	.09	.012	.0002	.0000
%RSD	.0949	.1602	.4244	.6575	.2650	.6243	.1111	.2560
#1	160.3	13.86	353.6	71.58	32.82	1.877	.2240	.0122
#2	160.6	13.89	355.7	72.25	32.95	1.894	.2243	.0122
Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	9.242	.0175	.1035	4.519	.0159	.0981	.0918	W -.0127
Stddev	.029	.0008	.0003	.007	.0011	.0000	.0010	.0020
%RSD	.3138	4.575	.2603	.1549	6.912	.0315	1.140	15.99
#1	9.262	.0169	.1033	4.524	.0167	.0981	.0926	-.0113
#2	9.221	.0180	.1037	4.514	.0151	.0981	.0911	-.0141
Elem	Li6707	P_1774						
Avg	.6019	3.341						
Stddev	.0008	.011						
%RSD	.1381	.3191						
#1	.6014	3.334						
#2	.6025	3.349						

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Sample Name: JC66684-17 Acquired: 5/31/2018 0:46:00 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	92010.	11911.	3574.0	7841.4
Stddev	216.	59.	2.6	9.8
%RSD	.23520	.49298	.07201	.12436
#1	91857.	11953.	3572.1	7834.5
#2	92163.	11870.	3575.8	7848.3

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Sample Name: JC66684-18 Acquired: 5/31/2018 0:50:16 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	.6007	.0144	W -.0008	.1754	.3931	.0507	4.779	.4094
Stddev	.0004	.0000	.0002	.0007	.0002	.0010	.007	.0010
%RSD	.0650	.1512	29.06	.3968	.0522	1.882	.1515	.2499
#1	.6010	.0144	-.0010	.1749	.3929	.0500	4.785	.4101
#2	.6004	.0144	-.0007	.1759	.3932	.0514	4.774	.4086
Elem	Ag3280	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068
Avg	.0054	.3550	.9225	.0295	.0001	.2194	-.0029	.0017
Stddev	.0002	.0017	.0008	.0005	.0016	.0001	.0015	.0006
%RSD	3.911	.4889	.0875	1.691	2915.	.0572	53.86	34.60
#1	.0056	.3562	.9219	.0299	-.0011	.2195	-.0040	.0013
#2	.0053	.3538	.9230	.0292	.0012	.2193	-.0018	.0021
Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	192.5	15.38	F 404.1	97.43	55.91	2.256	.3596	.0123
Stddev	.4	.06	1.3	.52	.14	.005	.0016	.0003
%RSD	.2266	.4128	.3297	.5342	.2524	.2447	.4544	2.518
#1	192.8	15.42	405.1	97.80	56.01	2.260	.3584	.0126
#2	192.2	15.34	403.2	97.06	55.81	2.252	.3608	.0121
Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	5.540	.0170	.1087	5.037	.0134	.1140	.1155	W -.0143
Stddev	.000	.0008	.0000	.005	.0001	.0006	.0047	.0021
%RSD	.0020	4.684	.0343	.0984	.7101	.5089	4.061	14.79
#1	5.540	.0165	.1087	5.041	.0135	.1136	.1188	-.0158
#2	5.540	.0176	.1086	5.034	.0134	.1144	.1121	-.0128
Elem	Li6707	P_1774						
Avg	.7668	3.934						
Stddev	.0015	.000						
%RSD	.1942	.0084						
#1	.7678	3.934						
#2	.7657	3.934						

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Sample Name: JC66684-19 Acquired: 5/31/2018 0:54:23 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	.6715	.0160	W -.0011	.1788	.4078	.0341	5.073	.4245
Stddev	.0002	.0001	.0001	.0008	.0002	.0004	.004	.0002
%RSD	.0237	.5422	9.152	.4467	.0549	1.114	.0864	.0393
#1	.6714	.0161	-.0010	.1782	.4079	.0343	5.070	.4244
#2	.6717	.0160	-.0012	.1794	.4076	.0338	5.076	.4246
Elem	Ag3280	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068
Avg	.0044	.3580	.9622	.0559	-.0003	.2312	-.0067	-.0005
Stddev	.0002	.0010	.0012	.0016	.0004	.0008	.0014	.0022
%RSD	4.530	.2688	.1256	2.945	145.1	.3480	20.31	430.8
#1	.0043	.3573	.9614	.0571	.0000	.2306	-.0057	-.0021
#2	.0045	.3587	.9631	.0548	-.0006	.2318	-.0076	.0011
Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	196.5	19.51	F 461.4	98.05	54.88	2.429	.3698	.0146
Stddev	.4	.00	1.3	.50	.04	.010	.0021	.0005
%RSD	.1794	.0103	.2908	.5084	.0785	.3956	.5746	3.159
#1	196.2	19.51	462.3	98.40	54.91	2.423	.3683	.0149
#2	196.7	19.51	460.4	97.69	54.85	2.436	.3713	.0143
Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	5.212	.0171	.1280	5.323	.0146	.1162	.1152	W -.0135
Stddev	.017	.0002	.0000	.002	.0007	.0001	.0032	.0001
%RSD	.3290	1.447	.0373	.0309	4.934	.0494	2.800	.9474
#1	5.200	.0169	.1280	5.324	.0141	.1162	.1175	-.0134
#2	5.224	.0173	.1279	5.321	.0151	.1161	.1130	-.0136
Elem	Li6707	P_1774						
Avg	.7767	4.771						
Stddev	.0018	.014						
%RSD	.2264	.2849						
#1	.7754	4.761						
#2	.7779	4.780						

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Sample Name: JC66684-18 Acquired: 5/31/2018 0:50:16 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	93585.	12124.	3611.6	7804.5
Stddev	.349	4.	4.3	7.1
%RSD	.37270	.03352	.11774	.09119
#1	93339.	12127.	3614.6	7799.4
#2	93832.	12121.	3608.6	7809.5

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Sample Name: JC66684-19 Acquired: 5/31/2018 0:54:23 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	93761.	12155.	3595.2	7807.0
Stddev	.227	31.	1.6	10.3
%RSD	.24248	.25854	.04580	.13226
#1	93921.	12177.	3596.4	7799.7
#2	93600.	12133.	3594.1	7814.3

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Sample Name: JC66684-21 Acquired: 5/31/2018 0:58:31 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	.6412	.0156	W -.0009	.1575	.3675	.0312	5.713	.3881
Stddev	.0004	.0001	.0001	.0005	.0007	.0006	.012	.0009
%RSD	.0668	.6221	8.512	.3135	.1879	1.769	.2153	.2437
#1	.6408	.0157	-.0009	.1579	.3670	.0308	5.722	.3888
#2	.6415	.0155	-.0008	.1572	.3680	.0316	5.705	.3874
Elem	Ag3280	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068
Avg	.0047	.3174	.8945	.0486	.0004	.1900	-.0043	.0011
Stddev	.0003	.0006	.0005	.0016	.0006	.0002	.0018	.0011
%RSD	7.195	.1741	.0528	3.238	152.5	.1155	41.67	107.2
#1	.0045	.3170	.8948	.0475	-.0000	.1899	-.0056	.0019
#2	.0050	.3178	.8942	.0497	.0008	.1902	-.0030	.0003
Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	180.9	13.46	F 427.7	87.04	50.56	2.032	.3217	.0134
Stddev	.0	.02	.1	.07	.02	.007	.0014	.0000
%RSD	.0101	.1738	.0141	.0760	.0454	.3283	.4482	.2618
#1	180.9	13.48	427.6	87.09	50.55	2.027	.3228	.0134
#2	180.9	13.44	427.7	86.99	50.58	2.036	.3207	.0134
Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	4.536	.0178	.1110	4.825	.0134	.1088	.1452	W -.0138
Stddev	.042	.0018	.0001	.016	.0013	.0013	.0004	.0047
%RSD	.9311	10.11	.1324	.3214	10.01	1.231	.3006	33.82
#1	4.566	.0165	.1109	4.836	.0124	.1097	.1449	-.0171
#2	4.506	.0191	.1111	4.814	.0143	.1078	.1455	-.0105
Elem	Li6707	P_1774						
Avg	.7345	3.824						
Stddev	.0005	.001						
%RSD	.0659	.0169						
#1	.7342	3.824						
#2	.7349	3.825						

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Sample Name: JC66684-23 Acquired: 5/31/2018 1:02:38 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	.7376	.0105	-.0003	.1409	.3617	.0336	7.838	.3696
Stddev	.0001	.0001	.0002	.0008	.0002	.0002	.045	.0003
%RSD	.0101	.5396	72.07	.5626	.0659	.6671	.5717	.0779
#1	.7377	.0106	-.0005	.1414	.3615	.0338	7.806	.3698
#2	.7376	.0105	-.0002	.1403	.3619	.0335	7.870	.3694
Elem	Ag3280	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068
Avg	.0048	.2808	.7264	.0380	.0004	.1751	-.0038	-.0007
Stddev	.0014	.0003	.0028	.0003	.0010	.0005	.0010	.0002
%RSD	30.08	.1208	.3834	.7018	254.0	.2688	26.20	25.72
#1	.0038	.2811	.7283	.0378	.0011	.1748	-.0031	-.0008
#2	.0058	.2806	.7244	.0382	-.0003	.1755	-.0045	-.0006
Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	141.2	14.52	F 364.4	72.37	30.58	1.994	.2090	.0114
Stddev	.1	.02	.3	.18	.00	.003	.0011	.0001
%RSD	.0825	.1637	.0917	.2467	.0135	.1355	.5288	1.201
#1	141.1	14.54	364.1	72.24	30.58	1.996	.2082	.0113
#2	141.3	14.51	364.6	72.49	30.58	1.993	.2098	.0115
Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	3.435	.0168	.0952	4.408	.0119	.1210	.2268	W -.0141
Stddev	.031	.0005	.0000	.004	.0010	.0004	.0031	.0005
%RSD	.9033	3.062	.0212	.0958	8.772	.3470	1.364	3.843
#1	3.457	.0172	.0952	4.411	.0127	.1213	.2246	-.0144
#2	3.414	.0165	.0952	4.405	.0112	.1207	.2290	-.0137
Elem	Li6707	P_1774						
Avg	.6003	4.565						
Stddev	.0006	.010						
%RSD	.1004	.2276						
#1	.5998	4.572						
#2	.6007	4.557						

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[Zoom Out](#)

Sample Name: JC66684-21 Acquired: 5/31/2018 0:58:31 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	93820.	12157.	3621.7	7880.7
Stddev	121.	21.	4.3	15.2
%RSD	.12902	.16913	.11822	.19283
#1	93734.	12172.	3618.7	7870.0
#2	93905.	12143.	3624.8	7891.5

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Sample Name: JC66684-23 Acquired: 5/31/2018 1:02:38 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	95421.	12304.	3682.8	7932.4
Stddev	333.	12.	2.8	1.7
%RSD	.34904	.10123	.07519	.02151
#1	95186.	12313.	3680.9	7931.2
#2	95657.	12295.	3684.8	7933.6

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Sample Name: JC66684-25 Acquired: 5/31/2018 1:06:53 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	.6721	.0136	-.0006	.1681	.3860	.0599	4.343	.4086
Stddev	.0009	.0002	.0004	.0004	.0016	.0001	.006	.0006
%RSD	.1290	1.547	68.72	.2126	.4261	.1130	.1331	.1374
#1	.6715	.0134	-.0003	.1684	.3872	.0598	4.339	.4082
#2	.6727	.0137	-.0009	.1679	.3849	.0599	4.347	.4090
Elem	Ag3280	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068
Avg	.0065	.3919	.9587	.0298	.0004	.2145	-.0040	.0001
Stddev	.0002	.0014	.0015	.0006	.0006	.0011	.0002	.0012
%RSD	2.600	.3602	.1543	1.874	156.5	.5118	5.417	2199.
#1	.0064	.3929	.9597	.0294	.0008	.2138	-.0038	-.0008
#2	.0066	.3909	.9577	.0301	-.0000	.2153	-.0041	.0009
Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	200.0	16.28	F 412.8	95.70	53.39	2.472	.3467	.0128
Stddev	.1	.02	.4	.02	.02	.006	.0009	.0000
%RSD	.0594	.0936	.0996	.0182	.0360	.2588	.2463	.3887
#1	200.0	16.27	412.5	95.69	53.40	2.477	.3473	.0127
#2	200.1	16.29	413.1	95.72	53.37	2.468	.3461	.0128
Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	5.644	.0183	.1173	5.385	.0123	.1250	.1019	W -.0156
Stddev	.028	.0008	.0001	.008	.0007	.0004	.0044	.0015
%RSD	.4963	4.307	.1186	.1537	5.942	.3414	4.346	9.606
#1	5.664	.0177	.1172	5.379	.0117	.1247	.0988	-.0146
#2	5.624	.0188	.1174	5.391	.0128	.1253	.1051	-.0167
Elem	Li6707	P_1774						
Avg	.7740	4.282						
Stddev	.0021	.003						
%RSD	.2771	.0798						
#1	.7725	4.280						
#2	.7755	4.285						

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Sample Name: JC66684-27 Acquired: 5/31/2018 1:11:00 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	.6603	.0156	-.0007	.1846	.3959	.0435	4.590	.4201
Stddev	.0005	.0000	.0001	.0002	.0004	.0003	.003	.0012
%RSD	.0706	.1919	12.99	.1267	.0979	.6448	.0691	.2818
#1	.6600	.0156	-.0006	.1844	.3962	.0433	4.592	.4209
#2	.6607	.0157	-.0008	.1847	.3956	.0437	4.587	.4192
Elem	Ag3280	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068
Avg	.0038	.3469	.9950	.0438	-.0000	.2205	-.0043	.0020
Stddev	.0006	.0006	.0007	.0009	.0011	.0009	.0003	.0009
%RSD	16.95	.1750	.0683	2.065	23130.	.4269	7.455	42.80
#1	.0043	.3465	.9946	.0444	.0008	.2199	-.0041	.0027
#2	.0034	.3473	.9955	.0432	-.0008	.2212	-.0046	.0014
Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	193.2	18.55	F 451.5	97.54	53.19	2.315	.3442	.0139
Stddev	.1	.03	.1	.11	.02	.011	.0005	.0001
%RSD	.0615	.1838	.0297	.1157	.0367	.4776	.1397	1.057
#1	193.3	18.58	451.4	97.46	53.17	2.307	.3439	.0138
#2	193.2	18.53	451.6	97.62	53.20	2.323	.3446	.0140
Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	5.428	.0177	.1254	5.162	.0129	.1189	.1005	W -.0164
Stddev	.006	.0001	.0000	.009	.0007	.0003	.0021	.0003
%RSD	.1117	.5514	.0221	.1720	5.566	.2488	2.052	1.932
#1	5.423	.0178	.1254	5.169	.0124	.1192	.0991	-.0162
#2	5.432	.0177	.1255	5.156	.0134	.1187	.1020	-.0166
Elem	Li6707	P_1774						
Avg	.7727	4.516						
Stddev	.0008	.011						
%RSD	.1087	.2421						
#1	.7721	4.508						
#2	.7733	4.523						

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Sample Name: JC66684-25 Acquired: 5/31/2018 1:06:53 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	92795.	11959.	3582.8	7753.9
Stddev	580.	18.	4.9	15.4
%RSD	.62522	.14767	.13607	.19854
#1	92385.	11971.	3586.3	7764.8
#2	93206.	11946.	3579.4	7743.1

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Sample Name: JC66684-27 Acquired: 5/31/2018 1:11:00 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	93396.	12092.	3604.2	7792.7
Stddev	95.	46.	6.6	7.1
%RSD	.10119	.38256	.18386	.09120
#1	93463.	12125.	3608.9	7797.7
#2	93329.	12060.	3599.5	7787.7

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Sample Name: JC66684-29 Acquired: 5/31/2018 1:15:08 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	.7882	.0100	-.0002	.1350	.3488	.0387	6.784	.3500
Stddev	.0020	.0000	.0000	.0004	.0002	.0004	.027	.0006
%RSD	.2538	.1784	11.59	.2613	.0649	.9650	.3957	.1766
#1	.7868	.0100	-.0002	.1347	.3490	.0384	6.765	.3496
#2	.7896	.0100	-.0002	.1352	.3487	.0389	6.803	.3505
Elem	Ag3280	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068
Avg	.0056	.3374	.7309	.0299	-.0012	.1688	-.0033	.0003
Stddev	.0004	.0007	.0001	.0005	.0009	.0002	.0011	.0003
%RSD	7.489	2121	.0088	1.579	76.14	.1286	33.22	87.83
#1	.0053	.3369	.7309	.0295	-.0006	.1690	-.0040	.0005
#2	.0059	.3379	.7310	.0302	-.0019	.1687	-.0025	.0001
Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	158.4	17.13	F 383.1	75.58	32.59	2.803	.2212	.0118
Stddev	.1	.02	.9	.14	.00	.008	.0001	.0002
%RSD	.0613	.1113	.2316	.1870	.0105	.2857	.0401	1.746
#1	158.4	17.12	382.5	75.48	32.59	2.808	.2211	.0116
#2	158.5	17.15	383.8	75.68	32.59	2.797	.2213	.0119
Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	5.576	.0159	.1114	5.039	.0154	.1207	.0587	W -.0148
Stddev	.005	.0006	.0004	.001	.0005	.0002	.0022	.0009
%RSD	.0874	4.028	.3294	.0156	3.463	.1480	3.698	5.846
#1	5.580	.0163	.1112	5.038	.0157	.1206	.0602	-.0142
#2	5.573	.0154	.1117	5.039	.0150	.1208	.0572	-.0154
Elem	Li6707	P_1774						
Avg	.5999	3.923						
Stddev	.0022	.007						
%RSD	.3604	.1708						
#1	.5983	3.928						
#2	.6014	3.918						

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Sample Name: JC66684-29 Acquired: 5/31/2018 1:15:08 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	93425.	12058.	3607.4	7863.2
Stddev	383.	55.	5.8	9
%RSD	.40959	.45439	.16068	.01110
#1	93154.	12019.	3603.3	7863.8
#2	93695.	12097.	3611.5	7862.5

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Sample Name: CCV Acquired: 5/31/2018 1:19:25 Type: QC
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem Units	Ba4554 ppm	Be3130 ppm	Cd2288 ppm	Co2286 ppm	Cr2677 ppm	Cu3247 ppm	Mn2576 ppm	Ni2316 ppm	Ag3280 ppm
Avg	2.041	1.964	1.976	1.968	1.986	1.962	2.035	2.002	.2439
Stddev	.002	.001	.001	.001	.003	.004	.001	.001	.0003
%RSD	.1029	.0643	.0586	.0261	.1317	.2053	.0495	.0309	.1418
#1	2.039	1.965	1.977	1.969	1.988	1.960	2.035	2.003	.2442
#2	2.042	1.963	1.975	1.968	1.984	1.965	2.034	2.002	.2437

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
Value
Range

Elem Units	V_2924 ppm	Zn2062 ppm	As1890 ppm	Ti1908 ppm	Pb2203 ppm	Se1960 ppm	Sb2068 ppm	Al3961 ppm	Ca3179 ppm
Avg	1.972	2.013	1.969	2.051	2.025	1.988	1.985	39.38	39.29
Stddev	.003	.003	.000	.004	.003	.001	.003	.02	.04
%RSD	.1437	.1219	.0024	.1987	.1306	.0660	.1274	.0463	.0971
#1	1.974	2.015	1.969	2.049	2.027	1.987	1.983	39.39	39.32
#2	1.970	2.011	1.969	2.054	2.023	1.989	1.987	39.36	39.26

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
Value
Range

Elem Units	Fe2599 ppm	Mg2790 ppm	K_7664 ppm	Na5895 ppm	B_2089 ppm	Mo2020 ppm	Si2124 ppm	Sn1899 ppm	Sr4077 ppm
Avg	40.28	39.40	40.73	40.44	1.979	2.024	5.086	2.021	2.028
Stddev	.01	.08	.01	.01	.002	.000	.005	.001	.003
%RSD	.0215	.1944	.0122	.0309	.0808	.0208	.0985	.0321	.1309
#1	40.29	39.46	40.73	40.43	1.980	2.024	5.090	2.021	2.026
#2	40.27	39.35	40.72	40.45	1.978	2.023	5.083	2.020	2.030

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
Value
Range

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Sample Name: CCV Acquired: 5/31/2018 1:19:25 Type: QC
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem Units	Ti3349 ppm	W_2079 ppm	Zr3391 ppm	S_1820 ppm	Bi2230 ppm	Li6707 ppm	P_1774 ppm
Avg	2.002	1.993	2.006	1.960	2.006	1.988	2.029
Stddev	.002	.002	.003	.002	.001	.001	.001
%RSD	.1065	.0927	.1358	.0807	.0541	.0695	.0570
#1	2.001	1.992	2.004	1.959	2.005	1.987	2.030
#2	2.004	1.995	2.008	1.961	2.007	1.989	2.028

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
Value
Range

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	91602.	11580.	3529.7	7763.3
Stddev	140.	21.	10.5	16.5
%RSD	.15231	.18482	.29794	.21293

#1	91503.	11565.	3522.3	7751.6
#2	91700.	11595.	3537.2	7775.0

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Sample Name: CCB Acquired: 5/31/2018 1:23:29 Type: QC
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0002	-.0001	.0001	.0002	.0003	.0000	.0001	-.0001	-.0000
Stddev	.0002	.0000	.0001	.0001	.0002	.0003	.0001	.0001	.0005
%RSD	138.3	25.90	103.8	58.77	71.15	644.9	131.9	65.70	1166.
#1	-.0000	-.0001	.0002	.0003	.0001	.0002	.0002	-.0001	.0003
#2	-.0003	-.0001	.0000	.0001	.0004	-.0002	.0000	-.0002	-.0004

Check ? High Limit Low Limit Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass

Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000	-.0007	-.0014	.0007	.0008	.0007	.0016	-.0053	-.0129
Stddev	.0001	.0000	.0004	.0003	.0002	.0011	.0006	.0061	.0012
%RSD	188.2	5.189	27.81	50.68	29.08	152.7	35.65	116.0	9.635
#1	.0001	-.0007	-.0017	.0004	.0006	-.0001	.0012	-.0009	-.0120
#2	-.0000	-.0006	-.0011	.0009	.0009	.0014	.0020	-.0096	-.0138

Check ? High Limit Low Limit Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0045	.0061	.0422	-.0045	.0017	.0008	.0026	-.0013	-.0000
Stddev	.0009	.0005	.0035	.0091	.0008	.0002	.0009	.0005	.0001
%RSD	19.76	8.009	8.263	204.5	47.01	26.04	33.72	39.43	405.1
#1	.0039	.0057	.0446	.0020	.0012	.0009	.0033	-.0016	.0000
#2	.0052	.0064	.0397	-.0109	.0023	.0006	.0020	-.0009	-.0001

Check ? High Limit Low Limit Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass

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Sample Name: JC66920-1 Acquired: 5/31/2018 1:27:51 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	*****	.0055	7.911	.0614	F 11.59	W 9.207	2.918	2.426
Stddev	-----	.0000	.009	.0003	.02	.002	.001	.004
%RSD	-----	.2682	.1142	.5200	.1815	.0175	.0487	.1510

#1	-----	.0055	7.918	.0612	11.60	9.206	2.919	2.429
#2	-----	.0055	7.905	.0616	11.57	9.208	2.917	2.424

Elem	Ag3280	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068
Avg	F -.0432	.1962	F 26.23	.0434	F -.0209	.4149	F -.0434	.1665
Stddev	.0001	.0000	.07	.0008	.0001	.0021	.0031	.0002
%RSD	.3392	.0199	.2812	1.923	.7060	.4980	7.184	.1344

#1	-.0431	.1962	26.28	.0428	-.0208	.4134	-.0412	.1666
#2	-.0433	.1962	26.17	.0440	-.0210	.4163	-.0456	.1663

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	77.42	W 271.3	W 295.5	22.37	39.78	70.09	.8132	.0839
Stddev	.19	.3	.9	.09	.10	.15	.0022	.0005
%RSD	.2403	.1220	.3012	.3849	.2427	.2149	.2726	.5847

#1	77.29	271.0	294.8	22.31	39.71	69.98	.8148	.0836
#2	77.55	271.5	296.1	22.43	39.85	70.20	.8116	.0843

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	5.399	.2043	2.079	4.501	.3757	.1272	41.40	.0082
Stddev	.026	.0005	.007	.001	.0006	.0023	.10	.0015
%RSD	.4904	.2656	.3248	.0157	.1602	1.819	.2478	18.55

#1	5.417	.2047	2.074	4.501	.3761	.1288	41.47	.0071
#2	5.380	.2039	2.084	4.500	.3752	.1255	41.33	.0093

Elem	Li6707	P_1774
Avg	.1575	F 11.75
Stddev	.0020	.01
%RSD	1.281	.1265

#1	.1589	11.76
#2	.1561	11.74

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Sample Name: CCB Acquired: 5/31/2018 1:23:29 Type: QC
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000	.0008	.0002	-.0020	.0007	.0014	.0020
Stddev	.0003	.0003	.0001	.0003	.0011	.0003	.0004
%RSD	1490.	33.48	71.83	16.91	152.0	23.07	18.71
#1	.0002	.0009	.0001	-.0018	.0015	.0012	.0023
#2	-.0002	.0006	.0003	-.0022	-.0001	.0017	.0018

Check ? High Limit Low Limit Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	96341.	11692.	3675.7	8753.9
Stddev	41.	7.	5.4	2.5
%RSD	.04262	.06156	.14663	.02881

#1	96370.	11687.	3671.9	8755.7
#2	96312.	11697.	3679.5	8752.1

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Sample Name: JC66920-1 Acquired: 5/31/2018 1:27:51 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	88187.	11604.	3279.4	7647.4
Stddev	195.	39.	5.7	5.1
%RSD	.22129	.33380	.17367	.06693

#1	88049.	11631.	3275.3	7643.8
#2	88325.	11577.	3283.4	7651.0

Sample Name: JC66921-1 Acquired: 5/31/2018 1:32:00 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	.6327	.0043	.0115	.0706	.1646	.5548	3.107	.1775	.0058
Stddev	.0000	.0000	.0000	.0001	.0005	.0006	.004	.0002	.0001
%RSD	.0077	1.116	.1526	.1973	.2843	.1054	.1464	.0994	1.449
#1	.6327	.0044	.0115	.0705	.1642	.5544	3.103	.1774	.0059
#2	.6328	.0043	.0115	.0707	.1649	.5552	3.110	.1776	.0058
Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	.2325	.3852	.0245	-.0007	.0964	.0013	-.0000	89.51	89.31
Stddev	.0000	.0010	.0010	.0002	.0014	.0001	.0008	.09	.07
%RSD	.0028	.2532	3.898	24.12	1.477	11.29	2448.	.0952	.0807
#1	.2325	.3859	.0252	-.0006	.0974	.0012	-.0006	89.57	89.36
#2	.2325	.3845	.0239	-.0008	.0954	.0014	.0005	89.45	89.26
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	173.6	52.16	13.06	3.996	.7328	.0091	9.586	.0240	.2362
Stddev	.4	.02	.04	.012	.0010	.0003	.007	.0007	.0001
%RSD	.2357	.0321	.3118	.3029	.1327	3.326	.0694	3.032	.0245
#1	173.9	52.18	13.09	4.004	.7321	.0093	9.591	.0235	.2362
#2	173.3	52.15	13.04	3.987	.7335	.0089	9.581	.0245	.2362
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Avg	6.241	.0274	.1035	1.333	-.0042	.1313	2.276		
Stddev	.007	.0001	.0001	.002	.0011	.0013	.004		
%RSD	.1095	.3465	.1294	.1837	26.03	.9864	.1573		
#1	6.236	.0275	.1034	1.331	-.0049	.1322	2.278		
#2	6.246	.0274	.1036	1.334	-.0034	.1304	2.273		
Int. Std.	Y_3600	Y_3710	Y_2243	In2306					
Avg	92701.	11824.	3551.1	7715.6					
Stddev	47.	12.	.4	3.6					
%RSD	.05076	.10200	.01016	.04668					
#1	92668.	11815.	3551.3	7713.0					
#2	92734.	11832.	3550.8	7718.1					

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Sample Name: MP7387-B1 2 Acquired: 5/31/2018 1:36:11 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	
Avg	1.978	1.909	1.899	1.893	1.921	1.905	1.970	1.920	
Stddev	.005	.002	.005	.001	.004	.004	.000	.003	
%RSD	.2792	.0813	.2632	.0391	.2102	.2055	.0085	.1347	
#1	1.982	1.908	1.903	1.893	1.918	1.902	1.969	1.918	
#2	1.974	1.910	1.895	1.892	1.924	1.908	1.970	1.921	
Elem	Ag3280	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	
Avg	.2389	1.913	1.950	1.903	2.001	1.948	1.897	1.923	
Stddev	.0002	.001	.001	.005	.003	.002	.004	.003	
%RSD	.1032	.0333	.0434	.2763	.1281	.1240	.2085	.1392	
#1	.2387	1.914	1.950	1.907	1.999	1.950	1.900	1.925	
#2	.2390	1.913	1.949	1.900	2.003	1.947	1.894	1.921	
Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	
Avg	24.51	24.63	25.18	24.30	25.24	25.19	1.876	1.981	
Stddev	.02	.02	.02	.04	.08	.04	.003	.004	
%RSD	.0853	.0783	.0970	.1621	.3000	.1488	.1636	.1874	
#1	24.52	24.62	25.20	24.32	25.30	25.22	1.878	1.984	
#2	24.50	24.65	25.16	24.27	25.19	25.17	1.874	1.979	
Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230	
Avg	.1346	2.006	1.961	1.953	1.842	1.942	F -.0811	.0028	
Stddev	.0019	.003	.005	.002	.005	.000	.0043	.0038	
%RSD	1.446	.1261	.2476	.0818	.2789	.0114	5.259	137.8	
#1	.1332	2.008	1.965	1.952	1.846	1.942	-.0841	.0001	
#2	.1360	2.004	1.958	1.954	1.839	1.941	-.0780	.0055	
Elem	Li6707	P_1774							
Avg	.0031	1.963							
Stddev	.0002	.001							
%RSD	6.097	.0599							
#1	.0029	1.964							
#2	.0032	1.962							

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Sample Name: MP7387-B1 2 Acquired: 5/31/2018 1:36:11 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	92146.	11622.	3534.4	7917.0
Stddev	99.	93.	1.5	3.0
%RSD	.10704	.80000	.04382	.03807
#1	92077.	11556.	3533.3	7919.1
#2	92216.	11688.	3535.5	7914.8

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Sample Name: MP7387-MB1 Acquired: 5/31/2018 1:40:15 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment: SOIL

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	.0014	.0000	.0001	.0003	.0010	.0020	.0005	.0006	.0002
Stddev	.0000	.0000	.0003	.0002	.0002	.0002	.0000	.0000	.0004
%RSD	3.346	48.42	331.5	67.15	18.92	11.65	7.740	.2368	211.1
#1	.0014	.0000	.0003	.0004	.0011	.0019	.0005	.0006	.0004
#2	.0013	.0000	-.0001	.0002	.0008	.0022	.0005	.0006	-.0001
Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	.0001	.0057	-.0001	.0021	.0013	-.0007	.0030	.0224	.1477
Stddev	.0002	.0014	.0005	.0021	.0003	.0010	.0009	.0008	.0157
%RSD	196.4	24.63	801.5	99.65	22.77	137.3	29.19	3.412	10.63
#1	-.0000	.0047	-.0004	.0035	.0015	-.0000	.0036	.0229	.1366
#2	.0003	.0067	.0003	.0006	.0011	-.0014	.0024	.0218	.1588
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	.0310	.0494	.0919	.0921	.0019	.0019	.0659	.0186	.0008
Stddev	.0004	.0085	.0014	.0003	.0004	.0003	.0013	.0004	.0001
%RSD	1.320	17.12	1.567	.2833	19.15	29.03	1.938	2.380	6.223
#1	.0313	.0554	.0909	.0923	.0021	.0012	.0650	.0183	.0009
#2	.0307	.0434	.0930	.0919	.0016	.0008	.0668	.0189	.0008
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Avg	.0004	.0013	.0010	.0118	.0021	.0010	.0245		
Stddev	.0000	.0010	.0000	.0002	.0011	.0007	.0020		
%RSD	1.633	75.50	3.583	2.093	51.51	73.83	8.080		
#1	.0004	.0006	.0010	.0116	.0014	.0015	.0259		
#2	.0004	.0019	.0010	.0120	.0029	.0005	.0231		
Int. Std.	Y_3600	Y_3710	Y_2243	In2306					
Avg	97209.	11938.	3691.1	8839.1					
Stddev	380.	27.	7.0	14.5					
%RSD	.39050	.22644	.18925	.16417					
#1	97477.	11957.	3696.1	8849.3					
#2	96940.	11919.	3686.2	8828.8					

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Sample Name: MP7387-S1 Acquired: 5/31/2018 1:44:35 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	3.154	1.800	1.791	2.037	2.045	1.984	3.865	2.019
Stddev	.011	.007	.002	.004	.009	.006	.005	.006
%RSD	.3346	.3828	.0847	.1942	.4296	.3154	.1332	.2895
#1	3.147	1.795	1.792	2.040	2.051	1.979	3.868	2.023
#2	3.162	1.805	1.790	2.035	2.039	1.988	3.861	2.015
Elem	Ag3280	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068
Avg	2.335	2.199	2.375	1.826	1.872	2.177	1.760	1.079
Stddev	.0002	.007	.010	.002	.003	.002	.004	.002
%RSD	.0978	.3038	.4307	.0946	.1753	.1008	.2171	.1769
#1	.2333	2.204	2.383	1.827	1.875	2.179	1.763	1.080
#2	.2336	2.194	2.368	1.825	1.870	2.175	1.757	1.078
Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	225.1	56.97	190.4	60.76	76.29	25.37	1.784	1.797
Stddev	.4	.01	.9	.28	.27	.08	.004	.006
%RSD	.1595	.0247	.4560	.4670	.3577	.3235	.1966	.3520
#1	224.8	56.96	189.8	60.56	76.09	25.32	1.787	1.801
#2	225.3	56.98	191.0	60.96	76.48	25.43	1.782	1.793
Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	6.446	1.729	2.239	5.824	1.335	1.555	6.209	W -.0138
Stddev	.021	.006	.010	.001	.006	.001	.023	.0002
%RSD	.3308	.3462	.4474	.0180	.4546	.0803	.3714	1.195
#1	6.431	1.733	2.232	5.824	1.339	1.554	6.225	-.0139
#2	6.461	1.725	2.247	5.823	1.331	1.555	6.193	-.0137
Elem	Li6707	P_1774						
Avg	1.365	F 11.72						
Stddev	.0002	.03						
%RSD	.1513	.2171						
#1	.1367	11.74						
#2	.1364	11.70						

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Sample Name: MP7387-S2 Acquired: 5/31/2018 1:48:36 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	3.210	1.893	1.864	2.106	2.115	2.068	4.378	2.097
Stddev	.004	.003	.002	.001	.002	.002	.008	.002
%RSD	.1095	.1564	.1015	.0398	.0838	.0878	.1802	.1059
#1	3.208	1.891	1.865	2.105	2.114	2.067	4.372	2.099
#2	3.213	1.895	1.862	2.106	2.116	2.069	4.383	2.096
Elem	Ag3280	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068
Avg	2.400	2.270	2.451	1.880	1.940	2.268	1.835	1.191
Stddev	.0014	.005	.006	.002	.002	.001	.005	.003
%RSD	.5704	.2020	.2633	.1003	.1174	.0503	.2656	.2889
#1	.2390	2.267	2.456	1.881	1.942	2.267	1.839	1.189
#2	.2410	2.273	2.447	1.879	1.938	2.269	1.832	1.194
Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	223.4	59.12	192.7	61.80	77.04	26.24	1.867	1.865
Stddev	.5	.18	.4	.25	.12	.03	.001	.002
%RSD	.2059	.3081	.2255	.4106	.1603	.1008	.0329	.1034
#1	223.1	58.99	192.3	61.62	76.95	26.22	1.867	1.866
#2	223.7	59.25	193.0	61.98	77.13	26.26	1.867	1.863
Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	9.159	1.798	2.342	5.934	1.436	1.621	6.231	W -.0149
Stddev	.009	.004	.003	.007	.002	.002	.024	.0002
%RSD	.0991	.2471	.1225	.1158	.1673	.1379	.3879	1.630
#1	9.152	1.801	2.340	5.929	1.437	1.619	6.248	-.0150
#2	9.165	1.795	2.344	5.939	1.434	1.622	6.214	-.0147
Elem	Li6707	P_1774						
Avg	1.350	F 11.96						
Stddev	.0015	.04						
%RSD	1.145	.3097						
#1	.1361	11.99						
#2	.1339	11.94						

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Sample Name: MP7387-S1 Acquired: 5/31/2018 1:44:35 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	93229.	12180.	3634.1	7484.8
Stddev	163.	35.	11.7	19.5
%RSD	.17492	.29060	.32193	.26050
#1	93113.	12205.	3625.9	7471.0
#2	93344.	12155.	3642.4	7498.6

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Sample Name: MP7387-S2 Acquired: 5/31/2018 1:48:36 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	92735.	11981.	3611.3	7457.9
Stddev	188.	34.	14.5	25.7
%RSD	.20270	.28580	.40054	.34434
#1	92868.	12005.	3601.0	7439.7
#2	92602.	11956.	3621.5	7476.0

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Sample Name: DA5683-7 Acquired: 5/31/2018 1:52:37 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	1.248	.0072	.0019	.3549	.2229	.1453	1.964	.1378
Stddev	.002	.0000	.0001	.0003	.0007	.0003	.002	.0001
%RSD	.1327	.5860	6.182	.0929	.3317	.1908	.0990	.0938
#1	1.249	.0072	.0020	.3552	.2224	.1455	1.962	.1379
#2	1.247	.0073	.0018	.3547	.2234	.1451	1.965	.1377
Elem	Ag3280	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068
Avg	.0038	.3369	.6183	.0576	.0021	2.245	.0023	.0004
Stddev	.0000	.0003	.0007	.0002	.0008	.003	.0001	.0006
%RSD	.9147	.0766	.1183	.3496	37.31	.1093	5.438	144.6
#1	.0038	.3371	.6188	.0577	.0027	2.243	.0022	-.0000
#2	.0038	.3368	.6178	.0574	.0016	2.246	.0024	.0008
Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	163.3	35.03	169.0	35.77	45.06	1.407	.0826	.0118
Stddev	.1	.07	.0	.16	.02	.006	.0009	.0001
%RSD	.0602	.2017	.0232	.4582	.0358	.4438	1.106	1.056
#1	163.3	34.98	169.1	35.65	45.07	1.403	.0832	.0119
#2	163.4	35.08	169.0	35.89	45.05	1.412	.0819	.0117
Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	4.235	.0242	.3759	2.986	.0116	.0528	6.547	W -.0150
Stddev	.072	.0000	.0002	.001	.0021	.0000	.004	.0006
%RSD	1.705	.0277	.0527	.0353	17.88	.0390	.0563	4.128
#1	4.286	.0242	.3761	2.986	.0130	.0528	6.544	-.0155
#2	4.184	.0242	.3758	2.985	.0101	.0528	6.549	-.0146
Elem	Li6707	P_1774						
Avg	.1190	F 10.36						
Stddev	.0005	.02						
%RSD	.4224	.1861						
#1	.1186	10.37						
#2	.1193	10.35						

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Sample Name: MP7387-SD1 Acquired: 5/31/2018 1:56:46 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	1.319	.0074	.0017	.3592	.2372	.1517	2.094	.1388	.0064
Stddev	.000	.0002	.0007	.0015	.0010	.0005	.005	.0011	.0011
%RSD	.0299	2.334	42.31	.4231	.4021	.3365	.2402	.7916	17.32
#1	1.318	.0073	.0022	.3581	.2378	.1521	2.097	.1380	.0056
#2	1.319	.0076	.0012	.3602	.2365	.1514	2.090	.1396	.0072
Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	.3567	.6747	.0611	.0050	2.316	.0006	.0032	169.8	41.96
Stddev	.0004	.0007	.0042	.0051	.003	.0125	.0019	.1	.01
%RSD	.1030	.0969	6.944	101.9	.1065	202.7	57.48	.0766	.0169
#1	.3569	.6743	.0581	.0086	2.315	.0095	.0045	169.7	41.96
#2	.3564	.6752	.0641	.0014	2.318	-.0082	.0019	169.9	41.97
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	183.9	38.47	47.30	1.635	.0971	.0133	4.689	.0288	.4030
Stddev	.1	.07	.10	.013	.0019	.0004	.023	.0003	.0000
%RSD	.0679	.1749	.2167	.8059	1.959	3.172	.4981	1.111	.0093
#1	183.9	38.51	47.37	1.645	.0958	.0130	4.672	.0286	.4031
#2	184.0	38.42	47.22	1.626	.0985	.0136	4.705	.0291	.4030
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Avg	3.140	.0132	.0554	6.963	-.0092	.1310	11.31		
Stddev	.002	.0036	.0015	.002	.0025	.0017	.00		
%RSD	.0534	26.99	2.706	.0243	27.03	1.263	.0057		
#1	3.141	.0107	.0565	6.965	-.0110	.1322	11.31		
#2	3.138	.0158	.0544	6.962	-.0075	.1298	11.31		
Int. Std.	Y_3600	Y_3710	Y_2243	In2306					
Avg	9507.0	11739.	3662.0	8268.9					
Stddev	88.	66.	4.5	9.4					
%RSD	.09293	.55835	.12280	.11372					
#1	95133.	11785.	3658.8	8262.2					
#2	95008.	11692.	3665.1	8275.5					

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Sample Name: DA5683-7 Acquired: 5/31/2018 1:52:37 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	96120.	12354.	3747.2	7789.3
Stddev	19.	75.	12.9	15.9
%RSD	.01973	.60811	.34393	.20445
#1	96133.	12407.	3738.1	7778.0
#2	96106.	12301.	3756.3	7800.6

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Sample Name: DA5683-8 Acquired: 5/31/2018 2:00:57 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	.8422	.0045	.0012	5.351	.1638	.1015	1.705	.1021
Stddev	.0021	.0001	.0001	.003	.0007	.0011	.001	.0001
%RSD	.2477	2.214	7.730	.0555	.4409	1.064	.0519	.1218
#1	.8437	.0046	.0012	5.349	.1633	.1023	1.705	.1021
#2	.8407	.0044	.0011	5.353	.1643	.1008	1.704	.1020
Elem	Ag3280	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068
Avg	.0032	.2934	.3824	.0373	-.0005	.1216	.0002	.0009
Stddev	.0007	.0010	.0004	.0004	.0017	.0001	.0001	.0020
%RSD	20.79	.3386	.1046	1.033	385.3	.1051	64.20	225.8
#1	.0037	.2941	.3822	.0376	-.0017	.1215	.0001	-.0005
#2	.0028	.2927	.3827	.0370	.0008	.1217	.0003	.0023
Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	97.33	114.4	121.5	30.45	27.88	1.528	.0756	.0074
Stddev	.06	.1	.5	.04	.08	.016	.0012	.0002
%RSD	.0640	.1099	.3736	.1346	.2801	1.071	1.560	2.940
#1	97.37	114.4	121.8	30.48	27.94	1.540	.0748	.0076
#2	97.28	114.3	121.2	30.42	27.82	1.517	.0765	.0073
Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	3.810	.0183	.5773	3.108	.0069	.0703	2.977	W -.0095
Stddev	.014	.0001	.0010	.006	.0006	.0004	.005	.0021
%RSD	.3608	.4131	.1755	.2007	9.316	.5183	.1726	22.09
#1	3.800	.0184	.5780	3.113	.0065	.0706	2.973	-.0109
#2	3.819	.0183	.5766	3.104	.0074	.0701	2.981	-.0080
Elem	Li6707	P_1774						
Avg	.1286	4.509						
Stddev	.0005	.003						
%RSD	.4000	.0736						
#1	.1290	4.507						
#2	.1283	4.512						

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Sample Name: DA5683-8 Acquired: 5/31/2018 2:00:57 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	93707.	11948.	3611.4	7712.9
Stddev	204.	30.	1.6	6.6
%RSD	.21744	.24923	.04371	.08582
#1	93851.	11927.	3612.5	7717.6
#2	93563.	11969.	3610.2	7708.2

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Sample Name: CCV Acquired: 5/31/2018 2:05:09 Type: QC
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.045	1.967	1.975	1.966	1.984	1.966	2.031	1.997	2.443
Stddev	.001	.000	.004	.002	.007	.004	.006	.001	.0007
%RSD	.0493	.0086	.1885	.1082	.3468	.1911	.3100	.0551	.2855
#1	2.046	1.967	1.973	1.964	1.989	1.963	2.036	1.996	2.448
#2	2.044	1.967	1.978	1.967	1.979	1.969	2.027	1.998	2.439

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
Value
Range

Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.970	2.006	1.973	2.052	2.021	1.987	1.987	39.39	39.32
Stddev	.005	.001	.003	.000	.002	.003	.004	.05	.05
%RSD	.2557	.0634	.1386	.0198	.1015	.1242	.1936	.1298	.1221
#1	1.973	2.005	1.975	2.051	2.019	1.985	1.984	39.36	39.29
#2	1.966	2.007	1.971	2.052	2.022	1.988	1.989	39.43	39.35

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
Value
Range

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	40.29	39.38	40.86	40.48	1.978	2.023	5.093	2.018	2.032
Stddev	.04	.07	.02	.02	.001	.002	.009	.001	.002
%RSD	.0879	.1710	.0526	.0464	.0282	.1136	.1665	.0414	.0806
#1	40.26	39.34	40.84	40.46	1.977	2.022	5.087	2.019	2.033
#2	40.31	39.43	40.88	40.49	1.978	2.025	5.099	2.017	2.031

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
Value
Range

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Sample Name: CCV Acquired: 5/31/2018 2:05:09 Type: QC
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.003	1.989	2.006	1.967	2.007	1.995	2.036
Stddev	.004	.001	.004	.001	.001	.000	.000
%RSD	.1737	.0237	.1905	.0709	.0614	.0118	.0101
#1	2.005	1.988	2.008	1.966	2.006	1.995	2.036
#2	2.000	1.989	2.003	1.968	2.007	1.995	2.036

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
Value
Range

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	91340.	11470.	3523.9	7755.3
Stddev	51.	75.	6.0	5.9
%RSD	.05619	.65403	.17116	.07590

#1	91376.	11523.	3528.1	7759.4
#2	91304.	11417.	3519.6	7751.1

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Sample Name: CCB Acquired: 5/31/2018 2:09:13 Type: QC
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.002	-0.001	.0000	.0002	.0002	-0.0005	.0001	-0.0001	.0004
Stddev	.0000	.0000	.0001	.0004	.0000	.0003	.0001	.0002	.0000
%RSD	21.55	2.616	180.7	183.7	10.70	65.78	52.85	333.6	9.610
#1	-0.002	-0.001	-0.000	.0005	.0002	-0.003	.0002	-0.002	.0004
#2	-0.002	-0.001	.0001	-0.001	.0002	-0.007	.0001	.0001	.0004

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
High Limit
Low Limit

Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0003	-0.0006	-0.0008	.0005	.0005	.0001	.0006	.0089	-0.0115
Stddev	.0001	.0004	.0009	.0004	.0004	.0006	.0003	.0059	.0033
%RSD	23.26	24.64	52.20	177.3	76.32	1146.	46.40	66.72	28.87

#1	.0002	-0.0005	-0.0010	.0011	.0002	.0005	.0009	.0047	-0.0139
#2	.0003	-0.0007	-0.0005	-0.001	.0008	-0.004	.0004	.0131	-0.0092

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
High Limit
Low Limit

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0048	-0.0026	.0649	.0021	.0014	.0011	.0015	-0.0016	.0000
Stddev	.0003	.0059	.0031	.0152	.0005	.0003	.0011	.0002	.0000
%RSD	5.579	226.6	4.758	723.5	33.95	24.07	70.94	13.16	53.85
#1	.0046	-0.0067	.0627	-0.0087	.0017	.0012	.0023	-0.0017	.0001
#2	.0050	.0016	.0670	.0129	.0010	.0009	.0008	-0.0014	.0000

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
High Limit
Low Limit

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Sample Name: CCB Acquired: 5/31/2018 2:09:13 Type: QC
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0002	.0019	.0003	-.0020	.0001	.0003	.0027
Stddev	.0001	.0004	.0001	.0022	.0021	.0006	.0013
%RSD	81.10	18.20	29.71	110.8	2240.	241.8	50.26
#1	.0003	.0017	.0002	-.0035	.0015	-.0002	.0017
#2	.0001	.0022	.0004	-.0004	-.0014	.0007	.0036

Check ?
High Limit
Low Limit

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	95661.	11697.	3654.4	8715.1
Stddev	374.	5.	11.4	19.5
%RSD	.39144	.04217	.31261	.22359
#1	95396.	11694.	3646.3	8701.3
#2	95926.	11701.	3662.5	8728.9

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Sample Name: DA5683-9 Acquired: 5/31/2018 2:13:35 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	1.433	.0056	.0028	.0523	.1885	.1315	2.202	.1147
Stddev	.002	.0000	.0001	.0001	.0005	.0003	.004	.0007
%RSD	.1322	.8860	2.562	.1438	.2747	.2463	.1783	.6524

#1	1.431	.0056	.0027	.0523	.1882	.1318	2.200	.1153
#2	1.434	.0057	.0028	.0522	.1889	.1313	2.205	.1142

Elem	Ag3280	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068
Avg	.0030	.2788	.6850	.0502	.0012	.4636	.0013	.0012
Stddev	.0001	.0008	.0007	.0002	.0016	.0013	.0012	.0013
%RSD	3.729	.3022	.1021	.4330	134.5	.2753	96.94	103.1

#1	.0029	.2782	.6855	.0500	.0023	.4627	.0021	.0003
#2	.0030	.2794	.6845	.0503	.0001	.4645	.0004	.0022

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	120.9	54.63	141.1	33.12	38.10	.8023	.1048	.0069
Stddev	.1	.06	.2	.10	.07	.0002	.0010	.0000
%RSD	.0811	.1031	.1079	.3122	.1953	.0256	.9937	.2921

#1	120.8	54.67	141.2	33.20	38.05	.8021	.1056	.0069
#2	120.9	54.59	141.0	33.05	38.15	.8024	.1041	.0069

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	5.171	.0209	.3784	2.732	.0088	.0732	1.554	W -.0177
Stddev	.005	.0002	.0004	.006	.0014	.0001	.002	.0031
%RSD	.1012	1.099	.0932	.2199	15.60	.1322	.1009	17.28

#1	5.174	.0211	.3782	2.728	.0078	.0731	1.553	-.0156
#2	5.167	.0208	.3787	2.737	.0098	.0733	1.555	-.0199

Elem	Li6707	P_1774
Avg	.1111	7.581
Stddev	.0019	.030
%RSD	1.723	.3965

#1	.1098	7.602
#2	.1125	7.560

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Sample Name: DA5683-9 Acquired: 5/31/2018 2:13:35 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	95378.	12179.	3694.8	7752.0
Stddev	312.	21.	7.0	2.8
%RSD	.32715	.17042	.18975	.03634

#1	95599.	12194.	3689.9	7754.0
#2	95158.	12164.	3699.8	7750.0

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Sample Name: DA5683-10 Acquired: 5/31/2018 2:17:45 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	1.226	.0060	.0021	2.031	.1896	.1276	1.892	.1324
Stddev	.002	.0000	.0000	.028	.0008	.0003	.000	.0019
%RSD	.1574	.4026	1.654	1.356	.4402	.2058	.0179	1.452

#1	1.227	.0060	.0021	2.012	.1902	.1278	1.892	.1310
#2	1.225	.0060	.0021	2.051	.1890	.1274	1.893	.1337

Elem	Ag3280	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068
Avg	.0034	.3604	.4869	.0499	.0013	.1878	.0026	.0011
Stddev	.0005	.0018	.0070	.0014	.0006	.0009	.0016	.0013
%RSD	15.66	.5060	1.440	2.712	46.52	.4771	61.81	116.3

#1	.0030	.3591	.4819	.0490	.0009	.1872	.0014	.0021
#2	.0038	.3616	.4918	.0509	.0017	.1885	.0037	.0002

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	142.3	141.8	143.6	43.28	36.96	4.054	1.1091	.0112
Stddev	.3	.2	.1	.00	.08	.006	.0019	.0005
%RSD	.2323	.1296	.0358	.0045	.2136	.1434	1.698	4.260

#1	142.5	141.9	143.6	43.28	37.02	4.058	.1078	.0109
#2	142.1	141.7	143.6	43.28	36.91	4.050	.1104	.0116

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	5.590	.0196	.5884	3.191	.0142	.0834	4.189	W -.0143
Stddev	.004	.0009	.0007	.003	.0004	.0001	.039	.0012
%RSD	.0777	4.777	.1117	.0859	2.578	.0848	.9415	8.515

#1	5.593	.0202	.5888	3.193	.0140	.0833	4.161	-.0134
#2	5.587	.0189	.5879	3.189	.0145	.0834	4.217	-.0152

Elem	Li6707	P_1774
Avg	1.139	4.967
Stddev	.0001	.055
%RSD	.0910	1.115

#1	.1340	4.928
#2	.1339	5.006

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Sample Name: DA5683-10 Acquired: 5/31/2018 2:17:45 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	92998.	11981.	3593.2	7458.3
Stddev	15.	8.	37.5	77.7
%RSD	.01645	.07033	1.0426	1.0424

#1	92987.	11987.	3619.7	7513.3
#2	93008.	11975.	3566.7	7403.4

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Sample Name: DA5683-11 Acquired: 5/31/2018 2:21:55 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	1.247	.0057	.0020	.5150	.1909	.1529	2.094	.1189
Stddev	.001	.0000	.0002	.0010	.0007	.0006	.000	.0007
%RSD	.0903	.6022	9.245	.1973	.3603	.3982	.0135	.5556

#1	1.248	.0057	.0021	.5157	.1914	.1533	2.094	.1194
#2	1.246	.0058	.0019	.5143	.1905	.1525	2.094	.1184

Elem	Ag3280	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068
Avg	.0026	.3062	1.039	.0429	.0026	.6657	.0018	.0032
Stddev	.0002	.0001	.001	.0012	.0002	.0040	.0031	.0006
%RSD	7.709	.0360	.1152	2.894	6.188	.5972	168.3	18.37

#1	.0027	.3063	1.040	.0420	.0027	.6685	.0040	.0028
#2	.0024	.3061	1.038	.0438	.0025	.6629	-.0003	.0036

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	127.8	71.45	142.0	38.33	38.46	2.943	.0960	.0097
Stddev	.3	.13	.5	.24	.10	.017	.0014	.0004
%RSD	.2323	.1772	.3838	.6363	.2727	.5608	1.446	3.796

#1	128.0	71.54	142.4	38.50	38.54	2.955	.0950	.0095
#2	127.6	71.36	141.6	38.16	38.39	2.932	.0969	.0100

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	5.284	.0331	.4732	2.901	.0087	.0854	2.928	W -.0161
Stddev	.003	.0002	.0011	.001	.0008	.0002	.000	.0012
%RSD	.0566	.6044	.2320	.0303	8.823	.2742	.0035	7.705

#1	5.286	.0332	.4740	2.902	.0082	.0856	2.928	-.0152
#2	5.282	.0329	.4725	2.901	.0093	.0853	2.929	-.0170

Elem	Li6707	P_1774
Avg	.1184	6.548
Stddev	.0005	.005
%RSD	.4525	.0755

#1	.1188	6.552
#2	.1180	6.545

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Sample Name: DA5683-11 Acquired: 5/31/2018 2:21:55 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	93680.	12005.	3648.0	7667.3
Stddev	214.	102.	4.1	.3
%RSD	.22804	.85041	.11167	.00389

#1	93529.	11933.	3650.8	7667.0
#2	93832.	12077.	3645.1	7667.5

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Sample Name: DA5683-12 Acquired: 5/31/2018 2:26:06 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	1.360	.0070	.0018	.6224	.2122	.1460	2.149	.1505
Stddev	.000	.0001	.0000	.0011	.0009	.0002	.000	.0002
%RSD	.0316	.8021	1.477	.1836	.4208	.1535	.0100	.1484

#1	1.360	.0070	.0019	.6232	.2116	.1459	2.149	.1504
#2	1.361	.0071	.0018	.6216	.2129	.1462	2.149	.1507

Elem	Ag3280	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068
Avg	.0037	.3512	.6135	.0537	.0033	.2748	.0030	.0017
Stddev	.0007	.0012	.0023	.0013	.0000	.0007	.0004	.0004
%RSD	20.11	.3452	.3736	2.463	.4275	.2521	14.29	23.22

#1	.0042	.3504	.6151	.0527	.0033	.2743	.0027	.0019
#2	.0032	.3521	.6119	.0546	.0033	.2753	.0033	.0014

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	163.7	59.75	167.3	47.44	49.37	3.483	.1142	.0113
Stddev	.1	.10	.4	.30	.04	.002	.0000	.0000
%RSD	.0741	.1684	.2686	.6327	.0908	.0476	.0398	.2839

#1	163.7	59.82	167.6	47.65	49.34	3.484	.1142	.0113
#2	163.8	59.67	167.0	47.23	49.40	3.481	.1143	.0113

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	5.010	.0206	.5024	3.010	.0101	.0797	6.225	W -.0163
Stddev	.041	.0001	.0003	.001	.0019	.0001	.007	.0022
%RSD	.8259	.4975	.0672	.0478	18.74	.0673	.1062	13.66

#1	4.981	.0205	.5021	3.009	.0114	.0797	6.229	-.0178
#2	5.039	.0207	.5026	3.011	.0087	.0797	6.220	-.0147

Elem	Li6707	P_1774
Avg	.1421	8.273
Stddev	.0006	.002
%RSD	.4200	.0185

#1	.1425	8.274
#2	.1416	8.272

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Sample Name: DA5683-12 Acquired: 5/31/2018 2:26:06 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	94588.	12193.	3679.6	7651.2
Stddev	69.	31.	1.5	6.2
%RSD	.07308	.25456	.04194	.08100

#1	94539.	12215.	3678.5	7655.6
#2	94637.	12171.	3680.7	7646.8

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Sample Name: DA5683-13 Acquired: 5/31/2018 2:30:18 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	94263.	11955.	3614.1	7711.8
Stddev	368.	-	6.7	10.5
%RSD	.39045	.00343	.18612	.13573

#1	94523.	11955.	3609.3	7704.4
#2	94003.	11955.	3618.8	7719.2

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Sample Name: DA5683-13 Acquired: 5/31/2018 2:30:18 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	1.221	.0045	.0096	.0431	.2265	.1923	1.859	.1057
Stddev	.004	.0000	.0003	.0000	.0004	.0004	.005	.0008
%RSD	.2883	.3557	2.686	.1058	.1886	.1880	.2834	.7983

#1	1.223	.0045	.0098	.0431	.2262	.1921	1.855	.1063
#2	1.218	.0045	.0094	.0431	.2268	.1926	1.863	.1051

Elem	Ag3280	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068
Avg	.0034	.2315	1.105	.0315	.0028	.9935	.0035	.0053
Stddev	.0002	.0002	.002	.0019	.0016	.0020	.0022	.0003
%RSD	5.856	.0897	.1593	5.969	57.43	.1974	61.65	5.302

#1	.0033	.2317	1.106	.0302	.0039	.9921	.0051	.0051
#2	.0036	.2314	1.103	.0328	.0016	.9949	.0020	.0055

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	95.24	96.05	137.4	30.12	27.25	2.125	1.005	.0203
Stddev	.23	.16	.3	.11	.08	.005	.0004	.0002
%RSD	.2429	.1614	.2037	.3683	.2818	.2276	.3558	.9687

#1	95.41	96.16	137.6	30.19	27.30	2.129	1.007	.0205
#2	95.08	95.94	137.2	30.04	27.19	2.122	1.002	.0202

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	3.952	.0238	.4385	2.481	.0072	.0607	2.129	W -.0129
Stddev	.027	.0002	.0010	.007	.0005	.0002	.008	.0005
%RSD	.6904	1.039	.2362	.2698	6.698	.3238	.3921	3.792

#1	3.971	.0240	.4392	2.477	.0075	.0609	2.135	-.0125
#2	3.932	.0236	.4378	2.486	.0068	.0606	2.123	-.0132

Elem	Li6707	P_1774
Avg	.1007	6.713
Stddev	.0007	.031
%RSD	.6535	.4553

#1	.1002	6.735
#2	.1012	6.692

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Sample Name: JC66836-1 Acquired: 5/31/2018 2:34:29 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	7.575	.0032	.0007	.0927	.1721	4.610	2.113	.3332	.0063
Stddev	.058	.0001	.0002	.0001	.0000	.008	.004	.0005	.0001
%RSD	.7669	2.605	27.36	.0933	.0110	.1770	.2026	.1363	1.675

#1	7.617	.0032	.0008	.0928	.1721	4.615	2.116	.3336	.0062
#2	7.534	.0033	.0006	.0927	.1721	4.604	2.110	.3329	.0064

Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	.1295	.8678	.2411	.0027	2.881	.0037	.1254	50.81	28.25
Stddev	.0006	.0010	.0002	.0009	.001	.0001	.0006	.19	.12
%RSD	.4577	.1101	.0971	35.20	.0328	3.977	.4409	.3707	.4373

#1	.1299	.8685	.2412	.0020	2.882	.0038	.1250	50.94	28.33
#2	.1291	.8671	.2409	.0033	2.880	.0036	.1258	50.67	28.16

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	148.5	30.35	8.587	3.977	.0506	.0203	4.206	1.584	.3291
Stddev	.6	.13	.061	.017	.0008	.0002	.020	.0011	.0004
%RSD	.3779	.4296	.7127	.4367	1.589	1.038	.4642	.7115	.1203

#1	148.9	30.44	8.630	3.990	.0512	.0201	4.220	1.592	.3294
#2	148.1	30.26	8.544	3.965	.0501	.0204	4.192	1.576	.3288

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	1.846	.0086	.0441	73.65	-.0073	.0947	4.631
Stddev	.003	.0012	.0000	.37	.0014	.0001	.013
%RSD	.1816	14.09	.0135	.4998	18.61	.0694	.2898

#1	1.848	.0095	.0441	73.91	-.0063	.0946	4.640
#2	1.843	.0078	.0441	73.39	-.0083	.0947	4.621

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	93782.	11897.	3610.5	8071.7
Stddev	71.	75.	.2	3.2
%RSD	.07599	.63054	.00554	.03937

#1	93731.	11844.	3610.7	8069.5
#2	93832.	11950.	3610.4	8073.9

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Sample Name: JC66853-2 Acquired: 5/31/2018 2:38:46 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	.4651	.0053	.0002	.0533	.2412	.1472	1.345	.1149
Stddev	.0010	.0000	.0001	.0008	.0002	.0001	.003	.0006
%RSD	.2187	.7139	23.39	1.473	.0870	.0845	.2396	.5457
#1	.4644	.0053	.0003	.0527	.2411	.1472	1.347	.1153
#2	.4658	.0054	.0002	.0538	.2414	.1473	1.343	.1144
Elem	Ag3280	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068
Avg	.0045	.4290	.6312	.0390	.0043	.1569	-.0005	.0016
Stddev	.0003	.0011	.0009	.0005	.0009	.0006	.0013	.0018
%RSD	6.383	.2523	.1393	1.258	21.70	.3775	240.8	109.5
#1	.0043	.4297	.6306	.0393	.0049	.1573	.0004	.0029
#2	.0047	.4282	.6318	.0386	.0036	.1565	-.0015	.0004
Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	202.6	9.435	207.4	13.99	10.26	.3768	.0215	.0071
Stddev	.1	.006	.3	.02	.00	.0078	.0006	.0003
%RSD	.0517	.0664	.1291	.1720	.0120	2.083	2.635	4.024
#1	202.5	9.440	207.2	13.97	10.26	.3823	.0219	.0068
#2	202.7	9.431	207.6	14.01	10.26	.3712	.0211	.0073
Elem	Si2124	Sr1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	5.230	.0178	.0813	4.844	.0083	.0900	.2345	W -.0128
Stddev	.001	.0010	.0002	.013	.0006	.0004	.0005	.0001
%RSD	.0136	5.699	.1915	.2756	6.940	.4735	.2292	.9413
#1	5.231	.0186	.0812	4.854	.0087	.0897	.2349	-.0129
#2	5.230	.0171	.0814	4.835	.0079	.0903	.2341	-.0128
Elem	Li6707	P_1774						
Avg	.0981	2.701						
Stddev	.0007	.001						
%RSD	.7183	.0265						
#1	.0976	2.702						
#2	.0986	2.701						

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Sample Name: JC66854-2 Acquired: 5/31/2018 2:42:57 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	.5888	.0067	.0011	.0711	.3048	.1846	1.906	.1369
Stddev	.0007	.0000	.0001	.0003	.0015	.0001	.005	.0002
%RSD	.1126	.4738	6.291	.3943	.5054	.0808	.2656	.1224
#1	.5873	.0068	.0011	.0709	.3059	.1847	1.910	.1370
#2	.5863	.0067	.0012	.0713	.3037	.1845	1.902	.1368
Elem	Ag3280	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068
Avg	.0046	.5119	1.110	.0498	.0032	.2199	.0011	.0008
Stddev	.0003	.0010	.001	.0009	.0008	.0001	.0011	.0001
%RSD	5.990	.1945	.0878	1.853	24.79	.0251	101.8	12.76
#1	.0044	.5126	1.109	.0492	.0027	.2200	.0003	.0008
#2	.0048	.5112	1.111	.0505	.0038	.2199	.0019	.0007
Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	237.7	13.06	251.2	16.61	11.41	.4283	.0247	.0083
Stddev	.0	.01	.5	.08	.02	.0055	.0004	.0002
%RSD	.0117	.0893	.1956	.4849	.1480	1.274	1.599	1.927
#1	237.7	13.05	251.5	16.67	11.40	.4244	.0250	.0084
#2	237.7	13.06	250.8	16.55	11.42	.4321	.0244	.0081
Elem	Si2124	Sr1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	3.954	.0185	.1070	5.320	.0092	.1032	.3807	W -.0133
Stddev	.001	.0003	.0001	.010	.0008	.0005	.0020	.0000
%RSD	.0118	1.843	.0758	.1846	8.639	.4493	.5372	.1006
#1	3.955	.0187	.1070	5.327	.0097	.1036	.3793	-.0133
#2	3.954	.0182	.1069	5.313	.0086	.1029	.3822	-.0134
Elem	Li6707	P_1774						
Avg	.1240	3.391						
Stddev	.0018	.004						
%RSD	1.484	.1206						
#1	.1227	3.388						
#2	.1253	3.394						

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Sample Name: JC66853-2 Acquired: 5/31/2018 2:38:46 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	95168.	12058.	3733.9	7902.3
Stddev	208.	14.	2.0	4.8
%RSD	.21812	.11504	.05349	.06084
#1	95021.	12067.	3735.3	7905.7
#2	95314.	12048.	3732.5	7898.9

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Sample Name: JC66854-2 Acquired: 5/31/2018 2:42:57 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	94873.	12159.	3738.6	7856.5
Stddev	276.	1.	5.1	11.8
%RSD	.29090	.00652	.13512	.14992
#1	94678.	12160.	3742.2	7864.9
#2	95068.	12158.	3735.0	7848.2

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Sample Name: JC66859-1 Acquired: 5/31/2018 2:47:08 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	.7842	.0048	.0012	.0278	.0289	.8570	1.237	.0502	.0045
Stddev	.0044	.0000	.0002	.0001	.0001	.0022	.004	.0000	.0001
%RSD	.5658	1.047	13.07	.1826	.2217	.2585	.3262	.0431	2.147

#1	.7874	.0047	.0013	.0279	.0288	.8586	1.240	.0502	.0045
#2	.7811	.0048	.0011	.0278	.0289	.8554	1.234	.0502	.0044

Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	.0115	.8983	.0023	.0012	.0579	.0088	.0038	7.747	23.09
Stddev	.0002	.0002	.0012	.0006	.0004	.0004	.0003	.031	.06
%RSD	1.592	.0204	53.67	54.04	.6095	4.129	8.833	.4037	2553

#1	.0116	.8984	.0014	.0016	.0581	.0090	.0036	7.769	23.13
#2	.0113	.8982	.0031	.0007	.0576	.0085	.0040	7.724	23.05

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	113.4	3.748	6.015	1.035	.0621	.0082	4.253	.0508	.3910
Stddev	.6	.005	.027	.007	.0002	.0003	.001	.0000	.0029
%RSD	.5355	.1459	.4468	.7243	.3036	3.475	.0278	.0665	.7410

#1	113.8	3.752	6.034	1.040	.0620	.0080	4.254	.0508	.3930
#2	113.0	3.744	5.996	1.029	.0623	.0084	4.252	.0507	.3889

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Avg	.1552	.0067	.0290	11.87	.0362	.0029	F 37.44		
Stddev	.0036	.0005	.0011	.01	.0005	.0013	.00		
%RSD	2.301	7.568	3.839	.0752	1.444	43.34	.0068		

#1	.1527	.0063	.0298	11.88	.0366	.0038	37.44		
#2	.1577	.0070	.0282	11.86	.0359	.0020	37.44		

Int. Std.	Y_3600	Y_3710	Y_2243	In2306					
Avg	95069.	11775.	3627.1	8350.1					
Stddev	260.	48.	4.5	5.8					
%RSD	.27371	.40704	.12361	.06892					

#1	94885.	11741.	3623.9	8346.0					
#2	95253.	11809.	3630.3	8354.1					

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Sample Name: CCV Acquired: 5/31/2018 2:51:22 Type: QC
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.999	1.994	1.996	1.970	2.011	1.991	2.040
Stddev	.005	.002	.004	.004	.001	.006	.002
%RSD	.2469	.1109	.1919	.2011	.0489	.2929	.0779

#1	1.996	1.993	1.994	1.967	2.010	1.995	2.041
#2	2.003	1.996	1.999	1.973	2.012	1.986	2.039

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306			
Units	Cts/S	Cts/S	Cts/S	Cts/S			
Avg	91264.	11443.	3520.5	7743.1			
Stddev	113.	18.	6.8	3.2			
%RSD	.12348	.15300	.19363	.04132			

#1	91184.	11431.	3525.4	7745.4			
#2	91343.	11455.	3515.7	7740.9			

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Sample Name: CCV Acquired: 5/31/2018 2:51:22 Type: QC
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.043	1.952	1.976	1.969	1.982	1.966	2.029	1.999	2.441
Stddev	.003	.002	.001	.003	.006	.000	.004	.001	.0001
%RSD	.1365	.1060	.0491	.1640	.2973	.0080	.2228	.0422	.0314

#1	2.045	1.954	1.976	1.972	1.978	1.966	2.025	2.000	2.441
#2	2.041	1.951	1.977	1.967	1.986	1.966	2.032	1.999	2.442

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.970	2.008	1.974	2.053	2.029	1.993	1.988	39.33	39.21
Stddev	.002	.002	.001	.003	.003	.007	.002	.17	.09
%RSD	.1027	.1057	.0344	.1200	.1595	.3411	.1182	.4217	.2315

#1	1.969	2.007	1.975	2.055	2.032	1.989	1.986	39.45	39.27
#2	1.972	2.010	1.974	2.051	2.027	1.998	1.990	39.21	39.14

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	40.03	38.99	40.81	40.48	1.980	2.027	5.117	2.020	2.026
Stddev	.02	.25	.11	.07	.001	.000	.001	.002	.004
%RSD	.0554	.6394	.2755	.1794	.0324	.0114	.0270	.1165	.1822

#1	40.05	39.16	40.89	40.53	1.980	2.027	5.118	2.018	2.028
#2	40.02	38.81	40.73	40.43	1.979	2.027	5.116	2.021	2.023

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

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Sample Name: CCB Acquired: 5/31/2018 2:55:26 Type: QC
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.000	-0.000	.0001	-0.001	.0002	-0.002	.0001	-0.000	-0.001
Stddev	.0004	.0001	.0000	.0000	.0002	.0000	.0000	.0003	.0003
%RSD	2125.	133.6	11.63	69.36	113.8	20.31	21.01	691.0	500.7

#1	-0.003	-0.001	.0001	-0.001	.0000	-0.002	.0001	-0.003	.0002
#2	.0003	-0.000	.0001	-0.000	.0003	-0.003	.0002	.0002	-0.003

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0002	-0.006	-0.006	.0004	.0001	.0015	-0.001	-0.043	-0.008
Stddev	.0003	.0001	.0005	.0001	.0005	.0003	.0003	.0125	.0004
%RSD	126.9	21.80	86.96	19.15	435.0	22.46	429.8	291.9	3.923

#1	.0000	-0.005	-0.009	.0004	.0005	.0012	-0.003	-0.131	-0.095
#2	.0004	-0.007	-0.002	.0005	-0.002	.0017	.0001	.0046	-0.100

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0063	-0.0148	.0419	-0.114	.0009	.0009	.0042	-0.022	.0001
Stddev	.0025	.0297	.0098	.0080	.0004	.0002	.0011	.0008	.0000
%RSD	40.13	200.9	23.38	70.13	49.68	24.92	26.74	36.28	12.97

#1	.0045	-.0358	.0488	-.0171	.0006	.0011	.0050	-.0028	.0001
#2	.0081	.0062	.0350	-.0058	.0012	.0008	.0034	-.0016	.0001

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

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Sample Name: CCB Acquired: 5/31/2018 2:55:26 Type: QC
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0000	.0008	.0004	.0013	.0012	.0012	.0024
Stddev	.0002	.0005	.0000	.0008	.0001	.0028	.0005
%RSD	.3815	.58.24	.8160	60.41	12.52	237.5	18.60
#1	-.0002	.0005	.0004	.0008	.0013	.0032	.0021
#2	.0001	.0011	.0003	.0019	.0011	-.0008	.0028

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
High Limit
Low Limit

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	95686.	11634.	3650.7	8697.5
Stddev	374.	3.	.8	8.5
%RSD	.39071	.02741	.02109	.09764
#1	95422.	11636.	3650.1	8691.5
#2	95950.	11632.	3651.2	8703.5

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Sample Name: JC66873-1 Acquired: 5/31/2018 2:59:48 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	2.070	.0047	.0376	.0479	.4786	F 18.06	2.134	.2461
Stddev	.002	.0001	.0003	.0002	.0013	.25	.001	.0009
%RSD	.0904	2.418	.8624	.4150	.2740	1.407	.0467	.3743

#1	2.069	.0046	.0374	.0477	.4777	18.24	2.134	.2454
#2	2.071	.0048	.0378	.0480	.4796	17.88	2.135	.2467

Elem	Ag3280	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068
Avg	.0301	.2806	F 22.83	.1961	.0091	F 134.7	.0066	1.513
Stddev	.0000	.0000	.03	.0013	.0006	.1	.0030	.001
%RSD	.1425	.0080	.1402	.6546	6.959	.0679	46.00	.0824

#1	.0300	.2806	22.85	.1970	.0095	134.8	.0045	1.514
#2	.0301	.2806	22.81	.1952	.0086	134.6	.0088	1.512

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	60.09	40.09	F 373.3	17.36	7.285	1.109	.0518	.3203
Stddev	.08	.12	.7	.06	.014	.008	.0003	.0003
%RSD	.1297	.2875	.1936	.3341	.1847	.6834	.6088	.0956

#1	60.04	40.00	372.8	17.32	7.275	1.104	.0516	.3205
#2	60.15	40.17	373.8	17.40	7.294	1.115	.0520	.3201

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	5.332	F 25.24	.2832	1.309	.0176	F -.0799	5.035	.0672
Stddev	.073	.07	.0002	.001	.0006	.0004	.016	.0006
%RSD	1.363	.2714	.0810	.0530	3.330	.5369	.3225	.9126

#1	5.383	25.29	.2830	1.308	.0180	-.0802	5.046	.0668
#2	5.281	25.19	.2833	1.309	.0172	-.0796	5.023	.0677

Elem	Li6707	P_1774
Avg	.0759	7.221
Stddev	.0001	.012
%RSD	.1467	.1640

#1	.0759	7.230
#2	.0758	7.213

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Sample Name: JC66873-1 Acquired: 5/31/2018 2:59:48 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	94627.	12076.	3602.2	8054.3
Stddev	81.	2.	9.6	15.7
%RSD	.08608	.01736	.26655	.19453
#1	94570.	12078.	3595.4	8043.2
#2	94685.	12075.	3609.0	8065.4

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Sample Name: JC66873-2 Acquired: 5/31/2018 3:04:00 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	.9630	.0031	.0101	.0287	1.225	6.105	1.110	.0960	.0075
Stddev	.0065	.0001	.0001	.0000	.000	.003	.001	.0001	.0001
%RSD	.6787	3.299	1.273	.1477	.0031	.0431	.0449	.0553	1.260

#1	.9676	.0032	.0100	.0287	1.225	6.103	1.109	.0959	.0075
#2	.9584	.0030	.0102	.0288	1.225	6.107	1.110	.0960	.0074

Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	.6142	6.226	.0641	.0059	F 18.49	.0056	.1035	49.16	22.56
Stddev	.0009	.016	.0004	.0015	.02	.0009	.0007	.17	.06
%RSD	.1395	.2515	.5708	25.23	.1105	16.75	.7109	.3531	.2454

#1	.6136	6.237	.0644	.0070	18.50	.0049	.1030	49.29	22.60
#2	.6148	6.215	.0639	.0049	18.47	.0063	.1040	49.04	22.52

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	149.9	12.13	7.034	.7696	.0526	.6075	5.657	2.798	.1404
Stddev	1.0	.04	.044	.0069	.0003	.0008	.040	.004	.0007
%RSD	.6663	.3381	.6296	.8924	.6544	.1256	.6982	.1274	.5226

#1	150.6	12.16	7.066	.7744	.0524	.6080	5.685	2.801	.1409
#2	149.2	12.10	7.003	.7647	.0529	.6069	5.629	2.796	.1399

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	1.080	.0410	.0114	1.840	-.0035	.0674	4.218
Stddev	.000	.0012	.0002	.002	.0002	.0006	.004
%RSD	.0374	3.045	1.412	.1056	5.108	.8806	.0893

#1	1.080	.0401	.0113	1.841	-.0034	.0670	4.221
#2	1.080	.0419	.0115	1.838	-.0036	.0679	4.216

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	94452.	11831.	3621.3	8139.2
Stddev	103.	63.	3.3	3.9
%RSD	.10934	.53263	.09212	.04829

#1	94525.	11786.	3623.7	8142.0
#2	94379.	11875.	3619.0	8136.5

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Sample Name: JC66916-1 Acquired: 5/31/2018 3:08:08 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	.2345	.0022	-.0001	.0174	.1106	.1399	.2357	.0311	.0022
Stddev	.0002	.0000	.0001	.0002	.0008	.0004	.0004	.0002	.0004
%RSD	.0742	2.231	109.2	.9034	.6928	.2570	.1487	.5690	16.93
#1	.2347	.0022	-.0000	.0173	.1111	.1396	.2359	.0312	.0024
#2	.2344	.0022	-.0001	.0175	.1101	.1401	.2354	.0309	.0019
Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	.1882	.1208	.0197	.0007	.1105	.0014	.0020	.2957	.2824
Stddev	.0001	.0004	.0007	.0013	.0008	.0006	.0003	.04	.006
%RSD	.0537	.3170	3.522	178.7	.7451	41.59	14.58	.1235	.2238
#1	.1881	.1205	.0192	.0017	.1111	.0018	.0018	.2960	.2828
#2	.1883	.1211	.0201	-.0002	.1099	.0010	.0022	.2955	.2820
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	.69.93	.1.742	.2.868	.4.627	.0.026	.0.087	.7.615	.0.0460	.1.563
Stddev	.18	.016	.012	.0042	.0068	.0003	.051	.0004	.0003
%RSD	.2589	.9001	.4195	.8979	33.23	3.273	.6635	.9605	.2049
#1	70.06	1.753	2.877	.4656	.0254	.0089	7.579	.0457	.1566
#2	69.80	1.731	2.860	.4597	.0158	.0085	7.650	.0463	.1561
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Avg	.1.577	.0.085	.0.565	.6.110	-.0.051	.0.0260	.8.951		
Stddev	.003	.0015	.0002	.008	.0013	.0003	.0034		
%RSD	.2131	17.27	.3597	.1310	24.91	1.179	.3771		
#1	1.574	.0095	.0566	6.105	-.0060	.0262	.8927		
#2	1.579	.0074	.0563	6.116	-.0042	.0258	.8975		
Int. Std.	Y_3600	Y_3710	Y_2243	In2306					
Avg	96351.	11916.	3704.5	8341.5					
Stddev	.222.	.	2.3	7.1					
%RSD	.23021	.00244	.06257	.08551					
#1	96194.	11915.	3702.9	8336.4					
#2	96507.	11916.	3706.1	8346.5					

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Sample Name: JC66916-2 Acquired: 5/31/2018 3:12:21 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	
Avg	.7842	.0037	.0017	.0934	.1550	.1.033	.1.257	.1.028	
Stddev	.0007	.0000	.0001	.0005	.0003	.001	.001	.0005	
%RSD	.0849	.0917	8.646	.5509	.1822	.0520	.0385	.4878	
#1	.7837	.0037	.0018	.0937	.1552	1.033	1.258	.1032	
#2	.7847	.0037	.0016	.0930	.1548	1.034	1.257	.1025	
Elem	Ag3280	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	
Avg	.0049	.2240	.2.756	.0.090	.0.042	.5.238	.0.057	.0.030	
Stddev	.0003	.0012	.005	.0012	.0002	.0027	.0009	.0017	
%RSD	6.598	.5412	.1749	1.214	4.148	.5062	15.42	5.149	
#1	.0046	.2231	2.759	.0981	.0044	.5257	.0051	.0318	
#2	.0051	.2248	2.752	.0998	.0041	.5219	.0063	.0343	
Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	
Avg	.45.27	.13.50	.161.4	.8.226	.5.928	.1.739	.0.0459	.0.0269	
Stddev	.06	.01	.1	.030	.027	.009	.0012	.0001	
%RSD	.1269	.0526	.0455	.3612	.4481	.5489	2.697	.2560	
#1	45.23	13.50	161.4	8.205	5.947	1.732	.0450	.0270	
#2	45.31	13.51	161.3	8.247	5.910	1.746	.0468	.0269	
Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230	
Avg	.7.247	.0.057	.0.2011	.2.528	.0.089	.0.831	.5.944	W -.0.097	
Stddev	.052	.0002	.0003	.002	.0005	.0001	.012	.0016	
%RSD	.7186	.3611	.1582	.0662	5.156	.1036	.1934	16.62	
#1	7.284	.0505	.2009	2.527	.0086	.0830	5.935	-.0108	
#2	7.210	.0508	.2013	2.530	.0092	.0831	5.952	-.0085	
Elem	Li6707	P_1774							
Avg	.0.683	.1.389							
Stddev	.0009	.004							
%RSD	1.291	.2527							
#1	.0677	1.391							
#2	.0690	1.386							

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Sample Name: JC66916-2 Acquired: 5/31/2018 3:12:21 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	95171.	11931.	3659.6	8179.6
Stddev	39.	22.	2.9	3.6
%RSD	.04112	.18327	.08018	.04396
#1	95199.	11946.	3661.7	8177.1
#2	95143.	11915.	3657.6	8182.1

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Sample Name: JC66917-1 Acquired: 5/31/2018 3:16:32 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	.3.073	.0.035	.0.009	.0.178	.1.414	.1.899	.7.856	.0.0450	.0.033
Stddev	.0009	.0001	.0000	.0002	.0010	.0004	.0034	.0003	.0001
%RSD	.2817	1.676	5.136	1.275	.7158	.2018	.4375	.7008	3.619
#1	.3079	.0035	.0009	.0179	.1407	.1902	.7831	.0448	.0032
#2	.3067	.0035	.0009	.0176	.1421	.1897	.7880	.0452	.0034
Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	.1.509	.4.337	.0.752	.0.021	.4.636	.0.010	.0.020	.5.589	.5.739
Stddev	.0003	.0009	.0001	.0002	.0017	.0005	.0003	.05	.027
%RSD	.1892	.2004	.1589	8.153	.3761	47.16	16.64	.0933	.4713
#1	.1507	.4343	.0753	.0022	.4648	.0013	.0018	58.63	5.758
#2	.1511	.4331	.0751	.0020	.4624	.0007	.0023	58.55	5.720
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	.110.5	.4.953	.6.186	.1.945	.0.050	.0.049	.5.400	.0.0286	.0.0292
Stddev	.3	.014	.021	.0080	.0010	.0002	.030	.0003	.0002
%RSD	.3152	.2889	.3424	4.095	2.887	4.839	.5540	1.038	.6647
#1	110.7	4.943	6.201	.1889	.0357	.0048	5.421	.0288	.0294
#2	110.2	4.963	6.171	.2002	.0343	.0051	5.378	.0284	.0291
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Avg	.1.635	.0.064	.0.132	.9.920	.0.075	.0.0370	.5.303		
Stddev	.002	.0003	.0004	.0026	.0008	.0015	.001		
%RSD	.1157	5.494	3.367	.2621	10.39	3.963	.0222		
#1	1.633	.0061	.0129	.9902	-.0069	.0360	5.304		
#2	1.636	.0066	.0135	.9939	-.0080	.0381	5.302		
Int. Std.	Y_3600	Y_3710	Y_2243	In2306					
Avg	95385.	11867.	3667.7	8203.6					
Stddev	280.	62.	14.3	21.3					
%RSD	.29367	.51851	.38983	.25978					
#1	95583.	11823.	3657.6	8188.5					
#2	95187.	11910.	3677.8	8218.7					

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[Zoom Out](#)

Sample Name: JC66917-2 Acquired: 5/31/2018 3:20:44 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	.2209	.0027	.0005	.0164	.1007	.1223	.5684	.0374	.0025
Stddev	.0001	.0000	.0002	.0002	.0008	.0006	.0008	.0004	.0002
%RSD	.0417	1.094	42.78	1.513	.7915	.4833	.1344	1.079	9.546
#1	.2210	.0027	.0004	.0162	.1001	.1219	.5689	.0371	.0027
#2	.2208	.0027	.0007	.0165	.1013	.1227	.5678	.0377	.0024
Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	.1048	.3408	.0415	.0009	.2756	.0021	.0023	45.81	3.698
Stddev	.0001	.0029	.0003	.0011	.0011	.0017	.0004	.03	.012
%RSD	.0808	.8411	.7400	134.6	.4019	80.28	18.77	.0686	.3366
#1	.1049	.3388	.0413	.0000	.2748	.0009	.0020	45.83	3.689
#2	.1047	.3428	.0417	.0017	.2764	.0033	.0026	45.79	3.707
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	78.44	3.673	4.399	.1765	.0232	.0035	5.861	.0253	.0217
Stddev	.02	.003	.005	.0071	.0001	.0002	.063	.0001	.0002
%RSD	.0314	.0862	.1102	4.000	.3700	5.400	1.079	.5226	.7462
#1	78.46	3.675	4.402	.1815	.0233	.0036	5.817	.0254	.0216
#2	78.42	3.671	4.395	.1715	.0232	.0034	5.906	.0252	.0218
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Avg	1.212	.0076	.0131	.6746	-.0059	.0286	3.688		
Stddev	.001	.0006	.0002	.0050	.0005	.0009	.024		
%RSD	.0563	8.042	1.687	.7429	8.098	3.318	.6596		
#1	1.212	.0071	.0133	.6711	-.0055	.0279	3.671		
#2	1.211	.0080	.0129	.6782	-.0062	.0292	3.705		
Int. Std.	Y_3600	Y_3710	Y_2243	In2306					
Avg	94782.	11727.	3630.9	8207.5					
Stddev	35.	32.	22.8	41.0					
%RSD	.03725	.27537	.62822	.49937					
#1	94757.	11750.	3647.0	8236.5					
#2	94807.	11704.	3614.7	8178.5					

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Sample Name: JC66917-3 Acquired: 5/31/2018 3:24:57 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	.4523	.0052	.0010	.0185	.2440	.1203	.8241	.0574	.0028
Stddev	.0002	.0000	.0001	.0005	.0012	.0002	.0016	.0004	.0002
%RSD	.0417	.6405	9.917	2.708	.4811	.1675	.1960	.7707	8.265
#1	.4525	.0052	.0010	.0188	.2432	.1202	.8229	.0577	.0027
#2	.4522	.0052	.0009	.0181	.2448	.1205	.8252	.0571	.0030
Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	.1804	.3765	.1079	.0029	.3863	.0015	.0032	95.03	7.812
Stddev	.0008	.0009	.0006	.0009	.0009	.0037	.0013	.05	.001
%RSD	.4357	.2271	.5227	31.20	.2421	254.3	40.92	.0533	.0163
#1	.1799	.3771	.1083	.0023	.3857	.0012	.0023	94.99	7.811
#2	.1810	.3759	.1075	.0036	.3870	.0041	.0041	95.06	7.813
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	122.5	11.47	20.21	.2243	.1249	.0054	4.613	.0223	.0403
Stddev	.1	.01	.00	.0031	.0000	.0002	.006	.0001	.0002
%RSD	.0467	.1011	.0212	1.365	.0360	3.995	.1230	.2610	.4174
#1	122.5	11.46	20.22	.2265	.1250	.0056	4.609	.0223	.0402
#2	122.5	11.48	20.21	.2222	.1249	.0053	4.617	.0222	.0404
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Avg	1.548	.0068	.0130	1.503	-.0082	.0633	6.524		
Stddev	.008	.0001	.0001	.004	.0018	.0015	.003		
%RSD	.5196	2.022	.9665	.2470	22.24	2.352	.0494		
#1	1.542	.0069	.0130	1.501	-.0069	.0623	6.522		
#2	1.553	.0067	.0131	1.506	-.0095	.0644	6.527		
Int. Std.	Y_3600	Y_3710	Y_2243	In2306					
Avg	95242.	11952.	3680.4	8060.0					
Stddev	330.	52.	2.1	1.3					
%RSD	.34659	.43805	.05758	.01582					
#1	95475.	11989.	3681.9	8059.1					
#2	95008.	11915.	3678.9	8060.9					

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Sample Name: JC66917-4 Acquired: 5/31/2018 3:29:09 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	.3503	.0044	.0007	.0158	.2339	.1177	.6092	.0464	.0024
Stddev	.0013	.0000	.0001	.0004	.0004	.0009	.0015	.0000	.0000
%RSD	.3652	1.030	15.60	2.766	.1615	.7922	.2533	.0149	.0117
#1	.3512	.0045	.0008	.0161	.2336	.1184	.6081	.0464	.0024
#2	.3494	.0044	.0006	.0155	.2342	.1171	.6103	.0464	.0024
Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	.1454	.3390	.0894	.0017	.3910	.0016	.0026	75.29	9.757
Stddev	.0003	.0006	.0008	.0010	.0007	.0017	.0006	.12	.002
%RSD	.2023	.1841	.9363	57.07	.1701	106.7	24.79	.1626	.0219
#1	.1452	.3385	.0888	.0010	.3915	.0004	.0021	75.37	9.758
#2	.1456	.3394	.0899	.0024	.3905	.0028	.0030	75.20	9.755
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	106.2	11.44	22.20	.2217	.1443	.0043	3.960	.0228	.0391
Stddev	.2	.01	.03	.0082	.0021	.0002	.009	.0004	.0002
%RSD	.2002	.0706	.1503	3.688	1.470	3.972	.2394	1.646	.5898
#1	106.3	11.45	22.23	.2275	.1458	.0042	3.957	.0230	.0393
#2	106.0	11.44	22.18	.2159	.1428	.0044	3.944	.0225	.0390
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Avg	1.346	.0055	.0110	1.132	-.0069	.0518	6.013		
Stddev	.002	.0004	.0001	.001	.0021	.0009	.003		
%RSD	.1254	7.257	.6615	.0517	30.71	1.796	.0558		
#1	1.345	.0058	.0110	1.131	-.0054	.0511	6.010		
#2	1.347	.0052	.0109	1.132	-.0084	.0524	6.015		
Int. Std.	Y_3600	Y_3710	Y_2243	In2306					
Avg	94800.	11910.	3675.4	8092.3					
Stddev	137.	27.	7.0	.9					
%RSD	.14455	.22908	.19021	.01137					
#1	94897.	11891.	3680.4	8093.0					
#2	94703.	11930.	3670.5	8091.7					

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Sample Name: JC66929-1 Acquired: 5/31/2018 3:33:22 Type: Unk
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	.4526	.0038	.0009	.0295	.1580	.2294	1.652	.0766	.0043
Stddev	.0001	.0000	.0002	.0005	.0009	.0000	.001	.0005	.0003
%RSD	.0247	.8115	17.79	1.740	.5860	.0042	.0533	.5929	6.885
#1	.4525	.0039	.0010	.0298	.1587	.2294	1.652	.0763	.0045
#2	.4527	.0038	.0008	.0291	.1574	.2294	1.651	.0770	.0041
Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	.2187	.4919	.0563	.0032	.6135	.0027	.0023	81.01	38.98
Stddev	.0015	.0015	.0006	.0012	.0009	.0008	.0002	.01	.05
%RSD	.6826	.3019	1.149	36.33	.1510	31.10	7.381	.0158	.1210
#1	.2197	.4930	.0567	.0040	.6142	.0021	.0024	81.01	39.01
#2	.2176	.4909	.0558	.0024	.6129	.0033	.0022	81.00	38.94
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	179.1	16.28	10.96	2.791	.0622	.0059	4.617	.0430	.2258
Stddev	.1	.00	.05	.000	.0010	.0000	.017	.0000	.0004
%RSD	.0407	.0264	.4335	.0055	1.684	.3890	.3754	.0257	.1631
#1	179.1	16.29	10.93	2.791	.0629	.0059	4.629	.0430	.2261
#2	179.2	16.28	11.00	2.791	.0615	.0059	4.605	.0430	.2256
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Avg	2.203	.0072	.0582	2.090	-.0078	.0605	2.758		
Stddev	.002	.0007	.0000	.004	.0010	.0014	.003		
%RSD	.0841	9.308	.0155	.1695	12.88	2.305	.1134		
#1	2.202	.0067	.0582	2.092	-.0071	.0595	2.760		
#2	2.204	.0076	.0582	2.087	-.0085	.0614	2.755		
Int. Std.	Y_3600	Y_3710	Y_2243	In2306					
Avg	93059.	11721.	3585.8	7986.1					
Stddev	137.	8.	2.1	1.2					
%RSD	.14733	.06600	.05811	.01504					
#1	92962.	11726.	3584.3	7986.9					
#2	93156.	11715.	3587.3	7985.2					

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Sample Name: CCV Acquired: 5/31/2018 3:37:35 Type: QC									
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000									
User: admin Custom ID1: Custom ID2: Custom ID3:									
Comment:									
Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.053	1.949	1.982	1.971	1.987	1.969	2.035	2.004	2.448
Stddev	.001	.002	.000	.002	.004	.000	.004	.001	.0007
%RSD	.0622	.0753	.0199	.1234	.2099	.0101	.2009	.0698	.2734
#1	2.052	1.950	1.982	1.973	1.984	1.969	2.032	2.005	2.453
#2	2.054	1.948	1.982	1.970	1.990	1.969	2.038	2.003	2.443
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									
Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.976	2.008	1.979	2.060	2.025	1.996	1.995	39.43	39.17
Stddev	.003	.003	.003	.001	.003	.001	.001	.02	.01
%RSD	.1351	.1596	.1376	.0398	.1693	.0715	.0327	.0578	.0270
#1	1.974	2.011	1.977	2.060	2.027	1.995	1.996	39.41	39.18
#2	1.978	2.006	1.981	2.059	2.023	1.997	1.995	39.45	39.16
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	39.98	38.87	40.90	40.56	1.985	2.030	5.127	2.024	2.033
Stddev	.09	.21	.03	.01	.001	.002	.004	.004	.000
%RSD	.2209	.5338	.0646	.0141	.0240	.0999	.0725	.1805	.0068
#1	40.04	39.01	40.89	40.56	1.985	2.029	5.124	2.026	2.033
#2	39.92	38.72	40.92	40.56	1.985	2.032	5.129	2.021	2.033
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

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Sample Name: CCV Acquired: 5/31/2018 3:37:35 Type: QC									
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000									
User: admin Custom ID1: Custom ID2: Custom ID3:									
Comment:									
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	2.007	1.999	2.005	1.975	2.020	1.996	2.047		
Stddev	.004	.001	.003	.005	.001	.000	.000		
%RSD	.1892	.0560	.1340	.2368	.0446	.0047	.0006		
#1	2.004	2.000	2.003	1.978	2.020	1.997	2.047		
#2	2.010	1.998	2.007	1.972	2.019	1.996	2.047		
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass		
Value									
Range									
Int. Std.	Y_3600	Y_3710	Y_2243	In2306					
Units	Cts/S	Cts/S	Cts/S	Cts/S					
Avg	90712.	11431.	3500.4	7705.0					
Stddev	84.	4.	1.3	12.2					
%RSD	.09309	.03763	.03707	.15835					
#1	90652.	11428.	3499.5	7696.4					
#2	90772.	11434.	3501.4	7713.6					

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Sample Name: CCB Acquired: 5/31/2018 3:41:38 Type: QC									
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000									
User: admin Custom ID1: Custom ID2: Custom ID3:									
Comment:									
Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0001	-0.0000	.0002	.0002	.0003	.0000	.0001	.0003	.0006
Stddev	.0003	.0000	.0001	.0002	.0004	.0001	.0000	.0002	.0002
%RSD	342.3	840.0	40.32	70.22	121.8	717.5	3.993	55.55	28.19
#1	.0001	-0.0000	.0003	.0001	.0005	-0.0000	.0001	.0005	.0004
#2	-0.0003	.0000	.0002	.0004	.0000	.0001	.0001	.0002	.0007
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									
Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0001	-0.0006	-0.0007	.0005	.0007	.0009	.0010	.0051	-0.0094
Stddev	.0002	.0000	.0005	.0000	.0009	.0014	.0008	.0110	.0002
%RSD	322.6	5.182	77.90	8.162	130.7	151.2	74.96	214.3	1.955
#1	-0.0002	-0.0006	-0.0003	.0005	.0001	.0020	.0015	.0129	-0.0092
#2	.0001	-0.0006	-0.0011	.0005	.0013	-0.0001	.0005	-0.0026	-0.0095
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0076	-0.0091	.0634	-0.0053	.0010	.0011	.0030	-0.0012	.0001
Stddev	.0025	.0012	.0136	.0036	.0002	.0001	.0004	.0004	.0000
%RSD	32.49	13.13	21.40	67.26	19.22	10.16	11.58	36.74	35.00
#1	.0093	-0.0083	.0730	-0.0028	.0012	.0010	.0028	-0.0015	.0001
#2	.0058	-0.0100	.0538	-0.0079	.0009	.0012	.0033	-0.0009	.0002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

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Sample Name: CCB Acquired: 5/31/2018 3:41:38 Type: QC									
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000									
User: admin Custom ID1: Custom ID2: Custom ID3:									
Comment:									
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	-0.0004	.0007	.0003	-0.0008	.0006	.0010	.0033		
Stddev	.0001	.0005	.0001	.0012	.0006	.0018	.0005		
%RSD	30.21	75.04	32.48	146.0	94.28	175.8	15.85		
#1	-0.0003	.0010	.0004	.0000	.0002	-0.0003	.0029		
#2	-0.0005	.0003	.0002	-0.0017	.0010	.0023	.0036		
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass		
High Limit									
Low Limit									
Int. Std.	Y_3600	Y_3710	Y_2243	In2306					
Units	Cts/S	Cts/S	Cts/S	Cts/S					
Avg	94707.	11520.	3641.2	8687.1					
Stddev	350.	46.	1.5	4.8					
%RSD	.36966	.40049	.03989	.05582					
#1	94459.	11552.	3642.3	8690.5					
#2	94955.	11487.	3640.2	8683.7					

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Sample Name: CRI Acquired: 5/31/2018 3:46:01 Type: QC
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2102	.0020	.0033	.0492	.0106	.0101	.0164	.0101	.0056
Stddev	.0002	.0002	.0003	.0003	.0001	.0001	.0000	.0003	.0005
%RSD	.1022	7.830	9.238	.5143	1.342	.6614	.0384	2.589	8.630
#1	.2104	.0021	.0035	.0491	.0107	.0101	.0164	.0100	.0053
#2	.2101	.0019	.0031	.0494	.0105	.0100	.0164	.0103	.0060

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
Value
Range

Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0508	.0208	.0073	.0122	.0034	.0115	.0075	.2120	5.132
Stddev	.0003	.0002	.0000	.0002	.0001	.0029	.0011	.0019	.003
%RSD	.6468	.9514	.0555	1.741	2.939	25.22	14.20	.8916	.0565
#1	.0510	.0206	.0073	.0123	.0034	.0095	.0082	.2133	5.130
#2	.0506	.0209	.0073	.0120	.0035	.0136	.0067	.2107	5.134

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
Value
Range

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1069	5.093	5.302	5.217	.1029	.0220	.2394	.0090	.0104
Stddev	.0011	.018	.031	.007	.0008	.0001	.0021	.0015	.0001
%RSD	1.036	.3483	.5871	.1367	.7486	.5724	.8818	16.70	.5463
#1	.1061	5.081	5.324	5.222	.1023	.0219	.2379	.0101	.0103
#2	.1076	5.106	5.280	5.212	.1034	.0221	.2409	.0079	.0104

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
Value
Range

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Sample Name: CRI Acquired: 5/31/2018 3:46:01 Type: QC
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0102	.0518	F .0187	.0544	.0236	.0547	.0565
Stddev	.0005	.0008	.0008	.0016	.0017	.0009	.0006
%RSD	5.042	1.540	4.153	2.970	6.997	1.580	1.018
#1	.0106	.0524	.0192	.0555	.0248	.0553	.0561
#2	.0099	.0513	.0181	.0532	.0225	.0541	.0570

Check ? Chk Pass Chk Pass Chk Fail Chk Pass Chk Pass Chk Pass Chk Pass
Value
Range .0100
30.00%

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	93778.	11543.	3572.7	8395.4
Stddev	181.	21.	4.5	4.5
%RSD	.19312	.18401	.12653	.05352
#1	93906.	11558.	3575.9	8398.6
#2	93650.	11528.	3569.5	8392.2

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Sample Name: CRID Acquired: 5/31/2018 3:50:19 Type: QC
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0040	.0009	.0010	.0030	.0023	F .0001	.0034	.0042
Stddev	.0003	.0000	.0002	.0001	.0000	.0001	.0001	.0003
%RSD	8.437	2.950	16.81	2.806	.2831	57.82	2.409	6.608
#1	.0038	.0009	.0009	.0030	.0023	.0001	.0033	.0044
#2	.0043	.0009	.0011	.0029	.0023	.0002	.0035	.0040

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Fail Chk Pass Chk Pass
Value
Range .0020
-30.00%

Elem	Ag3280	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .0001	.0020	.0108	.0022	.0020	F .0014	F .0067	F .0004
Stddev	.0002	.0004	.0000	.0007	.0015	.0004	.0014	.0003
%RSD	.374.2	21.76	.1248	32.27	72.87	30.50	20.26	82.18
#1	-.0002	.0017	.0109	.0017	.0010	.0011	.0077	.0006
#2	.0001	.0024	.0108	.0028	.0030	.0017	.0058	.0002

Check ? Chk Fail Chk Pass Chk Pass Chk Pass Chk Pass Chk Fail Chk Fail Chk Fail
Value
Range .0020
-30.00%

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1126	1.057	.0051	.0994	2.220	1.073	F .0008	.0002
Stddev	.0074	.003	.0006	.0098	.004	.006	.0006	.0001
%RSD	6.591	.3143	11.51	9.857	.2020	.5606	78.58	64.05
#1	.1179	1.059	.0056	.0925	2.223	1.069	.0003	.0003
#2	.1074	1.054	.0047	.1064	2.217	1.078	.0012	.0001

Check ? Chk Pass Chk Pass None Chk Pass Chk Pass Chk Pass Chk Fail
Value
Range .0100
-30.00%

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Sample Name: CRID Acquired: 5/31/2018 3:50:19 Type: QC
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0047	-.0017	.0001	-.0001	F .0005	F .0002	F .0002	F .0001
Stddev	.0027	.0001	.0001	.0000	.0002	.0001	.0003	.0005
%RSD	56.72	3.075	58.87	13.88	37.20	42.73	128.6	466.4
#1	.0066	-.0017	.0002	-.0001	.0004	.0001	.0000	-.0003
#2	.0028	-.0017	.0001	-.0001	.0006	.0002	.0005	.0005

Check ? None None None None Chk Fail Chk Fail Chk Fail Chk Fail
Value
Range .0040
-30.00%

Elem	Li6707	P_1774
Units	ppm	ppm
Avg	F .0004	.0046
Stddev	.0007	.0004
%RSD	151.4	9.300
#1	.0009	.0043
#2	-.0000	.0049

Check ? Chk Fail Chk Pass
Value
Range .0040
-30.00%

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	94366.	11498.	3604.7	8549.7
Stddev	105.	12.	9.8	29.9
%RSD	.11132	.10700	.27163	.34965
#1	94440.	11507.	3597.8	8528.6
#2	94291.	11490.	3611.7	8570.9

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Sample Name: CCV Acquired: 5/31/2018 3:54:41 Type: QC
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.058	1.954	1.991	1.976	1.999	1.978	2.042	2.008	2.471
Stddev	.001	.007	.008	.011	.004	.009	.003	.007	.0015
%RSD	.0481	.3822	.3806	.5584	.2096	.4433	.1380	.3584	.6251
#1	2.057	1.949	1.996	1.984	1.996	1.972	2.040	2.013	2.460
#2	2.058	1.960	1.986	1.969	2.002	1.984	2.044	2.003	2.482

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
Value
Range

Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.991	2.013	1.986	2.065	2.031	2.004	2.004	39.51	39.25
Stddev	.001	.006	.005	.012	.011	.011	.009	.02	.09
%RSD	.0478	.3111	.2302	.5786	.5385	.5511	.4385	.0520	.2385
#1	1.991	2.018	1.989	2.073	2.039	2.012	2.010	39.49	39.18
#2	1.992	2.009	1.982	2.056	2.024	1.996	1.998	39.52	39.31

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
Value
Range

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	40.03	38.94	40.92	40.63	1.998	2.039	5.148	2.029	2.035
Stddev	.07	.20	.02	.02	.004	.007	.018	.008	.001
%RSD	.1626	.5115	.0410	.0390	.1866	.3395	.3516	.3963	.0456
#1	39.98	38.80	40.91	40.62	2.000	2.044	5.160	2.035	2.035
#2	40.08	39.08	40.93	40.64	1.995	2.034	5.135	2.023	2.036

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
Value
Range

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Sample Name: CCB Acquired: 5/31/2018 3:58:45 Type: QC
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0000	-0.0000	-0.0000	.0000	.0001	.0001	.0000	.0002	.0004
Stddev	.0002	.0001	.0001	.0001	.0000	.0000	.0001	.0002	.0005
%RSD	496.3	897.3	292.7	601.1	5.818	15.02	107.7	88.80	114.0
#1	-0.0002	.0001	-0.0001	-0.0001	.0001	.0001	.0001	.0001	.0007
#2	.0001	-0.0001	.0000	.0001	.0001	.0001	.0000	.0004	.0001

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
High Limit
Low Limit

Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0003	-0.0006	-0.0001	.0009	.0014	-0.0014	.0015	-0.0042	-0.0123
Stddev	.0002	.0000	.0004	.0011	.0008	.0011	.0003	.0025	.0007
%RSD	79.88	1.530	553.4	128.1	56.87	77.68	17.29	60.93	5.517
#1	-0.0001	-0.0007	-0.0004	.0001	.0008	-0.0022	.0017	-0.0024	-0.0118
#2	-0.0004	-0.0006	.0002	.0017	.0020	-0.0006	.0014	-0.0060	-0.0127

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
High Limit
Low Limit

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0067	-0.0196	.0709	-0.0051	.0010	.0012	.0025	-0.0016	.0001
Stddev	.0020	.0087	.0238	.0139	.0003	.0002	.0006	.0003	.0001
%RSD	29.37	44.36	33.55	271.4	28.84	15.67	24.95	18.78	54.71
#1	.0081	-.0258	.0877	-.0150	.0008	.0013	.0029	-.0014	.0002
#2	.0053	-.0135	.0541	.0047	.0012	.0010	.0021	-.0018	.0001

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
High Limit
Low Limit

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Sample Name: CCV Acquired: 5/31/2018 3:54:41 Type: QC
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.014	2.007	2.009	1.987	2.028	2.002	2.057
Stddev	.003	.003	.005	.008	.007	.001	.007
%RSD	.1488	.1296	.2492	.3965	.3700	.0477	.3246
#1	2.012	2.009	2.006	1.993	2.033	2.003	2.062
#2	2.016	2.005	2.013	1.982	2.023	2.001	2.052

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
Value
Range

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	90577.7	11431.1	3490.3	7693.6
Stddev	221.	39.	4.0	18.6
%RSD	.24416	.34069	.11479	.24170
#1	90733.	11458.	3487.5	7680.5
#2	90420.	11403.	3493.2	7706.8

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Sample Name: CCB Acquired: 5/31/2018 3:58:45 Type: QC
Method: Accutest 2(v421) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0003	.00005	.0002	.0003	.0014	.0016	.0031
Stddev	.0002	.0001	.0001	.0020	.0006	.0003	.0007
%RSD	58.58	24.01	33.47	692.5	44.47	15.81	21.73
#1	-0.0002	.0006	.0001	.0017	.0019	.0014	.0036
#2	-0.0004	.0004	.0002	-0.0011	.0010	.0018	.0027

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
High Limit
Low Limit

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	94892.	11522.	3607.8	8591.1
Stddev	196.	23.	1.8	8.9
%RSD	.20666	.19818	.04999	.10392
#1	94754.	11539.	3606.5	8584.8
#2	95031.	11506.	3609.1	8597.4

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Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
Ba 455.403 { 74}	☒	3	Mg	0.000001	0.000000	No
			Al	0.000002	0.000000	No
			Zr	0.000727	0.000000	No
Be 313.042 {108}	☒	9	V	0.001070	0.000000	No
			Mo	-0.000030	0.000000	No
			Ti	-0.000272	0.000000	No
			Mn	-0.000018	0.000000	No
			Ni	0.000001	0.000000	No
			Ca	-0.000000	0.000000	No
			Cu	0.000014	0.000000	No
			Zn	-0.000010	0.000000	No
			Fe	-0.000002	0.000000	No
Cd 228.802 {448}	☒	12	As	0.008860	0.000000	No
			Ni	-0.000366	0.000000	No
			Fe	0.000002	0.000000	No
			V	0.000110	0.000000	No
			Ba	0.000054	0.000000	No
			Co	-0.001010	0.000000	No
			Ca	0.000000	0.000000	No
			Mn	0.000014	0.000000	No
			Cr	-0.000013	0.000000	No
			Cu	0.000024	0.000000	No
			Al	0.000000	0.000000	No
			Mo	0.000004	0.000000	No
Co 228.616 {448}	☒	9	Fe	-0.000001	0.000000	No
			Cr	-0.000046	0.000000	No
			Mo	-0.001900	0.000000	No
			Ni	0.000084	0.000000	No
			Ti	0.002027	0.000000	No
			W	0.000160	0.000000	No
			Cd	-0.000188	0.000000	No
			Ca	0.000000	0.000000	No
			As	0.000150	0.000000	No
Cr 267.716 {126}	☒	11	Mn	0.000274	0.000000	No
			Mo	-0.000147	0.000000	No
			Fe	-0.000014	0.000000	No
			Cd	-0.000050	0.000000	No
			Al	0.000002	0.000000	No
			Ca	0.000002	0.000000	No
			Mg	0.000001	0.000000	No
			Ti	0.000050	0.000000	No
			Ba	0.000013	0.000000	No
			Cu	0.000100	0.000000	No
			Sr	-0.000100	0.000000	No
Cu 324.754 {104}2	☒	17	Cr	0.000000	0.000000	No
			V	-0.000539	0.000000	No
			Mo	0.000722	0.000000	No
			Ti	-0.000160	0.000000	No
			Fe	-0.000163	0.000000	No
			Al	0.000002	0.000000	No
			Sn	-0.000097	0.000000	No
			Co	-0.001290	0.000000	No
			Zr	-0.000500	0.000000	No
			Si	-0.000002	0.000000	No
			Mn	-0.000072	0.000000	No
			Se	0.000050	0.000000	No
			Ag	0.000166	0.000000	No

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
			Sb	0.000024	0.000000	No
			Pb	0.000040	0.000000	No
			Be	-0.000031	0.000000	No
			W	0.000000	0.000000	No
Mn 257.610 {131}	☒	6	Fe	-0.000060	0.000000	No
			Si	0.000050	0.000000	No
			Ba	0.000012	0.000000	No
			Ni	0.000028	0.000000	No
			Mo	0.000000	0.000000	No
			Cr	-0.000114	0.000000	No
Ni 231.604 {446}	☒	11	Fe	0.000023	0.000000	No
			Zn	-0.000021	0.000000	No
			Be	-0.000112	0.000000	No
			Co	-0.000227	0.000000	No
			Ti	0.000209	0.000000	No
			V	-0.000032	0.000000	No
			Cu	0.000100	0.000000	No
			Cr	-0.000160	0.000000	No
			Si	-0.000030	0.000000	No
			Sn	0.000079	0.000000	No
			W	0.000830	0.000000	No
Ag 328.068 {103}	☒	14	Mn	0.000221	0.000000	No
			Mo	-0.000054	0.000000	No
			Ti	-0.000395	0.000000	No
			Fe	-0.000265	0.000000	No
			V	-0.001900	0.000000	No
			Zn	0.000057	0.000000	No
			Ca	-0.000004	0.000000	No
			Al	-0.000000	0.000000	No
			Mg	-0.000000	0.000000	No
			Ba	0.000010	0.000000	No
			Cr	-0.000038	0.000000	No
			Zr	0.005700	0.000000	No
			Sn	-0.000100	0.000000	No
			W	0.000000	0.000000	No
V 292.402 {115}	☒	7	Ti	0.000776	0.000000	No
			Mo	-0.013000	0.000000	No
			Fe	0.000010	0.000000	No
			Sr	0.000000	0.000000	No
			Cr	-0.003575	0.000000	No
			Mn	-0.000360	0.000000	No
			W	0.000050	0.000000	No
Zn 206.200 {464}	☒	15	Cr	-0.000874	0.000000	No
			Mo	-0.000228	0.000000	No
			Fe	0.000010	0.000000	No
			Al	0.000000	0.000000	No
			Si	0.000065	0.000000	No
			Ba	-0.000060	0.000000	No
			Ca	0.000004	0.000000	No
			Sr	0.000017	0.000000	No
			Sn	0.000069	0.000000	No
			Cu	0.001256	0.000000	No
			As	-0.000050	0.000000	No
			Be	0.000071	0.000000	No
			Bi	-0.000400	0.000000	No
			W	0.000000	0.000000	No
			Ti	0.000030	0.000000	No

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
As 189.042 {478}	☒	23	Al	-0.000001	0.000000	No
			Fe	-0.000054	0.000000	No
			Ca	-0.000002	0.000000	No
			Mn	-0.000154	0.000000	No
			Mo	0.000700	0.000000	No
			Cr	-0.002182	0.000000	No
			V	0.000052	0.000000	No
			Co	-0.000045	0.000000	No
			W	0.000000	0.000000	No
			Sn	-0.000123	0.000000	No
			Cd	-0.000194	0.000000	No
			Tl	0.000085	0.000000	No
			Be	-0.000017	0.000000	No
			Mg	0.000003	0.000000	No
			Si	0.000007	0.000000	No
			Zn	0.000070	0.000000	No
			Sr	-0.000080	0.000000	No
			Zr	0.000074	0.000000	No
			Ti	-0.000001	0.000000	No
			Cu	0.000077	0.000000	No
			K	0.000000	0.000000	No
			B	-0.000030	0.000000	No
			S	-0.000010	0.000000	No
Tl 190.856 {477}	☒	24	Cr	0.000231	0.000000	No
			Mo	-0.000600	0.000000	No
			Al	-0.000006	0.000000	No
			Fe	-0.000030	0.000000	No
			V	-0.029600	0.000000	No
			Mn	0.001178	0.000000	No
			Si	0.000030	0.000000	No
			Ca	0.000003	0.000000	No
			Ti	-0.002320	0.000000	No
			Mg	-0.000003	0.000000	No
			Co	0.003812	0.000000	No
			Sr	-0.000222	0.000000	No
			B	0.000120	0.000000	No
			Ba	0.000110	0.000000	No
			Zn	0.000025	0.000000	No
			As	0.000015	0.000000	No
			Ni	0.000051	0.000000	No
			Cu	-0.000032	0.000000	No
			W	0.000000	0.000000	No
			Sn	0.000020	0.000000	No
			Se	0.000040	0.000000	No
			S	0.000010	0.000000	No
			K	0.000000	0.000000	No
			P	0.000000	0.000000	No
Pb 220.353 {453}	☒	23	Al	-0.000158	0.000000	No
			Fe	0.000038	0.000000	No
			Ca	-0.000000	0.000000	No
			Mn	0.000145	0.000000	No
			Zn	-0.000036	0.000000	No
			Mo	-0.001110	0.000000	No
			Cu	0.000960	0.000000	No
			V	0.000013	0.000000	No
			Co	0.000056	0.000000	No
			Ti	0.000123	0.000000	No

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
			Si	0.000054	0.000000	No
			Ba	-0.000012	0.000000	No
			Sb	0.000006	0.000000	No
			Sr	-0.000050	0.000000	No
			W	0.000000	0.000000	No
			Mg	-0.000000	0.000000	No
			Cd	0.000476	0.000000	No
			Cr	-0.000262	0.000000	No
			Zr	-0.000300	0.000000	No
			Ni	0.000408	0.000000	No
			S	0.000002	0.000000	No
			Se	0.000036	0.000000	No
Se 196.090 {472}	☒	22	As	0.000200	0.000000	No
			Al	0.000005	0.000000	No
			Ca	-0.000006	0.000000	No
			Mn	0.000651	0.000000	No
			Mo	0.000047	0.000000	No
			Fe	-0.000147	0.000000	No
			Co	0.000265	0.000000	No
			V	0.000046	0.000000	No
			Sr	-0.000008	0.000000	No
			Cu	-0.000113	0.000000	No
			W	0.000000	0.000000	No
			Si	0.000027	0.000000	No
			Tl	0.000180	0.000000	No
			Be	-0.000143	0.000000	No
			Zn	-0.000250	0.000000	No
			B	-0.000141	0.000000	No
			Ti	0.000016	0.000000	No
			Cd	0.000090	0.000000	No
			Zr	-0.000280	0.000000	No
			Ba	0.000180	0.000000	No
			Mg	0.000001	0.000000	No
			Cr	0.000087	0.000000	No
			S	-0.000003	0.000000	No
Sb 206.833 {463}	☒	14	Fe	-0.000008	0.000000	No
			Al	0.000001	0.000000	No
			Ca	-0.000004	0.000000	No
			Ni	-0.000477	0.000000	No
			Cr	0.015513	0.000000	No
			V	-0.003446	0.000000	No
			Zn	-0.000200	0.000000	No
			Mo	0.000530	0.000000	No
			Ti	0.000291	0.000000	No
			Sn	-0.012000	0.000000	No
			Mg	0.000003	0.000000	No
			Zr	-0.000227	0.000000	No
			Sr	0.000209	0.000000	No
Al 396.152 { 85}	☒	5	W	0.000000	0.000000	No
			Si	0.000913	0.000000	No
			Ca	0.000078	0.000000	No
			Mo	0.046534	0.000000	No
			Zr	-0.016318	0.000000	No
Ca 317.933 {106}	☒	13	Ti	-0.000017	0.000000	No
			Fe	0.000130	0.000000	No
			W	0.003960	0.000000	No
			Tl	0.004950	0.000000	No

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
			Be	0.001840	0.000000	No
			Ba	0.003500	0.000000	No
			Cu	-0.001800	0.000000	No
			Cd	0.003700	0.000000	No
			Ni	0.001513	0.000000	No
			B	-0.000210	0.000000	No
			Se	0.002000	0.000000	No
			Co	0.000540	0.000000	No
			Cr	0.000640	0.000000	No
			Al	0.000026	0.000000	No
Fe 259.940 {130}	☒	13	Co	0.000004	0.000000	No
			Si	-0.000100	0.000000	No
			Tl	-0.002590	0.000000	No
			Se	-0.000050	0.000000	No
			Cr	-0.000566	0.000000	No
			Mn	-0.001433	0.000000	No
			V	-0.000064	0.000000	No
			Cu	0.000953	0.000000	No
			K	-0.000200	0.000000	No
			Zn	0.000046	0.000000	No
			Ti	-0.000631	0.000000	No
			Ca	0.000020	0.000000	No
			Ba	0.001000	0.000000	No
Mg 279.079 {121}	☒	1	Mo	-0.020780	0.000000	No
K 766.490 { 44}	☒	11	Fe	-0.000340	0.000000	No
			Al	0.000301	0.000000	No
			Ca	0.000448	0.000000	No
			Mn	0.001430	0.000000	No
			Si	-0.003000	0.000000	No
			V	-0.002000	0.000000	No
			Sn	-0.004700	0.000000	No
			Na	0.000300	0.000000	No
			Mo	-0.000850	0.000000	No
			Cu	-0.010000	0.000000	No
			Mg	0.000400	0.000000	No
Na 589.592 { 57}	☒	5	K	0.000038	0.000000	No
			Ba	0.000900	0.000000	No
			Ca	0.000055	0.000000	No
			Al	0.000040	0.000000	No
			V	-0.005000	0.000000	No
B 208.959 {462}	☒	1	Mo	0.046220	0.000000	No
Mo 202.030 {467}	☒	5	Fe	-0.000010	0.000000	No
			Mg	-0.000001	0.000000	No
			Ca	0.000003	0.000000	No
			W	-0.000376	0.000000	No
			V	-0.000230	0.000000	No
Si 212.412 {459}	☒	13	Sr	0.000366	0.000000	No
			Ni	0.000106	0.000000	No
			Mo	0.020840	0.000000	No
			Ti	0.008166	0.000000	No
			Al	0.000012	0.000000	No
			Cd	0.001043	0.000000	No
			Ba	0.000170	0.000000	No
			Fe	0.000040	0.000000	No
			Sn	0.009213	0.000000	No
			Zn	0.000385	0.000000	No
			As	-0.000560	0.000000	No

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
			Pb	0.000471	0.000000	No
			V	0.046000	0.000000	No
Sn 189.989 {478}	☒	6	Ti	-0.001547	0.000000	No
			Mo	0.000011	0.000000	No
			Fe	0.000005	0.000000	No
			Mn	0.000060	0.000000	No
			Si	0.000089	0.000000	No
			W	0.000000	0.000000	No
Sr 407.771 { 83}	☒	2	Fe	0.000002	0.000000	No
			Ca	0.000023	0.000000	No
Ti 334.904 {101}	☒	4	Cr	-0.000084	0.000000	No
			Mo	0.000989	0.000000	No
			Si	0.000035	0.000000	No
			Ca	-0.000003	0.000000	No
Y 360.073 { 94}* Y 371.030 { 91}* Y 224.306 {451}* In 230.606 {446}* W 207.911 {462}	☒ ☒ ☒ ☒ ☒	None None None None 25				
			Al	0.000002	0.000000	No
			Si	-0.000900	0.000000	No
			Fe	-0.000007	0.000000	No
			As	-0.000200	0.000000	No
			Mg	-0.000006	0.000000	No
			Mn	-0.000110	0.000000	No
			Mo	-0.000300	0.000000	No
			Ti	0.000080	0.000000	No
			Sr	-0.000850	0.000000	No
			V	-0.000140	0.000000	No
			Cd	-0.000650	0.000000	No
			Cr	-0.000390	0.000000	No
			Zn	0.012200	0.000000	No
			Sn	0.000078	0.000000	No
			Zr	0.000230	0.000000	No
			B	-0.001000	0.000000	No
			Sb	-0.003000	0.000000	No
			Co	0.000041	0.000000	No
			Ni	-0.000263	0.000000	No
			Be	-0.000130	0.000000	No
			Se	-0.000080	0.000000	No
			Cu	-0.000118	0.000000	No
			Ba	-0.000090	0.000000	No
			Tl	-0.000110	0.000000	No
Zr 339.198 { 99}	☒	9	Ag	0.000224	0.000000	No
			Mo	0.000323	0.000000	No
			Ti	-0.000010	0.000000	No
			Fe	-0.000060	0.000000	No
			Si	0.000070	0.000000	No
			Bi	0.000295	0.000000	No
			Cr	-0.000900	0.000000	No
			V	0.000200	0.000000	No
			W	0.010000	0.000000	No
			Sn	0.004000	0.000000	No
S 182.034 {485}	☒	11	Ca	0.000051	0.000000	No
			Mo	-0.002560	0.000000	No
			Al	-0.000084	0.000000	No
			Fe	-0.000023	0.000000	No
			Mn	0.003900	0.000000	No

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
			W	0.000000	0.000000	No
			Zn	-0.001538	0.000000	No
			Cr	-0.000200	0.000000	No
			Mg	0.000120	0.000000	No
			Ti	0.006500	0.000000	No
			Li	0.005400	0.000000	No
Bi 223.061 {451}	☒	9	V	-0.000680	0.000000	No
			Co	-0.002200	0.000000	No
			Ca	-0.000005	0.000000	No
			Mg	-0.000002	0.000000	No
			W	-0.002000	0.000000	No
			Cu	-0.001186	0.000000	No
			Fe	0.000101	0.000000	No
			Cr	0.001500	0.000000	No
			Ti	-0.002230	0.000000	No
Li 670.784 { 50}	☒	1	Ca	0.000023	0.000000	No
P 177.495 {490}	☒	2	Mn	-0.005600	0.000000	No
			Ca	0.000034	0.000000	No

Element, Wavelength and Order	Date of Fit	Date of Cal.	Type of Fit	Weighting	A0	A1	A2	n (Exponent)
Ba 455.403 { 74}	5/31/2018 8:22:30	5/30/2018 15:54:04	Linear	1/Conc	0.002093	2.057780	0.000000	1.000000
Be 313.042 {108}	5/31/2018 8:22:30	5/30/2018 15:54:04	Linear	1/Conc	-0.000260	1.868267	0.000000	1.000000
Cd 228.802 {448}	5/31/2018 8:22:30	5/30/2018 15:54:04	Linear	1/Conc	0.000344	1.062360	0.000000	1.000000
Co 228.616 {448}	5/31/2018 8:22:30	5/30/2018 15:54:04	Linear	1/Conc	0.000024	0.534442	0.000000	1.000000
Cr 267.716 {126}	5/31/2018 8:22:30	5/30/2018 15:54:04	Linear	1/Conc	-0.000039	0.069874	0.000000	1.000000
Cu 324.754 {104}2	5/31/2018 8:22:30	5/30/2018 15:54:04	Linear	1/Conc	0.002534	0.190442	0.000000	1.000000
Mn 257.610 {131}	5/31/2018 8:22:30	5/30/2018 15:54:04	Linear	1/Conc	0.000037	0.378382	0.000000	1.000000
Ni 231.604 {446}	5/31/2018 8:22:30	5/30/2018 15:54:04	Linear	1/Conc	-0.000118	0.381830	0.000000	1.000000
Ag 328.068 {103}	5/31/2018 8:22:30	5/30/2018 15:54:04	Linear	1/Conc	-0.000076	0.105890	0.000000	1.000000
V 292.402 {115}	5/31/2018 8:22:30	5/30/2018 15:54:04	Linear	1/Conc	0.000036	0.110326	0.000000	1.000000
Zn 206.200 {464}	5/31/2018 8:22:30	5/30/2018 15:54:04	Linear	1/Conc	0.001144	1.473167	0.000000	1.000000
As 189.042 {478}	5/31/2018 8:22:30	5/30/2018 15:54:04	Linear	1/Conc	-0.000136	0.160505	0.000000	1.000000
Tl 190.856 {477}	5/31/2018 8:22:30	5/30/2018 15:54:04	Linear	1/Conc	-0.000273	0.072422	0.000000	1.000000
Pb 220.353 {453}	5/31/2018 8:22:30	5/30/2018 15:54:04	Linear	1/Conc	-0.000491	0.176888	0.000000	1.000000
Se 196.090 {472}	5/31/2018 8:22:30	5/30/2018 15:54:04	Linear	1/Conc	0.000445	0.118146	0.000000	1.000000
Sb 206.833 {463}	5/31/2018 8:22:30	5/30/2018 15:54:04	Linear	1/Conc	0.000095	0.220801	0.000000	1.000000
Al 396.152 { 85}	5/31/2018 8:22:30	5/30/2018 15:54:04	Linear	1/Conc	-0.002528	0.039972	0.000000	1.000000
Ca 317.933 {106}	5/31/2018 8:22:30	5/30/2018 15:54:04	Linear	1/Conc	0.005212	0.059319	0.000000	1.000000
Fe 259.940 {130}	5/31/2018 8:22:30	5/30/2018 15:54:04	Linear	1/Conc	0.000071	0.024754	0.000000	1.000000
Mg 279.079 {121}	5/31/2018 8:22:30	5/30/2018 15:54:04	Linear	1/Conc	0.000027	0.004780	0.000000	1.000000
K 766.490 { 44}	5/31/2018 8:22:30	5/30/2018 15:54:04	Linear	1/Conc	-0.002397	0.036927	0.000000	1.000000
Na 589.592 { 57}	5/31/2018 8:22:30	5/30/2018 15:54:04	Linear	1/Conc	-0.001730	0.104408	0.000000	1.000000
B 208.959 {462}	5/31/2018 8:22:30	5/30/2018 15:54:04	Linear	1/Conc	0.000248	0.244845	0.000000	1.000000
Mo 202.030 {467}	5/31/2018 8:22:30	5/30/2018 15:54:04	Linear	1/Conc	0.000129	1.047258	0.000000	1.000000
Si 212.412 {459}	5/31/2018 8:22:30	5/30/2018 15:54:04	Linear	1/Conc	0.005724	0.246207	0.000000	1.000000
Sn 189.989 {478}	5/31/2018 8:22:30	5/30/2018 15:54:04	Linear	1/Conc	0.000496	0.256464	0.000000	1.000000
Sr 407.771 { 83}	5/31/2018 8:22:30	5/30/2018 15:54:04	Linear	1/Conc	0.000351	3.837745	0.000000	1.000000
Ti 334.904 {101}	5/31/2018 8:22:30	5/30/2018 15:54:04	Linear	1/Conc	0.000013	0.134899	0.000000	1.000000
Y 360.073 { 94}*	5/31/2018 8:22:30	12/23/2009 10:44:16	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
Y 371.030 { 91}*	5/31/2018 8:22:30	12/23/2009 10:44:16	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
Y 224.306 {451}*	5/31/2018 8:22:30	12/23/2009 10:44:16	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
In 230.606 {446}*	5/31/2018 8:22:30	12/23/2009 10:44:16	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
W 207.911 {462}	5/31/2018 8:22:30	5/30/2018 15:54:04	Linear	1/Conc	0.001461	0.502900	0.000000	1.000000
Zr 339.198 { 99}	5/31/2018 8:22:30	5/30/2018 15:54:04	Linear	1/Conc	-0.000312	0.324535	0.000000	1.000000
S 182.034 {485}	5/31/2018 8:22:30	5/30/2018 15:54:04	Linear	1/Conc	-0.000928	0.066079	0.000000	1.000000
Bi 223.061 {451}	5/31/2018 8:22:30	5/30/2018 15:54:04	Linear	1/Conc	-0.001014	0.249495	0.000000	1.000000
Li 670.784 { 50}	5/31/2018 8:22:30	5/30/2018 15:54:04	Linear	1/Conc	0.000273	0.761092	0.000000	1.000000
P 177.495 {490}	5/31/2018 8:22:30	5/30/2018 15:54:04	Linear	1/Conc	-0.012218	0.147881	0.000000	1.000000

Element, Wavelength and Order	Correlation	Std Error of Est	Predicted MDL	Predicted MQL	Status	Reslope		QC Norm	
						Slope	Y-int	Slope factor	Offset
Ba 455.403 { 74}	1.000000	0.000000	0.000314	0.001045	OK	1.000000	0.000000	1	0
Be 313.042 {108}	1.000000	0.000000	0.000119	0.000398	OK	1.000000	0.000000	1	0
Cd 228.802 {448}	1.000000	0.000000	0.000255	0.000849	OK	1.000000	0.000000	1	0
Co 228.616 {448}	1.000000	0.000000	0.000343	0.001142	OK	1.000000	0.000000	1	0
Cr 267.716 {126}	1.000000	0.000000	0.000555	0.001849	OK	1.000000	0.000000	1	0
Cu 324.754 {104}2	1.000000	0.000000	0.000525	0.001750	OK	1.000000	0.000000	1	0
Mn 257.610 {131}	1.000000	0.000000	0.000088	0.000295	OK	1.000000	0.000000	1	0
Ni 231.604 {446}	1.000000	0.000000	0.000414	0.001380	OK	1.000000	0.000000	1	0
Ag 328.068 {103}	1.000000	0.000000	0.000621	0.002069	OK	1.000000	0.000000	1	0
V 292.402 {115}	1.000000	0.000000	0.000469	0.001562	OK	1.000000	0.000000	1	0
Zn 206.200 {464}	1.000000	0.000000	0.000174	0.000578	OK	1.000000	0.000000	1	0
As 189.042 {478}	1.000000	0.000000	0.001286	0.004285	OK	1.000000	0.000000	1	0
Tl 190.856 {477}	1.000000	0.000000	0.001362	0.004541	OK	1.000000	0.000000	1	0
Pb 220.353 {453}	1.000000	0.000000	0.001360	0.004535	OK	1.000000	0.000000	1	0
Se 196.090 {472}	1.000000	0.000000	0.002347	0.007824	OK	1.000000	0.000000	1	0
Sb 206.833 {463}	1.000000	0.000000	0.001566	0.005221	OK	1.000000	0.000000	1	0
Al 396.152 { 85}	1.000000	0.000000	0.014588	0.048627	OK	1.000000	0.000000	1	0
Ca 317.933 {106}	1.000000	0.000000	0.004437	0.014790	OK	1.000000	0.000000	1	0
Fe 259.940 {130}	1.000000	0.000000	0.004888	0.016292	OK	1.000000	0.000000	1	0
Mg 279.079 {121}	1.000000	0.000000	0.033207	0.110688	OK	1.000000	0.000000	1	0
K 766.490 { 44}	1.000000	0.000000	0.035582	0.118607	OK	1.000000	0.000000	1	0
Na 589.592 { 57}	1.000000	0.000000	0.011535	0.038448	OK	1.000000	0.000000	1	0
B 208.959 {462}	1.000000	0.000000	0.000915	0.003050	OK	1.000000	0.000000	1	0
Mo 202.030 {467}	1.000000	0.000000	0.000291	0.000969	OK	1.000000	0.000000	1	0
Si 212.412 {459}	1.000000	0.000000	0.001350	0.004500	OK	1.000000	0.000000	1	0
Sn 189.989 {478}	1.000000	0.000000	0.000781	0.002604	OK	1.000000	0.000000	1	0
Sr 407.771 { 83}	1.000000	0.000000	0.000127	0.000422	OK	1.000000	0.000000	1	0
Ti 334.904 {101}	1.000000	0.000000	0.000470	0.001565	OK	1.000000	0.000000	1	0
Y 360.073 { 94}*	0.000000	0.000000	-1.000000	-1.000000	Warnin	1.000000	0.000000	1	0
Y 371.030 { 91}*	0.000000	0.000000	-1.000000	-1.000000	Warnin	1.000000	0.000000	1	0
Y 224.306 {451}*	0.000000	0.000000	-1.000000	-1.000000	Warnin	1.000000	0.000000	1	0
In 230.606 {446}*	0.000000	0.000000	-1.000000	-1.000000	Warnin	1.000000	0.000000	1	0
W 207.911 {462}	1.000000	0.000000	0.001192	0.003975	OK	1.000000	0.000000	1	0
Zr 339.198 { 99}	1.000000	0.000000	0.000258	0.000858	OK	1.000000	0.000000	1	0
S 182.034 {485}	1.000000	0.000000	0.003290	0.010965	OK	1.000000	0.000000	1	0
Bi 223.061 {451}	1.000000	0.000000	0.001769	0.005897	OK	1.000000	0.000000	1	0
Li 670.784 { 50}	1.000000	0.000000	0.001714	0.005714	OK	1.000000	0.000000	1	0
P 177.495 {490}	1.000000	0.000000	0.001669	0.005565	OK	1.000000	0.000000	1	0

MA44553

Method: ACCUTEST

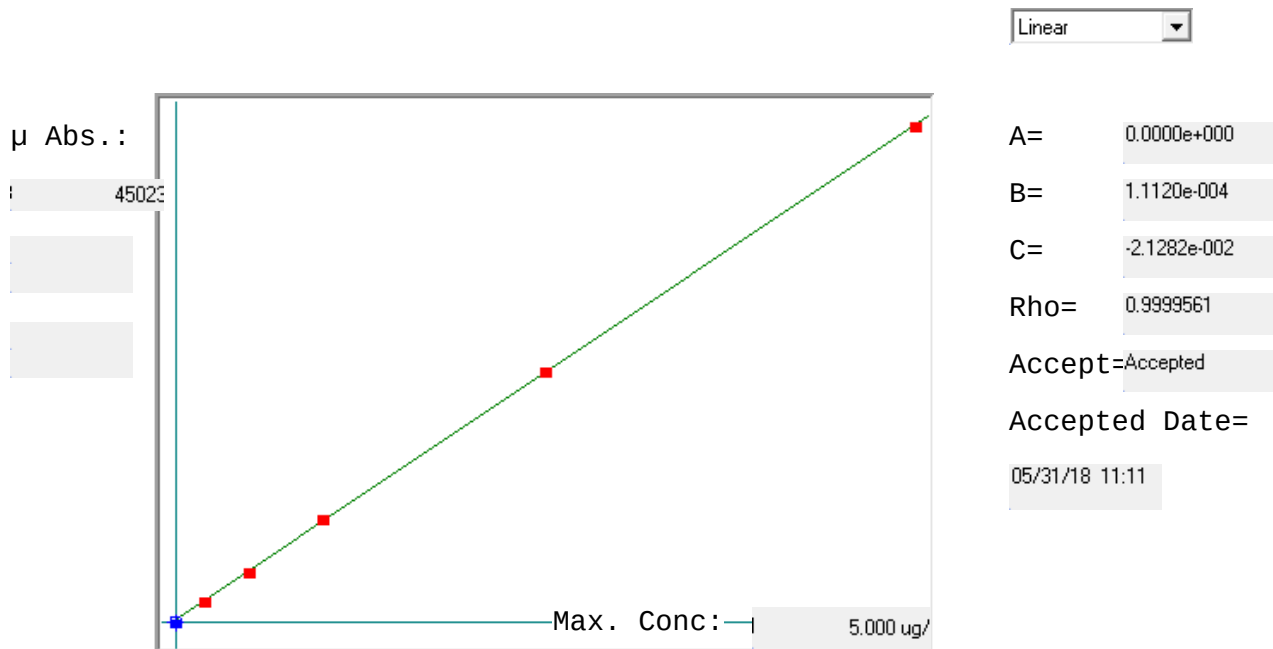
Operator: Admin

Date of Analysis: 31 May 2018 09:53:41

Sample ID	Date	Type	Units	Conc.	μ Abs.	Wt.	Vol.
STDA - 1	31 May 2018 10:53:14	Std	ug/l	-	95	1.000	1.000
STDB - 1	31 May 2018 10:54:32	Std	ug/l	-	1896	1.000	1.000
STDC - 1	31 May 2018 10:55:50	Std	ug/l	-	4596	1.000	1.000
STDD - 1	31 May 2018 10:57:13	Std	ug/l	-	8729	1.000	1.000
STDE - 1	31 May 2018 10:58:41	Std	ug/l	-	22875	1.000	1.000
STDF - 1	31 May 2018 11:00:15	Std	ug/l	-	45023	1.000	1.000
STDD - 1	31 May 2018 11:08:56	Std	ug/l	-	9399	1.000	1.000
DURTYTUBECONF - 1	31 May 2018 11:12:14	SMPL	ug/l	3.4393	31121	1.000	1.000
DURTYTUBECONF - 1	31 May 2018 11:15:47	SMPL	ug/l	3.3184	30034	1.000	1.000
ICV - 1	31 May 2018 11:23:10	SMPL	ug/l	3.0825	27912	1.000	1.000
ICB - 1	31 May 2018 11:28:27	SMPL	ug/l	-0.0149	57	1.000	1.000
CCV - 1	31 May 2018 11:29:44	CK STND	ug/l	98.3% 2.4573	22290	1.000	1.000
CCB - 1	31 May 2018 11:31:02	CK STND	ug/l	-0.0406	-174	1.000	1.000
CRI - 1	31 May 2018 11:32:45	SMPL	ug/l	0.1907	1906	1.000	1.000
MP7406-MB1 - 1	31 May 2018 11:35:33	SMPL	ug/l	0.0235	403	1.000	1.000
MP7406-B1 - 1	31 May 2018 11:36:50	SMPL	ug/l	2.1544	19566	1.000	1.000
MP7406-S1 - 1	31 May 2018 11:38:09	SMPL	ug/l	2.1093	19160	1.000	1.000
MP7406-S2 - 1	31 May 2018 11:39:50	SMPL	ug/l	2.0345	18488	1.000	1.000
JC66951-3 - 1	31 May 2018 11:41:32	SMPL	ug/l	-0.0033	162	1.000	1.000
JC66951-1 - 1	31 May 2018 11:43:15	SMPL	ug/l	0.1173	1246	1.000	1.000
JC66951-2 - 1	31 May 2018 11:44:35	SMPL	ug/l	0.3145	3020	1.000	1.000
CCV - 1	31 May 2018 11:45:58	CK STND	ug/l	96.5% 2.4135	21896	1.000	1.000
CCB - 1	31 May 2018 11:47:24	CK STND	ug/l	-0.0422	-188	1.000	1.000
JC66951-4 - 1	31 May 2018 11:49:07	SMPL	ug/l	0.0017	207	1.000	1.000
JC66951-5 - 1	31 May 2018 11:50:25	SMPL	ug/l	0.0132	310	1.000	1.000
JC66951-6 - 1	31 May 2018 11:51:47	SMPL	ug/l	-0.0077	122	1.000	1.000
JC66951-7 - 1	31 May 2018 11:53:05	SMPL	ug/l	0.3558	3391	1.000	1.000
JC66951-8 - 1	31 May 2018 11:54:22	SMPL	ug/l	0.1383	1435	1.000	1.000
JC66957-1A - 1	31 May 2018 11:55:48	SMPL	ug/l	9.6923	87354	1.000	1.000
JC66957-2A - 1	31 May 2018 11:57:08	SMPL	ug/l	3.2627	29533	1.000	1.000
JC66934-1 - 1	31 May 2018 11:59:20	SMPL	ug/l	-0.0216	-3	1.000	1.000
TD21772-1 - 1	31 May 2018 12:01:04	SMPL	ug/l	-0.0054	143	1.000	1.000
CCV - 1	31 May 2018 12:02:28	CK STND	ug/l	97.0% 2.4238	21989	1.000	1.000
CCB - 1	31 May 2018 12:03:45	CK STND	ug/l	-0.0555	-308	1.000	1.000
JC66974-1 - 1	31 May 2018 12:05:28	SMPL	ug/l	1.9500	17728	1.000	1.000
JC66974-2 - 1	31 May 2018 12:06:46	SMPL	ug/l	0.0038	226	1.000	1.000
JC66992-1 - 1	31 May 2018 12:08:24	SMPL	ug/l	0.4724	4440	1.000	1.000
JC66992-2 - 1	31 May 2018 12:09:45	SMPL	ug/l	0.1920	1918	1.000	1.000
JC66992-3 - 1	31 May 2018 12:11:14	SMPL	ug/l	0.0780	893	1.000	1.000
JC66992-4 - 1	31 May 2018 12:12:36	SMPL	ug/l	0.0680	803	1.000	1.000
JC66992-5 - 1	31 May 2018 12:13:55	SMPL	ug/l	0.1490	1531	1.000	1.000
JC66992-6 - 1	31 May 2018 12:15:14	SMPL	ug/l	0.2027	2014	1.000	1.000
JC66957-1A - 1	31 May 2018 12:20:37	SMPL	ug/l	10.0014	18180	1.000	5.000
CCV - 1	31 May 2018 12:25:49	CK STND	ug/l	98.3% 2.4586	22302	1.000	1.000
CCB - 1	31 May 2018 12:27:06	CK STND	ug/l	-0.0535	-290	1.000	1.000

9.2
9

ACCUTEST



Std ID	Conc.	Calc.	Dev.	Mean	SD or %RSD	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
STDA	0.000	-0.011	-0.011	95	0.000	95				
STDB	0.200	0.190	-0.010	1896	0.0 %	1896				
STDC	0.500	0.490	-0.010	4596	0.0 %	4596				
STDD	1.000	1.024	0.024	9399	0.0 %	9399				
STDE	2.500	2.522	0.022	22875	0.0 %	22875				
STDF	5.000	4.985	-0.015	45023	0.0 %	45023				

Sample Name: STDA Acquired: 5/31/2018 12:09:23 Type: Cal
Method: SGS No Valve(v129) Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: : :
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.0050	.0003	.0002	-.0002	-.0001	.0028	.0001	.0001	-.0001
Stddev	.0001	.0000	.0001	.0000	.0000	.0000	.0000	.0001	.0001
%RSD	1.713	15.48	66.25	5.505	22.68	.0710	9.597	195.5	62.36

#1	.0049	.0002	.0003	-.0002	-.0001	.0028	.0001	.0001	-.0000
#2	.0050	.0003	.0001	-.0002	-.0001	.0028	.0001	-.0000	-.0001

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	-.0000	.0006	-.0003	-.0001	-.0000	.0002	.0002	.0014	.0068
Stddev	.0000	.0001	.0000	.0001	.0001	.0000	.0000	.0004	.0000
%RSD	25.73	11.60	8.176	79.44	339.2	16.73	7.708	28.62	2388

#1	-.0000	.0006	-.0003	-.0001	-.0001	.0003	.0002	.0017	.0068
#2	-.0000	.0007	-.0003	-.0000	.0000	.0002	.0002	.0012	.0068

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.0002	-.0000	.0025	-.0015	.0004	-.0004	.0029	.0003	-.0010
Stddev	.0000	.0001	.0001	.0007	.0002	.0001	.0002	.0001	.0001
%RSD	26.74	403.7	4.092	46.08	63.88	24.20	5.220	43.93	6.071

#1	.0002	.0000	.0025	-.0010	.0006	-.0004	.0030	.0002	-.0010
#2	.0001	-.0001	.0026	-.0020	.0002	-.0005	.0028	.0004	-.0011

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S		
Avg	.0001	-.0005	-.0003	-.0006	-.0002	.0002	-.0066		
Stddev	.0000	.0000	.0001	.0001	.0002	.0002	.0002		
%RSD	2.273	1.018	20.45	23.52	72.67	125.2	3.075		

#1	.0001	-.0005	-.0003	-.0007	-.0001	.0003	-.0065		
#2	.0001	-.0005	-.0004	-.0005	-.0004	.0000	-.0067		

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Sample Name: STDA Acquired: 5/31/2018 12:09:23 Type: Cal
Method: SGS No Valve(v129) Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: : :
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	167750.	22097.	4647.8	10676.
Stddev	142.	5.	6.5	5.
%RSD	.08455	.02331	.13944	.04246

#1	167850.	22101.	4643.2	10672.
#2	167650.	22094.	4652.4	10679.

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Sample Name: STDB Acquired: 5/31/2018 12:13:40 Type: Cal
Method: SGS No Valve(v129) Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: : :
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7.329	8.425	4.552	2.324	4.308	1.158	2.709	1.563	.0714
Stddev	.018	.012	.003	.003	.0001	.002	.009	.003	.0001
%RSD	.2508	.1474	.0601	.1343	.0307	.1406	.3288	.1755	.1017

#1	7.316	8.416	4.554	2.326	4.309	1.159	2.715	1.565	.0714
#2	7.342	8.433	4.550	2.322	4.307	1.156	2.703	1.561	.0715

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.5970	4.538	.4098	.1918	.5861	.3177	.6736	3.075	4.843
Stddev	.0007	.013	.0004	.0001	.0001	.0008	.0002	.007	.008
%RSD	.1182	.2799	.1035	.0261	.0146	.2498	.0259	.2440	.1685

#1	.5975	4.529	.4095	.1918	.5860	.3172	.6734	3.070	4.837
#2	.5965	4.547	.4101	.1918	.5862	.3183	.6737	3.080	4.849

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3.120	.3967	2.092	6.202	.8116	3.078	2.111	.7264	16.39
Stddev	.005	.0004	.004	.012	.0014	.003	.002	.0010	.12
%RSD	.1730	.1056	.1956	.1972	.1745	.0886	.0736	.1340	.7452

#1	3.116	.3970	2.089	6.193	.8106	3.076	2.112	.7257	16.48
#2	3.124	.3964	2.095	6.211	.8126	3.079	2.110	.7271	16.30

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S		
Avg	.5562	1.501	1.573	.1922	.9138	1.913	.4651		
Stddev	.0009	.000	.002	.0003	.0007	.003	.0010		
%RSD	.1689	.0151	.1518	.1721	.0739	.1381	.2257		

#1	.5545	1.501	1.575	.1924	.9143	1.911	.4643		
#2	.5559	1.501	1.572	.1920	.9134	1.915	.4658		

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Sample Name: STDB Acquired: 5/31/2018 12:13:40 Type: Cal
Method: SGS No Valve(v129) Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: : :
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	152180.	21622.	4325.9	9264.1
Stddev	377.	53.	10.1	5.7
%RSD	.24756	.24486	.23458	.06162

#1	151920.	21584.	4333.1	9268.1
#2	152450.	21659.	4318.7	9260.0

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Sample Name: ccvconf Acquired: 5/31/2018 12:17:53 Type: QC
Method: SGS No Valve(v129) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: : :
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.950	1.961	1.932	1.943	1.949	1.916	1.999	1.967	2.410
Stddev	.002	.002	.003	.000	.003	.000	.003	.000	.0005
%RSD	.1243	.1179	.1598	.0119	.1305	.0093	.1678	.0017	.2115
#1	1.952	1.962	1.935	1.944	1.951	1.916	1.996	1.967	2.414
#2	1.949	1.959	1.930	1.943	1.948	1.916	2.001	1.967	2.407

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
Value
Range

Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.935	1.970	1.934	2.010	1.983	1.934	1.944	38.51	39.05
Stddev	.001	.006	.005	.001	.001	.003	.008	.13	.08
%RSD	.0313	.3044	.2490	.0483	.0452	.1722	.4167	.3328	.2088
#1	1.935	1.975	1.938	2.011	1.984	1.937	1.950	38.60	39.11
#2	1.936	1.966	1.931	2.010	1.982	1.932	1.938	38.42	38.99

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
Value
Range

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	39.20	38.91	38.59	39.04	1.960	1.972	4.938	1.990	1.977
Stddev	.11	.03	.09	.08	.001	.005	.007	.004	.005
%RSD	.2736	.0717	.2420	.2001	.0577	.2403	.1526	.1966	.2441
#1	39.28	38.89	38.66	39.10	1.961	1.975	4.943	1.993	1.981
#2	39.13	38.93	38.52	38.99	1.959	1.969	4.932	1.987	1.974

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
Value
Range

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Sample Name: ccvconf Acquired: 5/31/2018 12:17:53 Type: QC
Method: SGS No Valve(v129) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: : :
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.960	1.949	1.944	1.906	1.971	1.934	1.934
Stddev	.004	.005	.001	.009	.001	.001	.005
%RSD	.2301	.2586	.0366	.4594	.0679	.0743	.2555
#1	1.957	1.952	1.943	1.913	1.970	1.935	1.938
#2	1.964	1.945	1.944	1.900	1.972	1.933	1.931

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
Value
Range

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	161480.	22613.	4558.6	9817.9
Stddev	4.	139.	7.3	10.1
%RSD	.00255	.61415	.15921	.10250
#1	161480.	22515.	4553.5	9825.0
#2	161480.	22711.	4563.7	9810.8

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Sample Name: ccbconf Acquired: 5/31/2018 12:21:57 Type: QC
Method: SGS No Valve(v129) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: : :
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0001	.0000	.0001	.0003	.0002	.0000	.0000	.0000	.0002
Stddev	.0001	.0000	.0000	.0002	.0001	.0004	.0000	.0002	.0003
%RSD	77.16	22.69	35.67	73.88	32.90	964.5	39.24	2073.	174.5
#1	-0.0002	.0000	.0001	.0005	.0001	-0.0002	.0001	.0002	.0003
#2	-0.0001	.0000	.0002	.0002	.0002	.0003	.0000	-0.0001	-0.0000

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
High Limit
Low Limit

Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0001	.0001	-0.0007	-0.0008	.0011	-0.0006	.0003	-0.0078	-0.0032
Stddev	.0002	.0002	.0008	.0007	.0001	.0005	.0002	.0013	.0019
%RSD	222.5	225.6	104.7	82.85	8.618	87.96	79.05	16.09	57.78
#1	-0.0002	-0.0001	-0.0002	-0.0013	.0011	-0.0002	.0004	-0.0070	-0.0019
#2	.0000	.0002	-0.0013	-0.0003	.0012	-0.0010	.0001	-0.0087	-0.0045

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
High Limit
Low Limit

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0013	-0.0096	.0389	.0175	.0018	.0002	-0.0014	-0.0002	.0000
Stddev	.0013	.0017	.0094	.0085	.0008	.0000	.0002	.0001	.0000
%RSD	97.75	18.24	24.29	48.40	46.95	.6734	14.21	33.41	42.20
#1	-0.0023	-0.0108	.0322	.0234	.0012	.0002	-0.0016	-0.0002	.0000
#2	-0.0004	-0.0083	.0456	.0115	.0024	.0002	-0.0013	-0.0001	.0000

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
High Limit
Low Limit

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Sample Name: ccbconf Acquired: 5/31/2018 12:21:57 Type: QC
Method: SGS No Valve(v129) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: : :
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001	.0004	.0001	.0016	.0003	.0016	.0006
Stddev	.0000	.0004	.0001	.0013	.0008	.0004	.0012
%RSD	15.25	92.60	159.3	78.86	246.6	22.31	217.1
#1	.0001	.0007	-0.0000	.0007	.0009	.0014	.0015
#2	.0001	.0001	.0001	.0025	-0.0002	.0019	-0.0003

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
High Limit
Low Limit

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	173190.	22931.	4787.2	10952.
Stddev	295.	43.	6.9	29.
%RSD	.17038	.18858	.14423	.26670
#1	172980.	22901.	4782.3	10931.
#2	173400.	22962.	4792.1	10973.

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Sample Name: SAMPLECONF Acquired: 5/31/2018 12:27:13 Type: QC
Method: SGS No Valve(v129) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: : :
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.911	1.953	F 1.877	1.929	F 1.846	F 1.841	1.940	F 1.886	2.407
Stddev	.002	.003	.000	.001	.002	.002	.002	.004	.0007
%RSD	.0833	.1416	.0232	.0414	.1321	.1319	.0972	.2199	.2820

#1	1.912	1.954	1.877	1.929	1.844	1.841	1.942	1.882	2.400
#2	1.911	1.956	1.877	1.930	1.849	1.843	1.940	1.891	2.413
#3	1.909	1.950	1.877	1.928	1.846	1.838	1.939	1.886	2.406

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Fail	Chk Pass
Value			2.000		2.000	2.000		2.000	
Range			-5.000%		-5.000%	-5.000%		-5.000%	

Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 1.890	F 1.907	1.969	1.959	1.923	1.976	1.934	38.26	F 37.68
Stddev	.002	.002	.000	.005	.008	.003	.002	.06	.07
%RSD	.0825	.1124	.0123	.2832	.3930	.1511	.0896	.1535	.1868

#1	1.889	1.906	1.970	1.959	1.915	1.980	1.936	38.28	37.70
#2	1.892	1.910	1.969	1.965	1.930	1.974	1.933	38.30	37.74
#3	1.889	1.906	1.969	1.954	1.923	1.975	1.933	38.19	37.61

Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
Value	2.000								40.00
Range	-5.000%								-5.000%

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 37.32	F 37.88	38.13	39.70	1.961	1.911	4.930	1.908	1.941
Stddev	.06	.12	.06	.07	.006	.001	.005	.001	.003
%RSD	.1572	.3242	.1445	.1838	.3092	.0724	.1030	.0670	.1285

#1	37.34	37.75	38.19	39.78	1.955	1.912	4.925	1.909	1.943
#2	37.36	37.99	38.12	39.70	1.967	1.912	4.931	1.910	1.941
#3	37.25	37.92	38.08	39.63	1.963	1.910	4.935	1.907	1.938

Check ?	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	40.00	40.00							
Range	-5.000%	-5.000%							

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Sample Name: SAMPLECONF Acquired: 5/31/2018 12:27:13 Type: QC
Method: SGS No Valve(v129) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: : :
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.930	F 2.174	F 1.884	F 1.897	1.940	F 1.876	1.907
Stddev	.004	.003	.002	.004	.003	.001	.001
%RSD	.2018	.1323	.1186	.2003	.1340	.0535	.0602

#1	1.929	2.175	1.883	1.897	1.943	1.876	1.908
#2	1.934	2.177	1.887	1.900	1.938	1.877	1.906
#3	1.927	2.171	1.883	1.893	1.938	1.875	1.907

Check ?	Chk Pass	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Fail	Chk Pass
Value		2.000	2.000	2.000		2.000	
Range		5.000%	-5.000%	-5.000%		-5.000%	

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	162920.	22785.	4584.0	9883.0
Stddev	205.	68.	9.0	13.3
%RSD	.12568	.29849	.19675	.13482

#1	162720.	22861.	4573.7	9868.9
#2	162910.	22730.	4587.8	9884.9
#3	163130.	22764.	4590.5	9895.3

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Sample Name: icv Acquired: 5/31/2018 12:31:27 Type: QC
Method: SGS No Valve(v129) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: : :
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.966	1.975	1.940	1.951	1.954	1.926	2.007	1.977	2.420
Stddev	.004	.002	.005	.004	.005	.005	.002	.002	.0005
%RSD	.2199	.1019	.2854	.1931	.2596	.2819	.1654	.1087	.2033

#1	1.965	1.974	1.946	1.955	1.948	1.923	2.004	1.979	2.418
#2	1.962	1.973	1.941	1.952	1.958	1.923	2.007	1.978	2.415
#3	1.971	1.977	1.935	1.947	1.955	1.932	2.011	1.975	2.425

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.944	1.977	1.940	2.022	1.988	1.943	1.952	38.89	39.42
Stddev	.002	.007	.005	.003	.003	.004	.007	.02	.02
%RSD	.0986	.3594	.2616	.1235	.1343	.2337	.3836	.0552	.0456

#1	1.942	1.985	1.946	2.025	1.988	1.948	1.961	38.87	39.44
#2	1.943	1.974	1.937	2.020	1.990	1.941	1.946	38.88	39.42
#3	1.946	1.972	1.938	2.022	1.985	1.939	1.949	38.91	39.41

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	39.53	39.22	39.00	39.41	1.965	1.979	4.954	1.996	1.997
Stddev	.02	.07	.01	.04	.005	.007	.012	.007	.003
%RSD	.0488	.1828	.0235	.0977	.2689	.3647	.2319	.3771	.1606

#1	39.51	39.30	38.99	39.38	1.971	1.987	4.967	2.004	1.995
#2	39.52	39.21	39.00	39.39	1.964	1.976	4.950	1.991	1.995
#3	39.55	39.16	39.00	39.45	1.961	1.974	4.946	1.991	2.001

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

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Sample Name: icv Acquired: 5/31/2018 12:31:27 Type: QC
Method: SGS No Valve(v129) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: : :
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.963	1.957	1.953	1.912	1.980	1.953	1.944
Stddev	.004	.004	.003	.008	.003	.004	.009
%RSD	.1982	.2252	.1676	.4122	.1531	.2152	.4895

#1	1.961	1.962	1.949	1.919	1.983	1.951	1.955
#2	1.967	1.954	1.954	1.913	1.980	1.950	1.939
#3	1.960	1.954	1.955	1.903	1.977	1.958	1.939

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	160800.	22506.	4545.1	9788.3
Stddev	391.	95.	16.1	17.8
%RSD	.24313	.42106	.35362	.18207

#1	161240.	22404.	4527.3	9771.1
#2	160620.	22523.	4549.2	9787.1
#3	160520.	22591.	4558.6	9806.7

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Sample Name: icb Acquired: 5/31/2018 12:37:00 Type: QC
Method: SGS No Valve(v129) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: : :
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0001	.0000	.0004	.0003	.0002	.0001	.0001	.0001	.0000
Stddev	.0001	.0000	.0001	.0001	.0004	.0000	.0000	.0004	.0001
%RSD	51.24	336.9	20.65	33.50	227.8	33.88	6.452	301.0	183.8
#1	-.0001	-.0000	.0003	.0004	.0004	.0002	.0001	-.0002	.0001
#2	-.0002	.0000	.0004	.0003	-.0001	.0001	.0001	.0005	-.0000

Check ? High Limit Low Limit
Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass

Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001	.0001	.0006	-.0002	.0011	-.0023	.0010	-.0065	.0002
Stddev	.0002	.0001	.0012	.0004	.0009	.0025	.0015	.0041	.0019
%RSD	233.9	138.2	182.8	217.8	86.97	110.8	147.9	63.61	1121.
#1	-.0001	.0002	.0014	-.0005	.0004	-.0005	.0021	-.0094	-.0011
#2	.0003	.0000	-.0002	.0001	.0018	-.0040	-.0000	-.0036	.0015

Check ? High Limit Low Limit
Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0006	-.0190	.0404	.0117	.0011	.0001	-.0008	-.0004	.0001
Stddev	.0027	.0171	.0163	.0011	.0001	.0003	.0002	.0003	.0001
%RSD	490.3	90.37	40.25	9.295	4.885	288.7	18.36	85.46	41.34
#1	-.0014	-.0311	.0289	.0125	.0011	-.0001	-.0010	-.0006	.0002
#2	.0025	-.0068	.0519	.0109	.0011	.0003	-.0007	-.0002	.0001

Check ? High Limit Low Limit
Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass

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Sample Name: icb Acquired: 5/31/2018 12:37:00 Type: QC
Method: SGS No Valve(v129) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: : :
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001	.0005	.0001	-.0015	.0003	-.0008	.0014
Stddev	.0004	.0000	.0000	.0006	.0013	.0018	.0004
%RSD	584.8	2.924	7.053	38.24	516.1	243.6	28.07
#1	.0003	.0005	.0001	-.0011	.0012	-.0021	.0016
#2	-.0002	.0005	.0001	-.0018	-.0007	.0005	.0011

Check ? High Limit Low Limit
Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	172170.	22789.	4757.5	10903.
Stddev	96.	127.	1.8	1.
%RSD	.05566	.55533	.03680	.00614
#1	172110.	22879.	4758.8	10902.
#2	172240.	22700.	4756.3	10903.

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Sample Name: iccv Acquired: 5/31/2018 12:40:27 Type: QC
Method: SGS No Valve(v129) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: : :
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.017	2.028	1.988	1.997	2.009	1.979	2.060	2.024	2.490
Stddev	.005	.003	.006	.004	.004	.005	.001	.004	.0009
%RSD	.2568	.1290	.3215	.2192	.1976	.2582	.0642	.2159	.3468
#1	2.019	2.027	1.994	2.000	2.011	1.984	2.062	2.027	.2498
#2	2.019	2.029	1.992	2.001	2.013	1.983	2.059	2.029	.2496
#3	2.009	2.024	1.985	1.994	2.006	1.977	2.059	2.020	.2481
#4	2.020	2.030	1.981	1.991	2.005	1.973	2.060	2.021	.2483

Check ? Value Range
Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass

Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.997	2.025	1.988	2.065	2.033	1.990	1.999	39.85	40.40
Stddev	.004	.006	.007	.005	.006	.006	.006	.16	.15
%RSD	.2198	.3184	.3661	.2592	.3048	.2999	.3044	.4088	.3821
#1	1.999	2.030	1.996	2.070	2.033	1.997	2.007	39.87	40.41
#2	2.002	2.032	1.991	2.069	2.041	1.993	1.996	39.93	40.45
#3	1.994	2.020	1.985	2.059	2.026	1.989	1.999	39.61	40.19
#4	1.993	2.020	1.979	2.061	2.034	1.983	1.993	39.98	40.55

Check ? Value Range
Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass

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Sample Name: iccv Acquired: 5/31/2018 12:40:27 Type: QC
Method: SGS No Valve(v129) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: : :
Comment:

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	40.55	40.43	40.03	40.48	2.013	2.029	5.071	2.048	2.046
Stddev	.17	.10	.12	.17	.007	.006	.015	.006	.008
%RSD	.4308	.2496	.2897	.4179	.3631	.2875	.2985	.3053	.3728
#1	40.60	40.30	40.09	40.57	2.022	2.034	5.086	2.054	2.049
#2	40.56	40.44	40.05	40.50	2.014	2.032	5.075	2.052	2.049
#3	40.30	40.47	39.86	40.23	2.013	2.027	5.074	2.043	2.034
#4	40.72	40.53	40.12	40.60	2.004	2.021	5.050	2.041	2.050

Check ? Value Range
Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.020	2.005	2.006	1.958	2.028	2.005	1.989
Stddev	.008	.008	.004	.012	.005	.003	.008
%RSD	.3854	.3903	.2157	.5872	.2676	.1414	.4130
#1	2.021	2.014	2.009	1.973	2.034	2.005	1.999
#2	2.031	2.007	2.009	1.960	2.030	2.007	1.992
#3	2.012	2.001	2.004	1.955	2.026	2.001	1.982
#4	2.016	1.996	2.000	1.945	2.021	2.006	1.982

Check ? Value Range
Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass

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Sample Name: iccv Acquired: 5/31/2018 12:40:27 Type: QC
Method: SGS No Valve(v129) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: :
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	157560.	21903.	4445.7	9588.9
Stddev	182.	138.	7.2	10.7
%RSD	.11574	.63002	.16157	.11175
#1	157510.	21953.	4438.1	9584.4
#2	157740.	22016.	4441.5	9576.0
#3	157330.	21940.	4449.5	9595.6
#4	157660.	21702.	4453.8	9599.5

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Sample Name: ccb Acquired: 5/31/2018 12:46:45 Type: QC
Method: SGS No Valve(v129) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: :
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001	.0001	.0002	.0003	.0003	.0002	.0001	.0000	.0002
Stddev	.0001	.0000	.0001	.0000	.0003	.0001	.0001	.0001	.0008
%RSD	169.4	41.97	24.63	5.340	110.2	49.48	58.10	254.8	381.3
#1	.0001	.0001	.0003	.0003	.0006	.0003	.0001	.0001	.0008
#2	-.0000	.0000	.0002	.0003	.0001	.0002	.0001	.0000	.0003
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									
Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000	.0001	.0006	.0006	.0000	.0014	.0003	.0043	.0002
Stddev	.0001	.0002	.0004	.0008	.0012	.0010	.0001	.0016	.0015
%RSD	1192.	273.6	61.77	129.5	11870.	75.43	37.46	36.62	592.2
#1	.0001	.0002	.0009	.0001	.0008	.0006	.0002	.0054	.0013
#2	.0001	-.0001	-.0003	.0012	-.0008	.0021	.0003	-.0032	.0008
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0012	.0093	.0464	.0095	.0011	.0001	.0008	.0009	.0001
Stddev	.0000	.0025	.0167	.0057	.0008	.0000	.0008	.0002	.0000
%RSD	2.333	26.50	36.01	59.69	65.80	20.03	106.8	18.01	30.44
#1	.0012	-.0111	.0583	.0135	.0017	.0001	-.0002	-.0010	.0001
#2	.0012	-.0076	.0346	.0055	.0006	.0001	-.0013	-.0008	.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

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Sample Name: ccb Acquired: 5/31/2018 12:46:45 Type: QC
Method: SGS No Valve(v129) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: :
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000	.0018	.0000	.0009	.0002	.0013	.0015
Stddev	.0002	.0003	.0000	.0003	.0003	.0002	.0002
%RSD	342.5	17.98	47.12	32.42	135.9	13.17	12.54
#1	.0002	.0020	.0000	.0007	.0004	.0012	.0017
#2	-.0001	.0016	.0000	-.0011	-.0000	.0015	.0014
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							
Int. Std.	Y_3600	Y_3710	Y_2243	In2306			
Units	Cts/S	Cts/S	Cts/S	Cts/S			
Avg	171830.	22616.	4795.9	10972.			
Stddev	10.	20.	2.0	.			
%RSD	.00594	.08991	.04126	.00154			
#1	171840.	22630.	4797.3	10972.			
#2	171820.	22602.	4794.5	10972.			

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Sample Name: cri Acquired: 5/31/2018 12:50:14 Type: QC
Method: SGS No Valve(v129) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: :
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1930	.0018	.0028	.0466	.0098	.0094	.0151	.0094
Stddev	.0002	.0000	.0001	.0003	.0000	.0001	.0001	.0002
%RSD	.1027	2.702	4.958	.6155	.1515	.5354	.5655	1.645
#1	.1929	.0018	.0029	.0468	.0098	.0094	.0151	.0095
#2	.1932	.0019	.0027	.0464	.0099	.0094	.0152	.0093
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								
Elem	Ag3280	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0044	.0473	.0194	.0076	.0097	W_0022	.0087	.0051
Stddev	.0001	.0000	.0000	.0019	.0005	.0001	.0003	.0007
%RSD	2.499	.0352	.1001	25.12	4.768	5.046	3.521	14.69
#1	.0043	.0473	.0194	.0090	.0093	.0023	.0085	.0046
#2	.0045	.0473	.0194	.0063	.0100	.0022	.0089	.0056
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Warn	Chk Pass	Chk Pass
Value						.0030		
Range						-20.00%		
Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1890	4.982	.0993	4.923	4.955	4.988	.0971	.0198
Stddev	.0006	.023	.0004	.008	.025	.023	.0000	.0002
%RSD	.3208	.4535	.4308	.1639	.5141	.4569	.0419	1.140
#1	.1886	4.966	.0990	4.928	4.973	4.972	.0971	.0200
#2	.1894	4.998	.0996	4.917	4.937	5.004	.0971	.0196
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

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Sample Name: cri Acquired: 5/31/2018 12:50:14 Type: QC
Method: SGS No Valve(v129) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: : :
Comment:

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1940	.0089	.0096	.0099	.0481	.0083	.0470	.0223
Stddev	.0015	.0000	.0000	.0003	.0007	.0001	.0006	.0015
%RSD	.7803	.4928	.4196	3.423	1.464	.7023	1.276	6.629
#1	.1929	.0089	.0096	.0102	.0476	.0084	.0465	.0233
#2	.1950	.0089	.0096	.0097	.0486	.0083	.0474	.0212

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
Value
Range

Elem	Li6707	P_1774
Units	ppm	ppm
Avg	.0520	.0472
Stddev	.0022	.0008
%RSD	4.214	1.764
#1	.0504	.0478
#2	.0535	.0466

Check ? Chk Pass Chk Pass
Value
Range

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	169890.	22409.	4742.0	10697.
Stddev	25.	32.	10.6	10.
%RSD	.01499	.14197	.22370	.09529
#1	169910.	22431.	4734.5	10690.
#2	169870.	22386.	4749.5	10705.

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Sample Name: crid Acquired: 5/31/2018 12:54:32 Type: QC
Method: SGS No Valve(v129) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: : :
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0039	.0009	.0011	.0028	.0021	.0000	.0029	.0036
Stddev	.0001	.0000	.0002	.0003	.0001	.0002	.0000	.0005
%RSD	2.190	1.800	21.41	11.36	4.136	788.7	.7087	12.77
#1	.0038	.0009	.0013	.0025	.0021	-.0001	.0030	.0040
#2	.0039	.0009	.0010	.0030	.0022	.0002	.0029	.0033

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass None Chk Pass Chk Pass
Value
Range

Elem	Ag3280	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0000	.0018	.0097	.0030	F .0013	-.0000	W .0035	.0007
Stddev	.0004	.0002	.0001	.0005	.0001	.0015	.0013	.0013
%RSD	2601.	9.181	.5858	16.48	6.083	3865.	37.41	201.2
#1	-.0003	.0017	.0096	.0026	.0013	-.0011	.0045	.0016
#2	-.0002	.0020	.0097	.0033	.0014	-.0010	.0026	-.0003

Check ? None Chk Pass Chk Pass Chk Pass Chk Fail None Chk Warn None
Value
Range
-30.00%
-.0050
-20.00%

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0857	1.006	-.0025	.1126	2.002	1.012	.0008	-.0000
Stddev	.0029	.003	.0009	.0114	.001	.010	.0004	.0000
%RSD	3.372	.2703	34.26	10.15	.0657	.9486	43.34	9.285
#1	.0837	1.008	-.0031	.1045	2.001	1.019	.0011	-.0000
#2	.0878	1.004	-.0019	.1207	2.003	1.005	.0006	-.0000

Check ? Chk Pass Chk Pass None Chk Pass Chk Pass Chk Pass None None
Value
Range

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Sample Name: crid Acquired: 5/31/2018 12:54:32 Type: QC
Method: SGS No Valve(v129) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: : :
Comment:

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0065	.0002	-.0001	-.0003	.0013	-.0002	-.0006	.0007
Stddev	.0006	.0002	.0001	.0000	.0013	.0001	.0011	.0003
%RSD	9.560	76.61	49.22	7.953	105.7	48.21	204.9	42.03
#1	-.0060	.0004	-.0002	-.0002	.0003	-.0001	-.0014	.0010
#2	-.0069	.0001	-.0001	-.0003	.0022	-.0002	.0003	.0005

Check ? None None None None None None None None
Value
Range

Elem	Li6707	P_1774
Units	ppm	ppm
Avg	.0011	.0005
Stddev	.0008	.0023
%RSD	71.72	489.3
#1	.0005	-.0011
#2	.0016	.0021

Check ? None None
Value
Range

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	172590.	22734.	4787.7	10888.
Stddev	184.	90.	9.8	13.
%RSD	.10652	.39563	.20530	.12203
#1	172720.	22671.	4794.7	10897.
#2	172460.	22798.	4780.8	10879.

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Sample Name: icssa Acquired: 5/31/2018 12:58:50 Type: QC
Method: SGS No Valve(v129) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: : :
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0008	-.0005	.0025	-.0002	-.0016	-.0002	-.0020	.0010	.0012
Stddev	.0001	.0000	.0003	.0001	.0002	.0001	.0001	.0003	.0006
%RSD	14.74	8.071	11.66	76.02	13.33	50.99	3.412	26.98	52.11
#1	.0007	-.0005	.0027	-.0002	-.0017	-.0001	-.0020	.0008	.0008
#2	.0009	-.0006	.0023	-.0001	-.0014	-.0002	-.0021	.0012	.0016

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
High Limit
Low Limit

Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0017	-.0011	.0006	-.0007	-.0012	-.0023	.0055	518.6	368.0
Stddev	.0004	.0000	.0041	.0005	.0008	.0019	.0007	7.2	3.8
%RSD	21.37	2.687	650.2	71.79	71.61	84.38	12.86	1.395	1.023
#1	-.0020	-.0011	.0035	-.0003	-.0017	-.0009	.0060	513.5	365.3
#2	-.0014	-.0011	-.0023	-.0010	-.0006	-.0036	.0050	523.7	370.7

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
High Limit
Low Limit

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	181.1	499.6	.1722	.0130	.0000	-.0014	-.0179	-.0018	.0005
Stddev	.5	1.2	.0091	.0067	.0004	.0006	.0010	.0004	.0001
%RSD	.2961	.2439	5.292	51.63	865.0	41.25	5.701	20.58	29.06
#1	181.5	500.5	.1657	.0177	-.0002	-.0018	-.0187	-.0021	.0006
#2	180.7	498.8	.1786	.0082	.0003	-.0010	-.0172	-.0016	.0004

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
High Limit
Low Limit

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Sample Name: icsa Acquired: 5/31/2018 12:58:50 Type: QC
Method: SGS No Valve(v129) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: : :
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0009	-0.0001	.0004	.0049	.0076	.0155	.0069
Stddev	.0003	.0011	.0000	.0062	.0010	.0008	.0006
%RSD	28.39	928.6	4.871	128.2	13.29	4.841	8.484
#1	-.0007	.0006	.0004	.0093	.0084	.0160	.0064
#2	-.0011	-.0009	.0004	.0005	.0069	.0150	.0073

Check ? High Limit
Low Limit

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	146440.	21951.	4211.9	8788.3
Stddev	416.	25.	3.4	6.2
%RSD	.28384	.11379	.08010	.07062
#1	146150.	21933.	4209.5	8783.9
#2	146740.	21969.	4214.2	8792.7

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Sample Name: ICSAB Acquired: 5/31/2018 13:03:12 Type: QC
Method: SGS No Valve(v129) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: : :
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4871	.4708	.9844	.4632	.4627	.4817	.4840	.9369	.9933
Stddev	.0000	.0009	.0001	.0008	.0010	.0001	.0008	.0014	.0008
%RSD	.0048	.1869	.0092	.1680	.2205	.0118	.1558	.1447	.0764
#1	.4871	.4714	.9844	.4626	.4619	.4817	.4835	.9360	.9938
#2	.4871	.4701	.9843	.4637	.4634	.4817	.4845	.9379	.9928

Check ? Value
Range

Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4721	.9172	1.000	1.044	.9297	1.081	1.031	494.0	375.2
Stddev	.0001	.0002	.002	.001	.0008	.006	.000	2.9	1.1
%RSD	.0118	.0264	.1574	.0797	.0876	.5824	.0314	.5778	.2929
#1	.4721	.9170	.9990	1.044	.9303	1.077	1.031	496.0	374.4
#2	.4720	.9173	1.001	1.043	.9291	1.086	1.031	492.0	375.9

Check ? Value
Range

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	193.4	496.7	.1604	.0056	.4713	.4737	.4908	.4556	.5257
Stddev	.6	.4	.0015	.0049	.0012	.0006	.012	.0014	.0009
%RSD	.2881	.0818	.9292	87.29	.2451	.1246	.2104	.3117	.1629
#1	193.8	497.0	.1593	.0091	.4705	.4742	.4901	.4546	.5263
#2	193.0	496.4	.1614	.0021	.4721	.4733	.4915	.4566	.5251

Check ? Value
Range

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Sample Name: ICSAB Acquired: 5/31/2018 13:03:12 Type: QC
Method: SGS No Valve(v129) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: : :
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4803	.4649	.4705	.4889	.5052	.5216	.4873
Stddev	.0022	.0009	.0002	.0042	.0003	.0019	.0009
%RSD	.4680	.1882	.0350	.8593	.0673	.3686	.1932
#1	.4819	.4643	.4706	.4918	.5054	.5202	.4880
#2	.4787	.4655	.4704	.4859	.5050	.5229	.4866

Check ? Value
Range

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	146390.	21884.	4163.4	8741.2
Stddev	606.	48.	3.6	14.5
%RSD	.41413	.21987	.08590	.16533
#1	146820.	21850.	4165.9	8751.5
#2	145960.	21918.	4160.8	8731.0

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Sample Name: hstd 2 Acquired: 5/31/2018 13:07:27 Type: QC
Method: SGS No Valve(v129) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: : :
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.827	4.919	4.804	4.845	4.962	4.896	5.002	4.864	.5958
Stddev	.019	.007	.007	.009	.006	.012	.019	.002	.0004
%RSD	.3880	.1509	.1531	.1791	.1141	.2452	.3739	.0439	.0638
#1	4.814	4.924	4.809	4.839	4.966	4.888	5.016	4.863	.5961
#2	4.841	4.913	4.799	4.851	4.958	4.905	4.989	4.866	.5956

Check ? Value
Range

Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.873	4.989	4.784	5.075	4.947	4.787	4.875	.0613	-0.0511
Stddev	.004	.001	.007	.005	.003	.006	.009	.0182	.0004
%RSD	.0732	.0096	.1539	.0962	.0599	.1367	.1902	29.64	8.756
#1	4.871	4.988	4.778	5.078	4.945	4.791	4.869	.0741	-.0479
#2	4.876	4.989	4.789	5.071	4.949	4.782	4.882	.0484	-.0543

Check ? Value
Range

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0664	.0501	.1658	.0355	4.853	4.961	24.89	5.089	4.892
Stddev	.0017	.0200	.0106	.0042	.013	.001	.04	.001	.016
%RSD	2.540	39.86	6.417	11.78	.2597	.0204	.1538	.0098	.3331
#1	.0676	.0359	.1583	.0384	4.862	4.961	24.92	5.090	4.881
#2	.0652	.0642	.1733	.0325	4.844	4.962	24.86	5.089	4.904

Check ? Value
Range

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Sample Name: hstd 2 Acquired: 5/31/2018 13:07:27 Type: QC
Method: SGS No Valve(v129) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: : :
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.953	4.979	4.755	47.69	4.985	4.900	4.749
Stddev	.021	.002	.030	.05	.004	.003	.005
%RSD	.4228	.0368	.6410	.1145	.0911	.0605	.1068
#1	4.968	4.978	4.776	47.72	4.988	4.898	4.752
#2	4.939	4.980	4.733	47.65	4.981	4.902	4.745

Check ? Value Range
Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	167870.	22524.	4699.4	10635.
Stddev	266.	99.	2.3	10.
%RSD	.15839	.44079	.04864	.09624

#1	167680.	22595.	4697.8	10642.
#2	168060.	22454.	4701.0	10627.

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Sample Name: hstd 2 Acquired: 5/31/2018 13:11:54 Type: QC
Method: SGS No Valve(v129) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: : :
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0014	.0002	.0020	.0003	-.0004	.0007	-.0015	.0013	.0012
Stddev	.0000	.0001	.0001	.0003	.0002	.0003	.0000	.0003	.0000
%RSD	.9726	67.91	5.155	118.7	53.32	35.25	1.788	19.83	2.261
#1	.0014	.0003	.0020	.0005	-.0002	.0005	-.0015	.0012	.0012
#2	.0014	.0001	.0019	.0000	-.0005	.0009	-.0015	.0015	.0012

Check ? Value Range
None None None None None None None None None

Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0008	-.0001	.0017	.0006	-.0018	-.0016	.0021	289.9	144.0
Stddev	.0001	.0004	.0020	.0002	.0057	.0006	.0027	2.2	.7
%RSD	12.00	259.9	118.1	35.89	314.3	38.29	128.5	.7703	.4964

#1	-.0009	.0001	.0031	.0008	.0022	-.0021	.0041	288.3	143.5
#2	-.0007	-.0004	.0003	.0005	-.0058	-.0012	.0002	291.5	144.6

Check ? Value Range
None None None None None None None Chk Pass Chk Pass

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	143.6	296.4	146.2	146.7	-.0001	-.0002	-.0052	-.0013	.0004
Stddev	.6	1.3	.2	.6	.0019	.0000	.0026	.0002	.0001
%RSD	.4254	.4339	.1142	.4370	1531.	6.745	50.34	17.47	19.98

#1	143.1	295.5	146.0	146.2	.0012	-.0002	-.0034	-.0012	.0005
#2	144.0	297.3	146.3	147.1	-.0014	-.0002	-.0071	-.0015	.0004

Check ? Value Range
Chk Pass Chk Pass Chk Pass Chk Pass None None None None None

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Sample Name: hstd 2 Acquired: 5/31/2018 13:11:54 Type: QC
Method: SGS No Valve(v129) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: : :
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0007	.0003	.0010	.0058	.0054	.0078	.0057
Stddev	.0000	.0005	.0000	.0016	.0014	.0017	.0020
%RSD	2.689	140.7	2.409	27.80	25.43	21.25	34.64
#1	.0007	.0000	.0010	.0047	.0064	.0090	.0043
#2	.0007	.0007	.0010	.0069	.0044	.0067	.0071

Check ? Value Range
None None None None None None None

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	150480.	21596.	4305.6	8870.6
Stddev	548.	35.	9	10.3
%RSD	.36435	.16387	.02006	.11660

#1	150860.	21621.	4306.2	8877.9
#2	150090.	21571.	4305.0	8863.3

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Sample Name: feconf Acquired: 5/31/2018 13:16:16 Type: Unk
Method: SGS No Valve(v129) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: : :
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0001	-.0001	.0025	-.0001	-.0032	-.0001	-.0009	.0012
Stddev	.0000	.0000	.0000	.0001	.0001	.0001	.0000	.0004
%RSD	43.21	17.80	.3001	55.56	1.787	59.55	3.245	33.86
#1	-.0001	-.0001	.0025	-.0002	-.0032	-.0001	-.0009	.0014
#2	-.0001	-.0001	.0025	-.0001	-.0031	-.0002	-.0010	.0009

Elem	Ag3280	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0021	-.0004	-.0003	.0016	.0016	F -.0036	-.0039	.0001
Stddev	.0001	.0002	.0000	.0001	.0007	.0004	.0009	.0009
%RSD	4.141	64.46	3.375	37.43	41.56	12.14	23.44	834.0

#1	.0021	-.0006	-.0002	-.0004	.0011	-.0033	-.0045	.0007
#2	.0020	-.0002	-.0003	-.0002	.0021	-.0039	-.0032	-.0005

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0038	-.0106	215.7	-.0082	.0786	.0437	-.0014	.0007
Stddev	.0037	.0001	.6	.0089	.0161	.0026	.0006	.0001
%RSD	98.19	1.394	.2752	109.0	20.43	6.031	45.46	20.26

#1	-.0012	-.0105	215.3	-.0145	.0900	.0455	-.0018	.0008
#2	-.0064	-.0107	216.2	-.0019	.0672	.0418	-.0009	.0006

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0021	.0015	-.0000	-.0003	.0009	.0008	-.0063	.0102
Stddev	.0010	.0009	.0000	.0001	.0006	.0001	.0021	.0013
%RSD	47.68	60.25	60.02	39.24	67.30	12.27	33.12	12.71

#1	-.0029	.0022	-.0000	-.0002	.0005	.0007	-.0048	.0093
#2	-.0014	.0009	-.0000	-.0004	.0013	.0009	-.0078	.0111

Elem	Li6707	P_1774
Units	ppm	ppm
Avg	.0031	.0011
Stddev	.0005	.0010
%RSD	15.44	88.99

#1	.0027	.0018
#2	.0034	.0004

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Sample Name: feconf Acquired: 5/31/2018 13:16:16 Type: Unk
Method: SGS No Valve(v129) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: : :
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	167660.	22432.	4698.3	10816.
Stddev	388.	7.	5.2	15.
%RSD	.23137	.03208	.11059	.13928

#1	167930.	22437.	4702.0	10827.
#2	167380.	22427.	4694.6	10805.

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Sample Name: crconf Acquired: 5/31/2018 13:20:32 Type: Unk
Method: SGS No Valve(v129) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: : :
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	-0.000	-0.001	.0003	.0004	F 10.73	-0.0005	-0.001	-0.002	-0.003
Stddev	.0001	.0000	.0001	.0001	.00	.0004	.0000	.0001	.0003
%RSD	249.6	59.78	26.99	26.47	.0057	74.72	24.55	40.02	98.44

#1	.0000	-0.0001	.0002	.0005	10.73	-0.0007	-0.0001	-0.0003	-0.0001
#2	-0.0001	-0.0000	.0003	.0003	10.73	-0.0002	-0.0002	-0.0002	-0.0005

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	.0011	.0040	.0003	-0.0014	.0004	-0.0003	.0025	-0.0122	.0107
Stddev	.0001	.0000	.0013	.0006	.0011	.0015	.0007	.0001	.0018
%RSD	9.753	.5237	403.5	41.59	279.7	468.0	28.15	1.013	16.59

#1	.0010	.0040	.0013	-0.0018	.0011	-0.0014	.0020	-0.0121	.0094
#2	.0012	.0040	-0.0006	-0.0010	-0.0004	.0007	.0030	-0.0123	.0119

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	.0182	-0.0130	.0241	.0158	.0009	.0009	.0001	.0043	.0001
Stddev	.0002	.0069	.0056	.0017	.0004	.0001	.0004	.0007	.0000
%RSD	1.165	53.03	23.25	11.04	48.82	13.57	461.0	16.89	4.149

#1	.0180	-0.0081	.0281	.0146	.0012	.0008	-0.0002	.0038	.0001
#2	.0183	-0.0178	.0201	.0171	.0006	.0010	.0004	.0049	.0001

Elem	Tl3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Avg	-0.0027	.0040	-0.0035	.0012	-0.0035	.0002	.0007		
Stddev	.0001	.0007	.0001	.0003	.0014	.0010	.0003		
%RSD	2.127	18.87	3.167	21.36	41.95	403.2	39.02		

#1	-.0028	.0045	-0.0036	.0010	-.0024	.0009	.0010		
#2	-.0027	.0034	-0.0034	.0014	-.0045	-.0004	.0005		

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	172670.	22849.	4720.7	10926.
Stddev	218.	89.	5.9	11.
%RSD	.12632	.38901	.12525	.10174

#1	172520.	22786.	4724.9	10934.
#2	172830.	22912.	4716.5	10918.

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Sample Name: asconf Acquired: 5/31/2018 13:24:52 Type: Unk
Method: SGS No Valve(v129) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: : :
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	-0.0002	-0.0001	.0012	.0002	.0006	.0001	.0000	.0001	.0002
Stddev	.0003	.0000	.0004	.0002	.0001	.0001	.0000	.0001	.0003
%RSD	224.4	49.60	34.30	102.2	31.12	96.37	104.8	101.4	130.6

#1	.0001	-0.0001	.0014	.0004	.0007	.0000	.0001	.0001	.0000
#2	-0.0004	-0.0000	.0009	.0001	.0005	.0002	.0000	.0000	.0005

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	-0.0002	-0.0010	5.050	.0000	.0007	-0.0002	-0.0002	-0.0083	-0.0011
Stddev	.0000	.0000	.005	.0005	.0004	.0043	.0005	.0042	.0028
%RSD	23.91	2.604	.1032	4021.	59.90	2596.	237.9	50.58	246.2

#1	-0.0002	-0.0011	5.046	.0003	.0010	.0029	.0002	-0.0053	.0009
#2	-0.0001	-0.0010	5.053	-0.0003	.0004	-0.0032	-0.0006	-0.0113	-0.0031

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	.0004	-0.0187	.0041	.0072	-0.0005	.0001	.0003	.0003	-0.0000
Stddev	.0014	.0212	.0253	.0018	.0001	.0001	.0017	.0007	.0000
%RSD	338.5	113.5	617.9	24.95	24.27	144.5	654.4	201.9	26.34

#1	-0.0006	-0.0337	-0.0138	.0085	-0.0006	.0002	.0014	.0008	-0.0000
#2	.0014	-0.0037	.0220	.0059	-0.0004	-0.0000	-0.0009	-0.0001	-0.0000

Elem	Tl3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Avg	.0001	.0034	-0.0001	-0.0018	.0003	-0.0002	.0001		
Stddev	.0003	.0008	.0001	.0003	.0005	.0001	.0003		
%RSD	266.2	23.06	48.58	15.44	180.5	37.05	487.8		

#1	-0.0001	.0039	-0.0001	-0.0016	.0006	-0.0003	.0002		
#2	.0003	.0028	-0.0001	-0.0021	-0.0001	-0.0002	-0.0001		

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	172250.	22615.	4794.0	10941.
Stddev	197.	58.	4.4	10.
%RSD	.11465	.25743	.09129	.09336

#1	172390.	22574.	4790.9	10934.
#2	172110.	22656.	4797.1	10949.

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Sample Name: ccv Acquired: 5/31/2018 13:29:11 Type: QC
Method: SGS No Valve(v129) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: : :
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.952	1.957	1.924	1.941	1.946	1.915	1.994	1.970	2.414
Stddev	.005	.001	.004	.004	.003	.009	.000	.001	.0011
%RSD	.2333	.0502	.1909	.1841	.1550	.4616	.0120	.0357	.4684

#1	1.948	1.956	1.927	1.943	1.944	1.909	1.994	1.971	.2406
#2	1.955	1.958	1.922	1.938	1.948	1.921	1.994	1.970	.2422

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.933	1.960	1.920	2.016	1.980	1.917	1.933	38.59	39.13
Stddev	.000	.003	.007	.002	.003	.007	.003	.06	.05
%RSD	.0119	.1276	.3564	.1029	.1443	.3806	.1528	.1670	.1171

#1	1.932	1.962	1.925	2.015	1.982	1.922	1.935	38.54	39.17
#2	1.933	1.958	1.916	2.018	1.978	1.912	1.930	38.63	39.10

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	39.16	39.03	39.06	39.42	1.951	1.962	4.911	1.980	1.979
Stddev	.06	.06	.03	.00	.004	.005	.016	.006	.006
%RSD	.1411	.1590	.0875	.0006	.1983	.2793	.3215	.3072	.3198

#1	39.20	39.08	39.04	39.42	1.954	1.966	4.922	1.984	1.974
#2	39.12	38.99	39.09	39.42	1.948	1.958	4.900	1.976	1.983

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

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Sample Name: ccv Acquired: 5/31/2018 13:29:11 Type: QC
Method: SGS No Valve(v129) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: : :
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.951	1.939	1.939	1.901	1.960	1.940	1.926
Stddev	.004	.005	.006	.009	.009	.005	.007
%RSD	.2221	.2464	.3151	.4867	.4573	.2813	.3667
#1	1.954	1.942	1.934	1.908	1.966	1.936	1.931
#2	1.948	1.936	1.943	1.895	1.954	1.943	1.921

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
Value
Range

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	161190.	22160.	4580.2	9832.0
Stddev	314.	224.	8.5	5.2
%RSD	.19481	1.0104	.18492	.05322
#1	161410.	22001.	4574.2	9828.3
#2	160970.	22318.	4586.2	9835.7

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Sample Name: ccb Acquired: 5/31/2018 13:33:15 Type: QC
Method: SGS No Valve(v129) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: : :
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0003	.0001	.0002	.0001	.0001	.0001	.0001	.0001	.0000
Stddev	.0000	.0001	.0000	.0002	.0000	.0003	.0000	.0002	.0003
%RSD	11.46	70.77	7.704	130.1	5.836	333.6	19.98	793.3	1801.
#1	.0003	.0001	.0002	.0000	.0001	.0003	.0001	-.0002	.0002
#2	.0003	.0002	.0002	.0003	.0001	-.0001	.0001	.0001	-.0002

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
High Limit
Low Limit

Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001	.0001	.0019	.0004	.0000	.0011	.0000	.0001	.0013
Stddev	.0001	.0002	.0000	.0000	.0001	.0008	.0002	.0041	.0023
%RSD	45.23	265.6	1.024	12.10	730.2	73.84	22880.	80.94	185.3
#1	.0001	-.0002	.0019	.0004	.0001	-.0005	-.0001	-.0080	.0029
#2	.0002	.0001	.0019	.0004	-.0001	-.0016	.0001	-.0022	-.0004

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
High Limit
Low Limit

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0012	.0038	.0516	.0103	.0005	.0002	.0009	.0010	.0001
Stddev	.0013	.0120	.0031	.0081	.0004	.0001	.0006	.0003	.0000
%RSD	108.1	317.7	5.985	78.70	85.68	73.53	65.85	26.89	34.62
#1	.0021	.0123	.0538	.0160	.0008	.0001	-.0013	-.0012	.0002
#2	.0003	-.0047	.0494	.0046	.0002	.0003	-.0005	-.0008	.0001

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
High Limit
Low Limit

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Sample Name: ccb Acquired: 5/31/2018 13:33:15 Type: QC
Method: SGS No Valve(v129) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: : :
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001	.0005	.0002	.0014	.0005	.0007	.0016
Stddev	.0000	.0012	.0001	.0002	.0001	.0004	.0006
%RSD	7.434	249.9	29.43	17.52	27.54	58.11	38.01
#1	.0001	-.0004	.0003	-.0012	.0006	.0004	.0012
#2	.0001	.0014	.0002	-.0016	.0004	.0010	.0020

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
High Limit
Low Limit

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	173900.	22547.	4794.0	10939.
Stddev	314.	41.	17.1	31.
%RSD	.18052	.18240	.35640	.28389
#1	173680.	22518.	4806.1	10961.
#2	174130.	22576.	4781.9	10917.

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Sample Name: mp7375-mb1conf Acquired: 5/31/2018 13:39:18 Type: Unk
Method: SGS No Valve(v129) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: : :
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0002	.0001	.0002	.0003	.0005	.0004	.0000	.0001	.0000
Stddev	.0000	.0000	.0001	.0001	.0002	.0001	.0000	.0001	.0000
%RSD	16.24	35.93	64.16	41.55	47.89	31.44	1154.	95.18	83.13
#1	-.0002	-.0001	.0001	.0002	.0003	.0005	.0000	-.0002	-.0000
#2	-.0002	-.0001	.0003	.0004	.0006	.0003	-.0000	-.0000	-.0000

Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0002	.0009	.0004	.0009	.0001	.0004	.0010	.0008	.0040
Stddev	.0000	.0001	.0002	.0008	.0013	.0000	.0007	.0062	.0007
%RSD	20.65	12.53	52.29	96.23	946.3	7.697	70.97	77.77	17.86
#1	-.0002	.0008	-.0005	.0003	-.0010	-.0005	-.0015	-.0123	.0035
#2	-.0002	.0010	-.0002	.0015	.0008	-.0004	-.0005	-.0036	.0045

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0018	.0034	.0349	.0001	.0003	.0001	.0001	.0341	.0001
Stddev	.0006	.0125	.0228	.0023	.0008	.0002	.0005	.0002	.0001
%RSD	32.67	371.3	65.24	3207.	296.5	288.7	7.903	.5673	113.6
#1	-.0014	.0055	.0510	.0017	.0003	.0002	.0057	.0342	.0001
#2	-.0022	-.0122	.0188	-.0015	-.0009	-.0001	.0064	.0339	.0000

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001	.0005	.0000	.0006	.0011	.0010	.0037
Stddev	.0001	.0004	.0001	.0004	.0017	.0011	.0005
%RSD	78.49	78.37	270.0	66.37	155.2	103.1	1.355
#1	-.0001	.0008	.0000	.0003	.0022	-.0003	.0334
#2	-.0002	.0002	-.0001	.0008	-.0001	-.0018	.0341

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	171910.	22680.	4768.3	10951.
Stddev	308.	314.	7.4	20.
%RSD	.17889	1.3866	.15459	.18604
#1	172120.	22902.	4773.5	10966.
#2	171690.	22458.	4763.1	10937.

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Sample Name: mp7375-b1conf Acquired: 5/31/2018 13:43:35 Type: Unk
Method: SGS No Valve(v129) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: : :
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	1.934	1.925	1.938	1.910	1.931	1.913	1.973	1.945	.0820
Stddev	.006	.004	.002	.003	.003	.003	.002	.004	.0002
%RSD	.2964	.2342	.1032	.1803	.1426	.1596	.0865	.2096	.1924
#1	1.930	1.922	1.939	1.913	1.933	1.915	1.975	1.948	.0819
#2	1.938	1.928	1.936	1.908	1.929	1.911	1.972	1.942	.0821
Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	1.916	1.953	1.938	2.041	1.979	1.948	1.964	24.96	25.29
Stddev	.001	.003	.002	.001	.005	.003	.002	.01	.01
%RSD	.0354	.1628	.0918	.0417	.2674	.1283	.0776	.0259	.0375
#1	1.916	1.955	1.939	2.042	1.983	1.949	1.963	24.96	25.29
#2	1.915	1.951	1.937	2.041	1.975	1.946	1.965	24.97	25.28
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	25.44	25.33	25.39	25.76	1.961	1.960	-0.0089	2.026	1.954
Stddev	.01	.04	.03	.00	.005	.000	.0012	.005	.005
%RSD	.0524	.1427	.1357	.0035	.2424	.0146	13.32	.2404	.2782
#1	25.43	25.30	25.37	25.76	1.965	1.960	-.0080	2.030	1.950
#2	25.44	25.35	25.42	25.75	1.958	1.960	-.0097	2.023	1.958
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Avg	1.960	1.936	1.924	2.053	.0617	-0.0012	1.951		
Stddev	.002	.002	.001	.002	.0005	.0008	.001		
%RSD	.0849	.1145	.0594	.0777	.7922	69.59	.0284		
#1	1.961	1.938	1.925	2.052	.0613	-.0018	1.951		
#2	1.959	1.935	1.923	2.054	.0620	-.0006	1.951		
Int. Std.	Y_3600	Y_3710	Y_2243	In2306					
Avg	166730.	22728.	4696.9	10257.					
Stddev	152.	8.	7.3	14.					
%RSD	.09092	.03592	.15527	.13647					
#1	166620.	22734.	4691.7	10247.					
#2	166840.	22722.	4702.0	10266.					

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Sample Name: mp7375-s1 1 Acquired: 5/31/2018 13:47:35 Type: Unk
Method: SGS No Valve(v129) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: : :
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	2.620	2.137	2.146	2.125	2.120	2.062	2.716	2.188	.0907
Stddev	.011	.008	.002	.002	.001	.004	.003	.003	.0002
%RSD	.4132	.3786	.0948	.0728	.0335	.1800	.1058	.1273	.1890
#1	2.613	2.131	2.147	2.126	2.119	2.060	2.714	2.186	.0908
#2	2.628	2.142	2.144	2.123	2.120	2.065	2.718	2.190	.0905
Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	2.123	2.187	2.184	2.213	2.202	2.170	2.175	27.10	136.1
Stddev	.001	.000	.003	.009	.002	.003	.006	.10	.3
%RSD	.0473	.0035	.1314	.4104	.1063	.1440	.2756	.3549	.2429
#1	2.122	2.187	2.186	2.207	2.204	2.168	2.179	27.03	135.8
#2	2.124	2.187	2.182	2.220	2.201	2.172	2.171	27.16	136.3
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	28.43	68.21	32.02	300.5	2.211	2.187	3.619	2.214	2.696
Stddev	.10	.18	.04	.0	.004	.003	.010	.006	.013
%RSD	.3666	.2609	.1248	.0003	.1790	.1502	.2763	.2630	.4653
#1	28.36	68.08	32.00	300.5	2.208	2.190	3.626	2.210	2.688
#2	28.51	68.33	32.05	300.5	2.214	2.185	3.612	2.218	2.705
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Avg	2.163	2.164	2.129	13.16	.0709	.0112	2.249		
Stddev	.000	.004	.005	.06	.0019	.0006	.004		
%RSD	.0068	.2060	.2474	.4897	2.651	5.181	.1851		
#1	2.163	2.168	2.125	13.20	.0722	.0108	2.246		
#2	2.164	2.161	2.132	13.11	.0696	.0117	2.252		
Int. Std.	Y_3600	Y_3710	Y_2243	In2306					
Avg	158430.	22134.	4485.4	9495.2					
Stddev	255.	23.	4.8	3.8					
%RSD	.16085	.10349	.10733	.03977					
#1	158610.	22118.	4482.0	9492.5					
#2	158250.	22150.	4488.8	9497.9					

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Sample Name: mp7375-s2 Acquired: 5/31/2018 13:51:39 Type: Unk
Method: SGS No Valve(v129) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: : :
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	2.408	1.962	1.958	1.943	1.942	1.885	2.505	2.002	.0827
Stddev	.001	.002	.017	.012	.003	.003	.003	.011	.0011
%RSD	.0284	.0813	.8686	.6244	.1327	.1737	.1197	.5714	1.288
#1	2.408	1.961	1.970	1.952	1.941	1.883	2.503	2.010	.0835
#2	2.409	1.963	1.946	1.935	1.944	1.887	2.507	1.994	.0820
Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	1.950	2.004	1.985	2.022	2.012	1.982	1.988	24.62	125.7
Stddev	.003	.021	.023	.010	.012	.019	.020	.00	.0
%RSD	.1711	1.047	1.153	.4922	.6097	.9639	1.011	.0196	.0247
#1	1.947	2.019	2.002	2.029	2.020	1.995	2.002	24.61	125.7
#2	1.952	1.990	1.969	2.015	2.003	1.968	1.974	24.62	125.8
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	25.97	63.28	29.27	27.0	2.021	1.997	3.367	2.028	2.476
Stddev	.03	.20	.02	.1	.023	.021	.025	.023	.001
%RSD	.1094	.3185	.0789	.0514	1.150	1.064	.7429	1.149	.0530
#1	25.95	63.14	29.25	276.9	2.038	2.012	3.385	2.044	2.477
#2	25.99	63.42	29.29	277.1	2.005	1.982	3.350	2.011	2.475
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Avg	1.978	1.977	1.944	12.10	.0628	.0113	2.056		
Stddev	.009	.016	.008	.10	.0004	.0054	.027		
%RSD	.4570	.7864	.4149	.7936	.6991	47.83	1.323		
#1	1.984	1.988	1.938	12.17	.0625	.0151	2.075		
#2	1.972	1.966	1.950	12.03	.0631	.0075	2.036		
Int. Std.	Y_3600	Y_3710	Y_2243	In2306					
Avg	159780.	22427.	4534.0	9620.0					
Stddev	228.	43.	44.1	68.8					
%RSD	.14300	.19086	.97287	.71481					
#1	159940.	22397.	4502.8	9571.4					
#2	159620.	22457.	4565.2	9668.7					

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Sample Name: mp7388-mb1conf Acquired: 5/31/2018 13:55:40 Type: Unk
Method: SGS No Valve(v129) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: : :
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	.0005	.0002	.0004	.0003	.0012	.0014	.0006	.0006	-.0001
Stddev	.0002	.0000	.0003	.0002	.0000	.0001	.0000	.0000	.0001
%RSD	31.76	2.106	70.59	54.33	1.892	10.88	2.958	.1338	122.3
#1	.0004	.0002	.0006	.0004	.0012	.0015	.0006	.0006	-.0001
#2	.0006	.0002	.0002	.0002	.0011	.0013	.0006	.0006	-.0000
Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	.0001	.0128	-.0009	.0000	-.0005	-.0006	.0002	.0009	.1785
Stddev	.0001	.0006	.0007	.0006	.0000	.0005	.0020	.0011	.0009
%RSD	138.9	4.909	87.38	1282.	3.804	73.83	1006.	130.7	.5026
#1	.0001	.0124	-.0003	-.0004	-.0005	-.0003	-.0012	.0001	.1779
#2	.0000	.0132	-.0014	.0005	-.0005	-.0010	.0016	.0017	.1792
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	.0372	.0423	.0502	.1350	.0021	.0005	.0581	.0210	.0009
Stddev	.0051	.0044	.0039	.0017	.0006	.0001	.0027	.0008	.0000
%RSD	13.84	10.43	7.818	1.241	27.40	26.08	4.640	3.893	3.071
#1	.0335	.0392	.0530	.1362	.0025	.0006	.0562	.0204	.0009
#2	.0408	.0454	.0474	.1338	.0017	.0004	.0600	.0216	.0008
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Avg	.0008	.0001	.0002	.0101	.0001	-.0010	.0223		
Stddev	.0003	.0008	.0001	.0015	.0010	.0016	.0014		
%RSD	35.49	961.8	49.82	14.59	663.9	155.3	6.100		
#1	.0006	.0006	.0003	.0091	.0008	-.0022	.0213		
#2	.0009	-.0005	.0001	.0112	-.0005	.0001	.0232		
Int. Std.	Y_3600	Y_3710	Y_2243	In2306					
Avg	173980.	22911.	4666.8	10714.					
Stddev	321.	111.	211.5	425.					
%RSD	.18433	.48385	4.5329	3.9695					
#1	174200.	22832.	4816.4	11015.					
#2	173750.	22989.	4517.3	10414.					

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Sample Name: mp7388-b1conf Acquired: 5/31/2018 13:59:58 Type: Unk
Method: SGS No Valve(v129) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: : :
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	1.806	1.815	1.767	1.764	1.780	1.756	1.822	1.797
Stddev	.008	.007	.006	.004	.003	.003	.001	.004
%RSD	.4527	.3890	.3231	.2429	.1794	.1732	.0520	.2399
#1	1.812	1.820	1.763	1.761	1.777	1.754	1.821	1.794
#2	1.800	1.810	1.771	1.767	1.782	1.758	1.822	1.800
Elem	Ag3280	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068
Avg	2.230	1.764	1.805	1.761	1.866	1.819	1.741	1.777
Stddev	.0008	.000	.006	.009	.003	.006	.007	.004
%RSD	.3624	.0095	.3555	.4972	.1547	.3334	.4111	.2077
#1	.2224	1.764	1.800	1.754	1.864	1.815	1.736	1.775
#2	.2235	1.764	1.809	1.767	1.868	1.823	1.746	1.780
Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	22.78	23.31	23.31	22.92	23.11	23.50	1.765	1.820
Stddev	.11	.08	.07	.03	.13	.09	.006	.006
%RSD	.4970	.3621	.3109	.1178	.5571	.3893	.3295	.3149
#1	22.86	23.36	23.36	22.94	23.20	23.57	1.760	1.816
#2	22.70	23.25	23.26	22.90	23.02	23.44	1.769	1.824
Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	.1126	1.856	1.827	1.814	1.691	1.787	F -.0617	.0563
Stddev	.0014	.006	.007	.007	.006	.003	.0024	.0001
%RSD	1.246	.3379	.3895	.3898	.3398	.1851	3.846	.2281
#1	.1117	1.852	1.832	1.819	1.687	1.785	-.0600	.0564
#2	.1136	1.860	1.822	1.809	1.695	1.790	-.0634	.0563
Elem	Li6707	P_1774						
Avg	.0005	1.761						
Stddev	.0001	.005						
%RSD	26.73	.3062						
#1	.0006	1.757						
#2	.0004	1.765						

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Sample Name: mp7388-b1conf Acquired: 5/31/2018 13:59:58 Type: Unk
Method: SGS No Valve(v129) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: : :
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	164330.	22392.	4603.8	10037.
Stddev	374.	99.	13.1	23.
%RSD	.22745	.44025	.28490	.22491
#1	164590.	22323.	4613.1	10053.
#2	164060.	22462.	4594.5	10021.

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Sample Name: mp7388-s1 2 Acquired: 5/31/2018 14:04:00 Type: Unk
Method: SGS No Valve(v129) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: : :
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	2.879	1.865	1.833	1.941	2.257	1.909	8.130	2.224	.2341
Stddev	.002	.001	.006	.001	.012	.005	.082	.007	.0002
%RSD	.0743	.0301	.3045	.0737	.5448	.2667	1.014	.3013	.0720
#1	2.878	1.865	1.829	1.940	2.249	1.905	8.072	2.228	.2340
#2	2.881	1.866	1.837	1.942	2.266	1.913	8.188	2.219	.2342
Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	2.235	2.643	1.833	1.859	2.046	1.772	1.159	300.6	35.64
Stddev	.009	.001	.002	.007	.006	.010	.011	.7	.10
%RSD	.3820	.0288	.1273	.3546	.2833	.5484	.9759	.2429	.2773
#1	2.229	2.643	1.831	1.854	2.050	1.765	1.151	300.1	35.57
#2	2.241	2.642	1.834	1.864	2.042	1.779	1.167	301.1	35.71
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	430.5	111.8	94.04	26.15	2.313	1.818	6.535	1.803	1.996
Stddev	.5	.1	.21	.08	.007	.006	.047	.005	.005
%RSD	.1265	.0590	.2222	.3085	.3073	.3163	.7131	.3041	.2326
#1	430.1	111.8	93.89	26.09	2.308	1.814	6.502	1.799	1.992
#2	430.9	111.9	94.19	26.21	2.319	1.822	6.568	1.807	1.999
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Avg	6.810	1.379	1.930	.0273	.2164	.6639	3.159		
Stddev	.028	.000	.010	.0044	.0038	.0007	.010		
%RSD	.4116	.0022	.5210	16.29	1.771	.0995	.3304		
#1	6.830	1.379	1.922	.0242	.2191	.6644	3.151		
#2	6.790	1.379	1.937	.0304	.2136	.6635	3.166		
Int. Std.	Y_3600	Y_3710	Y_2243	In2306					
Avg	162530.	22796.	4611.3	9922.0					
Stddev	874.	79.	12.0	4.6					
%RSD	.53795	.34536	.26081	.04604					
#1	163150.	22852.	4619.8	9918.7					
#2	161910.	22741.	4602.8	9925.2					

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Sample Name: mp7388-s2 Acquired: 5/31/2018 14:08:08 Type: Unk
Method: SGS No Valve(v129) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: : :
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	2.843	1.872	1.827	1.929	2.244	1.903	7.358	2.205	.2326
Stddev	.005	.002	.002	.001	.007	.001	.080	.002	.0000
%RSD	.1731	.0948	.0795	.0638	.3196	.0321	1.083	.1005	.0123
#1	2.846	1.873	1.828	1.930	2.238	1.903	7.302	2.206	.2326
#2	2.839	1.871	1.826	1.928	2.249	1.904	7.414	2.203	.2326
Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	2.241	2.604	1.819	1.863	2.032	1.777	1.195	296.3	35.13
Stddev	.005	.003	.003	.003	.004	.001	.001	.6	.08
%RSD	.2444	.1022	.1733	.1462	.1896	.0637	.0669	.1973	.2383
#1	2.237	2.606	1.821	1.861	2.029	1.778	1.194	296.7	35.18
#2	2.245	2.602	1.817	1.864	2.034	1.777	1.195	295.8	35.07
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	415.5	109.0	94.60	26.09	2.336	1.820	8.201	1.803	2.001
Stddev	1.0	.1	.36	.06	.003	.001	.005	.003	.003
%RSD	.2454	.0948	.3840	.2361	.1374	.0440	.0671	.1501	.1451
#1	416.3	109.0	94.86	26.13	2.338	1.821	8.205	1.805	2.003
#2	414.8	108.9	94.34	26.04	2.334	1.820	8.197	1.802	1.999
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Avg	6.914	1.420	1.915	.0294	.2147	.6388	3.101		
Stddev	.015	.000	.003	.0007	.0018	.0047	.002		
%RSD	.2156	.0285	.1550	2.390	.8347	.7303	.0647		
#1	6.925	1.420	1.912	.0299	.2160	.6421	3.100		
#2	6.904	1.420	1.917	.0289	.2134	.6355	3.103		
Int. Std.	Y_3600	Y_3710	Y_2243	In2306					
Avg	163270.	22937.	4617.6	9923.1					
Stddev	600.	61.	3.5	7.4					
%RSD	.36761	.26723	.07512	.07436					
#1	163700.	22893.	4620.1	9928.4					
#2	162850.	22980.	4615.2	9917.9					

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Sample Name: jc66684-1 Acquired: 5/31/2018 14:12:16 Type: Unk
Method: SGS No Valve(v129) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: : :
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	.8017	.0095	.0052	.1424	.3577	.0890	4.820	.3593	.0024
Stddev	.0012	.0000	.0001	.0003	.0036	.0002	.049	.0009	.0005
%RSD	.1507	.4183	2.354	.2297	1.013	.2776	1.008	.2465	22.23
#1	.8026	.0095	.0052	.1422	.3551	.0889	4.786	.3587	.0020
#2	.8009	.0095	.0051	.1426	.3602	.0892	4.854	.3600	.0028
Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	.3292	.7456	.0352	.0027	.1889	-.0028	.0068	193.9	12.31
Stddev	.0031	.0024	.0004	.0043	.0029	.0010	.0002	.2	.01
%RSD	.9358	.3255	1.133	156.4	1.547	37.11	3.512	.1169	.0650
#1	.3271	.7473	.0349	.0058	.1909	-.0035	.0070	194.0	12.32
#2	.3314	.7439	.0355	-.0003	.1868	-.0020	.0067	193.7	12.30
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	396.0	73.61	37.65	1.902	.2682	.0126	4.483	.0259	.1143
Stddev	1.0	.03	.05	.017	.0018	.0006	.007	.0009	.0001
%RSD	.2624	.0407	.1432	.9122	.6795	4.795	.1572	3.338	.0515
#1	396.7	73.63	37.68	1.889	.2695	.0122	4.488	.0252	.1143
#2	395.2	73.59	37.61	1.914	.2669	.0131	4.478	.0265	.1142
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Avg	4.831	.0037	.1226	.0864	.1551	.6273	1.294		
Stddev	.029	.0022	.0006	.0004	.0044	.0032	.001		
%RSD	.6094	60.36	.4578	.4137	2.835	.5068	.0751		
#1	4.810	.0021	.1222	.0867	.1520	.6250	1.294		
#2	4.851	.0052	.1230	.0862	.1582	.6295	1.293		
Int. Std.	Y_3600	Y_3710	Y_2243	In2306					
Avg	166270.	23111.	4714.4	10229.					
Stddev	1594.	37.	5.8	7.					
%RSD	.95860	.15924	.12281	.07283					
#1	167390.	23137.	4710.3	10224.					
#2	165140.	23085.	4718.5	10234.					

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Sample Name: ccv Acquired: 5/31/2018 14:16:34 Type: QC
Method: SGS No Valve(v129) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: : :
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.951	1.952	1.930	1.941	1.954	1.919	1.994	1.976	.2425
Stddev	.005	.000	.000	.002	.005	.007	.004	.000	.0013
%RSD	.2416	.0062	.0017	.0975	.2689	.3697	.1934	.0178	.5457
#1	1.955	1.952	1.930	1.943	1.958	1.924	1.997	1.976	.2434
#2	1.948	1.952	1.930	1.940	1.950	1.914	1.992	1.976	.2416
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									
Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.938	1.961	1.918	2.017	1.985	1.925	1.929	38.49	38.92
Stddev	.002	.001	.001	.002	.003	.000	.001	.03	.06
%RSD	.1002	.0553	.0631	.0874	.1296	.0032	.0506	.0827	.1562
#1	1.939	1.960	1.919	2.018	1.983	1.925	1.928	38.51	38.88
#2	1.936	1.962	1.917	2.016	1.987	1.925	1.929	38.46	38.96
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	38.96	38.84	38.94	39.36	1.960	1.963	4.933	1.974	1.976
Stddev	.01	.06	.01	.01	.004	.002	.004	.002	.003
%RSD	.0351	.1580	.0354	.0187	.1962	.1200	.0922	.1080	.1474
#1	38.95	38.89	38.95	39.35	1.963	1.961	4.930	1.976	1.978
#2	38.97	38.80	38.93	39.36	1.957	1.964	4.936	1.973	1.974
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

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Sample Name: ccv Acquired: 5/31/2018 14:16:34 Type: QC
Method: SGS No Valve(v129) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: : :
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.974	1.936	1.942	1.900	1.966	1.944	1.926
Stddev	.007	.001	.003	.003	.001	.003	.002
%RSD	.3509	.0496	.1686	.1513	.0359	.1714	.0914
#1	1.979	1.936	1.944	1.898	1.966	1.946	1.925
#2	1.969	1.937	1.939	1.902	1.965	1.941	1.927
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							
Int. Std.	Y_3600	Y_3710	Y_2243	In2306			
Units	Cts/S	Cts/S	Cts/S	Cts/S			
Avg	161340.	22321.	4578.9	9827.8			
Stddev	35.	86	1	1.4			
%RSD	.24493	.38556	.00234	.01410			
#1	161060.	22382.	4579.0	9826.8			
#2	161620.	22260.	4578.9	9828.7			

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Sample Name: ccb Acquired: 5/31/2018 14:20:38 Type: QC
Method: SGS No Valve(v129) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: : :
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0000	.0000	.0002	.0002	.0002	-.0002	.0001	.0001	-.0003
Stddev	.0000	.0000	.0000	.0001	.0001	.0002	.0000	.0001	.0001
%RSD	344.7	464.6	21.03	36.11	68.77	107.9	11.82	49.05	26.05
#1	-.0000	-.0000	.0002	.0001	.0003	-.0003	.0001	.0001	-.0003
#2	.0000	.0000	.0003	.0003	.0001	-.0000	.0001	.0001	-.0002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									
Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0000	.0010	-.0002	.0004	.0005	-.0009	-.0016	-.0048	-.0020
Stddev	.0001	.0002	.0003	.0007	.0006	.0006	.0008	.0038	.0009
%RSD	156.4	17.77	131.8	188.3	128.4	59.37	50.20	78.70	46.69
#1	-.0001	.0011	-.0000	.0009	.0000	-.0006	-.0021	-.0074	-.0013
#2	.0000	.0009	-.0004	-.0001	.0010	-.0013	-.0010	-.0021	-.0027
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0023	.0038	.0405	.0113	.0011	.0005	-.0003	-.0006	.0001
Stddev	.0015	.0202	.0176	.0026	.0004	.0000	.0001	.0005	.0000
%RSD	66.26	538.1	43.48	23.36	40.53	3.323	27.32	91.92	18.62
#1	.0034	.0181	.0280	.0132	.0014	.0005	-.0003	-.0002	.0001
#2	.0012	-.0105	.0529	.0094	.0008	.0005	-.0004	-.0010	.0002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

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Sample Name: ccb Acquired: 5/31/2018 14:20:38 Type: QC
Method: SGS No Valve(v129) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: :
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000	-.0001	.0000	.0001	.0004	.0007	.0024
Stddev	.0001	.0002	.0000	.0001	.0007	.0004	.0006
%RSD	157.3	264.0	47.39	89.92	163.0	49.58	23.76
#1	-.0000	.0001	.0000	.0000	.0009	.0010	.0020
#2	.0001	-.0002	.0001	.0002	-.0001	.0005	.0028

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
High Limit
Low Limit

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	173680.	22604.	4821.4	10984.
Stddev	143.	1.	.1	9.
%RSD	.08215	.00636	.00262	.07927
#1	173580.	22602.	4821.3	10978.
#2	173790.	22605.	4821.5	10990.

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Sample Name: mp7388-sd1 Acquired: 5/31/2018 14:24:58 Type: Unk
Method: SGS No Valve(v129) Mode: CONC Corr. Factor: 10.000000
User: admin Custom ID1: :
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	.8208	.0086	.0046	.1463	.3640	.0882	5.001	.3664	.0006
Stddev	.0032	.0003	.0002	.0029	.0050	.0003	.011	.0017	.0063
%RSD	.3953	2.965	4.650	1.970	1.363	.3932	.2263	.4677	1117.

#1	.8185	.0088	.0044	.1483	.3605	.0880	4.993	.3676	.0050
#2	.8231	.0084	.0047	.1443	.3675	.0885	5.009	.3652	-.0039

Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	.3312	.7622	.0507	.0052	.1854	-.0184	.0048	196.2	12.75
Stddev	.0005	.0012	.0107	.0100	.0040	.0025	.0026	.7	.00
%RSD	.1394	.1516	21.14	190.8	2.150	13.42	54.61	.3708	.0276

#1	.3309	.7630	.0432	.0123	.1826	-.0167	.0029	195.7	12.76
#2	.3316	.7613	.0583	-.0018	.1883	-.0202	.0066	196.8	12.75

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	413.8	75.28	38.45	2.051	.2876	.0120	4.812	.0264	.1170
Stddev	1.0	.00	.08	.027	.0001	.0012	.022	.0005	.0002
%RSD	.2435	.0046	.2183	1.304	.0309	9.598	.4554	1.779	.1324

#1	413.1	75.28	38.51	2.070	.2875	.0112	4.827	.0267	.1171
#2	414.5	75.27	38.39	2.032	.2877	.0128	4.796	.0260	.1169

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	4.880	.0130	.1225	.0827	.1605	.6464	1.330
Stddev	.001	.0021	.0020	.0116	.0110	.0031	.004
%RSD	.0296	16.17	1.640	14.08	6.860	.4808	.2925

#1	4.879	.0145	.1211	.0745	.1527	.6486	1.332
#2	4.881	.0115	.1240	.0909	.1682	.6442	1.327

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	171680.	22801.	4830.4	10677.
Stddev	824.	52.	20.5	17.
%RSD	.47987	.22959	.42361	.15492

#1	172270.	22764.	4815.9	10665.
#2	171100.	22838.	4844.8	10689.

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Sample Name: jc66684-3 Acquired: 5/31/2018 14:29:12 Type: Unk
Method: SGS No Valve(v129) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: :
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	1.057	.0100	.0042	.1564	.3270	.0822	11.07	.3405	.0027
Stddev	.008	.0001	.0001	.0006	.0030	.0003	.01	.0010	.0005
%RSD	.7771	1.075	2.196	.3730	.9133	.3664	.0950	.3069	16.89

#1	1.063	.0100	.0043	.1560	.3249	.0824	11.08	.3398	.0024
#2	1.052	.0099	.0041	.1568	.3291	.0820	11.06	.3413	.0030

Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	.3161	.6999	.0320	.0048	.2044	-.0013	.0027	183.2	10.65
Stddev	.0016	.0022	.0014	.0015	.0020	.0074	.0005	1.6	.08
%RSD	.5087	.3095	4.242	30.51	.9906	586.9	19.97	.8695	.7567

#1	.3149	.6983	.0310	.0059	.2059	-.0065	.0023	184.3	10.71
#2	.3172	.7014	.0329	.0038	.2030	.0040	.0031	182.1	10.60

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	381.7	68.44	33.55	2.145	.2266	.0119	4.355	.0258	.0999
Stddev	3.2	.35	.26	.014	.0010	.0014	.006	.0012	.0008
%RSD	.8315	.5157	.7621	.6461	.4384	11.41	.1490	4.638	.7640

#1	384.0	68.69	33.73	2.155	.2274	.0128	4.351	.0267	.1004
#2	379.5	68.19	33.37	2.135	.2259	.0109	4.360	.0250	.0994

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	4.514	.0080	.1114	.1003	.1449	.6123	1.782
Stddev	.019	.0017	.0003	.0057	.0041	.0033	.003
%RSD	.4192	21.13	.2830	5.659	2.863	.5462	.1443

#1	4.501	.0068	.1112	.1043	.1419	.6147	1.781
#2	4.527	.0092	.1116	.0963	.1478	.6100	1.784

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	168630.	23022.	4747.8	10286.
Stddev	12.	179.	.5	.
%RSD	.00726	.77767	.01088	.00354

#1	168640.	22896.	4747.3	10287.
#2	168620.	23149.	4748.0	10286.

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Sample Name: jc66684-5 Acquired: 5/31/2018 14:33:30 Type: Unk
Method: SGS No Valve(v129) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: :
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	.7954	.0106	.0046	.1504	.3237	.0607	6.801	.3465	.0018
Stddev	.0002	.0001	.0004	.0003	.0000	.0002	.034	.0007	.0010
%RSD	.0243	.9611	8.206	.1821	.0152	.3803	.4923	.2088	56.80

#1	.7953	.0106	.0048	.1502	.3238	.0609	6.777	.3470	.0025
#2	.7956	.0107	.0043	.1506	.3237	.0605	6.825	.3460	.0010

Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	.2920	.7457	.0304	.0043	.2010	-.0035	.0035	177.6	7.026
Stddev	.0004	.0016	.0037	.0021	.0022	.0006	.0005	.1	.004
%RSD	.1346	.2167	12.03	48.02	1.091	17.23	12.71	.0327	.0499

#1	.2917	.7445	.0278	.0058	.2026	-.0031	.0032	177.6	7.023
#2	.2923	.7468	.0330	.0029	.1995	-.0040	.0039	177.7	7.028

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	364.8	71.62	38.48	1.426	.2669	.0111	5.313	.0255	.0874
Stddev	.2	.21	.02	.009	.0000	.0000	.005	.0017	.0001
%RSD	.0446	.2921	.0543	.6035	.0027	.0759	.0962	6.835	.1607

#1	364.7	71.77	38.50	1.420	.2669	.0111	5.310	.0267	.0873
#2	364.9	71.47	38.47	1.432	.2669	.0111	5.317	.0243	.0875

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	4.148	.0062	.1120	.0701	.1337	.6211	1.830
Stddev	.001	.0008	.0007	.0047	.0004	.0007	.007
%RSD	.0166	12.76	.6033	6.729	.3110	.1050	.3723

#1	4.148	.0068	.1115	.0668	.1334	.6216	1.825
#2	4.148	.0056	.1125	.0735	.1340	.6207	1.834

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	166980.	22908.	4738.3	10248.
Stddev	354.	4.	19.5	27.
%RSD	.21182	.01624	.41053	.26256

#1	167230.	22905.	4752.0	10267.
#2	166730.	22910.	4724.5	10229.

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Sample Name: jc66684-7 Acquired: 5/31/2018 14:37:47 Type: Unk
Method: SGS No Valve(v129) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: : :
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	.9699	.0138	.0052	.1633	.3380	.0508	6.638	.3902	.0022
Stddev	.0027	.0003	.0003	.0003	.0029	.0001	.066	.0028	.0000
%RSD	.2811	2.027	6.236	.2113	.8651	.1669	.9864	.7286	.1568
#1	.9719	.0140	.0050	.1631	.3400	.0508	6.684	.3882	.0022
#2	.9680	.0136	.0054	.1636	.3359	.0509	6.592	.3922	.0022
Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	.3341	.8477	.0413	.0039	.2056	-.0030	.0037	190.7	13.63
Stddev	.0030	.0039	.0014	.0022	.0025	.0010	.0029	.5	.02
%RSD	.9129	.4619	3.306	56.70	1.196	34.31	78.72	.2473	.1264
#1	.3362	.8450	.0422	.0023	.2074	-.0037	.0016	191.0	13.64
#2	.3319	.8505	.0403	.0055	.2039	-.0023	.0058	190.4	13.62
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	426.6	78.68	45.25	1.869	.3053	.0131	4.451	.0285	.1184
Stddev	.8	.23	.04	.008	.0027	.0008	.020	.0006	.0004
%RSD	.1849	.2945	.0831	.4325	.9005	6.372	.4469	2.125	.2994
#1	427.2	78.52	45.23	1.864	.3034	.0125	4.437	.0281	.1187
#2	426.1	78.84	45.28	1.875	.3073	.0137	4.465	.0289	.1182
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Avg	4.588	.0066	.1128	.0525	.1447	.6768	2.363		
Stddev	.047	.0004	.0007	.0025	.0035	.0034	.005		
%RSD	1.026	5.647	.5873	4.810	2.429	.5013	.2152		
#1	4.622	.0068	.1133	.0507	.1471	.6792	2.359		
#2	4.555	.0063	.1124	.0543	.1422	.6744	2.366		
Int. Std.	Y_3600	Y_3710	Y_2243	In2306					
Avg	164600.	22492.	4615.0	9998.4					
Stddev	1654.	309.	3.0	8.4					
%RSD	1.0049	1.3727	.06497	.08367					
#1	163430.	22710.	4617.1	10004.					
#2	165770.	22274.	4612.9	9992.5					

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Sample Name: jc66684-9 Acquired: 5/31/2018 14:42:01 Type: Unk
Method: SGS No Valve(v129) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: : :
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	1.029	.0111	.0040	.1420	.2768	.1112	6.842	.3154	.0015
Stddev	.002	.0001	.0002	.0000	.0011	.0002	.005	.0014	.0007
%RSD	.2368	.7515	5.637	.0031	.3833	.1384	.0737	.4381	43.19
#1	1.027	.0110	.0038	.1421	.2775	.1111	6.839	.3164	.0011
#2	1.030	.0111	.0041	.1420	.2760	.1113	6.846	.3144	.0020
Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	.3127	.6797	.0330	.0055	.1720	-.0006	.0015	213.5	8.385
Stddev	.0005	.0003	.0006	.0036	.0044	.0005	.0027	.6	.024
%RSD	.1692	.0374	1.865	66.58	2.569	96.74	175.8	.2658	.2834
#1	.3123	.6798	.0334	.0080	.1689	-.0002	-.0004	213.1	8.369
#2	.3130	.6795	.0325	.0029	.1751	-.0009	.0034	213.9	8.402
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	308.3	60.57	27.73	.9820	.1856	.0081	6.588	.0252	.0896
Stddev	.5	.23	.05	.0057	.0030	.0003	.017	.0006	.0005
%RSD	.1579	.3781	.1754	.5755	1.596	3.679	.2570	2.329	.5455
#1	307.9	60.40	27.70	.9860	.1877	.0084	6.600	.0256	.0892
#2	308.6	60.73	27.77	.9780	.1835	.0079	6.576	.0247	.0899
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Avg	3.188	.0059	.0509	.3082	.1009	.5254	2.703		
Stddev	.001	.0026	.0000	.0037	.0010	.0014	.002		
%RSD	.0332	44.42	.0855	1.196	1.015	.2729	.0658		
#1	3.187	.0041	.0509	.3056	.1016	.5244	2.705		
#2	3.188	.0078	.0510	.3108	.1002	.5265	2.702		
Int. Std.	Y_3600	Y_3710	Y_2243	In2306					
Avg	167650.	22877.	4715.7	10212.					
Stddev	432.	30.	11.5	8.					
%RSD	.25759	.12991	.24477	.07547					
#1	167350.	22898.	4723.9	10218.					
#2	167960.	22856.	4707.5	10207.					

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Sample Name: jc66684-10 Acquired: 5/31/2018 14:46:16 Type: Unk
Method: SGS No Valve(v129) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: : :
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	.8287	.0123	.0050	.1480	.3465	.0505	4.188	.3665	.0019
Stddev	.0010	.0001	.0003	.0010	.0006	.0006	.035	.0014	.0003
%RSD	.1222	.7498	5.328	.6965	.1809	1.096	.8383	.3866	16.89
#1	.8294	.0123	.0048	.1487	.3460	.0509	4.163	.3675	.0017
#2	.8280	.0122	.0052	.1473	.3469	.0501	4.213	.3655	.0022
Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	.3399	.7992	.0374	.0074	.1969	.0006	.0043	186.2	15.21
Stddev	.0014	.0043	.0011	.0042	.0011	.0068	.0024	.1	.02
%RSD	.4018	.5333	3.003	57.08	.5744	1155.	55.33	.0395	.1009
#1	.3389	.8022	.0366	.0044	.1961	-.0042	.0060	186.3	15.22
#2	.3408	.7962	.0381	.0104	.1977	.0054	.0026	186.2	15.19
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	411.7	77.06	43.39	1.939	.3079	.0137	4.572	.0271	.1171
Stddev	.2	.11	.03	.020	.0032	.0002	.017	.0011	.0001
%RSD	.0535	.1370	.0695	1.012	1.044	1.420	.3654	4.042	.0431
#1	411.6	77.13	43.41	1.952	.3102	.0136	4.584	.0279	.1172
#2	411.9	76.98	43.37	1.925	.3057	.0139	4.560	.0263	.1171
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Avg	4.648	.0089	.1156	.0707	.1484	.6305	3.171		
Stddev	.005	.0005	.0000	.0036	.0007	.0033	.020		
%RSD	.1023	5.718	.0000	5.131	.4537	.5252	.6265		
#1	4.644	.0093	.1156	.0733	.1479	.6328	3.185		
#2	4.651	.0085	.1156	.0682	.1489	.6282	3.157		
Int. Std.	Y_3600	Y_3710	Y_2243	In2306					
Avg	164100.	22428.	4627.5	10013.					
Stddev	394.	118.	22.1	39.					
%RSD	.23986	.52747	.47793	.38477					
#1	164380.	22512.	4611.9	9985.6					
#2	163830.	22344.	4643.1	10040.					

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Sample Name: jc66684-12 Acquired: 5/31/2018 14:50:31 Type: Unk
Method: SGS No Valve(v129) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: : :
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	.6551	.0153	.0054	.1550	.3500	.0413	3.696	.4016	.0027
Stddev	.0004	.0001	.0004	.0003	.0014	.0003	.010	.0019	.0008
%RSD	.0685	.6691	7.502	.1870	.3974	.6059	.2812	.4709	29.48
#1	.6548	.0153	.0057	.1552	.3491	.0412	3.704	.4002	.0022
#2	.6555	.0152	.0051	.1548	.3510	.0415	3.689	.4029	.0033
Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	.3505	.8946	.0457	.0030	.2038	-.0083	.0026	196.3	14.19
Stddev	.0008	.0021	.0046	.0035	.0010	.0076	.0030	.3	.05
%RSD	.2337	.2378	10.05	115.0	.4819	90.73	114.3	.1549	.3732
#1	.3510	.8931	.0490	.0055	.2031	-.0030	.0005	196.0	14.15
#2	.3499	.8962	.0425	.0006	.2045	-.0137	.0047	196.5	14.23
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	452.6	89.40	52.84	1.894	.3558	.0138	6.018	.0281	.1127
Stddev	.7	.46	.03	.009	.0015	.0001	.018	.0003	.0003
%RSD	.1460	.5149	.0597	.5003	.4130	.7995	.3042	1.114	.2826
#1	452.1	89.72	52.82	1.888	.3548	.0139	6.005	.0293	.1125
#2	453.1	89.07	52.87	1.700	.3568	.0138	6.031	.0289	.1129
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Avg	4.988	.0111	.1028	.0868	.1595	.7374	4.246		
Stddev	.001	.0025	.0001	.0105	.0026	.0002	.008		
%RSD	.0275	22.33	.1233	12.09	1.648	.0245	.1936		
#1	4.987	.0128	.1027	.0942	.1614	.7373	4.240		
#2	4.989	.0093	.1029	.0794	.1577	.7376	4.252		
Int. Std.	Y_3600	Y_3710	Y_2243	In2306					
Avg	167390.	22975.	4734.4	10194.					
Stddev	162.	157.	1.9	4.					
%RSD	.09657	.68301	.03954	.03513					
#1	167270.	22864.	4733.1	10196.					
#2	167500.	23085.	4735.7	10191.					

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Sample Name: jc66684-14 Acquired: 5/31/2018 14:54:41 Type: Unk
Method: SGS No Valve(v129) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: : :
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	.9535	.0135	.0052	.1701	.3583	.0659	5.162	.3855	.0023
Stddev	.0041	.0001	.0005	.0006	.0006	.0003	.017	.0019	.0001
%RSD	.4344	.4397	8.961	.3661	.1702	.4703	.3285	.5040	6.436
#1	.9564	.0135	.0049	.1705	.3587	.0661	5.174	.3868	.0022
#2	.9506	.0136	.0055	.1696	.3579	.0657	5.150	.3841	.0024
Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	.3407	1.002	.0360	.0017	.2140	.0016	.0040	209.1	11.59
Stddev	.0005	.003	.0020	.0004	.0004	.0034	.0017	.9	.08
%RSD	.1441	.2688	5.425	23.70	.1986	217.1	41.85	.4438	.7280
#1	.3404	1.004	.0346	.0020	.2137	.0040	.0051	209.7	11.64
#2	.3411	1.000	.0374	.0014	.2143	-.0008	.0028	208.4	11.53
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	425.2	92.16	56.32	1.934	.3760	.0125	5.200	.0288	.1114
Stddev	2.3	.54	.30	.022	.0024	.0000	.000	.0016	.0002
%RSD	.5301	.5855	.5329	1.125	.6352	.1819	.0058	5.584	.1645
#1	426.8	92.54	56.53	1.949	.3777	.0125	5.200	.0299	.1115
#2	423.6	91.78	56.11	1.918	.3743	.0125	5.201	.0276	.1113
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Avg	4.798	.0052	.1167	.2023	.1537	.7367	3.650		
Stddev	.003	.0021	.0002	.0015	.0017	.0039	.009		
%RSD	.0566	39.35	.1469	.7525	1.083	.5230	.2335		
#1	4.796	.0067	.1168	.2013	.1525	.7395	3.656		
#2	4.800	.0038	.1166	.2034	.1548	.7340	3.644		
Int. Std.	Y_3600	Y_3710	Y_2243	In2306					
Avg	166660.	22893.	4696.4	10150.					
Stddev	88.	19.	1.6	3.					
%RSD	.05257	.08101	.03494	.02522					
#1	166720.	22880.	4695.3	10148.					
#2	166600.	22907.	4697.6	10152.					

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Sample Name: jc66684-16 Acquired: 5/31/2018 14:58:57 Type: Unk
Method: SGS No Valve(v129) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: : :
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	.8528	.0083	.0052	.1380	.3289	.0848	6.333	.3388	.0026
Stddev	.0011	.0000	.0006	.0004	.0032	.0002	.032	.0000	.0006
%RSD	.1246	.0596	11.58	.2556	.9801	.2020	.4989	.0093	23.99
#1	.8535	.0083	.0056	.1382	.3311	.0846	6.356	.3388	.0022
#2	.8520	.0083	.0048	.1377	.3266	.0849	6.311	.3388	.0031
Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	.2954	1.210	.0383	.0008	.8606	-.0059	.0079	172.3	18.66
Stddev	.0017	.000	.0033	.0030	.0004	.0046	.0024	.2	.05
%RSD	.5615	.0029	8.709	385.8	.0418	78.18	30.73	.1367	.2922
#1	.2965	1.210	.0406	.0029	.8609	-.0026	.0062	172.5	18.69
#2	.2942	1.210	.0359	-.0013	.8604	-.0092	.0096	172.1	18.62
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	371.5	71.63	30.80	1.819	.2134	.0111	3.686	.0316	.1203
Stddev	.9	.15	.03	.003	.0020	.0001	.007	.0008	.0001
%RSD	.2320	.2093	.1085	.1727	.9538	.8386	.1958	2.638	.0895
#1	372.1	71.73	30.83	1.817	.2148	.0112	3.681	.0310	.1204
#2	370.9	71.52	30.78	1.821	.2119	.0110	3.691	.0322	.1202
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Avg	4.414	.0124	.0784	.2994	.1407	.5992	4.831		
Stddev	.016	.0012	.0008	.0006	.0012	.0015	.001		
%RSD	.3585	9.701	1.061	.1901	.8844	.2506	.0240		
#1	4.425	.0115	.0790	.2990	.1399	.6003	4.830		
#2	4.403	.0132	.0778	.2998	.1416	.5981	4.832		
Int. Std.	Y_3600	Y_3710	Y_2243	In2306					
Avg	162800.	22233.	4595.2	10029.					
Stddev	956.	108.	2.0	6.					
%RSD	.58742	.48516	.04272	.05487					
#1	162120.	22157.	4596.6	10032.					
#2	163480.	22309.	4593.8	10025.					

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Sample Name: ccv Acquired: 5/31/2018 15:03:15 Type: QC
Method: SGS No Valve(v129) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: : :
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.961	1.951	1.922	1.938	1.945	1.904	1.985	1.976	.2417
Stddev	.003	.002	.003	.000	.004	.010	.004	.003	.0003
%RSD	.1709	.0919	.1528	.0171	.2056	.5022	.2227	.1524	.1384
#1	1.963	1.952	1.920	1.938	1.943	1.897	1.982	1.974	.2415
#2	1.958	1.950	1.924	1.938	1.948	1.911	1.988	1.978	.2419
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									
Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.930	1.949	1.906	2.013	1.987	1.911	1.913	38.57	38.92
Stddev	.004	.000	.005	.001	.000	.001	.005	.15	.11
%RSD	.2067	.0230	.2431	.0380	.0100	.0413	.2444	.3963	.2796
#1	1.927	1.949	1.903	2.012	1.987	1.910	1.909	38.68	39.00
#2	1.933	1.949	1.909	2.013	1.987	1.911	1.916	38.47	38.85
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	38.98	38.75	39.21	39.85	1.954	1.951	4.916	1.957	1.981
Stddev	.10	.15	.09	.10	.005	.002	.011	.002	.006
%RSD	.2638	.3880	.2371	.2443	.2419	.1114	.2205	.1156	.2889
#1	39.05	38.65	39.28	39.92	1.950	1.949	4.908	1.955	1.985
#2	38.91	38.86	39.15	39.78	1.957	1.952	4.924	1.959	1.977
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

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Sample Name: ccv Acquired: 5/31/2018 15:03:15 Type: QC
Method: SGS No Valve(v129) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: : :
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.976	1.928	1.929	1.904	1.956	1.949	1.915
Stddev	.004	.005	.007	.008	.005	.000	.000
%RSD	.2194	.2373	.3850	.3978	.2751	.0149	.0191
#1	1.979	1.925	1.923	1.898	1.952	1.948	1.915
#2	1.973	1.932	1.934	1.909	1.960	1.949	1.916
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							
Int. Std.	Y_3600	Y_3710	Y_2243	In2306			
Units	Cts/S	Cts/S	Cts/S	Cts/S			
Avg	162300.	22228.	4619.3	9870.9			
Stddev	77.	134.	1.1	5.6			
%RSD	.04734	.60223	.02289	.05694			
#1	162350.	22323.	4620.1	9874.8			
#2	162250.	22134.	4618.6	9866.9			

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Sample Name: ccb Acquired: 5/31/2018 15:07:19 Type: QC
Method: SGS No Valve(v129) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: : :
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001	.0001	.0003	.0001	.0004	.0001	.0001	.0000	.0003
Stddev	.0001	.0000	.0001	.0001	.0001	.0000	.0000	.0004	.0001
%RSD	139.7	25.45	22.90	110.1	24.42	7.201	5.093	1340.	36.00
#1	.0001	.0001	.0003	.0000	.0003	.0001	.0001	.0003	.0002
#2	.0000	.0001	.0002	.0002	.0005	.0001	.0001	.0002	.0004

Check ? High Limit Low Limit Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass

Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000	.0010	.0002	.0005	.0007	.0016	.0002	.0106	.0012
Stddev	.0002	.0001	.0008	.0000	.0004	.0012	.0003	.0133	.0005
%RSD	903.2	14.20	457.1	3.895	55.01	75.49	119.8	125.3	42.93
#1	.0002	.0009	.0004	.0005	.0004	.0008	.0004	.0200	.0016
#2	.0001	.0011	.0007	.0005	.0009	.0025	.0000	.0012	.0008

Check ? High Limit Low Limit Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0006	.0061	.0449	.0069	.0009	.0001	.0000	.0002	.0002
Stddev	.0021	.0009	.0006	.0051	.0002	.0001	.0006	.0005	.0000
%RSD	357.7	15.28	1.250	74.21	19.05	123.0	9954.	247.3	.7000
#1	.0021	.0068	.0453	.0033	.0010	.0000	.0004	.0006	.0002
#2	.0009	.0055	.0445	.0106	.0008	.0002	.0004	.0002	.0002

Check ? High Limit Low Limit Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass

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Sample Name: ccb Acquired: 5/31/2018 15:07:19 Type: QC
Method: SGS No Valve(v129) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: : :
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000	.0005	.0001	.0019	.0001	.0004	.0022
Stddev	.0001	.0005	.0001	.0010	.0010	.0006	.0004
%RSD	174.8	104.7	132.8	50.61	1310.	169.9	18.08
#1	.0001	.0001	.0001	.0026	.0006	.0001	.0025
#2	.0000	.0008	.0000	.0012	.0007	.0008	.0019

Check ? High Limit Low Limit Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	173490.	22690.	4806.4	10964.
Stddev	1199.	73.	11.2	1.
%RSD	.69131	.32304	.23347	.01177
#1	172640.	22639.	4798.5	10965.
#2	174340.	22742.	4814.3	10963.

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Sample Name: jc66684-17 Acquired: 5/31/2018 15:11:38 Type: Unk
Method: SGS No Valve(v129) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: : :
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	.5670	.0086	.0044	.1413	.3254	.0503	6.774	.3320	.0029
Stddev	.0010	.0000	.0002	.0002	.0019	.0009	.032	.0009	.0013
%RSD	.1678	.1824	5.048	.1174	.5933	1.810	.4699	.2804	44.33
#1	.5663	.0086	.0043	.1414	.3267	.0496	6.797	.3314	.0020
#2	.5676	.0086	.0046	.1412	.3240	.0509	6.752	.3327	.0038

Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	.2913	.8127	.0425	.0041	.2952	.0025	.0061	160.3	14.10
Stddev	.0004	.0003	.0002	.0034	.0032	.0051	.0014	.3	.05
%RSD	.1259	.0363	.4315	83.85	1.090	206.3	23.10	.2054	.3498
#1	.2916	.8125	.0426	.0065	.2975	.0011	.0071	160.1	14.07
#2	.2910	.8129	.0423	.0017	.2930	.0060	.0051	160.5	14.14

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	366.7	72.84	32.48	1.904	.2321	.0118	9.024	.0269	.1035
Stddev	.9	.15	.04	.002	.0007	.0005	.013	.0019	.0003
%RSD	.2340	.2008	.1209	.1200	.2819	4.154	.1435	6.980	.2765
#1	366.1	72.74	32.51	1.902	.2317	.0115	9.015	.0282	.1033
#2	367.3	72.95	32.46	1.906	.2326	.0122	9.033	.0255	.1037

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	4.583	.0071	.0896	.1051	.1441	.5987	3.248
Stddev	.013	.0026	.0005	.0018	.0012	.0006	.004
%RSD	.2893	36.22	.5526	1.748	.8303	.0943	.1155
#1	4.592	.0089	.0900	.1038	.1432	.5983	3.251
#2	4.573	.0053	.0893	.1064	.1449	.5991	3.245

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	165740.	22537.	4693.3	10203.
Stddev	180.	89.	5.0	15.
%RSD	.10863	.39537	.10718	.14719
#1	165610.	22474.	4689.7	10193.
#2	165870.	22600.	4696.8	10214.

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Sample Name: jc66684-18 Acquired: 5/31/2018 15:15:55 Type: Unk
Method: SGS No Valve(v129) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: : :
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	.5882	.0135	.0049	.1736	.3878	.0550	4.805	.4178	.0020
Stddev	.0024	.0001	.0001	.0013	.0012	.0002	.018	.0013	.0002
%RSD	.4137	.7273	2.101	.7261	.3165	.3856	.3761	.3106	9.729
#1	.5899	.0136	.0049	.1727	.3887	.0552	4.793	.4169	.0021
#2	.5865	.0134	.0050	.1745	.3869	.0549	4.818	.4187	.0019

Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	.3604	.9277	.0336	.0049	.2226	.0070	.0035	192.1	15.66
Stddev	.0006	.0035	.0017	.0028	.0019	.0001	.0020	.6	.07
%RSD	.1609	.3820	5.022	56.50	.8426	2.130	58.46	.3114	.4193
#1	.3600	.9252	.0324	.0069	.2212	.0071	.0020	192.5	15.71
#2	.3608	.9302	.0348	.0030	.2239	.0069	.0049	191.7	15.61

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	420.3	97.49	54.90	2.270	.3775	.0121	5.357	.0272	.1090
Stddev	1.5	.10	.13	.007	.0020	.0007	.016	.0016	.0003
%RSD	.3653	.1059	.2407	.3262	.5236	6.167	.3015	5.952	.2339
#1	421.4	97.57	55.00	2.275	.3761	.0126	5.345	.0260	.1092
#2	419.2	97.42	54.81	2.264	.3789	.0115	5.368	.0283	.1088

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	5.113	.0066	.1068	.1255	.1589	.7592	3.869
Stddev	.010	.0006	.0002	.0061	.0014	.0012	.014
%RSD	.1872	9.389	.1657	4.842	.9037	.1602	.3542
#1	5.107	.0070	.1067	.1212	.1578	.7583	3.860
#2	5.120	.0061	.1069	.1298	.1599	.7601	3.879

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	167960.	23194.	4730.2	10188.
Stddev	404.	62.	12.2	14.
%RSD	.24044	.26899	.25876	.14071
#1	168240.	23149.	4738.8	10198.
#2	167670.	23238.	4721.5	10178.

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Sample Name: jc66684-19 Acquired: 5/31/2018 15:20:10 Type: Unk
Method: SGS No Valve(v129) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: : :
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	.6623	.0150	.0056	.1767	.4027	.0389	5.106	.4339	.0024
Stddev	.0004	.0001	.0001	.0017	.0011	.0003	.016	.0010	.0008
%RSD	.0561	.3426	2.475	.9388	.2795	.8560	.3046	.2404	32.78
#1	.6625	.0151	.0057	.1778	.4019	.0392	5.095	.4332	.0030
#2	.6620	.0150	.0055	.1755	.4034	.0387	5.117	.4347	.0019
Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	.3660	.9730	.0585	.0063	.2319	-.0034	.0012	197.0	19.96
Stddev	.0000	.0031	.0046	.0016	.0032	.0022	.0007	.4	.04
%RSD	.0100	.3192	7.787	25.68	1.401	64.28	63.75	.2188	.1862
#1	.3659	.9752	.0617	.0051	.2342	-.0019	.0006	197.3	19.99
#2	.3660	.9708	.0553	.0074	.2296	-.0050	.0017	196.7	19.94
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	485.9	99.00	54.17	2.455	.3822	.0148	4.966	.0289	.1286
Stddev	1.0	.14	.04	.018	.0002	.0006	.009	.0034	.0002
%RSD	.1979	.1380	.0740	.7490	.0519	4.223	.1709	11.78	.1293
#1	486.6	98.90	54.19	2.468	.3824	.0152	4.972	.0313	.1287
#2	485.2	99.09	54.14	2.442	.3821	.0143	4.960	.0264	.1285
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Avg	5.411	.0090	.1086	.1267	.1740	.7708	4.705		
Stddev	.015	.0024	.0001	.0018	.0009	.0003	.002		
%RSD	.2686	26.57	.1066	1.408	.5033	.0336	.0339		
#1	5.401	.0107	.1085	.1280	.1734	.7710	4.706		
#2	5.421	.0073	.1087	.1255	.1747	.7706	4.704		
Int. Std.	Y_3600	Y_3710	Y_2243	In2306					
Avg	166800.	22831.	4698.8	10172.					
Stddev	5.	11.	.3	12.					
%RSD	.00289	.04974	.00727	.11413					
#1	166800.	22839.	4698.6	10164.					
#2	166810.	22823.	4699.1	10180.					

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Sample Name: jc66684-21 Acquired: 5/31/2018 15:24:26 Type: Unk
Method: SGS No Valve(v129) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: : :
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	.6194	.0145	.0051	.1544	.3624	.0357	5.678	.3891	.0014
Stddev	.0028	.0002	.0002	.0026	.0005	.0002	.013	.0058	.0002
%RSD	.4546	1.351	3.259	1.699	.1422	.5615	.2280	1.478	16.96
#1	.6174	.0143	.0053	.1563	.3620	.0356	5.669	.3932	.0013
#2	.6214	.0146	.0050	.1526	.3628	.0358	5.687	.3851	.0016
Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	.3231	.8837	.0541	.0049	.1900	-.0063	.0052	179.3	13.64
Stddev	.0011	.0089	.0010	.0034	.0057	.0025	.0017	.7	.06
%RSD	.3331	1.009	1.817	69.79	3.022	39.29	32.25	.3776	.4140
#1	.3239	.8900	.0548	.0025	.1941	-.0081	.0040	178.8	13.60
#2	.3223	.8774	.0534	.0073	.1860	-.0046	.0064	179.8	13.68
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	442.4	87.07	49.18	2.014	.3292	.0126	3.957	.0262	.1098
Stddev	1.5	.21	.10	.003	.0048	.0002	.062	.0006	.0005
%RSD	.3494	.2427	.2100	.1657	1.455	1.200	1.566	2.276	.4533
#1	441.3	86.92	49.10	2.012	.3325	.0125	4.000	.0258	.1095
#2	443.5	87.21	49.25	2.017	.3258	.0127	3.913	.0266	.1102
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Avg	4.854	.0093	.1011	.1479	.1574	.7185	3.679		
Stddev	.007	.0022	.0000	.0062	.0020	.0008	.053		
%RSD	.1394	23.78	.0072	4.165	1.287	.1058	1.439		
#1	4.849	.0078	.1011	.1522	.1560	.7179	3.717		
#2	4.859	.0109	.1011	.1435	.1589	.7190	3.642		
Int. Std.	Y_3600	Y_3710	Y_2243	In2306					
Avg	166690.	22674.	4773.4	10326.					
Stddev	387.	86.	60.7	121.					
%RSD	.23246	.37770	1.2720	1.1680					
#1	166410.	22735.	4730.5	10240.					
#2	166960.	22614.	4816.4	10411.					

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Sample Name: jc66684-23 Acquired: 5/31/2018 15:28:43 Type: Unk
Method: SGS No Valve(v129) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: : :
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	.7187	.0097	.0047	.1363	.3609	.0371	7.928	.3670	.0018
Stddev	.0006	.0002	.0003	.0003	.0005	.0008	.043	.0018	.0002
%RSD	.0879	1.980	5.375	.1898	.1465	2.107	.5449	.4864	12.95
#1	.7182	.0096	.0049	.1361	.3613	.0376	7.898	.3658	.0019
#2	.7191	.0098	.0045	.1364	.3605	.0365	7.959	.3683	.0016
Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	.2859	.7195	.0409	.0028	.1745	-.0023	.0031	140.1	14.74
Stddev	.0003	.0013	.0014	.0001	.0026	.0007	.0012	.1	.03
%RSD	.1219	.1788	3.356	2.337	1.469	28.55	38.11	.1052	.2037
#1	.2857	.7186	.0418	.0029	.1763	-.0018	.0023	140.2	14.76
#2	.2862	.7204	.0399	.0028	.1727	-.0028	.0039	140.0	14.72
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	377.1	72.70	29.98	1.997	.2128	.0117	3.162	.0239	.0945
Stddev	.6	.18	.05	.009	.0002	.0002	.008	.0016	.0000
%RSD	.1618	.2478	.1777	.4349	.0943	1.943	.2592	6.612	.0317
#1	377.6	72.82	30.02	1.991	.2127	.0115	3.156	.0250	.0945
#2	376.7	72.57	29.95	2.003	.2130	.0118	3.167	.0228	.0944
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Avg	4.450	.0074	.1153	.2307	.1397	.5904	4.396		
Stddev	.022	.0001	.0005	.0059	.0006	.0037	.013		
%RSD	.4958	1.481	.4514	2.555	.4545	.6212	.3012		
#1	4.435	.0073	.1149	.2348	.1392	.5878	4.387		
#2	4.466	.0074	.1156	.2265	.1401	.5930	4.406		
Int. Std.	Y_3600	Y_3710	Y_2243	In2306					
Avg	169070.	23199.	4840.5	10408.					
Stddev	801.	119.	9.3	28.					
%RSD	.47362	.51441	.19117	.26577					
#1	169630.	23115.	4847.1	10425.					
#2	168500.	23283.	4834.0	10386.					

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Sample Name: jc66684-25 Acquired: 5/31/2018 15:33:00 Type: Unk
Method: SGS No Valve(v129) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: : :
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	.6705	.0129	.0052	.1694	.3912	.0641	4.425	.4207	.0024
Stddev	.0003	.0001	.0000	.0015	.0006	.0002	.022	.0020	.0004
%RSD	.0476	.6745	.3089	.8758	.1595	.2687	.5041	.4843	15.83
#1	.6708	.0129	.0052	.1705	.3916	.0640	4.441	.4221	.0026
#2	.6703	.0130	.0052	.1684	.3907	.0643	4.409	.4192	.0021
Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	.4070	.9797	.0359	.0030	.2197	-.0027	.0002	204.5	16.99
Stddev	.0005	.0067	.0010	.0016	.0035	.0025	.0014	.2	.01
%RSD	.1234	.6834	2.745	53.54	1.572	94.17	767.9	.0850	.0707
#1	.4066	.9844	.0352	.0019	.2222	-.0044	.0011	204.6	17.00
#2	.4073	.9750	.0366	.0041	.2173	-.0009	-.0008	204.4	16.98
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	438.1	98.36	53.42	2.523	.3655	.0131	5.448	.0300	.1188
Stddev	.2	.17	.15	.002	.0038	.0000	.023	.0017	.0005
%RSD	.0359	.1707	.2760	.0963	1.040	.0324	.4175	5.773	.4565
#1	438.2	98.48	53.53	2.525	.3682	.0130	5.464	.0312	.1192
#2	438.0	98.24	53.32	2.521	.3628	.0131	5.432	.0288	.1184
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Avg	5.583	.0112	.1173	.1112	.1771	.7868	4.271		
Stddev	.010	.0004	.0004	.0020	.0015	.0039	.018		
%RSD	.1782	3.813	.3050	1.816	.8592	.5015	.4141		
#1	5.576	.0115	.1170	.1098	.1760	.7896	4.283		
#2	5.590	.0109	.1175	.1126	.1781	.7840	4.258		
Int. Std.	Y_3600	Y_3710	Y_2243	In2306					
Avg	162440.	22156.	4633.4	9999.4					
Stddev	125.	14.	24.6	54.6					
%RSD	.07718	.06358	.53109	.54614					
#1	162350.	22146.	4616.0	9960.8					
#2	162530.	22166.	4650.8	10038.					

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Sample Name: jc66684-27 Acquired: 5/31/2018 15:37:16 Type: Unk
Method: SGS No Valve(v129) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: : :
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	.6472	.0148	.0057	.1821	.3950	.0482	4.658	.4293	.0023
Stddev	.0002	.0000	.0001	.0038	.0021	.0012	.030	.0089	.0005
%RSD	.0290	.2941	1.286	2.070	.5253	2.547	.6455	2.067	23.23
#1	.6471	.0148	.0057	.1794	.3936	.0473	4.679	.4230	.0019
#2	.6474	.0149	.0058	.1847	.3965	.0491	4.637	.4356	.0026
Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	.3542	1.005	.0505	.0040	.2240	-.0032	.0041	193.5	18.99
Stddev	.0001	.024	.0013	.0010	.0054	.0007	.0005	.1	.02
%RSD	.0310	2.408	2.489	25.84	2.392	21.77	13.28	.0726	.0892
#1	.3543	.9882	.0496	.0047	.2203	-.0027	.0037	193.6	19.00
#2	.3541	1.022	.0514	.0033	.2278	-.0037	.0045	193.4	18.98
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	475.3	98.11	52.47	2.352	.3600	.0144	5.235	.0284	.1253
Stddev	.3	.06	.01	.005	.0076	.0005	.119	.0010	.0001
%RSD	.0560	.0609	.0125	.1978	2.110	3.376	2.279	3.492	.0471
#1	475.1	98.15	52.48	2.355	.3546	.0141	5.150	.0291	.1253
#2	475.5	98.06	52.47	2.349	.3653	.0148	5.319	.0277	.1252
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Avg	5.283	.0079	.1101	.1079	.1669	.7625	4.438		
Stddev	.007	.0004	.0003	.0111	.0020	.0015	.102		
%RSD	.1421	5.147	2.403	10.29	1.227	.2019	2.297		
#1	5.277	.0076	.1099	.1001	.1683	.7614	4.366		
#2	5.288	.0082	.1103	.1158	.1654	.7636	4.510		
Int. Std.	Y_3600	Y_3710	Y_2243	In2306					
Avg	166110.	22807.	4737.8	10196.					
Stddev	124.	47.	95.4	183.					
%RSD	.07436	.20488	2.0138	1.7989					
#1	166200.	22840.	4805.2	10325.					
#2	166020.	22774.	4670.3	10066.					

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Sample Name: jc66920-1 Acquired: 5/31/2018 15:45:45 Type: Unk
Method: SGS No Valve(v129) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: : :
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	
Avg	F 126.2	.0071	7.902	.0337	11.86	8.984	2.963	2.525	
Stddev	.2	.0001	.002	.0003	.02	.027	.010	.001	
%RSD	.1799	.8063	.0202	.7873	.1512	.2994	.3496	.0315	
#1	126.0	.0072	7.901	.0335	11.85	8.965	2.955	2.525	
#2	126.3	.0071	7.903	.0339	11.88	9.003	2.970	2.526	
Elem	Ag3280	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	
Avg	.0426	.2422	F 27.39	.0894	F -.0161	.4320	.0236	-.0016	
Stddev	.0007	.0013	.01	.0045	.0006	.0029	.0008	.0006	
%RSD	1.658	.5430	.0385	4.996	3.702	.6690	3.505	37.19	
#1	.0421	.2413	27.38	.0925	-.0157	.4300	.0242	-.0021	
#2	.0431	.2432	27.40	.0862	-.0165	.4341	.0230	-.0012	
Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	
Avg	76.85	279.7	307.6	22.97	39.35	70.71	.8191	.0852	
Stddev	.13	.7	.5	.01	.01	.12	.0016	.0007	
%RSD	.1690	.2666	.1588	.0605	.0176	.1666	.1972	.8085	
#1	76.94	280.2	308.0	22.98	39.35	70.80	.8202	.0856	
#2	76.76	279.2	307.3	22.96	39.36	70.63	.8179	.0847	
Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230	
Avg	4.838	.2160	2.067	4.579	.1114	1.302	39.82	.1281	
Stddev	.025	.0020	.001	.010	.0013	.0006	.08	.0014	
%RSD	.5075	.9218	.0690	.2182	1.158	.4334	.2107	1.131	
#1	4.820	.2174	2.068	4.572	.1105	.1298	39.76	.1292	
#2	4.855	.2146	2.066	4.586	.1123	.1306	39.88	.1271	
Elem	Li6707	P_1774							
Avg	.1488	11.34							
Stddev	.0014	.01							
%RSD	.9579	.1233							
#1	.1498	11.33							
#2	.1478	11.35							

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Sample Name: jc66684-29 Acquired: 5/31/2018 15:41:30 Type: Unk
Method: SGS No Valve(v129) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: : :
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	.7869	.0095	.0055	.1360	.3573	.0440	7.142	.3661	.0018
Stddev	.0003	.0001	.0002	.0004	.0008	.0002	.007	.0008	.0005
%RSD	.0370	1.385	3.163	.2871	.2308	.3873	.1048	.2093	26.31
#1	.7867	.0094	.0056	.1357	.3568	.0438	7.147	.3666	.0021
#2	.7871	.0096	.0054	.1363	.3579	.0441	7.137	.3655	.0015
Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	.3544	.7513	.0374	.0032	.1781	-.0014	.0015	162.9	18.00
Stddev	.0005	.0007	.0015	.0008	.0029	.0001	.0014	.1	.01
%RSD	.1419	.0922	3.945	25.16	1.616	9.308	92.87	.0404	.0805
#1	.3541	.7518	.0385	.0037	.1761	-.0015	.0025	162.9	18.01
#2	.3548	.7508	.0364	.0026	.1802	-.0013	.0005	162.8	17.99
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	408.8	77.54	32.89	2.889	.2351	.0124	5.599	.0270	.1143
Stddev	.4	.00	.01	.013	.0026	.0004	.011	.0018	.0004
%RSD	.0889	.0061	.0449	.4363	1.122	3.353	.1961	6.734	.3192
#1	409.0	77.53	32.90	2.880	.2332	.0127	5.591	.0257	.1145
#2	408.5	77.54	32.88	2.898	.2370	.0121	5.607	.0283	.1140
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Avg	5.244	.0087	.1147	.0752	.1617	.6047	3.903		
Stddev	.010	.0001	.0001	.0043	.0005	.0001	.010		
%RSD	.1846	1.374	.0752	5.725	.3252	.0230	.2532		
#1	5.238	.0086	.1147	.0721	.1613	.6048	3.896		
#2	5.251	.0087	.1148	.0782	.1621	.6046	3.910		
Int. Std.	Y_3600	Y_3710	Y_2243	In2306					
Avg	163490.	22336.	4660.0	10078.					
Stddev	78.	51.	6.0	33.					
%RSD	.04763	.22678	.12874	.32287					
#1	163550.	22372.	4655.7	10055.					
#2	163440.	22301.	4664.2	10101.					

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Sample Name: jc66920-1 Acquired: 5/31/2018 15:45:45 Type: Unk
Method: SGS No Valve(v129) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: : :
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306					
Avg	160530.	22327.	4494.9	9982.9					
Stddev	54.	22.	.4	8.1					
%RSD	.03366	.10027	.00789	.08122					
#1	160490.	22343.	4494.7	9977.1					
#2	160570.	22311.	4495.2	9988.6					

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Sample Name: ccv Acquired: 5/31/2018 15:49:59 Type: QC
Method: SGS No Valve(v129) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: : :
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.967	1.941	1.915	1.933	1.951	1.907	1.980	1.976	2.424
Stddev	.000	.001	.008	.006	.015	.010	.013	.005	.0012
%RSD	.0180	.0455	.4039	.3014	.7777	.5058	.6314	.2534	.4768
#1	1.967	1.941	1.909	1.929	1.940	1.901	1.971	1.973	2.416
#2	1.968	1.942	1.920	1.937	1.961	1.914	1.989	1.980	2.432

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
Value
Range

Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.931	1.941	1.903	2.010	1.986	1.900	1.907	38.59	38.85
Stddev	.012	.006	.012	.004	.000	.014	.009	.10	.16
%RSD	.5951	.3006	.6171	.1789	.0046	.7430	.4721	.2715	.4147
#1	1.923	1.937	1.895	2.008	1.986	1.890	1.901	38.67	38.97
#2	1.939	1.945	1.912	2.013	1.986	1.910	1.914	38.52	38.74

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
Value
Range

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	38.95	38.23	39.30	40.12	1.954	1.941	4.909	1.947	1.984
Stddev	.13	.02	.11	.13	.010	.004	.018	.006	.001
%RSD	.3302	.0531	.2861	.3169	.4997	.2098	.3641	.2904	.0661
#1	39.04	38.21	39.38	40.21	1.947	1.939	4.896	1.943	1.985
#2	38.86	38.24	39.22	40.03	1.961	1.944	4.921	1.951	1.983

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
Value
Range

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Sample Name: ccv Acquired: 5/31/2018 15:49:59 Type: QC
Method: SGS No Valve(v129) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: : :
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.995	1.922	1.927	1.901	1.953	1.945	1.908
Stddev	.005	.006	.009	.006	.010	.005	.008
%RSD	.2375	.3355	.4814	.3282	.5273	.2387	.4132
#1	1.992	1.917	1.920	1.896	1.945	1.942	1.903
#2	1.998	1.926	1.933	1.905	1.960	1.948	1.914

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
Value
Range

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	163790.	22330.	4655.7	9929.9
Stddev	1704.	256.	15.7	27.3
%RSD	1.0400	1.1452	.33623	.27531
#1	165000.	22149.	4666.7	9949.3
#2	162590.	22511.	4644.6	9910.6

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Sample Name: ccb Acquired: 5/31/2018 15:54:03 Type: QC
Method: SGS No Valve(v129) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: : :
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000	.0001	.0002	.0002	-.0001	.0001	.0001	-.0000	-.0001
Stddev	.0001	.0000	.0001	.0001	.0000	.0003	.0000	.0000	.0001
%RSD	318.3	8.610	31.96	41.11	17.17	397.3	29.62	31.54	123.4
#1	-.0000	.0001	.0002	.0002	-.0001	-.0001	.0001	-.0000	-.0002
#2	.0001	.0001	.0001	.0001	-.0001	.0002	.0001	-.0000	-.0000

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
High Limit
Low Limit

Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0001	.0010	-.0007	-.0001	.0003	-.0008	.0004	-.0066	-.0023
Stddev	.0001	.0002	.0000	.0011	.0001	.0002	.0010	.0029	.0035
%RSD	122.9	16.99	1.609	901.9	20.07	27.56	244.8	44.34	151.5
#1	-.0002	.0011	-.0007	-.0009	.0003	-.0010	.0011	-.0045	.0002
#2	-.0000	.0009	-.0007	.0007	.0004	-.0007	-.0003	-.0086	-.0048

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
High Limit
Low Limit

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001	.0028	.0522	.0032	.0003	.0002	.0004	-.0002	.0001
Stddev	.0008	.0015	.0159	.0022	.0009	.0002	.0002	.0001	.0001
%RSD	972.5	51.48	30.48	67.70	271.9	76.82	51.18	39.43	81.43
#1	.0007	.0038	.0410	.0017	-.0003	.0001	.0005	-.0003	.0002
#2	-.0005	.0018	.0635	.0047	.0010	.0004	.0002	-.0002	.0001

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
High Limit
Low Limit

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Sample Name: ccb Acquired: 5/31/2018 15:54:03 Type: QC
Method: SGS No Valve(v129) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: : :
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0001	.0007	.0002	.0021	-.0006	-.0000	.0035
Stddev	.0004	.0004	.0000	.0020	.0013	.0003	.0006
%RSD	436.6	59.80	6.192	98.29	200.2	628.1	17.15
#1	.0002	.0004	.0002	.0035	.0003	.0002	.0039
#2	-.0003	.0010	.0002	.0006	-.0015	-.0003	.0031

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
High Limit
Low Limit

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	173300.	22325.	4819.4	10956.
Stddev	618.	2.	9.1	8.
%RSD	.35654	.00683	.18922	.07021
#1	173740.	22323.	4825.8	10962.
#2	172860.	22326.	4812.9	10951.

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Sample Name: jc66920-1 Acquired: 5/31/2018 15:59:39 Type: Unk
Method: SGS No Valve(v129) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: : :
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	F 129.9	.0069	7.822	.0341	11.94	8.871	2.989	2.587
Stddev	4.7	.0000	.004	.0008	.01	.005	.000	.004
%RSD	3.586	.5435	.0552	2.463	.0519	.0623	.0124	.1341

#1	133.2	.0069	7.819	.0335	11.93	8.875	2.989	2.589
#2	126.6	.0069	7.825	.0347	11.94	8.867	2.989	2.584

Elem	Ag3280	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068
Avg	.0435	.2419	28.22	.0930	F -.0171	.4518	.0278	-.0131
Stddev	.0019	.0005	.05	.0024	.0062	.0037	.0136	.0025
%RSD	4.414	.2162	.1652	2.560	36.22	.8171	48.89	19.43

#1	.0421	.2423	28.25	.0913	-.0127	.4492	.0374	-.0113
#2	.0448	.2416	28.19	.0947	-.0215	.4544	.0182	-.0149

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	76.53	282.5	312.1	23.32	39.30	70.26	.8115	.0853
Stddev	.04	.1	.0	.02	.03	.03	.0011	.0011
%RSD	.0496	.0179	.0016	.0794	.0760	.0463	.1348	1.241

#1	76.55	282.4	312.1	23.33	39.32	70.28	.8107	.0846
#2	76.50	282.5	312.1	23.30	39.28	70.23	.8122	.0861

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	4.749	.2179	2.056	4.542	.1027	.1299	38.90	.1307
Stddev	.004	.0048	.000	.005	.0024	.0006	.00	.0038
%RSD	.0883	2.184	.0062	.1028	2.376	.4513	.0080	2.907

#1	4.752	.2146	2.056	4.539	.1044	.1303	38.90	.1334
#2	4.746	.2213	2.056	4.546	.1009	.1295	38.90	.1280

Elem	Li6707	P_1774
Avg	.1459	11.24
Stddev	.0044	.00
%RSD	3.026	.0124

#1	.1428	11.24
#2	.1490	11.24

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Sample Name: jc66920-1 Acquired: 5/31/2018 15:59:39 Type: Unk
Method: SGS No Valve(v129) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: : :
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	165830.	22225.	4667.2	10317.
Stddev	284.	63.	3.9	8.
%RSD	.17133	.28512	.08283	.07284

#1	165630.	22181.	4664.5	10311.
#2	166040.	22270.	4669.9	10322.

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Sample Name: jc66920-1 Acquired: 5/31/2018 16:03:54 Type: Unk
Method: SGS No Valve(v129) Mode: CONC Corr. Factor: 25.000000
User: admin Custom ID1: : :
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	139.6	.0062	8.120	.0379	12.47	8.920	3.130	2.686	.0359
Stddev	5.8	.0015	.012	.0090	.02	.003	.002	.003	.0024
%RSD	4.140	24.69	.1451	23.79	.1762	.0300	.0724	.1008	6.806

#1	135.5	.0073	8.128	.0443	12.49	8.918	3.132	2.684	.0341
#2	143.7	.0051	8.112	.0315	12.46	8.922	3.128	2.688	.0376

Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	.2399	29.87	.0863	-.0363	.4911	.0246	-.0029	82.21	300.2
Stddev	.0034	.15	.0189	.0201	.0134	.0673	.0243	.55	1.9
%RSD	1.397	.5175	21.84	55.48	2.736	274.0	826.9	.6684	.6221

#1	.2422	29.98	.0996	-.0505	.5006	.0722	.0142	81.82	298.9
#2	.2375	29.76	.0730	-.0221	.4816	-.0230	-.0201	82.60	301.5

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	334.2	24.93	41.57	74.23	.8115	.0908	4.873	.2268	2.181
Stddev	2.1	.07	.21	.47	.0042	.0080	.035	.0094	.009
%RSD	.6230	.2681	.5104	.6302	.5147	8.778	.7294	4.156	.3909

#1	332.8	24.89	41.72	73.90	.8085	.0852	4.847	.2334	2.175
#2	335.7	24.98	41.42	74.56	.8144	.0965	4.898	.2201	2.187

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	4.727	.1229	.1358	39.45	.1256	.1668	11.55
Stddev	.019	.0015	.0035	.06	.0010	.0023	.01
%RSD	.3933	1.204	2.597	.1584	.7873	1.383	.0876

#1	4.740	.1219	.1383	39.49	.1249	.1652	11.56
#2	4.713	.1240	.1333	39.41	.1263	.1684	11.54

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	165840.	21519.	4675.6	10494.
Stddev	245.	131.	19.6	46.
%RSD	.14760	.60879	.41840	.43794

#1	165670.	21612.	4661.8	10461.
#2	166010.	21427.	4689.5	10526.

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Sample Name: mp7387-mb1conf Acquired: 5/31/2018 16:08:11 Type: Unk
Method: SGS No Valve(v129) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: : :
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	.0013	-.0001	-.0000	.0002	.0006	.0015	.0003	.0007	-.0001
Stddev	.0001	.0001	.0002	.0001	.0000	.0001	.0000	.0000	.0002
%RSD	7.630	60.62	784.8	42.52	3.549	8.789	5.058	.5419	305.3

#1	.0012	-.0000	-.0002	.0002	.0006	.0016	.0003	.0007	.0001
#2	.0014	-.0001	.0001	.0003	.0006	.0014	.0003	.0007	-.0002

Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	-.0000	.0026	.0012	.0011	.0009	-.0031	-.0012	-.0030	.1189
Stddev	.0000	.0002	.0000	.0012	.0005	.0005	.0003	.0024	.0024
%RSD	63.28	6.966	.0998	110.1	61.40	16.91	24.81	80.17	2.015

#1	-.0001	.0028	.0012	.0002	.0005	-.0034	-.0014	-.0013	.1206
#2	-.0000	.0025	.0012	.0019	.0013	-.0027	-.0010	-.0047	.1172

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	.0230	.0168	.0350	.0958	.0004	.0005	.0555	.0183	.0006
Stddev	.0014	.0079	.0096	.0027	.0008	.0002	.0019	.0001	.0000
%RSD	6.150	47.17	27.31	2.870	238.2	37.04	3.476	.3843	2.856

#1	.0240	.0224	.0417	.0977	.0010	.0006	.0569	.0182	.0006
#2	.0220	.0112	.0282	.0938	-.0002	.0003	.0542	.0183	.0006

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	.0006	.0005	.0002	.0069	.0006	-.0005	.0226
Stddev	.0001	.0006	.0001	.0011	.0014	.0007	.0002
%RSD	15.00	124.5	33.71	15.85	222.4	140.0	.7526

#1	.0007	.0001	.0001	.0077	-.0004	-.0000	.0227
#2	.0006	.0009	.0002	.0061	.0016	-.0010	.0225

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	174320.	22810.	4996.2	11334.
Stddev	2237.	45.	130.5	246.
%RSD	1.2832	.19798	2.6114	2.1727

#1	172740.	22842.	4903.9	11160.
#2	175900.	22778.	5088.4	11509.

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Sample Name: mp7387-b1conf Acquired: 5/31/2018 16:12:30 Type: Unk
Method: SGS No Valve(v129) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: : :
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Avg	1.905	1.887	1.831	1.846	1.876	1.835	1.909	1.888
Stddev	.003	.003	.000	.001	.013	.009	.002	.001
%RSD	.1807	.1621	.0118	.0332	.6700	.4729	.1221	.0744

#1	1.907	1.890	1.831	1.846	1.885	1.841	1.911	1.889
#2	1.902	1.885	1.831	1.847	1.867	1.829	1.908	1.887

Elem	Ag3280	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068
Avg	2.340	1.859	1.861	1.814	1.944	1.909	1.788	1.828
Stddev	.0006	.008	.002	.006	.004	.004	.005	.001
%RSD	.2743	.4134	.0864	.3073	.2292	.2092	.2625	.0427

#1	.2345	1.865	1.862	1.817	1.947	1.906	1.785	1.829
#2	.2336	1.854	1.859	1.810	1.941	1.911	1.791	1.827

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Avg	23.95	24.28	24.30	23.83	24.50	25.20	1.838	1.881
Stddev	.08	.10	.03	.02	.08	.06	.004	.000
%RSD	.3480	.4010	.1380	.0779	.3127	.2203	.2418	.0191

#1	24.01	24.35	24.32	23.82	24.55	25.24	1.835	1.881
#2	23.89	24.21	24.27	23.84	24.45	25.16	1.841	1.882

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Avg	.1112	1.912	1.915	1.943	1.740	1.872	F -.0677	.0606
Stddev	.0019	.002	.004	.007	.003	.009	.0006	.0006
%RSD	1.696	.0981	.2290	.3766	.1464	.4791	.8172	1.020

#1	.1125	1.913	1.919	1.948	1.739	1.878	-.0680	.0602
#2	.1099	1.911	1.912	1.938	1.742	1.866	-.0673	.0611

Elem	Li6707	P_1774
Avg	.0005	1.821
Stddev	.0010	.004
%RSD	208.6	.2470

#1	-.0002	1.824
#2	.0011	1.818

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Sample Name: mp7387-b1conf Acquired: 5/31/2018 16:12:30 Type: Unk
Method: SGS No Valve(v129) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: : :
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	164590.	22231.	4661.5	10084.
Stddev	253.	44.	13.8	30.
%RSD	.15348	.19692	.29556	.29822

#1	164420.	22200.	4651.8	10063.
#2	164770.	22262.	4671.3	10106.

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Sample Name: jc66873-1 Acquired: 5/31/2018 16:16:32 Type: Unk
Method: SGS No Valve(v129) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: : :
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	2.056	.0047	.0428	.0472	.4831	18.19	2.175	.2809	.0204
Stddev	.003	.0002	.0010	.0000	.0000	.02	.004	.0003	.0030
%RSD	.1526	4.357	2.299	.0642	.0059	.1341	.1766	.1291	14.57

#1	2.059	.0045	.0422	.0472	.4831	18.21	2.172	.2612	.0224
#2	2.054	.0048	.0435	.0471	.4831	18.18	2.178	.2607	.0183

Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	.2849	24.84	.2243	.0076	F 145.6	-.0106	1.474	60.87	41.98
Stddev	.0002	.03	.0028	.0065	.1	.0110	.001	.08	.04
%RSD	.0775	.1224	1.237	85.50	.0900	104.0	.0600	.1257	.0898

#1	.2848	24.82	.2223	.0030	145.7	-.0184	1.474	60.92	42.01
#2	.2851	24.86	.2263	.0122	145.5	-.0028	1.473	60.82	41.95

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	405.0	18.15	7.241	1.222	.0513	.3151	5.067	26.41	.2877
Stddev	.5	.03	.109	.035	.0015	.0025	.002	.09	.0005
%RSD	.1218	.1703	1.505	2.841	2.869	.7882	.0360	.3370	.1570

#1	405.3	18.13	7.164	1.197	.0503	.3134	5.068	26.35	.2880
#2	404.6	18.17	7.318	1.246	.0524	.3169	5.065	26.48	.2874

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	1.318	.0038	.0136	4.937	.1356	.0750	7.217
Stddev	.004	.0001	.0002	.030	.0039	.0067	.032
%RSD	.3181	3.402	1.224	.5995	2.863	8.915	.4419

#1	1.315	.0039	.0135	4.916	.1328	.0703	7.194
#2	1.321	.0037	.0137	4.958	.1383	.0798	7.240

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	172760.	22763.	4877.8	10743.
Stddev	208.	48.	15.8	12.
%RSD	.12058	.21032	.32295	.11217

#1	172910.	22729.	4889.0	10751.
#2	172610.	22797.	4866.7	10734.

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Sample Name: jc66873-1 Acquired: 5/31/2018 16:20:41 Type: Unk
Method: SGS No Valve(v129) Mode: CONC Corr. Factor: 25.000000
User: admin Custom ID1: : :
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	2.058	.0020	.0438	.0489	.4783	17.62	2.180	.2627	.0272
Stddev	.007	.0013	.0011	.0015	.0045	.07	.009	.0057	.0053
%RSD	.3560	62.70	2.518	3.008	.9442	.3899	.3953	2.171	19.59

#1	2.063	.0029	.0445	.0478	.4751	17.58	2.174	.2667	.0310
#2	2.053	.0011	.0430	.0499	.4815	17.67	2.186	.2586	.0234

Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	.2809	25.12	.2188	.0166	142.3	-.0460	1.486	61.62	42.40
Stddev	.0035	.11	.0372	.0253	.7	.0182	.007	.01	.04
%RSD	1.251	.4296	17.00	152.9	.4968	39.50	.5021	.0178	.0937

#1	.2784	25.19	.2451	-.0013	142.8	-.0332	1.481	61.62	42.43
#2	.2834	25.04	.1925	.0345	141.8	-.0589	1.492	61.61	42.37

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	406.3	18.65	7.039	1.080	.0577	3257	5.091	26.83	.2869
Stddev	.2	.18	.419	.107	.0118	.0025	.016	.15	.0013
%RSD	.0374	.9908	5.949	9.942	20.39	.7758	.3165	.5428	.4479

#1	406.2	18.78	6.743	1.156	.0660	.3274	5.103	26.93	.2860
#2	406.4	18.52	7.335	1.004	.0494	.3239	5.080	26.73	.2878

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	1.327	.0267	.0136	4.987	.1125	.0726	7.250
Stddev	.004	.0029	.0023	.017	.0054	.0158	.034
%RSD	.3346	10.67	16.75	.3494	4.788	21.80	.4739

#1	1.324	.0247	.0152	4.999	.1163	.0838	7.275
#2	1.330	.0288	.0120	4.974	.1087	.0614	7.226

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	173840.	22546.	4865.0	10943.
Stddev	641.	91.	27.3	55.
%RSD	.36855	.40408	.56202	.49997

#1	174300.	22482.	4845.7	10904.
#2	173390.	22611.	4884.4	10982.

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Sample Name: jc66873-2 Acquired: 5/31/2018 16:24:56 Type: Unk
Method: SGS No Valve(v129) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: : :
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	.9322	.0027	.0123	.0273	1.201	5.712	1.088	.0960	.0035
Stddev	.0036	.0000	.0001	.0004	.001	.013	.002	.0012	.0017
%RSD	.3812	.7037	.9895	1.624	.1041	.2324	.1591	1.201	49.23

#1	.9347	.0027	.0122	.0276	1.200	5.721	1.089	.0968	.0047
#2	.9297	.0027	.0124	.0270	1.201	5.702	1.086	.0952	.0022

Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	.6019	6.233	.0772	.0082	18.29	-.0003	.0947	48.55	22.91
Stddev	.0025	.019	.0005	.0072	.04	.0031	.0040	.38	.12
%RSD	.4111	.3015	.6589	87.65	.2089	917.0	4.184	.7735	.5363

#1	.6001	6.246	.0768	.0132	18.31	.0019	.0975	48.82	23.00
#2	.6036	6.219	.0775	.0031	18.26	-.0025	.0919	48.29	22.82

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	151.6	12.24	6.905	.8311	.0467	.5882	4.809	2.759	.1387
Stddev	1.0	.19	.135	.0118	.0028	.0008	.008	.009	.0005
%RSD	.6365	1.546	1.953	1.424	6.096	.1378	.1738	.3150	.3320

#1	152.3	12.37	7.000	.8395	.0447	.5888	4.815	2.765	.1391
#2	150.9	12.10	6.810	.8228	.0488	.5876	4.803	2.753	.1384

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	1.040	.0443	.0140	1.756	.0390	.0669	4.063
Stddev	.004	.0024	.0001	.010	.0005	.0005	.006
%RSD	.3374	5.414	.7834	.5881	1.172	.7225	.1448

#1	1.037	.0460	.0141	1.749	.0387	.0666	4.067
#2	1.042	.0426	.0139	1.763	.0393	.0673	4.059

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	172700.	22718.	4863.8	10770.
Stddev	1066.	195.	13.1	25.
%RSD	.61726	.86049	.26922	.23437

#1	171950.	22580.	4854.5	10752.
#2	173460.	22856.	4873.0	10787.

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Sample Name: CCV Acquired: 5/31/2018 16:29:08 Type: QC
Method: SGS No Valve(v129) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: : :
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.009	1.916	1.925	1.894	1.949	1.943	1.897
Stddev	.002	.002	.003	.000	.002	.006	.001
%RSD	.1084	.0782	.1719	.0191	.0788	.3241	.0414

#1	2.007	1.917	1.928	1.894	1.950	1.939	1.897
#2	2.010	1.915	1.923	1.894	1.948	1.948	1.898

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	163420.	22287.	4654.2	9901.3
Stddev	615.	60.	4.9	4.3
%RSD	.37652	.26795	.10476	.04373

#1	162990.	22245.	4650.8	9898.2
#2	163860.	22330.	4657.7	9904.3

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Sample Name: CCV Acquired: 5/31/2018 16:29:08 Type: QC
Method: SGS No Valve(v129) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: : :
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.956	1.936	1.914	1.936	1.950	1.899	1.974	1.982	2.426
Stddev	.006	.007	.002	.001	.005	.003	.008	.001	.0003
%RSD	.2951	.3835	.1009	.0327	.2575	.1296	.4215	.0369	.1441

#1	1.952	1.931	1.916	1.935	1.954	1.901	1.968	1.982	2.424
#2	1.960	1.941	1.913	1.936	1.947	1.897	1.980	1.983	2.429

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.936	1.936	1.891	2.010	1.989	1.889	1.893	38.29	38.61
Stddev	.006	.000	.000	.004	.001	.005	.001	.10	.05
%RSD	.2992	.0182	.0184	.2095	.0718	.2733	.0621	.2715	.1305

#1	1.940	1.936	1.891	2.007	1.988	1.892	1.894	38.22	38.58
#2	1.932	1.937	1.891	2.013	1.990	1.885	1.893	38.36	38.65

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	38.68	38.33	39.24	39.99	1.953	1.938	4.911	1.938	1.968
Stddev	.11	.04	.08	.05	.002	.003	.010	.003	.007
%RSD	.2846	.1129	.2044	.1221	.1178	.1285	.1967	.1319	.3716

#1	38.61	38.36	39.19	39.96	1.955	1.940	4.918	1.940	1.962
#2	38.76	38.30	39.30	40.03	1.952	1.936	4.905	1.936	1.973

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

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Sample Name: CCB Acquired: 5/31/2018 16:33:15 Type: QC
Method: SGS No Valve(v129) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: : :
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0001	.0000	.0003	.0005	.0001	-.0001	.0001	.0001	.0001
Stddev	.0001	.0000	.0001	.0000	.0001	.0001	.0000	.0001	.0001
%RSD	96.29	3.079	36.59	4.967	58.57	71.05	11.88	61.77	64.60

#1	-.0000	.0000	.0002	.0005	.0002	-.0001	.0001	.0002	.0001
#2	-.0002	.0000	.0004	.0005	.0001	-.0002	.0001	.0001	.0002

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0000	.0012	.0012	.0008	-.0003	-.0001	.0005	-.0069	-.0049
Stddev	.0002	.0002	.0011	.0017	.0005	.0002	.0014	.0102	.0017
%RSD	497.7	20.34	91.03	207.5	185.0	151.6	277.2	149.0	35.34

#1	-.0001	.0013	.0004	.0020	-.0001	-.0002	.0015	.0004	-.0036
#2	.0001	.0010	.0020	-.0004	-.0006	.0000	-.0005	-.0141	-.0061

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0011	.0024	-.0025	.0005	.0009	.0002	-.0002	-.0002	.0010
Stddev	.0018	.0088	.0112	.0023	.0009	.0002	.0005	.0008	.0001
%RSD	164.0	75.20	471.1	90.41	144.40	34.83	244.4	479.4	81.80

#1	.0002	.0179	-.0103	-.0041	.0007	.0003	-.0005	.0004	.0000
#2	-.0023	.0055	.0056	-.0009	-.0007	.0006	.0001	-.0007	.0002

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

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Sample Name: CCB Acquired: 5/31/2018 16:33:15 Type: QC
Method: SGS No Valve(v129) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: : :
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001	-0.0001	-0.0000	.0014	-0.0008	.0007	.0053
Stddev	.0003	.0002	.0001	.0013	.0013	.0014	.0001
%RSD	244.3	268.8	2053.	96.24	168.5	187.4	2.160

#1	-0.0001	.0001	-0.0001	.0023	.0001	-0.0002	.0053
#2	.0004	-0.0002	.0001	.0004	-0.0017	.0017	.0052

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
High Limit
Low Limit

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	176200.	23302.	4855.3	10978.
Stddev	492.	1115.	51.8	99.
%RSD	.27936	4.7855	1.0670	.90413

#1	176540.	22513.	4818.7	10907.
#2	175850.	24090.	4891.9	11048.

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Sample Name: sampleconf Acquired: 5/31/2018 16:37:35 Type: Unk
Method: SGS No Valve(v129) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: : :
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	.1944	.0026	.0036	.0472	.0111	.0093	.0159	.0104	.0043
Stddev	.0002	.0000	.0000	.0001	.0007	.0003	.0001	.0002	.0001
%RSD	.0821	1.131	.6131	.1425	5.997	3.359	.7160	2.118	2.346

#1	.1943	.0026	.0036	.0471	.0106	.0090	.0158	.0105	.0044
#2	.1945	.0026	.0036	.0472	.0115	.0095	.0159	.0102	.0042

Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	.0479	.0201	.0088	.0111	.0030	.0104	.0045	.1956	4.888
Stddev	.0002	.0001	.0002	.0003	.0004	.0009	.0013	.0076	.019
%RSD	4.254	.3499	2.384	2.467	14.53	9.097	28.45	3.894	.3888

#1	.0478	.0201	.0089	.0109	.0033	.0097	.0054	.1902	4.875
#2	.0481	.0200	.0086	.0112	.0027	.0111	.0036	.2010	4.901

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	.1148	4.877	4.949	5.077	.0963	.0201	.1954	.0102	.0104
Stddev	.0051	.012	.025	.012	.0001	.0001	.0011	.0001	.0000
%RSD	4.401	.2545	.5026	.2345	.1109	.7283	.5496	1.307	.1862

#1	.1183	4.885	4.932	5.069	.0963	.0202	.1962	.0101	.0104
#2	.1112	4.868	4.967	5.085	.0962	.0200	.1947	.0103	.0104

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	.0106	.0485	.0091	.0504	.0216	.0516	.0522
Stddev	.0004	.0010	.0000	.0008	.0010	.0004	.0002
%RSD	3.686	2.092	.0798	1.556	4.563	.8407	.3906

#1	.0103	.0492	.0091	.0510	.0223	.0519	.0521
#2	.0108	.0477	.0091	.0499	.0209	.0513	.0524

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	172290.	22371.	4836.1	10781.
Stddev	784.	56.	20.1	45.
%RSD	.45490	.25176	.41465	.41746

#1	172840.	22332.	4821.9	10749.
#2	171730.	22411.	4850.3	10813.

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Sample Name: sampleconf Acquired: 5/31/2018 16:41:52 Type: Unk
Method: SGS No Valve(v129) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: : :
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Avg	.0038	.0009	.0011	.0029	.0022	-0.0005	.0030	.0039	-0.0001
Stddev	.0003	.0000	.0001	.0002	.0000	.0002	.0001	.0000	.0001
%RSD	7.973	3.465	12.64	7.802	1.843	36.40	3.829	.1945	66.13

#1	.0036	.0009	.0010	.0030	.0022	-0.0006	.0029	.0039	-0.0001
#2	.0040	.0009	.0012	.0027	.0022	-0.0004	.0031	.0039	-0.0000

Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Avg	.0017	.0096	.0022	.0014	-0.0004	.0040	-0.0000	.0884	.9928
Stddev	.0001	.0001	.0007	.0002	.0001	.0020	.0002	.0031	.0061
%RSD	3.116	.6131	34.59	11.07	33.49	50.80	826.3	3.450	.6128

#1	.0016	.0095	.0027	.0015	-0.0005	.0025	.0001	.0906	.9971
#2	.0017	.0096	.0016	.0013	-0.0003	.0054	-0.0002	.0863	.9885

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Avg	-0.0040	.1085	2.023	1.034	.0001	.0001	-0.0050	-0.0007	-0.0001
Stddev	.0014	.0102	.022	.002	.0003	.0001	.0004	.0004	.0001
%RSD	34.69	9.359	1.091	.1429	256.3	114.6	8.985	56.38	97.46

#1	-0.0050	.1157	2.038	1.033	-0.0001	.0002	-0.0046	-0.0004	-0.0001
#2	-0.0030	.1014	2.007	1.035	.0003	.0000	-0.0053	-0.0010	-0.0000

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Avg	.0002	.0008	-0.0001	-0.0014	-0.0008	-0.0000	.0047
Stddev	.0001	.0004	.0000	.0004	.0004	.0000	.0001
%RSD	33.36	48.81	3.275	32.11	52.38	7.182	3.041

#1	.0003	.0011	-0.0001	-0.0011	-0.0011	-0.0000	.0048
#2	.0002	.0005	-0.0001	-0.0017	-0.0005	-0.0000	.0046

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Avg	170700.	22358.	4837.7	10908.
Stddev	4669.	62.	33.5	61.
%RSD	2.7351	.27595	.69280	.55606

#1	174000.	22314.	4814.0	10863.
#2	167400.	22401.	4861.4	10949.

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Sample Name: CRI Acquired: 5/31/2018 16:47:44 Type: QC
Method: SGS No Valve(v129) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: : :
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1962	.0019	.0028	.0471	.0096	.0085	.0151	.0096
Stddev	.0009	.0000	.0000	.0004	.0001	.0001	.0000	.0001
%RSD	.4438	.1080	.4002	.8555	1.190	1.073	.2599	.7576

#1	.1968	.0019	.0028	.0469	.0096	.0085	.0151	.0096
#2	.1956	.0019	.0028	.0474	.0097	.0086	.0152	.0097

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
Value
Range

Elem	Ag3280	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0046	.0478	.0196	.0076	.0101	W_0023	.0092	W_0044
Stddev	.0000	.0001	.0001	.0004	.0008	.0006	.0012	.0002
%RSD	.6987	.2283	.4420	4.766	7.640	27.43	13.22	4.196

#1	.0046	.0477	.0195	.0073	.0106	.0027	.0100	.0042
#2	.0045	.0478	.0196	.0079	.0095	.0018	.0083	.0045

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
Value
Range

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1805	4.963	.0990	4.931	5.030	5.113	.0961	.0197
Stddev	.0068	.000	.0015	.034	.005	.001	.0009	.0002
%RSD	3.742	.0023	1.544	.6839	.0945	.0172	.9683	1.022

#1	.1758	4.962	.0979	4.954	5.027	5.112	.0968	.0198
#2	.1853	4.963	.1001	4.907	5.033	5.114	.0955	.0195

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
Value
Range

#1	175840.	22332.	4821.9	10749.
#2	171730.	22411.	4850.3	10813.

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Sample Name: CRI Acquired: 5/31/2018 16:47:44 Type: QC
Method: SGS No Valve(v129) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: : :
Comment:

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1952	.0094	.0097	.0102	.0488	.0083	.0472	.0215
Stddev	.0006	.0000	.0000	.0000	.0004	.0001	.0001	.0006
%RSD	.2934	.4575	.1144	.1588	.7484	.8374	.1731	2.790
#1	.1956	.0094	.0097	.0102	.0491	.0082	.0471	.0210
#2	.1947	.0094	.0097	.0102	.0485	.0083	.0473	.0219

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
Value Range

Elem	Li6707	P_1774
Units	ppm	ppm
Avg	.0506	.0516
Stddev	.0011	.0003
%RSD	2.221	.5120

#1	.0498	.0514
#2	.0514	.0518

Check ? Chk Pass Chk Pass
Value Range

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	172630.	22432.	4808.2	10738.
Stddev	716.	88.	1.6	15.
%RSD	.41465	.39194	.03403	.13820

#1	173140.	22370.	4809.4	10749.
#2	172120.	22494.	4807.1	10728.

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Sample Name: CRID Acquired: 5/31/2018 16:52:01 Type: QC
Method: SGS No Valve(v129) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: : :
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0039	.0009	.0011	.0030	.0018	-.0005	.0029	.0037
Stddev	.0001	.0001	.0001	.0004	.0000	.0000	.0000	.0001
%RSD	3.806	7.749	10.73	12.58	.3898	1.123	.3881	2.549
#1	.0038	.0008	.0010	.0028	.0018	-.0004	.0029	.0037
#2	.0040	.0009	.0012	.0033	.0019	-.0005	.0029	.0036

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass None Chk Pass Chk Pass
Value Range

Elem	Ag3280	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0002	.0019	.0096	W_ .0036	.0023	.0003	F_ .0033	-.0001
Stddev	.0000	.0001	.0001	.0008	.0012	.0001	.0014	.0018
%RSD	3.673	7.763	1.070	21.77	50.12	41.40	44.03	3321.

#1	.0002	.0018	.0095	.0031	.0015	.0002	.0043	-.0014
#2	.0002	.0020	.0096	.0042	.0031	.0004	.0023	.0012

Check ? None Chk Pass Chk Pass Chk Warn Chk Pass None Chk Fail None
Value Range 20.00% .0030 -30.00%

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0832	.9803	-.0020	.0942	2.017	1.024	-.0005	.0000
Stddev	.0042	.0269	.0001	.0174	.053	.001	.0004	.0003
%RSD	5.059	2.741	7.417	18.52	2.610	.0920	79.53	1742.

#1	.0862	.9993	-.0019	.1065	2.054	1.025	-.0002	.0002
#2	.0802	.9613	-.0021	.0818	1.979	1.023	-.0008	-.0002

Check ? Chk Pass Chk Pass None Chk Pass Chk Pass Chk Pass None None
Value Range

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Sample Name: CRID Acquired: 5/31/2018 16:52:01 Type: QC
Method: SGS No Valve(v129) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: : :
Comment:

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0038	-.0003	-.0001	.0002	.0008	-.0001	.0005	.0009
Stddev	.0004	.0003	.0000	.0001	.0008	.0001	.0026	.0007
%RSD	11.06	89.69	12.07	43.78	89.71	66.84	489.5	86.64
#1	-.0041	-.0006	-.0001	.0002	.0014	-.0001	.0024	.0003
#2	-.0035	-.0001	-.0001	.0001	.0003	-.0002	-.0013	.0014

Check ? None None None None None None None None
Value Range

Elem	Li6707	P_1774
Units	ppm	ppm
Avg	-.0009	.0037
Stddev	.0000	.0010
%RSD	1.799	28.34

#1	-.0010	.0029
#2	-.0009	.0044

Check ? None None
Value Range

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	173960.	22375.	4857.2	10936.
Stddev	797.	315.	11.0	11.
%RSD	.45838	1.4065	.22691	.10374

#1	174530.	22152.	4849.4	10928.
#2	173400.	22597.	4865.0	10944.

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Sample Name: ICSA Acquired: 5/31/2018 16:56:20 Type: QC
Method: SGS No Valve(v129) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: : :
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0009	-.0006	.0024	-.0000	-.0017	.0003	-.0029	.0001	.0009
Stddev	.0002	.0001	.0001	.0000	.0002	.0001	.0001	.0000	.0001
%RSD	18.71	12.19	5.769	206.7	14.38	14.76	3.499	14.72	15.09
#1	.0008	-.0006	.0025	-.0000	-.0016	.0004	-.0030	.0002	.0008
#2	.0011	-.0005	.0023	.0000	-.0019	.0003	-.0028	.0001	.0011

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
High Limit Low Limit

Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0010	-.0013	.0024	.0001	.0031	-.0052	.0028	521.2	370.4
Stddev	.0002	.0004	.0016	.0003	.0039	.0011	.0027	.4	4.0
%RSD	22.94	27.38	66.98	381.9	126.8	20.44	98.50	.0824	1.091

#1	-.0011	-.0015	.0013	.0003	.0003	-.0044	.0008	521.5	367.5
#2	-.0008	-.0010	.0036	-.0001	.0058	-.0059	.0047	520.9	373.3

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
High Limit Low Limit

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	180.0	495.8	2593	-.0040	-.0007	-.0016	-.0153	-.0010	.0004
Stddev	.6	2.2	.0334	.0003	.0018	.0004	.0026	.0009	.0002
%RSD	.3494	.4521	12.90	6.649	254.0	25.72	17.01	95.67	52.33

#1	179.6	494.2	2356	-.0042	-.0020	-.0013	-.0171	-.0003	.0006
#2	180.5	497.3	2829	-.0039	.0006	-.0019	-.0134	-.0016	.0003

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
High Limit Low Limit

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Sample Name: ICSA Acquired: 5/31/2018 16:56:20 Type: QC
Method: SGS No Valve(v129) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: : :
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0010	-0010	.0002	.0038	.0056	.0139	.0110
Stddev	.0001	.0022	.0001	.0059	.0012	.0004	.0025
%RSD	11.55	227.2	67.76	154.1	21.81	2.574	22.95
#1	-.0009	.0006	.0001	-.0003	.0065	.0142	.0092
#2	-.0011	-.0025	.0002	.0080	.0047	.0137	.0128

Check ? High Limit
Low Limit

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	147430.	21342.	4236.9	8757.0
Stddev	393.	223.	3.3	1.4
%RSD	.26625	1.0433	.07847	.01655

#1	147710.	21500.	4239.2	8756.0
#2	147150.	21185.	4234.5	8758.0

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Sample Name: ICSAB Acquired: 5/31/2018 17:00:42 Type: QC
Method: SGS No Valve(v129) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: : :
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4922	.4690	.9954	.4688	.4634	.4791	.4801	.9575	1.000
Stddev	.0001	.0011	.0018	.0014	.0133	.0102	.0113	.0049	.029
%RSD	.0249	.2364	.1777	.3063	2.878	2.139	2.348	.5141	2.869
#1	.4923	.4697	.9941	.4678	.4540	.4719	.4721	.9540	.9799
#2	.4922	.4682	.9966	.4698	.4729	.4864	.4881	.9610	1.021

Check ? Value
Range

Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4721	.9225	1.003	1.060	.9494	1.079	1.030	.497.6	370.4
Stddev	.0120	.0020	.001	.011	.0054	.000	.000	4.6	5.8
%RSD	2.534	.2148	.0756	.9886	.5681	.0335	.0197	.9222	1.559

#1	.4637	.9211	1.002	1.052	.9456	1.079	1.030	500.8	374.5
#2	.4806	.9239	1.003	1.067	.9533	1.079	1.030	494.3	366.3

Check ? Value
Range

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	192.0	491.4	.1784	.0002	.4783	.4759	.4986	.4531	.5266
Stddev	.2	1.9	.0350	.0029	.0008	.0012	.0005	.0026	.0007
%RSD	.1170	.3945	19.64	1809.	.1614	.2568	.1073	.5735	.1258

#1	192.1	492.8	.1536	.0022	.4778	.4751	.4983	.4550	.5271
#2	191.8	490.1	.2032	-.0019	.4788	.4768	.4990	.4513	.5261

Check ? Value
Range

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Sample Name: ICSAB Acquired: 5/31/2018 17:00:42 Type: QC
Method: SGS No Valve(v129) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: : :
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4912	.4685	.4664	.4881	.5104	.5252	.4929
Stddev	.0141	.0021	.0121	.0044	.0001	.0021	.0006
%RSD	2.874	.4410	2.589	.9047	.0165	.3911	.1214
#1	.4812	.4671	.4578	.4850	.5104	.5267	.4933
#2	.5012	.4700	.4749	.4913	.5105	.5238	.4925

Check ? Value
Range

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	147720.	21401.	4158.4	8669.4
Stddev	3039.	83.	1.8	18.5
%RSD	2.0573	.38937	.04280	.21356

#1	149870.	21342.	4157.1	8682.5
#2	145570.	21460.	4159.6	8656.3

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Sample Name: ccv Acquired: 5/31/2018 17:04:57 Type: QC
Method: SGS No Valve(v129) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: : :
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.966	1.941	1.915	1.932	1.965	1.912	1.998	1.979	.2443
Stddev	.001	.003	.003	.001	.027	.024	.028	.003	.0034
%RSD	.0495	.1286	.1315	.0515	1.361	1.237	1.412	.1648	1.411
#1	1.965	1.939	1.917	1.932	1.984	1.929	2.018	1.981	.2467
#2	1.966	1.942	1.913	1.931	1.946	1.896	1.978	1.976	.2418

Check ? Value
Range

Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.946	1.940	1.895	2.010	1.992	1.891	1.890	38.52	38.65
Stddev	.025	.006	.009	.002	.004	.006	.005	.04	.10
%RSD	1.263	.3343	.4749	.1148	.2007	.2958	.2921	.1053	.2506

#1	1.963	1.944	1.901	2.012	1.995	1.894	1.893	38.50	38.78
#2	1.928	1.935	1.888	2.009	1.989	1.887	1.886	38.55	38.92

Check ? Value
Range

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	38.84	38.42	39.46	40.24	1.952	1.937	4.904	1.938	1.978
Stddev	.04	.06	.01	.00	.000	.005	.006	.003	.002
%RSD	.0981	.1591	.0222	.0015	.0202	.2738	.1281	.1460	.0912

#1	38.81	38.37	39.45	40.24	1.953	1.940	4.908	1.940	1.976
#2	38.87	38.46	39.46	40.24	1.952	1.933	4.900	1.936	1.979

Check ? Value
Range

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Sample Name: ccv Acquired: 5/31/2018 17:04:57 Type: QC
Method: SGS No Valve(v129) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: : :
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.021	1.914	1.936	1.885	1.946	1.952	1.898
Stddev	.026	.005	.025	.006	.007	.000	.008
%RSD	1.269	.2390	1.271	.3257	.3518	.0219	.4377
#1	2.040	1.917	1.953	1.889	1.951	1.952	1.904
#2	2.003	1.910	1.918	1.880	1.941	1.951	1.892

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
Value
Range

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	161970.	21917.	4644.1	9887.1
Stddev	2298.	52.	20.6	25.2
%RSD	1.4189	.23623	.44329	.25504
#1	160340.	21954.	4629.5	9869.3
#2	163590.	21881.	4658.6	9904.9

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Sample Name: ccb Acquired: 5/31/2018 17:09:01 Type: QC
Method: SGS No Valve(v129) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: : :
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000	.0000	.0003	.0003	.0000	.0001	.0000	.0000	.0000
Stddev	.0000	.0000	.0001	.0002	.0000	.0000	.0000	.0002	.0003
%RSD	137.2	332.6	29.10	66.05	168.3	31.55	62.11	3058.	3816.
#1	.0001	.0000	.0002	.0004	.0001	.0001	.0000	.0001	.0002
#2	.0000	.0000	.0003	.0002	.0000	.0002	.0001	.0001	.0002

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
High Limit
Low Limit

Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000	.0011	.0010	.0006	.0000	.0020	.0005	.0116	.0027
Stddev	.0003	.0001	.0002	.0004	.0006	.0014	.0004	.0011	.0017
%RSD	11650.	6.382	22.61	61.21	2439.	69.08	92.74	9.789	60.84
#1	.0002	.0010	.0012	.0003	.0004	.0010	.0008	.0108	.0016
#2	.0002	.0011	.0008	.0008	.0004	.0030	.0002	.0124	.0039

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
High Limit
Low Limit

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0012	.0044	.0124	.0086	.0003	.0002	.0008	.0006	.0001
Stddev	.0004	.0164	.0022	.0038	.0001	.0001	.0002	.0004	.0000
%RSD	34.21	370.8	18.02	44.35	30.29	30.58	23.83	78.10	28.50
#1	.0015	.0160	.0108	.0059	.0002	.0002	.0006	.0009	.0001
#2	.0009	.0072	.0140	.0113	.0004	.0003	.0009	.0003	.0001

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
High Limit
Low Limit

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Sample Name: ccb Acquired: 5/31/2018 17:09:01 Type: QC
Method: SGS No Valve(v129) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: : :
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0003	.0005	.0000	.0001	.0003	.0004	.0046
Stddev	.0001	.0008	.0000	.0030	.0011	.0018	.0007
%RSD	34.51	163.8	60.98	4041.	326.5	505.8	15.95
#1	.0002	.0010	.0000	.0022	.0004	.0009	.0052
#2	.0004	.0001	.0000	.0020	.0011	.0017	.0041

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
High Limit
Low Limit

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	174790.	22439.	4861.9	11005.
Stddev	92.	172.	5.2	20.
%RSD	.05272	.76827	.10718	.17970
#1	174850.	22317.	4858.2	10991.
#2	174720.	22561.	4865.6	11019.

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Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
Ba 455.403 { 74}	☒	1	Zr	0.000000	0.000000	No
Be 313.042 {108}	☒	11	V	0.000344	0.000000	No
			Mo	-0.000067	0.000000	No
			Ti	-0.000855	0.000000	No
			Mn	-0.000015	0.000000	No
			Cu	-0.000008	0.000000	No
			Zn	-0.000010	0.000000	No
			Al	0.000001	0.000000	No
			Ni	-0.000050	0.000000	No
			Cr	0.000003	0.000000	No
			Fe	-0.000000	0.000000	No
			Mg	-0.000000	0.000000	No
Cd 228.802 {448}	☒	11	As	0.021798	0.000000	No
			Ni	-0.001057	0.000000	No
			Fe	0.000003	0.000000	No
			V	0.000110	0.000000	No
			Ba	0.000021	0.000000	No
			Co	-0.000529	0.000000	No
			Mn	0.000013	0.000000	No
			Cr	-0.000010	0.000000	No
			Cu	-0.000009	0.000000	No
			Ti	0.000000	0.000000	No
			Mo	0.000030	0.000000	No
Co 228.616 {448}	☒	7	Cr	0.000051	0.000000	No
			Mo	-0.001550	0.000000	No
			Ni	0.000091	0.000000	No
			Ti	0.002190	0.000000	No
			W	0.000160	0.000000	No
			Cd	0.000012	0.000000	No
			Be	0.000100	0.000000	No
Cr 267.716 {126}	☒	7	Mn	0.000160	0.000000	No
			Mo	-0.000099	0.000000	No
			Ba	0.000013	0.000000	No
			Cu	0.000020	0.000000	No
			Sr	-0.000100	0.000000	No
			Fe	-0.000001	0.000000	No
			W	0.000000	0.000000	No
Cu 324.754 {104}2	☒	15	Cr	0.000056	0.000000	No
			V	-0.000273	0.000000	No
			Mo	0.000515	0.000000	No
			Ti	-0.000046	0.000000	No
			Fe	-0.000110	0.000000	No
			Sn	0.000303	0.000000	No
			Co	-0.000831	0.000000	No
			Zr	-0.000330	0.000000	No
			Si	-0.000007	0.000000	No
			Ag	-0.000077	0.000000	No
			Sb	0.000010	0.000000	No
			B	0.000000	0.000000	No
			Mg	-0.000001	0.000000	No
			Al	0.000002	0.000000	No
			W	0.000000	0.000000	No
Mn 257.610 {131}	☒	6	Fe	-0.000045	0.000000	No
			Si	0.000011	0.000000	No
			Ba	0.000012	0.000000	No
			Ni	0.000028	0.000000	No
			Mo	0.000000	0.000000	No

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
Ni 231.604 {446}	☒	10	Cr	-0.000110	0.000000	No
			Fe	0.000034	0.000000	No
			Zn	-0.000021	0.000000	No
			Be	-0.000112	0.000000	No
			Co	0.000122	0.000000	No
			Ti	0.000209	0.000000	No
			Mo	-0.000137	0.000000	No
			V	-0.000032	0.000000	No
			Cu	0.000078	0.000000	No
			Se	0.000286	0.000000	No
Ag 328.068 {103}	☒	15	Sn	-0.000026	0.000000	No
			Mn	0.000162	0.000000	No
			Mo	-0.000081	0.000000	No
			Ti	-0.000215	0.000000	No
			Fe	-0.000021	0.000000	No
			V	0.000025	0.000000	No
			Zn	0.000010	0.000000	No
			Ca	0.000001	0.000000	No
			Al	-0.000001	0.000000	No
			Ba	-0.000095	0.000000	No
V 292.402 {115}	☒	6	Cr	0.000016	0.000000	No
			Si	-0.000000	0.000000	No
			Zr	0.004920	0.000000	No
			W	0.000000	0.000000	No
			Sn	0.000095	0.000000	No
			Ni	0.000020	0.000000	No
			Ti	0.000734	0.000000	No
			Mo	-0.010899	0.000000	No
			Sr	0.000000	0.000000	No
			Cr	-0.004503	0.000000	No
Zn 206.200 {464}	☒	14	Mn	-0.001137	0.000000	No
			Fe	0.000006	0.000000	No
			Cr	-0.001272	0.000000	No
			Mo	-0.000125	0.000000	No
			Fe	0.000015	0.000000	No
			Si	0.000010	0.000000	No
			Ba	0.000108	0.000000	No
			Sr	-0.000023	0.000000	No
			Sn	0.000069	0.000000	No
			Cu	0.001356	0.000000	No
As 189.042 {478}	☒	22	As	0.000449	0.000000	No
			Be	0.000071	0.000000	No
			Bi	-0.002000	0.000000	No
			Mn	0.000055	0.000000	No
			W	0.000000	0.000000	No
			Al	0.000012	0.000000	No
			Al	0.000004	0.000000	No
			Fe	-0.000143	0.000000	No
			Ca	-0.000010	0.000000	No
			Mn	-0.000092	0.000000	No
			Mo	0.002087	0.000000	No
			Cr	0.000998	0.000000	No
			V	0.000033	0.000000	No
			Co	-0.000595	0.000000	No
			Sn	-0.000151	0.000000	No
			Cd	0.000092	0.000000	No
			Ti	0.000150	0.000000	No

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
			Si	-0.000100	0.000000	No
			Zn	0.000030	0.000000	No
			Sr	-0.000090	0.000000	No
			Zr	-0.000100	0.000000	No
			Ti	-0.000176	0.000000	No
			Cu	0.000100	0.000000	No
			Ag	0.000300	0.000000	No
			Mg	-0.000001	0.000000	No
			W	0.001000	0.000000	No
			S	-0.000012	0.000000	No
Tl 190.856 {477}	☒	24	B	0.000080	0.000000	No
			Cr	0.000371	0.000000	No
			Mo	-0.005177	0.000000	No
			Al	0.000003	0.000000	No
			Fe	-0.000062	0.000000	No
			V	-0.026033	0.000000	No
			Mn	0.001232	0.000000	No
			Si	0.000003	0.000000	No
			Ca	0.000004	0.000000	No
			Ti	-0.001819	0.000000	No
			Mg	-0.000001	0.000000	No
			Co	0.006418	0.000000	No
			Sr	-0.000060	0.000000	No
			B	-0.000164	0.000000	No
			Ba	0.000150	0.000000	No
			Zn	-0.000148	0.000000	No
			As	0.000005	0.000000	No
			Ni	-0.000004	0.000000	No
			Pb	-0.000017	0.000000	No
			S	-0.000010	0.000000	No
			W	0.000000	0.000000	No
			K	0.000000	0.000000	No
			Sn	-0.000200	0.000000	No
			Ag	0.000700	0.000000	No
			Cu	0.000015	0.000000	No
Pb 220.353 {453}	☒	22	Al	-0.000173	0.000000	No
			Fe	0.000045	0.000000	No
			Ca	0.000003	0.000000	No
			Mn	0.000023	0.000000	No
			Zn	-0.000036	0.000000	No
			Mo	-0.001078	0.000000	No
			Cu	0.000373	0.000000	No
			V	-0.000093	0.000000	No
			Co	0.000279	0.000000	No
			Ti	-0.000665	0.000000	No
			Si	0.000092	0.000000	No
			Ba	-0.000012	0.000000	No
			Sb	-0.000190	0.000000	No
			Sr	0.000070	0.000000	No
			W	0.000000	0.000000	No
			Cd	-0.000018	0.000000	No
			Cr	-0.000718	0.000000	No
			Zr	-0.000279	0.000000	No
			Ni	0.000315	0.000000	No
			S	0.000000	0.000000	No
			B	0.000000	0.000000	No
			Mg	0.000002	0.000000	No

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
Se 196.090 {472}	☒	21	Al	0.000005	0.000000	No
			Ca	-0.000015	0.000000	No
			Mn	0.000407	0.000000	No
			Mo	0.000153	0.000000	No
			Fe	-0.000182	0.000000	No
			Co	-0.000173	0.000000	No
			V	-0.000018	0.000000	No
			Sr	0.000042	0.000000	No
			Si	-0.000156	0.000000	No
			Tl	-0.000520	0.000000	No
			Be	-0.000543	0.000000	No
			Zn	0.000095	0.000000	No
			B	0.000150	0.000000	No
			Ti	-0.000122	0.000000	No
			Cd	0.000090	0.000000	No
			Zr	-0.000053	0.000000	No
			Ba	-0.000219	0.000000	No
			Mg	0.000000	0.000000	No
			Cr	-0.000107	0.000000	No
			S	-0.000001	0.000000	No
			W	0.000000	0.000000	No
Sb 206.833 {463}	☒	14	Fe	-0.000018	0.000000	No
			Al	0.000007	0.000000	No
			Ca	-0.000002	0.000000	No
			Ni	-0.000371	0.000000	No
			Cr	0.014086	0.000000	No
			V	-0.002731	0.000000	No
			Zn	-0.000176	0.000000	No
			Mo	0.000548	0.000000	No
			Ti	0.000270	0.000000	No
			Sn	-0.010957	0.000000	No
			Mg	-0.000003	0.000000	No
			Zr	-0.000089	0.000000	No
			Sr	0.000251	0.000000	No
			W	0.000000	0.000000	No
Al 396.152 {85}	☒	5	Si	0.000378	0.000000	No
			Ca	0.000048	0.000000	No
			Mo	0.041057	0.000000	No
			Zr	0.006900	0.000000	No
Ca 317.933 {106}	☒	14	Ti	-0.000017	0.000000	No
			Fe	0.000130	0.000000	No
			W	0.003960	0.000000	No
			Tl	0.004948	0.000000	No
			Be	0.001840	0.000000	No
			Ba	0.003500	0.000000	No
			Cu	-0.001800	0.000000	No
			Cd	0.003700	0.000000	No
			Ni	0.001513	0.000000	No
			B	-0.000210	0.000000	No
			Se	0.002000	0.000000	No
			Co	0.000540	0.000000	No
			Cr	0.000640	0.000000	No
			Al	0.000026	0.000000	No
Fe 259.940 {130}	☒	8	As	0.002488	0.000000	No
			Cr	-0.000566	0.000000	No
			Mn	-0.000025	0.000000	No
			V	-0.000064	0.000000	No

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
			Cu	0.001043	0.000000	No
			Zn	0.000046	0.000000	No
			Ti	-0.000631	0.000000	No
			Ca	-0.000020	0.000000	No
			Ba	-0.009000	0.000000	No
Mg 279.079 {121}	☒	2	Mo	-0.017699	0.000000	No
			Ti	-0.014200	0.000000	No
K 766.490 { 44}	☒	10	Al	-0.000023	0.000000	No
			Ca	-0.000071	0.000000	No
			Mn	0.001430	0.000000	No
			Si	-0.003000	0.000000	No
			V	-0.002000	0.000000	No
			Sn	-0.004700	0.000000	No
			Ba	-0.002700	0.000000	No
			Mo	0.007150	0.000000	No
			Cu	-0.010000	0.000000	No
			Ni	-0.010000	0.000000	No
Na 589.592 { 57}	☒	5	K	-0.000560	0.000000	No
			Ba	0.000900	0.000000	No
			Ca	0.000055	0.000000	No
			Al	0.000040	0.000000	No
			V	-0.005000	0.000000	No
B 208.959 {462}	☒	1	Mo	0.029207	0.000000	No
Mo 202.030 {467}	☒	1	Fe	-0.000010	0.000000	No
Si 212.412 {459}	☒	13	Sr	0.000366	0.000000	No
			Ni	0.000106	0.000000	No
			Mo	0.031809	0.000000	No
			V	0.037760	0.000000	No
			Ti	0.006229	0.000000	No
			Al	0.000009	0.000000	No
			Cd	0.001043	0.000000	No
			Ba	0.000170	0.000000	No
			Sn	0.008217	0.000000	No
			Zn	0.000385	0.000000	No
			As	0.000140	0.000000	No
			Pb	0.000471	0.000000	No
			Ca	0.000007	0.000000	No
Sn 189.989 {478}	☒	5	Ti	-0.001861	0.000000	No
			Mo	0.000011	0.000000	No
			Si	-0.000009	0.000000	No
			Fe	0.000000	0.000000	No
			W	0.000000	0.000000	No
Sr 407.771 { 83}	☒	1	Ca	0.000034	0.000000	No
Ti 334.904 {101}	☒	3	Cr	0.000069	0.000000	No
			Mo	0.001400	0.000000	No
			Si	0.000035	0.000000	No
Y 360.073 { 94}* Y 371.030 { 91}* Y 224.306 {451}* In 230.606 {446}* W 207.911 {462}	☒ ☒ ☒ ☒ ☒	None None None None 18				
			As	-0.000459	0.000000	No
			Mn	-0.000110	0.000000	No
			Mo	-0.000300	0.000000	No
			Sr	-0.000850	0.000000	No
			V	-0.000140	0.000000	No
			Cd	-0.000650	0.000000	No
			Cr	-0.000390	0.000000	No

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
			Zn	0.009921	0.000000	No
			Sn	0.001300	0.000000	No
			Zr	-0.002570	0.000000	No
			Sb	-0.000200	0.000000	No
			Co	0.000041	0.000000	No
			Ni	-0.000263	0.000000	No
			Be	-0.000130	0.000000	No
			Se	-0.002600	0.000000	No
			Cu	-0.000118	0.000000	No
			Ba	-0.000090	0.000000	No
			Ti	-0.000110	0.000000	No
Zr 339.198 { 99}	☒	6	Mo	0.001030	0.000000	No
			Fe	-0.000070	0.000000	No
			Si	0.000538	0.000000	No
			Ti	0.000894	0.000000	No
			V	0.000120	0.000000	No
			W	0.025000	0.000000	No
S 182.034 {485}	☒	9	Ca	0.000037	0.000000	No
			Mo	-0.003780	0.000000	No
			Al	-0.000141	0.000000	No
			Fe	0.000000	0.000000	No
			Mn	0.004210	0.000000	No
			Zn	-0.001538	0.000000	No
			Cd	-0.001300	0.000000	No
			W	0.000000	0.000000	No
			Mg	0.000100	0.000000	No
Bi 223.061 {451}	☒	9	V	-0.000380	0.000000	No
			Co	-0.003715	0.000000	No
			Mg	-0.000002	0.000000	No
			W	-0.003914	0.000000	No
			Cu	-0.000858	0.000000	No
			Fe	0.000129	0.000000	No
			Cr	0.001500	0.000000	No
			Ti	-0.032848	0.000000	No
			Mo	-0.000200	0.000000	No
Li 670.784 { 50}	☒	1	Ca	-0.000003	0.000000	No
P 177.495 {490}	☒	None				

Element, Wavelength and Order	Date of Fit	Date of Cal.	Type of Fit	Weighting	A0	A1	A2	n (Exponent)
Ba 455.403 { 74}	6/1/2018 8:34:27	5/31/2018 12:17:47	Linear	None	0.004954	1.831102	0.000000	1.000000
Be 313.042 {108}	6/1/2018 8:34:27	5/31/2018 12:17:47	Linear	None	0.000251	2.107427	0.000000	1.000000
Cd 228.802 {448}	6/1/2018 8:34:27	5/31/2018 12:17:47	Linear	None	0.000202	1.115098	0.000000	1.000000
Co 228.616 {448}	6/1/2018 8:34:27	5/31/2018 12:17:47	Linear	None	-0.000210	0.580469	0.000000	1.000000
Cr 267.716 {126}	6/1/2018 8:34:27	5/31/2018 12:17:47	Linear	None	-0.000063	0.107709	0.000000	1.000000
Cu 324.754 {104}2	6/1/2018 8:34:27	5/31/2018 12:17:47	Linear	None	0.002769	0.289519	0.000000	1.000000
Mn 257.610 {131}	6/1/2018 8:34:27	5/31/2018 12:17:47	Linear	None	0.000069	0.677908	0.000000	1.000000
Ni 231.604 {446}	6/1/2018 8:34:27	5/31/2018 12:17:47	Linear	None	0.000057	0.390432	0.000000	1.000000
Ag 328.068 {103}	6/1/2018 8:34:27	5/31/2018 12:17:47	Linear	None	-0.000081	0.138146	0.000000	1.000000
V 292.402 {115}	6/1/2018 8:34:27	5/31/2018 12:17:47	Linear	None	-0.000015	0.151629	0.000000	1.000000
Zn 206.200 {464}	6/1/2018 8:34:27	5/31/2018 12:17:47	Linear	None	0.000649	1.135138	0.000000	1.000000
As 189.042 {478}	6/1/2018 8:34:27	5/31/2018 12:17:47	Linear	None	-0.000314	0.102505	0.000000	1.000000
Tl 190.856 {477}	6/1/2018 8:34:27	5/31/2018 12:17:47	Linear	None	-0.000079	0.049272	0.000000	1.000000
Pb 220.353 {453}	6/1/2018 8:34:27	5/31/2018 12:17:47	Linear	None	-0.000023	0.147159	0.000000	1.000000
Se 196.090 {472}	6/1/2018 8:34:27	5/31/2018 12:17:47	Linear	None	0.000226	0.079779	0.000000	1.000000
Sb 206.833 {463}	6/1/2018 8:34:27	5/31/2018 12:17:47	Linear	None	0.000190	0.168254	0.000000	1.000000
Al 396.152 { 85}	6/1/2018 8:34:27	5/31/2018 12:17:47	Linear	None	0.001447	0.038326	0.000000	1.000000
Ca 317.933 {106}	6/1/2018 8:34:27	5/31/2018 12:17:47	Linear	None	0.006765	0.060377	0.000000	1.000000
Fe 259.940 {130}	6/1/2018 8:34:27	5/31/2018 12:17:47	Linear	None	0.000159	0.039018	0.000000	1.000000
Mg 279.079 {121}	6/1/2018 8:34:27	5/31/2018 12:17:47	Linear	None	-0.000024	0.004967	0.000000	1.000000
K 766.490 { 44}	6/1/2018 8:34:27	5/31/2018 12:17:47	Linear	None	0.002530	0.026162	0.000000	1.000000
Na 589.592 { 57}	6/1/2018 8:34:27	5/31/2018 12:17:47	Linear	None	-0.001538	0.077595	0.000000	1.000000
B 208.959 {462}	6/1/2018 8:34:27	5/31/2018 12:17:47	Linear	None	0.000381	0.197049	0.000000	1.000000
Mo 202.030 {467}	6/1/2018 8:34:27	5/31/2018 12:17:47	Linear	None	-0.000443	0.769654	0.000000	1.000000
Si 212.412 {459}	6/1/2018 8:34:27	5/31/2018 12:17:47	Linear	None	0.002892	0.203697	0.000000	1.000000
Sn 189.989 {478}	6/1/2018 8:34:27	5/31/2018 12:17:47	Linear	None	0.000281	0.181865	0.000000	1.000000
Sr 407.771 { 83}	6/1/2018 8:34:27	5/31/2018 12:17:47	Linear	None	-0.001037	4.095277	0.000000	1.000000
Ti 334.904 {101}	6/1/2018 8:34:27	5/31/2018 12:17:47	Linear	None	0.000084	0.138561	0.000000	1.000000
Y 360.073 { 94}*	6/1/2018 8:34:27	12/23/2009 10:44:16	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
Y 371.030 { 91}*	6/1/2018 8:34:27	12/23/2009 10:44:16	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
Y 224.306 {451}*	6/1/2018 8:34:27	12/23/2009 10:44:16	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
In 230.606 {446}*	6/1/2018 8:34:27	12/23/2009 10:44:16	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
W 207.911 {462}	6/1/2018 8:34:27	5/31/2018 12:17:47	Linear	None	-0.000480	0.374569	0.000000	1.000000
Zr 339.198 { 99}	6/1/2018 8:34:27	5/31/2018 12:17:47	Linear	None	-0.000323	0.383045	0.000000	1.000000
S 182.034 {485}	6/1/2018 8:34:27	5/31/2018 12:17:47	Linear	None	-0.000562	0.048312	0.000000	1.000000
Bi 223.061 {451}	6/1/2018 8:34:27	5/31/2018 12:17:47	Linear	None	-0.000235	0.237514	0.000000	1.000000
Li 670.784 { 50}	6/1/2018 8:34:27	5/31/2018 12:17:47	Linear	None	0.000168	0.478287	0.000000	1.000000
P 177.495 {490}	6/1/2018 8:34:27	5/31/2018 12:17:47	Linear	None	-0.006605	0.117923	0.000000	1.000000

Element, Wavelength and Order	Correlation	Std Error of Est	Predicted MDL	Predicted MQL	Status	Reslope		QC Norm	
						Slope	Y-int	Slope factor	Offset
Ba 455.403 { 74}	1.000000	0.000000	0.000217	0.000724	OK	1.000000	0.000000	1	0
Be 313.042 {108}	1.000000	0.000000	0.000083	0.000276	OK	1.000000	0.000000	1	0
Cd 228.802 {448}	1.000000	0.000000	0.000233	0.000777	OK	1.000000	0.000000	1	0
Co 228.616 {448}	1.000000	0.000000	0.000310	0.001032	OK	1.000000	0.000000	1	0
Cr 267.716 {126}	1.000000	0.000000	0.000344	0.001147	OK	1.000000	0.000000	1	0
Cu 324.754 {104}2	1.000000	0.000000	0.000308	0.001028	OK	1.000000	0.000000	1	0
Mn 257.610 {131}	1.000000	0.000000	0.000049	0.000163	OK	1.000000	0.000000	1	0
Ni 231.604 {446}	1.000000	0.000000	0.000408	0.001360	OK	1.000000	0.000000	1	0
Ag 328.068 {103}	1.000000	0.000000	0.000539	0.001796	OK	1.000000	0.000000	1	0
V 292.402 {115}	1.000000	0.000000	0.000308	0.001026	OK	1.000000	0.000000	1	0
Zn 206.200 {464}	1.000000	0.000000	0.000184	0.000615	OK	1.000000	0.000000	1	0
As 189.042 {478}	1.000000	0.000000	0.001845	0.006151	OK	1.000000	0.000000	1	0
Tl 190.856 {477}	1.000000	0.000000	0.001658	0.005526	OK	1.000000	0.000000	1	0
Pb 220.353 {453}	1.000000	0.000000	0.001498	0.004992	OK	1.000000	0.000000	1	0
Se 196.090 {472}	1.000000	0.000000	0.002670	0.008901	OK	1.000000	0.000000	1	0
Sb 206.833 {463}	1.000000	0.000000	0.001663	0.005543	OK	1.000000	0.000000	1	0
Al 396.152 { 85}	1.000000	0.000000	0.009652	0.032175	OK	1.000000	0.000000	1	0
Ca 317.933 {106}	1.000000	0.000000	0.003229	0.010762	OK	1.000000	0.000000	1	0
Fe 259.940 {130}	1.000000	0.000000	0.002572	0.008574	OK	1.000000	0.000000	1	0
Mg 279.079 {121}	1.000000	0.000000	0.023643	0.078809	OK	1.000000	0.000000	1	0
K 766.490 { 44}	1.000000	0.000000	0.028893	0.096309	OK	1.000000	0.000000	1	0
Na 589.592 { 57}	1.000000	0.000000	0.009344	0.031147	OK	1.000000	0.000000	1	0
B 208.959 {462}	1.000000	0.000000	0.000972	0.003239	OK	1.000000	0.000000	1	0
Mo 202.030 {467}	1.000000	0.000000	0.000312	0.001041	OK	1.000000	0.000000	1	0
Si 212.412 {459}	1.000000	0.000000	0.001408	0.004693	OK	1.000000	0.000000	1	0
Sn 189.989 {478}	1.000000	0.000000	0.000866	0.002885	OK	1.000000	0.000000	1	0
Sr 407.771 { 83}	1.000000	0.000000	0.000082	0.000273	OK	1.000000	0.000000	1	0
Ti 334.904 {101}	1.000000	0.000000	0.000383	0.001277	OK	1.000000	0.000000	1	0
Y 360.073 { 94}*	0.000000	0.000000	-1.000000	-1.000000	Warnin	1.000000	0.000000	1	0
Y 371.030 { 91}*	0.000000	0.000000	-1.000000	-1.000000	Warnin	1.000000	0.000000	1	0
Y 224.306 {451}*	0.000000	0.000000	-1.000000	-1.000000	Warnin	1.000000	0.000000	1	0
In 230.606 {446}*	0.000000	0.000000	-1.000000	-1.000000	Warnin	1.000000	0.000000	1	0
W 207.911 {462}	1.000000	0.000000	0.001278	0.004259	OK	1.000000	0.000000	1	0
Zr 339.198 { 99}	1.000000	0.000000	0.000174	0.000579	OK	1.000000	0.000000	1	0
S 182.034 {485}	1.000000	0.000000	0.003570	0.011902	OK	1.000000	0.000000	1	0
Bi 223.061 {451}	1.000000	0.000000	0.001652	0.005507	OK	1.000000	0.000000	1	0
Li 670.784 { 50}	1.000000	0.000000	0.001577	0.005257	OK	1.000000	0.000000	1	0
P 177.495 {490}	1.000000	0.000000	0.001568	0.005225	OK	1.000000	0.000000	1	0



Mercury Digestion Log

Product: HG /HGLIQ

Matrix: Soil

MA Batch #: MA44553

Analyst: DP

Date: 5/31/2018

Balance ID: B24

Reagents: See attached sheet

Auto pipet ID: M72

Method: SW846 7471B

Required corrected Temp. Range is 95C. +/- 3C.

Hot Block # 7 Start Time: 8:30 End Time: 10:30 Tube # 1-27Start Temp: 97C Corrected Start Temp: 94C Correction: -3 Thermometer ID: W5688End Temp: 97C Corrected End Temp: 94C Correction: -3 Thermometer ID: W5688

Bot #	Sample ID	Initial Sample Wt. (am)	Final Vol. (ml)	Spike Used		Spike lot and Conc. (mg/L)	MP Number	Comments/Lot # and Vendor
				Amount Spiked	Added Y or N			
1	ICV (External)		100	3.0 ml	Y	0.1		HG-18-136-324-HGB1, Ultra Scientific
2	ICB		100					
ccv	CCV		100	2.5 ml	Y	0.1		HG-18-136-322-HGA1, Inorganic Ventures
ccB	CCB		100					
3	CRI		100	2.0 ml	Y	0.01		HG-18-136-323-HGA2, Inorganic Ventures
4	MP7406-MB1	0.6005	100				MP7406	SW846 7471B
5	MP7406-B1	0.6003	100	2.0 ml	Y	0.1		HG-18-136-322-HGA1, Inorganic Ventures
6	MP7406-S1	0.6171	100	2.0 ml	Y	0.1		JC66951-3, HG-18-136-322-HGA1, (IV)
7	MP7406-S2	0.6151	100	2.0 ml	Y	0.1		JC66951-3, HG-18-136-322-HGA1, (IV)
8	JC66951-3	0.6154	100					
9	JC66951-1	0.6226	100					
10	JC66951-2	0.6710	100					
11	JC66951-4	0.6281	100					
12	JC66951-5	0.6458	100					
ccv	CCV		100	2.5 ml	Y	0.1		HG-18-136-322-HGA1, Inorganic Ventures
ccB	CCB		100					
13	JC66951-6	0.6376	100					
14	JC66951-7	0.6365	100					
15	JC66951-8	0.6506	100					
16	JC66957-1A	0.6533	100					
17	JC66957-2A	0.6363	100					
18	JC66934-1	0.6657	100					
19	TD21772-1	0.6526	100					
20	JC66974-1	1.0136	100					MUDDY
21	JC66974-2	1.0082	100					MUDDY
22	JC66992-1	0.6755	100					
ccv	CCV		100	2.5 ml	Y	0.1		HG-18-136-322-HGA1, Inorganic Ventures
ccB	CCB		100					
23	JC66992-2	0.6301	100					
24	JC66992-3	0.6761	100					
25	JC66992-4	0.6715	100					
26	JC66992-5	0.6435	100					
27	JC66992-6	0.6696	100					
28			100					
29			100					
30			100					
31			100					
32			100					
ccv	CCV		100	2.5 ml	Y	0.1		HG-18-136-322-HGA1, Inorganic Ventures
ccB	CCB		100					

Form: HG-022F-02
Revision Date: 08/24/15ANALYST: DP
SPIKE WITNESS: RP
QC REVIEWER: QDATE: 5/31/18
DATE: 5/31/18
DATE: 5/31/18

Mercury Digestion Log

Product: HG /HGLIQ

Matrix: Soil

MA Batch #: MA44553

Analyst: _____ DP

Date: 5/31/2018

Balance ID: B24

Reagents: See attached sheet

Auto pipet ID: M72

Method: SW846 7471B

Required corrected Temp. Range is 95C. +/- 3 C.

Hot Block # 7 Start Time: 8:30 End Time: 10:30 Tube # 1-6

Start Temp: 97°C Corrected Start Temp: 94°C Correction: -3 Thermometer ID: 4156488

End Temp: 97°C Corrected End Temp: 94°C Correction: -3 Thermometer ID: 4156488

[illegible]

Form: HG-022F-02

Revision Date:08/24/15

ANALYST: DP

QC REVIEWER:

DATE: 5/31/18

DATE: _____
DATE: _____



Reagent Information Log- Hg Soil

MA # MA44553

Reagents	Exp. Date	Reagent # or manufacturer lot #
<u>Conc. Sulfuric Acid</u>	<u>5/22/2018</u>	<u>Fisher -177436</u>
<u>Conc. Nitric Acid</u>	<u>5/26/2018</u>	<u>Baker - 193289</u>
<u>Sodium Chloride-Hydroxylamine Hydrochloride</u>	<u>11/30/2018</u>	<u>HG-18-136 320 -HGHCL</u>
<u>Potassium Permanganate</u>	<u>11/30/2018</u>	<u>HG-18-136 318 -HGKM2</u>
<u>Stannous Chloride</u>	<u>6/1/2018</u>	<u>HG-18-136 325 -HGS</u>
<u>STD Hg standard solution 1000 ppm</u>	<u>3/1/2019</u>	<u>Inorganic Ventures K2-HG653768</u>
<u>STD Hg standard solution 100 ppb</u>	<u>6/1/2018</u>	<u>HG-18-136 322 -HGA1</u>
<u>STD Hg standard solution 10 ppb</u>	<u>6/1/2018</u>	<u>HG-18-136 323 -HGA2</u>
<u>ICV Hg standard solution 1000 ppm</u>	<u>6/30/2021</u>	<u>Ultra T00601</u>
<u>ICV Hg standard solution 100 ppb</u>	<u>6/1/2018</u>	<u>HG-17-132 324 -HGB1</u>
<u>Solid Lab control/Soil LC</u>	<u>9/30/2018</u>	<u>ERA D091-540</u>
<u>Aqua Regia</u>	<u>6/1/2018</u>	<u>HG-18-136 326 -HGKAQ</u>
<u>Dilution acid</u>	<u>11/30/2018</u>	<u>HG-18-136 321 -HGD1</u>
<u>Digestion Tubes</u>	<u>N/A</u>	<u>Environmental Express 1802043</u>
<u>Teflon Chips (For Soil MB)</u>	<u>N/A</u>	<u>Saint Gobain, Lot: 0919120</u>

Form: GN087A80-04

Rev.Date: 06/06/17

Solids/Soil Metals Digestion Form

Batch Information							
Batch ID	Start Date	Start Time	End Date	End time	QC Samp 1	QC Samp 2	
MP7388	5/30/2018	16:35	5/30/2018	2100	JC66684-1		
Temperature							
		Block ID	Therm. ID#	Balance ID	Temperature	Correction	Corrected Temp
1	Start	1	4156601	B-41	97	-2	95
1	End	1	4156601	NA	95	-2	93
2	Start						
2	End			NA			
Methods and Equipment							
	Dig. Method	Heating Method		Auto Pipette #	Digestion Tube Lot #		
	SW846 3050B	Digestion Block		M-74	1802043		
Sample ID	Bottle ID	Final Volume (ML)	Wet Weight (G)	Reagent Groups Added	Spike Groups Added	Comments	
MP7388-MB1	N/A	100	1.00	ABCD			
MP7388-B1	N/A	100	0.99	ABCD	ABCD		
MP7388-S1	1	100	1.01	ABCD	ABCD		
MP7388-S2	1	100	0.98	ABCD	ABCD		
MP7388-SD1	1	100	1.01	ABCD			
JC66684-1	1	100	1.01	ABCD			
JC66684-10	1	100	1.01	ABCD			
JC66684-12	1	100	1.04	ABCD			
JC66684-14	1	100	0.98	ABCD			
JC66684-16	1	100	0.99	ABCD			
JC66684-17	1	100	0.96	ABCD			
JC66684-18	1	100	0.98	ABCD			
JC66684-19	1	100	1.03	ABCD			
JC66684-21	1	100	0.97	ABCD			
JC66684-23	1	100	1.00	ABCD			
JC66684-25	1	100	1.05	ABCD			
JC66684-27	1	100	0.98	ABCD			
JC66684-29	1	100	1.01	ABCD			
JC66684-3	1	100	0.99	ABCD			
JC66684-5	1	100	0.98	ABCD			
JC66684-7	1	100	1.00	ABCD			
JC66684-9	1	100	0.96	ABCD			
JC66920-1	2	100	0.97	ABCD			
JC66921-1	3	100	0.96	ABCD			
JC66934-1	1	100	0.98	ABCD			

Reagents Groups		
Group	Description	MLs Used
A	11 HNO3	10
B	CONC HNO3	5
C	CONC HCL	10
D	H2O2	5
E		
F		
G		
H		

Spike Groups		
Group	Description	MLs Used
A	ACCUTEST 13A REV-1	1
B	ACCUTEST 14A REV-1	1
C	MINERALS 5000PPM	0.5
D	AG 20PPM	1.25
E		
F	AG 20PPM	1.25
G		
H		

Comments: _____

Analyst COLLEENH Approved by Wendyz Approved on 5/31/2018

Note: Reagent traceability for batch Start Date can be seen on the reagent traceability page for this batch.
Serial Dilution samples shown for QC purposes only.
Acceptable Temperature range is 90-95 degrees C unless otherwise noted

SGS

Metals Digestion Reagents Information Log

Digestion Batch ID: MP

7388

Date:

3/30/18

Matrix:

ALL

Standard/Reagent Type	Exp. Date	Standard/Reagent ID
Spiking Solution - (ACCUTEST -13A Rev1)	10/25/2018	MP-015-1054
Spiking Solution - (ACCUTEST -14A Rev1)	10/25/2018	MP-015-1055
Spiking Solution - 5000 mg/l Minerals	5/11/2019	N2-MEB667268 MFG: INO. VENT.
Spiking Solution - Sulfur 1000ppm	2/8/2020	LOT: 020817 MFG: ABS. GRADE
Spiking Solution - Si 1000ppm	5/11/2019	K2-Si654310 MFG: INO. VENT
Spiking Solution - Bi 1000ppm	12/1/2018	M2-B1658289 MFG: INO. VENT
Spiking Solution - Se 20ppm	6/7/2018	MA-18-328-114
Spiking Solution - Li 1000ppm	11/14/2018	M2-Li657553 MFG: INO. VENT
Spiking Solution- Ag 20 ppm	10/6/2018	MA-18-328-94
Spiking Solution - (ACCUTEST -13B Rev1)	10/25/2018	MP-015-1053
Spiking Solution - (ACCUTEST -14B Rev1)	9/28/2018	MP-015-1045
Spiking Solution - 400ppm Minerals	11/5/2018	MP-015-1056
Spiking Solution- P		
Nitric Acid	5/24/2020	LOT: 192717 MFG: J.T. BAKER
Nitric Acid (1:1)	11/25/2018	MP-18-42-01 1:1 HNO3
Hydrochloric Acid	5/18/2020	LOT: 189306 MFG: J.T. BAKER
Hydrochloric Acid (1:1)	11/22/2018	MP-013-20-1017 1:1 HCL
Hydrogen Peroxide	5/23/2020	LOT: 174462 MFG: FISHER
Soil Lab Control/Soil LC	3/21/2020	LOT: D094-540 MFG: ERA
Teflon Chips(For Soil MB and Blank Spike)	N/A	LOT: 23430173 MFG: SAINT-GOBAIN
Digestion Tubes	N/A	LOT: 1712272 MFG: ENV. EXPRESS
pH Paper	11/30/2018	LOT: 232515 MFG: HYDRION
Filter paper Q8	N/A	LOT: 9802858 MFG: FISHER
Filter paper 0.45µm	N/A	LOT: F7EA83809 MFG: FISHER

Spike witnessed By:

DP

Validated By:

Validated On:

General Chemistry

QC Data Summaries

Includes the following where applicable:

- Percent Solids Raw Data Summary

Percent Solids Raw Data Summary

Job Number: JC66934
Account: TCMAW Tantara Corporation
Project: USACE Buffalo Nike Missile UST, East Aurora, NY

Sample: JC66934-1		Analyzed: 30-MAY-18 by LV		Method: SM2540 G-97	
ClientID: PRIMARY GAC/CLAY					
Wet Weight (Total)	27.23	g			
Tare Weight	19.69	g			
Dry Weight (Total)	25.41	g			
Solids, Percent	75.9	%			

10.1
10

ATTACHMENT A
Laboratory Reports

Silo 1 Shallow Sample

GC/MS Volatiles

Method SW8260_25C

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604316

Client Name: TI2E Joint Venture

ClientProject ID: R1 Buffalo Nike BU-34/35

Field ID: Silo 1-SW

Lab ID: 1604316-11

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 15-Apr-16

Date Extracted: 22-Apr-16

Date Analyzed: 22-Apr-16

Prep Method: SW5030 Rev C

Prep Batch: VL160422-3

QCBatchID: VL160422-3-1

Run ID: VL160422-3A

Cleanup: NONE

Basis: As Received

File Name: C67992

Analyst: Joe Kostelnik

Sample Aliquot: 10 ml

Final Volume: 10 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
75-71-8	DICHLORODIFLUOROMETHANE	1	1	1	0.3	U	
74-87-3	CHLOROMETHANE	1	1	1	0.3	U	
75-01-4	VINYL CHLORIDE	1	1	1	0.3	U	
74-83-9	BROMOMETHANE	1	1	1	0.3	U	
75-00-3	CHLOROETHANE	1	1	1	0.3	U	
75-69-4	TRICHLOROFLUOROMETHANE	1	1	1	0.3	U	
75-35-4	1,1-DICHLOROETHENE	1	1	1	0.3	U	
76-13-1	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETH	1	1	1	0.3	U	
67-64-1	ACETONE	1	10	10	3	U	
74-88-4	IODOMETHANE	1	1	1	0.38	U	
75-15-0	CARBON DISULFIDE	1	1	1	0.3	U	
75-09-2	METHYLENE CHLORIDE	1	1	1	0.44	U	
156-60-5	TRANS-1,2-DICHLOROETHENE	1	1	1	0.3	U	
1634-04-4	METHYL TERTIARY BUTYL ETHER	1	1	1	0.3	U	
75-34-3	1,1-DICHLOROETHANE	1	1	1	0.3	U	
108-05-4	VINYL ACETATE	1	2	2	0.3	U	
156-59-2	CIS-1,2-DICHLOROETHENE	1	1	1	0.3	U	
78-93-3	2-BUTANONE	1	10	10	3	U	
74-97-5	BROMOCHLOROMETHANE	1	1	1	0.3	U	
67-66-3	CHLOROFORM	1	1	1	0.3	U	
71-55-6	1,1,1-TRICHLOROETHANE	1	1	1	0.3	U	
594-20-7	2,2-DICHLOROPROPANE	1	1	1	0.3	U	
56-23-5	CARBON TETRACHLORIDE	1	1	1	0.3	U	
563-58-6	1,1-DICHLOROPROPENE	1	1	1	0.3	U	
107-06-2	1,2-DICHLOROETHANE	1	1	1	0.3	U	
71-43-2	BENZENE	1	1	1	0.3	U	

Data Package ID: VL1604316-1

GC/MS Volatiles

Method SW8260_25C

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604316

Client Name: TI2E Joint Venture

ClientProject ID: R1 Buffalo Nike BU-34/35

Field ID: Silo 1-SW

Lab ID: 1604316-11

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 15-Apr-16

Date Extracted: 22-Apr-16

Date Analyzed: 22-Apr-16

Prep Method: SW5030 Rev C

Prep Batch: VL160422-3

QCBatchID: VL160422-3-1

Run ID: VL160422-3A

Cleanup: NONE

Basis: As Received

File Name: C67992

Analyst: Joe Kostelnik

Sample Aliquot: 10 ml

Final Volume: 10 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
79-01-6	TRICHLOROETHENE	1	1	1	0.3	U	
78-87-5	1,2-DICHLOROPROPANE	1	1	1	0.3	U	
74-95-3	DIBROMOMETHANE	1	1	1	0.3	U	
75-27-4	BROMODICHLOROMETHANE	1	1	1	0.3	U	
10061-01-5	CIS-1,3-DICHLOROPROPENE	1	1	1	0.3	U	
108-10-1	4-METHYL-2-PENTANONE	1	10	10	3	U	
108-88-3	TOLUENE	1	1	1	0.3	U	
10061-02-6	TRANS-1,3-DICHLOROPROPENE	1	1	1	0.3	U	
79-00-5	1,1,2-TRICHLOROETHANE	1	1	1	0.3	U	
591-78-6	2-HEXANONE	1	10	10	3	U	
127-18-4	TETRACHLOROETHENE	1	1	1	0.2	U	
142-28-9	1,3-DICHLOROPROPANE	1	1	1	0.3	U	
124-48-1	DIBROMOCHLOROMETHANE	1	1	1	0.3	U	
106-93-4	1,2-DIBROMOETHANE	1	1	1	0.3	U	
544-10-5	1-CHLOROHEXANE	1	1	1	0.3	U	
108-90-7	CHLOROBENZENE	1	1	1	0.3	U	
630-20-6	1,1,1,2-TETRACHLOROETHANE	1	1	1	0.3	U	
100-41-4	ETHYLBENZENE	1	1	1	0.3	U	
136777-61-2	M+P-XYLENE	1	1	1	0.3	U	
95-47-6	O-XYLENE	1	1	1	0.3	U	
100-42-5	STYRENE	1	1	1	0.3	U	
75-25-2	BROMOFORM	1	1	1	0.3	U	
98-82-8	ISOPROPYLBENZENE	1	1	1	0.3	U	
96-18-4	1,2,3-TRICHLOROPROPANE	1	1	1	0.3	U	
79-34-5	1,1,2,2-TETRACHLOROETHANE	1	1	1	0.3	U	
108-86-1	BROMOBENZENE	1	1	1	0.3	U	

Data Package ID: VL1604316-1

GC/MS Volatiles

Method SW8260_25C

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604316

Client Name: TI2E Joint Venture

ClientProject ID: R1 Buffalo Nike BU-34/35

Field ID: Silo 1-SW

Lab ID: 1604316-11

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 15-Apr-16

Date Extracted: 22-Apr-16

Date Analyzed: 22-Apr-16

Prep Method: SW5030 Rev C

Prep Batch: VL160422-3

QCBatchID: VL160422-3-1

Run ID: VL160422-3A

Cleanup: NONE

Basis: As Received

File Name: C67992

Analyst: Joe Kostelnik

Sample Aliquot: 10 ml

Final Volume: 10 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
103-65-1	N-PROPYLBENZENE	1	1	1	0.3	U	
95-49-8	2-CHLOROTOLUENE	1	1	1	0.3	U	
108-67-8	1,3,5-TRIMETHYLBENZENE	1	1	1	0.3	U	
106-43-4	4-CHLOROTOLUENE	1	1	1	0.3	U	
98-06-6	TERT-BUTYLBENZENE	1	1	1	0.3	U	
95-63-6	1,2,4-TRIMETHYLBENZENE	1	1	1	0.3	U	
135-98-8	SEC-BUTYLBENZENE	1	1	1	0.3	U	
541-73-1	1,3-DICHLOROBENZENE	1	1	1	0.3	U	
99-87-6	P-ISOPROPYLTOLUENE	1	1	1	0.3	U	
106-46-7	1,4-DICHLOROBENZENE	1	1	1	0.3	U	
104-51-8	N-BUTYLBENZENE	1	1	1	0.3	U	
95-50-1	1,2-DICHLOROBENZENE	1	1	1	0.3	U	
96-12-8	1,2-DIBROMO-3-CHLOROPROPANE	1	2	2	0.4	U	
120-82-1	1,2,4-TRICHLOROBENZENE	1	1	1	0.3	U	
87-68-3	HEXACHLOROBUTADIENE	1	1	1	0.3	U	
91-20-3	NAPHTHALENE	1	1	1	0.3	U	
87-61-6	1,2,3-TRICHLOROBENZENE	1	1	1	0.3	U	

Data Package ID: VL1604316-1

Date Printed: Wednesday, April 27, 2016

ALS Environmental -- FC

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LIMS Version: 6.811

GC/MS Volatiles

Method SW8260_25C

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604316

Client Name: TI2E Joint Venture

ClientProject ID: R1 Buffalo Nike BU-34/35

Field ID:	Silo 1-SW
Lab ID:	1604316-11

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 15-Apr-16

Date Extracted: 22-Apr-16

Date Analyzed: 22-Apr-16

Prep Method: SW5030 Rev C

Prep Batch: VL160422-3

QCBatchID: VL160422-3-1

Run ID: VL160422-3A

Cleanup: NONE

Basis: As Received

File Name: C67992

Analyst: Joe Kostelnik

Sample Aliquot: 10 ml

Final Volume: 10 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier

Surrogate Recovery

CASNO	Surrogate Analyte	Result	Flag	Spike Amount	Percent Recovery	Control Limits
460-00-4	4-BROMOFLUOROBENZENE	25.8		25	103	85 - 115
1868-53-7	DIBROMOFLUOROMETHANE	25.4		25	102	84 - 118
2037-26-5	TOLUENE-D8	25.9		25	104	85 - 115

Data Package ID: VL1604316-1

Date Printed: Wednesday, April 27, 2016

ALS Environmental -- FC

LIMS Version: 6.811

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GC/MS Semi-volatiles

Method SW8270D

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604316

Client Name: TI2E Joint Venture

ClientProject ID: R1 Buffalo Nike BU-34/35

Field ID: Silo 1-SW

Lab ID: 1604316-11

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 15-Apr-16

Date Extracted: 20-Apr-16

Date Analyzed: 25-Apr-16

Prep Method: SW3520 Rev C

Prep Batch: EX160420-1

QCBatchID: EX160420-1-1

Run ID: SV160425-3

Cleanup: NONE

Basis: As Received

File Name: R6510

Analyst: Tyler Knaebel

Sample Aliquot: 1000 ml

Final Volume: 1 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
110-86-1	PYRIDINE	1	10	10	3.9	U	
62-75-9	N-NITROSODIMETHYLAMINE	1	10	10	3	U	
62-53-3	ANILINE	1	10	10	3.1	U	
108-95-2	PHENOL	1	10	10	3	U	
111-44-4	BIS(2-CHLOROETHYL)ETHER	1	10	10	3	U	
95-57-8	2-CHLOROPHENOL	1	10	10	3	U	
541-73-1	1,3-DICHLOROBENZENE	1	10	10	3	U	
106-46-7	1,4-DICHLOROBENZENE	1	10	10	3	U	
95-50-1	1,2-DICHLOROBENZENE	1	10	10	3	U	
100-51-6	BENZYL ALCOHOL	1	10	10	3	U	
108-60-1	BIS(2-CHLOROISOPROPYL)ETHER	1	10	10	3	U	
95-48-7	2-METHYLPHENOL	1	10	10	3	U	
621-64-7	N-NITROSO-DI-N-PROPYLAMINE	1	10	10	3	U	
108-39-4	3+4-METHYLPHENOL	1	10	10	3	U	
67-72-1	HEXACHLOROETHANE	1	10	10	3	U	
98-95-3	NITROBENZENE	1	10	10	3	U	
78-59-1	ISOPHORONE	1	10	10	3	U	
88-75-5	2-NITROPHENOL	1	10	10	3	U	
105-67-9	2,4-DIMETHYLPHENOL	1	10	10	3	U	
111-91-1	BIS(2-CHLOROETHOXY)METHANE	1	10	10	3	U	
120-83-2	2,4-DICHLOROPHENOL	1	10	10	3	U	
65-85-0	BENZOIC ACID	1	50	50	19	U	
120-82-1	1,2,4-TRICHLOROBENZENE	1	10	10	3	U	
91-20-3	NAPHTHALENE	1	10	10	3	U	
106-47-8	4-CHLOROANILINE	1	10	10	5.4	U	
87-68-3	HEXACHLOROBUTADIENE	1	10	10	3	U	

Data Package ID: SV1604316-1

GC/MS Semi-volatiles

Method SW8270D

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604316

Client Name: TI2E Joint Venture

ClientProject ID: R1 Buffalo Nike BU-34/35

Field ID: Silo 1-SW

Lab ID: 1604316-11

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 15-Apr-16

Date Extracted: 20-Apr-16

Date Analyzed: 25-Apr-16

Prep Method: SW3520 Rev C

Prep Batch: EX160420-1

QC Batch ID: EX160420-1-1

Run ID: SV160425-3

Cleanup: NONE

Basis: As Received

File Name: R6510

Analyst: Tyler Knaebel

Sample Aliquot: 1000 ml

Final Volume: 1 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
59-50-7	4-CHLORO-3-METHYLPHENOL	1	10	10	3	U	
91-57-6	2-METHYLNAPHTHALENE	1	10	10	3	U	
90-12-0	1-METHYLNAPHTHALENE	1	10	10	3	U	
77-47-4	HEXACHLOROCYCLOPENTADIENE	1	10	10	5.1	U	
88-06-2	2,4,6-TRICHLOROPHENOL	1	10	10	3	U	
95-95-4	2,4,5-TRICHLOROPHENOL	1	10	10	3	U	
91-58-7	2-CHLORONAPHTHALENE	1	10	10	3	U	
88-74-4	2-NITROANILINE	1	20	20	3	U	
131-11-3	DIMETHYL PHTHALATE	1	10	10	3	U	
606-20-2	2,6-DINITROTOLUENE	1	10	10	3	U	
208-96-8	ACENAPHTHYLENE	1	10	10	3	U	
99-09-2	3-NITROANILINE	1	20	20	4	U	
83-32-9	ACENAPHTHENE	1	10	10	3	U	
51-28-5	2,4-DINITROPHENOL	1	20	20	3	U	
100-02-7	4-NITROPHENOL	1	20	20	3.6	U	
132-64-9	DIBENZOFURAN	1	10	10	3	U	
121-14-2	2,4-DINITROTOLUENE	1	10	10	3	U	
84-66-2	DIETHYL PHTHALATE	1	10	10	3	U	
86-73-7	FLUORENE	1	10	10	3	U	
7005-72-3	4-CHLOROPHENYL PHENYL ETHER	1	10	10	3	U	
100-01-6	4-NITROANILINE	1	20	20	3.2	U	
103-33-3	AZOBENZENE	1	10	10	3	U	
534-52-1	4,6-DINITRO-2-METHYLPHENOL	1	20	20	3.6	U	
86-30-6	N-NITROSODIPHENYLAMINE	1	10	10	3	U	
101-55-3	4-BROMOPHENYL PHENYL ETHER	1	10	10	3	U	
118-74-1	HEXACHLOROBENZENE	1	10	10	3	U	

Data Package ID: SV1604316-1

GC/MS Semi-volatiles

Method SW8270D

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604316

Client Name: TI2E Joint Venture

ClientProject ID: R1 Buffalo Nike BU-34/35

Field ID: Silo 1-SW

Lab ID: 1604316-11

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 15-Apr-16

Date Extracted: 20-Apr-16

Date Analyzed: 25-Apr-16

Prep Method: SW3520 Rev C

Prep Batch: EX160420-1

QCBatchID: EX160420-1-1

Run ID: SV160425-3

Cleanup: NONE

Basis: As Received

File Name: R6510

Analyst: Tyler Knaebel

Sample Aliquot: 1000 ml

Final Volume: 1 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
58-90-2	2,3,4,6-TETRACHLOROPHENOL	1	10	10	3.8	U	
87-86-5	PENTACHLOROPHENOL	1	20	20	4.2	U	
85-01-8	PHENANTHRENE	1	10	10	3	U	
120-12-7	ANTHRACENE	1	10	10	3	U	
86-74-8	CARBAZOLE	1	10	10	3	U	
84-74-2	DI-N-BUTYL PHTHALATE	1	10	10	3	U	
206-44-0	FLUORANTHENE	1	10	10	3	U	
129-00-0	PYRENE	1	10	10	3	U	
85-68-7	BUTYL BENZYL PHTHALATE	1	10	10	3	U	
56-55-3	BENZO(A)ANTHRACENE	1	10	10	3	U	
91-94-1	3,3'-DICHLOROBENZIDINE	1	10	10	6.3	U	
218-01-9	CHRYSENE	1	10	10	3	U	
117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	1	10	10	3	U	
117-84-0	DI-N-OCTYL PHTHALATE	1	10	10	3	U	
205-99-2	BENZO(B)FLUORANTHENE	1	10	10	3	U	
207-08-9	BENZO(K)FLUORANTHENE	1	10	10	3	U	
50-32-8	BENZO(A)PYRENE	1	10	10	3	U	
193-39-5	INDENO(1,2,3-CD)PYRENE	1	10	10	3	U	
53-70-3	DIBENZO(A,H)ANTHRACENE	1	10	10	3	U	
191-24-2	BENZO(G,H,I)PERYLENE	1	10	10	3	U	

Data Package ID: SV1604316-1

Date Printed: Wednesday, April 27, 2016

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GC/MS Semi-volatiles

Method SW8270D

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604316

Client Name: TI2E Joint Venture

ClientProject ID: R1 Buffalo Nike BU-34/35

Field ID:	Silo 1-SW
Lab ID:	1604316-11

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 15-Apr-16

Date Extracted: 20-Apr-16

Date Analyzed: 25-Apr-16

Prep Method: SW3520 Rev C

Prep Batch: EX160420-1

QCBatchID: EX160420-1-1

Run ID: SV160425-3

Cleanup: NONE

Basis: As Received

File Name: R6510

Analyst: Tyler Knaebel

Sample Aliquot: 1000 ml

Final Volume: 1 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier

Surrogate Recovery

CASNO	Surrogate Analyte	Result	Flag	Spike Amount	Percent Recovery	Control Limits
118-79-6	2,4,6-TRIBROMOPHENOL	32.8		75	44	42 - 117
321-60-8	2-FLUOROBIPHENYL	44.9		50	90	55 - 108
367-12-4	2-FLUOROPHENOL	53		75	71	46 - 105
4165-60-0	NITROBENZENE-D5	42.1		50	84	53 - 111
4165-62-2	PHENOL-D5	56.1		75	75	50 - 109
1718-51-0	TERPHENYL-D14	42.4		50	85	34 - 139

Data Package ID: SV1604316-1

Date Printed: Wednesday, April 27, 2016

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PCBs

Method SW8082

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604316

Client Name: TI2E Joint Venture

ClientProject ID: R1 Buffalo Nike BU-34/35

Field ID: Silo 1-SW

Lab ID: 1604316-11

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 15-Apr-16

Date Extracted: 20-Apr-16

Date Analyzed: 22-Apr-16

Prep Method: SW3520 Rev C

Prep Batch: EX160420-8

QCBatchID: EX160420-8-1

Run ID: PT160422-11

Cleanup: SW3665

Basis: As Received

File Name: 16121.dat

Analyst: Dan Sheneman

Sample Aliquot: 1030 ml

Final Volume: 10 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
12674-11-2	AROCLOR-1016	1	0.97	0.97	0.29	U	
11104-28-2	AROCLOR-1221	1	1.9	1.9	0.29	U	
11141-16-5	AROCLOR-1232	1	0.97	0.97	0.29	U	
53469-21-9	AROCLOR-1242	1	0.97	0.97	0.29	U	
12672-29-6	AROCLOR-1248	1	0.97	0.97	0.29	U	
11097-69-1	AROCLOR-1254	1	0.97	0.97	0.29	U	
11096-82-5	AROCLOR-1260	1	0.97	0.97	0.29	U	

Surrogate Recovery

CASNO	Surrogate Analyte	Result	Flag	Spike Amount	Percent Recovery	Control Limits
2051-24-3	DECACHLOROBIPHENYL	0.276		0.485	57	14 - 114
877-09-8	TETRACHLORO-M-XYLENE	0.515		0.485	106	72 - 125

Data Package ID: PCB1604316-1

Date Printed: Wednesday, April 27, 2016

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Total ICPMS Metals

Method SW6020A

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604316

Client Name: TI2E Joint Venture

ClientProject ID: R1 Buffalo Nike BU-34/35

Field ID: Silo 1-SW

Lab ID: 1604316-11

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 15-Apr-16

Date Extracted: 21-Apr-16

Date Analyzed: 25-Apr-16

Prep Method: SW3010 Rev A

Prep Batch: IP160421-3

QCBatchID: IP160421-3-1

Run ID: IM160425-10A7

Cleanup: NONE

Basis: As Received

File Name: 034SMPL_

Analyst: Carly D. Ruble

Sample Aliquot: 50 ml

Final Volume: 50 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
7429-90-5	ALUMINUM	10	20	100	11	J	
7440-36-0	ANTIMONY	10	0.13	1	0.13	U	
7440-38-2	ARSENIC	10	0.16	2	0.16	U	
7440-39-3	BARIUM	10	53	5	0.24		
7440-41-7	BERYLLIUM	10	0.25	0.5	0.25	U	
7440-43-9	CADMIUM	10	0.079	2	0.079	U	
7440-70-2	CALCIUM	10	84000	1000	61		
7440-47-3	CHROMIUM	10	0.88	10	0.88	U	
7440-48-4	COBALT	10	0.079	5	0.079	U	
7440-50-8	COPPER	10	0.9	20	0.9	U	
7439-89-6	IRON	10	790	100	8.6		
7439-92-1	LEAD	10	0.54	2	0.17	J	
7439-95-4	MAGNESIUM	10	9700	100	18		
7439-96-5	MANGANESE	10	180	5	0.3		
7440-02-0	NICKEL	10	4	20	4	U	
7440-09-7	POTASSIUM	10	22000	1000	290		
7782-49-2	SELENIUM	10	0.66	10	0.66	U	
7440-22-4	SILVER	10	0.033	0.5	0.033	U	
7440-23-5	SODIUM	10	4900	1000	160		
7440-28-0	THALLIUM	10	0.014	0.1	0.014	U	
7440-62-2	VANADIUM	10	0.58	5	0.58	U	
7440-66-6	ZINC	10	8.1	100	8.1	U	

Data Package ID: im1604316-2

Date Printed: Saturday, April 30, 2016

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Dissolved Metals by 200.8

Method EPA200.8 Revision 5.4

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604316

Client Name: TI2E Joint Venture

ClientProject ID: R1 Buffalo Nike BU-34/35

Field ID: Silo 1-SW

Lab ID: 1604316-23

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 15-Apr-16

Date Extracted: 21-Apr-16

Date Analyzed: 22-Apr-16

Prep Method: EPA200.2 Rev 2.2

Prep Batch: IP160421-2

QCBatchID: IP160421-2-3

Run ID: IM160422-10A18

Cleanup: NONE

Basis: As Received

File Name: 075SMPL_

Analyst: Carly D. Ruble

Sample Aliquot: 50 ml

Final Volume: 50 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
7429-90-5	ALUMINUM	10	14	50	14	U	
7440-36-0	ANTIMONY	10	0.11	0.3	0.11	U	
7440-38-2	ARSENIC	10	0.2	2	0.2	U	
7440-39-3	BARIUM	10	0.16	1	0.16	U	
7440-41-7	BERYLLIUM	10	0.27	0.5	0.27	U	
7440-43-9	CADMIUM	10	0.088	0.3	0.088	U	
7440-70-2	CALCIUM	10	68	1000	68	U	
7440-47-3	CHROMIUM	10	0.88	10	0.88	U	
7440-48-4	COBALT	10	0.083	1	0.083	U	
7440-50-8	COPPER	10	1.2	10	1.2	U	
7439-89-6	IRON	10	8.1	100	8.1	U	
7439-92-1	LEAD	10	0.17	0.5	0.17	U	
7439-95-4	MAGNESIUM	10	18	100	18	U	
7439-96-5	MANGANESE	10	0.34	2	0.34	U	
7440-02-0	NICKEL	10	4	5	4	U	
7440-09-7	POTASSIUM	10	290	1000	290	U	
7782-49-2	SELENIUM	10	0.66	1	0.66	U	
7440-22-4	SILVER	10	0.041	0.1	0.041	U	
7440-23-5	SODIUM	10	200	1000	200	U	
7440-28-0	THALLIUM	10	0.018	0.2	0.018	U	
7440-62-2	VANADIUM	10	0.71	1	0.71	U	
7440-66-6	ZINC	10	9.8	20	9.8	U	

Data Package ID: im1604316-1

Date Printed: Saturday, April 30, 2016

ALS Environmental -- FC

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LIMS Version: 6.811

Total MERCURY

Method SW7470A

Sample Results

Lab Name: ALS Environmental -- FC
Client Name: TI2E Joint Venture
Client Project ID: R1 Buffalo Nike BU-34/35
Work Order Number: 1604316
Reporting Basis: As Received
Analyst: Nathan A. Quatier

Final Volume: 10 ml
Matrix: WATER
Result Units: MG/L

Client Sample ID	Lab ID	Date Collected	Date Prepared	Date Analyzed	Percent Moisture	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Flag	Sample Aliquot
Silo 3-Deep	1604316-1	4/14/2016	4/20/2016	04/21/2016	N/A	1	0.00006	0.0002	0.00006	U	10 ml
Silo 3- Deep DUP	1604316-2	4/14/2016	4/20/2016	04/21/2016	N/A	1	0.00006	0.0002	0.00006	U	10 ml
Silo 3-SW	1604316-3	4/14/2016	4/20/2016	04/21/2016	N/A	1	0.00006	0.0002	0.00006	U	10 ml
Silo 2-SW	1604316-4	4/14/2016	4/20/2016	04/21/2016	N/A	1	0.00006	0.0002	0.00006	U	10 ml
Silo 2-Deep	1604316-5	4/14/2016	4/20/2016	04/21/2016	N/A	1	0.00006	0.0002	0.00006	U	10 ml
Silo 5-SW	1604316-6	4/14/2016	4/20/2016	04/21/2016	N/A	1	0.00006	0.0002	0.00006	U	10 ml
Silo 5-Deep	1604316-7	4/14/2016	4/20/2016	04/21/2016	N/A	1	0.00006	0.0002	0.00006	U	10 ml
Silo 4-SW	1604316-9	4/15/2016	4/20/2016	04/21/2016	N/A	1	0.00006	0.0002	0.00006	U	10 ml
Silo 4-Deep	1604316-10	4/15/2016	4/20/2016	04/21/2016	N/A	1	0.00006	0.0002	0.00006	U	10 ml
Silo 1-SW	1604316-11	4/15/2016	4/20/2016	04/21/2016	N/A	1	0.00006	0.0002	0.00006	U	10 ml
Silo 1-Deep	1604316-12	4/15/2016	4/20/2016	04/21/2016	N/A	1	0.00006	0.0002	0.00006	U	10 ml

Comments:

1. ND or U = Not Detected at or above the client requested detection limit.

Data Package ID: *hg1604316-1*

TOTAL ORGANIC CARBON

Method EPA415.1

Sample Results

Lab Name: ALS Environmental -- FC
Client Name: TI2E Joint Venture
Client Project ID: R1 Buffalo Nike BU-34/35
Work Order Number: 1604316
Reporting Basis: As Received
Analyst: Steven D. White

Final Volume: 40 ml
Matrix: WATER
Result Units: MG/L

Client Sample ID	Lab ID	Date Collected	Date Prepared	Date Analyzed	Percent Moisture	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Flag	Sample Aliquot
Silo 3-Deep	1604316-1	4/14/2016	4/22/2016	04/22/2016	N/A	1	2.8	1	0.3		40 ml
Silo 3- Deep DUP	1604316-2	4/14/2016	4/22/2016	04/22/2016	N/A	1	2.8	1	0.3		40 ml
Silo 3-SW	1604316-3	4/14/2016	4/22/2016	04/22/2016	N/A	1	2.4	1	0.3		40 ml
Silo 2-SW	1604316-4	4/14/2016	4/22/2016	04/22/2016	N/A	1	2.5	1	0.3		40 ml
Silo 2-Deep	1604316-5	4/14/2016	4/22/2016	04/22/2016	N/A	1	2.5	1	0.3		40 ml
Silo 5-SW	1604316-6	4/14/2016	4/22/2016	04/22/2016	N/A	1	1.7	1	0.3		40 ml
Silo 5-Deep	1604316-7	4/14/2016	4/22/2016	04/22/2016	N/A	1	1.7	1	0.3		40 ml
Silo 4-SW	1604316-9	4/15/2016	4/22/2016	04/22/2016	N/A	1	1.9	1	0.3		40 ml
Silo 4-Deep	1604316-10	4/15/2016	4/22/2016	04/22/2016	N/A	1	2.9	1	0.3		40 ml
Silo 1-SW	1604316-11	4/15/2016	4/22/2016	04/22/2016	N/A	1	2.5	1	0.3		40 ml
Silo 1-Deep	1604316-12	4/15/2016	4/22/2016	04/22/2016	N/A	1	3.4	1	0.3		40 ml

Comments:

1. ND or U = Not Detected at or above the client requested detection limit.

Data Package ID: *MO1604316-1*

Silo 1 Deep Sample

GC/MS Volatiles

Method SW8260_25C

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604316

Client Name: TI2E Joint Venture

ClientProject ID: R1 Buffalo Nike BU-34/35

Field ID: Silo 1-Deep

Lab ID: 1604316-12

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 15-Apr-16

Date Extracted: 22-Apr-16

Date Analyzed: 22-Apr-16

Prep Method: SW5030 Rev C

Prep Batch: VL160422-3

QCBatchID: VL160422-3-1

Run ID: VL160422-3A

Cleanup: NONE

Basis: As Received

File Name: C67993

Analyst: Joe Kostelnik

Sample Aliquot: 10 ml

Final Volume: 10 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
75-71-8	DICHLORODIFLUOROMETHANE	1	1	1	0.3	U	
74-87-3	CHLOROMETHANE	1	1	1	0.3	U	
75-01-4	VINYL CHLORIDE	1	1	1	0.3	U	
74-83-9	BROMOMETHANE	1	1	1	0.3	U	
75-00-3	CHLOROETHANE	1	1	1	0.3	U	
75-69-4	TRICHLOROFLUOROMETHANE	1	1	1	0.3	U	
75-35-4	1,1-DICHLOROETHENE	1	1	1	0.3	U	
76-13-1	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETH	1	1	1	0.3	U	
67-64-1	ACETONE	1	10	10	3	U	
74-88-4	IODOMETHANE	1	1	1	0.38	U	
75-15-0	CARBON DISULFIDE	1	1	1	0.3	U	
75-09-2	METHYLENE CHLORIDE	1	1	1	0.44	U	
156-60-5	TRANS-1,2-DICHLOROETHENE	1	1	1	0.3	U	
1634-04-4	METHYL TERTIARY BUTYL ETHER	1	1	1	0.3	U	
75-34-3	1,1-DICHLOROETHANE	1	1	1	0.3	U	
108-05-4	VINYL ACETATE	1	2	2	0.3	U	
156-59-2	CIS-1,2-DICHLOROETHENE	1	1	1	0.3	U	
78-93-3	2-BUTANONE	1	10	10	3	U	
74-97-5	BROMOCHLOROMETHANE	1	1	1	0.3	U	
67-66-3	CHLOROFORM	1	1	1	0.3	U	
71-55-6	1,1,1-TRICHLOROETHANE	1	1	1	0.3	U	
594-20-7	2,2-DICHLOROPROPANE	1	1	1	0.3	U	
56-23-5	CARBON TETRACHLORIDE	1	1	1	0.3	U	
563-58-6	1,1-DICHLOROPROPENE	1	1	1	0.3	U	
107-06-2	1,2-DICHLOROETHANE	1	1	1	0.3	U	
71-43-2	BENZENE	1	1	1	0.3	U	

Data Package ID: VL1604316-1

Date Printed: Wednesday, April 27, 2016

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LIMS Version: 6.811

GC/MS Volatiles

Method SW8260_25C

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604316

Client Name: TI2E Joint Venture

ClientProject ID: R1 Buffalo Nike BU-34/35

Field ID: Silo 1-Deep

Lab ID: 1604316-12

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 15-Apr-16

Date Extracted: 22-Apr-16

Date Analyzed: 22-Apr-16

Prep Method: SW5030 Rev C

Prep Batch: VL160422-3

QCBatchID: VL160422-3-1

Run ID: VL160422-3A

Cleanup: NONE

Basis: As Received

File Name: C67993

Analyst: Joe Kostelnik

Sample Aliquot: 10 ml

Final Volume: 10 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
79-01-6	TRICHLOROETHENE	1	1	1	0.3	U	
78-87-5	1,2-DICHLOROPROPANE	1	1	1	0.3	U	
74-95-3	DIBROMOMETHANE	1	1	1	0.3	U	
75-27-4	BROMODICHLOROMETHANE	1	1	1	0.3	U	
10061-01-5	CIS-1,3-DICHLOROPROPENE	1	1	1	0.3	U	
108-10-1	4-METHYL-2-PENTANONE	1	10	10	3	U	
108-88-3	TOLUENE	1	1	1	0.3	U	
10061-02-6	TRANS-1,3-DICHLOROPROPENE	1	1	1	0.3	U	
79-00-5	1,1,2-TRICHLOROETHANE	1	1	1	0.3	U	
591-78-6	2-HEXANONE	1	10	10	3	U	
127-18-4	TETRACHLOROETHENE	1	1	1	0.2	U	
142-28-9	1,3-DICHLOROPROPANE	1	1	1	0.3	U	
124-48-1	DIBROMOCHLOROMETHANE	1	1	1	0.3	U	
106-93-4	1,2-DIBROMOETHANE	1	1	1	0.3	U	
544-10-5	1-CHLOROHEXANE	1	1	1	0.3	U	
108-90-7	CHLOROBENZENE	1	1	1	0.3	U	
630-20-6	1,1,1,2-TETRACHLOROETHANE	1	1	1	0.3	U	
100-41-4	ETHYLBENZENE	1	1	1	0.3	U	
136777-61-2	M+P-XYLENE	1	1	1	0.3	U	
95-47-6	O-XYLENE	1	1	1	0.3	U	
100-42-5	STYRENE	1	1	1	0.3	U	
75-25-2	BROMOFORM	1	1	1	0.3	U	
98-82-8	ISOPROPYLBENZENE	1	1	1	0.3	U	
96-18-4	1,2,3-TRICHLOROPROPANE	1	1	1	0.3	U	
79-34-5	1,1,2,2-TETRACHLOROETHANE	1	1	1	0.3	U	
108-86-1	BROMOBENZENE	1	1	1	0.3	U	

Data Package ID: VL1604316-1

GC/MS Volatiles

Method SW8260_25C

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604316

Client Name: TI2E Joint Venture

ClientProject ID: R1 Buffalo Nike BU-34/35

Field ID: Silo 1-Deep

Lab ID: 1604316-12

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 15-Apr-16

Date Extracted: 22-Apr-16

Date Analyzed: 22-Apr-16

Prep Method: SW5030 Rev C

Prep Batch: VL160422-3

QC Batch ID: VL160422-3-1

Run ID: VL160422-3A

Cleanup: NONE

Basis: As Received

File Name: C67993

Analyst: Joe Kostelnik

Sample Aliquot: 10 ml

Final Volume: 10 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
103-65-1	N-PROPYLBENZENE	1	1	1	0.3	U	
95-49-8	2-CHLOROTOLUENE	1	1	1	0.3	U	
108-67-8	1,3,5-TRIMETHYLBENZENE	1	1	1	0.3	U	
106-43-4	4-CHLOROTOLUENE	1	1	1	0.3	U	
98-06-6	TERT-BUTYLBENZENE	1	1	1	0.3	U	
95-63-6	1,2,4-TRIMETHYLBENZENE	1	1	1	0.3	U	
135-98-8	SEC-BUTYLBENZENE	1	1	1	0.3	U	
541-73-1	1,3-DICHLOROBENZENE	1	1	1	0.3	U	
99-87-6	P-ISOPROPYLTOLUENE	1	1	1	0.3	U	
106-46-7	1,4-DICHLOROBENZENE	1	1	1	0.3	U	
104-51-8	N-BUTYLBENZENE	1	1	1	0.3	U	
95-50-1	1,2-DICHLOROBENZENE	1	1	1	0.3	U	
96-12-8	1,2-DIBROMO-3-CHLOROPROPANE	1	2	2	0.4	U	
120-82-1	1,2,4-TRICHLOROBENZENE	1	1	1	0.3	U	
87-68-3	HEXACHLOROBUTADIENE	1	1	1	0.3	U	
91-20-3	NAPHTHALENE	1	1	1	0.3	U	
87-61-6	1,2,3-TRICHLOROBENZENE	1	1	1	0.3	U	

Data Package ID: VL1604316-1

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GC/MS Volatiles

Method SW8260_25C

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604316

Client Name: TI2E Joint Venture

ClientProject ID: R1 Buffalo Nike BU-34/35

Field ID:	Silo 1-Deep
Lab ID:	1604316-12

Sample Matrix: WATER
% Moisture: N/A
Date Collected: 15-Apr-16
Date Extracted: 22-Apr-16
Date Analyzed: 22-Apr-16
Prep Method: SW5030 Rev C

Prep Batch: VL160422-3
QCBatchID: VL160422-3-1
Run ID: VL160422-3A
Cleanup: NONE
Basis: As Received
File Name: C67993

Analyst: Joe Kostelnik
Sample Aliquot: 10 ml
Final Volume: 10 ml
Result Units: UG/L
Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier

Surrogate Recovery

CASNO	Surrogate Analyte	Result	Flag	Spike Amount	Percent Recovery	Control Limits
460-00-4	4-BROMOFLUOROBENZENE	25.2		25	101	85 - 115
1868-53-7	DIBROMOFLUOROMETHANE	25.2		25	101	84 - 118
2037-26-5	TOLUENE-D8	25.7		25	103	85 - 115

Data Package ID: VL1604316-1

GC/MS Semi-volatiles

Method SW8270D

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604316

Client Name: TI2E Joint Venture

ClientProject ID: R1 Buffalo Nike BU-34/35

Field ID: Silo 1-Deep

Lab ID: 1604316-12

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 15-Apr-16

Date Extracted: 20-Apr-16

Date Analyzed: 25-Apr-16

Prep Method: SW3520 Rev C

Prep Batch: EX160420-1

QCBatchID: EX160420-1-1

Run ID: SV160425-3

Cleanup: NONE

Basis: As Received

File Name: R6511

Analyst: Tyler Knaebel

Sample Aliquot: 980 ml

Final Volume: 1 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
110-86-1	PYRIDINE	1	10	10	4	U	
62-75-9	N-NITROSODIMETHYLAMINE	1	10	10	3.1	U	
62-53-3	ANILINE	1	10	10	3.2	U	
108-95-2	PHENOL	1	10	10	3.1	U	
111-44-4	BIS(2-CHLOROETHYL)ETHER	1	10	10	3.1	U	
95-57-8	2-CHLOROPHENOL	1	10	10	3.1	U	
541-73-1	1,3-DICHLOROBENZENE	1	10	10	3.1	U	
106-46-7	1,4-DICHLOROBENZENE	1	10	10	3.1	U	
95-50-1	1,2-DICHLOROBENZENE	1	10	10	3.1	U	
100-51-6	BENZYL ALCOHOL	1	10	10	3.1	U	
108-60-1	BIS(2-CHLOROISOPROPYL)ETHER	1	10	10	3.1	U	
95-48-7	2-METHYLPHENOL	1	10	10	3.1	U	
621-64-7	N-NITROSO-DI-N-PROPYLAMINE	1	10	10	3.1	U	
108-39-4	3+4-METHYLPHENOL	1	10	10	3.1	U	
67-72-1	HEXACHLOROETHANE	1	10	10	3.1	U	
98-95-3	NITROBENZENE	1	10	10	3.1	U	
78-59-1	ISOPHORONE	1	10	10	3.1	U	
88-75-5	2-NITROPHENOL	1	10	10	3.1	U	
105-67-9	2,4-DIMETHYLPHENOL	1	10	10	3.1	U	
111-91-1	BIS(2-CHLOROETHOXY)METHANE	1	10	10	3.1	U	
120-83-2	2,4-DICHLOROPHENOL	1	10	10	3.1	U	
65-85-0	BENZOIC ACID	1	51	51	19	U	
120-82-1	1,2,4-TRICHLOROBENZENE	1	10	10	3.1	U	
91-20-3	NAPHTHALENE	1	10	10	3.1	U	
106-47-8	4-CHLOROANILINE	1	10	10	5.5	U	
87-68-3	HEXACHLOROBUTADIENE	1	10	10	3.1	U	

Data Package ID: SV1604316-1

GC/MS Semi-volatiles

Method SW8270D

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604316

Client Name: TI2E Joint Venture

ClientProject ID: R1 Buffalo Nike BU-34/35

Field ID: Silo 1-Deep

Lab ID: 1604316-12

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 15-Apr-16

Date Extracted: 20-Apr-16

Date Analyzed: 25-Apr-16

Prep Method: SW3520 Rev C

Prep Batch: EX160420-1

QCBatchID: EX160420-1-1

Run ID: SV160425-3

Cleanup: NONE

Basis: As Received

File Name: R6511

Analyst: Tyler Knaebel

Sample Aliquot: 980 ml

Final Volume: 1 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
59-50-7	4-CHLORO-3-METHYLPHENOL	1	10	10	3.1	U	
91-57-6	2-METHYLNAPHTHALENE	1	10	10	3.1	U	
90-12-0	1-METHYLNAPHTHALENE	1	10	10	3.1	U	
77-47-4	HEXACHLOROCYCLOPENTADIENE	1	10	10	5.2	U	
88-06-2	2,4,6-TRICHLOROPHENOL	1	10	10	3.1	U	
95-95-4	2,4,5-TRICHLOROPHENOL	1	10	10	3.1	U	
91-58-7	2-CHLORONAPHTHALENE	1	10	10	3.1	U	
88-74-4	2-NITROANILINE	1	20	20	3.1	U	
131-11-3	DIMETHYL PHTHALATE	1	10	10	3.1	U	
606-20-2	2,6-DINITROTOLUENE	1	10	10	3.1	U	
208-96-8	ACENAPHTHYLENE	1	10	10	3.1	U	
99-09-2	3-NITROANILINE	1	20	20	4.1	U	
83-32-9	ACENAPHTHENE	1	10	10	3.1	U	
51-28-5	2,4-DINITROPHENOL	1	20	20	3.1	U	
100-02-7	4-NITROPHENOL	1	20	20	3.7	U	
132-64-9	DIBENZOFURAN	1	10	10	3.1	U	
121-14-2	2,4-DINITROTOLUENE	1	10	10	3.1	U	
84-66-2	DIETHYL PHTHALATE	1	10	10	3.1	U	
86-73-7	FLUORENE	1	10	10	3.1	U	
7005-72-3	4-CHLOROPHENYL PHENYL ETHER	1	10	10	3.1	U	
100-01-6	4-NITROANILINE	1	20	20	3.3	U	
103-33-3	AZOBENZENE	1	10	10	3.1	U	
534-52-1	4,6-DINITRO-2-METHYLPHENOL	1	20	20	3.7	U	
86-30-6	N-NITROSODIPHENYLAMINE	1	10	10	3.1	U	
101-55-3	4-BROMOPHENYL PHENYL ETHER	1	10	10	3.1	U	
118-74-1	HEXACHLOROBENZENE	1	10	10	3.1	U	

Data Package ID: SV1604316-1

GC/MS Semi-volatiles

Method SW8270D

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604316

Client Name: TI2E Joint Venture

ClientProject ID: R1 Buffalo Nike BU-34/35

Field ID: Silo 1-Deep

Lab ID: 1604316-12

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 15-Apr-16

Date Extracted: 20-Apr-16

Date Analyzed: 25-Apr-16

Prep Method: SW3520 Rev C

Prep Batch: EX160420-1

QCBatchID: EX160420-1-1

Run ID: SV160425-3

Cleanup: NONE

Basis: As Received

File Name: R6511

Analyst: Tyler Knaebel

Sample Aliquot: 980 ml

Final Volume: 1 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
58-90-2	2,3,4,6-TETRACHLOROPHENOL	1	10	10	3.9	U	
87-86-5	PENTACHLOROPHENOL	1	20	20	4.3	U	
85-01-8	PHENANTHRENE	1	10	10	3.1	U	
120-12-7	ANTHRACENE	1	10	10	3.1	U	
86-74-8	CARBAZOLE	1	10	10	3.1	U	
84-74-2	DI-N-BUTYL PHTHALATE	1	10	10	3.1	U	
206-44-0	FLUORANTHENE	1	10	10	3.1	U	
129-00-0	PYRENE	1	10	10	3.1	U	
85-68-7	BUTYL BENZYL PHTHALATE	1	10	10	3.1	U	
56-55-3	BENZO(A)ANTHRACENE	1	10	10	3.1	U	
91-94-1	3,3'-DICHLOROBENZIDINE	1	10	10	6.4	U	
218-01-9	CHRYSENE	1	10	10	3.1	U	
117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	1	10	10	3.1	U	
117-84-0	DI-N-OCTYL PHTHALATE	1	10	10	3.1	U	
205-99-2	BENZO(B)FLUORANTHENE	1	10	10	3.1	U	
207-08-9	BENZO(K)FLUORANTHENE	1	10	10	3.1	U	
50-32-8	BENZO(A)PYRENE	1	10	10	3.1	U	
193-39-5	INDENO(1,2,3-CD)PYRENE	1	10	10	3.1	U	
53-70-3	DIBENZO(A,H)ANTHRACENE	1	10	10	3.1	U	
191-24-2	BENZO(G,H,I)PERYLENE	1	10	10	3.1	U	

Data Package ID: SV1604316-1

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GC/MS Semi-volatiles

Method SW8270D

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604316

Client Name: TI2E Joint Venture

ClientProject ID: R1 Buffalo Nike BU-34/35

Field ID:	Silo 1-Deep
Lab ID:	1604316-12

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 15-Apr-16

Date Extracted: 20-Apr-16

Date Analyzed: 25-Apr-16

Prep Method: SW3520 Rev C

Prep Batch: EX160420-1

QCBatchID: EX160420-1-1

Run ID: SV160425-3

Cleanup: NONE

Basis: As Received

File Name: R6511

Analyst: Tyler Knaebel

Sample Aliquot: 980 ml

Final Volume: 1 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier

Surrogate Recovery

CASNO	Surrogate Analyte	Result	Flag	Spike Amount	Percent Recovery	Control Limits
118-79-6	2,4,6-TRIBROMOPHENOL	37.8		76.5	49	42 - 117
321-60-8	2-FLUOROBIPHENYL	43.4		51	85	55 - 108
367-12-4	2-FLUOROPHENOL	50.1		76.5	66	46 - 105
4165-60-0	NITROBENZENE-D5	39.9		51	78	53 - 111
4165-62-2	PHENOL-D5	52.7		76.5	69	50 - 109
1718-51-0	TERPHENYL-D14	43.4		51	85	34 - 139

Data Package ID: SV1604316-1

Date Printed: Wednesday, April 27, 2016

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PCBs

Method SW8082

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604316

Client Name: TI2E Joint Venture

ClientProject ID: R1 Buffalo Nike BU-34/35

Field ID: Silo 1-Deep

Lab ID: 1604316-12

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 15-Apr-16

Date Extracted: 20-Apr-16

Date Analyzed: 22-Apr-16

Prep Method: SW3520 Rev C

Prep Batch: EX160420-8

QCBatchID: EX160420-8-1

Run ID: PT160422-11

Cleanup: SW3665

Basis: As Received

File Name: 16122.dat

Analyst: Dan Sheneman

Sample Aliquot: 1005 ml

Final Volume: 10 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
12674-11-2	AROCLOR-1016	1	1	1	0.3	U	
11104-28-2	AROCLOR-1221	1	2	2	0.3	U	
11141-16-5	AROCLOR-1232	1	1	1	0.3	U	
53469-21-9	AROCLOR-1242	1	1	1	0.3	U	
12672-29-6	AROCLOR-1248	1	1	1	0.3	U	
11097-69-1	AROCLOR-1254	1	1	1	0.3	U	
11096-82-5	AROCLOR-1260	1	1	1	0.3	U	

Surrogate Recovery

CASNO	Surrogate Analyte	Result	Flag	Spike Amount	Percent Recovery	Control Limits
2051-24-3	DECACHLOROBIPHENYL	0.296		0.498	60	14 - 114
877-09-8	TETRACHLORO-M-XYLENE	0.52		0.498	104	72 - 125

Data Package ID: PCB1604316-1

Total ICPMS Metals

Method SW6020A

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604316

Client Name: TI2E Joint Venture

ClientProject ID: R1 Buffalo Nike BU-34/35

Field ID: Silo 1-Deep

Lab ID: 1604316-12

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 15-Apr-16

Date Extracted: 21-Apr-16

Date Analyzed: 25-Apr-16

Prep Method: SW3010 Rev A

Prep Batch: IP160421-3

QCBatchID: IP160421-3-1

Run ID: IM160425-10A7

Cleanup: NONE

Basis: As Received

File Name: 035SMPL_

Analyst: Carly D. Ruble

Sample Aliquot: 50 ml

Final Volume: 50 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
7429-90-5	ALUMINUM	10	32	100	11	J	
7440-36-0	ANTIMONY	10	0.13	1	0.13	U	
7440-38-2	ARSENIC	10	0.31	2	0.16	J	
7440-39-3	BARIUM	10	56	5	0.24		
7440-41-7	BERYLLIUM	10	0.25	0.5	0.25	U	
7440-43-9	CADMIUM	10	0.079	2	0.079	U	
7440-70-2	CALCIUM	10	88000	1000	61		
7440-47-3	CHROMIUM	10	0.88	10	0.88	U	
7440-48-4	COBALT	10	0.08	5	0.079	J	
7440-50-8	COPPER	10	6.7	20	0.9	J	
7439-89-6	IRON	10	1200	100	8.6		
7439-92-1	LEAD	10	10	2	0.17		
7439-95-4	MAGNESIUM	10	10000	100	18		
7439-96-5	MANGANESE	10	200	5	0.3		
7440-02-0	NICKEL	10	4	20	4	U	
7440-09-7	POTASSIUM	10	24000	1000	290		
7782-49-2	SELENIUM	10	0.66	10	0.66	U	
7440-22-4	SILVER	10	0.033	0.5	0.033	U	
7440-23-5	SODIUM	10	5100	1000	160		
7440-28-0	THALLIUM	10	0.014	0.1	0.014	U	
7440-62-2	VANADIUM	10	0.58	5	0.58	U	
7440-66-6	ZINC	10	24	100	8.1	J	

Data Package ID: im1604316-2

Date Printed: Saturday, April 30, 2016

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Dissolved Metals by 200.8

Method EPA200.8 Revision 5.4

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604316

Client Name: TI2E Joint Venture

ClientProject ID: R1 Buffalo Nike BU-34/35

Field ID: Silo 1-Deep

Lab ID: 1604316-24

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 15-Apr-16

Date Extracted: 21-Apr-16

Date Analyzed: 22-Apr-16

Prep Method: EPA200.2 Rev 2.2

Prep Batch: IP160421-2

QCBatchID: IP160421-2-3

Run ID: IM160422-10A18

Cleanup: NONE

Basis: As Received

File Name: 076SMPL_

Analyst: Carly D. Ruble

Sample Aliquot: 50 ml

Final Volume: 50 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
7429-90-5	ALUMINUM	10	14	50	14	U	
7440-36-0	ANTIMONY	10	0.11	0.3	0.11	U	
7440-38-2	ARSENIC	10	0.2	2	0.2	U	
7440-39-3	BARIUM	10	0.16	1	0.16	U	
7440-41-7	BERYLLIUM	10	0.27	0.5	0.27	U	
7440-43-9	CADMIUM	10	0.088	0.3	0.088	U	
7440-70-2	CALCIUM	10	68	1000	68	U	
7440-47-3	CHROMIUM	10	0.88	10	0.88	U	
7440-48-4	COBALT	10	0.083	1	0.083	U	
7440-50-8	COPPER	10	1.2	10	1.2	U	
7439-89-6	IRON	10	8.1	100	8.1	U	
7439-92-1	LEAD	10	0.36	0.5	0.17	J	
7439-95-4	MAGNESIUM	10	18	100	18	U	
7439-96-5	MANGANESE	10	0.34	2	0.34	U	
7440-02-0	NICKEL	10	4	5	4	U	
7440-09-7	POTASSIUM	10	290	1000	290	U	
7782-49-2	SELENIUM	10	0.66	1	0.66	U	
7440-22-4	SILVER	10	0.041	0.1	0.041	U	
7440-23-5	SODIUM	10	1500	1000	200		
7440-28-0	THALLIUM	10	0.018	0.2	0.018	U	
7440-62-2	VANADIUM	10	0.71	1	0.71	U	
7440-66-6	ZINC	10	9.8	20	9.8	U	

Data Package ID: im1604316-1

Date Printed: Saturday, April 30, 2016

ALS Environmental -- FC

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Total MERCURY

Method SW7470A

Sample Results

Lab Name: ALS Environmental -- FC
Client Name: TI2E Joint Venture
Client Project ID: R1 Buffalo Nike BU-34/35
Work Order Number: 1604316
Reporting Basis: As Received
Analyst: Nathan A. Quatier

Final Volume: 10 ml
Matrix: WATER
Result Units: MG/L

Client Sample ID	Lab ID	Date Collected	Date Prepared	Date Analyzed	Percent Moisture	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Flag	Sample Aliquot
Silo 3-Deep	1604316-1	4/14/2016	4/20/2016	04/21/2016	N/A	1	0.00006	0.0002	0.00006	U	10 ml
Silo 3- Deep DUP	1604316-2	4/14/2016	4/20/2016	04/21/2016	N/A	1	0.00006	0.0002	0.00006	U	10 ml
Silo 3-SW	1604316-3	4/14/2016	4/20/2016	04/21/2016	N/A	1	0.00006	0.0002	0.00006	U	10 ml
Silo 2-SW	1604316-4	4/14/2016	4/20/2016	04/21/2016	N/A	1	0.00006	0.0002	0.00006	U	10 ml
Silo 2-Deep	1604316-5	4/14/2016	4/20/2016	04/21/2016	N/A	1	0.00006	0.0002	0.00006	U	10 ml
Silo 5-SW	1604316-6	4/14/2016	4/20/2016	04/21/2016	N/A	1	0.00006	0.0002	0.00006	U	10 ml
Silo 5-Deep	1604316-7	4/14/2016	4/20/2016	04/21/2016	N/A	1	0.00006	0.0002	0.00006	U	10 ml
Silo 4-SW	1604316-9	4/15/2016	4/20/2016	04/21/2016	N/A	1	0.00006	0.0002	0.00006	U	10 ml
Silo 4-Deep	1604316-10	4/15/2016	4/20/2016	04/21/2016	N/A	1	0.00006	0.0002	0.00006	U	10 ml
Silo 1-SW	1604316-11	4/15/2016	4/20/2016	04/21/2016	N/A	1	0.00006	0.0002	0.00006	U	10 ml
Silo 1-Deep	1604316-12	4/15/2016	4/20/2016	04/21/2016	N/A	1	0.00006	0.0002	0.00006	U	10 ml

Comments:

1. ND or U = Not Detected at or above the client requested detection limit.

Data Package ID: *hg1604316-1*

TOTAL ORGANIC CARBON

Method EPA415.1

Sample Results

Lab Name: ALS Environmental -- FC
Client Name: TI2E Joint Venture
Client Project ID: R1 Buffalo Nike BU-34/35
Work Order Number: 1604316
Reporting Basis: As Received
Analyst: Steven D. White

Final Volume: 40 ml
Matrix: WATER
Result Units: MG/L

Client Sample ID	Lab ID	Date Collected	Date Prepared	Date Analyzed	Percent Moisture	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Flag	Sample Aliquot
Silo 3-Deep	1604316-1	4/14/2016	4/22/2016	04/22/2016	N/A	1	2.8	1	0.3		40 ml
Silo 3- Deep DUP	1604316-2	4/14/2016	4/22/2016	04/22/2016	N/A	1	2.8	1	0.3		40 ml
Silo 3-SW	1604316-3	4/14/2016	4/22/2016	04/22/2016	N/A	1	2.4	1	0.3		40 ml
Silo 2-SW	1604316-4	4/14/2016	4/22/2016	04/22/2016	N/A	1	2.5	1	0.3		40 ml
Silo 2-Deep	1604316-5	4/14/2016	4/22/2016	04/22/2016	N/A	1	2.5	1	0.3		40 ml
Silo 5-SW	1604316-6	4/14/2016	4/22/2016	04/22/2016	N/A	1	1.7	1	0.3		40 ml
Silo 5-Deep	1604316-7	4/14/2016	4/22/2016	04/22/2016	N/A	1	1.7	1	0.3		40 ml
Silo 4-SW	1604316-9	4/15/2016	4/22/2016	04/22/2016	N/A	1	1.9	1	0.3		40 ml
Silo 4-Deep	1604316-10	4/15/2016	4/22/2016	04/22/2016	N/A	1	2.9	1	0.3		40 ml
Silo 1-SW	1604316-11	4/15/2016	4/22/2016	04/22/2016	N/A	1	2.5	1	0.3		40 ml
Silo 1-Deep	1604316-12	4/15/2016	4/22/2016	04/22/2016	N/A	1	3.4	1	0.3		40 ml

Comments:

1. ND or U = Not Detected at or above the client requested detection limit.

Data Package ID: *MO1604316-1*

Silo 2 Shallow Sample

GC/MS Volatiles

Method SW8260_25C

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604316

Client Name: TI2E Joint Venture

ClientProject ID: R1 Buffalo Nike BU-34/35

Field ID: Silo 2-SW

Lab ID: 1604316-4

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 14-Apr-16

Date Extracted: 22-Apr-16

Date Analyzed: 22-Apr-16

Prep Method: SW5030 Rev C

Prep Batch: VL160422-3

QCBatchID: VL160422-3-1

Run ID: VL160422-3A

Cleanup: NONE

Basis: As Received

File Name: C67985

Analyst: Joe Kostelnik

Sample Aliquot: 10 ml

Final Volume: 10 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
75-71-8	DICHLORODIFLUOROMETHANE	1	1	1	0.3	U	
74-87-3	CHLOROMETHANE	1	1	1	0.3	U	
75-01-4	VINYL CHLORIDE	1	1	1	0.3	U	
74-83-9	BROMOMETHANE	1	1	1	0.3	U	
75-00-3	CHLOROETHANE	1	1	1	0.3	U	
75-69-4	TRICHLOROFLUOROMETHANE	1	1	1	0.3	U	
75-35-4	1,1-DICHLOROETHENE	1	1	1	0.3	U	
76-13-1	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETH	1	1	1	0.3	U	
67-64-1	ACETONE	1	10	10	3	U	
74-88-4	IODOMETHANE	1	1	1	0.38	U	
75-15-0	CARBON DISULFIDE	1	1	1	0.3	U	
75-09-2	METHYLENE CHLORIDE	1	1	1	0.44	U	
156-60-5	TRANS-1,2-DICHLOROETHENE	1	1	1	0.3	U	
1634-04-4	METHYL TERTIARY BUTYL ETHER	1	1	1	0.3	U	
75-34-3	1,1-DICHLOROETHANE	1	1	1	0.3	U	
108-05-4	VINYL ACETATE	1	2	2	0.3	U	
156-59-2	CIS-1,2-DICHLOROETHENE	1	1	1	0.3	U	
78-93-3	2-BUTANONE	1	10	10	3	U	
74-97-5	BROMOCHLOROMETHANE	1	1	1	0.3	U	
67-66-3	CHLOROFORM	1	1	1	0.3	U	
71-55-6	1,1,1-TRICHLOROETHANE	1	1	1	0.3	U	
594-20-7	2,2-DICHLOROPROPANE	1	1	1	0.3	U	
56-23-5	CARBON TETRACHLORIDE	1	1	1	0.3	U	
563-58-6	1,1-DICHLOROPROPENE	1	1	1	0.3	U	
107-06-2	1,2-DICHLOROETHANE	1	1	1	0.3	U	
71-43-2	BENZENE	1	1	1	0.3	U	

Data Package ID: VL1604316-1

GC/MS Volatiles

Method SW8260_25C

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604316

Client Name: TI2E Joint Venture

ClientProject ID: R1 Buffalo Nike BU-34/35

Field ID: Silo 2-SW

Lab ID: 1604316-4

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 14-Apr-16

Date Extracted: 22-Apr-16

Date Analyzed: 22-Apr-16

Prep Method: SW5030 Rev C

Prep Batch: VL160422-3

QCBatchID: VL160422-3-1

Run ID: VL160422-3A

Cleanup: NONE

Basis: As Received

File Name: C67985

Analyst: Joe Kostelnik

Sample Aliquot: 10 ml

Final Volume: 10 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
79-01-6	TRICHLOROETHENE	1	1	1	0.3	U	
78-87-5	1,2-DICHLOROPROPANE	1	1	1	0.3	U	
74-95-3	DIBROMOMETHANE	1	1	1	0.3	U	
75-27-4	BROMODICHLOROMETHANE	1	1	1	0.3	U	
10061-01-5	CIS-1,3-DICHLOROPROPENE	1	1	1	0.3	U	
108-10-1	4-METHYL-2-PENTANONE	1	10	10	3	U	
108-88-3	TOLUENE	1	1	1	0.3	U	
10061-02-6	TRANS-1,3-DICHLOROPROPENE	1	1	1	0.3	U	
79-00-5	1,1,2-TRICHLOROETHANE	1	1	1	0.3	U	
591-78-6	2-HEXANONE	1	10	10	3	U	
127-18-4	TETRACHLOROETHENE	1	1	1	0.2	U	
142-28-9	1,3-DICHLOROPROPANE	1	1	1	0.3	U	
124-48-1	DIBROMOCHLOROMETHANE	1	1	1	0.3	U	
106-93-4	1,2-DIBROMOETHANE	1	1	1	0.3	U	
544-10-5	1-CHLOROHEXANE	1	1	1	0.3	U	
108-90-7	CHLOROBENZENE	1	1	1	0.3	U	
630-20-6	1,1,1,2-TETRACHLOROETHANE	1	1	1	0.3	U	
100-41-4	ETHYLBENZENE	1	1	1	0.3	U	
136777-61-2	M+P-XYLENE	1	1	1	0.3	U	
95-47-6	O-XYLENE	1	1	1	0.3	U	
100-42-5	STYRENE	1	1	1	0.3	U	
75-25-2	BROMOFORM	1	1	1	0.3	U	
98-82-8	ISOPROPYLBENZENE	1	1	1	0.3	U	
96-18-4	1,2,3-TRICHLOROPROPANE	1	1	1	0.3	U	
79-34-5	1,1,2,2-TETRACHLOROETHANE	1	1	1	0.3	U	
108-86-1	BROMOBENZENE	1	1	1	0.3	U	

Data Package ID: VL1604316-1

Date Printed: Wednesday, April 27, 2016

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GC/MS Volatiles

Method SW8260_25C

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604316

Client Name: TI2E Joint Venture

ClientProject ID: R1 Buffalo Nike BU-34/35

Field ID: Silo 2-SW

Lab ID: 1604316-4

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 14-Apr-16

Date Extracted: 22-Apr-16

Date Analyzed: 22-Apr-16

Prep Method: SW5030 Rev C

Prep Batch: VL160422-3

QCBatchID: VL160422-3-1

Run ID: VL160422-3A

Cleanup: NONE

Basis: As Received

File Name: C67985

Analyst: Joe Kostelnik

Sample Aliquot: 10 ml

Final Volume: 10 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
103-65-1	N-PROPYLBENZENE	1	1	1	0.3	U	
95-49-8	2-CHLOROTOLUENE	1	1	1	0.3	U	
108-67-8	1,3,5-TRIMETHYLBENZENE	1	1	1	0.3	U	
106-43-4	4-CHLOROTOLUENE	1	1	1	0.3	U	
98-06-6	TERT-BUTYLBENZENE	1	1	1	0.3	U	
95-63-6	1,2,4-TRIMETHYLBENZENE	1	1	1	0.3	U	
135-98-8	SEC-BUTYLBENZENE	1	1	1	0.3	U	
541-73-1	1,3-DICHLOROBENZENE	1	1	1	0.3	U	
99-87-6	P-ISOPROPYLTOLUENE	1	1	1	0.3	U	
106-46-7	1,4-DICHLOROBENZENE	1	1	1	0.3	U	
104-51-8	N-BUTYLBENZENE	1	1	1	0.3	U	
95-50-1	1,2-DICHLOROBENZENE	1	1	1	0.3	U	
96-12-8	1,2-DIBROMO-3-CHLOROPROPANE	1	2	2	0.4	U	
120-82-1	1,2,4-TRICHLOROBENZENE	1	1	1	0.3	U	
87-68-3	HEXACHLOROBUTADIENE	1	1	1	0.3	U	
91-20-3	NAPHTHALENE	1	1	1	0.3	U	
87-61-6	1,2,3-TRICHLOROBENZENE	1	1	1	0.3	U	

Data Package ID: VL1604316-1

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GC/MS Volatiles

Method SW8260_25C

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604316

Client Name: TI2E Joint Venture

ClientProject ID: R1 Buffalo Nike BU-34/35

Field ID:	Silo 2-SW
Lab ID:	1604316-4

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 14-Apr-16

Date Extracted: 22-Apr-16

Date Analyzed: 22-Apr-16

Prep Method: SW5030 Rev C

Prep Batch: VL160422-3

QCBatchID: VL160422-3-1

Run ID: VL160422-3A

Cleanup: NONE

Basis: As Received

File Name: C67985

Analyst: Joe Kostelnik

Sample Aliquot: 10 ml

Final Volume: 10 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier

Surrogate Recovery

CASNO	Surrogate Analyte	Result	Flag	Spike Amount	Percent Recovery	Control Limits
460-00-4	4-BROMOFLUOROBENZENE	25.4		25	102	85 - 115
1868-53-7	DIBROMOFLUOROMETHANE	25		25	100	84 - 118
2037-26-5	TOLUENE-D8	25.9		25	104	85 - 115

Data Package ID: VL1604316-1

Date Printed: Wednesday, April 27, 2016

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GC/MS Semi-volatiles

Method SW8270D

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604316

Client Name: TI2E Joint Venture

ClientProject ID: R1 Buffalo Nike BU-34/35

Field ID: Silo 2-SW

Lab ID: 1604316-4

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 14-Apr-16

Date Extracted: 20-Apr-16

Date Analyzed: 25-Apr-16

Prep Method: SW3520 Rev C

Prep Batch: EX160420-1

QCBatchID: EX160420-1-1

Run ID: SV160425-3

Cleanup: NONE

Basis: As Received

File Name: R6503

Analyst: Tyler Knaebel

Sample Aliquot: 1015 ml

Final Volume: 1 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
110-86-1	PYRIDINE	1	9.9	9.9	3.8	U	
62-75-9	N-NITROSODIMETHYLAMINE	1	9.9	9.9	3	U	
62-53-3	ANILINE	1	9.9	9.9	3.1	U	
108-95-2	PHENOL	1	9.9	9.9	3	U	
111-44-4	BIS(2-CHLOROETHYL)ETHER	1	9.9	9.9	3	U	
95-57-8	2-CHLOROPHENOL	1	9.9	9.9	3	U	
541-73-1	1,3-DICHLOROBENZENE	1	9.9	9.9	3	U	
106-46-7	1,4-DICHLOROBENZENE	1	9.9	9.9	3	U	
95-50-1	1,2-DICHLOROBENZENE	1	9.9	9.9	3	U	
100-51-6	BENZYL ALCOHOL	1	9.9	9.9	3	U	
108-60-1	BIS(2-CHLOROISOPROPYL)ETHER	1	9.9	9.9	3	U	
95-48-7	2-METHYLPHENOL	1	9.9	9.9	3	U	
621-64-7	N-NITROSO-DI-N-PROPYLAMINE	1	9.9	9.9	3	U	
108-39-4	3+4-METHYLPHENOL	1	9.9	9.9	3	U	
67-72-1	HEXACHLOROETHANE	1	9.9	9.9	3	U	
98-95-3	NITROBENZENE	1	9.9	9.9	3	U	
78-59-1	ISOPHORONE	1	9.9	9.9	3	U	
88-75-5	2-NITROPHENOL	1	9.9	9.9	3	U	
105-67-9	2,4-DIMETHYLPHENOL	1	9.9	9.9	3	U	
111-91-1	BIS(2-CHLOROETHOXY)METHANE	1	9.9	9.9	3	U	
120-83-2	2,4-DICHLOROPHENOL	1	9.9	9.9	3	U	
65-85-0	BENZOIC ACID	1	49	49	19	U	
120-82-1	1,2,4-TRICHLOROBENZENE	1	9.9	9.9	3	U	
91-20-3	NAPHTHALENE	1	9.9	9.9	3	U	
106-47-8	4-CHLOROANILINE	1	9.9	9.9	5.3	U	
87-68-3	HEXACHLOROBUTADIENE	1	9.9	9.9	3	U	

Data Package ID: SV1604316-1

GC/MS Semi-volatiles

Method SW8270D

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604316

Client Name: TI2E Joint Venture

ClientProject ID: R1 Buffalo Nike BU-34/35

Field ID: Silo 2-SW

Lab ID: 1604316-4

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 14-Apr-16

Date Extracted: 20-Apr-16

Date Analyzed: 25-Apr-16

Prep Method: SW3520 Rev C

Prep Batch: EX160420-1

QCBatchID: EX160420-1-1

Run ID: SV160425-3

Cleanup: NONE

Basis: As Received

File Name: R6503

Analyst: Tyler Knaebel

Sample Aliquot: 1015 ml

Final Volume: 1 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
59-50-7	4-CHLORO-3-METHYLPHENOL	1	9.9	9.9	3	U	
91-57-6	2-METHYLNAPHTHALENE	1	9.9	9.9	3	U	
90-12-0	1-METHYLNAPHTHALENE	1	9.9	9.9	3	U	
77-47-4	HEXACHLOROCYCLOPENTADIENE	1	9.9	9.9	5	U	
88-06-2	2,4,6-TRICHLOROPHENOL	1	9.9	9.9	3	U	
95-95-4	2,4,5-TRICHLOROPHENOL	1	9.9	9.9	3	U	
91-58-7	2-CHLORONAPHTHALENE	1	9.9	9.9	3	U	
88-74-4	2-NITROANILINE	1	20	20	3	U	
131-11-3	DIMETHYL PHTHALATE	1	9.9	9.9	3	U	
606-20-2	2,6-DINITROTOLUENE	1	9.9	9.9	3	U	
208-96-8	ACENAPHTHYLENE	1	9.9	9.9	3	U	
99-09-2	3-NITROANILINE	1	20	20	3.9	U	
83-32-9	ACENAPHTHENE	1	9.9	9.9	3	U	
51-28-5	2,4-DINITROPHENOL	1	20	20	3	U	
100-02-7	4-NITROPHENOL	1	20	20	3.5	U	
132-64-9	DIBENZOFURAN	1	9.9	9.9	3	U	
121-14-2	2,4-DINITROTOLUENE	1	9.9	9.9	3	U	
84-66-2	DIETHYL PHTHALATE	1	9.9	9.9	3	U	
86-73-7	FLUORENE	1	9.9	9.9	3	U	
7005-72-3	4-CHLOROPHENYL PHENYL ETHER	1	9.9	9.9	3	U	
100-01-6	4-NITROANILINE	1	20	20	3.2	U	
103-33-3	AZOBENZENE	1	9.9	9.9	3	U	
534-52-1	4,6-DINITRO-2-METHYLPHENOL	1	20	20	3.5	U	
86-30-6	N-NITROSODIPHENYLAMINE	1	9.9	9.9	3	U	
101-55-3	4-BROMOPHENYL PHENYL ETHER	1	9.9	9.9	3	U	
118-74-1	HEXACHLOROBENZENE	1	9.9	9.9	3	U	

Data Package ID: SV1604316-1

GC/MS Semi-volatiles

Method SW8270D

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604316

Client Name: TI2E Joint Venture

ClientProject ID: R1 Buffalo Nike BU-34/35

Field ID: Silo 2-SW

Lab ID: 1604316-4

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 14-Apr-16

Date Extracted: 20-Apr-16

Date Analyzed: 25-Apr-16

Prep Method: SW3520 Rev C

Prep Batch: EX160420-1

QCBatchID: EX160420-1-1

Run ID: SV160425-3

Cleanup: NONE

Basis: As Received

File Name: R6503

Analyst: Tyler Knaebel

Sample Aliquot: 1015 ml

Final Volume: 1 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
58-90-2	2,3,4,6-TETRACHLOROPHENOL	1	9.9	9.9	3.7	U	
87-86-5	PENTACHLOROPHENOL	1	20	20	4.1	U	
85-01-8	PHENANTHRENE	1	9.9	9.9	3	U	
120-12-7	ANTHRACENE	1	9.9	9.9	3	U	
86-74-8	CARBAZOLE	1	9.9	9.9	3	U	
84-74-2	DI-N-BUTYL PHTHALATE	1	9.9	9.9	3	U	
206-44-0	FLUORANTHENE	1	9.9	9.9	3	U	
129-00-0	PYRENE	1	9.9	9.9	3	U	
85-68-7	BUTYL BENZYL PHTHALATE	1	9.9	9.9	3	U	
56-55-3	BENZO(A)ANTHRACENE	1	9.9	9.9	3	U	
91-94-1	3,3'-DICHLOROBENZIDINE	1	9.9	9.9	6.2	U	
218-01-9	CHRYSENE	1	9.9	9.9	3	U	
117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	1	9.9	9.9	3	U	
117-84-0	DI-N-OCTYL PHTHALATE	1	9.9	9.9	3	U	
205-99-2	BENZO(B)FLUORANTHENE	1	9.9	9.9	3	U	
207-08-9	BENZO(K)FLUORANTHENE	1	9.9	9.9	3	U	
50-32-8	BENZO(A)PYRENE	1	9.9	9.9	3	U	
193-39-5	INDENO(1,2,3-CD)PYRENE	1	9.9	9.9	3	U	
53-70-3	DIBENZO(A,H)ANTHRACENE	1	9.9	9.9	3	U	
191-24-2	BENZO(G,H,I)PERYLENE	1	9.9	9.9	3	U	

Data Package ID: SV1604316-1

GC/MS Semi-volatiles

Method SW8270D

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604316

Client Name: TI2E Joint Venture

ClientProject ID: R1 Buffalo Nike BU-34/35

Field ID:	Silo 2-SW
Lab ID:	1604316-4

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 14-Apr-16

Date Extracted: 20-Apr-16

Date Analyzed: 25-Apr-16

Prep Method: SW3520 Rev C

Prep Batch: EX160420-1

QCBatchID: EX160420-1-1

Run ID: SV160425-3

Cleanup: NONE

Basis: As Received

File Name: R6503

Analyst: Tyler Knaebel

Sample Aliquot: 1015 ml

Final Volume: 1 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier

Surrogate Recovery

CASNO	Surrogate Analyte	Result	Flag	Spike Amount	Percent Recovery	Control Limits
118-79-6	2,4,6-TRIBROMOPHENOL	60.4		73.9	82	42 - 117
321-60-8	2-FLUOROBIPHENYL	43.9		49.3	89	55 - 108
367-12-4	2-FLUOROPHENOL	63.2		73.9	86	46 - 105
4165-60-0	NITROBENZENE-D5	44		49.3	89	53 - 111
4165-62-2	PHENOL-D5	66.3		73.9	90	50 - 109
1718-51-0	TERPHENYL-D14	42.5		49.3	86	34 - 139

Data Package ID: SV1604316-1

PCBs

Method SW8082

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604316

Client Name: TI2E Joint Venture

ClientProject ID: R1 Buffalo Nike BU-34/35

Field ID: Silo 2-SW

Lab ID: 1604316-4

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 14-Apr-16

Date Extracted: 20-Apr-16

Date Analyzed: 22-Apr-16

Prep Method: SW3520 Rev C

Prep Batch: EX160420-8

QCBatchID: EX160420-8-1

Run ID: PT160422-11

Cleanup: SW3665

Basis: As Received

File Name: 16112.dat

Analyst: Dan Sheneman

Sample Aliquot: 1035 ml

Final Volume: 10 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
12674-11-2	AROCLOR-1016	1	0.97	0.97	0.29	U	
11104-28-2	AROCLOR-1221	1	1.9	1.9	0.29	U	
11141-16-5	AROCLOR-1232	1	0.97	0.97	0.29	U	
53469-21-9	AROCLOR-1242	1	0.97	0.97	0.29	U	
12672-29-6	AROCLOR-1248	1	0.97	0.97	0.29	U	
11097-69-1	AROCLOR-1254	1	0.97	0.97	0.29	U	
11096-82-5	AROCLOR-1260	1	0.97	0.97	0.29	U	

Surrogate Recovery

CASNO	Surrogate Analyte	Result	Flag	Spike Amount	Percent Recovery	Control Limits
2051-24-3	DECACHLOROBIPHENYL	0.307		0.483	64	14 - 114
877-09-8	TETRACHLORO-M-XYLENE	0.502		0.483	104	72 - 125

Data Package ID: PCB1604316-1

Total ICPMS Metals

Method SW6020A

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604316

Client Name: TI2E Joint Venture

ClientProject ID: R1 Buffalo Nike BU-34/35

Field ID: Silo 2-SW

Lab ID: 1604316-4

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 14-Apr-16

Date Extracted: 21-Apr-16

Date Analyzed: 25-Apr-16

Prep Method: SW3010 Rev A

Prep Batch: IP160421-3

QCBatchID: IP160421-3-1

Run ID: IM160425-10A7

Cleanup: NONE

Basis: As Received

File Name: 025SMPL_

Analyst: Carly D. Ruble

Sample Aliquot: 50 ml

Final Volume: 50 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
7429-90-5	ALUMINUM	10	11	100	11	U	
7440-36-0	ANTIMONY	10	0.13	1	0.13	U	
7440-38-2	ARSENIC	10	0.61	2	0.16	J	
7440-39-3	BARIUM	10	32	5	0.24		
7440-41-7	BERYLLIUM	10	0.25	0.5	0.25	U	
7440-43-9	CADMIUM	10	0.09	2	0.079	J	
7440-70-2	CALCIUM	10	130000	1000	61		
7440-47-3	CHROMIUM	10	0.88	10	0.88	U	
7440-48-4	COBALT	10	0.079	5	0.079	U	
7440-50-8	COPPER	10	11	20	0.9	J	
7439-89-6	IRON	10	55	100	8.6	J	
7439-92-1	LEAD	10	3.1	2	0.17		
7439-95-4	MAGNESIUM	10	14000	100	18		
7439-96-5	MANGANESE	10	2.5	5	0.3	J	
7440-02-0	NICKEL	10	4	20	4	U	
7440-09-7	POTASSIUM	10	9500	1000	290		
7782-49-2	SELENIUM	10	0.66	10	0.66	U	
7440-22-4	SILVER	10	0.033	0.5	0.033	U	
7440-23-5	SODIUM	10	2400	1000	160		
7440-28-0	THALLIUM	10	0.014	0.1	0.014	U	
7440-62-2	VANADIUM	10	0.58	5	0.58	U	
7440-66-6	ZINC	10	190	100	8.1		

Data Package ID: im1604316-2

Date Printed: Saturday, April 30, 2016

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Dissolved Metals by 200.8

Method EPA200.8 Revision 5.4

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604316

Client Name: TI2E Joint Venture

ClientProject ID: R1 Buffalo Nike BU-34/35

Field ID: Silo 2-SW

Lab ID: 1604316-17

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 14-Apr-16

Date Extracted: 21-Apr-16

Date Analyzed: 22-Apr-16

Prep Method: EPA200.2 Rev 2.2

Prep Batch: IP160421-2

QCBatchID: IP160421-2-3

Run ID: IM160422-10A18

Cleanup: NONE

Basis: As Received

File Name: 067SMPL_

Analyst: Carly D. Ruble

Sample Aliquot: 50 ml

Final Volume: 50 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
7429-90-5	ALUMINUM	10	20	50	14	J	
7440-36-0	ANTIMONY	10	0.11	0.3	0.11	U	
7440-38-2	ARSENIC	10	0.2	2	0.2	U	
7440-39-3	BARIUM	10	35	1	0.16		
7440-41-7	BERYLLIUM	10	0.27	0.5	0.27	U	
7440-43-9	CADMIUM	10	0.088	0.3	0.088	U	
7440-70-2	CALCIUM	10	42000	1000	68		
7440-47-3	CHROMIUM	10	0.88	10	0.88	U	
7440-48-4	COBALT	10	0.083	1	0.083	U	
7440-50-8	COPPER	10	1.2	10	1.2	J	
7439-89-6	IRON	10	19	100	8.1	J	
7439-92-1	LEAD	10	0.22	0.5	0.17	J	
7439-95-4	MAGNESIUM	10	7400	100	18		
7439-96-5	MANGANESE	10	1	2	0.34	J	
7440-02-0	NICKEL	10	4	5	4	U	
7440-09-7	POTASSIUM	10	54000	1000	290		
7782-49-2	SELENIUM	10	0.66	1	0.66	U	
7440-22-4	SILVER	10	0.041	0.1	0.041	U	
7440-23-5	SODIUM	10	11000	1000	200		
7440-28-0	THALLIUM	10	0.018	0.2	0.018	U	
7440-62-2	VANADIUM	10	0.71	1	0.71	U	
7440-66-6	ZINC	10	23	20	9.8		

Data Package ID: im1604316-1

Date Printed: Saturday, April 30, 2016

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Total MERCURY

Method SW7470A

Sample Results

Lab Name: ALS Environmental -- FC
Client Name: TI2E Joint Venture
Client Project ID: R1 Buffalo Nike BU-34/35
Work Order Number: 1604316
Reporting Basis: As Received
Analyst: Nathan A. Quatier

Final Volume: 10 ml
Matrix: WATER
Result Units: MG/L

Client Sample ID	Lab ID	Date Collected	Date Prepared	Date Analyzed	Percent Moisture	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Flag	Sample Aliquot
Silo 3-Deep	1604316-1	4/14/2016	4/20/2016	04/21/2016	N/A	1	0.00006	0.0002	0.00006	U	10 ml
Silo 3- Deep DUP	1604316-2	4/14/2016	4/20/2016	04/21/2016	N/A	1	0.00006	0.0002	0.00006	U	10 ml
Silo 3-SW	1604316-3	4/14/2016	4/20/2016	04/21/2016	N/A	1	0.00006	0.0002	0.00006	U	10 ml
Silo 2-SW	1604316-4	4/14/2016	4/20/2016	04/21/2016	N/A	1	0.00006	0.0002	0.00006	U	10 ml
Silo 2-Deep	1604316-5	4/14/2016	4/20/2016	04/21/2016	N/A	1	0.00006	0.0002	0.00006	U	10 ml
Silo 5-SW	1604316-6	4/14/2016	4/20/2016	04/21/2016	N/A	1	0.00006	0.0002	0.00006	U	10 ml
Silo 5-Deep	1604316-7	4/14/2016	4/20/2016	04/21/2016	N/A	1	0.00006	0.0002	0.00006	U	10 ml
Silo 4-SW	1604316-9	4/15/2016	4/20/2016	04/21/2016	N/A	1	0.00006	0.0002	0.00006	U	10 ml
Silo 4-Deep	1604316-10	4/15/2016	4/20/2016	04/21/2016	N/A	1	0.00006	0.0002	0.00006	U	10 ml
Silo 1-SW	1604316-11	4/15/2016	4/20/2016	04/21/2016	N/A	1	0.00006	0.0002	0.00006	U	10 ml
Silo 1-Deep	1604316-12	4/15/2016	4/20/2016	04/21/2016	N/A	1	0.00006	0.0002	0.00006	U	10 ml

Comments:

1. ND or U = Not Detected at or above the client requested detection limit.

Data Package ID: *hg1604316-1*

TOTAL ORGANIC CARBON

Method EPA415.1

Sample Results

Lab Name: ALS Environmental -- FC
Client Name: TI2E Joint Venture
Client Project ID: R1 Buffalo Nike BU-34/35
Work Order Number: 1604316
Reporting Basis: As Received
Analyst: Steven D. White

Final Volume: 40 ml
Matrix: WATER
Result Units: MG/L

Client Sample ID	Lab ID	Date Collected	Date Prepared	Date Analyzed	Percent Moisture	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Flag	Sample Aliquot
Silo 3-Deep	1604316-1	4/14/2016	4/22/2016	04/22/2016	N/A	1	2.8	1	0.3		40 ml
Silo 3- Deep DUP	1604316-2	4/14/2016	4/22/2016	04/22/2016	N/A	1	2.8	1	0.3		40 ml
Silo 3-SW	1604316-3	4/14/2016	4/22/2016	04/22/2016	N/A	1	2.4	1	0.3		40 ml
Silo 2-SW	1604316-4	4/14/2016	4/22/2016	04/22/2016	N/A	1	2.5	1	0.3		40 ml
Silo 2-Deep	1604316-5	4/14/2016	4/22/2016	04/22/2016	N/A	1	2.5	1	0.3		40 ml
Silo 5-SW	1604316-6	4/14/2016	4/22/2016	04/22/2016	N/A	1	1.7	1	0.3		40 ml
Silo 5-Deep	1604316-7	4/14/2016	4/22/2016	04/22/2016	N/A	1	1.7	1	0.3		40 ml
Silo 4-SW	1604316-9	4/15/2016	4/22/2016	04/22/2016	N/A	1	1.9	1	0.3		40 ml
Silo 4-Deep	1604316-10	4/15/2016	4/22/2016	04/22/2016	N/A	1	2.9	1	0.3		40 ml
Silo 1-SW	1604316-11	4/15/2016	4/22/2016	04/22/2016	N/A	1	2.5	1	0.3		40 ml
Silo 1-Deep	1604316-12	4/15/2016	4/22/2016	04/22/2016	N/A	1	3.4	1	0.3		40 ml

Comments:

1. ND or U = Not Detected at or above the client requested detection limit.

Data Package ID: *MO1604316-1*

Silo 2 Deep Sample

GC/MS Volatiles

Method SW8260_25C

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604316

Client Name: TI2E Joint Venture

ClientProject ID: R1 Buffalo Nike BU-34/35

Field ID: Silo 2-Deep

Lab ID: 1604316-5

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 14-Apr-16

Date Extracted: 22-Apr-16

Date Analyzed: 22-Apr-16

Prep Method: SW5030 Rev C

Prep Batch: VL160422-3

QCBatchID: VL160422-3-1

Run ID: VL160422-3A

Cleanup: NONE

Basis: As Received

File Name: C67986

Analyst: Joe Kostelnik

Sample Aliquot: 10 ml

Final Volume: 10 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
75-71-8	DICHLORODIFLUOROMETHANE	1	1	1	0.3	U	
74-87-3	CHLOROMETHANE	1	1	1	0.3	U	
75-01-4	VINYL CHLORIDE	1	1	1	0.3	U	
74-83-9	BROMOMETHANE	1	1	1	0.3	U	
75-00-3	CHLOROETHANE	1	1	1	0.3	U	
75-69-4	TRICHLOROFLUOROMETHANE	1	1	1	0.3	U	
75-35-4	1,1-DICHLOROETHENE	1	1	1	0.3	U	
76-13-1	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETH	1	1	1	0.3	U	
67-64-1	ACETONE	1	10	10	3	U	
74-88-4	IODOMETHANE	1	1	1	0.38	U	
75-15-0	CARBON DISULFIDE	1	1	1	0.3	U	
75-09-2	METHYLENE CHLORIDE	1	1	1	0.44	U	
156-60-5	TRANS-1,2-DICHLOROETHENE	1	1	1	0.3	U	
1634-04-4	METHYL TERTIARY BUTYL ETHER	1	1	1	0.3	U	
75-34-3	1,1-DICHLOROETHANE	1	1	1	0.3	U	
108-05-4	VINYL ACETATE	1	2	2	0.3	U	
156-59-2	CIS-1,2-DICHLOROETHENE	1	1	1	0.3	U	
78-93-3	2-BUTANONE	1	10	10	3	U	
74-97-5	BROMOCHLOROMETHANE	1	1	1	0.3	U	
67-66-3	CHLOROFORM	1	1	1	0.3	U	
71-55-6	1,1,1-TRICHLOROETHANE	1	1	1	0.3	U	
594-20-7	2,2-DICHLOROPROPANE	1	1	1	0.3	U	
56-23-5	CARBON TETRACHLORIDE	1	1	1	0.3	U	
563-58-6	1,1-DICHLOROPROPENE	1	1	1	0.3	U	
107-06-2	1,2-DICHLOROETHANE	1	1	1	0.3	U	
71-43-2	BENZENE	1	1	1	0.3	U	

Data Package ID: VL1604316-1

Date Printed: Wednesday, April 27, 2016

ALS Environmental -- FC

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GC/MS Volatiles

Method SW8260_25C

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604316

Client Name: TI2E Joint Venture

ClientProject ID: R1 Buffalo Nike BU-34/35

Field ID: Silo 2-Deep

Lab ID: 1604316-5

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 14-Apr-16

Date Extracted: 22-Apr-16

Date Analyzed: 22-Apr-16

Prep Method: SW5030 Rev C

Prep Batch: VL160422-3

QCBatchID: VL160422-3-1

Run ID: VL160422-3A

Cleanup: NONE

Basis: As Received

File Name: C67986

Analyst: Joe Kostelnik

Sample Aliquot: 10 ml

Final Volume: 10 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
79-01-6	TRICHLOROETHENE	1	1	1	0.3	U	
78-87-5	1,2-DICHLOROPROPANE	1	1	1	0.3	U	
74-95-3	DIBROMOMETHANE	1	1	1	0.3	U	
75-27-4	BROMODICHLOROMETHANE	1	1	1	0.3	U	
10061-01-5	CIS-1,3-DICHLOROPROPENE	1	1	1	0.3	U	
108-10-1	4-METHYL-2-PENTANONE	1	10	10	3	U	
108-88-3	TOLUENE	1	1	1	0.3	U	
10061-02-6	TRANS-1,3-DICHLOROPROPENE	1	1	1	0.3	U	
79-00-5	1,1,2-TRICHLOROETHANE	1	1	1	0.3	U	
591-78-6	2-HEXANONE	1	10	10	3	U	
127-18-4	TETRACHLOROETHENE	1	1	1	0.2	U	
142-28-9	1,3-DICHLOROPROPANE	1	1	1	0.3	U	
124-48-1	DIBROMOCHLOROMETHANE	1	1	1	0.3	U	
106-93-4	1,2-DIBROMOETHANE	1	1	1	0.3	U	
544-10-5	1-CHLOROHEXANE	1	1	1	0.3	U	
108-90-7	CHLOROBENZENE	1	1	1	0.3	U	
630-20-6	1,1,1,2-TETRACHLOROETHANE	1	1	1	0.3	U	
100-41-4	ETHYLBENZENE	1	1	1	0.3	U	
136777-61-2	M+P-XYLENE	1	1	1	0.3	U	
95-47-6	O-XYLENE	1	1	1	0.3	U	
100-42-5	STYRENE	1	1	1	0.3	U	
75-25-2	BROMOFORM	1	1	1	0.3	U	
98-82-8	ISOPROPYLBENZENE	1	1	1	0.3	U	
96-18-4	1,2,3-TRICHLOROPROPANE	1	1	1	0.3	U	
79-34-5	1,1,2,2-TETRACHLOROETHANE	1	1	1	0.3	U	
108-86-1	BROMOBENZENE	1	1	1	0.3	U	

Data Package ID: VL1604316-1

GC/MS Volatiles

Method SW8260_25C

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604316

Client Name: TI2E Joint Venture

ClientProject ID: R1 Buffalo Nike BU-34/35

Field ID: Silo 2-Deep

Lab ID: 1604316-5

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 14-Apr-16

Date Extracted: 22-Apr-16

Date Analyzed: 22-Apr-16

Prep Method: SW5030 Rev C

Prep Batch: VL160422-3

QCBatchID: VL160422-3-1

Run ID: VL160422-3A

Cleanup: NONE

Basis: As Received

File Name: C67986

Analyst: Joe Kostelnik

Sample Aliquot: 10 ml

Final Volume: 10 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
103-65-1	N-PROPYLBENZENE	1	1	1	0.3	U	
95-49-8	2-CHLOROTOLUENE	1	1	1	0.3	U	
108-67-8	1,3,5-TRIMETHYLBENZENE	1	1	1	0.3	U	
106-43-4	4-CHLOROTOLUENE	1	1	1	0.3	U	
98-06-6	TERT-BUTYLBENZENE	1	1	1	0.3	U	
95-63-6	1,2,4-TRIMETHYLBENZENE	1	1	1	0.3	U	
135-98-8	SEC-BUTYLBENZENE	1	1	1	0.3	U	
541-73-1	1,3-DICHLOROBENZENE	1	1	1	0.3	U	
99-87-6	P-ISOPROPYLTOLUENE	1	1	1	0.3	U	
106-46-7	1,4-DICHLOROBENZENE	1	1	1	0.3	U	
104-51-8	N-BUTYLBENZENE	1	1	1	0.3	U	
95-50-1	1,2-DICHLOROBENZENE	1	1	1	0.3	U	
96-12-8	1,2-DIBROMO-3-CHLOROPROPANE	1	2	2	0.4	U	
120-82-1	1,2,4-TRICHLOROBENZENE	1	1	1	0.3	U	
87-68-3	HEXACHLOROBUTADIENE	1	1	1	0.3	U	
91-20-3	NAPHTHALENE	1	1	1	0.3	U	
87-61-6	1,2,3-TRICHLOROBENZENE	1	1	1	0.3	U	

Data Package ID: VL1604316-1

Date Printed: Wednesday, April 27, 2016

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GC/MS Volatiles

Method SW8260_25C

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604316

Client Name: TI2E Joint Venture

ClientProject ID: R1 Buffalo Nike BU-34/35

Field ID: Silo 2-Deep	Sample Matrix: WATER	Prep Batch: VL160422-3	Analyst: Joe Kostelnik
Lab ID: 1604316-5	% Moisture: N/A	QCBatchID: VL160422-3-1	Sample Aliquot: 10 ml
	Date Collected: 14-Apr-16	Run ID: VL160422-3A	Final Volume: 10 ml
	Date Extracted: 22-Apr-16	Cleanup: NONE	Result Units: UG/L
	Date Analyzed: 22-Apr-16	Basis: As Received	Clean DF: 1
	Prep Method: SW5030 Rev C	File Name: C67986	

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier

Surrogate Recovery

CASNO	Surrogate Analyte	Result	Flag	Spike Amount	Percent Recovery	Control Limits
460-00-4	4-BROMOFLUOROBENZENE	25.6		25	102	85 - 115
1868-53-7	DIBROMOFLUOROMETHANE	25		25	100	84 - 118
2037-26-5	TOLUENE-D8	25.9		25	104	85 - 115

Data Package ID: VL1604316-1

Date Printed: Wednesday, April 27, 2016

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GC/MS Semi-volatiles

Method SW8270D

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604316

Client Name: TI2E Joint Venture

ClientProject ID: R1 Buffalo Nike BU-34/35

Field ID: Silo 2-Deep

Lab ID: 1604316-5

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 14-Apr-16

Date Extracted: 20-Apr-16

Date Analyzed: 25-Apr-16

Prep Method: SW3520 Rev C

Prep Batch: EX160420-1

QC Batch ID: EX160420-1-1

Run ID: SV160425-3

Cleanup: NONE

Basis: As Received

File Name: R6504

Analyst: Tyler Knaebel

Sample Aliquot: 995 ml

Final Volume: 1 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
110-86-1	PYRIDINE	1	10	10	3.9	U	
62-75-9	N-NITROSODIMETHYLAMINE	1	10	10	3	U	
62-53-3	ANILINE	1	10	10	3.1	U	
108-95-2	PHENOL	1	10	10	3	U	
111-44-4	BIS(2-CHLOROETHYL)ETHER	1	10	10	3	U	
95-57-8	2-CHLOROPHENOL	1	10	10	3	U	
541-73-1	1,3-DICHLOROBENZENE	1	10	10	3	U	
106-46-7	1,4-DICHLOROBENZENE	1	10	10	3	U	
95-50-1	1,2-DICHLOROBENZENE	1	10	10	3	U	
100-51-6	BENZYL ALCOHOL	1	10	10	3	U	
108-60-1	BIS(2-CHLOROISOPROPYL)ETHER	1	10	10	3	U	
95-48-7	2-METHYLPHENOL	1	10	10	3	U	
621-64-7	N-NITROSO-DI-N-PROPYLAMINE	1	10	10	3	U	
108-39-4	3+4-METHYLPHENOL	1	10	10	3	U	
67-72-1	HEXACHLOROETHANE	1	10	10	3	U	
98-95-3	NITROBENZENE	1	10	10	3	U	
78-59-1	ISOPHORONE	1	10	10	3	U	
88-75-5	2-NITROPHENOL	1	10	10	3	U	
105-67-9	2,4-DIMETHYLPHENOL	1	10	10	3	U	
111-91-1	BIS(2-CHLOROETHOXY)METHANE	1	10	10	3	U	
120-83-2	2,4-DICHLOROPHENOL	1	10	10	3	U	
65-85-0	BENZOIC ACID	1	50	50	19	U	
120-82-1	1,2,4-TRICHLOROBENZENE	1	10	10	3	U	
91-20-3	NAPHTHALENE	1	10	10	3	U	
106-47-8	4-CHLOROANILINE	1	10	10	5.4	U	
87-68-3	HEXACHLOROBUTADIENE	1	10	10	3	U	

Data Package ID: SV1604316-1

GC/MS Semi-volatiles

Method SW8270D

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604316

Client Name: TI2E Joint Venture

ClientProject ID: R1 Buffalo Nike BU-34/35

Field ID: Silo 2-Deep

Lab ID: 1604316-5

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 14-Apr-16

Date Extracted: 20-Apr-16

Date Analyzed: 25-Apr-16

Prep Method: SW3520 Rev C

Prep Batch: EX160420-1

QC Batch ID: EX160420-1-1

Run ID: SV160425-3

Cleanup: NONE

Basis: As Received

File Name: R6504

Analyst: Tyler Knaebel

Sample Aliquot: 995 ml

Final Volume: 1 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
59-50-7	4-CHLORO-3-METHYLPHENOL	1	10	10	3	U	
91-57-6	2-METHYLNAPHTHALENE	1	10	10	3	U	
90-12-0	1-METHYLNAPHTHALENE	1	10	10	3	U	
77-47-4	HEXACHLOROCYCLOPENTADIENE	1	10	10	5.1	U	
88-06-2	2,4,6-TRICHLOROPHENOL	1	10	10	3	U	
95-95-4	2,4,5-TRICHLOROPHENOL	1	10	10	3	U	
91-58-7	2-CHLORONAPHTHALENE	1	10	10	3	U	
88-74-4	2-NITROANILINE	1	20	20	3	U	
131-11-3	DIMETHYL PHTHALATE	1	10	10	3	U	
606-20-2	2,6-DINITROTOLUENE	1	10	10	3	U	
208-96-8	ACENAPHTHYLENE	1	10	10	3	U	
99-09-2	3-NITROANILINE	1	20	20	4	U	
83-32-9	ACENAPHTHENE	1	10	10	3	U	
51-28-5	2,4-DINITROPHENOL	1	20	20	3	U	
100-02-7	4-NITROPHENOL	1	20	20	3.6	U	
132-64-9	DIBENZOFURAN	1	10	10	3	U	
121-14-2	2,4-DINITROTOLUENE	1	10	10	3	U	
84-66-2	DIETHYL PHTHALATE	1	10	10	3	U	
86-73-7	FLUORENE	1	10	10	3	U	
7005-72-3	4-CHLOROPHENYL PHENYL ETHER	1	10	10	3	U	
100-01-6	4-NITROANILINE	1	20	20	3.2	U	
103-33-3	AZOBENZENE	1	10	10	3	U	
534-52-1	4,6-DINITRO-2-METHYLPHENOL	1	20	20	3.6	U	
86-30-6	N-NITROSODIPHENYLAMINE	1	10	10	3	U	
101-55-3	4-BROMOPHENYL PHENYL ETHER	1	10	10	3	U	
118-74-1	HEXACHLOROBENZENE	1	10	10	3	U	

Data Package ID: SV1604316-1

GC/MS Semi-volatiles

Method SW8270D

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604316

Client Name: TI2E Joint Venture

ClientProject ID: R1 Buffalo Nike BU-34/35

Field ID: Silo 2-Deep

Lab ID: 1604316-5

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 14-Apr-16

Date Extracted: 20-Apr-16

Date Analyzed: 25-Apr-16

Prep Method: SW3520 Rev C

Prep Batch: EX160420-1

QCBatchID: EX160420-1-1

Run ID: SV160425-3

Cleanup: NONE

Basis: As Received

File Name: R6504

Analyst: Tyler Knaebel

Sample Aliquot: 995 ml

Final Volume: 1 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
58-90-2	2,3,4,6-TETRACHLOROPHENOL	1	10	10	3.8	U	
87-86-5	PENTACHLOROPHENOL	1	20	20	4.2	U	
85-01-8	PHENANTHRENE	1	10	10	3	U	
120-12-7	ANTHRACENE	1	10	10	3	U	
86-74-8	CARBAZOLE	1	10	10	3	U	
84-74-2	DI-N-BUTYL PHTHALATE	1	10	10	3	U	
206-44-0	FLUORANTHENE	1	10	10	3	U	
129-00-0	PYRENE	1	10	10	3	U	
85-68-7	BUTYL BENZYL PHTHALATE	1	10	10	3	U	
56-55-3	BENZO(A)ANTHRACENE	1	10	10	3	U	
91-94-1	3,3'-DICHLOROBENZIDINE	1	10	10	6.3	U	
218-01-9	CHRYSENE	1	10	10	3	U	
117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	1	10	10	3	U	
117-84-0	DI-N-OCTYL PHTHALATE	1	10	10	3	U	
205-99-2	BENZO(B)FLUORANTHENE	1	10	10	3	U	
207-08-9	BENZO(K)FLUORANTHENE	1	10	10	3	U	
50-32-8	BENZO(A)PYRENE	1	10	10	3	U	
193-39-5	INDENO(1,2,3-CD)PYRENE	1	10	10	3	U	
53-70-3	DIBENZO(A,H)ANTHRACENE	1	10	10	3	U	
191-24-2	BENZO(G,H,I)PERYLENE	1	10	10	3	U	

Data Package ID: SV1604316-1

Date Printed: Wednesday, April 27, 2016

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GC/MS Semi-volatiles

Method SW8270D

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604316

Client Name: TI2E Joint Venture

ClientProject ID: R1 Buffalo Nike BU-34/35

Field ID: Silo 2-Deep

Lab ID: 1604316-5

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 14-Apr-16

Date Extracted: 20-Apr-16

Date Analyzed: 25-Apr-16

Prep Method: SW3520 Rev C

Prep Batch: EX160420-1

QCBatchID: EX160420-1-1

Run ID: SV160425-3

Cleanup: NONE

Basis: As Received

File Name: R6504

Analyst: Tyler Knaebel

Sample Aliquot: 995 ml

Final Volume: 1 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier

Surrogate Recovery

CASNO	Surrogate Analyte	Result	Flag	Spike Amount	Percent Recovery	Control Limits
118-79-6	2,4,6-TRIBROMOPHENOL	67.3		75.4	89	42 - 117
321-60-8	2-FLUOROBIPHENYL	41.8		50.3	83	55 - 108
367-12-4	2-FLUOROPHENOL	60		75.4	80	46 - 105
4165-60-0	NITROBENZENE-D5	41.1		50.3	82	53 - 111
4165-62-2	PHENOL-D5	64.6		75.4	86	50 - 109
1718-51-0	TERPHENYL-D14	46.7		50.3	93	34 - 139

Data Package ID: SV1604316-1

Date Printed: Wednesday, April 27, 2016

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PCBs

Method SW8082

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604316

Client Name: TI2E Joint Venture

ClientProject ID: R1 Buffalo Nike BU-34/35

Field ID: Silo 2-Deep

Lab ID: 1604316-5

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 14-Apr-16

Date Extracted: 20-Apr-16

Date Analyzed: 22-Apr-16

Prep Method: SW3520 Rev C

Prep Batch: EX160420-8

QCBatchID: EX160420-8-1

Run ID: PT160422-11

Cleanup: SW3665

Basis: As Received

File Name: 16115.dat

Analyst: Dan Sheneman

Sample Aliquot: 1000 ml

Final Volume: 10 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
12674-11-2	AROCLOR-1016	1	1	1	0.3	U	
11104-28-2	AROCLOR-1221	1	2	2	0.3	U	
11141-16-5	AROCLOR-1232	1	1	1	0.3	U	
53469-21-9	AROCLOR-1242	1	1	1	0.3	U	
12672-29-6	AROCLOR-1248	1	1	1	0.3	U	
11097-69-1	AROCLOR-1254	1	1	1	0.3	U	
11096-82-5	AROCLOR-1260	1	1	1	0.3	U	

Surrogate Recovery

CASNO	Surrogate Analyte	Result	Flag	Spike Amount	Percent Recovery	Control Limits
2051-24-3	DECACHLOROBIPHENYL	0.356		0.5	71	14 - 114
877-09-8	TETRACHLORO-M-XYLENE	0.526		0.5	105	72 - 125

Data Package ID: PCB1604316-1

Total ICPMS Metals

Method SW6020A

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604316

Client Name: TI2E Joint Venture

ClientProject ID: R1 Buffalo Nike BU-34/35

Field ID: Silo 2-Deep

Lab ID: 1604316-5

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 14-Apr-16

Date Extracted: 21-Apr-16

Date Analyzed: 25-Apr-16

Prep Method: SW3010 Rev A

Prep Batch: IP160421-3

QCBatchID: IP160421-3-1

Run ID: IM160425-10A7

Cleanup: NONE

Basis: As Received

File Name: 028SMPL_

Analyst: Carly D. Ruble

Sample Aliquot: 50 ml

Final Volume: 50 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
7429-90-5	ALUMINUM	10	22	100	11	J	
7440-36-0	ANTIMONY	10	0.13	1	0.13	U	
7440-38-2	ARSENIC	10	0.18	2	0.16	J	
7440-39-3	BARIUM	10	37	5	0.24		
7440-41-7	BERYLLIUM	10	0.25	0.5	0.25	U	
7440-43-9	CADMIUM	10	0.079	2	0.079	U	
7440-70-2	CALCIUM	10	40000	1000	61		
7440-47-3	CHROMIUM	10	0.88	10	0.88	U	
7440-48-4	COBALT	10	0.079	5	0.079	U	
7440-50-8	COPPER	10	0.9	20	0.9	U	
7439-89-6	IRON	10	100	100	8.6		
7439-92-1	LEAD	10	0.81	2	0.17	J	
7439-95-4	MAGNESIUM	10	7100	100	18		
7439-96-5	MANGANESE	10	1	5	0.3	J	
7440-02-0	NICKEL	10	4	20	4	U	
7440-09-7	POTASSIUM	10	53000	1000	290		
7782-49-2	SELENIUM	10	0.66	10	0.66	U	
7440-22-4	SILVER	10	0.033	0.5	0.033	U	
7440-23-5	SODIUM	10	11000	1000	160		
7440-28-0	THALLIUM	10	0.014	0.1	0.014	U	
7440-62-2	VANADIUM	10	0.58	5	0.58	U	
7440-66-6	ZINC	10	28	100	8.1	J	

Data Package ID: im1604316-2

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Dissolved Metals by 200.8

Method EPA200.8 Revision 5.4

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604316

Client Name: TI2E Joint Venture

ClientProject ID: R1 Buffalo Nike BU-34/35

Field ID: Silo 2-Deep

Lab ID: 1604316-18

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 14-Apr-16

Date Extracted: 21-Apr-16

Date Analyzed: 22-Apr-16

Prep Method: EPA200.2 Rev 2.2

Prep Batch: IP160421-2

QCBatchID: IP160421-2-3

Run ID: IM160422-10A18

Cleanup: NONE

Basis: As Received

File Name: 068SMPL_

Analyst: Carly D. Ruble

Sample Aliquot: 50 ml

Final Volume: 50 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
7429-90-5	ALUMINUM	10	14	50	14	U	
7440-36-0	ANTIMONY	10	0.11	0.3	0.11	U	
7440-38-2	ARSENIC	10	0.2	2	0.2	U	
7440-39-3	BARIUM	10	35	1	0.16		
7440-41-7	BERYLLIUM	10	0.27	0.5	0.27	U	
7440-43-9	CADMIUM	10	0.088	0.3	0.088	U	
7440-70-2	CALCIUM	10	41000	1000	68		
7440-47-3	CHROMIUM	10	0.88	10	0.88	U	
7440-48-4	COBALT	10	0.083	1	0.083	U	
7440-50-8	COPPER	10	1.2	10	1.2	U	
7439-89-6	IRON	10	70	100	8.1	J	
7439-92-1	LEAD	10	1	0.5	0.17		
7439-95-4	MAGNESIUM	10	7100	100	18		
7439-96-5	MANGANESE	10	2.4	2	0.34		
7440-02-0	NICKEL	10	4	5	4	U	
7440-09-7	POTASSIUM	10	54000	1000	290		
7782-49-2	SELENIUM	10	0.66	1	0.66	U	
7440-22-4	SILVER	10	0.041	0.1	0.041	U	
7440-23-5	SODIUM	10	11000	1000	200		
7440-28-0	THALLIUM	10	0.018	0.2	0.018	U	
7440-62-2	VANADIUM	10	0.71	1	0.71	U	
7440-66-6	ZINC	10	25	20	9.8		

Data Package ID: im1604316-1

Date Printed: Saturday, April 30, 2016

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Total MERCURY

Method SW7470A

Sample Results

Lab Name: ALS Environmental -- FC
Client Name: TI2E Joint Venture
Client Project ID: R1 Buffalo Nike BU-34/35
Work Order Number: 1604316
Reporting Basis: As Received
Analyst: Nathan A. Quatier

Final Volume: 10 ml
Matrix: WATER
Result Units: MG/L

Client Sample ID	Lab ID	Date Collected	Date Prepared	Date Analyzed	Percent Moisture	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Flag	Sample Aliquot
Silo 3-Deep	1604316-1	4/14/2016	4/20/2016	04/21/2016	N/A	1	0.00006	0.0002	0.00006	U	10 ml
Silo 3- Deep DUP	1604316-2	4/14/2016	4/20/2016	04/21/2016	N/A	1	0.00006	0.0002	0.00006	U	10 ml
Silo 3-SW	1604316-3	4/14/2016	4/20/2016	04/21/2016	N/A	1	0.00006	0.0002	0.00006	U	10 ml
Silo 2-SW	1604316-4	4/14/2016	4/20/2016	04/21/2016	N/A	1	0.00006	0.0002	0.00006	U	10 ml
Silo 2-Deep	1604316-5	4/14/2016	4/20/2016	04/21/2016	N/A	1	0.00006	0.0002	0.00006	U	10 ml
Silo 5-SW	1604316-6	4/14/2016	4/20/2016	04/21/2016	N/A	1	0.00006	0.0002	0.00006	U	10 ml
Silo 5-Deep	1604316-7	4/14/2016	4/20/2016	04/21/2016	N/A	1	0.00006	0.0002	0.00006	U	10 ml
Silo 4-SW	1604316-9	4/15/2016	4/20/2016	04/21/2016	N/A	1	0.00006	0.0002	0.00006	U	10 ml
Silo 4-Deep	1604316-10	4/15/2016	4/20/2016	04/21/2016	N/A	1	0.00006	0.0002	0.00006	U	10 ml
Silo 1-SW	1604316-11	4/15/2016	4/20/2016	04/21/2016	N/A	1	0.00006	0.0002	0.00006	U	10 ml
Silo 1-Deep	1604316-12	4/15/2016	4/20/2016	04/21/2016	N/A	1	0.00006	0.0002	0.00006	U	10 ml

Comments:

1. ND or U = Not Detected at or above the client requested detection limit.

Data Package ID: *hg1604316-1*

TOTAL ORGANIC CARBON

Method EPA415.1

Sample Results

Lab Name: ALS Environmental -- FC
Client Name: TI2E Joint Venture
Client Project ID: R1 Buffalo Nike BU-34/35
Work Order Number: 1604316
Reporting Basis: As Received
Analyst: Steven D. White

Final Volume: 40 ml
Matrix: WATER
Result Units: MG/L

Client Sample ID	Lab ID	Date Collected	Date Prepared	Date Analyzed	Percent Moisture	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Flag	Sample Aliquot
Silo 3-Deep	1604316-1	4/14/2016	4/22/2016	04/22/2016	N/A	1	2.8	1	0.3		40 ml
Silo 3- Deep DUP	1604316-2	4/14/2016	4/22/2016	04/22/2016	N/A	1	2.8	1	0.3		40 ml
Silo 3-SW	1604316-3	4/14/2016	4/22/2016	04/22/2016	N/A	1	2.4	1	0.3		40 ml
Silo 2-SW	1604316-4	4/14/2016	4/22/2016	04/22/2016	N/A	1	2.5	1	0.3		40 ml
Silo 2-Deep	1604316-5	4/14/2016	4/22/2016	04/22/2016	N/A	1	2.5	1	0.3		40 ml
Silo 5-SW	1604316-6	4/14/2016	4/22/2016	04/22/2016	N/A	1	1.7	1	0.3		40 ml
Silo 5-Deep	1604316-7	4/14/2016	4/22/2016	04/22/2016	N/A	1	1.7	1	0.3		40 ml
Silo 4-SW	1604316-9	4/15/2016	4/22/2016	04/22/2016	N/A	1	1.9	1	0.3		40 ml
Silo 4-Deep	1604316-10	4/15/2016	4/22/2016	04/22/2016	N/A	1	2.9	1	0.3		40 ml
Silo 1-SW	1604316-11	4/15/2016	4/22/2016	04/22/2016	N/A	1	2.5	1	0.3		40 ml
Silo 1-Deep	1604316-12	4/15/2016	4/22/2016	04/22/2016	N/A	1	3.4	1	0.3		40 ml

Comments:

1. ND or U = Not Detected at or above the client requested detection limit.

Data Package ID: *MO1604316-1*

Silo 2 Composite Sample

Diesel Range Organics

Method SW8015MD

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604360

Client Name: TI2E Joint Venture

ClientProject ID: Nike BU 34/35 Launch Area RI

Field ID:	Silo 2-Comp
Lab ID:	1604360-1

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 19-Apr-16

Date Extracted: 24-Apr-16

Date Analyzed: 24-Apr-16

Prep Method: METHOD

Prep Batch: HC160424-101

QCBatchID: HC160424-101-1

Run ID: HC160424-7A

Cleanup: NONE

Basis: As Received

File Name: 10961.dat

Analyst: Joel F. Nolte

Sample Aliquot: 37.5 ml

Final Volume: 1.1 ml

Result Units: MG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
68334-30-5	Diesel Range Organics	1	0.53	0.53	0.16	U	

Surrogate Recovery

CASNO	Surrogate Analyte	Result	Flag	Spike Amount	Percent Recovery	Control Limits
84-15-1	O-TERPHENYL	0.732		0.733	100	63 - 126

Data Package ID: DRO1604360-1

Date Printed: Tuesday, April 26, 2016

ALS Environmental -- FC

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LIMS Version: 6.811

Gasoline Range Organics

Method SW8015D

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604360

Client Name: TI2E Joint Venture

ClientProject ID: Nike BU 34/35 Launch Area RI

Field ID:	Silo 2-Comp
Lab ID:	1604360-1

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 19-Apr-16

Date Extracted: 22-Apr-16

Date Analyzed: 22-Apr-16

Prep Method: SW5030 Rev C

Prep Batch: HC160422-61

QCBatchID: HC160422-61-1

Run ID: HC160422-6A

Cleanup: NONE

Basis: As Received

File Name: 17917.dat

Analyst: Joel F. Nolte

Sample Aliquot: 5 ml

Final Volume: 5 ml

Result Units: MG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
8006-61-9	GASOLINE RANGE ORGANICS	1	0.1	0.1	0.01	U	

Surrogate Recovery

CASNO	Surrogate Analyte	Result	Flag	Spike Amount	Percent Recovery	Control Limits
193533-92-5	2,3,4-TRIFLUOROTOLUENE	0.0984		0.1	98	74 - 129

Data Package ID: GRO1604360-1

Date Printed: Tuesday, April 26, 2016

ALS Environmental -- FC

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LIMS Version: 6.811

Chlorinated Herbicides by GC/ECD

Method SW8151A

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604360

Client Name: TI2E Joint Venture

ClientProject ID: Nike BU 34/35 Launch Area RI

Field ID:	Silo 2-Comp
Lab ID:	1604360-2

Sample Matrix: WATER
% Moisture: N/A
Date Collected: 19-Apr-16
Date Extracted: 21-Apr-16
Date Analyzed: 25-Apr-16
Prep Method: METHOD

Prep Batch: EX160421-3
QCBatchID: EX160421-3-2
Run ID: PT160425-11B
Cleanup: NONE
Basis: As Received
File Name: 16139.dat

Analyst: Dan Sheneman
Sample Aliquot: 990 ml
Final Volume: 10 ml
Result Units: UG/L
Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
75-99-0	DALAPON	1	4	4	1.9	U	
1918-00-9	DICAMBA	1	0.2	0.2	0.061	U	
93-65-2	MCPD	1	100	100	61	U	
94-74-6	MCPA	1	100	100	93	U	
120-36-5	DICHLOROPROP	1	1	1	0.61	U	
94-75-7	2,4-D	1	1	1	0.3	U	
93-72-1	SILVEX	1	0.1	0.1	0.02	U	
93-76-5	2,4,5-T	1	0.1	0.1	0.061	U	
94-82-6	2,4-DB	1	1	1	0.61	U	
88-85-7	DINOSEB	1	1	1	0.46	U	

Surrogate Recovery

CASNO	Surrogate Analyte	Result	Flag	Spike Amount	Percent Recovery	Control Limits
19719-28-9	2,4-DICHLOROPHENYLACETIC ACID	1.91		2.02	94	56 - 140

Data Package ID: PT1604360-3

Date Printed: Friday, April 29, 2016

ALS Environmental -- FC

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LIMS Version: 6.811

Ignitability

Method SW1010 Revision A

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604360

Client Name: TI2E Joint Venture

ClientProject ID: Nike BU 34/35 Launch Area RI

Field ID:	Silo 2-Comp	Sample Matrix:	WATER	Prep Batch:	EX160427-1	Analyst:	Brendon Howard
Lab ID:	1604360-2	% Moisture:	N/A	QCBatchID:	EX160427-1-1	Sample Aliquot:	1 CUP
		Date Collected:	19-Apr-16	Run ID:	EX160427-1A	Final Volume:	1 CUP
		Date Extracted:	27-Apr-16	Cleanup:	NONE	Result Units:	deg C
		Date Analyzed:	27-Apr-16	Basis:	As Received	Clean DF:	1
		Prep Method:	NONE	File Name:			

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	Result Qualifier	EPA Qualifier
10-36-6	IGNITABILITY	1	96	96	U	

Data Package ID: *ex1604360-2*

Total Cyanide

Method EPA335.2

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604360

Client Name: TI2E Joint Venture

ClientProject ID: Nike BU 34/35 Launch Area RI

Field ID: Silo 2-Comp	Sample Matrix: WATER	Prep Batch: CN160424-1	Analyst: Dan Sheneman
Lab ID: 1604360-2	% Moisture: N/A	QCBatchID: CN160424-1-1	Sample Aliquot: 50 ml
	Date Collected: 19-Apr-16	Run ID: CN160429-1A3	Final Volume: 50 ml
	Date Extracted: 24-Apr-16	Cleanup: NONE	Result Units: MG/L
	Date Analyzed: 29-Apr-16	Basis: As Received	Clean DF: 1
	Prep Method: METHOD	File Name: Manual Entry	

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
57-12-5	CYANIDE, TOTAL	1	0.01	0.01	0.0036	U	

Data Package ID: *cn1604360-1*

Date Printed: Saturday, April 30, 2016

ALS Environmental -- FC

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LIMS Version: 6.811

Sulfide

Method EPA376.1

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604360

Client Name: TI2E Joint Venture

ClientProject ID: Nike BU 34/35 Launch Area RI

Field ID:	Silo 2-Comp	Sample Matrix:	WATER	Prep Batch:	S160426-1	Analyst:	Charles B. Allen
Lab ID:	1604360-2	% Moisture:	N/A	QCBatchID:	S160426-1-1	Sample Aliquot:	200 ML
		Date Collected:	19-Apr-16	Run ID:	S160426-1A1	Final Volume:	200 ML
		Date Extracted:	26-Apr-16	Cleanup:	NONE	Result Units:	MG/L
		Date Analyzed:	26-Apr-16	Basis:	As Received	Clean DF:	1
		Prep Method:	NONE	File Name:	Manual Entry		

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	Result Qualifier	EPA Qualifier
18496-25-8	SULFIDE	1	2	2	U	

Data Package ID: s1604360-1

Hexane Extractable Material--Gravimetric

Method EPA1664

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604360

Client Name: TI2E Joint Venture

ClientProject ID: Nike BU 34/35 Launch Area RI

Field ID:	Silo 2-Comp
Lab ID:	1604360-2

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 19-Apr-16

Date Extracted: 22-Apr-16

Date Analyzed: 22-Apr-16

Prep Method: METHOD

Prep Batch: EX160422-4

QCBatchID: EX160422-4-1

Run ID: EX160422-1A1

Cleanup: NONE

Basis: As Received

File Name:

Analyst: Adam C. Kloos

Sample Aliquot: 1020 ML

Final Volume: 1 SAMPL

Result Units: MG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	Result Qualifier	EPA Qualifier
10-30-0	OIL AND GREASE	1	4.9	4.9	U	

Data Package ID: *ex1604360-1*

Organochlorine Pesticides

Method SW8081B

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604360

Client Name: TI2E Joint Venture

ClientProject ID: Nike BU 34/35 Launch Area RI

Field ID: Silo 2-Comp

Lab ID: 1604360-2

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 19-Apr-16

Date Extracted: 21-Apr-16

Date Analyzed: 26-Apr-16

Prep Method: SW3520 Rev C

Prep Batch: EX160421-5

QC Batch ID: EX160421-5-2

Run ID: PT160426-10

Cleanup: NONE

Basis: As Received

File Name: 09336.dat

Analyst: Dan Sheneman

Sample Aliquot: 1000 ml

Final Volume: 10 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
319-84-6	ALPHA-BHC	1	0.05	0.05	0.03	U	
58-89-9	GAMMA-BHC (LINDANE)	1	0.05	0.05	0.03	U	
319-85-7	BETA-BHC	1	0.05	0.05	0.03	U	
319-86-8	DELTA-BHC	1	0.05	0.05	0.03	U	
76-44-8	HEPTACHLOR	1	0.05	0.05	0.03	U	
309-00-2	ALDRIN	1	0.05	0.05	0.03	U	
1024-57-3	HEPTACHLOR EPOXIDE	1	0.05	0.05	0.03	U	
5103-74-2	GAMMA-CHLORDANE	1	0.05	0.05	0.03	U	
5103-71-9	ALPHA-CHLORDANE	1	0.05	0.05	0.03	U	
72-55-9	4,4'-DDE	1	0.05	0.05	0.03	U	
959-98-8	ENDOSULFAN I	1	0.05	0.05	0.03	U	
60-57-1	DIELDRIN	1	0.05	0.05	0.03	U	
72-20-8	ENDRIN	1	0.05	0.05	0.03	U	
72-54-8	4,4'-DDD	1	0.05	0.05	0.03	U	
33213-65-9	ENDOSULFAN II	1	0.05	0.05	0.03	U	
50-29-3	4,4'-DDT	1	0.05	0.05	0.03	U	
7421-93-4	ENDRIN ALDEHYDE	1	0.05	0.05	0.03	U	
72-43-5	METHOXYCHLOR	1	0.25	0.25	0.08	U	
1031-07-8	ENDOSULFAN SULFATE	1	0.05	0.05	0.03	U	
53494-70-5	ENDRIN KETONE	1	0.05	0.05	0.03	U	
8001-35-2	TOXAPHENE	1	2.5	2.5	0.75	U	

Data Package ID: PST1604360-1

Date Printed: Thursday, April 28, 2016

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LIMS Version: 6.811

Organochlorine Pesticides

Method SW8081B

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604360

Client Name: TI2E Joint Venture

ClientProject ID: Nike BU 34/35 Launch Area RI

Field ID:	Silo 2-Comp
Lab ID:	1604360-2

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 19-Apr-16

Date Extracted: 21-Apr-16

Date Analyzed: 26-Apr-16

Prep Method: SW3520 Rev C

Prep Batch: EX160421-5

QCBatchID: EX160421-5-2

Run ID: PT160426-10

Cleanup: NONE

Basis: As Received

File Name: 09336.dat

Analyst: Dan Sheneman

Sample Aliquot: 1000 ml

Final Volume: 10 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier

Surrogate Recovery

CASNO	Surrogate Analyte	Result	Flag	Spike Amount	Percent Recovery	Control Limits
2051-24-3	DECACHLOROBIPHENYL	0.359		0.5	72	10 - 118
877-09-8	TETRACHLORO-M-XYLENE	0.452		0.5	90	57 - 128

Data Package ID: PST1604360-1

Date Printed: Thursday, April 28, 2016

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LIMS Version: 6.811

PCBs

Method SW8082

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604360

Client Name: TI2E Joint Venture

ClientProject ID: Nike BU 34/35 Launch Area RI

Field ID:	Silo 2-Comp
Lab ID:	1604360-2

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 19-Apr-16

Date Extracted: 22-Apr-16

Date Analyzed: 26-Apr-16

Prep Method: SW3520 Rev C

Prep Batch: EX160422-7

QCBatchID: EX160422-7-3

Run ID: PT160425-11

Cleanup: SW3665

Basis: As Received

File Name: 16185.dat

Analyst: Dan Sheneman

Sample Aliquot: 1000 ml

Final Volume: 10 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
12674-11-2	AROCLOR-1016	1	1	1	0.3	U	
11104-28-2	AROCLOR-1221	1	2	2	0.3	U	
11141-16-5	AROCLOR-1232	1	1	1	0.3	U	
53469-21-9	AROCLOR-1242	1	1	1	0.3	U	
12672-29-6	AROCLOR-1248	1	1	1	0.3	U	
11097-69-1	AROCLOR-1254	1	1	1	0.3	U	
11096-82-5	AROCLOR-1260	1	1	1	0.3	U	

Surrogate Recovery

CASNO	Surrogate Analyte	Result	Flag	Spike Amount	Percent Recovery	Control Limits
2051-24-3	DECACHLOROBIPHENYL	0.349		0.5	70	14 - 114
877-09-8	TETRACHLORO-M-XYLENE	0.527		0.5	105	72 - 125

Data Package ID: PT1604360-1

Date Printed: Tuesday, April 26, 2016

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LIMS Version: 6.811

Organic Carbon

Method EPA415.1

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604360

Client Name: TI2E Joint Venture

ClientProject ID: Nike BU 34/35 Launch Area RI

Field ID: Silo 2-Comp	Sample Matrix: WATER	Prep Batch: MO160422-1	Analyst: Steven D. White
Lab ID: 1604360-2	% Moisture: N/A	QCBatchID: MO160422-1-1	Sample Aliquot: 40 ml
	Date Collected: 19-Apr-16	Run ID: MO160422-1A1	Final Volume: 40 ml
	Date Extracted: 22-Apr-16	Cleanup: NONE	Result Units: MG/L
	Date Analyzed: 22-Apr-16	Basis: As Received	Clean DF: 1
	Prep Method: NONE	File Name: 04221321	

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
10-35-5	TOTAL ORGANIC CARBON	1	2.3	1	0.3		

Data Package ID: MO1604360-1

Date Printed: Monday, April 25, 2016

ALS Environmental -- FC

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LIMS Version: 6.811

GC/MS Semi-volatiles

Method SW8270D

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604360

Client Name: TI2E Joint Venture

ClientProject ID: Nike BU 34/35 Launch Area RI

Field ID: Silo 2-Comp

Lab ID: 1604360-2

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 19-Apr-16

Date Extracted: 23-Apr-16

Date Analyzed: 28-Apr-16

Prep Method: SW3520 Rev C

Prep Batch: EX160423-1

QCBatchID: EX160423-1-1

Run ID: SV160428-2

Cleanup: NONE

Basis: As Received

File Name: P20095

Analyst: Tyler Knaebel

Sample Aliquot: 965 ml

Final Volume: 1 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
110-86-1	PYRIDINE	1	10	10	4	U	
62-75-9	N-NITROSODIMETHYLAMINE	1	10	10	3.1	U	
62-53-3	ANILINE	1	10	10	3.2	U	
108-95-2	PHENOL	1	10	10	3.1	U	
111-44-4	BIS(2-CHLOROETHYL)ETHER	1	10	10	3.1	U	
95-57-8	2-CHLOROPHENOL	1	10	10	3.1	U	
541-73-1	1,3-DICHLOROBENZENE	1	10	10	3.1	U	
106-46-7	1,4-DICHLOROBENZENE	1	10	10	3.1	U	
95-50-1	1,2-DICHLOROBENZENE	1	10	10	3.1	U	
100-51-6	BENZYL ALCOHOL	1	10	10	3.1	U	
108-60-1	BIS(2-CHLOROISOPROPYL)ETHER	1	10	10	3.1	U	
95-48-7	2-METHYLPHENOL	1	10	10	3.1	U	
621-64-7	N-NITROSO-DI-N-PROPYLAMINE	1	10	10	3.1	U	
108-39-4	3+4-METHYLPHENOL	1	10	10	3.1	U	
67-72-1	HEXACHLOROETHANE	1	10	10	3.1	U	
98-95-3	NITROBENZENE	1	10	10	3.1	U	
78-59-1	ISOPHORONE	1	10	10	3.1	U	
88-75-5	2-NITROPHENOL	1	10	10	3.1	U	
105-67-9	2,4-DIMETHYLPHENOL	1	10	10	3.1	U	
111-91-1	BIS(2-CHLOROETHOXY)METHANE	1	10	10	3.1	U	
120-83-2	2,4-DICHLOROPHENOL	1	10	10	3.1	U	
65-85-0	BENZOIC ACID	1	52	52	20	U	
120-82-1	1,2,4-TRICHLOROBENZENE	1	10	10	3.1	U	
91-20-3	NAPHTHALENE	1	10	10	3.1	U	
106-47-8	4-CHLOROANILINE	1	10	10	5.6	U	
87-68-3	HEXACHLOROBUTADIENE	1	10	10	3.1	U	

Data Package ID: SV1604360-1

Date Printed: Saturday, April 30, 2016

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GC/MS Semi-volatiles

Method SW8270D

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604360

Client Name: TI2E Joint Venture

ClientProject ID: Nike BU 34/35 Launch Area RI

Field ID: Silo 2-Comp

Lab ID: 1604360-2

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 19-Apr-16

Date Extracted: 23-Apr-16

Date Analyzed: 28-Apr-16

Prep Method: SW3520 Rev C

Prep Batch: EX160423-1

QCBatchID: EX160423-1-1

Run ID: SV160428-2

Cleanup: NONE

Basis: As Received

File Name: P20095

Analyst: Tyler Knaebel

Sample Aliquot: 965 ml

Final Volume: 1 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
59-50-7	4-CHLORO-3-METHYLPHENOL	1	10	10	3.1	U	
91-57-6	2-METHYLNAPHTHALENE	1	10	10	3.1	U	
90-12-0	1-METHYLNAPHTHALENE	1	10	10	3.1	U	
77-47-4	HEXACHLOROCYCLOPENTADIENE	1	10	10	5.3	U	
88-06-2	2,4,6-TRICHLOROPHENOL	1	10	10	3.1	U	
95-95-4	2,4,5-TRICHLOROPHENOL	1	10	10	3.1	U	
91-58-7	2-CHLORONAPHTHALENE	1	10	10	3.1	U	
88-74-4	2-NITROANILINE	1	21	21	3.1	U	
131-11-3	DIMETHYL PHTHALATE	1	10	10	3.1	U	
606-20-2	2,6-DINITROTOLUENE	1	10	10	3.1	U	
208-96-8	ACENAPHTHYLENE	1	10	10	3.1	U	
99-09-2	3-NITROANILINE	1	21	21	4.1	U	
83-32-9	ACENAPHTHENE	1	10	10	3.1	U	
51-28-5	2,4-DINITROPHENOL	1	21	21	3.1	U	
100-02-7	4-NITROPHENOL	1	21	21	3.7	U	
132-64-9	DIBENZOFURAN	1	10	10	3.1	U	
121-14-2	2,4-DINITROTOLUENE	1	10	10	3.1	U	
84-66-2	DIETHYL PHTHALATE	1	10	10	3.1	U	
86-73-7	FLUORENE	1	10	10	3.1	U	
7005-72-3	4-CHLOROPHENYL PHENYL ETHER	1	10	10	3.1	U	
100-01-6	4-NITROANILINE	1	21	21	3.3	U	
103-33-3	AZOBENZENE	1	10	10	3.1	U	
534-52-1	4,6-DINITRO-2-METHYLPHENOL	1	21	21	3.7	U	
86-30-6	N-NITROSODIPHENYLAMINE	1	10	10	3.1	U	
101-55-3	4-BROMOPHENYL PHENYL ETHER	1	10	10	3.1	U	
118-74-1	HEXACHLOROBENZENE	1	10	10	3.1	U	

Data Package ID: SV1604360-1

Date Printed: Saturday, April 30, 2016

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GC/MS Semi-volatiles

Method SW8270D

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604360

Client Name: TI2E Joint Venture

ClientProject ID: Nike BU 34/35 Launch Area RI

Field ID: Silo 2-Comp

Lab ID: 1604360-2

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 19-Apr-16

Date Extracted: 23-Apr-16

Date Analyzed: 28-Apr-16

Prep Method: SW3520 Rev C

Prep Batch: EX160423-1

QCBatchID: EX160423-1-1

Run ID: SV160428-2

Cleanup: NONE

Basis: As Received

File Name: P20095

Analyst: Tyler Knaebel

Sample Aliquot: 965 ml

Final Volume: 1 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
58-90-2	2,3,4,6-TETRACHLOROPHENOL	1	10	10	3.9	U	
87-86-5	PENTACHLOROPHENOL	1	21	21	4.4	U	
85-01-8	PHENANTHRENE	1	10	10	3.1	U	
120-12-7	ANTHRACENE	1	10	10	3.1	U	
86-74-8	CARBAZOLE	1	10	10	3.1	U	
84-74-2	DI-N-BUTYL PHTHALATE	1	10	10	3.1	U	
206-44-0	FLUORANTHENE	1	10	10	3.1	U	
129-00-0	PYRENE	1	10	10	3.1	U	
85-68-7	BUTYL BENZYL PHTHALATE	1	10	10	3.1	U	
56-55-3	BENZO(A)ANTHRACENE	1	10	10	3.1	U	
91-94-1	3,3'-DICHLOROBENZIDINE	1	10	10	6.5	U	
218-01-9	CHRYSENE	1	10	10	3.1	U	
117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	1	10	10	3.1	U	
117-84-0	DI-N-OCTYL PHTHALATE	1	10	10	3.1	U	
205-99-2	BENZO(B)FLUORANTHENE	1	10	10	3.1	U	
207-08-9	BENZO(K)FLUORANTHENE	1	10	10	3.1	U	
50-32-8	BENZO(A)PYRENE	1	10	10	3.1	U	
193-39-5	INDENO(1,2,3-CD)PYRENE	1	10	10	3.1	U	
53-70-3	DIBENZO(A,H)ANTHRACENE	1	10	10	3.1	U	
191-24-2	BENZO(G,H,I)PERYLENE	1	10	10	3.1	U	

Data Package ID: SV1604360-1

Date Printed: Saturday, April 30, 2016

ALS Environmental -- FC

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LIMS Version: 6.811

GC/MS Semi-volatiles

Method SW8270D

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604360

Client Name: TI2E Joint Venture

ClientProject ID: Nike BU 34/35 Launch Area RI

Field ID:	Silo 2-Comp
Lab ID:	1604360-2

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 19-Apr-16

Date Extracted: 23-Apr-16

Date Analyzed: 28-Apr-16

Prep Method: SW3520 Rev C

Prep Batch: EX160423-1

QCBatchID: EX160423-1-1

Run ID: SV160428-2

Cleanup: NONE

Basis: As Received

File Name: P20095

Analyst: Tyler Knaebel

Sample Aliquot: 965 ml

Final Volume: 1 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier

Surrogate Recovery

CASNO	Surrogate Analyte	Result	Flag	Spike Amount	Percent Recovery	Control Limits
118-79-6	2,4,6-TRIBROMOPHENOL	71.1		77.7	91	42 - 117
321-60-8	2-FLUOROBIPHENYL	42.8		51.8	83	55 - 108
367-12-4	2-FLUOROPHENOL	52.5		77.7	68	46 - 105
4165-60-0	NITROBENZENE-D5	39.5		51.8	76	53 - 111
4165-62-2	PHENOL-D5	57.3		77.7	74	50 - 109
1718-51-0	TERPHENYL-D14	42.8		51.8	83	34 - 139

Data Package ID: SV1604360-1

GC/MS Volatiles

Method SW8260_25C

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604360

Client Name: TI2E Joint Venture

ClientProject ID: Nike BU 34/35 Launch Area RI

Field ID: Silo 2-Comp

Lab ID: 1604360-1

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 19-Apr-16

Date Extracted: 22-Apr-16

Date Analyzed: 22-Apr-16

Prep Method: SW5030 Rev C

Prep Batch: VL160422-3

QCBatchID: VL160422-3-1

Run ID: VL160422-3A

Cleanup: NONE

Basis: As Received

File Name: C67978

Analyst: Joe Kostelnik

Sample Aliquot: 10 ml

Final Volume: 10 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
75-71-8	DICHLORODIFLUOROMETHANE	1	1	1	0.3	U	
74-87-3	CHLOROMETHANE	1	1	1	0.3	U	
75-01-4	VINYL CHLORIDE	1	1	1	0.3	U	
74-83-9	BROMOMETHANE	1	1	1	0.3	U	
75-00-3	CHLOROETHANE	1	1	1	0.3	U	
75-69-4	TRICHLOROFLUOROMETHANE	1	1	1	0.3	U	
75-35-4	1,1-DICHLOROETHENE	1	1	1	0.3	U	
76-13-1	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETH	1	1	1	0.3	U	
67-64-1	ACETONE	1	10	10	3	U	
74-88-4	IODOMETHANE	1	1	1	0.38	U	
75-15-0	CARBON DISULFIDE	1	1	1	0.3	U	
75-09-2	METHYLENE CHLORIDE	1	1	1	0.44	U	
156-60-5	TRANS-1,2-DICHLOROETHENE	1	1	1	0.3	U	
1634-04-4	METHYL TERTIARY BUTYL ETHER	1	1	1	0.3	U	
75-34-3	1,1-DICHLOROETHANE	1	1	1	0.3	U	
108-05-4	VINYL ACETATE	1	2	2	0.3	U	
156-59-2	CIS-1,2-DICHLOROETHENE	1	1	1	0.3	U	
78-93-3	2-BUTANONE	1	10	10	3	U	
74-97-5	BROMOCHLOROMETHANE	1	1	1	0.3	U	
67-66-3	CHLOROFORM	1	1	1	0.3	U	
71-55-6	1,1,1-TRICHLOROETHANE	1	1	1	0.3	U	
594-20-7	2,2-DICHLOROPROPANE	1	1	1	0.3	U	
56-23-5	CARBON TETRACHLORIDE	1	1	1	0.3	U	
563-58-6	1,1-DICHLOROPROPENE	1	1	1	0.3	U	
107-06-2	1,2-DICHLOROETHANE	1	1	1	0.3	U	
71-43-2	BENZENE	1	1	1	0.3	U	

Data Package ID: VL1604360-1

Date Printed: Wednesday, April 27, 2016

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GC/MS Volatiles

Method SW8260_25C

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604360

Client Name: TI2E Joint Venture

ClientProject ID: Nike BU 34/35 Launch Area RI

Field ID: Silo 2-Comp

Lab ID: 1604360-1

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 19-Apr-16

Date Extracted: 22-Apr-16

Date Analyzed: 22-Apr-16

Prep Method: SW5030 Rev C

Prep Batch: VL160422-3

QCBatchID: VL160422-3-1

Run ID: VL160422-3A

Cleanup: NONE

Basis: As Received

File Name: C67978

Analyst: Joe Kostelnik

Sample Aliquot: 10 ml

Final Volume: 10 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
79-01-6	TRICHLOROETHENE	1	1	1	0.3	U	
78-87-5	1,2-DICHLOROPROPANE	1	1	1	0.3	U	
74-95-3	DIBROMOMETHANE	1	1	1	0.3	U	
75-27-4	BROMODICHLOROMETHANE	1	1	1	0.3	U	
10061-01-5	CIS-1,3-DICHLOROPROPENE	1	1	1	0.3	U	
108-10-1	4-METHYL-2-PENTANONE	1	10	10	3	U	
108-88-3	TOLUENE	1	1	1	0.3	U	
10061-02-6	TRANS-1,3-DICHLOROPROPENE	1	1	1	0.3	U	
79-00-5	1,1,2-TRICHLOROETHANE	1	1	1	0.3	U	
591-78-6	2-HEXANONE	1	10	10	3	U	
127-18-4	TETRACHLOROETHENE	1	1	1	0.2	U	
142-28-9	1,3-DICHLOROPROPANE	1	1	1	0.3	U	
124-48-1	DIBROMOCHLOROMETHANE	1	1	1	0.3	U	
106-93-4	1,2-DIBROMOETHANE	1	1	1	0.3	U	
544-10-5	1-CHLOROHEXANE	1	1	1	0.3	U	
108-90-7	CHLOROBENZENE	1	1	1	0.3	U	
630-20-6	1,1,1,2-TETRACHLOROETHANE	1	1	1	0.3	U	
100-41-4	ETHYLBENZENE	1	1	1	0.3	U	
136777-61-2	M+P-XYLENE	1	1	1	0.3	U	
95-47-6	O-XYLENE	1	1	1	0.3	U	
100-42-5	STYRENE	1	1	1	0.3	U	
75-25-2	BROMOFORM	1	1	1	0.3	U	
98-82-8	ISOPROPYLBENZENE	1	1	1	0.3	U	
96-18-4	1,2,3-TRICHLOROPROPANE	1	1	1	0.3	U	
79-34-5	1,1,2,2-TETRACHLOROETHANE	1	1	1	0.3	U	
108-86-1	BROMOBENZENE	1	1	1	0.3	U	

Data Package ID: VL1604360-1

GC/MS Volatiles

Method SW8260_25C

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604360

Client Name: TI2E Joint Venture

ClientProject ID: Nike BU 34/35 Launch Area RI

Field ID: Silo 2-Comp

Lab ID: 1604360-1

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 19-Apr-16

Date Extracted: 22-Apr-16

Date Analyzed: 22-Apr-16

Prep Method: SW5030 Rev C

Prep Batch: VL160422-3

QCBatchID: VL160422-3-1

Run ID: VL160422-3A

Cleanup: NONE

Basis: As Received

File Name: C67978

Analyst: Joe Kostelnik

Sample Aliquot: 10 ml

Final Volume: 10 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
103-65-1	N-PROPYLBENZENE	1	1	1	0.3	U	
95-49-8	2-CHLOROTOLUENE	1	1	1	0.3	U	
108-67-8	1,3,5-TRIMETHYLBENZENE	1	1	1	0.3	U	
106-43-4	4-CHLOROTOLUENE	1	1	1	0.3	U	
98-06-6	TERT-BUTYLBENZENE	1	1	1	0.3	U	
95-63-6	1,2,4-TRIMETHYLBENZENE	1	1	1	0.3	U	
135-98-8	SEC-BUTYLBENZENE	1	1	1	0.3	U	
541-73-1	1,3-DICHLOROBENZENE	1	1	1	0.3	U	
99-87-6	P-ISOPROPYLTOLUENE	1	1	1	0.3	U	
106-46-7	1,4-DICHLOROBENZENE	1	1	1	0.3	U	
104-51-8	N-BUTYLBENZENE	1	1	1	0.3	U	
95-50-1	1,2-DICHLOROBENZENE	1	1	1	0.3	U	
96-12-8	1,2-DIBROMO-3-CHLOROPROPANE	1	2	2	0.4	U	
120-82-1	1,2,4-TRICHLOROBENZENE	1	1	1	0.3	U	
87-68-3	HEXACHLOROBUTADIENE	1	1	1	0.3	U	
91-20-3	NAPHTHALENE	1	1	1	0.3	U	
87-61-6	1,2,3-TRICHLOROBENZENE	1	1	1	0.3	U	

Data Package ID: VL1604360-1

Date Printed: Wednesday, April 27, 2016

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GC/MS Volatiles

Method SW8260_25C

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604360

Client Name: TI2E Joint Venture

ClientProject ID: Nike BU 34/35 Launch Area RI

Field ID: Silo 2-Comp

Lab ID: 1604360-1

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 19-Apr-16

Date Extracted: 22-Apr-16

Date Analyzed: 22-Apr-16

Prep Method: SW5030 Rev C

Prep Batch: VL160422-3

QCBatchID: VL160422-3-1

Run ID: VL160422-3A

Cleanup: NONE

Basis: As Received

File Name: C67978

Analyst: Joe Kostelnik

Sample Aliquot: 10 ml

Final Volume: 10 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier

Surrogate Recovery

CASNO	Surrogate Analyte	Result	Flag	Spike Amount	Percent Recovery	Control Limits
460-00-4	4-BROMOFLUOROBENZENE	25.4		25	102	85 - 115
1868-53-7	DIBROMOFLUOROMETHANE	25.6		25	102	84 - 118
2037-26-5	TOLUENE-D8	25.6		25	103	85 - 115

Data Package ID: VL1604360-1

Date Printed: Wednesday, April 27, 2016

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GC/MS Volatiles

Method SW8260_25C

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604360

Client Name: TI2E Joint Venture

ClientProject ID: Nike BU 34/35 Launch Area RI

Field ID: Trip Blank

Lab ID: 1604360-4

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 19-Apr-16

Date Extracted: 22-Apr-16

Date Analyzed: 22-Apr-16

Prep Method: SW5030 Rev C

Prep Batch: VL160422-3

QCBatchID: VL160422-3-1

Run ID: VL160422-3A

Cleanup: NONE

Basis: As Received

File Name: C67977

Analyst: Joe Kostelnik

Sample Aliquot: 10 ml

Final Volume: 10 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
75-71-8	DICHLORODIFLUOROMETHANE	1	1	1	0.3	U	
74-87-3	CHLOROMETHANE	1	1	1	0.3	U	
75-01-4	VINYL CHLORIDE	1	1	1	0.3	U	
74-83-9	BROMOMETHANE	1	1	1	0.3	U	
75-00-3	CHLOROETHANE	1	1	1	0.3	U	
75-69-4	TRICHLOROFLUOROMETHANE	1	1	1	0.3	U	
75-35-4	1,1-DICHLOROETHENE	1	1	1	0.3	U	
76-13-1	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETH	1	1	1	0.3	U	
67-64-1	ACETONE	1	10	10	3	U	
74-88-4	IODOMETHANE	1	1	1	0.38	U	
75-15-0	CARBON DISULFIDE	1	1	1	0.3	U	
75-09-2	METHYLENE CHLORIDE	1	1	1	0.44	U	
156-60-5	TRANS-1,2-DICHLOROETHENE	1	1	1	0.3	U	
1634-04-4	METHYL TERTIARY BUTYL ETHER	1	1	1	0.3	U	
75-34-3	1,1-DICHLOROETHANE	1	1	1	0.3	U	
108-05-4	VINYL ACETATE	1	2	2	0.3	U	
156-59-2	CIS-1,2-DICHLOROETHENE	1	1	1	0.3	U	
78-93-3	2-BUTANONE	1	10	10	3	U	
74-97-5	BROMOCHLOROMETHANE	1	1	1	0.3	U	
67-66-3	CHLOROFORM	1	1	1	0.3	U	
71-55-6	1,1,1-TRICHLOROETHANE	1	1	1	0.3	U	
594-20-7	2,2-DICHLOROPROPANE	1	1	1	0.3	U	
56-23-5	CARBON TETRACHLORIDE	1	1	1	0.3	U	
563-58-6	1,1-DICHLOROPROPENE	1	1	1	0.3	U	
107-06-2	1,2-DICHLOROETHANE	1	1	1	0.3	U	
71-43-2	BENZENE	1	1	1	0.3	U	

Data Package ID: VL1604360-1

GC/MS Volatiles

Method SW8260_25C

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604360

Client Name: TI2E Joint Venture

ClientProject ID: Nike BU 34/35 Launch Area RI

Field ID: Trip Blank

Lab ID: 1604360-4

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 19-Apr-16

Date Extracted: 22-Apr-16

Date Analyzed: 22-Apr-16

Prep Method: SW5030 Rev C

Prep Batch: VL160422-3

QCBatchID: VL160422-3-1

Run ID: VL160422-3A

Cleanup: NONE

Basis: As Received

File Name: C67977

Analyst: Joe Kostelnik

Sample Aliquot: 10 ml

Final Volume: 10 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
79-01-6	TRICHLOROETHENE	1	1	1	0.3	U	
78-87-5	1,2-DICHLOROPROPANE	1	1	1	0.3	U	
74-95-3	DIBROMOMETHANE	1	1	1	0.3	U	
75-27-4	BROMODICHLOROMETHANE	1	1	1	0.3	U	
10061-01-5	CIS-1,3-DICHLOROPROPENE	1	1	1	0.3	U	
108-10-1	4-METHYL-2-PENTANONE	1	10	10	3	U	
108-88-3	TOLUENE	1	1	1	0.3	U	
10061-02-6	TRANS-1,3-DICHLOROPROPENE	1	1	1	0.3	U	
79-00-5	1,1,2-TRICHLOROETHANE	1	1	1	0.3	U	
591-78-6	2-HEXANONE	1	10	10	3	U	
127-18-4	TETRACHLOROETHENE	1	1	1	0.2	U	
142-28-9	1,3-DICHLOROPROPANE	1	1	1	0.3	U	
124-48-1	DIBROMOCHLOROMETHANE	1	1	1	0.3	U	
106-93-4	1,2-DIBROMOETHANE	1	1	1	0.3	U	
544-10-5	1-CHLOROHEXANE	1	1	1	0.3	U	
108-90-7	CHLOROBENZENE	1	1	1	0.3	U	
630-20-6	1,1,1,2-TETRACHLOROETHANE	1	1	1	0.3	U	
100-41-4	ETHYLBENZENE	1	1	1	0.3	U	
136777-61-2	M+P-XYLENE	1	1	1	0.3	U	
95-47-6	O-XYLENE	1	1	1	0.3	U	
100-42-5	STYRENE	1	1	1	0.3	U	
75-25-2	BROMOFORM	1	1	1	0.3	U	
98-82-8	ISOPROPYLBENZENE	1	1	1	0.3	U	
96-18-4	1,2,3-TRICHLOROPROPANE	1	1	1	0.3	U	
79-34-5	1,1,2,2-TETRACHLOROETHANE	1	1	1	0.3	U	
108-86-1	BROMOBENZENE	1	1	1	0.3	U	

Data Package ID: VL1604360-1

GC/MS Volatiles

Method SW8260_25C

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604360

Client Name: TI2E Joint Venture

ClientProject ID: Nike BU 34/35 Launch Area RI

Field ID: Trip Blank

Lab ID: 1604360-4

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 19-Apr-16

Date Extracted: 22-Apr-16

Date Analyzed: 22-Apr-16

Prep Method: SW5030 Rev C

Prep Batch: VL160422-3

QCBatchID: VL160422-3-1

Run ID: VL160422-3A

Cleanup: NONE

Basis: As Received

File Name: C67977

Analyst: Joe Kostelnik

Sample Aliquot: 10 ml

Final Volume: 10 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
103-65-1	N-PROPYLBENZENE	1	1	1	0.3	U	
95-49-8	2-CHLOROTOLUENE	1	1	1	0.3	U	
108-67-8	1,3,5-TRIMETHYLBENZENE	1	1	1	0.3	U	
106-43-4	4-CHLOROTOLUENE	1	1	1	0.3	U	
98-06-6	TERT-BUTYLBENZENE	1	1	1	0.3	U	
95-63-6	1,2,4-TRIMETHYLBENZENE	1	1	1	0.3	U	
135-98-8	SEC-BUTYLBENZENE	1	1	1	0.3	U	
541-73-1	1,3-DICHLOROBENZENE	1	1	1	0.3	U	
99-87-6	P-ISOPROPYLTOLUENE	1	1	1	0.3	U	
106-46-7	1,4-DICHLOROBENZENE	1	1	1	0.3	U	
104-51-8	N-BUTYLBENZENE	1	1	1	0.3	U	
95-50-1	1,2-DICHLOROBENZENE	1	1	1	0.3	U	
96-12-8	1,2-DIBROMO-3-CHLOROPROPANE	1	2	2	0.4	U	
120-82-1	1,2,4-TRICHLOROBENZENE	1	1	1	0.3	U	
87-68-3	HEXACHLOROBUTADIENE	1	1	1	0.3	U	
91-20-3	NAPHTHALENE	1	1	1	0.3	U	
87-61-6	1,2,3-TRICHLOROBENZENE	1	1	1	0.3	U	

Data Package ID: VL1604360-1

Date Printed: Wednesday, April 27, 2016

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GC/MS Volatiles

Method SW8260_25C

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604360

Client Name: TI2E Joint Venture

ClientProject ID: Nike BU 34/35 Launch Area RI

Field ID: Trip Blank

Lab ID: 1604360-4

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 19-Apr-16

Date Extracted: 22-Apr-16

Date Analyzed: 22-Apr-16

Prep Method: SW5030 Rev C

Prep Batch: VL160422-3

QC Batch ID: VL160422-3-1

Run ID: VL160422-3A

Cleanup: NONE

Basis: As Received

File Name: C67977

Analyst: Joe Kostelnik

Sample Aliquot: 10 ml

Final Volume: 10 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier

Surrogate Recovery

CASNO	Surrogate Analyte	Result	Flag	Spike Amount	Percent Recovery	Control Limits
460-00-4	4-BROMOFLUOROBENZENE	25.7		25	103	85 - 115
1868-53-7	DIBROMOFLUOROMETHANE	25		25	100	84 - 118
2037-26-5	TOLUENE-D8	25.8		25	103	85 - 115

Data Package ID: VL1604360-1

Date Printed: Wednesday, April 27, 2016

ALS Environmental -- FC

LIMS Version: 6.811

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Certificate of Analysis

Name / Address
Inspection Experts Inc. Ben Headington 9220 Rumsey Road Bay 5 Columbia MD 21045

Report Date	4/21/2016	
Report Number	18458	
Customer Fax		
Total Pages	1	
Analysis Date	4/19/2016	Analyst
Analysis Time	1444	EL
Project ID	Nike BU34/35 Launch Area	

Laboratory Analysis Report

Test ID	Analytical Method & Analysis	Results / Units	Verified Date & Time
PA TC	Presence-Absence Total Coliform Detection with E. Coli Method-SM18-20 9223B (97) IDEXX Colilert MDL (Presence-Absence/ 100 ml) Sample Point / Station ID.....SoliZ Comp 1 Date and Time Collected.....4-19-2016 1100 Date and Time Plated.....4-19-2016 1444 Chlorine Residual.....(ppm).....0.0 Temperature on Receipt (on Ice) <4 C	POS TC / POS EC	4-20-2016 1445
PA TC	Presence-Absence Total Coliform Detection with E. Coli Method-SM18-20 9223B (97) IDEXX Colilert MDL (Presence-Absence/ 100 ml) Sample Point / Station ID.....SoliZ Comp 2 Date and Time Collected.....4-19-2016 1100 Date and Time Plated.....4-19-2016 1444 Chlorine Residual.....(ppm).....0.0 Temperature on Receipt (on Ice) <4 C	POS TC / POS EC	4-20-2016 1445

This report is issued under the authority of the analysts listed above. This report only relates to the samples which was tested. Interpretation of these results is the sole responsibility of the client. This report shall not be reproduced except in full, without the written approval of the laboratory

NYSDOH and NELAC ID 11660

Sample Dilution:
<1 CFU= No Dilution
<10 CFU=1:10 Dilution
<100 CFU = 1:100 Dilution

All work is complete!

Phone #	716-651-0146	Form CC-01
Fax #	716-242-3010	www.biotrax.net
E-mail	edward@biotrax.net	

Reviewed By

Edward J. Lukaszek

Edward J Lukaszek
Laboratory Director

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: ALS Environmental - US
Project: Nike BU 34/35 Launch Area RI
Sample Matrix: Water

Sample Name: Silo-Comp
Lab Code: R1603812-001

Service Request: R1603812
Date Collected: 04/19/16 12:30
Date Received: 04/19/16 16:27

Basis: NA

General Chemistry Parameters

Analyte Name	Analysis Method	Result	Units	PQL	MDL	Dil.	Date Analyzed	Q
Chloride	300.0	2.1	mg/L	2.0	1.0	10	04/20/16 11:47	
Chromium, Hexavalent	7196A	0.010 U	mg/L	0.010	0.010	1	04/20/16 10:42	
Nitrate as Nitrogen	300.0	1.0 U	mg/L	1.0	0.5	10	04/20/16 11:47	
Nitrite as Nitrogen	300.0	1.0 U	mg/L	1.0	0.07	10	04/20/16 11:47	
Sulfate	300.0	54.9	mg/L	2.0	0.2	10	04/20/16 11:47	

Total ICPMS Metals

Method SW6020A

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604360

Client Name: TI2E Joint Venture

ClientProject ID: Nike BU 34/35 Launch Area RI

Field ID: Silo 2-Comp

Lab ID: 1604360-2

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 19-Apr-16

Date Extracted: 26-Apr-16

Date Analyzed: 26-Apr-16

Prep Method: SW3010 Rev A

Prep Batch: IP160426-1

QCBatchID: IP160426-1-1

Run ID: IM160426-10A10

Cleanup: NONE

Basis: As Received

File Name: 069SMPL_

Analyst: Brent A. Stanfield

Sample Aliquot: 50 ml

Final Volume: 50 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
7429-90-5	ALUMINUM	10	39	100	11	J	
7440-36-0	ANTIMONY	10	0.13	1	0.13	U	
7440-38-2	ARSENIC	10	0.42	2	0.16	J	
7440-39-3	BARIUM	10	40	5	0.24		
7440-41-7	BERYLLIUM	10	0.25	0.5	0.25	U	
7440-43-9	CADMIUM	10	0.079	2	0.079	U	
7440-70-2	CALCIUM	10	38000	1000	61		
7440-47-3	CHROMIUM	10	0.88	10	0.88	U	
7440-48-4	COBALT	10	0.08	5	0.079	J	
7440-50-8	COPPER	10	6	20	0.9	J	
7439-89-6	IRON	10	200	100	8.6		
7439-92-1	LEAD	10	2.4	2	0.17		
7439-95-4	MAGNESIUM	10	6500	100	18		
7439-96-5	MANGANESE	10	13	5	0.3		
7440-02-0	NICKEL	10	4	20	4	U	
7440-09-7	POTASSIUM	10	51000	1000	290		
7782-49-2	SELENIUM	10	0.66	10	0.66	U	
7440-22-4	SILVER	10	0.033	0.5	0.033	U	
7440-23-5	SODIUM	10	10000	1000	160		
7440-28-0	THALLIUM	10	0.014	0.1	0.014	U	
7440-62-2	VANADIUM	10	0.58	5	0.58	U	
7440-66-6	ZINC	10	38	100	8.1	J	

Data Package ID: *im1604360-1*

Date Printed: Friday, April 29, 2016

ALS Environmental -- FC

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Dissolved Metals by 200.8

Method EPA200.8 Revision 5.4

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604360

Client Name: TI2E Joint Venture

ClientProject ID: Nike BU 34/35 Launch Area RI

Field ID: Silo 2-Comp

Lab ID: 1604360-3

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 19-Apr-16

Date Extracted: 24-Apr-16

Date Analyzed: 26-Apr-16

Prep Method: EPA200.2 Rev 2.2

Prep Batch: IP160424-2

QCBatchID: IP160424-2-3

Run ID: IM160425-10A8

Cleanup: NONE

Basis: As Received

File Name: 136SMPL_

Analyst: Carly D. Ruble

Sample Aliquot: 50 ml

Final Volume: 50 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
7429-90-5	ALUMINUM	10	14	50	14	U	
7440-36-0	ANTIMONY	10	0.11	0.3	0.11	U	
7440-38-2	ARSENIC	10	0.2	2	0.2	U	
7440-39-3	BARIUM	10	35	1	0.16		
7440-41-7	BERYLLIUM	10	0.27	0.5	0.27	U	
7440-43-9	CADMIUM	10	0.088	0.3	0.088	U	
7440-70-2	CALCIUM	10	40000	1000	68		
7440-47-3	CHROMIUM	10	0.88	10	0.88	U	
7440-48-4	COBALT	10	0.083	1	0.083	U	
7440-50-8	COPPER	10	1.3	10	1.2	J	
7439-89-6	IRON	10	15	100	8.1	J	
7439-92-1	LEAD	10	0.17	0.5	0.17	U	
7439-95-4	MAGNESIUM	10	7000	100	18		
7439-96-5	MANGANESE	10	4.5	2	0.34		
7440-02-0	NICKEL	10	4	5	4	U	
7440-09-7	POTASSIUM	10	52000	1000	290		
7782-49-2	SELENIUM	10	0.66	1	0.66	U	
7440-22-4	SILVER	10	0.041	0.1	0.041	U	
7440-23-5	SODIUM	10	11000	1000	200		
7440-28-0	THALLIUM	10	0.018	0.2	0.018	U	
7440-62-2	VANADIUM	10	0.71	1	0.71	U	
7440-66-6	ZINC	10	22	20	9.8		

Data Package ID: im1604360-2

Date Printed: Friday, April 29, 2016

ALS Environmental -- FC

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LIMS Version: 6.811

Total Mercury

Method SW7470A

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604360

Client Name: TI2E Joint Venture

ClientProject ID: Nike BU 34/35 Launch Area RI

Field ID: Silo 2-Comp

Lab ID: 1604360-2

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 19-Apr-16

Date Extracted: 24-Apr-16

Date Analyzed: 25-Apr-16

Prep Method: METHOD

Prep Batch: HG160424-1

QCBatchID: HG160424-1-1

Run ID: HG160425-1A2

Cleanup: NONE

Basis: As Received

File Name: HG160425-1

Analyst: Nathan A. Quatier

Sample Aliquot: 10 ml

Final Volume: 10 ml

Result Units: MG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
7439-97-6	MERCURY	1	0.00006	0.0002	0.00006	U	

Data Package ID: hg1604360-1

Date Printed: Friday, April 29, 2016

ALS Environmental -- FC

LIMS Version: 6.811

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Diesel Range Organics

Method SW8015MD

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604360

Client Name: TI2E Joint Venture

ClientProject ID: Nike BU 34/35 Launch Area RI

Field ID:	Silo 2-Comp
Lab ID:	1604360-1

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 19-Apr-16

Date Extracted: 24-Apr-16

Date Analyzed: 24-Apr-16

Prep Method: METHOD

Prep Batch: HC160424-101

QCBatchID: HC160424-101-1

Run ID: HC160424-7A

Cleanup: NONE

Basis: As Received

File Name: 10961.dat

Analyst: Joel F. Nolte

Sample Aliquot: 37.5 ml

Final Volume: 1.1 ml

Result Units: MG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
68334-30-5	Diesel Range Organics	1	0.53	0.53	0.16	U	

Surrogate Recovery

CASNO	Surrogate Analyte	Result	Flag	Spike Amount	Percent Recovery	Control Limits
84-15-1	O-TERPHENYL	0.732		0.733	100	63 - 126

Data Package ID: DRO1604360-1

Date Printed: Tuesday, April 26, 2016

ALS Environmental -- FC

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LIMS Version: 6.811

Gasoline Range Organics

Method SW8015D

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604360

Client Name: TI2E Joint Venture

ClientProject ID: Nike BU 34/35 Launch Area RI

Field ID:	Silo 2-Comp
Lab ID:	1604360-1

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 19-Apr-16

Date Extracted: 22-Apr-16

Date Analyzed: 22-Apr-16

Prep Method: SW5030 Rev C

Prep Batch: HC160422-61

QCBatchID: HC160422-61-1

Run ID: HC160422-6A

Cleanup: NONE

Basis: As Received

File Name: 17917.dat

Analyst: Joel F. Nolte

Sample Aliquot: 5 ml

Final Volume: 5 ml

Result Units: MG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
8006-61-9	GASOLINE RANGE ORGANICS	1	0.1	0.1	0.01	U	

Surrogate Recovery

CASNO	Surrogate Analyte	Result	Flag	Spike Amount	Percent Recovery	Control Limits
193533-92-5	2,3,4-TRIFLUOROTOLUENE	0.0984		0.1	98	74 - 129

Data Package ID: GRO1604360-1

Date Printed: Tuesday, April 26, 2016

ALS Environmental -- FC

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Chlorinated Herbicides by GC/ECD

Method SW8151A

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604360

Client Name: TI2E Joint Venture

ClientProject ID: Nike BU 34/35 Launch Area RI

Field ID:	Silo 2-Comp
Lab ID:	1604360-2

Sample Matrix: WATER
% Moisture: N/A
Date Collected: 19-Apr-16
Date Extracted: 21-Apr-16
Date Analyzed: 25-Apr-16
Prep Method: METHOD

Prep Batch: EX160421-3
QCBatchID: EX160421-3-2
Run ID: PT160425-11B
Cleanup: NONE
Basis: As Received
File Name: 16139.dat

Analyst: Dan Sheneman
Sample Aliquot: 990 ml
Final Volume: 10 ml
Result Units: UG/L
Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
75-99-0	DALAPON	1	4	4	1.9	U	
1918-00-9	DICAMBA	1	0.2	0.2	0.061	U	
93-65-2	MCPD	1	100	100	61	U	
94-74-6	MCPA	1	100	100	93	U	
120-36-5	DICHLOROPROP	1	1	1	0.61	U	
94-75-7	2,4-D	1	1	1	0.3	U	
93-72-1	SILVEX	1	0.1	0.1	0.02	U	
93-76-5	2,4,5-T	1	0.1	0.1	0.061	U	
94-82-6	2,4-DB	1	1	1	0.61	U	
88-85-7	DINOSEB	1	1	1	0.46	U	

Surrogate Recovery

CASNO	Surrogate Analyte	Result	Flag	Spike Amount	Percent Recovery	Control Limits
19719-28-9	2,4-DICHLOROPHENYLACETIC ACID	1.91		2.02	94	56 - 140

Data Package ID: PT1604360-3

Date Printed: Friday, April 29, 2016

ALS Environmental -- FC

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LIMS Version: 6.811

Ignitability

Method SW1010 Revision A

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604360

Client Name: TI2E Joint Venture

ClientProject ID: Nike BU 34/35 Launch Area RI

Field ID:	Silo 2-Comp	Sample Matrix:	WATER	Prep Batch:	EX160427-1	Analyst:	Brendon Howard
Lab ID:	1604360-2	% Moisture:	N/A	QCBatchID:	EX160427-1-1	Sample Aliquot:	1 CUP
		Date Collected:	19-Apr-16	Run ID:	EX160427-1A	Final Volume:	1 CUP
		Date Extracted:	27-Apr-16	Cleanup:	NONE	Result Units:	deg C
		Date Analyzed:	27-Apr-16	Basis:	As Received	Clean DF:	1
		Prep Method:	NONE	File Name:			

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	Result Qualifier	EPA Qualifier
10-36-6	IGNITABILITY	1	96	96	U	

Data Package ID: *ex1604360-2*

Total Cyanide

Method EPA335.2

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604360

Client Name: TI2E Joint Venture

ClientProject ID: Nike BU 34/35 Launch Area RI

Field ID:	Silo 2-Comp
Lab ID:	1604360-2

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 19-Apr-16

Date Extracted: 24-Apr-16

Date Analyzed: 29-Apr-16

Prep Method: METHOD

Prep Batch: CN160424-1

QCBatchID: CN160424-1-1

Run ID: CN160429-1A3

Cleanup: NONE

Basis: As Received

File Name: Manual Entry

Analyst: Dan Sheneman

Sample Aliquot: 50 ml

Final Volume: 50 ml

Result Units: MG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
57-12-5	CYANIDE, TOTAL	1	0.01	0.01	0.0036	U	

Data Package ID: *cn1604360-1*

Sulfide

Method EPA376.1

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604360

Client Name: TI2E Joint Venture

ClientProject ID: Nike BU 34/35 Launch Area RI

Field ID:	Silo 2-Comp	Sample Matrix:	WATER	Prep Batch:	S160426-1	Analyst:	Charles B. Allen
Lab ID:	1604360-2	% Moisture:	N/A	QCBatchID:	S160426-1-1	Sample Aliquot:	200 ML
		Date Collected:	19-Apr-16	Run ID:	S160426-1A1	Final Volume:	200 ML
		Date Extracted:	26-Apr-16	Cleanup:	NONE	Result Units:	MG/L
		Date Analyzed:	26-Apr-16	Basis:	As Received	Clean DF:	1
		Prep Method:	NONE	File Name:	Manual Entry		

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	Result Qualifier	EPA Qualifier
18496-25-8	SULFIDE	1	2	2	U	

Data Package ID: s1604360-1

Hexane Extractable Material--Gravimetric

Method EPA1664

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604360

Client Name: TI2E Joint Venture

ClientProject ID: Nike BU 34/35 Launch Area RI

Field ID:	Silo 2-Comp
Lab ID:	1604360-2

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 19-Apr-16

Date Extracted: 22-Apr-16

Date Analyzed: 22-Apr-16

Prep Method: METHOD

Prep Batch: EX160422-4

QCBatchID: EX160422-4-1

Run ID: EX160422-1A1

Cleanup: NONE

Basis: As Received

File Name:

Analyst: Adam C. Kloos

Sample Aliquot: 1020 ML

Final Volume: 1 SAMPL

Result Units: MG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	Result Qualifier	EPA Qualifier
10-30-0	OIL AND GREASE	1	4.9	4.9	U	

Data Package ID: *ex1604360-1*

Organochlorine Pesticides

Method SW8081B

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604360

Client Name: TI2E Joint Venture

ClientProject ID: Nike BU 34/35 Launch Area RI

Field ID: Silo 2-Comp

Lab ID: 1604360-2

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 19-Apr-16

Date Extracted: 21-Apr-16

Date Analyzed: 26-Apr-16

Prep Method: SW3520 Rev C

Prep Batch: EX160421-5

QCBatchID: EX160421-5-2

Run ID: PT160426-10

Cleanup: NONE

Basis: As Received

File Name: 09336.dat

Analyst: Dan Sheneman

Sample Aliquot: 1000 ml

Final Volume: 10 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
319-84-6	ALPHA-BHC	1	0.05	0.05	0.03	U	
58-89-9	GAMMA-BHC (LINDANE)	1	0.05	0.05	0.03	U	
319-85-7	BETA-BHC	1	0.05	0.05	0.03	U	
319-86-8	DELTA-BHC	1	0.05	0.05	0.03	U	
76-44-8	HEPTACHLOR	1	0.05	0.05	0.03	U	
309-00-2	ALDRIN	1	0.05	0.05	0.03	U	
1024-57-3	HEPTACHLOR EPOXIDE	1	0.05	0.05	0.03	U	
5103-74-2	GAMMA-CHLORDANE	1	0.05	0.05	0.03	U	
5103-71-9	ALPHA-CHLORDANE	1	0.05	0.05	0.03	U	
72-55-9	4,4'-DDE	1	0.05	0.05	0.03	U	
959-98-8	ENDOSULFAN I	1	0.05	0.05	0.03	U	
60-57-1	DIELDRIN	1	0.05	0.05	0.03	U	
72-20-8	ENDRIN	1	0.05	0.05	0.03	U	
72-54-8	4,4'-DDD	1	0.05	0.05	0.03	U	
33213-65-9	ENDOSULFAN II	1	0.05	0.05	0.03	U	
50-29-3	4,4'-DDT	1	0.05	0.05	0.03	U	
7421-93-4	ENDRIN ALDEHYDE	1	0.05	0.05	0.03	U	
72-43-5	METHOXYCHLOR	1	0.25	0.25	0.08	U	
1031-07-8	ENDOSULFAN SULFATE	1	0.05	0.05	0.03	U	
53494-70-5	ENDRIN KETONE	1	0.05	0.05	0.03	U	
8001-35-2	TOXAPHENE	1	2.5	2.5	0.75	U	

Data Package ID: PST1604360-1

Date Printed: Thursday, April 28, 2016

ALS Environmental -- FC

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LIMS Version: 6.811

Organochlorine Pesticides

Method SW8081B

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604360

Client Name: TI2E Joint Venture

ClientProject ID: Nike BU 34/35 Launch Area RI

Field ID:	Silo 2-Comp
Lab ID:	1604360-2

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 19-Apr-16

Date Extracted: 21-Apr-16

Date Analyzed: 26-Apr-16

Prep Method: SW3520 Rev C

Prep Batch: EX160421-5

QCBatchID: EX160421-5-2

Run ID: PT160426-10

Cleanup: NONE

Basis: As Received

File Name: 09336.dat

Analyst: Dan Sheneman

Sample Aliquot: 1000 ml

Final Volume: 10 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier

Surrogate Recovery

CASNO	Surrogate Analyte	Result	Flag	Spike Amount	Percent Recovery	Control Limits
2051-24-3	DECACHLOROBIPHENYL	0.359		0.5	72	10 - 118
877-09-8	TETRACHLORO-M-XYLENE	0.452		0.5	90	57 - 128

Data Package ID: PST1604360-1

Date Printed: Thursday, April 28, 2016

ALS Environmental -- FC

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LIMS Version: 6.811

PCBs

Method SW8082

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604360

Client Name: TI2E Joint Venture

ClientProject ID: Nike BU 34/35 Launch Area RI

Field ID:	Silo 2-Comp
Lab ID:	1604360-2

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 19-Apr-16

Date Extracted: 22-Apr-16

Date Analyzed: 26-Apr-16

Prep Method: SW3520 Rev C

Prep Batch: EX160422-7

QCBatchID: EX160422-7-3

Run ID: PT160425-11

Cleanup: SW3665

Basis: As Received

File Name: 16185.dat

Analyst: Dan Sheneman

Sample Aliquot: 1000 ml

Final Volume: 10 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
12674-11-2	AROCLOR-1016	1	1	1	0.3	U	
11104-28-2	AROCLOR-1221	1	2	2	0.3	U	
11141-16-5	AROCLOR-1232	1	1	1	0.3	U	
53469-21-9	AROCLOR-1242	1	1	1	0.3	U	
12672-29-6	AROCLOR-1248	1	1	1	0.3	U	
11097-69-1	AROCLOR-1254	1	1	1	0.3	U	
11096-82-5	AROCLOR-1260	1	1	1	0.3	U	

Surrogate Recovery

CASNO	Surrogate Analyte	Result	Flag	Spike Amount	Percent Recovery	Control Limits
2051-24-3	DECACHLOROBIPHENYL	0.349		0.5	70	14 - 114
877-09-8	TETRACHLORO-M-XYLENE	0.527		0.5	105	72 - 125

Data Package ID: PT1604360-1

Organic Carbon

Method EPA415.1

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604360

Client Name: TI2E Joint Venture

ClientProject ID: Nike BU 34/35 Launch Area RI

Field ID: Silo 2-Comp	Sample Matrix: WATER	Prep Batch: MO160422-1	Analyst: Steven D. White
Lab ID: 1604360-2	% Moisture: N/A	QCBatchID: MO160422-1-1	Sample Aliquot: 40 ml
	Date Collected: 19-Apr-16	Run ID: MO160422-1A1	Final Volume: 40 ml
	Date Extracted: 22-Apr-16	Cleanup: NONE	Result Units: MG/L
	Date Analyzed: 22-Apr-16	Basis: As Received	Clean DF: 1
	Prep Method: NONE	File Name: 04221321	

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
10-35-5	TOTAL ORGANIC CARBON	1	2.3	1	0.3		

Data Package ID: MO1604360-1

Date Printed: Monday, April 25, 2016

ALS Environmental -- FC

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LIMS Version: 6.811

GC/MS Semi-volatiles

Method SW8270D

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604360

Client Name: TI2E Joint Venture

ClientProject ID: Nike BU 34/35 Launch Area RI

Field ID: Silo 2-Comp

Lab ID: 1604360-2

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 19-Apr-16

Date Extracted: 23-Apr-16

Date Analyzed: 28-Apr-16

Prep Method: SW3520 Rev C

Prep Batch: EX160423-1

QCBatchID: EX160423-1-1

Run ID: SV160428-2

Cleanup: NONE

Basis: As Received

File Name: P20095

Analyst: Tyler Knaebel

Sample Aliquot: 965 ml

Final Volume: 1 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
110-86-1	PYRIDINE	1	10	10	4	U	
62-75-9	N-NITROSODIMETHYLAMINE	1	10	10	3.1	U	
62-53-3	ANILINE	1	10	10	3.2	U	
108-95-2	PHENOL	1	10	10	3.1	U	
111-44-4	BIS(2-CHLOROETHYL)ETHER	1	10	10	3.1	U	
95-57-8	2-CHLOROPHENOL	1	10	10	3.1	U	
541-73-1	1,3-DICHLOROBENZENE	1	10	10	3.1	U	
106-46-7	1,4-DICHLOROBENZENE	1	10	10	3.1	U	
95-50-1	1,2-DICHLOROBENZENE	1	10	10	3.1	U	
100-51-6	BENZYL ALCOHOL	1	10	10	3.1	U	
108-60-1	BIS(2-CHLOROISOPROPYL)ETHER	1	10	10	3.1	U	
95-48-7	2-METHYLPHENOL	1	10	10	3.1	U	
621-64-7	N-NITROSO-DI-N-PROPYLAMINE	1	10	10	3.1	U	
108-39-4	3+4-METHYLPHENOL	1	10	10	3.1	U	
67-72-1	HEXACHLOROETHANE	1	10	10	3.1	U	
98-95-3	NITROBENZENE	1	10	10	3.1	U	
78-59-1	ISOPHORONE	1	10	10	3.1	U	
88-75-5	2-NITROPHENOL	1	10	10	3.1	U	
105-67-9	2,4-DIMETHYLPHENOL	1	10	10	3.1	U	
111-91-1	BIS(2-CHLOROETHOXY)METHANE	1	10	10	3.1	U	
120-83-2	2,4-DICHLOROPHENOL	1	10	10	3.1	U	
65-85-0	BENZOIC ACID	1	52	52	20	U	
120-82-1	1,2,4-TRICHLOROBENZENE	1	10	10	3.1	U	
91-20-3	NAPHTHALENE	1	10	10	3.1	U	
106-47-8	4-CHLOROANILINE	1	10	10	5.6	U	
87-68-3	HEXACHLOROBUTADIENE	1	10	10	3.1	U	

Data Package ID: SV1604360-1

Date Printed: Saturday, April 30, 2016

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LIMS Version: 6.811

GC/MS Semi-volatiles

Method SW8270D

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604360

Client Name: TI2E Joint Venture

ClientProject ID: Nike BU 34/35 Launch Area RI

Field ID: Silo 2-Comp

Lab ID: 1604360-2

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 19-Apr-16

Date Extracted: 23-Apr-16

Date Analyzed: 28-Apr-16

Prep Method: SW3520 Rev C

Prep Batch: EX160423-1

QCBatchID: EX160423-1-1

Run ID: SV160428-2

Cleanup: NONE

Basis: As Received

File Name: P20095

Analyst: Tyler Knaebel

Sample Aliquot: 965 ml

Final Volume: 1 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
59-50-7	4-CHLORO-3-METHYLPHENOL	1	10	10	3.1	U	
91-57-6	2-METHYLNAPHTHALENE	1	10	10	3.1	U	
90-12-0	1-METHYLNAPHTHALENE	1	10	10	3.1	U	
77-47-4	HEXACHLOROCYCLOPENTADIENE	1	10	10	5.3	U	
88-06-2	2,4,6-TRICHLOROPHENOL	1	10	10	3.1	U	
95-95-4	2,4,5-TRICHLOROPHENOL	1	10	10	3.1	U	
91-58-7	2-CHLORONAPHTHALENE	1	10	10	3.1	U	
88-74-4	2-NITROANILINE	1	21	21	3.1	U	
131-11-3	DIMETHYL PHTHALATE	1	10	10	3.1	U	
606-20-2	2,6-DINITROTOLUENE	1	10	10	3.1	U	
208-96-8	ACENAPHTHYLENE	1	10	10	3.1	U	
99-09-2	3-NITROANILINE	1	21	21	4.1	U	
83-32-9	ACENAPHTHENE	1	10	10	3.1	U	
51-28-5	2,4-DINITROPHENOL	1	21	21	3.1	U	
100-02-7	4-NITROPHENOL	1	21	21	3.7	U	
132-64-9	DIBENZOFURAN	1	10	10	3.1	U	
121-14-2	2,4-DINITROTOLUENE	1	10	10	3.1	U	
84-66-2	DIETHYL PHTHALATE	1	10	10	3.1	U	
86-73-7	FLUORENE	1	10	10	3.1	U	
7005-72-3	4-CHLOROPHENYL PHENYL ETHER	1	10	10	3.1	U	
100-01-6	4-NITROANILINE	1	21	21	3.3	U	
103-33-3	AZOBENZENE	1	10	10	3.1	U	
534-52-1	4,6-DINITRO-2-METHYLPHENOL	1	21	21	3.7	U	
86-30-6	N-NITROSODIPHENYLAMINE	1	10	10	3.1	U	
101-55-3	4-BROMOPHENYL PHENYL ETHER	1	10	10	3.1	U	
118-74-1	HEXACHLOROBENZENE	1	10	10	3.1	U	

Data Package ID: SV1604360-1

GC/MS Semi-volatiles

Method SW8270D

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604360

Client Name: TI2E Joint Venture

ClientProject ID: Nike BU 34/35 Launch Area RI

Field ID: Silo 2-Comp

Lab ID: 1604360-2

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 19-Apr-16

Date Extracted: 23-Apr-16

Date Analyzed: 28-Apr-16

Prep Method: SW3520 Rev C

Prep Batch: EX160423-1

QCBatchID: EX160423-1-1

Run ID: SV160428-2

Cleanup: NONE

Basis: As Received

File Name: P20095

Analyst: Tyler Knaebel

Sample Aliquot: 965 ml

Final Volume: 1 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
58-90-2	2,3,4,6-TETRACHLOROPHENOL	1	10	10	3.9	U	
87-86-5	PENTACHLOROPHENOL	1	21	21	4.4	U	
85-01-8	PHENANTHRENE	1	10	10	3.1	U	
120-12-7	ANTHRACENE	1	10	10	3.1	U	
86-74-8	CARBAZOLE	1	10	10	3.1	U	
84-74-2	DI-N-BUTYL PHTHALATE	1	10	10	3.1	U	
206-44-0	FLUORANTHENE	1	10	10	3.1	U	
129-00-0	PYRENE	1	10	10	3.1	U	
85-68-7	BUTYL BENZYL PHTHALATE	1	10	10	3.1	U	
56-55-3	BENZO(A)ANTHRACENE	1	10	10	3.1	U	
91-94-1	3,3'-DICHLOROBENZIDINE	1	10	10	6.5	U	
218-01-9	CHRYSENE	1	10	10	3.1	U	
117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	1	10	10	3.1	U	
117-84-0	DI-N-OCTYL PHTHALATE	1	10	10	3.1	U	
205-99-2	BENZO(B)FLUORANTHENE	1	10	10	3.1	U	
207-08-9	BENZO(K)FLUORANTHENE	1	10	10	3.1	U	
50-32-8	BENZO(A)PYRENE	1	10	10	3.1	U	
193-39-5	INDENO(1,2,3-CD)PYRENE	1	10	10	3.1	U	
53-70-3	DIBENZO(A,H)ANTHRACENE	1	10	10	3.1	U	
191-24-2	BENZO(G,H,I)PERYLENE	1	10	10	3.1	U	

Data Package ID: SV1604360-1

Date Printed: Saturday, April 30, 2016

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GC/MS Semi-volatiles

Method SW8270D

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604360

Client Name: TI2E Joint Venture

ClientProject ID: Nike BU 34/35 Launch Area RI

Field ID:	Silo 2-Comp
Lab ID:	1604360-2

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 19-Apr-16

Date Extracted: 23-Apr-16

Date Analyzed: 28-Apr-16

Prep Method: SW3520 Rev C

Prep Batch: EX160423-1

QCBatchID: EX160423-1-1

Run ID: SV160428-2

Cleanup: NONE

Basis: As Received

File Name: P20095

Analyst: Tyler Knaebel

Sample Aliquot: 965 ml

Final Volume: 1 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier

Surrogate Recovery

CASNO	Surrogate Analyte	Result	Flag	Spike Amount	Percent Recovery	Control Limits
118-79-6	2,4,6-TRIBROMOPHENOL	71.1		77.7	91	42 - 117
321-60-8	2-FLUOROBIPHENYL	42.8		51.8	83	55 - 108
367-12-4	2-FLUOROPHENOL	52.5		77.7	68	46 - 105
4165-60-0	NITROBENZENE-D5	39.5		51.8	76	53 - 111
4165-62-2	PHENOL-D5	57.3		77.7	74	50 - 109
1718-51-0	TERPHENYL-D14	42.8		51.8	83	34 - 139

Data Package ID: SV1604360-1

GC/MS Volatiles

Method SW8260_25C

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604360

Client Name: TI2E Joint Venture

ClientProject ID: Nike BU 34/35 Launch Area RI

Field ID: Silo 2-Comp

Lab ID: 1604360-1

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 19-Apr-16

Date Extracted: 22-Apr-16

Date Analyzed: 22-Apr-16

Prep Method: SW5030 Rev C

Prep Batch: VL160422-3

QCBatchID: VL160422-3-1

Run ID: VL160422-3A

Cleanup: NONE

Basis: As Received

File Name: C67978

Analyst: Joe Kostelnik

Sample Aliquot: 10 ml

Final Volume: 10 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
75-71-8	DICHLORODIFLUOROMETHANE	1	1	1	0.3	U	
74-87-3	CHLOROMETHANE	1	1	1	0.3	U	
75-01-4	VINYL CHLORIDE	1	1	1	0.3	U	
74-83-9	BROMOMETHANE	1	1	1	0.3	U	
75-00-3	CHLOROETHANE	1	1	1	0.3	U	
75-69-4	TRICHLOROFLUOROMETHANE	1	1	1	0.3	U	
75-35-4	1,1-DICHLOROETHENE	1	1	1	0.3	U	
76-13-1	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETH	1	1	1	0.3	U	
67-64-1	ACETONE	1	10	10	3	U	
74-88-4	IODOMETHANE	1	1	1	0.38	U	
75-15-0	CARBON DISULFIDE	1	1	1	0.3	U	
75-09-2	METHYLENE CHLORIDE	1	1	1	0.44	U	
156-60-5	TRANS-1,2-DICHLOROETHENE	1	1	1	0.3	U	
1634-04-4	METHYL TERTIARY BUTYL ETHER	1	1	1	0.3	U	
75-34-3	1,1-DICHLOROETHANE	1	1	1	0.3	U	
108-05-4	VINYL ACETATE	1	2	2	0.3	U	
156-59-2	CIS-1,2-DICHLOROETHENE	1	1	1	0.3	U	
78-93-3	2-BUTANONE	1	10	10	3	U	
74-97-5	BROMOCHLOROMETHANE	1	1	1	0.3	U	
67-66-3	CHLOROFORM	1	1	1	0.3	U	
71-55-6	1,1,1-TRICHLOROETHANE	1	1	1	0.3	U	
594-20-7	2,2-DICHLOROPROPANE	1	1	1	0.3	U	
56-23-5	CARBON TETRACHLORIDE	1	1	1	0.3	U	
563-58-6	1,1-DICHLOROPROPENE	1	1	1	0.3	U	
107-06-2	1,2-DICHLOROETHANE	1	1	1	0.3	U	
71-43-2	BENZENE	1	1	1	0.3	U	

Data Package ID: VL1604360-1

Date Printed: Wednesday, April 27, 2016

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GC/MS Volatiles

Method SW8260_25C

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604360

Client Name: TI2E Joint Venture

ClientProject ID: Nike BU 34/35 Launch Area RI

Field ID: Silo 2-Comp

Lab ID: 1604360-1

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 19-Apr-16

Date Extracted: 22-Apr-16

Date Analyzed: 22-Apr-16

Prep Method: SW5030 Rev C

Prep Batch: VL160422-3

QCBatchID: VL160422-3-1

Run ID: VL160422-3A

Cleanup: NONE

Basis: As Received

File Name: C67978

Analyst: Joe Kostelnik

Sample Aliquot: 10 ml

Final Volume: 10 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
79-01-6	TRICHLOROETHENE	1	1	1	0.3	U	
78-87-5	1,2-DICHLOROPROPANE	1	1	1	0.3	U	
74-95-3	DIBROMOMETHANE	1	1	1	0.3	U	
75-27-4	BROMODICHLOROMETHANE	1	1	1	0.3	U	
10061-01-5	CIS-1,3-DICHLOROPROPENE	1	1	1	0.3	U	
108-10-1	4-METHYL-2-PENTANONE	1	10	10	3	U	
108-88-3	TOLUENE	1	1	1	0.3	U	
10061-02-6	TRANS-1,3-DICHLOROPROPENE	1	1	1	0.3	U	
79-00-5	1,1,2-TRICHLOROETHANE	1	1	1	0.3	U	
591-78-6	2-HEXANONE	1	10	10	3	U	
127-18-4	TETRACHLOROETHENE	1	1	1	0.2	U	
142-28-9	1,3-DICHLOROPROPANE	1	1	1	0.3	U	
124-48-1	DIBROMOCHLOROMETHANE	1	1	1	0.3	U	
106-93-4	1,2-DIBROMOETHANE	1	1	1	0.3	U	
544-10-5	1-CHLOROHEXANE	1	1	1	0.3	U	
108-90-7	CHLOROBENZENE	1	1	1	0.3	U	
630-20-6	1,1,1,2-TETRACHLOROETHANE	1	1	1	0.3	U	
100-41-4	ETHYLBENZENE	1	1	1	0.3	U	
136777-61-2	M+P-XYLENE	1	1	1	0.3	U	
95-47-6	O-XYLENE	1	1	1	0.3	U	
100-42-5	STYRENE	1	1	1	0.3	U	
75-25-2	BROMOFORM	1	1	1	0.3	U	
98-82-8	ISOPROPYLBENZENE	1	1	1	0.3	U	
96-18-4	1,2,3-TRICHLOROPROPANE	1	1	1	0.3	U	
79-34-5	1,1,2,2-TETRACHLOROETHANE	1	1	1	0.3	U	
108-86-1	BROMOBENZENE	1	1	1	0.3	U	

Data Package ID: VL1604360-1

Date Printed: Wednesday, April 27, 2016

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GC/MS Volatiles

Method SW8260_25C

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604360

Client Name: TI2E Joint Venture

ClientProject ID: Nike BU 34/35 Launch Area RI

Field ID: Silo 2-Comp

Lab ID: 1604360-1

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 19-Apr-16

Date Extracted: 22-Apr-16

Date Analyzed: 22-Apr-16

Prep Method: SW5030 Rev C

Prep Batch: VL160422-3

QCBatchID: VL160422-3-1

Run ID: VL160422-3A

Cleanup: NONE

Basis: As Received

File Name: C67978

Analyst: Joe Kostelnik

Sample Aliquot: 10 ml

Final Volume: 10 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
103-65-1	N-PROPYLBENZENE	1	1	1	0.3	U	
95-49-8	2-CHLOROTOLUENE	1	1	1	0.3	U	
108-67-8	1,3,5-TRIMETHYLBENZENE	1	1	1	0.3	U	
106-43-4	4-CHLOROTOLUENE	1	1	1	0.3	U	
98-06-6	TERT-BUTYLBENZENE	1	1	1	0.3	U	
95-63-6	1,2,4-TRIMETHYLBENZENE	1	1	1	0.3	U	
135-98-8	SEC-BUTYLBENZENE	1	1	1	0.3	U	
541-73-1	1,3-DICHLOROBENZENE	1	1	1	0.3	U	
99-87-6	P-ISOPROPYLTOLUENE	1	1	1	0.3	U	
106-46-7	1,4-DICHLOROBENZENE	1	1	1	0.3	U	
104-51-8	N-BUTYLBENZENE	1	1	1	0.3	U	
95-50-1	1,2-DICHLOROBENZENE	1	1	1	0.3	U	
96-12-8	1,2-DIBROMO-3-CHLOROPROPANE	1	2	2	0.4	U	
120-82-1	1,2,4-TRICHLOROBENZENE	1	1	1	0.3	U	
87-68-3	HEXACHLOROBUTADIENE	1	1	1	0.3	U	
91-20-3	NAPHTHALENE	1	1	1	0.3	U	
87-61-6	1,2,3-TRICHLOROBENZENE	1	1	1	0.3	U	

Data Package ID: VL1604360-1

Date Printed: Wednesday, April 27, 2016

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GC/MS Volatiles

Method SW8260_25C

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604360

Client Name: TI2E Joint Venture

ClientProject ID: Nike BU 34/35 Launch Area RI

Field ID: Silo 2-Comp

Lab ID: 1604360-1

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 19-Apr-16

Date Extracted: 22-Apr-16

Date Analyzed: 22-Apr-16

Prep Method: SW5030 Rev C

Prep Batch: VL160422-3

QCBatchID: VL160422-3-1

Run ID: VL160422-3A

Cleanup: NONE

Basis: As Received

File Name: C67978

Analyst: Joe Kostelnik

Sample Aliquot: 10 ml

Final Volume: 10 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier

Surrogate Recovery

CASNO	Surrogate Analyte	Result	Flag	Spike Amount	Percent Recovery	Control Limits
460-00-4	4-BROMOFLUOROBENZENE	25.4		25	102	85 - 115
1868-53-7	DIBROMOFLUOROMETHANE	25.6		25	102	84 - 118
2037-26-5	TOLUENE-D8	25.6		25	103	85 - 115

Data Package ID: VL1604360-1

Date Printed: Wednesday, April 27, 2016

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GC/MS Volatiles

Method SW8260_25C

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604360

Client Name: TI2E Joint Venture

ClientProject ID: Nike BU 34/35 Launch Area RI

Field ID: Trip Blank

Lab ID: 1604360-4

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 19-Apr-16

Date Extracted: 22-Apr-16

Date Analyzed: 22-Apr-16

Prep Method: SW5030 Rev C

Prep Batch: VL160422-3

QCBatchID: VL160422-3-1

Run ID: VL160422-3A

Cleanup: NONE

Basis: As Received

File Name: C67977

Analyst: Joe Kostelnik

Sample Aliquot: 10 ml

Final Volume: 10 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
75-71-8	DICHLORODIFLUOROMETHANE	1	1	1	0.3	U	
74-87-3	CHLOROMETHANE	1	1	1	0.3	U	
75-01-4	VINYL CHLORIDE	1	1	1	0.3	U	
74-83-9	BROMOMETHANE	1	1	1	0.3	U	
75-00-3	CHLOROETHANE	1	1	1	0.3	U	
75-69-4	TRICHLOROFLUOROMETHANE	1	1	1	0.3	U	
75-35-4	1,1-DICHLOROETHENE	1	1	1	0.3	U	
76-13-1	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETH	1	1	1	0.3	U	
67-64-1	ACETONE	1	10	10	3	U	
74-88-4	IODOMETHANE	1	1	1	0.38	U	
75-15-0	CARBON DISULFIDE	1	1	1	0.3	U	
75-09-2	METHYLENE CHLORIDE	1	1	1	0.44	U	
156-60-5	TRANS-1,2-DICHLOROETHENE	1	1	1	0.3	U	
1634-04-4	METHYL TERTIARY BUTYL ETHER	1	1	1	0.3	U	
75-34-3	1,1-DICHLOROETHANE	1	1	1	0.3	U	
108-05-4	VINYL ACETATE	1	2	2	0.3	U	
156-59-2	CIS-1,2-DICHLOROETHENE	1	1	1	0.3	U	
78-93-3	2-BUTANONE	1	10	10	3	U	
74-97-5	BROMOCHLOROMETHANE	1	1	1	0.3	U	
67-66-3	CHLOROFORM	1	1	1	0.3	U	
71-55-6	1,1,1-TRICHLOROETHANE	1	1	1	0.3	U	
594-20-7	2,2-DICHLOROPROPANE	1	1	1	0.3	U	
56-23-5	CARBON TETRACHLORIDE	1	1	1	0.3	U	
563-58-6	1,1-DICHLOROPROPENE	1	1	1	0.3	U	
107-06-2	1,2-DICHLOROETHANE	1	1	1	0.3	U	
71-43-2	BENZENE	1	1	1	0.3	U	

Data Package ID: VL1604360-1

GC/MS Volatiles

Method SW8260_25C

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604360

Client Name: TI2E Joint Venture

ClientProject ID: Nike BU 34/35 Launch Area RI

Field ID: Trip Blank

Lab ID: 1604360-4

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 19-Apr-16

Date Extracted: 22-Apr-16

Date Analyzed: 22-Apr-16

Prep Method: SW5030 Rev C

Prep Batch: VL160422-3

QCBatchID: VL160422-3-1

Run ID: VL160422-3A

Cleanup: NONE

Basis: As Received

File Name: C67977

Analyst: Joe Kostelnik

Sample Aliquot: 10 ml

Final Volume: 10 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
79-01-6	TRICHLOROETHENE	1	1	1	0.3	U	
78-87-5	1,2-DICHLOROPROPANE	1	1	1	0.3	U	
74-95-3	DIBROMOMETHANE	1	1	1	0.3	U	
75-27-4	BROMODICHLOROMETHANE	1	1	1	0.3	U	
10061-01-5	CIS-1,3-DICHLOROPROPENE	1	1	1	0.3	U	
108-10-1	4-METHYL-2-PENTANONE	1	10	10	3	U	
108-88-3	TOLUENE	1	1	1	0.3	U	
10061-02-6	TRANS-1,3-DICHLOROPROPENE	1	1	1	0.3	U	
79-00-5	1,1,2-TRICHLOROETHANE	1	1	1	0.3	U	
591-78-6	2-HEXANONE	1	10	10	3	U	
127-18-4	TETRACHLOROETHENE	1	1	1	0.2	U	
142-28-9	1,3-DICHLOROPROPANE	1	1	1	0.3	U	
124-48-1	DIBROMOCHLOROMETHANE	1	1	1	0.3	U	
106-93-4	1,2-DIBROMOETHANE	1	1	1	0.3	U	
544-10-5	1-CHLOROHEXANE	1	1	1	0.3	U	
108-90-7	CHLOROBENZENE	1	1	1	0.3	U	
630-20-6	1,1,1,2-TETRACHLOROETHANE	1	1	1	0.3	U	
100-41-4	ETHYLBENZENE	1	1	1	0.3	U	
136777-61-2	M+P-XYLENE	1	1	1	0.3	U	
95-47-6	O-XYLENE	1	1	1	0.3	U	
100-42-5	STYRENE	1	1	1	0.3	U	
75-25-2	BROMOFORM	1	1	1	0.3	U	
98-82-8	ISOPROPYLBENZENE	1	1	1	0.3	U	
96-18-4	1,2,3-TRICHLOROPROPANE	1	1	1	0.3	U	
79-34-5	1,1,2,2-TETRACHLOROETHANE	1	1	1	0.3	U	
108-86-1	BROMOBENZENE	1	1	1	0.3	U	

Data Package ID: VL1604360-1

Date Printed: Wednesday, April 27, 2016

ALS Environmental -- FC

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LIMS Version: 6.811

GC/MS Volatiles

Method SW8260_25C

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604360

Client Name: TI2E Joint Venture

ClientProject ID: Nike BU 34/35 Launch Area RI

Field ID: Trip Blank

Lab ID: 1604360-4

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 19-Apr-16

Date Extracted: 22-Apr-16

Date Analyzed: 22-Apr-16

Prep Method: SW5030 Rev C

Prep Batch: VL160422-3

QCBatchID: VL160422-3-1

Run ID: VL160422-3A

Cleanup: NONE

Basis: As Received

File Name: C67977

Analyst: Joe Kostelnik

Sample Aliquot: 10 ml

Final Volume: 10 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
103-65-1	N-PROPYLBENZENE	1	1	1	0.3	U	
95-49-8	2-CHLOROTOLUENE	1	1	1	0.3	U	
108-67-8	1,3,5-TRIMETHYLBENZENE	1	1	1	0.3	U	
106-43-4	4-CHLOROTOLUENE	1	1	1	0.3	U	
98-06-6	TERT-BUTYLBENZENE	1	1	1	0.3	U	
95-63-6	1,2,4-TRIMETHYLBENZENE	1	1	1	0.3	U	
135-98-8	SEC-BUTYLBENZENE	1	1	1	0.3	U	
541-73-1	1,3-DICHLOROBENZENE	1	1	1	0.3	U	
99-87-6	P-ISOPROPYLTOLUENE	1	1	1	0.3	U	
106-46-7	1,4-DICHLOROBENZENE	1	1	1	0.3	U	
104-51-8	N-BUTYLBENZENE	1	1	1	0.3	U	
95-50-1	1,2-DICHLOROBENZENE	1	1	1	0.3	U	
96-12-8	1,2-DIBROMO-3-CHLOROPROPANE	1	2	2	0.4	U	
120-82-1	1,2,4-TRICHLOROBENZENE	1	1	1	0.3	U	
87-68-3	HEXACHLOROBUTADIENE	1	1	1	0.3	U	
91-20-3	NAPHTHALENE	1	1	1	0.3	U	
87-61-6	1,2,3-TRICHLOROBENZENE	1	1	1	0.3	U	

Data Package ID: VL1604360-1

Date Printed: Wednesday, April 27, 2016

ALS Environmental -- FC

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LIMS Version: 6.811

GC/MS Volatiles

Method SW8260_25C

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604360

Client Name: TI2E Joint Venture

ClientProject ID: Nike BU 34/35 Launch Area RI

Field ID:	Trip Blank
Lab ID:	1604360-4

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 19-Apr-16

Date Extracted: 22-Apr-16

Date Analyzed: 22-Apr-16

Prep Method: SW5030 Rev C

Prep Batch: VL160422-3

QCBatchID: VL160422-3-1

Run ID: VL160422-3A

Cleanup: NONE

Basis: As Received

File Name: C67977

Analyst: Joe Kostelnik

Sample Aliquot: 10 ml

Final Volume: 10 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier

Surrogate Recovery

CASNO	Surrogate Analyte	Result	Flag	Spike Amount	Percent Recovery	Control Limits
460-00-4	4-BROMOFLUOROBENZENE	25.7		25	103	85 - 115
1868-53-7	DIBROMOFLUOROMETHANE	25		25	100	84 - 118
2037-26-5	TOLUENE-D8	25.8		25	103	85 - 115

Data Package ID: VL1604360-1

Date Printed: Wednesday, April 27, 2016

ALS Environmental -- FC

LIMS Version: 6.811

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ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: ALS Environmental - US
Project: Nike BU 34/35 Launch Area RI
Sample Matrix: Water

Sample Name: Silo-Comp
Lab Code: R1603812-001

Service Request: R1603812
Date Collected: 04/19/16 12:30
Date Received: 04/19/16 16:27

Basis: NA

General Chemistry Parameters

Analyte Name	Analysis Method	Result	Units	PQL	MDL	Dil.	Date Analyzed	Q
Chloride	300.0	2.1	mg/L	2.0	1.0	10	04/20/16 11:47	
Chromium, Hexavalent	7196A	0.010 U	mg/L	0.010	0.010	1	04/20/16 10:42	
Nitrate as Nitrogen	300.0	1.0 U	mg/L	1.0	0.5	10	04/20/16 11:47	
Nitrite as Nitrogen	300.0	1.0 U	mg/L	1.0	0.07	10	04/20/16 11:47	
Sulfate	300.0	54.9	mg/L	2.0	0.2	10	04/20/16 11:47	



Certificate of Analysis

Name / Address
Inspection Experts Inc. Ben Headington 9220 Rumsey Road Bay 5 Columbia MD 21045

Report Date	4/21/2016	
Report Number	18458	
Customer Fax		
Total Pages	1	
Analysis Date	4/19/2016	Analyst
Analysis Time	1444	EL
Project ID	Nike BU34/35 Launch Area	

Laboratory Analysis Report

Test ID	Analytical Method & Analysis	Results / Units	Verified Date & Time
PA TC	Presence-Absence Total Coliform Detection with E. Coli Method-SM18-20 9223B (97) IDEXX Colilert MDL (Presence-Absence/ 100 ml) Sample Point / Station ID.....SoliZ Comp 1 Date and Time Collected.....4-19-2016 1100 Date and Time Plated.....4-19-2016 1444 Chlorine Residual.....(ppm).....0.0 Temperature on Receipt (on Ice) <4 C	POS TC / POS EC	4-20-2016 1445
PA TC	Presence-Absence Total Coliform Detection with E. Coli Method-SM18-20 9223B (97) IDEXX Colilert MDL (Presence-Absence/ 100 ml) Sample Point / Station ID.....SoliZ Comp 2 Date and Time Collected.....4-19-2016 1100 Date and Time Plated.....4-19-2016 1444 Chlorine Residual.....(ppm).....0.0 Temperature on Receipt (on Ice) <4 C	POS TC / POS EC	4-20-2016 1445

This report is issued under the authority of the analysts listed above. This report only relates to the samples which was tested. Interpretation of these results is the sole responsibility of the client. This report shall not be reproduced except in full, without the written approval of the laboratory

NYSDOH and NELAC ID 11660

Sample Dilution:
<1 CFU= No Dilution
<10 CFU=1:10 Dilution
<100 CFU = 1:100 Dilution

All work is complete!

Phone #	716-651-0146	Form CC-01
Fax #	716-242-3010	www.biotrax.net
E-mail	edward@biotrax.net	

Reviewed By

Edward J. Lukaszek

Edward J Lukaszek
Laboratory Director

Total ICPMS Metals

Method SW6020A

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604360

Client Name: TI2E Joint Venture

ClientProject ID: Nike BU 34/35 Launch Area RI

Field ID: Silo 2-Comp

Lab ID: 1604360-2

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 19-Apr-16

Date Extracted: 26-Apr-16

Date Analyzed: 26-Apr-16

Prep Method: SW3010 Rev A

Prep Batch: IP160426-1

QCBatchID: IP160426-1-1

Run ID: IM160426-10A10

Cleanup: NONE

Basis: As Received

File Name: 069SMPL_

Analyst: Brent A. Stanfield

Sample Aliquot: 50 ml

Final Volume: 50 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
7429-90-5	ALUMINUM	10	39	100	11	J	
7440-36-0	ANTIMONY	10	0.13	1	0.13	U	
7440-38-2	ARSENIC	10	0.42	2	0.16	J	
7440-39-3	BARIUM	10	40	5	0.24		
7440-41-7	BERYLLIUM	10	0.25	0.5	0.25	U	
7440-43-9	CADMIUM	10	0.079	2	0.079	U	
7440-70-2	CALCIUM	10	38000	1000	61		
7440-47-3	CHROMIUM	10	0.88	10	0.88	U	
7440-48-4	COBALT	10	0.08	5	0.079	J	
7440-50-8	COPPER	10	6	20	0.9	J	
7439-89-6	IRON	10	200	100	8.6		
7439-92-1	LEAD	10	2.4	2	0.17		
7439-95-4	MAGNESIUM	10	6500	100	18		
7439-96-5	MANGANESE	10	13	5	0.3		
7440-02-0	NICKEL	10	4	20	4	U	
7440-09-7	POTASSIUM	10	51000	1000	290		
7782-49-2	SELENIUM	10	0.66	10	0.66	U	
7440-22-4	SILVER	10	0.033	0.5	0.033	U	
7440-23-5	SODIUM	10	10000	1000	160		
7440-28-0	THALLIUM	10	0.014	0.1	0.014	U	
7440-62-2	VANADIUM	10	0.58	5	0.58	U	
7440-66-6	ZINC	10	38	100	8.1	J	

Data Package ID: im1604360-1

Date Printed: Friday, April 29, 2016

ALS Environmental -- FC

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LIMS Version: 6.811

Dissolved Metals by 200.8

Method EPA200.8 Revision 5.4

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604360

Client Name: TI2E Joint Venture

ClientProject ID: Nike BU 34/35 Launch Area RI

Field ID: Silo 2-Comp

Lab ID: 1604360-3

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 19-Apr-16

Date Extracted: 24-Apr-16

Date Analyzed: 26-Apr-16

Prep Method: EPA200.2 Rev 2.2

Prep Batch: IP160424-2

QCBatchID: IP160424-2-3

Run ID: IM160425-10A8

Cleanup: NONE

Basis: As Received

File Name: 136SMPL_

Analyst: Carly D. Ruble

Sample Aliquot: 50 ml

Final Volume: 50 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
7429-90-5	ALUMINUM	10	14	50	14	U	
7440-36-0	ANTIMONY	10	0.11	0.3	0.11	U	
7440-38-2	ARSENIC	10	0.2	2	0.2	U	
7440-39-3	BARIUM	10	35	1	0.16		
7440-41-7	BERYLLIUM	10	0.27	0.5	0.27	U	
7440-43-9	CADMIUM	10	0.088	0.3	0.088	U	
7440-70-2	CALCIUM	10	40000	1000	68		
7440-47-3	CHROMIUM	10	0.88	10	0.88	U	
7440-48-4	COBALT	10	0.083	1	0.083	U	
7440-50-8	COPPER	10	1.3	10	1.2	J	
7439-89-6	IRON	10	15	100	8.1	J	
7439-92-1	LEAD	10	0.17	0.5	0.17	U	
7439-95-4	MAGNESIUM	10	7000	100	18		
7439-96-5	MANGANESE	10	4.5	2	0.34		
7440-02-0	NICKEL	10	4	5	4	U	
7440-09-7	POTASSIUM	10	52000	1000	290		
7782-49-2	SELENIUM	10	0.66	1	0.66	U	
7440-22-4	SILVER	10	0.041	0.1	0.041	U	
7440-23-5	SODIUM	10	11000	1000	200		
7440-28-0	THALLIUM	10	0.018	0.2	0.018	U	
7440-62-2	VANADIUM	10	0.71	1	0.71	U	
7440-66-6	ZINC	10	22	20	9.8		

Data Package ID: im1604360-2

Date Printed: Friday, April 29, 2016

ALS Environmental -- FC

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LIMS Version: 6.811

Total Mercury

Method SW7470A

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604360

Client Name: TI2E Joint Venture

ClientProject ID: Nike BU 34/35 Launch Area RI

Field ID: Silo 2-Comp

Lab ID: 1604360-2

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 19-Apr-16

Date Extracted: 24-Apr-16

Date Analyzed: 25-Apr-16

Prep Method: METHOD

Prep Batch: HG160424-1

QCBatchID: HG160424-1-1

Run ID: HG160425-1A2

Cleanup: NONE

Basis: As Received

File Name: HG160425-1

Analyst: Nathan A. Quatier

Sample Aliquot: 10 ml

Final Volume: 10 ml

Result Units: MG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
7439-97-6	MERCURY	1	0.00006	0.0002	0.00006	U	

Data Package ID: hg1604360-1

Date Printed: Friday, April 29, 2016

ALS Environmental -- FC

LIMS Version: 6.811

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Diesel Range Organics

Method SW8015MD

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604360

Client Name: TI2E Joint Venture

ClientProject ID: Nike BU 34/35 Launch Area RI

Field ID:	Silo 2-Comp
Lab ID:	1604360-1

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 19-Apr-16

Date Extracted: 24-Apr-16

Date Analyzed: 24-Apr-16

Prep Method: METHOD

Prep Batch: HC160424-101

QCBatchID: HC160424-101-1

Run ID: HC160424-7A

Cleanup: NONE

Basis: As Received

File Name: 10961.dat

Analyst: Joel F. Nolte

Sample Aliquot: 37.5 ml

Final Volume: 1.1 ml

Result Units: MG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
68334-30-5	Diesel Range Organics	1	0.53	0.53	0.16	U	

Surrogate Recovery

CASNO	Surrogate Analyte	Result	Flag	Spike Amount	Percent Recovery	Control Limits
84-15-1	O-TERPHENYL	0.732		0.733	100	63 - 126

Data Package ID: DRO1604360-1

Date Printed: Tuesday, April 26, 2016

ALS Environmental -- FC

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LIMS Version: 6.811

Gasoline Range Organics

Method SW8015D

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604360

Client Name: TI2E Joint Venture

ClientProject ID: Nike BU 34/35 Launch Area RI

Field ID:	Silo 2-Comp
Lab ID:	1604360-1

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 19-Apr-16

Date Extracted: 22-Apr-16

Date Analyzed: 22-Apr-16

Prep Method: SW5030 Rev C

Prep Batch: HC160422-61

QCBatchID: HC160422-61-1

Run ID: HC160422-6A

Cleanup: NONE

Basis: As Received

File Name: 17917.dat

Analyst: Joel F. Nolte

Sample Aliquot: 5 ml

Final Volume: 5 ml

Result Units: MG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
8006-61-9	GASOLINE RANGE ORGANICS	1	0.1	0.1	0.01	U	

Surrogate Recovery

CASNO	Surrogate Analyte	Result	Flag	Spike Amount	Percent Recovery	Control Limits
193533-92-5	2,3,4-TRIFLUOROTOLUENE	0.0984		0.1	98	74 - 129

Data Package ID: GRO1604360-1

Date Printed: Tuesday, April 26, 2016

ALS Environmental -- FC

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LIMS Version: 6.811

Chlorinated Herbicides by GC/ECD

Method SW8151A

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604360

Client Name: TI2E Joint Venture

ClientProject ID: Nike BU 34/35 Launch Area RI

Field ID:	Silo 2-Comp
Lab ID:	1604360-2

Sample Matrix: WATER
% Moisture: N/A
Date Collected: 19-Apr-16
Date Extracted: 21-Apr-16
Date Analyzed: 25-Apr-16
Prep Method: METHOD

Prep Batch: EX160421-3
QCBatchID: EX160421-3-2
Run ID: PT160425-11B
Cleanup: NONE
Basis: As Received
File Name: 16139.dat

Analyst: Dan Sheneman
Sample Aliquot: 990 ml
Final Volume: 10 ml
Result Units: UG/L
Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
75-99-0	DALAPON	1	4	4	1.9	U	
1918-00-9	DICAMBA	1	0.2	0.2	0.061	U	
93-65-2	MCPD	1	100	100	61	U	
94-74-6	MCPA	1	100	100	93	U	
120-36-5	DICHLOROPROP	1	1	1	0.61	U	
94-75-7	2,4-D	1	1	1	0.3	U	
93-72-1	SILVEX	1	0.1	0.1	0.02	U	
93-76-5	2,4,5-T	1	0.1	0.1	0.061	U	
94-82-6	2,4-DB	1	1	1	0.61	U	
88-85-7	DINOSEB	1	1	1	0.46	U	

Surrogate Recovery

CASNO	Surrogate Analyte	Result	Flag	Spike Amount	Percent Recovery	Control Limits
19719-28-9	2,4-DICHLOROPHENYLACETIC ACID	1.91		2.02	94	56 - 140

Data Package ID: PT1604360-3

Date Printed: Friday, April 29, 2016

ALS Environmental -- FC

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LIMS Version: 6.811

Ignitability

Method SW1010 Revision A Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604360

Client Name: TI2E Joint Venture

ClientProject ID: Nike BU 34/35 Launch Area RI

Field ID:	Silo 2-Comp	Sample Matrix:	WATER	Prep Batch:	EX160427-1	Analyst:	Brendon Howard
Lab ID:	1604360-2	% Moisture:	N/A	QCBatchID:	EX160427-1-1	Sample Aliquot:	1 CUP
		Date Collected:	19-Apr-16	Run ID:	EX160427-1A	Final Volume:	1 CUP
		Date Extracted:	27-Apr-16	Cleanup:	NONE	Result Units:	deg C
		Date Analyzed:	27-Apr-16	Basis:	As Received	Clean DF:	1
		Prep Method:	NONE	File Name:			

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	Result Qualifier	EPA Qualifier
10-36-6	IGNITABILITY	1	96	96	U	

Data Package ID: *ex1604360-2*

Total Cyanide

Method EPA335.2

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604360

Client Name: TI2E Joint Venture

ClientProject ID: Nike BU 34/35 Launch Area RI

Field ID:	Silo 2-Comp
Lab ID:	1604360-2

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 19-Apr-16

Date Extracted: 24-Apr-16

Date Analyzed: 29-Apr-16

Prep Method: METHOD

Prep Batch: CN160424-1

QCBatchID: CN160424-1-1

Run ID: CN160429-1A3

Cleanup: NONE

Basis: As Received

File Name: Manual Entry

Analyst: Dan Sheneman

Sample Aliquot: 50 ml

Final Volume: 50 ml

Result Units: MG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
57-12-5	CYANIDE, TOTAL	1	0.01	0.01	0.0036	U	

Data Package ID: *cn1604360-1*

Date Printed: Saturday, April 30, 2016

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LIMS Version: 6.811

Sulfide

Method EPA376.1

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604360

Client Name: TI2E Joint Venture

ClientProject ID: Nike BU 34/35 Launch Area RI

Field ID:	Silo 2-Comp	Sample Matrix:	WATER	Prep Batch:	S160426-1	Analyst:	Charles B. Allen
Lab ID:	1604360-2	% Moisture:	N/A	QCBatchID:	S160426-1-1	Sample Aliquot:	200 ML
		Date Collected:	19-Apr-16	Run ID:	S160426-1A1	Final Volume:	200 ML
		Date Extracted:	26-Apr-16	Cleanup:	NONE	Result Units:	MG/L
		Date Analyzed:	26-Apr-16	Basis:	As Received	Clean DF:	1
		Prep Method:	NONE	File Name:	Manual Entry		

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	Result Qualifier	EPA Qualifier
18496-25-8	SULFIDE	1	2	2	U	

Data Package ID: s1604360-1

Hexane Extractable Material--Gravimetric

Method EPA1664

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604360

Client Name: TI2E Joint Venture

ClientProject ID: Nike BU 34/35 Launch Area RI

Field ID:	Silo 2-Comp	Sample Matrix:	WATER	Prep Batch:	EX160422-4	Analyst:	Adam C. Kloos
Lab ID:	1604360-2	% Moisture:	N/A	QCBatchID:	EX160422-4-1	Sample Aliquot:	1020 ML
		Date Collected:	19-Apr-16	Run ID:	EX160422-1A1	Final Volume:	1 SAMPL
		Date Extracted:	22-Apr-16	Cleanup:	NONE	Result Units:	MG/L
		Date Analyzed:	22-Apr-16	Basis:	As Received	Clean DF:	1
		Prep Method:	METHOD	File Name:			

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	Result Qualifier	EPA Qualifier
10-30-0	OIL AND GREASE	1	4.9	4.9	U	

Data Package ID: *ex1604360-1*

Organochlorine Pesticides

Method SW8081B

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604360

Client Name: TI2E Joint Venture

ClientProject ID: Nike BU 34/35 Launch Area RI

Field ID: Silo 2-Comp

Lab ID: 1604360-2

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 19-Apr-16

Date Extracted: 21-Apr-16

Date Analyzed: 26-Apr-16

Prep Method: SW3520 Rev C

Prep Batch: EX160421-5

QCBatchID: EX160421-5-2

Run ID: PT160426-10

Cleanup: NONE

Basis: As Received

File Name: 09336.dat

Analyst: Dan Sheneman

Sample Aliquot: 1000 ml

Final Volume: 10 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
319-84-6	ALPHA-BHC	1	0.05	0.05	0.03	U	
58-89-9	GAMMA-BHC (LINDANE)	1	0.05	0.05	0.03	U	
319-85-7	BETA-BHC	1	0.05	0.05	0.03	U	
319-86-8	DELTA-BHC	1	0.05	0.05	0.03	U	
76-44-8	HEPTACHLOR	1	0.05	0.05	0.03	U	
309-00-2	ALDRIN	1	0.05	0.05	0.03	U	
1024-57-3	HEPTACHLOR EPOXIDE	1	0.05	0.05	0.03	U	
5103-74-2	GAMMA-CHLORDANE	1	0.05	0.05	0.03	U	
5103-71-9	ALPHA-CHLORDANE	1	0.05	0.05	0.03	U	
72-55-9	4,4'-DDE	1	0.05	0.05	0.03	U	
959-98-8	ENDOSULFAN I	1	0.05	0.05	0.03	U	
60-57-1	DIELDRIN	1	0.05	0.05	0.03	U	
72-20-8	ENDRIN	1	0.05	0.05	0.03	U	
72-54-8	4,4'-DDD	1	0.05	0.05	0.03	U	
33213-65-9	ENDOSULFAN II	1	0.05	0.05	0.03	U	
50-29-3	4,4'-DDT	1	0.05	0.05	0.03	U	
7421-93-4	ENDRIN ALDEHYDE	1	0.05	0.05	0.03	U	
72-43-5	METHOXYCHLOR	1	0.25	0.25	0.08	U	
1031-07-8	ENDOSULFAN SULFATE	1	0.05	0.05	0.03	U	
53494-70-5	ENDRIN KETONE	1	0.05	0.05	0.03	U	
8001-35-2	TOXAPHENE	1	2.5	2.5	0.75	U	

Data Package ID: PST1604360-1

Date Printed: Thursday, April 28, 2016

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Organochlorine Pesticides

Method SW8081B

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604360

Client Name: TI2E Joint Venture

ClientProject ID: Nike BU 34/35 Launch Area RI

Field ID:	Silo 2-Comp
Lab ID:	1604360-2

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 19-Apr-16

Date Extracted: 21-Apr-16

Date Analyzed: 26-Apr-16

Prep Method: SW3520 Rev C

Prep Batch: EX160421-5

QCBatchID: EX160421-5-2

Run ID: PT160426-10

Cleanup: NONE

Basis: As Received

File Name: 09336.dat

Analyst: Dan Sheneman

Sample Aliquot: 1000 ml

Final Volume: 10 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier

Surrogate Recovery

CASNO	Surrogate Analyte	Result	Flag	Spike Amount	Percent Recovery	Control Limits
2051-24-3	DECACHLOROBIPHENYL	0.359		0.5	72	10 - 118
877-09-8	TETRACHLORO-M-XYLENE	0.452		0.5	90	57 - 128

Data Package ID: PST1604360-1

Date Printed: Thursday, April 28, 2016

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PCBs

Method SW8082

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604360

Client Name: TI2E Joint Venture

ClientProject ID: Nike BU 34/35 Launch Area RI

Field ID:	Silo 2-Comp
Lab ID:	1604360-2

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 19-Apr-16

Date Extracted: 22-Apr-16

Date Analyzed: 26-Apr-16

Prep Method: SW3520 Rev C

Prep Batch: EX160422-7

QCBatchID: EX160422-7-3

Run ID: PT160425-11

Cleanup: SW3665

Basis: As Received

File Name: 16185.dat

Analyst: Dan Sheneman

Sample Aliquot: 1000 ml

Final Volume: 10 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
12674-11-2	AROCLOR-1016	1	1	1	0.3	U	
11104-28-2	AROCLOR-1221	1	2	2	0.3	U	
11141-16-5	AROCLOR-1232	1	1	1	0.3	U	
53469-21-9	AROCLOR-1242	1	1	1	0.3	U	
12672-29-6	AROCLOR-1248	1	1	1	0.3	U	
11097-69-1	AROCLOR-1254	1	1	1	0.3	U	
11096-82-5	AROCLOR-1260	1	1	1	0.3	U	

Surrogate Recovery

CASNO	Surrogate Analyte	Result	Flag	Spike Amount	Percent Recovery	Control Limits
2051-24-3	DECACHLOROBIPHENYL	0.349		0.5	70	14 - 114
877-09-8	TETRACHLORO-M-XYLENE	0.527		0.5	105	72 - 125

Data Package ID: PT1604360-1

Organic Carbon

Method EPA415.1

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604360

Client Name: TI2E Joint Venture

ClientProject ID: Nike BU 34/35 Launch Area RI

Field ID: Silo 2-Comp	Sample Matrix: WATER	Prep Batch: MO160422-1	Analyst: Steven D. White
Lab ID: 1604360-2	% Moisture: N/A	QCBatchID: MO160422-1-1	Sample Aliquot: 40 ml
	Date Collected: 19-Apr-16	Run ID: MO160422-1A1	Final Volume: 40 ml
	Date Extracted: 22-Apr-16	Cleanup: NONE	Result Units: MG/L
	Date Analyzed: 22-Apr-16	Basis: As Received	Clean DF: 1
	Prep Method: NONE	File Name: 04221321	

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
10-35-5	TOTAL ORGANIC CARBON	1	2.3	1	0.3		

Data Package ID: MO1604360-1

Date Printed: Monday, April 25, 2016

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GC/MS Semi-volatiles

Method SW8270D

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604360

Client Name: TI2E Joint Venture

ClientProject ID: Nike BU 34/35 Launch Area RI

Field ID: Silo 2-Comp

Lab ID: 1604360-2

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 19-Apr-16

Date Extracted: 23-Apr-16

Date Analyzed: 28-Apr-16

Prep Method: SW3520 Rev C

Prep Batch: EX160423-1

QCBatchID: EX160423-1-1

Run ID: SV160428-2

Cleanup: NONE

Basis: As Received

File Name: P20095

Analyst: Tyler Knaebel

Sample Aliquot: 965 ml

Final Volume: 1 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
110-86-1	PYRIDINE	1	10	10	4	U	
62-75-9	N-NITROSODIMETHYLAMINE	1	10	10	3.1	U	
62-53-3	ANILINE	1	10	10	3.2	U	
108-95-2	PHENOL	1	10	10	3.1	U	
111-44-4	BIS(2-CHLOROETHYL)ETHER	1	10	10	3.1	U	
95-57-8	2-CHLOROPHENOL	1	10	10	3.1	U	
541-73-1	1,3-DICHLOROBENZENE	1	10	10	3.1	U	
106-46-7	1,4-DICHLOROBENZENE	1	10	10	3.1	U	
95-50-1	1,2-DICHLOROBENZENE	1	10	10	3.1	U	
100-51-6	BENZYL ALCOHOL	1	10	10	3.1	U	
108-60-1	BIS(2-CHLOROISOPROPYL)ETHER	1	10	10	3.1	U	
95-48-7	2-METHYLPHENOL	1	10	10	3.1	U	
621-64-7	N-NITROSO-DI-N-PROPYLAMINE	1	10	10	3.1	U	
108-39-4	3+4-METHYLPHENOL	1	10	10	3.1	U	
67-72-1	HEXACHLOROETHANE	1	10	10	3.1	U	
98-95-3	NITROBENZENE	1	10	10	3.1	U	
78-59-1	ISOPHORONE	1	10	10	3.1	U	
88-75-5	2-NITROPHENOL	1	10	10	3.1	U	
105-67-9	2,4-DIMETHYLPHENOL	1	10	10	3.1	U	
111-91-1	BIS(2-CHLOROETHOXY)METHANE	1	10	10	3.1	U	
120-83-2	2,4-DICHLOROPHENOL	1	10	10	3.1	U	
65-85-0	BENZOIC ACID	1	52	52	20	U	
120-82-1	1,2,4-TRICHLOROBENZENE	1	10	10	3.1	U	
91-20-3	NAPHTHALENE	1	10	10	3.1	U	
106-47-8	4-CHLOROANILINE	1	10	10	5.6	U	
87-68-3	HEXACHLOROBUTADIENE	1	10	10	3.1	U	

Data Package ID: SV1604360-1

Date Printed: Saturday, April 30, 2016

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GC/MS Semi-volatiles

Method SW8270D

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604360

Client Name: TI2E Joint Venture

ClientProject ID: Nike BU 34/35 Launch Area RI

Field ID: Silo 2-Comp

Lab ID: 1604360-2

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 19-Apr-16

Date Extracted: 23-Apr-16

Date Analyzed: 28-Apr-16

Prep Method: SW3520 Rev C

Prep Batch: EX160423-1

QCBatchID: EX160423-1-1

Run ID: SV160428-2

Cleanup: NONE

Basis: As Received

File Name: P20095

Analyst: Tyler Knaebel

Sample Aliquot: 965 ml

Final Volume: 1 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
59-50-7	4-CHLORO-3-METHYLPHENOL	1	10	10	3.1	U	
91-57-6	2-METHYLNAPHTHALENE	1	10	10	3.1	U	
90-12-0	1-METHYLNAPHTHALENE	1	10	10	3.1	U	
77-47-4	HEXACHLOROCYCLOPENTADIENE	1	10	10	5.3	U	
88-06-2	2,4,6-TRICHLOROPHENOL	1	10	10	3.1	U	
95-95-4	2,4,5-TRICHLOROPHENOL	1	10	10	3.1	U	
91-58-7	2-CHLORONAPHTHALENE	1	10	10	3.1	U	
88-74-4	2-NITROANILINE	1	21	21	3.1	U	
131-11-3	DIMETHYL PHTHALATE	1	10	10	3.1	U	
606-20-2	2,6-DINITROTOLUENE	1	10	10	3.1	U	
208-96-8	ACENAPHTHYLENE	1	10	10	3.1	U	
99-09-2	3-NITROANILINE	1	21	21	4.1	U	
83-32-9	ACENAPHTHENE	1	10	10	3.1	U	
51-28-5	2,4-DINITROPHENOL	1	21	21	3.1	U	
100-02-7	4-NITROPHENOL	1	21	21	3.7	U	
132-64-9	DIBENZOFURAN	1	10	10	3.1	U	
121-14-2	2,4-DINITROTOLUENE	1	10	10	3.1	U	
84-66-2	DIETHYL PHTHALATE	1	10	10	3.1	U	
86-73-7	FLUORENE	1	10	10	3.1	U	
7005-72-3	4-CHLOROPHENYL PHENYL ETHER	1	10	10	3.1	U	
100-01-6	4-NITROANILINE	1	21	21	3.3	U	
103-33-3	AZOBENZENE	1	10	10	3.1	U	
534-52-1	4,6-DINITRO-2-METHYLPHENOL	1	21	21	3.7	U	
86-30-6	N-NITROSODIPHENYLAMINE	1	10	10	3.1	U	
101-55-3	4-BROMOPHENYL PHENYL ETHER	1	10	10	3.1	U	
118-74-1	HEXACHLOROBENZENE	1	10	10	3.1	U	

Data Package ID: SV1604360-1

Date Printed: Saturday, April 30, 2016

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GC/MS Semi-volatiles

Method SW8270D

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604360

Client Name: TI2E Joint Venture

ClientProject ID: Nike BU 34/35 Launch Area RI

Field ID: Silo 2-Comp

Lab ID: 1604360-2

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 19-Apr-16

Date Extracted: 23-Apr-16

Date Analyzed: 28-Apr-16

Prep Method: SW3520 Rev C

Prep Batch: EX160423-1

QCBatchID: EX160423-1-1

Run ID: SV160428-2

Cleanup: NONE

Basis: As Received

File Name: P20095

Analyst: Tyler Knaebel

Sample Aliquot: 965 ml

Final Volume: 1 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
58-90-2	2,3,4,6-TETRACHLOROPHENOL	1	10	10	3.9	U	
87-86-5	PENTACHLOROPHENOL	1	21	21	4.4	U	
85-01-8	PHENANTHRENE	1	10	10	3.1	U	
120-12-7	ANTHRACENE	1	10	10	3.1	U	
86-74-8	CARBAZOLE	1	10	10	3.1	U	
84-74-2	DI-N-BUTYL PHTHALATE	1	10	10	3.1	U	
206-44-0	FLUORANTHENE	1	10	10	3.1	U	
129-00-0	PYRENE	1	10	10	3.1	U	
85-68-7	BUTYL BENZYL PHTHALATE	1	10	10	3.1	U	
56-55-3	BENZO(A)ANTHRACENE	1	10	10	3.1	U	
91-94-1	3,3'-DICHLOROBENZIDINE	1	10	10	6.5	U	
218-01-9	CHRYSENE	1	10	10	3.1	U	
117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	1	10	10	3.1	U	
117-84-0	DI-N-OCTYL PHTHALATE	1	10	10	3.1	U	
205-99-2	BENZO(B)FLUORANTHENE	1	10	10	3.1	U	
207-08-9	BENZO(K)FLUORANTHENE	1	10	10	3.1	U	
50-32-8	BENZO(A)PYRENE	1	10	10	3.1	U	
193-39-5	INDENO(1,2,3-CD)PYRENE	1	10	10	3.1	U	
53-70-3	DIBENZO(A,H)ANTHRACENE	1	10	10	3.1	U	
191-24-2	BENZO(G,H,I)PERYLENE	1	10	10	3.1	U	

Data Package ID: SV1604360-1

Date Printed: Saturday, April 30, 2016

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GC/MS Semi-volatiles

Method SW8270D

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604360

Client Name: TI2E Joint Venture

ClientProject ID: Nike BU 34/35 Launch Area RI

Field ID:	Silo 2-Comp
Lab ID:	1604360-2

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 19-Apr-16

Date Extracted: 23-Apr-16

Date Analyzed: 28-Apr-16

Prep Method: SW3520 Rev C

Prep Batch: EX160423-1

QCBatchID: EX160423-1-1

Run ID: SV160428-2

Cleanup: NONE

Basis: As Received

File Name: P20095

Analyst: Tyler Knaebel

Sample Aliquot: 965 ml

Final Volume: 1 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier

Surrogate Recovery

CASNO	Surrogate Analyte	Result	Flag	Spike Amount	Percent Recovery	Control Limits
118-79-6	2,4,6-TRIBROMOPHENOL	71.1		77.7	91	42 - 117
321-60-8	2-FLUOROBIPHENYL	42.8		51.8	83	55 - 108
367-12-4	2-FLUOROPHENOL	52.5		77.7	68	46 - 105
4165-60-0	NITROBENZENE-D5	39.5		51.8	76	53 - 111
4165-62-2	PHENOL-D5	57.3		77.7	74	50 - 109
1718-51-0	TERPHENYL-D14	42.8		51.8	83	34 - 139

Data Package ID: SV1604360-1

Date Printed: Saturday, April 30, 2016

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GC/MS Volatiles

Method SW8260_25C

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604360

Client Name: TI2E Joint Venture

ClientProject ID: Nike BU 34/35 Launch Area RI

Field ID: Silo 2-Comp

Lab ID: 1604360-1

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 19-Apr-16

Date Extracted: 22-Apr-16

Date Analyzed: 22-Apr-16

Prep Method: SW5030 Rev C

Prep Batch: VL160422-3

QCBatchID: VL160422-3-1

Run ID: VL160422-3A

Cleanup: NONE

Basis: As Received

File Name: C67978

Analyst: Joe Kostelnik

Sample Aliquot: 10 ml

Final Volume: 10 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
75-71-8	DICHLORODIFLUOROMETHANE	1	1	1	0.3	U	
74-87-3	CHLOROMETHANE	1	1	1	0.3	U	
75-01-4	VINYL CHLORIDE	1	1	1	0.3	U	
74-83-9	BROMOMETHANE	1	1	1	0.3	U	
75-00-3	CHLOROETHANE	1	1	1	0.3	U	
75-69-4	TRICHLOROFLUOROMETHANE	1	1	1	0.3	U	
75-35-4	1,1-DICHLOROETHENE	1	1	1	0.3	U	
76-13-1	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETH	1	1	1	0.3	U	
67-64-1	ACETONE	1	10	10	3	U	
74-88-4	IODOMETHANE	1	1	1	0.38	U	
75-15-0	CARBON DISULFIDE	1	1	1	0.3	U	
75-09-2	METHYLENE CHLORIDE	1	1	1	0.44	U	
156-60-5	TRANS-1,2-DICHLOROETHENE	1	1	1	0.3	U	
1634-04-4	METHYL TERTIARY BUTYL ETHER	1	1	1	0.3	U	
75-34-3	1,1-DICHLOROETHANE	1	1	1	0.3	U	
108-05-4	VINYL ACETATE	1	2	2	0.3	U	
156-59-2	CIS-1,2-DICHLOROETHENE	1	1	1	0.3	U	
78-93-3	2-BUTANONE	1	10	10	3	U	
74-97-5	BROMOCHLOROMETHANE	1	1	1	0.3	U	
67-66-3	CHLOROFORM	1	1	1	0.3	U	
71-55-6	1,1,1-TRICHLOROETHANE	1	1	1	0.3	U	
594-20-7	2,2-DICHLOROPROPANE	1	1	1	0.3	U	
56-23-5	CARBON TETRACHLORIDE	1	1	1	0.3	U	
563-58-6	1,1-DICHLOROPROPENE	1	1	1	0.3	U	
107-06-2	1,2-DICHLOROETHANE	1	1	1	0.3	U	
71-43-2	BENZENE	1	1	1	0.3	U	

Data Package ID: VL1604360-1

Date Printed: Wednesday, April 27, 2016

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LIMS Version: 6.811

GC/MS Volatiles

Method SW8260_25C

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604360

Client Name: TI2E Joint Venture

ClientProject ID: Nike BU 34/35 Launch Area RI

Field ID: Silo 2-Comp

Lab ID: 1604360-1

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 19-Apr-16

Date Extracted: 22-Apr-16

Date Analyzed: 22-Apr-16

Prep Method: SW5030 Rev C

Prep Batch: VL160422-3

QCBatchID: VL160422-3-1

Run ID: VL160422-3A

Cleanup: NONE

Basis: As Received

File Name: C67978

Analyst: Joe Kostelnik

Sample Aliquot: 10 ml

Final Volume: 10 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
79-01-6	TRICHLOROETHENE	1	1	1	0.3	U	
78-87-5	1,2-DICHLOROPROPANE	1	1	1	0.3	U	
74-95-3	DIBROMOMETHANE	1	1	1	0.3	U	
75-27-4	BROMODICHLOROMETHANE	1	1	1	0.3	U	
10061-01-5	CIS-1,3-DICHLOROPROPENE	1	1	1	0.3	U	
108-10-1	4-METHYL-2-PENTANONE	1	10	10	3	U	
108-88-3	TOLUENE	1	1	1	0.3	U	
10061-02-6	TRANS-1,3-DICHLOROPROPENE	1	1	1	0.3	U	
79-00-5	1,1,2-TRICHLOROETHANE	1	1	1	0.3	U	
591-78-6	2-HEXANONE	1	10	10	3	U	
127-18-4	TETRACHLOROETHENE	1	1	1	0.2	U	
142-28-9	1,3-DICHLOROPROPANE	1	1	1	0.3	U	
124-48-1	DIBROMOCHLOROMETHANE	1	1	1	0.3	U	
106-93-4	1,2-DIBROMOETHANE	1	1	1	0.3	U	
544-10-5	1-CHLOROHEXANE	1	1	1	0.3	U	
108-90-7	CHLOROBENZENE	1	1	1	0.3	U	
630-20-6	1,1,1,2-TETRACHLOROETHANE	1	1	1	0.3	U	
100-41-4	ETHYLBENZENE	1	1	1	0.3	U	
136777-61-2	M+P-XYLENE	1	1	1	0.3	U	
95-47-6	O-XYLENE	1	1	1	0.3	U	
100-42-5	STYRENE	1	1	1	0.3	U	
75-25-2	BROMOFORM	1	1	1	0.3	U	
98-82-8	ISOPROPYLBENZENE	1	1	1	0.3	U	
96-18-4	1,2,3-TRICHLOROPROPANE	1	1	1	0.3	U	
79-34-5	1,1,2,2-TETRACHLOROETHANE	1	1	1	0.3	U	
108-86-1	BROMOBENZENE	1	1	1	0.3	U	

Data Package ID: VL1604360-1

GC/MS Volatiles

Method SW8260_25C

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604360

Client Name: TI2E Joint Venture

ClientProject ID: Nike BU 34/35 Launch Area RI

Field ID: Silo 2-Comp

Lab ID: 1604360-1

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 19-Apr-16

Date Extracted: 22-Apr-16

Date Analyzed: 22-Apr-16

Prep Method: SW5030 Rev C

Prep Batch: VL160422-3

QC Batch ID: VL160422-3-1

Run ID: VL160422-3A

Cleanup: NONE

Basis: As Received

File Name: C67978

Analyst: Joe Kostelnik

Sample Aliquot: 10 ml

Final Volume: 10 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
103-65-1	N-PROPYLBENZENE	1	1	1	0.3	U	
95-49-8	2-CHLOROTOLUENE	1	1	1	0.3	U	
108-67-8	1,3,5-TRIMETHYLBENZENE	1	1	1	0.3	U	
106-43-4	4-CHLOROTOLUENE	1	1	1	0.3	U	
98-06-6	TERT-BUTYLBENZENE	1	1	1	0.3	U	
95-63-6	1,2,4-TRIMETHYLBENZENE	1	1	1	0.3	U	
135-98-8	SEC-BUTYLBENZENE	1	1	1	0.3	U	
541-73-1	1,3-DICHLOROBENZENE	1	1	1	0.3	U	
99-87-6	P-ISOPROPYLTOLUENE	1	1	1	0.3	U	
106-46-7	1,4-DICHLOROBENZENE	1	1	1	0.3	U	
104-51-8	N-BUTYLBENZENE	1	1	1	0.3	U	
95-50-1	1,2-DICHLOROBENZENE	1	1	1	0.3	U	
96-12-8	1,2-DIBROMO-3-CHLOROPROPANE	1	2	2	0.4	U	
120-82-1	1,2,4-TRICHLOROBENZENE	1	1	1	0.3	U	
87-68-3	HEXACHLOROBUTADIENE	1	1	1	0.3	U	
91-20-3	NAPHTHALENE	1	1	1	0.3	U	
87-61-6	1,2,3-TRICHLOROBENZENE	1	1	1	0.3	U	

Data Package ID: VL1604360-1

Date Printed: Wednesday, April 27, 2016

ALS Environmental -- FC

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GC/MS Volatiles

Method SW8260_25C

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604360

Client Name: TI2E Joint Venture

ClientProject ID: Nike BU 34/35 Launch Area RI

Field ID:	Silo 2-Comp
Lab ID:	1604360-1

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 19-Apr-16

Date Extracted: 22-Apr-16

Date Analyzed: 22-Apr-16

Prep Method: SW5030 Rev C

Prep Batch: VL160422-3

QCBatchID: VL160422-3-1

Run ID: VL160422-3A

Cleanup: NONE

Basis: As Received

File Name: C67978

Analyst: Joe Kostelnik

Sample Aliquot: 10 ml

Final Volume: 10 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier

Surrogate Recovery

CASNO	Surrogate Analyte	Result	Flag	Spike Amount	Percent Recovery	Control Limits
460-00-4	4-BROMOFLUOROBENZENE	25.4		25	102	85 - 115
1868-53-7	DIBROMOFLUOROMETHANE	25.6		25	102	84 - 118
2037-26-5	TOLUENE-D8	25.6		25	103	85 - 115

Data Package ID: VL1604360-1

Date Printed: Wednesday, April 27, 2016

ALS Environmental -- FC

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GC/MS Volatiles

Method SW8260_25C

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604360

Client Name: TI2E Joint Venture

ClientProject ID: Nike BU 34/35 Launch Area RI

Field ID: Trip Blank

Lab ID: 1604360-4

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 19-Apr-16

Date Extracted: 22-Apr-16

Date Analyzed: 22-Apr-16

Prep Method: SW5030 Rev C

Prep Batch: VL160422-3

QCBatchID: VL160422-3-1

Run ID: VL160422-3A

Cleanup: NONE

Basis: As Received

File Name: C67977

Analyst: Joe Kostelnik

Sample Aliquot: 10 ml

Final Volume: 10 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
75-71-8	DICHLORODIFLUOROMETHANE	1	1	1	0.3	U	
74-87-3	CHLOROMETHANE	1	1	1	0.3	U	
75-01-4	VINYL CHLORIDE	1	1	1	0.3	U	
74-83-9	BROMOMETHANE	1	1	1	0.3	U	
75-00-3	CHLOROETHANE	1	1	1	0.3	U	
75-69-4	TRICHLOROFLUOROMETHANE	1	1	1	0.3	U	
75-35-4	1,1-DICHLOROETHENE	1	1	1	0.3	U	
76-13-1	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETH	1	1	1	0.3	U	
67-64-1	ACETONE	1	10	10	3	U	
74-88-4	IODOMETHANE	1	1	1	0.38	U	
75-15-0	CARBON DISULFIDE	1	1	1	0.3	U	
75-09-2	METHYLENE CHLORIDE	1	1	1	0.44	U	
156-60-5	TRANS-1,2-DICHLOROETHENE	1	1	1	0.3	U	
1634-04-4	METHYL TERTIARY BUTYL ETHER	1	1	1	0.3	U	
75-34-3	1,1-DICHLOROETHANE	1	1	1	0.3	U	
108-05-4	VINYL ACETATE	1	2	2	0.3	U	
156-59-2	CIS-1,2-DICHLOROETHENE	1	1	1	0.3	U	
78-93-3	2-BUTANONE	1	10	10	3	U	
74-97-5	BROMOCHLOROMETHANE	1	1	1	0.3	U	
67-66-3	CHLOROFORM	1	1	1	0.3	U	
71-55-6	1,1,1-TRICHLOROETHANE	1	1	1	0.3	U	
594-20-7	2,2-DICHLOROPROPANE	1	1	1	0.3	U	
56-23-5	CARBON TETRACHLORIDE	1	1	1	0.3	U	
563-58-6	1,1-DICHLOROPROPENE	1	1	1	0.3	U	
107-06-2	1,2-DICHLOROETHANE	1	1	1	0.3	U	
71-43-2	BENZENE	1	1	1	0.3	U	

Data Package ID: VL1604360-1

GC/MS Volatiles

Method SW8260_25C

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604360

Client Name: TI2E Joint Venture

ClientProject ID: Nike BU 34/35 Launch Area RI

Field ID: Trip Blank

Lab ID: 1604360-4

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 19-Apr-16

Date Extracted: 22-Apr-16

Date Analyzed: 22-Apr-16

Prep Method: SW5030 Rev C

Prep Batch: VL160422-3

QCBatchID: VL160422-3-1

Run ID: VL160422-3A

Cleanup: NONE

Basis: As Received

File Name: C67977

Analyst: Joe Kostelnik

Sample Aliquot: 10 ml

Final Volume: 10 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
79-01-6	TRICHLOROETHENE	1	1	1	0.3	U	
78-87-5	1,2-DICHLOROPROPANE	1	1	1	0.3	U	
74-95-3	DIBROMOMETHANE	1	1	1	0.3	U	
75-27-4	BROMODICHLOROMETHANE	1	1	1	0.3	U	
10061-01-5	CIS-1,3-DICHLOROPROPENE	1	1	1	0.3	U	
108-10-1	4-METHYL-2-PENTANONE	1	10	10	3	U	
108-88-3	TOLUENE	1	1	1	0.3	U	
10061-02-6	TRANS-1,3-DICHLOROPROPENE	1	1	1	0.3	U	
79-00-5	1,1,2-TRICHLOROETHANE	1	1	1	0.3	U	
591-78-6	2-HEXANONE	1	10	10	3	U	
127-18-4	TETRACHLOROETHENE	1	1	1	0.2	U	
142-28-9	1,3-DICHLOROPROPANE	1	1	1	0.3	U	
124-48-1	DIBROMOCHLOROMETHANE	1	1	1	0.3	U	
106-93-4	1,2-DIBROMOETHANE	1	1	1	0.3	U	
544-10-5	1-CHLOROHEXANE	1	1	1	0.3	U	
108-90-7	CHLOROBENZENE	1	1	1	0.3	U	
630-20-6	1,1,1,2-TETRACHLOROETHANE	1	1	1	0.3	U	
100-41-4	ETHYLBENZENE	1	1	1	0.3	U	
136777-61-2	M+P-XYLENE	1	1	1	0.3	U	
95-47-6	O-XYLENE	1	1	1	0.3	U	
100-42-5	STYRENE	1	1	1	0.3	U	
75-25-2	BROMOFORM	1	1	1	0.3	U	
98-82-8	ISOPROPYLBENZENE	1	1	1	0.3	U	
96-18-4	1,2,3-TRICHLOROPROPANE	1	1	1	0.3	U	
79-34-5	1,1,2,2-TETRACHLOROETHANE	1	1	1	0.3	U	
108-86-1	BROMOBENZENE	1	1	1	0.3	U	

Data Package ID: VL1604360-1

Date Printed: Wednesday, April 27, 2016

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GC/MS Volatiles

Method SW8260_25C

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604360

Client Name: TI2E Joint Venture

ClientProject ID: Nike BU 34/35 Launch Area RI

Field ID: Trip Blank

Lab ID: 1604360-4

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 19-Apr-16

Date Extracted: 22-Apr-16

Date Analyzed: 22-Apr-16

Prep Method: SW5030 Rev C

Prep Batch: VL160422-3

QC Batch ID: VL160422-3-1

Run ID: VL160422-3A

Cleanup: NONE

Basis: As Received

File Name: C67977

Analyst: Joe Kostelnik

Sample Aliquot: 10 ml

Final Volume: 10 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
103-65-1	N-PROPYLBENZENE	1	1	1	0.3	U	
95-49-8	2-CHLOROTOLUENE	1	1	1	0.3	U	
108-67-8	1,3,5-TRIMETHYLBENZENE	1	1	1	0.3	U	
106-43-4	4-CHLOROTOLUENE	1	1	1	0.3	U	
98-06-6	TERT-BUTYLBENZENE	1	1	1	0.3	U	
95-63-6	1,2,4-TRIMETHYLBENZENE	1	1	1	0.3	U	
135-98-8	SEC-BUTYLBENZENE	1	1	1	0.3	U	
541-73-1	1,3-DICHLOROBENZENE	1	1	1	0.3	U	
99-87-6	P-ISOPROPYLTOLUENE	1	1	1	0.3	U	
106-46-7	1,4-DICHLOROBENZENE	1	1	1	0.3	U	
104-51-8	N-BUTYLBENZENE	1	1	1	0.3	U	
95-50-1	1,2-DICHLOROBENZENE	1	1	1	0.3	U	
96-12-8	1,2-DIBROMO-3-CHLOROPROPANE	1	2	2	0.4	U	
120-82-1	1,2,4-TRICHLOROBENZENE	1	1	1	0.3	U	
87-68-3	HEXACHLOROBUTADIENE	1	1	1	0.3	U	
91-20-3	NAPHTHALENE	1	1	1	0.3	U	
87-61-6	1,2,3-TRICHLOROBENZENE	1	1	1	0.3	U	

Data Package ID: VL1604360-1

Date Printed: Wednesday, April 27, 2016

ALS Environmental -- FC

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LIMS Version: 6.811

GC/MS Volatiles

Method SW8260_25C

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604360

Client Name: TI2E Joint Venture

ClientProject ID: Nike BU 34/35 Launch Area RI

Field ID: Trip Blank

Lab ID: 1604360-4

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 19-Apr-16

Date Extracted: 22-Apr-16

Date Analyzed: 22-Apr-16

Prep Method: SW5030 Rev C

Prep Batch: VL160422-3

QCBatchID: VL160422-3-1

Run ID: VL160422-3A

Cleanup: NONE

Basis: As Received

File Name: C67977

Analyst: Joe Kostelnik

Sample Aliquot: 10 ml

Final Volume: 10 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier

Surrogate Recovery

CASNO	Surrogate Analyte	Result	Flag	Spike Amount	Percent Recovery	Control Limits
460-00-4	4-BROMOFLUOROBENZENE	25.7		25	103	85 - 115
1868-53-7	DIBROMOFLUOROMETHANE	25		25	100	84 - 118
2037-26-5	TOLUENE-D8	25.8		25	103	85 - 115

Data Package ID: VL1604360-1

Date Printed: Wednesday, April 27, 2016

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ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: ALS Environmental - US
Project: Nike BU 34/35 Launch Area RI
Sample Matrix: Water

Sample Name: Silo-Comp
Lab Code: R1603812-001

Service Request: R1603812
Date Collected: 04/19/16 12:30
Date Received: 04/19/16 16:27

Basis: NA

General Chemistry Parameters

Analyte Name	Analysis Method	Result	Units	PQL	MDL	Dil.	Date Analyzed	Q
Chloride	300.0	2.1	mg/L	2.0	1.0	10	04/20/16 11:47	
Chromium, Hexavalent	7196A	0.010 U	mg/L	0.010	0.010	1	04/20/16 10:42	
Nitrate as Nitrogen	300.0	1.0 U	mg/L	1.0	0.5	10	04/20/16 11:47	
Nitrite as Nitrogen	300.0	1.0 U	mg/L	1.0	0.07	10	04/20/16 11:47	
Sulfate	300.0	54.9	mg/L	2.0	0.2	10	04/20/16 11:47	



Certificate of Analysis

Name / Address
Inspection Experts Inc. Ben Headington 9220 Rumsey Road Bay 5 Columbia MD 21045

Report Date	4/21/2016	
Report Number	18458	
Customer Fax		
Total Pages	1	
Analysis Date	4/19/2016	Analyst
Analysis Time	1444	EL
Project ID	Nike BU34/35 Launch Area	

Laboratory Analysis Report

Test ID	Analytical Method & Analysis	Results / Units	Verified Date & Time
PA TC	Presence-Absence Total Coliform Detection with E. Coli Method-SM18-20 9223B (97) IDEXX Colilert MDL (Presence-Absence/ 100 ml) Sample Point / Station ID.....SoliZ Comp 1 Date and Time Collected.....4-19-2016 1100 Date and Time Plated.....4-19-2016 1444 Chlorine Residual.....(ppm).....0.0 Temperature on Receipt (on Ice) <4 C	POS TC / POS EC	4-20-2016 1445
PA TC	Presence-Absence Total Coliform Detection with E. Coli Method-SM18-20 9223B (97) IDEXX Colilert MDL (Presence-Absence/ 100 ml) Sample Point / Station ID.....SoliZ Comp 2 Date and Time Collected.....4-19-2016 1100 Date and Time Plated.....4-19-2016 1444 Chlorine Residual.....(ppm).....0.0 Temperature on Receipt (on Ice) <4 C	POS TC / POS EC	4-20-2016 1445

This report is issued under the authority of the analysts listed above. This report only relates to the samples which was tested. Interpretation of these results is the sole responsibility of the client. This report shall not be reproduced except in full, without the written approval of the laboratory

NYSDOH and NELAC ID 11660

Sample Dilution:
<1 CFU= No Dilution
<10 CFU=1:10 Dilution
<100 CFU = 1:100 Dilution

All work is complete!

Phone #	716-651-0146	Form CC-01
Fax #	716-242-3010	www.biotrax.net
E-mail	edward@biotrax.net	

Reviewed By

Edward J. Lukaszek

Edward J Lukaszek
Laboratory Director

Silo 2 Waste Sample

Diesel Range Organics

Method SW8015MD

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604201

Client Name: TI2E Joint Venture

ClientProject ID: Nike Launch Area RI (BU34/35)

Field ID: SILO 2-IDW-07	Sample Matrix: WATER	Prep Batch: EX160414-3	Analyst: Tyler Knaebel
Lab ID: 1604201-7	% Moisture: N/A	QCBatchID: EX160414-3-1	Sample Aliquot: 33.58 ml
	Date Collected: 12-Apr-16	Run ID: HC160414-77	Final Volume: 1.2 ml
	Date Extracted: 14-Apr-16	Cleanup: NONE	Result Units: MG/L
	Date Analyzed: 14-Apr-16	Basis: As Received	Clean DF: 1
	Prep Method: METHOD	File Name: 10858.dat	

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
68334-30-5	Diesel Range Organics	1	0.64	0.64	0.19	U	

Surrogate Recovery

CASNO	Surrogate Analyte	Result	Flag	Spike Amount	Percent Recovery	Control Limits
84-15-1	O-TERPHENYL	0.843		0.893	94	63 - 126

Data Package ID: HCD1604201-1

Gasoline Range Organics

Method SW8015D

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604201

Client Name: TI2E Joint Venture

ClientProject ID: Nike Launch Area RI (BU34/35)

Field ID:	SILO 2-IDW-06
Lab ID:	1604201-6

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 12-Apr-16

Date Extracted: 13-Apr-16

Date Analyzed: 13-Apr-16

Prep Method: SW5030 Rev C

Prep Batch: HC160413-66

QCBatchID: HC160413-66-1

Run ID: HC160413-66A

Cleanup: NONE

Basis: As Received

File Name: 17847.dat

Analyst: Tyler Knaebel

Sample Aliquot: 5 ml

Final Volume: 5 ml

Result Units: MG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
8006-61-9	GASOLINE RANGE ORGANICS	1	0.1	0.1	0.01	U	

Surrogate Recovery

CASNO	Surrogate Analyte	Result	Flag	Spike Amount	Percent Recovery	Control Limits
193533-92-	2,3,4-TRIFLUOROTOLUENE	0.0956		0.1	96	74 - 129

Data Package ID: HCG1604201-1

pH

Method EPA150.1

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604201

Client Name: TI2E Joint Venture

ClientProject ID: Nike Launch Area RI (BU34/35)

Field ID:	SILO 2-IDW-08
Lab ID:	1604201-8

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 12-Apr-16

Date Extracted: 13-Apr-16

Date Analyzed: 13-Apr-16

Prep Method: NONE

Prep Batch: PH160413-1

QCBatchID: PH160413-1-1

Run ID: PH160413-1A1

Cleanup: NONE

Basis: As Received

File Name:

Analyst: Charles B. Allen

Sample Aliquot: 20 ML

Final Volume: 20 ML

Result Units: pH

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	Result Qualifier	EPA Qualifier
10-29-7	PH AnalysisTime: 14:50	1	7.85	0.1		

Data Package ID: PH1604201-1

PCBs

Method SW8082

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604201

Client Name: TI2E Joint Venture

ClientProject ID: Nike Launch Area RI (BU34/35)

Field ID: SILO 2-IDW-03

Lab ID: 1604201-3

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 12-Apr-16

Date Extracted: 13-Apr-16

Date Analyzed: 14-Apr-16

Prep Method: SW3520 Rev C

Prep Batch: EX160413-6

QCBatchID: EX160413-6-2

Run ID: PT160414-11

Cleanup: SW3665

Basis: As Received

File Name: 15965.dat

Analyst: Dan Sheneman

Sample Aliquot: 1005 ml

Final Volume: 10 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
12674-11-2	AROCLOR-1016	1	1	1	0.3	U	
11104-28-2	AROCLOR-1221	1	2	2	0.3	U	
11141-16-5	AROCLOR-1232	1	1	1	0.3	U	
53469-21-9	AROCLOR-1242	1	1	1	0.3	U	
12672-29-6	AROCLOR-1248	1	1	1	0.3	U	
11097-69-1	AROCLOR-1254	1	1	1	0.3	U	
11096-82-5	AROCLOR-1260	1	1	1	0.3	U	

Surrogate Recovery

CASNO	Surrogate Analyte	Result	Flag	Spike Amount	Percent Recovery	Control Limits
2051-24-3	DECACHLOROBIPHENYL	0.317		0.498	64	14 - 114
877-09-8	TETRACHLORO-M-XYLENE	0.533		0.498	107	72 - 125

Data Package ID: PT1604201-1

GC/MS Semi-volatiles

PRELIMINARY RESULTS

Method SW8270D

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604201

Client Name: TI2E Joint Venture

ClientProject ID: Nike Launch Area RI (BU34/35)

Field ID: SILO 2-IDW-02

Lab ID: 1604201-2

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 12-Apr-16

Date Extracted: 13-Apr-16

Date Analyzed: 15-Apr-16

Prep Method: SW3520 Rev C

Prep Batch: EX160413-5

QCBatchID: EX160413-5-2

Run ID: SV160415-3

Cleanup: NONE

Basis: As Received

File Name: R6558

Analyst: Tyler Knaebel

Sample Aliquot: 1020 ml

Final Volume: 1 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
110-86-1	PYRIDINE	1	9.8	9.8	3.8	U	
62-75-9	N-NITROSODIMETHYLAMINE	1	9.8	9.8	2.9	U	
62-53-3	ANILINE	1	9.8	9.8	3	U	
108-95-2	PHENOL	1	9.8	9.8	2.9	U	
111-44-4	BIS(2-CHLOROETHYL)ETHER	1	9.8	9.8	2.9	U	
95-57-8	2-CHLOROPHENOL	1	9.8	9.8	2.9	U	
541-73-1	1,3-DICHLOROBENZENE	1	9.8	9.8	2.9	U	
106-46-7	1,4-DICHLOROBENZENE	1	9.8	9.8	2.9	U	
95-50-1	1,2-DICHLOROBENZENE	1	9.8	9.8	2.9	U	
100-51-6	BENZYL ALCOHOL	1	9.8	9.8	2.9	U	
108-60-1	BIS(2-CHLOROISOPROPYL)ETHER	1	9.8	9.8	2.9	U	
95-48-7	2-METHYLPHENOL	1	9.8	9.8	2.9	U	
621-64-7	N-NITROSO-DI-N-PROPYLAMINE	1	9.8	9.8	2.9	U	
108-39-4	3+4-METHYLPHENOL	1	9.8	9.8	2.9	U	
67-72-1	HEXACHLOROETHANE	1	9.8	9.8	2.9	U	
98-95-3	NITROBENZENE	1	9.8	9.8	2.9	U	
78-59-1	ISOPHORONE	1	9.8	9.8	2.9	U	
88-75-5	2-NITROPHENOL	1	9.8	9.8	2.9	U	
105-67-9	2,4-DIMETHYLPHENOL	1	9.8	9.8	2.9	U	
111-91-1	BIS(2-CHLOROETHOXY)METHANE	1	9.8	9.8	2.9	U	
120-83-2	2,4-DICHLOROPHENOL	1	9.8	9.8	2.9	U	
65-85-0	BENZOIC ACID	1	49	49	19	U	
120-82-1	1,2,4-TRICHLOROBENZENE	1	9.8	9.8	2.9	U	
91-20-3	NAPHTHALENE	1	9.8	9.8	2.9	U	
106-47-8	4-CHLOROANILINE	1	9.8	9.8	5.3	U	
87-68-3	HEXACHLOROBUTADIENE	1	9.8	9.8	2.9	U	

Data Package ID: SV1604201-1

GC/MS Semi-volatiles

PRELIMINARY RESULTS

Method SW8270D

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604201

Client Name: TI2E Joint Venture

ClientProject ID: Nike Launch Area RI (BU34/35)

Field ID: SILO 2-IDW-02

Lab ID: 1604201-2

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 12-Apr-16

Date Extracted: 13-Apr-16

Date Analyzed: 15-Apr-16

Prep Method: SW3520 Rev C

Prep Batch: EX160413-5

QCBatchID: EX160413-5-2

Run ID: SV160415-3

Cleanup: NONE

Basis: As Received

File Name: R6558

Analyst: Tyler Knaebel

Sample Aliquot: 1020 ml

Final Volume: 1 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
59-50-7	4-CHLORO-3-METHYLPHENOL	1	9.8	9.8	2.9	U	
91-57-6	2-METHYLNAPHTHALENE	1	9.8	9.8	2.9	U	
90-12-0	1-METHYLNAPHTHALENE	1	9.8	9.8	2.9	U	
77-47-4	HEXACHLOROCYCLOPENTADIENE	1	9.8	9.8	5	U	
88-06-2	2,4,6-TRICHLOROPHENOL	1	9.8	9.8	2.9	U	
95-95-4	2,4,5-TRICHLOROPHENOL	1	9.8	9.8	2.9	U	
91-58-7	2-CHLORONAPHTHALENE	1	9.8	9.8	2.9	U	
88-74-4	2-NITROANILINE	1	20	20	2.9	U	
131-11-3	DIMETHYL PHTHALATE	1	9.8	9.8	2.9	U	
606-20-2	2,6-DINITROTOLUENE	1	9.8	9.8	2.9	U	
208-96-8	ACENAPHTHYLENE	1	9.8	9.8	2.9	U	
99-09-2	3-NITROANILINE	1	20	20	3.9	U	
83-32-9	ACENAPHTHENE	1	9.8	9.8	2.9	U	
51-28-5	2,4-DINITROPHENOL	1	20	20	2.9	U	
100-02-7	4-NITROPHENOL	1	20	20	3.5	U	
132-64-9	DIBENZOFURAN	1	9.8	9.8	2.9	U	
121-14-2	2,4-DINITROTOLUENE	1	9.8	9.8	2.9	U	
84-66-2	DIETHYL PHTHALATE	1	9.8	9.8	2.9	U	
86-73-7	FLUORENE	1	9.8	9.8	2.9	U	
7005-72-3	4-CHLOROPHENYL PHENYL ETHER	1	9.8	9.8	2.9	U	
100-01-6	4-NITROANILINE	1	20	20	3.1	U	
103-33-3	AZOBENZENE	1	9.8	9.8	2.9	U	
534-52-1	4,6-DINITRO-2-METHYLPHENOL	1	20	20	3.5	U	
86-30-6	N-NITROSODIPHENYLAMINE	1	9.8	9.8	2.9	U	
101-55-3	4-BROMOPHENYL PHENYL ETHER	1	9.8	9.8	2.9	U	
118-74-1	HEXACHLOROBENZENE	1	9.8	9.8	2.9	U	

Data Package ID: SV1604201-1

GC/MS Semi-volatiles

PRELIMINARY RESULTS

Method SW8270D

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604201

Client Name: TI2E Joint Venture

ClientProject ID: Nike Launch Area RI (BU34/35)

Field ID: SILO 2-IDW-02

Lab ID: 1604201-2

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 12-Apr-16

Date Extracted: 13-Apr-16

Date Analyzed: 15-Apr-16

Prep Method: SW3520 Rev C

Prep Batch: EX160413-5

QCBatchID: EX160413-5-2

Run ID: SV160415-3

Cleanup: NONE

Basis: As Received

File Name: R6558

Analyst: Tyler Knaebel

Sample Aliquot: 1020 ml

Final Volume: 1 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
58-90-2	2,3,4,6-TETRACHLOROPHENOL	1	9.8	9.8	3.7	U	
87-86-5	PENTACHLOROPHENOL	1	20	20	4.1	U	
85-01-8	PHENANTHRENE	1	9.8	9.8	2.9	U	
120-12-7	ANTHRACENE	1	9.8	9.8	2.9	U	
86-74-8	CARBAZOLE	1	9.8	9.8	2.9	U	
84-74-2	DI-N-BUTYL PHTHALATE	1	9.8	9.8	2.9	U	
206-44-0	FLUORANTHENE	1	9.8	9.8	2.9	U	
129-00-0	PYRENE	1	9.8	9.8	2.9	U	
85-68-7	BUTYL BENZYL PHTHALATE	1	9.8	9.8	2.9	U	
56-55-3	BENZO(A)ANTHRACENE	1	9.8	9.8	2.9	U	
91-94-1	3,3'-DICHLOROBENZIDINE	1	9.8	9.8	6.2	U	
218-01-9	CHRYSENE	1	9.8	9.8	2.9	U	
117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	1	9.8	9.8	2.9	U	
117-84-0	DI-N-OCTYL PHTHALATE	1	9.8	9.8	2.9	U	
205-99-2	BENZO(B)FLUORANTHENE	1	9.8	9.8	2.9	U	
207-08-9	BENZO(K)FLUORANTHENE	1	9.8	9.8	2.9	U	
50-32-8	BENZO(A)PYRENE	1	9.8	9.8	2.9	U	
193-39-5	INDENO(1,2,3-CD)PYRENE	1	9.8	9.8	2.9	U	
53-70-3	DIBENZO(A,H)ANTHRACENE	1	9.8	9.8	2.9	U	
191-24-2	BENZO(G,H,I)PERYLENE	1	9.8	9.8	2.9	U	

Data Package ID: SV1604201-1

GC/MS Semi-volatiles

PRELIMINARY RESULTS

Method SW8270D

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604201

Client Name: TI2E Joint Venture

ClientProject ID: Nike Launch Area RI (BU34/35)

Field ID:	SILO 2-IDW-02
Lab ID:	1604201-2

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 12-Apr-16

Date Extracted: 13-Apr-16

Date Analyzed: 15-Apr-16

Prep Method: SW3520 Rev C

Prep Batch: EX160413-5

QCBatchID: EX160413-5-2

Run ID: SV160415-3

Cleanup: NONE

Basis: As Received

File Name: R6558

Analyst: Tyler Knaebel

Sample Aliquot: 1020 ml

Final Volume: 1 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier

Surrogate Recovery

CASNO	Surrogate Analyte	Result	Flag	Spike Amount	Percent Recovery	Control Limits
118-79-6	2,4,6-TRIBROMOPHENOL	64.1		73.5	87	42 - 117
321-60-8	2-FLUOROBIPHENYL	32.9		49	67	55 - 108
367-12-4	2-FLUOROPHENOL	42.5		73.5	58	46 - 105
4165-60-0	NITROBENZENE-D5	30.9		49	63	53 - 111
4165-62-2	PHENOL-D5	48.1		73.5	65	50 - 109
1718-51-0	TERPHENYL-D14	40.2		49	82	34 - 139

Data Package ID: SV1604201-1

GC/MS Volatiles

PRELIMINARY RESULTS

Method SW8260_25C

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604201

Client Name: TI2E Joint Venture

ClientProject ID: Nike Launch Area RI (BU34/35)

Field ID: SILO 2-IDW-01

Lab ID: 1604201-1

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 12-Apr-16

Date Extracted: 15-Apr-16

Date Analyzed: 15-Apr-16

Prep Method: SW5030 Rev C

Prep Batch: VL160415-3

QCBatchID: VL160415-3-1

Run ID: VL160415-3A

Cleanup: NONE

Basis: As Received

File Name: C67742

Analyst: Joe Kostelnik

Sample Aliquot: 10 ml

Final Volume: 10 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
75-71-8	DICHLORODIFLUOROMETHANE	1	1	1	0.3	U	
74-87-3	CHLOROMETHANE	1	1	1	0.3	U	
75-01-4	VINYL CHLORIDE	1	1	1	0.3	U	
74-83-9	BROMOMETHANE	1	1	1	0.3	U	
75-00-3	CHLOROETHANE	1	1	1	0.3	U	
75-69-4	TRICHLOROFLUOROMETHANE	1	1	1	0.3	U	
75-35-4	1,1-DICHLOROETHENE	1	1	1	0.3	U	
76-13-1	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETH	1	1	1	0.3	U	
67-64-1	ACETONE	1	10	10	3	U	
74-88-4	IODOMETHANE	1	1	1	0.38	U	
75-15-0	CARBON DISULFIDE	1	1	1	0.3	U	
75-09-2	METHYLENE CHLORIDE	1	1	1	0.44	U	
156-60-5	TRANS-1,2-DICHLOROETHENE	1	1	1	0.3	U	
1634-04-4	METHYL TERTIARY BUTYL ETHER	1	1	1	0.3	U	
75-34-3	1,1-DICHLOROETHANE	1	1	1	0.3	U	
108-05-4	VINYL ACETATE	1	2	2	0.3	U	
156-59-2	CIS-1,2-DICHLOROETHENE	1	1	1	0.3	U	
78-93-3	2-BUTANONE	1	10	10	3	U	
74-97-5	BROMOCHLOROMETHANE	1	1	1	0.3	U	
67-66-3	CHLOROFORM	1	1	1	0.3	U	
71-55-6	1,1,1-TRICHLOROETHANE	1	1	1	0.3	U	
594-20-7	2,2-DICHLOROPROPANE	1	1	1	0.3	U	
56-23-5	CARBON TETRACHLORIDE	1	1	1	0.3	U	
563-58-6	1,1-DICHLOROPROPENE	1	1	1	0.3	U	
107-06-2	1,2-DICHLOROETHANE	1	1	1	0.3	U	
71-43-2	BENZENE	1	1	1	0.3	U	

Data Package ID: VL1604201-1

GC/MS Volatiles

PRELIMINARY RESULTS

Method SW8260_25C

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604201

Client Name: TI2E Joint Venture

ClientProject ID: Nike Launch Area RI (BU34/35)

Field ID: SILO 2-IDW-01

Lab ID: 1604201-1

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 12-Apr-16

Date Extracted: 15-Apr-16

Date Analyzed: 15-Apr-16

Prep Method: SW5030 Rev C

Prep Batch: VL160415-3

QCBatchID: VL160415-3-1

Run ID: VL160415-3A

Cleanup: NONE

Basis: As Received

File Name: C67742

Analyst: Joe Kostelnik

Sample Aliquot: 10 ml

Final Volume: 10 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
79-01-6	TRICHLOROETHENE	1	1	1	0.3	U	
78-87-5	1,2-DICHLOROPROPANE	1	1	1	0.3	U	
74-95-3	DIBROMOMETHANE	1	1	1	0.3	U	
75-27-4	BROMODICHLOROMETHANE	1	1	1	0.3	U	
10061-01-5	CIS-1,3-DICHLOROPROPENE	1	1	1	0.3	U	
108-10-1	4-METHYL-2-PENTANONE	1	10	10	3	U	
108-88-3	TOLUENE	1	1	1	0.3	U	
10061-02-6	TRANS-1,3-DICHLOROPROPENE	1	1	1	0.3	U	
79-00-5	1,1,2-TRICHLOROETHANE	1	1	1	0.3	U	
591-78-6	2-HEXANONE	1	10	10	3	U	
127-18-4	TETRACHLOROETHENE	1	1	1	0.2	U	
142-28-9	1,3-DICHLOROPROPANE	1	1	1	0.3	U	
124-48-1	DIBROMOCHLOROMETHANE	1	1	1	0.3	U	
106-93-4	1,2-DIBROMOETHANE	1	1	1	0.3	U	
544-10-5	1-CHLOROHEXANE	1	1	1	0.3	U	
108-90-7	CHLOROBENZENE	1	1	1	0.3	U	
630-20-6	1,1,1,2-TETRACHLOROETHANE	1	1	1	0.3	U	
100-41-4	ETHYLBENZENE	1	1	1	0.3	U	
136777-61-2	M+P-XYLENE	1	1	1	0.3	U	
95-47-6	O-XYLENE	1	1	1	0.3	U	
100-42-5	STYRENE	1	1	1	0.3	U	
75-25-2	BROMOFORM	1	1	1	0.3	U	
98-82-8	ISOPROPYLBENZENE	1	1	1	0.3	U	
96-18-4	1,2,3-TRICHLOROPROPANE	1	1	1	0.3	U	
79-34-5	1,1,2,2-TETRACHLOROETHANE	1	1	1	0.3	U	
108-86-1	BROMOBENZENE	1	1	1	0.3	U	

Data Package ID: VL1604201-1

GC/MS Volatiles

PRELIMINARY RESULTS

Method SW8260_25C

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604201

Client Name: TI2E Joint Venture

ClientProject ID: Nike Launch Area RI (BU34/35)

Field ID: SILO 2-IDW-01

Lab ID: 1604201-1

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 12-Apr-16

Date Extracted: 15-Apr-16

Date Analyzed: 15-Apr-16

Prep Method: SW5030 Rev C

Prep Batch: VL160415-3

QCBatchID: VL160415-3-1

Run ID: VL160415-3A

Cleanup: NONE

Basis: As Received

File Name: C67742

Analyst: Joe Kostelnik

Sample Aliquot: 10 ml

Final Volume: 10 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
103-65-1	N-PROPYLBENZENE	1	1	1	0.3	U	
95-49-8	2-CHLOROTOLUENE	1	1	1	0.3	U	
108-67-8	1,3,5-TRIMETHYLBENZENE	1	1	1	0.3	U	
106-43-4	4-CHLOROTOLUENE	1	1	1	0.3	U	
98-06-6	TERT-BUTYLBENZENE	1	1	1	0.3	U	
95-63-6	1,2,4-TRIMETHYLBENZENE	1	1	1	0.3	U	
135-98-8	SEC-BUTYLBENZENE	1	1	1	0.3	U	
541-73-1	1,3-DICHLOROBENZENE	1	1	1	0.3	U	
99-87-6	P-ISOPROPYLTOLUENE	1	1	1	0.3	U	
106-46-7	1,4-DICHLOROBENZENE	1	1	1	0.3	U	
104-51-8	N-BUTYLBENZENE	1	1	1	0.3	U	
95-50-1	1,2-DICHLOROBENZENE	1	1	1	0.3	U	
96-12-8	1,2-DIBROMO-3-CHLOROPROPANE	1	2	2	0.4	U	
120-82-1	1,2,4-TRICHLOROBENZENE	1	1	1	0.3	U	
87-68-3	HEXACHLOROBUTADIENE	1	1	1	0.3	U	
91-20-3	NAPHTHALENE	1	1	1	0.3	U	
87-61-6	1,2,3-TRICHLOROBENZENE	1	1	1	0.3	U	

Data Package ID: VL1604201-1

GC/MS Volatiles

PRELIMINARY RESULTS

Method SW8260_25C

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604201

Client Name: TI2E Joint Venture

ClientProject ID: Nike Launch Area RI (BU34/35)

Field ID:	SILO 2-IDW-01
Lab ID:	1604201-1

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 12-Apr-16

Date Extracted: 15-Apr-16

Date Analyzed: 15-Apr-16

Prep Method: SW5030 Rev C

Prep Batch: VL160415-3

QCBatchID: VL160415-3-1

Run ID: VL160415-3A

Cleanup: NONE

Basis: As Received

File Name: C67742

Analyst: Joe Kostelnik

Sample Aliquot: 10 ml

Final Volume: 10 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier

Surrogate Recovery

CASNO	Surrogate Analyte	Result	Flag	Spike Amount	Percent Recovery	Control Limits
460-00-4	4-BROMOFLUOROBENZENE	25.4		25	102	85 - 115
1868-53-7	DIBROMOFLUOROMETHANE	25		25	100	84 - 118
2037-26-5	TOLUENE-D8	25.6		25	102	85 - 115

Data Package ID: VL1604201-1

GC/MS Volatiles

PRELIMINARY RESULTS

Method SW8260_25C

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604201

Client Name: TI2E Joint Venture

ClientProject ID: Nike Launch Area RI (BU34/35)

Field ID: SILO 2-IDW-TB

Lab ID: 1604201-10

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 12-Apr-16

Date Extracted: 15-Apr-16

Date Analyzed: 15-Apr-16

Prep Method: SW5030 Rev C

Prep Batch: VL160415-3

QCBatchID: VL160415-3-1

Run ID: VL160415-3A

Cleanup: NONE

Basis: As Received

File Name: C67741

Analyst: Joe Kostelnik

Sample Aliquot: 10 ml

Final Volume: 10 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
75-71-8	DICHLORODIFLUOROMETHANE	1	1	1	0.3	U	
74-87-3	CHLOROMETHANE	1	1	1	0.3	U	
75-01-4	VINYL CHLORIDE	1	1	1	0.3	U	
74-83-9	BROMOMETHANE	1	1	1	0.3	U	
75-00-3	CHLOROETHANE	1	1	1	0.3	U	
75-69-4	TRICHLOROFLUOROMETHANE	1	1	1	0.3	U	
75-35-4	1,1-DICHLOROETHENE	1	1	1	0.3	U	
76-13-1	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETH	1	1	1	0.3	U	
67-64-1	ACETONE	1	10	10	3	U	
74-88-4	IODOMETHANE	1	1	1	0.38	U	
75-15-0	CARBON DISULFIDE	1	1	1	0.3	U	
75-09-2	METHYLENE CHLORIDE	1	1	1	0.44	U	
156-60-5	TRANS-1,2-DICHLOROETHENE	1	1	1	0.3	U	
1634-04-4	METHYL TERTIARY BUTYL ETHER	1	1	1	0.3	U	
75-34-3	1,1-DICHLOROETHANE	1	1	1	0.3	U	
108-05-4	VINYL ACETATE	1	2	2	0.3	U	
156-59-2	CIS-1,2-DICHLOROETHENE	1	1	1	0.3	U	
78-93-3	2-BUTANONE	1	10	10	3	U	
74-97-5	BROMOCHLOROMETHANE	1	1	1	0.3	U	
67-66-3	CHLOROFORM	1	1	1	0.3	U	
71-55-6	1,1,1-TRICHLOROETHANE	1	1	1	0.3	U	
594-20-7	2,2-DICHLOROPROPANE	1	1	1	0.3	U	
56-23-5	CARBON TETRACHLORIDE	1	1	1	0.3	U	
563-58-6	1,1-DICHLOROPROPENE	1	1	1	0.3	U	
107-06-2	1,2-DICHLOROETHANE	1	1	1	0.3	U	
71-43-2	BENZENE	1	1	1	0.3	U	

Data Package ID: VL1604201-1

GC/MS Volatiles

PRELIMINARY RESULTS

Method SW8260_25C

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604201

Client Name: TI2E Joint Venture

ClientProject ID: Nike Launch Area RI (BU34/35)

Field ID: SILO 2-IDW-TB

Lab ID: 1604201-10

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 12-Apr-16

Date Extracted: 15-Apr-16

Date Analyzed: 15-Apr-16

Prep Method: SW5030 Rev C

Prep Batch: VL160415-3

QCBatchID: VL160415-3-1

Run ID: VL160415-3A

Cleanup: NONE

Basis: As Received

File Name: C67741

Analyst: Joe Kostelnik

Sample Aliquot: 10 ml

Final Volume: 10 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
79-01-6	TRICHLOROETHENE	1	1	1	0.3	U	
78-87-5	1,2-DICHLOROPROPANE	1	1	1	0.3	U	
74-95-3	DIBROMOMETHANE	1	1	1	0.3	U	
75-27-4	BROMODICHLOROMETHANE	1	1	1	0.3	U	
10061-01-5	CIS-1,3-DICHLOROPROPENE	1	1	1	0.3	U	
108-10-1	4-METHYL-2-PENTANONE	1	10	10	3	U	
108-88-3	TOLUENE	1	1	1	0.3	U	
10061-02-6	TRANS-1,3-DICHLOROPROPENE	1	1	1	0.3	U	
79-00-5	1,1,2-TRICHLOROETHANE	1	1	1	0.3	U	
591-78-6	2-HEXANONE	1	10	10	3	U	
127-18-4	TETRACHLOROETHENE	1	1	1	0.2	U	
142-28-9	1,3-DICHLOROPROPANE	1	1	1	0.3	U	
124-48-1	DIBROMOCHLOROMETHANE	1	1	1	0.3	U	
106-93-4	1,2-DIBROMOETHANE	1	1	1	0.3	U	
544-10-5	1-CHLOROHEXANE	1	1	1	0.3	U	
108-90-7	CHLOROBENZENE	1	1	1	0.3	U	
630-20-6	1,1,1,2-TETRACHLOROETHANE	1	1	1	0.3	U	
100-41-4	ETHYLBENZENE	1	1	1	0.3	U	
136777-61-2	M+P-XYLENE	1	1	1	0.3	U	
95-47-6	O-XYLENE	1	1	1	0.3	U	
100-42-5	STYRENE	1	1	1	0.3	U	
75-25-2	BROMOFORM	1	1	1	0.3	U	
98-82-8	ISOPROPYLBENZENE	1	1	1	0.3	U	
96-18-4	1,2,3-TRICHLOROPROPANE	1	1	1	0.3	U	
79-34-5	1,1,2,2-TETRACHLOROETHANE	1	1	1	0.3	U	
108-86-1	BROMOBENZENE	1	1	1	0.3	U	

Data Package ID: VL1604201-1

GC/MS Volatiles

PRELIMINARY RESULTS

Method SW8260_25C

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604201

Client Name: TI2E Joint Venture

ClientProject ID: Nike Launch Area RI (BU34/35)

Field ID: SILO 2-IDW-TB

Lab ID: 1604201-10

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 12-Apr-16

Date Extracted: 15-Apr-16

Date Analyzed: 15-Apr-16

Prep Method: SW5030 Rev C

Prep Batch: VL160415-3

QCBatchID: VL160415-3-1

Run ID: VL160415-3A

Cleanup: NONE

Basis: As Received

File Name: C67741

Analyst: Joe Kostelnik

Sample Aliquot: 10 ml

Final Volume: 10 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
103-65-1	N-PROPYLBENZENE	1	1	1	0.3	U	
95-49-8	2-CHLOROTOLUENE	1	1	1	0.3	U	
108-67-8	1,3,5-TRIMETHYLBENZENE	1	1	1	0.3	U	
106-43-4	4-CHLOROTOLUENE	1	1	1	0.3	U	
98-06-6	TERT-BUTYLBENZENE	1	1	1	0.3	U	
95-63-6	1,2,4-TRIMETHYLBENZENE	1	1	1	0.3	U	
135-98-8	SEC-BUTYLBENZENE	1	1	1	0.3	U	
541-73-1	1,3-DICHLOROBENZENE	1	1	1	0.3	U	
99-87-6	P-ISOPROPYLTOLUENE	1	1	1	0.3	U	
106-46-7	1,4-DICHLOROBENZENE	1	1	1	0.3	U	
104-51-8	N-BUTYLBENZENE	1	1	1	0.3	U	
95-50-1	1,2-DICHLOROBENZENE	1	1	1	0.3	U	
96-12-8	1,2-DIBROMO-3-CHLOROPROPANE	1	2	2	0.4	U	
120-82-1	1,2,4-TRICHLOROBENZENE	1	1	1	0.3	U	
87-68-3	HEXACHLOROBUTADIENE	1	1	1	0.3	U	
91-20-3	NAPHTHALENE	1	1	1	0.3	U	
87-61-6	1,2,3-TRICHLOROBENZENE	1	1	1	0.3	U	

Data Package ID: VL1604201-1

GC/MS Volatiles

PRELIMINARY RESULTS

Method SW8260_25C

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604201

Client Name: TI2E Joint Venture

ClientProject ID: Nike Launch Area RI (BU34/35)

Field ID:	SILO 2-IDW-TB
Lab ID:	1604201-10

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 12-Apr-16

Date Extracted: 15-Apr-16

Date Analyzed: 15-Apr-16

Prep Method: SW5030 Rev C

Prep Batch: VL160415-3

QCBatchID: VL160415-3-1

Run ID: VL160415-3A

Cleanup: NONE

Basis: As Received

File Name: C67741

Analyst: Joe Kostelnik

Sample Aliquot: 10 ml

Final Volume: 10 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier

Surrogate Recovery

CASNO	Surrogate Analyte	Result	Flag	Spike Amount	Percent Recovery	Control Limits
460-00-4	4-BROMOFLUOROBENZENE	25.5		25	102	85 - 115
1868-53-7	DIBROMOFLUOROMETHANE	25.1		25	100	84 - 118
2037-26-5	TOLUENE-D8	25.6		25	102	85 - 115

Data Package ID: VL1604201-1

Ignitability

Method SW1010 Revision A

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604201

Client Name: TI2E Joint Venture

ClientProject ID: Nike Launch Area RI (BU34/35)

Field ID:	SILO 2-IDW-09
Lab ID:	1604201-9

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 12-Apr-16

Date Extracted: 14-Apr-16

Date Analyzed: 14-Apr-16

Prep Method: NONE

Prep Batch: EX160414-1

QCBatchID: EX160414-1-1

Run ID: EX160414-1A

Cleanup: NONE

Basis: As Received

File Name:

Analyst: Brendon Howard

Sample Aliquot: 1 CUP

Final Volume: 1 CUP

Result Units: deg C

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	Result Qualifier	EPA Qualifier
10-36-6	IGNITABILITY	1	96	96	U	

Data Package ID: EX1604201-1

Total ICPMS Metals

PRELIMINARY RESULTS

Method SW6020A

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604201

Client Name: TI2E Joint Venture

ClientProject ID: Nike Launch Area RI (BU34/35)

Field ID: SILO 2-IDW-04

Lab ID: 1604201-4

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 12-Apr-16

Date Extracted: 13-Apr-16

Date Analyzed: 14-Apr-16

Prep Method: SW3010 Rev A

Prep Batch: IP160413-4

QCBatchID: IP160413-4-1

Run ID: im160414-10a20

Cleanup: NONE

Basis: As Received

File Name: 109SMPL_

Analyst: Brent A. Stanfield

Sample Aliquot: 50 ml

Final Volume: 50 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
7429-90-5	ALUMINUM	10	18	100	11	J	
7440-36-0	ANTIMONY	10	0.26	1	0.13	J	
7440-38-2	ARSENIC	10	2.7	2	0.16		
7440-39-3	BARIUM	10	35	5	0.24		
7440-41-7	BERYLLIUM	10	0.34	0.5	0.25	J	
7440-43-9	CADMIUM	10	0.079	2	0.079	U	
7440-70-2	CALCIUM	10	43000	1000	61		
7440-47-3	CHROMIUM	10	0.88	10	0.88	U	
7440-48-4	COBALT	10	0.12	5	0.079	J	
7440-50-8	COPPER	10	5.1	20	0.9	J	
7439-89-6	IRON	10	92	100	8.6	J	
7439-92-1	LEAD	10	4.7	2	0.17		
7439-95-4	MAGNESIUM	10	7300	100	18		
7439-96-5	MANGANESE	10	4.2	5	0.3	J	
7440-02-0	NICKEL	10	4	20	4	U	
7440-09-7	POTASSIUM	10	53000	1000	290		
7782-49-2	SELENIUM	10	2.4	10	0.66	J	
7440-22-4	SILVER	10	0.033	0.5	0.033	U	
7440-23-5	SODIUM	10	10000	1000	160		
7440-28-0	THALLIUM	10	0.02	0.1	0.014	J	
7440-62-2	VANADIUM	10	0.58	5	0.58	U	
7440-66-6	ZINC	10	26	100	8.1	J	

Data Package ID: im1604201-1

Dissolved Metals by 200.8

PRELIMINARY RESULTS

Method EPA200.8 Revision 5.4

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604201

Client Name: TI2E Joint Venture

ClientProject ID: Nike Launch Area RI (BU34/35)

Field ID: SILO 2-IDW-05

Lab ID: 1604201-5

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 12-Apr-16

Date Extracted: 13-Apr-16

Date Analyzed: 14-Apr-16

Prep Method: EPA200.2 Rev 2.2

Prep Batch: IP160413-1

QCBatchID: IP160413-1-3

Run ID: IM160414-10A13

Cleanup: NONE

Basis: As Received

File Name: 115SMPL_

Analyst: Brent A. Stanfield

Sample Aliquot: 50 ml

Final Volume: 50 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
7429-90-5	ALUMINUM	10	14	50	14	U	
7440-36-0	ANTIMONY	10	0.3	0.3	0.11	J	
7440-38-2	ARSENIC	10	2.8	2	0.2		
7440-39-3	BARIUM	10	36	1	0.16		
7440-41-7	BERYLLIUM	10	0.29	0.5	0.27	J	
7440-43-9	CADMIUM	10	0.088	0.3	0.088	U	
7440-70-2	CALCIUM	10	45000	1000	68		
7440-47-3	CHROMIUM	10	0.88	10	0.88	U	
7440-48-4	COBALT	10	0.14	1	0.083	J	
7440-50-8	COPPER	10	3.2	10	1.2	J	
7439-89-6	IRON	10	16	100	8.1	J	
7439-92-1	LEAD	10	2.2	0.5	0.17		
7439-95-4	MAGNESIUM	10	7700	100	18		
7439-96-5	MANGANESE	10	3	2	0.34		
7440-02-0	NICKEL	10	4	5	4	U	
7440-09-7	POTASSIUM	10	56000	1000	290		
7782-49-2	SELENIUM	10	2.4	1	0.66		
7440-22-4	SILVER	10	0.041	0.1	0.041	U	
7440-23-5	SODIUM	10	11000	1000	200		
7440-28-0	THALLIUM	10	0.02	0.2	0.018	J	
7440-62-2	VANADIUM	10	0.71	1	0.71	U	
7440-66-6	ZINC	10	24	20	9.8		

Data Package ID: im1604201-1

Total Mercury

Method SW7470A

Sample Results

PRELIMINARY RESULTS

Lab Name: ALS Environmental -- FC

Work Order Number: 1604201

Client Name: TI2E Joint Venture

ClientProject ID: Nike Launch Area RI (BU34/35)

Field ID: SILO 2-IDW-04

Lab ID: 1604201-4

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 12-Apr-16

Date Extracted: 14-Apr-16

Date Analyzed: 14-Apr-16

Prep Method: METHOD

Prep Batch: HG160414-1

QCBatchID: HG160414-1-1

Run ID: HG160414-1A3

Cleanup: NONE

Basis: As Received

File Name: HG160414-1

Analyst: Nathan A. Quatier

Sample Aliquot: 10 ml

Final Volume: 10 ml

Result Units: MG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
7439-97-6	MERCURY	1	0.00006	0.0002	0.00006	U	

Data Package ID: hg1604201-1

Silo 3 Shallow Sample

GC/MS Volatiles

Method SW8260_25C

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604316

Client Name: TI2E Joint Venture

ClientProject ID: R1 Buffalo Nike BU-34/35

Field ID: Silo 3-SW

Lab ID: 1604316-3

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 14-Apr-16

Date Extracted: 22-Apr-16

Date Analyzed: 22-Apr-16

Prep Method: SW5030 Rev C

Prep Batch: VL160422-3

QCBatchID: VL160422-3-1

Run ID: VL160422-3A

Cleanup: NONE

Basis: As Received

File Name: C67984

Analyst: Joe Kostelnik

Sample Aliquot: 10 ml

Final Volume: 10 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
75-71-8	DICHLORODIFLUOROMETHANE	1	1	1	0.3	U	
74-87-3	CHLOROMETHANE	1	1	1	0.3	U	
75-01-4	VINYL CHLORIDE	1	1	1	0.3	U	
74-83-9	BROMOMETHANE	1	1	1	0.3	U	
75-00-3	CHLOROETHANE	1	1	1	0.3	U	
75-69-4	TRICHLOROFLUOROMETHANE	1	1	1	0.3	U	
75-35-4	1,1-DICHLOROETHENE	1	1	1	0.3	U	
76-13-1	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETH	1	1	1	0.3	U	
67-64-1	ACETONE	1	10	10	3	U	
74-88-4	IODOMETHANE	1	1	1	0.38	U	
75-15-0	CARBON DISULFIDE	1	1	1	0.3	U	
75-09-2	METHYLENE CHLORIDE	1	1	1	0.44	U	
156-60-5	TRANS-1,2-DICHLOROETHENE	1	1	1	0.3	U	
1634-04-4	METHYL TERTIARY BUTYL ETHER	1	1	1	0.3	U	
75-34-3	1,1-DICHLOROETHANE	1	1	1	0.3	U	
108-05-4	VINYL ACETATE	1	2	2	0.3	U	
156-59-2	CIS-1,2-DICHLOROETHENE	1	1	1	0.3	U	
78-93-3	2-BUTANONE	1	10	10	3	U	
74-97-5	BROMOCHLOROMETHANE	1	1	1	0.3	U	
67-66-3	CHLOROFORM	1	1	1	0.3	U	
71-55-6	1,1,1-TRICHLOROETHANE	1	1	1	0.3	U	
594-20-7	2,2-DICHLOROPROPANE	1	1	1	0.3	U	
56-23-5	CARBON TETRACHLORIDE	1	1	1	0.3	U	
563-58-6	1,1-DICHLOROPROPENE	1	1	1	0.3	U	
107-06-2	1,2-DICHLOROETHANE	1	1	1	0.3	U	
71-43-2	BENZENE	1	1	1	0.3	U	

Data Package ID: VL1604316-1

GC/MS Volatiles

Method SW8260_25C

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604316

Client Name: TI2E Joint Venture

ClientProject ID: R1 Buffalo Nike BU-34/35

Field ID: Silo 3-SW

Lab ID: 1604316-3

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 14-Apr-16

Date Extracted: 22-Apr-16

Date Analyzed: 22-Apr-16

Prep Method: SW5030 Rev C

Prep Batch: VL160422-3

QCBatchID: VL160422-3-1

Run ID: VL160422-3A

Cleanup: NONE

Basis: As Received

File Name: C67984

Analyst: Joe Kostelnik

Sample Aliquot: 10 ml

Final Volume: 10 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
79-01-6	TRICHLOROETHENE	1	1	1	0.3	U	
78-87-5	1,2-DICHLOROPROPANE	1	1	1	0.3	U	
74-95-3	DIBROMOMETHANE	1	1	1	0.3	U	
75-27-4	BROMODICHLOROMETHANE	1	1	1	0.3	U	
10061-01-5	CIS-1,3-DICHLOROPROPENE	1	1	1	0.3	U	
108-10-1	4-METHYL-2-PENTANONE	1	10	10	3	U	
108-88-3	TOLUENE	1	1	1	0.3	U	
10061-02-6	TRANS-1,3-DICHLOROPROPENE	1	1	1	0.3	U	
79-00-5	1,1,2-TRICHLOROETHANE	1	1	1	0.3	U	
591-78-6	2-HEXANONE	1	10	10	3	U	
127-18-4	TETRACHLOROETHENE	1	1	1	0.2	U	
142-28-9	1,3-DICHLOROPROPANE	1	1	1	0.3	U	
124-48-1	DIBROMOCHLOROMETHANE	1	1	1	0.3	U	
106-93-4	1,2-DIBROMOETHANE	1	1	1	0.3	U	
544-10-5	1-CHLOROHEXANE	1	1	1	0.3	U	
108-90-7	CHLOROBENZENE	1	1	1	0.3	U	
630-20-6	1,1,1,2-TETRACHLOROETHANE	1	1	1	0.3	U	
100-41-4	ETHYLBENZENE	1	1	1	0.3	U	
136777-61-2	M+P-XYLENE	1	1	1	0.3	U	
95-47-6	O-XYLENE	1	1	1	0.3	U	
100-42-5	STYRENE	1	1	1	0.3	U	
75-25-2	BROMOFORM	1	1	1	0.3	U	
98-82-8	ISOPROPYLBENZENE	1	1	1	0.3	U	
96-18-4	1,2,3-TRICHLOROPROPANE	1	1	1	0.3	U	
79-34-5	1,1,2,2-TETRACHLOROETHANE	1	1	1	0.3	U	
108-86-1	BROMOBENZENE	1	1	1	0.3	U	

Data Package ID: VL1604316-1

GC/MS Volatiles

Method SW8260_25C

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604316

Client Name: TI2E Joint Venture

ClientProject ID: R1 Buffalo Nike BU-34/35

Field ID: Silo 3-SW

Lab ID: 1604316-3

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 14-Apr-16

Date Extracted: 22-Apr-16

Date Analyzed: 22-Apr-16

Prep Method: SW5030 Rev C

Prep Batch: VL160422-3

QCBatchID: VL160422-3-1

Run ID: VL160422-3A

Cleanup: NONE

Basis: As Received

File Name: C67984

Analyst: Joe Kostelnik

Sample Aliquot: 10 ml

Final Volume: 10 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
103-65-1	N-PROPYLBENZENE	1	1	1	0.3	U	
95-49-8	2-CHLOROTOLUENE	1	1	1	0.3	U	
108-67-8	1,3,5-TRIMETHYLBENZENE	1	1	1	0.3	U	
106-43-4	4-CHLOROTOLUENE	1	1	1	0.3	U	
98-06-6	TERT-BUTYLBENZENE	1	1	1	0.3	U	
95-63-6	1,2,4-TRIMETHYLBENZENE	1	1	1	0.3	U	
135-98-8	SEC-BUTYLBENZENE	1	1	1	0.3	U	
541-73-1	1,3-DICHLOROBENZENE	1	1	1	0.3	U	
99-87-6	P-ISOPROPYLTOLUENE	1	1	1	0.3	U	
106-46-7	1,4-DICHLOROBENZENE	1	1	1	0.3	U	
104-51-8	N-BUTYLBENZENE	1	1	1	0.3	U	
95-50-1	1,2-DICHLOROBENZENE	1	1	1	0.3	U	
96-12-8	1,2-DIBROMO-3-CHLOROPROPANE	1	2	2	0.4	U	
120-82-1	1,2,4-TRICHLOROBENZENE	1	1	1	0.3	U	
87-68-3	HEXACHLOROBUTADIENE	1	1	1	0.3	U	
91-20-3	NAPHTHALENE	1	1	1	0.3	U	
87-61-6	1,2,3-TRICHLOROBENZENE	1	1	1	0.3	U	

Data Package ID: VL1604316-1

Date Printed: Wednesday, April 27, 2016

ALS Environmental -- FC

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GC/MS Volatiles

Method SW8260_25C

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604316

Client Name: TI2E Joint Venture

ClientProject ID: R1 Buffalo Nike BU-34/35

Field ID: Silo 3-SW

Lab ID: 1604316-3

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 14-Apr-16

Date Extracted: 22-Apr-16

Date Analyzed: 22-Apr-16

Prep Method: SW5030 Rev C

Prep Batch: VL160422-3

QCBatchID: VL160422-3-1

Run ID: VL160422-3A

Cleanup: NONE

Basis: As Received

File Name: C67984

Analyst: Joe Kostelnik

Sample Aliquot: 10 ml

Final Volume: 10 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier

Surrogate Recovery

CASNO	Surrogate Analyte	Result	Flag	Spike Amount	Percent Recovery	Control Limits
460-00-4	4-BROMOFLUOROBENZENE	25		25	100	85 - 115
1868-53-7	DIBROMOFLUOROMETHANE	24.9		25	100	84 - 118
2037-26-5	TOLUENE-D8	25.8		25	103	85 - 115

Data Package ID: VL1604316-1

Date Printed: Wednesday, April 27, 2016

ALS Environmental -- FC

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GC/MS Semi-volatiles

Method SW8270D

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604316

Client Name: TI2E Joint Venture

ClientProject ID: R1 Buffalo Nike BU-34/35

Field ID: Silo 3-SW

Lab ID: 1604316-3

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 14-Apr-16

Date Extracted: 20-Apr-16

Date Analyzed: 25-Apr-16

Prep Method: SW3520 Rev C

Prep Batch: EX160420-1

QCBatchID: EX160420-1-1

Run ID: SV160425-3

Cleanup: NONE

Basis: As Received

File Name: R6502

Analyst: Tyler Knaebel

Sample Aliquot: 990 ml

Final Volume: 1 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
110-86-1	PYRIDINE	1	10	10	3.9	U	
62-75-9	N-NITROSODIMETHYLAMINE	1	10	10	3	U	
62-53-3	ANILINE	1	10	10	3.1	U	
108-95-2	PHENOL	1	10	10	3	U	
111-44-4	BIS(2-CHLOROETHYL)ETHER	1	10	10	3	U	
95-57-8	2-CHLOROPHENOL	1	10	10	3	U	
541-73-1	1,3-DICHLOROBENZENE	1	10	10	3	U	
106-46-7	1,4-DICHLOROBENZENE	1	10	10	3	U	
95-50-1	1,2-DICHLOROBENZENE	1	10	10	3	U	
100-51-6	BENZYL ALCOHOL	1	10	10	3	U	
108-60-1	BIS(2-CHLOROISOPROPYL)ETHER	1	10	10	3	U	
95-48-7	2-METHYLPHENOL	1	10	10	3	U	
621-64-7	N-NITROSO-DI-N-PROPYLAMINE	1	10	10	3	U	
108-39-4	3+4-METHYLPHENOL	1	10	10	3	U	
67-72-1	HEXACHLOROETHANE	1	10	10	3	U	
98-95-3	NITROBENZENE	1	10	10	3	U	
78-59-1	ISOPHORONE	1	10	10	3	U	
88-75-5	2-NITROPHENOL	1	10	10	3	U	
105-67-9	2,4-DIMETHYLPHENOL	1	10	10	3	U	
111-91-1	BIS(2-CHLOROETHOXY)METHANE	1	10	10	3	U	
120-83-2	2,4-DICHLOROPHENOL	1	10	10	3	U	
65-85-0	BENZOIC ACID	1	51	51	19	U	
120-82-1	1,2,4-TRICHLOROBENZENE	1	10	10	3	U	
91-20-3	NAPHTHALENE	1	10	10	3	U	
106-47-8	4-CHLOROANILINE	1	10	10	5.5	U	
87-68-3	HEXACHLOROBUTADIENE	1	10	10	3	U	

Data Package ID: SV1604316-1

GC/MS Semi-volatiles

Method SW8270D

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604316

Client Name: TI2E Joint Venture

ClientProject ID: R1 Buffalo Nike BU-34/35

Field ID: Silo 3-SW

Lab ID: 1604316-3

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 14-Apr-16

Date Extracted: 20-Apr-16

Date Analyzed: 25-Apr-16

Prep Method: SW3520 Rev C

Prep Batch: EX160420-1

QCBatchID: EX160420-1-1

Run ID: SV160425-3

Cleanup: NONE

Basis: As Received

File Name: R6502

Analyst: Tyler Knaebel

Sample Aliquot: 990 ml

Final Volume: 1 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
59-50-7	4-CHLORO-3-METHYLPHENOL	1	10	10	3	U	
91-57-6	2-METHYLNAPHTHALENE	1	10	10	3	U	
90-12-0	1-METHYLNAPHTHALENE	1	10	10	3	U	
77-47-4	HEXACHLOROCYCLOPENTADIENE	1	10	10	5.2	U	
88-06-2	2,4,6-TRICHLOROPHENOL	1	10	10	3	U	
95-95-4	2,4,5-TRICHLOROPHENOL	1	10	10	3	U	
91-58-7	2-CHLORONAPHTHALENE	1	10	10	3	U	
88-74-4	2-NITROANILINE	1	20	20	3	U	
131-11-3	DIMETHYL PHTHALATE	1	10	10	3	U	
606-20-2	2,6-DINITROTOLUENE	1	10	10	3	U	
208-96-8	ACENAPHTHYLENE	1	10	10	3	U	
99-09-2	3-NITROANILINE	1	20	20	4	U	
83-32-9	ACENAPHTHENE	1	10	10	3	U	
51-28-5	2,4-DINITROPHENOL	1	20	20	3	U	
100-02-7	4-NITROPHENOL	1	20	20	3.6	U	
132-64-9	DIBENZOFURAN	1	10	10	3	U	
121-14-2	2,4-DINITROTOLUENE	1	10	10	3	U	
84-66-2	DIETHYL PHTHALATE	1	10	10	3	U	
86-73-7	FLUORENE	1	10	10	3	U	
7005-72-3	4-CHLOROPHENYL PHENYL ETHER	1	10	10	3	U	
100-01-6	4-NITROANILINE	1	20	20	3.2	U	
103-33-3	AZOBENZENE	1	10	10	3	U	
534-52-1	4,6-DINITRO-2-METHYLPHENOL	1	20	20	3.6	U	
86-30-6	N-NITROSODIPHENYLAMINE	1	10	10	3	U	
101-55-3	4-BROMOPHENYL PHENYL ETHER	1	10	10	3	U	
118-74-1	HEXACHLOROBENZENE	1	10	10	3	U	

Data Package ID: SV1604316-1

GC/MS Semi-volatiles

Method SW8270D

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604316

Client Name: TI2E Joint Venture

ClientProject ID: R1 Buffalo Nike BU-34/35

Field ID: Silo 3-SW

Lab ID: 1604316-3

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 14-Apr-16

Date Extracted: 20-Apr-16

Date Analyzed: 25-Apr-16

Prep Method: SW3520 Rev C

Prep Batch: EX160420-1

QCBatchID: EX160420-1-1

Run ID: SV160425-3

Cleanup: NONE

Basis: As Received

File Name: R6502

Analyst: Tyler Knaebel

Sample Aliquot: 990 ml

Final Volume: 1 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
58-90-2	2,3,4,6-TETRACHLOROPHENOL	1	10	10	3.8	U	
87-86-5	PENTACHLOROPHENOL	1	20	20	4.2	U	
85-01-8	PHENANTHRENE	1	10	10	3	U	
120-12-7	ANTHRACENE	1	10	10	3	U	
86-74-8	CARBAZOLE	1	10	10	3	U	
84-74-2	DI-N-BUTYL PHTHALATE	1	10	10	3	U	
206-44-0	FLUORANTHENE	1	10	10	3	U	
129-00-0	PYRENE	1	10	10	3	U	
85-68-7	BUTYL BENZYL PHTHALATE	1	10	10	3	U	
56-55-3	BENZO(A)ANTHRACENE	1	10	10	3	U	
91-94-1	3,3'-DICHLOROBENZIDINE	1	10	10	6.4	U	
218-01-9	CHRYSENE	1	10	10	3	U	
117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	1	10	10	3	U	
117-84-0	DI-N-OCTYL PHTHALATE	1	10	10	3	U	
205-99-2	BENZO(B)FLUORANTHENE	1	10	10	3	U	
207-08-9	BENZO(K)FLUORANTHENE	1	10	10	3	U	
50-32-8	BENZO(A)PYRENE	1	10	10	3	U	
193-39-5	INDENO(1,2,3-CD)PYRENE	1	10	10	3	U	
53-70-3	DIBENZO(A,H)ANTHRACENE	1	10	10	3	U	
191-24-2	BENZO(G,H,I)PERYLENE	1	10	10	3	U	

Data Package ID: SV1604316-1

Date Printed: Wednesday, April 27, 2016

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GC/MS Semi-volatiles

Method SW8270D

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604316

Client Name: TI2E Joint Venture

ClientProject ID: R1 Buffalo Nike BU-34/35

Field ID:	Silo 3-SW
Lab ID:	1604316-3

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 14-Apr-16

Date Extracted: 20-Apr-16

Date Analyzed: 25-Apr-16

Prep Method: SW3520 Rev C

Prep Batch: EX160420-1

QCBatchID: EX160420-1-1

Run ID: SV160425-3

Cleanup: NONE

Basis: As Received

File Name: R6502

Analyst: Tyler Knaebel

Sample Aliquot: 990 ml

Final Volume: 1 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier

Surrogate Recovery

CASNO	Surrogate Analyte	Result	Flag	Spike Amount	Percent Recovery	Control Limits
118-79-6	2,4,6-TRIBROMOPHENOL	55.1		75.8	73	42 - 117
321-60-8	2-FLUOROBIPHENYL	44.2		50.5	87	55 - 108
367-12-4	2-FLUOROPHENOL	62		75.8	82	46 - 105
4165-60-0	NITROBENZENE-D5	42.9		50.5	85	53 - 111
4165-62-2	PHENOL-D5	64.5		75.8	85	50 - 109
1718-51-0	TERPHENYL-D14	50.7		50.5	100	34 - 139

Data Package ID: SV1604316-1

PCBs

Method SW8082

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604316

Client Name: TI2E Joint Venture

ClientProject ID: R1 Buffalo Nike BU-34/35

Field ID: Silo 3-SW

Lab ID: 1604316-3

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 14-Apr-16

Date Extracted: 20-Apr-16

Date Analyzed: 22-Apr-16

Prep Method: SW3520 Rev C

Prep Batch: EX160420-8

QCBatchID: EX160420-8-1

Run ID: PT160422-11

Cleanup: SW3665

Basis: As Received

File Name: 16111.dat

Analyst: Dan Sheneman

Sample Aliquot: 1015 ml

Final Volume: 10 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
12674-11-2	AROCLOR-1016	1	0.99	0.99	0.3	U	
11104-28-2	AROCLOR-1221	1	2	2	0.3	U	
11141-16-5	AROCLOR-1232	1	0.99	0.99	0.3	U	
53469-21-9	AROCLOR-1242	1	0.99	0.99	0.3	U	
12672-29-6	AROCLOR-1248	1	0.99	0.99	0.3	U	
11097-69-1	AROCLOR-1254	1	0.99	0.99	0.3	U	
11096-82-5	AROCLOR-1260	1	0.99	0.99	0.3	U	

Surrogate Recovery

CASNO	Surrogate Analyte	Result	Flag	Spike Amount	Percent Recovery	Control Limits
2051-24-3	DECACHLOROBIPHENYL	0.353		0.493	72	14 - 114
877-09-8	TETRACHLORO-M-XYLENE	0.51		0.493	104	72 - 125

Data Package ID: PCB1604316-1

Total ICPMS Metals

Method SW6020A

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604316

Client Name: TI2E Joint Venture

ClientProject ID: R1 Buffalo Nike BU-34/35

Field ID: Silo 3-SW

Lab ID: 1604316-3

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 14-Apr-16

Date Extracted: 21-Apr-16

Date Analyzed: 25-Apr-16

Prep Method: SW3010 Rev A

Prep Batch: IP160421-3

QCBatchID: IP160421-3-1

Run ID: IM160425-10A7

Cleanup: NONE

Basis: As Received

File Name: 024SMPL_

Analyst: Carly D. Ruble

Sample Aliquot: 50 ml

Final Volume: 50 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
7429-90-5	ALUMINUM	10	12	100	11	J	
7440-36-0	ANTIMONY	10	0.13	1	0.13	U	
7440-38-2	ARSENIC	10	0.57	2	0.16	J	
7440-39-3	BARIUM	10	33	5	0.24		
7440-41-7	BERYLLIUM	10	0.25	0.5	0.25	U	
7440-43-9	CADMIUM	10	0.19	2	0.079	J	
7440-70-2	CALCIUM	10	130000	1000	61		
7440-47-3	CHROMIUM	10	0.88	10	0.88	U	
7440-48-4	COBALT	10	0.079	5	0.079	U	
7440-50-8	COPPER	10	4.9	20	0.9	J	
7439-89-6	IRON	10	54	100	8.6	J	
7439-92-1	LEAD	10	3.3	2	0.17		
7439-95-4	MAGNESIUM	10	14000	100	18		
7439-96-5	MANGANESE	10	2.5	5	0.3	J	
7440-02-0	NICKEL	10	4	20	4	U	
7440-09-7	POTASSIUM	10	9500	1000	290		
7782-49-2	SELENIUM	10	0.66	10	0.66	U	
7440-22-4	SILVER	10	0.033	0.5	0.033	U	
7440-23-5	SODIUM	10	2300	1000	160		
7440-28-0	THALLIUM	10	0.014	0.1	0.014	U	
7440-62-2	VANADIUM	10	0.58	5	0.58	U	
7440-66-6	ZINC	10	190	100	8.1		

Data Package ID: im1604316-2

Date Printed: Saturday, April 30, 2016

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Total MERCURY

Method SW7470A

Sample Results

Lab Name: ALS Environmental -- FC
Client Name: TI2E Joint Venture
Client Project ID: R1 Buffalo Nike BU-34/35
Work Order Number: 1604316
Reporting Basis: As Received
Analyst: Nathan A. Quatier

Final Volume: 10 ml
Matrix: WATER
Result Units: MG/L

Client Sample ID	Lab ID	Date Collected	Date Prepared	Date Analyzed	Percent Moisture	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Flag	Sample Aliquot
Silo 3-Deep	1604316-1	4/14/2016	4/20/2016	04/21/2016	N/A	1	0.00006	0.0002	0.00006	U	10 ml
Silo 3- Deep DUP	1604316-2	4/14/2016	4/20/2016	04/21/2016	N/A	1	0.00006	0.0002	0.00006	U	10 ml
Silo 3-SW	1604316-3	4/14/2016	4/20/2016	04/21/2016	N/A	1	0.00006	0.0002	0.00006	U	10 ml
Silo 2-SW	1604316-4	4/14/2016	4/20/2016	04/21/2016	N/A	1	0.00006	0.0002	0.00006	U	10 ml
Silo 2-Deep	1604316-5	4/14/2016	4/20/2016	04/21/2016	N/A	1	0.00006	0.0002	0.00006	U	10 ml
Silo 5-SW	1604316-6	4/14/2016	4/20/2016	04/21/2016	N/A	1	0.00006	0.0002	0.00006	U	10 ml
Silo 5-Deep	1604316-7	4/14/2016	4/20/2016	04/21/2016	N/A	1	0.00006	0.0002	0.00006	U	10 ml
Silo 4-SW	1604316-9	4/15/2016	4/20/2016	04/21/2016	N/A	1	0.00006	0.0002	0.00006	U	10 ml
Silo 4-Deep	1604316-10	4/15/2016	4/20/2016	04/21/2016	N/A	1	0.00006	0.0002	0.00006	U	10 ml
Silo 1-SW	1604316-11	4/15/2016	4/20/2016	04/21/2016	N/A	1	0.00006	0.0002	0.00006	U	10 ml
Silo 1-Deep	1604316-12	4/15/2016	4/20/2016	04/21/2016	N/A	1	0.00006	0.0002	0.00006	U	10 ml

Comments:

1. ND or U = Not Detected at or above the client requested detection limit.

Data Package ID: *hg1604316-1*

TOTAL ORGANIC CARBON

Method EPA415.1

Sample Results

Lab Name: ALS Environmental -- FC
Client Name: TI2E Joint Venture
Client Project ID: R1 Buffalo Nike BU-34/35
Work Order Number: 1604316
Reporting Basis: As Received
Analyst: Steven D. White

Final Volume: 40 ml
Matrix: WATER
Result Units: MG/L

Client Sample ID	Lab ID	Date Collected	Date Prepared	Date Analyzed	Percent Moisture	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Flag	Sample Aliquot
Silo 3-Deep	1604316-1	4/14/2016	4/22/2016	04/22/2016	N/A	1	2.8	1	0.3		40 ml
Silo 3- Deep DUP	1604316-2	4/14/2016	4/22/2016	04/22/2016	N/A	1	2.8	1	0.3		40 ml
Silo 3-SW	1604316-3	4/14/2016	4/22/2016	04/22/2016	N/A	1	2.4	1	0.3		40 ml
Silo 2-SW	1604316-4	4/14/2016	4/22/2016	04/22/2016	N/A	1	2.5	1	0.3		40 ml
Silo 2-Deep	1604316-5	4/14/2016	4/22/2016	04/22/2016	N/A	1	2.5	1	0.3		40 ml
Silo 5-SW	1604316-6	4/14/2016	4/22/2016	04/22/2016	N/A	1	1.7	1	0.3		40 ml
Silo 5-Deep	1604316-7	4/14/2016	4/22/2016	04/22/2016	N/A	1	1.7	1	0.3		40 ml
Silo 4-SW	1604316-9	4/15/2016	4/22/2016	04/22/2016	N/A	1	1.9	1	0.3		40 ml
Silo 4-Deep	1604316-10	4/15/2016	4/22/2016	04/22/2016	N/A	1	2.9	1	0.3		40 ml
Silo 1-SW	1604316-11	4/15/2016	4/22/2016	04/22/2016	N/A	1	2.5	1	0.3		40 ml
Silo 1-Deep	1604316-12	4/15/2016	4/22/2016	04/22/2016	N/A	1	3.4	1	0.3		40 ml

Comments:

1. ND or U = Not Detected at or above the client requested detection limit.

Data Package ID: *MO1604316-1*

Silo 3 Deep Sample

Dissolved Metals by 200.8

Method EPA200.8 Revision 5.4

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604316

Client Name: TI2E Joint Venture

ClientProject ID: R1 Buffalo Nike BU-34/35

Field ID: Silo 3-SW

Lab ID: 1604316-16

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 14-Apr-16

Date Extracted: 21-Apr-16

Date Analyzed: 22-Apr-16

Prep Method: EPA200.2 Rev 2.2

Prep Batch: IP160421-2

QCBatchID: IP160421-2-3

Run ID: IM160422-10A18

Cleanup: NONE

Basis: As Received

File Name: 066SMPL_

Analyst: Carly D. Ruble

Sample Aliquot: 50 ml

Final Volume: 50 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
7429-90-5	ALUMINUM	10	18	50	14	J	
7440-36-0	ANTIMONY	10	0.16	0.3	0.11	J	
7440-38-2	ARSENIC	10	0.66	2	0.2	J	
7440-39-3	BARIUM	10	34	1	0.16		
7440-41-7	BERYLLIUM	10	0.3	0.5	0.27	J	
7440-43-9	CADMIUM	10	0.24	0.3	0.088	J	
7440-70-2	CALCIUM	10	140000	1000	68		
7440-47-3	CHROMIUM	10	1.1	10	0.88	J	
7440-48-4	COBALT	10	0.15	1	0.083	J	
7440-50-8	COPPER	10	6	10	1.2	J	
7439-89-6	IRON	10	28	100	8.1	J	
7439-92-1	LEAD	10	0.34	0.5	0.17	J	
7439-95-4	MAGNESIUM	10	15000	100	18		
7439-96-5	MANGANESE	10	3	2	0.34		
7440-02-0	NICKEL	10	4	5	4	U	
7440-09-7	POTASSIUM	10	10000	1000	290		
7782-49-2	SELENIUM	10	0.66	1	0.66	U	
7440-22-4	SILVER	10	0.041	0.1	0.041	U	
7440-23-5	SODIUM	10	2500	1000	200		
7440-28-0	THALLIUM	10	0.02	0.2	0.018	J	
7440-62-2	VANADIUM	10	0.71	1	0.71	U	
7440-66-6	ZINC	10	200	20	9.8		

Data Package ID: im1604316-1

Date Printed: Saturday, April 30, 2016

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GC/MS Volatiles

Method SW8260_25C

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604316

Client Name: TI2E Joint Venture

ClientProject ID: R1 Buffalo Nike BU-34/35

Field ID: Silo 3-Deep

Lab ID: 1604316-1

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 14-Apr-16

Date Extracted: 22-Apr-16

Date Analyzed: 22-Apr-16

Prep Method: SW5030 Rev C

Prep Batch: VL160422-3

QCBatchID: VL160422-3-1

Run ID: VL160422-3A

Cleanup: NONE

Basis: As Received

File Name: C67982

Analyst: Joe Kostelnik

Sample Aliquot: 10 ml

Final Volume: 10 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
75-71-8	DICHLORODIFLUOROMETHANE	1	1	1	0.3	U	
74-87-3	CHLOROMETHANE	1	1	1	0.3	U	
75-01-4	VINYL CHLORIDE	1	1	1	0.3	U	
74-83-9	BROMOMETHANE	1	1	1	0.3	U	
75-00-3	CHLOROETHANE	1	1	1	0.3	U	
75-69-4	TRICHLOROFLUOROMETHANE	1	1	1	0.3	U	
75-35-4	1,1-DICHLOROETHENE	1	1	1	0.3	U	
76-13-1	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETH	1	1	1	0.3	U	
67-64-1	ACETONE	1	10	10	3	U	
74-88-4	IODOMETHANE	1	1	1	0.38	U	
75-15-0	CARBON DISULFIDE	1	1	1	0.3	U	
75-09-2	METHYLENE CHLORIDE	1	1	1	0.44	U	
156-60-5	TRANS-1,2-DICHLOROETHENE	1	1	1	0.3	U	
1634-04-4	METHYL TERTIARY BUTYL ETHER	1	1	1	0.3	U	
75-34-3	1,1-DICHLOROETHANE	1	1	1	0.3	U	
108-05-4	VINYL ACETATE	1	2	2	0.3	U	
156-59-2	CIS-1,2-DICHLOROETHENE	1	1	1	0.3	U	
78-93-3	2-BUTANONE	1	10	10	3	U	
74-97-5	BROMOCHLOROMETHANE	1	1	1	0.3	U	
67-66-3	CHLOROFORM	1	1	1	0.3	U	
71-55-6	1,1,1-TRICHLOROETHANE	1	1	1	0.3	U	
594-20-7	2,2-DICHLOROPROPANE	1	1	1	0.3	U	
56-23-5	CARBON TETRACHLORIDE	1	1	1	0.3	U	
563-58-6	1,1-DICHLOROPROPENE	1	1	1	0.3	U	
107-06-2	1,2-DICHLOROETHANE	1	1	1	0.3	U	
71-43-2	BENZENE	1	1	1	0.3	U	

Data Package ID: VL1604316-1

Date Printed: Wednesday, April 27, 2016

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GC/MS Volatiles

Method SW8260_25C

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604316

Client Name: TI2E Joint Venture

ClientProject ID: R1 Buffalo Nike BU-34/35

Field ID: Silo 3-Deep

Lab ID: 1604316-1

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 14-Apr-16

Date Extracted: 22-Apr-16

Date Analyzed: 22-Apr-16

Prep Method: SW5030 Rev C

Prep Batch: VL160422-3

QCBatchID: VL160422-3-1

Run ID: VL160422-3A

Cleanup: NONE

Basis: As Received

File Name: C67982

Analyst: Joe Kostelnik

Sample Aliquot: 10 ml

Final Volume: 10 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
79-01-6	TRICHLOROETHENE	1	1	1	0.3	U	
78-87-5	1,2-DICHLOROPROPANE	1	1	1	0.3	U	
74-95-3	DIBROMOMETHANE	1	1	1	0.3	U	
75-27-4	BROMODICHLOROMETHANE	1	1	1	0.3	U	
10061-01-5	CIS-1,3-DICHLOROPROPENE	1	1	1	0.3	U	
108-10-1	4-METHYL-2-PENTANONE	1	10	10	3	U	
108-88-3	TOLUENE	1	1	1	0.3	U	
10061-02-6	TRANS-1,3-DICHLOROPROPENE	1	1	1	0.3	U	
79-00-5	1,1,2-TRICHLOROETHANE	1	1	1	0.3	U	
591-78-6	2-HEXANONE	1	10	10	3	U	
127-18-4	TETRACHLOROETHENE	1	1	1	0.2	U	
142-28-9	1,3-DICHLOROPROPANE	1	1	1	0.3	U	
124-48-1	DIBROMOCHLOROMETHANE	1	1	1	0.3	U	
106-93-4	1,2-DIBROMOETHANE	1	1	1	0.3	U	
544-10-5	1-CHLOROHEXANE	1	1	1	0.3	U	
108-90-7	CHLOROBENZENE	1	1	1	0.3	U	
630-20-6	1,1,1,2-TETRACHLOROETHANE	1	1	1	0.3	U	
100-41-4	ETHYLBENZENE	1	1	1	0.3	U	
136777-61-2	M+P-XYLENE	1	1	1	0.3	U	
95-47-6	O-XYLENE	1	1	1	0.3	U	
100-42-5	STYRENE	1	1	1	0.3	U	
75-25-2	BROMOFORM	1	1	1	0.3	U	
98-82-8	ISOPROPYLBENZENE	1	1	1	0.3	U	
96-18-4	1,2,3-TRICHLOROPROPANE	1	1	1	0.3	U	
79-34-5	1,1,2,2-TETRACHLOROETHANE	1	1	1	0.3	U	
108-86-1	BROMOBENZENE	1	1	1	0.3	U	

Data Package ID: VL1604316-1

GC/MS Volatiles

Method SW8260_25C

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604316

Client Name: TI2E Joint Venture

ClientProject ID: R1 Buffalo Nike BU-34/35

Field ID: Silo 3-Deep

Lab ID: 1604316-1

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 14-Apr-16

Date Extracted: 22-Apr-16

Date Analyzed: 22-Apr-16

Prep Method: SW5030 Rev C

Prep Batch: VL160422-3

QCBatchID: VL160422-3-1

Run ID: VL160422-3A

Cleanup: NONE

Basis: As Received

File Name: C67982

Analyst: Joe Kostelnik

Sample Aliquot: 10 ml

Final Volume: 10 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
103-65-1	N-PROPYLBENZENE	1	1	1	0.3	U	
95-49-8	2-CHLOROTOLUENE	1	1	1	0.3	U	
108-67-8	1,3,5-TRIMETHYLBENZENE	1	1	1	0.3	U	
106-43-4	4-CHLOROTOLUENE	1	1	1	0.3	U	
98-06-6	TERT-BUTYLBENZENE	1	1	1	0.3	U	
95-63-6	1,2,4-TRIMETHYLBENZENE	1	1	1	0.3	U	
135-98-8	SEC-BUTYLBENZENE	1	1	1	0.3	U	
541-73-1	1,3-DICHLOROBENZENE	1	1	1	0.3	U	
99-87-6	P-ISOPROPYLTOLUENE	1	1	1	0.3	U	
106-46-7	1,4-DICHLOROBENZENE	1	1	1	0.3	U	
104-51-8	N-BUTYLBENZENE	1	1	1	0.3	U	
95-50-1	1,2-DICHLOROBENZENE	1	1	1	0.3	U	
96-12-8	1,2-DIBROMO-3-CHLOROPROPANE	1	2	2	0.4	U	
120-82-1	1,2,4-TRICHLOROBENZENE	1	1	1	0.3	U	
87-68-3	HEXACHLOROBUTADIENE	1	1	1	0.3	U	
91-20-3	NAPHTHALENE	1	1	1	0.3	U	
87-61-6	1,2,3-TRICHLOROBENZENE	1	1	1	0.3	U	

Data Package ID: VL1604316-1

Date Printed: Wednesday, April 27, 2016

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GC/MS Volatiles

Method SW8260_25C

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604316

Client Name: TI2E Joint Venture

ClientProject ID: R1 Buffalo Nike BU-34/35

Field ID:	Silo 3-Deep
Lab ID:	1604316-1

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 14-Apr-16

Date Extracted: 22-Apr-16

Date Analyzed: 22-Apr-16

Prep Method: SW5030 Rev C

Prep Batch: VL160422-3

QCBatchID: VL160422-3-1

Run ID: VL160422-3A

Cleanup: NONE

Basis: As Received

File Name: C67982

Analyst: Joe Kostelnik

Sample Aliquot: 10 ml

Final Volume: 10 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier

Surrogate Recovery

CASNO	Surrogate Analyte	Result	Flag	Spike Amount	Percent Recovery	Control Limits
460-00-4	4-BROMOFLUOROBENZENE	26		25	104	85 - 115
1868-53-7	DIBROMOFLUOROMETHANE	25.6		25	102	84 - 118
2037-26-5	TOLUENE-D8	25.7		25	103	85 - 115

Data Package ID: VL1604316-1

Date Printed: Wednesday, April 27, 2016

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GC/MS Volatiles

Method SW8260_25C

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604316

Client Name: TI2E Joint Venture

ClientProject ID: R1 Buffalo Nike BU-34/35

Field ID: Silo 3- Deep DUP

Lab ID: 1604316-2

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 14-Apr-16

Date Extracted: 22-Apr-16

Date Analyzed: 22-Apr-16

Prep Method: SW5030 Rev C

Prep Batch: VL160422-3

QCBatchID: VL160422-3-1

Run ID: VL160422-3A

Cleanup: NONE

Basis: As Received

File Name: C67983

Analyst: Joe Kostelnik

Sample Aliquot: 10 ml

Final Volume: 10 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
75-71-8	DICHLORODIFLUOROMETHANE	1	1	1	0.3	U	
74-87-3	CHLOROMETHANE	1	1	1	0.3	U	
75-01-4	VINYL CHLORIDE	1	1	1	0.3	U	
74-83-9	BROMOMETHANE	1	1	1	0.3	U	
75-00-3	CHLOROETHANE	1	1	1	0.3	U	
75-69-4	TRICHLOROFLUOROMETHANE	1	1	1	0.3	U	
75-35-4	1,1-DICHLOROETHENE	1	1	1	0.3	U	
76-13-1	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETH	1	1	1	0.3	U	
67-64-1	ACETONE	1	10	10	3	U	
74-88-4	IODOMETHANE	1	1	1	0.38	U	
75-15-0	CARBON DISULFIDE	1	1	1	0.3	U	
75-09-2	METHYLENE CHLORIDE	1	1	1	0.44	U	
156-60-5	TRANS-1,2-DICHLOROETHENE	1	1	1	0.3	U	
1634-04-4	METHYL TERTIARY BUTYL ETHER	1	1	1	0.3	U	
75-34-3	1,1-DICHLOROETHANE	1	1	1	0.3	U	
108-05-4	VINYL ACETATE	1	2	2	0.3	U	
156-59-2	CIS-1,2-DICHLOROETHENE	1	1	1	0.3	U	
78-93-3	2-BUTANONE	1	10	10	3	U	
74-97-5	BROMOCHLOROMETHANE	1	1	1	0.3	U	
67-66-3	CHLOROFORM	1	1	1	0.3	U	
71-55-6	1,1,1-TRICHLOROETHANE	1	1	1	0.3	U	
594-20-7	2,2-DICHLOROPROPANE	1	1	1	0.3	U	
56-23-5	CARBON TETRACHLORIDE	1	1	1	0.3	U	
563-58-6	1,1-DICHLOROPROPENE	1	1	1	0.3	U	
107-06-2	1,2-DICHLOROETHANE	1	1	1	0.3	U	
71-43-2	BENZENE	1	1	1	0.3	U	

Data Package ID: VL1604316-1

GC/MS Volatiles

Method SW8260_25C

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604316

Client Name: TI2E Joint Venture

ClientProject ID: R1 Buffalo Nike BU-34/35

Field ID: Silo 3- Deep DUP

Lab ID: 1604316-2

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 14-Apr-16

Date Extracted: 22-Apr-16

Date Analyzed: 22-Apr-16

Prep Method: SW5030 Rev C

Prep Batch: VL160422-3

QCBatchID: VL160422-3-1

Run ID: VL160422-3A

Cleanup: NONE

Basis: As Received

File Name: C67983

Analyst: Joe Kostelnik

Sample Aliquot: 10 ml

Final Volume: 10 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
79-01-6	TRICHLOROETHENE	1	1	1	0.3	U	
78-87-5	1,2-DICHLOROPROPANE	1	1	1	0.3	U	
74-95-3	DIBROMOMETHANE	1	1	1	0.3	U	
75-27-4	BROMODICHLOROMETHANE	1	1	1	0.3	U	
10061-01-5	CIS-1,3-DICHLOROPROPENE	1	1	1	0.3	U	
108-10-1	4-METHYL-2-PENTANONE	1	10	10	3	U	
108-88-3	TOLUENE	1	1	1	0.3	U	
10061-02-6	TRANS-1,3-DICHLOROPROPENE	1	1	1	0.3	U	
79-00-5	1,1,2-TRICHLOROETHANE	1	1	1	0.3	U	
591-78-6	2-HEXANONE	1	10	10	3	U	
127-18-4	TETRACHLOROETHENE	1	1	1	0.2	U	
142-28-9	1,3-DICHLOROPROPANE	1	1	1	0.3	U	
124-48-1	DIBROMOCHLOROMETHANE	1	1	1	0.3	U	
106-93-4	1,2-DIBROMOETHANE	1	1	1	0.3	U	
544-10-5	1-CHLOROHEXANE	1	1	1	0.3	U	
108-90-7	CHLOROBENZENE	1	1	1	0.3	U	
630-20-6	1,1,1,2-TETRACHLOROETHANE	1	1	1	0.3	U	
100-41-4	ETHYLBENZENE	1	1	1	0.3	U	
136777-61-2	M+P-XYLENE	1	1	1	0.3	U	
95-47-6	O-XYLENE	1	1	1	0.3	U	
100-42-5	STYRENE	1	1	1	0.3	U	
75-25-2	BROMOFORM	1	1	1	0.3	U	
98-82-8	ISOPROPYLBENZENE	1	1	1	0.3	U	
96-18-4	1,2,3-TRICHLOROPROPANE	1	1	1	0.3	U	
79-34-5	1,1,2,2-TETRACHLOROETHANE	1	1	1	0.3	U	
108-86-1	BROMOBENZENE	1	1	1	0.3	U	

Data Package ID: VL1604316-1

Date Printed: Wednesday, April 27, 2016

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GC/MS Volatiles

Method SW8260_25C

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604316

Client Name: TI2E Joint Venture

ClientProject ID: R1 Buffalo Nike BU-34/35

Field ID: Silo 3- Deep DUP

Lab ID: 1604316-2

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 14-Apr-16

Date Extracted: 22-Apr-16

Date Analyzed: 22-Apr-16

Prep Method: SW5030 Rev C

Prep Batch: VL160422-3

QCBatchID: VL160422-3-1

Run ID: VL160422-3A

Cleanup: NONE

Basis: As Received

File Name: C67983

Analyst: Joe Kostelnik

Sample Aliquot: 10 ml

Final Volume: 10 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
103-65-1	N-PROPYLBENZENE	1	1	1	0.3	U	
95-49-8	2-CHLOROTOLUENE	1	1	1	0.3	U	
108-67-8	1,3,5-TRIMETHYLBENZENE	1	1	1	0.3	U	
106-43-4	4-CHLOROTOLUENE	1	1	1	0.3	U	
98-06-6	TERT-BUTYLBENZENE	1	1	1	0.3	U	
95-63-6	1,2,4-TRIMETHYLBENZENE	1	1	1	0.3	U	
135-98-8	SEC-BUTYLBENZENE	1	1	1	0.3	U	
541-73-1	1,3-DICHLOROBENZENE	1	1	1	0.3	U	
99-87-6	P-ISOPROPYLTOLUENE	1	1	1	0.3	U	
106-46-7	1,4-DICHLOROBENZENE	1	1	1	0.3	U	
104-51-8	N-BUTYLBENZENE	1	1	1	0.3	U	
95-50-1	1,2-DICHLOROBENZENE	1	1	1	0.3	U	
96-12-8	1,2-DIBROMO-3-CHLOROPROPANE	1	2	2	0.4	U	
120-82-1	1,2,4-TRICHLOROBENZENE	1	1	1	0.3	U	
87-68-3	HEXACHLOROBUTADIENE	1	1	1	0.3	U	
91-20-3	NAPHTHALENE	1	1	1	0.3	U	
87-61-6	1,2,3-TRICHLOROBENZENE	1	1	1	0.3	U	

Data Package ID: VL1604316-1

Date Printed: Wednesday, April 27, 2016

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GC/MS Volatiles

Method SW8260_25C

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604316

Client Name: TI2E Joint Venture

ClientProject ID: R1 Buffalo Nike BU-34/35

Field ID:	Silo 3- Deep DUP
Lab ID:	1604316-2

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 14-Apr-16

Date Extracted: 22-Apr-16

Date Analyzed: 22-Apr-16

Prep Method: SW5030 Rev C

Prep Batch: VL160422-3

QCBatchID: VL160422-3-1

Run ID: VL160422-3A

Cleanup: NONE

Basis: As Received

File Name: C67983

Analyst: Joe Kostelnik

Sample Aliquot: 10 ml

Final Volume: 10 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier

Surrogate Recovery

CASNO	Surrogate Analyte	Result	Flag	Spike Amount	Percent Recovery	Control Limits
460-00-4	4-BROMOFLUOROBENZENE	25.7		25	103	85 - 115
1868-53-7	DIBROMOFLUOROMETHANE	24.8		25	99	84 - 118
2037-26-5	TOLUENE-D8	25.9		25	104	85 - 115

Data Package ID: VL1604316-1

GC/MS Semi-volatiles

Method SW8270D

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604316

Client Name: TI2E Joint Venture

ClientProject ID: R1 Buffalo Nike BU-34/35

Field ID: Silo 3-Deep

Lab ID: 1604316-1

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 14-Apr-16

Date Extracted: 20-Apr-16

Date Analyzed: 25-Apr-16

Prep Method: SW3520 Rev C

Prep Batch: EX160420-1

QCBatchID: EX160420-1-1

Run ID: SV160425-3

Cleanup: NONE

Basis: As Received

File Name: R6498

Analyst: Tyler Knaebel

Sample Aliquot: 995 ml

Final Volume: 1 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
110-86-1	PYRIDINE	1	10	10	3.9	U	
62-75-9	N-NITROSODIMETHYLAMINE	1	10	10	3	U	
62-53-3	ANILINE	1	10	10	3.1	U	
108-95-2	PHENOL	1	10	10	3	U	
111-44-4	BIS(2-CHLOROETHYL)ETHER	1	10	10	3	U	
95-57-8	2-CHLOROPHENOL	1	10	10	3	U	
541-73-1	1,3-DICHLOROBENZENE	1	10	10	3	U	
106-46-7	1,4-DICHLOROBENZENE	1	10	10	3	U	
95-50-1	1,2-DICHLOROBENZENE	1	10	10	3	U	
100-51-6	BENZYL ALCOHOL	1	10	10	3	U	
108-60-1	BIS(2-CHLOROISOPROPYL)ETHER	1	10	10	3	U	
95-48-7	2-METHYLPHENOL	1	10	10	3	U	
621-64-7	N-NITROSO-DI-N-PROPYLAMINE	1	10	10	3	U	
108-39-4	3+4-METHYLPHENOL	1	10	10	3	U	
67-72-1	HEXACHLOROETHANE	1	10	10	3	U	
98-95-3	NITROBENZENE	1	10	10	3	U	
78-59-1	ISOPHORONE	1	10	10	3	U	
88-75-5	2-NITROPHENOL	1	10	10	3	U	
105-67-9	2,4-DIMETHYLPHENOL	1	10	10	3	U	
111-91-1	BIS(2-CHLOROETHOXY)METHANE	1	10	10	3	U	
120-83-2	2,4-DICHLOROPHENOL	1	10	10	3	U	
65-85-0	BENZOIC ACID	1	50	50	19	U	
120-82-1	1,2,4-TRICHLOROBENZENE	1	10	10	3	U	
91-20-3	NAPHTHALENE	1	10	10	3	U	
106-47-8	4-CHLOROANILINE	1	10	10	5.4	U	
87-68-3	HEXACHLOROBUTADIENE	1	10	10	3	U	

Data Package ID: SV1604316-1

GC/MS Semi-volatiles

Method SW8270D

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604316

Client Name: TI2E Joint Venture

ClientProject ID: R1 Buffalo Nike BU-34/35

Field ID: Silo 3-Deep

Lab ID: 1604316-1

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 14-Apr-16

Date Extracted: 20-Apr-16

Date Analyzed: 25-Apr-16

Prep Method: SW3520 Rev C

Prep Batch: EX160420-1

QCBatchID: EX160420-1-1

Run ID: SV160425-3

Cleanup: NONE

Basis: As Received

File Name: R6498

Analyst: Tyler Knaebel

Sample Aliquot: 995 ml

Final Volume: 1 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
59-50-7	4-CHLORO-3-METHYLPHENOL	1	10	10	3	U	
91-57-6	2-METHYLNAPHTHALENE	1	10	10	3	U	
90-12-0	1-METHYLNAPHTHALENE	1	10	10	3	U	
77-47-4	HEXACHLOROCYCLOPENTADIENE	1	10	10	5.1	U	
88-06-2	2,4,6-TRICHLOROPHENOL	1	10	10	3	U	
95-95-4	2,4,5-TRICHLOROPHENOL	1	10	10	3	U	
91-58-7	2-CHLORONAPHTHALENE	1	10	10	3	U	
88-74-4	2-NITROANILINE	1	20	20	3	U	
131-11-3	DIMETHYL PHTHALATE	1	10	10	3	U	
606-20-2	2,6-DINITROTOLUENE	1	10	10	3	U	
208-96-8	ACENAPHTHYLENE	1	10	10	3	U	
99-09-2	3-NITROANILINE	1	20	20	4	U	
83-32-9	ACENAPHTHENE	1	10	10	3	U	
51-28-5	2,4-DINITROPHENOL	1	20	20	3	U	
100-02-7	4-NITROPHENOL	1	20	20	3.6	U	
132-64-9	DIBENZOFURAN	1	10	10	3	U	
121-14-2	2,4-DINITROTOLUENE	1	10	10	3	U	
84-66-2	DIETHYL PHTHALATE	1	10	10	3	U	
86-73-7	FLUORENE	1	10	10	3	U	
7005-72-3	4-CHLOROPHENYL PHENYL ETHER	1	10	10	3	U	
100-01-6	4-NITROANILINE	1	20	20	3.2	U	
103-33-3	AZOBENZENE	1	10	10	3	U	
534-52-1	4,6-DINITRO-2-METHYLPHENOL	1	20	20	3.6	U	
86-30-6	N-NITROSODIPHENYLAMINE	1	10	10	3	U	
101-55-3	4-BROMOPHENYL PHENYL ETHER	1	10	10	3	U	
118-74-1	HEXACHLOROBENZENE	1	10	10	3	U	

Data Package ID: SV1604316-1

GC/MS Semi-volatiles

Method SW8270D

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604316

Client Name: TI2E Joint Venture

ClientProject ID: R1 Buffalo Nike BU-34/35

Field ID: Silo 3-Deep

Lab ID: 1604316-1

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 14-Apr-16

Date Extracted: 20-Apr-16

Date Analyzed: 25-Apr-16

Prep Method: SW3520 Rev C

Prep Batch: EX160420-1

QCBatchID: EX160420-1-1

Run ID: SV160425-3

Cleanup: NONE

Basis: As Received

File Name: R6498

Analyst: Tyler Knaebel

Sample Aliquot: 995 ml

Final Volume: 1 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
58-90-2	2,3,4,6-TETRACHLOROPHENOL	1	10	10	3.8	U	
87-86-5	PENTACHLOROPHENOL	1	20	20	4.2	U	
85-01-8	PHENANTHRENE	1	10	10	3	U	
120-12-7	ANTHRACENE	1	10	10	3	U	
86-74-8	CARBAZOLE	1	10	10	3	U	
84-74-2	DI-N-BUTYL PHTHALATE	1	10	10	3	U	
206-44-0	FLUORANTHENE	1	10	10	3	U	
129-00-0	PYRENE	1	10	10	3	U	
85-68-7	BUTYL BENZYL PHTHALATE	1	10	10	3	U	
56-55-3	BENZO(A)ANTHRACENE	1	10	10	3	U	
91-94-1	3,3'-DICHLOROBENZIDINE	1	10	10	6.3	U	
218-01-9	CHRYSENE	1	10	10	3	U	
117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	1	10	10	3	U	
117-84-0	DI-N-OCTYL PHTHALATE	1	10	10	3	U	
205-99-2	BENZO(B)FLUORANTHENE	1	10	10	3	U	
207-08-9	BENZO(K)FLUORANTHENE	1	10	10	3	U	
50-32-8	BENZO(A)PYRENE	1	10	10	3	U	
193-39-5	INDENO(1,2,3-CD)PYRENE	1	10	10	3	U	
53-70-3	DIBENZO(A,H)ANTHRACENE	1	10	10	3	U	
191-24-2	BENZO(G,H,I)PERYLENE	1	10	10	3	U	

Data Package ID: SV1604316-1

GC/MS Semi-volatiles

Method SW8270D

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604316

Client Name: TI2E Joint Venture

ClientProject ID: R1 Buffalo Nike BU-34/35

Field ID:	Silo 3-Deep
Lab ID:	1604316-1

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 14-Apr-16

Date Extracted: 20-Apr-16

Date Analyzed: 25-Apr-16

Prep Method: SW3520 Rev C

Prep Batch: EX160420-1

QCBatchID: EX160420-1-1

Run ID: SV160425-3

Cleanup: NONE

Basis: As Received

File Name: R6498

Analyst: Tyler Knaebel

Sample Aliquot: 995 ml

Final Volume: 1 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier

Surrogate Recovery

CASNO	Surrogate Analyte	Result	Flag	Spike Amount	Percent Recovery	Control Limits
118-79-6	2,4,6-TRIBROMOPHENOL	53.7		75.4	71	42 - 117
321-60-8	2-FLUOROBIPHENYL	42		50.3	84	55 - 108
367-12-4	2-FLUOROPHENOL	57.4		75.4	76	46 - 105
4165-60-0	NITROBENZENE-D5	40.9		50.3	81	53 - 111
4165-62-2	PHENOL-D5	60.7		75.4	81	50 - 109
1718-51-0	TERPHENYL-D14	39.8		50.3	79	34 - 139

Data Package ID: SV1604316-1

GC/MS Semi-volatiles

Method SW8270D

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604316

Client Name: TI2E Joint Venture

ClientProject ID: R1 Buffalo Nike BU-34/35

Field ID: Silo 3- Deep DUP

Lab ID: 1604316-2

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 14-Apr-16

Date Extracted: 20-Apr-16

Date Analyzed: 25-Apr-16

Prep Method: SW3520 Rev C

Prep Batch: EX160420-1

QCBatchID: EX160420-1-1

Run ID: SV160425-3

Cleanup: NONE

Basis: As Received

File Name: R6501

Analyst: Tyler Knaebel

Sample Aliquot: 1000 ml

Final Volume: 1 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
110-86-1	PYRIDINE	1	10	10	3.9	U	
62-75-9	N-NITROSODIMETHYLAMINE	1	10	10	3	U	
62-53-3	ANILINE	1	10	10	3.1	U	
108-95-2	PHENOL	1	10	10	3	U	
111-44-4	BIS(2-CHLOROETHYL)ETHER	1	10	10	3	U	
95-57-8	2-CHLOROPHENOL	1	10	10	3	U	
541-73-1	1,3-DICHLOROBENZENE	1	10	10	3	U	
106-46-7	1,4-DICHLOROBENZENE	1	10	10	3	U	
95-50-1	1,2-DICHLOROBENZENE	1	10	10	3	U	
100-51-6	BENZYL ALCOHOL	1	10	10	3	U	
108-60-1	BIS(2-CHLOROISOPROPYL)ETHER	1	10	10	3	U	
95-48-7	2-METHYLPHENOL	1	10	10	3	U	
621-64-7	N-NITROSO-DI-N-PROPYLAMINE	1	10	10	3	U	
108-39-4	3+4-METHYLPHENOL	1	10	10	3	U	
67-72-1	HEXACHLOROETHANE	1	10	10	3	U	
98-95-3	NITROBENZENE	1	10	10	3	U	
78-59-1	ISOPHORONE	1	10	10	3	U	
88-75-5	2-NITROPHENOL	1	10	10	3	U	
105-67-9	2,4-DIMETHYLPHENOL	1	10	10	3	U	
111-91-1	BIS(2-CHLOROETHOXY)METHANE	1	10	10	3	U	
120-83-2	2,4-DICHLOROPHENOL	1	10	10	3	U	
65-85-0	BENZOIC ACID	1	50	50	19	U	
120-82-1	1,2,4-TRICHLOROBENZENE	1	10	10	3	U	
91-20-3	NAPHTHALENE	1	10	10	3	U	
106-47-8	4-CHLOROANILINE	1	10	10	5.4	U	
87-68-3	HEXACHLOROBUTADIENE	1	10	10	3	U	

Data Package ID: SV1604316-1

GC/MS Semi-volatiles

Method SW8270D

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604316

Client Name: TI2E Joint Venture

ClientProject ID: R1 Buffalo Nike BU-34/35

Field ID: Silo 3- Deep DUP

Lab ID: 1604316-2

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 14-Apr-16

Date Extracted: 20-Apr-16

Date Analyzed: 25-Apr-16

Prep Method: SW3520 Rev C

Prep Batch: EX160420-1

QCBatchID: EX160420-1-1

Run ID: SV160425-3

Cleanup: NONE

Basis: As Received

File Name: R6501

Analyst: Tyler Knaebel

Sample Aliquot: 1000 ml

Final Volume: 1 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
59-50-7	4-CHLORO-3-METHYLPHENOL	1	10	10	3	U	
91-57-6	2-METHYLNAPHTHALENE	1	10	10	3	U	
90-12-0	1-METHYLNAPHTHALENE	1	10	10	3	U	
77-47-4	HEXACHLOROCYCLOPENTADIENE	1	10	10	5.1	U	
88-06-2	2,4,6-TRICHLOROPHENOL	1	10	10	3	U	
95-95-4	2,4,5-TRICHLOROPHENOL	1	10	10	3	U	
91-58-7	2-CHLORONAPHTHALENE	1	10	10	3	U	
88-74-4	2-NITROANILINE	1	20	20	3	U	
131-11-3	DIMETHYL PHTHALATE	1	10	10	3	U	
606-20-2	2,6-DINITROTOLUENE	1	10	10	3	U	
208-96-8	ACENAPHTHYLENE	1	10	10	3	U	
99-09-2	3-NITROANILINE	1	20	20	4	U	
83-32-9	ACENAPHTHENE	1	10	10	3	U	
51-28-5	2,4-DINITROPHENOL	1	20	20	3	U	
100-02-7	4-NITROPHENOL	1	20	20	3.6	U	
132-64-9	DIBENZOFURAN	1	10	10	3	U	
121-14-2	2,4-DINITROTOLUENE	1	10	10	3	U	
84-66-2	DIETHYL PHTHALATE	1	10	10	3	U	
86-73-7	FLUORENE	1	10	10	3	U	
7005-72-3	4-CHLOROPHENYL PHENYL ETHER	1	10	10	3	U	
100-01-6	4-NITROANILINE	1	20	20	3.2	U	
103-33-3	AZOBENZENE	1	10	10	3	U	
534-52-1	4,6-DINITRO-2-METHYLPHENOL	1	20	20	3.6	U	
86-30-6	N-NITROSODIPHENYLAMINE	1	10	10	3	U	
101-55-3	4-BROMOPHENYL PHENYL ETHER	1	10	10	3	U	
118-74-1	HEXACHLOROBENZENE	1	10	10	3	U	

Data Package ID: SV1604316-1

GC/MS Semi-volatiles

Method SW8270D

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604316

Client Name: TI2E Joint Venture

ClientProject ID: R1 Buffalo Nike BU-34/35

Field ID: Silo 3- Deep DUP

Lab ID: 1604316-2

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 14-Apr-16

Date Extracted: 20-Apr-16

Date Analyzed: 25-Apr-16

Prep Method: SW3520 Rev C

Prep Batch: EX160420-1

QCBatchID: EX160420-1-1

Run ID: SV160425-3

Cleanup: NONE

Basis: As Received

File Name: R6501

Analyst: Tyler Knaebel

Sample Aliquot: 1000 ml

Final Volume: 1 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
58-90-2	2,3,4,6-TETRACHLOROPHENOL	1	10	10	3.8	U	
87-86-5	PENTACHLOROPHENOL	1	20	20	4.2	U	
85-01-8	PHENANTHRENE	1	10	10	3	U	
120-12-7	ANTHRACENE	1	10	10	3	U	
86-74-8	CARBAZOLE	1	10	10	3	U	
84-74-2	DI-N-BUTYL PHTHALATE	1	10	10	3	U	
206-44-0	FLUORANTHENE	1	10	10	3	U	
129-00-0	PYRENE	1	10	10	3	U	
85-68-7	BUTYL BENZYL PHTHALATE	1	10	10	3	U	
56-55-3	BENZO(A)ANTHRACENE	1	10	10	3	U	
91-94-1	3,3'-DICHLOROBENZIDINE	1	10	10	6.3	U	
218-01-9	CHRYSENE	1	10	10	3	U	
117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	1	10	10	3	U	
117-84-0	DI-N-OCTYL PHTHALATE	1	10	10	3	U	
205-99-2	BENZO(B)FLUORANTHENE	1	10	10	3	U	
207-08-9	BENZO(K)FLUORANTHENE	1	10	10	3	U	
50-32-8	BENZO(A)PYRENE	1	10	10	3	U	
193-39-5	INDENO(1,2,3-CD)PYRENE	1	10	10	3	U	
53-70-3	DIBENZO(A,H)ANTHRACENE	1	10	10	3	U	
191-24-2	BENZO(G,H,I)PERYLENE	1	10	10	3	U	

Data Package ID: SV1604316-1

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GC/MS Semi-volatiles

Method SW8270D

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604316

Client Name: TI2E Joint Venture

ClientProject ID: R1 Buffalo Nike BU-34/35

Field ID:	Silo 3- Deep DUP
Lab ID:	1604316-2

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 14-Apr-16

Date Extracted: 20-Apr-16

Date Analyzed: 25-Apr-16

Prep Method: SW3520 Rev C

Prep Batch: EX160420-1

QCBatchID: EX160420-1-1

Run ID: SV160425-3

Cleanup: NONE

Basis: As Received

File Name: R6501

Analyst: Tyler Knaebel

Sample Aliquot: 1000 ml

Final Volume: 1 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier

Surrogate Recovery

CASNO	Surrogate Analyte	Result	Flag	Spike Amount	Percent Recovery	Control Limits
118-79-6	2,4,6-TRIBROMOPHENOL	55.6		75	74	42 - 117
321-60-8	2-FLUOROBIPHENYL	42		50	84	55 - 108
367-12-4	2-FLUOROPHENOL	55.3		75	74	46 - 105
4165-60-0	NITROBENZENE-D5	39.5		50	79	53 - 111
4165-62-2	PHENOL-D5	59.8		75	80	50 - 109
1718-51-0	TERPHENYL-D14	40.9		50	82	34 - 139

Data Package ID: SV1604316-1

PCBs

Method SW8082

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604316

Client Name: TI2E Joint Venture

ClientProject ID: R1 Buffalo Nike BU-34/35

Field ID: Silo 3-Deep

Lab ID: 1604316-1

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 14-Apr-16

Date Extracted: 20-Apr-16

Date Analyzed: 22-Apr-16

Prep Method: SW3520 Rev C

Prep Batch: EX160420-8

QCBatchID: EX160420-8-1

Run ID: PT160422-11

Cleanup: SW3665

Basis: As Received

File Name: 16107.dat

Analyst: Dan Sheneman

Sample Aliquot: 1020 ml

Final Volume: 10 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
12674-11-2	AROCLOR-1016	1	0.98	0.98	0.29	U	
11104-28-2	AROCLOR-1221	1	2	2	0.29	U	
11141-16-5	AROCLOR-1232	1	0.98	0.98	0.29	U	
53469-21-9	AROCLOR-1242	1	0.98	0.98	0.29	U	
12672-29-6	AROCLOR-1248	1	0.98	0.98	0.29	U	
11097-69-1	AROCLOR-1254	1	0.98	0.98	0.29	U	
11096-82-5	AROCLOR-1260	1	0.98	0.98	0.29	U	

Surrogate Recovery

CASNO	Surrogate Analyte	Result	Flag	Spike Amount	Percent Recovery	Control Limits
2051-24-3	DECACHLOROBIPHENYL	0.36		0.49	73	14 - 114
877-09-8	TETRACHLORO-M-XYLENE	0.498		0.49	102	72 - 125

Data Package ID: PCB1604316-1

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PCBs

Method SW8082

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604316

Client Name: TI2E Joint Venture

ClientProject ID: R1 Buffalo Nike BU-34/35

Field ID: Silo 3- Deep DUP

Lab ID: 1604316-2

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 14-Apr-16

Date Extracted: 20-Apr-16

Date Analyzed: 22-Apr-16

Prep Method: SW3520 Rev C

Prep Batch: EX160420-8

QCBatchID: EX160420-8-1

Run ID: PT160422-11

Cleanup: SW3665

Basis: As Received

File Name: 16110.dat

Analyst: Dan Sheneman

Sample Aliquot: 980 ml

Final Volume: 10 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
12674-11-2	AROCLOR-1016	1	1	1	0.31	U	
11104-28-2	AROCLOR-1221	1	2	2	0.31	U	
11141-16-5	AROCLOR-1232	1	1	1	0.31	U	
53469-21-9	AROCLOR-1242	1	1	1	0.31	U	
12672-29-6	AROCLOR-1248	1	1	1	0.31	U	
11097-69-1	AROCLOR-1254	1	1	1	0.31	U	
11096-82-5	AROCLOR-1260	1	1	1	0.31	U	

Surrogate Recovery

CASNO	Surrogate Analyte	Result	Flag	Spike Amount	Percent Recovery	Control Limits
2051-24-3	DECACHLOROBIPHENYL	0.392		0.51	77	14 - 114
877-09-8	TETRACHLORO-M-XYLENE	0.537		0.51	105	72 - 125

Data Package ID: PCB1604316-1

Total ICPMS Metals

Method SW6020A

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604316

Client Name: TI2E Joint Venture

ClientProject ID: R1 Buffalo Nike BU-34/35

Field ID: Silo 3-Deep

Lab ID: 1604316-1

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 14-Apr-16

Date Extracted: 21-Apr-16

Date Analyzed: 25-Apr-16

Prep Method: SW3010 Rev A

Prep Batch: IP160421-3

QC Batch ID: IP160421-3-1

Run ID: IM160425-10A7

Cleanup: NONE

Basis: As Received

File Name: 018SMPL_

Analyst: Carly D. Ruble

Sample Aliquot: 50 ml

Final Volume: 50 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
7429-90-5	ALUMINUM	10	11	100	11	U	
7440-36-0	ANTIMONY	10	0.14	1	0.13	J	
7440-38-2	ARSENIC	10	0.68	2	0.16	J	
7440-39-3	BARIUM	10	31	5	0.24		E
7440-41-7	BERYLLIUM	10	0.25	0.5	0.25	U	
7440-43-9	CADMIUM	10	26	2	0.079		
7440-70-2	CALCIUM	10	140000	1000	61		
7440-47-3	CHROMIUM	10	0.88	10	0.88	U	
7440-48-4	COBALT	10	0.079	5	0.079	U	
7440-50-8	COPPER	10	5.3	20	0.9	J	
7439-89-6	IRON	10	110	100	8.6		
7439-92-1	LEAD	10	2.4	2	0.17		
7439-95-4	MAGNESIUM	10	14000	100	18		
7439-96-5	MANGANESE	10	3	5	0.3	J	
7440-02-0	NICKEL	10	4	20	4	U	
7440-09-7	POTASSIUM	10	10000	1000	290		
7782-49-2	SELENIUM	10	0.66	10	0.66	U	
7440-22-4	SILVER	10	0.033	0.5	0.033	U	
7440-23-5	SODIUM	10	2500	1000	160		
7440-28-0	THALLIUM	10	0.014	0.1	0.014	U	
7440-62-2	VANADIUM	10	0.58	5	0.58	U	
7440-66-6	ZINC	10	200	100	8.1		

Data Package ID: im1604316-2

Date Printed: Saturday, April 30, 2016

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LIMS Version: 6.811

Total ICPMS Metals

Method SW6020A

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604316

Client Name: TI2E Joint Venture

ClientProject ID: R1 Buffalo Nike BU-34/35

Field ID: Silo 3- Deep DUP

Lab ID: 1604316-2

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 14-Apr-16

Date Extracted: 21-Apr-16

Date Analyzed: 25-Apr-16

Prep Method: SW3010 Rev A

Prep Batch: IP160421-3

QCBatchID: IP160421-3-1

Run ID: IM160425-10A7

Cleanup: NONE

Basis: As Received

File Name: 023SMPL_

Analyst: Carly D. Ruble

Sample Aliquot: 50 ml

Final Volume: 50 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
7429-90-5	ALUMINUM	10	17	100	11	J	
7440-36-0	ANTIMONY	10	0.16	1	0.13	J	
7440-38-2	ARSENIC	10	0.48	2	0.16	J	
7440-39-3	BARIUM	10	33	5	0.24		
7440-41-7	BERYLLIUM	10	0.25	0.5	0.25	U	
7440-43-9	CADMIUM	10	15	2	0.079		
7440-70-2	CALCIUM	10	140000	1000	61		
7440-47-3	CHROMIUM	10	0.88	10	0.88	U	
7440-48-4	COBALT	10	0.079	5	0.079	U	
7440-50-8	COPPER	10	40	20	0.9		
7439-89-6	IRON	10	96	100	8.6	J	
7439-92-1	LEAD	10	6.6	2	0.17		
7439-95-4	MAGNESIUM	10	14000	100	18		
7439-96-5	MANGANESE	10	2.6	5	0.3	J	
7440-02-0	NICKEL	10	4	20	4	U	
7440-09-7	POTASSIUM	10	9800	1000	290		
7782-49-2	SELENIUM	10	0.96	10	0.66	J	
7440-22-4	SILVER	10	0.033	0.5	0.033	U	
7440-23-5	SODIUM	10	2400	1000	160		
7440-28-0	THALLIUM	10	0.014	0.1	0.014	U	
7440-62-2	VANADIUM	10	0.58	5	0.58	U	
7440-66-6	ZINC	10	240	100	8.1		

Data Package ID: im1604316-2

Date Printed: Saturday, April 30, 2016

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LIMS Version: 6.811

Dissolved Metals by 200.8

Method EPA200.8 Revision 5.4

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604316

Client Name: TI2E Joint Venture

ClientProject ID: R1 Buffalo Nike BU-34/35

Field ID: Silo 3-Deep

Lab ID: 1604316-14

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 14-Apr-16

Date Extracted: 21-Apr-16

Date Analyzed: 22-Apr-16

Prep Method: EPA200.2 Rev 2.2

Prep Batch: IP160421-2

QCBatchID: IP160421-2-3

Run ID: IM160422-10A18

Cleanup: NONE

Basis: As Received

File Name: 054SMPL_

Analyst: Carly D. Ruble

Sample Aliquot: 50 ml

Final Volume: 50 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
7429-90-5	ALUMINUM	10	15	50	14	J	
7440-36-0	ANTIMONY	10	0.14	0.3	0.11	J	
7440-38-2	ARSENIC	10	0.2	2	0.2	U	
7440-39-3	BARIUM	10	35	1	0.16		
7440-41-7	BERYLLIUM	10	0.27	0.5	0.27	U	
7440-43-9	CADMIUM	10	10	0.3	0.088		
7440-70-2	CALCIUM	10	150000	1000	68		
7440-47-3	CHROMIUM	10	0.88	10	0.88	U	
7440-48-4	COBALT	10	0.083	1	0.083	U	
7440-50-8	COPPER	10	4.1	10	1.2	J	
7439-89-6	IRON	10	8.3	100	8.1	J	
7439-92-1	LEAD	10	0.32	0.5	0.17	J	
7439-95-4	MAGNESIUM	10	15000	100	18		
7439-96-5	MANGANESE	10	2.5	2	0.34		
7440-02-0	NICKEL	10	4	5	4	U	
7440-09-7	POTASSIUM	10	11000	1000	290		
7782-49-2	SELENIUM	10	0.66	1	0.66	U	
7440-22-4	SILVER	10	0.041	0.1	0.041	U	
7440-23-5	SODIUM	10	2900	1000	200		
7440-28-0	THALLIUM	10	0.018	0.2	0.018	U	
7440-62-2	VANADIUM	10	0.71	1	0.71	U	
7440-66-6	ZINC	10	200	20	9.8		

Data Package ID: im1604316-1

Date Printed: Saturday, April 30, 2016

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LIMS Version: 6.811

Dissolved Metals by 200.8

Method EPA200.8 Revision 5.4

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604316

Client Name: TI2E Joint Venture

ClientProject ID: R1 Buffalo Nike BU-34/35

Field ID: Silo 3-Deep DUP

Lab ID: 1604316-15

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 14-Apr-16

Date Extracted: 21-Apr-16

Date Analyzed: 30-Apr-16

Prep Method: EPA200.2 Rev 2.2

Prep Batch: IP160421-2

QCBatchID: IP160421-2-3

Run ID: IM160430-11A2

Cleanup: NONE

Basis: As Received

File Name: 003SMPL_

Analyst: Brent A. Stanfield

Sample Aliquot: 50 ml

Final Volume: 50 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
7429-90-5	ALUMINUM	10	14	50	14	U	
7440-36-0	ANTIMONY	10	0.11	0.3	0.11	U	
7440-38-2	ARSENIC	10	0.32	2	0.2	J	
7440-39-3	BARIUM	10	33	1	0.16		E
7440-41-7	BERYLLIUM	10	0.27	0.5	0.27	U	
7440-43-9	CADMIUM	10	8.6	0.3	0.088		E
7440-70-2	CALCIUM	10	140000	1000	68		
7440-47-3	CHROMIUM	10	0.88	10	0.88	U	
7440-48-4	COBALT	10	0.083	1	0.083	U	
7440-50-8	COPPER	10	5	10	1.2	J	
7439-89-6	IRON	10	15	100	8.1	J	
7439-92-1	LEAD	10	0.43	0.5	0.17	J	
7439-95-4	MAGNESIUM	10	14000	100	18		
7439-96-5	MANGANESE	10	2.5	2	0.34		
7440-02-0	NICKEL	10	4	5	4	U	
7440-09-7	POTASSIUM	10	9900	1000	290		
7782-49-2	SELENIUM	10	1.2	1	0.66		
7440-22-4	SILVER	10	0.041	0.1	0.041	U	
7440-23-5	SODIUM	10	2300	1000	200		
7440-28-0	THALLIUM	10	0.018	0.2	0.018	U	
7440-62-2	VANADIUM	10	0.71	1	0.71	U	
7440-66-6	ZINC	10	190	20	9.8		

Data Package ID: im1604316-1

Date Printed: Saturday, April 30, 2016

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LIMS Version: 6.811

Total MERCURY

Method SW7470A

Sample Results

Lab Name: ALS Environmental -- FC
Client Name: TI2E Joint Venture
Client Project ID: R1 Buffalo Nike BU-34/35
Work Order Number: 1604316
Reporting Basis: As Received
Analyst: Nathan A. Quatier

Final Volume: 10 ml
Matrix: WATER
Result Units: MG/L

Client Sample ID	Lab ID	Date Collected	Date Prepared	Date Analyzed	Percent Moisture	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Flag	Sample Aliquot
Silo 3-Deep	1604316-1	4/14/2016	4/20/2016	04/21/2016	N/A	1	0.00006	0.0002	0.00006	U	10 ml
Silo 3- Deep DUP	1604316-2	4/14/2016	4/20/2016	04/21/2016	N/A	1	0.00006	0.0002	0.00006	U	10 ml
Silo 3-SW	1604316-3	4/14/2016	4/20/2016	04/21/2016	N/A	1	0.00006	0.0002	0.00006	U	10 ml
Silo 2-SW	1604316-4	4/14/2016	4/20/2016	04/21/2016	N/A	1	0.00006	0.0002	0.00006	U	10 ml
Silo 2-Deep	1604316-5	4/14/2016	4/20/2016	04/21/2016	N/A	1	0.00006	0.0002	0.00006	U	10 ml
Silo 5-SW	1604316-6	4/14/2016	4/20/2016	04/21/2016	N/A	1	0.00006	0.0002	0.00006	U	10 ml
Silo 5-Deep	1604316-7	4/14/2016	4/20/2016	04/21/2016	N/A	1	0.00006	0.0002	0.00006	U	10 ml
Silo 4-SW	1604316-9	4/15/2016	4/20/2016	04/21/2016	N/A	1	0.00006	0.0002	0.00006	U	10 ml
Silo 4-Deep	1604316-10	4/15/2016	4/20/2016	04/21/2016	N/A	1	0.00006	0.0002	0.00006	U	10 ml
Silo 1-SW	1604316-11	4/15/2016	4/20/2016	04/21/2016	N/A	1	0.00006	0.0002	0.00006	U	10 ml
Silo 1-Deep	1604316-12	4/15/2016	4/20/2016	04/21/2016	N/A	1	0.00006	0.0002	0.00006	U	10 ml

Comments:

1. ND or U = Not Detected at or above the client requested detection limit.

Data Package ID: *hg1604316-1*

TOTAL ORGANIC CARBON

Method EPA415.1

Sample Results

Lab Name: ALS Environmental -- FC
Client Name: TI2E Joint Venture
Client Project ID: R1 Buffalo Nike BU-34/35
Work Order Number: 1604316
Reporting Basis: As Received
Analyst: Steven D. White

Final Volume: 40 ml
Matrix: WATER
Result Units: MG/L

Client Sample ID	Lab ID	Date Collected	Date Prepared	Date Analyzed	Percent Moisture	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Flag	Sample Aliquot
Silo 3-Deep	1604316-1	4/14/2016	4/22/2016	04/22/2016	N/A	1	2.8	1	0.3		40 ml
Silo 3- Deep DUP	1604316-2	4/14/2016	4/22/2016	04/22/2016	N/A	1	2.8	1	0.3		40 ml
Silo 3-SW	1604316-3	4/14/2016	4/22/2016	04/22/2016	N/A	1	2.4	1	0.3		40 ml
Silo 2-SW	1604316-4	4/14/2016	4/22/2016	04/22/2016	N/A	1	2.5	1	0.3		40 ml
Silo 2-Deep	1604316-5	4/14/2016	4/22/2016	04/22/2016	N/A	1	2.5	1	0.3		40 ml
Silo 5-SW	1604316-6	4/14/2016	4/22/2016	04/22/2016	N/A	1	1.7	1	0.3		40 ml
Silo 5-Deep	1604316-7	4/14/2016	4/22/2016	04/22/2016	N/A	1	1.7	1	0.3		40 ml
Silo 4-SW	1604316-9	4/15/2016	4/22/2016	04/22/2016	N/A	1	1.9	1	0.3		40 ml
Silo 4-Deep	1604316-10	4/15/2016	4/22/2016	04/22/2016	N/A	1	2.9	1	0.3		40 ml
Silo 1-SW	1604316-11	4/15/2016	4/22/2016	04/22/2016	N/A	1	2.5	1	0.3		40 ml
Silo 1-Deep	1604316-12	4/15/2016	4/22/2016	04/22/2016	N/A	1	3.4	1	0.3		40 ml

Comments:

1. ND or U = Not Detected at or above the client requested detection limit.

Data Package ID: *MO1604316-1*

Silo 4 Shallow Sample

GC/MS Volatiles

Method SW8260_25C

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604316

Client Name: TI2E Joint Venture

ClientProject ID: R1 Buffalo Nike BU-34/35

Field ID: Silo 4-SW

Lab ID: 1604316-9

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 15-Apr-16

Date Extracted: 22-Apr-16

Date Analyzed: 22-Apr-16

Prep Method: SW5030 Rev C

Prep Batch: VL160422-3

QCBatchID: VL160422-3-1

Run ID: VL160422-3A

Cleanup: NONE

Basis: As Received

File Name: C67990

Analyst: Joe Kostelnik

Sample Aliquot: 10 ml

Final Volume: 10 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
75-71-8	DICHLORODIFLUOROMETHANE	1	1	1	0.3	U	
74-87-3	CHLOROMETHANE	1	1	1	0.3	U	
75-01-4	VINYL CHLORIDE	1	1	1	0.3	U	
74-83-9	BROMOMETHANE	1	1	1	0.3	U	
75-00-3	CHLOROETHANE	1	1	1	0.3	U	
75-69-4	TRICHLOROFLUOROMETHANE	1	1	1	0.3	U	
75-35-4	1,1-DICHLOROETHENE	1	1	1	0.3	U	
76-13-1	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETH	1	1	1	0.3	U	
67-64-1	ACETONE	1	10	10	3	U	
74-88-4	IODOMETHANE	1	1	1	0.38	U	
75-15-0	CARBON DISULFIDE	1	1	1	0.3	U	
75-09-2	METHYLENE CHLORIDE	1	1	1	0.44	U	
156-60-5	TRANS-1,2-DICHLOROETHENE	1	1	1	0.3	U	
1634-04-4	METHYL TERTIARY BUTYL ETHER	1	1	1	0.3	U	
75-34-3	1,1-DICHLOROETHANE	1	1	1	0.3	U	
108-05-4	VINYL ACETATE	1	2	2	0.3	U	
156-59-2	CIS-1,2-DICHLOROETHENE	1	1	1	0.3	U	
78-93-3	2-BUTANONE	1	10	10	3	U	
74-97-5	BROMOCHLOROMETHANE	1	1	1	0.3	U	
67-66-3	CHLOROFORM	1	1	1	0.3	U	
71-55-6	1,1,1-TRICHLOROETHANE	1	1	1	0.3	U	
594-20-7	2,2-DICHLOROPROPANE	1	1	1	0.3	U	
56-23-5	CARBON TETRACHLORIDE	1	1	1	0.3	U	
563-58-6	1,1-DICHLOROPROPENE	1	1	1	0.3	U	
107-06-2	1,2-DICHLOROETHANE	1	1	1	0.3	U	
71-43-2	BENZENE	1	1	1	0.3	U	

Data Package ID: VL1604316-1

GC/MS Volatiles

Method SW8260_25C

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604316

Client Name: TI2E Joint Venture

ClientProject ID: R1 Buffalo Nike BU-34/35

Field ID: Silo 4-SW

Lab ID: 1604316-9

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 15-Apr-16

Date Extracted: 22-Apr-16

Date Analyzed: 22-Apr-16

Prep Method: SW5030 Rev C

Prep Batch: VL160422-3

QCBatchID: VL160422-3-1

Run ID: VL160422-3A

Cleanup: NONE

Basis: As Received

File Name: C67990

Analyst: Joe Kostelnik

Sample Aliquot: 10 ml

Final Volume: 10 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
79-01-6	TRICHLOROETHENE	1	1	1	0.3	U	
78-87-5	1,2-DICHLOROPROPANE	1	1	1	0.3	U	
74-95-3	DIBROMOMETHANE	1	1	1	0.3	U	
75-27-4	BROMODICHLOROMETHANE	1	1	1	0.3	U	
10061-01-5	CIS-1,3-DICHLOROPROPENE	1	1	1	0.3	U	
108-10-1	4-METHYL-2-PENTANONE	1	10	10	3	U	
108-88-3	TOLUENE	1	1	1	0.3	U	
10061-02-6	TRANS-1,3-DICHLOROPROPENE	1	1	1	0.3	U	
79-00-5	1,1,2-TRICHLOROETHANE	1	1	1	0.3	U	
591-78-6	2-HEXANONE	1	10	10	3	U	
127-18-4	TETRACHLOROETHENE	1	1	1	0.2	U	
142-28-9	1,3-DICHLOROPROPANE	1	1	1	0.3	U	
124-48-1	DIBROMOCHLOROMETHANE	1	1	1	0.3	U	
106-93-4	1,2-DIBROMOETHANE	1	1	1	0.3	U	
544-10-5	1-CHLOROHEXANE	1	1	1	0.3	U	
108-90-7	CHLOROBENZENE	1	1	1	0.3	U	
630-20-6	1,1,1,2-TETRACHLOROETHANE	1	1	1	0.3	U	
100-41-4	ETHYLBENZENE	1	1	1	0.3	U	
136777-61-2	M+P-XYLENE	1	1	1	0.3	U	
95-47-6	O-XYLENE	1	1	1	0.3	U	
100-42-5	STYRENE	1	1	1	0.3	U	
75-25-2	BROMOFORM	1	1	1	0.3	U	
98-82-8	ISOPROPYLBENZENE	1	1	1	0.3	U	
96-18-4	1,2,3-TRICHLOROPROPANE	1	1	1	0.3	U	
79-34-5	1,1,2,2-TETRACHLOROETHANE	1	1	1	0.3	U	
108-86-1	BROMOBENZENE	1	1	1	0.3	U	

Data Package ID: VL1604316-1

GC/MS Volatiles

Method SW8260_25C

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604316

Client Name: TI2E Joint Venture

ClientProject ID: R1 Buffalo Nike BU-34/35

Field ID: Silo 4-SW

Lab ID: 1604316-9

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 15-Apr-16

Date Extracted: 22-Apr-16

Date Analyzed: 22-Apr-16

Prep Method: SW5030 Rev C

Prep Batch: VL160422-3

QC Batch ID: VL160422-3-1

Run ID: VL160422-3A

Cleanup: NONE

Basis: As Received

File Name: C67990

Analyst: Joe Kostelnik

Sample Aliquot: 10 ml

Final Volume: 10 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
103-65-1	N-PROPYLBENZENE	1	1	1	0.3	U	
95-49-8	2-CHLOROTOLUENE	1	1	1	0.3	U	
108-67-8	1,3,5-TRIMETHYLBENZENE	1	1	1	0.3	U	
106-43-4	4-CHLOROTOLUENE	1	1	1	0.3	U	
98-06-6	TERT-BUTYLBENZENE	1	1	1	0.3	U	
95-63-6	1,2,4-TRIMETHYLBENZENE	1	1	1	0.3	U	
135-98-8	SEC-BUTYLBENZENE	1	1	1	0.3	U	
541-73-1	1,3-DICHLOROBENZENE	1	1	1	0.3	U	
99-87-6	P-ISOPROPYLTOLUENE	1	1	1	0.3	U	
106-46-7	1,4-DICHLOROBENZENE	1	1	1	0.3	U	
104-51-8	N-BUTYLBENZENE	1	1	1	0.3	U	
95-50-1	1,2-DICHLOROBENZENE	1	1	1	0.3	U	
96-12-8	1,2-DIBROMO-3-CHLOROPROPANE	1	2	2	0.4	U	
120-82-1	1,2,4-TRICHLOROBENZENE	1	1	1	0.3	U	
87-68-3	HEXACHLOROBUTADIENE	1	1	1	0.3	U	
91-20-3	NAPHTHALENE	1	1	1	0.3	U	
87-61-6	1,2,3-TRICHLOROBENZENE	1	1	1	0.3	U	

Data Package ID: VL1604316-1

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GC/MS Volatiles

Method SW8260_25C

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604316

Client Name: TI2E Joint Venture

ClientProject ID: R1 Buffalo Nike BU-34/35

Field ID:	Silo 4-SW
Lab ID:	1604316-9

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 15-Apr-16

Date Extracted: 22-Apr-16

Date Analyzed: 22-Apr-16

Prep Method: SW5030 Rev C

Prep Batch: VL160422-3

QCBatchID: VL160422-3-1

Run ID: VL160422-3A

Cleanup: NONE

Basis: As Received

File Name: C67990

Analyst: Joe Kostelnik

Sample Aliquot: 10 ml

Final Volume: 10 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier

Surrogate Recovery

CASNO	Surrogate Analyte	Result	Flag	Spike Amount	Percent Recovery	Control Limits
460-00-4	4-BROMOFLUOROBENZENE	24.9		25	100	85 - 115
1868-53-7	DIBROMOFLUOROMETHANE	25.4		25	102	84 - 118
2037-26-5	TOLUENE-D8	25.8		25	103	85 - 115

Data Package ID: VL1604316-1

Date Printed: Wednesday, April 27, 2016

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GC/MS Semi-volatiles

Method SW8270D

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604316

Client Name: TI2E Joint Venture

ClientProject ID: R1 Buffalo Nike BU-34/35

Field ID: Silo 4-SW

Lab ID: 1604316-9

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 15-Apr-16

Date Extracted: 20-Apr-16

Date Analyzed: 25-Apr-16

Prep Method: SW3520 Rev C

Prep Batch: EX160420-1

QCBatchID: EX160420-1-1

Run ID: SV160425-3

Cleanup: NONE

Basis: As Received

File Name: R6508

Analyst: Tyler Knaebel

Sample Aliquot: 970 ml

Final Volume: 1 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
110-86-1	PYRIDINE	1	10	10	4	U	
62-75-9	N-NITROSODIMETHYLAMINE	1	10	10	3.1	U	
62-53-3	ANILINE	1	10	10	3.2	U	
108-95-2	PHENOL	1	10	10	3.1	U	
111-44-4	BIS(2-CHLOROETHYL)ETHER	1	10	10	3.1	U	
95-57-8	2-CHLOROPHENOL	1	10	10	3.1	U	
541-73-1	1,3-DICHLOROBENZENE	1	10	10	3.1	U	
106-46-7	1,4-DICHLOROBENZENE	1	10	10	3.1	U	
95-50-1	1,2-DICHLOROBENZENE	1	10	10	3.1	U	
100-51-6	BENZYL ALCOHOL	1	10	10	3.1	U	
108-60-1	BIS(2-CHLOROISOPROPYL)ETHER	1	10	10	3.1	U	
95-48-7	2-METHYLPHENOL	1	10	10	3.1	U	
621-64-7	N-NITROSO-DI-N-PROPYLAMINE	1	10	10	3.1	U	
108-39-4	3+4-METHYLPHENOL	1	10	10	3.1	U	
67-72-1	HEXACHLOROETHANE	1	10	10	3.1	U	
98-95-3	NITROBENZENE	1	10	10	3.1	U	
78-59-1	ISOPHORONE	1	10	10	3.1	U	
88-75-5	2-NITROPHENOL	1	10	10	3.1	U	
105-67-9	2,4-DIMETHYLPHENOL	1	10	10	3.1	U	
111-91-1	BIS(2-CHLOROETHOXY)METHANE	1	10	10	3.1	U	
120-83-2	2,4-DICHLOROPHENOL	1	10	10	3.1	U	
65-85-0	BENZOIC ACID	1	52	52	20	U	
120-82-1	1,2,4-TRICHLOROBENZENE	1	10	10	3.1	U	
91-20-3	NAPHTHALENE	1	10	10	3.1	U	
106-47-8	4-CHLOROANILINE	1	10	10	5.6	U	
87-68-3	HEXACHLOROBUTADIENE	1	10	10	3.1	U	

Data Package ID: SV1604316-1

GC/MS Semi-volatiles

Method SW8270D

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604316

Client Name: TI2E Joint Venture

ClientProject ID: R1 Buffalo Nike BU-34/35

Field ID: Silo 4-SW

Lab ID: 1604316-9

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 15-Apr-16

Date Extracted: 20-Apr-16

Date Analyzed: 25-Apr-16

Prep Method: SW3520 Rev C

Prep Batch: EX160420-1

QCBatchID: EX160420-1-1

Run ID: SV160425-3

Cleanup: NONE

Basis: As Received

File Name: R6508

Analyst: Tyler Knaebel

Sample Aliquot: 970 ml

Final Volume: 1 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
59-50-7	4-CHLORO-3-METHYLPHENOL	1	10	10	3.1	U	
91-57-6	2-METHYLNAPHTHALENE	1	10	10	3.1	U	
90-12-0	1-METHYLNAPHTHALENE	1	10	10	3.1	U	
77-47-4	HEXACHLOROCYCLOPENTADIENE	1	10	10	5.3	U	
88-06-2	2,4,6-TRICHLOROPHENOL	1	10	10	3.1	U	
95-95-4	2,4,5-TRICHLOROPHENOL	1	10	10	3.1	U	
91-58-7	2-CHLORONAPHTHALENE	1	10	10	3.1	U	
88-74-4	2-NITROANILINE	1	21	21	3.1	U	
131-11-3	DIMETHYL PHTHALATE	1	10	10	3.1	U	
606-20-2	2,6-DINITROTOLUENE	1	10	10	3.1	U	
208-96-8	ACENAPHTHYLENE	1	10	10	3.1	U	
99-09-2	3-NITROANILINE	1	21	21	4.1	U	
83-32-9	ACENAPHTHENE	1	10	10	3.1	U	
51-28-5	2,4-DINITROPHENOL	1	21	21	3.1	U	
100-02-7	4-NITROPHENOL	1	21	21	3.7	U	
132-64-9	DIBENZOFURAN	1	10	10	3.1	U	
121-14-2	2,4-DINITROTOLUENE	1	10	10	3.1	U	
84-66-2	DIETHYL PHTHALATE	1	10	10	3.1	U	
86-73-7	FLUORENE	1	10	10	3.1	U	
7005-72-3	4-CHLOROPHENYL PHENYL ETHER	1	10	10	3.1	U	
100-01-6	4-NITROANILINE	1	21	21	3.3	U	
103-33-3	AZOBENZENE	1	10	10	3.1	U	
534-52-1	4,6-DINITRO-2-METHYLPHENOL	1	21	21	3.7	U	
86-30-6	N-NITROSODIPHENYLAMINE	1	10	10	3.1	U	
101-55-3	4-BROMOPHENYL PHENYL ETHER	1	10	10	3.1	U	
118-74-1	HEXACHLOROBENZENE	1	10	10	3.1	U	

Data Package ID: SV1604316-1

GC/MS Semi-volatiles

Method SW8270D

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604316

Client Name: TI2E Joint Venture

ClientProject ID: R1 Buffalo Nike BU-34/35

Field ID: Silo 4-SW

Lab ID: 1604316-9

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 15-Apr-16

Date Extracted: 20-Apr-16

Date Analyzed: 25-Apr-16

Prep Method: SW3520 Rev C

Prep Batch: EX160420-1

QCBatchID: EX160420-1-1

Run ID: SV160425-3

Cleanup: NONE

Basis: As Received

File Name: R6508

Analyst: Tyler Knaebel

Sample Aliquot: 970 ml

Final Volume: 1 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
58-90-2	2,3,4,6-TETRACHLOROPHENOL	1	10	10	3.9	U	
87-86-5	PENTACHLOROPHENOL	1	21	21	4.3	U	
85-01-8	PHENANTHRENE	1	10	10	3.1	U	
120-12-7	ANTHRACENE	1	10	10	3.1	U	
86-74-8	CARBAZOLE	1	10	10	3.1	U	
84-74-2	DI-N-BUTYL PHTHALATE	1	10	10	3.1	U	
206-44-0	FLUORANTHENE	1	10	10	3.1	U	
129-00-0	PYRENE	1	10	10	3.1	U	
85-68-7	BUTYL BENZYL PHTHALATE	1	10	10	3.1	U	
56-55-3	BENZO(A)ANTHRACENE	1	10	10	3.1	U	
91-94-1	3,3'-DICHLOROBENZIDINE	1	10	10	6.5	U	
218-01-9	CHRYSENE	1	10	10	3.1	U	
117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	1	23	10	3.1		
117-84-0	DI-N-OCTYL PHTHALATE	1	10	10	3.1	U	
205-99-2	BENZO(B)FLUORANTHENE	1	10	10	3.1	U	
207-08-9	BENZO(K)FLUORANTHENE	1	10	10	3.1	U	
50-32-8	BENZO(A)PYRENE	1	10	10	3.1	U	
193-39-5	INDENO(1,2,3-CD)PYRENE	1	10	10	3.1	U	
53-70-3	DIBENZO(A,H)ANTHRACENE	1	10	10	3.1	U	
191-24-2	BENZO(G,H,I)PERYLENE	1	10	10	3.1	U	

Data Package ID: SV1604316-1

Date Printed: Wednesday, April 27, 2016

ALS Environmental -- FC

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GC/MS Semi-volatiles

Method SW8270D

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604316

Client Name: TI2E Joint Venture

ClientProject ID: R1 Buffalo Nike BU-34/35

Field ID:	Silo 4-SW
Lab ID:	1604316-9

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 15-Apr-16

Date Extracted: 20-Apr-16

Date Analyzed: 25-Apr-16

Prep Method: SW3520 Rev C

Prep Batch: EX160420-1

QC Batch ID: EX160420-1-1

Run ID: SV160425-3

Cleanup: NONE

Basis: As Received

File Name: R6508

Analyst: Tyler Knaebel

Sample Aliquot: 970 ml

Final Volume: 1 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier

Surrogate Recovery

CASNO	Surrogate Analyte	Result	Flag	Spike Amount	Percent Recovery	Control Limits
118-79-6	2,4,6-TRIBROMOPHENOL	74.8		77.3	97	42 - 117
321-60-8	2-FLUOROBIPHENYL	39.8		51.5	77	55 - 108
367-12-4	2-FLUOROPHENOL	63.4		77.3	82	46 - 105
4165-60-0	NITROBENZENE-D5	45.7		51.5	89	53 - 111
4165-62-2	PHENOL-D5	67.1		77.3	87	50 - 109
1718-51-0	TERPHENYL-D14	48.1		51.5	93	34 - 139

Data Package ID: SV1604316-1

PCBs

Method SW8082

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604316

Client Name: TI2E Joint Venture

ClientProject ID: R1 Buffalo Nike BU-34/35

Field ID: Silo 4-SW

Lab ID: 1604316-9

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 15-Apr-16

Date Extracted: 20-Apr-16

Date Analyzed: 22-Apr-16

Prep Method: SW3520 Rev C

Prep Batch: EX160420-8

QCBatchID: EX160420-8-1

Run ID: PT160422-11

Cleanup: SW3665

Basis: As Received

File Name: 16119.dat

Analyst: Dan Sheneman

Sample Aliquot: 990 ml

Final Volume: 10 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
12674-11-2	AROCLOR-1016	1	1	1	0.3	U	
11104-28-2	AROCLOR-1221	1	2	2	0.3	U	
11141-16-5	AROCLOR-1232	1	1	1	0.3	U	
53469-21-9	AROCLOR-1242	1	1	1	0.3	U	
12672-29-6	AROCLOR-1248	1	1	1	0.3	U	
11097-69-1	AROCLOR-1254	1	1	1	0.3	U	
11096-82-5	AROCLOR-1260	1	1	1	0.3	U	

Surrogate Recovery

CASNO	Surrogate Analyte	Result	Flag	Spike Amount	Percent Recovery	Control Limits
2051-24-3	DECACHLOROBIPHENYL	0.366		0.505	73	14 - 114
877-09-8	TETRACHLORO-M-XYLENE	0.474		0.505	94	72 - 125

Data Package ID: PCB1604316-1

Total ICPMS Metals

Method SW6020A

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604316

Client Name: TI2E Joint Venture

ClientProject ID: R1 Buffalo Nike BU-34/35

Field ID: Silo 4-SW

Lab ID: 1604316-9

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 15-Apr-16

Date Extracted: 21-Apr-16

Date Analyzed: 25-Apr-16

Prep Method: SW3010 Rev A

Prep Batch: IP160421-3

QCBatchID: IP160421-3-1

Run ID: IM160425-10A7

Cleanup: NONE

Basis: As Received

File Name: 032SMPL_

Analyst: Carly D. Ruble

Sample Aliquot: 50 ml

Final Volume: 50 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
7429-90-5	ALUMINUM	10	150	100	11		
7440-36-0	ANTIMONY	10	0.13	1	0.13	U	
7440-38-2	ARSENIC	10	0.32	2	0.16	J	
7440-39-3	BARIUM	10	39	5	0.24		
7440-41-7	BERYLLIUM	10	0.25	0.5	0.25	U	
7440-43-9	CADMIUM	10	0.079	2	0.079	U	
7440-70-2	CALCIUM	10	60000	1000	61		
7440-47-3	CHROMIUM	10	0.88	10	0.88	U	
7440-48-4	COBALT	10	0.13	5	0.079	J	
7440-50-8	COPPER	10	0.9	20	0.9	U	
7439-89-6	IRON	10	510	100	8.6		
7439-92-1	LEAD	10	11	2	0.17		
7439-95-4	MAGNESIUM	10	9900	100	18		
7439-96-5	MANGANESE	10	31	5	0.3		
7440-02-0	NICKEL	10	4	20	4	U	
7440-09-7	POTASSIUM	10	25000	1000	290		
7782-49-2	SELENIUM	10	0.66	10	0.66	U	
7440-22-4	SILVER	10	0.033	0.5	0.033	U	
7440-23-5	SODIUM	10	5600	1000	160		
7440-28-0	THALLIUM	10	0.014	0.1	0.014	U	
7440-62-2	VANADIUM	10	0.58	5	0.58	U	
7440-66-6	ZINC	10	20	100	8.1	J	

Data Package ID: im1604316-2

Date Printed: Saturday, April 30, 2016

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Dissolved Metals by 200.8

Method EPA200.8 Revision 5.4

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604316

Client Name: TI2E Joint Venture

ClientProject ID: R1 Buffalo Nike BU-34/35

Field ID: Silo 4-SW

Lab ID: 1604316-21

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 15-Apr-16

Date Extracted: 21-Apr-16

Date Analyzed: 22-Apr-16

Prep Method: EPA200.2 Rev 2.2

Prep Batch: IP160421-2

QCBatchID: IP160421-2-3

Run ID: IM160422-10A18

Cleanup: NONE

Basis: As Received

File Name: 073SMPL_

Analyst: Carly D. Ruble

Sample Aliquot: 50 ml

Final Volume: 50 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
7429-90-5	ALUMINUM	10	190	50	14		
7440-36-0	ANTIMONY	10	0.72	0.3	0.11		
7440-38-2	ARSENIC	10	0.2	2	0.2	U	
7440-39-3	BARIUM	10	42	1	0.16		
7440-41-7	BERYLLIUM	10	0.27	0.5	0.27	U	
7440-43-9	CADMIUM	10	0.088	0.3	0.088	U	
7440-70-2	CALCIUM	10	64000	1000	68		
7440-47-3	CHROMIUM	10	0.88	10	0.88	U	
7440-48-4	COBALT	10	0.083	1	0.083	U	
7440-50-8	COPPER	10	1.2	10	1.2	U	
7439-89-6	IRON	10	8.1	100	8.1	U	
7439-92-1	LEAD	10	0.17	0.5	0.17	U	
7439-95-4	MAGNESIUM	10	11000	100	18		
7439-96-5	MANGANESE	10	20	2	0.34		
7440-02-0	NICKEL	10	4	5	4	U	
7440-09-7	POTASSIUM	10	28000	1000	290		
7782-49-2	SELENIUM	10	0.66	1	0.66	U	
7440-22-4	SILVER	10	0.041	0.1	0.041	U	
7440-23-5	SODIUM	10	6000	1000	200		
7440-28-0	THALLIUM	10	0.018	0.2	0.018	U	
7440-62-2	VANADIUM	10	0.71	1	0.71	U	
7440-66-6	ZINC	10	11	20	9.8	J	

Data Package ID: im1604316-1

Date Printed: Saturday, April 30, 2016

ALS Environmental -- FC

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LIMS Version: 6.811

Total MERCURY

Method SW7470A

Sample Results

Lab Name: ALS Environmental -- FC
Client Name: TI2E Joint Venture
Client Project ID: R1 Buffalo Nike BU-34/35
Work Order Number: 1604316
Reporting Basis: As Received
Analyst: Nathan A. Quatier

Final Volume: 10 ml
Matrix: WATER
Result Units: MG/L

Client Sample ID	Lab ID	Date Collected	Date Prepared	Date Analyzed	Percent Moisture	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Flag	Sample Aliquot
Silo 3-Deep	1604316-1	4/14/2016	4/20/2016	04/21/2016	N/A	1	0.00006	0.0002	0.00006	U	10 ml
Silo 3- Deep DUP	1604316-2	4/14/2016	4/20/2016	04/21/2016	N/A	1	0.00006	0.0002	0.00006	U	10 ml
Silo 3-SW	1604316-3	4/14/2016	4/20/2016	04/21/2016	N/A	1	0.00006	0.0002	0.00006	U	10 ml
Silo 2-SW	1604316-4	4/14/2016	4/20/2016	04/21/2016	N/A	1	0.00006	0.0002	0.00006	U	10 ml
Silo 2-Deep	1604316-5	4/14/2016	4/20/2016	04/21/2016	N/A	1	0.00006	0.0002	0.00006	U	10 ml
Silo 5-SW	1604316-6	4/14/2016	4/20/2016	04/21/2016	N/A	1	0.00006	0.0002	0.00006	U	10 ml
Silo 5-Deep	1604316-7	4/14/2016	4/20/2016	04/21/2016	N/A	1	0.00006	0.0002	0.00006	U	10 ml
Silo 4-SW	1604316-9	4/15/2016	4/20/2016	04/21/2016	N/A	1	0.00006	0.0002	0.00006	U	10 ml
Silo 4-Deep	1604316-10	4/15/2016	4/20/2016	04/21/2016	N/A	1	0.00006	0.0002	0.00006	U	10 ml
Silo 1-SW	1604316-11	4/15/2016	4/20/2016	04/21/2016	N/A	1	0.00006	0.0002	0.00006	U	10 ml
Silo 1-Deep	1604316-12	4/15/2016	4/20/2016	04/21/2016	N/A	1	0.00006	0.0002	0.00006	U	10 ml

Comments:

1. ND or U = Not Detected at or above the client requested detection limit.

Data Package ID: *hg1604316-1*

TOTAL ORGANIC CARBON

Method EPA415.1

Sample Results

Lab Name: ALS Environmental -- FC
Client Name: TI2E Joint Venture
Client Project ID: R1 Buffalo Nike BU-34/35
Work Order Number: 1604316
Reporting Basis: As Received
Analyst: Steven D. White

Final Volume: 40 ml
Matrix: WATER
Result Units: MG/L

Client Sample ID	Lab ID	Date Collected	Date Prepared	Date Analyzed	Percent Moisture	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Flag	Sample Aliquot
Silo 3-Deep	1604316-1	4/14/2016	4/22/2016	04/22/2016	N/A	1	2.8	1	0.3		40 ml
Silo 3- Deep DUP	1604316-2	4/14/2016	4/22/2016	04/22/2016	N/A	1	2.8	1	0.3		40 ml
Silo 3-SW	1604316-3	4/14/2016	4/22/2016	04/22/2016	N/A	1	2.4	1	0.3		40 ml
Silo 2-SW	1604316-4	4/14/2016	4/22/2016	04/22/2016	N/A	1	2.5	1	0.3		40 ml
Silo 2-Deep	1604316-5	4/14/2016	4/22/2016	04/22/2016	N/A	1	2.5	1	0.3		40 ml
Silo 5-SW	1604316-6	4/14/2016	4/22/2016	04/22/2016	N/A	1	1.7	1	0.3		40 ml
Silo 5-Deep	1604316-7	4/14/2016	4/22/2016	04/22/2016	N/A	1	1.7	1	0.3		40 ml
Silo 4-SW	1604316-9	4/15/2016	4/22/2016	04/22/2016	N/A	1	1.9	1	0.3		40 ml
Silo 4-Deep	1604316-10	4/15/2016	4/22/2016	04/22/2016	N/A	1	2.9	1	0.3		40 ml
Silo 1-SW	1604316-11	4/15/2016	4/22/2016	04/22/2016	N/A	1	2.5	1	0.3		40 ml
Silo 1-Deep	1604316-12	4/15/2016	4/22/2016	04/22/2016	N/A	1	3.4	1	0.3		40 ml

Comments:

1. ND or U = Not Detected at or above the client requested detection limit.

Data Package ID: *MO1604316-1*

Silo 4 Deep Sample

GC/MS Volatiles

Method SW8260_25C

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604316

Client Name: TI2E Joint Venture

ClientProject ID: R1 Buffalo Nike BU-34/35

Field ID: Silo 4-Deep

Lab ID: 1604316-10

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 15-Apr-16

Date Extracted: 22-Apr-16

Date Analyzed: 22-Apr-16

Prep Method: SW5030 Rev C

Prep Batch: VL160422-3

QCBatchID: VL160422-3-1

Run ID: VL160422-3A

Cleanup: NONE

Basis: As Received

File Name: C67991

Analyst: Joe Kostelnik

Sample Aliquot: 10 ml

Final Volume: 10 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
75-71-8	DICHLORODIFLUOROMETHANE	1	1	1	0.3	U	
74-87-3	CHLOROMETHANE	1	1	1	0.3	U	
75-01-4	VINYL CHLORIDE	1	1	1	0.3	U	
74-83-9	BROMOMETHANE	1	1	1	0.3	U	
75-00-3	CHLOROETHANE	1	1	1	0.3	U	
75-69-4	TRICHLOROFLUOROMETHANE	1	1	1	0.3	U	
75-35-4	1,1-DICHLOROETHENE	1	1	1	0.3	U	
76-13-1	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETH	1	1	1	0.3	U	
67-64-1	ACETONE	1	10	10	3	U	
74-88-4	IODOMETHANE	1	1	1	0.38	U	
75-15-0	CARBON DISULFIDE	1	1	1	0.3	U	
75-09-2	METHYLENE CHLORIDE	1	1	1	0.44	U	
156-60-5	TRANS-1,2-DICHLOROETHENE	1	1	1	0.3	U	
1634-04-4	METHYL TERTIARY BUTYL ETHER	1	1	1	0.3	U	
75-34-3	1,1-DICHLOROETHANE	1	1	1	0.3	U	
108-05-4	VINYL ACETATE	1	2	2	0.3	U	
156-59-2	CIS-1,2-DICHLOROETHENE	1	1	1	0.3	U	
78-93-3	2-BUTANONE	1	10	10	3	U	
74-97-5	BROMOCHLOROMETHANE	1	1	1	0.3	U	
67-66-3	CHLOROFORM	1	1	1	0.3	U	
71-55-6	1,1,1-TRICHLOROETHANE	1	1	1	0.3	U	
594-20-7	2,2-DICHLOROPROPANE	1	1	1	0.3	U	
56-23-5	CARBON TETRACHLORIDE	1	1	1	0.3	U	
563-58-6	1,1-DICHLOROPROPENE	1	1	1	0.3	U	
107-06-2	1,2-DICHLOROETHANE	1	1	1	0.3	U	
71-43-2	BENZENE	1	1	1	0.3	U	

Data Package ID: VL1604316-1

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GC/MS Volatiles

Method SW8260_25C

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604316

Client Name: TI2E Joint Venture

ClientProject ID: R1 Buffalo Nike BU-34/35

Field ID: Silo 4-Deep

Lab ID: 1604316-10

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 15-Apr-16

Date Extracted: 22-Apr-16

Date Analyzed: 22-Apr-16

Prep Method: SW5030 Rev C

Prep Batch: VL160422-3

QCBatchID: VL160422-3-1

Run ID: VL160422-3A

Cleanup: NONE

Basis: As Received

File Name: C67991

Analyst: Joe Kostelnik

Sample Aliquot: 10 ml

Final Volume: 10 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
79-01-6	TRICHLOROETHENE	1	1	1	0.3	U	
78-87-5	1,2-DICHLOROPROPANE	1	1	1	0.3	U	
74-95-3	DIBROMOMETHANE	1	1	1	0.3	U	
75-27-4	BROMODICHLOROMETHANE	1	1	1	0.3	U	
10061-01-5	CIS-1,3-DICHLOROPROPENE	1	1	1	0.3	U	
108-10-1	4-METHYL-2-PENTANONE	1	10	10	3	U	
108-88-3	TOLUENE	1	1	1	0.3	U	
10061-02-6	TRANS-1,3-DICHLOROPROPENE	1	1	1	0.3	U	
79-00-5	1,1,2-TRICHLOROETHANE	1	1	1	0.3	U	
591-78-6	2-HEXANONE	1	10	10	3	U	
127-18-4	TETRACHLOROETHENE	1	1	1	0.2	U	
142-28-9	1,3-DICHLOROPROPANE	1	1	1	0.3	U	
124-48-1	DIBROMOCHLOROMETHANE	1	1	1	0.3	U	
106-93-4	1,2-DIBROMOETHANE	1	1	1	0.3	U	
544-10-5	1-CHLOROHEXANE	1	1	1	0.3	U	
108-90-7	CHLOROBENZENE	1	1	1	0.3	U	
630-20-6	1,1,1,2-TETRACHLOROETHANE	1	1	1	0.3	U	
100-41-4	ETHYLBENZENE	1	1	1	0.3	U	
136777-61-2	M+P-XYLENE	1	1	1	0.3	U	
95-47-6	O-XYLENE	1	1	1	0.3	U	
100-42-5	STYRENE	1	1	1	0.3	U	
75-25-2	BROMOFORM	1	1	1	0.3	U	
98-82-8	ISOPROPYLBENZENE	1	1	1	0.3	U	
96-18-4	1,2,3-TRICHLOROPROPANE	1	1	1	0.3	U	
79-34-5	1,1,2,2-TETRACHLOROETHANE	1	1	1	0.3	U	
108-86-1	BROMOBENZENE	1	1	1	0.3	U	

Data Package ID: VL1604316-1

GC/MS Volatiles

Method SW8260_25C

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604316

Client Name: TI2E Joint Venture

ClientProject ID: R1 Buffalo Nike BU-34/35

Field ID: Silo 4-Deep

Lab ID: 1604316-10

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 15-Apr-16

Date Extracted: 22-Apr-16

Date Analyzed: 22-Apr-16

Prep Method: SW5030 Rev C

Prep Batch: VL160422-3

QCBatchID: VL160422-3-1

Run ID: VL160422-3A

Cleanup: NONE

Basis: As Received

File Name: C67991

Analyst: Joe Kostelnik

Sample Aliquot: 10 ml

Final Volume: 10 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
103-65-1	N-PROPYLBENZENE	1	1	1	0.3	U	
95-49-8	2-CHLOROTOLUENE	1	1	1	0.3	U	
108-67-8	1,3,5-TRIMETHYLBENZENE	1	1	1	0.3	U	
106-43-4	4-CHLOROTOLUENE	1	1	1	0.3	U	
98-06-6	TERT-BUTYLBENZENE	1	1	1	0.3	U	
95-63-6	1,2,4-TRIMETHYLBENZENE	1	1	1	0.3	U	
135-98-8	SEC-BUTYLBENZENE	1	1	1	0.3	U	
541-73-1	1,3-DICHLOROBENZENE	1	1	1	0.3	U	
99-87-6	P-ISOPROPYLTOLUENE	1	1	1	0.3	U	
106-46-7	1,4-DICHLOROBENZENE	1	1	1	0.3	U	
104-51-8	N-BUTYLBENZENE	1	1	1	0.3	U	
95-50-1	1,2-DICHLOROBENZENE	1	1	1	0.3	U	
96-12-8	1,2-DIBROMO-3-CHLOROPROPANE	1	2	2	0.4	U	
120-82-1	1,2,4-TRICHLOROBENZENE	1	1	1	0.3	U	
87-68-3	HEXACHLOROBUTADIENE	1	1	1	0.3	U	
91-20-3	NAPHTHALENE	1	1	1	0.3	U	
87-61-6	1,2,3-TRICHLOROBENZENE	1	1	1	0.3	U	

Data Package ID: VL1604316-1

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GC/MS Volatiles

Method SW8260_25C

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604316

Client Name: TI2E Joint Venture

ClientProject ID: R1 Buffalo Nike BU-34/35

Field ID: Silo 4-Deep

Lab ID: 1604316-10

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 15-Apr-16

Date Extracted: 22-Apr-16

Date Analyzed: 22-Apr-16

Prep Method: SW5030 Rev C

Prep Batch: VL160422-3

QCBatchID: VL160422-3-1

Run ID: VL160422-3A

Cleanup: NONE

Basis: As Received

File Name: C67991

Analyst: Joe Kostelnik

Sample Aliquot: 10 ml

Final Volume: 10 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier

Surrogate Recovery

CASNO	Surrogate Analyte	Result	Flag	Spike Amount	Percent Recovery	Control Limits
460-00-4	4-BROMOFLUOROBENZENE	25.9		25	104	85 - 115
1868-53-7	DIBROMOFLUOROMETHANE	25		25	100	84 - 118
2037-26-5	TOLUENE-D8	25.9		25	104	85 - 115

Data Package ID: VL1604316-1

Date Printed: Wednesday, April 27, 2016

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GC/MS Semi-volatiles

Method SW8270D

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604316

Client Name: TI2E Joint Venture

ClientProject ID: R1 Buffalo Nike BU-34/35

Field ID: Silo 4-Deep

Lab ID: 1604316-10

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 15-Apr-16

Date Extracted: 20-Apr-16

Date Analyzed: 25-Apr-16

Prep Method: SW3520 Rev C

Prep Batch: EX160420-1

QC Batch ID: EX160420-1-1

Run ID: SV160425-3

Cleanup: NONE

Basis: As Received

File Name: R6509

Analyst: Tyler Knaebel

Sample Aliquot: 1005 ml

Final Volume: 1 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
110-86-1	PYRIDINE	1	10	10	3.9	U	
62-75-9	N-NITROSODIMETHYLAMINE	1	10	10	3	U	
62-53-3	ANILINE	1	10	10	3.1	U	
108-95-2	PHENOL	1	10	10	3	U	
111-44-4	BIS(2-CHLOROETHYL)ETHER	1	10	10	3	U	
95-57-8	2-CHLOROPHENOL	1	10	10	3	U	
541-73-1	1,3-DICHLOROBENZENE	1	10	10	3	U	
106-46-7	1,4-DICHLOROBENZENE	1	10	10	3	U	
95-50-1	1,2-DICHLOROBENZENE	1	10	10	3	U	
100-51-6	BENZYL ALCOHOL	1	10	10	3	U	
108-60-1	BIS(2-CHLOROISOPROPYL)ETHER	1	10	10	3	U	
95-48-7	2-METHYLPHENOL	1	10	10	3	U	
621-64-7	N-NITROSO-DI-N-PROPYLAMINE	1	10	10	3	U	
108-39-4	3+4-METHYLPHENOL	1	10	10	3	U	
67-72-1	HEXACHLOROETHANE	1	10	10	3	U	
98-95-3	NITROBENZENE	1	10	10	3	U	
78-59-1	ISOPHORONE	1	10	10	3	U	
88-75-5	2-NITROPHENOL	1	10	10	3	U	
105-67-9	2,4-DIMETHYLPHENOL	1	10	10	3	U	
111-91-1	BIS(2-CHLOROETHOXY)METHANE	1	10	10	3	U	
120-83-2	2,4-DICHLOROPHENOL	1	10	10	3	U	
65-85-0	BENZOIC ACID	1	50	50	19	U	
120-82-1	1,2,4-TRICHLOROBENZENE	1	10	10	3	U	
91-20-3	NAPHTHALENE	1	10	10	3	U	
106-47-8	4-CHLOROANILINE	1	10	10	5.4	U	
87-68-3	HEXACHLOROBUTADIENE	1	10	10	3	U	

Data Package ID: SV1604316-1

GC/MS Semi-volatiles

Method SW8270D

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604316

Client Name: TI2E Joint Venture

ClientProject ID: R1 Buffalo Nike BU-34/35

Field ID: Silo 4-Deep

Lab ID: 1604316-10

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 15-Apr-16

Date Extracted: 20-Apr-16

Date Analyzed: 25-Apr-16

Prep Method: SW3520 Rev C

Prep Batch: EX160420-1

QCBatchID: EX160420-1-1

Run ID: SV160425-3

Cleanup: NONE

Basis: As Received

File Name: R6509

Analyst: Tyler Knaebel

Sample Aliquot: 1005 ml

Final Volume: 1 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
59-50-7	4-CHLORO-3-METHYLPHENOL	1	10	10	3	U	
91-57-6	2-METHYLNAPHTHALENE	1	10	10	3	U	
90-12-0	1-METHYLNAPHTHALENE	1	10	10	3	U	
77-47-4	HEXACHLOROCYCLOPENTADIENE	1	10	10	5.1	U	
88-06-2	2,4,6-TRICHLOROPHENOL	1	10	10	3	U	
95-95-4	2,4,5-TRICHLOROPHENOL	1	10	10	3	U	
91-58-7	2-CHLORONAPHTHALENE	1	10	10	3	U	
88-74-4	2-NITROANILINE	1	20	20	3	U	
131-11-3	DIMETHYL PHTHALATE	1	10	10	3	U	
606-20-2	2,6-DINITROTOLUENE	1	10	10	3	U	
208-96-8	ACENAPHTHYLENE	1	10	10	3	U	
99-09-2	3-NITROANILINE	1	20	20	4	U	
83-32-9	ACENAPHTHENE	1	10	10	3	U	
51-28-5	2,4-DINITROPHENOL	1	20	20	3	U	
100-02-7	4-NITROPHENOL	1	20	20	3.6	U	
132-64-9	DIBENZOFURAN	1	10	10	3	U	
121-14-2	2,4-DINITROTOLUENE	1	10	10	3	U	
84-66-2	DIETHYL PHTHALATE	1	10	10	3	U	
86-73-7	FLUORENE	1	10	10	3	U	
7005-72-3	4-CHLOROPHENYL PHENYL ETHER	1	10	10	3	U	
100-01-6	4-NITROANILINE	1	20	20	3.2	U	
103-33-3	AZOBENZENE	1	10	10	3	U	
534-52-1	4,6-DINITRO-2-METHYLPHENOL	1	20	20	3.6	U	
86-30-6	N-NITROSODIPHENYLAMINE	1	10	10	3	U	
101-55-3	4-BROMOPHENYL PHENYL ETHER	1	10	10	3	U	
118-74-1	HEXACHLOROBENZENE	1	10	10	3	U	

Data Package ID: SV1604316-1

GC/MS Semi-volatiles

Method SW8270D

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604316

Client Name: TI2E Joint Venture

ClientProject ID: R1 Buffalo Nike BU-34/35

Field ID: Silo 4-Deep

Lab ID: 1604316-10

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 15-Apr-16

Date Extracted: 20-Apr-16

Date Analyzed: 25-Apr-16

Prep Method: SW3520 Rev C

Prep Batch: EX160420-1

QCBatchID: EX160420-1-1

Run ID: SV160425-3

Cleanup: NONE

Basis: As Received

File Name: R6509

Analyst: Tyler Knaebel

Sample Aliquot: 1005 ml

Final Volume: 1 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
58-90-2	2,3,4,6-TETRACHLOROPHENOL	1	10	10	3.8	U	
87-86-5	PENTACHLOROPHENOL	1	20	20	4.2	U	
85-01-8	PHENANTHRENE	1	10	10	3	U	
120-12-7	ANTHRACENE	1	10	10	3	U	
86-74-8	CARBAZOLE	1	10	10	3	U	
84-74-2	DI-N-BUTYL PHTHALATE	1	10	10	3	U	
206-44-0	FLUORANTHENE	1	10	10	3	U	
129-00-0	PYRENE	1	10	10	3	U	
85-68-7	BUTYL BENZYL PHTHALATE	1	10	10	3	U	
56-55-3	BENZO(A)ANTHRACENE	1	10	10	3	U	
91-94-1	3,3'-DICHLOROBENZIDINE	1	10	10	6.3	U	
218-01-9	CHRYSENE	1	10	10	3	U	
117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	1	10	10	3	U	
117-84-0	DI-N-OCTYL PHTHALATE	1	10	10	3	U	
205-99-2	BENZO(B)FLUORANTHENE	1	10	10	3	U	
207-08-9	BENZO(K)FLUORANTHENE	1	10	10	3	U	
50-32-8	BENZO(A)PYRENE	1	10	10	3	U	
193-39-5	INDENO(1,2,3-CD)PYRENE	1	10	10	3	U	
53-70-3	DIBENZO(A,H)ANTHRACENE	1	10	10	3	U	
191-24-2	BENZO(G,H,I)PERYLENE	1	10	10	3	U	

Data Package ID: SV1604316-1

GC/MS Semi-volatiles

Method SW8270D

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604316

Client Name: TI2E Joint Venture

ClientProject ID: R1 Buffalo Nike BU-34/35

Field ID:	Silo 4-Deep
Lab ID:	1604316-10

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 15-Apr-16

Date Extracted: 20-Apr-16

Date Analyzed: 25-Apr-16

Prep Method: SW3520 Rev C

Prep Batch: EX160420-1

QCBatchID: EX160420-1-1

Run ID: SV160425-3

Cleanup: NONE

Basis: As Received

File Name: R6509

Analyst: Tyler Knaebel

Sample Aliquot: 1005 ml

Final Volume: 1 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier

Surrogate Recovery

CASNO	Surrogate Analyte	Result	Flag	Spike Amount	Percent Recovery	Control Limits
118-79-6	2,4,6-TRIBROMOPHENOL	66.7		74.6	89	42 - 117
321-60-8	2-FLUOROBIPHENYL	39.4		49.8	79	55 - 108
367-12-4	2-FLUOROPHENOL	51.2		74.6	69	46 - 105
4165-60-0	NITROBENZENE-D5	35		49.8	70	53 - 111
4165-62-2	PHENOL-D5	55.1		74.6	74	50 - 109
1718-51-0	TERPHENYL-D14	41.5		49.8	83	34 - 139

Data Package ID: SV1604316-1

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PCBs

Method SW8082

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604316

Client Name: TI2E Joint Venture

ClientProject ID: R1 Buffalo Nike BU-34/35

Field ID: Silo 4-Deep

Lab ID: 1604316-10

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 15-Apr-16

Date Extracted: 20-Apr-16

Date Analyzed: 22-Apr-16

Prep Method: SW3520 Rev C

Prep Batch: EX160420-8

QCBatchID: EX160420-8-1

Run ID: PT160422-11

Cleanup: SW3665

Basis: As Received

File Name: 16120.dat

Analyst: Dan Sheneman

Sample Aliquot: 1015 ml

Final Volume: 10 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
12674-11-2	AROCLOR-1016	1	0.99	0.99	0.3	U	
11104-28-2	AROCLOR-1221	1	2	2	0.3	U	
11141-16-5	AROCLOR-1232	1	0.99	0.99	0.3	U	
53469-21-9	AROCLOR-1242	1	0.99	0.99	0.3	U	
12672-29-6	AROCLOR-1248	1	0.99	0.99	0.3	U	
11097-69-1	AROCLOR-1254	1	0.99	0.99	0.3	U	
11096-82-5	AROCLOR-1260	1	0.99	0.99	0.3	U	

Surrogate Recovery

CASNO	Surrogate Analyte	Result	Flag	Spike Amount	Percent Recovery	Control Limits
2051-24-3	DECACHLOROBIPHENYL	0.333		0.493	68	14 - 114
877-09-8	TETRACHLORO-M-XYLENE	0.524		0.493	106	72 - 125

Data Package ID: PCB1604316-1

Date Printed: Wednesday, April 27, 2016

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PCBs

Method SW8082

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604316

Client Name: TI2E Joint Venture

ClientProject ID: R1 Buffalo Nike BU-34/35

Field ID: Silo 5-SW

Lab ID: 1604316-6

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 14-Apr-16

Date Extracted: 20-Apr-16

Date Analyzed: 22-Apr-16

Prep Method: SW3520 Rev C

Prep Batch: EX160420-8

QCBatchID: EX160420-8-1

Run ID: PT160422-11

Cleanup: SW3665

Basis: As Received

File Name: 16116.dat

Analyst: Dan Sheneman

Sample Aliquot: 985 ml

Final Volume: 10 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
12674-11-2	AROCLOR-1016	1	1	1	0.3	U	
11104-28-2	AROCLOR-1221	1	2	2	0.3	U	
11141-16-5	AROCLOR-1232	1	1	1	0.3	U	
53469-21-9	AROCLOR-1242	1	1	1	0.3	U	
12672-29-6	AROCLOR-1248	1	1	1	0.3	U	
11097-69-1	AROCLOR-1254	1	1	1	0.3	U	
11096-82-5	AROCLOR-1260	1	1	1	0.3	U	

Surrogate Recovery

CASNO	Surrogate Analyte	Result	Flag	Spike Amount	Percent Recovery	Control Limits
2051-24-3	DECACHLOROBIPHENYL	0.37		0.508	73	14 - 114
877-09-8	TETRACHLORO-M-XYLENE	0.53		0.508	104	72 - 125

Data Package ID: PCB1604316-1

Total ICPMS Metals

Method SW6020A

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604316

Client Name: TI2E Joint Venture

ClientProject ID: R1 Buffalo Nike BU-34/35

Field ID: Silo 4-Deep

Lab ID: 1604316-10

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 15-Apr-16

Date Extracted: 21-Apr-16

Date Analyzed: 25-Apr-16

Prep Method: SW3010 Rev A

Prep Batch: IP160421-3

QCBatchID: IP160421-3-1

Run ID: IM160425-10A7

Cleanup: NONE

Basis: As Received

File Name: 033SMPL_

Analyst: Carly D. Ruble

Sample Aliquot: 50 ml

Final Volume: 50 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
7429-90-5	ALUMINUM	10	44	100	11	J	
7440-36-0	ANTIMONY	10	0.13	1	0.13	U	
7440-38-2	ARSENIC	10	0.16	2	0.16	U	
7440-39-3	BARIUM	10	40	5	0.24		
7440-41-7	BERYLLIUM	10	0.25	0.5	0.25	U	
7440-43-9	CADMIUM	10	0.079	2	0.079	U	
7440-70-2	CALCIUM	10	58000	1000	61		
7440-47-3	CHROMIUM	10	0.88	10	0.88	U	
7440-48-4	COBALT	10	0.079	5	0.079	U	
7440-50-8	COPPER	10	1.7	20	0.9	J	
7439-89-6	IRON	10	210	100	8.6		
7439-92-1	LEAD	10	0.43	2	0.17	J	
7439-95-4	MAGNESIUM	10	9800	100	18		
7439-96-5	MANGANESE	10	19	5	0.3		
7440-02-0	NICKEL	10	4	20	4	U	
7440-09-7	POTASSIUM	10	25000	1000	290		
7782-49-2	SELENIUM	10	0.66	10	0.66	U	
7440-22-4	SILVER	10	0.033	0.5	0.033	U	
7440-23-5	SODIUM	10	5400	1000	160		
7440-28-0	THALLIUM	10	0.014	0.1	0.014	U	
7440-62-2	VANADIUM	10	0.58	5	0.58	U	
7440-66-6	ZINC	10	15	100	8.1	J	

Data Package ID: im1604316-2

Date Printed: Saturday, April 30, 2016

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Dissolved Metals by 200.8

Method EPA200.8 Revision 5.4

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604316

Client Name: TI2E Joint Venture

ClientProject ID: R1 Buffalo Nike BU-34/35

Field ID: Silo 4-Deep

Lab ID: 1604316-22

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 15-Apr-16

Date Extracted: 21-Apr-16

Date Analyzed: 22-Apr-16

Prep Method: EPA200.2 Rev 2.2

Prep Batch: IP160421-2

QCBatchID: IP160421-2-3

Run ID: IM160422-10A18

Cleanup: NONE

Basis: As Received

File Name: 074SMPL_

Analyst: Carly D. Ruble

Sample Aliquot: 50 ml

Final Volume: 50 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
7429-90-5	ALUMINUM	10	14	50	14	U	
7440-36-0	ANTIMONY	10	0.11	0.3	0.11	U	
7440-38-2	ARSENIC	10	0.2	2	0.2	U	
7440-39-3	BARIUM	10	40	1	0.16		
7440-41-7	BERYLLIUM	10	0.27	0.5	0.27	U	
7440-43-9	CADMIUM	10	0.088	0.3	0.088	U	
7440-70-2	CALCIUM	10	4800	1000	68		
7440-47-3	CHROMIUM	10	0.88	10	0.88	U	
7440-48-4	COBALT	10	0.083	1	0.083	U	
7440-50-8	COPPER	10	1.2	10	1.2	U	
7439-89-6	IRON	10	8.1	100	8.1	U	
7439-92-1	LEAD	10	0.17	0.5	0.17	U	
7439-95-4	MAGNESIUM	10	830	100	18		
7439-96-5	MANGANESE	10	1.2	2	0.34	J	
7440-02-0	NICKEL	10	4	5	4	U	
7440-09-7	POTASSIUM	10	800	1000	290	J	
7782-49-2	SELENIUM	10	0.66	1	0.66	U	
7440-22-4	SILVER	10	0.041	0.1	0.041	U	
7440-23-5	SODIUM	10	200	1000	200	U	
7440-28-0	THALLIUM	10	0.018	0.2	0.018	U	
7440-62-2	VANADIUM	10	0.71	1	0.71	U	
7440-66-6	ZINC	10	9.8	20	9.8	U	

Data Package ID: im1604316-1

Date Printed: Saturday, April 30, 2016

ALS Environmental -- FC

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Total MERCURY

Method SW7470A

Sample Results

Lab Name: ALS Environmental -- FC
Client Name: TI2E Joint Venture
Client Project ID: R1 Buffalo Nike BU-34/35
Work Order Number: 1604316
Reporting Basis: As Received
Analyst: Nathan A. Quatier

Final Volume: 10 ml
Matrix: WATER
Result Units: MG/L

Client Sample ID	Lab ID	Date Collected	Date Prepared	Date Analyzed	Percent Moisture	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Flag	Sample Aliquot
Silo 3-Deep	1604316-1	4/14/2016	4/20/2016	04/21/2016	N/A	1	0.00006	0.0002	0.00006	U	10 ml
Silo 3- Deep DUP	1604316-2	4/14/2016	4/20/2016	04/21/2016	N/A	1	0.00006	0.0002	0.00006	U	10 ml
Silo 3-SW	1604316-3	4/14/2016	4/20/2016	04/21/2016	N/A	1	0.00006	0.0002	0.00006	U	10 ml
Silo 2-SW	1604316-4	4/14/2016	4/20/2016	04/21/2016	N/A	1	0.00006	0.0002	0.00006	U	10 ml
Silo 2-Deep	1604316-5	4/14/2016	4/20/2016	04/21/2016	N/A	1	0.00006	0.0002	0.00006	U	10 ml
Silo 5-SW	1604316-6	4/14/2016	4/20/2016	04/21/2016	N/A	1	0.00006	0.0002	0.00006	U	10 ml
Silo 5-Deep	1604316-7	4/14/2016	4/20/2016	04/21/2016	N/A	1	0.00006	0.0002	0.00006	U	10 ml
Silo 4-SW	1604316-9	4/15/2016	4/20/2016	04/21/2016	N/A	1	0.00006	0.0002	0.00006	U	10 ml
Silo 4-Deep	1604316-10	4/15/2016	4/20/2016	04/21/2016	N/A	1	0.00006	0.0002	0.00006	U	10 ml
Silo 1-SW	1604316-11	4/15/2016	4/20/2016	04/21/2016	N/A	1	0.00006	0.0002	0.00006	U	10 ml
Silo 1-Deep	1604316-12	4/15/2016	4/20/2016	04/21/2016	N/A	1	0.00006	0.0002	0.00006	U	10 ml

Comments:

1. ND or U = Not Detected at or above the client requested detection limit.

Data Package ID: *hg1604316-1*

TOTAL ORGANIC CARBON

Method EPA415.1

Sample Results

Lab Name: ALS Environmental -- FC
Client Name: TI2E Joint Venture
Client Project ID: R1 Buffalo Nike BU-34/35
Work Order Number: 1604316
Reporting Basis: As Received
Analyst: Steven D. White

Final Volume: 40 ml
Matrix: WATER
Result Units: MG/L

Client Sample ID	Lab ID	Date Collected	Date Prepared	Date Analyzed	Percent Moisture	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Flag	Sample Aliquot
Silo 3-Deep	1604316-1	4/14/2016	4/22/2016	04/22/2016	N/A	1	2.8	1	0.3		40 ml
Silo 3- Deep DUP	1604316-2	4/14/2016	4/22/2016	04/22/2016	N/A	1	2.8	1	0.3		40 ml
Silo 3-SW	1604316-3	4/14/2016	4/22/2016	04/22/2016	N/A	1	2.4	1	0.3		40 ml
Silo 2-SW	1604316-4	4/14/2016	4/22/2016	04/22/2016	N/A	1	2.5	1	0.3		40 ml
Silo 2-Deep	1604316-5	4/14/2016	4/22/2016	04/22/2016	N/A	1	2.5	1	0.3		40 ml
Silo 5-SW	1604316-6	4/14/2016	4/22/2016	04/22/2016	N/A	1	1.7	1	0.3		40 ml
Silo 5-Deep	1604316-7	4/14/2016	4/22/2016	04/22/2016	N/A	1	1.7	1	0.3		40 ml
Silo 4-SW	1604316-9	4/15/2016	4/22/2016	04/22/2016	N/A	1	1.9	1	0.3		40 ml
Silo 4-Deep	1604316-10	4/15/2016	4/22/2016	04/22/2016	N/A	1	2.9	1	0.3		40 ml
Silo 1-SW	1604316-11	4/15/2016	4/22/2016	04/22/2016	N/A	1	2.5	1	0.3		40 ml
Silo 1-Deep	1604316-12	4/15/2016	4/22/2016	04/22/2016	N/A	1	3.4	1	0.3		40 ml

Comments:

1. ND or U = Not Detected at or above the client requested detection limit.

Data Package ID: *MO1604316-1*

Silo 5 Shallow Sample

GC/MS Volatiles

Method SW8260_25C

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604316

Client Name: TI2E Joint Venture

ClientProject ID: R1 Buffalo Nike BU-34/35

Field ID: Silo 5-SW

Lab ID: 1604316-6

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 14-Apr-16

Date Extracted: 22-Apr-16

Date Analyzed: 22-Apr-16

Prep Method: SW5030 Rev C

Prep Batch: VL160422-3

QCBatchID: VL160422-3-1

Run ID: VL160422-3A

Cleanup: NONE

Basis: As Received

File Name: C67987

Analyst: Joe Kostelnik

Sample Aliquot: 10 ml

Final Volume: 10 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
75-71-8	DICHLORODIFLUOROMETHANE	1	1	1	0.3	U	
74-87-3	CHLOROMETHANE	1	1	1	0.3	U	
75-01-4	VINYL CHLORIDE	1	1	1	0.3	U	
74-83-9	BROMOMETHANE	1	1	1	0.3	U	
75-00-3	CHLOROETHANE	1	1	1	0.3	U	
75-69-4	TRICHLOROFLUOROMETHANE	1	1	1	0.3	U	
75-35-4	1,1-DICHLOROETHENE	1	1	1	0.3	U	
76-13-1	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETH	1	1	1	0.3	U	
67-64-1	ACETONE	1	10	10	3	U	
74-88-4	IODOMETHANE	1	1	1	0.38	U	
75-15-0	CARBON DISULFIDE	1	1	1	0.3	U	
75-09-2	METHYLENE CHLORIDE	1	1	1	0.44	U	
156-60-5	TRANS-1,2-DICHLOROETHENE	1	1	1	0.3	U	
1634-04-4	METHYL TERTIARY BUTYL ETHER	1	1	1	0.3	U	
75-34-3	1,1-DICHLOROETHANE	1	1	1	0.3	U	
108-05-4	VINYL ACETATE	1	2	2	0.3	U	
156-59-2	CIS-1,2-DICHLOROETHENE	1	1	1	0.3	U	
78-93-3	2-BUTANONE	1	10	10	3	U	
74-97-5	BROMOCHLOROMETHANE	1	1	1	0.3	U	
67-66-3	CHLOROFORM	1	1	1	0.3	U	
71-55-6	1,1,1-TRICHLOROETHANE	1	1	1	0.3	U	
594-20-7	2,2-DICHLOROPROPANE	1	1	1	0.3	U	
56-23-5	CARBON TETRACHLORIDE	1	1	1	0.3	U	
563-58-6	1,1-DICHLOROPROPENE	1	1	1	0.3	U	
107-06-2	1,2-DICHLOROETHANE	1	1	1	0.3	U	
71-43-2	BENZENE	1	1	1	0.3	U	

Data Package ID: VL1604316-1

GC/MS Volatiles

Method SW8260_25C

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604316

Client Name: TI2E Joint Venture

ClientProject ID: R1 Buffalo Nike BU-34/35

Field ID: Silo 5-SW

Lab ID: 1604316-6

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 14-Apr-16

Date Extracted: 22-Apr-16

Date Analyzed: 22-Apr-16

Prep Method: SW5030 Rev C

Prep Batch: VL160422-3

QCBatchID: VL160422-3-1

Run ID: VL160422-3A

Cleanup: NONE

Basis: As Received

File Name: C67987

Analyst: Joe Kostelnik

Sample Aliquot: 10 ml

Final Volume: 10 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
79-01-6	TRICHLOROETHENE	1	1	1	0.3	U	
78-87-5	1,2-DICHLOROPROPANE	1	1	1	0.3	U	
74-95-3	DIBROMOMETHANE	1	1	1	0.3	U	
75-27-4	BROMODICHLOROMETHANE	1	1	1	0.3	U	
10061-01-5	CIS-1,3-DICHLOROPROPENE	1	1	1	0.3	U	
108-10-1	4-METHYL-2-PENTANONE	1	10	10	3	U	
108-88-3	TOLUENE	1	1	1	0.3	U	
10061-02-6	TRANS-1,3-DICHLOROPROPENE	1	1	1	0.3	U	
79-00-5	1,1,2-TRICHLOROETHANE	1	1	1	0.3	U	
591-78-6	2-HEXANONE	1	10	10	3	U	
127-18-4	TETRACHLOROETHENE	1	1	1	0.2	U	
142-28-9	1,3-DICHLOROPROPANE	1	1	1	0.3	U	
124-48-1	DIBROMOCHLOROMETHANE	1	1	1	0.3	U	
106-93-4	1,2-DIBROMOETHANE	1	1	1	0.3	U	
544-10-5	1-CHLOROHEXANE	1	1	1	0.3	U	
108-90-7	CHLOROBENZENE	1	1	1	0.3	U	
630-20-6	1,1,1,2-TETRACHLOROETHANE	1	1	1	0.3	U	
100-41-4	ETHYLBENZENE	1	1	1	0.3	U	
136777-61-2	M+P-XYLENE	1	1	1	0.3	U	
95-47-6	O-XYLENE	1	1	1	0.3	U	
100-42-5	STYRENE	1	1	1	0.3	U	
75-25-2	BROMOFORM	1	1	1	0.3	U	
98-82-8	ISOPROPYLBENZENE	1	1	1	0.3	U	
96-18-4	1,2,3-TRICHLOROPROPANE	1	1	1	0.3	U	
79-34-5	1,1,2,2-TETRACHLOROETHANE	1	1	1	0.3	U	
108-86-1	BROMOBENZENE	1	1	1	0.3	U	

Data Package ID: VL1604316-1

GC/MS Volatiles

Method SW8260_25C

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604316

Client Name: TI2E Joint Venture

ClientProject ID: R1 Buffalo Nike BU-34/35

Field ID: Silo 5-SW

Lab ID: 1604316-6

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 14-Apr-16

Date Extracted: 22-Apr-16

Date Analyzed: 22-Apr-16

Prep Method: SW5030 Rev C

Prep Batch: VL160422-3

QC Batch ID: VL160422-3-1

Run ID: VL160422-3A

Cleanup: NONE

Basis: As Received

File Name: C67987

Analyst: Joe Kostelnik

Sample Aliquot: 10 ml

Final Volume: 10 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
103-65-1	N-PROPYLBENZENE	1	1	1	0.3	U	
95-49-8	2-CHLOROTOLUENE	1	1	1	0.3	U	
108-67-8	1,3,5-TRIMETHYLBENZENE	1	1	1	0.3	U	
106-43-4	4-CHLOROTOLUENE	1	1	1	0.3	U	
98-06-6	TERT-BUTYLBENZENE	1	1	1	0.3	U	
95-63-6	1,2,4-TRIMETHYLBENZENE	1	1	1	0.3	U	
135-98-8	SEC-BUTYLBENZENE	1	1	1	0.3	U	
541-73-1	1,3-DICHLOROBENZENE	1	1	1	0.3	U	
99-87-6	P-ISOPROPYLTOLUENE	1	1	1	0.3	U	
106-46-7	1,4-DICHLOROBENZENE	1	1	1	0.3	U	
104-51-8	N-BUTYLBENZENE	1	1	1	0.3	U	
95-50-1	1,2-DICHLOROBENZENE	1	1	1	0.3	U	
96-12-8	1,2-DIBROMO-3-CHLOROPROPANE	1	2	2	0.4	U	
120-82-1	1,2,4-TRICHLOROBENZENE	1	1	1	0.3	U	
87-68-3	HEXACHLOROBUTADIENE	1	1	1	0.3	U	
91-20-3	NAPHTHALENE	1	1	1	0.3	U	
87-61-6	1,2,3-TRICHLOROBENZENE	1	1	1	0.3	U	

Data Package ID: VL1604316-1

Date Printed: Wednesday, April 27, 2016

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GC/MS Volatiles

Method SW8260_25C

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604316

Client Name: TI2E Joint Venture

ClientProject ID: R1 Buffalo Nike BU-34/35

Field ID:	Silo 5-SW
Lab ID:	1604316-6

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 14-Apr-16

Date Extracted: 22-Apr-16

Date Analyzed: 22-Apr-16

Prep Method: SW5030 Rev C

Prep Batch: VL160422-3

QCBatchID: VL160422-3-1

Run ID: VL160422-3A

Cleanup: NONE

Basis: As Received

File Name: C67987

Analyst: Joe Kostelnik

Sample Aliquot: 10 ml

Final Volume: 10 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier

Surrogate Recovery

CASNO	Surrogate Analyte	Result	Flag	Spike Amount	Percent Recovery	Control Limits
460-00-4	4-BROMOFLUOROBENZENE	25.2		25	101	85 - 115
1868-53-7	DIBROMOFLUOROMETHANE	25.5		25	102	84 - 118
2037-26-5	TOLUENE-D8	25.8		25	103	85 - 115

Data Package ID: VL1604316-1

Date Printed: Wednesday, April 27, 2016

ALS Environmental -- FC

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GC/MS Semi-volatiles

Method SW8270D

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604316

Client Name: TI2E Joint Venture

ClientProject ID: R1 Buffalo Nike BU-34/35

Field ID: Silo 5-SW

Lab ID: 1604316-6

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 14-Apr-16

Date Extracted: 20-Apr-16

Date Analyzed: 25-Apr-16

Prep Method: SW3520 Rev C

Prep Batch: EX160420-1

QCBatchID: EX160420-1-1

Run ID: SV160425-3

Cleanup: NONE

Basis: As Received

File Name: R6505

Analyst: Tyler Knaebel

Sample Aliquot: 1000 ml

Final Volume: 1 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
110-86-1	PYRIDINE	1	10	10	3.9	U	
62-75-9	N-NITROSODIMETHYLAMINE	1	10	10	3	U	
62-53-3	ANILINE	1	10	10	3.1	U	
108-95-2	PHENOL	1	10	10	3	U	
111-44-4	BIS(2-CHLOROETHYL)ETHER	1	10	10	3	U	
95-57-8	2-CHLOROPHENOL	1	10	10	3	U	
541-73-1	1,3-DICHLOROBENZENE	1	10	10	3	U	
106-46-7	1,4-DICHLOROBENZENE	1	10	10	3	U	
95-50-1	1,2-DICHLOROBENZENE	1	10	10	3	U	
100-51-6	BENZYL ALCOHOL	1	10	10	3	U	
108-60-1	BIS(2-CHLOROISOPROPYL)ETHER	1	10	10	3	U	
95-48-7	2-METHYLPHENOL	1	10	10	3	U	
621-64-7	N-NITROSO-DI-N-PROPYLAMINE	1	10	10	3	U	
108-39-4	3+4-METHYLPHENOL	1	10	10	3	U	
67-72-1	HEXACHLOROETHANE	1	10	10	3	U	
98-95-3	NITROBENZENE	1	10	10	3	U	
78-59-1	ISOPHORONE	1	10	10	3	U	
88-75-5	2-NITROPHENOL	1	10	10	3	U	
105-67-9	2,4-DIMETHYLPHENOL	1	10	10	3	U	
111-91-1	BIS(2-CHLOROETHOXY)METHANE	1	10	10	3	U	
120-83-2	2,4-DICHLOROPHENOL	1	10	10	3	U	
65-85-0	BENZOIC ACID	1	50	50	19	U	
120-82-1	1,2,4-TRICHLOROBENZENE	1	10	10	3	U	
91-20-3	NAPHTHALENE	1	10	10	3	U	
106-47-8	4-CHLOROANILINE	1	10	10	5.4	U	
87-68-3	HEXACHLOROBUTADIENE	1	10	10	3	U	

Data Package ID: SV1604316-1

GC/MS Semi-volatiles

Method SW8270D

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604316

Client Name: TI2E Joint Venture

ClientProject ID: R1 Buffalo Nike BU-34/35

Field ID: Silo 5-SW

Lab ID: 1604316-6

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 14-Apr-16

Date Extracted: 20-Apr-16

Date Analyzed: 25-Apr-16

Prep Method: SW3520 Rev C

Prep Batch: EX160420-1

QCBatchID: EX160420-1-1

Run ID: SV160425-3

Cleanup: NONE

Basis: As Received

File Name: R6505

Analyst: Tyler Knaebel

Sample Aliquot: 1000 ml

Final Volume: 1 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
59-50-7	4-CHLORO-3-METHYLPHENOL	1	10	10	3	U	
91-57-6	2-METHYLNAPHTHALENE	1	10	10	3	U	
90-12-0	1-METHYLNAPHTHALENE	1	10	10	3	U	
77-47-4	HEXACHLOROCYCLOPENTADIENE	1	10	10	5.1	U	
88-06-2	2,4,6-TRICHLOROPHENOL	1	10	10	3	U	
95-95-4	2,4,5-TRICHLOROPHENOL	1	10	10	3	U	
91-58-7	2-CHLORONAPHTHALENE	1	10	10	3	U	
88-74-4	2-NITROANILINE	1	20	20	3	U	
131-11-3	DIMETHYL PHTHALATE	1	10	10	3	U	
606-20-2	2,6-DINITROTOLUENE	1	10	10	3	U	
208-96-8	ACENAPHTHYLENE	1	10	10	3	U	
99-09-2	3-NITROANILINE	1	20	20	4	U	
83-32-9	ACENAPHTHENE	1	10	10	3	U	
51-28-5	2,4-DINITROPHENOL	1	20	20	3	U	
100-02-7	4-NITROPHENOL	1	20	20	3.6	U	
132-64-9	DIBENZOFURAN	1	10	10	3	U	
121-14-2	2,4-DINITROTOLUENE	1	10	10	3	U	
84-66-2	DIETHYL PHTHALATE	1	10	10	3	U	
86-73-7	FLUORENE	1	10	10	3	U	
7005-72-3	4-CHLOROPHENYL PHENYL ETHER	1	10	10	3	U	
100-01-6	4-NITROANILINE	1	20	20	3.2	U	
103-33-3	AZOBENZENE	1	10	10	3	U	
534-52-1	4,6-DINITRO-2-METHYLPHENOL	1	20	20	3.6	U	
86-30-6	N-NITROSODIPHENYLAMINE	1	10	10	3	U	
101-55-3	4-BROMOPHENYL PHENYL ETHER	1	10	10	3	U	
118-74-1	HEXACHLOROBENZENE	1	10	10	3	U	

Data Package ID: SV1604316-1

GC/MS Semi-volatiles

Method SW8270D

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604316

Client Name: TI2E Joint Venture

ClientProject ID: R1 Buffalo Nike BU-34/35

Field ID: Silo 5-SW

Lab ID: 1604316-6

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 14-Apr-16

Date Extracted: 20-Apr-16

Date Analyzed: 25-Apr-16

Prep Method: SW3520 Rev C

Prep Batch: EX160420-1

QCBatchID: EX160420-1-1

Run ID: SV160425-3

Cleanup: NONE

Basis: As Received

File Name: R6505

Analyst: Tyler Knaebel

Sample Aliquot: 1000 ml

Final Volume: 1 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
58-90-2	2,3,4,6-TETRACHLOROPHENOL	1	10	10	3.8	U	
87-86-5	PENTACHLOROPHENOL	1	20	20	4.2	U	
85-01-8	PHENANTHRENE	1	10	10	3	U	
120-12-7	ANTHRACENE	1	10	10	3	U	
86-74-8	CARBAZOLE	1	10	10	3	U	
84-74-2	DI-N-BUTYL PHTHALATE	1	10	10	3	U	
206-44-0	FLUORANTHENE	1	10	10	3	U	
129-00-0	PYRENE	1	10	10	3	U	
85-68-7	BUTYL BENZYL PHTHALATE	1	10	10	3	U	
56-55-3	BENZO(A)ANTHRACENE	1	10	10	3	U	
91-94-1	3,3'-DICHLOROBENZIDINE	1	10	10	6.3	U	
218-01-9	CHRYSENE	1	10	10	3	U	
117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	1	10	10	3	U	
117-84-0	DI-N-OCTYL PHTHALATE	1	10	10	3	U	
205-99-2	BENZO(B)FLUORANTHENE	1	10	10	3	U	
207-08-9	BENZO(K)FLUORANTHENE	1	10	10	3	U	
50-32-8	BENZO(A)PYRENE	1	10	10	3	U	
193-39-5	INDENO(1,2,3-CD)PYRENE	1	10	10	3	U	
53-70-3	DIBENZO(A,H)ANTHRACENE	1	10	10	3	U	
191-24-2	BENZO(G,H,I)PERYLENE	1	10	10	3	U	

Data Package ID: SV1604316-1

Date Printed: Wednesday, April 27, 2016

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GC/MS Semi-volatiles

Method SW8270D

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604316

Client Name: TI2E Joint Venture

ClientProject ID: R1 Buffalo Nike BU-34/35

Field ID:	Silo 5-SW
Lab ID:	1604316-6

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 14-Apr-16

Date Extracted: 20-Apr-16

Date Analyzed: 25-Apr-16

Prep Method: SW3520 Rev C

Prep Batch: EX160420-1

QCBatchID: EX160420-1-1

Run ID: SV160425-3

Cleanup: NONE

Basis: As Received

File Name: R6505

Analyst: Tyler Knaebel

Sample Aliquot: 1000 ml

Final Volume: 1 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier

Surrogate Recovery

CASNO	Surrogate Analyte	Result	Flag	Spike Amount	Percent Recovery	Control Limits
118-79-6	2,4,6-TRIBROMOPHENOL	55.7		75	74	42 - 117
321-60-8	2-FLUOROBIPHENYL	44.7		50	89	55 - 108
367-12-4	2-FLUOROPHENOL	63.8		75	85	46 - 105
4165-60-0	NITROBENZENE-D5	43.3		50	87	53 - 111
4165-62-2	PHENOL-D5	65		75	87	50 - 109
1718-51-0	TERPHENYL-D14	47.5		50	95	34 - 139

Data Package ID: SV1604316-1

Total ICPMS Metals

Method SW6020A

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604316

Client Name: TI2E Joint Venture

ClientProject ID: R1 Buffalo Nike BU-34/35

Field ID: Silo 5-SW

Lab ID: 1604316-6

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 14-Apr-16

Date Extracted: 21-Apr-16

Date Analyzed: 25-Apr-16

Prep Method: SW3010 Rev A

Prep Batch: IP160421-3

QCBatchID: IP160421-3-1

Run ID: IM160425-10A7

Cleanup: NONE

Basis: As Received

File Name: 029SMPL_

Analyst: Carly D. Ruble

Sample Aliquot: 50 ml

Final Volume: 50 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
7429-90-5	ALUMINUM	10	33	100	11	J	
7440-36-0	ANTIMONY	10	0.13	1	0.13	U	
7440-38-2	ARSENIC	10	0.16	2	0.16	U	
7440-39-3	BARIUM	10	15	5	0.24		
7440-41-7	BERYLLIUM	10	0.25	0.5	0.25	U	
7440-43-9	CADMIUM	10	0.079	2	0.079	U	
7440-70-2	CALCIUM	10	26000	1000	61		
7440-47-3	CHROMIUM	10	0.88	10	0.88	U	
7440-48-4	COBALT	10	0.079	5	0.079	U	
7440-50-8	COPPER	10	3.1	20	0.9	J	
7439-89-6	IRON	10	91	100	8.6	J	
7439-92-1	LEAD	10	2	2	0.17	J	
7439-95-4	MAGNESIUM	10	8000	100	18		
7439-96-5	MANGANESE	10	2.1	5	0.3	J	
7440-02-0	NICKEL	10	4	20	4	U	
7440-09-7	POTASSIUM	10	44000	1000	290		
7782-49-2	SELENIUM	10	0.66	10	0.66	U	
7440-22-4	SILVER	10	0.033	0.5	0.033	U	
7440-23-5	SODIUM	10	8900	1000	160		
7440-28-0	THALLIUM	10	0.014	0.1	0.014	U	
7440-62-2	VANADIUM	10	0.58	5	0.58	U	
7440-66-6	ZINC	10	26	100	8.1	J	

Data Package ID: *im1604316-2*

Date Printed: Saturday, April 30, 2016

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Dissolved Metals by 200.8

Method EPA200.8 Revision 5.4

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604316

Client Name: TI2E Joint Venture

ClientProject ID: R1 Buffalo Nike BU-34/35

Field ID: Silo 5-SW

Lab ID: 1604316-19

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 14-Apr-16

Date Extracted: 21-Apr-16

Date Analyzed: 22-Apr-16

Prep Method: EPA200.2 Rev 2.2

Prep Batch: IP160421-2

QCBatchID: IP160421-2-3

Run ID: IM160422-10A18

Cleanup: NONE

Basis: As Received

File Name: 069SMPL_

Analyst: Carly D. Ruble

Sample Aliquot: 50 ml

Final Volume: 50 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
7429-90-5	ALUMINUM	10	17	50	14	J	
7440-36-0	ANTIMONY	10	0.11	0.3	0.11	U	
7440-38-2	ARSENIC	10	0.2	2	0.2	U	
7440-39-3	BARIUM	10	16	1	0.16		
7440-41-7	BERYLLIUM	10	0.27	0.5	0.27	U	
7440-43-9	CADMIUM	10	0.088	0.3	0.088	U	
7440-70-2	CALCIUM	10	28000	1000	68		
7440-47-3	CHROMIUM	10	0.88	10	0.88	U	
7440-48-4	COBALT	10	0.083	1	0.083	U	
7440-50-8	COPPER	10	1.6	10	1.2	J	
7439-89-6	IRON	10	11	100	8.1	J	
7439-92-1	LEAD	10	0.17	0.5	0.17	U	
7439-95-4	MAGNESIUM	10	8600	100	18		
7439-96-5	MANGANESE	10	1.5	2	0.34	J	
7440-02-0	NICKEL	10	4	5	4	U	
7440-09-7	POTASSIUM	10	47000	1000	290		
7782-49-2	SELENIUM	10	0.66	1	0.66	U	
7440-22-4	SILVER	10	0.041	0.1	0.041	U	
7440-23-5	SODIUM	10	9600	1000	200		
7440-28-0	THALLIUM	10	0.018	0.2	0.018	U	
7440-62-2	VANADIUM	10	0.71	1	0.71	U	
7440-66-6	ZINC	10	22	20	9.8		

Data Package ID: im1604316-1

Date Printed: Saturday, April 30, 2016

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Total MERCURY

Method SW7470A

Sample Results

Lab Name: ALS Environmental -- FC
Client Name: TI2E Joint Venture
Client Project ID: R1 Buffalo Nike BU-34/35
Work Order Number: 1604316
Reporting Basis: As Received
Analyst: Nathan A. Quatier

Final Volume: 10 ml
Matrix: WATER
Result Units: MG/L

Client Sample ID	Lab ID	Date Collected	Date Prepared	Date Analyzed	Percent Moisture	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Flag	Sample Aliquot
Silo 3-Deep	1604316-1	4/14/2016	4/20/2016	04/21/2016	N/A	1	0.00006	0.0002	0.00006	U	10 ml
Silo 3- Deep DUP	1604316-2	4/14/2016	4/20/2016	04/21/2016	N/A	1	0.00006	0.0002	0.00006	U	10 ml
Silo 3-SW	1604316-3	4/14/2016	4/20/2016	04/21/2016	N/A	1	0.00006	0.0002	0.00006	U	10 ml
Silo 2-SW	1604316-4	4/14/2016	4/20/2016	04/21/2016	N/A	1	0.00006	0.0002	0.00006	U	10 ml
Silo 2-Deep	1604316-5	4/14/2016	4/20/2016	04/21/2016	N/A	1	0.00006	0.0002	0.00006	U	10 ml
Silo 5-SW	1604316-6	4/14/2016	4/20/2016	04/21/2016	N/A	1	0.00006	0.0002	0.00006	U	10 ml
Silo 5-Deep	1604316-7	4/14/2016	4/20/2016	04/21/2016	N/A	1	0.00006	0.0002	0.00006	U	10 ml
Silo 4-SW	1604316-9	4/15/2016	4/20/2016	04/21/2016	N/A	1	0.00006	0.0002	0.00006	U	10 ml
Silo 4-Deep	1604316-10	4/15/2016	4/20/2016	04/21/2016	N/A	1	0.00006	0.0002	0.00006	U	10 ml
Silo 1-SW	1604316-11	4/15/2016	4/20/2016	04/21/2016	N/A	1	0.00006	0.0002	0.00006	U	10 ml
Silo 1-Deep	1604316-12	4/15/2016	4/20/2016	04/21/2016	N/A	1	0.00006	0.0002	0.00006	U	10 ml

Comments:

1. ND or U = Not Detected at or above the client requested detection limit.

Data Package ID: *hg1604316-1*

TOTAL ORGANIC CARBON

Method EPA415.1

Sample Results

Lab Name: ALS Environmental -- FC
Client Name: TI2E Joint Venture
Client Project ID: R1 Buffalo Nike BU-34/35
Work Order Number: 1604316
Reporting Basis: As Received
Analyst: Steven D. White

Final Volume: 40 ml
Matrix: WATER
Result Units: MG/L

Client Sample ID	Lab ID	Date Collected	Date Prepared	Date Analyzed	Percent Moisture	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Flag	Sample Aliquot
Silo 3-Deep	1604316-1	4/14/2016	4/22/2016	04/22/2016	N/A	1	2.8	1	0.3		40 ml
Silo 3- Deep DUP	1604316-2	4/14/2016	4/22/2016	04/22/2016	N/A	1	2.8	1	0.3		40 ml
Silo 3-SW	1604316-3	4/14/2016	4/22/2016	04/22/2016	N/A	1	2.4	1	0.3		40 ml
Silo 2-SW	1604316-4	4/14/2016	4/22/2016	04/22/2016	N/A	1	2.5	1	0.3		40 ml
Silo 2-Deep	1604316-5	4/14/2016	4/22/2016	04/22/2016	N/A	1	2.5	1	0.3		40 ml
Silo 5-SW	1604316-6	4/14/2016	4/22/2016	04/22/2016	N/A	1	1.7	1	0.3		40 ml
Silo 5-Deep	1604316-7	4/14/2016	4/22/2016	04/22/2016	N/A	1	1.7	1	0.3		40 ml
Silo 4-SW	1604316-9	4/15/2016	4/22/2016	04/22/2016	N/A	1	1.9	1	0.3		40 ml
Silo 4-Deep	1604316-10	4/15/2016	4/22/2016	04/22/2016	N/A	1	2.9	1	0.3		40 ml
Silo 1-SW	1604316-11	4/15/2016	4/22/2016	04/22/2016	N/A	1	2.5	1	0.3		40 ml
Silo 1-Deep	1604316-12	4/15/2016	4/22/2016	04/22/2016	N/A	1	3.4	1	0.3		40 ml

Comments:

1. ND or U = Not Detected at or above the client requested detection limit.

Data Package ID: *MO1604316-1*

Silo 5 Deep Sample

GC/MS Volatiles

Method SW8260_25C

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604316

Client Name: TI2E Joint Venture

ClientProject ID: R1 Buffalo Nike BU-34/35

Field ID: Silo 5-Deep

Lab ID: 1604316-7

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 14-Apr-16

Date Extracted: 22-Apr-16

Date Analyzed: 22-Apr-16

Prep Method: SW5030 Rev C

Prep Batch: VL160422-3

QCBatchID: VL160422-3-1

Run ID: VL160422-3A

Cleanup: NONE

Basis: As Received

File Name: C67988

Analyst: Joe Kostelnik

Sample Aliquot: 10 ml

Final Volume: 10 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
75-71-8	DICHLORODIFLUOROMETHANE	1	1	1	0.3	U	
74-87-3	CHLOROMETHANE	1	1	1	0.3	U	
75-01-4	VINYL CHLORIDE	1	1	1	0.3	U	
74-83-9	BROMOMETHANE	1	1	1	0.3	U	
75-00-3	CHLOROETHANE	1	1	1	0.3	U	
75-69-4	TRICHLOROFLUOROMETHANE	1	1	1	0.3	U	
75-35-4	1,1-DICHLOROETHENE	1	1	1	0.3	U	
76-13-1	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETH	1	1	1	0.3	U	
67-64-1	ACETONE	1	10	10	3	U	
74-88-4	IODOMETHANE	1	1	1	0.38	U	
75-15-0	CARBON DISULFIDE	1	1	1	0.3	U	
75-09-2	METHYLENE CHLORIDE	1	1	1	0.44	U	
156-60-5	TRANS-1,2-DICHLOROETHENE	1	1	1	0.3	U	
1634-04-4	METHYL TERTIARY BUTYL ETHER	1	1	1	0.3	U	
75-34-3	1,1-DICHLOROETHANE	1	1	1	0.3	U	
108-05-4	VINYL ACETATE	1	2	2	0.3	U	
156-59-2	CIS-1,2-DICHLOROETHENE	1	1	1	0.3	U	
78-93-3	2-BUTANONE	1	10	10	3	U	
74-97-5	BROMOCHLOROMETHANE	1	1	1	0.3	U	
67-66-3	CHLOROFORM	1	1	1	0.3	U	
71-55-6	1,1,1-TRICHLOROETHANE	1	1	1	0.3	U	
594-20-7	2,2-DICHLOROPROPANE	1	1	1	0.3	U	
56-23-5	CARBON TETRACHLORIDE	1	1	1	0.3	U	
563-58-6	1,1-DICHLOROPROPENE	1	1	1	0.3	U	
107-06-2	1,2-DICHLOROETHANE	1	1	1	0.3	U	
71-43-2	BENZENE	1	1	1	0.3	U	

Data Package ID: VL1604316-1

Date Printed: Wednesday, April 27, 2016

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GC/MS Volatiles

Method SW8260_25C

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604316

Client Name: TI2E Joint Venture

ClientProject ID: R1 Buffalo Nike BU-34/35

Field ID: Silo 5-Deep

Lab ID: 1604316-7

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 14-Apr-16

Date Extracted: 22-Apr-16

Date Analyzed: 22-Apr-16

Prep Method: SW5030 Rev C

Prep Batch: VL160422-3

QC Batch ID: VL160422-3-1

Run ID: VL160422-3A

Cleanup: NONE

Basis: As Received

File Name: C67988

Analyst: Joe Kostelnik

Sample Aliquot: 10 ml

Final Volume: 10 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
79-01-6	TRICHLOROETHENE	1	1	1	0.3	U	
78-87-5	1,2-DICHLOROPROPANE	1	1	1	0.3	U	
74-95-3	DIBROMOMETHANE	1	1	1	0.3	U	
75-27-4	BROMODICHLOROMETHANE	1	1	1	0.3	U	
10061-01-5	CIS-1,3-DICHLOROPROPENE	1	1	1	0.3	U	
108-10-1	4-METHYL-2-PENTANONE	1	10	10	3	U	
108-88-3	TOLUENE	1	1	1	0.3	U	
10061-02-6	TRANS-1,3-DICHLOROPROPENE	1	1	1	0.3	U	
79-00-5	1,1,2-TRICHLOROETHANE	1	1	1	0.3	U	
591-78-6	2-HEXANONE	1	10	10	3	U	
127-18-4	TETRACHLOROETHENE	1	1	1	0.2	U	
142-28-9	1,3-DICHLOROPROPANE	1	1	1	0.3	U	
124-48-1	DIBROMOCHLOROMETHANE	1	1	1	0.3	U	
106-93-4	1,2-DIBROMOETHANE	1	1	1	0.3	U	
544-10-5	1-CHLOROHEXANE	1	1	1	0.3	U	
108-90-7	CHLOROBENZENE	1	1	1	0.3	U	
630-20-6	1,1,1,2-TETRACHLOROETHANE	1	1	1	0.3	U	
100-41-4	ETHYLBENZENE	1	1	1	0.3	U	
136777-61-2	M+P-XYLENE	1	1	1	0.3	U	
95-47-6	O-XYLENE	1	1	1	0.3	U	
100-42-5	STYRENE	1	1	1	0.3	U	
75-25-2	BROMOFORM	1	1	1	0.3	U	
98-82-8	ISOPROPYLBENZENE	1	1	1	0.3	U	
96-18-4	1,2,3-TRICHLOROPROPANE	1	1	1	0.3	U	
79-34-5	1,1,2,2-TETRACHLOROETHANE	1	1	1	0.3	U	
108-86-1	BROMOBENZENE	1	1	1	0.3	U	

Data Package ID: VL1604316-1

GC/MS Volatiles

Method SW8260_25C

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604316

Client Name: TI2E Joint Venture

ClientProject ID: R1 Buffalo Nike BU-34/35

Field ID: Silo 5-Deep

Lab ID: 1604316-7

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 14-Apr-16

Date Extracted: 22-Apr-16

Date Analyzed: 22-Apr-16

Prep Method: SW5030 Rev C

Prep Batch: VL160422-3

QCBatchID: VL160422-3-1

Run ID: VL160422-3A

Cleanup: NONE

Basis: As Received

File Name: C67988

Analyst: Joe Kostelnik

Sample Aliquot: 10 ml

Final Volume: 10 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
103-65-1	N-PROPYLBENZENE	1	1	1	0.3	U	
95-49-8	2-CHLOROTOLUENE	1	1	1	0.3	U	
108-67-8	1,3,5-TRIMETHYLBENZENE	1	1	1	0.3	U	
106-43-4	4-CHLOROTOLUENE	1	1	1	0.3	U	
98-06-6	TERT-BUTYLBENZENE	1	1	1	0.3	U	
95-63-6	1,2,4-TRIMETHYLBENZENE	1	1	1	0.3	U	
135-98-8	SEC-BUTYLBENZENE	1	1	1	0.3	U	
541-73-1	1,3-DICHLOROBENZENE	1	1	1	0.3	U	
99-87-6	P-ISOPROPYLTOLUENE	1	1	1	0.3	U	
106-46-7	1,4-DICHLOROBENZENE	1	1	1	0.3	U	
104-51-8	N-BUTYLBENZENE	1	1	1	0.3	U	
95-50-1	1,2-DICHLOROBENZENE	1	1	1	0.3	U	
96-12-8	1,2-DIBROMO-3-CHLOROPROPANE	1	2	2	0.4	U	
120-82-1	1,2,4-TRICHLOROBENZENE	1	1	1	0.3	U	
87-68-3	HEXACHLOROBUTADIENE	1	1	1	0.3	U	
91-20-3	NAPHTHALENE	1	1	1	0.3	U	
87-61-6	1,2,3-TRICHLOROBENZENE	1	1	1	0.3	U	

Data Package ID: VL1604316-1

Date Printed: Wednesday, April 27, 2016

ALS Environmental -- FC

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GC/MS Volatiles

Method SW8260_25C

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604316

Client Name: TI2E Joint Venture

ClientProject ID: R1 Buffalo Nike BU-34/35

Field ID:	Silo 5-Deep
Lab ID:	1604316-7

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 14-Apr-16

Date Extracted: 22-Apr-16

Date Analyzed: 22-Apr-16

Prep Method: SW5030 Rev C

Prep Batch: VL160422-3

QCBatchID: VL160422-3-1

Run ID: VL160422-3A

Cleanup: NONE

Basis: As Received

File Name: C67988

Analyst: Joe Kostelnik

Sample Aliquot: 10 ml

Final Volume: 10 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier

Surrogate Recovery

CASNO	Surrogate Analyte	Result	Flag	Spike Amount	Percent Recovery	Control Limits
460-00-4	4-BROMOFLUOROBENZENE	25.4		25	102	85 - 115
1868-53-7	DIBROMOFLUOROMETHANE	25.2		25	101	84 - 118
2037-26-5	TOLUENE-D8	25.8		25	103	85 - 115

Data Package ID: VL1604316-1

Date Printed: Wednesday, April 27, 2016

ALS Environmental -- FC

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GC/MS Semi-volatiles

Method SW8270D

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604316

Client Name: TI2E Joint Venture

ClientProject ID: R1 Buffalo Nike BU-34/35

Field ID: Silo 5-Deep

Lab ID: 1604316-7

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 14-Apr-16

Date Extracted: 20-Apr-16

Date Analyzed: 25-Apr-16

Prep Method: SW3520 Rev C

Prep Batch: EX160420-1

QCBatchID: EX160420-1-1

Run ID: SV160425-3

Cleanup: NONE

Basis: As Received

File Name: R6506

Analyst: Tyler Knaebel

Sample Aliquot: 1020 ml

Final Volume: 1 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
110-86-1	PYRIDINE	1	9.8	9.8	3.8	U	
62-75-9	N-NITROSODIMETHYLAMINE	1	9.8	9.8	2.9	U	
62-53-3	ANILINE	1	9.8	9.8	3	U	
108-95-2	PHENOL	1	9.8	9.8	2.9	U	
111-44-4	BIS(2-CHLOROETHYL)ETHER	1	9.8	9.8	2.9	U	
95-57-8	2-CHLOROPHENOL	1	9.8	9.8	2.9	U	
541-73-1	1,3-DICHLOROBENZENE	1	9.8	9.8	2.9	U	
106-46-7	1,4-DICHLOROBENZENE	1	9.8	9.8	2.9	U	
95-50-1	1,2-DICHLOROBENZENE	1	9.8	9.8	2.9	U	
100-51-6	BENZYL ALCOHOL	1	9.8	9.8	2.9	U	
108-60-1	BIS(2-CHLOROISOPROPYL)ETHER	1	9.8	9.8	2.9	U	
95-48-7	2-METHYLPHENOL	1	9.8	9.8	2.9	U	
621-64-7	N-NITROSO-DI-N-PROPYLAMINE	1	9.8	9.8	2.9	U	
108-39-4	3+4-METHYLPHENOL	1	9.8	9.8	2.9	U	
67-72-1	HEXACHLOROETHANE	1	9.8	9.8	2.9	U	
98-95-3	NITROBENZENE	1	9.8	9.8	2.9	U	
78-59-1	ISOPHORONE	1	9.8	9.8	2.9	U	
88-75-5	2-NITROPHENOL	1	9.8	9.8	2.9	U	
105-67-9	2,4-DIMETHYLPHENOL	1	9.8	9.8	2.9	U	
111-91-1	BIS(2-CHLOROETHOXY)METHANE	1	9.8	9.8	2.9	U	
120-83-2	2,4-DICHLOROPHENOL	1	9.8	9.8	2.9	U	
65-85-0	BENZOIC ACID	1	49	49	19	U	
120-82-1	1,2,4-TRICHLOROBENZENE	1	9.8	9.8	2.9	U	
91-20-3	NAPHTHALENE	1	9.8	9.8	2.9	U	
106-47-8	4-CHLOROANILINE	1	9.8	9.8	5.3	U	
87-68-3	HEXACHLOROBUTADIENE	1	9.8	9.8	2.9	U	

Data Package ID: SV1604316-1

GC/MS Semi-volatiles

Method SW8270D

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604316

Client Name: TI2E Joint Venture

ClientProject ID: R1 Buffalo Nike BU-34/35

Field ID: Silo 5-Deep

Lab ID: 1604316-7

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 14-Apr-16

Date Extracted: 20-Apr-16

Date Analyzed: 25-Apr-16

Prep Method: SW3520 Rev C

Prep Batch: EX160420-1

QC Batch ID: EX160420-1-1

Run ID: SV160425-3

Cleanup: NONE

Basis: As Received

File Name: R6506

Analyst: Tyler Knaebel

Sample Aliquot: 1020 ml

Final Volume: 1 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
59-50-7	4-CHLORO-3-METHYLPHENOL	1	9.8	9.8	2.9	U	
91-57-6	2-METHYLNAPHTHALENE	1	9.8	9.8	2.9	U	
90-12-0	1-METHYLNAPHTHALENE	1	9.8	9.8	2.9	U	
77-47-4	HEXACHLOROCYCLOPENTADIENE	1	9.8	9.8	5	U	
88-06-2	2,4,6-TRICHLOROPHENOL	1	9.8	9.8	2.9	U	
95-95-4	2,4,5-TRICHLOROPHENOL	1	9.8	9.8	2.9	U	
91-58-7	2-CHLORONAPHTHALENE	1	9.8	9.8	2.9	U	
88-74-4	2-NITROANILINE	1	20	20	2.9	U	
131-11-3	DIMETHYL PHTHALATE	1	9.8	9.8	2.9	U	
606-20-2	2,6-DINITROTOLUENE	1	9.8	9.8	2.9	U	
208-96-8	ACENAPHTHYLENE	1	9.8	9.8	2.9	U	
99-09-2	3-NITROANILINE	1	20	20	3.9	U	
83-32-9	ACENAPHTHENE	1	9.8	9.8	2.9	U	
51-28-5	2,4-DINITROPHENOL	1	20	20	2.9	U	
100-02-7	4-NITROPHENOL	1	20	20	3.5	U	
132-64-9	DIBENZOFURAN	1	9.8	9.8	2.9	U	
121-14-2	2,4-DINITROTOLUENE	1	9.8	9.8	2.9	U	
84-66-2	DIETHYL PHTHALATE	1	9.8	9.8	2.9	U	
86-73-7	FLUORENE	1	9.8	9.8	2.9	U	
7005-72-3	4-CHLOROPHENYL PHENYL ETHER	1	9.8	9.8	2.9	U	
100-01-6	4-NITROANILINE	1	20	20	3.1	U	
103-33-3	AZOBENZENE	1	9.8	9.8	2.9	U	
534-52-1	4,6-DINITRO-2-METHYLPHENOL	1	20	20	3.5	U	
86-30-6	N-NITROSODIPHENYLAMINE	1	9.8	9.8	2.9	U	
101-55-3	4-BROMOPHENYL PHENYL ETHER	1	9.8	9.8	2.9	U	
118-74-1	HEXACHLOROBENZENE	1	9.8	9.8	2.9	U	

Data Package ID: SV1604316-1

GC/MS Semi-volatiles

Method SW8270D

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604316

Client Name: TI2E Joint Venture

ClientProject ID: R1 Buffalo Nike BU-34/35

Field ID: Silo 5-Deep

Lab ID: 1604316-7

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 14-Apr-16

Date Extracted: 20-Apr-16

Date Analyzed: 25-Apr-16

Prep Method: SW3520 Rev C

Prep Batch: EX160420-1

QCBatchID: EX160420-1-1

Run ID: SV160425-3

Cleanup: NONE

Basis: As Received

File Name: R6506

Analyst: Tyler Knaebel

Sample Aliquot: 1020 ml

Final Volume: 1 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
58-90-2	2,3,4,6-TETRACHLOROPHENOL	1	9.8	9.8	3.7	U	
87-86-5	PENTACHLOROPHENOL	1	20	20	4.1	U	
85-01-8	PHENANTHRENE	1	9.8	9.8	2.9	U	
120-12-7	ANTHRACENE	1	9.8	9.8	2.9	U	
86-74-8	CARBAZOLE	1	9.8	9.8	2.9	U	
84-74-2	DI-N-BUTYL PHTHALATE	1	9.8	9.8	2.9	U	
206-44-0	FLUORANTHENE	1	9.8	9.8	2.9	U	
129-00-0	PYRENE	1	9.8	9.8	2.9	U	
85-68-7	BUTYL BENZYL PHTHALATE	1	9.8	9.8	2.9	U	
56-55-3	BENZO(A)ANTHRACENE	1	9.8	9.8	2.9	U	
91-94-1	3,3'-DICHLOROBENZIDINE	1	9.8	9.8	6.2	U	
218-01-9	CHRYSENE	1	9.8	9.8	2.9	U	
117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	1	9.8	9.8	2.9	U	
117-84-0	DI-N-OCTYL PHTHALATE	1	9.8	9.8	2.9	U	
205-99-2	BENZO(B)FLUORANTHENE	1	9.8	9.8	2.9	U	
207-08-9	BENZO(K)FLUORANTHENE	1	9.8	9.8	2.9	U	
50-32-8	BENZO(A)PYRENE	1	9.8	9.8	2.9	U	
193-39-5	INDENO(1,2,3-CD)PYRENE	1	9.8	9.8	2.9	U	
53-70-3	DIBENZO(A,H)ANTHRACENE	1	9.8	9.8	2.9	U	
191-24-2	BENZO(G,H,I)PERYLENE	1	9.8	9.8	2.9	U	

Data Package ID: SV1604316-1

Date Printed: Wednesday, April 27, 2016

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GC/MS Semi-volatiles

Method SW8270D

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604316

Client Name: TI2E Joint Venture

ClientProject ID: R1 Buffalo Nike BU-34/35

Field ID: Silo 5-Deep

Lab ID: 1604316-7

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 14-Apr-16

Date Extracted: 20-Apr-16

Date Analyzed: 25-Apr-16

Prep Method: SW3520 Rev C

Prep Batch: EX160420-1

QCBatchID: EX160420-1-1

Run ID: SV160425-3

Cleanup: NONE

Basis: As Received

File Name: R6506

Analyst: Tyler Knaebel

Sample Aliquot: 1020 ml

Final Volume: 1 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier

Surrogate Recovery

CASNO	Surrogate Analyte	Result	Flag	Spike Amount	Percent Recovery	Control Limits
118-79-6	2,4,6-TRIBROMOPHENOL	56.4		73.5	77	42 - 117
321-60-8	2-FLUOROBIPHENYL	40.5		49	83	55 - 108
367-12-4	2-FLUOROPHENOL	58.8		73.5	80	46 - 105
4165-60-0	NITROBENZENE-D5	40.1		49	82	53 - 111
4165-62-2	PHENOL-D5	61.8		73.5	84	50 - 109
1718-51-0	TERPHENYL-D14	47.2		49	96	34 - 139

Data Package ID: SV1604316-1

Date Printed: Wednesday, April 27, 2016

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PCBs

Method SW8082

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604316

Client Name: TI2E Joint Venture

ClientProject ID: R1 Buffalo Nike BU-34/35

Field ID: Silo 5-Deep

Lab ID: 1604316-7

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 14-Apr-16

Date Extracted: 20-Apr-16

Date Analyzed: 22-Apr-16

Prep Method: SW3520 Rev C

Prep Batch: EX160420-8

QCBatchID: EX160420-8-1

Run ID: PT160422-11

Cleanup: SW3665

Basis: As Received

File Name: 16117.dat

Analyst: Dan Sheneman

Sample Aliquot: 1020 ml

Final Volume: 10 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
12674-11-2	AROCLOR-1016	1	0.98	0.98	0.29	U	
11104-28-2	AROCLOR-1221	1	2	2	0.29	U	
11141-16-5	AROCLOR-1232	1	0.98	0.98	0.29	U	
53469-21-9	AROCLOR-1242	1	0.98	0.98	0.29	U	
12672-29-6	AROCLOR-1248	1	0.98	0.98	0.29	U	
11097-69-1	AROCLOR-1254	1	0.98	0.98	0.29	U	
11096-82-5	AROCLOR-1260	1	0.98	0.98	0.29	U	

Surrogate Recovery

CASNO	Surrogate Analyte	Result	Flag	Spike Amount	Percent Recovery	Control Limits
2051-24-3	DECACHLOROBIPHENYL	0.357		0.49	73	14 - 114
877-09-8	TETRACHLORO-M-XYLENE	0.515		0.49	105	72 - 125

Data Package ID: PCB1604316-1

Total ICPMS Metals

Method SW6020A

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604316

Client Name: TI2E Joint Venture

ClientProject ID: R1 Buffalo Nike BU-34/35

Field ID: Silo 5-Deep

Lab ID: 1604316-7

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 14-Apr-16

Date Extracted: 21-Apr-16

Date Analyzed: 25-Apr-16

Prep Method: SW3010 Rev A

Prep Batch: IP160421-3

QCBatchID: IP160421-3-1

Run ID: IM160425-10A7

Cleanup: NONE

Basis: As Received

File Name: 030SMPL_

Analyst: Carly D. Ruble

Sample Aliquot: 50 ml

Final Volume: 50 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
7429-90-5	ALUMINUM	10	16	100	11	J	
7440-36-0	ANTIMONY	10	0.13	1	0.13	U	
7440-38-2	ARSENIC	10	0.16	2	0.16	U	
7440-39-3	BARIUM	10	17	5	0.24		
7440-41-7	BERYLLIUM	10	0.25	0.5	0.25	U	
7440-43-9	CADMIUM	10	0.079	2	0.079	U	
7440-70-2	CALCIUM	10	28000	1000	61		
7440-47-3	CHROMIUM	10	0.88	10	0.88	U	
7440-48-4	COBALT	10	0.079	5	0.079	U	
7440-50-8	COPPER	10	3.8	20	0.9	J	
7439-89-6	IRON	10	57	100	8.6	J	
7439-92-1	LEAD	10	2.5	2	0.17		
7439-95-4	MAGNESIUM	10	8100	100	18		
7439-96-5	MANGANESE	10	1.7	5	0.3	J	
7440-02-0	NICKEL	10	4	20	4	U	
7440-09-7	POTASSIUM	10	45000	1000	290		
7782-49-2	SELENIUM	10	0.66	10	0.66	U	
7440-22-4	SILVER	10	0.033	0.5	0.033	U	
7440-23-5	SODIUM	10	9000	1000	160		
7440-28-0	THALLIUM	10	0.014	0.1	0.014	U	
7440-62-2	VANADIUM	10	0.58	5	0.58	U	
7440-66-6	ZINC	10	26	100	8.1	J	

Data Package ID: *im1604316-2*

Date Printed: Saturday, April 30, 2016

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Dissolved Metals by 200.8

Method EPA200.8 Revision 5.4

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1604316

Client Name: TI2E Joint Venture

ClientProject ID: R1 Buffalo Nike BU-34/35

Field ID: Silo 5-Deep

Lab ID: 1604316-20

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 14-Apr-16

Date Extracted: 21-Apr-16

Date Analyzed: 22-Apr-16

Prep Method: EPA200.2 Rev 2.2

Prep Batch: IP160421-2

QCBatchID: IP160421-2-3

Run ID: IM160422-10A18

Cleanup: NONE

Basis: As Received

File Name: 070SMPL_

Analyst: Carly D. Ruble

Sample Aliquot: 50 ml

Final Volume: 50 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
7429-90-5	ALUMINUM	10	19	50	14	J	
7440-36-0	ANTIMONY	10	0.11	0.3	0.11	U	
7440-38-2	ARSENIC	10	0.2	2	0.2	U	
7440-39-3	BARIUM	10	15	1	0.16		
7440-41-7	BERYLLIUM	10	0.27	0.5	0.27	U	
7440-43-9	CADMIUM	10	0.17	0.3	0.088	J	
7440-70-2	CALCIUM	10	28000	1000	68		
7440-47-3	CHROMIUM	10	0.88	10	0.88	U	
7440-48-4	COBALT	10	0.083	1	0.083	U	
7440-50-8	COPPER	10	3.3	10	1.2	J	
7439-89-6	IRON	10	13	100	8.1	J	
7439-92-1	LEAD	10	1.6	0.5	0.17		
7439-95-4	MAGNESIUM	10	8500	100	18		
7439-96-5	MANGANESE	10	2	2	0.34	J	
7440-02-0	NICKEL	10	4	5	4	U	
7440-09-7	POTASSIUM	10	47000	1000	290		
7782-49-2	SELENIUM	10	0.66	1	0.66	U	
7440-22-4	SILVER	10	0.041	0.1	0.041	U	
7440-23-5	SODIUM	10	9400	1000	200		
7440-28-0	THALLIUM	10	0.018	0.2	0.018	U	
7440-62-2	VANADIUM	10	0.71	1	0.71	U	
7440-66-6	ZINC	10	24	20	9.8		

Data Package ID: im1604316-1

Date Printed: Saturday, April 30, 2016

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Total MERCURY

Method SW7470A

Sample Results

Lab Name: ALS Environmental -- FC
Client Name: TI2E Joint Venture
Client Project ID: R1 Buffalo Nike BU-34/35
Work Order Number: 1604316
Reporting Basis: As Received
Analyst: Nathan A. Quatier

Final Volume: 10 ml
Matrix: WATER
Result Units: MG/L

Client Sample ID	Lab ID	Date Collected	Date Prepared	Date Analyzed	Percent Moisture	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Flag	Sample Aliquot
Silo 3-Deep	1604316-1	4/14/2016	4/20/2016	04/21/2016	N/A	1	0.00006	0.0002	0.00006	U	10 ml
Silo 3- Deep DUP	1604316-2	4/14/2016	4/20/2016	04/21/2016	N/A	1	0.00006	0.0002	0.00006	U	10 ml
Silo 3-SW	1604316-3	4/14/2016	4/20/2016	04/21/2016	N/A	1	0.00006	0.0002	0.00006	U	10 ml
Silo 2-SW	1604316-4	4/14/2016	4/20/2016	04/21/2016	N/A	1	0.00006	0.0002	0.00006	U	10 ml
Silo 2-Deep	1604316-5	4/14/2016	4/20/2016	04/21/2016	N/A	1	0.00006	0.0002	0.00006	U	10 ml
Silo 5-SW	1604316-6	4/14/2016	4/20/2016	04/21/2016	N/A	1	0.00006	0.0002	0.00006	U	10 ml
Silo 5-Deep	1604316-7	4/14/2016	4/20/2016	04/21/2016	N/A	1	0.00006	0.0002	0.00006	U	10 ml
Silo 4-SW	1604316-9	4/15/2016	4/20/2016	04/21/2016	N/A	1	0.00006	0.0002	0.00006	U	10 ml
Silo 4-Deep	1604316-10	4/15/2016	4/20/2016	04/21/2016	N/A	1	0.00006	0.0002	0.00006	U	10 ml
Silo 1-SW	1604316-11	4/15/2016	4/20/2016	04/21/2016	N/A	1	0.00006	0.0002	0.00006	U	10 ml
Silo 1-Deep	1604316-12	4/15/2016	4/20/2016	04/21/2016	N/A	1	0.00006	0.0002	0.00006	U	10 ml

Comments:

1. ND or U = Not Detected at or above the client requested detection limit.

Data Package ID: *hg1604316-1*

TOTAL ORGANIC CARBON

Method EPA415.1

Sample Results

Lab Name: ALS Environmental -- FC
Client Name: TI2E Joint Venture
Client Project ID: R1 Buffalo Nike BU-34/35
Work Order Number: 1604316
Reporting Basis: As Received
Analyst: Steven D. White

Final Volume: 40 ml
Matrix: WATER
Result Units: MG/L

Client Sample ID	Lab ID	Date Collected	Date Prepared	Date Analyzed	Percent Moisture	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Flag	Sample Aliquot
Silo 3-Deep	1604316-1	4/14/2016	4/22/2016	04/22/2016	N/A	1	2.8	1	0.3		40 ml
Silo 3- Deep DUP	1604316-2	4/14/2016	4/22/2016	04/22/2016	N/A	1	2.8	1	0.3		40 ml
Silo 3-SW	1604316-3	4/14/2016	4/22/2016	04/22/2016	N/A	1	2.4	1	0.3		40 ml
Silo 2-SW	1604316-4	4/14/2016	4/22/2016	04/22/2016	N/A	1	2.5	1	0.3		40 ml
Silo 2-Deep	1604316-5	4/14/2016	4/22/2016	04/22/2016	N/A	1	2.5	1	0.3		40 ml
Silo 5-SW	1604316-6	4/14/2016	4/22/2016	04/22/2016	N/A	1	1.7	1	0.3		40 ml
Silo 5-Deep	1604316-7	4/14/2016	4/22/2016	04/22/2016	N/A	1	1.7	1	0.3		40 ml
Silo 4-SW	1604316-9	4/15/2016	4/22/2016	04/22/2016	N/A	1	1.9	1	0.3		40 ml
Silo 4-Deep	1604316-10	4/15/2016	4/22/2016	04/22/2016	N/A	1	2.9	1	0.3		40 ml
Silo 1-SW	1604316-11	4/15/2016	4/22/2016	04/22/2016	N/A	1	2.5	1	0.3		40 ml
Silo 1-Deep	1604316-12	4/15/2016	4/22/2016	04/22/2016	N/A	1	3.4	1	0.3		40 ml

Comments:

1. ND or U = Not Detected at or above the client requested detection limit.

Data Package ID: *MO1604316-1*

NON-HAZARDOUS WASTE MANIFEST

Please print or type (Form designed for use on elite (12 pitch) typewriter)

NON-HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. <i>N/A</i>		Manifest Document No. <i>001</i>		2. Page 1 of	
3. Generator's Name and Mailing Address <i>US Army Corps of Engineers 601 Willardshire Rd., East Aurora, NY 14052</i>							
4. Generator's Phone () <i>508-252-5599</i>							
5. Transporter 1 Company Name <i>NRC NY Environmental Svcs Inc</i>		6. US EPA ID Number <i>NY D 9 6 8 9 8 0 7 5 3</i>		A. State Transporter's ID <i>SP11 A</i>			
7. Transporter 2 Company Name		8. US EPA ID Number		B. Transporter 1 Phone <i>716-525-1857</i>			
9. Designated Facility Name and Site Address <i>Chaffee Landfill 10860 Olean Rd. Chaffee, NY 14030</i>		10. US EPA ID Number <i>N/A</i>		C. State Transporter's ID			
				D. Transporter 2 Phone			
				E. State Facility's ID			
				F. Facility's Phone <i>716-498-5182</i>			
11. WASTE DESCRIPTION				Containers		13. Total Quantity	
				No. Type		14. Unit Wt./Vol.	
a. <i>NON DOT Regulated Solids NOS(GAO)</i>				<i>1 TT</i>		<i>2000 Est</i>	
b.							
c.							
d.							
G. Additional Descriptions for Materials Listed Above <i>a. #119137NY c. PO # 126887-01 b. Job # 126887 d.</i>				H. Handling Codes for Wastes Listed Above <i>a. L b.</i>			
15. Special Handling Instructions and Additional Information <i>In Case of Emergency call 1-800-899-4672.</i>							
16. GENERATOR'S CERTIFICATION: I hereby certify that the contents of this shipment are fully and accurately described and are in all respects in proper condition for transport. The materials described on this manifest are not subject to federal hazardous waste regulations.							
Printed/Typed Name <i>Jeff Ongley</i>				Signature <i>[Signature]</i>		Date <i>6/12/18</i>	
17. Transporter 1 Acknowledgement of Receipt of Materials				Printed/Typed Name <i>Gregory Joseph II</i>		Signature <i>[Signature]</i>	
18. Transporter 2 Acknowledgement of Receipt of Materials				Printed/Typed Name		Signature	
19. Discrepancy Indication Space							
20. Facility Owner or Operator: Certification of receipt of the waste materials covered by this manifest, except as noted in item 19.				Printed/Typed Name		Signature	
						Date <i>Month Day Year</i>	

NON-HAZARDOUS WASTE

GENERATOR

TRANSPORTER

FACILITY

Waste Management Chaffee LF
10860 Olean Rd
Chaffee, NY, 14030

Original
Ticket# 557756
Ph: (716) 496-5000

Customer Name NRCOPTECHENVIRONMENTAL-1 Carrier NRC NRC
Ticket Date 06/13/2018 Vehicle# 3060
Payment Type Credit Account Container
Manual Ticket# Driver
Route Check#
Hauling Ticket# Billing# 0004130
Destination Grid 5C7-1570
Manifest 00001
Profile 119186NY (SPENT CARBON AND ORGANOCCLAY MEDIA)
Generator 190-USARMYCORPSEASTAURORA US ARMY CORPS
PO# 126997-01

	Time	Scale	Operator	Inbound	Gross	
In	06/13/2018 09:21:06	INBOUND	JChapma7		Tare	59340 lb
Out	06/13/2018 09:47:29	OUTBOUND	JChapma7		Net	39360 lb
					Tons	19980 lb
						9.99

Comments

Product	LD%	Qty	UOM	Rate	Tax/Fee Amount	Origin
1 LiquidUnspec-Tons-Unspec	100	9.99	Tons			ERI
2 WWM-P-Waste Water Manage	100		%			ERI

Total Tax/Fees
Total Ticket

Driver's Signature



NON-HAZARDOUS WASTE MANIFEST

Please print or type (Form designed for use on elite (12 pitch) typewriter)

NON-HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. N/A		Manifest Document No. 002	2. Page 1 of
3. Generator's Name and Mailing Address US Army Corps of Engineers 601 Willardshire Rd., East Aurora, NY 14052					
4. Generator's Phone () 508-752-5599					
5. Transporter 1 Company Name NRC NY Environmental Svcs, Inc.		6. US EPA ID Number NY D 9 8 6 9 8 0 7 5 3		A. State Transporter's ID 5011A	
7. Transporter 2 Company Name		8. US EPA ID Number		B. Transporter 1 Phone 716-525-1962	
				C. State Transporter's ID	
				D. Transporter 2 Phone	
9. Designated Facility Name and Site Address Chaffee Landfill 10860 Olean Rd. Chaffee, NY 14030		10. US EPA ID Number N / A		E. State Facility's ID	
				F. Facility's Phone 716-496-5192	
11. WASTE DESCRIPTION				Containers	
				No.	Type
a. NON DOT Regulated Solids NOS(GAC)				1	TT
b.					
c.					
d.					
G. Additional Descriptions for Materials Listed Above				H. Handling Codes for Wastes Listed Above	
a. # 119157NY				a. L	
c. PO # 126997-01				c.	
b. Job # 126997				b.	
d.				d.	
15. Special Handling Instructions and Additional Information In Case of Emergency call 1-800-899-4672.					
16. GENERATOR'S CERTIFICATION: I hereby certify that the contents of this shipment are fully and accurately described and are in all respects in proper condition for transport. The materials described on this manifest are not subject to federal hazardous waste regulations.					
Printed/Typed Name Bob Foley				Signature <i>Bob Foley</i>	
				Date Month Day Year 6 13 18	
17. Transporter 1 Acknowledgement of Receipt of Materials				Date	
Printed/Typed Name X Gregory Joseph II				Signature <i>Gregory Joseph II</i>	
				Date Month Day Year 6 13 18	
18. Transporter 2 Acknowledgement of Receipt of Materials				Date	
Printed/Typed Name				Signature	
				Month Day Year	
19. Discrepancy Indication Space 557799					
20. Facility Owner or Operator: Certification of receipt of the waste materials covered by this manifest, except as noted in item 19.					
Printed/Typed Name <i>[Signature]</i>				Signature <i>[Signature]</i>	
				Date Month Day Year 6 13 18	

NON-HAZARDOUS WASTE

Chaffee Landfill
10860 OLEAN RD,
CHAFFEE, NY, 14030-9768

Reprint
Ticket# 557799
Ph: (716) 496-5514

Customer Name NRCOPTECHENVIRONMENTAL-1 Carrier NRC NRC
Ticket Date 06/13/2018 Vehicle# 3060
Payment Type Credit Account Container
Manual Ticket# Driver
Route Check#
Hauling Ticket# Billing# 0004126
Destination Grid 1G7-1510
Manifest 002
Profile 119157NY(SPENT CARBON AND ORGANOCLAY MEDIA)
Generator 1854272 190-USARMYCORPSEASTAURORA
PO# 126997-01

	Time		Scale	Operator	Inbound	Gross	53280	lb
In	06/13/18 12:49:27	P	INBOUND	JChapma7		Tare	39980	lb
Out	06/13/18 01:20:13	P	OUTBOUND	JChapma7		Net	13300	lb
						Tons		6.65

Product	LD%	Qty	UOM	Rate	Tax/Fee	Amount	Origin
1 Special Misc-Tons-Speci	100	6.65	Tons				ERI
2 EVF-P10-Environmental F	100		%				ERI
3 RCR-P-Regulatory Cost R	100		%				ERI
4 LFS4-LANDFILL FIXED DIS	100		%				ERI

Total Tax/Fees
Total Ticket

Driver's Signature



NON-HAZARDOUS WASTE MANIFEST

Please print or type (Form designed for use on elite (12 pitch) typewriter)

NON-HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. N/A		Manifest Document No. 003		2. Page 1 of	
3. Generator's Name and Mailing Address US Army Corps of Engineers 601 Willardshire Rd., East Aurora, NY 14052							
4. Generator's Phone () 508-752-5599							
5. Transporter 1 Company Name NRC NY Environmental Svcs, Inc.		6. US EPA ID Number NY D 986980753		A. State Transporter's ID SO11A		B. Transporter 1 Phone 716-525-1962	
7. Transporter 2 Company Name		8. US EPA ID Number		C. State Transporter's ID		D. Transporter 2 Phone	
9. Designated Facility Name and Site Address Chaffee Landfill 10880 Olean Rd. Chaffee, NY 14030		10. US EPA ID Number N/A		E. State Facility's ID		F. Facility's Phone 716-498-5192	
11. WASTE DESCRIPTION				Containers		13. Total Quantity	
				No. Type		14. Unit Wt./Vol.	
a. NON DOT Regulated Solids,NOS(GAC)				1 TT		20,000 Est	
b.							
c.							
d.							
G. Additional Descriptions for Materials Listed Above				H. Handling Codes for Wastes Listed Above			
a. # 119157NY				c. PO # 126997-01			
b. Job # 126997				d.			
a. L				c.			
b.				d.			
15. Special Handling Instructions and Additional Information In Case of Emergency call 1-800-899-4672.							
16. GENERATOR'S CERTIFICATION: I hereby certify that the contents of this shipment are fully and accurately described and are in all respects in proper condition for transport. The materials described on this manifest are not subject to federal hazardous waste regulations.							
Printed/Typed Name X Robert Foley				Signature AGENT FOR USACE		Date 6/14/18	
17. Transporter 1 Acknowledgement of Receipt of Materials				Signature Gregory Joseph II		Date 6/14/18	
18. Transporter 2 Acknowledgement of Receipt of Materials				Signature		Date	
Printed/Typed Name				Signature		Date	
19. Discrepancy Indication Space 557946							
20. Facility Owner or Operator: Certification of receipt of the waste materials covered by this manifest, except as noted in item 19.							
Printed/Typed Name [Signature]				Signature [Signature]		Date 6/14/18	

NON-HAZARDOUS WASTE

GENERATOR

TRANSPORTER

FACILITY

Chaffee Landfill
10860 OLEAN RD,
CHAFFEE, NY, 14030-9768

Reprint
Ticket# 557946
Ph: (716) 496-5514

Customer Name NRCOPTECHENVIRONMENTAL-1 Carrier NRC NRC
Ticket Date 06/14/2018 Vehicle# 3060
Payment Type Credit Account Container
Manual Ticket# Driver
Route Check#
Hauling Ticket# Billing# 0004126
Destination Grid 1G7-1510
Manifest 003
Profile 119157NY(SPENT CARBON AND ORGANOCCLAY MEDIA)
Generator 1854272 190-USARMYCORPSEASTAURORA
PO# 126997-01

	Time		Scale	Operator	Inbound	Gross	60380	lb
In	06/14/18 11:28:53	A	INBOUND	JChapma7		Tare	44960	lb
Out	06/14/18 11:46:11	A	OUTBOUND	JChapma7		Net	15420	lb
						Tons		7.71

Product	LD%	Qty	UOM	Rate	Tax/Fee	Amount	Origin
1 Special Misc-Tons-Speci	100	7.71	Tons				ERI
2 EVF-P10-Environmental F	100		%				ERI
3 RCR-P-Regulatory Cost R	100		%				ERI
4 LFS4-LANDFILL FIXED DIS	100		%				ERI

Total Tax/Fees
Total Ticket

Driver's Signature



NON-HAZARDOUS WASTE MANIFEST

Please print or type (Form designed for use on elite (12 pitch) typewriter)

NON-HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. N/A		Manifest Document No. 004		2. Page 1 of	
3. Generator's Name and Mailing Address US Army Corps of Engineers 601 Willardshire Rd., East Aurora, NY 14052							
4. Generator's Phone () 508-752-5599							
5. Transporter 1 Company Name NRC NY Environmental Svcs, Inc.		6. US EPA ID Number NYD986980753		A. State Transporter's ID 501/A			
7. Transporter 2 Company Name		8. US EPA ID Number		B. Transporter 1 Phone 716-525-1962			
				C. State Transporter's ID			
				D. Transporter 2 Phone			
9. Designated Facility Name and Site Address Chaffee Landfill 10860 Olean Rd. Chaffee, NY 14030		10. US EPA ID Number N/A		E. State Facility's ID			
				F. Facility's Phone 716-486-5192			
11. WASTE DESCRIPTION				Containers		13. Total Quantity	
				No. Type		14. Unit Wt./Vol.	
a. NON DOT Regulated Solids NOS(GAC)				1 TT		20,000 Est	
b.							
c.							
d.							
G. Additional Descriptions for Materials Listed Above				H. Handling Codes for Wastes Listed Above			
a. # 119157NY				c. PO # 126997-01			
b. Job # 126997				a. L c.			
				b. d.			
15. Special Handling Instructions and Additional Information In Case of Emergency call 1-800-899-4672.							
16. GENERATOR'S CERTIFICATION: I hereby certify that the contents of this shipment are fully and accurately described and are in all respects in proper condition for transport. The materials described on this manifest are not subject to federal hazardous waste regulations.							
Printed/Typed Name Bob Foley				Signature [Signature] AGENT FOR USACE			
				Date 6/14/8			
17. Transporter 1 Acknowledgement of Receipt of Materials							
Printed/Typed Name Gregory Joseph II				Signature [Signature]			
				Date 6/14/8			
18. Transporter 2 Acknowledgement of Receipt of Materials							
Printed/Typed Name				Signature			
				Date			
19. Discrepancy Indication Space							
20. Facility Owner or Operator: Certification of receipt of the waste materials covered by this manifest, except as noted in item 19.							
Printed/Typed Name M. D. Baker				Signature [Signature]			
				Date 6/14/8			

Wm Chaffee 558012

Chaffee Landfill
10860 OLEAN RD,
CHAFFEE, NY, 14030-9768

Reprint
Ticket# 558012
Ph: (716) 496-5514

Customer Name NRCOPTECHENVIRONMENTAL-1 Carrier NRC NRC
Ticket Date 06/14/2018 Vehicle# 3060
Payment Type Credit Account Container
Manual Ticket# Driver
Route Check#
Hauling Ticket# Billing# 0004126
Destination Grid 1G7-1510
Manifest 004
Profile 119157NY(SPENT CARBON AND ORGANOCCLAY MEDIA)
Generator 1854272 190-USARMYCORPSEASTAURORA
PO# 126997-01

	Time		Scale	Operator	Inbound	Gross	60580	lb
In	06/14/18 02:59:14	P	INBOUND	mbaker13		Tare	44680	lb
Out	06/14/18 03:15:52	P	OUTBOUND	mbaker13		Net	15900	lb
						Tons		7.95

PO #126997-01
JOB #126997

Product	LD%	Qty	UOM	Rate	Tax/Fee	Amount	Origin
1 Special Misc-Tons-Speci	100	7.95	Tons				ERI
2 EVF-P10-Environmental F	100		%				ERI
3 RCR-P-Regulatory Cost R	100		%				ERI
4 LFS4-LANDFILL FIXED DIS	100		%				ERI

Total Tax/Fees
Total Ticket

Driver's Signature



NON-HAZARDOUS WASTE MANIFEST

Please print or type (Form designed for use on elite (12 pitch) typewriter)

NON-HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. N/A		Manifest Document No. 005		2. Page 1 of	
3. Generator's Name and Mailing Address US Army Corps of Engineers 801 Willardshire Rd., East Aurora, NY 14052							
4. Generator's Phone () 508-752-5599							
5. Transporter 1 Company Name NRC NY Environmental Svcs, Inc.		6. US EPA ID Number NYD986980753		A. State Transporter's ID SO1A		B. Transporter 1 Phone 716-525-1962	
7. Transporter 2 Company Name		8. US EPA ID Number		C. State Transporter's ID		D. Transporter 2 Phone	
9. Designated Facility Name and Site Address Chaffee Landfill 10860 Olean Rd. Chaffee, NY 14030		10. US EPA ID Number N/A		E. State Facility's ID		F. Facility's Phone 716-496-5192	
11. WASTE DESCRIPTION				Containers		13. Total Quantity	
				No. Type		14. Unit Wt./Vol.	
a. NON DOT Regulated Solids,NOS(GAC)				1 TT		9000 EST	
b.							
c.							
d.							
G. Additional Descriptions for Materials Listed Above				H. Handling Codes for Wastes Listed Above			
a. #119157NY				c. PO #126997-01			
b. Job #126997				d.			
a. L				c.			
b.				d.			
15. Special Handling Instructions and Additional Information In Case of Emergency call 1-800-899-4672.							
16. GENERATOR'S CERTIFICATION: I hereby certify that the contents of this shipment are fully and accurately described and are in all respects in proper condition for transport. The materials described on this manifest are not subject to federal hazardous waste regulations.							
Printed/Typed Name Bob Foley						Date Month Day Year 6/15/18	
Signature <i>[Signature]</i>						Date Month Day Year 6/15/18	
17. Transporter 1 Acknowledgement of Receipt of Materials							
Printed/Typed Name Gregory Joseph II						Date Month Day Year 6/15/18	
Signature <i>[Signature]</i>						Date Month Day Year 6/15/18	
18. Transporter 2 Acknowledgement of Receipt of Materials							
Printed/Typed Name						Date Month Day Year	
Signature						Date Month Day Year	
19. Discrepancy Indication Space 558131							
20. Facility Owner or Operator: Certification of receipt of the waste materials covered by this manifest, except as noted in item 15.							
Printed/Typed Name <i>[Signature]</i>						Date Month Day Year 6/15/18	
Signature <i>[Signature]</i>						Date Month Day Year 6/15/18	

NON-HAZARDOUS WASTE

GENERATOR

TRANSPORTER

FACILITY

Chaffee Landfill
10860 OLEAN RD,
CHAFFEE, NY, 14030-9768

Reprint
Ticket# 558131
Ph: (716) 496-5514

Customer Name NRCOPTECHENVIRONMENTAL-1 Carrier NRC NRC
Ticket Date 06/15/2018 Vehicle# 3060
Payment Type Credit Account Container
Manual Ticket# Driver
Route Check#
Hauling Ticket# Billing# 0004126
Destination Grid 1G7-1510
Manifest 005
Profile 119157NY(SPENT CARBON AND ORGANOCLAY MEDIA)
Generator 1854272 190-USARMYCORPSEASTAURORA
PO# 126997-01

	Time		Scale	Operator	Inbound	Gross	60860	lb
In	06/15/18 12:53:21	P	Inbound1	JChapma7		Tare	49620	lb
Out	06/15/18 01:10:55	P	OUTBOUND	JChapma7		Net	11240	lb
						Tons		5.62

Product		LD%	Qty	UOM	Rate	Tax/Fee	Amount	Origin
1	Special Misc-Tons-Speci	100	5.62	Tons				ERI
2	EVF-P10-Environmental F	100		%				ERI
3	RCR-P-Regulatory Cost R	100		%				ERI
4	LFS4-LANDFILL FIXED DIS	100		%				ERI

Total Tax/Fees
Total Ticket

Driver's Signature



NON-HAZARDOUS WASTE MANIFEST

Please print or type (Form designed for use on elite (12 pitch) typewriter)

NON-HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. N/A		Manifest Document No. 10764		2. Page 1 of	
3. Generator's Name and Mailing Address US Army Corps of Engineers 801 Willardshire Rd., East Aurora, NY 14052							
4. Generator's Phone () 508-751-3390							
5. Transporter 1 Company Name NRC NY Environmental Svcs, Inc.		6. US EPA ID Number N Y D 5 3 8 8 0 7 5		A. State Transporter's ID			
				B. Transporter 1 Phone 718-525-1892			
7. Transporter 2 Company Name		8. US EPA ID Number		C. State Transporter's ID			
				D. Transporter 2 Phone			
9. Designated Facility Name and Site Address Covanta Environmental Solutions, LLC 8335 Quarry Rd Niagara Falls, NY 14304		10. US EPA ID Number N/A		E. State Facility's ID			
				F. Facility's Phone 718-286-5297			
11. WASTE DESCRIPTION				Containers		13. Total Quantity	
				No. Type		Unit Wt./Vol.	
a. NON DOT Regulated Liquids NOS (Contaminated Water)				1 TT		3000 G	
b.							
c.							
d.							
G. Additional Descriptions for Materials Listed Above				H. Handling Codes for Wastes Listed Above			
a. # NRC 181506A				c. PO # 126987-01			
b. Job # 126987				d.			
15. Special Handling Instructions and Additional Information In Case of Emergency call 1-800-899-4672.							
16. GENERATOR'S CERTIFICATION: I hereby certify that the contents of this shipment are fully and accurately described and are in all respects in proper condition for transport. The materials described on this manifest are not subject to federal hazardous waste regulations.							
AGENT FOR USACE				Date			
Printed/Typed Name Mike Reilly				Signature [Signature]		Month Day Year 6 25 18	
17. Transporter 1 Acknowledgement of Receipt of Materials				Date			
Printed/Typed Name Mike Reilly				Signature [Signature]		Month Day Year 6 25 18	
18. Transporter 2 Acknowledgement of Receipt of Materials				Date			
Printed/Typed Name				Signature		Month Day Year	
19. Discrepancy Indication Space							
20. Facility Owner or Operator: Certification of receipt of the waste materials covered by this manifest, except as noted in item 19.							
Printed/Typed Name				Signature		Date	
						Month Day Year	

NON-HAZARDOUS WASTE MANIFEST

Please print or type (Form designed for use on elite (12 pitch) typewriter)

NON-HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. N/A		Manifest Document No. 10765		2. Page 1 of	
3. Generator's Name and Mailing Address USA Army Corps of Engineers 601 Willardshire Rd., East Aurora, NY 14052							
4. Generator's Phone () 508-752-5599							
5. Transporter 1 Company Name NRC NY Environmental Svcs. Inc.		6. US EPA ID Number NY D 9 8 9 8 0 7 5		A. State Transporter's ID 718-288-1001			
7. Transporter 2 Company Name		8. US EPA ID Number		B. Transporter 1 Phone			
				C. State Transporter's ID			
				D. Transporter 2 Phone			
9. Designated Facility Name and Site Address Covanta Environmental Solutions, LLC 6335 Quarry Rd. Niagara Falls, NY 14304		10. US EPA ID Number N/A		E. State Facility's ID			
				F. Facility's Phone 718-288-3287			
11. WASTE DESCRIPTION				Containers		13. Total Quantity	
				No. Type		14. Unit Wt./Vol.	
a. NON DOT Regulated Liquids, NOS (Contaminated Water)				1		2700 EST G	
b.							
c.							
d.							
G. Additional Descriptions for Materials Listed Above				H. Handling Codes for Wastes Listed Above			
a. #NRC 181506A				a. L			
b. Job # 126997				c.			
c. PO # 126997-01				d.			
d.				e.			
15. Special Handling Instructions and Additional Information In Case of Emergency call 1-800-599-4672.							
16. GENERATOR'S CERTIFICATION: I hereby certify that the contents of this shipment are fully and accurately described and are in all respects in proper condition for transport. The materials described on this manifest are not subject to federal hazardous waste regulations.							
Printed/Typed Name Bb Foley				Signature [Signature]		Date 6/26/18	
17. Transporter 1 Acknowledgement of Receipt of Materials				Signature [Signature]		Date 6/26/18	
Printed/Typed Name [Signature]				Signature [Signature]		Date 6/26/18	
18. Transporter 2 Acknowledgement of Receipt of Materials				Signature		Date	
Printed/Typed Name				Signature		Date	
19. Discrepancy Indication Space							
20. Facility Owner or Operator: Certification of receipt of the waste materials covered by this manifest, except as noted in item 19.							
Printed/Typed Name				Signature		Date	
						Month Day Year	

NON-HAZARDOUS WASTE MANIFEST

Please print or type (Form designed for use on elite (12 pitch) typewriter)

NON-HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. <i>NYC</i>		Manifest Document No. <i>00543</i>		2. Page 1 of	
3. Generator's Name and Mailing Address <i>US Army Corps of Engineers 801 Willardshire Rd., East Aurora, NY 14052</i>							
4. Generator's Phone () <i>508-752-3395</i>							
5. Transporter 1 Company Name <i>NRC NY Environmental Svcs. Inc.</i>		6. US EPA ID Number <i>NYC000000075</i>		A. State Transporter's ID			
				B. Transporter 1 Phone <i>716-295-1502</i>			
7. Transporter 2 Company Name		8. US EPA ID Number		C. State Transporter's ID			
				D. Transporter 2 Phone			
9. Designated Facility Name and Site Address <i>Covanta Environmental Solutions, LLC 3335 Quarry Rd. Niagara Falls, NY 14304</i>		10. US EPA ID Number <i>N/A</i>		E. State Facility's ID			
				F. Facility's Phone <i>716-295-0287</i>			
11. WASTE DESCRIPTION				Containers		13. Total Quantity	
				No. Type		14. Unit Wt./Vol.	
a. <i>NON DOT Regulated Liquids, NOS (Contaminated Water)</i>				<i>1 TT</i>		<i>3000 G</i>	
b.							
c.							
d.							
G. Additional Descriptions for Materials Listed Above				H. Handling Codes for Wastes Listed Above			
a. <i>#NRC181506A</i> c. <i>PO #126597-01</i>				a. <i>L</i> c.			
d. <i>Job # 126597</i> d.				e. d.			
15. Special Handling Instructions and Additional Information <i>In Case of Emergency call 1-800-899-4672.</i>							
16. GENERATOR'S CERTIFICATION: I hereby certify that the contents of this shipment are fully and accurately described and are in all respects in proper condition for transport. The materials described on this manifest are not subject to federal hazardous waste regulations.							
Printed/Typed Name <i>Bob Foley</i>				Signature <i>Bob Foley</i>		Date <i>6/29/18</i>	
17. Transporter 1 Acknowledgement of Receipt of Materials				Date			
Printed/Typed Name <i>Mike Reilly</i>				Signature <i>Mike Reilly</i>		Date <i>6/29/18</i>	
18. Transporter 2 Acknowledgement of Receipt of Materials				Date			
Printed/Typed Name				Signature		Date	
19. Discrepancy Indication Space							
20. Facility Owner or Operator: Certification of receipt of the waste materials covered by this manifest, except as noted in item 19.							
Printed/Typed Name				Signature		Date	
						Month Day Year	

NON-HAZARDOUS WASTE MANIFEST

Please print or type

(Form designed for use on elite (12 pitch) typewriter)

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.

N/A

Manifest Document No.

75844

2. Page 1 of

3. Generator's Name and Mailing Address

US Army Corps of Engineers
601 Willardshire Rd., East Aurora, NY 14052

4. Generator's Phone ()

508-752-5599

5. Transporter 1 Company Name

NRC NY Environmental Svcs. Inc.

7. Transporter 2 Company Name

6. US EPA ID Number

NY D 83888075

8. US EPA ID Number

10. US EPA ID Number

N/A

A. State Transporter's ID

B. Transporter 1 Phone 716-525-1552

C. State Transporter's ID

D. Transporter 2 Phone

E. State Facility's ID

F. Facility's Phone

716-298-5287

9. Designated Facility Name and Site Address

Covanta Environmental Solutions LLC
8335 Quarry Rd.
Niagara Falls, NY 14304

11. WASTE DESCRIPTION

a. NON DOT Regulated Liquids NOS (Contaminated Water)

Containers

No.

Type

13. Total Quantity

14. Unit Wt./Vol.

1

TT

3000
550 N

G

G. Additional Descriptions for Materials Listed Above

a. #NRC181506A

127046

b. Job # 126887

c. PO # 126887-01

H. Handling Codes for Wastes Listed Above

a. L

c.

b.

d.

15. Special Handling Instructions and Additional Information

In Case of Emergency call 1-800-699-4872.

16. GENERATOR'S CERTIFICATION: I hereby certify that the contents of this shipment are fully and accurately described and are in all respects in proper condition for transport. The materials described on this manifest are not subject to federal hazardous waste regulations.

Printed/Typed Name

Bob Fuly

Signature

[Signature]

Date

Month Day Year
07 10 2015

17. Transporter 1 Acknowledgment of Receipt of Materials

Printed/Typed Name

Signature

[Signature]

Date

Month Day Year
7 10 2015

18. Transporter 2 Acknowledgment of Receipt of Materials

Printed/Typed Name

Signature

[Signature]

Date

Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of the waste materials covered by this manifest, except as noted in item 19.

Printed/Typed Name

Signature

[Signature]

Date

Month Day Year

GENERATOR

TRANSPORTER

FACILITY

NON-HAZARDOUS WASTE



Generator

Non-Hazardous
Waste Manifest

Generator ID Number

Page 1 of

Emergency Response Phone

Waste Tracking Number

Generator's Name and Mailing Address

* US ARMY CORPS OF ENGINEERS
601 WILLARDSHIRE RD EAST AURORA NY 14052

Generator's Phone:

Mark Leva-Joy 508-752-5599

Generator's Site Address (if different than mailing address)

US Army Corps
601 Willardshire Rd
East Aurora, NY 14052

Transporter 1 Company Name

Modern Disposal Services

Transporter 2 Company Name

Designated Facility Name and Site Address:

Modern Landfill, Inc
1445 Fletcher Road
Model City, NY 14107

NYS DEC Permit #:

9-2924-00016/00043

Facility's Phone:

(716) 754-8226 x214

Facility's ID: 32530

Waste Shipping Name and Description

Containers

Number

Type

Total
QuantityUnit
WL/Vol.1. Non-Hazardous Waste
Approval # M18-3051

1

Po

3

TN

2.

3.

4.

Special Handling Instructions and Additional Information

GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

* Generator's/Officer's Printed/Typed Name

Bob Fellers

Signature

Bob Fellers AGENT FOR USACE

Month Day Year

07 18 2018

Transporter

Transporter Acknowledgment of Receipt of Materials

* Transporter 1 Printed/Typed Name

W White

Signature

W White

Month Day Year

07 18 2018

Transporter 2 Printed/Typed Name

Signature

Month Day Year

Discrepancy

Discrepancy Indication Space

☐

Quantity

☐

Type

☐

Residue

☐

Partial Rejection

☐

Full Rejection

Manifest Reference Number:

Designated Facility

Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in item

Printed/Typed Name

Nathan Duncan

Signature

Nathan Duncan

Month Day Year

7 18 18



1445 Pletcher Road
Model City, NY 14107
(716) 754-8226

Truck: 2034-20
Customer: 0250310002/MODERN DISPOSAL ROI
Carrier: MDS-001/MODERN DISPOSAL

Truck Type: RO20
Route: E0111/ELK ST ROLL OFF 11
Profile: M18-3051/USACOE FORMER NIKE 1

Generator: 0250310002/MODERN DISPOSAL ROI
Service Site: 0490890001 PREPAID - SUN ENVIRONMENTAL CO
Comment:

Ticket: 1002757554
Date: 7/18/2018
Time: 08:30:21 - 09:07:52
Scale

Gross: 38780 POU In Scale INBOUND
Tare: 37600 POU Out Scale OUTBOUND
Net: 1180 POU

WO: 0001782342

Origin	Materials & Services	Quantity	Unit
142401/East Aurora	DC Industrial Waste - General	0.59	TON

filter bags

Driver: *Willie H. 2034*

Weighmaster: Nathan Duncan

GENERATION 2 OFFICIAL CERTIFICATION: I hereby declare that the contents of this certification are true and accurately described above. If the proper authority name and the location are not provided, the certification is invalid.