



**US Army Corps
of Engineers®**

New York District
Albany Field Office
1 Bond Street
Troy, N.Y. 12180
ATTN: CENAN-OP-A

Public Notice

In replying refer to:

Public Notice No. HR-AFO-MD16

Published: Feb 22, 2016 Expires: March 22, 2016

HUDSON RIVER, NEW YORK PORT OF ALBANY TURNING BASIN AND STAATS POINT DREDGE AREAS FEDERAL NAVIGATION PROJECT MAINTENANCE DREDGING

TO WHOM IT MAY CONCERN:

The New York District, US Army Corps of Engineers, pursuant to Section 10 of the Rivers and Harbors Act of 1899 and Section 404 (33 U.S.C. 1344) of the Federal Water Pollution Control Act (amended in 1977 and commonly referred to as the Clean Water Act), proposes to perform maintenance dredging of the federal navigation project: Hudson River, New York City to Waterford, NY (see Enclosures 1 thru 4); with subsequent placement of the dredged material in the federally owned upland dredged material placement site on Houghtaling Island, New Baltimore, New York.

WATERWAY/PROJECT: Hudson River, New York City to Waterford, NY, Federal Navigation Project

LOCATIONS: Port of Albany Turning Basin and Staats Point, New York.

The Hudson River federal navigation project was authorized by the Rivers and Harbors Acts of 1910 to 1930; and modified in 1934, 1935, 1938 and 1954, in accordance with the recommendations contained in the following Congressional Documents: House Document (HD) No. 719, 61st Congress, 2nd Session (Jun 1910) and modified by HD No. 350, 68th Congress, 1st Session (Mar 1925); HD No. 210, 70th Congress, 1st Session (Jul 1930); Senate Document No. 155, 72nd Congress, 2nd Session (Aug 1935); HD No. 572, 75th Congress, 3rd Session (Jun 1938); and Public Law No. 780, 83rd Congress, 2nd Session (Sep 1954).

The existing navigation project authorizes a channel 600 ft. wide, New York City to Kingston, thence 400 ft. wide to 2,200 ft. south of the Mall Bridge (Dunn Memorial Bridge) at Albany with a turning basin at Albany and anchorages near Hudson and Stuyvesant, all with depths of 32 ft. in soft material and 34 ft. in rock; thence 27 ft. deep and 400 ft. wide to 900 ft. south of the Mall Bridge (Dunn Memorial Bridge); thence 14 ft.

deep and generally 400 ft. wide, to the Federal Lock at Troy; and thence 14 ft. deep and 200 ft. wide, to the southern limit of the State Barge Canal at Waterford; with widening at bends and widening in front of the cities of Troy and Albany to form harbors 12 ft. deep. The total length of the existing navigation project (NYC to Waterford) is about 155 miles.

A detailed description of the proposed activities is enclosed to assist in your review. This activity is being evaluated to determine that the proposed dredging with placement of dredged material in the federally owned upland site on Houghtaling Island will not unreasonably degrade or endanger human health, welfare, economic potential, recreation and aesthetics, water quality, marine resources, ecological systems and/or flood protection.

The Corps of Engineers is soliciting comments from the public; federal, state and local agencies and officials; Indian tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. Comments are used to assess impacts on navigation, water quality, endangered species, historic resources, wetlands, scenic and recreational values, and other public interest factors. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act and to determine the need for a public hearing.

ALL COMMENTS REGARDING THIS ACTIVITY MUST BE PREPARED IN WRITING AND MAILED TO REACH THE ALBANY FIELD OFFICE AT THE ADDRESS ON THE FRONT PAGE BEFORE THE EXPIRATION DATE OF THIS NOTICE, otherwise, it will be presumed that there are no objections to the activity.

Any person who has an interest which may be affected by the dredging and/or placement of this dredged material may request a public hearing. The request must be submitted in writing to the District Engineer within the comment period of this notice and must clearly set forth the interest which may be affected and the manner in which the interest may be affected by the activity. It should be noted that information submitted by mail is considered just as carefully in the process and bears the same weight as that furnished at a public hearing.

No known archaeological, scientific, prehistorical or historical data are expected to be lost by work accomplished under the required dredging.

Reviews of the activity pursuant to Section 404 of the Clean Water Act will include application of the guidelines announced by the Administrator, U.S. Environmental Protection Agency, under authority of Section 404(b) of the Clean Water Act. The Corps will obtain a water quality certificate (WQC) or waiver from the New York State Department of Environmental Conservation, in accordance with Section 401 of the Clean Water Act prior to commencement of any work.

Pursuant to Section 307 of the Coastal Zone Management Act of 1972 as amended [16 USC 1456(c)], for activities conducted or supported by a federal agency in a state which

has a federally approved Coastal Zone Management (CZM) program, the Corps will submit a determination that the proposed project is consistent with the State CZM program to the maximum extent practicable. This activity is subject to review by the New York State Department of State for its consistency with the enforceable policies of the New York State Coastal Management Program. The New York District of the US Army Corps of Engineers has determined that the proposed activities are consistent to the maximum extent practicable with the New York State CZM program. A copy of this determination will be provided to the New York State Department of State, Division of Coastal Resources, with a request for State's agreement with that determination. For activities within the coastal zone of the State of New York, project information is available from the Coastal Zone Management Program, New York State Department of State, Office of Coastal, Local Government, and Community Sustainability, One Commerce Plaza, 99 Washington Avenue, Suite 1010, Albany, NY 11231, telephone (518) 474-3642.

In compliance with Section 305(b)(2) of the Magnuson-Stevens Fishery Conservation and Management Act (1996 amendments), an Essential Fish Habitat Assessment will be prepared and submitted to the National Marine Fisheries Service for review and comment.

The proposed work is being coordinated with the following federal, state and local agencies:

- U.S. Environmental Protection Agency
- U.S. Department of the Interior, Fish and Wildlife Service
- U.S. Department of Commerce, National Marine Fisheries Service
- U.S. Coast Guard, First District
- New York State Department of Environmental Conservation
- New York State Department of State

If you have any questions concerning this notice, you may contact the Albany Field Office at (518) 273-0870 and ask for Mr. Robert D Berrian. Comments or questions may be FAXED to (518) 273-3772 ATTN: Mr. Robert D Berrian.

DESCRIPTION OF PLANNED FEDERAL ACTION:

The U.S. Army Corps of Engineers, New York District proposes to perform maintenance dredging of three discontinuous dredge areas in the Hudson River federal navigation project, located at the Port of Albany Turning Basin (River Mile 142) and Staats Point (River Mile 138), New York (Enclosure 1). Based on condition surveys performed during June 2015 the proposed maintenance dredging would involve the removal of a combined total of approximately 100,000 CY of material from the two dredging areas. The project will be dredged to its authorized depth of -32 feet plus 1 foot of allowable overdepth, COE Mean Low Water (original project datum).

The purpose of the proposed dredging is to alleviate the effects of shoaling in order to maintain the authorized project dimensions, thereby assuring safe and economical use of the Hudson River by commercial shipping interests. The dredge material has been

tested and meets the criteria for confined disposal in the federally owned upland dredged material placement site on Houghtaling Island, New Baltimore, New York.

Maintenance dredging of the Hudson River federal navigation projects will be accomplished by a mechanical dredge equipped with a closed environmental bucket, or other similar plant. The entire channel will generally not require maintenance dredging; only areas where shoaling has reduced the depth of the channel will require dredging. No in-water work will occur during the following environmental windows for Shortnose sturgeon (*Aspioner brevirostrum*) and Atlantic sturgeon (*Aspioner oxyrinchus*): March 1 to August 1 from RM 142 to RM 138.

ENVIRONMENTAL IMPACT STATEMENT:

An Environmental Impact Statement (EIS) was prepared by the U.S. Army Engineer District, New York in January 1983. Environmental Assessments (EA) updating this EIS were prepared by the New York District for similar maintenance dredging projects performed in calendar years 1986, 1988, 1990, 1992, 1995, 1998, 2001, 2003, 2007, 2010, 2012-13 and 2014. It was determined then that maintenance dredging of the Hudson River federal navigation project, with placement of the dredged material on the federally owned upland placement site on Houghtaling Island has no significant adverse environmental impacts on water quality, marine resources, fish, wildlife, recreation, aesthetics and flood protection

An update of the EA and a 404 (b) evaluation as required by the Clean Water Act 40 CFR 230 will be finalized prior to the implementation of the proposed work. A copy of the draft EA is available upon request by contacting the Albany Field Office.

PLACEMENT SITE:

The dredged material from this project is proposed to be placed in the federally owned upland placement site on Houghtaling Island, New Baltimore, New York. This site is located at River Mile 130. The dredged material will be loaded into hopper scow(s), transported by tug(s), and pumped into Area B of the designated site utilizing a hydraulic unloader, or other similar plant; as shown on the attached map (Enclosure 3).

MATERIAL DESCRIPTION:

The proposed dredge areas are depicted in Enclosure 2. The proposed dredge material has been characterized by taking sediment core samples extending to a depth of -32 feet (project depth) plus 1 foot of allowable over-depth. Based on the analysis of the core samples; the average grain size characteristics of the proposed dredged material are as follows:

Port of Albany Turning Basin Dredge Area (Sample ID ATB-1 thru ATB-5):
0% Gravel, 22% Sand, 54% Silt, 24% Clay

Staats Point Dredge Area (Sample ID R9-1thru R9-5):
1% Gravel, 56% Sand, 30% Silt, 13% Clay

See Enclosure 2 for sample locations and Enclosure 4 for the physical and chemistry summary data reports. The full chemistry data reports entitled "Final Data Report, DO#18 Hudson River – Staats Point & Albany Turning Basin Upland Testing" dated October 2015 are available for review at the Albany Field Office, Troy, NY.

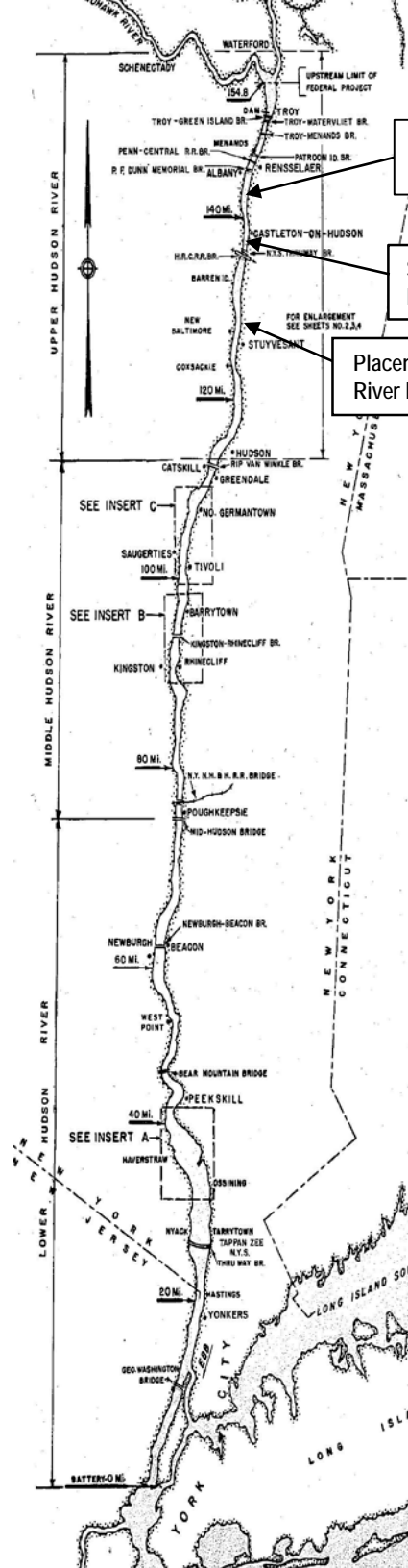
For more information on the New York District Corps of Engineers programs, visit our website at <http://www.nan.usace.army.mil>

It is requested that you communicate the foregoing information concerning the proposed work to any persons known by you to be interested and who did not receive a copy of this notice.

A handwritten signature in black ink, appearing to read 'W. Petronis', with a stylized flourish at the end.

William Petronis
Chief, Albany Field Office

Enclosures
As stated

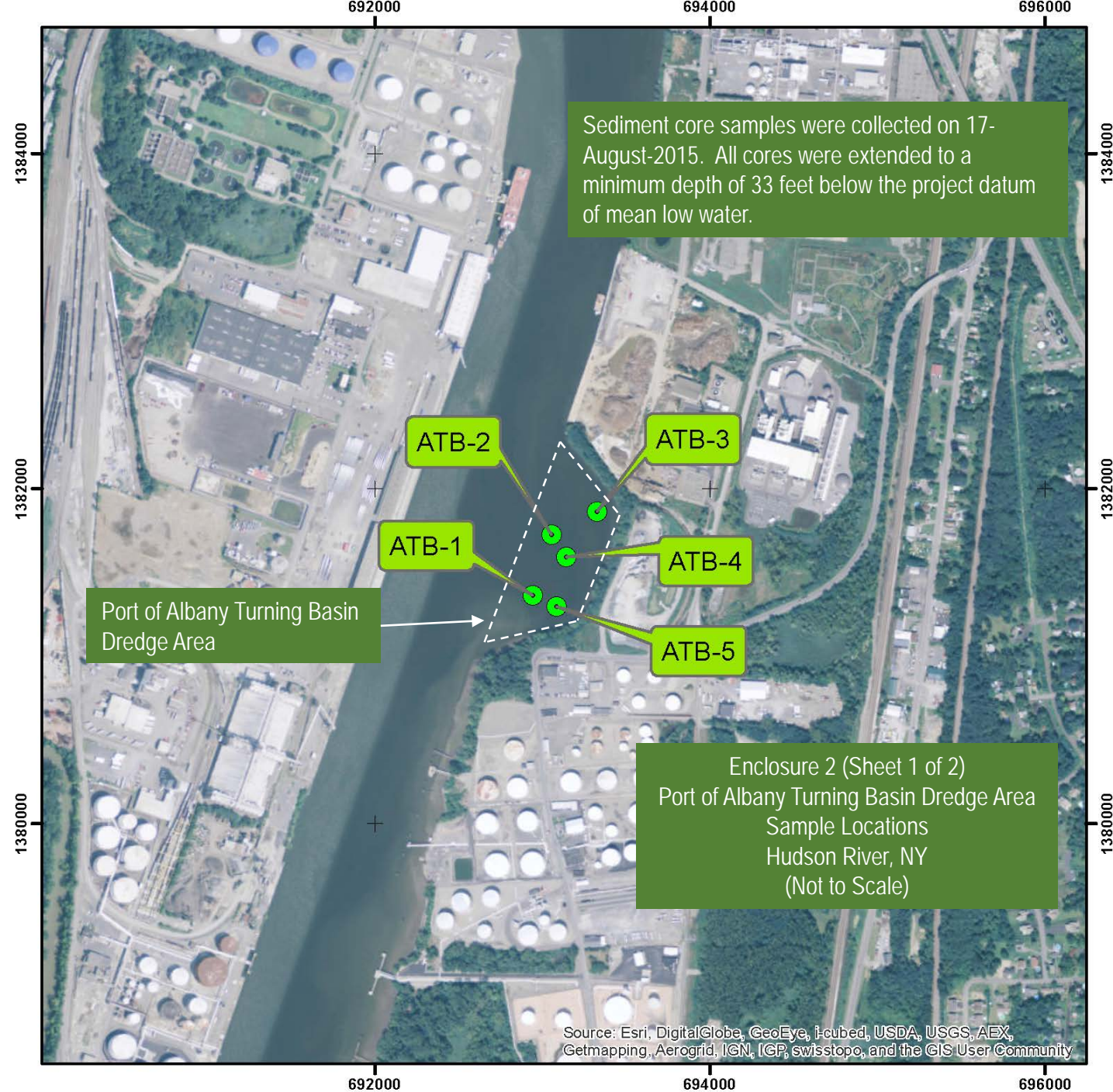


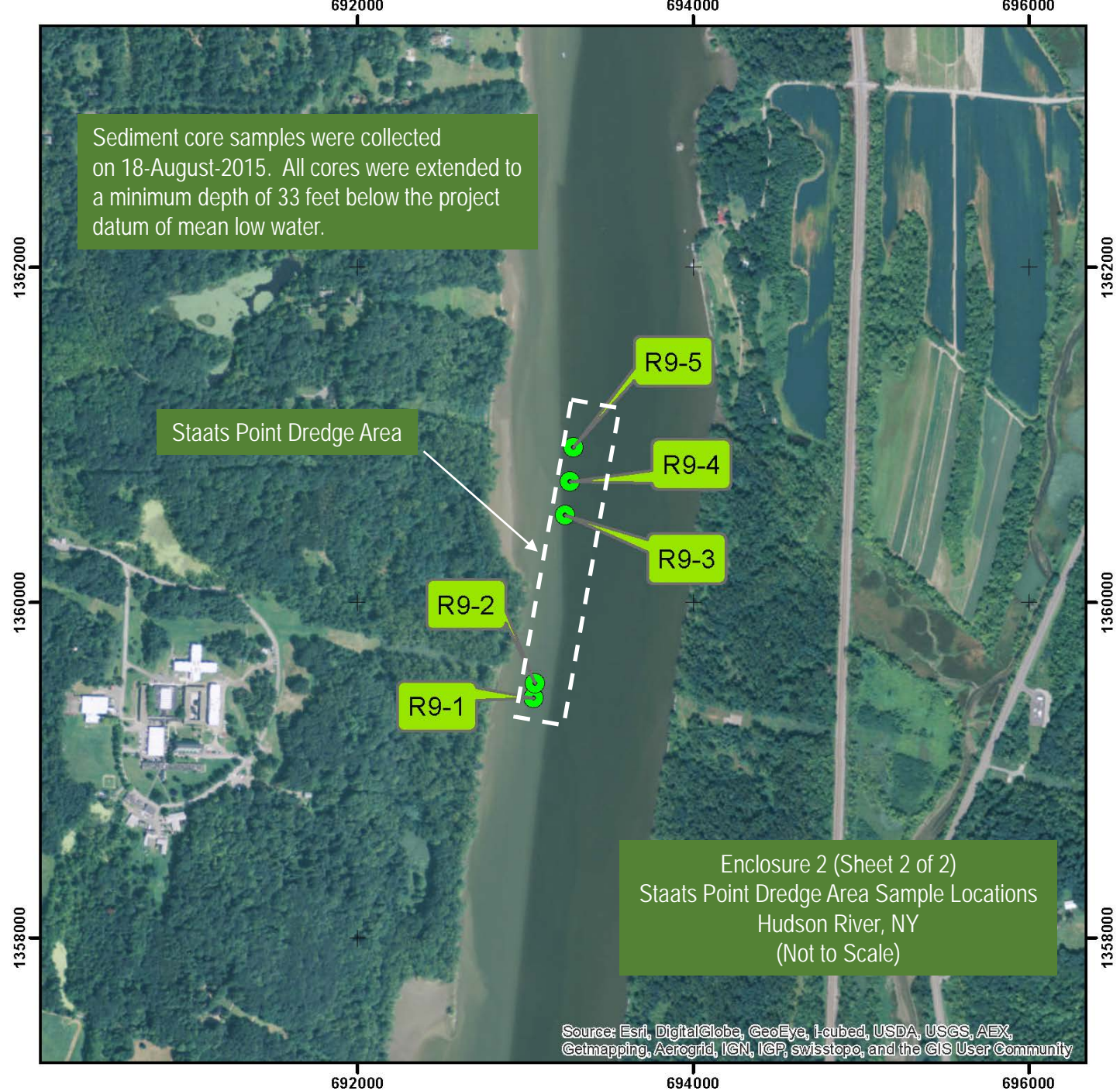
Port of Albany Turning Basin Dredge Area
River Mile 142

Staats Point Dredge Area
River Mile 138

Placement Site U-3A
River Mile 130

ENCLOSURE 1
LOCATION MAP OF
PROPOSED DREDGE AREA
AND
PLACEMENT SITE
(Not to Scale)





Approximate location of
effluent pipeline

EXISTING INFLUENT
PIPELINE CORRIDOR

Approximate location of
effluent pipeline

HUDSON RIVER
EBB

ACCESS ROAD FROM SCHODACK
ISLAND STATE PARK AND RTE. 9J

AREA B

APPROXIMATE
LOCATION OF
ICEHOUSE SITE A

Due to PCB levels in the underlying
sediment; excavation in this area is
prohibited

SCHODACK CREEK
EBB

AREA A

Enclosure 3
Upland Placement Site U-3A
Houghtaling Island
Hudson River, NY
(Not to Scale)

BENCHMARK INFORMATION

BM #1 Bench mark is a railroad spike set in tree located at southwest corner of influent pipeline corridor. Elev. 28.61

BM #2 Bench mark is a railroad spike set in tree located at northwest corner of placement site. Elev. 35.17

BM #3 Bench mark is a railroad spike set in tree located at southwest corner of effluent pipeline corridor. Elev. 38.18

All elevations are expressed in feet and refer to NGVD 29.

NOTE:
THE INFORMATION DEPICTED ON THIS MAP REPRESENTS
THE RESULTS OF SURVEYS MADE ON THE DATE(S) INDICATED
AND CAN ONLY BE CONSIDERED THE GENERAL CONDITIONS
EXISTING AT THAT TIME.

COORDINATES ARE EXPRESSED IN FEET AND REFER TO THE
1983 STATE PLANE NEW YORK EAST.

ELEVATIONS ARE EXPRESSED IN FEET AND REFER TO THE
PLANE OF NAVD 1988 AS DETERMINED FROM _____

THE TOPOGRAPHIC DATA DEPICTED ON THIS MAP WAS
COLLECTED USING SURVEY TYPE: RECONNAISSANCE
TOPOGRAPHIC SURVEY, AS PRESCRIBED IN EM 1110-1-1005.

LEGEND

- + Approximate Locations of Benchmarks
- 10-Foot Contours
- 2-Foot Contours

Table 3 Grain Size Distribution, Percent Moisture, and TOC

Sample Name	ASI ID #	Total % Gravel	Total % Sand	Total % Silt	Total % Clay	% Moisture	TOC ppm	% TOC of Dry Weight
R9-1	20150619	0.0	19.2	56.5	24.3	51.9	33,747	3.37
R9-2	20150620	0.0	31.6	46.6	21.8	40.3	24,483	2.45
R9-3	20150621	0.1	68.0	24.0	7.9	30.4	9,853	0.99
R9-4	20150622	2.0	79.6	12.5	5.9	22.5	6,374	0.64
R9-5	20150623	1.9	79.7	11.0	7.4	24.2	7,672	0.77
R9 Comp	20150626	1.8	61.5	24.1	12.6	33.9	12,590	1.26
R9 Comp	20150626 dup	1.1	62.0	25.1	11.8	33.5		
R9 Comp	20150626 trip	2.2	61.3	23.9	12.6	33.2		
ATB-1	20150614	0.0	23.3	54.2	22.5	45.3	33,961	3.40
ATB-2	20150615	0.0	20.4	55.3	24.3	47.0	31,623	3.16
ATB-3	20150616	0.0	21.8	51.1	27.1	47.2	32,316	3.23
ATB-4	20150617	0.0	20.3	53.9	25.8	35.6	31,205	3.12
ATB-5	20150618	0.0	22.0	54.7	23.3	44.5	31,790	3.18
ATB Comp	20150625	0.0	23.3	54.4	22.3	46.3	33,460	3.35

Hudson River - Staats Point & Albany Turning Basin 2015

Hudson River - Staats Point & Albany Turning Basin 2015

ATB Composite - Sediment Volatiles

Volatiles		Sediment (µg/kg)		MDL (µg/kg)
Field ID #		20150625		20150625
		ATB COMPOSITE	Q	ATB COMPOSITE
Chloromethane (Methyl Chloride)		9.7 U		1.7
Bromomethane		9.7 U		1.4
Vinyl chloride		9.7 U		0.91
Chloroethane		9.7 U		3
Methylene chloride (Dichloromethane)		9.7 U		1.3
Acetone		39 U *		9.7
Carbon disulfide		9.7 U		1
1,1-Dichloroethene		9.7 U		1.7
1,1-Dichloroethane		9.7 U		1.1
1,2-Dichloroethene (total)		9.7 U		2.5
Chloroform		9.7 U		1.1
1,2-Dichloroethane		9.7 U		1.2
2-Butanone (MEK)		9.7 U *		1.7
1,1,1-Trichloroethane		9.7 U		0.95
Carbon tetrachloride		9.7 U		0.87
Bromodichloromethane		9.7 U		1.1
1,2-Dichloropropane		9.7 U		1.1
cis-1,3-Dichloropropene		9.7 U		1.3
Trichloroethene		9.7 U		1.3
Dibromochloromethane		9.7 U		1.4
1,1,2-Trichloroethane		9.7 U		1.6
Benzene		9.7 U		1.3
trans-1,3-dichloropropene		9.7 U		1.2
Bromoform		9.7 U		0.86
4-Methyl-2-pentanone (MIBK)		9.7 U		1.3
2-Hexanone		9.7 U *		1.3
Tetrachloroethene		9.7 U		1.3
1,1,2,2-Tetrachloroethane		9.7 U		1.4
Toluene		9.7 U		1.4
Chlorobenzene		9.7 U		1.5
Ethyl benzene		9.7 U		1.3
Styrene		9.7 U		1.4
Xylenes(Total)		29 U		4.4
Acrolein		190 U *		14
Acrylonitrile		190 U *		20
1,2-Dibromo-3-chloropropane		9.7 U		1.5
1,2-Dibromoethane		9.7 U		1.7
Dichlorodifluoromethane		9.7 U		1.3
1,2-Dichloroethene (cis)		9.7 U		1.4
1,2-Dichloroethene (trans)		9.7 U		1.2
Methyl acetate		49 U		1.8
Methyl tert-butyl ether (MTBE)		9.7 U		1.5
Tertiary butyl alcohol (TBA)		390 U *		77
Trichlorofluoromethane		9.7 U		1.8
Combined 1,3-dichloropropenes (SUM) cis + trans				
1,4-dioxane		3300 U		190
n-propylbenzene		9.7 U		1.5
sec-butylbenzene		9.7 U		1.5
tert-butylbenzene		9.7 U		1.4
1,2,4-trimethylbenzene		9.7 U		1.3
1,3,5-trimethylbenzene		9.7 U		1.3

Hudson River - Staats Point & Albany Turning Basin 2015

Hudson River - Staats Point & Albany Turning Basin 2015

ATB Composite - Sediment Semivolatiles

Semivolatiles		Sediment (µg/kg)		MDL (µg/kg)
Field ID #		20150625		20150625
		ATB COMPOSITE	Q	ATB COMPOSITE
Phenol		330	U	38
bis(2-Chloroethyl)ether		330	U	43
2-Chlorophenol		1600	U	130
1,3-Dichlorobenzene		1600	U	130
1,4-Dichlorobenzene		1600	U	120
1,2-Dichlorobenzene		1600	U	170
2-Methylphenol (o-cresol)		1600	U	110
1-Chloropropane-2,2'-oxybis/ bis(2-chloroisopropyl)ether		330	U	35
4-Methylphenol (p-cresol) [co-elutes with 3-methylphenol (m-cresol)]		1600	U	160
N-Nitroso-Di-N-Propylamine		330	U	38
Hexachloroethane		1600	U	120
Nitrobenzene		3300	U	130
Isophorone		1600	U	120
2-Nitrophenol		1600	U	180
2,4-Dimethylphenol		1600	U	250
bis(2-Chloroethoxy)methane		1600	U	110
2,4-Dichlorophenol		330	U	32
1,2,4-Trichlorobenzene		1600	U	90
Naphthalene		34	J	28
4-Chloroaniline		1600	U	130
Hexachloro-1,3-butadiene		330	U	36
4-Chloro-3-methylphenol		1600	U	150
2-Methylnaphthalene		330	U	29
Hexachlorocyclopentadiene		1600	U	170
2,4,6-Trichlorophenol		1600	U	240
2,4,5-Trichlorophenol		1600	U	170
2-Chloronaphthalene		330	U	34
2-Nitroaniline		8300	U	730
Dimethylphthalate		1600	U	180
Acenaphthylene		52	J	37
2,6-Dinitrotoluene		1600	U	170
3-Nitroaniline		8300	U	670

Hudson River - Staats Point & Albany Turning Basin 2015

Hudson River - Staats Point & Albany Turning Basin 2015

ATB Composite - Sediment Semivolatiles (continued)

Semivolatiles, continued		Sediment (µg/kg)		MDL (µg/kg)
ASI ID #		20150625		20150625
		ATB COMPOSITE	Q	ATB COMPOSITE
Acenaphthene		330	U	31
2,4-Dinitrophenol		8300	U	1900
4-Nitrophenol		8300	U	590
Dibenzofuran		1600	U	160
2,4-Dinitrotoluene		1600	U	130
Diethylphthalate		1600	U	180
4-Chlorophenyl-phenylether		1600	U	180
Fluorene		330	U	43
4-Nitroaniline		8300	U	660
4,6-Dinitro-2-methylphenol		8300	U	650
N-Nitrosodiphenylamine		1600	U	150
4-Bromophenyl-phenylether		1600	U	140
Hexachlorobenzene		330	U	35
Pentachlorophenol		1600	U	140
Phenanthrene		260	J	52
Anthracene		94	J	32
Carbazole		330	U	30
Di-n-butylphthalate		1600	U	200
Fluoranthene		490		35
Pyrene		450		33
Butylbenzylphthalate		1600	U	220
3,3'-Dichlorobenzidine		1600	U	170
Benzo(a)anthracene		280	J	41
Chrysene		320	J	39
bis(2-Ethylhexyl)phthalate		3300	U	260
DI-n-octylphthalate		1600	U	170
Benzo(b)fluoranthene		350		51
Benzo(k)fluoranthene		92	J	65
Benzo(a)pyrene		260	J	32
Indeno(1,2,3-cd)pyrene		200	J	33
Dibenzo(a,h)anthracene		330	U	36
Benzo(ghi)perylene		240	J	32
Pyridine		1600	U	81
Acetophenone		1600	U	130
Atrazine		1600	U	160
Benzaldehyde		1600	U	240
Benzidine		33000	U	6800
1,1'-Biphenyl		1600	U	140
Caprolactam		8300	U	1200
1,2-Diphenylhydrazine		1600	U	210
N-Nitrosodimethylamine		1600	U	140
Total Cresol				

Hudson River - Staats Point & Albany Turning Basin 2015

Hudson River - Staats Point & Albany Turning Basin 2015

ATB Composite - Sediment Chlorinated Pesticides

Chlorinated Pesticides		Sediment (µg/kg)		MDL (µg/kg)
Field ID #		20150625		20150625
		ATB COMPOSITE	Q	ATB COMPOSITE
alpha-BHC		1.6	U	0.26
beta-BHC		1.6	U	0.42
delta-BHC		3.2	p	0.25
gamma-BHC (Lindane)		1.6	U	0.28
Heptachlor		2.3	p	0.36
Aldrin		1.6	U	0.29
Heptachlor epoxide		3.4	p	0.31
Endosulfan I		0.38	J p	0.3
Dieldrin		0.96	J p	0.27
4,4'-DDE		0.93	J p	0.24
Endrin		2.6	p	0.31
Endosulfan II		0.42	J p	0.28
4,4'-DDD		0.35	J p	0.21
Endosulfan sulfate		0.62	J p	0.17
4,4'-DDT		5.5		0.24
Methoxychlor		0.49	J p	0.34
Endrin ketone		1	J p	0.25
Endrin aldehyde		0.55	J p	0.31
alpha-Chlordane		0.6	J p	0.32
gamma-Chlordane		5.4		0.32
Toxaphene		65	U	11
Mirex		1.6	U	0.15

Hudson River - Staats Point & Albany Turning Basin 2015

Hudson River - Staats Point & Albany Turning Basin 2015

ATB Composite - Sediment Metals

Metals		Sediment (µg/kg)		MDL (µg/kg)
Field ID #		20150625		20150625
		ATB COMPOSITE	Q	ATB COMPOSITE
Aluminum		12000		2.6
Antimony		0.31	J	0.26
Arsenic		5.6		0.55
Barium		100		0.04
Beryllium		0.62		0.028
Cadmium		0.66		0.028
Calcium		13000		16
Chromium		30	B	0.042
Cobalt		12		0.07
Copper		36		0.15
Iron		24000		2.1
Lead		37		0.17
Magnesium		6600		3.5
Manganese		830	B	0.027
Mercury		0.2		0.02
Nickel		29	B	0.13
Potassium		1500		36
Selenium		0.69	J	0.31
Silver		0.48	U	0.065
Sodium		110	J	14
Thallium		1.9	U	0.27
Vanadium		22		0.28
Zinc		110		0.42
%Solids		51.3		

Hudson River - Staats Point & Albany Turning Basin 2015

Hudson River - Staats Point & Albany Turning Basin 2015

R9 Composite - Sediment Volatiles

Volatiles		Sediment (µg/kg)		MDL (µg/kg)
Field ID #		20150626		20150626
		R9 COMPOSITE	Q	R9-COMPOSITE
Chloromethane (Methyl Chloride)		9.7	U	1.4
Bromomethane		9.7	U	1.2
Vinyl chloride		8.4	U	0.79
Chloroethane		8.4	U	2.6
Methylene chloride (Dichloromethane)		8.4	U	1.1
Acetone		33	U *	8.4
Carbon disulfide		8.4	U	0.86
1,1-Dichloroethene		8.4	U	1.4
1,1-Dichloroethane		8.4	U	0.96
1,2-Dichloroethene (total)		8.4	U	2.1
Chloroform		8.4	U	0.98
1,2-Dichloroethane		8.4	U	1
2-Butanone (MEK)		8.4	U *	1.5
1,1,1-Trichloroethane		8.4	U	0.81
Carbon tetrachloride		8.4	U	0.75
Bromodichloromethane		8.4	U	0.94
1,2-Dichloropropane		8.4	U	0.91
cis-1,3-Dichloropropene		8.4	U	1.1
Trichloroethene		8.4	U	1.1
Dibromochloromethane		8.4	U	1.2
1,1,2-Trichloroethane		8.4	U	1.4
Benzene		8.4	U	1.1
trans-1,3-dichloropropene		8.4	U	1
Bromoform		8.4	U	0.74
4-Methyl-2-pentanone (MIBK)		8.4	U	1.1
2-Hexanone		8.4	U *	1.2
Tetrachloroethene		8.4	U	1.1
1,1,2,2-Tetrachloroethane		8.4	U	1.2
Toluene		8.4	U	1.2
Chlorobenzene		8.4	U	1.3
Ethyl benzene		8.4	U	1.1
Styrene		8.4	U	1.2
Xylenes(Total)		25	U	3.7
Acrolein		170	U *	12
Acrylonitrile		170	U *	17
1,2-Dibromo-3-chloropropane		8.4	U	1.3
1,2-Dibromoethane		8.4	U	1.4
Dichlorodifluoromethane		8.4	U	1.1
1,2-Dichloroethene (cis)		8.4	U	1.2
1,2-Dichloroethene (trans)		8.4	U	1
Methyl acetate		42	U	1.5
Methyl tert-butyl ether (MTBE)		8.4	U	1.3
Tertiary butyl alcohol (TBA)		330	U *	66
Trichlorofluoromethane		8.4	U	1.5
Combined 1,3-dichloropropenes (SUM) cis + trans				
1,4-dioxane		2800	U	160
n-propylbenzene		8.4	U	1.3
sec-butylbenzene		8.4	U	1.3
tert-butylbenzene		8.4	U	1.2
1,2,4-trimethylbenzene		8.4	U	1.1
1,3,5-trimethylbenzene		8.4	U	1.1

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R9 Composite - Sediment Semivolatiles

Semivolatiles		Sediment (µg/kg)		MDL (µg/kg)
Field ID #		20150626		20150626
		R9 COMPOSITE	Q	R9 COMPOSITE
Phenol		280	U	33
bis(2-Chloroethyl)ether		280	U	37
2-Chlorophenol		1400	U	110
1,3-Dichlorobenzene		1400	U	110
1,4-Dichlorobenzene		1400	U	100
1,2-Dichlorobenzene		1400	U	150
2-Methylphenol (o-cresol)		1400	U	98
1-Chloropropane-2,2'-oxybis/ bis(2-chloroisopropyl)ether		280	U	30
4-Methylphenol (p-cresol) (co-elutes with 3-methylphenol (m-cresol))		1400	U	140
N-Nitroso-Di-N-Propylamine		280	U	33
Hexachloroethane		1400	U	100
Nitrobenzene		2800	U	120
Isophorone		1400	U	110
2-Nitrophenol		1400	U	150
2,4-Dimethylphenol		1400	U	220
bis(2-Chloroethoxy)methane		1400	U	92
2,4-Dichlorophenol		280	U	28
1,2,4-Trichlorobenzene		1400	U	77
Naphthalene		280	U	24
4-Chloroaniline		1400	U	110
Hexachloro-1,3-butadiene		280	U	31
4-Chloro-3-methylphenol		1400	U	130
2-Methylnaphthalene		280	U	25
Hexachlorocyclopentadiene		1400	U	150
2,4,6-Trichlorophenol		1400	U	210
2,4,5-Trichlorophenol		1400	U	150
2-Chloronaphthalene		280	U	29
2-Nitroaniline		7100	U	630
Dimethylphthalate		1400	U	150
Acenaphthylene		280	U	32
2,6-Dinitrotoluene		1400	U	140
3-Nitroaniline		7100	U	570

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R9 Composite - Sediment Semivolatiles (continued)

Semivolatiles, continued		Sediment (µg/kg)		MDL (µg/kg)
Field ID #		20150626		20150626
		R9 COMPOSITE	Q	R9 COMPOSITE
Acenaphthene		280	U	27
2,4-Dinitrophenol		7100	U	1700
4-Nitrophenol		7100	U	510
Dibenzofuran		1400	U	140
2,4-Dinitrotoluene		1400	U	110
Diethylphthalate		1400	U	150
4-Chlorophenyl-phenylether		1400	U	160
Fluorene		280	U	37
4-Nitroaniline		7100	U	570
4,6-Dinitro-2-methylphenol		7100	U	560
N-Nitrosodiphenylamine		1400	U	130
4-Bromophenyl-phenylether		1400	U	120
Hexachlorobenzene		280	U	30
Pentachlorophenol		1400	U	120
Phenanthrene		160	J	44
Anthracene		280	U	27
Carbazole		280	U	26
Di-n-butylphthalate		1400	U	170
Fluoranthene		360		30
Pyrene		320		28
Butylbenzylphthalate		1400	U	190
3,3'-Dichlorobenzidine		1400	U	150
Benzo(a)anthracene		180	J	35
Chrysene		220	J	33
bis(2-Ethylhexyl)phthalate		2800	U	230
DI-n-octylphthalate		1400	U	150
Benzo(b)fluoranthene		280	U	44
Benzo(k)fluoranthene		280	U	56
Benzo(a)pyrene		280	U	28
Indeno(1,2,3-cd)pyrene		280	U	29
Dibenzo(a,h)anthracene		280	U	31
Benzo(ghi)perylene		280	U	28
Pyridine		1400	U	70
Acetophenone		1400	U	110
Atrazine		1400	U	140
Benzaldehyde		1400	U	210
Benzidine		28000	U	5800
1,1'-Biphenyl		1400	U	120
Caprolactam		7100	U	1100
1,2-Diphenylhydrazine		1400	U	180
N-Nitrosodimethylamine		1400	U	120
Total Cresol				

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R9 Composite - Sediment Chlorinated Pesticides

Chlorinated Pesticides		Sediment (µg/kg)		MDL (µg/kg)
Field ID #		20150626		20150626
		R9 COMPOSITE	Q	R9 COMPOSITE
alpha-BHC		1.4	U	0.23
beta-BHC		1.4	U	0.36
delta-BHC		2.2	p	0.21
gamma-BHC (Lindane)		1.4	U	0.25
Heptachlor		1.7	p	0.31
Aldrin		1.4	U	0.25
Heptachlor epoxide		2.5	p	0.27
Endosulfan I		1.4	U	0.26
Dieldrin		0.5	J p	0.23
4,4'-DDE		0.91	J p	0.21
Endrin		2.3		0.27
Endosulfan II		0.25	J p	0.25
4,4'-DDD		0.33	J p	0.18
Endosulfan sulfate		0.34	J p	0.15
4,4'-DDT		3.2		0.21
Methoxychlor		2.8	U	0.29
Endrin ketone		0.47	J p	0.22
Endrin aldehyde		1.4	U	0.27
alpha-Chlordane		0.3	J p	0.28
gamma-Chlordane		3.5		0.28
Toxaphene		56	U	9.3
Mirex		1.4	U	0.13

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ATB Composite - Sediment Metals

Metals		Sediment (µg/kg)		MDL (µg/kg)
Field ID #		20150625		20150625
		R9 COMPOSITE	Q	R9 COMPOSITE
Aluminum		7100		2.2
Antimony		0.83	U	0.23
Arsenic		2.9		0.47
Barium		51		0.034
Beryllium		0.36		0.024
Cadmium		0.4	J	0.024
Calcium		4800		13
Chromium		17	B	0.036
Cobalt		7.5		0.06
Copper		20		0.13
Iron		15000		1.8
Lead		24		0.15
Magnesium		3600		3
Manganese		430	B	0.023
Mercury		0.1		0.017
Nickel		16	B	0.11
Potassium		810		31
Selenium		0.83	U	0.27
Silver		0.094	J	0.056
Sodium		73	J	12
Thallium		1.7	U	0.23
Vanadium		15		0.24
Zinc		73		0.36
%Solids		59.7		

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ATB-1 Sediment Aroclors

Aroclors		Sediment (µg/kg)		MDL (µg/kg)
Field ID #		20150614		20150614
		ATB-1	Q	ATB-1
Aroclor-1016		9.7	U	3.2
Aroclor-1221		9.7	U	3.9
Aroclor-1232		16	U	5.4
Aroclor-1242		330		4
Aroclor-1248		16	U	3.9
Aroclor-1254		99		3.7
Aroclor-1260		32		3.4
%Solids		53.1		

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ATB-2 Sediment Aroclors

Aroclors		Sediment (µg/kg)		MDL (µg/kg)
Field ID #		20150615		20150615
		ATB-2	Q	ATB-2
Aroclor-1016		9.7	U	3.4
Aroclor-1221		9.7	U	4.1
Aroclor-1232		17	U	5.7
Aroclor-1242		260		4.2
Aroclor-1248		17	U	4.1
Aroclor-1254		100		3.9
Aroclor-1260		33		3.6
%Solids		50.4		

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ATB-3 Sediment Aroclors

Aroclors		Sediment (µg/kg)		MDL (µg/kg)
Field ID #		20150616		20150616
		ATB-3	Q	ATB-3
Aroclor-1016		9.7	U	3.4
Aroclor-1221		9.7	U	4.1
Aroclor-1232		16	U	5.7
Aroclor-1242		840		4.2
Aroclor-1248		16	U	4.1
Aroclor-1254		230		3.9
Aroclor-1260		74		3.6
%Solids		50.7		

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ATB-4 Sediment Aroclors

Aroclors		Sediment (µg/kg)		MDL (µg/kg)
Field ID #		20150617		20150617
		ATB-4	Q	ATB-4
Aroclor-1016		9.7	U	3.4
Aroclor-1221		9.7	U	4.2
Aroclor-1232		17	U	5.8
Aroclor-1242		260		4.2
Aroclor-1248		17	U	4.2
Aroclor-1254		110		4
Aroclor-1260		36		3.7
%Solids		49.8		

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ATB-5 Sediment Aroclors

Aroclors		Sediment (µg/kg)		MDL (µg/kg)
Field ID #		20150618		20150618
		ATB-5	Q	ATB-5
Aroclor-1016		9.7	U	3
Aroclor-1221		9.7	U	3.7
Aroclor-1232		15	U	5.2
Aroclor-1242		370		3.8
Aroclor-1248		15	U	3.7
Aroclor-1254		130		3.5
Aroclor-1260		42		3.3
%Solids		55.6		

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R9-1 Sediment Aroclors

Aroclors		Sediment (µg/kg)		MDL (µg/kg)
Field ID #		20150619		20150619
		R9-1	Q	R9-1
Aroclor-1016		9.7	U	3.6
Aroclor-1221		9.7	U	4.4
Aroclor-1232		18	U	6.1
Aroclor-1242		680		4.5
Aroclor-1248		18	U	4.4
Aroclor-1254		260		4.2
Aroclor-1260		74		3.9
%Solids		47		

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R9-2 Sediment Aroclors

Aroclors		Sediment (µg/kg)		MDL (µg/kg)
Field ID #		20150620		20150620
		R9-2	Q	R9-2
Aroclor-1016		9.7	U	2.9
Aroclor-1221		9.7	U	3.6
Aroclor-1232		14	U	4.9
Aroclor-1242		400		3.6
Aroclor-1248		14	U	3.6
Aroclor-1254		190		3.4
Aroclor-1260		73		3.1
%Solids		58.7		

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R9-3 Sediment Aroclors

Aroclors		Sediment (µg/kg)		MDL (µg/kg)
Field ID #		20150621		20150621
		R9-3	Q	R9-3
Aroclor-1016		9.7	U	2.9
Aroclor-1221		9.7	U	3.5
Aroclor-1232		14	U	4.9
Aroclor-1242		260		3.6
Aroclor-1248		14	U	3.5
Aroclor-1254		81		3.4
Aroclor-1260		23		3.1
%Solids		59.1		

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R9-4 Sediment Aroclors

Aroclors		Sediment (µg/kg)		MDL (µg/kg)
Field ID #		20150622		20150622
		R9-4	Q	R9-4
Aroclor-1016		9.7	U	2.7
Aroclor-1221		9.7	U	3.3
Aroclor-1232		13	U	4.6
Aroclor-1242		120		3.3
Aroclor-1248		13	U	3.3
Aroclor-1254		29		3.1
Aroclor-1260		13		2.9
%Solids		62.4		

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R9-5 Sediment Aroclors

Aroclors		Sediment (µg/kg)		MDL (µg/kg)
Field ID #		20150623		20150623
		R9-5	Q	R9-5
Aroclor-1016		9.7	U	2.8
Aroclor-1221		9.7	U	3.4
Aroclor-1232		14	U	4.7
Aroclor-1242		150		3.5
Aroclor-1248		14	U	3.4
Aroclor-1254		45		3.3
Aroclor-1260		17		3
%Solids		60.4		

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Data Qualifier Flags - GC/MS VOA

U	Indicates the analyte was analyzed for but not detected.
*	LCS or LCSD exceeds the control limit
F1	MS and/or MSD recovery exceeds control limits
F2	MS/MSD RPD exceeds control limits
E	Result exceeded calibration range
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
X	Surrogate is outside control limits

Data Qualifier Flags - GC/MS Semi VOA

B	Compound was found in the blank and sample
U	Indicates the analyte was analyzed for but not detected.
*	LCS or LCSD exceeds the control limit
F1	MS and/or MSD recovery exceeds control limits
F2	MS/MSD RPD exceeds control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
X	Surrogate is outside control limits

Data Qualifier Flag - GC Semi VOA

U	Indicates the analyte was analyzed for but not detected.
F1	MS and/or MSD recovery exceeds control limits
F2	MS/MSD RPD exceeds control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
X	Surrogate is outside control limits
p	The %RPD between the primary and confirmation column/detector is >40%. The lower value has been reported.

Data Qualifier Flags - Metals

B	Compound was found in the blank and sample
U	Indicates the analyte was analyzed for but not detected.
F1	MS and/or MSD recovery exceeds control limits
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
W	PS: Post-digestion spike was outside control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Data Qualifier Flags - General Chemistry

U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Data Qualifier Flags – Dioxins/Furans, SPLP

B	The analyte is present in the associated method blank at a detectable level.
C	Coeluting Isomer.
E	The reported result is an estimate. The amount reported is above the Upper Calibration Level.
J	The reported result is an estimate. The amount reported is below the Minimum Level.
ND	Indicates concentration is reported as 'Not Detected'
S	Ion suppression evident.
Q	Estimated maximum possible concentration.
#	Results reported from the confirmation analysis
*	Surrogate recovery is outside stated control limits.

Data Qualifier Flags – Dioxins/Furans, Sediment

J	reported value < detection limit
U	not detected
#	value from confirmation analysis
&	outside QC limits.