3612122239

July 26, 2012

Ms. Tracy Kelly
BRWM/Division of Remediation
Maine Department of Environmental Protection
17 State House Station
Augusta, Maine 04333-0017

Re: Sampling Letter Report
Former FPL Energy, Maine Hydro Site, Biddeford, Maine

Dear Ms. Kelly,

AMEC Environment and Infrastructure, Inc (AMEC) is pleased to present this Sampling Letter Report for the Former FPL Energy, Maine Hydro, LLC Property (Site) in Biddeford, Maine. This work was conducted under the Maine Department of Environmental Protection's (MEDEP's) Municipal Brownfield program at the request of the City of Biddeford.

Site History and Purpose of Investigation

The City of Biddeford would like to create public walking/open space as part of a river walk. The river walk would cross through the Site, located on Laconia Street and referenced in the City of Biddeford's Assessor's Office as Map 71, Lot 8.

Ransom Consultants Inc. (Ransom) conducted a Phase I Environmental Site Assessment (Phase I) for the property in 2011 (Ransom, 2011). Based on the Phase I, the Site was historically part of the surrounding mill complexes, which operated from the mid 1800's until the early 2000's. The Site itself is currently vacant, but historically contained buildings until the mid to late 1900's. The Site may have been used for the storage, production, and transportation of goods. In addition, according to the Phase I Report, electrical transformers may have been stored in this area in the late 1900's. Soil investigations conducted around the adjacent mill buildings identified the presence of heavy metals (primarily arsenic and lead), polyaromatic hydrocarbons (PAHs), diesel range organics (DRO), and volatile organic compounds (VOCs) at concentrations above the Maine Remedial Action Guidelines/Cleanup Goals. It was not known if these contaminants were also present on the Site. In addition, due to the potential historic storage of transformers on the property, it was not known if polychlorinated biphenyl's (PCBs) were present at concentrations above applicable Maine Remedial Action Guidelines (RAGs).

The purpose of this soil sampling effort was to evaluate whether the soils at the Site would pose a direct contact risk to people visiting or using the site (i.e. comparison to the RAGs for Park Users and Commercial Worker [landscaper]).

AMEC Environment & Infrastructure, Inc.
511 Congress Street, Suite 200
Portland, ME 04101 USA
Tel (207) 775-5401 | Fax (207) 772-4762 www.amec.com

Scope of Work/Field Observations

AMEC completed eight hand soil borings (locations SS-1 to SS-8 shown on Figure 1). Hand Borings were completed to between 0.5 and two feet below ground surface (bgs) using a stainless steel shovel to evaluate surface soils that would be expected to be accessible to Site users, or landscape workers. Soil from the borings was visually inspected for evidence of contamination (i.e. stained soil, coal ash, etc.) and screened for VOCs with a PID (Field Data Sheets are included in Attachment 1).

Most of the area was grassed, with some flower gardens along the mill building along the west side of the Site, and rip-rap along the concrete retaining wall on the east side of the Site. Some polyvinyl sheeting, landscape fabric and a 6-inch diameter polyvinyl chloride (PVC) piping were present on the north end of the Site. Photographs showing the general site area are presented in Attachment 2. Samples were collected from grassy areas, with gravelly topsoil noted at most locations. Concrete was encountered at six inches below grade at location SS-5 (below landscaping fabric). Fill containing brick, concrete, wood, and rebar was encountered below the grass and topsoil at locations SS-6 to SS-8. Visual and olfactory observations did not indicate the presence of gasoline or fuel oil. In addition, PID readings were considered to be within the range of background (<0.1 to 0.6 parts per million), indicating that a source of VOCs was not present in the areas observed.

Samples were collected from zero to six inches bgs at each location, and also from 12 inches bgs at two of the locations (SS-6 and SS-8). Samples were submitted to Absolute Resource Associates, LLC of Portsmouth, New Hampshire for analysis of lead, cadmium and arsenic by USEPA Method 6010B and PAHs by USEPA Method 8270. In addition, six samples were submitted for analysis of PCBs by USEPA Method 8082 from the zero to six inch depths at locations SS-4 to SS-8, and also from the 12 inch depth at SS-6.

Sampling point horizontal locations were located using ties to adjacent buildings and plotted in GIS using aerial photographs.

Results

Laboratory analytical results were compared to the Maine Park User and Commercial User RAGs, as well as the draft 2012 Urban Background Soil concentrations (Construction Worker RAGs are also included in the table for comparison for the potential construction of a walkway). Detected compounds are presented on Table 1. Complete analytical data is presented in Attachment 3.

Analytical results indicated the presence of PAHs in five of the eight sample locations. Benzo(a)anthracene and dibenzo(a,h)anthracene exceeded the Maine urban area background soil concentrations and the RAG for park users at two of the sample locations (SS-6 and SS-8). Exceedences were noted in both the samples collected from SS-6 (although the exceedences at 12 inches of depth were noted in the duplicate sample, and not in the primary sample).

Metals were not detected at concentrations above the Park User Rags, and PCBs were not detected.

Conclusions

PAHs in surface soil samples collected from the southern portion of the Site were detected at concentrations that exceeded the Maine urban background soil samples and the Maine Park User RAGs. The concentrations detected did not exceed the RAGs for commercial workers (i.e. landscapers) or construction workers (i.e. for contractors that might construct the walkway). PAHs were not detected in the northern portion of the site (narrow portion between retaining wall and building) at concentrations above the Maine urban background soil samples and the Maine Park User RAGs. Metals were not detected at concentrations above Park User RAGs and PCBs were not detected in any of the samples collected.

Based on the PAH results, the surface soil in the southern portion of the property may not be suitable for park use (e.g., picnicking). If a river walk trail is constructed in this area of the Site, the risk of contact with contaminated soil in unpaved areas could be addressed by covering this area with a demarcation layer and eight to ten inches of clean fill, or two feet of clean fill and no demarcation layer. Paving this area is another mitigation alternative. If a wooden walkway is constructed, a Soil Management Plan is recommended to manage contaminated soils left in place.

To provide the property owner (the City of Biddeford) protection from future enforcement actions, the City of Biddeford should consider entering the Site into the MEDEP Voluntary Response Action Program (VRAP). This would entail submission to the MEDEP a VRAP Application, and once approved, issuance of a "No Further Action Assurance Letter." The letter would include restrictions on excavation, as required in the Soil Management Plan, and would be filed with the Registry of Deeds as a declaration of environmental covenant.

Please feel free to contact me at (207) 828-3692 if you have any questions or comments.

Sincerely,

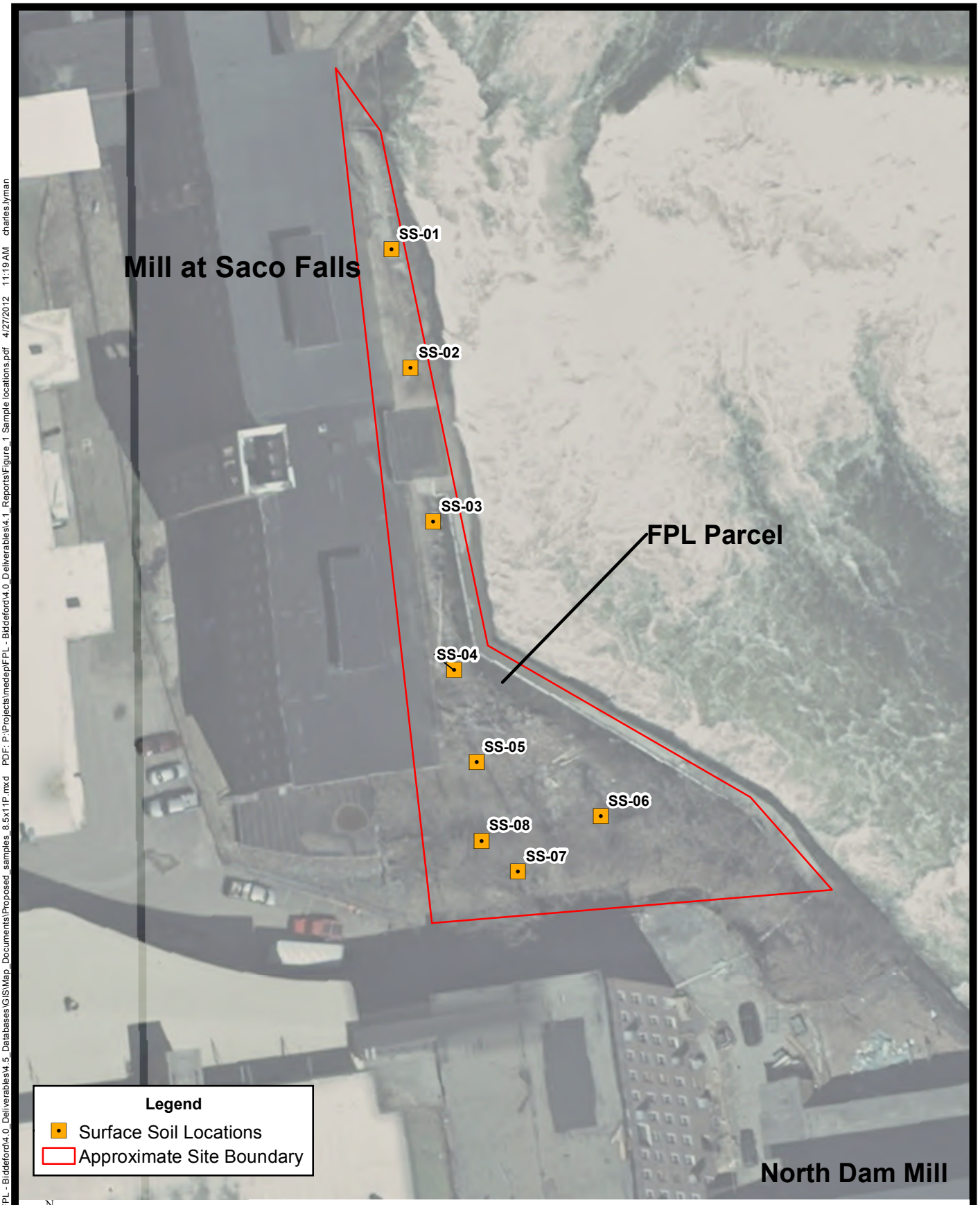
AMEC Environment & Infrastructure, Inc.

Peter S. Baker, C.G.
Project Manager

Jeffrey S. Picket, C.G.
Principal

Enclosures

\\pld2-fs1\project\Projects\medep\FPL - Biddeford\4.0_Deliverables\4.1_Reports\Former FPL - Biddeford, Maine_Sampling Ltr Rpt_Final_07.26.2012.doc



York County color digital orthophotos (2007) obtained from Maine Office of GIS at http://megiswebmaps.maine.gov/orthoviewer

Prepared/Date: CRS 04/27/12
Checked/Date: BAS 04/27/12

Maine DEP
Former FPL Energy
Biddeford, Maine

amec

Sample Locations

Project 3612-12-2239 Figure 1

Document: P:\Projects\medep\FPL - Biddeford\4.0_Deliverables\4.5_Databases\GIS\Map_Documents\Proposed_samples_8.5x11P.mxd PDF: P:\Projects\medep\FPL - Biddeford\4.0_Deliverables\4.1_Reports\Figure_1 Sample locations.pdf 4/27/2012 11:19 AM charles.lyman

Table 1: Detected Compounds

Maine Department of Environmental Protection
Former FPL Energy, Maine Hydro Site, Biddeford, Maine
Sampling Letter Report

					Location	SS-01		SS-02		SS-03		SS-04		SS-05	
					SampleID	SS-01-06		SS-02-06		SS-03-06		SS-04-06		SS-05-06	
					Sample Date	4/26/2012		4/26/2012		4/26/2012		4/26/2012		4/26/2012	
					Sample Depth (inches)	6		6		6		6		6	
Parameter Name	2012 RAGs Park User	2012 RAGs Outdoor Commercial Worker	2012 RAGs Excavation or Construction Worker	2012 RAGs Soil Rural Background	2012 RAGs Soil urban Background	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
Polyaromatic Hydrocarbons															
acenaphthene	10,000	10,000	9,800	0.48	0.61	0.6	U	0.6	U	0.6	U	0.6	U	0.6	U
anthracene	10,000	10,000	3,800	0.49	1.63	0.6	U	0.6	U	**0.9**		0.6	U	**0.7**	
benzo(a)anthracene	4.4	35	430	2.33	4.15	0.6	U	0.6	U	**3.2**		0.6	U	**1.9**	
benzo(a)pyrene	0.44	3.5	43	2.29	4.57	0.6	U	0.6	U	**2.6**		0.6	U	**1.3**	
benzo(b)fluoranthene	4.4	35	430	3.45	5.34	0.6	U	0.6	U	**2.4**		0.6	U	**1.5**	
benzo(g,h,i)perylene	6,200	10,000	10,000	1.49	2.04	0.6	U	0.6	U	**1.4**		0.6	U	**0.9**	
benzo(k)fluoranthene	44	350	4,300	2.23	3.23	0.6	U	0.6	U	**2.4**		0.6	U	**0.9**	
chrysene	440	3,500	10,000	3.76	4.10	0.6	U	0.6	U	**3.5**		0.6	U	**1.6**	
dibenzo(a,h)anthracene	0.44	3.5	43	NA	NA	0.6	U	0.6	U	0.6	U	0.6	U	0.6	U
dibenzofuran						0.6	U	0.6	U	0.6	U	0.6	U	0.6	U
fluoranthene	8,300	10,000	10,000	4.37	7.64	0.6	U	0.6	U	**6.8**		0.6	U	**3.9**	
fluorene	8,300	10,000	10,000	0.43	0.71	0.6	U	0.6	U	0.6	U	0.6	U	0.6	U
indeno(1,2,3-cd)pyrene	4.4	35	430	1.55	2.60	0.6	U	0.6	U	**1.1**		0.6	U	**0.7**	
naphthalene	4,200	10,000	10,000	0.41	0.84	0.6	U	0.6	U	0.6	U	0.6	U	0.6	U
phenanthrene	6,200	10,000	8,900	1.61	4.06	0.6	U	0.6	U	**5.9**		0.6	U	**3.3**	
pyrene	6,200	10,000	10,000	4.02	6.71	0.6	U	0.6	U	**6.1**		0.6	U	**3.5**	
Select Metals															
Arsenic	2.3	4.2	42	15.00		**7**		**7.8**		**7.5**		**7.4**		**12**	
Cadmium	18	94	19	0.40		0.3	U	0.3	U	0.6		0.4	U	0.4	U
Lead	530	1,100	950	NA	NA	**23**		**19**		**360**		**24**		**180**	
PCBs						--		--		--		ND		ND	

Notes:
Samples analyzed by Absolute Resource Laboratories
Samples analyzed for polyaromatic hydrocarbons by USEPA Method 8270, for lead, cadmium and arsenic by USEPA Method 8010B, and PCBs by USEPA Method 8082.
2012 RAGs = Maine Remedial Action Guidelines for multi contaminant site (NA = not available)
Results in milligrams per kilogram
Detections in **Bold.**
Highlighted results above criteria.
Qual = qualifier:
U = not reported above method reporting limit
-- = not analyzed
ND = not detected

Table 1: Detected Compounds

Maine Department of Environmental Protection
Former FPL Energy, Maine Hydro Site, Biddeford, Maine
Sampling Letter Report

					Location	SS-06		SS-06		SS-06		SS-07		SS-08		SS-08	
					SampleID	SS-06-06		SS-06-12		SS-06-12-DUP		SS-07-06		SS-08-06		SS-08-12	
					Sample Date	4/26/2012		4/26/2012		4/26/2012		4/26/2012		4/26/2012		4/26/2012	
					Sample Depth (inches)	6		12		12		6		6		12	
Parameter Name	2012 RAGs Park User	2012 RAGs Outdoor Commercial Worker	2012 RAGs Excavation or Construction Worker	2012 RAGs Soil Rural Background	2012 RAGs Soil urban Background	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
Polyaromatic Hydrocarbons																	
acenaphthene	10,000	10,000	9,800	0.48	0.61	**0.7**		**0.9**		**1.4**		0.6	U	0.5	U	**1**	
anthracene	10,000	10,000	3,800	0.49	1.63	**1**		**1.2**		**2.2**		0.6	U	**0.8**		**1.6**	
benzo(a)anthracene	4.4	35	430	2.33	4.15	**3.2**		**3.7**		**5.5**		**0.7**		**2.1**		**4.5**	
benzo(a)pyrene	0.44	3.5	43	2.29	4.57	**2.4**		**2.6**		**3.9**		0.6	U	**1.4**		**3.1**	
benzo(b)fluoranthene	4.4	35	430	3.45	5.34	**2.2**		**3**		**3.3**		0.6	U	**1.5**		**3.4**	
benzo(g,h,i)perylene	6,200	10,000	10,000	1.49	2.04	**1.4**		**1.4**		**2.2**		0.6	U	**1**		**1.9**	
benzo(k)fluoranthene	44	350	4,300	2.23	3.23	**2.5**		**1.8**		**3.5**		**0.6**		**1.1**		**2.2**	
chrysene	440	3,500	10,000	3.76	4.10	**2.9**		**3.3**		**4.8**		**0.6**		**1.7**		**4**	
dibenzo(a,h)anthracene	0.44	3.5	43	NA	NA	**0.6**		0.6	U	**0.9**		0.6	U	0.5	U	**0.7**	
dibenzofuran						0.5	U	0.6	U	**0.8**		0.6	U	0.5	U	0.6	U
fluoranthene	8,300	10,000	10,000	4.37	7.64	**5.7**		**6.8**		**11**		**1.5**		**4**		**8**	
fluorene	8,300	10,000	10,000	0.43	0.71	0.5	U	**0.6**		**1.1**		0.6	U	0.5	U	**0.7**	
indeno(1,2,3-cd)pyrene	4.4	35	430	1.55	2.60	**1.2**		**1.2**		**1.9**		0.6	U	**0.8**		**1.6**	
naphthalene	4,200	10,000	10,000	0.41	0.84	0.5	U	**0.6**		**0.8**		0.6	U	0.5	U	0.6	U
phenanthrene	6,200	10,000	8,900	1.61	4.06	**5.1**		**6.3**		**11**		**1**		**3.6**		**7.6**	
pyrene	6,200	10,000	10,000	4.02	6.71	**5**		**5.9**		**8.8**		**1.3**		**3.7**		**7.1**	
Select Metals																	
Arsenic	2.3	4.2	42	15.00		**10**		**7**		**11**		**6**		**6.7**		**7.2**	
Cadmium	18	94	19	0.40		**1.1**		**1.2**		**1.1**		0.4	U	0.3	U	**0.7**	
Lead	530	1,100	950	NA	NA	**310**		**320**		**340**		**64**		**77**		**210**	
PCBs						ND		ND		ND		ND		ND		--	

Notes:
Samples analyzed by Absolute Resource Laboratories
Samples analyzed for polyaromatic hydrocarbons by USEPA Method 8270, for lead, cadmium and arsenic by USEPA Method 8010B, and PCBs by USEPA Method 8082.
2012 RAGs = Maine Remedial Action Guidelines for multi contaminant site (NA = not available)
Results in milligrams per kilogram
Detections in **Bold.**
Highlighted results above criteria.
Qual = qualifier:
U = not reported above method reporting limit
-- = not analyzed
ND = not detected

ATTACHMENT 1
FIELD DATA SHEETS

Soil Sample Field Data Record

Project: MAINE HYDRO Site	Sampler: —	Job No.: 3612/22238/01
Sample I.D.: SS-01-06	Sampler: CHZ	Date: 4/26/12
Location: BIDDEFORD, ME	Witness: —	Time: Start 0955 End 1010

Samples for Chemical Analysis:
- [ ] Pest/PCB -8081/8082
- [x] Metals USEPA 6010B
- [x] SVOCs USEPA 8270
- [ ] VOCs USEPA 8260
- [ ] GRO/DRO

Soil Sample

Depth of Sample(s) 0-6"

Photographs Taken/Description
1. Site Area - ground
2.
3.
4.
5.
6.

Field Data:
[✓] Field duplicate collected

Duplicate ID SS-01-06(DUP)

Equipment Used for Collection:
- [ ] Tulip Bulb Planter
- [✓] S.S. Spoon
- [ ] Knife
- [ ] S.S. Spatula
- [ ] S.S. Bowl
- [✓] shovel to Excavate Hole
- [ ]
- [ ]

Type of Sample Collected:
- [✓] Discrete
- [ ] Composite

Sample Observations:
- [ ] Odor NA
- [ ] Color
- [ ]
- [ ]
- [ ]

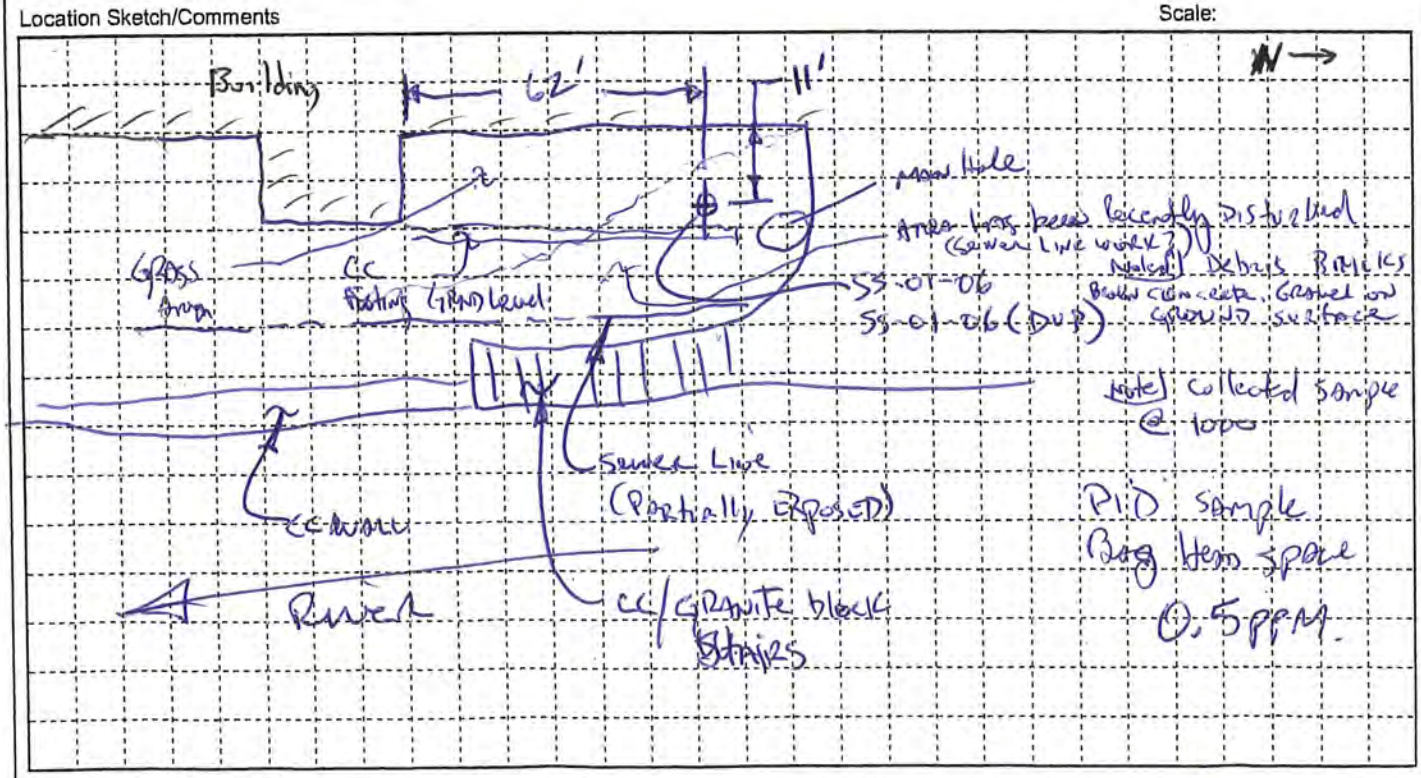
Decontamination Fluids Used:
- [✓] Deionized Water
- [✓] Liquinox Solution
- [ ]
- [ ]
- [ ]

Soil Type:
- [ ] Clay
- [✓] Sand (Coarse)
- [ ] Organic
- [ ] Gravel
- [ ]
- [ ]
- [ ]

Other Observations:

Sketch: (True north, lawn status (weeds, none), topography of land, past soil disturbance, any dumping activities: ash piles, compost, debris, leaks, spills from vehicles, etc.)

Location Sketch/Comments — Scale:



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Sampler Signature: Charles H. Sy

Checked CRS 5/10/12

Soil Sample Field Data Record

Project: MAINE HYDRO Site	Sampler: —	Job No.: 3612122239/01
Sample I.D.: SS-02-06	Sampler: CHL	Date: 4/26/12
Location: Biddeford, ME	Witness: —	Time: Start 1015 End 1030

Samples for Chemical Analysis:
- [ ] Pest/PCB -8081/8082
- [x] Metals USEPA 6010B
- [x] SVOCs USEPA 8270
- [ ] VOCs USEPA 8260
- [ ] GRO/DRO

Soil Sample

Depth of Sample(s) 0-6"

Photographs Taken/Description
1. Site Area - general
2.
3.
4.
5.
6.

Field Data:
[ ] Field duplicate collected

Duplicate ID _____

Equipment Used for Collection:
- [ ] Tulip Bulb Planter
- [x] S.S. Spoon
- [ ] Knife
- [ ] S.S. Spatula
- [ ] S.S. Bowl
- [x] Shovel to excavate Hole
- [ ]
- [ ]

Type of Sample Collected:
- [x] Discrete
- [ ] Composite

Sample Observations:
- [ ] Odor None
- [ ] Color
- [ ]
- [ ]
- [ ]

Decontamination Fluids Used:
- [x] Deionized Water
- [x] Liquinox Solution
- [ ]
- [ ]
- [ ]

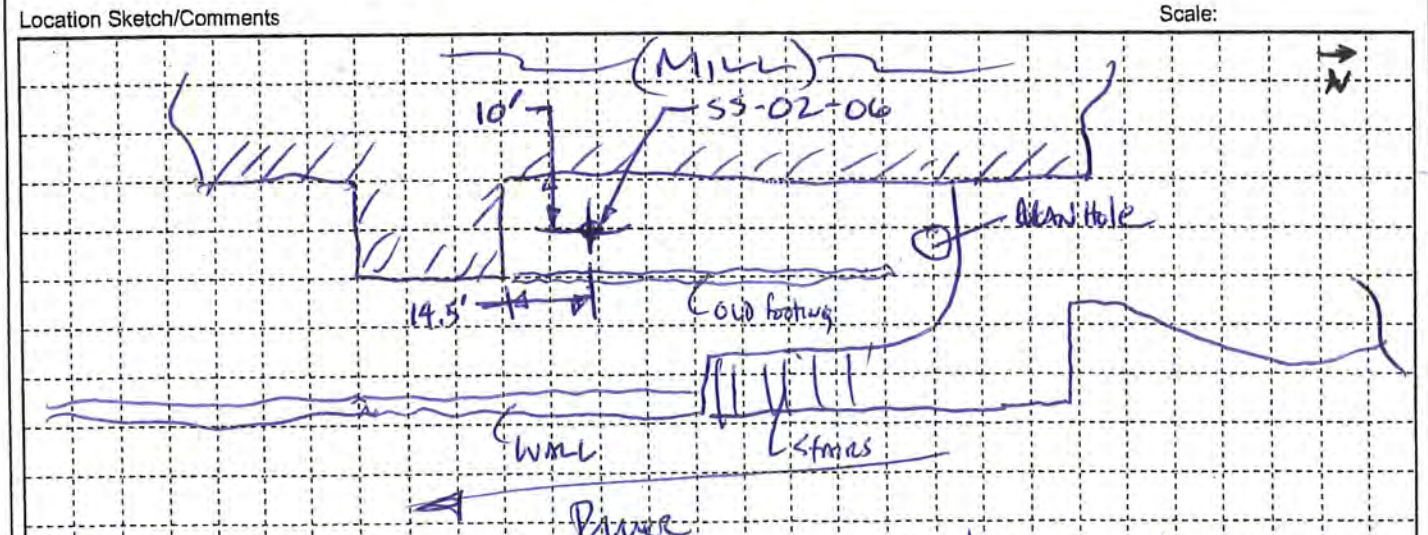
Soil Type:
- [ ] Clay
- [x] Sand (gravelly)
- [ ] Organic
- [ ] Gravel
- [ ]
- [ ]
- [ ]

Other Observations:

Sketch: (True north, lawn status (weeds, none), topography of land, past soil disturbance, any dumping activities: ash piles, compost, debris, leaks, spills from vehicles, etc.)

Location Sketch/Comments

Scale:



PID Background 0.3 ppm
PID Bag headspace 0.4 ppm

Note: 1) No staining or odors observed.
2) Area vegetated grasses & clover
3) 4' wide gravelled area along building
4) No debris on surface or in hole.

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Sampler Signature: Charles H. Lyman

Checked by C. Staples 5/10/12

Soil Sample Field Data Record

Project: MAINE Hydro Site	Sampler: —	Job No.: 36121222239/01
Sample I.D.: SS-03-06	Sampler: CHL	Date: 4/26/12
Location: Biddeford, ME	Witness:	Time: Start 1035 End 1100

Samples for Chemical Analysis:
- [ ] Pest/PCB -8081/8082
- [x] Metals USEPA 6010B
- [x] SVOCs USEPA 8270
- [ ] VOCs USEPA 8260
- [ ] GRO/DRO

Soil Sample

Depth of Sample(s) 4-6"

Photographs Taken/Description

1. Site Area - general
2.
3.
4.
5.
6.

Field Data:
[ ] Field duplicate collected

Duplicate ID _____

Equipment Used for Collection:
- [ ] Tulip Bulb Planter
- [x] S.S. Spoon
- [ ] Knife
- [ ] S.S. Spatula
- [ ] S.S. Bowl
- [x] Shovel to excavate Hole
- [ ]
- [ ]

Type of Sample Collected:
- [x] Discrete
- [ ] Composite

Sample Observations:
- ~~[ ] Odor~~ None
- [ ] Color _____
- [ ]
- [ ]
- [ ]

Decontamination Fluids Used:
- [x] Deionized Water
- [x] Liquinox Solution
- [ ]
- [ ]
- [ ]

Soil Type:
- [ ] Clay
- [x] Sand Gravelly
- [ ] Organic
- [ ] Gravel
- [ ]
- [ ]
- [ ]

Other Observations:

Sketch: (True north, lawn status (weeds, none), topography of land, past soil disturbance, any dumping activities: ash piles, compost, debris, leaks, spills from vehicles, etc.)

Location Sketch/Comments — Scale: None

BACKGROUND PID: 0.2 PPM
BAG PID: 0.6 PPM

Collected Sample 4-6" @ 1100

T:\Forms\Field Forms\Surface soil sample field data record.dot

Sampler Signature: Charles Hoy

Checked by C Stryker 5/10/12

Soil Sample Field Data Record

Project: MAINE HYDRO Site	Sampler: —	Job No.: 36121222398/01
Sample I.D.: SS-04-06	Sampler: CHL	Date: 4/26/12
Location: Biddeford, ME	Witness: —	Time: Start 1105 End 1140

Samples for Chemical Analysis:
- [x] Pest/PCB -8081/8082
- [x] Metals USEPA 6010B
- [x] SVOCs USEPA 8270
- [ ] VOCs USEPA 8260
- [ ] GRO/DRO

Soil Sample

Depth of Sample(s) 0-6"

Photographs Taken/Description

1. Site Area-general
2.
3.
4.
5.
6.

Field Data:
[ ] Field duplicate collected

Duplicate ID _____

Equipment Used for Collection:
- [ ] Tulip Bulb Planter
- [x] S.S. Spoon
- [ ] Knife
- [ ] S.S. Spatula
- [ ] S.S. Bowl
- [x] Shovel to excavate hole
- [ ]
- [ ]

Type of Sample Collected:
- [x] Discrete
- [ ] Composite

Sample Observations:
- ~~[ ] Odor~~ NONE
- [ ] Color
- [ ]
- [ ]
- [ ]

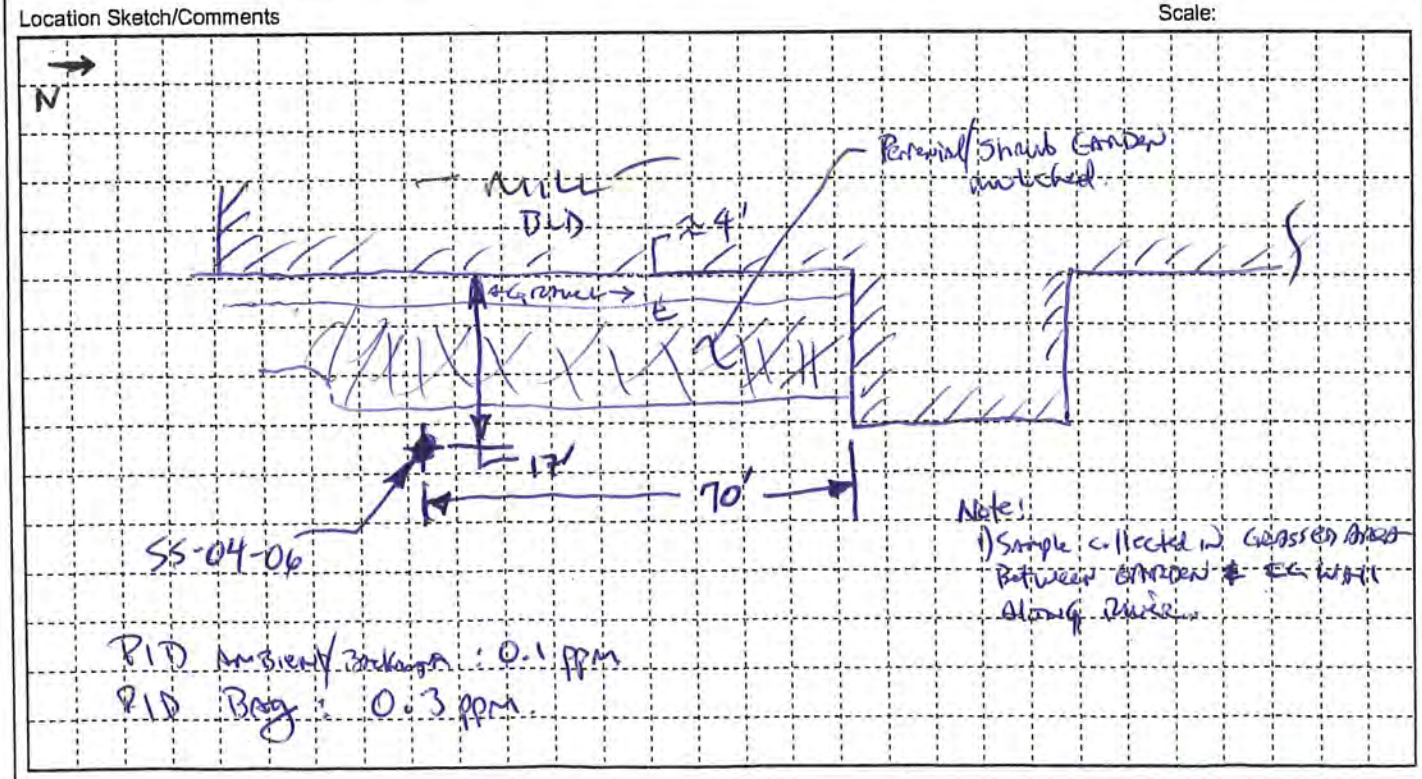
Decontamination Fluids Used:
- [x] Deionized Water
- [x] Liquinox Solution
- [ ]
- [ ]
- [ ]

Soil Type:
- [ ] Clay
- [x] Sand Gravelly
- [ ] Organic
- [ ] Gravel
- [ ]
- [ ]
- [ ]

Other Observations:

Sketch: (True north, lawn status (weeds, none), topography of land, past soil disturbance, any dumping activities: ash piles, compost, debris, leaks, spills from vehicles, etc.)

Location Sketch/Comments — Scale:



T:\Forms\Field Forms\Surface soil sample field data record.dot

Sampler Signature: Charles H. Lyn

Checked by C. Stapler 5/10/12

Soil Sample Field Data Record

Project: MAINE HYDRO Site	Sampler: —	Job No.: 36121222238/01
Sample I.D.: SS-05-06 ~~SS-05-12~~ CHL	Sampler: CHL	Date: 4/26/12
Location: Biddeford, ME	Witness: —	Time: Start 1145 End 1210

Samples for Chemical Analysis:
- [x] Pest/PCB -8081/8082 SS-05-06 ~~SS-05-12~~
- [x] Metals USEPA 6010B SS-05-06 ~~SS-05-12~~
- [x] SVOCs USEPA 8270 SS-05-06 ~~SS-05-12~~
- [ ] VOCs USEPA 8260
- [ ] GRO/DRO

Soil Sample Depth of Sample(s): 0-6" (06) ~~1'-2' (06)~~

Photographs Taken/Description
1. Site Area - general
2.
3.
4.
5.
6.

Field Data:
[ ] Field duplicate collected

Duplicate ID

Equipment Used for Collection:
- [ ] Tulip Bulb Planter
- [x] S.S. Spoon
- [ ] Knife
- [ ] S.S. Spatula
- [ ] S.S. Bowl
- [x] Shovel
- [ ]
- [ ]

Type of Sample Collected:
- [x] Discrete
- [ ] Composite

Sample Observations:
- [x] Odor NA
- [ ] Color
- [ ]
- [ ]
- [ ]

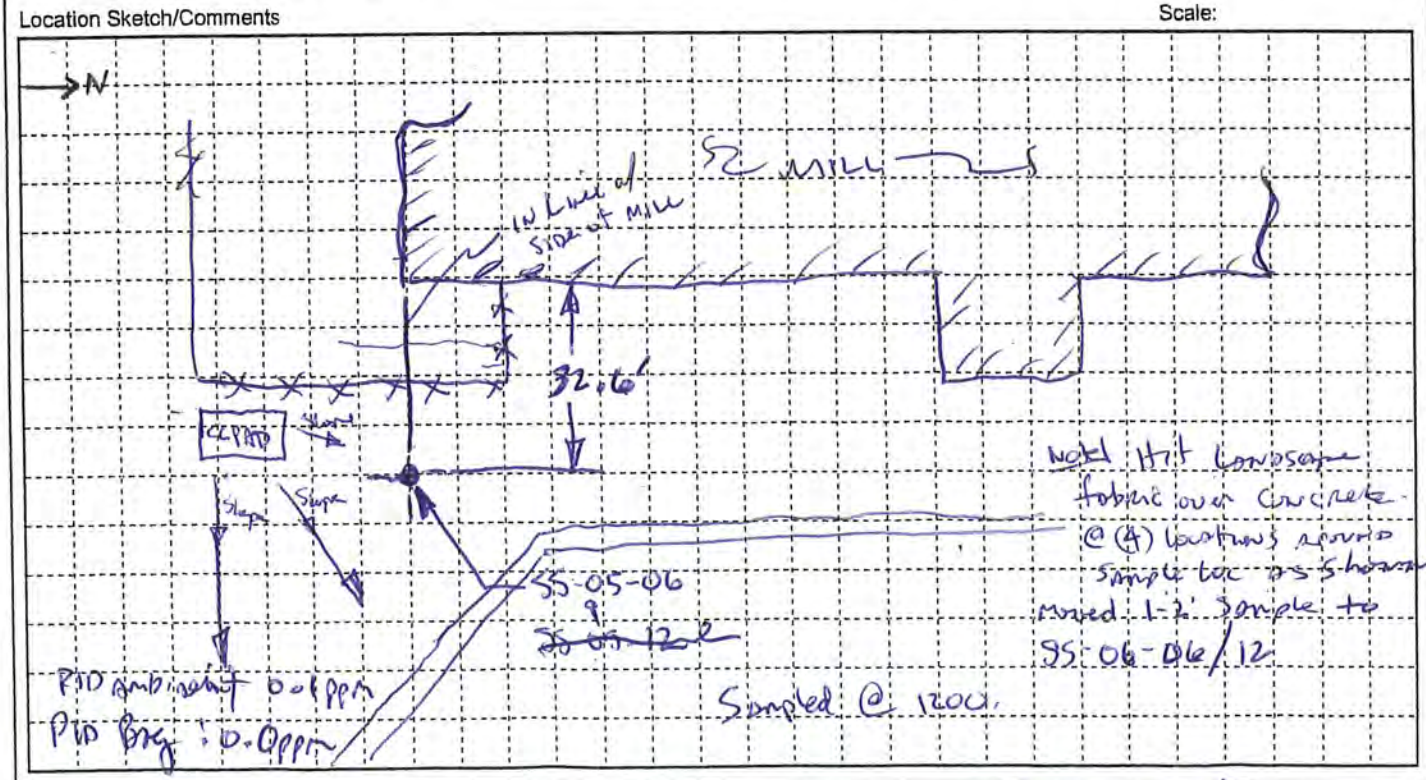
Decontamination Fluids Used:
- [x] Deionized Water
- [x] Liquinox Solution
- [ ]
- [ ]
- [ ]

Soil Type:
- [ ] Clay
- [x] Sand Gravelly
- [ ] Organic
- [ ] Gravel
- [ ]
- [ ]
- [ ]

Other Observations:

Sketch: (True north, lawn status (weeds, none), topography of land, past soil disturbance, any dumping activities: ash piles, compost, debris, leaks, spills from vehicles, etc.)

Location Sketch/Comments — Scale:



T:\Forms\Field Forms\Surface soil sample field data record.dot

Sampler Signature: Charles A Flynn

Checked by C. Stapler 5/10/12

Soil Sample Field Data Record

Project: MAINE HYDRO Site ~~3612122223~~	Sampler: —	Job No.: 3612122238/01
Sample I.D.: SS-06-06 & SS-06-12	Sampler: CHz	Date: 4/26/12
Location: Biddeford, ME	Witness:	Time: Start 1215 End 1245

Samples for Chemical Analysis:
- [x] Pest/PCB -8081/8082
- [x] Metals USEPA 6010B
- [x] SVOCs USEPA 8270
- [ ] VOCs USEPA 8260
- [ ] GRO/DRO

Soil Sample

Depth of Sample(s) 0-6" 1'-2'

Photographs Taken/Description

1. Site Area - general
2.
3.
4.
5.
6.

Field Data:
[ ] Field duplicate collected

Duplicate ID _____

Equipment Used for Collection:
- [ ] Tulip Bulb Planter
- [x] S.S. Spoon
- [ ] Knife
- [ ] S.S. Spatula
- [ ] S.S. Bowl
- [x] SS AUGER
- [x] Shovel to excavate to 1' BGS
- [ ]

Type of Sample Collected:
- [x] Discrete
- [ ] Composite

Sample Observations:
- [x] Odor None
- [ ] Color
- [ ]
- [ ]
- [ ]

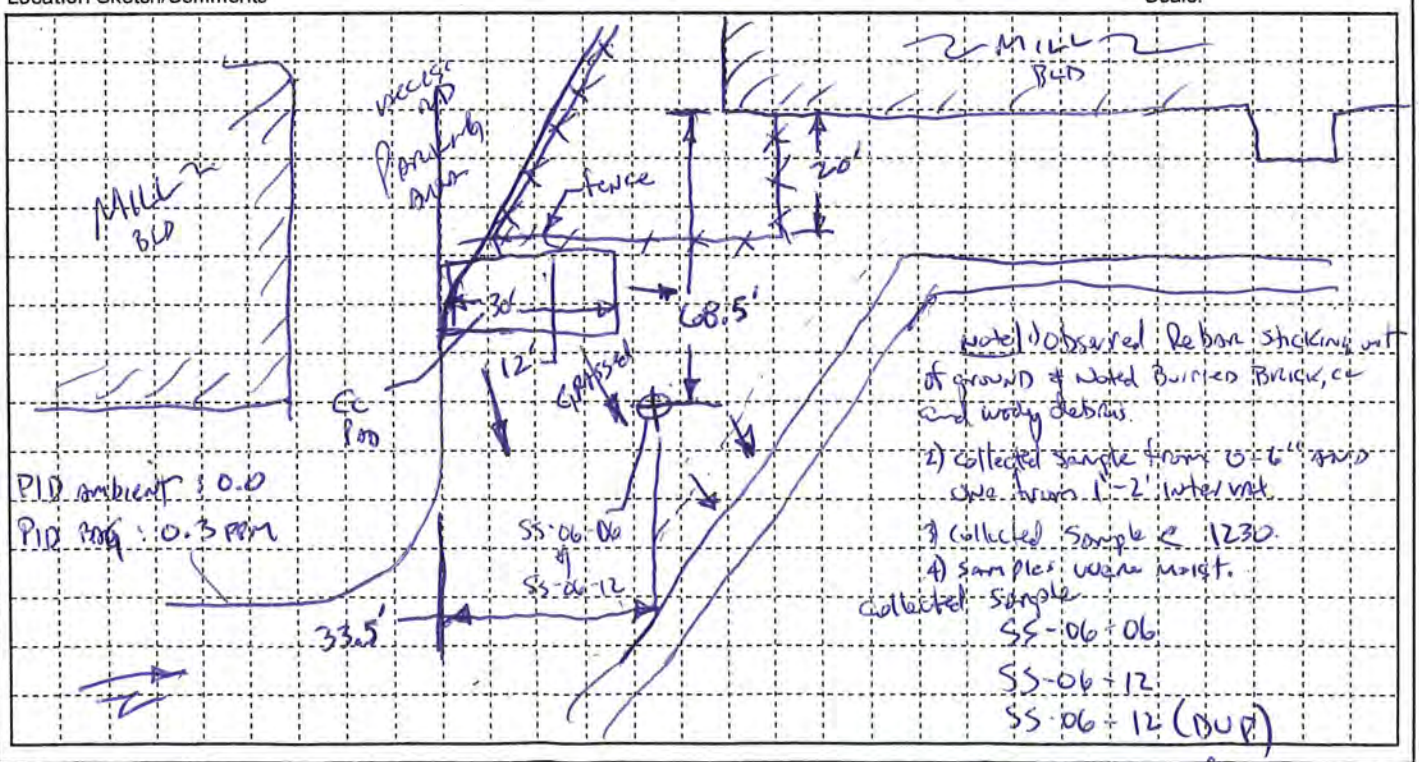
Decontamination Fluids Used:
- [x] Deionized Water
- [x] Liquinox Solution
- [ ]
- [ ]
- [ ]

Soil Type:
- [ ] Clay
- [x] Sand (Gravelly) (Moist)
- [ ] Organic
- [ ] Gravel
- [x] Brick chips
- [ ]
- [ ]

Other Observations:

Sketch: (True north, lawn status (weeds, none), topography of land, past soil disturbance, any dumping activities: ash piles, compost, debris, leaks, spills from vehicles, etc.)

Location Sketch/Comments — Scale:



T:\Forms\Field Forms\Surface soil sample field data record.dot

Sampler Signature: Charles H. Lane

Checked by C. Stapler 5/10/12

"Slope" ≈ 25% (TYP) measured w/ clinometer

Soil Sample Field Data Record

Project: MAINE HYDRO SITE	Sampler: —	Job No.: 36121222391/01
Sample I.D.: SS-07-06 / ~~SS-07-02~~	Sampler: CHL	Date: 4/26/12
Location: BIDDEFORD, ME	Witness:	Time: Start 1300 End 1330

Samples for Chemical Analysis:
- [x] Pest/PCB -8081/8082 06
- [x] Metals USEPA 6010B (06/~~12~~)
- [x] SVOCs USEPA 8270 (06/~~12~~)
- [ ] VOCs USEPA 8260
- [ ] GRO/DRO

Soil Sample

Depth of Sample(s) 0-6"

Photographs Taken/Description

1.
2.
3.
4.
5.
6.

Field Data:
[ ] Field duplicate collected

Duplicate ID _____

Equipment Used for Collection:
- [ ] Tulip Bulb Planter
- [x] S.S. Spoon
- [ ] Knife
- [ ] S.S. Spatula
- [ ] S.S. Bowl
- [x] Shovel to Dig Hole
- [ ]
- [ ]

Type of Sample Collected:
- [x] Discrete
- [ ] Composite

Sample Observations:
- [x] Odor None
- [ ] Color
- [ ]
- [ ]
- [ ]

Decontamination Fluids Used:
- [x] Deionized Water
- [x] Liquinox Solution
- [ ]
- [ ]
- [ ]

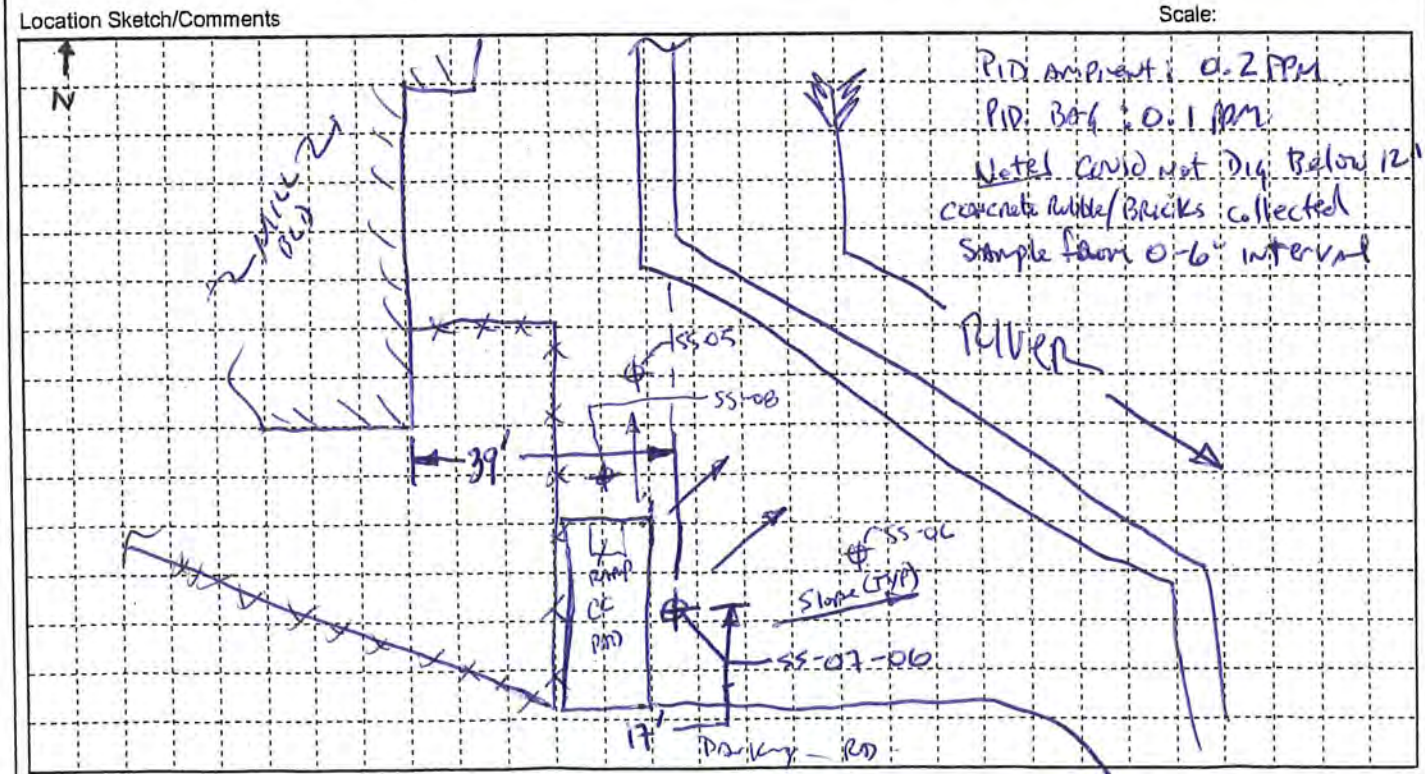
Soil Type:
- [ ] Clay
- [x] Sand w/ CC & Brick Debris chunks
- [ ] Organic
- [ ] Gravel
- [ ]
- [ ]
- [ ]

Other Observations:

Sketch: (True north, lawn status (weeds, none), topography of land, past soil disturbance, any dumping activities: ash piles, compost, debris, leaks, spills from vehicles, etc.)

Location Sketch/Comments

Scale:



T:\Forms\Field Forms\Surface soil sample field data record.dot

Sampler Signature: Charles H. Hy

Checked by C. Stapler 5/10/12

Soil Sample Field Data Record

Project: MAINE HYDRO SITE	Sampler: —	Job No.: 3612122239/01
Sample I.D.: SS-08-06 & SS-08-12	Sampler: CHL	Date: 4/26/12
Location: Biddeford, ME	Witness:	Time: Start 1330 End

Samples for Chemical Analysis:
- [x] Pest/PCB -8081/8082 06
- [x] Metals USEPA 6010B 06/12
- [x] SVOCs USEPA 8270 06/12
- [ ] VOCs USEPA 8260
- [ ] GRO/DRO

Soil Sample

Depth of Sample(s) 0-6" & 1'-2'

Photographs Taken/Description

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____

Field Data:
[ ] Field duplicate collected

Duplicate ID _____

Equipment Used for Collection:
- [ ] Tulip Bulb Planter
- [x] S.S. Spoon
- [ ] Knife
- [ ] S.S. Spatula
- [x] S.S. Bowl
- [x] SS AUGUR
- [x] Shovel to Dig Hole to 12"
- [ ] _____

Type of Sample Collected:
- [x] Discrete
- [ ] Composite

Sample Observations:
- [x] Odor None
- [ ] Color _____
- [ ] _____
- [ ] _____
- [ ] _____

Decontamination Fluids Used:
- [x] Deionized Water
- [x] Liquinox Solution
- [ ] _____
- [ ] _____
- [ ] _____

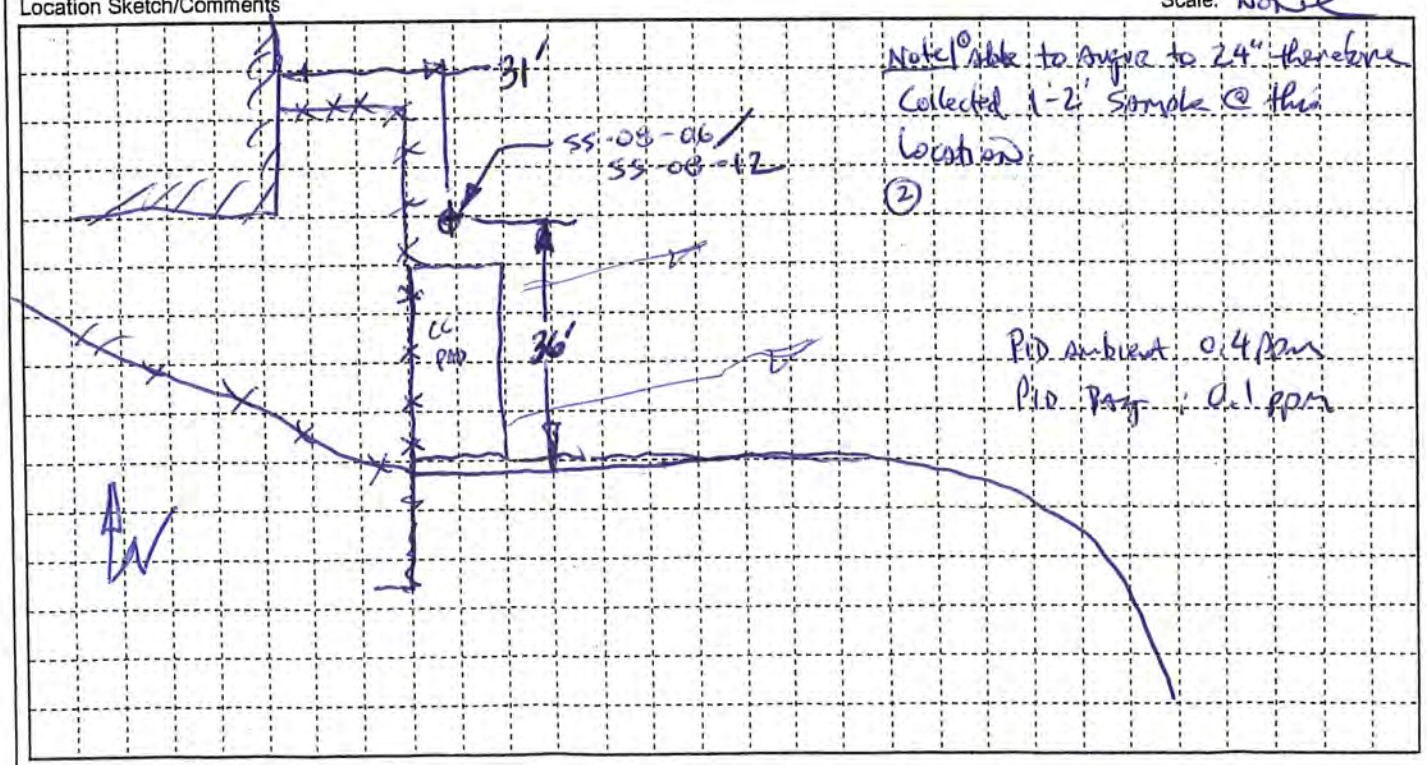
Soil Type:
- [ ] Clay
- [x] Sand w/ CC & Brick Debris.
- [ ] Organic
- [ ] Gravel
- [ ] _____
- [ ] _____
- [ ] _____

Other Observations:

Sketch: (True north, lawn status (weeds, none), topography of land, past soil disturbance, any dumping activities: ash piles, compost, debris, leaks, spills from vehicles, etc.)

Location Sketch/Comments

Scale: None



T:\Forms\Field Forms\Surface soil sample field data record.dot

Sampler Signature: Charles H. [signature]

Checked by C. Stopler 5/10/12

ATTACHMENT 2
PHOTOGRAPHS

Looking northwest at Site

Looking north at Site – Sample locations SS-3, SS-4 and SS-5

North end of Site – Sample locations SS-1 and SS-2

Sample locations SS-1 and SS-2

Looking east at SS-6 area

Looking west at area of samples SS-6, SS-7 and SS-8

Looking west at SS-7 and SS-8

South of Site, looking northwest at Site– photo shows potential make up of fill material at SS-6 to SS-8

ATTACHMENT 3
LABORATORY DATA

Absolute Resource associates
124 Heritage Avenue #10 Portsmouth, NH 03801

Charles Staples
AMEC
511 Congress Street
PO Box 7050
Portland, ME 04112

PO Number: C012100502
Job ID: 23925
Date Received: 4/26/12

Project: Biddeford Hydro Site 3612122239

Attached please find results for the analysis of the samples received on the date referenced above.

Unless otherwise noted in the attached report, the analyses performed met the requirements of Absolute Resource Associates' Quality Assurance Plan. The Standard Operating Procedures are based upon USEPA SW-846, USEPA Methods for Chemical Analysis of Water and Wastewater, Standard Methods for the Examination of Water and Wastewater and other recognized methodologies. The results contained in this report pertain only to the samples as indicated on the chain of custody.

Absolute Resource Associates maintains certification with the agencies listed below.

We appreciate the opportunity to provide laboratory services. If you have any questions regarding the enclosed report, please contact the laboratory and we will be glad to assist you.

Sincerely,
Absolute Resource Associates

(for)

Sue Sylvester
Principal, General Manager

Date of Approval: 5/22/2012
Total number of pages: 20

Absolute Resource Associates Certifications

New Hampshire	1732	Massachusetts	M-NH902
Maine	NH903		

Project ID: Biddeford Hydro Site 3612122239
Job ID: 23925
Sample#: 23925-001
Sample ID: SS-01-06
Matrix: Solid Percent Dry: 80.5% Results expressed on a dry weight basis.
Sampled: 4/26/12 10:00

Parameter	Result	Quant Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
naphthalene	< 0.6	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	11:19	SW3550B8270D
2-methylnaphthalene	< 0.6	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	11:19	SW3550B8270D
acenaphthylene	< 0.6	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	11:19	SW3550B8270D
acenaphthene	< 0.6	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	11:19	SW3550B8270D
dibenzofuran	< 0.6	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	11:19	SW3550B8270D
fluorene	< 0.6	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	11:19	SW3550B8270D
phenanthrene	< 0.6	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	11:19	SW3550B8270D
anthracene	< 0.6	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	11:19	SW3550B8270D
fluoranthene	< 0.6	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	11:19	SW3550B8270D
pyrene	< 0.6	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	11:19	SW3550B8270D
benzo(a)anthracene	< 0.6	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	11:19	SW3550B8270D
chrysene	< 0.6	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	11:19	SW3550B8270D
benzo(b)fluoranthene	< 0.6	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	11:19	SW3550B8270D
benzo(k)fluoranthene	< 0.6	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	11:19	SW3550B8270D
benzo(a)pyrene	< 0.6	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	11:19	SW3550B8270D
indeno(1,2,3-cd)pyrene	< 0.6	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	11:19	SW3550B8270D
dibenzo(a,h)anthracene	< 0.6	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	11:19	SW3550B8270D
benzo(g,h,i)perylene	< 0.6	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	11:19	SW3550B8270D
Surrogate Recovery		**Limits**								
2-fluorobiphenyl SUR	**67**	43-116	%	1	AJD	5/7/12	5161	5/8/12	11:19	SW3550B8270D
o-terphenyl SUR	**70**	33-141	%	1	AJD	5/7/12	5161	5/8/12	11:19	SW3550B8270D

Absolute Resource associates

Project ID: Biddeford Hydro Site 3612122239
Job ID: 23925
Sample#: 23925-002
Sample ID: SS-02-06
Matrix: Solid Percent Dry: 81.1% Results expressed on a dry weight basis.
Sampled: 4/26/12 10:25

Parameter	Result	Quant Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
naphthalene	< 0.6	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	11:57	SW3550B8270D
2-methylnaphthalene	< 0.6	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	11:57	SW3550B8270D
acenaphthylene	< 0.6	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	11:57	SW3550B8270D
acenaphthene	< 0.6	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	11:57	SW3550B8270D
dibenzofuran	< 0.6	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	11:57	SW3550B8270D
fluorene	< 0.6	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	11:57	SW3550B8270D
phenanthrene	< 0.6	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	11:57	SW3550B8270D
anthracene	< 0.6	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	11:57	SW3550B8270D
fluoranthene	< 0.6	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	11:57	SW3550B8270D
pyrene	< 0.6	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	11:57	SW3550B8270D
benzo(a)anthracene	< 0.6	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	11:57	SW3550B8270D
chrysene	< 0.6	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	11:57	SW3550B8270D
benzo(b)fluoranthene	< 0.6	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	11:57	SW3550B8270D
benzo(k)fluoranthene	< 0.6	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	11:57	SW3550B8270D
benzo(a)pyrene	< 0.6	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	11:57	SW3550B8270D
indeno(1,2,3-cd)pyrene	< 0.6	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	11:57	SW3550B8270D
dibenzo(a,h)anthracene	< 0.6	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	11:57	SW3550B8270D
benzo(g,h,i)perylene	< 0.6	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	11:57	SW3550B8270D
Surrogate Recovery		**Limits**								
2-fluorobiphenyl SUR	**60**	43-116	%	1	AJD	5/7/12	5161	5/8/12	11:57	SW3550B8270D
o-terphenyl SUR	**64**	33-141	%	1	AJD	5/7/12	5161	5/8/12	11:57	SW3550B8270D

Absolute Resource associates

Project ID: Biddeford Hydro Site 3612122239
Job ID: 23925
Sample#: 23925-003
Sample ID: SS-03-06
Matrix: Solid Percent Dry: 84.4% Results expressed on a dry weight basis.
Sampled: 4/26/12 11:00

Parameter	Result	Quant Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
naphthalene	< 0.6	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	17:37	SW3550B8270D
2-methylnaphthalene	< 0.6	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	17:37	SW3550B8270D
acenaphthylene	< 0.6	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	17:37	SW3550B8270D
acenaphthene	< 0.6	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	17:37	SW3550B8270D
dibenzofuran	< 0.6	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	17:37	SW3550B8270D
fluorene	< 0.6	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	17:37	SW3550B8270D
phenanthrene	**5.9**	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	17:37	SW3550B8270D
anthracene	**0.9**	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	17:37	SW3550B8270D
fluoranthene	**6.8**	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	17:37	SW3550B8270D
pyrene	**6.1**	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	17:37	SW3550B8270D
benzo(a)anthracene	**3.2**	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	17:37	SW3550B8270D
chrysene	**3.5**	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	17:37	SW3550B8270D
benzo(b)fluoranthene	**2.4**	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	17:37	SW3550B8270D
benzo(k)fluoranthene	**2.4**	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	17:37	SW3550B8270D
benzo(a)pyrene	**2.6**	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	17:37	SW3550B8270D
indeno(1,2,3-cd)pyrene	**1.1**	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	17:37	SW3550B8270D
dibenzo(a,h)anthracene	< 0.6	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	17:37	SW3550B8270D
benzo(g,h,i)perylene	**1.4**	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	17:37	SW3550B8270D
Surrogate Recovery		**Limits**								
2-fluorobiphenyl SUR	**62**	43-116	%	1	AJD	5/7/12	5161	5/8/12	17:37	SW3550B8270D
o-terphenyl SUR	**66**	33-141	%	1	AJD	5/7/12	5161	5/8/12	17:37	SW3550B8270D

Absolute Resource associates

Project ID: Biddeford Hydro Site 3612122239
Job ID: 23925
Sample#: 23925-004
Sample ID: SS-04-06
Matrix: Solid Percent Dry: 83.1% Results expressed on a dry weight basis.
Sampled: 4/26/12 11:30

Parameter	Result	Quant Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
naphthalene	< 0.6	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	12:34	SW3550B8270D
2-methylnaphthalene	< 0.6	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	12:34	SW3550B8270D
acenaphthylene	< 0.6	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	12:34	SW3550B8270D
acenaphthene	< 0.6	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	12:34	SW3550B8270D
dibenzofuran	< 0.6	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	12:34	SW3550B8270D
fluorene	< 0.6	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	12:34	SW3550B8270D
phenanthrene	< 0.6	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	12:34	SW3550B8270D
anthracene	< 0.6	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	12:34	SW3550B8270D
fluoranthene	< 0.6	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	12:34	SW3550B8270D
pyrene	< 0.6	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	12:34	SW3550B8270D
benzo(a)anthracene	< 0.6	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	12:34	SW3550B8270D
chrysene	< 0.6	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	12:34	SW3550B8270D
benzo(b)fluoranthene	< 0.6	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	12:34	SW3550B8270D
benzo(k)fluoranthene	< 0.6	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	12:34	SW3550B8270D
benzo(a)pyrene	< 0.6	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	12:34	SW3550B8270D
indeno(1,2,3-cd)pyrene	< 0.6	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	12:34	SW3550B8270D
dibenzo(a,h)anthracene	< 0.6	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	12:34	SW3550B8270D
benzo(g,h,i)perylene	< 0.6	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	12:34	SW3550B8270D
Surrogate Recovery		**Limits**								
2-fluorobiphenyl SUR	**77**	43-116	%	1	AJD	5/7/12	5161	5/8/12	12:34	SW3550B8270D
o-terphenyl SUR	**88**	33-141	%	1	AJD	5/7/12	5161	5/8/12	12:34	SW3550B8270D

Absolute Resource associates

Project ID: Biddeford Hydro Site 3612122239
Job ID: 23925
Sample#: 23925-005
Sample ID: SS-05-06
Matrix: Solid Percent Dry: 82.5% Results expressed on a dry weight basis.
Sampled: 4/26/12 12:00

Parameter	Result	Quant Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
naphthalene	< 0.6	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	13:12	SW3550B8270D
2-methylnaphthalene	< 0.6	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	13:12	SW3550B8270D
acenaphthylene	< 0.6	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	13:12	SW3550B8270D
acenaphthene	< 0.6	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	13:12	SW3550B8270D
dibenzofuran	< 0.6	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	13:12	SW3550B8270D
fluorene	< 0.6	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	13:12	SW3550B8270D
phenanthrene	**3.3**	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	13:12	SW3550B8270D
anthracene	**0.7**	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	13:12	SW3550B8270D
fluoranthene	**3.9**	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	13:12	SW3550B8270D
pyrene	**3.5**	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	13:12	SW3550B8270D
benzo(a)anthracene	**1.9**	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	13:12	SW3550B8270D
chrysene	**1.6**	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	13:12	SW3550B8270D
benzo(b)fluoranthene	**1.5**	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	13:12	SW3550B8270D
benzo(k)fluoranthene	**0.9**	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	13:12	SW3550B8270D
benzo(a)pyrene	**1.3**	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	13:12	SW3550B8270D
indeno(1,2,3-cd)pyrene	**0.7**	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	13:12	SW3550B8270D
dibenzo(a,h)anthracene	< 0.6	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	13:12	SW3550B8270D
benzo(g,h,i)perylene	**0.9**	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	13:12	SW3550B8270D
Surrogate Recovery		**Limits**								
2-fluorobiphenyl SUR	**60**	43-116	%	1	AJD	5/7/12	5161	5/8/12	13:12	SW3550B8270D
o-terphenyl SUR	**67**	33-141	%	1	AJD	5/7/12	5161	5/8/12	13:12	SW3550B8270D

Absolute Resource associates

Project ID: Biddeford Hydro Site 3612122239
Job ID: 23925
Sample#: 23925-006
Sample ID: SS-06-06
Matrix: Solid Percent Dry: 86.6% Results expressed on a dry weight basis.
Sampled: 4/26/12 12:30

Parameter	Result	Quant Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
naphthalene	< 0.5	0.5	ug/g	1	AJD	5/7/12	5161	5/8/12	16:21	SW3550B8270D
2-methylnaphthalene	< 0.5	0.5	ug/g	1	AJD	5/7/12	5161	5/8/12	16:21	SW3550B8270D
acenaphthylene	< 0.5	0.5	ug/g	1	AJD	5/7/12	5161	5/8/12	16:21	SW3550B8270D
acenaphthene	**0.7**	0.5	ug/g	1	AJD	5/7/12	5161	5/8/12	16:21	SW3550B8270D
dibenzofuran	< 0.5	0.5	ug/g	1	AJD	5/7/12	5161	5/8/12	16:21	SW3550B8270D
fluorene	< 0.5	0.5	ug/g	1	AJD	5/7/12	5161	5/8/12	16:21	SW3550B8270D
phenanthrene	**5.1**	0.5	ug/g	1	AJD	5/7/12	5161	5/8/12	16:21	SW3550B8270D
anthracene	**1.0**	0.5	ug/g	1	AJD	5/7/12	5161	5/8/12	16:21	SW3550B8270D
fluoranthene	**5.7**	0.5	ug/g	1	AJD	5/7/12	5161	5/8/12	16:21	SW3550B8270D
pyrene	**5.0**	0.5	ug/g	1	AJD	5/7/12	5161	5/8/12	16:21	SW3550B8270D
benzo(a)anthracene	**3.2**	0.5	ug/g	1	AJD	5/7/12	5161	5/8/12	16:21	SW3550B8270D
chrysene	**2.9**	0.5	ug/g	1	AJD	5/7/12	5161	5/8/12	16:21	SW3550B8270D
benzo(b)fluoranthene	**2.2**	0.5	ug/g	1	AJD	5/7/12	5161	5/8/12	16:21	SW3550B8270D
benzo(k)fluoranthene	**2.5**	0.5	ug/g	1	AJD	5/7/12	5161	5/8/12	16:21	SW3550B8270D
benzo(a)pyrene	**2.4**	0.5	ug/g	1	AJD	5/7/12	5161	5/8/12	16:21	SW3550B8270D
indeno(1,2,3-cd)pyrene	**1.2**	0.5	ug/g	1	AJD	5/7/12	5161	5/8/12	16:21	SW3550B8270D
dibenzo(a,h)anthracene	**0.6**	0.5	ug/g	1	AJD	5/7/12	5161	5/8/12	16:21	SW3550B8270D
benzo(g,h,i)perylene	**1.4**	0.5	ug/g	1	AJD	5/7/12	5161	5/8/12	16:21	SW3550B8270D
Surrogate Recovery		**Limits**								
2-fluorobiphenyl SUR	**66**	43-116	%	1	AJD	5/7/12	5161	5/8/12	16:21	SW3550B8270D
o-terphenyl SUR	**71**	33-141	%	1	AJD	5/7/12	5161	5/8/12	16:21	SW3550B8270D

Absolute Resource associates

Project ID: Biddeford Hydro Site 3612122239
Job ID: 23925
Sample#: 23925-007
Sample ID: SS-06-12
Matrix: Solid Percent Dry: 83.1% Results expressed on a dry weight basis.
Sampled: 4/26/12 12:30

Parameter	Result	Quant Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
naphthalene	**0.6**	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	16:59	SW3550B8270D
2-methylnaphthalene	< 0.6	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	16:59	SW3550B8270D
acenaphthylene	< 0.6	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	16:59	SW3550B8270D
acenaphthene	**0.9**	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	16:59	SW3550B8270D
dibenzofuran	< 0.6	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	16:59	SW3550B8270D
fluorene	**0.6**	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	16:59	SW3550B8270D
phenanthrene	**6.3**	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	16:59	SW3550B8270D
anthracene	**1.2**	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	16:59	SW3550B8270D
fluoranthene	**6.8**	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	16:59	SW3550B8270D
pyrene	**5.9**	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	16:59	SW3550B8270D
benzo(a)anthracene	**3.7**	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	16:59	SW3550B8270D
chrysene	**3.3**	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	16:59	SW3550B8270D
benzo(b)fluoranthene	**3.0**	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	16:59	SW3550B8270D
benzo(k)fluoranthene	**1.8**	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	16:59	SW3550B8270D
benzo(a)pyrene	**2.6**	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	16:59	SW3550B8270D
indeno(1,2,3-cd)pyrene	**1.2**	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	16:59	SW3550B8270D
dibenzo(a,h)anthracene	< 0.6	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	16:59	SW3550B8270D
benzo(g,h,i)perylene	**1.4**	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	16:59	SW3550B8270D
Surrogate Recovery		**Limits**								
2-fluorobiphenyl SUR	**64**	43-116	%	1	AJD	5/7/12	5161	5/8/12	16:59	SW3550B8270D
o-terphenyl SUR	**66**	33-141	%	1	AJD	5/7/12	5161	5/8/12	16:59	SW3550B8270D

Absolute Resource associates

Project ID: Biddeford Hydro Site 3612122239
Job ID: 23925
Sample#: 23925-008
Sample ID: SS-07-06
Matrix: Solid Percent Dry: 85.9% Results expressed on a dry weight basis.
Sampled: 4/26/12 13:20

Parameter	Result	Quant Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
naphthalene	< 0.6	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	13:50	SW3550B8270D
2-methylnaphthalene	< 0.6	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	13:50	SW3550B8270D
acenaphthylene	< 0.6	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	13:50	SW3550B8270D
acenaphthene	< 0.6	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	13:50	SW3550B8270D
dibenzofuran	< 0.6	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	13:50	SW3550B8270D
fluorene	< 0.6	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	13:50	SW3550B8270D
phenanthrene	**1.0**	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	13:50	SW3550B8270D
anthracene	< 0.6	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	13:50	SW3550B8270D
fluoranthene	**1.5**	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	13:50	SW3550B8270D
pyrene	**1.3**	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	13:50	SW3550B8270D
benzo(a)anthracene	**0.7**	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	13:50	SW3550B8270D
chrysene	**0.6**	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	13:50	SW3550B8270D
benzo(b)fluoranthene	< 0.6	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	13:50	SW3550B8270D
benzo(k)fluoranthene	**0.6**	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	13:50	SW3550B8270D
benzo(a)pyrene	< 0.6	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	13:50	SW3550B8270D
indeno(1,2,3-cd)pyrene	< 0.6	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	13:50	SW3550B8270D
dibenzo(a,h)anthracene	< 0.6	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	13:50	SW3550B8270D
benzo(g,h,i)perylene	< 0.6	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	13:50	SW3550B8270D
Surrogate Recovery		**Limits**								
2-fluorobiphenyl SUR	**64**	43-116	%	1	AJD	5/7/12	5161	5/8/12	13:50	SW3550B8270D
o-terphenyl SUR	**75**	33-141	%	1	AJD	5/7/12	5161	5/8/12	13:50	SW3550B8270D

Absolute Resource associates

Project ID: Biddeford Hydro Site 3612122239
Job ID: 23925
Sample#: 23925-009
Sample ID: SS-08-06
Matrix: Solid Percent Dry: 91.7% Results expressed on a dry weight basis.
Sampled: 4/26/12 13:40

Parameter	Result	Quant Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
naphthalene	< 0.5	0.5	ug/g	1	AJD	5/7/12	5161	5/8/12	14:28	SW3550B8270D
2-methylnaphthalene	< 0.5	0.5	ug/g	1	AJD	5/7/12	5161	5/8/12	14:28	SW3550B8270D
acenaphthylene	< 0.5	0.5	ug/g	1	AJD	5/7/12	5161	5/8/12	14:28	SW3550B8270D
acenaphthene	< 0.5	0.5	ug/g	1	AJD	5/7/12	5161	5/8/12	14:28	SW3550B8270D
dibenzofuran	< 0.5	0.5	ug/g	1	AJD	5/7/12	5161	5/8/12	14:28	SW3550B8270D
fluorene	< 0.5	0.5	ug/g	1	AJD	5/7/12	5161	5/8/12	14:28	SW3550B8270D
phenanthrene	**3.6**	0.5	ug/g	1	AJD	5/7/12	5161	5/8/12	14:28	SW3550B8270D
anthracene	**0.8**	0.5	ug/g	1	AJD	5/7/12	5161	5/8/12	14:28	SW3550B8270D
fluoranthene	**4.0**	0.5	ug/g	1	AJD	5/7/12	5161	5/8/12	14:28	SW3550B8270D
pyrene	**3.7**	0.5	ug/g	1	AJD	5/7/12	5161	5/8/12	14:28	SW3550B8270D
benzo(a)anthracene	**2.1**	0.5	ug/g	1	AJD	5/7/12	5161	5/8/12	14:28	SW3550B8270D
chrysene	**1.7**	0.5	ug/g	1	AJD	5/7/12	5161	5/8/12	14:28	SW3550B8270D
benzo(b)fluoranthene	**1.5**	0.5	ug/g	1	AJD	5/7/12	5161	5/8/12	14:28	SW3550B8270D
benzo(k)fluoranthene	**1.1**	0.5	ug/g	1	AJD	5/7/12	5161	5/8/12	14:28	SW3550B8270D
benzo(a)pyrene	**1.4**	0.5	ug/g	1	AJD	5/7/12	5161	5/8/12	14:28	SW3550B8270D
indeno(1,2,3-cd)pyrene	**0.8**	0.5	ug/g	1	AJD	5/7/12	5161	5/8/12	14:28	SW3550B8270D
dibenzo(a,h)anthracene	< 0.5	0.5	ug/g	1	AJD	5/7/12	5161	5/8/12	14:28	SW3550B8270D
benzo(g,h,i)perylene	**1.0**	0.5	ug/g	1	AJD	5/7/12	5161	5/8/12	14:28	SW3550B8270D
Surrogate Recovery		**Limits**								
2-fluorobiphenyl SUR	**67**	43-116	%	1	AJD	5/7/12	5161	5/8/12	14:28	SW3550B8270D
o-terphenyl SUR	**79**	33-141	%	1	AJD	5/7/12	5161	5/8/12	14:28	SW3550B8270D

Absolute Resource associates

Project ID: Biddeford Hydro Site 3612122239
Job ID: 23925
Sample#: 23925-010
Sample ID: SS-08-12
Matrix: Solid Percent Dry: 84% Results expressed on a dry weight basis.
Sampled: 4/26/12 13:40

Parameter	Result	Quant Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
naphthalene	< 0.6	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	15:05	SW3550B8270D
2-methylnaphthalene	< 0.6	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	15:05	SW3550B8270D
acenaphthylene	< 0.6	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	15:05	SW3550B8270D
acenaphthene	**1.0**	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	15:05	SW3550B8270D
dibenzofuran	< 0.6	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	15:05	SW3550B8270D
fluorene	**0.7**	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	15:05	SW3550B8270D
phenanthrene	**7.6**	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	15:05	SW3550B8270D
anthracene	**1.6**	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	15:05	SW3550B8270D
fluoranthene	**8.0**	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	15:05	SW3550B8270D
pyrene	**7.1**	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	15:05	SW3550B8270D
benzo(a)anthracene	**4.5**	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	15:05	SW3550B8270D
chrysene	**4.0**	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	15:05	SW3550B8270D
benzo(b)fluoranthene	**3.4**	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	15:05	SW3550B8270D
benzo(k)fluoranthene	**2.2**	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	15:05	SW3550B8270D
benzo(a)pyrene	**3.1**	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	15:05	SW3550B8270D
indeno(1,2,3-cd)pyrene	**1.6**	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	15:05	SW3550B8270D
dibenzo(a,h)anthracene	**0.7**	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	15:05	SW3550B8270D
benzo(g,h,i)perylene	**1.9**	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	15:05	SW3550B8270D
Surrogate Recovery		**Limits**								
2-fluorobiphenyl SUR	**68**	43-116	%	1	AJD	5/7/12	5161	5/8/12	15:05	SW3550B8270D
o-terphenyl SUR	**70**	33-141	%	1	AJD	5/7/12	5161	5/8/12	15:05	SW3550B8270D

Absolute Resource associates

Project ID: Biddeford Hydro Site 3612122239
Job ID: 23925
Sample#: 23925-011
Sample ID: SS-06-12-DUP
Matrix: Solid Percent Dry: 83.1% Results expressed on a dry weight basis.
Sampled: 4/26/12 12:30

Parameter	Result	Quant Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
naphthalene	**0.8**	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	15:43	SW3550B8270D
2-methylnaphthalene	< 0.6	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	15:43	SW3550B8270D
acenaphthylene	< 0.6	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	15:43	SW3550B8270D
acenaphthene	**1.4**	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	15:43	SW3550B8270D
dibenzofuran	**0.8**	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	15:43	SW3550B8270D
fluorene	**1.1**	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	15:43	SW3550B8270D
phenanthrene	**11**	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	15:43	SW3550B8270D
anthracene	**2.2**	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	15:43	SW3550B8270D
fluoranthene	**11**	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	15:43	SW3550B8270D
pyrene	**8.8**	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	15:43	SW3550B8270D
benzo(a)anthracene	**5.5**	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	15:43	SW3550B8270D
chrysene	**4.8**	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	15:43	SW3550B8270D
benzo(b)fluoranthene	**3.3**	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	15:43	SW3550B8270D
benzo(k)fluoranthene	**3.5**	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	15:43	SW3550B8270D
benzo(a)pyrene	**3.9**	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	15:43	SW3550B8270D
indeno(1,2,3-cd)pyrene	**1.9**	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	15:43	SW3550B8270D
dibenzo(a,h)anthracene	**0.9**	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	15:43	SW3550B8270D
benzo(g,h,i)perylene	**2.2**	0.6	ug/g	1	AJD	5/7/12	5161	5/8/12	15:43	SW3550B8270D
Surrogate Recovery		**Limits**								
2-fluorobiphenyl SUR	**71**	43-116	%	1	AJD	5/7/12	5161	5/8/12	15:43	SW3550B8270D
o-terphenyl SUR	**72**	33-141	%	1	AJD	5/7/12	5161	5/8/12	15:43	SW3550B8270D

Absolute Resource associates

Project ID: Biddeford Hydro Site 3612122239
Job ID: 23925

Sample#: 23925-004
Sample ID: SS-04-06
Matrix: Solid Percent Dry: 83.1% Results expressed on a dry weight basis.
Sampled: 4/26/12 11:30

Parameter	Result	Quant Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
PCB-1016	< 0.2	0.2	ug/g	1	JLZ	5/3/12	5159	5/8/12	19:03	SW3546/8082
PCB-1221	< 0.2	0.2	ug/g	1	JLZ	5/3/12	5159	5/8/12	19:03	SW3546/8082
PCB-1232	< 0.2	0.2	ug/g	1	JLZ	5/3/12	5159	5/8/12	19:03	SW3546/8082
PCB-1242	< 0.2	0.2	ug/g	1	JLZ	5/3/12	5159	5/8/12	19:03	SW3546/8082
PCB-1248	< 0.2	0.2	ug/g	1	JLZ	5/3/12	5159	5/8/12	19:03	SW3546/8082
PCB-1254	< 0.2	0.2	ug/g	1	JLZ	5/3/12	5159	5/8/12	19:03	SW3546/8082
PCB-1260	< 0.2	0.2	ug/g	1	JLZ	5/3/12	5159	5/8/12	19:03	SW3546/8082
Surrogate Recovery		**Limits**								
tetrachloro-m-xylene SUR	**96**	30-150	%	1	JLZ	5/3/12	5159	5/8/12	19:03	SW3546/8082
decachlorobiphenyl SUR	**88**	30-150	%	1	JLZ	5/3/12	5159	5/8/12	19:03	SW3546/8082

Sample#: 23925-005
Sample ID: SS-05-06
Matrix: Solid Percent Dry: 82.5% Results expressed on a dry weight basis.
Sampled: 4/26/12 12:00

Parameter	Result	Quant Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
PCB-1016	< 0.4	0.4	ug/g	1	JLZ	5/3/12	5159	5/17/12	10:53	SW3546/8082
PCB-1221	< 0.4	0.4	ug/g	1	JLZ	5/3/12	5159	5/17/12	10:53	SW3546/8082
PCB-1232	< 0.4	0.4	ug/g	1	JLZ	5/3/12	5159	5/17/12	10:53	SW3546/8082
PCB-1242	< 0.4	0.4	ug/g	1	JLZ	5/3/12	5159	5/17/12	10:53	SW3546/8082
PCB-1248	< 0.4	0.4	ug/g	1	JLZ	5/3/12	5159	5/17/12	10:53	SW3546/8082
PCB-1254	< 0.4	0.4	ug/g	1	JLZ	5/3/12	5159	5/17/12	10:53	SW3546/8082
PCB-1260	< 0.4	0.4	ug/g	1	JLZ	5/3/12	5159	5/17/12	10:53	SW3546/8082
Surrogate Recovery		**Limits**								
tetrachloro-m-xylene SUR	**148**	30-150	%	1	JLZ	5/3/12	5159	5/17/12	10:53	SW3546/8082
decachlorobiphenyl SUR	**142**	30-150	%	1	JLZ	5/3/12	5159	5/17/12	10:53	SW3546/8082

Absolute Resource associates

Project ID: Biddeford Hydro Site 3612122239
Job ID: 23925

Sample#: 23925-006
Sample ID: SS-06-06
Matrix: Solid Percent Dry: 86.6% Results expressed on a dry weight basis.
Sampled: 4/26/12 12:30

Parameter	Result	Quant Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
PCB-1016	< 0.2	0.2	ug/g	1	JLZ	5/3/12	5159	5/8/12	20:04	SW3546/8082
PCB-1221	< 0.2	0.2	ug/g	1	JLZ	5/3/12	5159	5/8/12	20:04	SW3546/8082
PCB-1232	< 0.2	0.2	ug/g	1	JLZ	5/3/12	5159	5/8/12	20:04	SW3546/8082
PCB-1242	< 0.2	0.2	ug/g	1	JLZ	5/3/12	5159	5/8/12	20:04	SW3546/8082
PCB-1248	< 0.2	0.2	ug/g	1	JLZ	5/3/12	5159	5/8/12	20:04	SW3546/8082
PCB-1254	< 0.2	0.2	ug/g	1	JLZ	5/3/12	5159	5/8/12	20:04	SW3546/8082
PCB-1260	< 0.2	0.2	ug/g	1	JLZ	5/3/12	5159	5/8/12	20:04	SW3546/8082
Surrogate Recovery		**Limits**								
tetrachloro-m-xylene SUR	**102**	30-150	%	1	JLZ	5/3/12	5159	5/8/12	20:04	SW3546/8082
decachlorobiphenyl SUR	**89**	30-150	%	1	JLZ	5/3/12	5159	5/8/12	20:04	SW3546/8082

Sample#: 23925-007
Sample ID: SS-06-12
Matrix: Solid Percent Dry: 83.1% Results expressed on a dry weight basis.
Sampled: 4/26/12 12:30

Parameter	Result	Quant Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
PCB-1016	< 0.2	0.2	ug/g	1	JLZ	5/3/12	5159	5/8/12	20:35	SW3546/8082
PCB-1221	< 0.2	0.2	ug/g	1	JLZ	5/3/12	5159	5/8/12	20:35	SW3546/8082
PCB-1232	< 0.2	0.2	ug/g	1	JLZ	5/3/12	5159	5/8/12	20:35	SW3546/8082
PCB-1242	< 0.2	0.2	ug/g	1	JLZ	5/3/12	5159	5/8/12	20:35	SW3546/8082
PCB-1248	< 0.2	0.2	ug/g	1	JLZ	5/3/12	5159	5/8/12	20:35	SW3546/8082
PCB-1254	< 0.2	0.2	ug/g	1	JLZ	5/3/12	5159	5/8/12	20:35	SW3546/8082
PCB-1260	< 0.2	0.2	ug/g	1	JLZ	5/3/12	5159	5/8/12	20:35	SW3546/8082
Surrogate Recovery		**Limits**								
tetrachloro-m-xylene SUR	**97**	30-150	%	1	JLZ	5/3/12	5159	5/8/12	20:35	SW3546/8082
decachlorobiphenyl SUR	**86**	30-150	%	1	JLZ	5/3/12	5159	5/8/12	20:35	SW3546/8082

Project ID: Biddeford Hydro Site 3612122239
Job ID: 23925

Sample#: 23925-008
Sample ID: SS-07-06
Matrix: Solid Percent Dry: 85.9% Results expressed on a dry weight basis.
Sampled: 4/26/12 13:20

Parameter	Result	Quant Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
PCB-1016	< 0.2	0.2	ug/g	1	JLZ	5/3/12	5159	5/8/12	21:05	SW3546/8082
PCB-1221	< 0.2	0.2	ug/g	1	JLZ	5/3/12	5159	5/8/12	21:05	SW3546/8082
PCB-1232	< 0.2	0.2	ug/g	1	JLZ	5/3/12	5159	5/8/12	21:05	SW3546/8082
PCB-1242	< 0.2	0.2	ug/g	1	JLZ	5/3/12	5159	5/8/12	21:05	SW3546/8082
PCB-1248	< 0.2	0.2	ug/g	1	JLZ	5/3/12	5159	5/8/12	21:05	SW3546/8082
PCB-1254	< 0.2	0.2	ug/g	1	JLZ	5/3/12	5159	5/8/12	21:05	SW3546/8082
PCB-1260	< 0.2	0.2	ug/g	1	JLZ	5/3/12	5159	5/8/12	21:05	SW3546/8082
Surrogate Recovery		**Limits**								
tetrachloro-m-xylene SUR	**63**	30-150	%	1	JLZ	5/3/12	5159	5/8/12	21:05	SW3546/8082
decachlorobiphenyl SUR	**58**	30-150	%	1	JLZ	5/3/12	5159	5/8/12	21:05	SW3546/8082

Sample#: 23925-009
Sample ID: SS-08-06
Matrix: Solid Percent Dry: 91.7% Results expressed on a dry weight basis.
Sampled: 4/26/12 13:40

Parameter	Result	Quant Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
PCB-1016	< 0.2	0.2	ug/g	1	JLZ	5/3/12	5159	5/8/12	21:36	SW3546/8082
PCB-1221	< 0.2	0.2	ug/g	1	JLZ	5/3/12	5159	5/8/12	21:36	SW3546/8082
PCB-1232	< 0.2	0.2	ug/g	1	JLZ	5/3/12	5159	5/8/12	21:36	SW3546/8082
PCB-1242	< 0.2	0.2	ug/g	1	JLZ	5/3/12	5159	5/8/12	21:36	SW3546/8082
PCB-1248	< 0.2	0.2	ug/g	1	JLZ	5/3/12	5159	5/8/12	21:36	SW3546/8082
PCB-1254	< 0.2	0.2	ug/g	1	JLZ	5/3/12	5159	5/8/12	21:36	SW3546/8082
PCB-1260	< 0.2	0.2	ug/g	1	JLZ	5/3/12	5159	5/8/12	21:36	SW3546/8082
Surrogate Recovery		**Limits**								
tetrachloro-m-xylene SUR	**91**	30-150	%	1	JLZ	5/3/12	5159	5/8/12	21:36	SW3546/8082
decachlorobiphenyl SUR	**80**	30-150	%	1	JLZ	5/3/12	5159	5/8/12	21:36	SW3546/8082

Project ID: Biddeford Hydro Site 3612122239
Job ID: 23925
Sample#: 23925-011
Sample ID: SS-06-12-DUP
Matrix: Solid Percent Dry: 83.1% Results expressed on a dry weight basis.
Sampled: 4/26/12 12:30

Parameter	Result	Quant Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
PCB-1016	< 0.2	0.2	ug/g	1	JLZ	5/3/12	5159	5/8/12	22:07	SW3546/8082
PCB-1221	< 0.2	0.2	ug/g	1	JLZ	5/3/12	5159	5/8/12	22:07	SW3546/8082
PCB-1232	< 0.2	0.2	ug/g	1	JLZ	5/3/12	5159	5/8/12	22:07	SW3546/8082
PCB-1242	< 0.2	0.2	ug/g	1	JLZ	5/3/12	5159	5/8/12	22:07	SW3546/8082
PCB-1248	< 0.2	0.2	ug/g	1	JLZ	5/3/12	5159	5/8/12	22:07	SW3546/8082
PCB-1254	< 0.2	0.2	ug/g	1	JLZ	5/3/12	5159	5/8/12	22:07	SW3546/8082
PCB-1260	< 0.2	0.2	ug/g	1	JLZ	5/3/12	5159	5/8/12	22:07	SW3546/8082
Surrogate Recovery		**Limits**								
tetrachloro-m-xylene SUR	**96**	30-150	%	1	JLZ	5/3/12	5159	5/8/12	22:07	SW3546/8082
decachlorobiphenyl SUR	**81**	30-150	%	1	JLZ	5/3/12	5159	5/8/12	22:07	SW3546/8082

Absolute Resource associates

Project ID: Biddeford Hydro Site 3612122239
Job ID: 23925

Sample#: 23925-001
Sample ID: SS-01-06
Matrix: Solid Percent Dry: 80.5% Results expressed on a dry weight basis.
Sampled: 4/26/12 10:00

Parameter	Result	Quant Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
Arsenic	**7.0**	0.8	ug/g	1	BJS	4/30/12	5150	4/30/12	22:40	SW3051A6010C
Cadmium	< 0.3	0.3	ug/g	1	BJS	4/30/12	5150	4/30/12	22:40	SW3051A6010C
Lead	**23**	0.8	ug/g	1	BJS	4/30/12	5150	4/30/12	22:40	SW3051A6010C

Sample#: 23925-002
Sample ID: SS-02-06
Matrix: Solid Percent Dry: 81.1% Results expressed on a dry weight basis.
Sampled: 4/26/12 10:25

Parameter	Result	Quant Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
Arsenic	**7.8**	0.9	ug/g	1	BJS	4/30/12	5150	4/30/12	22:48	SW3051A6010C
Cadmium	< 0.3	0.3	ug/g	1	BJS	4/30/12	5150	4/30/12	22:48	SW3051A6010C
Lead	**19**	0.9	ug/g	1	BJS	4/30/12	5150	4/30/12	22:48	SW3051A6010C

Sample#: 23925-003
Sample ID: SS-03-06
Matrix: Solid Percent Dry: 84.4% Results expressed on a dry weight basis.
Sampled: 4/26/12 11:00

Parameter	Result	Quant Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
Arsenic	**7.5**	0.9	ug/g	1	BJS	4/30/12	5150	4/30/12	22:56	SW3051A6010C
Cadmium	**0.6**	0.4	ug/g	1	BJS	4/30/12	5150	4/30/12	22:56	SW3051A6010C
Lead	**360**	0.9	ug/g	1	BJS	4/30/12	5150	4/30/12	22:56	SW3051A6010C

Sample#: 23925-004
Sample ID: SS-04-06
Matrix: Solid Percent Dry: 83.1% Results expressed on a dry weight basis.
Sampled: 4/26/12 11:30

Parameter	Result	Quant Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
Arsenic	**7.4**	1.0	ug/g	1	BJS	4/30/12	5150	4/30/12	23:03	SW3051A6010C
Cadmium	< 0.4	0.4	ug/g	1	BJS	4/30/12	5150	4/30/12	23:03	SW3051A6010C
Lead	**24**	1.0	ug/g	1	BJS	4/30/12	5150	4/30/12	23:03	SW3051A6010C

Sample#: 23925-005
Sample ID: SS-05-06
Matrix: Solid Percent Dry: 82.5% Results expressed on a dry weight basis.
Sampled: 4/26/12 12:00

Parameter	Result	Quant Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
Arsenic	**12**	1.0	ug/g	1	BJS	4/30/12	5150	4/30/12	23:11	SW3051A6010C
M = The percent recovery for the matrix spike was 133. The acceptance criteria is 75-125%. All other batch QC was within acceptance. Matrix interference suspected										
Cadmium	< 0.4	0.4	ug/g	1	BJS	4/30/12	5150	4/30/12	23:11	SW3051A6010C
Lead	**180**	1.0	ug/g	1	BJS	4/30/12	5150	4/30/12	23:11	SW3051A6010C
M = The percent recovery for the matrix spike was 128. The acceptance criteria is 75-125%. All other batch QC was within acceptance. Matrix interference suspected										

Absolute Resource associates

Project ID: Biddeford Hydro Site 3612122239
Job ID: 23925

Sample#: 23925-006
Sample ID: SS-06-06
Matrix: Solid Percent Dry: 86.6% Results expressed on a dry weight basis.
Sampled: 4/26/12 12:30

Parameter	Result	Quant Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
Arsenic	**10**	0.8	ug/g	1	BJS	4/30/12	5150	4/30/12	23:34	SW3051A6010C
Cadmium	**1.1**	0.3	ug/g	1	BJS	4/30/12	5150	4/30/12	23:34	SW3051A6010C
Lead	**310**	0.8	ug/g	1	BJS	4/30/12	5150	4/30/12	23:34	SW3051A6010C

Sample#: 23925-007
Sample ID: SS-06-12
Matrix: Solid Percent Dry: 83.1% Results expressed on a dry weight basis.
Sampled: 4/26/12 12:30

Parameter	Result	Quant Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
Arsenic	**7.0**	1.0	ug/g	1	BJS	4/30/12	5150	5/1/12	0:04	SW3051A6010C
Cadmium	**1.2**	0.4	ug/g	1	BJS	4/30/12	5150	5/1/12	0:04	SW3051A6010C
Lead	**320**	1.0	ug/g	1	BJS	4/30/12	5150	5/1/12	0:04	SW3051A6010C

Sample#: 23925-008
Sample ID: SS-07-06
Matrix: Solid Percent Dry: 85.9% Results expressed on a dry weight basis.
Sampled: 4/26/12 13:20

Parameter	Result	Quant Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
Arsenic	**6.0**	0.9	ug/g	1	BJS	4/30/12	5150	5/1/12	0:12	SW3051A6010C
Cadmium	< 0.4	0.4	ug/g	1	BJS	4/30/12	5150	5/1/12	0:12	SW3051A6010C
Lead	**64**	0.9	ug/g	1	BJS	4/30/12	5150	5/1/12	0:12	SW3051A6010C

Sample#: 23925-009
Sample ID: SS-08-06
Matrix: Solid Percent Dry: 91.7% Results expressed on a dry weight basis.
Sampled: 4/26/12 13:40

Parameter	Result	Quant Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
Arsenic	**6.7**	0.8	ug/g	1	BJS	4/30/12	5150	5/1/12	0:19	SW3051A6010C
Cadmium	< 0.3	0.3	ug/g	1	BJS	4/30/12	5150	5/1/12	0:19	SW3051A6010C
Lead	**77**	0.8	ug/g	1	BJS	4/30/12	5150	5/1/12	0:19	SW3051A6010C

Sample#: 23925-010
Sample ID: SS-08-12
Matrix: Solid Percent Dry: 84% Results expressed on a dry weight basis.
Sampled: 4/26/12 13:40

Parameter	Result	Quant Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
Arsenic	**7.2**	0.9	ug/g	1	BJS	4/30/12	5150	5/1/12	0:27	SW3051A6010C
Cadmium	**0.7**	0.4	ug/g	1	BJS	4/30/12	5150	5/1/12	0:27	SW3051A6010C
Lead	**210**	0.9	ug/g	1	BJS	4/30/12	5150	5/1/12	0:27	SW3051A6010C

Project ID: Biddeford Hydro Site 3612122239
Job ID: 23925
Sample#: 23925-011
Sample ID: SS-06-12-DUP
Matrix: Solid Percent Dry: 83.1% Results expressed on a dry weight basis.
Sampled: 4/26/12 12:30

Parameter	Result	Quant Limit	Units	Instr Dil'n Factor	Analyst	Prep Date	Batch	Analysis Date	Analysis Time	Reference
Arsenic	**11**	0.9	ug/g	1	BJS	4/30/12	5150	5/1/12	0:35	SW3051A6010C
Cadmium	**1.1**	0.4	ug/g	1	BJS	4/30/12	5150	5/1/12	0:35	SW3051A6010C
Lead	**340**	0.9	ug/g	1	BJS	4/30/12	5150	5/1/12	0:35	SW3051A6010C

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PAGE____ OF____

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Portsmouth, NH 03801
603-436-2001
absoluteresourceassociates.com

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST 23925

Company Name: AMEC

Company Address: 511 Congress St, Portland, ME

Report To: Charles Staples

Phone #: (207) 775 5401

Invoice To: Charles Staples

Project Name: Biddeford Hydro Site

Project #: 36121222 39

Project Location: NH MA ME VT ____ Other

Protocol: RCRA MCP SDWA NHDES NPDES OTHER

Reporting Limits: QAPP EPA DW GW-1 Other____ S-1

Quote #____ ☐ NH GREE/ODD Fund Pricing

PO # 0C012100502

ANALYSIS REQUEST

Lab Sample ID (Lab Use Only)	Field ID	# CONTAINERS	Matrix: WATER	Matrix: SOLID	Matrix: OTHER	Preservation Method: HCl	HNO_3	H_2SO_4	NaOH	MeOH	OTHER (Specify)	Sampling: DATE	TIME	SAMPLER	☐ VOC 8260 ☐ VOC 8260 NHDES ☐ VOC 8260 MADEP	☐ VOC 624 ☐ VOC BTEX ☐ MIBE, only ☐ VOC 8021VT	☐ VPH MADEP ☐ MEGRO ☐ GRO 8015	☐ VOC 524.2 ☐ VOC 524.2 NH List ☐ Gases-List:	☐ TPH ☐ DRO 8015 ☐ MEDRO ☐ EPH MADEP ☐ TPH Fingerprint	☑ 8270PAH ☐ 8270ABN ☐ 625 ☐ EDB 504.1	☐ 8082 PCB ☐ 8081 Pesticides ☐ 608 Pest/PCB	☐ O&G 1664 ☐ Mineral O&G SM5520F	☐ pH ☐ BOD ☐ Conductivity ☐ Turbidity	☐ TSS ☐ TDS ☐ TS ☐ TVS ☐ Alkalinity	☐ RCRA Metals ☐ Priority Pollutant Metals ☐ TAL Metals ☐ Hardness	☐ Total Metals-list:	☐ Dissolved Metals-list:	☐ Ammonia ☐ COD ☐ TKN ☐ TN ☐ TON ☐ TOC	☐ T-Phosphorus ☐ Phenols ☐ Bacteria P/A ☐ Bacteria MPN	☐ Cyanide ☐ Sulfide ☐ Nitrate + Nitrite ☐ Ortho P	☐ Nitrate ☐ Nitrite ☐ Chloride ☐ Sulfate ☐ Bromide ☐ Fluoride	☐ Corrosivity ☐ Reactive CN ☐ Reactive S- ☐ Ignitibility/FP	☐ TCLP Metals ☐ TCLP VOC ☐ TCLP SVOC ☐ TCLP Pesticide	Subcontract: ☐ Grain Size ☐ Herbicides ☐ Formaldehyde	☐ 6010B Lead, Cadmium, Arsenic	☐ PCBs 8082		Grab (G) or Composite (C)
23925-01	SS-01-06 + DUP	2		X							4°C	4/26/12	1000	CHL						X															X			
02	SS-02-06	1											1025							X															X			
03	SS-03-06	1											1100							X															X			
04	SS-04-06	1											1130							X															X	X		
05	SS-05-06	1											1200							X															X	X		
06	SS-06-06	1											1230							X															X	X		
07	SS-06-12 + DUP	2											1230							X															X	X		
08	SS-07-06	1											1320							X															X	X		
09	SS-08-06	1											1340							X															X	X		
10	SS-08-12	1											1340							X															X			

DUP -11

TAT REQUESTED

Priority (24 hr)* ☐
Expedited (48 hr)* ☐
Standard (10 Business Days) X
*Date Needed ____

See absoluteresourceassociates.com for sample acceptance policy and current accreditation lists.

SPECIAL INSTRUCTIONS

REPORTING INSTRUCTIONS ☐ PDF (e-mail address) Charles.Staples@AMEC
☐ HARD COPY REQUIRED ☐ FAX (FAX#)____ ☐ OTHER (specify)____

RECEIVED ON ICE ☑ YES ☐ NO
TEMPERATURE 6 °C

CUSTODY RECORD

QSD-01 Revision 03/26/11

Relinquished by Sampler:	Date	Time	Received by:	Date	Time
Charles H. Lyman	4/26/12	1530			
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by Laboratory:	Date	Time
			[signature]	4/26/12	1530