UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 1
5 Post Office Square, Suite 100
BOSTON, MA 02109-3912

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

SEP 09 2015

Street Retail, Inc.
1626 East Jefferson Street
Rockville, MD 20852

Re: Authorization to discharge under the Remediation General Permit (RGP) – for the Block 6, Assembly Row site located in Somerville, Massachusetts; Authorization # MAG910697

To Whom It May Concern:

Based on the review of a Notice of Intent (NOI) that was submitted on your behalf by Robert Sanda of Callahan, Inc. for the site referenced above, the U.S. Environmental Protection Agency (EPA) hereby authorizes Callahan, Inc., as the named Operator, to discharge in accordance with the provisions of the RGP from this site via storm drain to Mystic River, a Class SB waterbody. The authorization number is listed above. The effective date of coverage is the date of this authorization letter.

The table enclosed with this RGP authorization indicates the pollutants which are required for monitoring. Also indicated on the table are the effluent limits, test methods and minimum levels (MLs) for each pollutant. Please note that the table does not represent the complete requirements of the RGP. Operators must comply with all of the applicable requirements of this permit, including influent and effluent monitoring, narrative water quality standards, record keeping, and reporting requirements, found in Parts I and II, and Appendices I – VIII of the RGP. See EPA's website for the complete RGP and other information at: http://www.epa.gov/region1/npdes/rgp.html.

Please note the enclosed table includes parameters that data submitted with the NOI indicated exceed Appendix III limits. The table also includes other parameters for which there was insufficient sensitivity to detect these parameters at the minimum levels (ML) established in Appendix VI of the RGP. Pursuant to Part I. Section C.7., of the RGP, dilution factors may be determined for discharges to fresh waters for use in calculating effluent limits for metals. Based on the information included with the NOI, a dilution factor of 21 was used to calculate the water quality-based metals limits for this proposed discharge using the total recoverable limits in Appendix III. However, because the technology-based limits for metals in the dilution factor range >10 – 50 in Appendix IV

of the RGP are more stringent than the calculated water quality-based limits, the technology-based limits apply.

This EPA general permit and authorization to discharge will expire on **September 9, 2015**. However, in accordance with the general permit, your permit coverage is administratively continued until issuance of a new RGP. You have reported this project will terminate on July 15, 2016. Please be aware you are required to reapply for coverage after the EPA expired permit has been reissued. The reissuance date as well as the reapplication submittal date will be posted on the EPA web site at that time. Regardless of your project termination date, you are required to submit a Notice of Termination (NOT) to the attention of the contact person indicated below within thirty (30) days of the termination of the discharge.

Thank you in advance for your cooperation in this matter. Please contact George Papadopoulos at (617) 918-1579 or Papadopoulos.George@epa.gov, if you have any questions.

Sincerely,

FOR

Thelma Murphy, Chief
Storm Water and Construction Permits Section

Enclosure

cc: Robert Sanda, Callahan, Inc.
Robert Kubit, MassDEP

2010 Remediation General Permit
Summary of Effluent Limitations

Note: All samples are to be collected as grab samples

NPDES Authorization Number:	MAG910697

Parameter	Effluent Limit/Method/ML Effluent limits are daily maximum limits, unless denoted by a **, which are monthly average limits
1. Total Suspended Solids (TSS)	30 milligrams/liter (mg/L) **, 160.2/ML5 µg/L
4. Cyanide (CN) [2, 3]	Saltwater = 1.0 µg/L **/335.4/ML 10µg/L
38. Chloride	Monitor Only/300.0/ ML 100 µg/L
29. Acetone	Monitor Only(µg/L)/8260C/ML 50µg/L
35. Total Group I Polycyclic Aromatic Hydrocarbons (PAH)	10.0 µg/L
a. Benzo(a) Anthracene [7]	0.0038 µg/L /SIM/ML 0.1µg/L
b. Benzo(a) Pyrene [7]	0.0038 µg/L /SIM/ML 0.1µg/L
c. Benzo(b)Fluoranthene [7]	0.0038 µg/L /SIM/ML 0.1µg/L
d. Benzo(k)Fluoranthene [7]	0.0038 µg/L /SIM/ML 0.1µg/L
e. Chrysene [7]	0.0038 µg/L /SIM/ML 0.1µg/L
f. Dibenzo(a,h)anthracene [7]	0.0038 µg/L /SIM/ML 0.1µg/L
g. Indeno(1,2,3-cd) Pyrene[7]	0.0038 µg/L /SIM/ML 0.1µg/L

Metal Parameters	Total Recoverable Metal Limit at Hardness = 50 mg/L CaCO3)[10] Units = µg/l Freshwater Limits	Minimum level=ML[11]
39. Antimony	60	10
40. Arsenic **	100	20
41. Cadmium **	2	0.5
42. Chromium III (trivalent) **	489	15
44. Copper **	52	15
45. Lead **	13	3
47. Nickel **	290	20
50. Zinc **	666	15
51. Iron	5,000	20

Other Parameters	Limit
52. Instantaneous Flow	Site-specific cubic feet/second (CFS)
53. Total Flow	Site-specific in CFS

Parameter	Effluent Limit/Method/ML Effluent limits are daily maximum limits, unless denoted by a **, which are monthly average limits
55. pH Range for Class SA & Class SB Waters in MA	6.5-8.5; 1/Month/Grab[12]

Footnotes:

[2] Limits for cyanide are based on EPA's water quality criteria expressed as micrograms per liter. There is currently no EPA approved test method for free cyanide. Therefore, total cyanide must be reported.

[3] Although the maximum values for cyanide are 5.2 µg/L and 1.0 µg/L for freshwater and saltwater, respectively, the compliance limits are equal to the minimum level (ML) of the Method 335.4 as listed in Appendix VI (i.e., 10 µg/L).

[7] Although the maximum value for the individual PAH compounds is 0.0038 µg/L, the compliance limits are equal to the minimum level (ML) of the test method used as listed in Appendix VI.

[10] Hardness. Cadmium, Chromium III, Copper, Lead, Nickel, Silver, and Zinc are Hardness Dependent. This is not applicable to saltwater discharges.

[11] The Minimum Level (ML) is the lowest level at which the analytical system gives a recognizable signal and acceptable calibration point for the analyte. The ML represents the lowest concentration at which an analyte can be measured with a known level of confidence. The MLs required by this permit are included in Appendix VI.

[12] pH sampling for compliance with permit limits may be performed using field methods as provided for in EPA test Method 150.1.

CALLAHAN

August, 4, 2015

U.S. Environmental Protection Agency
5 Post Office Square, Suite 100
Mail Code OEP06-4
Boston, MA 02109-3912
ATTN: Remediation General Permit NOI Processing

RE: Notice of Intent for the Remediation General Permit
Temporary Construction Dewatering for Site Redevelopment
Block 6, Assembly Row Redevelopment Project
Assembly Square, Somerville, Massachusetts

Dear Sir/Madam:

On behalf of Street Retail, Inc., Callahan, Inc. is submitting this Notice of Intent (NOI) to the USEPA for coverage under the National Pollutant Discharge Elimination System (NPDES) Remediation General Permit (RGP) MAG910000. This letter and supporting documentation were prepared in accordance with the U.S. EPA guidance for construction dewatering under the RGP program. Callahan is the general contractor for the project and will have direct responsibility of the subcontractors performing the dewatering activities at the Site. Subcontractors working for Callahan on the project will be required to meet the requirements of this NOI and the RGP.

This NOI will cover construction activities associated with site redevelopment on Block 6 of the Assembly Row development. The site is located in the eastern portion of Somerville, Massachusetts, in the Assembly Square area south of the Mystic River (see Figure 1). The Site consists of portions of five former properties that were known as 99 Foley Street, 100 Foley Street, 130 Foley Street, and a parcel of land known as Yard 21. A subdivision plan was recorded on December 28, 2011 (Plan 880 of 2011), which created Parcel 30. Parcel 30 is also identified as Block 6 of the Assembly Row project and is slated for redevelopment. Block 6 is a portion of Massachusetts Contingency Plan (MCP) sites associated with Release Tracking Numbers (RTNs) 3-18995, 3-19163, 3-19164, 3-434, 3-29665, and 3-4082, shown on Figure 2. The temporary construction dewatering will discharge via a 72-inch storm drain outfall which was installed as part of the Assembly Row development. The 72-inch storm drain outfall discharges to the Mystic River below the Amelia Earhart DAM (Figure 2).

According to the Massachusetts Geographical Information System (MassGIS), the excavation activities will not impact Areas of Critical Environmental Concern (ACEC) or Habitats of Rare Wetland Wildlife. A review of the information on the U.S. Fish and Wildlife Service website led to the conclusion that the project will not impact federally-listed threatened or endangered species. A letter from that agency is included in Appendix D. An email requesting information regarding Oceanic Fisheries was sent to the National Oceanic and Atmospheric Administration (NOAA), and their response (Appendix D) states that no listed species are known to occur in the Mystic River in the area of discharge.

The construction activities will require the excavation of soil to a depth of approximately 5 to 15 feet below ground surface (bgs) depending on the location. Groundwater is anticipated to be encountered between 10 and 15 feet bgs. Groundwater that flows into excavations during construction activities will either be recharged in close proximity to the active excavation areas or be treated prior to discharge to a storm drain such that the discharged effluent meets the effluent limitations established by Appendix III and Appendix IV of the RGP

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CALLAHAN
CONSTRUCTION MANAGERS

Application. Figure 3 includes a schematic of the proposed dewatering treatment system. Groundwater samples were collected from wells SH-901, SH-902, and HA13-B604 (see Figure 2) on April 17, 2015 and submitted for laboratory analysis of the parameters included in Appendix III of the RGP. The data, which was used to complete the NOI, is summarized in Table 1 and the laboratory analytical report is included in Appendix B. The final discharge point for the treatment system will be the Mystic River.

The completed Notice of Intent for the Remediation General Permit form is included as Appendix A. Discharge of treated water is scheduled to begin as early as August 15, 2015, pending authorization from the EPA and other agencies.

Thank you for your consideration of this NOI/Permit. Please feel free to contact us if you wish to discuss the information contained in this application, or if any additional information is needed.

Very truly yours,

Robert Sanda, P.E.
Callahan, Inc.

encl. Table 1 – Summary of Groundwater Analytical Data
Figure 1 – Locus Plan
Figure 2 – Site Plan with Target Discharge Point
Figure 3 – Proposed Groundwater Treatment Schematic
Appendix A – Notice of Intent Form
Appendix B – Analytical Data
Appendix C – Dilution Calculations
Appendix D – Federal Correspondence
Appendix E – National Register of Historic Places, Somerville, Massachusetts
Appendix F – Best Management Practices Plan

TABLE

Table 1
Summary of Groundwater Analytical Data
NPDES Remediation General Permit
Block 6

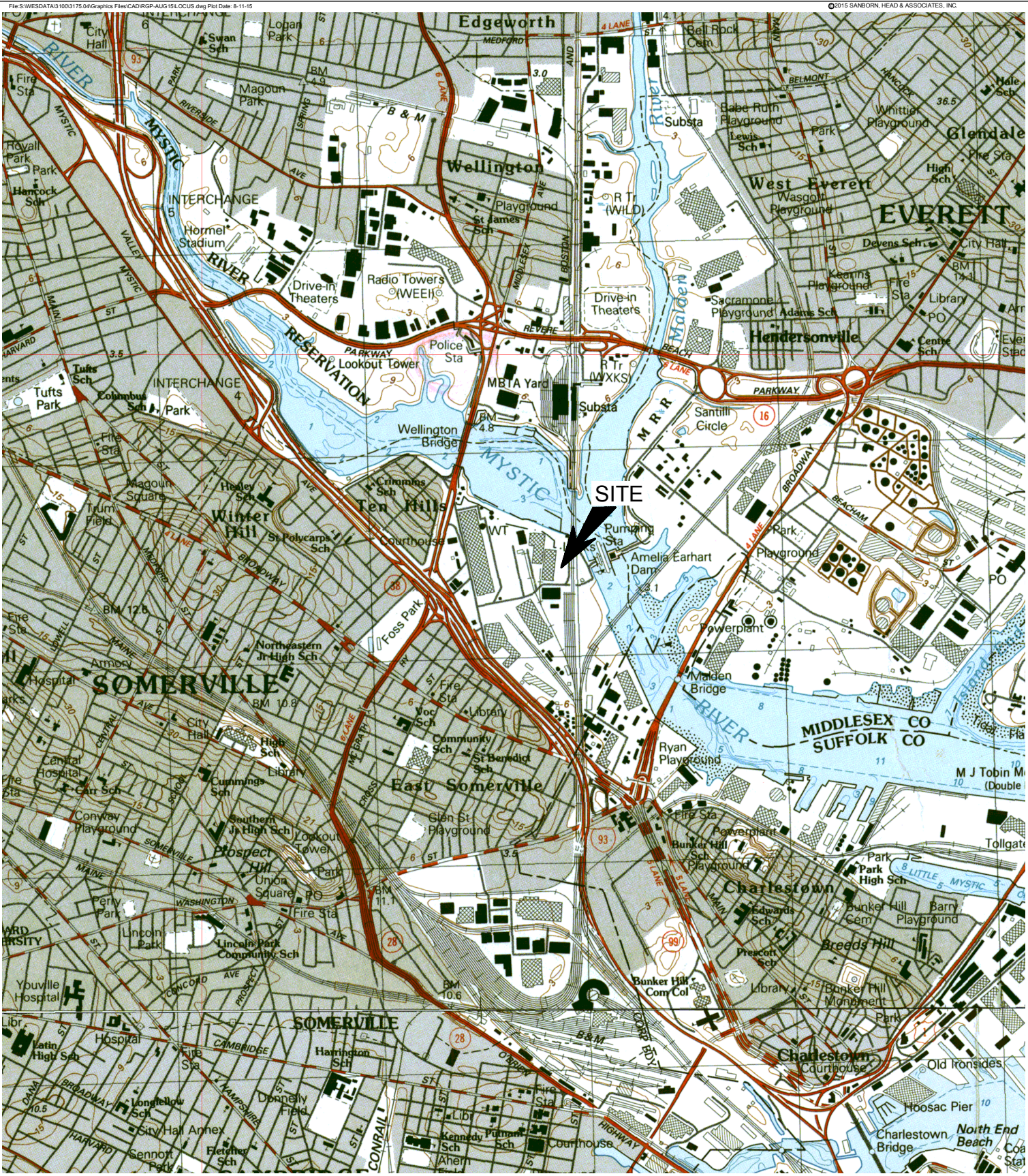
Location	Analytical Method	NPDES RGP Effluent Limit	Units	RGP 4/17/15	SH-901W	HA13-B604	SH-902W
Sampling Date				**4/17/2015**	**4/17/2015**	**4/17/2015**	**4/17/2015**
Anions by Ion Chromatography							
Chloride	CL-300	Monitor Only	mg/l	200	-	-	-
General Chemistry							
Solids, Total Suspended	TSS-2540	30	mg/l	**1,500**	-	-	-
Cyanide, Total	TCN-4500	1.0	ug/l	**35**	-	-	-
Chlorine, Total Residual[2]	TRC-4500	7.5	ug/l	<20	-	-	-
TPH	TPH-1664	5	mg/l	<4.4	-	-	-
Phenolics, Total	TPHENOL-420	300	ug/l	<30	-	-	-
Chromium, Hexavalent[3]	HEXCR-3500	11.4	ug/l	<10	-	-	-
Pesticides							
1,2-Dibromoethane[4]	504	0.05	ug/l	-	<0.010	<0.010	<0.010
Polychlorinated Biphenyls							
Aroclor 1016[5]	PCB-608	0.5	ug/l	<0.25	-	-	-
Aroclor 1221[5]	PCB-608	0.5	ug/l	<0.25	-	-	-
Aroclor 1232[5]	PCB-608	0.5	ug/l	<0.25	-	-	-
Aroclor 1242[5]	PCB-608	0.5	ug/l	<0.25	-	-	-
Aroclor 1248[5]	PCB-608	0.5	ug/l	<0.25	-	-	-
Aroclor 1254[5]	PCB-608	0.5	ug/l	<0.25	-	-	-
Aroclor 1260[5]	PCB-608	0.5	ug/l	<0.20	-	-	-
Total PCBs[6]	PCB-608	0.5	ug/l	BDL	-	-	-
MCP Semivolatile Organics							
1,2-Dichlorobenzene	8270TCL	600	ug/l	<2	-	-	-
1,3-Dichlorobenzene	8270TCL	320	ug/l	<2	-	-	-
1,4-Dichlorobenzene	8270TCL	5.0	ug/l	<2	-	-	-
Bis(2-ethylhexyl)phthalate[7]	8270TCL	6.0	ug/l	<3.0	-	-	-
Butyl benzyl phthalate[7]	8270TCL	see Total Phthalates	ug/l	<5.0	-	-	-
Di-n-butylphthalate[7]	8270TCL	see Total Phthalates	ug/l	<5.0	-	-	-
Di-n-octylphthalate[7]	8270TCL	see Total Phthalates	ug/l	<5.0	-	-	-
Diethyl phthalate[7]	8270TCL	see Total Phthalates	ug/l	<5.0	-	-	-
Dimethyl phthalate[7]	8270TCL	see Total Phthalates	ug/l	<5.0	-	-	-
Total Phthalates[8]	8270TCL	3.0	ug/l	BDL	-	-	-
Total Phenols	8270TCL	300	ug/l	BDL	-	-	-
Semivolatile Organic Compounds (SVOCs)							
Acenaphthene[9]	8270TCL-SIM	see Total Group II PAHs	ug/l	**2.1**	-	-	-
Fluoranthene[9]	8270TCL-SIM	see Total Group II PAHs	ug/l	**1.6**	-	-	-
Naphthalene	8270TCL-SIM	20	ug/l	<0.4	-	-	-
Benzo(a)anthracene[10]	8270TCL-SIM	0.20	ug/l	**1.0**	-	-	-
Benzo(a)pyrene[10]	8270TCL-SIM	0.20	ug/l	**1.9**	-	-	-
Benzo(b)fluoranthene[10]	8270TCL-SIM	0.20	ug/l	**2.0**	-	-	-
Benzo(k)fluoranthene[10]	8270TCL-SIM	0.20	ug/l	**0.69**	-	-	-
Chrysene[10]	8270TCL-SIM	0.20	ug/l	**1.2**	-	-	-
Acenaphthylene[9]	8270TCL-SIM	see Total Group II PAHs	ug/l	**2.4**	-	-	-
Anthracene[9]	8270TCL-SIM	see Total Group II PAHs	ug/l	**1.3**	-	-	-
Benzo(ghi)perylene[9]	8270TCL-SIM	see Total Group II PAHs	ug/l	**2.5**	-	-	-
Fluorene[9]	8270TCL-SIM	see Total Group II PAHs	ug/l	**2.6**	-	-	-
Phenanthrene[9]	8270TCL-SIM	see Total Group II PAHs	ug/l	**5.5**	-	-	-
Dibenzo(a,h)anthracene[2, 10]	8270TCL-SIM	0.20	ug/l	<0.4	-	-	-
Indeno(1,2,3-cd)Pyrene[10]	8270TCL-SIM	0.20	ug/l	**2.0**	-	-	-
Pyrene[9]	8270TCL-SIM	see Total Group II PAHs	ug/l	**2.3**	-	-	-
Pentachlorophenol[2]	8270TCL-SIM	1.0	ug/l	<1.6	-	-	-
Total Group I PAHs[11]	8270TCL-SIM	10.0	ug/l	**8.8**	-	-	-
Total Group II PAHs[12]	8270TCL-SIM	100	ug/l	**20.3**	-	-	-
Total Metals							
Antimony, Total	SB-6020T	5.6	ug/l	**6.7**	-	-	-
Arsenic, Total	AS-6020T	36	ug/l	**92.1**	-	-	-
Cadmium, Total	CD-6020T	8.9	ug/l	**4.3**	-	-	-
Chromium, Total[3]	CR-6020T	100*	ug/l	**518.2**	-	-	-
Copper, Total	CU-6020T	3.7	ug/l	**1,444**	-	-	-
Iron, Total	FE-UI	1,000	ug/l	**110,000**	-	-	-
Lead, Total	PB-6020T	8.5	ug/l	**581.4**	-	-	-
Mercury, Total	HG-U	1.1	ug/l	**1.1**	-	-	-
Nickel, Total	NI-6020T	8.2	ug/l	**199.2**	-	-	-
Selenium, Total	SE-6020T	71	ug/l	**14.0**	-	-	-
Silver, Total	AG-6020T	2.2	ug/l	**1.3**	-	-	-
Zinc, Total	ZN-6020T	85.6	ug/l	**1,084**	-	-	-

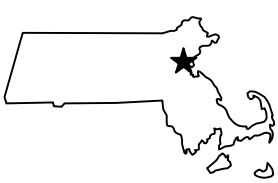
Table 1
Summary of Groundwater Analytical Data
NPDES Remediation General Permit
Block 6

Location	Analytical Method	NPDES RGP Effluent Limit	Units	RGP 4/17/15	SH-901W	HA13-B604	SH-902W
Sampling Date				**4/17/2015**	**4/17/2015**	**4/17/2015**	**4/17/2015**
Volatile Organic Compounds (VOCs)							
Methylene chloride	8260	4.6	ug/l	-	<2.0	<2.0	<8.0
1,1-Dichloroethane	8260	70	ug/l	-	<1.0	<1.0	<4.0
Carbon tetrachloride	8260	4.4	ug/l	-	<1.0	<1.0	<4.0
1,1,2-Trichloroethane	8260	5.0	ug/l	-	<1.0	<1.0	<4.0
Tetrachloroethene	8260	5.0	ug/l	-	<1.0	<1.0	<4.0
1,2-Dichloroethane	8260	5.0	ug/l	-	<1.0	<1.0	<4.0
1,1,1-Trichloroethane	8260	200	ug/l	-	<1.0	<1.0	<4.0
Benzene	8260	50.0 for hydrostatic testing only	ug/l	-	<0.5	<0.5	<2.0
Toluene	8260	see Total BTEX	ug/l	-	<1.0	<1.0	<4.0
Ethylbenzene	8260	see Total BTEX	ug/l	-	<1.0	<1.0	<4.0
Vinyl chloride	8260	2.0	ug/l	-	<1.0	<1.0	<4.0
1,1-Dichloroethene	8260	3.2	ug/l	-	<1.0	<1.0	<4.0
Trichloroethene	8260	5.0	ug/l	-	<1.0	<1.0	<4.0
1,2-Dichlorobenzene	8260	600	ug/l	-	<1.0	<1.0	<4.0
1,3-Dichlorobenzene	8260	320	ug/l	-	<1.0	<1.0	<4.0
1,4-Dichlorobenzene	8260	5.0	ug/l	-	<1.0	<1.0	<4.0
Methyl tert butyl ether	8260	70.0	ug/l	-	<2.0	<2.0	<8.0
p/m-Xylene	8260	see Total BTEX	ug/l	-	<2.0	<2.0	<8.0
o-Xylene	8260	see Total BTEX	ug/l	-	<1.0	<1.0	<4.0
Xylene (Total)	8260	see Total BTEX	ug/l	-	<1.0	<1.0	<4.0
cis-1,2-Dichloroethene	8260	70	ug/l	-	<1.0	<1.0	<4.0
Acetone	8260	Monitor Only	ug/l	-	**150**	**17**	<20
Naphthalene	8260	20	ug/l	-	<2.0	<2.0	<8.0
Tertiary-Amyl Methyl Ether	8260	Monitor Only	ug/l	-	<2.0	<2.0	<8.0
tert-Butyl Alcohol	8260	Monitor Only	ug/l	-	<10	<10	<40
Total BTEX[13]	8260	100	ug/l	-	BDL	BDL	BDL
MCP Volatile Organics by SIM							
1,4-Dioxane	8260-SIM	Monitor Only	ug/l	-	<3.0	<3.0	<12.0

Notes:
1. The samples were collected by Sanborn, Head & Associates, Inc. personnel on the dates indicated and were submitted to Alpha Analytical, Inc. of Westborough, MA (Alpha) for analysis. The sample RGP 4/17/2015 sample was a composite of wells HA13-B604, SH-901(w), and SH-902(w). Discrete samples for VOCs were collected from wells HA13-B604, SH-901(w), and SH-902(w).
2. The Laboratory Reporting Limit (RL) meets the requirements of Appendix VI of the National Pollutant Discharge Elimination System (NPDES) Remediation General Permit (RGP) even though RLs of certain analytes exceed RGP Effluent Limits.
3. Only detected analytes listed on Appendix III of the RGP and historical maximum detections are shown, for a full list of analytes tested see attached laboratory report.
- *Chromium is presented as total Chromium: Hexavalent Chromium is Non-Detect.
4. RL achieved by laboratory was above the Effluent Limit.; however, 1,2-dibromoethane was also analytzed by Method 504, as shown, with an RL below the Effluent Limit.
5. Individual PCB congener.
6. Total of PCB congeners; Although the effluent limit for total PCB's is 0.000064 ug/l, the compliance limit is equal to the minimum level of the test method per Appendix VI (i.e. 0.5 ug/l for Method 608).
7. Individual phthalate compound.
8. "Total phthalates" is the sum of individual phthalate compounds; According to RGP Q&A #37, the RL for total phthalates is the highest reported phthalate RL; RL is less than the requirements in Appendix VI of RGP, even though RL exceeds RGP Effluent Limit.
9. Group II PAHs.
10. Group I PAHs; Although the maximum value for the individual PAH compounds is 0.0038 ug/l, the compliance limits are equal to the minimum level of the test method per Appendix VI.
11. Sum of Group I PAHs.
12. Sum of Group II PAHs.
13. Total BTEX = Sum of benzene, toluene, ethylbenzene, and total xylenes.
14. 'SHADED' values indicate exceedances of the NPDES RGP Effluent Limits; which were taken from Appendix III of the RGP.
'<' = analytes not detected above laboratory reporting limits
'BDL' = indicates analyte is below detection limits
'*' = NPDES RGP Effluent Limit for Trivalent Chromium shown.
15. Monitor Only means that the subject compound is not subject to a (criteria) limit, however, the Permitee is still required to monitor and report the effluent concentration.

FIGURES





NOTES:
Base map taken from "Office of Geographic and Environmental Information (MassGIS), Commonwealth of Massachusetts Executive Office of Environmental Affairs"
7.5 minute USGS Quadrangle Maps: Boston North, MA,Revised 1985

Drawn By: C.Green
Designed By: A.Harvey
Reviewed By: K.Walker
Project No: 3175.04
Date: August 2015

SCALE: 1:25,000

SANBORN HEAD

FIGURE 1

Locus Plan

Notice of Intent for Remediation General Permit

Assembly Row Block 6
Somerville, Massachusetts

Figure No. 2

Site Plan with Target Discharge Point

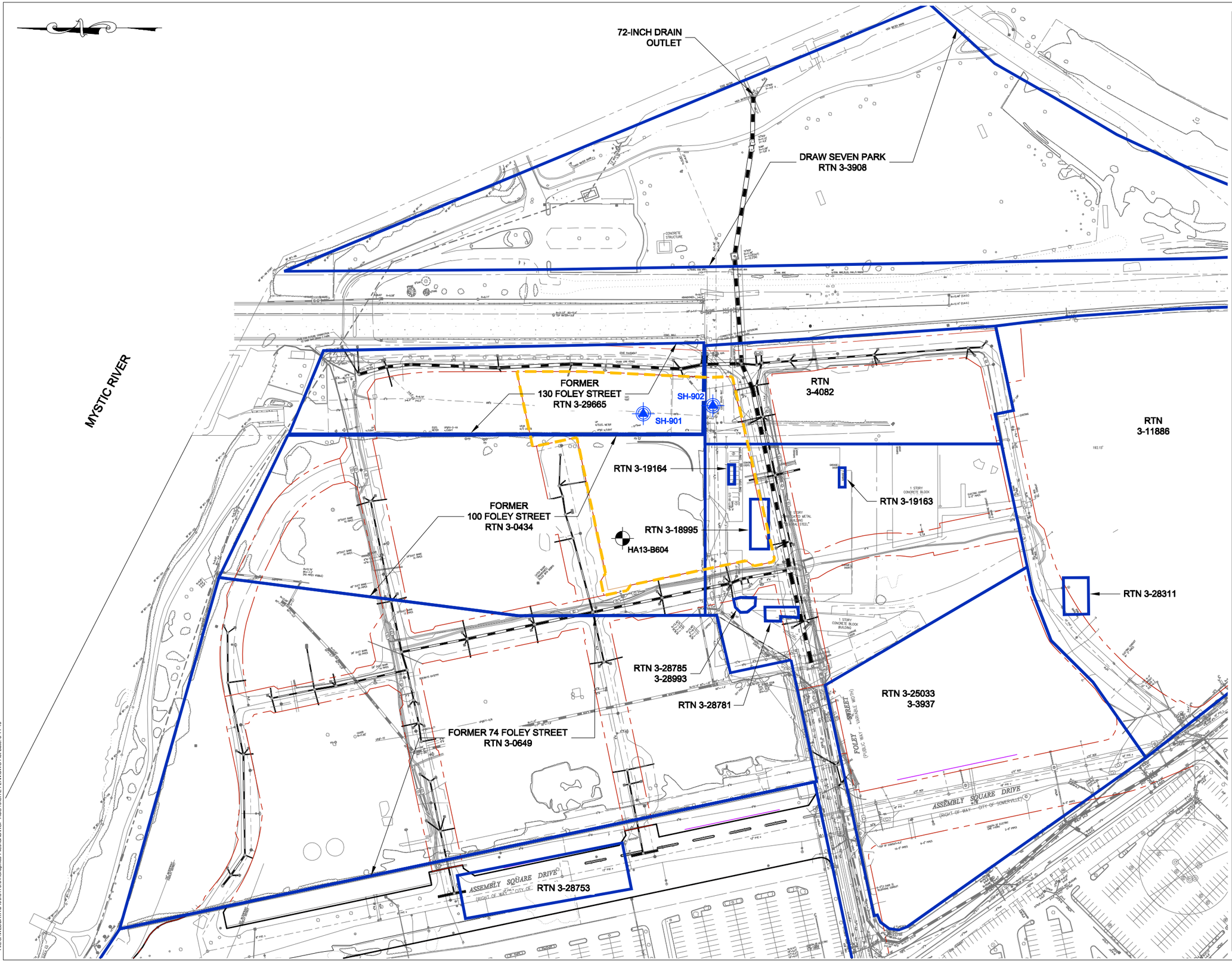
Notice of Intent for Remediation General Permit

Assembly Row Block 6
Somerville, Massachusetts

Drawn By: C.Green
Designed By: A.Harvey
Reviewed By: K.Walker
Project No: 3175.04
Date: August 2015

Figure Narrative

The base map was drawn from a plan entitled, "Existing Conditions Plan, Super Stop & Shop, Somerville, Massachusetts", prepared by Vanasse, Hangen & Brustlin, Inc (VHB) of Watertown, MA, dated February 3, 1995, with an original scale of 1" = 40'.



Legend

- Site boundary
- Current property line
- MCP RTN boundary areas
- SH-901 — Approximate location and designation of monitoring well by Sanborn Head in April 2015
- HA13-B604 — Approximate location and desingation of test boring and monitoring well by Haley & Aldrich (H&A) in August 2013

80 40 0 80 160 Feet

SANBORN HEAD

File:S:\WES\DATA\3 10\3175.04\Graphics Files\CAD\RGP-AUG 15\SITE PLAN.DWG Plot Date: 8-11-15

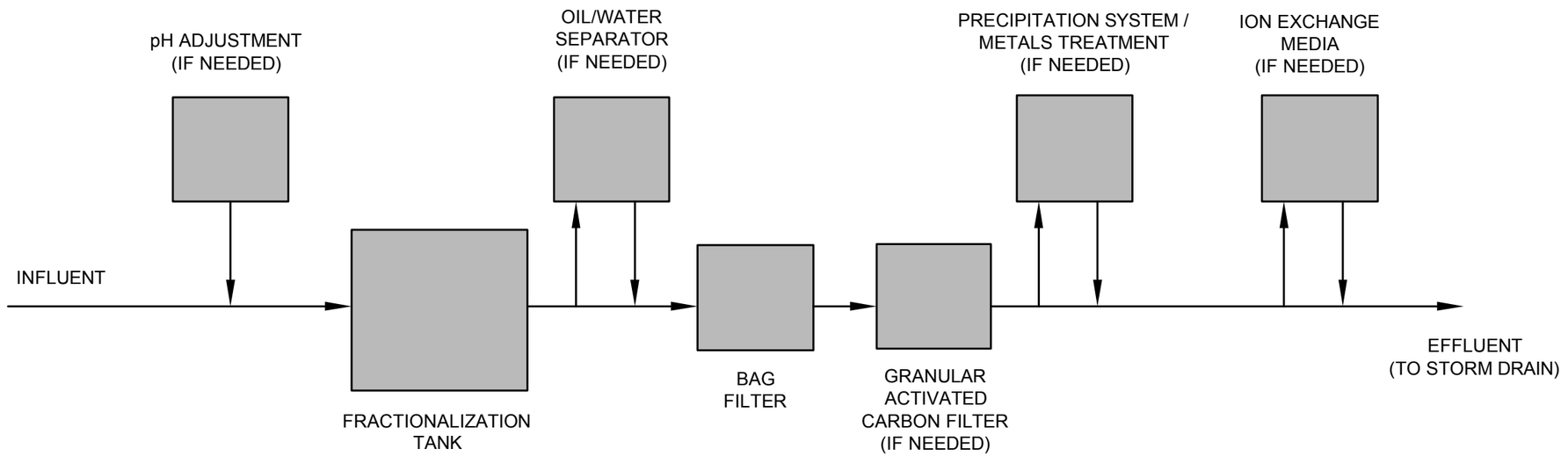


Figure No. 3

Proposed Groundwater Treatment Schematic

Notice of Intent for
Remediation General Permit

Assembly Row Block 6
Somerville, Massachusetts

Drawn By: C.Green
Designed By: A.Harvey
Reviewed By: K.Walker
Project No: 3175.04
Date: August 2015

Figure Narrative

Details of Treatment System may vary from the system indicated on left. Specific means and methods of treatment are to be selected by the subcontractor. Water discharged at the effluent point shall meet required effluent standards as specified in Appendix III and IV of the RGP.

NOT TO SCALE

SANBORN HEAD

File:S:\WES\DATA\3 10\3175.04\Graphics Files\CAD\RGP AUG 15\ELP & SCHEMATIC.dwg Plot Date: 8-11-15

APPENDIX A

NOTICE OF INTENT FORM

B. Suggested Form for Notice of Intent (NOI) for the Remediation General Permit

1. General facility/site information. Please provide the following information about the site:

a) Name of **facility/site**: Block 6, Assembly Row		**Facility/site** mailing address:			
Location of **facility/site**: longitude: -71.077768° latitude: 42.394045°	Facility SIC code(s): N/A	Street: Facility: 449 Canal Street, Somerville, MA 02145 Mailing: FRIT, 4th Floor, 5 Middlesex Avenue Somerville, MA 02145			
b) Name of **facility/site owner:** Street Retail, Inc.		Town: Somerville			
Email address of facility/site owner: bdutton@federalrealty.com		State: MA	Zip: 02145	County: Middlesex	
Telephone no. of facility/site **owner**: 617-684-1510					
Fax no. of facility/site **owner**: 617-623-3601		**Owner** is (check one): 1. Federal ○ 2. State/Tribal ○ 3. Private ◉ 4. Other ○ if so, describe:			
Address of **owner** (if different from site):					
Street: 1626 East Jefferson Street					
Town: Rockville	State: MD	Zip: 20852	County: Montgomery		
c) Legal name of **operator**: Callahan, Inc.	**Operator** telephone no: 508-279-0012	**Operator** fax no.: 508-279-0032	**Operator** email: rsanda@callahan-inc.com		
Operator contact name and title: Bob Sanda, Project Manager					
Address of **operator** (if different from owner):	Street: 80 First Street				
Town: Bridgewater	State: MA	Zip: 02324	County: Plymouth		

d) Check Y for "yes" or N for "no" for the following:
1. Has a prior NPDES permit exclusion been granted for the discharge? Y ○ N ◉, if Y, number:
2. Has a prior NPDES application (Form 1 & 2C) ever been filed for the discharge?
Y ○ N ◉, if Y, date and tracking #:
3. Is the discharge a "new discharge" as defined by 40 CFR 122.2? Y ◉ N ○
4. For sites in Massachusetts, is the discharge covered under the Massachusetts Contingency Plan (MCP) and exempt from state permitting? Y ◉ N ○

e) Is site/facility subject to any State permitting, license, or other action which is causing the generation of discharge? Y ○ N ◉
If Y, please list:
1. site identification # assigned by the state of NH or MA:
2. permit or license # assigned:
3. state agency contact information: name, location, and telephone number:

f) Is the site/facility covered by any other EPA permit, including:
1. Multi-Sector General Permit? Y ○ N ◉,
if Y, number:
2. Final Dewatering General Permit? Y ○ N ◉,
if Y, number:
3. EPA Construction General Permit? Y ○ N ◉,
if Y, number:
4. Individual NPDES permit? Y ○ N ◉,
if Y, number:
5. any other water quality related individual or general permit? Y ○
N ◉, if Y, number:

g) Is the site/facility located within or does it discharge to an Area of Critical Environmental Concern (ACEC)? Y ○ N ◉

h) Based on the facility/site information and any historical sampling data, identify the sub-category into which the potential discharge falls.

Activity Category	**Activity Sub-Category**
I - Petroleum Related Site Remediation	A. Gasoline Only Sites ☐ B. Fuel Oils and Other Oil Sites (including Residential Non-Business Remediation Discharges) ☐ C. Petroleum Sites with Additional Contamination ☒
II - Non Petroleum Site Remediation	A. Volatile Organic Compound (VOC) Only Sites ☐ B. VOC Sites with Additional Contamination ☐ C. Primarily Heavy Metal Sites ☐
III - Contaminated Construction Dewatering	A. General Urban Fill Sites ☒ B. Known Contaminated Sites ☒

IV - Miscellaneous Related Discharges	A. Aquifer Pump Testing to Evaluate Formerly Contaminated Sites ☐ B. Well Development/Rehabilitation at Contaminated/Formerly Contaminated Sites ☐ C. Hydrostatic Testing of Pipelines and Tanks ☐ D. Long-Term Remediation of Contaminated Sumps and Dikes ☐ E. Short-term Contaminated Dredging Drain Back Waters (if not covered by 401/404 permit) ☐

2. Discharge information. Please provide information about the discharge, (attaching additional sheets as necessary) including:

a) Describe the discharge activities for which the owner/applicant is seeking coverage:

Temporary construction dewatering in support of redevelopment.

b) Provide the following information about each discharge:

1) Number of discharge points: 1

2) What is the **maximum** and **average flow rate** of discharge (in cubic feet per second, ft^3/s)?
Max. flow 0.22 Is maximum flow a **design value**? Y ○ N ◉
Average flow (include units) 75 gpm Is average flow a design value or estimate? Estimate

3) Latitude and longitude of each discharge within 100 feet:
pt.1: lat 42.394 long 71.073 pt.2: lat. long. ;
pt.3: lat long pt.4: lat. long. ;
pt.5: lat long pt.6: lat. long. ;
pt.7: lat long pt.8: lat. long. ; etc.

4) If hydrostatic testing, total volume of the discharge (gals):

5) Is the discharge intermittent ◉ or seasonal ○ ?
Is discharge ongoing? Y ○ N ◉

c) Expected dates of discharge (mm/dd/yy): start Jul 15, 2015 end Jul 15, 2016

d) Please attach a line drawing or flow schematic showing water flow through the facility including:
1. sources of intake water, 2. contributing flow from the operation, 3. treatment units, and 4. discharge points and receiving waters(s). See attached figure 3.

3. Contaminant information.

a) Based on the sub-category selected (see Appendix III), indicate whether each listed chemical is **believed present** or **believed absent** in the potential discharge. Attach additional sheets as needed.

Parameter *	CAS Number	Believed Absent	Believed Present	# of Samples	Sample Type (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Average daily value	
								concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
1. Total Suspended Solids (TSS)		☐	☒	1	Composite	2540D	50,000	1,500,000			
2. Total Residual Chlorine (TRC)		☒	☐	1	Composite	4500CL - D	20	ND			
3. Total Petroleum Hydrocarbons (TPH)		☒	☐	1	Composite	1664A	4,400	ND			
4. Cyanide (CN)	57125	☐	☒	1	Composite	9014	5.0	35			
5. Benzene (B)	71432	☒	☐	3	Grab	8260C	2.0	ND			
6. Toluene (T)	108883	☒	☐	3	Grab	8260C	4.0	ND			
7. Ethylbenzene (E)	100414	☒	☐	3	Grab	8260C	4.0	ND			
8. (m,p,o) Xylenes (X)	108883; 106423; 95476; 1330207	☒	☐	3	Grab	8260C	4.0	ND			
9. Total BTEX [2]	n/a	☒	☐	3	Grab	8260C	4.0	BDL			
10. Ethylene Dibromide (EDB) (1,2-Dibromoethane) [3]	106934	☒	☐	3	Composite	504.1	0.01	ND			
11. Methyl-tert-Butyl Ether (MtBE)	1634044	☒	☐	3	Grab	8260C	8.0	ND			
12. tert-Butyl Alcohol (TBA) (Tertiary-Butanol)	75650	☒	☐	3	Grab	8260C	40	ND			

***** Numbering system is provided to allow cross-referencing to Effluent Limits and Monitoring Requirements by Sub-Category included in Appendix III, as well as the Test Methods and Minimum Levels associated with each parameter provided in Appendix VI.

[2] BTEX = Sum of Benzene, Toluene, Ethylbenzene, total Xylenes.

[3] EDB is a groundwater contaminant at fuel spill and pesticide application sites in New England.

Parameter *	CAS Number	Believed Absent	Believed Present	# of Samples	Sample Type (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Average daily value	
								concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
13. tert-Amyl Methyl Ether (TAME)	9940508	☒	☐	3	Grab	8260C	8.0	ND			
14. Naphthalene	91203	☒	☐	3	Grab	8260C	8.0	ND			
15. Carbon Tetrachloride	56235	☒	☐	3	Grab	8260C	4.0	ND			
16. 1,2 Dichlorobenzene (o-DCB)	95501	☒	☐	3	Grab	8260C	4.0	ND			
17. 1,3 Dichlorobenzene (m-DCB)	541731	☒	☐	3	Grab	8260C	4.0	ND			
18. 1,4 Dichlorobenzene (p-DCB)	106467	☒	☐	3	Grab	8260C	4.0	ND			
18a. Total dichlorobenzene		☒	☐	3	Grab	8260C	4.0	ND			
19. 1,1 Dichloroethane (DCA)	75343	☒	☐	3	Grab	8260C	4.0	ND			
20. 1,2 Dichloroethane (DCA)	107062	☒	☐	3	Grab	8260C	4.0	ND			
21. 1,1 Dichloroethene (DCE)	75354	☒	☐	3	Grab	8260C	4.0	ND			
22. cis-1,2 Dichloroethene (DCE)	156592	☒	☐	3	Grab	8260C	4.0	ND			
23. Methylene Chloride	75092	☒	☐	3	Grab	8260C	8.0	ND			
24. Tetrachloroethene (PCE)	127184	☒	☐	3	Grab	8260C	4.0	ND			
25. 1,1,1 Trichloro-ethane (TCA)	71556	☒	☐	3	Grab	8260C	4.0	ND			
26. 1,1,2 Trichloro-ethane (TCA)	79005	☒	☐	3	Grab	8260C	4.0	ND			
27. Trichloroethene (TCE)	79016	☒	☐	3	Grab	8260C	4.0	ND			

Parameter *	CAS Number	Believed Absent	Believed Present	# of Samples	Sample Type (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Average daily value	
								concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
28. Vinyl Chloride (Chloroethene)	75014	☒	☐	3	Grab	8260C	4.0	ND			
29. Acetone	67641	☐	☒	3	Grab	8260C	20	150			
30. 1,4 Dioxane	123911	☒	☐	3	Grab	8260-SIM	12	ND			
31. Total Phenols	108952	☒	☐	1	Composite	420.1	20	BDL			
32. Pentachlorophenol (PCP)	87865	☒	☐	1	Composite	8270D-SIM	1.6	ND			
33. Total Phthalates (Phthalate esters) [4]		☒	☐	1	Composite	8270D	5.0	BDL			
34. Bis (2-Ethylhexyl) Phthalate [Di-(ethylhexyl) Phthalate]	117817	☒	☐	1	Composite	8270D	3.0	ND			
35. Total Group I Polycyclic Aromatic Hydrocarbons (PAH)		☒	☐	1	Composite	8270D-SIM	0.40	8.8			
a. Benzo(a) Anthracene	56553	☐	☒	1	Composite	8270D-SIM	0.40	1.0			
b. Benzo(a) Pyrene	50328	☐	☒	1	Composite	8270D-SIM	0.40	1.9			
c. Benzo(b)Fluoranthene	205992	☐	☒	1	Composite	8270D-SIM	0.40	2.0			
d. Benzo(k)Fluoranthene	207089	☐	☒	1	Composite	8270D-SIM	0.40	0.69			
e. Chrysene	21801	☐	☒	1	Composite	8270D-SIM	0.40	1.2			
f. Dibenzo(a,h)anthracene	53703	☒	☐	1	Composite	8270D-SIM	0.40	ND			
g. Indeno(1,2,3-cd) Pyrene	193395	☐	☒	1	Composite	8270D-SIM	0.40	2.0			
36. Total Group II Polycyclic Aromatic Hydrocarbons (PAH)		☐	☒	1	Composite	8270D-SIM	0.40	20.3			

[4] The sum of individual phthalate compounds.

Parameter *	CAS Number	Believed Absent	Believed Present	# of Samples	Sample Type (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Average daily value	
								concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
h. Acenaphthene	83329	☐	☒	1	Composite	8270D-SIM	0.40	2.1			
i. Acenaphthylene	208968	☐	☒	1	Composite	8270D-SIM	0.40	2.4			
j. Anthracene	120127	☐	☒	1	Composite	8270D-SIM	0.40	1.3			
k. Benzo(ghi) Perylene	191242	☐	☒	1	Composite	8270D-SIM	0.40	2.5			
l. Fluoranthene	206440	☐	☒	1	Composite	8270D-SIM	0.40	1.6			
m. Fluorene	86737	☐	☒	1	Composite	8270D-SIM	0.40	2.6			
n. Naphthalene	91203	☒	☐	1	Composite	8270D-SIM	0.40	ND			
o. Phenanthrene	85018	☐	☒	1	Composite	8270D-SIM	0.40	5.5			
p. Pyrene	129000	☐	☒	1	Composite	8270D-SIM	0.40	2.3			
37. Total Polychlorinated Biphenyls (PCBs)	85687; 84742; 117840; 84662; 131113; 117817.	☒	☐	1	Composite	608	0.25	BDL			
38. Chloride	16887006	☐	☒	1	Composite	300	12,500	200,000			
39. Antimony	7440360	☐	☒	1	Composite	6020A	1.0	6.7			
40. Arsenic	7440382	☐	☒	1	Composite	6020A	0.5	92.1			
41. Cadmium	7440439	☐	☒	1	Composite	6020A	0.2	4.3			
42. Chromium III (trivalent)	16065831	☐	☐	0	Composite	3500	NS	NS			
43. Chromium VI (hexavalent)	18540299	☐	☐	1	Composite	196A	10	ND			
44. Copper	7440508	☐	☒	1	Composite	6020A	5.0	1,444			
45. Lead	7439921	☐	☒	1	Composite	6020A	5.0	581.4			
46. Mercury	7439976	☐	☒	1	Composite	7470A	0.2	1.1			
47. Nickel	7440020	☐	☒	1	Composite	6020A	0.5	199.2			
48. Selenium	7782492	☐	☒	1	Composite	6020A	1.0	14.0			
49. Silver	7440224	☐	☒	1	Composite	6020A	0.4	1.3			
50. Zinc	7440666	☐	☒	1	Composite	6020A	50.0	1,084			
51. Iron	7439896	☐	☒	1	Composite	6010C	50.0	110,000			
Other (describe):		☐	☐								

Parameter *	CAS Number	Believed Absent	Believed Present	# of Samples	Sample Type (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Average daily value	
								concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
		☐	☐								
		☐	☐								

b) For discharges where **metals** are believed present, please fill out the following (attach results of any calculations):

Step 1: Do any of the metals in the influent exceed the effluent limits in Appendix III (i.e., the limits set at zero dilution)? Y ◉ N ○	If yes, which metals? Sb, As, Cr, Cu, Fe, Pb, Ni, & Zn
Step 2: For any metals which exceed the **Appendix III** limits, calculate the **dilution factor (DF)** using the formula in Part I.A.3.c (step 2) of the NOI instructions or as determined by the State prior to the submission of this NOI. What is the dilution factor for applicable metals? Metal: Sb, As, Cr, Cu, Fe, Pb, Ni, & Zn DF: 85 Metal: DF: Metal: DF: Metal: DF: Etc.	Look up the limit calculated at the corresponding dilution factor in **Appendix IV.** Do any of the metals in the **influent** have the potential to exceed the corresponding **effluent** limits in Appendix IV (i.e., is the influent concentration above the limit set at the calculated dilution factor)? Y ◉ N ○ If Y, list which metals: Cu, Fe, & Pb

4. Treatment system information. Please describe the treatment system using separate sheets as necessary, including:

a) A description of the treatment system, including a schematic of the proposed or existing treatment system:

Groundwater encountered during construction activities will either be pumped to a recharge trench or pumped to a treatment system prior to discharge into a storm drain. The first element to the treatment system will be a fractionalization tank where solids will settle out. The effluent will then be passed through the following as necessary: an oil/water separator, a bag filter, a granular activated carbon filter, and a precipitation system/metals treatment unit. The effluent will then be discharged to the existing storm drain system.

b) Identify each applicable treatment unit (check all that apply):	Frac. tank ☒	Air stripper ☐	Oil/water separator ☒	Equalization tanks ☐	Bag filter ☒	GAC filter ☒
	Chlorination ☐	De-chlorination ☐	Other (please describe):	pH adjustment, precipitation system/metals treatment, and ion exchange media (as needed)		

c) Proposed **average** and **maximum flow rates** (gallons per minute) for the discharge and the **design flow rate**(s) (gallons per minute) of the treatment system:
Average flow rate of discharge 75 gpm Maximum flow rate of treatment system 100 gpm
Design flow rate of treatment system 100 gpm

d) A description of chemical additives being used or planned to be used (attach MSDS sheets):

None planned.

5. Receiving surface water(s). Please provide information about the receiving water(s), using separate sheets as necessary:

a) Identify the discharge pathway:	Direct to receiving water ☐	Within facility (sewer) ☐	Storm drain ☒	Wetlands ☐	Other (describe): on-site recharge

b) Provide a narrative description of the discharge pathway, including the name(s) of the receiving waters:
Dewatering effluent will enter existing storm drains on-site. The storm drains lead to the a 72 inch drain, which outfalls to the Mystic River below A.E. Dam.

c) Attach a detailed map(s) indicating the site location and location of the outfall to the receiving water:
1. For multiple discharges, number the discharges sequentially.
2. For indirect dischargers, indicate the location of the discharge to the indirect conveyance and the discharge to surface water
The map should also include the location and distance to the nearest sanitary sewer as well as the locus of nearby sensitive receptors (based on USGS topographical mapping), such as surface waters, drinking water supplies, and wetland areas.

d) Provide the state water quality classification of the receiving water B

e) Provide the reported or calculated seven day-ten year low flow (7Q10) of the receiving water 18.37 cfs from upstream river cfs
Please attach any calculation sheets used to support stream flow and dilution calculations.

f) Is the receiving water a listed 303(d) water quality impaired or limited water? Y ◉ N ○ If yes, for which pollutant(s)?
As, chlordane, chlorophyll-a, DDT, DO sat, E. coli, PCBs in fish tissue, Phosphorous, Turbidity, Sediment bioassays, Ammonia, fecal coliform, DO, Petroleum hydrocarbons, sediment screening value, odor/tatse.
Is there a final TMDL? Y ○ N ◉ If yes, for which pollutant(s)?

6. ESA and NHPA Eligibility.

Please provide the following information according to requirements of Permit Parts I.A.4 and I.A.5 Appendices II and VII.

a) Using the instructions in Appendix VII and information on Appendix II, under which criterion listed in Part I.C are you eligible for coverage under this general permit?

A ◉ B ○ C ○ D ○ E ○ F ○

b) If you selected Criterion D or F, has consultation with the federal services been completed? Y ○ N ○ Underway ○

c) If consultation with U.S. Fish and Wildlife Service and/or NOAA Fisheries Service was completed, was a written concurrence finding that the discharge is "not likely to adversely affect" listed species or critical habitat received? Y ◉ N ○

d) Attach documentation of ESA eligibility as described in the NOI instructions and required by Appendix VII, Part I.C, Step 4.

e) Using the instructions in Appendix VII, under which criterion listed in Part II.C are you eligible for coverage under this general permit?

1 ◉ 2 ○ 3 ○

f) If Criterion 3 was selected, attach all written correspondence with the State or Tribal historic preservation officers, including any terms and conditions that outline measures the applicant must follow to mitigate or prevent adverse effects due to activities regulated by the RGP.

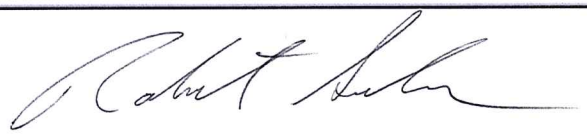
7. Supplemental information.

Please provide any supplemental information. Attach any analytical data used to support the application. Attach any certification(s) required by the general permit.

Appendix B includes the laboratory analytical data report collected by Sanborn, Head & Associates, Inc.
Appendix C includes calculations for the 7Q10 flows and the dilution factor.
Appendix D includes correspondence from the National Oceanic and Atmospheric Administration and the US Fish and Wildlife Service.
Appendix E includes a list of Historic Places in Somerville, Massachusetts.
Appendix F includes the Best Management Practices Plan.

8. Signature Requirements: The Notice of Intent must be signed by the operator in accordance with the signatory requirements of 40 CFR Section 122.22, including the following certification:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, I certify that the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I certify that I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Facility/Site Name:	Block 6, Assembly Row
Operator signature:	
Printed Name &Title:	Bob Sanda, Project Manager
Date:	9/4/15

APPENDIX B

ANALYTICAL DATA

ANALYTICAL REPORT

Lab Number:	L1507899
Client:	Sanborn, Head & Associates, Inc. 1 Technology Park Drive Westford, MA 01886
ATTN:	Kent Walker
Phone:	(978) 577-1003
Project Name:	ASSEMBLY ROW
Project Number:	3175.04
Report Date:	04/27/15

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), VA (460195), MD (348), IL (200077), NC (666), TX (T104704476), DOD (L2217), USDA (Permit #P-330-11-00240).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: ASSEMBLY ROW
Project Number: 3175.04

Lab Number: L1507899
Report Date: 04/27/15

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1507899-01	RGP 4/17/15	WATER	SOMERVILLE, MA	04/17/15 09:30	04/17/15
L1507899-02	SH-901W	WATER	SOMERVILLE, MA	04/17/15 09:30	04/17/15
L1507899-03	HA13-B604	WATER	SOMERVILLE, MA	04/17/15 09:30	04/17/15
L1507899-04	SH-902W	WATER	SOMERVILLE, MA	04/17/15 11:30	04/17/15
L1507899-05	TRIP BLANK	WATER	SOMERVILLE, MA	04/17/15 00:00	04/17/15

Project Name: ASSEMBLY ROW **Lab Number:** L1507899

Project Number: 3175.04 **Report Date:** 04/27/15

MADEP MCP Response Action Analytical Report Certification

This form provides certifications for all samples performed by MCP methods. Please refer to the Sample Results and Container Information sections of this report for specification of MCP methods used for each analysis. The following questions pertain only to MCP Analytical Methods.

An affirmative response to questions A through F is required for "Presumptive Certainty" status		
A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	YES
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	YES
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	YES
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data?"	YES
E a.	VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).	N/A
E b.	APH and TO-15 Methods only: Was the complete analyte list reported for each method?	N/A
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	YES

A response to questions G, H and I is required for "Presumptive Certainty" status		
G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	NO
H	Were all QC performance standards specified in the CAM protocol(s) achieved?	NO
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	NO

For any questions answered "No", please refer to the case narrative section on the following page(s).

Please note that sample matrix information is located in the Sample Results section of this report.

Project Name: ASSEMBLY ROW
Project Number: 3175.04
Lab Number: L1507899
Report Date: 04/27/15

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: ASSEMBLY ROW **Lab Number:** L1507899
Project Number: 3175.04 **Report Date:** 04/27/15

Case Narrative (continued)

Report Submission

This report replaces the report issued April 26, 2015. The Client ID was changed on L1507899-02.

MCP Related Narratives

Volatile Organics

In reference to question G:

L1507899-04 has elevated detection limits due to the dilution required by the elevated concentrations of non-target compounds in the sample; therefore, one or more of the target analytes did not achieve the requested CAM reporting limits.

In reference to question H:

The initial calibration, associated with L1507899-02 through -04, did not meet the method required minimum response factor on the lowest calibration standard for 1,4-dioxane (0.00426), as well as the average response factor for 1,4-dioxane.

The continuing calibration standard, associated with L1507899-02 through -04, is outside the acceptance criteria for several compounds; however, it is within overall method allowances. A copy of the continuing calibration standard is included as an addendum to this report.

Volatile Organics by SIM

L1507899-04 has elevated detection limits due to the dilution required by the elevated concentrations of non-target compounds in the sample.

In reference to question H:

The initial calibration, associated with L1507899-02 through -04, did not meet the method required minimum response factor on the lowest calibration standard for 1,4-dioxane (0.00557), as well as the average response factor for 1,4-dioxane.

The continuing calibration standard, associated with L1507899-02 through -04, is outside the acceptance criteria. A copy of the continuing calibration standard is included as an addendum to this report.

Project Name:	ASSEMBLY ROW	**Lab Number:**	L1507899
Project Number:	3175.04	**Report Date:**	04/27/15

Case Narrative (continued)

Semivolatile Organics by SIM

In reference to question G:

L1507899-01 has elevated detection limits due to the dilution required by the sample matrix; therefore, one or more of the target analytes did not achieve the requested CAM reporting limits.

Total Metals

In reference to question I:

All samples were analyzed for a subset of MCP elements per the Chain of Custody.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Michelle M. Morris

Title: Technical Director/Representative Date: 04/27/15

ORGANICS

VOLATILES

Project Name: ASSEMBLY ROW
Lab Number: L1507899
Project Number: 3175.04
Report Date: 04/27/15

SAMPLE RESULTS

Lab ID: L1507899-02
Client ID: SH-901W
Sample Location: SOMERVILLE, MA
Matrix: Water
Analytical Method: 14,504.1
Analytical Date: 04/20/15 13:44
Analyst: NS

Date Collected: 04/17/15 09:30
Date Received: 04/17/15
Field Prep: Not Specified
Extraction Date: 04/20/15 11:00

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Microextractables by GC - Westborough Lab							
1,2-Dibromoethane	ND		ug/l	0.010	--	1	A

Project Name: ASSEMBLY ROW
Lab Number: L1507899
Project Number: 3175.04
Report Date: 04/27/15

SAMPLE RESULTS

Lab ID: L1507899-02
Client ID: SH-901W
Sample Location: SOMERVILLE, MA
Matrix: Water
Analytical Method: 97,8260C
Analytical Date: 04/22/15 13:03
Analyst: MM

Date Collected: 04/17/15 09:30
Date Received: 04/17/15
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	ND		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	ND		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
Trichlorofluoromethane	ND		ug/l	2.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	--	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	--	1
1,1-Dichloropropene	ND		ug/l	2.0	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	ND		ug/l	1.0	--	1
Ethylbenzene	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Bromomethane	ND		ug/l	2.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1
Trichloroethene	ND		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1

Project Name: ASSEMBLY ROW **Lab Number:** L1507899

Project Number: 3175.04 **Report Date:** 04/27/15

SAMPLE RESULTS

Lab ID: L1507899-02 Date Collected: 04/17/15 09:30

Client ID: SH-901W Date Received: 04/17/15

Sample Location: SOMERVILLE, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1
Methyl tert butyl ether	ND		ug/l	2.0	--	1
p/m-Xylene	ND		ug/l	2.0	--	1
o-Xylene	ND		ug/l	1.0	--	1
Xylene (Total)	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	ND		ug/l	1.0	--	1
1,2-Dichloroethene (total)	ND		ug/l	1.0	--	1
Dibromomethane	ND		ug/l	2.0	--	1
1,2,3-Trichloropropane	ND		ug/l	2.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
Acetone	150		ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	2.0	--	1
2-Butanone	16		ug/l	5.0	--	1
4-Methyl-2-pentanone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.0	--	1
Tetrahydrofuran	ND		ug/l	2.0	--	1
2,2-Dichloropropane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Bromobenzene	ND		ug/l	2.0	--	1
n-Butylbenzene	ND		ug/l	2.0	--	1
sec-Butylbenzene	ND		ug/l	2.0	--	1
tert-Butylbenzene	ND		ug/l	2.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1
p-Chlorotoluene	ND		ug/l	2.0	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
Isopropylbenzene	ND		ug/l	2.0	--	1
p-Isopropyltoluene	ND		ug/l	2.0	--	1
Naphthalene	ND		ug/l	2.0	--	1
n-Propylbenzene	ND		ug/l	2.0	--	1
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--	1

Project Name: ASSEMBLY ROW
Lab Number: L1507899
Project Number: 3175.04
Report Date: 04/27/15

SAMPLE RESULTS

Lab ID: L1507899-02
Client ID: SH-901W
Sample Location: SOMERVILLE, MA
Date Collected: 04/17/15 09:30
Date Received: 04/17/15
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Ethyl ether	ND		ug/l	2.0	--	1
Isopropyl Ether	ND		ug/l	2.0	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--	1
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--	1
tert-Butyl Alcohol	ND		ug/l	10	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	102		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	95		70-130
Dibromofluoromethane	105		70-130

Project Name: ASSEMBLY ROW
Lab Number: L1507899
Project Number: 3175.04
Report Date: 04/27/15

SAMPLE RESULTS

Lab ID: L1507899-02
Client ID: SH-901W
Sample Location: SOMERVILLE, MA
Matrix: Water
Analytical Method: 97,8260C-SIM
Analytical Date: 04/22/15 13:03
Analyst: MM

Date Collected: 04/17/15 09:30
Date Received: 04/17/15
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics by SIM - Westborough Lab						
1,4-Dioxane	ND		ug/l	3.0	--	1

Project Name: ASSEMBLY ROW
Lab Number: L1507899
Project Number: 3175.04
Report Date: 04/27/15

SAMPLE RESULTS

Lab ID: L1507899-03
Client ID: HA13-B604
Sample Location: SOMERVILLE, MA
Matrix: Water
Analytical Method: 14,504.1
Analytical Date: 04/20/15 14:39
Analyst: NS

Date Collected: 04/17/15 09:30
Date Received: 04/17/15
Field Prep: Not Specified

Extraction Date: 04/20/15 11:00

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Microextractables by GC - Westborough Lab							
1,2-Dibromoethane	ND		ug/l	0.010	--	1	A

Project Name: ASSEMBLY ROW
Lab Number: L1507899
Project Number: 3175.04
Report Date: 04/27/15

SAMPLE RESULTS

Lab ID: L1507899-03
Client ID: HA13-B604
Sample Location: SOMERVILLE, MA
Matrix: Water
Analytical Method: 97,8260C
Analytical Date: 04/22/15 13:37
Analyst: MM

Date Collected: 04/17/15 09:30
Date Received: 04/17/15
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	2.0	--	1
1,1-Dichloroethane	ND		ug/l	1.0	--	1
Chloroform	ND		ug/l	1.0	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane	ND		ug/l	1.0	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.0	--	1
Tetrachloroethene	ND		ug/l	1.0	--	1
Chlorobenzene	ND		ug/l	1.0	--	1
Trichlorofluoromethane	ND		ug/l	2.0	--	1
1,2-Dichloroethane	ND		ug/l	1.0	--	1
1,1,1-Trichloroethane	ND		ug/l	1.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	--	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	--	1
1,1-Dichloropropene	ND		ug/l	2.0	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	ND		ug/l	1.0	--	1
Ethylbenzene	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	2.0	--	1
Bromomethane	ND		ug/l	2.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.0	--	1
Trichloroethene	ND		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	1.0	--	1

Project Name: ASSEMBLY ROW **Lab Number:** L1507899

Project Number: 3175.04 **Report Date:** 04/27/15

SAMPLE RESULTS

Lab ID: L1507899-03 Date Collected: 04/17/15 09:30

Client ID: HA13-B604 Date Received: 04/17/15

Sample Location: SOMERVILLE, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	1.0	--	1
1,4-Dichlorobenzene	ND		ug/l	1.0	--	1
Methyl tert butyl ether	ND		ug/l	2.0	--	1
p/m-Xylene	ND		ug/l	2.0	--	1
o-Xylene	ND		ug/l	1.0	--	1
Xylene (Total)	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	ND		ug/l	1.0	--	1
1,2-Dichloroethene (total)	ND		ug/l	1.0	--	1
Dibromomethane	ND		ug/l	2.0	--	1
1,2,3-Trichloropropane	ND		ug/l	2.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	2.0	--	1
Acetone	17		ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	2.0	--	1
2-Butanone	ND		ug/l	5.0	--	1
4-Methyl-2-pentanone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.0	--	1
Tetrahydrofuran	ND		ug/l	2.0	--	1
2,2-Dichloropropane	ND		ug/l	2.0	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.0	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Bromobenzene	ND		ug/l	2.0	--	1
n-Butylbenzene	ND		ug/l	2.0	--	1
sec-Butylbenzene	ND		ug/l	2.0	--	1
tert-Butylbenzene	ND		ug/l	2.0	--	1
o-Chlorotoluene	ND		ug/l	2.0	--	1
p-Chlorotoluene	ND		ug/l	2.0	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--	1
Hexachlorobutadiene	ND		ug/l	0.60	--	1
Isopropylbenzene	ND		ug/l	2.0	--	1
p-Isopropyltoluene	ND		ug/l	2.0	--	1
Naphthalene	ND		ug/l	2.0	--	1
n-Propylbenzene	ND		ug/l	2.0	--	1
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--	1

Project Name: ASSEMBLY ROW
Lab Number: L1507899
Project Number: 3175.04
Report Date: 04/27/15

SAMPLE RESULTS

Lab ID: L1507899-03
Client ID: HA13-B604
Sample Location: SOMERVILLE, MA
Date Collected: 04/17/15 09:30
Date Received: 04/17/15
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Ethyl ether	ND		ug/l	2.0	--	1
Isopropyl Ether	ND		ug/l	2.0	--	1
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--	1
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--	1
tert-Butyl Alcohol	ND		ug/l	10	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	99		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	104		70-130

Project Name: ASSEMBLY ROW
Lab Number: L1507899
Project Number: 3175.04
Report Date: 04/27/15

SAMPLE RESULTS

Lab ID: L1507899-03
Client ID: HA13-B604
Sample Location: SOMERVILLE, MA
Matrix: Water
Analytical Method: 97,8260C-SIM
Analytical Date: 04/22/15 13:37
Analyst: MM

Date Collected: 04/17/15 09:30
Date Received: 04/17/15
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics by SIM - Westborough Lab						
1,4-Dioxane	ND		ug/l	3.0	--	1

Project Name: ASSEMBLY ROW
Lab Number: L1507899
Project Number: 3175.04
Report Date: 04/27/15

SAMPLE RESULTS

Lab ID:	L1507899-04	Date Collected:	04/17/15 11:30
Client ID:	SH-902W	Date Received:	04/17/15
Sample Location:	SOMERVILLE, MA	Field Prep:	Not Specified
Matrix:	Water		
Analytical Method:	14,504.1	Extraction Date:	04/20/15 11:00
Analytical Date:	04/20/15 14:56		
Analyst:	NS		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Microextractables by GC - Westborough Lab							
1,2-Dibromoethane	ND		ug/l	0.010	--	1	A

Project Name: ASSEMBLY ROW
Lab Number: L1507899
Project Number: 3175.04
Report Date: 04/27/15

SAMPLE RESULTS

Lab ID: L1507899-04 D
Client ID: SH-902W
Sample Location: SOMERVILLE, MA
Matrix: Water
Analytical Method: 97,8260C
Analytical Date: 04/22/15 14:12
Analyst: MM

Date Collected: 04/17/15 11:30
Date Received: 04/17/15
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Methylene chloride	ND		ug/l	8.0	--	4
1,1-Dichloroethane	ND		ug/l	4.0	--	4
Chloroform	ND		ug/l	4.0	--	4
Carbon tetrachloride	ND		ug/l	4.0	--	4
1,2-Dichloropropane	ND		ug/l	4.0	--	4
Dibromochloromethane	ND		ug/l	4.0	--	4
1,1,2-Trichloroethane	ND		ug/l	4.0	--	4
Tetrachloroethene	ND		ug/l	4.0	--	4
Chlorobenzene	ND		ug/l	4.0	--	4
Trichlorofluoromethane	ND		ug/l	8.0	--	4
1,2-Dichloroethane	ND		ug/l	4.0	--	4
1,1,1-Trichloroethane	ND		ug/l	4.0	--	4
Bromodichloromethane	ND		ug/l	4.0	--	4
trans-1,3-Dichloropropene	ND		ug/l	2.0	--	4
cis-1,3-Dichloropropene	ND		ug/l	2.0	--	4
1,3-Dichloropropene, Total	ND		ug/l	2.0	--	4
1,1-Dichloropropene	ND		ug/l	8.0	--	4
Bromoform	ND		ug/l	8.0	--	4
1,1,2,2-Tetrachloroethane	ND		ug/l	4.0	--	4
Benzene	ND		ug/l	2.0	--	4
Toluene	ND		ug/l	4.0	--	4
Ethylbenzene	ND		ug/l	4.0	--	4
Chloromethane	ND		ug/l	8.0	--	4
Bromomethane	ND		ug/l	8.0	--	4
Vinyl chloride	ND		ug/l	4.0	--	4
Chloroethane	ND		ug/l	8.0	--	4
1,1-Dichloroethene	ND		ug/l	4.0	--	4
trans-1,2-Dichloroethene	ND		ug/l	4.0	--	4
Trichloroethene	ND		ug/l	4.0	--	4
1,2-Dichlorobenzene	ND		ug/l	4.0	--	4

Project Name: ASSEMBLY ROW **Lab Number:** L1507899

Project Number: 3175.04 **Report Date:** 04/27/15

SAMPLE RESULTS

Lab ID: L1507899-04 D Date Collected: 04/17/15 11:30

Client ID: SH-902W Date Received: 04/17/15

Sample Location: SOMERVILLE, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	4.0	--	4
1,4-Dichlorobenzene	ND		ug/l	4.0	--	4
Methyl tert butyl ether	ND		ug/l	8.0	--	4
p/m-Xylene	ND		ug/l	8.0	--	4
o-Xylene	ND		ug/l	4.0	--	4
Xylene (Total)	ND		ug/l	4.0	--	4
cis-1,2-Dichloroethene	ND		ug/l	4.0	--	4
1,2-Dichloroethene (total)	ND		ug/l	4.0	--	4
Dibromomethane	ND		ug/l	8.0	--	4
1,2,3-Trichloropropane	ND		ug/l	8.0	--	4
Styrene	ND		ug/l	4.0	--	4
Dichlorodifluoromethane	ND		ug/l	8.0	--	4
Acetone	ND		ug/l	20	--	4
Carbon disulfide	ND		ug/l	8.0	--	4
2-Butanone	ND		ug/l	20	--	4
4-Methyl-2-pentanone	ND		ug/l	20	--	4
2-Hexanone	ND		ug/l	20	--	4
Bromochloromethane	ND		ug/l	8.0	--	4
Tetrahydrofuran	ND		ug/l	8.0	--	4
2,2-Dichloropropane	ND		ug/l	8.0	--	4
1,2-Dibromoethane	ND		ug/l	8.0	--	4
1,3-Dichloropropane	ND		ug/l	8.0	--	4
1,1,1,2-Tetrachloroethane	ND		ug/l	4.0	--	4
Bromobenzene	ND		ug/l	8.0	--	4
n-Butylbenzene	8.2		ug/l	8.0	--	4
sec-Butylbenzene	ND		ug/l	8.0	--	4
tert-Butylbenzene	ND		ug/l	8.0	--	4
o-Chlorotoluene	ND		ug/l	8.0	--	4
p-Chlorotoluene	ND		ug/l	8.0	--	4
1,2-Dibromo-3-chloropropane	ND		ug/l	8.0	--	4
Hexachlorobutadiene	ND		ug/l	2.4	--	4
Isopropylbenzene	ND		ug/l	8.0	--	4
p-Isopropyltoluene	ND		ug/l	8.0	--	4
Naphthalene	ND		ug/l	8.0	--	4
n-Propylbenzene	ND		ug/l	8.0	--	4
1,2,3-Trichlorobenzene	ND		ug/l	8.0	--	4
1,2,4-Trichlorobenzene	ND		ug/l	8.0	--	4
1,3,5-Trimethylbenzene	ND		ug/l	8.0	--	4
1,2,4-Trimethylbenzene	ND		ug/l	8.0	--	4

Project Name: ASSEMBLY ROW
Lab Number: L1507899
Project Number: 3175.04
Report Date: 04/27/15

SAMPLE RESULTS

Lab ID: L1507899-04 D
Client ID: SH-902W
Sample Location: SOMERVILLE, MA

Date Collected: 04/17/15 11:30
Date Received: 04/17/15
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics - Westborough Lab						
Ethyl ether	ND		ug/l	8.0	--	4
Isopropyl Ether	ND		ug/l	8.0	--	4
Ethyl-Tert-Butyl-Ether	ND		ug/l	8.0	--	4
Tertiary-Amyl Methyl Ether	ND		ug/l	8.0	--	4
tert-Butyl Alcohol	ND		ug/l	40	--	4

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	101		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	103		70-130

Project Name: ASSEMBLY ROW
Lab Number: L1507899
Project Number: 3175.04
Report Date: 04/27/15

SAMPLE RESULTS

Lab ID: L1507899-04 D
Client ID: SH-902W
Sample Location: SOMERVILLE, MA
Matrix: Water
Analytical Method: 97,8260C-SIM
Analytical Date: 04/22/15 14:12
Analyst: MM

Date Collected: 04/17/15 11:30
Date Received: 04/17/15
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Volatile Organics by SIM - Westborough Lab						
1,4-Dioxane	ND		ug/l	12	--	4

Project Name: ASSEMBLY ROW
Project Number: 3175.04

Lab Number: L1507899
Report Date: 04/27/15

Method Blank Analysis
Batch Quality Control

Analytical Method: 14,504.1
Analytical Date: 04/20/15 12:51
Analyst: NS

Extraction Date: 04/20/15 11:00

Parameter	Result	Qualifier	Units	RL	MDL	
Microextractables by GC - Westborough Lab for sample(s): 02-04 Batch: WG777351-1						
1,2-Dibromoethane	ND		ug/l	0.010	--	A

Project Name: ASSEMBLY ROW
Project Number: 3175.04
Lab Number: L1507899
Report Date: 04/27/15

Method Blank Analysis
Batch Quality Control

Analytical Method: 97,8260C-SIM
Analytical Date: 04/22/15 09:01
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics by SIM - Westborough Lab for sample(s): 02-04 Batch: WG778342-3					
1,4-Dioxane	ND		ug/l	3.0	--

Project Name: ASSEMBLY ROW
Project Number: 3175.04
Lab Number: L1507899
Report Date: 04/27/15

Method Blank Analysis
Batch Quality Control

Analytical Method: 97,8260C
Analytical Date: 04/22/15 09:01
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 02-04 Batch: WG778343-3					
Methylene chloride	ND		ug/l	2.0	--
1,1-Dichloroethane	ND		ug/l	1.0	--
Chloroform	ND		ug/l	1.0	--
Carbon tetrachloride	ND		ug/l	1.0	--
1,2-Dichloropropane	ND		ug/l	1.0	--
Dibromochloromethane	ND		ug/l	1.0	--
1,1,2-Trichloroethane	ND		ug/l	1.0	--
Tetrachloroethene	ND		ug/l	1.0	--
Chlorobenzene	ND		ug/l	1.0	--
Trichlorofluoromethane	ND		ug/l	2.0	--
1,2-Dichloroethane	ND		ug/l	1.0	--
1,1,1-Trichloroethane	ND		ug/l	1.0	--
Bromodichloromethane	ND		ug/l	1.0	--
trans-1,3-Dichloropropene	ND		ug/l	0.50	--
cis-1,3-Dichloropropene	ND		ug/l	0.50	--
1,3-Dichloropropene, Total	ND		ug/l	0.50	--
1,1-Dichloropropene	ND		ug/l	2.0	--
Bromoform	ND		ug/l	2.0	--
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--
Benzene	ND		ug/l	0.50	--
Toluene	ND		ug/l	1.0	--
Ethylbenzene	ND		ug/l	1.0	--
Chloromethane	ND		ug/l	2.0	--
Bromomethane	ND		ug/l	2.0	--
Vinyl chloride	ND		ug/l	1.0	--
Chloroethane	ND		ug/l	2.0	--
1,1-Dichloroethene	ND		ug/l	1.0	--
trans-1,2-Dichloroethene	ND		ug/l	1.0	--
Trichloroethene	ND		ug/l	1.0	--

Project Name: ASSEMBLY ROW
Project Number: 3175.04
Lab Number: L1507899
Report Date: 04/27/15

Method Blank Analysis
Batch Quality Control

Analytical Method: 97,8260C
Analytical Date: 04/22/15 09:01
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 02-04 Batch: WG778343-3					
1,2-Dichlorobenzene	ND		ug/l	1.0	--
1,3-Dichlorobenzene	ND		ug/l	1.0	--
1,4-Dichlorobenzene	ND		ug/l	1.0	--
Methyl tert butyl ether	ND		ug/l	2.0	--
p/m-Xylene	ND		ug/l	2.0	--
o-Xylene	ND		ug/l	1.0	--
Xylene (Total)	ND		ug/l	1.0	--
cis-1,2-Dichloroethene	ND		ug/l	1.0	--
1,2-Dichloroethene (total)	ND		ug/l	1.0	--
Dibromomethane	ND		ug/l	2.0	--
1,2,3-Trichloropropane	ND		ug/l	2.0	--
Styrene	ND		ug/l	1.0	--
Dichlorodifluoromethane	ND		ug/l	2.0	--
Acetone	ND		ug/l	5.0	--
Carbon disulfide	ND		ug/l	2.0	--
2-Butanone	ND		ug/l	5.0	--
4-Methyl-2-pentanone	ND		ug/l	5.0	--
2-Hexanone	ND		ug/l	5.0	--
Bromochloromethane	ND		ug/l	2.0	--
Tetrahydrofuran	ND		ug/l	2.0	--
2,2-Dichloropropane	ND		ug/l	2.0	--
1,2-Dibromoethane	ND		ug/l	2.0	--
1,3-Dichloropropane	ND		ug/l	2.0	--
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	--
Bromobenzene	ND		ug/l	2.0	--
n-Butylbenzene	ND		ug/l	2.0	--
sec-Butylbenzene	ND		ug/l	2.0	--
tert-Butylbenzene	ND		ug/l	2.0	--
o-Chlorotoluene	ND		ug/l	2.0	--

Project Name: ASSEMBLY ROW
Project Number: 3175.04
Lab Number: L1507899
Report Date: 04/27/15

Method Blank Analysis
Batch Quality Control

Analytical Method: 97,8260C
Analytical Date: 04/22/15 09:01
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
MCP Volatile Organics - Westborough Lab for sample(s): 02-04 Batch: WG778343-3					
p-Chlorotoluene	ND		ug/l	2.0	--
1,2-Dibromo-3-chloropropane	ND		ug/l	2.0	--
Hexachlorobutadiene	ND		ug/l	0.60	--
Isopropylbenzene	ND		ug/l	2.0	--
p-Isopropyltoluene	ND		ug/l	2.0	--
Naphthalene	ND		ug/l	2.0	--
n-Propylbenzene	ND		ug/l	2.0	--
1,2,3-Trichlorobenzene	ND		ug/l	2.0	--
1,2,4-Trichlorobenzene	ND		ug/l	2.0	--
1,3,5-Trimethylbenzene	ND		ug/l	2.0	--
1,2,4-Trimethylbenzene	ND		ug/l	2.0	--
Ethyl ether	ND		ug/l	2.0	--
Isopropyl Ether	ND		ug/l	2.0	--
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--
tert-Butyl Alcohol	ND		ug/l	10	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	98		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	95		70-130
Dibromofluoromethane	103		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: ASSEMBLY ROW

Project Number: 3175.04

Lab Number: L1507899

Report Date: 04/27/15

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Microextractables by GC - Westborough Lab	Associated sample(s): 02-04		Batch: WG777351-2						
1,2-Dibromoethane	99		-		70-130	-		20	A

Lab Control Sample Analysis

Batch Quality Control

Project Name: ASSEMBLY ROW

Project Number: 3175.04

Lab Number: L1507899

Report Date: 04/27/15

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics by SIM - Westborough Lab Associated sample(s): 02-04 Batch: WG778342-1 WG778342-2								
1,4-Dioxane	102		85		70-130	18		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: ASSEMBLY ROW

Project Number: 3175.04

Lab Number: L1507899

Report Date: 04/27/15

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 02-04 Batch: WG778343-1 WG778343-2								
Methylene chloride	105		103		70-130	2		20
1,1-Dichloroethane	92		89		70-130	3		20
Chloroform	94		91		70-130	3		20
Carbon tetrachloride	94		91		70-130	3		20
1,2-Dichloropropane	84		84		70-130	0		20
Dibromochloromethane	87		85		70-130	2		20
1,1,2-Trichloroethane	90		89		70-130	1		20
Tetrachloroethene	90		92		70-130	2		20
Chlorobenzene	89		89		70-130	0		20
Trichlorofluoromethane	105		104		70-130	1		20
1,2-Dichloroethane	94		95		70-130	1		20
1,1,1-Trichloroethane	94		92		70-130	2		20
Bromodichloromethane	92		90		70-130	2		20
trans-1,3-Dichloropropene	81		83		70-130	2		20
cis-1,3-Dichloropropene	90		88		70-130	2		20
1,1-Dichloropropene	93		93		70-130	0		20
Bromoform	88		82		70-130	7		20
1,1,2,2-Tetrachloroethane	84		82		70-130	2		20
Benzene	96		94		70-130	2		20
Toluene	89		88		70-130	1		20
Ethylbenzene	88		89		70-130	1		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: ASSEMBLY ROW

Project Number: 3175.04

Lab Number: L1507899

Report Date: 04/27/15

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 02-04 Batch: WG778343-1 WG778343-2								
Chloromethane	80		80		70-130	0		20
Bromomethane	72		76		70-130	5		20
Vinyl chloride	94		92		70-130	2		20
Chloroethane	104		100		70-130	4		20
1,1-Dichloroethene	108		105		70-130	3		20
trans-1,2-Dichloroethene	100		101		70-130	1		20
Trichloroethene	93		91		70-130	2		20
1,2-Dichlorobenzene	86		83		70-130	4		20
1,3-Dichlorobenzene	86		84		70-130	2		20
1,4-Dichlorobenzene	83		82		70-130	1		20
Methyl tert butyl ether	95		93		70-130	2		20
p/m-Xylene	91		90		70-130	1		20
o-Xylene	86		86		70-130	0		20
cis-1,2-Dichloroethene	94		92		70-130	2		20
Dibromomethane	95		94		70-130	1		20
1,2,3-Trichloropropane	86		84		70-130	2		20
Styrene	91		92		70-130	1		20
Dichlorodifluoromethane	82		81		70-130	1		20
Acetone	122		130		70-130	6		20
Carbon disulfide	92		90		70-130	2		20
2-Butanone	92		94		70-130	2		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: ASSEMBLY ROW

Project Number: 3175.04

Lab Number: L1507899

Report Date: 04/27/15

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 02-04 Batch: WG778343-1 WG778343-2								
4-Methyl-2-pentanone	85		87		70-130	2		20
2-Hexanone	76		78		70-130	3		20
Bromochloromethane	98		93		70-130	5		20
Tetrahydrofuran	86		93		70-130	8		20
2,2-Dichloropropane	95		92		70-130	3		20
1,2-Dibromoethane	88		90		70-130	2		20
1,3-Dichloropropane	88		86		70-130	2		20
1,1,1,2-Tetrachloroethane	85		88		70-130	3		20
Bromobenzene	86		86		70-130	0		20
n-Butylbenzene	85		80		70-130	6		20
sec-Butylbenzene	88		84		70-130	5		20
tert-Butylbenzene	85		82		70-130	4		20
o-Chlorotoluene	86		83		70-130	4		20
p-Chlorotoluene	83		80		70-130	4		20
1,2-Dibromo-3-chloropropane	91		91		70-130	0		20
Hexachlorobutadiene	82		78		70-130	5		20
Isopropylbenzene	90		86		70-130	5		20
p-Isopropyltoluene	86		82		70-130	5		20
Naphthalene	83		80		70-130	4		20
n-Propylbenzene	89		85		70-130	5		20
1,2,3-Trichlorobenzene	81		80		70-130	1		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: ASSEMBLY ROW

Project Number: 3175.04

Lab Number: L1507899

Report Date: 04/27/15

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics - Westborough Lab Associated sample(s): 02-04 Batch: WG778343-1 WG778343-2								
1,2,4-Trichlorobenzene	81		77		70-130	5		20
1,3,5-Trimethylbenzene	85		82		70-130	4		20
1,2,4-Trimethylbenzene	84		80		70-130	5		20
Ethyl ether	107		108		70-130	1		20
Isopropyl Ether	85		83		70-130	2		20
Ethyl-Tert-Butyl-Ether	88		85		70-130	3		20
Tertiary-Amyl Methyl Ether	87		87		70-130	0		20
tert-Butyl Alcohol	105		113		70-130	7		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	96		99		70-130
Toluene-d8	98		96		70-130
4-Bromofluorobenzene	99		94		70-130
Dibromofluoromethane	106		98		70-130

Matrix Spike Analysis
Batch Quality Control

Project Name: ASSEMBLY ROW
Project Number: 3175.04

Lab Number: L1507899
Report Date: 04/27/15

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits	Column
Microextractables by GC - Westborough Lab Associated sample(s): 02-04 QC Batch ID: WG777351-3 QC Sample: L1507899-03 Client ID: HA13-B604													
1,2-Dibromoethane	ND	0.251	0.236	94		-	-		70-130	-		20	A

SEMIVOLATILES

Project Name: ASSEMBLY ROW
Project Number: 3175.04
Lab Number: L1507899
Report Date: 04/27/15

SAMPLE RESULTS

Lab ID: L1507899-01
Client ID: RGP 4/17/15
Sample Location: SOMERVILLE, MA
Matrix: Water
Analytical Method: 97,8270D
Analytical Date: 04/24/15 23:31
Analyst: JB

Date Collected: 04/17/15 09:30
Date Received: 04/17/15
Field Prep: Not Specified
Extraction Method: EPA 3510C
Extraction Date: 04/22/15 18:26

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Semivolatile Organics - Westborough Lab						
1,2,4-Trichlorobenzene	ND		ug/l	5.0	--	1
Bis(2-chloroethyl)ether	ND		ug/l	2.0	--	1
1,2-Dichlorobenzene	ND		ug/l	2.0	--	1
1,3-Dichlorobenzene	ND		ug/l	2.0	--	1
1,4-Dichlorobenzene	ND		ug/l	2.0	--	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	--	1
2,4-Dinitrotoluene	ND		ug/l	5.0	--	1
2,6-Dinitrotoluene	ND		ug/l	5.0	--	1
Azobenzene	ND		ug/l	2.0	--	1
4-Bromophenyl phenyl ether	ND		ug/l	2.0	--	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	--	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	--	1
Isophorone	ND		ug/l	5.0	--	1
Nitrobenzene	ND		ug/l	2.0	--	1
Bis(2-Ethylhexyl)phthalate	ND		ug/l	3.0	--	1
Butyl benzyl phthalate	ND		ug/l	5.0	--	1
Di-n-butylphthalate	ND		ug/l	5.0	--	1
Di-n-octylphthalate	ND		ug/l	5.0	--	1
Diethyl phthalate	ND		ug/l	5.0	--	1
Dimethyl phthalate	ND		ug/l	5.0	--	1
Aniline	ND		ug/l	2.0	--	1
4-Chloroaniline	ND		ug/l	5.0	--	1
Dibenzofuran	ND		ug/l	2.0	--	1
Acetophenone	ND		ug/l	5.0	--	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	--	1
2-Chlorophenol	ND		ug/l	2.0	--	1
2,4-Dichlorophenol	ND		ug/l	5.0	--	1
2,4-Dimethylphenol	ND		ug/l	5.0	--	1
2-Nitrophenol	ND		ug/l	10	--	1
4-Nitrophenol	ND		ug/l	10	--	1

Project Name: ASSEMBLY ROW
Lab Number: L1507899
Project Number: 3175.04
Report Date: 04/27/15

SAMPLE RESULTS

Lab ID: L1507899-01
Client ID: RGP 4/17/15
Sample Location: SOMERVILLE, MA
Date Collected: 04/17/15 09:30
Date Received: 04/17/15
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Semivolatile Organics - Westborough Lab						
2,4-Dinitrophenol	ND		ug/l	20	--	1
Phenol	ND		ug/l	5.0	--	1
2-Methylphenol	ND		ug/l	5.0	--	1
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	--	1
2,4,5-Trichlorophenol	ND		ug/l	5.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	42		15-110
Phenol-d6	28		15-110
Nitrobenzene-d5	55		30-130
2-Fluorobiphenyl	44		30-130
2,4,6-Tribromophenol	49		15-110
4-Terphenyl-d14	46		30-130

Project Name: ASSEMBLY ROW
Lab Number: L1507899
Project Number: 3175.04
Report Date: 04/27/15

SAMPLE RESULTS

Lab ID: L1507899-01 D
Client ID: RGP 4/17/15
Sample Location: SOMERVILLE, MA
Matrix: Water
Analytical Method: 97,8270D-SIM
Analytical Date: 04/23/15 03:03
Analyst: MW

Date Collected: 04/17/15 09:30
Date Received: 04/17/15
Field Prep: Not Specified
Extraction Method: EPA 3510C
Extraction Date: 04/22/15 18:29

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Semivolatile Organics by SIM - Westborough Lab						
Acenaphthene	2.1		ug/l	0.40	--	2
2-Chloronaphthalene	ND		ug/l	0.40	--	2
Fluoranthene	1.6		ug/l	0.40	--	2
Hexachlorobutadiene	ND		ug/l	1.0	--	2
Naphthalene	ND		ug/l	0.40	--	2
Benzo(a)anthracene	1.0		ug/l	0.40	--	2
Benzo(a)pyrene	1.9		ug/l	0.40	--	2
Benzo(b)fluoranthene	2.0		ug/l	0.40	--	2
Benzo(k)fluoranthene	0.69		ug/l	0.40	--	2
Chrysene	1.2		ug/l	0.40	--	2
Acenaphthylene	2.4		ug/l	0.40	--	2
Anthracene	1.3		ug/l	0.40	--	2
Benzo(ghi)perylene	2.5		ug/l	0.40	--	2
Fluorene	2.6		ug/l	0.40	--	2
Phenanthrene	5.5		ug/l	0.40	--	2
Dibenzo(a,h)anthracene	ND		ug/l	0.40	--	2
Indeno(1,2,3-cd)Pyrene	2.0		ug/l	0.40	--	2
Pyrene	2.3		ug/l	0.40	--	2
2-Methylnaphthalene	10		ug/l	0.40	--	2
Pentachlorophenol	ND		ug/l	1.6	--	2
Hexachlorobenzene	ND		ug/l	1.6	--	2
Hexachloroethane	ND		ug/l	1.6	--	2

Project Name: ASSEMBLY ROW **Lab Number:** L1507899

Project Number: 3175.04 **Report Date:** 04/27/15

SAMPLE RESULTS

Lab ID: L1507899-01 D Date Collected: 04/17/15 09:30

Client ID: RGP 4/17/15 Date Received: 04/17/15

Sample Location: SOMERVILLE, MA Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor

MCP Semivolatile Organics by SIM - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	41		15-110
Phenol-d6	27		15-110
Nitrobenzene-d5	53		30-130
2-Fluorobiphenyl	55		30-130
2,4,6-Tribromophenol	64		15-110
4-Terphenyl-d14	59		30-130

Project Name: ASSEMBLY ROW
Project Number: 3175.04
Lab Number: L1507899
Report Date: 04/27/15

Method Blank Analysis
Batch Quality Control

Analytical Method: 97,8270D
Analytical Date: 04/23/15 11:42
Analyst: JB

Extraction Method: EPA 3510C
Extraction Date: 04/22/15 18:26

Parameter	Result	Qualifier	Units	RL	MDL
MCP Semivolatile Organics - Westborough Lab for sample(s): 01 Batch: WG778221-1					
1,2,4-Trichlorobenzene	ND		ug/l	5.0	--
Bis(2-chloroethyl)ether	ND		ug/l	2.0	--
1,2-Dichlorobenzene	ND		ug/l	2.0	--
1,3-Dichlorobenzene	ND		ug/l	2.0	--
1,4-Dichlorobenzene	ND		ug/l	2.0	--
3,3'-Dichlorobenzidine	ND		ug/l	5.0	--
2,4-Dinitrotoluene	ND		ug/l	5.0	--
2,6-Dinitrotoluene	ND		ug/l	5.0	--
Azobenzene	ND		ug/l	2.0	--
4-Bromophenyl phenyl ether	ND		ug/l	2.0	--
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	--
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	--
Isophorone	ND		ug/l	5.0	--
Nitrobenzene	ND		ug/l	2.0	--
Bis(2-Ethylhexyl)phthalate	ND		ug/l	3.0	--
Butyl benzyl phthalate	ND		ug/l	5.0	--
Di-n-butylphthalate	ND		ug/l	5.0	--
Di-n-octylphthalate	ND		ug/l	5.0	--
Diethyl phthalate	ND		ug/l	5.0	--
Dimethyl phthalate	ND		ug/l	5.0	--
Aniline	ND		ug/l	2.0	--
4-Chloroaniline	ND		ug/l	5.0	--
Dibenzofuran	ND		ug/l	2.0	--
Acetophenone	ND		ug/l	5.0	--
2,4,6-Trichlorophenol	ND		ug/l	5.0	--
2-Chlorophenol	ND		ug/l	2.0	--
2,4-Dichlorophenol	ND		ug/l	5.0	--
2,4-Dimethylphenol	ND		ug/l	5.0	--
2-Nitrophenol	ND		ug/l	10	--

Project Name: ASSEMBLY ROW
Project Number: 3175.04

Lab Number: L1507899
Report Date: 04/27/15

Method Blank Analysis
Batch Quality Control

Analytical Method: 97,8270D
Analytical Date: 04/23/15 11:42
Analyst: JB

Extraction Method: EPA 3510C
Extraction Date: 04/22/15 18:26

Parameter	Result	Qualifier	Units	RL	MDL
MCP Semivolatile Organics - Westborough Lab for sample(s): 01 Batch: WG778221-1					
4-Nitrophenol	ND		ug/l	10	--
2,4-Dinitrophenol	ND		ug/l	20	--
Phenol	ND		ug/l	5.0	--
2-Methylphenol	ND		ug/l	5.0	--
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	--
2,4,5-Trichlorophenol	ND		ug/l	5.0	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	38		15-110
Phenol-d6	28		15-110
Nitrobenzene-d5	65		30-130
2-Fluorobiphenyl	80		30-130
2,4,6-Tribromophenol	71		15-110
4-Terphenyl-d14	84		30-130

Project Name: ASSEMBLY ROW
Project Number: 3175.04

Lab Number: L1507899
Report Date: 04/27/15

Method Blank Analysis
Batch Quality Control

Analytical Method: 97,8270D-SIM
Analytical Date: 04/23/15 01:28
Analyst: MW

Extraction Method: EPA 3510C
Extraction Date: 04/22/15 18:29

Parameter	Result	Qualifier	Units	RL	MDL
MCP Semivolatile Organics by SIM - Westborough Lab for sample(s): 01 Batch: WG778222-1					
Acenaphthene	ND		ug/l	0.20	--
2-Chloronaphthalene	ND		ug/l	0.20	--
Fluoranthene	ND		ug/l	0.20	--
Hexachlorobutadiene	ND		ug/l	0.50	--
Naphthalene	ND		ug/l	0.20	--
Benzo(a)anthracene	ND		ug/l	0.20	--
Benzo(a)pyrene	ND		ug/l	0.20	--
Benzo(b)fluoranthene	ND		ug/l	0.20	--
Benzo(k)fluoranthene	ND		ug/l	0.20	--
Chrysene	ND		ug/l	0.20	--
Acenaphthylene	ND		ug/l	0.20	--
Anthracene	ND		ug/l	0.20	--
Benzo(ghi)perylene	ND		ug/l	0.20	--
Fluorene	ND		ug/l	0.20	--
Phenanthrene	ND		ug/l	0.20	--
Dibenzo(a,h)anthracene	ND		ug/l	0.20	--
Indeno(1,2,3-cd)Pyrene	ND		ug/l	0.20	--
Pyrene	ND		ug/l	0.20	--
2-Methylnaphthalene	ND		ug/l	0.20	--
Pentachlorophenol	ND		ug/l	0.80	--
Hexachlorobenzene	ND		ug/l	0.80	--
Hexachloroethane	ND		ug/l	0.80	--

Project Name: ASSEMBLY ROW
Project Number: 3175.04

Lab Number: L1507899
Report Date: 04/27/15

Method Blank Analysis
Batch Quality Control

Analytical Method: 97,8270D-SIM
Analytical Date: 04/23/15 01:28
Analyst: MW

Extraction Method: EPA 3510C
Extraction Date: 04/22/15 18:29

Parameter	Result	Qualifier	Units	RL	MDL
MCP Semivolatile Organics by SIM - Westborough Lab for sample(s): 01 Batch: WG778222-1					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	39		15-110
Phenol-d6	27		15-110
Nitrobenzene-d5	66		30-130
2-Fluorobiphenyl	72		30-130
2,4,6-Tribromophenol	77		15-110
4-Terphenyl-d14	72		30-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: ASSEMBLY ROW

Project Number: 3175.04

Lab Number: L1507899

Report Date: 04/27/15

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Semivolatile Organics - Westborough Lab Associated sample(s): 01 Batch: WG778221-2 WG778221-3								
1,2,4-Trichlorobenzene	78		70		40-140	11		20
Bis(2-chloroethyl)ether	76		72		40-140	5		20
1,2-Dichlorobenzene	74		66		40-140	11		20
1,3-Dichlorobenzene	72		65		40-140	10		20
1,4-Dichlorobenzene	72		63		40-140	13		20
3,3'-Dichlorobenzidine	89		87		40-140	2		20
2,4-Dinitrotoluene	104		88		40-140	17		20
2,6-Dinitrotoluene	102		92		40-140	10		20
Azobenzene	95		83		40-140	13		20
4-Bromophenyl phenyl ether	107		97		40-140	10		20
Bis(2-chloroisopropyl)ether	71		67		40-140	6		20
Bis(2-chloroethoxy)methane	84		77		40-140	9		20
Isophorone	85		82		40-140	4		20
Nitrobenzene	76		72		40-140	5		20
Bis(2-Ethylhexyl)phthalate	92		87		40-140	6		20
Butyl benzyl phthalate	97		84		40-140	14		20
Di-n-butylphthalate	95		79		40-140	18		20
Di-n-octylphthalate	98		91		40-140	7		20
Diethyl phthalate	103		88		40-140	16		20
Dimethyl phthalate	95		90		40-140	5		20
Aniline	54		43		40-140	**23**	Q	20

Lab Control Sample Analysis

Batch Quality Control

Project Name: ASSEMBLY ROW

Project Number: 3175.04

Lab Number: L1507899

Report Date: 04/27/15

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Semivolatile Organics - Westborough Lab Associated sample(s): 01 Batch: WG778221-2 WG778221-3								
4-Chloroaniline	72		69		40-140	4		20
Dibenzofuran	98		85		40-140	14		20
Acetophenone	88		84		40-140	5		20
2,4,6-Trichlorophenol	98		85		30-130	14		20
2-Chlorophenol	76		71		30-130	7		20
2,4-Dichlorophenol	92		82		30-130	11		20
2,4-Dimethylphenol	89		83		30-130	7		20
2-Nitrophenol	85		85		30-130	0		20
4-Nitrophenol	58		50		30-130	15		20
2,4-Dinitrophenol	96		83		30-130	15		20
Phenol	38		38		30-130	0		20
2-Methylphenol	77		73		30-130	5		20
3-Methylphenol/4-Methylphenol	73		70		30-130	4		20
2,4,5-Trichlorophenol	100		86		30-130	15		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: ASSEMBLY ROW
Project Number: 3175.04

Lab Number: L1507899
Report Date: 04/27/15

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Semivolatile Organics - Westborough Lab Associated sample(s): 01 Batch: WG778221-2 WG778221-3								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	48		50		15-110
Phenol-d6	38		38		15-110
Nitrobenzene-d5	80		77		30-130
2-Fluorobiphenyl	93		86		30-130
2,4,6-Tribromophenol	93		78		15-110
4-Terphenyl-d14	102		87		30-130

Lab Control Sample Analysis
Batch Quality Control

Project Name: ASSEMBLY ROW
Project Number: 3175.04

Lab Number: L1507899
Report Date: 04/27/15

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Semivolatile Organics by SIM - Westborough Lab Associated sample(s): 01 Batch: WG778222-2 WG778222-3								
Acenaphthene	71		68		40-140	4		20
2-Chloronaphthalene	73		72		40-140	1		20
Fluoranthene	77		79		40-140	3		20
Hexachlorobutadiene	62		56		40-140	10		20
Naphthalene	68		63		40-140	8		20
Benzo(a)anthracene	82		83		40-140	1		20
Benzo(a)pyrene	87		83		40-140	5		20
Benzo(b)fluoranthene	81		80		40-140	1		20
Benzo(k)fluoranthene	77		77		40-140	0		20
Chrysene	80		80		40-140	0		20
Acenaphthylene	81		79		40-140	3		20
Anthracene	76		75		40-140	1		20
Benzo(ghi)perylene	76		74		40-140	3		20
Fluorene	75		74		40-140	1		20
Phenanthrene	71		72		40-140	1		20
Dibenzo(a,h)anthracene	80		78		40-140	3		20
Indeno(1,2,3-cd)Pyrene	76		78		40-140	3		20
Pyrene	78		78		40-140	0		20
2-Methylnaphthalene	76		72		40-140	5		20
Pentachlorophenol	71		74		30-130	4		20
Hexachlorobenzene	74		78		40-140	5		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: ASSEMBLY ROW
Project Number: 3175.04

Lab Number: L1507899
Report Date: 04/27/15

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Semivolatile Organics by SIM - Westborough Lab Associated sample(s): 01 Batch: WG778222-2 WG778222-3								
Hexachloroethane	66		56		40-140	16		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	45		41		15-110
Phenol-d6	35		31		15-110
Nitrobenzene-d5	77		67		30-130
2-Fluorobiphenyl	87		78		30-130
2,4,6-Tribromophenol	80		85		15-110
4-Terphenyl-d14	84		80		30-130

PCBS

Project Name: ASSEMBLY ROW
Lab Number: L1507899
Project Number: 3175.04
Report Date: 04/27/15

SAMPLE RESULTS

Lab ID: L1507899-01
Client ID: RGP 4/17/15
Sample Location: SOMERVILLE, MA
Matrix: Water
Analytical Method: 5,608
Analytical Date: 04/21/15 16:11
Analyst: JT

Date Collected: 04/17/15 09:30
Date Received: 04/17/15
Field Prep: Not Specified
Extraction Method: EPA 608
Extraction Date: 04/21/15 05:50
Cleanup Method: EPA 3665A
Cleanup Date: 04/21/15
Cleanup Method: EPA 3660B
Cleanup Date: 04/21/15

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/l	0.250	--	1	B
Aroclor 1221	ND		ug/l	0.250	--	1	B
Aroclor 1232	ND		ug/l	0.250	--	1	B
Aroclor 1242	ND		ug/l	0.250	--	1	B
Aroclor 1248	ND		ug/l	0.250	--	1	B
Aroclor 1254	ND		ug/l	0.250	--	1	B
Aroclor 1260	ND		ug/l	0.200	--	1	B

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	51		30-150	B
Decachlorobiphenyl	53		30-150	B

Project Name: ASSEMBLY ROW

Project Number: 3175.04

Lab Number: L1507899

Report Date: 04/27/15

Method Blank Analysis
Batch Quality Control

Analytical Method: 5,608
Analytical Date: 04/21/15 16:48
Analyst: JT

Extraction Method: EPA 608
Extraction Date: 04/21/15 05:50
Cleanup Method: EPA 3665A
Cleanup Date: 04/21/15
Cleanup Method: EPA 3660B
Cleanup Date: 04/21/15

Parameter	Result	Qualifier	Units	RL	MDL	Column
Polychlorinated Biphenyls by GC - Westborough Lab for sample(s): 01 Batch: WG777587-1						
Aroclor 1016	ND		ug/l	0.250	--	B
Aroclor 1221	ND		ug/l	0.250	--	B
Aroclor 1232	ND		ug/l	0.250	--	B
Aroclor 1242	ND		ug/l	0.250	--	B
Aroclor 1248	ND		ug/l	0.250	--	B
Aroclor 1254	ND		ug/l	0.250	--	B
Aroclor 1260	ND		ug/l	0.200	--	B

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	54		30-150	B
Decachlorobiphenyl	68		30-150	B

Matrix Spike Analysis
Batch Quality Control

Project Name: ASSEMBLY ROW
Project Number: 3175.04

Lab Number: L1507899
Report Date: 04/27/15

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits	Column
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01 QC Batch ID: WG777587-3 QC Sample: L1507572-01 Client ID: MS Sample													
Aroclor 1016	ND	1	0.580	58		-	-		40-140	-		50	B
Aroclor 1260	ND	1	0.578	58		-	-		40-140	-		50	B

Surrogate	MS % Recovery	MS Qualifier	MSD % Recovery	MSD Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	54				30-150	B
Decachlorobiphenyl	65				30-150	B

Lab Control Sample Analysis

Batch Quality Control

Project Name: ASSEMBLY ROW

Project Number: 3175.04

Lab Number: L1507899

Report Date: 04/27/15

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01 Batch: WG777587-2									
Aroclor 1016	63		-		40-140	-		50	B
Aroclor 1260	70		-		40-140	-		50	B

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	56				30-150	B
Decachlorobiphenyl	75				30-150	B

Lab Duplicate Analysis
Batch Quality Control

Project Name: ASSEMBLY ROW
Project Number: 3175.04

Lab Number: L1507899
Report Date: 04/27/15

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits	
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01 QC Batch ID: WG777587-4 QC Sample: L1507583-01 Client ID: DUP Sample							
Aroclor 1016	ND	ND	ug/l	NC		50	B
Aroclor 1221	ND	ND	ug/l	NC		50	B
Aroclor 1232	ND	ND	ug/l	NC		50	B
Aroclor 1242	ND	ND	ug/l	NC		50	B
Aroclor 1248	ND	ND	ug/l	NC		50	B
Aroclor 1254	ND	ND	ug/l	NC		50	B
Aroclor 1260	ND	ND	ug/l	NC		50	B

Surrogate	%Recovery	Qualifier	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	52		73		30-150	B
Decachlorobiphenyl	51		77		30-150	B

METALS

Project Name: ASSEMBLY ROW
Lab Number: L1507899
Project Number: 3175.04
Report Date: 04/27/15

SAMPLE RESULTS

Lab ID: L1507899-01
Client ID: RGP 4/17/15
Sample Location: SOMERVILLE, MA
Matrix: Water
Date Collected: 04/17/15 09:30
Date Received: 04/17/15
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
MCP Total Metals - Westborough Lab											
Antimony, Total	0.0067		mg/l	0.0010	--	1	04/20/15 10:34	04/20/15 19:01	EPA 3005A	97,6020A	BM
Arsenic, Total	0.0921		mg/l	0.0005	--	1	04/20/15 10:34	04/20/15 19:01	EPA 3005A	97,6020A	BM
Cadmium, Total	0.0043		mg/l	0.0002	--	1	04/20/15 10:34	04/20/15 19:01	EPA 3005A	97,6020A	BM
Chromium, Total	0.5182		mg/l	0.0100	--	10	04/20/15 10:34	04/20/15 19:04	EPA 3005A	97,6020A	BM
Copper, Total	1.444		mg/l	0.0050	--	10	04/20/15 10:34	04/20/15 19:04	EPA 3005A	97,6020A	BM
Iron, Total	110		mg/l	0.05	--	1	04/20/15 10:37	04/21/15 20:29	EPA 3005A	97,6010C	JH
Lead, Total	0.5814		mg/l	0.0050	--	10	04/20/15 10:34	04/20/15 19:04	EPA 3005A	97,6020A	BM
Mercury, Total	0.0011		mg/l	0.0002	--	1	04/20/15 14:43	04/20/15 20:08	EPA 7470A	97,7470A	AB
Nickel, Total	0.1992		mg/l	0.0005	--	1	04/20/15 10:34	04/20/15 19:01	EPA 3005A	97,6020A	BM
Selenium, Total	0.014		mg/l	0.001	--	1	04/20/15 10:34	04/20/15 19:01	EPA 3005A	97,6020A	BM
Silver, Total	0.0013		mg/l	0.0004	--	1	04/20/15 10:34	04/20/15 19:01	EPA 3005A	97,6020A	BM
Zinc, Total	1.084		mg/l	0.0500	--	10	04/20/15 10:34	04/20/15 19:04	EPA 3005A	97,6020A	BM

Project Name: ASSEMBLY ROW
Project Number: 3175.04
Lab Number: L1507899
Report Date: 04/27/15

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
MCP Total Metals - Westborough Lab for sample(s): 01 Batch: WG777281-1										
Iron, Total	ND		mg/l	0.05	--	1	04/20/15 10:37	04/21/15 20:45	97,6010C	JH

Prep Information

Digestion Method: EPA 3005A

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
MCP Total Metals - Westborough Lab for sample(s): 01 Batch: WG777282-1										
Antimony, Total	ND		mg/l	0.0010	--	1	04/20/15 10:34	04/20/15 18:52	97,6020A	BM
Arsenic, Total	ND		mg/l	0.0005	--	1	04/20/15 10:34	04/20/15 18:52	97,6020A	BM
Cadmium, Total	ND		mg/l	0.0002	--	1	04/20/15 10:34	04/20/15 18:52	97,6020A	BM
Chromium, Total	ND		mg/l	0.0010	--	1	04/20/15 10:34	04/20/15 18:52	97,6020A	BM
Copper, Total	ND		mg/l	0.0005	--	1	04/20/15 10:34	04/20/15 18:52	97,6020A	BM
Lead, Total	ND		mg/l	0.0005	--	1	04/20/15 10:34	04/20/15 18:52	97,6020A	BM
Nickel, Total	ND		mg/l	0.0005	--	1	04/20/15 10:34	04/20/15 18:52	97,6020A	BM
Selenium, Total	ND		mg/l	0.001	--	1	04/20/15 10:34	04/20/15 18:52	97,6020A	BM
Silver, Total	ND		mg/l	0.0004	--	1	04/20/15 10:34	04/20/15 18:52	97,6020A	BM
Zinc, Total	ND		mg/l	0.0050	--	1	04/20/15 10:34	04/20/15 18:52	97,6020A	BM

Prep Information

Digestion Method: EPA 3005A

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
MCP Total Metals - Westborough Lab for sample(s): 01 Batch: WG777426-1										
Mercury, Total	ND		mg/l	0.0002	--	1	04/20/15 14:43	04/20/15 20:03	97,7470A	AB

Prep Information

Digestion Method: EPA 7470A

Lab Control Sample Analysis

Batch Quality Control

Project Name: ASSEMBLY ROW

Project Number: 3175.04

Lab Number: L1507899

Report Date: 04/27/15

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Total Metals - Westborough Lab Associated sample(s): 01 Batch: WG777281-2 WG777281-3								
Iron, Total	100		98		80-120	2		20
MCP Total Metals - Westborough Lab Associated sample(s): 01 Batch: WG777282-2 WG777282-3								
Antimony, Total	93		94		80-120	1		20
Arsenic, Total	102		95		80-120	7		20
Cadmium, Total	110		106		80-120	4		20
Chromium, Total	95		100		80-120	5		20
Copper, Total	104		101		80-120	3		20
Lead, Total	103		103		80-120	0		20
Nickel, Total	100		99		80-120	1		20
Selenium, Total	106		92		80-120	14		20
Silver, Total	97		101		80-120	4		20
Zinc, Total	104		101		80-120	3		20
MCP Total Metals - Westborough Lab Associated sample(s): 01 Batch: WG777426-2 WG777426-3								
Mercury, Total	114		114		80-120	0		20

INORGANICS
&
MISCELLANEOUS

Project Name: ASSEMBLY ROW
Project Number: 3175.04
Lab Number: L1507899
Report Date: 04/27/15

SAMPLE RESULTS

Lab ID: L1507899-01
Client ID: RGP 4/17/15
Sample Location: SOMERVILLE, MA
Matrix: Water

Date Collected: 04/17/15 09:30
Date Received: 04/17/15
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
MCP General Chemistry - Westborough Lab										
Cyanide, Total	0.035		mg/l	0.005	--	1	04/21/15 10:05	04/21/15 14:11	97,9014	ML
Chromium, Hexavalent	ND		mg/l	0.010	--	1	04/17/15 22:28	04/17/15 22:54	97,7196A	MR
General Chemistry - Westborough Lab										
Solids, Total Suspended	1500		mg/l	50	NA	10	-	04/20/15 22:00	30,2540D	RP
Chlorine, Total Residual	ND		mg/l	0.02	--	1	-	04/17/15 20:32	30,4500CL-D	MR
TPH	ND		mg/l	4.40	--	1.1	04/18/15 11:00	04/21/15 11:30	74,1664A	ML
Phenolics, Total	ND		mg/l	0.030	--	1	04/20/15 12:30	04/20/15 16:05	4,420.1	MP
Anions by Ion Chromatography - Westborough Lab										
Chloride	200.		mg/l	12.5	--	25	-	04/17/15 20:25	44,300.0	AU

Project Name: ASSEMBLY ROW
Project Number: 3175.04
Lab Number: L1507899
Report Date: 04/27/15

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
MCP General Chemistry - Westborough Lab for sample(s): 01 Batch: WG777008-1										
Chromium, Hexavalent	ND		mg/l	0.010	--	1	04/17/15 22:28	04/17/15 22:54	97,7196A	MR
Anions by Ion Chromatography - Westborough Lab for sample(s): 01 Batch: WG777025-1										
Chloride	ND		mg/l	0.500	--	1	-	04/17/15 17:49	44,300.0	AU
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG777107-1										
TPH	ND		mg/l	4.00	--	1	04/18/15 11:00	04/21/15 11:30	74,1664A	ML
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG777226-1										
Chlorine, Total Residual	ND		mg/l	0.02	--	1	-	04/17/15 20:32	30,4500CL-D	MR
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG777422-1										
Phenolics, Total	ND		mg/l	0.030	--	1	04/20/15 12:30	04/20/15 16:01	4,420.1	MP
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG777521-1										
Solids, Total Suspended	ND		mg/l	5.0	NA	1	-	04/20/15 22:00	30,2540D	RP
MCP General Chemistry - Westborough Lab for sample(s): 01 Batch: WG777667-1										
Cyanide, Total	ND		mg/l	0.005	--	1	04/21/15 10:05	04/21/15 13:56	97,9014	ML

Lab Control Sample Analysis

Batch Quality Control

Project Name: ASSEMBLY ROW

Project Number: 3175.04

Lab Number: L1507899

Report Date: 04/27/15

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG777008-2 WG777008-3								
Chromium, Hexavalent	97		96		80-120	1		20
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 01 Batch: WG777025-2								
Chloride	103		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG777107-2								
TPH	90		-		64-132	-		34
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG777226-2								
Chlorine, Total Residual	100		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG777422-2								
Phenolics, Total	101		-		70-130	-		
MCP General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG777667-2 WG777667-3								
Cyanide, Total	110		109		80-120	1		20

Matrix Spike Analysis
Batch Quality Control

Project Name: ASSEMBLY ROW
Project Number: 3175.04

Lab Number: L1507899
Report Date: 04/27/15

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 01 QC Batch ID: WG777025-3 QC Sample: L1507891-10 Client ID: MS Sample												
Chloride	ND	4	4.00	100		-	-		40-151	-		18
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG777107-4 QC Sample: L1507960-03 Client ID: MS Sample												
TPH	ND	27.4	22.2	81		-	-		64-132	-		34
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG777422-4 QC Sample: L1507824-01 Client ID: MS Sample												
Phenolics, Total	ND	0.4	0.36	91		-	-		70-130	-		20

Lab Duplicate Analysis
Batch Quality Control

Project Name: ASSEMBLY ROW
Project Number: 3175.04

Lab Number: L1507899
Report Date: 04/27/15

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 01 QC Batch ID: WG777025-4 QC Sample: L1507891-10 Client ID: DUP Sample						
Chloride	ND	ND	mg/l	NC		18
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG777107-3 QC Sample: L1507960-02 Client ID: DUP Sample						
TPH	ND	ND	mg/l	NC		34
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG777226-3 QC Sample: L1507891-01 Client ID: DUP Sample						
Chlorine, Total Residual	2.2	2.2	mg/l	0		20
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG777422-3 QC Sample: L1507824-01 Client ID: DUP Sample						
Phenolics, Total	ND	ND	mg/l	NC		20
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG777521-2 QC Sample: L1507751-01 Client ID: DUP Sample						
Solids, Total Suspended	58	58	mg/l	0		29

Project Name: ASSEMBLY ROW
Project Number: 3175.04

Lab Number: L1507899
Report Date: 04/27/15

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal

Cooler	
A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1507899-01A	Plastic 950ml unpreserved	A	7	2.9	Y	Absent	TSS-2540(7)
L1507899-01B	Plastic 950ml unpreserved	A	7	2.9	Y	Absent	CL-300(28),TRC-4500(1),MCP-HEXCR7196-10(1)
L1507899-01C	Amber 950ml H2SO4 preserved	A	<2	2.9	Y	Absent	TPHENOL-420(28)
L1507899-01D	Amber 1000ml HCl preserved	A	N/A	2.9	Y	Absent	TPH-1664(28)
L1507899-01E	Amber 1000ml HCl preserved	A	N/A	2.9	Y	Absent	TPH-1664(28)
L1507899-01F	Plastic 250ml NaOH preserved	A	>12	2.9	Y	Absent	MCP-TCN9014-10(14)
L1507899-01G	Plastic 250ml HNO3 preserved	A	<2	2.9	Y	Absent	MCP-FE-6010T-10(180),MCP-CR-6020T-10(180),MCP-7470T-10(28),MCP-CU-6020T-10(180),MCP-ZN-6020T-10(180),MCP-AS-6020T-10(180),MCP-NI-6020T-10(180),MCP-AG-6020T-10(180),MCP-CD-6020T-10(180),MCP-SE-6020T-10(180),MCP-PB-6020T-10(180),MCP-SB-6020T-10(180)
L1507899-01H	Amber 1000ml unpreserved	A	7	2.9	Y	Absent	MCP-8270-10(7),MCP-8270SIM-10(7)
L1507899-01I	Amber 1000ml unpreserved	A	7	2.9	Y	Absent	MCP-8270-10(7),MCP-8270SIM-10(7)
L1507899-01J	Amber 1000ml Na2S2O3	A	7	2.9	Y	Absent	PCB-608(7)
L1507899-01K	Amber 1000ml Na2S2O3	A	7	2.9	Y	Absent	PCB-608(7)
L1507899-02A	Vial HCl preserved	NA	NA		Y	Absent	MCP-8260SIM-10(14),MCP-8260-10(14)
L1507899-02B	Vial HCl preserved	NA	NA		Y	Absent	MCP-8260SIM-10(14),MCP-8260-10(14)
L1507899-02C	Vial HCl preserved	NA	NA		Y	Absent	MCP-8260SIM-10(14),MCP-8260-10(14)
L1507899-02D	Vial Na2S2O3 preserved	A	N/A	2.9	Y	Absent	504(14)
L1507899-02E	Vial Na2S2O3 preserved	A	N/A	2.9	Y	Absent	504(14)
L1507899-03A	Vial HCl preserved	A	N/A	2.9	Y	Absent	MCP-8260SIM-10(14),MCP-8260-10(14)

*Values in parentheses indicate holding time in days

Project Name: ASSEMBLY ROW
Project Number: 3175.04

Lab Number: L1507899
Report Date: 04/27/15

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1507899-03B	Vial HCl preserved	A	N/A	2.9	Y	Absent	MCP-8260SIM-10(14),MCP-8260-10(14)
L1507899-03C	Vial HCl preserved	A	N/A	2.9	Y	Absent	MCP-8260SIM-10(14),MCP-8260-10(14)
L1507899-03D	Vial Na2S2O3 preserved	A	N/A	2.9	Y	Absent	504(14)
L1507899-03E	Vial Na2S2O3 preserved	A	N/A	2.9	Y	Absent	504(14)
L1507899-04A	Vial HCl preserved	A	N/A	2.9	Y	Absent	MCP-8260SIM-10(14),MCP-8260-10(14)
L1507899-04B	Vial HCl preserved	A	N/A	2.9	Y	Absent	MCP-8260SIM-10(14),MCP-8260-10(14)
L1507899-04C	Vial HCl preserved	A	N/A	2.9	Y	Absent	MCP-8260SIM-10(14),MCP-8260-10(14)
L1507899-04D	Vial Na2S2O3 preserved	A	N/A	2.9	Y	Absent	504(14)
L1507899-04E	Vial Na2S2O3 preserved	A	N/A	2.9	Y	Absent	504(14)
L1507899-05A	Vial HCl preserved	NA	NA		Y	Absent	HOLD-8260(14)
L1507899-05B	Vial Na2S2O3 preserved	A	N/A	2.9	Y	Absent	HOLD-504/8011(14)

Container Comments

L1507899-01D

L1507899-01E

*Values in parentheses indicate holding time in days

Project Name:	ASSEMBLY ROW	**Lab Number:**	L1507899
Project Number:	3175.04	**Report Date:**	04/27/15

GLOSSARY

Acronyms

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NI - Not Ignitable.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A - Spectra identified as "Aldol Condensation Product".

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

Report Format: Data Usability Report

Project Name:	ASSEMBLY ROW	**Lab Number:**	L1507899
Project Number:	3175.04	**Report Date:**	04/27/15

Data Qualifiers

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the reporting limit (RL) for the sample.

Report Format: Data Usability Report

Project Name:	ASSEMBLY ROW	**Lab Number:**	L1507899
Project Number:	3175.04	**Report Date:**	04/27/15

REFERENCES

4 Methods for Chemical Analysis of Water and Wastes. EPA 600/4-79-020. Revised March 1983.

5 Methods for the Organic Chemical Analysis of Municipal and Industrial Wastewater. Appendix A, Part 136, 40 CFR (Code of Federal Regulations).

14 Methods for the Determination of Organic Compounds in Finished Drinking Water and Raw Source Water. EPA/600/4-88/039, Revised July 1991.

30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

44 Methods for the Determination of Inorganic Substances in Environmental Samples, EPA/600/R-93/100, August 1993.

74 Method 1664,Revision A: N-Hexane Extractable Material (HEM; Oil & Grease) and Silica Gel Treated N-Hexane Extractable Material (SGT-HEM; Non-polar Material) by Extraction and Gravimetry, EPA-821-R-98-002, February 1999.

97 EPA Test Methods (SW-846) with QC Requirements & Performance Standards for the Analysis of EPA SW-846 Methods under the Massachusetts Contingency Plan, WSC-CAM-IIA, IIB, IIIA, IIIB, IIIC, IIID, VA, VB, VC, VIA, VIB, VIIIA and VIIIB, July 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

Last revised December 16, 2014

The following analytes are not included in our NELAP Scope of Accreditation:

Westborough Facility
EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether.
EPA 8260C: 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene, Iodomethane (methyl iodide), Methyl methacrylate, Azobenzene.
EPA 8270D: 1-Methylnaphthalene, Dimethylnaphthalene,1,4-Diphenylhydrazine.
EPA 625: 4-Chloroaniline, 4-Methylphenol.
SM4500: Soil: Total Phosphorus, TKN, NO2, NO3.
EPA 9071: Total Petroleum Hydrocarbons, Oil & Grease.

Mansfield Facility
EPA 8270D: Biphenyl.
EPA 2540D: TSS
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

The following analytes are included in our Massachusetts DEP Scope of Accreditation, Westborough Facility:

Drinking Water
EPA 200.8: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl; **EPA 200.7**: Ba,Be,Ca,Cd,Cr,Cu,Na; **EPA 245.1:** Mercury;
EPA 300.0: Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B**
EPA 332: Perchlorate.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, Enterolert-QT.**

Non-Potable Water
EPA 200.8: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn;
EPA 200.7: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn;
EPA 245.1, SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2340B, SM2320B, SM4500CL-E, SM4500F-BC, SM426C, SM4500NH3-BH, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **SM4500NO3-F, EPA 353.2**: Nitrate-N**, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, SM4500P-B, E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.**
EPA 624: Volatile Halocarbons & Aromatics,
EPA 608: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9222D-MF**.

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

Serial_No:04271515:58

CHAIN OF CUSTODY

PAGE 1 OF 1

Date Rec'd in Lab: 4/17/15

ALPHA Job #: L1507899

ALPHA ANALYTICAL
8 Walkup Drive, Westboro, MA 01581, Tel: 508-898-9220
320 Forbes Blvd, Mansfield, MA 02048, Tel: 508-822-9300

Client Information

Client: Sanborn Head
Address: 1 Technology Park Drive, Westford, MA
Phone: 978-392-0900
Email: Kwalker@sanbornhead.com

Project Information

Project Name: Assembly Row
Project Location: Somerville, MA
Project #: 3175.04
Project Manager: K walker
ALPHA Quote #:

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved!)
Date Due: 4/28/15

Report Information - Data Deliverables

☒ ADEx ☐ EMAIL

Billing Information

☒ Same as Client info PO #:

Regulatory Requirements & Project Information Requirements

☒ Yes ☐ No MA MCP Analytical Methods
☐ Yes ☒ No CT RCP Analytical Methods
☐ Yes ☒ No Matrix Spike Required on this SDG? (Required for MCP Inorganics)
☐ Yes ☒ No GW1 Standards (Info Required for Metals & EPH with Targets)
☒ Yes ☐ No NPDES RGP
☐ Other State /Fed Program ______ Criteria ______

Additional Project Information:

RGP = Hg, Ag, As, Cd, Cr, Cu, Fe, Ni, Pb, Sb, Se, Zn, PCB 608, 8270 w/ SIM, CL, Hex Cr, TCN, Total Phenol, TSS, TRC , TPH 1664

ANALYSIS: VOC: ☒ 8260 ☐ 624 ☐ 524.2; SVOC: ☐ ABN ☐ PAH; METALS: ☐ MCP 13 ☐ MCP 14 ☐ RCP 15; METALS: ☐ RCRA5 ☐ RCRA8 ☐ PP13; EPH: ☐ Ranges & Targets ☐ Ranges Only; VPH: ☐ Ranges & Targets ☐ Ranges Only; ☐ PCB ☐ PEST; TPH: ☐ Quant Only ☐ Fingerprint; RGP; 504

SAMPLE INFO — Filtration: ☐ Field ☐ Lab to do; Preservation: ☐ Lab to do

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler Initials	VOC 8260	RGP	504	Sample Comments
07899-01	RGP 4/17/15	4/17/15	09:30	GW	JDF	~~X~~	X		Minus 8260 & 504 DV / MD 4/20/15
02	SH-901 W	4/17/15	09:30	GW	JDF	X		x	
03	HA13-B604	4/17/15	09:30	GW	JDF	X		x	
04	SH-902W	4/17/15	11:30	GW	JDF	X		x	
05	Trip blank					O			Hold.

Container Type: V
Preservative: B/H

Container Type
P= Plastic
A= Amber glass
V= Vial
G= Glass
B= Bacteria cup
C= Cube
O= Other
E= Encore
D= BOD Bottle

Preservative
A= None
B= HCl
C= HNO_3
D= H_2SO_4
E= NaOH
F= MeOH
G= $NaHSO_4$
H = $Na_2S_2O_3$
I= Ascorbic Acid
J = NH_4Cl
K= Zn Acetate
O= Other

Relinquished By:	Date/Time	Received By:	Date/Time
[signature]	4/17/15 13:00	[signature]	4.17.15 1300
[signature]	4.17.15 12:50	[signature]	4/17/15 1450

FORM NO: 01-01 (rev. 12-Mar-2012)

Serial_No:04271515:58

CHAIN OF COUSTODY

PAGE 1 OF 1

ALPHA ANALYTICAL — World Class Chemistry

8 Walkup Drive, Westboro, MA 01581, Tel: 508-898-9220
320 Forbes Blvd, Mansfield, MA 02048, Tel: 508-822-9300

Date Rec'd in Lab: 4/17/15

ALPHA Job #: L1507899

Project Information

Project Name: Assembly Row
Project Location: Somerville, MA
Project #: 3175.04
Project Manager: K walker
ALPHA Quote #:

Report Information - Data Deliverables

☑ ADEx ☐ EMAIL

Billing Information

☑ Same as Client info PO #:

Client Information

Client: Sanborn Head
Address: 1 Technology Park Drive Westford, MA
Phone: 978-392-0900
Email: Kwalker@sanbornhead.com

Regulatory Requirements & Project Information Requirements

☑ Yes ☐ No MA MCP Analytical Methods ☐ Yes ☑ No CT RCP Analytical Methods
☐ Yes ☑ No Matrix Spike Required on this SDG? (Required for MCP Inorganics)
☐ Yes ☑ No GW1 Standards (Info Required for Metals & EPH with Targets)
☑ Yes ☐ No NPDES RGP
☐ Other State /Fed Program ______ Criteria ______

Turn-Around Time

☑ Standard ☐ RUSH (only confirmed if pre-approved!)

Date Due: 4/28/15

Additional Project Information:

ANALYSIS: VOC: ☑ 8260 ☐ 624 ☐ 524.2; SVOC: ☐ ABN ☐ PAH; METALS: ☐ MCP 13 ☐ MCP 14 ☐ RCP 15; METALS: ☐ RCRA5 ☐ RCRA8 ☐ PP13; EPH: ☐ Ranges & Targets ☐ Ranges Only; VPH: ☐ Ranges & Targets ☐ Ranges Only; ☐ PCB ☐ PEST; TPH: ☐ Quant Only ☐ Fingerprint; RGP

SAMPLE INFO — Filtration: ☐ Field ☐ Lab to do; Preservation: ☐ Lab to do

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler Initials	VOC 8260	RGP	Sample Comments	TOTAL # BOTTLES
07899-01	RGP 4/17/15	4/17/15	09:30	GW	JDF	X	X		
02	SH-901 W	4/17/15	09:30	GW	JDF	X			
03	HA13-B604	4/17/15	09:30	GW	JDF	X			
04	SH-902W	4/17/15	11:30	GW	JDF	X			
05	Trip blank					O		Hold.	
Container Type						V			
Preservative						B/H			

Container Type: P= Plastic, A= Amber glass, V= Vial, G= Glass, B= Bacteria cup, C= Cube, O= Other, E= Encore, D= BOD Bottle

Preservative: A= None, B= HCl, C= HNO_3, D= H_2SO_4, E= NaOH, F= MeOH, G= $NaHSO_4$, H = $Na_2S_2O_3$, I= Ascorbic Acid, J = NH_4Cl, K= Zn Acetate, O= Other

Relinquished By:	Date/Time	Received By:	Date/Time
[signature]	4/17/15 13:00	[signature]	4.17.15 1300
[signature]	4.17.15 14:50	[signature]	4/17/15 1450

All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

FORM NO: 01-01 (rev. 12-Mar-2012)

7A
Volatile Organics CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1507899

Instrument ID: Jack.i Calibration Date: 22-APR-2015 Time: 06:44

Lab File ID: 0422A05 Init. Calib. Date(s): 14-APR-2 14-APR-2

Sample No: 8260 CCAL Init. Calib. Times : 19:03 22:30

Compound	RRF	RRF	MIN RRF	%D	MAX %D	
dichlorodifluoromethane	.54016	.44227	.1	-18	20	
chloromethane	1.0355	.83092	.1	-20	20	
vinyl chloride	.8478	.7984	.1	-6	20	
bromomethane	.28086	.20373	.1	-27	20	F
chloroethane	.45807	.47505	.1	4	20	
trichlorofluoromethane	.84768	.88993	.1	5	20	
ethyl ether	.34214	.36659	.05	7	20	
1,1,-dichloroethene	.56613	.60902	.1	8	20	
carbon disulfide	1.7482	1.6101	.1	-8	20	
methylene chloride	.62754	.66062	.1	5	20	
acetone	100	122	.1	22	20	F
trans-1,2-dichloroethene	.67625	.67551	.1	0	20	
methyl tert butyl ether	1.9842	1.8793	.1	-5	20	
tert butyl alcohol	.07056	.07384	.05	5	20	
Diisopropyl Ether	3.3968	2.8748	.01	-15	20	
1,1-dichloroethane	1.4979	1.3777	.2	-8	20	
Ethyl-Tert-Butyl-Ether	2.8626	2.5100	.05	-12	20	
cis-1,2-dichloroethene	.82401	.77414	.1	-6	20	
2,2-dichloropropane	1.1243	1.0672	.05	-5	20	
bromochloromethane	.37149	.36492	.05	-2	20	
chloroform	1.2900	1.2070	.2	-6	20	
carbontetrachloride	1.0353	.97548	.1	-6	20	
tetrahydrofuran	.33575	.28968	.05	-14	20	
1,1,1-trichloroethane	1.2145	1.1435	.1	-6	20	
1,1-dichloropropene	1.0526	.983	.05	-7	20	
2-butanone	.40623	.37562	.1	-8	20	
benzene	2.9965	2.8906	.5	-4	20	
Tertiary-Amyl Methyl Ether	2.2260	1.9294	.05	-13	20	
1,2-dichloroethane	1.1014	1.0328	.1	-6	20	
trichloroethene	.78208	.72666	.2	-7	20	
dibromomethane	.43287	.41022	.05	-5	20	
1,2-dichloropropane	.96644	.80979	.1	-16	20	
bromodichloromethane	1.0566	.97735	.2	-8	20	
cis-1,3-dichloropropene	1.2936	1.1667	.2	-10	20	
toluene	2.5960	2.3070	.4	-11	20	
tetrachloroethene	1.1223	1.0152	.2	-10	20	
4-methyl-2-pentanone	.3732	.31656	.1	-15	20	
trans-1,3-dichloropropene	1.5640	1.2726	.1	-19	20	

FORM VII MCP-8260-10

7A
CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1507899

Instrument ID: Jack.i Calibration Date: 22-APR-2015 Time: 06:44

Lab File ID: 0422A05 Init. Calib. Date(s): 14-APR-2 14-APR-2

Sample No: 8260 CCAL Init. Calib. Times : 19:03 22:30

Compound	RRF	RRF	MIN RRF	%D	MAX %D	
1,1,2-trichloroethane	.72084	.64976	.1	-10	20	
chlorodibromomethane	1.0092	.87816	.1	-13	20	
1,3-dichloropropane	1.4959	1.3199	.05	-12	20	
1,2-dibromoethane	.90752	.80006	.1	-12	20	
2-hexanone	.97019	.73352	.1	-24	20	F
chlorobenzene	2.9203	2.5865	.5	-11	20	
ethyl benzene	5.1801	4.5742	.1	-12	20	
1,1,1,2-tetrachloroethane	1.1235	.95849	.05	-15	20	
p/m xylene	2.0239	1.8441	.1	-9	20	
o xylene	2.0242	1.7343	.3	-14	20	
bromoform	1.2415	1.0961	.1	-12	20	
styrene	3.0961	2.8194	.3	-9	20	
isopropylbenzene	12.156	10.976	.1	-10	20	
bromobenzene	2.3990	2.0666	.05	-14	20	
n-propylbenzene	12.039	10.769	.05	-11	20	
1,1,2,2,-tetrachloroethane	2.3351	1.9596	.3	-16	20	
2-chlorotoluene	8.1022	6.9311	.05	-14	20	
1,2,3-trichloropropane	1.8250	1.5698	.05	-14	20	
1,3,5-trimethybenzene	8.7191	7.377	.05	-15	20	
4-chorotoluene	7.2862	6.0772	.05	-17	20	
tert-butylbenzene	7.6088	6.4401	.05	-15	20	
1,2,4-trimethylbenzene	8.5820	7.2352	.05	-16	20	
sec-butylbenzene	11.033	9.6571	.01	-12	20	
p-isopropyltoluene	9.2216	7.9093	.05	-14	20	
1,3-dichlorobenzene	4.7354	4.065	.6	-14	20	
1,4-dichlorobenzene	4.7348	3.9516	.5	-17	20	
n-butylbenzene	7.7425	6.5725	.05	-15	20	
1,2-dichlorobenzene	4.3111	3.7079	.4	-14	20	
1,2-dibromo-3-chloropropane	.39838	.36254	.05	-9	20	
1,2,4-trichlorobenzene	2.3765	1.9232	.2	-19	20	
hexachlorobutadiene	.86561	.7144	.05	-17	20	
naphthalene	6.2282	5.1604	.05	-17	20	
1,2,3-trichlorobenzene	2.0297	1.6510	.05	-19	20	
dibromofluoromethane	.23178	.24475	.05	6	20	
1,2-dichloroethane-d4	.31911	.30659	.05	-4	20	
toluene-d8	1.2452	1.2163	.01	-2	20	
4-bromofluorobenzene	.91313	.90808	.05	-1	20	

FORM VII MCP-8260-10

7A

Volatile Organics CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1507899

Instrument ID: Jack.i Calibration Date: 22-APR-2015 Time: 05:31

Lab File ID: 0422A01 Init. Calib. Date(s): 14-APR-2 14-APR-2

Sample No: SIM CCAL Init. Calib. Times : 08:22 12:23

Compound	RRF	RRF	MIN RRF	%D	MAX %D	
1,4-Dioxane	.00512	.00521	.05	2	20	F
1,1,2,2,-tetrachloroethane	.69051	.61695	.3	-11	20	

APPENDIX C

DILUTION CALCULATIONS

PURPOSE:
To calculate the dilution factor (DF) for metal concentrations in a potential discharge from on-site construction dewatering activities.

METHOD:

$$DF = (Qd + Qs)/Qd$$

Where: DF = Dilution Factor
Qd = Maximum flow rate of the discharge in cubic feet per second (cfs)
Qs = Receiving water 7Q10 flow (cfs) where 7Q10 is the minimum flow (cfs) for 7 consecutive days with a recurrence interval of 10 years

GIVEN:
$7Q_{10}$ flows on the Mystic River and its tributaries (in cubic feet per second per square mile [cfs/mi^2]):

0.22, 0.21, 0.18, <0.10, 0.57, 0, 0.53, 0.40, and 0.43
Average = **0.293 cfs/mi^2** *(assuming a value of 0.10 for the <0.10 station)*

Area of watershed (from USGS):
62.70 mi^2

7Q10 flow = 0.293 cfs/mi^2 * 62.70 mi^2 = **18.37 cfs**

Qd = 100 gpm = 0.22 cfs
Qs = 18.37 cfs of flow in the Mystic River [Reference 1]

CALCULATION:

DF = (0.22 cfs + 18.37 cfs) / 0.22 cfs
DF = 85

RESULTS:

The resulting dilution factor to be used when discharging to the Mystic River is 85.

REFERENCES:

[1] "Hydrology and Water Resources of the Coastal Drainage Basin of Northeastern Massachusetts, From Castle Neck, Ipswich, to Mystic River, Boston," by Delaney and Gay, Hydrologic Investigations Atlas HA-589, dated 1980.

APPENDIX D

FEDERAL CORRESPONDENCE

United States Department of the Interior

FISH AND WILDLIFE SERVICE

New England Field Office
70 Commercial Street, Suite 300
Concord, NH 03301-5087
http://www.fws.gov/newengland

January 7, 2015

To Whom It May Concern:

This project was reviewed for the presence of federally listed or proposed, threatened or endangered species or critical habitat per instructions provided on the U.S. Fish and Wildlife Service's New England Field Office website:

http://www.fws.gov/newengland/EndangeredSpec-Consultation.htm (accessed January 2015)

Based on information currently available to us, no federally listed or proposed, threatened or endangered species or critical habitat under the jurisdiction of the U.S. Fish and Wildlife Service are known to occur in the project area(s). Preparation of a Biological Assessment or further consultation with us under section 7 of the Endangered Species Act is not required. No further Endangered Species Act coordination is necessary for a period of one year from the date of this letter, unless additional information on listed or proposed species becomes available.

Thank you for your cooperation. Please contact Maria Tur of this office at 603-223-2541 if we can be of further assistance.

Sincerely yours,

Thomas R. Chapman
Supervisor
New England Field Office

From:	Christine Vaccaro - NOAA Federal
To:	Anthony Harvey
Subject:	Re: Notice of Intent - Somerville, MA
Date:	Wednesday, April 22, 2015 8:51:19 AM

There are no listed that species that may be exposed to the effects of your action in the area you have indicated.

Cheers,
Chris

Chris Vaccaro
Fisheries Biologist
Protected Resources Division
NOAA Fisheries
Gloucester, MA
Phone: 978-281-9167
Email: christine.vaccaro@noaa.gov

On Wed, Apr 22, 2015 at 8:45 AM, Anthony Harvey <aharvey@sanbornhead.com> wrote:

> Good Afternoon Christine,
>
> I am requesting information to be included as part of a Notice of Intent (NOI) for a Remediation General Permit (RGP). The NOI is for construction dewatering during excavation activities at portions of 99 Foley Street, 100 Foley Street, 130 Foley Street, and a parcel of land known as Yard 21 in Somerville, Massachusetts. Effluent will be discharged to the Mystic River, below the Amelia Earhart Dam, by means of a 72-inch storm drain outfall. As part of the application to the USEPA for the RGP, we need to investigate whether this proposed temporary discharge has the potential to adversely affect any federally listed species in the reach of the Mystic River located downstream of the discharge point.
>
> Thank you in advance for your assistance, and please let me know if you require further information.
>
> --
> Anthony M. Harvey
> Project Engineer
> ---
> SANBORN | HEAD & ASSOCIATES, INC.
> 1 Technology Park Drive, Westford, MA 01886

T 978.392.0900 D 978.577.1034
www.sanbornhead.com

APPENDIX E

NATIONAL REGISTER OF HISTORIC PLACES

Appendix E
National Register of Historic Places
Research Documentation
Somerville, Massachusetts

County	City	Resource	Address	Date
Middlesex	Somerville	Adams, Charles--Woodbury Locke House	178 Central St.	09/18/1989
Middlesex	Somerville	Adams--Magoun House	438 Broadway	09/18/1989
Middlesex	Somerville	Bacon, Clifton, House	27 Chester St.	09/18/1989
Middlesex	Somerville	Barnes, Walter S. and Melissa E., House	140 Highland Ave.	03/08/1990
Middlesex	Somerville	Bow Street Historic District	Bow St.	03/26/1976
Middlesex	Somerville	Brackett, S. E., House	63 Columbus Ave.	09/18/1989
Middlesex	Somerville	Broadway Winter Hill Congregational Church	404 Broadway	09/18/1989
Middlesex	Somerville	Brooks, James H., House	61 Columbus Ave.	09/18/1989
Middlesex	Somerville	Carr, Martin W., School	25 Atherton St.	07/05/1984
Middlesex	Somerville	Central Library	79 Highland Ave.	09/18/1989
Middlesex	Somerville	Cliff, Z. E., House	29 Powderhouse Terr.	09/18/1989
Middlesex	Somerville	Cook, Thomas, House	21 College Hill Rd.	09/18/1989
Middlesex	Somerville	Cooper--Davenport Tavern Wing	81 Eustis St.	09/18/1989
Middlesex	Somerville	Crowell, C. C., House	85 Benton Rd.	09/18/1989
Middlesex	Somerville	Downer Rowhouses (Adams Street)	55 Adams St.	09/18/1989
Middlesex	Somerville	Downer Rowhouses (Central Street)	192--200 Central St.	09/18/1989
Middlesex	Somerville	First Unitarian Church	130 Highland Ave.	09/18/1989
Middlesex	Somerville	First Universalist Church	125 Highland St.	09/18/1989
Middlesex	Somerville	Foster, Alexander, House	45 Laurel St.	09/18/1989
Middlesex	Somerville	Gaut, Samuel, House	137 Highland Ave.	09/18/1989
Middlesex	Somerville	Grandview, The	82 Munroe St.	09/18/1989
Middlesex	Somerville	Highland, The	66 Highland St.	09/18/1989
Middlesex	Somerville	Hollander Blocks	Walnut St. and Pleasant Ave.	09/18/1989
Middlesex	Somerville	Hopkins, Elisha, House	237 School St.	09/18/1989
Middlesex	Somerville	House at 10 Arlington Street	10 Arlington St.	09/18/1989
Middlesex	Somerville	House at 14 Chestnut Street	14 Chestnut St.	09/18/1989
Middlesex	Somerville	House at 16--18 Preston Road	16--18 Preston Rd.	09/18/1989
Middlesex	Somerville	House at 197 Morrison Avenue	197 Morrison Ave.	09/18/1989
Middlesex	Somerville	House at 21 Dartmouth Street	21 Dartmouth St.	09/18/1989
Middlesex	Somerville	House at 25 Clyde Street	25 Clyde St.	09/18/1989
Middlesex	Somerville	House at 29 Mt. Vernon Street	29 Mt. Vernon St.	09/18/1989

Appendix E
National Register of Historic Places
Research Documentation
Somerville, Massachusetts

Middlesex	Somerville	House at 343 Highland Avenue	343 Highland Ave.	09/18/1989
Middlesex	Somerville	House at 35 Temple Street	35 Temple St.	09/18/1989
Middlesex	Somerville	House at 42 Vinal Avenue	42 Vinal Ave.	09/18/1989
Middlesex	Somerville	House at 49 Vinal Avenue	49 Vinal Ave.	09/18/1989
Middlesex	Somerville	House at 5 Prospect Hill	5 Prospect Hill	09/18/1989
Middlesex	Somerville	House at 6 Kent Court	6 Kent Ct.	09/18/1989
Middlesex	Somerville	House at 72R Dane Street	72R Dane St.	09/18/1989
Middlesex	Somerville	House at 81 Pearl Street	81 Pearl St.	09/18/1989
Middlesex	Somerville	Houses at 28--36 Beacon Street	28--36 Beacon St.	09/18/1989
Middlesex	Somerville	Ireland, Samuel, House	117 Washington	09/18/1989
Middlesex	Somerville	James, Joseph K., House	83 Belmont St.	02/11/1998
Middlesex	Somerville	Keyes, Amos, House	12 Adams St.	09/18/1989
Middlesex	Somerville	Knight, R. A.--Eugene Lacount House	34 Day St.	09/18/1989
Middlesex	Somerville	Langmaid Building	48--52 Highland Ave.	09/18/1989
Middlesex	Somerville	Langmaid Terrace	359--365 Broadway	09/18/1989
Middlesex	Somerville	Lockhardt, Charles H., House	88 College Ave.	09/18/1989
Middlesex	Somerville	Loring, George, House	76 Highland Ave.	09/18/1989
Middlesex	Somerville	Lovejoy, A. L., House	30 Warren Ave.	09/18/1989
Middlesex	Somerville	Mt. Vernon Street Historic District	8--24 Mt. Vernon St.	09/18/1989
Middlesex	Somerville	Munroe, Robert, House	37 Walnut St.	09/18/1989
Middlesex	Somerville	Mystic Pumping Station	Alewife Brook Pkwy.	01/18/1990
Middlesex	Somerville	Mystic Water Works	Alewife Brook Pkwy. and Capen St.	09/18/1989
Middlesex	Somerville	Nichols, John F., House	17 Summit St.	09/18/1989
Middlesex	Somerville	Niles, Louville V., House	97 Munroe St.	09/18/1989
Middlesex	Somerville	Niles, Louville, House	45 Walnut St.	09/18/1989
Middlesex	Somerville	Old Cemetery	Somerville Ave. and School St.	09/18/1989
Middlesex	Somerville	Otis--Wyman House	67 Thurston St.	09/18/1989
Middlesex	Somerville	Parker--Burnett House	48 Vinal Ave.	09/18/1989
Middlesex	Somerville	Powder House Park	Powder House Circle	04/21/1975
Middlesex	Somerville	Prescott, Gustavus G., House	65--67 Perkins St.	09/18/1989
Middlesex	Somerville	Rosebud, The	381 Summer St.	09/22/1999
Middlesex	Somerville	Russell, Philemon, House	25 Russell St.	09/18/1989

Appendix E
National Register of Historic Places
Research Documentation
Somerville, Massachusetts

Middlesex	Somerville	Russell, Susan, House	58 Sycamore St.	09/18/1989
Middlesex	Somerville	Schuebeler, Charles, House	384 Washington St.	09/18/1989
Middlesex	Somerville	Snow, Lemuel, Jr., House	81 Benton Rd.	09/18/1989
Middlesex	Somerville	Somerville High School	93 Highland St.	09/18/1989
Middlesex	Somerville	Somerville Journal Building	8--10 Walnut St.	09/18/1989
Middlesex	Somerville	Somerville Theatre	55 Davis Sq.	01/26/1990
Middlesex	Somerville	Spring Hill Historic District	Roughly bounded by Summer, Central, Atherton, and Spring	09/18/1989
Middlesex	Somerville	Tufts, Peter and Oliver, House	78 Sycamore St.	09/18/1989
Middlesex	Somerville	US Post Office--Somerville Main	237 Washington St.	05/30/1986
Middlesex	Somerville	Warren, H., House	205 School St.	09/18/1989
Middlesex	Somerville	West Somerville Branch Library	40 College Ave.	09/18/1989
Middlesex	Somerville	Westwood Road Historic District	Roughly bounded by Summer St., Benton Rd., Westwood Rd., and Central St.	09/18/1989
Middlesex	Somerville	Williams, Charles, House	108 Cross St.	09/18/1989
Middlesex	Somerville	Williams, Charles, Jr., House	1 Arlington St.	09/18/1989
Middlesex	Somerville	Williams, F. G., House	37 Albion St.	09/18/1989
Middlesex	Somerville	Worthen, Daniel, House	8 Mt. Pleasant St.	09/18/1989
Middlesex	Somerville	Wright House	54 Vinal Ave.	09/18/1989
Middlesex	Somerville	Wyatt, George, House	33 Beacon St.	09/18/1989

Notes:
Sanborn, Head & Associates, Inc. (Sanborn Head) conducted a review of the National Register of Historic Places within Somerville, Massachusetts. The search returned 81 resutls, none of which are located at or abutting the site.

APPENDIX F

BEST MANAGEMENT PRACTICES PLAN

APPENDIX F: Best Management Practices Plan

Notice of Intent for the NPDES Remediation General Permit
Temporary Construction Dewatering at Block 6, Assembly Row
Somerville, Massachusetts

This Best Management Practices Plan (BMPP) has been prepared in accordance with the requirements of the National Pollutant Discharge Elimination System (NPDES) Remediation General Permit (RGP) for Massachusetts (MAG910000). This BMPP is in support of an RGP application for dewatering during utility construction and remedial activities at Block 6 of the Assembly Row project, located in the Assembly Square area of Somerville, Massachusetts. The dewatering discharge will be conveyed through a 72-inch storm drain outfall and discharged to the Mystic River downstream from the Amelia Earhart Dam.

The following practices will be adhered to during the construction dewatering at the site.

Site Security

During construction activities, the dewatering system will be secured using standard construction practices. The fractionalization tank will be located in a fenced area to limit access. All associated piping will be secured and checked regularly. Any system failure, vandalism, or other incidents will be addressed in a timely manner to prevent the discharge of oil or hazardous materials from exceeding the limits of the RGP.

Minimizing Sediment in Influent

Crushed stone sumps constructed as far as possible from the active excavation area will be used as the suction points for the dewatering system intakes. Efforts will be made to manage the pumping such that the amount of sediment in the influent to the treatment is minimized.

Management of Generated Wastes

The construction excavations will be conducted within the limits of Massachusetts Contingency Plan (MCP) release sites. As such the wastes that are generated during the operation of the dewatering treatment system will be managed as MCP wastes. The anticipated wastes are sediment sludge that accumulates in the fractionalization tank, used bag filters, spent activated carbon, free phase petroleum that is separated in the oil-water separator, and miscellaneous wastes associated with water quality sampling activities. The sediment sludge will be tested and disposed of at licensed facility that is permitted to accept material with the documented physical and chemical characteristics of the sludge. The used bag filters and the miscellaneous sampling wastes will be appropriately disposed of as solid or contaminated wastes, based on their characteristics. The spent activated carbon will be processed and recycled by the company providing the fresh carbon. Free phase product that is collected as a liquid will be transported to a licensed waste oil processing facility for characterization and disposal.

Prohibition of Discharge Exceeding Design Flow

The subcontractor providing the treatment system will provide the Operator with information on the design capacity of the treatment system and the features included in the design to monitor the flow rate to ensure that the capacity is not exceeded. The system will be monitored with a continuous flow meter such that the overall system flow does not exceed the lowest design capacity of an individual treatment system unit.

Preventative Maintenance Required

The treatment system will likely include one fractionalization tank and two bag filter vessels (installed in parallel so the system does not need to be shut down for bag filter changeout). The system will also be designed to incorporate an active carbon treatment vessel, precipitation system/metals treatment, an oil/water separator, and ion exchange media if effluent sampling data shows that additional treatment is needed. Sample ports will be available after the bag filter, and after the carbon vessel (if needed).

The bag filters will be replaced whenever the pressure drop across the filters exceeds the system's design criteria. If used, the carbon vessels will be backwashed with a clean water source when the pressure drop across the vessel exceeds the system's design criteria. The subcontractor will be responsible for developing and implementing a preventative maintenance plan and schedule based on the specific design of the treatment system.

Employee Training

The field staff of the Operator and the subcontractor will be instructed regarding the water quality limits contained in the RGP and the critical need to operate the treatment system as designed. The staff will also be provided guidance on how to reduce the sediment content and minimize the volume of free product that is pumped into the treatment system. Personnel who have responsibilities related to the dewatering efforts will be informed of the contents of the RGP, this BMPP and the NOI.

Management of Run-on and Runoff

Hay bales and silt fences as well as sloped grades will be used as needed to construct a berm around the perimeter of the site to prevent rainfall from migrating off-site or into the excavation. If stockpiles of soil are generated, the stockpiles of contaminated soils will be placed on plastic sheets and then covered with sheeting and bermed with hay bales until off-site transport occurs.

Erosion, Scouring and Sediment Control

Considering the design flow of the system and the planned duration of the discharge relative to the size and flow of the storm drain where it discharges to the Mystic River, it is not anticipated that the dewatering discharge will cause erosion, stream scouring at the discharge point, or additional sedimentation in the Mystic River.