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TRC Project Number: 276390

August 1, 2018

Ms. Shauna Little
Environmental Protection Agency
Office of Environmental Stewardship (OES)
Water Technical Unit
5 Post Office Square, Suite 100 (OES4-SMR)
Boston, MA 02109-3912

Re: Eversource Station 385 Upgrades and Voltage Regulator Installation Project
Notice of Intent (NOI) for Coverage under the
Remediation General Permit (RGP) for Massachusetts
Discharge of Treated Groundwater to Boston Harbor, Boston, Massachusetts

Dear Ms. Little:

On behalf of NSTAR Electric Company d/b/a Eversource Energy (Eversource), TRC Environmental Corporation (TRC) has prepared the attached National Pollutant Discharge Elimination System (NPDES) Notice of Intent (NOI) (Attachment A) for coverage under the Remediation General Permit (RGP) for management of groundwater during substation upgrades which include installation of a new voltage regulator and replacement of substation perimeter fencing at Eversource Station No. 385 located along K Street in South Boston, Massachusetts (the Site). This submittal is a request to discharge treated groundwater generated during Project construction activities to the Boston Harbor, either through catch basin discharge to Outfall 078 or direct discharge to the harbor via the shoreline.

A Site Plan and a MassDEP Priority Resources Map are provided as Figures 1 and 2 in Attachment B. Excavation dewatering and discharge of treated groundwater are expected to begin in October 2018 and continue intermittently through December 2020, depending on field conditions.

Project Background

The proposed work at the Site is being performed to install a new voltage regulator, replace the existing chain link fence with an upgraded barrier fence, and design, permit, and construct a Boston Harborwalk connection as mitigation under a Chapter 91 Waterways License amendment. The new voltage regulator is being installed at the property adjacent to the Site which Eversource owns and is expanding substation infrastructure into as part of this project.

Property uses near the Site are predominantly residential to the south with commercial and industrial properties to the east. The Boston Inner Harbor (the Reserved Channel) is located to the north and west of the Site.

Massachusetts Contingency Plan Applicability

Several existing Massachusetts Contingency Plan (MCP; 310 CMR 40.0000) Disposal Sites are present at the Site. Below is a summary of Release Tracking Numbers (RTNs) associated with the Site.

RTN 3-119

On February 11, 1986, the 2-inch-diameter feed line connecting the oil storage tank to pipe-type cable (PTC) Line No. 483-525 was uncovered and a leak was discovered. A 40-foot section of the PTC was replaced. Boston Edison estimated that 3,500 gallons of cable oil were released. Approximately 646 cubic yards of oil-impacted soil were removed and shipped off-site. Approximately 3,000 gallons of cable oil were removed from two recovery wells. A Class C Response Action Outcome (RAO) was filed for the release in August 1998.

RTN 3-14127

On August 17, 1996, a valve connected to cable oil pumping equipment malfunctioned which reportedly released approximately 1,900 gallons of cable oil within the northernmost pump house. Response actions were conducted under an Immediate Response Actions (IRA) and included the following:

- Repairing the broken equipment;
- Removing oil from the pump house;
- Steam cleaning the pump house walls and floor;
- Placement of petroleum absorbent material around the pump house;
- Excavating approximately six cubic yards of contaminated soil; and
- Conducting Non-Aqueous Phase Liquid (NAPL) recovery in nearby well MW-2.

Detections of total petroleum hydrocarbons (TPH) and polycyclic aromatic hydrocarbons (PAHs) were observed in soil in the excavation sidewalls and, to a lesser extent, nearby soil. Two groundwater monitoring wells were installed. A Class A-2 RAO was filed for the release in December 2002.

RTN 3-14464

In November 1996, several feet of NAPL was observed in an existing groundwater monitoring well which was reported to the MassDEP and RTN 3-14464 was issued. The NAPL was tested and reportedly comprised a “mixture of diesel, No. 2 oil and a lesser component of weathered cable oil.” The NAPL thickness varied from 1.76 feet to 4.95 feet. Chemical analyses of the NAPL performed later as part of a Phase II study identified it as No. 4 and No. 6 fuel oil.

In August 1999, a RAM Plan was submitted which included the manual recovery of NAPL in well MW-3. Oil absorbent socks were used to recover product. An 8-inch diameter recovery well (RW-1) was installed in October 2001.

In December 2002, Clean Harbors Environmental Services, Incorporated (CHES) excavated approximately 25 cubic yards of impacted soil which was shipped off-site under a RAM. Excavation endpoint samples indicated that site closure was attainable and a Class A-2 RAO was filed for the release in January 2003.

Results of 2017 Soil and Groundwater Pre-Characterization

In July 2017, drilling work was conducted at the Site to evaluate geotechnical and environmental soil quality and groundwater conditions. Soil borings were advanced around the perimeter of the Site in the proposed location of the replacement fence and in the parcel adjacent to the northwest of the Site where the new voltage regulator is proposed, as shown on Figure 1 in Attachment B.

TRC was on-site periodically during the work to collect soil samples for laboratory chemical analyses to pre-characterize soil conditions in the proposed work areas in advance of construction. The pre-characterization investigation identified historic fill material as defined in 310 CMR 40.0006 and MassDEP's May 2016 *Historic Fill / Anthropogenic Background Public Comment DRAFT Technical Update* in soil throughout the Site (brick/concrete debris, coal ash, cinders, slag, etc.). As such, the PAH and metals concentrations detected in soil during the investigation were attributed to coal/ash in the soil/fill at the Site and were thus exempt from MCP reporting per 310 CMR 40.0317(9). No MCP reporting obligations were identified for soil or groundwater in the proposed construction areas at the Site during the pre-characterization investigation.

Groundwater Characterization

During geotechnical drilling activities on July 13, 2017, a temporary 2-inch diameter PVC groundwater monitoring well (TMW-1) was installed in boring B15 in the proposed voltage regulator area (Figure 1 in Attachment B). The well was screened from 10 to 25 feet below grade[1]. TRC utilized a submersible pump to develop the well until a minimum of three well volumes were removed and the purge water had low turbidity.

The groundwater sample was submitted to Con-Test Analytical Laboratory in East Longmeadow, Massachusetts (Con-Test) for analysis of Environmental Protection Agency (EPA) RGP parameters. A summary of the groundwater sampling results and the supporting laboratory analytical report are provided as Table 1 in Attachment C and Attachment D, respectively. Laboratory analytical results were compared to the RGP Technology Based Effluent Limitations (TBELs) and Water Quality Based Effluent Limitations (WQBELs). The WQBELs were calculated in accordance with Appendix V of the RGP, for sites in Massachusetts discharging to saltwater surface water bodies.

Constituents of concern identified in the groundwater samples include the PAHs benzo(a)anthracene, benzo(a)pyrene, and benzo(b)fluoranthene, as well as the metal copper. Con-Test performed the analysis of PAHs via SW-846 Method 8270 selective ion monitoring (SIM) as the best method to achieve a high-resolution analysis. Attached within Appendix A is a letter from Con-Test describing the similarity between the 8270 and 625 methods. Regarding the Group I PAHs, EPA previously told Con-Test during a phone call in April 2017 that the 8270 PAH-SIM method was an acceptable substitute for 625 PAH SIM if the reporting limits were better (lower). As such, we are requesting that these data be considered acceptable citing Part 4.1.5 of the RGP for the NOI. Future analyses to pre-characterize Group I PAHs in groundwater for the RGP program will be conducted via 625 SIM. Also, the reporting limits achieved for select volatile organic compounds (VOCs) (i.e. carbon tetrachloride) or semi-volatile organic compounds (SVOCs) (i.e. hexachlorobenzene) were not sufficiently sensitive and it is understood that these compounds will be incorporated into the monitoring program using numeric WQBELs.

[1] A screen length of 15 feet was utilized due to anticipated tidal fluctuations in the groundwater table.

Receiving Water Classification

The Boston Inner Harbor is listed on the Massachusetts 303(d) list as an impaired water body with the qualifier CSO (combined sewer overflows). Water impairment affects the following designated uses: fish consumption (PCB in fish tissue and other), affected fish, other aquatic life and wildlife (dissolved oxygen), primary contact recreation (enterococcus), secondary contact recreation (enterococcus), and shellfish harvesting (fecal coliform).

On August 2, 2017, TRC collected a surface water sample (SW-1) from Boston Harbor near the proposed voltage regulator location to provide data to calculate effluent limitations needed for this NOI. The surface water sample was submitted to Con-Test for analysis of ammonia and salinity. In addition, pH and temperature were measured in the field by TRC during sampling. The location of sample SW-1 is shown on Figure 1 in Attachment B. Laboratory analytical results are summarized in Table 2 in Attachment C.

Discharge of treated effluent from the construction dewatering treatment system will be in compliance with the effluent limitations contained in the RGP.

Treatment Systems

Eversource anticipates the dewatering system will be required to operate periodically from October 2018 through December 2020. A treatment system currently staged at the Site and operated by CHES will be used for treating groundwater under this RGP. The discharge rate (i.e. Design Flow) for the treatment system is 75 gallons per minute (GPM); a schematic of the treatment system is attached as Figure 3 in Appendix B. Dewatered groundwater will be treated by the treatment system before being discharged either directly to Boston Inner Harbor or to an on-site catch basin that conveys storm water to the drainage system managed by the City of Boston, which eventually discharges to the Boston Inner Harbor via Outfall 078. Permits to use the municipal storm water system will be obtained from the Boston Water and Sewer Commission prior to initiating discharge activities. A Design Flow treatment system discharge rate of 75 GPM (i.e. 0.108 million gallons per day [MGD]) was used to evaluate the applicable RGP discharge standards.

The proposed treatment system will consist of up to three 18,000 to 21,000-gallon settling tanks, a particulate skid, two organo-clay vessels, a bone-charcoal vessel, a granular activated carbon vessel, and three ion exchange resin vessels. Free-phase petroleum observed on the water of the settling tanks, if any, will be removed using a vactor truck and disposed off-site. Sample ports will be installed prior to and following treatment. A flow totalizer will be placed on the effluent end of the discharge. Based on effluent monitoring results, the treatment system or flow rate may be modified to comply with the effluent limits. Discharge of treated effluent from the construction dewatering treatment system will be in compliance with the effluent limitations contained in the RGP.

A Best Management Practices Plan (BMPP) for the groundwater extraction and treatment system satisfying the requirements of Section 2.5 of the RGP will be available at the Site prior to initiating dewatering activities. Letters from the US Fish and Wildlife Service are provided in Attachment E and the results of the Massachusetts Cultural Resources Database Search Results are included in Attachment F (no historic properties are present).

Owner and Operator

Owner	**Operator**
NSTAR Electric Company	Clean Harbors Environmental Services
d/b/a Eversource Energy	Contact: Robert Paul
Matthew Waldrip	609 Pleasant Street
247 Station Drive, SE 270	Weymouth, MA 02189
Westwood, MA 02090	

The proposed treatment system has been designed to reduce contaminants of concern to below the applicable effluent limits. Effluent compliance monitoring will be conducted in compliance with the RGP. Additionally, the flow rate and pH and temperature levels will be monitored in the field and recorded.

Your assistance in processing this application is greatly appreciated. If you have any questions or would like additional information please feel free to contact me at (603) 263-9381 or via email at moliveira@trcsolutions.com.

Sincerely,

TRC Environmental Corporation

Matthew Oliveira, LSP, CHMM
Project Manager

cc: Matthew Waldrip, Eversource
Cathy Vakalopoulos, MassDEP

Attachments:

Attachment A – RGP NOI Form and Calculation Spreadsheet
Attachment B – Figures
- Figure 1 - Site Plan
- Figure 2 - MassDEP Priority Resources Map
- Figure 3 - Groundwater Process Flow Diagram

Attachment C – Tables
- Table 1 - Summary of Groundwater Analytical Results – July 2017
- Table 2 - Summary of Surface Water Analytical Results – August 2017

Attachment D – Laboratory Analytical Reports
Attachment E – Letter from US Fish and Wildlife Service
Attachment F – Massachusetts Cultural Resources Database Search Results

ATTACHMENT A

NOI FORM AND CALCULATION SPREADSHEET

II. Suggested Format for the Remediation General Permit Notice of Intent (NOI)

A. General site information:

<table>
<tr><td rowspan="2">1. Name of site:
Eversource Station No. 385</td><td colspan="3">Site address: K street
Street:</td></tr>
<tr><td>City: South Boston</td><td>State: MA</td><td>Zip:</td></tr>
<tr><td rowspan="4">2. Site owner
Eversource Energy

Owner is (check one): ☐ Federal ☐ State/Tribal ☐ Private
☐ Other; if so, specify:</td><td colspan="3">Contact Person: Mr. Matthew Waldrip</td></tr>
<tr><td colspan="2">Telephone:</td><td>Email:</td></tr>
<tr><td colspan="3">Mailing address: 247 Station Drive, SE270
Street:</td></tr>
<tr><td>City: Westwood</td><td>State: MA</td><td>Zip: 02090</td></tr>
<tr><td rowspan="4">3. Site operator, if different than owner
Clean Harbors Environmental Services</td><td colspan="3">Contact Person: Edwin Robert Paul, Jr.</td></tr>
<tr><td colspan="2">Telephone: 800-645-8265</td><td>Email: paulb@cleanharbors.com</td></tr>
<tr><td colspan="3">Mailing address:
Street: 609 Pleasant Street</td></tr>
<tr><td>City: Weymouth</td><td>State: MA</td><td>Zip: 02189</td></tr>
<tr><td>4. NPDES permit number assigned by EPA:

NPDES permit is (check all that apply: ■ RGP ☐ DGP ☐ CGP
☐ MSGP ☐ Individual NPDES permit ☐ Other; if so, specify:</td><td colspan="3">5. Other regulatory program(s) that apply to the site (check all that apply):
■ MA Chapter 21e; list RTN(s): 3-34233
☐ NH Groundwater Management Permit or Groundwater Release Detection Permit:
☐ CERCLA
☐ UIC Program
☐ POTW Pretreatment
☐ CWA Section 404</td></tr>
</table>

B. Receiving water information:

1. Name of receiving water(s):	Waterbody identification of receiving water(s):	Classification of receiving water(s):
Boston Inner Harbor	MA 70-02	SB (CSO)

Receiving water is (check any that apply): ☐ Outstanding Resource Water ☐ Ocean Sanctuary ☐ territorial sea ☐ Wild and Scenic River

2. Has the operator attached a location map in accordance with the instructions in B, above? (check one): ■ Yes ☐ No

Are sensitive receptors present near the site? (check one): ☐ Yes ■ No
If yes, specify:

3. Indicate if the receiving water(s) is listed in the State's Integrated List of Waters (i.e., CWA Section 303(d)). Include which designated uses are impaired, and any pollutants indicated. Also, indicate if a final TMDL is available for any of the indicated pollutants. For more information, contact the appropriate State as noted in Part 4.6 of the RGP. Fish consumption (PCBs in tissue)/Dissolved Oxygen/Shellfish Harvesting (fecal coliform)/Primary & Secondary Contact Recreation (enterococcus).

4. Indicate the seven day-ten-year low flow (7Q10) of the receiving water determined in accordance with the instructions in Appendix V for sites located in Massachusetts and Appendix VI for sites located in New Hampshire.	N/A
5. Indicate the requested dilution factor for the calculation of water quality-based effluent limitations (WQBELs) determined in accordance with the instructions in Appendix V for sites in Massachusetts and Appendix VI for sites in New Hampshire.	None

6. Has the operator received confirmation from the appropriate State for the 7Q10and dilution factor indicated? (check one): ☐ Yes ■ No
If yes, indicate date confirmation received: No dilution factor requested.

7. Has the operator attached a summary of receiving water sampling results as required in Part 4.2 of the RGP in accordance with the instruction in Appendix VIII? (check one): ■ Yes ☐ No

C. Source water information:

1. Source water(s) is (check any that apply):

■ Contaminated groundwater Has the operator attached a summary of influent sampling results as required in Part 4.2 of the RGP in accordance with the instruction in Appendix VIII? (check one): ■ Yes ☐ No	☐ Contaminated surface water Has the operator attached a summary of influent sampling results as required in Part 4.2 of the RGP in accordance with the instruction in Appendix VIII? (check one): ☐ Yes ☐ No	☐ The receiving water ☐ A surface water other than the receiving water; if so, indicate waterbody:	☐ Potable water; if so, indicate municipality or origin: ☐ Other; if so, specify:

2. Source water contaminants: Turbidity, PAHs, and Copper	
a. For source waters that are contaminated groundwater or contaminated surface water, indicate are any contaminants present that are not included in the RGP? (check one): ☐ Yes ■ No If yes, indicate the contaminant(s) and the maximum concentration present in accordance with the instructions in Appendix VIII.	b. For a source water that is a surface water other than the receiving water, potable water or other, indicate any contaminants present at the maximum concentration in accordance with the instructions in Appendix VIII? (check one): ☐ Yes ■ No
3. Has the source water been previously chlorinated or otherwise contains residual chlorine? (check one): ☐ Yes ■ No	

D. Discharge information

1.The discharge(s) is a(n) (check any that apply): ☐ Existing discharge ■ New discharge ☐ New source	
Outfall(s): BWSC Outfall #078 and direct discharge to surface water adjacent to parcel.	Outfall location(s): (Latitude, Longitude) Lat: 42.338437 Long: -71.039960
Discharges enter the receiving water(s) via (check any that apply): ■ Direct discharge to the receiving water ☐ Indirect discharge, if so, specify: Treated groundwater will be transported to via truck to outfall BOS 078 for direct discharge. ☐ A private storm sewer system ■ A municipal storm sewer system If the discharge enters the receiving water via a private or municipal storm sewer system: Has notification been provided to the owner of this system? (check one): ☐ Yes ■ No Has the operator has received permission from the owner to use such system for discharges? (check one): ☐ Yes ■ No, if so, explain, with an estimated timeframe for obtaining permission: Has the operator attached a summary of any additional requirements the owner of this system has specified? (check one): ☐ Yes ■ No	
Provide the expected start and end dates of discharge(s) (month/year): October 2018 - December 2020 Indicate if the discharge is expected to occur over a duration of: ☐ less than 12 months ■ 12 months or more ☐ is an emergency discharge	
Has the operator attached a site plan in accordance with the instructions in D, above? (check one): ■ Yes ☐ No	

<table>
<tr><td>2. Activity Category: (check all that apply)</td><td colspan="2">3. Contamination Type Category: (check all that apply)</td></tr>
<tr><td rowspan="5">☐ I – Petroleum-Related Site Remediation
☐ II – Non-Petroleum-Related Site Remediation
■ III – Contaminated Site Dewatering
☐ IV – Dewatering of Pipelines and Tanks
☐ V – Aquifer Pump Testing
☐ VI – Well Development/Rehabilitation
☐ VII – Collection Structure Dewatering/Remediation
☐ VIII – Dredge-Related Dewatering</td><td colspan="2">a. If Activity Category I or II: (check all that apply)

☐ A. Inorganics
☐ B. Non-Halogenated Volatile Organic Compounds
☐ C. Halogenated Volatile Organic Compounds
☐ D. Non-Halogenated Semi-Volatile Organic Compounds
☐ E. Halogenated Semi-Volatile Organic Compounds
☐ F. Fuels Parameters</td></tr>
<tr><td colspan="2">b. If Activity Category III, IV, V, VI, VII or VIII: (check either G or H)</td></tr>
<tr><td>■ G. Sites with Known Contamination</td><td>☐ H. Sites with Unknown Contamination</td></tr>
<tr><td>c. If Category III-G, IV-G, V-G, VI-G, VII-G or VIII-G: (check all that apply)

■ A. Inorganics
☐ B. Non-Halogenated Volatile Organic Compounds
☐ C. Halogenated Volatile Organic Compounds
■ D. Non-Halogenated Semi-Volatile Organic Compounds
☐ E. Halogenated Semi-Volatile Organic Compounds
☐ F. Fuels Parameters</td><td>d. If Category III-H, IV-H, V-H, VI-H, VII-H or VIII-H Contamination Type Categories A through F apply</td></tr>
</table>

4. Influent and Effluent Characteristics

Parameter	Known or believed absent	Known or believed present	# of samples	Test method (#)	Detection limit (µg/l)	Influent		Effluent Limitations	
						Daily maximum (µg/l)	Daily average (µg/l)	TBEL	WQBEL
A. Inorganics									
Ammonia		✓	1	4500-NH3	.075	.075	.075	Report mg/L	---
Chloride		✓	1	300.0	400	16100	16100	Report µg/l	---
Total Residual Chlorine	✓		1	4500-CL	0.020	0	0	0.2 mg/L	
Total Suspended Solids		✓	1	2540D	5.0	34	34	30 mg/L	---
Antimony			1	EPA 200.8	5.0	0	0	206 µg/L	
Arsenic		✓	1	EPA 200.8	10	20	20	104 µg/L	
Cadmium	✓		1	EPA 200.8	1.0	0	0	10.2 µg/L	
Chromium III	✓		1	EPA 200.8	10	0	0	323 µg/L	
Chromium VI	✓		1	EPA 200.8	4.0	0	0	323 µg/L	
Copper		✓	1	EPA 200.8	10	130	130	242 µg/L	
Iron		✓	1	EPA 200.7	0.05	600	600	5,000 µg/L	
Lead	✓		1	EPA 200.8	10	0	0	160 µg/L	
Mercury	✓		1	EPA 245.1	0.1	0	0	0.739 µg/L	
Nickel	✓		1	EPA 200.8	50	0	0	1,450 µg/L	
Selenium		✓	1	EPA 200.8	50	57	57	235.8 µg/L	
Silver	✓		1	EPA 200.8	1.0	0	0	35.1 µg/L	
Zinc	✓		1	EPA 200.8	200	0	0	420 µg/L	
Cyanide	✓		1	4500-CN	0.005	0	0	178 mg/L	
B. Non-Halogenated VOCs									
Total BTEX			1	EPA 624	0			100 µg/L	---
Benzene	✓		1	EPA 624	1.0	0	0	5.0 µg/L	---
1,4 Dioxane	✓		1	EPA 624	50	0	0	200 µg/L	---
Acetone	✓		1	EPA 624	50	0	0	7.97 mg/L	---
Phenol	✓		1	EPA 625	10	0	0	1,080 µg/L	

Parameter	Known or believed absent	Known or believed present	# of samples	Test method (#)	Detection limit (µg/l)	Influent		Effluent Limitations	
						Daily maximum (µg/l)	Daily average (µg/l)	TBEL	WQBEL
C. Halogenated VOCs									
Carbon Tetrachloride	✓		1	EPA 624	2.0	0	0	4.4 µg/L	
1,2 Dichlorobenzene	✓		1	EPA 624	2.0	0	0	600 µg/L	---
1,3 Dichlorobenzene	✓		1	EPA 624	2.0	0	0	320 µg/L	---
1,4 Dichlorobenzene	✓		1	EPA 624	2.0	0	0	5.0 µg/L	---
Total dichlorobenzene			1		0			763 µg/L in NH	---
1,1 Dichloroethane	✓		1	EPA 624	2.0	0	0	70 µg/L	---
1,2 Dichloroethane	✓		1	EPA 624	1.0	0	0	5.0 µg/L	---
1,1 Dichloroethylene	✓		1	EPA 624	2.0	0	0	3.2 µg/L	---
Ethylene Dibromide	✓		1	EPA 504.1	0.023	0	0	0.05 µg/L	---
Methylene Chloride	✓		1	EPA 624	5.0	0	0	4.6 µg/L	---
1,1,1 Trichloroethane	✓		1	EPA 624	2.0	0	0	200 µg/L	---
1,1,2 Trichloroethane	✓		1	EPA 624	2.0	0	0	5.0 µg/L	---
Trichloroethylene	✓		1	EPA 624	2.0	0	0	5.0 µg/L	---
Tetrachloroethylene	✓		1	EPA 624	2.0	0	0	5.0 µg/L	
cis-1,2 Dichloroethylene	✓		1	EPA 624	1.0	0	0	70 µg/L	---
Vinyl Chloride	✓		1	EPA 624	2.0	0	0	2.0 µg/L	---
D. Non-Halogenated SVOCs									
Total Phthalates					0.67			190 µg/L	
Diethylhexyl phthalate		✓	1	8270D	0.1	0.67	0.67	101 µg/L	
Total Group I PAHs					0.65			1.0 µg/L	---
Benzo(a)anthracene		✓	1	8270D	0.05	0.19	0.19	As Total PAHs	
Benzo(a)pyrene		✓	1	8270D	0.1	0.21	0.21		
Benzo(b)fluoranthene		✓	1	8270D	0.05	0.25	0.25		
Benzo(k)fluoranthene	✓		1	8270D	0.2	0.0	0.0		
Chrysene	✓		1	8270D	0.2	0.0	0.0		
Dibenzo(a,h)anthracene			1	8270D	0.2	0.0	0.0		
Indeno(1,2,3-cd)pyrene			1	8270D	0.2	0.0	0.0		

Parameter	Known or believed absent	Known or believed present	# of samples	Test method (#)	Detection limit (µg/l)	Influent		Effluent Limitations	
						Daily maximum (µg/l)	Daily average (µg/l)	TBEL	WQBEL
Total Group II PAHs	✓				0.0			100 µg/L	---
Naphthalene	✓		1	EPA 625	5.0	0	0	20 µg/L	---
E. Halogenated SVOCs									
Total PCBs	✓		1	608	0.1	0	0	0.000064 µg/L	---
Pentachlorophenol	✓		1	8270D	1.0	0	0	1.0 µg/L	---
F. Fuels Parameters									
Total Petroleum Hydrocarbons	✓				1.4			5.0 mg/L	---
Ethanol	✓		1	1671A	2.0	0	0	Report mg/L	---
Methyl-tert-Butyl Ether	✓		1	EPA 624	2.0	0	0	70 µg/L	
tert-Butyl Alcohol	✓		1	EPA 624	20	0	0	120 µg/L in MA 40 µg/L in NH	---
tert-Amyl Methyl Ether	✓		1	EPA 624	0.5	0	0	90 µg/L in MA 140 µg/L in NH	---
Other (i.e., pH, temperature, hardness, salinity, LC_{50}, additional pollutants present); if so, specify:									
pH		✓			6.86				
Temperature		✓			16.8 Deg C				

E. Treatment system information

1. Indicate the type(s) of treatment that will be applied to effluent prior to discharge: (check all that apply)

☐ Adsorption/Absorption ☐ Advanced Oxidation Processes ☐ Air Stripping ■ Granulated Activated Carbon ("GAC")/Liquid Phase Carbon Adsorption
■ Ion Exchange ☐ Precipitation/Coagulation/Flocculation ☐ Separation/Filtration ☐ Other; if so, specify:

2. Provide a written description of all treatment system(s) or processes that will be applied to the effluent prior to discharge.

The proposed treatment system will consist of approximately three 18,000 to 21,000 gallon settling (frac) tanks, a particulate skid, one organo clay vessel, one bone charcoal vessel and one granular activated carbon vessel. Free phase petroleum observed on the water of the settling tanks will be removed using a vactor truck and disposed off site. Sample ports will be installed prior to and following treatment. A flow totalizer will be placed on the effluent end of the discharge.

Identify each major treatment component (check any that apply):

■ Fractionation tanks☐ Equalization tank ☐ Oil/water separator ☐ Mechanical filter ☐ Media filter
☐ Chemical feed tank ☐ Air stripping unit ■ Bag filter ■ Other; if so, specify: Organo Clay Vessel and Bone Charcoal Vessel

Indicate if either of the following will occur (check any that apply):

☐ Chlorination ☐ De-chlorination

3. Provide the **design flow capacity** in gallons per minute (gpm) of the most limiting component. Indicate the most limiting component: Bag Filters Is use of a flow meter feasible? (check one): ■ Yes ☐ No, if so, provide justification:	75
Provide the proposed maximum effluent flow in gpm.	75
Provide the average effluent flow in gpm.	20
If Activity Category IV applies, indicate the estimated total volume of water that will be discharged:	N/A

4. Has the operator attached a schematic of flow in accordance with the instructions in E, above? (check one): ■ Yes ☐ No

F. Chemical and additive information

1. Indicate the type(s) of chemical or additive that will be applied to effluent prior to discharge or that may otherwise be present in the discharge(s): (check all that apply)

☐ Algaecides/biocides ☐ Antifoams ☐ Coagulants ☐ Corrosion/scale inhibitors ☐ Disinfectants ☐ Flocculants ☐ Neutralizing agents ☐ Oxidants ☐ Oxygen ☐ scavengers ☐ pH conditioners ☐ Bioremedial agents, including microbes ☐ Chlorine or chemicals containing chlorine ☐ Other; if so, specify:

2. Provide the following information for each chemical/additive, using attachments, if necessary:

a. Product name, chemical formula, and manufacturer of the chemical/additive;
b. Purpose or use of the chemical/additive or remedial agent;
c. Material Safety Data Sheet (MSDS) and Chemical Abstracts Service (CAS) Registry number for each chemical/additive;
d. The frequency (hourly, daily, etc.), duration (hours, days), quantity (maximum and average), and method of application for the chemical/additive;
e. Any material compatibility risks for storage and/or use including the control measures used to minimize such risks; and
f. If available, the vendor's reported aquatic toxicity (NOAEL and/or LC50 in percent for aquatic organism(s)).

3. Has the operator attached an explanation which demonstrates that the addition of such chemicals/additives may be authorized under this general permit in accordance with the instructions in F, above? (check one): ☐ Yes ☐ No; if no, has the operator attached data that demonstrates each of the 126 priority pollutants in CWA Section 307(a) and 40 CFR Part 423.15(j)(1) are non-detect in discharges with the addition of the proposed chemical/additive? (check one): ☐ Yes ☐ No

G. Endangered Species Act eligibility determination

1. Indicate under which criterion the discharge(s) is eligible for coverage under this general permit:

■ **FWS Criterion A**: No endangered or threatened species or critical habitat are in proximity to the discharges or related activities or come in contact with the "action area".

☐ **FWS Criterion B**: Formal or informal consultation with the FWS under section 7 of the ESA resulted in either a no jeopardy opinion (formal consultation) or a written concurrence by FWS on a finding that the discharges and related activities are "not likely to adversely affect" listed species or critical habitat (informal consultation). Has the operator completed consultation with FWS? (check one): ☐ Yes ☐ No; if no, is consultation underway? (check one): ☐ Yes ☐ No

☐ **FWS Criterion C**: Using the best scientific and commercial data available, the effect of the discharges and related activities on listed species and critical habitat have been evaluated. Based on those evaluations, a determination is made by EPA, or by the operator and affirmed by EPA, that the discharges and related activities will have "no effect" on any federally threatened or endangered listed species or designated critical habitat under the jurisdiction of the FWS. This determination was made by: (check one) ☐ the operator ☐ EPA ☐ Other; if so, specify:

■ **NMFS Criterion**: A determination made by EPA is affirmed by the operator that the discharges and related activities will have "no effect" or are "not likely to adversely affect" any federally threatened or endangered listed species or critical habitat under the jurisdiction of NMFS and will not result in any take of listed species. Has the operator previously completed consultation with NMFS? (check one): ☐ Yes ■ No

2. Has the operator attached supporting documentation of ESA eligibility in accordance with the instructions in Appendix I, and G, above? (check one): ■ Yes ☐ No

Does the supporting documentation include any written concurrence or finding provided by the Services? (check one): ☐ Yes ■ No; if yes, attach.

H. National Historic Preservation Act eligibility determination

1. Indicate under which criterion the discharge(s) is eligible for coverage under this general permit:

■ **Criterion A**: No historic properties are present. The discharges and discharge-related activities (e.g., BMPs) do not have the potential to cause effects on historic properties.

☐ **Criterion B**: Historic properties are present. Discharges and discharge related activities do not have the potential to cause effects on historic properties.

☐ **Criterion C**: Historic properties are present. The discharges and discharge-related activities have the potential to have an effect or will have an adverse effect on historic properties.

2. Has the operator attached supporting documentation of NHPA eligibility in accordance with the instructions in H, above? (check one): ☐ Yes ■ No

Does the supporting documentation include any written agreement with the State Historic Preservation Officer (SHPO), Tribal Historic Preservation Officer (TPHO), or other tribal representative that outlines measures the operator will carry out to mitigate or prevent any adverse effects on historic properties? (check one): ☐ Yes ■ No

I. Supplemental information

Describe any supplemental information being provided with the NOI. Include attachments if required or otherwise necessary.

Has the operator attached data, including any laboratory case narrative and chain of custody used to support the application? (check one): ■ Yes ☐ No

Has the operator attached the certification requirement for the Best Management Practices Plan (BMPP)? (check one): ■ Yes ☐ No

J. Certification requirement

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 gathered and evaluated 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, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I have no personal knowledge that the information submitted is other than true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

BMPP certification statement: A BMPP meeting the requirements of this general permit will be developed and implemented upon initiation of discharge.	
Notification provided to the appropriate State, including a copy of this NOI, if required.	Check one: Yes ■ No ☐
Notification provided to the municipality in which the discharge is located, including a copy of this NOI, if requested.	Check one: Yes ■ No ☐
Notification provided to the owner of a private or municipal storm sewer system, if such system is used for site discharges, including a copy of this NOI, if requested.	Check one: Yes ☐ No ☐ NA ■
Permission obtained from the owner of a private or municipal storm sewer system, if such system is used for site discharges. If yes, attach additional conditions. If no, attach explanation and timeframe for obtaining permission.	Check one: Yes ☐ No ☐ NA ■
Notification provided to the owner/operator of the area associated with activities covered by an additional discharge permit(s). Additional discharge permit is (check one): ☐ RGP ☐ DGP ☐ CGP ☐ MSGP ☐ Individual NPDES permit ☐ Other; if so, specify:	Check one: Yes ☐ No ☐ NA ■
Signature: 	Date: 7/31/18
Print Name and Title: Matthew Waldrip, Senior Environmental Engineer	

Enter number values in green boxes below

Enter values in the units specified

↓

0	Q_R = Enter upstream flow in **MGD**
0.108	Q_P = Enter discharge flow in **MGD**
0	Downstream 7Q10

Enter a dilution factor, if other than zero

↓

0

Enter values in the units specified

↓

4800	C_d = Enter influent hardness in **mg/L** $CaCO_3$
0	C_s = Enter receiving water hardness in **mg/L** $CaCO_3$

Enter **receiving water** concentrations in the units specified

↓

6.97	pH in **Standard Units**
22.2	Temperature in **°C**
235	Ammonia in **mg/L**
0	Hardness in **mg/L** $CaCO_3$
293.1	Salinity in **ppt**
0	Antimony in **µg/L**
0	Arsenic in **µg/L**
0	Cadmium in **µg/L**
0	Chromium III in **µg/L**
0	Chromium VI in **µg/L**
0	Copper in **µg/L**
0	Iron in **µg/L**
0	Lead in **µg/L**
0	Mercury in **µg/L**
0	Nickel in **µg/L**
0	Selenium in **µg/L**
0	Silver in **µg/L**
0	Zinc in **µg/L**

Enter **influent** concentrations in the units specified

↓

0	TRC in **µg/L**
0.075	Ammonia in **mg/L**
0	Antimony in **µg/L**
20	Arsenic in **µg/L**
0	Cadmium in **µg/L**
0	Chromium III in **µg/L**
0	Chromium VI in **µg/L**
130	Copper in **µg/L**
600	Iron in **µg/L**
0	Lead in **µg/L**
0	Mercury in **µg/L**
0	Nickel in **µg/L**
57	Selenium in **µg/L**
0	Silver in **µg/L**
0	Zinc in **µg/L**
0	Cyanide in **µg/L**
0	Phenol in **µg/L**
0	Carbon Tetrachloride in **µg/L**
0	Tetrachloroethylene in **µg/L**
0	Total Phthalates in **µg/L**
0	Diethylhexylphthalate in **µg/L**
0.19	Benzo(a)anthracene in **µg/L**
0.21	Benzo(a)pyrene in **µg/L**
0.25	Benzo(b)fluoranthene in **µg/L**
0	Benzo(k)fluoranthene in **µg/L**
0	Chrysene in **µg/L**
0	Dibenzo(a,h)anthracene in **µg/L**
0	Indeno(1,2,3-cd)pyrene in **µg/L**
0	Methyl-tert butyl ether in **µg/L**

Notes:

Freshwater: Q_R equal to the 7Q10; enter alternate Q_R if approved by the State; enter 0 if no dilution factor approved

Saltwater (estuarine and marine): enter Q_R if approved by the State; enter 0 if no entry

Discharge flow is equal to the design flow or 1 MGD, whichever is less

Only if approved by State as the entry for Q_R; leave 0 if no entry

Saltwater (estuarine and marine): only if approved by the State

Leave 0 if no entry

Freshwater only

pH, temperature, and ammonia required for all discharges

Hardness required for freshwater

Salinity required for saltwater (estuarine and marine)

Metals required for all discharges if present and if dilution factor is > 1

Enter 0 if non-detect or testing not required

if >1 sample, enter maximum

if >10 samples, may enter 95th percentile

Enter 0 if non-detect or testing not required

Dilution Factor	0.0					
A. Inorganics	TBEL applies if bolded		WQBEL applies if bolded		Compliance Level applies if shown	
Ammonia	**Report**	mg/L	---			
Chloride	**Report**	µg/L	---			
Total Residual Chlorine	0.2	mg/L	**7.5**	µg/L	50	µg/L
Total Suspended Solids	**30**	mg/L	---			
Antimony	**206**	µg/L	640	µg/L		
Arsenic	**104**	µg/L	36	µg/L		
Cadmium	**10.2**	µg/L	8.9	µg/L		
Chromium III	**323**	µg/L	100.0	µg/L		
Chromium VI	**323**	µg/L	50	µg/L		
Copper	242	µg/L	**3.7**	µg/L		
Iron	**5000**	µg/L	---	µg/L		
Lead	**160**	µg/L	8.5	µg/L		
Mercury	**0.739**	µg/L	1.11	µg/L		
Nickel	**1450**	µg/L	8.3	µg/L		
Selenium	**235.8**	µg/L	71	µg/L		
Silver	**35.1**	µg/L	2.2	µg/L		
Zinc	**420**	µg/L	86	µg/L		
Cyanide	**178**	mg/L	1.0	µg/L	---	µg/L
B. Non-Halogenated VOCs						
Total BTEX	**100**	µg/L	---			
Benzene	**5.0**	µg/L	---			
1,4 Dioxane	**200**	µg/L	---			
Acetone	**7.97**	mg/L	---			
Phenol	**1,080**	µg/L	300	µg/L		
C. Halogenated VOCs						
Carbon Tetrachloride	**4.4**		1.6	µg/L		
1,2 Dichlorobenzene	**600**	µg/L	---			
1,3 Dichlorobenzene	**320**	µg/L	---			
1,4 Dichlorobenzene	**5.0**	µg/L	---			
Total dichlorobenzene	**---**	µg/L	---			
1,1 Dichloroethane	**70**	µg/L	---			
1,2 Dichloroethane	**5.0**	µg/L	---			
1,1 Dichloroethylene	**3.2**	µg/L	---			
Ethylene Dibromide	**0.05**	µg/L	---			
Methylene Chloride	**4.6**	µg/L	---			
1,1,1 Trichloroethane	**200**	µg/L	---			
1,1,2 Trichloroethane	**5.0**	µg/L	---			
Trichloroethylene	**5.0**	µg/L	---			
Tetrachloroethylene	**5.0**	µg/L	3.3	µg/L		
cis-1,2 Dichloroethylene	**70**	µg/L	---			
Vinyl Chloride	**2.0**	µg/L	---			

D. Non-Halogenated SVOCs

Total Phthalates	**190**	µg/L	---	µg/L		
Diethylhexyl phthalate	**101**	µg/L	2.2	µg/L		
Total Group I Polycyclic Aromatic Hydrocarbons	**1.0**	µg/L	---			
Benzo(a)anthracene	1.0	µg/L	**0.0038**	µg/L	0.1	µg/L
Benzo(a)pyrene	1.0	µg/L	**0.0038**	µg/L	0.1	µg/L
Benzo(b)fluoranthene	1.0	µg/L	**0.0038**	µg/L	0.1	µg/L
Benzo(k)fluoranthene	**1.0**	µg/L	0.0038	µg/L	---	µg/L
Chrysene	**1.0**	µg/L	0.0038	µg/L	---	µg/L
Dibenzo(a,h)anthracene	**1.0**	µg/L	0.0038	µg/L	---	µg/L
Indeno(1,2,3-cd)pyrene	**1.0**	µg/L	0.0038	µg/L	---	µg/L
Total Group II Polycyclic Aromatic Hydrocarbons	**100**	µg/L	---			
Naphthalene	**20**	µg/L	---			
E. Halogenated SVOCs						
Total Polychlorinated Biphenyls	**0.000064**	µg/L	---		0.5	µg/L
Pentachlorophenol	**1.0**	µg/L	---			
F. Fuels Parameters						
Total Petroleum Hydrocarbons	**5.0**	mg/L	---			
Ethanol	**Report**	mg/L	---			
Methyl-tert-Butyl Ether	**70**	µg/L	20	µg/L		
tert-Butyl Alcohol	**120**	µg/L	---			
tert-Amyl Methyl Ether	**90**	µg/L	---			

con-test®
ANALYTICAL LABORATORY

39 Spruce Street
East Longmeadow, MA 01028

April 25, 2018

Ms. Elizabeth Denly
650 Suffolk Street
Lowell, MA 01852

Dear Ms. Denly,

The laboratory is capable of running EPA 625 by GCMS_SIM to achieve the lower reporting limits requested by RGP Sites. The method parameters and instrument specifications are identical to analyzing samples by EPA 8270D GCMS_SIM. The reported compounds are assessed to EPA 8270D Sim criteria which is tighter than the EPA 625 criteria, in addition there is no stated quality control criteria for EPA 625 sim analysis.

In the future, final reports will state method EPA 625 sim versus EPA 8270D Sim. Reported client data would not change. Let us know if you have any questions.

Sincerely,

Fran DeRose

Francis Derose

Con-Test Analytical Laboratory Manager

fderose@contestlabs.com

ATTACHMENT B

FIGURES

Legend

- Surface Water Sample
- Boring / Temporary Monitoring Well
- Boring
- Proposed Fence
- Property Boundary

Base map: Bing/Microsoft 2018

0 100 200 Feet

N

MASSACHUSETTS

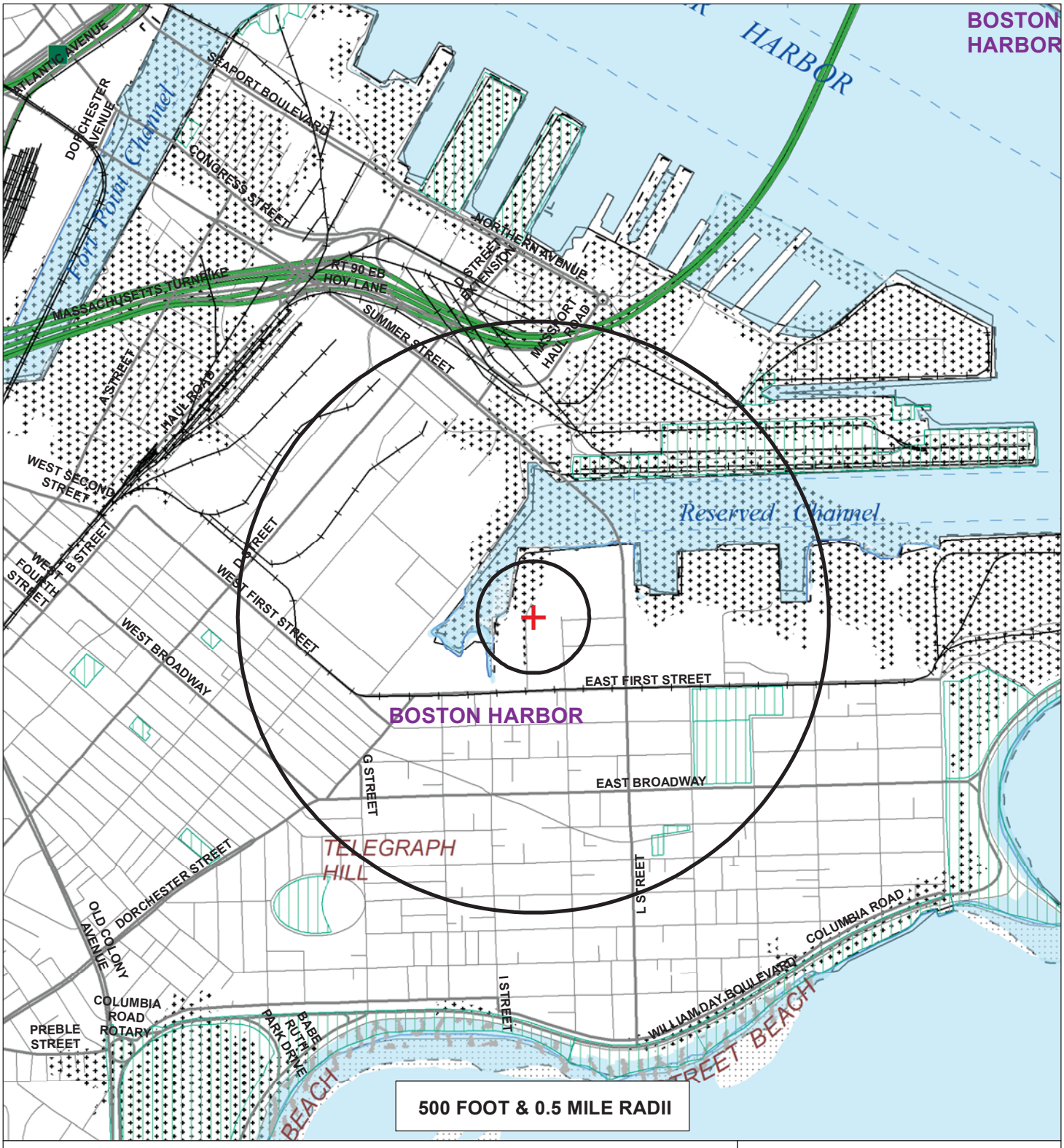
TRC
Wannalancit Mills
650 Suffolk Street
Lowell, MA 01854
978-970-5600

SITE PLAN

EVERSOURCE STATION 385
K STREET
SOUTH BOSTON, MASSACHUSETTS

FIGURE 1	JULY 2018

R:\Projects\GIS_2017\276390_K_street\mxd\Fig1 K Street 2018-07-18.mxd



Roads: Limited Access, Multi-Lane, Major/Minor, Track, Trail
Railroad, Pipline, Powerline
Major Basin, Sub Basin, Perennial Stream, Intermittent Stream, Shoreline, Man made Shore, Dam, Aqueduct
Wetland, Salt Wetland, Submerged Wetland, Open Water, Reservoir, Tidal Flat/Shoal
Potentially Productive Aquifers: Medium, High Yield
Non-Potential Drinking Water Source Area: Medium, High Yield
EPA Sole Source Aquifer, FEMA 100 Yr. Floodplain, DEP Solid Waste Facility
Approved Zone II, IWPA, Surface Water Supply Zone A
Protected Open Space, ACEC
Priority Habitat, Certified Vernal Pool
Boundaries: County and Town
Public Water Supplies: Ground, Surface, Non-Community (NTNC, TNC)
Source: MassGIS/EOEA

TRC
Wannalancit Mills
650 Suffolk Street
Lowell, MA 01854
978-970-5600

FIGURE 2

MASSDEP PRIORITY RESOURCES MAP
EVERSOURCE STATION 385
K STREET
SOUTH BOSTON, MASSACHUSETTS

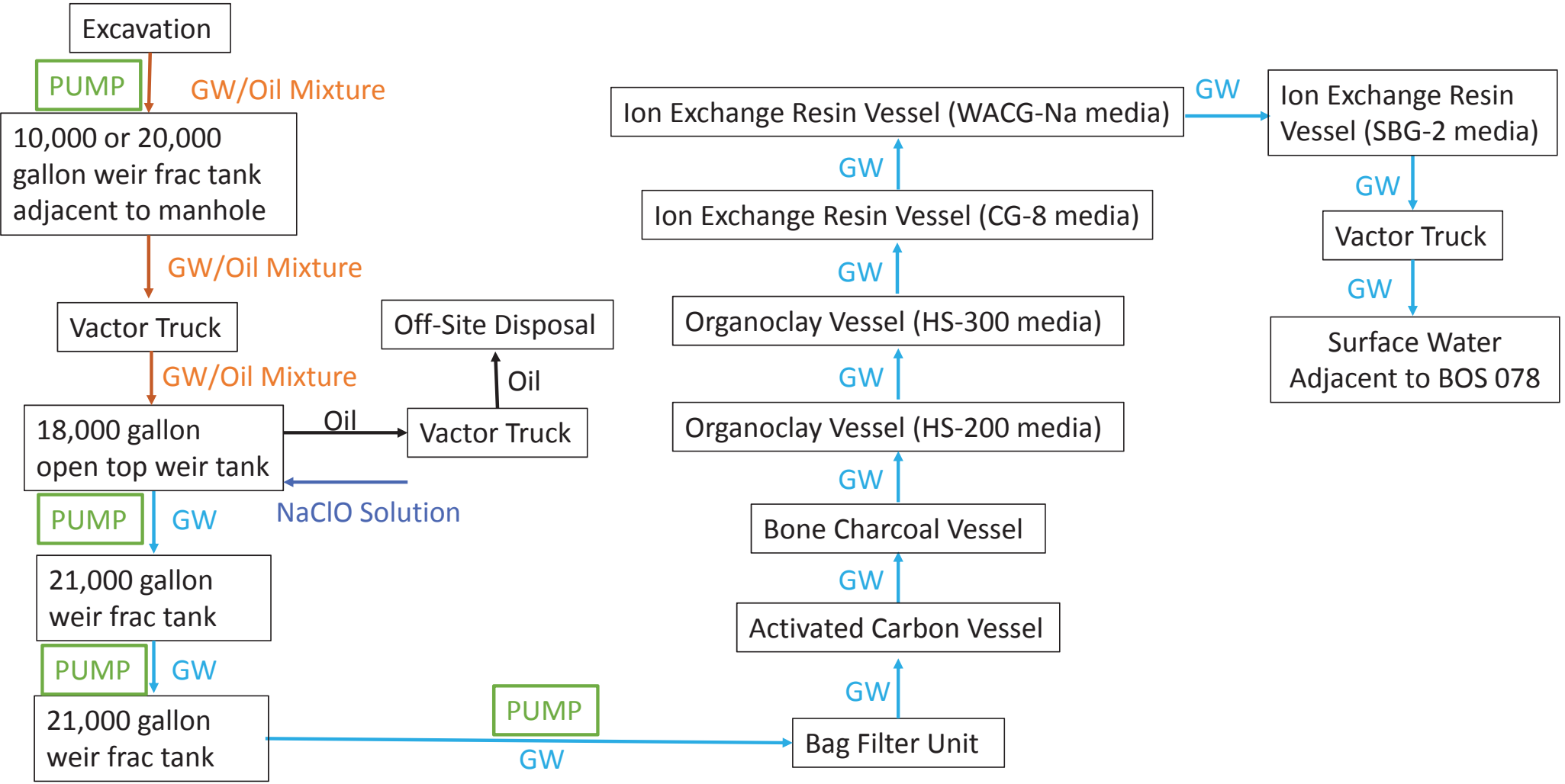
N
0 500 1,000 1,500
Feet

JULY 2018

R:\Projects\GIS_2017\272139_Eversource_KStreet_Boston\MXD\Fig3_KStreet_20180703.mxd

FIGURE 3

EVERSOURCE SOUTH BOSTON - GROUNDWATER PROCESS FLOW DIAGRAM



ATTACHMENT C

TABLES

Table 1
Summary of Groundwater Analytical Results -- July 2017
Eversource - Station 385 Improvements Project
South Boston, Massachusetts

Analysis	Analyte					Sample ID:	TMW-1	
						Sample Date:	7/26/2017	
		RGP for Saltwater[1]		Acceptance Criteria	RC			
		TBEL	WQBEL[2]	Global Cycle^^	GW-2			
VOCs								
(ug/L)	Acetone	**7,970**	7,970	NS	50,000	50	U	
	tert-Amyl Methyl Ether (TAME)	**90**	90	NS	NS	0.50	U	
	Benzene	**5**	5	NS	1,000	1.0	U	
	tert-Butyl Alcohol (TBA)	**120**	120	NS	NS	20	U	
	Carbon Tetrachloride	**4.4**	1.6	NS	2	2.0	U	
	1,2-Dichlorobenzene	**600**	600	NS	2,000	2.0	U	
	1,3-Dichlorobenzene	**320**	320	NS	6,000	2.0	U	
	1,4-Dichlorobenzene	**5**	5	NS	60	2.0	U	
	1,2-Dichloroethane	**5**	5	NS	5	2.0	U	
	cis-1,2-Dichloroethylene	**70**	70	NS	20	1.0	U	
	1,1-Dichloroethane	**70**	70	NS	2,000	2.0	U	
	1,1-Dichloroethylene	**3.2**	3.2	NS	80	2.0	U	
	1,4-Dioxane	**200**	200	NS	6,000	50	U	
	Ethylbenzene	NS	NS	NS	5,000	**0.31**	**J**	
	Methyl tert-Butyl Ether (MTBE)	**70**	20	NS	50,000	2.0	U	
	Methylene Chloride	**4.6**	4.6	NS	2,000	5.0	U^	
	Tetrachloroethylene	**5**	3.3	NS	50	2.0	U	
	Toluene	NS	NS	NS	40,000	**0.17**	**J**	
	1,1,1-Trichloroethane	**200**	200	NS	4,000	2.0	U	
	1,1,2-Trichloroethane	**5**	5	NS	900	2.0	U	
	Trichloroethylene	**5**	5	NS	5	2.0	U	
	Vinyl Chloride	**2**	2	NS	2	2.0	U	
	m+p Xylene	NS	NS	NS	NS	**0.44**	**J**	
	o-Xylene	NS	NS	NS	NS	**0.20**	**J**	
	Xylenes (total)	NS	NS	NS	3,000	**0.64**	**J**	
	1,2-Dibromoethane (EDB)	**0.05**	0.05	NS	2	0.023	U	
	BTEX	**100**	NS	NS	N/A	**0.95**	**J**	
SVOCs								
(ug/L)	Benzo(a)anthracene	1	**0.038**	NS	1,000	**0.19**		
	Benzo(a)pyrene	1	**0.038**	NS	500	**0.21**		
	Benzo(b)fluoranthene	1	**0.038**	NS	400	**0.25**		
	Benzo(k)fluoranthene	**1**	0.038	NS	100	0.20	U	
	Chrysene	**1**	0.038	NS	70	0.20	U	
	Dibenz(a,h)anthracene	**1**	0.038	NS	40	0.20	U	
	Indeno(1,2,3-cd)pyrene	**1**	0.038	NS	100	0.20	U	
	Total Group I PAHs	**1**	NS	NS	N/A	***0.65***		
	Acenaphthene	NS	NS	NS	10,000	5.0	U	
	Acenaphthylene	NS	NS	NS	40	5.0	U	
	Anthracene	NS	NS	NS	30	5.0	U	
	Benzo(g,h,i)perylene	NS	NS	NS	20	5.0	U	
	Fluoranthene	NS	NS	NS	200	5.0	U	
	Fluorene	NS	NS	NS	40	5.0	U	
	Naphthalene	**20**	20	NS	700	5.0	U	
	Phenanthrene	NS	NS	NS	10,000	5.0	U	
	Pyrene	NS	NS	NS	20	5.0	U	
	Total Group II PAHs	**100**	100	NS	N/A	*ND*		
	Benzidine	NS	NS	NS	NS	20	U	
	4-Bromophenylphenylether	NS	NS	NS	10,000	10	U	
	Butylbenzylphthalate	NS	NS	NS	10,000	10	U	
	4-Chloro-3-methylphenol	NS	NS	NS	NS	10	U	
	Bis(2-chloroethyl)ether	NS	NS	NS	30	10	U	
	Bis(2-chloroisopropyl)ether	NS	NS	NS	100	10	U	
	2-Chloronaphthalene	NS	NS	NS	100,000	10	U	
	2-Chlorophenol	NS	NS	NS	7,000	10	U	
	4-Chlorophenylphenylether	NS	NS	NS	NS	10	U	
	Di-n-butylphthalate	NS	NS	NS	5,000	10	U	
	1,3-Dichlorobenzene	**320**	320	NS	6,000	5.0	U	
	1,4-Dichlorobenzene	**5**	5	NS	60	5.0	U	
	1,2-Dichlorobenzene	**600**	600	NS	2,000	5.0	U	
	3,3-Dichlorobenzidine	NS	NS	NS	2,000	10	U	
	2,4-Dichlorophenol	NS	NS	NS	2,000	10	U	
	Diethylphthalate	NS	NS	NS	9,000	10	U	

Table 1
Summary of Groundwater Analytical Results -- July 2017
Eversource - Station 385 Improvements Project
South Boston, Massachusetts

Analysis	Analyte	RGP for Saltwater[1] TBEL	RGP for Saltwater[1] WQBEL[2]	Acceptance Criteria Global Cycle^^	RC GW-2	Sample ID: TMW-1 Sample Date: 7/26/2017	
	2,4-Dimethylphenol	NS	NS	NS	40,000	10	U
	Dimethylphthalate	NS	NS	NS	50,000	10	U
	4,6-Dinitro-2-methylphenol	NS	NS	NS	NS	10	U
	2,4-Dinitrophenol	NS	NS	NS	20,000	10	U
	2,4-Dinitrotoluene	NS	NS	NS	20,000	10	U
	2,6-Dinitrotoluene	NS	NS	NS	10,000	10	U
	Di-n-octylphthalate	NS	NS	NS	100,000	10	U
	1,2-Diphenylhydrazine (as Azobenzene)	NS	NS	NS	5,000	10	U
	Bis(2-Ethylhexyl)phthalate	**101**	2.2	NS	50,000	**0.67**	**J**
	Hexachlorobenzene	NS	NS	NS	1	10	U
	Hexachlorobutadiene	NS	NS	NS	50	10	U
	Hexachlorocyclopentadiene	NS	NS	NS	NS	10	U
	Hexachloroethane	NS	NS	NS	100	10	U
	Isophorone	NS	NS	NS	10,000	10	U
	Nitrobenzene	NS	NS	NS	50,000	10	U
	2-Nitrophenol	NS	NS	NS	10,000	10	U
	4-Nitrophenol	NS	NS	NS	10,000	10	U
	N-Nitrosodimethylamine	NS	NS	NS	NS	10	U
	N-Nitrosodi-n-propylamine	NS	NS	NS	NS	10	U
	N-Nitrosodiphenylamine	NS	NS	NS	NS	10	U
	2-Methylnaphthalene	NS	NS	NS	2,000	5.0	U
	2-Methylphenol	NS	NS	NS	50,000	10	U
	Phenol	**1,080**	1,080	NS	2,000	10	U
	3/4-Methylphenol	NS	NS	NS	50,000	10	U
	Pentachlorophenol	**1**	1	NS	200	1.0	U
	1,2,4-Trichlorobenzene	NS	NS	NS	200	5.0	U
	2,4,6-Trichlorophenol	NS	NS	NS	500	10	U
	Total Phthalates	**190**	NS	NS	N/A	***0.67***	***J***
	Total VOCs/SVOCs	NS	NS	< 30,000	N/A	***3.08***	J
PCBs							
(ug/L)	Aroclor-1016	NS	NS	NS	NS	0.10	U
	Aroclor-1221	NS	NS	NS	NS	0.10	U
	Aroclor-1232	NS	NS	NS	NS	0.10	U
	Aroclor-1242	NS	NS	NS	NS	0.10	U
	Aroclor-1248	NS	NS	NS	NS	0.10	U
	Aroclor-1254	NS	NS	NS	NS	0.10	U
	Aroclor-1260	NS	NS	NS	NS	0.10	U
	Total PCBs	**0.000064**	NS	NS	5	0.10	U^
Metals, total							
(ug/L)	Antimony	**206**	640	NS	8,000	5.0	U
	Arsenic	**104**	36	NS	900	**20**	
	Cadmium	**10.2**	8.9	NS	4	1.0	U
	Chromium	NS	NS	NS	300	100	U
	Chromium (III)	**323**	100	NS	600	10	U
	Chromium (VI)	**323**	50	NS	300	4	U
	Copper	242	**3.7**	NS	100,000	**130**	
	Iron	**5,000**	5,000	NS	NS	**600**	
	Lead	**160**	8.5	NS	10	10	U
	Mercury	**0.739**	1.11	NS	20	0.1	U
	Nickel	**1,450**	8.3	NS	200	50	U
	Selenium	**235.8**	71	NS	100	**57**	
	Silver	**35.1**	2.2	NS	7	1.0	U
	Zinc	**420**	86	NS	900	200	U
Metals, dissolved							
(ug/L)	Antimony	**206**	640	NS	8,000	5.0	U
	Arsenic	**104**	36	NS	900	**25**	
	Cadmium	**10.2**	8.9	NS	4	1.0	U
	Chromium	NS	NS	NS	300	50	U
	Chromium (III)	**323**	100	NS	600	10	U
	Chromium (VI)	**323**	50	NS	300	4	U
	Copper	242	**3.7**	NS	100,000	**50**	
	Iron	**5,000**	5,000	NS	NS	50	U

Table 1
Summary of Groundwater Analytical Results -- July 2017
Eversource - Station 385 Improvements Project
South Boston, Massachusetts

Analysis	Analyte					Sample ID:	TMW-1	
						Sample Date:	7/26/2017	
		RGP for Saltwater[1]		Acceptance Criteria	RC			
		TBEL	WQBEL[2]	Global Cycle^^	GW-2			
	Lead	**160**	8.5	NS	10	**4.5**		
	Mercury	**0.739**	1.11	NS	20	0.1	U	
	Nickel	**1,450**	8.3	NS	200	25	U	
	Selenium	**235.8**	71	NS	100	**69**		
	Silver	**35.1**	2.2	NS	7	1.0	U	
	Zinc	**420**	86	NS	900	100	U	
General Chemistry								
(mg/L)	Chloride	NS	NS	NS	N/A	**16,100**		
(mg/L)	Chlorine, Residual	0.2	**0.0075**	NS	N/A	0.020	U^	
(mg/L)	Hardness	NS	NS	NS	N/A	**4,800**		
(mg/L)	Total Suspended Solids	**30**	30	< 1,000	N/A	**34**		
(mg/L)	Total Petroleum Hydrocarbons (SGT-HEM)	**5**	5	NS	N/A	1.4	U	
(mg/L)	Ammonia as N	NS	NS	NS	N/A	**0.075**		
(mg/L)	Cyanide	**178**	0.001	NS	30	0.005	U	
(mg/L)	Ethanol	NS	NS	NS	N/A	2.0	U	
(su)	pH	**6.5-8.3**	6.5-8.3	6.5-12.5	N/A	**6.86**		
(deg. C)	Temperature	NS	NS	NS	N/A	**16.8**		
					Classification:	**A**		

Notes:

mg/L - milligrams per liter.

su - Standard unit.

ug/L - micrograms per liter.

J - Estimated value.

N/A - Not applicable/available.

ND - Not detected.

NS - No criteria exist for this analyte.

U - Analyte was not detected at specified quantitation limit.

Values in **bold** indicate the analyte was detected.

Values shown in bold and shaded black exceed the applicable bolded and underlined RGP Effluent Limits.

^ - Quantitation limit value exceeds the applicable RGP Effluent Limits (bolded and underlined).

^^ - Acceptance criteria for Global Cycle, a wastewater treatment and reuse/recycling facility located in Raynham, MA.

RGP - EPA Remediation General Permit, Effluent Limits.

TBEL - Technology-Based Effluent Limitation.

WQBEL - Water Quality-Based Effluent Limitation.

VOCs - Volatile Organic Compounds.

SVOCs - Semivolatile Organic Compounds.

PAHs - Polynuclear Aromatic Hydrocarbons.

PCBs - Polychlorinated Biphenyls.

RC - Reportable concentration.

The above standards apply to discharge to freshwater receiving waters. The RGP and DGP contain separate discharge standards for discharges to saltwater receiving waters.

[1] RGP for Freshwater standards are an average monthly discharge limitation in Massachusetts only.

[2] The WQBEL standards are shown with any dilution factors (DFs) applied. The DFs are determined during the permit application process and are dependent upon the flow rate and water hardness of the receiving body. Once DFs are applied to the WQBEL, the more stringent of the two standards (TBEL or adjusted WQBEL) will apply.

Groundwater Classification Categories

Type A Groundwater - Non-Hazardous Beneficial Reuse: Groundwater/wastewater that is characterized as non-hazardous waste and non-TSCA regulated (PCBs < 0.5 parts per billion [ppb]) and is acceptable for beneficial reuse/recycling at a properly licensed facility, per 40 CFR 761.79 (b)(l)(ii).

Type B Groundwater - Non-Hazardous Wastewater Treatment Facility: Groundwater/wastewater that is characterized as non-hazardous waste and non-TSCA regulated (PCBs < 0.5 ppb) and is acceptable at a properly licensed wastewater treatment facility, per 40 CFR 761.79 (b)(l)(ii).

Type C Groundwater - Non-Hazardous Groundwater Treatment and Discharge: Groundwater that is characterized as non-hazardous waste and non-TSCA regulated (PCBs < 0.5 ppb) and is acceptable for on-site or off-site discharge under EPA RGP or Construction Dewatering Permit, per 40 CFR 761.79 (b)(l)(ii).

Table 2
Summary of Surface Water Analytical Results -- August 2017
Eversource - Station 385 Improvements Project
South Boston, Massachusetts

Analysis	Sample ID:	SW-1
	Sample Date:	8/2/2017
	Analyte	
General Chemistry		
(ug/L)	Ammonia as N	**235**
(ppt)	Salinity	**29.1**
(su)	pH	**6.97**
(deg. F)	Temperature	**72**

Notes:
deg. F - degree Fahrenheit.
ppt - Parts per thousand.
su - Standard unit.
ug/L - micrograms per liter.
Values in **bold** indicate the analyte was detected.

ATTACHMENT D

LABORATORY ANALYTICAL REPORTS

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

August 18, 2017

Matthew Waldrip
NSTAR Electric & Gas Corporation
One NSTAR Way, SUM SE-250
Westwood, MA 02090-9230

Project Location: South Boston, MA
Client Job Number:
Project Number: [none]
Laboratory Work Order Number: 17G1143

Enclosed are results of analyses for samples received by the laboratory on July 26, 2017. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

James M. Georgantas
Project Manager

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

NSTAR Electric & Gas Corporation
One NSTAR Way, SUM SE-250
Westwood, MA 02090-9230
ATTN: Matthew Waldrip

REPORT DATE: 8/18/2017

PURCHASE ORDER NUMBER: 64454 Release 1

PROJECT NUMBER: [none]

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 17G1143

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION: South Boston, MA

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
TMW-1	17G1143-01	Ground Water		EPA 1664B	
				EPA 200.7	
				EPA 200.8	
				EPA 245.1	
				EPA 300.0	NY11393/MA-MAI138/MA1110
				EPA 504.1	
				EPA 608	
				EPA 624	
				EPA 625	
				SM19-22 4500 NH3 C	MA M-MA-086/CT PH-0574/NY11148
				SM21-22 2540D	
				SM21-22 3500 Cr B	
				SM21-22 4500 CL G	
				SM21-22 4500 CN E	MA M-MA-086/CT PH-0574/NY11148
				SW-846 7196A	
				SW-846 8015C	NH NELAC 2539/ MA M-MA014/CT PH-0494 +others
				SW-846 8270D	
				Tri Chrome Calc.	

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CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

REVISED REPORT 08-18-17: Due to a lab error a "B" qualifier was added to the hardness result on sample 17G1143-01. The report has been revised to remove the "B" qualifier.
For method 8270, only a select list of analytes were requested and reported.

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

EPA 200.8

Qualifications:

DL-15

Sample required a dilution due to low internal standard recovery of the lesser diluted digestion, reporting limit is elevated.

Analyte & Samples(s) Qualified:

17G1143-01[TMW-1]

Antimony
17G1143-01[TMW-1], B182947-DUP1

Arsenic
17G1143-01[TMW-1], B182947-DUP1

Cadmium
17G1143-01[TMW-1], B182947-DUP1

Chromium
17G1143-01[TMW-1], B182947-DUP1

Copper
17G1143-01[TMW-1], B182947-DUP1

Lead
17G1143-01[TMW-1], B182947-DUP1

Nickel
17G1143-01[TMW-1], B182947-DUP1

Selenium
17G1143-01[TMW-1], B182947-DUP1

Silver
17G1143-01[TMW-1], B182947-DUP1

Zinc
17G1143-01[TMW-1], B182947-DUP1

EPA 608

Qualifications:

L-02

Laboratory fortified blank/laboratory control sample recovery and duplicate recoveries outside of control limits. Data validation is not affected since all results are "not detected" for associated samples in this batch and bias is on the high side.

Analyte & Samples(s) Qualified:

Aroclor-1016
B183062-BS1, B183062-BSD1

EPA 625

Qualifications:

L-04

Laboratory fortified blank/laboratory control sample recovery and duplicate recovery are outside of control limits. Reported value for this compound is likely to be biased on the low side.

Analyte & Samples(s) Qualified:

2-Chloronaphthalene
17G1143-01[TMW-1], B182991-BLK1, B182991-BS1, B182991-BSD1

Benzidine
17G1143-01[TMW-1], B182991-BLK1, B182991-BS1, B182991-BSD1

V-04

Initial calibration did not meet method specifications. Compound was calibrated using a response factor where %RSD is outside of method specified criteria.

Analyte & Samples(s) Qualified:

Benzidine
17G1143-01[TMW-1], B182991-BLK1, B182991-BS1, B182991-BSD1

V-05

Continuing calibration did not meet method specifications and was biased on the low side for this compound. Increased uncertainty is associated with the reported value which is likely to be biased on the low side.

Analyte & Samples(s) Qualified:

Benzidine
17G1143-01[TMW-1], B182991-BLK1, B182991-BS1, B182991-BSD1

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V-19

Initial calibration did not meet method specifications. Compound was calibrated using linear regression with correlation coefficient <0.99. Reduced precision and accuracy may be associated with reported result.

Analyte & Samples(s) Qualified:

Hexachlorocyclopentadiene
17G1143-01[TMW-1], B182991-BLK1, B182991-BS1, B182991-BSD1

V-20

Continuing calibration did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.

Analyte & Samples(s) Qualified:

4-Nitrophenol
17G1143-01[TMW-1], B182991-BLK1, B182991-BS1, B182991-BSD1

Di-n-octylphthalate
B182991-BLK1, B182991-BS1, B182991-BSD1

Hexachloroethane
17G1143-01[TMW-1]

N-Nitrosodimethylamine
17G1143-01[TMW-1], B182991-BLK1, B182991-BS1, B182991-BSD1

N-Nitrosodi-n-propylamine
17G1143-01[TMW-1]

wc-Chloride-300.0

Qualifications:

GS1

Sample dilution required for high concentration of target analytes to be within the instrument calibration range.

Analyte & Samples(s) Qualified:

Chloride
17G1143-01[TMW-1]

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.
I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Lisa A. Worthington
Project Manager

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: South Boston, MA | Sample Description: | Work Order: 17G1143

Date Received: 7/26/2017

Field Sample #: TMW-1 | Sampled: 7/26/2017 08:00

Sample ID: 17G1143-01

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	50	4.9	µg/L	1		EPA 624	8/4/17	8/5/17 14:05	CMR
tert-Amyl Methyl Ether (TAME)	ND	0.50	0.11	µg/L	1		EPA 624	8/4/17	8/5/17 14:05	CMR
Benzene	ND	1.0	0.12	µg/L	1		EPA 624	8/4/17	8/5/17 14:05	CMR
tert-Butyl Alcohol (TBA)	ND	20	2.2	µg/L	1		EPA 624	8/4/17	8/5/17 14:05	CMR
Carbon Tetrachloride	ND	2.0	0.25	µg/L	1		EPA 624	8/4/17	8/5/17 14:05	CMR
1,2-Dichlorobenzene	ND	2.0	0.17	µg/L	1		EPA 624	8/4/17	8/5/17 14:05	CMR
1,3-Dichlorobenzene	ND	2.0	0.17	µg/L	1		EPA 624	8/4/17	8/5/17 14:05	CMR
1,4-Dichlorobenzene	ND	2.0	0.15	µg/L	1		EPA 624	8/4/17	8/5/17 14:05	CMR
1,2-Dichloroethane	ND	2.0	0.19	µg/L	1		EPA 624	8/4/17	8/5/17 14:05	CMR
cis-1,2-Dichloroethylene	ND	1.0	0.15	µg/L	1		EPA 624	8/4/17	8/5/17 14:05	CMR
1,1-Dichloroethane	ND	2.0	0.16	µg/L	1		EPA 624	8/4/17	8/5/17 14:05	CMR
1,1-Dichloroethylene	ND	2.0	0.21	µg/L	1		EPA 624	8/4/17	8/5/17 14:05	CMR
1,4-Dioxane	ND	50	26	µg/L	1		EPA 624	8/4/17	8/5/17 14:05	CMR
Ethylbenzene	0.31	2.0	0.13	µg/L	1	J	EPA 624	8/4/17	8/5/17 14:05	CMR
Methyl tert-Butyl Ether (MTBE)	ND	2.0	0.090	µg/L	1		EPA 624	8/4/17	8/5/17 14:05	CMR
Methylene Chloride	ND	5.0	3.2	µg/L	1		EPA 624	8/4/17	8/5/17 14:05	CMR
Tetrachloroethylene	ND	2.0	0.27	µg/L	1		EPA 624	8/4/17	8/5/17 14:05	CMR
Toluene	0.17	1.0	0.17	µg/L	1	J	EPA 624	8/4/17	8/5/17 14:05	CMR
1,1,1-Trichloroethane	ND	2.0	0.13	µg/L	1		EPA 624	8/4/17	8/5/17 14:05	CMR
1,1,2-Trichloroethane	ND	2.0	0.24	µg/L	1		EPA 624	8/4/17	8/5/17 14:05	CMR
Trichloroethylene	ND	2.0	0.20	µg/L	1		EPA 624	8/4/17	8/5/17 14:05	CMR
Vinyl Chloride	ND	2.0	0.13	µg/L	1		EPA 624	8/4/17	8/5/17 14:05	CMR
m+p Xylene	0.44	2.0	0.26	µg/L	1	J	EPA 624	8/4/17	8/5/17 14:05	CMR
o-Xylene	0.20	2.0	0.13	µg/L	1	J	EPA 624	8/4/17	8/5/17 14:05	CMR

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	98.3	70-130		8/5/17 14:05
Toluene-d8	99.6	70-130		8/5/17 14:05
4-Bromofluorobenzene	99.9	70-130		8/5/17 14:05

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: South Boston, MA | Sample Description: | Work Order: 17G1143

Date Received: 7/26/2017

Field Sample #: TMW-1 | Sampled: 7/26/2017 08:00

Sample ID: 17G1143-01

Sample Matrix: Ground Water

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Benzo(a)anthracene	0.19	0.050	0.050	µg/L	1		SW-846 8270D	8/1/17	8/3/17 21:25	CJM
Benzo(a)pyrene	0.21	0.10	0.10	µg/L	1		SW-846 8270D	8/1/17	8/3/17 21:25	CJM
Benzo(b)fluoranthene	0.25	0.050	0.050	µg/L	1		SW-846 8270D	8/1/17	8/3/17 21:25	CJM
Benzo(k)fluoranthene	ND	0.20	0.20	µg/L	1		SW-846 8270D	8/1/17	8/3/17 21:25	CJM
Bis(2-Ethylhexyl)phthalate	0.67	1.0	0.10	µg/L	1	J	SW-846 8270D	8/1/17	8/3/17 21:25	CJM
Chrysene	ND	0.20	0.20	µg/L	1		SW-846 8270D	8/1/17	8/3/17 21:25	CJM
Dibenz(a,h)anthracene	ND	0.20	0.20	µg/L	1		SW-846 8270D	8/1/17	8/3/17 21:25	CJM
Indeno(1,2,3-cd)pyrene	ND	0.20	0.20	µg/L	1		SW-846 8270D	8/1/17	8/3/17 21:25	CJM
Pentachlorophenol	ND	1.0	0.34	µg/L	1		SW-846 8270D	8/1/17	8/3/17 21:25	CJM

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
2-Fluorophenol	60.4	15-110		8/3/17 21:25
Phenol-d6	41.8	15-110		8/3/17 21:25
Nitrobenzene-d5	89.4	30-130		8/3/17 21:25
2-Fluorobiphenyl	82.0	30-130		8/3/17 21:25
2,4,6-Tribromophenol	98.9	15-110		8/3/17 21:25
p-Terphenyl-d14	74.1	30-130		8/3/17 21:25

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: South Boston, MA | Sample Description: | Work Order: 17G1143

Date Received: 7/26/2017

Field Sample #: TMW-1 | Sampled: 7/26/2017 08:00

Sample ID: 17G1143-01

Sample Matrix: Ground Water

Semivolatile Organic Compounds by - GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	5.0	µg/L	1		EPA 625	8/1/17	8/3/17 9:01	BGL
Acenaphthylene	ND	5.0	µg/L	1		EPA 625	8/1/17	8/3/17 9:01	BGL
Anthracene	ND	5.0	µg/L	1		EPA 625	8/1/17	8/3/17 9:01	BGL
Benzidine	ND	20	µg/L	1	V-04, V-05, L-04	EPA 625	8/1/17	8/3/17 9:01	BGL
Benzo(g,h,i)perylene	ND	5.0	µg/L	1		EPA 625	8/1/17	8/3/17 9:01	BGL
4-Bromophenylphenylether	ND	10	µg/L	1		EPA 625	8/1/17	8/3/17 9:01	BGL
Butylbenzylphthalate	ND	10	µg/L	1		EPA 625	8/1/17	8/3/17 9:01	BGL
4-Chloro-3-methylphenol	ND	10	µg/L	1		EPA 625	8/1/17	8/3/17 9:01	BGL
Bis(2-chloroethyl)ether	ND	10	µg/L	1		EPA 625	8/1/17	8/3/17 9:01	BGL
Bis(2-chloroisopropyl)ether	ND	10	µg/L	1		EPA 625	8/1/17	8/3/17 9:01	BGL
2-Chloronaphthalene	ND	10	µg/L	1	L-04	EPA 625	8/1/17	8/3/17 9:01	BGL
2-Chlorophenol	ND	10	µg/L	1		EPA 625	8/1/17	8/3/17 9:01	BGL
4-Chlorophenylphenylether	ND	10	µg/L	1		EPA 625	8/1/17	8/3/17 9:01	BGL
Di-n-butylphthalate	ND	10	µg/L	1		EPA 625	8/1/17	8/3/17 9:01	BGL
1,3-Dichlorobenzene	ND	5.0	µg/L	1		EPA 625	8/1/17	8/3/17 9:01	BGL
1,4-Dichlorobenzene	ND	5.0	µg/L	1		EPA 625	8/1/17	8/3/17 9:01	BGL
1,2-Dichlorobenzene	ND	5.0	µg/L	1		EPA 625	8/1/17	8/3/17 9:01	BGL
3,3-Dichlorobenzidine	ND	10	µg/L	1		EPA 625	8/1/17	8/3/17 9:01	BGL
2,4-Dichlorophenol	ND	10	µg/L	1		EPA 625	8/1/17	8/3/17 9:01	BGL
Diethylphthalate	ND	10	µg/L	1		EPA 625	8/1/17	8/3/17 9:01	BGL
2,4-Dimethylphenol	ND	10	µg/L	1		EPA 625	8/1/17	8/3/17 9:01	BGL
Dimethylphthalate	ND	10	µg/L	1		EPA 625	8/1/17	8/3/17 9:01	BGL
4,6-Dinitro-2-methylphenol	ND	10	µg/L	1		EPA 625	8/1/17	8/3/17 9:01	BGL
2,4-Dinitrophenol	ND	10	µg/L	1		EPA 625	8/1/17	8/3/17 9:01	BGL
2,4-Dinitrotoluene	ND	10	µg/L	1		EPA 625	8/1/17	8/3/17 9:01	BGL
2,6-Dinitrotoluene	ND	10	µg/L	1		EPA 625	8/1/17	8/3/17 9:01	BGL
Di-n-octylphthalate	ND	10	µg/L	1		EPA 625	8/1/17	8/3/17 9:01	BGL
1,2-Diphenylhydrazine (as Azobenzene)	ND	10	µg/L	1		EPA 625	8/1/17	8/3/17 9:01	BGL
Bis(2-Ethylhexyl)phthalate	ND	10	µg/L	1		EPA 625	8/1/17	8/3/17 9:01	BGL
Fluoranthene	ND	5.0	µg/L	1		EPA 625	8/1/17	8/3/17 9:01	BGL
Fluorene	ND	5.0	µg/L	1		EPA 625	8/1/17	8/3/17 9:01	BGL
Hexachlorobenzene	ND	10	µg/L	1		EPA 625	8/1/17	8/3/17 9:01	BGL
Hexachlorobutadiene	ND	10	µg/L	1		EPA 625	8/1/17	8/3/17 9:01	BGL
Hexachlorocyclopentadiene	ND	10	µg/L	1	V-19	EPA 625	8/1/17	8/3/17 9:01	BGL
Hexachloroethane	ND	10	µg/L	1	V-20	EPA 625	8/1/17	8/3/17 9:01	BGL
Isophorone	ND	10	µg/L	1		EPA 625	8/1/17	8/3/17 9:01	BGL
Naphthalene	ND	5.0	µg/L	1		EPA 625	8/1/17	8/3/17 9:01	BGL
Nitrobenzene	ND	10	µg/L	1		EPA 625	8/1/17	8/3/17 9:01	BGL
2-Nitrophenol	ND	10	µg/L	1		EPA 625	8/1/17	8/3/17 9:01	BGL
4-Nitrophenol	ND	10	µg/L	1	V-20	EPA 625	8/1/17	8/3/17 9:01	BGL
N-Nitrosodimethylamine	ND	10	µg/L	1	V-20	EPA 625	8/1/17	8/3/17 9:01	BGL
N-Nitrosodiphenylamine	ND	10	µg/L	1		EPA 625	8/1/17	8/3/17 9:01	BGL
N-Nitrosodi-n-propylamine	ND	10	µg/L	1	V-20	EPA 625	8/1/17	8/3/17 9:01	BGL
2-Methylnaphthalene	ND	5.0	µg/L	1		EPA 625	8/1/17	8/3/17 9:01	BGL

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Project Location: South Boston, MA | Sample Description: | Work Order: 17G1143

Date Received: 7/26/2017

Field Sample #: TMW-1 | Sampled: 7/26/2017 08:00

Sample ID: 17G1143-01

Sample Matrix: Ground Water

Semivolatile Organic Compounds by - GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Phenanthrene	ND	5.0	µg/L	1		EPA 625	8/1/17	8/3/17 9:01	BGL
2-Methylphenol	ND	10	µg/L	1		EPA 625	8/1/17	8/3/17 9:01	BGL
Phenol	ND	10	µg/L	1		EPA 625	8/1/17	8/3/17 9:01	BGL
3/4-Methylphenol	ND	10	µg/L	1		EPA 625	8/1/17	8/3/17 9:01	BGL
Pyrene	ND	5.0	µg/L	1		EPA 625	8/1/17	8/3/17 9:01	BGL
1,2,4-Trichlorobenzene	ND	5.0	µg/L	1		EPA 625	8/1/17	8/3/17 9:01	BGL
2,4,6-Trichlorophenol	ND	10	µg/L	1		EPA 625	8/1/17	8/3/17 9:01	BGL

Surrogates	% Recovery	Recovery Limits	Flag/Qual				
2-Fluorophenol	55.9	15-110				8/3/17 9:01	
Phenol-d6	40.6	15-110				8/3/17 9:01	
Nitrobenzene-d5	92.7	30-130				8/3/17 9:01	
2-Fluorobiphenyl	89.0	30-130				8/3/17 9:01	
2,4,6-Tribromophenol	92.3	15-110				8/3/17 9:01	
p-Terphenyl-d14	92.2	30-130				8/3/17 9:01	

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Date Received: 7/26/2017

Field Sample #: TMW-1 | Sampled: 7/26/2017 08:00

Sample ID: 17G1143-01

Sample Matrix: Ground Water

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.10	0.057	µg/L	1		EPA 608	8/1/17	8/3/17 21:20	KAL
Aroclor-1221 [1]	ND	0.10	0.062	µg/L	1		EPA 608	8/1/17	8/3/17 21:20	KAL
Aroclor-1232 [1]	ND	0.10	0.038	µg/L	1		EPA 608	8/1/17	8/3/17 21:20	KAL
Aroclor-1242 [1]	ND	0.10	0.054	µg/L	1		EPA 608	8/1/17	8/3/17 21:20	KAL
Aroclor-1248 [1]	ND	0.10	0.064	µg/L	1		EPA 608	8/1/17	8/3/17 21:20	KAL
Aroclor-1254 [1]	ND	0.10	0.071	µg/L	1		EPA 608	8/1/17	8/3/17 21:20	KAL
Aroclor-1260 [1]	ND	0.10	0.073	µg/L	1		EPA 608	8/1/17	8/3/17 21:20	KAL

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	80.6	30-150		8/3/17 21:20
Decachlorobiphenyl [2]	75.0	30-150		8/3/17 21:20
Tetrachloro-m-xylene [1]	84.2	30-150		8/3/17 21:20
Tetrachloro-m-xylene [2]	89.9	30-150		8/3/17 21:20

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Field Sample #: TMW-1 | Sampled: 7/26/2017 08:00

Sample ID: 17G1143-01

Sample Matrix: Ground Water

Sample Flags: DL-15

Metals Analyses (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Antimony	ND	5.0		µg/L	5		EPA 200.8	8/1/17	8/4/17 4:50	MJH
Arsenic	20	10		µg/L	10		EPA 200.8	8/1/17	8/4/17 4:46	MJH
Cadmium	ND	1.0		µg/L	5		EPA 200.8	8/1/17	8/4/17 4:50	MJH
Chromium	ND	100		µg/L	10		EPA 200.8	8/1/17	8/4/17 4:46	MJH
Chromium, Trivalent	ND	0.010		mg/L	1		Tri Chrome Calc.	8/1/17	8/11/17 14:59	MJH
Copper	130	10		µg/L	10		EPA 200.8	8/1/17	8/4/17 4:46	MJH
Iron	0.60	0.050		mg/L	1		EPA 200.7	8/1/17	8/4/17 15:03	QNW
Lead	ND	10		µg/L	20		EPA 200.8	8/1/17	8/4/17 4:54	MJH
Mercury	ND	0.00010		mg/L	1		EPA 245.1	7/27/17	8/1/17 8:53	TJK
Nickel	ND	50		µg/L	10		EPA 200.8	8/1/17	8/4/17 4:46	MJH
Selenium	57	50	21	µg/L	10		EPA 200.8	8/1/17	8/4/17 4:46	MJH
Silver	ND	1.0		µg/L	5		EPA 200.8	8/1/17	8/4/17 4:50	MJH
Zinc	ND	200		µg/L	10		EPA 200.8	8/1/17	8/4/17 4:46	MJH
Hardness	4800			mg/L	5		EPA 200.7	8/1/17	8/8/17 13:10	QNW

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Project Location: South Boston, MA | Sample Description: | Work Order: 17G1143

Date Received: 7/26/2017

Field Sample #: TMW-1 | Sampled: 7/26/2017 08:00

Sample ID: 17G1143-01

Sample Matrix: Ground Water

Metals Analyses (Dissolved)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Antimony	ND	5.0		µg/L	5	DL-15	EPA 200.8	7/31/17	8/1/17 14:40	WSD
Arsenic	25	5.0		µg/L	5	DL-15	EPA 200.8	7/31/17	8/1/17 14:40	WSD
Cadmium	ND	1.0		µg/L	5	DL-15	EPA 200.8	7/31/17	8/1/17 14:40	WSD
Chromium	ND	50		µg/L	5	DL-15	EPA 200.8	7/31/17	8/1/17 14:40	WSD
Chromium, Trivalent	ND	0.010		mg/L	1		Tri Chrome Calc.	7/31/17	8/14/17 15:05	MJH
Copper	50	5.0		µg/L	5	DL-15	EPA 200.8	7/31/17	8/1/17 14:40	WSD
Iron	ND	0.050		mg/L	1		EPA 200.7	7/31/17	8/5/17 14:38	QNW
Lead	4.5	2.5		µg/L	5	DL-15	EPA 200.8	7/31/17	8/2/17 4:49	MJH
Mercury	ND	0.00010		mg/L	1		EPA 245.1	8/2/17	8/3/17 10:23	TJK
Nickel	ND	25		µg/L	5	DL-15	EPA 200.8	7/31/17	8/1/17 14:40	WSD
Selenium	69	25	11	µg/L	5	DL-15	EPA 200.8	7/31/17	8/1/17 14:40	WSD
Silver	ND	1.0		µg/L	5	DL-15	EPA 200.8	7/31/17	8/1/17 14:40	WSD
Zinc	ND	100		µg/L	5	DL-15	EPA 200.8	7/31/17	8/1/17 14:40	WSD

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Project Location: South Boston, MA | Sample Description: | Work Order: 17G1143

Date Received: 7/26/2017

Field Sample #: TMW-1 | Sampled: 7/26/2017 08:00

Sample ID: 17G1143-01

Sample Matrix: Ground Water

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Chlorine, Residual	ND	0.020	mg/L	1		SM21-22 4500 CL G	7/26/17	7/26/17 20:25	DJM
Hexavalent Chromium	ND	0.0040	mg/L	1		SM21-22 3500 Cr B	7/26/17	7/26/17 21:20	DJM
Total Suspended Solids	34	5.0	mg/L	1		SM21-22 2540D	7/27/17	7/27/17 13:00	LL
Silica Gel Treated HEM (SGT-HEM)	ND	1.4	mg/L	1		EPA 1664B	7/27/17	7/27/17 10:10	LL

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Project Location: South Boston, MA | Sample Description: | Work Order: 17G1143

Date Received: 7/26/2017

Field Sample #: TMW-1 | Sampled: 7/26/2017 08:00

Sample ID: 17G1143-01

Sample Matrix: Ground Water

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Dissolved)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexavalent Chromium	ND	0.0040	mg/L	1		SW-846 7196A	7/26/17	7/26/17 21:20	DJM

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Date Received: 7/26/2017

Field Sample #: TMW-1 | Sampled: 7/26/2017 08:00

Sample ID: 17G1143-01

Sample Matrix: Ground Water

Drinking Water Organics EPA 504.1

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
1,2-Dibromoethane (EDB) (1)	ND	0.023	µg/L	1		EPA 504.1	8/3/17	8/3/17 13:32	PJG

Surrogates	% Recovery	Recovery Limits	Flag/Qual				
1,3-Dibromopropane (1)	106	70-130					8/3/17 13:32

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Date Received: 7/26/2017

Field Sample #: TMW-1 | Sampled: 7/26/2017 08:00

Sample ID: 17G1143-01

Sample Matrix: Ground Water

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Ammonia as N	0.075	0.075	mg/L	1		SM19-22 4500 NH3 C		8/1/17 0:26	AAL
Cyanide	ND	0.005	mg/L	1		SM21-22 4500 CN E		7/28/17 14:27	AAL

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Date Received: 7/26/2017

Field Sample #: TMW-1 | Sampled: 7/26/2017 08:00

Sample ID: 17G1143-01

Sample Matrix: Ground Water

EPA 300.0

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Chloride	16100	400	mg/l	400	GS1	wc-Chloride-300.0	8/3/17	8/4/17 16:24	LNB

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Project Location: South Boston, MA | Sample Description: | Work Order: 17G1143

Date Received: 7/26/2017

Field Sample #: TMW-1 | Sampled: 7/26/2017 08:00

Sample ID: 17G1143-01

Sample Matrix: Ground Water

Semivolatile Organic Compounds by GC

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Ethanol	ND	2000	µg/L	1		1671A		7/31/17 10:43	TAL

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Sample Extraction Data

EPA 1664B

Lab Number [Field ID]	Batch	Initial [mL]	Date
17G1143-01 [TMW-1]	B182652	1000	07/27/17

Prep Method: EPA 200.7-EPA 200.7

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
17G1143-01 [TMW-1]	B182896	50.0	50.0	08/01/17

Prep Method: EPA 200.7 Dissolved-EPA 200.7

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
17G1143-01 [TMW-1]	B182948	50.0	50.0	07/31/17

Prep Method: EPA 200.7-EPA 200.7

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
17G1143-01 [TMW-1]	B183095	50.0	50.0	08/01/17

Prep Method: EPA 200.8 Dissolved-EPA 200.8

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
17G1143-01 [TMW-1]	B182947	50.0	50.0	07/31/17

Prep Method: EPA 200.8-EPA 200.8

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
17G1143-01 [TMW-1]	B182983	50.0	50.0	08/01/17
17G1143-01 [TMW-1]	B182983	50.0	50.0	08/01/17

Prep Method: EPA 245.1-EPA 245.1

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
17G1143-01RE1 [TMW-1]	B182719	6.00	6.00	07/27/17

Prep Method: EPA 245.1-EPA 245.1

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
17G1143-01 [TMW-1]	B183147	6.00	6.00	08/02/17

Prep Method: EPA 504 water-EPA 504.1

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
17G1143-01 [TMW-1]	B183230	30.8	35.0	08/03/17

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Sample Extraction Data

Prep Method: SW-846 3510C-EPA 608

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
17G1143-01 [TMW-1]	B183062	1000	5.00	08/01/17

Prep Method: SW-846 5035-EPA 624

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
17G1143-01 [TMW-1]	B183391	5	5.00	08/04/17

Prep Method: SW-846 3510C-EPA 625

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
17G1143-01 [TMW-1]	B182991	1000	1.00	08/01/17

SM21-22 2540D

Lab Number [Field ID]	Batch	Initial [mL]	Date
17G1143-01 [TMW-1]	B182664	100	07/27/17

SM21-22 3500 Cr B

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
17G1143-01 [TMW-1]	B182626	50.0	50.0	07/26/17

SM21-22 4500 CL G

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
17G1143-01 [TMW-1]	B182614	100	100	07/26/17

SW-846 7196A

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
17G1143-01 [TMW-1]	B184046	50.0	50.0	07/26/17

Prep Method: SW-846 3510C-SW-846 8270D

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
17G1143-01 [TMW-1]	B182991	1000	1.00	08/01/17

Prep Method: SW-846 3005A-Tri Chrome Calc.

Lab Number [Field ID]	Batch	Initial [mL]	Date
17G1143-01 [TMW-1]	B182984	1.00	08/01/17

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Sample Extraction Data

Prep Method: EPA 200.8 Dissolved-Tri Chrome Calc.

Lab Number [Field ID]	Batch	Initial [mL]	Date
17G1143-01 [TMW-1]	B183935	1.00	07/31/17

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QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B183391 - SW-846 5035										
Blank (B183391-BLK1)				Prepared: 08/04/17 Analyzed: 08/05/17						
Acetone	ND	50	µg/L							
tert-Amyl Methyl Ether (TAME)	ND	0.50	µg/L							
Benzene	ND	1.0	µg/L							
tert-Butyl Alcohol (TBA)	ND	20	µg/L							
Carbon Tetrachloride	ND	2.0	µg/L							
1,2-Dichlorobenzene	ND	2.0	µg/L							
1,3-Dichlorobenzene	ND	2.0	µg/L							
1,4-Dichlorobenzene	ND	2.0	µg/L							
1,2-Dichloroethane	ND	2.0	µg/L							
cis-1,2-Dichloroethylene	ND	1.0	µg/L							
1,1-Dichloroethane	ND	2.0	µg/L							
1,1-Dichloroethylene	ND	2.0	µg/L							
1,4-Dioxane	ND	50	µg/L							
Ethylbenzene	ND	2.0	µg/L							
Methyl tert-Butyl Ether (MTBE)	ND	2.0	µg/L							
Methylene Chloride	ND	5.0	µg/L							
Tetrachloroethylene	ND	2.0	µg/L							
Toluene	ND	1.0	µg/L							
1,1,1-Trichloroethane	ND	2.0	µg/L							
1,1,2-Trichloroethane	ND	2.0	µg/L							
Trichloroethylene	ND	2.0	µg/L							
Vinyl Chloride	ND	2.0	µg/L							
m+p Xylene	0.48	2.0	µg/L							J
o-Xylene	0.18	2.0	µg/L							J
Surrogate: 1,2-Dichloroethane-d4	*24.1*		µg/L	25.0		96.2	70-130			
Surrogate: Toluene-d8	*25.0*		µg/L	25.0		100	70-130			
Surrogate: 4-Bromofluorobenzene	*25.2*		µg/L	25.0		101	70-130			
LCS (B183391-BS1)				Prepared: 08/04/17 Analyzed: 08/05/17						
Acetone	94.5	50	µg/L	100		94.5	70-160			†
tert-Amyl Methyl Ether (TAME)	9.60	0.50	µg/L	10.0		96.0	70-130			
Benzene	9.43	1.0	µg/L	10.0		94.3	37-151			
tert-Butyl Alcohol (TBA)	91.2	20	µg/L	100		91.2	40-160			†
Carbon Tetrachloride	10.4	2.0	µg/L	10.0		104	70-140			
1,2-Dichlorobenzene	9.69	2.0	µg/L	10.0		96.9	18-190			
1,3-Dichlorobenzene	10.1	2.0	µg/L	10.0		101	59-156			
1,4-Dichlorobenzene	9.76	2.0	µg/L	10.0		97.6	18-190			
1,2-Dichloroethane	9.86	2.0	µg/L	10.0		98.6	49-155			
cis-1,2-Dichloroethylene	8.97	1.0	µg/L	10.0		89.7	70-130			
1,1-Dichloroethane	10.0	2.0	µg/L	10.0		100	59-155			
1,1-Dichloroethylene	9.80	2.0	µg/L	10.0		98.0	20-234			
1,4-Dioxane	112	50	µg/L	100		112	40-130			†
Ethylbenzene	10.0	2.0	µg/L	10.0		100	37-162			
Methyl tert-Butyl Ether (MTBE)	9.68	2.0	µg/L	10.0		96.8	70-130			
Methylene Chloride	9.43	5.0	µg/L	10.0		94.3	50-221			
Tetrachloroethylene	10.8	2.0	µg/L	10.0		108	64-148			
Toluene	9.71	1.0	µg/L	10.0		97.1	47-150			
1,1,1-Trichloroethane	9.71	2.0	µg/L	10.0		97.1	52-162			
1,1,2-Trichloroethane	9.50	2.0	µg/L	10.0		95.0	52-150			
Trichloroethylene	9.57	2.0	µg/L	10.0		95.7	71-157			
Vinyl Chloride	7.78	2.0	µg/L	10.0		77.8	20-251			
m+p Xylene	20.3	2.0	µg/L	20.0		102	70-130			

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B183391 - SW-846 5035										
LCS (B183391-BS1)				Prepared: 08/04/17 Analyzed: 08/05/17						
o-Xylene	10.1	2.0	µg/L	10.0		101	70-130			
Surrogate: 1,2-Dichloroethane-d4	*24.4*		µg/L	25.0		97.7	70-130			
Surrogate: Toluene-d8	*24.9*		µg/L	25.0		99.5	70-130			
Surrogate: 4-Bromofluorobenzene	*25.1*		µg/L	25.0		101	70-130			

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes	
Batch B182991 - SW-846 3510C											
Blank (B182991-BLK1)				Prepared: 08/01/17 Analyzed: 08/03/17							
Benzo(a)anthracene	ND	0.050	µg/L								
Benzo(a)pyrene	ND	0.10	µg/L								
Benzo(b)fluoranthene	ND	0.050	µg/L								
Benzo(k)fluoranthene	ND	0.20	µg/L								
Bis(2-Ethylhexyl)phthalate	0.35	1.0	µg/L							J	
Chrysene	ND	0.20	µg/L								
Dibenz(a,h)anthracene	ND	0.20	µg/L								
Indeno(1,2,3-cd)pyrene	ND	0.20	µg/L								
Pentachlorophenol	ND	1.0	µg/L								
Surrogate: 2-Fluorophenol	*90.2*		µg/L	200		45.1	15-110				
Surrogate: Phenol-d6	*64.0*		µg/L	200		32.0	15-110				
Surrogate: Nitrobenzene-d5	*71.3*		µg/L	100		71.3	30-130				
Surrogate: 2-Fluorobiphenyl	*66.1*		µg/L	100		66.1	30-130				
Surrogate: 2,4,6-Tribromophenol	*146*		µg/L	200		72.9	15-110				
Surrogate: p-Terphenyl-d14	*56.7*		µg/L	100		56.7	30-130				
LCS (B182991-BS1)				Prepared: 08/01/17 Analyzed: 08/03/17							
Benzo(a)anthracene	73.1	1.2	µg/L	100		73.1	40-140				
Benzo(a)pyrene	78.2	2.5	µg/L	100		78.2	40-140				
Benzo(b)fluoranthene	77.0	1.2	µg/L	100		77.0	40-140				
Benzo(k)fluoranthene	74.8	5.0	µg/L	100		74.8	40-140				
Bis(2-Ethylhexyl)phthalate	70.2	25	µg/L	100		70.2	40-140				
Chrysene	72.4	5.0	µg/L	100		72.4	40-140				
Dibenz(a,h)anthracene	75.8	5.0	µg/L	100		75.8	40-140				
Indeno(1,2,3-cd)pyrene	76.5	5.0	µg/L	100		76.5	40-140				
Pentachlorophenol	67.6	25	µg/L	100		67.6	30-130				
Surrogate: 2-Fluorophenol	*88.8*		µg/L	200		44.4	15-110				
Surrogate: Phenol-d6	*63.8*		µg/L	200		31.9	15-110				
Surrogate: Nitrobenzene-d5	*73.9*		µg/L	100		73.9	30-130				
Surrogate: 2-Fluorobiphenyl	*77.3*		µg/L	100		77.3	30-130				
Surrogate: 2,4,6-Tribromophenol	*143*		µg/L	200		71.7	15-110				
Surrogate: p-Terphenyl-d14	*58.7*		µg/L	100		58.7	30-130				
LCS Dup (B182991-BSD1)				Prepared: 08/01/17 Analyzed: 08/03/17							
Benzo(a)anthracene	80.4	1.2	µg/L	100		80.4	40-140	9.45	20		
Benzo(a)pyrene	86.2	2.5	µg/L	100		86.2	40-140	9.82	20		
Benzo(b)fluoranthene	85.2	1.2	µg/L	100		85.2	40-140	10.2	20		
Benzo(k)fluoranthene	82.5	5.0	µg/L	100		82.5	40-140	9.82	20		
Bis(2-Ethylhexyl)phthalate	78.0	25	µg/L	100		78.0	40-140	10.5	20		
Chrysene	79.5	5.0	µg/L	100		79.5	40-140	9.32	20		
Dibenz(a,h)anthracene	83.6	5.0	µg/L	100		83.6	40-140	9.88	20		
Indeno(1,2,3-cd)pyrene	84.4	5.0	µg/L	100		84.4	40-140	9.82	50		‡
Pentachlorophenol	77.7	25	µg/L	100		77.7	30-130	14.0	50		‡
Surrogate: 2-Fluorophenol	*109*		µg/L	200		54.4	15-110				
Surrogate: Phenol-d6	*76.3*		µg/L	200		38.2	15-110				
Surrogate: Nitrobenzene-d5	*81.2*		µg/L	100		81.2	30-130				
Surrogate: 2-Fluorobiphenyl	*84.4*		µg/L	100		84.4	30-130				
Surrogate: 2,4,6-Tribromophenol	*159*		µg/L	200		79.3	15-110				
Surrogate: p-Terphenyl-d14	*65.8*		µg/L	100		65.8	30-130				

con-test® ANALYTICAL LABORATORY
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QUALITY CONTROL

Semivolatile Organic Compounds by - GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B182991 - SW-846 3510C										
Blank (B182991-BLK1)				Prepared: 08/01/17 Analyzed: 08/02/17						
Acenaphthene	ND	5.0	µg/L							
Acenaphthylene	ND	5.0	µg/L							
Anthracene	ND	5.0	µg/L							
Benzidine	ND	20	µg/L							L-04, V-04, V-05
Benzo(g,h,i)perylene	ND	5.0	µg/L							
4-Bromophenylphenylether	ND	10	µg/L							
Butylbenzylphthalate	ND	10	µg/L							
4-Chloro-3-methylphenol	ND	10	µg/L							
Bis(2-chloroethyl)ether	ND	10	µg/L							
Bis(2-chloroisopropyl)ether	ND	10	µg/L							
2-Chloronaphthalene	ND	10	µg/L							L-04
2-Chlorophenol	ND	10	µg/L							
4-Chlorophenylphenylether	ND	10	µg/L							
Di-n-butylphthalate	ND	10	µg/L							
1,3-Dichlorobenzene	ND	5.0	µg/L							
1,4-Dichlorobenzene	ND	5.0	µg/L							
1,2-Dichlorobenzene	ND	5.0	µg/L							
3,3-Dichlorobenzidine	ND	10	µg/L							
2,4-Dichlorophenol	ND	10	µg/L							
Diethylphthalate	ND	10	µg/L							
2,4-Dimethylphenol	ND	10	µg/L							
Dimethylphthalate	ND	10	µg/L							
4,6-Dinitro-2-methylphenol	ND	10	µg/L							
2,4-Dinitrophenol	ND	10	µg/L							
2,4-Dinitrotoluene	ND	10	µg/L							
2,6-Dinitrotoluene	ND	10	µg/L							
Di-n-octylphthalate	ND	10	µg/L							V-20
1,2-Diphenylhydrazine (as Azobenzene)	ND	10	µg/L							
Bis(2-Ethylhexyl)phthalate	ND	10	µg/L							
Fluoranthene	ND	5.0	µg/L							
Fluorene	ND	5.0	µg/L							
Hexachlorobenzene	ND	10	µg/L							
Hexachlorobutadiene	ND	10	µg/L							
Hexachlorocyclopentadiene	ND	10	µg/L							V-19
Hexachloroethane	ND	10	µg/L							
Isophorone	ND	10	µg/L							
Naphthalene	ND	5.0	µg/L							
Nitrobenzene	ND	10	µg/L							
2-Nitrophenol	ND	10	µg/L							
4-Nitrophenol	ND	10	µg/L							V-20
N-Nitrosodimethylamine	ND	10	µg/L							V-20
N-Nitrosodiphenylamine	ND	10	µg/L							
N-Nitrosodi-n-propylamine	ND	10	µg/L							
2-Methylnaphthalene	ND	5.0	µg/L							
Phenanthrene	ND	5.0	µg/L							
2-Methylphenol	ND	10	µg/L							
Phenol	ND	10	µg/L							
3/4-Methylphenol	ND	10	µg/L							
Pyrene	ND	5.0	µg/L							
1,2,4-Trichlorobenzene	ND	5.0	µg/L							
2,4,6-Trichlorophenol	ND	10	µg/L							
Surrogate: 2-Fluorophenol	*101*		µg/L	200		50.4	15-110			

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QUALITY CONTROL

Semivolatile Organic Compounds by - GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes
Batch B182991 - SW-846 3510C											
Blank (B182991-BLK1)				Prepared: 08/01/17 Analyzed: 08/02/17							
Surrogate: Phenol-d6	*67.7*		µg/L	200		33.8		15-110			
Surrogate: Nitrobenzene-d5	*82.5*		µg/L	100		82.5		30-130			
Surrogate: 2-Fluorobiphenyl	*75.6*		µg/L	100		75.6		30-130			
Surrogate: 2,4,6-Tribromophenol	*146*		µg/L	200		72.9		15-110			
Surrogate: p-Terphenyl-d14	*78.2*		µg/L	100		78.2		30-130			
LCS (B182991-BS1)				Prepared: 08/01/17 Analyzed: 08/02/17							
Acenaphthene	58.3	5.0	µg/L	100		58.3		47-145			
Acenaphthylene	54.7	5.0	µg/L	100		54.7		33-145			
Anthracene	58.0	5.0	µg/L	100		58.0		27-133			
Benzidine	8.49	20	µg/L	100		**8.49**	*	40-140			L-04, V-04, V-05
Benzo(g,h,i)perylene	58.0	5.0	µg/L	100		58.0		1-219			
4-Bromophenylphenylether	58.3	10	µg/L	100		58.3		53-127			
Butylbenzylphthalate	60.7	10	µg/L	100		60.7		1-152			
4-Chloro-3-methylphenol	64.7	10	µg/L	100		64.7		22-147			
Bis(2-chloroethyl)ether	59.6	10	µg/L	100		59.6		12-158			
Bis(2-chloroisopropyl)ether	48.1	10	µg/L	100		48.1		36-166			
2-Chloronaphthalene	51.4	10	µg/L	100		**51.4**	*	60-118			L-04
2-Chlorophenol	53.7	10	µg/L	100		53.7		23-134			
4-Chlorophenylphenylether	59.6	10	µg/L	100		59.6		25-158			
Di-n-butylphthalate	60.9	10	µg/L	100		60.9		1-118			
1,3-Dichlorobenzene	53.1	5.0	µg/L	100		53.1		1-172			
1,4-Dichlorobenzene	53.9	5.0	µg/L	100		53.9		20-124			
1,2-Dichlorobenzene	53.2	5.0	µg/L	100		53.2		32-129			
3,3-Dichlorobenzidine	55.7	10	µg/L	100		55.7		1-262			
2,4-Dichlorophenol	57.4	10	µg/L	100		57.4		39-135			
Diethylphthalate	64.6	10	µg/L	100		64.6		1-114			
2,4-Dimethylphenol	50.9	10	µg/L	100		50.9		32-119			
Dimethylphthalate	60.7	10	µg/L	100		60.7		1-112			
4,6-Dinitro-2-methylphenol	62.8	10	µg/L	100		62.8		1-181			
2,4-Dinitrophenol	62.4	10	µg/L	100		62.4		1-191			
2,4-Dinitrotoluene	59.9	10	µg/L	100		59.9		39-139			
2,6-Dinitrotoluene	58.7	10	µg/L	100		58.7		50-158			
Di-n-octylphthalate	72.4	10	µg/L	100		72.4		4-146			V-20
1,2-Diphenylhydrazine (as Azobenzene)	61.0	10	µg/L	100		61.0		40-140			
Bis(2-Ethylhexyl)phthalate	58.2	10	µg/L	100		58.2		8-158			
Fluoranthene	56.9	5.0	µg/L	100		56.9		26-137			
Fluorene	59.2	5.0	µg/L	100		59.2		59-121			
Hexachlorobenzene	53.1	10	µg/L	100		53.1		1-152			
Hexachlorobutadiene	61.3	10	µg/L	100		61.3		24-116			
Hexachlorocyclopentadiene	55.9	10	µg/L	100		55.9		40-140			V-19
Hexachloroethane	62.2	10	µg/L	100		62.2		40-113			
Isophorone	57.1	10	µg/L	100		57.1		21-196			
Naphthalene	55.4	5.0	µg/L	100		55.4		21-133			
Nitrobenzene	56.8	10	µg/L	100		56.8		35-180			
2-Nitrophenol	53.0	10	µg/L	100		53.0		29-182			
4-Nitrophenol	42.7	10	µg/L	100		42.7		1-132			V-20
N-Nitrosodimethylamine	52.9	10	µg/L	100		52.9		40-140			V-20
N-Nitrosodiphenylamine	73.8	10	µg/L	100		73.8		40-140			
N-Nitrosodi-n-propylamine	62.2	10	µg/L	100		62.2		1-230			
2-Methylnaphthalene	60.8	5.0	µg/L	100		60.8		40-140			
Phenanthrene	58.1	5.0	µg/L	100		58.1		54-120			

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QUALITY CONTROL

Semivolatile Organic Compounds by - GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes
Batch B182991 - SW-846 3510C											
LCS (B182991-BS1)				Prepared: 08/01/17 Analyzed: 08/02/17							
2-Methylphenol	47.9	10	µg/L	100		47.9		30-130			
Phenol	27.4	10	µg/L	100		27.4		5-112			
3/4-Methylphenol	49.8	10	µg/L	100		49.8		30-130			
Pyrene	56.1	5.0	µg/L	100		56.1		52-115			
1,2,4-Trichlorobenzene	52.4	5.0	µg/L	100		52.4		44-142			
2,4,6-Trichlorophenol	54.1	10	µg/L	100		54.1		37-144			
Surrogate: 2-Fluorophenol	*75.0*		µg/L	200		37.5		15-110			
Surrogate: Phenol-d6	*53.3*		µg/L	200		26.6		15-110			
Surrogate: Nitrobenzene-d5	*62.8*		µg/L	100		62.8		30-130			
Surrogate: 2-Fluorobiphenyl	*61.5*		µg/L	100		61.5		30-130			
Surrogate: 2,4,6-Tribromophenol	*130*		µg/L	200		65.2		15-110			
Surrogate: p-Terphenyl-d14	*59.1*		µg/L	100		59.1		30-130			
LCS Dup (B182991-BSD1)				Prepared: 08/01/17 Analyzed: 08/02/17							
Acenaphthene	62.6	5.0	µg/L	100		62.6		47-145	7.06		
Acenaphthylene	59.3	5.0	µg/L	100		59.3		33-145	8.12		
Anthracene	64.3	5.0	µg/L	100		64.3		27-133	10.3		
Benzidine	10.1	20	µg/L	100		**10.1**	*	40-140	17.0		V-04, V-05, L-04
Benzo(g,h,i)perylene	65.5	5.0	µg/L	100		65.5		1-219	12.2		
4-Bromophenylphenylether	66.0	10	µg/L	100		66.0		53-127	12.4		
Butylbenzylphthalate	66.4	10	µg/L	100		66.4		1-152	9.03		
4-Chloro-3-methylphenol	74.6	10	µg/L	100		74.6		22-147	14.2		
Bis(2-chloroethyl)ether	66.5	10	µg/L	100		66.5		12-158	11.0		
Bis(2-chloroisopropyl)ether	54.2	10	µg/L	100		54.2		36-166	12.0		
2-Chloronaphthalene	54.7	10	µg/L	100		**54.7**	*	60-118	6.29		L-04
2-Chlorophenol	60.6	10	µg/L	100		60.6		23-134	12.1		
4-Chlorophenylphenylether	65.8	10	µg/L	100		65.8		25-158	9.90		
Di-n-butylphthalate	67.7	10	µg/L	100		67.7		1-118	10.6		
1,3-Dichlorobenzene	61.2	5.0	µg/L	100		61.2		1-172	14.1		
1,4-Dichlorobenzene	61.0	5.0	µg/L	100		61.0		20-124	12.4		
1,2-Dichlorobenzene	61.4	5.0	µg/L	100		61.4		32-129	14.4		
3,3-Dichlorobenzidine	57.2	10	µg/L	100		57.2		1-262	2.75		
2,4-Dichlorophenol	64.2	10	µg/L	100		64.2		39-135	11.1		
Diethylphthalate	71.0	10	µg/L	100		71.0		1-114	9.38		
2,4-Dimethylphenol	61.0	10	µg/L	100		61.0		32-119	18.1		
Dimethylphthalate	66.1	10	µg/L	100		66.1		1-112	8.50		
4,6-Dinitro-2-methylphenol	68.9	10	µg/L	100		68.9		1-181	9.31		
2,4-Dinitrophenol	73.6	10	µg/L	100		73.6		1-191	16.4		
2,4-Dinitrotoluene	66.4	10	µg/L	100		66.4		39-139	10.2		
2,6-Dinitrotoluene	64.0	10	µg/L	100		64.0		50-158	8.71		
Di-n-octylphthalate	81.6	10	µg/L	100		81.6		4-146	12.0		V-20
1,2-Diphenylhydrazine (as Azobenzene)	68.9	10	µg/L	100		68.9		40-140	12.2		
Bis(2-Ethylhexyl)phthalate	62.9	10	µg/L	100		62.9		8-158	7.88		
Fluoranthene	65.2	5.0	µg/L	100		65.2		26-137	13.6		
Fluorene	64.3	5.0	µg/L	100		64.3		59-121	8.32		
Hexachlorobenzene	60.9	10	µg/L	100		60.9		1-152	13.7		
Hexachlorobutadiene	69.6	10	µg/L	100		69.6		24-116	12.7		
Hexachlorocyclopentadiene	59.1	10	µg/L	100		59.1		40-140	5.63		V-19
Hexachloroethane	72.0	10	µg/L	100		72.0		40-113	14.6		
Isophorone	65.7	10	µg/L	100		65.7		21-196	14.1		
Naphthalene	63.4	5.0	µg/L	100		63.4		21-133	13.6		
Nitrobenzene	65.4	10	µg/L	100		65.4		35-180	13.9		

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QUALITY CONTROL

Semivolatile Organic Compounds by - GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B182991 - SW-846 3510C										
LCS Dup (B182991-BSD1)				Prepared: 08/01/17 Analyzed: 08/02/17						
2-Nitrophenol	62.0	10	µg/L	100		62.0	29-182	15.7		
4-Nitrophenol	42.6	10	µg/L	100		42.6	1-132	0.141		V-20
N-Nitrosodimethylamine	63.7	10	µg/L	100		63.7	40-140	18.6		V-20
N-Nitrosodiphenylamine	79.9	10	µg/L	100		79.9	40-140	7.99		
N-Nitrosodi-n-propylamine	69.0	10	µg/L	100		69.0	1-230	10.4		
2-Methylnaphthalene	67.4	5.0	µg/L	100		67.4	40-140	10.2	20	
Phenanthrene	65.2	5.0	µg/L	100		65.2	54-120	11.5		
2-Methylphenol	53.7	10	µg/L	100		53.7	30-130	11.5	20	
Phenol	32.4	10	µg/L	100		32.4	5-112	16.9		
3/4-Methylphenol	55.6	10	µg/L	100		55.6	30-130	11.1	20	
Pyrene	61.3	5.0	µg/L	100		61.3	52-115	8.90		
1,2,4-Trichlorobenzene	61.0	5.0	µg/L	100		61.0	44-142	15.1		
2,4,6-Trichlorophenol	60.6	10	µg/L	100		60.6	37-144	11.3		
Surrogate: 2-Fluorophenol	*86.8*		µg/L	200		43.4	15-110			
Surrogate: Phenol-d6	*62.5*		µg/L	200		31.2	15-110			
Surrogate: Nitrobenzene-d5	*72.2*		µg/L	100		72.2	30-130			
Surrogate: 2-Fluorobiphenyl	*64.5*		µg/L	100		64.5	30-130			
Surrogate: 2,4,6-Tribromophenol	*142*		µg/L	200		71.1	15-110			
Surrogate: p-Terphenyl-d14	*63.3*		µg/L	100		63.3	30-130			

con-test® ANALYTICAL LABORATORY

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QUALITY CONTROL

Polychlorinated Biphenyls By GC/ECD - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes
Batch B183062 - SW-846 3510C											
Blank (B183062-BLK1)				Prepared: 08/01/17 Analyzed: 08/04/17							
Aroclor-1016	ND	0.040	µg/L								
Aroclor-1016 [2C]	ND	0.040	µg/L								
Aroclor-1221	ND	0.040	µg/L								
Aroclor-1221 [2C]	ND	0.040	µg/L								
Aroclor-1232	ND	0.040	µg/L								
Aroclor-1232 [2C]	ND	0.040	µg/L								
Aroclor-1242	ND	0.040	µg/L								
Aroclor-1242 [2C]	ND	0.040	µg/L								
Aroclor-1248	ND	0.040	µg/L								
Aroclor-1248 [2C]	ND	0.040	µg/L								
Aroclor-1254	ND	0.040	µg/L								
Aroclor-1254 [2C]	ND	0.040	µg/L								
Aroclor-1260	ND	0.040	µg/L								
Aroclor-1260 [2C]	ND	0.040	µg/L								
Surrogate: Decachlorobiphenyl	*1.20*		µg/L	2.00		59.8		30-150			
Surrogate: Decachlorobiphenyl [2C]	*1.41*		µg/L	2.00		70.7		30-150			
Surrogate: Tetrachloro-m-xylene	*1.14*		µg/L	2.00		56.9		30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*1.44*		µg/L	2.00		71.9		30-150			
LCS (B183062-BS1)				Prepared: 08/01/17 Analyzed: 08/03/17							
Aroclor-1016	0.61	0.20	µg/L	0.500		**122**	*	50-114			L-02
Aroclor-1016 [2C]	0.54	0.20	µg/L	0.500		108		50-114			
Aroclor-1260	0.53	0.20	µg/L	0.500		106		8-127			
Aroclor-1260 [2C]	0.47	0.20	µg/L	0.500		94.4		8-127			
Surrogate: Decachlorobiphenyl	*2.01*		µg/L	2.00		101		30-150			
Surrogate: Decachlorobiphenyl [2C]	*1.84*		µg/L	2.00		92.1		30-150			
Surrogate: Tetrachloro-m-xylene	*1.74*		µg/L	2.00		86.8		30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*1.75*		µg/L	2.00		87.7		30-150			
LCS Dup (B183062-BSD1)				Prepared: 08/01/17 Analyzed: 08/03/17							
Aroclor-1016	0.60	0.20	µg/L	0.500		**120**	*	50-114	1.43		L-02
Aroclor-1016 [2C]	0.55	0.20	µg/L	0.500		110		50-114	1.74		
Aroclor-1260	0.53	0.20	µg/L	0.500		107		8-127	0.478		
Aroclor-1260 [2C]	0.48	0.20	µg/L	0.500		95.8		8-127	1.50		
Surrogate: Decachlorobiphenyl	*2.02*		µg/L	2.00		101		30-150			
Surrogate: Decachlorobiphenyl [2C]	*1.83*		µg/L	2.00		91.5		30-150			
Surrogate: Tetrachloro-m-xylene	*1.77*		µg/L	2.00		88.7		30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*1.81*		µg/L	2.00		90.6		30-150			

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QUALITY CONTROL

Metals Analyses (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B182719 - EPA 245.1										
Blank (B182719-BLK1)				Prepared: 07/27/17 Analyzed: 08/01/17						
Mercury	ND	0.00010	mg/L							
LCS (B182719-BS1)				Prepared: 07/27/17 Analyzed: 08/01/17						
Mercury	0.00228	0.00010	mg/L	0.00200		114	85-115			
LCS Dup (B182719-BSD1)				Prepared: 07/27/17 Analyzed: 08/01/17						
Mercury	0.00217	0.00010	mg/L	0.00200		109	85-115	5.04	20	
Batch B182896 - EPA 200.7										
Blank (B182896-BLK1)				Prepared: 08/01/17 Analyzed: 08/04/17						
Iron	ND	0.050	mg/L							
LCS (B182896-BS1)				Prepared: 08/01/17 Analyzed: 08/04/17						
Iron	2.08	0.050	mg/L	2.00		104	85-115			
LCS Dup (B182896-BSD1)				Prepared: 08/01/17 Analyzed: 08/04/17						
Iron	2.09	0.050	mg/L	2.00		105	85-115	0.559	20	
Batch B182983 - EPA 200.8										
Blank (B182983-BLK1)				Prepared: 08/01/17 Analyzed: 08/04/17						
Antimony	ND	1.0	µg/L							
Arsenic	ND	1.0	µg/L							
Cadmium	ND	0.20	µg/L							
Chromium	ND	10	µg/L							
Copper	ND	1.0	µg/L							
Lead	ND	0.50	µg/L							
Nickel	ND	5.0	µg/L							
Selenium	ND	5.0	µg/L							
Silver	ND	0.20	µg/L							
Zinc	ND	20	µg/L							
LCS (B182983-BS1)				Prepared: 08/01/17 Analyzed: 08/04/17						
Antimony	516	10	µg/L	500		103	85-115			
Arsenic	513	10	µg/L	500		103	85-115			
Cadmium	511	2.0	µg/L	500		102	85-115			
Chromium	518	100	µg/L	500		104	85-115			
Copper	506	10	µg/L	500		101	85-115			
Lead	516	5.0	µg/L	500		103	85-115			
Nickel	502	50	µg/L	500		100	85-115			
Selenium	518	50	µg/L	500		104	85-115			
Silver	512	2.0	µg/L	500		102	85-115			
Zinc	529	200	µg/L	500		106	85-115			

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QUALITY CONTROL

Metals Analyses (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B182983 - EPA 200.8										
LCS Dup (B182983-BSD1)				Prepared: 08/01/17 Analyzed: 08/04/17						
Antimony	534	10	µg/L	500		107	85-115	3.50	20	
Arsenic	534	10	µg/L	500		107	85-115	4.03	20	
Cadmium	528	2.0	µg/L	500		106	85-115	3.23	20	
Chromium	531	100	µg/L	500		106	85-115	2.50	20	
Copper	518	10	µg/L	500		104	85-115	2.35	20	
Lead	530	5.0	µg/L	500		106	85-115	2.79	20	
Nickel	521	50	µg/L	500		104	85-115	3.65	20	
Selenium	541	50	µg/L	500		108	85-115	4.21	20	
Silver	530	2.0	µg/L	500		106	85-115	3.56	20	
Zinc	542	200	µg/L	500		108	85-115	2.39	20	

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QUALITY CONTROL

Metals Analyses (Dissolved) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B182947 - EPA 200.8 Dissolved										
Blank (B182947-BLK1)				Prepared: 07/31/17 Analyzed: 08/01/17						
Antimony	ND	1.0	µg/L							
Arsenic	ND	1.0	µg/L							
Cadmium	ND	0.20	µg/L							
Chromium	ND	10	µg/L							
Copper	ND	1.0	µg/L							
Lead	ND	0.50	µg/L							
Nickel	ND	5.0	µg/L							
Selenium	ND	5.0	µg/L							
Silver	ND	0.20	µg/L							
Zinc	ND	20	µg/L							
LCS (B182947-BS1)				Prepared: 07/31/17 Analyzed: 08/01/17						
Antimony	525	10	µg/L	500		105	85-115			
Arsenic	518	10	µg/L	500		104	85-115			
Cadmium	511	2.0	µg/L	500		102	85-115			
Chromium	525	100	µg/L	500		105	85-115			
Copper	514	10	µg/L	500		103	85-115			
Lead	530	5.0	µg/L	500		106	85-115			
Nickel	517	50	µg/L	500		103	85-115			
Selenium	498	50	µg/L	500		99.7	85-115			
Silver	533	2.0	µg/L	500		107	85-115			
Zinc	503	200	µg/L	500		101	85-115			
LCS Dup (B182947-BSD1)				Prepared: 07/31/17 Analyzed: 08/01/17						
Antimony	531	10	µg/L	500		106	85-115	1.16	20	
Arsenic	522	10	µg/L	500		104	85-115	0.647	20	
Cadmium	516	2.0	µg/L	500		103	85-115	1.06	20	
Chromium	526	100	µg/L	500		105	85-115	0.224	20	
Copper	514	10	µg/L	500		103	85-115	0.0733	20	
Lead	532	5.0	µg/L	500		106	85-115	0.282	20	
Nickel	510	50	µg/L	500		102	85-115	1.30	20	
Selenium	502	50	µg/L	500		100	85-115	0.699	20	
Silver	536	2.0	µg/L	500		107	85-115	0.641	20	
Zinc	500	200	µg/L	500		100	85-115	0.502	20	
Duplicate (B182947-DUP1)	**Source: 17G1143-01**			Prepared: 07/31/17 Analyzed: 08/01/17						
Antimony	ND	5.0	µg/L		ND			NC	20	DL-15
Arsenic	25.1	5.0	µg/L		25.4			1.29	20	DL-15
Cadmium	ND	1.0	µg/L		ND			NC	20	DL-15
Chromium	ND	50	µg/L		ND			NC	20	DL-15
Copper	44.8	5.0	µg/L		50.2			11.5	20	DL-15
Lead	ND	2.5	µg/L		4.51			NC	20	DL-15
Nickel	ND	25	µg/L		ND			NC	20	DL-15
Selenium	71.4	25	µg/L		68.7			3.75	20	DL-15
Silver	ND	1.0	µg/L		ND			NC	20	DL-15
Zinc	ND	100	µg/L		ND			NC	20	DL-15

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QUALITY CONTROL

Metals Analyses (Dissolved) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B182947 - EPA 200.8 Dissolved										
Matrix Spike (B182947-MS1)	**Source: 17G1143-01**			Prepared: 07/31/17 Analyzed: 08/01/17						
Antimony	508	10	µg/L	500	ND	102	70-130			
Arsenic	522	10	µg/L	500	25.4	99.2	70-130			
Cadmium	417	2.0	µg/L	500	ND	83.4	70-130			
Chromium	557	100	µg/L	500	ND	111	70-130			
Copper	528	10	µg/L	500	50.2	95.5	70-130			
Lead	584	5.0	µg/L	500	4.51	116	70-130			
Nickel	503	50	µg/L	500	10.6	98.5	70-130			
Selenium	503	50	µg/L	500	68.7	86.9	70-130			
Silver	435	2.0	µg/L	500	ND	87.0	70-130			
Zinc	390	200	µg/L	500	ND	77.9	70-130			
Batch B182948 - EPA 200.7 Dissolved										
Blank (B182948-BLK1)				Prepared: 07/31/17 Analyzed: 08/05/17						
Iron	ND	0.050	mg/L							
LCS (B182948-BS1)				Prepared: 07/31/17 Analyzed: 08/05/17						
Iron	0.514	0.050	mg/L	0.500		103	85-115			
LCS Dup (B182948-BSD1)				Prepared: 07/31/17 Analyzed: 08/05/17						
Iron	0.526	0.050	mg/L	0.500		105	85-115	2.28	20	
Duplicate (B182948-DUP1)	**Source: 17G1143-01**			Prepared: 07/31/17 Analyzed: 08/05/17						
Iron	ND	0.050	mg/L		ND			NC	20	
Matrix Spike (B182948-MS1)	**Source: 17G1143-01**			Prepared: 07/31/17 Analyzed: 08/05/17						
Iron	0.533	0.050	mg/L	0.500	ND	107	70-130			
Batch B183147 - EPA 245.1										
Blank (B183147-BLK1)				Prepared: 08/02/17 Analyzed: 08/03/17						
Mercury	ND	0.00010	mg/L							
LCS (B183147-BS1)				Prepared: 08/02/17 Analyzed: 08/03/17						
Mercury	0.00170	0.00010	mg/L	0.00200		85.2	85-115			
LCS Dup (B183147-BSD1)				Prepared: 08/02/17 Analyzed: 08/03/17						
Mercury	0.00191	0.00010	mg/L	0.00200		95.7	85-115	11.6	20	

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QUALITY CONTROL

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B182614 - SM21-22 4500 CL G										
Blank (B182614-BLK1)				Prepared & Analyzed: 07/26/17						
Chlorine, Residual	ND	0.020	mg/L							
LCS (B182614-BS1)				Prepared & Analyzed: 07/26/17						
Chlorine, Residual	1.3	0.020	mg/L	1.20		111	82.5-130			
LCS Dup (B182614-BSD1)				Prepared & Analyzed: 07/26/17						
Chlorine, Residual	1.3	0.020	mg/L	1.20		112	82.5-130	0.609	6.2	
Duplicate (B182614-DUP1)		**Source: 17G1143-01**		Prepared & Analyzed: 07/26/17						
Chlorine, Residual	ND	0.020	mg/L		ND			NC	44.8	
Matrix Spike (B182614-MS1)		**Source: 17G1143-01**		Prepared & Analyzed: 07/26/17						
Chlorine, Residual	1.1	0.020	mg/L	5.00	ND	22.5	10-182			
Batch B182626 - SM21-22 3500 Cr B										
Blank (B182626-BLK1)				Prepared & Analyzed: 07/26/17						
Hexavalent Chromium	ND	0.0040	mg/L							
LCS (B182626-BS1)				Prepared & Analyzed: 07/26/17						
Hexavalent Chromium	0.092	0.0040	mg/L	0.100		91.8	86.6-115			
LCS Dup (B182626-BSD1)				Prepared & Analyzed: 07/26/17						
Hexavalent Chromium	0.089	0.0040	mg/L	0.100		89.5	86.6-115	2.58	6.61	
Duplicate (B182626-DUP1)		**Source: 17G1143-01**		Prepared & Analyzed: 07/26/17						
Hexavalent Chromium	ND	0.0040	mg/L		ND			NC	20	
Matrix Spike (B182626-MS1)		**Source: 17G1143-01**		Prepared & Analyzed: 07/26/17						
Hexavalent Chromium	0.094	0.0040	mg/L	0.100	ND	94.2	23.5-142			
Matrix Spike Dup (B182626-MSD1)		**Source: 17G1143-01**		Prepared & Analyzed: 07/26/17						
Hexavalent Chromium	0.092	0.0040	mg/L	0.100	ND	91.8	23.5-142	2.51	7.59	
Batch B182652 - EPA 1664B										
Blank (B182652-BLK1)				Prepared & Analyzed: 07/27/17						
Silica Gel Treated HEM (SGT-HEM)	ND	1.4	mg/L							
LCS (B182652-BS1)				Prepared & Analyzed: 07/27/17						
Silica Gel Treated HEM (SGT-HEM)	10		mg/L	10.0		101	64-132			

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QUALITY CONTROL

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B182652 - EPA 1664B										
Matrix Spike (B182652-MS1)	**Source: 17G1143-01**			Prepared & Analyzed: 07/27/17						
Silica Gel Treated HEM (SGT-HEM)	110	14	mg/L	100	ND	108	64-132			
Batch B182664 - SM21-22 2540D										
Blank (B182664-BLK1)				Prepared & Analyzed: 07/27/17						
Total Suspended Solids	ND	2.5	mg/L							
LCS (B182664-BS1)				Prepared & Analyzed: 07/27/17						
Total Suspended Solids	204	20	mg/L	200		102	66.7-117			

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QUALITY CONTROL

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Dissolved) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B184046 - SW-846 7196A										
Blank (B184046-BLK1)				Prepared & Analyzed: 07/26/17						
Hexavalent Chromium	ND	0.0040	mg/L							
LCS (B184046-BS1)				Prepared & Analyzed: 07/26/17						
Hexavalent Chromium	0.092	0.0040	mg/L	0.100		91.8	80-120			
LCS Dup (B184046-BSD1)				Prepared & Analyzed: 07/26/17						
Hexavalent Chromium	0.089	0.0040	mg/L	0.100		89.5	80-120	2.58	20	
Duplicate (B184046-DUP1)		**Source: 17G1143-01**		Prepared & Analyzed: 07/26/17						
Hexavalent Chromium	ND	0.0040	mg/L		ND			NC	20	
Matrix Spike (B184046-MS1)		**Source: 17G1143-01**		Prepared & Analyzed: 07/26/17						
Hexavalent Chromium	0.094	0.0040	mg/L	0.100	ND	94.2	75-125			
Matrix Spike Dup (B184046-MSD1)		**Source: 17G1143-01**		Prepared & Analyzed: 07/26/17						
Hexavalent Chromium	0.092	0.0040	mg/L	0.100	ND	91.8	75-125	2.51	20	

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QUALITY CONTROL

Drinking Water Organics EPA 504.1 - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B183230 - EPA 504 water										
Blank (B183230-BLK1)				Prepared & Analyzed: 08/03/17						
1,2-Dibromoethane (EDB)	ND	0.021	µg/L							
Surrogate: 1,3-Dibromopropane	*1.06*		µg/L	1.04		102	70-130			
LCS (B183230-BS1)				Prepared & Analyzed: 08/03/17						
1,2-Dibromoethane (EDB)	0.171	0.021	µg/L	0.182		94.3	70-130			
Surrogate: 1,3-Dibromopropane	*1.07*		µg/L	1.04		103	70-130			
LCS Dup (B183230-BSD1)				Prepared & Analyzed: 08/03/17						
1,2-Dibromoethane (EDB)	0.194	0.023	µg/L	0.199		97.1	70-130	12.2		
Surrogate: 1,3-Dibromopropane	*1.21*		µg/L	1.14		106	70-130			

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QUALITY CONTROL

EPA 300.0 - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1713429 - General Preparation										
Blank (1713429-BLK1)				Prepared: 08/03/17 Analyzed: 08/04/17						
Chloride	BRL	1.00	mg/l				-			
LCS (1713429-BS1)				Prepared: 08/03/17 Analyzed: 08/04/17						
Chloride	20.7	1.00	mg/l	20.0		104	90-110			
Reference (1713429-SRM1)				Prepared: 08/03/17 Analyzed: 08/04/17						
Chloride	25.2	1.00	mg/l	25.0		101	90-110			

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FLAG/QUALIFIER SUMMARY

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
ND	Not Detected
RL	Reporting Limit
DL	Method Detection Limit
MCL	Maximum Contaminant Level
	Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
	No results have been blank subtracted unless specified in the case narrative section.
DL-15	Sample required a dilution due to low internal standard recovery of the lesser diluted digestion, reporting limit is elevated.
GS1	Sample dilution required for high concentration of target analytes to be within the instrument calibration range.
J	Detected but below the Reporting Limit (lowest calibration standard); therefore, result is an estimated concentration (CLP J-Flag).
L-02	Laboratory fortified blank/laboratory control sample recovery and duplicate recoveries outside of control limits. Data validation is not affected since all results are "not detected" for associated samples in this batch and bias is on the high side.
L-04	Laboratory fortified blank/laboratory control sample recovery and duplicate recovery are outside of control limits. Reported value for this compound is likely to be biased on the low side.
V-04	Initial calibration did not meet method specifications. Compound was calibrated using a response factor where %RSD is outside of method specified criteria.
V-05	Continuing calibration did not meet method specifications and was biased on the low side for this compound. Increased uncertainty is associated with the reported value which is likely to be biased on the low side.
V-19	Initial calibration did not meet method specifications. Compound was calibrated using linear regression with correlation coefficient <0.99. Reduced precision and accuracy may be associated with reported result.
V-20	Continuing calibration did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
EPA 200.7 in Water	
Iron	CT,MA,NH,NY,RI,NC,ME,VA
Iron	CT,MA,NH,NY,RI,NC,ME,VA
Hardness	CT,MA,NH,NY,RI,VA
EPA 200.8 in Water	
Antimony	CT,MA,NH,NY,RI,NC,ME,VA
Antimony	CT,MA,NH,NY,RI,NC,ME,VA
Arsenic	CT,MA,NH,NY,RI,NC,ME,VA
Arsenic	CT,MA,NH,NY,RI,NC,ME,VA
Cadmium	CT,MA,NH,NY,RI,NC,ME,VA
Cadmium	CT,MA,NH,NY,RI,NC,ME,VA
Chromium	CT,MA,NH,NY,RI,NC,ME,VA
Chromium	CT,MA,NH,NY,RI,NC,ME,VA
Copper	CT,MA,NH,NY,RI,NC,ME,VA
Copper	CT,MA,NH,NY,RI,NC,ME,VA
Lead	CT,MA,NH,NY,RI,NC,ME,VA
Lead	CT,MA,NH,NY,RI,NC,ME,VA
Nickel	CT,MA,NH,NY,RI,NC,ME,VA
Nickel	CT,MA,NH,NY,RI,NC,ME,VA
Selenium	CT,MA,NH,NY,RI,NC,ME,VA
Selenium	CT,MA,NH,NY,RI,NC,ME,VA
Silver	CT,MA,NH,NY,RI,NC,ME,VA
Silver	CT,MA,NH,NY,RI,NC,ME,VA
Zinc	CT,MA,NH,RI,NY,NC,ME,VA
Zinc	CT,MA,NH,NY,RI,NC,ME,VA
EPA 245.1 in Water	
Mercury	CT,MA,NH,RI,NY,NC,ME,VA
Mercury	CT,MA,NH,RI,NY,NC,ME,VA
EPA 300.0 in Water	
Chloride	NC,NY,MA,VA,ME,NH,CT,RI
EPA 608 in Water	
Aroclor-1016	CT,MA,NH,NY,RI,NC,ME,VA
Aroclor-1016 [2C]	CT,MA,NH,NY,RI,NC,ME,VA
Aroclor-1221	CT,MA,NH,NY,RI,NC,ME,VA
Aroclor-1221 [2C]	CT,MA,NH,NY,RI,NC,ME,VA
Aroclor-1232	CT,MA,NH,NY,RI,NC,ME,VA
Aroclor-1232 [2C]	CT,MA,NH,NY,RI,NC,ME,VA
Aroclor-1242	CT,MA,NH,NY,RI,NC,ME,VA
Aroclor-1242 [2C]	CT,MA,NH,NY,RI,NC,ME,VA
Aroclor-1248	CT,MA,NH,NY,RI,NC,ME,VA
Aroclor-1248 [2C]	CT,MA,NH,NY,RI,NC,ME,VA
Aroclor-1254	CT,MA,NH,NY,RI,NC,ME,VA
Aroclor-1254 [2C]	CT,MA,NH,NY,RI,NC,ME,VA
Aroclor-1260	CT,MA,NH,NY,RI,NC,ME,VA
Aroclor-1260 [2C]	CT,MA,NH,NY,RI,NC,ME,VA
EPA 624 in Water	

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
EPA 624 in Water	
Acetone	NH,NY
Benzene	CT,MA,NH,NY,RI,NC,ME,VA
Carbon Tetrachloride	CT,MA,NH,NY,RI,NC,ME,VA
1,2-Dichlorobenzene	CT,MA,NH,NY,RI,NC,ME,VA
1,3-Dichlorobenzene	CT,MA,NH,NY,RI,NC,ME,VA
1,4-Dichlorobenzene	CT,MA,NH,NY,RI,NC,ME,VA
1,2-Dichloroethane	CT,MA,NH,NY,RI,NC,ME,VA
1,1-Dichloroethane	CT,MA,NH,NY,RI,NC,ME,VA
1,1-Dichloroethylene	CT,MA,NH,NY,RI,NC,ME,VA
Ethylbenzene	CT,MA,NH,NY,RI,NC,ME,VA
Methyl tert-Butyl Ether (MTBE)	NH,NY,NC
Methylene Chloride	CT,MA,NH,NY,RI,NC,ME,VA
Naphthalene	NC
Tetrachloroethylene	CT,MA,NH,NY,RI,NC,ME,VA
Toluene	CT,MA,NH,NY,RI,NC,ME,VA
1,2,4-Trichlorobenzene	NC
1,1,1-Trichloroethane	CT,MA,NH,NY,RI,NC,ME,VA
1,1,2-Trichloroethane	CT,MA,NH,NY,RI,NC,ME,VA
Trichloroethylene	CT,MA,NH,NY,RI,NC,ME,VA
Vinyl Chloride	CT,MA,NH,NY,RI,NC,ME,VA
m+p Xylene	CT,MA,NH,NY,RI,NC,VA
o-Xylene	CT,MA,NH,NY,RI,NC,VA
EPA 625 in Water	
Acenaphthene	CT,MA,NH,NY,NC,RI,ME,VA
Acenaphthylene	CT,MA,NH,NY,NC,RI,ME,VA
Anthracene	CT,MA,NH,NY,NC,RI,ME,VA
Benzidine	CT,MA,NH,NY,NC,RI,ME,VA
Benzo(a)anthracene	CT,MA,NH,NY,NC,RI,ME,VA
Benzo(a)pyrene	CT,MA,NH,NY,NC,RI,ME,VA
Benzo(b)fluoranthene	CT,MA,NH,NY,NC,RI,ME,VA
Benzo(g,h,i)perylene	CT,MA,NH,NY,NC,RI,ME,VA
Benzo(k)fluoranthene	CT,MA,NH,NY,NC,RI,ME,VA
4-Bromophenylphenylether	CT,MA,NH,NY,NC,RI,ME,VA
Butylbenzylphthalate	CT,MA,NH,NY,NC,RI,ME,VA
4-Chloro-3-methylphenol	CT,MA,NH,NY,NC,RI,VA
Bis(2-chloroethyl)ether	CT,MA,NH,NY,NC,RI,ME,VA
Bis(2-chloroisopropyl)ether	CT,MA,NH,NY,NC,RI,ME,VA
2-Chloronaphthalene	CT,MA,NH,NY,NC,RI,ME,VA
2-Chlorophenol	CT,MA,NH,NY,NC,RI,ME,VA
4-Chlorophenylphenylether	CT,MA,NH,NY,NC,RI,ME,VA
Chrysene	CT,MA,NH,NY,NC,RI,ME,VA
Dibenz(a,h)anthracene	CT,MA,NH,NY,NC,RI,ME,VA
Di-n-butylphthalate	CT,MA,NH,NY,NC,RI,ME,VA
1,3-Dichlorobenzene	MA,NC
1,4-Dichlorobenzene	MA,NC
1,2-Dichlorobenzene	MA,NC

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
EPA 625 in Water	
3,3-Dichlorobenzidine	CT,MA,NH,NY,NC,RI,ME,VA
2,4-Dichlorophenol	CT,MA,NH,NY,NC,RI,ME,VA
Diethylphthalate	CT,MA,NH,NY,NC,RI,ME,VA
2,4-Dimethylphenol	CT,MA,NH,NY,NC,RI,ME,VA
Dimethylphthalate	CT,MA,NH,NY,NC,RI,ME,VA
4,6-Dinitro-2-methylphenol	CT,MA,NH,NY,NC,RI,ME,VA
2,4-Dinitrophenol	CT,MA,NH,NY,NC,RI,ME,VA
2,4-Dinitrotoluene	CT,MA,NH,NY,NC,RI,ME,VA
2,6-Dinitrotoluene	CT,MA,NH,NY,NC,RI,ME,VA
Di-n-octylphthalate	CT,MA,NH,NY,NC,RI,ME,VA
1,2-Diphenylhydrazine (as Azobenzene)	NC
Bis(2-Ethylhexyl)phthalate	CT,MA,NH,NY,NC,RI,ME,VA
Fluoranthene	CT,MA,NH,NY,NC,RI,ME,VA
Fluorene	CT,MA,NH,NY,NC,RI,ME,VA
Hexachlorobenzene	CT,MA,NH,NY,NC,RI,ME,VA
Hexachlorobutadiene	CT,MA,NH,NY,NC,RI,ME,VA
Hexachlorocyclopentadiene	CT,MA,NH,NY,NC,RI,ME,VA
Hexachloroethane	CT,MA,NH,NY,NC,RI,ME,VA
Indeno(1,2,3-cd)pyrene	CT,MA,NH,NY,NC,RI,ME,VA
Isophorone	CT,MA,NH,NY,NC,RI,ME,VA
Naphthalene	CT,MA,NH,NY,NC,RI,ME,VA
Nitrobenzene	CT,MA,NH,NY,NC,RI,ME,VA
2-Nitrophenol	CT,MA,NH,NY,NC,RI,ME,VA
4-Nitrophenol	CT,MA,NH,NY,NC,RI,ME,VA
N-Nitrosodimethylamine	CT,MA,NH,NY,NC,RI,ME,VA
N-Nitrosodiphenylamine	CT,MA,NH,NY,NC,RI,ME,VA
N-Nitrosodi-n-propylamine	CT,MA,NH,NY,NC,RI,ME,VA
Pentachlorophenol	CT,MA,NH,NY,NC,RI,ME,VA
2-Methylnaphthalene	NC
Phenanthrene	CT,MA,NH,NY,NC,RI,ME,VA
2-Methylphenol	NY,NC
Phenol	CT,MA,NH,NY,NC,RI,ME,VA
3/4-Methylphenol	NY,NC
Pyrene	CT,MA,NH,NY,NC,RI,ME,VA
1,2,4-Trichlorobenzene	CT,MA,NH,NY,NC,RI,ME,VA
2,4,6-Trichlorophenol	CT,MA,NH,NY,NC,RI,ME,VA
2-Fluorophenol	NC
SM19-22 4500 NH3 C in Water	
Ammonia as N	NY,MA,CT,RI,VA,NC,ME
SM21-22 2540D in Water	
Total Suspended Solids	CT,MA,NH,NY,RI,NC,ME,VA
SM21-22 3500 Cr B in Water	
Hexavalent Chromium	NY,CT,NH,RI,ME,VA,NC
SM21-22 4500 CL G in Water	
Chlorine, Residual	CT,MA,RI,ME

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SM21-22 4500 CN E in Water	
Cyanide	CT,MA,NH,NY,RI,NC,ME,VA
SW-846 7196A in Water	
Hexavalent Chromium	CT,NH,NY,NC,ME,VA
SW-846 8015C in Water	
Ethanol	NY
SW-846 8270D in Water	
Acenaphthene	CT,NY,NC,ME,NH,VA,NJ
Acenaphthylene	CT,NY,NC,ME,NH,VA,NJ
Anthracene	CT,NY,NC,ME,NH,VA,NJ
Benzidine	CT,NY,NC,ME,NH,VA,NJ
Benzo(a)anthracene	CT,NY,NC,ME,NH,VA,NJ
Benzo(a)pyrene	CT,NY,NC,ME,NH,VA,NJ
Benzo(b)fluoranthene	CT,NY,NC,ME,NH,VA,NJ
Benzo(g,h,i)perylene	CT,NY,NC,ME,NH,VA,NJ
Benzo(k)fluoranthene	CT,NY,NC,ME,NH,VA,NJ
Bis(2-chloroethyl)ether	CT,NY,NC,ME,NH,VA,NJ
Bis(2-chloroisopropyl)ether	CT,NY,NC,ME,NH,VA,NJ
Bis(2-Ethylhexyl)phthalate	CT,NY,NC,ME,NH,VA,NJ
4-Bromophenylphenylether	CT,NY,NC,ME,NH,VA,NJ
Butylbenzylphthalate	CT,NY,NC,ME,NH,VA,NJ
4-Chloro-3-methylphenol	CT,NY,NC,ME,NH,VA,NJ
2-Chloronaphthalene	CT,NY,NC,ME,NH,VA,NJ
2-Chlorophenol	CT,NY,NC,ME,NH,VA,NJ
4-Chlorophenylphenylether	CT,NY,NC,ME,NH,VA,NJ
Chrysene	CT,NY,NC,ME,NH,VA,NJ
Dibenz(a,h)anthracene	CT,NY,NC,ME,NH,VA,NJ
Di-n-butylphthalate	CT,NY,NC,ME,NH,VA,NJ
1,2-Dichlorobenzene	CT,NY,NC,ME,NH,VA,NJ
1,3-Dichlorobenzene	CT,NY,NC,ME,NH,VA,NJ
1,4-Dichlorobenzene	CT,NY,NC,ME,NH,VA,NJ
3,3-Dichlorobenzidine	CT,NY,NC,ME,NH,VA,NJ
2,4-Dichlorophenol	CT,NY,NC,ME,NH,VA,NJ
Diethylphthalate	CT,NY,NC,ME,NH,VA,NJ
2,4-Dimethylphenol	CT,NY,NC,ME,NH,VA,NJ
Dimethylphthalate	CT,NY,NC,ME,NH,VA,NJ
4,6-Dinitro-2-methylphenol	CT,NY,NC,ME,NH,VA,NJ
2,4-Dinitrophenol	CT,NY,NC,ME,NH,VA,NJ
2,4-Dinitrotoluene	CT,NY,NC,ME,NH,VA,NJ
2,6-Dinitrotoluene	CT,NY,NC,ME,NH,VA,NJ
Di-n-octylphthalate	CT,NY,NC,ME,NH,VA,NJ
1,2-Diphenylhydrazine (as Azobenzene)	NY,NC,ME
Fluoranthene	CT,NY,NC,ME,NH,VA,NJ
Fluorene	NY,NC,ME,NH,VA,NJ
Hexachlorobenzene	CT,NY,NC,ME,NH,VA,NJ
Hexachlorobutadiene	CT,NY,NC,ME,NH,VA,NJ
Hexachlorocyclopentadiene	CT,NY,NC,ME,NH,VA,NJ

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 8270D in Water	
Hexachloroethane	CT,NY,NC,ME,NH,VA,NJ
Indeno(1,2,3-cd)pyrene	CT,NY,NC,ME,NH,VA,NJ
Isophorone	CT,NY,NC,ME,NH,VA,NJ
2-Methylnaphthalene	CT,NY,NC,ME,NH,VA,NJ
2-Methylphenol	CT,NY,NC,NH,VA,NJ
3/4-Methylphenol	CT,NY,NC,NH,VA,NJ
Naphthalene	CT,NY,NC,ME,NH,VA,NJ
Nitrobenzene	CT,NY,NC,ME,NH,VA,NJ
2-Nitrophenol	CT,NY,NC,ME,NH,VA,NJ
4-Nitrophenol	CT,NY,NC,ME,NH,VA,NJ
N-Nitrosodimethylamine	CT,NY,NC,ME,NH,VA,NJ
N-Nitrosodiphenylamine	CT,NY,NC,ME,NH,VA,NJ
N-Nitrosodi-n-propylamine	CT,NY,NC,ME,NH,VA,NJ
Pentachlorophenol	CT,NY,NC,ME,NH,VA,NJ
Phenanthrene	CT,NY,NC,ME,NH,VA,NJ
Phenol	CT,NY,NC,ME,NH,VA,NJ
Pyrene	CT,NY,NC,ME,NH,VA,NJ
1,2,4-Trichlorobenzene	CT,NY,NC,ME,NH,VA,NJ
2,4,6-Trichlorophenol	CT,NY,NC,ME,NH,VA,NJ
2-Fluorophenol	NC,VA
Phenol-d6	VA
Nitrobenzene-d5	VA

The CON-TEST Environmental Laboratory operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC - ISO17025:2005	100033	02/1/2018
MA	Massachusetts DEP	M-MA100	06/30/2018
CT	Connecticut Department of Publilc Health	PH-0567	09/30/2017
NY	New York State Department of Health	10899 NELAP	04/1/2018
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2018
RI	Rhode Island Department of Health	LAO00112	12/30/2017
NC	North Carolina Div. of Water Quality	652	12/31/2017
NJ	New Jersey DEP	MA007 NELAP	06/30/2018
FL	Florida Department of Health	E871027 NELAP	06/30/2018
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2018
ME	State of Maine	2011028	06/9/2019
VA	Commonwealth of Virginia	460217	12/14/2017
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2017
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2018
NC-DW	North Carolina Department of Health	25703	07/31/2018

17G1143

con-test ANALYTICAL LABORATORY

Phone: 413-525-2332
Fax: 413-525-6405
Email: info@contestlabs.com

CHAIN OF CUSTODY RECORD

39 Spruce Street
East Longmeadow, MA 01028

Page 1 of 1

Company Name:	NSTAR/Eversource - Monthly Billing
Address:	One NSTAR Way, Westwood, MA 02090
Phone:	781-866-1014
Project Name:	Station 385 Improvements
Project Location:	South Boston, MA
Project Number:	02134800 and 02106160
Project Manager:	Matthew Waldrip
Purchase Order Numb:	64454-1
Invoice Recipient:	NSTAR/Eversource - Monthly Billing
Sampled By:	

Requested Turnaround Time
7-Day ☐ 10-Day ☐
Other: 5 days

Rush-Approval Required
1-Day ☐ 3-Day ☐
2-Day ☐ 4-Day ☐

Data Delivery
Format: PDF ☑ EXCEL ☑
Other: GISKey
Enhanced Data Package Required: ☐
Email To: moliveira@trcsolutions.com, edenly@trcsolutions.com, Michael.Zylich@eversource.com

ANALYSIS REQUESTED

Con-Test Work Order#	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	Composite	Grab	[1]Matrix Code	Conc Code	VOCs via 624	SVOCs via 625/PAHs via 625-SIM	TPH (SGT) & TPH (SGT-HEM) via 1664	PCBs via 608	RGP List Metals (total and aq)	Hexavalent Chromium via SM3500	Total Cyanide via SM4500	EDB via 504.1	Ethanol	Ammonia via SM4500	Chloride via 300.0	Total Residual Chlorine via SM4500	TSS via SM2540D	Hardness via SM2340B
# of Containers								3	4	4	2	2	1	1	3	3	1	1	1	1	1
[2] Preservation Code								H	I	S	I	N	I	X	T	I	S	I	I	I	N
[3] Container Code								V	A	A	A	P	P	P	V	W	P	P	P	P	P
1	TMW-1	7/26/17	8:00		X	GW		X	X	X	X	X	X	X	X	X	X	X	X	X	X
2	TRIP BLANK							X													

Dissolved Metals Samples
● Field Filtered
○ Lab to Filter

Orthophosphate Samples
● Field Filtered N/A
○ Lab to Filter

[1] **Matrix Codes:**
GW = Ground Water
WW = Waste Water
DW = Drinking Water
A = Air
S = Soil/Solid
SL = Sludge
O = Other (please define)

[2] **Preservation Codes:**
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium Bisulfate
X = Sodium Hydroxide
T = Sodium Thiosulfate
O = Other (please define)

[3] **Container Codes:**
A = Amber Glass
G = Glass
P = Plastic
ST = Sterile
V = Vial
S = Summa Canister
T = Tedlar Bag
O = Other (please define)

Comments: RLs must meet EPA RGP Appendix VII limits. VOC list to include Tert-butyl alcohol. RGP SVOCs to include pentachlorophenol, DEH phthalate, total phthalates, and total phenol.

RGP Metals include antimony, arsenic, cadmium, chromium (III), chromium (VI), copper, iron, lead, mercury, nichel, selenium, silver, and zinc.

Please use the following codes to indicate possible sample concentration within the Conc Code column above:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

Relinquished by: (signature)	Date/Time: 7/26/17
Received by: (signature)	Date/Time: 7-26-17 13:19
Relinquished by: (signature)	Date/Time: 7/26/17 7:30
Received by: (signature)	Date/Time: 7/26/17 6:30
Relinquished by: (signature)	Date/Time:
Received by: (signature) 4.6	Date/Time: 7/26/17 1830

Detection Limit Requirements
MA: <RCGW-1, <EPA Region 1 RGP criteria
CT:
Other:

Program Information
● MCP Analytical Certification Form Required
○ RCP Analysis Certification Form Required
○ MA State DW Form Required
PWSID # _____

NELAC and AIHA-LAP, LLC Accredited

TURNAROUND TIME (BUSINESS DAYS) STARTS AT 9:00 AM THE DAY AFTER SAMPLE RECEIPT UNLESS THERE ARE QUESTIONS ON THIS CHAIN. IF THIS FORM IS NOT FILLED OUT COMPLETELY OR IS INCORRECT, TURNAROUND TIME CANNOT START UNTIL ALL QUESTIONS HAVE BEEN ANSWERED.

PLEASE BE CAREFUL NOT TO CONTAMINATE THIS DOCUMENT

Table of Contents

39 Spruce St.
East Longmeadow, MA. 01028
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F: 413-525-6405
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Doc# 277 Rev 5 2017

Login Sample Receipt Checklist - (Rejection Criteria Listing - Using Acceptance Policy) Any False Statement will be brought to the attention of the Client - State True or False

Client NStar

Received By JM Date 7/26/17 Time 1830

How were the samples received? In Cooler T No Cooler ____ On Ice T No Ice ____ Direct from Sampling ____ Ambient ____ Melted Ice ____

Were samples within Temperature? 2-6°C T By Gun # 1 Actual Temp - 4.6 By Blank # ____ Actual Temp - ____

Was Custody Seal Intact? N/A Were Samples Tampered with? F

Was COC Relinquished ? T Does Chain Agree With Samples? T

Are there broken/leaking/loose caps on any samples? F

Is COC in ink/ Legible? T Were samples received within holding time? T

Did COC include all pertinent Information? Client T Project T Analysis ID's T Sampler Name T Collection Dates/Times T

Are Sample labels filled out and legible? T

Are there Lab to Filters? N/A Who was notified? ____

Are there Rushes? N/A Who was notified? ____

Are there Short Holds? T Who was notified? David

Is there enough Volume? T

Is there Headspace where applicable? T MS/MSD? N/A

Proper Media/Containers Used? T Is splitting samples required? N/A

Were trip blanks received? T On COC? T

Do all samples have the proper pH? Acid T Base T

Vials	#	Containers:	#		#		#
Unp-	3	1 Liter Amb.	10	1 Liter Plastic		16 oz Amb.	
HCL-	&7	500 mL Amb.		500 mL Plastic	2	8oz Amb/Clear	
Meoh-		250 mL Amb.		250 mL Plastic	5	4oz Amb/Clear	
Bisulfate-		Col./Bacteria		Flashpoint		2oz Amb/Clear	
DI-		Other Plastic		Other Glass		Encore	
Thiosulfate-		SOC Kit		Plastic Bag		Frozen:	
Sulfuric-		Perchlorate		Ziplock			

Unused Media

Vials	#	Containers:	#		#		#
Unp-		1 Liter Amb.		1 Liter Plastic		16 oz Amb.	
HCL-		500 mL Amb.		500 mL Plastic		8oz Amb/Clear	
Meoh-		250 mL Amb.		250 mL Plastic		4oz Amb/Clear	
Bisulfate-		Col./Bacteria		Flashpoint		2oz Amb/Clear	
DI-		Other Plastic		Other Glass		Encore	
Thiosulfate-		SOC Kit		Plastic Bag		Frozen:	
Sulfuric-		Perchlorate		Ziplock			

Comments:

con-test® ANALYTICAL LABORATORY
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August 9, 2017

Matthew Waldrip
NSTAR Electric & Gas Corporation
One NSTAR Way, SUM SE-250
Westwood, MA 02090-9230

Project Location: South Boston, MA
Client Job Number:
Project Number: [none]
Laboratory Work Order Number: 17H0120

Enclosed are results of analyses for samples received by the laboratory on August 2, 2017. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

James M. Georgantas
Project Manager

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

NSTAR Electric & Gas Corporation
One NSTAR Way, SUM SE-250
Westwood, MA 02090-9230
ATTN: Matthew Waldrip

REPORT DATE: 8/9/2017

PURCHASE ORDER NUMBER: 64454 Release 1

PROJECT NUMBER: [none]

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 17H0120

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION: South Boston, MA

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
SW-1	17H0120-01	Surface Water		SM19-22 4500 NH3 C	MA M-MA-086/CT PH-0574/NY11148
				SM2520B	NY11393/MA-MAI138/MA1110

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CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.
I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Lisa A. Worthington
Project Manager

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: South Boston, MA | Sample Description: | Work Order: 17H0120

Date Received: 8/2/2017

Field Sample #: SW-1 | Sampled: 8/2/2017 13:00

Sample ID: 17H0120-01

Sample Matrix: Surface Water

SM 2520 (01)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Salinity	29.1	1.00	ppt (1000)	1		wc-Salinity-SM2520	8/8/17	8/8/17 17:27	BD

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: South Boston, MA | Sample Description: | Work Order: 17H0120

Date Received: 8/2/2017

Field Sample #: SW-1 | Sampled: 8/2/2017 13:00

Sample ID: 17H0120-01

Sample Matrix: Surface Water

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Ammonia as N	0.235	0.075	mg/L	1		SM19-22 4500 NH3 C		8/3/17 0:00	AA

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QUALITY CONTROL

SM 2520 (01) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1713654 - General Preparation										
Duplicate (1713654-DUP1)		**Source: 17H0120-01**		Prepared & Analyzed: 08/08/17						
Salinity	28.6	1.00	ppt (1000)		29.1		-	2	10	
Reference (1713654-SRM1)				Prepared & Analyzed: 08/08/17						
Salinity	10.2	1.00	ppt (1000)	10.0		102	90-110			
Reference (1713654-SRM2)				Prepared & Analyzed: 08/08/17						
Salinity	10.1	1.00	ppt (1000)	10.0		101	90-110			

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FLAG/QUALIFIER SUMMARY

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
ND	Not Detected
RL	Reporting Limit
DL	Method Detection Limit
MCL	Maximum Contaminant Level

Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.

No results have been blank subtracted unless specified in the case narrative section.

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SM19-22 4500 NH3 C in Water	
Ammonia as N	NY,MA,CT,RI,VA,NC,ME

The CON-TEST Environmental Laboratory operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC - ISO17025:2005	100033	02/1/2018
MA	Massachusetts DEP	M-MA100	06/30/2018
CT	Connecticut Department of Publilc Health	PH-0567	09/30/2017
NY	New York State Department of Health	10899 NELAP	04/1/2018
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2018
RI	Rhode Island Department of Health	LAO00112	12/30/2017
NC	North Carolina Div. of Water Quality	652	12/31/2017
NJ	New Jersey DEP	MA007 NELAP	06/30/2018
FL	Florida Department of Health	E871027 NELAP	06/30/2018
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2018
ME	State of Maine	2011028	06/9/2019
VA	Commonwealth of Virginia	460217	12/14/2017
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2017
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2018
NC-DW	North Carolina Department of Health	25703	07/31/2018

17H0120

con-test ANALYTICAL LABORATORY

Phone: 413-525-2332
Fax: 413-525-6405
Email: info@contestlabs.com

http://www.contestlabs.com

Doc # 381 Rev 0 5 8 2015

CHAIN OF CUSTODY RECORD

39 Spruce Street
East Longmeadow, MA 01028

Page 1 of 1

Company Name:	NSTAR/Eversource - Monthly Billing
Address:	One NSTAR Way, Westwood, MA 02090
Phone:	781-866-1014
Project Name:	Station 385 Improvements
Project Location:	South Boston, MA
Project Number:	02134800 and 02106160
Project Manager:	Matthew Waldrip
Purchase Order Numbe	64454-1
Invoice Recipient:	NSTAR/Eversource - Monthly Billing
Sampled By:	

Requested Turnaround Time
7-Day ☐ 10-Day ☐
Other: 5 days

Rush-Approval Required
1-Day ☐ 3-Day ☐
2-Day ☐ 4-Day ☐

Data Delivery
Format: PDF ☑ EXCEL ☑
Other: GISKey
Enhanced Data Package Required: ☐
Email To: moliveira@trcsolutions.com, pzhou@trcsolutions.com, matthew.waldrip@eversource.com

ANALYSIS REQUESTED

Con-Test Work Order#	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	Composite	Grab	[1] Matrix Code	Conc Code	Ammonia via SM4500	Salinity	# of Containers	[2] Preservation Code	[3] Container Code
										1	I	
										2	I	
										P	P	
01	SW	8/2/17	13:00		X	SW		X	X			

Dissolved Metals Samples
○ Field Filtered
○ Lab to Filter

Orthophosphate Samples
○ Field Filtered
○ Lab to Filter

[1] **Matrix Codes:**
GW = Ground Water
WW = Waste Water
DW = Drinking Water
A = Air
S = Soil/Solid
SL = Sludge
O = Other (please define) _____

[2] **Preservation Codes:**
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium Bisulfate
X = Sodium Hydroxide
T = Sodium Thiosulfate
O = Other (please define) _____

[3] **Container Codes:**
A = Amber Glass
G = Glass
P = Plastic
ST = Sterile
V = Vial
S = Summa Canister
T = Tedlar Bag
O = Other (please define) _____

Comments: RLs must meet EPA RGP Appendix VII limits. VOC list to include Tert-butyl alcohol. RGP SVOCs to include pentachlorophenol, DEH phthalate, total phthalates, and total phenol.

RGP Metals include antimony, arsenic, cadmium, chromium (III), chromium (VI), copper, iron, lead, mercury, nichel, selenium, silver, and zinc.

Please use the following codes to indicate possible sample concentration within the Conc Code column above:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

Relinquished by: (signature)	Date/Time: 8/2/17 15:15
Received by: (signature)	Date/Time: 1515 8-2-17
Relinquished by: (signature)	Date/Time: 8-2-17 1900
Received by: (signature)	Date/Time: 8/2/17 1900
Relinquished by: (signature)	Date/Time:
Received by: (signature)	Date/Time:

Detection Limit Requirements
MA: <RCGW-1, <EPA Region 1 RGP & DGP criteria
CT:
Other:

Program Information

● MCP Analytical Certification Form Required
○ RCP Analysis Certification Form Required
○ MA State DW Form Required
PWSID # _____

NELAC and AIHA-LAP, LLC Accredited

TURNAROUND TIME (BUSINESS DAYS) STARTS AT 9:00 AM THE DAY AFTER SAMPLE RECEIPT UNLESS THERE ARE QUESTIONS ON THIS CHAIN. IF THIS FORM IS NOT FILLED OUT COMPLETELY OR IS INCORRECT, TURNAROUND TIME CANNOT START UNTIL ALL QUESTIONS HAVE BEEN ANSWERED.

PLEASE BE CAREFUL NOT TO CONTAMINATE THIS DOCUMENT

Table of Contents

ATTACHMENT E

LETTER FROM US FISH & WILDLIFE SERVICE

United States Department of the Interior

FISH AND WILDLIFE SERVICE
New England Ecological Services Field Office
70 Commercial Street, Suite 300
Concord, NH 03301-5094
Phone: (603) 223-2541 Fax: (603) 223-0104
http://www.fws.gov/newengland

In Reply Refer To: July 09, 2018
Consultation Code: 05E1NE00-2018-SLI-2312
Event Code: 05E1NE00-2018-E-05399
Project Name: Substation Improvements - K Street, Boston, MA

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (http://www.fws.gov/windenergy/) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm; http://www.towerkill.com; and http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

New England Ecological Services Field Office
70 Commercial Street, Suite 300
Concord, NH 03301-5094
(603) 223-2541

Project Summary

Consultation Code: 05E1NE00-2018-SLI-2312

Event Code: 05E1NE00-2018-E-05399

Project Name: Substation Improvements - K Street, Boston, MA

Project Type: DEVELOPMENT

Project Description: Discharge to Reserved Channel either directly or indirectly via municipal storm sewer associated with contaminated site dewatering from substation improvement project.

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/place/42.34034649737799N71.0396248662459W

Counties: Suffolk, MA

Endangered Species Act Species

There is a total of 0 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

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1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

ATTACHMENT F

MASSACHUSETTS CULTURAL RESOURCES DATABASE SEARCH RESULTS

Massachusetts Cultural Resource Information System
MACRIS

MACRIS Search Results

Search Criteria: Town(s): Boston; Street Name: East First;

Inv. No.	Property Name	Street	Town	Year
BOS.12994		East First St	Boston	r 1950
BOS.12991		564 East First St	Boston	1919
BOS.12992	Grueby Faience Company Work Shop	566 East First St	Boston	c 1899
BOS.12993		570 East First St	Boston	r 1920
BOS.6752	Condit Electrical Company Building	603-609 East First St	Boston	1915
BOS.6753	Boston Elevated Railway South Boston Power Station	696 East First St	Boston	1911
BOS.6754	Walworth Radiator Manufacturing Company Warehouse	881 East First St	Boston	1904