W. L. FRENCH EXCAVATING CORPORATION
COMMERCIAL SITE DEVELOPMENT • CONTRACT TRUCKING • ENVIRONMENTAL MANAGEMENT

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

February 12, 2016

Re: Notice of Intent for the Dewatering General Permit
Temporary Construction Dewatering for Site Redevelopment
Block 5, Assembly Row Redevelopment Project
Assembly Square, Somerville, Massachusetts

Dear Sir/Madam:

On behalf of Street Retail, Inc., W.L. French Excavating Corp (W.L. French) is submitting this Notice of Intent (NOI) to the USEPA for coverage under the National Pollutant Discharge Elimination System (NPDES) Dewatering General Permit (DGP) MAG070000. This letter and supporting documentation were prepared in accordance with the U.S. EPA guidance for construction dewatering under the DGP program. W.L. French is the earth work for the project and will have direct responsibility of the subcontractors performing the dewatering activities at the Site. Subcontractors working for W.L. French on the project will be required to meet the requirements of this NOI and the DGP.

This NOI will cover construction activities associated with site redevelopment on Block 5 of the Assembly Row development. The site is located in the eastern portion of Somerville, Massachusetts, in the Assembly Square area south of the Mystic River (see Figure 1). The site consists of portions of four former properties that were known as 74 Foley Street, 85 Foley Street, 99 Foley Street, and 100 Foley Street. A subdivision plan was recorded on December 28, 2011 (Plan 880 of 2011), which created Parcel 31. Parcel 31 is also identified as Block 5 of the Assembly Row project and is slated for redevelopment.

Block 5 is a portion of Massachusetts Contingency Plan (MCP) sites associated with Release Tracking Numbers (RTNs) 3-0434, 3-0649, 3-28785, 3-28993, 3-28781, and 3-33147, as shown on Figure 2. Brief descriptions of these releases and their regulatory status are provided below.

- RTN 3-0649 is related to historic petroleum releases from former fuel storage. Remediation was performed, and a Class A-3 Response Action Outcome (RAO) (Permanent Solutions) was achieved in 1999. The Permanent Solution relied upon an Activity and Use Limitation (AUL), which

was required due to the presence of residual levels of petroleum hydrocarbons in soil.

- RTN 3-0434 is related to historic industrial uses of the property that resulted in releases of petroleum hydrocarbons, metals and volatile organic compounds. Remediation was performed, and a Class A-3 RAO (Permanent Solution) was achieved in 1999. The Permanent Solution relied upon an AUL, which was required due to the presence of residual contamination in soil and groundwater. We note that only a very small portion of the Block 5 project site is located within the RTN 3-0434 boundary.

- RTNs 3-28785 and 3-28993 are related to a localized release of fuel oil. Remediation was performed, and a Class A-2 RAO (Permanent Solution) was achieved in 2013. Post remediation concentrations did not require the implementation of an AUL to achieve regulatory closure.

- RTN 3-28781 pertains to a release from former gasoline underground storage tanks. The tanks and soil were removed, and a Class A-2 RAO was achieved in 2009. Post remediation concentrations did not require the implementation of an AUL to achieve regulatory closure.

- RTN 3-33147 was identified during pre-characterization activities for this project and is related to the presence of urban fill soil. A Permanent Solution with No Conditions was filed for RTN 3-33147 on September 18, 2015. Soil concentrations did not require the implementation of an AUL to achieve regulatory closure.

The temporary construction dewatering will discharge via a 72-inch storm drain outfall which was installed as part of the Assembly Row development. The 72-inch storm drain outfall discharges to the Mystic River below the Amelia Earhart DAM (Figure 2).

According to the Massachusetts Department of Environmental Protection (DEP) Areas of Critical Environmental Concern (ACEC) Map and the DEP Phase I Site Assessment Map, the excavation activities will not impact ACECs or Habitats of Rare Wetland Wildlife. These maps are included in Appendix A. A Summary of Essential Fish Habitat (EFH) Designation List was obtained from the National Oceanic and Atmospheric Administration website on January 13, 2016. The list of the EFH species and applicable life states for the Mystic River area is included in Appendix B. Based on the effluent water quality of the discharge to the storm drain, in our

opinion, the specifications of the DGP have been fulfilled and EFHs will not be negatively impacted by construction dewatering activities at the Site.

The U.S. Fish and Wildlife Service Information for Planning and Conservation (IPaC) online system process was completed on January 13, 2016. A review of the information from the IPaC online system indicated that the project will not impact federally-listed threatened or endangered species and there are no critical habitats within the project area. A copy of the IPaC generated preliminary determination letter is included in Appendix C. There has not been a previous consultation with National Marine Fisheries Service (NMFS) for this discharge.

The site was not identified on the National Register of Historic Places listings for Somerville, MA. The Massachusetts Cultural Resource Information System (MACRIS) was accessed on January 13, 2016. According to MACRIS, there are three historic properties within the Site vicinity including the former H.K. Tool Manufacturing Company, First National Store Warehouse, and the B&M Railroad East Somerville Locomotive Shop. These buildings were constructed in 1945, 1929, and 1925, respectively as a part of the former industrial area of Somerville known as Assembly Square. These buildings have since been demolished. Since these structures no longer exist, dewatering activities at the Site will not negatively impact these historic properties. Documents obtained from the MACRIS website are included in Appendix D.

The construction activities will require the excavation of soil to a depth of approximately 15 to 20 feet below ground surface (bgs) depending on the location. Groundwater is anticipated to be encountered between 10 and 15 feet bgs. Groundwater that flows into excavations during construction activities will either be recharged in close proximity to the active excavation areas or be treated prior to discharge to a storm drain such that the discharged effluent meets the effluent limitations established by Appendix VII of the DGP Application. Figure 3 includes a schematic of the proposed dewatering treatment system. As shown on Figure 3, a pH adjustment will be used if needed, and we anticipate the chemical used will be sulfuric acid. A copy of the Material Safety Data Sheet (MSDS) for sulfuric acid is included in Appendix E.

Groundwater samples were collected from wells SH-904(W), SH-909(W), and SH-916(W) (see Figure 2) on July 16, 2015 and on January 8, 2016 and were submitted for laboratory analysis of the parameters included in Appendix VII of the DGP. The data, which was used to complete the NOI, is summarized in Table 1 and the

laboratory analytical report is included in Appendix F. The final discharge point for the treatment system will be the Mystic River.

The completed Notice of Intent for the Dewatering General Permit form is included as Appendix G. Discharge of treated water is scheduled to begin as early as February 15, 2016, pending authorization from the EPA and other agencies.

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

Very truly yours,

W.L. French Excavating Corp

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Mario Marchese
Project Manager

encl. Table 1 – Summary of Groundwater Analytical Data
Figure 1 – Locus Plan
Figure 2 – Site Plan with Target Discharge Point
Figure 3 – Proposed Groundwater Treatment Schematic
Appendix A – Areas of Critical Environmental Concern Maps
Appendix B – Essential Fish Habitat Designation
Appendix C – Federal Correspondence
Appendix D – National Register of Historic Places, Somerville, Massachusetts
Appendix E – Material Safety Data Sheet
Appendix F – Analytical Laboratory Reports
Appendix G – Notice of Intent

TABLE

Table 1
Summary of Groundwater Analytical Data
NPDES Remediation General Permit
Block 5

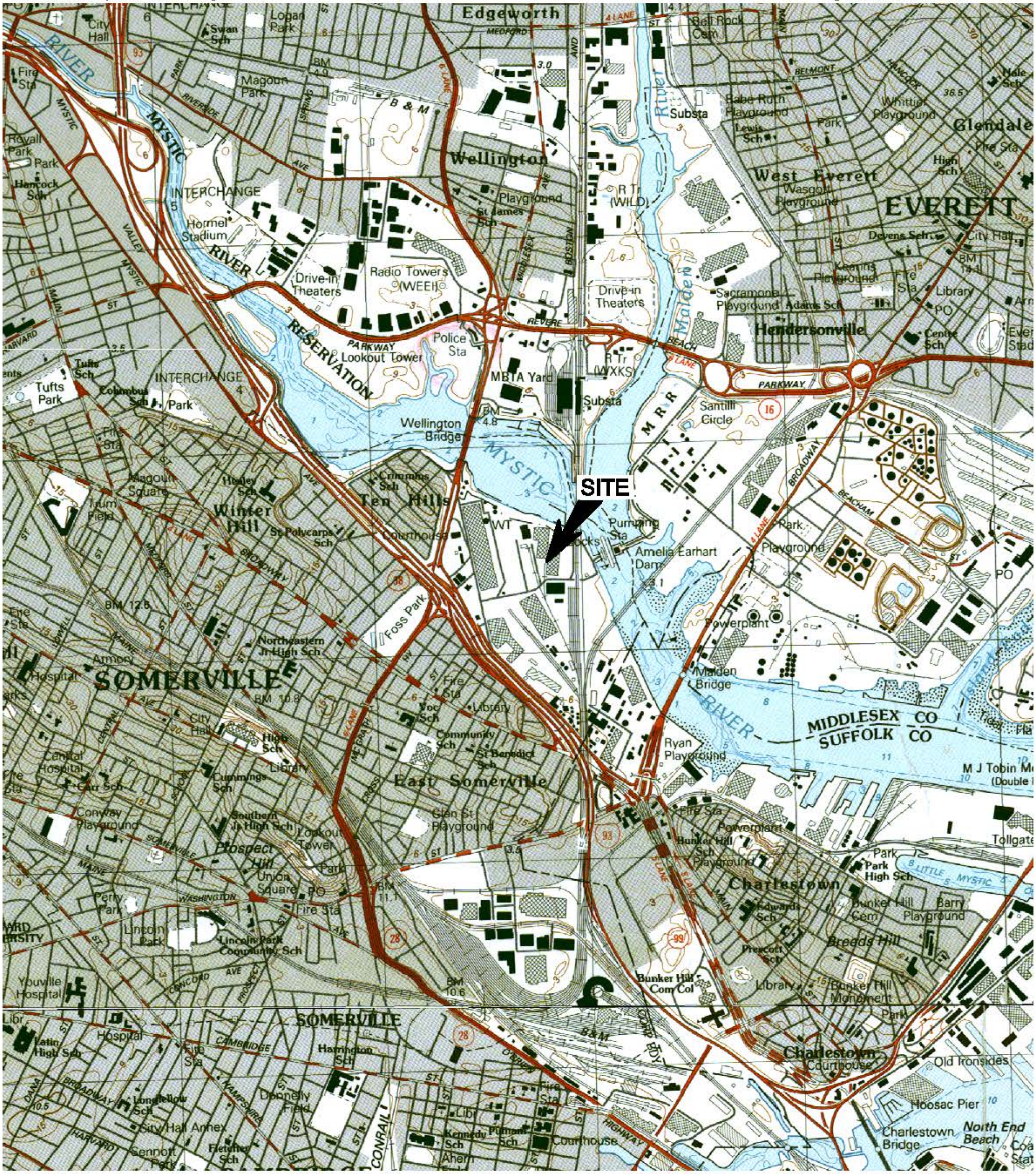
Location	Analytical Method	NPDES DGP Effluent Limit	Units	BLOCK 5 RGP	BLOCK 5 GW-1
Sampling Date				**7/16/2015**	**1/8/2016**
Anions by Ion Chromatography					
Chloride	CL-300	Varies	mg/l	300	-
General Chemistry					
Solids, Total Suspended	TSS-2540	100	mg/l	**980**	-
Cyanide, Total	TCN-4500	ND	ug/l	<5	-
Chlorine, Total Residual	TRC-4500	Varies	ug/l	<20	-
TPH	TPH-1664	ND	mg/l	<4	-
Phenolics, Total	TPHENOL-420	ND	ug/l	<30	-
Chromium, Hexavalent2	HEXCR-3500	ND	ug/l	<10	-
Pesticides					
1,2-Dibromoethane	504	ND	ug/l	<0.01	-
Polychlorinated Biphenyls					
Aroclor 1016	PCB-608	ND	ug/l	<0.25	-
Aroclor 1221	PCB-608	ND	ug/l	<0.25	-
Aroclor 1232	PCB-608	ND	ug/l	<0.25	-
Aroclor 1242	PCB-608	ND	ug/l	<0.25	-
Aroclor 1248	PCB-608	ND	ug/l	<0.25	-
Aroclor 1254	PCB-608	ND	ug/l	<0.25	-
Aroclor 1260	PCB-608	ND	ug/l	<0.2	-
Total PCBs	PCB-608	ND	ug/l	BDL	-
MCP Semivolatile Organics					
1,2,4-Trichlorobenzene	8270TCL	ND	ug/l	<5	-
Bis(2-chloroethyl)ether	8270TCL	ND	ug/l	<2	-
1,2-Dichlorobenzene	8270TCL	ND	ug/l	<2	-
1,3-Dichlorobenzene	8270TCL	ND	ug/l	<2	-
1,4-Dichlorobenzene	8270TCL	ND	ug/l	<2	-
3,3'-Dichlorobenzidine	8270TCL	ND	ug/l	<5	-
2,4-Dinitrotoluene	8270TCL	ND	ug/l	<5	-
2,6-Dinitrotoluene	8270TCL	ND	ug/l	<5	-
Azobenzene	8270TCL	ND	ug/l	<2	-
4-Bromophenyl phenyl ether	8270TCL	ND	ug/l	<2	-
Bis(2-chloroisopropyl)ether	8270TCL	ND	ug/l	<2	-
Bis(2-chloroethoxy)methane	8270TCL	ND	ug/l	<5	-
Isophorone	8270TCL	ND	ug/l	<5	-
Nitrobenzene	8270TCL	ND	ug/l	<2	-
Bis(2-ethylhexyl)phthalate	8270TCL	ND	ug/l	<3	-
Butyl benzyl phthalate	8270TCL	ND	ug/l	<5	-
Di-n-butylphthalate	8270TCL	ND	ug/l	<5	-
Di-n-octylphthalate	8270TCL	ND	ug/l	<5	-
Diethyl phthalate	8270TCL	ND	ug/l	<5	-
Dimethyl phthalate	8270TCL	ND	ug/l	<5	-
Aniline	8270TCL	ND	ug/l	<2	-
4-Chloroaniline	8270TCL	ND	ug/l	<5	-
Dibenzofuran	8270TCL	ND	ug/l	<2	-
2,4,6-Trichlorophenol	8270TCL	ND	ug/l	<5	-
2-Chlorophenol	8270TCL	ND	ug/l	<2	-
2,4-Dichlorophenol	8270TCL	ND	ug/l	<5	-
2,4-Dimethylphenol	8270TCL	ND	ug/l	<5	-
2-Nitrophenol	8270TCL	ND	ug/l	<10	-
4-Nitrophenol	8270TCL	ND	ug/l	<10	-
2,4-Dinitrophenol	8270TCL	ND	ug/l	<20	-
Phenol	8270TCL	ND	ug/l	<5	-
2-Methylphenol	8270TCL	ND	ug/l	<5	-
3-Methylphenol/4-Methylphenol	8270TCL	ND	ug/l	<5	-
2,4,5-Trichlorophenol	8270TCL	ND	ug/l	<5	-
Total Phenols	8270TCL	ND	ug/l	BDL	-
Semivolatile Organic Compounds (SVOCs)					
Acenaphthene	8270TCL-SIM	ND	ug/l	<0.1	-
2-Chloronaphthalene	8270TCL-SIM	ND	ug/l	<0.2	
Fluoranthene	8270TCL-SIM	ND	ug/l	<0.2	-
Hexachlorobutadiene	8270TCL-SIM	ND	ug/l	<0.5	-
Naphthalene	8270TCL-SIM	ND	ug/l	<0.2	-
Benzo(a)anthracene	8270TCL-SIM	ND	ug/l	<0.2	-
Benzo(a)pyrene	8270TCL-SIM	ND	ug/l	<0.2	-
Benzo(b)fluoranthene	8270TCL-SIM	ND	ug/l	<0.2	-
Benzo(k)fluoranthene	8270TCL-SIM	ND	ug/l	<0.2	-
Chrysene	8270TCL-SIM	ND	ug/l	<0.2	-
Acenaphthylene	8270TCL-SIM	ND	ug/l	<0.2	-
Anthracene	8270TCL-SIM	ND	ug/l	<0.2	-
Benzo(ghi)perylene	8270TCL-SIM	ND	ug/l	<0.2	-
Fluorene	8270TCL-SIM	ND	ug/l	<0.2	-
Phenanthrene	8270TCL-SIM	ND	ug/l	<0.2	-
Dibenzo(a,h)anthracene	8270TCL-SIM	ND	ug/l	<0.2	-
Indeno(1,2,3-cd)Pyrene	8270TCL-SIM	ND	ug/l	**0.2**	-
Pyrene	8270TCL-SIM	ND	ug/l	<0.2	-
2-Methylnaphthalene	8270TCL-SIM	ND	ug/l	<0.2	-
Pentachlorophenol	8270TCL-SIM	ND	ug/l	<0.8	-
Hexachlorobenzene	8270TCL-SIM	ND	ug/l	<0.8	-
Hexachloroethane	8270TCL-SIM	ND	ug/l	<0.8	-
Dissolved Metals					
Antimony, Dissolved	SB-6020T	5.6	ug/l	<2	<2
Arsenic, Dissolved	AS-6020T	36	ug/l	2.1	5.8
Cadmium, Dissolved	CD-6020T	8.9	ug/l	<0.2	<0.2
Chromium, Dissolved[2]	CR-6020T	100*	ug/l	3.5	<0.1
Copper, Dissolved	CU-6020T	3.7	ug/l	<1	<0.1
Iron, Dissolved	FE-UI	1,000	ug/l	**5,800**	**10,800**
Lead, Dissolved	PB-6020T	8.5	ug/l	0.9	<0.5
Mercury, Dissolved	HG-U	1.1	ug/l	<1	<0.2
Nickel, Dissolved	NI-6020T	8.2	ug/l	**11**	**9.0**
Selenium, Dissolved	SE-6020T	71	ug/l	<5	<5.0
Silver, Dissolved	AG-6020T	2.2	ug/l	<0.4	<0.4
Zinc, Dissolved	ZN-6020T	85.6	ug/l	<10	<10

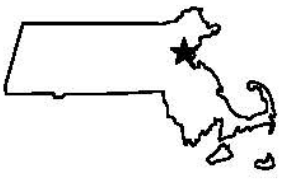
Table 1
Summary of Groundwater Analytical Data
NPDES Remediation General Permit
Block 5

Location	Analytical Method	NPDES DGP Effluent Limit	Units	BLOCK 5 RGP	BLOCK 5 GW-1
Sampling Date				**7/16/2015**	**1/8/2016**
Volatile Organic Compounds (VOCs)					
Methylene chloride	8260	ND	ug/l	<3	-
1,1-Dichloroethane	8260	ND	ug/l	<0.75	-
Chloroform	8260	ND	ug/l	<0.75	-
Carbon tetrachloride	8260	ND	ug/l	<0.5	-
1,2-Dichloropropane	8260	ND	ug/l	<1.8	-
Dibromochloromethane	8260	ND	ug/l	<0.5	-
1,1,2-Trichloroethane	8260	ND	ug/l	<0.75	-
Tetrachloroethene	8260	ND	ug/l	<0.5	-
Chlorobenzene	8260	ND	ug/l	<0.5	-
Trichlorofluoromethane	8260	ND	ug/l	<2.5	-
1,2-Dichloroethane	8260	ND	ug/l	<0.5	-
1,1,1-Trichloroethane	8260	ND	ug/l	<0.5	-
Bromodichloromethane	8260	ND	ug/l	<0.5	-
trans-1,3-Dichloropropene	8260	ND	ug/l	<0.5	-
cis-1,3-Dichloropropene	8260	ND	ug/l	<0.5	-
1,3-Dichloropropene, Total	8260	ND	ug/l	<0.5	-
1,1-Dichloropropene	8260	ND	ug/l	<2.5	-
Bromoform	8260	ND	ug/l	<2	-
1,1,2,2-Tetrachloroethane	8260	ND	ug/l	<0.5	-
Benzene	8260	ND	ug/l	<0.5	-
Toluene	8260	ND	ug/l	<0.75	-
Ethylbenzene	8260	ND	ug/l	<0.5	-
Chloromethane	8260	ND	ug/l	<2.5	-
Bromomethane	8260	ND	ug/l	<1	-
Vinyl chloride	8260	ND	ug/l	<1	-
Chloroethane	8260	ND	ug/l	<1	-
1,1-Dichloroethene	8260	ND	ug/l	<0.5	-
trans-1,2-Dichloroethene	8260	ND	ug/l	<0.75	-
Trichloroethene	8260	ND	ug/l	<0.5	-
1,2-Dichlorobenzene	8260	ND	ug/l	<2.5	-
1,3-Dichlorobenzene	8260	ND	ug/l	<2.5	-
1,4-Dichlorobenzene	8260	ND	ug/l	<2.5	-
Methyl tert butyl ether	8260	ND	ug/l	<1	-
p/m-Xylene	8260	ND	ug/l	<1	-
o-Xylene	8260	ND	ug/l	<1	-
Xylene (Total)	8260	ND	ug/l	<1	-
cis-1,2-Dichloroethene	8260	ND	ug/l	<0.5	-
1,2-Dichloroethene (total)	8260	ND	ug/l	<0.5	-
Dibromomethane	8260	ND	ug/l	<5	-
1,2,3-Trichloropropane	8260	ND	ug/l	<5	-
Styrene	8260	ND	ug/l	<1	-
Dichlorodifluoromethane	8260	ND	ug/l	<5	-
Acetone	8260	ND	ug/l	<5	-
Carbon disulfide	8260	ND	ug/l	<5	-
2-Butanone	8260	ND	ug/l	<5	-
4-Methyl-2-pentanone	8260	ND	ug/l	<5	-
2-Hexanone	8260	ND	ug/l	<5	-
Bromochloromethane	8260	ND	ug/l	<2.5	-
Tetrahydrofuran	8260	ND	ug/l	<5	-
2,2-Dichloropropane	8260	ND	ug/l	<2.5	-
1,3-Dichloropropane	8260	ND	ug/l	<2.5	-
1,1,1,2-Tetrachloroethane	8260	ND	ug/l	<0.5	-
Bromobenzene	8260	ND	ug/l	<2.5	-
n-Butylbenzene	8260	ND	ug/l	<0.5	-
sec-Butylbenzene	8260	ND	ug/l	<0.5	-
tert-Butylbenzene	8260	ND	ug/l	<2.5	-
o-Chlorotoluene	8260	ND	ug/l	<2.5	-
p-Chlorotoluene	8260	ND	ug/l	<2.5	-
1,2-Dibromo-3-chloropropane	8260	ND	ug/l	<2.5	-
Hexachlorobutadiene	8260	ND	ug/l	<0.5	-
Isopropylbenzene	8260	ND	ug/l	<0.5	-
p-Isopropyltoluene	8260	ND	ug/l	<0.5	-
Naphthalene	8260	ND	ug/l	<2.5	-
n-Propylbenzene	8260	ND	ug/l	<0.5	-
1,2,3-Trichlorobenzene	8260	ND	ug/l	<2.5	-
1,2,4-Trichlorobenzene	8260	ND	ug/l	<2.5	-
1,3,5-Trimethylbenzene	8260	ND	ug/l	<2.5	-
1,2,4-Trimethylbenzene	8260	ND	ug/l	<2.5	-
Ethyl ether	8260	ND	ug/l	<2.5	-
Tertiary-Amyl Methyl Ether	8260	ND	ug/l	<2	-
tert-Butyl Alcohol	8260	ND	ug/l	<10	-
Total BTEX[13]	8260	ND	ug/l	BDL	-
MCP Volatile Organics by SIM					
1,4-Dioxane	8260-SIM	ND	ug/l	<3.0	-

Notes:
1. The samples were collected by Sanborn, Head & Associates, Inc. personnel on the dates indicated and were submitted to Alpha Analytical, Inc. of Westborough, MA (Alpha) for analysis. Each sample was a composite of wells -SH-904(W), SH-909(W), and SH-916 (W).
2. - *Chromium is presented as total Chromium: Hexavalent Chromium is Non-Detect.
3. **Bolded** values indicate exceedances of the NPDES DGP Effluent Limits; which were taken from Appendix III of the RGP.
'<' = analytes not detected above laboratory reporting limits
'BDL' = indicates analyte is below detection limits
'*' = NPDES DGP Effluent Limit for Trivalent Chromium shown.
4. Monitor Only means that the subject compound is not subject to a (criteria) limit, however, the Permitee is still required to monitor and report the effluent concentration.

FIGURES





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

Drawn By: M.Quinn
Designed By: D.Volpe
Reviewed By: K.Walker
Project No: 3175.06
Date: January 2016

SCALE: 1:25,000

SANBORN HEAD

FIGURE 1

Locus Plan

Notice of Intent for Dewatering General Permit

Assembly Row Block 5
Somerville, Massachusetts

Figure No. 2

Site Plan with Target Discharge Point

Notice of Intent for Dewatering General Permit

Assembly Row Block 5
Somerville, Massachusetts

Drawn By: M.Quinn
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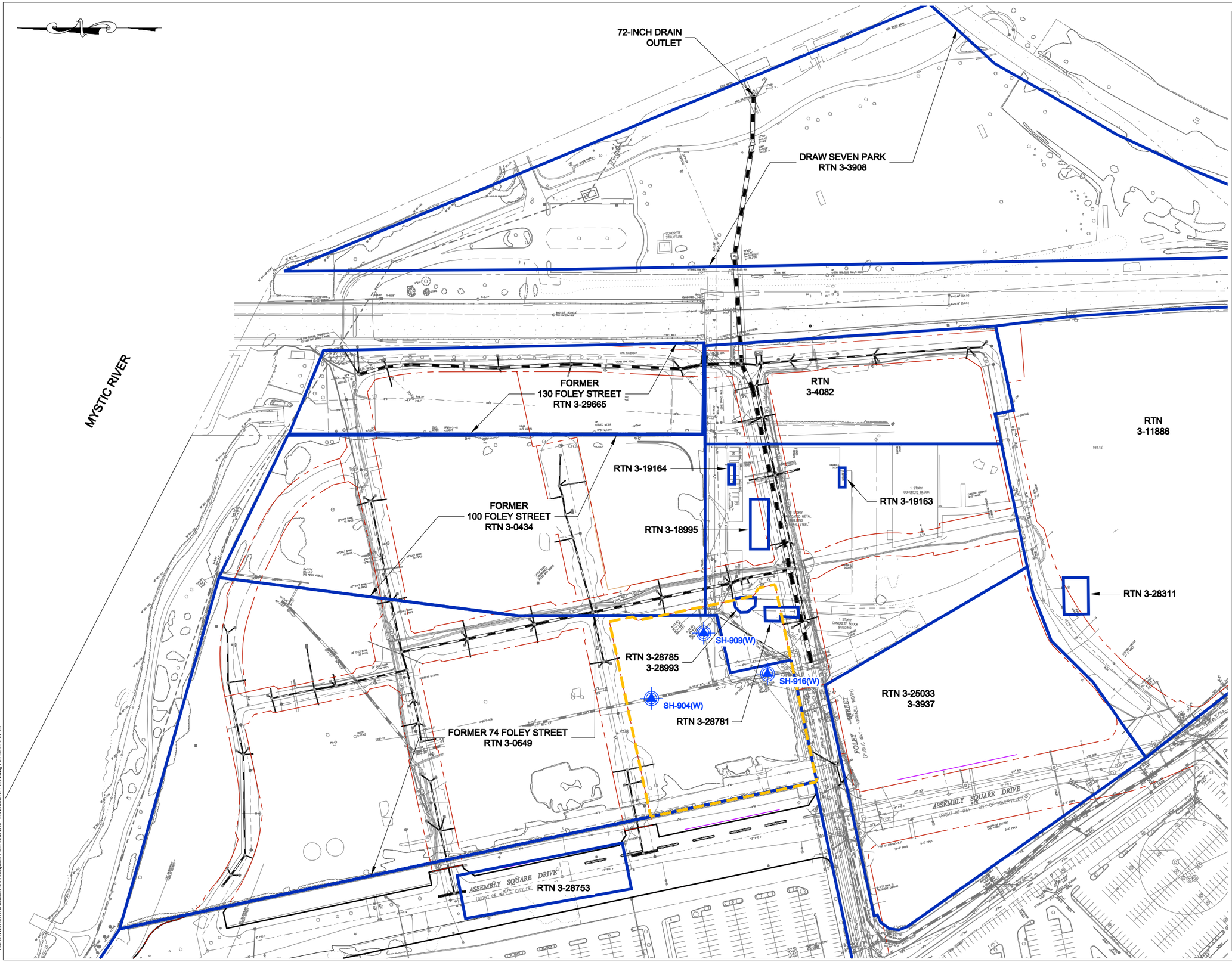
Figure Narrative

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



Legend

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

80 40 0 80 160 Feet

SANBORN HEAD

File:S:\WES\DATA\3 10\3175.06\Graphics Files\CAD\DGP-JAN16\SITE PLAN.dwg Plot Date: 1-27-16

Figure No. 3

Proposed Groundwater Treatment Schematic

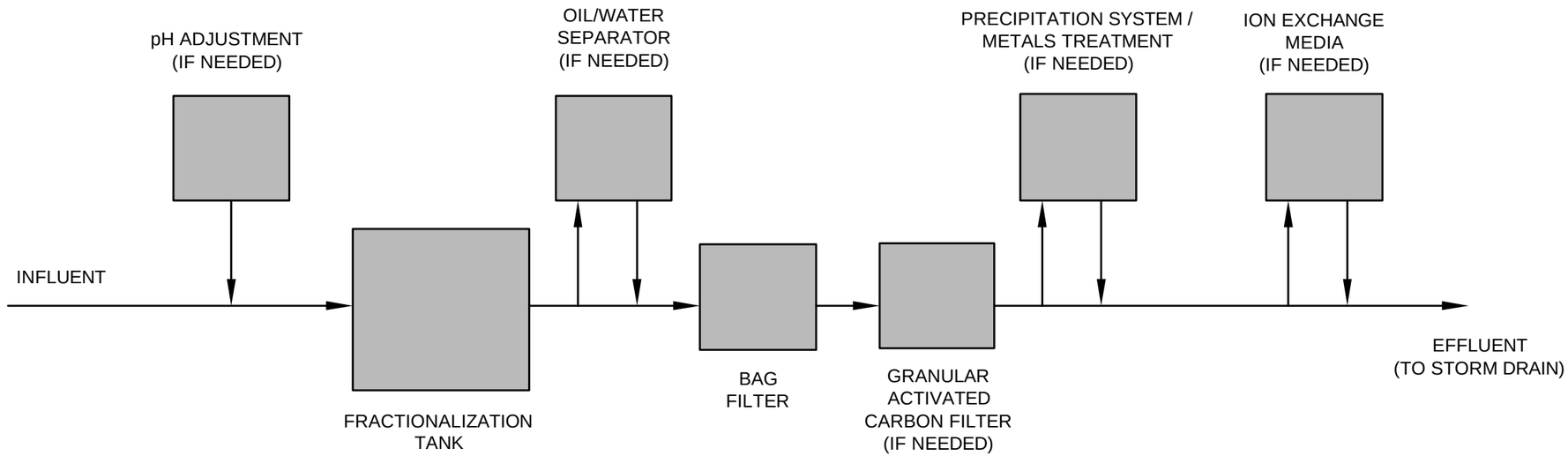
Notice of Intent for Remediation General Permit

Assembly Row Block 5
Somerville, Massachusetts

Drawn By: M.Quinn
Designed By: D.Volpe
Reviewed By: K.Walker
Project No: 3175.06
Date: January 2016

Figure Narrative

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



NOT TO SCALE

SANBORN HEAD

APPENDIX A

AREAS OF CRITICAL ENVIRONMENTAL CONCERN MAPS

MassDEP - Bureau of Waste Site Cleanup

Phase 1 Site Assessment Map: 500 feet & 0.5 Mile Radii

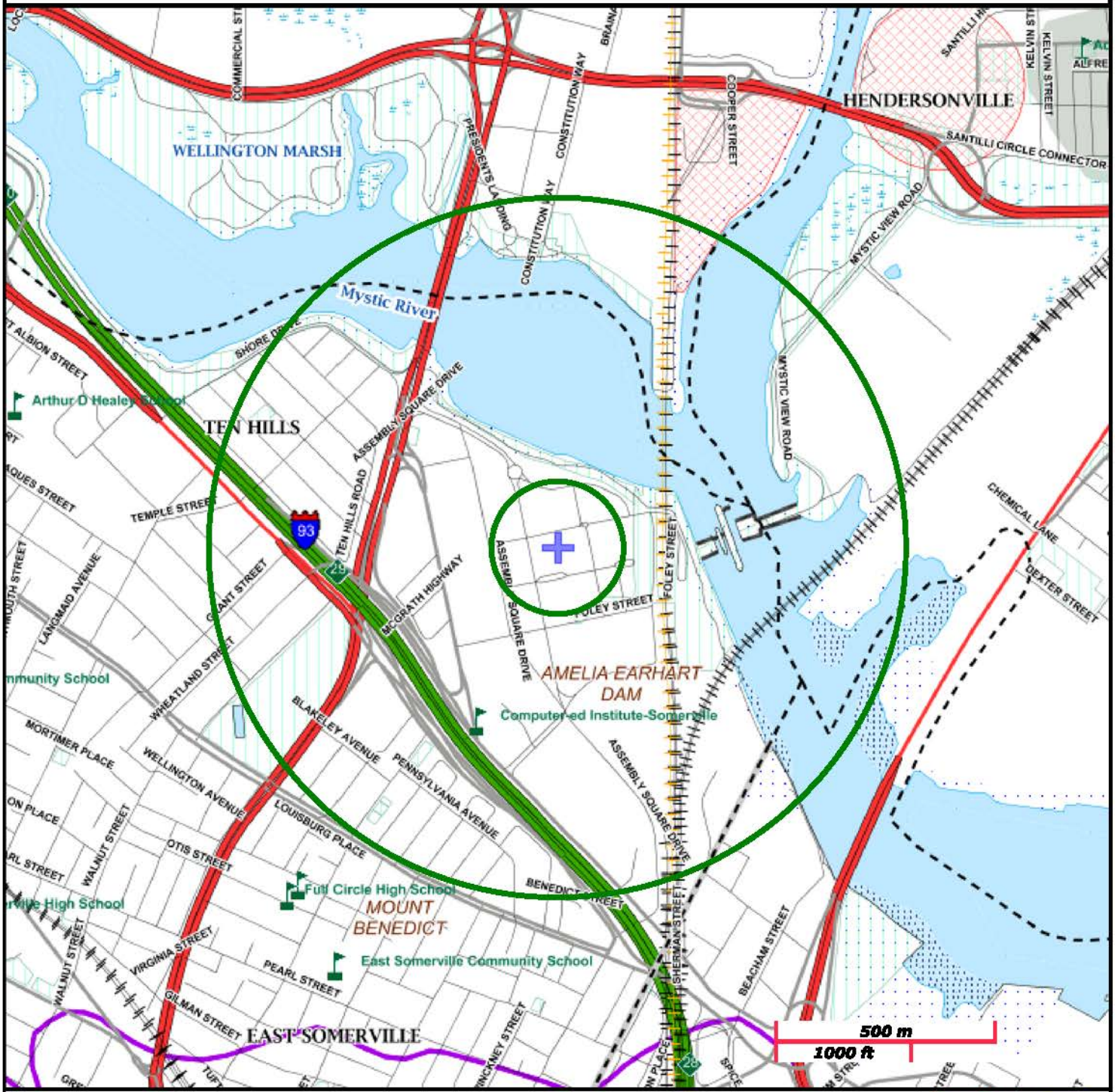
Site Information:

100 FOLEY STREET SOMERVILLE, MA

NAD83 UTM Meters:
4695691mN , 328790mE (Zone: 19)
January 13, 2016

The information shown is the best available at the date of printing. However, it may be incomplete. The responsible party and LSP are ultimately responsible for ascertaining the true conditions surrounding the site. Metadata for data layers shown on this map can be found at: http://www.mass.gov/mgis/.

MassDEP
Commonwealth of Massachusetts
Department of Environmental Protection



Roads: Limited Access, Divided, Other Hwy, Major Road, Minor Road, Track, Trail

Boundaries: Town, County, DEP Region; Train; Powerline; Pipeline; Aqueduct

Basins: Major, PWS; Streams: Perennial, Intermittent, Man Made Shore, Dam

Aquifers: Medium Yield, High Yield, EPA Sole Source

Non Potential Drinking Water Source Area: Medium, High (Yield)

PWS Protection Areas: Zone II, IWPA, Zone A

Hydrography: Open Water, PWS Reservoir, Tidal Flat

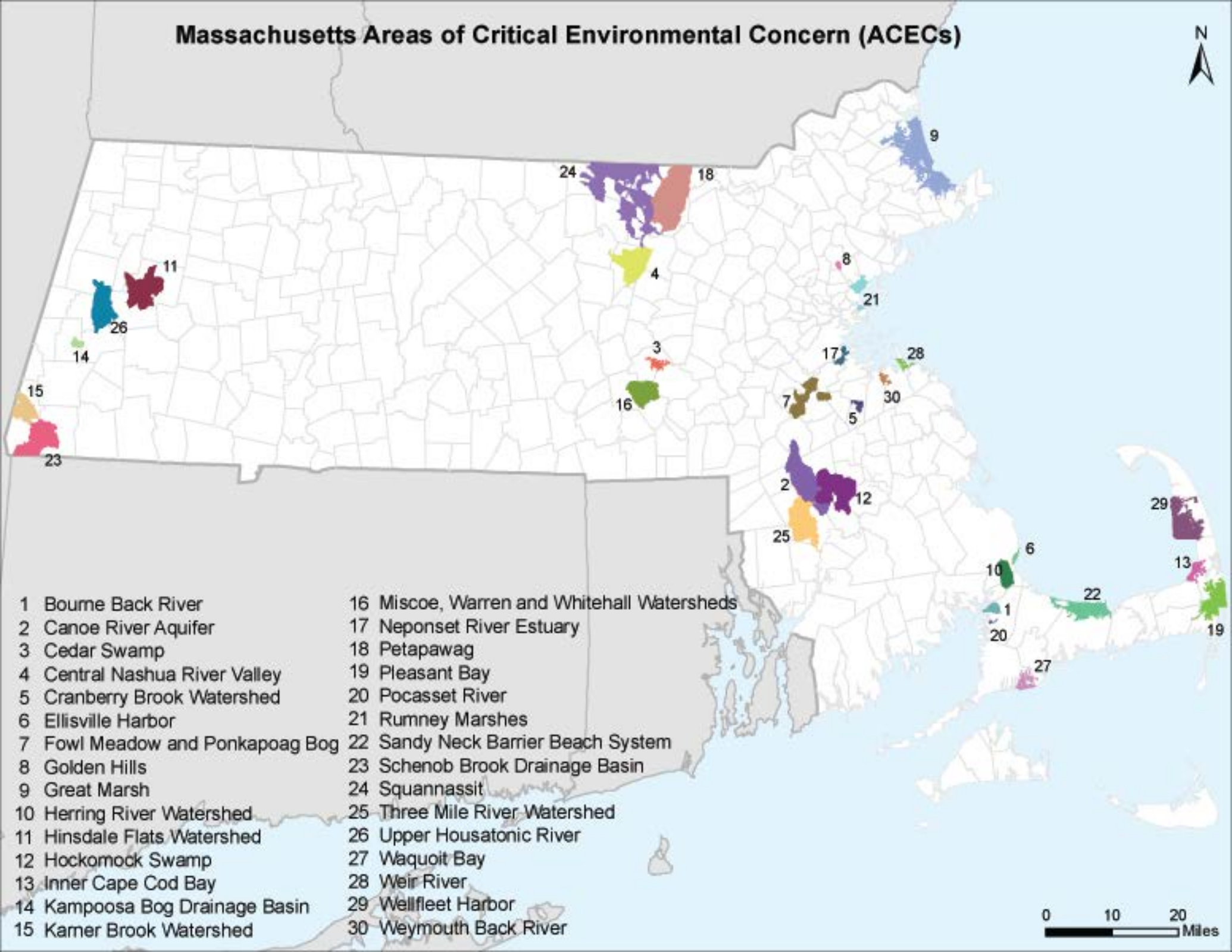
Wetlands: Freshwater, Saltwater, Cranberry Bog

FEMA 100yr Floodplain; Protected Open Space; ACEC

Est. Rare Wetland Wildlife Hab; Vernal Pool: Cert., Potential

Solid Waste Landfill; PWS: Com.GW,SW, Emerg.,Non-Com.

Massachusetts Areas of Critical Environmental Concern (ACECs)



1 Bourne Back River
2 Canoe River Aquifer
3 Cedar Swamp
4 Central Nashua River Valley
5 Cranberry Brook Watershed
6 Ellisville Harbor
7 Fowl Meadow and Ponkapoag Bog
8 Golden Hills
9 Great Marsh
10 Herring River Watershed
11 Hinsdale Flats Watershed
12 Hockomock Swamp
13 Inner Cape Cod Bay
14 Kampoosa Bog Drainage Basin
15 Karner Brook Watershed
16 Miscoe, Warren and Whitehall Watersheds
17 Neponset River Estuary
18 Petapawag
19 Pleasant Bay
20 Pocasset River
21 Rumney Marshes
22 Sandy Neck Barrier Beach System
23 Schenob Brook Drainage Basin
24 Squannassit
25 Three Mile River Watershed
26 Upper Housatonic River
27 Waquoit Bay
28 Weir River
29 Wellfleet Harbor
30 Weymouth Back River

APPENDIX B

ESSENTIAL FISH HABITAT DESIGNATION

Summary of Essential Fish Habitat (EFH) Designation

10' x 10' Square Coordinates:

Boundary	North	East	South	West
Coordinate	42° 30.0' N	71° 00.0' W	42° 20.0' N	71° 10.0' W

Square Description (i.e. habitat, landmarks, coastline markers): Waters within the Atlantic Ocean within the square within Massachusetts Bay and within Boston Harbor affecting the following: South Boston, MA., Boston, MA., Chelsea River, Mystic River, Charles River, East Boston, MA., Chelsea, MA., Orient Heights, and most of Logan Airport.

Species	Eggs	Larvae	Juveniles	Adults
Atlantic cod *(Gadus morhua)*	X	X	X	X
haddock *(Melanogrammus aeglefinus)*	X	X		
pollock *(Pollachius virens)*	X	X	X	X
whiting *(Merluccius bilinearis)*	X	X	X	X
offshore hake *(Merluccius albidus)*				
red hake *(Urophycis chuss)*	X	X	X	X
white hake *(Urophycis tenuis)*	X	X	X	X
redfish *(Sebastes fasciatus)*	n/a			
witch flounder *(Glyptocephalus cynoglossus)*				
winter flounder *(Pseudopleuronectes americanus)*	X	X	X	X
yellowtail flounder *(Limanda ferruginea)*	X	X	X	X
windowpane flounder *(Scophthalmus aquosus)*	X	X	X	X
American plaice *(Hippoglossoides platessoides)*	X	X	X	X
ocean pout *(Macrozoarces americanus)*	X	X	X	X
Atlantic halibut *(Hippoglossus hippoglossus)*	X	X	X	X
Atlantic sea scallop *(Placopecten magellanicus)*	X	X	X	X
Atlantic sea herring *(Clupea harengus)*		X	X	X
monkfish *(Lophius americanus)*				
bluefish *(Pomatomus saltatrix)*				

long finned squid *(Loligo pealeii)*	n/a	n/a	X	X
short finned squid *(Illex illecebrosus)*	n/a	n/a	X	X
Atlantic butterfish *(Peprilus triacanthus)*	X	X	X	X
Atlantic mackerel *(Scomber scombrus)*	X	X	X	X
summer flounder *(Paralichthys dentatus)*				X
scup *(Stenotomus chrysops)*	n/a	n/a	X	X
black sea bass *(Centropristis striata)*	n/a		X	X
surf clam *(Spisula solidissima)*	n/a	n/a	X	X
ocean quahog *(Artica islandica)*	n/a	n/a		
spiny dogfish *(Squalus acanthias)*	n/a	n/a		
tilefish *(Lopholatilus chamaeleonticeps)*				
bluefin tuna *(Thunnus thynnus)*			X	X

APPENDIX C

FEDERAL CORRESPONDENCE

United States Department of the Interior

FISH AND WILDLIFE SERVICE
New England Ecological Services Field Office
70 COMMERCIAL STREET, SUITE 300
CONCORD, NH 03301
PHONE: (603)223-2541 FAX: (603)223-0104
URL: www.fws.gov/newengland

Consultation Code: 05E1NE00-2016-SLI-0743 January 13, 2016
Event Code: 05E1NE00-2016-E-00972
Project Name: Block 5, Assembly Row

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

United States Department of Interior
Fish and Wildlife Service

Project name: Block 5, Assembly Row

Official Species List

Provided by:

New England Ecological Services Field Office
70 COMMERCIAL STREET, SUITE 300
CONCORD, NH 03301
(603) 223-2541
http://www.fws.gov/newengland

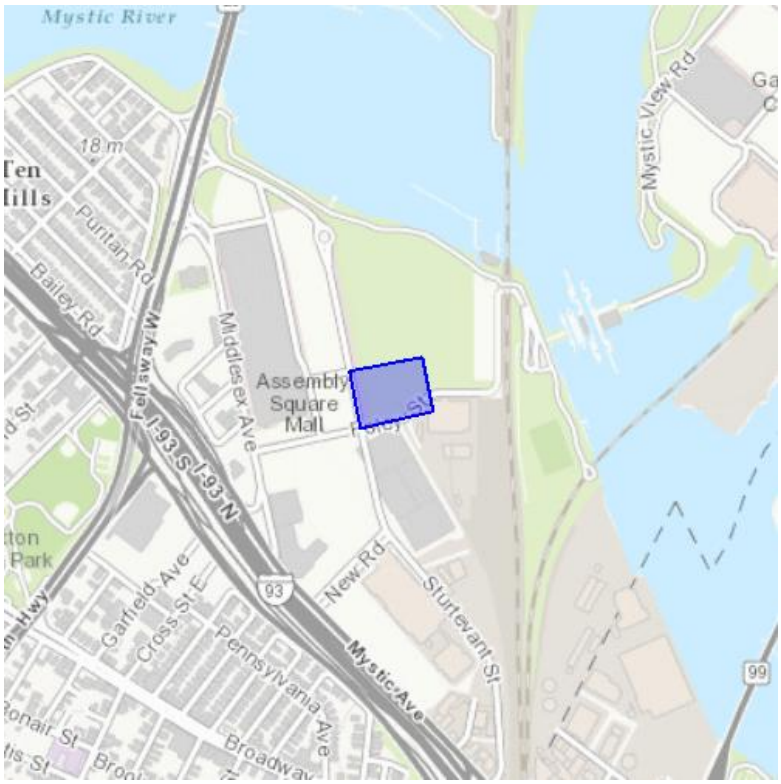
Consultation Code: 05E1NE00-2016-SLI-0743
Event Code: 05E1NE00-2016-E-00972

Project Type: DEVELOPMENT

Project Name: Block 5, Assembly Row
Project Description: The project is located at Block 5 of Assembly Row in Somerville, MA (100 Foley Street). The project consists of redevelopment activities, which will require soil management and dewatering activities. The project will begin with mass excavation in January 2016 and will take approximately 1 year to complete.

Please Note: The FWS office may have modified the Project Name and/or Project Description, so it may be different from what was submitted in your previous request. If the Consultation Code matches, the FWS considers this to be the same project. Contact the office in the 'Provided by' section of your previous Official Species list if you have any questions or concerns.

Project Location Map:



Project Coordinates: MULTIPOLYGON (((-71.08082145452498 42.39396613575492, -71.07915848493576 42.3942058220226, -71.07892245054245 42.393276785023346, -71.08055591583252 42.39300936244258, -71.08082145452498 42.39396613575492)))

Project Counties: Middlesex, MA

Endangered Species Act Species List

There are a total of 0 threatened or endangered species on your 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. Critical habitats listed under the **Has Critical Habitat** column may or may not lie within your project area. See the **Critical habitats within your project area** section further below for critical habitat that lies within your project. Please contact the designated FWS office if you have questions.

There are no listed species identified for the vicinity of your project.

Critical habitats that lie within your project area

There are no critical habitats within your project area.

APPENDIX D

NATIONAL REGISTER OF HISTORIC PLACES
SOMERVILLE, MASSACHUSETTS

Massachusetts Cultural Resource Information System

Scanned Record Cover Page

Inventory No:	SMV.1004
Historic Name:	First National Store Warehouse
Common Name:	
Address:	Foley St
City/Town:	Somerville
Village/Neighborhood:	East Somerville
Local No:	
Year Constructed:	c 1929
Architect(s):	
Architectural Style(s):	No style
Use(s):	Warehouse
Significance:	Architecture; Commerce
Area(s):	SMV.I: Assembly Square
Designation(s):	
Building Materials(s):	Wall: Brick Veneer; Steel; Timber Foundation: Concrete Unspecified

DEMOLISHED

FORM B - BUILDING

AREA I

FORM NO.

MASSACHUSETTS HISTORICAL COMMISSION
80 BOYLSTON STREET
BOSTON, MA 02116

ASSEMBLY SQUARE 1004

Somerville

ess Foley Street

oric Name First National Store

Present Warehouse

Original Warehouse

RIPTION

ca. 1929

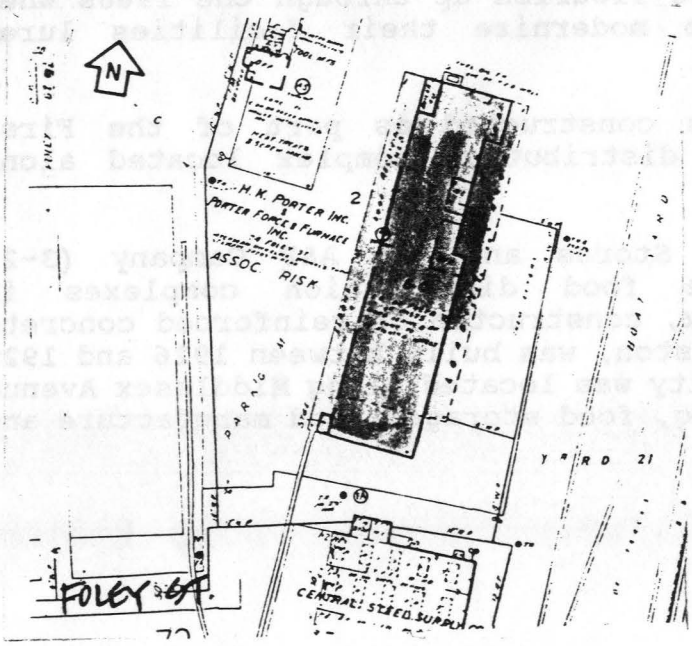
rce Building Permits/Maps

e n/a

itect Possibly Monks & Johnson

Exterior Wall Fabric Brick

MAP



Outbuildings None

Major Alterations (Dates) None

Condition Good

Moved No Date

Acreage 1/2 acre

Setting Industrial area alongside a railroad siding

Recorded By Fitch & Hollister, The Public Archaeology Laboratory, Inc.

UTM Reference

Organization Somerville Historic Preservation Commission

USGS Quadrangle Boston North

Scale 1:25,000

Date May 5, 1990

SMV.1004

NATIONAL REGISTER CRITERIA STATEMENT

ARCHITECTURAL SIGNIFICANCE

This is a largely intact one story, flat roof, warehouse building constructed of timber posts with brick veneer. The north elevation loading dock is 22 bays long, and has a cantelievered roof canopy supported by riveted steel trusses on steel posts. The southern facade has an enclosed, wood frame railroad loading dock with clerestory windows.

HISTORICAL SIGNIFICANCE

Assembly Square is an industrial area located in the extreme northeastern section of the City along the banks of the Mystic River adjacent to the cities of Boston and Medford. Until the Mystic River was dammed in the mid-1960s the area was a tidal basin, and the marshy, clay soils made it undesireable for residential development and retarded industrial use. In the 1920s the area's proximity to road and rail transportation, improvements in building construction techniques, and a shortage of other available land made this marginal area appealing to industries. Assembly Square attracted new industries to the City and continued to flourish up through the 1960s when cheaper land costs and the need to modernize their facilities lured businesses to the suburbs.

This ca. 1929 warehouse building was constructed as part of the First National Stores food processing and distribution complex located along Middlesex Avenue.

During the mid-1920s First National Stores and the A&P Company (3-25 Fitchburg Street) established large food distribution complexes in Somerville. The First National complex, constructed of reinforced concrete and designed by Monks and Johnson of Boston, was built between 1926 and 1929 for a cost of $700,000. The huge facility was located along Middlesex Avenue and included facilities for meat cutting, food storage, food manufacture and a garage in addition to the warehouse.

BIBLIOGRAPHY and/or REFERENCES

Sanborn Map 1900, revised to 1931
Sanborn Map 1933, revised to 1947
Building Permits: 1929, No 197; No. 251; No. 344

SMV.1004

NATIONAL REGISTER CRITERIA STATEMENT

ARCHITECTURAL SIGNIFICANCE

This is a largely intact one story, flat roof, warehouse building constructed of timber posts with brick veneer. The north elevation loading dock is 22 bays long, and has a cantelievered roof canopy supported by riveted steel trusses on steel posts. The southern facade has an enclosed, wood frame railroad loading dock with clerestory windows.

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BIBLIOGRAPHY and/or REFERENCES

Somerville Journal 3/3/1927
Sanborn Map 1900, revised to 1931
Sanborn Map 1933, revised to 1947
Building Permits: 1929, No 197; No. 251; No. 344


SeaLand

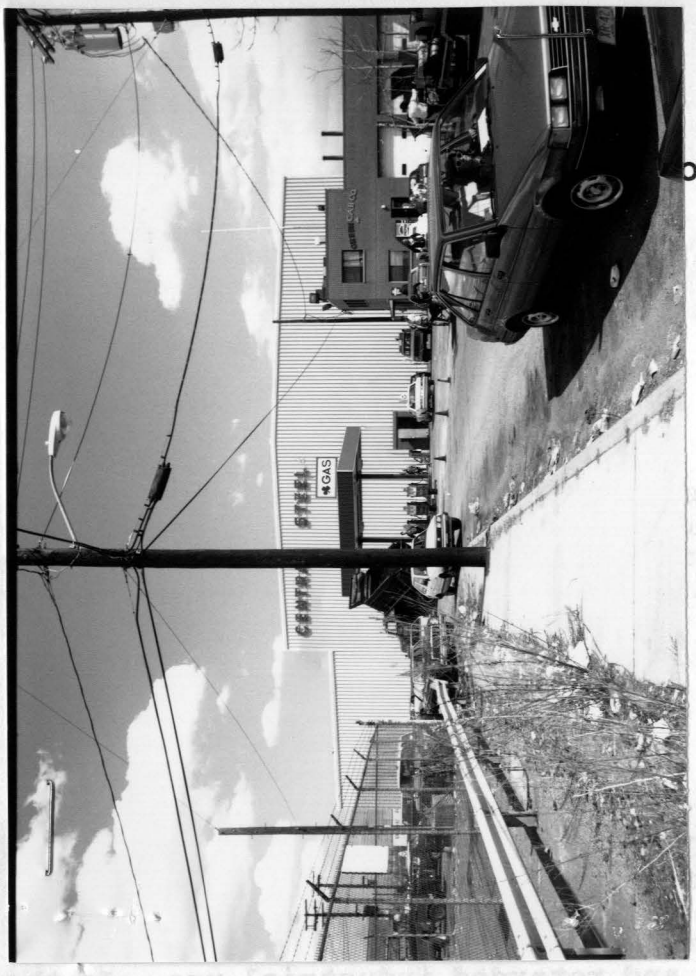
Massachusetts Cultural Resource Information System

Scanned Record Cover Page

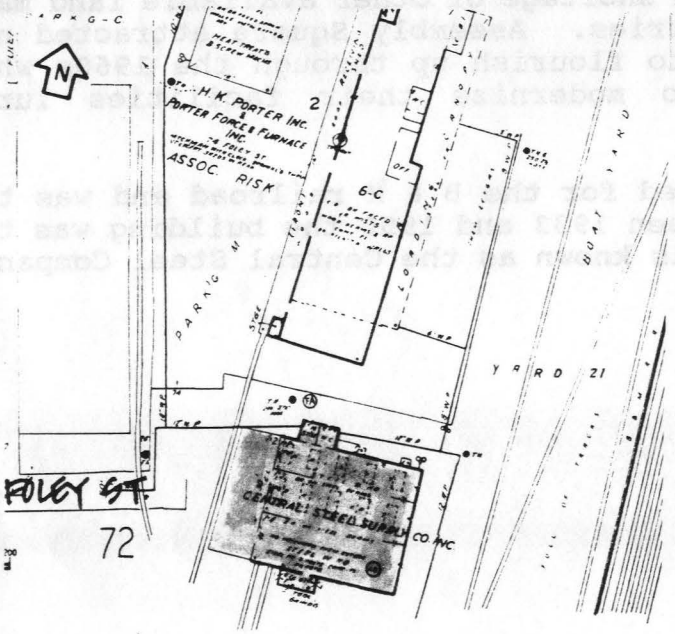
Inventory No:	SMV.1005
Historic Name:	B & M Railroad East Somerville Locomotive Shop
Common Name:	Zurbach, L. E. Steel Company
Address:	Foley St
City/Town:	Somerville
Village/Neighborhood:	East Somerville
Local No:	
Year Constructed:	c 1925
Architect(s):	
Architectural Style(s):	No style
Use(s):	Other Industrial; Other Rail Related; Other Transportation
Significance:	Architecture; Industry
Area(s):	SMV.I: Assembly Square
Designation(s):	
Building Materials(s):	Wall: Brick; Metal, Undetermined

Pl. E. Som USGS Bost, N

Sect A



MAP



UTM Reference _____

USGS Quadrangle _____

Scale 1:25,000

AREA I **FORM NO.**

ASSEMBLY SQUARE 1005

Town Somerville

Address Foley Street
E. Somerville

Historic Name Locomotive Shop

Use Present Industrial

Original Industrial

DESCRIPTION

Date ca. 1925

Source Visual

Style n/a

Architect Unknown

Exterior Wall Fabric Brick and corrugated metal

Outbuildings None

Major Alterations (Dates) See reverse

Condition Fair-Good

Moved No **Date** _____

Acreage 1/2 acre

Setting Industrial area next to railroad tracks

Recorded By Fitch & Hollister, The Public Archaeology Laboratory, Inc.

Organization Somerville Historic Preservation Commission

Date May, 1990

SMV.1005

NATIONAL REGISTER CRITERIA STATEMENT

ARCHITECTURAL SIGNIFICANCE

This large two-story height, brick, industrial building has pier and spandrel construction, a shallow pitch roof, and a one-story addition on the west facade. The building has three bridge cranes, one in each bay and is located alongside the railroad tracks. The building has had vertical metal siding installed on the south and west facades. The north and east facades have had sash removed and openings covered in Kalwall; other openings have been bricked in.

HISTORICAL SIGNIFICANCE

Assembly Square is an industrial area located in the extreme northeastern section of the City along the banks of the Mystic River adjacent to the cities of Boston and Medford. Until the Mystic River was dammed in the mid-1960s the area was a tidal basin, and the marshy, clay soils made it undesireable for residential development and retarded industrial use. In the 1920s the area's proximity to road and rail transportation, improvements in building construction techniques, and a shortage of other available land made this marginal area appealing to industries. Assembly Square attracted new industries to the City and continued to flourish up through the 1960s when cheaper land costs and the need to modernize their facilities lured businesses to the suburbs.

This building was originally constructed for the B & M railroad and was the East Somerville Locomotive Shop. Between 1933 and 1950 the building was the L.E. Zurbach Steel Company. Today it is known as the Central Steel Company.

BIBLIOGRAPHY and/or REFERENCES

Somerville City Directories
Hopkins Map, 1874
Hopkins Map, 1884
Sanborn Map, 1900
Sanborn Map, 1900 - Updated to 1931
Sanborn Map, 1933/34 - Updated to 1950

Massachusetts Cultural Resource Information System

Scanned Record Cover Page

Inventory No:	SMV.1006
Historic Name:	Porter, H. K. Tool Manufacturing Company
Common Name:	
Address:	74 Foley St
City/Town:	Somerville
Village/Neighborhood:	East Somerville
Local No:	
Year Constructed:	c 1945
Architect(s):	
Architectural Style(s):	No style
Use(s):	Abandoned or Vacant; Cutlery Or Edged Tool Factory; Industrial Complex or District; Machine Shop
Significance:	Architecture; Industry
Area(s):	SMV.I: Assembly Square
Designation(s):	
Building Materials(s):	Wall: Brick; Aluminum Siding

DEMOLISHED

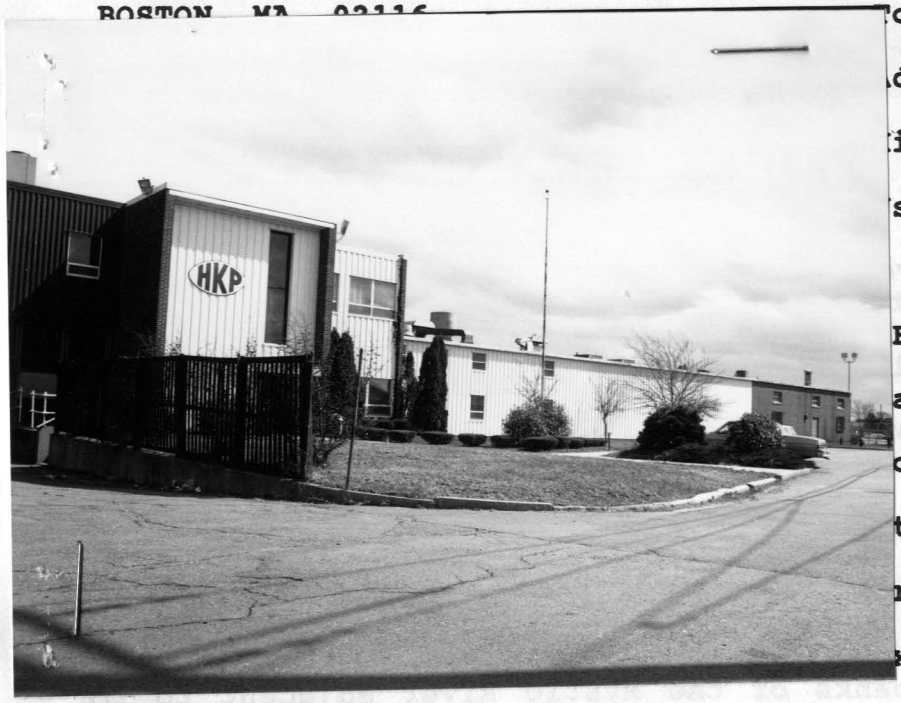
9 DEMOLISHED 1989 P. E 50m USGS BOST, N SEC A

FORM B - BUILDING

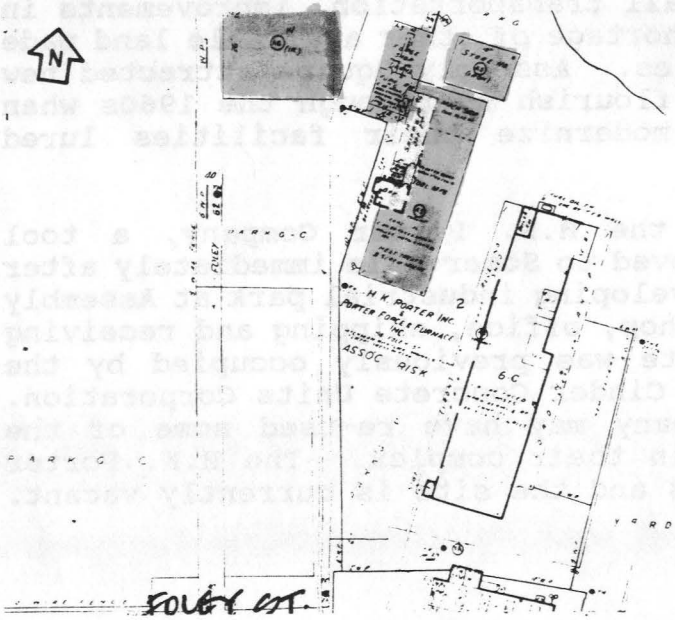
AREA I **FORM NO.**

MASSACHUSETTS HISTORICAL COMMISSION
80 BOYLSTON STREET
BOSTON, MA 02116

ASSEMBLY SQUARE 1006



MAP



UTM Reference _____

USGS Quadrangle _____

Scale 1:25,000

Town Somerville

Address 74 Foley Street

Historic Name H.K. Porter Company

Use Present Industrial

Original Industrial

DESCRIPTION

Date ca. 1945

Source Sanborn Map 1933/34-1950

Style n/a

Architect Unknown

Exterior Wall Fabric Brick, corrugated metal

Outbuildings None

Major Alterations (Dates) See reverse

Condition Good

Moved No **Date** _____

Acreage 1 acre

Setting Industrial area

Recorded By Fitch & Hollister, The Public Archaeology Laboratory, Inc.

Organization Somerville Historic Preservation Commission

Date May, 1990

SMV.1006

NATIONAL REGISTER CRITERIA STATEMENT

ARCHITECTURAL SIGNIFICANCE

The H.K. Porter Company is a five building industrial complex. Building A is a wide, long, ca. 1930, one-story, brick structure with a low-pitch roof and vertical metal siding. Building B is a ca. 1950 two-story bbuilding with brick structural walls and metal panel infill. Building C is a ca. 1945 corrugated metal building with a steel chimney stack. Building D is a ca. 1945 two-story, gable roof factory structure with corrugated metal siding. Building E is a ca. 1945 three-story, corrugated metal, gable roof, forge building with hopper.

HISTORICAL SIGNIFICANCE

Assembly Square is an industrial area located in the extreme northeastern section of the City along the banks of the Mystic River adjacent to the cities of Boston and Medford. Until the Mystic River was dammed in the mid-1960s the area was a tidal basin, and the marshy, clay soils made it undesireable for residential development and retarded industrial use. In the 1920s the area's proximity to road and rail transportation, improvements in building construction techniques, and a shortage of other available land made this marginal area appealing to industries. Assembly Square attracted new industries to the City and continued to flourish up through the 1960s when cheaper land costs and the need to modernize their facilities lured businesses to the suburbs.

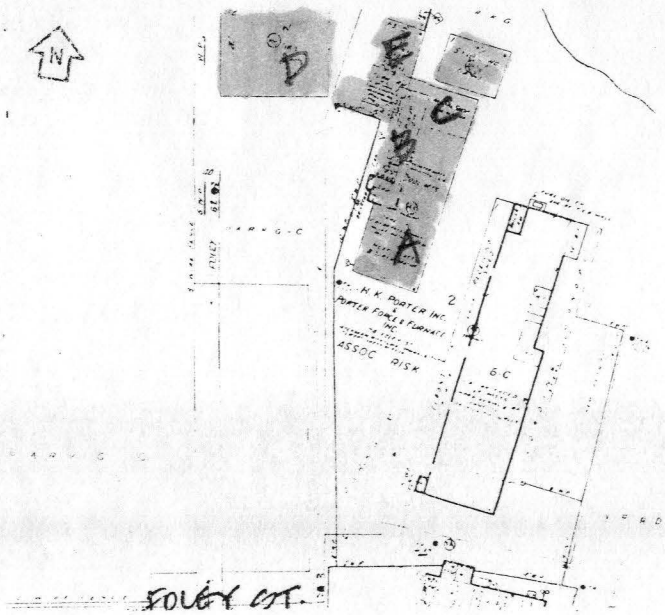
This industrial complex was owned by the H.K. Porter Company, a tool manufacturer. The H. K. Porter Company moved to Somerville immediately after WWII and established themselves in the developing industrial park at Assembly Square. The complex included a machine shop, office, shipping and receiving department, and a large forge. The site was previously occupied by the American Mineral Spirits Company and the Cinder Concrete Units Corporation. It is likely that the H.K. Porter Company may have re-used some of the buildings from these earlier companies in their complex. The H.K. Porter Company moved to Statesboro, N.C. in 1988 and the site is currently vacant.

BIBLIOGRAPHY and/or REFERENCES

Somerville City Directories
Hopkins Map, 1874
Hopkins Map, 1884
Sanborn Map, 1900
Sanborn Map, 1900 - Updated to 1931
Sanborn Map, 1933/34 - Updated to 1950

ON

MAP



UTM Reference _____

USGS Quadrangle _____

Scale 1:25,000

AREA **FORM NO.**

ASSEMBLY SQUARE **1006**

Town Somerville

Address 74 Foley Street

Historic Name H.K. Porter Company

Use **Present** Industrial

Original Industrial

DESCRIPTION

Date ca. 1945

Source Sanborn Map 1933/34-1950

Style n/a

Architect Unknown

Exterior Wall Fabric Brick, corrugated metal

Outbuildings None

Major Alterations (Dates) See reverse

Condition Good

Moved No **Date** _____

Acreage 1 acre

Setting Industrial area

Recorded By Fitch & Hollister, The Public Archaeology Laboratory, Inc.

Organization Somerville Historic Preservation Commission

Date May, 1990

APPENDIX E

MATERIAL SAFETY DATA SHEET

NorFalco Inc.
NorFalco Sales Inc.

Material Safety Data Sheet

77% - 100% SULFURIC ACID

SECTION 1. PRODUCT IDENTIFICATION

Trade Name	**77 % - 100 % Sulfuric Acid**
Product Code	None
Manufacturers/Distributors	NorFalco Inc., 6000 Lombardo Center, The Genesis Blg, suite 650 Seven Hills, OH 44131 NorFalco Sales Inc., 6755 Mississauga Road, Suite 304, Mississauga, Ontario L5N 7Y2
Information Contact	André Auger, Administration Assistant
Product Information	1-905-542-6901 (Mississauga)
Phone Number (Transportation Emergency)	Canada 1-877-ERP-ACID (377-2243)
Phone Number (Transportation Emergency)	U.S.A. 1-800-424-9300 CHEMTREC
Phone Number (Medical Emergency)	**1-418-656-8090**
Phone Number (Emergency)	**CANUTEC 1-613-996-6666**
Synonyms	Dihydrogen Sulfate ; Oil of Vitriol ; Vitriol Brown Oil ; Sulphuric Acid. Acide sulfurique (French)
Name / Chemical Formula	Sulfuric Acid / H_2SO_4
Chemical Family	Acid
Utilization	Chemical industries ; Water treatment ; Fertilizer ; Pulp and Paper.

Manufacturers CEZinc on behalf of Noranda Income Limited Partnership, Salaberry-de-Valleyfield (Quebec) Canada J6T 6L4
Xstrata Copper, Home Smelter, Rouyn-Noranda (Quebec) J9X 5B6
Xstrata Zinc, Brunswick Smelting, Belledune, New Brunswick E0B 1G0
Xstrata Copper, Kidd Metallurgical Division, Timmins, Ontario P4N 7K1
Xstrata Nickel, Sudbury Operations, Falconbridge, Ontario P0M 1S0

SECTION 2. HAZARDS IDENTIFICATION

WHMIS (Canada) CLASS D-1A : Very toxic material causing immediate and serious effects
CLASS E : Corrosive material

Labeling (EEC) C Corrosive

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Name	CAS #	Percentage (%)	# CE	R Phrases[1]
Sulfuric (Acid)	7664-93-9	77 % to 100 %	231-639-5	R35
60 Deg Technical		77.7		
66 Deg Technical		93.2		
1.835 Electrolyte		93.2		
98 % Technical		98		
99 % Technical		99		
100 % Technical		100		
Water	7732-18-5	0-22		

Note 1 : See section 15 for the complete wording of risk phrases.

SECTION 4. FIRST-AID MEASURES

Eye Contact Remove contact lenses if present. Immediately flush eyes with plenty of water, holding eyelids open for at least 15 minutes. Consult a physician. Possibility of conjonctivitis, severe irritation, severe burns, permanent eye damage.

Skin Contact Remove contaminated clothing and shoes as quickly as possible protecting your hands and body. Place under a deluge shower for 15 minutes. Flush exposed skin gently and thoroughly with running water (Pay particular attention to : Folds, crevices, creases, groin). Call a physician if irritation persists. May irritate skin, cause burns (Highly corrosive) and possibility of some scarring.

Wash contaminated clothing before reusing. While the patient is being transported to a medical facility, continue the application of cold, wet compresses. If medical treatment must be delayed, repeat the flushing with cold water or soak the affected area with cold water to help remove the last traces of sulfuric acid. *Creams or ointments **SHOULD NOT** be applied before or during the washing phase of treatment.*

Inhalation Take precautions to avoid secondary contamination by residual acids. Remove the person to fresh air. If not breathing, give artificial respiration. Difficult breathing : Give oxygen. Get immediate medical attention. Possibility of damage to the upper respiratory tract and lung tissues. Maintain observation of the patient for delayed onset of pulmonary oedema. May cause irritation to the upper respiratory tract : Coughing, sore throat, shortness of breath.

Ingestion **DO NOT** INDUCE VOMITING. Conscious and alert person : Rinse mouth with water and give ½ to 1 cup of water or milk to dilute material. **Spontaneous vomiting :** Keep head below hips to prevent aspiration ; Rinse mouth and give ½ to 1 cup of water or milk. **UNCONSCIOUS** person : **DO NOT** induce vomiting or give any liquid. **Immediately** obtain medical attention.

Notes to Physicians
Continued washing of the affected area with cold or iced water will be helpful in removing the last traces of sulfuric acid. Creams or ointments should not be applied before or during the washing phase of the treatment.

SECTION 5. FIRE-FIGHTING MEASURES

Flash Point	Not available
Flammable Limits	Not available
Auto-Ignition Temperature	Not available
Products of Combustion	Releases of sulfur dioxide at extremely high temperatures.
Fire Hazard	Not flammable
Explosion Hazard	Reacts with most metals, especially when dilute : Hydrogen gas release (**Extremely** flammable, explosive). Risk of explosion if acid combined with water, organic materials or base solutions in enclosed spaces (Vaccum trucks, tanks). Mixing acids of different strengths/concentrations can also pose an explosive risk in an enclosed space/container.
Extinguishing media	ERG (Emergency Response Guidebook) : Guide 137 When material is not involved in fire, do not use water on material itself. **Small fire :** Dry chemical or CO_2. Move containers from fire area if you can do it without risk. **Large fire:** Flood fire area with large quantities of water, while knocking down vapors with water fog. If insufficient water supply: knock down vapors only. **Fire involving Tanks or Car/Trailer Loads :** Cool containers with flooding quantities of water until well after fire is out. Do not get water inside containers. Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank. ALWAYS stay away from tanks engulfed in fire.
Protective equipment	Evacuate personnel to a safe area. Keep personnel removed and upwind of fire. Generates heat upon addition of water, with possibility of spattering. Wear full protective clothing. Runoff from fire control may cause pollution. Neutralize run-off with lime, soda ash, etc., to prevent corrosion of metals and formation of hydrogen gas. Wear self-contained breathing apparatus if fumes or mists are present.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Spill	Review **Fire and Explosion Hazards** and **Safety Precautions** before proceeding with clean up. Stop flow if possible. Soak up small spills with dry sand, clay or diatomaceous earth.
Methods	Dike large spills, and cautiously dilute and neutralize with lime or soda ash, and transfer to waste water treatment system. Prevent liquid from entering sewers, waterways, or low areas. If this product is spilled and not recovered, or is recovered as a waste for treatment or disposal, the Reportable Quantity (U.S. DOT) is 1 000 lbs (Based on the sulfuric acid content of the solution spilled). Comply with Federal, State, and local regulations on reporting releases.
Protective equipment	Review Fire Fighting Measures and Handling (Personnel Protection) sections before proceeding with clean-up. Use appropriate PERSONAL PROTECTIVE EQUIPMENT during clean-up.

SECTION 7. HANDLING AND STORAGE

Handling	Do not get in eyes, on skin, or on clothing. Avoid breathing vapours or mist. Wear approved respirators if adequate ventilation cannot be provided. Wash thoroughly after handling. Ingestion or inhalation : Seek medical advice **immediately** and provide medical personnel with a copy of this MSDS.
Conditions for storage	Sulfuric acid must be stored in containers or tanks that have been specially designed for use with sulfuric acid. **DO NOT** add water or other products to contents in containers as violent reactions will result with resulting high heat, pressure and/or generation of hazardous acid mists. Keep containers away from heat, sparks, and flame. All closed containers must be safely vented before each opening. For more information on sulfuric acid tanks, truck tanks and tank cars including safe unloading information go to www.norfalco.com.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

		Control parameters	
		ACGIH (U.S.A.) 2008	OSHA (U.S.A.)
Name	**# CAS**	**TLV-TWA (mg/m³)**	**PEL - TWA (mg/m³)**
Sulfuric (Acid)	7664-93-9	0.2 (thoracic fr.)	1
60 Deg Technical	7664-93-9	0.2 (thoracic fr.)	1
66 Deg Technical	7664-93-9	0.2 (thoracic fr.)	1
1.835 Electrolyte	7664-93-9	0.2 (thoracic fr.)	1
98 % Technical	7664-93-9	0.2 (thoracic fr.)	1
99 % Technical	7664-93-9	0.2 (thoracic fr.)	1
100 % Technical	7664-93-9	0.2 (thoracic fr.)	1
Water	7732-18-5	Not established	Not established

ACGIH : American Conference of Governmental Industrial Hygienists. OSHA : Occupational Safety and Health Administration.

Note : **Sulfuric (Acid) :** Exposure limits may be different in other jurisdictions. NIOSH REL-TWA (≤10 hours) : 1 mg/m³ ; IDLH : 15 mg/m³. *Consult local authorities for acceptable exposure limits.*

Engineering Controls Good general ventilation should be provided to keep vapour and mist concentrations below the exposure limits.

Individual protection Chemical splash goggles ; Full-length face shield/chemical splash goggles combination ; Acid-proof gauntlet gloves, apron, and boots ; Long sleeve wool, acrylic, or polyester clothing ; Acid proof suit and hood ; Appropriate NIOSH respiratory protection.

In case of emergency or where there is a strong possibility of considerable exposure, wear a complete acid suit with hood, boots, and gloves. If acid vapour or mist are present and exposure limits may be exceeded, wear appropriate NIOSH respiratory protection.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State and Appearance	Liquid (Oily ; Clear to turbid)	**Odour**	Odourless
Molecular Weight	98.08	**Colour**	Colourless to light grey
pH (1% soln/water)	< 1	**Volatility**	< 1 (Butyl Acetate = 1.0)
Boiling Point	193°C to 327 °C (379°F to 621°F) @ 760 mm Hg	**Vapour Density**	3.4
Melting Point	-35°C to 11°C (-31°F to 52°F)	**Dispersion**	Yes (Water)
Vapour Pressure	< 0.3 mm Hg @ 25°C (77 °F) < 0.6 mm Hg @ 38°C (100 °F)	**Solubility**	Yes (Water)

GRADE	Boiling Point		Freezing Point		Specific Gravity
	DEG °C	DEG °F	DEG °C	DEG °F	
60 DEG TECHNICAL	193	380	- 12	10	1.706
66 DEG TECHNICAL	279	535	- 35	- 31	1.835
1.835 ELECTROLYTE	279	535	- 35	- 31	1.835
98 % TECHNICAL	327	621	- 2	29	1.844
99 % TECHNICAL	310	590	4	40	1.842
100 % TECHNICAL	274	526	11	51	1.839

SECTION 10. STABILITY AND REACTIVITY

Stability Yes (Under normal conditions of ambiant temperature)

Reactivity Reacts violently with water, organic substances and base solutions with evolution of heat and hazardous mists.

Conditions to avoid Heat : Possibility of decomposition. Release of dangerous gases (Sulfur oxides SO_2, SO_3)

Polymerization Polymerization will not occur.

Incompatibilities Vigorous reactions with : Water; alkaline solutions ; Metals, metal powder ; Carbides ; Chlorates ; Fulminates ; nitrates ; Picrates ; Strong oxidizing, reducing, or combustible organic materials. Hazardous gases are evolved on contact with chemicals such as cyanides, sulfides, and carbides.

Corrosivity Yes

SECTION 11. TOXICOLOGICAL INFORMATION

Routes of Entry Ingestion. Inhalation. Skin and eye contacts.

Carcinogenicity **Strong inorganic acid mists containing sulfuric acid (Occupational exposures) :** PROVEN (Human, Group 1, IARC) ; SUSPECTED (Human, Group A2, ACGIH) ; Group X (NTP) ; Classification not applicable to sulfuric acid and sulfuric acid solutions.

Mutagenicity Not applicable.

Teratogenicity Not applicable.

Acute toxicity ORAL (LD50) : 2 140 mg/kg (Rat) ; INHALATION (LC50, 2 hours) : 510 mg/m³ (Rat) ; 320 mg/m³ (Mouse). (RTECS).

Acute Effects May be **fatal** if inhaled or ingested in large quantity. Liquids or acid mists : May produce tissue damage : Mucous membranes (Eyes, mouth, respiratory tract). **Extremely** dangerous by eyes and skin contact **(Corrosive)**. Severe irritant for eyes : Inflammation (Redness, watering, itching). Very dangerous in case of inhalation (Mists) at high concentrations : May produce severe irritation of respiratory tract (Coughing, shortness of breath, choking).

Chronic Effects Target organs for acute and chronic overexposure (NIOSH 90-117) : Respiratory system, eyes, skin, teeth.

Acid mists : Overexposure to strong inorganic mists containing sulfuric acid : Possibility of laryngeal cancer (HSBD, IARC). Possibility of irritation of the nose and throat with sneezing, sore throat or runny nose. Headache, nausea and weakness. Gross overexposure : Possibility of irritation of nose, throat, and lungs with cough, difficulty breathing or shortness of breath. Pulmonary edema with cough, wheezing, abnormal lung sounds, possibly progressing to severe shortness of breath and bluish discoloration of the skin. Symptoms may be delayed. Repeated or prolonged exposure to mists may cause : Corrosion of teeth.

Contact (Skin) : Possibility of corrosion, burns or ulcers. Contact with a 1 % solution : Possibility of slight irritation with itching, redness or swelling. Repeated or prolonged exposure (Mist) : Possibility of irritation with itching, burning, redness, swelling or rash.

Contact (Eye) : Possibility of corrosion or ulceration (Blindness may result). Repeated or prolonged exposure (Mist) : Possibility of eye irritation with tearing, pain or blurred vision.

Ingestion : Immediate effects of overexposure : Burns of the mouth, throat, esophagus and stomach, with severe pain, bleeding, vomiting, diarrhea and collapse of blood pressure. Damage may appear days after exposure.

Toxicity

Persons with the following pre-existing conditions warrant particular attention :
Sulfuric (Acid) : Laryngeal irritation.

Eating, drinking and smoking must be prohibited in areas where this material is handled and processed. Wash hands and face before eating, drinking and smoking.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Aquatic toxicity : Slightly to moderately toxic.
Bluegill Sunfish (LC50 ; 48 hours) : 49 mg/l (Tap water, 20 °C, conditions of bioessay not specified). (HSBD).
Flounder (LC50 ; 48 hours) : 100-330 mg/l (Aerated water, conditions of bioessay not specified). (HSBD).

Toxicity to Animals

EYE : Concentrated compound is corrosive. 10 % solution : Moderate eye irritant.
SKIN : Concentrated compound is corrosive. 10 % solution : Slight skin irritant.
Single and repeated exposure : Irritation of the respiratory tract ; Corrosion of the respiratory tract ; Lung damage ; Labored breathing ; Altered respiratory rate ; Pulmonary oedema. Repeated exposure : Altered red blood cell count.

Mobility (Soil)

Easy soil seeping under rain action

Persistence and degradability

Sulfate ion : Ubiquitous in the environment. Metabolized by micro-organisms and plants.

Bioaccumulation

Sulfate ion : Ubiquitous in the environment. Metabolized by micro-organisms and plants whitout bioaccumulation.

Biodegradation Products

Not available

Biodegradation Products (Toxicity)

Not applicable

Remarks on Environment

Due to the product's composition, particular attention must be taken for transportation and storage. Protect from rain because the run-off water will become acidic and may be harmful to flora and fauna.

BOD5 and COD

Not available

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Cleaned-up material may be an hazardous waste on *Resource Conservation and Recovery Act* (RCRA) on disposal due to the corrosivity characteristic. **DO NOT** flush to surface water or sanitary sewer system. Comply with Federal, State, and local regulations. If approved, neutralize and transfer to waste treatment system.

SECTION 14. TRANSPORT INFORMATION

TDG (Canada)

CLASS 8 Corrosives

PIN

UN1830 SULFURIC ACID PG II

Special Provisions (Transport)

None

DOT (U.S.A.)/IMO (Maritime)

Proper Shipping Name	SULFURIC ACID
Hazard Class	8
UN N°	1830
DOT/IMO Label	CORROSIVE
Packing Group	II
Reportable Quantity	1000 lbs (454 kg)
Shipping Containers	Tank Cars, Tank Trucks, Vessel

ERG

Guide 137

SECTION 15 REGULATORY INFORMATION

Labeling (EEC)

EU (Directive 67/548/EEC) :
Sulfuric (Acid) : C Corrosive (Pictogram)
Annex I Index number : 016-020-00-8 ; EU Consolidated Inventories : EC Number 231-639-5
C ≥ 15 % C ; R35 ; S2, 26, 30, 45.

Risk Phrases (EEC)

R35- Causes severe burns

Safety Phrases (EEC)

S26- In case of contact with eyes, rinse immediately with plenty of water and seek medical advice
S30- Nerver add water to this product
S36/37/39- Wear suitable protective clothing, gloves and eye/face protection
S45- In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

CEPA DSL (CANADA)	CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA) : On the Domestic Substances List (DSL) ; Acceptable for use under the provisions of CEPA. Sulfuric Acid is a Class B Drug Precursor under *Health Canada's Controlled Drugs and Substances Act* and *Precursor Control Regulations*.
Regulations (U.S.A.)	CERCLA Section 103 Hazardous substances (40 CFR 302.4) ; SARA Section 302 Extremely Hazardous Substances (40 CFR 355) : Yes ; SARA Section 313, Toxic Chemicals (40 CFR 372.65) ; US: TSCA Inventory : Listed : **Sulfuric (Acid)** (Final RQ) : 1 000 pounds (454 kg) Sulfuric Acid is subject to reporting requirements of Section 313, *Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA)*, 40 CFR Part 372. Certain companies must report emissions of Sulfuric Acid as required under *The Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA)*, 40 CFR Part 302 For more information call the *SARA Hotline* 800-424-9346. Strong Inorganic Acid Mists Containing Sulfuric Acid : Chemical listed effective March 14, 2003 to the *State of California, Proposal 65.* *U.S. FDA Food Bioterrorism Regulations* : These regulations apply to Sulfuric Acid when being distributed, stored or used for Food or Food Processing.
Classifications HCS (U.S.A.)	Corrosive liquid

NFPA (National Fire Protection Association) (U.S.A.)

Fire Hazard	**0**	**Reactivity**	**2**	**Health**	**3**	**Special Hazard**	**ACID**

NPCA- HMIS Rating

Fire Hazard	**0**	**Reactivity**	**2**	**Health**	**3**

SECTION 16. OTHER INFORMATION

References

- TLVs and BEIs (2008). Based on the Documentation of the Threshold Limit Values for Chemical Substances and Physical Agents & Biological Exposure Indices. ACGIH, Cincinnati, OH – http://www.acgih.org
- CCOHS (2008) - Canadian Centre for Occupational Health and Safety - http://www.ccohs.ca/
- CSST (2008) - Commission de la Santé et de la Sécurité du Travail (Québec). Service du répertoire toxicologique - http://www.reptox.csst.qc.ca/
- ERG (2008). Emergency Response Guidebook, Developed by the U.S. Department of Transportation, Transport Canada, and the Secretariat of Communications and Transportation of Mexico
- HSDB (2008) - Hazardous Substances Data Bank. TOXNET® Network of databases on toxicology, hazardous chemicals, and environmental health. NLM Databases & Electronic Resources, U.S. National Library of Medicine, NHI, 8600 Rockville Pike, Bethesda, MD 20894 - http://toxnet.nlm.nih.gov/cgi-bin/sis/htmlgen?HSDB
- IARC - Monographs on the Evaluation of Carcinogenic Risks to Humans (collection) - http://www-cie.iarc.fr/
- Merck Index (1999). Merck & CO., Inc, 12th edition
- NIOSH U.S. (2008) - Pocket Guide to Chemical Hazards - http://www.cdc.gov/niosh/npg/
- Patty's Industrial Hygiene and Toxicology, 3rd Revised Edition
- Règlement sur les produits contrôlés (Canada)
- RTECS (2008). Registry of Toxic Effects of Chemical Substances, NIOSH, CDC
- Toxicologie industrielle & intoxication professionnelle, 3e édition, Lauwerys

Glossary

CSST	: Commission de la Santé et de la Sécurité du Travail (Québec).
HSDB	: Hazardous Substances Data Bank.
IARC	: International Agency for Research on Cancer.
NIOSH	: National Institute of Occupational Safety and Health.
NTP	: U.S. National Toxicology Program.
RTECS	: Registry of Toxic Effects of Chemical Substances

Note

For further information, see NorFalco Inc. Sulfuric Acid « Storage and Handling Bulletin ».

Because of its corrosive characteristics and inherent hazards, Sulfuric Acid should not be used in sewer or drain cleaners or any similar application; regardless of whether they are formulated for residential, commercial or industrial use. NorFalco will not knowingly sell sulfuric acid to individuals or companies who repackage the product for sale as sewer or drain cleaners, or any other similar use.

The data in this Material Safety Data Sheet relates only to the specific material designated herein and does not relate to use in combination with any other material or in any process.

For additional information, please visited our website : www.norfalco.com

Written by : Groupe STEM Consultants / NorFalco Sales Inc.

Complete revision : 2009-01-24 **Partial review :** None **Previous complete revision :** 2008-01-24

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Notice to Reader

Although reasonable precautions have been taken in the preparation of the data contained herein, it is offered solely for your information, consideration and investigation. NorFalco Sales Inc.extends no warranty and assumes no responsibility for the accuracy of the content and expressly disclaims all liability for reliance thereon. This material safety data sheet provides guidelines for the safe handling and processing of this product; it does not and cannot advise on all possible situations, therefore, your specific use of this product should be evaluated to determine if additional precautions are required. Individuals exposed to this product should read and understand this information and be provided pertinent training prior to working with this product.

APPENDIX F

ANALYTICAL LABORATORY REPORTS

ANALYTICAL REPORT

Lab Number:	L1516428
Client:	Sanborn, Head & Associates, Inc. 1 Technology Park Drive Westford, MA 01886
ATTN:	Kent Walker
Phone:	(978) 577-1003
Project Name:	FOLEY ST., BLOCK 5
Project Number:	3175.06
Report Date:	07/22/15

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

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

Project Name: FOLEY ST., BLOCK 5
Project Number: 3175.06

Lab Number: L1516428
Report Date: 07/22/15

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1516428-01	BLOCK 5 RGP	WATER	SOMERVILLE, MA	07/16/15 10:15	07/16/15
L1516428-02	TRIP BLANK	WATER	SOMERVILLE, MA	07/16/15 00:00	07/16/15

Project Name: FOLEY ST., BLOCK 5 **Lab Number:** L1516428
Project Number: 3175.06 **Report Date:** 07/22/15

Case Narrative

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

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

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

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

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

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

Project Name:	FOLEY ST., BLOCK 5	**Lab Number:**	L1516428
Project Number:	3175.06	**Report Date:**	07/22/15

Case Narrative (continued)

Semivolatile Organics

The WG804027-2/-3 LCS/LCSD recoveries, associated with L1516428-01, are below the acceptance criteria for benzidine (0%/0%) and pyridine (6%/4%); however, they have been identified as "difficult" analytes. The results of the associated sample are reported.

Dissolved Metals

L1516428-01: The sample has an elevated detection limit for Mercury due to the prep dilution required by the sample matrix.

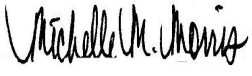
The WG803692-1 Method Blank, associated with L1516428-01, has a concentration above the reporting limit for iron. Since the associated sample concentration is greater than 10x the blank concentration for this analyte, no corrective action is required.

The WG803691-4 MS recovery, performed on L1516428-01, is outside the acceptance criteria for arsenic (130%). A post digestion spike was performed and was within acceptance criteria.

TPH

WG803974: A laboratory duplicate could not be performed due to insufficient sample volume available for analysis.

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

Authorized Signature:  Michelle M. Morris

Title: Technical Director/Representative Date: 07/22/15

ORGANICS

VOLATILES

Project Name: FOLEY ST., BLOCK 5 **Lab Number:** L1516428

Project Number: 3175.06 **Report Date:** 07/22/15

SAMPLE RESULTS

Lab ID: L1516428-01
Client ID: BLOCK 5 RGP
Sample Location: SOMERVILLE, MA
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 07/20/15 11:05
Analyst: MM

Date Collected: 07/16/15 10:15
Date Received: 07/16/15
Field Prep: None

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	3.0	--	1
1,1-Dichloroethane	ND		ug/l	0.75	--	1
Chloroform	ND		ug/l	0.75	--	1
Carbon tetrachloride	ND		ug/l	0.50	--	1
1,2-Dichloropropane	ND		ug/l	1.8	--	1
Dibromochloromethane	ND		ug/l	0.50	--	1
1,1,2-Trichloroethane	ND		ug/l	0.75	--	1
Tetrachloroethene	ND		ug/l	0.50	--	1
Chlorobenzene	ND		ug/l	0.50	--	1
Trichlorofluoromethane	ND		ug/l	2.5	--	1
1,2-Dichloroethane	ND		ug/l	0.50	--	1
1,1,1-Trichloroethane	ND		ug/l	0.50	--	1
Bromodichloromethane	ND		ug/l	0.50	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	--	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	--	1
1,1-Dichloropropene	ND		ug/l	2.5	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	ND		ug/l	0.75	--	1
Ethylbenzene	ND		ug/l	0.50	--	1
Chloromethane	ND		ug/l	2.5	--	1
Bromomethane	ND		ug/l	1.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	1.0	--	1
1,1-Dichloroethene	ND		ug/l	0.50	--	1
trans-1,2-Dichloroethene	ND		ug/l	0.75	--	1
1,2-Dichloroethene, Total	ND		ug/l	0.50	--	1
Trichloroethene	ND		ug/l	0.50	--	1

Project Name: FOLEY ST., BLOCK 5 **Lab Number:** L1516428

Project Number: 3175.06 **Report Date:** 07/22/15

SAMPLE RESULTS

Lab ID: L1516428-01 Date Collected: 07/16/15 10:15

Client ID: BLOCK 5 RGP Date Received: 07/16/15

Sample Location: SOMERVILLE, MA Field Prep: None

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,2-Dichlorobenzene	ND		ug/l	2.5	--	1
1,3-Dichlorobenzene	ND		ug/l	2.5	--	1
1,4-Dichlorobenzene	ND		ug/l	2.5	--	1
Methyl tert butyl ether	ND		ug/l	1.0	--	1
p/m-Xylene	ND		ug/l	1.0	--	1
o-Xylene	ND		ug/l	1.0	--	1
Xylenes, Total	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	ND		ug/l	0.50	--	1
Dibromomethane	ND		ug/l	5.0	--	1
1,4-Dichlorobutane	ND		ug/l	5.0	--	1
1,2,3-Trichloropropane	ND		ug/l	5.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	5.0	--	1
Acetone	ND		ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	5.0	--	1
2-Butanone	ND		ug/l	5.0	--	1
Vinyl acetate	ND		ug/l	5.0	--	1
4-Methyl-2-pentanone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Ethyl methacrylate	ND		ug/l	5.0	--	1
Acrylonitrile	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.5	--	1
Tetrahydrofuran	ND		ug/l	5.0	--	1
2,2-Dichloropropane	ND		ug/l	2.5	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.5	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	0.50	--	1
Bromobenzene	ND		ug/l	2.5	--	1
n-Butylbenzene	ND		ug/l	0.50	--	1
sec-Butylbenzene	ND		ug/l	0.50	--	1
tert-Butylbenzene	ND		ug/l	2.5	--	1
o-Chlorotoluene	ND		ug/l	2.5	--	1
p-Chlorotoluene	ND		ug/l	2.5	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	--	1
Hexachlorobutadiene	ND		ug/l	0.50	--	1
Isopropylbenzene	ND		ug/l	0.50	--	1
p-Isopropyltoluene	ND		ug/l	0.50	--	1
Naphthalene	ND		ug/l	2.5	--	1
n-Propylbenzene	ND		ug/l	0.50	--	1

Project Name: FOLEY ST., BLOCK 5 **Lab Number:** L1516428

Project Number: 3175.06 **Report Date:** 07/22/15

SAMPLE RESULTS

Lab ID: L1516428-01 Date Collected: 07/16/15 10:15

Client ID: BLOCK 5 RGP Date Received: 07/16/15

Sample Location: SOMERVILLE, MA Field Prep: None

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/l	2.5	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	--	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	--	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	--	1
Ethyl ether	ND		ug/l	2.5	--	1
Tert-Butyl Alcohol	ND		ug/l	10	--	1
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	108		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	107		70-130

Project Name: FOLEY ST., BLOCK 5 **Lab Number:** L1516428

Project Number: 3175.06 **Report Date:** 07/22/15

SAMPLE RESULTS

Lab ID:	L1516428-01	Date Collected:	07/16/15 10:15
Client ID:	BLOCK 5 RGP	Date Received:	07/16/15
Sample Location:	SOMERVILLE, MA	Field Prep:	None
Matrix:	Water		
Analytical Method:	1,8260C-SIM(M)		
Analytical Date:	07/20/15 11:05		
Analyst:	MM		

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

Project Name: FOLEY ST., BLOCK 5 **Lab Number:** L1516428

Project Number: 3175.06 **Report Date:** 07/22/15

SAMPLE RESULTS

Lab ID: L1516428-01
Client ID: BLOCK 5 RGP
Sample Location: SOMERVILLE, MA
Matrix: Water
Analytical Method: 14,504.1
Analytical Date: 07/20/15 18:06
Analyst: NS

Date Collected: 07/16/15 10:15
Date Received: 07/16/15
Field Prep: None
Extraction Method: EPA 8011
Extraction Date: 07/20/15 09:34

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Microextractables by GC - Westborough Lab							
1,2-Dibromoethane	ND		ug/l	0.010	--	1	A
1,2-Dibromo-3-chloropropane	ND		ug/l	0.010	--	1	A

Project Name: FOLEY ST., BLOCK 5 **Lab Number:** L1516428

Project Number: 3175.06 **Report Date:** 07/22/15

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C-SIM(M)
Analytical Date: 07/20/15 09:25
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01 Batch: WG804254-3					
1,4-Dioxane	ND		ug/l	3.0	--

Project Name: FOLEY ST., BLOCK 5 **Lab Number:** L1516428

Project Number: 3175.06 **Report Date:** 07/22/15

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 07/20/15 09:25
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG804257-3					
Methylene chloride	ND		ug/l	3.0	--
1,1-Dichloroethane	ND		ug/l	0.75	--
Chloroform	ND		ug/l	0.75	--
Carbon tetrachloride	ND		ug/l	0.50	--
1,2-Dichloropropane	ND		ug/l	1.8	--
Dibromochloromethane	ND		ug/l	0.50	--
1,1,2-Trichloroethane	ND		ug/l	0.75	--
2-Chloroethylvinyl ether	ND		ug/l	10	--
Tetrachloroethene	ND		ug/l	0.50	--
Chlorobenzene	ND		ug/l	0.50	--
Trichlorofluoromethane	ND		ug/l	2.5	--
1,2-Dichloroethane	ND		ug/l	0.50	--
1,1,1-Trichloroethane	ND		ug/l	0.50	--
Bromodichloromethane	ND		ug/l	0.50	--
trans-1,3-Dichloropropene	ND		ug/l	0.50	--
cis-1,3-Dichloropropene	ND		ug/l	0.50	--
1,3-Dichloropropene, Total	ND		ug/l	0.50	--
1,1-Dichloropropene	ND		ug/l	2.5	--
Bromoform	ND		ug/l	2.0	--
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	--
Benzene	ND		ug/l	0.50	--
Toluene	ND		ug/l	0.75	--
Ethylbenzene	ND		ug/l	0.50	--
Chloromethane	ND		ug/l	2.5	--
Bromomethane	ND		ug/l	1.0	--
Vinyl chloride	ND		ug/l	1.0	--
Chloroethane	ND		ug/l	1.0	--
1,1-Dichloroethene	ND		ug/l	0.50	--
trans-1,2-Dichloroethene	ND		ug/l	0.75	--

Project Name: FOLEY ST., BLOCK 5 **Lab Number:** L1516428

Project Number: 3175.06 **Report Date:** 07/22/15

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 07/20/15 09:25
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG804257-3					
1,2-Dichloroethene (total)	ND		ug/l	0.50	--
Trichloroethene	ND		ug/l	0.50	--
1,2-Dichlorobenzene	ND		ug/l	2.5	--
1,3-Dichlorobenzene	ND		ug/l	2.5	--
1,4-Dichlorobenzene	ND		ug/l	2.5	--
Methyl tert butyl ether	ND		ug/l	1.0	--
p/m-Xylene	ND		ug/l	1.0	--
o-Xylene	ND		ug/l	1.0	--
Xylene (Total)	ND		ug/l	1.0	--
cis-1,2-Dichloroethene	ND		ug/l	0.50	--
Dibromomethane	ND		ug/l	5.0	--
1,4-Dichlorobutane	ND		ug/l	5.0	--
1,2,3-Trichloropropane	ND		ug/l	5.0	--
Styrene	ND		ug/l	1.0	--
Dichlorodifluoromethane	ND		ug/l	5.0	--
Acetone	ND		ug/l	5.0	--
Carbon disulfide	ND		ug/l	5.0	--
2-Butanone	ND		ug/l	5.0	--
Vinyl acetate	ND		ug/l	5.0	--
4-Methyl-2-pentanone	ND		ug/l	5.0	--
2-Hexanone	ND		ug/l	5.0	--
Ethyl methacrylate	ND		ug/l	5.0	--
Acrylonitrile	ND		ug/l	5.0	--
Bromochloromethane	ND		ug/l	2.5	--
Tetrahydrofuran	ND		ug/l	5.0	--
2,2-Dichloropropane	ND		ug/l	2.5	--
1,2-Dibromoethane	ND		ug/l	2.0	--
1,3-Dichloropropane	ND		ug/l	2.5	--
1,1,1,2-Tetrachloroethane	ND		ug/l	0.50	--

Project Name: FOLEY ST., BLOCK 5 **Lab Number:** L1516428

Project Number: 3175.06 **Report Date:** 07/22/15

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 07/20/15 09:25
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG804257-3					
Bromobenzene	ND		ug/l	2.5	--
n-Butylbenzene	ND		ug/l	0.50	--
sec-Butylbenzene	ND		ug/l	0.50	--
tert-Butylbenzene	ND		ug/l	2.5	--
o-Chlorotoluene	ND		ug/l	2.5	--
p-Chlorotoluene	ND		ug/l	2.5	--
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	--
Hexachlorobutadiene	ND		ug/l	0.50	--
Isopropylbenzene	ND		ug/l	0.50	--
p-Isopropyltoluene	ND		ug/l	0.50	--
Naphthalene	ND		ug/l	2.5	--
n-Propylbenzene	ND		ug/l	0.50	--
1,2,3-Trichlorobenzene	ND		ug/l	2.5	--
1,2,4-Trichlorobenzene	ND		ug/l	2.5	--
1,3,5-Trimethylbenzene	ND		ug/l	2.5	--
1,3,5-Trichlorobenzene	ND		ug/l	2.0	--
1,2,4-Trimethylbenzene	ND		ug/l	2.5	--
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	--
Ethyl ether	ND		ug/l	2.5	--
Methyl Acetate	ND		ug/l	10	--
Ethyl Acetate	ND		ug/l	10	--
Isopropyl Ether	ND		ug/l	2.0	--
Cyclohexane	ND		ug/l	10	--
tert-Butyl Alcohol	ND		ug/l	10	--
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		ug/l	10	--
Methyl cyclohexane	ND		ug/l	10	--
1,4-Diethylbenzene	ND		ug/l	2.0	--

Project Name: FOLEY ST., BLOCK 5 **Lab Number:** L1516428

Project Number: 3175.06 **Report Date:** 07/22/15

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 07/20/15 09:25
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG804257-3					
4-Ethyltoluene	ND		ug/l	2.0	--
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	102		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	103		70-130
Dibromofluoromethane	105		70-130

Project Name: FOLEY ST., BLOCK 5
Project Number: 3175.06

Lab Number: L1516428
Report Date: 07/22/15

Method Blank Analysis
Batch Quality Control

Analytical Method: 14,504.1
Analytical Date: 07/20/15 17:14
Analyst: NS

Extraction Method: EPA 8011
Extraction Date: 07/20/15 09:34

Parameter	Result	Qualifier	Units	RL	MDL	
Microextractables by GC - Westborough Lab for sample(s): 01 Batch: WG804272-1						
1,2-Dibromoethane	ND		ug/l	0.010	--	A
1,2-Dibromo-3-chloropropane	ND		ug/l	0.010	--	A

Lab Control Sample Analysis

Batch Quality Control

Project Name: FOLEY ST., BLOCK 5

Project Number: 3175.06

Lab Number: L1516428

Report Date: 07/22/15

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01 Batch: WG804254-1 WG804254-2								
1,4-Dioxane	119		107		70-130	11		25

Lab Control Sample Analysis

Batch Quality Control

Project Name: FOLEY ST., BLOCK 5

Project Number: 3175.06

Lab Number: L1516428

Report Date: 07/22/15

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG804257-1 WG804257-2								
Methylene chloride	103		105		70-130	2		20
1,1-Dichloroethane	103		107		70-130	4		20
Chloroform	101		102		70-130	1		20
Carbon tetrachloride	99		100		63-132	1		20
1,2-Dichloropropane	103		103		70-130	0		20
Dibromochloromethane	96		97		63-130	1		20
1,1,2-Trichloroethane	99		101		70-130	2		20
2-Chloroethylvinyl ether	101		105		70-130	4		20
Tetrachloroethene	94		96		70-130	2		20
Chlorobenzene	94		95		75-130	1		25
Trichlorofluoromethane	115		116		62-150	1		20
1,2-Dichloroethane	105		105		70-130	0		20
1,1,1-Trichloroethane	95		98		67-130	3		20
Bromodichloromethane	98		100		67-130	2		20
trans-1,3-Dichloropropene	87		88		70-130	1		20
cis-1,3-Dichloropropene	95		96		70-130	1		20
1,1-Dichloropropene	94		97		70-130	3		20
Bromoform	93		92		54-136	1		20
1,1,2,2-Tetrachloroethane	100		96		67-130	4		20
Benzene	100		101		70-130	1		25
Toluene	93		97		70-130	4		25

Lab Control Sample Analysis

Batch Quality Control

Project Name: FOLEY ST., BLOCK 5

Project Number: 3175.06

Lab Number: L1516428

Report Date: 07/22/15

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG804257-1 WG804257-2								
Ethylbenzene	94		94		70-130	0		20
Chloromethane	96		100		64-130	4		20
Bromomethane	41		43		39-139	5		20
Vinyl chloride	98		101		55-140	3		20
Chloroethane	107		109		55-138	2		20
1,1-Dichloroethene	100		104		61-145	4		25
trans-1,2-Dichloroethene	96		98		70-130	2		20
Trichloroethene	97		100		70-130	3		25
1,2-Dichlorobenzene	98		94		70-130	4		20
1,3-Dichlorobenzene	98		94		70-130	4		20
1,4-Dichlorobenzene	96		93		70-130	3		20
Methyl tert butyl ether	102		104		63-130	2		20
p/m-Xylene	96		96		70-130	0		20
o-Xylene	97		97		70-130	0		20
cis-1,2-Dichloroethene	97		99		70-130	2		20
Dibromomethane	74		77		70-130	4		20
1,4-Dichlorobutane	101		97		70-130	4		20
1,2,3-Trichloropropane	104		100		64-130	4		20
Styrene	96		96		70-130	0		20
Dichlorodifluoromethane	111		110		36-147	1		20
Acetone	124		119		58-148	4		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: FOLEY ST., BLOCK 5

Project Number: 3175.06

Lab Number: L1516428

Report Date: 07/22/15

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG804257-1 WG804257-2								
Carbon disulfide	91		94		51-130	3		20
2-Butanone	120		129		63-138	7		20
Vinyl acetate	93		95		70-130	2		20
4-Methyl-2-pentanone	99		107		59-130	8		20
2-Hexanone	102		108		57-130	6		20
Ethyl methacrylate	95		94		70-130	1		20
Acrylonitrile	125		124		70-130	1		20
Bromochloromethane	102		104		70-130	2		20
Tetrahydrofuran	128		127		58-130	1		20
2,2-Dichloropropane	89		92		63-133	3		20
1,2-Dibromoethane	94		97		70-130	3		20
1,3-Dichloropropane	100		100		70-130	0		20
1,1,1,2-Tetrachloroethane	93		94		64-130	1		20
Bromobenzene	97		94		70-130	3		20
n-Butylbenzene	93		91		53-136	2		20
sec-Butylbenzene	93		90		70-130	3		20
tert-Butylbenzene	92		89		70-130	3		20
o-Chlorotoluene	94		91		70-130	3		20
p-Chlorotoluene	93		88		70-130	6		20
1,2-Dibromo-3-chloropropane	89		83		41-144	7		20
Hexachlorobutadiene	91		88		63-130	3		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: FOLEY ST., BLOCK 5

Project Number: 3175.06

Lab Number: L1516428

Report Date: 07/22/15

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG804257-1 WG804257-2								
Isopropylbenzene	93		90		70-130	3		20
p-Isopropyltoluene	92		90		70-130	2		20
Naphthalene	81		79		70-130	3		20
n-Propylbenzene	93		90		69-130	3		20
1,2,3-Trichlorobenzene	85		87		70-130	2		20
1,2,4-Trichlorobenzene	87		83		70-130	5		20
1,3,5-Trimethylbenzene	92		88		64-130	4		20
1,3,5-Trichlorobenzene	94		92		70-130	2		20
1,2,4-Trimethylbenzene	94		92		70-130	2		20
trans-1,4-Dichloro-2-butene	98		99		70-130	1		20
Ethyl ether	106		109		59-134	3		20
Methyl Acetate	121		120		70-130	1		20
Ethyl Acetate	115		117		70-130	2		20
Isopropyl Ether	102		102		70-130	0		20
Cyclohexane	102		105		70-130	3		20
Tert-Butyl Alcohol	113		**131**	Q	70-130	15		20
Ethyl-Tert-Butyl-Ether	96		97		70-130	1		20
Tertiary-Amyl Methyl Ether	92		95		66-130	3		20
1,1,2-Trichloro-1,2,2-Trifluoroethane	106		109		70-130	3		20
Methyl cyclohexane	100		99		70-130	1		20
p-Diethylbenzene	90		87		70-130	3		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: FOLEY ST., BLOCK 5

Project Number: 3175.06

Lab Number: L1516428

Report Date: 07/22/15

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG804257-1 WG804257-2								
4-Ethyltoluene	93		89		70-130	4		20
1,2,4,5-Tetramethylbenzene	88		87		70-130	1		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	101		104		70-130
Toluene-d8	99		98		70-130
4-Bromofluorobenzene	96		93		70-130
Dibromofluoromethane	107		105		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: FOLEY ST., BLOCK 5

Project Number: 3175.06

Lab Number: L1516428

Report Date: 07/22/15

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Microextractables by GC - Westborough Lab Associated sample(s): 01 Batch: WG804272-2									
1,2-Dibromoethane	103		-		70-130	-		20	A
1,2-Dibromo-3-chloropropane	95		-		70-130	-		20	A

Matrix Spike Analysis
Batch Quality Control

Project Name: FOLEY ST., BLOCK 5
Project Number: 3175.06

Lab Number: L1516428
Report Date: 07/22/15

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits	Column
Microextractables by GC - Westborough Lab Associated sample(s): 01 QC Batch ID: WG804272-3 QC Sample: L1516428-01 Client ID: BLOCK 5 RGP													
1,2-Dibromoethane	ND	0.257	0.274	107		-	-		70-130	-		20	A
1,2-Dibromo-3-chloropropane	ND	0.257	0.230	89		-	-		70-130	-		20	A

SEMIVOLATILES

Project Name: FOLEY ST., BLOCK 5 **Lab Number:** L1516428

Project Number: 3175.06 **Report Date:** 07/22/15

SAMPLE RESULTS

Lab ID: L1516428-01
Client ID: BLOCK 5 RGP
Sample Location: SOMERVILLE, MA
Matrix: Water
Analytical Method: 1,8270D
Analytical Date: 07/22/15 03:22
Analyst: AS

Date Collected: 07/16/15 10:15
Date Received: 07/16/15
Field Prep: None
Extraction Method: EPA 3510C
Extraction Date: 07/19/15 01:50

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzidine	ND		ug/l	20	--	1
1,2,4-Trichlorobenzene	ND		ug/l	5.0	--	1
Bis(2-chloroethyl)ether	ND		ug/l	2.0	--	1
1,2-Dichlorobenzene	ND		ug/l	2.0	--	1
1,3-Dichlorobenzene	ND		ug/l	2.0	--	1
1,4-Dichlorobenzene	ND		ug/l	2.0	--	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	--	1
2,4-Dinitrotoluene	ND		ug/l	5.0	--	1
2,6-Dinitrotoluene	ND		ug/l	5.0	--	1
Azobenzene	ND		ug/l	2.0	--	1
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	--	1
4-Bromophenyl phenyl ether	ND		ug/l	2.0	--	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	--	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	--	1
Hexachlorocyclopentadiene	ND		ug/l	20	--	1
Isophorone	ND		ug/l	5.0	--	1
Nitrobenzene	ND		ug/l	2.0	--	1
NDPA/DPA	ND		ug/l	2.0	--	1
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	--	1
Butyl benzyl phthalate	ND		ug/l	5.0	--	1
Di-n-butylphthalate	ND		ug/l	5.0	--	1
Di-n-octylphthalate	ND		ug/l	5.0	--	1
Diethyl phthalate	ND		ug/l	5.0	--	1
Dimethyl phthalate	ND		ug/l	5.0	--	1
Aniline	ND		ug/l	2.0	--	1
4-Chloroaniline	ND		ug/l	5.0	--	1
2-Nitroaniline	ND		ug/l	5.0	--	1
3-Nitroaniline	ND		ug/l	5.0	--	1
4-Nitroaniline	ND		ug/l	5.0	--	1
Dibenzofuran	ND		ug/l	2.0	--	1

Project Name: FOLEY ST., BLOCK 5 **Lab Number:** L1516428

Project Number: 3175.06 **Report Date:** 07/22/15

SAMPLE RESULTS

Lab ID: L1516428-01 Date Collected: 07/16/15 10:15

Client ID: BLOCK 5 RGP Date Received: 07/16/15

Sample Location: SOMERVILLE, MA Field Prep: None

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
n-Nitrosodimethylamine	ND		ug/l	2.0	--	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	--	1
p-Chloro-m-cresol	ND		ug/l	2.0	--	1
2-Chlorophenol	ND		ug/l	2.0	--	1
2,4-Dichlorophenol	ND		ug/l	5.0	--	1
2,4-Dimethylphenol	ND		ug/l	5.0	--	1
2-Nitrophenol	ND		ug/l	10	--	1
4-Nitrophenol	ND		ug/l	10	--	1
2,4-Dinitrophenol	ND		ug/l	20	--	1
4,6-Dinitro-o-cresol	ND		ug/l	10	--	1
Phenol	ND		ug/l	5.0	--	1
2-Methylphenol	ND		ug/l	5.0	--	1
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	--	1
2,4,5-Trichlorophenol	ND		ug/l	5.0	--	1
Benzoic Acid	ND		ug/l	50	--	1
Benzyl Alcohol	ND		ug/l	2.0	--	1
Carbazole	ND		ug/l	2.0	--	1
Pyridine	ND		ug/l	5.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	**19**	Q	21-120
Phenol-d6	21		10-120
Nitrobenzene-d5	76		23-120
2-Fluorobiphenyl	70		15-120
2,4,6-Tribromophenol	45		10-120
4-Terphenyl-d14	76		41-149

Project Name: FOLEY ST., BLOCK 5 **Lab Number:** L1516428

Project Number: 3175.06 **Report Date:** 07/22/15

SAMPLE RESULTS

Lab ID: L1516428-01
Client ID: BLOCK 5 RGP
Sample Location: SOMERVILLE, MA
Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 07/20/15 13:13
Analyst: KV

Date Collected: 07/16/15 10:15
Date Received: 07/16/15
Field Prep: None
Extraction Method: EPA 3510C
Extraction Date: 07/19/15 01:32

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Acenaphthene	ND		ug/l	0.10	--	1
2-Chloronaphthalene	ND		ug/l	0.20	--	1
Fluoranthene	ND		ug/l	0.20	--	1
Hexachlorobutadiene	ND		ug/l	0.50	--	1
Naphthalene	ND		ug/l	0.20	--	1
Benzo(a)anthracene	ND		ug/l	0.20	--	1
Benzo(a)pyrene	ND		ug/l	0.20	--	1
Benzo(b)fluoranthene	ND		ug/l	0.20	--	1
Benzo(k)fluoranthene	ND		ug/l	0.20	--	1
Chrysene	ND		ug/l	0.20	--	1
Acenaphthylene	ND		ug/l	0.20	--	1
Anthracene	ND		ug/l	0.20	--	1
Benzo(ghi)perylene	ND		ug/l	0.20	--	1
Fluorene	ND		ug/l	0.20	--	1
Phenanthrene	ND		ug/l	0.20	--	1
Dibenzo(a,h)anthracene	ND		ug/l	0.20	--	1
Indeno(1,2,3-cd)Pyrene	0.20		ug/l	0.20	--	1
Pyrene	ND		ug/l	0.20	--	1
1-Methylnaphthalene	ND		ug/l	0.20	--	1
2-Methylnaphthalene	ND		ug/l	0.20	--	1
Pentachlorophenol	ND		ug/l	0.80	--	1
Hexachlorobenzene	ND		ug/l	0.80	--	1
Hexachloroethane	ND		ug/l	0.80	--	1

Project Name: FOLEY ST., BLOCK 5 **Lab Number:** L1516428

Project Number: 3175.06 **Report Date:** 07/22/15

SAMPLE RESULTS

Lab ID: L1516428-01 Date Collected: 07/16/15 10:15

Client ID: BLOCK 5 RGP Date Received: 07/16/15

Sample Location: SOMERVILLE, MA Field Prep: None

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor

Semivolatile Organics by GC/MS-SIM - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	28		21-120
Phenol-d6	21		10-120
Nitrobenzene-d5	63		23-120
2-Fluorobiphenyl	72		15-120
2,4,6-Tribromophenol	63		10-120
4-Terphenyl-d14	73		41-149

Project Name: FOLEY ST., BLOCK 5
Project Number: 3175.06

Lab Number: L1516428
Report Date: 07/22/15

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D-SIM
Analytical Date: 07/20/15 11:02
Analyst: KV

Extraction Method: EPA 3510C
Extraction Date: 07/19/15 01:32

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01 Batch: WG804025-1					
Acenaphthene	ND		ug/l	0.10	--
2-Chloronaphthalene	ND		ug/l	0.20	--
Fluoranthene	ND		ug/l	0.20	--
Hexachlorobutadiene	ND		ug/l	0.50	--
Naphthalene	ND		ug/l	0.20	--
Benzo(a)anthracene	ND		ug/l	0.20	--
Benzo(a)pyrene	ND		ug/l	0.20	--
Benzo(b)fluoranthene	ND		ug/l	0.20	--
Benzo(k)fluoranthene	ND		ug/l	0.20	--
Chrysene	ND		ug/l	0.20	--
Acenaphthylene	ND		ug/l	0.20	--
Anthracene	ND		ug/l	0.20	--
Benzo(ghi)perylene	ND		ug/l	0.20	--
Fluorene	ND		ug/l	0.20	--
Phenanthrene	ND		ug/l	0.20	--
Dibenzo(a,h)anthracene	ND		ug/l	0.20	--
Indeno(1,2,3-cd)Pyrene	ND		ug/l	0.20	--
Pyrene	ND		ug/l	0.20	--
1-Methylnaphthalene	ND		ug/l	0.20	--
2-Methylnaphthalene	ND		ug/l	0.20	--
Pentachlorophenol	ND		ug/l	0.80	--
Hexachlorobenzene	ND		ug/l	0.80	--
Hexachloroethane	ND		ug/l	0.80	--

Project Name: FOLEY ST., BLOCK 5
Project Number: 3175.06

Lab Number: L1516428
Report Date: 07/22/15

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D-SIM
Analytical Date: 07/20/15 11:02
Analyst: KV

Extraction Method: EPA 3510C
Extraction Date: 07/19/15 01:32

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01 Batch: WG804025-1					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	30		21-120
Phenol-d6	20		10-120
Nitrobenzene-d5	52		23-120
2-Fluorobiphenyl	55		15-120
2,4,6-Tribromophenol	65		10-120
4-Terphenyl-d14	67		41-149

Project Name: FOLEY ST., BLOCK 5 **Lab Number:** L1516428

Project Number: 3175.06 **Report Date:** 07/22/15

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 07/21/15 19:25
Analyst: AS

Extraction Method: EPA 3510C
Extraction Date: 07/19/15 01:50

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG804027-1					
Acenaphthene	ND		ug/l	2.0	--
Benzidine	ND		ug/l	20	--
1,2,4-Trichlorobenzene	ND		ug/l	5.0	--
Hexachlorobenzene	ND		ug/l	2.0	--
Bis(2-chloroethyl)ether	ND		ug/l	2.0	--
2-Chloronaphthalene	ND		ug/l	2.0	--
1,2-Dichlorobenzene	ND		ug/l	2.0	--
1,3-Dichlorobenzene	ND		ug/l	2.0	--
1,4-Dichlorobenzene	ND		ug/l	2.0	--
3,3'-Dichlorobenzidine	ND		ug/l	5.0	--
2,4-Dinitrotoluene	ND		ug/l	5.0	--
2,6-Dinitrotoluene	ND		ug/l	5.0	--
Azobenzene	ND		ug/l	2.0	--
Fluoranthene	ND		ug/l	2.0	--
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	--
4-Bromophenyl phenyl ether	ND		ug/l	2.0	--
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	--
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	--
Hexachlorobutadiene	ND		ug/l	2.0	--
Hexachlorocyclopentadiene	ND		ug/l	20	--
Hexachloroethane	ND		ug/l	2.0	--
Isophorone	ND		ug/l	5.0	--
Naphthalene	ND		ug/l	2.0	--
Nitrobenzene	ND		ug/l	2.0	--
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/l	2.0	--
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	--
Bis(2-Ethylhexyl)phthalate	ND		ug/l	3.0	--
Butyl benzyl phthalate	ND		ug/l	5.0	--
Di-n-butylphthalate	ND		ug/l	5.0	--

Project Name: FOLEY ST., BLOCK 5 **Lab Number:** L1516428

Project Number: 3175.06 **Report Date:** 07/22/15

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 07/21/15 19:25
Analyst: AS

Extraction Method: EPA 3510C
Extraction Date: 07/19/15 01:50

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG804027-1					
Di-n-octylphthalate	ND		ug/l	5.0	--
Diethyl phthalate	ND		ug/l	5.0	--
Dimethyl phthalate	ND		ug/l	5.0	--
Benzo(a)anthracene	ND		ug/l	2.0	--
Benzo(a)pyrene	ND		ug/l	2.0	--
Benzo(b)fluoranthene	ND		ug/l	2.0	--
Benzo(k)fluoranthene	ND		ug/l	2.0	--
Chrysene	ND		ug/l	2.0	--
Acenaphthylene	ND		ug/l	2.0	--
Anthracene	ND		ug/l	2.0	--
Benzo(ghi)perylene	ND		ug/l	2.0	--
Fluorene	ND		ug/l	2.0	--
Phenanthrene	ND		ug/l	2.0	--
Dibenzo(a,h)anthracene	ND		ug/l	2.0	--
Indeno(1,2,3-cd)Pyrene	ND		ug/l	2.0	--
Pyrene	ND		ug/l	2.0	--
Biphenyl	ND		ug/l	2.0	--
Aniline	ND		ug/l	2.0	--
4-Chloroaniline	ND		ug/l	5.0	--
1-Methylnaphthalene	ND		ug/l	2.0	--
2-Nitroaniline	ND		ug/l	5.0	--
3-Nitroaniline	ND		ug/l	5.0	--
4-Nitroaniline	ND		ug/l	5.0	--
Dibenzofuran	ND		ug/l	2.0	--
2-Methylnaphthalene	ND		ug/l	2.0	--
n-Nitrosodimethylamine	ND		ug/l	2.0	--
2,4,6-Trichlorophenol	ND		ug/l	5.0	--
P-Chloro-M-Cresol	ND		ug/l	2.0	--
2-Chlorophenol	ND		ug/l	2.0	--

Project Name: FOLEY ST., BLOCK 5
Project Number: 3175.06
Lab Number: L1516428
Report Date: 07/22/15

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 07/21/15 19:25
Analyst: AS

Extraction Method: EPA 3510C
Extraction Date: 07/19/15 01:50

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG804027-1					
2,4-Dichlorophenol	ND		ug/l	5.0	--
2,4-Dimethylphenol	ND		ug/l	5.0	--
2-Nitrophenol	ND		ug/l	10	--
4-Nitrophenol	ND		ug/l	10	--
2,4-Dinitrophenol	ND		ug/l	20	--
4,6-Dinitro-o-cresol	ND		ug/l	10	--
Pentachlorophenol	ND		ug/l	10	--
Phenol	ND		ug/l	5.0	--
2-Methylphenol	ND		ug/l	5.0	--
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	--
2,4,5-Trichlorophenol	ND		ug/l	5.0	--
Benzoic Acid	ND		ug/l	50	--
Benzyl Alcohol	ND		ug/l	2.0	--
Carbazole	ND		ug/l	2.0	--
Pyridine	ND		ug/l	5.0	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	27		21-120
Phenol-d6	19		10-120
Nitrobenzene-d5	62		23-120
2-Fluorobiphenyl	54		15-120
2,4,6-Tribromophenol	71		10-120
4-Terphenyl-d14	70		41-149

Lab Control Sample Analysis

Batch Quality Control

Project Name: FOLEY ST., BLOCK 5

Project Number: 3175.06

Lab Number: L1516428

Report Date: 07/22/15

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01 Batch: WG804025-2 WG804025-3								
Acenaphthene	76		68		37-111	11		40
2-Chloronaphthalene	74		68		40-140	8		40
Fluoranthene	88		84		40-140	5		40
Hexachlorobutadiene	62		55		40-140	12		40
Naphthalene	68		59		40-140	14		40
Benzo(a)anthracene	94		88		40-140	7		40
Benzo(a)pyrene	82		78		40-140	5		40
Benzo(b)fluoranthene	88		83		40-140	6		40
Benzo(k)fluoranthene	76		74		40-140	3		40
Chrysene	83		77		40-140	8		40
Acenaphthylene	82		75		40-140	9		40
Anthracene	81		78		40-140	4		40
Benzo(ghi)perylene	83		80		40-140	4		40
Fluorene	82		74		40-140	10		40
Phenanthrene	77		72		40-140	7		40
Dibenzo(a,h)anthracene	93		88		40-140	6		40
Indeno(1,2,3-cd)Pyrene	88		84		40-140	5		40
Pyrene	87		83		26-127	5		40
1-Methylnaphthalene	72		65		40-140	10		40
2-Methylnaphthalene	73		66		40-140	10		40
Pentachlorophenol	76		70		9-103	8		40

Lab Control Sample Analysis

Batch Quality Control

Project Name: FOLEY ST., BLOCK 5

Project Number: 3175.06

Lab Number: L1516428

Report Date: 07/22/15

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01 Batch: WG804025-2 WG804025-3								
Hexachlorobenzene	86		82		40-140	5		40
Hexachloroethane	61		52		40-140	16		40

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	42		35		21-120
Phenol-d6	28		24		10-120
Nitrobenzene-d5	70		59		23-120
2-Fluorobiphenyl	68		63		15-120
2,4,6-Tribromophenol	89		77		10-120
4-Terphenyl-d14	81		74		41-149

Lab Control Sample Analysis

Batch Quality Control

Project Name: FOLEY ST., BLOCK 5

Project Number: 3175.06

Lab Number: L1516428

Report Date: 07/22/15

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG804027-2 WG804027-3								
Acenaphthene	74		72		37-111	3		30
Benzidine	**0**	Q	**0**	Q	10-75	NC		30
1,2,4-Trichlorobenzene	56		53		39-98	6		30
Hexachlorobenzene	82		80		40-140	2		30
Bis(2-chloroethyl)ether	69		62		40-140	11		30
2-Chloronaphthalene	71		68		40-140	4		30
1,2-Dichlorobenzene	54		49		40-140	10		30
1,3-Dichlorobenzene	52		46		40-140	12		30
1,4-Dichlorobenzene	53		46		36-97	14		30
3,3'-Dichlorobenzidine	68		64		40-140	6		30
2,4-Dinitrotoluene	88		87		24-96	1		30
2,6-Dinitrotoluene	95		91		40-140	4		30
Azobenzene	76		74		40-140	3		30
Fluoranthene	83		82		40-140	1		30
4-Chlorophenyl phenyl ether	78		77		40-140	1		30
4-Bromophenyl phenyl ether	81		80		40-140	1		30
Bis(2-chloroisopropyl)ether	63		58		40-140	8		30
Bis(2-chloroethoxy)methane	78		72		40-140	8		30
Hexachlorobutadiene	50		48		40-140	4		30
Hexachlorocyclopentadiene	48		44		40-140	9		30
Hexachloroethane	51		45		40-140	13		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: FOLEY ST., BLOCK 5

Project Number: 3175.06

Lab Number: L1516428

Report Date: 07/22/15

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG804027-2 WG804027-3								
Isophorone	78		71		40-140	9		30
Naphthalene	62		59		40-140	5		30
Nitrobenzene	79		73		40-140	8		30
NDPA/DPA	79		77		40-140	3		30
n-Nitrosodi-n-propylamine	75		70		29-132	7		30
Bis(2-ethylhexyl)phthalate	101		101		40-140	0		30
Butyl benzyl phthalate	92		94		40-140	2		30
Di-n-butylphthalate	96		96		40-140	0		30
Di-n-octylphthalate	92		91		40-140	1		30
Diethyl phthalate	83		81		40-140	2		30
Dimethyl phthalate	88		86		40-140	2		30
Benzo(a)anthracene	86		86		40-140	0		30
Benzo(a)pyrene	86		86		40-140	0		30
Benzo(b)fluoranthene	86		87		40-140	1		30
Benzo(k)fluoranthene	86		83		40-140	4		30
Chrysene	81		81		40-140	0		30
Acenaphthylene	77		75		45-123	3		30
Anthracene	80		80		40-140	0		30
Benzo(ghi)perylene	85		86		40-140	1		30
Fluorene	78		77		40-140	1		30
Phenanthrene	77		77		40-140	0		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: FOLEY ST., BLOCK 5
Project Number: 3175.06

Lab Number: L1516428
Report Date: 07/22/15

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG804027-2 WG804027-3								
Dibenzo(a,h)anthracene	85		86		40-140	1		30
Indeno(1,2,3-cd)pyrene	88		89		40-140	1		30
Pyrene	80		81		26-127	1		30
Biphenyl	71		70		40-140	1		30
Aniline	**25**	Q	**24**	Q	40-140	4		30
4-Chloroaniline	53		52		40-140	2		30
1-Methylnaphthalene	61		58		41-103	5		30
2-Nitroaniline	92		88		52-143	4		30
3-Nitroaniline	75		75		25-145	0		30
4-Nitroaniline	79		75		51-143	5		30
Dibenzofuran	76		75		40-140	1		30
2-Methylnaphthalene	65		63		40-140	3		30
n-Nitrosodimethylamine	39		35		22-74	11		30
2,4,6-Trichlorophenol	86		80		30-130	7		30
p-Chloro-m-cresol	83		78		23-97	6		30
2-Chlorophenol	70		65		27-123	7		30
2,4-Dichlorophenol	83		77		30-130	8		30
2,4-Dimethylphenol	35		**21**	Q	30-130	**50**	Q	30
2-Nitrophenol	89		82		30-130	8		30
4-Nitrophenol	43		43		10-80	0		30
2,4-Dinitrophenol	112		107		20-130	5		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: FOLEY ST., BLOCK 5
Project Number: 3175.06
Lab Number: L1516428
Report Date: 07/22/15

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG804027-2 WG804027-3								
4,6-Dinitro-o-cresol	101		100		20-164	1		30
Pentachlorophenol	78		76		9-103	3		30
Phenol	28		28		12-110	0		30
2-Methylphenol	57		51		30-130	11		30
3-Methylphenol/4-Methylphenol	59		54		30-130	9		30
2,4,5-Trichlorophenol	92		87		30-130	6		30
Benzoic Acid	37		42		10-164	13		30
Benzyl Alcohol	61		58		26-116	5		30
Carbazole	82		82		55-144	0		30
Pyridine	**6**	Q	**4**	Q	10-66	**59**	Q	30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	43		41		21-120
Phenol-d6	30		30		10-120
Nitrobenzene-d5	85		80		23-120
2-Fluorobiphenyl	71		68		15-120
2,4,6-Tribromophenol	99		95		10-120
4-Terphenyl-d14	81		83		41-149

PCBS

Project Name: FOLEY ST., BLOCK 5 **Lab Number:** L1516428

Project Number: 3175.06 **Report Date:** 07/22/15

SAMPLE RESULTS

Lab ID: L1516428-01
Client ID: BLOCK 5 RGP
Sample Location: SOMERVILLE, MA
Matrix: Water
Analytical Method: 5,608
Analytical Date: 07/19/15 20:33
Analyst: JT

Date Collected: 07/16/15 10:15
Date Received: 07/16/15
Field Prep: None
Extraction Method: EPA 608
Extraction Date: 07/17/15 09:01
Cleanup Method: EPA 3665A
Cleanup Date: 07/17/15
Cleanup Method: EPA 3660B
Cleanup Date: 07/17/15

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

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	71		30-150	B
Decachlorobiphenyl	63		30-150	B

Project Name: FOLEY ST., BLOCK 5 **Lab Number:** L1516428

Project Number: 3175.06 **Report Date:** 07/22/15

Method Blank Analysis
Batch Quality Control

Analytical Method: 5,608
Analytical Date: 07/19/15 20:57
Analyst: JT

Extraction Method: EPA 608
Extraction Date: 07/17/15 09:01
Cleanup Method: EPA 3665A
Cleanup Date: 07/17/15
Cleanup Method: EPA 3660B
Cleanup Date: 07/17/15

Parameter	Result	Qualifier	Units	RL	MDL	Column
Polychlorinated Biphenyls by GC - Westborough Lab for sample(s): 01 Batch: WG803658-1						
Aroclor 1016	ND		ug/l	0.250	--	B
Aroclor 1221	ND		ug/l	0.250	--	B
Aroclor 1232	ND		ug/l	0.250	--	B
Aroclor 1242	ND		ug/l	0.250	--	B
Aroclor 1248	ND		ug/l	0.250	--	B
Aroclor 1254	ND		ug/l	0.250	--	B
Aroclor 1260	ND		ug/l	0.200	--	B

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	56		30-150	B
Decachlorobiphenyl	92		30-150	B

Matrix Spike Analysis
Batch Quality Control

Project Name: FOLEY ST., BLOCK 5
Project Number: 3175.06

Lab Number: L1516428
Report Date: 07/22/15

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits	Column
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01 QC Batch ID: WG803658-3 QC Sample: L1516141-01 Client ID: MS Sample													
Aroclor 1016	ND	1	0.770	77		-	-		40-140	-		50	B
Aroclor 1260	ND	1	0.577	58		-	-		40-140	-		50	B

Surrogate	MS % Recovery	MS Qualifier	MSD % Recovery	MSD Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	53				30-150	B
Decachlorobiphenyl	64				30-150	B

Lab Control Sample Analysis

Batch Quality Control

Project Name: FOLEY ST., BLOCK 5

Project Number: 3175.06

Lab Number: L1516428

Report Date: 07/22/15

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01 Batch: WG803658-2									
Aroclor 1016	84		-		40-140	-		50	B
Aroclor 1260	90		-		40-140	-		50	B

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	71				30-150	B
Decachlorobiphenyl	105				30-150	B

Lab Duplicate Analysis
Batch Quality Control

Project Name: FOLEY ST., BLOCK 5
Project Number: 3175.06

Lab Number: L1516428
Report Date: 07/22/15

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits	
Polychlorinated Biphenyls by GC - Westborough Lab RGP	Associated sample(s): 01	QC Batch ID: WG803658-4		QC Sample: L1516428-01		Client ID: BLOCK 5	
Aroclor 1016	ND	ND	ug/l	NC		50	B
Aroclor 1221	ND	ND	ug/l	NC		50	B
Aroclor 1232	ND	ND	ug/l	NC		50	B
Aroclor 1242	ND	ND	ug/l	NC		50	B
Aroclor 1248	ND	ND	ug/l	NC		50	B
Aroclor 1254	ND	ND	ug/l	NC		50	B
Aroclor 1260	ND	ND	ug/l	NC		50	B

Surrogate	%Recovery	Qualifier	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	71		75		30-150	B
Decachlorobiphenyl	63		71		30-150	B

METALS

Project Name: FOLEY ST., BLOCK 5 **Lab Number:** L1516428

Project Number: 3175.06 **Report Date:** 07/22/15

SAMPLE RESULTS

Lab ID: L1516428-01 Date Collected: 07/16/15 10:15

Client ID: BLOCK 5 RGP Date Received: 07/16/15

Sample Location: SOMERVILLE, MA Field Prep: None

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Dissolved Metals - Westborough Lab											
Antimony, Dissolved	ND		mg/l	0.0020	--	1	07/17/15 13:08	07/18/15 13:22	EPA 3005A	1,6020A	KL
Arsenic, Dissolved	0.0021		mg/l	0.0005	--	1	07/17/15 13:08	07/18/15 13:22	EPA 3005A	1,6020A	KL
Cadmium, Dissolved	ND		mg/l	0.0002	--	1	07/17/15 13:08	07/18/15 13:22	EPA 3005A	1,6020A	KL
Chromium, Dissolved	0.0035		mg/l	0.0030	--	1	07/17/15 13:08	07/18/15 13:22	EPA 3005A	1,6020A	KL
Copper, Dissolved	ND		mg/l	0.0010	--	1	07/17/15 13:08	07/18/15 13:22	EPA 3005A	1,6020A	KL
Iron, Dissolved	5.8		mg/l	0.05	--	1	07/17/15 13:10	07/22/15 03:06	EPA 3005A	19,200.7	TT
Lead, Dissolved	0.0009		mg/l	0.0005	--	1	07/17/15 13:08	07/18/15 13:22	EPA 3005A	1,6020A	KL
Mercury, Dissolved	ND		mg/l	0.00100	--	1	07/22/15 11:40	07/22/15 12:49	EPA 245.1	3,245.1	DB
Nickel, Dissolved	0.0110		mg/l	0.0010	--	1	07/17/15 13:08	07/18/15 13:22	EPA 3005A	1,6020A	KL
Selenium, Dissolved	ND		mg/l	0.005	--	1	07/17/15 13:08	07/18/15 13:22	EPA 3005A	1,6020A	KL
Silver, Dissolved	ND		mg/l	0.0004	--	1	07/17/15 13:08	07/18/15 13:22	EPA 3005A	1,6020A	KL
Zinc, Dissolved	ND		mg/l	0.0100	--	1	07/17/15 13:08	07/18/15 13:22	EPA 3005A	1,6020A	KL

Project Name: FOLEY ST., BLOCK 5 **Lab Number:** L1516428

Project Number: 3175.06 **Report Date:** 07/22/15

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Dissolved Metals - Westborough Lab for sample(s): 01 Batch: WG803691-1										
Antimony, Dissolved	ND		mg/l	0.0020	--	1	07/17/15 13:08	07/18/15 12:52	1,6020A	KL
Arsenic, Dissolved	ND		mg/l	0.0005	--	1	07/17/15 13:08	07/18/15 12:52	1,6020A	KL
Cadmium, Dissolved	ND		mg/l	0.0002	--	1	07/17/15 13:08	07/18/15 12:52	1,6020A	KL
Chromium, Dissolved	ND		mg/l	0.0030	--	1	07/17/15 13:08	07/18/15 12:52	1,6020A	KL
Copper, Dissolved	ND		mg/l	0.0010	--	1	07/17/15 13:08	07/18/15 12:52	1,6020A	KL
Lead, Dissolved	ND		mg/l	0.0005	--	1	07/17/15 13:08	07/18/15 12:52	1,6020A	KL
Nickel, Dissolved	ND		mg/l	0.0010	--	1	07/17/15 13:08	07/18/15 12:52	1,6020A	KL
Selenium, Dissolved	ND		mg/l	0.005	--	1	07/17/15 13:08	07/18/15 12:52	1,6020A	KL
Silver, Dissolved	ND		mg/l	0.0004	--	1	07/17/15 13:08	07/18/15 12:52	1,6020A	KL
Zinc, Dissolved	ND		mg/l	0.0100	--	1	07/17/15 13:08	07/18/15 12:52	1,6020A	KL

Prep Information

Digestion Method: EPA 3005A

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Dissolved Metals - Westborough Lab for sample(s): 01 Batch: WG803692-1										
Iron, Dissolved	0.18		mg/l	0.05	--	1	07/17/15 13:10	07/22/15 03:21	19,200.7	TT

Prep Information

Digestion Method: EPA 3005A

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Dissolved Metals - Westborough Lab for sample(s): 01 Batch: WG804948-1										
Mercury, Dissolved	ND		mg/l	0.00020	--	1	07/22/15 11:40	07/22/15 12:46	3,245.1	DB

Prep Information

Digestion Method: EPA 245.1

Lab Control Sample Analysis

Batch Quality Control

Project Name: FOLEY ST., BLOCK 5

Project Number: 3175.06

Lab Number: L1516428

Report Date: 07/22/15

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Dissolved Metals - Westborough Lab Associated sample(s): 01 Batch: WG803691-2								
Antimony, Dissolved	108		-		80-120	-		
Arsenic, Dissolved	110		-		80-120	-		
Cadmium, Dissolved	120		-		80-120	-		
Chromium, Dissolved	112		-		80-120	-		
Copper, Dissolved	111		-		80-120	-		
Lead, Dissolved	108		-		80-120	-		
Nickel, Dissolved	112		-		80-120	-		
Selenium, Dissolved	98		-		80-120	-		
Silver, Dissolved	110		-		80-120	-		
Zinc, Dissolved	113		-		80-120	-		
Dissolved Metals - Westborough Lab Associated sample(s): 01 Batch: WG803692-2								
Iron, Dissolved	96		-		85-115	-		
Dissolved Metals - Westborough Lab Associated sample(s): 01 Batch: WG804948-2								
Mercury, Dissolved	86		-		85-115	-		

Matrix Spike Analysis
Batch Quality Control

Project Name: FOLEY ST., BLOCK 5
Project Number: 3175.06

Lab Number: L1516428
Report Date: 07/22/15

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Dissolved Metals - Westborough Lab Associated sample(s): 01 QC Batch ID: WG803691-4 QC Sample: L1516428-01 Client ID: BLOCK 5 RGP												
Antimony, Dissolved	ND	0.5	0.6055	121		-	-		75-125	-		20
Arsenic, Dissolved	0.0021	0.12	0.1586	**130**	Q	-	-		75-125	-		20
Cadmium, Dissolved	ND	0.051	0.0605	118		-	-		75-125	-		20
Chromium, Dissolved	0.0035	0.2	0.2414	119		-	-		75-125	-		20
Copper, Dissolved	ND	0.25	0.3063	122		-	-		75-125	-		20
Lead, Dissolved	0.0009	0.51	0.5732	112		-	-		75-125	-		20
Nickel, Dissolved	0.0110	0.5	0.5978	117		-	-		75-125	-		20
Selenium, Dissolved	ND	0.12	0.144	120		-	-		75-125	-		20
Silver, Dissolved	ND	0.05	0.0597	119		-	-		75-125	-		20
Zinc, Dissolved	ND	0.5	0.6264	125		-	-		75-125	-		20
Dissolved Metals - Westborough Lab Associated sample(s): 01 QC Batch ID: WG803692-4 QC Sample: L1516428-01 Client ID: BLOCK 5 RGP												
Iron, Dissolved	5.8	1	6.6	80		-	-		75-125	-		20
Dissolved Metals - Westborough Lab Associated sample(s): 01 QC Batch ID: WG804948-4 QC Sample: L1516428-01 Client ID: BLOCK 5 RGP												
Mercury, Dissolved	ND	0.025	0.02585	103		-	-		75-125	-		20

Lab Duplicate Analysis
Batch Quality Control

Project Name: FOLEY ST., BLOCK 5
Project Number: 3175.06

Lab Number: L1516428
Report Date: 07/22/15

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Dissolved Metals - Westborough Lab Associated sample(s): 01 QC Batch ID: WG803691-3 QC Sample: L1516428-01 Client ID: BLOCK 5 RGP						
Antimony, Dissolved	ND	ND	mg/l	NC		20
Arsenic, Dissolved	0.0021	0.0023	mg/l	9		20
Cadmium, Dissolved	ND	ND	mg/l	NC		20
Chromium, Dissolved	0.0035	0.0038	mg/l	6		20
Copper, Dissolved	ND	ND	mg/l	NC		20
Lead, Dissolved	0.0009	0.0009	mg/l	1		20
Nickel, Dissolved	0.0110	0.0110	mg/l	1		20
Selenium, Dissolved	ND	ND	mg/l	NC		20
Silver, Dissolved	ND	ND	mg/l	NC		20
Zinc, Dissolved	ND	ND	mg/l	NC		20
Dissolved Metals - Westborough Lab Associated sample(s): 01 QC Batch ID: WG803692-3 QC Sample: L1516428-01 Client ID: BLOCK 5 RGP						
Iron, Dissolved	5.8	5.8	mg/l	0		20
Dissolved Metals - Westborough Lab Associated sample(s): 01 QC Batch ID: WG804948-3 QC Sample: L1516428-01 Client ID: BLOCK 5 RGP						
Mercury, Dissolved	ND	ND	mg/l	NC		20

INORGANICS
&
MISCELLANEOUS

Project Name: FOLEY ST., BLOCK 5
Project Number: 3175.06
Lab Number: L1516428
Report Date: 07/22/15

SAMPLE RESULTS

Lab ID: L1516428-01
Client ID: BLOCK 5 RGP
Sample Location: SOMERVILLE, MA
Matrix: Water
Date Collected: 07/16/15 10:15
Date Received: 07/16/15
Field Prep: None

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total Suspended	980		mg/l	25	NA	5	-	07/19/15 20:30	30,2540D	RP
Cyanide, Total	ND		mg/l	0.005	--	1	07/17/15 12:32	07/21/15 14:44	30,4500CN-CE	JO
Chlorine, Total Residual	ND		mg/l	0.02	--	1	-	07/16/15 22:57	30,4500CL-D	AS
TPH	ND		mg/l	4.00	--	1	07/18/15 11:00	07/18/15 11:30	74,1664A	KE
Phenolics, Total	ND		mg/l	0.030	--	1	07/20/15 09:00	07/20/15 12:10	4,420.1	MP
Chromium, Hexavalent	ND		mg/l	0.010	--	1	07/17/15 05:10	07/17/15 05:36	119,3500CR-B	LH
Anions by Ion Chromatography - Westborough Lab										
Chloride	300.		mg/l	12.5	--	25	-	07/17/15 19:30	44,300.0	AU

Project Name: FOLEY ST., BLOCK 5 **Lab Number:** L1516428

Project Number: 3175.06 **Report Date:** 07/22/15

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG803520-1										
Chlorine, Total Residual	ND		mg/l	0.02	--	1	-	07/16/15 22:57	30,4500CL-D	AS
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG803575-1										
Chromium, Hexavalent	ND		mg/l	0.010	--	1	07/17/15 05:10	07/17/15 05:34	119,3500CR-B	LH
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG803760-1										
Cyanide, Total	ND		mg/l	0.005	--	1	07/17/15 12:32	07/21/15 14:26	30,4500CN-CE	JO
Anions by Ion Chromatography - Westborough Lab for sample(s): 01 Batch: WG803910-1										
Chloride	ND		mg/l	0.500	--	1	-	07/17/15 18:42	44,300.0	AU
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG803974-1										
TPH	ND		mg/l	4.00	--	1	07/18/15 11:00	07/18/15 11:30	74,1664A	KE
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG804120-1										
Solids, Total Suspended	ND		mg/l	5.0	NA	1	-	07/19/15 20:30	30,2540D	RP
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG804188-1										
Phenolics, Total	ND		mg/l	0.030	--	1	07/20/15 09:00	07/20/15 12:07	4,420.1	MP

Lab Control Sample Analysis

Batch Quality Control

Project Name: FOLEY ST., BLOCK 5

Project Number: 3175.06

Lab Number: L1516428

Report Date: 07/22/15

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG803520-2								
Chlorine, Total Residual	100		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG803575-2								
Chromium, Hexavalent	97		-		85-115	-		20
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG803760-2								
Cyanide, Total	95		-		90-110	-		
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 01 Batch: WG803910-2								
Chloride	102		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG803974-2								
TPH	80		-		64-132	-		34
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG804188-2								
Phenolics, Total	104		-		70-130	-		

Matrix Spike Analysis
Batch Quality Control

Project Name: FOLEY ST., BLOCK 5
Project Number: 3175.06

Lab Number: L1516428
Report Date: 07/22/15

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG803575-4 QC Sample: L1516428-01 Client ID: BLOCK 5 RGP												
Chromium, Hexavalent	ND	0.1	0.096	96		-	-		85-115	-		20
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG803760-4 QC Sample: L1516372-02 Client ID: MS Sample												
Cyanide, Total	ND	0.2	0.148	**74**	Q	-	-		90-110	-		30
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 01 QC Batch ID: WG803910-3 QC Sample: L1516506-04 Client ID: MS Sample												
Chloride	3.14	4	7.29	104		-	-		40-151	-		18
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG803974-3 QC Sample: L1516428-01 Client ID: BLOCK 5 RGP												
TPH	ND	20.4	13.4	66		-	-		64-132	-		34
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG804188-4 QC Sample: L1516428-01 Client ID: BLOCK 5 RGP												
Phenolics, Total	ND	0.4	0.40	101		-	-		70-130	-		20

Lab Duplicate Analysis
Batch Quality Control

Project Name: FOLEY ST., BLOCK 5
Project Number: 3175.06

Lab Number: L1516428
Report Date: 07/22/15

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG803520-3 QC Sample: L1516428-01 Client ID: BLOCK 5 RGP						
Chlorine, Total Residual	ND	ND	mg/l	NC		20
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG803575-3 QC Sample: L1516428-01 Client ID: BLOCK 5 RGP						
Chromium, Hexavalent	ND	ND	mg/l	NC		20
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG803760-3 QC Sample: L1516298-02 Client ID: DUP Sample						
Cyanide, Total	0.010	0.007	mg/l	**34**	Q	30
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 01 QC Batch ID: WG803910-4 QC Sample: L1516506-04 Client ID: DUP Sample						
Chloride	3.14	3.13	mg/l	0		18
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG804120-2 QC Sample: L1516428-01 Client ID: BLOCK 5 RGP						
Solids, Total Suspended	980	950	mg/l	3		29
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG804188-3 QC Sample: L1516428-01 Client ID: BLOCK 5 RGP						
Phenolics, Total	ND	ND	mg/l	NC		20

Project Name: FOLEY ST., BLOCK 5
Project Number: 3175.06

Lab Number: L1516428
Report Date: 07/22/15

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal

Cooler	
A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1516428-01A	Vial HCl preserved	A	N/A	2.2	Y	Absent	8260-SIM(14),8260(14)
L1516428-01B	Vial HCl preserved	A	N/A	2.2	Y	Absent	8260-SIM(14),8260(14)
L1516428-01C	Vial HCl preserved	A	N/A	2.2	Y	Absent	8260-SIM(14),8260(14)
L1516428-01D	Vial Na2S2O3 preserved	A	N/A	2.2	Y	Absent	504(14)
L1516428-01E	Vial Na2S2O3 preserved	A	N/A	2.2	Y	Absent	504(14)
L1516428-01F	Plastic 120ml HNO3 preserved spl	A	<2	2.2	Y	Absent	CU-6020S(180),FE-RI(180),SE-6020S(180),ZN-6020S(180),CR-6020S(180),NI-6020S(180),PB-6020S(180),AG-6020S(180),AS-6020S(180),HG-R(28),SB-6020S(180),CD-6020S(180)
L1516428-01G	Plastic 250ml NaOH preserved	A	>12	2.2	Y	Absent	TCN-4500(14)
L1516428-01H	Plastic 950ml unpreserved	A	7	2.2	Y	Absent	CL-300(28),HEXCR-3500(1),TRC-4500(1)
L1516428-01I	Plastic 950ml unpreserved	A	7	2.2	Y	Absent	TSS-2540(7)
L1516428-01J	Amber 950ml H2SO4 preserved	A	<2	2.2	Y	Absent	TPHENOL-420(28)
L1516428-01K	Amber 1000ml Na2S2O3	A	7	2.2	Y	Absent	PCB-608(7)
L1516428-01L	Amber 1000ml Na2S2O3	A	7	2.2	Y	Absent	PCB-608(7)
L1516428-01M	Amber 1000ml HCl preserved	A	7	2.2	Y	Absent	TPH-1664(28)
L1516428-01N	Amber 1000ml HCl preserved	A	7	2.2	Y	Absent	TPH-1664(28)
L1516428-01O	Amber 1000ml unpreserved	A	7	2.2	Y	Absent	8270TCL(7),8270TCL-SIM(7)
L1516428-01P	Amber 1000ml unpreserved	A	7	2.2	Y	Absent	8270TCL(7),8270TCL-SIM(7)
L1516428-01Q	Plastic 250ml unpreserved split	A	7	2.2	Y	Absent	-
L1516428-01Z	Plastic 120ml HNO3 preserved	A	<2	2.2	Y	Absent	HOLD-METAL(180)
L1516428-02A	Vial HCl preserved	A	N/A	2.2	Y	Absent	HOLD-8260(14)
L1516428-02B	Vial HCl preserved	A	N/A	2.2	Y	Absent	HOLD-8260(14)
L1516428-02C	Vial Na2S2O3 preserved	A	N/A	2.2	Y	Absent	HOLD-504/8011(14)
L1516428-02D	Vial Na2S2O3 preserved	A	N/A	2.2	Y	Absent	HOLD-504/8011(14)

*Values in parentheses indicate holding time in days

Project Name:	FOLEY ST., BLOCK 5	**Lab Number:**	L1516428
Project Number:	3175.06	**Report Date:**	07/22/15

GLOSSARY

Acronyms

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

EPA - Environmental Protection Agency.

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

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

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

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

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

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

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

NI - Not Ignitable.

NP - Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.

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

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

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

TIC - Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

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

Terms

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

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

Data Qualifiers

A - Spectra identified as "Aldol Condensation Product".

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

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

Report Format: Data Usability Report

Project Name:	FOLEY ST., BLOCK 5	**Lab Number:**	L1516428
Project Number:	3175.06	**Report Date:**	07/22/15

Data Qualifiers

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

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

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

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

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

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

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

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

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

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

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

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

Report Format: Data Usability Report

Project Name:	FOLEY ST., BLOCK 5	**Lab Number:**	L1516428
Project Number:	3175.06	**Report Date:**	07/22/15

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

3 Methods for the Determination of Metals in Environmental Samples, Supplement I. EPA/600/R-94/111. May 1994.

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

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

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

19 Inductively Coupled Plasma Atomic Emission Spectrometric Method for Trace Element Analysis of Water and Wastes. Appendix C, Part 136, 40 CFR (Code of Federal Regulations). July 1, 1999 edition.

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

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

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

119 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 21st Edition.

LIMITATION OF LIABILITIES

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

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

Certification Information

Last revised December 16, 2014

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

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

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

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

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

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

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

Serial_No:07221521:46

CHAIN OF CUSTODY

PAGE 1 OF 1

ALPHA ANALYTICAL

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

Date Rec'd in Lab: 7/16/15

ALPHA Job #: L1516428

Client Information

Client: Sanborn Head
Address: 1 Technology Parkway, Westford, MA 01886
Phone: 978 577 1000
Email: kwalker@sanbornhead.com

Additional Project Information:

KW/MD 7/20/15

Project Information

Project Name: Foley St, Block 5
Project Location: Somerville, MA
Project #: 3175-06
Project Manager: Kent Walker
ALPHA Quote #:

Turn-Around Time

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

Date Due:

Report Information - Data Deliverables

☒ ADEx ☒ EMAIL

Billing Information

☒ Same as Client info PO #:

Regulatory Requirements & Project Information Requirements

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

ANALYSIS: VOC: ☒ 8260 ☐ 624 ☐ 524.2; SVOC: ☐ ABN ☐ PAH; METALS: ☐ MCP 13 ☐ MCP 14 ☐ RCP 15; METALS: ☐ RCRA5 ☐ RCRA8 ☐ PP13; EPH: ☐ Ranges & Targets ☐ Ranges Only; VPH: ☐ Ranges & Targets ☐ Ranges Only; ☐ PCB ☐ PEST; TPH: ☐ Quant Only ☐ Fingerprint; RGP NPDES Soluble Parameters; CL-30D

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

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler Initials	VOC 8260	TPH	RGP NPDES Soluble Parameters / CL-30D	Sample Comments	Total # Bottles
16428-01	Block 5 ~~[illegible]~~ RGP	7/16/15	10:15	GW	EDB	~~X~~	X	X		16
	Dispose	↓	↓	↓	↓				please dispose	3

Container Type
Preservative

Relinquished By:	Date/Time	Received By:	Date/Time
EDB [signature]	7/16/15 1545	[signature]	7/16/15 1545
[signature]	7/16/15 1850	[signature]	7/16/15 1850

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

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

Serial_No:07221521:46

CHAIN OF CUSTODY

PAGE 1 OF 1

Date Rec'd in Lab: 7/16/15

ALPHA Job #: L1516428

ALPHA ANALYTICAL

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

Project Information

Project Name: Foley St, Block 5
Project Location: Somerville, MA
Project #: 3175-06
Project Manager: Kent Walker
ALPHA Quote #:

Report Information - Data Deliverables

☒ ADEx ☒ EMAIL

Billing Information

☒ Same as Client info PO #:

Client Information

Client: Sanborn Head
Address: 1 Technology Parkway, Westford, MA 01886
Phone: 978 577 1000
Email: kwalker@sanbornhead.com

Regulatory Requirements & Project Information Requirements

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

Turn-Around Time

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

Date Due:

Additional Project Information:

ANALYSIS: VOC: ☐ 8260 ☐ 624 ☐ 524.2 (crossed out); SVOC: ☐ ABN ☐ PAH; METALS: ☐ MCP 13 ☐ MCP 14 ☐ RCP 15; METALS: ☐ RCRA5 ☐ RCRA8 ☐ PP13; EPH: ☐ Ranges & Targets ☐ Ranges Only; VPH: ☐ Ranges & Targets ☐ Ranges Only; ☐ PCB ☐ PEST; TPH: ☐ Quant Only ☐ Fingerprint; RGP NPDES Soluble Parameters; CL-300

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

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler Initials	VOC	TPH	RGP NPDES Soluble Parameters	CL-300	Sample Comments	Total # Bottles
16428-01	Block 5 RGP	7/16/15	10:15	GW	EDB	X (crossed out)		X	X		16
	Dispose	↓	↓	↓	↓					please dispose	3

Container Type
Preservative

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

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

Relinquished By:	Date/Time	Received By:	Date/Time
EDB [signature]	7/16/15 1545	[signature] AL	7/16/15 1545
[signature]	7/16/15 1850	[signature]	7/16/15 1850

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

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

ANALYTICAL REPORT

Lab Number:	L1600668
Client:	Sanborn, Head & Associates, Inc. 1 Technology Park Drive Westford, MA 01886
ATTN:	Kent Walker
Phone:	(978) 577-1003
Project Name:	FOLEY BLOCK 5
Project Number:	3175.06
Report Date:	01/14/16

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

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

Project Name: FOLEY BLOCK 5
Project Number: 3175.06

Lab Number: L1600668
Report Date: 01/14/16

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1600668-01	BLOCK 5 GW-1	WATER	SOMERVILLE, MA	01/08/16 10:36	01/08/16

Project Name:	FOLEY BLOCK 5	**Lab Number:**	L1600668
Project Number:	3175.06	**Report Date:**	01/14/16

MADEP MCP Response Action Analytical Report Certification

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

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

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

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

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

Project Name: FOLEY BLOCK 5 **Lab Number:** L1600668
Project Number: 3175.06 **Report Date:** 01/14/16

Case Narrative

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

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

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

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

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

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

Project Name:	FOLEY BLOCK 5	**Lab Number:**	L1600668
Project Number:	3175.06	**Report Date:**	01/14/16

Case Narrative (continued)

MCP Related Narratives

Metals

In reference to question I:

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

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

Authorized Signature: Michelle M. Morris

Title: Technical Director/Representative Date: 01/14/16

METALS

Project Name: FOLEY BLOCK 5 **Lab Number:** L1600668

Project Number: 3175.06 **Report Date:** 01/14/16

SAMPLE RESULTS

Lab ID: L1600668-01 Date Collected: 01/08/16 10:36

Client ID: BLOCK 5 GW-1 Date Received: 01/08/16

Sample Location: SOMERVILLE, MA Field Prep: Not Specified

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
MCP Total Metals - Westborough Lab											
Antimony, Total	ND		mg/l	0.0020	--	1	01/11/16 13:00	01/12/16 15:39	EPA 3005A	97,6020A	TT
Arsenic, Total	0.0058		mg/l	0.0005	--	1	01/11/16 13:00	01/12/16 15:39	EPA 3005A	97,6020A	TT
Cadmium, Total	ND		mg/l	0.0002	--	1	01/11/16 13:00	01/12/16 15:39	EPA 3005A	97,6020A	TT
Chromium, Total	ND		mg/l	0.0010	--	1	01/11/16 13:00	01/12/16 15:39	EPA 3005A	97,6020A	TT
Copper, Total	ND		mg/l	0.0010	--	1	01/11/16 13:00	01/12/16 15:39	EPA 3005A	97,6020A	TT
Iron, Total	10.8		mg/l	0.050	--	1	01/11/16 13:00	01/12/16 15:39	EPA 3005A	97,6020A	TT
Lead, Total	ND		mg/l	0.0005	--	1	01/11/16 13:00	01/12/16 15:39	EPA 3005A	97,6020A	TT
Mercury, Total	ND		mg/l	0.0002	--	1	01/11/16 10:50	01/11/16 19:31	EPA 7470A	97,7470A	EA
Nickel, Total	0.0090		mg/l	0.0020	--	1	01/11/16 13:00	01/12/16 15:39	EPA 3005A	97,6020A	TT
Selenium, Total	ND		mg/l	0.005	--	1	01/11/16 13:00	01/12/16 15:39	EPA 3005A	97,6020A	TT
Silver, Total	ND		mg/l	0.0004	--	1	01/11/16 13:00	01/12/16 15:39	EPA 3005A	97,6020A	TT
Zinc, Total	0.1038		mg/l	0.0100	--	1	01/11/16 13:00	01/12/16 15:39	EPA 3005A	97,6020A	TT

Project Name: FOLEY BLOCK 5 **Lab Number:** L1600668

Project Number: 3175.06 **Report Date:** 01/14/16

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
MCP Total Metals - Westborough Lab for sample(s): 01 Batch: WG856240-1										
Mercury, Total	ND		mg/l	0.0002	--	1	01/11/16 10:50	01/11/16 19:24	97,7470A	EA

Prep Information

Digestion Method: EPA 7470A

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
MCP Total Metals - Westborough Lab for sample(s): 01 Batch: WG856299-1										
Antimony, Total	ND		mg/l	0.0020	--	1	01/11/16 13:00	01/12/16 14:43	97,6020A	TT
Arsenic, Total	ND		mg/l	0.0005	--	1	01/11/16 13:00	01/12/16 14:43	97,6020A	TT
Cadmium, Total	ND		mg/l	0.0002	--	1	01/11/16 13:00	01/12/16 14:43	97,6020A	TT
Chromium, Total	ND		mg/l	0.0010	--	1	01/11/16 13:00	01/12/16 14:43	97,6020A	TT
Copper, Total	ND		mg/l	0.0010	--	1	01/11/16 13:00	01/12/16 14:43	97,6020A	TT
Iron, Total	ND		mg/l	0.050	--	1	01/11/16 13:00	01/12/16 14:43	97,6020A	TT
Lead, Total	ND		mg/l	0.0005	--	1	01/11/16 13:00	01/12/16 14:43	97,6020A	TT
Nickel, Total	ND		mg/l	0.0020	--	1	01/11/16 13:00	01/12/16 14:43	97,6020A	TT
Selenium, Total	ND		mg/l	0.005	--	1	01/11/16 13:00	01/12/16 14:43	97,6020A	TT
Silver, Total	ND		mg/l	0.0004	--	1	01/11/16 13:00	01/12/16 14:43	97,6020A	TT
Zinc, Total	ND		mg/l	0.0100	--	1	01/11/16 13:00	01/12/16 14:43	97,6020A	TT

Prep Information

Digestion Method: EPA 3005A

Lab Control Sample Analysis

Batch Quality Control

Project Name: FOLEY BLOCK 5

Project Number: 3175.06

Lab Number: L1600668

Report Date: 01/14/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Total Metals - Westborough Lab Associated sample(s): 01 Batch: WG856240-2 WG856240-3								
Mercury, Total	115		116		80-120	1		20
MCP Total Metals - Westborough Lab Associated sample(s): 01 Batch: WG856299-2 WG856299-3								
Antimony, Total	95		97		80-120	2		20
Arsenic, Total	108		100		80-120	8		20
Cadmium, Total	111		103		80-120	7		20
Chromium, Total	106		98		80-120	8		20
Copper, Total	111		102		80-120	8		20
Iron, Total	98		94		80-120	4		20
Lead, Total	106		103		80-120	3		20
Nickel, Total	103		97		80-120	6		20
Selenium, Total	110		104		80-120	6		20
Silver, Total	104		97		80-120	7		20
Zinc, Total	108		98		80-120	10		20

Project Name: FOLEY BLOCK 5
Project Number: 3175.06

Lab Number: L1600668
Report Date: 01/14/16

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information Custody Seal

Cooler	
A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1600668-01A	Plastic 250ml HNO3 preserved	A	<2	4.4	Y	Absent	MCP-FE-6020T-10(180),MCP-CR-6020T-10(180),MCP-7470T-10(28),MCP-CU-6020T-10(180),MCP-ZN-6020T-10(180),MCP-AS-6020T-10(180),MCP-NI-6020T-10(180),MCP-AG-6020T-10(180),MCP-CD-6020T-10(180),MCP-SE-6020T-10(180),MCP-PB-6020T-10(180),MCP-SB-6020T-10(180)
L1600668-01B	Plastic 250ml HNO3 preserved	A	<2	4.4	Y	Absent	MCP-FE-6020T-10(180),MCP-CR-6020T-10(180),MCP-7470T-10(28),MCP-CU-6020T-10(180),MCP-ZN-6020T-10(180),MCP-AS-6020T-10(180),MCP-NI-6020T-10(180),MCP-AG-6020T-10(180),MCP-CD-6020T-10(180),MCP-SE-6020T-10(180),MCP-PB-6020T-10(180),MCP-SB-6020T-10(180)
L1600668-01C	Amber 1000ml unpreserved	A	7	4.4	Y	Absent	HOLD-8270(7)

Container Comments

L1600668-01B

*Values in parentheses indicate holding time in days

Project Name:	FOLEY BLOCK 5	**Lab Number:**	L1600668
Project Number:	3175.06	**Report Date:**	01/14/16

GLOSSARY

Acronyms

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

EPA - Environmental Protection Agency.

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

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

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

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

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

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

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

NI - Not Ignitable.

NP - Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.

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

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

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

STLP - Semi-dynamic Tank Leaching Procedure per EPA Method 1315.

TIC - Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

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

Terms

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

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

Data Qualifiers

A - Spectra identified as "Aldol Condensation Product".

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

Report Format: Data Usability Report

Project Name:	FOLEY BLOCK 5	**Lab Number:**	L1600668
Project Number:	3175.06	**Report Date:**	01/14/16

Data Qualifiers

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

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

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

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

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

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

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

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

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

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

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

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

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

Report Format: Data Usability Report

Project Name:	FOLEY BLOCK 5	**Lab Number:**	L1600668
Project Number:	3175.06	**Report Date:**	01/14/16

REFERENCES

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

LIMITATION OF LIABILITIES

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

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

Certification Information

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

Westborough Facility
EPA 524.2: 1,2-Dibromo-3-chloropropane, 1,2-Dibromoethane, m/p-xylene, o-xylene
EPA 624: 2-Butanone (MEK), 1,4-Dioxane, tert-Amylmethyl Ether, tert-Butyl Alcohol, m/p-xylene, o-xylene
EPA 625: Aniline, Benzoic Acid, Benzyl Alcohol, 4-Chloroaniline, 3-Methylphenol, 4-Methylphenol.
EPA 1010A: NPW: Ignitability
EPA 6010C: NPW: Strontium; SCM: Strontium
EPA 8151A: NPW: 2,4-DB, Dicamba, Dichloroprop, MCPA, MCPP; SCM: 2,4-DB, Dichloroprop, MCPA, MCPP
EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene, Isopropanol; SCM: Iodomethane (methyl iodide), Methyl methacrylate (soil); 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D: NPW: Pentachloronitrobenzene, 1-Methylnaphthalene, Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Pentachloronitrobenzene, 1-Methylnaphthalene, Dimethylnaphthalene,1,4-Diphenylhydrazine.
EPA 9010: NPW: Amenable Cyanide Distillation, Total Cyanide Distillation
EPA 9038: NPW: Sulfate
EPA 9050A: NPW: Specific Conductance
EPA 9056: NPW: Chloride, Nitrate, Sulfate
EPA 9065: NPW: Phenols
EPA 9251: NPW: Chloride
SM3500: NPW: Ferrous Iron
SM4500: NPW: Amenable Cyanide, Dissolved Oxygen; SCM: Total Phosphorus, TKN, NO2, NO3.
SM5310C: DW: Dissolved Organic Carbon

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

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

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

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

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

CHAIN OF CUSTODY

PAGE 1 OF 1

Date Rec'd in Lab: 1/8/16

ALPHA Job #: L1600668

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

Project Information

Project Name: Foley Block 5
Project Location: Somerville, MA
Project #: 3175.06
Project Manager: K. Walker
ALPHA Quote #:

Report Information - Data Deliverables

☒ ADEx ☒ EMAIL

Billing Information

☒ Same as Client info PO #:

Client Information

Client: Sanborn, Head + Associates
Address: 1 Technology Park Dr, Westford, MA 01886
Phone: 978-392-0900
Email: kwalker@sanbornhead.com

Regulatory Requirements & Project Information Requirements

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

Turn-Around Time

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

Date Due:

Additional Project Information:

* Hold SVOC analysis

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

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

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler Initials	SVOCs (Hold)	RGP metals	Sample Comments	TOTAL # BOTTLES
00668-01	Block 5 GW-1	1/8/16	1036	GW	JWC	X	X	Hold SVOC	3
		~~X~~						~~Hold~~	~~X~~

	SVOCs (Hold)	RGP metals
Container Type	A	P
Preservative	A	C

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

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

Relinquished By:	Date/Time	Received By:	Date/Time
[signature]	1/8/16 1658	[signature] AAL	1/8/16 1658
[signature]	1/8/16 17:55	[signature]	1/8/16 1755

APPENDIX G

NOTICE OF INTENT

II. Suggested Notice of Intent (NOI) Format

1. General facility information. Please provide the following information about the facility.

a) Name of facility: Assembly Row, Block 5	**Mailing Address for the Facility:** FRIT, 4th Floor, 5 Middlesex Avenue Somerville, MA 20145	
b) Location Address of the Facility (if different from mailing address): Assembly Row, Block 5 300-398 Foley Street Somerville, MA 02145	**Facility Location** **longitude:** -71.07924 **latitude:** 42.39338	**Type of Business:** **Facility SIC codes:**

c) Name of facility owner: Street Retail, Inc. **Owner's email:** bdutton@federalrealty.com

Owner's Tel #: (617) 684-1510 **Owner's Fax #:** (617) 623-3601

Address of owner (if different from facility address) FRIT, 4th Floor, 5 Middlesex Avenue Somerville, MA 20145

Owner is (check one): 1. Federal____ 2. State _____ 3. Private__X___ 4. Other _____(Describe)_____

Legal name of Operator, if not owner: W.L. French Excavating Corporation

Operator Contact Name: Mario Marchese

Operator Tel Number: (978) 663-2623 **Fax Number:** (978) 663-5240

Operator's email: mmarchese@wlfrench.com

Operator Address (if different from owner) 3 Survey Circle, Billerica, MA 01862

3 Survey Circle
Billerica, MA 01862

d) Attach a topographic map indicating the location of the facility and the outfall(s) to the receiving water. Map attached? __✔__

e) Check Yes or No for the following:

1. **Has a prior NPDES permit been granted for the discharge? Yes ____ No_✔_ If Yes, Permit Number: _____**
2. **Is the discharge a "new discharger" as defined by 40 CFR Section 122.2? Yes_✔_ No_____**
3. **Is the facility covered by an individual NPDES permit? Yes_____ No_✔_ If Yes, Permit Number ____**
4. **Is there a pending application on file with EPA for this discharge? Yes _____ No _✔_ If Yes, date of submittal:**

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

a) Name of receiving water into which discharge will occur: Mystic River

State Water Quality Classification: B **Freshwater:** _____ **Marine Water:** X

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

(1.) **Construction dewatering of groundwater intrusion and/or storm water accumulation.**

2. **Short-term or long-term dewatering of foundation sumps.**

3. **Other.**

c) Number of outfalls 1

For each outfall:

d) Estimate the maximum daily and average monthly flow of the discharge (in gallons per day – GPD). Max Daily Flow 144,000 **GPD**

Average Monthly Flow 72,000 **GPD**

e.) What is the maximum and minimum monthly pH of the discharge (in s.u.)? Max pH 6.7 **Min pH** 6.4

f.) Identify the source of the discharge (i.e. potable water, surface water, or groundwater). If groundwater, the facility shall submit effluent test results, as required in Section 4.4.5 of the General Permit. Groundwater

g.) What treatment does the wastewater receive prior to discharge? The first element to the treatment system will be a fractionalization tank where solids will settle out. The effluent will then be passed through the following as necessary: an oil/water separator, a bag filter, a granular activated carbon filter, and a precipitation system/metals treatment unit.

h.) Is the discharge continuous? Yes _____ **No** ✔ **If no, is the discharge periodic (P) (occurs regularly, i.e., monthly or seasonally, but is not continuous all year) or intermittent (I) (occurs sometimes but not regularly) or both (B)** Intermittent

If (P), number of days or months per year of the discharge _____ **and the specific months of discharge** _____;

If (I), number of days/year there is a discharge 200

Is the discharge temporary? Yes ✔ **No** _____

If yes, approximate start date of dewatering 2/15/2016 **approximate end date of dewatering** 2/15/2017

i.) Latitude and longitude of each discharge within 100 feet (See http://www.epa.gov/tri/report/siting_tool): Outfall 1: long. -71.076593 **lat.** 42.395213**; Outfall 2: long.**_____ **lat.**_____**; Outfall 3: long.**_____ **lat.**_____.

j.) If the source of the discharge is potable water, please provide the reported or calculated seven day-ten year low flow (7Q10) of the receiving water and attach any calculation sheets used to support stream flow and dilution calculations_____ **cfs**

(See Appendix VII for equations and additional information)

MASSACHUSETTS FACILITIES: See Section 3.4 and Appendix 1 of the General Permit for more information on Areas of Critical Environmental Concern (ACEC):

k.) Does the discharge occur in an ACEC? Yes _____ No __✔__
If yes, provide the name of the ACEC: _____

3. Contaminant Information

a) Are any pH neutralization and/or dechlorination chemicals used in the discharge? If so, include the chemical name and manufacturer; maximum and average daily quantity used as well as the maximum and average daily expected concentrations (mg/l) in the discharge, and the vendor's reported aquatic toxicity (NOAEL and/or LC_{50} in percent for aquatic organism(s)).

b) Please report any known remediation activities or water-quality issues in the vicinity of the discharge.

4. Determination of Endangered Species Act Eligibility: Provide documentation of ESA eligibility as required at Part 3.4 and Appendix IV. In addition, respond to the following questions.

a) Which of the three eligibility criteria listed in Appendix IV, Criterion (A, B, or C) have you met? A_____
b) Please attach documentation with your NOI supporting your response. Please see Appendix IV for acceptable documentation

5. Documentation of National Historic Preservation Act requirements: Please respond to the following questions:

a) See Screening Process in Appendix III and respond to questions regarding your site and any historic properties listed or eligible for listing on the National Register of Historic Places. Question 1: Yes __✔__ No ____ ; Question 2: No _____ Yes _____

b) Have any State or Tribal historic preservation officers been consulted in this determination? Yes _____ or No __✔__ If yes, attach the results of the consultation(s).

c) Which of the three National Historic Preservation Act eligibility criterion listed in Appendix III, Criterion (A, B, or C) have you met? A_____

d) Is the project located on property of religious or cultural significance to an Indian Tribe? Yes _____ or No ____ If yes, provide that name of the Indian Tribe associated with the property. _____

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

7. Signature Requirements: The Notice of Intent must be signed by the operator in accordance with the signatory requirements of 40 CFR Section 122.22 (see below) including the following certification:

I certify under penalty of law that (1) no biocides or other chemical additives except for those used for pH adjustment and/or dechlorination are used in the dewatering system; (2) the discharge consists solely of dewatering and authorized pH adjustment and/or dechlorination chemicals; (3) the discharge does not come in contact with any raw materials, intermediate product, water product or finished product; (4) if the discharge of dewatering subsequently mixes with other permitted wastewater (i.e. stormwater) prior to discharging to the receiving water, any monitoring provided under this permit will be only for dewatering discharge; (5) where applicable, the facility has complied with the requirements of this permit specific to the Endangered Species Act and National Historic Preservation Act; and (6) this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted.

Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, I certify that the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I certify that I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Facility Name: Assembly Row, Block 5

Operator signature: 

Print Full Name and Title: MARIO MARCHESE, PROJECT MANAGER

Date: 2-12-16

Federal regulations require this application to be signed as follows:

1. For a corporation, by a principal executive officer of at least the level of vice president;
2. For partnership or sole proprietorship, by a general partner or the proprietor, respectively, or,
3. For a municipality, State, Federal or other public facility, by either a principal executive officer or ranking elected official.