



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

CERTIFIED MAIL RETURN RECEIPT REQUESTED

SEP 18 2014

Bill Sturgis  
Project Director  
Tishman Construction Corporation of  
Massachusetts  
66 Long Wharf, 2<sup>nd</sup> Floor  
Boston, MA 02110

Re: Authorization to discharge under the Remediation General Permit (RGP) –  
MAG910000. Seaport Square - Parcel H site located at 51-57 Seaport Boulevard, Boston,  
MA, Suffolk County; Authorization # MAG910640

Dear Mr. Sturgis:

Based on the review of a Notice of Intent (NOI) submitted by Haley & Aldrich, on behalf of MS Seaport Block H, LLC, for the site referenced above, the U.S. Environmental Protection Agency (EPA) hereby authorizes you, as the named Operator, to discharge in accordance with the provisions of the RGP at that site. Your authorization number is listed above.

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

Please note the enclosed checklist includes parameters that exceeded Appendix III limits. The checklist also includes nickel a parameter which the laboratory data submitted with the NOI shows that the salt influent water limit was exceed.

Also, please note that the metals included on the checklist are dilution dependent pollutants and subject to limitations based on selected dilution ranges and technology-based ceiling limitations. With the absence of dilution of freshwater into tidal water,

EPA determined that the Dilution Factor Range (DFR) for each parameter for this site is in the one and five (1-5) range. (See the RGP Appendix IV for Massachusetts facilities). Therefore, the metals limit based on the above range set for cadmium of 8.9 ug/L, copper of 3.7 ug/L, nickel of 8.2 ug/L, zinc of 85.6 ug/L and iron of 1,000 ug/L. are required to achieve permit compliance at your site.

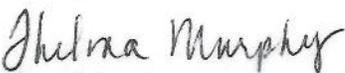
It is important to clarify that metals limitation can be adjusted based on available dilution. Information provided does not support a dilution of 1.5. If new information is provided which supports a revised dilution factor, EPA will review that information as appropriate. The limitation for metals remain based on zero dilution as detailed above.

Finally, please note the checklist of pollutants attached to this authorization is subject to a recertification if the operations at the site result in a discharge lasting longer than six months. A recertification can be submitted to EPA within six (6) to twelve (12) months of operations in accordance with the 2010 RGP regulations.

This general permit and authorization to discharge will expire on September 9, 2015. You have reported this project will terminate on September 1, 2015. You are required to reapply for coverage by submitting a Notice of Intent (NOI) to EPA if the project termination is extended pass the expiration date. Also, regardless of your project termination date you are required to submit a Notice of Termination (NOT) to the attention of the contact person indicated below within 30 days of project completion.

Thank you in advance for your cooperation in this matter. Please contact Victor Alvarez at 617-918-1572 or Alvarez.Victor@epa.gov, if you have any questions.

Sincerely,

  
Thelma Murphy, Chief  
Storm Water and Construction  
Permits Section

Enclosure

cc: Robert Kubit, MassDEP  
Stephen Shea, Boston BWSC  
Owen W. Miles, Haley & Aldrich, Inc.

**2010 Remediation General Permit  
Summary of Monitoring Parameters<sup>[1]</sup>**

<b>NPDES Authorization Number:</b>		<b>MAG910640</b>
Authorization Issued:	September, 2014	
Facility/Site Name:	Seaport Square - Parcel H	
Facility/Site Address:	51 - 57 Seaport Boulevard, Boston, MA 02210, Suffolk County	
	Email address of owner: aalbers@bginvestors.com	
Legal Name of Operator:	Tishman Construction Corporation of MA	
Operator contact name, title, and Address:	Site Operator- Lauren Lapolla- Project Manager. Email: Phone n: 617 723 2050	
	Email: lauren.lapolla@aecom.com	
Estimated date of the site's Completion:	September 1, 2015	
Category and Sub-Category:	Category I. Contaminated Construction Dewatering. Subcategory A. General Urban Fill Sites	
RGP Termination Date:	September 9, 2015	
Receiving Water:	Fort Point Channel	

**Monitoring & Limits are applicable if checked. All samples are to be collected as grab samples**

	<b>Parameter</b>	<b>Effluent Limit/Method#/ML</b> (All Effluent Limits are shown as Daily Maximum Limit, unless denoted by a **, in that case it will be a Monthly Average Limit)
√	1. Total Suspended Solids (TSS)	30 milligrams/liter (mg/L) **, 50 mg/L for hydrostatic testing ** Me#160.2/ML5ug/L
	2. Total Residual Chlorine (TRC) <sup>1</sup>	Freshwater = 11 ug/L ** Saltwater = 7.5 ug/L **/ Me#330.5/ML 20ug/L
	3. Total Petroleum Hydrocarbons (TPH)	5.0 mg/L/ Me# 1664A/ML 5.0mg/L
	4. Cyanide (CN) <sup>2, 3</sup>	Freshwater = 5.2 ug/l ** Saltwater = 1.0 ug/L **/ Me#335.4/ML 10ug/L
	5. Benzene (B)	5ug/L /50.0 ug/L for hydrostatic testing only/ Me#8260C/ML 2 ug/L
	6. Toluene (T)	(limited as ug/L total BTEX)/ Me#8260C/ML 2ug/L
	7. Ethylbenzene (E)	(limited as ug/L total BTEX) Me#8260C/ML 2ug/L
	8. (m,p,o) Xylenes (X)	(limited as ug/L total BTEX) Me#8260C/ML 2ug/L

	<b><u>Parameter</u></b>	<b><u>Effluent Limit/Method#/ML</u></b> (All Effluent Limits are shown as Daily Maximum Limit, unless denoted by a **, in that case it will be a Monthly Average Limit)
	9. Total Benzene, Toluene, Ethyl Benzene, and Xylenes (BTEX) <sup>4</sup>	100 ug/L/ Me#8260C/ ML 2ug/L
	10. Ethylene Dibromide (EDB) (1,2- Dibromoethane)	0.05 ug/l/ Me#8260C/ ML 10ug/L
	11. Methyl-tert-Butyl Ether (MtBE)	70.0 ug/l/Me#8260C/ML 10ug/L
	12.tert-Butyl Alcohol (TBA) (TertiaryButanol)	Monitor Only(ug/L)/Me#8260C/ML 10ug/L
	13. tert-Amyl Methyl Ether (TAME)	Monitor Only(ug/L)/Me#8260C/ML 10ug/L
	14. Naphthalene <sup>5</sup>	20 ug/L /Me#8260C/ML 2ug/L
	15. Carbon Tetrachloride	4.4 ug/L /Me#8260C/ ML 5ug/L
	16. 1,2 Dichlorobenzene (o-DCB)	600 ug/L /Me#8260C/ ML 5ug/L
	17. 1,3 Dichlorobenzene (m-DCB)	320 ug/L /Me#8260C/ ML 5ug/L
	18. 1,4 Dichlorobenzene (p-DCB)	5.0 ug/L /Me#8260C/ ML 5ug/L
	18a. Total dichlorobenzene	763 ug/L - NH only /Me#8260C/ ML 5ug/L
	19. 1,1 Dichloroethane (DCA)	70 ug/L /Me#8260C/ ML 5ug/L
	20. 1,2 Dichloroethane (DCA)	5.0 ug/L /Me#8260C/ ML 5ug/L
	21. 1,1 Dichloroethene (DCE)	3.2 ug/L/Me#8260C/ ML 5ug/L
	22. cis-1,2 Dichloroethene (DCE)	70 ug/L/Me#8260C/ ML 5ug/L
	23. Methylene Chloride	4.6 ug/L/Me#8260C/ ML 5ug/L
	24. Tetrachloroethene (PCE)	5.0 ug/L/Me#8260C/ ML 5ug/L
	25. 1,1,1 Trichloro-ethane (TCA)	200 ug/L/Me#8260C/ ML 5ug/L
	26. 1,1,2 Trichloro-ethane (TCA)	5.0 ug/L /Me#8260C/ ML 5ug/L
	27. Trichloroethene (TCE)	5.0 ug/L /Me#8260C/ ML 5ug/L
	28. Vinyl Chloride (Chloroethene)	2.0 ug/L /Me#8260C/ ML 5ug/L
✓	29. Acetone	Monitor Only(ug/L)/Me#8260C/ML 50ug/L
	30. 1,4 Dioxane	Monitor Only /Me#1624C/ML 50ug/L
	31. Total Phenols	300 ug/L Me#420.1&420.2/ML 2 ug/L/ Me# 420.4 /ML 50ug/L
	32. Pentachlorophenol (PCP)	1.0 ug/L /Me#8270D/ML 5ug/L, Me#604 &625/ML 10ug/L
	33. Total Phthalates (Phthalate esters) <sup>6</sup>	3.0 ug/L ** /Me#8270D/ML 5ug/L, Me#606/ML 10ug/L& Me#625/ML 5ug/L
	34. Bis (2-Ethylhexyl) Phthalate [Di- (ethylhexyl) Phthalate]	6.0 ug/L /Me#8270D/ML 5ug/L, Me#606/ML 10ug/L & Me#625/ML 5ug/L

	<u>Parameter</u>	<b>Effluent Limit/Method#/ML</b> (All Effluent Limits are shown as Daily Maximum Limit, unless denoted by a **, in that case it will be a Monthly Average Limit)
	35. Total Group I Polycyclic Aromatic Hydrocarbons (PAH)	10.0 ug/L
	a. Benzo(a) Anthracene <sup>7</sup>	0.0038 ug/L /Me#8270D/ ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML 5ug/L
	b. Benzo(a) Pyrene <sup>7</sup>	0.0038 ug/L /Me#8270D/ ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML 5ug/L
	c. Benzo(b)Fluoranthene <sup>7</sup>	0.0038 ug/L /Me#8270D/ ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML 5ug/L
	d. Benzo(k)Fluoranthene <sup>7</sup>	0.0038 ug/L /Me#8270D/ ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML 5ug/L
	e. Chrysene <sup>7</sup>	0.0038 ug/L /Me#8270D/ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML 5ug/L
	f. Dibenzo(a,h)anthracene <sup>7</sup>	0.0038 ug/L /Me#8270D/ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML 5ug/L
	g. Indeno(1,2,3-cd) Pyrene <sup>7</sup>	0.0038 ug/L /Me#8270D/ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML5ug/L
	36. Total Group II Polycyclic Aromatic Hydrocarbons (PAH)	100 ug/L
	h. Acenaphthene	X/Me#8270D/ML 5ug/L, Me#610/ML 5ug/L & Me#625/ML 5ug/L
	i. Acenaphthylene	X/Me#8270D/ML 5ug/L, Me#610/ML 5ug/L & Me#625/ML 5ug/L
	j. Anthracene	X/Me#8270D/ML 5ug/L, Me#610/ML 5ug/L & Me#625/ML 5ug/L
	k. Benzo(ghi) Perylene	X/Me#8270D/ML 5ug/L, Me#610/ML 5ug/L & Me#625/ML 5ug/L
	l. Fluoranthene	X/Me#8270D/ML 5ug/L, Me#610/ML 5ug/L & Me#625/ML 5ug/L
	m. Fluorene	X/Me#8270D/ML 5ug/L, Me#610/ML 5ug/L & Me#625/ML 5ug/L
	n. Naphthalene <sup>5</sup>	20 ug/l / Me#8270/ML 5ug/L, Me#610/ML 5ug/L & Me#625/ML 5ug/L
	o. Phenanthrene	X/Me#8270D/ML 5ug/L, Me#610/ML 5ug/L & Me#625/ML 5ug/L
	p. Pyrene	X/Me#8270D/ML5ug/L, Me#610/ML 5ug/L & Me#625/ML 5ug/L
	37. Total Polychlorinated Biphenyls (PCBs) <sup>8,9</sup>	0.000064 ug/L/Me# 608/ ML 0.5 ug/L
✓	38. Chloride	Monitor only/Me# 300.0/ ML 100 ug/L

	<b>Metal Parameters</b>	<b>Total Recoverable MA/Metal Limit</b> <b>H<sup>10</sup> = 50 mg/l CaCO<sub>3</sub>, Units = ug/l<sup>(11/12)</sup></b>		<b>Minimum level=ML</b>	
			<b>Saltwater Limits</b>		
	39. Antimony	5.6		ML	10
	40. Arsenic **		36	ML	20
√	41. Cadmium **		8.9	ML	10
	42. Chromium III (trivalent) **		100	ML	15
	43. Chromium VI (hexavalent) **		50.3	ML	10
√	44. Copper **		3.7	ML	15
	45. Lead **		8.5	ML	20
	46. Mercury **		1.1	ML	02
√	47. Nickel **		8.2	ML	20
	48. Selenium **		71	ML	20
	49. Silver		2.2	ML	10
√	50. Zinc **		85.6	ML	15
√	51. Iron	1,000		ML	20

	<b>Other Parameters</b>	<b>Limit</b>
√	52. Instantaneous Flow	Site specific in CFS
√	53. Total Flow	Site specific in CFS
	54. pH Range for Class A & Class B Waters in MA	6.5-8.3; 1/Month/Grab <sup>13</sup>
√	55. pH Range for Class SA & Class SB Waters in MA	6.5-8.3; 1/Month/Grab <sup>13</sup>
	56. pH Range for Class B Waters in NH	6.5-8; 1/Month/Grab <sup>13</sup>
	57. Daily maximum temperature - Warm water fisheries	83°F; 1/Month/Grab <sup>14</sup>
	58. Daily maximum temperature - Cold water fisheries	68°F; 1/Month/Grab <sup>14</sup>
	59. Maximum Change in Temperature in MA - Any Class A water body	1.5°F; 1/Month/Grab <sup>14</sup>
	60. Maximum Change in Temperature in MA - Any Class B water body- Warm Water	5°F; 1/Month/Grab <sup>14</sup>
	61. Maximum Change in Temperature in MA - Any Class B water body - Cold water and Lakes/Ponds	3°F; 1/Month/Grab <sup>14</sup>
	62. Maximum Change in Temperature in MA - Any Class SA water body - Coastal	1.5°F; 1/Month/Grab <sup>14</sup>
	63. Maximum Change in Temperature in MA - Any Class SB water body - July to September	1.5°F; 1/Month/Grab <sup>14</sup>
	64. Maximum Change in Temperature in MA -Any Class SB water body - October to June	4°F; 1/Month/Grab <sup>14</sup>

Footnotes:

<sup>1</sup> Although the maximum values for TRC are 11ug/l and 7.5 ug/l for freshwater, and saltwater respectively, the compliance limits are equal to the minimum level (ML) of the test method used as listed in Appendix VI (i.e., Method 330.5, 20 ug/l).

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

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

<sup>4</sup> BTEX = sum of Benzene, Toluene, Ethylbenzene, and total Xylenes.

<sup>5</sup> Naphthalene can be reported as both a purgeable (VOC) and extractable (SVOC) organic compound. If both VOC and SVOC are analyzed, the highest value must be used unless the QC criteria for one of the analyses is not met. In such cases, the value from the analysis meeting the QC criteria must be used.

<sup>6</sup> The sum of individual phthalate compounds(not including the #34, Bis (2-Ethylhexyl) Phthalate . The compliance limits are equal to the minimum level (ML) of the test method used as listed in Appendix VI.

*Total values calculated for reporting on NOIs and discharge monitoring reports shall be calculated by adding the measured concentration of each constituent. If the measurement of a constituent is less than the ML, the permittee shall use a value of zero for that constituent. For each test, the permittee shall also attach the raw data for each constituent to the discharge monitoring report, including the minimum level and minimum detection level for the analysis.*

<sup>7</sup> Although the maximum value for the individual PAH compounds is 0.0038 ug/l, the compliance limits are equal to the minimum level (ML) of the test method used as listed in Appendix VI.

<sup>8</sup> In the November 2002 WQC, EPA has revised the definition of Total PCBs for aquatic life as total PCBs is the sum of all homologue, all isomer, all congener, or all "Oroclor analyses."Total values calculated for reporting on NOIs and discharge monitoring reports shall be calculated by adding the measured concentration of each constituent. If the measure of a constituent is less than the ML, the permittee shall use a value of zero for that constituent. For each test, the permittee shall also attach the raw data for each constituent to the discharge monitoring report, including the minimum level and minimum detection level for the analysis.

<sup>9</sup>Although the maximum value for total PCBs is 0.000064 ug/l, the compliance limit is equal to the minimum level (ML) of the test method used as listed in Appendix VI (i.e., 0.5 ug/l for Method 608 or 0.00005 ug/l when Method 1668a is approved).

<sup>10</sup> Hardness. Cadmium, Chromium III, Copper, Lead, Nickel, Silver, and Zinc are Hardness Dependent.

<sup>11</sup> For a Dilution Factor (DF) from 1 to 5, metals limits are calculated using DF times the base limit for the metal. See Appendix IV. For example, iron limits are calculated using  $DF \times 1,000 \text{ug/L}$  (the iron base limit). Therefore DF is 1.5, the iron limit will be 1,500 ug/L; DF 2, then iron limit =  $1,000 \times 2 = 2,000 \text{ug/L}$ , etc. not to exceed the DF=5.

<sup>12</sup> Minimum Level (ML) is the lowest level at which the analytical system gives a recognizable signal and acceptable calibration point for the analyte. The ML represents the lowest concentration at which an analyte can be measured with a known level of confidence. The ML is calculated by multiplying the laboratory-determined method detection limit by 3.18 (see 40 CFR Part 136, Appendix B).

<sup>13</sup> pH sampling for compliance with permit limits may be performed using field methods as provided for in EPA test Method 150.1.

<sup>14</sup> Temperature sampling per Method 170.1

Haley & Aldrich, Inc.  
465 Medford St.  
Suite 2200  
Boston, MA 02129-1400

Tel: 617.886.7400  
Fax: 617.886.7600  
HaleyAldrich.com



28 August 2014  
File No. 34099-120

US Environmental Protection Agency – Region 1  
Industrial NPDES Permits (CIP)  
5 Post Office Square  
Mail Code OEP06-4  
Boston, Massachusetts, 02109-3912

Attention: Remediation General Permit NOI Processing

Subject: Notice of Intent (NOI) for NPDES Dewatering General Permit  
Temporary Construction Dewatering  
Seaport Square Parcel H  
51-57 Seaport Boulevard  
Boston, Massachusetts  
RTN 3-28572

Ladies and Gentlemen:

On behalf of our client, MS Seaport Block H, LLC, and in accordance with the National Pollutant Discharge Elimination System (NPDES) Remediation General Permit (RGP) in Massachusetts, MAG910000, this letter submits a Notice of Intent (NOI) and the applicable documentation as required by the US Environmental Protection Agency (EPA) for temporary construction site dewatering under the RGP.

#### **SITE HISTORY**

The site is located in the former South Boston tidal flats which were filled in 1870s in conjunction with the construction of Fan Pier to provide waterfront railroad access. The site was used as a railroad yard for a majority of the 20th century prior to being used for surface parking. It is anticipated that a buried bulkhead is likely present along the southern property line. A similar structure supported on timber piles was encountered in a nearby parcel along the same demarcation.



## **CURRENT SITE CONDITIONS**

The site is currently part of an active parking lot, approximately 13,800 square feet in size. It is bordered by Seaport Boulevard to the north, Sleeper Street to the west, Farnsworth Street to the east, and by the buildings at 51 Sleeper Street and 44-46 Farnsworth Street to the south (refer to Figure 1). Site grades are relatively flat ranging from about El. 15.5 to 16.5 across the site. Street grades at adjacent Seaport Boulevard to the north are slightly elevated, ranging from about El. 17.5 to 19. An approximately 3-ft high granite block retaining wall separates the parking lot at Parcel H from the elevated sidewalk along Seaport Boulevard.

Immediately north of the site, the MBTA Silver Line tunnel runs below Seaport Boulevard. The tunnel along the western part of Seaport Boulevard (approximately Sta. 106+70 to 109+40) is about 40 ft wide. The distance from the site property limits to the southern tunnel wall varies from about a couple of feet to 45 ft. The invert of the tunnel in this portion ranges from approximately El. -33 to -36. The top of the tunnel is between approximately El. -14 to -16 ft along Seaport Boulevard corresponding to a depth of about 30 to 35 ft below the street.

## **PROPOSED CONSTRUCTION**

The proposed construction will consist of an approximately 5,500 square foot, 1-story chapel on the western side of the property and an approximately 4,000 square foot, 4-story office and retail building. Current design includes ground floor level at approximately El. 16. Currently, no below grade basement space is planned. Excavations for pile caps and grade beams will extend to El 8.

## **REGULATORY BACKGROUND**

The results of test borings performed in May 2014, soil precharacterization and groundwater sampling programs conducted at Parcel H did not indicate the presence of contaminants in soils above the applicable Massachusetts Contingency Plan RCS-1 Reportable Concentrations for Soil or RCGW-2 Reportable Concentrations for Groundwater. Therefore, Parcel H project not currently required to be reported to MassDEP, and further MCP regulatory compliance is not anticipated for development of the parcel (beyond closure of the umbrella RTN discussed below) and soil management activities.

Massachusetts Department of Environmental Protection (MassDEP) Release Tracking Number (RTN) 3-13624 was assigned as an umbrella RTN for the MBTA South Boston Piers Transit Project (Transitway), a portion of which includes Parcel H. Haley & Aldrich is preparing a separate report that will provide regulatory closure for the umbrella RTN. No remedial action is required at Parcel H to achieve the Permanent Solution planned for the umbrella RTN.

## **GROUNDWATER SAMPLING AND ANALYSIS**

In support of the NOI, Haley & Aldrich collected unfiltered groundwater samples and one field filtered groundwater sample from observation well HA-H3(OW) at the site on 11 June and 7 July 2014. The collected groundwater samples were submitted to Alpha Analytical, Inc. of Westborough, Massachusetts (Alpha Analytical), a DEP certified laboratory for analysis for NPDES permit

parameters including volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), total and dissolved metals, polychlorinated biphenyls (PCBs), total petroleum hydrocarbons (TPH), Total Suspended Solids (TSS), chloride, total cyanide, total phenolics, and total residual chlorine.

The results of the analysis indicated total cyanide and total nickel were above the RGP effluent discharge criteria. The results of water quality testing conducted for this NOI are summarized in Table I. The location of the observation well is shown on Figure 2.

Total cyanide was measured at a concentration of 0.008 mg/L; physiologically available cyanide was not detected. There is a newer method for free cyanide approved by the EPA, Method 9016. We understand this newer method maybe adopted by the NPDES permit for the next round of permit approvals. We will monitor discharge using the free cyanide method and take supplemental samples using the physiologically available cyanide method as deemed necessary.

Total nickel was detected above the effluent criteria. However after applying a dilution factor for the outfall, the concentration was reduced to comply with the criteria. Further discussion on the dilution factor is included below. Other tested compounds were below the RGP effluent discharge criteria, and each of the tested compounds was below the applicable MCP RCGW-2 Reportable Concentration.

#### **MANAGEMENT OF DEWATERING EFFLUENT**

During construction, it will be necessary to perform temporary dewatering to control surface water runoff from precipitation, groundwater seepage and construction-generated water to enable construction in-the-dry. Construction and construction dewatering activities are currently anticipated to begin as early as September 2014. On average, we estimate effluent discharge rates of about 40 to 50 gallons per minute (gpm) or less, with occasional peak flows of approximately 100 gpm during significant precipitation events. Temporary dewatering will be conducted from sumps located in excavations.

As part of the dewatering, an effluent treatment system will be designed by the Contractor to meet NPDES RGP discharge criteria. Prior to discharge, collected water will be routed through a sedimentation tank and a bag filter, at a minimum, to remove suspended solids and undissolved chemical constituents. Supplemental pretreatment may be required to meet discharge criteria as shown in the Proposed Treatment System Schematic included in Figure 3.

Construction dewatering under this RGP NOI will include piping and discharging to Boston Water and Sewer Commission storm drains near the site. The storm drains storm drains travel to the west of the site, ultimately discharging into Fort Point Channel. The proposed discharge catchbasins that drain to this outfall are shown on Figure 4.

#### **DISCHARGE START DATE AND LENGTH OF DISCHARGE**

Site work and associated construction dewatering is currently anticipated to begin in September 2014 and is estimated to take up to 12 months to complete. Dewatering activities during below-grade construction are anticipated to be periodic and intermittent.

### **DILUTION FACTOR APPLICATION FOR METALS**

A Dilution Factor (DF) was calculated for the detected levels of total metals greater than the applicable effluent limits. The DF is applicable to nickel, and the calculated DF was used to find the appropriate Dilution Range concentrations for these metals. The DF was calculated using the following equation:

$$DF = (Q_d + Q_s)/Q_d$$

where  $Q_d$  is the maximum discharge flow rate, assumed to be 100 gallons per minute (GPM) or approximately 0.223 cubic feet per second (cfs), and  $Q_s$  is the receiving water flow rate, minimum for 7 consecutive days with a recurrence interval of 10 years. Testing of groundwater at the site indicated that metals were either not detected above the laboratory detection limit and/or were below NPDES RGP effluent discharge criteria with the exception of nickel. The Fort Point Channel is the receiving water body, and is a tidally influenced channel without regular inflow data. Therefore, estimating a flow and dilution factor would be difficult. Based on correspondence with Mr. Victor Alvarez of EPA on 25 August 2014, the Dilution Factor for discharge of metals to Fort Point Channel can be conservatively assumed to be in the 1 to 5 range. Applying a dilution factor of 1.5 is sufficient to reduce Nickel concentrations to the RGP effluent discharge criteria.

### **APPENDICES**

The completed "Suggested Notice of Intent" (NOI) form as provided in the RGP is enclosed in Appendix A. The site owner is MS Seaport Block H, LLC c/o Boston Global Investors, LLC. The site operator is Tishman Construction Corporation. Haley & Aldrich will monitor the Contractor's dewatering activities on behalf of Boston Global Investors, LLC. In accordance with the requirements for this NOI submission, the operator, Tishman Construction Corporation, is listed as permittee for this NPDES RGP, and therefore has signed the NOI form.

A Best Management Practices Plan (BMPP), which outlines the proposed discharge operations covered under the RGP, is included in Appendix B. Appendices C and D include Endangered Species Act and National Register of Historic Places Documentation, respectively. Appendix E provides the BWSC Permit Application to be submitted separately to the Boston Water and Sewer Commission. A copy of the groundwater testing laboratory data report for samples obtained by Haley & Aldrich is provided in Appendix F.

**CLOSING**

Thank you very much for your consideration of this NOI. Please feel free to contact us should you wish to discuss the information contained herein or if you need additional information.

Sincerely yours,  
HALEY & ALDRICH, INC.



Owen W. Miles  
Staff Hydrogeologist



Denis J. Bell, P.E.  
Senior Engineer

Attachments:

- Table I – Summary of Groundwater Quality Data
- Figure 1 – Site Locus
- Figure 2 – Site and Subsurface Exploration Location Plan
- Figure 3 – Proposed Treatment System Schematic
- Figure 4 – Proposed Dewatering Effluent Discharge Route
- Appendix A – Notice of Intent (NOI) for Remediation General Permit (RGP)
- Appendix B – Best Management Practices Plan (BMPP)
- Appendix C – Endangered Species Act Documentation
- Appendix D – National Register of Historic Places and Massachusetts Historical Commission Documentation
- Appendix E – Copy of BWSC Permit Application
- Appendix F – Laboratory Data Reports

c: Boston Global Investors; Attn: Andrew Albers, Charles Reid, Len Conlin

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**TABLE I**  
GROUNDWATER QUALITY DATA  
PARCEL H, SEAPORT SQUARE  
BOSTON, MASSACHUSETTS  
FILE NO. 34099-450

SAMPLE ID SAMPLING DATE LAB SAMPLE ID	2014 MCP Reportable Concentrations RCGW-2	NPDES RGP Effluent Discharge Criteria	HA-H3-06-11-14 6/11/2014 L1412713-01
<b>VOCs by GC/MS (mg/l)</b>			
VOCs total	NA	NA	ND
<b>SVOCs by GC/MS (mg/l)</b>			
SVOCs total	NA	0.01	ND
<b>SVOCs by GC/MS-SIM (mg/l)</b>			
SVOCs total	NA	0.01	ND
<b>Total Metals (mg/l)</b>			
Antimony	8	0.0056	0.00326
Arsenic	0.9	0.036	0.00116
Cadmium,	0.004	0.0089	0.00333
Chromium	0.3	0.1	ND(0.0005)
Copper	100	0.0037	0.00111
Iron	NA	1	0.13
Lead	0.01	0.0085	ND(0.0005)
Mercury	0.02	0.0011	ND(0.0001)
Nickel	0.2	0.0082	<b>0.00953</b>
Selenium	0.1	0.071	ND(0.0025)
Silver	0.007	0.0022	ND(0.0002)
Zinc	0.9	0.0856	0.06738
<b>PCBs (ug/l)</b>			
Total PCBs	5	0.000064	ND
<b>General Chemistry</b>			
Cyanide, Total	0.03	0.001	<b>0.008</b>
Cyanide, Physiologically Available	0.03	NA	ND(0.0025)
Chlorine, Total Residual	NA	0.0075	ND(0.01)
pH (H)	NA	NA	6.4
TPH	5	5	ND(2)
Chromium, Hexavalent	0.3	0.053	ND(0.005)
Chloride	NA	Monitor Only	4020
Solids, Total Suspended	NA	30	7.8
<b>Pesticides (ug/l)</b>			
1,2-Dibromoethane	2	0.05	ND (0.010)

**ABBREVIATIONS:**

NA : Not applicable

ND(2.5): Not detected; number in parentheses is one-half the laboratory

**NOTES:**

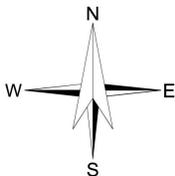
1. This table includes only those compounds detected on the dates indicated.
2. Bold values indicate value exceeds the NPDES RGP criteria.



SITE COORDINATES: 42°21'10"N, 71°25'53"W

**HALEY & ALDRICH**

SEAPORT SQUARE PARCEL H  
BOSTON, MASSACHUSETTS

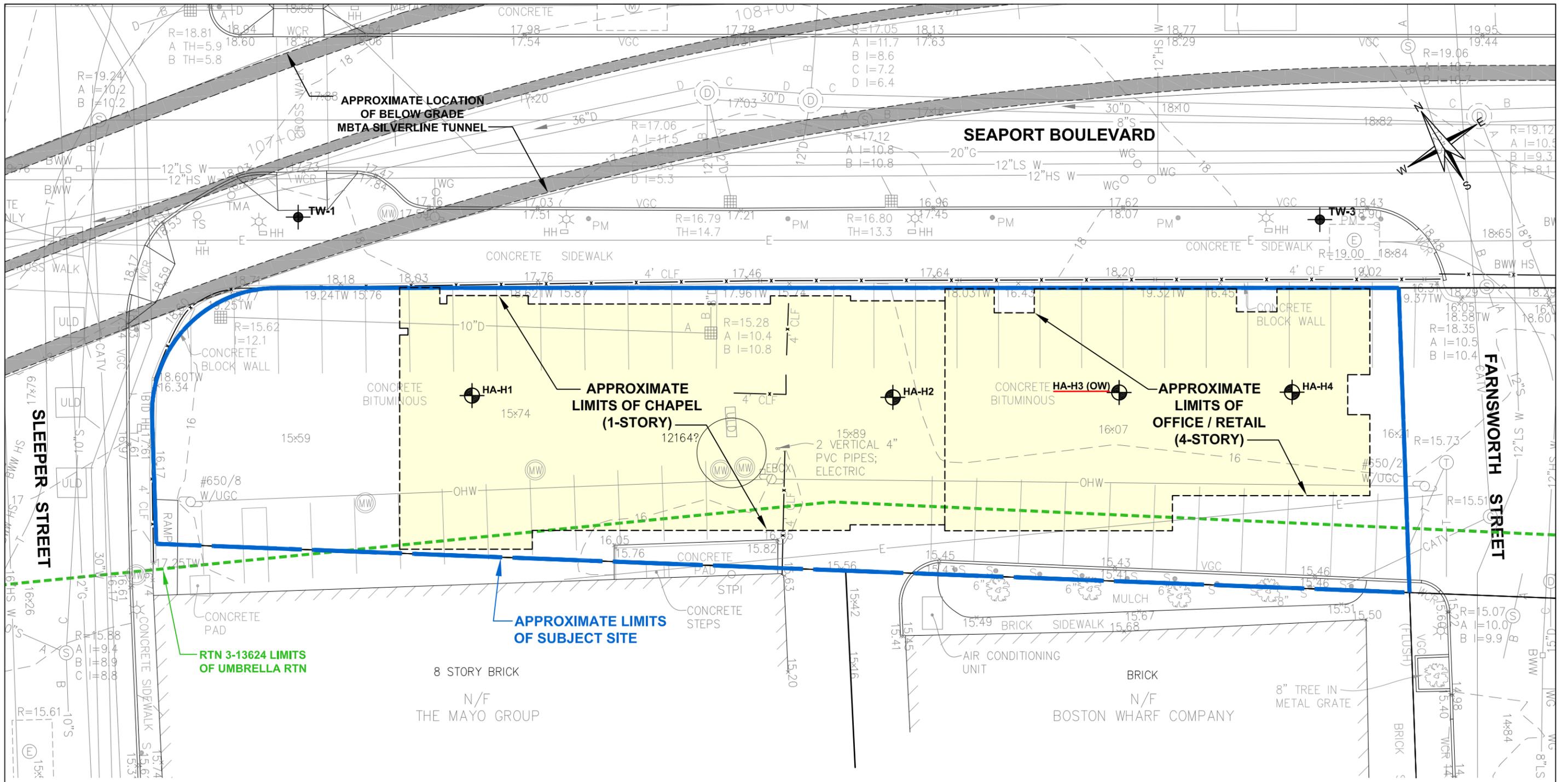


PROJECT LOCUS

U.S.G.S. QUADRANGLE: BOSTON SOUTH, MA

SCALE: 1:24,000  
AUGUST 2014

FIGURE 1



**LEGEND:**

- HA-H1** DESIGNATION AND APPROXIMATE LOCATION OF TEST BORING DRILLED BY NORTHERN DRILL SERVICE, INC., OF NORTHBOROUGH, MASSACHUSETTS, FROM 16 TO 23 MAY 2014 AND MONITORED BY HALEY & ALDRICH STAFF
- TW-3** DESIGNATION AND APPROXIMATE LOCATION OF TEST BORING CONDUCTED FOR THE SILVER LINE
- (OW)** INDICATES OBSERVATION WELL INSTALLED IN COMPLETED BOREHOLE
- INDICATES APPROXIMATE LIMITS OF PROPOSED STRUCTURE

**NOTES:**

1. LIMITS OF PROPOSED PARCELS AND ROADWAYS TAKEN FROM SERIES OF DRAWINGS TITLED "ALTA/ACSM LAND TITLE SURVEY, BOSTON SEAPORT SQUARE - PARCEL B/C, D, F, G, H, J, L2, L3, L4, L5, L6, M1, M2, N, P AND Q, BOSTON, MASSACHUSETTS", DATED AUGUST 2013, BY NITSCH ENGINEERING OF BOSTON, MASSACHUSETTS.
2. BASE PLAN CREATED FROM PLAN TITLED "TOPOGRAPHIC PLAN OF LAND, BOSTON SEAPORT SQUARE, BOSTON, MASSACHUSETTS" DATED 29 JUNE 2011 FROM NITSCH ENGINEERING, BOSTON, MASSACHUSETTS ON 16 NOVEMBER 2011.
3. APPROXIMATE LIMITS OF THE PROPOSED BUILDING ARE TAKEN FROM PLAN TITLED "PARCEL H - GROUND LEVEL, PRICING PACKAGE," PREPARED BY ADD INC. FOR BOSTON GLOBAL INVESTORS DATED 26 MARCH 2014.
4. APPROXIMATE LIMITS OF RTN 3-13624 UMBRELLA RTN INTERPRETED AS THE LIMIT OF EXCAVATION FROM "TRANSITWAY ALIGNMENT/PROPERTY STATUS" FROM THE COURTHOUSE STATION RAO (REFERENCED ABOVE) WITH CONSIDERATION FOR THE SOUTH BOSTON PIERS TRANSITWAY PROJECT CONSTRUCTION DOCUMENTS WITH VARIOUS DATES FROM AUGUST 1995 TO JANUARY 1999, INCLUDING PLANS TITLED "SOIL AND GROUNDWATER PRE-CHARACTERIZATION PROGRAM, SOIL DEPTH 5 TO 15 FEET" AND "EXHIBIT A - DISPOSAL SITE DELINEATION." THESE SERIES OF PLANS DEPICT LOCATIONS OF DISPOSAL SITE DELINEATION SCALED FROM PLANS BY OTHERS AND SHOULD BE APPROXIMATE.
5. TEST BORING LOCATIONS ARE APPROXIMATED FROM TAPE MEASUREMENTS OFF OF AVAILABLE SITE FEATURES AND LINE OF SITE IN THE FIELD.

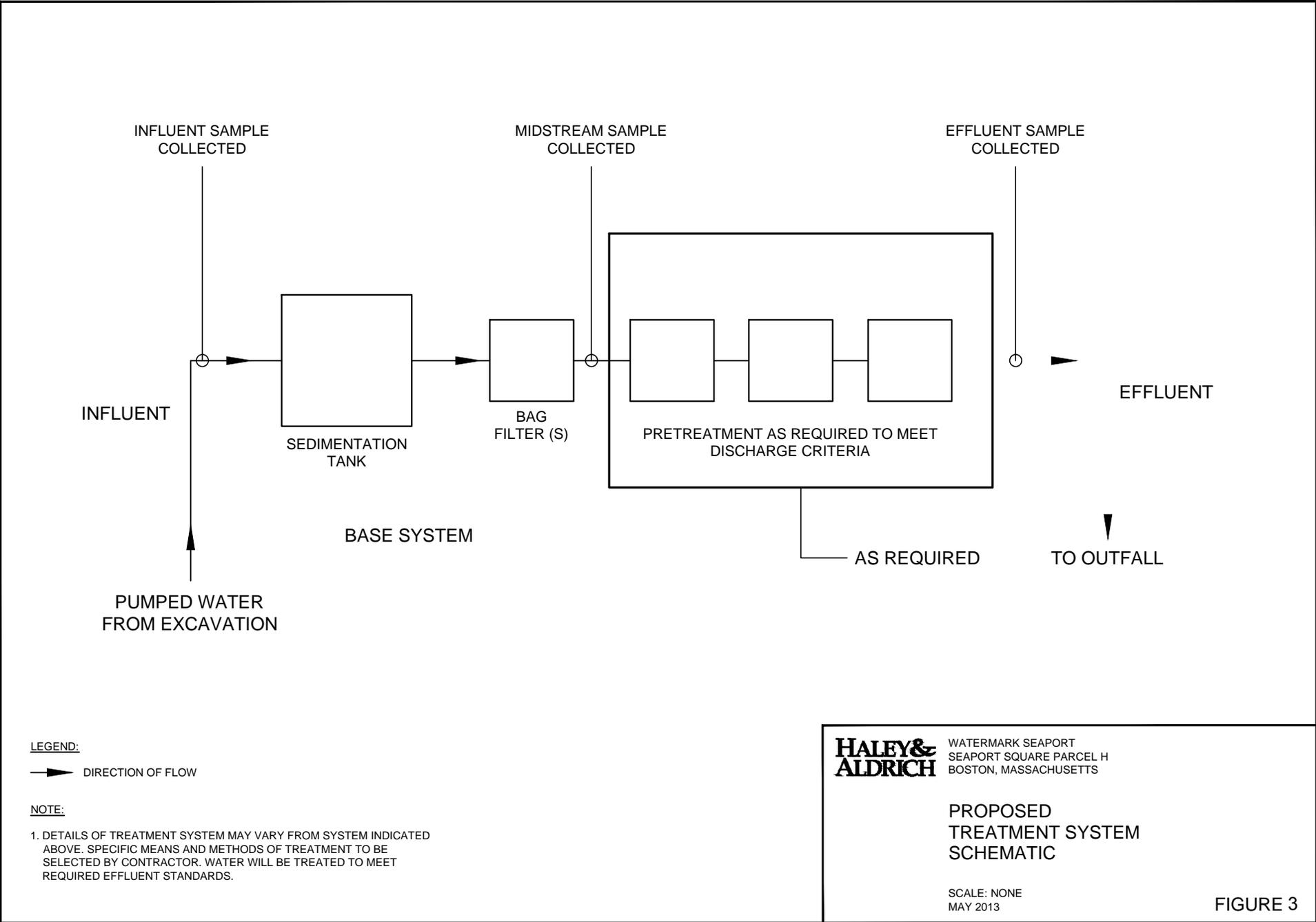
 SEAPORT SQUARE PARCEL H  
 BOSTON, MASSACHUSETTS

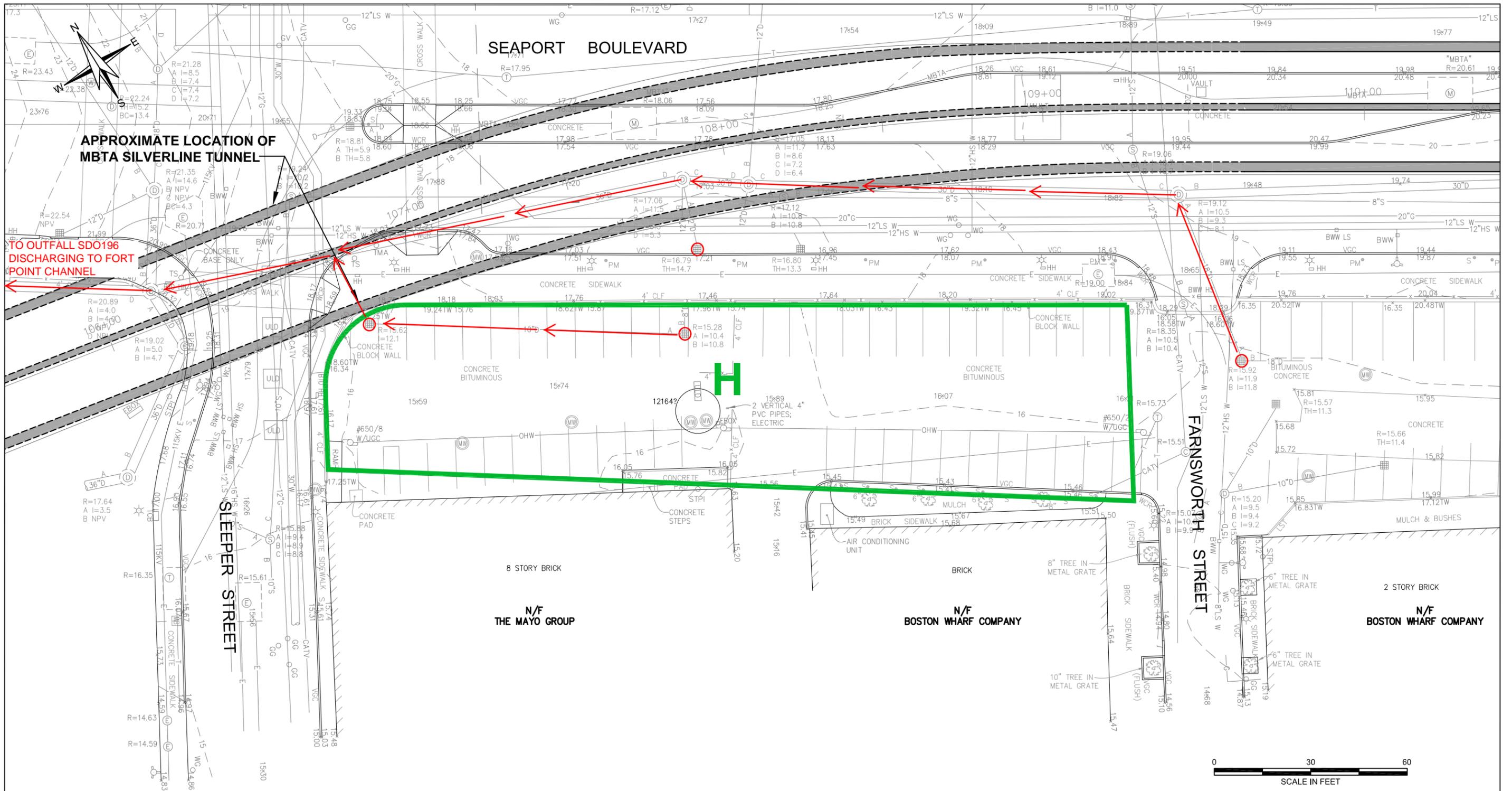
SITE AND SUBSURFACE  
 EXPLORATION LOCATION PLAN

SCALE: AS SHOWN  
 JUNE 2014

FIGURE 2

J:\GRAPHICS\34099\34099-450-B140.DWG





**NOTE:**

- LIMITS OF PROPOSED PARCELS AND ROADWAYS TAKEN FROM SERIES OF DRAWINGS TITLED "ALTA/ACSM LAND TITLE SURVEY, BOSTON SEAPORT SQUARE - PARCEL B/C, D, F, G, H, J, L2, L3, L4, L5, L6, M1, M2, N, P AND Q, BOSTON, MASSACHUSETTS", DATED AUGUST 2013, BY NITSCH ENGINEERING OF BOSTON, MASSACHUSETTS.
- BASE PLAN CREATED FROM PLAN TITLED "TOPOGRAPHIC PLAN OF LAND, BOSTON SEAPORT SQUARE, BOSTON, MASSACHUSETTS" DATED 29 JUNE 2011 FROM NITSCH ENGINEERING, BOSTON, MASSACHUSETTS ON 16 NOVEMBER 2011.

○ INDICATES POTENTIAL DISCHARGE LOCATION

← INDICATES FLOW DIRECTION

**HALEY & ALDRICH**

SEAPORT SQUARE PARCEL H  
BOSTON, MASSACHUSETTS

**PROPOSED DEWATERING  
DISCHARGE LOCATIONS**

SCALE: AS SHOWN  
AUGUST 2014

**FIGURE 4**

**Appendix A**  
**Notice of Intent (NOI) for Remediation General Permit (RGP)**

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

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

a) Name of <b>facility/site</b> :		<b>Facility/site</b> mailing address:		
Location of <b>facility/site</b> : longitude: _____ latitude: _____	Facility SIC code(s):	Street:		
b) Name of <b>facility/site owner</b> : MS SEAPORT BLOCK H, LLC		Town:		
Email address of facility/site owner:		State: <small>Available only to users of United States</small>	Zip:	County:
Telephone no. of facility/site <b>owner</b> :				
Fax no. of facility/site <b>owner</b> :		<b>Owner</b> is (check one): 1. Federal____ 2. State/Tribal____ 3. Private____ 4. Other ____ if so, describe:		
Address of <b>owner</b> (if different from site):				
Street:				
Town:	State:	Zip:	County:	
c) Legal name of <b>operator</b> :	<b>Operator</b> telephone no:			
	<b>Operator</b> fax no.:		<b>Operator</b> email:	
<b>Operator</b> contact name and title:				
Address of <b>operator</b> (if different from owner):		Street:		
Town:	State:	Zip:	County:	

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

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

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

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

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

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

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

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

a) Describe the discharge activities for which the owner/applicant is seeking coverage:	
b) Provide the following information about each discharge:	
1) Number of discharge points:	2) What is the <b>maximum</b> and <b>average flow rate</b> of discharge (in cubic feet per second, ft <sup>3</sup> /s)? Max. flow _____ Is maximum flow a <b>design value</b> ? Y ___ N ___ Average flow (include units) _____ Is average flow a design value or estimate? _____
3) Latitude and longitude of each discharge within 100 feet: pt.1: lat. _____ long. _____; pt.2: lat. _____ long. _____; pt.3: lat. _____ long. _____; pt.4: lat. _____ long. _____; pt.5: lat. _____ long. _____; pt.6: lat. _____ long. _____; pt.7: lat. _____ long. _____; pt.8: lat. _____ long. _____; etc.	
4) If hydrostatic testing, total volume of the discharge (gals): _____	5) Is the discharge intermittent ____ or seasonal ____? Is discharge ongoing? Y ___ N _____
c) Expected dates of discharge (mm/dd/yy): start _____ end _____	
d) Please attach a line drawing or flow schematic showing water flow through the facility including: 1. sources of intake water, 2. contributing flow from the operation, 3. treatment units, and 4. discharge points and receiving waters(s).	

**3. Contaminant information.**

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

<u>Parameter *</u>	<u>CAS Number</u>	<u>Believed Absent</u>	<u>Believed Present</u>	<u># of Samples</u>	<u>Sample Type (e.g., grab)</u>	<u>Analytical Method Used (method #)</u>	<u>Minimum Level (ML) of Test Method</u>	<u>Maximum daily value</u>		<u>Average daily value</u>	
								<u>concentration (ug/l)</u>	<u>mass (kg)</u>	<u>concentration (ug/l)</u>	<u>mass (kg)</u>
1. Total Suspended Solids (TSS)											
2. Total Residual Chlorine (TRC)											
3. Total Petroleum Hydrocarbons (TPH)											
4. Cyanide (CN)	57125										
5. Benzene (B)	71432										
6. Toluene (T)	108883										
7. Ethylbenzene (E)	100414										
8. (m,p,o) Xylenes (X)	108883; 106423; 95476; 1330207										
9. Total BTEX <sup>2</sup>	n/a										
10. Ethylene Dibromide (EDB) (1,2-Dibromoethane) <sup>3</sup>	106934										
11. Methyl-tert-Butyl Ether (MtBE)	1634044										
12. tert-Butyl Alcohol (TBA) (Tertiary-Butanol)	75650										

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

<sup>2</sup> BTEX = Sum of Benzene, Toluene, Ethylbenzene, total Xylenes.

<sup>3</sup> EDB is a groundwater contaminant at fuel spill and pesticide application sites in New England.

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

<u>Parameter *</u>	<u>CAS Number</u>	<u>Believed Absent</u>	<u>Believed Present</u>	<u># of Samples</u>	<u>Sample Type (e.g., grab)</u>	<u>Analytical Method Used (method #)</u>	<u>Minimum Level (ML) of Test Method</u>	<u>Maximum daily value</u>		<u>Average daily value</u>	
								<u>concentration (ug/l)</u>	<u>mass (kg)</u>	<u>concentration (ug/l)</u>	<u>mass (kg)</u>
28. Vinyl Chloride (Chloroethene)	75014										
29. Acetone	67641										
30. 1,4 Dioxane	123911										
31. Total Phenols	108952										
32. Pentachlorophenol (PCP)	87865										
33. Total Phthalates (Phthalate esters) <sup>4</sup>											
34. Bis (2-Ethylhexyl) Phthalate [Di-(ethylhexyl) Phthalate]	117817										
35. Total Group I Polycyclic Aromatic Hydrocarbons (PAH)											
a. Benzo(a) Anthracene	56553										
b. Benzo(a) Pyrene	50328										
c. Benzo(b)Fluoranthene	205992										
d. Benzo(k)Fluoranthene	207089										
e. Chrysene	21801										
f. Dibenzo(a,h)anthracene	53703										
g. Indeno(1,2,3-cd) Pyrene	193395										
36. Total Group II Polycyclic Aromatic Hydrocarbons (PAH)											

<sup>4</sup>The sum of individual phthalate compounds.

<u>Parameter *</u>	<u>CAS Number</u>	<u>Believed Absent</u>	<u>Believed Present</u>	<u># of Samples</u>	<u>Sample Type (e.g., grab)</u>	<u>Analytical Method Used (method #)</u>	<u>Minimum Level (ML) of Test Method</u>	<u>Maximum daily value</u>		<u>Average daily value</u>	
								<u>concentration (ug/l)</u>	<u>mass (kg)</u>	<u>concentration (ug/l)</u>	<u>mass (kg)</u>
h. Acenaphthene	83329										
i. Acenaphthylene	208968										
j. Anthracene	120127										
k. Benzo(ghi) Perylene	191242										
l. Fluoranthene	206440										
m. Fluorene	86737										
n. Naphthalene	91203										
o. Phenanthrene	85018										
p. Pyrene	129000										
37. Total Polychlorinated Biphenyls (PCBs)	85687; 84742; 117840; 84662; 131113; 117817.										
38. Chloride	16887006										
39. Antimony	7440360										
40. Arsenic	7440382										
41. Cadmium	7440439										
42. Chromium III (trivalent)	16065831										
43. Chromium VI (hexavalent)	18540299										
44. Copper	7440508										
45. Lead	7439921										
46. Mercury	7439976										
47. Nickel	7440020										
48. Selenium	7782492										
49. Silver	7440224										
50. Zinc	7440666										
51. Iron	7439896										
Other (describe):											

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

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

<p><i>Step 1:</i> Do any of the metals in the influent exceed the effluent limits in Appendix III (i.e., the limits set at zero dilution)? Y_____ N_____</p>	<p>If yes, which metals?</p>
<p><i>Step 2:</i> For any metals which exceed the <b>Appendix III</b> limits, calculate the <b>dilution factor (DF)</b> using the formula in Part I.A.3.c (step 2) of the NOI instructions or as determined by the State prior to the submission of this NOI. What is the dilution factor for applicable metals?</p> <p>Metal: _____ DF: _____</p> <p>Metal: _____ DF: _____</p> <p>Metal: _____ DF: _____</p> <p>Metal: _____ DF: _____</p> <p>Etc.</p>	<p>Look up the limit calculated at the corresponding dilution factor in <b>Appendix IV</b>. Do any of the metals in the <b>influent</b> have the potential to exceed the corresponding <b>effluent</b> limits in Appendix IV (i.e., is the influent concentration above the limit set at the calculated dilution factor)?</p> <p>Y_____ N_____ If Y, list which metals:</p>

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

<p>a) A description of the treatment system, including a schematic of the proposed or existing treatment system:</p>						
<p>b) Identify each applicable treatment unit (check all that apply):</p>	Frac. tank	Air stripper	Oil/water separator	Equalization tanks	Bag filter	GAC filter
	Chlorination	De-chlorination	Other (please describe):			



**6. ESA and NHPA Eligibility.**

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

<p>a) Using the instructions in Appendix VII and information on Appendix II, under which criterion listed in Part I.C are you eligible for coverage under this general permit? A ____ B ____ C ____ D ____ E ____ F ____</p> <p>b) If you selected Criterion D or F, has consultation with the federal services been completed? Y ____ N ____ Underway ____</p> <p>c) If consultation with U.S. Fish and Wildlife Service and/or NOAA Fisheries Service was completed, was a written concurrence finding that the discharge is “not likely to adversely affect” listed species or critical habitat received? Y ____ N ____</p> <p>d) Attach documentation of ESA eligibility as described in the NOI instructions and required by Appendix VII, Part I.C, Step 4.</p>
<p>e) Using the instructions in Appendix VII, under which criterion listed in Part II.C are you eligible for coverage under this general permit? 1 ____ 2 ____ 3 ____</p> <p>f) If Criterion 3 was selected, attach all written correspondence with the State or Tribal historic preservation officers, including any terms and conditions that outline measures the applicant must follow to mitigate or prevent adverse effects due to activities regulated by the RGP.</p>

**7. Supplemental information.**

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

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

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

Facility/Site Name:	Seaford Blvd. Parcel H
Operator signature:	
Printed Name & Title:	Bill Sturgis Project Director
Date:	8/29/14

**Appendix B**  
**Best Management Practices Plan (BMPP)**

**NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM  
REMEDATION GENERAL PERMIT  
SEAPORT SQUARE – PARCEL H  
51-57 SEAPORT BOULEVARD  
BOSTON, MASSACHUSETTS**

**Best Management Practices Plan**

A Notice of Intent for a Remediation General Permit (RGP) under the National Pollutant Discharge Elimination System (NPDES) has been submitted to the US Environmental Protection Agency (EPA) in anticipation of temporary construction dewatering planned to occur at the 51-57 Seaport Boulevard project site located in South Boston, Massachusetts. This Best Management Practices Plan (BMPP) has been prepared as an Appendix to the RGP and will be posted at the site during the time period that temporary construction dewatering is occurring at the site.

**Water Treatment and Management**

Prior to discharge, collected water will be routed through sedimentation tank and bag filters (if needed), to remove suspended solids and un-dissolved chemical constituents. Construction dewatering under this RGP NOI will include piping and discharging to storm drains located within and near the site. The storm drains travel to the west of the site, ultimately discharging into Fort Point Channel. Dewatering effluent treatment may consist of bag filters, granular activated carbon (GAC), ion exchange, or precipitation, as required.

**Discharge Monitoring and Compliance**

Regular sampling and testing will be conducted at the influent to the system and the treated effluent as required by the RGP. This includes chemical testing required within the first week of discharging, and the monthly testing to be conducted through the end of the scheduled discharge.

Monitoring will include checking the condition of the treatment system, assessing the need for treatment system adjustments based on monitoring data, observing and recording daily flow rates and discharge quantities, and verifying the flow path of the discharged effluent.

The total monthly flow will be monitored by checking and documenting the flow through the flow meter to be installed on the system. Flow will be maintained below the “system design flow” by regularly monitoring flow and adjusting the amount of construction dewatering as needed.

Monthly monitoring reports will be compiled and maintained at the site.

**System Maintenance**

A number of methods will be used to minimize the potential for violations for the term of this permit. Scheduled regular maintenance of the treatment system will be conducted to verify proper operation. Regular maintenance will include checking the condition of the treatment system equipment such as the sedimentation tanks, filters, hoses, pumps, and flow meters. Equipment will be monitored daily for potential issues or unscheduled maintenance requirements.

**NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM  
REMEDATION GENERAL PERMIT  
SEAPORT SQUARE – PARCEL H  
51-57 SEAPORT BOULEVARD  
BOSTON, MASSACHUSETTS**

Employees who have direct or indirect responsibility for ensuring compliance with the RGP will be trained by the Operator.

**Miscellaneous Items**

The project specifications also include requirements for erosion control. Site security for the treatment system will be covered within the overall site security plan.

No adverse effects on designated uses of surrounding surface water bodies is anticipated. The nearest surface water body is the Fort Point Channel. Dewatering effluent will be pumped to a sedimentation tank, at a minimum, prior to discharge to the storm drains.

**Management of Treatment System Materials**

Dewatering effluent will be pumped directly to the treatment system from the excavation with use of hoses and sumps to minimize handling. The Contractor will establish staging areas for equipment or materials storage that may be possible sources of pollution away from any dewatering activities, to the extent practicable.

Sediment from the sedimentation tank used in the treatment system will be characterized and removed from the site to an appropriate receiving facility, in accordance with applicable laws and regulations. If used, granular activated carbon and/or ion exchange resin may be recycled and/or removed from the site to an appropriate receiving facility. Bag filters, if used, will be disposed of as necessary.

**Appendix C**  
**Endangered Species Act Documentation**



# United States Department of the Interior



## FISH AND WILDLIFE SERVICE

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

January 7, 2014

To Whom It May Concern:

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

*<http://www.fws.gov/newengland/EndangeredSpec-Consultation.htm>*

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

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

Sincerely yours,

Thomas R. Chapman  
Supervisor  
New England Field Office

# MassDEP - Bureau of Waste Site Cleanup

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

### Site Information:

SEAPORT SQUARE - PARCEL H  
75 SEAPORT BOULEVARD BOSTON, MA

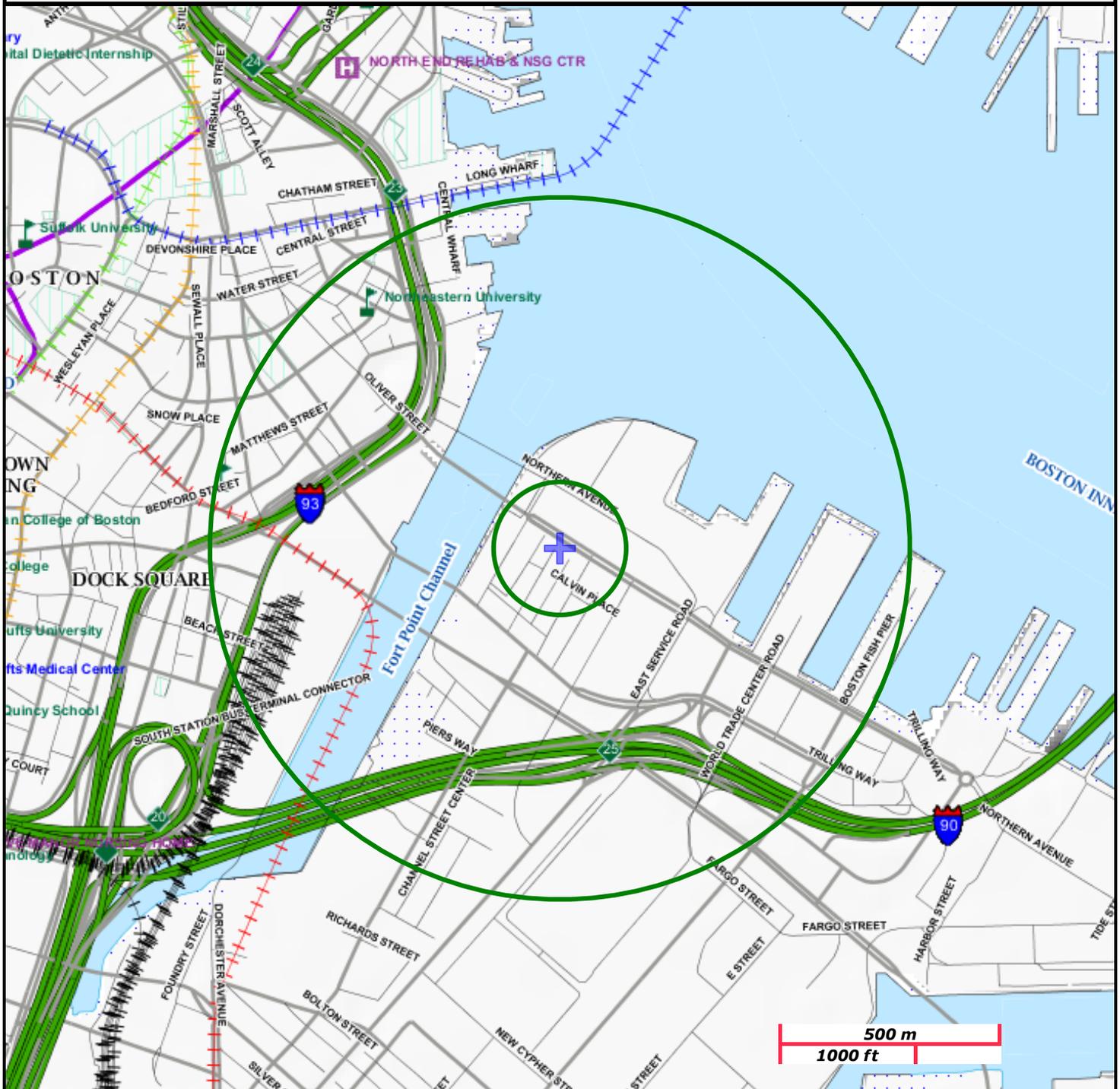
NAD83 UTM Meters:  
4690940mN , 331363mE (Zone: 19)  
August 12, 2014

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	PWS Protection Areas: Zone II, IWPA, Zone A		
Boundaries: Town, County, DEP Region; Train; Powerline; Pipeline; Aqueduct	Hydrography: Open Water, PWS Reservoir, Tidal Flat		
Basins: Major, PWS; Streams: Perennial, Intermittent, Man Made Shore, Dam	Wetlands: Freshwater, Saltwater, Cranberry Bog		
Aquifers: Medium Yield, High Yield, EPA Sole Source	FEMA 100yr Floodplain; Protected Open Space; ACEC		
Non Potential Drinking Water Source Area: Medium, High (Yield)	Est. Rare Wetland Wildlife Hab; Vernal Pool: Cert., Potential		
	Solid Waste Landfill; PWS: Com. GW, SW, Emerg., Non-Com.		



The Official Website of the Executive Office of Energy and Environmental Affairs

# Energy and Environmental Affairs

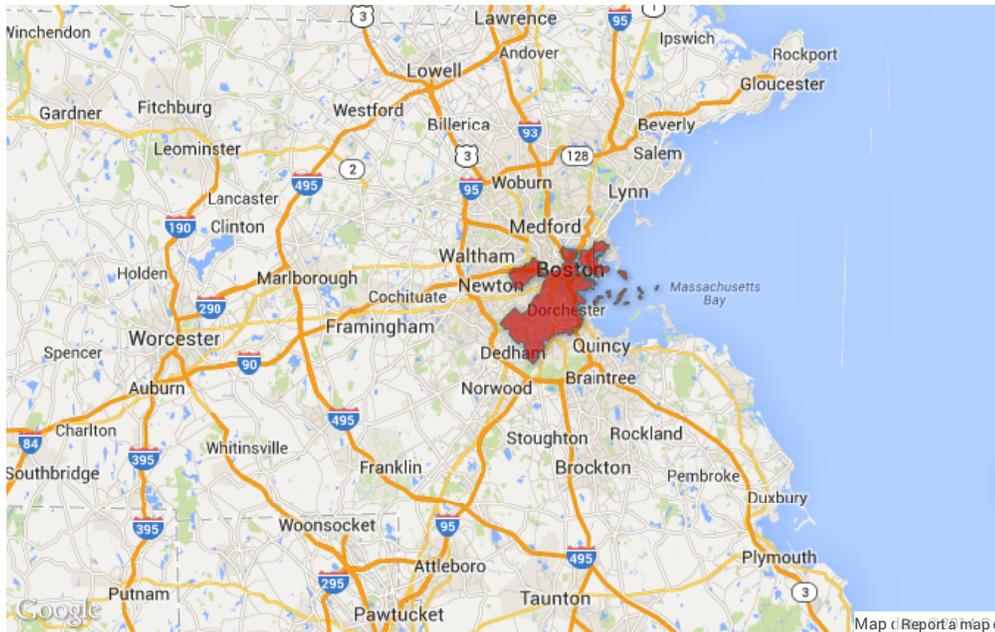
[EEA Home](#) > 
 [Agencies](#) > 
 [Department of Fish & Game](#) > 
 [Fisheries & Wildlife](#) > 
 [Natural Heritage & Endangered Species](#) > 
 [Species Information & Conservation](#) > 
 [Town Species Viewer](#)

## Town Species Viewer

The Natural Heritage & Endangered Species Program maintains a list of all documented MESA-listed species observations in the Commonwealth. Please select a town if you would like to see a table showing which listed species have been observed in that town. The selected town will also be highlighted on the map. Alternatively you can specify either the Common Name or Scientific Name of a species to see it's distribution on the map and table showing the towns it has been observed in. Clicking on a column header in the table will sort the column. Clicking again on the same column heading will reverse the sort order.

The Town List and Species Viewer will be updated at regular intervals as new data is accepted and entered into the NHESP database.

Town:   
 Species (Common Name):   
 Species (Scientific Name):



Questions/Comments to  
[natural.heritage@state.ma.us](mailto:natural.heritage@state.ma.us)  
 Phone: (508) 389-6360

### Species and Conservation Resources

- [Species Information and Conservation](#)
- [NHESP Research and Inventory](#)
- [List of Rare Species in Massachusetts](#)
- [Report Rare Species](#)
- [Request Species Information](#)
- [Biodiversity in the Housatonic River Watershed](#)
- [Scientific Collection Permit \(Education/Research\)](#)
- [Rare Bird Conservation](#)
- [See All](#)



**Division of Fisheries and Wildlife**  
 100 Hartwell Street, Suite 230  
 West Boylston MA 01583  
 Tel: 508-389-6300  
[mass.wildlife@state.ma.us](mailto:mass.wildlife@state.ma.us)

[Contact ALL DFW Offices](#)

Showing 1 to 10 of 46 entries

Search:

Town	Taxonomic Group	Scientific Name	Common Name	MESA Status	Most Recent Obs
BOSTON	Butterfly/Moth	Abagrotis nefascia	Coastal Heathland Cutworm	SC	2001
BOSTON	Bird	Accipiter striatus	Sharp-shinned Hawk	SC	1898

Download data as [xls](#) or [csv](#) file.

**Endangered Species by Town: Boston**

<u>Town</u>	<u>Taxonomic Group</u>	<u>ScientificName</u>	<u>CommonName</u>	<u>MESA Status</u>	<u>Federal Status</u>	<u>Most Recent Observation</u>
BOSTON	Butterfly/Moth	Abagrotis nefascia	Coastal Heathland Cutworm	SC		2001
BOSTON	Bird	Accipiter striatus	Sharp-shinned Hawk	SC		1898
BOSTON	Vascular Plant	Ageratina aromatica	Lesser Snakeroot	E		1896
BOSTON	Amphibian	Ambystoma laterale	Blue-spotted Salamander	SC		2013
BOSTON	Bird	Ammodramus savannarum	Grasshopper Sparrow	T		1993
BOSTON	Butterfly/Moth	Apodrepanulatrix liberaria	New Jersey Tea Inchworm	E		Historic
BOSTON	Vascular Plant	Aristida purpurascens	Purple Needlegrass	T		1800s
BOSTON	Vascular Plant	Aristida tuberculosa	Seabeach Needlegrass	T		1877
BOSTON	Vascular Plant	Asclepias verticillata	Linear-leaved Milkweed	T		1878
BOSTON	Bird	Bartramia longicauda	Upland Sandpiper	E		1993
BOSTON	Vascular Plant	Boechera missouriensis	Green Rock-cress	T		1930
BOSTON	Vascular Plant	Carex striata	Walter's Sedge	E		Historic
BOSTON	Bird	Charadrius melodus	Piping Plover	T	T	2011
BOSTON	Beetle	Cicindela duodecimguttata	Twelve-spotted Tiger Beetle	SC		1910
BOSTON	Beetle	Cicindela purpurea	Cow Path Tiger Beetle	SC		1928
BOSTON	Beetle	Cicindela rufiventris hentzii	Eastern Red-bellied Tiger Beetle	T		1927
BOSTON	Vascular Plant	Desmodium cuspidatum	Large-bracted Tick-trefoil	T		1896
BOSTON	Vascular Plant	Eriophorum gracile	Slender Cottongrass	T		1885
BOSTON	Bird	Falco peregrinus	Peregrine Falcon	E		2013
BOSTON	Fish	Gasterosteus aculeatus	Threespine Stickleback	T		2000
BOSTON	Bird	Gavia immer	Common Loon	SC		1824
BOSTON	Vascular Plant	Houstonia longifolia	Long-leaved Bluet	E		1918
BOSTON	Vascular Plant	Liatis scariosa var. novae-angliae	New England Blazing Star	SC		1933
BOSTON	Mussel	Ligumia nasuta	Eastern Pondmussel	SC		1841
BOSTON	Vascular Plant	Linum medium var. texanum	Rigid Flax	T		1909
BOSTON	Vascular Plant	Lycopus rubellus	Gypsywort	E		1896
BOSTON	Butterfly/Moth	Metarranthis apiciaria	Barrens Metarranthis	E		1934
BOSTON	Vascular Plant	Myriophyllum alterniflorum	Alternate-flowered Water-milfoil	E		Historic
BOSTON	Vascular Plant	Ophioglossum pusillum	Adder's-tongue Fern	T		1884
BOSTON	Vascular Plant	Platanthera flava var. herbiola	Pale Green Orchis	T		1908
BOSTON	Bird	Poocetes gramineus	Vesper Sparrow	T		1985
BOSTON	Butterfly/Moth	Pyrrhia aurantiago	Orange Sallow Moth	SC		1988
BOSTON	Vascular Plant	Ranunculus micranthus	Tiny-flowered Buttercup	E		1891
BOSTON	Vascular Plant	Rumex pallidus	Seabeach Dock	T		1984
BOSTON	Vascular Plant	Sanicula odorata	Long-styled Sanicle	T		Historic
BOSTON	Amphibian	Scaphiopus holbrookii	Eastern Spadefoot	T		1932
BOSTON	Vascular Plant	Scirpus longii	Long's Bulrush	T		1907
BOSTON	Vascular Plant	Setaria parviflora	Bristly Foxtail	SC		2001
BOSTON	Dragonfly/Damselfly	Somatochlora linearis	Mocha Emerald	SC		2009
BOSTON	Bird	Sterna hirundo	Common Tern	SC		2012
BOSTON	Bird	Sternula antillarum	Least Tern	SC		2012
BOSTON	Vascular Plant	Suaeda calceoliformis	American Sea-blite	SC		1909
BOSTON	Reptile	Terrapene carolina	Eastern Box Turtle	SC		1939
BOSTON	Bird	Tyto alba	Barn Owl	SC		1989
BOSTON	Bird	Vermivora chrysoptera	Golden-winged Warbler	E		Historic
BOSTON	Vascular Plant	Viola brittoniana	Britton's Violet	T		1909

**FEDERALLY LISTED ENDANGERED AND THREATENED SPECIES  
IN MASSACHUSETTS**

COUNTY	SPECIES	FEDERAL STATUS	GENERAL LOCATION/HABITAT	TOWNS
Barnstable	Piping Plover	Threatened	Coastal Beaches	All Towns
	Roseate Tern	Endangered	Coastal beaches and the Atlantic Ocean	All Towns
	Northeastern beach tiger beetle	Threatened	Coastal Beaches	Chatham
	Sandplain gerardia	Endangered	Open areas with sandy soils.	Sandwich and Falmouth.
	Northern Red-bellied Cooter	Endangered	Inland Ponds and Rivers	Bourne (north of the Cape Cod Canal)
Berkshire	Bog Turtle	Threatened	Wetlands	Egremont and Sheffield
Bristol	Piping Plover	Threatened	Coastal Beaches	Fairhaven, Dartmouth, Westport
	Roseate Tern	Endangered	Coastal beaches and the Atlantic Ocean	Fairhaven, New Bedford, Dartmouth, Westport
	Northern Red-bellied Cooter	Endangered	Inland Ponds and Rivers	Taunton
Dukes	Roseate Tern	Endangered	Coastal beaches and the Atlantic Ocean	All Towns
	Piping Plover	Threatened	Coastal Beaches	All Towns
	Northeastern beach tiger beetle	Threatened	Coastal Beaches	Aquinnah and Chilmark
	Sandplain gerardia	Endangered	Open areas with sandy soils.	West Tisbury
Essex	Small whorled Pogonia	Threatened	Forests with somewhat poorly drained soils and/or a seasonally high water table	Gloucester, Essex and Manchester
	Piping Plover	Threatened	Coastal Beaches	Gloucester, Essex, Ipswich, Rowley, Revere, Newbury, Newburyport and Salisbury
Franklin	Northeastern bulrush	Endangered	Wetlands	Montague, Warwick
	Dwarf wedgemussel	Endangered	Mill River	Whately
Hampshire	Small whorled Pogonia	Threatened	Forests with somewhat poorly drained soils and/or a seasonally high water table	Hadley
	Puritan tiger beetle	Threatened	Sandy beaches along the Connecticut River	Northampton and Hadley
	Dwarf wedgemussel	Endangered	Rivers and Streams.	Hatfield, Amherst and Northampton
Hampden	Small whorled Pogonia	Threatened	Forests with somewhat poorly drained soils and/or a seasonally high water table	Southwick
Middlesex	Small whorled Pogonia	Threatened	Forests with somewhat poorly drained soils and/or a seasonally high water table	Groton
Nantucket	Piping Plover	Threatened	Coastal Beaches	Nantucket
	Roseate Tern	Endangered	Coastal beaches and the Atlantic Ocean	Nantucket
	American burying beetle	Endangered	Upland grassy meadows	Nantucket
Plymouth	Piping Plover	Threatened	Coastal Beaches	Scituate, Marshfield, Duxbury, Plymouth, Wareham and Mattapoisett
	Northern Red-bellied Cooter	Endangered	Inland Ponds and Rivers	Kingston, Middleborough, Carver, Plymouth, Bourne, Wareham, Halifax, and Pembroke
	Roseate Tern	Endangered	Coastal beaches and the Atlantic Ocean	Plymouth, Marion, Wareham, and Mattapoisett.
Suffolk	Piping Plover	Threatened	Coastal Beaches	Winthrop
Worcester	Small whorled Pogonia	Threatened	Forests with somewhat poorly drained soils and/or a seasonally high water table	Leominster

- Eastern cougar and gray wolf are considered extirpated in Massachusetts.
- Endangered gray wolves are not known to be present in Massachusetts, but dispersing individuals from source populations in Canada may occur statewide.
- Critical habitat for the Northern Red-bellied Cooter is present in Plymouth County.

---

# MASSACHUSETTS AREAS OF CRITICAL ENVIRONMENTAL CONCERN

November 2010

---

**Total Approximate Acreage: 268,000 acres**

Approximate acreage and designation date follow ACEC names below.

---

**Bourne Back River**

(1,850 acres, 1989) Bourne

**Canoe River Aquifer and Associated Areas** (17,200 acres, 1991) Easton, Foxborough, Mansfield, Norton, Sharon, and Taunton

**Cedar Swamp**

(1,650 acres, 1975) Hopkinton and Westborough

**Central Nashua River Valley**

(12,900 acres, 1996) Bolton, Harvard, Lancaster, and Leominster

**Cranberry Brook Watershed**

(1,050 acres, 1983) Braintree and Holbrook

**Ellisville Harbor**

(600 acres, 1980) Plymouth

**Fowl Meadow and Ponkapoag Bog**

(8,350 acres, 1992) Boston, Canton, Dedham, Milton, Norwood, Randolph, Sharon, and Westwood

**Golden Hills**

(500 acres, 1987) Melrose, Saugus, and Wakefield

**Great Marsh (originally designated as Parker River/Essex Bay)**

(25,500 acres, 1979) Essex, Gloucester, Ipswich, Newbury, and Rowley

**Herring River Watershed**

(4,450 acres, 1991) Bourne and Plymouth

**Hinsdale Flats Watershed**

(14,500 acres, 1992) Dalton, Hinsdale, Peru, and Washington

**Hockomock Swamp**

(16,950 acres, 1990) Bridgewater, Easton, Norton, Raynham, Taunton, and West Bridgewater

**Inner Cape Cod Bay**

(2,600 acres, 1985) Brewster, Eastham, and Orleans

**Kampoosa Bog Drainage Basin**

(1,350 acres, 1995) Lee and Stockbridge

**Karner Brook Watershed**

(7,000 acres, 1992) Egremont and Mount Washington

**Miscoe, Warren, and Whitehall Watersheds**

(8,700 acres, 2000) Grafton, Hopkinton, and Upton

**Neponset River Estuary**

(1,300 acres, 1995) Boston, Milton, and Quincy

**Petapawag**

(25,680 acres, 2002) Ayer, Dunstable, Groton, Pepperell, and Tyngsborough

**Pleasant Bay**

(9,240 acres, 1987) Brewster, Chatham, Harwich, and Orleans

**Pocasset River**

(160 acres, 1980) Bourne

**Rumney Marshes**

(2,800 acres, 1988) Boston, Lynn, Revere, Saugus, and Winthrop

**Sandy Neck Barrier Beach System**

(9,130 acres, 1978) Barnstable and Sandwich

**Schenob Brook Drainage Basin**

(13,750 acres, 1990) Mount Washington and Sheffield

**Squannassit**

(37,420 acres, 2002) Ashby, Ayer, Groton, Harvard, Lancaster, Lunenburg, Pepperell, Shirley, and Townsend

**Three Mile River Watershed**

(14,280 acres, 2008) Dighton, Norton, Taunton

**Upper Housatonic River**

(12,280 acres, 2009) Lee, Lenox, Pittsfield, Washington

**Waquoit Bay**

(2,580 acres, 1979) Falmouth and Mashpee

**Weir River**

(950 acres, 1986) Cohasset, Hingham, and Hull

**Wellfleet Harbor**

(12,480 acres, 1989) Eastham, Truro, and Wellfleet

**Weymouth Back River**

(800 acres, 1982) Hingham and Weymouth

**Towns with ACECs within their Boundaries**
**November 2010**

<b>TOWN</b>	<b>ACEC</b>	<b>TOWN</b>	<b>ACEC</b>
Ashby	Squannassit	Mt. Washington	Karner Brook Watershed
Ayer	Petapawag		Schenob Brook
	Squannassit	Newbury	Great Marsh
Barnstable	Sandy Neck Barrier Beach System	Norton	Hockomock Swamp
Bolton	Central Nashua River Valley		Canoe River Aquifer
Boston	Rumney Marshes		Three Mile River Watershed
	Fowl Meadow and Ponkapoag Bog	Norwood	Fowl Meadow and Ponkapoag Bog
	Neponset River Estuary	Orleans	Inner Cape Cod Bay
Bourne	Pocasset River		Pleasant Bay
	Bourne Back River	Pepperell	Petapawag
	Herring River Watershed		Squannassit
Braintree	Cranberry Brook Watershed	Peru	Hinsdale Flats Watershed
Brewster	Pleasant Bay	Pittsfield	Upper Housatonic River
	Inner Cape Cod Bay	Plymouth	Herring River Watershed
Bridgewater	Hockomock Swamp		Ellisville Harbor
Canton	Fowl Meadow and Ponkapoag Bog	Quincy	Neponset River Estuary
Chatham	Pleasant Bay	Randolph	Fowl Meadow and Ponkapoag Bog
Cohasset	Weir River	Raynham	Hockomock Swamp
Dalton	Hinsdale Flats Watershed	Revere	Rumney Marshes
Dedham	Fowl Meadow and Ponkapoag Bog	Rowley	Great Marsh
Dighton	Three Mile River Watershed	Sandwich	Sandy Neck Barrier Beach System
Dunstable	Petapawag	Saugus	Rumney Marshes
Eastham	Inner Cape Cod Bay		Golden Hills
	Wellfleet Harbor	Sharon	Canoe River Aquifer
Easton	Canoe River Aquifer		Fowl Meadow and Ponkapoag Bog
	Hockomock Swamp	Sheffield	Schenob Brook
Egremont	Karner Brook Watershed	Shirley	Squannassit
Essex	Great Marsh	Stockbridge	Kampoosa Bog Drainage Basin
Falmouth	Waquoit Bay	Taunton	Hockomock Swamp
Foxborough	Canoe River Aquifer		Canoe River Aquifer
Gloucester	Great Marsh		Three Mile River Watershed
Grafton	Miscoe-Warren-Whitehall Watersheds	Truro	Wellfleet Harbor
		Townsend	Squannassit
Groton	Petapawag	Tyngsborough	Petapawag
	Squannassit	Upton	Miscoe-Warren-Whitehall Watersheds
Harvard	Central Nashua River Valley		
	Squannassit	Wakefield	Golden Hills
Harwich	Pleasant Bay	Washington	Hinsdale Flats Watershed
Hingham	Weir River		Upper Housatonic River
	Weymouth Back River	Wellfleet	Wellfleet Harbor
Hinsdale	Hinsdale Flats Watershed	W Bridgewater	Hockomock Swamp
Holbrook	Cranberry Brook Watershed	Westborough	Cedar Swamp
Hopkinton	Miscoe-Warren-Whitehall Watersheds	Westwood	Fowl Meadow and Ponkapoag Bog
		Weymouth	Weymouth Back River
	Cedar Swamp	Winthrop	Rumney Marshes
Hull	Weir River		
Ipswich	Great Marsh		
Lancaster	Central Nashua River Valley		
	Squannassit		
Lee	Kampoosa Bog Drainage Basin		
	Upper Housatonic River		
Lenox	Upper Housatonic River		
Leominster	Central Nashua River Valley		
Lunenburg	Squannassit		
Lynn	Rumney Marshes		
Mansfield	Canoe River Aquifer		
Mashpee	Waquoit Bay		
Melrose	Golden Hills		
Milton	Fowl Meadow and Ponkapoag Bog		
	Neponset River Estuary		

**Appendix D**  
**National Register of Historic Places and**  
**Massachusetts Historical Commission Documentation**

# Massachusetts Historical Commission

William Francis Galvin, Secretary of the Commonwealth

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[MHC Home](#)

## Massachusetts Cultural Resource Information System **MACRIS**

*Scanned forms and photos now available for selected towns!*

The Massachusetts Cultural Resource Information System (MACRIS) allows you to search the Massachusetts Historical Commission database for information on historic properties and areas in the Commonwealth.

Users of the database should keep in mind that it does not include information on all historic properties and areas in Massachusetts, nor does it reflect all the information on file on historic properties and areas at the Massachusetts Historical Commission.

[Click here to begin your search of the MACRIS database.](#)



[Home](#) | [Search](#) | [Index](#) | [Feedback](#) | [Contact](#)

# Massachusetts Cultural Resource Information System

## MACRIS

[MHC Home](#) | [MACRIS Home](#)
[Login](#)

For more information about this page and how to use it, [click here](#).

**Inventory No:** BOS.5564 

**Historic Name:** United Shoe Machine Corporation

**Common Name:** Boston Wharf Company Building

**Address:** 51 Sleeper St

**City/Town:** Boston

**Village/Neighborhood:** Fort Point Channel; South Boston

**Local No:** 602670000

**Year Constructed:** 1929

**Architect(s):**

**Architectural Style(s):** Altered beyond recognition

**Use(s):** Other Industrial; Undetermined

**Significance:** Architecture; Industry

**Area(s):**  [BOS.CX: Fort Point Channel District](#)  
 [BOS.WZ: Fort Point Channel Historic District](#)  
[BOS.ZG: Fort Point Channel Landmark District](#)

**Designation(s):** Local Historic District (12/9/2008); Nat'l Register District (9/10/2004)

**Building Material(s):** Wall: Concrete, Reinforced


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# Massachusetts Cultural Resource Information System

## MACRIS

[MHC Home](#) | [MACRIS Home](#)[Login](#)

For more information about this page and how to use it, [click here](#).

**Inventory No:** BOS.5537 

**Historic Name:** Boston Wharf Company Warehouse

**Common Name:**

**Address:** 47-53 Farnsworth St

**City/Town:** Boston

**Village/Neighborhood:** Fort Point Channel; South Boston

**Local No:** 602661000

**Year Constructed:** 1895

**Architect(s):** Safford, Morton D.

**Architectural Style(s):** Romanesque Revival

**Use(s):** Undetermined; Warehouse

**Significance:** Architecture; Industry

**Area(s):**  [BOS.CX: Fort Point Channel District](#)  
 [BOS.WZ: Fort Point Channel Historic District](#)  
[BOS.ZG: Fort Point Channel Landmark District](#)

**Designation(s):** Local Historic District (12/9/2008); Nat'l Register District (9/10/2004)

**Building Material(s):** Wall: Brick; Granite; Stone, Cut

[New Search](#)[Previous](#)[MHC Home](#) | [MACRIS Home](#)

**Appendix E**  
**Copy of BWSC Permit Application**



**Boston Water and  
Sewer Commission**  
980 Harrison Avenue  
Boston, MA 02119-2540

## DEWATERING DISCHARGE PERMIT APPLICATION

**OWNER / AUTHORIZED APPLICANT PROVIDE INFORMATION HERE:**

Company Name: Boston Global Investors, LLC Address: One Post Office Square, Suite 1900, Boston, MA 02109

Phone number: 617-350-7577 Fax number: 617-350-7571

Contact person name: Andrew Albers Title: Assistant Vice President

Cell number: 617-710-3335 Email address: aalbers@bginvestors.com

Permit Request (check one):  New Application  Permit Extension  Other (Specify): \_\_\_\_\_

**Owner's Information** (if different from above):

Owner of property being dewatered: MS SEAPORT BLOCK H, LLC

Owner's mailing address: c/o Boston Global Investors, LLC  
One Post Office Square, Suite 1900, Boston, MA 02109 Phone number: 617-350-7577

**Location of Discharge & Proposed Treatment System(s):**

Street number and name: 51-57 Seaport Blvd. Neighborhood South Boston

Discharge is to a:  Sanitary Sewer  Combined Sewer  Storm Drain  Other (specify): \_\_\_\_\_

Describe Proposed Pre-Treatment System(s): Sedimentation Tank and bag filters (if required)

BWSC Outfall No. SDO196 Receiving Waters Fort Point Channel

**Temporary Discharges** (Provide Anticipated Dates of Discharge): From \_\_\_\_\_ To \_\_\_\_\_

<input type="checkbox"/> Groundwater Remediation	<input type="checkbox"/> Tank Removal/Installation	<input checked="" type="checkbox"/> Foundation Excavation
<input type="checkbox"/> Utility/Manhole Pumping	<input type="checkbox"/> Test Pipe	<input type="checkbox"/> Trench Excavation
<input checked="" type="checkbox"/> Accumulated Surface Water	<input type="checkbox"/> Hydrogeologic Testing	<input type="checkbox"/> Other _____

**Permanent Discharges**

<input type="checkbox"/> Foundation Drainage	<input type="checkbox"/> Crawl Space/Footing Drain
<input type="checkbox"/> Accumulated Surface Water	<input type="checkbox"/> Non-contact/Uncontaminated Cooling
<input type="checkbox"/> Non-contact/Uncontaminated Process	<input type="checkbox"/> Other; _____

1. Attach a Site Plan showing the source of the discharge and the location of the point of discharge (i.e. the sewer pipe or catch basin). Include meter type, meter number, size, make and start reading. Note. All discharges to the Commission's sewer system will be assessed current sewer charges. *Refer to Figure 3 of the attached NPDES RGP Permit Application.*
2. If discharging to a sanitary or combined sewer, attach a copy of MWRA's Sewer Use Discharge permit or application.
3. If discharging to a separate storm drain, attach a copy of EPA's NPDES Permit or NOI application, or NPDES Permit exclusion letter for the discharge, as well as other relevant information. *Refer to copy of NPDES RGP Permit Application.*
4. Dewatering Drainage Permit will be denied or revoked if applicant fails to obtain the necessary permits from MWRA or EPA.

**Submit Completed Application to:** Boston Water and Sewer Commission  
Engineering Customer Services  
980 Harrison Avenue, Boston, MA 02119  
Attn: Francis M. McLaughlin, Manager Engineering Customer Services  
E-mail: [MclaughlinF@bwsc.org](mailto:MclaughlinF@bwsc.org)  
Phone: 617-989-7208 Fax: 617-989-7716

**BWSC Use Only:** Date Received \_\_\_\_\_ Comments: \_\_\_\_\_

**Appendix F**  
**Laboratory Data Reports**



## ANALYTICAL REPORT

Lab Number:	L1412713
Client:	Haley & Aldrich, Inc. 465 Medford Street, Suite 2200 Charlestown, MA 02129-1400
ATTN:	Heather Scranton
Phone:	(617) 886-7400
Project Name:	SEAPORT SQUARE PARCEL H
Project Number:	34099-450
Report Date:	06/17/14

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508-898-9220 (Fax) 508-898-9193 800-624-9220 - [www.alphalab.com](http://www.alphalab.com)



**Project Name:** SEAPORT SQUARE PARCEL H  
**Project Number:** 34099-450

**Lab Number:** L1412713  
**Report Date:** 06/17/14

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Sample Location</b>	<b>Collection Date/Time</b>
L1412713-01	HA-H3-06-11-14	Not Specified	06/11/14 14:30
L1412713-02	TB-06-11-14	Not Specified	06/11/14 00:00
L1412713-03	HA-H3-06-11-14 FILTERED	Not Specified	06/11/14 00:00

**Project Name:** SEAPORT SQUARE PARCEL H  
**Project Number:** 34099-450

**Lab Number:** L1412713  
**Report Date:** 06/17/14

### Case Narrative

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

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for 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.

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**Project Name:** SEAPORT SQUARE PARCEL H  
**Project Number:** 34099-450

**Lab Number:** L1412713  
**Report Date:** 06/17/14

### Case Narrative (continued)

#### Semivolatile Organics

The WG698005-3 LCSD recovery, associated with L1412713-01 (HA-H3-06-11-14), is below the acceptance criteria for benzidine (8%); however, it has been identified as a "difficult" analyte. The results of the associated samples are reported.

#### Metals

The WG698109-2 LCS recovery, associated with L1412713-01 (HA-H3-06-11-14), is above the acceptance criteria for mercury (116%); however, the associated sample is non-detect for this target compound. The results of the original analysis are reported.

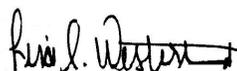
The WG697442-3 Laboratory Duplicate RPD, performed on L1412713-01 (HA-H3-06-11-14), is above the acceptance criteria for antimony (32%); however, the sample and duplicate results are less than five times the reporting limit. Therefore, the RPD is valid.

#### Cyanide, Total

WG698282: An MS/MSD was performed in lieu of a Matrix Spike and Laboratory Duplicate.

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:

 Lisa Westerlind

Title: Technical Director/Representative

Date: 06/17/14

# ORGANICS

# VOLATILES

**Project Name:** SEAPORT SQUARE PARCEL H**Lab Number:** L1412713**Project Number:** 34099-450**Report Date:** 06/17/14**SAMPLE RESULTS**

**Lab ID:** L1412713-01  
**Client ID:** HA-H3-06-11-14  
**Sample Location:** Not Specified  
**Matrix:** Water  
**Analytical Method:** 1,8260C  
**Analytical Date:** 06/16/14 17:27  
**Analyst:** PD

**Date Collected:** 06/11/14 14:30  
**Date Received:** 06/11/14  
**Field Prep:** See Narrative

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
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
1,2-Dichlorobenzene	ND		ug/l	2.5	--	1

**Project Name:** SEAPORT SQUARE PARCEL H**Lab Number:** L1412713**Project Number:** 34099-450**Report Date:** 06/17/14**SAMPLE RESULTS**

Lab ID: L1412713-01  
 Client ID: HA-H3-06-11-14  
 Sample Location: Not Specified

Date Collected: 06/11/14 14:30  
 Date Received: 06/11/14  
 Field Prep: See Narrative

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
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
1,2,3-Trichlorobenzene	ND		ug/l	2.5	--	1

**Project Name:** SEAPORT SQUARE PARCEL H**Lab Number:** L1412713**Project Number:** 34099-450**Report Date:** 06/17/14**SAMPLE RESULTS**

Lab ID: L1412713-01  
 Client ID: HA-H3-06-11-14  
 Sample Location: Not Specified

Date Collected: 06/11/14 14:30  
 Date Received: 06/11/14  
 Field Prep: See Narrative

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
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	120		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	97		70-130
Dibromofluoromethane	113		70-130

**Project Name:** SEAPORT SQUARE PARCEL H**Lab Number:** L1412713**Project Number:** 34099-450**Report Date:** 06/17/14**SAMPLE RESULTS**

**Lab ID:** L1412713-01  
**Client ID:** HA-H3-06-11-14  
**Sample Location:** Not Specified  
**Matrix:** Water  
**Analytical Method:** 1,8260C-SIM(M)  
**Analytical Date:** 06/16/14 17:27  
**Analyst:** PD

**Date Collected:** 06/11/14 14:30  
**Date Received:** 06/11/14  
**Field Prep:** See Narrative

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:** SEAPORT SQUARE PARCEL H**Lab Number:** L1412713**Project Number:** 34099-450**Report Date:** 06/17/14**SAMPLE RESULTS**

Lab ID: L1412713-02  
 Client ID: TB-06-11-14  
 Sample Location: Not Specified  
 Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 06/16/14 18:02  
 Analyst: PD

Date Collected: 06/11/14 00:00  
 Date Received: 06/11/14  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
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
1,2-Dichlorobenzene	ND		ug/l	2.5	--	1

**Project Name:** SEAPORT SQUARE PARCEL H**Lab Number:** L1412713**Project Number:** 34099-450**Report Date:** 06/17/14**SAMPLE RESULTS**

Lab ID: L1412713-02

Date Collected: 06/11/14 00:00

Client ID: TB-06-11-14

Date Received: 06/11/14

Sample Location: Not Specified

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
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
1,2,3-Trichlorobenzene	ND		ug/l	2.5	--	1

**Project Name:** SEAPORT SQUARE PARCEL H**Lab Number:** L1412713**Project Number:** 34099-450**Report Date:** 06/17/14**SAMPLE RESULTS**

Lab ID: L1412713-02

Date Collected: 06/11/14 00:00

Client ID: TB-06-11-14

Date Received: 06/11/14

Sample Location: Not Specified

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
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	118		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	115		70-130

**Project Name:** SEAPORT SQUARE PARCEL H**Lab Number:** L1412713**Project Number:** 34099-450**Report Date:** 06/17/14**SAMPLE RESULTS**

**Lab ID:** L1412713-02  
**Client ID:** TB-06-11-14  
**Sample Location:** Not Specified  
**Matrix:** Water  
**Analytical Method:** 1,8260C-SIM(M)  
**Analytical Date:** 06/16/14 18:02  
**Analyst:** PD

**Date Collected:** 06/11/14 00:00  
**Date Received:** 06/11/14  
**Field Prep:** Not Specified

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:** SEAPORT SQUARE PARCEL H**Lab Number:** L1412713**Project Number:** 34099-450**Report Date:** 06/17/14**Method Blank Analysis  
Batch Quality Control**

Analytical Method: 1,8260C-SIM(M)

Analytical Date: 06/16/14 13:18

Analyst: PD

<b>Parameter</b>	<b>Result</b>	<b>Qualifier</b>	<b>Units</b>	<b>RL</b>	<b>MDL</b>
Volatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01-02 Batch: WG698267-3					
1,4-Dioxane	ND		ug/l	3.0	--

**Project Name:** SEAPORT SQUARE PARCEL H  
**Project Number:** 34099-450

**Lab Number:** L1412713  
**Report Date:** 06/17/14

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 06/16/14 13:18  
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-02 Batch: WG698293-3					
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	--
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	--
1,2-Dichloroethene, Total	ND		ug/l	0.50	--
Trichloroethene	ND		ug/l	0.50	--
1,2-Dichlorobenzene	ND		ug/l	2.5	--

**Project Name:** SEAPORT SQUARE PARCEL H  
**Project Number:** 34099-450

**Lab Number:** L1412713  
**Report Date:** 06/17/14

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 06/16/14 13:18  
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-02 Batch: WG698293-3					
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	--
Xylenes, 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	--
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	--

**Project Name:** SEAPORT SQUARE PARCEL H  
**Project Number:** 34099-450

**Lab Number:** L1412713  
**Report Date:** 06/17/14

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 06/16/14 13:18  
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-02 Batch: WG698293-3					
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	--
1,2,4-Trimethylbenzene	ND		ug/l	2.5	--
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	--
Ethyl ether	ND		ug/l	2.5	--
Tert-Butyl Alcohol	ND		ug/l	10	--
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	117		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	96		70-130
Dibromofluoromethane	111		70-130

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** SEAPORT SQUARE PARCEL H

**Project Number:** 34099-450

**Lab Number:** L1412713

**Report Date:** 06/17/14

Parameter	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>%Recovery</i> Limits	<i>RPD</i>	<i>Qual</i>	<i>RPD</i> Limits
Volatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01-02 Batch: WG698267-1 WG698267-2								
1,4-Dioxane	110		95		70-130	15		25

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: SEAPORT SQUARE PARCEL H

Lab Number: L1412713

Project Number: 34099-450

Report Date: 06/17/14

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 Batch: WG698293-1 WG698293-2								
Methylene chloride	110		112		70-130	2		20
1,1-Dichloroethane	107		107		70-130	0		20
Chloroform	118		122		70-130	3		20
Carbon tetrachloride	137	Q	132		63-132	4		20
1,2-Dichloropropane	100		100		70-130	0		20
Dibromochloromethane	126		127		63-130	1		20
1,1,2-Trichloroethane	106		110		70-130	4		20
Tetrachloroethene	129		128		70-130	1		20
Chlorobenzene	116		116		75-130	0		25
Trichlorofluoromethane	131		128		62-150	2		20
1,2-Dichloroethane	120		121		70-130	1		20
1,1,1-Trichloroethane	138	Q	137	Q	67-130	1		20
Bromodichloromethane	118		120		67-130	2		20
trans-1,3-Dichloropropene	100		101		70-130	1		20
cis-1,3-Dichloropropene	111		112		70-130	1		20
1,1-Dichloropropene	113		110		70-130	3		20
Bromoform	120		124		54-136	3		20
1,1,2,2-Tetrachloroethane	96		98		67-130	2		20
Benzene	107		108		70-130	1		25
Toluene	110		110		70-130	0		25
Ethylbenzene	116		115		70-130	1		20

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** SEAPORT SQUARE PARCEL H

**Lab Number:** L1412713

**Project Number:** 34099-450

**Report Date:** 06/17/14

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 Batch: WG698293-1 WG698293-2								
Chloromethane	62	Q	74		64-130	18		20
Bromomethane	80		86		39-139	7		20
Vinyl chloride	108		112		55-140	4		20
Chloroethane	117		116		55-138	1		20
1,1-Dichloroethene	116		115		61-145	1		25
trans-1,2-Dichloroethene	111		115		70-130	4		20
Trichloroethene	115		114		70-130	1		25
1,2-Dichlorobenzene	110		113		70-130	3		20
1,3-Dichlorobenzene	112		114		70-130	2		20
1,4-Dichlorobenzene	112		114		70-130	2		20
Methyl tert butyl ether	114		119		63-130	4		20
p/m-Xylene	120		119		70-130	1		20
o-Xylene	119		120		70-130	1		20
cis-1,2-Dichloroethene	112		110		70-130	2		20
Dibromomethane	114		116		70-130	2		20
1,4-Dichlorobutane	92		96		70-130	4		20
1,2,3-Trichloropropane	102		108		64-130	6		20
Styrene	121		121		70-130	0		20
Dichlorodifluoromethane	98		96		36-147	2		20
Acetone	95		84		58-148	12		20
Carbon disulfide	97		97		51-130	0		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: SEAPORT SQUARE PARCEL H

Lab Number: L1412713

Project Number: 34099-450

Report Date: 06/17/14

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 Batch: WG698293-1 WG698293-2								
2-Butanone	72		75		63-138	4		20
Vinyl acetate	91		92		70-130	1		20
4-Methyl-2-pentanone	90		94		59-130	4		20
2-Hexanone	82		86		57-130	5		20
Ethyl methacrylate	97		102		70-130	5		20
Acrylonitrile	88		93		70-130	6		20
Bromochloromethane	126		128		70-130	2		20
Tetrahydrofuran	81		84		58-130	4		20
2,2-Dichloropropane	135	Q	130		63-133	4		20
1,2-Dibromoethane	118		120		70-130	2		20
1,3-Dichloropropane	105		109		70-130	4		20
1,1,1,2-Tetrachloroethane	138	Q	139	Q	64-130	1		20
Bromobenzene	115		118		70-130	3		20
n-Butylbenzene	103		106		53-136	3		20
sec-Butylbenzene	106		108		70-130	2		20
tert-Butylbenzene	111		114		70-130	3		20
o-Chlorotoluene	108		107		70-130	1		20
p-Chlorotoluene	108		112		70-130	4		20
1,2-Dibromo-3-chloropropane	93		96		41-144	3		20
Hexachlorobutadiene	108		110		63-130	2		20
Isopropylbenzene	116		117		70-130	1		20

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** SEAPORT SQUARE PARCEL H  
**Project Number:** 34099-450

**Lab Number:** L1412713  
**Report Date:** 06/17/14

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 Batch: WG698293-1 WG698293-2								
p-Isopropyltoluene	112		113		70-130	1		20
Naphthalene	100		110		70-130	10		20
n-Propylbenzene	107		108		69-130	1		20
1,2,3-Trichlorobenzene	99		105		70-130	6		20
1,2,4-Trichlorobenzene	103		106		70-130	3		20
1,3,5-Trimethylbenzene	113		115		64-130	2		20
1,2,4-Trimethylbenzene	111		113		70-130	2		20
trans-1,4-Dichloro-2-butene	93		97		70-130	4		20
Ethyl ether	131		128		59-134	2		20
Tert-Butyl Alcohol	120		94		70-130	24	Q	20
Tertiary-Amyl Methyl Ether	100		102		66-130	2		20

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
1,2-Dichloroethane-d4		113		110	70-130
Toluene-d8		98		98	70-130
4-Bromofluorobenzene		93		94	70-130
Dibromofluoromethane		114		114	70-130

# SEMIVOLATILES

**Project Name:** SEAPORT SQUARE PARCEL H**Lab Number:** L1412713**Project Number:** 34099-450**Report Date:** 06/17/14**SAMPLE RESULTS**

Lab ID: L1412713-01  
 Client ID: HA-H3-06-11-14  
 Sample Location: Not Specified  
 Matrix: Water  
 Analytical Method: 1,8270D  
 Analytical Date: 06/16/14 21:06  
 Analyst: JB

Date Collected: 06/11/14 14:30  
 Date Received: 06/11/14  
 Field Prep: See Narrative  
 Extraction Method: EPA 3510C  
 Extraction Date: 06/15/14 00:19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
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
n-Nitrosodimethylamine	ND		ug/l	2.0	--	1

**Project Name:** SEAPORT SQUARE PARCEL H**Lab Number:** L1412713**Project Number:** 34099-450**Report Date:** 06/17/14**SAMPLE RESULTS**

Lab ID: L1412713-01  
 Client ID: HA-H3-06-11-14  
 Sample Location: Not Specified

Date Collected: 06/11/14 14:30  
 Date Received: 06/11/14  
 Field Prep: See Narrative

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
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	31		21-120
Phenol-d6	19		10-120
Nitrobenzene-d5	63		23-120
2-Fluorobiphenyl	66		15-120
2,4,6-Tribromophenol	83		10-120
4-Terphenyl-d14	80		41-149

**Project Name:** SEAPORT SQUARE PARCEL H  
**Project Number:** 34099-450

**Lab Number:** L1412713  
**Report Date:** 06/17/14

**SAMPLE RESULTS**

Lab ID: L1412713-01  
 Client ID: HA-H3-06-11-14  
 Sample Location: Not Specified  
 Matrix: Water  
 Analytical Method: 1,8270D-SIM  
 Analytical Date: 06/13/14 17:15  
 Analyst: MW

Date Collected: 06/11/14 14:30  
 Date Received: 06/11/14  
 Field Prep: See Narrative  
 Extraction Method: EPA 3510C  
 Extraction Date: 06/12/14 15:33

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS-SIM - Westborough Lab</b>						
Acenaphthene	ND		ug/l	0.20	--	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	ND		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

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	44		21-120
Phenol-d6	29		10-120
Nitrobenzene-d5	61		23-120
2-Fluorobiphenyl	79		15-120
2,4,6-Tribromophenol	91		10-120
4-Terphenyl-d14	76		41-149

**Project Name:** SEAPORT SQUARE PARCEL H  
**Project Number:** 34099-450

**Lab Number:** L1412713  
**Report Date:** 06/17/14

**Method Blank Analysis**  
**Batch Quality Control**

**Analytical Method:** 1,8270D-SIM  
**Analytical Date:** 06/13/14 14:51  
**Analyst:** MW

**Extraction Method:** EPA 3510C  
**Extraction Date:** 06/12/14 15:33

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01 Batch: WG697451-1					
Acenaphthene	ND		ug/l	0.20	--
2-Chloronaphthalene	ND		ug/l	0.20	--
Fluoranthene	ND		ug/l	0.20	--
Hexachlorobutadiene	ND		ug/l	0.50	--
Naphthalene	ND		ug/l	0.20	--
Benzo(a)anthracene	ND		ug/l	0.20	--
Benzo(a)pyrene	ND		ug/l	0.20	--
Benzo(b)fluoranthene	ND		ug/l	0.20	--
Benzo(k)fluoranthene	ND		ug/l	0.20	--
Chrysene	ND		ug/l	0.20	--
Acenaphthylene	ND		ug/l	0.20	--
Anthracene	ND		ug/l	0.20	--
Benzo(ghi)perylene	ND		ug/l	0.20	--
Fluorene	ND		ug/l	0.20	--
Phenanthrene	ND		ug/l	0.20	--
Dibenzo(a,h)anthracene	ND		ug/l	0.20	--
Indeno(1,2,3-cd)Pyrene	ND		ug/l	0.20	--
Pyrene	ND		ug/l	0.20	--
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:** SEAPORT SQUARE PARCEL H**Lab Number:** L1412713**Project Number:** 34099-450**Report Date:** 06/17/14

**Method Blank Analysis  
Batch Quality Control**

Analytical Method: 1,8270D-SIM

Extraction Method: EPA 3510C

Analytical Date: 06/13/14 14:51

Extraction Date: 06/12/14 15:33

Analyst: MW

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01 Batch: WG697451-1					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	43		21-120
Phenol-d6	28		10-120
Nitrobenzene-d5	65		23-120
2-Fluorobiphenyl	85		15-120
2,4,6-Tribromophenol	87		10-120
4-Terphenyl-d14	83		41-149

**Project Name:** SEAPORT SQUARE PARCEL H  
**Project Number:** 34099-450

**Lab Number:** L1412713  
**Report Date:** 06/17/14

**Method Blank Analysis**  
**Batch Quality Control**

**Analytical Method:** 1,8270D  
**Analytical Date:** 06/16/14 17:09  
**Analyst:** JB

**Extraction Method:** EPA 3510C  
**Extraction Date:** 06/15/14 00:19

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG698005-1					
Benzidine	ND		ug/l	20	--
1,2,4-Trichlorobenzene	ND		ug/l	5.0	--
Bis(2-chloroethyl)ether	ND		ug/l	2.0	--
1,2-Dichlorobenzene	ND		ug/l	2.0	--
1,3-Dichlorobenzene	ND		ug/l	2.0	--
1,4-Dichlorobenzene	ND		ug/l	2.0	--
3,3'-Dichlorobenzidine	ND		ug/l	5.0	--
2,4-Dinitrotoluene	ND		ug/l	5.0	--
2,6-Dinitrotoluene	ND		ug/l	5.0	--
Azobenzene	ND		ug/l	2.0	--
4-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	--
Hexachlorocyclopentadiene	ND		ug/l	20	--
Isophorone	ND		ug/l	5.0	--
Nitrobenzene	ND		ug/l	2.0	--
NDPA/DPA	ND		ug/l	2.0	--
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	--
Butyl benzyl phthalate	ND		ug/l	5.0	--
Di-n-butylphthalate	ND		ug/l	5.0	--
Di-n-octylphthalate	ND		ug/l	5.0	--
Diethyl phthalate	ND		ug/l	5.0	--
Dimethyl phthalate	ND		ug/l	5.0	--
Aniline	ND		ug/l	2.0	--
4-Chloroaniline	ND		ug/l	5.0	--
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	--
n-Nitrosodimethylamine	ND		ug/l	2.0	--

**Project Name:** SEAPORT SQUARE PARCEL H  
**Project Number:** 34099-450

**Lab Number:** L1412713  
**Report Date:** 06/17/14

**Method Blank Analysis  
Batch Quality Control**

**Analytical Method:** 1,8270D  
**Analytical Date:** 06/16/14 17:09  
**Analyst:** JB

**Extraction Method:** EPA 3510C  
**Extraction Date:** 06/15/14 00:19

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG698005-1					
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	--
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	--
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	29		21-120
Phenol-d6	18		10-120
Nitrobenzene-d5	62		23-120
2-Fluorobiphenyl	61		15-120
2,4,6-Tribromophenol	70		10-120
4-Terphenyl-d14	80		41-149

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** SEAPORT SQUARE PARCEL H

**Lab Number:** L1412713

**Project Number:** 34099-450

**Report Date:** 06/17/14

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: WG697451-2 WG697451-3								
Acenaphthene	74		77		37-111	4		40
2-Chloronaphthalene	78		83		40-140	6		40
Fluoranthene	86		87		40-140	1		40
Hexachlorobutadiene	72		77		40-140	7		40
Naphthalene	70		74		40-140	6		40
Benzo(a)anthracene	87		90		40-140	3		40
Benzo(a)pyrene	87		90		40-140	3		40
Benzo(b)fluoranthene	89		91		40-140	2		40
Benzo(k)fluoranthene	86		90		40-140	5		40
Chrysene	84		86		40-140	2		40
Acenaphthylene	79		84		40-140	6		40
Anthracene	84		85		40-140	1		40
Benzo(ghi)perylene	83		86		40-140	4		40
Fluorene	79		82		40-140	4		40
Phenanthrene	81		83		40-140	2		40
Dibenzo(a,h)anthracene	89		93		40-140	4		40
Indeno(1,2,3-cd)Pyrene	86		90		40-140	5		40
Pyrene	86		87		26-127	1		40
1-Methylnaphthalene	76		81		40-140	6		40
2-Methylnaphthalene	78		82		40-140	5		40
Pentachlorophenol	85		87		9-103	2		40

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: SEAPORT SQUARE PARCEL H

Project Number: 34099-450

Lab Number: L1412713

Report Date: 06/17/14

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: WG697451-2 WG697451-3								
Hexachlorobenzene	80		82		40-140	2		40
Hexachloroethane	65		69		40-140	6		40

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	43		46		21-120
Phenol-d6	28		31		10-120
Nitrobenzene-d5	61		64		23-120
2-Fluorobiphenyl	79		83		15-120
2,4,6-Tribromophenol	95		97		10-120
4-Terphenyl-d14	80		82		41-149

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: SEAPORT SQUARE PARCEL H

Lab Number: L1412713

Project Number: 34099-450

Report Date: 06/17/14

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: WG698005-2 WG698005-3								
Benzidine	14		8	Q	10-75	58	Q	30
1,2,4-Trichlorobenzene	52		55		39-98	6		30
Bis(2-chloroethyl)ether	67		69		40-140	3		30
1,2-Dichlorobenzene	50		52		40-140	4		30
1,3-Dichlorobenzene	48		49		40-140	2		30
1,4-Dichlorobenzene	48		50		36-97	4		30
3,3'-Dichlorobenzidine	77		74		40-140	4		30
2,4-Dinitrotoluene	97	Q	94		24-96	3		30
2,6-Dinitrotoluene	94		95		40-140	1		30
Azobenzene	88		87		40-140	1		30
4-Chlorophenyl phenyl ether	80		82		40-140	2		30
4-Bromophenyl phenyl ether	87		87		40-140	0		30
Bis(2-chloroisopropyl)ether	61		65		40-140	6		30
Bis(2-chloroethoxy)methane	72		76		40-140	5		30
Hexachlorocyclopentadiene	27	Q	28	Q	40-140	4		30
Isophorone	73		78		40-140	7		30
Nitrobenzene	69		71		40-140	3		30
NDPA/DPA	89		88		40-140	1		30
Bis(2-ethylhexyl)phthalate	97		95		40-140	2		30
Butyl benzyl phthalate	93		90		40-140	3		30
Di-n-butylphthalate	95		93		40-140	2		30

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: SEAPORT SQUARE PARCEL H

Project Number: 34099-450

Lab Number: L1412713

Report Date: 06/17/14

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: WG698005-2 WG698005-3								
Di-n-octylphthalate	97		96		40-140	1		30
Diethyl phthalate	93		92		40-140	1		30
Dimethyl phthalate	91		89		40-140	2		30
Aniline	25	Q	20	Q	40-140	22		30
4-Chloroaniline	52		48		40-140	8		30
2-Nitroaniline	90		91		52-143	1		30
3-Nitroaniline	61		58		25-145	5		30
4-Nitroaniline	80		78		51-143	3		30
Dibenzofuran	77		80		40-140	4		30
n-Nitrosodimethylamine	29		30		22-74	3		30
2,4,6-Trichlorophenol	88		89		30-130	1		30
p-Chloro-m-cresol	80		81		23-97	1		30
2-Chlorophenol	59		61		27-123	3		30
2,4-Dichlorophenol	75		77		30-130	3		30
2,4-Dimethylphenol	68		72		30-130	6		30
2-Nitrophenol	72		76		30-130	5		30
4-Nitrophenol	49		39		10-80	23		30
2,4-Dinitrophenol	89		87		20-130	2		30
4,6-Dinitro-o-cresol	92		88		20-164	4		30
Phenol	24		24		12-110	0		30
2-Methylphenol	52		53		30-130	2		30

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: SEAPORT SQUARE PARCEL H

Lab Number: L1412713

Project Number: 34099-450

Report Date: 06/17/14

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: WG698005-2 WG698005-3								
3-Methylphenol/4-Methylphenol	48		49		30-130	2		30
2,4,5-Trichlorophenol	90		93		30-130	3		30
Benzoic Acid	19		27		10-164	35	Q	30
Benzyl Alcohol	49		50		26-116	2		30
Carbazole	91		89		55-144	2		30
Pyridine	18		15		10-66	18		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	33		34		21-120
Phenol-d6	23		23		10-120
Nitrobenzene-d5	70		76		23-120
2-Fluorobiphenyl	81		83		15-120
2,4,6-Tribromophenol	90		92		10-120
4-Terphenyl-d14	90		88		41-149

## METALS

**Project Name:** SEAPORT SQUARE PARCEL H  
**Project Number:** 34099-450

**Lab Number:** L1412713  
**Report Date:** 06/17/14

**SAMPLE RESULTS**

Lab ID: L1412713-01  
 Client ID: HA-H3-06-11-14  
 Sample Location: Not Specified  
 Matrix: Water

Date Collected: 06/11/14 14:30  
 Date Received: 06/11/14  
 Field Prep: See Narrative

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Westborough Lab</b>											
Antimony, Total	0.00326		mg/l	0.00100	--	1	06/12/14 15:38	06/13/14 10:07	EPA 3005A	1,6020A	KL
Arsenic, Total	0.00116		mg/l	0.00050	--	1	06/12/14 15:38	06/13/14 10:07	EPA 3005A	1,6020A	KL
Cadmium, Total	0.00333		mg/l	0.00020	--	1	06/12/14 15:38	06/13/14 10:07	EPA 3005A	1,6020A	KL
Chromium, Total	ND		mg/l	0.00100	--	1	06/12/14 15:38	06/13/14 10:07	EPA 3005A	1,6020A	KL
Copper, Total	0.00111		mg/l	0.00100	--	1	06/12/14 15:38	06/13/14 10:07	EPA 3005A	1,6020A	KL
Iron, Total	0.13		mg/l	0.05	--	1	06/12/14 15:38	06/16/14 14:06	EPA 3005A	19,200.7	BC
Lead, Total	ND		mg/l	0.00100	--	1	06/12/14 15:38	06/13/14 10:07	EPA 3005A	1,6020A	KL
Mercury, Total	ND		mg/l	0.0002	--	1	06/16/14 10:13	06/16/14 14:04	EPA 245.1	3,245.1	AK
Nickel, Total	0.00953		mg/l	0.00050	--	1	06/12/14 15:38	06/13/14 10:07	EPA 3005A	1,6020A	KL
Selenium, Total	ND		mg/l	0.00500	--	1	06/12/14 15:38	06/13/14 10:07	EPA 3005A	1,6020A	KL
Silver, Total	ND		mg/l	0.00040	--	1	06/12/14 15:38	06/13/14 10:07	EPA 3005A	1,6020A	KL
Zinc, Total	0.06738		mg/l	0.01000	--	1	06/12/14 15:38	06/13/14 10:07	EPA 3005A	1,6020A	KL



**Project Name:** SEAPORT SQUARE PARCEL H  
**Project Number:** 34099-450

**Lab Number:** L1412713  
**Report Date:** 06/17/14

### Method Blank Analysis Batch Quality Control

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Westborough Lab for sample(s): 01 Batch: WG697442-1									
Antimony, Total	ND	mg/l	0.00100	--	1	06/12/14 15:38	06/13/14 09:46	1,6020A	KL
Arsenic, Total	ND	mg/l	0.00050	--	1	06/12/14 15:38	06/13/14 09:46	1,6020A	KL
Cadmium, Total	ND	mg/l	0.00020	--	1	06/12/14 15:38	06/13/14 09:46	1,6020A	KL
Chromium, Total	ND	mg/l	0.00100	--	1	06/12/14 15:38	06/13/14 09:46	1,6020A	KL
Copper, Total	ND	mg/l	0.00100	--	1	06/12/14 15:38	06/13/14 09:46	1,6020A	KL
Lead, Total	ND	mg/l	0.00100	--	1	06/12/14 15:38	06/13/14 09:46	1,6020A	KL
Nickel, Total	ND	mg/l	0.00050	--	1	06/12/14 15:38	06/13/14 09:46	1,6020A	KL
Selenium, Total	ND	mg/l	0.00500	--	1	06/12/14 15:38	06/13/14 09:46	1,6020A	KL
Silver, Total	ND	mg/l	0.00040	--	1	06/12/14 15:38	06/13/14 09:46	1,6020A	KL
Zinc, Total	ND	mg/l	0.01000	--	1	06/12/14 15:38	06/13/14 09:46	1,6020A	KL

#### Prep Information

Digestion Method: EPA 3005A

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Westborough Lab for sample(s): 01 Batch: WG698109-1									
Mercury, Total	ND	mg/l	0.0002	--	1	06/16/14 10:13	06/16/14 14:01	3,245.1	AK

#### Prep Information

Digestion Method: EPA 245.1

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Westborough Lab for sample(s): 01 Batch: WG698172-1									
Iron, Total	ND	mg/l	0.05	--	1	06/12/14 15:38	06/16/14 13:59	19,200.7	BC

#### Prep Information

Digestion Method: EPA 3005A



## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** SEAPORT SQUARE PARCEL H  
**Project Number:** 34099-450

**Lab Number:** L1412713  
**Report Date:** 06/17/14

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Total Metals - Westborough Lab Associated sample(s): 01 Batch: WG697442-2								
Antimony, Total	82		-		80-120	-		
Arsenic, Total	98		-		80-120	-		
Cadmium, Total	116		-		80-120	-		
Chromium, Total	105		-		80-120	-		
Copper, Total	106		-		80-120	-		
Lead, Total	110		-		80-120	-		
Nickel, Total	109		-		80-120	-		
Selenium, Total	112		-		80-120	-		
Silver, Total	101		-		80-120	-		
Zinc, Total	110		-		80-120	-		
Total Metals - Westborough Lab Associated sample(s): 01 Batch: WG698109-2								
Mercury, Total	116	Q	-		85-115	-		
Total Metals - Westborough Lab Associated sample(s): 01 Batch: WG698172-2								
Iron, Total	110		-		85-115	-		

### Matrix Spike Analysis Batch Quality Control

**Project Name:** SEAPORT SQUARE PARCEL H  
**Project Number:** 34099-450

**Lab Number:** L1412713  
**Report Date:** 06/17/14

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01    QC Batch ID: WG697442-4    QC Sample: L1412713-01    Client ID: HA-H3-06-11-14												
Antimony, Total	0.00326	0.5	0.5770	115		-	-		75-125	-		20
Arsenic, Total	0.00116	0.12	0.1270	105		-	-		75-125	-		20
Cadmium, Total	0.00333	0.051	0.05692	105		-	-		75-125	-		20
Chromium, Total	ND	0.2	0.2129	106		-	-		75-125	-		20
Copper, Total	0.00111	0.25	0.2510	100		-	-		75-125	-		20
Lead, Total	ND	0.51	0.5765	113		-	-		75-125	-		20
Nickel, Total	0.00953	0.5	0.5243	103		-	-		75-125	-		20
Selenium, Total	ND	0.12	0.127	106		-	-		75-125	-		20
Silver, Total	ND	0.05	0.04950	99		-	-		75-125	-		20
Zinc, Total	0.06738	0.5	0.5522	97		-	-		75-125	-		20
Total Metals - Westborough Lab Associated sample(s): 01    QC Batch ID: WG698109-4    QC Sample: L1412713-01    Client ID: HA-H3-06-11-14												
Mercury, Total	ND	0.005	0.0055	111		-	-		70-130	-		20
Total Metals - Westborough Lab Associated sample(s): 01    QC Batch ID: WG698172-4    QC Sample: L1412713-01    Client ID: HA-H3-06-11-14												
Iron, Total	0.13	1	1.2	107		-	-		75-125	-		20

## Lab Duplicate Analysis

Batch Quality Control

Project Name: SEAPORT SQUARE PARCEL H

Project Number: 34099-450

Lab Number: L1412713

Report Date: 06/17/14

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
<b>Total Metals - Westborough Lab Associated sample(s): 01 QC Batch ID: WG697442-3 QC Sample: L1412713-01 Client ID: HA-H3-06-11-14</b>						
Antimony, Total	0.00326	0.00235	mg/l	32	Q	20
Arsenic, Total	0.00116	0.00100	mg/l	15		20
Cadmium, Total	0.00333	0.00302	mg/l	10		20
Chromium, Total	ND	ND	mg/l	NC		20
Copper, Total	0.00111	0.00101	mg/l	9		20
Lead, Total	ND	ND	mg/l	NC		20
Nickel, Total	0.00953	0.00957	mg/l	0		20
Selenium, Total	ND	ND	mg/l	NC		20
Silver, Total	ND	ND	mg/l	NC		20
Zinc, Total	0.06738	0.06557	mg/l	3		20
<b>Total Metals - Westborough Lab Associated sample(s): 01 QC Batch ID: WG698109-3 QC Sample: L1412713-01 Client ID: HA-H3-06-11-14</b>						
Mercury, Total	ND	ND	mg/l	NC		20
<b>Total Metals - Westborough Lab Associated sample(s): 01 QC Batch ID: WG698172-3 QC Sample: L1412713-01 Client ID: HA-H3-06-11-14</b>						
Iron, Total	0.13	0.15	mg/l	14		20

# **INORGANICS & MISCELLANEOUS**

**Project Name:** SEAPORT SQUARE PARCEL H  
**Project Number:** 34099-450

**Lab Number:** L1412713  
**Report Date:** 06/17/14

**SAMPLE RESULTS**

**Lab ID:** L1412713-01  
**Client ID:** HA-H3-06-11-14  
**Sample Location:** Not Specified  
**Matrix:** Water

**Date Collected:** 06/11/14 14:30  
**Date Received:** 06/11/14  
**Field Prep:** See Narrative

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Solids, Total Suspended	7.8		mg/l	5.0	NA	1	-	06/16/14 15:35	30,2540D	DW
Cyanide, Total	0.008		mg/l	0.005	--	1	06/12/14 08:55	06/12/14 15:30	30,4500CN-CE	JO
Cyanide, Physiologically Available	ND		mg/l	0.005	--	1	06/12/14 09:30	06/12/14 11:40	64,9014(M)	JO
Chlorine, Total Residual	ND		mg/l	0.02	--	1	-	06/12/14 14:00	30,4500CL-D	JO
pH (H)	6.4		SU	-	NA	1	-	06/12/14 01:06	30,4500H+-B	JA
TPH	ND		mg/l	4.00	--	1	06/12/14 07:30	06/12/14 16:30	74,1664A	ML
Chromium, Hexavalent	ND		mg/l	0.010	--	1	06/11/14 22:50	06/11/14 23:05	30,3500CR-D	EL
<b>Anions by Ion Chromatography - Westborough Lab</b>										
Chloride	4020		mg/l	125	--	250	-	06/12/14 21:02	44,300.0	AU



**Project Name:** SEAPORT SQUARE PARCEL H  
**Project Number:** 34099-450

**Lab Number:** L1412713  
**Report Date:** 06/17/14

**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: WG697167-1										
Chromium, Hexavalent	ND		mg/l	0.010	--	1	06/11/14 22:50	06/11/14 23:04	30,3500CR-D	EL
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG697301-1										
Cyanide, Physiologically Available	ND		mg/l	0.005	--	1	06/12/14 09:30	06/12/14 11:31	64,9014(M)	JO
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG697347-1										
TPH	ND		mg/l	4.00	--	1	06/12/14 07:30	06/12/14 16:30	74,1664A	ML
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG697486-1										
Chlorine, Total Residual	ND		mg/l	0.02	--	1	-	06/12/14 14:00	30,4500CL-D	JO
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG698105-1										
Solids, Total Suspended	ND		mg/l	5.0	NA	1	-	06/16/14 15:35	30,2540D	DW
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG698282-1										
Cyanide, Total	ND		mg/l	0.005	--	1	06/12/14 08:55	06/12/14 15:20	30,4500CN-CE	JO
Anions by Ion Chromatography - Westborough Lab for sample(s): 01 Batch: WG698338-1										
Chloride	ND		mg/l	0.500	--	1	-	06/12/14 17:02	44,300.0	AU

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** SEAPORT SQUARE PARCEL H

**Project Number:** 34099-450

**Lab Number:** L1412713

**Report Date:** 06/17/14

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG697167-2								
Chromium, Hexavalent	98		-		85-115	-		20
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG697180-1								
pH	100		-		99-101	-		5
General Chemistry - Westborough Lab NEGATIVE LCS Associated sample(s): 01 Batch: WG697301-2								
Cyanide, Physiologically Available	2		-		0-10	-		
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG697301-3								
Cyanide, Physiologically Available	99		-		80-120	-		
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG697347-2								
TPH	90		-		64-132	-		34
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG697486-2								
Chlorine, Total Residual	101		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG698282-2 WG698282-3								
Cyanide, Total	90		90		90-110	0		

## Lab Control Sample Analysis

Batch Quality Control

**Project Name:** SEAPORT SQUARE PARCEL H

**Lab Number:** L1412713

**Project Number:** 34099-450

**Report Date:** 06/17/14

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 01 Batch: WG698338-2					
Chloride	99	-	90-110	-	

### Matrix Spike Analysis Batch Quality Control

**Project Name:** SEAPORT SQUARE PARCEL H  
**Project Number:** 34099-450

**Lab Number:** L1412713  
**Report Date:** 06/17/14

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Qual	MSD Found	MSD %Recovery	MSD Qual	Recovery Limits	RPD	RPD Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG697167-4 QC Sample: L1412713-01 Client ID: HA-H3-06-11-14												
Chromium, Hexavalent	ND	0.1	0.087	87	-	-	-	-	85-115	-	-	20
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG697301-5 QC Sample: L1412713-01 Client ID: HA-H3-06-11-14												
Cyanide, Physiologically Available	ND	0.2	0.193	96	-	-	-	-	75-125	-	-	20
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG697347-4 QC Sample: L1412600-01 Client ID: MS Sample												
TPH	ND	22	16.9	77	-	-	-	-	64-132	-	-	34
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG698282-4 WG698282-5 QC Sample: L1400006-47 Client ID: MS Sample												
Cyanide, Total	0.011	0.2	0.212	100	0.216	0.216	102	-	90-110	2	-	30
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 01 QC Batch ID: WG698338-3 WG698338-4 QC Sample: L1412718-16 Client ID: MS Sample												
Chloride	28.6	4	31.6	75	31.5	31.5	72	-	40-151	0	-	18



## Lab Duplicate Analysis

Batch Quality Control

Project Name: SEAPORT SQUARE PARCEL H

Project Number: 34099-450

Lab Number: L1412713

Report Date: 06/17/14

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG697167-3 QC Sample: L1412713-01 Client ID: HA-H3-06-11-14						
Chromium, Hexavalent	ND	ND	mg/l	NC		20
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG697180-2 QC Sample: L1412713-01 Client ID: HA-H3-06-11-14						
pH (H)	6.4	6.4	SU	0		5
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG697301-4 QC Sample: L1412713-01 Client ID: HA-H3-06-11-14						
Cyanide, Physiologically Available	ND	ND	mg/l	NC		20
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG697347-3 QC Sample: L1412600-03 Client ID: DUP Sample						
TPH	ND	ND	mg/l	NC		34
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG697486-3 QC Sample: L1412742-01 Client ID: DUP Sample						
Chlorine, Total Residual	ND	ND	mg/l	NC		20
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG698105-2 QC Sample: L1412693-01 Client ID: DUP Sample						
Solids, Total Suspended	400	470	mg/l	16		29

**Project Name:** SEAPORT SQUARE PARCEL H  
**Project Number:** 34099-450

**Lab Number:** L1412713  
**Report Date:** 06/17/14

### 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(*)
L1412713-01A	Vial HCl preserved	A	N/A	3.1	Y	Absent	8260-SIM(14),8260(14)
L1412713-01B	Vial HCl preserved	A	N/A	3.1	Y	Absent	8260-SIM(14),8260(14)
L1412713-01C	Vial HCl preserved	A	N/A	3.1	Y	Absent	8260-SIM(14),8260(14)
L1412713-01D	Plastic 250ml unpreserved	A	7	3.1	Y	Absent	CL-300(28),PH-4500(.01)
L1412713-01E	Plastic 250ml HNO3 preserved	A	<2	3.1	Y	Absent	SE-6020T(180),CR-6020T(180),NI-6020T(180),CU-6020T(180),ZN-6020T(180),FE-UI(180),PB-6020T(180),HG-U(28),AS-6020T(180),SB-6020T(180),AG-6020T(180),CD-6020T(180)
L1412713-01F	Plastic 250ml HNO3 preserved	A	<2	3.1	Y	Absent	-
L1412713-01F1	Plastic 250ml HNO3 preserved	A	<2	3.1	Y	Absent	-
L1412713-01G	Plastic 1000ml unpreserved	A	7	3.1	Y	Absent	TSS-2540(7)
L1412713-01H	Amber 1000ml HCl preserved	A	N/A	3.1	Y	Absent	TPH-1664(28)
L1412713-01I	Amber 1000ml HCl preserved	A	N/A	3.1	Y	Absent	TPH-1664(28)
L1412713-01J	Plastic 250ml NaOH preserved	A	>12	3.1	Y	Absent	TCN-4500(14),TRC-4500(1),PACN(14)
L1412713-01K	Plastic 250ml NaOH preserved	A	>12	3.1	Y	Absent	TCN-4500(14),TRC-4500(1),PACN(14)
L1412713-01L	Plastic 250ml NaOH preserved	A	>12	3.1	Y	Absent	TCN-4500(14),TRC-4500(1),PACN(14)
L1412713-01M	Amber 1000ml unpreserved	A	7	3.1	Y	Absent	8270TCL(7),8270TCL-SIM(7)
L1412713-01N	Amber 1000ml unpreserved	A	7	3.1	Y	Absent	8270TCL(7),8270TCL-SIM(7)
L1412713-01O	Plastic 500ml unpreserved	A	7	3.1	Y	Absent	HEXCR-3500(1)
L1412713-02A	Vial HCl preserved	A	N/A	3.1	Y	Absent	8260-SIM(14),8260(14)
L1412713-03A	Plastic 250ml HNO3 preserved	A	<2	3.1	Y	Absent	HOLD(14)
L1412713-03B	Plastic 250ml HNO3 preserved	A	<2	3.1	Y	Absent	HOLD(14)

#### Container Comments

L1412713-01J

\*Values in parentheses indicate holding time in days

**Project Name:** SEAPORT SQUARE PARCEL H

**Lab Number:** L1412713

**Project Number:** 34099-450

**Report Date:** 06/17/14

**Container Information**

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
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**Container Comments**

L1412713-01K

L1412713-01L

\*Values in parentheses indicate holding time in days





## ANALYTICAL REPORT

Lab Number:	L1414965
Client:	Haley & Aldrich, Inc. 465 Medford Street, Suite 2200 Charlestown, MA 02129-1400
ATTN:	Ken Alepidis
Phone:	(617) 886-7366
Project Name:	SEAPORT SQUARE PARCEL H
Project Number:	34099-450
Report Date:	07/11/14

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), USDA (Permit #P-330-11-00240), NC (666), TX (T104704476), DOD (L2217), US Army Corps of Engineers.

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



**Project Name:** SEAPORT SQUARE PARCEL H  
**Project Number:** 34099-450

**Lab Number:** L1414965  
**Report Date:** 07/11/14

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Matrix</b>	<b>Sample Location</b>	<b>Collection Date/Time</b>	<b>Receive Date</b>
L1414965-01	HA-H3-07-07-14	WATER	Not Specified	07/07/14 10:00	07/07/14
L1414965-02	TRIP BLANK	WATER	Not Specified	07/07/14 00:00	07/07/14

**Project Name:** SEAPORT SQUARE PARCEL H  
**Project Number:** 34099-450

**Lab Number:** L1414965  
**Report Date:** 07/11/14

### Case Narrative

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

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for 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:** SEAPORT SQUARE PARCEL H  
**Project Number:** 34099-450

**Lab Number:** L1414965  
**Report Date:** 07/11/14

**Case Narrative (continued)**

PCBs

L1414965-01 (HA-H3-07-07-14) and the associated WG703852-4 Laboratory Duplicate have elevated detection limits due to the dilution required by matrix interferences encountered during the concentration of the sample.

The surrogate recoveries for the WG703852-4 Laboratory Duplicate are below the acceptance criteria for 2,4,5,6-tetrachloro-m-xylene (2%) and decachlorobiphenyl (14%). The associated sample(s) have acceptable surrogate recoveries, and the duplicate RPD is within method criteria; therefore, no further action was taken.

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:



Lisa Westerlind

Title: Technical Director/Representative

Date: 07/11/14

# ORGANICS

# VOLATILES

**Project Name:** SEAPORT SQUARE PARCEL H**Lab Number:** L1414965**Project Number:** 34099-450**Report Date:** 07/11/14**SAMPLE RESULTS**

**Lab ID:** L1414965-01  
**Client ID:** HA-H3-07-07-14  
**Sample Location:** Not Specified  
**Matrix:** Water  
**Analytical Method:** 14,504.1  
**Analytical Date:** 07/09/14 15:10  
**Analyst:** SH

**Date Collected:** 07/07/14 10:00  
**Date Received:** 07/07/14  
**Field Prep:** Not Specified  
**Extraction Date:** 07/09/14 08:00

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

**Project Name:** SEAPORT SQUARE PARCEL H**Lab Number:** L1414965**Project Number:** 34099-450**Report Date:** 07/11/14**SAMPLE RESULTS**

**Lab ID:** L1414965-02  
**Client ID:** TRIP BLANK  
**Sample Location:** Not Specified  
**Matrix:** Water  
**Analytical Method:** 14,504.1  
**Analytical Date:** 07/09/14 15:27  
**Analyst:** SH

**Date Collected:** 07/07/14 00:00  
**Date Received:** 07/07/14  
**Field Prep:** Not Specified  
**Extraction Date:** 07/09/14 08:00

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Microextractables by GC - Westborough Lab							
1,2-Dibromoethane	ND		ug/l	0.011	--	1	A

**Project Name:** SEAPORT SQUARE PARCEL H**Lab Number:** L1414965**Project Number:** 34099-450**Report Date:** 07/11/14**Method Blank Analysis  
Batch Quality Control**

Analytical Method: 14,504.1

Analytical Date: 07/09/14 14:19

Analyst: SH

Extraction Date: 07/09/14 08:00

<b>Parameter</b>	<b>Result</b>	<b>Qualifier</b>	<b>Units</b>	<b>RL</b>	<b>MDL</b>
Microextractables by GC - Westborough Lab for sample(s): 01-02 Batch: WG704225-1					
1,2-Dibromoethane	ND		ug/l	0.010	-- A

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** SEAPORT SQUARE PARCEL H  
**Project Number:** 34099-450

**Lab Number:** L1414965  
**Report Date:** 07/11/14

<b>Parameter</b>	<b>LCS %Recovery</b>	<b>Qual</b>	<b>LCSD %Recovery</b>	<b>Qual</b>	<b>%Recovery Limits</b>	<b>RPD</b>	<b>Qual</b>	<b>RPD Limits</b>	<b>Column</b>
Microextractables by GC - Westborough Lab Associated sample(s): 01-02 Batch: WG704225-2									
1,2-Dibromoethane	111		-		70-130	-		20	A

## Matrix Spike Analysis

Batch Quality Control

**Project Name:** SEAPORT SQUARE PARCEL H  
**Project Number:** 34099-450

**Lab Number:** L1414965  
**Report Date:** 07/11/14

<i>Parameter</i>	<i>Native Sample</i>	<i>MS Added</i>	<i>MS Found</i>	<i>MS %Recovery</i>	<i>MS Qual</i>	<i>MSD Found</i>	<i>MSD %Recovery</i>	<i>MSD Qual</i>	<i>Recovery Limits</i>	<i>RPD</i>	<i>RPD Qual</i>	<i>RPD Limits</i>	<i>Column</i>
Microextractables by GC - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG704225-3 QC Sample: L1414965-01 Client ID: HA-H3-07-07-14													
1,2-Dibromoethane	ND	0.256	0.270	106		-	-		70-130	-		20	A

# PCBS

**Project Name:** SEAPORT SQUARE PARCEL H  
**Project Number:** 34099-450

**Lab Number:** L1414965  
**Report Date:** 07/11/14

**SAMPLE RESULTS**

Lab ID: L1414965-01  
 Client ID: HA-H3-07-07-14  
 Sample Location: Not Specified  
 Matrix: Water  
 Analytical Method: 5,608  
 Analytical Date: 07/10/14 13:59  
 Analyst: JT

Date Collected: 07/07/14 10:00  
 Date Received: 07/07/14  
 Field Prep: Not Specified  
 Extraction Method: EPA 608  
 Extraction Date: 07/08/14 03:43  
 Cleanup Method: EPA 3665A  
 Cleanup Date: 07/10/14  
 Cleanup Method: EPA 3660B  
 Cleanup Date: 07/10/14

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Polychlorinated Biphenyls by GC - Westborough Lab</b>							
Aroclor 1016	ND		ug/l	0.500	--	2	A
Aroclor 1221	ND		ug/l	0.500	--	2	A
Aroclor 1232	ND		ug/l	0.500	--	2	A
Aroclor 1242	ND		ug/l	0.500	--	2	A
Aroclor 1248	ND		ug/l	0.500	--	2	A
Aroclor 1254	ND		ug/l	0.500	--	2	A
Aroclor 1260	ND		ug/l	0.400	--	2	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	79		30-150	A
Decachlorobiphenyl	79		30-150	A

**Project Name:** SEAPORT SQUARE PARCEL H  
**Project Number:** 34099-450

**Lab Number:** L1414965  
**Report Date:** 07/11/14

**Method Blank Analysis  
 Batch Quality Control**

Analytical Method: 5,608  
 Analytical Date: 07/10/14 14:37  
 Analyst: JT

Extraction Method: EPA 608  
 Extraction Date: 07/08/14 03:43  
 Cleanup Method: EPA 3665A  
 Cleanup Date: 07/10/14  
 Cleanup Method: EPA 3660B  
 Cleanup Date: 07/10/14

Parameter	Result	Qualifier	Units	RL	MDL	Column
Polychlorinated Biphenyls by GC - Westborough Lab for sample(s): 01 Batch: WG703852-1						
Aroclor 1016	ND		ug/l	0.250	--	A
Aroclor 1221	ND		ug/l	0.250	--	A
Aroclor 1232	ND		ug/l	0.250	--	A
Aroclor 1242	ND		ug/l	0.250	--	A
Aroclor 1248	ND		ug/l	0.250	--	A
Aroclor 1254	ND		ug/l	0.250	--	A
Aroclor 1260	ND		ug/l	0.200	--	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	63		30-150	A
Decachlorobiphenyl	82		30-150	A



## Matrix Spike Analysis

Batch Quality Control

**Project Name:** SEAPORT SQUARE PARCEL H  
**Project Number:** 34099-450

**Lab Number:** L1414965  
**Report Date:** 07/11/14

<i>Parameter</i>	<i>Native Sample</i>	<i>MS Added</i>	<i>MS Found</i>	<i>MS %Recovery</i>	<i>Qual</i>	<i>MSD Found</i>	<i>MSD %Recovery</i>	<i>Qual</i>	<i>Recovery Limits</i>	<i>RPD</i>	<i>Qual</i>	<i>RPD Limits</i>	<i>Column</i>
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01 QC Batch ID: WG703852-3 QC Sample: L1414699-08 Client ID: MS Sample													
Aroclor 1016	ND	1.22	1.00	82		-	-		40-140	-		50	A
Aroclor 1260	ND	1.22	1.03	84		-	-		40-140	-		50	A

<i>Surrogate</i>	<i>MS</i>		<i>MSD</i>		<i>Acceptance Criteria</i>	<i>Column</i>
	<i>% Recovery</i>	<i>Qualifier</i>	<i>% Recovery</i>	<i>Qualifier</i>		
2,4,5,6-Tetrachloro-m-xylene	84				30-150	A
Decachlorobiphenyl	93				30-150	A

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** SEAPORT SQUARE PARCEL H  
**Project Number:** 34099-450

**Lab Number:** L1414965  
**Report Date:** 07/11/14

<b>Parameter</b>	<b>LCS %Recovery</b>	<b>Qual</b>	<b>LCSD %Recovery</b>	<b>Qual</b>	<b>%Recovery Limits</b>	<b>RPD</b>	<b>Qual</b>	<b>RPD Limits</b>	<b>Column</b>
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01 Batch: WG703852-2									
Aroclor 1016	71		-		40-140	-		50	A
Aroclor 1260	65		-		40-140	-		50	A

<b>Surrogate</b>	<b>LCS %Recovery</b>	<b>Qual</b>	<b>LCSD %Recovery</b>	<b>Qual</b>	<b>Acceptance Criteria</b>	<b>Column</b>
2,4,5,6-Tetrachloro-m-xylene	55				30-150	A
Decachlorobiphenyl	83				30-150	A

## Lab Duplicate Analysis

Batch Quality Control

**Project Name:** SEAPORT SQUARE PARCEL H  
**Project Number:** 34099-450

**Lab Number:** L1414965  
**Report Date:** 07/11/14

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01 QC Batch ID: WG703852-4 QC Sample: L1414965-01 Client ID: HA-H3-07-07-14						
Aroclor 1016	ND	ND	ug/l	NC		50 A
Aroclor 1221	ND	ND	ug/l	NC		50 A
Aroclor 1232	ND	ND	ug/l	NC		50 A
Aroclor 1242	ND	ND	ug/l	NC		50 A
Aroclor 1248	ND	ND	ug/l	NC		50 A
Aroclor 1254	ND	ND	ug/l	NC		50 A
Aroclor 1260	ND	ND	ug/l	NC		50 A

Surrogate	%Recovery	Qualifier	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	79		2	Q	30-150	A
Decachlorobiphenyl	79		14	Q	30-150	A

# **INORGANICS & MISCELLANEOUS**

**Project Name:** SEAPORT SQUARE PARCEL H  
**Project Number:** 34099-450

**Lab Number:** L1414965  
**Report Date:** 07/11/14

**SAMPLE RESULTS**

**Lab ID:** L1414965-01  
**Client ID:** HA-H3-07-07-14  
**Sample Location:** Not Specified  
**Matrix:** Water

**Date Collected:** 07/07/14 10:00  
**Date Received:** 07/07/14  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Cyanide, Dissolved	0.006		mg/l	0.005	--	1	07/08/14 10:15	07/09/14 13:54	1,9010C/9012B	JO
Phenolics, Total	ND		mg/l	0.03	--	1	07/08/14 10:45	07/08/14 14:43	4,420.1	MP



**Project Name:** SEAPORT SQUARE PARCEL H  
**Project Number:** 34099-450

**Lab Number:** L1414965  
**Report Date:** 07/11/14

**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: WG703925-1									
Cyanide, Dissolved	ND	mg/l	0.005	--	1	07/08/14 10:15	07/09/14 13:46	1,9010C/9012B	JO
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG704026-1									
Phenolics, Total	ND	mg/l	0.03	--	1	07/08/14 10:45	07/08/14 14:33	4,420.1	MP

## Lab Control Sample Analysis

Batch Quality Control

**Project Name:** SEAPORT SQUARE PARCEL H  
**Project Number:** 34099-450

**Lab Number:** L1414965  
**Report Date:** 07/11/14

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG703925-2 WG703925-3								
Cyanide, Dissolved	98		96		80-120	2		20
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG704026-2								
Phenolics, Total	96		-		70-130	-		

### Matrix Spike Analysis Batch Quality Control

**Project Name:** SEAPORT SQUARE PARCEL H  
**Project Number:** 34099-450

**Lab Number:** L1414965  
**Report Date:** 07/11/14

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Qual	MSD Found	MSD %Recovery	MSD Qual	Recovery Limits	RPD	RPD Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG703925-4 WG703925-5 QC Sample: L1414965-01 Client ID: HA-H3-07-07-14												
Cyanide, Dissolved	0.006	0.2	0.206	100		0.192	93		80-120	7		20
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG704026-4 QC Sample: L1414634-02 Client ID: MS Sample												
Phenolics, Total	ND	0.4	0.40	99		-	-		70-130	-		20

## Lab Duplicate Analysis

Batch Quality Control

**Project Name:** SEAPORT SQUARE PARCEL H  
**Project Number:** 34099-450

**Lab Number:** L1414965  
**Report Date:** 07/11/14

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG704026-3 QC Sample: L1414634-02 Client ID: DUP Sample						
Phenolics, Total	ND	ND	mg/l	NC		20

**Project Name:** SEAPORT SQUARE PARCEL H  
**Project Number:** 34099-450

**Lab Number:** L1414965  
**Report Date:** 07/11/14

### 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(*)
L1414965-01A	Vial Na2S2O3 preserved	A	N/A	4.8	Y	Absent	504(14)
L1414965-01B	Vial Na2S2O3 preserved	A	N/A	4.8	Y	Absent	504(14)
L1414965-01C	Plastic 500ml unpreserved	A	7	4.8	Y	Absent	SCN-9010(14)
L1414965-01D	Amber 1000ml Na2S2O3	A	7	4.8	Y	Absent	PCB-608(7)
L1414965-01E	Amber 1000ml Na2S2O3	A	7	4.8	Y	Absent	PCB-608(7)
L1414965-01F	Amber 500ml H2SO4 preserved	A	<2	4.8	Y	Absent	TPHENOL-420(28)
L1414965-01X	Plastic 500ml NaOH preserved spl	A	>12	4.8	Y	Absent	SCN-9010(14)
L1414965-02A	Vial Na2S2O3 preserved	A	N/A	4.8	Y	Absent	504(14)
L1414965-02B	Vial Na2S2O3 preserved	A	N/A	4.8	Y	Absent	504(14)

\*Values in parentheses indicate holding time in days

**Project Name:** SEAPORT SQUARE PARCEL H  
**Project Number:** 34099-450

**Lab Number:** L1414965  
**Report Date:** 07/11/14

## GLOSSARY

### Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NI	- Not Ignitable.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

### Footnotes

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

### Terms

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

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

### Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.
- 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.

Report Format: Data Usability Report



**Project Name:** SEAPORT SQUARE PARCEL H  
**Project Number:** 34099-450

**Lab Number:** L1414965  
**Report Date:** 07/11/14

**Data Qualifiers**

- 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.

**Project Name:** SEAPORT SQUARE PARCEL H  
**Project Number:** 34099-450

**Lab Number:** L1414965  
**Report Date:** 07/11/14

## REFERENCES

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

## 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 April 15, 2014

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**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 8330A/B:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT.

**EPA 8270D:** 1-Methylnaphthalene, Dimethylnaphthalene, 1,4-Diphenylhydrazine.

**EPA 625:** 4-Chloroaniline, 4-Methylphenol.

**SM4500:** Soil: Total Phosphorus, TKN, NO<sub>2</sub>, NO<sub>3</sub>.

**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.

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**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, SM4500CI-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, **LCHAT 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.**

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



**Project Name:** SEAPORT SQUARE PARCEL H  
**Project Number:** 34099-450

**Lab Number:** L1412713  
**Report Date:** 06/17/14

## GLOSSARY

### Acronyms

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Report Format: Data Usability Report



**Project Name:** SEAPORT SQUARE PARCEL H  
**Project Number:** 34099-450

**Lab Number:** L1412713  
**Report Date:** 06/17/14

#### **Data Qualifiers**

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- J** - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
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**Project Name:** SEAPORT SQUARE PARCEL H  
**Project Number:** 34099-450

**Lab Number:** L1412713  
**Report Date:** 06/17/14

## 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.
- 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.
- 64 Quality Assurance and Quality Control Requirements and Performance Standards for SW-846 Methods. MADEP BWSC. WSC-CAM-IIA (Revision 4), WSC-CAM-V C (Revision 2), WSC-CAM-III A (Revision 5). August 2004.
- 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.

## 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 April 15, 2014

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**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 8330A/B:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT.

**EPA 8270D:** 1-Methylnaphthalene, Dimethylnaphthalene, 1,4-Diphenylhydrazine.

**EPA 625:** 4-Chloroaniline, 4-Methylphenol.

**SM4500:** Soil: Total Phosphorus, TKN, NO<sub>2</sub>, NO<sub>3</sub>.

**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.

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**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, SM4500CI-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.**

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